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MONTHLY PROGRESS REPORT

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM

DAVIS-BESSE NUCLEAR POWER STATION
OAK HARBOR, OHIO

Reporting Period: January-December, 2013

Prepared and Submitted by
ENVIRONMENTAL, INC.,
MIDWEST LABORATORY

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Distribution: A. Percival, Davis-Besse (2 copies and Original Raw Data)

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1.0 INTRODUCTION

The following constitutes the current 2013 Monthly Progress Report for the Radiological Environmental Monitoring Program conducted at the Davis-Besse Nuclear Power Station in Oak Harbor, Ohio. Results of completed analyses are presented in the attached tables. Missing entries indicate analyses that are not yet completed.

All activities, except gross alpha and gross beta, are decay corrected to the time of collection.

All samples were collected within the scheduled period unless noted otherwise in the Listing of Missed Samples.

2.0 LISTING OF MISSED SAMPLES

Sample Type	Location	Expected Collection Date	Reason

3.0 DATA TABULATIONS

Table 1. Airborne particulates and charcoal canisters, analyses for gross beta and iodine-131[a].
Location: T-1
Units: pCi/m^3
Collection: Continuous, weekly exchange.

Date Collected	Volume (m^3)	Gross Beta	Date Collected	Volume (m^3)	Gross Beta
Required LLD		0.010			0.010
01-08-13	258	0.062 ± 0.005	07-09-13	291	0.018 ± 0.003
01-15-13	286	0.039 ± 0.004	07-16-13	281	0.020 ± 0.004
01-22-13	288	0.021 ± 0.004	07-23-13	280	0.020 ± 0.004
01-29-13	278	0.032 ± 0.004	07-30-13	267	0.010 ± 0.004
02-05-13	292	0.043 ± 0.004	08-06-13	267	0.024 ± 0.004
02-12-13	286	0.026 ± 0.004	08-13-13	268	0.028 ± 0.004
02-19-13	287	0.025 ± 0.004	08-20-13	268	0.029 ± 0.004
02-26-13	289	0.016 ± 0.003	08-27-13	271	0.047 ± 0.005
			09-03-13	300	0.031 ± 0.004
03-05-13	287	0.016 ± 0.003			
03-12-13	286	0.019 ± 0.003	09-10-13	311	0.035 ± 0.004
03-19-13	287	0.028 ± 0.004	09-17-13	312	0.024 ± 0.004
03-26-13	287	0.014 ± 0.003	09-24-13	288	0.028 ± 0.004
04-02-13	287	0.018 ± 0.003	10-01-13	289	0.022 ± 0.004
1st Quarter Mean ± s.d.		0.028 ± 0.014	3rd Quarter Mean ± s.d.		0.026 ± 0.009
04-09-13	280	0.024 ± 0.004	10-08-13	289	0.023 ± 0.004
04-16-13	274	0.011 ± 0.003	10-15-13	290	0.024 ± 0.004
04-23-13	300	0.019 ± 0.003	10-22-13	289	0.026 ± 0.004
04-30-13	310	0.026 ± 0.004	10-29-13	290	0.015 ± 0.003
05-07-13	282	0.016 ± 0.004	11-05-13	289	0.039 ± 0.004
05-14-13	279	0.016 ± 0.003	11-12-13	294	0.030 ± 0.004
05-21-13	282	0.024 ± 0.004	11-19-13	288	0.022 ± 0.003
05-28-13	278	0.020 ± 0.004	11-26-13	290	0.024 ± 0.003
			12-03-13	280	0.039 ± 0.004
06-04-13	281	0.018 ± 0.004			
06-11-13	280	0.020 ± 0.004	12-10-13	288	0.043 ± 0.004
06-18-13	280	0.025 ± 0.004	12-17-13	290	0.049 ± 0.005
06-25-13	280	0.029 ± 0.004	12-23-13	248	0.030 ± 0.004
07-02-13	281	0.019 ± 0.004	12-30-13	288	0.041 ± 0.004
2nd Quarter Mean ± s.d.		0.021 ± 0.005	4th Quarter Mean ± s.d.		0.031 ± 0.010
			Cumulative Average		0.026

[a] Iodine-131 concentrations are < 0.07 pCi/m^3 unless noted otherwise.

Table 2. Airborne particulates and charcoal canisters, analyses for gross beta and iodine-131[a].
Location: T-2
Units: pCi/m^3
Collection: Continuous, weekly exchange.

Date Collected	Volume (m^3)	Gross Beta	Date Collected	Volume (m^3)	Gross Beta
Required LLD		0.010			0.010
01-08-13	237	0.063 ± 0.006	07-09-13	286	0.020 ± 0.004
01-15-13	283	0.038 ± 0.004	07-16-13	290	0.020 ± 0.003
01-22-13	285	0.032 ± 0.004	07-23-13	286	0.025 ± 0.004
01-29-13	280	0.032 ± 0.004	07-30-13	285	0.010 ± 0.003
02-05-13	289	0.044 ± 0.004	08-06-13	286	0.020 ± 0.004
02-12-13	283	0.030 ± 0.004	08-13-13	287	0.024 ± 0.004
02-19-13	284	0.019 ± 0.003	08-20-13	284	0.026 ± 0.004
02-26-13	284	0.017 ± 0.003	08-27-13	285	0.043 ± 0.005
			09-03-13	286	0.032 ± 0.004
03-05-13	284	0.018 ± 0.003			
03-12-13	283	0.017 ± 0.003	09-10-13	286	0.036 ± 0.004
03-19-13	284	0.025 ± 0.004	09-17-13	301	0.027 ± 0.004
03-26-13	284	0.015 ± 0.003	09-24-13	277	0.029 ± 0.004
04-02-13	284	0.017 ± 0.003	10-01-13	285	0.023 ± 0.004
1st Quarter Mean ± s.d.		0.028 ± 0.014	3rd Quarter Mean ± s.d.		0.026 ± 0.008
04-09-13	284	0.030 ± 0.004	10-08-13	286	0.026 ± 0.004
04-16-13	285	0.012 ± 0.003	10-15-13	294	0.022 ± 0.004
04-23-13	284	0.019 ± 0.003	10-22-13	286	0.031 ± 0.004
04-30-13	284	0.027 ± 0.004	10-29-13	287	0.016 ± 0.003
05-07-13	336	0.023 ± 0.003	11-05-13	285	0.035 ± 0.004
05-14-13	286	0.016 ± 0.003	11-12-13	301	0.027 ± 0.004
05-21-13	357	0.025 ± 0.003	11-19-13	291	0.023 ± 0.004
05-28-13	283	0.020 ± 0.004	11-26-13	284	0.023 ± 0.003
			12-03-13	284	0.037 ± 0.004
06-04-13	300	0.019 ± 0.003			
06-11-13	285	0.018 ± 0.004	12-10-13	283	0.042 ± 0.004
06-18-13	286	0.026 ± 0.004	12-17-13	284	0.046 ± 0.005
06-25-13	286	0.030 ± 0.004	12-23-13	242	0.024 ± 0.004
07-02-13	291	0.016 ± 0.004	12-30-13	282	0.040 ± 0.004
2nd Quarter Mean ± s.d.		0.022 ± 0.006	4th Quarter Mean ± s.d.		0.030 ± 0.009
			Cumulative Average		0.026

[a] Iodine-131 concentrations are < 0.07 pCi/m^3 unless noted otherwise.

Table 3. Airborne particulates and charcoal canisters, analyses for gross beta and iodine-131[a].
Location: T-3
Units: pCi/m^3
Collection: Continuous, weekly exchange.

Date Collected	Volume (m^3)	Gross Beta	Date Collected	Volume (m^3)	Gross Beta
Required LLD		0.010			0.010
01-08-13	244	0.071 ± 0.006	07-09-13	361	0.022 ± 0.003
01-15-13	284	0.039 ± 0.004	07-16-13	257	0.021 ± 0.004
01-22-13	287	0.031 ± 0.004	07-23-13	286	0.022 ± 0.004
01-29-13	284	0.032 ± 0.004	07-30-13	285	0.016 ± 0.004
02-05-13	292	0.040 ± 0.004	08-06-13	286	0.022 ± 0.004
02-12-13	285	0.029 ± 0.004	08-13-13	287	0.025 ± 0.004
02-19-13	293	0.024 ± 0.003	08-20-13	284	0.026 ± 0.004
02-26-13	285	0.015 ± 0.003	08-27-13	285	0.033 ± 0.004
			09-03-13	286	0.031 ± 0.004
03-05-13	284	0.016 ± 0.003			
03-12-13	285	0.020 ± 0.003	09-10-13	286	0.030 ± 0.004
03-19-13	286	0.030 ± 0.004	09-17-13	294	0.023 ± 0.004
03-26-13	290	0.017 ± 0.003	09-24-13	278	0.024 ± 0.004
04-02-13	286	0.018 ± 0.003	10-01-13	285	0.025 ± 0.004
1st Quarter Mean ± s.d.		0.029 ± 0.015	3rd Quarter Mean ± s.d.		0.025 ± 0.005
04-09-13	285	0.027 ± 0.004	10-08-13	285	0.023 ± 0.004
04-16-13	271	0.013 ± 0.003	10-15-13	285	0.020 ± 0.004
04-23-13	283	0.020 ± 0.004	10-22-13	283	0.030 ± 0.004
04-30-13	283	0.029 ± 0.004	10-29-13	284	0.013 ± 0.003
05-07-13	277	0.016 ± 0.004	11-05-13	284	0.033 ± 0.004
05-14-13	280	0.016 ± 0.003	11-12-13	287	0.030 ± 0.004
05-21-13	282	0.024 ± 0.004	11-19-13	282	0.024 ± 0.004
05-28-13	277	0.006 ± 0.003	11-26-13	286	0.027 ± 0.004
			12-03-13	283	0.047 ± 0.005
06-04-13	282	0.018 ± 0.004			
06-11-13	284	0.018 ± 0.004	12-10-13	283	0.046 ± 0.004
06-18-13	286	0.024 ± 0.004	12-17-13	284	0.049 ± 0.005
06-25-13	286	0.026 ± 0.004	12-23-13	242	0.027 ± 0.004
07-02-13	295	0.015 ± 0.003	12-30-13	282	0.038 ± 0.004
2nd Quarter Mean ± s.d.		0.019 ± 0.006	4th Quarter Mean ± s.d.		0.031 ± 0.011
			Cumulative Average		0.026

[a] Iodine-131 concentrations are < 0.07 pCi/m^3 unless noted otherwise.

Table 4. Airborne particulates and charcoal canisters, analyses for gross beta and iodine-131[a].
Location: T-4
Units: pCi/m^3
Collection: Continuous, weekly exchange.

Date Collected	Volume (m^3)	Gross Beta	Date Collected	Volume (m^3)	Gross Beta
Required LLD		0.010			0.010
01-08-13	245	0.069 ± 0.006	07-09-13	285	0.022 ± 0.004
01-15-13	282	0.040 ± 0.004	07-16-13	287	0.018 ± 0.003
01-22-13	280	0.030 ± 0.004	07-23-13	287	0.026 ± 0.004
01-29-13	274	0.036 ± 0.004	07-30-13	284	0.008 ± 0.003
02-05-13	289	0.037 ± 0.004	08-06-13	285	0.022 ± 0.004
02-12-13	285	0.033 ± 0.004	08-13-13	285	0.019 ± 0.004
02-19-13	286	0.025 ± 0.004	08-20-13	283	0.025 ± 0.004
02-26-13	285	0.015 ± 0.003	08-27-13	284	0.040 ± 0.005
			09-03-13	285	0.032 ± 0.004
03-05-13	285	0.016 ± 0.003			
03-12-13	285	0.018 ± 0.003	09-10-13	285	0.032 ± 0.004
03-19-13	286	0.027 ± 0.004	09-17-13	292	0.025 ± 0.004
03-26-13	286	0.016 ± 0.003	09-24-13	277	0.029 ± 0.004
04-02-13	286	0.018 ± 0.003	10-01-13	284	0.025 ± 0.004
1st Quarter Mean ± s.d.		0.029 ± 0.015	3rd Quarter Mean ± s.d.		0.025 ± 0.008
04-09-13	285	0.028 ± 0.004	10-08-13	284	0.026 ± 0.004
04-16-13	287	0.012 ± 0.003	10-15-13	285	0.022 ± 0.004
04-23-13	285	0.024 ± 0.004	10-22-13	284	0.028 ± 0.004
04-30-13	285	0.029 ± 0.004	10-29-13	285	0.015 ± 0.003
05-07-13	287	0.017 ± 0.004	11-05-13	285	0.041 ± 0.004
05-14-13	285	0.016 ± 0.003	11-12-13	288	0.032 ± 0.004
05-21-13	288	0.023 ± 0.004	11-19-13	283	0.024 ± 0.004
05-28-13	283	0.012 ± 0.003	11-26-13	287	0.025 ± 0.004
			12-03-13	282	0.043 ± 0.004
06-04-13	288	0.020 ± 0.004			
06-11-13	284	0.018 ± 0.004	12-10-13	284	0.042 ± 0.004
06-18-13	286	0.024 ± 0.004	12-17-13	289	0.042 ± 0.004
06-25-13	286	0.027 ± 0.004	12-23-13	243	0.029 ± 0.004
07-02-13	286	0.016 ± 0.004	12-30-13	283	0.044 ± 0.004
2nd Quarter Mean ± s.d.		0.020 ± 0.006	4th Quarter Mean ± s.d.		0.032 ± 0.010
			Cumulative Average		0.027

[a] Iodine-131 concentrations are < 0.07 pCi/m^3 unless noted otherwise.

Table 5. Airborne particulates and charcoal canisters, analyses for gross beta and iodine-131[a].
Location: T-7
Units: pCi/m^3
Collection: Continuous, weekly exchange.

