

FY2013 Tochigi Prefecture Survey Results

[Survey Results]

(1) Water

Rivers

Radioactive cesium (Cs-134, Cs-137): Not detectable at any location

Lakes and reservoirs

Radioactive cesium (Cs-134, Cs-137): Not detectable at any location

(2) Sediments

Rivers

Cs-134: ND - 440 Bq/kg (dry)

Cs-137: 3.3 - 1,100 Bq/kg (dry)

Lakes and reservoirs

Cs-134: 27 - 1,600 Bq/kg (dry)

Cs-137: 75 - 3,500 Bq/kg (dry)

(3) Surrounding Environment

(a) Soil

Rivers

Cs-134: ND - 7,700 Bq/kg (dry)

Cs-137: 7.1 - 18,000 Bq/kg (dry)

Lakes and reservoirs

Cs-134: 34 - 2,500 Bq/kg (dry)

Cs-137: 84 - 5,900 Bq/kg (dry)

(b) Ambient dose rate

Rivers

0.01 - 0.66 μ Sv/h

Lakes and reservoirs

0.06 - 0.36 μ Sv/h

Tochigi River (Water) 1/6

Location				Sampling Date	Weather	Air temperature (°C)	Water depth (m)	Water							Activity concentration(Bq/L)		Remarks	
No.	Water area	Location	Municipality					Water temperature (°C)	Sampling depth (m)	Color	Odor	Transparency (cm)	Electrical conductivity (mS/m)	SS (mg/L)	Turbidity (unit)	Radioactive cesium		
																Cs-134		Cs-137
R i v e r s	Nakagawa River System	Nakagawa River	Ikuyobashishita	Nasushiobara City	2013/5/31	Sunny	14.8	0.7	12.6	0.0	Light grayish yellow	None	>100	16.5	3	0.8	<0.73	<0.95
					2013/8/20	Cloudy	24.0	0.4	16.8	0.0	Grayish green	None	>100	15.5	<1	0.2	<0.63	<0.59
					2013/11/19	Sunny	1.8	0.6	8.1	0.0	Light grayish blue	None	>100	15.9	<1	0.1	<0.52	<0.55
			Komei Bridge	Nasushiobara City	2014/2/18	Cloudy	0.3	0.2	4.1	0.0	Yellow reddish faint gray	None	>100	17.7	1	0.2	<0.55	<0.41
					2013/5/31	Sunny	22.8	0.5	14.1	0.0	Dark grayish reddish yellow	None	>100	12.1	1	1.4	<0.48	<0.51
					2013/8/20	Cloudy	24.1	0.4	19.7	0.0	Grayish yellow red	None	>100	11.7	<1	0.4	<0.56	<0.60
		Takaomata River	Takaomata Bridge	Nasu Town	2013/11/19	Sunny	3.0	0.5	7.6	0.0	Light grayish blue	None	>100	12.1	<1	0.4	<0.65	<0.63
					2014/2/18	Cloudy	1.6	0.1	2.1	0.0	Reddish faint gray	None	>100	17.7	1	0.8	<0.55	<0.60
					2013/5/31	Sunny	20.7	0.2	13.5	0.0	Dark grayish yellow red	None	>100	16.1	3	1.5	<0.60	<0.52
					2013/8/20	Cloudy	25.0	0.2	18.0	0.0	Dark grayish yellow red	None	>100	16.9	1	0.7	<0.58	<0.70
					2013/11/19	Sunny	7.3	0.2	9.1	0.0	Light grayish blue green	None	>100	18.2	<1	0.5	<0.62	<0.71
					2014/2/18	Cloudy	2.8	0.1	3.6	0.0	Reddish faint gray	None	>100	16.9	2	0.5	<0.45	<0.63
		Yukawa River	Yukawa Bridge	Nasu Town	2013/5/31	Sunny	20.8	0.3	16.0	0.0	Dark grayish yellow red	None	83	28.7	6	2.7	<0.70	<0.60
					2013/8/20	Cloudy	23.2	0.3	20.5	0.0	Light grayish green	Dim yellow	87	29.6	4	2.2	<0.59	<0.62
					2013/11/19	Sunny	8.9	0.4	10.2	0.0	Bluish faint gray	None	>100	26.9	1	1.7	<0.62	<0.52
					2014/2/18	Cloudy	3.1	0.1	5.1	0.0	Yellowish reddish light gray	None	>100	34.5	2	1.2	<0.53	<0.78
					2013/5/31	Sunny	25.6	0.3	20.3	0.0	Dark grayish reddish yellow	None	>100	19.0	4	1.5	<0.44	<0.51
					2014/6/10	Sunny	26.4	0.2	21.3	0.0	Dark grayish reddish yellow	None	>100	19.2	1	1.2	<0.66	<0.61
		Nakagawa River	Kamikuroiso	Nasushiobara City/Nasu Town	2013/7/10	Sunny	26.9	0.2	20.3	0.0	Grayish yellow	None	>100	20.7	2	1.8	<0.70	<0.61
					2013/8/20	Cloudy	24.6	0.4	20.8	0.0	Grayish reddish yellow	None	>100	18.0	1	0.9	<0.54	<0.49
					2013/9/18	Sunny	17.2	0.6	14.6	0.0	Grayish yellow	None	37	10.5	7	4.5	<0.58	<0.65
					2013/11/19	Sunny	14.2	0.4	11.5	0.0	Bluish faint gray	None	>100	16.3	<1	2.7	<0.62	<0.63
					2014/2/18	Cloudy	4.7	0.2	6.1	0.0	Yellow reddish faint gray	None	>100	25.0	14	3.1	<0.63	<0.68
					2013/5/31	Sunny	24.0	0.5	18.8	0.0	Yellow greenish dark gray	None	>100	14.6	4	1.5	<0.73	<0.55
		Yosasa River	Yosasa Bridge	Nasu Town	2013/8/19	Sunny	28.2	0.4	21.3	0.0	Light grayish yellow green	None	>100	15.9	2	0.4	<0.59	<0.62
					2013/11/18	Sunny	2.6	0.4	7.1	0.0	Light grayish greenish blue	None	>100	16.1	<1	1.5	<0.55	<0.47
					2014/2/19	Sunny	0.7	0.2	1.2	0.0	Yellow reddish faint gray	None	>100	17.1	<1	0.2	<0.52	<0.63
					2013/6/3	Sunny	18.2	0.4	16.4	0.0	Reddish yellowish white	None	72	11.2	4	2.8	<0.67	<0.53
		Kurokawa River	Shinden Bridge	Nasu Town	2013/8/19	Sunny	27.8	0.7	23.7	0.0	Dark grayish reddish yellow	None	>100	11.2	4	1.1	<0.59	<0.51
					2013/11/18	Sunny	4.9	0.6	7.3	0.0	Light grayish blue green	None	>100	10.3	<1	0.5	<0.67	<0.62
					2014/2/19	Sunny	1.1	0.2	1.4	0.0	Yellowish reddish light gray	None	>100	13.0	2	1.4	<0.56	<0.51
					2013/5/30	Cloudy	19.8	0.2	18.2	0.0	Dark grayish yellow red	None	64	13.3	12	4.8	<0.51	<0.47
		Yosasa River	Kawada Bridge	Otawara City	2013/6/10	Sunny	23.6	0.2	23.9	0.0	Dark grayish yellow red	None	>100	17.1	2	1.9	<0.62	<0.72
					2013/7/10	Sunny	29.8	0.2	25.2	0.0	Dark grayish yellow	None	96	13.7	3	2.0	<0.51	<0.62
					2013/8/19	Sunny	31.6	0.7	28.0	0.0	Grayish yellow red	None	>100	11.6	2	0.9	<0.65	<0.55
					2013/9/18	Sunny	21.6	0.5	16.2	0.0	Yellowish light gray	None	>100	14.4	5	1.8	<0.50	<0.49
					2013/11/19	Sunny	15.1	0.5	12.7	0.0	Bluish faint gray	None	>100	40.2	<1	4.7	<0.71	<0.62
					2014/2/17	Cloudy	4.4	0.2	3.0	0.0	Yellowish reddish gray	None	>100	13.1	2	1.1	<0.66	<0.62
		Nakagawa River	Kurobane	Otawara City	2013/5/30	Cloudy	19.6	0.5	17.9	0.0	Reddish yellowish dark gray	None	>100	16.1	7	3.3	<0.39	<0.58
					2013/6/17	Sunny	31.8	0.5	26.1	0.0	Dark grayish reddish yellow	None	75	15.6	2	2.1	<0.59	<0.59
					2013/7/10	Sunny	34.0	0.3	24.5	0.0	Dark grayish yellow	None	88	17.5	2	1.6	<0.63	<0.60
					2013/8/19	Sunny	30.0	0.5	27.3	0.0	Grayish reddish yellow	None	>100	15.0	1	0.5	<0.70	<0.53
2013/9/18	Sunny				26.6	0.4	18.6	0.0	Yellowish pale gray	None	48	11.3	7	2.9	<0.60	<0.52		
2013/11/18	Sunny				16.3	0.3	10.9	0.0	Light grayish green	None	>100	15.0	<1	0.3	<0.54	<0.68		
2014/2/19	Sunny	3.5	0.1	3.8	0.0	Reddish faint gray	None	>100	18.0	1	0.6	<0.56	<0.76					

Tochigi River (Water) 2/6

No.	Location				Sampling Date	Weather	Air temperature (°C)	Water depth (m)	Water							Activity concentration(Bq/L)		Remarks			
	Water area	Location	Municipality	General items							Radioactive cesium										
				Water temperature (°C)					Sampling depth (m)	Color	Odor	Transparency (cm)	Electrical conductivity (mS/m)	SS (mg/L)	Turbidity (unit)	Cs-134	Cs-137				
R i v e r s	Nakagawa River System	Matsuba River	Tributary	Otawara City	2013/5/30	Cloudy	19.5	0.3	17.6	0.0	Dark grayish yellow red	None	>100	12.5	5	2.7	<0.73	<0.65			
					2013/6/17	Sunny	29.5	0.7	23.2	0.0	Grayish yellow red	None	>100	10.6	2	1.9	<0.44	<0.35			
					2013/7/10	Sunny	34.6	0.3	24.0	0.0	Grayish yellow	None	>100	12.1	2	1.3	<0.67	<0.44			
					2013/8/19	Sunny	31.6	0.3	26.1	0.0	Grayish reddish yellow	None	>100	10.2	2	0.5	<0.56	<0.59			
					2013/9/18	Sunny	22.1	0.6	17.3	0.0	Yellowish pale gray	None	87	7.4	4	0.8	<0.56	<0.49			
					2013/11/18	Sunny	9.4	0.3	9.0	0.0	Light grayish greenish blue	None	>100	9.1	<1	0.4	<0.59	<0.42			
		11	Sabigawa River		Udagawa Bridge	Otawara City	2014/2/19	Sunny	3.3	0.2	3.1	0.0	Yellowish reddish light gray	None	>100	9.6	2	1.6	<0.68	<0.87	
							2013/5/29	Cloudy	21.5	0.2	16.4	0.0	Yellow reddish dark gray	None	>100	13.3	3	1.4	<0.61	<0.66	
							2013/8/21	Sunny	28.8	0.3	23.2	0.0	Dark grayish reddish yellow	None	69	10.7	7	1.4	<0.58	<0.55	
							2013/11/20	Sunny	10.6	0.4	13.8	0.0	Light grayish yellowish green	None	>100	14.2	<1	0.5	<0.48	<0.62	
							2014/2/17	Cloudy	4.9	0.2	8.7	0.0	Yellowish reddish light gray	None	>100	13.8	1	0.5	<0.69	<0.85	
							2013/5/29	Cloudy	21.4	0.4	15.2	0.0	Bluish greenish dark gray	None	>100	17.4	3	1.1	<0.38	<0.59	
		12	Momura River	Momuranaka Bridge	Otawara City	2013/8/21	Sunny	27.5	0.7	21.0	0.0	Dark grayish yellow green	None	62	13.5	4	2.0	<0.52	<0.60		
						2013/11/20	Sunny	15.7	0.6	15.8	0.0	Greenish pale gray	None	>100	17.9	1	0.3	<0.59	<0.51		
						2014/2/17	Cloudy	5.3	0.2	10.2	0.0	Yellow greenish pale gray	None	>100	17.9	<1	0.2	<0.46	<0.81		
						2013/6/3	Sunny	18.5	0.3	17.4	0.0	Dark grayish reddish yellow	None	>100	25.0	1	1.1	<0.56	<0.62		
						2013/7/30	Cloudy	25.2	0.5	20.2	0.0	Dark grayish yellowish green	None	>100	15.4	3	2.1	<0.56	<0.63		
						2013/11/20	Sunny	0.0	0.6	6.4	0.0	Light grayish blue green	None	>100	21.2	1	0.4	<0.54	<0.59		
		13	Yunohara	Yunohara	Nasushiobara City	2014/2/17	Cloudy	0.4	-	-	-	-	-	-	-	-	-	-	-	-	Unable to collect samples due to snow on the ground
						2013/6/3	Sunny	19.0	0.4	17.4	0.0	Dark grayish yellow red	None	>100	23.3	1	1.6	<0.56	<0.60		
						2013/8/21	Sunny	23.5	0.6	20.3	0.0	Dark grayish yellow green	None	56	20.4	7	4.0	<0.54	<0.52		
						2013/11/20	Sunny	7.2	0.6	8.0	0.0	Light grayish blue	None	>100	20.6	<1	0.4	<0.65	<0.59		
						2014/2/17	Cloudy	1.2	0.2	3.4	0.0	Yellowish reddish light gray	None	>100	24.1	<1	0.5	<0.67	<0.63		
						2013/5/29	Cloudy	21.0	0.5	16.8	0.0	Reddish yellowish dark gray	None	>100	20.4	2	1.7	<0.64	<0.83		
		14	Hokigawa River	Sekiba Bridge	Otawara City	2013/8/21	Cloudy	26.6	0.4	26.7	0.0	Dark grayish yellow red	None	47	14.8	11	4.0	<0.58	<0.58		
						2013/11/20	Sunny	14.6	0.5	13.7	0.0	Light grayish yellow green	None	>100	19.7	<1	0.3	<0.67	<0.62		
						2014/2/17	Cloudy	5.9	0.3	7.1	0.0	Yellowish reddish light gray	None	>100	20.5	2	0.6	<0.51	<0.51		
						2013/5/30	Cloudy	19.1	0.6	17.1	0.0	Dark grayish yellow red	None	>100	16.8	4	2.0	<0.59	<0.59		
						2013/6/18	Cloudy	25.8	0.5	21.1	0.0	Grayish yellow red	None	80	16.9	3	2.0	<0.61	<0.59		
						2013/7/10	Sunny	36.3	0.2	24.9	0.0	Grayish reddish yellow	None	>100	17.1	2	1.5	<0.59	<0.65		
		15	Hokigawa River	Iwai Bridge	Otawara City	2013/8/22	Sunny	28.8	0.5	23.7	0.0	Dark grayish yellow green	None	85	15.8	5	2.2	<0.62	<0.55		
						2013/9/18	Sunny	28.1	0.6	20.9	0.0	Yellowish light gray	None	35	12.8	18	7.1	<0.58	<0.63		
						2013/11/18	Sunny	17.0	0.6	15.3	0.0	Grayish blue	None	>100	16.6	2	0.6	<0.67	<0.71		
						2014/2/13	Sunny	4.0	0.3	5.3	0.0	Yellow reddish faint gray	None	>100	15.3	1	0.6	<0.60	<0.58		
						2013/5/30	Cloudy	19.6	0.6	17.3	0.0	Dark grayish yellow red	None	>100	16.8	7	4.2	<0.70	<0.63		
						2013/6/19	Light rain	20.7	0.5	19.6	0.0	Dark grayish yellow green	None	74	16.6	4	2.9	<0.67	<0.68		
		16	Hokigawa River	Hokigawa Bridge	Otawara City	2013/7/11	Sunny	29.1	0.2	22.5	0.0	Grayish reddish yellow	None	>100	17.3	2	1.9	<0.65	<0.59		
						2013/8/21	Cloudy	29.0	0.6	25.1	0.0	Dark grayish reddish yellow	None	58	13.3	11	3.2	<0.56	<0.52		
						2013/9/18	Sunny	28.1	0.5	22.2	0.0	Grayish yellow green	None	42	13.3	7	3.3	<0.70	<0.67		
						2013/11/22	Sunny	4.6	0.3	8.6	0.0	Light grayish yellow green	None	>100	16.1	<1	0.4	<0.54	<0.68		
						2014/2/13	Sunny	4.4	0.2	5.0	0.0	Yellowish reddish light gray	None	>100	17.8	1	0.6	<0.58	<0.60		
						2013/5/29	Cloudy	23.2	0.7	20.7	0.0	Reddish yellowish dark gray	None	>100	13.6	3	2.0	<0.68	<0.63		
17	Nakagawa River	Shinnaka Bridge	Nakagawa Town	2013/6/18	Cloudy	23.9	1.0	20.5	0.0	Very dark yellow green	None	>100	10.7	2	1.2	<0.54	<0.55				
				2013/7/10	Sunny	36.9	0.2	27.8	0.0	Dark grayish yellow green	None	>100	12.6	1	1.2	<0.54	<0.49				
				2013/8/23	Cloudy	25.1	0.6	23.7	0.0	Dark grayish yellow green	None	55	11.3	7	2.0	<0.56	<0.45				
				2013/9/19	Sunny	17.9	0.4	16.0	0.0	Greenish light gray	None	78	8.8	8	1.6	<0.73	<0.51				
				2013/11/18	Sunny	16.4	0.4	11.7	0.0	Grayish blue green	None	>100	11.0	3	0.6	<0.54	<0.59				
				2014/2/13	Sunny	4.8	0.4	4.3	0.0	Yellowish reddish gray	None	>100	12.9	1	0.5	<0.43	<0.63				
18	Mumogawa River	Kosei Bridge	Nakagawa Town	2013/5/30	Cloudy	19.6	0.6	17.3	0.0	Dark grayish yellow red	None	>100	16.8	7	4.2	<0.70	<0.63				
				2013/6/19	Light rain	20.7	0.5	19.6	0.0	Dark grayish yellow green	None	74	16.6	4	2.9	<0.67	<0.68				
				2013/7/11	Sunny	29.1	0.2	22.5	0.0	Grayish reddish yellow	None	>100	17.3	2	1.9	<0.65	<0.59				
				2013/8/21	Cloudy	29.0	0.6	25.1	0.0	Dark grayish reddish yellow	None	58	13.3	11	3.2	<0.56	<0.52				
				2013/9/18	Sunny	28.1	0.5	22.2	0.0	Grayish yellow green	None	42	13.3	7	3.3	<0.70	<0.67				
				2013/11/22	Sunny	4.6	0.3	8.6	0.0	Light grayish yellow green	None	>100	16.1	<1	0.4	<0.54	<0.68				

