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April 27, 2006

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U. S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, DC 20555

Subject: Docket No. 50-482: 2005 Annual Radiological Environmental Operating Report

Gentlemen:

Enclosed is the Annual Radiological Environmental Operating Report, which is being submitted pursuant to Wolf Creek Generating Station (WCGS) Technical Specification 5.6.2. This report covers radiological environmental monitoring around WCGS for the period of January 1, 2005, through December 31, 2005.

No commitments are identified in this correspondence. If you have any questions concerning this matter, please contact me at (620) 364-4126, or Ms. Diane Hooper at (620) 364-4041.

Sincerely,

A handwritten signature in black ink that reads "Kevin J. Moles". Below the signature, the name "Kevin J. Moles" is printed in a smaller, sans-serif font.

KJM/rlt

Enclosure: 2005 Annual Radiological Environmental Operating Report

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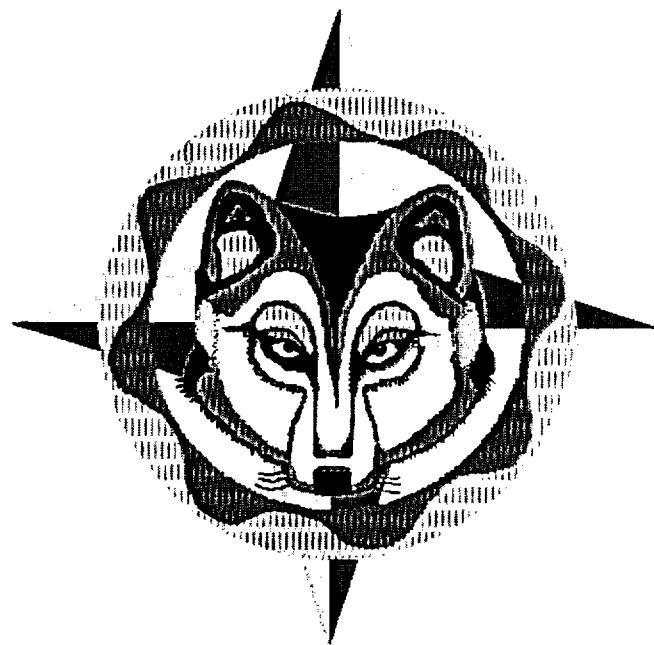
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**WOLF CREEK NUCLEAR OPERATING CORPORATION**

**WOLF CREEK GENERATING STATION**

**2005 ANNUAL RADIOLOGICAL**

**ENVIRONMENTAL OPERATING REPORT**



**April 15, 2006**

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## **EXECUTIVE SUMMARY**

Plant-related activation, corrosion or fission products were not detected during 2005 in airborne particulate and radioiodine filters, ground water, drinking water, shoreline sediment, broadleaf vegetation, crops, terrestrial vegetation, aquatic vegetation, or soil samples. Activation, corrosion or fission products attributable to plant operation were detected during 2005 in surface water, fish, and bottom sediment samples.

Nuclides detected in REMP samples were below applicable NRC reporting levels, and program lower limits of detection were met.

Based upon the radiological environmental monitoring results, it was concluded that station operations has had no significant radiological impact on the health and safety of the public or the environment.

## **INTRODUCTION**

The 2005 Annual Radiological Environmental Operating Report for Wolf Creek Generating Station (WCGS) covers the period from January 1 through December 31, 2005. WCGS is located in Coffey County, Kansas, approximately five miles northeast of Burlington, Kansas.

Fuel loading commenced at WCGS on March 12, 1985. The operational phase of the Radiological Environmental Monitoring Program (REMP) began with initial criticality on May 22, 1985, and the first detectable quantities of radioactivity were reported in plant effluents in June 1985.

This report contains a description of the REMP conducted by Wolf Creek Nuclear Operating Corporation (WCNOC), results of sample analyses, a discussion of monitoring program results, a description of revisions to and deviations from the program, and the results of Interlaboratory Comparison Programs. Individual sample results and a summary of results in the Nuclear Regulatory Commission (NRC) Branch Technical Position specified format are included as appendices.

## **I. PROGRAM DESCRIPTION**

Radiological environmental samples were collected according to the schedule in WCGS procedure AP 07B-004, *Offsite Dose Calculation Manual (Radiological Environmental Monitoring Program)*. Environmental samples were collected by the WCGS Environmental Management group and were analyzed by Environmental, Inc. Detroit Edison processed environmental thermoluminescent dosimeters (TLDs) at the Enrico Fermi 2 plant. Table 1 lists sampling pathways and frequencies of sampling and analysis. Table 2 lists each sample location's distance and direction from the plant. Samples in addition to those required by the WCGS Offsite Dose Calculation Manual (ODCM) were also obtained and analyzed.

The following is a description of the sampling and analysis program by individual pathways.

### **A. Airborne Pathway**

Low volume air sampling pumps collected particulate and radioiodine samples on 47 mm glass fiber filters and charcoal canisters, respectively. The filters and charcoal canisters were changed out weekly, labeled, and shipped to Environmental, Inc. for analysis. The volume of air sampled was calculated from the average of initial and final flow rates and the total time of collection. Each pump was equipped with a time totalizer that was checked weekly against the elapsed time to identify electrical power outages.

Gross beta analysis of the air particulate samples was performed after a nominal 72-hour period to allow the radon and thoron daughter products to decay.

Weekly air particulate filters were combined into quarterly composites for each location and analyzed for gamma emitting isotopes.

Charcoal canisters were routinely counted in groups of five to determine the presence or absence of I-131. Positive indication of I-131 would have resulted in analysis of each individual charcoal canister.

Air samples were collected from six locations. Indicator locations 2, 37 and 49 are located in the three sectors with the highest ground level deposition constants (D/Q). Air sampling stations are also located in the community of New Strawn (indicator location 32) and a control location at Harris (location 48). Supplemental indicator location (location 18) was also sampled during the year. Distances and directions to sampling locations from the plant are listed in Table 2, indicator locations are shown in Figure 1, and the control location is shown in Figure 5.

### **B. Direct Radiation Pathway**

Panasonic UD-814-AQ TLDs were used at 47 locations during the sample year. The TLDs consist of one lithium-borate element and three calcium sulfate elements in a plastic case.

TLDs were typically positioned roughly 3 to 4 feet above the ground in plastic thermostat boxes. The thermostat boxes protect the TLDs from the elements and tampering. Two TLDs were placed at each designated location. The TLDs were changed out quarterly. Indicator TLD sample locations are illustrated in Figure 2 and control locations are shown in Figure 5. Table 2 provides the distance and direction of each location from the plant. Control locations were 39 (Beto Junction) and 48 (Harris).

### **C. Waterborne Pathway**

All water samples were analyzed to determine whether gamma emitters were present. In addition to gamma isotopic analysis, radiochemical analysis for I-131 was performed on drinking water and ground water samples. Gross beta analysis was also performed on drinking water samples. Tritium analysis was performed monthly by liquid scintillation for surface water and quarterly for drinking water. Tritium analysis was also performed on ground water samples. Water sampling locations are listed in Table 2 and are shown in Figures 3 and 5.

Monthly grab samples of surface water were collected from John Redmond Reservoir (JRR) as a control location and from the "SP" location, which is located near the spillway of Coffey County Lake, formally known as Wolf Creek Lake, as an indicator location.

Quarterly grab samples of ground water were collected from four wells. Location B-12 is hydrologically up gradient from the site and was used as a control location. Three locations (C-10, C-49, and J-1) are hydrologically down gradient from the site and were used as indicator sample locations.

Drinking water was sampled at the water treatment facilities for the towns of Burlington (control location BW-15) and Neosho Falls (indicator location NF-DW). The Burlington facility is located upstream and the Neosho Falls facility is located downstream of the confluence of the discharge from Coffey County Lake and the Neosho River. Composite samples were obtained monthly from automatic samplers at each location that collected approximately 27 ml of drinking water every two hours.

Shoreline sediments were sampled semiannually. Gamma isotopic analysis was performed on the shoreline sediment samples. Shoreline sediment sample locations were the Coffey County Lake discharge cove (DC) indicator location and at the control location (JRR).

#### **D. Ingestion Pathway**

Because no sampling locations that produce milk for human consumption were identified within five miles of the plant, milk was not collected during the sample year.

Fish were sampled semiannually from the tail waters of JRR (control, Figure 4) and from Coffey County Lake (indicator, Figure 4). Gamma isotopic analysis was performed on the boneless meat portions of the fish. Several species of game fish and rough fish were sampled. Fish were also analyzed for tritium.

Broadleaf vegetation samples were collected monthly when available during the growing season from five gardens. Three indicator (G-1, N-1 and Q-6) gardens (Figure 4) and two control (D-1 and D-2) gardens (Figure 5) were sampled. Gamma isotopic analyses were performed on all samples.

Crop samples were obtained from two indicator locations (NR-D1 and NR-D2) downstream of the confluence of Wolf Creek and the Neosho River. One crop sample was obtained from control location NR-U1. Gamma isotopic analysis was performed on each sample. Crop sample locations are identified on Figure 5.

#### **E. Additional Samples Collected (not required by ODCM)**

Drinking water indicator location IO-DW (lola) was sampled during the year. The drinking water sample was analyzed for gross beta, gamma emitters, I-131 and tritium. This sample location was added due to the anticipated closure of the Neosho Falls drinking water treatment facility and is identified on Figure 5.

Quarterly, duplicate ground water grab samples were obtained from indicator location C-49 and were labeled L-49. These duplicate samples served as laboratory quality checks. Three indicator ground water sample locations were also sampled during the fourth quarter of 2005 (F-1, G-2 and J-2). The ground water samples were analyzed for gamma emitters, I-131 and tritium.

Bottom sediment samples were collected at the Environmental Education Area (EEA) and from the Make-Up Discharge Structure (MUDS). Gamma isotopic analysis was performed on the bottom sediment samples. These indicator samples were collected as part of a cooperative sampling effort with the Kansas Department of Health and Environment (KDHE). The sample locations are identified on Figure 3.

Bottom sediment samples were collected semiannually at the Coffey County Lake discharge cove (DC) indicator location and the control location (JRR). Gamma isotopic analysis was performed on the bottom sediment samples. These samples were collected as part of a cooperative sampling effort with the KDHE. The sample locations are identified on Figure 3.

Aquatic vegetation was collected from indicator locations EEA and MUDS. Gamma isotopic analysis was performed on the aquatic vegetation samples. These samples were collected as part of a cooperative sampling effort with the KDHE. The sample locations are identified on Figure 3.

Terrestrial vegetation was sampled from indicator location EEA. Gamma isotopic analysis was performed on the terrestrial vegetation sample. This sample was collected as part of a cooperative sampling effort with the KDHE. The sample location is identified on Figure 4.

Soil was sampled from indicator locations MUDS and EEA. Gamma isotopic analysis was performed on the soil samples. These samples were collected as part of a cooperative sampling effort with the KDHE. The sample locations are identified on Figure 4.

Distance and direction information for the sampling locations listed in this section are outlined in Table 2.

## **II. DISCUSSION OF RESULTS**

Analysis results for all pathways are summarized in Appendix B using the format described in Radiological Assessment Branch Technical Position, Revision 1, November 1979 (NRC Generic Letter 79-065). Results for individual samples are listed in Appendix C.

In this section, results are discussed by pathway and analysis type. Monitoring results are compared with control data, preoperational values, sources of radioactivity, and effluent releases when applicable. Trends or seasonal effects are discussed.

### **A. Airborne Pathway**

Chart 1 graphically illustrates weekly gross beta results for the sample year. Chart 2 represents the historical smoothed averages of indicator and control gross beta data.

Charts 1 and 2 demonstrate how closely the indicator and control locations tracked together. Chart 2 reveals a seasonal cyclic trend in which gross beta values peak in the winter months (December or January) and decrease to a low point in the spring months (May or June). This trend is expected and is attributed to seasonal meteorological changes, i.e., changes in prevailing winds and precipitation.

The gross beta results of 2005 were compared to pre-operational monitoring results of 1983 and 1984. The weekly gross beta analyses range for 1983 and 1984 was 0.0064 to 0.084 pCi/m<sup>3</sup>. The 2005 weekly gross beta analyses range for indicator locations was 0.014 to 0.055 pCi/m<sup>3</sup>, which was within the 1983 and 1984 pre-operational range. Additionally, the annual mean for indicator locations for 2005 (0.030 pCi/m<sup>3</sup>) was lower than the annual mean for 1983 (0.032 pCi/m<sup>3</sup>).

The gross beta results for the indicator locations were also compared to the control location. The annual mean for indicator locations for 2005 (0.030 pCi/m<sup>3</sup>) was similar to the annual mean of the control location (0.029 pCi/m<sup>3</sup>).

Naturally occurring Be-7 activity was detected, as was the case during pre-operational monitoring. In 1984, the range for Be-7 detected activity was 0.024 to 0.211 pCi/m<sup>3</sup> for indicator locations, and the annual mean for indicator locations was 0.069 pCi/m<sup>3</sup>. In 2005, the range for Be-7 detected activity was 0.057 to 0.107 pCi/m<sup>3</sup> for indicator locations, and the annual mean for indicator locations was 0.080 pCi/m<sup>3</sup>.

The control location annual mean for Be-7 detected activity (0.076 pCi/m<sup>3</sup>) was similar to the indicator locations annual mean (0.080 pCi/m<sup>3</sup>).

Required lower limits of detection were met and I-131 activity was not detected in the weekly analysis of charcoal filters at any location.

No effects of plant operation were seen via the airborne pathway for the year, and no unusual trends were noted.

## B. Direct Radiation Pathway

Quarterly gamma exposures measured at each location are shown in Table 3. Measured values have been converted to a standard 90-day quarter.

The annual mean of all indicator locations in 2005 was 0.271 mR/day and the annual mean for the control locations was 0.265 mR/day. The exposure measurements for the control locations and the indicator locations were elevated due to the unusually long period of time between the ship dates of the TLDs from the vendor lab and the read times by the vendor lab. This condition has been documented in the corrective action process (PIR 2006-0831).

For pre-operational comparison, in 1981, the annual mean of all indicator locations was 0.21 mR/day and annual mean for the control locations was 0.19 mR/day.

Results from TLDs located near the plant (less than three miles), which would be most affected by changes in plant operation, were combined into quarterly averages. These nearsite averages, using locations 1, 2, 7-14, 18, 26-30, 37 and 38, are compared to control location results (locations 39 and 48) in Chart 3. Chart 3 also includes preoperational data for comparison. The nearsite TLD locations have historically trended higher than the control locations both prior to and after WCGS became operational. Chart 3 also displays the elevated results for the control locations and the indicator locations.

## **C. Waterborne Pathway**

### **(1) Surface Water**

Tritium, attributable to WCGS operation, was detected in all surface water samples collected from Coffey County Lake during 2005. Chart 4 illustrates the yearly averages of surface water tritium data for the spillway location. It can be seen in Chart 4 that surface water tritium concentrations have trended upward since plant startup. This is expected until the average tritium concentration of the lake reaches equilibrium.

Tritium activity (219 +/- 95 pCi/L), not attributable to WCGS operation, was also detected in one surface water sample obtained from the control location (JRR) on October 20. Statistically, the tritium level observed is at the lower end of the vendor laboratory's counting system capability.

Required lower limits of detection were met.

During pre-operational environmental radiological monitoring, measured radiological activity was not detected in surface water samples.

Tritium was the only activity detected in surface water samples and no unusual trends were noted.

### **(2) Ground Water**

Low levels of tritium, not attributable to WCGS operation, were the only activity detected in ground water samples. Two indicator locations C-10 and C-49 collected on August 11 had tritium detected at levels of 204 +/- 94 pCi/L and 217 +/- 95 pCi/L, respectively. These analysis results were verified by a laboratory re-analysis. Statistically, the tritium levels observed were at the lower end of the vendor laboratory's counting system capability. Additionally, a split sample had been obtained from location C-49 and was labeled L-49. The tritium result for the sample collected on August 11 and labeled location L-49 was <173 pCi/L.

Required lower limits of detection were met.

During pre-operational environmental radiological monitoring, measured radiological activity was not typically detected in ground water samples.

Low levels of tritium were the only activity detected in ground water samples and no unusual trends were noted.

### **(3) Drinking Water**

Chart 5 illustrates the drinking water gross beta results for the last five years and how closely the gross beta results compared for the indicator and control locations.

Gross beta activity was detected in all drinking water samples. The annual mean of the control location gross beta activity (3.9 pCi/L) was higher when compared to the annual mean of the indicator locations (3.6 pCi/L). The 2005 annual means of gross beta activity for both the control and indicator locations were lower than those of the pre-operational monitoring year of 1984. In 1984, the annual mean of the control location gross beta activity was 6.4 pCi/L, and the annual mean of the indicator location gross beta activity was 7.5 pCi/L.

During the third quarter of 2005, low levels of tritium activity were detected in the two indicator location samples (Iola: 207 +/- 83 pCi/L; Neosho Falls: 243 +/- 85 pCi/L) as well as the control location sample (Burlington: 245 +/- 85 pCi/L). The analysis results were verified by a laboratory re-analysis. Statistically, the tritium levels observed were at the lower end of the vendor laboratory's counting system capability.

Required lower limits of detection were met. Additionally, radionuclides were not detected by the I-131 or gamma isotopic analyses.

Activity due to plant operation was not evident in drinking water samples during 2005 and no unusual trends were noted.

#### **(4) Shoreline Sediment**

Naturally occurring K-40 (10,382–10,953 pCi/kg, dry) was detected in samples obtained from the indicator location (DC) and in samples obtained from the control location (8,643–11,846 pCi/kg, dry). K-40 was also detected during pre-operational shoreline sediment monitoring.

Cs-137 activity was detected in the samples obtained from the control location (JRR). The indicator location (DC) samples did not have Cs-137 activity detected.

Required lower limits of detection were met. Activity due to plant operation was not evident in shoreline sediment samples during 2005 and no unusual trends were noted.

### **D. Ingestion Pathway**

#### **(1) Milk**

Milk was not collected during the sample year since no indicator locations within five miles of the plant were identified during the Land Use Census.

#### **(2) Fish**

Naturally occurring K-40 activity was detected in all fish samples. K-40 activity was also detected during pre-operational fish monitoring.

During 2005, fish were also analyzed for tritium. All fish samples taken from Coffey County Lake had tritium activity detected (7,699.7 pCi/kg annual mean). The detected tritium activity was attributable to plant operation. An adult consuming 21 kilograms of fish, at the maximum measured tritium concentration for 2005 (9,479 pCi/kg), would receive a committed effective dose equivalent of 0.013 mRem.

Tritium activity was not detected in the control samples collected from JRR.

No other radionuclides were detected in fish during the year. The ODCM required lower limits of detection were met and no unusual trends were noted.

### **(3) Broadleaf Vegetation**

Gamma analyses of broadleaf vegetation samples obtained from indicator and control locations detected naturally occurring gamma emitters Be-7 and K-40. Be-7 and K-40 activity were also detected pre-operationaly.

The ODCM required lower limits of detection were met and no unusual trends were noted. Activity attributable to plant operation was not detected.

### **(4) Crop Samples**

Gamma analysis detected naturally occurring K-40 to be present in all of the samples. K-40 activity was also detected during pre-operational crop monitoring. K-40 was the only activity detected in crop samples. The ODCM required lower limits of detection were met and no unusual trends were noted.

## **E. Additional Samples Collected (not required by ODCM)**

### **(1) Bottom Sediment**

Naturally occurring K-40 was detected in all of the bottom sediment samples. K-40 activity was also detected during pre-operational bottom sediment monitoring.

Co-60 activity (159.7 and 182.8 pCi/kg) was detected in the samples obtained from the Coffey County Lake discharge cove. Co-60 activity was attributable to plant operation and has been identified in plant effluents. Co-60 activity was not detected in pre-operational environmental monitoring and was not detected in samples collected from control location JRR during 2005. Chart 6 plots the Co-60 detected activity from the discharge cove and reflects a decreasing trend.

Cs-137 activity (208.9 and 234.4 pCi/kg) was detected in the indicator samples obtained from the Coffey County Lake discharge cove. A portion of this activity is due to fallout and a portion of this activity is likely plant-related since Cs-134 activity has been detected in the past. Cs-137 activity was detected in pre-operational samples, and the results for 2005 indicator bottom sediment samples were within the pre-operational range. (Cs-137 activity detected in 1981 and 1982 was in the range of 79 to 953 pCi/kg. The decay corrected range of pre-operational Cs-137 activity detected is approximately 45 to 542 pCi/kg.) Cs-137 activity has been identified in plant effluents. Cs-137 activity (154.5 and 127.6 pCi/kg) was also detected in the control location samples and in the samples obtained from the indicator location EEA (83.7 and 77.3 pCi/kg).

Chart 7 plots the Cs-137 detected activity from the discharge cove indicator location and JRR control location bottom sediment samples. The detected Cs-137 activity measured from the discharge cove location reflects a decreasing trend. The Chart 7 trend line indicates that as expected, Cs-137 activity detected at the JRR control location has been decreasing.

No other radionuclides were detected in bottom sediment samples and no unusual trends were noted.

#### **(2) Aquatic Vegetation**

Naturally occurring Be-7 and K-40 activity were detected in samples collected in 2005. Be-7 and K-40 activity were also detected during pre-operational monitoring.

No other radionuclides were detected in aquatic vegetation samples and no unusual trends were noted.

#### **(3) Terrestrial Vegetation**

Naturally occurring Be-7 and K-40 activity were detected in samples collected in 2005. No other radionuclides were detected. No unusual trends were identified.

#### **(4) Soil**

Naturally occurring K-40 activity was detected in both of the soil samples. K-40 activity was also detected during pre-operational soil monitoring.

Cs-137 (557.5 pCi/kg) activity was detected in one soil sample obtained from the indicator location EEA. The pre-operational Cs-137 results (255 to 2,160 pCi/kg) for soil samples were decay corrected. The decay corrected pre-operational range is approximately 160 to 1355 pCi/kg. The measured Cs-137 activity of the soil samples obtained during 2005 are within the decay corrected pre-operational range. Cs-137 activity was not detected in air samples collected during 2005. The measured Cs-137 activity in the soil sample was likely due to previous fallout and not to a recently produced fission product associated with plant operation.

No unusual trends were identified.

### **III. PROGRAM REVISIONS/CHANGES**

No sample locations were changed during the 2005 monitoring period.

### **IV. PROGRAM DEVIATIONS**

#### **Air Samples**

The air sample locations listed below failed to meet the requirement for "continuous sampler operation." As described in footnote (1) of AP 07B-004, Table 5-1, deviations are permitted from the required sampling schedule due to malfunction of sampling equipment and other legitimate reasons. Discrepancies greater than five percent between Total Military Time and Total Meter Time, which resulted in a loss of air sample collected, are listed in the following table.

<b>Location</b>	<b>Sample Period</b>	<b>Percent Discrepancy/ Hours Unavailable</b>	<b>Explanation of Deviation</b>
48	01/04/05 – 01/12/05	11.80/23.3	Electrical Power Outage
37	06/28/05 – 07/06/05	11.06/21.0	Electrical Power Outage

During 2005, no other deviations from the AP 07B-004, Offsite Dose Calculation Manual (Radiological Environmental Monitoring Program) sampling schedule occurred.

#### **V. INTERLABORATORY COMPARISON PROGRAM RESULTS**

During 2005, Environmental, Inc., Midwest Laboratory was contracted to perform radiological analysis of environmental samples for WCNO. The lab participated in the intercomparison studies administered by Environmental Resources Associates. Appendix A is the Interlaboratory Comparison Program Results for Environmental, Inc., Midwest Laboratory. Intercomparison results, in-house spikes, blanks, duplicates and mixed analyte performance evaluation program results are also contained in Appendix A.

#### **VI. COMPARISON TO THE RADIOACTIVE EFFLUENTS RELEASE PROGRAM**

As described in the section discussing radioisotopes found in fish from Coffey County Lake, dose that may be received as a result of tritium released from WCGS is comparable with the theoretical doses calculated by the Radioactive Effluent Release Program.

The theoretical doses calculated by the Radioactive Effluent Release Program assume that a person drinks the water from Coffey County Lake and eats the fish from Coffey County Lake. Based upon these assumptions the dose to man from both pathways was calculated to be 0.286 mRem for 2005.

Using sample data obtained from the REMP, an adult drinking 2 liters per day of surface water from Coffey County Lake, using the average tritium activity (12,855 pCi/L), would receive a committed effective dose equivalent of 0.587 mRem per year. For an adult eating 21 kg of fish per year from Coffey County Lake, using the average tritium activity (7,699 pCi/kg), would receive a committed effective dose equivalent of 0.010 mRem per year. Based upon the REMP results, the dose from both pathways was calculated to be 0.597 mRem per year.

It should be noted that the Coffey County Lake is not a drinking water source. Calculating the dose to man for tritium detected in the Coffey County Lake surface water is for comparison purposes only.

The tritium dose values are being compared on a qualitative basis. It is not expected that the annual doses, as calculated in the Annual Radioactive Effluent Release Report, would compare directly to those calculated from the REMP. The Annual Radioactive Effluent Release Report provides a 'snap shot' of potential dose resulting from the year's releases. The REMP data indicates the accumulated result of releasing tritium into the lake since the start of plant operation.

**TABLE 1**

**2005 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM DESCRIPTION  
(SAMPLE COLLECTION SPECIFIED BY ODCM)**

<b>EXPOSURE PATHWAY/ SAMPLE TYPE</b>	<b>NUMBER OF SAMPLES AND SAMPLE LOCATIONS</b>	<b>SAMPLE COLLECTION FREQUENCY</b>	<b>TYPE AND FREQUENCY OF ANALYSIS</b>
<b>AIRBORNE</b>	<b>(See Figures 1 &amp; 5)</b>		
Radioiodine and Particulates	Samples from six locations	Continuous sampler operation with sample collection weekly, or more frequently if required, by dust loading.	Analyze radioiodine canister weekly for I-131
	Samples from locations near the site boundary in three sectors having the highest calculated annual average D/Q (Locations 2, 37, 49 and supplemental location 18 on Figure 1)		Analyze particulate filter weekly for gross beta activity; perform quarterly gamma isotopic analysis composite (by location)
	Sample from the vicinity of a community having the highest calculated annual average D/Q (Location 32 on Figure 1, New Strawn)		
	Sample from a control location 9.5 to 18.5 miles distant in a low ranked D/Q sector (Location 48 on Figure 5)		

**TABLE 1 (Cont.)**

<b>EXPOSURE PATHWAY/ SAMPLE TYPE</b>	<b>NUMBER OF SAMPLES AND SAMPLE LOCATIONS</b>	<b>SAMPLE COLLECTION FREQUENCY</b>	<b>TYPE AND FREQUENCY OF ANALYSIS</b>
<b>DIRECT RADIATION</b>	<b>(See Figures 2 &amp; 5)</b>  42 routine monitoring stations with two or more dosimeters measuring dose continuously, placed as follows:  An inner ring of stations, one in each meteorological sector 0-3 mile range from the site (Locations 1, 7-9, 11-13, 18, 26, 27, 29-31, 37, 38 and 47 on Figure 2).  An outer ring of stations, one in each meteorological sector in the 3-5 mile range from the site (Locations 4-6, 15-17, 19-25, and 33-36 on Figure 2). Six sectors [A, B, C, D, G, and L] contain an additional station (Locations 2, 3, 10, 14, 28 and 49).  The balance of the stations to be placed in special interest areas such as population centers (Locations 23 and 32), nearby residences	Quarterly	Gamma dose quarterly

**TABLE 1 (Cont.)**

<b>EXPOSURE PATHWAY/ SAMPLE TYPE</b>	<b>NUMBER OF SAMPLES AND SAMPLE LOCATIONS</b>	<b>SAMPLE COLLECTION FREQUENCY</b>	<b>TYPE AND FREQUENCY OF ANALYSIS</b>
<b>DIRECT RADIATION (cont.)</b>			
(many locations are near a residence), schools (Location 23), and in two areas to serve as control stations 10-20 miles distant from the site (Locations 39 and 48 on Figure 5).			
<b>WATERBORNE</b>	(See Figure 3)		
Surface	One sample upstream (Location JRR on Figure 3) and one sample downstream (Location SP on Figure 3).	Monthly grab sample	Monthly gamma isotopic analysis and composite for tritium analysis quarterly
Ground	Samples from one or two sources only if likely to be affected.  Indicator samples at locations hydrologically down gradient of the site (Locations C-10, C-49 and J-1 on Figure 3); control sample at a location hydrologically up gradient of the site (Location B-12 on Figure 3).	Quarterly grab sample	Quarterly gamma isotopic and tritium analysis

**TABLE 1 (Cont.)**

<b>EXPOSURE PATHWAY/ SAMPLE TYPE</b>	<b>NUMBER OF SAMPLES AND SAMPLE LOCATIONS</b>	<b>SAMPLE COLLECTION FREQUENCY</b>	<b>TYPE AND FREQUENCY OF ANALYSIS</b>
<b>WATERBORNE (cont.)</b>			
Drinking	Sample of municipal water supply at an indicator location downstream of the site (Location NF-DW on Figure 5); control sample from location upstream of the site (Location BW-15 on Figure 3).	Monthly Composite	Monthly gamma isotopic analysis and gross beta analysis of composite sample. Quarterly tritium analysis of composites.
Shoreline Sediment	One sample from the vicinity of Coffey County Lake discharge cove (Location DC on Figure 3); control sample from John Redmond Reservoir (Location JRR on Figure 3).	Semiannually	Semiannual gamma isotopic analysis
<b>INGESTION</b>	<b>(See Figures 4 &amp; 5)</b>		
Milk	Samples from milking animals at three indicator locations within 5 miles of the site having the highest dose potential (currently there are no locations producing milk for human consumption within 5 miles of the site); one sample from a control location greater than 10 miles from the site if indicator locations are sampled.	Semimonthly April to November; monthly December-March	Gamma isotopic analysis and I-131 analysis of each sample

**TABLE 1 (Cont.)**

<b>EXPOSURE PATHWAY/ SAMPLE TYPE</b>	<b>NUMBER OF SAMPLES AND SAMPLE LOCATIONS</b>	<b>SAMPLE COLLECTION FREQUENCY</b>	<b>TYPE AND FREQUENCY OF ANALYSIS</b>
<b>INGESTION (cont.)</b>			
Fish	Indicator samples of 1 to 3 recreationally important species from Coffey County Lake; control samples of similar species from John Redmond Reservoir spillway (Figure 4).	Semiannually	Gamma isotopic analysis on edible portions
Broadleaf Vegetation	Samples of available broadleaf vegetation from two indicator locations (using the criteria from the "Land Use Census" section) with highest calculated annual average D/Q (Locations G-1 and Q-6 and alternate location N-1 on Figure 4); sample of similar broadleaf vegetation from a control location 9.5 to 18.5 miles distant in a low ranked D/Q sector (Location D-1 or alternate location D-2 on Figure 5).	Monthly when available	Gamma isotopic analysis on edible portions
Irrigated Crops	Sample of crops irrigated with water from the Neosho River downstream of the Neosho River - Wolf Creek confluence (Location NR-D1 and NR-D2 on Figure 5).	At time of harvest	Gamma isotopic analysis on edible portions

**TABLE 2**  
**SAMPLE LOCATION IDENTIFIERS, DISTANCES (Miles) AND DIRECTIONS (Sectors)**

Sample Type	Location Identifier	Distance from Reactor	Direction	Sector
Air Particulates and Radioiodine	2	2.7	N	A
	18	3.0	SSE	H
	32	3.1	WNW	P
	37	2.0	NNW	R
	48	14.7	ENE	D
	49	0.8	NNE	B
TLDs	1	1.4	N	A
	2	2.7	N	A
	3	3.1	NE	C
	4	4.1	NNE	B
	5	4.1	NE	C
	6	4.6	ENE	D
	7	2.1	NE	C
	8	1.7	NNE	B
	9	2.0	ENE	D
	10	2.4	ENE	D
	11	1.7	E	E
	12	1.9	ESE	F
	13	1.6	SE	G
	14	2.5	SE	G
	15	4.6	ESE	F
	16	4.3	E	E
	17	3.7	SE	G
	18	3.0	SSE	H
	19	3.9	SSE	H
	20	3.3	S	J
	21	3.8	S	J
	22	3.9	SSW	K
	23	4.3	SW	L
	24	4.1	WSW	M
	25	3.4	W	N
	26	2.4	WSW	M
	27	2.2	SW	L
	28	2.6	SW	L
	29	2.7	SSW	K
	30	2.5	W	N
	31	3.0	WNW	P
	32	3.1	WNW	P
	33	3.6	WNW	P
	34	4.4	NW	Q
	35	4.6	NNW	R
	36	4.2	N	A
	37	2.0	NNW	R
	38	1.2	NW	Q

