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Gentlemen

Enclosed please find two copies of the Draft Technical Memorandum No 1, Industrial Area Surface Water and Sediment, for your review In order to maintain the current schedule, we are asking that comments are received on this document no later than November 16, 1994

If you have additional comments on this matter, please contact Regina Sarter at 966-7252

Sincerely,

Steven W Slaten
IAG Project Coordinator
Environmental Restoration

Enclosure

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DRAFT

TECHNICAL MEMORANDUM NO. 1

INDUSTRIAL AREA SURFACE WATER AND SEDIMENT FIELD SAMPLING PLAN

ADDENDUM TO PHASE I RFI/RI WORK PLAN

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE
400/800 AREA
(OPERABLE UNIT NO. 12)

U S DEPARTMENT OF ENERGY
Rocky Flats Environmental Technology Site
Golden, Colorado

ENVIRONMENTAL RESTORATION PROGRAM

October 1994

TABLE OF CONTENTS

SECTION	PAGE
1 0 OBJECTIVES	1-1
2 0 PREVIOUS STUDIES AND INVESTIGATIONS	2-1
2 1 SITE-WIDE SURFACE-WATER AND SEDIMENT GEOCHEMICAL CHARACTERIZATION PROGRAM	2-3
2 1 1 1989 Surface-Water and Sediment Characterization Report	2-3
2 1 2 1990 Surface-Water and Sediment Characterization Report	2-5
2 1 3 1989 and 1990 Conclusions	2-8
2 2 RFEDS SEDIMENT SUMMARY	2-9
3 0 EXISTING MONITORING AND INVESTIGATION PROGRAMS	3-1
3 1 SURFACE-WATER AND SEDIMENT MONITORING PROGRAM	3-1
3 2 EVENT-RELATED MONITORING PROGRAMS	3-4
3 3 750 PAD, 750 CULVERT, AND 904 PAD MONITORING	3-9
3 4 OU2 SURFACE-WATER AND SEDIMENT SAMPLING	3-11
3 5 OU13 SEDIMENT SAMPLING	3-12
3 6 OU12 SEDIMENT SAMPLING	3-13
3 7 BUILDING SUMPS AND FOOTING DRAINS	3-14
3 7 1 Locations	3-14
3 7 2 Sampling and Data Analysis Plan	3-18
3 8 SOILS MONITORING PROGRAM	3-18
4 0 FIELD SAMPLING RATIONALE	4-1
4 1 DRAINAGE BASIN OVERVIEW	4-1
4 1 1 Drainage Basin 1	4-2
4 1 2 Drainage Basin 2	4-2
4 1 3 Drainage Basin 3	4-5
4 1 4 Drainage Basin 4	4-5
4 1 5 Drainage Basin 5	4-5
4 1 6 Drainage Basin 6	4-9
4 1 7 Drainage Basin 7	4-9

TABLE OF CONTENTS (continued)

SECTION	PAGE
4 2 LOCATION SCREENING CRITERIA	4-9
4 3 TECHNICAL SAMPLING APPROACH	4-14
4 4 ANALYTICAL RATIONALE	4-15
5 0 SAMPLE COLLECTION AND ANALYSIS	5-1
5 1 SAMPLING LOCATION AND FREQUENCY	5-1
5 2 SAMPLING EQUIPMENT AND PROCEDURES	5-6
5 2 1 Surface-Water Sampling	5-7
5 2 2 Sediment Sampling	5-8
5 3 SAMPLE ANALYSES	5-8
5 3 1 Sample Designation	5-9
5 3 2 Analytical Requirements	5-9
5 3 3 Sample Containers and Preservation	5-17
5 3 4 Sample Handling and Documentation	5-17
5 3 5 Data Validation	5-19
6 0 FIELD SAMPLING PLAN SCHEDULE	6-1
7 0 DATA MANAGEMENT AND REPORTING	7-1
8 0 FIELD QUALITY CONTROL PROCEDURES	8-1
9 0 REFERENCES	9-1

List of Figures

Figure 2-1 Site-wide Characterization Program, Surface-Water and Sediment Sampling Locations	2-4
Figure 6-1 Draft Sampling Schedule	6-2

TABLE OF CONTENTS (Continued)