Tochigi River (Water) 3/6

Location				Sampling Date	Weather	Air temperature (°C)	Water depth (m)	Water								Activity concentration(Bq/L)		Remarks		
No.	Water area		Municipality					Water temperature (°C)	Sampling depth (m)	Color	Odor	Transparency (cm)	Electrical conductivity (mS/m)	SS (mg/L)	Turbidity (unit)	Radioactive cesium				
	Location	Location														Cs-134	Cs-137			
R i v e r s	19	Nakagawa River System	Arakawa River	Saikachi Bridge	Shiotoya Town	2013/5/29	Cloudy	18.8	0.3	14.9	0.0	Dark grayish yellow red	None	>100	6.8	5	2.7	<0.66	<0.72	
						2013/8/22	Sunny	23.7	0.7	21.0	0.0	Dark grayish yellow red	None	79	7.0	3	1.1	<0.72	<0.58	
						2013/11/21	Sunny	15.0	0.7	9.7	0.0	Light grayish yellow green	None	>100	6.9	1	0.8	<0.42	<0.55	
				2014/2/14	Cloudy	3.9	0.2	2.7	0.0	Yellow reddish faint gray	None	>100	7.2	<1	0.7	<0.65	<0.51			
				2013/5/27	Cloudy	20.5	0.3	17.2	0.0	Dark grayish reddish yellow	None	>100	13.7	4	1.6	<0.47	<0.59			
				2013/8/22	Sunny	25.3	0.7	23.7	0.0	Grayish yellow green	None	91	12.2	14	1.9	<0.72	<0.52			
			20	Renjo Bridge	Sakura City	2013/11/21	Sunny	7.6	0.2	11.2	0.0	Bluish faint gray	None	>100	13.3	2	1.1	<0.48	<0.49	
						2014/2/14	Cloudy	6.1	0.2	8.8	0.0	Yellowish reddish light gray	None	>100	15.7	4	1.3	<0.59	<0.59	
						2013/5/29	Cloudy	18.2	0.2	16.9	0.0	Dark grayish yellow red	None	>100	15.9	2	1.2	<0.71	<0.76	
						2013/8/22	Cloudy	24.0	0.9	22.8	0.0	Dark grayish yellow red	None	72	10.0	9	2.8	<0.56	<0.69	
						2013/11/21	Sunny	13.8	0.3	9.9	0.0	Light grayish blue green	None	>100	10.2	<1	0.5	<0.58	<0.45	
						2014/2/14	Cloudy	4.9	0.1	4.0	0.0	Yellowish reddish light gray	None	>100	11.3	<1	0.6	<0.61	<0.51	
	21	Uchikawa River	Tanaka Bridge	Yaita City	2013/5/27	Cloudy	20.2	0.5	18.5	0.0	Dark grayish yellow red	None	>100	18.2	4	2.4	<0.57	<0.54		
					2013/8/22	Cloudy	27.6	0.8	24.8	0.0	Grayish yellow green	None	84	12.2	6	2.8	<0.62	<0.69		
					2013/11/21	Sunny	9.4	0.5	10.8	0.0	Bluish faint gray	None	>100	15.0	1	1.1	<0.48	<0.58		
					2014/2/14	Cloudy	5.9	0.2	6.9	0.0	Yellowish reddish light gray	None	>100	17.4	1	0.8	<0.63	<0.55		
					2013/5/27	Cloudy	21.5	0.8	20.9	0.0	Dark grayish yellow red	None	>100	19.0	7	3.9	<0.65	<0.68		
					2013/6/19	Cloudy	22.0	0.4	21.5	0.0	Dark grayish reddish yellow	None	90	16.5	5	3.0	<0.79	<0.70		
	22	Asahi Bridge	Sakura City	2013/7/11	Sunny	29.9	0.2	26.4	0.0	Dark grayish reddish yellow	None	>100	17.0	1	1.7	<0.56	<0.52			
				2013/8/23	Cloudy	25.4	0.5	25.2	0.0	Dark grayish yellow green	None	>100	14.7	3	2.1	<0.76	<0.65			
				2013/9/19	Sunny	17.9	0.7	18.9	0.0	Light grayish yellow	None	41	12.0	4	2.5	<0.76	<0.44			
				2013/11/22	Sunny	8.0	0.6	9.8	0.0	Bluish faint gray	None	>100	17.6	<1	0.5	<0.61	<0.62			
				2014/2/13	Sunny	6.6	0.3	7.0	0.0	Reddish faint gray	None	>100	20.7	1	0.5	<0.41	<0.60			
				2013/5/27	Sunny	25.5	0.4	20.1	0.0	Dark grayish yellow red	None	17	19.1	33	13	<0.64	<0.70			
	23	Arakawa River	Mukada Bridge	Nasu Karasuyama City	2013/6/19	Cloudy	26.4	0.5	22.4	0.0	Reddish yellowish dark gray	None	39	15.8	15	6.9	<0.60	<0.65		
					2013/7/11	Sunny	32.5	0.3	26.5	0.0	Grayish reddish yellow	None	57	17.4	4	4.4	<0.46	<0.62		
					2013/8/23	Cloudy	25.7	0.7	24.8	0.0	Dark grayish yellow red	None	33	16.7	37	6.9	<0.44	<0.59		
					2013/9/19	Sunny	22.1	0.9	17.9	0.0	Grayish reddish yellow	None	38	13.7	9	3.2	<0.58	<0.55		
					2013/11/22	Sunny	10.4	0.6	7.5	0.0	Yellow greenish pale gray	None	>100	16.6	<1	0.8	<0.45	<0.59		
					2014/2/13	Sunny	5.9	0.3	6.4	0.0	Yellowish reddish light gray	None	>100	18.2	3	1.0	<0.62	<0.55		
	24	Egawa River	Tributary	Nasu Karasuyama City	2013/6/4	Sunny	14.5	0.5	11.8	0.0	Dark grayish yellow	None	>100	7.6	<1	1.5	<0.70	<0.74		
					2013/8/13	Sunny	23.2	0.8	21.5	0.0	Grayish yellowish green	None	68	9.6	2	3.7	<0.63	<0.71		
					2013/11/12	Cloudy	7.0	0.4	10.8	0.0	Grayish yellow green	None	67	6.4	3	2.6	<0.51	<0.62		
					2014/2/12	Cloudy	4.2	0.4	5.7	0.0	Yellow greenish pale gray	None	>100	8.4	2	2.3	<0.45	<0.55		
					2013/6/3	Sunny	19.6	0.4	19.1	0.0	Dark grayish reddish yellow	None	>100	9.0	<1	0.4	<0.59	<0.85		
					2013/8/13	Sunny	24.6	0.5	18.7	0.0	Light grayish green	None	>100	8.1	<1	0.2	<0.60	<0.52		
					2013/11/12	Cloudy	7.0	0.4	8.4	0.0	Grayish reddish yellow	None	>100	8.2	<1	0.2	<0.64	<0.66		
					2014/2/12	Sunny	1.2	0.2	2.9	0.0	Yellow reddish faint gray	None	>100	9.8	<1	0.2	<0.62	<0.65		
					2013/6/4	Sunny	15.7	0.6	11.2	0.0	Dark grayish yellow red	None	>100	8.1	<1	0.5	<0.43	<0.47		
					2013/8/13	Sunny	23.9	0.4	19.0	0.0	Dark grayish yellow red	None	>100	8.5	<1	0.5	<0.52	<0.65		
					2013/11/12	Cloudy	7.0	0.5	10.3	0.0	Grayish yellow	None	>100	7.2	<1	0.5	<0.47	<0.75		
					2014/2/12	Sunny	4.0	0.4	4.6	0.0	Yellow reddish faint gray	None	>100	7.8	<1	0.4	<0.66	<0.47		
	25	Kinugawa River	Kawaji Daiichi Power Station, front	Nikko City	2013/6/4	Sunny	24.0	0.5	15.2	0.0	Dark grayish yellow red	None	>100	8.3	1	1.3	<0.45	<0.55		
					2013/8/13	Sunny	22.0	0.5	19.9	0.0	Dark grayish yellow	None	>100	7.4	<1	1.1	<0.63	<0.82		
					2013/11/12	Cloudy	5.8	0.3	9.9	0.0	Grayish yellow	None	>100	8.0	1	1.1	<0.55	<0.56		
					2014/2/12	Cloudy	3.6	0.2	4.1	0.0	Yellowish reddish light gray	None	>100	8.6	<1	0.7	<0.57	<0.47		

Tochigi River (Water) 4/6

No.	Location				Sampling Date	Weather	Air temperature (°C)	Water depth (m)	Water							Activity concentration (Bq/L)		Remarks			
	Water area	Location	Municipality	General items							Radioactive cesium										
				Water temperature (°C)					Sampling depth (m)	Color	Odor	Transparency (cm)	Electrical conductivity (mS/m)	SS (mg/L)	Turbidity (unit)	Cs-134	Cs-137				
R i v e r s	Tonegawa River System	Kinugawa River System	Itaana River	Tributary	Nikko City	2013/6/11	Sunny	20.5	0.2	18.3	0.0	Grayish greenish yellow	None	>100	8.6	<1	0.6	<0.60	<0.60		
						2014/6/24	Sunny	22.0	0.4	16.3	0.0	Dark grayish reddish yellow	None	>100	6.8	1	2.0	<0.70	<0.70		
						2013/7/12	Cloudy	26.8	0.2	19.7	0.0	Light grayish yellowish red	None	>100	7.7	<1	0.4	<0.67	<0.59		
						2013/8/13	Sunny	21.5	0.4	18.9	0.0	Dark grayish reddish yellow	None	>100	7.3	<1	0.3	<0.56	<0.55		
						2013/9/20	Sunny	18.9	0.4	15.4	0.0	Light grayish bluish green	None	>100	6.5	3	1.9	<0.56	<0.63		
						2013/11/12	Sunny	6.0	0.4	7.5	0.0	Grayish yellow red	None	>100	7.2	1	0.6	<0.66	<0.62		
			2014/2/12	Cloudy	3.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Unable to collect samples due to snow on the ground
			30	Yukawa River	Tributary	Nikko City	2013/6/5	Sunny	13.9	0.2	10.9	0.0	Dark grayish purplish red	None	>100	17.9	2	1.5	<0.54	<0.63	
							2013/8/14	Sunny	24.2	0.3	14.1	0.0	Light grayish yellow	None	>100	17.9	<1	0.4	<0.58	<0.49	
							2013/11/13	Cloudy	1.2	1.0	6.6	0.0	Grayish yellow	None	>100	17.6	2	0.5	<0.63	<0.69	
							2014/2/10	Sunny	2.7	0.2	3.2	0.0	Yellowish pale gray	None	>100	17.6	<1	<0.1	<0.50	<0.73	
			31	Daya River	Shinkyō Bridge	Nikko City	2013/6/4	Sunny	24.0	0.3	11.4	0.0	Dark grayish yellow red	None	>100	11.3	<1	0.3	<0.63	<0.70	
							2013/8/14	Sunny	19.1	0.3	11.2	0.0	Light grayish yellow green	None	>100	11.0	<1	0.1	<0.67	<0.65	
							2013/11/13	Sunny	4.5	0.3	7.0	0.0	Grayish greenish yellow	None	>100	10.8	<1	0.2	<0.60	<0.60	
							2014/2/10	Sunny	3.7	0.2	5.1	0.0	Yellowish reddish light gray	None	>100	11.9	<1	0.1	<0.47	<0.62	
			32	Shidobuchi River	Sujichigai Bridge	Nikko City	2013/6/4	Sunny	25.8	0.3	18.3	0.0	Dark grayish reddish yellow	None	>100	11.9	2	1.2	<0.48	<0.47	
							2013/8/14	Sunny	23.1	0.2	18.9	0.0	Light grayish reddish yellow	None	>100	11.5	2	1.1	<0.56	<0.65	
							2013/11/13	Sunny	6.0	0.5	7.7	0.0	Grayish yellow	None	>100	10.5	<1	0.6	<0.50	<0.63	
							2014/2/10	Sunny	3.7	0.1	4.7	0.0	Reddish faint gray	None	>100	14.8	2	0.8	<0.56	<0.55	
			33	Daya River	Kaishin Bridge (Harigai)	Nikko City	2013/6/11	Sunny	24.8	0.4	16.7	0.0	Light grayish reddish yellow	None	>100	15.6	<1	0.7	<0.47	<0.58	
							2013/6/24	Sunny	22.8	0.3	15.2	0.0	Dark grayish yellow red	None	>100	11.6	4	1.3	<0.58	<0.63	
							2013/7/12	Sunny	30.3	0.2	16.5	0.0	Light grayish reddish yellow	None	>100	13.7	2	0.8	<0.54	<0.42	
							2013/8/15	Sunny	28.8	0.6	17.9	0.0	Light grayish blue	None	>100	12.6	<1	0.4	<0.51	<0.61	
							2013/9/19	Sunny	28.4	0.3	16.0	0.0	Light grayish blue green	None	68	11.1	10	1.9	<0.67	<0.65	
							2013/11/13	Cloudy	9.0	0.3	9.5	0.0	Grayish yellow red	None	>100	11.4	<1	0.6	<0.63	<0.58	
							2014/2/7	Sunny	3.9	0.2	2.7	0.0	Yellowish light gray	None	>100	13.1	<1	0.3	<0.65	<0.59	
							2013/6/11	Cloudy	24.1	0.5	16.7	0.0	Dark grayish yellow red	None	80	10.7	1	1.3	<0.77	<0.72	
			34	Kinugawa River	Sanuki	Shiōya Town	2013/6/24	Sunny	25.1	0.5	17.0	0.0	Dark grayish yellow green	None	71	10.5	4	2.1	<0.48	<0.71	
							2013/7/12	Cloudy	30.1	0.3	19.3	0.0	Dark grayish reddish yellow	None	>100	11.0	3	1.8	<0.64	<0.63	
2013/8/15	Sunny	31.0					0.5	21.7	0.0	Light grayish yellow green	None	>100	12.0	1	1.1	<0.58	<0.68				
2013/10/2	Cloudy	24.6					0.4	18.5	0.0	Dark grayish yellowish green	None	>100	11.4	2	1.6	<0.52	<0.45				
2013/11/13	Cloudy	8.0					0.4	9.6	0.0	Dark grayish yellow	None	>100	11.9	<1	0.6	<0.58	<0.63				
2014/2/7	Sunny	3.7					0.3	2.7	0.0	Yellowish reddish light gray	None	>100	14.5	5	0.8	<0.56	<0.51				
35	Nishi-Kinugawa River	Nishi-Kinugawa Bridge	Utsunomiya City	2013/5/27	Cloudy	26.5	1.0	16.2	0.0	Dark grayish yellow red	None	49	11.3	22	5.3	<0.57	<0.77				
				2013/8/15	Sunny	31.8	0.7	22.9	0.0	Light grayish green	None	>100	12.3	<1	1.3	<0.60	<0.64				
				2013/11/14	Sunny	6.5	1.1	7.9	0.0	Dark grayish yellow	None	>100	11.1	2	0.6	<0.72	<0.78				
				2014/2/7	Sunny	4.9	0.2	4.2	0.0	Yellowish pale gray	None	>100	11.6	1	0.6	<0.60	<0.71				
36	Kinugawa River	Kinugawa Bridge (Hoshakujō Temple)	Utsunomiya City	2013/5/27	Sunny	24.5	0.7	18.5	0.0	Dark grayish yellow red	None	>100	12.0	1	1.3	<0.71	<0.58				
				2013/8/15	Sunny	30.2	0.5	25.1	0.0	Light grayish reddish yellow	None	>100	13.8	<1	0.9	<0.61	<0.61				
				2013/11/14	Sunny	4.1	0.4	8.0	0.0	Grayish yellow red	None	>100	11.7	1	0.5	<0.58	<0.56				
				2014/2/7	Sunny	6.7	0.3	7.2	0.0	Yellowish reddish light gray	None	>100	12.3	<1	0.5	<0.59	<0.42				
37	Daidōzumi Bridge	Mooka City	2013/5/23	Sunny	28.0	0.5	20.8	0.0	Dark grayish yellow red	None	>100	18.9	3	1.2	<0.69	<0.61					
			2013/8/16	Sunny	29.4	0.5	26.3	0.0	Light grayish yellowish red	None	>100	18.9	1	0.7	<0.59	<0.62					
			2013/11/15	Cloudy	11.5	0.3	11.4	0.0	Grayish reddish yellow	None	>100	15.0	1	0.8	<0.65	<0.63					
					2014/2/6	Sunny	4.6	0.3	4.5	0.0	Yellowish light gray	None	>100	16.5	5	2.3	<0.66	<0.51			

Tochigi River (Water) 5/6

No.	Location				Sampling Date	Weather	Air temperature (°C)	Water depth (m)	Water							Activity concentration(Bq/L)		Remarks						
	Water area	Location	Municipality	Water temperature (°C)					Sampling depth (m)	Color	Odor	Transparency (cm)	Electrical conductivity (mS/m)	SS (mg/L)	Turbidity (unit)	Radioactive cesium								
																Cs-134	Cs-137							
R i v e r s	38	Kinugawa River System	Egawa River	Tributary	Shimotsuke City	2013/5/23	Sunny	28.3	0.7	23.8	0.0	Grayish reddish yellow	None	32	21.2	15	10	<0.69	<0.59					
						2013/6/20	Cloudy	23.6	1.1	20.2	0.0	Dark grayish reddish yellow	Faint mold	41	19.5	16	7.4	<0.54	<0.45					
						2013/7/11	Sunny	34.6	0.8	25.8	0.0	Reddish yellowish dark gray	None	62	21.0	10	5.1	<0.63	<0.65					
						2013/8/16	Sunny	28.8	0.9	24.5	0.0	Grayish yellow	None	>100	22.3	10	3.4	<0.41	<0.52					
						2013/9/20	Sunny	24.0	0.4	19.8	0.0	Light grayish greenish yellow	None	61	29.8	16	2.8	<0.73	<0.59					
						2013/11/15	Cloudy	11.1	0.3	12.3	0.0	Grayish yellow	None	>100	23.1	3	1.5	<0.59	<0.72					
			2014/2/6	Sunny	4.5	0.2	2.9	0.0	Yellow reddish faint gray	None	>100	25.7	2	1.6	<0.61	<0.71								
			2013/6/7	Cloudy	16.5	0.3	11.4	0.0	Dark grayish reddish yellow	None	>100	11.5	6	0.7	<0.70	<0.65								
			2013/8/14	Sunny	28.0	0.3	13.9	0.0	Light grayish yellow green	None	>100	11.3	2	0.5	<0.54	<0.60								
			2013/11/13	Sunny	7.9	0.2	7.9	0.0	Grayish greenish yellow	None	>100	11.2	<1	0.4	<0.58	<0.65								
	39	Kinugawa River System	Akabori River	Nikko City Hall, front	Nikko City	2014/2/10	Sunny	3.8	0.2	4.4	0.0	Yellowish pale gray	None	>100	11.9	2	0.3	<0.59	<0.51					
						2013/6/12	Cloudy	21.1	0.4	15.4	0.0	Dark grayish reddish yellow	None	70	14.6	8	2.3	<0.57	<0.48					
				Kiwadajima	2013/8/13	Sunny	27.2	0.5	17.6	0.0	Grayish green	None	>100	15.0	3	0.7	<0.63	<0.82						
					2013/11/12	Sunny	9.7	0.5	11.0	0.0	Grayish yellow red	None	>100	15.1	1	0.5	<0.54	<0.74						
	40	Kinugawa River System	Tagawa River	Ozobashi Bridge	Utsunomiya City	2014/2/10	Sunny	3.9	0.2	5.5	0.0	Yellow reddish faint gray	None	>100	14.4	2	0.4	<0.59	<0.71					
						2013/5/28	Cloudy	27.2	0.4	19.6	0.0	Greenish yellowish dark gray	None	>100	14.3	6	1.9	<0.66	<0.63					
						2013/6/20	Cloudy	22.7	0.4	18.7	0.0	Yellowish reddish gray	None	>100	14.1	4	1.9	<0.65	<0.59					
						2013/7/11	Sunny	37.4	0.2	24.5	0.0	Dark grayish yellow red	None	71	11.8	7	4.0	<0.56	<0.60					
						2013/8/15	Sunny	34.5	0.5	26.4	0.0	Greenish pale gray	None	>100	14.4	<1	0.8	<0.69	<0.53					
						2013/9/19	Sunny	28.9	0.5	23.0	0.0	Bluish greenish faint gray	None	71	12.9	6	2.2	<0.45	<0.71					
2013/11/14						Sunny	18.0	0.3	14.0	0.0	Grayish yellow	None	>100	15.5	1	0.5	<0.67	<0.78						
2014/2/4						Cloudy	7.0	0.2	6.8	0.0	Yellow reddish faint gray	None	>100	16.1	5	1.3	<0.63	<0.58						
2013/5/24						Sunny	21.5	0.1	15.7	0.0	Dark grayish yellow green	None	>100	30.8	7	1.9	<0.68	<0.68						
2013/8/14						Sunny	34.2	0.2	25.2	0.0	Light grayish yellow	None	>100	20.4	2	0.9	<0.65	<0.65						
41	Tonegawa River System	Kamagawa River	Tsukushi Bridge	Utsunomiya City	2013/11/14	Sunny	18.8	0.3	16.0	0.0	Dark grayish yellow red	None	>100	23.1	4	0.8	<0.63	<0.51						
					2014/2/4	Cloudy	8.4	0.1	8.2	0.0	Light grayish reddish yellow	None	>100	27.5	14	3.3	<0.58	<0.63						
					2013/5/23	Sunny	25.2	0.2	24.5	0.0	Dark grayish yellow red	None	>100	23.1	7	2.7	<0.59	<0.61						
					2013/8/15	Sunny	33.1	0.4	27.3	0.0	Light grayish yellow green	None	>100	20.0	1	0.7	<0.72	<0.59						
					2013/11/14	Sunny	11.9	0.3	12.2	0.0	Grayish yellow	None	>100	23.0	1	0.5	<0.64	<0.71						
					2014/2/6	Sunny	4.4	0.2	5.6	0.0	Yellowish reddish gray	None	>100	27.9	2	0.7	<0.56	<0.60						
					2013/5/22	Sunny	27.9	0.5	24.8	0.0	Grayish reddish yellow	faint sewage	32	25.1	28	7.0	<0.72	<0.69						
					2013/8/16	Sunny	29.0	0.7	26.6	0.0	Grayish yellow green	None	>100	22.7	2	0.9	<0.70	<0.85						
					2013/11/15	Cloudy	12.0	1.0	13.0	0.0	Dark grayish yellow	None	>100	25.8	3	1.3	<0.65	<0.72						
					2014/2/6	Sunny	5.2	0.3	6.8	0.0	Yellow reddish faint gray	None	40	30.8	14	6.8	<0.44	<0.65						
42	Tonegawa River System	Tagawa River	Meiji Bridge	Kaminokawa Town	2013/5/24	Sunny	23.8	0.1	19.8	0.0	Yellow reddish dark gray	None	>100	11.7	2	1.5	<0.50	<0.57						
					2013/8/12	Sunny	33.0	0.3	26.1	0.0	Dark grayish yellow red	None	>100	8.8	<1	0.6	<0.64	<0.68						
					2013/11/11	Cloudy	13.0	0.4	14.6	0.0	Grayish yellow red	None	>100	8.4	<1	0.3	<0.59	<0.55						
					2014/2/3	Cloudy	10.9	0.2	9.8	0.0	Yellowish pale gray	None	>100	10.1	<1	0.4	<0.51	<0.52						
					2013/5/24	Sunny	29.2	0.2	28.3	0.0	Dark grayish yellow red	None	>100	24.9	8	3.1	<0.59	<0.57						
					2013/8/12	Sunny	31.8	0.3	25.4	0.0	Grayish yellow green	None	>100	13.0	1	0.7	<0.76	<0.70						
					2013/11/11	Sunny	11.8	0.5	14.4	0.0	Grayish reddish yellow	None	>100	15.0	<1	0.5	<0.61	<0.55						
					2014/2/11	Sunny	4.2	0.1	5.7	0.0	Yellowish pale gray	None	>100	19.8	8	1.7	<0.55	<0.68						
					2013/5/24	Sunny	30.2	0.5	22.2	0.0	Dark grayish yellow red	None	>100	9.9	4	1.5	<0.46	<0.66						
					2013/8/12	Sunny	32.5	0.5	26.2	0.0	Yellow greenish pale gray	None	>100	12.2	<1	0.5	<0.61	<0.68						
43	Tonegawa River System	Tagawa River	Meiji Bridge	Kaminokawa Town	2013/11/11	Sunny	15.1	0.3	14.9	0.0	Grayish yellow red	None	>100	6.9	<1	0.2	<0.39	<0.62						
					2014/2/11	Sunny	6.9	0.2	7.5	0.0	Yellowish pale gray	None	>100	7.9	<1	0.3	<0.71	<0.93						
					2013/5/24	Sunny	28.4	0.2	25.4	0.0	Dark grayish yellow red	None	>100	17.1	7	2.5	<0.60	<0.68						
					2013/8/12	Sunny	34.6	0.4	31.1	0.0	Dark grayish yellow red	None	81	15.6	<1	1.1	<0.60	<0.49						
					2013/11/11	Cloudy	13.5	0.3	14.9	0.0	Grayish yellow red	None	>100	14.2	<1	0.7	<0.47	<0.51						
					2014/2/11	Sunny	6.9	0.2	8.2	0.0	Yellow reddish faint gray	None	>100	17.3	1	0.8	<0.55	<0.71						
					44	Tonegawa River System	Kamagawa River	Tsukushi Bridge	Utsunomiya City	2013/5/23	Sunny	25.2	0.2	24.5	0.0	Dark grayish yellow red	None	>100	23.1	7	2.7	<0.59	<0.61	
										2013/8/15	Sunny	33.1	0.4	27.3	0.0	Light grayish yellow green	None	>100	20.0	1	0.7	<0.72	<0.59	
										2013/11/14	Sunny	11.9	0.3	12.2	0.0	Grayish yellow	None	>100	23.0	1	0.5	<0.64	<0.71	
										2014/2/6	Sunny	4.4	0.2	5.6	0.0	Yellowish reddish gray	None	>100	27.9	2	0.7	<0.56	<0.60	
2013/5/22	Sunny	27.9	0.5	24.8						0.0	Grayish reddish yellow	faint sewage	32	25.1	28	7.0	<0.72	<0.69						
2013/8/16	Sunny	29.0	0.7	26.6						0.0	Grayish yellow green	None	>100	22.7	2	0.9	<0.70	<0.85						
2013/11/15	Cloudy	12.0	1.0	13.0						0.0	Dark grayish yellow	None	>100	25.8	3	1.3	<0.65	<0.72						
2014/2/6	Sunny	5.2	0.3	6.8						0.0	Yellow reddish faint gray	None	40	30.8	14	6.8	<0.44	<0.65						
2013/5/24	Sunny	23.8	0.1	19.8						0.0	Yellow reddish dark gray	None	>100	11.7	2	1.5	<0.50	<0.57						
2013/8/12	Sunny	33.0	0.3	26.1						0.0	Dark grayish yellow red	None	>100	8.8	<1	0.6	<0.64	<0.68						
45	Tonegawa River System	Tagawa River	Meiji Bridge	Kaminokawa Town	2013/11/11	Cloudy	13.0	0.4	14.6	0.0	Grayish yellow red	None	>100	8.4	<1	0.3	<0.59	<0.55						
					2014/2/3	Cloudy	10.9	0.2	9.8	0.0	Yellowish pale gray	None	>100	10.1	<1	0.4	<0.51	<0.52						
					2013/5/24	Sunny	29.2	0.2	28.3	0.0	Dark grayish yellow red	None	>100	24.9	8	3.1	<0.59	<0.57						
					2013/8/12	Sunny	31.8	0.3	25.4	0.0	Grayish yellow green	None	>100	13.0	1	0.7	<0.76	<0.70						
					2013/11/11	Sunny	11.8	0.5	14.4	0.0	Grayish reddish yellow	None	>100	15.0	<1	0.5	<0.61	<0.55						
					2014/2/11	Sunny	4.2	0.1	5.7	0.0	Yellowish pale gray	None	>100	19.8	8	1.7	<0.55	<0.68						
					2013/5/24	Sunny	30.2	0.5	22.2	0.0	Dark grayish yellow red	None	>100	9.9	4	1.5	<0.46	<0.66						
					2013/8/12	Sunny	32.5	0.5	26.2	0.0	Yellow greenish pale gray	None	>100	12.2	<1	0.5	<0.61	<0.68						
					2013/11/11	Sunny	15.1	0.3	14.9	0.0	Grayish yellow red	None	>100	6.9	<1	0.2	<0.39	<0.62						
					2014/2/11	Sunny	6.9	0.2	7.5	0.0	Yellowish pale gray	None	>100	7.9	<1	0.3	<0.71	<0.93						
46	Tonegawa River System	Tagawa River	Meiji Bridge	Kaminokawa Town	2013/5/24	Sunny	28.4	0.2	25.4	0.0	Dark grayish yellow red	None	>100	17.1	7	2.5	<0.60	<0.68						
					2013/8/12	Sunny	34.6	0.4	31.1	0.0	Dark grayish yellow red	None	81	15.6	<1	1.1	<0.60	<0.49						
					2013/11/11	Cloudy	13.5	0.3	14.9	0.0	Grayish yellow red	None	>100	14.2	<1	0.7	<0.47	<0.51						
					2014/2/11	Sunny	6.9	0.2	8.2	0.0	Yellow reddish faint gray	None	>100	17.3	1	0.8	<0.55	<0.71						
					47	Watarase River Area	Omoi River	Kurokawa River	Kaijima Bridge	Kanuma City	2013/5/23	Sunny	25.2	0.2	24.5	0.0	Dark grayish yellow red	None	>100	23.1				

