

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

(Data summarized on December 27)

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)		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 Dec 26, 2012 8:00 AM		Time of Sampling Dec 26, 2012 8:30 AM		
Detected Nuclides (Half-life)	Density of Sample (Bq/L)	Scaling Factor (/)	Density of Sample (Bq/L)	Scaling Factor (/)	
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/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. 0.44Bq/L, Cs-134: Approx. 1.1Bq/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.

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

(Data summarized on December 27)

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. 330m South of Unit 1-4 Discharge Channel)		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		Time of Sampling		
Detected Nuclides (Half-life)	Density of Sample (Bq/L)	Scaling Factor (/)	Density of Sample (Bq/L)	Scaling Factor (/)	
	Nov 19, 2012 8:30 AM		Nov 19, 2012 8:00 AM		
Cs-134 (Approx. 2 years)	0.41	0.01	0.37	0.01	60
Cs-137 (Approx. 30 years)	0.69	0.01	0.62	0.01	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 Electric Power Environmental Engineering Co., Inc.

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

(Data summarized on December 27)

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. 12km South of Unit 1 & 2 Discharge Channel) (Approx. 24km from 1F)		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	Nov 20, 2012 10:00 AM	Time of Sampling	Nov 20, 2012 7:30 AM	
Detected Nuclides (Half-life)	Density of Sample (Bq/L)	Scaling Factor (/)	Density of Sample (Bq/L)	Scaling Factor (/)	
I-131 (Approx. 8 days)	ND	-	ND	-	40
Cs-134 (Approx. 2 years)	0.19	0.00	0.13	0.00	60
Cs-137 (Approx. 30 years)	0.30	0.00	0.22	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.

* "ND" indicates that the measurement result is below the detection limit.

I-131: Approx. 0.45Bq/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.

* As to Cs-134 and Cs-137, analysis results by detail analysis (Phosphomolybdic acid ammonium adsorption sampling method) are noted.

Analyzed by Tokyo Electric Power Environmental Engineering Co., Inc.

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

(Data summarized on December 27)

Place of Sampling (Place No.)	*1 3km Offshore of Odaka Ward (T-14)				*2 3km Offshore of Ukedo River (T-D1)				*2 3km Offshore of Fukushima Daiichi NPS (T-D5)				Density Limit Specified by the Reactor Regulation (Bq/L)
	Upper Layer		Lower Layer		Upper Layer		Lower Layer		Upper Layer		Lower Layer		
Time of Sampling	Nov 13, 2012 9:05 AM		Nov 13, 2012 9:05 AM		Nov 19, 2012 8:50 AM		Nov 19, 2012 8:50 AM		Nov 19, 2012 8:20 AM		Nov 19, 2012 8:20 AM		(The density limit in the water outside the surrounding monitored areas is provided in section 6 of Appendix 2.)
Detected Nuclides (Half-life)	Density of Sample (Bq/L)	Scaling Factor (/)	Density of Sample (Bq/L)	Scaling Factor (/)	Density of Sample (Bq/L)	Scaling Factor (/)	Density of Sample (Bq/L)	Scaling Factor (/)	Density of Sample (Bq/L)	Scaling Factor (/)	Density of Sample (Bq/L)	Scaling Factor (/)	
Cs-134 (Approx. 2 years)	0.030	0.00	0.031	0.00	0.035	0.00	0.025	0.00	0.046	0.00	0.044	0.00	
Cs-137 (Approx. 30 years)	0.050	0.00	0.051	0.00	0.052	0.00	0.042	0.00	0.080	0.00	0.080	0.00	90

Place of Sampling (Place No.)	*2 3km Offshore of Fukushima Daini NPS (T-D9)				*1 15km Offshore of Fukushima Daiichi NPS (T-5)				*1 3km Offshore of Iwasawa Shore (T-11)				Density Limit Specified by the Reactor Regulation (Bq/L)
	Upper Layer		Lower Layer		Upper Layer		Lower Layer		Upper Layer		Lower Layer		
Time of Sampling	Nov 21, 2012 9:10 AM		Nov 21, 2012 9:10 AM		Nov 15, 2012 9:00 AM		Nov 15, 2012 9:00 AM		Nov 15, 2012 10:35 AM		Nov 15, 2012 10:35 AM		(The density limit in the water outside the surrounding monitored areas is provided in section 6 of Appendix 2.)
Detected Nuclides (Half-life)	Density of Sample (Bq/L)	Scaling Factor (/)	Density of Sample (Bq/L)	Scaling Factor (/)	Density of Sample (Bq/L)	Scaling Factor (/)	Density of Sample (Bq/L)	Scaling Factor (/)	Density of Sample (Bq/L)	Scaling Factor (/)	Density of Sample (Bq/L)	Scaling Factor (/)	
Cs-134 (Approx. 2 years)	0.033	0.00	0.031	0.00	0.0047	0.00	0.0056	0.00	0.096	0.00	0.072	0.00	
Cs-137 (Approx. 30 years)	0.061	0.00	0.056	0.00	0.0090	0.00	0.0093	0.00	0.16	0.00	0.11	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.

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

* 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 December 27)

Place of Sampling (Place No.)	1km Offshore of Nida River (T-13-1)				3km Offshore of Soma (T-22)				5km Offshore of Kashima (T-MA)				Density Limit Specified by the Reactor Regulation (Bq/L)
	Upper Layer		Lower Layer		Upper Layer		Lower Layer		Upper Layer		Lower Layer		
Time of Sampling	Nov 22, 2012 6:40 AM		Nov 22, 2012 6:40 AM		Nov 22, 2012 7:50 AM		Nov 22, 2012 7:50 AM		Nov 22, 2012 7:20 AM		Nov 22, 2012 7:20 AM		(The density limit in the water outside the surrounding monitored areas is provided in section 6 of Appendix 2.)
Detected Nuclides (Half-life)	Density of Sample (Bq/L)	Scaling Factor (/)	Density of Sample (Bq/L)	Scaling Factor (/)	Density of Sample (Bq/L)	Scaling Factor (/)	Density of Sample (Bq/L)	Scaling Factor (/)	Density of Sample (Bq/L)	Scaling Factor (/)	Density of Sample (Bq/L)	Scaling Factor (/)	
Cs-134 (Approx. 2 years)	0.028	0.00	0.024	0.00	0.017	0.00	0.013	0.00	0.027	0.00	0.017	0.00	
Cs-137 (Approx. 30 years)	0.046	0.00	0.042	0.00	0.030	0.00	0.025	0.00	0.045	0.00	0.033	0.00	90

Place of Sampling (Place No.)	Around 3km Offshore of Ukedo River (T-S3)				Around 3km Offshore of Fukushima Daiichi NPS (T-S4)				Around 2km Offshore of Kido River(T-S5)				Density Limit Specified by the Reactor Regulation (Bq/L)
	Upper Layer		Lower Layer		Upper Layer		Lower Layer		Upper Layer		Lower Layer		
Time of Sampling	Nov 20, 2012 6:30 AM		Nov 20, 2012 6:30 AM		Nov 20, 2012 7:00 AM		Nov 20, 2012 7:00 AM		Nov 14, 2012 1:20 PM		Nov 14, 2012 1:25 PM		(The density limit in the water outside the surrounding monitored areas is provided in section 6 of Appendix 2.)
Detected Nuclides (Half-life)	Density of Sample (Bq/L)	Scaling Factor (/)	Density of Sample (Bq/L)	Scaling Factor (/)	Density of Sample (Bq/L)	Scaling Factor (/)	Density of Sample (Bq/L)	Scaling Factor (/)	Density of Sample (Bq/L)	Scaling Factor (/)	Density of Sample (Bq/L)	Scaling Factor (/)	
Cs-134 (Approx. 2 years)	0.032	0.00	0.027	0.00	0.026	0.00	0.019	0.00	0.11	0.00	0.099	0.00	
Cs-137 (Approx. 30 years)	0.051	0.00	0.043	0.00	0.041	0.00	0.035	0.00	0.18	0.00	0.16	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.

* Analysis results by detail analysis (Phosphomolybdic 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 December 27)

Place of Sampling (Place No.)	Around 2km Offshore of Fukushima Daini NPS (T-S7)				Around 4km Offshore of Kumagawa (T-S8)				Arounmd 15km Offshore of Odaka Ward (T-B1)				Density Limit Specified by the Reactor Regulation (Bq/L)
	Upper Layer		Lower Layer		Upper Layer		Lower Layer		Upper Layer		Lower Layer		
Time of Sampling	Nov 14, 2012 12:50 PM		Nov 14, 2012 12:55 PM		Nov 18, 2012 6:40 AM		Nov 18, 2012 6:45 AM		Nov 16, 2012 7:25 AM		Nov 16, 2012 7:30 AM		(The density limit in the water outside the surrounding monitored areas is provided in section 6 of Appendix 2.)
Detected Nuclides (Half-life)	Density of Sample (Bq/L)	Scaling Factor (/)	Density of Sample (Bq/L)	Scaling Factor (/)	Density of Sample (Bq/L)	Scaling Factor (/)	Density of Sample (Bq/L)	Scaling Factor (/)	Density of Sample (Bq/L)	Scaling Factor (/)	Density of Sample (Bq/L)	Scaling Factor (/)	
Cs-134 (Approx. 2 years)	0.13	0.00	0.14	0.00	0.058	0.00	0.052	0.00	0.0049	0.00	0.0045	0.00	
Cs-137 (Approx. 30 years)	0.21	0.00	0.23	0.00	0.094	0.00	0.085	0.00	0.0088	0.00	0.0099	0.00	90

Place of Sampling (Place No.)	Around 18km Offshore of Ukedo River (T-B2)												Density Limit Specified by the Reactor Regulation (Bq/L)
	Upper Layer		Lower Layer		Upper Layer		Lower Layer		Upper Layer		Lower Layer		
Time of Sampling	Nov 16, 2012 6:25 AM		Nov 16, 2012 6:35 AM										(The density limit in the water outside the surrounding monitored areas is provided in section 6 of Appendix 2.)
Detected Nuclides (Half-life)	Density of Sample (Bq/L)	Scaling Factor (/)	Density of Sample (Bq/L)	Scaling Factor (/)	Density of Sample (Bq/L)	Scaling Factor (/)	Density of Sample (Bq/L)	Scaling Factor (/)	Density of Sample (Bq/L)	Scaling Factor (/)	Density of Sample (Bq/L)	Scaling Factor (/)	
Cs-134 (Approx. 2 years)	0.0078	0.00	0.028	0.00									
Cs-137 (Approx. 30 years)	0.013	0.00	0.046	0.00									90

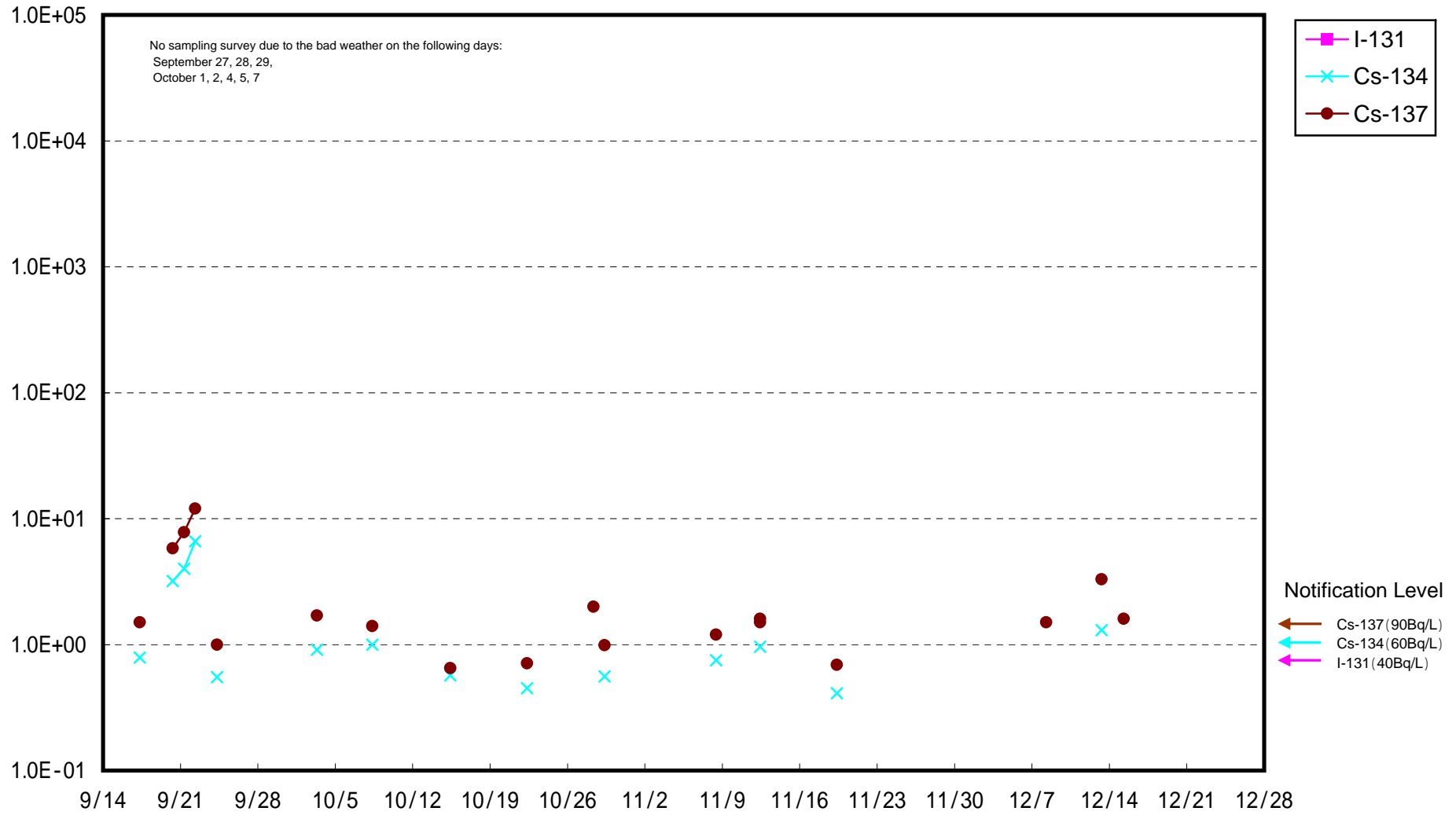
* The density specified by the Reactor Regulation is converted from Bq/cm³ to Bq/L.

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

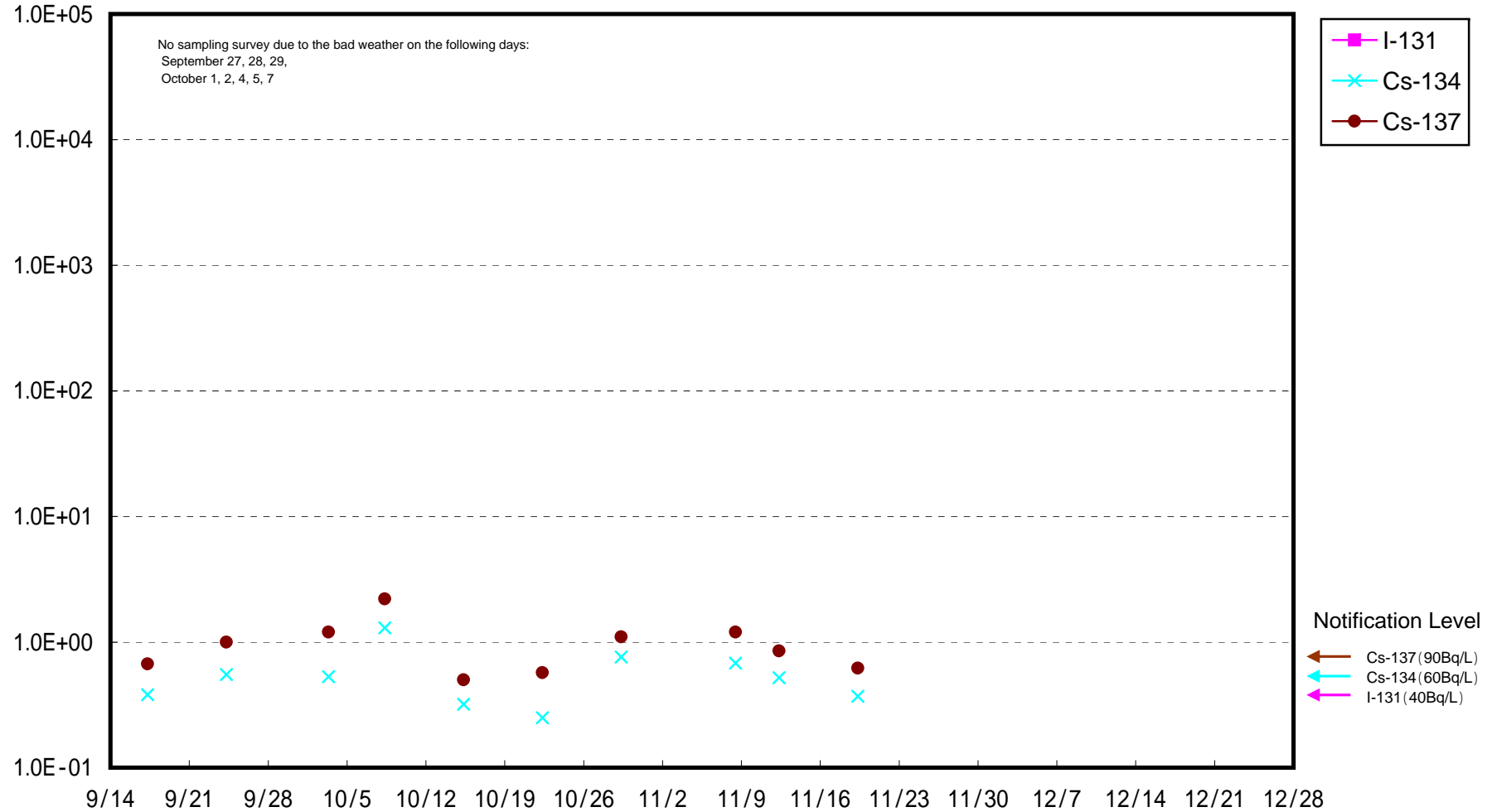
* Analysis results by detail analysis (Phosphomolybdic acid ammonium adsorption sampling method) are noted.

