APPENDIX

Environmental, Inc. Midwest Laboratory
Final Report for the Point Beach Nuclear Plant
Reporting Period: January – December 2005

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FINAL REPORT
TO
WISCONSIN ELECTRIC POWER COMPANY
MILWAUKEE, WISCONSIN

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM (REMP)
FOR
THE POINT BEACH NUCLEAR PLANT
TWO RIVERS, WISCONSIN

PREPARED AND SUBMITTED
BY
ENVIRONMENTAL INCORPORATED MIDWEST LABORATORY

Project Number: 8006

Reporting Period: January-December, 2005

Reviewed and
Approved by _____ Date 02-08-2006
B. Grob, M.S.
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POINT BEACH NUCLEAR PLANT

TABLE OF CONTENTS

Section		Page
	List of Tables	iii
1.0	INTRODUCTION	1
2.0	LISTING OF MISSED SAMPLES	2

Appendices

A	Interlaboratory Comparison Program Results	A-1
B	Data Reporting Conventions	B-1
C	Sampling Program and Locations	C-1
D	Graphs of Data Trends	D-1

POINT BEACH NUCLEAR PLANT

LIST OF TABLES

Title	Page
Airborne Particulates and Iodine-131	
Location E-01, Meteorological Tower	4
Location E-02, Site Boundary Control Center	5
Location E-03, West Boundary	6
Location E-04, North Boundary	7
Location E-08, G. J. Francar Residence	8
Location E-20, Silver Lake College	9
Airborne Particulates, Gamma Isotopic Analyses	10
Milk	11
Well Water	17
Lake Water	18
Lake Water, Analyses on Quarterly Composites	22
Fish	25
Shoreline Sediments	28
Soil	30
Vegetation	32
Aquatic Vegetation	35
Gamma Radiation, as Measured by TLDs	36

POINT BEACH NUCLEAR PLANT

1.0 INTRODUCTION

The following constitutes the final 2005 Monthly Progress Report for the Environmental Radiological Monitoring Program conducted at the Point Beach Nuclear Plant, Two Rivers, Wisconsin. Results of analyses are presented in the attached tables. Data tables reflect sample analysis results for both Technical Specification requirements and Special Interest locations and samples are randomly selected within the Program monitoring area to provide additional data for cross-comparisons.

For gamma isotopic analyses, the spectrum covers an energy range from 80 to 2048 KeV. Specifically included are Mn-54, Fe-59, Co-58, Co-60, Zn-65, Zr-95, Nb-95, Ru-103, Ru-106, I-131, Ba-La-140, Cs-134, Cs-137, Ce-141, and Ce-144. Naturally occurring gamma-emitters, such as K-40 and Ra daughters, are frequently detected in soil and sediment samples. Specific isotopes listed are K-40, Tl-208, Pb-212, Bi-214, Ra-226 and Ac-228. Unless noted otherwise, the results reported under "Other Gammas" are for Co-60 and may be higher or lower for other radionuclides.

All concentrations, except 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.

POINT BEACH NUCLEAR PLANT

2.0 LISTING OF MISSED SAMPLES

Sample Type	Location	Expected Collection Date	Reason
AP/AI	E-02	01-20-05	Sampler not running.
AP/AI	E-02	01-26-05	Sampler breaker tripped.
LW	E-06	01-13-05	Water frozen.
AP/AI	E-03	02-23-05	Sampler breaker tripped.
AP/AI	E-03	03-23-05	No power to air sampler.
AP/AI	E-01	09-21-05	Power off due to modification of Met Tower which secured power to all receptacles.

KAJ 2/13/06

NOTE: Page 3 is intentionally left out.

POINT BEACH NUCLEAR PLANT

Airborne particulates and charcoal canisters, analyses for gross beta and iodine-131.
Location: E-01, Meteorological Tower
Units: pCi/m^3
Collection: Continuous, weekly exchange.

Date Collected	Vol. (m^3)	Gross Beta	I-131	Date Collected	Vol. (m^3)	Gross Beta	I-131
Required LLD		0.010	0.030	Required LLD		0.010	0.030
01-07-05	386	0.028 ± 0.003	<0.020	07-06-05	276	0.010 ± 0.003	<0.022
01-12-05	221	0.052 ± 0.006	<0.015	07-14-05	326	0.033 ± 0.003	<0.017
01-20-05	367	0.026 ± 0.003	<0.009	07-20-05	259	0.023 ± 0.004	<0.029
01-26-05	275	0.023 ± 0.003	<0.011	07-27-05	302	0.021 ± 0.003	<0.023
02-03-05	368	0.021 ± 0.003	<0.010	08-03-05	304	0.029 ± 0.004	<0.015
02-09-05	274	0.029 ± 0.004	<0.017	08-11-05	354	0.033 ± 0.003	<0.013
02-16-05	320	0.021 ± 0.003	<0.021	08-17-05	250	0.023 ± 0.004	<0.021
02-23-05	318	0.019 ± 0.003	<0.013	08-24-05	302	0.022 ± 0.004	<0.011
03-03-05	369	0.019 ± 0.003	<0.012	08-31-05	305	0.024 ± 0.004	<0.016
03-10-05	305	0.023 ± 0.003	<0.018	09-07-05	310	0.023 ± 0.004	<0.014
03-17-05	267	0.019 ± 0.004	<0.019	09-12-05	213	0.047 ± 0.006	<0.024 [a]
03-23-05	310	0.020 ± 0.003	<0.019	09-21-05		ND[b]	
03-30-05	298	0.020 ± 0.004	<0.012	09-28-05	290	0.022 ± 0.004	<0.017
1st Quarter Mean± s.d.		0.025 ± 0.009	<0.015	3rd Quarter Mean± s.d.		0.026 ± 0.009	<0.019
04-06-05	265	0.016 ± 0.004	<0.015	10-06-05	346	0.024 ± 0.004	<0.010
04-13-05	343	0.018 ± 0.003	<0.013	10-13-05	303	0.010 ± 0.003	<0.017
04-20-05	297	0.027 ± 0.003	<0.019	10-19-05	258	0.026 ± 0.004	<0.013
04-28-05	335	0.012 ± 0.003	<0.012	10-26-05	304	0.008 ± 0.003	<0.012
				11-02-05	300	0.030 ± 0.004	<0.013
05-04-05	264	0.013 ± 0.003	<0.020				
05-11-05	290	0.029 ± 0.004	<0.023	11-09-05	316	0.034 ± 0.004	<0.016
05-19-05	345	0.011 ± 0.003	<0.012	11-17-05	333	0.019 ± 0.003	<0.027
05-25-05	254	0.014 ± 0.003	<0.014	11-23-05	259	0.027 ± 0.004	<0.012
06-02-05	341	0.015 ± 0.002	<0.018	11-30-05	302	0.022 ± 0.004	<0.015
06-08-05	259	0.025 ± 0.004	<0.027	12-08-05	347	0.021 ± 0.003	<0.012
06-16-05	344	0.018 ± 0.003	<0.018	12-13-05	219	0.035 ± 0.005	<0.021
06-23-05	299	0.012 ± 0.003	<0.022	12-21-05	344	0.030 ± 0.004	<0.013
06-30-05	306	0.026 ± 0.003	<0.017	12-28-05	303	0.044 ± 0.005	<0.008
2nd Quarter Mean± s.d.		0.018 ± 0.006	<0.018	4th Quarter Mean± s.d.		0.025 ± 0.010	<0.015
				Cumulative Average		0.023 ± 0.009	<0.016

[a] Volume low; modifcation of Met Tower; power turned off at 12:00 on 09-12-05.
[b] "ND" = No data; see Table 2.0, Listing of Missed Samples.

POINT BEACH NUCLEAR PLANT

Airborne particulates and charcoal canisters, analyses for gross beta and iodine-131.
Location: E-02, Site Boundary Control Center
Units: pCi/m^3
Collection: Continuous, weekly exchange.

Date Collected	Vol. (m^3)	Gross Beta	I-131	Date Collected	Vol. (m^3)	Gross Beta	I-131
Required LLD		0.010	0.030	Required LLD		0.010	0.030
01-07-05	403	0.033 ± 0.003	<0.019	07-06-05	267	0.012 ± 0.004	<0.023
01-12-05	216	0.052 ± 0.006	<0.015	07-14-05	316	0.031 ± 0.003	<0.018
01-20-05		ND[a]		07-20-05	251	0.024 ± 0.004	<0.030
01-26-05		ND[a]		07-27-05	293	0.018 ± 0.003	<0.023
02-03-05	302	0.022 ± 0.004	<0.013	08-03-05	294	0.030 ± 0.004	<0.016
02-09-05	259	0.027 ± 0.004	<0.018	08-11-05	339	0.032 ± 0.003	<0.014
02-16-05	302	0.027 ± 0.004	<0.022	08-17-05	256	0.026 ± 0.004	<0.020
02-23-05	302	0.025 ± 0.004	<0.014	08-24-05	314	0.024 ± 0.004	<0.011
03-03-05	350	0.026 ± 0.003	<0.013	08-31-05	305	0.022 ± 0.004	<0.016
03-10-05	298	0.022 ± 0.003	<0.018	09-07-05	301	0.026 ± 0.004	<0.014
03-17-05	259	0.015 ± 0.004	<0.019	09-12-05	327	0.045 ± 0.004	<0.014
03-23-05	304	0.018 ± 0.003	<0.019	09-21-05	259	0.031 ± 0.004	<0.015
03-30-05	301	0.022 ± 0.004	<0.012	09-28-05	313	0.029 ± 0.004	<0.015
1st Quarter Mean± s.d.		0.026 ± 0.010	<0.017	3rd Quarter Mean± s.d.		0.027 ± 0.008	<0.018
04-06-05	268	0.015 ± 0.004	<0.015	10-06-05	357	0.023 ± 0.003	<0.010
04-13-05	347	0.017 ± 0.003	<0.013	10-13-05	305	0.010 ± 0.003	<0.017
04-20-05	300	0.024 ± 0.003	<0.019	10-19-05	260	0.026 ± 0.004	<0.012
04-28-05	339	0.010 ± 0.003	<0.012	10-26-05	294	0.011 ± 0.003	<0.012
				11-02-05	291	0.028 ± 0.004	<0.014
05-04-05	267	0.014 ± 0.003	<0.020				
05-11-05	299	0.030 ± 0.004	<0.023	11-09-05	296	0.036 ± 0.004	<0.017
05-19-05	343	0.010 ± 0.003	<0.012	11-17-05	334	0.022 ± 0.003	<0.023
05-25-05	259	0.012 ± 0.003	<0.014	11-23-05	251	0.032 ± 0.005	<0.012
06-01-05	305	0.014 ± 0.003	<0.021	11-30-05	293	0.025 ± 0.004	<0.015
06-08-05	256	0.029 ± 0.004	<0.028	12-08-05	342	0.019 ± 0.003	<0.012
06-16-05	347	0.019 ± 0.003	<0.018	12-13-05	219	0.034 ± 0.005	<0.021
06-23-05	289	0.012 ± 0.003	<0.022	12-21-05	346	0.029 ± 0.004	<0.012
06-30-05	298	0.025 ± 0.003	<0.017	12-28-05	303	0.041 ± 0.005	<0.008
2nd Quarter Mean± s.d.		0.018 ± 0.007	<0.018	4th Quarter Mean± s.d.		0.026 ± 0.009	<0.014
				Cumulative Average		0.024 ± 0.009	<0.017

[a] "ND" = No data; see Table 2.0, Listing of Missed Samples.

POINT BEACH NUCLEAR PLANT

Airborne particulates and charcoal canisters, analyses for gross beta and iodine-131.
Location: E-03, West Boundary
Units: pCi/m^3
Collection: Continuous, weekly exchange.

Date Collected	Vol. (m^3)	Gross Beta	I-131
Required LLD		0.010	0.030
01-07-05	390	0.027 ± 0.003	<0.020
01-12-05	216	0.050 ± 0.006	<0.015
01-20-05	346	0.032 ± 0.004	<0.010
01-26-05	260	0.021 ± 0.003	<0.012
02-03-05	346	0.024 ± 0.003	<0.011
02-09-05	259	0.027 ± 0.004	<0.018
02-16-05	302	0.024 ± 0.004	<0.022
02-23-05		ND[a]	
03-03-05	346	0.019 ± 0.003	<0.013
03-10-05	300	0.024 ± 0.003	<0.018
03-17-05	260	0.017 ± 0.004	<0.019
03-23-05		ND[a]	
03-30-05	301	0.019 ± 0.003	<0.012
1st Quarter Mean± s.d.		0.026 ± 0.009	<0.015
04-06-05	268	0.018 ± 0.004	<0.015
04-13-05	347	0.016 ± 0.003	<0.013
04-20-05	300	0.023 ± 0.003	<0.019
04-28-05	339	0.013 ± 0.003	<0.012
05-04-05	267	0.016 ± 0.003	<0.020
05-11-05	299	0.023 ± 0.003	<0.023
05-19-05	343	0.011 ± 0.003	<0.012
05-25-05	260	0.011 ± 0.003	<0.014
06-01-05	343	0.013 ± 0.002	<0.018
06-08-05	262	0.023 ± 0.004	<0.027
06-16-05	345	0.019 ± 0.003	<0.018
06-23-05	299	0.013 ± 0.003	<0.022
06-30-05	307	0.025 ± 0.003	<0.017
2nd Quarter Mean± s.d.		0.017 ± 0.005	<0.018

Date Collected	Vol. (m^3)	Gross Beta	I-131
Required LLD		0.010	0.030
07-06-05	276	0.010 ± 0.003	<0.022
07-14-05	326	0.031 ± 0.003	<0.017
07-20-05	259	0.023 ± 0.004	<0.029
07-27-05	302	0.023 ± 0.003	<0.023
08-03-05	303	0.032 ± 0.004	<0.015
08-11-05	348	0.033 ± 0.003	<0.013
08-17-05	256	0.023 ± 0.003	<0.020
08-24-05	302	0.019 ± 0.003	<0.011
08-31-05	304	0.020 ± 0.003	<0.016
09-07-05	309	0.025 ± 0.004	<0.014
09-12-05	338	0.047 ± 0.004	<0.013
09-21-05	259	0.040 ± 0.005	<0.015
09-28-05	302	0.029 ± 0.004	<0.016
3rd Quarter Mean± s.d.		0.027 ± 0.010	<0.017
10-06-05	352	0.026 ± 0.004	<0.010
10-13-05	297	0.008 ± 0.003	<0.017
10-19-05	259	0.025 ± 0.004	<0.013
10-26-05	303	0.008 ± 0.003	<0.012
11-02-05	300	0.026 ± 0.004	<0.013
11-09-05	306	0.037 ± 0.004	<0.016
11-17-05	343	0.019 ± 0.003	<0.023
11-23-05	260	0.024 ± 0.004	<0.012
11-30-05	302	0.023 ± 0.004	<0.015
12-08-05	347	0.018 ± 0.003	<0.012
12-13-05	219	0.037 ± 0.005	<0.021
12-21-05	345	0.031 ± 0.004	<0.013
12-28-05	303	0.046 ± 0.005	<0.008
4th Quarter Mean± s.d.		0.025 ± 0.011	<0.014
Cumulative Average		0.024 ± 0.010	<0.016

[a] "ND" = No data; see Table 2.0, Listing of Missed Samples.

Airborne particulates and charcoal canisters, analyses for gross beta and iodine-131.
Location: E-04, North Boundary
Units: pCi/m^3
Collection: Continuous, weekly exchange.

Date Collected	Vol. (m^3)	Gross Beta	I-131	Date Collected	Vol. (m^3)	Gross Beta	I-131
Required LLD		0.010	0.030	Required LLD		0.010	0.030
01-07-05	370	0.035 ± 0.003	<0.021	07-06-05	276	0.005 ± 0.003	<0.022
01-12-05	205	0.049 ± 0.006	<0.016	07-14-05	326	0.032 ± 0.003	<0.017
01-20-05	329	0.035 ± 0.004	<0.010	07-20-05	259	0.026 ± 0.004	<0.029
01-26-05	247	0.026 ± 0.004	<0.013	07-27-05	312	0.019 ± 0.003	<0.022
02-03-05	328	0.030 ± 0.004	<0.012	08-03-05	324	0.027 ± 0.004	<0.014
02-09-05	246	0.026 ± 0.004	<0.019	08-11-05	372	0.034 ± 0.003	<0.013
02-16-05	286	0.027 ± 0.004	<0.023	08-17-05	273	0.021 ± 0.003	<0.019
02-23-05	289	0.023 ± 0.004	<0.015	08-24-05	323	0.008 ± 0.003	<0.010 [a]
03-03-05	327	0.025 ± 0.004	<0.014	08-31-05	335	0.019 ± 0.003	<0.015
03-10-05	287	0.021 ± 0.003	<0.019	09-07-05	349	0.023 ± 0.003	<0.012
03-17-05	247	0.021 ± 0.004	<0.020	09-12-05	372	0.038 ± 0.004	<0.012
03-23-05	288	0.018 ± 0.003	<0.020	09-21-05	276	0.030 ± 0.004	<0.014
03-30-05	286	0.020 ± 0.004	<0.013	09-28-05	313	0.023 ± 0.004	<0.015
1st Quarter Mean± s.d.		0.027 ± 0.008	<0.017	3rd Quarter Mean± s.d.		0.023 ± 0.010	<0.016
04-06-05	254	0.018 ± 0.004	<0.016	10-06-05	350	0.026 ± 0.004	<0.010
04-13-05	330	0.016 ± 0.003	<0.013	10-13-05	299	0.009 ± 0.003	<0.017
04-20-05	285	0.026 ± 0.004	<0.020	10-19-05	268	0.026 ± 0.004	<0.012
04-28-05	322	0.015 ± 0.003	<0.012	10-26-05	302	0.008 ± 0.003	<0.012
				11-02-05	300	0.025 ± 0.004	<0.013
05-04-05	254	0.014 ± 0.003	<0.021				
05-11-05	284	0.033 ± 0.004	<0.024	11-09-05	306	0.032 ± 0.004	<0.016
05-19-05	326	0.013 ± 0.003	<0.013	11-17-05	343	0.020 ± 0.003	<0.022
05-25-05	247	0.017 ± 0.004	<0.015	11-23-05	260	0.023 ± 0.004	<0.012
06-01-05	325	0.016 ± 0.003	<0.019	11-30-05	302	0.018 ± 0.003	<0.015
06-08-05	251	0.025 ± 0.004	<0.028	12-08-05	346	0.020 ± 0.003	<0.012
06-16-05	327	0.016 ± 0.003	<0.019	12-13-05	218	0.036 ± 0.005	<0.021
06-23-05	299	0.010 ± 0.003	<0.022	12-21-05	345	0.031 ± 0.004	<0.013
06-30-05	306	0.025 ± 0.003	<0.017	12-28-05	303	0.044 ± 0.005	<0.008
2nd Quarter Mean± s.d.		0.019 ± 0.006	<0.018	4th Quarter Mean± s.d.		0.024 ± 0.010	<0.014
				Cumulative Average		0.024 ± 0.009	<0.016

[a] Low counts; filter light.

POINT BEACH NUCLEAR PLANT

Airborne particulates and charcoal canisters, analyses for gross beta and iodine-131.
Location: E-08, G.J. Francar Residence
Units: pCi/m^3
Collection: Continuous, weekly exchange.

Date Collected	Vol. (m^3)	Gross Beta	I-131	Date Collected	Vol. (m^3)	Gross Beta	I-131
Required LLD		0.010	0.030	Required LLD		0.010	0.030
01-07-05	386	0.033 ± 0.003	<0.020	07-06-05	276	0.011 ± 0.003	<0.022
01-12-05	213	0.052 ± 0.006	<0.016	07-14-05	324	0.030 ± 0.003	<0.017
01-20-05	344	0.035 ± 0.004	<0.010	07-20-05	259	0.020 ± 0.003	<0.029
01-26-05	258	0.023 ± 0.004	<0.012	07-27-05	301	0.021 ± 0.003	<0.023
02-03-05	343	0.022 ± 0.003	<0.011	08-03-05	304	0.032 ± 0.004	<0.015
02-09-05	257	0.024 ± 0.004	<0.018	08-11-05	348	0.034 ± 0.003	<0.013
02-16-05	299	0.020 ± 0.004	<0.022	08-17-05	256	0.021 ± 0.003	<0.020
02-23-05	301	0.026 ± 0.004	<0.014	08-24-05	302	0.023 ± 0.004	<0.011
03-03-05	331	0.021 ± 0.003	<0.014	08-31-05	304	0.019 ± 0.003	<0.016
03-10-05	280	0.023 ± 0.003	<0.019	09-07-05	307	0.020 ± 0.003	<0.014
03-17-05	242	0.018 ± 0.004	<0.020	09-12-05	340	0.045 ± 0.004	<0.013
03-23-05	282	0.017 ± 0.003	<0.021	09-21-05	260	0.039 ± 0.005	<0.015
03-30-05	300	0.027 ± 0.004	<0.012	09-28-05	303	0.027 ± 0.004	<0.016
1st Quarter Mean± s.d.		0.026 ± 0.009	<0.016	3rd Quarter Mean± s.d.		0.026 ± 0.009	<0.017
04-06-05	264	0.016 ± 0.004	<0.015	10-06-05	347	0.026 ± 0.004	<0.010
04-13-05	344	0.018 ± 0.003	<0.013	10-13-05	301	0.011 ± 0.003	<0.017
04-20-05	297	0.024 ± 0.003	<0.019	10-19-05	260	0.027 ± 0.004	<0.012
04-28-05	353	0.013 ± 0.003	<0.011	10-26-05	302	0.010 ± 0.003	<0.012
				11-02-05	300	0.027 ± 0.004	<0.013
05-04-05	265	0.013 ± 0.003	<0.020				
05-11-05	296	0.028 ± 0.004	<0.023	11-09-05	305	0.041 ± 0.004	<0.016
05-19-05	341	0.012 ± 0.003	<0.012	11-17-05	345	0.018 ± 0.003	<0.024
05-25-05	258	0.012 ± 0.003	<0.014	11-23-05	267	0.033 ± 0.004	<0.012
06-01-05	340	0.015 ± 0.002	<0.018	11-30-05	322	0.022 ± 0.003	<0.014
06-08-05	303	0.021 ± 0.003	<0.021	12-08-05	358	0.016 ± 0.003	<0.011
06-16-05	298	0.021 ± 0.004	<0.020	12-13-05	218	0.033 ± 0.005	<0.021
06-23-05	303	0.013 ± 0.003	<0.021	12-21-05	346	0.025 ± 0.004	<0.013
06-30-05	303	0.026 ± 0.003	<0.017	12-28-05	303	0.043 ± 0.005	<0.008
2nd Quarter Mean± s.d.		0.018 ± 0.006	<0.017	4th Quarter Mean± s.d.		0.026 ± 0.010	<0.014
				Cumulative Average		0.024 ± 0.009	<0.016

POINT BEACH NUCLEAR PLANT

Airborne particulates and charcoal canisters, analyses for gross beta and iodine-131.
Location: E-20, Silver Lake
Units: pCi/m^3
Collection: Continuous, weekly exchange.

