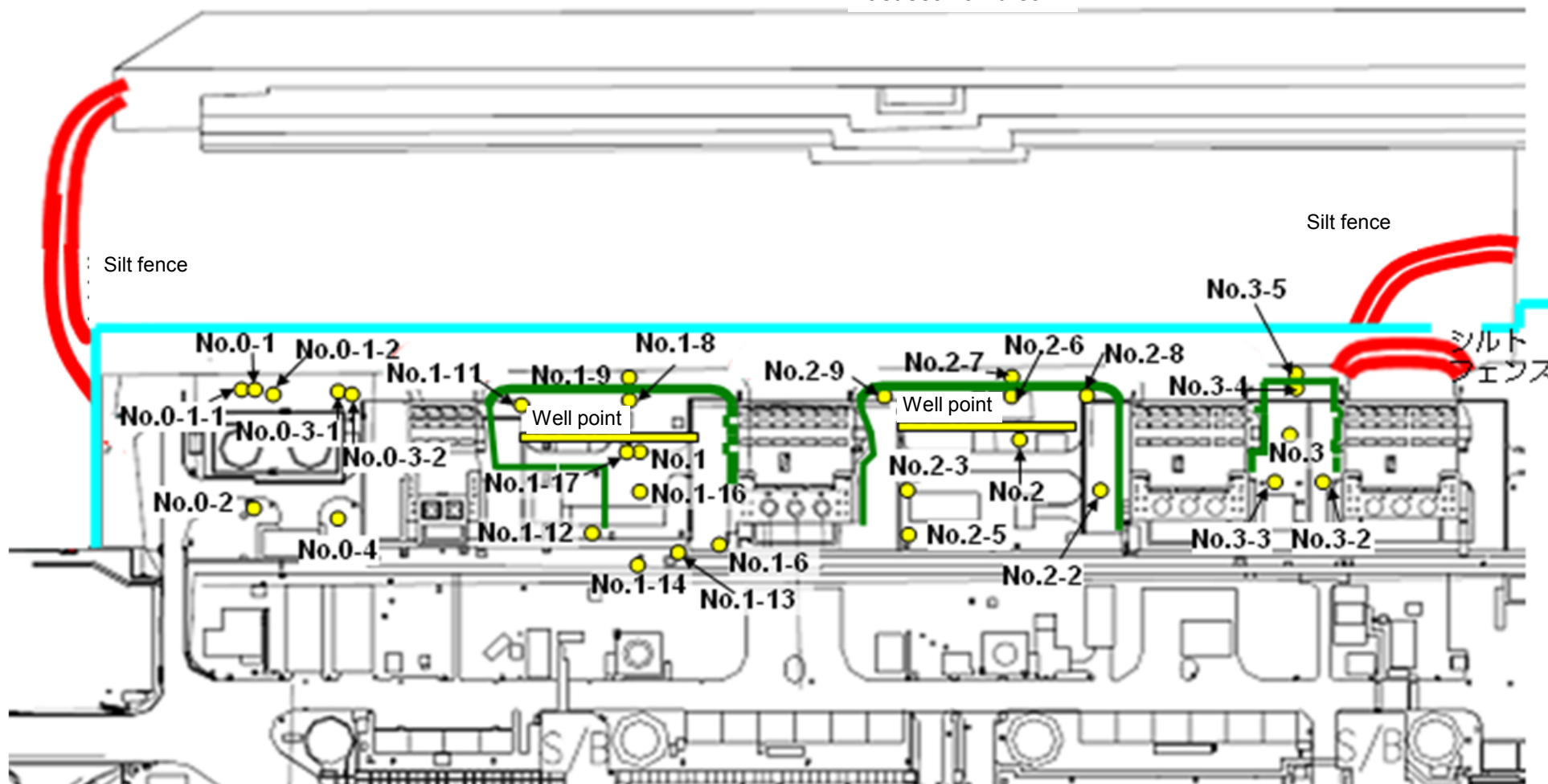


Detailed Analysis Results in the Port of Fukushima Daiichi NPS, around Discharge Channel and Bank Protection (Sampling Locations of Underground Water Obtained at Bank Protection)

