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HANFORD SITE ENVIRONMENTAL DATA  
FOR CALENDAR YEAR 1990--SURFACE  
AND COLUMBIA RIVER

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January 1992

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the U.S. Department of Energy  
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Pacific Northwest Laboratory  
Richland, Washington 99352

**MASTER**

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## ABSTRACT

Environmental monitoring at the Hanford Site, located in southeastern Washington State, is conducted by Battelle Memorial Institute, Pacific Northwest Division, as part of its contract to operate the Pacific Northwest Laboratory (PNL) for the U.S. Department of Energy. The data collected provide a historical record of radionuclide and radiation levels attributable to natural causes, worldwide fallout, and Hanford operations. Data are also collected to monitor several chemicals.

Pacific Northwest Laboratory publishes an annual environmental report for the Hanford Site each calendar year. The Hanford Site Environmental Report for Calendar Year 1990 is a summary of offsite and onsite environmental monitoring data collected during 1990 by PNL's Environmental Monitoring Program. The data summaries included in the annual report were created from individual surface and river monitoring results. This volume contains the individual results used to create those summaries. This volume also includes additional data summaries which do not appear in the annual report. Ground-water monitoring data are available in a separate volume (Hanford Site Environmental Data for Calendar Year 1990--Ground Water).

## SUMMARY

The Hanford Environmental Surveillance and Oversight Program, Pacific Northwest Laboratory, Office of Hanford Environment, prepares an annual environmental report for the U.S. Department of Energy's Hanford Site in southeastern Washington State. The environmental report summarizes the Site's environmental status for that year, using data gathered during monitoring activities. This report has been prepared as a companion to the environmental report and lists the individual results used to summarize environmental status. This report has been divided into sections by sampling media. A summary of the conclusions for these data for each media is provided below.

### AIR SURVEILLANCE

Transport of atmospheric releases of radioactive and nonradioactive materials from Hanford to the surrounding region represents a direct pathway for human exposure. Radioactive materials in air were sampled continuously onsite, at the Site perimeter, and in nearby and distant communities at 53 locations. Particulates were filtered from the air at all locations and analyzed for radionuclides. Air was sampled and analyzed for selected gaseous radionuclides at key locations. Nitrogen dioxide (NO<sub>2</sub>) was sampled at three locations onsite. Several radionuclides released at Hanford are also found worldwide from two other sources: those radionuclides that are naturally occurring and those resulting from the fallout from nuclear weapons testing. The influence of Hanford emissions on local radionuclide levels was indicated by the difference between concentrations measured at a distant upwind location within the region and concentrations measured close to the Site.

In 1990, <sup>3</sup>H, <sup>129</sup>I, uranium, gross alpha, and gross beta concentrations were greater at the downwind Site perimeter than at a distant upwind location. The differences in <sup>3</sup>H and <sup>129</sup>I were likely due to Site operations. The differences in gross alpha, gross beta, and uranium were predominantly due to the effects of natural geographic variations. The air pathway resulted in a potential dose to the maximally exposed individual that was 0.09% of the Clean



Air Act standard. Annual average  $\text{No}_2$  concentrations at all sampling locations were less than 12% of federal and Washington State ambient air quality standards.

#### SURFACE-WATER SURVEILLANCE

The Columbia River was one of the primary environmental exposure pathways to the public during 1990 as a result of operations at the Hanford Site. Radiological and nonradiological contaminants entered the river along the Hanford Reach as direct effluent discharges and through the seepage of contaminated ground water. Water samples were collected from the river at various locations throughout the year to determine compliance with applicable standards.

Although radionuclides associated with Hanford operations continued to be routinely identified in Columbia River water during the year, concentrations remained extremely low at all locations and were well below applicable standards. Nonradiological water quality constituents measured in Columbia River water during 1990 were also in compliance with applicable standards.

Three onsite ponds were sampled to determine radionuclide concentrations. These ponds are accessible to migratory waterfowl and other animals. As a result, a potential biological pathway exists for the removal and dispersal of contaminants that may be in the ponds. Concentrations of radionuclides in water collected from these ponds during 1990 were similar to those observed during past years. In all cases, radionuclides concentrations in the onsite pond water were below the DOE Derived Concentration Guides (DCG).

Samples of Columbia River surface sediments were collected from behind McNary and Priest Rapids dams and from three shoreline sloughs along the Hanford Reach of the Columbia River during 1990. Because of the termination of the analytical contract during the year, sediment sample results were not available for inclusion in this report. Previous sampling has shown that slightly elevated levels of some radionuclides exist in surface sediments behind McNary Dam as a result of Hanford operations.

Offsite water, used for irrigation and/or drinking water, was sampled to determine radionuclide concentrations in water used by the nearby public. Elevated gross alpha and gross beta concentrations, attributed to naturally occurring uranium, were observed at some locations. Average radionuclide concentrations in offsite water during 1990 were within applicable drinking water limits.

#### FOOD AND FARM PRODUCT SURVEILLANCE

Alfalfa and a number of foodstuffs, including milk, vegetables, fruits, wine, wheat, beef, chickens, and eggs, were collected at several locations surrounding the Hanford Site during 1990. Samples were collected primarily from locations in the prevailing downwind directions (to the south and east of the Site) where airborne effluents from Hanford could be expected to be deposited. Samples were also collected in generally upwind directions somewhat distant from the Site to provide information on levels of radioactivity that could be attributed to worldwide fallout. Foodstuffs were also collected from the Riverview area where crops were irrigated with water pumped from the Columbia River downstream of the Site. Alfalfa and foodstuff samples were analyzed for one or more of the following radionuclides:  $^3\text{H}$ ,  $^{90}\text{Sr}$ ,  $^{129}\text{I}$ ,  $^{131}\text{I}$ ,  $^{137}\text{Cs}$ , and  $^{239,240}\text{Pu}$ .

In many samples, the concentrations of specific radionuclides were below detection limits. However, low levels of  $^3\text{H}$ ,  $^{90}\text{Sr}$ ,  $^{129}\text{I}$ , and  $^{137}\text{Cs}$  were found in a number of foodstuff samples collected during 1990. Generally, concentrations of  $^{90}\text{Sr}$  and  $^{137}\text{Cs}$  in samples collected near the Hanford Site were similar to those in samples collected away from the Site. However,  $^{90}\text{Sr}$  was found at higher concentrations in alfalfa irrigated with Columbia River water, and concentrations of  $^{129}\text{I}$  appeared to be higher in milk sampled from locations close to the Hanford Site perimeter. Levels of  $^3\text{H}$  in wine indicated an apparent increase in concentration that will require further sampling and analysis to clarify. The potential offsite radiation dose from consumption of foodstuffs grown in the vicinity of the Hanford Site was a very small fraction of the public dose standard as determined by the reported measurements and pathway modeling.

## WILDLIFE SURVEILLANCE

The Hanford Site serves as a refuge for a variety of wildlife, such as waterfowl, rabbits, and deer. Wildlife have access to several areas near facilities that contain low levels of radionuclides attributable to Site operations (for example, waste-water ponds) and serve as biological indicators of environmental contamination. Sampling was performed in areas where the potential exists for wildlife to ingest radionuclides from sources of surface contamination. The number of animals that visited these areas was small compared to the total wildlife population in the region. In addition, fish were collected from the Hanford Reach of the Columbia River. Analyses provided an indication of the radionuclide concentrations in local sport fish and were used to evaluate the potential dose to humans from this pathway.

Analytical results for wildlife, clam, and fish samples collected during 1990 were similar to those from recent years. The potential dose to a person who consumed wildlife containing even the maximum radionuclide concentrations measured in wildlife on the Site in 1990 was far below applicable standards for radiation dose. While most samples were collected as scheduled, only selected samples were analyzed because of the interruption in analytical services in June 1990.

## SOIL AND VEGETATION SURVEILLANCE

Because of the loss of analytical support in June 1990 and limited capability to perform soil analyses at the interim analytical facility, only a small subset of the soil and vegetation samples collected and archived in 1990 were selected for analysis and reporting. No samples of soil or natural vegetation from onsite locations were analyzed. Samples were analyzed from three offsite soil locations and six vegetation locations east of Hanford. The purpose of sampling was to detect the possible accumulation of radionuclides from the deposition of airborne effluents released from Hanford facilities. Samples were collected at nonagricultural, relatively undisturbed sites so that natural deposition and accumulation would be represented.

Results in 1990 remained low and did not indicate trends or increases in the concentrations of radionuclides in the offsite environment that could be

attributed to Hanford operations with the exception of increasing uranium concentrations. Uranium concentrations, however, remained very low and near natural soil concentrations.

#### EXTERNAL RADIATION SURVEILLANCE

Dose rates from external radiation were measured at a number of locations in 1990 using thermoluminescent dosimeters (TLDs). Artificial and naturally occurring external radiation sources (cosmic radiation and radionuclides in the air and ground), as well as worldwide fallout, all contributed to the dose rates measured. Results from both onsite and offsite TLDs were similar to results for the previous 5 years. Some onsite dose rates near waste storage and handling facilities were elevated above natural background rates, but these were in agreement with historical values. Any observed differences at specific locations can be attributed to variability in naturally occurring dose rates from year to year and expected measurement variability at low dose rates. These observations indicate no increase from the typical historical external radiation levels for all TLD locations.

Various routine external radiation and contamination surveys were performed at numerous locations on the Hanford Site. Selected onsite roads, railroads, waste disposal sites (located outside of operating areas), locations on the Columbia River shoreline, and areas of the Site perimeter were surveyed for elevated radiation levels. In addition, a report from the Remote Sensing Laboratory on a 1988 external radiation survey performed over the Hanford Site and surrounding area with aerial radiological equipment indicated no increase in areas with elevated external radiation levels since the last (1978) aerial study. In general, the report showed a decrease in levels historically attributed to past Hanford activities, mainly because of radioactive decay of the artificial radionuclide sources in the environment and, to some extent, the changing operational activities at the Site.

WHERE TO GO FOR MORE INFORMATION

For more information, refer to Woodruff, R. K. et al., 1991, Hanford Site Environmental Report for Calendar Year 1990. PNL-7930, Pacific Northwest Laboratory, Richland, Washington, or contact R. K. Woodruff, Project Manager, Surface Environmental Surveillance Project, P.O. Box 999, Pacific Northwest Laboratory, Richland, Washington.

## INTRODUCTION

The following sections provide tables of data on which the information in the Hanford Site Environmental Report for Calendar Year 1990 was based. Information needed to understand these tables is provided below.

### GENERAL

The uncertainties for individual results are the 2 sigma counting errors.

### EXTERNAL RADIATION DATA

Thermoluminescent dosimeter (TLD) readings are shown here in milliroentgens per day (mR/day) and have been converted to mrem/hour for presentation in the annual report.

### LOCATION NAMES

Some location names are different in the computer data base than in the published annual report. In most cases, the names are very similar. The following is a list of corresponding names that are dissimilar or that might be confused:

<u>Media</u>	<u>Data Base Name</u>	<u>Annual Report Name</u>
Air	200 Tel. exchange 3614-A Building ERC	GTE Building ACRMS ALE
TLDs	ERC 3705 Bldg. 400 E	ALE 3705 West Fence 400 East Fence
Wildlife	PR Dam-Vernita Bridge	Upstream of Site Boundary
Alfalfa	Battelle Field	Richland

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0058 - 100 K AREA

OFF DATE	COM	BETA	OFF DATE	COM	BETA	OFF DATE	COM	BETA	COM	ALPHA
01/09/90		1.26E-02	01/09/90		1.16E-02	01/09/90		1.38E-02	<	1.91E-04
	{	1.36E-03		{	2.00E-03		{	1.42E-03		{ 2.47E-04
01/23/90		2.25E-02	01/23/90		2.83E-02	01/23/90		1.18E-02	<	2.99E-05
	{	1.64E-03		{	1.81E-03		{	1.27E-03		{ 1.73E-04
02/07/90		4.19E-03	02/07/90		7.16E-03	02/07/90		6.14E-03	<	1.41E-04
	{	7.17E-04		{	1.08E-03		{	1.02E-03		{ 2.08E-04
02/21/90		2.03E-02	02/21/90		2.48E-02	02/21/90		2.51E-02		6.95E-04
	{	1.59E-03		{	1.72E-03		{	1.68E-03		{ 3.25E-04
03/07/90		3.00E-02	03/07/90		2.99E-02	03/07/90		3.17E-02		7.00E-04
	{	1.89E-03		{	1.86E-03		{	1.92E-03		{ 3.34E-04
03/21/90		1.33E-02	03/21/90		1.13E-02	03/21/90		1.36E-02		6.04E-04
	{	1.31E-03		{	1.26E-03		{	1.30E-03		{ 3.05E-04
04/04/90		2.57E-02	04/04/90		2.72E-02	04/04/90		2.84E-02		9.40E-04
	{	1.75E-03		{	1.78E-03		{	1.80E-02		{ 3.84E-04
04/18/90		1.70E-02	04/18/90		1.88E-02	04/18/90		1.80E-02		7.07E-04
	{	1.45E-03		{	1.51E-03		{	1.48E-03		{ 3.39E-04
05/02/90		7.59E-03	05/02/90		7.62E-03	05/02/90		7.92E-03	<	1.57E-04
	{	1.09E-03		{	1.07E-03		{	1.10E-03		{ 2.16E-04
05/16/90		9.30E-03	05/16/90		1.14E-02	05/17/90		1.33E-02		2.53E-02
	{	1.17E-03		{	1.24E-03		{	1.43E-03		{ 1.87E-03
MEAN		1.62E-02			1.78E-02			1.70E-02		2.95E-03
MINIMUM		4.19E-03			7.16E-03			6.14E-03	<	2.99E-05
MAXIMUM		3.00E-02			2.99E-02			3.17E-02		3.17E-02
2STD.ERR		5.27E-03			5.71E-03			5.48E-03		4.97E-03

1529 - 100 N-WPSS AREA

1074 - 100 D AREA

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.  
 \* - Analyzed as part of a composite sample only.

6154 - 100 AREA FIRE STAT

OFF DATE	COM	BETA
01/09/90		1.31E-02
	{	1.39E-03}
01/23/90		2.83E-02
	{	1.82E-03}
02/07/90		4.58E-03
	{	8.88E-04}
02/21/90		2.47E-02
	{	1.71E-03}
03/07/90		2.88E-02
	{	1.84E-03}
03/21/90		1.18E-02
	{	1.27E-03}
04/04/90		2.44E-02
	{	1.71E-03}
04/18/90		1.65E-02
	{	1.45E-03}
05/02/90		7.28E-03
	{	1.06E-03}
05/16/90		8.66E-03
	{	1.14E-03}
MEAN		1.68E-02
MINIMUM		4.58E-03
MAXIMUM		2.88E-02
2STD.ERR		5.74E-03

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.  
 \* - Analyzed as part of a composite sample only.

1753 100 AREAS - 100 K AREA, 100 N-WPPSS AREA, 100 D AREA, 100 AREA FIRE STAT (PARTICULATE, FILTER-1)

OFF DATE COM	SR 90	RU 106	CS 137	PU 238	PU23940
02/07/90	nra	< -6.73E-04 { 3.59E-03}	< 2.05E-04 { 4.08E-04}	nra	nra
03/07/90	nra	< 1.33E-03 { 3.91E-03}	< 2.60E-04 { 3.49E-04}	nra	nra
04/04/90	< -1.78E-05 { 1.51E-05}	< -1.55E-03 { 5.38E-03}	< 2.73E-04 { 5.67E-04}	< 3.08E-07 { 5.59E-07}	< 2.39E-07 { 4.61E-07}
05/02/90	nra	< -1.07E-03 { 4.77E-03}	< 1.14E-04 { 5.60E-04}	nra	nra
MEAN	-1.78E-05	-4.91E-04	2.13E-04	3.08E-07	2.39E-07
MINIMUM	< -1.78E-05	< -1.55E-03	< 1.14E-04	< 3.08E-07	< 2.39E-07
MAXIMUM	< -1.78E-05	< 1.33E-03	< 2.73E-04	< 3.08E-07	< 2.39E-07
2STD.ERR	0.00E+00	1.27E-03	7.23E-05	0.00E+00	0.00E+00

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.

0249 - RT. 11A MI. 9

0051 - N OF 200 E.

OFF DATE	COM	BETA	ALPHA	COM	ALPHA	OFF DATE	COM	BETA	COM	ALPHA
01/02/90		2.90E-02	3.64E-04	1	NR	01/02/90	1	NR		NR
		{ 1.77E-03}	{ 2.44E-04}		{NR}			{NR}		{NR}
01/16/90		1.63E-02	2.39E-04	2	NR	01/16/90	2	NR		NR
		{ 1.43E-03}	{ 2.23E-04}		{NR}			{NR}		{NR}
01/31/90		1.89E-02	3.50E-04	3	NR	01/31/90	3	NR		NR
		{ 1.46E-03}	{ 2.63E-04}		{NR}			{NR}		{NR}
02/14/90		6.45E-03	< -5.98E-05	4	NR	02/14/90	4	NR		NR
		{ 1.32E-03}	{ 2.46E-04}		{NR}			{NR}		{NR}
02/28/90		2.69E-02	8.37E-04	5	NR	02/28/90	5	NR		NR
		{ 1.77E-03}	{ 3.56E-04}		{NR}			{NR}		{NR}
03/14/90		1.98E-02	4.18E-04		2.08E-02	03/14/90		2.08E-02		4.56E-04
		{ 1.58E-03}	{ 2.88E-04}		{ 1.59E-03}			{ 1.59E-03}		{ 2.96E-04}
03/28/90		1.89E-02	4.21E-04		1.65E-02	03/28/90		1.65E-02		< 2.21E-04
		{ 1.52E-03}	{ 2.78E-04}		{ 1.45E-03}			{ 1.45E-03}		{ 2.22E-04}
04/11/90		2.38E-02	9.41E-04		2.14E-02	04/11/90		2.14E-02		3.54E-04
		{ 1.67E-03}	{ 3.82E-04}		{ 1.61E-03}			{ 1.61E-03}		{ 2.81E-04}
04/25/90		1.25E-02	3.14E-04		1.15E-02	04/25/90		1.15E-02		3.53E-04
		{ 1.30E-03}	{ 2.59E-04}		{ 1.25E-03}			{ 1.25E-03}		{ 2.61E-04}
05/09/90		1.21E-02	8.92E-04		1.39E-02	05/09/90		1.39E-02		4.91E-04
		{ 1.28E-03}	{ 3.55E-04}		{ 1.44E-03}			{ 1.44E-03}		{ 2.90E-04}
05/23/90		8.67E-03	2.52E-04		9.16E-03	05/23/90		9.16E-03		3.64E-04
		{ 1.13E-03}	{ 2.21E-04}		{ 1.15E-03}			{ 1.15E-03}		{ 2.57E-04}
		nra	nra	6	NR	10/25/90	6	NR		NR
		nra	nra	7	NR	01/02/91	7	NR		NR
		nra	nra		{NR}			{NR}		{NR}
MEAN		1.76E-02	4.52E-04		1.55E-02			1.55E-02		3.73E-04
MINIMUM		6.45E-03	< -5.98E-05		9.16E-03			9.16E-03		-8.77E+36
MAXIMUM		2.90E-02	9.41E-04		2.14E-02			2.14E-02		-8.77E+36
2STD.ERR		4.37E-03	1.88E-04		4.04E-03			4.04E-03		7.73E-05

- < - Result less than detection limit.
- { } - Uncertainty for result.
- NR - No result reported.
- nra - Not routinely analyzed or analyzed on a less frequent basis.
- \* - Analyzed as part of a composite sample only.
- 1 NO SAMPLE. POWER OUTAGE.
- 2 NO SAMPLE. POWER OUTAGE.
- 3 NO SAMPLE. POWER OUTAGE.
- 4 NO SAMPLE. POWER OUTAGE.
- 5 NO SAMPLE. POWER OUTAGE.
- 6 NO SAMPLE. POWER OUTAGE.
- 7 NO SAMPLE. FUSE BLOWN.

SURFACE ENVIRONMENTAL SURVEILLANCE DATA REPORT - 123083 TO 010491  
AIR COMPOSITED SAMPLES - PCI/M3

0613 200 NORTH - RT. 11A MI. 9, N OF 200 E (PARTICULATE, FILTER-1)

OFF DATE	COM	SR 90	RU 106	CS 137	PU 238	PU23940
01/02/90	<	2.55E-07 { 5.66E-05}	< 3.90E-03 { 1.22E-02}	1.02E-03 { 8.29E-04}	< 1.19E-07 { 6.87E-07}	1.69E-06 { 1.53E-06}
01/31/90	nra	< -1.92E-02 { 1.81E-02}	< -2.47E-04 { 1.35E-03}	< -2.47E-04 { 1.35E-03}	nra	nra
02/28/90	nra	< -9.75E-04 { 2.22E-02}	< -9.75E-04 { 2.22E-02}	< 5.64E-04 { 1.66E-03}	nra	nra
03/28/90	<	9.37E-07 { 6.39E-05}	< -1.58E-02 { 1.19E-02}	< 4.05E-04 { 9.45E-04}	< -3.61E-07 { 0.00E+00}	< 4.77E-07 { 1.81E-06}
04/25/90	nra	< 0.00E+00 { 1.51E-02}	< 0.00E+00 { 1.51E-02}	< 3.70E-04 { 1.20E-03}	nra	nra
MEAN		5.96E-07	-6.41E-03	4.22E-04	-1.21E-07	1.08E-06
MINIMUM	<	2.55E-07	< -1.92E-02	< -2.47E-04	< -3.61E-07	< 4.77E-07
MAXIMUM	<	9.37E-07	< 3.90E-03	1.02E-03	< 1.19E-07	1.69E-06
2STD.ERR		6.82E-07	9.26E-03	4.07E-04	4.80E-07	1.21E-06

< - Result less than detection limit.  
{ } - Uncertainty for result.  
NR - No result reported.  
nra - Not routinely analyzed or analyzed on a less frequent basis.

0030 - E OF 200 E      0043 - 200 ESE      0031 - S OF 200 E

OFF DATE	COM	BETA	COM	ALPHA	OFF DATE	COM	BETA	COM	ALPHA	OFF DATE	COM	BETA	COM	ALPHA
01/02/90		3.42E-02	<	1.50E-04	01/02/90		3.74E-02		3.56E-04	01/02/90		3.22E-02		4.11E-04
		{ 1.95E-03}		{ 2.22E-04}			{ 1.98E-03}		{ 2.40E-04}			{ 1.86E-03}		{ 2.59E-04}
01/16/90		1.49E-02		3.24E-04	01/16/90	1	NR		NR	01/16/90		1.50E-02	<	2.09E-04
		{ 1.38E-03}		{ 2.54E-04}			{ NR}		{ NR}			{ 1.39E-03}		{ 2.15E-04}
01/31/90		1.67E-02		3.13E-04	01/31/90		9.71E-03	<	1.23E-04	01/31/90		2.04E-02		4.53E-04
		{ 1.36E-03}		{ 2.50E-04}			{ 1.12E-03}		{ 1.85E-04}			{ 1.49E-03}		{ 2.62E-04}
02/14/90		7.17E-03		4.98E-04	02/14/90	2	NR		NR	02/14/90		7.35E-03	<	9.85E-05
		{ 1.03E-03}		{ 2.88E-04}			{ NR}		{ NR}			{ 1.07E-03}		{ 2.00E-04}
02/28/90		2.69E-02		6.93E-04	02/28/90		2.84E-02		7.29E-04	02/28/90		2.65E-02		6.03E-04
		{ 1.77E-03}		{ 3.32E-04}			{ 1.85E-03}		{ 3.50E-04}			{ 1.76E-03}		{ 3.22E-04}
03/14/90		2.14E-02		5.77E-04	03/14/90		2.01E-02		5.26E-04	03/14/90		2.07E-02		6.46E-04
		{ 1.61E-03}		{ 3.10E-04}			{ 1.56E-03}		{ 2.95E-04}			{ 1.58E-03}		{ 3.28E-04}
03/28/90		1.87E-02		4.20E-04	03/28/90		1.67E-02		3.67E-04	03/28/90		1.72E-02		4.09E-04
		{ 1.51E-03}		{ 2.78E-04}			{ 1.45E-03}		{ 2.59E-04}			{ 1.48E-03}		{ 2.70E-04}
04/11/90		2.24E-02		6.64E-04	04/11/90		2.04E-02		6.23E-04	04/11/90		2.24E-02		3.46E-04
		{ 1.62E-03}		{ 3.35E-04}			{ 1.60E-03}		{ 3.42E-04}			{ 1.63E-03}		{ 2.56E-04}
04/25/90		9.72E-03	<	1.29E-04	04/25/90		1.14E-02		2.70E-04	04/25/90		1.14E-02		4.20E-04
		{ 1.16E-03}		{ 1.96E-04}			{ 1.26E-03}		{ 2.42E-04}			{ 1.24E-03}		{ 2.68E-04}
05/09/90		1.50E-02		8.39E-04	05/09/90		1.14E-02		4.69E-04	05/09/90		1.16E-02		5.80E-04
		{ 1.32E-03}		{ 3.28E-04}			{ 1.26E-03}		{ 2.95E-04}			{ 1.26E-03}		{ 2.97E-04}
05/23/90		8.70E-03		3.31E-04	05/23/90		9.55E-03		2.23E-04	05/23/90		9.30E-03		3.95E-04
		{ 1.12E-03}		{ 2.38E-04}			{ 1.17E-03}		{ 2.13E-04}			{ 1.16E-03}		{ 2.65E-04}
MEAN		1.78E-02		4.49E-04			1.83E-02		4.10E-04			1.76E-02		4.16E-04
MINIMUM		7.17E-03	<	1.29E-04			9.55E-03	<	1.23E-04			7.35E-03	<	9.85E-05
MAXIMUM		3.42E-02		8.39E-04			3.74E-02		7.29E-04			3.22E-02		6.46E-04
2STD.ERR		4.92E-03		1.37E-04			6.34E-03		1.30E-04			4.62E-03		9.82E-05

< - Result less than detection limit.  
 {} - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.  
 \* - Analyzed as part of a composite sample only.  
 1 NO SAMPLE. INSUFFICIENT SAMPLE.  
 2 NO SAMPLE. CHARCOAL CARTRIDGE LEFT OPEN.

1749 200 E AREA - E OF 200 E, 200 ESE, S OF 200 E (PARTICULATE, FILTER-1)

OFF DATE COM	SR 90	RU 106	CS 137	U 234	U 235	U 238	U-ISO T	PU 238
01/02/90	1.53E-04 { 4.93E-05}	6.28E-03 { 8.95E-03}	< -4.16E-04 { 8.85E-04}	1.52E-05 { 4.78E-06}	2.17E-06 { 1.64E-06}	1.89E-05 { 4.95E-06}	3.63E-05 { 7.07E-06}	< -1.33E-07 { 0.00E+00}
01/31/90	nra	< -8.96E-04 { 6.36E-03}	< -2.21E-04 { 9.77E-04}	nra	nra	nra	nra	nra
02/28/90	nra	< 4.97E-03 { 6.63E-03}	< -3.04E-04 { 1.03E-03}	nra	nra	nra	nra	nra
03/28/90	< -6.95E-06 { 2.97E-05}	< -2.87E-03 { 6.09E-03}	< -3.18E-04 { 7.75E-04}	1.77E-05 { 5.62E-06}	< 1.83E-07 { 7.44E-07}	2.36E-05 { 6.27E-06}	4.15E-05 { 8.45E-06}	< 7.75E-07 { 1.09E-06}
04/25/90	nra	< 6.62E-03 { 5.17E-03}	< -3.87E-04 { 8.23E-04}	nra	nra	nra	nra	nra
MEAN	7.30E-05	2.82E-03	-3.29E-04	1.64E-05	1.18E-06	2.12E-05	3.89E-05	3.21E-07
MINIMUM	< -6.95E-06	< -2.87E-03	< -4.16E-04	1.52E-05	< 1.83E-07	1.89E-05	3.63E-05	< -1.33E-07
MAXIMUM	1.53E-04	6.62E-03	< -2.21E-04	1.77E-05	2.17E-06	2.36E-05	4.15E-05	< 7.75E-07
2STD.ERR	1.60E-04	3.93E-03	6.83E-05	2.50E-06	1.99E-06	4.70E-06	5.21E-06	9.08E-07

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.



SURFACE ENVIRONMENTAL SURVEILLANCE DATA REPORT - 123089 TO 010491  
AIR COMPOSITED SAMPLES - PCI/M3

1749 200 E AREA - E OF 200 E, 200 ESE, S OF 200 E (PARTICULATE, FILTER-1)

OFF DATE	COM	PU23940
01/02/90	<	8.12E-07 { 1.17E-06}
01/31/90		nra
02/28/90		nra
03/28/90	<	2.93E-07 { 6.27E-07}
04/25/90		nra
MEAN		5.53E-07
MINIMUM	<	2.93E-07
MAXIMUM	<	8.12E-07
2STD.ERR		5.19E-07

< - Result less than detection limit.  
{ } - Uncertainty for result.  
NR - No result reported.  
nra - Not routinely analyzed or analyzed on a less frequent basis.

0038 - B POND

0039 - B POND \*

OFF DATE	COM	BETA	COM	ALPHA
01/02/90		2.77E-02		3.01E-04
		{ 1.74E-03 }		{ 2.36E-04 }
01/16/90		1.19E-02	<	1.01E-04
		{ 1.26E-03 }		{ 2.02E-04 }
01/31/90		1.84E-02		3.72E-04
		{ 1.45E-03 }		{ 2.57E-04 }
02/14/90		7.47E-03	<	8.94E-05
		{ 1.08E-03 }		{ 2.31E-04 }
02/28/90		2.41E-02		6.59E-04
		{ 1.70E-03 }		{ 3.33E-04 }
03/14/90		2.00E-02		3.50E-04
		{ 1.63E-03 }		{ 2.74E-04 }
03/28/90		1.54E-02		4.43E-04
		{ 1.40E-03 }		{ 2.99E-04 }
04/11/90		1.96E-02		1.06E-03
		{ 1.56E-03 }		{ 3.94E-04 }
04/25/90		9.12E-03		3.33E-04
		{ 1.16E-03 }		{ 2.58E-04 }
05/09/90		5.88E-03		2.55E-04
		{ 6.43E-04 }		{ 1.49E-04 }
05/23/90		9.46E-03		7.05E-04
		{ 1.17E-03 }		{ 3.20E-04 }
MEAN		1.54E-02		4.24E-04
MINIMUM		5.88E-03	<	8.94E-05
MAXIMUM		2.77E-02		1.06E-03
2STD.ERR		4.33E-03		1.72E-04

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.  
 \* - Analyzed as part of a composite sample only.

SURFACE ENVIRONMENTAL SURVEILLANCE DATA REPORT - 123089 TO 010491  
AIR COMPOSITED SAMPLES - PCI/M3

1738 B POND - B POND, B POND (PARTICULATE, FILTER-1)

OFF DATE COM	SR 90	RU 106	CS 137	U 234	U 235	U 238	U-ISO T	PU 238
01/02/90	< 5.09E-05 { 6.96E-05}	< -8.65E-04 { 1.03E-02}	< -1.20E-04 { 1.10E-03}	1.93E-05 { 6.24E-06}	< 8.13E-07 { 1.54E-06}	1.25E-05 { 4.68E-06}	3.26E-05 { 7.95E-06}	< -1.97E-07 { 0.00E+00}
01/31/90	nra	{ 1.42E-02 { 9.41E-03}	< 0.00E+00 { 9.93E-04}	nra	nra	nra	nra	nra
02/28/90	nra	< -4.17E-03 { 1.02E-02}	< -1.47E-04 { 1.04E-03}	nra	nra	nra	nra	nra
03/28/90	< -4.62E-05 { 4.79E-05}	< -5.00E-03 { 1.19E-02}	< -8.72E-04 { 1.11E-03}	1.14E-05 { 5.75E-06}	< -2.62E-07 { 1.44E-06}	1.79E-05 { 6.67E-06}	2.90E-05 { 8.92E-06}	< 7.57E-07 { 1.40E-06}
04/25/90	nra	< -1.17E-03 { 1.08E-02}	< 8.76E-04 { 1.13E-03}	nra	nra	nra	nra	nra
MEAN	2.35E-06	5.99E-04	-5.26E-05	1.54E-05	2.76E-07	1.52E-05	3.08E-05	2.80E-07
MINIMUM	< -4.62E-05	< -5.00E-03	< -8.72E-04	1.14E-05	< -2.62E-07	1.25E-05	2.90E-05	< -1.97E-07
MAXIMUM	< 5.09E-05	1.42E-02	< 8.76E-04	1.93E-05	< 8.13E-07	1.79E-05	3.26E-05	< 7.57E-07
2STD.ERR	9.71E-05	6.99E-03	5.57E-04	7.90E-06	1.08E-06	5.40E-06	3.57E-06	9.54E-07

< - Result less than detection limit.  
{ } - Uncertainty for result.  
NR - No result reported.  
nra - Not routinely analyzed or analyzed on a less frequent basis.

1738 B POND - B POND, B POND (PARTICULATE, FILTER-1)

OFF DATE COM	PU23940
01/02/90	< 1.52E-07
01/31/90	{ 6.33E-07}
02/28/90	nra
03/28/90	< 9.60E-07
04/25/90	{ 1.40E-06}
	nra
MEAN	5.56E-07
MINIMUM	< 1.52E-07
MAXIMUM	< 9.60E-07
2STD.ERR	8.08E-07

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.

0250 - SW OF B/C CRIBS      0248 - ARMY LOOP CAMP      0052 - 200 TEL. EXCHANGE

OFF DATE	COM	BETA	COM	ALPHA	OFF DATE	COM	BETA	COM	ALPHA	OFF DATE	COM	BETA	COM	ALPHA
01/02/90		3.14E-02		3.89E-04	01/02/90		2.94E-02		5.22E-04	01/02/90		2.74E-02		3.06E-04
	{	1.80E-03		{ 2.66E-04}		{	1.79E-03		{ 2.82E-04}		{	1.70E-03		{ 2.37E-04}
01/16/90		1.55E-02		4.85E-04	01/16/90		1.41E-02		< 2.06E-04	01/16/90		1.47E-02		< 2.63E-04
	{	1.40E-03		{ 2.84E-04}		{	1.36E-03		{ 2.25E-04}		{	1.39E-03		{ 2.82E-04}
01/31/90		2.00E-02		3.21E-04	01/31/90		7.81E-03		< 9.63E-05	01/31/90		2.13E-02		4.68E-04
	{	1.51E-03		{ 2.48E-04}		{	1.04E-03		{ 1.77E-04}		{	1.55E-03		{ 2.71E-04}
02/14/90		6.72E-03		< 2.18E-04	02/14/90		4.60E-03		< 1.91E-04	02/14/90		8.58E-03		2.23E-04
	{	1.07E-03		{ 2.35E-04}		{	1.26E-03		{ 3.10E-04}		{	1.06E-03		{ 2.17E-04}
02/28/90		2.84E-02		7.48E-04	02/28/90		3.20E-02		1.15E-03	02/28/90		2.57E-02		3.34E-04
	{	1.84E-03		{ 3.33E-04}		{	1.92E-03		{ 4.10E-04}		{	1.76E-03		{ 2.70E-04}
03/14/90		2.22E-02		6.75E-04	03/14/90		2.24E-02		6.36E-04	03/14/90		1.76E-02		3.22E-04
	{	1.63E-03		{ 3.33E-04}		{	1.64E-03		{ 3.21E-04}		{	1.54E-03		{ 2.57E-04}
03/28/90		1.74E-02		3.40E-04	03/28/90		1.70E-02		3.09E-04	03/28/90		1.81E-02		5.87E-04
	{	1.49E-03		{ 2.55E-04}		{	1.46E-03		{ 2.45E-04}		{	1.50E-03		{ 3.06E-04}
04/11/90		2.34E-02		7.80E-04	04/11/90		2.12E-02		4.89E-04	04/11/90		2.61E-02		7.45E-04
	{	1.66E-03		{ 3.40E-04}		{	1.61E-03		{ 3.13E-04}		{	1.76E-03		{ 3.40E-04}
04/25/90		1.15E-02		3.61E-04	04/25/90		1.28E-02		4.02E-04	04/25/90		1.27E-02		6.23E-04
	{	1.25E-03		{ 2.54E-04}		{	1.28E-03		{ 2.66E-04}		{	1.30E-03		{ 3.16E-04}
05/09/90		1.32E-02		5.40E-04	05/09/90		5.49E-03		< 1.40E-04	05/09/90		1.31E-02		7.76E-04
	{	1.33E-03		{ 3.03E-04}		{	1.15E-03		{ 2.61E-04}		{	1.31E-03		{ 3.31E-04}
05/23/90		1.02E-02		3.08E-04	06/06/90	1	{NR}		{NR}	05/23/90		8.71E-03		2.51E-04
	{	1.21E-03		{ 2.34E-04}			{NR}		{NR}		{	1.16E-03		{ 2.22E-04}
MEAN		1.82E-02		4.70E-04			1.67E-02		4.14E-04			1.76E-02		4.45E-04
MINIMUM		6.72E-03		2.18E-04			4.60E-03		-8.77E+36			8.58E-03		2.23E-04
MAXIMUM		3.14E-02		7.80E-04			3.20E-02		-8.77E+36			2.74E-02		7.76E-04
2STD.ERR		4.66E-03		1.16E-04			6.04E-03		1.99E-04			4.09E-03		1.23E-04

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.  
 \* - Analyzed as part of a composite sample only.  
 1 - NO SAMPLE. POWER OUTAGE.

SURFACE ENVIRONMENTAL SURVEILLANCE DATA REPORT - 123089 TO 010491  
AIR COMPOSITED SAMPLES - PCI/M3

0614 200 W SOUTH & EAST - SW OF B/C CRIBS, ARMY LOOP CAMP, 200 TEL. EXCHANGE (PARTICULATE, FILTER-1)

OFF DATE	COM	SR 90	RU 106	CS 137	U 234	U 235	U 238	U-ISO T	PU 238			
01/02/90	<	-3.17E-05 { 3.57E-05}	<	-2.67E-03 { 7.38E-03}	<	2.39E-04 { 7.77E-04}	1.55E-05 { 4.06E-06}	1.66E-06 { 1.56E-06}	1.65E-05 { 4.21E-06}	3.37E-05 { 6.05E-06}	<	-1.32E-07 { 0.00E+00}
01/31/90	nra	<	-4.75E-03 { 6.04E-03}	5.64E-04 { 4.26E-04}	nra	nra	nra	nra	nra	nra	nra	nra
02/28/90	nra	<	-6.78E-04 { 8.11E-03}	1.56E-05 { 9.54E-04}	nra	nra	nra	nra	nra	nra	nra	nra
03/28/90	<	8.05E-06 { 2.92E-05}	<	-1.27E-04 { 6.50E-03}	1.28E-05 { 4.46E-06}	1.68E-06 { 1.51E-06}	1.40E-05 { 4.54E-06}	2.85E-05 { 6.54E-06}	<	-1.57E-07 { 0.00E+00}		
04/25/90	nra	<	3.29E-03 { 7.06E-03}	4.88E-05 { 5.73E-04}	nra	nra	nra	nra	nra	nra	nra	nra
MEAN		-1.18E-05	-9.87E-04	-7.25E-05	1.42E-05	1.67E-06	1.53E-05	3.11E-05	1.45E-07			
MINIMUM	<	-3.17E-05	-4.75E-03	-1.23E-03	1.28E-05	1.66E-06	1.40E-05	2.85E-05	-1.57E-07			
MAXIMUM	<	8.05E-06	3.29E-03	5.64E-04	1.55E-05	1.68E-06	1.65E-05	3.37E-05	-1.32E-07			
2STD.ERR		3.98E-05	2.69E-03	6.11E-04	2.70E-06	2.00E-08	2.50E-06	5.18E-06	2.50E-08			

< - Result less than detection limit.  
{ } - Uncertainty for result.  
NR - No result reported.  
nra - Not routinely analyzed or analyzed on a less frequent basis.

SURFACE ENVIRONMENTAL SURVEILLANCE DATA REPORT - 123089 TO 010491  
 AIR COMPOSITED SAMPLES - PCI/M3

0614 200 W SOUTH & EAST - SW OF B/C CRIBS, ARMY LOOP CAMP, 200 TEL. EXCHANGE (PARTICULATE, FILTER-1)

OFF DATE COM	PU23940
01/02/90	2.04E-06 { 1.30E-06 }
01/31/90	nra
02/28/90	nra
03/28/90	< 4.64E-07 { 6.84E-07 }
04/25/90	nra
MEAN	1.25E-06
MINIMUM	< 4.64E-07
MAXIMUM	2.04E-06
2STD.ERR	1.58E-06

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.

0027 - 200 W SE \*

0026 - 200 W SE

OFF DATE	COM	BETA	COM	ALPHA
01/02/90		2.35E-02		3.56E-04
		{ 1.62E-03}		{ 2.40E-04}
01/16/90		1.20E-02		3.83E-04
		{ 1.28E-03}		{ 2.68E-04}
01/31/90		1.93E-02		4.90E-04
		{ 1.46E-03}		{ 2.91E-04}
02/14/90		7.32E-03		4.67E-05
		{ 1.05E-03}		{ 2.00E-04}
02/28/90		2.59E-02		5.75E-04
		{ 1.73E-03}		{ 3.19E-04}
03/14/90		1.82E-02		7.84E-04
		{ 1.53E-03}		{ 3.65E-04}
03/28/90		1.55E-02		2.78E-04
		{ 1.41E-03}		{ 2.36E-04}
04/11/90		2.01E-02		6.65E-04
		{ 1.58E-03}		{ 3.44E-04}
04/25/90		1.48E-02		5.47E-04
		{ 1.81E-03}		{ 4.05E-04}
05/09/90		6.48E-03		7.89E-04
		{ 6.72E-04}		{ 2.31E-04}
06/06/90	1	NR	<	NR
		{NR}		{NR}
MEAN		1.63E-02		4.91E-04
MINIMUM		6.48E-03		-8.77E+36
MAXIMUM		2.59E-02		-8.77E+36
2STD.ERR		4.05E-03		1.47E-04

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.  
 \* - Analyzed as part of a composite sample only.  
 1 NO SAMPLE. POWER OUTAGE.



SURFACE ENVIRONMENTAL SURVEILLANCE DATA REPORT - 123089 TO 010491  
AIR COMPOSITED SAMPLES - PCI/M3

1739 200 WEST - 200 W SE, 200 W SE (PARTICULATE, FILTER-1)

OFF DATE COM	SR 90	RU 106	CS 137	U 234	U 235	U 238	U-ISO T	PU 238
01/02/90	< -2.48E-05 { 6.41E-05}	< -4.60E-03 { 1.15E-02}	< -4.82E-04 { 1.14E-03}	2.21E-05 { 6.32E-06}	< 1.28E-06 { 1.85E-06}	1.80E-05 { 5.70E-06}	4.14E-05 { 8.71E-06}	< -2.08E-07 { 0.00E+00}
01/31/90	nra	{ 9.44E-03 { 7.68E-03}	< 3.00E-04 { 9.73E-04}	nra	nra	nra	nra	nra
02/28/90	nra	< -1.61E-03 { 1.21E-02}	< -1.03E-04 { 1.23E-03}	nra	nra	nra	nra	nra
03/28/90	< -2.19E-05 { 3.69E-05}	< 4.35E-03 { 1.11E-02}	< -1.25E-04 { 1.15E-03}	1.38E-05 { 7.59E-06}	< -2.60E-07 { 1.82E-06}	1.73E-05 { 7.59E-06}	3.08E-05 { 1.09E-05}	< 1.04E-06 { 1.47E-06}
04/25/90	nra	< -1.55E-03 { 1.10E-02}	1.23E-03 { 8.68E-04}	nra	nra	nra	nra	nra
MEAN	-2.33E-05	1.21E-03	1.64E-04	1.80E-05	5.10E-07	1.77E-05	3.61E-05	4.16E-07
MINIMUM	< -2.48E-05	< -4.60E-03	< -4.82E-04	1.38E-05	< -2.60E-07	1.73E-05	3.08E-05	< -2.08E-07
MAXIMUM	< -2.19E-05	9.44E-03	1.23E-03	2.21E-05	< 1.28E-06	1.80E-05	4.14E-05	< 1.04E-06
2STD.ERR	2.90E-06	5.04E-03	5.88E-04	8.30E-06	1.54E-06	7.00E-07	1.05E-05	1.25E-06

< - Result less than detection limit.  
{ } - Uncertainty for result.  
NR - No result reported.  
nra - Not routinely analyzed or analyzed on a less frequent basis.

1739 200 WEST - 200 W SE, 200 W SE (PARTICULATE, FILTER-1)

OFF DATE COM	PU23940
01/02/90	4.53E-06 { 2.43E-06}
01/31/90	nra
02/28/90	nra
03/28/90	< 1.66E-06 { 1.69E-06}
04/25/90	nra
MEAN	3.10E-06
MINIMUM	< 1.66E-06
MAXIMUM	4.53E-06
2STD.ERR	2.87E-06

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.

1793 - 300 WATER INTAKE

6150 - 300 SOUTH GATE

1544 - 300 TRENCH

OFF DATE	COM	BETA	OFF DATE	COM	BETA	OFF DATE	COM	BETA	COM	ALPHA
01/02/90		2.86E-02	01/02/90		2.75E-02	01/02/90		2.62E-02		2.67E-04
	{	1.79E-03		{	1.73E-03		{	1.73E-03		{ 2.38E-04
01/16/90		1.50E-02	01/16/90		1.29E-02	01/16/90		1.30E-02		5.22E-04
	{	1.33E-03		<	1.29E-03		{	1.27E-03		{ 2.84E-04
01/30/90		1.91E-02	01/30/90		2.06E-02	01/30/90		1.99E-02		5.80E-04
	{	1.53E-03		{	1.59E-03		{	1.57E-03		{ 3.13E-04
02/13/90		5.60E-03	02/13/90		5.47E-03	02/13/90		7.22E-03		4.87E-04
	{	9.83E-04		{	9.83E-04		{	2.94E-03		{ 2.94E-04
02/27/90		2.21E-02	02/27/90		2.04E-02	02/27/90		2.21E-02		8.35E-04
	{	1.44E-03		{	1.59E-03		{	1.64E-03		{ 3.48E-04
03/13/90		2.26E-02	03/13/90		1.93E-02	03/13/90		2.11E-02		5.61E-04
	{	1.64E-03		{	1.55E-03		{	1.60E-03		{ 3.04E-04
03/27/90		2.01E-02	03/27/90		1.62E-02	03/27/90	1	NR		NR
	{	1.56E-03		{	1.43E-03			{NR}		{NR}
04/10/90		2.91E-02	04/10/90		2.26E-02	04/10/90		2.14E-02		6.75E-04
	{	1.85E-03		{	1.66E-03			{ 1.63E-03		{ 3.33E-04
04/24/90		1.26E-02	04/24/90		1.22E-02	04/24/90		1.53E-02		2.30E-03
	{	1.22E-03		{	1.21E-03			{ 1.36E-03		{ 5.31E-04
05/08/90		1.05E-02	05/08/90		1.01E-02	05/08/90		1.21E-02		1.12E-03
	{	1.21E-03		{	1.21E-03			{ 1.28E-03		{ 4.06E-04
05/22/90		9.55E-03	05/22/90		7.71E-03	05/22/90		1.67E-02		nra
	{	1.17E-03		{	1.09E-03			{ 1.46E-03		
MEAN		1.77E-02			1.59E-02			1.75E-02		8.16E-04
MINIMUM		5.60E-03		<	5.47E-03			7.22E-03		2.67E-04
MAXIMUM		2.91E-02			2.75E-02			2.62E-02		2.30E-03
2STD.ERR		4.66E-03			4.11E-03			3.60E-03		4.04E-04

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.  
 \* - Analyzed as part of a composite sample only.  
 1 - NO SAMPLE. MCI FAILURE.

1741 300 AREA - 300 WATER INTAKE, 300 SOUTH GATE, 300 TRENCH (PARTICULATE, FILTER-1)

OFF DATE COM	SR 90	RU 106	CS 137	U 234	U 235	U 238	U-ISO T	PU 238
01/02/90	< -2.34E-05 { 3.87E-05}	< 1.84E-03 { 6.12E-03}	< 2.37E-05 { 7.75E-04}	1.88E-04 { 1.34E-05}	1.61E-05 { 3.92E-06}	1.30E-04 { 1.12E-05}	3.34E-04 { 1.79E-05}	< -1.33E-07 { 0.00E+00}
01/30/90	nra	< -3.08E-04 { 7.03E-03}	< 5.00E-04 { 7.69E-04}	nra	nra	nra	nra	nra
02/27/90	nra	< 5.18E-03 { 5.94E-03}	< 1.72E-04 { 8.37E-04}	nra	nra	nra	nra	nra
03/27/90	1 < -4.27E-06 { 3.21E-05}	< 1.50E-03 { 7.29E-03}	< 3.63E-04 { 7.90E-04}	5.93E-05 { 9.09E-06}	< 1.45E-06 { 1.46E-06}	5.14E-05 { 8.40E-06}	1.12E-04 { 1.25E-05}	< 5.97E-07 { 8.75E-07}
04/24/90	nra	< -1.16E-04 { 5.91E-03}	< 9.78E-04 { 1.02E-03}	nra	nra	nra	nra	nra
MEAN	-1.38E-05	1.62E-03	4.07E-04	1.24E-04	8.78E-06	9.07E-05	2.23E-04	2.32E-07
MINIMUM	< -2.34E-05	< -3.08E-04	< 2.37E-05	5.93E-05	< 1.45E-06	5.14E-05	1.12E-04	< -1.33E-07
MAXIMUM	< -4.27E-06	< 5.18E-03	< 9.78E-04	1.88E-04	1.61E-05	1.30E-04	3.34E-04	< 5.97E-07
2STD.ERR	1.91E-05	1.97E-03	3.28E-04	1.29E-04	1.47E-05	7.86E-05	2.22E-04	7.30E-07

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 nra - No result reported.  
 1 - Not routinely analyzed or analyzed on a less frequent basis.  
 Comment for sample 1544 on 03/27/90  
 NO SAMPLE. MCI NOT WORKING.  
 Comment for sample 1544 on 03/27/90  
 NO SAMPLE. MCI FAILURE.

1741 300 AREA - 300 WATER INTAKE, 300 SOUTH GATE, 300 TRENCH (PARTICULATE, FILTER-1)

OFF DATE COM	PU23940
01/02/90	< -5.92E-08 { 5.23E-07}
01/30/90	nra
02/27/90	nra
03/27/90	< 7.36E-07 { 8.73E-07}
04/24/90	nra
MEAN	3.38E-07
MINIMUM	< -5.92E-08
MAXIMUM	< 7.36E-07
2STD.ERR	7.95E-07

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.

0023 - 300 NE \*

0022 - 300 NE

OFF DATE	COM	BETA	COM	ALPHA
01/02/90		2.38E-02		3.15E-04
		{ 1.64E-03}		{ 2.36E-04}
01/16/90		1.26E-02	<	1.10E-04
		{ 1.27E-03}		{ 1.91E-04}
01/30/90		2.18E-02		9.54E-04
		{ 1.62E-03}		{ 3.69E-04}
02/13/90		6.90E-03		7.28E-04
		{ 1.05E-03}		{ 3.48E-04}
02/27/90		2.30E-02		7.65E-04
		{ 1.65E-03}		{ 3.49E-04}
03/13/90		1.84E-02		3.26E-04
		{ 1.52E-03}		{ 2.66E-04}
03/27/90		1.63E-02		3.95E-04
		{ 1.43E-03}		{ 2.64E-04}
04/10/90		2.40E-02		6.64E-04
		{ 1.69E-03}		{ 3.20E-04}
04/24/90		1.23E-02	<	2.14E-04
		{ 1.20E-03}		{ 2.11E-04}
05/08/90		1.03E-02		4.34E-04
		{ 1.20E-03}		{ 2.67E-04}
05/22/90		7.13E-03		2.42E-04
		{ 1.06E-03}		{ 2.13E-04}
06/05/90		5.94E-03		1.43E-03
		{ 9.86E-04}		{ 4.44E-04}
06/19/90		6.86E-03		1.06E-03
		{ 1.04E-03}		{ 3.89E-04}
07/03/90		9.03E-03		1.03E-03
		{ 1.15E-03}		{ 3.84E-04}
07/17/90		1.25E-02		1.49E-03
		{ 1.29E-03}		{ 4.45E-04}
07/31/90		2.04E-02		6.23E-03
		{ 1.58E-03}		{ 8.85E-04}
08/14/90		2.40E-02		6.72E-03
		{ 1.69E-03}		{ 9.08E-04}
08/28/90		1.22E-02		1.58E-03
		{ 1.27E-03}		{ 4.66E-04}
09/11/90		2.11E-02		2.22E-03
		{ 1.60E-03}		{ 5.42E-04}
09/24/90		2.14E-02		4.68E-03
		{ 1.65E-03}		{ 7.85E-04}
10/09/90		2.08E-02		2.10E-03
		{ 1.51E-03}		{ 4.98E-04}
10/23/90		9.64E-03		1.83E-03
		{ 1.18E-03}		{ 4.93E-04}

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.  
 \* - Analyzed as part of a composite sample only.

SURFACE ENVIRONMENTAL SURVEILLANCE DATA REPORT - 123089 TO C10491  
AIR SAMPLE COMPOSITE PARTS - PCI/M3

0023 - 300 NE \*

0022 - 300 NE

OFF DATE	COM	BETA	COM	ALPHA
11/06/90		1.58E-02		1.78E-03
		{ 1.42E-03}		{ 4.94E-04}
11/20/90		1.65E-02		3.32E-03
		{ 1.42E-03}		{ 6.48E-04}
12/04/90		8.99E-03		1.58E-03
		{ 1.14E-03}		{ 4.63E-04}
12/18/90		2.40E-02		2.59E-03
		{ 1.70E-03}		{ 5.82E-04}
12/31/90		4.00E-02		2.72E-03
		{ 2.20E-03}		{ 6.10E-04}
MEAN		1.65E-02		2.65E-03
MINIMUM		5.94E-03		1.03E-03
MAXIMUM		4.00E-02		6.72E-03
ZSTD.ERR		3.00E-03		8.77E-04

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.  
 \* - Analyzed as part of a composite sample only.

OFF DATE	COM	SR 90	RU 105	CS 137	U 234	U 235	U 238	U-ISO T	PU 238
1740	300 NE - 300 NE (PARTICULATE, FILTER-1)								
01/02/90	< -5.23E-05 { 6.31E-05}	< 6.45E-03 { 9.92E-03}	< 9.47E-04 { 1.12E-03}	< 5.07E-05 { 8.08E-06}	< 9.30E-07 { 1.63E-06}	4.42E-05 { 7.68E-06}	9.58E-05 { 1.13E-05}	< -1.99E-07 { 0.00E+00}	
01/30/90	nra	< 0.00E+00 { 9.91E-03}	< 5.07E-04 { 1.33E-03}	nra	nra	nra	nra	nra	
02/27/90	nra	< -3.16E-04 { 1.14E-02}	< 5.29E-04 { 1.05E-03}	nra	nra	nra	nra	nra	
03/27/90	< -3.05E-05 { 3.44E-05}	< -3.61E-04 { 8.19E-03}	< -4.34E-04 { 1.35E-03}	8.74E-05 { 1.32E-05}	< 1.61E-06 { 1.87E-06}	9.73E-05 { 1.39E-05}	1.86E-04 { 1.93E-05}	< -2.32E-07 { 0.00E+00}	
04/24/90	nra	< -1.73E-04 { 8.82E-03}	< -2.58E-04 { 9.59E-04}	nra	nra	nra	nra	nra	
07/03/90	nra	< 7.50E-03 { 1.83E-02}	< 1.06E-03 { 1.28E-03}	nra	nra	nra	nra	nra	
07/31/90	nra	< -9.82E-03 { 1.87E-02}	< -8.80E-04 { 1.60E-03}	nra	nra	nra	nra	nra	
08/28/90	nra	< -4.86E-03 { 1.41E-02}	< 7.33E-04 { 1.23E-03}	nra	nra	nra	nra	nra	
09/24/90	< -5.90E-06 { 4.26E-05}	< 0.00E+00 { 1.60E-02}	< -1.07E-03 { 1.29E-03}	7.04E-05 { 1.86E-05}	< 3.16E-06 { 5.11E-06}	5.31E-05 { 1.61E-05}	1.27E-04 { 2.51E-05}	< 1.35E-06 { 1.71E-06}	
11/06/90	nra	< -2.01E-03 { 8.99E-03}	< -4.08E-04 { 8.68E-04}	nra	nra	nra	nra	nra	
12/04/90	nra	< 9.71E-04 { 1.14E-02}	< 5.18E-04 { 1.27E-03}	nra	nra	nra	nra	nra	
12/31/90	< 1.72E-05 { 4.10E-05}	< 6.24E-03 { 9.84E-03}	< -7.02E-04 { 1.16E-03}	1.21E-04 { 2.54E-05}	< 3.36E-06 { 6.32E-06}	9.22E-05 { 2.24E-05}	2.17E-04 { 3.45E-05}	< 3.50E-07 { 9.01E-07}	
MEAN	-1.79E-05	3.02E-04	4.52E-05	8.24E-05	2.27E-06	7.17E-05	1.56E-04	3.17E-07	
MINIMUM	< -5.23E-05	< -9.82E-03	< -1.07E-03	5.07E-05	< 9.30E-07	4.42E-05	9.58E-05	< -2.32E-07	
MAXIMUM	< 1.72E-05	< 7.50E-03	< 1.06E-03	1.21E-04	< 3.36E-06	9.73E-05	2.17E-04	< 1.35E-06	
2STD.ERR	3.01E-05	2.81E-03	4.32E-04	2.98E-05	1.18E-06	2.69E-05	5.50E-05	7.38E-07	

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.



1740 300 NE - 300 NE, 300 NE (PARTICULATE, FILTER-1)

OFF DATE	COM	PU23940
01/02/90	<	2.80E-07 { 6.08E-07}
01/30/90		nra
02/27/90		nra
03/27/90		5.14E-06 { 2.96E-06}
04/24/90		nra
07/03/90		nra
07/31/90		nra
08/28/90		nra
09/24/90	<	3.92E-07 { 8.42E-07}
11/06/90		nra
12/04/90		nra
12/31/90	<	1.07E-06 { 1.27E-06}
MEAN		1.72E-06
MINIMUM	<	2.80E-07
MAXIMUM		5.14E-06
2STD.ERR		2.31E-06

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.

6308 - 400 E

6455 - 400 W

6456 - 400 S

OFF DATE	COM	BETA	COM	ALPHA	OFF DATE	COM	BETA	COM	ALPHA	OFF DATE	COM	BETA	COM	ALPHA
01/02/90		2.84E-02		3.75E-04	01/02/90		2.67E-02		3.15E-04	01/02/90		2.91E-02		1.25E-04
	{	1.79E-03		{ 2.51E-04		{	1.71E-03		{ 2.44E-04		{	1.79E-03		{ 1.89E-04
01/16/90		1.53E-02	<	1.91E-05	01/16/90		1.54E-02		4.62E-04	01/16/90		1.44E-02		6.04E-05
	{	1.35E-03		{ 2.08E-04		{	1.36E-03		{ 2.79E-04		{	1.33E-03		{ 1.65E-04
01/30/90		1.80E-02		2.81E-04	01/30/90		1.95E-02		6.44E-04	01/30/90		2.13E-02		6.25E-04
	{	1.50E-03		{ 2.60E-04		{	1.53E-03		{ 3.34E-04		{	1.60E-03		{ 3.16E-04
02/13/90		3.24E-03	<	6.04E-06	02/13/90		5.06E-03	<	2.05E-04	02/13/90		6.69E-03		1.96E-04
	{	1.44E-03		{ 3.18E-04		{	9.40E-04		{ 2.57E-04		{	1.04E-03		{ 2.18E-04
02/27/90		2.23E-02		5.43E-04	02/27/90		2.13E-02		7.51E-04	02/27/90		2.12E-02		6.43E-04
	{	1.64E-03		{ 3.12E-04		{	1.59E-03		{ 3.42E-04		{	1.60E-03		{ 3.33E-04
03/13/90		1.98E-02		6.16E-04	03/13/90		1.83E-02		2.09E-04	03/13/90		1.77E-02		3.23E-04
	{	1.56E-03		{ 3.21E-04		{	1.50E-03		{ 2.26E-04		{	1.49E-03		{ 2.64E-04
03/27/90		1.58E-02	<	2.62E-04	03/27/90		1.35E-02		3.11E-04	03/27/90		1.66E-02		4.19E-04
	{	1.40E-03		{ 2.59E-04		{	1.33E-03		{ 2.45E-04		{	1.45E-03		{ 2.77E-04
04/10/90		2.05E-02		4.80E-04	04/10/90		2.00E-02		2.88E-04	04/10/90		1.97E-02		2.10E-04
	{	1.58E-03		{ 2.99E-04		{	1.55E-03		{ 2.44E-04		{	1.55E-03		{ 2.51E-04
04/24/90	1	NR		NR	04/24/90		1.08E-02		1.58E-04	04/24/90		1.29E-02		2.44E-04
	{	NR		{ NR		{	1.22E-03		{ 2.03E-04		{	1.21E-03		{ 2.09E-04
05/08/90		9.71E-03		4.58E-04	05/08/90		9.17E-03		3.85E-04	05/08/90		1.02E-02		1.23E-04
	{	1.19E-03		{ 2.80E-04		{	1.14E-03		{ 2.49E-04		{	1.20E-03		{ 1.78E-04
05/22/90		1.07E-02		2.72E-04	05/22/90		8.23E-03		2.18E-04	05/22/90		9.65E-03		2.84E-04
	{	1.22E-03		{ 2.23E-04		{	1.10E-03		{ 2.22E-04		{	1.17E-03		{ 2.30E-04
06/05/90		5.26E-03		1.29E-03	06/05/90		5.17E-03		1.07E-03	06/05/90		6.95E-03		1.51E-03
	{	9.53E-04		{ 4.13E-04		{	9.67E-04		{ 3.92E-04		{	6.82E-03		{ 4.42E-04
06/19/90		6.26E-03		1.20E-03	06/19/90		6.82E-03		1.10E-03	06/19/90		6.82E-03		1.01E-03
	{	1.01E-03		{ 4.06E-04		{	1.05E-03		{ 3.96E-04		{	1.04E-03		{ 3.70E-04
07/03/90		1.06E-02		1.61E-03	07/03/90		1.00E-02		1.89E-03	07/03/90		1.01E-02		2.02E-03
	{	1.22E-03		{ 4.73E-04		{	1.18E-03		{ 4.89E-04		{	1.20E-03		{ 5.15E-04
07/17/90		1.18E-02		2.38E-03	07/17/90		1.46E-02		4.59E-03	07/17/90		1.34E-02		4.82E-03
	{	1.26E-03		{ 5.57E-04		{	1.37E-03		{ 7.50E-04		{	1.33E-03		{ 7.84E-04
07/31/90		1.37E-02		2.42E-03	07/31/90		1.58E-02		5.81E-04	07/31/90		1.85E-02		5.26E-03
	{	1.35E-03		{ 5.64E-04		{	1.42E-03		{ 5.81E-04		{	1.51E-03		{ 8.05E-04
08/14/90		2.33E-02		6.50E-03	08/14/90		2.54E-02		8.34E-03	08/14/90		2.54E-02		7.40E-03
	{	1.67E-03		{ 8.84E-04		{	1.73E-03		{ 1.02E-03		{	1.74E-03		{ 9.67E-04
08/28/90		1.44E-02		4.5E-03	08/28/90		1.35E-02		5.20E-03	08/28/90		1.41E-02		4.28E-03
	{	1.35E-03		{ 7.14E-04		{	1.34E-03		{ 8.03E-04		{	1.35E-03		{ 7.30E-03
09/11/90		2.44E-02		7.02E-03	09/11/90		2.34E-02		7.54E-03	09/11/90		2.18E-02		2.18E-02
	{	1.70E-03		{ 9.34E-04		{	1.68E-03		{ 9.77E-04		{	1.65E-03		{ 9.58E-03
09/24/90		2.23E-02		5.50E-03	09/24/90		2.35E-02		6.59E-03	09/24/90		2.25E-02		5.87E-03
	{	1.71E-03		{ 8.67E-04		{	1.72E-03		{ 2.11E-03		{	1.72E-03		{ 8.86E-04
10/09/90		2.33E-02		2.53E-03	10/09/90		2.37E-02		2.11E-03	10/09/90		2.17E-02		2.02E-03
	{	1.60E-03		{ 5.51E-04		{	1.61E-03		{ 5.00E-04		{	1.58E-03		{ 5.13E-04

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.  
 \* - Analyzed as part of a composite sample only.  
 1 - NO SAMPLE. PUMP UNPLUGGED.

6308 - 400 E

6455 - 400 W

6456 - 400 S

OFF DATE	COM	BETA	COM	ALPHA	OFF DATE	COM	BETA	COM	ALPHA	OFF DATE	COM	BETA	COM	ALPHA
10/23/90		1.11E-02		2.55E-03	10/23/90		1.10E-02		1.80E-03	10/23/90		1.12E-02		2.11E-03
	{	1.25E-03		{ 5.79E-04}		{	1.24E-03		{ 4.89E-04}		{	1.25E-03		{ 5.26E-04}
11/06/90		1.48E-02		2.84E-03	11/06/90		1.63E-02		2.82E-03	11/06/90		1.39E-02		2.61E-03
	{	1.39E-03		{ 5.92E-04}		{	1.43E-03		{ 6.09E-04}		{	1.35E-03		{ 5.85E-04}
11/20/90		1.64E-02		2.49E-03	11/20/90		1.97E-02		3.73E-03	11/20/90		2.02E-02		3.25E-03
	{	1.42E-03		{ 5.59E-04}		{	1.56E-03		{ 6.85E-04}		{	1.55E-03		{ 6.31E-04}
12/04/90		5.34E-03		6.90E-04	12/04/90		8.29E-03		1.51E-03	12/04/90		6.60E-03		1.43E-03
	{	9.64E-04}		{ 3.23E-04}		{	1.12E-03		{ 4.55E-04}		{	1.03E-03		{ 4.33E-04}
12/18/90		2.31E-02		2.56E-03	12/18/90		2.62E-02		2.41E-03	12/18/90		2.01E-02		1.78E-03
	{	1.67E-03		{ 5.82E-04}		{	1.73E-03		{ 5.48E-04}		{	1.57E-03		{ 4.85E-04}
12/31/90		4.23E-02		5.40E-03	12/31/90		4.16E-02		5.71E-03	12/31/90		3.66E-02		2.09E-03
	{	2.25E-03		{ 8.49E-04}		{	2.24E-03		{ 8.66E-04}		{	2.12E-03		{ 5.53E-04}
MEAN		1.66E-02		3.20E-03			1.68E-02		3.69E-03			1.66E-02		3.42E-03
MINIMUM		3.24E-03		6.90E-04			5.06E-03		1.07E-03			6.60E-03		1.01E-03
MAXIMUM		4.23E-02		7.02E-03			4.16E-02		8.34E-03			3.66E-02		7.40E-03
2STD.ERR		3.34E-03		9.68E-04			3.19E-03		1.18E-03			2.82E-03		1.06E-03

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.  
 \* - Analyzed as part of a composite sample only.

6457 - 400 N

OFF DATE	COM	BETA	COM	ALPHA
01/02/90		2.75E-02		3.37E-04
		{ 1.72E-03}		{ 2.56E-04}
01/16/90		1.28E-02	<	1.57E-04
		{ 1.28E-03}		{ 2.12E-04}
01/30/90		2.41E-02		4.07E-04
		{ 1.89E-03}		{ 3.04E-04}
02/13/90		6.31E-03		4.27E-04
		{ 1.02E-03}		{ 2.81E-04}
02/27/90		2.26E-02		3.83E-04
		{ 1.66E-03}		{ 2.78E-04}
03/13/90		2.14E-02		4.20E-04
		{ 1.59E-03}		{ 2.68E-04}
03/27/90		1.23E-02		2.55E-04
		{ 1.28E-03}		{ 2.32E-04}
04/10/90		2.10E-02		5.44E-04
		{ 1.61E-03}		{ 2.97E-04}
04/24/90	1	NR	NR	NR
		{ NR}		{ NR}
05/08/90		1.14E-02		5.55E-04
		{ 1.26E-03}		{ 2.94E-04}
05/22/90		8.71E-03		3.64E-04
		{ 1.14E-03}		{ 2.46E-04}
06/05/90		6.25E-03		1.32E-03
		{ 1.03E-03}		{ 4.30E-04}
06/19/90		6.89E-03		9.88E-04
		{ 9.86E-04}		{ 3.46E-04}
07/03/90		1.02E-02		1.88E-03
		{ 1.19E-03}		{ 4.91E-04}
07/17/90		1.05E-02		1.84E-03
		{ 1.21E-03}		{ 4.94E-04}
07/31/90		1.86E-02		6.39E-03
		{ 1.52E-03}		{ 8.94E-04}
08/14/90		2.44E-02		7.10E-03
		{ 1.70E-03}		{ 9.35E-04}
08/28/90		1.25E-02		2.03E-03
		{ 1.30E-03}		{ 5.21E-04}
09/11/90		2.38E-02		6.40E-03
		{ 1.72E-03}		{ 8.94E-04}
09/24/90		2.29E-02		5.30E-03
		{ 1.71E-03}		{ 8.34E-04}
10/09/90		2.42E-02		2.59E-03
		{ 1.63E-03}		{ 5.57E-04}

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.  
 \* - Analyzed as part of a composite sample only.  
 1 NO SAMPLE. PUMP UNPLUGGED.

6457 - 400 N

OFF DATE	COM	BETA	COM	ALPHA
10/23/90		1.05E-02		1.83E-03
	{	1.21E-03	{	5.00E-04
11/06/90		1.64E-02		2.52E-03
	{	1.43E-03	{	5.70E-04
11/20/90		1.97E-02		3.07E-03
	{	1.56E-03	{	6.31E-04
12/04/90		6.10E-03		1.74E-03
	{	1.02E-03	{	4.70E-04
12/18/90		2.49E-02		3.30E-03
	{	1.70E-03	{	6.40E-04
12/31/90		3.42E-02		4.99E-03
	{	2.01E-03	{	8.06E-04
MEAN		1.69E-02		3.33E-03
MINIMUM		6.10E-03		9.88E-04
MAXIMUM		3.42E-02		7.10E-03
2STD.ERR		3.06E-03		1.01E-03

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.  
 \* - Analyzed as part of a composite sample only.