Date Collected	Vol. (m^3)	Gross Beta	I-131	Date Collected	Vol. (m^3)	Gross Beta	I-131
Required LLD		0.010	0.030	Required LLD		0.010	0.030
01-07-05	390	0.032 ± 0.003	<0.020	07-06-05	278	0.009 ± 0.003	<0.022
01-12-05	217	0.047 ± 0.006	<0.015	07-14-05	324	0.031 ± 0.003	<0.017
01-20-05	346	0.030 ± 0.004	<0.010	07-20-05	258	0.028 ± 0.004	<0.029
01-26-05	261	0.022 ± 0.003	<0.012	07-27-05	302	0.022 ± 0.003	<0.023
02-03-05	344	0.023 ± 0.003	<0.011	08-03-05	303	0.030 ± 0.004	<0.015
02-09-05	259	0.028 ± 0.004	<0.018	08-11-05	348	0.035 ± 0.003	<0.013
02-16-05	302	0.026 ± 0.004	<0.022	08-17-05	257	0.025 ± 0.004	<0.020
02-23-05	303	0.025 ± 0.004	<0.014	08-24-05	302	0.023 ± 0.004	<0.011
03-03-05	346	0.016 ± 0.003	<0.013	08-31-05	304	0.026 ± 0.004	<0.016
03-10-05	293	0.023 ± 0.003	<0.018	09-07-05	302	0.025 ± 0.004	<0.014
03-17-05	248	0.019 ± 0.004	<0.020	09-12-05	347	0.043 ± 0.004	<0.013
03-23-05	306	0.018 ± 0.003	<0.019	09-21-05	258	0.036 ± 0.005	<0.015
03-30-05	299	0.021 ± 0.004	<0.012	09-28-05	302	0.025 ± 0.004	<0.016
1st Quarter Mean± s.d.		0.025 ± 0.008	<0.016	3rd Quarter Mean± s.d.		0.028 ± 0.008	<0.017
04-06-05	266	0.014 ± 0.004	<0.015	10-06-05	344	0.024 ± 0.004	<0.010
04-13-05	349	0.017 ± 0.003	<0.013	10-13-05	305	0.010 ± 0.003	<0.017
04-20-05	299	0.025 ± 0.003	<0.019	10-19-05	260	0.024 ± 0.004	<0.012
04-28-05	338	0.012 ± 0.003	<0.012	10-26-05	303	0.008 ± 0.003	<0.012
				11-02-05	299	0.030 ± 0.004	<0.013
05-04-05	268	0.013 ± 0.003	<0.019				
05-11-05	297	0.027 ± 0.003	<0.023	11-09-05	307	0.033 ± 0.004	<0.016
05-19-05	344	0.011 ± 0.003	<0.012	11-17-05	342	0.020 ± 0.003	<0.021
05-25-05	264	0.011 ± 0.003	<0.014	11-23-05	262	0.031 ± 0.004	<0.012
06-01-05	341	0.013 ± 0.002	<0.018	11-30-05	301	0.022 ± 0.004	<0.015
06-08-05	343	0.022 ± 0.003	<0.018	12-08-05	345	0.025 ± 0.003	<0.012
06-16-05	262	0.020 ± 0.004	<0.022	12-13-05	219	0.034 ± 0.005	<0.021
06-23-05	298	0.013 ± 0.003	<0.022	12-21-05	346	0.031 ± 0.004	<0.013
06-30-05	308	0.030 ± 0.004	<0.017	12-28-05	302	0.047 ± 0.005	<0.008
2nd Quarter Mean± s.d.		0.018 ± 0.007	<0.017	4th Quarter Mean± s.d.		0.026 ± 0.010	<0.014
				Cumulative Average		0.024 ± 0.009	<0.016

POINT BEACH NUCLEAR PLANT

GAMMA EMITTERS IN QUARTERLY COMPOSITES OF

AIR PARTICULATE FILTERS

(Concentration pCi/m3)

Locatior	Lab Code	Be-7	Cs-134	Cs-137	Other Gammas[a]	Volume
	Req. LLD	-	0.01	0.01	(0.10)	m^3
			1st Quarter			
E-01	EAP- 2080	0.050 ± 0.012	-0.0001 ± 0.0006	0.0004 ± 0.0006	0.0006 ± 0.0004	4078
E-02	- 2081,2	0.067 ± 0.012	0.0002 ± 0.0006	0.0001 ± 0.0008	-0.0007 ± 0.0009	3296
E-03	- 2083	0.069 ± 0.016	-0.0005 ± 0.0008	0.0002 ± 0.0006	0.0008 ± 0.0007	3326
E-04	- 2084	0.071 ± 0.017	0.0003 ± 0.0006	-0.0004 ± 0.0006	-0.0003 ± 0.0006	3735
E-08	- 2085	0.059 ± 0.015	-0.0001 ± 0.0006	0.0003 ± 0.0006	-0.0003 ± 0.0008	3836
E-20	- 2086	0.079 ± 0.015	0.0001 ± 0.0007	0.0005 ± 0.0004	0.0008 ± 0.0007	3914
			2nd Quarter			
E-01	EAP- 4061	0.079 ± 0.015	-0.0007 ± 0.0007	0.0005 ± 0.0005	0.0005 ± 0.0007	3942
E-02	- 4062	0.080 ± 0.019	0.0001 ± 0.0057	0.0001 ± 0.0005	0.0001 ± 0.0006	3917
E-03	- 4063	0.095 ± 0.017	-0.0004 ± 0.0006	0.0001 ± 0.0006	0.0002 ± 0.0005	3979
E-04	- 4064	0.080 ± 0.015	0.0002 ± 0.0005	0.0004 ± 0.0005	-0.0001 ± 0.0007	3810
E-08	- 4065	0.078 ± 0.015	0.0003 ± 0.0004	0.0002 ± 0.0006	-0.0001 ± 0.0005	3965
E-20	- 4066	0.074 ± 0.017	0.0003 ± 0.0005	-0.0001 ± 0.0007	-0.0004 ± 0.0007	3977
			3rd Quarter			
E-01	EAP- 5883	0.073 ± 0.024	-0.0002 ± 0.0007	0.0001 ± 0.0005	-0.0005 ± 0.0006	3491
E-02	- 5884	0.069 ± 0.016	-0.0002 ± 0.0006	0.0001 ± 0.0005	-0.0002 ± 0.0006	3835
E-03	- 5885	0.071 ± 0.014	-0.0009 ± 0.0008	-0.0003 ± 0.0006	-0.0001 ± 0.0007	3884
E-04	- 5886	0.063 ± 0.015	-0.0001 ± 0.0006	0.0002 ± 0.0005	0.0011 ± 0.0006	4110
E-08	- 5887	0.086 ± 0.016	0.0005 ± 0.0006	0.0004 ± 0.0005	0.0002 ± 0.0006	3884
E-20	- 5888	0.069 ± 0.017	0.0005 ± 0.0005	-0.0004 ± 0.0006	-0.0003 ± 0.0006	3885
			4th Quarter			
E-01	EAP- 7521	0.045 ± 0.012	-0.0001 ± 0.0005	-0.0001 ± 0.0005	-0.0002 ± 0.0005	3934
E-02	- 7522	0.049 ± 0.013	0.0002 ± 0.0005	-0.0005 ± 0.0005	-0.0001 ± 0.0006	3891
E-03	- 7523	0.052 ± 0.015	-0.0001 ± 0.0004	-0.0003 ± 0.0004	-0.0001 ± 0.0005	3936
E-04	- 7524	0.045 ± 0.012	-0.0002 ± 0.0005	0.0001 ± 0.0004	0.0001 ± 0.0006	3942
E-08	- 7525	0.044 ± 0.015	0.0003 ± 0.0005	0.0001 ± 0.0004	-0.0004 ± 0.0007	3974
E-20	- 7526	0.052 ± 0.016	-0.0003 ± 0.0006	0.0001 ± 0.0005	0.0005 ± 0.0006	3935

[a] See Introduction

POINT BEACH NUCLEAR PLANT

RADIOACTIVITY IN MILK SAMPLES

(Monthly Collections)

Sample Description and Concentration (pCi/L)

E-11 Funk Dairy Farm

Collection Date	01-05-05	02-02-05	03-03-05	Required LLD
Lab Code	EMI-81	EMI-513	EMI-960	
Sr-89	0.7 ± 0.7	0.4 ± 0.7	0.8 ± 0.8	5.0
Sr-90	0.7 ± 0.4	1.3 ± 0.4	0.7 ± 0.4	1.0
I-131	-0.04 ± 0.13	-0.12 ± 0.15	-0.05 ± 0.15	0.5
K-40	1235 ± 105	1252 ± 107	1305 ± 93	
Cs-134	0.8 ± 2.1	0.5 ± 2.7	-0.2 ± 2.1	5.0
Cs-137	-0.2 ± 2.5	-1.8 ± 2.6	-1.6 ± 2.1	5.0
Ba-La-140	1.5 ± 1.8	-0.8 ± 1.8	2.9 ± 1.6	5.0
Other Gammas[a]	4.0 ± 2.4	-1.4 ± 2.8	1.9 ± 2.1	15.0

Collection Date	04-13-05	05-04-05	06-01-05	Required LLD
Lab Code	EMI-1819	EMI-2338	EMI-2927	
Sr-89	0.2 ± 0.5	-0.4 ± 0.6	-0.3 ± 0.6	5.0
Sr-90	0.3 ± 0.3	0.7 ± 0.4	0.9 ± 0.3	1.0
I-131	0.09 ± 0.15	-0.06 ± 0.14	-0.03 ± 0.13	0.5
K-40	1314 ± 104	1351 ± 120	1357 ± 104	
Cs-134	-0.6 ± 3.0	1.1 ± 2.5	-1.8 ± 2.3	5.0
Cs-137	-1.0 ± 2.7	1.5 ± 2.5	-0.6 ± 0.4	5.0
Ba-La-140	3.3 ± 2.4	0.9 ± 2.0	0.5 ± 1.5	5.0
Other Gammas[a]	-0.2 ± 2.1	2.5 ± 2.2	0.6 ± 2.0	15.0

[a] See Introduction.

POINT BEACH NUCLEAR PLANT

RADIOACTIVITY IN MILK SAMPLES

(Monthly Collections)

Sample Description and Concentration (pCi/L)

E-11 Funk Dairy Farm

Collection Date	07-13-05	08-10-05	09-14-05	Required LLD
Lab Code	EMI-3928	EMI-4615	EMI-5093	
Sr-89	-0.7 ± 0.7	-0.2 ± 0.6	0.4 ± 0.6	5.0
Sr-90	1.0 ± 0.4	1.0 ± 0.4	0.6 ± 0.3	1.0
I-131	-0.03 ± 0.15	-0.02 ± 0.11	-0.11 ± 0.18	0.5
K-40	1281 ± 103	1331 ± 116	1358 ± 115	
Cs-134	0.3 ± 2.5	-0.4 ± 3.1	-2.7 ± 2.0	5.0
Cs-137	2.1 ± 2.1	1.4 ± 2.7	0.0 ± 2.5	5.0
Ba-La-140	1.4 ± 1.4	2.1 ± 1.3	0.2 ± 1.9	5.0
Other Gammas[a]	-1.2 ± 2.4	2.1 ± 2.7	1.0 ± 2.8	15.0

Collection Date	10-12-05	11-09-05	12-14-05	Required LLD
Lab Code	EMI-5725	EMI-6391	EMI-7096	
Sr-89	0.6 ± 1.0	-0.7 ± 0.8	0.4 ± 0.8	5.0
Sr-90	0.5 ± 0.3	1.2 ± 0.4	0.9 ± 0.4	1.0
I-131	-0.06 ± 0.15	0.02 ± 0.15	-0.03 ± 0.13	0.5
K-40	1305 ± 108	1351 ± 114	1403 ± 119	
Cs-134	-12.4 ± 3.5	2.0 ± 2.4	-0.8 ± 1.9	5.0
Cs-137	-2.7 ± 2.8	-0.7 ± 2.8	-0.1 ± 2.2	5.0
Ba-La-140	3.0 ± 2.3	-0.5 ± 2.0	2.3 ± 1.6	5.0
Other Gammas[a]	-1.4 ± 2.6	2.6 ± 2.7	-3.0 ± 3.0	15.0

[a] See Introduction.

POINT BEACH NUCLEAR PLANT

RADIOACTIVITY IN MILK SAMPLES

(Monthly Collections)

Sample Description and Concentration (pCi/L)

E-21 Strutz Dairy Farm

Collection Date	01-05-05	02-02-05	03-03-05	Required LLD
Lab Code	EMI-82	EMI-514	EMI-961	
Sr-89	0.4 ± 0.7	0.1 ± 0.6	0.3 ± 0.7	5.0
Sr-90	0.6 ± 0.3	0.4 ± 0.4	1.1 ± 0.4	1.0
I-131	-0.01 ± 0.13	0.08 ± 0.17	0.05 ± 0.15	0.5
K-40	1316 ± 114	1380 ± 110	1320 ± 95	
Cs-134	-0.1 ± 2.7	0.5 ± 2.8	1.9 ± 2.3	5.0
Cs-137	-0.4 ± 2.6	-2.4 ± 3.0	-1.7 ± 2.3	5.0
Ba-La-140	0.9 ± 1.8	0.5 ± 2.5	-3.5 ± 2.1	5.0
Other Gammas[a]	0.8 ± 2.7	-0.7 ± 3.2	1.2 ± 2.1	15.0

Collection Date	04-13-05	05-04-05	06-01-05	Required LLD
Lab Code	EMI-1820	EMI-2339	EMI-2928	
Sr-89	0.4 ± 0.7	0.1 ± 0.6	0.1 ± 0.6	5.0
Sr-90	0.3 ± 0.2	0.8 ± 0.4	0.4 ± 0.3	1.0
I-131	-0.03 ± 0.15	-0.09 ± 0.17	-0.11 ± 0.15	0.5
K-40	1294 ± 100	1246 ± 105	1402 ± 104	
Cs-134	-0.1 ± 2.7	2.1 ± 3.1	1.3 ± 2.4	5.0
Cs-137	0.8 ± 2.7	0.1 ± 2.8	-0.4 ± 2.6	5.0
Ba-La-140	2.6 ± 1.7	-1.9 ± 2.4	-0.7 ± 2.1	5.0
Other Gammas[a]	0.8 ± 2.3	-0.8 ± 2.7	-1.5 ± 2.3	15.0

[a] See Introduction.

POINT BEACH NUCLEAR PLANT

RADIOACTIVITY IN MILK SAMPLES

(Monthly Collections)

Sample Description and Concentration (pCi/L)

E-21 Strutz Dairy Farm

Collection Date	07-13-05	08-10-05	09-14-05	Required LLD
Lab Code	EMI-3929	EMI-4616	EMI-5094	
Sr-89	-0.3 ± 0.6	0.2 ± 0.5	-0.2 ± 0.6	5.0
Sr-90	0.7 ± 0.3	0.6 ± 0.3	0.5 ± 0.3	1.0
I-131	-0.05 ± 0.15	-0.15 ± 0.12	-0.18 ± 0.18	0.5
K-40	1394 ± 107	1500 ± 119	1373 ± 111	
Cs-134	0.2 ± 2.5	3.2 ± 2.8	-0.7 ± 1.7	5.0
Cs-137	0.7 ± 2.2	-1.5 ± 3.0	2.0 ± 2.2	5.0
Ba-La-140	2.5 ± 1.5	3.6 ± 2.2	1.2 ± 2.1	5.0
Other Gammas[a]	-1.4 ± 2.4	-1.2 ± 2.7	0.6 ± 2.8	15.0

Collection Date	10-12-05	11-09-05	12-14-05	Required LLD
Lab Code	EMI-5726	EMI-6392	EMI-7097,8	
Sr-89	0.5 ± 0.7	-0.3 ± 0.6	-0.5 ± 0.7	5.0
Sr-90	0.5 ± 0.3	0.4 ± 0.3	0.6 ± 0.3	1.0
I-131	-0.01 ± 0.15	0.08 ± 0.16	0.03 ± 0.14	0.5
K-40	1383 ± 101	1335 ± 116	1322 ± 76	
Cs-134	-0.3 ± 2.3	-10.2 ± 3.1	-12.8 ± 3.1	5.0
Cs-137	0.6 ± 2.4	0.7 ± 3.0	1.4 ± 2.4	5.0
Ba-La-140	-2.2 ± 2.1	1.4 ± 2.0	-1.3 ± 2.0	5.0
Other Gammas[a]	-0.3 ± 2.4	1.5 ± 2.5	-0.9 ± 2.5	15.0

[a] See Introduction.

POINT BEACH NUCLEAR PLANT

RADIOACTIVITY IN MILK SAMPLES

(Monthly Collections)

Sample Description and Concentration (pCi/L)

E-40 Barta

Collection Date	01-05-05	02-02-05	03-03-05	Required LLD
Lab Code	EMI-83	EMI-515	EMI-962	
Sr-89	-1.5 ± 0.9	-0.8 ± 0.7	-0.5 ± 0.7	5.0
Sr-90	2.4 ± 0.5	1.1 ± 0.4	1.6 ± 0.4	1.0
I-131	-0.02 ± 0.16	0.20 ± 0.23	0.00 ± 0.15	0.5
K-40	1347 ± 112	1355 ± 118	1392 ± 103	
Cs-134	-3.3 ± 2.4	2.5 ± 3.0	-0.7 ± 2.4	5.0
Cs-137	-1.3 ± 2.1	0.3 ± 2.3	0.4 ± 1.8	5.0
Ba-La-140	-0.5 ± 2.0	0.2 ± 2.3	-1.3 ± 2.2	5.0
Other Gammas[a]	0.3 ± 2.3	-0.7 ± 2.6	-1.0 ± 2.1	15.0

Collection Date	04-13-05	05-04-05	06-01-05	Required LLD
Lab Code	EMI-1821	EMI-2340	EMI-2929	
Sr-89	1.1 ± 1.2	0.3 ± 0.6	0.3 ± 0.6	5.0
Sr-90	1.4 ± 0.5	0.9 ± 0.4	0.9 ± 0.3	1.0
I-131	-0.02 ± 0.14	0.16 ± 0.19	-0.10 ± 0.17	0.5
K-40	1395 ± 113	1419 ± 129	1348 ± 110	
Cs-134	0.9 ± 2.6	0.2 ± 3.0	0.1 ± 2.4	5.0
Cs-137	0.4 ± 2.8	-0.6 ± 2.4	0.0 ± 2.3	5.0
Ba-La-140	-0.3 ± 2.1	-0.6 ± 2.4	-2.8 ± 2.9	5.0
Other Gammas[a]	1.3 ± 2.6	1.6 ± 2.5	0.1 ± 2.4	15.0

[a] See Introduction.

POINT BEACH NUCLEAR PLANT

RADIOACTIVITY IN MILK SAMPLES

(Monthly Collections)

Sample Description and Concentration (pCi/L)

E-40 Barta

Collection Date	07-13-05	08-10-05	09-14-05	Required LLD
Lab Code	EMI-3930	EMI-4617	EMI-5095	
Sr-89	-0.1 ± 0.7	0.2 ± 0.6	-0.1 ± 0.7	5.0
Sr-90	1.1 ± 0.4	0.8 ± 0.3	1.4 ± 0.4	1.0
I-131	0.06 ± 0.17	-0.08 ± 0.12	-0.01 ± 0.21	0.5
K-40	1472 ± 113	1278 ± 121	1405 ± 109	
Cs-134	-1.0 ± 2.6	2.4 ± 2.2	-1.4 ± 1.7	5.0
Cs-137	-3.4 ± 2.6	-2.1 ± 2.1	1.4 ± 2.2	5.0
Ba-La-140	-1.7 ± 1.8	-2.1 ± 2.1	1.1 ± 1.6	5.0
Other Gammas[a]	0.1 ± 2.7	-2.5 ± 2.4	-0.2 ± 2.4	15.0

Collection Date	10-12-05	11-09-05	12-14-05	Required LLD
Lab Code	EMI-5727	EMI-6393	EMI-7099	
Sr-89	0.2 ± 0.7	0.2 ± 0.8	0.2 ± 0.7	5.0
Sr-90	1.0 ± 0.4	1.1 ± 0.4	0.8 ± 0.4	1.0
I-131	-0.08 ± 0.13	-0.11 ± 0.18	-0.10 ± 0.14	0.5
K-40	1267 ± 115	1386 ± 114	1300 ± 105	
Cs-134	-0.7 ± 2.1	-5.0 ± 2.6	-1.7 ± 2.1	5.0
Cs-137	1.2 ± 2.3	0.1 ± 2.5	3.1 ± 2.3	5.0
Ba-La-140	-2.6 ± 2.2	-1.1 ± 2.3	-0.4 ± 2.1	5.0
Other Gammas[a]	0.3 ± 2.5	0.0 ± 2.7	0.1 ± 2.4	15.0

[a] See Introduction.

POINT BEACH NUCLEAR PLANT

RADIOACTIVITY IN WELL WATER SAMPLES, E-10

(Quarterly Collections)

	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.	Req. LLD
Collection Date	01-14-05	04-14-05	07-13-05	10-13-05	
Lab Code	EWW-232	EWW-1914	EWW-3966	EWW-5754	
Gross Beta	0.9 ± 1.6	0.5 ± 1.8	1.0 ± 1.8	0.2 ± 1.8	4.0
H-3	-16.8 ± 85.4	-4.4 ± 76.2	29.6 ± 104.5	104.5 ± 90.1	500
Sr-89	0.2 ± 0.6	0.7 ± 0.6	0.3 ± 0.6	-0.1 ± 0.4	5.0
Sr-90	0.1 ± 0.3	-0.1 ± 0.2	-0.2 ± 0.4	0.0 ± 0.2	1.0
I-131	0.09 ± 0.16	-0.04 ± 0.15	0.06 ± 0.17	-0.10 ± 0.13	0.5
Mn-54	-2.8 ± 4.6	0.7 ± 1.6	0.8 ± 3.8	-0.1 ± 2.7	10
Fe-59	7.5 ± 9.6	-1.7 ± 3.2	-3.0 ± 6.7	1.4 ± 7.5	30
Co-58	-1.9 ± 4.5	-0.5 ± 1.7	-1.3 ± 2.7	1.8 ± 3.4	10
Co-60	5.6 ± 5.4	1.0 ± 1.8	0.9 ± 4.2	1.1 ± 3.0	10
Zn-65	4.4 ± 9.3	-4.6 ± 3.8	3.1 ± 6.8	-1.5 ± 9.0	30
Zr-Nb-95	-2.7 ± 3.5	0.6 ± 1.8	2.7 ± 3.4	-2.9 ± 3.5	15
Cs-134	-0.5 ± 4.3	-0.9 ± 2.0	1.5 ± 3.8	-1.6 ± 3.6	10
Cs-137	1.4 ± 4.2	0.7 ± 1.7	2.0 ± 3.1	0.8 ± 4.0	10
Ba-La-140	9.4 ± 5.9	1.5 ± 1.8 [b]	-2.3 ± 3.9	-0.1 ± 4.6	15
Other Gammas[a]	-2.5 ± 3.5	-1.9 ± 1.7	-0.1 ± 2.8	0.2 ± 3.6	30

[a] Ru-103

[b] corrected value

POINT BEACH

Lake water, analyses for gross beta, iodine-131 and gamma emitting isotopes.
Location: E-01 (Meteorological Tower)
Collection: Monthly composites Units: pCi/L

Lab Code	ELW-235	ELW-679	ELW-1124	ELW-1909	
Date Collected	01-13-05	02-11-05	03-09-05	04-14-05	Req. LLD
Gross beta	4.0 ± 0.7	2.5 ± 0.6	3.1 ± 0.7	2.6 ± 0.7	4.0
I-131	0.02 ± 0.17	0.13 ± 0.15	-0.13 ± 0.17	-0.01 ± 0.16	0.5
Be-7	9.4 ± 19.1	-8.7 ± 21.3	4.0 ± 20.8	-7.9 ± 25.4	
Mn-54	-0.9 ± 2.0	1.9 ± 2.8	0.0 ± 2.5	-4.0 ± 3.4	10
Fe-59	1.7 ± 3.5	2.1 ± 5.1	1.4 ± 2.9	1.5 ± 6.0	30
Co-58	0.6 ± 1.9	-1.2 ± 2.7	-1.2 ± 2.7	4.2 ± 3.0	10
Co-60	-0.4 ± 1.8	0.9 ± 3.0	-0.2 ± 2.7	1.1 ± 3.6	10
Zn-65	-6.9 ± 4.7	-5.2 ± 5.9	-3.4 ± 5.5	-5.8 ± 7.2	30
Zr-Nb-95	1.1 ± 2.0	1.0 ± 2.6	-4.0 ± 2.5	-0.9 ± 3.2	15
Cs-134	0.8 ± 2.3	-1.0 ± 3.3	-0.4 ± 2.5	-2.1 ± 4.2	10
Cs-137	-1.7 ± 2.2	-2.6 ± 2.6	-0.8 ± 2.7	-0.2 ± 3.5	10
Ba-La-140	-0.3 ± 1.9	-4.2 ± 3.2	-2.4 ± 4.4	-3.3 ± 3.7	15
Other Gammas[a]	1.5 ± 2.2	-2.2 ± 2.6	0.5 ± 2.5	-1.6 ± 3.2	30

