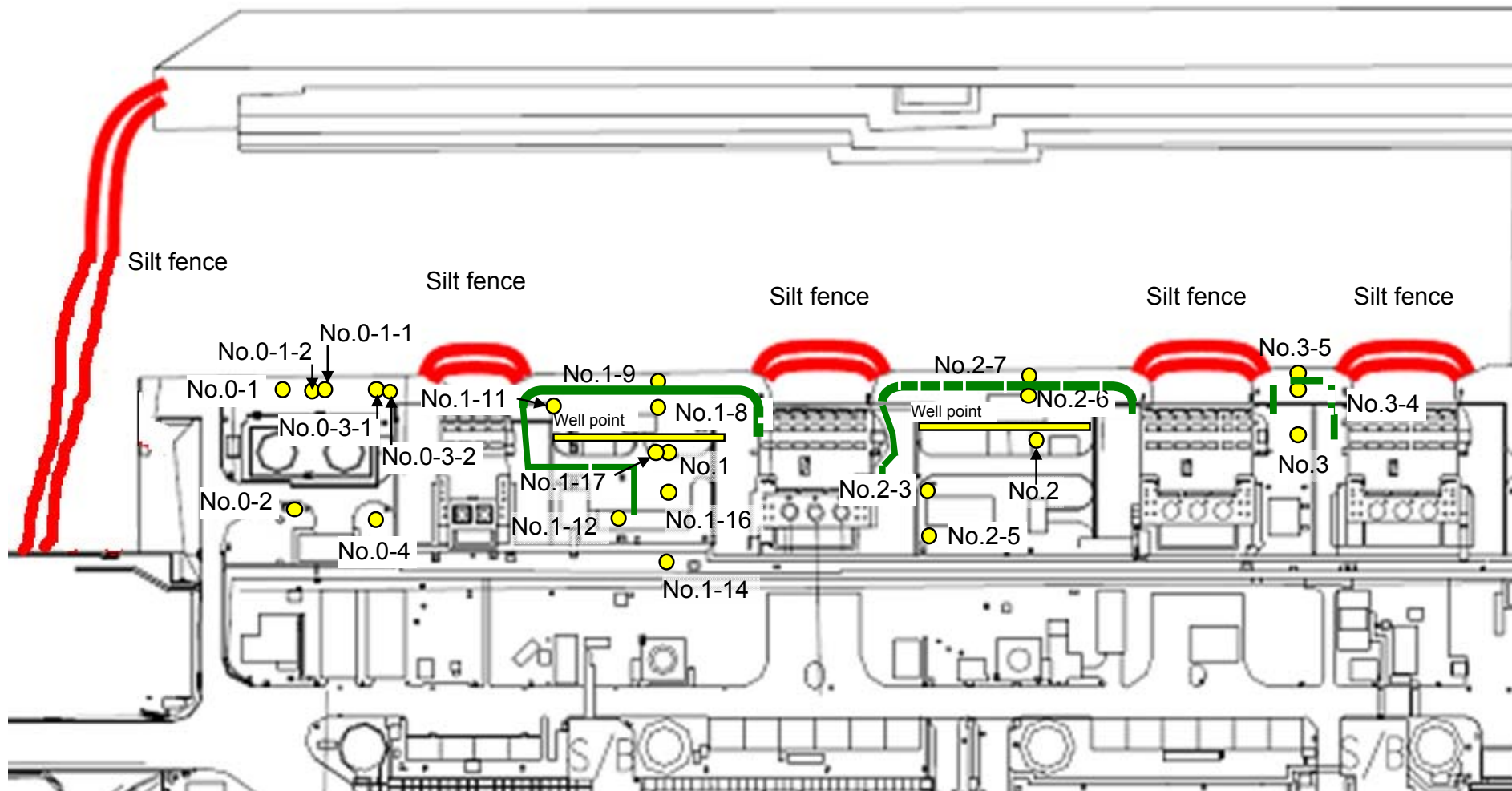


### Detailed Analysis Results in the Port of Fukushima Daiichi NPS, around Discharge Channel and Bank Protection (Sampling Locations of Underground Water Obtained at Bank Protection)