6465 400 AREA - 400 E, 400 W, 400 S, 400 N (PARTICULATE, FILTER-1)

OFF DATE	COM	SR 90	RU 106	CS 137	PU 238	PU23940
01/02/90		< 2.05E-05 { 3.59E-05}	< 1.04E-03 { 5.09E-03}	< 1.01E-04 { 4.89E-04}	< -1.00E-07 { 0.00E+00}	< -1.69E-07 { 5.42E-07}
01/30/90		nra	< -2.14E-03 { 5.90E-03}	< 8.95E-05 { 3.95E-04}	nra	nra
02/27/90		nra	< -6.48E-03 { 5.96E-03}	< 3.30E-04 { 7.59E-04}	nra	nra
03/27/90		< -1.73E-05 { 1.74E-05}	< -4.43E-03 { 4.96E-03}	< 4.28E-04 { 5.59E-04}	< 7.90E-07 { 8.98E-07}	< 2.62E-07 { 7.53E-07}
04/24/90	1	nra	< -2.56E-04 { 5.82E-03}	< 4.11E-04 { 7.75E-04}	nra	nra
07/03/90		nra	< 3.14E-03 { 1.08E-02}	< 1.66E-04 { 5.17E-04}	nra	nra
07/31/90		nra	< -3.32E-03 { 1.03E-02}	< 3.64E-04 { 5.69E-04}	nra	nra
08/28/90		nra	< 1.05E-03 { 8.64E-03}	< -1.10E-04 { 5.24E-04}	nra	nra
09/24/90		< 2.45E-05 { 3.21E-05}	< -1.00E-03 { 9.26E-03}	< 3.87E-04 { 4.23E-04}	< 4.58E-07 { 6.66E-07}	< 3.20E-07 { 5.49E-07}
11/06/90		nra	< -1.35E-02 { 3.15E-02}	< 2.96E-04 { 3.48E-03}	nra	nra
12/04/90		nra	< 5.03E-03 { 6.47E-03}	< -2.26E-04 { 4.56E-04}	nra	nra
12/31/90		< -2.17E-06 { 1.49E-05}	< 3.18E-03 { 6.84E-03}	< 5.08E-04 { 6.13E-04}	< 2.88E-08 { 3.54E-07}	2.00E-06 { 1.19E-06}
MEAN		6.38E-06	-1.47E-03	2.29E-04	2.94E-07	6.03E-07
MINIMUM		< -1.73E-05	< -1.35E-02	< -2.26E-04	< -1.00E-07	< -1.69E-07
MAXIMUM		< 2.45E-05	< 5.03E-03	< 5.08E-04	< 7.90E-07	2.00E-06
2STD.ERR		1.97E-05	2.92E-03	1.31E-04	4.08E-07	9.56E-07

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 nra - No result reported.  
 1 - Not routinely analyzed or analyzed on a less frequent basis.  
 Comment for sample 6308 on 04/24/90  
 NO SAMPLE. PUMP UNPLUGGED.  
 Comment for sample 6457 on 04/24/90  
 NO SAMPLE. PUMP UNPLUGGED.

0035 - HANFORD TOWNSITE \*

0057 - HANFORD TOWNSITE

OFF DATE	COM	BETA	COM	ALPHA
01/09/90		1.35E-02	<	2.76E-04
		{ 1.40E-03}		{ 2.76E-04}
01/23/90		2.47E-02		2.55E-04
		{ 1.72E-03}		{ 2.44E-04}
02/07/90		4.21E-03	<	-5.26E-05
		{ 8.67E-04}		{ 1.15E-04}
02/21/90		2.16E-02		1.91E-03
		{ 1.62E-03}		{ 5.08E-04}
03/07/90		2.58E-02		4.87E-04
		{ 1.74E-03}		{ 3.03E-04}
03/21/90		1.16E-02	<	1.93E-04
		{ 1.25E-03}		{ 2.15E-04}
04/04/90		2.52E-02		6.56E-04
		{ 1.72E-03}		{ 3.32E-04}
04/18/90		1.68E-02		1.71E-03
		{ 1.45E-03}		{ 4.92E-04}
05/02/90		5.75E-03		3.59E-04
		{ 9.86E-04}		{ 2.74E-04}
05/16/90		8.77E-03		3.00E-04
		{ 1.14E-03}		{ 2.51E-04}

MEAN	1.58E-02	6.09E-04
MINIMUM	4.21E-03	< -5.26E-05
MAXIMUM	2.58E-02	1.91E-03
2STD.ERR	5.21E-03	4.18E-04

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.  
 \* - Analyzed as part of a composite sample only.

OFF DATE	COM	SR 90	RU 106	CS 137	U 234	U 235	U 238	U-ISO T	PU 238
02/07/90		nra	7.38E-03 { 7.03E-03}	< -2.84E-04 { 6.98E-04}	nra	nra	nra	nra	nra
03/07/90		nra	< 0.00E+00 { 1.08E-02}	< -4.25E-04 { 1.05E-03}	nra	nra	nra	nra	nra
04/04/90		< -2.23E-05 { 4.90E-05}	< 8.89E-04 { 9.34E-03}	< 3.12E-04 { 9.18E-04}	1.59E-05 { 5.63E-06}	< 1.75E-06 { 1.76E-06}	1.48E-05 { 5.58E-06}	3.24E-05 { 8.12E-06}	< -3.20E-07 { 2.40E-07}
05/02/90		nra	< 1.67E-03 { 7.89E-03}	< 0.00E+00 { 1.22E-03}	nra	nra	nra	nra	nra
MEAN		-2.23E-05	2.48E-03	-9.93E-05	1.59E-05	1.75E-06	1.48E-05	3.24E-05	-3.20E-07
MINIMUM		< -2.23E-05	< 0.00E+00	< -4.25E-04	1.59E-05	< 1.75E-06	1.48E-05	3.24E-05	< -3.20E-07
MAXIMUM		< -2.23E-05	7.38E-03	< 3.12E-04	1.59E-05	< 1.75E-06	1.48E-05	3.24E-05	< -3.20E-07
2STD.ERR		0.00E+00	3.33E-03	3.26E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

< - Result less than detection limit.  
{ } - Uncertainty for result.  
NR - No result reported.  
nra - Not routinely analyzed or analyzed on a less frequent basis.



0600 HANFORD TOWNSITE - HANFORD TOWNSITE, HANFORD TOWNSITE (PARTICULATE, FILTER-1)

OFF DATE COM	PU23940
02/07/90	n/a
03/07/90	n/a
04/04/90	< 4.54E-07
05/02/90	{ 8.80E-07 } n/a
MEAN	4.54E-07
MINIMUM	< 4.54E-07
MAXIMUM	< 4.54E-07
2STD.ERR	0.00E+00

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 n/a - Not routinely analyzed or analyzed on a less frequent basis.

SURFACE ENVIRONMENTAL SURVEILLANCE DATA REPORT - 123089 TO 010491  
AIR SAMPLE COMPOSITE PARTS - PCI/M3

0036 - WYE BARRICADE \*

0924 - WYE BARRICADE

OFF DATE	COM	BETA	COM	ALPHA
01/09/90		1.39E-02	<	1.75E-04
	{	1.45E-03}	{	2.59E-04}
01/23/90		2.45E-02		3.63E-04
	{	1.74E-03}	{	2.69E-04}
02/07/90		4.27E-03	<	8.18E-06
	{	8.51E-04}	{	1.60E-04}
02/21/90		1.91E-02		1.02E-03
	{	1.54E-03}	{	3.90E-04}
03/07/90		2.75E-02		6.99E-04
	{	1.83E-03}	{	3.43E-04}
03/21/90		1.23E-02		5.85E-04
	{	1.29E-03}	{	3.06E-04}
04/04/90		2.35E-02		9.25E-04
	{	1.69E-03}	{	3.76E-04}
04/18/90		1.70E-02		1.19E-03
	{	1.47E-03}	{	4.23E-04}
05/02/90		7.40E-03		3.05E-04
	{	1.07E-03}	{	2.65E-04}
05/16/90		9.55E-03		5.38E-04
	{	1.17E-03}	{	2.92E-04}
MEAN		1.59E-02		5.81E-04
MINIMUM		4.27E-03	<	8.18E-06
MAXIMUM		2.75E-02		1.19E-03
2STD.ERR		4.91E-03		2.42E-04

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.  
 \* - Analyzed as part of a composite sample only.

SURFACE ENVIRONMENTAL SURVEILLANCE DATA REPORT - 123089 TO 010491  
AIR COMPOSITED SAMPLES - PCI/M3

0601 WYE BARRICADE - WYE BARRICADE, WYE BARRICADE (PARTICULATE, FILTER-1)

OFF DATE	COM	SR 90	RU 106	CS 137	U 234	U 235	U 238	U-ISO T	PU 238
02/07/90		nra	9.51E-03 { 7.03E-03}	< 1.50E-04 { 7.37E-04}	nra	nra	nra	nra	nra
03/07/90		nra	< 1.80E-04 { 1.10E-02}	< 1.90E-04 { 8.98E-04}	nra	nra	nra	nra	nra
04/04/90		< 6.90E-06 { 5.52E-05}	< 4.28E-03 { 1.05E-02}	< -4.13E-04 { 1.02E-03}	1.36E-05 { 5.39E-06}	< 5.83E-07 { 1.62E-06}	1.16E-05 { 4.94E-06}	2.58E-05 { 7.49E-06}	< -2.03E-07 { 0.00E+00}
05/02/90		nra	< 1.96E-03 { 9.62E-03}	< 7.05E-04 { 1.12E-03}	nra	nra	nra	nra	nra
MEAN		6.90E-06	3.98E-03	1.58E-04	1.36E-05	5.83E-07	1.16E-05	2.58E-05	-2.03E-07
MINIMUM		< 6.90E-06	< 1.80E-04	< -4.13E-04	1.36E-05	< 5.83E-07	1.16E-05	2.58E-05	< -2.03E-07
MAXIMUM		< 6.90E-06	9.51E-03	< 7.05E-04	1.36E-05	< 5.83E-07	1.16E-05	2.58E-05	< -2.03E-07
2STD.ERR		0.00E+00	4.05E-03	4.57E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

< - Result less than detection limit.  
{ } - Uncertainty for result.  
NR - No result reported.  
nra - Not routinely analyzed or analyzed on a less frequent basis.

0601 WYE BARRICADE - WYE BARRICADE, WYE BARRICADE (PARTICULATE, FILTER-1)

OFF DATE COM	PU23940
02/07/90	nra
03/07/90	nra
04/04/90	< 2.74E-07 { 5.98E-07}
05/02/90	nra
MEAN	2.74E-07
MINIMUM	< 2.74E-07
MAXIMUM	< 2.74E-07
2STD.ERR	0.00E+00

< - Result less than detection limit.  
 {} - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.

1405 - BERG RANCH

0048 - RINGOLD MET TOWER

0047 - SAGEHILL MET TOWER

OFF DATE	COM	BETA	COM	ALPHA	OFF DATE	COM	BETA	COM	ALPHA	OFF DATE	COM	BETA	COM	ALPHA
01/04/90		2.26E-02	<	2.09E-04	01/04/90		2.21E-02		4.49E-04	01/04/90		2.23E-02		7.67E-04
	{	1.62E-03	{	2.24E-04		{	1.51E-03	{	2.53E-04		{	1.59E-03	{	3.20E-04
01/18/90		1.88E-02	<	1.66E-04	01/18/90		2.23E-02		8.10E-04	01/18/90		1.71E-02		4.05E-04
	{	1.48E-03	{	2.52E-04		{	1.55E-03	{	3.24E-04		{	1.46E-03	{	2.70E-04
02/01/90		2.67E-03	<	-5.39E-05	02/01/90		3.09E-02		1.15E-03	02/01/90		2.88E-03	<	1.36E-04
	{	8.03E-04	{	1.54E-04		{	1.89E-03	{	4.08E-04		{	8.36E-04	{	2.14E-04
02/15/90	1	{NR}		{NR}	02/15/90		6.69E-03		5.68E-04	02/15/90		6.44E-03		5.12E-04
	{NR}			{NR}		{	1.03E-03	{	3.08E-04		{	1.05E-03	{	3.08E-04
03/01/90		4.68E-02		2.18E-03	03/01/90		8.44E-02		3.85E-03	03/01/90		5.39E-02		3.19E-03
	{	2.25E-03	{	5.43E-04		{	3.01E-03	{	7.04E-04		{	2.36E-02	{	6.11E-04
03/15/90		3.23E-02		1.19E-03	03/15/90		5.07E-02		2.53E-03	03/15/90		3.29E-02		3.29E-02
	{	1.92E-03	{	4.05E-04		{	2.34E-03	{	5.80E-04		{	1.94E-03	{	4.83E-04
03/29/90		1.81E-02		8.36E-04	03/29/90		1.74E-02		3.01E-04	03/29/90		1.92E-02		6.16E-04
	{	1.54E-03	{	3.78E-04		{	1.47E-03	{	2.40E-04		{	1.54E-03	{	3.21E-04
04/12/90		2.22E-02		4.98E-04	04/12/90		2.49E-02		9.41E-04	04/12/90		1.95E-02		7.50E-04
	{	1.63E-03	{	2.91E-04		{	1.73E-03	{	3.90E-04		{	1.55E-03	{	3.57E-04
04/26/90		8.23E-03	<	1.93E-04	04/26/90		1.05E-02		5.08E-04	04/26/90		9.70E-03		4.18E-04
	{	1.11E-03	{	2.40E-04		{	1.21E-03	{	2.87E-04		{	1.17E-03	{	2.85E-04
05/10/90		9.74E-03		6.67E-04	05/10/90		1.08E-02		8.89E-04	05/10/90		1.11E-02		8.19E-04
	{	1.21E-03	{	3.19E-04		{	1.23E-03	{	3.48E-04		{	1.26E-03	{	3.48E-04
05/24/90		7.71E-03		3.38E-04	05/24/90		9.43E-03		2.79E-04	05/24/90		9.18E-03		5.65E-04
	{	1.09E-03	{	2.40E-04		{	1.16E-03	{	2.27E-04		{	1.19E-03	{	2.97E-04
06/07/90		6.56E-03		1.49E-03	06/07/90		6.48E-03		1.40E-03	06/07/90		7.64E-03		8.77E-04
	{	1.04E-03	{	4.41E-04		{	1.04E-03	{	4.41E-04		{	1.09E-03	{	3.64E-04
06/21/90		7.08E-03		1.31E-03	06/21/90		9.11E-03		1.08E-03	06/21/90		8.12E-03		1.78E-03
	{	1.09E-03	{	4.39E-04		{	1.16E-03	{	3.83E-04		{	1.12E-03	{	4.90E-04
07/05/90		1.11E-02		1.75E-03	07/05/90		1.13E-02		1.11E-03	07/05/90		1.06E-02		1.29E-03
	{	1.24E-03	{	4.98E-04		{	1.26E-03	{	4.00E-04		{	1.22E-03	{	4.28E-04
07/19/90		1.15E-02		1.51E-03	07/19/90		1.38E-02		3.12E-03	07/19/90		9.91E-03		1.27E-03
	{	1.25E-03	{	4.53E-04		{	1.35E-03	{	6.44E-04		{	1.18E-03	{	4.21E-04
08/02/90		1.69E-02		3.03E-03	08/02/90		1.75E-02		3.94E-03	08/02/90		1.72E-02		1.31E-03
	{	1.44E-03	{	6.31E-04		{	1.45E-03	{	7.01E-04		{	1.47E-03	{	4.31E-04
08/16/90		2.39E-02		6.60E-03	08/16/90		2.08E-02		4.14E-03	08/16/90		2.02E-02		3.74E-03
	{	1.69E-03	{	8.98E-04		{	1.60E-02	{	7.19E-04		{	1.58E-03	{	6.85E-04
08/30/90		1.69E-02		4.96E-03	08/30/90		1.58E-02		4.39E-03	08/30/90		1.44E-02		2.40E-03
	{	1.43E-03	{	7.64E-04		{	1.37E-03	{	7.09E-04		{	1.31E-03	{	5.43E-04
09/13/90		2.46E-02		6.71E-03	09/13/90		2.06E-02		3.62E-03	09/13/90		2.04E-02		2.42E-03
	{	1.72E-03	{	9.23E-04		{	1.60E-03	{	6.81E-04		{	1.58E-03	{	5.75E-04
09/27/90		2.23E-02		2.97E-03	09/27/90		2.23E-02		2.66E-03	09/27/90		4.21E-02		3.68E-03
	{	1.64E-03	{	5.16E-04		{	1.64E-03	{	5.99E-04		{	2.17E-03	{	6.80E-04
10/11/90		1.77E-02		3.16E-03	10/11/90		1.73E-02		1.84E-03	10/11/90		1.72E-02		1.58E-03
	{	1.47E-03	{	6.43E-04		{	1.46E-03	{	4.95E-04		{	1.45E-03	{	4.69E-04

< - Result less than detection limit.

{ } - Uncertainty for result.

NR - No result reported.

nra - Not routinely analyzed or analyzed on a less frequent basis.

\* - Analyzed as part of a composite sample only.

1 NO SAMPLE. CHARCOAL CARTRIDGE LEFT OPEN.

1405 - BERG RANCH

0048 - RINGOLD MET TOWER

0047 - SAGEHILL MET TOWER

OFF DATE	COM	BETA	COM	ALPHA	OFF DATE	COM	BETA	COM	ALPHA	OFF DATE	COM	BETA	COM	ALPHA
10/25/90		1.21E-02		2.66E-03	10/25/90		1.44E-02		2.02E-03	10/25/90		1.53E-02		1.08E-03
	{	1.28E-03	{	5.85E-04		{	1.40E-03	{	5.32E-04		{	1.40E-03	{	3.96E-04
11/08/90		1.35E-02		2.11E-03	11/09/90		1.35E-02		1.52E-03	11/08/90		1.27E-02		1.19E-03
	{	1.34E-03	{	5.17E-04		{	1.29E-03	{	4.40E-04		{	1.31E-03	{	3.99E-04
11/21/90		1.72E-02		2.43E-03	11/21/90		1.94E-02		4.15E-03	11/21/90		1.48E-02		1.39E-03
	{	1.53E-03	{	5.89E-04		{	1.61E-03	{	7.41E-04		{	1.44E-03	{	4.60E-04
12/06/90		4.86E-03		7.79E-04	12/06/90		4.90E-03		5.32E-04	12/06/90		6.94E-03		9.94E-04
	{	9.01E-04	{	3.45E-04		{	9.17E-04	{	2.88E-04		{	1.00E-03	{	3.65E-04
12/20/90		2.44E-02		1.87E-03	12/20/90		2.47E-02		3.91E-03	12/20/90		2.42E-02		3.44E-03
	{	1.71E-03	{	4.99E-04		{	1.74E-03	{	7.25E-04		{	1.68E-03	{	6.70E-04
01/02/91		4.83E-02		5.61E-03	01/02/91		4.51E-02		3.36E-03	01/02/91		4.32E-02		3.39E-03
	{	2.36E-03	{	8.73E-04		{	2.25E-03	{	6.63E-04		{	2.27E-03	{	6.76E-04
MEAN		1.80E-02		3.06E-03			2.10E-02		2.67E-03			1.81E-02		1.99E-03
MINIMUM		2.67E-03		7.79E-04			4.90E-03		5.32E-04			2.88E-03		8.77E-04
MAXIMUM		4.83E-02		6.71E-03			8.44E-02		4.39E-03			5.39E-02		3.74E-03
2STD.ERR		4.44E-03		9.46E-04			6.36E-03		6.53E-04			4.69E-03		5.18E-04

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.  
 \* - Analyzed as part of a composite sample only.

SURFACE ENVIRONMENTAL SURVEILLANCE DATA REPORT - 123089 TO 010491  
AIR COMPOSITED SAMPLES - PCI/M3

0602 NORTHEAST PERIMETE - BERG RANCH, RINGOLD MET TOWER, SAGEHILL MET TOWER (PARTICULATE, FILTER-1)

OFF DATE	COM	SR 90	RU 106	CS 137	PU 238	PU23940
01/04/90		< -2.28E-06 { 3.98E-05}	5.75E-03 { 4.84E-03}	< 6.85E-05 { 7.19E-04}	< -1.95E-09 { 4.71E-07}	< -1.04E-07 { 1.74E-07}
02/01/90		nra	< -1.63E-03 { 6.33E-03}	< -5.34E-04 { 7.19E-04}	nra	nra
03/01/90	1	nra	< -1.16E-02 { 9.41E-03}	< 4.34E-04 { 9.02E-04}	nra	nra
03/29/90		< 1.54E-05 { 3.98E-05}	< 6.02E-04 { 6.32E-03}	< -2.51E-04 { 7.29E-04}	< -2.12E-07 { 6.00E-07}	< -2.00E-08 { 0.00E+00}
04/26/90		nra	< -6.05E-04 { 7.23E-03}	< -3.92E-04 { 8.33E-04}	nra	nra
07/05/90		nra	< -9.19E-04 { 1.10E-02}	< -2.95E-04 { 9.14E-04}	nra	nra
08/02/90		nra	< -2.24E-03 { 8.30E-03}	< -3.59E-04 { 9.43E-04}	nra	nra
08/30/90		nra	< 7.99E-04 { 8.40E-03}	< -1.35E-05 { 6.91E-04}	nra	nra
09/27/90		< -1.22E-06 { 4.68E-05}	< 9.19E-03 { 9.92E-03}	< -1.65E-03 { 8.77E-04}	< 5.02E-07 { 7.57E-07}	< 7.97E-07 { 8.77E-07}
10/25/90		nra	< 8.92E-04 { 8.56E-03}	< 1.39E-05 { 8.48E-04}	nra	nra
12/06/90		nra	< -6.41E-04 { 4.55E-03}	< -3.10E-04 { 5.32E-04}	nra	nra
01/02/91		< -1.51E-05 { 3.73E-05}	< 5.09E-03 { 5.94E-03}	< -5.73E-04 { 8.18E-04}	< -1.84E-07 { 1.00E-07}	< 3.84E-07 { 5.66E-07}
MEAN		-8.00E-07	3.91E-04	-3.22E-04	2.60E-08	2.64E-07
MINIMUM		< -1.51E-05	< -1.16E-02	< -1.65E-03	< -2.12E-07	< -1.04E-07
MAXIMUM		< 1.54E-05	< 9.19E-03	< 4.34E-04	< 5.02E-07	< 7.97E-07
2STD.ERR		1.25E-05	2.95E-03	2.92E-04	3.31E-07	4.14E-07

< - Result less than detection limit.  
{ } - Uncertainty for result.  
NR - No result reported.  
nra - Not routinely analyzed or analyzed on a less frequent basis.  
1 Comment for sample 1405 on 02/15/90  
NO SAMPLE. CHARCOAL CARTRIDGE LEFT OPEN.

6391 - W END OF FIR ROAD

6351 - PETTEIT FARM

OFF DATE	COM	BETA	COM	ALPHA	OFF DATE	COM	BETA	COM	ALPHA
01/10/90		7.21E-03		3.02E-04	01/10/90		9.12E-03		1.63E-04
	{	1.11E-03	{	2.69E-04		{	1.22E-03	{	2.43E-04
01/24/90		2.74E-02		7.78E-04	01/24/90		2.80E-02		5.71E-04
	{	1.80E-03	{	3.39E-04		{	1.80E-03	{	3.08E-04
02/07/90		3.23E-03		1.63E-04	02/07/90		5.59E-03		5.91E-05
	{	9.88E-04	<	2.41E-04		{	9.73E-04	<	1.68E-04
02/21/90		1.69E-02		8.74E-04	02/21/90		1.81E-02		9.24E-04
	{	1.45E-03	{	3.70E-04		{	1.48E-03	{	3.70E-04
03/07/90		2.53E-02		5.77E-04	03/07/90		2.37E-02		3.91E-04
	{	1.70E-03	{	3.10E-04		{	1.69E-03	{	2.62E-04
03/21/90		1.07E-02		5.32E-04	03/21/90		1.18E-02		2.41E-04
	{	1.20E-03	{	2.97E-04		{	1.27E-03	{	2.36E-04
04/04/90		2.23E-02		9.03E-04	04/04/90		2.21E-02		8.34E-04
	{	1.61E-03	{	3.81E-04		{	1.63E-03	{	3.47E-04
04/18/90		1.18E-02		7.33E-04	04/18/90		1.57E-02		9.38E-04
	{	1.25E-03	{	3.49E-04		{	1.41E-03	{	3.89E-04
05/02/90		7.70E-03		1.50E-04	05/02/90		6.76E-03		2.50E-04
	{	1.09E-03	<	1.50E-04		{	6.76E-03	{	2.42E-04
05/16/90		8.33E-03		2.15E-04	05/16/90		8.70E-03		4.72E-04
	{	1.10E-03	{	2.07E-04		{	1.14E-03	{	2.68E-04
06/13/90		2.86E-03		5.01E-04	06/13/90		4.37E-03		3.81E-04
	{	9.65E-04	{	3.10E-04		{	9.22E-04	{	2.67E-04
06/27/90		1.30E-02		1.98E-03	06/27/90		1.08E-02		1.30E-03
	{	1.97E-03	{	7.26E-04		{	1.21E-03	{	4.19E-04
07/11/90		9.43E-03		1.40E-03	07/11/90		1.02E-02		1.92E-03
	{	1.15E-03	{	4.33E-04		{	1.20E-03	{	5.12E-04
07/20/90		9.52E-03		1.42E-03	07/25/90		1.65E-02		3.05E-03
	{	1.54E-03	{	5.69E-04		{	1.46E-03	{	6.17E-04
08/08/90		1.22E-02		3.07E-03	08/08/90		1.86E-02		3.12E-03
	{	1.07E-03	{	5.28E-04		{	1.51E-03	{	6.32E-04
08/22/90		1.91E-02		4.41E-03	08/22/90		2.03E-02		3.24E-03
	{	1.53E-03	{	7.49E-04		{	1.59E-03	{	6.31E-04
09/05/90		1.55E-02		3.68E-03	09/05/90		1.49E-02		3.07E-03
	{	1.42E-03	{	6.70E-04		{	1.39E-03	{	6.24E-04
09/19/90		2.08E-02		3.82E-03	09/19/90		2.22E-02		4.14E-03
	{	1.60E-03	{	6.94E-04		{	1.62E-03	{	7.20E-04
10/03/90		2.69E-02		3.02E-03	10/03/90		2.98E-02		3.06E-03
	{	1.72E-03	{	6.08E-04		{	1.86E-03	{	6.33E-04
10/17/90		1.41E-02		2.34E-03	10/17/90		1.48E-02		3.00E-03
	{	1.33E-03	{	5.50E-04		{	1.40E-03	{	6.14E-04
10/31/90		1.32E-02		9.87E-04	10/31/90		1.47E-02		2.24E-03
	{	1.33E-03	{	3.67E-04		{	1.37E-03	{	5.41E-04

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.  
 \* - Analyzed as part of a composite sample only.



SURFACE ENVIRONMENTAL SURVEILLANCE DATA REPORT - 123089 TO 010491  
AIR SAMPLE COMPOSITE PARTS - PCI/M3

6391 - W END OF FIR ROAD

6351 - PETTETT FARM

OFF DATE	COM	BETA	COM	ALPHA	OFF DATE	COM	BETA	COM	ALPHA
11/14/90		1.21E-02		2.25E-03	11/14/90		1.36E-02		1.70E-03
	{	1.28E-03	{	5.43E-04		{	1.33E-03	{	4.73E-04
11/28/90		1.07E-02		8.88E-04	11/28/90		1.05E-02		6.68E-04
	{	1.23E-03	{	3.49E-04		{	1.21E-03	{	3.29E-04
12/12/90		1.79E-02		6.50E-04	12/12/90		1.53E-02		1.45E-03
	{	1.50E-03	{	3.22E-04		{	1.43E-03	{	4.43E-04
12/27/90		3.95E-02		3.31E-03	12/27/90		3.71E-02		2.20E-03
	{	2.01E-03	{	6.24E-04		{	2.00E-03	{	5.26E-04
01/02/91	1	NR		NR	01/02/91	2	NR		NR
	{	NR	{	NR		{	NR	{	NR
MEAN		1.51E-02		2.25E-03			1.61E-02		2.30E-03
MINIMUM		2.86E-03		5.01E-04			4.37E-03		3.81E-04
MAXIMUM		3.95E-02		4.41E-03			3.71E-02		4.14E-03
2STD.ERR		3.36E-03		6.49E-04			3.15E-03		5.48E-04

< - Result less than detection limit.  
{ } - Uncertainty for result.  
nr - No result reported.  
\* - Not routinely analyzed or analyzed on a less frequent basis.  
1 NO SAMPLE. LOW EXPOSURE HOURS.  
2 NO SAMPLE. LOW EXPOSURE HOURS.

0303 EAST PERIMETER - W END OF FIR ROAD, PETTETT FARM (PARTICULATE, FILTER-1)

OFF DATE	COM	SR 90	RU 106	CS 137	U 234	U 235	U 238	U-ISO T	PU 238
02/07/90		nra	< -3.65E-03 { 6.90E-03}	< 1.60E-04 { 7.83E-04}	nra	nra	nra	nra	nra
03/07/90		nra	< 7.93E-03 { 8.24E-03}	< 8.20E-04 { 9.41E-04}	nra	nra	nra	nra	nra
04/04/90		< -2.12E-05 { 4.94E-05}	< 3.19E-03 { 1.06E-02}	< -7.21E-04 { 1.10E-03}	3.00E-05 < { 7.24E-06}	2.01E-06 { 2.11E-06}	2.75E-05 { 6.88E-06}	5.95E-05 { 1.02E-05}	< 6.46E-07 { 1.16E-06}
05/02/90		nra	< 5.40E-03 { 1.07E-02}	< -1.52E-04 { 1.08E-03}	nra	nra	nra	nra	nra
06/27/90		nra	< 1.71E-02 { 1.91E-02}	< -5.70E-04 { 1.39E-03}	nra	nra	nra	nra	nra
07/25/90		nra	< -7.82E-03 { 1.99E-02}	< 1.18E-03 { 1.57E-03}	nra	nra	nra	nra	nra
09/05/90		nra	< 3.53E-03 { 1.22E-02}	< 1.28E-04 { 6.04E-04}	nra	nra	nra	nra	nra
10/03/90		< -5.82E-06 { 5.41E-05}	< 3.45E-03 { 1.01E-02}	< 1.03E-04 { 1.09E-03}	5.53E-05 { 8.79E-06}	2.29E-06 { 1.78E-06}	3.00E-05 { 6.57E-06}	8.76E-05 { 1.11E-05}	< -2.00E-07 { 0.00E+00}
10/31/90		nra	< -5.00E-03 { 1.22E-02}	< 7.41E-04 { 1.31E-03}	nra	nra	nra	nra	nra
11/28/90		nra	< 2.19E-03 { 1.07E-02}	< -7.33E-05 { 1.18E-03}	nra	nra	nra	nra	nra
01/02/91		< -4.16E-05 { 6.32E-05}	< -2.16E-03 { 1.06E-02}	< 0.00E+00 { 1.08E-03}	3.82E-05 < { 9.44E-06}	2.36E-06 { 2.33E-06}	3.42E-05 { 8.92E-06}	7.48E-05 { 1.32E-05}	< -2.16E-07 { 0.00E+00}
MEAN		-2.39E-05	2.20E-03	1.47E-04	4.12E-05	2.22E-06	3.06E-05	7.40E-05	7.67E-08
MINIMUM		< -4.16E-05	< -7.82E-03	< -7.21E-04	3.00E-05	< 2.01E-06	2.75E-05	5.95E-05	< -2.16E-07
MAXIMUM		< -8.82E-06	< 1.71E-02	< 1.18E-03	5.53E-05	< 2.36E-06	3.42E-05	8.76E-05	< 6.46E-07
2STD.ERR		1.91E-05	4.16E-03	3.47E-04	1.49E-05	2.14E-07	3.91E-06	1.62E-05	5.69E-07

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.

SURFACE ENVIRONMENTAL SURVEILLANCE DATA REPORT - 123089 TO 010491  
AIR COMPOSITED SAMPLES - PCI/M3

0603 EAST PERIMETER - W END OF FIR ROAD, PETTETT FARM (PARTICULATE, FILTER-1)

OFF DATE	COM	PU23940
02/07/90		nra
03/07/90		nra
04/04/90		< 1.48E-06 { 1.48E-06}
05/02/90		nra
06/27/90		nra
07/25/90		nra
09/05/90		nra
10/03/90		< 1.12E-06 { 1.23E-06}
10/31/90		nra
11/28/90		nra
01/02/91		< 1.21E-06 { 1.33E-06}
MEAN		1.27E-06
MINIMUM		< 1.12E-06
MAXIMUM		< 1.48E-06
2STD.ERR		2.16E-07

< - Result less than detection limit.  
{ } - Uncertainty for result.  
NR - No result reported.  
nra - Not routinely analyzed or analyzed on a less frequent basis.

SURFACE ENVIRONMENTAL SURVEILLANCE DATA REPORT - 123089 TO 010491  
AIR SAMPLE COMPOSITE PARTS - PCI/M3

0247 - BYERS LANDING

OFF DATE	COM	BETA	COM	ALPHA
01/10/90		1.14E-02		4.71E-04
	{	1.34E-03		{ 3.22E-04}
01/24/90		3.12E-02		1.30E-03
	{	1.89E-03		{ 4.34E-04}
02/07/90		5.66E-03		5.04E-04
	{	9.88E-04		{ 2.93E-04}
02/21/90		1.54E-02		1.78E-03
	{	1.41E-03		{ 5.00E-04}
03/07/90		3.05E-02		7.36E-04
	{	1.87E-03		{ 3.44E-04}
03/21/90		1.34E-02		5.41E-04
	{	1.32E-03		{ 2.95E-04}
04/04/90		2.85E-02		1.13E-03
	{	1.81E-03		{ 4.09E-04}
04/18/90		1.67E-02		1.33E-03
	{	1.44E-03		{ 4.24E-04}
05/02/90		6.64E-03		3.56E-05
	{	1.04E-03		{ 1.79E-04}
05/16/90		8.18E-03		2.11E-04
	{	1.11E-03		{ 2.11E-04}
06/13/90		3.34E-03		9.90E-04
	{	8.91E-04		{ 3.80E-04}
06/27/90		8.76E-03		9.97E-04
	{	1.14E-03		{ 3.66E-04}
07/11/90		1.03E-02		3.15E-03
	{	1.24E-03		{ 6.54E-04}
07/25/90		1.33E-02		1.75E-03
	{	1.33E-03		{ 4.82E-04}
08/08/90		1.57E-02		2.92E-03
	{	1.45E-03		{ 6.29E-04}
08/22/90		1.81E-02		4.23E-03
	{	1.49E-03		{ 7.22E-04}
09/05/90		1.39E-03		3.67E-03
	{	1.39E-03		{ 6.85E-04}
09/19/90		2.35E-02		3.85E-03
	{	1.68E-03		{ 6.86E-04}
10/03/90		2.39E-02		2.97E-03
	{	1.69E-03		{ 6.24E-04}
10/17/90		1.37E-02		3.12E-03
	{	1.34E-03		{ 6.28E-04}

6182 - BATTELLE COMPLEX

OFF DATE	COM	BETA	COM	ALPHA
01/10/90		1.02E-02		3.64E-04
	{	1.22E-03		{ 2.67E-04}
01/24/90		3.00E-02		8.81E-04
	{	1.87E-03		{ 3.61E-04}
02/07/90		5.37E-03		< -2.35E-05
	{	9.74E-04		{ 1.75E-04}
02/21/90		1.72E-02		8.63E-04
	{	1.48E-03		{ 3.74E-04}
03/07/90		2.85E-02		5.74E-04
	{	1.85E-03		{ 3.11E-04}
03/21/90		1.48E-02		5.95E-04
	{	1.39E-03		{ 3.04E-04}
04/04/90		2.82E-02		6.96E-04
	{	1.82E-03		{ 3.42E-04}
04/18/90		1.66E-02		1.38E-03
	{	1.46E-03		{ 4.40E-04}
05/02/90		6.15E-03		< 1.82E-04
	{	1.01E-03		{ 2.32E-04}
05/16/90		8.13E-03		< 8.96E-05
	{	1.12E-03		{ 1.80E-04}
06/13/90		4.13E-03		1.03E-03
	{	8.75E-04		{ 3.77E-04}
06/27/90		9.74E-03		1.46E-03
	{	1.18E-03		{ 4.41E-04}
07/11/90		1.05E-02		3.04E-03
	{	1.23E-03		{ 6.31E-04}
07/25/90		1.88E-02		4.31E-03
	{	1.52E-03		{ 7.28E-04}
08/08/90		2.10E-02		4.43E-03
	{	1.60E-03		{ 7.49E-04}
08/22/90		2.21E-02		5.04E-03
	{	1.60E-03		{ 7.76E-04}
09/05/90		1.61E-02		5.07E-03
	{	1.42E-03		{ 7.95E-04}
09/19/90		2.22E-02		3.70E-03
	{	1.49E-03		{ 6.37E-04}
10/03/90		2.77E-02		2.25E-03
	{	1.81E-03		{ 5.35E-04}
10/17/90		1.42E-02		2.54E-03
	{	1.35E-03		{ 5.73E-04}

< - Result less than detection limit.

{ } - Uncertainty for result.

NR - No result reported.

nra - Not routinely analyzed or analyzed on a less frequent basis.

\* - Analyzed as part of a composite sample only.

SURFACE ENVIRONMENTAL SURVEILLANCE DATA REPORT - 123089 TO 010491  
AIR SAMPLE COMPOSITE PARTS - PCI/M3

0247 - BYERS LANDING

6182 - BATTLELLE COMPLEX

OFF DATE	COM	BETA	COM	ALPHA	OFF DATE	COM	BETA	COM	ALPHA
10/31/90		1.61E-02		1.65E-03	10/31/90		1.60E-02		1.70E-03
	{	1.45E-03	{	4.79E-04		{	1.43E-03	{	4.65E-04
11/14/90		1.68E-02		1.07E-03	11/14/90		1.58E-02		2.31E-03
	{	1.67E-03	{	4.36E-04		{	1.42E-03	{	5.48E-04
11/28/90	1	NR	<	NR	11/28/90		1.13E-02		7.98E-04
	{	NR	{	NR		{	1.23E-03	{	3.39E-04
12/12/90		1.08E-02		1.04E-03	12/12/90		1.68E-02		1.79E-03
	{	1.23E-03	{	3.79E-04		{	1.46E-03	{	4.99E-04
12/27/90		2.80E-02		2.13E-03	12/27/90		3.66E-02		1.38E-03
	{	2.05E-03	{	5.82E-04		{	2.05E-03	{	4.26E-04
01/02/91	2	NR	<	NR	01/02/91	3	NR		NR
	{	NR	{	NR		{	NR		NR
MEAN		1.60E-02		2.40E-03			1.71E-02		2.72E-03
MINIMUM		3.34E-03		9.90E-04			4.13E-03		7.98E-04
MAXIMUM		3.12E-02		4.23E-03			3.66E-02		5.07E-03
2STD.ERR		3.23E-03		6.18E-04			3.35E-03		7.52E-04

< - Result less than detection limit.

{ } - Uncertainty for result.

NR - No result reported.

nra - Not routinely analyzed or analyzed on a less frequent basis.

\* - Analyzed as part of a composite sample only.

1 NO SAMPLE. LOW EXPOSURE HOURS.

2 NO SAMPLE. LOW EXPOSURE HOURS.

3 NO SAMPLE. LOW EXPOSURE HOURS.

0604 SOUTHEAST PERIMETE - BYERS LANDING, BATTELLE COMPLEX (PARTICULATE, FILTER-1)

OFF DATE COM	SR 90	RU 106	CS 137	U 234	U 235	U 238	U-ISO T	PU 238
02/07/90	nra	< 2.07E-03 { 6.73E-03}	< 3.12E-04 { 7.28E-04}	nra	nra	nra	nra	nra
03/07/90	nra	< -1.96E-03 { 1.04E-02}	< 4.78E-04 { 1.17E-03}	nra	nra	nra	nra	nra
04/04/90	< -2.81E-05 { 3.07E-05}	< 1.40E-03 { 1.10E-02}	< -5.28E-04 { 9.97E-04}	2.29E-05 { 6.68E-06}	< -2.27E-07 { 0.00E+00}	3.35E-05 { 7.57E-06}	5.62E-05 { 1.01E-05}	< -3.19E-07 { 2.34E-07}
05/02/90	nra	< 5.21E-03 { 9.11E-03}	< 9.86E-04 { 1.03E-03}	nra	nra	nra	nra	nra
06/27/90	nra	< -1.11E-02 { 1.58E-02}	< -1.46E-03 { 1.33E-03}	nra	nra	nra	nra	nra
07/25/90	nra	< 4.58E-04 { 1.50E-02}	< 3.85E-04 { 8.38E-04}	nra	nra	nra	nra	nra
09/05/90	nra	< 5.42E-03 { 8.01E-03}	< 1.96E-04 { 7.46E-04}	nra	nra	nra	nra	nra
10/03/90	< 6.53E-07 { 4.13E-05}	< 1.01E-02 { 1.16E-02}	< -4.24E-04 { 1.31E-03}	6.42E-05 { 1.14E-05}	< 1.20E-06 { 1.64E-06}	4.41E-05 { 9.49E-06}	1.10E-04 { 1.49E-05}	< -1.98E-07 { 0.00E+00}
10/31/90	nra	< -1.18E-02 { 1.51E-02}	< -7.44E-04 { 1.42E-03}	nra	nra	nra	nra	nra
11/28/90	1	< 2.16E-04 { 1.32E-02}	< 1.73E-04 { 1.12E-03}	nra	nra	nra	nra	nra
01/02/91	< 5.80E-05 { 5.95E-05}	< 5.02E-03 { 1.04E-02}	< 2.82E-04 { 8.81E-04}	5.02E-05 { 1.21E-05}	< 2.39E-06 { 2.66E-06}	6.32E-05 { 1.34E-05}	1.16E-04 { 1.82E-05}	< -2.42E-07 { 0.00E+00}
MEAN	1.02E-05	4.58E-04	-3.13E-05	4.58E-05	1.12E-06	4.69E-05	9.38E-05	-2.53E-07
MINIMUM	< -2.81E-05	< -1.18E-02	< -1.46E-03	2.29E-05	< -2.27E-07	3.35E-05	5.62E-05	< -3.19E-07
MAXIMUM	< 5.80E-05	< 1.01E-02	< 9.86E-04	6.42E-05	< 2.39E-06	6.32E-05	1.16E-04	< -1.98E-07
2STD.ERR	5.06E-05	4.06E-03	4.15E-04	2.43E-05	1.51E-06	1.74E-05	3.78E-05	7.07E-08

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.  
 1 SAMPLE 0247-0, 11/28 WAS COMPUTED WITH INACCURATE SAMPLE VOLUME.

0604 SOUTHEAST PERIMETE - BYERS LANDING, BATTELLE COMPLEX (PARTICULATE, FILTER-1)

OFF DATE COM	PU23940
02/07/90	nra
03/07/90	nra
04/04/90	< 5.60E-07 { 8.27E-07}
05/02/90	nra
06/27/90	nra
07/25/90	nra
09/05/90	nra
10/03/90	1.89E-06 { 1.51E-06}
10/31/90	nra
11/28/90	nra
01/02/91	2.44E-06 { 2.34E-06}
MEAN	1.63E-06
MINIMUM	< 5.60E-07
MAXIMUM	2.44E-06
2STD.ERR	1.12E-06

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.

0055 - PROSSER BARRICADE

OFF DATE	COM	BETA	COM	ALPHA	OFF DATE	COM	BETA
01/02/90		2.69E-02		4.11E-04	01/02/90		2.76E-02
	{	1.71E-03	{	2.59E-04		{	1.77E-03
01/16/90		1.50E-02	<	1.96E-04	01/16/90		1.68E-02
	{	1.40E-03	{	2.32E-04		{	1.45E-03
01/30/90		1.73E-02		8.67E-04	01/30/90		2.23E-02
	{	1.47E-03	{	3.59E-04		{	1.80E-03
02/13/90		3.89E-03		4.45E-04	02/13/90		4.19E-03
	{	8.98E-04	{	3.09E-04		{	9.18E-04
02/27/90		2.30E-02		8.11E-04	02/27/90		2.24E-02
	{	1.58E-03	{	3.43E-04		{	1.65E-03
03/13/90		1.84E-02		4.22E-04	03/13/90		2.10E-02
	{	1.51E-03	{	2.78E-04		{	1.61E-03
03/27/90		1.79E-02		3.48E-04	03/27/90		1.83E-02
	{	1.49E-03	{	2.56E-04		{	1.48E-03
04/09/90		2.04E-02		3.28E-04	04/09/90		2.39E-02
	{	1.65E-03	{	2.96E-04		{	1.79E-03
04/24/90		1.25E-02		3.37E-04	04/24/90		1.30E-02
	{	1.13E-03	{	2.21E-04		{	1.19E-03
05/08/90		1.07E-02		4.39E-04	05/08/90		9.32E-03
	{	1.24E-03	{	2.68E-04		{	1.17E-03
05/22/90		7.48E-03		4.34E-04	05/22/90		9.23E-03
	{	1.08E-03	{	2.66E-04		{	1.16E-03
06/05/90		3.43E-03		9.29E-04	06/05/90		6.24E-03
	{	8.71E-04	{	3.73E-04		{	1.02E-03
06/19/90		3.39E-03		8.35E-04	06/19/90		5.88E-03
	{	8.65E-04	{	3.41E-04		{	1.00E-03
07/03/90		9.91E-03		1.74E-03	07/03/90		9.09E-03
	{	1.19E-03	{	4.85E-04		{	1.17E-03
07/17/90		1.22E-02		1.50E-03	07/17/90		1.04E-02
	{	1.30E-03	{	4.67E-04		{	1.21E-03
07/31/90		1.46E-02		2.14E-03	07/31/90		1.81E-02
	{	1.38E-03	{	5.30E-04		{	1.49E-03
08/14/90		2.57E-02		7.37E-03	08/14/90		2.36E-02
	{	1.73E-03	{	9.70E-04		{	1.72E-03
08/28/90		1.44E-02		3.89E-03	08/28/90		1.36E-02
	{	1.37E-03	{	6.97E-04		{	1.35E-03
09/11/90		2.46E-02		6.55E-03	09/11/90		2.43E-02
	{	1.72E-03	{	8.92E-04		{	1.73E-03
09/24/90		2.62E-02		5.57E-03	09/24/90		2.22E-02
	{	1.87E-03	{	8.84E-04		{	1.84E-03
10/09/90		2.25E-02		1.78E-03	10/09/90		2.21E-02
	{	1.60E-03	{	4.84E-04		{	1.57E-03

< - Result less than detection limit.  
 {} - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.  
 \* - Analyzed as part of a composite sample only.

0050 - HORN RAPIDS SUBSTA



SURFACE ENVIRONMENTAL SURVEILLANCE DATA REPORT - 123089 TO 010491  
AIR SAMPLE COMPOSITE PARTS - PCI/M3

0055 - PROSSER BARRICADE		0050 - HORN RAPIDS SUBSTA						
OFF DATE	COM	BETA	COM	ALPHA	COM	OFF DATE	COM	BETA
10/23/90		1.17E-02		2.02E-03		10/23/90		1.10E-02
		{ 1.27E-03}		{ 5.16E-04}				{ 1.23E-03}
11/06/90	1	NR	<	NR		11/06/90		1.44E-02
		{NR}		{NR}				{ 1.36E-03}
11/20/90		1.48E-02		1.56E-03		11/20/90		1.96E-02
		{ 1.37E-03}		{ 4.67E-04}				{ 1.57E-03}
12/04/90		6.57E-03		9.97E-04		12/04/90		4.15E-03
		{ 1.04E-03}		{ 3.86E-04}				{ 9.11E-04}
12/18/90		2.64E-02		2.58E-03		12/18/90		2.30E-02
		{ 1.80E-03}		{ 5.80E-04}				{ 1.68E-03}
12/31/90		1.66E-02		2.46E-03		12/31/90		4.47E-02
		{ 1.52E-03}		{ 5.92E-04}				{ 2.33E-03}
MEAN		1.56E-02		2.79E-03				1.71E-02
MINIMUM		3.39E-03		8.35E-04				4.15E-03
MAXIMUM		2.69E-02		7.37E-03				4.47E-02
2STD.ERR		2.89E-03		1.08E-03				3.43E-03

< - Result less than detection limit.  
 ( ) - Uncertainty for result.  
 nra - No result reported.  
 \* - Not routinely analyzed or analyzed on a less frequent basis.  
 \* - Analyzed as part of a composite sample only.  
 I NO SAMPLE. LOW EXPOSURE HOURS.

SURFACE ENVIRONMENTAL SURVEILLANCE DATA REPORT - 123089 TO 010491  
AIR COMPOSITED SAMPLES - PCI/M3

0606 PROSSER BARR COMP - PROSSER BARRICADE, HORN RAPIDS SUBSTA (PARTICULATE, FILTER-1)

OFF DATE	COM	SR 90	RU 106	CS 137	PU 238	PU23940		
01/02/90	<	-3.76E-05 { 4.83E-05}	<	-7.03E-03 { 1.21E-02}	<	-6.22E-04 { 9.49E-04}		
01/30/90	nra	<	6.24E-03 { 8.32E-03}	<	-3.60E-04 { 1.39E-03}	<	0.00E+00 { 0.00E+00}	
02/27/90	nra	<	1.77E-03 { 8.56E-03}	<	-4.69E-04 { 1.14E-03}	nra	nra	
03/27/90	<	-4.75E-05 { 3.59E-05}	<	1.75E-03 { 8.26E-03}	<	3.58E-04 { 1.12E-03}	<	4.88E-07 { 1.02E-06}
04/24/90	nra	<	2.97E-04 { 9.71E-03}	<	-4.61E-04 { 1.09E-03}	nra	nra	
07/03/90	nra	<	9.52E-03 { 1.27E-02}	<	-1.63E-03 { 1.54E-03}	nra	nra	
07/31/90	nra	<	6.22E-03 { 1.45E-02}	<	7.25E-04 { 9.67E-04}	nra	nra	
08/28/90	nra	<	3.94E-03 { 1.16E-02}	<	6.66E-05 { 9.03E-04}	nra	nra	
09/24/90	<	-5.49E-06 { 4.90E-05}	<	-6.27E-03 { 1.33E-02}	<	3.19E-04 { 9.94E-04}	<	1.20E-07 { 7.22E-07}
11/06/90	1	nra	<	1.59E-03 { 7.78E-03}	<	5.61E-04 { 8.23E-04}	nra	nra
12/04/90	nra	<	2.48E-03 { 1.21E-02}	<	-4.36E-04 { 1.35E-03}	nra	nra	
12/31/90	<	2.98E-05 { 4.95E-05}	<	-3.70E-03 { 1.18E-02}	<	-4.81E-04 { 9.69E-04}	<	-2.12E-07 { 0.00E+00}
MEAN		-1.52E-05	1.40E-03	-2.02E-04	4.75E-08	7.31E-07		
MINIMUM		< -4.75E-05	< -7.03E-03	< -1.63E-03	< -2.12E-07	< -2.52E-08		
MAXIMUM		< 2.98E-05	< 9.52E-03	< 7.25E-04	< 4.88E-07	< 1.77E-06		
2STD.ERR		3.49E-05	2.90E-03	3.74E-04	3.32E-07	8.40E-07		

< - Result less than detection limit.  
{ } - Uncertainty for result.  
NR - No result reported.  
nra - Not routinely analyzed or analyzed on a less frequent basis.  
1 SAMPLE 0055, 11/6 WAS COMPUTED WITH INACCURATE SAMPLE VOLUME.

0972 - RATTLESNAKE SPRINGS

1650 - YAKIMA BARRICADE

OFF DATE	COM	BETA	OFF DATE	COM	BETA	COM	ALPHA
01/02/90		2.72E-02	01/02/90		2.79E-02		4.30E-04
	{	1.70E-03		{	1.71E-03		{ 2.53E-04
01/16/90		1.23E-02	01/16/90		1.41E-02		2.93E-04
	{	1.27E-03		{	1.34E-03		{ 2.47E-04
01/31/90		1.55E-02	01/31/90		1.07E-02		< 1.77E-04
	{	1.35E-03		{	1.15E-03		< 2.22E-04
02/14/90		7.86E-03	02/14/90		6.53E-03		{ 3.56E-04
	{	1.17E-03		{	1.30E-03		5.71E-04
02/28/90		3.22E-02	02/28/90		2.89E-02		{ 3.17E-04
	{	1.93E-03		{	1.81E-03		4.18E-04
03/14/90		2.19E-02	03/14/90		1.87E-02		{ 2.77E-04
	{	1.65E-03		{	1.53E-03		{ 2.67E-04
03/28/90		1.83E-02	03/28/90		1.78E-02		9.12E-04
	{	1.49E-03		{	1.49E-03		{ 3.72E-04
04/11/90		2.67E-02	04/11/90		2.29E-02		{ 2.74E-04
	{	1.78E-03		{	1.67E-03		5.46E-04
04/25/90		1.31E-02	04/25/90		1.18E-02		{ 2.97E-04
	{	1.31E-03		{	1.28E-03		{ 2.74E-04
05/09/90		1.43E-02	05/09/90		1.44E-02		{ 2.97E-04
	{	1.37E-03		{	1.35E-03		{ 2.72E-04
05/23/90		9.13E-03	05/23/90		9.60E-03		{ 2.22E-04
	{	1.16E-03		{	1.16E-03		9.74E-04
06/06/90		5.11E-03	06/06/90		5.61E-03		{ 3.69E-04
	{	9.54E-04		{	9.73E-04		1.46E-03
06/20/90		6.72E-03	06/20/90		6.58E-03		{ 4.53E-04
	{	1.04E-03		{	1.03E-03		1.56E-03
07/05/90		9.93E-03	07/05/90		8.43E-03		{ 4.55E-04
	{	1.13E-03		{	1.08E-03		4.79E-03
07/18/90		1.42E-02	07/18/90		1.46E-02		{ 7.97E-04
	{	1.41E-03		{	1.43E-03		6.99E-03
08/01/90		1.85E-02	08/01/90		1.90E-02		{ 9.35E-04
	{	1.52E-03		{	1.53E-03		8.36E-03
08/15/90		2.36E-02	08/15/90		2.55E-02		{ 1.00E-03
	{	1.68E-03		{	1.74E-03		4.94E-03
08/29/90		1.50E-02	08/29/90		1.37E-02		{ 7.49E-04
	{	1.33E-03		{	1.27E-03		6.38E-03
09/12/90		2.12E-02	09/12/90		2.18E-02		{ 8.86E-04
	{	1.61E-03		{	1.62E-03		3.46E-03
09/26/90		2.11E-02	09/26/90		2.24E-02		{ 6.86E-04
	{	1.61E-03		{	1.68E-03		2.66E-03
10/10/90		1.81E-02	10/10/90		1.88E-02		{ 5.79E-04
	{	1.50E-03		{	1.52E-03		2.43E-03
10/24/90		8.73E-03	10/24/90		1.07E-02		{ 5.68E-04
	{	1.14E-03		{	1.23E-03		

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.  
 \* - Analyzed as part of a composite sample only.

0972 - RATTLESNAKE SPRINGS

OFF DATE	COM	BETA	OFF DATE	COM	BETA	COM	ALPHA
11/07/90		1.44E-02	11/07/90		1.40E-02		2.52E-03
	{	1.36E-03}		{	1.35E-03}		{ 5.62E-04}
11/21/90		1.48E-02	11/21/90		1.27E-02		2.30E-03
	{	1.38E-03}		{	1.29E-03}		{ 5.41E-04}
12/05/90		5.33E-03	12/05/90		4.31E-03		5.85E-04
	{	9.96E-04}		{	9.09E-04}		{ 3.16E-04}
12/20/90		3.61E-02	12/20/90		2.24E-02		2.46E-03
	{	1.92E-03}		{	1.58E-03}		{ 5.54E-04}
01/02/91		3.05E-02	01/02/91		4.93E-02		7.59E-03
	{	1.95E-03}		{	2.42E-03}		{ 9.96E-04}
MEAN		1.71E-02			1.68E-02		3.72E-03
MINIMUM		5.11E-03			4.31E-03		5.85E-04
MAXIMUM		3.61E-02			4.93E-02		8.36E-03
2STD.ERR		3.20E-03			3.62E-03		1.24E-03

1650 - YAKIMA BARRICADE

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.  
 \* - Analyzed as part of a composite sample only.

SURFACE ENVIRONMENTAL SURVEILLANCE DATA REPORT - 123089 TO 010491  
AIR COMPOSITED SAMPLES - PCI/M3

9607 WEST PERIMETER - RATTLESNAKE SPRING, YAKIMA BARRICADE (PARTICULATE, FILTER-1)

OFF DATE	COM	SR 90	RU 106	CS 137	PU 238	PU23940
01/02/90		< -4.88E-05 { 7.08E-05}	< -5.93E-03 { 1.02E-02}	< 4.06E-05 { 9.23E-04}	< 5.67E-07 { 1.08E-06}	< 1.12E-06 { 1.32E-06}
01/31/90		nra { 9.53E-03}	< -4.49E-03 { 9.53E-03}	< 7.56E-04 { 1.27E-03}	nra { 1.08E-06}	nra { 1.32E-06}
02/28/90		nra { 9.89E-03}	< 4.03E-03 { 9.89E-03}	< 1.38E-03 { 1.05E-03}	nra { 1.08E-06}	nra { 1.32E-06}
03/28/90		< -1.54E-05 { 4.39E-05}	< -3.45E-03 { 8.48E-03}	< 6.29E-05 { 8.54E-04}	< -6.26E-07 { 1.34E-06}	< 1.13E-06 { 1.34E-06}
04/25/90		nra { 8.95E-03}	< 4.11E-03 { 8.95E-03}	< -6.75E-05 { 8.75E-04}	nra { 1.08E-06}	nra { 1.32E-06}
07/05/90		nra { 1.57E-02}	< 6.77E-03 { 1.57E-02}	< -2.57E-04 { 1.26E-03}	nra { 1.08E-06}	nra { 1.32E-06}
08/01/90		nra { 1.42E-02}	< 2.80E-03 { 1.42E-02}	< 1.75E-04 { 1.13E-03}	nra { 1.08E-06}	nra { 1.32E-06}
08/29/90		nra { 1.61E-02}	< -9.39E-03 { 1.61E-02}	< 1.21E-04 { 1.16E-03}	nra { 1.08E-06}	nra { 1.32E-06}
09/26/90		4.88E-05 { 3.69E-05}	< -1.66E-03 { 1.52E-02}	< -6.59E-04 { 9.26E-04}	< -5.76E-07 { 4.81E-07}	< 3.09E-07 { 1.43E-06}
11/07/90		nra { 1.06E-02}	< -3.23E-03 { 1.06E-02}	< 7.59E-04 { 5.06E-04}	nra { 1.08E-06}	nra { 1.32E-06}
12/05/90		nra { 1.11E-02}	< -9.85E-03 { 1.11E-02}	< 3.18E-04 { 1.00E-03}	nra { 1.08E-06}	nra { 1.32E-06}
01/02/91	1	< 7.01E-06 { 3.43E-05}	< 9.76E-04 { 1.15E-02}	< 1.35E-04 { 1.30E-03}	< -3.26E-07 { 2.51E-07}	< 1.47E-06 { 1.73E-06}
MEAN		-2.10E-06	-1.61E-03	2.24E-04	-2.40E-07	1.01E-06
MINIMUM		< -4.88E-05	< -9.85E-03	< -6.59E-04	< -6.26E-07	< 3.09E-07
MAXIMUM		4.88E-05	< 6.77E-03	1.38E-03	< 5.67E-07	< 1.47E-06
2STD.ERR		4.10E-05	3.13E-03	3.08E-04	5.54E-07	4.93E-07

< - Result less than detection limit.  
{ } - Uncertainty for result.  
nra - No result reported.  
1 - Not routinely analyzed or analyzed on a less frequent basis.  
1 PU-23940 ANALYSIS SIZE MODIFIED 9/25/91, PU-238 ANALYSIS SIZE MODIFIED 10/23/91.

SURFACE ENVIRONMENTAL SURVEILLANCE DATA REPORT - 123089 TO 010491  
AIR SAMPLE COMPOSITE PARTS - PCI/MS

1651 - S END VERNITA BRIDGE

OFF DATE	COM	BETA
01/09/90		1.14E-02
	{	1.31E-03
01/23/90		3.84E-02
	{	2.08E-03
02/07/90		6.73E-03
	{	8.66E-04
02/21/90		2.43E-02
	{	1.69E-03
03/07/90		3.08E-02
	{	1.89E-03
03/21/90		1.21E-02
	{	1.27E-03
04/04/90		2.29E-02
	{	1.64E-03
04/18/90		1.57E-02
	{	1.42E-03
05/02/90		6.10E-03
	{	1.01E-03
05/16/90		1.10E-02
	{	1.22E-03
06/13/90		5.04E-03
	{	9.59E-04
06/27/90		1.11E-02
	{	1.24E-03
07/11/90		7.46E-03
	{	1.08E-03
07/25/90		1.53E-02
	{	1.38E-03
08/08/90		2.14E-02
	{	1.60E-03
08/22/90		2.26E-02
	{	1.65E-03
09/05/90		1.56E-02
	{	1.36E-03
09/19/90		2.11E-02
	{	1.43E-03
10/03/90		2.41E-02
	{	1.69E-03
10/17/90		1.49E-02
	{	1.36E-03
10/31/90		1.53E-02
	{	1.35E-03
11/14/90		1.28E-02
	{	1.32E-03

1551 - WAHLUKE SLOPE

OFF DATE	COM	BETA	COM	ALPHA
01/09/90		1.15E-02		9.81E-05
	{	1.31E-03	<	
01/23/90		2.56E-02		5.10E-04
	{	1.73E-03		2.88E-04
02/07/90		5.62E-03		2.60E-04
	{	9.61E-04		2.23E-04
02/21/90		2.39E-02		1.62E-03
	{	1.70E-03		4.78E-04
03/07/90		3.19E-02		1.03E-03
	{	1.90E-03		3.95E-04
03/21/90		1.46E-02		3.23E-04
	{	1.36E-03		2.74E-04
04/04/90		2.93E-02		1.05E-03
	{	1.84E-03		3.97E-04
04/18/90		1.65E-02		1.04E-03
	{	1.43E-03		4.02E-04
05/02/90		8.72E-03		4.53E-04
	{	1.12E-03		2.86E-04
05/16/90		9.53E-03		4.75E-04
	{	1.18E-03		2.70E-04
06/13/90		5.19E-03		5.13E-04
	{	9.74E-04		2.89E-04
06/27/90		1.09E-02		1.94E-03
	{	1.22E-03		4.96E-04
07/11/90		7.66E-03		1.33E-03
	{	1.07E-03		4.23E-04
07/25/90		1.44E-02		2.34E-03
	{	1.37E-03		5.54E-04
08/08/90		1.59E-02		3.44E-03
	{	1.49E-03		6.85E-04
08/22/90		2.09E-02		4.84E-03
	{	1.59E-03		7.69E-04
09/05/90		1.40E-02		2.97E-03
	{	1.31E-03		6.01E-04
09/19/90		1.76E-02		3.27E-03
	{	1.48E-03		6.35E-04
10/03/90		2.61E-02		4.23E-03
	{	1.76E-03		7.22E-04
10/17/90		1.01E-02		1.72E-03
	{	1.19E-03		4.80E-04
10/31/90		1.37E-02		1.93E-03
	{	1.35E-03		5.04E-04
11/14/90		1.09E-02		1.04E-03
	{	1.23E-03		3.74E-04

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.  
 \* - Analyzed as part of a composite sample only.

1551 - WAHLUKE SLOPE

1651 - S END VERNITA BRIDGE

OFF DATE	COM	BETA	OFF DATE	COM	BETA	COM	ALPHA
11/28/90		1.09E-02	11/28/90		9.35E-03		1.06E-03
	{	1.22E-03		{	1.14E-03		{ 3.85E-04
12/12/90		2.40E-02	12/12/90		1.73E-02		2.19E-03
	{	1.70E-03		{	1.47E-03		{ 5.27E-04
12/27/90		5.23E-02	12/27/90		5.28E-02		1.19E-02
	{	2.13E-03		{	2.37E-03		{ 1.17E-03
MEAN		1.81E-02			1.70E-02		2.98E-03
MINIMUM		5.04E-03			5.19E-03		5.13E-04
MAXIMUM		5.23E-02			5.28E-02		1.19E-02
2STD.ERR		4.30E-03			4.16E-03		1.42E-03

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.  
 \* - Analyzed as part of a composite sample only.

0608 NORTHWEST PERIMETE -- S END VERNITA BRID, WAHLUKE SLOPE (PARTICULATE, FILTER-1)

OFF DATE COM	SR 90	RU 106	CS 137	PU 238	PU23940
02/07/90	nra	< -2.43E-03 { 4.90E-03}	< 4.49E-04 { 6.00E-04}	nra	nra
03/07/90	nra	< 5.85E-03 { 8.63E-03}	< -6.24E-05 { 8.09E-04}	nra	nra
04/04/90	< 3.35E-07 { 3.39E-05}	< -6.20E-04 { 9.95E-03}	< 5.44E-05 { 1.26E-03}	< -1.97E-07 { 0.00E+00}	< -2.41E-08 { 0.00E+00}
05/02/90	nra	< 3.07E-03 { 9.59E-03}	< 3.80E-04 { 1.23E-03}	nra	nra
06/27/90	nra	< -3.02E-03 { 1.91E-02}	< -1.51E-03 { 1.43E-03}	nra	nra
07/25/90	nra	< -4.61E-03 { 1.79E-02}	< -4.19E-05 { 9.53E-04}	nra	nra
09/05/90	nra	< -1.03E-02 { 1.38E-02}	< 1.17E-03 { 6.59E-04}	nra	nra
10/03/90	< -1.45E-05 { 1.84E-05}	< -4.05E-03 { 1.37E-C2}	< -4.53E-04 { 1.10E-03}	< -9.70E-07 { 1.09E-06}	< 7.44E-07 { 1.09E-06}
10/31/90	nra	< 0.00E+00 { 1.32E-02}	< 5.93E-04 { 1.18E-03}	nra	nra
11/28/90	nra	< 9.10E-04 { 1.07E-02}	< 2.70E-04 { 1.32E-03}	nra	nra
12/27/90	< 4.10E-05 { 4.12E-05}	< 1.80E-03 { 1.41E-02}	< 5.41E-04 { 1.02E-03}	< 1.32E-07 { 7.18E-07}	< 2.12E-06 { 2.02E-06}
MEAN	8.94E-06	-1.22E-03	1.26E-04	-3.45E-07	9.47E-07
MINIMUM	< -1.45E-05	< -1.03E-02	< -1.51E-03	< -9.70E-07	< -2.41E-08
MAXIMUM	< 4.10E-05	< 5.85E-03	1.17E-03	< 1.32E-07	2.12E-06
2STD.ERR	3.32E-05	2.63E-03	4.16E-04	6.53E-07	1.25E-06

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.



1652 - OTHELLO

1653 - CONNELL

OFF DATE	COM	BETA	OFF DATE	COM	BETA
01/04/90		2.21E-02	01/04/90		2.10E-02
	{	1.60E-03}		{	1.56E-03}
01/18/90		1.77E-02	01/18/90		1.81E-02
	{	1.42E-03}		{	1.45E-03}
02/01/90		4.79E-03	02/01/90		1.11E-03
	{	9.32E-04}		{	7.11E-04}
02/15/90	1	NR	02/15/90	3	NR
	{NR}			{NR}	
03/01/90		5.57E-02	03/01/90		7.97E-02
	{	2.45E-03}		{	2.93E-03}
03/15/90		3.24E-02	03/15/90		4.31E-02
	{	1.94E-03}		{	2.19E-03}
03/29/90		1.80E-02	03/29/90		1.58E-02
	{	1.50E-03}		{	1.87E-03}
04/12/90		2.25E-02	04/12/90		2.23E-02
	{	1.66E-03}		{	1.76E-03}
04/26/90		8.43E-03	04/26/90		9.87E-03
	{	1.10E-03}		{	1.22E-03}
05/10/90		1.19E-02	05/10/90		1.18E-02
	{	1.23E-03}		{	1.25E-03}
05/24/90		1.12E-02	05/24/90		9.64E-03
	{	1.56E-03}		{	1.16E-03}
06/07/90		7.02E-03	06/07/90		7.98E-03
	{	1.06E-03}		{	1.10E-03}
06/21/90		6.63E-03	06/21/90		7.49E-03
	{	1.04E-03}		{	1.11E-03}
07/05/90		1.07E-02	07/05/90		1.23E-02
	{	1.22E-03}		{	1.28E-03}
07/19/90		1.13E-02	07/19/90		1.34E-02
	{	1.23E-03}		{	1.34E-03}
08/02/90		1.76E-02	08/02/90		1.88E-02
	{	1.48E-03}		{	1.53E-03}
08/16/90		1.09E-03	08/16/90		2.54E-02
	{	7.14E-04}		{	1.72E-03}
08/30/90	2	NR	08/30/90		1.40E-02
	{NR}			{	1.29E-03}
09/13/90		2.13E-02	09/13/90		2.25E-02
	{	1.60E-03}		{	1.64E-03}
09/27/90		2.40E-02	09/27/90		2.66E-02
	{	1.70E-03}		{	1.77E-03}

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.  
 \* - Analyzed as part of a composite sample only.  
 1 NO SAMPLE. CHARCOAL CARTRIDGE LEFT OPEN.  
 2 NO SAMPLE.  
 3 NO SAMPLE. CHARCOAL CARTRIDGE LEFT OPEN.

SURFACE ENVIRONMENTAL SURVEILLANCE DATA REPORT - 123089 TO 010491  
 AIR SAMPLE COMPOSITE PARTS - PCI/M3

1652 - OTHELLO

OFF DATE	COM	BETA
10/11/90		1.68E-02
		{ 1.46E-03}
10/25/90		1.36E-02
		{ 1.36E-03}
11/08/90		1.28E-02
		{ 1.31E-03}
11/21/90		1.74E-02
		{ 1.54E-03}
12/06/90		7.15E-03
		{ 1.02E-03}
12/20/90		2.36E-02
		{ 1.68E-03}
01/03/91		4.49E-02
		{ 2.21E-03}
MEAN		1.76E-02
MINIMUM		1.09E-03
MAXIMUM		5.57E-02
ZSTD.ERR		4.91E-03

1653 - CONNELL

OFF DATE	COM	BETA
10/11/90	4	NR
		{ NR}
10/25/90		1.55E-02
		{ 1.38E-03}
11/08/90		1.34E-02
		{ 1.32E-03}
11/21/90		1.62E-02
		{ 1.51E-03}
12/06/90		5.93E-03
		{ 9.59E-04}
12/20/90		2.34E-02
		{ 1.67E-03}
01/03/91		5.00E-02
		{ 2.41E-03}
MEAN		2.02E-02
MINIMUM		1.11E-03
MAXIMUM		7.97E-02
ZSTD.ERR		6.57E-03

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.  
 \* - Analyzed as part of a composite sample only.  
 4 NO SAMPLE. LOW EXPOSURE HOURS.