Date Collected	Volume (m^3)	Gross Beta	Date Collected	Volume (m^3)	Gross Beta
Required LLD		0.010			0.010
01-08-13	250	0.066 ± 0.006	07-09-13	284	0.019 ± 0.004
01-15-13	287	0.040 ± 0.004	07-16-13	291	0.020 ± 0.003
01-22-13	293	0.029 ± 0.004	07-23-13	283	0.024 ± 0.004
01-29-13	293	0.037 ± 0.004	07-30-13	284	0.014 ± 0.004
02-05-13	287	0.038 ± 0.004	08-06-13	284	0.022 ± 0.004
02-12-13	287	0.027 ± 0.004	08-13-13	284	0.027 ± 0.004
02-19-13	293	0.021 ± 0.003	08-20-13	284	0.025 ± 0.004
02-26-13	287	0.016 ± 0.003	08-27-13	284	0.038 ± 0.004
			09-03-13	284	0.032 ± 0.004
03-05-13	287	0.016 ± 0.003			
03-12-13	286	0.017 ± 0.003	09-10-13	289	0.034 ± 0.004
03-19-13	288	0.026 ± 0.004	09-17-13	278	0.027 ± 0.004
03-26-13	287	0.016 ± 0.003	09-24-13	284	0.025 ± 0.004
04-02-13	288	0.016 ± 0.003	10-01-13	284	0.025 ± 0.004
1st Quarter Mean ± s.d.		0.028 ± 0.014	3rd Quarter Mean ± s.d.		0.026 ± 0.006
04-09-13	287	0.025 ± 0.004	10-08-13	283	0.023 ± 0.004
04-16-13	280	0.014 ± 0.003	10-15-13	289	0.022 ± 0.004
04-23-13	280	0.020 ± 0.004	10-22-13	278	0.030 ± 0.004
04-30-13	280	0.026 ± 0.004	10-29-13	283	0.015 ± 0.003
05-07-13	280	0.015 ± 0.004	11-05-13	283	0.033 ± 0.004
05-14-13	280	0.012 ± 0.003	11-12-13	284	0.032 ± 0.004
05-21-13	266	0.025 ± 0.004	11-19-13	283	0.022 ± 0.004
05-28-13	283	0.013 ± 0.003	11-26-13	284	0.024 ± 0.004
			12-03-13	284	0.040 ± 0.004
06-04-13	284	0.020 ± 0.004			
06-11-13	284	0.018 ± 0.004	12-10-13	283	0.048 ± 0.004
06-18-13	284	0.026 ± 0.004	12-17-13	294	0.049 ± 0.005
06-25-13	284	0.027 ± 0.004	12-23-13	244	0.031 ± 0.004
07-02-13	284	0.018 ± 0.004	12-30-13	286	0.046 ± 0.004
2nd Quarter Mean ± s.d.		0.020 ± 0.005	4th Quarter Mean ± s.d.		0.032 ± 0.011
			Cumulative Average		0.026

[a] Iodine-131 concentrations are < 0.07 pCi/m^3 unless noted otherwise.

Table 6. Airborne particulates and charcoal canisters, analyses for gross beta and iodine-131[a].
Location: T-8
Units: pCi/m^3
Collection: Continuous, weekly exchange.

Date Collected	Volume (m^3)	Gross Beta	Date Collected	Volume (m^3)	Gross Beta
Required LLD		0.010			0.010
01-08-13	246	0.069 ± 0.006	07-09-13	284	0.019 ± 0.004
01-15-13	287	0.041 ± 0.004	07-16-13	285	0.018 ± 0.003
01-22-13	288	0.029 ± 0.004	07-23-13	280	0.020 ± 0.004
01-29-13	280	0.034 ± 0.004	07-30-13	281	0.013 ± 0.003
02-05-13	288	0.043 ± 0.004	08-06-13	281	0.021 ± 0.004
02-12-13	287	0.033 ± 0.004	08-13-13	282	0.026 ± 0.004
02-19-13	288	0.025 ± 0.004	08-20-13	280	0.024 ± 0.004
02-26-13	287	0.014 ± 0.003	08-27-13	282	0.040 ± 0.005
			09-03-13	281	0.034 ± 0.004
03-05-13	288	0.016 ± 0.003			
03-12-13	270	0.016 ± 0.003	09-10-13	286	0.032 ± 0.004
03-19-13	284	0.027 ± 0.004	09-17-13	279	0.025 ± 0.004
03-26-13	284	0.018 ± 0.003	09-24-13	281	0.027 ± 0.004
04-02-13	285	0.015 ± 0.003	10-01-13	280	0.025 ± 0.004
1st Quarter Mean ± s.d.		0.029 ± 0.015	3rd Quarter Mean ± s.d.		0.025 ± 0.007
04-09-13	283	0.029 ± 0.004	10-08-13	281	0.025 ± 0.004
04-16-13	284	0.012 ± 0.003	10-15-13	291	0.023 ± 0.004
04-23-13	284	0.023 ± 0.004	10-22-13	276	0.029 ± 0.004
04-30-13	284	0.028 ± 0.004	10-29-13	275	0.016 ± 0.004
05-07-13	284	0.019 ± 0.004	11-05-13	281	0.037 ± 0.004
05-14-13	284	0.017 ± 0.003	11-12-13	337	0.025 ± 0.003
05-21-13	284	0.025 ± 0.004	11-19-13	283	0.024 ± 0.004
05-28-13	284	0.012 ± 0.003	11-26-13	284	0.023 ± 0.004
			12-03-13	284	0.043 ± 0.004
06-04-13	283	0.017 ± 0.004			
06-11-13	284	0.018 ± 0.004	12-10-13	284	0.043 ± 0.004
06-18-13	284	0.025 ± 0.004	12-17-13	284	0.041 ± 0.004
06-25-13	284	0.029 ± 0.004	12-23-13	242	0.029 ± 0.004
07-02-13	284	0.012 ± 0.003	12-30-13	288	0.039 ± 0.004
2nd Quarter Mean ± s.d.		0.020 ± 0.006	4th Quarter Mean ± s.d.		0.031 ± 0.009
			Cumulative Average		0.026

[a] Iodine-131 concentrations are < 0.07 pCi/m^3 unless noted otherwise.

Table 7. Airborne particulates and charcoal canisters, analyses for gross beta and iodine-131[a].
Location: T-9 (C)
Units: pCi/m^3
Collection: Continuous, weekly exchange.

Date Collected	Volume (m^3)	Gross Beta	Date Collected	Volume (m^3)	Gross Beta
Required LLD		0.010			0.010
01-08-13	241	0.069 ± 0.006	07-09-13	278	0.022 ± 0.004
01-15-13	270	0.041 ± 0.004	07-16-13	284	0.018 ± 0.003
01-22-13	281	0.029 ± 0.004	07-23-13	286	0.026 ± 0.004
01-29-13	277	0.032 ± 0.004	07-30-13	275	0.013 ± 0.004
02-05-13	281	0.044 ± 0.004	08-06-13	286	0.021 ± 0.004
02-12-13	290	0.031 ± 0.004	08-13-13	287	0.026 ± 0.004
02-19-13	267	0.027 ± 0.004	08-20-13	285	0.029 ± 0.004
02-26-13	280	0.018 ± 0.003	08-27-13	294	0.043 ± 0.005
			09-03-13	278	0.030 ± 0.004
03-05-13	290	0.019 ± 0.003			
03-12-13	270	0.020 ± 0.004	09-10-13	291	0.038 ± 0.004
03-19-13	277	0.031 ± 0.004	09-17-13	288	0.024 ± 0.004
03-26-13	273	0.020 ± 0.004	09-24-13	168	0.040 ± 0.006
04-02-13	299	0.018 ± 0.003	10-01-13	295	0.024 ± 0.004
1st Quarter Mean ± s.d.		0.031 ± 0.014	3rd Quarter Mean ± s.d.		0.027 ± 0.009
04-09-13	280	0.030 ± 0.004	10-08-13	286	0.027 ± 0.004
04-16-13	285	0.014 ± 0.003	10-15-13	287	0.021 ± 0.004
04-23-13	289	0.020 ± 0.003	10-22-13	283	0.029 ± 0.004
04-30-13	289	0.027 ± 0.004	10-29-13	281	0.018 ± 0.004
05-07-13	289	0.017 ± 0.004	11-05-13	300	0.042 ± 0.004
05-14-13	300	0.015 ± 0.003	11-12-13	317	0.028 ± 0.004
05-21-13	280	0.026 ± 0.004	11-19-13	286	0.025 ± 0.004
05-28-13	295	0.012 ± 0.003	11-26-13	287	0.028 ± 0.004
			12-03-13	293	0.048 ± 0.004
06-04-13	294	0.020 ± 0.004			
06-11-13	278	0.023 ± 0.004	12-10-13	295	0.043 ± 0.004
06-18-13	290	0.025 ± 0.004	12-17-13	287	0.045 ± 0.004
06-25-13	299	0.029 ± 0.004	12-23-13	234	0.027 ± 0.004
07-02-13	279	0.015 ± 0.004	12-30-13	286	0.043 ± 0.004
2nd Quarter Mean ± s.d.		0.021 ± 0.006	4th Quarter Mean ± s.d.		0.033 ± 0.010
			Cumulative Average		0.028

[a] Iodine-131 concentrations are < 0.07 pCi/m^3 unless noted otherwise.

Table 8. Airborne particulates and charcoal canisters, analyses for gross beta and iodine-131[a].
Location: T-11 (C)
Units: pCi/m^3
Collection: Continuous, weekly exchange.

Date Collected	Volume (m^3)	Gross Beta	Date Collected	Volume (m^3)	Gross Beta
Required LLD		0.010			0.010
01-08-13	231	0.069 ± 0.006	07-09-13	289	0.021 ± 0.004
01-15-13	284	0.050 ± 0.005	07-16-13	298	0.021 ± 0.003
01-22-13	285	0.030 ± 0.004	07-23-13	289	0.023 ± 0.004
01-29-13	272	0.034 ± 0.004	07-30-13	289	0.012 ± 0.003
02-05-13	279	0.043 ± 0.004	08-06-13	289	0.024 ± 0.004
02-12-13	284	0.031 ± 0.004	08-13-13	290	0.026 ± 0.004
02-19-13	272	0.021 ± 0.004	08-20-13	288	0.027 ± 0.004
02-26-13	282	0.016 ± 0.003	08-27-13	290	0.044 ± 0.005
			09-03-13	289	0.030 ± 0.004
03-05-13	284	0.018 ± 0.003			
03-12-13	283	0.019 ± 0.003	09-10-13	283	0.036 ± 0.004
03-19-13	284	0.029 ± 0.004	09-17-13	282	0.024 ± 0.004
03-26-13	272	0.016 ± 0.004	09-24-13	285	0.031 ± 0.004
04-02-13	289	0.016 ± 0.003	10-01-13	284	0.027 ± 0.004
1st Quarter Mean ± s.d.		0.030 ± 0.016	3rd Quarter Mean ± s.d.		0.027 ± 0.008
04-09-13	289	0.029 ± 0.004	10-08-13	285	0.027 ± 0.004
04-16-13	289	0.017 ± 0.003	10-15-13	284	0.020 ± 0.004
04-23-13	289	0.023 ± 0.004	10-22-13	284	0.027 ± 0.004
04-30-13	289	0.034 ± 0.004	10-29-13	284	0.016 ± 0.003
05-07-13	289	0.018 ± 0.004	11-05-13	285	0.035 ± 0.004
05-14-13	289	0.016 ± 0.003	11-12-13	281	0.029 ± 0.004
05-21-13	290	0.026 ± 0.004	11-19-13	284	0.026 ± 0.004
05-28-13	288	0.012 ± 0.003	11-26-13	284	0.023 ± 0.003
			12-03-13	281	0.047 ± 0.005
06-04-13	289	0.018 ± 0.003			
06-11-13	289	0.018 ± 0.003	12-10-13	284	0.048 ± 0.004
06-18-13	289	0.019 ± 0.004	12-17-13	285	0.052 ± 0.005
06-25-13	289	0.029 ± 0.004	12-23-13	243	0.026 ± 0.004
07-02-13	281	0.017 ± 0.004	12-30-13	284	0.043 ± 0.004
2nd Quarter Mean ± s.d.		0.021 ± 0.006	4th Quarter Mean ± s.d.		0.032 ± 0.012
			Cumulative Average		0.028

[a] Iodine-131 concentrations are < 0.07 pCi/m^3 unless noted otherwise.

Table 9. Airborne particulates and charcoal canisters, analyses for gross beta and iodine-131[a].
Location: T-12 (C)
Units: pCi/m^3
Collection: Continuous, weekly exchange.

Date Collected	Volume (m^3)	Gross Beta	Date Collected	Volume (m^3)	Gross Beta
Required LLD		0.010			0.010
01-08-13	249	0.067 ± 0.006	07-09-13	287	0.021 ± 0.004
01-15-13	283	0.040 ± 0.004	07-16-13	273	0.020 ± 0.004
01-22-13	288	0.029 ± 0.004	07-23-13	285	0.026 ± 0.004
01-29-13	284	0.029 ± 0.004	07-30-13	288	0.012 ± 0.003
02-05-13	297	0.040 ± 0.004	08-06-13	286	0.025 ± 0.004
02-12-13	284	0.030 ± 0.004	08-13-13	284	0.029 ± 0.004
02-19-13	286	0.023 ± 0.003	08-20-13	287	0.030 ± 0.004
02-26-13	286	0.018 ± 0.003	08-27-13	283	0.040 ± 0.005
			09-03-13	296	0.029 ± 0.004
03-05-13	285	0.017 ± 0.003			
03-12-13	286	0.013 ± 0.003	09-10-13	292	0.036 ± 0.004
03-19-13	287	0.028 ± 0.004	09-17-13	286	0.025 ± 0.004
03-26-13	286	0.016 ± 0.003	09-24-13	284	0.027 ± 0.004
04-02-13	285	0.019 ± 0.003	10-01-13	285	0.025 ± 0.004
1st Quarter Mean ± s.d.		0.028 ± 0.014	3rd Quarter Mean ± s.d.		0.027 ± 0.007
04-09-13	287	0.027 ± 0.004	10-08-13	285	0.028 ± 0.004
04-16-13	285	0.013 ± 0.003	10-15-13	290	0.019 ± 0.004
04-23-13	286	0.018 ± 0.003	10-22-13	289	0.027 ± 0.004
04-30-13	286	0.025 ± 0.004	10-29-13	292	0.017 ± 0.003
05-07-13	229	0.015 ± 0.004	11-05-13	289	0.034 ± 0.004
05-14-13	284	0.017 ± 0.003	11-12-13	288	0.029 ± 0.004
05-21-13	288	0.026 ± 0.004	11-19-13	287	0.024 ± 0.004
05-28-13	282	0.017 ± 0.004	11-26-13	293	0.023 ± 0.003
			12-03-13	288	0.046 ± 0.004
06-04-13	299	0.018 ± 0.003			
06-11-13	285	0.021 ± 0.004	12-10-13	287	0.042 ± 0.004
06-18-13	283	0.027 ± 0.004	12-17-13	292	0.047 ± 0.004
06-25-13	287	0.029 ± 0.004	12-23-13	248	0.026 ± 0.004
07-02-13	288	0.015 ± 0.004	12-30-13	286	0.042 ± 0.004
2nd Quarter Mean ± s.d.		0.021 ± 0.005	4th Quarter Mean ± s.d.		0.031 ± 0.010
			Cumulative Average		0.027

[a] Iodine-131 concentrations are < 0.07 pCi/m^3 unless noted otherwise.