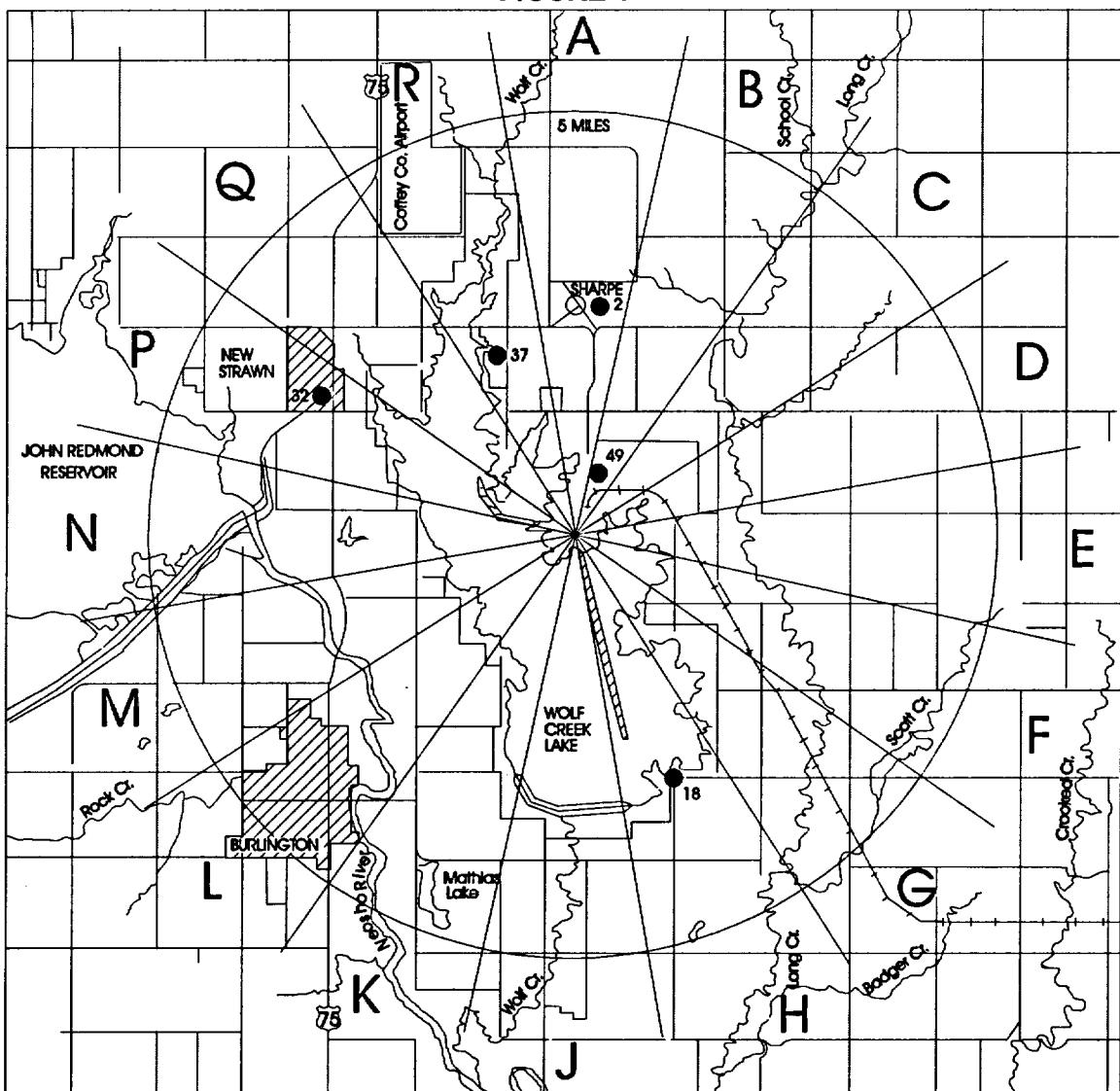
**TABLE 2 (Cont.)**  
**SAMPLE LOCATION IDENTIFIERS, DISTANCES (Miles) AND DIRECTIONS (Sectors)**

Sample Type	Location Identifier	Distance from Reactor	Direction	Sector
TLDs	39	13.1	N	A
	41	0.8	NNW	R
	42	0.8	SSE	H
	43	0.7	WNW	P
	44	3.0	NNW	R
	46	1.6	WNW	P
	47	0.16	S	J
	48	14.7	ENE	D
	49	0.8	NNE	B
Surface Water	JRR	3.7	W	N
	SP	3.2	SSE	H
Ground Water	B-12	1.9	NNE	B
	C-10	2.7	W	N
	C-49/L-49	2.8	SW	L
	F-1	2.5	ESE	F
	G-2	3.6	SE	G
	J-1	3.8	S	J
	J-2	4.3	S	J
Drinking Water	BW-15	3.9	SW	L
	IO-DW	26.1	SSE	H
	NF-DW	17.5	SSE	H
Shoreline Sediment	DC	0.8	WNW	P
	JRR	3.6	W	N
Fish	WCL	0.6	WNW	P
	JRR	3.7	W	N
Food/Garden	D-1	14.7	ENE	D
	D-2	14.8	ENE	D
	G-1	1.6	SE	G
	N-1	2.4	W	N
	Q-6	2.4	NW	Q
Crops	NR-D1	8.9	S	J
	NR-D2	11.5	S	J
	NR-U1	4.0	SSW	K
Bottom Sediment	DC	0.9	WNW	P
	EEA	3.0	NNW	R
	JRR	3.7	W	N
	MUDS	1.5	WNW	P
Aquatic Vegetation	EEA	3.0	NNW	R
	MUDS	1.5	WNW	P
Terrestrial Vegetation	EEA	3.0	NNW	R
Soil	EEA	3.0	NNW	R
	MUDS	1.5	WNW	P

**TABLE 3**  
**TLD Results**  
(mR/90-day qtr.)

Location	Qtr. 1 90-Day Avg.	Qtr. 1 2- std. dev.	Qtr. 2 90-Day Avg.	Qtr. 2 2- std. dev.	Qtr. 3 90-Day Avg.	Qtr. 3 2- std. dev.	Qtr. 4 90-Day Avg.	Qtr. 4 2- std. dev.	Total Annual Exposure (mR)
1	19.6	0.9	25.1	2.8	35.0	3.7	28.6	1.9	108.3
2	17.6	0.4	19.4	1.3	31.0	2.5	27.1	1.9	95.1
3	18.3	1.4	21.2	1.3	32.4	1.8	26.8	2.2	98.7
4	19.3	1.3	21.5	1.2	32.3	2.1	27.0	1.8	100.1
5	18.1	0.9	19.4	1.4	31.6	2.0	25.9	0.8	95.0
6	19.6	4.5	19.5	0.9	32.4	3.8	25.8	1.8	97.3
7	20.4	7.8	19.8	1.1	32.5	2.1	25.2	1.4	97.8
8	19.7	1.7	21.2	0.7	33.4	1.7	27.2	1.2	101.6
9	18.1	1.8	20.2	1.2	31.9	4.1	24.5	1.2	94.7
10	20.2	1.9	20.9	1.1	33.1	2.3	26.9	1.0	101.1
11	21.0	1.2	22.9	3.2	33.9	2.4	27.5	1.4	105.3
12	19.3	1.5	21.0	2.0	32.2	1.7	27.2	3.1	99.7
13	19.8	1.3	22.6	2.0	32.9	1.4	27.6	1.6	102.9
14	19.9	2.5	20.4	0.3	34.1	3.6	28.4	2.6	102.9
15	19.9	2.3	20.6	0.5	34.3	1.3	27.1	2.4	101.8
16	18.8	0.7	19.9	1.1	32.5	2.4	25.9	1.8	97.1
17	19.4	2.2	20.2	1.8	31.8	1.8	27.1	2.1	98.6
18	18.6	1.4	20.3	0.6	33.4	6.2	25.6	1.2	97.8
19	20.8	1.4	21.9	0.8	35.9	7.4	26.3	1.5	104.9
20	19.3	1.2	21.4	2.7	32.8	1.1	25.4	2.3	98.8
21	17.1	1.2	19.3	1.0	30.0	2.1	25.1	1.4	91.5
22	21.5	3.2	21.7	2.4	34.2	2.0	29.0	0.4	106.4
23	21.0	3.5	20.9	1.3	32.4	1.1	26.2	1.7	100.4
24	19.4	0.9	20.4	1.2	32.2	2.2	26.6	1.0	98.6
25	17.8	1.9	20.0	4.1	30.0	1.6	23.9	0.7	91.6
26	17.4	1.0	19.2	2.2	30.0	1.0	25.4	0.9	91.9
27	19.0	1.8	20.8	0.8	32.5	1.2	27.0	1.7	99.2
28	17.0	1.0	17.8	0.8	28.7	1.6	26.1	3.3	89.6
29	16.3	1.0	17.0	0.6	28.8	1.4	22.8	1.4	84.8
30	20.0	1.0	21.0	0.5	32.0	2.1	26.8	2.1	99.8
31	18.5	1.0	19.3	0.7	31.3	2.3	25.8	2.1	95.0
32	18.8	3.6	19.1	0.5	31.1	1.2	25.5	2.7	94.5
33	19.9	0.7	21.4	1.0	33.8	3.7	28.7	1.4	103.7
34	20.3	1.0	21.2	1.2	32.9	2.1	28.2	1.0	102.6
35	19.4	0.6	21.0	0.9	32.2	1.3	27.4	1.7	100.0
36	18.6	1.2	21.1	2.2	30.9	1.0	27.2	2.9	97.8
37	18.3	1.5	20.1	0.6	30.7	3.3	27.0	3.6	96.1
38	19.7	0.9	23.7	3.3	33.6	1.6	27.7	1.2	104.7
39	18.3	1.2	19.8	1.1	31.0	2.0	24.7	1.3	93.8
41	20.6	2.5	21.2	1.9	33.2	2.3	27.4	1.2	102.4
42	13.7	0.9	17.3	2.9	25.5	2.5	20.1	0.8	76.6
43	14.8	3.7	14.7	2.2	24.9	1.5	19.5	0.7	73.9
44	19.0	1.0	19.8	1.0	32.4	2.1	26.2	1.8	97.4
46	19.0	0.9	19.8	1.0	31.4	1.4	26.1	1.1	96.2
47	18.3	1.3	20.8	1.5	31.2	1.8	25.0	1.2	95.4
48	18.1	0.6	21.8	1.2	31.0	1.1	26.4	2.2	97.2
49	18.7	0.6	20.8	1.3	33.1	2.7	25.5	1.7	98.2

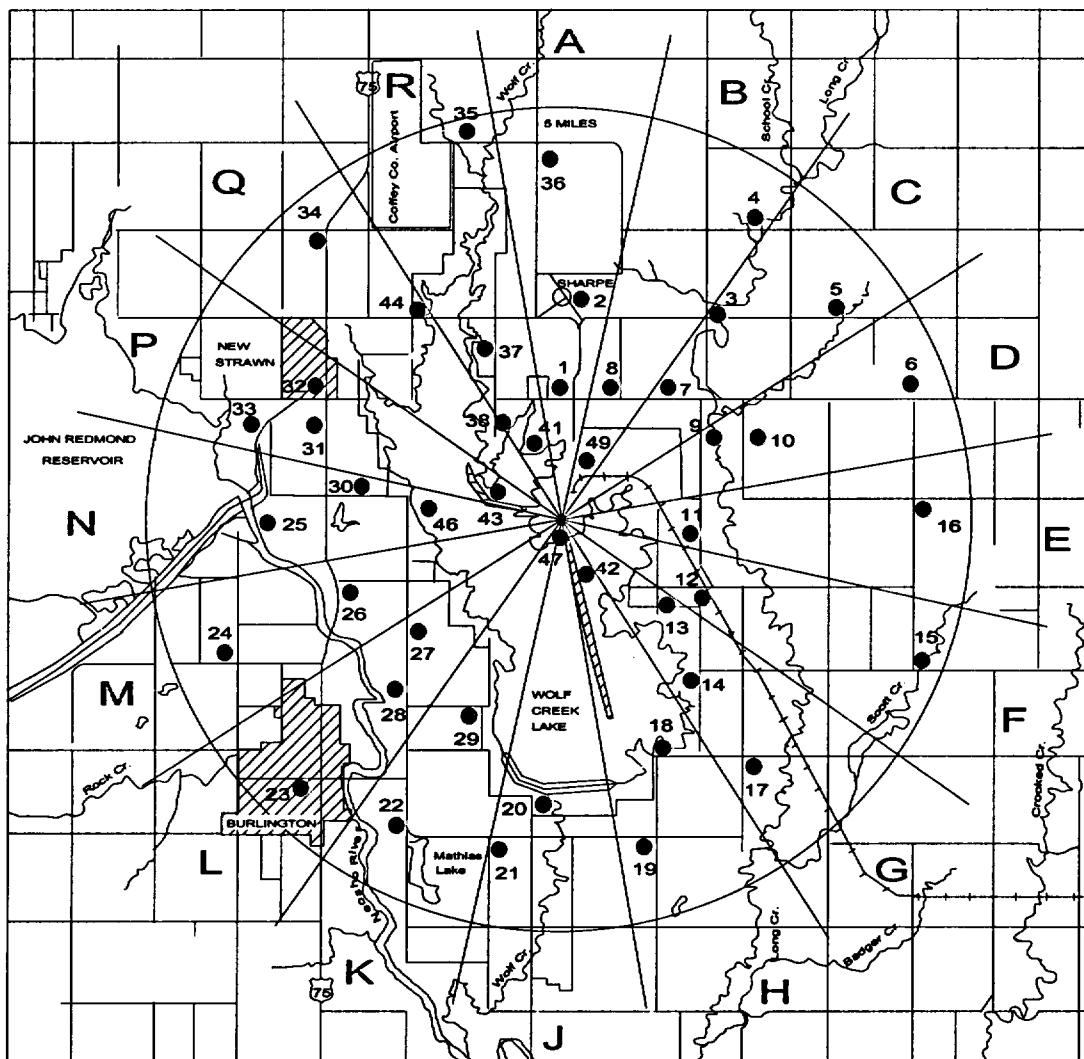
FIGURE 1



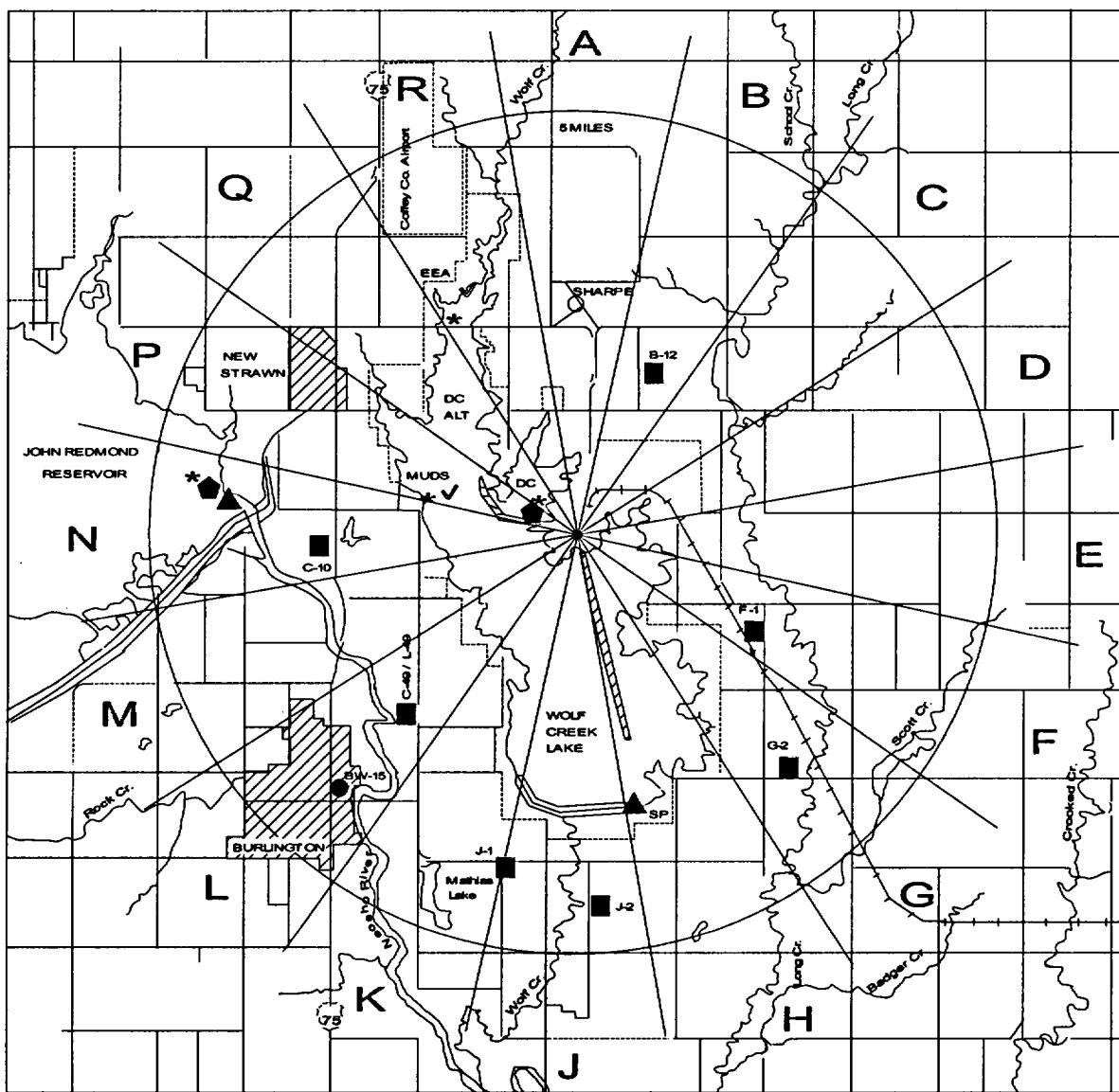
AIRBORNE PATHWAY SAMPLING LOCATIONS

● = AIRBORNE PARTICULATE AND RADIOIODINE

**FIGURE 2**



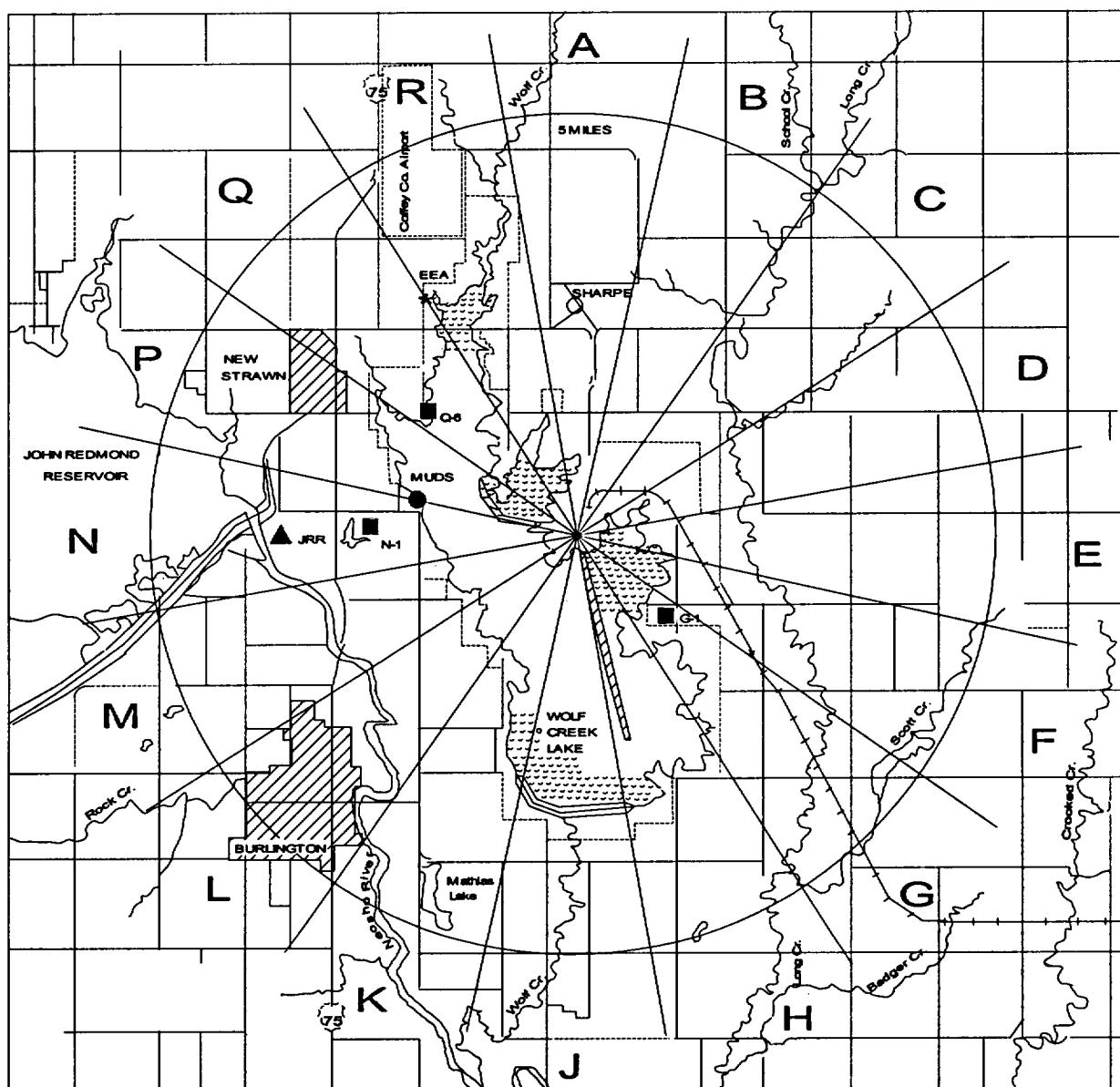
**FIGURE 3**



**WATERBORNE PATHWAY SAMPLING LOCATIONS**

- |                     |                                |
|---------------------|--------------------------------|
| ● = DRINKING WATER  | ▲ = SURFACE WATER              |
| ■ = GROUND WATER    | ◆ = SHORELINE SEDIMENT         |
| * = BOTTOM SEDIMENT | ✓ = AQUATIC VEGETATION / ALGAE |