Tochigi River (Water)6/6

Location				Sampling Date	Weather	Air temperature (°C)	Water depth (m)	Water										Activity concentration(Bq/L)		Remarks
No.	Water area		Location					Municipality	Water temperature (°C)	Sampling depth (m)	Color	Odor	Transparency (cm)	Electrical conductivity (mS/m)	SS (mg/L)	Turbidity (unit)	Radioactive cesium			
	Cs-134	Cs-137																		
49		Omioi River	Omioi River	Tamotsu Bridge	Tochigi City	2013/6/24	Sunny	24.5	0.5	20.7	0.0	Grayish yellow red	None	30	9.0	61	17	<0.54	<0.70	
						2013/8/12	Sunny	32.1	0.4	24.2	0.0	Grayish reddish yellow	None	>100	10.5	<1	0.5	<0.59	<0.70	
50		Omioi River	Omioi River	Otome-ohashi Bridge	Oyama City	2013/11/11	Cloudy	12.3	0.4	14.7	0.0	Grayish yellow	None	>100	10.3	<1	0.5	<0.60	<0.62	
						2014/2/11	Sunny	4.8	0.2	7.9	0.0	Yellow reddish faint gray	None	>100	15.0	<1	0.1	<0.76	<0.71	
						2013/5/23	Sunny	25.9	0.4	23.3	0.0	Dark grayish yellow red	None	63	25.3	9	3.7	<0.72	<0.53	
						2013/6/6	Cloudy	23.2	0.1	24.7	0.0	Dark grayish yellow red	None	>100	25.3	6	2.9	<0.59	<0.51	
						2013/7/12	Sunny	36.8	0.2	27.9	0.0	Grayish reddish yellow	None	64	16.1	8	2.4	<0.42	<0.74	
						2013/8/12	Cloudy	26.5	0.8	24.5	0.0	Dark grayish yellow green	None	77	13.8	4	1.7	<0.54	<0.73	
						2013/10/1	Cloudy	22.9	0.5	22.6	0.0	Dark grayish yellow	None	>100	17.2	4	0.9	<0.76	<0.70	
						2013/11/11	Sunny	10.6	0.5	13.9	0.0	Grayish yellow red	None	>100	15.8	4	1.3	<0.52	<0.51	
						2014/2/3	Cloudy	11.9	0.3	11.5	0.0	Reddish light gray	None	>100	24.2	5	2.4	<0.48	<0.63	
						51		Uzuma River Area	Uzuma River	Uzuma Bridge	Tochigi City	2013/5/23	Cloudy	23.3	0.8	20.9	0.0	Dark grayish yellow red	None	61
2013/6/6	Cloudy	24.0	0.6	23.6	0.0							Dark grayish yellow green	None	31	27.2	15	9.0	<0.52	<0.52	
2013/7/16	Sunny	23.5	0.7	25.9	0.0							Yellow reddish dark gray	Faint mold	65	23.1	10	4.1	<0.44	<0.59	
2013/8/6	Sunny	31.6	1.3	26.0	0.0							Dark grayish yellow green	None	96	24.4	7	2.4	<0.68	<0.55	
2013/9/27	Sunny	22.6	0.7	19.9	0.0							Dark grayish reddish yellow	None	55	26.1	3	1.2	<0.56	<0.55	
2013/11/5	Sunny	19.8	0.8	17.0	0.0							Dark grayish yellowish green	None	>100	21.7	5	1.2	<0.51	<0.65	
2014/2/3	Sunny	10.2	0.5	9.9	0.0							Yellowish reddish gray	None	>100	11.6	4	1.4	<0.52	<0.45	
2013/5/28	Sunny	20.2	0.3	15.1	0.0							Soft yellow green	None	>100	19.0	<1	0.3	<0.56	<0.59	
2013/6/5	Sunny	19.5	0.4	18.1	0.0							Dark grayish greenish yellow	None	>100	22.6	<1	0.3	<0.48	<0.47	
52	Tonegawa River System	Watarase River Area		Watarase River intake weir at Sori Power Station	Nikko City							2013/7/17	Cloudy	26.0	0.4	18.5	0.0	Grayish bluish green	None	>100
						2013/8/14	Sunny	30.8	0.6	23.8	0.0	Light grayish yellow green	None	>100	20.7	<1	0.3	<0.65	<0.60	
						2013/10/4	Cloudy	22.3	0.5	16.1	0.0	Grayish blue green	None	>100	2.1	2	1.8	<0.70	<0.53	
						2013/11/8	Sunny	13.9	0.7	11.0	0.0	Grayish green	None	>100	8.7	<1	0.4	<0.67	<0.81	
						2014/2/4	Cloudy	4.8	0.4	4.4	0.0	Yellowish pale gray	None	>100	23.7	1	0.5	<0.53	<0.55	
						2013/5/22	Cloudy	25.7	0.6	18.4	0.0	Yellowish dark gray	None	>100	16.5	6	2.3	<0.78	<0.64	
						2013/8/8	Sunny	25.0	0.6	21.9	0.0	Dark grayish yellow green	None	>100	13.0	2	1.2	<0.56	<0.52	
						2013/11/7	Cloudy	18.3	0.4	14.8	0.0	Dark grayish reddish yellow	None	>100	12.4	<1	0.8	<0.54	<0.52	
						2014/2/4	Cloudy	6.6	0.1	6.3	0.0	Yellow reddish faint gray	None	>100	15.9	1	0.8	<0.39	<0.55	
						53		Watarase River Area	Watarase River	Hajika Bridge	Ashikaga City	2013/5/22	Sunny	27.7	0.5	22.6	0.0	Reddish yellowish dark gray	None	>100
2013/8/7	Sunny	28.1	0.7	25.4	0.0							Yellow greenish gray	None	66	12.9	6	3.5	<0.52	<0.63	
2013/11/6	Sunny	19.0	0.6	16.0	0.0							Dark grayish yellowish green	None	>100	12.5	1	0.9	<0.68	<0.60	
2014/2/3	Sunny	7.9	0.5	6.3	0.0							Yellow reddish faint gray	None	>100	17.2	2	0.8	<0.56	<0.55	
2013/5/22	Sunny	29.8	0.6	25.8	0.0							Yellow reddish dark gray	Faint algae	24	22.6	16	7.4	<0.55	<0.58	
54		Watarase River Area	Watarase River	Nakabashi Bridge	Ashikaga City	2013/8/7	Sunny	29.8	1.0	25.0	0.0	Dark grayish yellow red	None	43	13.0	15	7.2	<0.73	<0.92	
						2013/11/6	Sunny	20.2	0.8	15.1	0.0	Dark grayish bluish green	None	>100	16.1	2	1.1	<0.52	<0.41	
						2014/2/3	Sunny	8.3	0.6	7.9	0.0	Yellowish reddish light gray	None	>100	23.6	3	2.7	<0.69	<0.62	
						2013/5/22	Sunny	30.2	0.5	28.1	0.0	Reddish yellowish dark gray	None	29	30.7	9	6.8	<0.66	<0.64	
						2013/6/20	Cloudy	23.9	0.4	23.0	0.0	Reddish yellowish dark gray	None	34	27.9	16	9.0	<0.56	<0.63	
55		Watarase River Area	Watarase River	Watarase-ohashi Bridge	Tatebayashi City	2013/7/16	Sunny	31.0	0.2	27.0	0.0	Dark grayish reddish yellow	Faint mold	54	22.1	8	5.6	<0.58	<0.59	
						2013/8/6	Cloudy	30.9	1.1	27.2	0.0	Dark grayish yellow green	None	54	21.4	6	2.9	<0.67	<0.70	
						2013/9/30	Cloudy	27.0	0.4	22.8	0.0	Dark grayish yellow	None	50	18.8	11	5.0	<0.63	<0.65	
						2013/11/5	Sunny	22.0	0.6	16.5	0.0	Dark grayish yellow green	None	60	19.6	10	2.9	<0.65	<0.59	
						2013/5/22	Sunny	30.2	0.5	28.1	0.0	Reddish yellowish dark gray	None	29	30.7	9	6.8	<0.66	<0.64	
						2013/6/20	Cloudy	23.9	0.4	23.0	0.0	Reddish yellowish dark gray	None	34	27.9	16	9.0	<0.56	<0.63	
						2013/7/16	Sunny	31.0	0.2	27.0	0.0	Dark grayish reddish yellow	Faint mold	54	22.1	8	5.6	<0.58	<0.59	
						2013/8/6	Cloudy	30.9	1.1	27.2	0.0	Dark grayish yellow green	None	54	21.4	6	2.9	<0.67	<0.70	
56		Watarase River Area	Watarase River	Shinkai Bridge	Tochigi City	2013/9/30	Cloudy	27.0	0.4	22.8	0.0	Dark grayish yellow	None	50	18.8	11	5.0	<0.63	<0.65	
						2013/11/5	Sunny	22.0	0.6	16.5	0.0	Dark grayish yellow green	None	60	19.6	10	2.9	<0.65	<0.59	
						2013/5/22	Sunny	30.2	0.5	28.1	0.0	Reddish yellowish dark gray	None	29	30.7	9	6.8	<0.66	<0.64	
						2014/2/3	Sunny	8.9	0.3	8.7	0.0	Yellowish reddish light gray	None	>100	11.8	8	4.0	<0.47	<0.50	