SURFACE ENVIRONMENTAL SURVEILLANCE DATA REPORT - 123089 TO 010491  
AIR COMPOSITED SAMPLES - PCI/M3

0609 NE COMMUNITIES - OTHELLO, CONNELL (PARTICULATE, FILTER-1)

OFF DATE	COM	SR 90	RU 106	CS 137	PU 238	PU23940
01/04/90		< -1.18E-06 { 1.08E-04}	< -6.88E-03 { 1.09E-02}	< -1.65E-04 { 9.02E-04}	< -2.01E-07 { 1.00E-06}	< -3.78E-07 { 1.22E-06}
02/01/90		nra	< 6.93E-04	< -7.65E-04	nra	nra
03/01/90	3	nra	< 8.14E-03 { 7.04E-03}	< 6.98E-04 { 3.82E-04}	nra	nra
03/29/90		< -1.26E-05 { 5.60E-05}	< 1.11E-02 { 1.57E-03}	< 1.71E-03 { 1.41E-03}	< -2.86E-07 { 0.00E+00}	< -3.51E-08 { 0.00E+00}
04/26/90		nra	< 9.82E-03 { 1.10E-02}	< -2.60E-04 { 1.16E-03}	nra	nra
07/05/90		nra	< 4.88E-03 { 1.59E-02}	< -8.46E-05 { 1.36E-03}	nra	nra
08/02/90		nra	< 2.83E-03 { 1.37E-02}	< -1.23E-03 { 1.38E-03}	nra	nra
08/30/90	2	nra	< -2.04E-02 { 2.20E-02}	< 2.72E-04 { 1.32E-03}	nra	nra
09/27/90		1.09E-04 { 7.05E-05}	< -3.65E-03 { 8.52E-03}	< 3.99E-04 { 1.26E-03}	< 3.05E-08 { 7.81E-07}	< 1.10E-06 { 1.31E-06}
10/25/90	1	nra	< 1.29E-03 { 1.52E-02}	< -2.33E-04 { 1.28E-03}	nra	nra
12/06/90		nra	< 2.46E-03 { 7.98E-03}	< -7.98E-04 { 9.12E-04}	nra	nra
01/03/91		7.04E-05 { 5.95E-05}	< -5.98E-03 { 1.27E-02}	< -5.9E-04 { 1.09E-03}	< 1.40E-07 { 7.09E-07}	< 6.80E-07 { 9.99E-07}
MEAN		4.14E-05	-5.27E-04	-3.49E-04	-7.91E-08	3.42E-07
MINIMUM		< -1.26E-05	< -2.04E-02	< -1.23E-03	< -2.86E-07	< -3.78E-07
MAXIMUM		1.09E-04	< 9.82E-03	< 3.99E-04	< 1.40E-07	< 1.10E-06
2STD.ERR		5.81E-05	4.60E-03	2.65E-04	1.98E-07	6.71E-07

< - Result less than detection limit.  
{ } - Uncertainty for result.  
NR - No result reported.  
nra - Not routinely analyzed or analyzed on a less frequent basis.  
1 SAMPLE 1653, 10/11 WAS COMPUTED WITH INACCURATE SAMPLE VOLUME.

1654 - PASCO

OFF DATE	COM	BETA	COM	BETA	COM	ALPHA	OFF DATE	COM	BETA
01/10/90		1.32E-02		1.20E-02	<	3.90E-05	01/10/90		1.17E-02
		{ 1.35E-03}		{ 1.27E-03}		{ 1.94E-04}			{ 1.26E-03}
01/24/90		2.89E-02		3.02E-02		1.04E-03	01/24/90		2.61E-02
		{ 1.81E-03}		{ 1.88E-03}		{ 3.81E-04}			{ 1.72E-03}
02/07/90		5.53E-03		4.95E-03	<	1.32E-04	02/07/90		5.74E-03
		{ 1.81E-02}		{ 9.39E-04}		{ 2.11E-04}			{ 9.90E-04}
02/21/90		1.50E-03		1.66E-02		1.23E-03	02/21/90		1.40E-02
		{ 1.83E-03}		{ 1.47E-03}		{ 4.24E-04}			{ 1.33E-03}
03/07/90		2.95E-02		2.31E-02		5.78E-04	03/07/90		2.36E-02
		{ 1.45E-02}		{ 1.56E-03}		{ 2.92E-04}			{ 1.67E-03}
03/21/90		1.36E-03		1.38E-02		2.81E-04	03/21/90		1.11E-02
		{ 1.86E-03}		{ 1.35E-03}		{ 2.38E-04}			{ 1.24E-03}
04/04/90		2.95E-02		2.85E-02		1.13E-03	04/04/90		2.41E-02
		{ 1.89E-02}		{ 1.82E-03}		{ 4.07E-04}			{ 1.68E-03}
04/18/90		1.51E-03		1.64E-02		1.29E-03	04/18/90		1.50E-02
		{ 8.74E-03}		{ 1.44E-03}		{ 4.36E-04}			{ 1.38E-03}
05/02/90		1.14E-03		8.00E-03		3.96E-04	05/02/90		8.10E-03
		{ 7.69E-03}		{ 1.10E-03}		{ 2.75E-04}			{ 1.10E-03}
05/16/90		1.10E-03		7.51E-03		2.46E-04	05/16/90		7.59E-03
		{ 4.78E-03}		{ 1.08E-03}		{ 2.16E-04}			{ 1.09E-03}
06/13/90		9.63E-04		4.85E-03		5.14E-04	06/13/90		3.39E-03
		{ 1.07E-02}		{ 9.39E-04}		{ 2.90E-04}			{ 8.61E-04}
06/27/90		1.23E-03		1.19E-02		1.57E-03	06/27/90		9.66E-03
		{ 1.14E-02}		{ 1.27E-03}		{ 4.55E-04}			{ 1.18E-03}
07/11/90		1.25E-03		1.10E-02		3.01E-03	07/11/90		1.12E-02
		{ 1.57E-02}		{ 1.24E-03}		{ 6.26E-04}			{ 1.25E-03}
07/25/90		1.81E-02		1.65E-02		3.09E-03	07/25/90		1.64E-02
		{ 1.50E-03}		{ 1.44E-03}		{ 6.27E-04}			{ 1.42E-03}
08/08/90		2.24E-02		1.71E-02		3.68E-03	08/08/90		1.66E-02
		{ 1.68E-03}		{ 1.44E-02}		{ 6.83E-04}			{ 1.44E-03}
09/05/90		1.64E-02		1.54E-02		2.98E-03	09/05/90		1.62E-02
		{ 1.44E-03}		{ 1.41E-03}		{ 6.14E-04}			{ 1.43E-03}
09/19/90		2.33E-02		1.96E-02		2.48E-03	09/19/90		2.34E-02
		{ 1.68E-03}		{ 1.55E-03}		{ 5.69E-04}			{ 1.68E-03}
10/03/90		3.16E-02		2.48E-02		2.08E-03	10/03/90		2.71E-02
		{ 1.91E-03}		{ 1.72E-03}		{ 5.29E-04}			{ 1.79E-03}
10/17/90		1.40E-02		2.55E-03		4.12E-04	10/17/90		1.34E-02
		{ 1.30E-03}		{ 7.50E-04}		{ 2.60E-04}			{ 1.32E-03}
10/31/90		1.48E-02		1.61E-02		2.51E-03	10/31/90		1.48E-02
		{ 1.31E-03}		{ 1.41E-03}		{ 5.72E-04}			{ 1.39E-03}
11/14/90		1.47E-02		1.58E-02		1.82E-03	11/14/90		1.35E-02
		{ 1.38E-03}		{ 1.41E-03}		{ 4.93E-04}			{ 1.33E-03}

0054 - RICHLAND 700 AREA

OFF DATE	COM	BETA	COM	BETA	COM	ALPHA	OFF DATE	COM	BETA
01/10/90		1.20E-02		1.20E-02	<	3.90E-05	01/10/90		1.17E-02
		{ 1.27E-03}		{ 1.27E-03}		{ 1.94E-04}			{ 1.26E-03}
01/24/90		3.02E-02		3.02E-02		1.04E-03	01/24/90		2.61E-02
		{ 1.81E-03}		{ 1.88E-03}		{ 3.81E-04}			{ 1.72E-03}
02/07/90		4.95E-03		4.95E-03	<	1.32E-04	02/07/90		5.74E-03
		{ 9.39E-04}		{ 9.39E-04}		{ 2.11E-04}			{ 9.90E-04}
02/21/90		1.66E-02		1.66E-02		1.23E-03	02/21/90		1.40E-02
		{ 1.47E-03}		{ 1.47E-03}		{ 4.24E-04}			{ 1.33E-03}
03/07/90		2.31E-02		2.31E-02		5.78E-04	03/07/90		2.36E-02
		{ 1.56E-03}		{ 1.56E-03}		{ 2.92E-04}			{ 1.67E-03}
03/21/90		1.38E-02		1.38E-02		2.81E-04	03/21/90		1.11E-02
		{ 1.35E-03}		{ 1.35E-03}		{ 2.38E-04}			{ 1.24E-03}
04/04/90		2.85E-02		2.85E-02		1.13E-03	04/04/90		2.41E-02
		{ 1.82E-03}		{ 1.82E-03}		{ 4.07E-04}			{ 1.68E-03}
04/18/90		1.64E-02		1.64E-02		1.29E-03	04/18/90		1.50E-02
		{ 1.44E-03}		{ 1.44E-03}		{ 4.36E-04}			{ 1.38E-03}
05/02/90		8.00E-03		8.00E-03		3.96E-04	05/02/90		8.10E-03
		{ 1.10E-03}		{ 1.10E-03}		{ 2.75E-04}			{ 1.10E-03}
05/16/90		7.51E-03		7.51E-03		2.46E-04	05/16/90		7.59E-03
		{ 1.08E-03}		{ 1.08E-03}		{ 2.16E-04}			{ 1.09E-03}
06/13/90		4.85E-03		4.85E-03		5.14E-04	06/13/90		3.39E-03
		{ 9.39E-04}		{ 9.39E-04}		{ 2.90E-04}			{ 8.61E-04}
06/27/90		1.19E-02		1.19E-02		1.57E-03	06/27/90		9.66E-03
		{ 1.27E-03}		{ 1.27E-03}		{ 4.55E-04}			{ 1.18E-03}
07/11/90		1.10E-02		1.10E-02		3.01E-03	07/11/90		1.12E-02
		{ 1.24E-03}		{ 1.24E-03}		{ 6.26E-04}			{ 1.25E-03}
07/25/90		1.65E-02		1.65E-02		3.09E-03	07/25/90		1.64E-02
		{ 1.44E-03}		{ 1.44E-03}		{ 6.27E-04}			{ 1.42E-03}
08/08/90		1.71E-02		1.71E-02		3.68E-03	08/08/90		1.66E-02
		{ 1.44E-03}		{ 1.44E-03}		{ 6.83E-04}			{ 1.44E-03}
08/22/90		1.84E-02		1.84E-02		3.03E-03	08/22/90		1.91E-02
		{ 1.54E-03}		{ 1.54E-03}		{ 5.69E-04}			{ 1.54E-03}
09/05/90		1.54E-02		1.54E-02		2.98E-03	09/05/90		1.62E-02
		{ 1.41E-03}		{ 1.41E-03}		{ 6.14E-04}			{ 1.43E-03}
09/19/90		1.96E-02		1.96E-02		2.48E-03	09/19/90		2.34E-02
		{ 1.55E-03}		{ 1.55E-03}		{ 5.69E-04}			{ 1.68E-03}
10/03/90		2.48E-02		2.48E-02		2.08E-03	10/03/90		2.71E-02
		{ 1.72E-03}		{ 1.72E-03}		{ 5.29E-04}			{ 1.79E-03}
10/17/90		2.55E-03		2.55E-03		4.12E-04	10/17/90		1.34E-02
		{ 7.50E-04}		{ 7.50E-04}		{ 2.60E-04}			{ 1.32E-03}
10/31/90		1.61E-02		1.61E-02		2.51E-03	10/31/90		1.48E-02
		{ 1.41E-03}		{ 1.41E-03}		{ 5.72E-04}			{ 1.39E-03}
11/14/90		1.58E-02		1.58E-02		1.82E-03	11/14/90		1.35E-02
		{ 1.41E-03}		{ 1.41E-03}		{ 4.93E-04}			{ 1.33E-03}

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.  
 \* - Analyzed as part of a composite sample only.

1654 - PASCO				0054 - RICHLAND 700 AREA				1655 - KENNEWICK-ELY STREET			
OFF DATE	COM	BETA		OFF DATE	COM	BETA	ALPHA	OFF DATE	COM	BETA	
11/28/90		1.13E-02		11/28/90		1.31E-02	9.75E-04	11/28/90		1.17E-02	
		{ 1.25E-03}				{ 1.27E-03}	{ 3.57E-04}			{ 1.22E-03}	
12/12/90		1.88E-02		12/12/90		2.18E-02	2.50E-03	12/12/90		1.79E-02	
		{ 1.55E-03}				{ 1.63E-03}	{ 5.75E-04}			{ 1.49E-03}	
12/27/90		3.77E-02		12/27/90		3.45E-02	8.40E-04	12/27/90		3.65E-02	
		{ 2.07E-03}				{ 1.91E-03}	{ 3.50E-04}			{ 1.94E-03}	
MEAN				1.62E-02			2.10E-03	1.59E-02			
MINIMUM				2.55E-03			4.12E-04	3.39E-03			
MAXIMUM				3.45E-02			3.68E-03	3.65E-02			
2STD.ERR				3.18E-03			5.34E-04	3.03E-03			

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.  
 \* - Analyzed as part of a composite sample only.

SURFACE ENVIRONMENTAL SURVEILLANCE DATA REPORT - 123089 TO 010491  
AIR COMPOSITED SAMPLES - PCI/M3

0610 TRI CITY - PASCO, RICHLAND 700 AREA, KENNEWICK-ELY STRE (PARTICULATE, FILTER-1)

OFF DATE COM	SR 90	RU 106	CS 137	PU 238	PU23940
02/07/90	nra	< 1.27E-03 { 3.97E-03}	< 1.84E-04 { 3.61E-04}	nra	nra
03/07/90	nra	< -2.89E-03 { 7.05E-03}	< 3.97E-04 { 6.94E-04}	nra	nra
04/04/90	< -1.19E-05 { 2.04E-05}	< -7.09E-04 { 6.50E-03}	< 6.92E-05 { 7.27E-04}	< -1.32E-07 { 0.00E+00}	1.83E-06 { 1.30E-06}
05/02/90	nra	< -1.18E-04 { 6.06E-03}	< -4.53E-04 { 8.65E-04}	nra	nra
06/27/90	nra	< -5.69E-03 { 8.44E-03}	< 7.78E-04 { 8.08E-04}	nra	nra
07/25/90	nra	< -3.99E-03 { 1.34E-02}	< 7.34E-05 { 9.83E-04}	nra	nra
09/05/90	nra	< 2.17E-03 { 7.23E-03}	< 2.44E-04 { 3.84E-04}	nra	nra
10/03/90	< 3.03E-05 { 3.50E-05}	< 5.04E-04 { 6.83E-03}	< 2.67E-04 { 8.41E-04}	< -1.34E-07 { 0.00E+00}	< 8.69E-07 { 8.91E-07}
10/31/90	nra	< 1.27E-03 { 8.23E-03}	< -2.79E-04 { 9.37E-04}	nra	nra
11/28/90	nra	< -7.35E-04 { 8.79E-03}	< -5.55E-04 { 7.05E-04}	nra	nra
12/27/90	5.80E-05 { 3.91E-05}	< -4.41E-03 { 8.33E-03}	< 2.96E-04 { 5.80E-04}	< 3.96E-07 { 7.74E-07}	2.16E-06 { 1.54E-06}
MEAN	2.55E-05	-1.21E-03	9.29E-05	4.33E-08	1.62E-06
MINIMUM	< -1.19E-05	< -5.69E-03	< -5.55E-04	< -1.34E-07	< 8.69E-07
MAXIMUM	5.80E-05	< 2.17E-03	< 7.78E-04	< 3.96E-07	2.16E-06
2STD.ERR	4.06E-05	1.59E-03	2.35E-04	3.53E-07	7.74E-07

< - Result less than detection limit.  
{ } - Uncertainty for result.  
NR - No result reported.  
nra - Not routinely analyzed or analyzed on a less frequent basis.

0029 - BENTON CITY

0625 - PROSSER

OFF DATE	COM	BETA	COM	ALPHA	OFF DATE	COM	BETA
01/09/90		1.03E-02		4.49E-04	01/09/90		1.18E-02
	{	1.31E-03	{	3.10E-04		{	1.35E-03
01/23/90		3.31E-02	<	2.24E-04	01/23/90		3.01E-02
	{	1.92E-03	{	2.65E-04		{	1.83E-03
02/06/90		4.78E-03	<	7.03E-05	02/06/90		3.97E-03
	{	9.43E-04	{	1.92E-04		{	8.98E-04
02/20/90		1.42E-02		2.86E-04	02/20/90		1.27E-02
	{	1.36E-03	{	2.52E-04		{	1.29E-03
03/06/90		2.22E-02		3.95E-04	03/06/90		2.02E-02
	{	1.65E-03	{	2.73E-04		{	1.49E-03
03/20/90		1.05E-02		3.52E-04	03/20/90		9.56E-03
	{	1.22E-03	{	2.80E-04		{	1.18E-03
04/03/90		2.01E-02		6.24E-04	04/03/90		2.10E-02
	{	1.57E-03	{	3.33E-04		{	1.60E-03
04/17/90		1.69E-02		5.21E-04	04/17/90		1.65E-02
	{	1.47E-03	{	3.10E-04		{	1.44E-03
05/01/90		9.22E-03	<	2.20E-04	05/01/90		7.99E-03
	{	1.16E-03	{	2.34E-04		{	1.10E-03
05/15/90		8.49E-03		2.46E-04	05/15/90		9.10E-03
	{	1.13E-03	{	2.16E-04		{	1.16E-03
06/12/90		3.61E-03		4.42E-04	06/12/90		4.61E-03
	{	8.76E-04	{	2.71E-04		{	9.28E-04
06/26/90		9.47E-03		1.69E-03	06/26/90		1.88E-02
	{	1.18E-03	{	4.80E-04		{	1.53E-03
07/10/90		7.03E-03		1.81E-03	07/10/90		1.55E-02
	{	1.06E-03	{	4.76E-04		{	1.41E-03
07/24/90		1.47E-02		3.75E-03	07/24/90		1.85E-02
	{	1.37E-03	{	6.80E-04		{	1.53E-03
08/07/90		1.78E-02		3.74E-03	08/07/90		1.12E-02
	{	1.48E-03	{	6.88E-04		{	1.24E-03
08/21/90		1.96E-02		4.69E-03	08/21/90		7.09E-03
	{	1.56E-03	{	7.67E-04		{	1.06E-03
09/04/90		1.31E-02		3.09E-03	09/04/90		1.49E-02
	{	1.31E-03	{	6.23E-04		{	1.39E-03
09/18/90		2.32E-02		6.17E-03	09/18/90		2.43E-02
	{	1.71E-03	{	1.14E-03		{	1.73E-03
10/02/90		2.56E-02		2.13E-03	10/02/90		2.78E-02
	{	1.74E-03	{	5.14E-04		{	1.81E-03
10/16/90		1.49E-02		2.56E-03	10/16/90		1.04E-02
	{	1.37E-03	{	5.67E-04		{	1.21E-03
10/30/90		1.40E-02		1.97E-03	10/30/90		1.60E-02
	{	1.36E-03	{	5.05E-04		{	1.41E-03
11/13/90		1.34E-02		1.54E-03	11/13/90		1.29E-02
	{	1.33E-03	{	4.52E-04		{	1.31E-03

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.  
 \* - Analyzed as part of a composite sample only.

0625 - PROSSER

0029 - BENTON CITY

OFF DATE	COM	BETA	COM	ALPHA	OFF DATE	COM	BETA
11/27/90		1.06E-02		6.76E-04	11/27/90		9.59E-03
	{	1.23E-03}		{ 3.24E-04 }		{	1.18E-03}
12/11/90		2.24E-02		2.38E-03	12/11/90		1.78E-02
	{	1.71E-03}		{ 5.62E-04 }		{	1.45E-03}
12/27/90		2.91E-02		3.78E-03	12/27/90		4.22E-02
	{	1.67E-03}		{ 6.32E-04 }		{	2.02E-03}
MEAN		1.55E-02		2.69E-03			1.58E-02
MINIMUM		3.61E-03		4.42E-04			3.97E-03
MAXIMUM		3.31E-02		6.17E-03			4.22E-02
2STD.ERR		2.99E-03		7.91E-04			3.46E-03

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.  
 \* - Analyzed as part of a composite sample only.



SURFACE ENVIRONMENTAL SURVEILLANCE DATA REPORT - 123089 TO 010491  
AIR COMPOSITED SAMPLES - PCI/M3

0611 BENTON CITY COMP - BENTON CITY, PROSSER (PARTICULATE, FILTER-1)

OFF DATE	COM	SR 90	RU 106	CS 137	PU 238	PU23940
02/06/90		nra	< -1.59E-03 { 5.92E-03}	7.06E-04 { 6.71E-04}	nra	nra
03/06/90		nra	< -1.56E-03 { 1.16E-02}	< -3.62E-04 { 1.05E-03}	nra	nra
04/03/90		< -2.63E-05 { 3.30E-05}	< -4.83E-03 { 1.11E-02}	< -3.64E-04 { 1.26E-03}	< -2.01E-07 { 0.00E+00}	< 1.19E-06 { 1.22E-06}
05/01/90		nra	< -5.18E-03 { 9.79E-03}	< 9.17E-04 { 9.57E-04}	nra	nra
06/26/90		nra	< -1.15E-02 { 1.65E-02}	< 4.82E-04 { 1.18E-03}	nra	nra
08/07/90		nra	< -1.26E-03 { 1.17E-02}	< 2.67E-04 { 8.41E-04}	nra	nra
09/04/90		nra	1.18E-02 { 1.08E-02}	< -4.54E-05 { 1.03E-03}	nra	nra
10/02/90		< 1.88E-05 { 4.84E-05}	< -1.22E-02 { 1.48E-02}	< -8.29E-04 { 1.11E-03}	< -2.80E-07 { 1.58E-07}	< 5.37E-08 { 6.83E-07}
10/30/90		nra	< -4.77E-03 { 1.48E-02}	< 1.25E-04 { 1.19E-03}	nra	nra
11/27/90		nra	< 6.56E-03 { 1.31E-02}	< 2.18E-04 { 1.06E-03}	nra	nra
12/27/90		< 4.10E-07 { 4.89E-05}	< -5.73E-03 { 1.05E-02}	< 3.90E-05 { 9.82E-04}	< -3.50E-07 { 2.45E-07}	< -2.79E-08 { 0.00E+00}
MEAN		-2.36E-06	-2.75E-03	1.05E-04	-2.77E-07	4.05E-07
MINIMUM		< -2.63E-05	< -1.22E-02	< -8.29E-04	< -3.50E-07	< -2.79E-08
MAXIMUM		< 1.88E-05	1.18E-02	< 9.17E-04	< -2.01E-07	< 1.19E-06
2STD.ERR		2.62E-05	4.23E-03	3.04E-04	8.61E-08	7.86E-07

< - Result less than detection limit.  
{ } - Uncertainty for result.  
NR - No result reported.  
nra - Not routinely analyzed or analyzed on a less frequent basis.

0033 - ELTOPIA \*

1120 - ELTOPIA

OFF DATE	COM	BETA
01/04/90		2.03E-02
		{ 1.55E-03}
01/18/90		2.08E-02
		{ 1.60E-03}
02/01/90		1.40E-02
		{ 1.35E-03}
02/15/90		6.31E-03
		{ 1.04E-03}
03/01/90		2.26E-02
		{ 1.65E-03}
03/15/90		4.45E-02
		{ 2.23E-03}
03/29/90		1.91E-02
		{ 1.53E-03}
04/12/90		2.43E-02
		{ 1.72E-03}
04/26/90		9.45E-03
		{ 1.22E-03}
05/10/90		9.69E-03
		{ 1.20E-03}
05/24/90		1.00E-02
		{ 1.19E-03}
06/07/90		6.39E-03
		{ 1.02E-03}
06/21/90		6.39E-03
		{ 1.05E-03}
07/05/90		1.17E-02
		{ 1.27E-03}
07/19/90		1.38E-02
		{ 1.38E-03}
08/02/90		1.95E-02
		{ 1.57E-03}
08/16/90		2.14E-02
		{ 1.62E-03}
08/30/90		1.36E-02
		{ 1.28E-03}
09/13/90		2.14E-02
		{ 1.62E-03}
09/27/90		2.40E-02
		{ 1.70E-03}
10/11/90		1.96E-02
		{ 1.54E-03}

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.  
 \* - Analyzed as part of a composite sample only.

0033 - ELTOPIA \*

1120 - ELTOPIA

OFF DATE	COM	BETA
10/25/90		1.50E-02
	{	1.37E-03}
11/08/90		1.23E-02
	{	1.29E-03}
11/21/90		1.96E-02
	{	1.61E-03}
12/06/90		7.74E-03
	{	1.05E-03}
12/20/90		2.43E-02
	{	1.70E-03}
01/03/91	1	5.39E-03
	{	9.73E-04}
MEAN		1.64E-02
MINIMUM		5.39E-03
MAXIMUM		4.45E-02
2STD.ERR		3.23E-03

< - Result less than detection limit.  
 {} - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.  
 \* - Analyzed as part of a composite sample only.  
 1 COMPUTED WITH INACCURATE SAMPLE VOLUME.

0617 ELTOPIA - ELTOPIA, ELTOPIA (PARTICULATE, FILTER-1)

OFF DATE	COM	SR 90	RU 106	CS 137	PU 238	PU23940
01/04/90		< -1.85E-05 { 6.80E-05}	< 8.71E-04 { 9.16E-03}	1.01E-03 { 9.59E-04}	< 3.43E-08 { 8.86E-07}	< 6.31E-07 { 1.21E-06}
02/01/90		nra	< 0.00E+00 { 1.02E-02}	< -1.05E-04 { 1.26E-03}	nra	nra
03/01/90		nra	< 3.60E-03 { 7.06E-03}	< -3.14E-04 { 7.32E-04}	nra	nra
03/29/90		< -2.11E-05 { 3.87E-05}	< 8.04E-03 { 9.23E-03}	< -7.20E-04 { 1.10E-03}	< -2.34E-07 { 0.00E+00}	2.07E-06 { 1.87E-06}
04/26/90		nra	< -1.86E-03 { 1.18E-02}	< 6.68E-04 { 1.43E-03}	nra	nra
07/05/90		nra	< -1.02E-02 { 1.78E-02}	< -4.81E-04 { 1.17E-03}	nra	nra
08/02/90		nra	< 8.41E-04 { 1.14E-02}	< 3.06E-04 { 1.16E-03}	nra	nra
08/30/90		nra	< 3.48E-03 { 9.27E-03}	< 1.43E-04 { 1.17E-03}	nra	nra
09/27/90		< 7.39E-06 { 5.69E-05}	< -8.03E-03 { 1.53E-02}	< -2.50E-04 { 1.12E-03}	< -2.34E-07 { 0.00E+00}	< 9.99E-07 { 1.31E-06}
10/25/90		nra	< -2.71E-03 { 1.44E-02}	< 4.67E-04 { 1.02E-03}	nra	nra
12/06/90		nra	< 2.41E-03 { 7.53E-03}	< -2.62E-04 { 7.60E-04}	nra	nra
01/03/91	1	1.28E-04 { 6.41E-05}	< -1.17E-02 { 1.67E-02}	< 9.91E-04 { 1.46E-03}	< -2.14E-07 { 0.00E+00}	< 1.12E-06 { 1.23E-06}
MEAN		2.39E-05	-1.27E-03	1.21E-04	-1.62E-07	1.20E-06
MINIMUM		< -2.11E-05	< -1.17E-02	< -7.20E-04	< -2.34E-07	< 6.31E-07
MAXIMUM		1.28E-04	< 8.04E-03	1.01E-03	< 3.43E-08	2.07E-06
2STD.ERR		7.06E-05	3.45E-03	3.30E-04	1.31E-07	6.13E-07

< - Result less than detection limit.  
{ } - Uncertainty for result.  
nra - No result reported.  
1 - Not routinely analyzed or analyzed on a less frequent basis.  
SAMPLES 1120 & 0033, 01/03 WERE COMPUTED WITH INACCURATE SAMPLE VOLUME.

0034 - MATTAWA \*

0626 - MATTAWA

OFF DATE	COM	BETA
01/10/90		9.24E-03
		{ 1.20E-03}
01/24/90		2.46E-02
		{ 1.72E-03}
02/06/90		4.33E-03
		{ 9.46E-04}
02/20/90		1.47E-02
		{ 1.37E-03}
03/06/90		2.29E-02
		{ 1.63E-03}
03/20/90		8.91E-03
		{ 1.12E-03}
04/03/90		1.60E-02
		{ 1.41E-03}
04/17/90		1.58E-02
		{ 1.40E-03}
05/01/90		5.81E-03
		{ 9.97E-04}
05/15/90		7.40E-03
		{ 1.06E-03}
06/12/90		4.60E-03
		{ 9.36E-04}
06/26/90		9.06E-03
		{ 1.15E-03}
07/10/90		6.00E-03
		{ 1.01E-03}
07/24/90		1.51E-02
		{ 1.37E-03}
08/07/90		1.36E-02
		{ 1.33E-03}
08/21/90		1.92E-02
		{ 1.55E-03}
09/04/90		6.36E-03
		{ 8.16E-04}
09/18/90		1.21E-02
		{ 1.05E-03}
10/02/90		1.34E-02
		{ 1.07E-03}
10/16/90		5.17E-03
		{ 7.63E-04}
10/29/90		1.10E-02
		{ 1.32E-03}
11/13/90		1.18E-02
		{ 1.21E-03}

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.  
 \* - Analyzed as part of a composite sample only.

0034 - MATTAWA \*

0626 - MATTAWA

OFF DATE	COM	BETA
11/27/90		1.09E-02
	{	1.24E-03}
12/11/90		1.55E-02
	{	1.40E-03}
12/31/90		7.19E-02
	{	3.33E-03}
MEAN		1.42E-02
MINIMUM		4.33E-03
MAXIMUM		7.19E-02
2STD.ERR		5.28E-03

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.  
 \* - Analyzed as part of a composite sample only.

SURFACE ENVIRONMENTAL SURVEILLANCE DATA REPORT - 123089 TO 010491  
AIR COMPOSITED SAMPLES - PCL/M3

0618 MATTAWA - MATTAWA, MATTAWA (PARTICULATE, FILTER-1)

OFF DATE	COM	SR 90	RU 106	CS 137	PU 238	PU23940
02/06/90		nra	< 2.62E-04 { 8.55E-03}	< -1.51E-05 { 7.74E-04}	nra	nra
03/06/90		nra	< 4.44E-03 { 5.97E-03}	< -4.16E-05 { 9.46E-04}	nra	nra
04/03/90		< -3.58E-05 { 5.00E-05}	< 7.63E-03 { 1.22E-02}	< -1.03E-04 { 1.23E-03}	< -2.04E-07 { 0.00E+00}	< -2.50E-08 { 0.00E+00}
05/01/90		nra	< 2.98E-03 { 9.31E-03}	< 5.63E-04 { 8.87E-04}	nra	nra
06/26/90		nra	< -7.89E-03 { 1.43E-02}	< 2.29E-04 { 1.11E-03}	nra	nra
08/07/90		nra	< 5.10E-03 { 8.93E-03}	< 2.34E-04 { 7.31E-04}	nra	nra
09/04/90		nra	< -1.23E-02 { 1.71E-02}	< 4.57E-04 { 8.75E-04}	nra	nra
10/02/90		8.96E-05 { 5.59E-05}	< 0.00E+00 { 1.33E-02}	< 1.03E-04 { 1.08E-03}	< -2.76E-07 { 1.55E-07}	< 1.21E-06 { 1.24E-06}
10/29/90		nra	< -8.59E-03 { 1.31E-02}	< -4.48E-04 { 1.55E-03}	nra	nra
11/27/90		nra	< -3.95E-03 { 1.15E-02}	< -5.06E-04 { 1.07E-03}	nra	nra
12/31/90		1.27E-04 { 7.44E-05}	< 8.31E-03 { 1.40E-02}	< 1.94E-04 { 1.26E-03}	< -2.44E-07 { 0.00E+00}	< 7.13E-07 { 1.22E-06}
MEAN		6.03E-05	-3.64E-04	6.06E-05	-2.41E-07	6.33E-07
MINIMUM		< -3.58E-05	< -1.23E-02	< -5.06E-04	< -2.76E-07	< -2.50E-08
MAXIMUM		1.27E-04	< 8.31E-03	< 5.63E-04	< -2.04E-07	< 1.21E-06
2STD.ERR		9.85E-05	4.19E-03	2.01E-04	4.17E-08	7.18E-07

< - Result less than detection limit.  
{ } - Uncertainty for result.  
NR - No result reported.  
nra - Not routinely analyzed or analyzed on a less frequent basis.

0960 - MOSES LAKE

OFF DATE	COM	BETA
01/12/90		8.20E-03
	{	1.11E-03}
01/26/90		2.91E-02
	{	1.83E-03}
02/09/90		7.88E-03
	{	1.10E-03}
02/23/90		2.01E-02
	{	1.60E-03}
03/09/90		2.12E-02
	{	1.61E-03}
03/23/90		1.08E-02
	{	1.21E-03}
04/06/90		1.96E-02
	{	1.58E-03}
04/20/90		1.55E-02
	{	1.37E-03}
05/04/90		1.39E-02
	{	1.38E-03}
05/18/90		1.11E-02
	{	1.24E-03}
06/01/90		7.73E-03
	{	1.06E-03}
06/15/90		5.41E-03
	{	1.03E-03}
06/29/90		9.44E-03
	{	1.17E-03}
07/13/90		1.33E-02
	{	1.31E-03}
07/27/90		1.41E-02
	{	1.35E-03}
08/10/90		2.05E-02
	{	1.58E-03}
08/24/90		1.94E-02
	{	1.48E-03}
09/07/90		1.58E-02
	{	1.37E-03}
09/21/90		1.49E-02
	{	1.39E-03}
10/05/90		2.23E-02
	{	1.62E-03}
10/19/90		9.44E-03
	{	1.16E-03}

0959 - WASHTUCNA

OFF DATE	COM	BETA
01/12/90		9.10E-03
	{	1.24E-03}
01/26/90		3.35E-02
	{	1.97E-03}
02/09/90		6.02E-03
	{	1.18E-03}
02/23/90		1.45E-02
	{	1.38E-03}
03/09/90		2.51E-02
	{	1.73E-03}
03/23/90		1.09E-02
	{	1.23E-03}
04/06/90		2.34E-02
	{	1.63E-03}
04/20/90		1.77E-02
	{	1.49E-03}
05/04/90		1.69E-02
	{	1.49E-03}
05/18/90		1.04E-02
	{	1.21E-03}
06/01/90		7.86E-03
	{	1.06E-03}
06/15/90		6.78E-03
	{	1.09E-03}
06/29/90		1.40E-02
	{	1.36E-03}
07/13/90		1.31E-02
	{	1.32E-03}
07/27/90		1.51E-02
	{	1.48E-03}
08/10/90		2.28E-02
	{	1.72E-03}
08/24/90		1.69E-02
	{	1.40E-03}
09/07/90	1	NR
	{	NR}
09/21/90		2.10E-02
	{	1.60E-03}
10/05/90		2.29E-02
	{	1.66E-03}
10/19/90		1.29E-02
	{	1.31E-03}

< - Result less than detection limit.

{ } - Uncertainty for result.

NR - No result reported.

nra - Not routinely analyzed or analyzed on a less frequent basis.

\* - Analyzed as part of a composite sample only.

1 NO SAMPLE. LOW EXPOSURE HOURS.



0960 - MOSES LAKE		0959 - WASHTUCNA	
OFF DATE	COM	OFF DATE	COM
11/02/90	BETA	11/02/90	BETA
	1.26E-02		1.32E-02
	{ 1.30E-03}		{ 1.33E-03}
11/16/90	1.38E-02	11/16/90	1.76E-02
	{ 1.34E-03}		{ 1.63E-03}
11/30/90	1.08E-02	11/30/90	9.89E-03
	{ 1.23E-03}		{ 1.09E-03}
12/14/90	2.08E-02	12/14/90	2.27E-02
	{ 1.59E-03}		{ 1.64E-03}
01/03/91	4.13E-02	12/28/90	4.47E-02
	{ 1.75E-03}		{ 2.16E-03}
MEAN	1.57E-02		1.71E-02
MINIMUM	5.41E-03		6.02E-03
MAXIMUM	4.13E-02		4.47E-02
2STD.ERR	3.00E-03		3.48E-03

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.  
 \* - Analyzed as part of a composite sample only.

1742 OUTER NE SECTOR - MOSES LAKE, WASHTUCNA (PARTICULATE, FILTER-1)

OFF DATE	COM	SR 90	RU 106	CS 137	PU 238	PU23940
01/26/90		nra	< 4.66E-03 { 1.19E-02}	< -1.13E-03 { 1.32E-03}	nra	nra
02/23/90		nra	< -1.12E-02 { 1.03E-02}	< -3.09E-04 { 9.31E-04}	nra	nra
04/06/90		< 2.20E-05 { 3.97E-05}	< 2.55E-03 { 6.49E-03}	< -2.83E-04 { 9.77E-04}	< -3.36E-07 { 2.60E-07}	< -1.55E-07 { 2.60E-07}
05/04/90		nra	< 2.90E-03 { 8.52E-03}	< 3.61E-04 { 1.13E-03}	nra	nra
06/29/90		nra	< -7.20E-03 { 1.76E-02}	< 1.17E-03 { 1.45E-03}	nra	nra
07/27/90		nra	< -6.74E-03 { 1.64E-02}	< -2.14E-04 { 1.35E-03}	nra	nra
09/07/90	1	nra	< -2.27E-03 { 1.21E-02}	< -1.61E-05 { 8.22E-04}	nra	nra
10/05/90		< 2.05E-06 { 4.08E-05}	< -3.27E-03 { 1.87E-02}	< 9.17E-04 { 9.58E-04}	< 2.15E-07 { 8.58E-07}	< 1.25E-06 { 1.48E-06}
11/02/90		nra	< -1.27E-02 { 1.18E-02}	< -3.54E-04 { 1.19E-03}	nra	nra
11/30/90	2	nra	< 4.59E-03 { 1.53E-02}	< -9.60E-04 { 1.22E-03}	nra	nra
01/03/91		< -2.05E-05 { 3.73E-05}	< 3.04E-03 { 9.49E-03}	< -1.29E-04 { 9.16E-04}	< -2.33E-07 { 0.00E+00}	< 6.89E-07 { 1.01E-06}
MEAN		1.18E-06	-2.33E-03	-8.61E-05	-1.18E-07	5.95E-07
MINIMUM		< -2.05E-05	< -1.27E-02	< -1.13E-03	< -3.36E-07	< -1.55E-07
MAXIMUM		< 2.20E-05	< 4.66E-03	< 1.17E-03	< 2.15E-07	< 1.25E-06
2STD.ERR		2.46E-05	3.85E-03	4.19E-04	3.38E-07	8.17E-07

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.  
 1 SAMPLE 0959, 9/7 WAS COMPUTED WITH INACCURATE SAMPLE VOLUME.  
 2 SAMPLE 0959, 11/16 WAS COMPUTED WITH INACCURATE SAMPLE VOLUME.

0262 - WALLA WALLA

OFF DATE	COM	BETA
01/05/90		1.68E-02
	{	1.47E-03}
01/19/90		1.68E-02
	{	1.46E-03}
02/02/90		1.39E-02
	{	1.36E-03}
02/16/90		6.63E-03
	{	1.04E-03}
03/02/90		2.76E-02
	{	1.78E-03}
03/16/90		1.57E-02
	{	1.42E-03}
03/30/90		1.92E-02
	{	1.58E-03}
04/13/90		1.68E-02
	{	1.23E-03}
04/27/90		9.69E-03
	{	1.10E-03}
05/11/90		1.07E-02
	{	1.27E-03}
05/25/90		7.34E-03
	{	1.07E-03}
06/08/90		7.51E-03
	{	1.09E-03}
06/22/90		7.16E-03
	{	1.06E-03}
07/06/90		9.92E-03
	{	1.21E-03}
07/20/90		1.28E-02
	{	1.34E-03}
08/03/90		1.63E-02
	{	1.42E-03}
08/17/90		2.00E-02
	{	1.56E-03}
08/31/90		1.30E-02
	{	1.26E-03}
09/14/90		2.04E-02
	{	1.55E-03}
09/28/90		2.02E-02
	{	1.52E-03}

0958 - MC NARY DAM

OFF DATE	COM	BETA
01/05/90		2.13E-02
	{	1.60E-03}
01/19/90		1.77E-02
	{	1.49E-03}
02/02/90		1.78E-02
	{	1.49E-03}
02/16/90		6.73E-03
	{	1.02E-03}
03/02/90		3.21E-02
	{	1.92E-03}
03/16/90		1.94E-02
	{	1.53E-03}
03/30/90		2.28E-02
	{	1.65E-03}
04/13/90		2.24E-02
	{	1.65E-03}
04/27/90		1.20E-02
	{	1.28E-03}
05/11/90		1.08E-02
	{	1.22E-03}
05/25/90		8.28E-03
	{	1.11E-03}
06/08/90		7.30E-03
	{	1.08E-03}
06/22/90		1.11E-02
	{	1.24E-03}
07/06/90		9.18E-03
	{	1.19E-03}
07/20/90		1.43E-02
	{	1.37E-03}
08/03/90		1.88E-02
	{	1.52E-03}
08/17/90		1.94E-02
	{	1.55E-03}
08/31/90		1.19E-02
	{	1.24E-03}
09/14/90		2.13E-02
	{	1.61E-03}
09/28/90		2.53E-02
	{	1.73E-03}

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.  
 \* - Analyzed as part of a composite sample only.

0262 - WALLA WALLA

OFF DATE	COM	BETA
10/12/90		1.67E-02
	{	1.44E-03}
10/26/90		1.37E-02
	{	1.33E-03}
11/09/90		9.11E-03
	{	1.16E-03}
11/21/90	1	1.41E-02
	{	1.49E-03}
12/07/90		7.22E-03
	{	1.34E-03}
12/21/90		2.20E-02
	{	1.64E-03}
01/04/91		4.85E-02
	{	2.29E-03}
MEAN		1.55E-02
MINIMUM		6.63E-03
MAXIMUM		4.85E-02
2STD.ERR		3.26E-03

0958 - MC NARY DAM

OFF DATE	COM	BETA
10/12/90		1.68E-02
	{	1.44E-03}
10/26/90		1.69E-02
	{	1.48E-03}
11/09/90		1.23E-02
	{	1.29E-03}
11/21/90	2	2.78E-02
	{	2.19E-03}
12/07/90		8.12E-03
	{	1.02E-03}
12/21/90		2.20E-02
	{	1.58E-03}
01/04/91		3.39E-02
	{	1.96E-03}
MEAN		1.73E-02
MINIMUM		6.73E-03
MAXIMUM		3.39E-02
2STD.ERR		2.83E-03

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.  
 \* - Analyzed as part of a composite sample only.  
 1 COMPUTED WITH INACCURATE SAMPLE VOLUME.  
 2 COMPUTED WITH INACCURATE SAMPLE VOLUME.  
 {

SURFACE ENVIRONMENTAL SURVEILLANCE DATA REPORT - 123089 TO 010491  
AIR COMPOSITED SAMPLES - PCI/M3

1744 OUTER SE SECTOR - WALLA WALLA, MC NARY DAM (PARTICULATE, FILTER-1)

OFF DATE	COM	SR 90	RU 106	CS 137	PU 238	PU23940
01/05/90	<	1.09E-06 { 6.33E-05}	< -9.10E-04 { 4.98E-03}	< 3.94E-05 { 5.35E-04}	< -1.98E-07 { 0.00E+00}	< 1.02E-06 { 1.20E-06}
02/02/90	nra	< -1.02E-02 { 1.45E-02}	< -1.03E-04 { 1.24E-03}	nra	nra	nra
03/02/90	nra	< 4.56E-03 { 9.07E-03}	< -9.12E-05 { 1.09E-03}	nra	nra	nra
03/30/90	< -1.95E-05 { 3.79E-05}	< 3.01E-03 { 1.02E-02}	< -3.67E-05 { 8.35E-04}	< -2.34E-07 { 0.00E+00}	< 7.68E-07 { 1.13E-06}	
04/27/90	nra	< 4.86E-04 { 6.59E-03}	< 3.00E-04 { 9.38E-04}	nra	nra	nra
07/06/90	nra	1.18E-02 { 8.63E-03}	< -8.47E-05 { 7.77E-04}	nra	nra	nra
08/03/90	nra	< 7.91E-03 { 1.58E-02}	< 1.06E-04 { 1.12E-03}	nra	nra	nra
08/31/90	nra	2.04E-02 { 1.59E-02}	< 5.49E-04 { 9.60E-04}	nra	nra	nra
09/28/90	< 7.20E-06 { 5.38E-05}	< 0.00E+00 { 1.45E-02}	< 3.56E-04 { 1.11E-03}	< -1.38E-07 { 8.15E-07}	< 1.55E-06 { 1.69E-06}	
10/26/90	nra	< 8.31E-03 { 1.47E-02}	< -1.05E-04 { 1.25E-03}	nra	nra	nra
12/07/90	1	nra	< -5.56E-04 { 1.38E-02}	< 6.12E-04 { 8.18E-04}	nra	nra
01/04/91	<	1.05E-05 { 5.12E-05}	< 7.09E-03 { 1.13E-02}	< -6.25E-04 { 1.18E-03}	< -2.21E-07 { 0.00E+00}	< 6.68E-07 { 9.83E-07}
MEAN		-1.78E-07	4.33E-03	7.64E-05	-1.96E-07	1.00E-06
MINIMUM		< -1.95E-05	< -1.02E-02	< -6.25E-04	< -2.34E-07	< 6.68E-07
MAXIMUM		< 1.05E-05	2.04E-02	< 6.12E-04	< -1.38E-07	< 1.55E-06
2STD.ERR		1.35E-05	4.43E-03	1.96E-04	4.25E-08	3.95E-07

< - Result less than detection limit.  
{ } - Uncertainty for result.  
NR - No result reported.  
nra - Not routinely analyzed or analyzed on a less frequent basis.  
1 SAMPLES 0958 & 0262, 11/21 WAS COMPUTED WITH INACCURATE SAMPLE VOLUME.

0032 - SUNNYSIDE \*

0964 - SUNNYSIDE

OFF DATE	COM	BETA	COM	ALPHA
01/09/90		1.16E-02	<	2.24E-04
		{ 1.36E-03}		{ 2.78E-04}
01/23/90		2.50E-02		4.40E-04
		{ 1.70E-03}		{ 2.87E-04}
02/06/90		4.55E-03	<	5.02E-05
		{ 9.82E-04}		{ 1.85E-04}
02/20/90		1.10E-02		2.95E-04
		{ 1.11E-03}		{ 2.36E-04}
03/06/90		2.03E-02		5.66E-04
		{ 1.58E-03}		{ 3.07E-04}
03/20/90		1.09E-02		4.50E-04
		{ 1.24E-03}		{ 2.84E-04}
04/03/90		2.01E-02		9.66E-04
		{ 1.58E-03}		{ 3.86E-04}
04/17/90		1.61E-02		1.26E-03
		{ 1.44E-03}		{ 4.24E-04}
05/01/90		8.09E-03	<	2.16E-04
		{ 1.11E-03}		{ 2.32E-04}
05/15/90		7.80E-03	<	2.33E-04
		{ 1.10E-03}		{ 2.43E-04}
06/12/90		4.82E-03		6.73E-04
		{ 9.68E-04}		{ 3.16E-04}
06/26/90		9.05E-03		1.67E-03
		{ 1.17E-03}		{ 4.83E-04}
07/10/90		7.18E-03		8.41E-04
		{ 1.06E-03}		{ 3.44E-04}
07/24/90		1.46E-02		2.42E-03
		{ 1.41E-03}		{ 5.66E-04}
08/07/90		1.47E-02		2.35E-03
		{ 1.39E-03}		{ 5.63E-04}
08/21/90		1.73E-02		3.07E-03
		{ 1.48E-03}		{ 6.31E-04}
09/04/90		1.24E-02		3.25E-03
		{ 1.27E-03}		{ 6.24E-04}
09/18/90		2.10E-02		4.63E-03
		{ 1.52E-03}		{ 7.37E-04}
10/02/90		2.28E-02		2.22E-03
		{ 1.66E-03}		{ 5.29E-04}
10/16/90		1.04E-02		1.44E-03
		{ 1.21E-03}		{ 4.38E-04}
10/30/90		1.35E-02		2.15E-03
		{ 1.32E-03}		{ 5.32E-04}
11/13/90		1.20E-02		1.53E-03
		{ 1.27E-03}		{ 4.52E-04}

< - Result less than detection limit.

{ } - Uncertainty for result.

NR - No result reported.

nra - Not routinely analyzed or analyzed on a less frequent basis.

\* - Analyzed as part of a composite sample only.

0964 - SUNNYSIDE

0032 - SUNNYSIDE \*

OFF DATE	COM	BETA	COM	ALPHA
11/27/90		1.04E-02		9.50E-04
	{	1.21E-03}		{ 3.59E-04}
12/11/90		1.96E-02		2.35E-03
	{	1.54E-03}		{ 5.54E-04}
12/27/90		4.13E-02		6.46E-03
	{	2.02E-03}		{ 8.25E-04}
MEAN		1.47E-02		2.40E-03
MINIMUM		4.55E-03		6.73E-04
MAXIMUM		4.13E-02		6.46E-03
2STD.ERR		3.14E-03		7.86E-04

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.  
 \* - Analyzed as part of a composite sample only.

1748 SUNNYSIDE - SUNNYSIDE, SUNNYSIDE (PARTICULATE, FILTER-1)

OFF DATE COM	SR 90	RU 106	CS 137	U 234	U 235	U 238	U-ISO T	PU 238
02/06/90	nra	< -3.72E-03 { 7.03E-03}	< -2.38E-04 { 9.22E-04}	nra	nra	nra	nra	nra
03/06/90	nra	< 3.02E-03 { 6.58E-03}	< -4.55E-04 { 1.08E-03}	nra	nra	nra	nra	nra
04/03/90	< -1.25E-05 { 3.26E-05}	< -6.74E-03 { 1.17E-02}	< -1.24E-04 { 1.13E-03}	1.71E-05 { 5.94E-06}	< -2.26E-07 { 1.06E-06}	1.34E-05 { 5.02E-06}	3.03E-05 { 7.85E-06}	< 1.12E-06 { 1.32E-06}
05/01/90	nra	< -2.84E-03 { 1.10E-02}	< 1.30E-03 { 1.15E-03}	nra	nra	nra	nra	nra
06/26/90	nra	< -7.88E-03 { 1.94E-02}	< -7.23E-04 { 1.52E-03}	nra	nra	nra	nra	nra
08/07/90	nra	< 6.94E-03 { 1.03E-02}	< 6.20E-04 { 8.59E-04}	nra	nra	nra	nra	nra
09/04/90	nra	< 1.03E-02 { 1.41E-02}	< 2.72E-04 { 1.22E-03}	nra	nra	nra	nra	nra
10/02/90	< -2.61E-07 { 3.46E-05}	< -1.06E-02 { 1.52E-02}	< -1.00E-04 { 1.10E-03}	6.11E-05 { 1.48E-05}	< 3.16E-06 { 4.37E-06}	6.75E-05 { 1.50E-05}	1.32E-04 { 2.15E-05}	< 2.89E-09 { 5.56E-07}
10/30/90	nra	< 8.83E-03 { 1.40E-02}	< -1.35E-04 { 1.24E-03}	nra	nra	nra	nra	nra
11/27/90	nra	< 1.05E-02 { 1.11E-02}	< -2.10E-05 { 1.38E-03}	nra	nra	nra	nra	nra
12/27/90	< 5.99E-06 { 4.81E-05}	< -6.33E-03 { 1.20E-02}	< -6.32E-05 { 8.19E-04}	2.60E-05 { 1.14E-05}	< 1.86E-06 { 3.00E-06}	2.26E-05 { 1.06E-05}	5.05E-05 { 1.59E-05}	2.55E-06 { 2.11E-06}
MEAN	-2.26E-06	1.35E-04	3.03E-05	3.47E-05	1.60E-06	3.45E-05	7.08E-05	1.22E-06
MINIMUM	< -1.25E-05	< -1.06E-02	< -7.23E-04	1.71E-05	< -2.26E-07	1.34E-05	3.03E-05	< 2.89E-09
MAXIMUM	< 5.99E-06	< 1.05E-02	1.30E-03	6.11E-05	< 3.16E-06	6.75E-05	1.32E-04	2.55E-06
2STD.ERR	1.09E-05	4.80E-03	3.29E-04	2.69E-05	1.97E-06	3.34E-05	6.20E-05	1.47E-06

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.



1748 SUNNYSIDE - SUNNYSIDE, SUNNYSIDE (PARTICULATE, FILTER-1)

OFF DATE COM PU23940

02/06/90	nra
03/06/90	nra
04/03/90	< -2.99E-06 { 6.63E-06}
05/01/90	nra
06/26/90	nra
08/07/90	nra
09/04/90	nra
10/02/90	< 7.12E-07 { 9.37E-07}
10/30/90	nra
11/27/90	nra
12/27/90	< 7.11E-07 { 1.04E-06}
MEAN	-5.22E-07
MINIMUM	< -2.99E-06
MAXIMUM	< 7.12E-07
2STD.ERR	2.47E-06

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.

0040 - YAKIMA \*

0624 - YAKIMA

OFF DATE	COM	BETA	COM	ALPHA
01/09/90		1.28E-02	<	1.67E-04
	{	1.43E-03		2.55E-04
01/23/90		1.42E-02	<	1.98E-04
	{	1.34E-03		2.17E-04
02/06/90		3.72E-03	<	7.26E-07
	{	1.00E-03		1.76E-04
02/20/90		1.01E-02	<	2.27E-04
	{	1.09E-03		2.32E-04
03/06/90		1.76E-02	<	2.05E-04
	{	1.47E-03		2.35E-04
03/20/90		8.73E-03	<	1.91E-04
	{	1.13E-03		2.14E-04
04/03/90		1.67E-02	<	2.50E-04
	{	1.44E-03		2.52E-04
04/17/90		1.39E-02		3.96E-04
	{	1.34E-03		2.65E-04
05/01/90		6.01E-03	<	6.17E-05
	{	1.00E-03		1.70E-04
05/15/90		8.10E-03	<	1.70E-04
	{	1.11E-03		2.01E-04
06/12/90		5.93E-03		9.24E-04
	{	1.00E-03		3.62E-04
06/26/90		1.35E-02		1.45E-03
	{	1.33E-03		4.33E-04
07/10/90		6.22E-03		2.04E-03
	{	1.02E-03		5.19E-04
07/24/90		1.50E-02		4.52E-03
	{	1.40E-03		7.42E-04
08/07/90		1.58E-02		4.78E-03
	{	1.40E-03		7.66E-04
08/21/90		1.72E-02		5.41E-03
	{	1.46E-03		8.22E-04
09/04/90		1.06E-02		1.51E-03
	{	1.23E-03		4.51E-04
09/18/90		1.94E-02		4.82E-03
	{	1.50E-03		7.48E-04
10/02/90		2.32E-02		1.97E-03
	{	1.71E-03		5.22E-04
10/16/90		9.30E-03		8.41E-04
	{	1.16E-03		3.44E-04
10/30/90		1.28E-02		1.89E-03
	{	1.34E-03		5.13E-04
11/13/90		9.87E-03		1.61E-03
	{	1.33E-03		5.18E-04

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.  
 \* - Analyzed as part of a composite sample only.

SURFACE ENVIRONMENTAL SURVEILLANCE DATA REPORT - 123089 TO 010491  
AIR SAMPLE COMPOSITE PARTS - PCI/M3

0040 - YAKIMA \*

0624 - YAKIMA

OFF DATE	COM	BETA	COM	ALPHA
11/27/90		9.50E-03		1.35E-03
	{	1.23E-03	{	4.45E-04
12/11/90		8.82E-03		1.07E-03
	{	1.13E-03	{	3.75E-04
12/27/90		3.81E-02		5.64E-03
	{	1.92E-03	{	7.83E-04
MEAN		1.31E-02		2.66E-03
MINIMUM		3.72E-03		8.41E-04
MAXIMUM		3.81E-02		5.64E-03
2STD.ERR		2.81E-03		9.26E-04

< - Result less than detection limit.  
{ } - Uncertainty for result.  
NR - No result reported.  
nra - Not routinely analyzed or analyzed on a less frequent basis.  
\* - Analyzed as part of a composite sample only.

0623 YAKIMA - YAKIMA, YAKIMA (PARTICULATE, FILTER-1)

OFF DATE COM	SR 90	RU 106	CS 137	U 234	U 235	U 238	U-ISO T	PU 238
02/06/90	nra	< 2.82E-03 { 5.53E-03}	1.21E-03 { 8.67E-04}	nra	nra	nra	nra	nra
03/06/90	nra	< -1.84E-03 { 1.16E-02}	< -6.43E-05 { 8.34E-04}	nra	nra	nra	nra	nra
04/03/90	< -4.82E-05 { 4.92E-05}	< -1.02E-02 { 1.04E-02}	< 8.34E-05 { 9.80E-04}	1.52E-05 { 5.74E-06}	< 1.39E-06 { 1.62E-06}	1.64E-05 { 5.68E-06}	3.30E-05 { 8.24E-06}	< -2.96E-09 { 7.24E-07}
05/01/90	nra	< 1.93E-04 { 1.18E-02}	< 4.93E-04 { 1.15E-03}	nra	nra	nra	nra	nra
06/26/90	nra	< 3.29E-03 { 1.60E-02}	< 3.42E-04 { 1.00E-03}	nra	nra	nra	nra	nra
08/07/90	nra	< 2.01E-04 { 1.13E-02}	< -4.47E-05 { 6.32E-04}	nra	nra	nra	nra	nra
09/04/90	nra	< -7.29E-03 { 1.79E-02}	< -1.01E-03 { 1.44E-03}	nra	nra	nra	nra	nra
10/02/90	< 7.86E-06 { 3.73E-05}	< -4.53E-03 { 1.45E-02}	< 1.88E-04 { 9.54E-04}	1.28E-05 { 7.65E-06}	< -2.35E-07 { 0.00E+00}	1.13E-05 { 6.80E-06}	2.39E-05 { 1.02E-05}	5.31E-06 { 3.01E-06}
10/30/90	nra	< 4.56E-03 { 1.48E-02}	< 3.03E-04 { 1.48E-03}	nra	nra	nra	nra	nra
11/27/90	nra	< -6.57E-03 { 1.61E-02}	< -9.66E-05 { 1.18E-03}	nra	nra	nra	nra	nra
12/27/90	< -2.36E-05 { 3.93E-05}	< -7.78E-03 { 1.04E-02}	< 4.38E-04 { 9.52E-04}	1.81E-05 { 1.15E-05}	< 1.17E-06 { 2.88E-06}	3.63E-05 { 1.53E-05}	5.56E-05 { 1.94E-05}	< 3.11E-07 { 1.07E-06}
MEAN	-2.13E-05	-2.47E-03	1.67E-04	1.54E-05	7.75E-07	2.13E-05	3.75E-05	1.87E-06
MINIMUM	< -4.82E-05	< -1.02E-02	< -1.01E-03	1.28E-05	< -2.35E-07	1.13E-05	2.39E-05	< -2.96E-09
MAXIMUM	< 7.86E-06	< 4.56E-03	1.21E-03	1.81E-05	< 1.39E-06	3.63E-05	5.56E-05	5.31E-06
2STD.ERR	3.24E-05	3.06E-03	3.23E-04	3.06E-06	1.02E-06	1.53E-05	1.88E-05	3.44E-06

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.

0623 YAKIMA - YAKIMA, YAKIMA (PARTICULATE, FILTER-1)

OFF DATE COM	PU23940
02/06/90	nra
03/06/90	nra
04/03/90	< -2.94E-07 { 3.80E-07 }
05/01/90	nra
06/26/90	nra
08/07/90	nra
09/04/90	nra
10/02/90	1.97E-06 { 1.78E-06 }
10/30/90	nra
11/27/90	nra
12/27/90	< -2.94E-08 { 0.00E+00 }
MEAN	5.49E-07
MINIMUM	< -2.94E-07
MAXIMUM	1.97E-06
2STD.ERR	1.43E-06

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.

1661 100 N-WPPSS AREA (HALOGEN, CHARCOAL CARTRIDGE)

OFF DATE	COM	I	131
01/09/90	<	1.71E-03	
	{	6.96E-03	
01/23/90	<	4.32E-03	
	{	4.32E-03	
02/07/90	<	8.29E-04	
	{	3.66E-03	
02/21/90	<	7.71E-04	
	{	4.96E-03	
03/07/90	<	1.28E-04	
	{	4.77E-03	
03/21/90	<	2.84E-03	
	{	3.61E-03	
04/04/90	<	3.38E-03	
	{	4.62E-03	
04/18/90	<	1.68E-03	
	{	4.35E-03	
05/02/90	<	9.25E-04	
	{	4.48E-03	
05/16/90	<	2.61E-03	
	{	4.67E-03	
MEAN		-6.88E-04	
MINIMUM	<	3.38E-03	
MAXIMUM	<	4.32E-03	
2STD.ERR		1.46E-03	

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.

0263 100 N-WPPSS AREA (WATER VAPOR, SILICA GEL-HTO)

OFF DATE	COM	H 3 AIR	H 3 LIQ
01/23/90		1.54E+00	3.05E+02
		{ 5.25E-01}	{ 1.04E+02}
02/21/90		< -2.20E-01	< -5.20E+01
		{ 4.27E-01}	{ 1.01E+02}
03/21/90		2.96E+00	4.86E+02
		{ 7.19E-01}	{ 1.18E+02}
04/18/90		< 1.24E+00	< 1.61E+02
		{ 7.71E-01}	{ 1.00E+02}
MEAN		1.39E+00	2.25E+02
MINIMUM		< -2.20E-01	< -5.20E+01
MAXIMUM		2.96E+00	4.86E+02
2STD.ERR		1.30E+00	2.28E+02

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.

1582 100 D AREA (HALOGEN, CHARCOAL CARTRIDGE)

OFF DATE	COM	I	131
01/09/90	<	-3.95E-04	{ 3.92E-03}
01/23/90	<	2.38E-03	{ 3.84E-03}
02/07/90	<	-1.85E-03	{ 4.45E-03}
02/21/90	<	1.60E-03	{ 4.08E-03}
03/07/90	<	-2.16E-03	{ 5.15E-03}
03/21/90	<	6.20E-04	{ 3.42E-03}
04/04/90	<	7.75E-04	{ 4.93E-03}
04/18/90	1	<	{ 1.23E-03}
05/02/90	<	4.86E-04	{ 3.76E-03}
05/17/90	<	-2.89E-03	{ 3.82E-03}
			{ 7.02E-03}
MEAN		-2.04E-05	
MINIMUM	<	-2.89E-03	
MAXIMUM	<	2.38E-03	
2STD.ERR			1.11E-03

< - Result less than detection limit.  
 {} - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.  
 1 CHARCOAL INCORRECTLY INSTALLED, WAS NOT SEALED.



SURFACE ENVIRONMENTAL SURVEILLANCE DATA REPORT - 123089 TO 010491  
AIR - GASES AND VAPOR - PCI/M3 (except PCI/L for H3 LIQ)

6335 100 D AREA (WATER VAPOR, SILICA GEL-HTO)

OFF DATE	COM	H 3 AIR	H 3 LIQ
01/09/90		1.08E+00 { 5.97E-01}	1.81E+02 { 1.00E+02}
02/07/90	<	3.16E-01 { 6.99E-01}	< 5.00E+01 { 1.11E+02}
03/07/90		5.01E+00 { 6.62E-01}	9.95E+02 { 1.32E+02}
04/04/90	<	1.04E-01 { 5.79E-01}	< 1.83E+01 { 1.02E+02}
05/02/90	<	-5.43E-02 { 8.04E-01}	< -6.49E+00 { 9.61E+01}
MEAN		1.29E+00	2.48E+02
MINIMUM	<	-5.43E-02	< -6.49E+00
MAXIMUM		5.01E+00	9.95E+02
2STD.ERR		1.90E+00	3.79E+02

< - Result less than detection limit.  
{ } - Uncertainty for result.  
NR - No result reported.  
nra - Not routinely analyzed or analyzed on a less frequent basis.

0914 100 D AREA (GAS, SODA LIME CO2)

OFF DATE	COM	C 14
01/09/90		1.09E+00
	{	1.03E-01}
03/07/90		1.47E+00
	{	1.17E-01}
MEAN		1.28E+00
MINIMUM		1.09E+00
MAXIMUM		1.47E+00
2STD.ERR		3.80E-01

< - Result less than detection limit.  
{ } - Uncertainty for result.  
NR - No result reported.  
nra - Not routinely analyzed or analyzed on a less frequent basis.

0269 E OF 200 E (HALOGEN, CHARCOAL CARTRIDGE)

OFF DATE COM	I 131
01/02/90	< -2.33E-03 { 4.16E-03}
01/16/90	< -1.62E-03 { 4.30E-03}
01/31/90	< 1.19E-04 { 3.79E-03}
02/14/90	< 4.83E-04 { 3.99E-03}
02/28/90	< -2.57E-04 { 4.32E-03}
03/14/90	< 9.47E-04 { 4.29E-03}
03/28/90	< 0.00E+00 { 4.24E-03}
04/11/90	< 1.10E-03 { 5.07E-03}
04/25/90	< 7.86E-04 { 4.36E-03}
05/09/90	< -2.31E-03 { 4.00E-03}
05/23/90	< 1.53E-03 { 3.96E-03}
MEAN	-1.41E-04
MINIMUM	< -2.33E-03
MAXIMUM	< 1.53E-03
2STD.ERR	8.21E-04

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.

1664 200 ESE (HALOGEN, CHARCOAL CARTRIDGE)

OFF DATE	COM	I	131
01/02/90	<	6.59E-04	
01/16/90	<	{ 3.95E-03	
01/31/90	<	{ 9.15E-03	
02/14/90	1	{ 1.61E-03	NR
02/28/90	<	{ 4.64E-03	{NR}
03/14/90	<	< -2.97E-03	{ 4.20E-03
03/28/90	<	< -3.29E-03	{ 3.75E-03
04/11/90	<	< 1.32E-03	{ 4.04E-03
04/25/90	<	< -1.27E-04	{ 3.60E-03
05/09/90	<	< -2.20E-03	{ 4.58E-03
05/23/90	<	< -1.08E-03	{ 3.81E-03
		< 2.54E-04	{ 3.55E-03
MEAN		-4.48E-04	
MINIMUM		< -3.29E-03	
MAXIMUM		< 1.61E-03	
2STD.ERR		1.16E-03	

< - Result less than detection limit.  
 {} - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.  
 1. NO SAMPLE. CHARCOAL CARTRIDGE LEFT OPEN.

0008 200 ESE - 200 ESE (HALOGEN, CHARCOAL CARTRIDGE)

OFF DATE COM	I 129
04/11/90	{ 9.48E-05 8.72E-06 }
07/03/90	{ 6.56E-05 5.11E-06 }
09/26/90	{ 1.14E-04 1.05E-05 }
12/20/90	{ 6.05E-05 5.45E-06 }
MEAN	8.38E-05
MINIMUM	6.05E-05
MAXIMUM	1.14E-04
2STD.ERR	2.54E-05

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.

6201 200 ESE (WATER VAPOR, SILICA GEL-HTO)

OFF DATE	COM	H 3 AIR	H 3 LfQ
01/16/90		2.48E+00 { 8.84E-01}	2.88E+02 { 1.02E+02}
02/14/90		< 7.55E-01 { 5.97E-01}	< 1.36E+02 { 1.07E+02}
03/14/90		1.74E+00 { 7.50E-01}	2.59E+02 { 1.11E+02}
04/11/90		2.37E+00 { 7.36E-01}	3.62E+02 { 1.12E+02}
06/06/90		nra	7.39E+03 { 2.44E+02}
07/03/90	1	NR {NR}	NR {NR}
08/01/90		nra	2.46E+02 { 1.08E+02}
08/29/90		nra	2.42E+02 { 1.07E+02}
09/26/90		nra	2.54E+02 { 1.07E+02}
10/24/90		nra	2.07E+02 { 1.09E+02}
11/21/90		nra	< 1.33E+02 { 1.04E+02}
12/20/90		nra	< 1.89E+02 { 1.04E+02}
MEAN		1.84E+00	8.82E+02
MINIMUM		< 7.55E-01	< 1.33E+02
MAXIMUM		2.48E+00	7.39E+03
2STD.ERR		7.91E-01	1.30E+03

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.  
 1 NO SAMPLE.

SURFACE ENVIRONMENTAL SURVEILLANCE DATA REPORT - 123089 TO 010491  
AIR - GASES AND VAPOR - PCI/M3 (except PCI/L for H3 LIQ)

0913 200 ESE (GAS, SODA LIME CO2)

OFF DATE COM C 14  
-----  
02/14/90 1.75E+00  
{ 8.20E-02}  
-----  
MEAN 1.75E+00  
MINIMUM 1.75E+00  
MAXIMUM 1.75E+00  
2STD.ERR 0.00E+00

< - Result less than detection limit.  
{ } - Uncertainty for result.  
NR - No result reported.  
nra - Not routinely analyzed or analyzed on a less frequent basis.

1534 200 ESE (GAS, PRESSURIZED CYLIND)

OFF DATE	COM	KR 85
01/25/90	1	NR {NR}
02/22/90		1.00E+01 { 6.93E+00}
03/22/90		8.48E+01 { 1.30E+01}
04/19/90		< 5.90E+00 { 1.08E+01}
MEAN		3.36E+01
MINIMUM		< 5.90E+00
MAXIMUM		8.48E+01
2STD.ERR		5.13E+01

< - Result less than detection limit.  
 {} - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.  
 1 NO SAMPLE. TANK LEAKAGE WHILE AT LAB.



SURFACE ENVIRONMENTAL SURVEILLANCE DATA REPORT - 123089 TO 010491  
AIR - GASES AND VAPOR - PCI/M3 (except PCI/L for H3 LIQ)

0270 S OF 200 E (HALOGEN, CHARCOAL CARTRIDGE)

OFF DATE	COM	I	131
01/02/90	<	1.28E-04	
	{	4.07E-03}	
01/15/90	<	7.11E-04	
	{	4.16E-03}	
01/31/90	<	-1.04E-03	
	{	3.35E-03}	
02/14/90	<	2.39E-04	
	{	3.34E-03}	
02/28/90	<	-3.77E-04	
	{	4.08E-03}	
03/14/90	<	3.93E-03	
	{	3.93E-03}	
03/28/90	<	2.15E-03	
	{	3.97E-03}	
04/11/90	<	2.37E-03	
	{	3.62E-03}	
04/25/90	<	7.35E-04	
	{	4.67E-03}	
05/09/90	<	1.15E-03	
	{	3.93E-03}	
05/23/90	<	-4.01E-04	
	{	3.53E-03}	
MEAN		8.73E-04	
MINIMUM	<	-1.04E-03	
MAXIMUM	<	3.93E-03	
2STD.ERR		8.77E-04	

< - Result less than detection limit.  
{ } - Uncertainty for result.  
NR - No result reported.  
nra - Not routinely analyzed or analyzed on a less frequent basis.