* 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)

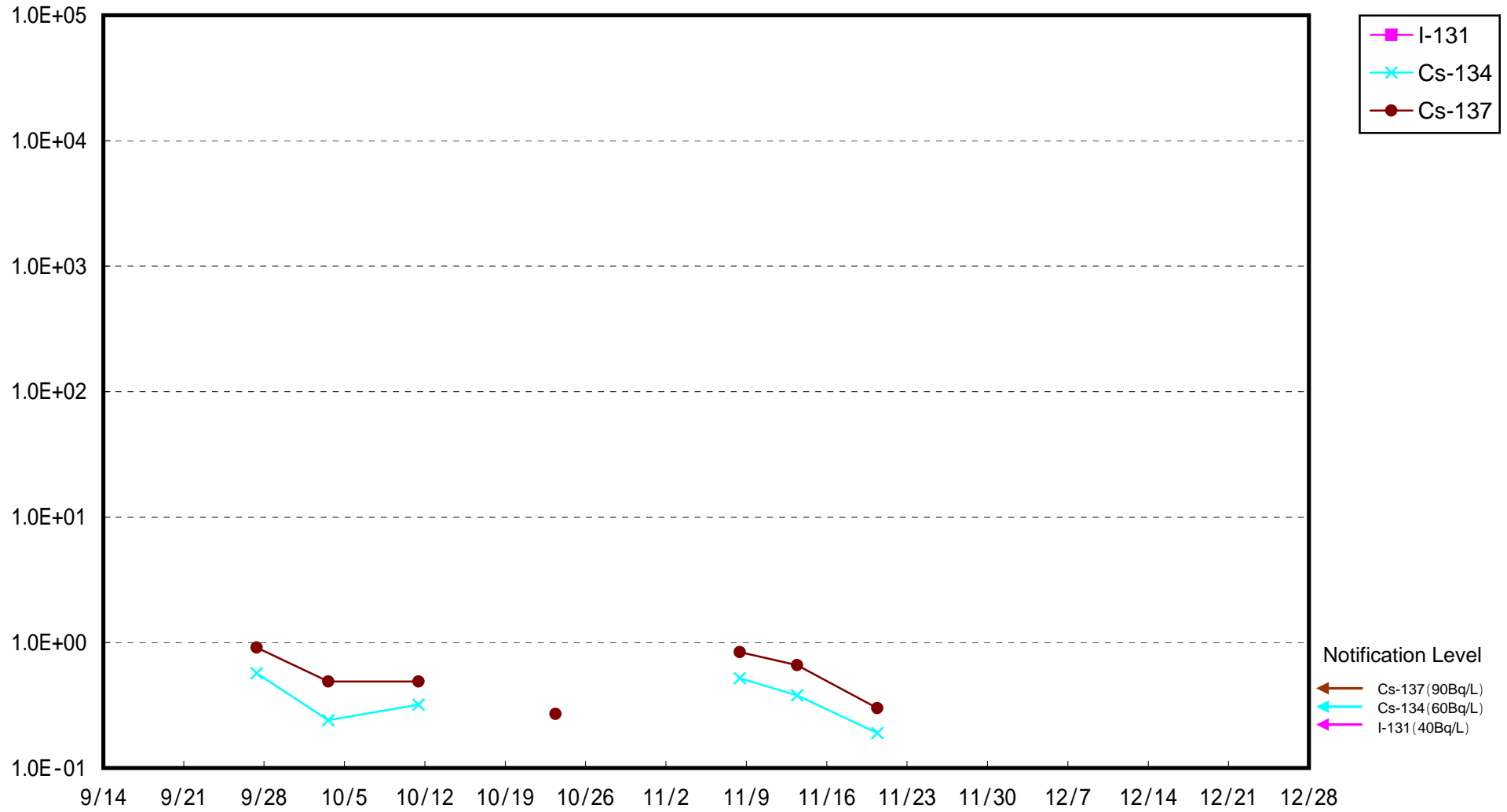


Sampling was conducted at around South Discharge Channel of Fukushima Daiichi NPS
(approx. 330m south of Units 1-4 Discharge Channel) until November 25, 2012.

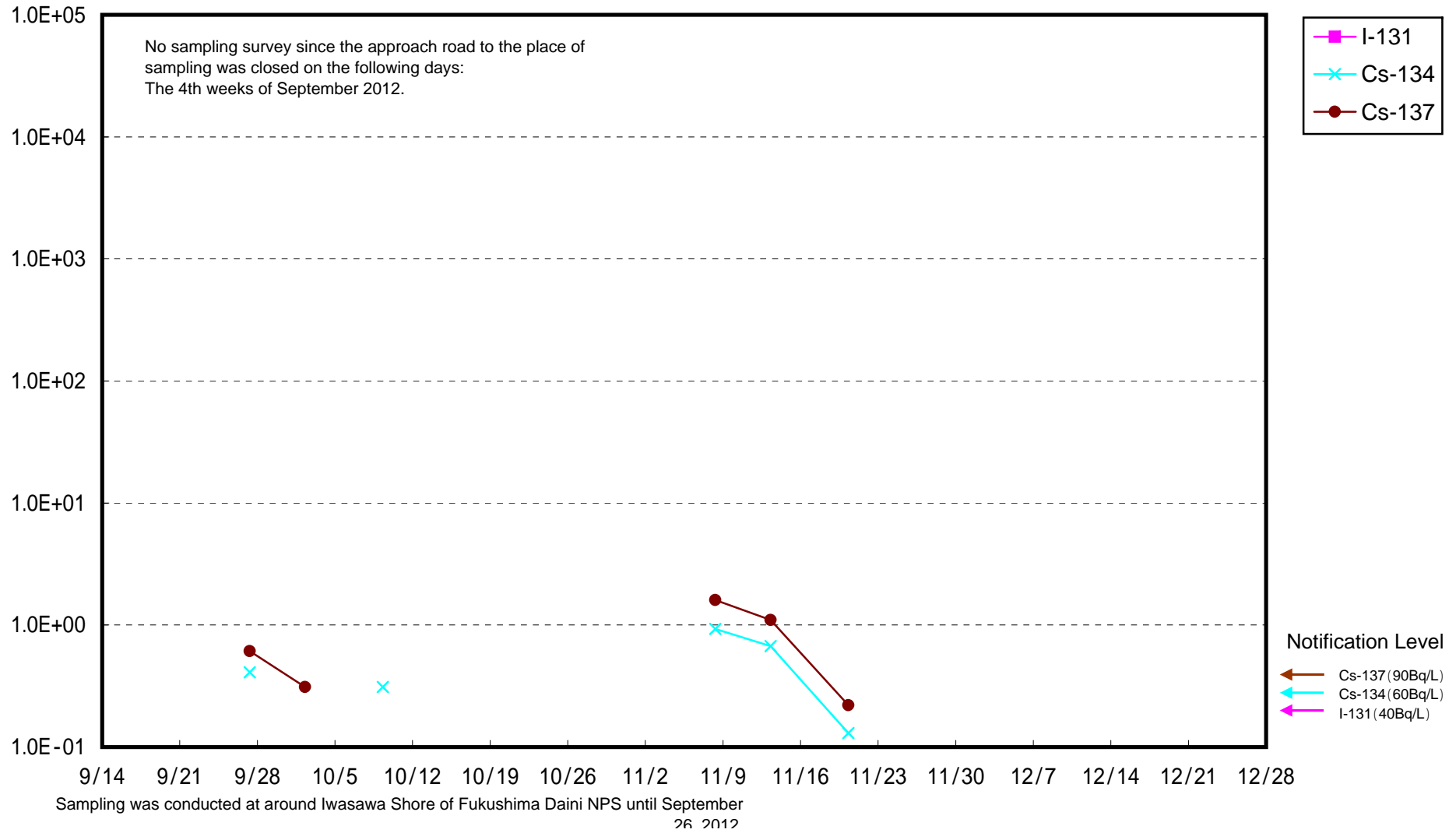
Notification Level

- ← Cs-137 (90Bq/L)
- ← Cs-134 (60Bq/L)
- ← I-131 (40Bq/L)

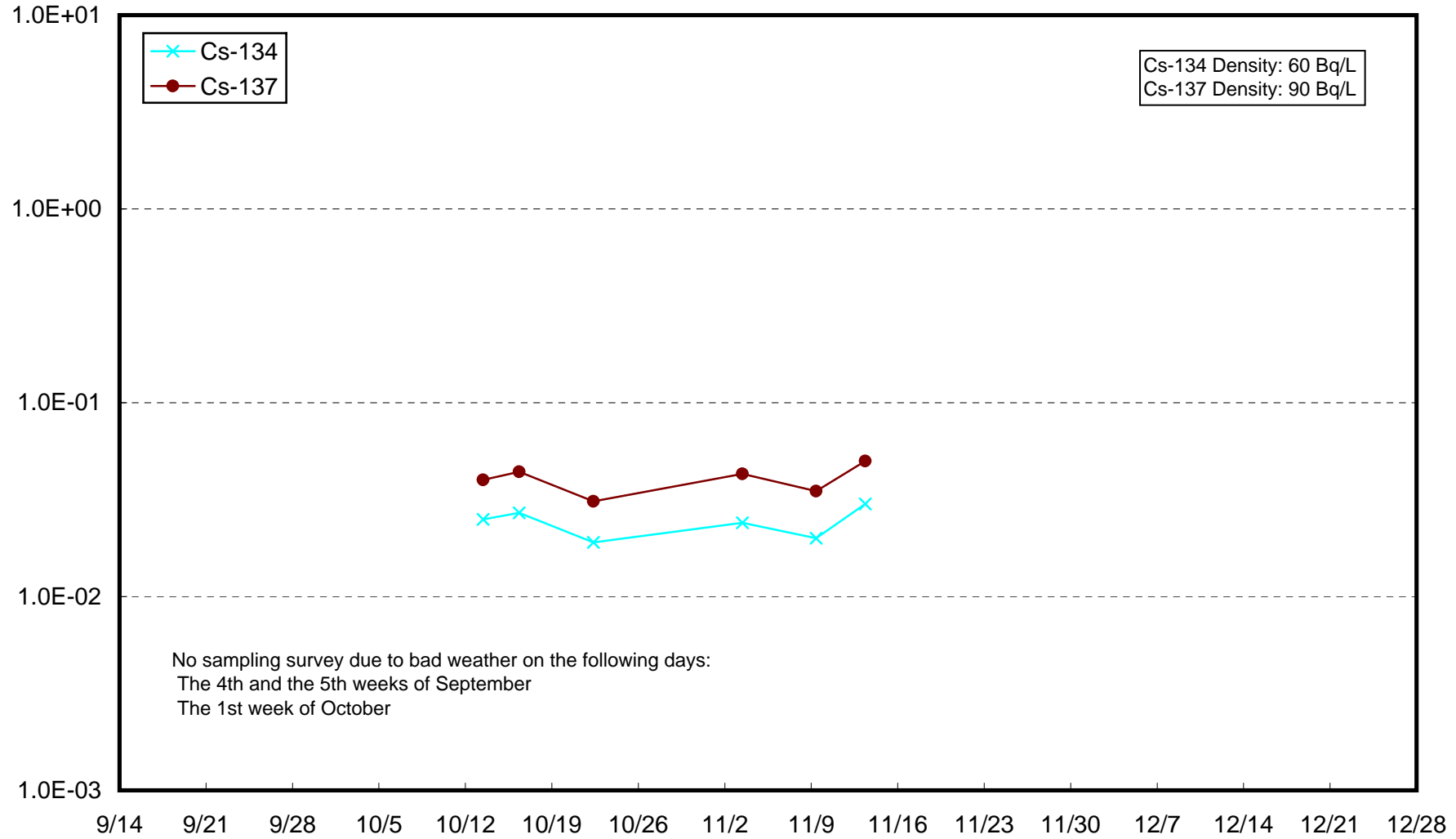
Radioactivity Density of the Seawater at 2F North Discharge Channel (Bq/L)



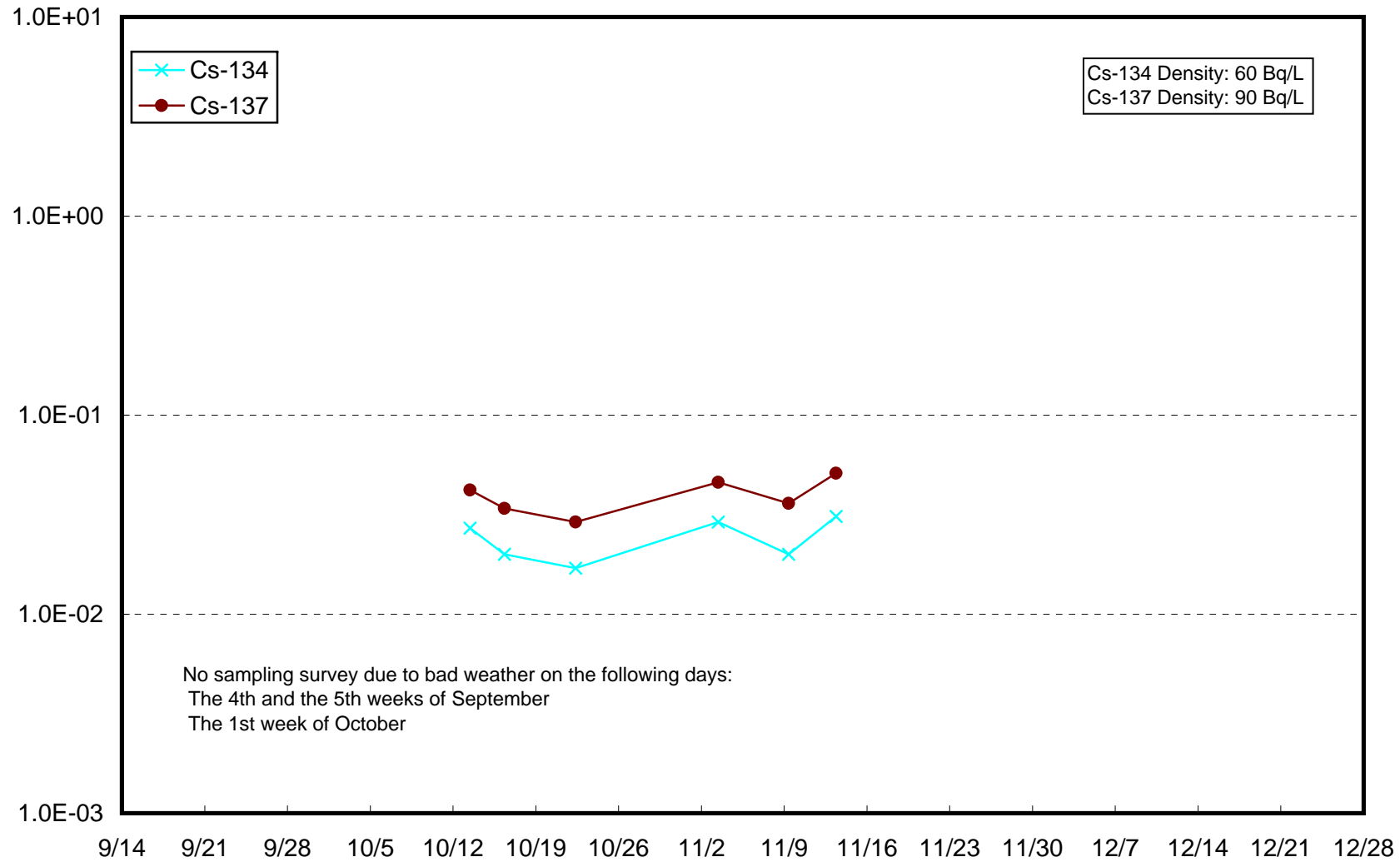
Radioactivity Density of the Seawater at Around the North of Asamigawa (Bq/L)



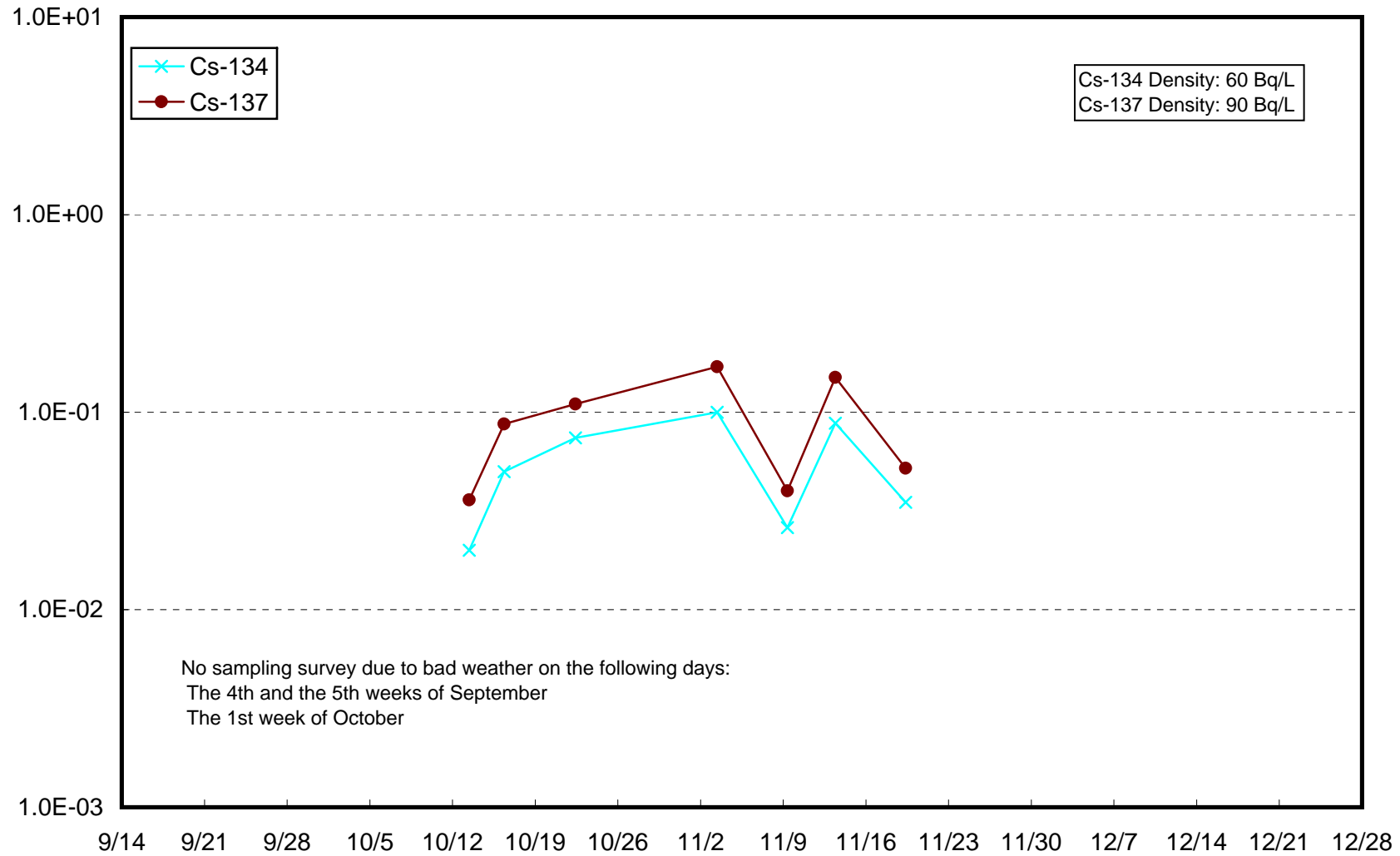
Radioactivity Density of the Seawater at 3km Offshore of Odaka Ward (T-14) Upper Layer (Bq/L)



