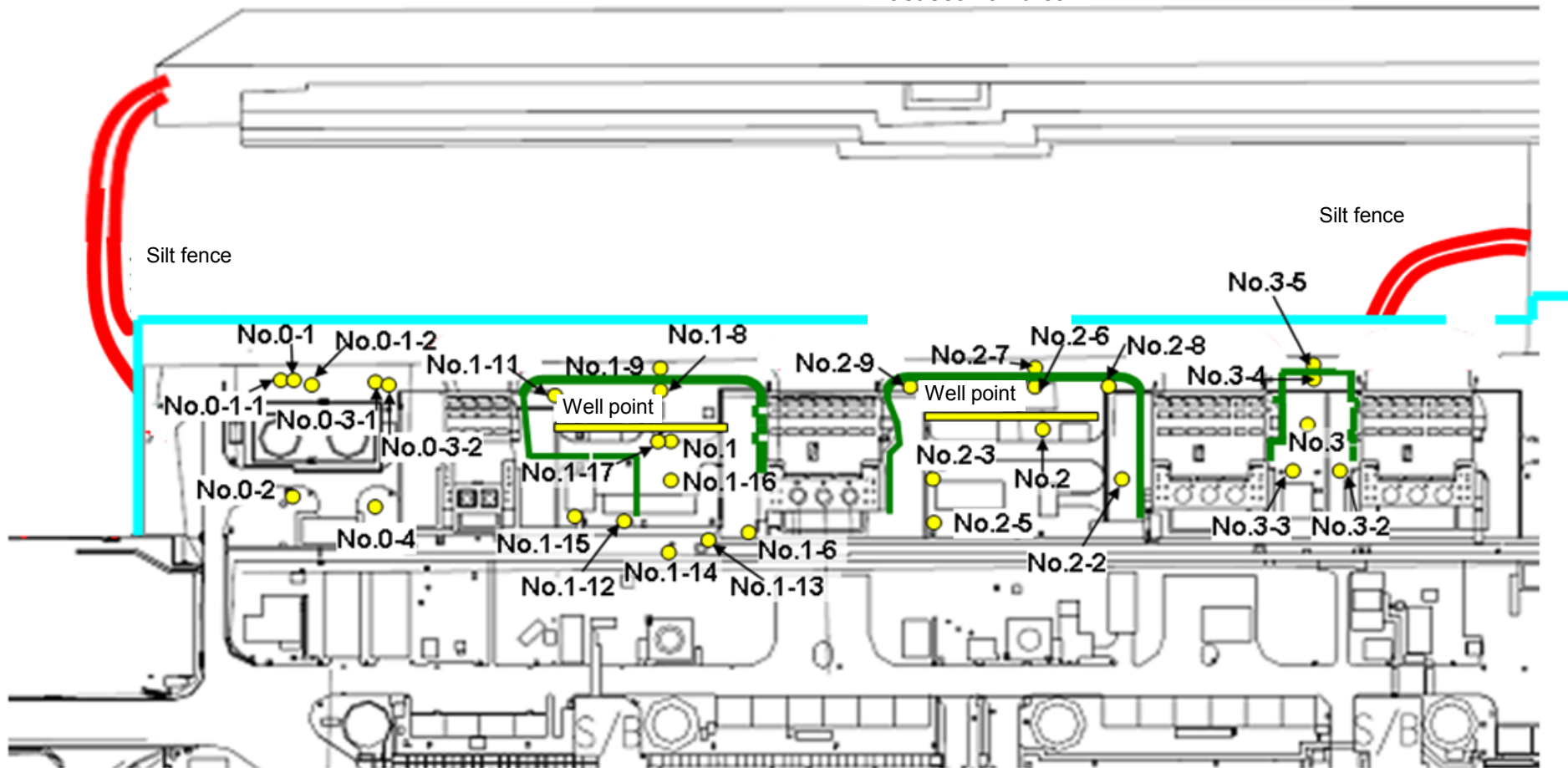


Detailed Analysis Results in the Port of Fukushima Daiichi NPS, around Discharge Channel and Bank Protection (Sampling Locations of Underground Water Obtained at Bank Protection)