Tochigi River (Sediment) 1/6

No.	Location				Sampling Date	Weather	Air temperature (°C)	Water depth (m)	Sediment														Activity concentration [Bq/kg(dry)]			Remarks		
	Water area	Location	Municipality	Secumment (°C)					Sample length (cm)	Color	Odor	General items							Grain size distribution(%)			Admiont cont. (%)	Density (g/cm³)	Property	Radioactive cesium			
												Course grave	Medium grav	Fine gravel	Course sand	Medium sand	Fine sand	Silt	Clay	Cs-134	Cs-137				Total			
												(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)				(%)			
R i v e r S y s t e m	Nakagawa River	Ikyobashishita	Nasushiobara City	2013/3/31	Sunny	14.8	0.7	12.6	3	Brown	None	0.0	11.9	27.5	36.4	17.7	2.7	1.4	2.4	81.4	2.644	Gravel/sand	7.5	13	20.5			
				2013/8/20	Cloudy	24.0	0.4	16.2	3	Brownish gray	None	3.2	35.6	26.1	16.9	13.5	2.0	1.3	1.5	81.4	2.649	Gravel/sand	4.8	12	16.8			
				2013/11/9	Sunny	1.8	0.6	7.8	4	Olive yellow	None	0.0	21.8	30.7	30.2	11.8	0.7	3.1	1.6	78.1	2.653	Gravel/sand	8.1	14	22.1			
				2014/2/18	Cloudy	0.3	0.2	3.3	3	Grayish olive	None	0.0	2.1	44.6	35.4	12.9	1.0	1.8	2.2	77.6	2.630	Gravel/sand	9.8	23	32.8			
				2013/5/31	Sunny	22.8	0.5	14.2	3	Dim yellowish brown	None	0.0	1.0	11.1	30.8	51.1	4.8	0.1	1.2	79.4	2.713	Sand/gravel	19	32	51			
				2013/8/20	Cloudy	24.1	0.4	18.0	4	Dark brown	None	5.1	27.5	18.4	15.3	27.7	4.6	0.6	0.8	74.7	2.728	Sand/gravel	28	69	97			
		Komei Bridge	Nasushiobara City	2013/11/9	Sunny	3.0	0.5	7.4	4	Dark brown	None	0.0	7.4	21.6	26.5	38.4	4.8	0.3	1.1	79.9	2.707	Gravel/sand	11	27	38			
				2014/2/18	Cloudy	1.6	0.1	1.9	3	Grayish olive	None	0.0	0.8	26.2	36.7	31.0	1.9	0.7	2.7	75.7	2.700	Gravel/sand	10	26	36			
				2013/5/31	Sunny	20.7	0.2	13.7	4	Dark brown	None	0.0	17.2	23.0	26.0	26.9	4.6	1.0	1.5	80.3	2.778	Sand/gravel	43	90	133			
				2013/8/20	Cloudy	25.0	0.2	18.0	3	Blackish brown	None	0.0	29.3	32.2	20.0	14.3	2.6	0.1	1.5	75.1	2.783	Gravel/sand	21	55	76			
				2013/11/9	Sunny	7.3	0.2	9.0	3	Blackish brown	None	0.0	1.6	14.7	39.4	37.6	4.2	1.0	1.5	75.7	2.783	Gravel/sand	18	61	79			
				2014/2/18	Cloudy	2.8	0.1	3.3	3	Dark grayish yellow	None	0.0	0.2	2.4	8.8	57.5	25.3	1.7	4.1	64.7	2.692	Gravel/sand	34	82	116			
	Yukawa River	Yukawa Bridge	Nasu Town	2013/5/31	Sunny	20.8	0.3	16.3	5	Faint fish	None	2.0	16.6	20.0	29.3	26.0	3.8	0.4	1.9	78.9	2.705	Gravel/sand	25	70	95			
				2013/8/20	Cloudy	23.2	0.3	20.2	4	Extremely dark reddish brown	Dim yellow	4.7	22.9	22.7	17.8	23.7	5.1	1.0	2.2	75.1	2.717	Sand/gravel	17	56	73			
				2013/11/9	Sunny	8.9	0.4	9.9	4	Dim yellowish brown	None	0.0	15.0	28.9	31.8	21.7	1.4	0.3	0.9	75.2	2.678	Gravel/sand	17	33	50			
				2014/2/18	Cloudy	3.1	0.1	4.7	4	Faint hydrogen sulfide	None	0.0	1.5	30.8	30.2	29.9	5.0	0.1	2.6	72.8	2.698	Gravel/sand	13	30	43			
				2013/5/31	Sunny	25.6	0.3	20.6	4	Blackish brown	None	0.0	7.6	15.2	36.5	37.0	1.6	0.3	1.8	83.0	2.691	Sand/gravel	31	60	91			
				2013/6/10	Sunny	26.4	0.2	17.0	3	Blackish brown	None	0.0	13.6	17.7	39.7	25.7	1.1	0.3	1.9	83.0	2.675	Gravel/sand	19	30	49			
	Nakagawa River	Kamikuroiso	Nasushiobara City/Nasu Town	2013/7/10	Sunny	26.9	0.2	20.1	5	Grayish olive	None	0.0	2.2	29.4	33.1	28.0	4.0	1.1	2.2	82.0	2.742	Gravel/sand	7.3	28	35.3			
				2013/8/20	Cloudy	24.6	0.4	20.8	4	Brown	None	1.9	19.1	23.5	26.4	25.3	2.2	0.6	0.9	81.0	2.714	Sand/gravel	24	49	73			
				2013/9/18	Sunny	17.2	0.6	14.0	5	Grayish olive	None	0.0	4.9	25.1	36.0	25.0	8.3	0.3	0.6	82.8	2.705	Gravel/sand	11	31	42			
				2013/11/9	Sunny	14.2	0.4	11.6	4	Dark grayish yellow	None	0.0	15.3	11.3	22.3	40.0	9.6	0.3	1.2	79.3	2.698	Sand/gravel	19	55	74			
				2014/2/18	Cloudy	4.7	0.2	5.5	6	Gray	None	0.0	1.1	28.9	46.0	21.0	0.7	0.6	1.7	81.0	2.743	Gravel/sand	4	9	11			
				2013/5/31	Sunny	24.0	0.5	18.9	3	Dark brown	None	0.0	0.0	0.8	8.9	80.1	7.6	0.9	1.7	76.9	2.686	Sand/gravel	23	55	78			
		Yosasa River	Yosasa Bridge	Nasu Town	2013/8/19	Sunny	28.2	0.4	22.1	7	Blackish brown	Faint drain	0.0	1.5	0.9	12.6	70.7	10.5	1.1	2.7	72.2	2.669	Sand/gravel	37	68	105		
					2013/11/18	Sunny	2.6	0.4	7.0	3	Blackish brown	None	0.0	0.8	1.7	12.3	69.3	11.6	1.1	3.2	69.7	2.671	Sand/silt	24	61	85		
					2014/2/19	Sunny	0.7	0.2	0.9	4	Faint hydrogen sulfide	None	0.0	0.0	1.7	14.1	69.3	11.0	1.1	2.8	66.7	2.667	Sand/gravel	19	71	90		
					2013/6/3	Sunny	18.2	0.4	16.7	4	Extremely dark reddish brown	None	0.0	19.6	24.9	24.7	27.4	2.6	0.1	0.7	81.9	2.834	Sand/gravel	30	74	104		
					2013/8/19	Sunny	27.8	0.7	23.7	3	Blackish brown	None	2.6	20.8	11.6	28.1	32.7	3.1	0.1	1.1	77.3	2.794	Sand/gravel	30	60	90		
					2013/11/18	Sunny	4.9	0.6	7.0	5	Faint hydrogen sulfide	None	1.3	14.5	8.8	15.3	51.8	7.1	0.2	1.2	80.5	2.921	Sand/gravel	21	59	80		
	Kurokawa River	Shinden Bridge	Nasu Town	2013/5/31	Sunny	24.0	0.5	18.9	3	Dark brown	None	0.0	0.0	0.8	8.9	80.1	7.6	0.9	1.7	76.9	2.686	Sand/gravel	23	55	78			
				2013/8/19	Sunny	28.2	0.4	22.1	7	Blackish brown	Faint drain	0.0	1.5	0.9	12.6	70.7	10.5	1.1	2.7	72.2	2.669	Sand/gravel	37	68	105			
				2013/11/18	Sunny	2.6	0.4	7.0	3	Blackish brown	None	0.0	0.8	1.7	12.3	69.3	11.6	1.1	3.2	69.7	2.671	Sand/silt	24	61	85			
				2014/2/19	Sunny	0.7	0.2	0.9	4	Faint hydrogen sulfide	None	0.0	0.0	1.7	14.1	69.3	11.0	1.1	2.8	66.7	2.667	Sand/gravel	19	71	90			
				2013/6/3	Sunny	18.2	0.4	16.7	4	Extremely dark reddish brown	None	0.0	19.6	24.9	24.7	27.4	2.6	0.1	0.7	81.9	2.834	Sand/gravel	30	74	104			
				2013/8/19	Sunny	27.8	0.7	23.7	3	Blackish brown	None	2.6	20.8	11.6	28.1	32.7	3.1	0.1	1.1	77.3	2.794	Sand/gravel	30	60	90			
	Yosasa River	Kawada Bridge	Otawara City	2013/11/18	Sunny	4.9	0.6	7.0	5	Faint hydrogen sulfide	None	1.3	14.5	8.8	15.3	51.8	7.1	0.2	1.2	80.5	2.921	Sand/gravel	21	59	80			
				2014/2/19	Sunny	1.1	0.2	1.2	5	Grayish olive	None	0.0	1.2	13.9	27.7	52.1	3.5	0.2	1.5	75.8	2.934	Gravel/sand	21	53	74			
				2013/5/30	Cloudy	19.8	0.2	18.5	5	Dark brown	None	0.0	1.6	0.4	1.7	82.1	12.2	0.4	1.6	77.0	2.816	Sand	41	62	103			
				2013/6/10	Sunny	23.6	0.2	23.8	5	Dark brown	None	0.0	2.9	15.1	54.7	23.6	0.2	0.2	3.3	78.5	2.642	Sand/gravel	36	73	109			
				2013/7/10	Sunny	29.8	0.2	25.0	5	Dim yellowish brown	Faint clam	0.0	1.8	13.3	22.2	52.9	7.3	1.3	1.2	83.2	2.877	Gravel/sand	94	180	274			
				2013/8/19	Sunny	31.6	0.7	23.0	5	Dark grayish yellow	None	0.0	1.3	0.0	12.1	61.6	20.0	1.0	3.9	75.7	2.906	Sand	20	57	77			
Kurokawa River		Kurohane	Otawara City	2013/9/18	Sunny	21.6	0.5	16.0	5	Dark brown	None	1.0	6.6	0.8	2.2	63.9	23.7	1.1	0.8	78.7	2.836	Sand/gravel	24	63	87			
				2013/11/19	Sunny	15.1	0.5	12.6	5	Grayish olive	None	0.0	23.3	41.0	30.9	4.1	0.1	0.0	0.6	97.0	2.705	Gravel/sand	16	34	50			
				2014/2/17	Cloudy	4.4	0.2	2.9	4	Grayish olive	None	0.0	0.0	2.6	10.4	71.2	13.2	0.4	2.3	77.6	3.028	Sand/gravel	22	45	67			
				2013/5/30	Cloudy	19.6	0.5	17.9	5	Blackish brown	None	0.0	18.4	27.2	32.1	18.8	1.3	1.1	1.3	83.2	2.708	Gravel/sand	23	36	59			
				2013/6/17	Sunny	31.8	0.5	24.5	8	Grayish olive	None	0.0	40.0	22.0	21.2	15.2	1.8	0.0	0.7	84.9	2.695	Gravel/sand	18	43	61			
				2013/7/10	Sunny	34.0	0.3	24.0	8	Dim yellowish orange	None	0.0	4.9	28.1	35.4	27.3	1.9	0.1	2.3	82.3	2.706	Gravel/sand	15	27	42			
Nakagawa River	Kurohane	Otawara City	2013/8/19	Sunny	30.0	0.5	25.5	3	Gray	Dark olive	2.5	37.1	24.2	21.9	11.8	1.0	0.3	1.2	82.4	2.718	Gravel/sand	12	19	31				
			2013/9/18	Sunny	26.6	0.4	19.2	5	Grayish olive	None	0.8	31.7	35.0	23.6	7.9	0.3	0.2	0.6	81.9	2.659	Gravel/sand	9.4	16	25.4				
			2013/11/18	Sunny	16.3	0.3	11.0	3	Gray	None	0.0	23.6	35.9	24.9	14.3	0.5	0.2	0.6	84.4	2.704	Gravel/sand	10	23	33				
			2014/2/19	Sunny	3.5	0.1	3.3	3	Grayish olive	None	0.0	0.8	36.8	39.1	19.9	1.1	0.1	2.0	79.0	2.762	Gravel/sand	15	34	49				

Tochigi River (Sediment) 3/6

No.	Location			Sampling Date	Weather	Air temperature (°C)	Water depth (m)	Sediment																Activity concentration [Bq/kg(dry)]			Remarks	
	Water area	Location	Municipality					Sediment	Sample length (cm)	Color	Odor	General items										Adm cont. (%)	Density (g/cm³)	Property	Radioactive cesium			
												Course grav. (%)	Medium grav. (%)	Fine gravel (%)	Grain size distribution (%)			Silt (%)	Clay (%)	Cs-134	Cs-137				Total			
															Course sand	Medium sand	Fine sand											
19	Arakawa River	Saikachi Bridge	Shiyoa Town	2013/3/29	Cloudy	18.8	0.3	14.9	5	Brown	None	0.0	26.2	37.7	15.5	17.0	2.5	0.1	1.0	80.4	2.671	Gravel/sand	51	140	191			
				2013/8/22	Sunny	23.7	0.7	20.8	10	Dim reddish brown	None	6.1	51.0	20.5	10.3	10.9	1.0	0.0	0.2	85.1	2.664	Sand/gravel	56	120	176			
2013/1/21		Sunny	15.0	0.7	9.9	4	Dark brown	None	6.7	29.5	15.5	14.7	26.7	5.0	0.5	1.4	79.8	2.650	Sand/gravel	57	160	217						
2014/2/14		Cloudy	3.9	0.2	2.5	4	Grayish olive	None	0.0	3.6	38.4	20.3	30.2	4.7	1.3	1.5	77.5	2.671	Gravel/sand	61	140	201						
20	Arakawa River	Renjo Bridge	Sakura City	2013/5/27	Cloudy	20.5	0.3	17.4	3	Faint hydrogen sulfide	None	0.0	1.3	2.0	10.7	67.3	14.7	0.6	3.5	71.0	2.671	Sand/gravel	22	41	63			
				2013/8/22	Sunny	25.3	0.7	23.6	10	Yellowish brown	None	2.6	28.5	12.9	19.6	34.0	1.9	0.0	0.5	84.1	2.678	Sand/gravel	3.6	6.3	9.9			
2013/11/21		Sunny	7.6	0.2	10.9	4	Dim yellowish brown	None	0.0	5.1	11.8	33.2	45.0	3.2	0.1	1.6	80.2	2.668	Sand/gravel	<6.7	12	12						
2014/2/14		Cloudy	6.1	0.2	7.9	3	Olive black	None	0.0	2.7	28.2	24.9	38.3	3.2	0.4	2.4	78.1	2.660	Gravel/sand	<6.2	14	14						
21	Nakagawa River System	Tanaka Bridge	Yaita City	2013/5/29	Cloudy	18.2	0.2	17.1	4	Blackish brown	None	0.0	37.3	38.4	16.7	6.4	0.4	0.3	0.5	79.4	2.676	Gravel/sand	29	56	85			
				2013/8/22	Cloudy	24.0	0.9	22.7	10	Blackish brown	None	0.0	5.5	13.0	38.0	36.3	6.0	0.5	0.7	75.6	2.656	Sand/gravel	65	130	195			
2013/11/21		Sunny	13.8	0.3	10.1	4	Blackish brown	None	1.9	17.7	23.2	38.0	16.8	0.0	0.4	2.3	78.2	2.677	Gravel/sand	30	73	103						
2014/2/14		Cloudy	4.9	0.1	3.9	3	Grayish olive	None	0.0	0.6	30.4	46.7	14.9	2.2	1.8	3.4	88.4	2.678	Gravel/sand	16	56	72						
22	Nakagawa River System	Asahi Bridge	Sakura City	2013/5/27	Cloudy	20.2	0.5	18.8	3	Dark brown	None	3.9	24.3	35.0	25.8	8.8	0.4	1.3	82.4	2.637	Gravel/sand	34	60	94				
				2013/8/22	Cloudy	27.6	0.8	24.6	10	Yellowish brown	None	6.8	12.5	3.9	10.9	59.1	5.3	0.2	1.3	76.2	2.652	Sand/gravel	29	71	100			
2013/11/21		Sunny	9.4	0.5	10.6	5	Brown	None	0.0	0.2	1.8	14.4	64.8	16.7	0.2	1.9	78.8	2.824	Sand	20	52	72						
2014/2/14		Cloudy	5.9	0.2	6.4	4	Grayish olive	None	0.0	0.0	3.2	19.6	73.7	1.4	0.5	1.7	74.1	2.639	Sand/gravel	15	53	68						
23	Nakagawa River System	Mukada Bridge	Nasu Karasuyama City	2013/5/27	Cloudy	21.5	0.8	21.2	3	Blackish brown	None	0.0	24.4	6.2	3.1	47.5	14.7	0.9	3.3	71.2	2.717	Sand/silt	28	56	84			
				2013/6/19	Cloudy	22.0	0.4	20.2	5	Blackish brown	None	0.0	33.3	13.8	10.7	34.0	6.8	0.6	0.9	79.9	2.682	Gravel/sand	12	15	27			
2013/7/11		Sunny	29.9	0.2	26.0	3	Yellowish brown	None	0.0	0.5	8.6	17.3	60.7	11.2	0.1	1.6	77.8	2.678	Sand/gravel	9.7	30	39.7						
2013/8/23		Cloudy	25.4	0.5	25.0	10	Brown	None	0.0	0.0	0.5	5.1	47.9	31.9	2.8	1.7	67.8	2.653	Sand	26	59	85						
24	Nakagawa River System	Egawa River	Tributary	2013/9/19	Sunny	17.9	0.7	19.1	5	Dark grayish yellow	None	0.0	3.3	2.2	9.6	57.4	30.1	4.7	2.7	76.1	2.657	Sand/gravel	19	39	58			
				2013/1/22	Sunny	8.0	0.6	9.6	4	Faint hydrogen sulfide	None	2.9	4.7	1.7	7.2	74.1	7.3	0.6	1.5	77.2	2.705	Sand	8.1	19	27.1			
2014/2/13		Sunny	6.6	0.3	6.8	4	Dim yellowish orange	None	0.0	0.0	0.3	8.2	81.9	5.8	1.1	2.7	77.0	2.646	Sand/gravel	13	22	35						
2013/5/27		Sunny	25.5	0.4	20.3	5	Dark brown	Faint sewage	0.0	28.0	28.6	13.9	24.1	4.3	0.2	1.1	81.7	2.750	Gravel/sand	17	28	45						
25	Nakagawa River System	Kinugawa River	Kosagoe	2013/6/19	Cloudy	26.4	0.5	22.1	5	Dark brown	None	0.0	40.8	24.9	11.9	18.8	3.3	0.1	0.3	83.3	2.692	Gravel/sand	7.6	18	25.6			
				2013/7/11	Sunny	32.5	0.3	26.1	3	Yellowish brown	None	0.0	4.5	33.2	24.5	32.5	3.1	0.3	1.8	81.0	2.759	Gravel/sand	26	58	84			
2013/8/23		Cloudy	25.7	0.7	24.7	10	Brown	None	0.0	43.7	24.8	13.6	14.2	3.0	0.1	0.5	82.0	2.709	Sand/gravel	9.7	24	33.7						
2013/9/19		Sunny	22.1	0.9	18.0	5	Grayish olive	None	3.3	52.2	21.9	8.7	9.2	3.1	0.8	0.9	83.8	2.709	Gravel/sand	8.1	20	28.1						
26	Nakagawa River System	Yunishi River	Maesawa Bridge	2013/1/22	Sunny	10.4	0.6	7.6	5	Faint hydrogen sulfide	Faint drain	1.5	24.6	21.1	18.8	27.7	3.6	1.0	1.7	80.7	2.739	Sand/silt	130	350	480			
				2014/2/13	Sunny	5.9	0.3	6.1	5	Faint hydrogen sulfide	None	0.0	26.2	12.6	4.2	15.5	12.3	18.1	11.1	37.0	2.570	Sand/silt	120	320	440			
2013/6/4		Sunny	14.5	0.5	12.3	5	Grayish olive	None	0.0	22.5	24.2	24.5	26.7	1.6	0.1	0.5	82.3	2.725	Gravel/sand	13	25	38						
2013/8/13		Sunny	23.2	0.8	21.8	7	Dim yellowish brown	None	0.0	42.3	30.8	19.6	5.4	0.2	0.6	1.1	84.3	2.712	Gravel/sand	13	20	33						
27	Nakagawa River System	Kinugawa River	Kosagoe	2013/11/12	Cloudy	7.0	0.4	11.1	3	Dark grayish yellow	None	4.6	7.6	16.0	27.0	35.2	7.3	0.3	2.0	84.2	2.718	Sand/gravel	21	50	71			
				2014/2/12	Cloudy	4.2	0.4	4.8	6	Gray	None	0.0	4.1	40.9	26.5	24.4	2.2	0.8	1.2	79.3	2.734	Gravel/sand	6.9	17	23.9			
2013/6/5		Sunny	19.6	0.4	19.3	3	Olive yellow	None	0.0	16.0	15.9	27.9	37.2	2.4	0.0	0.7	81.6	2.678	Sand/gravel	5.3	15	18.3						
2013/8/13		Sunny	24.6	0.5	19.3	5	Yellowish gray	None	3.9	25.4	28.4	27.2	12.6	1.0	0.2	1.4	80.0	2.491	Gravel/sand	2.2	6.9	9.1						
28	Nakagawa River System	Kinugawa River	Kosagoe	2013/11/12	Cloudy	7.0	0.4	8.2	4	Grayish olive	None	1.1	12.9	30.0	41.9	12.5	0.4	0.3	1.0	83.5	2.674	Gravel/sand	2.5	6.5	9.0			
				2014/2/12	Sunny	1.2	0.2	2.2	4	Gray	None	0.0	3.8	24.7	22.0	37.2	10.0	1.0	1.2	76.4	2.715	Gravel/sand	<6.5	12	12			
2013/6/4		Sunny	15.7	0.6	11.5	4	Dark olive brown	None	0.0	0.0	55.9	35.3	7.5	0.4	0.9	0.1	95.0	2.655	Gravel/sand	7.4	14	21.4						
2013/8/13		Sunny	23.9	0.4	20.0	6	Extremely dark reddish brown	None	0.0	13.3	17.5	23.5	36.2	6.8	0.3	2.4	82.1	2.634	Gravel/sand	80	160	240						
28	Nakagawa River System	Kinugawa River	Kosagoe	2013/11/12	Cloudy	7.0	0.5	9.8	3	Dim yellowish brown	None	4.0	59.0	30.9	4.8	1.0	0.1	0.3	0.0	89.6	2.668	Gravel/sand	5.8	17	22.8			
				2014/2/12	Sunny	4.0	0.4	4.4	4	Grayish olive	None	0.0	1.3	43.4	30.9	18.8	3.5	1.5	0.6	80.5	2.682	Gravel/sand	13	22	35			
2013/6/4		Sunny	24.0	0.5	15.6	3	Olive black	None	0.0	32.7	39.7	15.7	9.4	1.6	0.4	0.6	86.4	2.682	Gravel/sand	11	24	35						
2013/8/13		Sunny	22.0	0.5	20.0	4	Brown	None	0.0	52.9	31.7	11.2	3.4	0.6	0.3	1.0	85.0	2.674	Gravel/sand	18	41	59						
28	Nakagawa River System	Kinugawa River	Kosagoe	2013/11/12	Cloudy	5.8	0.3	9.0	3	Dim yellowish brown	None	0.0	40.3	37.7	16.0	5.2	0.4	0.0	0.6	81.3	2.723	Gravel/sand	15	32	47			
				2014/2/12	Cloudy	3.6	0.2	3.9	5	Dim yellowish orange	None	0.0	4.4	46.0	28.3	13.6	3.7	1.1	3.0	80.0	2.664	Gravel/sand	9.6	23	32.6			