● Sampling locations of underground water obtained at bank

East seawall break



— : Location where ground improvement construction was completed, or being implemented (as of December 4)

## Detailed Analysis Results in the Port of Fukushima Daiichi NPS, around Discharge Channel and Bank Protection (1/2) Underground Water Obtained at Bank Protection

Unit: Bq/L (exclude chloride)

	Underground water observation hole No.0-1	Underground water observation hole No.0-1-1	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.1-8	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
Date of sampling	/	/	/	/	/	Dec 24, 2013	/	/	/	/	/	/	/
Time of sampling	/	/	/	/	/	11:30 AM	/	/	/	/	/	/	/
Chloride (unit: ppm)	/	/	/	/	/	-	/	/	/	/	/	/	/
Cs-134 (Approx. 2 years)	/	/	/	/	/	ND(0.44)	/	/	/	/	/	/	/
Cs-137 (Approx.30 years)	/	/	/	/	/	ND(0.50)	/	/	/	/	/	/	/
The other γ	/	/	/	/	/		/	/	/	/	/	/	/
	/	/	/	/	/		/	/	/	/	/	/	/
Gross β	/	/	/	/	/	ND(18)	/	/	/	/	/	/	/
H-3 (Approx. 12 years)	/	/	/	/	/	62,000	/	/	/	/	/	/	/
Sr-90 (Approx. 29 years)	/	/	/	/	/	-	/	/	/	/	/	/	/

	Underground water observation hole No.1-16	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.2-3	Underground water observation hole No.2-5	Underground water observation hole No.2-6	Underground water observation hole No.2-7	Groundwater pumped up from the well point (between Unit 2 and 3)	Underground water observation hole No.3	Underground water observation hole No.3-4	Underground water observation hole No.3-5
Date of sampling	/	/	/	Dec 22, 2013	Dec 22, 2013	/	/	Dec 23, 2013	/	/	/	/
Time of sampling	/	/	/	9:42 AM	10:37 AM	/	/	9:25 AM	/	/	/	/
Chloride (unit: ppm)	/	/	/	-	-	/	/	550	/	/	/	/
Cs-134 (Approx. 2 years)	/	/	/	ND(0.45)	ND(0.37)	/	/	ND(0.39)	/	/	/	/
Cs-137 (Approx.30 years)	/	/	/	ND(0.51)	ND(0.50)	/	/	1.2	/	/	/	/
The other γ	/	/	/			/	/		/	/	/	/
	/	/	/			/	/		/	/	/	/
Gross β	/	/	/	410	1,200	/	/	31	/	/	/	/
H-3 (Approx. 12 years)	/	/	/	780	1,300	/	/	710	/	/	/	/
Sr-90 (Approx. 29 years)	/	/	/	-	-	/	/	-	/	/	/	/

\* Data announced this time is provided in a thick-frame. The other data was announced on December 23, 24 and 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 (2/2) Underground Water Obtained at Bank Protection

Unit: Bq/L (exclude chloride)

	Underground water observation hole No.0-1	Underground water observation hole No.0-1-1	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.1-8	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
Date of sampling	/	/	/	/	/	Dec 25, 2013	/	/	/	/	/	/	/
Time of sampling	/	/	/	/	/	2:20 PM	/	/	/	/	/	/	/
Chloride (unit: ppm)	/	/	/	/	/	-	/	/	/	/	/	/	/
Cs-134 (Approx. 2 years)	/	/	/	/	/	ND(0.35)	/	/	/	/	/	/	/
Cs-137 (Approx.30 years)	/	/	/	/	/	ND(0.45)	/	/	/	/	/	/	/
The other γ	/	/	/	/	/		/	/	/	/	/	/	/
	/	/	/	/	/		/	/	/	/	/	/	/
Gross β	/	/	/	/	/	ND(18)	/	/	/	/	/	/	/
H-3 (Approx. 12 years)	/	/	/	/	/	Under analysis	/	/	/	/	/	/	/
Sr-90 (Approx. 29 years)	/	/	/	/	/	-	/	/	/	/	/	/	/