● 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 (note)	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										Oct 23					
Time of sampling										7:35 AM					
Chloride (unit: ppm)										28					
Cs-134 (Approx. 2 years)										—					
Cs-137 (Approx.30 years)										—					
The other y	Sb-125 (Approx. 3 years)									—					
Gross β										ND(21)					
H-3 (Approx. 12 years)										ND(110)					
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 (note)	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(note)
Date of sampling		Oct 22	Oct 22	Oct 22		Oct 23	Oct 24	Oct 22	Oct 22	Oct 22	Oct 22	Oct 22	Oct 22	Oct 22
Time of sampling		9:03 AM	10:30 AM	9:20 AM		8:50 AM	10:02 AM	10:07 AM	10:20 AM	9:47 AM	10:39 AM	11:14 AM	10:06 AM	10:00 AM
Chloride (unit: ppm)		—	—	—		—	700	—	—	—	—	—	—	770
Cs-134 (Approx. 2 years)		ND(0.43)	4.9	ND(0.44)		ND(0.43)	ND(0.43)	0.68	ND(0.58)	1.1	16	83	3.7	—
Cs-137 (Approx.30 years)		ND(0.54)	15	ND(0.56)		1.2	1.4	1.9	0.74	3.1	48	270	12	—
The other y	Sb-125 (Approx. 3 years)	ND	ND	ND		ND	ND	ND	ND	1.5	ND	ND	ND	—
Gross β		200	400	700		1,900	540	4,800	110,000	ND(17)	2,700	6,400	18	46
H-3 (Approx. 12 years)		640	360	900		850	620	1,300	13,000	ND(110)	2,700	3,700	ND(110)	ND(110)
Sr-90 (Approx. 29 years)		—	—	—		—	—	—	—	—	—	—	—	—

* Data announced this time is provided in a thick-frame. The other data was announced on October 23, 24 and 25, 2014.

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

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

(Note) As of No. 1-9, 2-5, and 3-5, ywas not measured because they are sampled by sampler. Gross βwere measured after filtration for references.

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(note)	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	Oct 26	Oct 26	Oct 26	Oct 26		Oct 26				Oct 26					
Time of sampling	10:49 AM	10:10 AM	9:31 AM	9:52 AM		8:59 AM				6:58 AM					
Chloride (unit: ppm)	—	—	—	—		—				25					
Cs-134 (Approx. 2 years)	17	ND(0.43)	ND(0.37)	ND(0.46)		ND(0.47)				—					
Cs-137 (Approx.30 years)	64	ND(0.64)	ND(0.60)	ND(0.62)		ND(0.58)				—					
The other γ															
Gross β	200	ND(18)	ND(18)	ND(18)		ND(18)			ND(18)						
H-3 (Approx. 12 years)	Under analysis	Under analysis	Under analysis	Under analysis		Under analysis				Under analysis					
Sr-90 (Approx. 29 years)	—	—	—	—		—				—					