0275 200 TEL. EXCHANGE (WATER VAPOR, SILICA GEL-HTO)

OFF DATE COM	H 3 AIR	H 3 LIQ
01/02/90	1.79E+00 { 6.69E-01}	2.83E+02 { 1.06E+02}
01/31/90	< 1.01E+00 { 8.82E-01}	< 1.12E+02 { 9.77E+01}
02/28/90	1.72E+00 { 5.53E-01}	3.63E+02 { 1.17E+02}
03/28/90	2.30E+00 { 6.19E-01}	4.42E+02 { 1.19E+02}
04/25/90	2.71E+00 { 9.30E-01}	3.07E+02 { 1.05E+02}
MEAN	1.91E+00	3.01E+02
MINIMUM	< 1.01E+00	< 1.12E+02
MAXIMUM	2.71E+00	4.42E+02
2STD.ERR	5.75E-01	1.09E+02

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.

1795 300 WATER INTAKE (HALOGEN, CHARCOAL CARTRIDGE)

OFF DATE	COM	I	131
01/02/90	<	4.00E-04	{ 5.01E-03}
01/16/90	<	-1.34E-04	{ 3.82E-03}
01/30/90	<	1.81E-03	{ 3.51E-03}
02/13/90	<	-3.26E-03	{ 4.05E-03}
02/27/90	<	3.76E-03	{ 4.03E-03}
03/13/90	<	2.43E-04	{ 3.98E-03}
03/27/90	<	1.26E-04	{ 4.21E-03}
04/10/90	<	-1.14E-03	{ 3.67E-03}
04/24/90	<	3.84E-03	{ 3.94E-03}
05/08/90	<	4.46E-03	{ 4.74E-03}
05/22/90	<	-1.39E-03	{ 3.80E-03}
MEAN		7.92E-04	
MINIMUM	<	-3.26E-03	
MAXIMUM	<	4.46E-03	
2STD.ERR		1.47E-03	

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.

0900 300 TRENCH (WATER VAPOR, SILICA GEL-HTO)

OFF DATE	COM	H 3 AIR	H 3 LIQ
01/16/90		1.34E+00 { 4.83E-01}	2.85E+02 { 1.02E+02}
02/13/90		< -7.65E-01 { 6.98E-01}	< 1.11E+02 { 1.02E+02}
03/13/90		< 5.67E-01 { 7.27E-01}	< 8.7E+01 { 1.07E+02}
04/10/90		< -8.46E-01 { 6.58E-01}	< -1.30E+32 { 1.01E+02}
05/08/90		< -9.02E-02 { 8.51E-01}	< -1.02E+01 { 9.61E+01}
06/05/90		nra	< 2.01E+02 { 1.07E+02}
07/03/90		nra	7.57E+02 { 1.22E+02}
07/31/90		nra	< 1.16E+02 { 1.03E+02}
08/28/90		nra	3.13E+02 { 1.09E+02}
09/24/90		nra	< 2.01E+02 { 1.06E+02}
10/23/90		nra	< 1.43E+02 { 1.03E+02}
11/20/90		nra	5.13E+02 { 1.14E+02}
12/18/90		nra	< 1.51E+02 { 1.03E+02}
MEAN		4.12E-02	1.93E+02
MINIMUM		< -8.46E-01	< -1.30E+02
MAXIMUM		1.34E+00	7.57E+02
2STD.ERR		8.27E-01	1.34E+02

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.

0632 300 TRENCH (GAS, SODA LIME CO2)

OFF DATE	COM	C	14
01/30/90			1.57E+00
	{		6.82E-02}
07/17/90			1.40E+00
	{		6.94E-02}
09/11/90			1.38E+00
	{		8.37E-02}
11/06/90			1.38E+00
	{		9.31E-02}
12/31/90			1.31E+00
	{		1.16E-01}
MEAN			1.41E+00
MINIMUM			1.31E+00
MAXIMUM			1.57E+00
2STD.ERR			8.66E-02

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.

1507 300 TRENCH (GAS, PRESSURIZED CYLIND)

OFF DATE	COM	KR	85
01/25/90		1.33E+01	
	{	1.05E+01}	
02/22/90		5.83E+01	
	{	9.54E+00}	
03/22/90		2.39E+01	
	{	8.32E+00}	
MEAN		3.18E+01	
MINIMUM		1.33E+01	
MAXIMUM		5.83E+01	
2STD.ERR		2.72E+01	

< - Result less than detection limit.  
{ } - Uncertainty for result.  
NR - No result reported.  
nra - Not routinely analyzed or analyzed on a less frequent basis.

6309 400 E (HALOGEN, CHARCOAL CARTRIDGE)

OFF DATE	COM	I	131
01/02/90	<	5.23E-04	
01/16/90	<	4.11E-03	
01/30/90	<	2.25E-03	
02/13/90	<	4.21E-03	
02/27/90	<	-1.13E-03	
03/13/90	<	3.97E-03	
03/27/90	<	7.45E-03	
04/10/90	<	4.34E-03	
04/24/90	1	4.03E-04	
05/08/90	<	4.32E-03	
05/22/90	<	1.03E-03	
12/04/90	2	4.48E-03	
		-1.17E-03	
		3.75E-03	
		-8.41E-05	
		4.52E-03	
		NR	
		(NR)	
		-2.23E-03	
		4.03E-03	
		-7.46E-04	
		3.55E-03	
		NR	
		(NR)	
MEAN		3.19E-04	
MINIMUM	<	-2.23E-03	
MAXIMUM	<	4.34E-03	
2STD.ERR		1.20E-03	

< - Result less than detection limit.  
 {} - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.  
 1 NO SAMPLE. PUMP UNPLUGGED.  
 2 NO SAMPLE. SAMPLE WAS COLLECTED BUT NOT SUBMITTED. ON 12/4,  
 THE CARTRIDGE WAS ERRONEOUSLY PLACED AT THE H R. SUB(0260).

6428 400 E (WATER VAPOR, SILICA GEL-HTO)

OFF DATE	COM	H 3 AIR	H 3 LIQ
01/16/90		1.73E+00 { 5.31E-01}	3.38E+02 { 1.04E+02}
02/13/90		< -3.03E-01	< -6.34E+01
03/13/90		{ 4.92E-01}	{ 1.03E+02}
04/10/90		< 1.91E-01	< 3.46E+01
05/05/90		{ 5.67E-01}	{ 1.03E+02}
06/03/90		1.42E+00	2.40E+02
07/31/90		{ 6.67E-01}	{ 1.13E+02}
08/28/90		nra	3.22E+02
09/24/90		nra	{ 1.12E+02}
10/23/90		nra	{ 1.10E+02}
11/20/90		nra	< 1.06E+02}
12/18/90		nra	< 6.87E+01
		nra	{ 1.04E+02}
		nra	< 1.52E+02}
		nra	{ 1.07E+02}
		nra	< 6.81E+01
		nra	{ 1.04E+02}
MEAN		7.60E-01	1.55E+02
MINIMUM		< -3.03E-01	< -6.34E+01
MAXIMUM		1.73E+00	3.38E+02
2STD.ERR		9.71E-01	7.36E+01

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.



0267 BERG RANCH (WATER VAPOR, SILICA GEL-HTO)

OFF DATE	COM	H 3 AIR	H 3 LIQ
01/18/90	<	8.36E-01	< 1.18E+02
		{ 6.82E-01}	{ 9.62E+01}
02/15/90	<	3.21E-01	< 1.05E+02
		{ 3.25E-01}	{ 1.06E+02}
03/15/90	<	7.75E-03	< 7.03E+01
		{ 1.14E-02}	{ 1.03E+02}
04/12/90	<	8.97E-01	< 1.16E+02
		{ 8.07E-01}	{ 1.05E+02}
06/07/90		nra	< 5.94E+01
			{ 1.04E+02}
07/05/90		nra	2.14E+02
			{ 1.10E+02}
08/02/90		nra	2.59E+02
			{ 1.13E+02}
08/30/90		nra	< 1.91E+02
			{ 1.10E+02}
09/27/90		nra	2.55E+02
			{ 1.10E+02}
10/25/90		nra	2.18E+02
			{ 1.09E+02}
11/21/90		nra	< 1.66E+02
			{ 1.08E+02}
12/20/90		nra	2.56E+02
			{ 1.07E+02}
MEAN		5.15E-01	1.69E+02
MINIMUM	<	7.75E-03	< 5.94E+01
MAXIMUM	<	8.97E-01	2.59E+02
2STD.ERR		4.26E-01	4.24E+01

< - Result less than detection limit.  
{ } - Uncertainty for result.  
NR - No result reported.  
nra - Not routinely analyzed or analyzed on a less frequent basis.

0257 SAGEHILL MET TOWER (HALOGEN, CHARCOAL CARTRIDGE)

OFF DATE	COM	I	131
01/04/90	<	1.18E-04	
	{	3.93E-03}	
01/18/90	<	-1.73E-03	
	{	3.87E-03}	
02/01/90	<	5.77E-03	
	{	5.77E-03}	
02/15/90	<	3.27E-03	
	{	6.54E-03}	
03/01/90	<	3.47E-03	
	{	3.97E-03}	
03/15/90	<	-1.15E-03	
	{	4.17E-03}	
03/29/90	<	2.38E-03	
	{	6.06E-03}	
04/12/90	<	-9.76E-04	
	{	4.77E-03}	
04/26/90	<	1.85E-03	
	{	4.73E-03}	
05/10/90	<	2.60E-03	
	{	4.95E-03}	
05/24/90	<	-2.11E-03	
	{	4.56E-03}	
MEAN		1.23E-03	
MINIMUM	<	-2.11E-03	
MAXIMUM	<	5.77E-03	
2STD.ERR		1.54E-03	

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.

0905 SAGEHILL MET TOWER (WATER VAPOR, SILICA GEL-HTO)

OFF DATE	COM	H 3 AIR	H 3 LIQ
01/18/90	<	7.30E-01	< 1.45E+02
		{ 4.91E-01}	{ 9.74E+01}
02/15/90	<	6.15E-03	< 1.93E+00
		{ 3.27E-01}	{ 1.03E+02}
03/15/90	<	3.40E-03	< 3.47E+01
		{ 1.01E-02}	{ 1.03E+02}
04/12/90	<	9.69E-02	< 1.25E+01
		{ 7.89E-01}	{ 1.02E+02}
06/07/90		nra	2.28E+02
			{ 1.08E+02}
07/05/90		nra	< 6.92E+01
			{ 1.04E+02}
08/02/90		nra	< 1.77E+02
			{ 1.09E+02}
08/30/90		nra	< 4.37E+01
			{ 1.04E+02}
09/27/90		nra	< 1.74E+02
			{ 1.08E+02}
10/25/90		nra	< 7.78E+01
			{ 1.04E+02}
11/21/90		nra	3.78E+02
			{ 1.16E+02}
12/20/90		nra	< 9.18E+01
			{ 1.05E+02}
MEAN		2.09E-01	1.19E+02
MINIMUM	<	3.40E-03	< 1.93E+00
MAXIMUM	<	7.30E-01	3.78E+02
2STD.ERR		3.50E-01	6.25E+01

< - Result less than detection limit.  
 {} - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.

1509 SAGEHILL MET TOWER (GAS, PRESSURIZED CYLIND)

OFF DATE COM	KR 85
01/25/90	1.73E+01 { 5.89E+00}
02/22/90	1.74E+01 { 9.46E+00}
03/22/90	3.19E+01 { 1.06E+01}
MEAN	2.22E+01
MINIMUM	1.73E+01
MAXIMUM	3.19E+01
2STD.ERR	9.70E+00

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.

0004 RINGOLD MET TOWER - RINGOLD MET TOWER (HALOGEN, CHARCOAL CARTRIDGE)

OFF DATE COM	I 129
04/12/90	1.71E-06 { 2.40E-07}
07/05/90	9.44E-07 { 1.85E-07}
09/27/90	1.04E-06 { 1.81E-07}
12/20/90	1.18E-06 { 8.51E-08}
MEAN	1.22E-06
MINIMUM	9.44E-07
MAXIMUM	1.71E-06
2STD.ERR	3.44E-07

< - Result less than detection limit.  
{ } - Uncertainty for result.  
NR - No result reported.  
nra - Not routinely analyzed or analyzed on a less frequent basis.

0906 RINGOLD MET TOWER (WATER VAPOR, SILICA GEL-HTO)

OFF DATE	COM	H 3 AIR	H 3 LIQ
01/18/90		1.48E+00	2.67E+02
		{ 5.65E-01}	{ 1.02E+02}
02/15/90		< 1.08E-01	< 2.99E+01
		{ 3.75E-01}	{ 1.03E+02}
03/15/90		< 1.23E-02	< 1.38E+02
		{ 9.39E-03}	{ 1.05E+02}
04/12/90		< 6.03E-01	< 8.47E+01
		{ 7.40E-01}	{ 1.04E+02}
06/07/90		nra	2.91E+02
			{ 1.14E+02}
07/05/90		nra	8.97E+02
			{ 1.32E+02}
08/02/90		nra	< 1.48E+02
			{ 1.09E+02}
08/30/90		nra	2.09E+02
			{ 1.10E+02}
09/27/90		nra	< 1.71E+02
			{ 1.09E+02}
10/25/90		nra	2.41E+02
			{ 1.13E+02}
11/21/90		nra	< 1.22E+02
			{ 1.08E+02}
12/20/90		nra	2.53E+02
			{ 1.11E+02}
MEAN		5.51E-01	2.38E+02
MINIMUM		< 1.23E-02	< 2.99E+01
MAXIMUM		1.48E+00	8.97E+02
2STD.ERR		6.71E-01	1.28E+02

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.

1504 RINGOLD MET TOWER (GAS, PRESSURIZED CYLIND)

OFF DATE COM	KR 85
01/25/90	1.76E+01 { 7.09E+00 }
02/22/90	2.09E+01 { 1.03E+01 }
03/22/90	1.13E+01 { 9.77E+00 }
MEAN	1.66E+01
MINIMUM	1.13E+01
MAXIMUM	2.09E+01
2STD.ERR	5.63E+00

< - Result less than detection limit.  
{ } - Uncertainty for result.  
NR - No result reported.  
nra - Not routinely analyzed or analyzed on a less frequent basis.

6392 W END OF FIR ROAD (HALOGEN, CHARCOAL CARTRIDGE)

OFF DATE	COM	I	131
01/10/90	<	1.39E-04	
	{	3.98E-03	
01/24/90	<	3.55E-03	
	{	4.18E-03	
02/07/90	<	1.55E-03	
	{	4.99E-03	
02/21/90	<	-3.58E-04	
	{	3.56E-03	
03/07/90	<	-4.75E-04	
	{	4.14E-03	
03/21/90	<	1.64E-03	
	{	3.55E-03	
04/04/90	<	-2.12E-03	
	{	5.48E-03	
04/18/90	<	1.90E-03	
	{	4.06E-03	
05/02/90	<	-6.31E-04	
	{	3.92E-03	
05/16/90	<	2.85E-03	
	{	3.84E-03	
MEAN		8.05E-04	
MINIMUM	<	-2.12E-03	
MAXIMUM	<	3.55E-03	
2STD.ERR		1.12E-03	

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.



SURFACE ENVIRONMENTAL SURVEILLANCE DATA REPORT - 123089 TO 010491  
AIR - GASES AND VAPOR - PCI/M3 (except PCI/L for H3 LIQ)

6393 W END OF FIR ROAD (WATER VAPOR, SILICA GEL-HTO)

OFF DATE	COM	H 3 AIR	H 3 LIQ
01/10/90		1.85E+00	3.03E+02
		{ 6.28E-01}	{ 1.03E+02}
02/07/90		< -4.31E-01	< -3.65E+01
		{ 1.23E+00}	{ 1.05E+02}
03/07/90		1.12E+01	1.71E+03
		{ 9.73E-01}	{ 1.50E+02}
04/04/90		3.79E+00	9.69E+02
		{ 5.06E-01}	{ 1.29E+02}
05/02/90		< 1.66E+00	< 1.23E+02
		{ 1.36E+00}	{ 1.01E+02}
06/27/90		nra	< 1.30E+02
			{ 1.06E+02}
07/20/90		nra	< 1.35E+02
			{ 1.06E+02}
08/22/90		nra	< 1.20E+02
			{ 1.06E+02}
09/19/90		nra	< 6.52E+01
			{ 1.03E+02}
10/17/90		nra	< 1.69E+02
			{ 1.05E+02}
11/14/90		nra	< 9.98E+01
			{ 1.04E+02}
12/12/90		nra	< 1.18E+02
			{ 1.03E+02}
MEAN		3.61E+00	3.25E+02
MINIMUM		< -4.31E-01	< -3.65E+01
MAXIMUM		1.12E+01	1.71E+03
2STD.ERR		4.02E+00	2.92E+02

< - Result less than detection limit.  
{ } - Uncertainty for result.  
NR - No result reported.  
nra - Not routinely analyzed or analyzed on a less frequent basis.

1503 W END OF FIR ROAD (GAS, PRESSURIZED CYLIND)

OFF DATE COM	KR 85
01/24/90	1.59E+01 { 7.19E+00}
02/21/90	1.94E+01 { 7.37E+00}
03/21/90	5.49E+01 { 9.54E+00}
04/18/90	< 3.45E+00 { 1.06E+01}
MEAN	2.34E+01
MINIMUM	< 3.45E+00
MAXIMUM	5.49E+01
2STD.ERR	2.21E+01

< - Result less than detection limit.  
{ } - Uncertainty for result.  
NR - No result reported.  
nra - Not routinely analyzed or analyzed on a less frequent basis.

6352 PETTETT FARM (HALOGEN, CHARCOAL CARTRIDGE)

OFF DATE	COM	I	131
01/10/90	<	1.14E-03	
	{	4.16E-03}	
01/24/90	<	4.75E-04	
	{	3.36E-03}	
02/07/90	<	-7.65E-04	
	{	3.64E-03}	
02/21/90	<	1.27E-04	
	{	4.42E-03}	
03/07/90	<	-3.16E-03	
	{	4.54E-03}	
03/21/90	<	-2.03E-03	
	{	4.25E-03}	
04/04/90	<	4.80E-03	
	{	5.17E-03}	
04/18/90	<	-8.49E-04	
	{	4.43E-03}	
05/02/90	<	-8.55E-04	
	{	3.95E-03}	
05/16/90	<	-1.12E-03	
	{	4.14E-03}	
MEAN		-2.24E-04	
MINIMUM	<	-3.16E-03	
MAXIMUM	<	4.80E-03	
2STD.ERR		1.36E-03	

< - Result less than detection limit.  
 {} - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.

0246 BYERS LANDING (HALOGEN, CHARCOAL CARTRIDGE)

OFF DATE	COM	I	131
01/10/90	<	9.55E-04	
01/24/90	{	4.24E-03	
02/07/90	<	1.12E-03	
02/21/90	{	3.72E-03	
03/07/90	<	-4.90E-03	
03/21/90	{	4.87E-03	
04/04/90	<	3.22E-03	
04/18/90	{	3.65E-03	
05/02/90	<	2.38E-03	
05/16/90	{	3.32E-03	
11/28/90	<	-1.49E-03	
	{	4.72E-03	
	<	-6.29E-04	
	{	4.28E-03	
	<	1.78E-03	
	{	3.97E-03	
	<	1.87E-03	
	{	3.88E-03	
	<	8.16E-04	
	{	3.65E-03	
		NR	
		{NR}	
MEAN		5.12E-04	
MINIMUM	<	-4.90E-03	
MAXIMUM	<	3.22E-03	
2STD.ERR		1.48E-03	

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.  
 1 NO SAMPLE. LOW EXPOSURE HOURS.

0005 BYERS LANDING - BYERS LANDING (HALOGEN, CHARCOAL CARTRIDGE)

OFF DATE COM	I 129
04/04/90	5.18E-06 { 3.94E-07}
06/27/90	1.04E-06 { 8.94E-08}
09/19/90	2.86E-06 { 2.29E-07}
01/04/91	2.05E-06 { 3.08E-07}
MEAN	2.78E-06
MINIMUM	1.04E-06
MAXIMUM	5.18E-06
2STD.ERR	1.76E-06

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.

0273 BYERS LANDING (WATER VAPOR, SILICA GEL-HFO)

OFF DATE	COM	H 3 AIR	H 3 LIQ
01/10/90		1.89E+00	1.94E+02
		{ 9.65E-01}	{ 9.91E+01}
02/07/90		< -4.82E-01	< -7.79E+01
		{ 6.38E-01}	{ 1.03E+02}
03/07/90		< -2.16E-01	< -2.79E+01
		{ 7.75E-01}	{ 1.00E+02}
04/04/90		< -1.85E-02	< -1.93E+00
		{ 1.01E+00}	{ 1.05E+02}
05/02/90		< 1.41E-01	< 1.39E+01
		{ 9.78E-01}	{ 9.65E+01}
06/27/90		nra	2.37E+02
			{ 1.08E+02}
07/25/90		nra	< 1.54E+02
			{ 1.06E+02}
08/22/90		nra	< 3.56E+01
			{ 1.03E+02}
09/19/90		nra	< 2.49E+01
			{ 1.01E+02}
10/17/90		nra	< 8.98E+01
			{ 1.03E+02}
11/14/90		nra	< 1.95E+02
			{ 1.07E+02}
12/12/90		nra	< 4.07E+01
			{ 1.02E+02}
MEAN		2.63E-01	7.31E+01
MINIMUM		< -4.82E-01	< -7.79E+01
MAXIMUM		1.89E+00	2.37E+02
2STD.ERR		8.40E-01	5.78E+01

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.

6248 PROSSER BARRICADE (HALOGEN, CHARCOAL CARTRIDGE)

OFF DATE	COM	I	131
01/02/90	<	3.67E-03	{ 4.45E-03 }
01/16/90	<	2.18E-03	{ 4.87E-03 }
01/30/90	<	1.29E-03	{ 4.06E-03 }
02/13/90	<	9.25E-04	{ 3.73E-03 }
02/27/90	<	9.24E-04	{ 3.69E-03 }
03/13/90	<	1.25E-03	{ 3.71E-03 }
03/27/90	<	4.17E-03	{ 1.78E-04 }
04/09/90	<	1.78E-04	{ 4.11E-03 }
04/24/90	<	1.55E-03	{ 3.40E-03 }
05/08/90	<	4.33E-03	{ 4.61E-03 }
05/22/90	<	1.33E-03	{ 4.19E-03 }
MEAN		2.76E-C4	
MINIMUM	<	4.33E-03	
MAXIMUM	<	4.18E-03	
2STD.ERR		1.51E-03	

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.

0308 PROSSER BARRICADE (WATER VAPOR, SILICA GEL-HTO)

OFF DATE COM	H 3 AIR	H 3 LIQ
01/16/90	< 8.25E-01 { 6.10E-01}	< 1.30E+02 { 9.64E+01}
02/13/90	< 6.58E-01 { 4.96E-01}	< 1.46E+02 { 1.10E+02}
03/13/90	< 6.87E-01 { 6.64E-01}	< 1.17E+02 { 1.13E+02}
04/09/90	< 1.45E+00 { 8.80E-01}	< 1.74E+02 { 1.06E+02}
06/05/90	nra	2.11E+02
07/03/90	nra	{ 1.10E+02}
07/31/90	nra	{ 1.27E+03}
08/28/90	nra	{ 1.43E+02}
09/24/90	nra	< 1.20E+02
10/23/90	nra	{ 1.10E+02}
11/20/90	nra	< 8.32E+01
12/18/90	nra	{ 1.06E+02}
		{ 1.87E+02}
		{ 1.11E+02}
		{ 1.77E+02}
		{ 1.09E+02}
		{ 1.95E+02}
		{ 1.12E+02}
		{ 1.49E+02}
		{ 1.10E+02}
MEAN	9.05E-01	2.47E+02
MINIMUM	< 6.58E-01	< 8.32E+01
MAXIMUM	< 1.45E+00	1.27E+03
2STD.ERR	3.71E-01	1.87E+02

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.



1502 PROSSER BARRICADE (GAS, PRESSURIZED CYLIND)

OFF DATE COM	KR 85
01/25/90	1.64E+01 { 1.03E+01 }
02/22/90	4.69E+01 { 8.68E+00 }
03/22/90	2.88E+01 { 6.69E+00 }
04/19/90	1.43E+01 { 9.65E+00 }
MEAN	2.66E+01
MINIMUM	1.43E+01
MAXIMUM	4.69E+01
2STD.ERR	1.50E+01

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.

0902 YAKIMA BARRICADE (WATER VAPOR, SILICA GEL-HTO)

OFF DATE COM	H 3 AIR	H 3 LIQ
01/16/90	9.76E-01	1.88E+02
	{ 5.11E-01}	{ 9.84E+01}
02/14/90	< 7.18E-01	< 1.75E+02
	{ 4.46E-01}	{ 1.09E+02}
03/14/90	< -2.96E-01	< -5.58E+01
	{ 5.25E-01}	{ 9.88E+01}
04/11/90	< 7.77E-01	< 9.63E+01
	{ 8.38E-01}	{ 1.04E+02}
06/06/90	nra	1.70E+02
		{ 1.10E+02}
07/09/90	nra	1.67E+02
		{ 1.07E+02}
08/01/90	nra	2.33E+02
		{ 1.13E+02}
08/29/90	nra	< 1.13E+02
		{ 1.05E+02}
09/26/90	nra	2.59E+02
		{ 1.11E+02}
10/24/90	nra	2.24E+02
		{ 1.12E+02}
11/21/90	nra	1.67E+02
		{ 1.09E+02}
12/20/90	nra	1.94E+02
		{ 1.09E+02}
MEAN	5.44E-01	1.61E+02
MINIMUM	< -2.96E-01	< -5.58E+01
MAXIMUM	9.76E-01	2.59E+02
2STD.ERR	5.71E-01	4.75E+01

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 nra - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.

0266 WAHLUKE SLOPE (WATER VAPOR, SILICA GEL-HTO)

OFF DATE COM	H 3 AIR	H 3 LIQ
01/23/90	< 3.55E-01 { 4.55E-01}	< 7.56E+01 { 9.56E+01}
02/21/90	< -5.93E-04 { 3.33E-03}	< -1.83E+01 { 1.03E+02}
03/21/90	2.33E+00 { 7.33E-01}	3.64E+02 { 1.14E+02}
04/18/90	1.69E+00 { 7.25E-01}	2.40E+02 { 1.03E+02}
06/27/90	nra	< 1.46E+02 { 1.13E+02}
07/11/90	nra	< 1.61E+01 { 1.12E+02}
08/08/90	nra	< 4.12E+01 { 1.12E+02}
09/05/90	nra	< 1.40E+01 { 1.09E+02}
10/03/90	nra	< 9.96E+00 { 1.07E+02}
10/31/90	nra	< 6.64E+01 { 1.11E+02}
11/28/90	nra	< 6.51E+01 { 1.13E+02}
12/27/90	nra	< 1.83E+02 { 1.18E+02}
MEAN	1.09E+00	1.00E+02
MINIMUM	< -5.93E-04	< -1.83E+01
MAXIMUM	2.33E+00	3.64E+02
2STD.ERR	1.10E+00	6.54E+01

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.

1511 OTHELLO (GAS, PRESSURIZED CYLIND)

OFF DATE	COM	KR 85
01/25/90		1.87E+01
	{	7.32E+00}
02/14/90	1	< NR
		{NR}
03/22/90		2.29E+01
	{	1.19E+01}
MEAN		2.08E+01
MINIMUM		1.87E+01
MAXIMUM		2.29E+01
2STD.ERR		4.20E+00

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.  
 1 REPLACED KR-85 BAG.

SURFACE ENVIRONMENTAL SURVEILLANCE DATA REPORT - 123089 TO 010491  
AIR - GASES AND VAPOR - PCI/M3 (except PCI/L for H3 LIQ)

0635 ELTOPIA (GAS, PRESSURIZED CYLIND)

OFF DATE	COM	KR 85
01/25/90		1.22E+01
	{	7.32E+00}
02/22/90		1.48E+01
	{	7.52E+00}
04/19/90		3.61E+01
	{	1.45E+01}
MEAN		2.10E+01
MINIMUM		1.22E+01
MAXIMUM		3.61E+01
2STD.ERR		1.51E+01

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.

0636 PASCO (GAS, PRESSURIZED CYLIND)

OFF DATE	COM	KR 85
01/26/90		1.93E+01 { 8.70E+00}
02/23/90		2.13E+01 { 8.85E+00}
03/23/90		2.46E+01 { 9.86E+00}
MEAN		2.17E+01
MINIMUM		1.93E+01
MAXIMUM		2.46E+01
2STD.ERR		3.09E+00

< - Result less than detection limit.  
{ } - Uncertainty for result.  
NR - No result reported.  
nra - Not routinely analyzed or analyzed on a less frequent basis.

0231 RICHLAND 700 AREA (HALOGEN, CHARCOAL CARTRIDGE)

OFF DATE COM	I	131
01/10/90	<	2.51E-04 { 4.11E-03}
01/24/90	<	1.65E-03 { 3.50E-03}
02/07/90	<	7.36E-04 { 4.25E-03}
02/21/90	<	-1.05E-04 { 3.64E-03}
03/07/90	<	2.69E-03 { 4.02E-03}
03/21/90	<	-1.79E-03 { 3.72E-03}
04/04/90	<	8.74E-04 { 4.07E-03}
04/18/90	<	-1.52E-03 { 3.65E-03}
05/02/90	<	-2.38E-04 { 4.17E-03}
05/16/90	<	3.47E-03 { 5.28E-03}
MEAN		6.02E-04
MINIMUM	<	-1.79E-03
MAXIMUM	<	3.47E-03
2STD.ERR		1.06E-03

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.

6207 RICHLAND 700 AREA (WATER VAPOR, SILICA GEL-HTO)

OFF DATE COM	H 3 AIR	H 3 LIQ
01/10/90	< 1.06E+00 { 7.64E-01}	< 1.34E+02 { 9.70E+01}
02/07/90	< -2.69E-01 { 7.17E-01}	< -3.94E+01 { 1.05E+02}
03/07/90	< 6.41E-01 { 7.24E-01}	< 9.24E+01 { 1.04E+02}
04/04/90	< 8.23E-02 { 4.57E-01}	< 1.92E+01 { 1.07E+02}
05/02/90	< 2.14E-01 { 5.49E-01}	< 3.80E+01 { 9.76E+01}
MEAN	3.46E-01	4.88E+01
MINIMUM	< -2.69E-01	< -3.94E+01
MAXIMUM	< 1.06E+00	< 1.34E+02
2STD.ERR	4.61E-01	5.99E+01

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.



1670 BENTON CITY (HALOGEN, CHARCOAL CARTRIDGE)

OFF DATE	COM	I	131
01/09/90	<	3.59E-04	
	{	4.50E-03}	
01/23/90	<	3.84E-04	
	{	4.29E-03}	
02/06/90	<	-1.25E-04	
	{	3.55E-03}	
02/20/90	<	5.12E-04	
	{	4.03E-03}	
03/06/90	<	5.98E-04	
	{	4.37E-03}	
03/20/90	<	6.82E-04	
	{	4.41E-03}	
04/03/90	<	2.74E-03	
	{	3.83E-03}	
04/17/90	<	-2.47E-04	
	{	4.50E-03}	
05/01/90	<	-3.03E-03	
	{	3.97E-03}	
05/15/90	<	-7.43E-04	
	{	4.29E-03}	
05/29/90	<	-1.14E-03	
	{	3.60E-03}	
MEAN		-9.09E-07	
MINIMUM	<	-3.03E-03	
MAXIMUM	<	2.74E-03	
2STD.ERR		8.52E-04	

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.

1680 SUNNYSIDE (HALOGEN, CHARCOAL CARTRIDGE)

OFF DATE COM	I 131
01/09/90	< 0.00E+00 { 2.05E-03}
01/23/90	< 1.27E-03 { 1.86E-03}
02/06/90	< 6.07E-04 { 2.12E-03}
02/20/90	< 1.50E-03 { 2.40E-03}
03/06/90	< -1.55E-03 { 4.28E-03}
03/20/90	< 3.74E-03 { 4.59E-03}
04/03/90	< 1.01E-03 { 4.82E-03}
04/17/90	< 5.79E-04 { 2.09E-03}
05/01/90	< -7.17E-04 { 3.97E-03}
05/15/90	< 1.29E-03 { 4.71E-03}
05/29/90	< -2.58E-03 { 5.51E-03}
MEAN	4.68E-04
MINIMUM	< -2.58E-03
MAXIMUM	< 3.74E-03
2STD.ERR	1.02E-03

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.

0910 SUNNYSIDE (WATER VAPOR, SILICA GEL-HTO)

OFF DATE COM	H 3 AIR	H 3 LIQ
01/23/90	< 3.10E-01 { 5.60E-01}	< 5.26E+01 { 9.52E+01}
02/20/90	< 8.76E-02 { 5.36E-01}	< 1.64E+01 { 1.00E+02}
03/20/90	1.58E+00 { 6.82E-01}	2.54E+02 { 1.10E+02}
04/17/90	< 1.02E+00 { 6.91E-01}	< 1.47E+02 { 9.99E+01}
06/26/90	nra	< 1.50E+02 { 1.13E+02}
07/10/90	nra	1.64E+02 { 1.16E+02}
08/07/90	nra	1.63E+02 { 1.14E+02}
09/04/90	nra	< 9.21E+01 { 1.09E+02}
10/02/90	nra	2.87E+02 { 1.16E+02}
10/30/90	nra	2.30E+02 { 1.19E+02}
11/27/90	nra	1.58E+02 { 1.12E+02}
12/27/90	nra	2.39E+02 { 1.13E+02}
MEAN	7.49E-01	1.63E+02
MINIMUM	< 8.76E-02	< 1.64E+01
MAXIMUM	1.58E+00	2.87E+02
2STD.ERR	6.82E-01	4.71E+01

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.

0922 SUNNYSIDE (GAS, SODA LIME CO2)

OFF DATE	COM	C 14
01/09/90		1.45E+00 { 5.37E-02}
03/06/90		1.57E+00 { 6.21E-02}
MEAN		1.51E+00
MINIMUM		1.45E+00
MAXIMUM		1.57E+00
2STD.ERR		1.20E-01

< - Result less than detection limit.  
{ } - Uncertainty for result.  
NR - No result reported.  
nra - Not routinely analyzed or analyzed on a less frequent basis.

1505 SUNNYSIDE (GAS, PRESSURIZED CYLIND)

OFF DATE	COM	KR	85
01/26/90			2.51E+01
	{		5.92E+00}
02/23/90			2.90E+01
	{		6.23E+00}
03/23/90			2.05E+01
	{		1.17E+01}
MEAN			2.49E+01
MINIMUM			2.05E+01
MAXIMUM			2.90E+01
ZSTD.ERR			4.91E+00

< - Result less than detection limit.  
{ } - Uncertainty for result.  
NR - No result reported.  
nra - Not routinely analyzed or analyzed on a less frequent basis.

0630 YAKIMA (HALOGEN, CHARCOAL CARTRIDGE)

OFF DATE COM	I 131
01/09/90	< 7.05E-04 { 4.56E-03}
01/23/90	< -2.07E-03 { 4.29E-03}
02/06/90	< 1.64E-03 { 4.64E-03}
02/20/90	< 2.83E-04 { 3.42E-03}
03/06/90	< -1.66E-03 { 3.83E-03}
03/20/90	< -3.75E-03 { 5.02E-03}
04/03/90	< -2.11E-03 { 3.71E-03}
04/17/90	< -1.21E-04 { 4.22E-03}
05/01/90	< -1.89E-03 { 3.96E-03}
05/15/90	< -6.08E-03 { 6.27E-03}
05/29/90	< 1.54E-03 { 3.72E-03}
MEAN	-1.23E-03
MINIMUM	< -6.08E-03
MAXIMUM	< 1.64E-03
2STD.ERR	1.42E-03

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.

SURFACE ENVIRONMENTAL SURVEILLANCE DATA REPORT - 123089 TO 010491  
AIR - GASES AND VAPOR - PCI/M3 (except PCI/L for H3 LIQ)

0631 YAKIMA (WATER VAPOR, SILICA GEL-HTO)

OFF DATE	COM	H 3 AIR	H 3 LIQ
01/23/90	<	-1.04E+00	< -8.99E+01
	{	1.03E+00	{ 8.92E+01}
02/20/90	<	-2.29E-01	< -3.18E+01
	{	7.17E-01	{ 9.95E+01}
03/20/90	<	7.19E-02	< 9.63E+00
	{	7.95E-01	{ 1.06E+02}
04/17/90	<	1.08E+00	< 1.78E+02
	{	6.12E-01	{ 1.01E+02}
06/26/90	nra	nra	5.33E+02
	{		{ 1.27E+02}
07/10/90	nra	nra	< 1.43E+02
	{		{ 1.15E+02}
08/07/90	nra	nra	< 1.41E+02
	{		{ 1.13E+02}
09/04/90	nra	nra	< 1.02E+02
	{		{ 1.12E+02}
10/02/90	nra	nra	< 1.39E+01
	{		{ 1.10E+02}
10/30/90	nra	nra	2.31E+02
	{		{ 1.17E+02}
11/27/90	nra	nra	< 1.02E+02
	{		{ 1.10E+02}
12/27/90	nra	nra	< 9.93E+01
	{		{ 1.10E+02}
MEAN		-2.93E-02	1.19E+02
MINIMUM	<	-1.04E+00	< -8.99E+01
MAXIMUM	<	1.08E+00	5.33E+02
2STD.ERR		8.76E-01	9.19E+01

< - Result less than detection limit.  
{ } - Uncertainty for result.  
NR - No result reported.  
nra - Not routinely analyzed or analyzed on a less frequent basis.

0633 YAKIMA (GAS, SODA LIME CO2)

OFF DATE	COM	C	14
01/09/90			1.45E+00
	{		6.91E-02}
03/06/90			1.58E+00
	{		1.18E-01}
06/26/90			1.34E+00
	{		1.26E-01}
08/21/90			1.52E+00
	{		9.14E-02}
10/16/90			1.44E+00
	{		7.08E-02}
12/11/90			1.38E+00
	{		7.63E-02}
MEAN			1.45E+00
MINIMUM			1.34E+00
MAXIMUM			1.58E+00
2STD.ERR			7.20E-02

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.



0634 YAKIMA (GAS, PRESSURIZED CYLIND)

OFF DATE	COM	KR	85	NR
01/26/90	1			{ 1.31E+01
02/23/90				{ 7.57E+00}
03/23/90				{ 1.39E+01
04/20/90				{ 1.19E+01}
				{ 1.99E+01}
				{ 1.13E+01}
MEAN				1.56E+01
MINIMUM				1.31E+01
MAXIMUM				1.99E+01
2STD.ERR				4.29E+00

< - Result less than detection limit.  
{ } - Uncertainty for result.  
NR - No result reported.  
nra - Not routinely analyzed or analyzed on a less frequent basis.  
I NO SAMPLE. INSUFFICIENT AMOUNT OF AIR.

0637 MATTAWA (GAS, PRESSURIZED CYLIND)

OFF DATE	COM	KR	85
01/25/90		1.78E+01	
	{	6.99E+00	
02/22/90	1	NR	
	{	NR	
03/22/90		2.03E+01	
	{	6.47E+00	
04/19/90		<	
	{	8.69E+00	
MEAN		1.45E+01	
MINIMUM	<	5.45E+00	
MAXIMUM		2.03E+01	
2STD.ERR		9.18E+00	

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.  
 1 NO SAMPLE. LOST DURING ANALYSIS.

0001 YAKIMA NO. 2 - YAKIMA NO. 2 (HALOGEN, CHARCOAL CARTRIDGE)

OFF DATE	COM	I	129
04/03/90			3.99E-07 { 4.55E-08}
06/26/90			1.12E-07 { 1.97E-08}
09/18/90			6.50E-08 { 6.11E-09}
01/08/91			1.20E-07 { 2.14E-08}
MEAN			1.74E-07
MINIMUM			6.50E-08
MAXIMUM			3.99E-07
2STD.ERR			1.52E-07

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.

Table A-1. Airborne Radionuclide Concentrations in the Hanford Environs, 1990

Radionuclide	Composite Group <sup>(b)</sup>	No. of Samples	Concentration <sup>(a)</sup> , pCi/m <sup>3</sup> (10 <sup>-12</sup> µCi/mL)			Average	Concentration Guide <sup>(c)</sup> , pCi/m <sup>3</sup>		
			Maximum	Minimum	Average				
<sup>3</sup> H	Onsite	48	71	± 2.3	-0.85	± 0.66	3.1	± 47%	100,000
	Perimeter	96	12	± 1.3	-0.48	± 0.64	1.5	± 14%	
	Nearby Communities	4	0.64	± 0.72	-0.27	± 0.72	0.17	± 110%	
	Distant Communities	24	3.4	± 1.4	-1.04	± 1.03	1.3	± 17%	
<sup>14</sup> C	100 Area	2	1.5	± 0.12	1.1	± 0.10	1.3	± 30%	500,000
	200 Area	1	1.8	± 0.082	1.8	± 0.082	1.8	± 0%	
	300 Area	5	1.6	± 0.068	1.3	± 0.12	1.4	± 6.1%	
	Distant Communities	6	1.58	± 0.12	1.34	± 0.13	1.47	± 5.6%	
	200 Area	3	85	± 13	<5.9	± 10.8	34	± 150%	
	300 Area	3	58	± 9.5	13	± 10.5	32	± 85%	
<sup>85</sup> Kr	Perimeter	14	55	± 9.5	3.5	± 11	23	± 32%	3,000,000
	Nearby Communities	11	36	± 15	5.5	± 8.7	19	± 24%	
	Distant Communities	6	29	± 6.2	13	± 7.6	20	± 26%	
	100 Area	1	<0.000018	± 0.000015	<0.000018	± 0.000015	<0.000018	± 0%	
	200 Area	5	<0.00009	± 0.000029	<0.000046	± 0.000048	<0.000013	± 150%	
	300 Area	4	<0.000017	± 0.000041	<0.000030	± 0.000034	<0.000059	± 330%	
<sup>90</sup> Sr	400 Area	3	<0.000024	± 0.000032	<0.000017	± 0.000017	<0.000017	± 1400%	50
	Perimeter	18	0.000049	± 0.000037	-0.000048	± 0.000036	0.0000012	± 12,000%	
	Nearby Communities	15	0.00013	± 0.000064	-0.000036	± 0.000050	0.000035	± 86%	
	Distant Communities	12	0.000022	± 0.000040	-0.000048	± 0.000049	-0.000058	± 190%	
	100 Area	4	<0.0013	± 0.0039	<0.0015	± 0.0054	<0.00049	± 260%	
	200 Area	20	0.14	± 0.0094	<0.019	± 0.018	-0.00080	± 420%	
<sup>106</sup> Ru	300 Area	15	<0.0075	± 0.018	<0.0098	± 0.019	<0.00023	± 960%	30
	400 Area	11	<0.0050	± 0.0065	<0.014	± 0.032	<0.0017	± 190%	
	Perimeter	66	0.017	± 0.019	-0.012	± 0.015	0.00038	± 370%	
	Nearby Communities	55	0.012	± 0.011	-0.020	± 0.022	-0.0012	± 140%	
	Distant Communities	44	0.020	± 0.016	-0.013	± 0.012	0.000034	± 6500%	
	200 Area	4	0.00011	± 0.000010	0.000060	± 0.000054	0.000084	± 30%	
<sup>129</sup> I	Perimeter	8	0.000052	± 0.0000039	0.0000094	± 0.0000019	0.0000020	± 50%	70
	Distant Communities	4	0.0000040	± 0.00000049	0.00000065	± 0.00000006	0.00000017	± 88%	
	100 Area	20	<0.0043	± 0.0043	<0.0034	± 0.0046	<0.00035	± 260%	
	200 Area	29	<0.0039	± 0.0039	<0.0033	± 0.0038	<0.00018	± 340%	
<sup>131</sup> I	300 Area	10	<0.0045	± 0.0045	<0.0033	± 0.0040	<0.00083	± 190%	400
	400 Area	9	<0.0043	± 0.0074	<0.0022	± 0.0040	<0.00030	± 450%	
	Perimeter	50	0.0058	± 0.0058	-0.0049	± 0.0049	0.00047	± 140%	
	Nearby Communities	21	0.0035	± 0.0053	-0.0030	± 0.0040	0.00029	± 230%	
	Distant Communities	22	0.0037	± 0.0046	-0.0061	± 0.0063	-0.00038	± 240%	

Table A-1. Airborne Radionuclide Concentrations (contd)

Radionuclide	Composite Group <sup>(b)</sup>	No. of Samples	Concentration <sup>(a)</sup> , pCi/m <sup>3</sup> (10 <sup>-12</sup> μCi/mL)			Average	Concentration Guide <sup>(c)</sup> , pCi/m <sup>3</sup>	
			Maximum	Minimum	Average			
<sup>137</sup> Cs	100 Area	4	<0.00027	± 0.00057	<0.00011	± 0.00056	<0.00021	± 34%
	200 Area	20	0.0012	± 0.00087	<0.0012	± 0.00096	0.000721	± 1200%
	300 Area	15	<0.0011	± 0.0013	<0.0011	± 0.0013	<0.00011	± 330%
	400 Area	11	<0.00051	± 0.00061	<0.00023	± 0.00046	<0.00024	± 59%
	Perimeter	66	0.0014	± 0.0011	-0.0017	± 0.00088	-0.000053	± 3020%
	Nearby Communities	55	0.00099	± 0.0015	-0.0012	± 0.0014	-0.000013	± 1000%
	Distant Communities	44	0.0013	± 0.0012	-0.0011	± 0.0013	0.000048	± 330%
	200 Area	4	0.00042	± 0.000084	0.00028	± 0.000065	0.000032	± 19%
U (total) <sup>(c)</sup>	300 Area	4	0.00022	± 0.000034	0.00013	± 0.00025	0.00016	± 31%
	Perimeter	6	0.00012	± 0.000018	0.000056	± 0.00010	0.000084	± 24%
	Nearby Communities	6	0.00013	± 0.000022	0.000024	± 0.00010	0.000054	± 61%
	Distant Communities	12	0.000053	± 0.000030	-0.0000034	± 0.0000026	0.0000070	± 140%
	100 Area	1	<0.000003	± 0.000006	<0.000003	± 0.000006	<0.000003	± 0%
	200 Area	5	<0.000010	± 0.000015	<0.000004	± 0.0	<0.000004	± 140%
<sup>238</sup> Pu	300 Area	4	<0.000014	± 0.000017	<0.000002	± 0.0	<0.000005	± 130%
	400 Area	3	0.000008	± 0.000009	<0.000003	± 0.000004	<0.000004	± 104%
	Perimeter	18	0.0000065	± 0.000012	-0.0000097	± 0.000011	-0.0000014	± 0.0000019
	Nearby Communities	15	0.0000040	± 0.0000077	-0.0000035	± 0.0000025	-0.0000015	± 67%
	100 Area	1	0.000002	± 0.000005	<0.000002	± 0.000002	<0.000002	± 0%
	200 Area	5	<0.000017	± 0.000017	<0.000003	± 0.000006	<0.000007	± 64%
	300 Area	4	0.000051	± 0.000030	<0.000004	± 0.000008	0.000018	± 120%
	400 Area	3	0.000020	± 0.000012	<0.000003	± 0.000008	0.000009	± 130%
Gross Beta	Perimeter	18	0.000024	± 0.000023	-0.0000024	± 0.0	0.000010	± 35%
	Nearby Communities	15	0.000022	± 0.000015	-0.0000035	± 0.0	0.0000093	± 41%
	Distant Communities	12	0.000020	± 0.000018	-0.0000030	± 0.0000066	0.0000040	± 180%
	100 Area	40	0.032	± 0.0019	0.0042	± 0.00072	0.017	± 6%
	200 Area	92	0.032	± 0.0019	0.0046	± 0.0013	0.016	± 8.3%
	300 Area	55	0.040	± 0.0022	0.0055	± 0.00098	0.016	± 12%
	400 Area	76	0.042	± 0.0022	0.0032	± 0.0014	0.016	± 11%
	Perimeter	339	0.084	± 0.0030	0.0027	± 0.00080	0.017	± 6.5%
Nearby Communities	224	0.080	± 0.0029	0.0011	± 0.00071	0.017	± 8.2%	
	Distant Communities	153	0.049	± 0.0023	0.0037	± 0.0010	0.016	± 8.1%

Table A-1. Airborne Radionuclide Concentrations (contd)

Radionuclide	Composite Group <sup>(a)</sup>	No. of Samples	Concentration <sup>(c)</sup> , pCi/m <sup>3</sup> (10 <sup>-12</sup> μCi/mL)			Concentration Guide <sup>(e)</sup> , pCi/m <sup>3</sup>	
			Maximum	Minimum	Average		
Gross Alpha	100 Area	10	0.025 ±	0.0019 ±	0.0017 ±	0.0030 ±	170%
	200 Area	92	0.0012 ±	0.00041 ±	0.00025 ±	0.00045 ±	110%
	Perimeter	252	0.012 ±	0.0012 ±	0.00016 ±	0.0019 ±	12%
	Nearby C-ommunities	50	0.0062 ±	0.0011 ±	0.00019 ±	0.0016 ±	25%
	Distant Communities	50	0.0065 ±	0.00083 ±	0.0000073 ±	0.0017 ±	28%

(a) Maximum and minimum single sample results ±2 sigma counting errors. Averages of all samples ±2 times the percent standard error of the calculated mean (SEM). Most entries have been rounded to two significant figures.

(b) Onsite, Site perimeter, nearby communities, and distant sampling locations are identified in Table 4.8, Hanford Site Environmental Report for Calendar Year 1990.

(c) From DOE Derived Concentration Guide (see Appendix B, Hanford Site Environmental Report for Calendar Year 1990).

(d) Summation of <sup>234</sup>U, <sup>235</sup>U, and <sup>238</sup>U.

Table A-2. Tritium Concentrations in Air

Location	Sample Number	Off Date	On Date	Results (pCi/L) 2 sig	Vol. (mL)	Start Flow (cfh)	End Flow (cfh)	Exposure Hours	Results <sup>(a)</sup> pCi/m <sup>3</sup>	2 sig		
300 Trench	0900	06/05/90	05/08/90	201 ± 107	114	0.5	0.5	672.1	2.408 ±	53.2%		
		07/03/90	06/05/90	757 ± 122	93.8	0.5	0.5	673.1	7.450 ±	16.1%		
		07/31/90	07/03/90	116 ± 103	83.1	0.5	0.5	671.9	1.013 ±	88.8%		
		08/28/90	07/31/90	313 ± 109	112	0.5	0.5	671.9	3.685 ±	34.8%		
		09/24/90	08/28/90	201 ± 106	110	0.5	0.6	646.9	2.194 ±	52.7%		
		10/23/90	09/24/90	143 ± 103	91.2	0.5	0.5	572.1	1.610 ±	72.0%		
		11/20/90	10/23/90	513 ± 114	103	0.5	0.5	673.5	5.541 ±	22.2%		
		12/18/90	11/20/90	151 ± 103	108	0.5	0.5	671.6	1.715 ±	68.2%		
		AVERAGE				299				3.202		
		2 Standard Error of the Mean				159				1.580		
		400 E	6428	06/05/90	05/08/90	322 ± 112	90.5	0.5	0.5	671.4	3.065 ±	34.8%
				07/03/90	06/05/90	70.9 ± 102	92.4	0.5	0.5	673.2	0.687 ±	143.9%
07/31/90	07/03/90			291 ± 114	104	0.5	0.5	672.7	3.177 ±	39.2%		
08/28/90	07/31/90			228 ± 112	128	0.5	0.5	671.1	3.071 ±	49.1%		
09/24/90	08/28/90			110 ± 106	104	0.5	0.5	647	1.249 ±	96.4%		
10/23/90	09/24/90			68.7 ± 104	90.4	0.5	0.5	695.6	0.631 ±	151.4%		
11/20/90	10/23/90			152 ± 107	79.6	0.5	0.5	673.5	1.269 ±	70.4%		
12/18/90	11/20/90			68.1 ± 104	79.1	0.5	0.5	671.7	0.566 ±	152.7%		
AVERAGE						164				1.714		
2 Standard Error of the Mean						73.2				0.835		
200 ESE	6201			06/06/90	05/09/90	7390 ± 244	91.2	0.5	0.5	672	70.828 ±	3.3%
				08/01/90	07/03/90	246 ± 108	85.4	0.5	0.5	695.8	2.132 ±	43.9%
		08/29/90	08/01/90	242 ± 107	100	0.5	0.5	673.5	2.538 ±	44.2%		
		09/26/90	08/29/90	254 ± 107	93	0.5	0.5	672.5	2.481 ±	42.1%		
		10/24/90	09/26/90	207 ± 109	83.5	0.5	0.5	671.1	1.819 ±	52.7%		

Table A-2. (contd)

Location	Sample Number	Off Date	On Date	Results (pCi/L) 2 sig	Vol. (mL)	Start Flow (cfh)	End Flow (cfh)	Exposure Hours	Results <sup>(a)</sup> pCi/m <sup>3</sup>	2 sig
200 ESE (contd)	6201	11/21/90 12/20/90	10/24/90 11/21/90	133 ± 104 189 ± 104	85.8 68.9	0.5 0.5	0.5 0.5	672.6 697	1.198 ± 1.319 ±	78.2% 55.0%/
AVERAGE				1240					11.759	
2 Standard Error of the Mean				2050					19.694	
Sunnyside	0910	06/26/90 07/10/90 08/07/90 09/04/90 10/02/90 10/30/90 11/27/90 12/27/90	5/15/90 6/2/90 7/10/90 8/07/90 9/04/90 10/02/90 10/30/90 11/27/90	150 ± 113 164 ± 116 163 ± 114 92.1 ± 109 287 ± 116 230 ± 119 158 ± 112 239 ± 113	167 63.1 126 148 133 96.3 80.5 105	0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5	0.5 0.5 0.5 0.5 0.7 0.5 0.5 0.5	1009.4 336.8 671.6 666.9 671.2 673.1 672.2 741	1.753 ± 2.170 ± 2.160 ± 1.443 ± 3.347 ± 2.324 ± 1.336 ± 2.392 ±	75.3% 70.7% 69.9% 118.3% 40.4% 51.7% 70.9% 47.3%
AVERAGE				185					2.116	
2 Standard Error of the Mean				43.8					0.450	
Yakima	0631	06/26/90 07/10/90 08/07/90 09/04/90 1/02/90 10/30/90 11/27/90 12/27/90	5/15/90 6/26/90 7/10/90 8/07/90 9/04/90 10/02/90 10/30/90 11/27/90	533 ± 127 143 ± 115 141 ± 113 102 ± 112 13.9 ± 110 231 ± 117 102 ± 110 99.3 ± 110	83.1 62.3 94.8 129 120 94.6 122 83	0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5	0.5 0.5 0.5 0.5 0.6 1.5 2 0.5	1008.5 313 671.7 671.3 649.8 672 662 719.8	3.102 ± 2.010 ± 1.405 ± 1.384 ± 0.165 ± 1.148 ± 0.531 ± 0.809 ±	23.8% 80.4% 80.1% 109.8% 791.4% 50.6% 107.8% 110.8%
AVERAGE				171					1.319	
2 Standard Error of the Mean				112					0.650	



Table A-2. (contd)

Location	Sample Number	Off Date	On Date	Results (pCi/L) 2 sig	Vol. (mL)	Start Flow (cfh)	End Flow (cfh)	Exposure Hours	Results <sup>(a)</sup> pCi/m <sup>3</sup>	2 sig		
Yakima Barr.	0902	06/06/90	05/09/90	170 ± 110	88.5	0.5	0.5	672.5	1.580 ± 1.580	64.7%		
		07/09/90	06/06/90	167 ± 107	104	0.5	0.5	791.7	1.549 ± 1.549	64.1%		
		08/01/90	07/09/90	233 ± 113	94.9	0.5	0.5	597.5	2.613 ± 2.613	48.5%		
		08/29/90	08/01/90	113 ± 105	118	0.5	0.5	672.4	1.400 ± 1.400	92.9%		
		09/26/90	08/29/90	259 ± 111	107	0.5	0.5	671.3	2.915 ± 2.915	42.9%		
		10/24/90	09/26/90	224 ± 112	93.4	0.5	0.5	670.8	2.203 ± 2.203	50.0%		
		11/21/90	10/24/90	167 ± 109	80.5	0.5	0.5	672.4	1.412 ± 1.412	65.3%		
		12/20/90	11/21/90	194 ± 109	70.5	0.5	0.5	697.3	1.385 ± 1.385	56.2%		
				191						1.882		
				32.9						0.432		
		AVERAGE										
		2 Standard Error of the Mean										
Berg Ranch	0267	06/07/90	05/10/90	59.4 ± 104	104	0.5	0.5	672	0.649 ± 0.649	175.1%		
		07/05/90	06/07/90	214 ± 110	121	0.5	0.5	671	2.725 ± 2.725	51.4%		
		08/02/90	07/05/90	259 ± 113	95.3	0.5	0.5	672.7	2.591 ± 2.591	43.6%		
		08/30/90	08/02/90	191 ± 110	123	0.5	0.5	672	2.469 ± 2.469	5.76%		
		09/27/90	08/30/90	255 ± 110	79.3	0.5	0.7	672	1.771 ± 1.771	43.1%		
		10/25/90	09/27/90	218 ± 109	86.4	0.5	0.4	671.7	2.200 ± 2.200	50.0%		
		11/21/90	10/25/90	166 ± 108	86.2	0.5	0.5	648.5	1.558 ± 1.558	65.1%		
		12/20/90	11/21/90	256 ± 107	64.6	0.5	0.5	696.3	1.677 ± 1.677	41.8%		
				202						1.955		
				47.2						0.485		
		AVERAGE										
		2 Standard Error of the Mean										
Sagehill Met.	0905	06/07/90	05/10/90	228 ± 108	143	0.5	0.5	672	3.426 ± 3.426	47.4%		
		07/05/90	06/07/90	69.2 ± 104	130	0.5	0.5	671	0.947 ± 0.947	150.3%		
		08/02/90	07/05/90	177 ± 109	106	0.5	1	672.5	1.314 ± 1.314	61.6%		
		08/30/90	08/02/90	43.7 ± 104	142	0.5	0.6	672	0.593 ± 0.593	238.0%		
		09/27/90	08/30/90	174 ± 108	115	0.5	1.3	672.4	1.168 ± 1.168	62.1%		
		10/25/90	09/27/90	77.8 ± 104	150	0.5	1.5	671.9	0.613 ± 0.613	133.7%		

Table A-2. (contd)

Location	Sample Number	Off Date	On Date	Results (pCi/L)	Vol. (mL)	Start Flow (cfh)	End Flow (cfh)	Exposure Hours	Results <sup>(a)</sup> pCi/m <sup>3</sup>	2 sig
Sagehill Met. (contd)	0905	11/21/90 12/20/90	10/25/90 11/21/90	378 ± 116 91.8 ± 105	98.3 49.3	0.5 0.5	0.5 0.5	648.4 696	4.047 ± 30.7% 0.459 ± 114.4%	
AVERAGE				155					1.571	
2 Standard Error of the Mean				78.2					0.975	
Ringold Met.	0906	06/07/90 07/05/90 08/02/90 08/30/90 09/27/90 10/25/90 11/21/90 12/20/90	05/10/90 06/07/90 07/05/90 08/02/90 08/30/90 09/27/90 10/25/90 11/21/90	291 ± 114 897 ± 132 148 ± 109 209 ± 110 171 ± 109 241 ± 113 122 ± 108 253 ± 111	89.4 109 99.4 142 132 82.5 80 74.2	0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5	0.5 0.5 0.7 0.7 0.5 0.4 0.5 0.5	672.2 671 672.5 671.5 672 672.5 672 687.9	2.733 ± 39.2% 10.290 ± 14.7% 1.287 ± 73.6% 2.601 ± 52.6% 2.372 ± 63.7% 2.320 ± 46.9% 1.026 ± 88.5% 1.927 ± 43.9%	
AVERAGE				292					3.070	
2 Standard Error of the Mean				178					2.107	
W. End Fir Rd.	6393	06/27/90 07/20/90 08/22/90 09/19/90 10/17/90 11/14/90 12/12/90 01/02/91	05/30/90 06/27/90 07/20/90 08/22/90 09/19/90 10/17/90 11/14/90 12/12/90	130 ± 106 135 ± 106 120 ± 106 65.2 ± 103 169 ± 105 99.8 ± 104 118 ± 103 206 ± 108	81.1 83.3 99.6 96.3 146 118 94.3 43.4	0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5	0.5 0.5 0.5 1.1 1.2 0.5 0.7 0.5	517.2 558 792 668.8 670.6 672.5 670.1 503	1.440 ± 81.5% 1.423 ± 78.5% 1.066 ± 88.3% 0.414 ± 158.0% 1.528 ± 62.1% 1.237 ± 104.2% 0.977 ± 87.3% 1.255 ± 52.4%	
AVERAGE				130					1.168	
2 Standard Error of the Mean				30.1					0.253	

Table A-2. (contd)

Location	Sample Number	Off Date	On Date	Results (pCi/L) 2 sig	Vol. (mL)	Start Flow (cfh)	End Flow (cfh)	Exposure Hours	Results <sup>o</sup> pCi/m <sup>3</sup> 2 sig		
Byers Landing	0273	06/27/90	05/30/90	237 ± 108	90.9	0.5	0.5	673	2.261 ± 45.6%		
		07/25/90	06/27/90	154 ± 106	92	0.5	0.5	670	1.493 ± 68.8%		
		08/22/90	07/25/90	35.6 ± 103	126	0.5	0.5	672.6	0.471 ± 289.3%		
		09/19/90	08/22/90	24.9 ± 101	110	0.5	0.9	670.3	0.206 ± 405.6%		
		10/17/90	09/19/90	89.8 ± 103	127	0.5	0.8	671.9	0.922 ± 114.7%		
		11/14/90	10/17/90	195 ± 107	93.5	0.5	0.5	599.9	2.146 ± 54.9%		
		12/12/90	11/14/90	40.7 ± 102	79.8	0.5	0.5	674	0.340 ± 250.6%		
		01/02/91	12/12/90	69.8 ± 104	47.7	0.5	0.5	503	0.467 ± 149.0%		
		AVERAGE				106					1.038
		2 Standard Error of the Mean				56.5					0.584
		Prosser Barr.	0908	06/05/90	05/08/90	211 ± 110	82.5	0.5	0.5	672.6	1.828 ± 52.1%
07/03/90	06/05/90			1270 ± 143	88.3	0.5	0.5	674.5	11.741 ± 11.3%		
07/31/90	07/03/90			120 ± 110	101	0.5	0.5	672.3	1.273 ± 91.7%		
08/28/90	07/31/90			83.2 ± 106	118	0.5	0.5	669	1.036 ± 127.4%		
09/24/90	08/28/90			187 ± 111	118	0.5	2	647	0.963 ± 59.4%		
10/23/90	09/24/90			177 ± 109	96.1	0.5	0.5	694.5	1.730 ± 61.6%		
11/20/90	10/23/90			195 ± 112	63.1	0.5	0.5	483.5	1.797 ± 57.4%		
12/18/90	11/20/90			149 ± 110	83	0.5	0.5	669.8	1.304 ± 73.8%		
AVERAGE						299					2.709
2 Standard Error of the Mean						279					2.592
Wahluke Slope	0266	06/27/90	05/16/90	146 ± 113	155	0.5	0.5	1008.7	1.584 ± 77.4%		
		07/11/90	06/27/90	16.1 ± 112	76.3	0.5	0.5	335.5	0.259 ± 695.7%		
		08/08/90	07/11/90	41.2 ± 112	117	0.5	0.5	671.2	0.507 ± 271.8%		
		09/05/90	08/08/90	14 ± 109	125	0.5	0.5	670.5	0.184 ± 778.6%		
		10/03/90	09/05/90	9.96 ± 107	136	0.5	1.3	672.1	0.079 ± 1074.3%		
		10/31/90	10/03/90	66.4 ± 111	100	0.5	0.5	673.3	0.696 ± 167.2%		

Table A-2. (contd)

Location	Sample Number	Off Date	On Date	Results (pCi/L) 2 sig	Vol. (mL)	Start Flow (cfh)	End Flow (cfh)	Exposure Hours	Results <sup>(a)</sup> pCi/m <sup>3</sup> 2 sig
Wahluke Slope (contd)	0266	11/28/90	10/31/90	65.1 ± 113	104	0.5	0.5	672	0.712 ± 173.6%
		12/27/90	11/28/90	183 ± 118	63.5	0.5	0.5	696.7	1.178 ± 64.5%
AVERAGE				67.7					0.650
2 Standard Error of the Mean				45.5					0.366

$$(a) \text{ Result in (pCi/m}^3\text{)} = \frac{\text{(Result in pCi/L) (Volume in mL)}}{(1000 \text{ mL/L) (Avg flow in cfh) (exposure hr) (0.02832 m}^3\text{/ft}^3\text{)}}$$

## Surface Water

1000 RICHLAND PUMP HOUS - RICHLAND PUMP HOUS (CUMULATIVE, UNFILTERED)

OFF DATE	COM	ALPHA	BETA	LO H 3	SR 90	C 234	U 235	U 238	U-ISO T
01/03/90		3.05E-01 { 2.54E-01}	1.10E+00 { 7.86E-01}	1.11E+02 { 5.42E+00}	6.60E-02 { 2.99E-02}	2.04E-01 { 4.05E-02}	1.72E-02 { 1.17E-02}	1.85E-01 { 3.74E-02}	4.06E-01 { 5.64E-02}
01/30/90	<	1.10E-01 { 2.82E-01}	1.57E+00 { 6.76E-01}	1.24E+02 { 5.07E+00}	3.77E-02 { 2.51E-02}	2.99E-01 { 5.51E-02}	< 1.68E-02 { 1.70E-02}	2.24E-01 { 4.60E-02}	5.40E-01 { 7.38E-02}
02/27/90		1.17E+00 { 6.76E-01}	8.49E-01 { 6.68E-01}	9.34E+01 { 4.24E+00}	8.15E-02 { 2.84E-02}	2.55E-01 { 4.61E-02}	< 6.64E-03 { 9.72E-03}	2.36E-01 { 4.36E-02}	4.98E-01 { 6.42E-02}
04/03/90		2.76E-01 { 4.45E-01}	1.22E+00 { 5.60E-01}	1.01E+02 { 4.50E+00}	9.72E-02 { 3.16E-02}	2.45E-01 { 4.78E-02}	1.13E-02 { 1.03E-02}	2.08E-01 { 4.23E-02}	4.64E-01 { 6.47E-02}
05/01/90		4.45E-01 { 2.00E+00}	1.74E+00 { 9.69E-01}	9.31E+01 { 4.30E+00}	nra { 4.30E+00}	nra { 4.30E+00}	nra { 4.30E+00}	nra { 4.30E+00}	nra { 4.30E+00}
07/03/90		2.00E+00 { 1.33E+00}	2.79E+00 { 2.21E+00}	5.26E+01 { 3.15E+00}	5.45E-02 { 2.46E-02}	2.57E-01 { 4.67E-02}	1.28E-02 { 1.07E-02}	1.67E-01 { 3.72E-02}	4.37E-01 { 6.07E-02}
07/31/90	<	2.41E-01 { 6.90E-01}	3.55E+00 { 2.28E+00}	1.30E+02 { 4.07E+00}	7.65E-02 { 2.62E-02}	3.06E-01 { 5.02E-02}	< 6.52E-03 { 7.82E-03}	2.28E-01 { 4.26E-02}	5.41E-01 { 6.63E-02}
08/28/90		2.24E+00 { 1.43E+00}	4.35E+00 { 2.43E+00}	1.31E+02 { 4.08E+00}	9.70E-02 { 3.44E-02}	2.24E-01 { 4.41E-02}	< 6.57E-03 { 9.39E-03}	1.78E-01 { 3.75E-02}	4.09E-01 { 5.86E-02}
10/02/90		1.36E+00 { 1.16E+00}	< 1.61E+00 { 2.10E+00}	1.44E+02 { 4.17E+00}	8.87E-02 { 2.26E-02}	2.39E-01 { 4.58E-02}	< 8.95E-03 { 9.17E-03}	2.31E-01 { 4.43E-02}	4.79E-01 { 6.44E-02}
10/29/90	<	1.64E-01 { 5.46E-01}	3.47E+00 { 2.30E+00}	1.39E+02 { 4.33E+00}	9.77E-02 { 2.37E-02}	2.05E-01 { 4.20E-02}	1.04E-02 { 9.56E-03}	1.81E-01 { 3.84E-02}	3.97E-01 { 5.77E-02}
11/28/90	<	5.58E-01 { 7.59E-01}	4.01E+00 { 2.36E+00}	7.64E+01 { 3.45E+00}	9.21E-02 { 2.26E-02}	1.79E-01 { 4.00E-02}	< 8.71E-04 { 6.94E-03}	1.55E-01 { 3.65E-02}	3.35E-01 { 5.46E-02}
12/31/90	<	6.02E-01 { 7.72E-01}	4.26E+00 { 2.35E+00}	6.10E+01 { 3.19E+00}	4.00E-02 { 2.35E-02}	2.50E-01 { 4.52E-02}	< 4.65E-03 { 8.59E-03}	1.90E-01 { 3.96E-02}	4.45E-01 { 6.07E-02}
MEAN		7.89E-01	2.54E+00	1.05E+02	7.54E-02	2.42E-01	9.34E-03	1.98E-01	4.50E-01
MINIMUM	<	1.10E-01	8.49E-01	5.26E+01	3.77E-02	1.79E-01	< 8.71E-04	1.55E-01	3.35E-01
MAXIMUM		2.24E+00	4.35E+00	1.44E+02	9.77E-02	3.06E-01	1.72E-02	2.36E-01	5.41E-01
ZSTD.ERR		4.23E-01	7.68E-01	1.76E+01	1.37E-02	2.32E-02	3.02E-03	1.70E-02	3.79E-02

< - Result less than detection limit.  
{ } - Uncertainty for result.  
NR - No result reported.  
nra - Not routinely analyzed or analyzed on a less frequent basis.