Lab Code	ELW-2539	ELW-3183	ELW-4017	ELW-4677	
Date Collected	05-11-05	06-08-05	07-14-05	08-12-05	Req. LLD
Gross beta	1.4 ± 0.3	2.0 ± 0.4	4.1 ± 0.5	2.1 ± 0.4	4.0
I-131	-0.12 ± 0.15	-0.02 ± 0.17	0.03 ± 0.16	-0.01 ± 0.12	0.5
Be-7	26.7 ± 20.2	-8.7 ± 15.6	1.8 ± 18.6	4.4 ± 24.5	
Mn-54	0.5 ± 2.1	-1.1 ± 1.6	-1.0 ± 2.6	-1.5 ± 3.2	10
Fe-59	-1.1 ± 4.6	1.2 ± 2.9	3.3 ± 4.0	1.1 ± 6.2	30
Co-58	0.0 ± 2.0	0.4 ± 1.5	0.9 ± 2.3	-2.1 ± 3.1	10
Co-60	-1.9 ± 2.4	0.7 ± 1.7	0.9 ± 2.4	-0.7 ± 4.1	10
Zn-65	-3.7 ± 4.7	-0.7 ± 3.6	-3.5 ± 5.5	0.7 ± 6.5	30
Zr-Nb-95	-1.0 ± 2.2	0.7 ± 1.4	-0.6 ± 2.4	2.9 ± 2.6	15
Cs-134	1.4 ± 2.6	-0.1 ± 1.9	0.6 ± 2.8	0.7 ± 2.9	10
Cs-137	0.4 ± 2.5	1.0 ± 1.8	0.8 ± 2.8	2.0 ± 3.4	10
Ba-La-140	0.7 ± 3.2	-1.0 ± 1.8	0.6 ± 2.7	-2.5 ± 2.1	15
Other Gammas[a]	-3.0 ± 2.6	-1.2 ± 1.7	-1.2 ± 2.5	-2.1 ± 3.0	30

Lab Code	ELW-5177	ELW-5748,9	ELW-6467	ELW-7100	
Date Collected	09-14-05	10-12-05	11-10-05	12-13-05	Req. LLD
Gross beta	2.7 ± 0.6	1.5 ± 0.2	2.0 ± 0.6	2.7 ± 0.7	4.0
I-131	-0.09 ± 0.16	-0.17 ± 0.20	-0.11 ± 0.15	-0.09 ± 0.13	0.5
Be-7	1.3 ± 15.1	7.2 ± 26.4	-14.4 ± 25.3	-8.3 ± 27.8	
Mn-54	0.4 ± 1.8	-0.6 ± 1.7	-2.6 ± 3.4	0.7 ± 3.2	10
Fe-59	-1.7 ± 3.4	-2.8 ± 3.5	-1.0 ± 5.2	-0.3 ± 7.4	30
Co-58	2.1 ± 1.6	1.0 ± 2.0	-3.8 ± 2.9	-0.8 ± 2.5	10
Co-60	-0.3 ± 1.9	0.0 ± 1.9	-0.4 ± 3.6	-1.2 ± 3.6	10
Zn-65	1.9 ± 3.7	-1.0 ± 4.2	3.7 ± 6.8	2.4 ± 9.9	30
Zr-Nb-95	-0.8 ± 1.8	-2.7 ± 2.3	3.2 ± 3.2	1.6 ± 3.7	15
Cs-134	0.6 ± 1.7	1.0 ± 1.6	-0.5 ± 2.7	-4.4 ± 4.5	10
Cs-137	-1.0 ± 1.8	-0.2 ± 1.8	-1.0 ± 3.0	-2.3 ± 3.4	10
Ba-La-140	1.2 ± 1.6	3.8 ± 2.0	-8.8 ± 4.3	-0.9 ± 4.0	15
Other Gammas[a]	-1.0 ± 1.6	1.7 ± 1.9	-0.6 ± 3.2	2.4 ± 3.4	30

[a] Ru-103

POINT BEACH

Lake water, analyses for gross beta, iodine-131 and gamma emitting isotopes.
Location: E-05 (Two Creeks Park)
Collection: Monthly composites Units: pCi/L

Lab Code	ELW-236	ELW-680	ELW-1125	ELW-1910	
Date Collected	01-13-05	02-11-05	03-09-05	04-14-05	Req. LLD
Gross beta	6.0 ± 0.7	3.0 ± 0.6	3.4 ± 0.7	3.6 ± 0.7	4.0
I-131	0.12 ± 0.16	0.08 ± 0.17	-0.25 ± 0.17	0.01 ± 0.16	0.5
Be-7	8.2 ± 20.3	-7.9 ± 24.1	11.3 ± 19.7	-28.0 ± 28.0	
Mn-54	2.7 ± 2.0	2.2 ± 3.1	-2.3 ± 1.9	-0.2 ± 2.5	10
Fe-59	0.6 ± 4.6	-6.1 ± 6.4	2.3 ± 3.3	4.5 ± 5.8	30
Co-58	0.7 ± 2.2	-0.3 ± 3.5	-1.1 ± 1.7	2.3 ± 3.3	10
Co-60	0.4 ± 2.6	-2.2 ± 4.1	0.4 ± 2.0	1.8 ± 2.9	10
Zn-65	-3.3 ± 4.8	-11.4 ± 7.2	-1.8 ± 4.8	-5.2 ± 6.8	30
Zr-Nb-95	-0.7 ± 2.2	1.2 ± 2.9	-0.2 ± 2.1	2.0 ± 2.8	15
Cs-134	-0.1 ± 2.5	2.3 ± 3.8	0.9 ± 2.2	-0.5 ± 3.6	10
Cs-137	-0.7 ± 2.5	-1.3 ± 3.2	0.1 ± 2.3	-0.9 ± 3.5	10
Ba-La-140	0.4 ± 2.5	-4.7 ± 3.2	-1.7 ± 2.2	3.1 ± 4.8	15
Other gammas[a]	-0.3 ± 2.2	-3.6 ± 3.2	0.1 ± 2.3	-4.0 ± 3.0	30

Lab Code	ELW-2540	ELW-3184	ELW-4018	ELW-4678	
Date Collected	05-11-05	06-08-05	07-14-05	08-12-05	Req. LLD
Gross beta	1.6 ± 0.4	1.3 ± 0.3	5.1 ± 0.6	1.9 ± 0.4	4.0
I-131	-0.27 ± 0.16	-0.10 ± 0.15	-0.03 ± 0.14	-0.09 ± 0.13	0.5
Be-7	-11.6 ± 18.9	-24.0 ± 18.4	-0.3 ± 16.4	-11.1 ± 25.7	
Mn-54	-1.0 ± 2.0	1.0 ± 1.7	-3.0 ± 2.2	-0.2 ± 3.2	10
Fe-59	-4.5 ± 3.9	-0.2 ± 2.7	0.9 ± 3.8	3.9 ± 6.1	30
Co-58	-0.5 ± 2.0	2.0 ± 1.8	1.0 ± 2.2	-0.6 ± 2.8	10
Co-60	0.1 ± 1.7	0.1 ± 1.4	-2.7 ± 2.4	-1.4 ± 3.3	10
Zn-65	-2.9 ± 4.9	-6.3 ± 3.7	-3.2 ± 4.9	-0.3 ± 6.1	30
Zr-Nb-95	-0.3 ± 2.1	1.0 ± 1.7	2.2 ± 2.3	-1.2 ± 3.5	15
Cs-134	-1.2 ± 2.0	-1.8 ± 1.9	-1.6 ± 2.2	3.2 ± 3.1	10
Cs-137	1.2 ± 2.5	-0.2 ± 1.9	1.4 ± 2.2	-1.6 ± 3.2	10
Ba-La-140	2.6 ± 1.9	-2.1 ± 2.0	0.7 ± 2.9	1.3 ± 3.4	15
Other Gammas[a]	-1.7 ± 2.4	-1.1 ± 2.0	-2.4 ± 1.7	1.5 ± 3.1	30

Lab Code	ELW-5178,9	ELW-5750	ELW-6468	ELW-7101	
Date Collected	09-14-05	10-12-05	11-10-05	12-13-05	Req. LLD
Gross beta	2.9 ± 0.4	1.7 ± 0.4	2.6 ± 0.6	2.4 ± 0.6	4.0
I-131	0.08 ± 0.22	-0.08 ± 0.14	-0.24 ± 0.18	0.18 ± 0.24	0.5
Be-7	-10.5 ± 18.1	-26.2 ± 24.3	-18.8 ± 31.6	-22.4 ± 19.7	
Mn-54	-0.5 ± 1.8	-0.7 ± 2.2	1.8 ± 3.3	-1.1 ± 2.1	10
Fe-59	-4.5 ± 3.4	3.1 ± 3.3	2.3 ± 5.1	-0.1 ± 3.7	30
Co-58	0.9 ± 2.0	-0.7 ± 2.0	1.9 ± 2.5	-1.4 ± 1.9	10
Co-60	0.5 ± 1.5	-0.9 ± 2.4	0.8 ± 3.5	-1.0 ± 2.3	10
Zn-65	-2.4 ± 5.4	-3.0 ± 4.4	-2.1 ± 7.0	-6.0 ± 5.1	30
Zr-Nb-95	1.6 ± 1.9	2.8 ± 2.1	-3.1 ± 3.2	-1.9 ± 2.3	15
Cs-134	-4.8 ± 2.6	-6.1 ± 2.6	0.6 ± 2.9	-2.5 ± 2.2	10
Cs-137	-1.2 ± 2.6	0.1 ± 2.7	0.8 ± 3.4	1.8 ± 2.3	10
Ba-La-140	1.4 ± 1.6	-0.3 ± 1.8	3.1 ± 3.3	-6.1 ± 2.0	15
Other Gammas[a]	1.9 ± 2.3	-1.7 ± 2.3	-1.2 ± 3.0	-1.2 ± 2.1	30

[a] Ru-103

POINT BEACH

Lake water, analyses for gross beta, iodine-131 and gamma emitting isotopes.
Location: E-06 (Coast Guard Station)
Collection: Monthly composites Units: pCi/L

Lab Code	NS[b]	ELW-681	ELW-1126	ELW-1911,2	
Date Collected	-	02-11-05	03-09-05	04-14-05	Req. LLD
Gross beta	-	3.2 ± 0.6	2.2 ± 0.4	2.9 ± 0.5	4.0
I-131	-	0.00 ± 0.18	0.15 ± 0.24	-0.06 ± 0.18	0.5
Be-7	-	-15.7 ± 21.3	12.1 ± 17.2	25.3 ± 16.4	
Mn-54	-	-1.6 ± 1.9	-0.2 ± 2.0	0.1 ± 1.9	10
Fe-59	-	0.5 ± 4.3	-0.9 ± 3.3	0.8 ± 3.0	30
Co-58	-	-1.5 ± 1.9	1.9 ± 2.1	-2.5 ± 3.2	10
Co-60	-	-2.3 ± 2.2	1.1 ± 2.1	-2.1 ± 2.1	10
Zn-65	-	-4.8 ± 4.5	1.0 ± 3.7	-0.6 ± 3.8	30
Zr-Nb-95	-	-0.1 ± 2.0	-1.2 ± 2.5	-2.6 ± 2.1	15
Cs-134	-	-1.8 ± 2.5	2.2 ± 2.0	0.7 ± 2.0	10
Cs-137	-	-1.3 ± 2.5	-0.4 ± 1.7	0.2 ± 2.2	10
Ba-La-140	-	0.8 ± 2.1	0.4 ± 2.6	4.5 ± 2.1	15
Other Gammas[a]	-	-2.3 ± 2.2	0.9 ± 1.8	-0.4 ± 2.0	30

Lab Code	ELW-2541	ELW-3185	ELW-4019	ELW-4679	
Date Collected	05-11-05	06-08-05	07-15-05	08-12-05	Req. LLD
Gross beta	1.2 ± 0.3	1.8 ± 0.4	3.9 ± 0.5	1.8 ± 0.4	4.0
I-131	-0.01 ± 0.18	0.06 ± 0.15	0.12 ± 0.14	-0.02 ± 0.14	0.5
Be-7	5.9 ± 15.0	-9.4 ± 23.2	3.5 ± 24.8	21.3 ± 28.1	
Mn-54	-2.5 ± 2.2	0.7 ± 2.5	2.3 ± 2.8	0.9 ± 2.7	10
Fe-59	-0.2 ± 4.0	0.5 ± 5.5	-0.4 ± 5.7	-2.2 ± 6.2	30
Co-58	-1.4 ± 2.0	0.5 ± 2.1	0.2 ± 2.7	0.7 ± 2.7	10
Co-60	-2.3 ± 2.2	3.6 ± 3.3	-2.4 ± 2.7	1.0 ± 3.3	10
Zn-65	1.2 ± 3.9	3.3 ± 5.0	-0.1 ± 7.0	-3.1 ± 6.4	30
Zr-Nb-95	1.7 ± 2.1	1.7 ± 2.4	-6.4 ± 3.0	-2.6 ± 3.1	15
Cs-134	-0.3 ± 1.9	2.7 ± 2.8	-1.2 ± 3.0	-0.5 ± 2.4	10
Cs-137	-0.4 ± 2.6	1.2 ± 3.0	0.7 ± 2.7	1.5 ± 3.0	10
Ba-La-140	-0.9 ± 2.8	0.3 ± 3.5	-2.6 ± 4.4	1.4 ± 3.4	15
Other Gammas[a]	0.8 ± 1.8	-4.2 ± 2.6	3.3 ± 2.7	-0.6 ± 3.3	30

Lab Code	ELW-5180	ELW-5751	ELW-6469	ELW-7102	
Date Collected	09-14-05	10-12-05	11-10-05	12-13-05	Req. LLD
Gross beta	2.0 ± 0.6	3.6 ± 0.8	2.4 ± 0.6	3.3 ± 0.7	4.0
I-131	0.07 ± 0.19	0.02 ± 0.15	-0.06 ± 0.20	-0.10 ± 0.16	0.5
Be-7	-8.0 ± 17.6	21.3 ± 25.6	-3.7 ± 20.0	-13.1 ± 22.2	
Mn-54	-0.2 ± 1.7	1.0 ± 3.5	-2.9 ± 2.7	0.3 ± 2.4	10
Fe-59	-0.6 ± 3.5	0.7 ± 5.7	-0.4 ± 3.6	1.2 ± 4.2	30
Co-58	-0.4 ± 1.6	-2.3 ± 3.6	-1.9 ± 2.6	-1.3 ± 2.0	10
Co-60	-1.2 ± 1.8	4.8 ± 5.0	2.1 ± 3.4	1.4 ± 1.9	10
Zn-65	-1.1 ± 4.0	-1.1 ± 7.4	-4.3 ± 2.8	-4.0 ± 4.8	30
Zr-Nb-95	0.1 ± 1.5	-1.1 ± 3.2	-2.5 ± 2.9	3.1 ± 2.3	15
Cs-134	-0.2 ± 1.8	0.0 ± 2.9	1.7 ± 2.2	-8.0 ± 3.0	10
Cs-137	1.2 ± 2.1	2.5 ± 3.8	-2.0 ± 2.6	0.2 ± 2.5	10
Ba-La-140	-1.3 ± 2.1	-3.6 ± 4.9	1.3 ± 3.7	-0.9 ± 2.1	15
Other Gammas[a]	-1.0 ± 2.1	-0.6 ± 3.1	-12.0 ± 2.2	-1.7 ± 2.6	30

[a] Ru-103

[b] "NS" = No sample; see Table 2.0, Listing of Missed Samples.

POINT BEACH

Lake water, analyses for gross beta, iodine-131 and gamma emitting isotopes.
Location: E-33 (Nature Conservancy)
Collection: Monthly composites Units: pCi/L

Lab Code	ELW-237	ELW-682	ELW-1127	ELW-1913	
Date Collected	01-13-05	02-11-05	03-09-05	04-14-05	Req. LLD
Gross beta	3.1 ± 0.6	3.4 ± 0.6	3.4 ± 0.5	3.2 ± 0.6	4.0
I-131	0.11 ± 0.15	-0.09 ± 0.15	-0.11 ± 0.17	-0.10 ± 0.16	0.5
Be-7	-0.8 ± 16.1	-15.4 ± 27.3	-4.9 ± 21.9	28.3 ± 25.6	
Mn-54	-0.6 ± 1.5	-1.7 ± 2.7	-0.1 ± 2.1	2.4 ± 3.3	10
Fe-59	-1.5 ± 2.9	0.3 ± 6.9	2.0 ± 3.1	1.1 ± 5.6	30
Co-58	1.3 ± 1.5	0.1 ± 3.3	-0.2 ± 2.0	-2.2 ± 2.9	10
Co-60	-0.9 ± 1.5	2.0 ± 3.8	-0.6 ± 1.9	-1.3 ± 3.7	10
Zn-65	-3.8 ± 3.3	-1.4 ± 6.3	-3.1 ± 4.3	2.1 ± 6.0	30
Zr-Nb-95	1.1 ± 1.7	-0.5 ± 3.1	0.6 ± 2.2	-1.1 ± 2.9	15
Cs-134	1.6 ± 1.7	0.3 ± 3.2	1.1 ± 2.4	-3.0 ± 3.1	10
Cs-137	-0.8 ± 1.7	1.4 ± 3.4	-0.8 ± 2.4	0.2 ± 3.1	10
Ba-La-140	-0.6 ± 1.6	0.9 ± 2.8	3.1 ± 2.0	6.1 ± 4.2	15
Other Gammas[a]	2.0 ± 1.7	0.3 ± 3.1	0.6 ± 2.2	-2.2 ± 2.1	30

Lab Code	ELW-2542	ELW-3186	ELW-4020	ELW-4680	
Date Collected	05-11-05	06-08-05	07-14-05	08-12-05	Req. LLD
Gross beta	1.5 ± 0.4	2.2 ± 0.4	3.2 ± 0.6	10.6 ± 1.1 [b]	4.0
I-131	-0.11 ± 0.16	-0.01 ± 0.14	0.13 ± 0.16	-0.12 ± 0.12	0.5
Be-7	-23.4 ± 20.8	2.5 ± 12.2	-8.6 ± 16.6	-21.1 ± 17.0	
Mn-54	0.2 ± 2.1	-0.5 ± 1.5	0.6 ± 2.1	1.0 ± 2.6	10
Fe-59	-0.1 ± 3.6	1.8 ± 2.7	-0.6 ± 3.7	1.4 ± 3.5	30
Co-58	0.1 ± 2.3	0.1 ± 1.5	-0.9 ± 1.9	-0.7 ± 2.3	10
Co-60	0.4 ± 2.4	-0.7 ± 1.8	1.4 ± 2.1	-1.6 ± 3.9	10
Zn-65	-6.2 ± 4.7	0.7 ± 3.0	-2.6 ± 4.3	2.2 ± 4.3	30
Zr-Nb-95	-0.2 ± 2.1	1.9 ± 1.5	-1.0 ± 2.5	-1.5 ± 2.8	15
Cs-134	2.6 ± 2.3	-1.7 ± 2.1	1.7 ± 2.5	-0.8 ± 3.1	10
Cs-137	2.8 ± 2.6	-1.2 ± 1.6	1.1 ± 2.4	1.2 ± 3.3	10
Ba-La-140	-0.4 ± 2.4	-2.9 ± 1.6	-1.3 ± 3.0	-0.5 ± 3.3	15
Other Gammas[a]	-2.4 ± 2.7	-1.2 ± 1.6	-1.0 ± 1.8	-2.3 ± 2.2	30

Lab Code	ELW-5181	ELW-5752	ELW-6470	ELW-7103	
Date Collected	09-15-05	10-12-05	11-10-05	12-13-05	Req. LLD
Gross beta	3.2 ± 0.7	1.9 ± 0.4	2.1 ± 0.6	5.6 ± 0.7	4.0
I-131	-0.04 ± 0.15	0.02 ± 0.14	0.10 ± 0.21	-0.07 ± 0.14	0.5
Be-7	4.9 ± 18.4	-3.1 ± 18.5	9.5 ± 16.0	-17.7 ± 18.1	
Mn-54	-1.3 ± 1.9	-0.4 ± 2.6	1.7 ± 1.9	0.4 ± 2.3	10
Fe-59	-6.0 ± 3.9	-0.5 ± 6.4	0.6 ± 3.2	-3.3 ± 3.7	30
Co-58	0.1 ± 1.9	1.0 ± 2.8	0.8 ± 1.8	-0.2 ± 2.3	10
Co-60	-0.3 ± 1.8	2.6 ± 2.7	-0.9 ± 1.9	1.5 ± 2.4	10
Zn-65	-3.5 ± 3.9	6.1 ± 6.4	-1.8 ± 4.1	0.9 ± 4.1	30
Zr-Nb-95	-0.1 ± 2.0	-0.7 ± 2.7	0.6 ± 1.9	0.5 ± 2.5	15
Cs-134	0.1 ± 2.0	0.8 ± 2.5	-0.9 ± 1.8	-2.7 ± 2.5	10
Cs-137	0.9 ± 2.1	-1.8 ± 2.9	-0.4 ± 1.7	0.8 ± 2.6	10
Ba-La-140	-1.5 ± 2.2	-5.6 ± 3.8	-1.6 ± 2.0	2.3 ± 2.3	15
Other Gammas[a]	0.2 ± 2.0	-1.4 ± 2.4	-1.9 ± 1.7	-0.2 ± 2.4	30

[a] Ru-103

[b] Gross beta recount = 11.0±1.5 pCi/L; reanalysis result = 17.6±2.5 pCi/L.

POINT BEACH

Lake water, analyses for tritium, strontium-89 and strontium-90.
Collection: Quarterly composites of weekly grab samples
Units: pCi/L

Location	E-01 (Meteorological Tower)			
Period	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.
Lab Code	ELW-1224	ELW-3449	ELW-5309	ELW-7325
H-3	85 ± 87	24 ± 102	236 ± 86	166 ± 101
Sr-89	-0.45 ± 0.54	-0.33 ± 0.66	0.27 ± 0.58	-0.19 ± 0.77
Sr-90	0.58 ± 0.35	0.62 ± 0.35	0.41 ± 0.30	0.53 ± 0.36

Location	E-05 (Two Creeks Park)			
Period	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.
Lab Code	ELW-1225	ELW-3450	ELW-5310	ELW-7326
H-3	124 ± 89	115 ± 105	164 ± 86	359 ± 118
Sr-89	-0.55 ± 0.60	0.25 ± 0.55	-0.12 ± 0.63	0.44 ± 0.70
Sr-90	0.71 ± 0.38	0.27 ± 0.27	0.30 ± 0.35	0.27 ± 0.31

Location	E-06 (Coast Guard Station)			
Period	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.
Lab Code	ELW-1226	ELW-3451	ELW-5311	ELW-7327
H-3	187 ± 92	35 ± 102	231 ± 89	381 ± 108
Sr-89	-0.33 ± 0.51	-0.27 ± 0.60	0.08 ± 0.60	0.44 ± 0.55
Sr-90	0.78 ± 0.32	0.41 ± 0.30	0.46 ± 0.33	0.20 ± 0.23

Location	E-33 (Nature Conservancy)			
Period	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.
Lab Code	ELW-1227	ELW-3452	ELW-5312	ELW-7328
H-3	28 ± 85	100 ± 104	202 ± 88	1576 ± 144[a]
Sr-89	0.05 ± 0.50	-0.45 ± 0.71	-0.11 ± 0.52	-0.07 ± 0.57
Sr-90	0.26 ± 0.29	0.53 ± 0.33	0.39 ± 0.29	0.37 ± 0.25

[a] Repeat result = 1777±153 pCi/L. Monthly tritium results: October = 2 +/- 112 pCi/L; November = 3,146 +/- 189; December = 1,758 +/- 159 pC/L.

Note: pages 23 and 24 are intentionally left out.