● Sampling locations of underground water obtained at bank protection

East seawall break



— Seaside impermeable

— : Location where ground improvement construction was completed, or being implemented (as of April 18, 2014)

Detailed Analysis Results in the Port of Fukushima Daiichi NPS, around Discharge Channel and Bank Protection (1/3) Underground Water Obtained at Bank Protection

Unit: Bq/L (exclude chloride)

	Underground water observation hole No.0-1	Underground water observation hole No.0-1-2	Underground water observation hole No.0-2	Underground water observation hole No.0-3-1	Underground water observation hole No.0-3-2	Underground water observation hole No.0-4	Underground water observation hole No.1	Underground water observation hole No.1-6	Underground water observation hole No.1-8	Underground water observation hole No.1-9	Underground water observation hole No.1-11	Underground water observation hole No.1-12	Underground water observation hole No.1-14	Underground water observation hole No.1-16
Date of sampling					Apr 24, 2014		Apr 24, 2014	Apr 24, 2014			Apr 24, 2014	Apr 24, 2014	Apr 24, 2014	Apr 24, 2014
Time of sampling					9:30 AM		10:59 AM	10:50 AM			10:41 AM	9:45 AM	9:58 AM	10:11 AM
Chloride (unit: ppm)					-		-	-			-	-	-	-
Cs-134 (Approx. 2 years)					ND(0.40)		0.45	5,300			0.73	4.9	8.4	ND(2.3)
Cs-137 (Approx.30 years)					0.59		0.79	14,000			1.8	11	22	ND(1.1)
The other γ	Mn-54 (Approx. 310 days)				0.35		ND	120			ND	ND	ND	ND
	Co-60 (Approx. 5 years)				ND		ND	440			ND	ND	ND	0.89
	Sb-125 (Approx. 3 years)				ND		ND	ND			ND	ND	ND	14.0
Gross β					ND(18)		160	590,000			35	350	2,000	880,000
H-3 (Approx. 12 years)					32,000		150,000	11,000			9,600	42,000	12,000	6,100
Sr-90 (Approx. 29 years)					-		-	-			-	-	-	-

	Underground water observation hole No.1-17	Groundwater pumped up from the well point (between Unit 1 and 2)	Underground water observation hole No.2	Underground water observation hole No.2-2	Underground water observation hole No.2-3	Underground water observation hole No.2-5	Underground water observation hole No.2-6	Underground water observation hole No.2-7	Underground water observation hole No.2-8	Groundwater pumped up from the well point (between Unit 2 and 3)	Underground water observation hole No.3	Underground water observation hole No.3-2	Underground water observation hole No.3-4	Underground water observation hole No.3-5
Date of sampling	Apr 24, 2014													
Time of sampling	10:26 AM													
Chloride (unit: ppm)	-													
Cs-134 (Approx. 2 years)	ND(0.50)													
Cs-137 (Approx.30 years)	1.1													
The other γ	Mn-54 (Approx. 310 days)	ND												
	Co-60 (Approx. 5 years)	ND												
	Sb-125 (Approx. 3 years)	1.3												
Gross β	6,200													
H-3 (Approx. 12 years)	15,000													
Sr-90 (Approx. 29 years)	-													

* Data announced this time is provided in a thick-frame. The other data was announced on April 25.

* "ND" indicates that the measurement result is below the detection limit, and the detection limit of each nuclide is provided in parentheses.

* "-" indicates that the measurement was out of range.

Detailed Analysis Results in the Port of Fukushima Daiichi NPS, around Discharge Channel and Bank Protection (2/3) Underground Water Obtained at Bank Protection

Unit: Bq/L (exclude chloride)