**FIGURE 4**



**INGESTION PATHWAY SAMPLING LOCATIONS**

- ▲ = FISH (JRR)
- = BROADLEAF VEGETATION
- = FISH (WCL)
- = SOIL
- ✓ = DEER
- \* = TERRESTRIAL VEGETATION

**FIGURE 5**

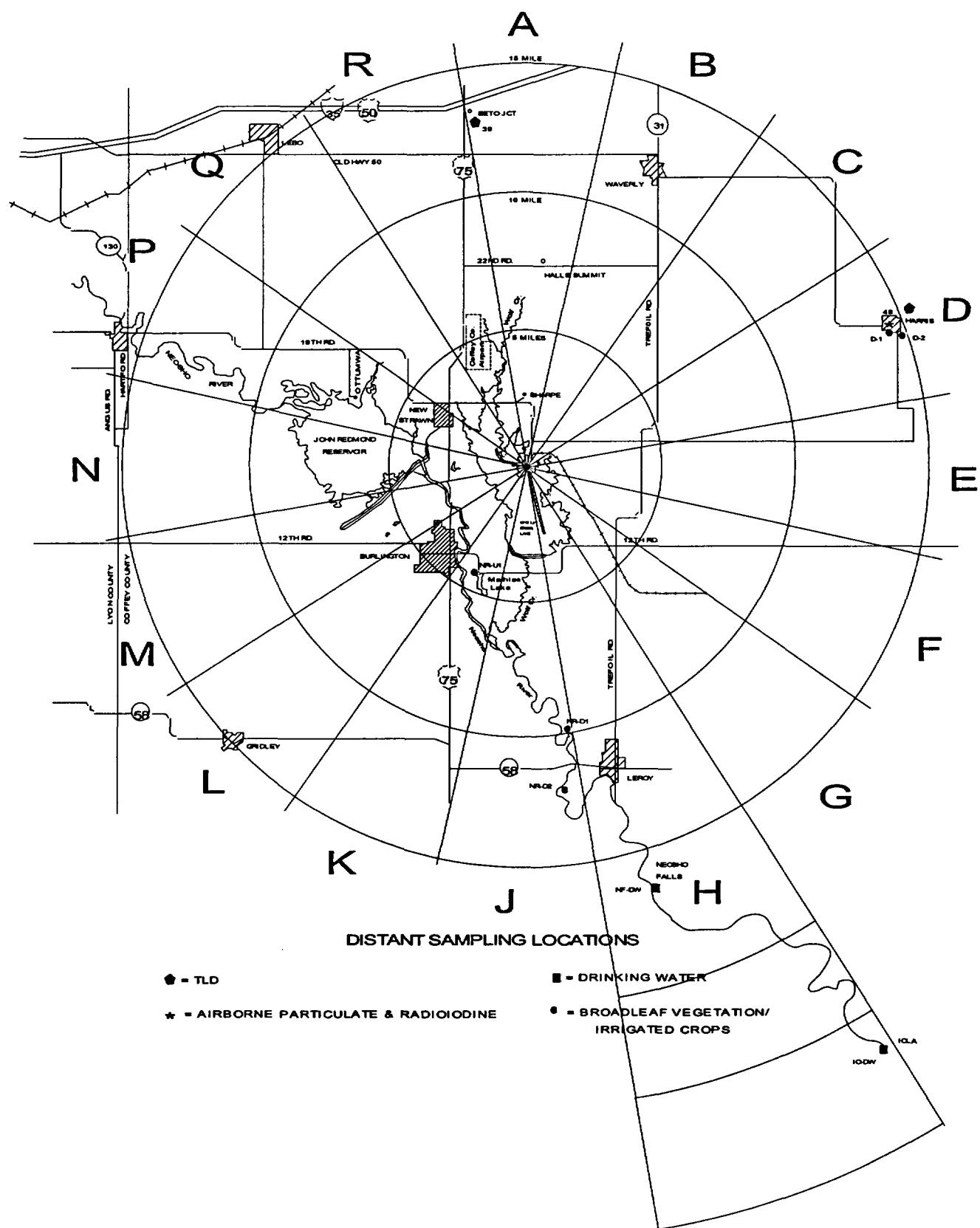


CHART 1

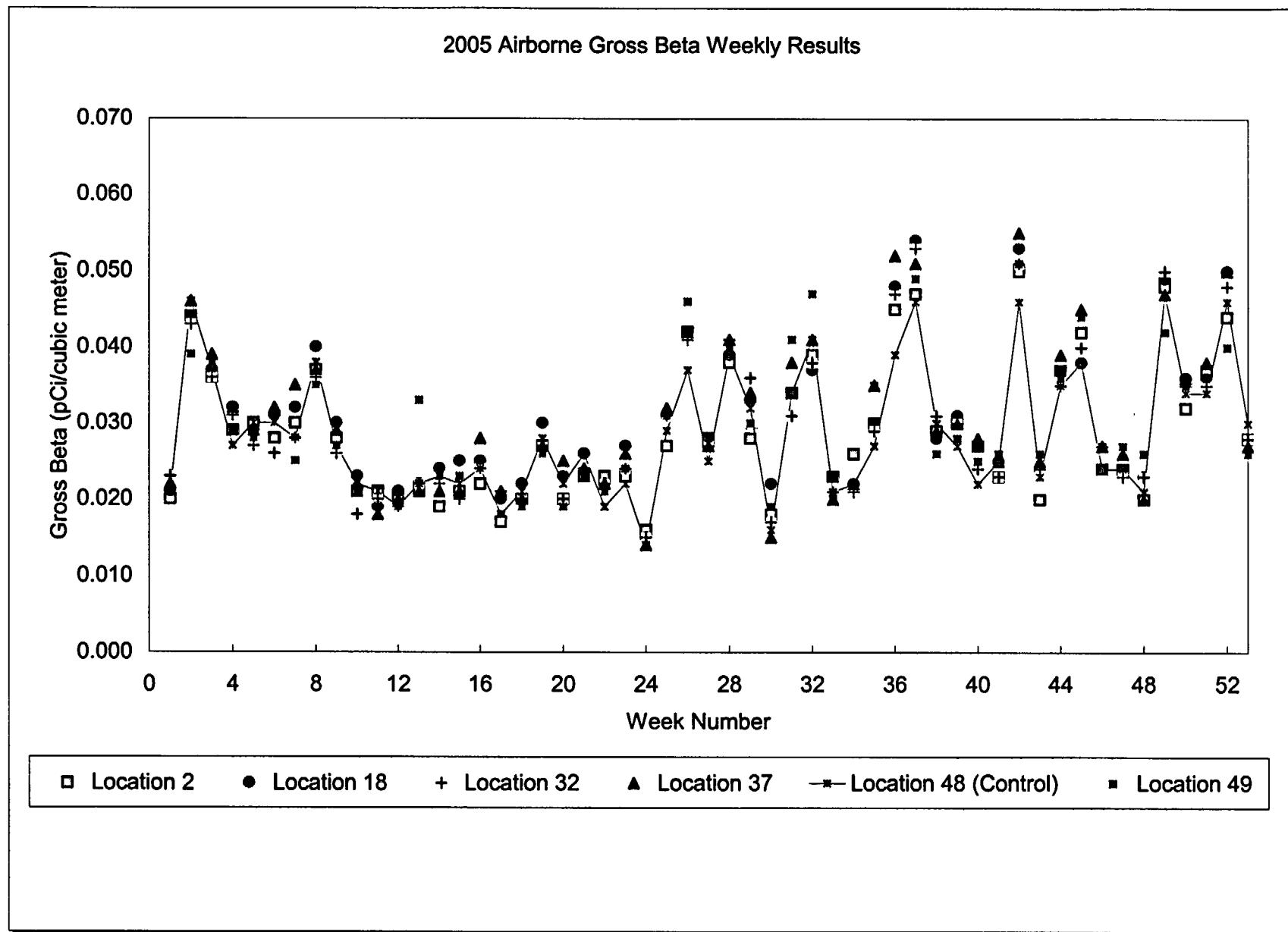


CHART 2

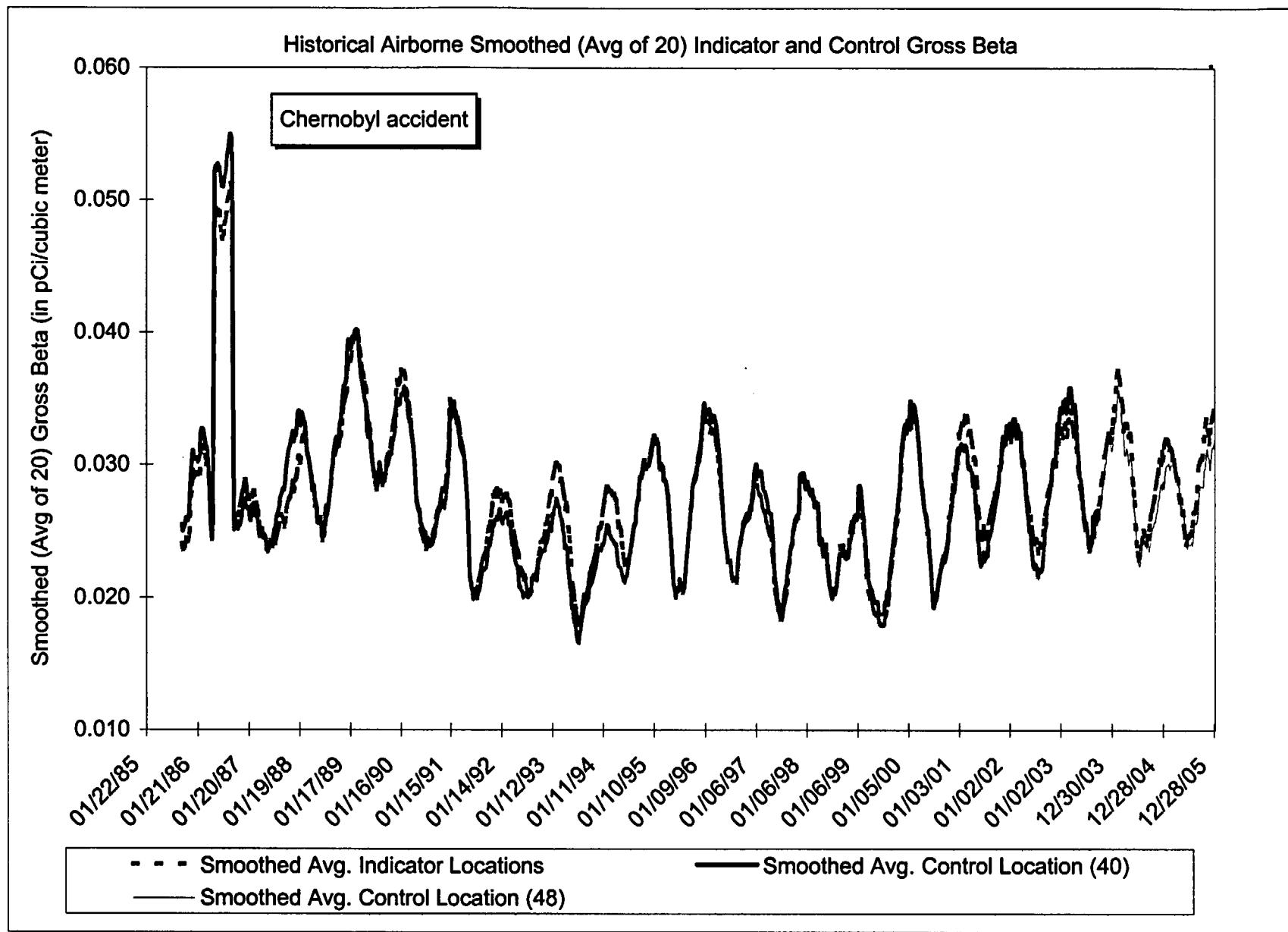


CHART 3

TLD Nearsite Locations and Control Locations

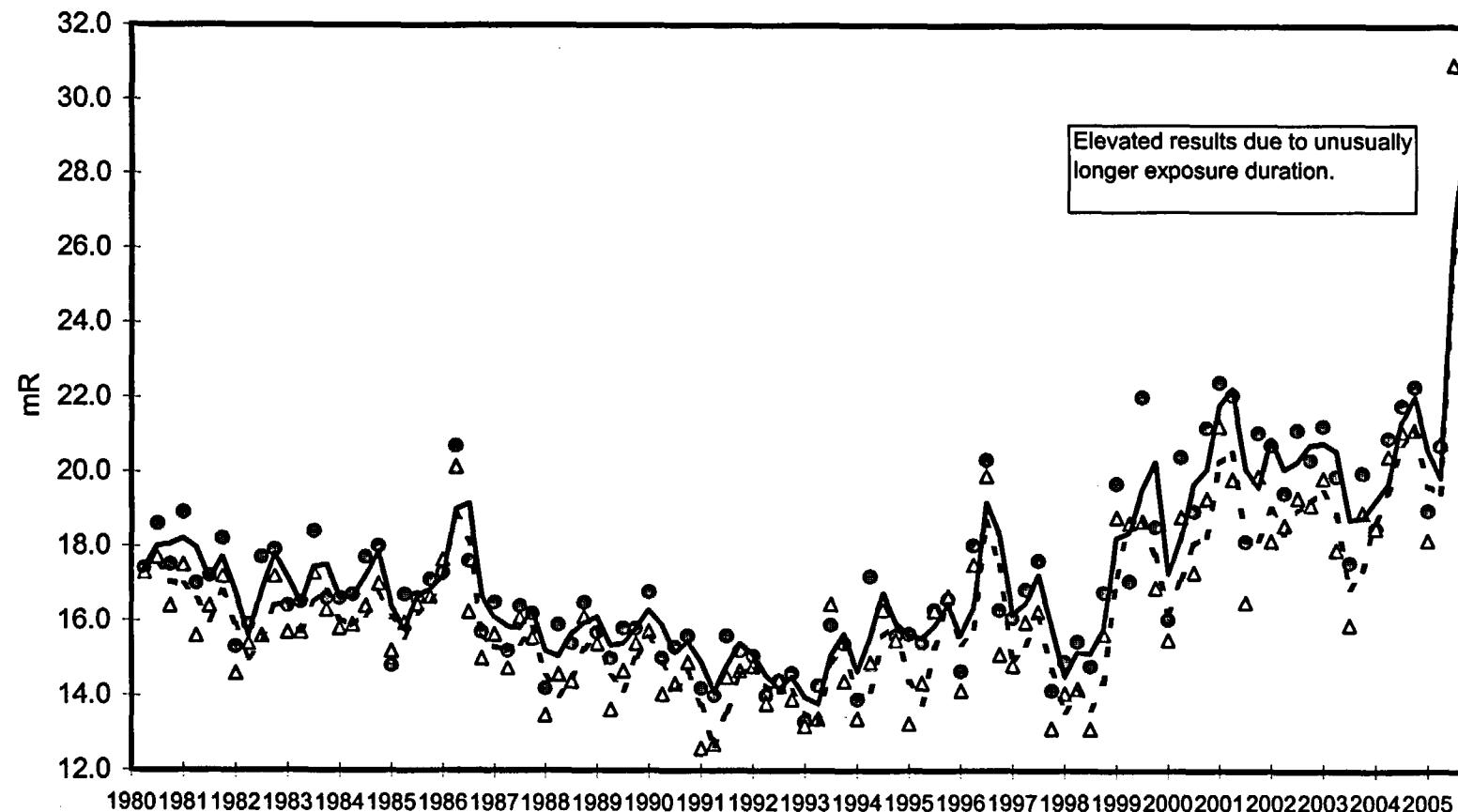
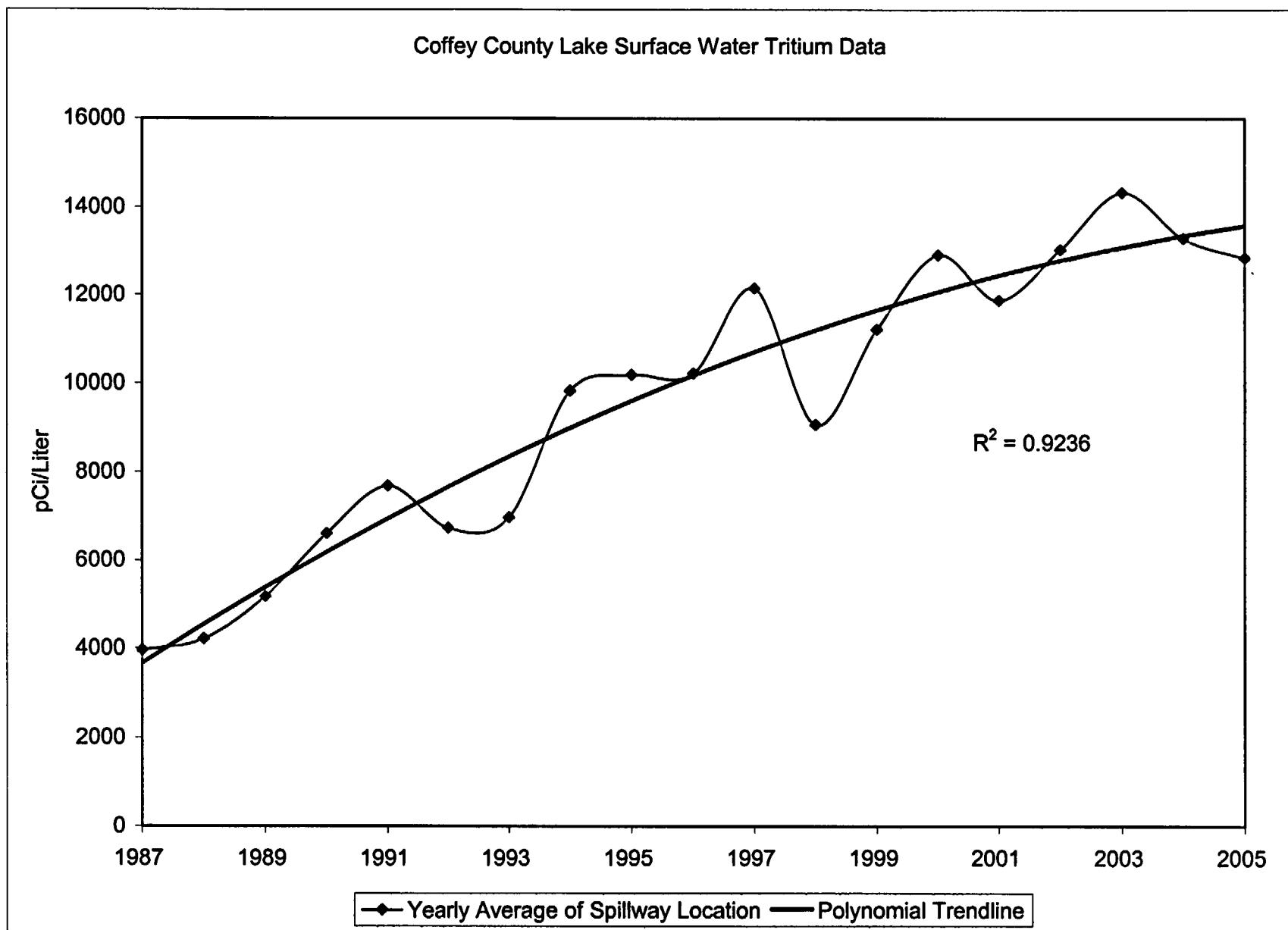


CHART 4



**CHART 5**

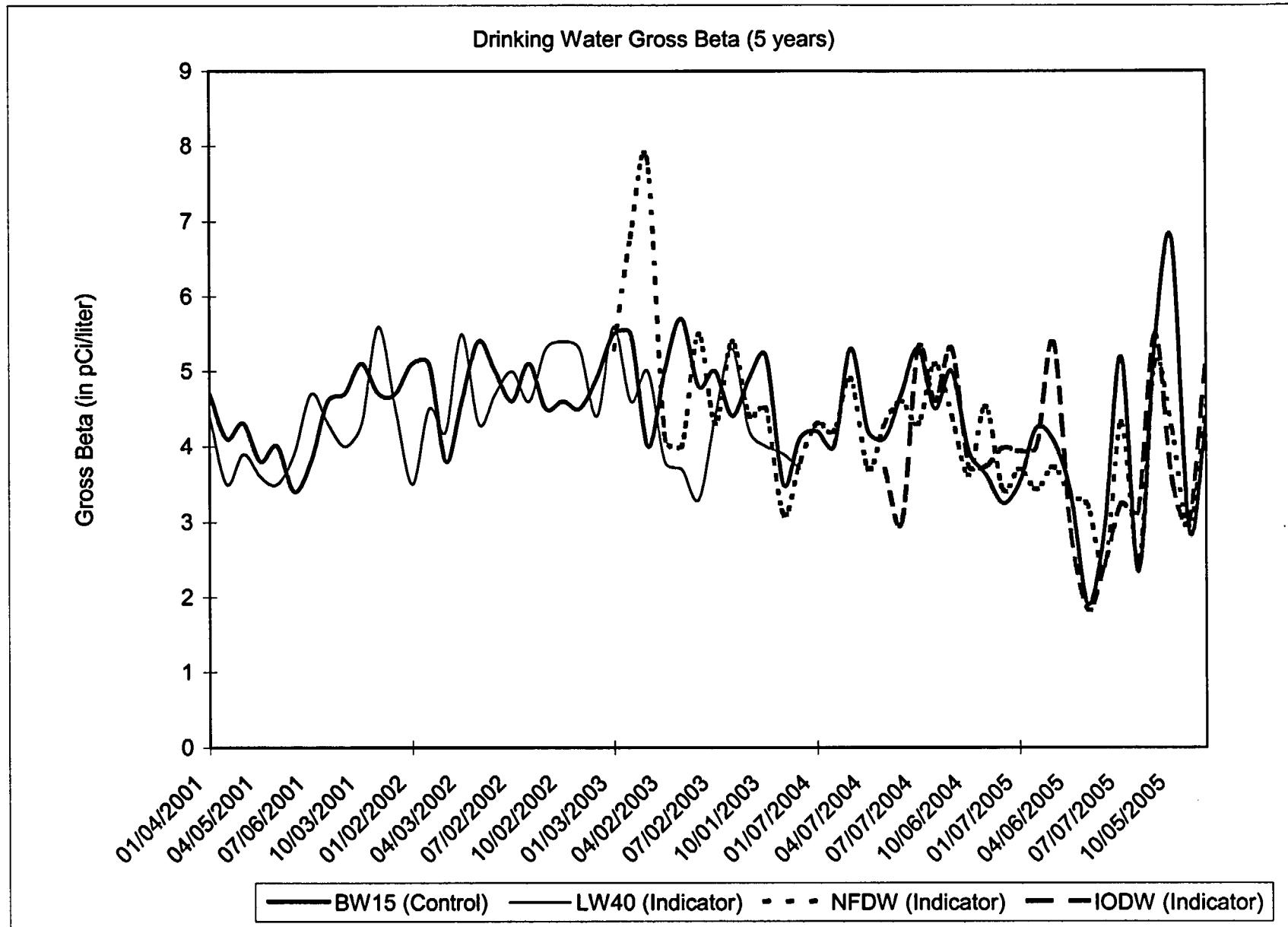


CHART 6

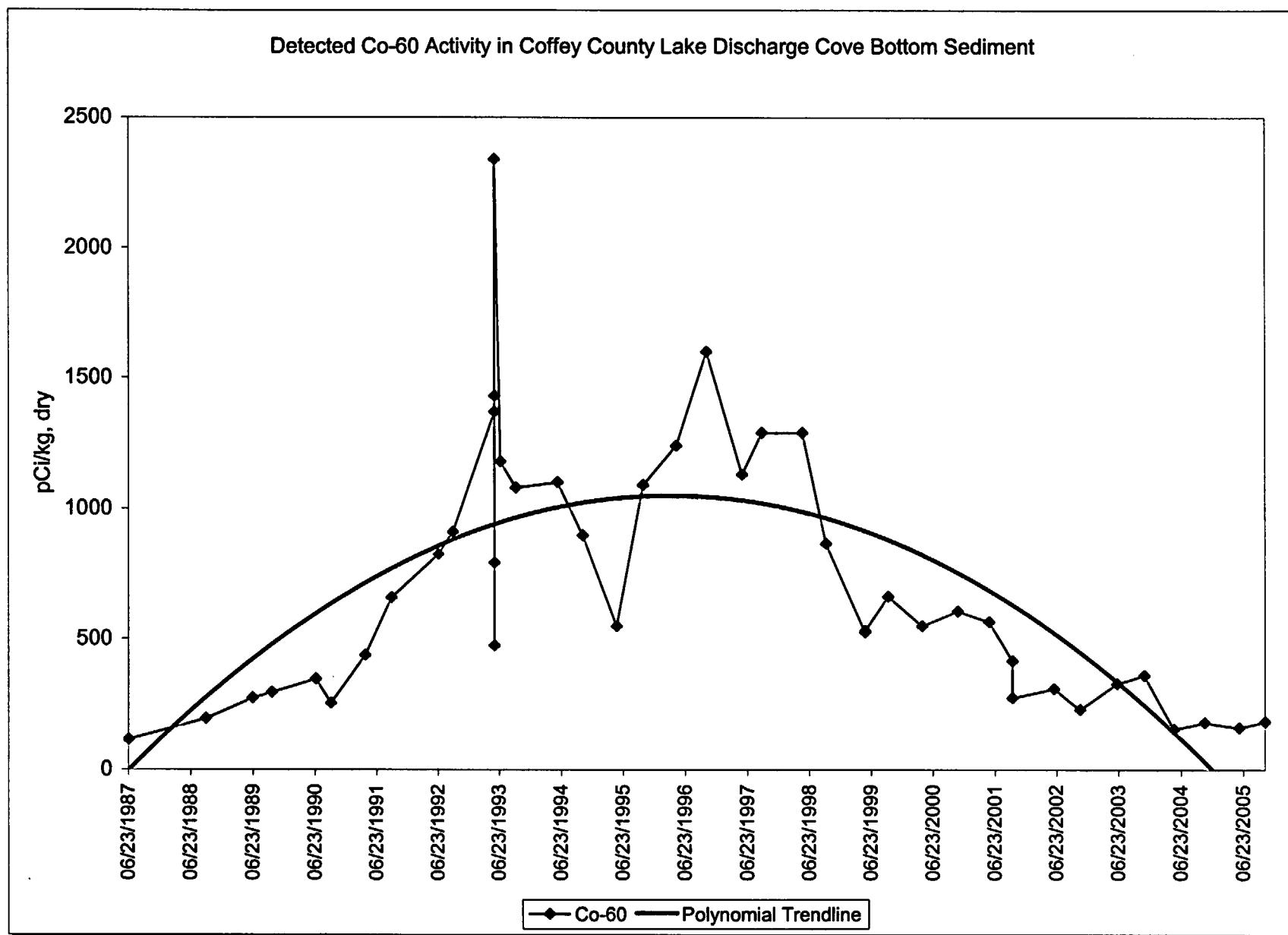
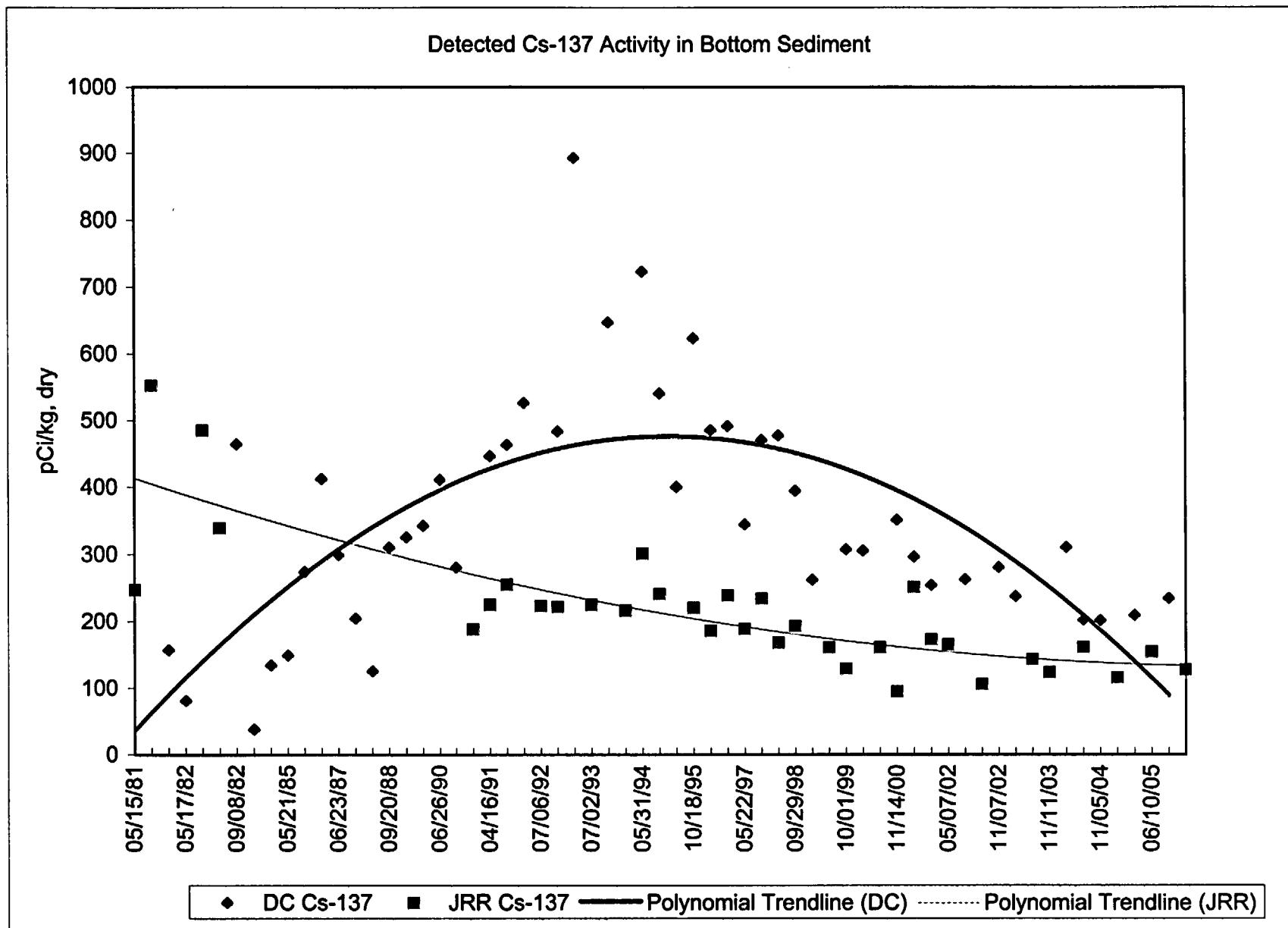


CHART 7





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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 its 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<sup>a</sup>

Analysis	Level	One standard deviation for single determination
Gamma Emitters	5 to 100 pCi/liter or kg > 100 pCi/liter or kg	5.0 pCi/liter 5% of known value
Strontium-89 <sup>b</sup>	5 to 50 pCi/liter or kg > 50 pCi/liter or kg	5.0 pCi/liter 10% of known value
Strontium-90 <sup>b</sup>	2 to 30 pCi/liter or kg > 30 pCi/liter or kg	5.0 pCi/liter 10% of known value
Potassium-40	≥ 0.1 g/liter or kg	5% of known value
Gross alpha	≤ 20 pCi/liter > 20 pCi/liter	5.0 pCi/liter 25% of known value
Gross beta	≤ 100 pCi/liter > 100 pCi/liter	5.0 pCi/liter 5% of known value
Tritium	≤ 4,000 pCi/liter > 4,000 pCi/liter	± 1σ = (pCi/liter) = 169.85 x (known) <sup>0.0933</sup> 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 <sup>b</sup>	≤ 55 pCi/liter > 55 pCi/liter	6.0 pCi/liter 10% of known value
Uranium-238, Nickel-63 <sup>b</sup>	≤ 35 pCi/liter > 35 pCi/liter	6.0 pCi/liter 15% of known value
Technetium-99 <sup>b</sup>		
Iron-55 <sup>b</sup>	50 to 100 pCi/liter > 100 pCi/liter	10 pCi/liter 10% of known value
Others <sup>b</sup>	—	20% of known value

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

<sup>b</sup> Laboratory limit.

TABLE A-1. Interlaboratory Comparison Crosscheck program, Environmental Resource Associates (ERA)<sup>a</sup>.

Lab Code	Date	Analysis	Concentration (pCi/L)			
			Laboratory Result <sup>b</sup>	ERA Result <sup>c</sup>	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)<sup>a</sup>.

Lab Code	Date	Analysis	Concentration (pCi/L)			Acceptance
			Laboratory Result <sup>b</sup>	ERA Result <sup>c</sup>	Control Limits	
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 <sup>d</sup>	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 <sup>e</sup>	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

<sup>a</sup> 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).

<sup>b</sup> Unless otherwise indicated, the laboratory result is given as the mean ± standard deviation for three determinations.

<sup>c</sup> Results are presented as the known values, expected laboratory precision (1 sigma, 1 determination) and control limits as provided by ERA.

<sup>d</sup> 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.

<sup>e</sup> 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, CaSO<sub>4</sub>: Dy Cards).

Lab Code	Date	Description	Known Value	mR		Acceptance
				Lab Result ± 2 sigma	Control Limits	
<u>Environmental, Inc.</u>						
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
<u>Environmental, Inc.</u>						
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 <sup>b</sup>	Date	Analysis	Concentration (pCi/L) <sup>a</sup>			
			Laboratory results 2s, n=1 <sup>c</sup>	Known Activity	Control Limits <sup>d</sup>	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)			Acceptance
			Laboratory results 2s, n=1 <sup>b</sup>	Known Activity	Control Limits <sup>c</sup>	
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

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

<sup>b</sup> Laboratory codes as follows: W (water), MI (milk), AP (air filter), SO (soil), VE (vegetation),

CH (charcoal canister), F (fish).

<sup>c</sup> Results are based on single determinations.

<sup>d</sup> 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) <sup>a</sup>		Acceptance Criteria (4.66 σ)
				LLD	Activity <sup>b</sup>	
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 <sup>d</sup>	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) <sup>a</sup>		Acceptance Criteria (4.66 σ)
				LLD	Activity <sup>b</sup>	
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

<sup>a</sup> Liquid sample results are reported in pCi/Liter, air filters( pCi/filter), charcoal (pCi/charcoal canister), and solid samples (pCi/g).<sup>b</sup> Activity reported is a net activity result. For gamma spectroscopic analysis, activity detected below the LLD value is not reported<sup>c</sup> I-131(G); Iodine-131 as analyzed by gamma spectroscopy.<sup>d</sup> 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) <sup>a</sup>			Acceptance
			First Result	Second Result	Averaged Result	
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) <sup>a</sup>			Acceptance
			First Result	Second Result	Averaged Result	
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 <sup>b</sup>	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 <sup>b</sup>	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) <sup>a</sup>			Averaged Result	Acceptance
			First Result	Second Result			
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) <sup>a</sup>			Acceptance
			First Result	Second Result	Averaged Result	
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 <sup>c</sup>	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.

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

<sup>b</sup> 600 minute count time or longer, resulting in lower error.

<sup>c</sup> 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)<sup>a</sup>.

Lab Code <sup>c</sup>	Date	Analysis	Concentration <sup>b</sup>		Control Limits <sup>d</sup>	Acceptance
			Laboratory result	Known Activity		
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)<sup>a</sup>.

Lab Code <sup>c</sup>	Date	Analysis	Concentration <sup>b</sup>		Control Limits <sup>d</sup>	Acceptance
			Laboratory result	Known Activity		
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*	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 <sup>f</sup>	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)<sup>a</sup>.

Lab Code <sup>c</sup>	Date	Analysis	Concentration <sup>b</sup>		Control Limits <sup>d</sup>	Acceptance
			Laboratory result	Known Activity		
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

<sup>a</sup> 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

<sup>b</sup> 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.

<sup>c</sup> Laboratory codes as follows: STW (water), STAP (air filter), STSO (soil), STVE (vegetation).

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

<sup>e</sup> 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.

<sup>f</sup> Incorrect sample weight used in calculation. Result of recalculation: 97.0 ± 7.8 Bq/kg.

**Appendix B**

**Summary Tables in the format of NRC Radiological Assessment Branch Technical Position  
Revision 1, November 1979**

**RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM SUMMARY**

Name of Facility: Wolf Creek Generating Station Docket No.: 50-482  
 Location of Facility: Coffey County, Kansas Reporting Period: Annual 2005

Medium of Pathway Sampled (Unit of Measurement)	Analysis and Total Number of Analysis Performed	ODCM Lower Limit of Detection (LLD)	All Indicator Locations ** Mean (f) ** Range	Indicator Location with Highest Annual Mean Name Distance and Direction ** Mean (f) ** Range	Control Locations ** Mean (f) ** Range	Number of Nonroutine Reported Measurements **
Air Particulate (pCi/m <sup>3</sup> )	Gross Beta (318)	0.01	0.030 (265/265) (0.014-0.055)	37 2.0 miles NNW 0.031 (53/53) (0.014-0.055)	Station 48 0.029 (53/53) (0.014-0.047)	0
	Gamma (24) Be-7	-	0.080 (20/20) (0.057-0.107)	49 0.8 miles NNE 0.089 (4/4) (0.059-0.107)	0.076 (4/4) (0.056-0.095)	0
	I-131 (318)	0.07	- (0/265)	N/A	N/A - (0/53)	0
External Radiation (mR/day)	TLD (376)	-	0.271 (360/360) (0.152-0.399)	1 1.4 miles N 0.301 (8/8) (0.217-0.389)	Stations 39 & 48 0.265 (16/16) (0.201-0.344)	0
Surface Water (pCi/l)	Gamma (24)		-(0/12)	N/A	N/A JRR -(0/12)	0
	Tritium (24)	3000	12855 (12/12) (9533-15907)	SP 3.2 miles SSE 12855 (12/12) (9533-15907)	219 (1/12)	0
Ground Water (pCi/l)	I-131 (25)	1	-(0/21)	N/A	N/A B-12 -(0/4)	0
	Gamma (25)		-(0/21)	N/A	N/A -(0/4)	0
	Tritium (25)	2000	211 (2/21) (204-217)	C-49 2.8 miles SW 217 (1/5)	-(0/4)	0

**RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM SUMMARY**

Name of Facility: Wolf Creek Generating Station Docket No.: 50-482  
 Location of Facility: Coffey County, Kansas Reporting Period: Annual 2005

Medium of Pathway Sampled (Unit of Measurement)	Analysis and Total Number of Analysis Performed	ODCM Lower Limit of Detection (LLD)	All Indicator Locations ** Mean (f) ** Range	Indicator Location with Highest Annual Mean Name Distance and Direction	Control Locations ** Mean (f) ** Range	Number of Nonroutine Reported Measurements **
Drinking Water (pCi/l)	I-131 (36)	1	-(0-24)	N/A	N/A	BW-15 -(0/12) 0
	Gross Beta (36)	4	3.6 (24/24) (1.8-5.5)	IO-DW 26.1 miles SSE	3.7 (12/12) (1.8-5.5)	3.9 (12/12) (1.9-6.8) 0
	Gamma (36)		-(0/24)	N/A	N/A	-(0/12) 0
	Tritium (12)	2000	225 (2/8) (207-243)	NF-DW 17.5 miles SSE	243 (1/4)	245 (1/4) 0
Shoreline Sediment (pCi/kg dry)	Gamma (4)				JRR	
	K-40	-	10667.5 (2/2) (10382-10953)	DC 0.8 miles WNW	10667.5 (2/2) (10382-10953)	10244.7 (2/2) (8643-11846) 0
	Cs-137	180	-(0-2)	N/A	N/A	69.3 (2/2) (56.7-81.9) 0
Fish (pCi/kg wet)	Gamma (16)				JRR	
	K-40	-	3307 (10/10) (2687-4329)	WCL 0.6 miles	3307 (10/10) (2687-4329)	3100 (6/6) (2804-3298) 0
	Tritium (16)	-	7699.7 (10/10) (6281-9479)	WCL 0.6 miles	7699.7 (10/10) (6281-9479)	-(0/6) 0

**RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM SUMMARY**

Name of Facility: Wolf Creek Generating Station Docket No.: 50-482  
 Location of Facility: Coffey County, Kansas Reporting Period: Annual 2005

Medium of Pathway Sampled (Unit of Measurement)	Analysis and Total Number of Analysis Performed	ODCM Lower Limit of Detection (LLD)	All Indicator Locations ** Mean (f) ** Range	Indicator Location with Highest Annual Mean Name Distance and Direction ** Mean (f) ** Range	Control Locations ** Mean (f) ** Range	Number of Nonroutine Reported Measurements **		
Food and Garden (pCi/kg wet)	Gamma (21)	Be-7	-  K-40	365.6 (8/12) (171.6-713.9)	G-1 1.6 miles SE  G-1 1.6 miles SE	397.6 (4/5) (203.5-713.9)  5382.3 (5/5) (3353.7-6745.5)	443.8 (6/9) (177.3-1025.4)  3623.1 (9/9) (2563.2-4999.4)	0 0
							NR-U1	
Crops (pCi/kg wet)	Gamma (4)	K-40	-	7495.9 (3/3) (3128-15396)	NR-D2 11.5 miles S	9262.0 (2/2) (3128-15396)	2308.8 (1/1)	0
							JRR	
Bottom Sediment (pCi/kg dry)	Gamma (7)	K-40  Co-60  Cs-137	-  -  -	12593.7 (5/5) (9050-14377)	DC 0.9 miles WNW	13916.0 (2/2) (13455-14377)	18138.0 (2/2) (16987-19289)	0
				171.3 (2/5) (159.7-182.8)	DC 0.9 miles WNW	171.3 (2/2) (159.7-182.8)	- (0/2)	0
				151.1 (4/5) (77.3-234.4)	DC 0.9 miles WNW	221.7 (2/2) (208.9-234.4)	141.1 (2/2) (127.6-154.5)	0

**RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM SUMMARY**

Name of Facility: Wolf Creek Generating Station Docket No.: 50-482  
 Location of Facility: Coffey County, Kansas Reporting Period: Annual 2005