Table 10. Airborne particulates and charcoal canisters, analyses for gross beta and iodine-131[a].
Location: T-27 (C)
Units: pCi/m^3
Collection: Continuous, weekly exchange.

Date Collected	Volume (m^3)	Gross Beta	Date Collected	Volume (m^3)	Gross Beta
Required LLD		0.010			0.010
01-08-13	243	0.068 ± 0.006	07-09-13	282	0.021 ± 0.004
01-15-13	274	0.045 ± 0.005	07-16-13	278	0.020 ± 0.004
01-22-13	285	0.030 ± 0.004	07-23-13	280	0.024 ± 0.004
01-29-13	275	0.035 ± 0.004	07-30-13	280	0.013 ± 0.004
02-05-13	289	0.043 ± 0.004	08-06-13	283	0.022 ± 0.004
02-12-13	280	0.032 ± 0.004	08-13-13	279	0.025 ± 0.004
02-19-13	282	0.025 ± 0.004	08-20-13	290	0.031 ± 0.004
02-26-13	282	0.015 ± 0.003	08-27-13	278	0.038 ± 0.005
			09-03-13	286	0.030 ± 0.004
03-05-13	281	0.020 ± 0.003			
03-12-13	282	0.019 ± 0.003	09-10-13	281	0.035 ± 0.004
03-19-13	286	0.029 ± 0.004	09-17-13	278	0.025 ± 0.004
03-26-13	283	0.016 ± 0.003	09-24-13	276	0.027 ± 0.004
04-02-13	280	0.019 ± 0.004	10-01-13	286	0.024 ± 0.004
1st Quarter Mean ± s.d.		0.030 ± 0.015	3rd Quarter Mean ± s.d.		0.026 ± 0.007
04-09-13	292	0.027 ± 0.004	10-08-13	276	0.028 ± 0.004
04-16-13	288	0.011 ± 0.003	10-15-13	287	0.024 ± 0.004
04-23-13	264	0.023 ± 0.004	10-22-13	282	0.028 ± 0.004
04-30-13	270	0.028 ± 0.004	10-29-13	294	0.017 ± 0.003
05-07-13	282	0.019 ± 0.004	11-05-13	288	0.041 ± 0.004
05-14-13	285	0.017 ± 0.003	11-12-13	294	0.031 ± 0.004
05-21-13	289	0.025 ± 0.004	11-19-13	280	0.026 ± 0.004
05-28-13	279	0.013 ± 0.004	11-26-13	279	0.026 ± 0.004
			12-03-13	289	0.043 ± 0.004
06-04-13	287	0.020 ± 0.004			
06-11-13	292	0.019 ± 0.003	12-10-13	280	0.048 ± 0.004
06-18-13	281	0.024 ± 0.004	12-17-13	291	0.043 ± 0.004
06-25-13	292	0.031 ± 0.004	12-23-13	239	0.027 ± 0.004
07-02-13	288	0.017 ± 0.004	12-30-13	281	0.041 ± 0.004
2nd Quarter Mean ± s.d.		0.021 ± 0.006	4th Quarter Mean ± s.d.		0.033 ± 0.009
			Cumulative Average		0.027

[a] Iodine-131 concentrations are < 0.07 pCi/m^3 unless noted otherwise.

Table 11-1. Airborne particulate data,gross beta analyses, monthly averages, minima and maxima.

January

Location	Average	Minima	Maxima
T-9	0.043	0.029	0.069
T-11	0.046	0.030	0.069
T-12	0.041	0.029	0.067
T-27	0.045	0.030	0.068
Controls	0.044	0.029	0.069
T-1	0.039	0.021	0.062
T-2	0.041	0.032	0.063
T-3	0.043	0.031	0.071
T-4	0.044	0.030	0.069
T-7	0.043	0.029	0.066
T-8	0.043	0.029	0.069
Indicators	0.042	0.021	0.071

February

Location	Average	Minima	Maxima
T-9	0.030	0.018	0.044
T-11	0.028	0.016	0.043
T-12	0.028	0.018	0.040
T-27	0.029	0.015	0.043
Controls	0.029	0.015	0.044
T-1	0.028	0.016	0.043
T-2	0.028	0.017	0.044
T-3	0.027	0.015	0.040
T-4	0.028	0.015	0.037
T-7	0.026	0.016	0.038
T-8	0.029	0.014	0.043
Indicators	0.028	0.014	0.044

March

Location	Average	Minima	Maxima
T-9	0.022	0.018	0.031
T-11	0.020	0.016	0.029
T-12	0.019	0.013	0.028
T-27	0.021	0.016	0.029
Controls	0.021	0.013	0.031
T-1	0.019	0.014	0.028
T-2	0.018	0.015	0.025
T-3	0.020	0.016	0.030
T-4	0.019	0.016	0.027
T-7	0.018	0.016	0.026
T-8	0.018	0.015	0.027
Indicators	0.019	0.014	0.030

April

Location	Average	Minima	Maxima
T-9	0.023	0.014	0.03
T-11	0.026	0.017	0.034
T-12	0.021	0.013	0.027
T-27	0.022	0.011	0.028
Controls	0.023	0.011	0.034
T-1	0.020	0.011	0.026
T-2	0.022	0.012	0.030
T-3	0.022	0.013	0.029
T-4	0.023	0.012	0.029
T-7	0.021	0.014	0.026
T-8	0.023	0.012	0.029
Indicators	0.022	0.011	0.030

May

Location	Average	Minima	Maxima
T-9	0.018	0.012	0.026
T-11	0.018	0.012	0.026
T-12	0.019	0.015	0.026
T-27	0.019	0.013	0.025
Controls	0.019	0.012	0.026
T-1	0.019	0.016	0.024
T-2	0.021	0.016	0.025
T-3	0.016	0.006	0.024
T-4	0.017	0.012	0.023
T-7	0.016	0.012	0.025
T-8	0.018	0.012	0.025
Indicators	0.018	0.006	0.025

June

Location	Average	Minima	Maxima
T-9	0.022	0.015	0.029
T-11	0.020	0.017	0.029
T-12	0.022	0.015	0.029
T-27	0.022	0.017	0.031
Controls	0.022	0.015	0.031
T-1	0.022	0.018	0.029
T-2	0.022	0.016	0.030
T-3	0.020	0.015	0.026
T-4	0.021	0.016	0.027
T-7	0.022	0.018	0.027
T-8	0.020	0.012	0.029
Indicators	0.021	0.012	0.030

Note: Unless otherwise specified, samples collected on the first, second or third day of the month are grouped with data of the previous month.

Table 11-1. Airborne particulate data,gross beta analyses, monthly averages, minima and maxima.

July			
Location	Average	Minima	Maxima
T-9	0.020	0.013	0.026
T-11	0.019	0.012	0.023
T-12	0.020	0.012	0.026
T-27	0.020	0.013	0.024
Controls	0.020	0.012	0.026
T-1	0.017	0.010	0.020
T-2	0.019	0.010	0.025
T-3	0.020	0.016	0.022
T-4	0.019	0.008	0.026
T-7	0.019	0.014	0.024
T-8	0.018	0.013	0.020
Indicators	0.019	0.008	0.026

October			
Location	Average	Minima	Maxima
T-9	0.024	0.018	0.029
T-11	0.023	0.016	0.027
T-12	0.023	0.017	0.028
T-27	0.024	0.017	0.028
Controls	0.024	0.016	0.029
T-1	0.022	0.015	0.026
T-2	0.024	0.016	0.031
T-3	0.022	0.013	0.030
T-4	0.023	0.015	0.028
T-7	0.023	0.015	0.030
T-8	0.023	0.016	0.029
Indicators	0.023	0.013	0.031

August			
Location	Average	Minima	Maxima
T-9	0.030	0.021	0.043
T-11	0.030	0.024	0.044
T-12	0.031	0.025	0.040
T-27	0.029	0.022	0.038
Controls	0.030	0.021	0.044
T-1	0.032	0.024	0.047
T-2	0.029	0.020	0.043
T-3	0.027	0.022	0.033
T-4	0.028	0.019	0.040
T-7	0.029	0.022	0.038
T-8	0.029	0.021	0.040
Indicators	0.029	0.019	0.047

November			
Location	Average	Minima	Maxima
T-9	0.034	0.025	0.048
T-11	0.032	0.023	0.047
T-12	0.031	0.023	0.046
T-27	0.033	0.026	0.043
Controls	0.033	0.023	0.048
T-1	0.031	0.022	0.039
T-2	0.029	0.023	0.037
T-3	0.032	0.024	0.047
T-4	0.033	0.024	0.043
T-7	0.030	0.022	0.040
T-8	0.030	0.023	0.043
Indicators	0.031	0.022	0.047

September			
Location	Average	Minima	Maxima
T-9	0.032	0.024	0.040
T-11	0.030	0.024	0.036
T-12	0.028	0.025	0.036
T-27	0.028	0.024	0.035
Controls	0.030	0.024	0.040
T-1	0.027	0.022	0.035
T-2	0.029	0.023	0.036
T-3	0.026	0.023	0.030
T-4	0.028	0.025	0.032
T-7	0.028	0.025	0.034
T-8	0.027	0.025	0.032
Indicators	0.028	0.022	0.036

December			
Location	Average	Minima	Maxima
T-9	0.040	0.027	0.045
T-11	0.042	0.026	0.052
T-12	0.039	0.026	0.047
T-27	0.040	0.027	0.048
Controls	0.040	0.026	0.052
T-1	0.041	0.030	0.049
T-2	0.038	0.024	0.046
T-3	0.040	0.027	0.049
T-4	0.039	0.029	0.044
T-7	0.044	0.031	0.049
T-8	0.038	0.029	0.043
Indicators	0.040	0.024	0.049

Note: Unless otherwise specified, samples collected on the first, second or third day of the month are grouped with data of the previous month.

Table 12. Airborne particulates, analyses for strontium-89, strontium-90 and gamma-emitting isotopes.
Collection: Quarterly Composite
Units: pCi/m^3

Location	T-1			
Quarter	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
Lab Code	TAP- 1954	TAP- 4053	TAP- 6350	TAP- 7831
Volume (m^3)	3698	3687	3693	3713
Sr-89	< 0.0006	< 0.0006	< 0.0005	< 0.0005
Sr-90	< 0.0004	< 0.0004	< 0.0004	< 0.0004
Be-7	0.072 ± 0.015	0.090 ± 0.016	0.087 ± 0.016	0.063 ± 0.015
K-40	< 0.027	< 0.021	< 0.024	< 0.027
Nb-95	< 0.0008	< 0.0010	< 0.0009	< 0.0012
Zr-95	< 0.0009	< 0.0018	< 0.0007	< 0.0017
Ru-103	< 0.0011	< 0.0016	< 0.0008	< 0.0008
Ru-106	< 0.0084	< 0.0094	< 0.0079	< 0.0076
Cs-134	< 0.0007	< 0.0007	< 0.0010	< 0.0009
Cs-137	< 0.0007	< 0.0007	< 0.0010	< 0.0009
Ce-141	< 0.0015	< 0.0018	< 0.0009	< 0.0014
Ce-144	< 0.0042	< 0.0058	< 0.0049	< 0.0057

Location	T-2			
Quarter	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
Lab Code	TAP- 1955	TAP- 4054	TAP- 6351	TAP- 7832
Volume (m^3)	3644	3847	3724	3689
Sr-89	< 0.0007	< 0.0005	< 0.0006	< 0.0005
Sr-90	< 0.0005	< 0.0003	< 0.0004	< 0.0003
Be-7	0.086 ± 0.021	0.095 ± 0.014	0.073 ± 0.014	0.055 ± 0.013
K-40	< 0.029	< 0.015	< 0.024	< 0.018
Nb-95	< 0.0024	< 0.0009	< 0.0007	< 0.0010
Zr-95	< 0.0021	< 0.0012	< 0.0007	< 0.0016
Ru-103	< 0.0015	< 0.0007	< 0.0011	< 0.0008
Ru-106	< 0.0070	< 0.0058	< 0.0081	< 0.0041
Cs-134	< 0.0013	< 0.0007	< 0.0009	< 0.0008
Cs-137	< 0.0011	< 0.0006	< 0.0005	< 0.0007
Ce-141	< 0.0019	< 0.0013	< 0.0018	< 0.0017
Ce-144	< 0.0033	< 0.0024	< 0.0021	< 0.0030

Table 12. Airborne particulates, analyses for strontium-89, strontium-90 and gamma-emitting isotopes.
Collection: Quarterly Composite
Units: pCi/m^3

Location	T-3			
Quarter	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
Lab Code	TAP- 1956	TAP- 4055	TAP- 6352	TAP- 7833
Volume (m^3)	3685	3671	3760	3650
Sr-89	< 0.0006	< 0.0005	< 0.0005	< 0.0005
Sr-90	< 0.0004	< 0.0004	< 0.0003	< 0.0004
Be-7	0.078 ± 0.017	0.096 ± 0.017	0.087 ± 0.018	0.057 ± 0.016
K-40	< 0.024	< 0.022	< 0.024	< 0.026
Nb-95	< 0.0023	< 0.0009	< 0.0010	< 0.0014
Zr-95	< 0.0020	< 0.0013	< 0.0012	< 0.0024
Ru-103	< 0.0013	< 0.0008	< 0.0007	< 0.0010
Ru-106	< 0.0056	< 0.0051	< 0.0066	< 0.0096
Cs-134	< 0.0011	< 0.0009	< 0.0007	< 0.0011
Cs-137	< 0.0010	< 0.0008	< 0.0006	< 0.0011
Ce-141	< 0.0015	< 0.0011	< 0.0009	< 0.0021
Ce-144	< 0.0042	< 0.0035	< 0.0036	< 0.0040

Location	T-4			
Quarter	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
Lab Code	TAP- 1957	TAP- 4056	TAP- 6353	TAP- 7834
Volume (m^3)	3654	3715	3703	3662
Sr-89	< 0.0005	< 0.0007	< 0.0005	< 0.0005
Sr-90	< 0.0004	< 0.0005	< 0.0003	< 0.0004
Be-7	0.062 ± 0.014	0.094 ± 0.015	0.087 ± 0.014	0.079 ± 0.019
K-40	< 0.022	< 0.022	< 0.024	< 0.020
Nb-95	< 0.0007	< 0.0010	< 0.0008	< 0.0008
Zr-95	< 0.0019	< 0.0014	< 0.0015	< 0.0015
Ru-103	< 0.0010	< 0.0013	< 0.0008	< 0.0010
Ru-106	< 0.0063	< 0.0080	< 0.0079	< 0.0099
Cs-134	< 0.0008	< 0.0008	< 0.0008	< 0.0011
Cs-137	< 0.0005	< 0.0009	< 0.0004	< 0.0011
Ce-141	< 0.0012	< 0.0017	< 0.0019	< 0.0011
Ce-144	< 0.0034	< 0.0060	< 0.0044	< 0.0051