	Underground water observation hole No.0-1	Underground water observation hole No.0-1-2	Underground water observation hole No.0-2	Underground water observation hole No.0-3-1	Underground water observation hole No.0-3-2	Underground water observation hole No.0-4	Underground water observation hole No.1	Underground water observation hole No.1-6	Underground water observation hole No.1-8	Underground water observation hole No.1-9	Underground water observation hole No.1-11	Underground water observation hole No.1-12	Underground water observation hole No.1-14	Underground water observation hole No.1-16	Underground water observation hole No.1-17
Date of sampling					Apr 28, 2014		Apr 28, 2014	Apr 28, 2014	Apr 28, 2014		Apr 28, 2014	Apr 28, 2014	Apr 28, 2014	Apr 28, 2014	Apr 28, 2014
Time of sampling					9:30 AM		10:07 AM	10:30 AM	10:50 AM		9:42 AM	9:15 AM	9:30 AM	9:45 AM	9:22 AM
Chloride (unit: ppm)					-		-	-	-		-	-	-	-	-
Cs-134 (Approx. 2 years)					0.58		ND(0.44)	5,600	12		0.77	4.2	11	ND(1.6)	0.92
Cs-137 (Approx.30 years)					1.6		0.88	15,000	33		3.4 ^{*1}	12	30	2.1	2.8 ^{*1}
The other y	Mn-54 (Approx. 310 days)				ND		ND	140	4.0		ND	ND	ND	ND	ND
	Co-60 (Approx. 5 years)				ND		ND	530	ND		ND	ND	ND	0.47	0.48
	Sb-125 (Approx. 3 years)				ND		ND	ND	ND		ND	ND	ND	12	1.2
Gross β					ND(19)		170	640,000	29,000		24	160	2,300 ^{*1}	860,000	8,700 ^{*1}
H-3 (Approx. 12 years)					Under analysis		Under analysis	Under analysis	Under analysis		Under analysis	Under analysis	Under analysis	Under analysis	Under analysis
Sr-90 (Approx. 29 years)					-		-	-	-		-	-	-	-	-

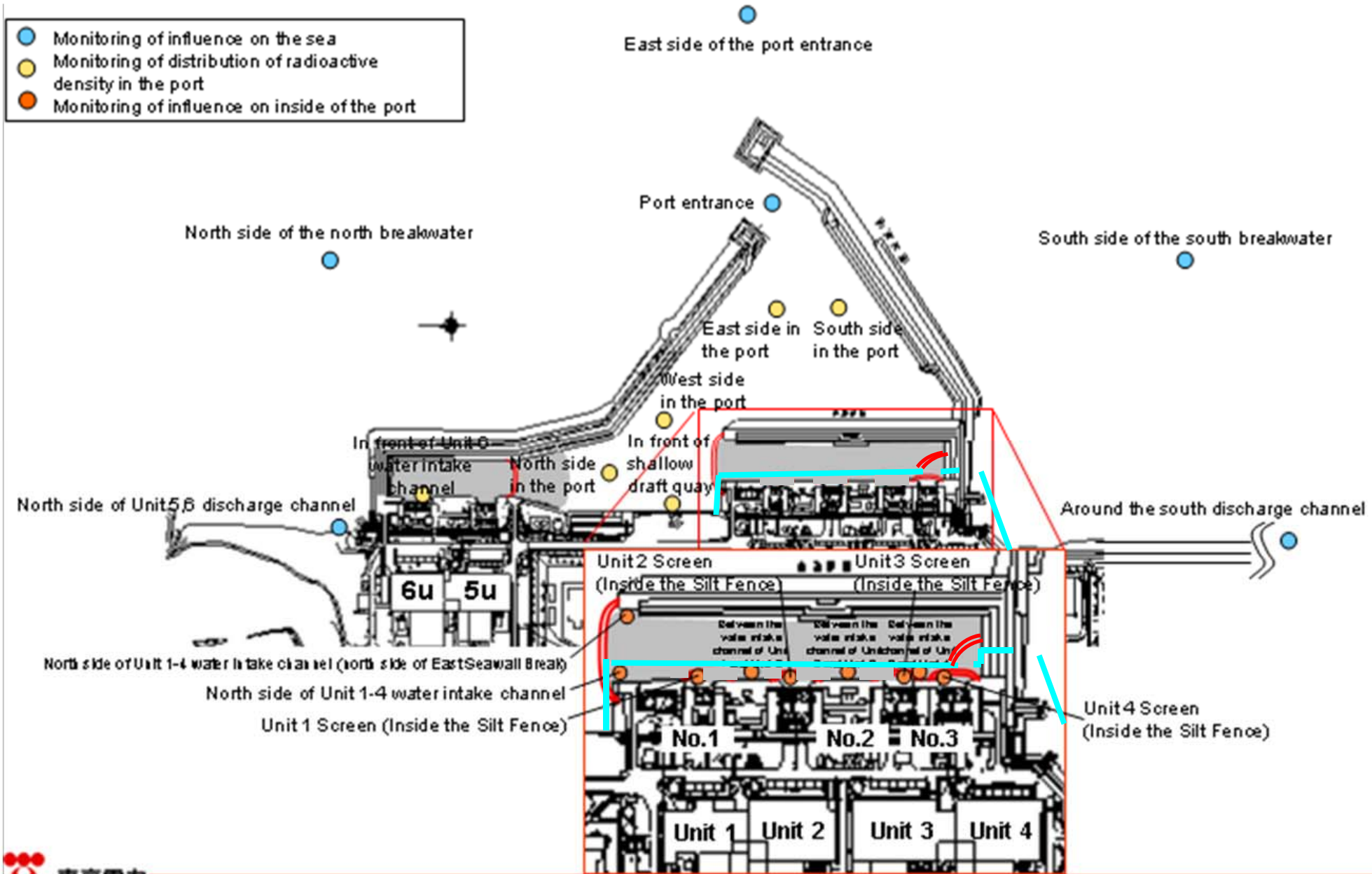
	Groundwater pumped up from the well point (between Unit 1 and 2)	Underground water observation hole No.2	Underground water observation hole No.2-2*	Underground water observation hole No.2-3	Underground water observation hole No.2-5	Underground water observation hole No.2-6	Underground water observation hole No.2-7	Underground water observation hole No.2-8	Groundwater pumped up from the well point (between Unit 2 and 3)	Underground water observation hole No.3	Underground water observation hole No.3-2	Underground water observation hole No.3-3	Underground water observation hole No.3-4	Underground water observation hole No.3-5
Date of sampling	Apr 28, 2014													
Time of sampling	10:00 AM													
Chloride (unit: ppm)	-													
Cs-134 (Approx. 2 years)	7.9													
Cs-137 (Approx.30 years)	23													
The other y	Mn-54 (Approx. 310 days)	8.5 ^{*1}												
	Co-60 (Approx. 5 years)	ND												
	Sb-125 (Approx. 3 years)	ND												
Gross β	460,000													
H-3 (Approx. 12 years)	Under analysis													
Sr-90 (Approx. 29 years)	-													