Medium of Pathway Sampled (Unit of Measurement)	Analysis and Total Number of Analysis Performed	ODCM Lower Limit of Detection (LLD)	All Indicator Locations ** Mean (f) ** Range	Indicator Location with Highest Annual Mean Name Distance and Direction	Control Locations ** Mean (f) ** Range	Number of Nonroutine Reported Measurements **
Aquatic Vegetation (pCi/kg wet)	Gamma (2)	-	909.3 (2/2) (516.3-1302.3)	EEA 3.0 miles NNW	No Control	
					1302.3 (1/1)	0
Terrestrial Vegetation (pCi/kg wet)	Gamma (1)	-	2336.1 (2/2) (2154.5-2517.7)	EEA 3.0 miles NNW	No Control	
					2517.7 (1/1)	0
Soil (pCi/kg dry)	Gamma (2)	-	868.3 (1/1)	EEA 3.0 miles NNW	No Control	
					868.3 (1/1)	0
	K-40	-	7677.2 (1/1)	EEA 3.0 miles NNW	7677.2 (1/1)	

## Air Particulate and Charcoal Filters

**Location: 002**

<b>Collection Start Date</b>	<b>Collection End Date</b>	<b>Volume m<sup>3</sup></b>	<b>Gross Beta Concentration (pCi/m<sup>3</sup>)</b>	<b>I-131 Concentration (pCi/m<sup>3</sup>)</b>	<b>Duplicate Analysis</b>
28-DEC-04	04-JAN-05	300	0.020+/- 0.003	< 0.016	
04-JAN-05	12-JAN-05	352	0.044+/- 0.004	< 0.012	
12-JAN-05	20-JAN-05	347	0.036+/- 0.004	< 0.019	
20-JAN-05	26-JAN-05	258	0.029+/- 0.004	< 0.017	
26-JAN-05	03-FEB-05	347	0.030+/- 0.003	< 0.016	
03-FEB-05	11-FEB-05	339	0.028+/- 0.003	< 0.011	
11-FEB-05	17-FEB-05	262	0.030+/- 0.004	< 0.016	
17-FEB-05	25-FEB-05	339	0.037+/- 0.004	< 0.020	
25-FEB-05	04-MAR-05	303	0.028+/- 0.004	< 0.016	
04-MAR-05	09-MAR-05	217	0.021+/- 0.005	< 0.020	
04-MAR-05	09-MAR-05	217	0.018+/- 0.004		Duplicate
09-MAR-05	17-MAR-05	349	0.021+/- 0.003	< 0.018	
17-MAR-05	24-MAR-05	302	0.020+/- 0.003	< 0.007	
24-MAR-05	30-MAR-05	240	0.021+/- 0.004	< 0.014	
30-MAR-05	06-APR-05	280	0.019+/- 0.003	< 0.016	
06-APR-05	13-APR-05	287	0.021+/- 0.003	< 0.009	
13-APR-05	20-APR-05	287	0.022+/- 0.004	< 0.014	
20-APR-05	27-APR-05	292	0.017+/- 0.003	< 0.011	
27-APR-05	04-MAY-05	299	0.020+/- 0.003	< 0.016	
04-MAY-05	11-MAY-05	297	0.027+/- 0.003	< 0.009	
11-MAY-05	18-MAY-05	298	0.020+/- 0.004	< 0.010	
18-MAY-05	25-MAY-05	288	0.023+/- 0.004	< 0.014	
25-MAY-05	01-JUN-05	315	0.023+/- 0.003	< 0.009	
01-JUN-05	08-JUN-05	296	0.023+/- 0.004	< 0.014	
08-JUN-05	15-JUN-05	307	0.016+/- 0.003	< 0.024	
15-JUN-05	22-JUN-05	301	0.027+/- 0.004	< 0.019	
22-JUN-05	28-JUN-05	261	0.042+/- 0.005	< 0.019	
28-JUN-05	06-JUL-05	331	0.028+/- 0.003	< 0.015	
06-JUL-05	13-JUL-05	293	0.038+/- 0.004	< 0.013	
13-JUL-05	20-JUL-05	303	0.028+/- 0.004	< 0.010	
13-JUL-05	20-JUL-05	303	0.028+/- 0.004		Duplicate
20-JUL-05	27-JUL-05	305	0.018+/- 0.003	< 0.012	
27-JUL-05	03-AUG-05	284	0.034+/- 0.004	< 0.017	
03-AUG-05	10-AUG-05	310	0.039+/- 0.004	< 0.018	
10-AUG-05	17-AUG-05	303	0.023+/- 0.004	< 0.011	
17-AUG-05	24-AUG-05	302	0.026+/- 0.004	< 0.019	
24-AUG-05	31-AUG-05	287	0.030+/- 0.004	< 0.016	
31-AUG-05	07-SEP-05	304	0.045+/- 0.004	< 0.024	
07-SEP-05	14-SEP-05	290	0.047+/- 0.005	< 0.017	
14-SEP-05	21-SEP-05	302	0.029+/- 0.004	< 0.015	

## Air Particulate and Charcoal Filters

**Location:** 002

<b>Collection Start Date</b>	<b>Collection End Date</b>	<b>Volume m<sup>3</sup></b>	<b>Gross Beta Concentration (pCi/m<sup>3</sup>)</b>	<b>I-131 Concentration (pCi/m<sup>3</sup>)</b>	<b>Duplicate Analysis</b>
21-SEP-05	29-SEP-05	340	0.030+/- 0.004	< 0.021	
29-SEP-05	05-OCT-05	258	0.027+/- 0.004	< 0.015	
29-SEP-05	05-OCT-05	258	0.024+/- 0.004		Duplicate
05-OCT-05	12-OCT-05	300	0.023+/- 0.003	< 0.008	
12-OCT-05	19-OCT-05	294	0.050+/- 0.005	< 0.017	
19-OCT-05	28-OCT-05	389	0.020+/- 0.003	< 0.016	
28-OCT-05	02-NOV-05	206	0.037+/- 0.006	< 0.021	
02-NOV-05	10-NOV-05	345	0.042+/- 0.004	< 0.014	
10-NOV-05	17-NOV-05	313	0.024+/- 0.004	< 0.014	
17-NOV-05	23-NOV-05	264	0.024+/- 0.004	< 0.014	
23-NOV-05	30-NOV-05	292	0.020+/- 0.004	< 0.012	
30-NOV-05	06-DEC-05	265	0.048+/- 0.005	< 0.016	
06-DEC-05	14-DEC-05	344	0.032+/- 0.004	< 0.010	
14-DEC-05	21-DEC-05	299	0.037+/- 0.004	< 0.014	
21-DEC-05	28-DEC-05	305	0.044+/- 0.004	< 0.028	
28-DEC-05	05-JAN-06	347	0.028+/- 0.004	< 0.008	
28-DEC-05	05-JAN-06	347	0.030+/- 0.004		Duplicate

# Air Particulate and Charcoal Filters

**Location: 018**

<b>Collection Start Date</b>	<b>Collection End Date</b>	<b>Volume m<sup>3</sup></b>	<b>Gross Beta Concentration (pCi/m<sup>3</sup>)</b>	<b>I-131 Concentration (pCi/m<sup>3</sup>)</b>	<b>Duplicate Analysis</b>
28-DEC-04	04-JAN-05	290	0.021+/- 0.004	< 0.016	
04-JAN-05	12-JAN-05	343	0.044+/- 0.004	< 0.012	
12-JAN-05	20-JAN-05	347	0.037+/- 0.004	< 0.019	
20-JAN-05	26-JAN-05	259	0.032+/- 0.004	< 0.017	
26-JAN-05	03-FEB-05	346	0.029+/- 0.003	< 0.016	
03-FEB-05	11-FEB-05	336	0.031+/- 0.003	< 0.011	
11-FEB-05	17-FEB-05	266	0.032+/- 0.004	< 0.016	
17-FEB-05	25-FEB-05	335	0.040+/- 0.004	< 0.020	
17-FEB-05	25-FEB-05	335	0.041+/- 0.004		Duplicate
25-FEB-05	04-MAR-05	311	0.030+/- 0.004	< 0.016	
04-MAR-05	09-MAR-05	212	0.023+/- 0.005	< 0.020	
09-MAR-05	17-MAR-05	356	0.019+/- 0.003	< 0.018	
17-MAR-05	24-MAR-05	304	0.021+/- 0.003	< 0.007	
24-MAR-05	30-MAR-05	249	0.022+/- 0.004	< 0.014	
30-MAR-05	06-APR-05	300	0.024+/- 0.003	< 0.015	
06-APR-05	13-APR-05	302	0.025+/- 0.003	< 0.009	
13-APR-05	20-APR-05	302	0.025+/- 0.004	< 0.013	
20-APR-05	27-APR-05	302	0.020+/- 0.003	< 0.011	
27-APR-05	04-MAY-05	304	0.022+/- 0.003	< 0.016	
04-MAY-05	11-MAY-05	303	0.030+/- 0.004	< 0.009	
11-MAY-05	18-MAY-05	302	0.023+/- 0.004	< 0.010	
18-MAY-05	25-MAY-05	304	0.026+/- 0.004	< 0.013	
25-MAY-05	01-JUN-05	312	0.022+/- 0.003	< 0.009	
01-JUN-05	08-JUN-05	294	0.027+/- 0.004	< 0.015	
08-JUN-05	15-JUN-05	303	0.015+/- 0.003	< 0.024	
15-JUN-05	22-JUN-05	299	0.031+/- 0.004	< 0.019	
22-JUN-05	28-JUN-05	266	0.042+/- 0.005	< 0.018	
28-JUN-05	06-JUL-05	342	0.027+/- 0.003	< 0.014	
06-JUL-05	13-JUL-05	298	0.039+/- 0.004	< 0.013	
13-JUL-05	20-JUL-05	303	0.033+/- 0.005	< 0.010	
20-JUL-05	27-JUL-05	311	0.022+/- 0.003	< 0.012	
27-JUL-05	03-AUG-05	294	0.034+/- 0.004	< 0.016	
03-AUG-05	10-AUG-05	310	0.037+/- 0.004	< 0.018	
10-AUG-05	17-AUG-05	302	0.023+/- 0.004	< 0.011	
17-AUG-05	24-AUG-05	303	0.022+/- 0.004	< 0.019	
24-AUG-05	31-AUG-05	291	0.030+/- 0.004	< 0.016	
31-AUG-05	07-SEP-05	301	0.048+/- 0.005	< 0.024	
07-SEP-05	14-SEP-05	294	0.054+/- 0.005	< 0.016	
14-SEP-05	21-SEP-05	301	0.028+/- 0.004	< 0.015	
21-SEP-05	29-SEP-05	350	0.031+/- 0.004	< 0.020	

## Air Particulate and Charcoal Filters

**Location: 018**

<b>Collection Start Date</b>	<b>Collection End Date</b>	<b>Volume m<sup>3</sup></b>	<b>Gross Beta Concentration (pCi/m<sup>3</sup>)</b>	<b>I-131 Concentration (pCi/m<sup>3</sup>)</b>	<b>Duplicate Analysis</b>
29-SEP-05	05-OCT-05	258	0.027+/- 0.004	< 0.015	
05-OCT-05	12-OCT-05	307	0.025+/- 0.003	< 0.007	
12-OCT-05	19-OCT-05	298	0.053+/- 0.005	< 0.016	
19-OCT-05	28-OCT-05	396	0.024+/- 0.003	< 0.015	
28-OCT-05	02-NOV-05	210	0.037+/- 0.006	< 0.020	
02-NOV-05	10-NOV-05	346	0.038+/- 0.004	< 0.014	
10-NOV-05	17-NOV-05	304	0.024+/- 0.004	< 0.014	
10-NOV-05	17-NOV-05	304	0.028+/- 0.004		Duplicate
17-NOV-05	23-NOV-05	259	0.024+/- 0.004	< 0.014	
17-NOV-05	23-NOV-05	259	0.024+/- 0.004		Duplicate
23-NOV-05	30-NOV-05	297	0.023+/- 0.004	< 0.012	
30-NOV-05	06-DEC-05	267	0.049+/- 0.005	< 0.016	
06-DEC-05	14-DEC-05	343	0.036+/- 0.004	< 0.010	
14-DEC-05	21-DEC-05	272	0.036+/- 0.004	< 0.015	
21-DEC-05	28-DEC-05	315	0.050+/- 0.005	< 0.027	
28-DEC-05	05-JAN-06	365	0.028+/- 0.004	< 0.008	

# Air Particulate and Charcoal Filters

**Location: 032**

<b>Collection Start Date</b>	<b>Collection End Date</b>	<b>Volume m<sup>3</sup></b>	<b>Gross Beta Concentration (pCi/m<sup>3</sup>)</b>	<b>I-131 Concentration (pCi/m<sup>3</sup>)</b>	<b>Duplicate Analysis</b>
28-DEC-04	04-JAN-05	295	0.023+/- 0.004	< 0.016	
04-JAN-05	12-JAN-05	347	0.043+/- 0.004	< 0.012	
12-JAN-05	20-JAN-05	347	0.036+/- 0.004	< 0.019	
20-JAN-05	26-JAN-05	258	0.031+/- 0.004	< 0.017	
26-JAN-05	03-FEB-05	347	0.027+/- 0.003	< 0.016	
03-FEB-05	11-FEB-05	339	0.026+/- 0.003	< 0.011	
11-FEB-05	17-FEB-05	262	0.028+/- 0.004	< 0.016	
17-FEB-05	25-FEB-05	339	0.036+/- 0.003	< 0.020	
25-FEB-05	04-MAR-05	303	0.026+/- 0.004	< 0.016	
04-MAR-05	09-MAR-05	215	0.018+/- 0.004	< 0.020	
09-MAR-05	17-MAR-05	356	0.020+/- 0.003	< 0.018	
17-MAR-05	24-MAR-05	296	0.019+/- 0.003	< 0.007	
17-MAR-05	24-MAR-05	296	0.021+/- 0.004		Duplicate
24-MAR-05	30-MAR-05	245	0.022+/- 0.004	< 0.014	
30-MAR-05	06-APR-05	295	0.022+/- 0.003	< 0.015	
06-APR-05	13-APR-05	302	0.020+/- 0.003	< 0.009	
13-APR-05	20-APR-05	297	0.024+/- 0.004	< 0.013	
20-APR-05	27-APR-05	297	0.021+/- 0.004	< 0.011	
27-APR-05	04-MAY-05	304	0.020+/- 0.003	< 0.016	
04-MAY-05	11-MAY-05	302	0.027+/- 0.003	< 0.009	
11-MAY-05	18-MAY-05	303	0.020+/- 0.003	< 0.010	
18-MAY-05	25-MAY-05	299	0.024+/- 0.004	< 0.013	
25-MAY-05	01-JUN-05	303	0.022+/- 0.003	< 0.010	
01-JUN-05	08-JUN-05	285	0.024+/- 0.004	< 0.015	
01-JUN-05	08-JUN-05	285	0.025+/- 0.004		Duplicate
08-JUN-05	15-JUN-05	294	0.015+/- 0.003	< 0.025	
15-JUN-05	22-JUN-05	300	0.031+/- 0.004	< 0.019	
22-JUN-05	28-JUN-05	266	0.041+/- 0.005	< 0.018	
28-JUN-05	06-JUL-05	342	0.027+/- 0.003	< 0.014	
06-JUL-05	13-JUL-05	299	0.041+/- 0.004	< 0.013	
13-JUL-05	20-JUL-05	308	0.036+/- 0.005	< 0.010	
20-JUL-05	27-JUL-05	302	0.017+/- 0.003	< 0.013	
27-JUL-05	03-AUG-05	306	0.031+/- 0.004	< 0.016	
03-AUG-05	10-AUG-05	321	0.038+/- 0.004	< 0.017	
10-AUG-05	17-AUG-05	313	0.021+/- 0.004	< 0.011	
17-AUG-05	24-AUG-05	306	0.021+/- 0.003	< 0.019	
24-AUG-05	31-AUG-05	297	0.029+/- 0.004	< 0.016	
31-AUG-05	07-SEP-05	313	0.047+/- 0.004	< 0.023	
07-SEP-05	14-SEP-05	301	0.053+/- 0.005	< 0.016	
14-SEP-05	21-SEP-05	312	0.031+/- 0.004	< 0.015	

## Air Particulate and Charcoal Filters

Location: 032

Collection Start Date	Collection End Date	Volume m <sup>3</sup>	Gross Beta Concentration (pCi/m <sup>3</sup> )	I-131 Concentration (pCi/m <sup>3</sup> )	Duplicate Analysis
21-SEP-05	29-SEP-05	358	0.030+/- 0.004	< 0.020	
29-SEP-05	05-OCT-05	264	0.024+/- 0.004	< 0.014	
05-OCT-05	12-OCT-05	311	0.023+/- 0.003	< 0.007	
12-OCT-05	19-OCT-05	309	0.051+/- 0.005	< 0.016	
19-OCT-05	28-OCT-05	409	0.024+/- 0.003	< 0.015	
28-OCT-05	02-NOV-05	213	0.035+/- 0.006	< 0.020	
02-NOV-05	10-NOV-05	351	0.040+/- 0.004	< 0.014	
10-NOV-05	17-NOV-05	312	0.027+/- 0.004	< 0.014	
17-NOV-05	23-NOV-05	264	0.023+/- 0.004	< 0.014	
23-NOV-05	30-NOV-05	303	0.023+/- 0.004	< 0.011	
30-NOV-05	06-DEC-05	264	0.050+/- 0.005	< 0.016	
06-DEC-05	14-DEC-05	343	0.035+/- 0.004	< 0.010	
14-DEC-05	21-DEC-05	298	0.035+/- 0.004	< 0.014	
21-DEC-05	28-DEC-05	300	0.048+/- 0.005	< 0.028	
28-DEC-05	05-JAN-06	348	0.028+/- 0.004	< 0.008	

# Air Particulate and Charcoal Filters

**Location: 037**

<b>Collection Start Date</b>	<b>Collection End Date</b>	<b>Volume m<sup>3</sup></b>	<b>Gross Beta Concentration (pCi/m<sup>3</sup>)</b>	<b>I-131 Concentration (pCi/m<sup>3</sup>)</b>		<b>Duplicate Analysis</b>
28-DEC-04	04-JAN-05	285	0.022+/- 0.004	<	0.017	
28-DEC-04	04-JAN-05	285	0.023+/- 0.004	<	0.013	Duplicate
04-JAN-05	12-JAN-05	334	0.046+/- 0.004	<	0.019	
12-JAN-05	20-JAN-05	353	0.039+/- 0.004	<	0.017	
20-JAN-05	26-JAN-05	262	0.032+/- 0.004	<	0.016	
26-JAN-05	03-FEB-05	347	0.029+/- 0.003	<	0.016	
03-FEB-05	11-FEB-05	345	0.032+/- 0.003	<	0.010	
11-FEB-05	17-FEB-05	266	0.035+/- 0.004	<	0.016	
17-FEB-05	25-FEB-05	339	0.037+/- 0.004	<	0.020	
25-FEB-05	04-MAR-05	303	0.029+/- 0.004	<	0.016	
04-MAR-05	09-MAR-05	216	0.022+/- 0.005	<	0.020	
09-MAR-05	17-MAR-05	356	0.018+/- 0.003	<	0.018	
17-MAR-05	24-MAR-05	301	0.020+/- 0.003	<	0.007	
24-MAR-05	30-MAR-05	236	0.021+/- 0.004	<	0.014	
24-MAR-05	30-MAR-05	236	0.021+/- 0.004			Duplicate
30-MAR-05	06-APR-05	290	0.021+/- 0.003	<	0.015	
06-APR-05	13-APR-05	302	0.021+/- 0.003	<	0.009	
13-APR-05	20-APR-05	297	0.028+/- 0.004	<	0.013	
20-APR-05	27-APR-05	297	0.021+/- 0.004	<	0.011	
27-APR-05	04-MAY-05	304	0.020+/- 0.003	<	0.016	
04-MAY-05	11-MAY-05	302	0.027+/- 0.003	<	0.009	
04-MAY-05	11-MAY-05	302	0.027+/- 0.003			Duplicate
11-MAY-05	18-MAY-05	298	0.025+/- 0.004	<	0.010	
18-MAY-05	25-MAY-05	298	0.024+/- 0.004	<	0.013	
25-MAY-05	01-JUN-05	309	0.022+/- 0.003	<	0.009	
01-JUN-05	08-JUN-05	296	0.026+/- 0.004	<	0.014	
08-JUN-05	15-JUN-05	293	0.014+/- 0.003	<	0.025	
15-JUN-05	22-JUN-05	301	0.032+/- 0.004	<	0.019	
22-JUN-05	28-JUN-05	266	0.042+/- 0.005	<	0.018	
28-JUN-05	06-JUL-05	304	0.027+/- 0.003	<	0.016	
06-JUL-05	13-JUL-05	298	0.041+/- 0.004	<	0.013	
13-JUL-05	20-JUL-05	292	0.034+/- 0.005	<	0.010	
20-JUL-05	27-JUL-05	304	0.015+/- 0.003	<	0.012	
27-JUL-05	03-AUG-05	289	0.038+/- 0.004	<	0.017	
03-AUG-05	10-AUG-05	310	0.041+/- 0.004	<	0.018	
10-AUG-05	17-AUG-05	308	0.020+/- 0.004	<	0.011	
17-AUG-05	24-AUG-05	296	0.022+/- 0.004	<	0.019	
24-AUG-05	31-AUG-05	293	0.035+/- 0.004	<	0.016	
31-AUG-05	07-SEP-05	303	0.052+/- 0.005	<	0.024	
07-SEP-05	14-SEP-05	295	0.051+/- 0.005	<	0.016	

## Air Particulate and Charcoal Filters

Location: 037

Collection Start Date	Collection End Date	Volume m <sup>3</sup>	Gross Beta Concentration (pCi/m <sup>3</sup> )	I-131 Concentration (pCi/m <sup>3</sup> )	Duplicate Analysis
14-SEP-05	21-SEP-05	302	0.029+/- 0.004	< 0.015	
21-SEP-05	29-SEP-05	346	0.030+/- 0.004	< 0.020	
29-SEP-05	05-OCT-05	253	0.028+/- 0.005	< 0.015	
05-OCT-05	12-OCT-05	310	0.025+/- 0.003	< 0.007	
12-OCT-05	19-OCT-05	309	0.055+/- 0.005	< 0.016	
19-OCT-05	28-OCT-05	422	0.025+/- 0.003	< 0.015	
28-OCT-05	02-NOV-05	210	0.039+/- 0.006	< 0.020	
02-NOV-05	10-NOV-05	345	0.045+/- 0.004	< 0.014	
10-NOV-05	17-NOV-05	302	0.027+/- 0.004	< 0.014	
17-NOV-05	23-NOV-05	255	0.026+/- 0.004	< 0.014	
23-NOV-05	30-NOV-05	298	0.020+/- 0.004	< 0.012	
30-NOV-05	06-DEC-05	264	0.047+/- 0.005	< 0.016	
06-DEC-05	14-DEC-05	343	0.036+/- 0.004	< 0.010	
14-DEC-05	21-DEC-05	299	0.038+/- 0.004	< 0.014	
21-DEC-05	28-DEC-05	300	0.050+/- 0.005	< 0.028	
28-DEC-05	05-JAN-06	342	0.027+/- 0.004	< 0.009	

# Air Particulate and Charcoal Filters

**Location: 048**

<b>Collection Start Date</b>	<b>Collection End Date</b>	<b>Volume m<sup>3</sup></b>	<b>Gross Beta Concentration (pCi/m<sup>3</sup>)</b>	<b>I-131 Concentration (pCi/m<sup>3</sup>)</b>	<b>Duplicate Analysis</b>
28-DEC-04	04-JAN-05	300	0.021+/- 0.003	< 0.016	
04-JAN-05	12-JAN-05	314	0.046+/- 0.005	< 0.013	
12-JAN-05	20-JAN-05	347	0.037+/- 0.004	< 0.019	
20-JAN-05	26-JAN-05	257	0.027+/- 0.004	< 0.017	
26-JAN-05	03-FEB-05	339	0.030+/- 0.003	< 0.016	
03-FEB-05	11-FEB-05	333	0.030+/- 0.003	< 0.011	
11-FEB-05	17-FEB-05	269	0.028+/- 0.004	< 0.016	
17-FEB-05	25-FEB-05	342	0.038+/- 0.004	< 0.019	
25-FEB-05	04-MAR-05	311	0.027+/- 0.004	< 0.016	
04-MAR-05	09-MAR-05	212	0.022+/- 0.005	< 0.020	
09-MAR-05	17-MAR-05	356	0.021+/- 0.003	< 0.018	
17-MAR-05	24-MAR-05	304	0.019+/- 0.003	< 0.007	
24-MAR-05	30-MAR-05	245	0.022+/- 0.004	< 0.014	
30-MAR-05	06-APR-05	300	0.023+/- 0.003	< 0.015	
06-APR-05	13-APR-05	297	0.022+/- 0.003	< 0.009	
13-APR-05	20-APR-05	297	0.024+/- 0.004	< 0.013	
20-APR-05	27-APR-05	302	0.018+/- 0.003	< 0.011	
27-APR-05	04-MAY-05	304	0.021+/- 0.003	< 0.016	
04-MAY-05	11-MAY-05	303	0.028+/- 0.003	< 0.009	
11-MAY-05	18-MAY-05	302	0.022+/- 0.004	< 0.010	
18-MAY-05	25-MAY-05	304	0.026+/- 0.004	< 0.013	
25-MAY-05	01-JUN-05	310	0.019+/- 0.003	< 0.009	
01-JUN-05	08-JUN-05	293	0.022+/- 0.004	< 0.015	
08-JUN-05	15-JUN-05	299	0.014+/- 0.003	< 0.025	
08-JUN-05	15-JUN-05	299	0.015+/- 0.003		Duplicate
15-JUN-05	22-JUN-05	301	0.029+/- 0.004	< 0.019	
22-JUN-05	28-JUN-05	266	0.037+/- 0.005	< 0.018	
28-JUN-05	06-JUL-05	342	0.025+/- 0.003	< 0.014	
06-JUL-05	13-JUL-05	294	0.039+/- 0.004	< 0.013	
13-JUL-05	20-JUL-05	302	0.032+/- 0.004	< 0.010	
20-JUL-05	27-JUL-05	302	0.016+/- 0.003	< 0.013	
27-JUL-05	03-AUG-05	301	0.034+/- 0.004	< 0.016	
03-AUG-05	10-AUG-05	312	0.041+/- 0.004	< 0.018	
10-AUG-05	17-AUG-05	306	0.021+/- 0.004	< 0.011	
17-AUG-05	24-AUG-05	303	0.022+/- 0.004	< 0.019	
24-AUG-05	31-AUG-05	291	0.027+/- 0.004	< 0.016	
31-AUG-05	07-SEP-05	299	0.039+/- 0.004	< 0.024	
07-SEP-05	14-SEP-05	296	0.046+/- 0.005	< 0.016	
14-SEP-05	21-SEP-05	296	0.030+/- 0.004	< 0.016	
21-SEP-05	29-SEP-05	347	0.027+/- 0.003	< 0.020	

## Air Particulate and Charcoal Filters

Location: 048

Collection Start Date	Collection End Date	Volume m <sup>3</sup>	Gross Beta Concentration (pCi/m <sup>3</sup> )	I-131 Concentration (pCi/m <sup>3</sup> )	Duplicate Analysis
29-SEP-05	05-OCT-05	261	0.022+/- 0.004	< 0.015	
05-OCT-05	12-OCT-05	305	0.025+/- 0.004	< 0.007	
12-OCT-05	19-OCT-05	290	0.046+/- 0.005	< 0.017	
19-OCT-05	28-OCT-05	396	0.023+/- 0.003	< 0.015	
28-OCT-05	02-NOV-05	206	0.035+/- 0.006	< 0.021	
02-NOV-05	10-NOV-05	338	0.038+/- 0.004	< 0.015	
10-NOV-05	17-NOV-05	298	0.024+/- 0.004	< 0.014	
17-NOV-05	23-NOV-05	259	0.024+/- 0.004	< 0.014	
23-NOV-05	30-NOV-05	292	0.021+/- 0.004	< 0.012	
30-NOV-05	06-DEC-05	265	0.047+/- 0.005	< 0.016	
06-DEC-05	14-DEC-05	338	0.034+/- 0.004	< 0.010	
14-DEC-05	21-DEC-05	285	0.034+/- 0.004	< 0.014	
21-DEC-05	28-DEC-05	295	0.046+/- 0.005	< 0.029	
28-DEC-05	05-JAN-06	336	0.030+/- 0.004	< 0.009	

## Air Particulate and Charcoal Filters

**Location: 049**

<b>Collection Start Date</b>	<b>Collection End Date</b>	<b>Volume m<sup>3</sup></b>	<b>Gross Beta Concentration (pCi/m<sup>3</sup>)</b>	<b>I-131 Concentration (pCi/m<sup>3</sup>)</b>	<b>Duplicate Analysis</b>
28-DEC-04	04-JAN-05	295	0.021+/- 0.003	< 0.016	
04-JAN-05	12-JAN-05	339	0.039+/- 0.004	< 0.012	
12-JAN-05	20-JAN-05	353	0.038+/- 0.004	< 0.019	
20-JAN-05	26-JAN-05	258	0.029+/- 0.004	< 0.017	
26-JAN-05	03-FEB-05	348	0.028+/- 0.003	< 0.016	
03-FEB-05	11-FEB-05	352	0.031+/- 0.003	< 0.010	
11-FEB-05	17-FEB-05	264	0.025+/- 0.004	< 0.016	
17-FEB-05	25-FEB-05	346	0.035+/- 0.003	< 0.019	
25-FEB-05	04-MAR-05	307	0.027+/- 0.004	< 0.016	
04-MAR-05	09-MAR-05	213	0.021+/- 0.005	< 0.020	
09-MAR-05	17-MAR-05	356	0.019+/- 0.003	< 0.018	
17-MAR-05	24-MAR-05	300	0.019+/- 0.003	< 0.007	
24-MAR-05	30-MAR-05	245	0.033+/- 0.005	< 0.014	
30-MAR-05	06-APR-05	295	0.023+/- 0.003	< 0.015	
06-APR-05	13-APR-05	297	0.023+/- 0.003	< 0.009	
13-APR-05	20-APR-05	297	0.025+/- 0.004	< 0.013	
20-APR-05	27-APR-05	302	0.018+/- 0.003	< 0.011	
27-APR-05	04-MAY-05	304	0.019+/- 0.003	< 0.016	
04-MAY-05	11-MAY-05	302	0.026+/- 0.003	< 0.009	
11-MAY-05	18-MAY-05	303	0.019+/- 0.003	< 0.010	
18-MAY-05	25-MAY-05	303	0.023+/- 0.003	< 0.013	
25-MAY-05	01-JUN-05	316	0.021+/- 0.003	< 0.009	
01-JUN-05	08-JUN-05	289	0.024+/- 0.004	< 0.015	
08-JUN-05	15-JUN-05	303	0.014+/- 0.003	< 0.024	
15-JUN-05	22-JUN-05	296	0.031+/- 0.004	< 0.019	
22-JUN-05	28-JUN-05	266	0.046+/- 0.005	< 0.018	
28-JUN-05	06-JUL-05	336	0.028+/- 0.003	< 0.015	
06-JUL-05	13-JUL-05	293	0.040+/- 0.004	< 0.013	
13-JUL-05	20-JUL-05	303	0.030+/- 0.004	< 0.010	
20-JUL-05	27-JUL-05	302	0.019+/- 0.003	< 0.013	
27-JUL-05	03-AUG-05	301	0.041+/- 0.004	< 0.016	
03-AUG-05	10-AUG-05	311	0.047+/- 0.005	< 0.018	
10-AUG-05	17-AUG-05	298	0.020+/- 0.004	< 0.011	
17-AUG-05	24-AUG-05	301	0.022+/- 0.004	< 0.019	
24-AUG-05	31-AUG-05	293	0.035+/- 0.004	< 0.016	
31-AUG-05	07-SEP-05	305	0.048+/- 0.005	< 0.024	
07-SEP-05	14-SEP-05	289	0.049+/- 0.005	< 0.017	
14-SEP-05	21-SEP-05	297	0.026+/- 0.004	< 0.016	
21-SEP-05	29-SEP-05	346	0.028+/- 0.004	< 0.020	
29-SEP-05	05-OCT-05	262	0.025+/- 0.004	< 0.015	