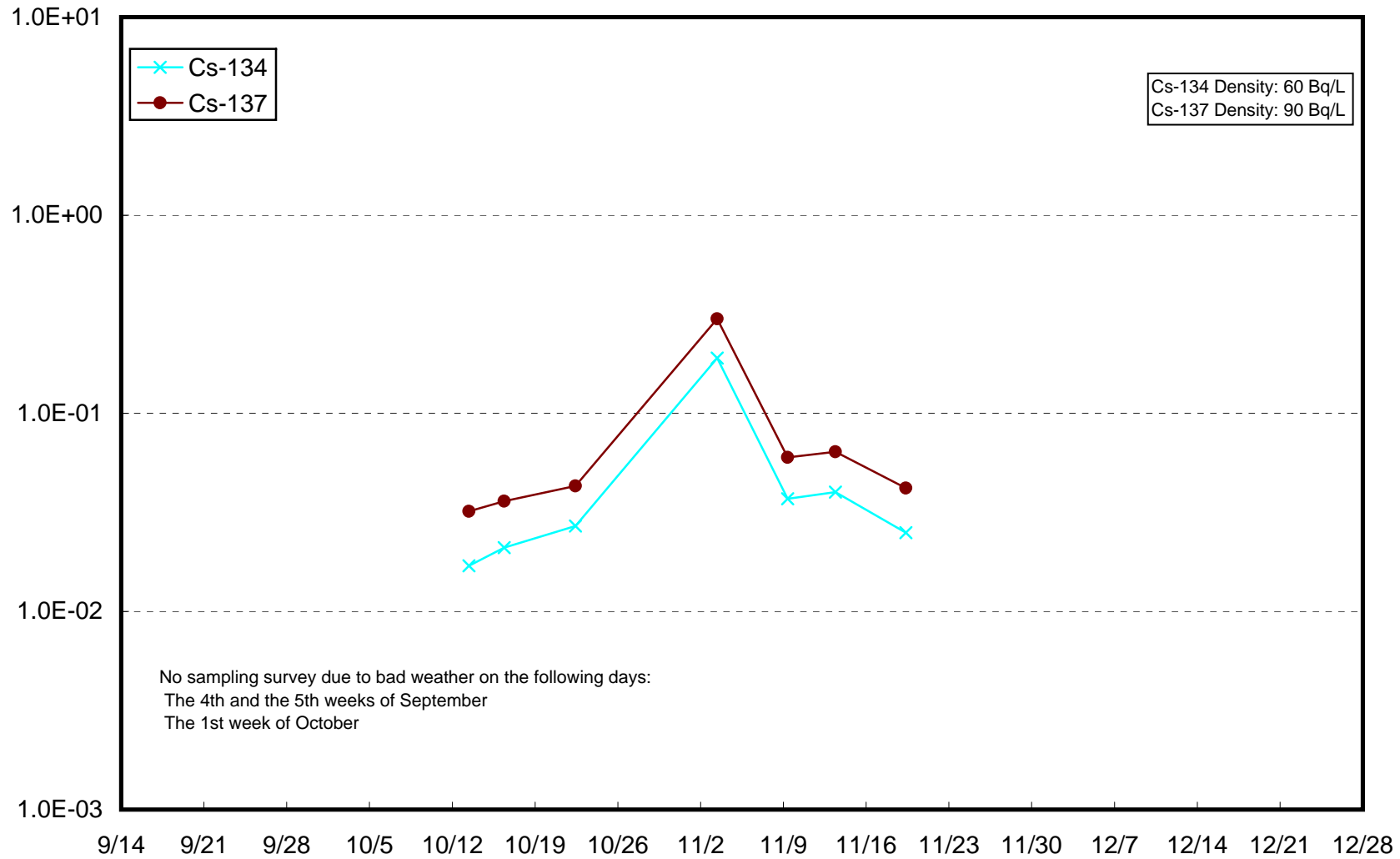
Radioactivity Density of the Seawater at 3km Offshore of Odaka Ward (T-14) Lower Layer (Bq/L)



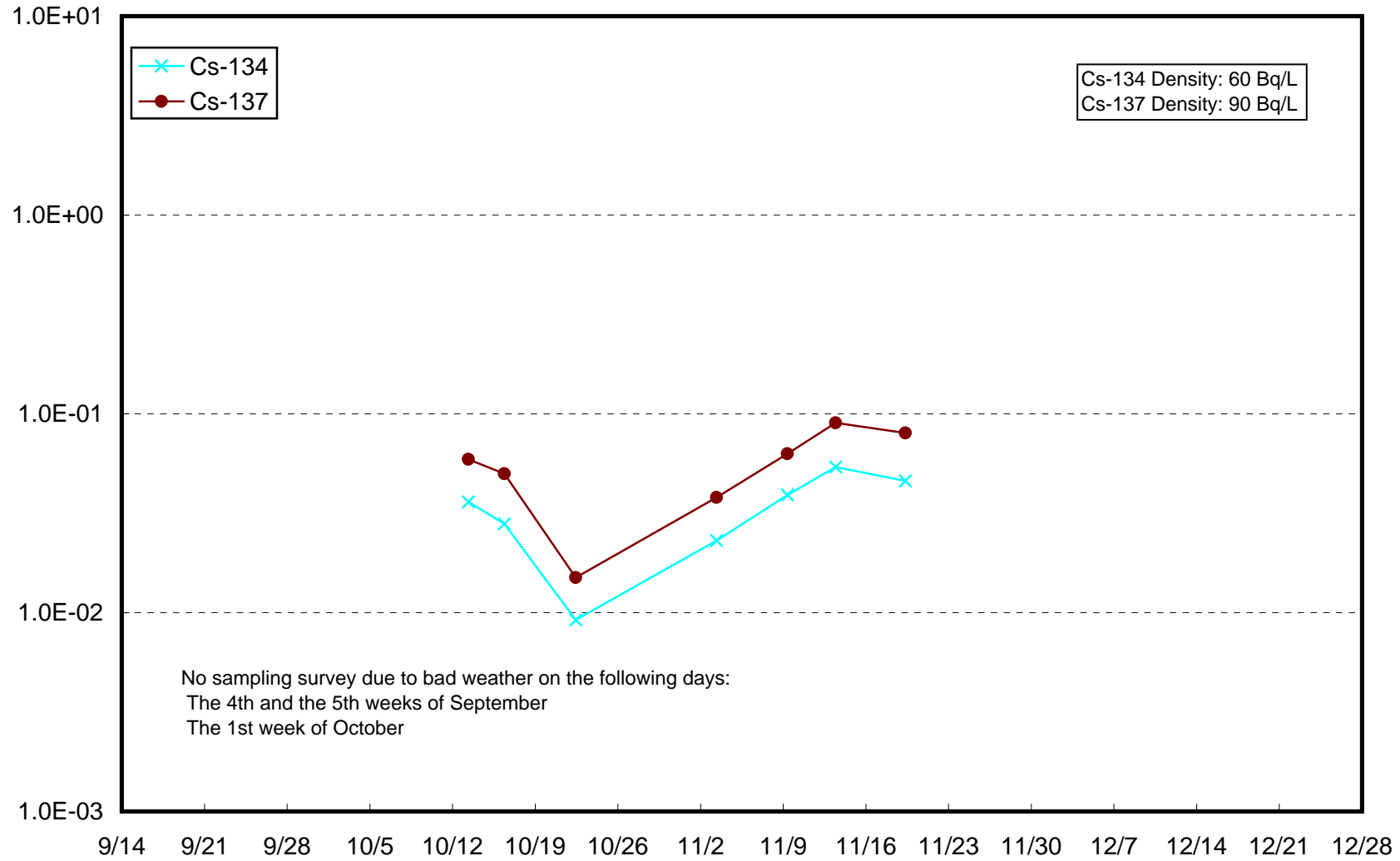
Radioactivity Density of the Seawater at 3km Offshore of Ukedo River (T-D1) Upper Layer (Bq/L)



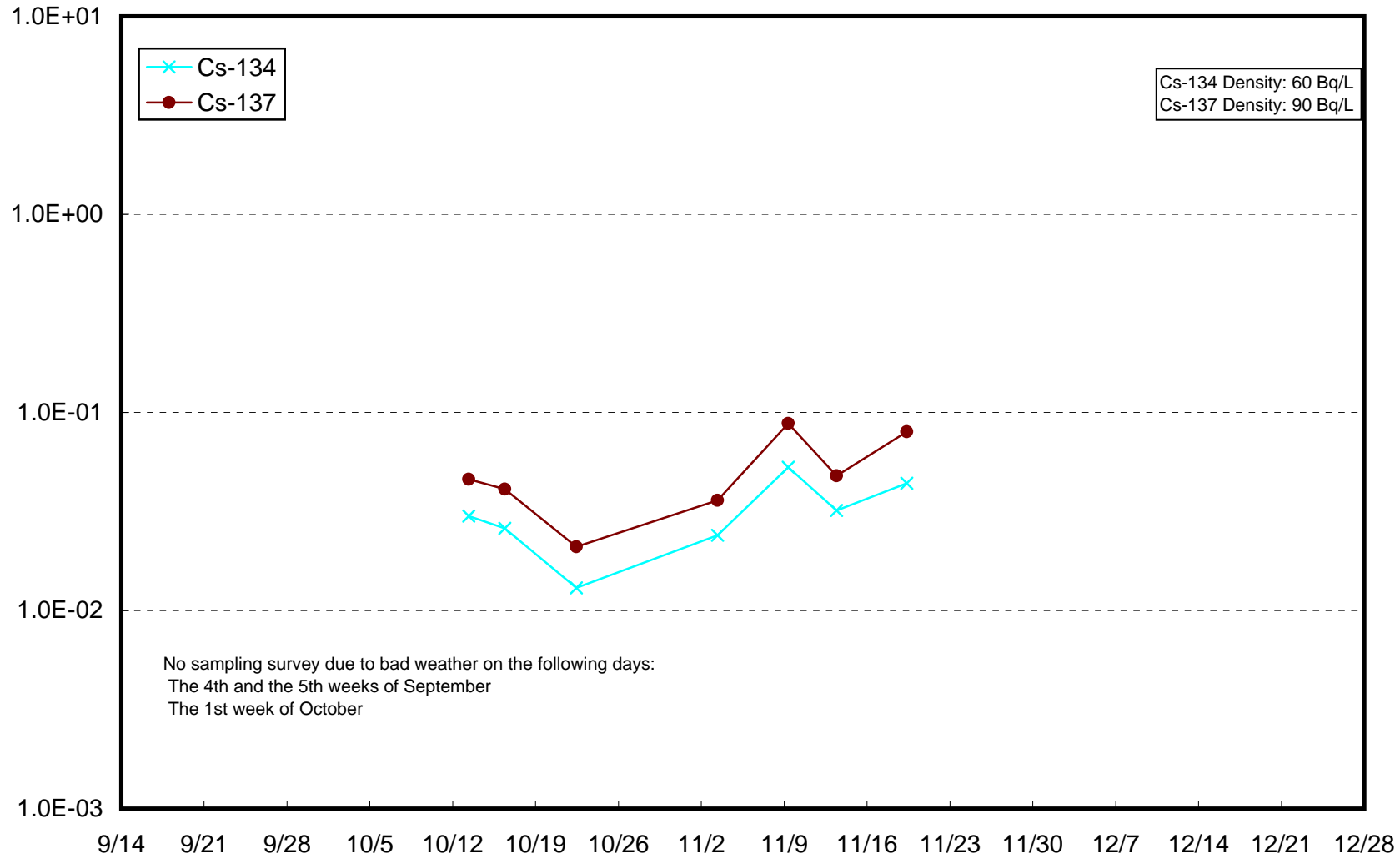
Radioactivity Density of the Seawater at 3km Offshore of Ukedo River (T-D1) Lower Layer (Bq/L)



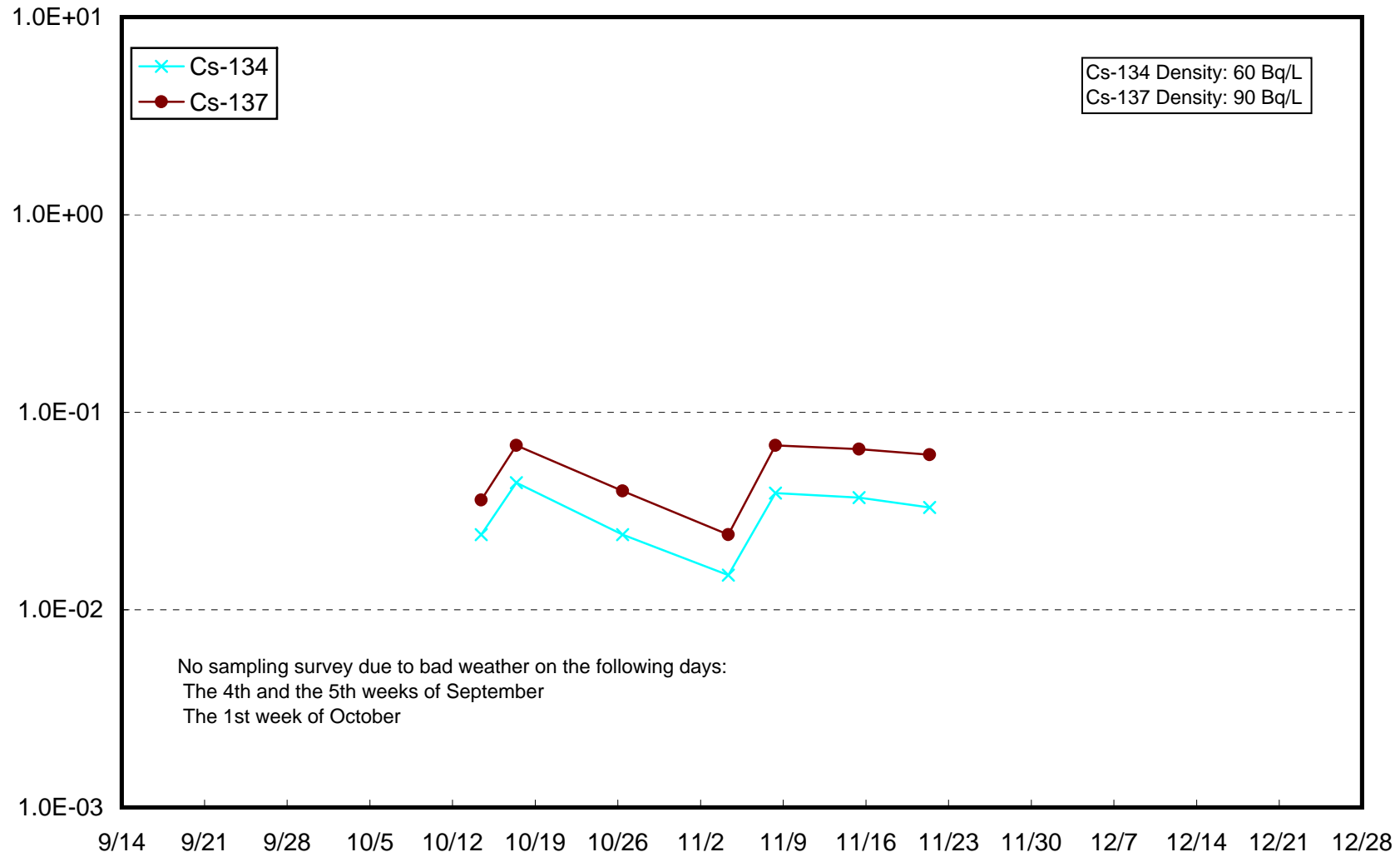
Radioactivity Density of the Seawater at 3km Offshore of Fukushima Daiichi NPS (T-D5) Upper Layer (Bq/L)