* "ND" indicates that the measurement result is below the detection limit, and the detection limit of each nuclide is provided in parentheses.

* "-" indicates that the measurement was out of range.

*1 The highest measurement value (compared to the previous values provided in the handouts published in 'Detailed Analysis Results in the Port of Fukushima Daiichi NPS, around Discharge Channel and Bank Protection')

Detailed Analysis Results in the Port of Fukushima Daiichi NPS, around Discharge Channel and Bank Protection (Sampling Locations of Seawater)



**Detailed Analysis Results in the Port of Fukushima Daiichi NPS, around Discharge Channel and Bank Protection (3/3)
Seawater**

Unit: Bq/L

	1F, North side of Unit 5,6 discharge channel	1F, In front of Unit 6 water intake channel	1F, In front of shallow draft quay	1F, In front of Unit 1 discharge channel (in front of impermeable wall)	1F, North side of Unit 1-4 water intake channel (north side of East Seawall Break)	1F, Between the water intake channel of Unit 1 and Unit 2 (surface layer)	1F, Between the water intake channel of Unit 1 and Unit 2 (lower layer)	1F, Between the water intake channel of Unit 2 and Unit 3	1F, Unit 3 Screen	1F, Between the water intake channel of Unit 3 and Unit 4	1F, Unit 4 Screen (Inside the Silt Fence)	1F, South side of Unit 1-4 water intake channel (In front of impermeable wall)	Density Limit Specified by the Reactor Regulation *	WHO Guidelines for drinking-water quality
Date of Sampling	Apr 28, 2014	Apr 28, 2014	Apr 28, 2014	Apr 28, 2014	Apr 28, 2014	/	/	Apr 28, 2014	Apr 28, 2014	Apr 28, 2014	Apr 28, 2014	Apr 28, 2014		
Time of sampling	6:10 AM	6:10 AM	6:03 AM	6:31 AM	6:07 AM	/	/	6:12 AM	6:15 AM	6:21 AM	6:19 AM	6:24 AM		
Cs-134(Approx. 2 years)	ND(0.74)	ND(2.6)	ND(1.9)	4.4	4.8	/	/	20	21	27	15	12	60	10
Cs-137(Approx.30 years)	ND(0.56)	1.9	ND(1.8)	14	13	/	/	52	49	93 ^{*1}	37	39 ^{*1}	90	10
Gross β	13	ND(18)	28	92	71	/	/	270	270	260	150	130		
H-3 (Approx. 12 years)	Under analysis	Under analysis	Under analysis	Under analysis	Under analysis	/	/	Under analysis	Under analysis	Under analysis	Under analysis	Under analysis	60,000	10,000
Sr-90 (Approx. 29 years)	-	-	-	-	-	/	/	-	-	-	-	-	30	10