## Air Particulate and Charcoal Filters

Location: 049

Collection Start Date	Collection End Date	Volume m <sup>3</sup>	Gross Beta Concentration (pCi/m <sup>3</sup> )	I-131 Concentration (pCi/m <sup>3</sup> )	Duplicate Analysis
05-OCT-05	12-OCT-05	306	0.026+/- 0.004	< 0.007	
12-OCT-05	19-OCT-05	299	0.051+/- 0.005	< 0.016	
19-OCT-05	28-OCT-05	396	0.026+/- 0.003	< 0.015	
28-OCT-05	02-NOV-05	210	0.036+/- 0.006	< 0.020	
02-NOV-05	10-NOV-05	345	0.044+/- 0.004	< 0.014	
10-NOV-05	17-NOV-05	309	0.027+/- 0.004	< 0.014	
17-NOV-05	23-NOV-05	259	0.027+/- 0.004	< 0.014	
23-NOV-05	30-NOV-05	303	0.026+/- 0.004	< 0.011	
30-NOV-05	06-DEC-05	258	0.042+/- 0.005	< 0.016	
06-DEC-05	14-DEC-05	332	0.035+/- 0.004	< 0.010	
14-DEC-05	21-DEC-05	290	0.036+/- 0.004	< 0.014	
14-DEC-05	21-DEC-05	290	0.034+/- 0.004		Duplicate
21-DEC-05	28-DEC-05	295	0.040+/- 0.004	< 0.029	
28-DEC-05	05-JAN-06	335	0.026+/- 0.004	< 0.009	

## Quarterly Air Particulate - Gamma

**Location: 002**

<b>Nuclide</b>	<b>30-MAR-05</b>	<b>28-JUN-05</b>	<b>29-SEP-05</b>	<b>28-DEC-05</b>
		<b>Concentration (pCi/m<sup>3</sup>)</b>	<b>Concentration (pCi/m<sup>3</sup>)</b>	<b>Concentration (pCi/m<sup>3</sup>)</b>
BE-7	0.062+/- 0.013	0.087+/- 0.014	0.084+/- 0.018	0.059+/- 0.011
MN-54	< 0.001	< 0.001	< 0.001	< 0.001
CO-58	< 0.001	< 0.001	< 0.001	< 0.001
FE-59	< 0.001	< 0.001	< 0.002	< 0.002
CO-60	< 0.001	< 0.001	< 0.001	< 0.001
ZN-65	< 0.001	< 0.001	< 0.001	< 0.001
ZR-NB-95	< 0.001	< 0.001	< 0.001	< 0.001
CS-134	< 0.001	< 0.001	< 0.001	< 0.001
CS-137	< 0.001	< 0.001	< 0.001	< 0.001

\* Duplicate Analysis

# Quarterly Air Particulate - Gamma

**Location: 018**

<b>Nuclide</b>	<b>30-MAR-05</b>	<b>Concentration (pCi/m<sup>3</sup>)</b>	<b>28-JUN-05</b>	<b>Concentration (pCi/m<sup>3</sup>)</b>	<b>29-SEP-05</b>	<b>Concentration (pCi/m<sup>3</sup>)</b>	<b>28-DEC-05</b>	<b>Concentration (pCi/m<sup>3</sup>)</b>
BE-7	0.057+/- 0.016		0.099+/- 0.019		0.099+/- 0.015		0.063+/- 0.012	
MN-54	< 0.001		< 0.001		< 0.001		< 0.001	
CO-58	< 0.001		< 0.001		< 0.001		< 0.001	
FE-59	< 0.001		< 0.001		< 0.002		< 0.003	
CO-60	< 0.001		< 0.001		< 0.001		< 0.001	
ZN-65	< 0.001		< 0.001		< 0.001		< 0.002	
ZR-NB-95	< 0.001		< 0.001		< 0.001		< 0.001	
CS-134	< 0.001		< 0.001		< 0.001		< 0.001	
CS-137	< 0.001		< 0.001		< 0.001		< 0.001	

\* Duplicate Analysis

## Quarterly Air Particulate - Gamma

**Location: 032**

<b>Nuclide</b>	<b>30-MAR-05</b>	<b>28-JUN-05</b>	<b>29-SEP-05</b>	<b>28-DEC-05</b>
	<b>Concentration (pCi/m<sup>3</sup>)</b>	<b>Concentration (pCi/m<sup>3</sup>)</b>	<b>Concentration (pCi/m<sup>3</sup>)</b>	<b>Concentration (pCi/m<sup>3</sup>)</b>
BE-7	0.059+/- 0.014	0.087+/- 0.018	0.091+/- 0.017	0.071+/- 0.015
MN-54	< 0.001	< 0.001	< 0.001	< 0.001
CO-58	< 0.001	< 0.001	< 0.001	< 0.001
FE-59	< 0.001	< 0.001	< 0.001	< 0.002
CO-60	< 0.001	< 0.001	< 0.001	< 0.001
ZN-65	< 0.001	< 0.001	< 0.001	< 0.001
ZR-NB-95	< 0.001	< 0.001	< 0.001	< 0.001
CS-134	< 0.001	< 0.001	< 0.001	< 0.001
CS-137	< 0.001	< 0.001	< 0.001	< 0.001

\* Duplicate Analysis

## Quarterly Air Particulate - Gamma

**Location: 037**

<b>Nuclide</b>	<b>30-MAR-05</b>	<b>28-JUN-05</b>	<b>29-SEP-05</b>	<b>28-DEC-05</b>
	<b>Concentration (pCi/m<sup>3</sup>)</b>	<b>Concentration (pCi/m<sup>3</sup>)</b>	<b>Concentration (pCi/m<sup>3</sup>)</b>	<b>Concentration (pCi/m<sup>3</sup>)</b>
BE-7	0.064+/- 0.014	0.106+/- 0.017	0.100+/- 0.019	0.063+/- 0.012
MN-54	< 0.001	< 0.001	< 0.001	< 0.001
CO-58	< 0.001	< 0.001	< 0.001	< 0.001
FE-59	< 0.001	< 0.001	< 0.002	< 0.001
CO-60	< 0.001	< 0.001	< 0.001	< 0.001
ZN-65	< 0.002	< 0.001	< 0.001	< 0.001
ZR-NB-95	< 0.001	< 0.001	< 0.001	< 0.001
CS-134	< 0.001	< 0.001	< 0.001	< 0.001
CS-137	< 0.001	< 0.001	< 0.001	< 0.001

\* Duplicate Analysis

## Quarterly Air Particulate - Gamma

**Location: 048**

<b>Nuclide</b>	<b>30-MAR-05</b>	<b>28-JUN-05</b>	<b>29-SEP-05</b>	<b>28-DEC-05</b>
	<b>Concentration (pCi/m<sup>3</sup>)</b>	<b>Concentration (pCi/m<sup>3</sup>)</b>	<b>Concentration (pCi/m<sup>3</sup>)</b>	<b>Concentration (pCi/m<sup>3</sup>)</b>
BE-7	0.064+/- 0.015	0.095+/- 0.018	0.087+/- 0.016	0.056+/- 0.012
MN-54	< 0.001	< 0.001	< 0.001	< 0.001
CO-58	< 0.001	< 0.001	< 0.001	< 0.001
FE-59	< 0.001	< 0.001	< 0.002	< 0.001
CO-60	< 0.001	< 0.001	< 0.001	< 0.001
ZN-65	< 0.001	< 0.001	< 0.001	< 0.001
ZR-NB-95	< 0.001	< 0.001	< 0.001	< 0.001
CS-134	< 0.001	< 0.001	< 0.001	< 0.001
CS-137	< 0.001	< 0.001	< 0.001	< 0.001

\* Duplicate Analysis

# Quarterly Air Particulate - Gamma

**Location: 049**

<b>Nuclide</b>	<b>30-MAR-05</b>	<b>28-JUN-05</b>	<b>29-SEP-05</b>	<b>28-DEC-05</b>
	<b>Concentration (pCi/m<sup>3</sup>)</b>	<b>Concentration (pCi/m<sup>3</sup>)</b>	<b>Concentration (pCi/m<sup>3</sup>)</b>	<b>Concentration (pCi/m<sup>3</sup>)</b>
BE-7	0.059+/- 0.016	0.107+/- 0.019	0.107+/- 0.018	0.082+/- 0.014
MN-54	< 0.001	< 0.001	< 0.001	< 0.001
CO-58	< 0.001	< 0.001	< 0.001	< 0.001
FE-59	< 0.001	< 0.001	< 0.002	< 0.002
CO-60	< 0.001	< 0.001	< 0.001	< 0.001
ZN-65	< 0.001	< 0.001	< 0.001	< 0.001
ZR-NB-95	< 0.001	< 0.001	< 0.001	< 0.001
CS-134	< 0.001	< 0.001	< 0.001	< 0.001
CS-137	< 0.001	< 0.001	< 0.001	< 0.001

\* Duplicate Analysis

**Exposure Pathway - Waterborne  
Surface Water**

**Location JRR**

<b>Collection Date</b>	<b>Nuclide</b>	<b>Gamma Spectrum &amp; H-3</b>		<b>Duplicate Analysis</b>
		<b>Concentration (pCi/Liter)</b>		
13-JAN-05	MN-54	<	1.500	
13-JAN-05	CO-58	<	3.700	
13-JAN-05	FE-59	<	5.800	
13-JAN-05	CO-60	<	2.200	
13-JAN-05	ZN-65	<	4.800	
13-JAN-05	ZR-NB-95	<	4.400	
13-JAN-05	I-131	<	4.100	
13-JAN-05	CS-134	<	2.300	
13-JAN-05	CS-137	<	3.300	
13-JAN-05	BA-LA-140	<	3.700	
13-JAN-05	H-3	<	164.000	
10-FEB-05	MN-54	<	4.400	
10-FEB-05	CO-58	<	3.600	
10-FEB-05	FE-59	<	6.700	
10-FEB-05	CO-60	<	4.500	
10-FEB-05	ZN-65	<	6.300	
10-FEB-05	ZR-NB-95	<	3.800	
10-FEB-05	I-131	<	7.100	
10-FEB-05	CS-134	<	2.600	
10-FEB-05	CS-137	<	3.000	
10-FEB-05	BA-LA-140	<	7.900	
10-FEB-05	H-3	<	166.000	
10-MAR-05	MN-54	<	5.700	
10-MAR-05	CO-58	<	2.900	
10-MAR-05	FE-59	<	3.000	
10-MAR-05	CO-60	<	4.700	
10-MAR-05	ZN-65	<	4.500	
10-MAR-05	ZR-NB-95	<	5.900	
10-MAR-05	I-131	<	5.900	
10-MAR-05	CS-134	<	2.700	
10-MAR-05	CS-137	<	5.200	
10-MAR-05	BA-LA-140	<	6.800	
10-MAR-05	H-3	<	147.000	
21-APR-05	MN-54	<	5.300	
21-APR-05	CO-58	<	4.200	
21-APR-05	FE-59	<	6.600	
21-APR-05	CO-60	<	5.200	
21-APR-05	ZN-65	<	10.000	
21-APR-05	ZR-NB-95	<	4.600	
21-APR-05	I-131	<	6.600	
21-APR-05	CS-134	<	5.000	

**Exposure Pathway - Waterborne  
Surface Water**

**Location JRR**

<b>Collection Date</b>	<b>Nuclide</b>	<b>Gamma Spectrum &amp; H-3</b>		<b>Duplicate Analysis</b>
		<b>Concentration (pCi/Liter)</b>		
21-APR-05	CS-137	<	3.500	
21-APR-05	BA-LA-140	<	3.300	
21-APR-05	H-3	<	139.000	
12-MAY-05	MN-54	<	2.300	
12-MAY-05	CO-58	<	2.300	
12-MAY-05	FE-59	<	4.800	
12-MAY-05	CO-60	<	2.600	
12-MAY-05	ZN-65	<	3.900	
12-MAY-05	ZR-NB-95	<	4.700	
12-MAY-05	I-131	<	9.800	
12-MAY-05	CS-134	<	2.100	
12-MAY-05	CS-137	<	3.300	
12-MAY-05	BA-LA-140	<	4.400	
12-MAY-05	H-3	<	140.000	
09-JUN-05	MN-54	<	3.700	
09-JUN-05	CO-58	<	3.500	
09-JUN-05	FE-59	<	5.500	
09-JUN-05	CO-60	<	5.800	
09-JUN-05	ZN-65	<	6.200	
09-JUN-05	ZR-NB-95	<	5.200	
09-JUN-05	I-131	<	9.200	
09-JUN-05	CS-134	<	5.700	
09-JUN-05	CS-137	<	4.600	
09-JUN-05	BA-LA-140	<	7.700	
09-JUN-05	H-3	<	169.000	
08-JUL-05	MN-54	<	3.000	
08-JUL-05	CO-58	<	1.500	
08-JUL-05	FE-59	<	4.100	
08-JUL-05	CO-60	<	1.900	
08-JUL-05	ZN-65	<	1.800	
08-JUL-05	ZR-NB-95	<	3.300	
08-JUL-05	I-131	<	6.700	
08-JUL-05	CS-134	<	4.700	
08-JUL-05	CS-137	<	3.800	
08-JUL-05	BA-LA-140	<	3.000	
08-JUL-05	H-3	<	164.000	
11-AUG-05	MN-54	<	6.200	1
11-AUG-05	MN-54	<	2.400	Duplicate
11-AUG-05	CO-58	<	4.100	1
11-AUG-05	CO-58	<	2.900	Duplicate
11-AUG-05	FE-59	<	7.500	1

**Exposure Pathway - Waterborne  
Surface Water**

**Location JRR**

<b>Collection Date</b>	<b>Nuclide</b>	<b>Gamma Spectrum &amp; H-3</b>		<b>Duplicate Analysis</b>
		<b>Concentration (pCi/Liter)</b>		
11-AUG-05	FE-59	<	7.100	Duplicate
11-AUG-05	CO-60	<	4.100	1
11-AUG-05	CO-60	<	2.400	Duplicate
11-AUG-05	ZN-65	<	7.800	1
11-AUG-05	ZN-65	<	5.900	Duplicate
11-AUG-05	ZR-NB-95	<	5.300	1
11-AUG-05	ZR-NB-95	<	4.300	Duplicate
11-AUG-05	I-131	<	7.800	1
11-AUG-05	I-131	<	5.900	Duplicate
11-AUG-05	CS-134	<	5.600	1
11-AUG-05	CS-134	<	5.300	Duplicate
11-AUG-05	CS-137	<	5.400	1
11-AUG-05	CS-137	<	4.900	Duplicate
11-AUG-05	BA-LA-140	<	5.200	1
11-AUG-05	BA-LA-140	<	7.100	Duplicate
11-AUG-05	H-3	<	173.000	1
11-AUG-05	H-3	<	173.000	Duplicate
09-SEP-05	MN-54	<	2.100	
09-SEP-05	CO-58	<	1.500	
09-SEP-05	FE-59	<	5.400	
09-SEP-05	CO-60	<	2.200	
09-SEP-05	ZN-65	<	3.400	
09-SEP-05	ZR-NB-95	<	3.700	
09-SEP-05	I-131	<	6.300	
09-SEP-05	CS-134	<	3.600	
09-SEP-05	CS-137	<	3.600	
09-SEP-05	BA-LA-140	<	2.400	
09-SEP-05	H-3	<	169.000	
20-OCT-05	MN-54	<	2.900	
20-OCT-05	CO-58	<	2.400	
20-OCT-05	FE-59	<	5.100	
20-OCT-05	CO-60	<	2.100	
20-OCT-05	ZN-65	<	6.000	
20-OCT-05	ZR-NB-95	<	2.600	
20-OCT-05	I-131	<	4.000	
20-OCT-05	CS-134	<	3.800	
20-OCT-05	CS-137	<	4.300	
20-OCT-05	BA-LA-140	<	4.300	
20-OCT-05	H-3	219.000+/-	95.000	
17-NOV-05	MN-54	<	3.900	
17-NOV-05	CO-58	<	3.900	

**Exposure Pathway - Waterborne  
Surface Water**

**Location JRR**

<b>Collection Date</b>	<b>Nuclide</b>	<b>Gamma Spectrum &amp; H-3</b>	<b>Concentration (pCi/Liter)</b>	<b>Duplicate Analysis</b>
17-NOV-05	FE-59		<	9.800
17-NOV-05	CO-60		<	2.900
17-NOV-05	ZN-65		<	6.300
17-NOV-05	ZR-NB-95		<	6.000
17-NOV-05	I-131		<	6.800
17-NOV-05	CS-134		<	5.000
17-NOV-05	CS-137		<	5.400
17-NOV-05	BA-LA-140		<	4.500
17-NOV-05	H-3		<	163.000
15-DEC-05	MN-54		<	6.000
15-DEC-05	CO-58		<	4.700
15-DEC-05	FE-59		<	6.800
15-DEC-05	CO-60		<	2.800
15-DEC-05	ZN-65		<	9.300
15-DEC-05	ZR-NB-95		<	4.500
15-DEC-05	I-131		<	6.200
15-DEC-05	CS-134		<	5.300
15-DEC-05	CS-137		<	5.300
15-DEC-05	BA-LA-140		<	4.800
15-DEC-05	H-3		<	184.000

**Exposure Pathway - Waterborne  
Surface Water**

**Location SP**

<b>Collection Date</b>	<b>Nuclide</b>	<b>Gamma Spectrum &amp; H-3</b>		<b>Duplicate Analysis</b>
		<b>Concentration (pCi/Liter)</b>		
13-JAN-05	MN-54	<	1.200	
13-JAN-05	CO-58	<	1.400	
13-JAN-05	FE-59	<	2.300	
13-JAN-05	CO-60	<	1.700	
13-JAN-05	ZN-65	<	3.300	
13-JAN-05	ZR-NB-95	<	3.300	
13-JAN-05	I-131	<	6.700	
13-JAN-05	CS-134	<	3.300	
13-JAN-05	CS-137	<	2.600	
13-JAN-05	BA-LA-140	<	3.300	
13-JAN-05	H-3	13878.000+/-	334.000	
10-FEB-05	MN-54	<	1.700	
10-FEB-05	CO-58	<	4.400	
10-FEB-05	FE-59	<	3.500	
10-FEB-05	CO-60	<	2.200	
10-FEB-05	ZN-65	<	3.700	
10-FEB-05	ZR-NB-95	<	5.500	
10-FEB-05	I-131	<	6.200	
10-FEB-05	CS-134	<	4.300	
10-FEB-05	CS-137	<	3.900	
10-FEB-05	BA-LA-140	<	3.900	
10-FEB-05	H-3	15907.000+/-	354.000	
10-MAR-05	MN-54	<	1.700	1
10-MAR-05	MN-54	<	3.600	Duplicate
10-MAR-05	CO-58	<	3.200	1
10-MAR-05	CO-58	<	1.900	Duplicate
10-MAR-05	FE-59	<	5.000	1
10-MAR-05	FE-59	<	5.500	Duplicate
10-MAR-05	CO-60	<	2.200	1
10-MAR-05	CO-60	<	2.200	Duplicate
10-MAR-05	ZN-65	<	3.700	1
10-MAR-05	ZN-65	<	3.400	Duplicate
10-MAR-05	ZR-NB-95	<	3.900	1
10-MAR-05	ZR-NB-95	<	4.700	Duplicate
10-MAR-05	I-131	<	3.900	1
10-MAR-05	I-131	<	4.000	Duplicate
10-MAR-05	CS-134	<	3.100	1
10-MAR-05	CS-134	<	2.300	Duplicate
10-MAR-05	CS-137	<	3.900	1
10-MAR-05	CS-137	<	3.200	Duplicate
10-MAR-05	BA-LA-140	<	3.300	1

**Exposure Pathway - Waterborne  
Surface Water**

**Location SP**

<b>Collection Date</b>	<b>Nuclide</b>	<b>Gamma Spectrum &amp; H-3 Concentration (pCi/Liter)</b>		<b>Duplicate Analysis</b>
10-MAR-05	BA-LA-140	<	2.300	Duplicate
10-MAR-05	H-3	14970.000+/-	332.000	1
10-MAR-05	H-3	15254.000+/-	335.000	Duplicate
21-APR-05	MN-54	<	5.400	
21-APR-05	CO-58	<	5.200	
21-APR-05	FE-59	<	9.200	
21-APR-05	CO-60	<	4.000	
21-APR-05	ZN-65	<	5.000	
21-APR-05	ZR-NB-95	<	4.600	
21-APR-05	I-131	<	6.400	
21-APR-05	CS-134	<	6.000	
21-APR-05	CS-137	<	4.700	
21-APR-05	BA-LA-140	<	6.700	
21-APR-05	H-3	15313.000+/-	336.000	
12-MAY-05	MN-54	<	3.000	
12-MAY-05	CO-58	<	2.900	
12-MAY-05	FE-59	<	3.900	
12-MAY-05	CO-60	<	1.000	
12-MAY-05	ZN-65	<	2.500	
12-MAY-05	ZR-NB-95	<	3.600	
12-MAY-05	I-131	<	8.600	
12-MAY-05	CS-134	<	4.200	
12-MAY-05	CS-137	<	2.200	
12-MAY-05	BA-LA-140	<	3.400	
12-MAY-05	H-3	15289.000+/-	335.000	
09-JUN-05	MN-54	<	3.400	
09-JUN-05	CO-58	<	3.800	
09-JUN-05	FE-59	<	5.500	
09-JUN-05	CO-60	<	3.300	
09-JUN-05	ZN-65	<	6.300	
09-JUN-05	ZR-NB-95	<	6.300	
09-JUN-05	I-131	<	5.000	
09-JUN-05	CS-134	<	6.100	
09-JUN-05	CS-137	<	3.700	
09-JUN-05	BA-LA-140	<	6.900	
09-JUN-05	H-3	14119.000+/-	336.000	
08-JUL-05	MN-54	<	4.900	
08-JUL-05	CO-58	<	2.500	
08-JUL-05	FE-59	<	4.200	
08-JUL-05	CO-60	<	4.400	
08-JUL-05	ZN-65	<	5.600	

**Exposure Pathway - Waterborne  
Surface Water**

**Location SP**

<b>Collection Date</b>	<b>Nuclide</b>	<b>Gamma Spectrum &amp; H-3</b>		<b>Duplicate Analysis</b>
		<b>Concentration (pCi/Liter)</b>		
08-JUL-05	ZR-NB-95	<	5.200	
08-JUL-05	I-131	<	9.500	
08-JUL-05	CS-134	<	3.100	
08-JUL-05	CS-137	<	6.400	
08-JUL-05	BA-LA-140	<	5.500	
08-JUL-05	H-3	11816.000 +/-	307.000	
11-AUG-05	MN-54	<	3.600	
11-AUG-05	CO-58	<	5.000	
11-AUG-05	FE-59	<	8.500	
11-AUG-05	CO-60	<	3.800	
11-AUG-05	ZN-65	<	3.100	
11-AUG-05	ZR-NB-95	<	4.400	
11-AUG-05	I-131	<	8.900	
11-AUG-05	CS-134	<	5.100	
11-AUG-05	CS-137	<	4.200	
11-AUG-05	BA-LA-140	<	7.100	
11-AUG-05	H-3	11819.000 +/-	314.000	
09-SEP-05	MN-54	<	3.900	
09-SEP-05	CO-58	<	2.000	
09-SEP-05	FE-59	<	7.000	
09-SEP-05	CO-60	<	3.700	
09-SEP-05	ZN-65	<	5.200	
09-SEP-05	ZR-NB-95	<	4.100	
09-SEP-05	I-131	<	4.700	
09-SEP-05	CS-134	<	3.900	
09-SEP-05	CS-137	<	4.100	
09-SEP-05	BA-LA-140	<	4.100	
09-SEP-05	H-3	10793.000 +/-	298.000	
20-OCT-05	MN-54	<	2.600	
20-OCT-05	CO-58	<	4.500	
20-OCT-05	FE-59	<	5.000	
20-OCT-05	CO-60	<	1.500	
20-OCT-05	ZN-65	<	3.900	
20-OCT-05	ZR-NB-95	<	4.300	
20-OCT-05	I-131	<	6.300	
20-OCT-05	CS-134	<	4.000	
20-OCT-05	CS-137	<	2.800	
20-OCT-05	BA-LA-140	<	3.400	
20-OCT-05	H-3	10939.000 +/-	302.000	
17-NOV-05	MN-54	<	4.200	
17-NOV-05	CO-58	<	1.900	

**Exposure Pathway - Waterborne  
Surface Water**

**Location SP**

<b>Collection Date</b>	<b>Nuclide</b>	<b>Gamma Spectrum &amp; H-3</b>	<b>Concentration (pCi/Liter)</b>	<b>Duplicate Analysis</b>
17-NOV-05	FE-59		< 8.500	
17-NOV-05	CO-60		< 2.500	
17-NOV-05	ZN-65		< 5.300	
17-NOV-05	ZR-NB-95		< 2.900	
17-NOV-05	I-131		< 8.200	
17-NOV-05	CS-134		< 2.300	
17-NOV-05	CS-137		< 5.000	
17-NOV-05	BA-LA-140		< 6.000	
17-NOV-05	H-3	9533.000 +/-	276.000	
15-DEC-05	MN-54		< 3.100	
15-DEC-05	CO-58		< 2.600	
15-DEC-05	FE-59		< 10.400	
15-DEC-05	CO-60		< 1.700	
15-DEC-05	ZN-65		< 3.500	
15-DEC-05	ZR-NB-95		< 3.700	
15-DEC-05	I-131		< 8.700	
15-DEC-05	CS-134		< 3.600	
15-DEC-05	CS-137		< 6.300	
15-DEC-05	BA-LA-140		< 5.300	
15-DEC-05	H-3	9882.000 +/-	285.000	

**Exposure Pathway - Waterborne  
Ground Water**

**Location B-12**

<b>Collection Date</b>	<b>Nuclide</b>	<b>Concentration (pCi/Liter)</b>	<b>Duplicate Analysis</b>
11-FEB-05	MN-54	<	3.800
11-FEB-05	CO-58	<	3.100
11-FEB-05	FE-59	<	8.200
11-FEB-05	CO-60	<	5.500
11-FEB-05	ZN-65	<	7.800
11-FEB-05	ZR-NB-95	<	5.900
11-FEB-05	CS-134	<	4.900
11-FEB-05	CS-137	<	6.000
11-FEB-05	BA-LA-140	<	8.000
11-FEB-05	H-3	<	142.000
11-FEB-05	I-131 (CHEM)	<	0.320
11-MAY-05	MN-54	<	4.800
11-MAY-05	CO-58	<	4.100
11-MAY-05	FE-59	<	5.000
11-MAY-05	CO-60	<	3.800
11-MAY-05	ZN-65	<	8.200
11-MAY-05	ZR-NB-95	<	3.400
11-MAY-05	CS-134	<	5.200
11-MAY-05	CS-137	<	3.600
11-MAY-05	BA-LA-140	<	3.800
11-MAY-05	H-3	<	145.000
11-MAY-05	I-131 (CHEM)	<	0.346
11-AUG-05	MN-54	<	2.600
11-AUG-05	CO-58	<	3.500
11-AUG-05	FE-59	<	3.700
11-AUG-05	CO-60	<	2.900
11-AUG-05	ZN-65	<	3.900
11-AUG-05	ZR-NB-95	<	5.400
11-AUG-05	CS-134	<	1.900
11-AUG-05	CS-137	<	4.100
11-AUG-05	BA-LA-140	<	2.900
11-AUG-05	H-3	<	173.000
11-AUG-05	I-131 (CHEM)	<	0.204
10-NOV-05	MN-54	<	2.100
10-NOV-05	CO-58	<	2.600
10-NOV-05	FE-59	<	6.900
10-NOV-05	CO-60	<	1.900
10-NOV-05	ZN-65	<	2.300
10-NOV-05	ZR-NB-95	<	3.800
10-NOV-05	CS-134	<	4.500
10-NOV-05	CS-137	<	3.400

**Exposure Pathway - Waterborne  
Ground Water**

**Location B-12**

<b>Collection Date</b>	<b>Nuclide</b>	<b>Concentration (pCi/Liter)</b>	<b>Duplicate Analysis</b>
10-NOV-05	BA-LA-140	< 2.900	
10-NOV-05	H-3	< 157.000	
10-NOV-05	I-131 (CHEM)	< 0.426	

**Exposure Pathway - Waterborne  
Ground Water**

**Location C-10**

<b>Collection Date</b>	<b>Nuclide</b>	<b>Concentration (pCi/Liter)</b>	<b>Duplicate Analysis</b>
11-FEB-05	MN-54	< 4.000	
11-FEB-05	CO-58	< 4.800	
11-FEB-05	FE-59	< 6.300	
11-FEB-05	CO-60	< 4.600	
11-FEB-05	ZN-65	< 6.500	
11-FEB-05	ZR-NB-95	< 5.900	
11-FEB-05	CS-134	< 4.700	
11-FEB-05	CS-137	< 4.500	
11-FEB-05	BA-LA-140	< 4.500	
11-FEB-05	H-3	< 142.000	
11-FEB-05	I-131 (CHEM)	< 0.317	
11-MAY-05	MN-54	< 4.800	
11-MAY-05	CO-58	< 4.800	
11-MAY-05	FE-59	< 12.500	
11-MAY-05	CO-60	< 1.800	
11-MAY-05	ZN-65	< 5.700	
11-MAY-05	ZR-NB-95	< 3.300	
11-MAY-05	CS-134	< 6.100	
11-MAY-05	CS-137	< 6.300	
11-MAY-05	BA-LA-140	< 6.700	
11-MAY-05	H-3	< 145.000	
11-MAY-05	I-131 (CHEM)	< 0.322	
11-AUG-05	MN-54	< 3.500	
11-AUG-05	CO-58	< 2.800	
11-AUG-05	FE-59	< 4.100	
11-AUG-05	CO-60	< 1.000	
11-AUG-05	ZN-65	< 2.600	
11-AUG-05	ZR-NB-95	< 2.500	
11-AUG-05	CS-134	< 3.600	
11-AUG-05	CS-137	< 2.300	
11-AUG-05	BA-LA-140	< 4.700	
11-AUG-05	H-3	204.000 +/- 94.000	
11-AUG-05	H-3	318.000 +/- 111.000	ReCount
11-AUG-05	I-131 (CHEM)	< 0.177	
29-SEP-05	MN-54	< 6.100	
29-SEP-05	CO-58	< 3.300	
29-SEP-05	FE-59	< 5.500	
29-SEP-05	CO-60	< 2.200	
29-SEP-05	ZN-65	< 4.600	
29-SEP-05	ZR-NB-95	< 3.600	
29-SEP-05	CS-134	< 3.400	

**Exposure Pathway - Waterborne  
Ground Water**

**Location C-10**

<b>Collection Date</b>	<b>Nuclide</b>	<b>Concentration (pCi/Liter)</b>	<b>Duplicate Analysis</b>
29-SEP-05	CS-137	< 4.700	
29-SEP-05	BA-LA-140	< 3.500	
29-SEP-05	H-3	< 170.000	
29-SEP-05	I-131 (CHEM)	< 0.321	
10-NOV-05	MN-54	< 4.000	
10-NOV-05	CO-58	< 4.500	
10-NOV-05	FE-59	< 7.800	
10-NOV-05	CO-60	< 4.700	
10-NOV-05	ZN-65	< 7.500	
10-NOV-05	ZR-NB-95	< 6.000	
10-NOV-05	CS-134	< 4.700	
10-NOV-05	CS-137	< 5.100	
10-NOV-05	BA-LA-140	< 3.200	
10-NOV-05	H-3	< 157.000	
10-NOV-05	I-131 (CHEM)	< 0.391	