SURFACE ENVIRONMENTAL SURVEILLANCE DATA REPORT - 123089 TO C10491  
SURFACE WATER - COMPOSITED SAMPLES - PCI/L

1265 PRIEST RAPIDS-RIVE - PRIEST RAPIDS-RIVE (CUMULATIVE, UNFILTERED)

OFF DATE	COM	ALPHA	BETA	LO H 3	SR 90	U 234	U 235	U 238	U-ISO T
01/03/90		5.39E-01 { 3.61E-01}	9.92E-01 { 7.76E-01}	5.78E+01 { 3.90E+00}	9.45E-02 { 2.89E-02}	2.43E-01 { 4.37E-02}	3.85E-02 { 1.74E-02}	2.04E-01 { 4.01E-02}	4.86E-01 { 6.18E-02}
01/30/90		5.82E-01 { 3.87E-01}	9.80E-01 { 6.41E-01}	5.55E+01 { 4.12E+00}	9.23E-02 { 3.03E-02}	2.93E-01 { 5.46E-02}	< -1.57E-02 { 1.59E-02}	1.97E-01 { 4.53E-02}	4.74E-01 { 7.27E-02}
02/27/90		6.32E-01 { 5.32E-01}	1.31E+00 { 6.73E-01}	5.75E+01 { 3.84E+00}	5.96E-02 { 2.70E-02}	2.24E-01 { 4.48E-02}	1.81E-02 { 1.29E-02}	2.09E-01 { 4.29E-02}	4.51E-01 { 6.34E-02}
04/03/90		4.19E-01 { 2.75E-01}	9.51E-01 { 6.17E-01}	5.80E+01 { 3.84E+00}	8.47E-02 { 2.98E-02}	2.95E-01 { 6.32E-02}	< 7.82E-03 { 1.36E-02}	2.36E-01 { 5.40E-02}	5.39E-01 { 8.42E-02}
05/01/90		4.60E-01 { 3.94E-01}	< 1.54E-01 { 7.81E-01}	5.19E+01 { 3.62E+00}	nra { 6.39E-02}	nra { 1.71E-01}	nra < 9.52E-04	nra { 1.19E-01}	nra { 2.91E-01}
07/03/90		1.59E+00 { 1.13E+00}	5.17E+00 { 2.46E+00}	5.29E+01 { 3.12E+00}	2.01E-02 { 9.27E-02}	4.02E-02 { 2.17E-01}	{ 4.50E-03}	{ 3.33E-02}	{ 5.24E-02}
07/31/90		1.67E+00 { 1.24E+00}	3.77E+00 { 2.34E+00}	5.16E+01 { 3.05E+00}	2.37E-02 { 5.45E-02}	4.32E-02 { 2.20E-01}	{ 5.76E-03}	{ 3.53E-02}	{ 5.61E-02}
08/28/90		1.15E+00 { 9.77E-01}	4.24E+00 { 2.30E+00}	5.07E+01 { 3.13E+00}	1.88E-02 { 1.90E-02}	4.40E-02 { 2.14E-01}	{ 1.02E-02}	{ 3.74E-02}	{ 5.86E-02}
10/02/90		< 3.97E-01 { 6.85E-01}	< 1.97E+00 { 3.84E+00}	5.00E+01 { 3.04E+00}	2.23E-02 { 8.07E-02}	4.29E-02 { 2.34E-01}	{ 8.26E-03}	{ 1.46E-01}	{ 5.62E-02}
10/29/90		< 8.81E-01 { 8.51E-01}	3.84E+00 { 2.32E+00}	4.88E+01 { 2.99E+00}	2.18E-02 { 6.04E-02}	4.40E-02 { 2.06E-01}	{ 7.96E-03}	{ 1.75E-01}	{ 4.16E-01}
11/27/90		9.66E-01 { 9.37E-01}	3.05E+00 { 2.22E+00}	4.48E+01 { 2.91E+00}	6.04E-02 { 1.96E-02}	2.06E-01 { 4.07E-02}	{ 6.28E-04}	{ 1.65E-01}	{ 5.86E-02}
12/31/90		< 9.68E-01 { 1.00E+00}	2.56E+00 { 2.17E+00}	4.62E+01 { 2.94E+00}	< 1.53E-02 { 2.67E-02}	2.56E-01 { 4.51E-02}	{ 8.17E-03}	{ 1.72E-01}	{ 4.36E-01}
MEAN		8.55E-01	2.42E+00	5.21E+01	7.25E-02	2.34E-01	7.82E-03	1.76E-01	4.18E-01
MINIMUM		< 3.97E-01	< 1.54E-01	4.48E+01	< 1.53E-02	1.71E-01	< -1.57E-02	1.19E-01	2.91E-01
MAXIMUM		1.67E+00	5.17E+00	5.80E+01	9.90E-02	2.95E-01	3.85E-02	2.36E-01	5.39E-01
2STD.ERR		2.52E-01	9.21E-01	2.55E+00	1.50E-02	2.22E-02	7.95E-03	2.01E-02	4.16E-02

< - Result less than detection limit.  
{ } - Uncertainty for result.  
NR - No result reported.  
nra - Not routinely analyzed or analyzed on a less frequent basis.

6243 300 AREA - 300 AREA (CUMULATIVE, UNFILTERED)

OFF DATE	COM	ALPHA	BETA	LO H 3	SR 90	U 234	U 235	U 236	U-ISO T
04/03/90		1.15E+00 { 4.94E-01}	2.11E+00 { 7.36E-01}	1.22E+00 { 4.80E+00}	7.90E-02 { 3.23E-02}	3.68E-01 { 5.30E-02}	< -1.24E-02 { 1.57E-02}	2.41E-01 { 4.29E-02}	5.97E-01 { 7.00E-02}
06/26/90		< 3.00E-01 { 3.01E-01}	2.00E+00 { 9.45E-01}	6.51E+01 { 3.37E+00}	< 3.80E-02 { 4.03E-02}	2.70E-01 { 4.60E-02}	2.41E-02 { 1.39E-02}	2.30E-01 { 4.25E-02}	5.24E-01 { 6.42E-02}
09/18/90		7.27E-01 { 4.43E-01}	< 6.30E-01 { 8.40E-01}	2.06E+02 { 4.86E+00}	< 3.31E-02 { 4.69E-02}	3.31E-01 { 5.07E-02}	< 5.35E-03 { 8.09E-03}	2.75E-01 { 4.63E-02}	6.11E-01 { 6.91E-02}
01/08/91		< 2.88E-01 { 2.91E-01}	9.26E-01 { 8.51E-01}	1.34E+02 { 4.12E+00}	5.57E-02 { 3.02E-02}	3.11E-01 { 4.95E-02}	9.98E-03 { 9.65E-03}	2.17E-01 { 4.11E-02}	5.38E-01 { 6.51E-02}
MEAN		6.16E-01	1.42E+00	1.32E+02	5.15E-02	3.20E-01	6.76E-03	2.41E-01	5.68E-01
MINIMUM		< 2.88E-01	< 6.30E-01	6.51E+01	< 3.31E-02	2.70E-01	< -1.24E-02	2.17E-01	5.24E-01
MAXIMUM		1.15E+00	2.11E+00	2.06E+02	7.90E-02	3.68E-01	2.41E-02	2.75E-01	6.11E-01
2STD.ERR		4.10E-01	7.42E-01	5.79E+01	2.08E-02	4.08E-02	1.51E-02	2.49E-02	4.29E-02

< - Result less than detection limit.  
 ( ) - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.



SURFACE ENVIRONMENTAL SURVEILLANCE DATA REPORT - 010190 TO 123190  
SURFACE WATER - COMPOSITED SAMPLES - CF/SEC

1000 RICHLAND PUMP HOUS - RICHLAND PUMP HOUS (CUMULATIVE, UNFILTERED)

OFF DATE	COM	RIV FLO
01/01/90	---	9.26E+04 {NR}
01/02/90	---	1.11E+05 {NR}
01/03/90	---	1.32E+06 {NR}
01/04/90	---	1.47E+05 {NR}
01/05/90	---	1.37E+05 {NR}
01/06/90	---	1.15E+05 {NR}
01/07/90	---	1.08E+05 {NR}
01/08/90	---	1.03E+05 {NR}
01/09/90	---	1.25E+05 {NR}
01/10/90	---	1.31E+05 {NR}
01/11/90	---	1.17E+05 {NR}
01/12/90	---	1.08E+05 {NR}
01/13/90	---	1.19E+05 {NR}
01/14/90	---	8.49E+04 {NR}
01/15/90	---	1.15E+05 {NR}
01/16/90	---	1.28E+05 {NR}
01/17/90	---	1.27E+05 {NR}
01/18/90	---	1.30E+05 {NR}
01/19/90	---	1.21E+05 {NR}
01/20/90	---	1.27E+05 {NR}
01/21/90	---	1.21E+05 {NR}
01/22/90	---	1.16E+05 {NR}
01/23/90	---	1.30E+05 {NR}

< - Result less than detection limit.  
{ } - Uncertainty for result.  
NR - No result reported.  
nra - Not routinely analyzed or analyzed on a less frequent basis.

1000 RICHLAND PUMP HOUS - RICHLAND PUMP HOUS (CUMULATIVE, UNFILTERED)

OFF DATE	COM	RIV FLO
01/24/90		1.34E+05 {NR}
01/25/90		1.34E+05 {NR}
01/26/90		1.33E+05 {NR}
01/27/90		1.39E+05 {NR}
01/28/90		1.30E+05 {NR}
01/29/90		1.20E+05 {NR}
01/30/90		1.28E+05 {NR}
01/31/90		1.52E+05 {NR}
02/01/90		1.48E+05 {NR}
02/02/90		1.34E+05 {NR}
02/03/90		1.30E+05 {NR}
02/04/90		1.17E+05 {NR}
02/05/90		1.06E+05 {NR}
02/06/90		1.20E+05 {NR}
02/07/90		1.50E+05 {NR}
02/08/90		1.65E+05 {NR}
02/09/90		1.36E+05 {NR}
02/10/90		1.22E+05 {NR}
02/11/90		1.04E+05 {NR}
02/12/90		1.29E+05 {NR}
02/13/90		1.30E+05 {NR}
02/14/90		1.39E+05 {NR}
02/15/90		1.70E+05 {NR}

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.

SURFACE ENVIRONMENTAL SURVEILLANCE DATA REPORT - 010190 TO 123190  
SURFACE WATER - COMPOSITED SAMPLES - CF/SEC

1000 RICHLAND PUMP HOUS - RICHLAND PUMP HOUS (CUMULATIVE, UNFILTERED)

OFF DATE COM	RIV FLO
02/16/90	1.83E+05 {NR}
02/17/90	1.45E+05 {NR}
02/18/90	1.36E+05 {NR}
02/19/90	1.60E+05 {NR}
02/20/90	1.68E+05 {NR}
02/21/90	1.61E+05 {NR}
02/22/90	1.37E+05 {NR}
02/23/90	1.35E+05 {NR}
02/24/90	1.32E+05 {NR}
02/25/90	1.33E+05 {NR}
02/26/90	1.28E+05 {NR}
02/27/90	1.30E+05 {NR}
02/28/90	1.25E+05 {NR}
03/01/90	1.57E+05 {NR}
03/02/90	1.37E+05 {NR}
03/03/90	1.33E+05 {NR}
03/04/90	1.13E+05 {NR}
03/05/90	1.18E+05 {NR}
03/06/90	1.30E+05 {NR}
03/07/90	1.31E+05 {NR}
03/08/90	1.33E+05 {NR}
03/09/90	1.69E+05 {NR}
03/10/90	1.37E+05 {NR}

< - Result less than detection limit.

{ } - Uncertainty for result.

NR - No result reported.

nra - Not routinely analyzed or analyzed on a less frequent basis.

1000 RICHLAND PUMP HOUS - RICHLAND PUMP HOUS (CUMULATIVE, UNFILTERED)

OFF DATE	COM	RIV FLO
03/11/90		1.29E+05 {NR}
03/12/90		1.32E+05 {NR}
03/13/90		1.29E+05 {NR}
03/14/90		1.33E+05 {NR}
03/15/90		1.31E+05 {NR}
03/16/90		1.35E+05 {NR}
03/17/90		1.36E+05 {NR}
03/18/90		1.36E+05 {NR}
03/19/90		1.30E+05 {NR}
03/20/90		1.33E+05 {NR}
03/21/90		1.51E+05 {NR}
03/22/90		1.41E+05 {NR}
03/23/90		1.64E+05 {NR}
03/24/90		1.56E+05 {NR}
03/25/90		1.54E+05 {NR}
03/26/90		1.52E+05 {NR}
03/27/90		1.65E+05 {NR}
03/28/90		1.77E+05 {NR}
03/29/90		1.79E+05 {NR}
03/30/90		1.35E+05 {NR}
03/31/90		1.24E+05 {NR}
04/01/90		1.33E+05 {NR}
04/02/90		1.64E+05 {NR}

< - Result less than detection limit.  
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 NR - No result reported.  
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1000 RICHLAND PUMP HOUS - RICHLAND PUMP HOUS (CUMULATIVE, UNFILTERED)

OFF DATE	COM	RIV FLO
04/03/90		1.82E+05 {NR}
04/04/90		1.44E+05 {NR}
04/05/90		1.34E+05 {NR}
04/06/90		1.36E+05 {NR}
04/07/90		1.57E+05 {NR}
04/08/90		1.42E+05 {NR}
04/09/90		1.40E+05 {NR}
04/10/90		1.58E+05 {NR}
04/11/90		1.52E+05 {NR}
04/12/90		1.52E+05 {NR}
04/13/90		1.42E+05 {NR}
04/14/90		1.23E+05 {NR}
04/15/90		8.89E+04 {NR}
04/16/90		9.28E+04 {NR}
04/17/90		1.29E+05 {NR}
04/18/90		1.40E+05 {NR}
04/19/90		1.42E+05 {NR}
04/20/90		1.60E+05 {NR}
04/21/90		1.38E+05 {NR}
04/22/90		1.15E+05 {NR}
04/23/90		1.46E+05 {NR}
04/24/90		1.54E+05 {NR}
04/25/90		1.75E+05 {NR}

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{ } - Uncertainty for result.  
NR - No result reported.  
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1000 RICHLAND PUMP HOUS - RICHLAND PUMP HOUS (CUMULATIVE, UNFILTERED)

OFF DATE COM	RIV FLO
04/26/90	1.86E+05 {NR}
04/27/90	1.72E+05 {NR}
04/28/90	1.39E+05 {NR}
04/29/90	1.15E+05 {NR}
04/30/90	1.30E+05 {NR}
05/01/90	1.47E+05 {NR}
05/02/90	1.56E+05 {NR}
05/03/90	1.81E+05 {NR}
05/04/90	1.80E+05 {NR}
05/05/90	1.63E+05 {NR}
05/06/90	1.52E+05 {NR}
05/07/90	1.62E+05 {NR}
05/08/90	1.85E+05 {NR}
05/09/90	1.44E+05 {NR}
05/10/90	1.28E+05 {NR}
05/11/90	1.10E+05 {NR}
05/12/90	1.09E+05 {NR}
05/13/90	1.15E+05 {NR}
05/14/90	1.42E+05 {NR}
05/15/90	1.46E+05 {NR}
05/16/90	1.58E+05 {NR}
05/17/90	1.62E+05 {NR}
05/18/90	1.70E+05 {NR}

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.

SURFACE ENVIRONMENTAL SURVEILLANCE DATA REPORT - 010190 TO 123190  
SURFACE WATER - COMPOSITED SAMPLES - CF/SEC

1000 RICHLAND PUMP HOUS - RICHLAND PUMP HOUS (CUMULATIVE, UNFILTERED)

OFF DATE	COM	RIV FLO
05/19/90	1.48E+05	{NR}
05/20/90	1.26E+05	{NR}
05/21/90	1.33E+05	{NR}
05/22/90	1.55E+05	{NR}
05/23/90	1.63E+05	{NR}
05/24/90	1.56E+05	{NR}
05/25/90	1.44E+05	{NR}
05/26/90	1.55E+05	{NR}
05/27/90	1.22E+05	{NR}
05/28/90	1.22E+05	{NR}
05/29/90	1.38E+05	{NR}
05/30/90	1.77E+05	{NR}
05/31/90	1.85E+05	{NR}
06/01/90	2.18E+05	{NR}
06/02/90	1.95E+05	{NR}
06/03/90	1.56E+05	{NR}
06/04/90	1.62E+05	{NR}
06/05/90	2.23E+05	{NR}
06/06/90	2.49E+05	{NR}
06/07/90	2.44E+05	{NR}
06/08/90	2.75E+05	{NR}
06/09/90	2.56E+05	{NR}
06/10/90	2.07E+05	{NR}

< - Result less than detection limit.

{ } - Uncertainty for result.

NR - No result reported.

nra - Not routinely analyzed or analyzed on a less frequent basis.

1000 RICHLAND PUMP HOUS - RICHLAND PUMP HOUS (CUMULATIVE, UNFILTERED)

OFF DATE	COM	RIV FLO
06/11/90		1.89E+05 {NR}
06/12/90		2.62E+05 {NR}
06/13/90		2.63E+05 {NR}
06/14/90		2.45E+05 {NR}
06/15/90		2.52E+05 {NR}
06/16/90		2.34E+05 {NR}
06/17/90		2.24E+05 {NR}
06/18/90		2.34E+05 {NR}
06/19/90		2.21E+05 {NR}
06/20/90		2.12E+05 {NR}
06/21/90		2.16E+05 {NR}
06/22/90		2.04E+05 {NR}
06/23/90		1.82E+05 {NR}
06/24/90		1.86E+05 {NR}
06/25/90		1.78E+05 {NR}
06/26/90		2.20E+05 {NR}
06/27/90		2.38E+05 {NR}
06/28/90		2.17E+05 {NR}
06/29/90		2.15E+05 {NR}
06/30/90		1.94E+05 {NR}
07/01/90		2.11E+05 {NR}
07/02/90		2.02E+05 {NR}
07/03/90		1.94E+05 {NR}

< - Result less than detection limit.  
 {} - Uncertainty for result.  
 NR - No result reported.  
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SURFACE ENVIRONMENTAL SURVEILLANCE DATA REPORT - 010190 TO 123190  
SURFACE WATER - COMPOSITED SAMPLES - CF/SEC

1000 RICHLAND PUMP HOUS - RICHLAND PUMP HOUS (CUMULATIVE, UNFILTERED)

OFF DATE	COM	RIV FLO
07/04/90		1.91E+05 {NR}
07/05/90		1.91E+05 {NR}
07/06/90		1.96E+05 {NR}
07/07/90		1.81E+05 {NR}
07/08/90		1.81E+05 {NR}
07/09/90		1.94E+05 {NR}
07/10/90		2.01E+05 {NR}
07/11/90		1.88E+05 {NR}
07/12/90		1.79E+05 {NR}
07/13/90		1.76E+05 {NR}
07/14/90		1.57E+05 {NR}
07/15/90		1.34E+05 {NR}
07/16/90		1.42E+05 {NR}
07/17/90		1.47E+05 {NR}
07/18/90		1.31E+05 {NR}
07/19/90		1.28E+05 {NR}
07/20/90		1.49E+05 {NR}
07/21/90		1.28E+05 {NR}
07/22/90		1.04E+05 {NR}
07/23/90		1.04E+05 {NR}
07/24/90		1.33E+05 {NR}
07/25/90		1.18E+05 {NR}
07/26/90		1.05E+05 {NR}

< - Result less than detection limit.

{ } - Uncertainty for result.

NR - No result reported.

na - Not routinely analyzed or analyzed on a less frequent basis.

1000 RICHLAND PUMP HOUS - RICHLAND PUMP HOUS (CUMULATIVE, UNFILTERED)

OFF DATE COM	RIV FLO
07/27/90	1.02E+05 {NR}
07/28/90	9.47E+04 {NR}
07/29/90	9.83E+04 {NR}
07/30/90	1.26E+05 {NR}
07/31/90	1.21E+05 {NR}
08/01/90	1.32E+05 {NR}
08/02/90	1.34E+05 {NR}
08/03/90	1.35E+05 {NR}
08/04/90	1.38E+05 {NR}
08/05/90	1.20E+05 {NR}
08/06/90	1.10E+05 {NR}
08/07/90	1.25E+05 {NR}
08/08/90	1.25E+05 {NR}
08/09/90	1.25E+05 {NR}
08/10/90	1.33E+05 {NR}
08/11/90	1.31E+05 {NR}
08/12/90	9.59E+04 {NR}
08/13/90	9.76E+04 {NR}
08/14/90	1.21E+05 {NR}
08/15/90	1.17E+05 {NR}
08/16/90	1.03E+05 {NR}
08/17/90	1.01E+05 {NR}
08/18/90	9.97E+04 {NR}

< - Result less than detection limit.

{ } - Uncertainty for result.

NR - No result reported.

nra - Not routinely analyzed or analyzed on a less frequent basis.

SURFACE ENVIRONMENTAL SURVEILLANCE DATA REPORT - 010190 TO 123190  
SURFACE WATER - COMPOSITED SAMPLES - CF/SEC

1000 RICHLAND PUMP HOUS - RICHLAND PUMP HOUS (CUMULATIVE, UNFILTERED)

OFF DATE	COM	RIV FLO
08/19/90		9.12E+04 {NR}
08/20/90		9.85E+04 {NR}
08/21/90		1.13E+05 {NR}
08/22/90		1.08E+05 {NR}
08/23/90		1.10E+05 {NR}
08/24/90		1.16E+05 {NR}
08/25/90		1.16E+05 {NR}
08/26/90		1.06E+05 {NR}
08/27/90		1.11E+05 {NR}
08/28/90		1.29E+05 {NR}
08/29/90		1.18E+05 {NR}
08/30/90		8.88E+04 {NR}
08/31/90		9.89E+04 {NR}
09/01/90		6.86E+04 {NR}
09/02/90		5.85E+04 {NR}
09/03/90		5.71E+04 {NR}
09/04/90		6.70E+04 {NR}
09/05/90		8.33E+04 {NR}
09/06/90		7.63E+04 {NR}
09/07/90		7.32E+04 {NR}
09/08/90		6.72E+04 {NR}
09/09/90		5.45E+04 {NR}
09/10/90		7.77E+04 {NR}

< - Result less than detection limit.

{ } - Uncertainty for result.

NR - No result reported.

nra - Not routinely analyzed or analyzed on a less frequent basis.

1000 RICHLAND PUMP HOUS - RICHLAND PUMP HOUS (CUMULATIVE, UNFILTERED)

OFF DATE	COM	RIV FLO
09/11/90		9.65E+04 {NR}
09/12/90		7.75E+04 {NR}
09/13/90		7.01E+04 {NR}
09/14/90		8.20E+04 {NR}
09/15/90		7.09E+04 {NR}
09/16/90		6.24E+04 {NR}
09/17/90		7.75E+04 {NR}
09/18/90		8.15E+04 {NR}
09/19/90		8.07E+04 {NR}
09/20/90		7.45E+04 {NR}
09/21/90		6.57E+04 {NR}
09/22/90		8.54E+04 {NR}
09/23/90		5.34E+04 {NR}
09/24/90		6.31E+04 {NR}
09/25/90		9.08E+04 {NR}
09/26/90		1.01E+05 {NR}
09/27/90		8.58E+04 {NR}
09/28/90		9.45E+04 {NR}
09/29/90		6.79E+04 {NR}
09/30/90		5.62E+04 {NR}
10/01/90		7.42E+04 {NR}
10/02/90		9.27E+04 {NR}
10/03/90		8.81E+04 {NR}

< - Result less than detection limit.  
 {} - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.

SURFACE ENVIRONMENTAL SURVEILLANCE DATA REPORT - 010190 TO 123190  
SURFACE WATER - COMPOSITED SAMPLES - CF/SEC

1000 RICHLAND PUMP HOUS - RICHLAND PUMP HOUS (CUMULATIVE, UNFILTERED)

OFF DATE	COM	RIV FLO
10/04/90	9.44E+04	{NR}
10/05/90	9.94E+04	{NR}
10/06/90	8.27E+04	{NR}
10/07/90	6.14E+04	{NR}
10/08/90	7.99E+04	{NR}
10/09/90	7.55E+04	{NR}
10/10/90	7.93E+04	{NR}
10/11/90	8.77E+04	{NR}
10/12/90	7.79E+04	{NR}
10/13/90	6.20E+04	{NR}
10/14/90	5.67E+04	{NR}
10/15/90	6.89E+04	{NR}
10/16/90	8.41E+04	{NR}
10/17/90	8.77E+04	{NR}
10/18/90	7.16E+04	{NR}
10/19/90	8.65E+04	{NR}
10/20/90	8.96E+04	{NR}
10/21/90	8.23E+04	{NR}
10/22/90	8.21E+04	{NR}
10/23/90	7.83E+04	{NR}
10/24/90	8.57E+04	{NR}
10/25/90	7.53E+04	{NR}
10/26/90	6.69E+04	{NR}

< - Result less than detection limit.

{ } - Uncertainty for result.

NR - No result reported.

nra - Not routinely analyzed or analyzed on a less frequent basis.

1000 RICHLAND PUMP HOUS - RICHLAND PUMP HOUS (CUMULATIVE, UNFILTERED)

OFF DATE	COM	RIV FLO
10/27/90		6.76E+04 {NR}
10/28/90		7.76E+04 {NR}
10/29/90		8.21E+04 {NR}
10/30/90		8.61E+04 {NR}
10/31/90		8.01E+04 {NR}
11/01/90		9.76E+04 {NR}
11/02/90		8.55E+04 {NR}
11/03/90		8.70E+04 {NR}
11/04/90		9.27E+04 {NR}
11/05/90		9.49E+04 {NR}
11/06/90		1.02E+05 {NR}
11/07/90		1.02E+05 {NR}
11/08/90		9.51E+04 {NR}
11/09/90		1.01E+05 {NR}
11/10/90		1.02E+05 {NR}
11/11/90		1.04E+05 {NR}
11/12/90		9.90E+04 {NR}
11/13/90		1.10E+05 {NR}
11/14/90		1.34E+05 {NR}
11/15/90		1.35E+05 {NR}
11/16/90		1.36E+05 {NR}
11/17/90		1.41E+05 {NR}
11/18/90		8.91E+04 {NR}

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.

SURFACE ENVIRONMENTAL SURVEILLANCE DATA REPORT - 010190 TO 123190  
SURFACE WATER - COMPOSITED SAMPLES - (CF/SEC)

1000 RICHLAND PUMP HOUS - RICHLAND PUMP HOUS (CUMULATIVE, UNFILTERED)

OFF DATE COM	RIV FLO
11/19/90	1.22E+05 {NR}
11/20/90	1.40E+05 {NR}
11/21/90	1.28E+05 {NR}
11/22/90	1.38E+05 {NR}
11/23/90	1.12E+05 {NR}
11/24/90	1.31E+05 {NR}
11/25/90	1.65E+05 {NR}
11/26/90	1.76E+05 {NR}
11/27/90	1.64E+05 {NR}
11/28/90	1.52E+05 {NR}
11/29/90	1.37E+05 {NR}
11/30/90	1.63E+05 {NR}
12/01/90	1.73E+05 {NR}
12/02/90	1.43E+05 {NR}
12/03/90	1.43E+05 {NR}
12/04/90	1.40E+05 {NR}
12/05/90	1.64E+05 {NR}
12/06/90	1.48E+05 {NR}
12/07/90	1.64E+05 {NR}
12/08/90	1.46E+05 {NR}
12/09/90	1.34E+05 {NR}
12/10/90	1.19E+05 {NR}
12/11/90	1.30E+05 {NR}

< - Result less than detection limit.

{ } - Uncertainty for result.

NR - No result reported.

nra - Not routinely analyzed or analyzed on a less frequent basis.

1000 RICHLAND PUMP HOUS - RICHLAND PUMP HOUS (CUMULATIVE, UNFILTERED)

OFF DATE COM	RIV FLO
12/12/90	1.35E+05 {NR}
12/13/90	1.46E+05 {NR}
12/14/90	1.48E+05 {NR}
12/15/90	1.37E+05 {NR}
12/16/90	1.20E+05 {NR}
12/17/90	1.23E+05 {NR}
12/18/90	1.40E+05 {NR}
12/19/90	1.91E+05 {NR}
12/20/90	1.88E+05 {NR}
12/21/90	1.88E+05 {NR}
12/22/90	1.83E+05 {NR}
12/23/90	1.86E+05 {NR}
12/24/90	1.97E+05 {NR}
12/25/90	1.38E+05 {NR}
12/26/90	1.50E+05 {NR}
12/27/90	1.50E+05 {NR}
12/28/90	1.51E+05 {NR}
12/29/90	1.64E+05 {NR}
12/30/90	1.70E+05 {NR}
12/31/90	1.37E+05 {NR}
MEAN	1.37E+05
MINIMUM	5.34E+04
MAXIMUM	1.32E+06
2STD.ERR	7.84E+03

< - Result less than detection limit.  
{ } - Uncertainty for result.  
NR - No result reported.  
nra - Not routinely analyzed or analyzed on a less frequent basis.



1003 RICHLAND PUMP HOUS (TEMPERATURE)

OFF DATE	COM	RIV	TMP
01/01/90		6.30E+00	{NR}
01/02/90		6.20E+00	{NR}
01/03/90		6.00E+00	{NR}
01/04/90		6.20E+00	{NR}
01/05/90		6.30E+00	{NR}
01/06/90		6.40E+00	{NR}
01/07/90		6.60E+00	{NR}
01/08/90		6.60E+00	{NR}
01/09/90		6.50E+00	{NR}
01/10/90		6.30E+00	{NR}
01/11/90		6.10E+00	{NR}
01/12/90		5.90E+00	{NR}
01/13/90		5.80E+00	{NR}
01/14/90		5.80E+00	{NR}
01/15/90		5.80E+00	{NR}
01/16/90		5.80E+00	{NR}
01/17/90		5.50E+00	{NR}
01/18/90		5.30E+00	{NR}
01/19/90		5.20E+00	{NR}
01/20/90		5.10E+00	{NR}
01/21/90		5.00E+00	{NR}
01/22/90		5.00E+00	{NR}
01/23/90		4.90E+00	{NR}

< - Result less than detection limit.  
{ } - Uncertainty for result.  
NR - No result reported.  
nra - Not routinely analyzed or analyzed on a less frequent basis.

1003 RICHLAND PUMP HOUS (TEMPERATURE)

OFF DATE	COM	RIV	TEMP
01/24/90		4.50E+00	{NR}
01/25/90		4.50E+00	{NR}
01/26/90		4.40E+00	{NR}
01/27/90		4.30E+00	{NR}
01/28/90		4.40E+00	{NR}
01/29/90		4.40E+00	{NR}
01/30/90		4.40E+00	{NR}
01/31/90		4.20E+00	{NR}
02/01/90		4.20E+00	{NR}
02/02/90		4.20E+00	{NR}
02/03/90		4.30E+00	{NR}
02/04/90		4.30E+00	{NR}
02/05/90		4.20E+00	{NR}
02/06/90		4.10E+00	{NR}
02/07/90		3.70E+00	{NR}
02/08/90		3.80E+00	{NR}
02/09/90		4.10E+00	{NR}
02/10/90		4.70E+00	{NR}
02/11/90		4.80E+00	{NR}
02/12/90		4.20E+00	{NR}
02/13/90		4.00E+00	{NR}
02/14/90		3.60E+00	{NR}
02/15/90		3.60E+00	{NR}

< - Result less than detection limit.  
 {} - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.

1003 RICHLAND PUMP HOUS (TEMPERATURE)

OFF DATE	COM	RIV TMP
02/17/90		3.40E+00
		{NR}
02/18/90		3.20E+00
		{NR}
02/19/90		3.10E+00
		{NR}
02/20/90		3.10E+00
		{NR}
02/21/90		3.40E+00
		{NR}
02/22/90		3.50E+00
		{NR}
02/24/90		3.60E+00
		{NR}
02/25/90		3.60E+00
		{NR}
02/26/90		3.60E+00
		{NR}
02/27/90		3.90E+00
		{NR}
02/28/90		3.90E+00
		{NR}
03/01/90		4.00E+00
		{NR}
03/02/90		4.00E+00
		{NR}
03/03/90		4.10E+00
		{NR}
03/04/90		4.20E+00
		{NR}
03/05/90		4.40E+00
		{NR}
03/06/90		4.50E+00
		{NR}
03/07/90		4.40E+00
		{NR}
03/08/90		4.40E+00
		{NR}
03/09/90		4.40E+00
		{NR}
03/10/90		4.40E+00
		{NR}
03/11/90		4.30E+00
		{NR}
03/12/90		4.40E+00
		{NR}

< - Result less than detection limit.  
 {} - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.

1003 RICHLAND PUMP HOUS (TEMPERATURE)

OFF DATE	COM	RIV TMP
03/13/90		4.40E+00 {NR}
03/14/90		4.70E+00 {NR}
03/15/90		4.70E+00 {NR}
03/16/90		4.80E+00 {NR}
03/17/90		5.00E+00 {NR}
03/18/90		5.20E+00 {NR}
03/19/90		5.40E+00 {NR}
03/20/90		5.50E+00 {NR}
03/21/90		5.60E+00 {NR}
03/22/90		5.70E+00 {NR}
03/23/90		5.40E+00 {NR}
03/24/90		5.40E+00 {NR}
03/25/90		5.40E+00 {NR}
03/26/90		5.40E+00 {NR}
03/27/90		5.50E+00 {NR}
03/28/90		5.50E+00 {NR}
03/29/90		5.50E+00 {NR}
03/30/90		5.80E+00 {NR}
03/31/90		6.20E+00 {NR}
04/01/90		6.50E+00 {NR}
04/02/90		6.60E+00 {NR}
04/03/90		6.70E+00 {NR}
04/04/90		6.80E+00 {NR}

< - Result less than detection limit.  
{ } - Uncertainty for result.  
NR - No result reported.  
nra - Not routinely analyzed or analyzed on a less frequent basis.

SURFACE ENVIRONMENTAL SURVEILLANCE DATA REPORT - 010190 TO 123190  
SURFACE WATER - TEMPERATURE - Degrees C

1003 RICHLAND PUMP HOUS (TEMPERATURE)

OFF DATE	COM	RIV	TMP
04/05/90		7.10E+00	{NR}
04/06/90		7.30E+00	{NR}
04/07/90		7.50E+00	{NR}
04/08/90		7.60E+00	{NR}
04/09/90		7.70E+00	{NR}
04/10/90		7.80E+00	{NR}
04/11/90		7.90E+00	{NR}
04/12/90		8.10E+00	{NR}
04/13/90		8.00E+00	{NR}
04/14/90		8.30E+00	{NR}
04/15/90		8.80E+00	{NR}
04/16/90		9.50E+00	{NR}
04/17/90		9.40E+00	{NR}
04/18/90		9.00E+00	{NR}
04/19/90		9.10E+00	{NR}
04/20/90		9.20E+00	{NR}
04/21/90		9.30E+00	{NR}
04/22/90		9.30E+00	{NR}
04/23/90		9.60E+00	{NR}
04/24/90		9.50E+00	{NR}
04/25/90		9.40E+00	{NR}
04/26/90		9.30E+00	{NR}
04/27/90		9.20E+00	{NR}

< - Result less than detection limit.

{ } - Uncertainty for result.

NR - No result reported.

nra - Not routinely analyzed or analyzed on a less frequent basis.

1003 RICHLAND PUMP HOUS (TEMPERATURE)

OFF DATE	COM	RIV	TMP
04/28/90			8.80E+00 {NR}
04/29/90			9.10E+00 {NR}
04/30/90			9.50E+00 {NR}
05/01/90			9.70E+00 {NR}
05/02/90			9.90E+00 {NR}
05/03/90			1.01E+01 {NR}
05/04/90			1.02E+01 {NR}
05/05/90			1.04E+01 {NR}
05/06/90			1.06E+01 {NR}
05/07/90			1.04E+01 {NR}
05/08/90			1.03E+01 {NR}
05/09/90			1.07E+01 {NR}
05/10/90			1.11E+01 {NR}
05/11/90			1.15E+01 {NR}
05/12/90			1.13E+01 {NR}
05/13/90			1.14E+01 {NR}
05/14/90			1.12E+01 {NR}
05/15/90			1.13E+01 {NR}
05/16/90			1.16E+01 {NR}
05/17/90			1.18E+01 {NR}
05/18/90			1.19E+01 {NR}
05/19/90			1.21E+01 {NR}
05/20/90			1.25E+01 {NR}

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.

SURFACE ENVIRONMENTAL SURVEILLANCE DATA REPORT - 010190 TO 123190  
SURFACE WATER - TEMPERATURE - Degrees C

1003 RICHLAND PUMP HOUS (TEMPERATURE)

OFF DATE	COM	RIV TMP
05/21/90		1.26E+01 {NR}
05/22/90		1.27E+01 {NR}
05/23/90		1.22E+01 {NR}
05/24/90		1.20E+01 {NR}
05/25/90		1.23E+01 {NR}
05/26/90		1.25E+01 {NR}
05/27/90		1.25E+01 {NR}
05/28/90		1.23E+01 {NR}
05/29/90		1.27E+01 {NR}
05/30/90		1.27E+01 {NR}
05/31/90		1.25E+01 {NR}
06/01/90		1.23E+01 {NR}
06/02/90		1.26E+01 {NR}
06/03/90		1.26E+01 {NR}
06/04/90		1.28E+01 {NR}
06/05/90		1.29E+01 {NR}
06/06/90		1.27E+01 {NR}
06/07/90		1.35E+01 {NR}
06/08/90		1.36E+01 {NR}
06/09/90		1.39E+01 {NR}
06/10/90		1.39E+01 {NR}
06/11/90		1.40E+01 {NR}
06/12/90		1.39E+01 {NR}

< - Result less than detection limit.  
{ } - Uncertainty for result.  
NR - No result reported.  
nra - Not routinely analyzed or analyzed on a less frequent basis.

1003 RICHLAND PUMP HOUS (TEMPERATURE)

OFF DATE	COM	RIV TMP
06/13/90		1.36E+01 {NR}
06/14/90		1.38E+01 {NR}
06/15/90		1.38E+01 {NR}
06/16/90		1.38E+01 {NR}
06/17/90		1.39E+01 {NR}
06/18/90		1.42E+01 {NR}
06/19/90		1.45E+01 {NR}
06/20/90		1.49E+01 {NR}
06/21/90		1.52E+01 {NR}
06/22/90		1.51E+01 {NR}
06/23/90		1.52E+01 {NR}
06/24/90		1.54E+01 {NR}
06/25/90		1.54E+01 {NR}
06/26/90		1.54E+01 {NR}
06/27/90		1.51E+01 {NR}
06/28/90		1.51E+01 {NR}
06/29/90		1.54E+01 {NR}
06/30/90		1.56E+01 {NR}
07/01/90		1.55E+01 {NR}
07/02/90		1.51E+01 {NR}
07/03/90		1.49E+01 {NR}
07/04/90		1.51E+01 {NR}
07/05/90		1.52E+01 {NR}

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.



SURFACE ENVIRONMENTAL SURVEILLANCE DATA REPORT - 010190 TO 123190  
SURFACE WATER - TEMPERATURE - Degrees C

1003 RICHLAND PUMP HOUS (TEMPERATURE)

OFF DATE	COM	RIV TMP
07/06/90		1.53E+01 {NR}
07/07/90		1.55E+01 {NR}
07/08/90		1.58E+01 {NR}
07/09/90		1.60E+01 {NR}
07/10/90		1.63E+01 {NR}
07/11/90		1.67E+01 {NR}
07/12/90		1.71E+01 {NR}
07/13/90		1.75E+01 {NR}
07/14/90		1.77E+01 {NR}
07/15/90		1.80E+01 {NR}
07/16/90		1.81E+01 {NR}
07/17/90		1.81E+01 {NR}
07/18/90		1.83E+01 {NR}
07/19/90		1.85E+01 {NR}
07/20/90		1.87E+01 {NR}
07/21/90		1.89E+01 {NR}
07/22/90		1.92E+01 {NR}
07/23/90		1.93E+01 {NR}
07/24/90		1.86E+01 {NR}
07/25/90		1.82E+01 {NR}
07/26/90		1.83E+01 {NR}
07/27/90		1.86E+01 {NR}
07/28/90		1.89E+01 {NR}

< - Result less than detection limit.

{ } - Uncertainty for result.

NR - No result reported.

nra - Not routinely analyzed or analyzed on a less frequent basis.

1003 RICHLAND PUMP HOUS (TEMPERATURE)

OFF DATE	COM	RIV	TMP
07/29/90		1.92E+01	{NR}
07/30/90		1.94E+01	{NR}
07/31/90		1.93E+01	{NR}
08/01/90		1.93E+01	{NR}
08/02/90		1.91E+01	{NR}
08/03/90		1.92E+01	{NR}
08/04/90		1.96E+01	{NR}
08/05/90		1.98E+01	{NR}
08/06/90		2.01E+01	{NR}
08/07/90		2.00E+01	{NR}
08/08/90		1.99E+01	{NR}
08/09/90		1.99E+01	{NR}
08/10/90		2.00E+01	{NR}
08/11/90		2.04E+01	{NR}
08/12/90		2.06E+01	{NR}
08/13/90		2.09E+01	{NR}
08/14/90		2.06E+01	{NR}
08/15/90		2.00E+01	{NR}
08/16/90		1.96E+01	{NR}
08/17/90		1.97E+01	{NR}
08/18/90		1.95E+01	{NR}
08/19/90		1.95E+01	{NR}
08/20/90		1.95E+01	{NR}

< - Result less than detection limit.  
 {} - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.

1003 RICHLAND PUMP HOUS (TEMPERATURE)

OFF DATE	COM	RIV TME
08/21/90		1.96E+01 {NR}
08/22/90		1.98E+01 {NR}
08/23/90		1.96E+01 {NR}
08/24/90		1.93E+01 {NR}
08/25/90		1.92E+01 {NR}
08/26/90		1.91E+01 {NR}
08/27/90		1.94E+01 {NR}
08/28/90		1.97E+01 {NR}
08/29/90		1.95E+01 {NR}
08/30/90		1.92E+01 {NR}
08/31/90		1.92E+01 {NR}
09/01/90		1.94E+01 {NR}
09/02/90		1.97E+01 {NR}
09/03/90		1.98E+01 {NR}
09/04/90		1.98E+01 {NR}
09/05/90		2.00E+01 {NR}
09/06/90		2.03E+01 {NR}
09/07/90		2.02E+01 {NR}
09/08/90		2.00E+01 {NR}
09/09/90		2.03E+01 {NR}
09/10/90		2.04E+01 {NR}
09/11/90		2.04E+01 {NR}
09/12/90		2.03E+01 {NR}

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.

1003 RICHLAND PUMP HOUS (TEMPERATURE)

OFF DATE	COM	RIV	TMP
09/13/90			1.99E+01 {NR}
09/14/90			1.98E+01 {NR}
09/15/90			1.97E+01 {NR}
09/16/90			1.93E+01 {NR}
09/17/90			1.97E+01 {NR}
09/18/90			1.96E+01 {NR}
09/19/90			1.96E+01 {NR}
09/20/90			1.95E+01 {NR}
09/21/90			1.94E+01 {NR}
09/22/90			1.96E+01 {NR}
09/23/90			1.97E+01 {NR}
09/24/90			1.98E+01 {NR}
09/25/90			1.98E+01 {NR}
09/26/90			1.98E+01 {NR}
09/27/90			1.96E+01 {NR}
09/28/90			1.95E+01 {NR}
09/29/90			1.94E+01 {NR}
10/01/90			1.83E+01 {NR}
10/02/90			1.77E+01 {NR}
10/03/90			1.75E+01 {NR}
10/04/90			1.75E+01 {NR}
10/05/90			1.71E+01 {NR}
10/06/90			1.66E+01 {NR}

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.

1003 RICHLAND PUMP HOUS (TEMPERATURE)

OFF DATE	COM	RIV	TMP
10/07/90			1.61E+01 {NR}
10/08/90			1.58E+01 {NR}
10/09/90			1.60E+01 {NR}
10/10/90			1.63E+01 {NR}
10/11/90			1.58E+01 {NR}
10/12/90			1.55E+01 {NR}
10/13/90			1.52E+01 {NR}
10/14/90			1.48E+01 {NR}
10/15/90			1.49E+01 {NR}
10/16/90			1.48E+01 {NR}
10/17/90			1.42E+01 {NR}
10/18/90			1.42E+01 {NR}
10/19/90			1.39E+01 {NR}
10/20/90			1.37E+01 {NR}
10/21/90			1.36E+01 {NR}
10/22/90			1.35E+01 {NR}
10/23/90			1.37E+01 {NR}
10/24/90			1.37E+01 {NR}
10/25/90			1.37E+01 {NR}
10/26/90			1.39E+01 {NR}
10/27/90			1.38E+01 {NR}
10/28/90			1.39E+01 {NR}
10/29/90			1.39E+01 {NR}

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.

1003 RICHLAND PUMP HOUS (TEMPERATURE)

OFF DATE	COM	RIV TMP
10/30/90		1.39E+01 {NR}
10/31/90		1.38E+01 {NR}
11/01/90		1.33E+01 {NR}
11/02/90		1.30E+01 {NR}
11/03/90		1.28E+01 {NR}
11/04/90		1.30E+01 {NR}
11/05/90		1.30E+01 {NR}
11/06/90		1.26E+01 {NR}
11/07/90		1.23E+01 {NR}
11/08/90		1.25E+01 {NR}
11/09/90		1.26E+01 {NR}
11/10/90		1.28E+01 {NR}
11/11/90		1.28E+01 {NR}
11/12/90		1.28E+01 {NR}
11/13/90		1.28E+01 {NR}
11/14/90		1.26E+01 {NR}
11/15/90		1.21E+01 {NR}
11/16/90		1.17E+01 {NR}
11/17/90		1.17E+01 {NR}
11/18/90		1.18E+01 {NR}
11/19/90		1.13E+01 {NR}
11/20/90		1.09E+01 {NR}
11/21/90		1.07E+01 {NR}

< - Result less than detection limit.  
 {} - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.

1003 RICHLAND PUMP HOUS (TEMPERATURE)

OFF DATE	COM	RIV	TMP
11/22/90		1.06E+01	{NR}
11/23/90		1.06E+01	{NR}
11/24/90		1.09E+01	{NR}
11/25/90		1.10E+01	{NR}
11/26/90		1.05E+01	{NR}
11/27/90		1.02E+01	{NR}
11/28/90		9.60E+00	{NR}
11/29/90		9.30E+00	{NR}
11/30/90		9.00E+00	{NR}
12/01/90		8.90E+00	{NR}
12/02/90		8.60E+00	{NR}
12/03/90		8.60E+00	{NR}
12/04/90		8.70E+00	{NR}
12/05/90		8.50E+00	{NR}
12/06/90		8.50E+00	{NR}
12/07/90		8.20E+00	{NR}
12/08/90		8.30E+00	{NR}
12/09/90		8.40E+00	{NR}
12/10/90		8.50E+00	{NR}
12/11/90		8.40E+00	{NR}
12/12/90		8.20E+00	{NR}
12/13/90		8.10E+00	{NR}
12/14/90		8.00E+00	{NR}

< - Result less than detection limit.

{ } - Uncertainty for result.

NR - No result reported.

nra - Not routinely analyzed or analyzed on a less frequent basis.

1003 RICHLAND PUMP HOUS (TEMPERATURE)

OFF DATE	COM	RIV	TMP
12/15/90			7.60E+00 {NR}
12/16/90			7.40E+00 {NR}
12/17/90			7.30E+00 {NR}
12/18/90			7.10E+00 {NR}
12/19/90			5.50E+00 {NR}
12/20/90			4.80E+00 {NR}
12/21/90			4.40E+00 {NR}
12/22/90			4.10E+00 {NR}
12/23/90			4.00E+00 {NR}
12/24/90			3.70E+00 {NR}
12/25/90			3.50E+00 {NR}
12/26/90			3.40E+00 {NR}
12/27/90			3.80E+00 {NR}
12/28/90			3.20E+00 {NR}
12/29/90			2.40E+00 {NR}
12/30/90			2.40E+00 {NR}
12/31/90			2.40E+00 {NR}
MEAN			1.16E+01
MINIMUM			2.40E+00
MAXIMUM			2.09E+01
2STD.ERR			5.90E-01

< - Result less than detection limit.  
{ } - Uncertainty for result.  
NR - No result reported.  
nra - Not routinely analyzed or analyzed on a less frequent basis.



1266 BELOW PRIEST RAPID (TEMPERATURE)

OFF DATE	COM	RIV	TMP
01/01/90			6.30E+00 {NR}
01/02/90			6.00E+00 {NR}
01/03/90			6.00E+00 {NR}
01/04/90			6.00E+00 {NR}
01/05/90			6.10E+00 {NR}
01/06/90			6.10E+00 {NR}
01/07/90			6.20E+00 {NR}
01/08/90			6.30E+00 {NR}
01/09/90			6.20E+00 {NR}
01/10/90			6.20E+00 {NR}
01/11/90			5.90E+00 {NR}
01/12/90			5.70E+00 {NR}
01/13/90			5.60E+00 {NR}
01/14/90			5.60E+00 {NR}
01/15/90			5.50E+00 {NR}
01/16/90			5.40E+00 {NR}
01/17/90			5.30E+00 {NR}
01/18/90			5.10E+00 {NR}
01/19/90			5.00E+00 {NR}
01/20/90			5.00E+00 {NR}
01/21/90			4.80E+00 {NR}
01/22/90			4.70E+00 {NR}
01/23/90			4.50E+00 {NR}

< - Result less than detection limit.  
 {} - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.

1266 BELOW PRIEST RAPID (TEMPERATURE)

OFF DATE	COM	RIV TMP
01/24/90		4.30E+00 {NR}
01/25/90		4.30E+00 {NR}
01/26/90		4.20E+00 {NR}
01/27/90		4.10E+00 {NR}
01/28/90		4.20E+00 {NR}
01/29/90		4.20E+00 {NR}
01/30/90		4.20E+00 {NR}
01/31/90		4.20E+00 {NR}
02/01/90		4.00E+00 {NR}
02/02/90		4.00E+00 {NR}
02/03/90		4.10E+00 {NR}
02/04/90		4.10E+00 {NR}
02/05/90		4.10E+00 {NR}
02/06/90		3.90E+00 {NR}
02/07/90		3.80E+00 {NR}
02/08/90		3.80E+00 {NR}
02/09/90		3.90E+00 {NR}
02/10/90		4.20E+00 {NR}
02/11/90		4.60E+00 {NR}
02/12/90		4.20E+00 {NR}
02/13/90		3.90E+00 {NR}
02/14/90		3.80E+00 {NR}
02/15/90		3.60E+00 {NR}

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.

1266 BELOW PRIEST RAPID (TEMPERATURE)

OFF DATE	COM	RIV	TEMP
02/16/90			3.50E+00 {NR}
02/17/90			3.40E+00 {NR}
02/18/90			3.20E+00 {NR}
02/19/90			3.10E+00 {NR}
02/20/90			3.20E+00 {NR}
02/21/90			3.30E+00 {NR}
02/22/90			3.40E+00 {NR}
02/23/90			3.40E+00 {NR}
02/24/90			3.50E+00 {NR}
02/25/90			3.60E+00 {NR}
02/26/90			3.70E+00 {NR}
02/27/90			3.90E+00 {NR}
02/28/90			4.10E+00 {NR}
03/01/90			4.00E+00 {NR}
03/02/90			4.10E+00 {NR}
03/03/90			4.10E+00 {NR}
03/04/90			4.20E+00 {NR}
03/05/90			4.30E+00 {NR}
03/06/90			4.40E+00 {NR}
03/07/90			4.40E+00 {NR}
03/08/90			4.30E+00 {NR}
03/09/90			4.30E+00 {NR}
03/10/90			4.40E+00 {NR}

< - Result less than detection limit.  
{ } - Uncertainty for result.  
NR - No result reported.  
nra - Not routinely analyzed or analyzed on a less frequent basis.

1266 BELOW PRIEST RAPID (TEMPERATURE)

OFF DATE	COM	RIV	TMP
03/11/90		4.30E+00	{NR}
03/12/90		4.30E+00	{NR}
03/13/90		4.50E+00	{NR}
03/14/90		4.70E+00	{NR}
03/15/90		4.80E+00	{NR}
03/16/90		5.00E+00	{NR}
03/17/90		5.00E+00	{NR}
03/18/90		5.20E+00	{NR}
03/19/90		5.30E+00	{NR}
03/20/90		5.50E+00	{NR}
03/21/90		5.60E+00	{NR}
03/22/90		5.70E+00	{NR}
03/24/90		5.50E+00	{NR}
03/25/90		5.50E+00	{NR}
03/26/90		5.40E+00	{NR}
03/27/90		5.50E+00	{NR}
03/28/90		5.50E+00	{NR}
03/29/90		5.70E+00	{NR}
03/30/90		5.90E+00	{NR}
03/31/90		6.20E+00	{NR}
04/01/90		6.40E+00	{NR}
04/02/90		6.60E+00	{NR}
04/03/90		6.80E+00	{NR}

< - Result less than detection limit.  
 {} - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.

SURFACE ENVIRONMENTAL SURVEILLANCE DATA REPORT - 010190 TO 123190  
SURFACE WATER - TEMPERATURE - Degrees C

1266 BELOW PRIEST RAPID (TEMPERATURE)

OFF DATE COM	RIV TMP
04/04/90	6.90E+00 {NR}
04/05/90	7.10E+00 {NR}
04/06/90	7.10E+00 {NR}
04/07/90	7.40E+00 {NR}
04/08/90	7.60E+00 {NR}
04/09/90	7.60E+00 {NR}
04/10/90	7.80E+00 {NR}
04/11/90	7.90E+00 {NR}
04/12/90	8.00E+00 {NR}
04/13/90	8.10E+00 {NR}
04/14/90	8.20E+00 {NR}
04/15/90	8.60E+00 {NR}
04/16/90	8.70E+00 {NR}
04/17/90	8.80E+00 {NR}
04/18/90	8.70E+00 {NR}
04/19/90	8.90E+00 {NR}
04/20/90	8.90E+00 {NR}
04/21/90	9.20E+00 {NR}
04/22/90	9.40E+00 {NR}
04/23/90	9.40E+00 {NR}
04/24/90	9.50E+00 {NR}
04/25/90	9.60E+00 {NR}
04/26/90	9.50E+00 {NR}

< - Result less than detection limit.  
{ } - Uncertainty for result.  
NR - No result reported.  
nra - Not routinely analyzed or analyzed on a less frequent basis.

1266 BELOW PRIEST RAPID (TEMPERATURE)

OFF DATE	COM	RIV TMP
04/27/90		9.40E+00 {NR}
04/28/90		9.20E+00 {NR}
04/29/90		9.20E+00 {NR}
04/30/90		9.30E+00 {NR}
05/01/90		9.40E+00 {NR}
05/02/90		9.80E+00 {NR}
05/03/90		9.80E+00 {NR}
05/04/90		9.90E+00 {NR}
05/05/90		1.04E+01 {NR}
05/06/90		1.06E+01 {NR}
05/07/90		1.04E+01 {NR}
05/08/90		1.03E+01 {NR}
05/09/90		1.07E+01 {NR}
05/10/90		1.09E+01 {NR}
05/11/90		1.12E+01 {NR}
05/12/90		1.14E+01 {NR}
05/13/90		1.13E+01 {NR}
05/14/90		1.12E+01 {NR}
05/15/90		1.13E+01 {NR}
05/16/90		1.13E+01 {NR}
05/17/90		1.17E+01 {NR}
05/18/90		1.19E+01 {NR}
05/19/90		1.21E+01 {NR}

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.

SURFACE ENVIRONMENTAL SURVEILLANCE DATA REPORT - 010190 TO 123190  
SURFACE WATER - TEMPERATURE - Degrees C

1266 BELOW PRIEST RAPID (TEMPERATURE)

OFF DATE	COM	RIV	TMP
05/20/90			1.23E+01 {NR}
05/21/90			1.24E+01 {NR}
05/22/90			1.24E+01 {NR}
05/23/90			1.21E+01 {NR}
05/24/90			1.21E+01 {NR}
05/25/90			1.22E+01 {NR}
05/26/90			1.23E+01 {NR}
05/27/90			1.23E+01 {NR}
05/28/90			1.24E+01 {NR}
05/29/90			1.26E+01 {NR}
05/30/90			1.26E+01 {NR}
05/31/90			1.26E+01 {NR}
06/01/90			1.25E+01 {NR}
06/02/90			1.25E+01 {NR}
06/03/90			1.29E+01 {NR}
06/04/90			1.29E+01 {NR}
06/05/90			1.29E+01 {NR}
06/06/90			1.28E+01 {NR}
06/07/90			1.29E+01 {NR}
06/08/90			1.29E+01 {NR}
06/09/90			1.31E+01 {NR}
06/10/90			1.31E+01 {NR}
06/11/90			1.31E+01 {NR}

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.

1266 BELOW PRIEST RAPID (TEMPERATURE)

OFF DATE	COM	RIV	TMP
06/12/90		1.31E+01	{NR}
06/13/90		1.30E+01	{NR}
06/14/90		1.32E+01	{NR}
06/15/90		1.34E+01	{NR}
06/16/90		1.35E+01	{NR}
06/17/90		1.37E+01	{NR}
06/18/90		1.41E+01	{NR}
06/19/90		1.44E+01	{NR}
06/20/90		1.47E+01	{NR}
06/21/90		1.49E+01	{NR}
06/22/90		1.49E+01	{NR}
06/23/90		1.50E+01	{NR}
06/24/90		1.52E+01	{NR}
06/25/90		1.53E+01	{NR}
06/26/90		1.52E+01	{NR}
06/27/90		1.50E+01	{NR}
06/28/90		1.51E+01	{NR}
06/29/90		1.52E+01	{NR}
06/30/90		1.55E+01	{NR}
07/01/90		1.55E+01	{NR}
07/02/90		1.52E+01	{NR}
07/03/90		1.48E+01	{NR}
07/04/90		1.50E+01	{NR}

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.



1266 BELOW PRIEST RAPID (TEMPERATURE)

OFF DATE	COM	RIV TME
07/05/90		1.53E+01 {NR}
07/06/90		1.55E+01 {NR}
07/07/90		1.54E+01 {NR}
07/08/90		1.57E+01 {NR}
07/09/90		1.60E+01 {NR}
07/10/90		1.63E+01 {NR}
07/11/90		1.67E+01 {NR}
07/12/90		1.71E+01 {NR}
07/13/90		1.74E+01 {NR}
07/14/90		1.75E+01 {NR}
07/15/90		1.77E+01 {NR}
07/16/90		1.80E+01 {NR}
07/17/90		1.80E+01 {NR}
07/18/90		1.81E+01 {NR}
07/19/90		1.83E+01 {NR}
07/20/90		1.85E+01 {NR}
07/21/90		1.87E+01 {NR}
07/22/90		1.88E+01 {NR}
07/23/90		1.89E+01 {NR}
07/24/90		1.87E+01 {NR}
07/25/90		1.83E+01 {NR}
07/26/90		1.82E+01 {NR}
07/27/90		1.83E+01 {NR}

< - Result less than detection limit.  
 {} - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.

1266 BELOW PRIEST RAPID (TEMPERATURE)

OFF DATE	COM	RIV TMP
07/28/90		1.86E+01 {NR}
07/29/90		1.89E+01 {NR}
07/30/90		1.90E+01 {NR}
07/31/90		1.91E+01 {NR}
08/01/90		1.92E+01 {NR}
08/02/90		1.88E+01 {NR}
08/03/90		1.92E+01 {NR}
08/04/90		1.93E+01 {NR}
08/05/90		1.95E+01 {NR}
08/06/90		1.96E+01 {NR}
08/07/90		1.97E+01 {NR}
08/08/90		1.96E+01 {NR}
08/09/90		1.98E+01 {NR}
08/10/90		2.00E+01 {NR}
08/11/90		2.01E+01 {NR}
08/12/90		2.03E+01 {NR}
08/13/90		2.04E+01 {NR}
08/14/90		2.01E+01 {NR}
08/15/90		1.99E+01 {NR}
08/16/90		1.96E+01 {NR}
08/17/90		1.96E+01 {NR}
08/18/90		1.95E+01 {NR}
08/19/90		1.93E+01 {NR}

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.

1266 BELOW PRIEST RAPID (TEMPERATURE)

OFF DATE	COM	RIV	TMP
08/20/90			1.94E+01 {NR}
08/21/90			1.97E+01 {NR}
08/22/90			1.96E+01 {NR}
08/23/90			1.93E+01 {NR}
08/24/90			1.90E+01 {NR}
08/25/90			1.92E+01 {NR}
08/26/90			1.93E+01 {NR}
08/27/90			1.94E+01 {NR}
08/28/90			1.94E+01 {NR}
08/29/90			1.94E+01 {NR}
08/30/90			1.92E+01 {NR}
08/31/90			1.91E+01 {NR}
09/01/90			1.92E+01 {NR}
09/02/90			1.92E+01 {NR}
09/03/90			1.94E+01 {NR}
09/04/90			1.94E+01 {NR}
09/05/90			1.98E+01 {NR}
09/06/90			1.98E+01 {NR}
09/07/90			1.97E+01 {NR}
09/08/90			1.97E+01 {NR}
09/09/90			1.99E+01 {NR}
09/10/90			1.99E+01 {NR}
09/11/90			2.03E+01 {NR}

< - Result less than detection limit.

{ } - Uncertainty for result.

NR - No result reported.

nra - Not routinely analyzed or analyzed on a less frequent basis.

1266 BELOW PRIEST RAPID (TEMPERATURE)

OFF DATE	COM	RIV TMP
09/12/90		1.99E+01 {NR}
09/13/90		1.96E+01 {NR}
09/14/90		1.97E+01 {NR}
09/15/90		1.96E+01 {NR}
09/16/90		1.96E+01 {NR}
09/17/90		1.96E+01 {NR}
09/18/90		1.95E+01 {NR}
09/19/90		1.95E+01 {NR}
09/20/90		1.95E+01 {NR}
09/21/90		1.95E+01 {NR}
09/22/90		1.97E+01 {NR}
09/23/90		1.97E+01 {NR}
09/24/90		1.98E+01 {NR}
09/25/90		1.98E+01 {NR}
09/26/90		1.96E+01 {NR}
09/27/90		1.96E+01 {NR}
09/28/90		1.95E+01 {NR}
09/29/90		1.92E+01 {NR}
09/30/90		1.90E+01 {NR}
10/01/90		1.86E+01 {NR}
10/02/90		1.82E+01 {NR}
10/03/90		1.80E+01 {NR}
10/04/90		1.77E+01 {NR}

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.

1266 BELOW PRIEST RAPID (TEMPERATURE)

OFF DATE	COM	RIV TMP
10/05/90		1.73E+01 {NR}
10/06/90		1.67E+01 {NR}
10/07/90		1.64E+01 {NR}
10/08/90		1.64E+01 {NR}
10/09/90		1.65E+01 {NR}
10/10/90		1.61E+01 {NR}
10/11/90		1.57E+01 {NR}
10/12/90		1.56E+01 {NR}
10/13/90		1.53E+01 {NR}
10/14/90		1.53E+01 {NR}
10/15/90		1.52E+01 {NR}
10/16/90		1.49E+01 {NR}
10/17/90		1.46E+01 {NR}
10/18/90		1.45E+01 {NR}
10/19/90		1.42E+01 {NR}
10/20/90		1.41E+01 {NR}
10/21/90		1.40E+01 {NR}
10/22/90		1.39E+01 {NR}
10/23/90		1.40E+01 {NR}
10/24/90		1.41E+01 {NR}
10/25/90		1.41E+01 {NR}
10/26/90		1.42E+01 {NR}
10/27/90		1.41E+01 {NR}

< - Result less than detection limit.  
 {} - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.

1266 BELOW PRIEST RAPID (TEMPERATURE)

OFF DATE COM	RIV TMP
10/28/90	1.42E+01 {NR}
10/29/90	1.41E+01 {NR}
10/30/90	1.40E+01 {NR}
10/31/90	1.40E+01 {NR}
11/01/90	1.36E+01 {NR}
11/02/90	1.34E+01 {NR}
11/03/90	1.35E+01 {NR}
11/04/90	1.37E+01 {NR}
11/05/90	1.33E+01 {NR}
11/06/90	1.31E+01 {NR}
11/07/90	1.31E+01 {NR}
11/08/90	1.31E+01 {NR}
11/09/90	1.31E+01 {NR}
11/10/90	1.32E+01 {NR}
11/11/90	1.32E+01 {NR}
11/12/90	1.31E+01 {NR}
11/13/90	1.30E+01 {NR}
11/14/90	1.26E+01 {NR}
11/15/90	1.21E+01 {NR}
11/16/90	1.20E+01 {NR}
11/17/90	1.20E+01 {NR}
11/18/90	1.20E+01 {NR}
11/19/90	1.16E+01 {NR}

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.

1266 BELOW PRIEST RAPID (TEMPERATURE)

OFF DATE	COM	RIV TMP
11/20/90		1.12E+01 {NR}
11/21/90		1.10E+01 {NR}
11/22/90		1.09E+01 {NR}
11/23/90		1.10E+01 {NR}
11/24/90		1.12E+01 {NR}
11/25/90		1.12E+01 {NR}
11/26/90		1.08E+01 {NR}
11/27/90		1.04E+01 {NR}
11/28/90		9.70E+00 {NR}
11/29/90		9.60E+00 {NR}
11/30/90		9.50E+00 {NR}
12/01/90		9.20E+00 {NR}
12/02/90		9.00E+00 {NR}
12/03/90		9.00E+00 {NR}
12/04/90		8.90E+00 {NR}
12/05/90		8.80E+00 {NR}
12/06/90		8.80E+00 {NR}
12/07/90		8.70E+00 {NR}
12/08/90		8.70E+00 {NR}
12/09/90		8.60E+00 {NR}
12/10/90		8.70E+00 {NR}
12/11/90		8.70E+00 {NR}
12/12/90		8.60E+00 {NR}

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.

1266 BELOW PRIEST RAPID (TEMPERATURE)

OFF DATE	COM	RIV TMP
12/13/90		8.40E+00 {NR}
12/14/90		8.30E+00 {NR}
12/15/90		8.10E+00 {NR}
12/16/90		7.90E+00 {NR}
12/17/90		7.80E+00 {NR}
12/18/90		7.50E+00 {NR}
12/19/90		6.70E+00 {NR}
12/20/90		5.80E+00 {NR}
12/21/90		5.30E+00 {NR}
12/22/90		4.90E+00 {NR}
12/23/90		4.50E+00 {NR}
12/24/90		4.30E+00 {NR}
12/25/90		4.20E+00 {NR}
12/26/90		4.00E+00 {NR}
12/27/90		4.30E+00 {NR}
12/28/90		4.00E+00 {NR}
12/29/90		3.40E+00 {NR}
12/30/90		3.20E+00 {NR}
12/31/90		3.10E+00 {NR}
MEAN		1.16E+01
MINIMUM		3.10E+00
MAXIMUM		2.04E+01
2STD.ERR		5.84E-01

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.



SURFACE ENVIRONMENTAL SURVEILLANCE DATA REPORT - 010190 TO 123190  
SURFACE WATER - NON-RAD

1615 VERNITA (RAW GRAB, UNFILTERED)

← CONSTITUENT NO3 IS ABBREVIATED AS NO N.

OFF DATE	COM	PH	FEC COL	COLIFRM	BOD	NO N
01/10/90		7.90E+00 {NR}	4.00E+00 {NR}	7.00E+00 {NR}	1.20E+00 {NR}	1.60E-01 {NR}
02/06/90		8.00E+00 {NR}	< 2.00E+00 {NR}	5.00E+00 {NR}	1.60E+00 {NR}	1.10E-01 {NR}
03/06/90		nra	nra	nra	2.30E+00 {NR}	< 2.00E-01 {NR}
03/07/90		7.10E+00 {NR}	< 2.00E+00 {NR}	2.00E+00 {NR}	nra	nra
04/03/90		7.90E+00 {NR}	3.30E+01 {NR}	> 2.40E+03 {NR}	1.30E+00 {NR}	1.40E-01 {NR}
05/01/90		8.40E+00 {NR}	7.00E+00 {NR}	7.00E+00 {NR}	2.90E+00 {NR}	9.40E-01 {NR}
05/29/90		8.00E+00 {NR}	4.90E+01 {NR}	1.30E+01 {NR}	3.30E+00 {NR}	5.00E-02 {NR}
06/26/90		7.60E+00 {NR}	> 2.40E+03 {NR}	> 2.40E+03 {NR}	2.40E+00 {NR}	< 4.00E-02 {NR}
07/24/90		8.10E+00 {NR}	7.90E+01 {NR}	> 2.40E+03 {NR}	2.40E+00 {NR}	< 5.00E-02 {NR}
08/21/90		7.90E+00 {NR}	2.00E+00 {NR}	2.40E+02 {NR}	7.00E+00 {NR}	< 5.00E-02 {NR}
09/18/90		7.80E+00 {NR}	1.70E+01 {NR}	9.20E+02 {NR}	2.50E+00 {NR}	1.50E-01 {NR}
10/16/90		6.60E+00 {NR}	5.00E+00 {NR}	2.20E+02 {NR}	3.10E+00 {NR}	1.50E-01 {NR}
11/13/90	1	7.40E+00 {NR}	< 2.00E+00 {NR}	2.10E+01 {NR}	1.80E+00 {NR}	< NR
12/11/90		8.00E+00 {NR}	2.00E+00 {NR}	3.30E+01 {NR}	< 2.00E+00 {NR}	1.20E-01 {NR}
MEAN		7.75E+00	2.00E+02	6.67E+02	2.60E+00	1.80E-01
MINIMUM		6.60E+00	< 2.00E+00	2.00E+00	1.20E+00	< 4.00E-02
MAXIMUM		8.40E+00	> 2.40E+03	> 2.40E+03	7.00E+00	9.40E-01
2STD.ERR		2.63E-01	3.67E+02	5.65E+02	8.17E-01	1.41E-01

< - Result less than detection limit.  
{ } - Uncertainty for result.  
nra - No result reported.  
nr - Not routinely analyzed or analyzed on a less frequent basis.  
1 NO SAMPLE. DUE TO ANALYTICAL PROBLEMS, NITRATE WASN'T DONE.

1041 RICHLAND PUMP HOUS (RAW GRAB, UNFILTERED)

← CONSTITUENT NO<sub>3</sub> IS ABBREVIATED AS NO N.