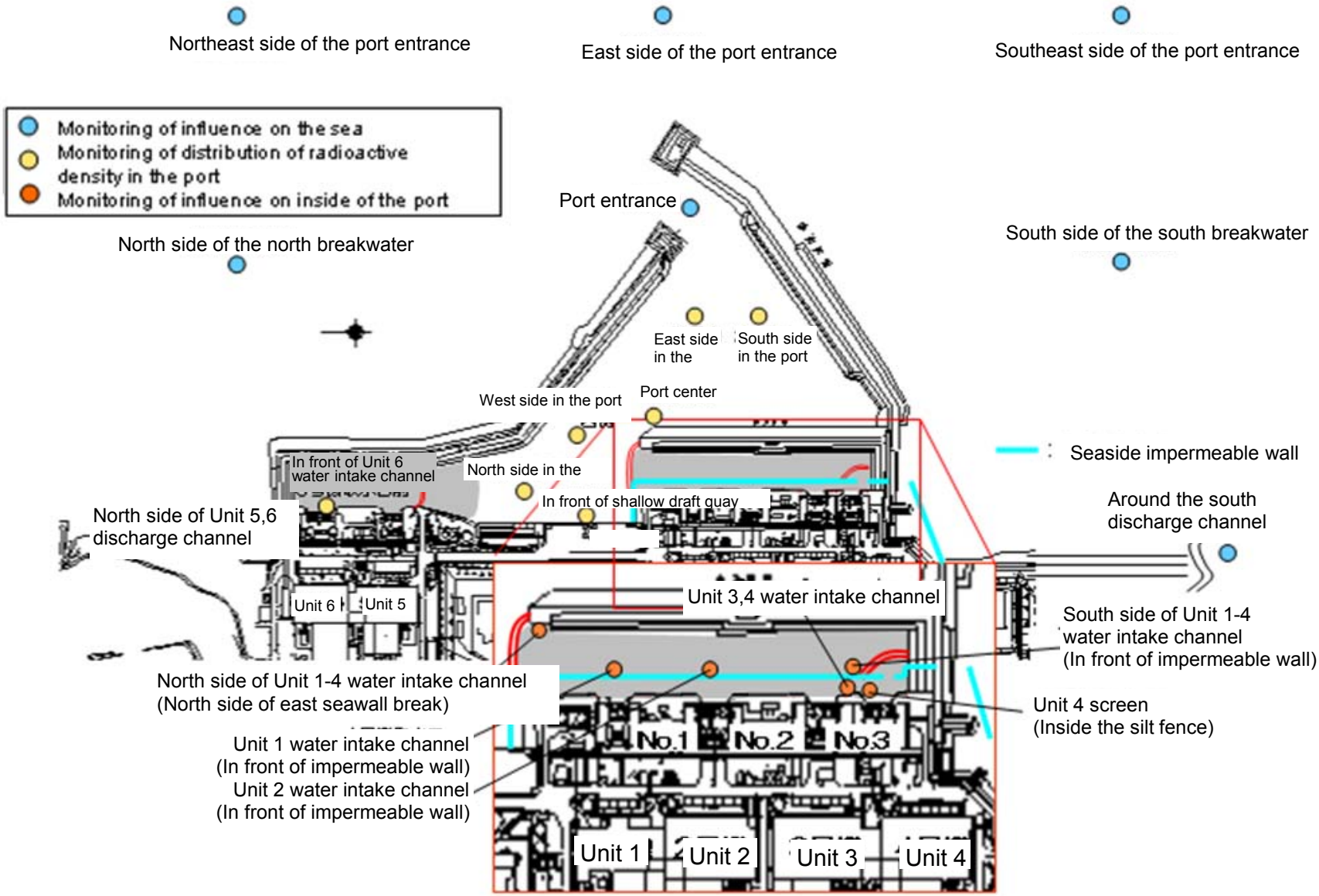
	Groundwater pumped up from the well point (between Unit 1 and 2)	Underground water observation hole No.2	Underground water observation hole No.2-2	Underground water observation hole No.2-3	Underground water observation hole No.2-5(note)	Underground water observation hole No.2-6	Underground water observation 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(note)
Date of sampling		Oct 26	Oct 26	Oct 26			Oct 26	Oct 26	Oct 26					
Time of sampling		9:05 AM	10:30 AM	9:35 AM			9:55 AM	10:10 AM	10:00 AM					
Chloride (unit: ppm)		—	—	—			600	—	—					
Cs-134 (Approx. 2 years)		ND(0.46)	5.9	ND(0.43)			ND(0.46)	ND(0.44)	ND(0.66)					
Cs-137 (Approx.30 years)		ND(0.59)	22	ND(0.61)			1.0	ND(0.58)	ND(0.80)					
The other γ														
Gross β		170	370	800			710	4,900	110,000					
H-3 (Approx. 12 years)		Under analysis	Under analysis	Under analysis			Under analysis	Under analysis	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, except "the other γ "

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

(Note) As of No. 1-9, 2-5, and 3-5, γ was not measured because they are sampled by sampler. Gross β were measured after filtration for references.