**Exposure Pathway - Waterborne  
Ground Water**

**Location C-49**

<b>Collection Date</b>	<b>Nuclide</b>	<b>Concentration (pCi/Liter)</b>	<b>Duplicate Analysis</b>
11-FEB-05	MN-54	< 4.000	
11-FEB-05	CO-58	< 4.900	
11-FEB-05	FE-59	< 7.900	
11-FEB-05	CO-60	< 4.700	
11-FEB-05	ZN-65	< 7.000	
11-FEB-05	ZR-NB-95	< 4.000	
11-FEB-05	CS-134	< 7.800	
11-FEB-05	CS-137	< 4.400	
11-FEB-05	BA-LA-140	< 9.000	
11-FEB-05	H-3	< 142.000	
11-FEB-05	I-131 (CHEM)	< 0.341	
11-MAY-05	MN-54	< 5.800	1
11-MAY-05	MN-54	< 6.000	Duplicate
11-MAY-05	CO-58	< 3.600	1
11-MAY-05	CO-58	< 4.500	Duplicate
11-MAY-05	FE-59	< 8.400	1
11-MAY-05	FE-59	< 5.900	Duplicate
11-MAY-05	CO-60	< 4.200	1
11-MAY-05	CO-60	< 3.900	Duplicate
11-MAY-05	ZN-65	< 3.800	1
11-MAY-05	ZN-65	< 10.700	Duplicate
11-MAY-05	ZR-NB-95	< 3.500	1
11-MAY-05	ZR-NB-95	< 4.200	Duplicate
11-MAY-05	CS-134	< 2.700	1
11-MAY-05	CS-134	< 4.400	Duplicate
11-MAY-05	CS-137	< 5.200	1
11-MAY-05	CS-137	< 6.900	Duplicate
11-MAY-05	BA-LA-140	< 5.400	1
11-MAY-05	BA-LA-140	< 4.100	Duplicate
11-MAY-05	H-3	< 145.000	1
11-MAY-05	H-3	< 145.000	Duplicate
11-MAY-05	I-131 (CHEM)	< 0.442	1
11-MAY-05	I-131 (CHEM)	< 0.410	Duplicate
11-AUG-05	MN-54	< 4.400	
11-AUG-05	CO-58	< 6.000	
11-AUG-05	FE-59	< 7.900	
11-AUG-05	CO-60	< 2.100	
11-AUG-05	ZN-65	< 14.300	
11-AUG-05	ZR-NB-95	< 6.400	
11-AUG-05	CS-134	< 5.500	
11-AUG-05	CS-137	< 6.600	

**Exposure Pathway - Waterborne  
Ground Water**

**Location C-49**

<b>Collection Date</b>	<b>Nuclide</b>	<b>Concentration (pCi/Liter)</b>	<b>Duplicate Analysis</b>
11-AUG-05	BA-LA-140	< 7.200	
11-AUG-05	H-3	217.000 +/- 95.000	
11-AUG-05	H-3	256.000 +/- 109.000	ReCount
11-AUG-05	I-131 (CHEM)	< 0.174	
29-SEP-05	MN-54	< 4.200	
29-SEP-05	CO-58	< 2.900	
29-SEP-05	FE-59	< 10.600	
29-SEP-05	CO-60	< 6.200	
29-SEP-05	ZN-65	< 4.500	
29-SEP-05	ZR-NB-95	< 5.000	
29-SEP-05	CS-134	< 3.900	
29-SEP-05	CS-137	< 6.000	
29-SEP-05	BA-LA-140	< 4.500	
29-SEP-05	H-3	< 170.000	
29-SEP-05	I-131 (CHEM)	< 0.317	
10-NOV-05	MN-54	< 3.400	
10-NOV-05	CO-58	< 3.500	
10-NOV-05	FE-59	< 11.700	
10-NOV-05	CO-60	< 4.200	
10-NOV-05	ZN-65	< 9.100	
10-NOV-05	ZR-NB-95	< 3.500	
10-NOV-05	CS-134	< 4.800	
10-NOV-05	CS-137	< 5.400	
10-NOV-05	BA-LA-140	< 7.300	
10-NOV-05	H-3	< 157.000	
10-NOV-05	I-131 (CHEM)	< 0.324	

**Exposure Pathway - Waterborne  
Ground Water**

**Location F-1**

<b>Collection Date</b>	<b>Nuclide</b>	<b>Concentration (pCi/Liter)</b>	<b>Duplicate Analysis</b>
15-DEC-05	MN-54	< 3.200	
15-DEC-05	CO-58	< 4.500	
15-DEC-05	FE-59	< 7.300	
15-DEC-05	CO-60	< 4.000	
15-DEC-05	ZN-65	< 4.400	
15-DEC-05	ZR-NB-95	< 5.800	
15-DEC-05	CS-134	< 4.900	
15-DEC-05	CS-137	< 5.000	
15-DEC-05	BA-LA-140	< 4.900	
15-DEC-05	H-3	< 184.000	
15-DEC-05	I-131 (CHEM)	< 0.234	

**Exposure Pathway - Waterborne  
Ground Water**

**Location G-2**

<b>Collection Date</b>	<b>Nuclide</b>	<b>Concentration (pCi/Liter)</b>	<b>Duplicate Analysis</b>
30-NOV-05	MN-54	<	5.000
30-NOV-05	CO-58	<	4.800
30-NOV-05	FE-59	<	7.300
30-NOV-05	CO-60	<	3.400
30-NOV-05	ZN-65	<	9.400
30-NOV-05	ZR-NB-95	<	6.000
30-NOV-05	CS-134	<	4.700
30-NOV-05	CS-137	<	5.000
30-NOV-05	BA-LA-140	<	3.400
30-NOV-05	H-3	<	181.000
30-NOV-05	I-131 (CHEM)	<	0.401

**Exposure Pathway - Waterborne  
Ground Water**

**Location J-1**

<b>Collection Date</b>	<b>Nuclide</b>	<b>Concentration (pCi/Liter)</b>	<b>Duplicate Analysis</b>
11-FEB-05	MN-54	<	8.300
11-FEB-05	CO-58	<	4.500
11-FEB-05	FE-59	<	10.900
11-FEB-05	CO-60	<	3.000
11-FEB-05	ZN-65	<	14.400
11-FEB-05	ZR-NB-95	<	6.200
11-FEB-05	CS-134	<	10.100
11-FEB-05	CS-137	<	7.500
11-FEB-05	BA-LA-140	<	8.500
11-FEB-05	H-3	<	142.000
11-FEB-05	I-131 (CHEM)	<	0.295
11-MAY-05	MN-54	<	3.300
11-MAY-05	CO-58	<	5.000
11-MAY-05	FE-59	<	9.600
11-MAY-05	CO-60	<	6.100
11-MAY-05	ZN-65	<	8.400
11-MAY-05	ZR-NB-95	<	7.200
11-MAY-05	CS-134	<	3.500
11-MAY-05	CS-137	<	3.400
11-MAY-05	BA-LA-140	<	7.000
11-MAY-05	H-3	<	145.000
11-MAY-05	I-131 (CHEM)	<	0.354
10-AUG-05	MN-54	<	3.000
10-AUG-05	CO-58	<	4.100
10-AUG-05	FE-59	<	9.600
10-AUG-05	CO-60	<	3.600
10-AUG-05	ZN-65	<	5.200
10-AUG-05	ZR-NB-95	<	4.300
10-AUG-05	CS-134	<	3.500
10-AUG-05	CS-137	<	3.400
10-AUG-05	BA-LA-140	<	5.800
10-AUG-05	H-3	<	173.000
10-AUG-05	I-131 (CHEM)	<	0.200
10-NOV-05	MN-54	<	3.200
10-NOV-05	CO-58	<	3.400
10-NOV-05	FE-59	<	6.200
10-NOV-05	CO-60	<	3.900
10-NOV-05	ZN-65	<	6.300
10-NOV-05	ZR-NB-95	<	3.300
10-NOV-05	CS-134	<	3.800
10-NOV-05	CS-137	<	2.500

**Exposure Pathway - Waterborne  
Ground Water**

**Location J-1**

<b>Collection Date</b>	<b>Nuclide</b>	<b>Concentration (pCi/Liter)</b>	<b>Duplicate Analysis</b>
10-NOV-05	BA-LA-140	< 4.100	
10-NOV-05	H-3	< 157.000	
10-NOV-05	I-131 (CHEM)	< 0.272	

**Exposure Pathway - Waterborne  
Ground Water**

**Location J-2**

<b>Collection Date</b>	<b>Nuclide</b>	<b>Concentration (pCi/Liter)</b>	<b>Duplicate Analysis</b>
30-NOV-05	MN-54	<	2.800
30-NOV-05	CO-58	<	3.000
30-NOV-05	FE-59	<	2.800
30-NOV-05	CO-60	<	2.100
30-NOV-05	ZN-65	<	12.800
30-NOV-05	ZR-NB-95	<	4.200
30-NOV-05	CS-134	<	6.400
30-NOV-05	CS-137	<	2.600
30-NOV-05	BA-LA-140	<	2.000
30-NOV-05	H-3	<	181.000
30-NOV-05	I-131 (CHEM)	<	0.392

**Exposure Pathway - Waterborne  
Ground Water**

**Location L-49**

<b>Collection Date</b>	<b>Nuclide</b>	<b>Concentration (pCi/Liter)</b>	<b>Duplicate Analysis</b>
11-FEB-05	MN-54	<	5.700
11-FEB-05	CO-58	<	5.200
11-FEB-05	FE-59	<	3.000
11-FEB-05	CO-60	<	4.500
11-FEB-05	ZN-65	<	3.200
11-FEB-05	ZR-NB-95	<	3.700
11-FEB-05	CS-134	<	4.100
11-FEB-05	CS-137	<	6.300
11-FEB-05	BA-LA-140	<	7.100
11-FEB-05	H-3	<	142.000
11-FEB-05	I-131 (CHEM)	<	0.300
11-MAY-05	MN-54	<	3.600
11-MAY-05	CO-58	<	1.700
11-MAY-05	FE-59	<	4.500
11-MAY-05	CO-60	<	2.500
11-MAY-05	ZN-65	<	7.700
11-MAY-05	ZR-NB-95	<	4.200
11-MAY-05	CS-134	<	3.600
11-MAY-05	CS-137	<	3.700
11-MAY-05	BA-LA-140	<	4.000
11-MAY-05	H-3	<	145.000
11-MAY-05	I-131 (CHEM)	<	0.302
11-AUG-05	MN-54	<	6.400
11-AUG-05	CO-58	<	5.700
11-AUG-05	FE-59	<	11.800
11-AUG-05	CO-60	<	4.400
11-AUG-05	ZN-65	<	8.700
11-AUG-05	ZR-NB-95	<	5.700
11-AUG-05	CS-134	<	7.700
11-AUG-05	CS-137	<	6.400
11-AUG-05	BA-LA-140	<	6.200
11-AUG-05	H-3	<	173.000
11-AUG-05	I-131 (CHEM)	<	0.173
10-NOV-05	MN-54	<	7.200
10-NOV-05	CO-58	<	3.900
10-NOV-05	FE-59	<	4.900
10-NOV-05	CO-60	<	2.400
10-NOV-05	ZN-65	<	4.200
10-NOV-05	ZR-NB-95	<	3.100
10-NOV-05	CS-134	<	4.900
10-NOV-05	CS-137	<	4.000

**Exposure Pathway - Waterborne  
Ground Water**

**Location L-49**

<b>Collection Date</b>	<b>Nuclide</b>	<b>Concentration (pCi/Liter)</b>	<b>Duplicate Analysis</b>
10-NOV-05	BA-LA-140	< 4.900	
10-NOV-05	H-3	< 157.000	
10-NOV-05	I-131 (CHEM)	< 0.275	

**Exposure Pathway - Waterborne  
Drinking Water**

**Location BW-15**

<b>Collection Date</b>	<b>Nuclide</b>	<b>Concentration (pCi/Liter)</b>	<b>Duplicate Analysis</b>
03-FEB-05	MN-54	<	3.600
03-FEB-05	CO-58	<	2.800
03-FEB-05	FE-59	<	3.300
03-FEB-05	CO-60	<	1.100
03-FEB-05	ZN-65	<	3.400
03-FEB-05	ZR-NB-95	<	4.000
03-FEB-05	CS-134	<	3.700
03-FEB-05	CS-137	<	3.300
03-FEB-05	BA-LA-140	<	1.400
03-FEB-05	GROSS BETA	3.506 +/-	0.997
03-FEB-05	I-131 (CHEM)	<	0.304
02-MAR-05	MN-54	<	5.400
02-MAR-05	CO-58	<	4.700
02-MAR-05	FE-59	<	7.600
02-MAR-05	CO-60	<	5.200
02-MAR-05	ZN-65	<	6.900
02-MAR-05	ZR-NB-95	<	4.400
02-MAR-05	CS-134	<	4.700
02-MAR-05	CS-137	<	3.600
02-MAR-05	BA-LA-140	<	3.700
02-MAR-05	GROSS BETA	4.240 +/-	1.293
02-MAR-05	I-131 (CHEM)	<	0.438
06-APR-05	MN-54	<	3.100
06-APR-05	CO-58	<	3.400
06-APR-05	FE-59	<	5.900
06-APR-05	CO-60	<	1.900
06-APR-05	ZN-65	<	2.500
06-APR-05	ZR-NB-95	<	1.800
06-APR-05	CS-134	<	3.000
06-APR-05	CS-137	<	3.700
06-APR-05	BA-LA-140	<	2.400
06-APR-05	GROSS BETA	4.071 +/-	1.276
06-APR-05	I-131 (CHEM)	<	0.304
05-MAY-05	MN-54	<	5.600
05-MAY-05	CO-58	<	4.300
05-MAY-05	FE-59	<	8.600
05-MAY-05	CO-60	<	3.500
05-MAY-05	ZN-65	<	8.400
05-MAY-05	ZR-NB-95	<	6.100
05-MAY-05	CS-134	<	5.400
05-MAY-05	CS-137	<	5.600

**Exposure Pathway - Waterborne  
Drinking Water**

**Location BW-15**

<b>Collection Date</b>	<b>Nuclide</b>	<b>Concentration (pCi/Liter)</b>	<b>Duplicate Analysis</b>
05-MAY-05	BA-LA-140	< 9.900	
05-MAY-05	GROSS BETA	3.369 +/- 0.743	
05-MAY-05	I-131 (CHEM)	< 0.435	
01-JUN-05	MN-54	< 3.100	
01-JUN-05	CO-58	< 2.400	
01-JUN-05	FE-59	< 3.900	
01-JUN-05	CO-60	< 2.500	
01-JUN-05	ZN-65	< 5.800	
01-JUN-05	ZR-NB-95	< 3.900	
01-JUN-05	CS-134	< 4.200	
01-JUN-05	CS-137	< 2.000	
01-JUN-05	BA-LA-140	< 2.200	
01-JUN-05	GROSS BETA	1.903 +/- 0.619	
01-JUN-05	I-131 (CHEM)	< 0.323	
07-JUL-05	MN-54	< 5.800	
07-JUL-05	CO-58	< 4.300	
07-JUL-05	FE-59	< 11.200	
07-JUL-05	CO-60	< 3.500	
07-JUL-05	ZN-65	< 7.000	
07-JUL-05	ZR-NB-95	< 3.100	
07-JUL-05	CS-134	< 6.000	
07-JUL-05	CS-137	< 7.200	
07-JUL-05	BA-LA-140	< 6.300	
07-JUL-05	GROSS BETA	2.899 +/- 0.678	
07-JUL-05	I-131 (CHEM)	< 0.354	
05-AUG-05	MN-54	< 5.200	
05-AUG-05	CO-58	< 4.500	
05-AUG-05	FE-59	< 6.800	
05-AUG-05	CO-60	< 4.400	
05-AUG-05	ZN-65	< 6.200	
05-AUG-05	ZR-NB-95	< 5.600	
05-AUG-05	CS-134	< 4.000	
05-AUG-05	CS-137	< 5.500	
05-AUG-05	BA-LA-140	< 6.800	
05-AUG-05	GROSS BETA	5.191 +/- 1.212	
05-AUG-05	I-131 (CHEM)	< 0.223	
07-SEP-05	MN-54	< 5.200	
07-SEP-05	CO-58	< 3.600	
07-SEP-05	FE-59	< 4.300	
07-SEP-05	CO-60	< 2.200	
07-SEP-05	ZN-65	< 3.700	

**Exposure Pathway - Waterborne  
Drinking Water**

**Location BW-15**

<b>Collection Date</b>	<b>Nuclide</b>	<b>Concentration (pCi/Liter)</b>	<b>Duplicate Analysis</b>
07-SEP-05	ZR-NB-95	<	3.100
07-SEP-05	CS-134	<	2.800
07-SEP-05	CS-137	<	6.000
07-SEP-05	BA-LA-140	<	3.500
07-SEP-05	GROSS BETA	2.337 +/-	0.627
07-SEP-05	I-131 (CHEM)	<	0.181
05-OCT-05	MN-54	<	4.100
05-OCT-05	CO-58	<	5.700
05-OCT-05	FE-59	<	8.100
05-OCT-05	CO-60	<	3.600
05-OCT-05	ZN-65	<	7.100
05-OCT-05	ZR-NB-95	<	3.900
05-OCT-05	CS-134	<	4.100
05-OCT-05	CS-137	<	5.100
05-OCT-05	BA-LA-140	<	3.500
05-OCT-05	GROSS BETA	5.386 +/-	1.234
05-OCT-05	I-131 (CHEM)	<	0.297
01-NOV-05	MN-54	<	5.200
01-NOV-05	CO-58	<	3.500
01-NOV-05	FE-59	<	6.800
01-NOV-05	CO-60	<	5.600
01-NOV-05	ZN-65	<	7.800
01-NOV-05	ZR-NB-95	<	6.400
01-NOV-05	CS-134	<	2.900
01-NOV-05	CS-137	<	3.600
01-NOV-05	BA-LA-140	<	3.400
01-NOV-05	GROSS BETA	6.757 +/-	1.340
01-NOV-05	I-131 (CHEM)	<	0.371
09-DEC-05	MN-54	<	4.300
09-DEC-05	CO-58	<	2.900
09-DEC-05	FE-59	<	6.800
09-DEC-05	CO-60	<	2.900
09-DEC-05	ZN-65	<	9.100
09-DEC-05	ZR-NB-95	<	6.700
09-DEC-05	CS-134	<	6.200
09-DEC-05	CS-137	<	5.400
09-DEC-05	BA-LA-140	<	3.900
09-DEC-05	GROSS BETA	2.894 +/-	0.682
09-DEC-05	I-131 (CHEM)	<	0.352
05-JAN-06	MN-54	<	3.500
05-JAN-06	CO-58	<	3.400

**Exposure Pathway - Waterborne  
Drinking Water**

**Location BW-15**

<b>Collection Date</b>	<b>Nuclide</b>	<b>Concentration (pCi/Liter)</b>	<b>Duplicate Analysis</b>
05-JAN-06	FE-59	<	4.200
05-JAN-06	CO-60	<	4.300
05-JAN-06	ZN-65	<	4.000
05-JAN-06	ZR-NB-95	<	3.900
05-JAN-06	CS-134	<	3.800
05-JAN-06	CS-137	<	2.900
05-JAN-06	BA-LA-140	<	2.300
05-JAN-06	GROSS BETA	4.319+/-	1.102
05-JAN-06	I-131 (CHEM)	<	0.316

**Exposure Pathway - Waterborne  
Drinking Water**

**Location IO-DW**

<b>Collection Date</b>	<b>Nuclide</b>		<b>Concentration (pCi/Liter)</b>	<b>Duplicate Analysis</b>
03-FEB-05	MN-54	<	3.300	1
03-FEB-05	MN-54	<	4.200	Duplicate
03-FEB-05	CO-58	<	2.600	1
03-FEB-05	CO-58	<	3.900	Duplicate
03-FEB-05	FE-59	<	3.200	1
03-FEB-05	FE-59	<	11.400	Duplicate
03-FEB-05	CO-60	<	2.000	1
03-FEB-05	CO-60	<	5.600	Duplicate
03-FEB-05	ZN-65	<	4.100	1
03-FEB-05	ZN-65	<	7.000	Duplicate
03-FEB-05	ZR-NB-95	<	3.700	1
03-FEB-05	ZR-NB-95	<	3.800	Duplicate
03-FEB-05	CS-134	<	3.200	1
03-FEB-05	CS-134	<	3.300	Duplicate
03-FEB-05	CS-137	<	3.500	1
03-FEB-05	CS-137	<	3.800	Duplicate
03-FEB-05	BA-LA-140	<	3.800	1
03-FEB-05	BA-LA-140	<	8.600	Duplicate
03-FEB-05	GROSS BETA	3.935+/-	1.176	1
03-FEB-05	GROSS BETA	3.616+/-	1.097	Duplicate
03-FEB-05	I-131 (CHEM)	<	0.316	1
03-FEB-05	I-131 (CHEM)	<	0.341	Duplicate
02-MAR-05	MN-54	<	6.300	
02-MAR-05	CO-58	<	4.300	
02-MAR-05	FE-59	<	5.900	
02-MAR-05	CO-60	<	5.000	
02-MAR-05	ZN-65	<	6.500	
02-MAR-05	ZR-NB-95	<	4.400	
02-MAR-05	CS-134	<	4.500	
02-MAR-05	CS-137	<	3.900	
02-MAR-05	BA-LA-140	<	10.900	
02-MAR-05	GROSS BETA	3.996+/-	1.172	
02-MAR-05	I-131 (CHEM)	<	0.450	
06-APR-05	MN-54	<	1.600	
06-APR-05	CO-58	<	3.000	
06-APR-05	FE-59	<	5.500	
06-APR-05	CO-60	<	2.500	
06-APR-05	ZN-65	<	3.200	
06-APR-05	ZR-NB-95	<	3.600	
06-APR-05	CS-134	<	4.300	
06-APR-05	CS-137	<	2.700	

**Exposure Pathway - Waterborne  
Drinking Water**

**Location IO-DW**

<b>Collection Date</b>	<b>Nuclide</b>	<b>Concentration (pCi/Liter)</b>	<b>Duplicate Analysis</b>
06-APR-05	BA-LA-140	< 1.800	
06-APR-05	GROSS BETA	5.392 +/- 1.208	
06-APR-05	I-131 (CHEM)	< 0.323	
05-MAY-05	MN-54	< 3.000	
05-MAY-05	CO-58	< 4.800	
05-MAY-05	FE-59	< 7.500	
05-MAY-05	CO-60	< 5.900	
05-MAY-05	ZN-65	< 8.400	
05-MAY-05	ZR-NB-95	< 3.600	
05-MAY-05	CS-134	< 4.500	
05-MAY-05	CS-137	< 2.300	
05-MAY-05	BA-LA-140	< 3.900	
05-MAY-05	GROSS BETA	2.885 +/- 0.711	
05-MAY-05	I-131 (CHEM)	< 0.348	
01-JUN-05	MN-54	< 3.300	
01-JUN-05	CO-58	< 4.600	
01-JUN-05	FE-59	< 5.300	
01-JUN-05	CO-60	< 3.300	
01-JUN-05	ZN-65	< 4.800	
01-JUN-05	ZR-NB-95	< 2.600	
01-JUN-05	CS-134	< 2.800	
01-JUN-05	CS-137	< 3.300	
01-JUN-05	BA-LA-140	< 5.100	
01-JUN-05	GROSS BETA	1.833 +/- 0.593	
01-JUN-05	I-131 (CHEM)	< 0.301	
07-JUL-05	MN-54	< 4.100	
07-JUL-05	CO-58	< 6.400	
07-JUL-05	FE-59	< 7.800	
07-JUL-05	CO-60	< 4.200	
07-JUL-05	ZN-65	< 8.500	
07-JUL-05	ZR-NB-95	< 3.800	
07-JUL-05	CS-134	< 5.800	
07-JUL-05	CS-137	< 6.200	
07-JUL-05	BA-LA-140	< 5.300	
07-JUL-05	GROSS BETA	2.434 +/- 0.637	
07-JUL-05	I-131 (CHEM)	< 0.329	
05-AUG-05	MN-54	< 6.400	
05-AUG-05	CO-58	< 5.000	
05-AUG-05	FE-59	< 5.100	
05-AUG-05	CO-60	< 3.700	
05-AUG-05	ZN-65	< 9.600	

**Exposure Pathway - Waterborne  
Drinking Water**

**Location IO-DW**

<b>Collection Date</b>	<b>Nuclide</b>	<b>Concentration (pCi/Liter)</b>	<b>Duplicate Analysis</b>
05-AUG-05	ZR-NB-95	<	3.200
05-AUG-05	CS-134	<	6.400
05-AUG-05	CS-137	<	5.800
05-AUG-05	BA-LA-140	<	5.000
05-AUG-05	GROSS BETA	3.242+-	1.010
05-AUG-05	I-131 (CHEM)	<	0.222
07-SEP-05	MN-54	<	3.600
07-SEP-05	CO-58	<	3.900
07-SEP-05	FE-59	<	10.400
07-SEP-05	CO-60	<	2.800
07-SEP-05	ZN-65	<	5.000
07-SEP-05	ZR-NB-95	<	3.900
07-SEP-05	CS-134	<	4.400
07-SEP-05	CS-137	<	6.700
07-SEP-05	BA-LA-140	<	4.500
07-SEP-05	GROSS BETA	3.140+-	0.692
07-SEP-05	I-131 (CHEM)	<	0.192
05-OCT-05	MN-54	<	5.300
05-OCT-05	CO-58	<	4.500
05-OCT-05	FE-59	<	8.000
05-OCT-05	CO-60	<	2.500
05-OCT-05	ZN-65	<	9.500
05-OCT-05	ZR-NB-95	<	2.200
05-OCT-05	CS-134	<	5.400
05-OCT-05	CS-137	<	6.900
05-OCT-05	BA-LA-140	<	4.200
05-OCT-05	GROSS BETA	5.500+-	1.130
05-OCT-05	I-131 (CHEM)	<	0.265
01-NOV-05	MN-54	<	4.400
01-NOV-05	CO-58	<	5.100
01-NOV-05	FE-59	<	15.600
01-NOV-05	CO-60	<	3.400
01-NOV-05	ZN-65	<	5.800
01-NOV-05	ZR-NB-95	<	2.900
01-NOV-05	CS-134	<	4.300
01-NOV-05	CS-137	<	3.800
01-NOV-05	BA-LA-140	<	4.900
01-NOV-05	GROSS BETA	3.551+-	1.174
01-NOV-05	I-131 (CHEM)	<	0.344
09-DEC-05	MN-54	<	3.200
09-DEC-05	CO-58	<	3.600

**Exposure Pathway - Waterborne  
Drinking Water**

**Location IO-DW**

<b>Collection Date</b>	<b>Nuclide</b>	<b>Concentration (pCi/Liter)</b>	<b>Duplicate Analysis</b>
09-DEC-05	FE-59	< 8.400	
09-DEC-05	CO-60	< 4.000	
09-DEC-05	ZN-65	< 7.600	
09-DEC-05	ZR-NB-95	< 5.900	
09-DEC-05	CS-134	< 3.600	
09-DEC-05	CS-137	< 4.700	
09-DEC-05	BA-LA-140	< 4.100	
09-DEC-05	GROSS BETA	2.994 +/- 0.710	
09-DEC-05	I-131 (CHEM)	< 0.217	
05-JAN-06	MN-54	< 3.300	
05-JAN-06	CO-58	< 0.700	
05-JAN-06	FE-59	< 5.000	
05-JAN-06	CO-60	< 2.700	
05-JAN-06	ZN-65	< 2.500	
05-JAN-06	ZR-NB-95	< 3.300	
05-JAN-06	CS-134	< 4.500	
05-JAN-06	CS-137	< 2.400	
05-JAN-06	BA-LA-140	< 2.100	
05-JAN-06	GROSS BETA	5.165 +/- 1.228	
05-JAN-06	I-131 (CHEM)	< 0.338	

**Exposure Pathway - Waterborne  
Drinking Water**

**Location NF-DW**

<b>Collection Date</b>	<b>Nuclide</b>	<b>Concentration (pCi/Liter)</b>	<b>Duplicate Analysis</b>
03-FEB-05	MN-54	<	5.200
03-FEB-05	CO-58	<	3.100
03-FEB-05	FE-59	<	6.800
03-FEB-05	CO-60	<	4.400
03-FEB-05	ZN-65	<	3.500
03-FEB-05	ZR-NB-95	<	4.500
03-FEB-05	CS-134	<	6.300
03-FEB-05	CS-137	<	5.300
03-FEB-05	BA-LA-140	<	2.300
03-FEB-05	GROSS BETA	3.699+/-	1.035
03-FEB-05	I-131 (CHEM)	<	0.245
02-MAR-05	MN-54	<	3.700
02-MAR-05	CO-58	<	4.700
02-MAR-05	FE-59	<	4.000
02-MAR-05	CO-60	<	2.200
02-MAR-05	ZN-65	<	5.300
02-MAR-05	ZR-NB-95	<	4.300
02-MAR-05	CS-134	<	3.100
02-MAR-05	CS-137	<	5.300
02-MAR-05	BA-LA-140	<	3.700
02-MAR-05	GROSS BETA	3.429+/-	1.186
02-MAR-05	I-131 (CHEM)	<	0.348
06-APR-05	MN-54	<	4.400
06-APR-05	CO-58	<	3.600
06-APR-05	FE-59	<	7.900
06-APR-05	CO-60	<	5.600
06-APR-05	ZN-65	<	4.200
06-APR-05	ZR-NB-95	<	1.700
06-APR-05	CS-134	<	4.400
06-APR-05	CS-137	<	3.300
06-APR-05	BA-LA-140	<	4.100
06-APR-05	GROSS BETA	3.726+/-	0.628
06-APR-05	I-131 (CHEM)	<	0.309
05-MAY-05	MN-54	<	1.900
05-MAY-05	CO-58	<	2.300
05-MAY-05	FE-59	<	5.200
05-MAY-05	CO-60	<	2.200
05-MAY-05	ZN-65	<	7.300
05-MAY-05	ZR-NB-95	<	5.100
05-MAY-05	CS-134	<	2.400
05-MAY-05	CS-137	<	2.400

**Exposure Pathway - Waterborne  
Drinking Water**

**Location NF-DW**

<b>Collection Date</b>	<b>Nuclide</b>	<b>Concentration (pCi/Liter)</b>	<b>Duplicate Analysis</b>
05-MAY-05	BA-LA-140	< 4.600	
05-MAY-05	GROSS BETA	3.341+/- 1.030	
05-MAY-05	I-131 (CHEM)	< 0.470	
01-JUN-05	MN-54	< 3.100	
01-JUN-05	CO-58	< 2.100	
01-JUN-05	FE-59	< 3.900	
01-JUN-05	CO-60	< 2.600	
01-JUN-05	ZN-65	< 5.300	
01-JUN-05	ZR-NB-95	< 1.700	
01-JUN-05	CS-134	< 2.900	
01-JUN-05	CS-137	< 3.600	
01-JUN-05	BA-LA-140	< 1.500	
01-JUN-05	GROSS BETA	3.217+/- 0.734	
01-JUN-05	I-131 (CHEM)	< 0.288	
07-JUL-05	MN-54	< 3.600	
07-JUL-05	CO-58	< 3.100	
07-JUL-05	FE-59	< 7.400	
07-JUL-05	CO-60	< 3.400	
07-JUL-05	ZN-65	< 7.600	
07-JUL-05	ZR-NB-95	< 3.300	
07-JUL-05	CS-134	< 1.800	
07-JUL-05	CS-137	< 4.500	
07-JUL-05	BA-LA-140	< 6.300	
07-JUL-05	GROSS BETA	2.413+/- 0.661	
07-JUL-05	I-131 (CHEM)	< 0.344	
05-AUG-05	MN-54	< 3.900	
05-AUG-05	CO-58	< 2.900	
05-AUG-05	FE-59	< 5.900	
05-AUG-05	CO-60	< 2.500	
05-AUG-05	ZN-65	< 4.600	
05-AUG-05	ZR-NB-95	< 2.600	
05-AUG-05	CS-134	< 1.600	
05-AUG-05	CS-137	< 3.500	
05-AUG-05	BA-LA-140	< 4.900	
05-AUG-05	GROSS BETA	4.320+/- 1.164	
05-AUG-05	I-131 (CHEM)	< 0.211	
07-SEP-05	MN-54	< 3.900	
07-SEP-05	CO-58	< 2.400	
07-SEP-05	FE-59	< 8.000	
07-SEP-05	CO-60	< 3.100	
07-SEP-05	ZN-65	< 5.100	