POINT BEACH NUCLEAR PLANT

Fish, analyses for gross beta and gamma emitting isotopes.
Location: E-13
Collection: 3x / year Units: pCi/g wet

	Sample Description and Concentration			Required LLD
Collection Date	03-09-05	03-09-05	03-09-05	
Lab Code	EF-1114	EF-1115	EF-1116	
Type	Catfish	Catfish	Drum	
Ratio (wet/dry wt.)	2.73	2.75	4.45	
Gross Beta	3.79 ± 0.11	4.66 ± 0.09	3.54 ± 0.09	0.5
K-40	2.96 ± 0.65	2.80 ± 0.54	2.56 ± 0.72	
Mn-54	-0.001 ± 0.012	0.001 ± 0.015	-0.011 ± 0.024	0.13
Fe-59	-0.031 ± 0.025	0.034 ± 0.025	0.018 ± 0.052	0.26
Co-58	0.004 ± 0.012	0.003 ± 0.014	0.002 ± 0.025	0.13
Co-60	-0.004 ± 0.016	0.015 ± 0.014	0.014 ± 0.028	0.13
Zn-65	0.004 ± 0.025	0.017 ± 0.030	-0.005 ± 0.066	0.26
Cs-134	-0.001 ± 0.014	0.003 ± 0.015	-0.007 ± 0.026	0.13
Cs-137	0.066 ± 0.025	0.036 ± 0.017	0.023 ± 0.023	0.15
Other Gammas[a]	0.000 ± 0.010	0.007 ± 0.011	-0.019 ± 0.021	0.5
Collection Date	08-11-05	08-11-05	08-11-05	
Lab Code	EF-4638	EF-4639,10	EF-4641	
Type	Perch	Trout	Sucker	
Ratio (wet/dry wt.)	3.71	2.89	3.51	
Gross Beta	4.55 ± 0.21	3.35 ± 0.08	2.62 ± 0.06	0.5
K-40	2.49 ± 0.56	2.60 ± 0.41	2.82 ± 0.60	
Mn-54	0.003 ± 0.017	-0.016 ± 0.014	-0.004 ± 0.014	0.13
Fe-59	0.034 ± 0.035	0.019 ± 0.025	-0.005 ± 0.032	0.26
Co-58	0.003 ± 0.017	-0.003 ± 0.013	0.030 ± 0.014	0.13
Co-60	-0.002 ± 0.021	0.013 ± 0.014	-0.002 ± 0.018	0.13
Zn-65	-0.092 ± 0.044	-0.018 ± 0.035	-0.025 ± 0.036	0.26
Cs-134	-0.043 ± 0.019	0.008 ± 0.011	-0.001 ± 0.010	0.13
Cs-137	0.172 ± 0.055	0.048 ± 0.016	0.031 ± 0.015	0.15
Other Gammas[a]	-0.027 ± 0.019	-0.007 ± 0.010	0.010 ± 0.013	0.5

[a] Ru-103

POINT BEACH NUCLEAR PLANT

Fish, analyses for gross beta and gamma emitting isotopes.
Location: E-13
Collection: 3x / year Units: pCi/L

	Sample Description and Concentration (pCi/g wet)		Required LLD
Collection Date	12-14-05	12-14-05	
Lab Code	EF-7076,7	EF-7078	
Type	Lake Trout	Salmon	
Ratio (wet/dry wt.)	2.76	3.56	
Gross Beta	2.50 ± 0.19	1.73 ± 0.06	0.5
K-40	1.68 ± 0.27	1.47 ± 0.47	
Mn-54	-0.016 ± 0.009	-0.012 ± 0.015	0.13
Fe-59	0.009 ± 0.018	-0.046 ± 0.033	0.26
Co-58	0.003 ± 0.008	0.002 ± 0.012	0.13
Co-60	0.009 ± 0.011	0.008 ± 0.021	0.13
Zn-65	-0.027 ± 0.019	0.021 ± 0.034	0.26
Cs-134	0.003 ± 0.007	-0.004 ± 0.014	0.13
Cs-137	0.010 ± 0.010	0.008 ± 0.014	0.15
Other Gammas[a]	-0.006 ± 0.008	-0.006 ± 0.011	0.5

[a] Ru-103

NOTE: Page 27 is intentionally left out.

POINT BEACH NUCLEAR PLANT

RADIOACTIVITY IN SHORELINE SEDIMENT SAMPLES

(Semiannual Collections)

Sample Description and Concentration (pCi/g dry)

Collection Date	4/14/2005	4/14/2005	4/14/2005	Required
Lab Code	ESS-1916	ESS-1917	ESS-1918	LLD
Location	E-01	E-05	E-06	
Gross Beta	8.35 ± 2.05	10.34 ± 1.87	13.20 ± 2.03	2.0
Be-7	0.062 ± 0.084	0.053 ± 0.087	0.007 ± 0.078	
K-40	6.00 ± 0.61	6.29 ± 0.61	7.46 ± 0.68	-
Cs-137	0.016 ± 0.013	0.017 ± 0.013	0.023 ± 0.014	0.15
Tl-208	0.079 ± 0.024	0.111 ± 0.027	0.055 ± 0.026	-
Pb-212	0.28 ± 0.031	0.31 ± 0.031	0.12 ± 0.026	-
Bi-214	0.20 ± 0.042	0.23 ± 0.040	0.17 ± 0.039	-
Ra-226	0.51 ± 0.24	0.44 ± 0.23	0.36 ± 0.17	-
Ac-228	0.32 ± 0.081	0.43 ± 0.086	0.11 ± 0.061	-

Collection Date	4/14/2005	4/14/2005	
Lab Code	ESS-1919	ESS-1920	
Location	E-12	E-33	
Gross Beta	13.10 ± 2.28	7.42 ± 1.73	2.0
Be-7	-0.048 ± 0.093	-0.025 ± 0.073	
K-40	4.52 ± 0.53	5.28 ± 0.56	-
Cs-137	0.025 ± 0.015	-0.005 ± 0.011	0.15
Tl-208	0.195 ± 0.034	0.024 ± 0.012	-
Pb-212	0.53 ± 0.039	0.11 ± 0.023	-
Bi-214	0.52 ± 0.056	0.15 ± 0.055	-
Ra-226	0.95 ± 0.29	0.32 ± 0.16	-
Ac-228	0.55 ± 0.106	0.18 ± 0.075	-

POINT BEACH NUCLEAR PLANT

RADIOACTIVITY IN SHORELINE SEDIMENT SAMPLES

(Semiannual Collections)

Sample Description and Concentration (pCi/g dry)

Collection Date	10/12/2005	10/12/2005	10/12/2005	Required
Lab Code	ESS-5783	ESS-5784	ESS-5785	LLD
Location	E-01	E-05	E-06	
Gross Beta	8.79 ± 1.75	7.87 ± 1.63	12.29 ± 1.66	2.0
Be-7	-0.117 ± 0.076	0.066 ± 0.076	-0.122 ± 0.097	
K-40	4.73 ± 0.52	5.42 ± 0.55	7.02 ± 0.60	-
Cs-137	0.014 ± 0.012	0.013 ± 0.012	0.017 ± 0.014	0.15
Tl-208	0.046 ± 0.027	0.068 ± 0.022	0.130 ± 0.030	-
Pb-212	0.13 ± 0.024	0.16 ± 0.026	0.38 ± 0.035	-
Bi-214	0.08 ± 0.034	0.14 ± 0.049	0.30 ± 0.044	-
Ra-226	0.38 ± 0.15	0.60 ± 0.26	0.82 ± 0.26	-
Ac-228	0.20 ± 0.083	0.23 ± 0.092	0.47 ± 0.130	-

Collection Date	10/12/2005	10/12/2005	
Lab Code	ESS-5786	ESS-5787	
Location	E-12	E-33	
Gross Beta	9.15 ± 1.03	13.06 ± 1.78	2.0
Be-7	-0.023 ± 0.077	0.014 ± 0.084	
K-40	6.96 ± 0.58	9.22 ± 0.75	-
Cs-137	0.014 ± 0.012	0.011 ± 0.013	0.15
Tl-208	0.051 ± 0.018	0.047 ± 0.025	-
Pb-212	0.12 ± 0.024	0.11 ± 0.027	-
Bi-214	0.10 ± 0.034	0.10 ± 0.040	-
Ra-226	0.22 ± 0.16	0.08 ± 0.19	-
Ac-228	0.21 ± 0.081	0.17 ± 0.101	-

POINT BEACH NUCLEAR PLANT

RADIOACTIVITY IN SOIL SAMPLES

(Semiannual Collections)

Sample Description and Concentration (pCi/g dry)				
Collection Date	5/25/2005	5/25/2005	5/25/2005	Required
Lab Code	ESO-2859	ESO-2860	ESO-2861	LLD
Location	E-01	E-02	E-03	
Gross Beta	29.75 ± 2.41	34.49 ± 2.53	33.89 ± 2.36	2.0
Be-7	-0.05 ± 0.10	0.13 ± 0.10	-0.10 ± 0.09	
K-40	15.65 ± 0.82	19.92 ± 0.91	19.82 ± 0.82	-
Cs-137	0.00 ± 0.011	0.25 ± 0.039	0.45 ± 0.045	0.15
Tl-208	0.19 ± 0.037	0.24 ± 0.040	0.23 ± 0.040	-
Pb-212	0.71 ± 0.120	0.64 ± 0.048	0.60 ± 0.040	-
Bi-214	0.43 ± 0.053	0.41 ± 0.054	0.44 ± 0.047	-
Ra-226	1.13 ± 0.33	1.16 ± 0.35	1.22 ± 0.31	-
Ac-228	0.69 ± 0.11	0.55 ± 0.10	0.66 ± 0.12	-
Collection Date	5/25/2005	5/25/2005	5/25/2005	
Lab Code	ESO-2862	ESO-2863	ESO-2864	
Location	E-04	E-06	E-08	
Gross Beta	28.53 ± 2.30	19.08 ± 1.91	19.85 ± 1.94	2.0
Be-7	-0.08 ± 0.10	0.06 ± 0.09	0.04 ± 0.08	
K-40	19.94 ± 0.92	11.74 ± 0.66	12.42 ± 0.69	-
Cs-137	0.19 ± 0.035	0.38 ± 0.036	0.38 ± 0.034	0.15
Tl-208	0.19 ± 0.035	0.07 ± 0.021	0.11 ± 0.024	-
Pb-212	0.57 ± 0.052	0.24 ± 0.031	0.32 ± 0.048	-
Bi-214	0.36 ± 0.054	0.20 ± 0.039	0.20 ± 0.039	-
Ra-226	0.96 ± 0.34	0.67 ± 0.23	0.75 ± 0.22	-
Ac-228	0.65 ± 0.14	0.29 ± 0.08	0.41 ± 0.10	-
Collection Date	5/25/2005	5/25/2005		
Lab Code	ESO-2865,6	ESO-2867		
Location	E-09	E-20		
Gross Beta	33.42 ± 1.71	37.25 ± 2.85		2.0
Be-7	0.02 ± 0.10	0.01 ± 0.12		
K-40	22.13 ± 0.69	17.73 ± 0.91		-
Cs-137	0.18 ± 0.024	0.29 ± 0.049		0.15
Tl-208	0.25 ± 0.029	0.18 ± 0.032		-
Pb-212	0.73 ± 0.034	0.56 ± 0.041		-
Bi-214	0.45 ± 0.039	0.41 ± 0.061		-
Ra-226	1.36 ± 0.26	1.16 ± 0.32		-
Ac-228	0.78 ± 0.09	0.52 ± 0.12		-

POINT BEACH NUCLEAR PLANT

RADIOACTIVITY IN SOIL SAMPLES

(Semiannual Collections)

Sample Description and Concentration (pCi/g dry)				
Collection Date	10/28/2005	10/28/2005	10/28/2005	Required
Lab Code	ESO-6265	ESO-6266	ESO-6267	LLD
Location	E-01	E-02	E-03	
Gross Beta	24.07 ± 1.76	34.87 ± 2.11	29.43 ± 1.84	2.0
Be-7	0.18 ± 0.08	0.01 ± 0.14	0.21 ± 0.12	
K-40	15.29 ± 0.75	22.19 ± 1.26	20.09 ± 1.21	-
Cs-137	0.11 ± 0.026	0.10 ± 0.057	0.20 ± 0.046	0.15
Tl-208	0.17 ± 0.035	0.24 ± 0.055	0.20 ± 0.040	-
Pb-212	0.51 ± 0.039	0.64 ± 0.052	0.59 ± 0.048	-
Bi-214	0.43 ± 0.047	0.44 ± 0.082	0.38 ± 0.084	-
Ra-226	0.99 ± 0.31	1.11 ± 0.38	1.34 ± 0.39	-
Ac-228	0.55 ± 0.10	0.68 ± 0.13	0.55 ± 0.12	-
Collection Date	10/28/2005	10/28/2005	10/28/2005	
Lab Code	ESO-6268	ESO-6269	ESO-6270,1	
Location	E-04	E-06	E-08	
Gross Beta	31.20 ± 1.20	22.75 ± 1.77	24.55 ± 1.84	2.0
Be-7	-0.010 ± 0.13	0.15 ± 0.12	-0.04 ± 0.08	
K-40	17.21 ± 1.26	11.65 ± 0.87	13.85 ± 0.53	-
Cs-137	0.08 ± 0.033	0.67 ± 0.055	0.33 ± 0.027	0.15
Tl-208	0.20 ± 0.054	0.73 ± 0.036	0.11 ± 0.022	-
Pb-212	0.56 ± 0.052	0.21 ± 0.033	0.33 ± 0.055	-
Bi-214	0.43 ± 0.070	0.21 ± 0.069	0.23 ± 0.031	-
Ra-226	0.89 ± 0.38	0.58 ± 0.28	0.62 ± 0.19	-
Ac-228	0.64 ± 0.16	0.30 ± 0.11	0.33 ± 0.08	-
Collection Date	10/28/2005	10/28/2005		
Lab Code	ESO-6272	ESO-6273		
Location	E-09	E-20		
Gross Beta	37.26 ± 2.850	25.12 ± 3.77		2.0
Be-7	0.24 ± 0.11	0.00 ± 0.12		
K-40	20.98 ± 1.01	13.60 ± 0.97		-
Cs-137	0.22 ± 0.039	0.24 ± 0.050		0.15
Tl-208	0.23 ± 0.049	0.16 ± 0.039		-
Pb-212	0.64 ± 0.052	0.45 ± 0.044		-
Bi-214	0.39 ± 0.056	0.28 ± 0.058		-
Ra-226	1.12 ± 0.36	1.01 ± 0.37		-
Ac-228	0.66 ± 0.12	0.53 ± 0.14		-

POINT BEACH NUCLEAR PLANT

RADIOACTIVITY IN VEGETATION SAMPLES

(Tri-Annual Collections)

Sample Description and Concentration (pCi/g wet)

Location	E-01	E-02	E-03	
Collection Date	5/25/2005	5/25/2005	5/25/2005	
Lab Code	EG-2848	EG-2849	EG-2850	Req. LLD
Ratio (wet/dry)	5.10	3.17	5.88	-
Gross Beta	7.13 ± 0.17	5.83 ± 0.13	4.85 ± 0.10	0.25
Be-7	0.86 ± 0.26	0.90 ± 0.15	0.41 ± 0.17	-
K-40	5.09 ± 0.55	3.95 ± 0.34	6.01 ± 0.50	-
I-131	0.001 ± 0.009	-0.017 ± 0.011	-0.007 ± 0.008	0.060
Cs-134	0.003 ± 0.008	-0.003 ± 0.010	0.003 ± 0.011	0.060
Cs-137	-0.012 ± 0.013	-0.005 ± 0.009	0.002 ± 0.011	0.080
Other Gammasa	-0.005 ± 0.014	0.002 ± 0.009	-0.003 ± 0.011	0.060

Location	E-04	E-06	E-08	
Collection Date	5/25/2005	5/25/2005	5/25/2005	
Lab Code	EG-2851	EG-2852	EG-2853	Req. LLD
Ratio (wet/dry)	4.15	4.31	3.58	-
Gross Beta	8.70 ± 0.17	5.38 ± 0.11	8.25 ± 0.17	0.25
Be-7	0.71 ± 0.23	0.50 ± 0.16	0.45 ± 0.20	-
K-40	5.38 ± 0.49	4.39 ± 0.42	6.38 ± 0.57	-
I-131	0.005 ± 0.009	0.005 ± 0.010	0.002 ± 0.008	0.060
Cs-134	0.005 ± 0.012	-0.002 ± 0.011	0.005 ± 0.012	0.060
Cs-137	-0.004 ± 0.011	0.040 ± 0.019	0.013 ± 0.013	0.080
Other Gammasa	-0.003 ± 0.013	0.009 ± 0.008	0.014 ± 0.012	0.060

Location	E-09	E-20	
Collection Date	5/25/2005	5/25/2005	
Lab Code	EG-2854	EG-2855	Req. LLD
Ratio (wet/dry)	4.17	5.10	-
Gross Beta	7.12 ± 0.14	7.38 ± 0.15	0.25
Be-7	0.68 ± 0.14	0.61 ± 0.18	-
K-40	5.25 ± 0.42	6.21 ± 0.41	-
I-131	0.009 ± 0.011	-0.009 ± 0.008	0.060
Cs-134	0.002 ± 0.011	0.002 ± 0.010	0.060
Cs-137	0.004 ± 0.010	0.000 ± 0.008	0.080
Other Gammasa	0.002 ± 0.009	0.002 ± 0.009	0.060

a See Introduction.

POINT BEACH NUCLEAR PLANT

RADIOACTIVITY IN VEGETATION SAMPLES
(Tri-Annual Collections)

Sample Description and Concentration (pCi/g wet)

Location	E-01	E-02	E-03	
Collection Date	7/29/2005	7/28/2005	7/28/2005	
Lab Code	EG-4395	EG-4396	EG-4397	Req. LLD
Ratio (wet/dry)	2.93	3.07	3.81	-
Gross Beta	9.21 ± 0.23	7.98 ± 0.20	8.41 ± 0.20	0.25
Be-7	1.95 ± 0.31	1.60 ± 0.18	1.22 ± 0.18	-
K-40	5.37 ± 0.45	5.26 ± 0.41	6.62 ± 0.48	-
I-131	-0.002 ± 0.012	-0.009 ± 0.011	-0.004 ± 0.008	0.060
Cs-134	0.000 ± 0.011	-0.002 ± 0.011	-0.001 ± 0.010	0.060
Cs-137	-0.004 ± 0.012	0.001 ± 0.011	-0.004 ± 0.008	0.080
Other Gammasa	0.010 ± 0.011	0.010 ± 0.013	0.001 ± 0.009	0.060

Location	E-04	E-06	E-08	
Collection Date	7/28/2005	7/29/2005	7/28/2005	
Lab Code	EG-4398	EG-4399	EG-4400	Req. LLD
Ratio (wet/dry)	2.61	2.48	2.26	-
Gross Beta	9.63 ± 0.38	6.66 ± 0.24	9.36 ± 0.34	0.25
Be-7	1.46 ± 0.22	1.20 ± 0.29	1.39 ± 0.25	-
K-40	6.02 ± 0.48	3.82 ± 0.58	5.33 ± 0.60	-
I-131	-0.002 ± 0.008	0.015 ± 0.010	0.002 ± 0.010	0.060
Cs-134	-0.001 ± 0.011	-0.002 ± 0.016	-0.006 ± 0.010	0.060
Cs-137	-0.004 ± 0.008	0.035 ± 0.018	0.009 ± 0.013	0.080
Other Gammasa	-0.007 ± 0.009	-0.020 ± 0.018	0.002 ± 0.014	0.060

Location	E-09	E-20	
Collection Date	7/28/2005	7/29/2005	
Lab Code	EG-4401	EG-4402	Req. LLD
Ratio (wet/dry)	2.57	2.10	-
Gross Beta	8.86 ± 0.37	8.97 ± 0.35	0.25
Be-7	1.17 ± 0.28	1.14 ± 0.31	-
K-40	5.33 ± 0.59	7.38 ± 0.73	-
I-131	-0.003 ± 0.011	-0.014 ± 0.014	0.060
Cs-134	0.007 ± 0.012	-0.002 ± 0.016	0.060
Cs-137	-0.001 ± 0.014	0.020 ± 0.015	0.080
Other Gammasa	-0.006 ± 0.015	0.017 ± 0.020	0.060

a See Introduction.

POINT BEACH NUCLEAR PLANT

RADIOACTIVITY IN VEGETATION SAMPLES
(Tri-Annual Collections)

Sample Description and Concentration (pCi/g wet)

Location	E-01	E-02	E-03	
Collection Date	10/28/2005	10/28/2005	10/28/2005	
Lab Code	EG-6210	EG-6211	EG-6212	Req. LLD
Ratio (wet/dry)	2.29	2.44	3.03	-
Gross Beta	8.79 ± 0.27	7.20 ± 0.26	9.20 ± 0.22	0.25
Be-7	3.66 ± 0.12	3.16 ± 0.17	2.63 ± 0.19	-
K-40	4.26 ± 0.17	3.40 ± 0.17	6.20 ± 0.28	-
I-131	-0.019 ± 0.005	-0.005 ± 0.005	-0.006 ± 0.006	0.060
Cs-134	-0.065 ± 0.005	-0.005 ± 0.004	-0.002 ± 0.005	0.060
Cs-137	-0.004 ± 0.005	0.001 ± 0.004	0.005 ± 0.006	0.080
Other Gammasa	-0.002 ± 0.004	0.003 ± 0.004	0.007 ± 0.007	0.060

Location	E-04	E-06	E-08	
Collection Date	10/28/2005	10/28/2005	10/28/2005	
Lab Code	EG-6213	EG-6214	EG-6215	Req. LLD
Ratio (wet/dry)	2.72	2.62	2.27	-
Gross Beta	7.34 ± 0.19	4.30 ± 0.14	7.76 ± 0.19	0.25
Be-7	3.28 ± 0.13	2.68 ± 0.14	4.61 ± 0.23	-
K-40	4.31 ± 0.180	2.23 ± 0.140	4.27 ± 0.180	-
I-131	0.020 ± 0.004	0.001 ± 0.004	0.023 ± 0.005	0.060
Cs-134	0.000 ± 0.003	0.000 ± 0.003	-0.012 ± 0.004	0.060
Cs-137	0.002 ± 0.004	0.015 ± 0.007	0.002 ± 0.005	0.080
Other Gammasa	-0.001 ± 0.004	-0.002 ± 0.004	-0.002 ± 0.004	0.060

Location	E-09	E-20	
Collection Date	10/28/2005	10/28/2005	
Lab Code	EG-6216	EG-6217	Req. LLD
Ratio (wet/dry)	2.28	2.82	-
Gross Beta	7.62 ± 0.21	6.55 ± 0.19	0.25
Be-7	2.64 ± 0.09	2.02 ± 0.18	-
K-40	3.98 ± 0.15	3.86 ± 0.25	-
I-131	-0.012 ± 0.004	-0.020 ± 0.006	0.060
Cs-134	-0.028 ± 0.004	-0.003 ± 0.005	0.060
Cs-137	0.001 ± 0.004	0.001 ± 0.007	0.080
Other Gammasa	0.002 ± 0.003	0.003 ± 0.007	0.060

a See Introduction.

POINT BEACH NUCLEAR PLANT

Aquatic Vegetation, analyses for gross beta and gamma emitting isotopes.