	Underground water observation hole No.1-16	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.2-3	Underground water observation hole No.2-5	Underground water observation hole No.2-6	Underground water observation hole No.2-7	Groundwater pumped up from the well point (between Unit 2 and 3)	Underground water observation hole No.3	Underground water observation hole No.3-4	Underground water observation hole No.3-5
Date of sampling	/	/	/	Dec 25, 2013	Dec 25, 2013	/	/	Dec 25, 2013	/	Dec 25, 2013	Dec 25, 2013	Dec 25, 2013
Time of sampling	/	/	/	9:23 AM	10:32 AM	/	/	9:56 AM	/	9:26 AM	11:48 AM	9:20 AM
Chloride (unit: ppm)	/	/	/	-	-	/	/	-	/	-	-	-
Cs-134 (Approx. 2 years)	/	/	/	ND(0.39)	ND(0.43)	/	/	0.39	/	1.1	1.6	15
Cs-137 (Approx.30 years)	/	/	/	ND(0.52)	1.2	/	/	1.1	/	2.6	4.1	36
The other γ	/	/	/	ND	ND	/	/	ND	/	1.5	ND	ND
	/	/	/			/	/		/			
Gross β	/	/	/	370	1,200	/	/	ND(21)	/	130	ND(21)	ND(21)
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.

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

<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*
Cs-134 (Approx. 2 years)	7.6 [12/15]	ND	ND	0.61 [10/13]	0.44 [11/24]	ND	ND	13 [8/29]	1.9 [7/8]	11,000 [7/9]	10 [9/2]	1.5 [7/8]	310 [8/5]
Cs-137 (Approx.30 years)	17 [12/15]	0.58 [12/7]	0.51 [11/17]	1.6 [10/13]	0.86 [11/20]	0.54 [12/6]	0.49 [12/1]	31 [8/29]	3.6 [7/8]	22,000 [7/9]	24 [9/2]	3.6 [7/8]	650 [8/5]
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
	Mn-54 (Approx. 310 days)	ND	ND	ND	ND	ND	ND	ND	1.0 [7/5]	62 [7/5]	ND	ND	ND
	Co-60 (Approx. 5 years)	ND	ND	ND	ND	ND	ND	0.50 [7/19]	ND	3.1 [7/8]	ND	ND	ND
	Sb-125 (Approx. 3 years)	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 <sup>2</sup> [12/11]	ND	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]
H-3 (Approx. 12 years)	45,000 [8/29]	18,000 [12/7]	74,000 [12/15]	2,500 [12/15]	ND	69000 <sup>2</sup> [12/17] [12/19]	20,000 [12/1] [12/15]	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]
Sr-90(Approx. 29 years)	Under analysis	Under analysis	Under analysis	Under analysis	Under analysis	Under analysis	Under analysis	1,200 [6/7]	Under analysis	Under analysis	Under analysis	Under analysis	Under analysis