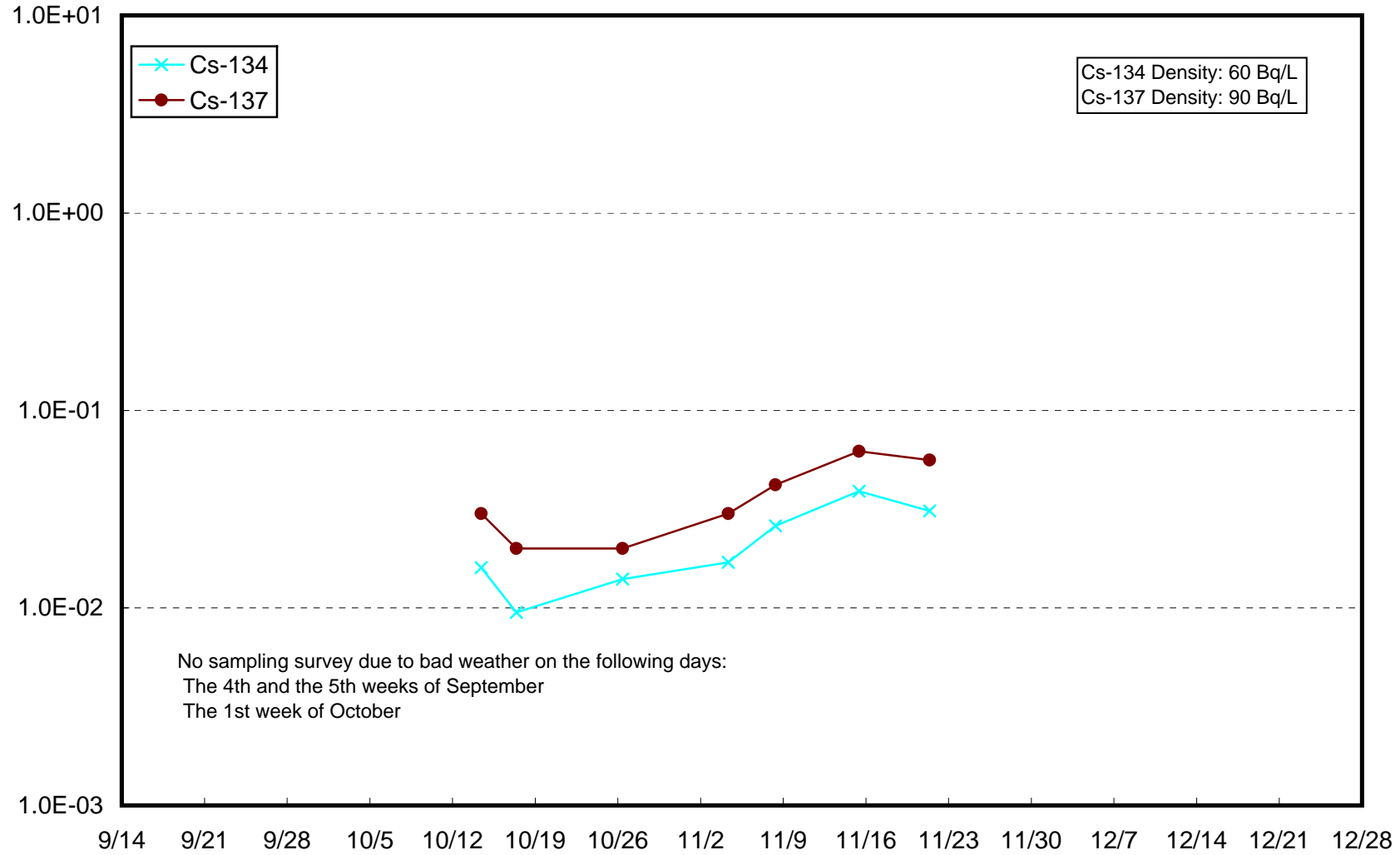
Radioactivity Density of the Seawater at 3km Offshore of Fukushima Daiichi NPS (T-D5) Lower Layer (Bq/L)



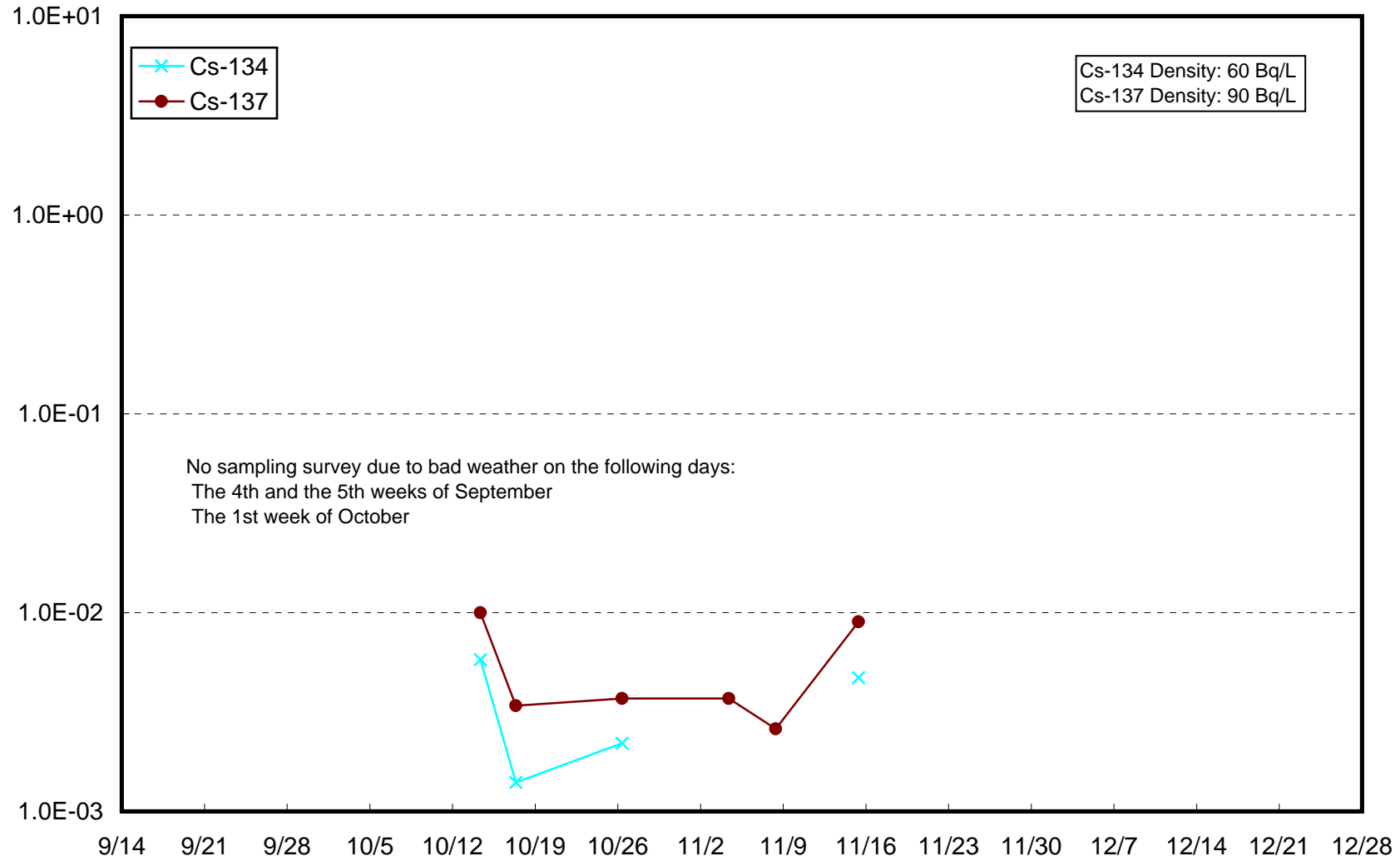
Radioactivity Density of the Seawater at 3km Offshore of Fukushima Daini NPS (T-D9) Upper Layer (Bq/L)



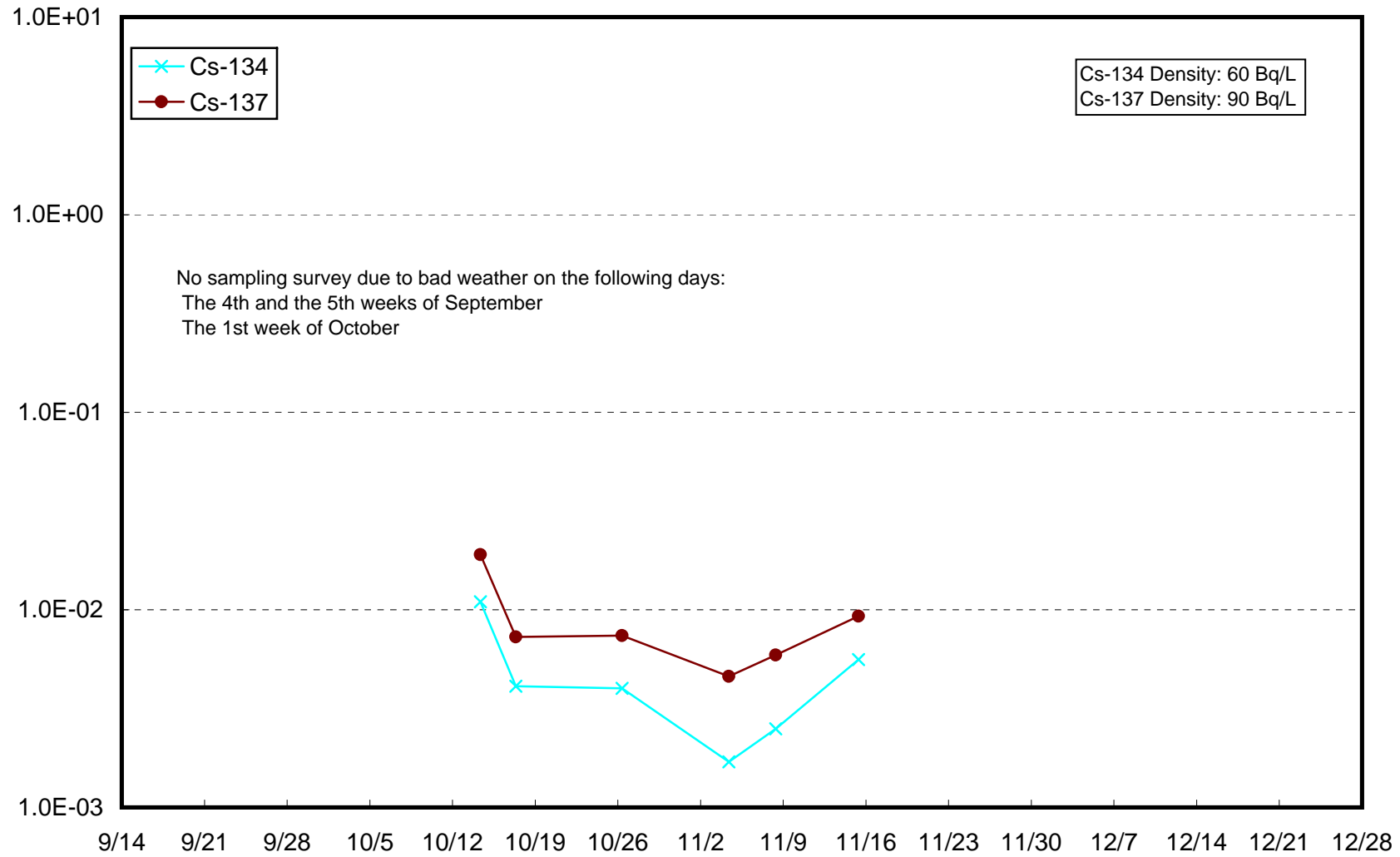
Radioactivity Density of the Seawater at 3km Offshore of Fukushima Daini NPS (T-D9) Lower Layer (Bq/L)



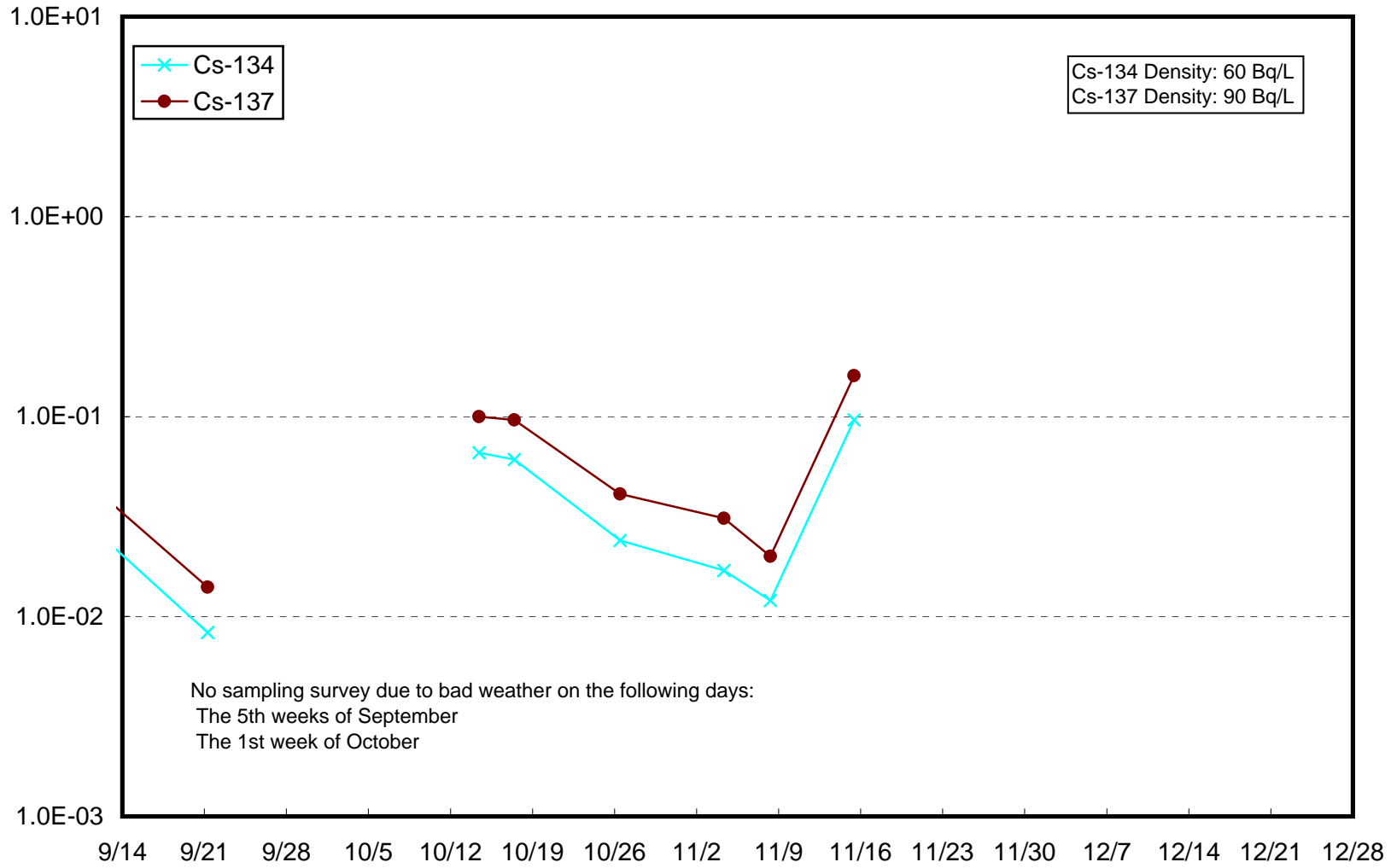
Radioactivity Density of the Seawater at 15km Offshore of Fukushima Daiichi NPS (T-5) Upper Layer (Bq/L)



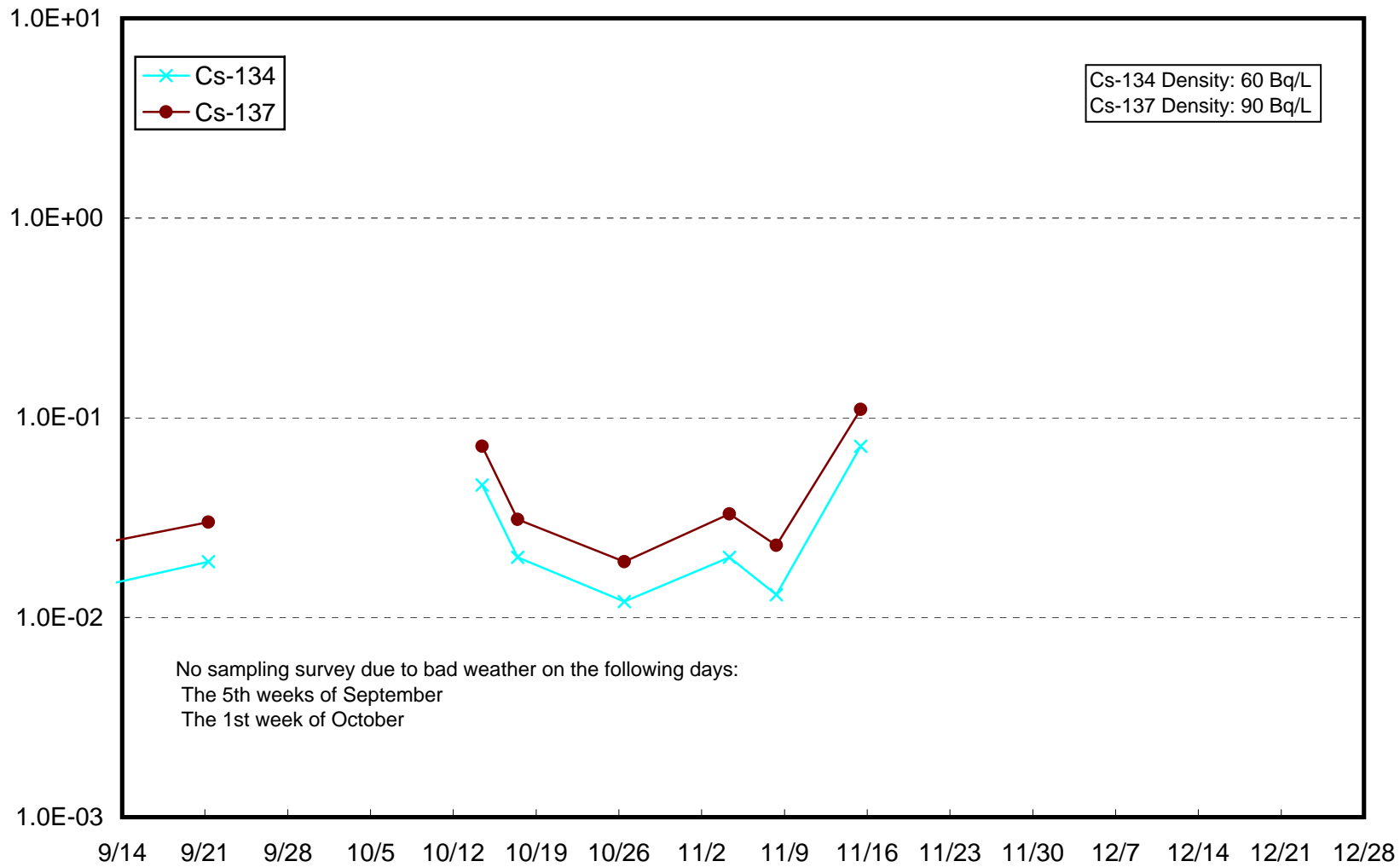
Radioactivity Density of the Seawater at 15km Offshore of Fukushima Daiichi NPS (T-5) Lower Layer (Bq/L)