Tochigi River (Sediment) 5/6

Location				Sampling Date	Weather	Air temperature (°C)	Water depth (m)	Sediment														Activity concentration [Bq/kg(dry)]			Remarks	
No.	Water area		Municipality					Sediment (°C)	Sample length (cm)	Color	Odor	General items						Grain size distribution(%)		Adm cont. (%)	Density (g/cm³)	Property	Radioactive cesium			
													Course gravel	Medium gravel	Fine gravel	Course sand	Medium sand	Fine sand	Silt				Clay	Cs-134		Cs-137
R i v e r S y s t e m	K i m g a w a R i v e r S y s t e m	Egawa River	Tributary	Shimosuke City	2013/5/23	Sunny	28.3	0.7	24.2	5	Faint hydrogen sulfide	None	2.1	44.8	19.0	18.0	10.9	1.6	0.7	2.9	83.7	2.675	Sand/gravel	13	28	41
					2013/6/20	Cloudy	23.6	1.1	19.4	6	Dark brown	None	0.0	6.7	39.5	31.3	17.4	1.2	0.6	3.4	82.9	2.676	Gravel/sand	12	18	30
					2013/7/11	Sunny	34.6	0.5	25.3	5	Blackish brown	None	0.0	6.2	44.2	31.3	14.4	1.3	0.1	2.4	84.2	2.664	Gravel/sand	11	23	34
					2013/8/16	Sunny	28.8	0.9	25.3	3	Dark brown	None	3.0	52.0	14.0	14.2	14.4	0.8	0.3	1.3	81.6	2.666	Gravel/sand	9.9	17	26.9
					2013/9/20	Sunny	24.0	0.4	20.0	5	Faint hydrogen sulfide	None	0.0	8.2	7.3	1.2	14.1	20.5	23.0	25.7	31.4	2.484	Silt/sand	150	330	480
					2013/11/15	Cloudy	11.1	0.3	13.6	5	Extremely dark reddish brown	None	0.0	0.8	1.7	8.4	70.8	13.6	2.2	2.5	76.6	2.684	Sand/gravel	21	49	70
			2014/2/6	Sunny	4.5	0.2	2.9	5	Gray	None	1.5	25.2	19.3	21.3	27.5	2.5	0.5	2.3	79.8	2.683	Gravel/sand	16	35	51		
			2013/6/7	Cloudy	16.5	0.3	11.7	3	Blackish brown	None	0.0	22.3	23.6	25.9	23.4	4.2	0.3	0.4	78.7	2.710	Sand/gravel	90	220	310		
			2013/8/14	Sunny	28.0	0.3	14.5	6	Dark reddish brown	None	0.0	7.9	8.8	17.9	52.0	11.7	0.5	1.4	77.1	2.692	Sand/gravel	130	290	420		
			2013/11/13	Sunny	7.9	0.2	7.9	3	Blackish brown	None	0.0	9.4	8.4	25.9	40.7	13.0	0.8	1.9	78.4	2.746	Sand/gravel	110	260	370		
			2014/2/10	Sunny	3.8	0.2	4.1	3	Blackish brown	None	5.7	5.3	5.3	15.7	36.1	23.2	3.1	5.7	68.5	2.662	Sand/gravel	200	450	650		
			2013/6/12	Cloudy	21.1	0.4	15.2	5	Dark reddish brown	None	0.0	13.9	6.7	13.0	48.5	13.9	1.0	3.0	69.7	2.728	Sand/gravel	67	120	187		
		2013/8/13	Sunny	27.2	0.5	18.6	7	Dark reddish brown	None	0.0	0.0	0.7	5.3	71.2	19.8	0.8	2.2	74.1	2.856	Sand	23	55	78			
		2013/11/12	Sunny	9.7	0.5	11.1	4	Blackish brown	None	0.0	0.4	8.1	42.4	40.2	2.0	4.4	2.6	72.2	2.731	Sand/gravel	15	46	61			
		2014/2/10	Sunny	3.9	0.2	4.4	4	Grayish olive	None	0.0	0.3	7.8	41.7	41.8	3.8	2.2	2.5	71.7	2.628	Sand/gravel	22	47	69			
		2013/5/28	Cloudy	27.2	0.4	19.8	3	Blackish brown	None	0.0	5.2	4.2	11.8	64.4	11.4	0.6	2.5	80.8	2.723	Sand/gravel	17	47	64			
		2013/6/20	Cloudy	22.7	0.4	18.6	7	Olive black	None	0.0	23.2	20.7	30.3	23.3	1.6	0.2	0.8	85.1	2.718	Gravel/sand	10	13	23			
		2013/7/11	Sunny	37.4	0.2	24.0	5	Dim yellowish brown	None	0.0	4.8	17.4	24.8	47.7	3.5	0.5	1.3	78.2	2.740	Gravel/sand	7.8	18	25.8			
		2013/8/15	Sunny	34.5	0.5	27.0	7	Grayish brown	Dark olive	4.0	50.5	31.5	9.3	4.4	0.1	0.2	0.0	90.4	2.710	Gravel/sand	4.4	13	17.4			
		2013/9/19	Sunny	28.9	0.5	23.9	5	Grayish olive	None	0.0	45.7	22.8	17.2	13.4	0.1	0.2	0.6	81.2	2.629	Gravel/sand	11	25	36			
		2013/11/14	Sunny	18.0	0.3	15.0	4	Yellowish brown	None	0.0	1.7	16.1	30.9	47.7	2.1	0.1	1.3	82.0	2.688	Sand/gravel	8.5	17	25.5			
		2014/2/4	Cloudy	7.0	0.2	6.7	4	Gray	None	0.0	14.0	21.3	36.0	25.1	1.1	0.5	2.1	80.9	2.652	Gravel/sand	14	21	35			
		2013/5/24	Sunny	21.5	0.1	16.0	5	Faint hydrogen sulfide	Faint sewage	7.2	27.7	14.5	20.4	25.0	3.3	0.7	1.3	77.0	2.405	Gravel/sand	4.6	87	133			
		2013/8/14	Sunny	34.2	0.2	26.8	5	Dim reddish brown	None	0.0	18.5	43.1	26.9	9.5	0.8	0.2	1.0	84.9	2.647	Gravel/sand	9.4	27	36.4			
		2013/11/14	Sunny	18.8	0.3	16.0	3	Blackish brown	Faint sewage	0.0	20.6	32.3	23.1	21.2	1.9	0.1	0.7	83.8	2.690	Gravel/sand	18	32	50			
		2014/2/4	Cloudy	8.4	0.1	8.0	3	Grayish olive	None	0.0	0.0	13.1	20.0	41.0	17.4	2.4	6.2	68.0	2.621	Sand/gravel	49	120	169			
		2013/5/23	Sunny	25.2	0.2	24.4	5	Blackish brown	None	0.0	41.9	24.1	12.0	20.1	1.1	0.2	0.6	79.8	2.696	Gravel/sand	13	19	32			
		2013/8/15	Sunny	33.1	0.4	27.2	3	Dark brown	None	6.7	57.0	17.7	6.2	9.1	1.9	0.4	1.0	85.3	2.682	Gravel/sand	10	21	31			
		2013/11/14	Sunny	11.9	0.3	13.6	2	Brown	None	0.0	2.9	55.7	9.1	24.1	7.3	0.2	0.7	86.0	2.714	Gravel/sand	23	53	76			
		2014/2/6	Sunny	4.4	0.2	5.4	4	Gray	None	6.0	25.1	12.5	9.9	36.8	8.5	0.2	0.9	73.8	2.669	Sand/gravel	11	30	41			
		2013/5/22	Sunny	27.9	0.5	24.6	10	Dark grayish yellow	None	1.2	41.5	15.7	20.6	14.3	3.8	0.9	2.0	81.0	2.642	Gravel/sand	23	43	66			
		2013/8/16	Sunny	29.0	0.7	26.3	8	Dim reddish brown	None	5.5	65.0	15.1	8.5	4.6	0.4	0.2	0.8	82.9	2.642	Gravel/sand	13	30	43			
		2013/11/15	Cloudy	12.0	1.0	13.3	4	Blackish brown	None	0.0	6.0	15.9	27.5	41.0	5.3	2.1	2.2	78.3	2.670	Gravel/sand	28	76	104			
		2014/2/6	Sunny	5.2	0.3	5.1	4	Grayish olive	None	0.0	3.8	27.4	30.6	25.1	5.9	2.8	4.3	77.7	2.655	Gravel/sand	26	70	96			
		2013/5/24	Sunny	23.8	0.1	20.4	5	Dark brown	None	3.4	35.6	20.0	20.5	11.2	1.3	0.0	0.0	81.9	2.660	Gravel/sand	6.8	19	25.8			
		2013/8/12	Sunny	33.0	0.3	26.8	4	Blackish brown	None	2.6	25.2	20.3	18.7	30.0	1.3	0.5	1.4	82.3	2.636	Gravel/sand	6.9	8.4	15.3			
		2013/11/11	Cloudy	13.0	0.4	14.2	3	Dark brown	None	0.0	27.3	15.6	11.9	38.2	5.7	0.4	0.9	78.9	2.661	Gravel/sand	8.4	15	15			
		2014/2/3	Cloudy	10.9	0.2	9.6	4	Faint hydrogen sulfide	None	0.0	24.2	27.2	37.5	9.6	0.6	0.3	0.7	84.7	2.695	Gravel	3.3	8.9	12.2			
		2013/5/24	Sunny	29.2	0.2	28.0	3	Blackish brown	None	1.6	28.4	15.1	22.4	29.4	1.9	0.1	1.1	78.7	2.661	Gravel/sand	7.0	13	20.0			
		2013/8/12	Sunny	31.8	0.3	26.0	3	Dim brown	None	0.7	68.5	25.2	3.1	1.0	0.7	0.4	0.4	93.4	2.665	Gravel/sand	4.2	7.9	12.1			
		2013/11/11	Sunny	11.8	0.5	15.0	4	Extremely dark reddish brown	None	5.0	45.8	15.3	5.4	19.6	8.1	0.4	0.5	88.5	2.747	Gravel/sand	3.3	5.9	9.2			
		2014/2/11	Sunny	4.2	0.1	5.0	3	Dark grayish yellow	None	0.0	3.9	7.7	15.3	60.9	8.5	2.2	1.5	81.8	2.656	Sand/gravel	8.6	17	25.6			
		2013/5/24	Sunny	30.2	0.5	22.4	3	Blackish brown	None	1.8	38.4	14.3	19.6	22.1	1.7	0.6	1.5	82.5	2.665	Gravel/sand	2.5	5.9	8.4			
		2013/8/12	Sunny	32.5	0.5	25.7	7	Grayish olive	None	0.0	9.4	15.3	24.7	41.9	4.4	0.4	3.9	85.1	2.649	Gravel/sand	3.2	7.9	11.1			
		2013/11/11	Sunny	15.1	0.3	15.1	3	Grayish olive	Dark olive	0.0	54.7	35.0	5.2	4.1	0.7	0.1	0.3	89.0	2.658	Gravel/sand	2.4	4.2	6.6			
		2014/2/11	Sunny	6.9	0.2	7.1	4	Faint hydrogen sulfide	None	0.0	1.0	24.0	35.8	32.9	4.1	0.5	1.6	85.0	2.686	Gravel/sand	3.4	9.7	13.1			
		2013/5/24	Sunny	28.4	0.2	25.6	8	Dim yellowish orange	None	2.5	41.2	26.3	14.3	12.7	2.1	0.2	0.7	80.5	2.725	Gravel/sand	13	33	46			
		2013/8/12	Sunny	34.6	0.4	32.0	3	Black	None	2.5	34.7	19.7	17.5	20.3	2.7	0.2	2.5	88.0	2.804	Gravel/sand	11	25	36			
2013/11/11	Cloudy	13.5	0.3	15.0	4	Dark reddish brown	Dark olive	0.0	39.3	26.0	12.1	19.6	2.3	0.1	0.6	81.6	2.738	Gravel/sand	15	34	49					
2014/2/11	Sunny	6.9	0.2	7.1	4	Dark grayish yellow	None	0.0	1.9	18.0	20.4	33.3	15.2	5.9	5.3	46.4	2.678	Sand/silt	130	290	420					

Tochigi River (Sediment) 6/6

No.	Location			Sampling Date	Weather	Air temperature (°C)	Water depth (m)	Sediment													Activity concentration [Bq/kg(dry)]			Remarks			
	Water area	Location	Municipality					Sediment (°C)	Sample length (cm)	Color	Odor	Grain size distribution(%)						Admixture cont. (%)	Density (g/cm ³)	Property	Radioactive cesium						
												Course gravel	Medium gravel	Fine gravel	Course sand	Medium sand	Fine sand				Silt	Clay	Cs-134		Cs-137	Total	
49	Onoi River	Onoi River	Tamotsu Bridge	Tochigi City	2013/6/24	Sunny	24.5	0.5	20.1	5	Dark brown	None	0.0	0.0	37.1	24.5	30.8	6.9	0.5	0.1	85.1	2.669	Sand/gravel	2.5	6.5	9.0	
					2013/8/12	Sunny	32.1	0.4	24.2	7	Blackish brown	None	0.0	1.2	4.6	3.9	37.3	37.7	5.9	9.4	54.4	2.608	Silt/sand	38	81	119	
					2013/11/11	Cloudy	12.3	0.4	14.8	4	Blackish brown	None	0.0	21.8	52.0	8.8	14.3	2.7	0.0	0.4	84.4	2.661	Gravel/sand	1.5	4.1	5.6	
					2014/2/11	Sunny	4.8	0.2	6.2	4	Dim yellowish orange	None	0.0	0.1	9.4	33.9	53.3	1.5	0.6	1.2	82.1	2.637	Sand/gravel	2.8	5.8	8.6	
					2013/5/23	Sunny	25.9	0.4	23.5	5	Faint hydrogen sulfide	None	0.0	10.9	4.5	4.5	36.0	33.6	1.5	9.1	72.9	2.725	Sand/silt	18	44	62	
50	Onoi River	Onoi River	Otome-ohashi Bridge	Oyama City	2013/6/6	Cloudy	23.2	0.1	24.9	5	Blackish brown	None	0.0	31.1	22.4	10.2	32.0	3.7	0.0	0.8	85.2	2.728	Gravel/sand	5.8	13	18.8	
					2013/7/12	Sunny	36.8	0.2	27.5	3	Dark reddish brown	None	0.0	7.0	39.7	18.2	26.2	6.4	0.6	1.8	84.5	2.674	Gravel/sand	6.9	15	21.9	
					2013/8/12	Cloudy	26.5	0.8	25.0	5	Faint hydrogen sulfide	None	9.8	31.2	7.9	3.1	9.5	32.7	2.5	3.5	77.7	2.647	Sand/silt	26	75	101	
					2013/10/1	Cloudy	22.9	0.5	22.2	4	Faint hydrogen sulfide	Faint drain	0.0	0.0	0.4	0.2	8.1	74.9	6.7	9.8	73.1	2.685	Sand/silt	16	37	53	
					2013/11/11	Sunny	10.6	0.5	13.8	3	Blackish brown	None	4.1	46.7	21.6	8.4	11.3	7.0	0.5	0.4	89.4	2.729	Gravel/sand	3.2	7.3	10.5	
51	Uzuma River Area	Uzuma River	Uzuma Bridge	Tochigi City	2014/2/3	Cloudy	11.9	0.3	11.2	4	Grayish olive	None	2.8	22.0	16.8	11.7	34.5	9.6	0.2	2.4	86.5	2.734	Gravel/sand	2.4	7.8	10.2	
					2013/5/23	Cloudy	23.3	0.8	21.2	5	Brown	None	0.0	0.0	0.1	0.2	4.8	22.3	46.5	26.1	55.0	2.391	Silt	72	120	192	
					2013/6/6	Cloudy	24.0	0.6	22.2	6	Black	Medium drain	0.0	0.0	0.9	0.4	2.3	17.3	66.2	12.9	23.1	2.330	Silt	150	380	530	
					2013/7/16	Sunny	23.5	0.7	25.6	5	Faint hydrogen sulfide	Faint drain	0.0	0.0	0.2	0.4	3.7	25.6	43.5	26.5	24.0	2.387	Silt	140	320	460	
					2013/8/6	Sunny	31.6	1.3	25.7	10	Blackish brown	None	0.0	44.7	35.0	10.5	6.1	1.4	1.0	1.4	82.1	2.682	Sand/gravel	13	31	44	
52	Tonegawa River System	Watarase River Area	Watarase River	Uzuma Bridge	Tochigi City	2013/9/27	Sunny	22.6	0.7	20.1	5	Dark olive brown	None	0.0	0.0	0.1	4.1	32.1	43.6	20.2	59.4	2.593	Silt	56	130	186	
						2013/11/5	Sunny	19.8	0.8	16.6	4	Blackish brown	None	0.0	52.0	23.0	5.3	9.8	6.7	2.1	1.1	83.9	2.705	Gravel/sand	8.8	26	34.8
						2014/2/3	Sunny	10.2	0.5	9.7	7	Olive black	None	0.0	0.0	0.1	0.1	2.6	24.2	45.9	27.1	64.5	2.622	Sand/silt	13	37	50
						2013/5/28	Sunny	20.2	0.3	15.0	10	Olive black	None	0.0	12.0	24.9	37.9	22.1	3.0	0.1	0.1	80.6	2.670	Sand/gravel	6.1	18	24.1
						2013/6/5	Sunny	19.5	0.4	18.3	3	Olive brown	None	0.0	10.3	18.1	33.1	32.5	4.9	0.1	1.1	84.0	2.682	Sand/gravel	7.5	19	26.5
53	Tonegawa River System	Watarase River Area	Watarase River	Hajika Bridge	Nikko City	2013/7/17	Cloudy	26.0	0.4	17.9	3	Grayish olive	None	0.0	2.5	41.3	32.9	18.3	2.5	0.1	2.4	80.8	2.679	Gravel/sand	11	21	32
						2013/8/14	Sunny	30.8	0.6	25.6	5	Dark brown	None	0.0	21.4	20.1	31.1	22.7	2.7	0.6	1.5	83.5	2.658	Sand/gravel	18	36	54
						2013/10/4	Cloudy	22.3	0.5	15.8	3	Dark olive brown	None	0.0	0.5	9.6	38.3	47.7	2.0	0.3	1.7	74.8	2.638	Gravel/sand	8.4	20	28.4
						2013/11/8	Sunny	13.9	0.7	11.2	5	Dark brown	None	0.0	21.3	29.7	30.2	17.7	0.3	0.1	0.8	81.5	2.659	Sand/gravel	6.0	15	21.0
						2014/2/4	Cloudy	4.8	0.4	4.1	4	Gray	None	2.9	14.1	14.3	20.1	43.9	2.2	0.1	2.4	80.4	2.695	Gravel/sand	-7.4	21	21
54	Watarase River Area	Watarase River	Nakabashi Bridge	Ashikaga City	2013/5/22	Cloudy	25.7	0.6	18.6	5	Dark brown	None	0.0	4.6	15.0	20.6	48.9	8.0	0.1	2.8	84.0	2.770	Sand/gravel	2.1	38	39	
					2013/8/8	Sunny	25.0	0.6	21.7	10	Blackish brown	None	3.4	8.1	6.3	12.3	55.3	12.5	1.1	1.1	78.7	2.864	Sand	8.7	28	36.7	
					2013/11/7	Cloudy	18.3	0.4	15.0	3	Dim yellowish brown	None	0.0	5.0	5.5	11.4	66.0	9.9	0.4	1.9	77.2	2.862	Sand/gravel	5.9	16	21.9	
					2014/2/4	Cloudy	6.6	0.1	6.0	3	Blackish brown	None	0.0	0.9	1.6	15.7	66.8	10.0	2.1	5.9	78.0	2.713	Sand/gravel	-7.7	15	15	
					2013/5/22	Sunny	27.7	0.5	22.8	10	Gray	None	0.0	22.3	30.7	16.3	26.9	3.2	0.1	0.5	84.5	2.731	Sand	3.5	6.7	10.2	
55	Watarase River Area	Watarase River	Nakabashi Bridge	Ashikaga City	2013/8/7	Sunny	28.1	0.7	25.1	10	Olive black	None	0.0	23.6	9.8	10.7	46.7	7.5	0.1	1.6	81.0	2.727	Sand	1.9	3.3	5.2	
					2013/11/6	Sunny	19.0	0.6	16.8	3	Blackish brown	None	0.0	3.3	1.1	7.3	81.8	4.6	0.4	1.6	75.5	2.672	Sand	2.6	7.0	9.6	
					2014/2/3	Sunny	7.9	0.5	6.2	7	Gray	None	0.0	25.3	41.2	18.1	12.9	1.6	0.1	0.8	85.8	2.714	Sand/gravel	2.7	6.8	9.5	
					2013/5/22	Sunny	29.8	0.6	26.0	10	Blackish brown	None	0.0	7.4	4.3	5.1	37.7	38.7	2.2	4.6	80.8	2.749	Sand/gravel	8.8	21	29.8	
					2013/8/7	Sunny	29.8	1.0	24.7	10	Grayish olive	Faint sewage	0.0	0.1	3.0	4.5	12.5	37.9	17.6	24.5	39.7	2.568	Silt	34	78	112	
56	Watarase River Area	Watarase River	Shinkai Bridge	Tochigi City	2013/11/6	Sunny	20.2	0.8	14.8	5	Faint hydrogen sulfide	None	0.0	13.5	25.7	48.3	10.4	0.8	0.1	1.0	80.2	2.695	Gravel/sand	3.8	8.9	12.7	
					2014/2/3	Sunny	8.3	0.6	7.7	7	Gray	None	0.0	36.6	20.4	14.8	14.4	7.6	2.3	4.0	83.7	2.734	Sand/gravel	40	120	160	
					2013/5/22	Sunny	30.2	0.5	27.6	10	Faint hydrogen sulfide	None	0.0	0.0	2.5	14.3	73.2	8.2	0.2	1.6	81.7	2.763	Sand/gravel	12	17	29	
					2013/6/20	Cloudy	23.9	0.4	22.5	5	Faint hydrogen sulfide	None	0.0	6.2	13.5	17.9	47.3	11.1	0.9	3.3	78.8	2.748	Sand/gravel	12	22	34	
					2013/7/16	Sunny	31.0	0.2	21.5	5	Faint hydrogen sulfide	None	0.0	0.0	27.1	26.8	36.9	6.5	1.5	1.2	79.6	2.736	Gravel/sand	13	17	30	
56	Watarase River Area	Watarase River	Shinkai Bridge	Tochigi City	2013/8/6	Cloudy	30.9	1.1	26.9	10	Dark brown	None	0.0	33.9	34.0	9.6	16.1	4.7	0.3	1.4	86.9	2.769	Sand/gravel	6.0	16	22.0	
					2013/9/30	Cloudy	27.0	0.4	22.2	3	Blackish brown	None	0.0	29.1	28.6	14.3	22.5	4.3	0.5	0.7	84.6	2.800	Gravel/sand	4.7	13	17.7	
					2013/11/5	Sunny	22.0	0.6	16.5	4	Black	None	0.0	10.8	23.0	15.9	44.0	5.5	0.3	0.6	79.2	2.783	Sand/gravel	5.1	19	24.1	
2014/2/3	Sunny	8.9	0.3	8.6	5	Faint hydrogen sulfide	None	0.0	0.5	12.9	26.8	49.2	8.6	1.1	0.9	82.8	2.766	Gravel/sand	9.6	22	31.6						