Table 12. Airborne particulates, analyses for strontium-89, strontium-90 and gamma-emitting isotopes.
Collection: Quarterly Composite
Units: pCi/m^3

Location	T-7			
Quarter	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
Lab Code	TAP- 1958	TAP- 4057	TAP- 6354	TAP- 7835
Volume (m^3)	3713	3656	3697	3658
Sr-89	< 0.0005	< 0.0005	< 0.0005	< 0.0004
Sr-90	< 0.0004	< 0.0004	< 0.0004	< 0.0003
Be-7	0.069 ± 0.015	0.094 ± 0.015	0.102 ± 0.024	0.065 ± 0.016
K-40	< 0.027	< 0.022	< 0.025	< 0.026
Nb-95	< 0.0009	< 0.0010	< 0.0039	< 0.0009
Zr-95	< 0.0007	< 0.0020	< 0.0022	< 0.0012
Ru-103	< 0.0007	< 0.0010	< 0.0015	< 0.0011
Ru-106	< 0.0054	< 0.0051	< 0.0124	< 0.0058
Cs-134	< 0.0003	< 0.0005	< 0.0017	< 0.0009
Cs-137	< 0.0003	< 0.0010	< 0.0013	< 0.0006
Ce-141	< 0.0014	< 0.0011	< 0.0021	< 0.0015
Ce-144	< 0.0038	< 0.0048	< 0.0059	< 0.0039

Location	T-8			
Quarter	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
Lab Code	TAP- 1959	TAP- 4058	TAP- 6355	TAP- 7836
Volume (m^3)	3662	3690	3662	3690
Sr-89	< 0.0006	< 0.0006	< 0.0006	< 0.0005
Sr-90	< 0.0005	< 0.0004	< 0.0004	< 0.0004
Be-7	0.056 ± 0.013	0.096 ± 0.015	0.086 ± 0.014	0.066 ± 0.013
K-40	< 0.016	< 0.021	< 0.024	< 0.018
Nb-95	< 0.0008	< 0.0008	< 0.0007	< 0.0012
Zr-95	< 0.0010	< 0.0008	< 0.0010	< 0.0017
Ru-103	< 0.0010	< 0.0009	< 0.0005	< 0.0010
Ru-106	< 0.0050	< 0.0048	< 0.0074	< 0.0078
Cs-134	< 0.0005	< 0.0007	< 0.0009	< 0.0009
Cs-137	< 0.0006	< 0.0007	< 0.0006	< 0.0008
Ce-141	< 0.0009	< 0.0012	< 0.0010	< 0.0012
Ce-144	< 0.0025	< 0.0041	< 0.0056	< 0.0042

Table 12. Airborne particulates, analyses for strontium-89, strontium-90 and gamma-emitting isotopes.
Collection: Quarterly Composite
Units: pCi/m^3

Location	T-9 (C)			
Quarter	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
Lab Code	TAP- 1960	TAP- 4059	TAP- 6356	TAP- 7837
Volume (m^3)	3596	3747	3595	3722
Sr-89	< 0.0007	< 0.0008	< 0.0006	< 0.0005
Sr-90	< 0.0005	< 0.0007	< 0.0005	< 0.0004
Be-7	0.064 ± 0.017	0.108 ± 0.014	0.087 ± 0.018	0.062 ± 0.019
K-40	< 0.022	< 0.016	< 0.025	< 0.024
Nb-95	< 0.0005	< 0.0011	< 0.0009	< 0.0011
Zr-95	< 0.0015	< 0.0011	< 0.0009	< 0.0027
Ru-103	< 0.0010	< 0.0009	< 0.0009	< 0.0011
Ru-106	< 0.0062	< 0.0042	< 0.0080	< 0.0097
Cs-134	< 0.0008	< 0.0004	< 0.0009	< 0.0010
Cs-137	< 0.0006	< 0.0006	< 0.0005	< 0.0012
Ce-141	< 0.0015	< 0.0008	< 0.0015	< 0.0013
Ce-144	< 0.0035	< 0.0027	< 0.0047	< 0.0057

Location	T-11 (C)			
Quarter	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
Lab Code	TAP- 1961	TAP- 4060	TAP- 6357	TAP- 7838
Volume (m^3)	3601	3749	3745	3648
Sr-89	< 0.0006	< 0.0007	< 0.0005	< 0.0005
Sr-90	0.0005 ± 0.0002	< 0.0005	< 0.0004	< 0.0003
Be-7	0.065 ± 0.018	0.092 ± 0.017	0.087 ± 0.017	0.076 ± 0.016
K-40	< 0.025	< 0.025	< 0.023	< 0.022
Nb-95	< 0.0017	< 0.0009	< 0.0012	< 0.0011
Zr-95	< 0.0021	< 0.0009	< 0.0012	< 0.0021
Ru-103	< 0.0012	< 0.0011	< 0.0008	< 0.0011
Ru-106	< 0.0076	< 0.0087	< 0.0060	< 0.0079
Cs-134	< 0.0012	< 0.0007	< 0.0008	< 0.0011
Cs-137	< 0.0010	< 0.0007	< 0.0011	< 0.0008
Ce-141	< 0.0018	< 0.0020	< 0.0020	< 0.0018
Ce-144	< 0.0056	< 0.0045	< 0.0065	< 0.0038

Table 12. Airborne particulates, analyses for strontium-89, strontium-90 and gamma-emitting isotopes.
Collection: Quarterly Composite
Units: pCi/m^3

Location	T-12 (C)			
Quarter	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
Lab Code	TAP- 1962	TAP- 4061	TAP- 6358	TAP- 7839
Volume (m^3)	3686	3669	3716	3714
Sr-89	< 0.0005	< 0.0008	< 0.0004	< 0.0004
Sr-90	< 0.0004	< 0.0005	< 0.0003	< 0.0003
Be-7	0.068 ± 0.014	0.099 ± 0.015	0.097 ± 0.019	0.066 ± 0.013
K-40	< 0.023	< 0.023	< 0.024	< 0.025
Nb-95	< 0.0010	< 0.0013	< 0.0017	< 0.0010
Zr-95	< 0.0006	< 0.0019	< 0.0022	< 0.0018
Ru-103	< 0.0012	< 0.0013	< 0.0009	< 0.0007
Ru-106	< 0.0047	< 0.0067	< 0.0118	< 0.0050
Cs-134	< 0.0007	< 0.0005	< 0.0010	< 0.0009
Cs-137	< 0.0009	< 0.0010	< 0.0011	< 0.0007
Ce-141	< 0.0017	< 0.0020	< 0.0013	< 0.0018
Ce-144	< 0.0030	< 0.0038	< 0.0031	< 0.0043

Location	T-27 (C)			
Quarter	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
Lab Code	TAP- 1963	TAP- 4062	TAP- 6359	TAP- 7840
Volume (m^3)	3622	3689	3657	3660
Sr-89	< 0.0005	< 0.0006	< 0.0005	< 0.0004
Sr-90	< 0.0004	< 0.0005	< 0.0003	< 0.0003
Be-7	0.072 ± 0.013	0.103 ± 0.018	0.087 ± 0.016	0.066 ± 0.014
K-40	< 0.016	< 0.021	< 0.025	< 0.019
Nb-95	< 0.0010	< 0.0008	< 0.0011	< 0.0011
Zr-95	< 0.0015	< 0.0016	< 0.0019	< 0.0012
Ru-103	< 0.0012	< 0.0008	< 0.0012	< 0.0009
Ru-106	< 0.0074	< 0.0036	< 0.0088	< 0.0041
Cs-134	< 0.0007	< 0.0008	< 0.0010	< 0.0009
Cs-137	< 0.0006	< 0.0006	< 0.0005	< 0.0008
Ce-141	< 0.0013	< 0.0016	< 0.0022	< 0.0012
Ce-144	< 0.0041	< 0.0030	< 0.0057	< 0.0040

Table 13. Area monitors (TLD), Quarterly.
Units: mR/91 days

Indicator	1st Qtr. [a]	2nd Qtr. [a]	3rd Qtr.	4th Qtr.
T-1	11.4 ± 0.5	12.1 ± 1.2	10.2 ± 1.2	11.1 ± 1.1
T-2	12.7 ± 1.0	12.5 ± 1.0	11.3 ± 1.2	14.0 ± 1.4
T-3	11.0 ± 1.1	12.5 ± 0.8	9.7 ± 1.4	15.9 ± 1.6
T-4	12.5 ± 0.6	12.3 ± 0.8	12.0 ± 1.2	13.4 ± 1.2
T-5	14.1 ± 1.2	14.1 ± 0.7	13.4 ± 1.5	16.7 ± 1.4
T-6	9.3 ± 0.8	10.3 ± 0.7	7.7 ± 1.2	12.9 ± 0.9
T-7	15.5 ± 0.6	19.6 ± 0.7	15.8 ± 1.1	20.1 ± 0.9
T-8	21.3 ± 1.2	22.8 ± 2.0	23.3 ± 1.8	23.5 ± 1.8
T-10	12.9 ± 0.8	15.8 ± 0.9	12.3 ± 1.4	16.5 ± 1.0
T-38	11.3 ± 0.5	13.0 ± 1.3	10.8 ± 1.2	13.5 ± 1.5
T-39	11.9 ± 1.0	11.2 ± 0.7	11.6 ± 1.7	11.3 ± 0.9
T-40	13.7 ± 0.6	13.9 ± 0.8	14.2 ± 1.8	15.0 ± 1.0
T-41	10.3 ± 0.6	12.1 ± 0.8	9.6 ± 1.2	12.5 ± 0.9
T-42	11.1 ± 0.6	10.9 ± 1.0	9.3 ± 1.4	11.6 ± 1.1
T-43	14.1 ± 0.7	17.3 ± 1.0	13.9 ± 1.3	18.2 ± 1.1
T-44	17.1 ± 1.0	18.1 ± 1.8	14.7 ± 1.8	19.6 ± 1.8
T-45	20.9 ± 0.5	20.3 ± 0.8	17.4 ± 1.4	21.9 ± 0.9
T-46	11.8 ± 1.0	12.3 ± 1.0	11.3 ± 1.5	14.6 ± 1.3
T-47	10.8 ± 1.0	10.7 ± 0.7	7.0 ± 1.3	11.4 ± 0.9
T-48	10.6 ± 0.5	11.5 ± 0.8	11.8 ± 1.1	11.5 ± 0.9
T-49	9.1 ± 0.7	10.2 ± 1.1	7.6 ± 1.2	11.2 ± 1.4
T-50	14.3 ± 0.5	16.9 ± 1.7	14.8 ± 1.2	16.2 ± 1.7
T-51	16.8 ± 1.2	16.8 ± 1.5	17.6 ± 1.9	16.9 ± 1.8
T-52	16.4 ± 1.1	22.8 ± 0.9	17.5 ± 1.8	21.7 ± 0.9
T-53	16.9 ± 0.5	20.1 ± 2.2	18.2 ± 1.1	21.5 ± 0.9
T-54	16.9 ± 0.6	19.7 ± 1.0	18.0 ± 1.3	17.1 ± 1.2
T-55	12.7 ± 1.3	15.5 ± 1.3	11.0 ± 1.7	14.7 ± 1.4
T-60	9.9 ± 0.7	10.4 ± 1.5	7.5 ± 0.9	12.1 ± 1.7
T-62	11.3 ± 0.4	10.0 ± 0.9	9.8 ± 0.6	12.1 ± 1.5
T-65	16.1 ± 0.9	18.3 ± 1.1	14.9 ± 0.9	21.4 ± 2.1
T-66	18.2 ± 0.7	18.6 ± 1.9	17.7 ± 0.8	21.0 ± 2.2
T-67	20.5 ± 0.5	17.2 ± 0.9	16.3 ± 1.0	23.3 ± 1.4
T-68	17.2 ± 1.7	15.7 ± 0.9	15.0 ± 1.3	16.9 ± 1.1
T-69	15.2 ± 0.8	15.0 ± 0.8	14.4 ± 0.6	20.3 ± 1.0
T-71	17.0 ± 0.6	14.6 ± 0.9	16.1 ± 0.9	17.0 ± 1.1
T-73	14.2 ± 1.2	14.0 ± 1.1	10.6 ± 1.1	15.7 ± 1.2
T-74	15.2 ± 0.9	15.6 ± 1.6	14.0 ± 1.6	17.0 ± 1.7
T-75	11.5 ± 0.5	16.1 ± 0.8	11.8 ± 0.5	37.8 ± 1.3
T-76	13.0 ± 0.5	11.8 ± 1.0	12.1 ± 0.6	13.0 ± 1.3
T-91	18.5 ± 0.6	17.8 ± 1.3	18.9 ± 1.0	22.0 ± 2.4
T-92	12.7 ± 0.5	13.9 ± 0.9	11.9 ± 0.5	15.9 ± 1.1