Unit: Bq/L

	1F, Around the south discharge channel	1F, Port entrance	1F, East side in the port	1F, West side in the port	1F, North side in the port	1F, South side in the port	North side of the north breakwater	Northeast side of the port entrance	East side of the port entrance	Southeast side of the port entrance	South side of the south breakwater	Density Limit Specified by the Reactor Regulation *	WHO Guidelines for drinking-water quality
Date of Sampling	Apr 28, 2014	/	/	/	/	/	/	/	/	/	/		
Time of sampling	5:20 AM	/	/	/	/	/	/	/	/	/	/		
Cs-134(Approx. 2 years)	ND(0.57)	/	/	/	/	/	/	/	/	/	/	60	10
Cs-137(Approx.30 years)	ND(0.62)	/	/	/	/	/	/	/	/	/	/	90	10
Gross β	11	/	/	/	/	/	/	/	/	/	/		
H-3 (Approx. 12 years)	Under analysis	/	/	/	/	/	/	/	/	/	/	60,000	10,000
Sr-90 (Approx. 29 years)	-	/	/	/	/	/	/	/	/	/	/	30	10

*1 The highest measurement value (compared to the previous values provided in the handouts published in 'Detailed Analysis Results in the Port of Fukushima Daiichi NPS, around Discharge Channel and Bank Protection')

* "ND" indicates that the measurement result is below the detection limit, and the detection limit of each nuclide is provided in parentheses.

* "-" indicates that the measurement was out of range.

* Density Limit Specified by the Rule for the Installation, Operation, etc. of Commercial Nuclear Power Reactors (the density limit in the water outside the surrounding monitored areas is provided in section 6 of Appendix 2 [the amount is converted from Bq/cm³ to

<Reference> The Highest Dose Until the Previous Measurement (Groundwater Obtained at Bank Protection)