Collection: Semiannual Units: pCi/g wet

Sample Description and Concentration			
Collection Date	06-02-05	06-02-05	Required
Lab Code	ESL-3039	ESL-3040	LLD
Location	E-05	E-12	
Ratio (wet wt./dry wt.)	7.99	3.13	
Gross Beta	2.52 ± 0.08	6.17 ± 0.58	0.25
Be-7	0.33 ± 0.22	0.82 ± 0.17	-
K-40	0.97 ± 0.53	2.67 ± 0.36	-
Co-58	-0.018 ± 0.022	0.005 ± 0.010	0.25
Co-60	0.012 ± 0.025	0.007 ± 0.011	0.25
Cs-134	0.027 ± 0.027	0.017 ± 0.013	0.25
Cs-137	-0.004 ± 0.028	0.020 ± 0.012	0.25
Collection Date	08-04-05	08-04-05	Required
Lab Code	ESL-4472	ESL-4473,4	LLD
Location	E-05	E-12	
Ratio (wet wt./dry wt.)	8.39	5.08	
Gross Beta	5.01 ± 0.17	5.01 ± 0.32	0.25
Be-7	0.32 ± 0.15	0.59 ± 0.22	-
K-40	2.29 ± 0.68	2.82 ± 0.49	-
Co-58	0.003 ± 0.018	0.005 ± 0.014	0.25
Co-60	-0.008 ± 0.021	-0.019 ± 0.027	0.25
Cs-134	0.016 ± 0.019	0.004 ± 0.015	0.25
Cs-137	-0.001 ± 0.018	0.012 ± 0.013	0.25
Collection Date	10-06-05	10-06-05	Required
Lab Code	ESL-5623	ESL-5624 KAG 3-2-06	LLD
Location	E-05	E-~~05~~ E-12	
Ratio (wet wt./dry wt.)	3.17	2.93	
Gross Beta	6.91 ± 0.58	5.58 ± 0.54	0.25
Be-7	1.55 ± 0.36	0.64 ± 0.26	-
K-40	3.44 ± 0.58	1.74 ± 0.37	-
Co-58	-0.006 ± 0.012	-0.004 ± 0.011	0.25
Co-60	0.006 ± 0.016	0.005 ± 0.011	0.25
Cs-134	0.000 ± 0.013	-0.004 ± 0.009	0.25
Cs-137	0.041 ± 0.019	0.013 ± 0.013	0.25

POINT BEACH NUCLEAR PLANT

AMBIENT GAMMA RADIATION (TLD)

1st. Quarter, 2005

	Date Annealed:	12-15-04	Days in the field	90
	Date Placed:	01-04-05	Days from Annealing	
	Date Removed:	04-04-05	to Readout:	124
	Date Read:	04-18-05		

Location	Days in Field	Total mR	Net mR	Net mR per 7 days
Indicator				
E-1	90	14.1 ± 0.9	8.9 ± 1.2	0.69 ± 0.09
E-2	90	16.6 ± 0.1	11.4 ± 0.8	0.88 ± 0.06
E-3	90	17.8 ± 1.2	12.6 ± 1.4	0.98 ± 0.11
E-4	90	15.3 ± 1.2	10.1 ± 1.4	0.78 ± 0.11
E-5	90	17.3 ± 1.0	12.1 ± 1.3	0.94 ± 0.10
E-6	90	15.7 ± 1.0	10.5 ± 1.3	0.81 ± 0.10
E-7	90	15.4 ± 1.1	10.2 ± 1.3	0.79 ± 0.10
E-8	90	15.0 ± 0.8	9.8 ± 1.1	0.76 ± 0.09
E-9	90	17.2 ± 0.6	12.0 ± 1.0	0.93 ± 0.08
E-12	90	13.4 ± 0.2	8.2 ± 0.8	0.63 ± 0.06
E-14	90	16.8 ± 0.8	11.6 ± 1.1	0.90 ± 0.09
E-15	90	17.2 ± 0.7	12.0 ± 1.0	0.93 ± 0.08
E-16	90	16.1 ± 0.6	10.9 ± 1.0	0.84 ± 0.08
E-17	90	16.9 ± 0.6	11.7 ± 1.0	0.91 ± 0.08
E-18	90	16.3 ± 0.9	11.1 ± 1.2	0.86 ± 0.09
E-22	90	16.9 ± 1.3	11.7 ± 1.5	0.91 ± 0.12
E-23	90	16.5 ± 0.4	11.3 ± 0.9	0.88 ± 0.07
E-24	90	16.9 ± 0.6	11.7 ± 1.0	0.91 ± 0.08
E-25	90	15.1 ± 0.4	9.9 ± 0.9	0.77 ± 0.07
E-26	90	14.4 ± 0.4	9.2 ± 0.9	0.71 ± 0.07
E-27	90	15.4 ± 0.3	10.2 ± 0.8	0.79 ± 0.06
E-28	90	12.7 ± 0.3	7.5 ± 0.8	0.58 ± 0.06
E-29	90	14.6 ± 0.9	9.4 ± 1.2	0.73 ± 0.09
E-30	90	14.7 ± 0.6	9.5 ± 1.0	0.74 ± 0.08
E-31	90	15.9 ± 0.7	10.7 ± 1.0	0.83 ± 0.08
E-32	90	16.1 ± 0.7	10.9 ± 1.0	0.84 ± 0.08
E-38	90	15.5 ± 1.0	10.3 ± 1.3	0.80 ± 0.10
E-39	90	12.4 ± 0.4	7.2 ± 0.9	0.56 ± 0.07
Control				
E-20	90	15.3 ± 0.7	10.1 ± 1.0	0.78 ± 0.08
Mean±s.d.		15.6 ± 1.4	10.4 ± 1.4	0.81 ± 0.11

In-Transit Exposure

Date Annealed	12-15-04	03-16-05
Date Read	01-25-05	04-18-05
	Total mR	
ITC-1	6.4 ± 0.6	4.3 ± 0.3
ITC-2	6.0 ± 0.2	4.3 ± 0.3

POINT BEACH NUCLEAR PLANT

AMBIENT GAMMA RADIATION (TLD)
2nd Quarter, 2005

	Date Annealed:	03-16-05	Days in the field	93
	Date Placed:	04-04-05	Days from Annealing	
	Date Removed:	07-06-05	to Readout:	118
	Date Read:	07-12-05		

Location	Days in Field	Total mR	Net mR	Net mR per 7 days
Indicator				
E-1	93	16.8 ± 1.4	12.6 ± 1.5	0.95 ± 0.11
E-2	93	21.8 ± 1.1	17.6 ± 1.2	1.32 ± 0.09
E-3	93	22.6 ± 1.8	18.4 ± 1.9	1.38 ± 0.14
E-4	93	18.6 ± 0.8	14.4 ± 0.9	1.08 ± 0.07
E-5	93	20.7 ± 0.7	16.5 ± 0.8	1.24 ± 0.06
E-6	93	17.5 ± 0.6	13.3 ± 0.7	1.00 ± 0.06
E-7	93	17.0 ± 0.6	12.8 ± 0.7	0.96 ± 0.06
E-8	93	17.8 ± 0.8	13.6 ± 0.9	1.02 ± 0.07
E-9	93	20.8 ± 1.4	16.6 ± 1.5	1.25 ± 0.11
E-12	93	14.5 ± 1.1	10.3 ± 1.2	0.78 ± 0.09
E-14	93	18.6 ± 0.4	14.4 ± 0.6	1.08 ± 0.05
E-15	93	24.9 ± 2.1	20.7 ± 2.1	1.56 ± 0.16
E-16	93	18.3 ± 0.3	14.1 ± 0.5	1.06 ± 0.04
E-17	93	19.4 ± 1.2	15.2 ± 1.3	1.14 ± 0.10
E-18	93	20.2 ± 0.7	16.0 ± 0.8	1.20 ± 0.06
E-22	93	20.4 ± 0.4	16.2 ± 0.6	1.22 ± 0.05
E-23	93	21.2 ± 0.7	17.0 ± 0.8	1.28 ± 0.06
E-24	93	18.9 ± 0.4	14.7 ± 0.6	1.11 ± 0.05
E-25	93	21.0 ± 1.2	16.8 ± 1.3	1.26 ± 0.10
E-26	93	16.2 ± 0.6	12.0 ± 0.7	0.90 ± 0.06
E-27	93	18.9 ± 0.6	14.7 ± 0.7	1.11 ± 0.06
E-28	93	14.6 ± 0.5	10.4 ± 0.7	0.78 ± 0.05
E-29	93	16.6 ± 0.6	12.4 ± 0.7	0.93 ± 0.06
E-30	93	18.3 ± 0.4	14.1 ± 0.6	1.06 ± 0.05
E-31	93	21.0 ± 1.5	16.8 ± 1.6	1.26 ± 0.12
E-32	93	20.2 ± 1.3	16.0 ± 1.4	1.20 ± 0.10
E-38	93	18.7 ± 0.7	14.5 ± 0.8	1.09 ± 0.06
E-39	93	14.8 ± 0.3	10.6 ± 0.5	0.80 ± 0.04
Control				
E-20	93	18.6 ± 1.8	14.4 ± 1.9	1.08 ± 0.14
Mean±s.d.		18.9 ± 2.4	14.7 ± 2.4	1.11 ± 0.18

In-Transit Exposure

Date Annealed	03-16-05	06-16-05
Date Read	04-18-05	07-13-05
	Total mR	
ITC-1	4.3 ± 0.3	4.5 ± 0.1
ITC-2	4.3 ± 0.3	3.7 ± 0.1

POINT BEACH NUCLEAR PLANT

AMBIENT GAMMA RADIATION (TLD)
3rd Quarter, 2005

Date Annealed:	06-16-05	Days in the field	92
Date Placed:	07-06-05	Days from Annealing	
Date Removed:	10-06-05	to Readout:	119
Date Read:	10-13-05		

Location	Days in Field	Total mR	Net mR	Net mR per 7 days
Indicator				
E-1	92	15.5 ± 1.1	11.6 ± 1.2	0.88 ± 0.09
E-2	92	17.8 ± 0.2	13.9 ± 0.4	1.06 ± 0.03
E-3	92	22.3 ± 1.4	18.4 ± 1.4	1.40 ± 0.11
E-4	92	18.1 ± 1.4	14.2 ± 1.4	1.08 ± 0.11
E-5	92	20.6 ± 0.9	16.7 ± 1.0	1.27 ± 0.07
E-6	92	16.8 ± 0.9	12.9 ± 1.0	0.98 ± 0.07
E-7	92	17.3 ± 1.2	13.4 ± 1.2	1.02 ± 0.10
E-8	92	17.9 ± 1.4	14.0 ± 1.4	1.07 ± 0.11
E-9	92	20.2 ± 0.6	16.3 ± 0.7	1.24 ± 0.05
E-12	92	14.1 ± 0.7	10.2 ± 0.8	0.78 ± 0.06
E-14	92	18.9 ± 0.7	15.0 ± 0.8	1.14 ± 0.06
E-15	92	20.9 ± 0.7	17.0 ± 0.8	1.30 ± 0.06
E-16	92	18.4 ± 0.5	14.5 ± 0.6	1.11 ± 0.05
E-17	92	19.5 ± 0.6	15.6 ± 0.7	1.19 ± 0.05
E-18	92	20.2 ± 0.9	16.3 ± 1.0	1.24 ± 0.07
E-22	92	19.8 ± 1.4	15.9 ± 1.4	1.21 ± 0.11
E-23	92	19.9 ± 0.4	16.0 ± 0.5	1.22 ± 0.04
E-24	92	18.5 ± 0.8	14.6 ± 0.9	1.11 ± 0.07
E-25	92	18.0 ± 0.2	14.1 ± 0.4	1.07 ± 0.03
E-26	92	16.7 ± 0.8	12.8 ± 0.9	0.98 ± 0.07
E-27	92	17.3 ± 0.3	13.4 ± 0.5	1.02 ± 0.03
E-28	92	13.0 ± 0.2	9.1 ± 0.4	0.69 ± 0.03
E-29	92	16.5 ± 0.9	12.6 ± 1.0	0.96 ± 0.07
E-30	92	16.8 ± 0.6	12.9 ± 0.7	0.98 ± 0.05
E-31	92	19.2 ± 0.7	15.3 ± 0.8	1.17 ± 0.06
E-32	92	17.9 ± 0.6	14.0 ± 0.7	1.07 ± 0.05
E-38	92	19.0 ± 1.6	15.1 ± 1.6	1.15 ± 0.12
E-39	92	13.3 ± 0.4	9.4 ± 0.5	0.72 ± 0.04
Control				
E-20	92	17.2 ± 0.9	13.3 ± 1.0	1.01 ± 0.07
Mean±s.d.		18.0 ± 2.2	14.1 ± 2.2	1.07 ± 0.17

In-Transit Exposure

Date Annealed	06-16-05	09-20-05
Date Read	07-13-05	10-13-05
	Total mR	
ITC-1	4.5 ± 0.1	3.6 ± 0.3
ITC-2	3.7 ± 0.1	3.7 ± 0.1

POINT BEACH NUCLEAR PLANT

AMBIENT GAMMA RADIATION (TLD)
4th Quarter, 2005

	Date Annealed:	09-20-05	Days in the field	91
	Date Placed:	10-06-05	Days from Annealing	
	Date Removed:	01-05-06	to Readout:	112
	Date Read:	01-10-06		

Location	Days in Field	Total mR	Net mR	Net mR per 7 days
Indicator				
E-1	91	16.3 ± 1.4	12.7 ± 1.5	0.98 ± 0.12
E-2	91	22.5 ± 1.4	18.9 ± 1.5	1.45 ± 0.12
E-3	91	22.3 ± 1.8	18.7 ± 1.9	1.44 ± 0.15
E-4	91	18.2 ± 0.5	14.6 ± 0.8	1.12 ± 0.06
E-5	91	20.3 ± 1.0	16.7 ± 1.2	1.28 ± 0.09
E-6	91	17.5 ± 0.5	13.9 ± 0.8	1.07 ± 0.06
E-7	91	16.6 ± 0.5	13.0 ± 0.8	1.00 ± 0.06
E-8	91	17.6 ± 0.8	14.0 ± 1.0	1.08 ± 0.08
E-9	91	20.1 ± 1.4	16.5 ± 1.5	1.27 ± 0.12
E-12	91	14.6 ± 1.2	11.0 ± 1.3	0.85 ± 0.10
E-14	91	18.0 ± 0.3	14.4 ± 0.7	1.11 ± 0.05
E-15	91	22.7 ± 0.5	19.1 ± 0.8	1.47 ± 0.06
E-16	91	18.4 ± 1.0	14.8 ± 1.2	1.14 ± 0.09
E-17	91	18.6 ± 0.9	15.0 ± 1.1	1.15 ± 0.08
E-18	91	20.0 ± 0.3	16.4 ± 0.7	1.26 ± 0.05
E-22	91	19.9 ± 0.5	16.3 ± 0.8	1.25 ± 0.06
E-23	91	21.1 ± 0.6	17.5 ± 0.8	1.35 ± 0.06
E-24	91	18.9 ± 0.7	15.3 ± 0.9	1.18 ± 0.07
E-25	91	19.8 ± 0.3	16.2 ± 0.7	1.25 ± 0.05
E-26	91	16.6 ± 0.4	13.0 ± 0.7	1.00 ± 0.05
E-27	91	18.7 ± 0.7	15.1 ± 0.9	1.16 ± 0.07
E-28	91	14.2 ± 0.3	10.6 ± 0.7	0.82 ± 0.05
E-29	91	19.6 ± 0.8	16.0 ± 1.0	1.23 ± 0.08
E-30	91	18.5 ± 0.5	14.9 ± 0.8	1.15 ± 0.06
E-31	91	20.8 ± 1.2	17.2 ± 1.3	1.32 ± 0.10
E-32	91	ND[a]		
E-38	91	18.6 ± 0.5	15.0 ± 0.8	1.15 ± 0.06
E-39	91	16.6 ± 0.4	13.0 ± 0.7	1.00 ± 0.05
Control				
E-20	91	18.0 ± 1.7	14.4 ± 1.8	1.11 ± 0.14
Mean±s.d.		18.8 ± 2.1	15.2 ± 2.1	1.17 ± 0.16

	In-Transit Exposure	
Date Annealed	09-20-05	12-14-05
Date Read	10-13-05	01-10-06
	Total mR	
ITC-1	3.6 ± 0.3	3.8 ± 0.4
ITC-2	3.7 ± 0.1	3.3 ± 0.3

[a] "ND" = No data; TLD missing in field.

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APPENDIX A

INTERLABORATORY COMPARISON PROGRAM RESULTS

NOTE: Environmental Inc., Midwest Laboratory participates in intercomparison studies administered by Environmental Resources Associates, and serves as a replacement for studies conducted previously by the U.S. EPA Environmental Monitoring Systems Laboratory, Las Vegas, Nevada. Results are reported in Appendix A. TLD Intercomparison results, in-house spikes, blanks, duplicates and mixed analyte performance evaluation program results are also reported. Appendix A is updated four times a year; the complete Appendix is included in March, June, September and December monthly progress reports only.

January, 2005 through December, 2005

Appendix A

Interlaboratory Comparison Program Results

Environmental, Inc., Midwest Laboratory has participated in interlaboratory comparison (crosscheck) programs since the formulation of it's quality control program in December 1971. These programs are operated by agencies which supply environmental type samples containing concentrations of radionuclides known to the issuing agency but not to participant laboratories. The purpose of such a program is to provide an independent check on a laboratory's analytical procedures and to alert it of any possible problems.

Participant laboratories measure the concentration of specified radionuclides and report them to the issuing agency. Several months later, the agency reports the known values to the participant laboratories and specifies control limits. Results consistently higher or lower than the known values or outside the control limits indicate a need to check the instruments or procedures used.

Results in Table A-1 were obtained through participation in the environmental sample crosscheck program administered by Environmental Resources Associates, serving as a replacement for studies conducted previously by the U.S. EPA Environmental Monitoring Systems Laboratory, Las Vegas, Nevada.

The results in Table A-2 list results for thermoluminescent dosimeters (TLDs), via International Intercomparison of Environmental Dosimeters, when available, and internal laboratory testing.

Table A-3 lists results of the analyses on in-house "spiked" samples for the past twelve months. All samples are prepared using NIST traceable sources. Data for previous years available upon request.

Table A-4 lists results of the analyses on in-house "blank" samples for the past twelve months. Data for previous years available upon request.

Table A-5 list results of the in-house "duplicate" program for the past twelve months. Acceptance is based on the difference of the results being less than the sum of the errors. Data for previous years available upon request.

The results in Table A-6 were obtained through participation in the Mixed Analyte Performance Evaluation Program.

Attachment A lists acceptance criteria for "spiked" samples.

Out-of-limit results are explained directly below the result.

Attachment A

ACCEPTANCE CRITERIA FOR "SPIKED" SAMPLES

LABORATORY PRECISION: ONE STANDARD DEVIATION VALUES FOR VARIOUS ANALYSES[a]

Analysis	Level	One standard deviation for single determination
Gamma Emitters	5 to 100 pCi/liter or kg	5.0 pCi/liter
	> 100 pCi/liter or kg	5% of known value
Strontium-89[b]	5 to 50 pCi/liter or kg	5.0 pCi/liter
	> 50 pCi/liter or kg	10% of known value
Strontium-90[b]	2 to 30 pCi/liter or kg	5.0 pCi/liter
	> 30 pCi/liter or kg	10% of known value
Potassium-40	≥ 0.1 g/liter or kg	5% of known value
Gross alpha	≤ 20 pCi/liter	5.0 pCi/liter
	> 20 pCi/liter	25% of known value
Gross beta	≤ 100 pCi/liter	5.0 pCi/liter
	> 100 pCi/liter	5% of known value
Tritium	≤ 4,000 pCi/liter	$\pm 1\sigma$ = (pCi/liter) = $169.85 \times (\text{known})^{0.0933}$
	> 4,000 pCi/liter	10% of known value
Radium-226,-228	≥ 0.1 pCi/liter	15% of known value
Plutonium	≥ 0.1 pCi/liter, gram, or sample	10% of known value
Iodine-131, Iodine-129[b]	≤ 55 pCi/liter	6.0 pCi/liter
	> 55 pCi/liter	10% of known value
Uranium-238, Nickel-63[b] Technetium-99[b]	≤ 35 pCi/liter	6.0 pCi/liter
	> 35 pCi/liter	15% of known value
Iron-55[b]	50 to 100 pCi/liter	10 pCi/liter
	> 100 pCi/liter	10% of known value
Others[b]	—	20% of known value

[a] From EPA publication, "Environmental Radioactivity Laboratory Intercomparison Studies Program, Fiscal Year, 1981-1982, EPA-600/4-81-004.

[b] Laboratory limit.

TABLE A-1. Interlaboratory Comparison Crosscheck program, Environmental Resource Associates (ERA)[a].

Lab Code	Date	Analysis	Concentration (pCi/L) Laboratory Result[b]	ERA Result[c]	Control Limits	Acceptance
STW-1051	02/15/05	Sr-89	28.0 ± 1.2	29.4	20.7 - 38.1	Pass
STW-1051	02/15/05	Sr-90	25.1 ± 0.7	24.4	15.7 - 33.1	Pass
STW-1052	02/15/05	Ba-133	52.9 ± 2.8	53.4	44.2 - 62.6	Pass
STW-1052	02/15/05	Co-60	54.4 ± 0.4	56.6	47.9 - 65.3	Pass
STW-1052	02/15/05	Cs-134	67.7 ± 1.8	64.9	56.2 - 73.6	Pass
STW-1052	02/15/05	Cs-137	39.6 ± 1.8	40.2	31.5 - 48.9	Pass
STW-1052	02/15/05	Zn-65	159.7 ± 3.0	161.0	133.0 - 189.0	Pass
STW-1053	02/15/05	Gr. Alpha	55.1 ± 1.8	67.9	38.5 - 97.3	Pass
STW-1053	02/15/05	Gr. Beta	46.8 ± 1.3	51.1	38.5 - 97.3	Pass
STW-1054	02/15/05	Ra-226	13.7 ± 1.5	14.1	10.4 - 17.8	Pass
STW-1054	02/15/05	Ra-228	13.3 ± 0.6	13.7	7.8 - 19.6	Pass
STW-1054	02/15/05	Uranium	5.1 ± 0.2	5.0	0.0 - 10.2	Pass
STW-1055	05/17/05	Sr-89	45.1 ± 4.1	41.3	32.6 - 50.0	Pass
STW-1055	05/17/05	Sr-90	7.5 ± 0.9	5.9	0.0 - 14.6	Pass
STW-1056	05/17/05	Ba-133	87.1 ± 2.0	88.4	73.1 - 104.0	Pass
STW-1056	05/17/05	Co-60	38.4 ± 0.8	37.0	28.3 - 45.7	Pass
STW-1056	05/17/05	Cs-134	75.3 ± 0.7	78.6	69.9 - 87.3	Pass
STW-1056	05/17/05	Cs-137	201.0 ± 8.4	194.0	184.0 - 218.0	Pass
STW-1056	05/17/05	Zn-65	130.0 ± 6.7	118.0	97.6 - 138.0	Pass
STW-1057	05/17/05	Gr. Alpha	42.7 ± 2.9	37.0	21.0 - 53.0	Pass
STW-1057	05/17/05	Gr. Beta	34.0 ± 0.4	34.2	25.5 - 42.9	Pass
STW-1058	05/17/05	I-131	14.7 ± 0.5	15.5	10.3 - 20.7	Pass
STW-1059	05/17/05	Ra-226	6.6 ± 0.1	7.6	5.6 - 9.5	Pass
STW-1059	05/17/05	Ra-228	19.3 ± 0.7	18.9	10.7 - 27.1	Pass
STW-1059	05/17/05	Uranium	9.6 ± 0.1	10.1	4.9 - 15.3	Pass
STW-1060	05/17/05	H-3	24100.0 ± 109.0	24400.0	20200.0 - 28600.0	Pass
STW-1067	08/16/05	Sr-89	29.1 ± 3.0	28.0	19.3 - 36.7	Pass
STW-1067	08/16/05	Sr-90	36.0 ± 0.6	33.8	25.1 - 42.5	Pass
STW-1068	08/16/05	Ba-133	107.0 ± 1.7	106.0	87.7 - 124.0	Pass
STW-1068	08/16/05	Co-60	15.2 ± 0.2	13.5	4.8 - 22.2	Pass
STW-1068	08/16/05	Cs-134	89.1 ± 0.3	92.1	83.4 - 101.0	Pass
STW-1068	08/16/05	Cs-137	72.1 ± 1.0	72.7	64.0 - 81.4	Pass
STW-1068	08/16/05	Zn-65	67.4 ± 1.4	65.7	54.3 - 77.1	Pass
STW-1069	08/16/05	Gr. Alpha	44.3 ± 1.5	55.7	31.6 - 79.8	Pass
STW-1069	08/16/05	Gr. Beta	58.4 ± 2.1	61.3	44.0 - 78.6	Pass
STW-1070	08/16/05	Ra-226	16.6 ± 1.5	16.6	12.3 - 20.9	Pass
STW-1070	08/16/05	Ra-228	6.2 ± 0.3	6.2	3.5 - 8.9	Pass
STW-1070	08/16/05	Uranium	4.5 ± 0.1	4.5	0.0 - 9.7	Pass

TABLE A-1. Interlaboratory Comparison Crosscheck program, Environmental Resource Associates (ERA)[a].

Lab Code	Date	Analysis	Concentration (pCi/L) Laboratory Result[b]	ERA Result[c]	Control Limits	Acceptance
STW-1072	11/15/05	Sr-89	20.6 ± 0.4	19.0	10.3 - 27.7	Pass
STW-1072	11/15/05	Sr-90	15.0 ± 0.3	16.0	7.3 - 24.7	Pass
STW-1073	11/15/05	Ba-133	31.8 ± 1.8	31.2	22.5 - 39.9	Pass
STW-1073	11/15/05	Co-60	85.0 ± 1.4	84.1	75.4 - 92.8	Pass
STW-1073	11/15/05	Cs-134	37.2 ± 2.1	33.9	25.2 - 42.6	Pass
STW-1073	11/15/05	Cs-137	27.8 ± 0.7	28.3	19.6 - 37.0	Pass
STW-1073	11/15/05	Zn-65	109.0 ± 1.0	105.0	86.8 - 123.0	Pass
STW-1074 [d]	11/15/05	Gr. Alpha	41.1 ± 1.2	23.3	13.2 - 33.4	Fail
STW-1074	11/15/05	Gr. Beta	42.7 ± 0.5	39.1	30.4 - 47.8	Pass
STW-1075	11/15/05	I-131	20.5 ± 0.6	17.4	12.2 - 22.6	Pass
STW-1076	11/15/05	Ra-226	7.8 ± 0.6	8.3	6.2 - 10.5	Pass
STW-1076 [e]	11/15/05	Ra-228	5.5 ± 0.6	3.5	2.0 - 5.0	Fail
STW-1076	11/15/05	Uranium	15.5 ± 0.3	16.1	10.9 - 21.3	Pass
STW-1077	11/15/05	H-3	12500.0 ± 238.0	12200.0	10100.0 - 14300.0	Pass

[a] Results obtained by Environmental, Inc., Midwest Laboratory as a participant in the crosscheck program for proficiency testing in drinking water conducted by Environmental Resources Associates (ERA).