Tochigi River (Surrounding Environment) 1/6

Location				Sampling Date	Weather	Air temperature (°C)	Surrounding Environment(Soil,Air dose)											Remarks						
No.	Water area	Location	Municipality				Left bank						Right bank											
							Color	Odor	Property	Activity concentration [Bq/kg(dry)]			Air Dose (μSv/h)	Color	Odor	Property	Radioactive cesium							
										Cs-134	Cs-137	Total					Cs-134		Cs-137	Total				
R i v e r s	Nakagawa River	Ikuyobashishita	Nasuhohara City	2013/5/31	Sunny	14.8	-	-	-	-	-	-	-	Blackish brown	faint earth	Loamy	290	660	950	0.12	(Left bank) Soil not exposed			
				2013/8/20	Cloudy	24.0	-	-	-	-	-	-	-	-	-	Brownish gray	faint earth	Loamy	720	1,500	2,220	0.12	(Left bank)Soil to collect sample due to previously closed land	
				2013/11/19	Sunny	1.8	-	-	-	-	-	-	-	-	-	-	Black	faint earth	Loamy	440	1,000	1,440	0.14	(Left bank)Soil to collect sample due to previously closed land
				2014/2/18	Cloudy	0.3	-	-	-	-	-	-	-	-	-	-	Faint hydrogen sulfide	faint earth	Loamy	990	2,500	3,490	0.09	(Left bank)Soil to collect sample due to previously closed land
				2013/5/31	Sunny	22.8	Blackish brown	faint earth	Loamy	1,900	3,900	5,800	0.25	Dark brown	faint earth	Loamy	420	840	1,260	0.20				
				2013/8/20	Cloudy	24.1	Dark brown	faint earth	Loamy	2,200	4,700	6,900	0.23	Dark reddish brown	faint earth	Loamy	710	1,500	2,210	0.27				
		Komei Bridge	2013/11/19	Sunny	3.0	Blackish brown	faint earth	Loamy	1,200	2,800	4,000	0.21	Dim yellowish brown	faint earth	Sandy	190	420	610	0.22					
			2014/2/18	Cloudy	1.6	Grayish olive	faint earth	Loamy	880	2,200	3,080	0.14	Brown	faint earth	Loamy	87	210	297	0.10					
			2013/5/31	Sunny	20.7	Blackish brown	faint earth	Loamy	400	810	1,210	0.28	Extremely dark reddish brown	faint earth	Loamy	1,400	2,800	4,200	0.24					
			2013/8/20	Cloudy	25.0	Black	Dim yellow	Loamy	2,200	4,900	7,100	0.20	Dark reddish brown	Dim yellow	Loamy	3,700	7,900	11,600	0.21					
			2013/11/19	Sunny	7.3	Extremely dark brown	faint earth	Loamy	1,100	2,500	3,600	0.21	Dark reddish brown	faint earth	Loamy	1,700	3,700	5,400	0.25					
			2014/2/18	Cloudy	2.8	Dark brown	faint earth	Loamy	670	1,700	2,370	0.15	Grayish olive	faint earth	Loamy	1,300	3,200	4,500	0.12					
	Takaomata River	Takaomata Bridge	Nasu Town	2013/5/31	Sunny	20.8	Blackish brown	faint earth	Loamy	500	1,100	1,600	0.35	Dark reddish brown	faint earth	Loamy	760	1,600	2,360	0.28				
				2013/8/20	Cloudy	23.2	Dim brown	faint earth	Loamy	1,100	2,400	3,500	0.26	Dim brown	Dim yellow	Loamy	1,500	3,200	4,700	0.21				
				2013/11/19	Sunny	8.9	Black	faint earth	Loamy	2,200	5,000	7,200	0.27	Blackish brown	faint earth	Loamy	1,300	3,000	4,300	0.19				
	Yukawa River	Yukawa Bridge	Nasu Town	2014/2/18	Cloudy	3.1	Grayish olive	faint earth	Loamy	900	2,200	3,100	0.14	Dark grayish yellow	faint earth	Loamy	990	2,500	3,490	0.13				
				2013/5/31	Sunny	25.6	Dark brown	faint earth	Loamy	870	1,700	2,570	0.28	Blackish brown	faint earth	Loamy	1,500	3,000	4,500	0.27				
				2013/6/10	Sunny	26.4	Dark reddish brown	faint earth	Loamy	580	1,100	1,680	0.26	Blackish brown	faint earth	Loamy	2,800	5,700	8,500	0.27				
	Nakagawa River	Kamikuroiso	Nasuhohara City/Nasu Town	2013/7/10	Sunny	26.9	Dark reddish brown	Faint mold	Loamy	990	2,200	3,190	0.24	Blackish brown	faint earth	Loamy	3,500	7,200	10,700	0.22				
				2013/8/20	Cloudy	24.6	Dark reddish brown	Dim yellow	Loamy	1,600	3,600	5,200	0.26	Olive brown	faint earth	Sandy	2,200	4,800	7,000	0.27				
				2013/9/18	Sunny	17.2	Blackish brown	faint earth	Loamy	800	1,800	2,600	0.22	Blackish brown	faint earth	Loamy	2,100	4,700	6,800	0.28				
				2013/11/19	Sunny	14.2	Blackish brown	faint earth	Loamy	470	1,100	1,570	0.25	Grayish brown	faint earth	Loamy	2,100	4,800	6,900	0.26				
				2014/2/18	Cloudy	4.7	-	-	-	-	-	-	-	-	-	-	Blackish brown	faint earth	Loamy	240	590	830	0.15	(Left bank) Soils to collect sample due to river on the ground
				2013/5/31	Sunny	24.0	Blackish brown	faint earth	Loamy	2,000	4,000	6,000	0.31	Extremely dark brown	faint earth	Loamy	1,800	3,600	5,400	0.26				
	Yosasa River	Yosasa Bridge	Nasu Town	2013/8/19	Sunny	28.2	Dark brown	Dim yellow	Loamy	6,300	14,000	20,300	0.42	Dim yellowish brown	Dim yellow	Loamy	1,400	3,100	4,500	0.29				
				2013/11/18	Sunny	2.6	Black	faint earth	Loamy	7,700	18,000	25,700	0.44	Black	faint earth	Loamy	1,600	3,600	5,200	0.26				
				2014/2/19	Sunny	0.7	Blackish brown	faint earth	Loamy	1,600	4,300	5,900	0.23	Faint hydrogen sulfide	faint earth	Loamy	760	1,900	2,660	0.21				
				2013/6/3	Sunny	18.2	Extremely dark reddish brown	faint earth	Loamy	370	830	1,200	0.39	Dark brown	faint earth	Loamy	2,100	4,100	6,200	0.34				
2013/8/19				Sunny	27.8	Dim brown	faint earth	Loamy	4,100	8,800	12,900	0.37	Dim brown	Faint grass	Loamy	3,700	7,900	11,600	0.30					
2013/11/18				Sunny	4.9	Blackish brown	faint earth	Loamy	1,400	3,300	4,700	0.37	Blackish brown	faint earth	Loamy	980	2,400	3,380	0.31					
Yosasa River	Kawada Bridge	Otawara City	2014/2/19	Sunny	1.1	Blackish brown	faint earth	Loamy	690	1,800	2,490	0.19	Dark olive brown	faint earth	Loamy	410	1,100	1,510	0.17					
			2013/5/30	Cloudy	19.8	Black	faint earth	Loamy	850	1,700	2,550	0.24	Blackish brown	faint earth	Loamy	1,500	2,900	4,400	0.34					
			2013/6/10	Sunny	23.6	Dark brown	faint earth	Loamy	580	1,200	1,780	0.22	Dark reddish brown	faint earth	Loamy	1,100	2,400	3,500	0.26					
			2013/7/10	Sunny	29.8	Dark brown	faint earth	Loamy	1,100	2,500	3,600	0.22	Dim yellowish brown	faint earth	Loamy	2,100	4,500	6,600	0.34					
			2013/8/19	Sunny	31.6	Dim reddish brown	faint earth	Loamy	1,100	2,400	3,500	0.23	Brown	faint earth	Loamy	1,200	2,700	3,900	0.34					
			2013/9/18	Sunny	21.6	Blackish brown	faint earth	Loamy	920	2,000	2,920	0.25	Blackish brown	faint earth	Loamy	1,800	4,000	5,800	0.36					
			2013/11/19	Sunny	15.1	Dark reddish brown	faint earth	Loamy	1,100	2,500	3,600	0.25	Dark reddish brown	faint earth	Loamy	820	2,000	2,820	0.34					
			2014/2/17	Cloudy	4.4	Dim yellowish orange	faint earth	Loamy	320	850	1,170	0.20	Gray	faint earth	Loamy	340	910	1,250	0.19					
			2013/5/30	Cloudy	19.6	Blackish brown	faint earth	Loamy	410	810	1,220	0.16	Dark brown	faint earth	Loamy	160	310	470	0.10					
			2013/6/17	Sunny	31.8	Brown	faint earth	Loamy	550	1,100	1,650	0.18	Dark brown	faint earth	Loamy	330	690	1,020	0.11					
			2013/7/10	Sunny	34.0	Brown	faint earth	Loamy	640	1,400	2,040	0.11	Olive black	faint earth	Loamy	980	2,100	3,080	0.11					
			Nakagawa River	Kurobane	Otawara City	2013/8/19	Sunny	30.0	Dim yellowish brown	faint earth	Sandy	800	1,800	2,600	0.15	Dim brown	faint earth	Loamy	530	1,200	1,730	0.12		
2013/9/18	Sunny	26.6				Extremely dark brown	faint earth	Loamy	420	960	1,380	0.17	Blackish brown	faint earth	Loamy	270	620	890	0.11					
2013/11/18	Sunny	16.3				Black	faint earth	Loamy	430	1,000	1,430	0.15	Blackish brown	faint earth	Loamy	290	690	980	0.11					
2014/2/19	Sunny	3.5				Dark grayish yellow	faint earth	Loamy	190	480	670	0.15	Blackish brown	faint earth	Loamy	290	760	1,050	0.11					

Tochigi River (Surrounding Environment) 2/6

Location				Sampling Date	Weather	Air temperature (°C)	Surrounding Environment(Soil,Air dose)											Remarks					
No.	Water area	Location	Municipality				Left bank						Right bank										
							Color	Odor	Property	Activity concentration [Bq/kg(dry)]			Air Dose (μSv/h)	Color	Odor	Property	Activity concentration [Bq/kg(dry)]			Air Dose (μSv/h)			
										Radioactive cesium							Radioactive cesium						
			Cs-134	Cs-137	Total	Cs-134	Cs-137	Total				Cs-134	Cs-137	Total									
R i v e r s	10	Matsuba River	Tributary	Otawara City	2013/5/30	Cloudy	19.5	Dark brown	faint earth	Loamy	190	410	600	0.11	Black	faint earth	Loamy	260	550	810	0.16		
					2013/6/17	Sunny	29.5	Blackish brown	faint earth	Loamy	420	880	1,300	0.13	Dark brown	faint earth	Loamy	370	760	1,130	0.14		
					2013/7/10	Sunny	34.6	Brown	faint earth	Loamy	550	1,200	1,750	0.12	Dark brown	faint earth	Loamy	730	1,600	2,330	0.11		
					2013/8/19	Sunny	31.6	Dim yellowish brown	Dim yellow	Loamy	500	1,100	1,600	0.13	Dim yellowish orange	faint earth	Sandy	1,000	2,000	3,000	0.19		
					2013/9/18	Sunny	22.1	Extremely dark brown	faint earth	Loamy	380	810	1,190	0.13	Extremely dark brown	faint earth	Loamy	230	550	780	0.18		
					2013/11/18	Sunny	9.4	Dark brown	faint earth	Loamy	320	680	1,000	0.14	Black	faint earth	Loamy	540	1,300	1,840	0.15		
		11	Sabigawa River		Uda Bridge	Otawara City	2014/2/19	Sunny	3.3	Blackish brown	faint earth	Loamy	120	300	420	0.13	Faint hydrogen sulfide	faint earth	Loamy	420	1,100	1,520	0.13
							2013/5/29	Cloudy	21.5	Dim yellowish brown	faint earth	Loamy	280	570	850	0.13	Brown	faint earth	Loamy	250	530	780	0.09
							2013/8/21	Sunny	28.8	Especially dark reddish brown	Dim yellow	Loamy	470	1,000	1,470	0.09	Blackish brown	Dim yellow	Loamy	140	310	450	0.08
							2013/11/20	Sunny	10.6	Blackish brown	faint earth	Loamy	450	1,100	1,550	0.11	Blackish brown	faint earth	Loamy	240	550	790	0.09
							2014/2/17	Cloudy	4.9	Olive brown	faint earth	Loamy	160	500	660	0.10	Grayish olive	faint earth	Loamy	100	290	390	0.08
							2013/5/29	Cloudy	21.4	Blackish brown	faint earth	Loamy	220	430	650	0.18	Brown	faint earth	Loamy	230	490	720	0.13
	12	Momura River	Momuranaka Bridge	Otawara City	2013/8/21	Sunny	27.5	Blackish brown	faint earth	Loamy	740	1,500	2,240	0.13	Blackish brown	Dim yellow	Loamy	540	1,200	1,740	0.12		
					2013/11/20	Sunny	15.7	Blackish brown	faint earth	Loamy	610	1,600	2,210	0.17	Dark grayish yellow	faint earth	Loamy	240	610	850	0.12		
					2014/2/17	Cloudy	5.3	Grayish olive	faint earth	Loamy	130	330	460	0.12	Dim yellowish orange	faint earth	Loamy	220	530	750	0.11		
					2013/6/3	Sunny	18.5	Brown	faint earth	Loamy	1,000	1,900	2,900	0.21	Dark brown	faint earth	Loamy	610	1,200	1,810	0.15		
	13	Yunohara	Nasushiobara City	Nasushiobara City	2013/7/30	Cloudy	25.2	Especially dark reddish brown	faint earth	Loamy	780	1,600	2,380	0.20	Especially dark reddish brown	faint earth	Loamy	470	1,100	1,570	0.14		
					2013/11/20	Sunny	0.0	Blackish brown	faint earth	Loamy	700	1,600	2,300	0.19	Blackish brown	faint earth	Loamy	860	2,000	2,860	0.13		
					2014/2/17	Cloudy	0.4	Dark olive brown	faint earth	Loamy	350	930	1,280	0.11	-	-	-	-	-	-	-		
					2013/6/3	Sunny	19.0	Dark reddish brown	faint earth	Loamy	2,900	5,900	8,800	0.66	Blackish brown	faint earth	Loamy	1,300	2,700	4,000	0.60		
	14	Sekiba Bridge	Nasushiobara City	Nasushiobara City	2013/8/21	Sunny	23.5	Blackish brown	faint earth	Loamy	1,600	3,300	4,900	0.50	Reddish black	Faint grass	Loamy	1,700	3,500	5,200	0.60		
					2013/11/20	Sunny	7.2	Blackish brown	faint earth	Loamy	1,500	3,400	4,900	0.48	Blackish brown	faint earth	Loamy	1,900	4,600	6,500	0.61		
					2014/2/17	Cloudy	1.2	Faint hydrogen sulfide	faint earth	Loamy	290	710	1,000	0.23	Dim yellowish orange	faint earth	Loamy	3,700	9,300	13,000	0.37		
					2013/5/29	Cloudy	21.0	Yellowish brown	faint earth	Loamy	330	640	970	0.14	Dim reddish brown	faint earth	Loamy	310	630	940	0.13		
	15	Hokigawa River	Iwai Bridge	Otawara City	2013/8/21	Cloudy	26.6	Dark reddish brown	Dim yellow	Loamy	540	1,200	1,740	0.12	Dark reddish gray	Dim yellow	Loamy	780	1,700	2,480	0.09		
					2013/11/20	Sunny	14.6	Blackish brown	faint earth	Loamy	820	1,900	2,720	0.11	Blackish brown	faint earth	Loamy	530	1,200	1,730	0.11		
					2014/2/17	Cloudy	5.9	Dim yellowish orange	faint earth	Loamy	170	410	580	0.11	Gray	faint earth	Loamy	95	210	305	0.09		
					2013/5/30	Cloudy	19.1	Dim yellowish brown	faint earth	Loamy	150	300	450	0.09	Yellowish brown	faint earth	Loamy	120	260	380	0.09		
	16	Hokigawa Bridge	Otawara City	Otawara City	2013/6/18	Cloudy	25.8	Brown	Faint grass	Loamy	1,100	2,200	3,300	0.11	Brown	Faint grass	Loamy	85	200	285	0.10		
					2013/7/10	Sunny	36.3	Grayish olive	None	Sandy	650	1,400	2,050	0.11	Faint fish	None	Loamy	410	870	1,280	0.09		
					2013/8/22	Sunny	28.8	Brown	faint earth	Loamy	290	590	880	0.11	Brown	faint earth	Loamy	170	360	530	0.10		
					2013/9/18	Sunny	28.1	Dark brown	faint earth	Loamy	620	1,300	1,920	0.12	Brown	faint earth	Loamy	120	270	390	0.05		
	17	Nakagawa River	Shinnaka Bridge	Nakagawa Town	2013/11/18	Sunny	17.0	Blackish brown	faint earth	Loamy	900	2,200	3,100	0.11	Brown	faint earth	Loamy	31	73	104	0.10		
					2014/2/13	Sunny	4.0	Olive brown	faint earth	Loamy	150	380	530	0.11	Dark grayish yellow	faint earth	Loamy	69	160	229	0.10		
					2013/5/30	Cloudy	19.6	Brown	faint earth	Loamy	51	120	171	0.09	Brown	faint earth	Loamy	33	62	95	0.10		
					2013/6/19	Light rain	20.7	Brown	Faint grass	Loamy	120	280	400	0.08	Dark brown	faint earth	Loamy	130	290	420	0.11		
					2013/7/11	Sunny	29.1	Yellowish brown	None	Loamy	160	330	490	0.09	Olive black	faint earth	Loamy	170	370	540	0.11		
					2013/8/21	Cloudy	29.0	Dim reddish brown	faint earth	Loamy	210	480	690	0.07	Dim brown	Dim yellow	Loamy	320	600	920	0.09		
		18	Mumogawa River	Kosei Bridge	Nakagawa Town	2013/9/18	Sunny	28.1	Dim yellowish brown	faint earth	Loamy	120	290	410	0.08	Dim yellowish brown	faint earth	Loamy	120	220	340	0.09	
						2013/11/22	Sunny	4.6	Grayish brown	faint earth	Loamy	48	110	158	0.08	Blackish brown	faint earth	Loamy	53	110	163	0.09	
2014/2/13						Sunny	4.4	Blackish brown	faint earth	Loamy	47	130	177	0.08	Olive black	faint earth	Loamy	28	79	107	0.09		
2013/5/29						Cloudy	23.2	Dim yellowish brown	faint earth	Loamy	54	100	154	0.10	Dim yellowish brown	faint earth	Loamy	58	130	188	0.10		
2013/6/18						Cloudy	23.9	Blackish brown	faint earth	Loamy	100	230	330	0.09	Blackish brown	faint earth	Loamy	110	240	350	0.11		
2013/7/10						Sunny	36.9	Grayish olive	None	Sandy	200	390	590	0.08	Yellowish brown	None	Loamy	210	430	640	0.11		
18	Mumogawa River	Kosei Bridge	Nakagawa Town	2013/8/23	Cloudy	25.1	Dark reddish brown	faint earth	Loamy	120	280	400	0.08	Dark reddish brown	faint earth	Loamy	120	260	380	0.09			
				2013/9/19	Sunny	17.9	Blackish brown	faint earth	Loamy	100	220	320	0.10	Blackish brown	faint earth	Loamy	91	210	301	0.09			
				2013/11/18	Sunny	16.4	Blackish brown	faint earth	Loamy	110	270	380	0.08	Blackish brown	faint earth	Loamy	53	140	193	0.09			
				2014/2/13	Sunny	4.8	Yellowish brown	faint earth	Loamy	28	79	107	0.11	Grayish olive	faint earth	Loamy	55	140	195	0.09			