**Exposure Pathway - Waterborne  
Drinking Water**

**Location NF-DW**

<b>Collection Date</b>	<b>Nuclide</b>	<b>Concentration (pCi/Liter)</b>	<b>Duplicate Analysis</b>
07-SEP-05	ZR-NB-95	< 4.200	
07-SEP-05	CS-134	< 5.100	
07-SEP-05	CS-137	< 5.400	
07-SEP-05	BA-LA-140	< 2.900	
07-SEP-05	GROSS BETA	2.473 +/- 0.684	
07-SEP-05	I-131 (CHEM)	< 0.317	
05-OCT-05	MN-54	< 5.300	
05-OCT-05	CO-58	< 2.100	
05-OCT-05	FE-59	< 7.500	
05-OCT-05	CO-60	< 2.200	
05-OCT-05	ZN-65	< 11.100	
05-OCT-05	ZR-NB-95	< 2.300	
05-OCT-05	CS-134	< 4.700	
05-OCT-05	CS-137	< 5.000	
05-OCT-05	BA-LA-140	< 3.000	
05-OCT-05	GROSS BETA	5.099 +/- 1.201	
05-OCT-05	I-131 (CHEM)	< 0.268	
01-NOV-05	MN-54	< 4.000	
01-NOV-05	CO-58	< 3.100	
01-NOV-05	FE-59	< 4.400	
01-NOV-05	CO-60	< 3.200	
01-NOV-05	ZN-65	< 4.200	
01-NOV-05	ZR-NB-95	< 3.700	
01-NOV-05	CS-134	< 5.400	
01-NOV-05	CS-137	< 3.500	
01-NOV-05	BA-LA-140	< 4.100	
01-NOV-05	GROSS BETA	4.203 +/- 1.107	
01-NOV-05	I-131 (CHEM)	< 0.310	
09-DEC-05	MN-54	< 2.100	
09-DEC-05	CO-58	< 3.500	
09-DEC-05	FE-59	< 4.100	
09-DEC-05	CO-60	< 2.800	
09-DEC-05	ZN-65	< 4.600	
09-DEC-05	ZR-NB-95	< 3.300	
09-DEC-05	CS-134	< 3.300	
09-DEC-05	CS-137	< 2.800	
09-DEC-05	BA-LA-140	< 1.900	
09-DEC-05	GROSS BETA	2.940 +/- 0.745	
09-DEC-05	I-131 (CHEM)	< 0.284	
05-JAN-06	MN-54	< 4.600	
05-JAN-06	CO-58	< 2.700	

**Exposure Pathway - Waterborne  
Drinking Water**

**Location NF-DW**

<b>Collection Date</b>	<b>Nuclide</b>	<b>Concentration (pCi/Liter)</b>	<b>Duplicate Analysis</b>
05-JAN-06	FE-59	<	5.400
05-JAN-06	CO-60	<	2.800
05-JAN-06	ZN-65	<	4.200
05-JAN-06	ZR-NB-95	<	3.300
05-JAN-06	CS-134	<	3.300
05-JAN-06	CS-137	<	4.800
05-JAN-06	BA-LA-140	<	3.800
05-JAN-06	GROSS BETA	4.535 +/-	1.253
05-JAN-06	I-131 (CHEM)	<	0.362

**Exposure Pathway - Waterborne  
Drinking Water  
Quarterly Tritium Analysis**

**Location BW-15**

<b>Collection Date</b>	<b>Nuclide</b>	<b>Concentration (pCi/Liter)</b>		<b>Duplicate Analysis</b>
06-APR-05	H-3	<	164.000	
07-JUL-05	H-3	<	160.000	
05-OCT-05	H-3	245.000	+/- 85.000	
05-OCT-05	H-3	248.000	+/- 126.000	ReCount
05-JAN-06	H-3	<	144.000	

**Exposure Pathway - Waterborne  
Drinking Water  
Quarterly Tritium Analysis**

**Location IO-DW**

<b>Collection Date</b>	<b>Nuclide</b>	<b>Concentration (pCi/Liter)</b>	<b>Duplicate Analysis</b>
06-APR-05	H-3	< 164.000	
07-JUL-05	H-3	< 160.000	
05-OCT-05	H-3	207.000 +/- 83.000	
05-OCT-05	H-3	205.000 +/- 83.000	Duplicate
05-OCT-05	H-3	217.000 +/- 116.000	ReCount
05-OCT-05	H-3	244.000 +/- 116.000	Duplicate
05-JAN-06	H-3	< 144.000	

**Exposure Pathway - Waterborne  
Drinking Water  
Quarterly Tritium Analysis**

**Location NF-DW**

<b>Collection Date</b>	<b>Nuclide</b>	<b>Concentration (pCi/Liter)</b>	<b>Duplicate Analysis</b>
06-APR-05	H-3	< 164.000	1
06-APR-05	H-3	< 164.000	Duplicate
07-JUL-05	H-3	< 160.000	
05-OCT-05	H-3	243.000 +/- 85.000	
05-OCT-05	H-3	219.000 +/- 116.000	ReCount
05-JAN-06	H-3	< 145.000	

**Exposure Pathway - Waterborne  
Shoreline Sediment**

**Location DC**

<b>Collection Date</b>	<b>Nuclide</b>	<b>Gamma Spectrum Concentration (pCi/Kg Dry)</b>	<b>Duplicate Analysis</b>
27-MAY-05	K-40	10953.000 +/-	918.300
27-MAY-05	MN-54	<	37.700
27-MAY-05	CO-58	<	43.000
27-MAY-05	FE-59	<	60.900
27-MAY-05	CO-60	<	34.000
27-MAY-05	ZN-65	<	83.600
27-MAY-05	CS-134	<	53.500
27-MAY-05	CS-137	<	36.500
27-OCT-05	K-40	10382.000 +/-	876.600
27-OCT-05	MN-54	<	31.300
27-OCT-05	CO-58	<	33.000
27-OCT-05	FE-59	<	85.600
27-OCT-05	CO-60	<	30.000
27-OCT-05	ZN-65	<	76.400
27-OCT-05	CS-134	<	51.400
27-OCT-05	CS-137	<	36.400

**Exposure Pathway - Waterborne  
Shoreline Sediment**

**Location JRR**

<b>Collection Date</b>	<b>Nuclide</b>	<b>Gamma Spectrum Concentration (pCi/Kg Dry)</b>	<b>Duplicate Analysis</b>
10-JUN-05	K-40	11846.000 +/-	998.800
10-JUN-05	MN-54	<	39.200
10-JUN-05	CO-58	<	53.800
10-JUN-05	FE-59	<	75.500
10-JUN-05	CO-60	<	46.300
10-JUN-05	ZN-65	<	93.100
10-JUN-05	CS-134	<	57.500
10-JUN-05	CS-137	81.900 +/-	43.300
11-NOV-05	K-40	8643.400 +/-	756.600
11-NOV-05	MN-54	<	29.200
11-NOV-05	CO-58	<	36.600
11-NOV-05	FE-59	<	74.300
11-NOV-05	CO-60	<	32.200
11-NOV-05	ZN-65	<	67.100
11-NOV-05	CS-134	<	51.900
11-NOV-05	CS-137	56.700 +/-	30.600

**Exposure Pathway - Ingestion  
Fish**

**Location JRR**

<b>Collection Date</b>	<b>Sample Description</b>	<b>Nuclide</b>	<b>Gamma Spectrum &amp; H-3 Concentration (pCi/Kg Wet)</b>		<b>Duplicate Analysis</b>
10-JUN-05	COMMON CARP	K-40	3003.300+/-	566.700	
10-JUN-05	COMMON CARP	MN-54	<	13.200	
10-JUN-05	COMMON CARP	CO-58	<	15.600	
10-JUN-05	COMMON CARP	FE-59	<	36.700	
10-JUN-05	COMMON CARP	CO-60	<	16.300	
10-JUN-05	COMMON CARP	ZN-65	<	27.800	
10-JUN-05	COMMON CARP	CS-134	<	23.700	
10-JUN-05	COMMON CARP	CS-137	<	14.900	
10-JUN-05	COMMON CARP	H-3	<	126.000	
10-JUN-05	LARGEMOUTH BASS	K-40	3057.500+/-	409.100	1
10-JUN-05	LARGEMOUTH BASS	K-40	3247.200+/-	528.400	Duplicate
10-JUN-05	LARGEMOUTH BASS	MN-54	<	9.800	1
10-JUN-05	LARGEMOUTH BASS	MN-54	<	18.800	Duplicate
10-JUN-05	LARGEMOUTH BASS	CO-58	<	13.500	1
10-JUN-05	LARGEMOUTH BASS	CO-58	<	16.600	Duplicate
10-JUN-05	LARGEMOUTH BASS	FE-59	<	29.000	1
10-JUN-05	LARGEMOUTH BASS	FE-59	<	48.500	Duplicate
10-JUN-05	LARGEMOUTH BASS	CO-60	<	11.400	1
10-JUN-05	LARGEMOUTH BASS	CO-60	<	12.800	Duplicate
10-JUN-05	LARGEMOUTH BASS	ZN-65	<	16.400	1
10-JUN-05	LARGEMOUTH BASS	ZN-65	<	32.100	Duplicate
10-JUN-05	LARGEMOUTH BASS	CS-134	<	17.000	1
10-JUN-05	LARGEMOUTH BASS	CS-134	<	33.200	Duplicate
10-JUN-05	LARGEMOUTH BASS	CS-137	<	12.900	1
10-JUN-05	LARGEMOUTH BASS	CS-137	<	21.000	Duplicate
10-JUN-05	LARGEMOUTH BASS	H-3	<	131.000	1
10-JUN-05	LARGEMOUTH BASS	H-3	<	131.000	Duplicate
10-JUN-05	WHITE CRAPPIE	K-40	3177.600+/-	412.200	
10-JUN-05	WHITE CRAPPIE	MN-54	<	12.000	
10-JUN-05	WHITE CRAPPIE	CO-58	<	15.500	
10-JUN-05	WHITE CRAPPIE	FE-59	<	18.700	
10-JUN-05	WHITE CRAPPIE	CO-60	<	11.000	
10-JUN-05	WHITE CRAPPIE	ZN-65	<	27.900	
10-JUN-05	WHITE CRAPPIE	CS-134	<	14.100	
10-JUN-05	WHITE CRAPPIE	CS-137	<	15.200	
10-JUN-05	WHITE CRAPPIE	H-3	<	127.000	
11-NOV-05	CHANNEL CATFISH	K-40	3298.400+/-	393.600	
11-NOV-05	CHANNEL CATFISH	MN-54	<	13.200	
11-NOV-05	CHANNEL CATFISH	CO-58	<	14.000	
11-NOV-05	CHANNEL CATFISH	FE-59	<	18.400	
11-NOV-05	CHANNEL CATFISH	CO-60	<	15.100	

**Exposure Pathway - Ingestion  
Fish**

**Location JRR**

<b>Collection Date</b>	<b>Sample Description</b>	<b>Nuclide</b>	<b>Gamma Spectrum &amp; H-3</b>		<b>Duplicate Analysis</b>
			<b>Concentration</b> <b>(pCi/Kg Wet)</b>		
11-NOV-05	CHANNEL CATFISH	ZN-65	<	16.500	
11-NOV-05	CHANNEL CATFISH	CS-134	<	16.900	
11-NOV-05	CHANNEL CATFISH	CS-137	<	18.100	
11-NOV-05	CHANNEL CATFISH	H-3	<	150.000	
11-NOV-05	COMMON CARP	K-40	2804.000 +/-	565.000	
11-NOV-05	COMMON CARP	MN-54	<	17.800	
11-NOV-05	COMMON CARP	CO-58	<	28.300	
11-NOV-05	COMMON CARP	FE-59	<	28.600	
11-NOV-05	COMMON CARP	CO-60	<	24.400	
11-NOV-05	COMMON CARP	ZN-65	<	31.000	
11-NOV-05	COMMON CARP	CS-134	<	15.900	
11-NOV-05	COMMON CARP	CS-137	<	15.500	
11-NOV-05	COMMON CARP	H-3	<	142.000	
11-NOV-05	SMALLMOUTH BUFFALO	K-40	3261.300 +/-	512.700	
11-NOV-05	SMALLMOUTH BUFFALO	MN-54	<	11.900	
11-NOV-05	SMALLMOUTH BUFFALO	CO-58	<	12.900	
11-NOV-05	SMALLMOUTH BUFFALO	FE-59	<	39.400	
11-NOV-05	SMALLMOUTH BUFFALO	CO-60	<	8.000	
11-NOV-05	SMALLMOUTH BUFFALO	ZN-65	<	23.400	
11-NOV-05	SMALLMOUTH BUFFALO	CS-134	<	16.000	
11-NOV-05	SMALLMOUTH BUFFALO	CS-137	<	18.900	
11-NOV-05	SMALLMOUTH BUFFALO	H-3	<	149.000	

**Exposure Pathway - Ingestion  
Fish**

**Location WCL**

<b>Collection Date</b>	<b>Sample Description</b>	<b>Nuclide</b>	<b>Gamma Spectrum &amp; H-3 Concentration (pCi/Kg Wet)</b>		<b>Duplicate Analysis</b>
27-MAY-05	CHANNEL CATFISH	K-40	4328.600+/-	699.500	
27-MAY-05	CHANNEL CATFISH	MN-54	<	12.200	
27-MAY-05	CHANNEL CATFISH	CO-58	<	25.300	
27-MAY-05	CHANNEL CATFISH	FE-59	<	40.200	
27-MAY-05	CHANNEL CATFISH	CO-60	<	20.500	
27-MAY-05	CHANNEL CATFISH	ZN-65	<	30.700	
27-MAY-05	CHANNEL CATFISH	CS-134	<	24.600	
27-MAY-05	CHANNEL CATFISH	CS-137	<	23.300	
27-MAY-05	CHANNEL CATFISH	H-3	9338.000+/-	257.000	
27-MAY-05	COMMON CARP	K-40	3274.600+/-	406.800	
27-MAY-05	COMMON CARP	MN-54	<	14.200	
27-MAY-05	COMMON CARP	CO-58	<	9.700	
27-MAY-05	COMMON CARP	FE-59	<	21.700	
27-MAY-05	COMMON CARP	CO-60	<	13.700	
27-MAY-05	COMMON CARP	ZN-65	<	21.900	
27-MAY-05	COMMON CARP	CS-134	<	15.400	
27-MAY-05	COMMON CARP	CS-137	<	13.700	
27-MAY-05	COMMON CARP	H-3	9479.000+/-	235.000	
27-MAY-05	FRESHWATER DRUM	K-40	3290.900+/-	541.900	
27-MAY-05	FRESHWATER DRUM	MN-54	<	22.500	
27-MAY-05	FRESHWATER DRUM	CO-58	<	21.100	
27-MAY-05	FRESHWATER DRUM	FE-59	<	39.600	
27-MAY-05	FRESHWATER DRUM	CO-60	<	17.000	
27-MAY-05	FRESHWATER DRUM	ZN-65	<	32.900	
27-MAY-05	FRESHWATER DRUM	CS-134	<	24.900	
27-MAY-05	FRESHWATER DRUM	CS-137	<	12.600	
27-MAY-05	FRESHWATER DRUM	H-3	7710.000+/-	199.000	
27-MAY-05	SMALLMOUTH BASS	K-40	3609.200+/-	564.600	
27-MAY-05	SMALLMOUTH BASS	MN-54	<	19.500	
27-MAY-05	SMALLMOUTH BASS	CO-58	<	19.200	
27-MAY-05	SMALLMOUTH BASS	FE-59	<	30.000	
27-MAY-05	SMALLMOUTH BASS	CO-60	<	17.000	
27-MAY-05	SMALLMOUTH BASS	ZN-65	<	52.800	
27-MAY-05	SMALLMOUTH BASS	CS-134	<	16.400	
27-MAY-05	SMALLMOUTH BASS	CS-137	<	20.900	
27-MAY-05	SMALLMOUTH BASS	H-3	8695.000+/-	235.000	
27-MAY-05	WHITE BASS	K-40	3517.800+/-	490.200	
27-MAY-05	WHITE BASS	MN-54	<	19.700	
27-MAY-05	WHITE BASS	CO-58	<	16.900	
27-MAY-05	WHITE BASS	FE-59	<	20.700	
27-MAY-05	WHITE BASS	CO-60	<	15.500	

**Exposure Pathway - Ingestion  
Fish**

**Location WCL**

<b>Collection Date</b>	<b>Sample Description</b>	<b>Nuclide</b>	<b>Gamma Spectrum &amp; H-3 Concentration (pCi/Kg Wet)</b>		<b>Duplicate Analysis</b>
27-MAY-05	WHITE BASS	ZN-65	<	29.800	
27-MAY-05	WHITE BASS	CS-134	<	16.900	
27-MAY-05	WHITE BASS	CS-137	<	13.200	
27-MAY-05	WHITE BASS	H-3	7867.000+/-	206.000	
11-OCT-05	CHANNEL CATFISH	K-40	3138.400+/-	400.200	
11-OCT-05	CHANNEL CATFISH	MN-54	<	19.400	
11-OCT-05	CHANNEL CATFISH	CO-58	<	11.000	
11-OCT-05	CHANNEL CATFISH	FE-59	<	47.900	
11-OCT-05	CHANNEL CATFISH	CO-60	<	12.300	
11-OCT-05	CHANNEL CATFISH	ZN-65	<	19.800	
11-OCT-05	CHANNEL CATFISH	CS-134	<	14.500	
11-OCT-05	CHANNEL CATFISH	CS-137	<	13.700	
11-OCT-05	CHANNEL CATFISH	H-3	6741.000+/-	199.000	
11-OCT-05	COMMON CARP	K-40	3180.900+/-	575.100	
11-OCT-05	COMMON CARP	MN-54	<	13.900	
11-OCT-05	COMMON CARP	CO-58	<	11.700	
11-OCT-05	COMMON CARP	FE-59	<	39.100	
11-OCT-05	COMMON CARP	CO-60	<	24.500	
11-OCT-05	COMMON CARP	ZN-65	<	27.300	
11-OCT-05	COMMON CARP	CS-134	<	17.600	
11-OCT-05	COMMON CARP	CS-137	<	9.900	
11-OCT-05	COMMON CARP	H-3	6542.000+/-	212.000	
11-OCT-05	SMALLMOUTH BUFFALO	K-40	2687.300+/-	401.300	
11-OCT-05	SMALLMOUTH BUFFALO	MN-54	<	17.600	
11-OCT-05	SMALLMOUTH BUFFALO	CO-58	<	25.300	
11-OCT-05	SMALLMOUTH BUFFALO	FE-59	<	63.700	
11-OCT-05	SMALLMOUTH BUFFALO	CO-60	<	14.500	
11-OCT-05	SMALLMOUTH BUFFALO	ZN-65	<	21.000	
11-OCT-05	SMALLMOUTH BUFFALO	CS-134	<	14.000	
11-OCT-05	SMALLMOUTH BUFFALO	CS-137	<	19.300	
11-OCT-05	SMALLMOUTH BUFFALO	H-3	6281.000+/-	204.000	
11-OCT-05	WALLEYE	K-40	3114.200+/-	483.400	
11-OCT-05	WALLEYE	MN-54	<	17.500	
11-OCT-05	WALLEYE	CO-58	<	19.200	
11-OCT-05	WALLEYE	FE-59	<	60.500	
11-OCT-05	WALLEYE	CO-60	<	21.000	
11-OCT-05	WALLEYE	ZN-65	<	47.000	
11-OCT-05	WALLEYE	CS-134	<	15.800	
11-OCT-05	WALLEYE	CS-137	<	22.200	
11-OCT-05	WALLEYE	H-3	7254.000+/-	226.000	
11-OCT-05	WHITE BASS	K-40	2928.900+/-	410.600	

**Exposure Pathway - Ingestion  
Fish**

**Location WCL**

<b>Collection Date</b>	<b>Sample Description</b>	<b>Nuclide</b>	<b>Gamma Spectrum &amp; H-3</b>	<b>Concentration (pCi/Kg Wet)</b>	<b>Duplicate Analysis</b>
11-OCT-05	WHITE BASS	MN-54	<	21.100	
11-OCT-05	WHITE BASS	CO-58	<	16.700	
11-OCT-05	WHITE BASS	FE-59	<	74.200	
11-OCT-05	WHITE BASS	CO-60	<	12.100	
11-OCT-05	WHITE BASS	ZN-65	<	39.800	
11-OCT-05	WHITE BASS	CS-134	<	16.500	
11-OCT-05	WHITE BASS	CS-137	<	14.400	
11-OCT-05	WHITE BASS	H-3	7090.000+/-	214.000	

**Exposure Pathway - Ingestion  
Food/Garden**

**Location D-1**

<b>Collection Date</b>	<b>Sample Description</b>	<b>Nuclide</b>	<b>Gamma Spectrum Concentration (pCi/Kg Wet)</b>	<b>Duplicate Analysis</b>
11-MAY-05	RHUBARB	BE-7	< 197.200	
11-MAY-05	RHUBARB	K-40	4999.400 +/- 482.500	
11-MAY-05	RHUBARB	MN-54	< 13.100	
11-MAY-05	RHUBARB	CO-58	< 19.700	
11-MAY-05	RHUBARB	FE-59	< 24.100	
11-MAY-05	RHUBARB	CO-60	< 19.700	
11-MAY-05	RHUBARB	ZN-65	< 37.700	
11-MAY-05	RHUBARB	ZR-NB-95	< 24.200	
11-MAY-05	RHUBARB	I-131	< 33.900	
11-MAY-05	RHUBARB	CS-134	< 11.000	
11-MAY-05	RHUBARB	CS-137	< 19.300	
08-JUN-05	RHUBARB	BE-7	239.800 +/- 95.200	
08-JUN-05	RHUBARB	K-40	3237.400 +/- 343.800	
08-JUN-05	RHUBARB	MN-54	< 9.000	
08-JUN-05	RHUBARB	CO-58	< 7.300	
08-JUN-05	RHUBARB	FE-59	< 18.000	
08-JUN-05	RHUBARB	CO-60	< 11.300	
08-JUN-05	RHUBARB	ZN-65	< 23.500	
08-JUN-05	RHUBARB	ZR-NB-95	< 12.500	
08-JUN-05	RHUBARB	I-131	< 20.100	
08-JUN-05	RHUBARB	CS-134	< 12.000	
08-JUN-05	RHUBARB	CS-137	< 12.400	
13-JUL-05	RHUBARB	BE-7	177.300 +/- 80.900	
13-JUL-05	RHUBARB	K-40	2563.200 +/- 230.400	
13-JUL-05	RHUBARB	MN-54	< 7.000	
13-JUL-05	RHUBARB	CO-58	< 5.000	
13-JUL-05	RHUBARB	FE-59	< 9.300	
13-JUL-05	RHUBARB	CO-60	< 6.700	
13-JUL-05	RHUBARB	ZN-65	< 7.300	
13-JUL-05	RHUBARB	ZR-NB-95	< 3.400	
13-JUL-05	RHUBARB	I-131	< 7.100	
13-JUL-05	RHUBARB	CS-134	< 9.100	
13-JUL-05	RHUBARB	CS-137	< 5.900	
10-AUG-05	RHUBARB	BE-7	< 130.300	
10-AUG-05	RHUBARB	K-40	2929.900 +/- 392.700	
10-AUG-05	RHUBARB	MN-54	< 16.100	
10-AUG-05	RHUBARB	CO-58	< 7.000	
10-AUG-05	RHUBARB	FE-59	< 28.900	
10-AUG-05	RHUBARB	CO-60	< 12.800	
10-AUG-05	RHUBARB	ZN-65	< 25.400	
10-AUG-05	RHUBARB	ZR-NB-95	< 17.600	

**Exposure Pathway - Ingestion  
Food/Garden**

**Location D-1**

<b>Collection Date</b>	<b>Sample Description</b>	<b>Nuclide</b>	<b>Gamma Spectrum Concentration (pCi/Kg Wet)</b>	<b>Duplicate Analysis</b>
10-AUG-05	RHUBARB	I-131	< 29.900	
10-AUG-05	RHUBARB	CS-134	< 11.800	
10-AUG-05	RHUBARB	CS-137	< 11.900	
29-SEP-05	RHUBARB	BE-7	243.600 +/- 99.400	
29-SEP-05	RHUBARB	K-40	3585.900 +/- 278.100	
29-SEP-05	RHUBARB	MN-54	< 9.400	
29-SEP-05	RHUBARB	CO-58	< 5.900	
29-SEP-05	RHUBARB	FE-59	< 13.500	
29-SEP-05	RHUBARB	CO-60	< 8.400	
29-SEP-05	RHUBARB	ZN-65	< 16.400	
29-SEP-05	RHUBARB	ZR-NB-95	< 5.100	
29-SEP-05	RHUBARB	I-131	< 14.900	
29-SEP-05	RHUBARB	CS-134	< 10.200	
29-SEP-05	RHUBARB	CS-137	< 10.600	
28-OCT-05	RHUBARB	BE-7	509.300 +/- 244.100	
28-OCT-05	RHUBARB	K-40	4625.600 +/- 627.400	
28-OCT-05	RHUBARB	MN-54	< 19.200	
28-OCT-05	RHUBARB	CO-58	< 19.800	
28-OCT-05	RHUBARB	FE-59	< 24.000	
28-OCT-05	RHUBARB	CO-60	< 12.900	
28-OCT-05	RHUBARB	ZN-65	< 25.200	
28-OCT-05	RHUBARB	ZR-NB-95	< 21.300	
28-OCT-05	RHUBARB	I-131	< 23.100	
28-OCT-05	RHUBARB	CS-134	< 13.100	
28-OCT-05	RHUBARB	CS-137	< 21.300	

**Exposure Pathway - Ingestion  
Food/Garden**

**Location D-2**

<b>Collection Date</b>	<b>Sample Description</b>	<b>Nuclide</b>	<b>Gamma Spectrum Concentration (pCi/Kg Wet)</b>	<b>Duplicate Analysis</b>
08-JUN-05	RHUBARB	BE-7	1025.400 +/-	183.300
08-JUN-05	RHUBARB	K-40	4351.800 +/-	436.100
08-JUN-05	RHUBARB	MN-54	<	11.300
08-JUN-05	RHUBARB	CO-58	<	10.900
08-JUN-05	RHUBARB	FE-59	<	35.000
08-JUN-05	RHUBARB	CO-60	<	10.600
08-JUN-05	RHUBARB	ZN-65	<	13.200
08-JUN-05	RHUBARB	ZR-NB-95	<	5.200
08-JUN-05	RHUBARB	I-131	<	24.000
08-JUN-05	RHUBARB	CS-134	<	14.000
08-JUN-05	RHUBARB	CS-137	<	8.600
13-JUL-05	RHUBARB	BE-7	467.600 +/-	117.600
13-JUL-05	RHUBARB	K-40	2704.600 +/-	271.800
13-JUL-05	RHUBARB	MN-54	<	6.200
13-JUL-05	RHUBARB	CO-58	<	5.200
13-JUL-05	RHUBARB	FE-59	<	11.400
13-JUL-05	RHUBARB	CO-60	<	9.000
13-JUL-05	RHUBARB	ZN-65	<	8.000
13-JUL-05	RHUBARB	ZR-NB-95	<	6.100
13-JUL-05	RHUBARB	I-131	<	10.900
13-JUL-05	RHUBARB	CS-134	<	7.900
13-JUL-05	RHUBARB	CS-137	<	6.900
10-AUG-05	RHUBARB	BE-7	<	175.900
10-AUG-05	RHUBARB	K-40	3609.800 +/-	460.400
10-AUG-05	RHUBARB	MN-54	<	11.400
10-AUG-05	RHUBARB	CO-58	<	11.900
10-AUG-05	RHUBARB	FE-59	<	19.700
10-AUG-05	RHUBARB	CO-60	<	15.100
10-AUG-05	RHUBARB	ZN-65	<	10.200
10-AUG-05	RHUBARB	ZR-NB-95	<	12.500
10-AUG-05	RHUBARB	I-131	<	38.500
10-AUG-05	RHUBARB	CS-134	<	22.500
10-AUG-05	RHUBARB	CS-137	<	7.800

**Exposure Pathway - Ingestion  
Food/Garden**

**Location G-1**

<b>Collection Date</b>	<b>Sample Description</b>	<b>Nuclide</b>	<b>Gamma Spectrum Concentration (pCi/Kg Wet)</b>	<b>Duplicate Analysis</b>
11-MAY-05	RHUBARB	BE-7	416.600 +/- 210.000	
11-MAY-05	RHUBARB	K-40	5136.700 +/- 448.500	
11-MAY-05	RHUBARB	MN-54	< 14.300	
11-MAY-05	RHUBARB	CO-58	< 9.800	
11-MAY-05	RHUBARB	FE-59	< 36.000	
11-MAY-05	RHUBARB	CO-60	< 13.000	
11-MAY-05	RHUBARB	ZN-65	< 35.700	
11-MAY-05	RHUBARB	ZR-NB-95	< 15.900	
11-MAY-05	RHUBARB	I-131	< 15.200	
11-MAY-05	RHUBARB	CS-134	< 14.900	
11-MAY-05	RHUBARB	CS-137	< 13.600	
08-JUN-05	RHUBARB	BE-7	203.500 +/- 103.400	
08-JUN-05	RHUBARB	K-40	3353.700 +/- 341.300	
08-JUN-05	RHUBARB	MN-54	< 11.800	
08-JUN-05	RHUBARB	CO-58	< 9.000	
08-JUN-05	RHUBARB	FE-59	< 15.800	
08-JUN-05	RHUBARB	CO-60	< 9.000	
08-JUN-05	RHUBARB	ZN-65	< 23.100	
08-JUN-05	RHUBARB	ZR-NB-95	< 5.100	
08-JUN-05	RHUBARB	I-131	< 18.800	
08-JUN-05	RHUBARB	CS-134	< 9.400	
08-JUN-05	RHUBARB	CS-137	< 6.900	
13-JUL-05	RHUBARB	BE-7	713.900 +/- 162.400	
13-JUL-05	RHUBARB	K-40	6745.500 +/- 476.500	
13-JUL-05	RHUBARB	MN-54	< 9.800	
13-JUL-05	RHUBARB	CO-58	< 12.700	
13-JUL-05	RHUBARB	FE-59	< 16.100	
13-JUL-05	RHUBARB	CO-60	< 10.300	
13-JUL-05	RHUBARB	ZN-65	< 14.800	
13-JUL-05	RHUBARB	ZR-NB-95	< 7.800	
13-JUL-05	RHUBARB	I-131	< 9.100	
13-JUL-05	RHUBARB	CS-134	< 14.700	
13-JUL-05	RHUBARB	CS-137	< 10.400	
29-SEP-05	RHUBARB	BE-7	256.300 +/- 136.700	
29-SEP-05	RHUBARB	K-40	5792.500 +/- 322.300	
29-SEP-05	RHUBARB	MN-54	< 9.800	
29-SEP-05	RHUBARB	CO-58	< 5.300	
29-SEP-05	RHUBARB	FE-59	< 19.900	
29-SEP-05	RHUBARB	CO-60	< 7.900	
29-SEP-05	RHUBARB	ZN-65	< 15.200	
29-SEP-05	RHUBARB	ZR-NB-95	< 6.900	

**Exposure Pathway - Ingestion  
Food/Garden**

**Location G-1**

<b>Collection Date</b>	<b>Sample Description</b>	<b>Nuclide</b>	<b>Gamma Spectrum Concentration (pCi/Kg Wet)</b>	<b>Duplicate Analysis</b>
29-SEP-05	RHUBARB	I-131	< 13.600	
29-SEP-05	RHUBARB	CS-134	< 6.500	
29-SEP-05	RHUBARB	CS-137	< 10.300	
28-OCT-05	RHUBARB	BE-7	< 315.400	
28-OCT-05	RHUBARB	K-40	5883.100 +/- 850.500	
28-OCT-05	RHUBARB	MN-54	< 30.700	
28-OCT-05	RHUBARB	CO-58	< 16.600	
28-OCT-05	RHUBARB	FE-59	< 41.800	
28-OCT-05	RHUBARB	CO-60	< 16.700	
28-OCT-05	RHUBARB	ZN-65	< 68.300	
28-OCT-05	RHUBARB	ZR-NB-95	< 25.000	
28-OCT-05	RHUBARB	I-131	< 22.000	
28-OCT-05	RHUBARB	CS-134	< 19.200	
28-OCT-05	RHUBARB	CS-137	< 21.600	