Unit: Bq/L

	Groundwater observation hole No.0-1	Groundwater observation hole No.0-1-1	Groundwater observation hole No.0-1-2	Groundwater observation hole No.0-2	Groundwater observation hole No.0-3-1	Groundwater observation hole No.0-3-2	Groundwater observation hole No.0-4	Groundwater observation hole No.1	Groundwater observation hole No.1-1*	Groundwater observation hole No.1-2*	Groundwater observation hole No.1-3*	Groundwater observation hole No.1-4*	Groundwater observation hole No.1-5*	Groundwater observation hole No.1-6
Cs-134 (Approx. 2 years)	21 <4/27>	0.61 <3/2>	ND	0.61 [10/13]	0.64 <4/6>	0.82 <1/14>	ND	13 [8/29]	1.9 [7/8]	11,000 [7/9]	10 [9/2]	1.5 [7/8]	310 [8/5]	6,300 <3/31>
Cs-137 (Approx.30 years)	55 <4/27>	1.5 <3/2>	0.51 [11/17]	2.2 <1/12>	1.1 <4/6>	2.1 <1/14>	1.4 <1/12>	31 [8/29]	3.6 [7/8]	22,000 [7/9]	24 [9/2]	3.6 [7/8]	650 [8/5]	16,000 <3/31>
The other γ	Ru-106 (Approx. 370 days)	ND	ND	ND	ND	ND	ND	26 [5/24]	7.9 [7/8]	160 [8/15]	17 [7/22] [8/8]	3.1 [8/8]	ND	ND
	Mn-54 (Approx. 310 days)	ND	ND	ND	ND	ND	0.64 <2/20>	ND	ND	1.0 [7/5]	62 [7/5]	ND	ND	320 <2/13> <2/17>
	Co-60 (Approx. 5 years)	ND	ND	ND	ND	ND	ND	0.50 [7/19]	ND	3.1 [7/8]	ND	ND	ND	830 <2/20>
	Sb-125 (Approx. 3 years)	ND	ND	ND	ND	ND	ND	ND	1.7 [7/11]	ND	250 [7/15]	1.4 [7/12] [8/26]	ND	12 [8/8]
Gross β	300 [8/22]	21 [12/7]	21 [11/10]	87 [10/13]	ND	67 ^{*1} [12/11]	29 [12/29]	1,900 [5/24]	4,400 [7/8]	900,000 [7/5] [7/9]	160,000 [8/12] [8/15]	380 [8/19]	56,000 [8/5]	770,000 <3/27>
H-3 (Approx. 12 years)	45,000 [8/29]	18,000 [12/7]	74,000 [12/15] <1/19>	6,800 <2/16>	ND	76,000 <2/6>	56,000 <2/23>	500,000 [5/24] [6/7]	630,000 [7/8]	430,000 [9/16]	290,000 [7/12]	98,000 [7/11]	72,000 [8/15]	110,000 <2/6>
Sr-90(Approx. 29 years)	140 [8/8]	Under analysis	Under analysis	0.73 [9/2]	Under analysis	Under analysis	Under analysis	1,300 [8/22]	2,300 [6/28]	5,000,000 [7/5]	130,000 [8/8]	200 [7/8]	5,100 [8/22]	-

Unit: Bq/L

	Groundwater observation hole No.1-8	Groundwater observation hole No.1-9	Groundwater observation hole No.1-10	Groundwater observation hole No.1-11	Groundwater observation hole No.1-12	Groundwater observation hole No.1-13	Groundwater observation hole No.1-14	Groundwater observation hole No.1-16	Groundwater observation hole No.1-17	Groundwater pumped up from the well point (between Unit 1 and 2)	Groundwater observation hole No.2	Groundwater observation hole No.2-1*	Groundwater observation hole No.2-2	Groundwater observation hole No.2-3
Cs-134 (Approx. 2 years)	47 [11/25]	170 [9/3]	-	1.1 <1/13>	74 [10/21]	37,000 <2/13>	88 ^{*2} <2/27>	3.1 ^{*1} [12/13]	1.2 [12/5]	110 [9/23]	0.88 <2/26>	0.66 [9/1]	15 <2/12>	2.2 <2/26>
Cs-137 (Approx.30 years)	110 [11/25]	380 [9/3]	-	2.8 <1/13>	170 [10/21]	93,000 <2/13>	230 ^{*2} <2/27>	4.7 <2/17>	1.5 <3/10>	250 [9/23]	2.5 <2/26>	1.1 [8/29] [9/1]	38 <2/12>	5.5 <2/26>
The other γ	Ru-106 (Approx. 370 days)	ND	ND	-	ND	5.4 [10/28]	ND	ND	9.2 [10/28]	5.5 <4/21>	25 [9/2]	ND	ND	ND
	Mn-54 (Approx. 310 days)	12 <2/3>	ND	-	ND	ND	ND	ND	ND	5.9 <3/3>	ND	ND	ND	0.29 [12/6]
	Co-60 (Approx. 5 years)	1.3 <2/3>	ND	-	ND	0.51 [10/24]	ND	ND	0.9 [11/7]	0.61 [11/25]	ND	ND	ND	ND
	Sb-125 (Approx. 3 years)	ND	ND	-	ND	61 [10/21]	ND	ND	14 <4/24>	2.1 [11/25]	ND	ND	ND	ND
Gross β	59,000 <2/3>	2,100 ^{*2} [11/17]	78 ^{*2} <1/27>	2,300 [12/26]	730 [10/21]	260,000 <2/12> <2/13>	2,000 <4/24>	3,100,000 <1/30> <2/3>	6,700 <4/21>	700,000 [9/23]	1,700 [7/8]	380 [7/29]	600 <4/16>	1,500 [12/6]
H-3 (Approx. 12 years)	17,000 <4/21>	860 ^{*2} [11/14]	270,000 ^{*2} <1/27>	85,000 [9/13]	440,000 [10/31]	88,000 <2/12>	23,000 <2/13>	43,000 [9/26]	32,000 <1/20>	460,000 [8/19]	1,000 <2/23>	440 [8/26]	660 <1/8>	1,700 [12/6]
Sr-90(Approx. 29 years)	1,300 [9/16]	170 [9/3]	-	17 [9/13]	Under analysis	Under analysis	Under analysis	Under analysis	Under analysis	-	54 [5/31]	5.9 [7/25]	Under analysis	Under analysis