Table 13. Area monitors (TLD), Quarterly.
Units: mR/91 days

Indicator	1st Qtr. [a]	2nd Qtr. [a]	3rd Qtr.	4th Qtr.
T-93	12.4 ± 0.7	13.9 ± 1.1	11.2 ± 1.0	13.8 ± 1.1
T-94	17.0 ± 0.9	19.1 ± 1.4	13.6 ± 1.0	18.6 ± 1.2
T-112	12.4 ± 0.5	12.3 ± 1.1	10.5 ± 0.6	15.4 ± 1.5
T-121	19.0 ± 1.6	22.7 ± 1.3	17.7 ± 1.3	22.0 ± 1.4
T-122	14.6 ± 1.0	16.5 ± 0.8	13.0 ± 1.0	16.5 ± 1.2
T-123	17.0 ± 0.5	18.1 ± 0.8	17.0 ± 1.1	17.4 ± 1.0
T-125	15.4 ± 0.8	18.3 ± 0.9	16.6 ± 1.0	16.5 ± 1.1
T-126	14.2 ± 0.5	14.7 ± 1.1	15.5 ± 0.6	13.2 ± 1.2
T-127	17.3 ± 1.0	20.6 ± 1.3	18.9 ± 0.9	18.4 ± 1.4
T-128	18.1 ± 1.8	21.0 ± 0.9	16.4 ± 1.6	19.7 ± 1.3
T-142	10.0 ± 0.6	12.5 ± 1.0	9.3 ± 0.4	12.2 ± 1.2
T-150	11.8 ± 0.5	15.5 ± 1.5	12.4 ± 1.3	14.8 ± 1.9
T-151	16.5 ± 0.6	20.9 ± 1.0	17.4 ± 0.9	20.5 ± 1.3
T-153	18.7 ± 0.5	21.4 ± 0.9	21.8 ± 0.9	20.2 ± 1.1
T-154	13.8 ± 1.5	16.7 ± 1.2	14.6 ± 1.3	16.2 ± 1.4
T-201	13.9 ± 0.6	13.5 ± 0.3	15.1 ± 0.2	11.6 ± 0.3
T-202	12.8 ± 0.9	13.3 ± 0.3	13.5 ± 0.7	14.2 ± 0.8
T-203	13.8 ± 0.8	15.1 ± 1.0	13.2 ± 0.5	13.8 ± 1.4
T-204	12.5 ± 0.7	14.6 ± 1.0	13.1 ± 0.4	11.9 ± 0.9
T-205	10.6 ± 0.7	10.8 ± 0.6	10.5 ± 0.3	9.5 ± 0.4
T-206	11.5 ± 0.8	12.6 ± 0.3	12.1 ± 0.5	10.2 ± 0.4
T-207	10.3 ± 1.0	11.0 ± 0.6	10.6 ± 0.8	10.0 ± 0.8
T-208	10.9 ± 1.1	10.6 ± 0.4	11.5 ± 1.1	10.7 ± 0.5
T-211	13.2 ± 1.2	10.9 ± 0.6	13.5 ± 1.4	9.0 ± 0.9
T-212	9.8 ± 0.6	11.3 ± 0.7	8.9 ± 0.6	10.1 ± 1.2
T-213	16.9 ± 0.6	19.1 ± 0.8	18.1 ± 0.7	16.8 ± 1.2
T-214	18.6 ± 0.6	18.0 ± 0.7	16.3 ± 0.5	15.1 ± 1.0
T-215	17.6 ± 0.7	21.1 ± 0.7	17.4 ± 0.7	16.6 ± 1.4
T-216	15.9 ± 0.6	18.1 ± 1.1	16.3 ± 0.7	16.9 ± 1.2
T-217	19.3 ± 0.8	23.2 ± 1.8	20.7 ± 0.9	18.0 ± 1.4
T-218	19.7 ± 0.9	25.2 ± 1.0	21.8 ± 1.1	20.2 ± 1.3
T-219	15.4 ± 1.0	18.0 ± 1.1	13.5 ± 1.1	15.8 ± 1.5
T-220	19.9 ± 0.5	22.2 ± 1.4	20.5 ± 0.6	19.0 ± 1.9
T-222	12.9 ± 0.7	15.2 ± 0.6	13.3 ± 1.4	12.6 ± 1.1
T-223	13.4 ± 0.9	14.6 ± 0.9	13.2 ± 1.0	12.2 ± 0.9
T-224	17.1 ± 0.8	18.8 ± 1.0	18.0 ± 1.1	16.1 ± 1.1
Mean ± s.d.	14.4 ± 3.1	15.8 ± 3.8	14.0 ± 3.6	16.0 ± 4.4

Table 13. Area monitors (TLD), Quarterly.
Units: mR/91 days

	1st Qtr. [a]	2nd Qtr. [a]	3rd Qtr.	4th Qtr.
Control				
T-9	13.1 ± 0.8	14.0 ± 1.0	13.2 ± 1.2	15.1 ± 1.2
T-11	13.8 ± 0.5	14.5 ± 1.0	13.0 ± 1.2	16.0 ± 1.0
T-12	17.1 ± 0.6	20.2 ± 1.1	18.0 ± 1.3	17.5 ± 1.1
T-24	16.0 ± 0.7	18.8 ± 0.8	17.4 ± 2.0	19.3 ± 1.0
T-27	16.4 ± 0.8	20.1 ± 1.1	16.1 ± 1.3	19.1 ± 1.0
Mean ± s.d.	15.3 ± 1.7	17.5 ± 3.0	15.5 ± 2.3	17.4 ± 1.9
T-95	15.8 ± 1.0	17.4 ± 0.9	12.1 ± 1.2	16.5 ± 1.2
T-100	16.3 ± 1.1	18.1 ± 1.2	15.6 ± 1.2	17.2 ± 1.5
T-111	17.0 ± 1.3	20.1 ± 1.0	15.1 ± 1.7	18.7 ± 1.5
T-124	17.8 ± 1.0	20.5 ± 1.0	20.6 ± 1.0	20.2 ± 1.2
T-155	14.5 ± 0.8	15.7 ± 1.7	14.6 ± 0.9	16.0 ± 1.5
T-221	17.9 ± 1.2	20.5 ± 0.9	19.7 ± 1.3	18.2 ± 1.5
Mean ± s.d.	16.6 ± 1.3	18.7 ± 2.0	16.3 ± 3.2	17.8 ± 1.6
QC				
T-80	8.7 ± 0.9	11.2 ± 0.8	8.2 ± 0.8	12.3 ± 1.1
T-81	18.0 ± 0.6	19.0 ± 0.8	18.6 ± 0.8	20.1 ± 1.1
T-82	9.1 ± 0.5	10.6 ± 0.8	7.3 ± 0.6	11.9 ± 1.1
T-83	10.6 ± 0.7	11.6 ± 1.7	9.2 ± 0.8	13.1 ± 1.9
T-84	11.2 ± 0.7	12.0 ± 0.9	9.4 ± 0.8	13.3 ± 1.1
T-85	12.5 ± 0.6	11.7 ± 1.0	10.7 ± 0.7	12.7 ± 1.1
T-86	18.5 ± 0.9	20.5 ± 1.4	18.8 ± 1.2	23.1 ± 1.7
T-88	16.0 ± 1.0	16.9 ± 1.0	12.6 ± 1.1	17.7 ± 1.5
T-89	14.4 ± 0.8	19.0 ± 0.8	13.8 ± 1.1	18.6 ± 1.1
T-113	12.7 ± 0.9	14.4 ± 1.2	10.4 ± 1.1	14.2 ± 1.3
T-114	19.4 ± 0.5	20.2 ± 0.9	18.5 ± 0.6	18.2 ± 1.1
T-115	14.0 ± 1.0	16.0 ± 1.0	12.3 ± 0.9	14.9 ± 1.2
T-116	17.9 ± 0.7	21.0 ± 1.2	16.2 ± 0.7	19.4 ± 1.3
T-117	14.7 ± 1.0	13.4 ± 1.2	13.0 ± 0.8	12.2 ± 1.5
T-118	14.3 ± 0.7	15.5 ± 1.4	11.9 ± 0.7	14.4 ± 1.1
T-119	12.7 ± 1.1	16.5 ± 1.0	10.5 ± 0.9	15.8 ± 1.2
T-120	11.4 ± 0.7	13.2 ± 1.0	8.9 ± 0.7	12.7 ± 1.2
T-200	12.5 ± 0.6	14.2 ± 0.7	13.0 ± 0.8	13.3 ± 1.8
Mean ± s.d.	13.8 ± 3.2	15.4 ± 3.4	12.4 ± 3.6	15.4 ± 3.3
Shield				
T-87	5.4 ± 0.5	7.0 ± 1.0	3.0 ± 0.5	7.2 ± 1.2

[a] In-transit exposure was estimated.

Table 14. Area monitors (TLD), Annual.
Units: mR/365 days

Indicator	2013
T-1	36.2 ± 1.1
T-2	48.1 ± 1.7
T-3	46.5 ± 2.3
T-4	40.0 ± 1.7
T-5	45.1 ± 1.7
T-6	43.4 ± 1.2
T-7	68.4 ± 4.6
T-8	85.3 ± 1.9
T-10	59.1 ± 2.6
T-38	43.5 ± 1.8
T-39	37.7 ± 1.6
T-40	57.7 ± 2.2
T-41	35.7 ± 1.1
T-42	50.1 ± 2.5
T-43	64.8 ± 2.3
T-44	78.6 ± 3.0
T-45	92.7 ± 3.8
T-46	56.2 ± 3.0
T-47	34.5 ± 1.1
T-48	46.7 ± 1.6
T-49	50.1 ± 2.4
T-50	69.9 ± 3.1
T-51	74.1 ± 2.7
T-52	74.5 ± 2.8
T-53	72.3 ± 2.0
T-54	66.9 ± 1.9
T-55	61.9 ± 5.2
T-60	44.0 ± 2.2
T-62	40.0 ± 2.3
T-65	60.4 ± 4.4
T-66	72.4 ± 2.7
T-67	72.6 ± 2.5
T-68	57.1 ± 2.3
T-69	65.3 ± 2.1
T-71	62.5 ± 1.5
T-73	44.9 ± 1.2
T-74	51.1 ± 2.1
T-75	74.6 ± 5.1
T-76	41.0 ± 1.9
T-91	67.5 ± 1.2
T-92	45.7 ± 1.7

Table 14. Area monitors (TLD), Annual.
Units: mR/365 days

Indicator	2013
T-93	46.8 ± 1.5
T-94	61.9 ± 1.9
T-112	47.1 ± 1.4
T-121	72.8 ± 2.8
T-122	57.6 ± 1.7
T-123	63.2 ± 1.6
T-125	66.6 ± 1.8
T-126	52.9 ± 0.8
T-127	69.2 ± 2.5
T-128	67.7 ± 5.8
T-142	36.5 ± 1.6
T-150	49.8 ± 4.3
T-151	66.7 ± 1.1
T-153	69.2 ± 2.6
T-154	53.7 ± 1.5
T-201	56.3 ± 2.8
T-202	54.5 ± 3.1
T-203	58.1 ± 2.8
T-204	50.1 ± 3.1
T-205	46.1 ± 2.9
T-206	44.9 ± 3.6
T-207	41.5 ± 2.8
T-208	43.3 ± 2.8
T-211	34.8 ± 3.2
T-212	40.3 ± 2.3
T-213	68.4 ± 3.1
T-214	64.6 ± 2.1
T-215	74.3 ± 2.7
T-216	59.8 ± 3.8
T-217	72.1 ± 5.8
T-218	86.7 ± 2.6
T-219	55.9 ± 2.9
T-220	74.6 ± 2.8
T-222	48.0 ± 1.9
T-223	49.0 ± 3.1
T-224	57.2 ± 3.7
Mean ± s.d.	57.2 ± 13.6

[a] ND = No Data, TLD lost in the field.

Table 14. Area monitors (TLD), Annual.

Units: mR/365 days

Control	2013
T-9	60.3 ± 1.4
T-11	45.1 ± 1.4
T-12	56.0 ± 2.0
T-24	69.1 ± 2.4
T-27	65.1 ± 1.8
Mean ± s.d.	59.1 ± 9.3
T-95	56.7 ± 3.0
T-100	66.2 ± 2.3
T-111	59.5 ± 3.5
T-124	62.8 ± 2.9
T-155	53.0 ± 2.1
T-221	67.8 ± 2.1
Mean ± s.d.	61.0 ± 5.7
QC	
T-80	38.4 ± 1.1
T-81	70.9 ± 1.8
T-82	36.8 ± 0.9
T-83	33.5 ± 1.6
T-84	42.3 ± 1.4
T-85	44.7 ± 2.7
T-86	70.7 ± 4.3
T-88	58.7 ± 1.6
T-89	66.6 ± 4.3
T-113	56.1 ± 2.4
T-114	68.2 ± 2.2
T-115	50.7 ± 1.8
T-116	62.4 ± 1.4
T-117	52.0 ± 1.0
T-118	56.2 ± 1.5
T-119	48.7 ± 2.8
T-120	39.6 ± 1.3
T-200	49.1 ± 3.3
Mean ± s.d.	52.5 ± 12.0
Shield	
T-87	17.9 ± 1.7

Table 15. Milk, analyses for strontium-89, strontium-90, iodine-131, gamma emitting isotopes, calcium and stable potassium.
Monthly collections, location T-24 Units: pCi/L

Date Collected	01-29-13	02-26-13	04-03-13	05-01-13
Lab Code	TMI- 373	TMI- 777	TMI- 1479	TMI- 2233
I-131	< 0.4	< 0.3	< 0.3	< 0.3
Sr-89	< 0.6	< 0.6	< 0.5	< 0.6
Sr-90	< 0.4	0.8 ± 0.3	0.6 ± 0.3	< 0.5
K-40	1392 ± 107	1492 ± 143	1316 ± 159	1356 ± 114
Cs-134	< 3.4	< 4.3	< 4.9	< 2.5
Cs-137	< 4.1	< 5.5	< 6.0	< 4.0
Ba-La-140	< 6.0	< 6.0	< 11.5	< 4.2
Ca (g/L)	1.10	1.17	1.52	1.12
Sr-90/g Ca	< 0.36	0.68	0.39	< 0.45
K (g/L)	1.70 ± 0.13	1.82 ± 0.17	1.60 ± 0.19	1.65 ± 0.14
Cs-137/g K	< 2.41	< 3.02	< 3.75	< 2.42

Date Collected	06-05-13	07-02-13	07-31-13	08-28-13
Lab Code	TMI- 2952	TMI- 3626	TMI- 4411	TMI- 5077
I-131	< 0.3	< 0.3	< 0.3	< 0.2
Sr-89	< 0.5	< 0.6	< 0.6	< 0.6
Sr-90	< 0.6	< 0.5	0.7 ± 0.3	< 0.6
K-40	1421 ± 93	1534 ± 130	1420 ± 108	1485 ± 127
Cs-134	< 2.8	< 4.9	< 1.9	< 3.1
Cs-137	< 2.7	< 3.0	< 4.0	< 3.9
Ba-La-140	< 4.5	< 4.3	< 1.9	< 3.1
Ca (g/L)	1.10	1.01	1.00	1.10
Sr-90/g Ca	< 0.55	< 0.50	0.70	< 0.55
K (g/L)	1.73 ± 0.11	1.87 ± 0.16	1.73 ± 0.13	1.81 ± 0.15
Cs-137/g K	< 1.56	< 1.60	< 2.31	< 2.15