Unit: Bq/L

	Groundwater observation hole No.1-8	Groundwater observation hole No.1-9	Groundwater observation hole No.1-11	Groundwater observation hole No.1-12	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)
Cs-134 (Approx. 2 years)	47 [11/25]	170 [9/3]	0.94 [10/31]	74 [10/21]	1.2 [11/14]	3.1 <sup>2</sup> [12/13]	<u>1.2</u> [12/5]	110 [9/23]
Cs-137 (Approx.30 years)	110 [11/25]	380 [9/3]	2.2 [12/2]	170 [10/21]	2.3 [11/21]	3.4 [10/10]	0.66 [12/12]	250 [9/23]
The other y	Ru-106 (Approx. 370 days)	ND	ND	5.4 [10/28]	ND	9.2 [10/28]	4.1 [12/12]	25 [9/2]
	Mn-54 (Approx. 310 days)	9.7 [12/16]	ND	ND	ND	ND	ND	ND
	Co-60 (Approx. 5 years)	0.63 [12/23]	ND	ND	0.51 [10/24]	ND	0.9 [11/7]	0.61 [11/25]
	Sb-125 (Approx. 3 years)	ND	ND	ND	61 [10/21]	ND	11 [12/5]	2.1 [11/25]
Gross β	31,000 [12/16]	2,100 [11/17]	72 [10/3]	730 [10/21]	250 [12/23]	1,900,000 [12/19]	130 [12/2] [12/23]	700,000 [9/23]
H-3 (Approx. 12 years)	9,100 [12/9]	860 [11/14]	85,000 [9/13]	440,000 [10/31]	11,000 [11/25]	43,000 [9/26]	18,000 [12/19]	460,000 [8/19]
Sr-90(Approx. 29 years)	Under analysis	Under analysis	Under analysis	Under analysis [10/21]	Under analysis	Under analysis	Under analysis	-

Unit: Bq/L

	Groundwater observation hole No.2	Groundwater observation hole No.2-1*	Groundwater observation hole No.2-2	Groundwater observation hole No.2-3	Groundwater observation hole No.2-5 <sup>1</sup>	Groundwater observation hole No.2-6	Groundwater observation hole No.2-7	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.3-4	Groundwater observation hole No.3-5
Cs-134 (Approx. 2 years)	0.50 [7/9]	0.66 [9/1]	11 [12/25]	ND	5.2 [12/4]	0.56 [10/30]	1.3 [11/21]	1.1 [12/12]	3.5 [7/25]	1.2 [7/25] [8/8]	1.8 [10/30]	29 [12/18]
Cs-137 (Approx.30 years)	1.2 [7/11] [8/1]	1.1 [8/29] [9/1]	26 [12/25]	0.49 [12/6]	12 [12/4]	0.61 [10/13]	3.1 [11/21]	<u>2.4</u> [12/7]	5.9 [8/8]	2.6 [8/1]	<u>4.3</u> [11/27]	74 [12/18]
The other y	Ru-106 (Approx. 370 days)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-
	Mn-54 (Approx. 310 days)	ND	ND	ND	0.29 [12/6]	0.87 [12/4]	ND	ND	ND	ND	0.54 [10/30]	-
	Co-60 (Approx. 5 years)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-
	Sb-125 (Approx. 3 years)	ND	ND	ND	ND	26 [9/29]	ND	ND	1.1 [9/5]	ND	ND	-
Gross β	1,700 [7/8]	380 [7/29]	520 [12/25]	1,500 [12/6]	46,000 [9/29]	3,200 [12/5]	270 [12/20]	240,000 [12/12]	1,400 [7/11]	180 [8/1]	ND	43 [12/18]
H-3 (Approx. 12 years)	870 [12/8]	440 [8/26]	Under analysis	1,700 [12/6]	6,300 [12/4]	1,200 [11/24] [11/27]	1,000 [11/21] [12/4]	5,100 [12/6]	3,200 [2012/12/12]	460 [8/1]	170 [9/18]	160 [12/18]
Sr-90(Approx. 29 years)	54 [5/31]	Under analysis	Under analysis	Under analysis	Under analysis	Under analysis	Under analysis	-	8.3 [2012/12/12]	Under analysis	Under analysis	-

\*1 The analysis result of No.2-5 obtained on September 29 is the reference value, since we could not sample groundwater by a regular procedure

\*2 Since the water of No.3-5 was highly turbid, only chloride, Gross β and tritium were analyzed as a reference

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

\* Date of sampling is provided in parentheses.

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

● The underlined part was corrected on January 10, 2014.