OFF DATE	COM	PH	FEC COL	COLIFRM	BOD	NO N
01/10/90		7.90E+00 {NR}	2.30E+01 {NR}	4.90E+01 {NR}	1.80E+00 {NR}	1.50E-01 {NR}
02/06/90		8.00E+00 {NR}	1.30E+01 {NR}	2.10E+01 {NR}	1.40E+00 {NR}	1.30E-01 {NR}
03/06/90		nra	nra	nra	3.40E+00 {NR}	2.00E-01 {NR}
03/07/90		7.60E+00 {NR}	2.00E+00 {NR}	7.90E+01 {NR}	nra	nra
04/03/90		8.30E+00 {NR}	5.00E+00 {NR}	2.60E+01 {NR}	1.20E+00 {NR}	9.00E-02 {NR}
05/01/90		8.30E+00 {NR}	1.30E+01 {NR}	1.70E+01 {NR}	3.40E+00 {NR}	7.00E-02 {NR}
05/29/90		7.80E+00 {NR}	8.00E+00 {NR}	1.40E+01 {NR}	3.90E+00 {NR}	7.00E-02 {NR}
06/26/90		7.50E+00 {NR}	4.90E+01 {NR}	1.10E+02 {NR}	1.40E+00 {NR}	4.00E-02 {NR}
07/24/90		7.90E+00 {NR}	2.20E+02 {NR}	3.50E+02 {NR}	2.30E+00 {NR}	5.00E-02 {NR}
08/21/90		7.70E+00 {NR}	1.40E+02 {NR}	9.20E+02 {NR}	6.00E+00 {NR}	6.00E-01 {NR}
09/18/90		7.70E+00 {NR}	3.30E+01 {NR}	1.60E+03 {NR}	2.70E+00 {NR}	9.00E-02 {NR}
10/16/90		6.90E+00 {NR}	1.30E+01 {NR}	4.90E+01 {NR}	3.30E+00 {NR}	1.60E-01 {NR}
11/13/90	1	7.10E+00 {NR}	1.30E+01 {NR}	4.90E+01 {NR}	2.30E+00 {NR}	NR
12/11/90		7.90E+00 {NR}	2.00E+00 {NR}	3.30E+01 {NR}	2.00E+00 {NR}	8.00E-02 {NR}
MEAN		7.74E+00	4.11E+01	2.55E+02	2.70E+00	1.44E-01
MINIMUM		6.90E+00	2.00E+00	1.40E+01	1.20E+00	4.00E-02
MAXIMUM		8.30E+00	2.20E+02	1.60E+03	6.00E+00	6.00E-01
2STD.ERR		2.25E-01	3.61E+01	2.64E+02	7.32E-01	8.74E-02

< - Result less than detection limit.

{ } - Uncertainty for result.

NR - No result reported.

nra - Not routinely analyzed or analyzed on a less frequent basis.

1 NO SAMPLE. DUE TO ANALYTICAL PROBLEMS, NITRATE WASN'T DONE.

SURFACE ENVIRONMENTAL SURVEILLANCE DATA REPORT - 010190 TO 123190  
SURFACE WATER - ONSITE PONDS - PCI/L

6133 WEST LAKE (RAW GRAB, UNFILTERED)

OFF DATE	COM	ALPHA	BETA	H 3 LIQ	SR 90	CS 137	U 234	U 235	U 238
02/20/90		1.85E+02 { 9.44E+01}	2.71E+05 { 5.84E+04}	3.33E+02 { 1.20E+02}	1.61E+00 { 1.21E-01}	< 1.18E+00 { 2.07E+00}	1.16E+02 { 7.26E+00}	2.44E+00 { 1.49E+00}	1.03E+02 { 6.76E+00}
05/15/90		1.63E+02 { 6.89E+01}	1.95E+02 { 4.98E+01}	3.79E+02 { 1.12E+02}	nra { 1.12E+02}	< 1.95E+00 { 2.62E+00}	3.61E+00 { 1.81E-01}	1.09E-01 { 3.15E-02}	3.33E+00 { 1.73E-01}
08/07/90		1.59E+02 { 1.49E+01}	4.12E+02 { 7.59E+01}	4.8CE+02 { 1.36E+02}	8.83E-01 { 1.41E-01}	1.89E+00 { 1.68E+00}	2.36E+02 { 8.91E+00}	7.90E+00 { 1.63E+00}	2.18E+02 { 8.54E+00}
10/29/90		< 1.44E+02 { 1.45E+02}	5.16E+02 { 1.15E+02}	3.51E+02 { 1.31E+02}	1.44E+00 { 1.70E-01}	< 1.33E+00 { 1.82E+00}	1.96E+02 { 7.46E+00}	6.46E+00 { 1.36E+00}	1.82E+02 { 7.19E+00}
MEAN		1.63E+02	6.80E+04	3.86E+02	1.31E+00	1.59E+00	1.38E+02	4.23E+00	1.27E+02
MINIMUM		< 1.44E+02	1.95E+02	3.33E+02	8.83E-01	< 1.18E+00	3.61E+00	1.09E-01	3.33E+00
MAXIMUM		1.85E+02	2.71E+05	4.80E+02	1.61E+00	< 1.95E+00	2.36E+02	7.90E+00	2.18E+02
2STD.ERR		1.69E+01	1.35E+05	6.56E+01	4.39E-01	3.90E-01	1.02E+02	3.59E+00	9.52E+01

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.

6133 WEST LAKE (RAW GRAB, UNFILTERED)

OFF DATE COM	U-ISO T
02/20/90	2.21E+02 { 1.00E+01}
05/15/90	7.05E+00 { 2.52E-01}
08/07/90	4.62E+02 { 1.24E+01}
10/29/90	3.84E+02 { 1.04E+01}
MEAN	2.69E+02
MINIMUM	7.05E+00
MAXIMUM	4.62E+02
2STD.ERR	2.01E+02

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.

SURFACE ENVIRONMENTAL SURVEILLANCE DATA REPORT - 010190 TO 123190  
SURFACE WATER - ONSITE PONDS - PCI/L

0015 B POND NORTH SIDE (RAW GRAB, UNFILTERED)

OFF DATE	COM	ALPHA	BETA	H 3 LIQ	SR 90	CS 137
01/24/90		1.69E+00 { 9.90E-01}	4.80E+00 { 1.22E+00}	< 8.32E+01 { 1.03E+02}	1.31E+00 { 1.27E-01}	< 1.36E+00 { 1.43E+00}
02/20/90		6.02E-01 { 4.77E-01}	2.13E+00 { 9.73E-01}	< 4.70E+01 { 1.10E+02}	3.90E-01 { 6.58E-02}	< 6.96E-01 { 1.40E+00}
03/20/90		6.94E-01 { 5.02E-01}	1.88E+00 { 9.99E-01}	< 8.64E+01 { 1.06E+02}	1.09E+00 { 1.09E-01}	1.62E+00 { 1.09E+00}
04/17/90		1.99E+00 { 8.15E-01}	1.15E+02 { 4.80E+00}	< 1.77E+02 { 1.01E+02}	nra { 1.97E+00}	5.11E+00 { 1.97E+00}
05/15/90		1.42E+00 { 7.14E-01}	1.40E+01 { 1.91E+00}	< 1.22E+02 { 1.03E+02}	nra { 9.83E-01}	1.61E+00 { 9.83E-01}
06/12/90		< 3.75E-01 { 5.99E-01}	< 1.39E+00 { 1.97E+00}	< 1.11E+02 { 1.27E+02}	2.45E-01 { 4.92E-02}	< 5.70E-01 { 9.43E-01}
07/10/90		< 6.39E-01 { 4.72E-01}	2.19E+00 { 2.02E+00}	< 7.42E+01 { 1.25E+02}	7.19E-02 { 3.30E-02}	< 6.81E-01 { 8.07E-01}
08/07/90		< 6.35E-01 { -3.18E-01}	< 5.77E-01 { 1.78E+00}	< 8.24E+01 { 1.26E+02}	3.07E-01 { 5.49E-02}	1.92E+00 { 8.19E-01}
09/04/90		< 2.63E-01 { 7.72E-01}	< -2.81E-01 { 1.66E+00}	< 1.10E+02 { 1.26E+02}	1.74E-01 { 4.85E-02}	1.29E+00 { 8.46E-01}
10/02/90		8.59E-01 { 1.36E-01}	2.11E+00 { 1.96E+00}	< 1.01E+02 { 1.25E+02}	2.18E-01 { 4.82E-02}	2.14E+00 { 8.78E-01}
10/29/90		< 4.96E-01 { 4.38E-01}	< 1.48E+00 { 1.91E+00}	< 1.23E+02 { 1.25E+02}	2.41E-01 { 5.08E-02}	1.22E+00 { 9.53E-01}
11/27/90		< 5.86E-01 { NR}	< 1.97E+00 { NR}	< 1.18E+02 { 1.24E+02}	1.82E-01 { 4.21E-02}	1.73E+00 { 1.01E+00}
12/27/90	1	{ NR}	{ NR}	{ NR}	{ NR}	{ NR}
MEAN		7.49E-01	1.22E+01	1.03E+02	4.23E-01	1.66E+00
MINIMUM		< -3.18E-01	< -2.81E-01	< 4.70E+01	7.19E-02	< 5.70E-01
MAXIMUM		1.99E+00	1.15E+02	< 1.77E+02	1.31E+00	5.11E+00
2STD.ERR		3.80E-01	1.88E+01	1.88E+01	2.66E-01	6.90E-01

< - Result less than detection limit.  
{ } - Uncertainty for result.  
NR - No result reported.  
nra - Not routinely analyzed or analyzed on a less frequent basis.  
1 - NO SAMPLE. POND FROZEN.

6467 FFTF POND (RAW GRAB, UNFILTERED)

OFF DATE COM	ALPHA	BETA	H 3 LIQ	CS 137	NA 22
02/20/90	< 1.26E+00 { 1.93E+00}	2.04E+01 { 3.83E+00}	7.20E+03 { 2.54E+02}	< 2.36E-01 { 2.57E+00}	< 6.84E-01 { 1.73E+00}
05/15/90	< -4.39E-01 { 6.17E-01}	1.37E+01 { 3.31E+00}	8.48E+03 { 2.62E+02}	< 1.42E+00 { 2.19E+00}	< -1.15E+00 { 2.53E+00}
08/07/90	< 7.80E-01 { 1.34E+00}	1.51E+01 { 3.34E+00}	6.01E+03 { 2.40E+02}	< -1.98E-01 { 6.84E-01}	nra nra
10/29/90	< 4.32E-01 { 9.91E-01}	1.45E+01 { 3.31E+00}	6.86E+03 { 2.50E+02}	< 0.00E+00 { 7.29E-01}	nra
MEAN	5.08E-01	1.59E+01	7.14E+03	3.65E-01	-2.33E-01
MINIMUM	< -4.39E-01	1.37E+01	6.01E+03	< -1.98E-01	< -1.15E+00
MAXIMUM	< 7.17E-01	2.04E+01	8.48E+03	< 1.42E+00	< 6.84E-01
2STD.ERR	7.17E-01	3.04E+00	1.03E+03	7.26E-01	1.83E+00

< - Result less than detection limit.  
{ } - Uncertainty for result.  
NR - No result reported.  
nra - Not routinely analyzed or analyzed on a less frequent basis.

0098 RIVERVIEW CANAL (RAW GRAB, UNFILTERED)

OFF DATE	COM	ALPHA	BETA	SR 90	H 3 LIQ	U 234	U 235	U 238	U-ISO T
05/16/90	<	3.02E-01	1.04E+00	nra	< -5.37E+01	nra	nra	nra	nra
		{ 3.65E-01}	{ 9.08E-01}		{ 9.77E+01}				
07/11/90	<	1.28E-01	1.80E+00	6.09E-02	2.34E+02	2.37E-01	1.98E-02	1.86E-01	4.43E-01
		{ 2.95E-01}	{ 1.01E+00}	{ 3.93E-02}	{ 1.08E+02}	{ 5.23E-02}	{ 1.50E-02}	{ 4.65E-02}	{ 7.16E-02}
09/05/90		1.65E+00	< 8.21E-01	1.14E-01	2.58E+02	2.60E-01	1.32E-02	2.53E-01	5.26E-01
		{ 7.69E-01}	{ 8.62E-01}	{ 4.39E-02}	{ 1.08E+02}	{ 5.24E-02}	{ 1.18E-02}	{ 5.19E-02}	{ 7.47E-02}
MEAN		6.93E-01	1.22E+00	8.74E-02	1.46E+02	2.49E-01	1.65E-02	2.20E-01	4.85E-01
MINIMUM	<	1.28E-01	< 8.21E-01	6.09E-02	< -5.37E+01	2.37E-01	1.32E-02	1.86E-01	4.43E-01
MAXIMUM		1.65E+00	1.80E+00	1.14E-01	2.58E+02	2.60E-01	1.98E-02	2.53E-01	5.26E-01
2STD.ERR		9.62E-01	5.93E-01	5.31E-02	2.00E+02	2.30E-02	6.60E-02	6.70E-02	8.34E-02

< - Result less than detection limit.  
{ } - Uncertainty for result.  
NR - No result reported.  
nra - Not routinely analyzed or analyzed on a less frequent basis.

OFF DATE COM	BETA	ALPHA	H 3 LIQ	U 234	U 235	U 238	U-ISO T	I 129
02/15/90	3.08E+01 { 4.18E+00}	< 2.11E-01 { 6.40E-01}	< -1.63E+01 { 9.62E+01}	2.72E-01 { 5.36E-02}	< 3.82E-03 { 1.25E-02}	1.28E-01 { 3.76E-02}	4.04E-01 { 6.67E-02}	nra
05/10/90	7.87E+00 { 1.51E+00}	< 2.39E-02 { 3.91E-01}	< -6.34E+01 { 9.70E+01}	1.91E-01 { 4.26E-02}	1.20E-02 { 1.09E-02}	1.07E-01 { 3.14E-02}	3.10E-01 { 5.40E-02}	3.60E-06 { 1.65E-06}
08/02/90	1.41E+01 { 3.27E+00}	1.32E+00 { 1.22E+00}	< 2.46E+01 { 1.23E+02}	< 1.18E-03 { 5.03E-03}	< 3.44E-03 { 6.47E-03}	< 2.74E-04 { 6.47E-03}	< 4.89E-03 { 1.29E-02}	nra
10/25/90	9.29E+00 { 2.81E+00}	< -1.86E-01 { 3.90E-01}	< 6.98E+01 { 1.24E+02}	2.09E-01 { 4.07E-02}	< 4.40E-03 { 6.57E-03}	1.07E-01 { 2.92E-02}	3.20E-01 { 5.05E-02}	nra
MEAN	1.55E+01	3.42E-01	3.68E+00	1.68E-01	5.92E-03	8.56E-02	2.60E-01	3.60E-06
MINIMUM	7.87E+00	< -1.86E-01	< -6.34E+01	< 1.18E-03	< 3.44E-03	< 2.74E-04	< 4.89E-03	3.60E-06
MAXIMUM	3.08E+01	1.32E+00	< 6.98E+01	2.72E-01	1.20E-02	1.28E-01	4.04E-01	3.60E-06
2STD.ERR	1.05E+01	6.72E-01	5.69E+01	1.17E-01	4.08E-03	5.77E-02	1.75E-01	0.00E+00

< - Result less than detection limit.  
{ } - Uncertainty for result.  
NR - No result reported.  
nra - Not routinely analyzed or analyzed on a less frequent basis.



SURFACE ENVIRONMENTAL SURVEILLANCE DATA REPORT - 010190 TO 123190  
SURFACE WATER - OFFSITE DRINKING - PCI/L

0997 MATHEWS CORNER (RAW GRAB, UNFILTERED)

OFF DATE COM	BETA	ALPHA	H 3 LIQ	U 234	U 235	U 238	U-ISO T	I 129
02/15/90	4.95E+00 { 1.33E+00}	5.83E+00 { 2.20E+00}	< 1.14E+02 { 1.03E+02}	3.63E+00 { 2.06E-01}	9.47E-02 { 3.54E-02}	3.15E+00 { 1.92E-01}	6.87E+00 { 2.84E-01}	nra { 2.17E-05 { 3.95E-06}
05/10/90	3.88E+00 { 1.22E+00}	2.57E+00 { 1.07E+00}	nra { 1.81E-01}	4.36E+00 { 1.81E-01}	1.21E-01 { 3.07E-02}	3.53E+00 { 1.63E-01}	8.01E+00 { 2.46E-01}	nra { 2.18E-01}
08/02/90	6.85E+00 { 2.65E+00}	1.92E+00 { 1.54E+00}	< 1.10E+02 { 1.09E+02}	3.55E+00 { 1.60E-01}	1.28E-01 { 3.08E-02}	2.92E+00 { 1.45E-01}	6.60E+00 { 2.18E-01}	nra { 2.18E-01}
10/25/90	6.06E+00 { 2.65E+00}	2.69E+00 { 1.60E+00}	< 2.76E+01 { 1.05E+02}	3.57E+00 { 1.63E-01}	1.07E-01 { 2.86E-02}	2.81E+00 { 1.45E-01}	6.49E+00 { 2.20E-01}	nra
MEAN	5.44E+00	3.25E+00	8.39E+01	3.78E+00	1.13E-01	3.10E+00	6.99E+00	2.17E-05
MINIMUM	3.88E+00	1.92E+00	< 2.76E+01	3.55E+00	9.47E-02	2.81E+00	6.49E+00	2.17E-05
MAXIMUM	6.85E+00	5.83E+00	< 1.14E+02	4.36E+00	1.28E-01	3.53E+00	8.01E+00	2.17E-05
2STD.ERR	1.30E+00	1.75E+00	5.63E+01	3.90E-01	1.48E-02	3.18E-01	6.98E-01	0.00E+00

< - Result less than detection limit.  
{ } - Uncertainty for result.  
NR - No result reported.  
nra - Not routinely analyzed or analyzed on a less frequent basis.

OFF DATE	COM	BETA	ALPHA	H 3 LIQ	U 234	U 235	U 238	U-ISO T	I 129
02/07/90		1.49E+01 { 1.95E+00 }	< -1.10E+00 { 8.73E-01 }	< -9.60E-01 { 1.02E+02 }	< -2.70E-03 { 1.11E-02 }	< -3.40E-03 { 7.29E-03 }	< -2.35E-03 { 1.11E-02 }	< -8.45E-03 { 1.73E-02 }	nra
05/02/90		6.09E+00 { 1.42E+00 }	6.91E+00 { 1.90E+00 }	< 1.69E+02 { 1.00E+02 }	8.98E+00 { 2.63E-01 }	3.22E-01 { 4.99E-02 }	8.56E+00 { 2.57E-01 }	1.79E+01 { 3.71E-01 }	5.43E-05 { 4.24E-06 }
MEAN		1.05E+01	2.90E+00	8.40E+01	4.49E+00	1.59E-01	4.28E+00	8.93E+00	5.43E-05
MINIMUM		6.09E+00	< -1.10E+00	< -9.60E-01	< -2.70E-03	< -3.40E-03	< -2.35E-03	< -8.45E-03	5.43E-05
MAXIMUM		1.49E+01	6.91E+00	< 1.69E+02	8.98E+00	3.22E-01	8.56E+00	1.79E+01	5.43E-05
2STD.ERR		8.81E+00	8.01E+00	1.70E+02	8.98E+00	3.25E-01	8.56E+00	1.79E+01	0.00E+00

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.

SURFACE ENVIRONMENTAL SURVEILLANCE DATA REPORT - 010190 TO 123190  
SURFACE WATER - OFFSITE DRINKING - PCI/L

0993 WHITE BLUFFS-SHALL (RAW GRAB, UNFILTERED)

OFF DATE COM	BETA	ALPHA	H 3 LIQ	U 234	U 235	U 238	U-ISO T
07/25/90	6.38E+00 { 2.65E+00 }	1.10E+01 { 3.26E+00 }	< 8.09E+01 { 1.08E+02 }	1.53E+01 { 3.37E-01 }	5.64E-01 { 6.49E-02 }	1.40E+01 { 3.23E-01 }	2.99E+01 { 4.71E-01 }
10/17/90	1.05E+01 { 2.99E+00 }	9.71E+00 { 3.14E+00 }	< 1.86E+02 { 1.11E+02 }	8.71E+00 { 2.57E-01 }	2.59E-01 { 4.45E-02 }	8.09E+00 { 2.48E-01 }	1.71E+01 { 3.60E-01 }
MEAN	8.44E+00	1.04E+01	1.33E+02	1.20E+01	4.12E-01	1.10E+01	2.35E+01
MINIMUM	6.38E+00	9.71E+00	< 8.09E+01	8.71E+00	2.59E-01	8.09E+00	1.71E+01
MAXIMUM	1.05E+01	1.10E+01	< 1.86E+02	1.53E+01	5.64E-01	1.40E+01	2.99E+01
2STD.ERR	4.12E+00	1.29E+00	1.05E+02	6.59E+00	3.05E-01	5.91E+00	1.28E+01

< - Result less than detection limit.  
{ } - Uncertainty for result.  
NR - No result reported.  
nra - Not routinely analyzed or analyzed on a less frequent basis.

SURFACE ENVIRONMENTAL SURVEILLANCE DATA REPORT - 010190 TO 123190  
SURFACE WATER - OFFSITE DRINKING - PCI/L

0994 WHITE BLUFFS-DEEP (RAW GRAB, UNFILTERED)

OFF DATE	COM	BETA	ALPHA	H 3 LIQ	U 234	U 235	U 238	U-ISO T
07/25/90		1.24E+01 { 3.16E+00}	< 2.02E-01 { 9.92E-01}	< -1.70E+01 { 1.05E+02}	1.54E-02 { 1.35E-02}	< 2.45E-03 { 5.30E-03}	1.24E-02 { 1.12E-02}	3.03E-02 { 1.83E-02}
10/17/90		6.83E+00 { 2.75E+00}	1.55E+01 { 3.94E+00}	< 6.11E+01 { 1.07E+02}	1.43E+01 { 3.37E-01}	5.58E-01 { 6.68E-02}	1.29E+01 { 3.21E-01}	2.78E+01 { 4.70E-01}
MEAN		9.61E+00	7.85E+00	2.20E+01	7.16E+00	2.80E-01	6.46E+00	1.39E+01
MINIMUM		6.83E+00	< 2.02E-01	< -1.70E+01	1.54E-02	< 2.45E-03	1.24E-02	3.03E-02
MAXIMUM		1.24E+01	1.55E+01	< 6.11E+01	1.43E+01	5.58E-01	1.29E+01	2.78E+01
2STD.ERR		5.57E+00	1.53E+01	7.81E+01	1.43E+01	5.56E-01	1.29E+01	2.77E+01

< - Result less than detection limit.  
{ } - Uncertainty for result.  
NR - No result reported.  
nra - Not routinely analyzed or analyzed on a less frequent basis.

OFF DATE	COM	BETA	ALPHA	H 3 LIQ	U 234	U 235	U 238	U-ISO T	I 129
02/07/90		1.74E+01 { 3.02E+00 }	1.34E+01 { 2.66E+00 }	< 1.49E+02 { 1.07E+02 }	2.61E+01 { 9.99E-01 }	5.37E-01 { 1.44E-01 }	1.60E+01 { 7.82E-01 }	4.26E+01 { 1.28E+00 }	nra 5.84E-05 { 1.14E-05 }
05/02/90		7.51E+00 { 1.51E+00 }	1.55E+01 { 3.77E+00 }	< 1.60E+02 { 1.00E+02 }	3.79E+01 { 1.27E+00 }	9.72E-01 { 2.04E-01 }	2.36E+01 { 1.00E+00 }	6.25E+01 { 1.63E+00 }	nra 5.84E-05 { 1.14E-05 }
07/25/90		3.46E+01 { 4.70E+00 }	1.41E+01 { 3.75E+00 }	< -6.19E+01 { 1.03E+02 }	3.26E+01 { 5.36E-01 }	8.76E-01 { 8.78E-02 }	2.14E+01 { 4.33E-01 }	5.49E+01 { 6.95E-01 }	nra nra
10/17/90		1.56E+01 { 3.44E+00 }	1.52E+01 { 3.91E+00 }	< 8.19E+01 { 1.07E+02 }	3.31E+01 { 5.19E-01 }	8.90E-01 { 8.52E-02 }	2.18E+01 { 4.21E-01 }	5.58E+01 { 6.74E-01 }	nra
MEAN		1.88E+01	1.46E+01	8.23E+01	3.24E+01	8.19E-01	2.07E+01	5.39E+01	5.84E-05
MINIMUM		7.51E+00	1.34E+01	< -6.19E+01	2.61E+01	5.37E-01	1.60E+01	4.26E+01	5.84E-05
MAXIMUM		3.46E+01	1.55E+01	< 1.60E+02	3.79E+01	9.72E-01	2.36E+01	6.25E+01	5.84E-05
2STD.ERR		1.14E+01	9.75E-01	1.02E+02	4.85E+00	1.93E-01	3.28E+00	8.26E+00	0.00E+00

< - Result less than detection limit.  
 {} - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.

Table W-1. Columbia River at Vernita Bridge Near Priest Rapids Dam, Washington Water Quality Data

Date	Oxygen, Dissolved (mg/L)	Turbidity (NTU)	pH (Standard Units)	Coliform,		Suspended Solids, 105 C	Dissolved Solids, 180 C	Specific Conductance (uS/cm)	Hardness (mg/L as CaCo3)	Phosphorous (mg/L as P)	Chromium, Dissolved (ug/L as Cr)	Nitrogen, Kjeldahl (mg/L as N)	Carbon Organic Total (mg/L as C)	Iron Dissolved (ug/L as Fe)	Ammonia Dissolved (mg/L as N)
				Fecal (Cols/100 ml)	Fecal (K1 <sup>(a)</sup> )										
01/17/90	10.4	0.5	7.9		K1 <sup>(a)</sup>	1	94	145	70	0.01	-	0.2	1.5	-	0.01
03/13/90	13.3	0.4	8.0		K1	2	85	143	62	0.01	2	<0.2	1.6	8	<0.01
05/01/90	12.7	1.5	8.2		K3	6	80	135	55	0.02	<1	<0.2	2.2	11	<0.01
07/30/90	13.3	1.5	8.1		K3	6	67	119	51	0.02	<1	<0.2	2.9	14	0.01
09/05/90	9.2	1.0	8.1		<1	1	74	131	59	0.02	-	<0.2	2.9	-	0.01
12/04/90	12.1	1.6	7.5		K2	4	72	136	65	0.03	<1	<0.2	1.9	11	0.04

(a) K indicates number of colonies is outside of ideal counting range.

Table W-2. Columbia River at Richland, Washington Water Quality Data

Date	Oxygen, Dissolved (mg/L)	Turbidity (NTU)	pH (Standard Units)	Coliform,		Suspended Solids, 105 C	Dissolved Solids, 180 C	Specific Conductance (uS/cm)	Hardness (mg/L as CaCo3)	Phosphorous (mg/L as P)	Chromium, Dissolved (ug/L as Cr)	Nitrogen, Kjeldahl (mg/L as N)	Carbon Organic Total (mg/L as C)	Iron Dissolved (ug/L as Fe)	Ammonia Dissolved (mg/L as N)
				Fecal (Cols/100 ml)	Fecal (K1 <sup>(a)</sup> )										
03/14/90	13.0	1.0	8.1		K1 <sup>(a)</sup>	36	85	140	67	0.01	3	0.5	1.6	<3	<0.01
05/02/90	12.0	1.6	8.3		K1	11	75	136	63	0.03	<1	0.2	2.0	9	<0.01
07/16/90	10.3	1.6	8.1		K1	<1	70	128	57	0.02	<1	0.4	2.4	10	<0.01
12/05/90	11.0	2.1	7.9		K2	<1	72	138	66	0.02	<1	0.2	1.9	5	0.03

(a) K indicates number of colonies is outside of ideal counting range.

**Table W-3. 1990 Riverbank Spring Sample Results Concentration (pCi/L)**

	<u>N-8-T</u>	<u>Spring 28-2</u>	<u>Spring 42-2</u>
Alpha	0.2 ± 0.4	2.3 ± 1.3	6.2 ± 1.8
Beta	8520 ± 140	24.4 ± 3.9	4.2 ± 2.3
Tritium	38500 ± 547	132000 ± 1000	272 ± 115
60 Co	8.6 ± 2.3	3.4 ± 1.8	0.4 ± 0.7
90 Sr	3990 ± 66	0.04 ± 0.04	0.1 ± 0.05
125 Sb	29.6 ± 5.5	3.2 ± 3.2	-1.4 ± 3
137 Cs	0.2 ± 0.9	0.6 ± 0.9	0.1 ± 1
99 Tc	1.7 ± 0.6	148 ± 2	3.8 ± 0.7

# **Thermoluminescent Dosimeters (TLDs)**



SURFACE ENVIRONMENTAL SURVEILLANCE DATA REPORT - 010190 TO 010491  
 TLD SAMPLES - MR/DAY

VERSION 1.1\*  
 Page 203

1138 - 100 K AREA		1136 - 100 N-WPPSS AREA		1398 - 100 D AREA		1139 - 100 AREA FIRE STAT	
OFF DATE	COM	OFF DATE	COM	OFF DATE	COM	OFF DATE	COM
04/04/90	2.03E-01	04/04/90	2.35E-01	04/04/90	2.14E-01	04/04/90	2.03E-01
	{ 5.30E-02}		{ 3.00E-02}		{ 7.50E-02}		{ 5.40E-02}
06/27/90	2.49E-01	06/27/90	2.73E-01	06/27/90	2.50E-01	06/27/90	2.54E-01
	{ 2.50E-02}		{ 2.50E-02}		{ 1.80E-02}		{ 2.20E-02}
10/03/90	1.87E-01	10/03/90	2.20E-01	10/03/90	2.07E-01	10/03/90	1.92E-01
	{ 1.20E-02}		{ 1.50E-02}		{ 1.00E-02}		{ 7.00E-03}
12/27/90	2.36E-01	12/27/90	2.86E-01	12/27/90	2.37E-01	12/27/90	2.47E-01
	{ 2.10E-02}		{ 5.20E-02}		{ 2.00E-02}		{ 1.30E-02}
MEAN	2.19E-01		2.54E-01		2.27E-01		2.24E-01
MINIMUM	1.87E-01		2.20E-01		2.07E-01		1.92E-01
MAXIMUM	2.49E-01		2.86E-01		2.50E-01		2.54E-01
2STD.ERR	2.87E-02		3.11E-02		2.00E-02		3.11E-02

< - Result less than detection limit. { } - Uncertainty for result. NR - No result reported.



1144 - SW OF B/C CRIBS		1145 - S OF 200 E		1146 - B POND		1147 - ARMY LOOP CAMP		
OFF DATE	COM	RESULT	OFF DATE	COM	RESULT	OFF DATE	COM	RESULT
03/28/90		2.43E-01	03/28/90		2.42E-01	03/28/90		2.23E-01
		{ 6.60E-02}			{ 5.50E-02}			{ 6.50E-02}
06/20/90		2.59E-01	06/20/90		2.53E-01	06/20/90		2.77E-01
		{ 1.90E-02}			{ 1.80E-02}			{ 2.10E-02}
09/26/90		2.39E-01	09/26/90		2.23E-01	09/26/90		2.35E-01
		{ 1.90E-02}			{ 1.20E-02}			{ 2.70E-02}
12/19/90		2.27E-01	12/19/90		2.70E-01	12/19/90		2.66E-01
		{ 1.40E-02}			{ 2.70E-02}			{ 2.00E-02}
MEAN		2.42E-01			2.47E-01			2.50E-01
MINIMUM		2.27E-01			2.23E-01			2.23E-01
MAXIMUM		2.59E-01			2.70E-01			2.77E-01
2STD.ERR		1.32E-02			1.97E-02			2.54E-02

< - Result less than detection limit. { } - Uncertainty for result. NR - No result reported.

SURFACE ENVIRONMENTAL SURVEILLANCE DATA REPORT - 010190 TO 010491  
TLD SAMPLES - MR/DAY

OFF DATE COM	RESULT	OFF DATE COM	RESULT	OFF DATE COM	RESULT	OFF DATE COM	RESULT
1148 - E OF 200 E		1399 - 200 ESE		1149 - 3705 BLDG. 300 AREA		1150 - 300 WATER INTAKE	
03/28/90	2.32E-01 { 6.70E-02}	03/28/90	2.16E-01 { 4.00E-02}	03/27/90	2.10E-01 { 2.20E-02}	03/27/90	1.99E-01 { 2.70E-02}
06/20/90	2.61E-01 { 2.40E-02}	06/20/90	2.51E-01 { 1.70E-02}	06/19/90	2.52E-01 { 2.50E-02}	06/19/90	2.41E-01 { 2.40E-02}
09/26/90	2.19E-01 { 2.30E-02}	09/26/90	1.94E-01 { 1.40E-02}	09/26/90	1.91E-01 { 1.60E-02}	09/26/90	1.99E-01 { 1.20E-02}
12/19/90	2.50E-01 { 1.00E-02}	12/19/90	2.22E-01 { 2.00E-02}	12/18/90	2.37E-01 { 1.70E-02}	12/18/90	2.34E-01 { 2.10E-02}
MEAN	2.41E-01		2.21E-01		2.22E-01		2.18E-01
MINIMUM	2.19E-01		1.94E-01		1.91E-01		1.99E-01
MAXIMUM	2.61E-01		2.51E-01		2.52E-01		2.41E-01
2STD.ERR	1.87E-02		2.35E-02		2.73E-02		2.24E-02

< - Result less than detection limit. { } - Uncertainty for result. NR - No result reported.

SURFACE ENVIRONMENTAL SURVEILLANCE DATA REPORT - 010190 TO 010491  
TLD SAMPLES - MR/DAY

1151 - 300 SOUTHWEST GATE		1152 - 300 SOUTH GATE		1153 - 300 TRENCH		1154 - 300 NE	
OFF DATE COM	RESULT	OFF DATE COM	RESULT	OFF DATE COM	RESULT	OFF DATE COM	RESULT
03/27/90	1.93E-01	03/27/90	2.00E-01	03/27/90	2.12E-01	03/27/90	2.15E-01
	{ 3.00E-02 }		{ 5.00E-02 }		{ 3.40E-02 }		{ 6.30E-02 }
06/19/90	2.48E-01	06/19/90	2.56E-01	06/19/90	2.79E-01	06/19/90	2.62E-01
	{ 3.10E-02 }		{ 2.40E-02 }		{ 2.70E-02 }		{ 2.70E-02 }
09/26/90	2.08E-01	09/26/90	1.99E-01	09/26/90	2.30E-01	09/26/90	2.18E-01
	{ 1.40E-02 }		{ 1.60E-02 }		{ 3.00E-02 }		{ 2.10E-02 }
12/18/90	2.38E-01	12/18/90	2.35E-01	12/18/90	2.53E-01	12/18/90	2.56E-01
	{ 2.20E-02 }		{ 2.20E-02 }		{ 2.90E-02 }		{ 3.00E-02 }
MEAN	2.22E-01		2.23E-01		2.44E-01		2.38E-01
MINIMUM	1.93E-01		1.99E-01		2.12E-01		2.15E-01
MAXIMUM	2.48E-01		2.56E-01		2.79E-01		2.62E-01
2STD.ERR	2.56E-02		2.79E-02		2.90E-02		2.47E-02

< - Result less than detection limit. { } - Uncertainty for result. NR - No result reported.

1400 - 400 E	1155 - 400 W	1156 - 400 S	1158 - 400 N
OFF DATE COM	OFF DATE COM	OFF DATE COM	OFF DATE COM
RESULT	RESULT	RESULT	RESULT
03/27/90	03/27/90	03/27/90	03/27/90
1.83E-01	2.11E-01	2.12E-01	2.09E-01
{ 8.10E-02}	{ 5.60E-02}	{ 3.70E-02}	{ 6.30E-02}
2.30E-01	2.54E-01	2.60E-01	2.61E-01
{ 2.40E-02}	{ 2.40E-02}	{ 2.40E-02}	{ 2.60E-02}
1.89E-01	2.09E-01	2.05E-01	2.03E-01
{ 1.00E-02}	{ 1.90E-02}	{ 1.00E-02}	{ 3.00E-02}
2.00E-01	2.51E-01	2.51E-01	2.60E-01
{ 1.60E-C2}	{ 2.90E-02}	{ 3.30E-02}	{ 1.30E-02}
2.00E-01	2.31E-01	2.32E-01	2.33E-01
1.83E-01	2.09E-01	2.05E-01	2.03E-01
2.30E-01	2.54E-01	2.60E-01	2.61E-01
2.09E-02	2.46E-02	2.75E-02	3.16E-02
2STD.ERR			

< - Result less than detection limit. { } - Uncertainty for result. NR - No result reported.

1159 - FFTF NORTH		1160 - FFTF SOUTHEAST		1161 - HANFORD TOWNSITE		1395 - WYE BARRICADE	
OFF DATE	COM	OFF DATE	COM	OFF DATE	COM	OFF DATE	COM
03/27/90	2.10E-01	03/27/90	1.96E-01	04/04/90	1.96E-01	04/04/90	2.21E-01
	{ 4.80E-02}		{ 4.60E-02}		{ 8.80E-02}		{ 4.70E-02}
06/19/90	2.66E-01	06/19/90	2.53E-01	06/27/90	2.56E-01	06/27/90	2.49E-01
	{ 2.90E-02}		{ 2.40E-02}		{ 3.00E-02}		{ 2.50E-02}
09/26/90	2.08E-01	09/26/90	2.03E-01	10/03/90	1.94E-01	10/03/90	2.09E-01
	{ 2.70E-02}		{ 2.00E-02}		{ 2.10E-02}		{ 1.20E-02}
12/18/90	2.45E-01	12/18/90	2.35E-01	12/27/90	2.46E-01	12/27/90	2.26E-01
	{ 2.70E-02}		{ 1.60E-02}		{ 1.80E-02}		{ 2.20E-02}
MEAN	2.32E-01		2.22E-01		2.23E-01		2.26E-01
MINIMUM	2.08E-01		1.96E-01		1.94E-01		2.09E-01
MAXIMUM	2.66E-01		2.53E-01		2.56E-01		2.49E-01
2STD.ERR	2.82E-02		2.69E-02		3.26E-02		1.68E-02

< - Result less than detection limit. { } - Uncertainty for result. NR - No result reported.

0118 - US ECOLOGY NE CORNER		0119 - US ECOLOGY SE CORNER		0120 - US ECOLOGY NW CORNER		0121 - US ECOLOGY SW CORNER	
OFF DATE	COM	OFF DATE	COM	OFF DATE	COM	OFF DATE	COM
03/29/90	2.33E-01	03/29/90	2.81E-01	03/29/90	2.00E-01	03/29/90	3.20E-01
	{ 9.50E-02}		{ 5.30E-02}		{ 7.40E-02}		{ 5.60E-02}
06/28/90	2.48E-01	06/28/90	3.31E-01	06/28/90	2.52E-01	06/28/90	3.86E-01
	{ 2.30E-02}		{ 2.90E-02}		{ 2.20E-02}		{ 2.90E-02}
09/27/90	2.07E-01	09/27/90	2.65E-01	09/27/90	2.10E-01	09/27/90	3.61E-01
	{ 1.90E-02}		{ 1.70E-02}		{ 1.50E-02}		{ 1.40E-02}
12/27/90	2.50E-01	12/27/90	3.46E-01	12/27/90	2.48E-01	12/27/90	5.31E-01
	{ 2.80E-02}		{ 5.00E-02}		{ 2.70E-02}		{ 3.80E-02}
MEAN	2.35E-01		3.06E-01		2.28E-01		4.00E-01
MINIMUM	2.07E-01		2.65E-01		2.00E-01		3.20E-01
MAXIMUM	2.50E-01		3.46E-01		2.52E-01		5.31E-01
2STD.ERR	1.98E-02		3.89E-02		2.64E-02		9.18E-02

< - Result less than detection limit. { } - Uncertainty for result. NR - No result reported.



SURFACE ENVIRONMENTAL SURVEILLANCE DATA REPORT - 010190 TO 010491  
TLD SAMPLES - MR/DAY

0122 - WPPSS 1; S OF WNP 2	1162 - BERG RANCH	1163 - SAGEHILL MET TOWER	0930 - RINGOLD MET TOWER
OFF DATE COM	OFF DATE COM	OFF DATE COM	OFF DATE COM
RESULT	RESULT	RESULT	RESULT
03/29/90	03/29/90	03/29/90	03/29/90
2.05E-01	2.37E-01	2.10E-01	2.16E-01
{ 5.20E-02}	{ 6.00E-02}	{ 4.50E-02}	{ 8.20E-02}
06/28/90	06/21/90	06/21/90	06/21/90
2.72E-01	2.68E-01	2.54E-01	2.69E-01
{ 3.40E-02}	{ 2.40E-02}	{ 2.30E-02}	{ 3.80E-02}
09/27/90	09/27/90	09/27/90	09/27/90
2.07E-01	2.07E-01	2.05E-01	2.11E-01
{ 7.00E-03}	{ 1.00E-02}	{ 2.40E-02}	{ 1.30E-02}
12/27/90	12/20/90	12/20/90	12/20/90
2.63E-01	2.68E-01	2.41E-01	2.48E-01
{ 2.80E-02}	{ 2.30E-02}	{ 2.10E-02}	{ 1.70E-02}
MEAN	2.37E-01	2.28E-01	2.36E-01
MINIMUM	2.05E-01	2.05E-01	2.11E-01
MAXIMUM	2.72E-01	2.68E-01	2.69E-01
2STD.ERR	3.57E-02	2.92E-02	2.74E-02

< - Result less than detection limit. { } - Uncertainty for result. NR - No result reported.

1164 - W END OF FIR ROAD		0931 - PETTETT FARM		1165 - SAGEMOOR FARM		1166 - BYERS LANDING	
OFF DATE	COM	OFF DATE	COM	OFF DATE	COM	OFF DATE	COM
04/04/90	2.26E-01	04/04/90	2.10E-01	04/04/90	2.33E-01	04/04/90	2.87E-01
	{ 1.01E-01}		{ 2.50E-02}		{ 6.60E-02}		{ 3.40E-02}
06/27/90	2.61E-01	06/27/90	2.43E-01	06/27/90	2.41E-01	06/27/90	3.16E-01
	{ 2.30E-02}		{ 3.50E-02}		{ 1.80E-02}		{ 2.80E-02}
10/03/90	2.20E-01	10/03/90	1.99E-01	10/03/90	2.17E-01	10/03/90	2.37E-01
	{ 1.50E-02}		{ 5.00E-03}		{ 1.70E-02}		{ 2.60E-02}
12/27/90	2.67E-01	12/27/90	2.40E-01	12/27/90	2.38E-01	12/27/90	2.63E-01
	{ 1.90E-02}		{ 2.00E-02}		{ 1.70E-02}		{ 2.60E-02}
MEAN	2.44E-01		2.23E-01		2.32E-01		2.76E-01
MINIMUM	2.20E-01		1.99E-01		2.17E-01		2.37E-01
MAXIMUM	2.67E-01		2.43E-01		2.41E-01		3.16E-01
2STD.ERR	2.39E-02		2.19E-02		1.07E-02		3.37E-02

< - Result less than detection limit. { } - Uncertainty for result. NR - No result reported.  
 1 SAMPLE DAMAGED BY DISTRICT BURNING.

1167 - BATTELLE COMPLEX		1168 - HORN RAPIDS RD MI 12		1169 - HORN RAPIDS SUBSTA		1170 - PROSSER BARRICADE	
OFF DATE COM	RESULT	OFF DATE COM	RESULT	OFF DATE COM	RESULT	OFF DATE COM	RESULT
04/04/90	2.25E-01 { 4.10E-02}	03/27/90	1.75E-01 { 4.40E-02}	03/27/90	1.69E-01 { 4.60E-02}	03/27/90	1.84E-01 { 4.80E-02}
06/27/90	2.51E-01 { 3.00E-02}	06/19/90	2.71E-01 { 2.60E-02}	06/19/90	2.50E-01 { 2.10E-02}	06/19/90	2.32E-01 { 2.40E-02}
10/03/90	2.22E-01 { 1.80E-02}	09/26/90	1.99E-01 { 9.00E-03}	09/26/90	1.84E-01 { 9.00E-03}	09/26/90	1.99E-01 { 1.60E-02}
12/27/90	2.53E-01 { 5.10E-02}	12/18/90	2.36E-01 { 2.00E-02}	12/18/90	2.01E-01 { 1.70E-02}	12/18/90	2.19E-01 { 1.10E-02}
MEAN	2.38E-01		2.20E-01		2.01E-01		2.08E-01
MINIMUM	2.22E-01		1.75E-01		1.69E-01		1.84E-01
MAXIMUM	2.53E-01		2.71E-01		2.50E-01		2.32E-01
2STD.ERR	1.65E-02		4.21E-02		3.52E-02		2.12E-02

< - Result less than detection limit. { } - Uncertainty for result. NR - No result reported.

SURFACE ENVIRONMENTAL SURVEILLANCE DATA REPORT - 010190 TO 010491  
TLD SAMPLES - MR/DAY

1171 - ERC 1172 - RATTLESNAKE SPRINGS 1396 - YAKIMA BARRICADE 1173 - S END VERNITA BRIDGE

1172 - RATTLESNAKE SPRINGS 1396 - YAKIMA BARRICADE

1171 - ERC

OFF DATE COM	RESULT	OFF DATE COM	RESULT	OFF DATE COM	RESULT	OFF DATE COM	RESULT
03/27/90	2.00E-01	03/28/90	2.20E-01	03/28/90	2.21E-01	04/04/90	2.01E-01
	{ 2.30E-02}		{ 2.50E-02}		{ 1.90E-02}		{ 7.40E-02}
06/19/90	2.60E-01	06/20/90	2.79E-01	06/20/90	2.80E-01	06/27/90	NR
	{ 2.10E-02}		{ 2.50E-02}		{ 4.40E-02}		{ NR}
09/26/90	1.98E-01	09/26/90	2.05E-01	09/26/90	2.08E-01	10/03/90	1.97E-01
	{ 1.10E-02}		{ 1.60E-02}		{ 6.00E-03}		{ 1.30E-02}
12/18/90	2.09E-01	12/19/90	2.27E-01	12/19/90	2.42E-01	12/27/90	2.24E-01
	{ 8.00E-03}		{ 1.40E-02}		{ 2.20E-02}		{ 1.80E-02}
MEAN	2.17E-01		2.33E-01		2.38E-01		2.07E-01
MINIMUM	1.98E-01		2.05E-01		2.08E-01		1.97E-01
MAXIMUM	2.60E-01		2.79E-01		2.80E-01		2.24E-01
2STD.ERR	2.92E-02		3.22E-02		3.15E-02		1.68E-02

< - Result less than detection limit. { } - Uncertainty for result. NR - No result reported.  
1 NO SAMPLE. TLDs MISSING.

1174 - WAHLUKE SLOPE	0123 - WPPSS 4; WPS WAREHSE	0124 - WPPSS 8; FIR ROAD	1376 - OTHELLO
OFF DATE COM	OFF DATE COM	OFF DATE COM	OFF DATE COM
RESULT	RESULT	RESULT	RESULT
04/04/90	03/29/90	03/29/90	03/29/90
2.32E-01	2.04E-01	2.49E-01	1.70E-01
{ 4.90E-02}	{ 3.10E-02}	{ 7.30E-02}	{ 6.30E-02}
06/27/90	06/28/90	06/28/90	06/21/90
2.74E-01	2.23E-01	2.75E-01	2.18E-01
{ 2.50E-02}	{ 2.10E-02}	{ 2.50E-02}	{ 2.20E-02}
10/03/90	09/27/90	09/27/90	09/27/90
2.17E-01	1.88E-01	2.25E-01	1.75E-01
{ 1.70E-02}	{ 8.00E-03}	{ 1.10E-02}	{ 1.00E-02}
12/27/90	12/27/90	12/27/90	12/20/90
2.31E-01	2.22E-01	2.61E-01	2.09E-01
{ 1.50E-02}	{ 1.20E-02}	{ 3.20E-02}	{ 2.50E-02}
MEAN	2.09E-01	2.52E-01	1.93E-01
MINIMUM	1.88E-01	2.25E-01	1.70E-01
MAXIMUM	2.23E-01	2.75E-01	2.18E-01
2STD.ERR	1.66E-02	2.12E-02	2.40E-02

< - Result less than detection limit. { } - Uncertainty for result. NR - No result reported.

1377 - CONNELL		1378 - PASCO		1379 - KENNEWICK-ELY STREET		1380 - RICHLAND 700 AREA	
OFF DATE	COM	OFF DATE	COM	OFF DATE	COM	OFF DATE	COM
03/29/90	{ 5.90E-02 }	04/04/90	2.19E-01	04/04/90	2.03E-01	04/04/90	2.15E-01
06/21/90	{ 2.29E-01 }	06/27/90	{ 7.90E-02 }	06/27/90	{ 5.90E-02 }	06/27/90	{ 9.70E-02 }
09/27/90	{ 3.10E-02 }	10/03/90	1	10/03/90	{ 3.00E-01 }	10/03/90	{ 3.40E-02 }
12/20/90	{ 1.99E-01 }	12/27/90	{ 2.10E-01 }	12/27/90	{ 2.10E-01 }	12/27/90	{ 1.98E-01 }
	{ 3.20E-02 }		{ 2.90E-02 }		{ 1.40E-02 }		{ 1.20E-02 }
	{ 2.02E-01 }		{ 2.11E-01 }		{ 2.23E-01 }		{ 2.16E-01 }
	{ 1.20E-02 }		{ 2.00E-02 }		{ 1.40E-02 }		{ 1.60E-02 }
MEAN	2.00E-01		2.20E-01		2.25E-01		2.15E-01
MINIMUM	1.70E-01		2.10E-01		2.03E-01		1.98E-01
MAXIMUM	2.29E-01		2.39E-01		2.55E-01		2.41E-01
2STD.ERR	2.41E-02		1.35E-02		2.20E-02		1.77E-02

< - Result less than detection limit. { } - Uncertainty for result. NR - No result reported.  
 1 ONE TLD PACKET WAS MISSING. OTHER TWO OKAY.

1381 - BENTON CITY

OFF DATE	COM	RESULT
04/03/90		1.87E-01
		{ 5.70E-02}
06/26/90		2.35E-01
		{ 3.20E-02}
10/02/90		1.84E-01
		{ 1.70E-02}
12/27/90		2.11E-01
		{ 3.10E-02}
MEAN		2.04E-01
MINIMUM		1.84E-01
MAXIMUM		2.35E-01
2STD.ERR		2.38E-02

1382 - PROSSER

OFF DATE	COM	RESULT
04/03/90		2.66E-01
		{ 5.00E-02}
06/26/90		2.53E-01
		{ 2.80E-02}
10/02/90		1.97E-01
		{ 1.40E-07}
12/27/90		2.04E-01
		{ 2.20E-02}
MEAN		2.15E-01
MINIMUM		1.97E-01
MAXIMUM		2.53E-01
2STD.ERR		2.56E-02

1383 - ELTOPIA

OFF DATE	COM	RESULT
03/29/90		1.68E-01
		{ 8.20E-02}
06/21/90		2.42E-01
		{ 4.00E-02}
09/27/90		1.72E-01
		{ 1.40E-02}
12/20/90		1.95E-01
		{ 2.70E-02}
MEAN		1.94E-01
MINIMUM		1.68E-01
MAXIMUM		2.42E-01
2STD.ERR		3.40E-02

1384 - MATTAWA

OFF DATE	COM	RESULT
04/03/90		1.92E-01
		{ 4.60E-02}
06/26/90		2.42E-01
		{ 2.00E-02}
10/02/90		1.92E-01
		{ 1.80E-02}
12/27/90		2.64E-01
		{ 2.60E-02}
MEAN		2.08E-01
MINIMUM		1.92E-01
MAXIMUM		2.42E-01
2STD.ERR		2.37E-02

< - Result less than detection limit. { } - Uncertainty for result. NR - No result reported.

1385 - MOSES LAKE

1386 - WASETUCNA

1387 - WALLA WALLA

1175 - MC NARY DAM

OFF DATE	COM	RESULT	OFF DATE	COM	RESULT	OFF DATE	COM	RESULT	OFF DATE	COM	RESULT
04/06/90		2.20E-01	04/06/90		2.09E-01	03/30/90		2.07E-01	03/30/90		2.07E-01
	{	8.70E-02}		{	1.36E-01}		{	4.40E-02}		{	5.70E-02}
06/29/90		2.32E-01	06/29/90		2.75E-01	06/22/90		2.52E-01	06/22/90		2.64E-01
	{	2.70E-02}		{	3.40E-02}		{	1.80E-02}		{	1.80E-02}
10/05/90		1.80E-01	10/05/90		2.13E-01	09/28/90		1.99E-01	09/28/90		2.02E-01
	{	1.40E-02}		{	2.80E-02}		{	1.50E-02}		{	1.80E-02}
01/03/91		2.09E-01	01/03/91		2.44E-01	12/21/90		2.20E-01	12/21/90		2.19E-01
	{	1.20E-02}		{	3.10E-02}		{	3.00E-02}		{	1.80E-02}
MEAN		2.10E-01			2.35E-01			2.20E-01			2.23E-01
MINIMUM		1.80E-01			2.09E-01			1.99E-01			2.02E-01
MAXIMUM		2.32E-01			2.75E-01			2.52E-01			2.64E-01
2STD.ERR		2.22E-02			3.08E-02			2.33E-02			2.82E-02

< - Result less than detection limit. { } - Uncertainty for result. NR - No result reported.



1388 - SUNNYSIDE		1389 - YAKIMA		1176 - COYOTE RAPIDS		1177 - RICHLAND PUMP HOUSE		
OFF DATE	COM	RESULT	OFF DATE	COM	RESULT	OFF DATE	COM	RESULT
04/03/90		2.07E-01	04/03/90		1.92E-01	04/30/90	1	1.14E-01
		{ 5.70E-02}			{ 5.30E-02}			{ 4.70E-02}
06/26/90		2.54E-01	06/26/90		2.30E-01	07/13/90		1.00E-01
		{ 2.70E-02}			{ 1.80E-02}			{ 1.80E-02}
10/02/90		1.85E-01	10/02/90		1.85E-01	09/27/90		8.60E-02
		{ 1.30E-02}			{ 2.90E-02}			{ 7.00E-03}
12/27/90		2.00E-01	12/27/90		1.97E-01			{ 1.40E-01
		{ 1.30E-02}			{ 1.50E-02}			{ 1.40E-02}
								{ 9.80E-02}
								{ 6.00E-03}
MEAN		2.12E-01			2.01E-01			1.01E-01
MINIMUM		1.85E-01			1.85E-01			9.80E-02
MAXIMUM		2.54E-01			2.30E-01			1.04E-01
2STD.ERR		2.98E-02			1.99E-02			6.00E-03

< - Result less than detection limit. { } - Uncertainty for result. NR - No result reported.  
 1 TLD SUBMERGED - COLLECTED LATE.  
 2 NO SAMPLE. TLD MISSING.  
 3 NO SAMPLE. TLDs MISSING.  
 4 AFTER FURTHER INVESTIGATION, 8 OF 12 GLOW CURVES DROPPED AND RESULT ADJUSTED.

SURFACE ENVIRONMENTAL SURVEILLANCE DATA REPORT - 010190 TO 010491  
TLD SAMPLES - MR/DAY

1178 - ABOVE 100 B AREA		1179 - BELOW 100B RET BASIN		1180 - ABOVE 1K BOAT RAMP		1181 - BELOW 100N OUTFALL	
OFF DATE COM	RESULT	OFF DATE COM	RESULT	OFF DATE COM	RESULT	OFF DATE COM	RESULT
03/29/90	2.09E-01 { 8.20E-02 }	03/29/90	3.39E-01 { 5.30E-02 }	04/26/90	1.86E-01 { 7.90E-02 }	01/25/90	5.54E-01 { 3.65E-01 }
06/29/90	1.92E-01 { 1.40E-02 }	06/29/90	2.82E-01 { 1.80E-02 }	06/29/90	2.51E-01 { 1.90E-02 }	02/22/90	6.13E-01 { 1.24E-01 }
09/27/90	1.99E-01 { 1.50E-02 }	09/27/90	2.80E-01 { 3.20E-02 }	09/27/90	2.14E-01 { 2.80E-02 }	03/29/90	5.23E-01 { 1.53E-01 }
01/04/91	2.16E-01 { 1.50E-02 }	01/04/91 1	NR { NR }	01/04/91	2.29E-01 { 8.00E-03 }	04/26/90	4.73E-01 { 2.10E-01 }
						05/24/90	8.55E-01 { 2.86E-01 }
						06/29/90	4.61E-01 { 6.00E-02 }
						07/26/90	7.38E-01 { 1.70E-01 }
						08/23/90	7.72E-01 { 8.60E-02 }
						09/28/90	5.70E-01 { 3.10E-02 }
						10/25/90	7.46E-01 { 6.30E-02 }
						11/26/90	4.94E-01 { 4.86E-01 }
						12/27/90	6.79E-01 { 1.02E-01 }
MEAN	2.04E-01		3.00E-01		2.20E-01		6.23E-01
MINIMUM	1.92E-01		2.80E-01		1.86E-01		4.61E-01
MAXIMUM	2.16E-01		3.38E-01		2.51E-01		8.55E-01
2STD.ERR	1.06E-02		3.80E-02		2.73E-02		7.60E-02

< - Result less than detection limit. { } - Uncertainty for result. NR - No result reported.  
1 NO SAMPLE. TLD MISSING.

SURFACE ENVIRONMENTAL SURVEILLANCE DATA REPORT - 010190 TO 010491  
TLD SAMPLES - MR/DAY

OFF DATE	COM	RESULT	OFF DATE	COM	RESULT	OFF DATE	COM	RESULT
<b>1182 - BELOW 100N STACK</b>								
01/25/90		{ 5.42E-01 2.71E-01 }	01/25/90		{ 5.01E-01 1.87E-01 }	01/25/90		{ 9.13E-01 1.75E-01 }
02/22/90		{ 5.06E-01 8.80E-02 }	02/22/90		{ 5.29E-01 1.19E-01 }	02/22/90		{ 9.80E-01 1.29E-01 }
03/29/90		{ 4.28E-01 2.89E-01 }	03/29/90		{ 4.32E-01 2.17E-01 }	03/29/90		{ 8.29E-01 1.47E-01 }
04/26/90		{ 3.91E-01 1.13E-01 }	04/26/90		{ 4.04E-01 1.21E-01 }	04/26/90		{ 8.21E-01 3.39E-01 }
05/24/90		{ 4.43E-01 7.40E-02 }	05/24/90		{ 4.36E-01 5.00E-02 }	05/24/90		{ 9.16E-01 8.60E-02 }
06/29/90		{ 2.83E-01 4.00E-02 }	06/29/90		{ 3.13E-01 5.00E-02 }	06/29/90		{ 7.93E-01 6.00E-02 }
07/26/90		{ 4.54E-01 4.80E-02 }	07/26/90		{ 5.27E-01 1.12E-01 }	07/26/90		{ 9.69E-01 8.20E-02 }
08/23/90		{ 4.46E-01 7.50E-02 }	08/23/90		{ 4.97E-01 4.97E-01 }	08/23/90		{ 8.57E-01 7.90E-02 }
09/28/90		{ 3.49E-01 2.60E-02 }	09/28/90		{ 3.76E-01 2.60E-02 }	09/28/90		{ 7.01E-01 4.40E-02 }
10/25/90		{ 4.83E-01 4.90E-02 }	10/25/90		{ 5.16E-01 7.40E-02 }	10/25/90		{ 8.13E-01 5.90E-02 }
11/26/90		{ 3.87E-01 2.22E-01 }	11/26/90		{ 3.38E-01 1.54E-01 }	11/26/90		{ 2.70E-01 2.09E-01 }
12/27/90		{ 3.84E-01 3.90E-02 }	12/27/90		{ 3.79E-01 3.00E-02 }	12/27/90		{ 7.29E-01 4.10E-02 }
MEAN		4.25E-01			4.37E-01			7.99E-01
MINIMUM		2.83E-01			3.13E-01			2.70E-01
MAXIMUM		5.42E-01			5.29E-01			9.80E-01
2STD.ERR		4.10E-02			4.40E-02			1.08E-01
<b>1183 - ABOVE TIP 100N BERM</b>								
01/25/90		{ 5.01E-01 1.87E-01 }	01/25/90		{ 5.01E-01 1.87E-01 }	01/25/90		{ 9.13E-01 1.75E-01 }
02/22/90		{ 5.29E-01 1.19E-01 }	02/22/90		{ 5.29E-01 1.19E-01 }	02/22/90		{ 9.80E-01 1.29E-01 }
03/29/90		{ 4.32E-01 2.17E-01 }	03/29/90		{ 4.32E-01 2.17E-01 }	03/29/90		{ 8.29E-01 1.47E-01 }
04/26/90		{ 4.04E-01 1.21E-01 }	04/26/90		{ 4.04E-01 1.21E-01 }	04/26/90		{ 8.21E-01 3.39E-01 }
05/24/90		{ 4.36E-01 5.00E-02 }	05/24/90		{ 4.36E-01 5.00E-02 }	05/24/90		{ 9.16E-01 8.60E-02 }
06/29/90		{ 3.13E-01 5.00E-02 }	06/29/90		{ 3.13E-01 5.00E-02 }	06/29/90		{ 7.93E-01 6.00E-02 }
07/26/90		{ 5.27E-01 1.12E-01 }	07/26/90		{ 5.27E-01 1.12E-01 }	07/26/90		{ 9.69E-01 8.20E-02 }
08/23/90		{ 4.97E-01 4.97E-01 }	08/23/90		{ 4.97E-01 4.97E-01 }	08/23/90		{ 8.57E-01 7.90E-02 }
09/28/90		{ 3.76E-01 2.60E-02 }	09/28/90		{ 3.76E-01 2.60E-02 }	09/28/90		{ 7.01E-01 4.40E-02 }
10/25/90		{ 5.16E-01 7.40E-02 }	10/25/90		{ 5.16E-01 7.40E-02 }	10/25/90		{ 8.13E-01 5.90E-02 }
11/26/90		{ 3.38E-01 1.54E-01 }	11/26/90		{ 3.38E-01 1.54E-01 }	11/26/90		{ 2.70E-01 2.09E-01 }
12/27/90		{ 3.79E-01 3.00E-02 }	12/27/90		{ 3.79E-01 3.00E-02 }	12/27/90		{ 7.29E-01 4.10E-02 }
MEAN		4.37E-01			4.37E-01			7.99E-01
MINIMUM		3.13E-01			3.13E-01			2.70E-01
MAXIMUM		5.29E-01			5.29E-01			9.80E-01
2STD.ERR		4.40E-02			4.40E-02			1.08E-01
<b>1184 - BELOW 100 D AREA</b>								
03/29/90		{ 2.82E-01 8.80E-02 }	03/29/90		{ 2.82E-01 8.80E-02 }	03/29/90		{ 2.82E-01 8.80E-02 }
06/29/90		{ 2.65E-01 3.30E-02 }	06/29/90		{ 2.65E-01 3.30E-02 }	06/29/90		{ 2.65E-01 3.30E-02 }
09/27/90		{ 2.20E-01 2.20E-02 }	09/27/90		{ 2.20E-01 2.20E-02 }	09/27/90		{ 2.20E-01 2.20E-02 }
01/04/91		{ 2.55E-01 2.10E-02 }	01/04/91		{ 2.55E-01 2.10E-02 }	01/04/91		{ 2.55E-01 2.10E-02 }

< - Result less than detection limit. { } - Uncertainty for result. NR - No result reported.

SURFACE ENVIRONMENTAL SURVEILLANCE DATA REPORT - 010190 TO 010491  
TLD SAMPLES - MR/DAY

1185 - BELOW OPP 100 D	1186 - LO END LOCKE ISL	1187 - WHITE BLUFFS FY LND.	1188 - WHITE BLUFFS SLOUGH
OFF DATE COM	OFF DATE COM	OFF DATE COM	OFF DATE COM
RESULT	RESULT	RESULT	RESULT
03/29/90	03/29/90	03/29/90	03/29/90
2.34E-01	2.25E-01	2.01E-01	2.95E-01
{ 4.10E-02}	{ 8.20E-02}	{ 5.70E-02}	{ 5.80E-02}
06/29/90	06/29/90	06/29/90	06/29/90
2.45E-01	2.49E-01	2.37E-01	2.61E-01
{ 2.90E-02}	{ 1.60E-02}	{ 2.20E-02}	{ 2.10E-02}
09/27/90	09/27/90	09/27/90	09/27/90
2.02E-01	2.19E-01	2.05E-01	2.60E-01
{ 2.60E-02}	{ 1.20E-02}	{ 1.90E-02}	{ 1.10E-02}
01/04/91	01/04/91	01/04/91	01/04/91
2.14E-01	NR	2.35E-01	2.90E-01
{ 1.60E-02}	{ NR}	{ 1.40E-02}	{ 2.80E-02}
MEAN	2.31E-01	2.20E-01	2.76E-01
MINIMUM	2.02E-01	2.01E-01	2.60E-01
MAXIMUM	2.45E-01	2.37E-01	2.95E-01
2STD.ERR	1.94E-02	1.83E-02	1.86E-02

< - Result less than detection limit. { } - Uncertainty for result. NR - No result reported.  
1 NO SAMPLE. TLD MISSING.

1205 - 100 F FLOOD PLAIN	1206 - BELOW 100 F	1207 - HANFORD SLOUGH	1208 - HANF POWERLINE XING
OFF DATE COM	OFF DATE COM	OFF DATE COM	OFF DATE COM
RESULT	RESULT	RESULT	RESULT
03/29/90	03/29/90	03/29/90	03/29/90
2.87E-01	1.79E-01	2.90E-01	2.28E-01
{ 3.60E-02}	{ 3.20E-02}	{ 2.30E-02}	{ 2.80E-02}
06/29/90	06/29/90	06/29/90	06/29/90
3.06E-01	2.32E-01	2.83E-01	2.73E-01
{ 3.10E-02}	{ 2.10E-02}	{ 2.80E-02}	{ 2.70E-02}
09/27/90	10/02/90	NR	09/27/90
2.86E-01	1.86E-01	{NR}	2.20E-01
{ 1.40E-02}	{ 1.10E-02}	{NR}	{ 1.10E-02}
01/04/91	01/04/91	2.70E-01	01/04/91
3.01E-01	2.11E-01	{ 1.30E-02}	NR
{ 1.70E-02}	{ 1.10E-02}		{NR}
MEAN	2.02E-01	2.81E-01	2.40E-01
MINIMUM	1.79E-01	2.70E-01	2.20E-01
MAXIMUM	3.06E-01	2.90E-01	2.73E-01
2STD.ERR	1.00E-02	1.17E-02	3.30E-02

< - Result less than detection limit. { } - Uncertainty for result. NR - No result reported.  
 1 NO SAMPLE. TLD MISSING.  
 2 NO SAMPLE. TLD MISSING.

1209 - HANFORD FERRY LND.		1210 - HANFORD RR TRACK		1211 - SAVAGE ISL SLOUGH		1212 - RINGOLD ISLAND		
OFF DATE	COM	RESULT	OFF DATE	COM	RESULT	OFF DATE	COM	RESULT
03/29/90		2.05E-01	03/29/90		2.59E-01	03/29/90		2.98E-01
		{ 4.30E-02}			{ 5.00E-02}			{ 6.70E-02}
06/28/90		1.77E-01	06/29/90		2.65E-01	06/29/90		2.56E-01
		{ 1.50E-02}			{ 1.70E-02}			{ 2.00E-02}
09/28/90	1	NR	09/27/90		2.22E-01	09/27/90		2.46E-01
		{NR}			{ 1.00E-02}			{ 1.50E-02}
01/04/91	2	NR	01/04/91	3	2.73E-01	01/04/91		NR
		{NR}			{ 1.80E-02}			{NR}
MEAN		1.91E-01			2.55E-01			2.67E-01
MINIMUM		1.77E-01			2.22E-01			2.46E-01
MAXIMUM		2.05E-01			2.73E-01			2.98E-01
2STD.ERR		2.80E-02			2.26E-02			3.19E-02

< - Result less than detection limit. { } - Uncertainty for result. NR - No result reported.  
 1 DUE TO WEATHER, TLDs NOT CHANGED. WILL TRY LATER.  
 2 NO SAMPLE. TLD MISSING.  
 3 NO SAMPLE. TLD MISSING.

1213 - POWERLINE CROSSING

1214 - N END WOODED ISLAND

1215 - S END WOODED ISLAND

1216 - ISLAND NEAR 300 AREA

OFF DATE	COM	RESULT	OFF DATE	COM	RESULT	OFF DATE	COM	RESULT	OFF DATE	COM	RESULT
03/29/90		2.50E-01	03/29/90		2.06E-01	03/29/90		2.44E-01	03/29/90		2.11E-01
		{ 4.40E-02 }			{ 1.01E-01 }			{ 6.20E-02 }			{ 1.07E-01 }
06/29/90		2.55E-01	06/29/90	1	NR	06/29/90		2.72E-01	06/29/90		2.03E-01
		{ 1.60E-02 }			{ NR }			{ 2.20E-02 }			{ 2.10E-02 }
09/27/90		2.17E-01	09/27/90		1.93E-01	09/27/90		2.30E-01	09/27/90		2.12E-01
		{ 1.30E-02 }			{ 2.00E-02 }			{ 1.30E-02 }			{ 2.30E-02 }
01/04/91		2.34E-01	01/04/91		2.21E-01	01/04/91		2.49E-01	01/04/91		2.17E-01
		{ 8.00E-03 }			{ 1.30E-02 }			{ 7.00E-03 }			{ 1.40E-02 }
MEAN		2.39E-01			2.07E-01			2.49E-01			2.11E-01
MINIMUM		2.17E-01			1.93E-01			2.30E-01			2.03E-01
MAXIMUM		2.55E-01			2.21E-01			2.72E-01			2.17E-01
2STD.ERR		1.72E-02			1.62E-02			1.75E-02			5.80E-03

< - Result less than detection limit. { } - Uncertainty for result. NR - No result reported.  
1 NO SAMPLE. TLD MISSING

SURFACE ENVIRONMENTAL SURVEILLANCE DATA REPORT - 010190 TO 010491  
TLD SAMPLES - MR/DAY

1217 - ISL DS BATEMAN ISL

OFF DATE COM	RESULT
03/29/90	2.34E-01 { 1.20E-01 }
06/29/90	2.70E-01 { 1.80E-02 }
09/27/90	2.32E-01 { 1.00E-02 }
01/04/91	2.42E-01 { 1.50E-02 }
MEAN	2.44E-01
MINIMUM	2.32E-01
MAXIMUM	2.70E-01
2STD.ERR	1.75E-02

< - Result less than detection limit. { } - Uncertainty for result. NR - No result reported.