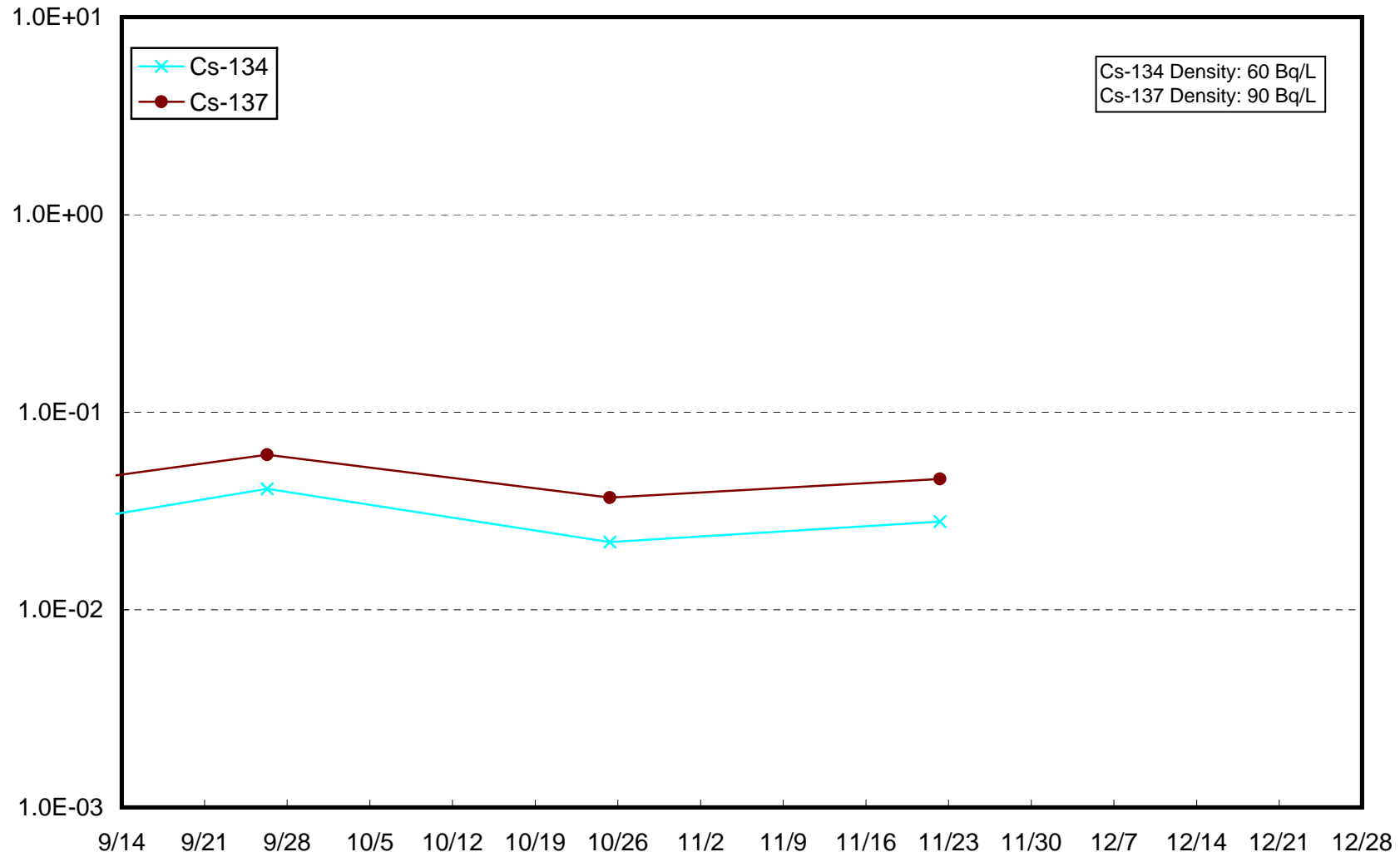
Radioactivity Density of the Seawater at 3km Offshore of Iwasawa Shore (T-11) Upper Layer (Bq/L)



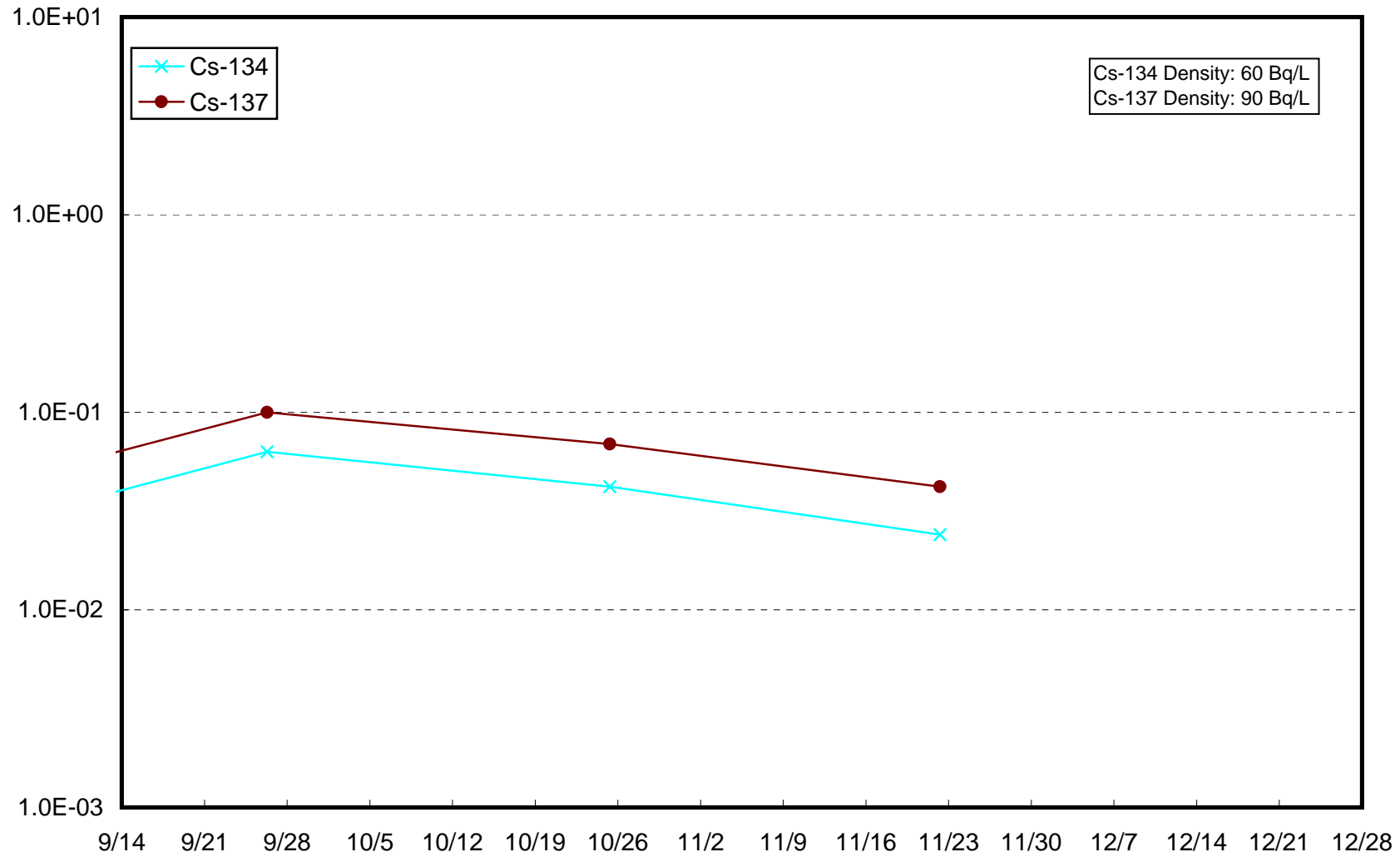
Radioactivity Density of the Seawater at 3km Offshore of Iwasawa Shore (T-11) Lower Layer (Bq/L)



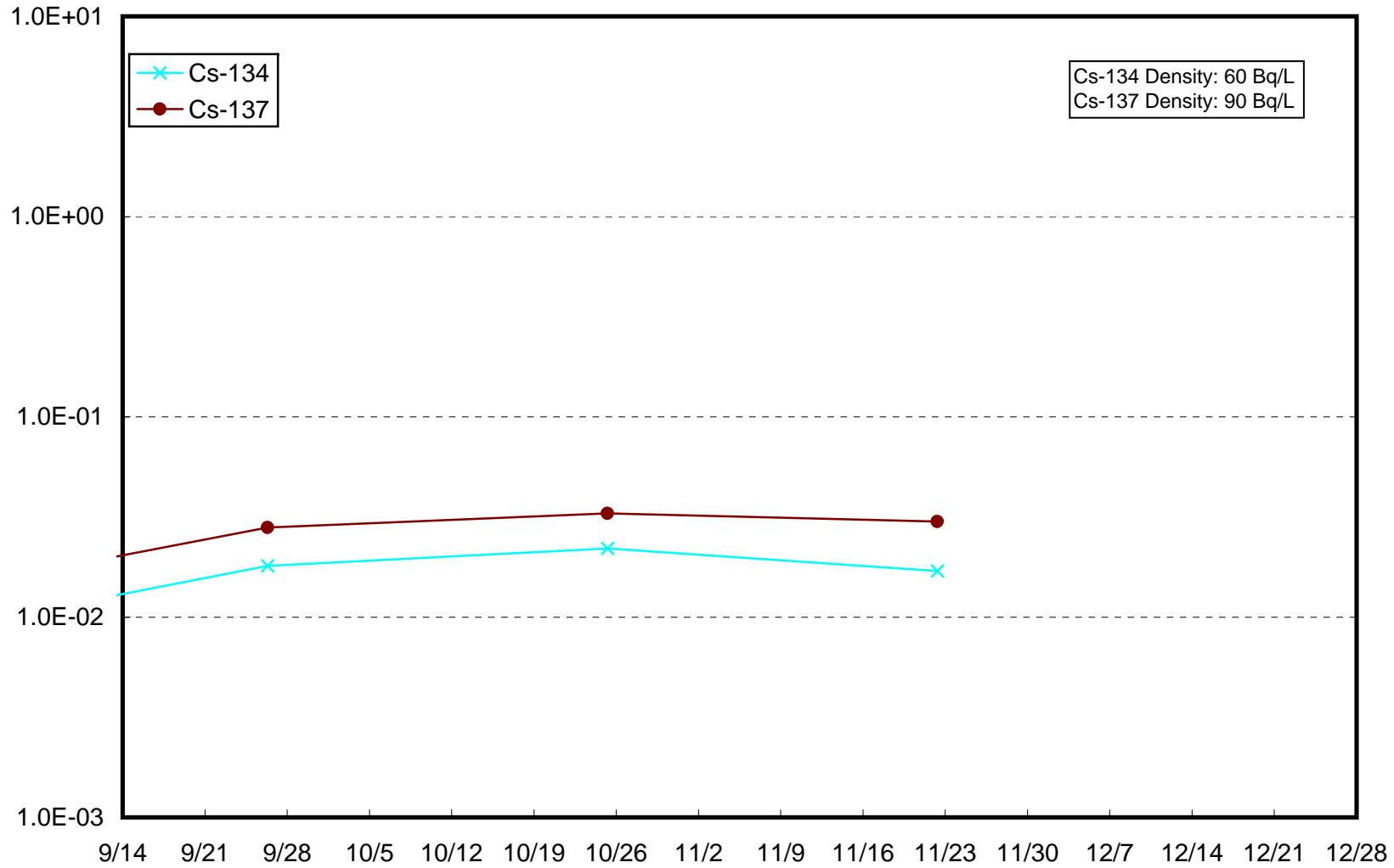
Radioactivity Density of the Seawater at 1km Offshore of Nida River (T-13-1) Upper Layer (Bq/L)



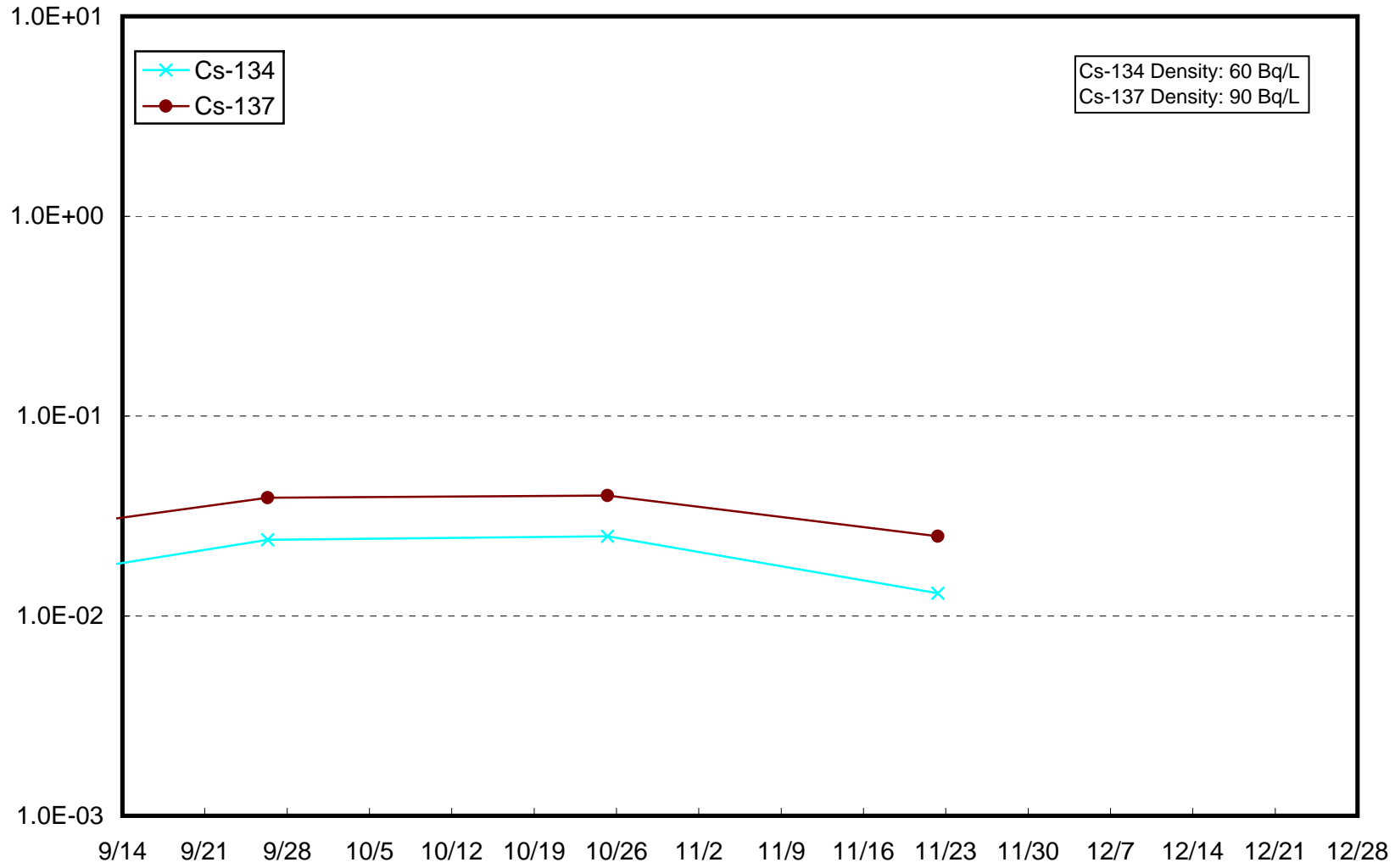
Radioactivity Density of the Seawater at 1km Offshore of Nida River (T-13-1) Lower Layer (Bq/L)



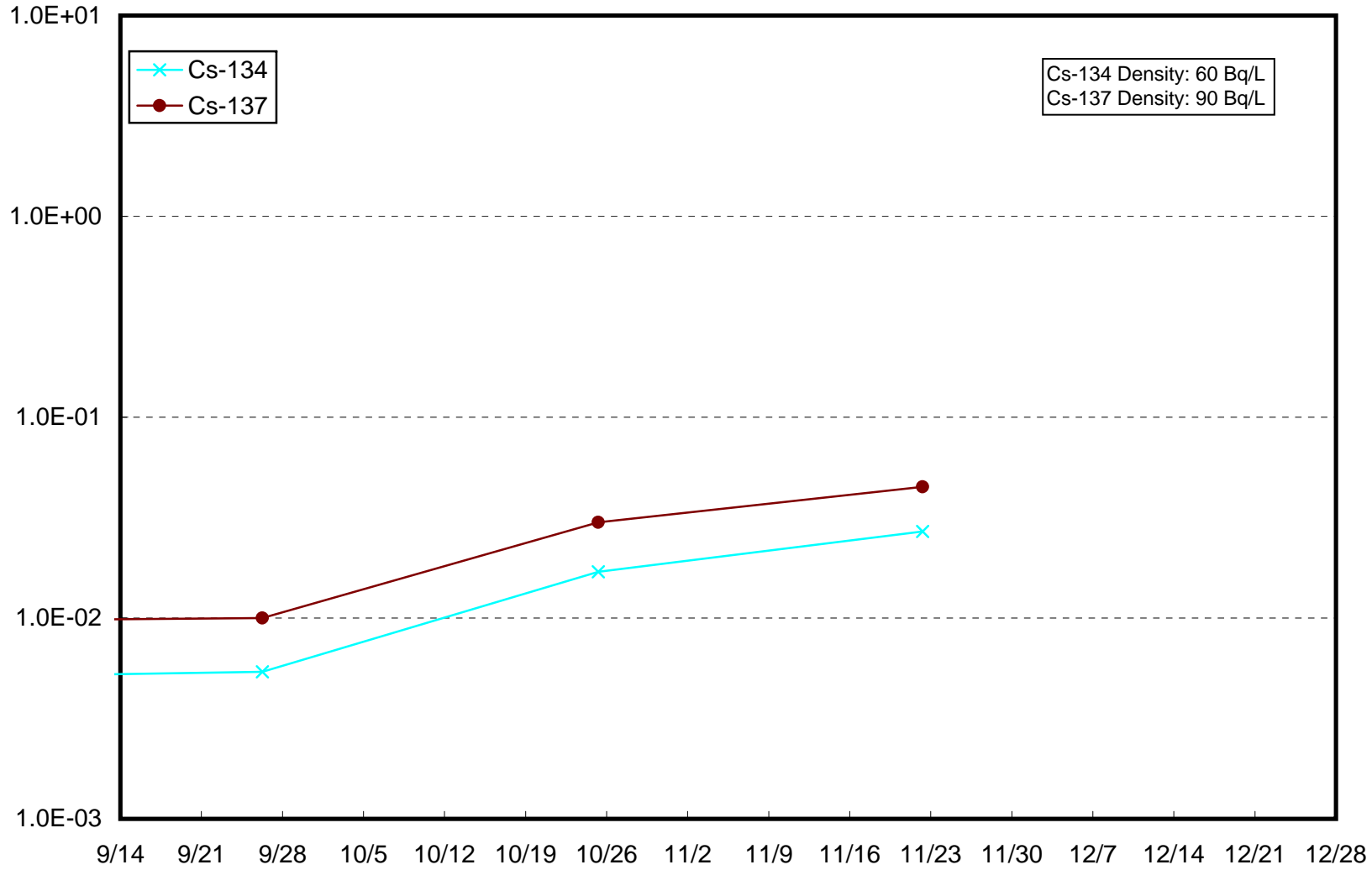
Radioactivity Density of the Seawater at 3km Offshore of Soma (T-22) Upper Layer (Bq/L)