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, North side of Unit 1-4 water intake channel (north side of East Seawall Break)	1F, In front of Unit 1 intake channel (in front of impermeable wall)	1F, In front of Unit 2 intake channel (in front of impermeable wall)	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)	1F, Around the south discharge channel	1F, Port entrance	Density Limit Specified by the Reactor Regulation *	WHO Guidelines for drinking-water quality
Date of Sampling	/	/	/	/	/	/	/	/	/	/	/		
Time of sampling	/	/	/	/	/	/	/	/	/	/	/		
Cs-134(Approx. 2 years)	/	/	/	/	/	/	/	/	/	/	/	60	10
Cs-137(Approx.30 years)	/	/	/	/	/	/	/	/	/	/	/	90	10
Gross β	/	/	/	/	/	/	/	/	/	/	/		
H-3 (Approx. 12 years)	/	/	/	/	/	/	/	/	/	/	/	60,000	10,000
Sr-90 (Approx. 29 years)	/	/	/	/	/	/	/	/	/	/	/	30	10

Unit: Bq/L

	1F, East side in the port	1F, West side in the port	1F, North side in the port	1F, South side in the port	1F, Port center	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	/	/	/	/	/	Oct 24	Oct 24	Oct 24	Oct 24	Oct 24	/		
Time of sampling	/	/	/	/	/	9:19 AM	9:13 AM	9:06 AM	8:53 AM	8:58 AM	/		
Cs-134(Approx. 2 years)	/	/	/	/	/	ND(0.67)	ND(0.67)	ND(0.70)	ND(0.63)	ND(0.63)	/	60	10
Cs-137(Approx.30 years)	/	/	/	/	/	ND(0.63)	ND(0.71)	ND(0.64)	ND(0.69)	ND(0.64)	/	90	10
Gross β	/	/	/	/	/	ND(17)	ND(17)	ND(17)	ND(17)	ND(17)	/		
H-3 (Approx. 12 years)	/	/	/	/	/	Under analysis	Under analysis	Under analysis	Under analysis	Under analysis	/	60,000	10,000
Sr-90 (Approx. 29 years)	/	/	/	/	/	—	—	—	—	—	/	30	10

* "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 Bq/L]).

<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)	29 <5/25>	ND	0.61 <3/2>	0.61 [10/13]	0.64 <4/6>	1.3 <9/25>	0.70 <6/29>	13 [8/29]	1.9 [7/8]	11,000 [7/9]	10 [9/2]	1.5 [7/8]	310 [8/5]	67,000 <10/17>
Cs-137 (Approx.30 years)	78 <5/25>	ND	1.5 <3/2>	2.2 <1/12>	1.1 <4/6>	5.1 <9/25>	1.6 <6/29>	31 [8/29]	3.6 [7/8]	22,000 [7/9]	24 [9/2]	3.6 [7/8]	650 [8/5]	200,000 <10/16>
The other y	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	1.0 [7/5]	62 [7/5]	ND	ND	ND	700 <10/13>
	Co-60 (Approx. 5 years)	ND	ND	ND	ND	ND	ND	0.50 [7/19]	ND	3.1 [7/8]	ND	ND	ND	3600 <10/13>
	Sb-125 (Approx. 3 years)	ND	ND	ND	ND	ND	ND	1.7 [7/11]	ND	250 [7/15]	1.4 [7/12] [8/28]	ND	12 [8/8]	34 <5/19>
Gross β	300 [8/29] <5/18>	21 [12/7]	24 <6/22>	87 [10/13]	ND	74 <10/9>	44 <6/22>	1,900 [5/24]	4,400 [7/8]	9,300,000 [7/8]	160,000 [8/12] [8/15]	380 [8/19]	56,000 [8/5]	7,800,000 <10/13>
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} <2/6>
Sr-90(Approx. 29 years)	140 [8/8]	7.9 [12/7]	2.6 [11/10]	0.73 [9/2]	1.5 [11/20]	2.3 [12/6]	ND(0.83) [10/27]	1,300 [8/22]	2,300 [6/28]	5,000,000 [7/5]	130,000 [8/8]	200 [7/8]	5,100 [8/22]	1,100,000 <8/4>