Tochigi River (Surrounding Environment) 3/6

Location					Sampling Date	Weather	Air temperature (°C)	Surrounding Environment(Soil,Air,dose)											Remarks					
No.	Water area		Location	Municipality				Left bank						Right bank										
								Color	Odor	Property	Activity concentration [Bq/kg(dry)]			Air Dose (μSv/h)	Color	Odor	Property	Activity concentration [Bq/kg(dry)]			Air Dose (μSv/h)			
											Radioactive cesium							Radioactive cesium						
			Cs-134	Cs-137	Total	Cs-134	Cs-137	Total				Cs-134	Cs-137	Total										
R i v e r s	19	Arakawa River	Saikachi Bridge	Shioya Town	2013/5/29	Cloudy	18.8	Brown	faint earth	Loamy	240	480	720	0.15	Brown	faint earth	Loamy	110	250	360	0.15			
					2013/8/22	Sunny	23.7	Dark reddish brown	faint earth	Loamy	270	590	860	0.11	Dark reddish brown	faint earth	Loamy	620	1,300	1,920	0.13			
					2013/11/21	Sunny	15.0	Dark brown	faint earth	Loamy	160	420	580	0.15	Dark brown	faint earth	Loamy	310	700	1,010	0.14			
			2014/2/14	Cloudy	3.9	Grayish olive	faint earth	Loamy	76	170	246	0.13	Brown	faint earth	Loamy	120	270	390	0.13					
			2013/5/27	Cloudy	20.5	Dark brown	faint earth	Loamy	210	460	670	0.09	Dark brown	faint earth	Loamy	140	260	400	0.09					
			2013/8/22	Sunny	25.3	Dark reddish brown	faint earth	Loamy	210	490	700	0.08	Dark reddish brown	faint earth	Loamy	150	340	490	0.09					
		20	Arakawa River	Renjo Bridge	Sakura City	2013/11/21	Sunny	7.6	Blackish brown	faint earth	Loamy	170	410	580	0.10	Blackish brown	faint earth	Loamy	130	300	430	0.09		
						2014/2/14	Cloudy	6.1	Olive black	faint earth	Loamy	56	150	206	0.09	Dim yellowish orange	faint earth	Loamy	85	260	345	0.09		
						2013/5/29	Cloudy	18.2	Brown	faint earth	Loamy	50	120	170	0.11	Brown	faint earth	Loamy	340	670	1,010	0.13		
						2013/8/22	Cloudy	24.0	Dark reddish brown	faint earth	Loamy	380	890	1,270	0.11	Dark reddish brown	faint earth	Loamy	400	920	1,320	0.12		
						2013/11/21	Sunny	13.8	Blackish brown	faint earth	Loamy	350	790	1,140	0.13	Dark brown	faint earth	Loamy	170	400	570	0.11		
						2014/2/14	Cloudy	4.9	Dark grayish yellow	faint earth	Loamy	180	480	660	0.12	Dim yellowish brown	faint earth	Loamy	190	450	640	0.12		
	21	Nakagawa River System	Uchikawa River	Tanaka Bridge	Yaiza City	2013/5/27	Cloudy	20.2	Blackish brown	faint earth	Loamy	170	320	490	0.09	Dark brown	faint earth	Loamy	190	360	550	0.08		
						2013/8/22	Cloudy	27.6	Dark reddish brown	faint earth	Loamy	120	290	410	0.07	Dark reddish brown	faint earth	Loamy	150	330	480	0.08		
						2013/11/21	Sunny	9.4	Blackish brown	faint earth	Loamy	81	160	241	0.09	Blackish brown	faint earth	Loamy	140	420	560	0.09		
						2014/2/14	Cloudy	5.9	Faint hydrogen sulfide	faint earth	Loamy	51	130	181	0.09	Blackish brown	faint earth	Loamy	52	140	192	0.08		
						2013/5/27	Cloudy	21.5	Brown	faint earth	Loamy	72	150	222	0.08	Dim yellowish brown	faint earth	Sandy	130	290	420	0.09		
						2013/6/19	Cloudy	22.0	Dark brown	Faint grass	Loamy	130	270	400	0.09	Dark reddish brown	Faint grass	Loamy	180	340	520	0.08		
	23	Nakagawa River System	Arakawa River	Mukada Bridge	Sakura City	2013/7/11	Sunny	29.9	Brown	faint earth	Loamy	140	250	390	0.06	Dark reddish brown	faint earth	Loamy	170	350	520	0.08		
						2013/8/23	Cloudy	25.4	Faint fish	None	Loamy	93	230	323	0.09	Faint fish	faint earth	Loamy	160	370	530	0.07		
						2013/9/19	Sunny	17.9	Brown	faint earth	Loamy	140	330	470	0.08	Blackish brown	faint earth	Loamy	95	230	325	0.07		
						2013/11/22	Sunny	8.0	Grayish brown	faint earth	Loamy	47	100	147	0.08	Grayish brown	faint earth	Sandy	94	210	304	0.09		
						2014/2/13	Sunny	6.6	Yellowish brown	faint earth	Loamy	27	63	90	0.09	Olive black	faint earth	Loamy	100	270	370	0.07		
						2013/5/27	Sunny	25.5	Dim yellowish brown	faint earth	Loamy	110	220	330	0.08	Blackish brown	faint earth	Loamy	49	120	169	0.08		
			24	Nakagawa River System	Egawa River	Tributary	Nasu Kasuyama City	2013/6/19	Cloudy	26.4	Dark reddish brown	Faint grass	Loamy	180	370	550	0.08	Especially dark reddish brown	Faint grass	Loamy	97	210	307	0.08
								2013/7/11	Sunny	32.5	Brown	faint earth	Loamy	92	210	302	0.09	Brown	faint earth	Loamy	89	230	319	0.07
								2013/8/23	Cloudy	25.7	Faint fish	faint earth	Loamy	90	190	280	0.07	Faint fish	faint earth	Loamy	160	340	500	0.07
								2013/9/19	Sunny	22.1	Blackish brown	faint earth	Loamy	75	160	235	0.07	Blackish brown	faint earth	Loamy	84	190	274	0.07
2013/11/22								Sunny	10.4	Blackish brown	faint earth	Loamy	130	330	460	0.08	Dark brown	faint earth	Loamy	87	230	317	0.07	
2014/2/13								Sunny	5.9	Blackish brown	faint earth	Loamy	61	130	191	0.07	Dark grayish yellow	faint earth	Loamy	64	150	214	0.07	
25	Tonegawa River System	Kinugawa River	Kawaji Daichi Power Station, front	Nikko City	2013/6/4	Sunny	14.5	Olive black	Dim yellow	Loamy	460	900	1,360	0.01	Olive black	faint earth	Loamy	490	1,000	1,490	0.18			
					2013/8/13	Sunny	23.2	Dark reddish brown	faint earth	Loamy	730	1,600	2,330	0.15	Reddish black	faint earth	Loamy	1,200	2,500	3,700	0.16			
					2013/11/12	Cloudy	7.0	Blackish brown	faint earth	Loamy	480	1,100	1,580	0.18	Dark reddish brown	Dim yellow	Loamy	1,100	2,600	3,700	0.16			
					2014/2/12	Cloudy	4.2	Gray	faint earth	Loamy	240	630	870	0.12	Faint hydrogen sulfide	faint earth	Loamy	340	870	1,210	0.12			
					2013/6/3	Sunny	19.6	Yellowish brown	faint earth	Loamy	42	96	138	0.09	Blackish brown	faint earth	Loamy	24	52	76	0.06			
					2013/8/13	Sunny	24.6	Blackish brown	None	Loamy	55	110	165	0.09	Blackish brown	faint earth	Loamy	13	21	34	0.05			
		26	Tonegawa River System	Kinugawa River System	Yunishi River	Maesawa Bridge	Nikko City	2013/11/12	Cloudy	7.0	Dark reddish brown	faint earth	Sandy	120	290	410	0.09	Blackish brown	faint earth	Loamy	33	97	130	0.07
								2014/2/12	Sunny	1.2	Grayish olive	faint earth	Loamy	55	180	235	0.05	Faint hydrogen sulfide	faint earth	Loamy	200	470	670	0.04
								2013/6/4	Sunny	15.7	Grayish olive	faint earth	Sandy	35	67	102	0.12	Grayish yellow	None	Sandy	580	1,200	1,780	0.21
								2013/8/13	Sunny	23.9	Gray	None	Sandy	43	96	139	0.19	Dim brown Olive gray	None	Sandy	730	1,600	2,330	0.20
								2013/11/12	Cloudy	7.0	Dim yellowish brown	faint earth	Sandy	34	85	119	0.12	Dark brown	None	Sandy	250	620	870	0.19
								2014/2/12	Sunny	4.0	Gray	faint earth	Loamy	20	40	60	0.11	Dim yellowish brown	faint earth	Loamy	440	1,100	1,540	0.13
27	Tonegawa River System	Kinugawa River System	Ojika River	Tributary	Nikko City	2013/6/4	Sunny	24.0	Dim yellowish brown	Dim yellow	Loamy	610	1,200	1,810	0.20	Blackish brown	faint earth	Loamy	830	1,800	2,630	0.17		
						2013/8/13	Sunny	22.0	Dark reddish brown	faint earth	Loamy	1,200	2,600	3,800	0.24	Dark reddish brown	None	Loamy	780	1,700	2,480	0.19		
						2013/11/12	Cloudy	5.8	Especially dark reddish brown	faint earth	Loamy	1,000	2,300	3,300	0.19	Blackish brown	faint earth	Loamy	630	1,500	2,130	0.12		
						2014/2/12	Cloudy	3.6	Dim yellowish orange	faint earth	Loamy	210	500	710	0.17	Blackish brown	faint earth	Loamy	290	650	940	0.15		

Tochigi River (Surrounding Environment) 5/6

Location						Sampling Date	Weather	Air temperature (°C)	Surrounding Environment(Soil,Air dose)											Remarks					
No.	Water area		Location	Municipality	Left bank						Right bank														
					Color				Odor	Property	Activity concentration [Bq/kg(dry)]			Air Dose (μSv/h)	Color	Odor	Property	Activity concentration [Bq/kg(dry)]			Air Dose (μSv/h)				
											Radioactive cesium							Radioactive cesium							
			Cs-134	Cs-137	Total	Cs-134	Cs-137	Total				Cs-134	Cs-137	Total											
R i v e r s	38	Egawa River	Tributary	Shimosuke City	2013/5/23	Sunny	28.3	Dark brown	faint earth	Loamy	120	210	330	0.09	Brown	faint earth	Loamy	72	150	222	0.07				
					2013/6/20	Cloudy	23.6	Blackish brown	faint earth	Loamy	600	1,300	1,900	0.07	Dark brown	faint earth	Loamy	220	410	630	0.09				
					2013/7/11	Sunny	34.6	Brown	None	Loamy	110	210	320	0.08	Brown	None	Loamy	320	670	990	0.08				
					2013/8/16	Sunny	28.8	Blackish brown	None	Loamy	360	820	1,180	0.08	Dim reddish brown	Dim yellow	Loamy	130	310	440	0.09				
					2013/9/20	Sunny	24.0	Blackish brown	faint earth	Loamy	40	94	134	0.09	Dim yellowish brown	faint earth	Loamy	100	210	310	0.07				
					2013/11/15	Cloudy	11.1	Dark reddish brown	Medium grass	Loamy	58	130	188	0.08	Dim yellowish brown	faint earth	Loamy	67	140	207	0.08				
					2014/2/6	Sunny	4.5	Dark grayish yellow	faint earth	Loamy	21	43	64	0.09	Dark grayish yellow	faint earth	Loamy	40	96	136	0.09				
					2013/6/7	Cloudy	16.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(Left bank) Soil not exposed
					2013/8/14	Sunny	28.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(Left bank) Soils in collect sample due to previously raised bank
					2013/11/13	Sunny	7.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(Left bank) Soils in collect sample due to previously raised bank
					2014/2/10	Sunny	3.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(Left bank) Soils in collect sample due to previously raised bank
					39	Akabori River	Nikko City Hall, front	Nikko City	2013/6/12	Cloudy	21.1	Blackish brown	None	Loamy	490	1,000	1,490	0.11	Dark reddish brown	faint earth	Loamy	280	570	850	0.12
	2013/8/13	Sunny	27.2	Black					faint earth	Loamy	360	770	1,130	0.12	Reddish black	faint earth	Loamy	590	1,300	1,890	0.11				
	2013/11/12	Sunny	9.7	Dark reddish brown					faint earth	Loamy	210	460	670	0.10	Blackish brown	faint earth	Loamy	330	670	1,000	0.09				
	40	Kiwadajima		Nikko City	2014/2/10	Sunny	3.9	Dark olive brown	faint earth	Loamy	240	690	930	0.07	Dim yellowish orange	faint earth	Loamy	320	810	1,130	0.09				
					2013/5/28	Cloudy	27.2	Dim yellowish brown	faint earth	Loamy	89	200	289	0.08	Blackish brown	faint earth	Loamy	200	400	600	0.10				
					2013/6/20	Cloudy	22.7	Faint hydrogen sulfide	faint earth	Loamy	120	270	390	0.07	Blackish brown	faint earth	Loamy	490	940	1,430	0.09				
	41	Tagawa River	Ozobashi Bridge	Utsunomiya City	2013/7/11	Sunny	37.4	Faint hydrogen sulfide	faint earth	Loamy	160	380	540	0.06	Dark brown	None	Loamy	600	1,200	1,800	0.06				
					2013/8/15	Sunny	34.5	Dark brown	None	Loamy	220	450	670	0.06	Dark brown	faint earth	Loamy	480	980	1,460	0.06				
					2013/9/19	Sunny	28.9	Black	faint earth	Loamy	400	930	1,330	0.06	Blackish brown	faint earth	Loamy	67	150	217	0.09				
					2013/11/14	Sunny	18.0	Reddish black	faint earth	Loamy	260	640	900	0.07	Reddish black	faint earth	Loamy	1,300	3,000	4,300	0.07				
					2014/2/4	Cloudy	7.0	Grayish olive	faint earth	Loamy	120	300	420	0.08	Brownish gray	faint earth	Loamy	37	120	157	0.10				
					2013/5/24	Sunny	21.5	Dark reddish brown	faint earth	Loamy	160	320	480	0.08	Blackish brown	faint earth	Loamy	470	920	1,390	0.08				
					2013/8/14	Sunny	34.2	Dark reddish brown	faint earth	Loamy	110	240	350	0.08	Blackish brown	faint earth	Loamy	560	1,200	1,760	0.08				
					2013/11/14	Sunny	18.8	Reddish black	faint earth	Loamy	90	220	310	0.08	Reddish black	faint earth	Loamy	320	730	1,050	0.07				
					2014/2/4	Cloudy	8.4	Brown	faint earth	Loamy	19	58	77	0.08	Brown	faint earth	Loamy	200	560	760	0.09				
					2013/5/23	Sunny	25.2	Dim yellowish brown	faint earth	Sandy	89	160	249	0.07	Dim yellowish brown	faint earth	Loamy	120	220	340	0.07				
					2013/8/15	Sunny	33.1	Dim yellowish brown	Dim yellow	Loamy	94	230	324	0.06	Dim reddish brown	Dim yellow	Loamy	180	370	550	0.07				
					2013/11/14	Sunny	11.9	Blackish brown	faint earth	Loamy	110	240	350	0.06	Blackish brown	faint earth	Loamy	130	300	430	0.08				
	42	Kamagawa River	Tsukushi Bridge	Utsunomiya City	2014/2/6	Sunny	4.4	Dim yellowish orange	faint earth	Loamy	9.6	27	36.6	0.06	Olive black	faint earth	Loamy	32	74	106	0.08				
					2013/5/22	Sunny	27.9	Blackish brown	faint earth	Loamy	51	77	128	0.06	Brown	faint earth	Loamy	26	71	97	0.06				
					2013/8/16	Sunny	29.0	Dark brown	faint earth	Loamy	60	170	230	0.06	Brown	faint earth	Loamy	71	160	231	0.05				
	43	Tagawa River	Meiji Bridge	Kaminokawa Town	2013/11/15	Cloudy	12.0	Blackish brown	faint earth	Loamy	33	94	127	0.06	Reddish black	Dim yellow	Loamy	34	93	127	0.06				
					2014/2/6	Sunny	5.2	Olive black	faint earth	Loamy	34	77	111	0.06	Grayish olive	faint earth	Loamy	21	65	86	0.07				
					2013/5/24	Sunny	23.8	Dim yellowish brown	faint earth	Loamy	85	190	275	0.05	Dim yellowish brown	faint earth	Loamy	84	170	254	0.06				
	44	Yanabashi Bridge	Oyama City	Utsunomiya City	2013/8/12	Sunny	33.0	Black	faint earth	Loamy	190	420	610	0.08	Blackish brown	faint earth	Loamy	110	220	330	0.07				
					2013/11/11	Cloudy	13.0	Reddish black	faint earth	Loamy	88	190	278	0.08	Reddish black	faint earth	Loamy	100	210	310	0.08				
					2014/2/3	Cloudy	10.9	Dim yellowish orange	faint earth	Loamy	26	78	104	0.09	Blackish brown	faint earth	Loamy	80	230	310	0.08				
	45	Kurokawa River	Kaijima Bridge	Kanuma City	2013/5/24	Sunny	29.2	Dark brown	faint earth	Loamy	130	220	350	0.07	Dim yellowish brown	faint earth	Loamy	240	520	760	0.09				
					2013/8/12	Sunny	31.8	Black	Dim yellow	Loamy	180	400	580	0.07	Dark reddish brown	faint earth	Loamy	190	390	580	0.09				
					2013/11/11	Sunny	11.8	Reddish black	Dim yellow	Loamy	210	430	640	0.07	Reddish black	faint earth	Loamy	13	32	45	0.07				
	46	Onari Bridge	Mibu Town	Kanuma City	2014/2/11	Sunny	4.2	Dark brown	faint earth	Loamy	66	160	226	0.07	Faint hydrogen sulfide	faint earth	Loamy	110	260	370	0.08				
					2013/5/24	Sunny	30.2	Dark brown	faint earth	Loamy	130	250	380	0.07	Olive brown	faint earth	Sandy	240	510	750	0.08				
					2013/8/12	Sunny	32.5	Blackish brown	Dim yellow	Loamy	230	540	770	0.10	Gray	None	Sandy	130	270	400	0.08				
	47	Oashi River	Akaisai Bridge	Kanuma City	2013/11/11	Sunny	15.1	Dark reddish brown	faint earth	Loamy	110	260	370	0.10	Black	Dim yellow	Loamy	180	370	550	0.10				
					2014/2/11	Sunny	6.9	Dark brown	faint earth	Loamy	130	300	430	0.08	Olive black	faint earth	Loamy	9.3	17	26.3	0.08				
					2013/5/24	Sunny	28.4	Dim yellowish brown	faint earth	Loamy	120	280	400	0.07	Dark brown	faint earth	Loamy	120	230	350	0.08				
	48	Koyabu River	Koyabu Bridge	Kanuma City	2013/8/12	Sunny	34.6	Blackish brown	faint earth	Loamy	190	450	640	0.09	Reddish black	faint earth	Loamy	410	940	1,350	0.08				
2013/11/11					Cloudy	13.5	Blackish brown	faint earth	Loamy	220	520	740	0.06	Black	Dim yellow	Loamy	150	310	460	0.10					
2014/2/11					Sunny	6.9	Dark brown	faint earth	Loamy	200	490	690	0.08	Gray	faint earth	Loamy	190	510	700	0.08					