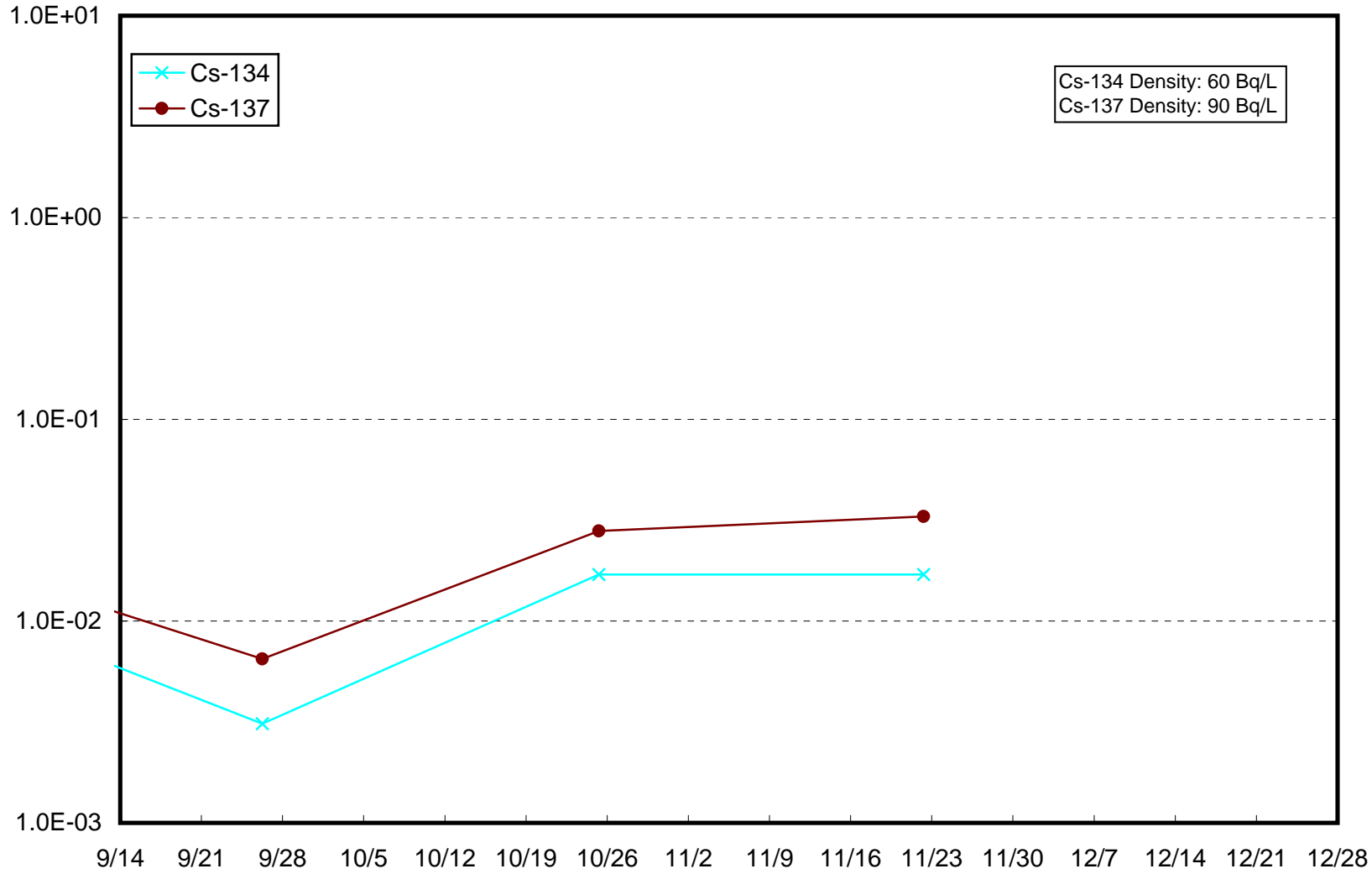
Radioactivity Density of the Seawater at 3km Offshore of Soma (T-22) Lower Layer (Bq/L)



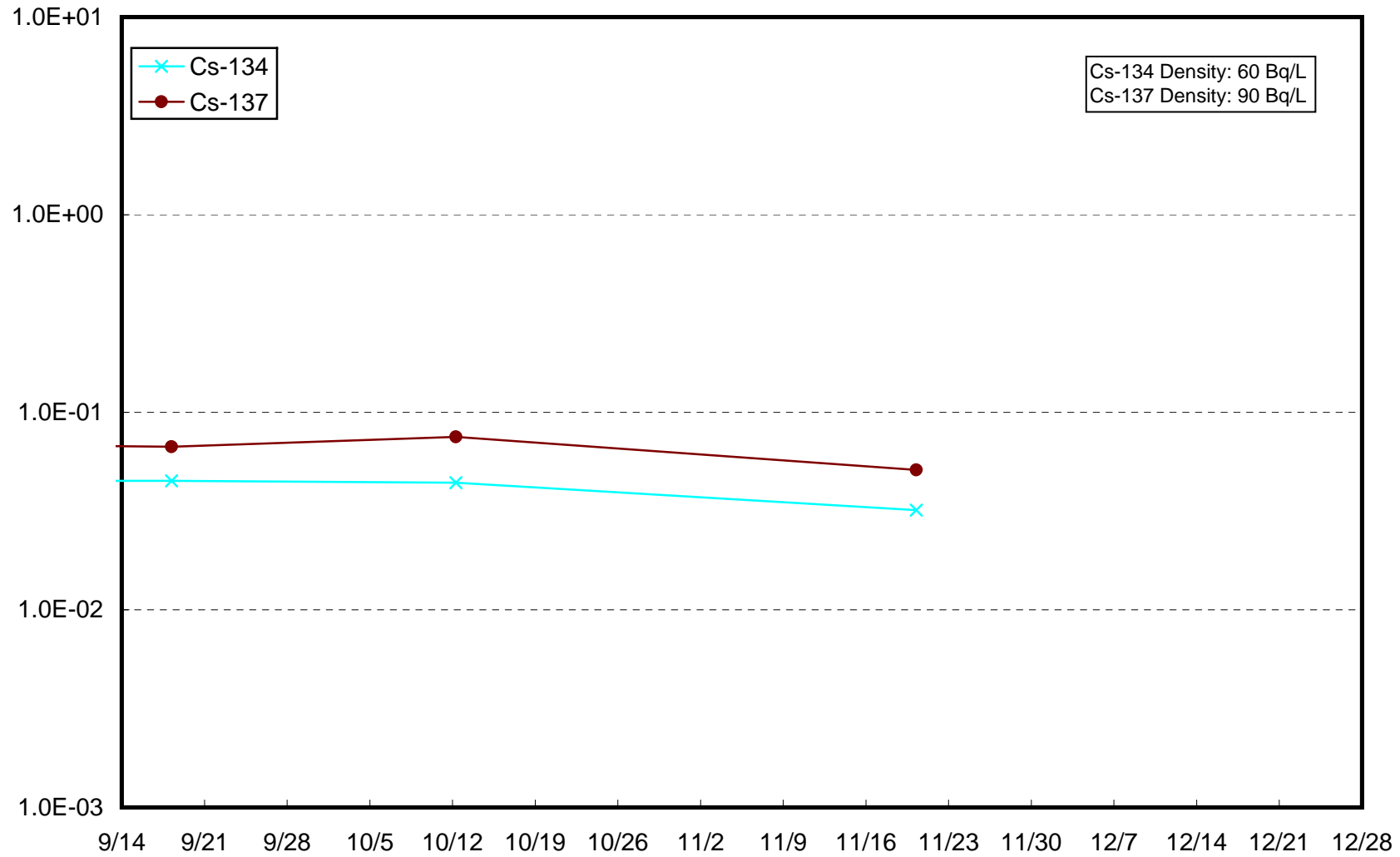
Radioactivity Density of the Seawater at 5km Offshore of Kashima (T-MA) Upper Layer (Bq/L)



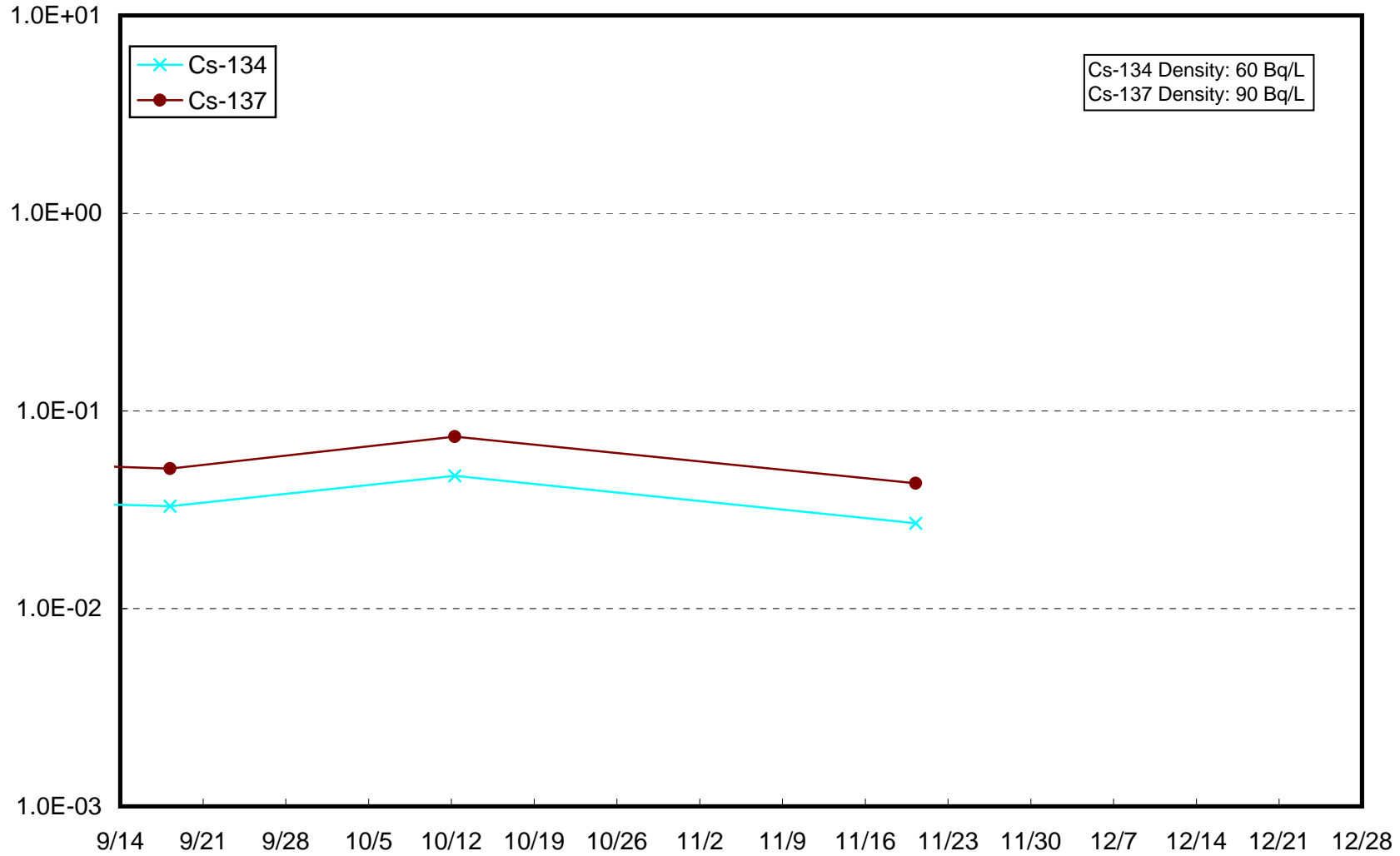
Radioactivity Density of the Seawater at 5km Offshore of Kashima (T-MA) Lower Layer (Bq/L)



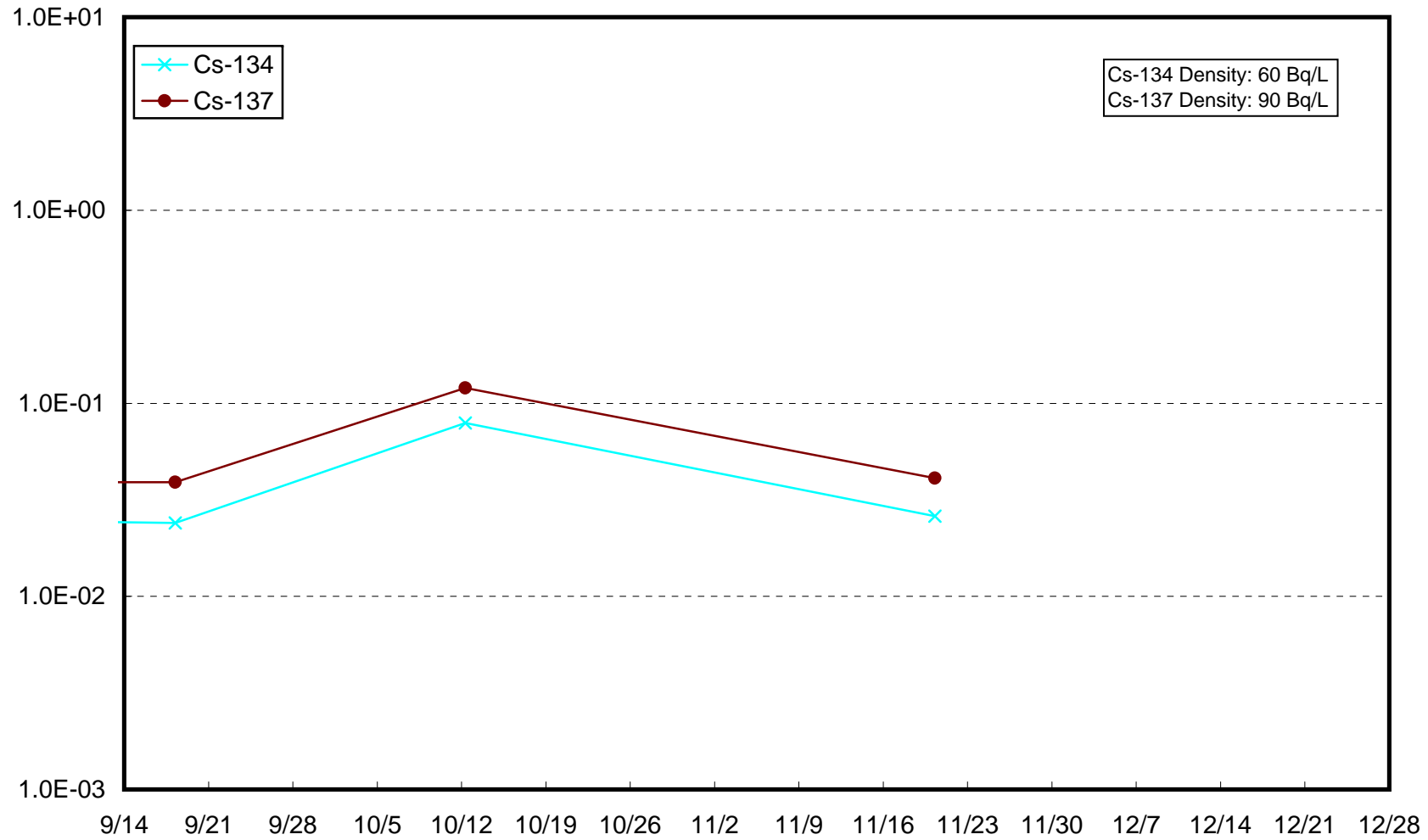
Radioactivity Density of the Seawater Around 3km Offshore of Ukedo River (T-S3) Upper Layer (Bq/L)



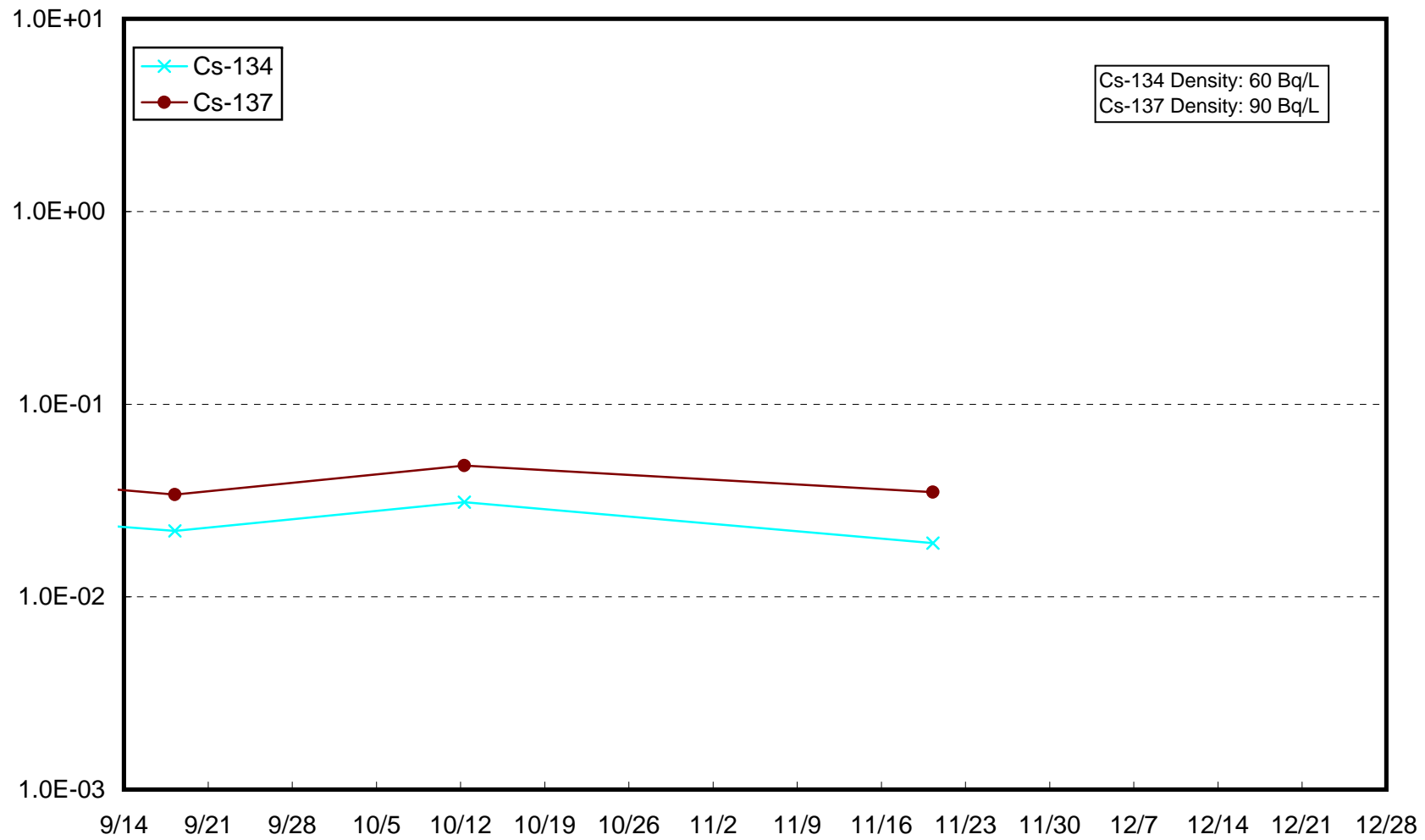
Radioactivity Density of the Seawater Around 3km Offshore of Ukedo River (T-S3) Lower Layer (Bq/L)