## **Foodstuffs**

SURFACE ENVIRONMENTAL SURVEILLANCE DATA REPORT -- 011090 TO 123190  
FOODSTUFFS - MILK SAMPLES - PCI/L

0305 WAHLUKE AREA COMP - WAHLUKE AREA COMP, WAHLUKE AREA COMP, WAHLUKE AREA COMP (DAIRY, MILK)

OFF DATE	COM	H 3 LIQ	SR 90	I 129	I 131 R	CS 137
02/01/90		< -5.38E+01 { 1.03E+02}	nra	nra	< -8.03E-02 { 1.60E-01}	< -2.09E+00 { 3.17E+00}
03/01/90		{ 3.00E+02 { 9.35E+01}	8.89E-01 { 2.54E-01}	nra	< -2.61E-02 { 1.46E-01}	< 8.11E-01 { 3.73E+00}
03/29/90		< 6.92E+01 { 1.07E+02}	nra	nra	< 2.26E-03 { 1.28E-01}	< 4.27E-01 { 4.07E+00}
04/26/90		< 1.27E+02 { 9.97E+01}	nra	nra	< -7.39E-02 { 1.43E-01}	< 1.30E+00 { 2.78E+00}
05/24/90	1	nra	nra	nra	< -8.73E-02 { 1.48E-01}	< 7.93E-01 { 3.23E+00}
06/21/90		< 1.57E+02 { 1.05E+02}	nra	nra	nra	< -1.89E+00 { 3.45E+00}
07/19/90		< -1.19E+01 { 9.90E+01}	nra	nra	nra	< -1.27E+00 { 2.92E+00}
08/16/90		2.22E+02 { 1.13E+02}	1.78E+00 { 8.75E-01}	nra	nra	< 5.04E-01 { 3.25E+00}
09/13/90		1.91E+02 { 1.13E+02}	nra	nra	nra	< -3.76E-01 { 3.05E+00}
10/11/90		< 2.97E+01 { 1.02E+02}	nra	nra	nra	7.69E+00 { 7.63E+00}
11/08/90	2	< 5.21E+01 { 9.84E+01}	< 2.61E-01 { 5.39E-01}	1.36E-03 { 8.71E-05}	nra	< 2.23E+00 { 2.99E+00}
12/06/90		< 5.94E+01 { 1.03E+02}	nra	nra	nra	< 7.10E-01 { 2.86E+00}
MEAN		1.04E+02	9.77E-01	1.36E-03	-5.31E-02	7.37E-01
MINIMUM		< -5.38E+01	< 2.61E-01	1.36E-03	< -8.73E-02	< -2.09E+00
MAXIMUM		3.00E+02	1.78E+00	1.36E-03	< 2.26E-03	7.69E+00
2STD.ERR		6.41E+01	8.81E-01	0.00E+00	3.50E-02	1.47E+00

< - Result less than detection limit.  
{ } - Uncertainty for result.  
NR - No result reported.  
nra - Not routinely analyzed or analyzed on a less frequent basis.  
1 NEW DAIRY OWNER, W. PRATHER REPLACES A. PRICE.  
2 I-129 SAMPLES COLLECTED 5/24/90 AND 11/8/90 WERE COMPOSITED FOR A SINGLE RESULT.

SURFACE ENVIRONMENTAL SURVEILLANCE DATA REPORT - 011090 TO 123190  
FOODSTUFFS - MILK SAMPLES - PCI/L

0306 SAGEMOOR COMPOSITE - SAGEMOOR COMPOSITE, SAGEMOOR COMPOSITE (DAIRY, MILK)

OFF DATE	COM	H 3 LIQ	SR 90	I 129	I 131 R	CS 137
01/10/90		< -9.60E+00 { 1.01E+02}	nra	nra	< 5.19E-03 { 1.57E-01}	< 1.35E+00 { 3.98E+00}
01/24/90		nra	nra	nra	< -3.50E-02 { 1.55E-01}	< 4.46E-01 { 3.13E+00}
02/07/90		< 9.89E+01 { 1.07E+02}	nra	nra	< 2.19E-01 { 5.31E-03}	< 1.73E+00 { 3.82E+00}
02/21/90		nra	nra	nra	{ 1.56E-01}	{ 3.21E+00}
03/07/90		< -3.36E+01 { 9.96E+01}	1.13E+00 { 2.57E-01}	nra	< 4.12E-02 { 1.47E-01}	< -2.15E+00 { 3.13E+00}
03/21/90		nra	nra	nra	< 1.88E-02 { 1.50E-01}	< -1.26E+00 { 3.75E+00}
04/04/90	1	< 1.82E+01 { 1.06E+02}	nra	nra	< 5.83E-02 { 1.44E-01}	< 1.58E+00 { 2.91E+00}
04/18/90	3	nra	nra	nra	< -1.08E-02 { 2.79E-01}	< 2.12E+00 { 3.26E+00}
05/02/90		nra	nra	nra	< -2.27E-01	< 2.20E+00
05/16/90		nra	nra	nra	{ 1.65E-01}	{ 3.79E+00}
06/13/90		nra	nra	nra	< -9.43E-02 { 2.05E-01}	< 5.50E-01 { 3.40E+00}
06/27/90		< 1.34E+02 { 1.03E+02}	nra	nra	nra	< -3.21E+00 { 3.34E+00}
07/11/90		nra	nra	nra	nra	{ 1.81E+00}
07/25/90		< 1.33E+02 { 1.03E+02}	nra	nra	nra	{ 3.23E+00}
08/08/90		nra	nra	nra	< -2.04E+00	< -2.04E+00
08/22/90		< -1.81E+01 { 1.00E+02}	3.90E-01 { 2.81E-01}	nra	nra	{ 3.99E+00}
09/05/90		nra	nra	nra	< -8.37E-01	< -8.37E-01
09/19/90		< 1.23E+01 { 1.00E+02}	nra	nra	nra	{ 3.36E+00}
10/03/90		nra	nra	nra	< -7.52E-01	< -7.52E-01
10/17/90		< 3.02E+01 { 1.00E+02}	nra	nra	nra	{ 3.07E+00}

< - Result less than detection limit.  
{ } - Uncertainty for result.  
nra - No result reported.  
1 W. PETTETT NO LONGER PART OF COMPOSITE. REPLACEMENT HAS  
NOT BEEN FOUND.  
2 W.J. PETTETT REPLACES C. HERR.  
3 CHRIS HERR WILL BE PETTETT'S REPLACEMENT.

SURFACE ENVIRONMENTAL SURVEILLANCE DATA REPORT - 011090 TO 123190  
FOODSTUFFS - MILK SAMPLES - PCI/L

0306 SAGEMOOR COMPOSITE - SAGEMOOR COMPOSITE, SAGEMOOR COMPOSITE, SAGEMOOR COMPOSITE (DAIRY, MILK)

OFF DATE	COM	H 3 LIQ	SR 90	I 129	I 131 R	CS 137
10/31/90		nra	nra	nra	nra	< -4.60E-01 { 3.10E+00}
11/14/90	4	< -5.54E+01 { 9.57E+01}	4.03E-01 { 2.82E-01}	2.16E-03 { 1.30E-04}	nra	< 4.30E-02 { 3.70E+00}
11/28/90		nra	nra	nra	nra	< -1.13E+00 { 3.43E+00}
12/12/90		< 1.12E+01 { 9.68E+01}	nra	nra	nra	< -4.23E-01 { 3.36E+00}
12/27/90	2	nra	nra	nra	nra	< -1.55E+00 { 3.07E+00}
MEAN		2.92E+01	6.41E-01	2.16E-03	-1.91E-02	8.17E-02
MINIMUM		< -5.54E+01	3.90E-01	2.16E-03	< -2.27E-01	< -3.21E+00
MAXIMUM		< 1.34E+02	1.13E+00	2.16E-03	< 5.83E-02	3.28E+00
2STD.ERR		3.92E+01	4.89E-01	0.00E+00	5.45E-02	6.55E-01

< - Result less than detection limit.  
{ } - Uncertainty for result.  
NR - No result reported.  
nra - Not routinely analyzed or analyzed on a less frequent basis.

SURFACE ENVIRONMENTAL SURVEILLANCE DATA REPORT - 011090 TO 123190  
FOODSTUFFS - MILK SAMPLES - PCI/L

6519 BENTON CITY AREA - BENTON CITY AREA (DAIRY, MILK)

OFF DATE COM	H 3 LIQ	SR 90	I 129	I 131 R	CS 137
02/06/90	< -2.78E+01 { 1.04E+02 }	nra	nra	< 4.11E-02 { 1.82E-01 }	< -1.07E+00 { 3.66E+00 }
03/06/90	< 1.20E+02 { 1.04E+02 }	1.68E+00 { 3.55E-01 }	nra	< -1.71E-02 { 1.64E-01 }	< 8.54E-02 { 3.74E+00 }
04/03/90	< -1.11E+02 { 1.01E+02 }	nra	nra	< 1.23E-01 { 1.60E-01 }	< -8.07E-01 { 3.17E+00 }
05/01/90	< 2.40E+01 { 9.70E+01 }	nra	nra	< 4.35E-02 { 2.00E-01 }	< -2.13E-02 { 3.57E+00 }
06/26/90	< -3.61E+01 { 1.10E+02 }	nra	nra	nra	< -2.09E-01 { 3.24E+00 }
07/24/90	< 5.00E+01 { 1.22E+02 }	nra	nra	nra	< 9.96E-01 { 3.66E+00 }
08/21/90	< 1.96E+02 { 1.16E+02 }	5.41E-01 { 3.39E-01 }	nra	nra	< -2.08E+00 { 3.40E+00 }
09/18/90	< -5.15E+01 { 1.10E+02 }	nra	nra	nra	< -6.22E-01 { 3.37E+00 }
10/16/90	< -8.29E+01 { 1.05E+02 }	nra	nra	nra	< 9.68E-01 { 3.12E+00 }
11/13/90 1	< 5.60E+01 { 1.09E+02 }	7.91E-01 { 3.57E-01 }	8.79E-03 { 6.85E-04 }	nra	< 1.20E+00 { 3.78E+00 }
12/11/90	< -1.02E+02 { 1.08E+02 }	nra	nra	nra	< 1.55E-01 { 3.00E+00 }
MEAN	3.15E+00	1.00E+00	8.79E-03	4.76E-02	-1.28E-01
MINIMUM	< -1.11E+02	5.41E-01	8.79E-03	< -1.71E-02	< -2.08E+00
MAXIMUM	< 1.96E+02	1.68E+00	8.79E-03	< 1.23E-01	< 1.20E+00
2STD.ERR	5.82E+01	6.91E-01	0.00E+00	5.75E-02	5.96E-01

< - Result less than detection limit.  
{ } - Uncertainty for result.  
NR - No result reported.  
nra - Not routinely analyzed or analyzed on a less frequent basis.  
1 I-129 SAMPLES COLLECTED 5/29/90 AND 11/13/90 WERE COMPOSITED FOR A SINGLE RESULT.

6355 SUNNYSIDE AREA - SUNNYSIDE AREA (DAIRY, MILK)

OFF DATE	COM	H 3 LIQ	SR 90	I 129	I 131 R	CS 137
01/23/90		nra	nra	nra	< 1.58E-01 { 1.80E-01}	< -1.12E+00 { 3.15E+00}
02/06/90		< -5.95E+01 { 1.04E+02}	nra	nra	< -8.22E-02 { 1.74E-01}	< -3.29E+00 { 3.36E+00}
02/20/90		nra	nra	nra	< 1.19E-01 { 1.64E-01}	< -6.47E-02 { 3.32E+00}
03/06/90		< -3.55E+01 { 9.95E+01}	5.77E-01 { 2.56E-01}	nra	< 8.52E-02 { 1.68E-01}	< -1.36E+00 { 3.05E+00}
03/20/90		nra	nra	nra	< 2.11E-02 { 1.56E-01}	< -1.33E+00 { 3.25E+00}
04/03/90		< 6.53E+01 { 1.07E+02}	nra	nra	< 1.44E-01 { 1.64E-01}	< -1.28E+00 { 3.19E+00}
04/17/90		nra	nra	nra	< -2.49E-01 { 5.02E-01}	< 3.44E-01 { 3.11E+00}
05/01/90		< -3.70E+01 { 9.43E+01}	nra	nra	< -4.98E-03 { 2.04E-01}	< 2.66E+00 { 3.16E+00}
05/15/90		nra	nra	nra	< -9.42E-02 { 1.92E-01}	< -1.81E-01 { 2.93E+00}
06/12/90		nra	nra	nra	nra	< 1.04E+00 { 4.12E+00}
06/26/90		< 9.04E+00 { 1.10E+02}	nra	nra	nra	< -5.18E-01 { 3.56E+00}
07/10/90		nra	nra	nra	nra	< 1.48E+00 { 3.02E+00}
07/24/90		< -3.70E+01 { 1.08E+02}	nra	nra	nra	< 1.06E+00 { 3.04E+00}
08/07/90		nra	nra	nra	nra	< 2.48E+00 { 2.87E+00}
08/21/90		< -8.96E+01 { 1.06E+02}	5.29E-01 { 3.63E-01}	nra	nra	< -6.96E-01 { 3.32E+00}
09/04/90		nra	nra	nra	nra	< 8.63E-01 { 3.64E+00}
09/18/90		< -2.18E+01 { 1.07E+02}	nra	nra	nra	< 9.65E-01 { 3.22E+00}
10/02/90		nra	nra	nra	nra	< 6.86E-01 { 3.09E+00}
10/16/90		< 2.66E+01 { 1.18E+02}	nra	nra	nra	< 1.10E+00 { 3.27E+00}
10/30/90		nra	nra	nra	nra	< 1.62E+00 { 3.17E+00}
11/13/90	1	< 4.72E+01 { 1.08E+02}	< 1.26E-01 { 2.79E-01}	4.85E-04 { 2.62E-05}	nra	< 2.44E+00 { 2.85E+00}
11/27/90		nra	nra	nra	nra	< 1.57E+00 { 3.01E+00}

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.  
 1 I-129 SAMPLES COLLECTED 5/29/90 AND 11/13/90 WERE COMPOSITED  
 FOR A SINGLE RESULT.

SURFACE ENVIRONMENTAL SURVEILLANCE DATA REPORT - 011090 TO 123190  
FOODSTUFFS - MILK SAMPLES - PCI/L

6355 SUNNYSIDE AREA - SUNNYSIDE AREA (DAIRY, MILK)

OFF DATE	COM	H 3 LIQ	SR 90	I 129	I 131 R	CS 137
12/11/90		< -1.57E+01 { 1.06E+02}	nra	nra	< 2.82E+00 { 3.08E+00}	< 2.82E+00 { 3.08E+00}
12/27/90		nra	nra	nra	< -7.50E-01 { 3.85E+00}	< -7.50E-01 { 3.85E+00}
MEAN		-1.35E+01	4.11E-01	4.85E-04	1.08E-02	4.39E-01
MINIMUM		< -8.96E+01	< 1.26E-01	4.85E-04	< -2.49E-01	< -3.29E+00
MAXIMUM		< 6.53E+01	5.77E-01	4.85E-04	< 1.58E-01	< 2.82E+00
2STD.ERR		2.80E+01	2.86E-01	0.00E+00	8.95E-02	6.26E-01

0307 MOSES LAKE AREA - MOSES LAKE AREA (DAIRY, MILK)

OFF DATE	COM	H 3 LIQ	SR 90	I 129	I 131 R	CS 137
01/26/90	3	NR {NR}	nra	nra	NR {NR}	NR {NR}
02/23/90	5	NR {NR}	nra	nra	NR {NR}	NR {NR}
03/23/90	4	< 8.47E+01 { 1.08E+02}	1.24E+00 { 2.83E-01}	nra	< 9.01E-02 { 1.36E-01}	< -2.87E+00 { 3.18E+00}
04/20/90		< 1.89E+02 { 1.07E+02}	nra	nra	< 1.76E-01 { 3.64E-01}	< 9.32E-01 { 3.16E+00}
05/18/90		nra	nra	nra	< -1.19E-01 { 2.00E-01}	< -7.25E-01 { 3.89E+00}
06/15/90		< 1.93E+02 { 1.31E+02}	9.42E-01 { 4.40E-01}	nra	nra	< -6.73E-01 { 3.79E+00}
07/13/90		< 2.24E+02 { 1.30E+02}	nra	nra	nra	< 2.43E+00 { 3.76E+00}
08/10/90		< 1.73E+02 { 1.29E+02}	nra	nra	nra	< -5.29E+00 { 3.71E+00}
09/07/90	6	< 6.61E+01 { 1.26E+02}	9.91E-01 { 2.87E-01}	nra	nra	< -1.50E+00 { 3.21E+00}
10/05/90	2	< 2.09E+02 { 1.30E+02}	nra	nra	nra	3.00E+00 { 2.83E+00}

< - Result less than detection limit.  
{ } - Uncertainty for result.  
NR - No result reported.  
nra - Not routinely analyzed or analyzed on a less frequent basis.  
1 NO SAMPLE.  
2 CHANGE IN SAMPLING DAIRY, R. CHAMBERLAIN REPLACES J. AVILA.

SURFACE ENVIRONMENTAL SURVEILLANCE DATA REPORT - 011090 TO 123190  
FOODSTUFFS - MILK SAMPLES - PCI/L

0307 MOSES LAKE AREA - MOSES LAKE AREA (DAIRY, MILK)

OFF DATE	COM	H 3 LIQ	SR 90	I 129	I 131 R	CS 137
11/02/90	<	1.60E+02	nra	nra	nra	< 1.03E+00
	{	1.27E+02}				{ 3.38E+00}
11/30/90	7	< 1.73E+02	7.69E-01	2.46E-04	nra	< 2.15E-01
	{	1.27E+02}	{ 2.85E-01}	{ 2.66E-05}		{ 4.63E+00}
12/28/90	1	NR	nra	nra	NR	NR
	{	NR}			{ NR}	{ NR}
MEAN		1.64E+02	9.85E-01	2.46E-04	4.90E-02	-3.45E-01
MINIMUM	<	6.61E+01	7.69E-01	2.46E-04	< -1.19E-01	< -5.29E+00
MAXIMUM	<	2.24E+02	1.24E+00	2.46E-04	< 1.76E-01	3.00E+00
2STD.ERR		3.59E+01	1.95E-01	0.00E+00	1.75E-01	1.57E+00

< - Result less than detection limit.  
{ } - Uncertainty for result.  
NR - No result reported.  
nra - Not routinely analyzed or analyzed on a less frequent basis.



1609 RIVERVIEW AREA (LEAFY VEGETABLES, LEAFY VEGETABLES)

OFF DATE COM	SR 90	CS 137
08/09/90	3.59E-03 { 2.17E-03}	< 7.33E-03 { 8.95E-03}
08/09/90	3.63E-03 { 3.39E-03}	< -3.64E-03 { 1.07E-02}
08/09/90	< 2.84E-03 { 3.24E-03}	< 4.90E-03 { 1.06E-02}
MEAN	3.35E-03	2.86E-03
MINIMUM	< 2.84E-03	< -3.64E-03
MAXIMUM	3.63E-03	< 7.33E-03
2STD.ERR	5.14E-04	6.65E-03

6372 SUNNYSIDE (LEAFY VEGETABLES, LEAFY VEGETABLES)

OFF DATE COM	SR 90	CS 137
09/05/90	6.44E-03 { 2.85E-03}	< 1.26E-04 { 7.41E-03}
09/05/90	9.99E-03 { 4.10E-03}	< 9.75E-04 { 7.19E-03}
09/05/90	8.61E-03 { 3.57E-03}	< 1.45E-03 { 6.42E-03}
MEAN	8.35E-03	8.50E-04
MINIMUM	6.44E-03	< 1.26E-04
MAXIMUM	9.99E-03	< 1.45E-03
2STD.ERR	2.07E-03	7.75E-04

< - Result less than detection limit.  
{ } - Uncertainty for result.  
NR - No result reported.  
nra - Not routinely analyzed or analyzed on a less frequent basis.

6419 SAGEMOOR AREA (LEAFY VEGETABLES, LEAFY VEGETABLES)

OFF DATE	COM	SR 90	CS 137
07/14/90	1	< 1.63E-04 { 1.84E-03}	< 4.69E-03 { 8.52E-03}
07/14/90	2	< 4.38E-04 { 1.82E-03}	< 5.33E-03 { 1.31E-02}
07/14/90	3	< 4.35E-04 { 1.86E-03}	1.20E-02 { 1.05E-02}
-----			
MEAN		3.45E-04	7.34E-03
MINIMUM		< 1.63E-04	< 4.69E-03
MAXIMUM		< 4.38E-04	1.20E-02
2STD.ERR		1.82E-04	4.67E-03

< - Result less than detection limit.  
 {} - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.  
 1 BEET TOPS.  
 2 BEET TOPS.  
 3 BEET TOPS.

1612 BENTON CITY AREA (LEAFY VEGETABLES, LEAFY VEGETABLES)

OFF DATE	COM	SR 90	CS 137
10/25/90		8.91E-03	< 4.67E-03
		{ 3.62E-03}	{ 6.74E-03}
10/25/90		< 9.96E-04	1.27E-02
		{ 2.47E-03}	{ 6.86E-03}
10/25/90		7.92E-03	< 1.14E-03
		{ 3.61E-03}	{ 6.81E-03}
MEAN		5.94E-03	6.17E-03
MINIMUM		< 9.96E-04	< 1.14E-03
MAXIMUM		8.91E-03	1.27E-02
2STD.ERR		4.98E-03	6.84E-03

6407 MOSES LAKE AREA (LEAFY VEGETABLES, LEAFY VEGETABLES)

OFF DATE	COM	SR 90	CS 137
10/17/90	1	NR	NR
		{NR}	{NR}
10/17/90	2	NR	NR
		{NR}	{NR}
10/17/90	3	NR	NR
		{NR}	{NR}
MEAN			
MINIMUM			
MAXIMUM			
2STD.ERR			

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.  
 1 NO SAMPLE.  
 2 NO SAMPLE.  
 3 NO SAMPLE.

0009 RIVERVIEW AREA (VEGETABLES, POTATOES)

OFF DATE	COM	SR 90	CS 137
07/26/90		< 3.41E-04 { 1.72E-03}	< -1.37E-03 { 8.78E-03}
07/26/90		< 1.65E-05 { 1.69E-03}	< 4.96E-03 { 9.08E-03}
07/26/90		< -1.26E-03 { 1.34E-03}	< -1.32E-03 { 9.48E-03}
MEAN		-3.01E-04	7.57E-04
MINIMUM		< -1.26E-03	< -1.37E-03
MAXIMUM		< 3.41E-04	< 4.96E-03
2STD.ERR		9.77E-04	4.20E-03

0013 RIVERVIEW AREA (VEGETABLES, CARROTS)

OFF DATE	COM	SR 90	CS 137
08/08/90		< 1.60E-03 { 2.29E-03}	< -4.01E-03 { 1.03E-02}
08/08/90		< 2.04E-03 { 2.20E-03}	< 3.84E-04 { 1.15E-02}
08/08/90		< 1.41E-03 { 1.88E-03}	< 1.80E-03 { 1.06E-02}
MEAN		1.68E-03	-6.09E-04
MINIMUM		< 1.41E-03	< -4.01E-03
MAXIMUM		< 2.04E-03	< 1.80E-03
2STD.ERR		3.73E-04	3.50E-03

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.

0011 RIVERVIEW AREA (VEGETABLES, TOMATOES)

OFF DATE	COM	SR 90	CS 137
07/18/90	<	1.55E-03 { 2.04E-03}	1.06E-03 { 7.53E-03}
07/18/90	<	5.14E-04 { 2.12E-03}	6.76E-04 { 8.09E-03}
07/18/90	<	9.86E-04 { 1.91E-03}	5.94E-03 { 6.71E-03}
MEAN		1.02E-03	2.56E-03
MINIMUM	<	5.14E-04	6.76E-04
MAXIMUM	<	1.55E-03	5.94E-03
2STD.ERR		5.99E-04	3.39E-03

0538 SAGEMOOR AREA (VEGETABLES, POTATOES)

OFF DATE	COM	SR 90	CS 137	PU23940
08/02/90	<	-7.20E-04 { 2.64E-03}	-2.25E-03 { 9.08E-03}	-2.39E-05 { 2.83E-05}
08/02/90	<	-3.01E-04 { 1.86E-03}	-3.08E-03 { 8.44E-03}	1.18E-05 { 4.28E-05}
08/02/90	<	4.95E-04 { 2.07E-03}	-8.62E-04 { 7.29E-03}	-1.57E-05 { 1.15E-05}
MEAN		-1.75E-04	-2.06E-03	-9.27E-06
MINIMUM	<	-7.20E-04	-3.08E-03	-2.39E-05
MAXIMUM	<	4.95E-04	-8.62E-04	1.18E-05
2STD.ERR		7.13E-04	1.29E-03	2.16E-05

< - Result less than detection limit.  
{ } - Uncertainty for result.  
NR - No result reported.  
nra - Not routinely analyzed or analyzed on a less frequent basis.

0537 SUNNYSIDE AREA (VEGETABLES, POTATOES)

OFF DATE	COM	SR 90	CS 137	PU23940
08/09/90		< 4.28E-04 { 2.63E-03}	< 4.39E-03 { 8.96E-03}	< -2.51E-05 { 2.17E-05}
08/09/90		< -1.22E-03 { 2.82E-03}	< 2.93E-03 { 8.27E-03}	< -1.01E-05 { 0.00E+00}
08/09/90		< 2.29E-03 { 3.19E-03}	< -5.82E-03 { 9.04E-03}	< -1.16E-04 { 1.23E-04}
MEAN		4.99E-04	5.00E-04	-5.04E-05
MINIMUM		< -1.22E-03	< -5.82E-03	< -1.16E-04
MAXIMUM		< 2.29E-03	< 4.39E-03	< -1.01E-05
2STD.ERR		2.03E-03	6.38E-03	6.62E-05

0539 WAHLUKE AREA (VEGETABLES, POTATOES)

OFF DATE	COM	SR 90	CS 137
08/09/90		< 5.83E-04 { 1.68E-03}	< -1.52E-03 { 8.83E-03}
08/09/90		< -2.69E-04 { 1.77E-03}	< 7.34E-03 { 9.22E-03}
08/09/90		< -1.30E-03 { 1.87E-03}	< 1.62E-04 { 6.98E-03}
MEAN		-3.29E-04	1.99E-03
MINIMUM		< -1.30E-03	< -1.52E-03
MAXIMUM		< 5.83E-04	< 7.34E-03
2STD.ERR		1.09E-03	5.43E-03

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.

SURFACE ENVIRONMENTAL SURVEILLANCE DATA REPORT - 011090 TO 123190  
FOODSTUFFS - VEGETABLES - PCI/G

0536 HORN RAPIDS RD (VEGETABLES, POTATOES)

OFF DATE	COM	SR 90	CS 137	PU23940
09/19/90		8.06E-03 { 2.84E-03 }	< -3.39E-03 { 1.06E-02 }	< -2.01E-05 { 2.12E-05 }
09/19/90		8.89E-03 { 2.94E-03 }	< 2.61E-03 { 8.88E-03 }	< 2.34E-05 { 5.44E-05 }
09/19/90		8.68E-03 { 2.99E-03 }	< 4.31E-03 { 9.01E-03 }	< 3.51E-05 { 8.93E-05 }
MEAN		8.54E-03	1.18E-03	1.28E-05
MINIMUM		8.06E-03	< -3.39E-03	< -2.01E-05
MAXIMUM		8.89E-03	< 4.31E-03	< 3.51E-05
2STD.ERR		4.98E-04	4.67E-03	3.36E-05

< - Result less than detection limit.  
{ } - Uncertainty for result.  
NR - No result reported.  
nra - Not routinely analyzed or analyzed on a less frequent basis.

0565 SAGEMOOR AREA (FRUIT, APPLES)

OFF DATE	COM	H 3 LIQ	SR 90	CS 137	PU23940
09/05/90	<	8.89E+01	< 1.04E-04	< 1.42E-03	< -8.73E-06
	{	1.00E+02	{ 1.91E-03}	{ 4.79E-03}	{ 0.00E+00}
09/05/90	<	1.84E+02	< 4.99E-05	< -5.54E-03	< 3.64E-05
	{	1.03E+02	{ 1.97E-03}	{ 7.92E-03}	{ 5.81E-05}
09/05/90	<	4.78E+01	< 1.25E-03	< -3.14E-03	< -1.30E-05
	{	9.95E+01	{ 2.18E-03}	{ 5.49E-03}	{ 7.87E-06}
MEAN		1.07E+02	4.68E-04	-2.42E-03	4.89E-06
MINIMUM	<	4.78E+01	< 4.99E-05	< -5.54E-03	< -1.30E-05
MAXIMUM	<	1.84E+02	< 1.25E-03	< 1.42E-03	< 3.64E-05
2STD.ERR		8.07E+01	7.83E-04	4.08E-03	3.16E-05

0543 SAGEMOOR AREA (FRUIT, CHERRIES)

OFF DATE	COM	H 3 LIQ	SR 90	CS 137
06/14/90	<	1.04E+02	< -2.92E-04	< -1.44E-02
	{	1.03E+02	{ 2.70E-03}	{ 8.54E-03}
06/14/90	<	4.52E+01	< 1.78E-03	< -7.17E-04
	{	1.01E+02	{ 3.40E-03}	{ 8.15E-03}
06/14/90	<	7.98E+01	< 1.03E-03	< 6.04E-03
	{	1.03E+02	{ 2.91E-03}	{ 6.62E-03}
MEAN		7.63E+01	8.39E-04	-3.03E-03
MINIMUM	<	4.52E+01	< -2.92E-04	< -1.44E-02
MAXIMUM	<	1.04E+02	< 1.78E-03	< 6.04E-03
2STD.ERR		3.41E+01	1.21E-03	1.20E-02

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.



6417 SAGEMOOR AREA (FRUIT, CONCORD GRAPES)

OFF DATE	COM	H 3 LIQ	SR 90	CS 137
09/06/90	<	-2.56E+01	< 7.88E-06	< -2.52E-03
		{ 9.63E+01}	{ 1.84E-03}	{ 9.21E-03}
09/06/90	<	-9.50E-01	2.96E-03	< 4.36E-03
		{ 9.87E+01}	{ 2.42E-03}	{ 7.86E-03}
09/06/90	<	-2.56E+01	4.47E-03	< 3.89E-03
		{ 9.86E+01}	{ 2.96E-03}	{ 9.33E-03}
MEAN		-1.74E+01	2.48E-03	1.91E-03
MINIMUM	<	-2.56E+01	7.88E-06	< -2.52E-03
MAXIMUM	<	-9.50E-01	4.47E-03	< 4.36E-03
2STD.ERR		1.64E+01	2.62E-03	4.44E-03

0304 COLD CREEK AREA (FRUIT, APPLES)

OFF DATE	COM	H 3 LIQ	SR 90	CS 137
08/28/90	<	1.19E+02	< 1.18E-03	< 3.97E-04
		{ 1.04E+02}	{ 2.63E-03}	{ 7.27E-03}
08/28/90	<	1.91E+02	< -7.95E-04	< 7.29E-03
		{ 1.07E+02}	{ 2.70E-03}	{ 8.58E-03}
08/28/90	<	9.79E+01	< 5.27E-04	< 8.95E-04
		{ 1.03E+02}	{ 1.75E-03}	{ 8.97E-03}
MEAN		1.36E+02	3.04E-04	2.86E-03
MINIMUM	<	9.79E+01	< -7.95E-04	< 3.97E-04
MAXIMUM	<	1.91E+02	< 1.18E-03	< 7.29E-03
2STD.ERR		5.64E+01	1.16E-03	4.44E-03

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.

SURFACE ENVIRONMENTAL SURVEILLANCE DATA REPORT - 011090 TO 123190  
FOODSTUFFS - FRUIT - PCI/G (except H3 LIQ which is PCI/L of water)

0303 COLD CREEK AREA (FRUIT, CONCORD GRAPES)

OFF DATE	COM	H 3 LIQ	SR 90	CS 137
08/28/90	1	< 2.67E+01 { 1.01E+02 }	< -1.36E-03 { 1.48E-03 }	< -2.64E-03 { 7.71E-03 }
08/28/90	2	< 8.50E+01 { 1.04E+02 }	< 7.49E-04 { 1.78E-03 }	< -9.57E-03 { 8.55E-03 }
08/28/90	3	< 2.01E+02 { 1.08E+02 }	< -5.39E-04 { 1.54E-03 }	< 6.12E-03 { 6.65E-03 }
MEAN		1.04E+02	-3.83E-04	-1.70E-03
MINIMUM		< 2.67E+01	< -1.36E-03	< -8.57E-03
MAXIMUM		< 2.01E+02	< 7.49E-04	< 6.12E-03
2STD.ERR		1.02E+02	1.23E-03	8.53E-03

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.  
 1 TABLE GRAPES.  
 2 TABLE GRAPES.  
 3 TABLE GRAPES.

6440 SUNNYSIDE AREA (FRUIT, APPLES)

OFF DATE COM	H 3 LIQ	SR 90	CS 137	PU23940
09/12/90	< 3.34E+01 { 9.84E+01}	< -2.38E-03 { 1.59E-03}	< 4.09E-03 { 4.66E-03}	< -1.15E-05 { 6.71E-06}
09/12/90	< 6.48E+01 { 9.94E+01}	< 2.83E-04 { 2.41E-03}	< 4.20E-03 { 4.20E-03}	< 2.39E-05 { 4.80E-05}
09/12/90	< 1.16E+02 { 1.01E+02}	< 1.05E-03 { 2.04E-03}	< -2.74E-03 { 5.28E-03}	< -8.26E-06 { 0.00E+00}
MEAN	7.14E+01	-3.49E-04	1.85E-03	1.38E-06
MINIMUM	< 3.34E+01	< -2.38E-03	< -2.74E-03	< -1.15E-05
MAXIMUM	< 1.16E+02	< 1.05E-03	< 4.20E-03	< 2.39E-05
2STD.ERR	4.81E+01	2.08E-03	4.59E-03	2.26E-05

6453 SUNNYSIDE AREA (FRUIT, CHERRIES)

OFF DATE COM	H 3 LIQ	SR 90	CS 137
06/14/90	< 6.77E+00 { 9.95E+01}	5.52E-03 { 3.33E-03}	< 7.04E-04 { 3.80E-03}
06/14/90	< 9.28E+01 { 1.02E+02}	< -1.19E-05 { 2.34E-03}	< 1.01E-03 { 4.13E-03}
06/14/90	< 2.03E+01 { 9.93E+01}	< 6.10E-04 { 3.06E-03}	< -1.88E-03 { 6.01E-03}
MEAN	4.00E+01	2.04E-03	-5.53E-05
MINIMUM	< 6.77E+00	< -1.19E-05	< -1.88E-03
MAXIMUM	< 9.28E+01	5.52E-03	< 1.01E-03
2STD.ERR	5.34E+01	3.50E-03	1.83E-03

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.

6454 SUNNYSIDE AREA (FRUIT, CONCORD GRAPES)

OFF DATE	COM	H 3 LIQ	SR 90	CS 137
09/05/90	<	1.68E+02	< 1.86E-03	< -8.00E-04
	{	1.07E+02}	{ 2.84E-03}	{ 6.69E-03}
09/05/90	<	9.12E+01	< 1.16E-03	< 2.48E-03
	{	1.04E+02}	{ 2.66E-03}	{ 6.07E-03}
09/05/90	<	5.95E+01	< -3.33E-04	< -8.60E-04
	{	1.04E+02}	{ 2.29E-03}	{ 7.38E-03}
MEAN		1.06E+02	8.96E-04	2.73E-04
MINIMUM	<	5.95E+01	< -3.33E-04	< -8.60E-04
MAXIMUM	<	1.68E+02	< 1.86E-03	< 2.48E-03
2STD.ERR		6.44E+01	1.29E-03	2.21E-03

0541 RIVERVIEW AREA (FRUIT, APPLES)

OFF DATE	COM	H 3 LIQ	SR 90	CS 137
09/07/90	<	-3.99E+01	< -7.16E-05	< -9.74E-05
	{	9.93E+01}	{ 1.61E-03}	{ 7.41E-02}
09/07/90	<	-6.08E+01	< 1.94E-04	< -3.30E-03
	{	9.80E+01}	{ 2.04E-03}	{ 7.53E-03}
09/07/90	<	4.37E+01	< -1.83E-03	< -4.72E-03
	{	1.02E+02}	{ 1.53E-03}	{ 9.22E-03}
MEAN		-1.90E+01	-5.69E-04	-2.71E-03
MINIMUM	<	-6.08E+01	< -1.83E-03	< -4.72E-03
MAXIMUM	<	4.37E+01	< 1.94E-04	< -9.74E-05
2STD.ERR		6.39E+01	1.27E-03	2.73E-03

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.

0542 RIVERVIEW AREA (FRUIT, CONCORD GRAPES)

OFF DATE	COM	H 3 LIQ	SR 90	CS 137
08/30/90	<	-3.80E+01	3.95E-03	< 1.24E-03
		{ 9.82E+01}	{ 3.03E-03}	{ 7.76E-03}
08/30/90	<	6.65E+00	< 2.00E-03	< 4.84E-04
		{ 1.00E+02}	{ 2.93E-03}	{ 7.45E-03}
08/30/90	<	-5.51E+01	2.92E-03	< 2.83E-03
		{ 9.80E+01}	{ 2.31E-03}	{ 6.59E-03}
MEAN		-2.88E+01	2.96E-03	1.52E-03
MINIMUM	<	-5.51E+01	< 2.00E-03	< 4.84E-04
MAXIMUM	<	6.65E+00	3.95E-03	< 2.83E-03
2STD.ERR		3.68E+01	1.13E-03	1.38E-03

0012 RIVERVIEW AREA (FRUIT, MELONS)

OFF DATE	COM	H 3 LIQ	SR 90	CS 177
07/12/90	<	1.21E+02	4.61E-03	< 5.86E-04
		{ 1.05E+02}	{ 3.52E-03}	{ 5.94E-03}
07/12/90	<	5.75E+01	< 2.07E-03	< 8.16E-04
		{ 1.03E+02}	{ 3.13E-03}	{ 6.14E-03}
07/12/90	<	-1.07E+02	< 2.15E-03	< 6.64E-04
		{ 9.71E+01}	{ 2.96E-03}	{ 6.30E-03}
MEAN		2.38E+01	2.94E-03	1.45E-04
MINIMUM	<	-1.07E+02	< 2.07E-03	< 8.16E-04
MAXIMUM	<	1.21E+02	4.61E-03	< 6.64E-04
2STD.ERR		1.36E+02	1.67E-03	9.62E-04

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.

0563 MATTAWA AREA (FRUIT, APPLES)

OFF DATE	COM	H 3 LIQ	SR 90	CS 137
08/28/90	<	5.35E+01	< -4.73E-04	< 1.57E-03
		{ 9.94E+01 }	{ 2.22E-03 }	{ 4.43E-03 }
08/28/90	<	7.84E+01	< 1.02E-03	< 4.27E-03
		{ 9.97E+01 }	{ 2.49E-03 }	{ 4.34E-03 }
08/28/90	<	1.37E+02	< -2.22E-04	< 3.35E-03
		{ 1.02E+02 }	{ 2.33E-03 }	{ 4.40E-03 }
MEAN		8.96E+01	1.08E-04	3.06E-03
MINIMUM	<	5.35E+01	< -4.73E-04	< 1.57E-03
MAXIMUM	<	1.37E+02	< 1.02E-03	< 4.27E-03
2STD.ERR		4.95E+01	9.23E-04	1.58E-03

0564 MATTAWA AREA (FRUIT, CONCORD GRAPES)

OFF DATE	COM	H 3 LIQ	SR 90	CS 137
08/28/90	<	1.48E+02	< 5.04E-04	< 8.51E-04
		{ 1.03E+02 }	{ 1.91E-03 }	{ 6.54E-03 }
08/28/90	<	2.17E+02	< 5.25E-03	< -1.02E-03
		{ 1.05E+02 }	{ 3.26E-03 }	{ 4.39E-03 }
08/28/90	<	1.45E+02	< 2.26E-03	< 2.94E-03
		{ 1.03E+02 }	{ 2.65E-03 }	{ 3.76E-03 }
MEAN		1.70E+02	2.67E-03	9.24E-04
MINIMUM	<	1.45E+02	< 5.04E-04	< -1.02E-03
MAXIMUM	<	2.17E+02	< 5.25E-03	< 2.94E-03
2STD.ERR		4.70E+01	2.77E-03	2.29E-03

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.

0540 WAFLUKE AREA (FRUIT, APPLES)

OFF DATE COM	H 3 LIQ	SR 90	CS 137
08/30/90	< 5.99E+01 { 1.02E+02}	< 5.57E-04 { 1.69E-03}	< -2.23E-03 { 7.59E-03}
08/30/90	< 2.09E+01 { 1.01E+02}	< 9.19E-04 { 1.84E-03}	< 9.43E-04 { 7.39E-03}
08/30/90	< 1.13E+02 { 1.04E+02}	< 2.00E-03 { 2.14E-03}	< 5.03E-03 { 1.01E-02}
MEAN	6.46E+01	1.16E-03	1.25E-03
MINIMUM	< 2.09E+01	< 5.57E-04	< -2.23E-03
MAXIMUM	< 1.13E+02	< 2.00E-03	< 5.03E-03
2STD.ERR	5.34E+01	8.67E-04	4.20E-03

0550 RINGOLD (FRUIT, APPLES)

OFF DATE COM	H 3 LIQ	SR 90	CS 137	PU23940
09/13/90	< 7.79E+01 { 1.02E+02}	< 2.49E-04 { 1.78E-03}	< 3.22E-03 { 7.26E-03}	< -1.40E-05 { 8.15E-06}
09/13/90	< 4.83E+01 { 1.02E+02}	< -9.48E-04 { 1.58E-03}	< 2.30E-03 { 6.03E-03}	< -2.82E-05 { 2.13E-05}
09/13/90	< 1.58E+02 { 1.05E+02}	< 1.19E-04 { 1.70E-03}	< 7.53E-03 { 9.46E-03}	< -9.68E-06 { 0.00E+00}
MEAN	9.47E+01	-1.93E-04	4.35E-03	-1.73E-05
MINIMUM	< 4.83E+01	< -9.48E-04	< 2.30E-03	< -2.82E-05
MAXIMUM	< 1.58E+02	< 2.49E-04	< 7.53E-03	< -9.68E-06
2STD.ERR	6.55E+01	7.58E-04	3.22E-03	1.12E-05

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.

0551 RINGOLD (FRUIT, CHERRIES)

OFF DATE COM	H 3 LIQ	SR 90	CS 137
06/13/90	< 7.21E+01 { 1.03E+02 }	< -1.34E-03 { 1.63E-03 }	< -1.01E-04 { 9.11E-03 }
06/13/90	< -3.94E+01 { 9.86E+01 }	< 2.37E-03 { 2.96E-03 }	< -1.13E-03 { 6.43E-03 }
06/13/90	< 1.11E+02 { 1.03E+02 }	< 6.58E-04 { 2.45E-03 }	< -2.74E-04 { 6.25E-03 }
MEAN	4.79E+01	5.63E-04	-5.02E-04
MINIMUM	< -3.94E+01	< -1.34E-03	< -1.13E-03
MAXIMUM	< 1.11E+02	< 2.37E-03	< -1.01E-04
2STD.ERR	9.01E+01	2.14E-03	6.36E-04

< - Result less than detection limit.  
 ( ) - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.



SURFACE ENVIRONMENTAL SURVEILLANCE DATA REPORT - 011090 TO 123190  
FOODSTUFFS - WINE- PCI/L

0544 COLUMBIA BASIN (MISC. FOODS, WHITE WINE)

OFF DATE	COM	H 3 LIQ	CS 137
12/12/90	1	7.84E+02	< 1.35E+00
		{ 1.39E+02}	{ 3.02E+00}
12/12/90	2	5.10E+02	< 1.77E+00
		{ 1.31E+02}	{ 3.07E+00}
12/12/90	3	9.26E+02	< 3.23E+00
		{ 1.41E+02}	{ 3.29E+00}
MEAN		7.40E+02	2.12E+00
MINIMUM		5.10E+02	< 1.35E+00
MAXIMUM		9.26E+02	< 3.23E+00
2STD.ERR		2.44E+02	1.14E+00

< - Result less than detection limit.  
{ } - Uncertainty for result.  
nr - No result reported.  
na - Not routinely analyzed or analyzed on a less frequent basis.  
1 1990 PRESTON WINERIES REISLING, PRESTON VINEYARD.  
2 1990 PRESTON WINERIES REISLING, PRESTON VINEYARD.  
3 1990 PRESTON WINERIES REISLING, PRESTON VINEYARD.

0545 YAKIMA VALLEY (MISC. FOODS, WHITE WINE)

OFF DATE	COM	H	3 LIQ	CS	137
12/11/90	1		4.30E+02	<	1.09E+00
			{ 1.29E+02}	{	2.92E+00}
12/11/90	2	<	1.75E+02	<	-2.84E+00
			{ 1.22E+02}	{	3.23E+00}
12/11/90	3		8.15E+02	<	1.55E+00
			{ 1.40E+02}	{	2.86E+00}
MEAN			4.73E+02		-6.67E-02
MINIMUM		<	1.75E+02	<	-2.84E+00
MAXIMUM			8.15E+02	<	1.55E+00
2STD.ERR			3.72E+02		2.79E+00

< - Result less than detection limit.  
 {} - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.  
 1 1990 HOGUE CELLARS SEMILLION, PETE MELLINGER VINEYARD.  
 2 1990 HOGUE CELLARS SEMILLION, PETE MELLINGER VINEYARD.  
 3 1990 HOGUE CELLARS SEMILLION, PETE MELLINGER VINEYARD.

0546 COLUMBIA BASIN (MISC. FOODS, RED WINE)

OFF DATE	COM	H	3 LIQ	CS	137
12/12/90	1		5.96E+02	<	-6.60E-01
			{ 1.35E+02}		{ 3.03E+00}
12/12/90	2		3.52E+02	<	9.75E-01
			{ 1.27E+02}		{ 2.97E+00}
12/12/90	3		2.24E+02	<	1.62E+00
			{ 1.22E+02}		{ 2.80E+00}
MEAN			3.91E+02		6.45E-01
MINIMUM			< 2.24E+02		< -6.60E-01
MAXIMUM			5.96E+02		< 1.62E+00
2STD.ERR			2.18E+02		1.36E+00

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 na - Not routinely analyzed or analyzed on a less frequent basis.  
 1 1990 PRESTON WINERIES MERLOT, PRESTON VINEYARD.  
 2 1990 PRESTON WINERIES MERLOT, PRESTON VINEYARD.  
 3 1990 PRESTON WINERIES MERLOT, PRESTON VINEYARD.

0547 YAKIMA VALLEY (MISC. FOODS, RED WINE)

OFF DATE	COM	H 3 LIQ	CS 137
12/11/90	1	< 1.95E+02 { 1.22E+02}	< 1.62E+00 { 3.17E+00}
12/11/90	2	< -1.58E+01 { 1.16E+02}	< -8.58E-01 { 3.03E+00}
12/11/90	3	< 4.32E+01 { 1.18E+02}	< 1.65E+00 { 3.18E+00}
MEAN		7.41E+01	8.04E-01
MINIMUM		< -1.58E+01	< -8.58E-01
MAXIMUM		< 1.95E+02	< 1.65E+00
2STD.ERR		1.26E+02	1.66E+00

< - Result less than detection limit.  
 {} - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.  
 1 1990 HOGUE CELLARS LEMBERGER, CRAWFORD VINEYARD.  
 2 1990 HOGUE CELLARS LEMBERGER, CRAWFORD VINEYARD.  
 3 1990 HOGUE CELLARS LEMBERGER, CRAWFORD VINEYARD.

0320 WAHLUKE AREA (MISC. FOODS, WHEAT)

OFF DATE COM	SR 90	CS 137
10/01/90	< 1.70E-03 { 2.53E-03}	< -4.42E-03 { 8.52E-03}
10/01/90	< 3.28E-03 { 3.96E-03}	< 7.54E-03 { 1.14E-02}
10/01/90	6.53E-03 { 4.33E-03}	9.76E-03 { 8.01E-03}
MEAN	3.84E-03	4.29E-03
MINIMUM	< 1.70E-03	< -4.42E-03
MAXIMUM	6.53E-03	9.76E-03
2STD.ERR	2.84E-03	8.81E-03

0311 WAHLUKE AREA (MISC. FOODS, ALFALFA)

OFF DATE COM	SR 90	CS 137
07/12/90	3.11E-02 { 4.78E-03}	< -4.94E-03 { 1.44E-02}
07/12/90	3.73E-02 { 9.72E-03}	< -9.93E-03 { 1.51E-02}
07/12/90	3.86E-02 { 7.30E-03}	2.51E-02 { 1.50E-02}
MEAN	3.57E-02	3.41E-03
MINIMUM	3.11E-02	< -9.93E-03
MAXIMUM	3.86E-02	2.51E-02
2STD.ERR	4.63E-03	2.19E-02

< - Result less than detection limit.  
{ } - Uncertainty for result.  
NR - No result reported.  
nra - Not routinely analyzed or analyzed on a less frequent basis.

0319 SAGEMOOR AREA (MISC. FOODS, WHEAT)

OFF DATE	COM	SR 90	CS 137	PU23940
07/26/90		4.56E-03	< 8.10E-03	< 1.48E-05
		{ 2.82E-03	{ 8.65E-03	{ 4.91E-05
07/26/90		4.13E-03	< -3.59E-03	< -1.04E-05
		{ 3.20E-03	{ 9.29E-03	{ 0.00E+00
07/26/90		< 3.34E-03	< 3.41E-03	< 2.48E-05
		{ 3.12E-03	{ 9.75E-03	{ 4.95E-05
MEAN		4.01E-03	2.64E-03	9.73E-06
MINIMUM		< 3.34E-03	< -3.59E-03	< -1.04E-05
MAXIMUM		4.56E-03	< 8.10E-03	< 2.48E-05
2STD.ERR		7.15E-04	6.79E-03	2.09E-05

0312 SAGEMOOR AREA (MISC. FOODS, ALFALFA)

OFF DATE	COM	SR 90	CS 137
07/11/90		3.27E-02	< 6.79E-03
		{ 6.16E-03	{ 1.44E-02
07/11/90		3.90E-02	< 1.57E-03
		{ 5.40E-03	{ 1.25E-02
07/11/90		3.74E-02	< 2.54E-03
		{ 6.75E-03	{ 1.73E-02
MEAN		3.64E-02	3.63E-03
MINIMUM		3.27E-02	< 1.57E-03
MAXIMUM		3.90E-02	< 6.79E-03
2STD.ERR		3.78E-03	3.21E-03

< - Result less than detection limit.  
{ } - Uncertainty for result.  
NR - No result reported.  
nra - Not routinely analyzed or analyzed on a less frequent basis.

SURFACE ENVIRONMENTAL SURVEILLANCE DATA REPORT - 011090 TO 123190  
FOODSTUFFS - WHEAT & ALFALFA - PCI/G

0318 RIVERVIEW AREA (MISC. FOODS, WHEAT)

OFF DATE COM	SR 90	CS 137
08/09/90	1.04E-02 { 3.70E-03}	< -5.42E-03 { 7.35E-03}
08/09/90	9.56E-03 { 4.43E-03}	< -3.64E-03 { 7.93E-03}
08/09/90	1.01E-02 { 4.66E-03}	< -2.99E-03 { 1.00E-02}
MEAN	1.00E-02	-4.02E-03
MINIMUM	9.56E-03	< -5.42E-03
MAXIMUM	1.04E-02	< -2.99E-03
2STD.ERR	4.92E-04	1.45E-03

0313 RIVERVIEW AREA (MISC. FOODS, ALFALFA)

OFF DATE COM	SR 90	CS 137
07/12/90	1.70E-01 { 1.40E-02}	1.26E-02 { 9.51E-03}
07/12/90	1.38E-01 { 7.96E-03}	2.35E-02 { 1.13E-02}
07/12/90	1.57E-01 { 8.36E-03}	1.46E-02 { 1.25E-02}
MEAN	1.55E-01	1.69E-02
MINIMUM	1.38E-01	1.26E-02
MAXIMUM	1.70E-01	2.35E-02
2STD.ERR	1.86E-02	6.70E-03

< - Result less than detection limit.  
{ } - Uncertainty for result.  
NR - No result reported.  
nra - Not routinely analyzed or analyzed on a less frequent basis.

0317 BENTON CITY AREA (MISC. FOODS, WHEAT)

OFF DATE	COM	SR 90	CS 137
08/09/90		7.39E-03	< 4.11E-03
		{ 5.71E-03}	{ 9.00E-03}
08/09/90		< 3.22E-03	< 8.14E-03
		{ 3.83E-03}	{ 8.11E-03}
08/05/90		3.79E-03	< 2.90E-03
		{ 3.31E-03}	{ 9.11E-03}
MEAN		4.80E-03	5.05E-03
MINIMUM		< 3.22E-03	< 2.90E-03
MAXIMUM		7.39E-03	< 8.14E-03
2STD.ERR		2.61E-03	3.17E-03

0314 BENTON CITY AREA (MISC. FOODS, ALFALFA)

OFF DATE	COM	SR 90	CS 137
07/24/90		4.50E-02	< 1.03E-02
		{ 6.80E-03}	{ 1.45E-02}
07/24/90		3.74E-02	< 6.74E-03
		{ 5.85E-03}	{ 1.03E-02}
07/24/90		4.10E-02	< 8.52E-03
		{ 6.98E-03}	{ 1.85E-02}
07/24/90		nra	nra
MEAN		4.11E-02	8.52E-03
MINIMUM		3.74E-02	< 6.74E-03
MAXIMUM		4.50E-02	< 1.03E-02
2STD.ERR		4.39E-03	2.06E-03

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 nra - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.



0316 SUNNYSIDE AREA (MISC. FOODS, WHEAT)

OFF DATE COM	SR 90	CS 137	PU23940
08/09/90	6.72E-03 { 3.45E-03 }	< -4.45E-03 { 8.92E-03 }	< 9.48E-06 { 3.89E-05 }
08/09/90	3.59E-03 { 2.87E-03 }	< 1.80E-03 { 8.65E-03 }	< 7.53E-06 { 3.48E-05 }
08/09/90	3.38E-03 { 2.65E-03 }	< 7.53E-03 { 8.69E-03 }	< -8.98E-05 { 8.02E-05 }
MEAN	4.56E-03	1.63E-03	-2.43E-05
MINIMUM	3.38E-03	< -4.45E-03	< -8.98E-05
MAXIMUM	6.72E-03	< 7.53E-03	< 9.48E-06
2STD.ERR	2.16E-03	6.92E-03	6.55E-05

0321 MOSES LAKE AREA (MISC. FOODS, WHEAT)

OFF DATE COM	SR 90	CS 137
08/10/90	9.61E-03 { 3.72E-03 }	< -4.13E-03 { 8.55E-03 }
08/10/90	1.22E-02 { 4.07E-03 }	< 5.49E-04 { 7.97E-03 }
08/10/90	1.43E-02 { 3.93E-03 }	< -5.39E-03 { 8.53E-03 }
MEAN	1.20E-02	-2.99E-03
MINIMUM	9.61E-03	< -5.39E-03
MAXIMUM	1.43E-02	< 5.49E-04
2STD.ERR	2.71E-03	3.61E-03

< - Result less than detection limit.  
{ } - Uncertainty for result.  
NR - No result reported.  
nra - Not routinely analyzed or analyzed on a less frequent basis.

0310 MOSES LAKE AREA (MISC. FOODS, ALFALFA)

OFF DATE	COM	SR 90	CS 137
06/15/90		3.87E-02	< 8.89E-03
		{ 4.60E-03}	{ 1.37E-02}
06/15/90		9.20E-02	< 2.19E-03
		{ 1.08E-02}	{ 1.36E-02}
06/15/90		6.99E-02	< 2.83E-03
		{ 9.22E-03}	{ 1.81E-02}
MEAN		6.69E-02	4.64E-03
MINIMUM		3.87E-02	< 2.19E-03
MAXIMUM		9.20E-02	< 8.89E-03
2STD.ERR		3.09E-02	4.27E-03

0301 BATTLEFIELD (MISC. FOODS, ALFALFA)

OFF DATE	COM	SR 90	CS 137
07/12/90		1.15E-01	1.04E-02
		{ 7.64E-03}	{ 1.01E-02}
07/12/90		1.17E-01	2.37E-02
		{ 9.19E-03}	{ 1.03E-02}
07/12/90		1.16E-01	1.36E-02
		{ 7.95E-03}	{ 1.33E-02}
MEAN		1.16E-01	1.59E-02
MINIMUM		1.15E-01	1.04E-02
MAXIMUM		1.17E-01	2.37E-02
2STD.ERR		1.15E-03	8.02E-03

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.

6418 SAGEMOOR AREA (MEAT, BEEF)

OFF DATE	COM	SR 90	CS 137
09/06/90	<	-9.46E-04	< -6.83E-03
		{ 2.63E-03}	{ 7.69E-03}

1292 RIVERVIEW AREA (MEAT, BEEF)

OFF DATE	COM	SR 90	CS 137
09/07/90	<	-1.03E-03	1.04E-02
		{ 1.55E-03}	{ 7.63E-03}

0322 SUNNYSIDE AREA (MEAT, BEEF)

OFF DATE	COM	SR 90	CS 137
09/13/90	<	-5.86E-04	< 2.09E-04
		{ 1.67E-03}	{ 8.29E-03}

< - Result less than detection limit.  
{ } - Uncertainty for result.  
NR - No result reported.  
nra - Not routinely analyzed or analyzed on a less frequent basis.

SURFACE ENVIRONMENTAL SURVEILLANCE DATA REPORT - 011090 TO 123190  
FOODSTUFFS - BEEF - PCI/G

6516 HORN RAPIDS AREA (MEAT, BEEF)

OFF DATE	COM	SR	90	CS	137
12/05/90	<	7.96E-04	<	-3.02E-03	
	{	1.96E-03	{	8.17E-03	

< - Result less than detection limit.  
{ } - Uncertainty for result.  
NR - No result reported.  
nra - Not routinely analyzed or analyzed on a less frequent basis.

6386 SAGEMOOR AREA (POULTRY, CHICKEN)  
 OFF DATE COM SR 90 CS 137  
 04/04/90 < 5.84E-04 < -1.40E-03  
 { 2.31E-03 } { 9.45E-03 }

6387 SAGEMOOR AREA (POULTRY, EGGS)  
 OFF DATE COM SR 90 CS 137  
 11/28/90 < -6.87E-04 < 7.12E-03  
 { 2.52E-03 } { 9.34E-03 }

6371 SUNNYSIDE AREA (POULTRY, CHICKEN)  
 OFF DATE COM SR 90 CS 137  
 04/17/90 2.65E-03 < 3.49E-04  
 { 2.18E-03 } { 1.13E-02 }  
 10/16/90 < 9.31E-04 < -3.84E-03  
 { 2.97E-03 } { 2.01E-02 }  
 MEAN 1.79E-03 -1.75E-03  
 MINIMUM < 9.31E-04 < -3.84E-03  
 MAXIMUM 2.65E-03 < 3.49E-04  
 2STD.ERR 1.72E-03 4.19E-03

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.

6370 SUNNYSIDE AREA (POULTRY, EGGS)

OFF DATE	COM	SR 90	CS 137
05/01/90		nra	< 3.92E-03 { 5.98E-03}
11/07/90		< 6.96E-04 { 2.01E-03}	< -3.87E-04 { 8.07E-03}
MEAN		6.96E-04	1.77E-03
MINIMUM		< 6.96E-04	< -3.87E-04
MAXIMUM		< 6.96E-04	< 3.92E-03
2STD.ERR		0.00E+00	4.31E-03

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.

**TABLE F-1. Radionuclide Concentrations in Beef, Chicken, and Eggs in 1990**

Type/Location	<sup>90</sup> Sr, pCi/g, wet weight <sup>(a)</sup>			<sup>137</sup> Cs, pCi/g, wet weight <sup>(a)</sup>		
	No. of Samples	Maximum	Average	No. of Samples	Maximum	Average
<b>Beef</b>						
Riverview Area	1	---	<-0.001 ± 0.002	1	---	0.010 ± 0.008
Sagemoor Area	1	---	<-0.0009 ± 0.003	1	---	<-0.007 ± 0.008
Horn Rapids Area	2	0.004 ± 0.002	0.002 ± 127%	2	<0.003 ± 0.008	<-0.00003 ± 19,933%
Sunnyside Area	1	---	<-0.0006 ± 0.002	1	---	<-0.0002 ± 0.008
<b>Chicken</b>						
Sagemoor Area	1	---	<0.0006 ± 0.002	1	---	<-0.001 ± 0.009
Sunnyside	2	0.003 ± 0.002	0.002 ± 96%	2	<0.0003 ± 0.01	<-0.002 ± 239%
<b>Eggs</b>						
Sagemoor Area	1	---	<-0.0007 ± 0.003	1	---	<0.007 ± 0.009
Sunnyside	1	---	<0.0007 ± 0.002	2	<0.004 ± 0.006	<0.002 ± 244%

(a) Maximum values ±2 sigma counting errors. Averages ±2 times the standard error (%) of the calculated mean or ±2 sigma counting errors if single sample. A "<" indicates that the reported result is less than the propagated analytical error.

**Wildlife**



0329 PR DAM-VERNITA BRI (MUSCLE, WHITEFISH)

OFF DATE	COM	CO 60	SR 90	CS 137
10/22/90		< 2.00E-03 { 3.57E-03}	< 5.96E-04 { 2.05E-03}	< 4.80E-03 { 3.70E-02}
10/26/90		< -3.12E-03 { 4.36E-02}	< 1.23E-03 { 2.00E-03}	< 2.38E-02 { 3.36E-02}
10/29/90		< 3.05E-02 { 3.61E-02}	< 6.59E-04 { 2.38E-03}	< -1.41E-02 { 3.28E-02}
10/29/90		< -1.51E-03 { 3.55E-02}	5.37E-03 { 2.85E-03}	3.97E-02 { 3.61E-02}
10/31/90		4.07E-02 { 3.42E-02}	< 2.40E-03 { 2.44E-03}	< -6.78E-03 { 3.32E-02}
MEAN		1.37E-02	2.05E-03	9.48E-03
MINIMUM		< -3.12E-03	< 5.96E-04	< -1.41E-02
MAXIMUM		4.07E-02	5.37E-03	3.97E-02
2STD.ERR		1.82E-02	1.78E-03	1.98E-02

6493 PR DAM-VERNITA BRI (CARCASS, WHITEFISH)

OFF DATE	COM	SR 90
10/22/90		1.03E-02 { 3.15E-03}
10/26/90		1.59E-02 { 3.49E-03}
10/29/90		1.49E-02 { 3.10E-03}
10/29/90		8.30E-03 { 2.43E-03}
10/31/90		1.20E-02 { 2.63E-03}
MEAN		1.23E-02
MINIMUM		8.30E-03
MAXIMUM		1.59E-02
2STD.ERR		2.82E-03

< - Result less than detection limit.  
{ } - Uncertainty for result.  
NR - No result reported.  
nra - Not routinely analyzed or analyzed on a less frequent basis.

SURFACE ENVIRONMENTAL SURVEILLANCE DATA REPORT - 011090 TO 123190  
WILDLIFE - FISH - PCI/G

6431 100 D AREA-RIVER (MUSCLE, WHITEFISH)

OFF DATE	COM	CO 60	SR 90	CS 137
01/30/90		< 2.89E-02 { 3.46E-02}	< 1.83E-03 { 1.98E-03}	< -3.01E-03 { 3.25E-02}
01/30/90		< 3.07E-02 { 4.49E-02}	< 8.43E-04 { 2.77E-03}	< 2.37E-02 { 2.99E-02}
01/30/90		< 6.52E-03 { 5.25E-02}	< 1.43E-03 { 2.99E-03}	< 1.30E-02 { 4.75E-02}
01/30/90		< 3.36E-02 { 5.11E-02}	< 2.04E-03 { 5.29E-03}	< -9.06E-03 { 4.63E-02}
01/30/90		< 5.85E-02 { 3.01E-02}	< 1.29E-03 { 1.86E-03}	< 2.49E-02 { 2.50E-02}
10/12/90		< -3.05E-02 { 2.90E-02}	< 4.96E-04 { 1.76E-03}	< 8.12E-04 { 2.48E-02}
10/12/90		< 4.72E-02 { 5.59E-02}	< 1.66E-03 { 4.69E-03}	< -4.30E-02 { 4.77E-02}
10/12/90		< 9.04E-03 { 2.85E-02}	< 1.21E-03 { 2.69E-03}	< 2.72E-02 { 3.22E-02}
10/12/90		< 3.80E-02 { 4.55E-02}	< -2.69E-04 { 3.13E-03}	< -1.88E-02 { 4.60E-02}
10/12/90		< -3.18E-03 { 4.45E-02}	< 2.62E-03 { 2.57E-03}	5.30E-02 { 3.30E-02}
MEAN		2.19E-02	1.32E-03	6.87E-03
MINIMUM		< -3.05E-02	< -2.69E-04	< -4.30E-02
MAXIMUM		5.85E-02	2.62E-03	5.30E-02
2STD.ERR		1.67E-02	5.18E-04	1.73E-02

< - Result less than detection limit.  
{ } - Uncertainty for result.  
NR - No result reported.  
nra - Not routinely analyzed or analyzed on a less frequent basis.

6488 300 AREA (MUSCLE, WHITEFISH)

OFF DATE	COM	CO 60	SR 90	CS 137
11/01/90	<	1.04E-03 { 4.13E-02}	< 9.46E-04 { 1.93E-03}	< 3.04E-02 { 3.39E-02}
11/01/90		nra	nra	nra
11/02/90	<	1.19E-02 { 6.55E-02}	< -2.23E-04 { 2.41E-03}	< 2.47E-02 { 4.63E-02}
11/02/90	<	1.99E-03 { 4.74E-02}	< 1.05E-03 { 2.23E-03}	< 9.32E-03 { 3.95E-02}
11/02/90	<	-8.26E-03 { 4.05E-02}	< 7.27E-04 { 2.11E-03}	< 3.76E-02 { 4.31E-02}
11/02/90	<	-5.34E-03 { 4.62E-02}	< 1.32E-03 { 2.12E-03}	< -8.60E-03 { 4.22E-02}
MEAN		2.66E-04	7.64E-04	1.87E-02
MINIMUM		-8.26E-03	-2.23E-04	-8.60E-03
MAXIMUM		1.19E-02	1.32E-03	3.76E-02
2STD.ERR		6.97E-03	5.29E-04	1.65E-02

6489 300 AREA (CARCASS, WHITEFISH)

OFF DATE	COM	SR 90
11/01/90		8.81E-03 { 3.53E-03}
11/02/90		7.99E-03 { 4.70E-03}
11/02/90		8.48E-03 { 2.48E-03}
11/02/90		1.87E-02 { 4.34E-03}
11/02/90		1.38E-02 { 3.76E-03}
MEAN		1.16E-02
MINIMUM		7.99E-03
MAXIMUM		1.87E-02
2STD.ERR		4.14E-03

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.

SURFACE ENVIRONMENTAL SURVEILLANCE DATA REPORT - 011090 TO 123190  
WILDLIFE - FISH - PCI/G

6486 100 N AREA (MUSCLE, WHITEFISH)

OFF DATE	COM	CO 60	SR 90	CS 137
11/13/90	<	3.13E-02	< 1.15E-03	< -2.43E-02
11/15/90	{	3.80E-02	{ 2.25E-03	{ 4.35E-02
		3.43E-02	< 1.70E-03	< 1.31E-02
11/15/90	{	3.17E-02	{ 2.97E-03	{ 3.68E-02
	<	7.25E-03	< 2.65E-03	< 2.89E-02
11/15/90	{	4.70E-02	{ 2.83E-03	{ 3.95E-02
	<	1.23E-02	< 3.99E-04	< 1.71E-02
11/15/90	{	3.88E-02	{ 2.34E-03	{ 4.18E-02
	<	-2.35E-02	< 4.09E-05	< -1.16E-02
	{	5.08E-02	{ 2.31E-03	{ 4.75E-02
MEAN		1.23E-02	1.19E-03	4.64E-03
MINIMUM	<	-2.35E-02	< 4.09E-05	< -2.43E-02
MAXIMUM		3.43E-02	< 2.65E-03	< 2.89E-02
2STD.ERR		2.07E-02	9.32E-04	1.96E-02

6487 100 N AREA (CARCASS, WHITEFISH)

OFF DATE	COM	SR 90
11/13/90		1.19E-02
11/15/90	{	3.64E-03
		8.04E-03
11/15/90	{	2.68E-03
		9.15E-03
11/15/90	{	3.48E-03
		9.99E-03
11/15/90	{	3.70E-03
		1.11E-02
	{	3.55E-03
MEAN		1.00E-02
MINIMUM		8.04E-03
MAXIMUM		1.19E-02
2STD.ERR		1.37E-03

< - Result less than detection limit.  
{ } - Uncertainty for result.  
NR - No result reported.  
nra - Not routinely analyzed or analyzed on a less frequent basis.

6369 100 F SLOUGH (MUSCLE, BASS)

OFF DATE COM	CO 60	SR 90	CS 137
05/17/90	< -2.40E-02	< 8.91E-04	6.42E-02
	{ 4.60E-02}	{ 1.90E-03}	{ 3.64E-02}
05/18/90	< -6.26E-02	< 1.69E-03	< 2.88E-02
	{ 4.51E-02}	{ 2.32E-03}	{ 4.20E-02}
05/18/90	< -8.22E-02	< 9.03E-04	< 1.33E-02
	{ 6.24E-02}	{ 2.15E-03}	{ 5.21E-02}
05/20/90	< 2.76E-03	< -2.90E-04	< 3.85E-03
	{ 3.07E-02}	{ 2.34E-03}	{ 3.67E-02}
07/05/90	< -3.04E-02	< 1.55E-03	< -1.56E-02
	{ 5.68E-02}	{ 3.87E-03}	{ 4.46E-02}
MEAN	-3.93E-02	9.49E-04	1.89E-02
MINIMUM	< -8.22E-02	< -2.90E-04	< -1.56E-02
MAXIMUM	< 2.76E-03	< 1.69E-03	6.42E-02
2STD.ERR	2.99E-02	7.00E-04	2.68E-02

0338 100 F SLOUGH (CARCASS, BASS)

OFF DATE COM	SR 90
05/17/90	2.86E-02
	{ 4.08E-03}
05/18/90	1.84E-02
	{ 4.24E-03}
05/18/90	3.86E-02
	{ 6.46E-03}
05/20/90	2.19E-02
	{ 3.32E-03}
07/05/90	3.70E-02
	{ 6.38E-03}
MEAN	2.89E-02
MINIMUM	1.84E-02
MAXIMUM	3.86E-02
2STD.ERR	7.99E-03

< - Result less than detection limit.  
{ } - Uncertainty for result.  
NR - No result reported.  
nra - Not routinely analyzed or analyzed on a less frequent basis.

SURFACE ENVIRONMENTAL SURVEILLANCE DATA REPORT - 011090 TO 123190  
WILDLIFE - FISH - PCI/G

0345 100 N AREA (MUSCLE, CARP)

OFF DATE COM	CO 60	SR 90	CS 137
09/21/90	< -9.39E-04 { 8.13E-03}	< -3.40E-04 { 2.30E-03}	1.86E-02 { 8.75E-03}
09/21/90	< 6.93E-03 { 2.58E-02}	< 2.17E-03 { 2.26E-03}	< 3.72E-03 { 2.36E-02}
09/21/90	< -6.00E-03 { 9.29E-03}	< 1.56E-03 { 3.74E-03}	< 2.89E-03 { 8.67E-03}
09/21/90	< 2.68E-03 { 7.53E-03}	1.66E-02 { 4.70E-03}	2.32E-02 { 7.75E-03}
09/21/90	< 1.49E-02 { 2.29E-02}	< 1.68E-03 { 2.04E-03}	3.66E-02 { 2.34E-02}
10/21/90	< 5.53E-03 { 2.42E-02}	1.02E-02 { 4.48E-03}	< 1.27E-02 { 2.05E-02}
MEAN	3.85E-03	5.31E-03	1.63E-02
MINIMUM	< -6.00E-03	< -3.40E-04	< 2.89E-03
MAXIMUM	< 1.49E-02	1.66E-02	3.66E-02
2STD.ERR	5.84E-03	5.42E-03	1.04E-02

0346 100 N AREA (CARCASS, CARP)

OFF DATE COM	SR 90
09/21/90	4.19E-03 { 2.47E-03}
09/21/90	2.70E-02 { 5.32E-03}
09/21/90	1.76E-02 { 4.32E-03}
09/21/90	4.20E-01 { 1.84E-02}
09/21/90	1.92E-01 { 1.21E-02}
10/21/90	1.46E-01 { 1.03E-02}
MEAN	1.34E-01
MINIMUM	4.19E-03
MAXIMUM	4.20E-01
2STD.ERR	1.30E-01

< - Result less than detection limit.  
{ } - Uncertainty for result.  
NR - No result reported.  
nra - Not routinely analyzed or analyzed on a less frequent basis.