[b] Unless otherwise indicated, the laboratory result is given as the mean ± standard deviation for three determinations.

[c] *Results are presented as the known values, expected laboratory precision (1 sigma, 1 determination) and control limits* as provided by ERA.

[d] The original samples were calculated using an Am-241 efficiency. The samples were spiked with Th-232. Samples were recounted and calculated using the Th-232 efficiency. Results of the recount: 27.01 ± 2.35 pCi/L.

[e] Decay of short-lived radium daughters contributed to a higher counting rate. Delay of counting for 100 minutes provided better results. The reported result was the average of the first cycle of 100 minutes, the average of the second cycle counts was 4.01 pCi/L

TABLE A-2. Crosscheck program results; Thermoluminescent Dosimetry, (TLD, CaSO4: Dy Cards).

Lab Code	Date	Description	Known Value (mR)	Lab Result ± 2 sigma (mR)	Control Limits (mR)	Acceptance
Environmental, Inc.						
2005-1	4/4/2005	30 cm	55.01	64.02 ± 2.86	38.51 - 71.51	Pass
2005-1	4/4/2005	60 cm	13.75	15.43 ± 1.02	9.63 - 17.88	Pass
2005-1	4/4/2005	60 cm	13.75	14.98 ± 0.80	9.63 - 17.88	Pass
2005-1	4/4/2005	90 cm	6.11	6.24 ± 0.16	4.28 - 7.94	Pass
2005-1	4/4/2005	90 cm	6.11	5.45 ± 0.48	4.28 - 7.94	Pass
2005-1	4/4/2005	120 cm	3.44	3.50 ± 0.35	2.41 - 4.47	Pass
2005-1	4/4/2005	120 cm	3.44	3.15 ± 0.18	2.41 - 4.47	Pass
2005-1	4/4/2005	150 cm	2.2	2.31 ± 0.25	1.54 - 2.86	Pass
2005-1	4/4/2005	180 cm	1.53	1.65 ± 0.41	1.07 - 1.99	Pass
Environmental, Inc.						
2005-2	9/12/2005	30 cm	54.84	59.30 ± 2.66	38.39 - 71.29	Pass
2005-2	9/12/2005	60 cm	13.71	17.55 ± 1.30	9.60 - 17.82	Pass
2005-2	9/12/2005	75 cm	8.77	8.24 ± 0.38	6.14 - 11.40	Pass
2005-2	9/12/2005	90 cm	6.09	5.94 ± 0.49	4.26 - 7.92	Pass
2005-2	9/12/2005	90 cm	6.09	5.93 ± 0.37	4.26 - 7.92	Pass
2005-2	9/12/2005	120 cm	3.43	3.42 ± 0.18	2.40 - 4.46	Pass
2005-2	9/12/2005	150 cm	2.19	1.71 ± 0.14	1.53 - 2.85	Pass
2005-2	9/12/2005	150 cm	2.19	1.87 ± 0.27	1.53 - 2.85	Pass
2005-2	9/12/2005	180 cm	1.52	1.58 ± 0.99	1.06 - 1.98	Pass

TABLE A-3. In-House "Spike" Samples

Lab Code [b]	Date	Analysis	Concentration (pCi/L)[a] Laboratory results 2s, n=1 [c]	Known Activity	Control Limits [d]	Acceptance
W-11105	1/11/2005	Gr. Alpha	24.05 ± 1.01	20.08	10.04 - 30.12	Pass
W-11105	1/11/2005	Gr. Beta	61.59 ± 1.11	65.70	55.70 - 75.70	Pass
SPW-764	2/18/2005	H-3	77595.00 ± 764.00	80543.00	64434.40 - 96651.60	Pass
SPAP-766	2/18/2005	Gr. Beta	416.08 ± 5.52	463.00	370.40 - 509.30	Pass
STW-2887	2/28/2005	Tc-99	32.91 ± 1.23	32.98	20.98 - 44.98	Pass
W-30105	3/1/2005	Gr. Alpha	25.22 ± 0.45	20.08	10.04 - 30.12	Pass
W-30105	3/1/2005	Gr. Beta	62.27 ± 0.48	65.73	55.73 - 75.73	Pass
SPW-1836	4/15/2005	I-131	109.79 ± 0.94	106.30	85.04 - 127.56	Pass
SPW-1836	4/15/2005	I-131(G)	110.25 ± 9.68	106.30	95.67 - 116.93	Pass
SPMI-1838	4/15/2005	Cs-134	25.94 ± 1.28	26.60	16.60 - 36.60	Pass
SPMI-1838	4/15/2005	Cs-137	59.31 ± 3.66	60.90	50.90 - 70.90	Pass
SPMI-1838	4/15/2005	I-131	97.71 ± 0.81	106.30	85.04 - 127.56	Pass
SPMI-1838	4/15/2005	I-131(G)	109.45 ± 3.06	106.30	95.67 - 116.93	Pass
SPMI-1838	4/15/2005	Sr-89	104.44 ± 2.89	108.20	86.56 - 129.84	Pass
SPMI-1838	4/15/2005	Sr-90	8.97 ± 0.79	7.53	0.00 - 17.53	Pass
SPVE-1932	4/18/2005	I-131(G)	1.00 ± 0.04	0.73	0.44 - 1.02	Pass
SPCH-1935	4/18/2005	I-131	382.40 ± 14.95	328.64	262.91 - 394.37	Pass
SPAP-1966	4/18/2005	Cs-134	52.10 ± 7.27	53.35	43.35 - 63.35	Pass
SPAP-1966	4/18/2005	Cs-134	57.28 ± 13.47	53.35	43.35 - 63.35	Pass
SPAP-1966	4/18/2005	Cs-137	124.68 ± 18.41	121.77	109.59 - 133.95	Pass
SPAP-1968	4/18/2005	Cs-134	52.10 ± 7.27	53.35	43.35 - 63.35	Pass
SPAP-1968	4/18/2005	Cs-137	116.79 ± 14.00	121.77	109.59 - 133.95	Pass
SPW-2098	4/26/2005	Fe-55	2565.20 ± 63.66	3017.60	2414.08 - 3621.12	Pass
SPW-2922	5/31/2005	Cs-134	27.01 ± 1.09	25.54	15.54 - 35.54	Pass
SPW-2922	5/31/2005	Cs-134	65.38 ± 2.92	60.71	50.71 - 70.71	Pass
SPW-2922	5/31/2005	Sr-89	107.90 ± 3.60	113.90	91.12 - 136.68	Pass
SPW-2922	5/31/2005	Sr-90	11.11 ± 1.13	6.90	0.00 - 16.90	Pass
SPAP-2892	6/1/2005	Gr. Beta	420.32 ± 5.55	448.00	358.40 - 492.80	Pass
SPW-2895	6/1/2005	H-3	75271.00 ± 724.00	78676.00	62940.80 - 94411.20	Pass
w-60105	6/1/2005	Gr. Alpha	23.69 ± 0.52	20.08	10.04 - 30.12	Pass
w-60105	6/1/2005	Gr. Beta	60.08 ± 0.57	65.73	55.73 - 75.73	Pass
SPF-3089	6/7/2005	Cs-134	1.08 ± 0.05	1.02	0.61 - 1.43	Pass
SPF-3089	6/7/2005	Cs-137	2.54 ± 0.10	2.43	1.46 - 3.40	Pass
SPW-	7/1/2005	Ni-63	20.57 ± 1.10	16.75	10.05 - 23.45	Pass
SPW-47731	8/24/2005	C-14	2112.30 ± 9.13	2370.80	1422.48 - 3319.12	Pass
SPW-47732	8/24/2005	C-14	2294.10 ± 10.37	2370.80	1422.48 - 3319.12	Pass
SPW-4775	8/24/2005	Fe-55	2633.50 ± 62.40	2777.50	2222.00 - 3333.00	Pass
SPMI-4834	8/30/2005	Cs-134	49.27 ± 4.68	47.02	37.02 - 57.02	Pass
SPMI-4834	8/30/2005	Cs-137	58.17 ± 8.18	60.37	50.37 - 70.37	Pass
SPMI-4834	8/30/2005	Sr-89	66.39 ± 3.13	65.90	52.72 - 79.08	Pass
SPMI-4834	8/30/2005	Sr-90	11.15 ± 1.13	9.60	0.00 - 19.60	Pass

TABLE A-3. In-House "Spike" Samples

Lab Code	Date	Analysis	Concentration (pCi/L) Laboratory results 2s, n=1[b]	Known Activity	Control Limits[c]	Acceptance
SPW-4836	8/30/2005	Cs-134	47.35 ± 5.19	47.02	37.02 - 57.02	Pass
SPW-4836	8/30/2005	Cs-137	62.91 ± 9.08	60.37	50.37 - 70.37	Pass
SPW-4836	8/30/2005	Sr-89	11.04 ± 0.98	9.60	0.00 - 19.60	Pass
SPW-4836	8/30/2005	Sr-90	65.89 ± 2.79	65.90	52.72 - 79.08	Pass
SPW-5014	8/30/2005	H-3	77518.20 ± 753.80	77602.52	62082.02 - 93123.02	Pass
W-90705	9/7/2005	Gr. Alpha	24.61 ± 0.48	20.08	10.04 - 30.12	Pass
W-90705	9/7/2005	Gr. Beta	58.35 ± 0.49	65.73	55.73 - 75.73	Pass
SPW-5237	9/22/2005	C-14	2387.40 ± 11.00	2370.80	1422.48 - 3319.12	Pass
SPW-5508	9/26/2005	Ni-63	20.64 ± 1.23	16.70	10.02 - 23.38	Pass
SPW-6019	10/24/2005	Tc-99	547.99 ± 6.69	539.22	377.45 - 700.99	Pass
SPF-6293	11/4/2005	Cs-134	941.30 ± 44.10	886.00	797.40 - 974.60	Pass
SPF-6293	11/4/2005	Cs-137	2570.40 ± 105.30	2400.00	2160.00 - 2640.00	Pass
SPAP-6309	11/7/2005	Cs-134	41.24 ± 1.91	44.03	34.03 - 54.03	Pass
SPAP-6309	11/7/2005	Cs-137	114.03 ± 5.01	120.24	108.22 - 132.26	Pass
SPAP-6311	11/7/2005	Gr. Beta	1.58 ± 0.02	1.42	1.14 - 11.42	Pass
SPW-6451	11/10/2005	H-3	77126.00 ± 747.00	76749.00	61399.20 - 92098.80	Pass
W-120105	12/1/2005	Gr. Alpha	25.16 ± 0.45	20.08	10.04 - 30.12	Pass
W-120105	12/1/2005	Gr. Beta	74.58 ± 0.81	65.73	55.73 - 75.73	Pass
SPW-7440	12/30/2005	Cs-134	42.67 ± 4.22	42.03	32.03 - 52.03	Pass
SPW-7440	12/30/2005	Cs-137	61.19 ± 7.20	59.91	49.91 - 69.91	Pass
SPMI-7442	12/31/2005	Cs-134	40.41 ± 5.66	42.03	32.03 - 52.03	Pass
SPMI-7442	12/31/2005	Cs-137	60.05 ± 7.80	59.91	49.91 - 69.91	Pass

[a] Liquid sample results are reported in pCi/Liter, air filters(pCi/filter), charcoal (pCi/m^3), and solid samples (pCi/g).

[b] Laboratory codes as follows: W (water), MI (milk), AP (air filter), SO (soil), VE (vegetation), CH (charcoal canister), F (fish).

[c] Results are based on single determinations.

[d] Control limits are based on Attachment A, Page A2 of this report.

NOTE: For fish, Jello is used for the Spike matrix. For Vegetation, cabbage is used for the Spike matrix.

TABLE A-4. In-House "Blank" Samples

Lab Code	Sample Type	Date	Analysis	Concentration (pCi/L)[a] Laboratory results (4.66σ) LLD	Activity[b]	Acceptance Criteria (4.66 σ)
W-11105	water	1/11/2005	Gr. Alpha	0.055	0.00 ± 0.038	1
W-11105	water	1/11/2005	Gr. Beta	0.15	-0.016 ± 0.10	3.2
SPW-765	water	2/18/2005	H-3	165.8	7.4 ± 82.5	200
SPAP-766	Air Filter	2/18/2005	Gr. Beta	0.72	0.29 ± 0.48	3.2
STW-2888	water	2/28/2005	Tc-99	1.32	0.45 ± 0.81	10
W-30105	water	3/1/2005	Gr. Alpha	0.067	-0.007 ± 0.043	1
W-30105	water	3/1/2005	Gr. Beta	0.18	-0.04 ± 0.11	3.2
SPW-1837	water	4/15/2005	Cs-134	4.66		10
SPW-1837	water	4/15/2005	Cs-137	5.38		10
SPW-1837	water	4/15/2005	I-131	0.30	-0.13 ± 0.16	0.5
SPW-1837	water	4/15/2005	I-131(G)	6.56		20
SPMI-1839	Milk	4/15/2005	I-131	0.26	-0.083 ± 0.14	0.5
SPMI-1839	Milk	4/15/2005	Sr-89	0.54	-0.069 ± 0.56	5
SPMI-1839	Milk	4/15/2005	Sr-90	0.53	0.88 ± 0.34	1
SPCH-1934	Charcoal	4/18/2005	I-131(G)	2.34		9.6
SPW-2097	water	4/26/2005	Fe-55	859.0	96.1 ± 528.4	1000
SPW-2923	water	5/31/2005	Cs-134	3.29		10
SPW-2923	water	5/31/2005	Cs-137	3.87		10
SPW-2896	water	6/1/2005	H-3	138.30	48.1 ± 85.9	200
w-60105	water	6/1/2005	Gr. Alpha	0.061	0.002 ± 0.043	1
w-60105	water	6/1/2005	Gr. Beta	0.16	0.056 ± 0.11	3.2
SPF-3090	Fish	6/7/2005	Cs-134	15.69		100
SPF-3090	Fish	6/7/2005	Cs-137	11.71		100
SPW-	water	7/1/2005	Ni-63	1.60	0.79 ± 0.99	20
SPW-4774	water	8/24/2005	C-14	12.18	2.84 ± 6.45	200
SPW-4776	water	8/24/2005	Fe-55	833	275 ± 525	1000
SPMI-4835	Milk	8/30/2005	Co-60	4.42		10
SPMI-4835	Milk	8/30/2005	Cs-134	4.18		10
SPMI-4835	Milk	8/30/2005	Cs-137	6.25		10
SPMI-4835	Milk	8/30/2005	I-131(G)	5.37		20
SPMI-4835	Milk	8/30/2005	Sr-89	0.66	-0.23 ± 0.65	5
SPMI-4835 [d]	Milk	8/30/2005	Sr-90	0.66	1.02 ± 0.41	1
SPW-4837	water	8/30/2005	Co-60	2.48		10
SPW-4837	water	8/30/2005	Cs-134	3.85		10
SPW-4837	water	8/30/2005	Cs-137	3.00		10
SPW-4837	water	8/30/2005	Sr-89	0.63	0.25 ± 0.53	5
SPW-4837	water	8/30/2005	Sr-90	0.63	-0.035 ± 0.29	1
SPW-5015	water	8/30/2005	H-3	142.8	168 ± 93	200
SPW-5238	water	9/22/2005	C-14	17.10	3.02 ± 9.04	200

TABLE A-4. In-House "Blank" Samples

Lab Code	Sample Type	Date	Analysis	Concentration (pCi/L)[a] Laboratory results (4.66σ) LLD	Activity[b]	Acceptance Criteria (4.66 σ)
W-90705	water	9/7/2005	Gr. Alpha	0.056	0.034 ± 0.04	1
W-90705	water	9/7/2005	Gr. Beta	0.16	0.082 ± 0.11	3.2
SPW-5238	water	9/22/2005	C-14	17.10	3.02 ± 9.04	200
SPW-5509	water	9/26/2005	Ni-63	1.25	1.23 ± 0.79	20
SPW-6020	water	10/24/2005	Tc-99	4.81	-1.75 ± 2.90	10
SPF-6294	Fish	11/4/2005	Cs-134	18.60		100
SPF-6294	Fish	11/4/2005	Cs-137	12.99		100
SPAP-6310	Air Filter	11/7/2005	Cs-134	3.23		100
SPAP-6310	Air Filter	11/7/2005	Cs-137	3.86		100
SPAP-6312	Air Filter	11/7/2005	Gr. Beta	1.22	-0.64 ± 0.64	3.2
W-120105	water	12/1/2005	Gr. Alpha	0.05	0.033 ± 0.04	1
W-120105	water	12/1/2005	Gr. Beta	0.15	-0.043 ± 0.11	3.2
SPMI-7419	Milk	12/22/2005	Co-60	7.24		10
SPMI-7419	Milk	12/22/2005	Cs-137	5.61		10
SPMI-7419	Milk	12/22/2005	I-131(G)	10.96		20
SPW-7421	water	12/22/2005	Co-60	2.43		10
SPW-7421	water	12/22/2005	Cs-137	3.12		10
SPW-7441	water	12/30/2005	Cs-134	4.25		10
SPW-7441	water	12/30/2005	Cs-137	1.63		10
SPMI-7443	Milk	12/30/2005	Cs-134	4.74		10
SPMI-7443	Milk	12/30/2005	Cs-137	8.53		10

[a] Liquid sample results are reported in pCi/Liter, air filters(pCi/filter), charcoal (pCi/charcoal canister), and solid samples (pCi/g).
[b] Activity reported is a net activity result. For gamma spectroscopic analysis, activity detected below the LLD value is not reported
[c] I-131(G); iodine-131 as analyzed by gamma spectroscopy.
[d] Low levels of Sr-90 are still detected in the environment. A concentration of (1-5 pCi/L) in milk is not unusual.

TABLE A-5. In-House "Duplicate" Samples

Lab Code	Date	Analysis	Concentration (pCi/L)[a] First Result	Second Result	Averaged Result	Acceptance
SW-62, 63	1/3/2005	Gr. Beta	3.01 ± 0.57	2.39 ± 0.58	2.70 ± 0.41	Pass
SW-62, 63	1/3/2005	K-40	2.00 ± 0.20	2.10 ± 0.20	2.05 ± 0.14	Pass
CF-95, 96	1/3/2005	Gr. Beta	6.26 ± 0.23	6.28 ± 0.23	6.27 ± 0.16	Pass
CF-95, 96	1/3/2005	K-40	5.68 ± 0.59	5.37 ± 0.48	5.53 ± 0.38	Pass
AP-791, 792	1/14/2005	Be-7	0.057 ± 0.017	0.07 ± 0.04	0.06 ± 0.02	Pass
WW-353, 354	1/19/2005	Gr. Beta	8.37 ± 1.21	10.28 ± 1.34	9.32 ± 0.90	Pass
SO-383, 384	1/19/2005	H-3	453.50 ± 107.20	417.90 ± 106.00	435.70 ± 75.38	Pass
LW-431, 432	1/27/2005	Gr. Beta	2.45 ± 0.54	2.20 ± 0.54	2.33 ± 0.38	Pass
MI-486, 487	2/1/2005	K-40	1319.40 ± 163.60	1177.20 ± 179.70	1248.30 ± 121.51	Pass
SW-511, 512	2/1/2005	I-131	0.37 ± 0.22	0.44 ± 0.23	0.40 ± 0.16	Pass
TD-628, 629	2/1/2005	H-3	489663 ± 1918	491225 ± 1915	490444 ± 1355	Pass
DW-538, 539	2/3/2005	Gr. Beta	3.93 ± 1.18	3.62 ± 1.10	3.78 ± 0.81	Pass
MI-564, 565	2/8/2005	K-40	1316.20 ± 171.10	1292.60 ± 154.40	1304.40 ± 115.23	Pass
DW-50134, 5	2/11/2005	Gr. Beta	18.41 ± 0.98	16.76 ± 0.98	17.59 ± 0.69	Pass
SWU-893, 894	2/22/2005	Gr. Beta	4.00 ± 0.96	4.20 ± 0.72	4.10 ± 0.60	Pass
SW-925, 926	2/25/2005	Gr. Beta	5.97 ± 1.51	6.14 ± 1.55	6.06 ± 1.08	Pass
SW-950, 951	3/1/2005	Gr. Beta	0.92 ± 0.27	1.21 ± 0.27	1.07 ± 0.19	Pass
SW-950, 951	3/1/2005	Gr. Beta	2.06 ± 0.40	2.29 ± 0.44	2.18 ± 0.30	Pass
SW-973, 974	3/1/2005	I-131	1.08 ± 0.19	0.92 ± 0.18	1.00 ± 0.13	Pass
DW-50248, 9	3/16/2005	Gr. Alpha	5.27 ± 1.06	4.17 ± 0.90	4.72 ± 0.70	Pass
DW-1264, 1265	3/19/2005	I-131	0.54 ± 0.21	0.73 ± 0.20	0.63 ± 0.15	Pass
AP-1955, 1956	3/28/2005	Be-7	0.071 ± 0.009	0.071 ± 0.009	0.071 ± 0.006	Pass
AP-1890, 1891	3/29/2005	Be-7	0.060 ± 0.013	0.069 ± 0.013	0.065 ± 0.009	Pass
AP-2025, 2026	3/29/2005	Be-7	0.063 ± 0.012	0.071 ± 0.011	0.067 ± 0.008	Pass
MI-1346, 1347	3/30/2005	K-40	1252.80 ± 120.50	1334.10 ± 106.60	1293.45 ± 80.44	Pass
AP-2048, 2049	3/30/2005	Be-7	0.075 ± 0.018	0.071 ± 0.015	0.073 ± 0.012	Pass
AP-2081, 2082	3/30/2005	Be-7	0.073 ± 0.016	0.061 ± 0.018	0.067 ± 0.012	Pass
SWU-1521, 1522	3/31/2005	Gr. Beta	2.83 ± 1.16	3.46 ± 1.23	3.14 ± 0.85	Pass
WW-1738, 1739	4/5/2005	Gr. Beta	11.44 ± 1.17	11.14 ± 1.62	11.29 ± 1.00	Pass
SW-1857, 1858	4/13/2005	Gr. Beta	7.04 ± 1.71	9.96 ± 1.65	8.50 ± 1.19	Pass
LW-1911, 1912	4/14/2005	Gr. Beta	2.50 ± 0.63	3.23 ± 0.67	2.86 ± 0.46	Pass
F-1976, 1977	4/18/2005	K-40	3.09 ± 0.60	3.33 ± 0.40	3.21 ± 0.36	Pass
MI-2111, 2112	4/26/2005	K-40	1291.50 ± 177.90	1323.70 ± 108.80	1307.60 ± 104.27	Pass
SWU-2158, 2159	4/26/2005	Gr. Beta	3.69 ± 0.74	3.54 ± 0.66	3.62 ± 0.50	Pass
DW-2349, 2350	4/29/2005	I-131	0.58 ± 0.27	0.49 ± 0.27	0.53 ± 0.19	Pass
SO-2305, 2306	5/2/2005	Cs-137	0.11 ± 0.05	0.11 ± 0.04	0.11 ± 0.03	Pass
SO-2305, 2306	5/2/2005	Gr. Alpha	7.55 ± 2.88	12.41 ± 3.38	9.98 ± 2.22	Pass
SO-2305, 2306	5/2/2005	Gr. Beta	28.74 ± 2.57	28.17 ± 2.52	28.46 ± 1.80	Pass
SO-2305, 2306	5/2/2005	K-40	21.51 ± 1.22	21.42 ± 1.24	21.47 ± 0.87	Pass
SO-2305, 2306	5/2/2005	Sr-90	32.90 ± 9.90	29.60 ± 13.90	31.25 ± 8.53	Pass
MI-2260, 2261	5/3/2005	K-40	1028.10 ± 99.36	1206.70 ± 118.50	1117.40 ± 77.32	Pass
F-2630, 2631	5/5/2005	K-40	3.08 ± 0.46	3.04 ± 0.51	3.06 ± 0.34	Pass
VE-2502, 2503	5/10/2005	Gr. Alpha	0.06 ± 0.03	0.07 ± 0.04	0.07 ± 0.03	Pass