Date Collected	09-25-13	10-30-13	12-04-13	12-31-13
Lab Code	TMI- 5647	TMI- 6692	TMI- 7298	TMI- 7644
I-131	< 0.3	< 0.2	< 0.5	< 0.2
Sr-89	< 0.6	< 0.6	< 0.5	< 0.6
Sr-90	0.7 ± 0.4	< 0.5	< 0.5	0.6 ± 0.3
K-40	1346 ± 138	1338 ± 115	1296 ± 109	1313 ± 100
Cs-134	< 4.3	< 4.0	< 3.9	< 3.8
Cs-137	< 5.7	< 3.7	< 1.4	< 3.7
Ba-La-140	< 4.4	< 2.2	< 1.2	< 1.9
Ca (g/L)	1.08	1.23	1.03	1.04
Sr-90/g Ca	0.65	< 0.41	< 0.49	0.58
K (g/L)	1.64 ± 0.17	1.63 ± 0.14	1.58 ± 0.13	1.60 ± 0.12
Cs-137/g K	< 3.48	< 2.27	< 0.89	< 2.31

Table 16. Ground water samples, analyses for gross beta, tritium, strontium-89, strontium-90 and gamma-emitting isotopes.
Collection: Quarterly
Units: pCi/L

Period	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.	
Location			T-27A (C)		
Lab Code	ND	TWW- 2997	TWW- 4487	TWW- 6755	Req. LLD
Date Collected	-	05-08-13	07-16-13	10-10-13	
Gross beta	-	2.1 ± 1.2	2.5 ± 0.7	1.0 ± 0.3	4.0
H-3	-	< 330	< 330	< 330	330
Sr-89	-	< 1.0	< 0.9	< 0.8	
Sr-90	-	< 0.4	< 0.6	< 0.5	
Mn-54	-	< 2.7	< 2.6	< 1.3	15
Fe-59	-	< 7.6	< 3.6	< 3.6	30
Co-58	-	< 2.3	< 1.6	< 1.2	15
Co-60	-	< 1.8	< 1.6	< 1.2	15
Zn-65	-	< 4.2	< 2.7	< 2.2	30
Zr-Nb-95	-	< 5.2	< 2.2	< 2.6	15
Cs-134	-	< 2.1	< 2.2	< 1.1	15
Cs-137	-	< 2.2	< 2.0	< 1.4	18
Ba-La-140	-	< 14.0	< 4.2	< 3.9	15
Location			T-225 (I)		
Lab Code	ND	TWW- 2999	TWW- 4489	TWW- 6757	Req. LLD
Date Collected	-	05-22-13	07-17-13	10-10-13	
Gross beta	-	2.0 ± 0.6	1.9 ± 0.3	1.4 ± 0.4	4.0
H-3	-	< 330	< 330	< 330	330
Sr-89	-	< 1.0	< 0.9	< 0.8	
Sr-90	-	< 0.5	< 0.6	< 0.5	
Mn-54	-	< 2.6	< 1.9	< 1.8	15
Fe-59	-	< 4.6	< 3.9	< 4.4	30
Co-58	-	< 3.8	< 2.5	< 2.5	15
Co-60	-	< 2.3	< 2.3	< 1.9	15
Zn-65	-	< 2.4	< 3.1	< 3.9	30
Zr-Nb-95	-	< 5.0	< 5.1	< 2.6	15
Cs-134	-	< 2.7	< 2.2	< 2.0	15
Cs-137	-	< 2.5	< 3.0	< 1.9	18
Ba-La-140	-	< 8.4	< 6.7	< 4.7	15

ND = No Data, Sample not received.

Table 16. Ground water samples, analyses for gross beta, tritium, strontium-89, strontium-90 and gamma-emitting isotopes.
Collection: Quarterly
Units: pCi/L

Period	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.	
Location			T-226 (I)		
Lab Code	ND	TWW- 3000	TWW- 4490	TWW- 6758	Req. LLD
Date Collected	-	05-08-13	07-17-13	10-10-13	
Gross beta	-	1.8 ± 0.8	1.2 ± 0.3	1.3 ± 0.4	4.0
H-3	-	< 330	< 330	< 330	330
Sr-89	-	< 1.4	< 0.8	< 0.8	
Sr-90	-	< 0.6	< 0.5	< 0.4	
Mn-54	-	< 2.1	< 1.4	< 1.9	15
Fe-59	-	< 6.0	< 4.6	< 3.8	30
Co-58	-	< 3.6	< 2.2	< 1.5	15
Co-60	-	< 1.5	< 1.5	< 1.8	15
Zn-65	-	< 2.1	< 2.2	< 2.1	30
Zr-Nb-95	-	< 3.8	< 4.2	< 1.9	15
Cs-134	-	< 1.9	< 3.5	< 1.9	15
Cs-137	-	< 2.7	< 2.2	< 2.2	18
Ba-La-140	-	< 8.4	< 3.9	< 8.0	15
Location			T-141 (QC)		
Lab Code	ND	TWW- 2998	TWW- 4488	TWW- 6756	Req. LLD
Date Collected	-	05-08-13	07-17-13	10-10-13	
Gross beta	-	1.0 ± 0.6	2.1 ± 0.3	4.4 ± 1.5	4.0
H-3	-	< 330	< 330	< 330	330
Sr-89	-	< 1.1	< 1.3	< 0.9	
Sr-90	-	< 0.5	< 0.8	< 0.5	
Mn-54	-	< 2.7	< 2.0	< 1.9	15
Fe-59	-	< 5.0	< 4.7	< 3.8	30
Co-58	-	< 2.1	< 2.0	< 1.1	15
Co-60	-	< 2.4	< 1.4	< 2.4	15
Zn-65	-	< 3.3	< 5.0	< 2.2	30
Zr-Nb-95	-	< 5.5	< 2.6	< 3.4	15
Cs-134	-	< 2.5	< 1.8	< 2.0	15
Cs-137	-	< 2.6	< 3.2	< 1.7	18
Ba-La-140	-	< 10.8	< 4.5	< 8.4	15

ND = No Data, Sample not received.

Table 19. Green leafy vegetables, analyses for strontium-89, strontium-90, iodine-131 and other gamma-emitting isotopes.
Collection: Monthly, in season Units: pCi/g wet

Location	T-227 (I)	
Lab Code	TVE- 5093	TVE- 5653
Date Collected	08-28-13	09-25-13
Sample Type	Cabbage	Cabbage
Sr-89	< 0.006	< 0.005
Sr-90	< 0.003	< 0.003
I-131	< 0.012	< 0.019
K-40	3.67 ± 0.27	5.38 ± 0.35
Nb-95	< 0.006	< 0.011
Zr-95	< 0.007	< 0.019
Cs-134	< 0.006	< 0.010
Cs-137	< 0.009	< 0.010
Ce-141	< 0.011	< 0.024
Ce-144	< 0.055	< 0.052

Location	T-19 (I)			
Lab Code	TVE- 4520	TVE- 5092	TVE- 5649	TVE- 6709
Date Collected	08-06-13	08-28-13	09-25-13	10-29-13
Sample Type	Cabbage	Cabbage	Cabbage	Cabbage
Sr-89	< 0.004	< 0.003	< 0.005	< 0.003
Sr-90	< 0.002	< 0.003	< 0.004	< 0.002
I-131	< 0.006	< 0.011	< 0.012	< 0.016
K-40	2.20 ± 0.16	2.49 ± 0.23	1.85 ± 0.19	2.18 ± 0.18
Nb-95	< 0.006	< 0.007	< 0.007	< 0.007
Zr-95	< 0.009	< 0.013	< 0.013	< 0.009
Cs-134	< 0.004	< 0.005	< 0.005	< 0.007
Cs-137	< 0.005	< 0.008	< 0.004	< 0.007
Ce-141	< 0.011	< 0.016	< 0.008	< 0.015
Ce-144	< 0.039	< 0.069	< 0.045	< 0.056

Location	T-37 (C)	
Lab Code	TVE- 4412	TVE- 5651
Date Collected	07-31-13	09-25-13
Sample Type	Cabbage	Cabbage
Sr-89	< 0.003	< 0.003
Sr-90	< 0.002	< 0.002
I-131	< 0.018	< 0.010
K-40	2.05 ± 0.20	2.59 ± 0.22
Nb-95	< 0.006	< 0.008
Zr-95	< 0.011	< 0.012
Cs-134	< 0.007	< 0.006
Cs-137	< 0.006	< 0.006
Ce-141	< 0.013	< 0.019
Ce-144	< 0.067	< 0.063

Table 20. Fruit, analyses for strontium-89, strontium-90, iodine-131 and other gamma-emitting isotopes.
Collection: Monthly, in season
Units: pCi/g wet

Location	T-8 (I)	T-25 (I)
Lab Code	TVE- 5648	TVE- 5650
Date Collected	09-25-13	09-25-13
Sample Type	Apples	Apples
Sr-89	< 0.001	< 0.002
Sr-90	< 0.001	< 0.001
I-131	< 0.016	< 0.011
K-40	1.08 ± 0.17	1.18 ± 0.14
Nb-95	< 0.007	< 0.005
Zr-95	< 0.014	< 0.006
Cs-134	< 0.005	< 0.005
Cs-137	< 0.006	< 0.006
Ce-141	< 0.013	< 0.010
Ce-144	< 0.058	< 0.048

Location	T-209 (C)
Lab Code	TVE- 5652
Date Collected	09-25-13
Sample Type	Apples
Sr-89	< 0.002
Sr-90	< 0.001
I-131	< 0.009
K-40	1.01 ± 0.13
Nb-95	< 0.004
Zr-95	< 0.007
Cs-134	< 0.004
Cs-137	< 0.005
Ce-141	< 0.009
Ce-144	< 0.047

Table 22. Soil samples, analyses for gamma-emitting isotopes.
Collection: Annual
Units: pCi/g dry

Location	T-1	T-2	T-3	T-4
Lab Code	TSO- 2269	TSO- 2270	TSO- 2271	TSO- 2272
Date Collected	05-01-13	05-01-13	05-01-13	05-01-13
Be-7	0.37 ± 0.19	1.21 ± 0.35	0.71 ± 0.26	0.88 ± 0.31
K-40	11.82 ± 0.66	4.43 ± 0.50	8.29 ± 0.63	8.35 ± 0.69
Mn-54	< 0.019	< 0.024	< 0.027	< 0.027
Nb-95	< 0.020	< 0.026	< 0.031	< 0.023
Zr-95	< 0.033	< 0.032	< 0.025	< 0.029
Ru-103	< 0.016	< 0.016	< 0.018	< 0.026
Ru-106	< 0.125	< 0.120	< 0.136	< 0.117
Cs-134	< 0.016	< 0.019	< 0.015	< 0.017
Cs-137	< 0.016	0.24 ± 0.024	0.038 ± 0.021	< 0.015
Ce-141	< 0.054	< 0.053	< 0.049	< 0.061
Ce-144	< 0.098	< 0.071	< 0.122	< 0.110

Location	T-7	T-8
Lab Code	TSO- 2273	TSO- 2274
Date Collected	05-01-13	05-01-13
Be-7	< 0.32	0.50 ± 0.25
K-40	20.01 ± 0.94	21.53 ± 0.99
Mn-54	< 0.035	< 0.034
Nb-95	< 0.024	< 0.043
Zr-95	< 0.032	< 0.038
Ru-103	< 0.033	< 0.024
Ru-106	< 0.089	< 0.174
Cs-134	< 0.018	< 0.026
Cs-137	< 0.029	0.12 ± 0.042
Ce-141	< 0.078	< 0.080
Ce-144	< 0.131	< 0.136

Location	T-9	T-11	T-12	T-27
Lab Code	TSO- 2275	TSO- 2276	TSO- 2277	TSO- 2278
Date Collected	05-01-13	05-01-13	05-01-13	05-01-13
Be-7	< 0.30	< 0.27	< 0.23	< 0.28
K-40	23.16 ± 0.98	16.11 ± 0.82	14.90 ± 0.83	19.99 ± 0.99
Mn-54	< 0.036	< 0.030	< 0.027	< 0.036
Nb-95	< 0.035	< 0.039	< 0.032	< 0.039
Zr-95	< 0.039	< 0.064	< 0.029	< 0.054
Ru-103	< 0.033	< 0.028	< 0.030	< 0.033
Ru-106	< 0.257	< 0.117	< 0.205	< 0.145
Cs-134	< 0.024	< 0.017	< 0.022	< 0.023
Cs-137	0.12 ± 0.044	0.11 ± 0.034	0.083 ± 0.033	0.15 ± 0.035
Ce-141	< 0.076	< 0.060	< 0.071	< 0.063
Ce-144	< 0.191	< 0.175	< 0.142	< 0.156

Table 23. Treated surface water samples, analyses for gross beta.
Collection: Monthly composites of weekly grab samples
Units: pCi/L

T-11 (C)			T-12 (C)		
Lab Code	Date Collected	Gross Beta	Lab Code	Date Collected	Gross Beta
TSWT- 361	01-29-13	0.9 ± 0.4	TSWT- 363	01-29-13	< 0.6
TSWT- 783	02-26-13	< 1.8	TSWT- 784	02-26-13	2.2 ± 0.9
TSWT- 1532	04-02-13	1.1 ± 0.4	TSWT- 1533	04-02-13	1.2 ± 0.4
TSWT- 2297	04-30-13	0.8 ± 0.4	TSWT- 2298	04-30-13	0.7 ± 0.4
TSWT- 2985	06-04-13	1.8 ± 0.6	TSWT- 2986	06-04-13	1.0 ± 0.5
TSWT- 3646	07-02-13	0.9 ± 0.5	TSWT- 3647	07-02-13	< 0.8
TSWT- 4470	07-30-13	1.4 ± 0.4	TSWT- 4471	07-30-13	1.0 ± 0.4
TSWT- 5244	09-03-13	1.2 ± 0.6	TSWT- 5245	09-03-13	1.2 ± 0.5
TSWT- 5819	10-01-13	2.1 ± 0.8	TSWT- 5820	10-01-13	1.9 ± 0.7
TSWT- 6751	10-29-13	2.6 ± 0.5	TSWT- 6752	10-29-13	1.7 ± 0.4
TSWT- 7319	12-03-13	< 0.8	TSWT- 7320	12-03-13	< 0.8
TSWT- 7659	12-30-13	1.9 ± 1.0	TSWT- 7660	12-30-13	3.1 ± 1.0