0351 100 N AREA (MUSCLE, CLAMS)

OFF DATE COM	CO 60	SR 90	CS 137
10/30/90	5.73E-02 { 3.11E-02 }	4.92E-02 { 6.30E-03 }	< 3.98E-03 { 2.21E-02 }
10/30/90	< 2.19E-02 { 3.97E-02 }	2.01E-02 { 5.63E-03 }	< 1.83E-02 { 3.26E-02 }
MEAN	3.96E-02	3.46E-02	1.11E-02
MINIMUM	< 2.19E-02	2.01E-02	< 3.98E-03
MAXIMUM	5.73E-02	4.92E-02	< 1.83E-02
2STD.ERR	3.54E-02	2.91E-02	1.43E-02

0352 300 AREA (MUSCLE, CLAMS)

OFF DATE COM	CO 60	SR 90	CS 137
09/18/90	2.72E-02 { 2.51E-02 }	< 1.67E-03 { 3.38E-03 }	< 8.19E-03 { 3.12E-02 }
09/18/90	< 5.27E-03 { 2.42E-02 }	3.23E-03 { 2.55E-03 }	< -1.36E-02 { 2.29E-02 }
MEAN	1.62E-02	2.45E-03	-2.70E-03
MINIMUM	< 5.27E-03	< 1.67E-03	< -1.36E-02
MAXIMUM	2.72E-02	3.23E-03	< 8.19E-03
2STD.ERR	2.19E-02	1.56E-03	2.18E-02

< - Result less than detection limit.  
{ } - Uncertainty for result.  
NR - No result reported.  
nra - Not routinely analyzed or analyzed on a less frequent basis.

SURFACE ENVIRONMENTAL SURVEILLANCE DATA REPORT - 011030 TO 123190  
WILDLIFE - DUCKS - PCI/G

0456 100 N AREA (MUSCLE, DUCKS)			
OFF DATE	COM	CS 137	SR 90
11/19/90		< 7.74E-03 { 2.71E-02}	< 9.00E-04 { 1.73E-03}
11/19/90		< 2.58E-02 { 2.76E-02}	< 1.32E-03 { 2.14E-03}
11/19/90		< -2.47E-02 { 2.63E-02}	< 9.82E-04 { 2.66E-03}
11/19/90		< 2.22E-02 { 2.98E-02}	< 2.99E-04 { 1.87E-03}
-----			
MEAN		7.76E-03	8.75E-04
MINIMUM		< -2.47E-02	< 2.99E-04
MAXIMUM		< 2.58E-02	< 1.32E-03
2STD.ERR		2.30E-02	4.25E-04

< - Result less than detection limit.  
{ } - Uncertainty for result.  
NR - No result reported.  
nra - Not routinely analyzed or analyzed on a less frequent basis.  
1 MALLARD  
2 MALLARD  
3 MALLARD  
4 MALLARD



0444 B POND (MUSCLE, DUCKS)

OFF DATE	COM	CS	137
09/13/90			1.17E+00
	{		8.38E-02}
09/17/90			1.05E+00
	{		7.01E-02}
09/17/90			4.99E-01
	{		5.17E-02}
09/17/90			8.39E-01
	{		6.64E-02}
09/17/90	5		9.13E-01
	{		6.35E-02}
09/17/90	6		1.20E+00
	{		8.11E-02}
09/17/90	7		1.85E+00
	{		9.95E-02}
09/17/90	8		1.11E+00
	{		7.55E-02}
09/17/90	9		6.34E-02
	{		2.64E-02}
09/19/90	10		< 2.02E-C2
	{		2.69E-02}
MEAN			8.71E-01
MINIMUM			< 2.02E-02
MAXIMUM			1.85E+00
2STD.ERR			3.50E-01

< - Result less than detection limit.  
{ } - Uncertainty for result.  
NR - No result reported.  
nra - Not routinely analyzed or analyzed on a less frequent basis.  
5 MALLARD  
6 MALLARD  
7 MALLARD  
8 MALLARD  
9 MALLARD  
10 MALLARD

SURFACE ENVIRONMENTAL SURVEILLANCE DATA REPORT - 011090 TO 123190  
WILDLIFE - DEER - PCI/G

0374 WEST (MUSCLE, DEER)

OFF DATE COM CS 137  
-----  
07/18/90 < -1.47E-03  
{ 9.62E-03  
-----

0375 WEST (LIVER, DEER)

OFF DATE COM PU23940  
-----  
07/18/90 < 1.82E-06  
{ 3.52E-05  
-----

0376 SOUTHEAST (MUSCLE, DEER)

OFF DATE COM CS 137  
-----  
02/08/90 < -6.74E-04  
{ 8.31E-03  
04/23/90 < -3.77E-03  
{ 5.16E-03  
-----  
MEAN -2.22E-03  
MINIMUM < -3.77E-03  
MAXIMUM < -6.74E-04  
2STD.ERR 3.10E-03

< - Result less than detection limit.  
{ } - Uncertainty for result.  
NR - No result reported.  
nra - Not routinely analyzed or analyzed on a less frequent basis.

SURFACE ENVIRONMENTAL SURVEILLANCE DATA REPORT - 011090 TO 123190  
WILDLIFE - DEER - PCI/G

0377 SOUTHEAST (LIVER, DEER)

OFF DATE COM PU23940  
 -----  
 02/08/90 < -6.37E-06  
 { 0.00E+00}  
 04/23/90 < -6.25E-06  
 { 0.00E+00}  
 -----  
 MEAN -6.31E-06  
 MINIMUM < -6.37E-06  
 MAXIMUM < -6.25E-06  
 2STD.ERR 1.20E-07

0332 NORTHWEST (MUSCLE, DEER)

OFF DATE COM CS 137  
 -----  
 01/10/90 < 6.48E-04  
 { 6.14E-03}  
 -----

0333 NORTHWEST (LIVER, DEER)

OFF DATE COM PU23940  
 -----  
 01/10/90 < -6.09E-06  
 { 0.00E+00}  
 -----

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.

6250 100 N AREA (MUSCLE, DEER)

OFF DATE COM	CS 137
09/14/90	2.98E-02
	{ 8.73E-03}
09/28/90	1.28E-02
	{ 5.98E-03}
MEAN	2.13E-02
MINIMUM	1.28E-02
MAXIMUM	2.98E-02
2STD.ERR	1.70E-02

6303 100 N AREA (BONE, DEER)

OFF DATE COM	SR 90
09/14/90	5.83E+01
	{ 1.31E+00}
09/28/90	7.16E-01
	{ 6.42E-02}
MEAN	2.95E+01
MINIMUM	7.16E-01
MAXIMUM	5.83E+01
2STD.ERR	5.76E+01

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.

6145 100 N RIVER BANK (MUSCLE, RABBIT)

OFF DATE COM	CS 137
07/10/90	< -2.38E-02 { 6.63E-02}
07/11/90	< -1.86E-02 { 5.87E-02}
07/11/90	< 7.02E-03 { 4.98E-02}
07/11/90	< -5.00E-03 { 6.07E-02}
MEAN	-1.01E-02
MINIMUM	< -2.38E-02
MAXIMUM	< 7.02E-03
2STD.ERR	1.39E-02

6146 100 N RIVER BANK (LIVER, RABBIT)

OFF DATE COM	PU23940
07/10/90	< 4.71E-04 { 5.22E-04}
07/11/90	< -1.80E-04 { 2.71E-04}
07/11/90	< -2.80E-04 { 4.16E-04}
07/11/90	< 4.54E-04 { 5.04E-04}
MEAN	1.16E-04
MINIMUM	< -2.80E-04
MAXIMUM	< 4.71E-04
2STD.ERR	4.02E-04

< - Result less than detection limit.  
{ } - Uncertainty for result.  
NR - No result reported.  
nra - Not routinely analyzed or analyzed on a less frequent basis.

SURFACE ENVIRONMENTAL SURVEILLANCE DATA REPORT - 011090 TO 123190  
WILDLIFE - RABBITS - PCI/G

6452 100 N RIVER BANK (BONE, RABBIT)

OFF DATE	COM	SR 90
07/10/90		2.21E+00 { 2.00E-01}
07/11/90		2.15E+01 { 7.66E-01}
07/11/90		3.69E+01 { 1.86E+00}
07/11/90		1.10E+00 { 1.00E-01}
-----		
MEAN		1.54E+01
MINIMUM		1.10E+00
MAXIMUM		3.69E+01
2STD.ERR		1.71E+01

< - Result less than detection limit.  
{ } - Uncertainty for result.  
NR - No result reported.  
nra - Not routinely analyzed or analyzed on a less frequent basis.

Table WL-1. Radionuclide Concentrations in Columbia River Fish in 1990

Type/Location	<sup>60</sup> Co, pCi/g, wet weight <sup>(a)</sup>			<sup>90</sup> Sr, pCi/g, wet weight <sup>(a)</sup>			<sup>137</sup> Cs, pCi/g, wet weight <sup>(a)</sup>		
	No. of Samples	Maximum	Average	No. of Samples	Maximum	Average	No. of Samples	Maximum	Average
Whitefish Muscle Upstream of Site Boundary	5	0.041 ± 0.034	0.014 ± 130%	5	0.005 ± 0.003	0.002 ± 90%	5	0.040 ± 0.036	0.009 ± 210%
100-N Area	5	0.034 ± 0.032	0.012 ± 170%	5	<0.003 ± 0.003	0.001 ± 80%	5	0.029 ± 0.040	0.005 ± 420%
100-D Area Vicinity	10	0.059 ± 0.030	0.022 ± 80%	10	<0.003 ± 0.003	<0.001 ± 40%	10	0.053 ± 0.033	0.007 ± 250%
300 Area	5	<0.012 ± 0.066	0.0003 ± 2600%	5	<0.001 ± 0.002	<0.0008 ± 70%	5	0.038 ± 0.042	0.019 ± 90%
Whitefish Carcass Upstream of Site Boundary	NA	—	—	5	0.016 ± 0.003	0.012 ± 20%	NA	—	—
100-N				5	<0.003 ± 0.003	0.001 ± 80%			
Bass Muscle 100-F Slough	5	<0.003 ± 0.031	<0.039 ± 80%	5	<0.002 ± 0.002	0.0009 ± 70%	5	0.064 ± 0.036	0.019 ± 140%
Bass Carcass 100-F Slough	NA	—	—	5	0.039 ± 0.006	0.029 ± 30%	NA	—	—
Carp Muscle 100-N	6	0.015 ± 0.023	0.004 ± 150%	6	0.017 ± 0.005	0.005 ± 100%	6	0.037 ± 0.023	0.016 ± 60%
Whitefish Carcass 300 Area	NA	—	—	5	0.019 ± 0.004	0.012 ± 40%	NA	—	—

(a) Maximum values ±2 sigma counting errors. Averages ±2 times the standard error (%) of the calculated mean. A "<" indicates that the reported value is less than the propagated analytical error. NA Not analyzed

**Soil**



SURFACE ENVIRONMENTAL SURVEILLANCE DATA REPORT - 011090 TO 123190  
SOIL - PCI/G

6276 E OF 200 W GATE (SURFACE SOIL, 0-1 IN. DEPTH)  
 OFF DATE COM SR 90 CS 137 PU23940  
 10/04/90 2.70E+00 3.86E+00 6.56E-01  
 { 7.14E-02 } { 1.05E-01 } { 1.25E-02 }

6277 SE SIDE OF FTFE (SURFACE SOIL, 0-1 IN. DEPTH)  
 OFF DATE COM SR 90 CS 137 PU23940  
 10/08/90 1 NR NR  
 {NR} {NR} {NR}

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.  
 1 NO SAMPLE. NONE AVAILABLE.

SURFACE ENVIRONMENTAL SURVEILLANCE DATA REPORT - 011090 TO 123190  
SOIL - PCI/G

0505 OTHELLO (SURFACE SOIL, 0-1 IN. DEPTH)

OFF DATE COM	SR 90	CS 137	PU23940	U 234	U 235	U 238	U-ISO T
10/05/90	7.59E-02 { 7.80E-03}	3.44E-01 { 4.13E-02}	7.65E-03 { 8.78E-04}	5.14E-01 { 7.03E-02}	3.42E-02 { 1.89E-02}	5.26E-01 { 7.04E-02}	1.07E+00 { 1.01E-01}

0503 CONNELL (SURFACE SOIL, 0-1 IN. DEPTH)

OFF DATE COM	SR 90	CS 137	PU23940	U 234	U 235	U 238	U-ISO T
10/05/90	2.04E-01 { 1.25E-02}	1.19E+00 { 9.05E-02}	1.64E-02 { 1.27E-03}	5.33E-01 { 7.49E-02}	2.35E-02 { 1.67E-02}	6.58E-01 { 8.23E-02}	1.21E+00 { 1.13E-01}

6007 WAHLUKE SLOPE (SURFACE SOIL, 0-1 IN. DEPTH)

OFF DATE COM	SR 90	CS 137	PU23940	U 234	U 235	U 238	U-ISO T
10/03/90	6.28E-02 { 7.66E-03}	2.24E-01 { 2.90E-02}	7.11E-03 { 9.80E-04}	5.40E-01 { 6.67E-02}	< 6.63E-03 { 9.73E-03}	5.43E-01 { 6.63E-02}	1.09E+00 { 9.45E-02}

< - Result less than detection limit.  
{ } - Uncertainty for result.  
NR - No result reported.  
nra - Not routinely analyzed or analyzed on a less frequent basis.

SURFACE ENVIRONMENTAL SURVEILLANCE DATA REPORT - 011090 TO 123190  
SOIL - PCI/G

6008 BERG RANCH (SURFACE SOIL, 0-1 IN. DEPTH)

OFF DATE	COM	SR 90	CS 137	PU23940	U 234	U 235	U 238	U-ISO T
10/08/90		1.38E-01 { 1.20E-02}	6.37E-01 { 4.21E-02}	1.24E-02 { 1.44E-03}	5.81E-01 { 7.31E-02}	2.38E-02 { 1.59E-02}	6.29E-01 { 7.53E-02}	1.23E+00 { 1.06E-01}

6009 RINGOLD (SURFACE SOIL, 0-1 IN. DEPTH)

OFF DATE	COM	SR 90	CS 137	PU23940	U 234	U 235	U 238	U-ISO T
10/08/90		1.21E-01 { 1.21E-02}	5.83E-01 { 4.22E-02}	1.12E-02 { 1.17E-03}	7.20E-01 { 7.63E-02}	3.08E-02 { 1.65E-02}	6.91E-01 { 7.43E-02}	1.44E+00 { 1.08E-01}

6421 TAYLOR FLATS NO. 2 (SURFACE SOIL, 0-1 IN. DEPTH)

OFF DATE	COM	SR 90	CS 137	PU23940	U 234	U 235	U 238	U-ISO T
10/04/90		2.29E-02 { 4.88E-03}	1.02E-01 { 2.06E-02}	3.81E-04 { 2.85E-04}	9.24E-01 { 7.96E-02}	4.76E-02 { 1.95E-02}	9.05E-01 { 7.84E-02}	1.88E+00 { 1.13E-01}

< - Result less than detection limit.  
{ } - Uncertainty for result.  
NR - No result reported.  
nra - Not routinely analyzed or analyzed on a less frequent basis.

SURFACE ENVIRONMENTAL SURVEILLANCE DATA REPORT - 011090 TO 123190  
SOIL - PCI/G

6358 SAGEMOOR FARM (SURFACE SOIL, 0-1 IN. DEPTH)

OFF DATE	COM	SR 90	CS 137	PU23940
10/04/90		3.78E-02 { 7.72E-03}	1.06E-01 { 2.44E-02}	1.41E-03 { 7.61E-04}

6011 BYERS LANDING (SURFACE SOIL, 0-1 IN. DEPTH)

OFF DATE	COM	SR 90	CS 137	PU23940	U 234	U 235	U 238	U-ISO T
10/04/90		1.22E-01 { 9.56E-03}	6.23E-01 { 4.51E-02}	9.01E-03 { 1.39E-03}	5.27E-01 { 8.62E-02}	< 1.43E-02 { 1.66E-02}	6.79E-01 { 9.66E-02}	1.22E+00 { 1.31E-01}

6357 SUNNYSIDE (SURFACE SOIL, 0-1 IN. DEPTH)

OFF DATE	COM	SR 90	CS 137	PU23940
10/03/90		3.48E-01 { 1.34E-02}	1.22E+00 { 6.41E-02}	2.91E-02 { 3.27E-03}

< - Result less than detection limit.  
{ } - Uncertainty for result.  
NR - No result reported.  
nra - Not routinely analyzed or analyzed on a less frequent basis.

SURFACE ENVIRONMENTAL SURVEILLANCE DATA REPORT - 011090 TO 123190  
SOIL - PCI/G

0504 MC NARY DAM (SURFACE SOIL, 0-1 IN. DEPTH)

OFF DATE COM	SR 90	CS 137	PU23940	U 234	U 235	U 238	U-ISO T
10/03/90	{ 7.89E-02 { 8.04E-03}	{ 2.76E-01 { 3.98E-02}	{ 6.07E-03 { 7.83E-04}	{ 9.03E-01 { 8.50E-02}	{ 1.72E-02 { 1.28E-02}	{ 8.36E-01 { 8.14E-02}	{ 1.76E+00 { 1.18E-01}

0502 WALLA WALLA (SURFACE SOIL, 0-1 IN. DEPTH)

OFF DATE COM	SR 90	CS 137	PU23940	U 234	U 235	U 238	U-ISO T
10/03/90	{ 4.55E-02 { 5.84E-03}	{ 3.33E-01 { 6.19E-02}	{ 3.06E-03 { 5.46E-04}	{ 7.00E-01 { 7.48E-02}	{ 3.61E-02 { 1.76E-02}	{ 6.95E-01 { 7.38E-02}	{ 1.43E+00 { 1.07E-01}

0500 MOSES LAKE AREA (SURFACE SOIL, 0-1 IN. DEPTH)

OFF DATE COM	SR 90	CS 137	PU23940	U 234	U 235	U 238	U-ISO T
10/05/90	{ 6.12E-02 { 8.60E-03}	{ 2.43E-01 { 3.46E-02}	{ 4.12E-03 { 5.96E-04}	{ 5.01E-01 { 6.81E-02}	{ 2.88E-02 { 1.71E-02}	{ 4.60E-01 { 6.48E-02}	{ 9.90E-01 { 9.55E-02}

< - Result less than detection limit.  
{ } - Uncertainty for result.  
NR - No result reported.  
nra - Not routinely analyzed or analyzed on a less frequent basis.

SURFACE ENVIRONMENTAL SURVEILLANCE DATA REPORT - 011090 TO 123190  
SOIL - PCI/G

0501 WASHTUCNA (SURFACE SOIL, 0-1 IN. DEPTH)

OFF DATE COM	SR 90	CS 137	PU23940	U 234	U 235	U 238	U-ISO T
10/03/90	4.96E-02 ( 5.99E-03)	2.88E-01 ( 4.97E-02)	2.60E-03 ( 5.73E-04)	5.04E-01 ( 6.77E-02)	< 1.26E-02 ( 1.45E-02)	5.33E-01 ( 6.89E-02)	1.05E+00 ( 9.77E-02)

0512 YAKIMA (SURFACE SOIL, 0-1 IN. DEPTH)

OFF DATE COM	SR 90	CS 137	PU23940	U 234	U 235	U 238	U-ISO T
10/03/90	1.26E-01 ( 8.52E-03)	5.99E-01 ( 4.59E-02)	1.06E-02 ( 1.11E-03)	5.06E-01 ( 6.47E-02)	1.95E-02 ( 1.58E-02)	4.97E-01 ( 6.38E-02)	1.02E+00 ( 9.22E-02)

< - Result less than detection limit.  
{ } - Uncertainty for result.  
NR - No result reported.  
nra - Not routinely analyzed or analyzed on a less frequent basis.

Table S-1. Radionuclide Concentrations in Soil Collected East of the Hanford Site<sup>(a)</sup>

Location	Year					
	1985	1986	1987	1988	1989	1990
Byers Landing Taylor Flats No. 2 Ringold AVERAGE	<sup>90</sup> Sr [pCi/g (dry weight)] <sup>(b)</sup>					
	0.18 ± 0.016	0.17 ± 0.01	0.08 ± 0.01	0.10 ± 0.01	0.13 ± 0.01	0.12 ± 0.01
	0.046 ± 0.013	0.36 ± 0.02	0.10 ± 0.01	0.06 ± 0.01	0.16 ± 0.01	0.022 ± 0.005
	0.20 ± 0.042	0.26 ± 0.02	0.21 ± 0.01	0.26 ± 0.01	0.15 ± 0.01	0.12 ± 0.01
0.14 ± 0.09	0.26 ± 0.11	0.13 ± 0.08	0.14 ± 0.12	0.15 ± 0.02	0.09 ± 0.06	
Byers Landing Taylor Flats No. 2 Ringold AVERAGE	<sup>137</sup> Cs [pCi/g (dry weight)] <sup>(b)</sup>					
	0.19 ± 0.035	0.50 ± 0.04	0.23 ± 0.03	0.52 ± 0.03	0.68 ± 0.04	0.62 ± 0.04
	0.085 ± 0.028	1.2 ± 0.1	0.60 ± 0.06	0.39 ± 0.04	0.79 ± 0.06	0.10 ± 0.02
	1.1 ± 0.046	0.40 ± 0.04	1.0 ± 0.1	1.8 ± 0.06	1.7 ± 0.1	0.58 ± 0.04
0.46 ± 0.64	0.70 ± 0.50	0.61 ± 0.44	0.90 ± 0.90	1.06 ± 0.64	0.43 ± 0.33	
Byers Landing Taylor Flats No. 2 Ringold AVERAGE	Total Uranium, pCi/g (dry weight) <sup>(b,c)</sup>					
	0.39 ± 0.13	0.26 ± 0.07	0.10 ± 0.03	0.90 ± 0.48	0.42 ± 0.23	1.22 ± 0.13
	1.3 ± 0.36	0.44 ± 0.12	0.97 ± 0.27	0.93 ± 0.55	0.87 ± 0.24	1.86 ± 0.11
	0.84 ± 0.26	1.1 ± 0.3	0.67 ± 0.19	0.83 ± 0.35	0.50 ± 0.19	1.44 ± 0.11
0.84 ± 0.54	0.60 ± 0.51	0.58 ± 0.51	0.87 ± 0.06	0.60 ± 0.28	1.51 ± 0.39	
Byers Landing Taylor Flats No. 2 Ringold AVERAGE	<sup>238</sup> U, <sup>(c)</sup> pCi/g (dry weight) <sup>(b,c)</sup>					
	0.0027 ± 0.0006	0.008 ± 0.001	0.003 ± 0.001	0.009 ± 0.001	0.014 ± 0.002	0.0090 ± 0.001
	0.0008 ± 0.0003	0.021 ± 0.003	0.019 ± 0.002	0.004 ± 0.001	0.015 ± 0.001	0.00040 ± 0.0003
	0.017 ± 0.0016	0.006 ± 0.001	0.017 ± 0.002	0.033 ± 0.002	0.029 ± 0.003	0.011 ± 0.001
0.0068 ± 0.010	0.012 ± 0.008	0.013 ± 0.010	0.015 ± 0.017	0.019 ± 0.010	0.007 ± 0.006	
Byers Landing Taylor Flats No. 2 Ringold AVERAGE	<sup>239</sup> Pu [pCi/g (dry weight)] <sup>(b)</sup>					
	0.0027 ± 0.0006	0.008 ± 0.001	0.003 ± 0.001	0.009 ± 0.001	0.014 ± 0.002	0.0090 ± 0.001
	0.0008 ± 0.0003	0.021 ± 0.003	0.019 ± 0.002	0.004 ± 0.001	0.015 ± 0.001	0.00040 ± 0.0003
	0.017 ± 0.0016	0.006 ± 0.001	0.017 ± 0.002	0.033 ± 0.002	0.029 ± 0.003	0.011 ± 0.001
0.0068 ± 0.010	0.012 ± 0.008	0.013 ± 0.010	0.015 ± 0.017	0.019 ± 0.010	0.007 ± 0.006	

(a) See Hanford Site Environmental Report for Calendar Year 1989 for a complete listing of onsite and offsite soil analyses from previous years.

(b) Individual results ± 2 sigma counting error.

(c) Soil samples were analyzed by a low-energy photon detection system during 1988 and 1989, and acid leaching method in 1990 and other years preceding 1988.

# Vegetation



6283 E OF 200 W GATE (DESERT, PERENNIAL VEGETATI)

OFF DATE	COM	SR 90	CS 137	PU23940	U-NAT
10/04/90		2.99E-02 { 5.44E-03}	1.05E-01 { 2.38E-02}	4.13E-02 { 2.40E-03}	9.28E-03 { 0.00E+00}

6286 SE SIDE OF FFTF (DESERT, PERENNIAL VEGETATI)

OFF DATE	COM	SR 90	CS 137	PU23940	U-NAT
10/08/90	1	NR {NR}	NR {NR}	NR {NR}	NR {NR}

< - Result less than detection limit.  
{ } - Uncertainty for result.  
NR - No result reported.  
nra - Not routinely analyzed or analyzed on a less frequent basis.  
1 - NO SAMPLE. NONE AVAILABLE.

SURFACE ENVIRONMENTAL SURVEILLANCE DATA REPORT - 011090 TO 123190  
VEGETATION - PCI/G

6328 NORTH 300 AREA (DESERT, PERENNIAL VEGETATI)

OFF DATE	COM	SR 90	CS 137	PU23940	U-NAT
10/02/90		1.70E-01 { 8.52E-03}	< 7.97E-03 { 3.08E-02}	< 1.25E-04 { 1.36E-04}	3.63E-02 { 0.00E+00}

6329 SOUTH 300 AREA (DESERT, PERENNIAL VEGETATI)

OFF DATE	COM	SR 90	CS 137	PU23940	U-NAT
10/02/90		3.61E-01 { 1.53E-02}	3.85E-02 { 2.48E-02}	5.43E-04 { 2.62E-04}	3.33E-02 { 0.00E+00}

0511 OTHELLO (DESERT, PERENNIAL VEGETATI)

OFF DATE	COM	SR 90	CS 137	PU23940	U-NAT
10/05/90		3.24E-02 { 5.71E-03}	< 8.87E-03 { 1.52E-02}	2.74E-04 { 1.85E-04}	3.12E-01 { 0.00E+00}

< - Result less than detection limit.  
{ } - Uncertainty for result.  
NR - No result reported.  
nra - Not routinely analyzed or analyzed on a less frequent basis.

SURFACE ENVIRONMENTAL SURVEILLANCE DATA REPORT - 011090 TO 123190  
VEGETATION - PCI/G

0509 CONNELL (DESERT, PERENNIAL VEGETATI)

OFF DATE	COM	SR 90	CS 137	PU23940	U-NAT
10/05/90		{ 4.95E-02 6.61E-03 }	{ 1.93E-02 1.56E-02 }	{ 3.70E-04 2.00E-04 }	{ 1.83E-01 0.00E+00 }

6053 WAHLUKE SLOPE (DESERT, PERENNIAL VEGETATI)

OFF DATE	COM	SR 90	CS 137	PU23940	U-NAT
10/03/90		{ 2.18E-01 1.25E-02 }	{ 1.44E-02 2.43E-02 }	{ 1.75E-04 1.59E-04 }	{ 4.09E-02 0.00E+00 }

6054 BERG RANCH (DESERT, PERENNIAL VEGETATI)

OFF DATE	COM	SR 90	CS 137	PU23940	U-NAT
10/08/90		{ 1.18E-01 7.81E-03 }	{ 1.16E-02 2.54E-02 }	{ 3.73E-04 2.18E-04 }	{ 3.68E-02 0.00E+00 }

< - Result less than detection limit.  
{ } - Uncertainty for result.  
NR - No result reported.  
nra - Not routinely analyzed or analyzed on a less frequent basis.

SURFACE ENVIRONMENTAL SURVEILLANCE DATA REPORT - 011090 TO 123190  
VEGETATION - PCI/G

6055 RINGOLD (DESERT, PERENNIAL VEGETATI)

OFF DATE COM	SR 90	CS 137	PU23940	U-NAT
10/08/90	1.42E-02 { 3.91E-03}	3.33E-02 { 1.54E-02}	< 1.44E-04 { 1.50E-04}	2.61E-02 { 0.00E+00}

6366 W END OF FIR ROAD (DESERT, PERENNIAL VEGETATI)

OFF DATE COM	SR 90	CS 137	PU23940	U-NAT
10/04/90	2.09E-02 { 3.96E-03}	< 1.50E-02 { 3.67E-02}	< 5.39E-06 { 9.86E-05}	3.33E-02 { 0.00E+00}

6423 TAYLOR FLATS NO. 2 (DESERT, PERENNIAL VEGETATI)

OFF DATE COM	SR 90	CS 137	PU23940	U-NAT
10/04/90	2.04E-02 { 4.10E-03}	3.00E-02 { 2.09E-02}	3.96E-04 { 2.71E-04}	3.82E-02 { 1.12E-02}

< - Result less than detection limit.  
{ } - Uncertainty for result.  
NR - No result reported.  
nra - Not routinely analyzed or analyzed on a less frequent basis.

SURFACE ENVIRONMENTAL SURVEILLANCE DATA REPORT - 011090 TO 123190  
VEGETATION - PCI/G

6364 SAGEMOOR FARM (DESERT, PERENNIAL VEGETATI)

OFF DATE	COM	SR 90	CS 137	PU23940	U-NAT
10/04/90		1.27E-01 { 9.49E-03}	4.47E-02 { 2.66E-02}	2.83E-04 { 1.47E-04}	2.12E-02 { 0.00E+00}

6057 BYERS LANDING (DESERT, PERENNIAL VEGETATI)

OFF DATE	COM	SR 90	CS 137	PU23940	U-NAT
10/04/90		1.61E-01 { 7.88E-03}	2.39E-02 { 2.24E-02}	7.45E-04 { 3.12E-04}	5.98E-02 { 0.00E+00}

6367 RIVVIEW-HARRIS (DESERT, PERENNIAL VEGETATI)

OFF DATE	COM	SR 90	CS 137	PU23940	U-NAT
10/04/90		2.95E-02 { 4.48E-03}	5.46E-03 { 2.60E-02}	3.46E-04 { 2.15E-04}	2.81E-02 { 0.00E+00}

< - Result less than detection limit.  
 { } - Uncertainty for result.  
 NR - No result reported.  
 nra - Not routinely analyzed or analyzed on a less frequent basis.

SURFACE ENVIRONMENTAL SURVEILLANCE DATA REPORT - 011090 TO 123190  
VEGETATION - PCI/G

6046 BENTON CITY (DESERT, PERENNIAL VEGETATI)

OFF DATE	COM	SR 90	CS 137	PU23940	U-NAT
10/03/90		3.93E-02 { 7.94E-03}	2.83E-02 { 1.99E-02}	7.10E-04 { 3.07E-04}	4.54E-02 { 0.00E+00}

6363 SUNNYSIDE (DESERT, PERENNIAL VEGETATI)

OFF DATE	COM	SR 90	CS 137	PU23940	U-NAT
10/03/90		4.94E-02 { 9.09E-03}	2.00E-02 { 1.14E-02}	4.05E-04 { 3.72E-04}	3.79E-02 { 0.00E+00}

0510 MC NARY DAM (DESERT, PERENNIAL VEGETATI)

OFF DATE	COM	SR 90	CS 137	PU23940	U-NAT
10/03/90		1.21E-02 { 4.03E-03}	< 9.05E-03 { 1.85E-02}	1.34E-03 { 3.79E-04}	1.88E-01 { 0.00E+00}

< - Result less than detection limit.  
{ } - Uncertainty for result.  
NR - No result reported.  
nra - Not routinely analyzed or analyzed on a less frequent basis.

SURFACE ENVIRONMENTAL SURVEILLANCE DATA REPORT - 011090 TO 123190  
VEGETATION - PCI/G

0508 WALLA WALLA (DESERT, PERENNIAL VEGETATI)

OFF DATE	COM	SR 90	CS 137	PU23940	U-NAT
10/03/90		6.61E-02 { 6.38E-03}	< -1.59E-03 { 1.39E-02}	3.28E-04 { 1.69E-04}	8.90E-02 { 0.00E+00}

0506 MOSES LAKE AREA (DESERT, PERENNIAL VEGETATI)

OFF DATE	COM	SR 90	CS 137	PU23940	U-NAT
10/05/90		6.38E-02 { 8.00E-03}	< 1.01E-03 { 1.64E-02}	5.90E-04 { 2.80E-04}	2.51E-01 { 0.00E+00}

0507 WASHTUCNA (DESERT, PERENNIAL VEGETATI)

OFF DATE	COM	SR 90	CS 137	PU23940	U-NAT
10/03/90		4.16E-02 { 5.52E-03}	2.12E-02 { 1.53E-02}	9.24E-04 { 2.99E-04}	4.70E-01 { 0.00E+00}

< - Result less than detection limit.  
{ } - Uncertainty for result.  
NR - No result reported.  
nra - Not routinely analyzed or analyzed on a less frequent basis.

0513 YAKIMA (DESERT, PERENNIAL VEGETATI)

OFF DATE COM	SR 90	CS 137	PU23940	U-NAT
10/03/90	5.21E-03 { 4.26E-03}	< 3.82E-03 { 1.41E-02}	1.89E-04 { 1.30E-04}	3.82E-02 { 0.00E+00}

< - Result less than detection limit.  
{ } - Uncertainty for result.  
NR - No result reported.  
nra - Not routinely analyzed or analyzed on a less frequent basis.



Table V-1. Radionuclide Concentrations in Vegetation Collected East of the Hanford Site<sup>a</sup>

Location	Year											
	1985	1986	1987	1988	1989	1990						
	<sup>87</sup> Sr [pCi/g (dry weight)] <sup>bc</sup>											
Riverview	0.069	± 0.085	0.039	± 0.004	0.018	± 0.005	0.014	± 0.005	0.065	± 0.007	0.030	± 0.004
Byers Landing	0.057	± 0.089	0.074	± 0.006	0.007	± 0.005	0.052	± 0.006	0.067	± 0.006	0.16	± 0.008
Sagemoor	0.097	± 0.011	NS		0.046	± 0.008	0.010	± 0.005	0.042	± 0.005	0.13	± 0.009
Taylor Flats No. 2	0.10	± 0.010	0.054	± 0.006	0.064	± 0.010	0.047	± 0.006	0.080	± 0.006	0.020	± 0.004
W End of Fir Road	0.076	± 0.088	0.062	± 0.005	0.040	± 0.007	0.013	± 0.005	0.053	± 0.005	0.021	± 0.004
Ringold	0.066	± 0.0081	0.059	± 0.005	0.012	± 0.005	0.048	± 0.007	0.024	± 0.004	0.014	± 0.004
Sunnyside	0.061	± 0.075	0.044	± 0.00	0.061	± 0.008	0.067	± 0.006	0.053	± 0.006	0.049	± 0.009
AVERAGE	0.075	± 0.013	0.055	± 0.010	0.035	± 0.017	0.035	± 0.008	0.054	± 0.014	0.061	± 0.044
	<sup>137</sup> Cs [pCi/g (dry weight)] <sup>bc</sup>											
Riverview	-0.0054	± 0.011	1.1	± 0.1	0.049	± 0.016	0.003	± 0.011	0.012	± 0.017	0.006	± 0.026
Byers Landing	0.017	± 0.011	1.9	± 0.1	0.049	± 0.023	0.015	± 0.015	0.009	± 0.017	0.024	± 0.022
Sagemoor	0.013	± 0.014	1.2	± 0.1	0.035	± 0.017	0.007	± 0.017	0.004	± 0.022	0.045	± 0.027
Taylor Flats No. 2	0.011	± 0.022	1.7	± 0.1	0.030	± 0.015	0.017	± 0.013	0.012	± 0.017	0.030	± 0.021
W End of Fir Road	0.022	± 0.021	1.2	± 0.1	0.012	± 0.013	0.013	± 0.017	0.005	± 0.019	0.015	± 0.037
Ringold	0.0083	± 0.013	1.5	± 0.1	0.031	± 0.014	0.025	± 0.014	0.012	± 0.018	0.033	± 0.015
Sunnyside	0.018	± 0.015	0.34	± 0.03	0.004	± 0.023	0.026	± 0.012	0.016	± 0.022	0.020	± 0.011
AVERAGE	0.014	± 0.0044	1.28	± 0.38	0.030	± 0.013	0.015	± 0.006	0.010	± 0.003	0.025	± 0.010
	Total Uranium [pCi/g (dry weight)] <sup>bc</sup>											
Riverview	0.0099	± 0.0060	0.015	± 0.004	0.018	± 0.005	0.009	± 0.003	0.008	± 0.003	0.028	± 0.004
Byers Landing	0.19	± 0.058	0.021	± 0.006	0.020	± 0.006	0.020	± 0.006	0.012	± 0.004	0.060	± 0.004
Sagemoor	0.019	± 0.0086	NS		0.012	± 0.003	0.006	± 0.002	0.009	± 0.003	0.021	± 0.004
Taylor Flats No. 2	0.022	± 0.0096	0.016	± 0.005	0.031	± 0.009	0.012	± 0.004	0.012	± 0.004	0.038	± 0.01
W End of Fir Road	0.038	± 0.014	0.0092	± 0.0027	0.023	± 0.006	0.022	± 0.007	0.016	± 0.005	0.033	± 0.004
Ringold	0.041	± 0.015	0.011	± 0.003	0.049	± 0.014	0.021	± 0.006	0.021	± 0.006	0.026	± 0.004
Sunnyside	0.0086	± 0.0057	0.0060	± 0.0017	0.014	± 0.004	0.005	± 0.002	0.018	± 0.005	0.038	± 0.004
AVERAGE	0.047	± 0.048	0.013	± 0.004	0.023	± 0.009	0.014	± 0.005	0.014	± 0.004	0.035	± 0.010
	<sup>239,240</sup> Pu [pCi/g (dry weight)] <sup>bc</sup>											
Riverview	0.00075	± 0.00035	0.00029	± 0.00028	0.00010	± 0.00011	0.00023	± 0.00020	0.00022	± 0.00016	0.00034	± 0.0002
Byers Landing	0.00015	± 0.00013	0.00029	± 0.00024	0.00037	± 0.00023	0.00022	± 0.00019	0.00010	± 0.00015	0.00074	± 0.0003
Sagemoor	0.00022	± 0.00017	NS		0.00005	± 0.00008	0.00027	± 0.00028	0.00004	± 0.00010	0.00028	± 0.0001
Taylor Flats No. 2	0.00036	± 0.00028	0.00015	± 0.00015	0.00028	± 0.00018	0.00026	± 0.00021	0.00014	± 0.00019	0.00040	± 0.0003
W End of Fir Road	0.00019	± 0.00015	0.00007	± 0.00015	0.00004	± 0.00018	0.00009	± 0.00011	0.00003	± 0.00009	<0.00005	± 0.0001
Ringold	0.00019	± 0.00017	0.00033	± 0.00031	0.00001	± 0.00001	0.00017	± 0.00027	0.00005	± 0.00009	<0.00014	± 0.0002
Sunnyside	0.00017	± 0.00014	0.0006	± 0.00011	0.00015	± 0.00017	0.00083	± 0.00034	0.00017	± 0.00015	0.00040	± 0.0004
AVERAGE	0.00029	± 0.00016	0.00029	± 0.00036	0.00014	± 0.00010	0.00030	± 0.00018	0.00011	± 0.00003	0.00033	± 0.0002

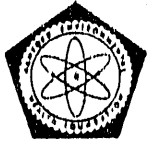
(a) See Hanford Site Environmental Report for Calendar Year 1989 for a complete listing of onsite and offsite soil analyses from previous years.

(b) Individual results ± 2 sigma counting error.

(c) No value reported

NS No sample.

# **Nonradioactive Air Data Letter Report**



# HANFORD ENVIRONMENTAL HEALTH FOUNDATION

July 30, 1991

CO 17148

Westinghouse Hanford Company  
MSIN: T1-30

Attn: A. R. Johnson

## AMBIENT NITROGEN DIOXIDE MONITORING REPORT, CY 1990, FINAL REPORT

This report will document the results of ambient nitrogen dioxide ( $\text{NO}_2$ ) monitoring performed by HEHF/Environmental Health Sciences in CY 1990. The sampling represents the final year of a program initiated in July 1978 to assist Westinghouse and its predecessors in assessing the environmental impact of oxides of nitrogen ( $\text{NO}_x$ ) emissions from the PUREX Fuels Reprocessing Plant located in the 200-E area.

Data was collected from the following sites in CY 1990: 100-B Area; Army Loop Road, southwest of the 200 Areas; and Army Barracks, slightly east of the 200-E Area. See attached map.

All sampling was performed manually by the EPA Designated Equivalent Method No. EQN-1277-028, "TGS-ANSA Method for the Determination of Nitrogen Dioxide in the Atmosphere." The sampling and analytical procedures were followed as written, without deviation or modification. Pumps were set to sequence on a 24-hour basis; thus, all sample results are midnight to midnight, 24-hour averages.

Results for the twelve-month period are summarized below, and the daily concentration data is available upon request from EHS. For averaging purposes, less than detectable daily concentrations were assumed to be equal to the 24-hour detection limit of  $<0.003$  ppm. Calculated yearly means incorporating these nondetectable daily concentrations are, therefore, also reported as less than values. As a measure of data variation, all annual averages include a  $\pm 2$  standard deviation term.

Site	No. 24-hr. Integrated Samples	Annual Arithmetic Mean (ppm $\text{NO}_2$ )	% Samples Less Than Detection Limit <sup>a</sup>	Maximum 24-hr Average (ppm $\text{NO}_2$ )
100-B	236	$<0.005 \pm 0.005$	32.6	0.021
200-W (Army Loop Road)	278	$<0.005 \pm 0.007$	29.1	0.034
Army Barracks	282	$<0.006 \pm 0.006$	7.8	0.018

<sup>a</sup>Detection Limit is  $0.003$  ppm  $\text{NO}_2$ .

A. R. Johnson, WHC

2

July 30, 1991

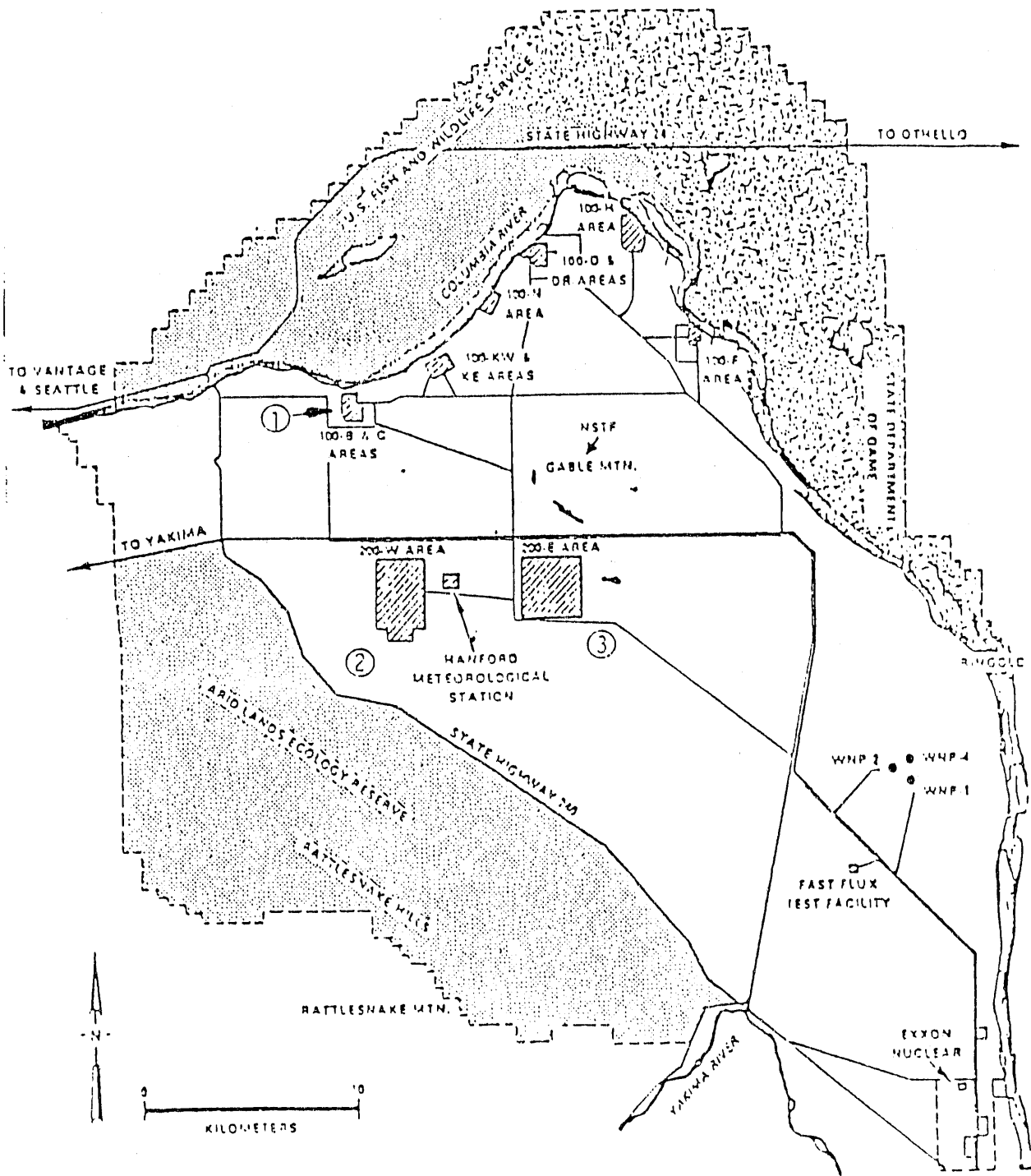
Annual average NO<sub>2</sub> concentrations at all sites remain well below the U.S. Environmental Protection Agency (40 CFR 50.11) and State of Washington (WAC 173-475-030) ambient air limit of 0.05 ppm nitrogen dioxide, annual arithmetic mean.

If you have any questions concerning this report, please contact Environmental Health Sciences.

  
K. J. Way  
Environmental Health Sciences

kl

cc: L. P. Diediker, T1-30  
R. K. Woodruff, K6-13



RCP9004-63A

SAMPLING SITES

1. 100-B Area
2. Army Loop Road
3. Army Barracks

## Dose Calculation Information

**Table D-1.** Distribution of Population in 80-km Radius of the 100-N Area by Population Grid Sector<sup>(a)</sup>

<u>Direction</u>	<u>Number of People</u>					<u>Totals</u>
	<u>0-16</u> <u>km</u>	<u>16-32</u> <u>km</u>	<u>32-48</u> <u>km</u>	<u>48-64</u> <u>km</u>	<u>64-80</u> <u>km</u>	
N	36	953	420	1,492	7,583	10,484
NNE	5	285	561	18,531	1,350	20,732
NE	0	624	1,013	2,691	259	4,587
ENE	0	620	5,884	1,129	429	8,062
E	0	294	625	2,742	605	4,266
ESE	0	306	1,493	596	247	2,642
SE	0	54	2,113	28,922	5,001	36,090
SSE	0	0	35,127	50,292	3,354	88,773
S	0	127	4,592	2,041	176	6,936
SSW	0	258	1,676	12,603	625	15,162
SW	0	547	4,946	16,747	469	22,709
WSW	0	680	1,699	8,297	15,274	25,950
W	18	395	936	5,149	75,686	82,184
WNW	54	573	377	490	1,598	3,092
NW	74	277	425	515	683	1,974
NNW	64	277	438	1,030	4,696	6,505
Totals	251	6,270	62,325	153,267	118,035	340,148

(a) Based on 1980 census data.

**Table D-2.** Distribution of Population in 80-km Radius of the 200 Areas' Hanford Meteorological Tower by Population Grid Sector<sup>a</sup>

Direction	Number of People					Totals
	0-16 km	16-32 km	32-48 km	48-64 km	64-80 km	
N	0	174	1,124	772	1,957	4,027
NNE	0	92	656	5,547	14,822	21,117
NE	0	262	5,930	2,963	596	9,751
ENE	0	235	773	2,366	435	3,809
E	0	340	1,329	1,659	588	3,916
ESE	0	283	1,374	230	652	2,539
SE	0	6,757	48,661	50,519	3,474	109,411
SSE	0	1,997	13,161	2,717	5,218	23,093
S	0	1,532	1,489	195	1,799	5,015
SSW	0	905	5,283	652	129	6,969
SW	0	1,190	19,786	2,182	459	23,617
WSW	5	1,840	5,063	15,088	4,573	26,569
W	32	648	949	6,874	78,635	87,138
WNW	73	444	802	833	2,833	4,985
NW	0	555	398	493	1,454	2,900
NNW	0	246	456	864	4,521	6,087
Totals	110	17,500	107,234	93,954	122,145	340,943

(a) Based on 1980 census data.



**Table D-3. Distribution of Population in 80-km Radius of the 300 Area by Population Grid Sector<sup>(a)</sup>**

<u>Direction</u>	<u>Number of People</u>					<u>Totals</u>
	<u>0-16 km</u>	<u>16-32 km</u>	<u>32-48 km</u>	<u>48-64 km</u>	<u>64-80 km</u>	
N	289	241	989	5,655	5,317	12,491
NNE	307	475	841	1,950	2,269	5,842
NE	18	966	2,583	562	205	4,334
ENE	307	465	349	470	238	1,829
E	291	114	137	174	687	1,403
ESE	338	288	863	594	17,891	19,974
SE	2,549	26,150	2,922	877	1,235	33,733
SSE	7,161	30,357	1,114	1,117	1,113	40,862
S	15,561	6,651	96	17,223	5,127	44,658
SSW	11,124	4,034	99	1,209	2,038	18,504
SW	10,066	3,931	706	182	181	15,066
WSW	4,429	1,810	5,531	8,988	621	21,379
W	294	984	2,226	16,878	16,293	36,675
WNW	0	0	692	1,543	1,679	3,914
NW	0	0	74	923	785	1,782
NNW	0	0	8	875	1,212	2,095
<u>Totals</u>	<u>52,734</u>	<u>76,466</u>	<u>19,230</u>	<u>59,220</u>	<u>56,891</u>	<u>264,541</u>

(a) Based on 1980 census data.

**Table D-4. Distribution of Population in 80-km Radius of the 400 Area by Population Grid Sector<sup>(a)</sup>**

Direction	Number of People					Totals
	0-16 km	16-32 km	32-48 km	48-64 km	64-80 km	
N	0	78	859	811	16,267	18,015
NNE	20	343	5,728	2,945	1,021	10,057
NE	114	377	760	1,033	217	2,501
ENE	211	1,041	2,644	492	451	4,839
E	229	600	183	169	183	1,364
ESE	229	442	544	292	1,060	2,567
SE	344	25,267	13,654	2,105	952	42,322
SSE	10,829	40,933	5,688	719	2,364	60,533
S	11,760	9,385	1,525	5,611	15,691	43,972
SSW	1,446	4,550	583	185	1,927	8,691
SW	179	1,538	5,234	535	239	7,725
WSW	0	1,206	7,748	14,956	481	24,391
W	0	190	3,339	6,089	17,171	26,789
WNW	0	0	932	1,221	3,176	5,329
NW	0	0	295	903	705	1,903
NNW	0	0	264	1,302	1,182	2,748
Totals	25,361	85,950	49,980	39,368	63,087	263,746

(a) Based on 1980 census data.

Table D-5. Annual Average Dispersion ( $X/Q'$ ) Around the 100-N Area During 1990 for an 89-Meter Release Height<sup>(a)</sup> ( $C_i/M^3$  per Ci/s)

Dir.	$(\bar{X}/Q')$									
	0.8 km	2.4 km	4.0 km	5.6 km	7.2 km	12 km	24 km	40 km	56 km	72 km
N	3.12E-08	4.82E-08	4.25E-08	3.48E-08	2.88E-08	1.83E-08	9.04E-09	5.18E-09	3.55E-09	2.67E-09
NNE	2.27E-08	3.14E-08	2.69E-08	2.19E-08	1.80E-08	1.14E-08	5.64E-09	3.24E-09	2.23E-09	1.68E-09
NE	2.42E-08	4.52E-08	4.05E-08	3.32E-08	2.74E-08	1.73E-08	8.55E-09	4.94E-09	3.41E-09	2.58E-09
ENE	3.41E-08	5.87E-08	5.20E-08	4.23E-08	3.47E-08	2.16E-08	1.05E-08	6.05E-09	4.17E-09	3.14E-09
E	5.50E-08	1.09E-07	9.97E-08	8.23E-08	6.83E-08	4.34E-08	2.18E-08	1.27E-08	8.89E-09	6.77E-09
ESE	4.71E-08	7.32E-08	6.57E-08	5.43E-08	4.53E-08	2.93E-08	1.49E-08	8.74E-09	6.11E-09	4.65E-09
SE	4.92E-08	5.82E-08	4.80E-08	3.82E-08	3.11E-08	1.93E-08	9.54E-09	5.55E-09	3.86E-09	2.93E-09
SSE	4.45E-08	5.42E-08	4.51E-08	3.58E-08	2.91E-08	1.79E-08	8.68E-09	4.95E-09	3.40E-09	2.56E-09
S	4.25E-08	7.74E-08	6.22E-08	4.79E-08	3.80E-08	2.24E-08	1.03E-08	5.67E-09	3.82E-09	2.83E-09
SSW	2.69E-08	5.43E-08	4.44E-08	3.47E-08	2.79E-08	1.69E-08	8.04E-09	4.53E-09	3.08E-09	2.30E-09
SW	3.97E-08	4.63E-08	3.78E-08	3.00E-08	2.44E-08	1.52E-08	7.42E-09	4.27E-09	2.94E-09	2.22E-09
WSW	2.83E-08	4.84E-08	4.29E-08	3.56E-08	2.99E-08	1.96E-08	1.01E-08	5.99E-09	4.18E-09	3.18E-09
S	4.78E-08	8.10E-08	7.38E-08	6.15E-08	5.16E-08	3.37E-08	1.73E-08	1.02E-08	7.12E-09	5.42E-09
WNW	6.28E-08	7.21E-08	6.02E-08	4.84E-08	3.97E-08	2.50E-08	1.24E-08	7.19E-09	4.97E-09	3.76E-09
W	4.31E-08	5.51E-08	4.61E-08	3.67E-08	2.98E-08	1.83E-08	8.76E-09	4.97E-09	3.40E-09	2.56E-09
NNW	4.04E-08	4.09E-08	3.34E-08	2.66E-08	2.17E-08	1.35E-08	6.52E-09	3.70E-09	2.52E-09	1.89E-09

(a) Calculated from meteorological data collected at the 100-N Area and the Hanford Meteorology Tower.

Table D-6. Annual Average Dispersion (X/Q') Around the 200 Areas During 1990 for an 89-Meter Release Height<sup>(a)</sup>

Dir.	$(\bar{X}/Q')$									
	0.8 km	2.4 km	4.0 km	5.6 km	7.2 km	12 km	24 km	40 km	56 km	72 km
N	2.07E-08	3.68E-08	3.30E-08	2.74E-08	2.30E-08	1.49E-08	7.64E-09	4.48E-09	3.12E-09	2.37E-09
NNE	1.37E-08	2.73E-08	2.47E-08	2.07E-08	1.75E-08	1.16E-08	6.03E-09	3.57E-09	2.50E-09	1.90E-09
NE	2.45E-08	3.81E-08	3.43E-08	2.83E-08	2.36E-08	1.51E-08	7.60E-09	4.42E-09	3.07E-09	2.32E-09
ENE	1.86E-08	4.20E-08	3.97E-08	3.39E-08	2.90E-08	1.97E-08	1.06E-08	6.47E-09	4.61E-09	3.55E-09
E	1.59E-08	5.21E-08	5.36E-08	4.70E-08	4.06E-08	2.76E-08	1.47E-08	8.81E-09	6.21E-09	4.76E-09
ESE	1.52E-08	4.37E-08	4.51E-08	3.94E-08	3.37E-08	2.25E-08	1.17E-08	6.87E-09	4.79E-09	3.64E-09
SE	4.54E-08	7.53E-08	6.81E-08	5.61E-08	4.64E-08	2.93E-08	1.44E-08	8.23E-09	5.65E-09	4.25E-09
SSE	4.12E-08	7.20E-08	6.15E-08	4.89E-08	3.95E-08	2.40E-08	1.12E-08	6.22E-09	4.19E-09	3.10E-09
S	6.80E-08	9.68E-08	7.63E-08	5.81E-08	4.57E-08	2.64E-08	1.17E-08	6.28E-09	4.15E-09	3.04E-09
SSW	5.01E-08	6.57E-08	4.96E-08	3.68E-08	2.84E-08	1.58E-08	6.66E-09	3.46E-09	2.24E-09	1.61E-09
SW	3.52E-08	4.97E-08	3.84E-08	2.89E-08	2.25E-08	1.27E-08	5.49E-09	2.89E-09	1.88E-09	1.36E-09
WSW	2.74E-08	4.39E-08	3.49E-08	2.66E-08	2.09E-08	1.21E-08	5.35E-09	2.86E-09	1.89E-09	1.38E-09
S	5.38E-08	6.07E-08	4.74E-08	3.62E-08	2.86E-08	1.66E-08	7.49E-09	4.08E-09	2.72E-09	2.01E-09
WNW	4.86E-08	4.75E-08	3.65E-08	2.76E-08	2.17E-08	1.25E-08	5.60E-09	3.03E-09	2.02E-09	1.48E-09
NW	3.64E-08	4.54E-08	3.57E-08	2.74E-08	2.17E-08	1.28E-08	5.90E-09	3.28E-09	2.22E-09	1.65E-09
NNW	1.04E-08	2.56E-08	2.41E-08	2.03E-08	1.70E-08	1.11E-08	5.76E-09	3.44E-09	2.43E-09	1.87E-09

(a) Calculated from meteorological data collected at the Hanford Meteorology Tower.

Table D-7. Annual Average Dispersion (X/Q') Around the 300 Areas During 1990 for an 10-Meter Release Height<sup>(a)</sup>

Dir.	(X/Q')									
	0.8 km	2.4 km	4.0 km	5.6 km	7.2 km	12 km	24 km	40 km	56 km	72 km
N	6.42E-06	1.02E-06	4.68E-07	2.85E-07	1.98E-07	9.60E-08	3.69E-08	1.85E-08	1.18E-08	8.48E-09
NNE	3.87E-06	6.12E-07	2.79E-07	1.69E-07	1.17E-07	5.61E-08	2.12E-08	1.05E-08	6.68E-09	4.76E-09
NE	3.66E-06	5.77E-07	2.62E-07	1.59E-07	1.10E-07	5.26E-08	1.95E-08	9.86E-09	6.25E-09	4.46E-09
ENE	3.01E-06	4.76E-07	2.17E-07	1.31E-07	9.09E-08	4.37E-08	1.66E-08	8.23E-09	5.23E-09	3.73E-09
E	3.39E-06	5.37E-07	2.45E-07	1.49E-07	1.03E-07	4.99E-08	1.90E-08	9.51E-09	6.06E-09	4.33E-09
ESE	2.93E-06	4.56E-07	2.15E-07	1.31E-07	9.14E-08	4.45E-08	1.72E-08	8.68E-09	5.57E-09	4.00E-09
SE	3.76E-06	5.95E-07	2.73E-07	1.66E-07	1.15E-07	5.58E-08	2.15E-08	1.08E-08	6.87E-09	4.93E-09
SSE	4.13E-06	6.54E-07	3.00E-07	1.83E-07	1.27E-07	6.15E-08	2.37E-08	1.19E-08	7.60E-09	5.45E-09
S	5.58E-06	8.87E-07	4.08E-07	2.50E-07	1.74E-07	8.48E-08	3.29E-08	1.66E-08	1.07E-08	7.67E-09
SSW	2.19E-06	3.45E-07	1.57E-07	9.47E-08	6.55E-08	3.14E-08	1.19E-08	5.93E-09	3.77E-09	2.69E-09
SW	1.25E-06	1.95E-07	8.77E-08	5.25E-08	3.60E-08	1.70E-08	6.30E-09	3.08E-09	1.94E-09	1.38E-09
WSW	1.19E-06	1.87E-07	8.48E-08	5.12E-08	3.54E-08	1.70E-08	6.45E-09	3.21E-09	2.05E-09	1.46E-09
S	3.30E-06	5.18E-07	2.34E-07	1.41E-07	9.75E-08	4.65E-08	1.75E-08	8.69E-09	5.52E-09	3.93E-09
WNW	5.14E-06	8.13E-07	3.73E-07	2.27E-07	1.58E-07	7.67E-08	2.96E-08	1.49E-08	9.53E-09	6.85E-09
NW	6.30E-06	9.99E-07	4.59E-07	2.80E-07	1.95E-07	9.51E-08	3.68E-08	1.85E-08	1.19E-08	8.54E-09
NNW	5.27E-06	8.36E-07	3.83E-07	2.33E-07	1.62E-07	7.86E-08	3.02E-08	1.51E-08	9.68E-09	6.94E-09

(a) Calculated from meteorological data collected at the 300 Area and the Hanford Meteorology Tower.

Table D-8. Annual Average Dispersion ( $X/Q'$ ) Around the 400 Areas During 1990 for an 10-Meter Release Height<sup>(a)</sup>

Dir.	$(\bar{X}/Q')$									
	0.8 km	2.4 km	4.0 km	5.6 km	7.2 km	12 km	24 km	40 km	56 km	72 km
N	7.06E-06	1.12E-06	5.10E-07	3.10E-07	2.15E-07	1.04E-07	3.97E-08	1.98E-08	1.27E-08	9.07E-09
NNE	5.72E-06	9.03E-07	4.12E-07	2.50E-07	1.73E-07	8.33E-08	3.17E-08	1.58E-08	1.01E-08	7.19E-09
NE	3.75E-06	5.92E-07	2.70E-07	1.64E-07	1.13E-07	5.45E-08	2.07E-08	1.03E-08	6.55E-09	4.68E-09
ENE	2.67E-06	4.23E-07	1.93E-07	1.17E-07	8.15E-08	3.94E-08	1.51E-08	7.53E-09	4.80E-09	3.44E-09
E	3.96E-06	6.27E-07	2.87E-07	1.74E-07	1.21E-07	5.82E-08	2.22E-08	1.11E-08	7.04E-09	5.03E-09
ESE	2.99E-06	4.74E-07	2.17E-07	1.32E-07	9.12E-08	4.40E-08	1.68E-08	8.35E-09	5.31E-09	3.80E-09
SE	5.05E-06	8.00E-07	3.67E-07	2.23E-07	1.55E-07	7.50E-08	2.88E-08	1.44E-08	9.20E-09	6.59E-09
SSE	3.97E-06	6.29E-07	2.89E-07	1.76E-07	1.22E-07	5.93E-08	2.29E-08	1.15E-08	7.35E-09	5.28E-09
S	3.76E-06	5.94E-07	2.72E-07	1.65E-07	1.15E-07	5.57E-08	2.14E-08	1.08E-08	6.89E-09	4.95E-09
SSW	2.75E-06	4.35E-07	1.99E-07	1.21E-07	8.37E-08	4.04E-08	1.54E-08	7.71E-09	4.91E-09	3.52E-09
SW	1.96E-06	3.08E-07	1.40E-07	8.46E-08	5.85E-08	2.80E-08	1.06E-08	5.29E-09	3.36E-09	2.40E-09
WSW	1.47E-06	2.31E-07	1.05E-07	6.32E-08	4.36E-08	2.08E-08	7.86E-09	3.90E-09	2.47E-09	1.76E-09
S	2.10E-06	3.30E-07	1.49E-07	8.98E-08	6.19E-08	2.95E-08	1.11E-08	5.48E-09	3.47E-09	2.47E-09
WNW	1.67E-06	2.61E-07	1.19E-07	7.19E-08	4.98E-08	2.39E-08	9.12E-09	4.55E-09	2.90E-09	2.08E-09
NW	2.56E-06	4.03E-07	1.83E-07	1.11E-07	7.68E-08	3.68E-08	1.40E-08	6.95E-09	4.42E-09	3.16E-09
NNW	4.68E-06	7.39E-07	3.39E-07	2.06E-07	1.44E-07	6.97E-08	2.68E-08	1.35E-08	8.64E-09	6.20E-09

(a) Calculated from meteorological data collected at the 4300 Area and the Hanford Meteorology Tower.

**Table D-9.** Documentation of 100-N Area Airborne Release Dose Calculation for 1990

Facility name:	100-N Area
Releases:	See Table 4.1, <u>Hanford Site Environmental Report for Calendar Year 1990</u>
Meteorological conditions:	1990 annual average, calculated from data collected at the 100-N Area and the Hanford Meteorology Station from January 1990 through December 1990, using the computer code HANCHI (see Table D-5)
$\bar{X}/Q'$ :	Maximally exposed individual, $7.6E-9$ at 30 km SE; 80-km population, $1.5E-3$ person-s/m <sup>3</sup>
Release height:	89-m effective stack height
Population distribution:	340,000 (see Table D-1)
Computer code:	GENII, Version 1.485, 12-3-90
Doses calculated:	Chronic, 1-year exposure, 50-year committed internal dose equivalent, and annual effective dose equivalent to individual and population
Pathways considered:	External exposure to plume and ground deposits Inhalation Ingestion of locally produced foods
Files addressed:	Radionuclide Library, Rev. 11-28-90 Food Transfer Library, Rev. 8-29-88 External Dose Factor Library, Rev. 5-9-88 Internal Dose Factor Library, Rev. 12-3-90

**Table D-10.** Documentation of 100-N Area Liquid Release Dose Calculation for 1990

Facility name:	100-N Area
Releases:	See Table 4.5, <u>Hanford Site Environmental Report for Calendar Year 1990</u>
Mean river flow:	137,000 cfs (3880 m <sup>3</sup> /s)
Shore-width factor:	0.2
Population distribution:	70,000 for drinking water pathway 125,000 for aquatic recreation 2000 for consumption of irrigated foodstuffs 15,000 kg/yr total harvest of Columbia River fish
Computer code:	GENII, Version 1.485, 12-3-90
Doses calculated:	Chronic, 1-year exposure, 50-year committed internal dose equivalent, and annual effective dose equivalent to individual and population
Pathway considered: sediments	External exposure to irrigated soil, to river water, and to shoreline Ingestion of aquatic foods and irrigated farm products
Files addressed:	Radionuclide Library, Rev. 11-28-90 Food Transfer Library, Rev. 8-29-88 External Dose Factor Library, Rev. 5-9-88 Internal Dose Factor Library, Rev. 12-3-90 Bioaccumulation Factor Library, Rev. 3-7-90



**Table D-11. Documentation of 200 Areas Airborne Release Dose Calculation for 1990**

Facility name:	200 Areas
Releases:	See Table 4.1, <u>Hanford Site Environmental Report for Calendar Year 1990</u>
Meteorological conditions:	1990 annual average, calculated from data collected at the Hanford Meteorology Station from January 1990 through December 1990, using the computer code HANCHI (see Table D-6)
$\bar{X}/Q'$ :	Maximally exposed individual, 1.1E-8 at 26 km ESE; 80-km population, 1.5E-3 person-s/m <sup>3</sup>
Release height:	89-m effective stack height
Population distribution:	341,000 (see Table D-2)
Computer code:	GENII, Version 1.485, 12-3-90
Doses calculated:	Chronic, 1-year exposure, 50-year committed internal dose equivalent, and annual effective (whole-body) dose equivalent to individual and population
Pathways considered:	External exposure to plume and ground deposits Inhalation Ingestion of locally produced foods
Files addressed:	Radionuclide Library, Rev. 11-28-90 Food Transfer Library, Rev. 8-29-88 External Dose Factor Library, Rev. 5-9-88 Internal Dose Factor Library, Rev. 12-3-90

**Table D-12.** Documentation of 300 Area Airborne Release Dose Calculation for 1990

Facility name:	300 Area
Releases:	See Table 4.1, <u>Hanford Site Environmental Report for Calendar Year 1990</u>
Meteorological conditions:	1990 annual average, calculated from data collected at the 300 Area and the Hanford Meteorology Station from January 1990 through December 1990, using the computer code HANCHI (see Table D-7)
$\bar{X}/Q'$ :	Maximally exposed individual, 8.5E-8 at 13 km N; 80-km population, 6.4E-3 person-s/m <sup>3</sup>
Release height:	10 m
Population distribution:	265,000 (see Table D-3)
Computer code:	GENII, Version 1.485, 12-3-90
Doses calculated:	Chronic, 1-year exposure, 50-year committed internal dose equivalent, and annual effective (whole-body) dose equivalent to individual and population
Pathways considered:	External exposure to plume and ground deposits Inhalation Ingestion of locally produced foods
Files addressed:	Radionuclide Library, Rev. 11-28-90 Food Transfer Library, Rev. 8-29-88 External Dose Factor Library, Rev. 5-9-88 Internal Dose Factor Library, Rev. 12-3-90

**Table D-13. Documentation of 400 Area Airborne Release Dose Calculation for 1990**

Facility name:	400 Area
Releases:	See Table 4.1, <u>Hanford Site Environmental Report for Calendar Year 1990</u>
Meteorological conditions:	1990 annual average, calculated from data collected at the 400 Area and the Hanford Meteorology Station from January 1990 through December 1990, using the computer code HANCHI (see Table D-8)
$\bar{X}/Q'$ :	Maximally exposed individual, 6.1E-8 at 11 km NE; 80-km population, 4.4E-3 person-s/m <sup>3</sup>
Release height:	10 m
Population distribution:	264,000 (see Table D-4)
Computer code:	GENII, Version 1.485, 12-3-90
Doses calculated:	Chronic, 1-year exposure, 50-year committed internal dose equivalent, and annual effective (whole-body) dose equivalent to individual and population
Pathways considered:	External exposure to plume and ground deposits Inhalation Ingestion of locally produced foods
Files addressed:	Radionuclide Library, Rev. 11-28-90 Food Transfer Library, Rev. 8-29-88 External Dose Factor Library, Rev. 5-9-88 Internal Dose Factor Library, Rev. 12-3-90

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