Tochigi River (Surrounding Environment) 6/6

Location				Sampling Date	Weather	Air temperature (°C)	Surrounding Environment(Soil,Air dose)											Remarks																		
No.	Water area						Location	Municipality	Left bank					Right bank																						
									Color	Odor	Property	Activity concentration [Bq/kg(dry)]			Air Dose (μSv/h)	Color	Odor		Property	Activity concentration [Bq/kg(dry)]			Air Dose (μSv/h)													
												Radioactive cesium								Radioactive cesium																
			Cs-134	Cs-137	Total				Cs-134	Cs-137	Total																									
R i v e r s	49			Omoi River	Omoi River	Tamotsu Bridge	Tochigi City	2013/6/24	Sunny	24.5	Blackish brown	faint earth	Loamy	160	350	510	0.08	Blackish brown	faint earth	Loamy	150	310	460	0.08												
								2013/8/12	Sunny	32.1	Blackish brown	faint earth	Loamy	130	260	390	0.08	Brown	faint earth	Loamy	130	290	420	0.08												
								2013/11/11	Cloudy	12.3	<small>Especially dark reddish brown</small>	faint earth	Loamy	82	200	282	0.07	Extremely dark brown	faint earth	Loamy	160	380	540	0.08												
						50				Omoto River	Omoto River	Otome-ohashi Bridge	Oyama City	2014/2/11	Sunny	4.8	Blackish brown	faint earth	Loamy	83	200	283	0.07	Olive black	faint earth	Loamy	74	190	264	0.07						
														2013/5/23	Sunny	25.9	Dark brown	faint earth	Loamy	93	180	273	0.10	Blackish brown	faint earth	Loamy	120	200	320	0.07						
														2013/6/6	Cloudy	23.2	Olive black	Dim yellow	Loamy	240	450	690	0.11	Brown	Dim yellow	Loamy	150	340	490	0.09						
														2013/7/12	Sunny	36.8	Grayish olive	faint earth	Loamy	170	340	510	0.10	Grayish olive	None	Loamy	310	610	920	0.08						
														2013/8/12	Cloudy	26.5	Dark brown	faint earth	Loamy	160	350	510	0.11	Dark brown	faint earth	Loamy	140	320	460	0.09						
														2013/10/1	Cloudy	22.9	Dark reddish brown	faint earth	Loamy	170	380	550	0.12	Dim reddish brown	faint earth	Loamy	170	330	500	0.09						
												51				Uzuma River	Uzuma River	Uzuma Bridge	Tochigi City	2013/11/11	Sunny	10.6	Dark reddish brown	None	Loamy	130	310	440	0.11	Dark reddish brown	Dim yellow	Loamy	160	410	570	0.07
																				2014/2/3	Cloudy	11.9	Brown	faint earth	Loamy	140	340	480	0.12	Dark grayish yellow	faint earth	Loamy	71	180	251	0.08
																				2013/5/23	Cloudy	23.3	Blackish brown	Dim yellow	Loamy	59	110	169	0.10	Blackish brown	Dim yellow	Loamy	60	110	170	0.08
																				2013/6/6	Cloudy	24.0	Brown	faint earth	Loamy	150	290	440	0.09	Dim yellowish brown	faint earth	Loamy	120	250	370	0.07
																				2013/7/16	Sunny	23.5	Brown	faint earth	Loamy	140	350	490	0.09	Brown	faint earth	Loamy	140	280	420	0.07
																				2013/8/6	Sunny	31.6	Dark reddish brown	faint earth	Loamy	100	280	380	0.09	Dark reddish brown	faint earth	Loamy	130	250	380	0.06
	52	Tonegawa River System	Watarase River Area		Watarase River	Watarase River	Watarase River	Nikko City	2013/9/27	Sunny	22.6	Dark brown	faint earth	Loamy	120	270	390	0.06	Dark brown	faint earth	Loamy	85	210	295	0.07											
									2013/11/5	Sunny	19.8	Reddish black	Dim yellow	Loamy	67	190	257	0.07	<small>Especially dark reddish brown</small>	Dim yellow	Loamy	77	180	257	0.07											
									2014/2/3	Sunny	10.2	Dim yellowish brown	faint earth	Loamy	110	260	370	0.09	Blackish brown	faint earth	Loamy	59	200	259	0.07											
									2013/5/28	Sunny	20.2	Gray	None	Sandy	24	59	83	0.16	Grayish olive	None	Sandy	35	69	104	0.20											
									2013/6/5	Sunny	19.5	Dim yellowish brown	Dim yellow	Loamy	82	180	262	0.21	Grayish olive	None	Sandy	32	53	85	0.20											
									2013/7/17	Cloudy	26.0	Grayish olive	faint earth	Sandy	32	73	105	0.18	Grayish olive	faint earth	Sandy	57	130	187	0.18											
									2013/8/14	Sunny	30.8	Grayish olive	None	Sandy	180	380	560	0.19	Olive black	None	Sandy	31	74	105	0.18											
									2013/10/4	Cloudy	22.3	Reddish black	faint earth	Loamy	150	380	530	0.18	Grayish olive	None	Sandy	11	24	35	0.17											
									2013/11/8	Sunny	13.9	Blackish brown	faint earth	Loamy	400	980	1,380	0.19	Olive brown	None	Sandy	13	33	46	0.16											
									2014/2/4	Cloudy	4.8	Dim reddish brown	faint earth	Loamy	240	670	910	0.09	Gray	faint earth	Loamy	42	97	139	0.10											
									53				Watarase River	Watarase River	Hajikka Bridge	Ashikaga City	2013/5/22	Cloudy	25.7	Brown	faint earth	Loamy	58	120	178	0.07	Brown	faint earth	Loamy	97	180	277	0.07			
																	2013/8/8	Sunny	25.0	Dark reddish brown	faint earth	Loamy	89	230	319	0.07	Dark reddish brown	faint earth	Loamy	200	430	630	0.09			
																	2013/11/7	Cloudy	18.3	Dark reddish brown	faint earth	Loamy	120	310	430	0.06	Dark reddish brown	faint earth	Loamy	340	830	1,170	0.08			
																	2014/2/4	Cloudy	6.6	Dim yellowish brown	faint earth	Loamy	29	73	102	0.08	Brown	faint earth	Loamy	45	120	165	0.09			
																	2013/5/22	Sunny	27.7	Brown	faint earth	Loamy	76	170	246	0.07	Brown	faint earth	Loamy	47	86	133	0.07			
2013/8/7	Sunny	28.1	Faint fish	faint earth	Loamy	61	140	201									0.06	Faint fish	faint earth	Loamy	49	100	149	0.07												
54				Watarase River	Watarase River	Nakabashi Bridge	Tatebayashi City	2013/11/6	Sunny	19.0	Dark reddish brown	faint earth	Loamy	190	430	620	0.06	Dark reddish brown	faint earth	Loamy	58	120	178	0.07												
								2014/2/3	Sunny	7.9	Grayish brown	faint earth	Loamy	3.2	11	14.2	0.07	Brown	faint earth	Loamy	9.9	31	40.9	0.06												
								2013/5/22	Sunny	29.8	Brown	faint earth	Loamy	120	200	320	0.07	Blackish brown	faint earth	Loamy	220	460	680	0.08												
								2013/8/7	Sunny	29.8	Blackish brown	faint earth	Loamy	240	480	720	0.08	Blackish brown	faint earth	Loamy	150	330	480	0.07												
								2013/11/6	Sunny	20.2	Dark reddish brown	faint earth	Loamy	130	270	400	0.09	Blackish brown	Dim yellow	Loamy	200	490	690	0.08												
								2014/2/3	Sunny	8.3	Olive	faint earth	Loamy	100	290	390	0.08	Grayish olive	faint earth	Loamy	140	330	470	0.09												
56				Watarase River	Watarase River	Shinkai Bridge	Tochigi City	2013/5/22	Sunny	30.2	Blackish brown	faint earth	Loamy	89	150	239	0.07	Blackish brown	faint earth	Loamy	81	170	251	0.07												
								2013/6/20	Cloudy	23.9	Blackish brown	faint earth	Loamy	81	180	261	0.09	Blackish brown	faint earth	Loamy	210	420	630	0.08												
								2013/7/16	Sunny	31.0	Brown	faint earth	Loamy	100	230	330	0.07	Dark brown	faint earth	Loamy	210	430	640	0.10												
								2013/8/6	Cloudy	30.9	Grayish brown	faint earth	Loamy	92	190	282	0.08	Grayish brown	faint earth	Loamy	150	300	450	0.08												
								2013/9/30	Cloudy	27.0	Blackish brown	faint earth	Loamy	82	170	252	0.08	Dim reddish brown	faint earth	Loamy	120	310	430	0.09												
								2013/11/5	Sunny	22.0	Reddish black	faint earth	Loamy	48	120	168	0.07	Blackish brown	Dim yellow	Loamy	110	260	370	0.08												
								2014/2/3	Sunny	8.9	Olive black	faint earth	Loamy	39	88	127	0.08	Dim yellowish brown	faint earth	Loamy	8.4	20	28.4	0.08												

Tochigi Lakes and Reservoirs (Water) 1/2

No.	Location			Surface layer/ Deep layer	Sampling Date	Weather	Air temperature (°C)	Water depth (m)	Water										Remarks			
	Water area	Location	Municipality						General items							Activity concentration(Bq/L)						
									Water temperature (°C)	Sampling depth (m)	Color	Odor	ecchi disk dep (m)	Electrical conductivity (mS/m)	SS (mg/L)	Turbidity (unit)	Cs-134	Cs-137				
57	Nakagawa River System	Miyama Dam Reservoir	Center	Nasushiobara City	Surface layer	2013/6/10	Cloudy	20.8	28.1	16.1	0.5	Deep bluish green	None	5.1	9.4	1	0.9	<0.58	<0.60			
					Deep layer					7.5	27.1	-	None		9.0	1	1.1	<0.54	<0.61			
					Surface layer	2013/7/30	Sunny	23.0	29.1	19.3	0.5	Dark grayish bluish green	None	4.7	8.8	<1	0.6	<0.56	<0.77			
					Deep layer					11.0	28.1	-	None		9.0	8	2.8	<0.54	<0.50			
					Surface layer	2013/10/23	Cloudy	10.5	32.9	12.7	0.5	Dark grayish yellow green	None	2.9	7.8	2	1.6	<0.54	<0.55			
					Deep layer					12.0	31.9	-	None		7.2	2	3.8	<0.60	<0.63			
		Surface layer	2013/12/16		Cloudy	-3.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Unable to collect samples due to snow on the ground	
		Deep layer						-	-	-	-		-	-	-	-	-	-	-	-	-	-
		58	Nakagawa River System		Shiobara Dam Reservoir	Center	Nasushiobara City	Surface layer	2013/6/18	Light rain	22.9	19.4	21.6	0.5	Yellow greenish dark gray	None	3.3	20.5	1	2.6	<0.73	<0.78
								Deep layer					13.7	18.4	-	Medium hydrogen sulfide		19.0	3	6.0	<0.41	<0.51
								Surface layer	2013/7/30	Cloudy	24.5	20.7	22.0	0.5	Dark grayish yellow green	None	4.3	19.8	2	2.2	<0.66	<0.74
								Deep layer					14.4	19.7	-	Dim yellow		22.2	14	8.6	<0.51	<0.59
Surface layer	2013/10/29			Sunny				18.9	28.7	13.6	0.5	Dark grayish yellow	None	1.5	10.0	3	4.3	<0.62	<0.69			
Deep layer										14.6	27.7	-	None		11.5	3	2.3	<0.54	<0.59			
Surface layer	2013/12/11			Cloudy	8.8	28.5		9.0	0.5	Dark grayish yellowish green	None	2.6	14.0	2	1.7	<0.56	<0.67					
Deep layer								8.2	27.5	-	None		13.9	2	1.6	<0.52	<0.41					
59	Kinugawa River System			Kawaji Dam Reservoir	Center	Nikko City		Surface layer	2013/6/11	Cloudy	18.3	68.3	20.2	0.5	Grayish bluish green	None	3.2	7.8	<1	1.6	<0.61	<0.52
								Deep layer					6.2	67.3	-	None		8.5	1	0.9	<0.45	<0.59
								Surface layer	2013/7/31	Sunny	24.5	23.7	24.3	0.5	Dark grayish yellow green	None	1.5	10.0	6	9.7	<0.68	<0.68
								Deep layer					9.2	22.7	-	None		8.6	8	11	<0.77	<0.51
		Surface layer	2013/10/30				Sunny	14.9	83.2	14.4	0.5	Grayish reddish yellow	None	0.6	7.7	13	26	<0.51	<0.62			
		Deep layer								10.4	82.2	-	None		8.5	38	43	<0.61	<0.71			
		Surface layer	2013/12/10	Cloudy	6.8		86.4	10.0	0.5	Grayish yellow green	None	1.1	7.6	2	1.5	<0.58	<0.63					
		Deep layer						9.1	85.4	-	None		8.4	18	26	<0.56	<0.63					
		60	Kinugawa River System	Ikari Dam Reservoir	Center		Nikko City	Surface layer	2013/6/13	Cloudy	22.3	55.1	20.3	0.5	Dark grayish yellowish green	None	6.3	6.0	<1	0.6	<0.73	<0.65
								Deep layer					6.2	54.1	-	None		7.4	<1	0.7	<0.73	<0.82
								Surface layer	2013/7/31	Sunny	25.5	54.3	25.3	0.5	Dark grayish yellow green	None	2.5	6.3	2	2.0	<0.54	<0.50
								Deep layer					6.1	53.3	-	None		7.1	1	1.8	<0.60	<0.57
Surface layer	2013/10/30					Sunny		18.7	61.1	15.7	0.5	Dark grayish yellow green	None	1.9	5.9	2	3.2	<0.56	<0.59			
Deep layer										12.6	60.1	-	None		4.6	7	5.7	<0.43	<0.68			
Surface layer	2013/12/10			Cloudy	9.1	59.7		8.9	0.5	Dark grayish yellow green	None	3.0	5.6	2	5.3	<0.70	<0.72					
Deep layer								8.2	58.7	-	None		5.9	4	8.8	<0.70	<0.68					
61	Kinugawa River System			Kawamata Dam Reservoir	Center	Nikko City		Surface layer	2013/6/14	Cloudy	22.2	48.2	20.3	0.5	Dark bluish green	None	4.5	9.9	1	2.7	<0.61	<0.65
								Deep layer					7.9	47.2	-	None		10.8	1	4.2	<0.56	<0.51
								Surface layer	2013/8/1	Cloudy	23.0	61.9	21.8	0.5	Dark grayish yellow green	None	2.5	11.4	<1	1.1	<0.57	<0.46
								Deep layer					6.5	60.9	-	None		13.5	4	5.7	<0.59	<0.61
		Surface layer	2013/10/18				Sunny	14.0	80.5	15.9	0.5	Soft yellowish green	None	1.5	9.1	2	4.2	<0.49	<0.48			
		Deep layer								8.9	79.5	-	None		10.7	33	35	<0.52	<0.48			
		Surface layer	2013/12/12	Cloudy	1.3		77.5	8.1	0.5	Dark grayish green	None	2.4	9.7	2	2.5	<0.65	<0.59					
		Deep layer						8.7	76.5	-	None		9.5	17	6.0	<0.54	<0.62					
		62	Kinugawa River System	Lake Yuno	Center		Nikko City	Surface layer	2013/6/14	Cloudy	22.7	11.7	18.4	0.5	Dark grayish yellow green	None	2.1	16.9	4	3.0	<0.48	<0.65
								Deep layer					9.0	10.7	-	None		18.3	3	3.0	<0.56	<0.65
								Surface layer	2013/8/1	Cloudy	20.1	11.9	19.4	0.5	Dark grayish yellowish green	None	3.3	16.8	<1	1.0	<0.57	<0.68
				Deep layer	10.6			10.9					-	Dim yellow	19.8	3		3.0	<0.77	<0.76		
Surface layer	2013/10/18			Cloudy	11.4	11.9		11.4	0.5	Dark grayish bluish green	None	3.5	15.3	<1	2.4	<0.52	<0.58					
Deep layer								10.8	10.9	-	None		15.5	1	0.9	<0.58	<0.63					
Surface layer	2013/12/9	Cloudy	9.5	11.7	4.2	0.5	Dark grayish green	None	4.1	15.2	<1	1.0	<0.67	<0.65								
Deep layer					4.5	10.7	-	None		16.0	1	1.0	<0.64	<0.71								

Tochigi Lakes and Reservoirs (Water) 2/2

L a k e s a n d R e s e r v o i r s	Location				Surface layer/ Deep layer	Sampling Date	Weather	Air temperatu re (°C)	Water depth (m)	Water										Remarks				
	No.	Water area	Location	Municipality						General items							Activity concentration(Bq/L)							
										Water temperature (°C)	Sampling depth (m)	Color	Odor	ecchi disk dep (m)	Electrical conductivity (mS/m)	SS (mg/L)	Turbidity (unit)	Radioactive cesium						
		Cs-134	Cs-137																					
63	Kinugawa River System	Lake Chuzenji	Center	Nikko City	Surface layer	2013/6/7	Cloudy	16.9	165.0	13.6	0.5	Dark greenish blue	None	6.9	11.0	<1	0.9	<0.51	<0.47					
					5.5					164.0	-	None	11.8		4	1.6	<0.56	<0.49						
					Surface layer	2013/8/9	Sunny	25.7	170.0	23.0	0.5	Deep green	None	10.5	10.9	<1	0.4	<0.68	<0.63					
					5.2					169.0	-	None	11.3		<1	0.7	<0.63	<0.76						
					Surface layer	2013/10/21	Sunny	18.3	169.9	15.6	0.5	Grayish bluish green	None	11.4	10.6	<1	0.5	<0.61	<0.55					
					5.2					168.9	-	None	11.3		2	1.0	<0.71	<0.42						
					Surface layer	2013/12/9	Sunny	2.8	167.3	6.7	0.5	Dark grayish yellowish green	None	15.2	11.1	<1	0.3	<0.56	<0.52					
					4.3					166.3	-	None	11.5		<1	1.1	<0.67	<0.73						
					Surface layer	2013/6/6	Cloudy	24.5	3.7	24.2	0.5	Dark grayish yellow green	None	0.5	19.5	21	16	<0.73	<0.78					
					23.0					2.7	-	None	19.5		18	16	<0.63	<0.78						
Surface layer	2013/8/6	Sunny	32.0	2.8	30.4	0.5	Dark grayish yellow red	None	0.6	20.4	15	14	<0.59	<0.82										
29.0					1.8	-	None	20.3		15	14	<0.59	<0.59											
Surface layer	2013/10/22	Cloudy	20.7	6.1	18.5	0.5	Yellowish dark gray	None	1.1	18.1	7	8.6	<0.62	<0.49										
18.2					5.1	-	None	18.2		9	8.2	<0.47	<0.58											
Surface layer	2013/12/12	Sunny	8.4	5.6	9.5	0.5	Dark grayish yellow red	None	0.9	18.7	11	6.2	<0.69	<0.51										
8.9					4.6	-	None	18.9		10	13	<0.71	<0.66											

Tochigi Lakes and Reservoirs (Surrounding Environment)1/1

L a k e s a n d R e s e r v o i r s	Location				Sampling Date	Weather	Air temperature (°C)	Surrounding Environment(Soil,Air dose)						Remarks		
	No.	Water area	Location					Municipality	Soil							
									General items							
									Color	Odor	Property	Activity concentration [Bq/kg(dry)]			Air Dose (μSv/h)	
												Radioactive cesium				
Cs-134	Cs-137	Total														
57	Nakagawa River System	Miyama Dam Reservoir	Center	Nasushiobara City	2013/6/10	Cloudy	20.8	Dark reddish brown	Dim yellow	Loamy	380	780	1,160	0.14		
					2013/7/30	Sunny	23.0	Blackish brown	Dim yellow	Loamy	350	850	1,200	0.12		
					2013/10/23	Cloudy	10.5	Brown	None	Loamy	460	1,100	1,560	0.12		
		2013/12/16	Cloudy		-3.1	Dark grayish yellow	faint earth	Loamy	83	180	263	0.09				
		2013/6/18	Light rain		22.9	Dark brown	faint earth	Loamy	880	1,800	2,680	0.36				
		2013/7/30	Cloudy		24.5	Black	Dim yellow	Loamy	1,500	3,100	4,600	0.31				
58		Shiobara Dam Reservoir	Center		2013/10/29	Sunny	18.9	Dark brown	faint earth	Loamy	1,100	2,400	3,500	0.29		
					2013/12/11	Cloudy	8.8	Dark reddish brown	faint earth	Clay-loamy	730	1,800	2,530	0.30		
					2013/6/11	Cloudy	18.3	Dim yellowish brown	faint earth	Loamy	2,200	4,600	6,800	0.22		
59		Kawaji Dam Reservoir	Center		2013/7/31	Sunny	24.5	Dark olive brown	Dim yellow	Loamy	770	1,700	2,470	0.23		
					2013/10/30	Sunny	14.9	Grayish olive	faint earth	Sandy	2,500	5,900	8,400	0.19		
					2013/12/10	Cloudy	6.8	Blackish brown	faint earth	Loamy	340	750	1,090	0.18		
					2013/6/13	Cloudy	22.3	Brown	Dim yellow	Loamy	780	1,700	2,480	0.24		
60		Ikari Dam Reservoir	Center		2013/7/31	Sunny	25.5	Brown	faint earth	Loamy	1,200	2,700	3,900	0.20		
					2013/10/30	Sunny	18.7	Grayish brown	faint earth	Loamy	720	1,600	2,320	0.19		
					2013/12/10	Cloudy	9.1	Blackish brown	faint earth	Loamy	300	690	990	0.18		
61	Kinugawa River System	Kawamata Dam Reservoir	Center	Nikko City	2013/6/14	Cloudy	22.2	Dim yellowish brown	faint earth	Loamy	51	140	191	0.08		
					2013/8/1	Cloudy	23.0	Black	Dim yellow	Loamy	200	440	640	0.06		
					2013/10/18	Sunny	14.0	Blackish brown	faint earth	Loamy	170	380	550	0.07		
					2013/12/12	Cloudy	1.3	Blackish brown	faint earth	Loamy	34	84	118	0.08		
62		Lake Yuno	Center		2013/6/14	Cloudy	22.7	Brown	faint earth	Loamy	94	190	284	0.08		
					2013/8/1	Cloudy	20.1	Brown	faint earth	Loamy	50	110	160	0.10		
					2013/10/18	Cloudy	11.4	Dim reddish brown	faint earth	Loamy	72	150	222	0.10		
					2013/12/9	Cloudy	9.5	Dark olive brown	None	Sandy	59	160	219	0.08		
63		Lake Chuzenji	Center		2013/6/7	Cloudy	16.9	Dark brown	faint earth	Loamy	290	650	940	0.12		
					2013/8/9	Sunny	25.7	Black	faint earth	Loamy	300	710	1,010	0.13		
					2013/10/21	Sunny	18.3	Faint hydrogen sulfide	faint earth	Sandy	210	500	710	0.12		
					2013/12/9	Sunny	2.8	Reddish black	faint earth	Loamy	290	670	960	0.12		
64	Watarase River System	Watarase Reservoir	Center	Tochigi City	2013/6/6	Cloudy	24.5	Yellowish brown	faint earth	Loamy	110	230	340	0.07		
					2013/8/6	Sunny	32.0	Dim yellowish orange	faint earth	Loamy	310	640	950	0.07		
					2013/10/22	Cloudy	20.7	Dim reddish brown	faint earth	Loamy	290	620	910	0.06		
					2013/12/12	Sunny	8.4	Dark grayish yellow	faint earth	Loamy	65	160	225	0.08		