T-22			T-143 (QC)		
TSWT- 364	01-29-13	0.9 ± 0.4	TSWT- 365	01-29-13	2.0 ± 0.5
TSWT- 785	02-26-13	2.5 ± 1.0	TSWT- 786	02-26-13	2.8 ± 1.0
TSWT- 1534	04-02-13	1.2 ± 0.4	TSWT- 1535	04-02-13	1.2 ± 0.4
TSWT- 2299	04-30-13	1.1 ± 0.4	TSWT- 2300	04-30-13	0.8 ± 0.4
TSWT- 2988	06-04-13	2.0 ± 1.0	TSWT- 2989	06-04-13	2.3 ± 1.0
TSWT- 3648	07-02-13	1.1 ± 0.5	TSWT- 3649	07-02-13	1.2 ± 0.5
TSWT- 4472	07-30-13	1.6 ± 0.4	TSWT- 4473	07-30-13	1.9 ± 0.4
TSWT- 5246	09-03-13	1.6 ± 0.6	TSWT- 5247	09-03-13	< 0.9
TSWT- 5821	10-01-13	2.1 ± 0.8	TSWT- 5822	10-01-13	2.1 ± 0.7
TSWT- 6753	10-29-13	1.8 ± 0.5	TSWT- 6754	10-29-13	1.6 ± 0.5
TSWT- 7321	12-03-13	1.5 ± 0.6	TSWT- 7322	12-03-13	1.1 ± 0.5
TSWT- 7661	12-30-13	< 1.8	TSWT- 7662	12-30-13	2.3 ± 1.0

Table 24. Treated surface water samples, analyses for tritium, strontium-89, strontium-90 and gamma-emitting isotopes.
Collection: Quarterly composites of weekly grab samples
Units: pCi/L

Location	T-11 (C)				
Period Lab Code	1st Qtr. TSWT- 1584	2nd Qtr. TSWT- 3758	3rd Qtr. TSWT- 5993	4th Qtr. TSWT- 7671	Req. LLD
H-3	< 330	< 330	< 330	< 330	330
Sr-89	< 0.9	< 0.9	< 0.7	< 0.6	
Sr-90	< 0.5	< 0.7	< 0.5	< 0.5	
Mn-54	< 3.8	< 2.9	< 3.3	< 3.0	15
Fe-59	< 7.4	< 3.3	< 7.9	< 5.8	30
Co-58	< 2.6	< 1.7	< 4.9	< 2.9	15
Co-60	< 2.8	< 2.2	< 3.6	< 2.8	15
Zn-65	< 5.9	< 5.3	< 4.3	< 6.2	30
Zr-Nb-95	< 4.0	< 2.7	< 3.5	< 5.4	15
Cs-134	< 2.6	< 2.7	< 2.8	< 4.1	10
Cs-137	< 4.0	< 3.6	< 4.5	< 5.5	18
Ba-La-140	< 5.9	< 5.8	< 7.0	< 5.7	15

Location	T-12 (C)				
Period Lab Code	1st Qtr. TSWT- 1585	2nd Qtr. TSWT- 3759	3rd Qtr. TSWT- 5994	4th Qtr. TSWT- 7672	Req. LLD
H-3	< 330	< 330	< 330	< 330	330
Sr-89	< 0.8	< 1.0	< 0.7	< 0.7	
Sr-90	< 0.5	< 0.6	< 0.5	< 0.6	
Mn-54	< 3.5	< 1.5	< 3.5	< 2.9	15
Fe-59	< 8.6	< 3.6	< 5.9	< 4.1	30
Co-58	< 4.5	< 2.2	< 3.2	< 1.9	15
Co-60	< 2.6	< 1.5	< 3.6	< 1.7	15
Zn-65	< 6.6	< 6.8	< 6.5	< 6.3	30
Zr-Nb-95	< 2.6	< 3.1	< 3.0	< 2.2	15
Cs-134	< 3.5	< 2.2	< 3.3	< 3.1	10
Cs-137	< 4.5	< 1.6	< 3.8	< 2.7	18
Ba-La-140	< 7.7	< 2.0	< 4.1	< 5.2	15

Table 24. Treated surface water samples, analyses for tritium, strontium-89, strontium-90 and gamma-emitting isotopes.
Collection: Quarterly composites of weekly grab samples.
Units: pCi/L

Location	T-22				
Period Lab Code	1st Qtr. TSWT- 1586	2nd Qtr. TSWT- 3760	3rd Qtr. TSWT- 5995	4th Qtr. TSWT- 7673	Req. LLD
H-3	< 330	< 330	< 330	< 330	330
Sr-89	< 1.0	< 0.8	< 0.7	< 0.6	
Sr-90	< 0.4	< 0.5	< 0.5	< 0.5	
Mn-54	< 3.8	< 1.3	< 2.2	< 2.2	15
Fe-59	< 3.3	< 2.1	< 5.6	< 5.5	30
Co-58	< 3.5	< 1.4	< 3.1	< 1.8	15
Co-60	< 3.3	< 2.1	< 3.2	< 1.4	15
Zn-65	< 6.3	< 3.2	< 3.8	< 4.8	30
Zr-Nb-95	< 2.5	< 3.2	< 4.0	< 3.3	15
Cs-134	< 2.8	< 2.1	< 3.8	< 2.8	10
Cs-137	< 3.2	< 3.1	< 3.5	< 3.4	18
Ba-La-140	< 8.0	< 2.8	< 3.8	< 3.2	15

Table 25. Untreated surface water, analyses for gross beta, tritium and gamma emitting isotopes.
Location: T-3
Collection: Monthly composites of weekly grab samples
Units: pCi/L

Lab Code	TSWU- 366	TSWU- 787	TSWU- 1536	TSWU- 2301	
Date Collected	01-29-13	02-26-13	04-02-13	04-30-13	Req. LLD
Gross beta	4.9 ± 0.6	4.9 ± 1.2	4.8 ± 0.9	3.1 ± 0.5	4.0
H-3	< 330	< 330	< 330	< 330	330
Mn-54	< 2.9	< 1.8	< 4.2	< 1.9	15
Fe-59	< 3.1	< 3.2	< 5.0	< 3.0	30
Co-58	< 3.2	< 2.9	< 3.5	< 1.8	15
Co-60	< 2.4	< 2.6	< 3.3	< 1.7	15
Zn-65	< 6.1	< 4.8	< 3.3	< 2.7	30
Zr-Nb-95	< 2.8	< 2.5	< 2.9	< 3.0	15
Cs-134	< 2.7	< 2.7	< 3.1	< 3.4	10
Cs-137	< 2.9	< 3.0	< 4.0	< 3.2	18
Ba-La-140	< 1.8	< 2.4	< 4.5	< 4.3	15

Lab Code	TSWU- 2990	TSWU- 3651	TSWU- 4474	TSWU- 5248	
Date Collected	06-04-13	07-02-13	07-30-13	09-03-13	Req. LLD
Gross Beta	2.4 ± 0.7	3.4 ± 1.1	3.7 ± 0.5	3.7 ± 1.0	4.0
H-3	< 330	< 330	< 330	< 330	330
Mn-54	< 3.5	< 1.7	< 2.2	< 2.7	15
Fe-59	< 4.1	< 3.5	< 4.8	< 5.2	30
Co-58	< 2.2	< 3.2	< 1.5	< 1.9	15
Co-60	< 1.9	< 3.5	< 1.8	< 2.0	15
Zn-65	< 4.0	< 1.8	< 4.0	< 3.8	30
Zr-Nb-95	< 4.1	< 2.4	< 3.1	< 2.8	15
Cs-134	< 2.7	< 2.4	< 2.5	< 2.1	10
Cs-137	< 2.5	< 1.6	< 2.4	< 3.2	18
Ba-La-140	< 5.5	< 3.1	< 2.1	< 2.2	15

Lab Code	TSWU- 5838	TSWU- 6759	TSWU- 7323	TSWU- 7663	
Date Collected	10-01-13	10-29-13	12-03-13	12-30-13	Req. LLD
Gross Beta	2.1 ± 0.5	3.1 ± 0.7	2.9 ± 0.8	2.9 ± 0.7	4.0
H-3	< 330	< 330	352 ± 88 [a]	< 330	330
Mn-54	< 4.4	< 3.3	< 2.0	< 3.3	15
Fe-59	< 8.4	< 4.0	< 3.8	< 5.8	30
Co-58	< 4.6	< 2.0	< 1.2	< 2.8	15
Co-60	< 3.3	< 2.2	< 2.4	< 3.1	15
Zn-65	< 6.2	< 5.3	< 6.6	< 7.7	30
Zr-Nb-95	< 5.7	< 3.5	< 4.0	< 4.6	15
Cs-134	< 4.0	< 3.2	< 3.4	< 3.7	10
Cs-137	< 3.7	< 3.5	< 3.5	< 3.9	18
Ba-La-140	< 4.9	< 4.0	< 1.5	< 2.6	15

[a] Activity verified by reanalysis, 390 ± 97 pCi/L.

Table 25. Untreated surface water, analyses for gross beta, tritium and gamma emitting isotopes.
Location: T-11 (C)
Collection: Monthly composites of weekly grab samples
Units: pCi/L

Lab Code	TSWU- 368	TSWU- 789	TSWU- 1539	TSWU- 2303	
Date Collected	01-29-13	02-26-13	04-02-13	04-30-13	Req. LLD
Gross beta	1.2 ± 0.4	4.0 ± 1.1	2.2 ± 0.7	1.9 ± 0.4	4.0
H-3	< 330	< 330	< 330	< 330	330
Mn-54	< 2.5	< 2.1	< 2.9	< 2.3	15
Fe-59	< 4.2	< 4.1	< 4.1	< 4.2	30
Co-58	< 3.0	< 2.3	< 3.5	< 3.4	15
Co-60	< 3.0	< 2.0	< 3.0	< 2.4	15
Zn-65	< 5.5	< 2.7	< 9.7	< 4.7	30
Zr-Nb-95	< 2.1	< 2.7	< 6.3	< 3.9	15
Cs-134	< 3.9	< 2.5	< 3.6	< 2.2	10
Cs-137	< 2.2	< 2.5	< 4.7	< 3.7	18
Ba-La-140	< 3.9	< 2.5	< 5.5	< 2.1	15

Lab Code	TSWU- 2992	TSWU- 3653	TSWU- 4476	TSWU- 5250	
Date Collected	06-04-13	07-02-13	07-30-13	09-03-13	Req. LLD
Gross Beta	< 1.8	1.5 ± 0.4	2.3 ± 0.5	1.6 ± 0.6	4.0
H-3	< 330	< 330	< 330	< 330	330
Mn-54	< 1.5	< 2.2	< 2.8	< 2.7	15
Fe-59	< 4.7	< 2.4	< 4.9	< 5.3	30
Co-58	< 4.0	< 3.3	< 2.7	< 3.0	15
Co-60	< 2.4	< 2.1	< 2.2	< 1.3	15
Zn-65	< 3.1	< 5.3	< 4.6	< 4.8	30
Zr-Nb-95	< 2.7	< 3.5	< 2.7	< 1.9	15
Cs-134	< 2.9	< 3.1	< 2.2	< 2.9	10
Cs-137	< 3.7	< 3.2	< 3.4	< 2.7	18
Ba-La-140	< 6.7	< 3.9	< 2.3	< 2.3	15

Lab Code	TSWU- 5840	TSWU- 6761	TSWU- 7325	TSWU- 7666	
Date Collected	10-01-13	10-29-13	12-03-13	12-30-13	Req. LLD
Gross Beta	1.2 ± 0.4	2.2 ± 0.6	2.5 ± 0.8	1.0 ± 0.5	4.0
H-3	340 ± 105	< 330	< 330	< 330	330
Mn-54	< 3.0	< 3.7	< 2.9	< 2.1	15
Fe-59	< 6.7	< 4.9	< 5.4	< 3.4	30
Co-58	< 3.0	< 3.3	< 1.4	< 3.4	15
Co-60	< 4.0	< 4.1	< 2.9	< 2.8	15
Zn-65	< 3.1	< 7.5	< 2.1	< 3.4	30
Zr-Nb-95	< 4.2	< 5.5	< 1.8	< 4.1	15
Cs-134	< 2.6	< 4.3	< 2.5	< 3.6	10
Cs-137	< 4.0	< 4.4	< 2.5	< 2.6	18
Ba-La-140	< 5.5	< 4.5	< 2.9	< 2.6	15

Table 25. Untreated surface water, analyses for gross beta, tritium and gamma emitting isotopes.
Location: T-12 (C)
Collection: Monthly composites of weekly grab samples
Units: pCi/L

Lab Code	TSWU- 369	TSWU- 790	TSWU- 1540	TSWU- 2304	
Date Collected	01-29-13	02-26-13	04-02-13	04-30-13	Req. LLD
Gross beta	1.8 ± 0.5	2.7 ± 1.0	2.2 ± 0.8	1.3 ± 0.4	4.0
H-3	< 330	< 330	< 330	< 330	330
Mn-54	< 3.2	< 2.6	< 2.7	< 2.5	15
Fe-59	< 4.4	< 3.9	< 4.7	< 5.0	30
Co-58	< 2.1	< 2.8	< 3.0	< 2.5	15
Co-60	< 3.6	< 3.1	< 2.5	< 3.0	15
Zn-65	< 5.8	< 2.6	< 2.9	< 2.7	30
Zr-Nb-95	< 2.5	< 3.2	< 3.2	< 2.7	15
Cs-134	< 3.2	< 3.0	< 2.6	< 2.3	10
Cs-137	< 4.2	< 2.5	< 3.3	< 2.5	18
Ba-La-140	< 4.5	< 2.4	< 2.6	< 2.5	15

Lab Code	TSWU- 2993	TSWU- 3654	TSWU- 4477	TSWU- 5252	
Date Collected	06-04-13	07-02-13	07-30-13	09-03-13	Req. LLD
Gross Beta	1.7 ± 0.9	1.7 ± 0.5	1.9 ± 0.4	1.4 ± 0.6	4.0
H-3	< 330	< 330	< 330	< 330	330
Mn-54	< 2.1	< 2.7	< 4.4	< 1.9	15
Fe-59	< 4.5	< 3.9	< 8.1	< 9.1	30
Co-58	< 1.8	< 1.9	< 3.3	< 5.2	15
Co-60	< 2.2	< 1.6	< 2.5	< 2.8	15
Zn-65	< 4.0	< 2.4	< 7.1	< 8.8	30
Zr-Nb-95	< 3.5	< 2.3	< 6.2	< 3.7	15
Cs-134	< 1.9	< 2.3	< 4.6	< 2.3	10
Cs-137	< 2.5	< 3.3	< 5.3	< 4.7	18
Ba-La-140	< 3.8	< 1.1	< 4.5	< 6.7	15