TABLE A-5. In-House "Duplicate" Samples

Lab Code	Date	Analysis	Concentration (pCi/L)[a] First Result	Second Result	Averaged Result	Acceptance
VE-2502, 2503	5/10/2005	Gr. Beta	3.81 ± 0.10	3.86 ± 0.10	3.83 ± 0.07	Pass
VE-2502, 2503	5/10/2005	K-40	3.79 ± 0.40	4.30 ± 0.59	4.04 ± 0.36	Pass
G-2546, 2547	5/11/2005	Be-7	0.81 ± 0.39	1.25 ± 0.38	1.03 ± 0.27	Pass
G-2546, 2547	5/11/2005	K-40	9.43 ± 1.00	7.96 ± 0.85	8.70 ± 0.66	Pass
SS-2787, 2788	5/18/2005	Cs-137	0.13 ± 0.04	0.14 ± 0.05	0.13 ± 0.03	Pass
SS-2787, 2788	5/18/2005	K-40	12.44 ± 0.76	13.33 ± 0.83	12.88 ± 0.56	Pass
SO-3056, 3057	5/19/2005	Cs-137	0.18 ± 0.04	0.17 ± 0.01	0.18 ± 0.02	Pass
SO-3056, 3057 [b]	5/19/2005	K-40	20.06 ± 1.10	21.73 ± 0.36	20.90 ± 0.58	Fail
SS-3175, 3176	5/23/2005	K-40	6.06 ± 0.44	5.96 ± 0.61	6.01 ± 0.38	Pass
SO-2865, 2866	5/25/2005	Cs-137	0.18 ± 0.04	0.18 ± 0.03	0.18 ± 0.02	Pass
SO-2865, 2866	5/25/2005	Gr. Beta	32.95 ± 2.48	33.88 ± 2.36	33.41 ± 1.71	Pass
SO-2865, 2866	5/25/2005	K-40	21.93 ± 0.97	22.32 ± 0.98	22.13 ± 0.69	Pass
DW-2935, 2936	5/27/2005	I-131	0.51 ± 0.34	0.56 ± 0.30	0.53 ± 0.23	Pass
SWU-3103, 3104	6/1/2005	Gr. Beta	3.29 ± 0.49	3.75 ± 0.66	3.52 ± 0.41	Pass
G-2958, 2959	6/1/2005	Be-7	1.06 ± 0.40	1.21 ± 0.28	1.14 ± 0.24	Pass
G-2958, 2959 [b]	6/1/2005	Gr. Beta	8.06 ± 0.07	7.79 ± 0.07	7.93 ± 0.05	Fail
G-2958, 2959	6/1/2005	K-40	5.93 ± 0.73	6.05 ± 0.28	5.99 ± 0.39	Pass
BS-4089, 4090	6/3/2005	Co-60	0.11 ± 0.02	0.10 ± 0.02	0.11 ± 0.02	Pass
BS-4089, 4090	6/3/2005	Cs-137	0.60 ± 0.05	0.62 ± 0.05	0.61 ± 0.04	Pass
DW-50527, 8	6/8/2005	Gr. Alpha	11.58 ± 1.31	13.52 ± 1.43	12.55 ± 0.97	Pass
VE-3278, 3279	6/13/2005	K-40	6.34 ± 0.59	7.29 ± 0.68	6.81 ± 0.45	Pass
MI-3299, 3300	6/15/2005	K-40	1215.40 ± 110.20	1250.70 ± 106.70	1233.05 ± 76.70	Pass
BS-3348, 3349	6/17/2005	Co-60	0.20 ± 0.04	0.22 ± 0.04	0.21 ± 0.03	Pass
BS-3348, 3349	6/17/2005	Cs-137	2.59 ± 0.10	2.51 ± 0.07	2.55 ± 0.06	Pass
BS-3348, 3349	6/17/2005	K-40	11.57 ± 0.81	11.82 ± 0.76	11.69 ± 0.56	Pass
DW-3486, 3487	6/28/2005	Gr. Beta	0.97 ± 0.54	1.67 ± 0.58	1.32 ± 0.40	Pass
SWT-3631, 3632	6/28/2005	Gr. Beta	2.12 ± 0.53	1.62 ± 0.56	1.87 ± 0.39	Pass
W-3507, 3508	6/29/2005	H-3	38717 ± 382	38017 ± 535	38367 ± 329	Pass
VE-3555, 3556	6/29/2005	Gr. Beta	7.53 ± 0.18	7.56 ± 0.18	7.55 ± 0.13	Pass
VE-3555, 3556	6/29/2005	K-40	5.70 ± 0.52	5.64 ± 0.53	5.67 ± 0.37	Pass
AP-3781, 3782	6/29/2005	Be-7	0.09 ± 0.02	0.08 ± 0.02	0.09 ± 0.01	Pass
LW-3610, 3611	6/30/2005	Gr. Beta	1.37 ± 0.35	1.40 ± 0.36	1.39 ± 0.25	Pass
SW-3760, 3761	6/30/2005	Gr. Beta	9.70 ± 1.63	9.77 ± 1.61	9.73 ± 1.15	Pass
E-3654, 3655	7/5/2005	Gr. Beta	1.76 ± 0.07	1.69 ± 0.07	1.72 ± 0.05	Pass
E-3654, 3655	7/5/2005	K-40	1.49 ± 0.25	1.05 ± 0.21	1.27 ± 0.16	Pass
MI-3676, 3677	7/5/2005	K-40	1383.90 ± 116.20	1428.20 ± 125.40	1406.05 ± 85.48	Pass
DW-3739, 3740	7/5/2005	I-131	1.93 ± 0.24	2.18 ± 0.23	2.05 ± 0.17	Pass
W-3808, 3809	7/6/2005	H-3	4189.61 ± 196.68	4438.33 ± 201.39	4313.97 ± 140.75	Pass
DW-3938, 3939	7/8/2005	I-131	1.11 ± 0.30	1.26 ± 0.31	1.18 ± 0.22	Pass
VE-3896, 3897	7/12/2005	K-40	3.44 ± 0.62	3.60 ± 0.36	3.52 ± 0.36	Pass
MI-3963, 3964	7/13/2005	K-40	1438.70 ± 102.80	1351.80 ± 100.80	1395.25 ± 71.99	Pass
DW-4068, 4069	7/15/2005	I-131	0.64 ± 0.27	0.91 ± 0.28	0.78 ± 0.20	Pass

TABLE A-5. In-House "Duplicate" Samples

Lab Code	Date	Analysis	Concentration (pCi/L)[a] First Result	Second Result	Averaged Result	Acceptance
VE-4290, 4291	7/26/2005	Gr. Alpha	0.11 ± 0.04	0.05 ± 0.03	0.08 ± 0.03	Pass
VE-4290, 4291	7/26/2005	Gr. Beta	4.55 ± 0.13	4.69 ± 0.14	4.62 ± 0.09	Pass
SWU-4311, 4312	7/26/2005	Gr. Beta	2.62 ± 0.64	1.67 ± 0.37	2.15 ± 0.37	Pass
SWU-4311, 4312	7/26/2005	H-3	192.30 ± 92.90	304.60 ± 97.40	248.45 ± 67.30	Pass
G-4383, 4384	8/1/2005	Be-7	2.06 ± 0.49	1.76 ± 0.29	1.91 ± 0.28	Pass
G-4383, 4384	8/1/2005	Gr. Beta	8.76 ± 0.22	8.40 ± 0.20	8.58 ± 0.15	Pass
G-4383, 4384	8/1/2005	K-40	6.74 ± 0.64	6.88 ± 0.92	6.81 ± 0.56	Pass
MI-4425, 4426	8/1/2005	K-40	1358.10 ± 169.20	1267.90 ± 164.40	1313.00 ± 117.96	Pass
TD-4446, 4447	8/1/2005	H-3	563.00 ± 252.00	529.00 ± 251.00	546.00 ± 177.84	Pass
SL-4473, 4474	8/4/2005	Gr. Beta	5.44 ± 0.48	4.57 ± 0.42	5.00 ± 0.32	Pass
SL-4473, 4474	8/4/2005	K-40	2.91 ± 0.83	2.74 ± 0.54	2.82 ± 0.49	Pass
VE-4532, 4533	8/5/2005	Gr. Beta	31.20 ± 1.20	31.70 ± 1.20	31.45 ± 0.85	Pass
VE-4618, 4619	8/9/2005	Gr. Alpha	0.09 ± 0.05	0.09 ± 0.04	0.09 ± 0.03	Pass
VE-4618, 4619	8/9/2005	Gr. Beta	4.60 ± 0.13	4.54 ± 0.12	4.57 ± 0.09	Pass
VE-4618, 4619	8/9/2005	K-40	4.19 ± 0.46	4.34 ± 0.47	4.27 ± 0.33	Pass
F-4639, 4640	8/11/2005	Cs-137	0.05 ± 0.02	0.05 ± 0.02	0.05 ± 0.02	Pass
F-4639, 4640	8/11/2005	Gr. Beta	3.33 ± 0.11	3.37 ± 0.10	3.35 ± 0.07	Pass
F-4639, 4640	8/11/2005	K-40	2.62 ± 0.57	2.58 ± 0.59	2.60 ± 0.41	Pass
DW-4730, 4731	8/12/2005	I-131	0.82 ± 0.23	0.83 ± 0.25	0.83 ± 0.17	Pass
MI-4855, 4856	8/28/2005	K-40	1341.50 ± 107.70	1340.00 ± 114.70	1340.75 ± 78.67	Pass
MI-4855, 4856	8/28/2005	Sr-90	0.77 ± 0.37	0.87 ± 0.37	0.82 ± 0.26	Pass
MI-4945, 4946	8/31/2005	K-40	1388.90 ± 158.90	1307.50 ± 165.20	1348.20 ± 114.61	Pass
MI-4945, 4946	8/31/2005	Sr-90	0.67 ± 0.34	0.82 ± 0.36	0.75 ± 0.25	Pass
TD-4921, 4922	9/1/2005	H-3	5737.00 ± 266.00	5860.00 ± 269.00	5798.50 ± 189.15	Pass
VE-4900, 4901	9/2/2005	Gr. Beta	3.40 ± 0.06	3.51 ± 0.06	3.45 ± 0.04	Pass
VE-4900, 4901	9/2/2005	K-40	2.15 ± 0.27	2.27 ± 0.24	2.21 ± 0.18	Pass
DW-50769, 50770	9/2/2005	Gr. Alpha	6.17 ± 1.42	6.08 ± 1.46	6.13 ± 1.02	Pass
VE-4990, 4991	9/6/2005	K-40	18.81 ± 1.12	19.52 ± 0.86	19.17 ± 0.71	Pass
MI-5011, 5012	9/8/2005	K-40	1584.00 ± 194.00	1707.60 ± 173.00	1645.80 ± 129.97	Pass
VE-5119, 5120	9/12/2005	Gr. Alpha	0.10 ± 0.06	0.09 ± 0.05	0.10 ± 0.04	Pass
VE-5119, 5120	9/12/2005	Gr. Beta	6.05 ± 0.18	5.92 ± 0.17	5.98 ± 0.12	Pass
VE-5119, 5120	9/12/2005	K-40	4.61 ± 0.46	4.74 ± 0.69	4.68 ± 0.41	Pass
LW-5361, 5362	9/12/2005	Gr. Beta	1.09 ± 0.33	1.18 ± 0.34	1.13 ± 0.24	Pass
SW-5098, 5099	9/13/2005	I-131	0.44 ± 0.22	0.31 ± 0.20	0.38 ± 0.15	Pass
LW-5178, 5179	9/14/2005	Gr. Beta	2.92 ± 0.56	2.95 ± 0.59	2.93 ± 0.41	Pass
DW-5239, 5240	9/16/2005	I-131	0.45 ± 0.27	0.55 ± 0.29	0.50 ± 0.20	Pass
CF-5432, 5433	9/19/2005	Be-7	0.91 ± 0.40	0.64 ± 0.30	0.78 ± 0.25	Pass
CF-5432, 5433	9/19/2005	K-40	1.43 ± 0.34	1.38 ± 0.43	1.41 ± 0.27	Pass
MI-5292, 5293	9/21/2005	K-40	1228.80 ± 78.13	1297.00 ± 81.03	1262.90 ± 56.28	Pass
BS-5340, 5341	9/23/2005	Be-7	1286.10 ± 550.80	1222.90 ± 394.40	1254.50 ± 338.72	Pass
BS-5340, 5341	9/23/2005	Cs-137	726.97 ± 76.24	677.49 ± 70.03	702.23 ± 51.76	Pass

TABLE A-5. In-House "Duplicate" Samples

Lab Code	Date	Analysis	Concentration (pCi/L)[a] First Result	Second Result	Averaged Result	Acceptance
BS-5340, 5341	9/23/2005	K-40	12404 ± 1154	13033 ± 983	12719 ± 758	Pass
DW-5382, 5383	9/23/2005	I-131	0.79 ± 0.31	0.53 ± 0.31	0.66 ± 0.22	Pass
MI-5405, 5406	9/27/2005	K-40	1324.80 ± 112.20	1366.80 ± 99.44	1345.80 ± 74.96	Pass
AP-5769, 5770	9/27/2005	Be-7	0.08 ± 0.01	0.09 ± 0.02	0.08 ± 0.01	Pass
AP-5983, 5984	9/27/2005	Be-7	0.08 ± 0.01	0.08 ± 0.01	0.08 ± 0.01	Pass
AP-5878, 5879	9/29/2005	Be-7	0.06 ± 0.01	0.07 ± 0.01	0.07 ± 0.01	Pass
G-5526, 5527	10/3/2005	Be-7	4.03 ± 0.62	4.07 ± 0.80	4.05 ± 0.51	Pass
G-5526, 5527	10/3/2005	Gr. Beta	8.10 ± 0.30	8.80 ± 0.40	8.41 ± 0.24	Pass
G-5526, 5527	10/3/2005	K-40	4.93 ± 0.67	6.00 ± 0.72	5.47 ± 0.49	Pass
VE-5721, 5722	10/10/2005	Gr. Alpha	0.07 ± 0.05	0.08 ± 0.06	0.08 ± 0.04	Pass
VE-5721, 5722	10/10/2005	Gr. Beta	5.09 ± 0.15	5.00 ± 0.16	5.05 ± 0.11	Pass
VE-5721, 5722	10/10/2005	K-40	4.27 ± 0.43	4.20 ± 0.34	4.23 ± 0.27	Pass
CF-5695, 5696	10/11/2005	Be-7	2.70 ± 0.37	2.80 ± 0.34	2.75 ± 0.25	Pass
CF-5695, 5696	10/11/2005	K-40	11.79 ± 0.86	13.11 ± 0.68	12.45 ± 0.55	Pass
LW-6129, 6130	10/11/2005	Gr. Beta	1.34 ± 0.25	1.85 ± 0.29	1.59 ± 0.19	Pass
LW-6129, 6130	10/11/2005	H-3	304.35 ± 95.31	369.23 ± 97.88	336.79 ± 68.31	Pass
DW-50844, 5	10/11/2005	Gr. Beta	5.30 ± 1.50	4.20 ± 1.40	4.75 ± 1.03	Pass
LW-5748, 5749 [c]	10/12/2005	Gr. Beta	1.09 ± 0.25	1.89 ± 0.28	1.49 ± 0.19	Fail
AP-6485, 6486	10/20/2005	Be-7	0.10 ± 0.03	0.09 ± 0.03	0.09 ± 0.02	Pass
SWU-6156, 6157	10/25/2005	Gr. Beta	4.69 ± 1.34	4.18 ± 1.34	4.44 ± 0.95	Pass
VE-6186, 6187	10/26/2005	K-40	2.90 ± 0.49	2.83 ± 0.51	2.87 ± 0.35	Pass
LW-6203, 6204	10/27/2005	Gr. Beta	2.92 ± 0.62	3.09 ± 0.66	3.01 ± 0.45	Pass
SO-6270, 6271	10/28/2005	Cs-137	0.33 ± 0.03	0.34 ± 0.04	0.33 ± 0.03	Pass
SO-6270, 6271	10/28/2005	Gr. Beta	26.85 ± 2.78	22.25 ± 2.41	24.55 ± 1.84	Pass
SO-6270, 6271	10/28/2005	K-40	13.67 ± 0.74	14.02 ± 0.76	13.85 ± 0.53	Pass
TD-6320, 6321	11/1/2005	H-3	444202 ± 1770	446633 ± 1775	445418 ± 1253	Pass
SO-6605, 6606	11/11/2005	Gr. Beta	18.22 ± 2.23	18.47 ± 2.22	18.35 ± 1.57	Pass
CF-6509, 6510	11/14/2005	K-40	0.85 ± 0.14	0.99 ± 0.22	0.92 ± 0.13	Pass
SW-6638, 6639	11/22/2005	I-131	0.95 ± 0.35	0.67 ± 0.31	0.81 ± 0.23	Pass
SO-6887, 6888	11/22/2005	Gr. Alpha	6.80 ± 2.92	10.27 ± 3.26	8.53 ± 2.19	Pass
SO-6887, 6888	11/22/2005	Gr. Beta	19.27 ± 2.16	18.43 ± 2.21	18.85 ± 1.54	Pass
SO-6887, 6888	11/22/2005	K-40	14.29 ± 1.11	13.78 ± 0.78	14.03 ± 0.68	Pass
SWT-6721, 6722	11/29/2005	Gr. Beta	0.98 ± 0.31	0.87 ± 0.31	0.93 ± 0.22	Pass
VE-6775, 6776	11/29/2005	Gr. Beta	12.75 ± 0.28	13.16 ± 0.21	12.96 ± 0.18	Pass
LW-6743, 6744	11/30/2005	Gr. Beta	3.19 ± 0.47	2.50 ± 0.44	2.85 ± 0.32	Pass
DW-51023, 4	12/2/2005	Gr. Alpha	0.55 ± 1.40	2.21 ± 1.31	1.38 ± 0.96	Pass
SWT-7282, 7283	12/27/2005	Gr. Beta	1.62 ± 0.37	1.85 ± 0.38	1.74 ± 0.27	Pass

Note: Duplicate analyses are performed on every twentieth sample received in-house. Results are not listed for those analyses with activities that measure below the LLD.

[a] Results are reported in units of pCi/L, except for air filters (pCi/Filter), food products, vegetation, soil, sediment (pCi/g).

[b] 600 minute count time or longer, resulting in lower error.

[c] Recount of W-5748, 2.38 ± 0.85 pCi/L Averaged result; 2.14 ± 0.45 pCi/L

TABLE A-6. Department of Energy's Mixed Analyte Performance Evaluation Program (MAPEP)[a].

			Concentration [b]			
Lab Code[c]	Date	Analysis	Laboratory result	Known Activity	Control Limits [d]	Acceptance
STW-1045	01/01/05	Gr. Alpha	0.45 ± 0.10	0.53	0.00 - 1.05	Pass
STW-1045	01/01/05	Gr. Beta	1.90 ± 0.10	1.67	0.84 - 2.51	Pass
STW-1046	01/01/05	Am-241	1.62 ± 0.12	1.72	1.20 - 2.24	Pass
STW-1046	01/01/05	Co-57	239.40 ± 1.20	227.00	158.90 - 295.10	Pass
STW-1046	01/01/05	Co-60	248.70 ± 1.00	251.00	175.70 - 326.30	Pass
STW-1046	01/01/05	Cs-134	115.50 ± 1.80	127.00	88.90 - 165.10	Pass
STW-1046	01/01/05	Cs-137	328.50 ± 1.70	332.00	232.40 - 431.60	Pass
STW-1046	01/01/05	Fe-55	64.90 ± 7.00	75.90	53.13 - 98.67	Pass
STW-1046	01/01/05	H-3	304.00 ± 9.70	280.00	196.00 - 364.00	Pass
STW-1046	01/01/05	Mn-54	334.80 ± 1.90	331.00	231.70 - 430.30	Pass
STW-1046	01/01/05	Ni-63	7.10 ± 1.60	9.00	0.00 - 20.00	Pass
STW-1046	01/01/05	Pu-238	0.01 ± 0.02	0.02	0.00 - 1.00	Pass
STW-1046	01/01/05	Pu-239/40	2.50 ± 0.14	2.40	1.68 - 3.12	Pass
STW-1046	01/01/05	Sr-90	0.70 ± 0.80	0.00	0.00 - 5.00	Pass
STW-1046	01/01/05	Tc-99	43.20 ± 1.40	42.90	30.03 - 55.77	Pass
STW-1046	01/01/05	U-233/4	3.31 ± 0.20	3.24	2.27 - 4.21	Pass
STW-1046	01/01/05	U-238	3.38 ± 0.20	3.33	2.33 - 4.33	Pass
STW-1046	01/01/05	Zn-65	538.40 ± 3.80	496.00	347.20 - 644.80	Pass
STVE-1047	01/01/05	Co-57	10.60 ± 0.20	9.88	6.92 - 12.84	Pass
STVE-1047	01/01/05	Co-60	3.00 ± 0.20	3.15	2.21 - 4.10	Pass
STVE-1047	01/01/05	Cs-134	4.80 ± 0.40	5.00	3.50 - 6.50	Pass
STVE-1047	01/01/05	Cs-137	4.10 ± 0.30	4.11	2.88 - 5.34	Pass
STVE-1047	01/01/05	Mn-54	5.10 ± 0.30	5.18	3.63 - 6.73	Pass
STVE-1047	01/01/05	Zn-65	6.20 ± 0.50	6.29	4.40 - 8.18	Pass
STSO-1048	01/01/05	Am-241	96.60 ± 10.00	109.00	76.30 - 141.70	Pass
STSO-1048	01/01/05	Co-57	264.00 ± 2.00	242.00	169.40 - 314.60	Pass
STSO-1048	01/01/05	Co-60	226.50 ± 2.20	212.00	148.40 - 275.60	Pass
STSO-1048	01/01/05	Cs-134	760.60 ± 3.70	759.00	531.30 - 986.70	Pass
STSO-1048	01/01/05	Cs-137	336.20 ± 3.60	315.00	220.50 - 409.50	Pass
STSO-1048	01/01/05	K-40	663.70 ± 18.00	604.00	422.80 - 785.20	Pass
STSO-1048	01/01/05	Mn-54	541.30 ± 3.90	485.00	339.50 - 630.50	Pass
STSO-1048	01/01/05	Ni-63	924.30 ± 17.20	1220.00	854.00 - 1586.00	Pass
STSO-1048	01/01/05	Pu-238	0.60 ± 0.80	0.48	0.00 - 1.00	Pass
STSO-1048	01/01/05	Pu-239/40	78.00 ± 4.80	89.50	62.65 - 116.35	Pass
STSO-1048	01/01/05	Sr-90	514.60 ± 18.70	640.00	448.00 - 832.00	Pass
STSO-1048	01/01/05	U-233/4	47.90 ± 4.00	62.50	43.75 - 81.25	Pass
STSO-1048	01/01/05	U-238	226.30 ± 8.60	249.00	174.30 - 323.70	Pass
STSO-1048	01/01/05	Zn-65	851.30 ± 7.30	810.00	567.00 - 1053.00	Pass
STAP-1050	01/01/05	Gr. Alpha	0.11 ± 0.03	0.23	0.00 - 0.46	Pass
STAP-1050	01/01/05	Gr. Beta	0.38 ± 0.05	0.30	0.15 - 0.45	Pass

TABLE A-6. Department of Energy's Mixed Analyte Performance Evaluation Program (MAPEP)[a].