**Exposure Pathway - Ingestion  
Food/Garden**

**Location MUDS**

<b>Collection Date</b>	<b>Sample Description</b>	<b>Nuclide</b>	<b>Gamma Spectrum Concentration (pCi/Kg Wet)</b>	<b>Duplicate Analysis</b>
07-JUN-05	PLUMS	BE-7	< 111.500	
07-JUN-05	PLUMS	K-40	2768.700 +/- 303.000	
07-JUN-05	PLUMS	MN-54	< 6.600	
07-JUN-05	PLUMS	CO-58	< 6.300	
07-JUN-05	PLUMS	FE-59	< 13.900	
07-JUN-05	PLUMS	CO-60	< 9.300	
07-JUN-05	PLUMS	ZN-65	< 15.000	
07-JUN-05	PLUMS	ZR-NB-95	< 7.600	
07-JUN-05	PLUMS	I-131	< 13.400	
07-JUN-05	PLUMS	CS-134	< 5.400	
07-JUN-05	PLUMS	CS-137	< 7.500	

**Exposure Pathway - Ingestion  
Food/Garden**

**Location N-1**

<b>Collection Date</b>	<b>Sample Description</b>	<b>Nuclide</b>	<b>Gamma Spectrum Concentration (pCi/Kg Wet)</b>	<b>Duplicate Analysis</b>
08-JUN-05	RHUBARB	BE-7	316.900 +/-	170.800
08-JUN-05	RHUBARB	K-40	5325.900 +/-	628.500
08-JUN-05	RHUBARB	MN-54	<	15.600
08-JUN-05	RHUBARB	CO-58	<	10.700
08-JUN-05	RHUBARB	FE-59	<	32.000
08-JUN-05	RHUBARB	CO-60	<	13.700
08-JUN-05	RHUBARB	ZN-65	<	30.400
08-JUN-05	RHUBARB	ZR-NB-95	<	11.300
08-JUN-05	RHUBARB	I-131	<	21.800
08-JUN-05	RHUBARB	CS-134	<	21.000
08-JUN-05	RHUBARB	CS-137	<	18.500
13-JUL-05	RHUBARB	BE-7	<	85.700
13-JUL-05	RHUBARB	K-40	3744.500 +/-	292.400
13-JUL-05	RHUBARB	MN-54	<	5.500
13-JUL-05	RHUBARB	CO-58	<	9.700
13-JUL-05	RHUBARB	FE-59	<	14.400
13-JUL-05	RHUBARB	CO-60	<	6.400
13-JUL-05	RHUBARB	ZN-65	<	9.400
13-JUL-05	RHUBARB	ZR-NB-95	<	3.700
13-JUL-05	RHUBARB	I-131	<	8.300
13-JUL-05	RHUBARB	CS-134	<	8.000
13-JUL-05	RHUBARB	CS-137	<	8.900
10-AUG-05	RHUBARB	BE-7	<	144.000
10-AUG-05	RHUBARB	K-40	4672.300 +/-	648.800
10-AUG-05	RHUBARB	MN-54	<	16.600
10-AUG-05	RHUBARB	CO-58	<	8.100
10-AUG-05	RHUBARB	FE-59	<	39.400
10-AUG-05	RHUBARB	CO-60	<	11.000
10-AUG-05	RHUBARB	ZN-65	<	24.200
10-AUG-05	RHUBARB	ZR-NB-95	<	16.300
10-AUG-05	RHUBARB	I-131	<	17.400
10-AUG-05	RHUBARB	CS-134	<	21.900
10-AUG-05	RHUBARB	CS-137	<	20.100
29-SEP-05	RHUBARB	BE-7	171.600 +/-	102.600
29-SEP-05	RHUBARB	K-40	3395.400 +/-	279.100
29-SEP-05	RHUBARB	MN-54	<	10.400
29-SEP-05	RHUBARB	CO-58	<	4.800
29-SEP-05	RHUBARB	FE-59	<	12.900
29-SEP-05	RHUBARB	CO-60	<	11.600
29-SEP-05	RHUBARB	ZN-65	<	11.900
29-SEP-05	RHUBARB	ZR-NB-95	<	7.200

**Exposure Pathway - Ingestion  
Food/Garden**

**Location N-1**

<b>Collection Date</b>	<b>Sample Description</b>	<b>Nuclide</b>	<b>Gamma Spectrum Concentration (pCi/Kg Wet)</b>	<b>Duplicate Analysis</b>
29-SEP-05	RHUBARB	I-131	< 13.000	
29-SEP-05	RHUBARB	CS-134	< 11.300	
29-SEP-05	RHUBARB	CS-137	< 8.200	

**Exposure Pathway - Ingestion  
Food/Garden**

**Location Q-6**

<b>Collection Date</b>	<b>Sample Description</b>	<b>Nuclide</b>	<b>Gamma Spectrum Concentration (pCi/Kg Wet)</b>	<b>Duplicate Analysis</b>
08-JUN-05	RHUBARB	BE-7	503.800 +/- 200.000	
08-JUN-05	RHUBARB	K-40	5243.100 +/- 501.800	
08-JUN-05	RHUBARB	MN-54	< 10.400	
08-JUN-05	RHUBARB	CO-58	< 12.500	
08-JUN-05	RHUBARB	FE-59	< 22.500	
08-JUN-05	RHUBARB	CO-60	< 12.600	
08-JUN-05	RHUBARB	ZN-65	< 18.600	
08-JUN-05	RHUBARB	ZR-NB-95	< 9.800	
08-JUN-05	RHUBARB	I-131	< 22.900	
08-JUN-05	RHUBARB	CS-134	< 12.300	
08-JUN-05	RHUBARB	CS-137	< 11.200	
13-JUL-05	RHUBARB	BE-7	270.100 +/- 110.500	
13-JUL-05	RHUBARB	K-40	4685.500 +/- 392.700	
13-JUL-05	RHUBARB	MN-54	< 8.200	
13-JUL-05	RHUBARB	CO-58	< 11.000	
13-JUL-05	RHUBARB	FE-59	< 22.600	
13-JUL-05	RHUBARB	CO-60	< 11.500	
13-JUL-05	RHUBARB	ZN-65	< 7.200	
13-JUL-05	RHUBARB	ZR-NB-95	< 4.500	
13-JUL-05	RHUBARB	I-131	< 10.500	
13-JUL-05	RHUBARB	CS-134	< 6.700	
13-JUL-05	RHUBARB	CS-137	< 5.900	

**Exposure Pathway - Ingestion  
Feed and Forage**

**Location NR-D1**

<b>Collection Date</b>	<b>Sample Description</b>	<b>Nuclide</b>	<b>Gamma Spectrum Concentration (pCi/Kg Wet)</b>		<b>Duplicate Analysis</b>
05-OCT-05	IRRIGATED CORN	BE-7	<	139.700	
05-OCT-05	IRRIGATED CORN	K-40	3963.800	+/- 563.700	
05-OCT-05	IRRIGATED CORN	MN-54	<	15.700	
05-OCT-05	IRRIGATED CORN	CO-58	<	18.200	
05-OCT-05	IRRIGATED CORN	FE-59	<	19.800	
05-OCT-05	IRRIGATED CORN	CO-60	<	13.700	
05-OCT-05	IRRIGATED CORN	ZN-65	<	36.100	
05-OCT-05	IRRIGATED CORN	ZR-NB-95	<	24.500	
05-OCT-05	IRRIGATED CORN	I-131	<	44.500	
05-OCT-05	IRRIGATED CORN	CS-134	<	11.600	
05-OCT-05	IRRIGATED CORN	CS-137	<	15.300	

**Exposure Pathway - Ingestion  
Feed and Forage**

**Location NR-D2**

<b>Collection Date</b>	<b>Sample Description</b>	<b>Nuclide</b>	<b>Gamma Spectrum Concentration</b> <b>(pCi/Kg Wet)</b>		<b>Duplicate Analysis</b>
05-OCT-05	IRRIGATED CORN	BE-7	<	129.200	
05-OCT-05	IRRIGATED SOYBEANS	BE-7	<	216.900	Duplicate
05-OCT-05	IRRIGATED SOYBEANS	BE-7	<	150.100	
05-OCT-05	IRRIGATED CORN	K-40	3128.000	+/- 367.900	
05-OCT-05	IRRIGATED SOYBEANS	K-40	15682.000	+/- 919.600	Duplicate
05-OCT-05	IRRIGATED SOYBEANS	K-40	15396.000	+/- 725.700	
05-OCT-05	IRRIGATED CORN	MN-54	<	12.300	
05-OCT-05	IRRIGATED SOYBEANS	MN-54	<	15.200	Duplicate
05-OCT-05	IRRIGATED SOYBEANS	MN-54	<	15.200	
05-OCT-05	IRRIGATED CORN	CO-58	<	12.700	
05-OCT-05	IRRIGATED SOYBEANS	CO-58	<	11.400	
05-OCT-05	IRRIGATED SOYBEANS	CO-58	<	23.800	Duplicate
05-OCT-05	IRRIGATED CORN	FE-59	<	35.600	
05-OCT-05	IRRIGATED SOYBEANS	FE-59	<	38.300	
05-OCT-05	IRRIGATED SOYBEANS	FE-59	<	71.200	Duplicate
05-OCT-05	IRRIGATED CORN	CO-60	<	10.400	
05-OCT-05	IRRIGATED SOYBEANS	CO-60	<	10.300	
05-OCT-05	IRRIGATED SOYBEANS	CO-60	<	30.800	Duplicate
05-OCT-05	IRRIGATED CORN	ZN-65	<	21.000	
05-OCT-05	IRRIGATED SOYBEANS	ZN-65	<	44.300	Duplicate
05-OCT-05	IRRIGATED SOYBEANS	ZN-65	<	44.200	
05-OCT-05	IRRIGATED CORN	ZR-NB-95	<	15.500	
05-OCT-05	IRRIGATED SOYBEANS	ZR-NB-95	<	29.600	Duplicate
05-OCT-05	IRRIGATED SOYBEANS	ZR-NB-95	<	21.600	
05-OCT-05	IRRIGATED CORN	I-131	<	41.400	
05-OCT-05	IRRIGATED SOYBEANS	I-131	<	94.100	Duplicate
05-OCT-05	IRRIGATED SOYBEANS	I-131	<	53.000	
05-OCT-05	IRRIGATED CORN	CS-134	<	8.100	
05-OCT-05	IRRIGATED SOYBEANS	CS-134	<	13.400	
05-OCT-05	IRRIGATED SOYBEANS	CS-134	<	11.200	Duplicate
05-OCT-05	IRRIGATED CORN	CS-137	<	7.500	
05-OCT-05	IRRIGATED SOYBEANS	CS-137	<	20.300	
05-OCT-05	IRRIGATED SOYBEANS	CS-137	<	18.700	Duplicate

**Exposure Pathway - Ingestion  
Feed and Forage**

**Location NR-U1**

<b>Collection Date</b>	<b>Sample Description</b>	<b>Nuclide</b>	<b>Gamma Spectrum Concentration (pCi/Kg Wet)</b>		<b>Duplicate Analysis</b>
29-SEP-05	NON-IRRIGATED CORN	BE-7	<	93.100	
29-SEP-05	NON-IRRIGATED CORN	K-40	2308.800	+/- 382.900	
29-SEP-05	NON-IRRIGATED CORN	MN-54	<	10.100	
29-SEP-05	NON-IRRIGATED CORN	CO-58	<	12.700	
29-SEP-05	NON-IRRIGATED CORN	FE-59	<	18.100	
29-SEP-05	NON-IRRIGATED CORN	CO-60	<	9.700	
29-SEP-05	NON-IRRIGATED CORN	ZN-65	<	22.200	
29-SEP-05	NON-IRRIGATED CORN	ZR-NB-95	<	13.700	
29-SEP-05	NON-IRRIGATED CORN	I-131	<	23.100	
29-SEP-05	NON-IRRIGATED CORN	CS-134	<	10.800	
29-SEP-05	NON-IRRIGATED CORN	CS-137	<	7.800	

**Exposure Pathway - Aquatic  
Bottom Sediment**

**Location DC**

<b>Collection Date</b>	<b>Nuclide</b>	<b>Gamma Spectrum Concentration (pCi/Kg Dry)</b>	<b>Duplicate Analysis</b>
27-MAY-05	K-40	13455.000 +/- 1047.000	
27-MAY-05	MN-54	< 36.000	
27-MAY-05	CO-58	< 43.200	
27-MAY-05	FE-59	< 78.600	
27-MAY-05	CO-60	159.700 +/- 47.000	
27-MAY-05	ZN-65	< 87.800	
27-MAY-05	CS-134	< 64.300	
27-MAY-05	CS-137	208.900 +/- 69.500	
27-OCT-05	K-40	14377.000 +/- 1012.000	
27-OCT-05	MN-54	< 46.700	
27-OCT-05	CO-58	< 42.700	
27-OCT-05	FE-59	< 124.000	
27-OCT-05	CO-60	182.800 +/- 44.100	
27-OCT-05	ZN-65	< 108.000	
27-OCT-05	CS-134	< 67.100	
27-OCT-05	CS-137	234.400 +/- 40.400	

**Exposure Pathway - Aquatic  
Bottom Sediment**

**Location EEA**

<b>Collection Date</b>	<b>Nuclide</b>	<b>Gamma Spectrum Concentration (pCi/Kg Dry)</b>		<b>Duplicate Analysis</b>
24-JUN-05	K-40	12856.000	+/- 1048.000	1
24-JUN-05	K-40	13230.000	+/- 1135.000	
24-JUN-05	K-40	12671.000	+/- 1058.000	Duplicate
24-JUN-05	MN-54	<	38.900	1
24-JUN-05	MN-54	<	28.200	Duplicate
24-JUN-05	MN-54	<	33.800	
24-JUN-05	CO-58	<	53.400	1
24-JUN-05	CO-58	<	63.700	Duplicate
24-JUN-05	CO-58	<	57.400	
24-JUN-05	FE-59	<	171.400	1
24-JUN-05	FE-59	<	124.100	
24-JUN-05	FE-59	<	105.200	Duplicate
24-JUN-05	CO-60	<	36.100	1
24-JUN-05	CO-60	<	32.000	
24-JUN-05	CO-60	<	23.300	Duplicate
24-JUN-05	ZN-65	<	113.000	1
24-JUN-05	ZN-65	<	108.600	Duplicate
24-JUN-05	ZN-65	<	101.500	
24-JUN-05	CS-134	<	58.200	1
24-JUN-05	CS-134	<	55.300	Duplicate
24-JUN-05	CS-134	<	64.900	
24-JUN-05	CS-137	83.700	+/- 50.000	1
24-JUN-05	CS-137	<	51.700	Duplicate
24-JUN-05	CS-137	77.300	+/- 31.200	

**Exposure Pathway - Aquatic  
Bottom Sediment**

**Location JRR**

<b>Collection Date</b>	<b>Nuclide</b>	<b>Gamma Spectrum Concentration (pCi/Kg Dry)</b>	<b>Duplicate Analysis</b>
10-JUN-05	K-40	19289.000 +/- 1260.000	
10-JUN-05	MN-54	< 42.300	
10-JUN-05	CO-58	< 58.600	
10-JUN-05	FE-59	< 77.900	
10-JUN-05	CO-60	< 39.700	
10-JUN-05	ZN-65	< 103.800	
10-JUN-05	CS-134	< 62.800	
10-JUN-05	CS-137	154.500 +/- 50.300	
11-NOV-05	K-40	16987.000 +/- 1103.000	
11-NOV-05	MN-54	< 41.500	
11-NOV-05	CO-58	< 49.200	
11-NOV-05	FE-59	< 115.900	
11-NOV-05	CO-60	< 17.600	
11-NOV-05	ZN-65	< 97.300	
11-NOV-05	CS-134	< 54.200	
11-NOV-05	CS-137	127.600 +/- 49.200	

**Exposure Pathway - Aquatic  
Bottom Sediment**

**Location MUDS**

<b>Collection Date</b>	<b>Nuclide</b>	<b>Gamma Spectrum Concentration (pCi/Kg Dry)</b>	<b>Duplicate Analysis</b>
14-JUN-05	K-40	9050.400 +/- 990.300	ReCount
14-JUN-05	K-40	1805.400 +/- 1065.000	
14-JUN-05	MN-54	< 51.900	ReCount
14-JUN-05	MN-54	< 38.800	
14-JUN-05	CO-58	< 57.400	ReCount
14-JUN-05	CO-58	< 49.100	
14-JUN-05	FE-59	< 131.500	ReCount
14-JUN-05	FE-59	< 95.800	
14-JUN-05	CO-60	< 31.900	ReCount
14-JUN-05	CO-60	< 24.300	
14-JUN-05	ZN-65	< 119.900	ReCount
14-JUN-05	ZN-65	< 120.200	
14-JUN-05	CS-134	< 62.800	ReCount
14-JUN-05	CS-134	< 59.900	
14-JUN-05	CS-137	< 39.900	ReCount
14-JUN-05	CS-137	< 35.900	

**Exposure Pathway - Aquatic  
Vegetation**

**Location EEA**

<b>Collection Date</b>	<b>Sample Description</b>	<b>Nuclide</b>	<b>Gamma Spectrum Concentration (pCi/Kg Wet)</b>	<b>Duplicate Sample</b>
14-JUN-05	CREEPING WATER PRIMROSE	BE-7	1302.300 +/- 262.600	
14-JUN-05	CREEPING WATER PRIMROSE	K-40	2517.700 +/- 495.800	
14-JUN-05	CREEPING WATER PRIMROSE	MN-54	< 11.700	
14-JUN-05	CREEPING WATER PRIMROSE	CO-58	< 20.300	
14-JUN-05	CREEPING WATER PRIMROSE	FE-59	< 26.000	
14-JUN-05	CREEPING WATER PRIMROSE	CO-60	< 12.000	
14-JUN-05	CREEPING WATER PRIMROSE	ZN-65	< 17.500	
14-JUN-05	CREEPING WATER PRIMROSE	ZR-NB-95	< 17.900	
14-JUN-05	CREEPING WATER PRIMROSE	I-131	< 19.100	
14-JUN-05	CREEPING WATER PRIMROSE	CS-134	< 16.400	
14-JUN-05	CREEPING WATER PRIMROSE	CS-137	< 16.300	

**Exposure Pathway - Aquatic  
Vegetation**

**Location MUDS**

<b>Collection Date</b>	<b>Sample Description</b>	<b>Nuclide</b>	<b>Gamma Spectrum Concentration (pCi/Kg Wet)</b>	<b>Duplicate Sample</b>
14-JUN-05	PONDWEED	BE-7	516.300 +/- 193.300	
14-JUN-05	PONDWEED	K-40	2154.500 +/- 383.500	
14-JUN-05	PONDWEED	MN-54	< 15.900	
14-JUN-05	PONDWEED	CO-58	< 13.500	
14-JUN-05	PONDWEED	FE-59	< 20.200	
14-JUN-05	PONDWEED	CO-60	< 16.200	
14-JUN-05	PONDWEED	ZN-65	< 15.600	
14-JUN-05	PONDWEED	ZR-NB-95	< 8.700	
14-JUN-05	PONDWEED	I-131	< 24.500	
14-JUN-05	PONDWEED	CS-134	< 13.300	
14-JUN-05	PONDWEED	CS-137	< 13.000	

**Exposure Pathway - Terrestrial  
Vegetation**

**Location    EEA**

<b>Collection Date</b>	<b>Sample Description</b>	<b>Nuclide</b>	<b>Gamma Spectrum Concentration (pCi/Kg Wet)</b>	<b>Duplicate Analysis</b>
16-MAY-05	PASTURAGE	BE-7	868.300+/-	227.200
16-MAY-05	PASTURAGE	K-40	7677.200+/-	470.500
16-MAY-05	PASTURAGE	MN-54	<	18.400
16-MAY-05	PASTURAGE	CO-58	<	14.900
16-MAY-05	PASTURAGE	FE-59	<	43.500
16-MAY-05	PASTURAGE	CO-60	<	15.700
16-MAY-05	PASTURAGE	ZN-65	<	30.100
16-MAY-05	PASTURAGE	ZR-NB-95	<	26.400
16-MAY-05	PASTURAGE	I-131	<	107.400
16-MAY-05	PASTURAGE	CS-134	<	16.200
16-MAY-05	PASTURAGE	CS-137	<	16.200

**Exposure Pathway - Terrestrial  
Soil**

**Location EEA**

<b>Collection Date</b>	<b>Nuclide</b>	<b>Gamma Spectrum Concentration (pCi/Kg Dry)</b>	<b>Duplicate Analysis</b>
16-MAY-05	K-40	11095.000+/- 962.800	
16-MAY-05	K-40	12505.000+/- 1024.000	ReCount
16-MAY-05	MN-54	< 35.100	
16-MAY-05	MN-54	< 43.300	ReCount
16-MAY-05	CO-58	< 36.200	
16-MAY-05	CO-58	< 95.200	ReCount
16-MAY-05	FE-59	< 103.100	
16-MAY-05	FE-59	< 299.100	ReCount
16-MAY-05	CO-60	< 18.700	
16-MAY-05	CO-60	< 24.900	ReCount
16-MAY-05	ZN-65	< 69.200	
16-MAY-05	ZN-65	< 102.400	ReCount
16-MAY-05	CS-134	< 58.700	
16-MAY-05	CS-134	< 56.600	ReCount
16-MAY-05	CS-137	557.500+/- 63.400	
16-MAY-05	CS-137	515.300+/- 65.700	ReCount

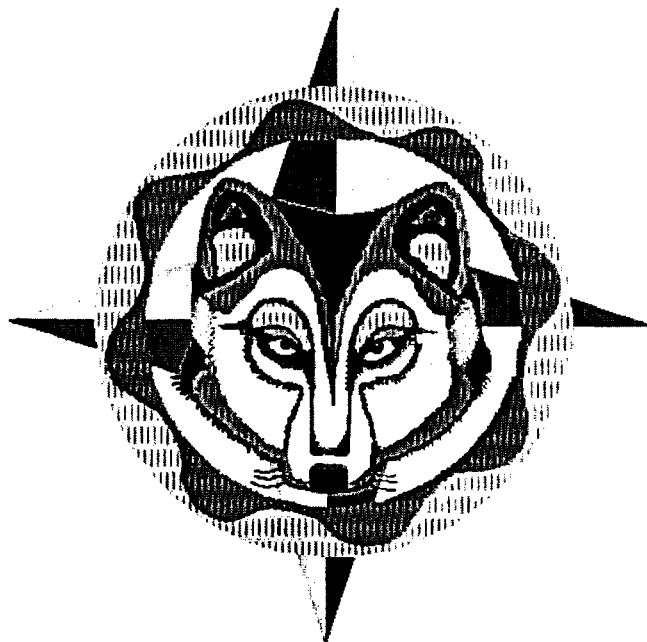
**Exposure Pathway - Terrestrial  
Soil**

**Location MUDS**

<b>Collection Date</b>	<b>Nuclide</b>	<b>Gamma Spectrum Concentration (pCi/Kg Dry)</b>	<b>Duplicate Analysis</b>
07-JUN-05	K-40	9282.400 +/-	926.000
07-JUN-05	MN-54	<	29.500
07-JUN-05	CO-58	<	39.000
07-JUN-05	FE-59	<	183.000
07-JUN-05	CO-60	<	25.200
07-JUN-05	ZN-65	<	105.200
07-JUN-05	CS-134	<	37.600
07-JUN-05	CS-137	<	34.800

# WOLF CREEK GENERATING STATION

## 2005 LAND USE CENSUS REPORT



Prepared by:

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09-27-05

Date

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09-27-05

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## **EXECUTIVE SUMMARY**

The annual Land Use Census of rural residents within five miles of the Wolf Creek Generating Station (WCGS) has been completed for 2005 in accordance with AP 07B-004, [Offsite Dose Calculation Manual (Radiological Environmental Monitoring Program)]. Changes are not required for the Radiological Environmental Monitoring Program (REMP) broadleaf vegetation sample locations for 2006. The two broadleaf vegetation locations with the highest calculated annual average D/Q rankings remain G1.56-QURD1384 and Q2.35-MILA1619. AP 07B-004 specifies that an "alternate location may be used to provide continued monitoring". The third-ranked garden is location N2.38-RRDR9 and it will continue to be the alternate sample location.

## **BACKGROUND**

Section 5.2, Attachment A, of the ODCM procedure (AP 07B-004), directs that "a Land Use Census shall be conducted annually during the growing season to identify the nearest (1) milk animal, (2) residence, and (3) garden of greater than 500 square feet producing broadleaf vegetation in each of the 16 meteorological sections within five miles of the WCGS site" and "the results of the Land Use Census shall be included in the Annual Radiological Environmental Operating Report."

Table 5-1, Attachment A, of the ODCM (AP 07B-004) requires that broadleaf vegetation samples be collected from "two indicator locations with highest calculated annual average D/Q."

Table 5-1, Attachment A, of the ODCM (AP 07B-004) also requires that milk samples be collected from "three indicator locations within 5 miles of the site having the highest dose potential."

## **METHODOLOGY**

Two hundred five surveys were mailed to the rural residents living within five miles of WCGS. A follow-up survey was sent to residents who did not respond. The survey excluded the residents of New Strawn, Burlington, and a trailer park north of Burlington. These locations were excluded due to the large number of households and the low likelihood that information gained from these residences would affect the locations chosen for REMP sampling. Drive-by information was collected for the nearest residences that did not return surveys.

The information collected was compiled and the results are identified in Tables 1-3. Calculations were performed so that garden locations could be ranked by their respective D/Q. These results are contained in Table 4.

## **RESULTS**

NOTE: A Global Positioning System was used to verify residence distances and sectors.

As identified in Table 2, sector "F" was the only sector that experienced a change in the nearest residence. The residence located at F1.57-14RD1711 is currently vacant, thus, the nearest residence in sector "F" is now F1.76-14RD1730.

Four location changes were noted for the nearest garden producing broadleaf vegetation. These changes are identified in Table 3.

There were no changes regarding milk locations. Again, no locations were identified that produced milk for human consumption.

**TABLE 1**  
**2005 Land Use Census Data**  
**Location of Nearest:**

<u>Sector</u>	<u>Residence</u>	<u>Milking Animals</u>	<u>Broadleaf Garden</u>
A	A2.60-17TE1520	None	None
B	B3.53-QURD1755	None	B3.53-QURD1755
C	C1.92-16RD1655	None	C1.92-16RD1655
D	D2.03-QULA1571	None	D3.00-16RD1829
E	E1.77-QULA1485	None	E4.40-TRRD1551
F	F1.76-14RD1730	None	F2.44-RERD1391
G	G1.56-QURD1384	None	G1.56-QURD1384
H	H3.09-12RD1711	None	H3.30-QURD1175
J	J3.70-11RD1540	None	J3.90-11RD1531
K	K2.70-12LA1439	None	K4.10-NARD1120
L	L2.10-NARD1339	None	L2.39-NARD1309
M	M2.47-14RD1322	None	M3.10-13LA1290
N	N1.71-NARD1441	None	N2.38-RRDR9
P	P2.76-HW751534	None	P2.76-HW751534
Q	Q2.35-MILA1619	None	Q2.35-MILA1619
R	R2.08-NALN1650	None	None

Identifiers are based upon the following protocol:

EXAMPLE: A1.4-16RD1525

"A" = Sector A

"1.4" = 1.4 miles from the reactor

"16RD1525" = address

**TABLE 2**

<b>SECTOR</b>	<b>2004 NEAREST RESIDENCE</b>	<b>2005 NEAREST RESIDENCE</b>
A	A2.60-17TE1520	A2.60-17TE1520
B	B3.53-QURD1755	B3.53-QURD1755
C	C1.92-16RD1655	C1.92-16RD1655
D	D2.03-QULA1571	D2.03-QULA1571
E	E1.77-QULA1485	E1.77-QULA1485
F	F1.57-14RD1711	<u>F1.76-14RD1730</u>
G	G1.56-QURD1384	G1.56-QURD1384
H	H3.09-12RD1711	H3.09-12RD1711
J	J3.70-11RD1540	J3.70-11RD1540
K	K2.70-12LA1439	K2.70-12LA1439
L	L2.10-NARD1339	L2.10-NARD1339
M	M2.47-14RD1322	M2.47-14RD1322
N	N1.71-NARD1441	N1.71-NARD1441
P	P2.76-HW751534	P2.76-HW751534
Q	Q2.35-MILA1619	Q2.35-MILA1619
R	R2.08-NALN1650	R2.08-NALN1650

NOTE: Entries underlined indicate changes from the 2004 Land Use Census.

Locations are identified based upon the following protocol:

EXAMPLE: A1.4-16RD1525

First letter is based upon sector, thus "A" designates this residence is in sector A.

The number immediately following the first letter designates the distance (in miles) from the reactor.

The characters following the dash represent a unique identifier based upon location address.

The example is in sector A, 1.4 miles from the reactor, at 1525 16th Road.

**TABLE 3**  
**2005 Land Use Census Milk and Garden Data**

<b>SECTOR</b>	<b>2004 MILKING ANIMALS</b>	<b>2005 MILKING ANIMALS</b>	<b>2004 CLOSEST GARDEN PRODUCING BROADLEAF VEGETATION</b>	<b>2005 CLOSEST GARDEN PRODUCING BROADLEAF VEGETATION</b>
A	None	None	A4.91-OXRD1940	<u>None</u>
B	None	None	None	<u>B3.53-QURD1755</u>
C	None	None	C3.69-17RD1795	<u>C1.92-16RD1655</u>
D	None	None	D3.00-16RD1829	D3.00-16RD1829
E	None	None	E4.40-TRRD1551	E4.40-TRRD1551
F	None	None	F1.76-14RD1730	<u>F2.44-RERD1391</u>
G	None	None	G1.56-QURD1384	G1.56-QURD1384
H	None	None	H3.30-QURD1175	H3.30-QURD1175
J	None	None	J3.90-11RD1531	J3.90-11RD1531
K	None	None	K4.10-NARD1120	K4.10-NARD1120
L	None	None	L2.39-NARD1309	L2.39-NARD1309
M	None	None	M3.10-13LA1290	M3.10-13LA1290
N	None	None	N2.38-RRDR9	N2.38-RRDR9
P	None	None	P2.76-HW751534	P2.76-HW751534
Q	None	None	Q2.35-MILA1619	Q2.35-MILA1619
R	None	None	None	None

**NOTE:** Underlined entries indicate changes from the 2004 Land Use Census.

Locations are identified based upon the following protocol:

**EXAMPLE:** A1.4-16RD1525

First letter is based upon sector, thus "A" designates this residence is in sector A.

The number immediately following the first letter designates the distance (in miles) from the reactor.

The characters following the dash represent a unique identifier based upon location address.

The example is in sector A, 1.4 miles from the reactor, at 1525 16th Road.

**TABLE 4**  
**Information Used for D/Q Calculations**

FROM LAND USE		FROM AN-04-045									
SECTOR	DIST (MI)	CALC (METERS)	NEAR DIST	NEAR D / Q	FAR DIST	FAR D / Q	CALC	SECTOR	D/Q * 20%		
A	0	0									
B	3.53	5683.3	5000	7.23E-10	6000	5.32E-10	5.92E-10	7	7.10E-10		
C	1.92	3091.2	3000	7.26E-10	4000	4.36E-10	7.00E-10	4	8.40E-10		
D	3.00	4830	4000	3.20E-10	5000	2.18E-10	2.35E-10	13	2.82E-10		
E	4.40	7084	7000	1.14E-10	8000	9.23E-11	1.12E-10	14	1.34E-10		
F	2.44	3928.4	3000	6.41E-10	4000	3.84E-10	4.02E-10	9	4.82E-10		
G	1.56	2511.6	2000	2.41E-09	3000	1.22E-09	1.80E-09	1	2.16E-09		
H	3.30	5313	5000	5.84E-10	6000	4.29E-10	5.35E-10	8	6.42E-10		
J	3.90	6279	6000	3.72E-10	7000	2.76E-10	3.45E-10	11	4.14E-10		
K	4.10	6601	6000	3.91E-10	7000	2.90E-10	3.30E-10	12	3.96E-10		
L	2.39	3847.9	3000	9.61E-10	4000	5.77E-10	6.35E-10	5	7.62E-10		
M	3.10	4991	4000	5.77E-10	5000	3.92E-10	3.94E-10	10	4.73E-10		
N	2.38	3831.8	3000	1.09E-09	4000	6.54E-10	7.27E-10	3	8.72E-10		
P	2.76	4443.6	4000	7.30E-10	5000	4.97E-10	6.27E-10	6	7.52E-10		
Q	2.35	3783.5	3000	1.75E-09	4000	1.05E-09	1.20E-09	2	1.44E-09		
R	0	0									

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