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.1-15	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
Cs-134 (Approx. 2 years)	47 [11/25]	170 [9/3]	-	1.1 <1/13>	74 [10/21]	37,000 <2/13>	130 <10/18>	ND	30 <7/28>	1.4 <7/7>	110 [9/23]	0.88 <2/26>	0.66 [9/1]	15 <2/12>
Cs-137 (Approx.30 years)	110 [11/25]	380 [9/3]	-	3.4 <4/28>	170 [10/21]	93,000 <2/13>	390 <10/20>	0.88 <7/10>	86 <7/28>	3.0 <9/29>	250 [9/23]	2.5 <2/26>	1.1 [8/29] [9/1]	38 <2/12>
The other y	Ru-106 (Approx. 370 days)	ND	ND	-	ND	5.4 [10/28]	ND	ND	9.2 [10/28]	5.5 <4/21> <5/1>	25 [9/2]	ND	ND	ND
	Mn-54 (Approx. 310 days)	12 <2/3>	ND	-	ND	ND	2.1 <9/8>	ND	11 <8/25>	ND	8.5 <4/28>	ND	ND	ND
	Co-60 (Approx. 5 years)	1.3 <2/3>	ND	-	ND	0.51 [10/24]	ND	0.44 <5/29>	0.9 [11/7]	0.61 [11/25]	0.61 <6/9>	ND	ND	ND
	Sb-125 (Approx. 3 years)	ND	ND	-	ND	61 [10/21]	ND	ND	24 <6/16>	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]	1,100 <5/5>	260,000 <2/12> <2/13>	29,000 <10/3>	110 <7/10>	3,100,000 <1/20> <2/3>	1,200,000 <10/9>	1,900,000 [9/23]	1,700 [7/8]	380 [7/29]	600 <4/16>
H-3 (Approx. 12 years)	33,000 <6/2>	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>	74,000 <7/10>	43,000 [9/26]	160,000 <10/13> <10/16>	460,000 [8/19]	1,000 <2/23>	440 [8/26]	660 <1/8>
Sr-90(Approx. 29 years)	35,000 <2/17>	300 [10/3]	-	170 <8/4>	290 [10/21]	160,000 <2/12>	13,000 <8/4>	Under analysis	2,700,000 <2/13>	170,000 <8/4>	-	54 [5/31]	5.9 [7/25]	320 [12/25]

Unit: Bq/L

	Groundwater observation hole No.2-3	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)	2.2 <2/26>	41 <5/7>	17 <3/11>	3.5 <2/23>	1.3 <7/20>	ND	2.2 <9/7>	3.5 [7/25]	1.2 [7/25] [8/8]	23 <8/27>	180 <7/2>	5.1 <7/23>	100 <7/30>
Cs-137 (Approx.30 years)	5.5 <2/26>	110 <5/7>	50 <3/11>	9.0 <2/23>	3.4 <7/20>	0.58 ^{*2} <2/11>	5.7 <9/7>	5.9 [8/8]	2.6 [8/1]	68 <9/3>	500 <7/2>	16 <8/27>	310 <7/30>
The other y	Ru-106 (Approx. 370 days)	ND	ND	ND	ND	ND	6.5 ^{*2} <2/11>	ND	ND	ND	ND	ND	-
	Mn-54 (Approx. 310 days)	0.29 [12/6]	0.95 <6/4>	ND	ND	ND	ND	ND	ND	ND	ND	0.54 [10/30]	-
	Co-60 (Approx. 5 years)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-
	Sb-125 (Approx. 3 years)	ND	74 <5/7>	ND	ND	ND	ND	ND	1.6 <1/1>	ND	ND	ND	-
Gross β	1,500 [12/6] <1/8>	150,000 <2/12>	3,200 [12/5]	1,300 <6/20>	5,800 <7/23>	1,700 <2/7>	240,000 [12/12]	1,400 [7/11]	180 [8/1]	3,100 <8/20> <8/28>	8,900 <7/2>	46 <8/13>	510 <7/16>
H-3 (Approx. 12 years)	1,700 [12/6]	7,900 <4/9>	1,900 <8/10>	1,100 <1/19>	1,700 <4/6> <8/6> <8/13>	13,000 ^{*2} <2/7> <2/11>	13,000 <10/19>	3,200 [Dec.12, 2012.]	460 [8/1]	3,700 <7/9>	8,000 <5/7>	170 [9/18]	170 <1/8>
Sr-90(Approx. 29 years)	1,200 [12/6]	34,000 <5/7>	Under analysis	ND(1.4) [11/21]	3,900 <3/30>	1,200 ^{*2} <2/11>	-	8.3 [Dec.12, 2012.]	4.4 [7/23]	2000 <4/18>	3,600 <4/30>	ND	200 <5/28>