		Concentration [b]				
Lab Code[c]	Date	Analysis	Laboratory result	Known Activity	Control Limits [d]	Acceptance
STAP-1049	01/01/05	Am-241	0.10 ± 0.04	0.10	0.07 - 0.13	Pass
STAP-1049	01/01/05	Co-57	4.76 ± 0.64	4.92	3.44 - 6.40	Pass
STAP-1049	01/01/05	Co-60	2.84 ± 0.22	3.03	2.12 - 3.94	Pass
STAP-1049	01/01/05	Cs-134	3.54 ± 0.37	3.51	2.46 - 4.56	Pass
STAP-1049	01/01/05	Cs-137	2.20 ± 0.27	2.26	1.58 - 2.94	Pass
STAP-1049	01/01/05	Mn-54	3.15 ± 0.21	3.33	2.33 - 4.33	Pass
STAP-1049	01/01/05	Pu-238	0.16 ± 0.04	0.20	0.14 - 0.25	Pass
STAP-1049	01/01/05	Pu-239/40	0.17 ± 0.02	0.17	0.14 - 0.25	Pass
STAP-1049 [e]	01/01/05	Sr-90	2.24 ± 0.34	1.35	0.95 - 1.76	Fail
STAP-1049	01/01/05	U-233/4	0.34 ± 0.02	0.34	0.24 - 0.44	Pass
STAP-1049	01/01/05	U-238	0.35 ± 0.02	0.35	0.25 - 0.46	Pass
STAP-1049	01/01/05	Zn-65	3.12 ± 0.15	3.14	2.20 - 4.08	Pass
STW-1061	07/01/05	Am-241	2.21 ± 0.13	2.23	1.56 - 2.90	Pass
STW-1061	07/01/05	Co-57	293.20 ± 7.30	272.00	190.40 - 353.60	Pass
STW-1061	07/01/05	Co-60	275.70 ± 1.30	261.00	182.70 - 339.30	Pass
STW-1061	07/01/05	Cs-134	171.80 ± 4.00	167.00	116.90 - 217.10	Pass
STW-1061	07/01/05	Cs-137	342.10 ± 2.20	333.00	233.10 - 432.90	Pass
STW-1061	07/01/05	Fe-55	167.80 ± 9.30	196.00	137.20 - 254.80	Pass
STW-1061	07/01/05	H-3	514.20 ± 12.60	527.00	368.90 - 685.10	Pass
STW-1061	07/01/05	Mn-54	437.00 ± 2.50	418.00	292.60 - 543.40	Pass
STW-1061	07/01/05	Ni-63	105.10 ± 3.60	100.00	70.00 - 130.00	Pass
STW-1061	07/01/05	Pu-238	1.64 ± 0.12	1.91	1.34 - 2.48	Pass
STW-1061	07/01/05	Pu-239/40	2.32 ± 0.13	2.75	1.93 - 3.58	Pass
STW-1061	07/01/05	Sr-90	9.20 ± 1.30	8.98	6.29 - 11.67	Pass
STW-1061	07/01/05	Tc-99	72.30 ± 2.30	66.50	46.55 - 86.45	Pass
STW-1061	07/01/05	U-233/4	4.11 ± 0.18	4.10	2.87 - 5.33	Pass
STW-1061	07/01/05	U-238	4.14 ± 0.18	4.26	2.98 - 5.54	Pass
STW-1061	07/01/05	Zn-65	364.60 ± 4.90	330.00	231.00 - 429.00	Pass
STW-1062	07/01/05	Gr. Alpha	0.57 ± 0.05	0.79	0.21 - 1.38	Pass
STW-1062	07/01/05	Gr. Beta	1.36 ± 0.05	1.35	0.85 - 1.92	Pass
STSO-1063 [f]	07/01/05	Am-241	48.40 ± 3.90	81.10	56.77 - 105.43	Fail
STSO-1063	07/01/05	Co-57	608.30 ± 2.80	524.00	366.80 - 681.20	Pass
STSO-1063	07/01/05	Co-60	322.70 ± 2.40	287.00	200.90 - 373.10	Pass
STSO-1063	07/01/05	Cs-134	632.10 ± 5.20	568.00	397.60 - 738.40	Pass
STSO-1063	07/01/05	Cs-137	512.40 ± 4.20	439.00	307.30 - 570.70	Pass
STSO-1063	07/01/05	K-40	720.50 ± 19.00	604.00	422.80 - 785.20	Pass
STSO-1063	07/01/05	Mn-54	516.80 ± 5.10	439.00	307.30 - 570.70	Pass
STSO-1063	07/01/05	Ni-63	366.50 ± 13.30	445.00	311.50 - 578.50	Pass
STSO-1063	07/01/05	Pu-238	68.80 ± 15.00	60.80	42.56 - 79.04	Pass
STSO-1063	07/01/05	Pu-239/40	0.00 ± 0.00	0.00	0.00 - 0.00	
STSO-1063	07/01/05	Sr-90	602.90 ± 17.20	757.00	529.90 - 984.10	Pass
STSO-1063	07/01/05	U-233/4	61.50 ± 1.00	52.50	36.75 - 68.25	Pass
STSO-1063	07/01/05	U-238	164.50 ± 16.70	168.00	117.60 - 218.40	Pass
STSO-1063	07/01/05	Zn-65	874.70 ± 8.40	823.00	576.10 - 1070.00	Pass

TABLE A-6. Department of Energy's Mixed Analyte Performance Evaluation Program (MAPEP)[a].

		Concentration [b]				
Lab Code[c]	Date	Analysis	Laboratory result	Known Activity	Control Limits [d]	Acceptance
STVE-1064	07/01/05	Am-241	0.18 ± 0.03	0.23	0.16 - 0.30	Pass
STVE-1064	07/01/05	Co-57	15.90 ± 0.20	13.30	9.31 - 17.29	Pass
STVE-1064	07/01/05	Co-60	4.80 ± 0.10	4.43	3.10 - 5.76	Pass
STVE-1064	07/01/05	Cs-134	4.60 ± 0.20	4.09	2.86 - 5.32	Pass
STVE-1064	07/01/05	Cs-137	5.90 ± 0.30	5.43	3.80 - 7.06	Pass
STVE-1064	07/01/05	Mn-54	7.20 ± 0.20	6.57	4.60 - 8.54	Pass
STVE-1064	07/01/05	Pu-238	0.04 ± 0.02	0.00	0.00 - 1.00	Pass
STVE-1064	07/01/05	Pu-239/40	0.13 ± 0.02	0.16	0.11 - 0.21	Pass
STVE-1064	07/01/05	Sr-90	2.80 ± 0.30	2.42	1.69 - 3.15	Pass
STVE-1064	07/01/05	U-233/4	0.28 ± 0.03	0.33	0.23 - 0.43	Pass
STVE-1064	07/01/05	U-238	0.33 ± 0.04	0.35	0.24 - 0.45	Pass
STVE-1064	07/01/05	Zn-65	11.00 ± 0.50	10.20	7.14 - 13.26	Pass
STAP-1065	07/01/05	Gr. Alpha	0.30 ± 0.04	0.48	0.00 - 0.80	Pass
STAP-1065	07/01/05	Gr. Beta	0.97 ± 0.06	0.83	0.55 - 1.22	Pass
STAP-1066	07/01/05	Am-241	0.14 ± 0.03	0.16	0.11 - 0.21	Pass
STAP-1066	07/01/05	Co-57	5.81 ± 0.17	6.20	4.34 - 8.06	Pass
STAP-1066	07/01/05	Co-60	2.79 ± 0.14	2.85	2.00 - 3.71	Pass
STAP-1066	07/01/05	Cs-134	3.67 ± 0.12	3.85	2.70 - 5.01	Pass
STAP-1066	07/01/05	Cs-137	2.93 ± 0.23	3.23	2.26 - 4.20	Pass
STAP-1066	07/01/05	Mn-54	4.11 ± 0.26	4.37	3.06 - 5.68	Pass
STAP-1066	07/01/05	Pu-238	0.11 ± 0.02	0.10	0.07 - 0.13	Pass
STAP-1066	07/01/05	Pu-239/40	0.10 ± 0.01	0.09	0.06 - 0.12	Pass
STAP-1066	07/01/05	Sr-90	2.25 ± 0.29	2.25	1.58 - 2.93	Pass
STAP-1066	07/01/05	U-233/4	0.28 ± 0.02	0.27	0.19 - 0.35	Pass
STAP-1066	07/01/05	U-238	0.28 ± 0.02	0.28	0.20 - 0.37	Pass
STAP-1066	07/01/05	Zn-65	4.11 ± 0.26	4.33	3.06 - 5.68	Pass

[a] Results obtained by Environmental, Inc., Midwest Laboratory as a participant in the Department of Energy's Mixed Analyte Performance Evaluation Program, Idaho Operations office, Idaho Falls, Idaho

[b] Results are reported in units of Bq/kg (soil), Bq/L (water) or Bq/total sample (filters, vegetation) as requested by the Department of Energy.

[c] Laboratory codes as follows: STW (water), STAP (air filter), STSO (soil), STVE (vegetation).

[d] MAPEP results are presented as the known values and expected laboratory precision (1 sigma, 1 determination) and control limits as defined by the MAPEP.

[e] The strontium carbonate precipitates were redissolved and processed. The average of the three analyses was 1.34 although the recovery was only 30%. The result of a new analysis was 1.56 pCi/L.

[f] Incorrect sample weight used in calculation. Result of recalculation: 97.0 ± 7.8 Bq/kg.

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 = 2s 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 4.66s uncertainty for a background sample.

3.0. Duplicate analyses

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:

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

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 number s 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.

APPENDIX C

Sampling Program and Locations

POINT BEACH NUCLEAR PLANT

Sample Type	Locations No.	Locations Codes (and Type)[a]	Collection Type (and Frequency)[b]	Analysis (and Frequency)[b]
Airborne Filters	6	E-1-4, 8, 20	Weekly	GB, GS, on QC for each location
Airborne Iodine	6	E-1-4, 8, 20	Weekly	I-131
Ambient Radiation (TLD's)	22	E-1-9, 12, 14-18, 20, 22-32, 34-36, 38,39	Quarterly	Ambient Gamma
Lake Water	5	E-1, 5, 6, 33	Monthly	GB, BS, I-131 on MC H-3, Sr-89-90 on QC
Well Water	1	E-10	Quarterly	GB, GS, H-3, Sr-89-90, I-131
Vegetation	8	E-1-4, 6. 9, 20	3x / year as available	GB, GS
Shoreline Silt	5	E-1, 5, 6, 8, 9, 12	2x / year	GB, GS
Soil	8	E-1-4, 6, 8, 9, 20	2x / year	GB, GS
Milk	3	E-11, 40, 21	Monthly	GS, I-131, Sr-89-90
Algae	2	E-5, 12	3x / year as available	GB, GS
Fish	1	E-13	3x / year as available	GB, GS (in edible portions)
			SPECIAL COLLECTIONS AND ANALYSES	
Airborne Filters			4 per month	Sr-89, Sr-90
			1 per quarter	Sr-89, Sr-90 (comp.)
Liquid			1 per month	GA, Sr-89, Sr-90
Subsoil Water			4 per quarter	GA, GB, H-3, GS
Miscellaneous Water Samples			4-5 per year	Sr-89, Sr-90

[a] Locations codes are defined in Table 2. Control Stations are indicated by (C). All other stations are indicators.

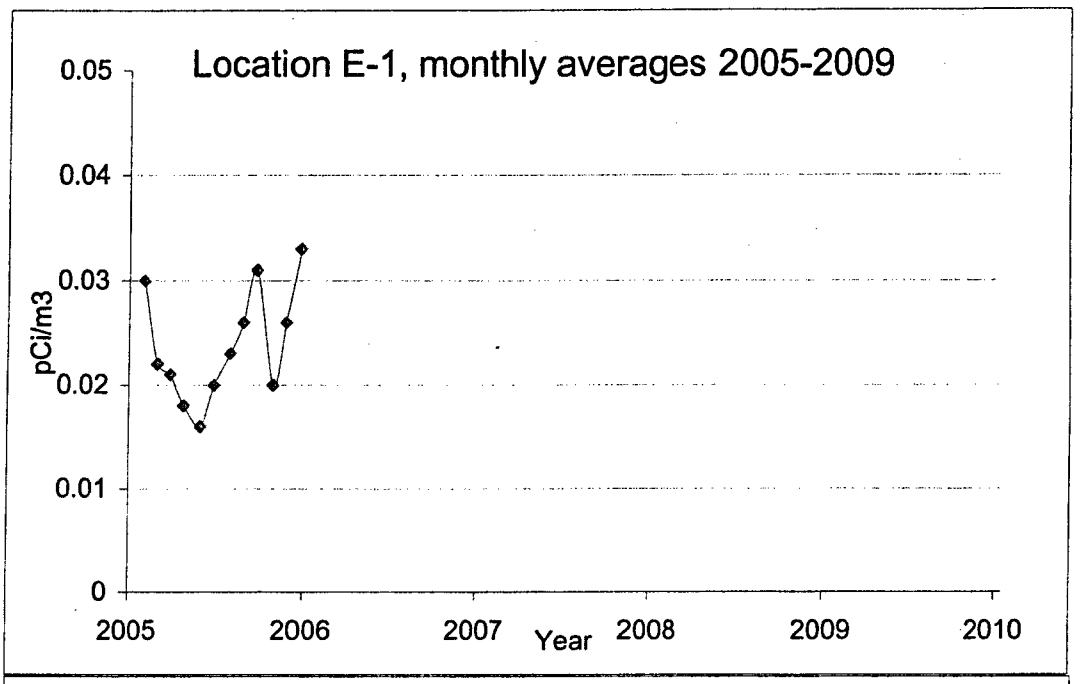
[b] Analysis type is coded as follows: GB = gross beta, GA = gross alpha, GS = gamma spectroscopy, H-3 = tritium, Sr-89 = strontium-89, Sr-90 = strontium-90, I-131 = iodine-131. Analysis frequency is coded as follows: MC = monthly composite, QC = quarterly composite.

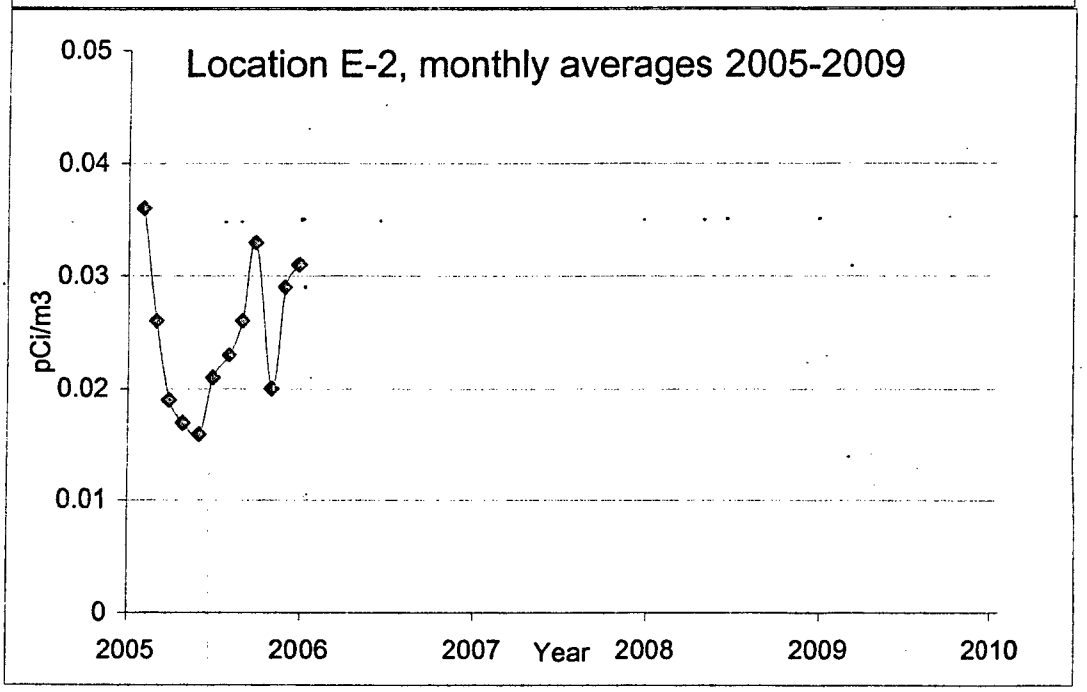
APPENDIX D

Graphs of Data Trends

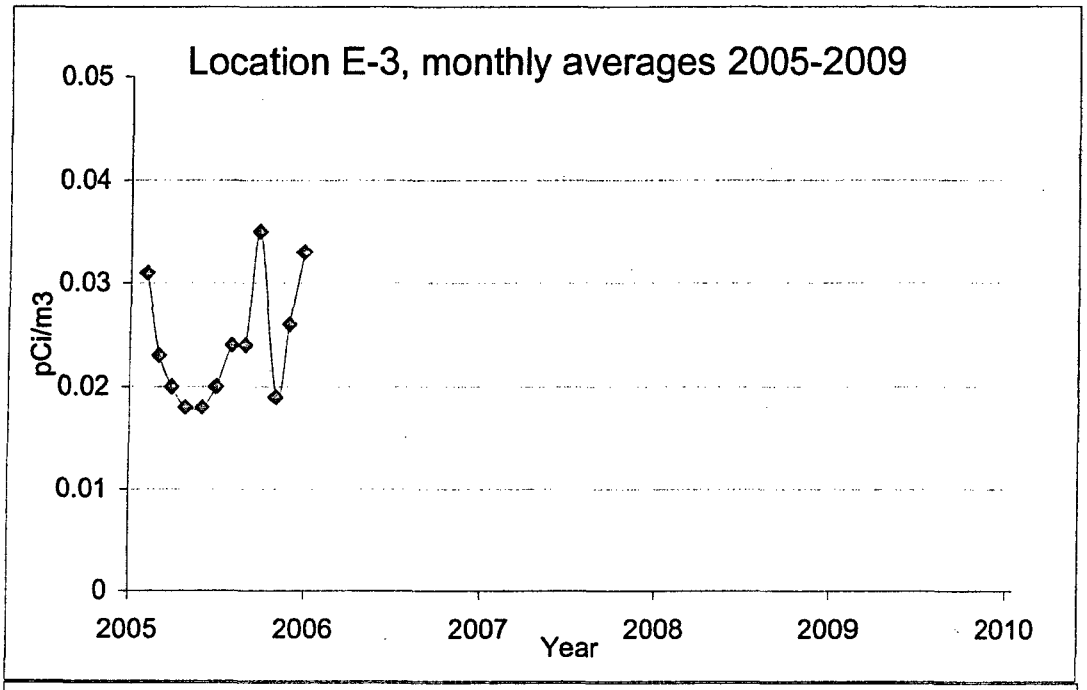
POINT BEACH

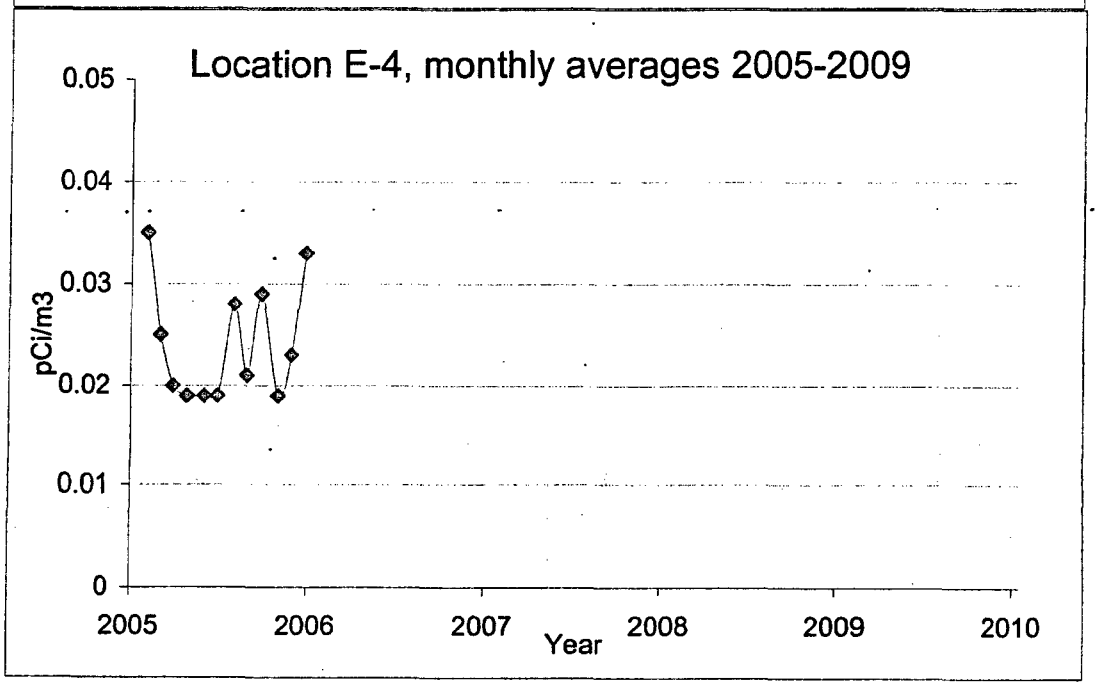
Air Particulates - Gross Beta

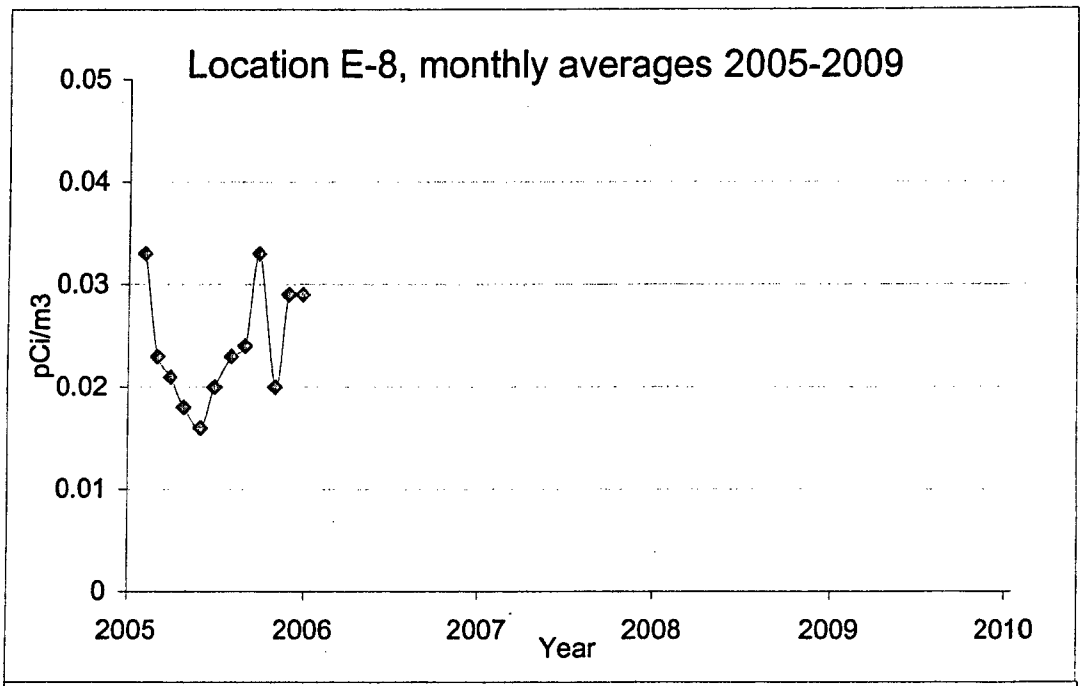
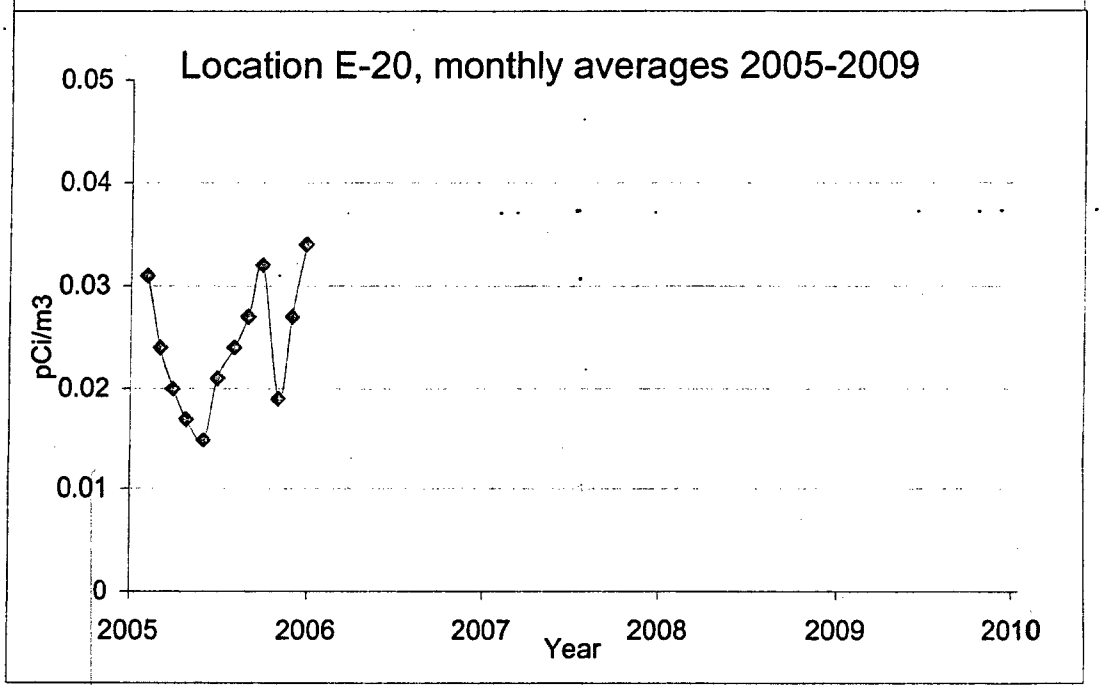




Air Particulates - Gross Beta





POINT BEACH

Air Particulates - Gross Beta