Lab Code	TSWU- 5841	TSWU- 6762	TSWU- 7326	TSWU- 7667	
Date Collected	10-01-13	10-29-13	12-03-13	12-30-13	Req. LLD
Gross Beta	1.3 ± 0.4	1.4 ± 0.5	2.2 ± 0.7	1.3 ± 0.6	4.0
H-3	< 330	< 330	< 330	< 330	330
Mn-54	< 4.3	< 3.4	< 1.8	< 2.8	15
Fe-59	< 6.4	< 5.7	< 3.0	< 2.9	30
Co-58	< 3.3	< 1.6	< 2.2	< 2.6	15
Co-60	< 4.9	< 1.9	< 2.0	< 1.8	15
Zn-65	< 5.9	< 3.5	< 3.1	< 5.1	30
Zr-Nb-95	< 4.4	< 2.9	< 2.9	< 2.4	15
Cs-134	< 4.1	< 3.2	< 2.9	< 2.8	10
Cs-137	< 3.8	< 2.5	< 3.3	< 2.2	18
Ba-La-140	< 3.6	< 6.0	< 2.0	< 2.1	15

Table 25. Untreated surface water, analyses for gross beta, tritium and gamma emitting isotopes.
Location: T-22
Collection: Monthly composites of weekly grab samples
Units: pCi/L

Lab Code	TSWU- 371	TSWU- 793	TSWU- 1542	TSWU- 2306	
Date Collected	01-29-13	02-26-13	04-02-13	04-30-13	Req. LLD
Gross beta	2.3 ± 0.5	1.6 ± 0.6	2.5 ± 0.4	1.9 ± 0.5	4.0
H-3	< 330	< 330	< 330	< 330	330
Mn-54	< 2.6	< 2.8	< 2.1	< 1.7	15
Fe-59	< 8.1	< 5.6	< 3.1	< 4.7	30
Co-58	< 2.4	< 2.0	< 2.3	< 2.4	15
Co-60	< 3.6	< 2.2	< 3.4	< 2.1	15
Zn-65	< 4.4	< 3.0	< 3.0	< 5.3	30
Zr-Nb-95	< 2.7	< 2.2	< 3.0	< 2.8	15
Cs-134	< 4.2	< 1.8	< 3.4	< 2.3	10
Cs-137	< 3.5	< 2.8	< 2.0	< 3.4	18
Ba-La-140	< 5.3	< 1.8	< 4.1	< 4.1	15

Lab Code	TSWU- 2995	TSWU- 3656	TSWU- 4480	TSWU- 5254	
Date Collected	06-04-13	07-02-13	07-30-13	09-03-13	Req. LLD
Gross Beta	< 0.9	1.2 ± 0.4	1.5 ± 0.4	1.9 ± 0.6	4.0
H-3	< 330	< 330	< 330	< 330	330
Mn-54	< 1.6	< 3.0	< 2.0	< 2.6	15
Fe-59	< 6.3	< 2.1	< 4.7	< 4.2	30
Co-58	< 2.6	< 1.8	< 1.4	< 3.7	15
Co-60	< 2.3	< 2.1	< 1.8	< 1.8	15
Zn-65	< 2.2	< 1.8	< 2.0	< 4.2	30
Zr-Nb-95	< 4.5	< 2.6	< 3.1	< 3.8	15
Cs-134	< 2.0	< 3.1	< 1.8	< 3.3	10
Cs-137	< 2.4	< 2.8	< 2.8	< 2.3	18
Ba-La-140	< 2.3	< 2.2	< 3.2	< 5.5	15

Lab Code	TSWU- 5843	TSWU- 6764	TSWU- 7328	TSWU- 7669	
Date Collected	10-01-13	10-29-13	12-03-13	12-30-13	Req. LLD
Gross Beta	1.1 ± 0.4	1.1 ± 0.6	2.7 ± 0.8	2.5 ± 0.8	4.0
H-3	< 330	< 330	< 330	< 330	330
Mn-54	< 2.7	< 2.5	< 3.1	< 2.3	15
Fe-59	< 5.6	< 3.7	< 3.7	< 1.8	30
Co-58	< 3.7	< 2.1	< 2.8	< 2.7	15
Co-60	< 4.1	< 1.4	< 2.3	< 1.4	15
Zn-65	< 4.8	< 1.5	< 3.6	< 5.2	30
Zr-Nb-95	< 3.7	< 2.9	< 3.1	< 2.4	15
Cs-134	< 2.8	< 3.0	< 2.6	< 2.6	10
Cs-137	< 4.3	< 2.8	< 3.3	< 3.4	18
Ba-La-140	< 3.9	< 2.1	< 1.2	< 3.0	15

Table 25. Untreated surface water, analyses for gross beta, tritium and gamma emitting isotopes.
Location: T-145 (QC)
Collection: Monthly composites of weekly grab samples
Units: pCi/L

Lab Code	TSWU- 372	TSWU- 794	TSWU- 1543	TSWU- 2307	
Date Collected	01-29-13	02-26-13	04-02-13	04-30-13	Req. LLD
Gross beta	1.1 ± 0.4	2.0 ± 0.6	2.5 ± 0.4	1.5 ± 0.4	4.0
H-3	< 330	< 330	< 330	< 330	330
Mn-54	< 2.5	< 4.0	< 3.9	< 2.0	15
Fe-59	< 6.1	< 6.7	< 4.9	< 3.9	30
Co-58	< 2.5	< 3.2	< 3.2	< 2.2	15
Co-60	< 3.5	< 3.1	< 4.6	< 2.2	15
Zn-65	< 4.2	< 6.9	< 4.9	< 3.1	30
Zr-Nb-95	< 3.4	< 2.2	< 2.7	< 2.5	15
Cs-134	< 3.2	< 3.3	< 3.1	< 2.7	10
Cs-137	< 4.9	< 3.8	< 3.9	< 2.1	18
Ba-La-140	< 4.7	< 6.3	< 4.7	< 3.7	15

Lab Code	TSWU- 2996	TSWU- 3657	TSWU- 4481	TSWU- 5255	
Date Collected	06-04-13	07-02-13	07-30-13	09-03-13	Req. LLD
Gross Beta	1.4 ± 0.5	1.2 ± 0.4	1.6 ± 0.5	1.6 ± 0.6	4.0
H-3	< 330	< 330	< 330	< 330	330
Mn-54	< 4.2	< 2.3	< 2.7	< 2.1	15
Fe-59	< 6.0	< 4.3	< 4.8	< 3.6	30
Co-58	< 3.8	< 2.5	< 3.9	< 2.5	15
Co-60	< 2.5	< 3.2	< 2.8	< 3.5	15
Zn-65	< 6.6	< 5.8	< 3.1	< 3.9	30
Zr-Nb-95	< 4.6	< 3.0	< 2.6	< 3.6	15
Cs-134	< 2.8	< 2.9	< 3.3	< 2.4	10
Cs-137	< 4.5	< 2.3	< 3.7	< 3.1	18
Ba-La-140	< 8.7	< 4.1	< 4.6	< 3.3	15

Lab Code	TSWU- 5844	TSWU- 6765	TSWU- 7329	TSWU- 7670	
Date Collected	10-01-13	10-29-13	12-03-13	12-30-13	Req. LLD
Gross Beta	2.5 ± 0.8	3.1 ± 0.6	1.8 ± 1.0	3.1 ± 0.8	4.0
H-3	< 330	< 330	< 330	< 330	330
Mn-54	< 3.0	< 1.8	< 3.2	< 4.0	15
Fe-59	< 4.4	< 2.9	< 4.5	< 4.0	30
Co-58	< 4.1	< 1.5	< 2.3	< 3.3	15
Co-60	< 3.7	< 1.7	< 2.5	< 4.6	15
Zn-65	< 3.8	< 3.5	< 3.6	< 7.3	30
Zr-Nb-95	< 2.4	< 3.2	< 3.1	< 5.8	15
Cs-134	< 3.5	< 2.7	< 3.2	< 5.6	10
Cs-137	< 3.2	< 2.4	< 2.9	< 5.3	18
Ba-La-140	< 5.4	< 3.3	< 1.3	< 3.8	15

Table 26. Untreated surface water samples, analyses for strontium-89 and strontium-90.
Collection: Quarterly composites of weekly grab samples
Units: pCi/L

Location	T-3			
Period	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.
Lab Code	TSWU- 1816	TSWU- 3753	TSWU- 6092	TSWU- 7702
Sr-89	< 1.0	< 0.8	< 0.7	< 0.6
Sr-90	< 1.0	< 0.5	< 0.5	< 0.5

Location	T-11 (C)			
Period	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.
Lab Code	TSWU- 1817	TSWU- 3754	TSWU- 6093	TSWU- 7703
Sr-89	< 0.8	< 1.0	< 0.8	< 0.7
Sr-90	< 0.5	< 0.6	< 0.5	< 0.6

Location	T-12 (C)			
Period	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.
Lab Code	TSWU- 1818	TSWU- 3755	TSWU- 6094	TSWU- 7704
Sr-89	< 0.7	< 0.8	< 0.8	< 0.6
Sr-90	< 0.4	< 0.5	< 0.6	< 0.5

Location	T-22			
Period	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.
Lab Code	TSWU- 1819	TSWU- 3757	TSWU- 6096	TSWU- 7705
Sr-89	< 0.7	< 0.9	< 1.0	< 0.6
Sr-90	< 0.4	< 0.6	< 0.7	< 0.5

Table 27. Fish samples, analyses for gross beta and gamma-emitting isotopes.
Collection: Annually
Units: pCi/g wet

Location	T-33 (Lake Erie, 1.5 mi. NE of Station)	
Lab Code	TF- 3404	TF- 3405
Date Collected	05-31-13	05-31-13
Sample Type	Walleye	Bass / Perch
Gross Beta	3.93 ± 0.11	3.97 ± 0.12
K-40	3.50 ± 0.47	4.03 ± 0.48
Mn-54	< 0.019	< 0.015
Fe-59	< 0.094	< 0.055
Co-58	< 0.029	< 0.028
Co-60	< 0.013	< 0.013
Zn-65	< 0.019	< 0.030
Cs-134	< 0.014	< 0.017
Cs-137	< 0.024	< 0.014

Location	T-35		
Lab Code	TF- 3406	TF- 3408	TF- 3409
Date Collected	05-20-13	05-18-13	03-13-13
Sample Type	Carp	Bass / Perch	Walleye
Gross Beta	4.10 ± 0.12	3.61 ± 0.10	4.33 ± 0.12
K-40	2.86 ± 0.37	2.89 ± 0.35	3.26 ± 0.34
Mn-54	< 0.008	< 0.011	< 0.012
Fe-59	< 0.067	< 0.029	< 0.139
Co-58	< 0.018	< 0.018	< 0.026
Co-60	< 0.016	< 0.012	< 0.009
Zn-65	< 0.029	< 0.036	< 0.038
Cs-134	< 0.015	< 0.013	< 0.011
Cs-137	< 0.015	< 0.016	< 0.013

Table 28. Shoreline sediment samples, analyses for gamma-emitting isotopes.
Collection: Semiannually
Units: pCi/g dry

Location	T-3	T-4	T-4P	T-27B	T-132
Lab Code	TSS- 2745	TSS- 2746	TSS- 2747	TSS- 2748	TSS- 2749
Date Collected	05-22-13	05-22-13	05-22-13	05-21-13	05-21-13
K-40	9.25 ± 0.51	12.80 ± 0.71	12.93 ± 0.89	9.96 ± 0.53	7.50 ± 0.46
Mn-54	< 0.019	< 0.024	< 0.037	< 0.017	< 0.018
Co-58	< 0.014	< 0.031	< 0.048	< 0.013	< 0.020
Co-60	< 0.014	< 0.015	< 0.021	< 0.011	< 0.012
Cs-134	< 0.011	< 0.018	< 0.031	< 0.012	< 0.010
Cs-137	< 0.013	< 0.020	< 0.034	< 0.018	< 0.009
Lab Code	TSS- 7332	TSS- 7333	TSS- 7334	TSS- 7336	TSS- 7337
Date Collected	11-20-13	11-20-13	11-20-13	11-26-13	11-26-13
K-40	9.52 ± 0.49	11.79 ± 0.63	15.51 ± 0.72	9.56 ± 0.49	9.41 ± 0.48
Mn-54	< 0.009	< 0.011	< 0.021	< 0.016	< 0.016
Co-58	< 0.011	< 0.020	< 0.031	< 0.015	< 0.014
Co-60	< 0.006	< 0.015	< 0.021	< 0.008	< 0.005
Cs-134	< 0.012	< 0.011	< 0.021	< 0.011	< 0.013
Cs-137	< 0.010	< 0.014	< 0.027	< 0.013	< 0.005

APPENDIX B

DATA REPORTING CONVENTIONS

Data Reporting Conventions

1.0. All activities, except gross alpha and gross beta, are decay corrected to collection time or the end of the collection period.

2.0. Single Measurements

Each single measurement is reported as follows: $x \pm s$

where: x = value of the measurement;

$s = 2\sigma$ counting uncertainty (corresponding to the 95% confidence level).

In cases where the activity is less than the lower limit of detection L, it is reported as: < L, where L = the lower limit of detection based on 4.66σ uncertainty for a background sample.

3.0. Duplicate analyses

If duplicate analyses are reported, the convention is as follows. :

3.1 Individual results: For two analysis results; $x_1 \pm s_1$ and $x_2 \pm s_2$

Reported result: $x \pm s$; where $x = (1/2)(x_1 + x_2)$ and $s = (1/2)\sqrt{s_1^2 + s_2^2}$

3.2. Individual results: $< L_1$, $< L_2$ Reported result: < L, where L = lower of L_1 and L_2

3.3. Individual results: $x \pm s$, < L Reported result: $x \pm s$ if $x \geq L$; < L otherwise.

4.0. Computation of Averages and Standard Deviations

4.1 Averages and standard deviations listed in the tables are computed from all of the individual measurements over the period averaged; for example, an annual standard deviation would not be the average of quarterly standard deviations. The average $\bar{x}$ and standard deviation "s" of a set of n numbers $x_1, x_2 \ldots x_n$ are defined as follows:

$$\bar{x} = \frac{1}{n} \sum x \qquad s = \sqrt{\frac{\sum (x - \bar{x})^2}{n-1}}$$

4.2 Values below the highest lower limit of detection are not included in the average.

4.3 If all values in the averaging group are less than the highest LLD, the highest LLD is reported.

4.4 If all but one of the values are less than the highest LLD, the single value x and associated two sigma error is reported.

4.5 In rounding off, the following rules are followed:

4.5.1. If the number following those to be retained is less than 5, the number is dropped, and the retained numbers are kept unchanged. As an example, 11.443 is rounded off to 11.44.

4.5.2. If the number following those to be retained is equal to or greater than 5, the number is dropped and the last retained number is raised by 1. As an example, 11.445 is rounded off to 11.45.