Unit: Bq/L

	Groundwater observation hole No.2-5	Groundwater observation hole No.2-6	Groundwater observation hole No.2-7	Groundwater observation hole No.2-8	Groundwater observation hole No.2-9	Groundwater pumped up from the well point (between Unit 2 and 3)	Groundwater observation hole No.3	Groundwater observation hole No.3-1*	Groundwater observation hole No.3-2	Groundwater observation hole No.3-3	Groundwater observation hole No.3-4	Groundwater observation hole No.3-5
Cs-134 (Approx. 2 years)	25 <2/12>	17 <3/11>	3.5 <2/23>	0.47 <4/9>	-	2.0 <4/23>	3.5 [7/25]	1.2 [7/25] [8/8]	4.7 <4/23>	-	2.7 <4/16>	64 <1/15>
Cs-137 (Approx.30 years)	62 <2/12>	50 <3/11>	9.0 <2/23>	1.3 <4/9>	0.58 ^{*2} <2/11>	4.7 <4/23>	5.9 [8/8]	2.6 [8/1]	12 <4/23>	-	7 <4/16>	170 <1/15>
The other γ	Ru-106 (Approx. 370 days)	ND	ND	ND	ND	6.5 ^{*2} <2/11>	ND	ND	ND	-	ND	-
	Mn-54 (Approx. 310 days)	0.94 <1/8>	ND	ND	ND	-	ND	ND	ND	-	0.54 [10/30]	-
	Co-60 (Approx. 5 years)	ND	ND	ND	ND	-	ND	ND	ND	-	ND	-
	Sb-125 (Approx. 3 years)	30 <2/12> <4/9>	ND	ND	ND	-	ND	1.6 <1/1>	ND	ND	-	ND
Gross β	150,000 <2/12>	3,200 [12/5]	940 <4/23>	4,200 <4/9> <4/27>	1,700 ^{*2} <2/7>	240,000 [12/12]	1,400 [7/11]	180 [8/1]	2,300 <4/23>	3,500 ^{*2} <4/25>	19 <4/16>	300 <4/2>
H-3 (Approx. 12 years)	7,900 <4/9>	1,200 [11/24] [11/27]	1,100 <1/17>	1,700 <4/6>	13,000 <2/7>	5,100 [12/6] <4/23>	3,200 [2012/12] [12]	460 [8/1]	2,700 <4/23>	2,400 <4/25>	170 [9/18]	170 <1/8>
Sr-90(Approx. 29 years)	Under analysis	Under analysis	Under analysis	-	-	-	8.3 [2012/12] [12]	4.4 [7/23]	Under analysis	-	ND	-

● Since some samples are still under analysis, the highest dose of the Strontium-90 is among those previously announced.

*1 Analysis result of pumped water.

*2 The results are for a reference, since the water was highly turbid. (γ and Gross β were measured after filtration.)

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

* Date of sampling is provided in parentheses. () : 2013, < > : 2014

* "" is provided next to the name of the holes where the sampling could not be performed due to the chemical injection of ground improvement.