● 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.

(Note) As of No. 1-9, 2-5, and 3-5, since September 17, γ was not measured because they are sampled by sampler. Gross β were measured after filtration for references.

<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, In front of Unit 1 intake channel (in front of impermeable wall)	1F, Between the water intake channel of Unit 1 and Unit 2 (lower layer)	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)	1F, Around the south discharge channel	1F, Port entrance
Cs-134(Approx. 2 years)	1.8 [6/21]	2.8 [12/2]	5.3 [8/5]	32 [10/11]	12 <6/23>	12 <9/8>	50 <9/22>	62 [9/16]	19 <9/22>	1.8 <6/9>	3.3 [12/24]
Cs-137(Approx.30 years)	4.5 <3/17>	5.8 [12/2]	8.6 [8/5]	73 [10/11]	33 <5/12>	40 <9/8>	150 <9/22>	140 [9/16] <9/22>	60 <9/22>	4.9 <6/9>	7.3 [10/11]
Gross β	17 <1/6>	46 [8/19]	40 [7/3]	320 [8/12]	140 <5/5> <7/14> <8/18> <9/11>	160 <8/18>	660 <6/9>	680 <9/22>	380 <3/10>	16 <6/9> <8/4>	69 [8/19]
H-3 (Approx. 12 years)	8.7 <5/12>	24 [8/19]	340 [6/26]	600 [8/18]	460 <8/18>	350 <8/18>	2,500 <6/23>	2,200 <7/21>	810 <8/4>	5.6 <5/19>	68 [8/19]
Sr-90 (Approx. 29 years)	4.7 [6/26]	—	7.2 [6/26]	220 [8/19]	—	—	660 <6/9>	470 <8/4>	—	0.29 [6/26]	49 [8/19]

	1F, East side in the port	1F, West side in the port	1F, North side in the port	1F, South side in the port	1F, Port center	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
Cs-134(Approx. 2 years)	3.3 [10/17]	4.4 [12/24]	5.0 [12/2]	3.5 [10/17]	ND	ND	ND	ND	ND	ND
Cs-137(Approx.30 years)	9.0 [10/17]	10.0 [12/24]	8.4 [12/2]	7.8 [10/17]	7.8 <10/7>	ND	0.7 <10/8>	1.6 [10/18]	ND	ND
Gross β	74 [8/19]	60 [7/4]	69 [8/19]	79 [8/19]	58 <10/7>	ND	ND	ND	ND	ND
H-3 (Approx. 12 years)	67 [8/19]	59 [8/19]	52 [8/19]	60 [8/19]	54 <10/7>	4.7 [8/14]	1.8 <10/1>	6.4 [10/8]	1.8 <5/29>	2.8 <4/23>
Sr-90 (Approx. 29 years)	—	—	—	—	—	—	—	—	—	—

* 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, 2013.

● 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