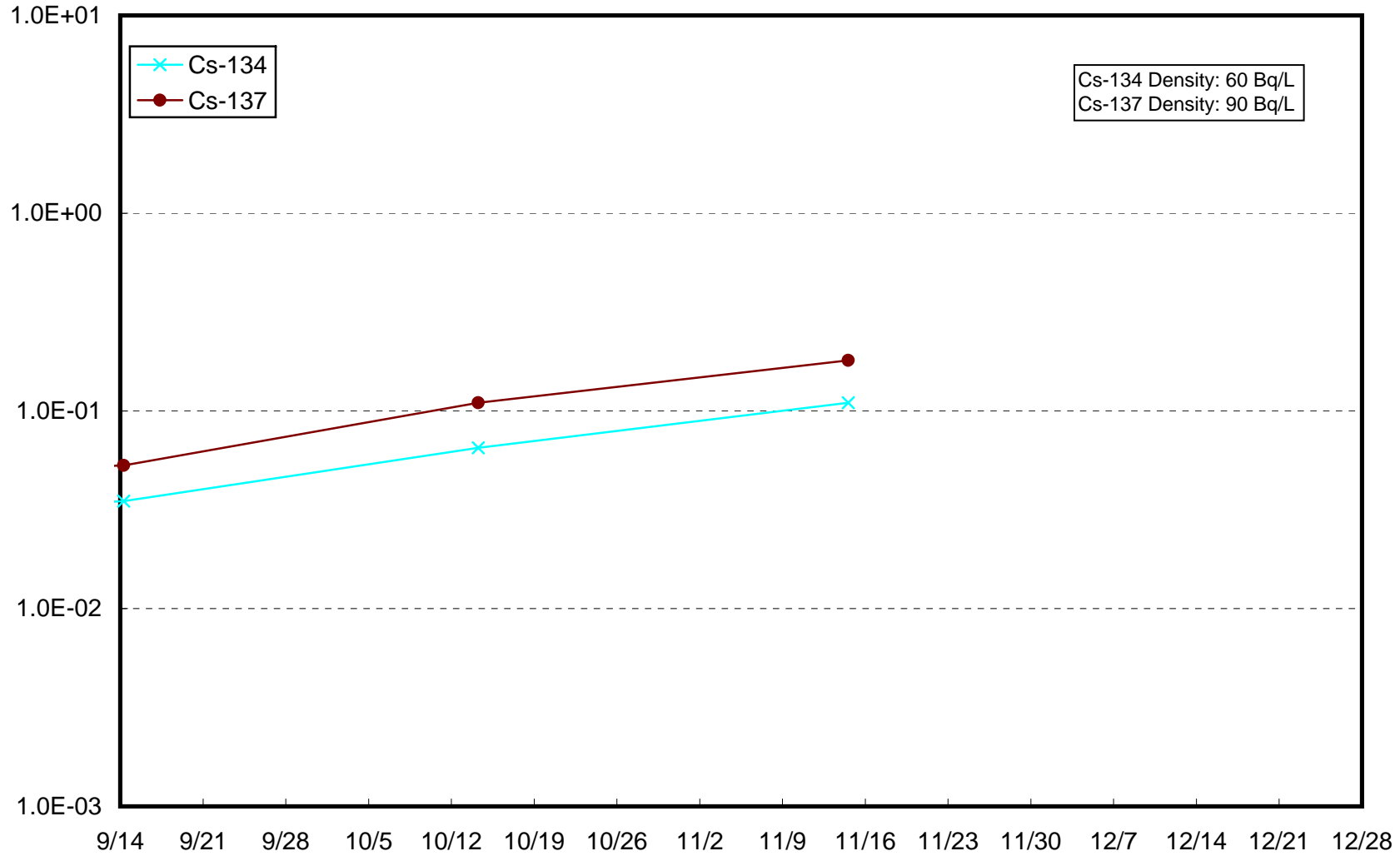
Radioactivity Density of the Seawater Around 3km Offshore of Fukushima Daiichi NPS (T-S4) Upper Layer (Bq/L)



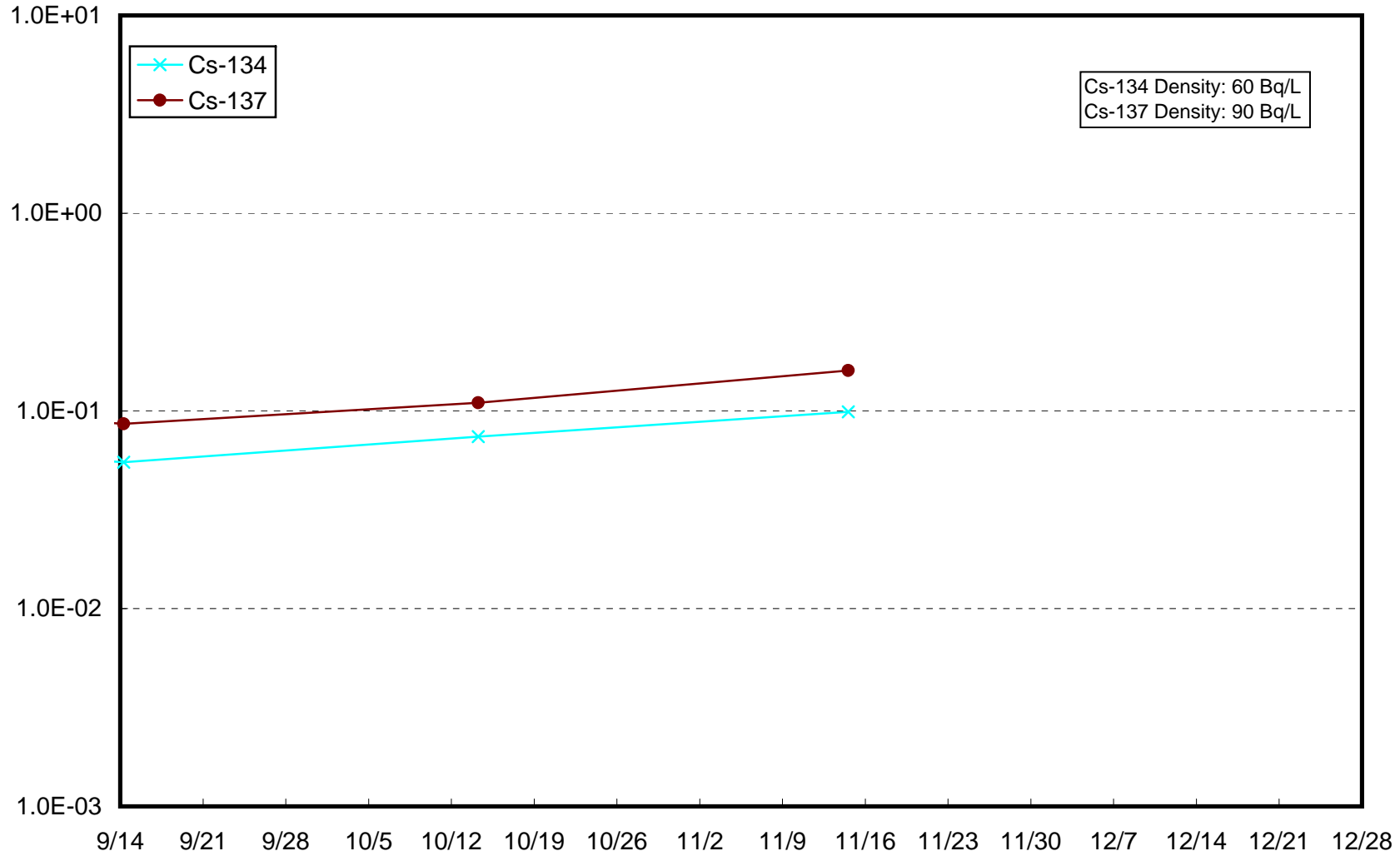
Radioactivity Density of the Seawater Around 3km Offshore of Fukushima Daiichi NPS (T-S4) Lower Layer (Bq/L)



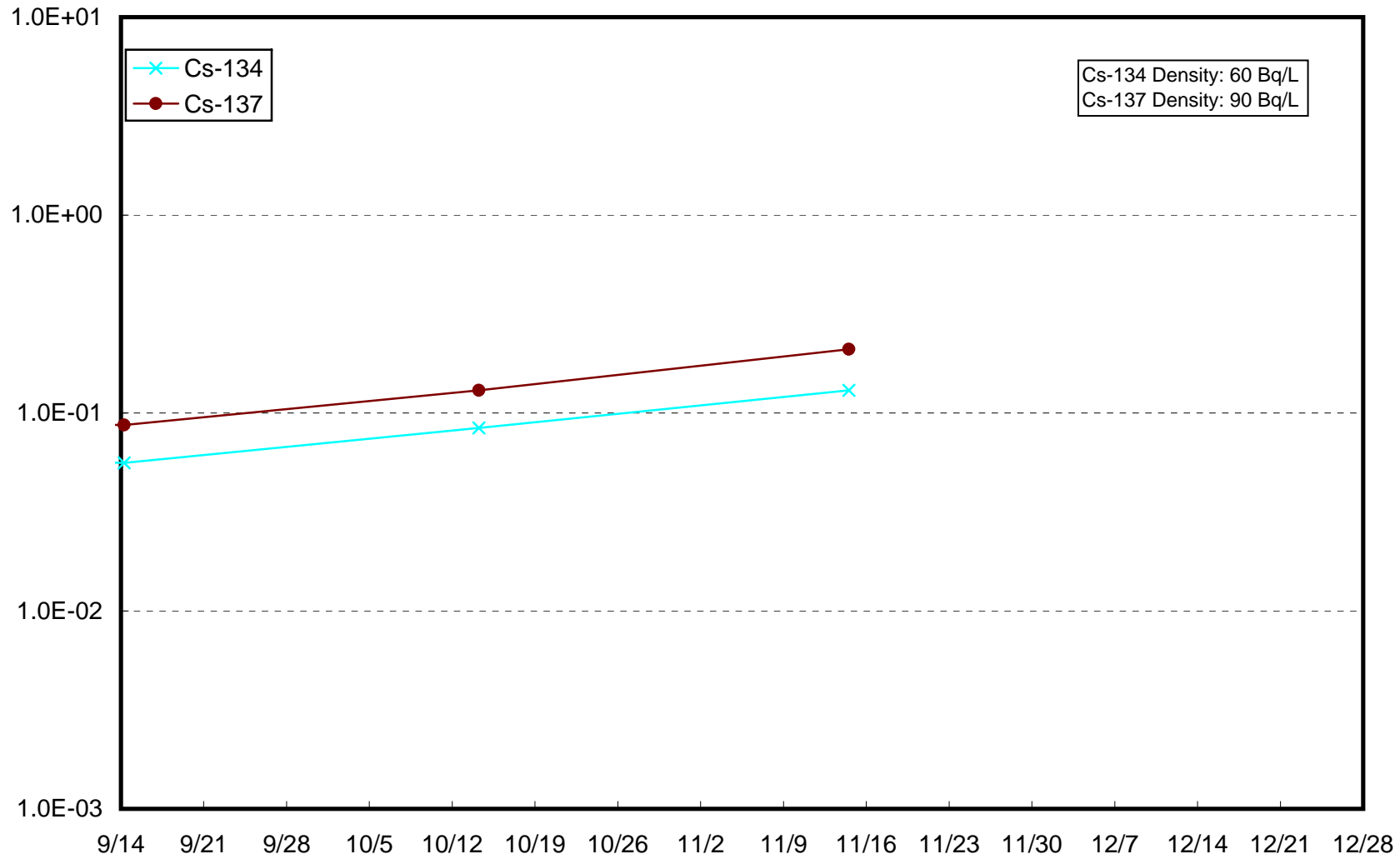
Radioactivity Density of the Seawater at 2km Offshore of Kido River (T-S5) Upper Layer (Bq/L)



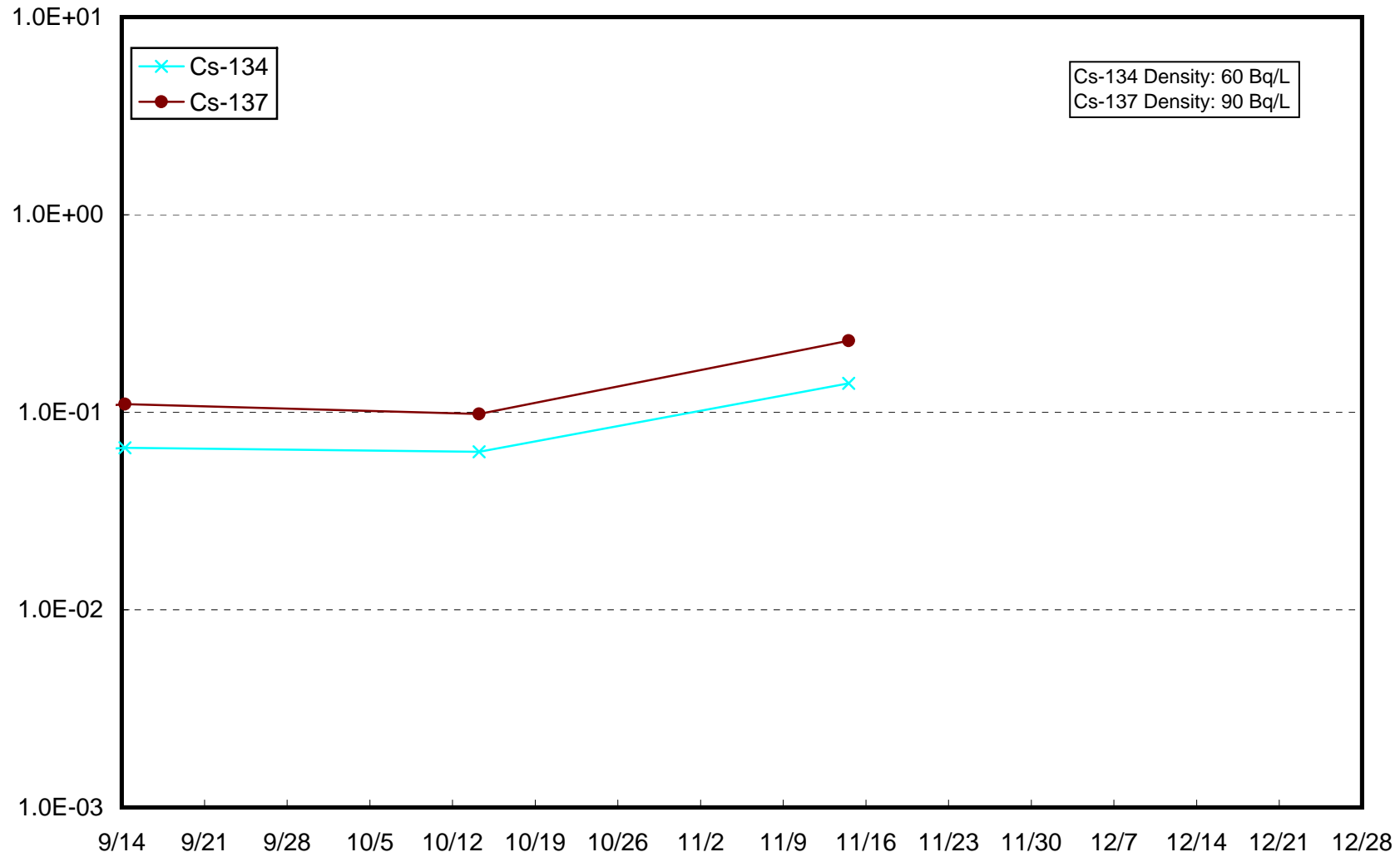
Radioactivity Density of the Seawater at 2km Offshore of Kido River (T-S5) Lower Layer (Bq/L)