<Reference> The Highest Dose Until the Previous Measurement* (Seawater)

Unit: Bq/L

	1F, North side of Unit 5,6 discharge channel	1F, In front of Unit 6 water intake channel	1F, In front of shallow draft quay	1F, North side of Unit 1-4 water intake channel (north side of East Seawall Break)	1F, Between the water intake channel of Unit 1 and Unit 2 (surface layer)	1F, Between the water intake channel of Unit 1 and Unit 2 (lower layer)	1F, Unit 2 Screen (Inside the Silt Fence)	1F, Between the water intake channel of Unit 2 and Unit 3	1F, Unit 3 Screen (Inside the Silt Fence)	1F, Between the water intake channel of Unit 3 and Unit 4	1F, Unit 4 Screen (Inside the Silt Fence)	1F, South side of Unit 1-4 water intake channel (In front of impermeable wall)
Cs-134(Approx. 2 years)	1.8 [6/21]	2.8 [12/2]	5.3 [8/5]	32 [10/11]	87 [10/10]	93 [10/10]	370 [10/9]	52 [12/21]	350 [7/15]	28 [9/16]	62 [9/16]	15 <4/14>
Cs-137(Approx.30 years)	4.5 <3/17>	5.8 [12/2]	8.6 [8/5]	73 [10/11]	200 [10/10]	200 [10/10]	830 [10/9]	110 [10/11] [12/21]	770 [7/15]	53 [12/16]	140 [9/16]	35 <3/31>
Gross β	17 <1/6>	46 [8/19]	40 [7/3]	320 [8/12]	1,200 [12/8]	450 [7/16] <4/8>	1,700 [10/9]	490 <4/14>	1,000 [7/15]	450 <4/14>	360 [10/7]	380 <3/10>
H-3 (Approx. 12 years)	8.6 [6/26]	24 [8/19]	340 [6/26]	510 [9/2]	2,800 [12/8]	1,600 [9/1]	2,100 [10/28]	1,400 <4/14>	1,200 <4/14>	1,200 <4/14>	770 <4/14>	540 <4/14>
Sr-90 (Approx. 29 years)	4.7 [6/26]	—	7.2 [6/26]	220 [8/19]	480 [8/22]	290 [10/20]	430 [10/14]	340 [10/14]	130 [6/21]	190 [9/23]	140 [6/21]	—

Unit: Bq/L

	1F, Around the south discharge channel	1F, Port entrance	1F, East side in the port	1F, West side in the port	1F, North side in the port	1F, South side in the port	North side of the north breakwater	Northeast side of the port entrance	East side of the south breakwater	Southeast side of the north breakwater	South side of the south breakwater
Cs-134(Approx. 2 years)	ND	3.3 [12/24]	3.3 [10/17]	4.4 [12/24]	5.0 [12/2]	3.5 [10/17]	ND	ND	ND	ND	ND
Cs-137(Approx.30 years)	3.0 [7/15]	7.3 [10/11]	9.0 [10/17]	10 [12/24]	8.4 [12/2]	7.8 [10/17]	ND	ND	1.6 [10/18]	ND	ND
Gross β	15 <1/13>	69 [8/19]	74 [8/19]	60 [7/4]	69 [8/19]	79 [8/19]	ND	ND	ND	ND	ND
H-3 (Approx. 12 years)	1.9 [11/25]	68 [8/19]	67 [8/19]	59 [8/19]	52 [8/19]	60 [8/19]	4.7 [8/14]	ND	6.4 [10/8]	ND	ND
Sr-90 (Approx. 29 years)	0.29 [6/26]	49 [8/19]	—	—	—	—	—	—	—	—	—

* The highest result announced in "Detailed Analysis Results in the Port of Fukushima Daiichi NPS, around Discharge Channel and Bank Protection" or the other handouts is provided.

As for "1F, North side of Unit 1-4 water intake channel", the data is obtained since January 14, 2013. For the other locations, the data is obtained since June 14.

● Since some samples are still under analysis, the highest dose of the Strontium-90 is among those previously announced.

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

* Date of sampling is provided in parentheses. (): 2013, < >: 2014

* "-" indicates that the measurement was out of range.

[Reference] Standard values

Unit: Bq/L

	Cs-134	Cs-137	H-3	Sr-90
Density Limit Specified by the Rule for the Installation, Operation, etc. of Commercial Nuclear Power Reactors (the density limit in the water outside the surrounding monitored areas is provided in section 6 of Appendix 2)	60	90	60,000	30
WHO Guidelines for drinking-water quality	10	10	10,000	10