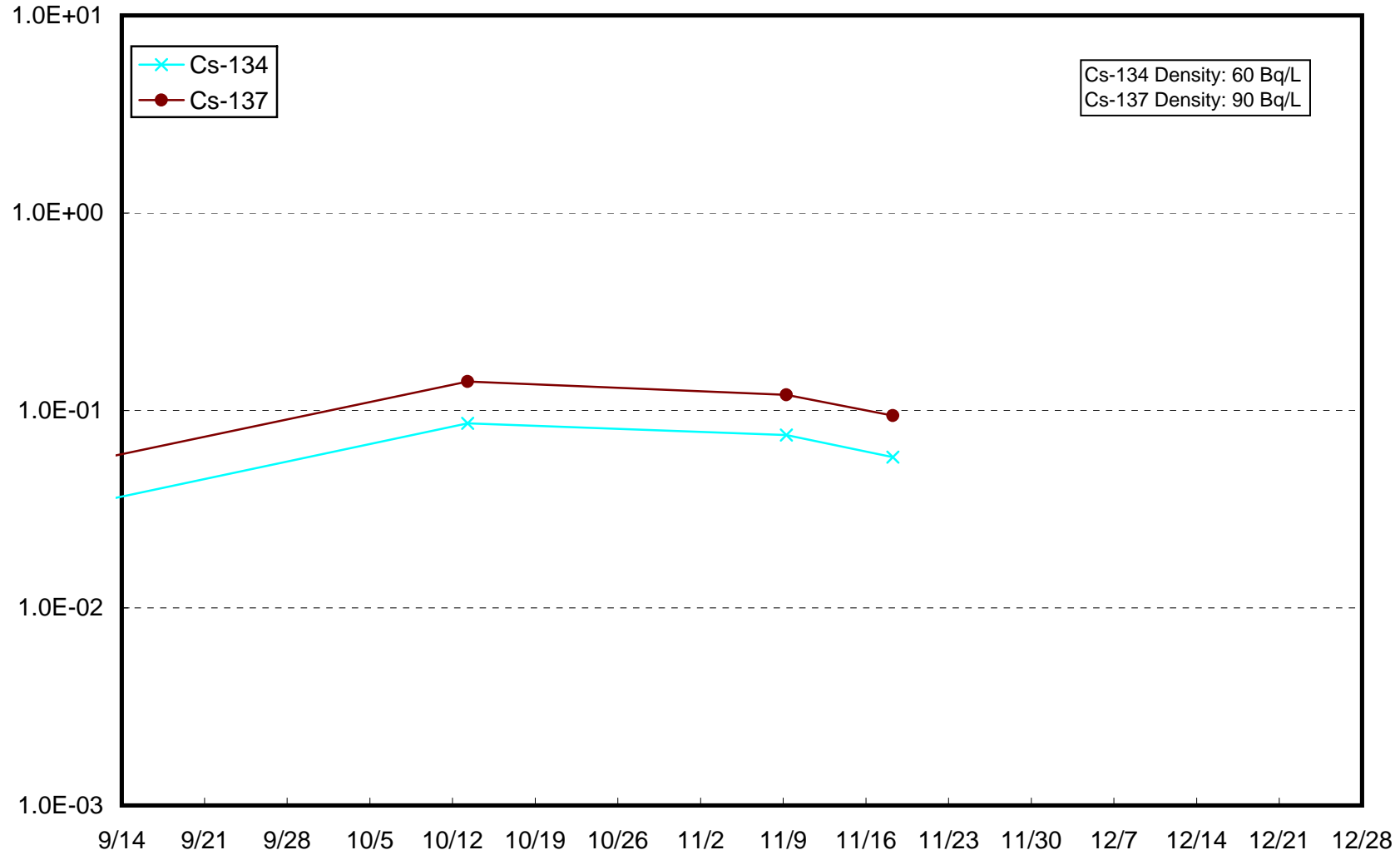
Radioactivity Density of the Seawater at 2km Offshore of Fukushima Daini NPS (T-S7) Upper Layer (Bq/L)



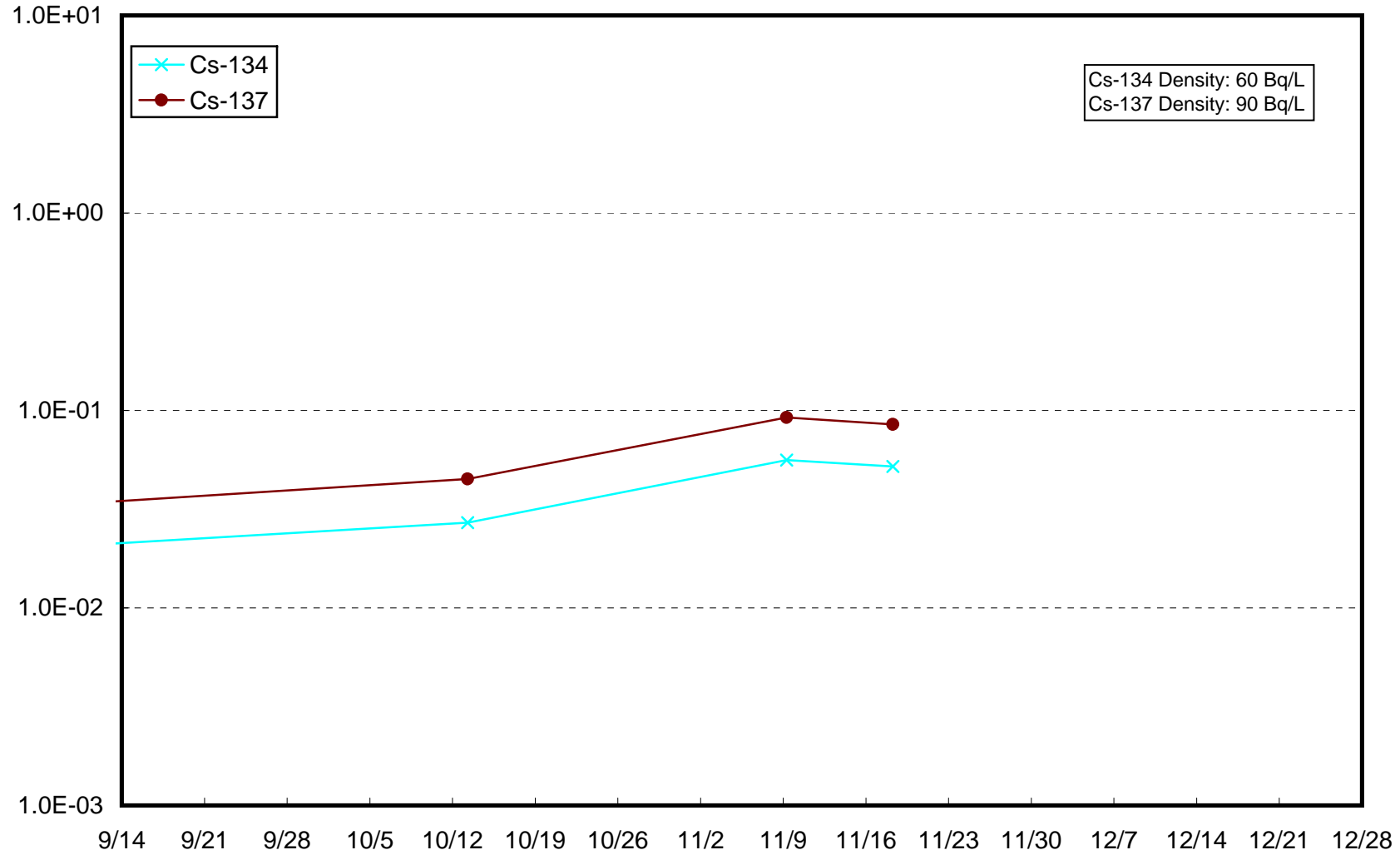
Radioactivity Density of the Seawater at 2km Offshore of Fukushima Daini NPS (T-S7) Lower Layer (Bq/L)



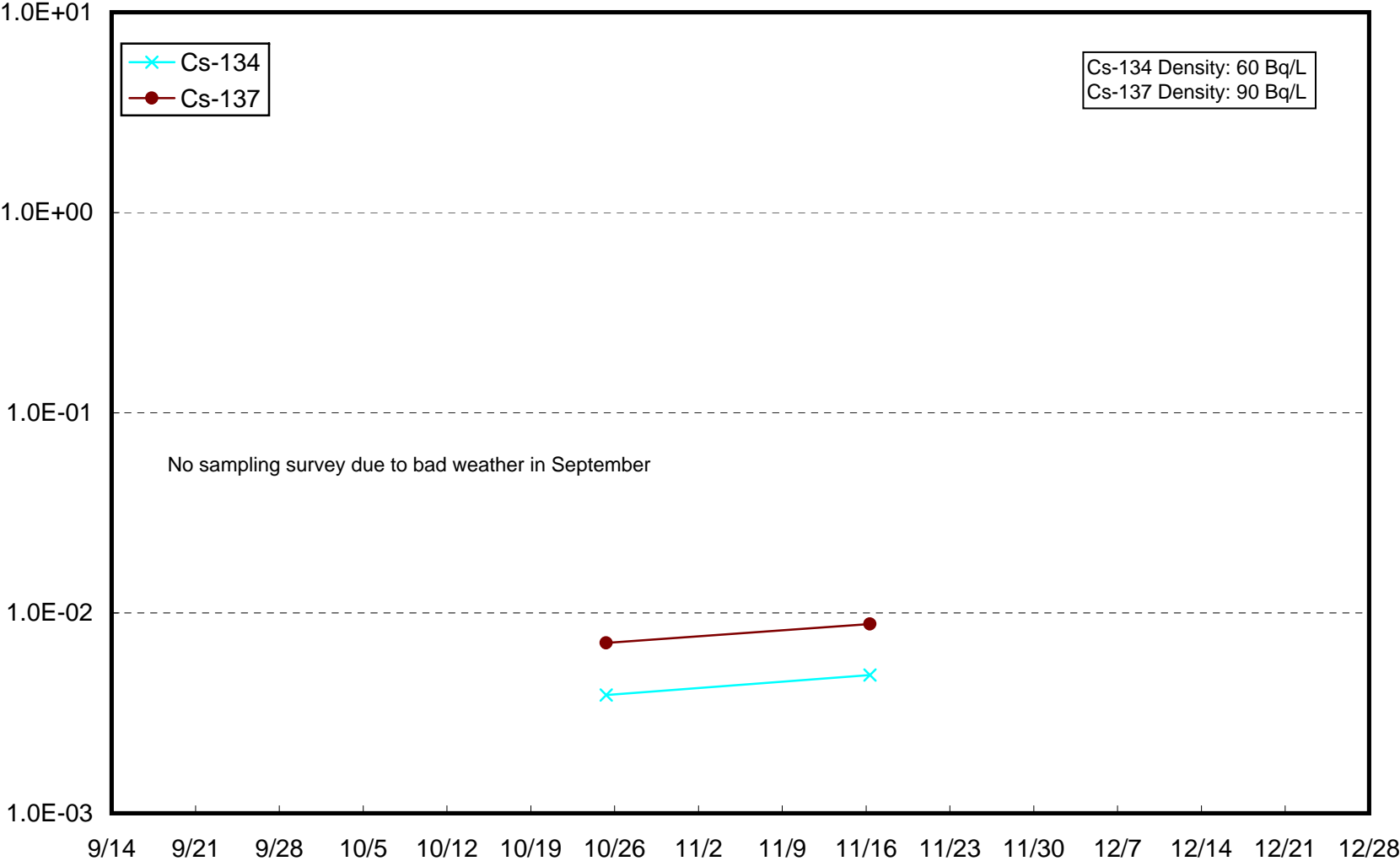
Radioactivity Density of the Seawater Around 4km Offshore of Kumagawa (T-S8) Upper Layer (Bq/L)



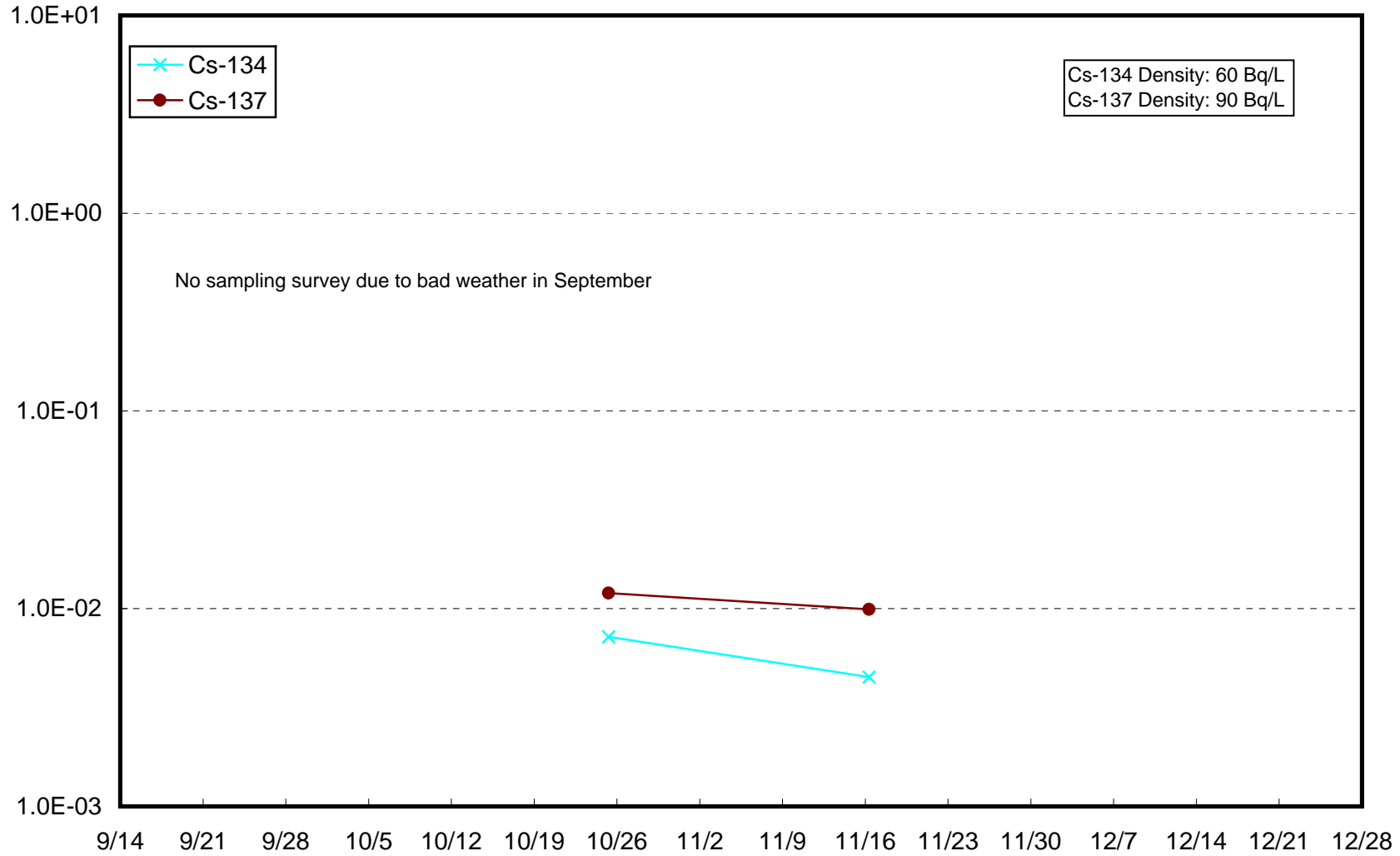
Radioactivity Density of the Seawater Around 4km Offshore of Kumagawa (T-S8) Lower Layer (Bq/L)



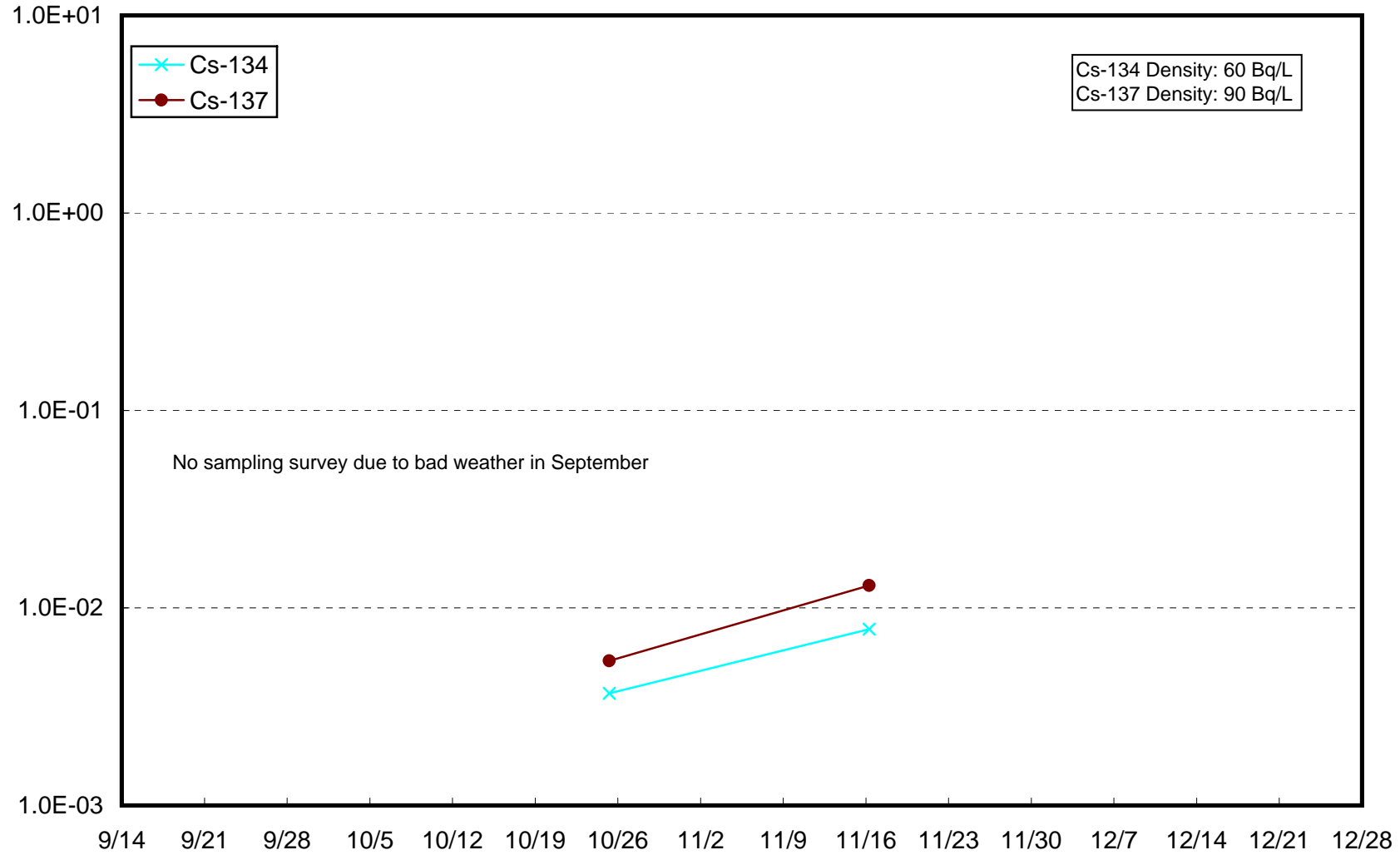
Radioactivity Density of the Seawater at 15km Offshore of Odaka Ward (T-B1) Upper Layer (Bq/L)



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)