List of Tables

Table 2-1	1989 Surface-Water and Sediment Geochemical Characterization Report Results	2-6
Table 2-2	Primary Organic and Radionuclide Constituents of Concern in the Industrial Area Identified in the 1989 and 1990 Surface-Water and Sediment Characterization Reports	2-10
Table 2-3	Description of Sediment Sampling Locations Near the Industrial Area	2-12
Table 2-4	Summary of Analytes Exceeding Background Upper Tolerance Limits in Sediment Samples	2-14
Table 3-1	Hydrograph Integrated Stormwater Quality Data from November 1991 to August 1992	3-3
Table 3-2	RFETS Stormwater Quality Data Summary, Water Years 1991-1993	3-7
Table 3-3	Summary of Recommended Foundation Drain Sampling	3-19
Table 4-1	Drainage Basin 1 Characteristics	4-3
Table 4-2	Drainage Basin 2 Characteristics	4-4
Table 4-3	Drainage Basin 3 Characteristics	4-6
Table 4-4	Drainage Basin 4 Characteristics	4-7
Table 4-5	Drainage Basin 5 Characteristics	4-8
Table 4-6	Drainage Basin 6 Characteristics	4-10
Table 4-7	Drainage Basin 7 Characteristics	4-11
Table 4-8	Summary of Drainage Basin Contaminants of Concern in the Industrial Area	4-17
Table 5-1	Sample Types and Locations	5-2

TABLE OF CONTENTS (Continued)

Table 5-2 Analytical Parameters and Contract-Required Detection Limits (CRDL) for Surface-Water and Sediment Samples 5-10

Table 5-3 Sample Containers, Preservation, and Holding Times for Sediment and Surface Water 5-18

Table 8-1 Field Quality Control Sample Frequency 8-2

List of Plates

Plate 1 Operable Unit and Individual Hazardous Substances Sites Location Map

Plate 2 Proposed Surface-Water and Sediment Sample Location

Plate 3 Rocky Flats Environmental Technology Site Structural Storm-Sewer Control Inventory

List of Appendices

Appendix A Summary Statistics for Sediment Data-Detects Only

Appendix B Summary Statistics for Surface-Water Data-Detects Only

TABLE OF CONTENTS (Continued)

LIST OF ACRONYMS AND ABBREVIATIONS

AA	atomic absorption
AIP	Agreement in Principle
ASTM	American Society for Testing and Materials
CDPHE	Colorado Department of Public Health and Environment
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CLP	Contract Laboratory Program
CMP	corrugated metal pipe
CRDL	contract-required detection limits
CRQL	contract-required quantitation limits
CR-III	chromium III
CR-VI	hexavalent chromium
DOE	U S Department of Energy
DQOs	data quality objectives
EG&G	EG&G Rocky Flats, Inc
EPA	U S Environmental Protection Agency
FSP	Field Sampling Plan
GRRASP	General Radiochemistry and Routine Analytical Services Protocol
HHBRA	Human Health Baseline Risk Assessment
IA	Industrial Area
IAG	Interagency Agreement
IDL	instrument detection limits
IHSSs	Individual Hazardous Substance Sites
IM/IRA	Interim Measure/Interim Remedial Action
IOU	Integrated Operable Unit
ITS	Interceptor Trench System
L	liter
MDL	method detection limit
mg/L	milligrams per liter
mL	milliliter
NBS	National Bureau of Standards
NPDES	National Pollutant Discharge Elimination System
OU	Operable Unit
oz	ounce
PCB	Polychlorinated Biphenyl
PCE	tetrachloroethylene
pCi/L	picocuries per liter
PRG	preliminary remediation goals
QC	quality control
RADS	radionuclide isotopes

TABLE OF CONTENTS (Continued)

RCRA	Resource Conservation and Recovery Act
RDL	required detection limits
RFEDS	Rocky Flats Environmental Database System
RFETS	Rocky Flats Environmental Technology Site
RFI	RCRA Facility Investigation
RI	Remedial Investigation
SID	South Interceptor Ditch
SOP	standard operating procedure
SVOC	semivolatile organic compounds
TAL	target analyte list
TCE	trichloroethylene
TCL	target compound list
TDS	total dissolved solids
TOC	total organic compound
TSS	total suspended solids
UTLs	upper tolerance limits
VOCs	volatile organic compounds
WQCC	Water Quality Control Commission
WQCC SW	Water Quality Control Commission Statewide
YSI	Yellow Springs Instrument
μg/L	micrograms per liter
μmhos/cm	micromhos per centimeter
°C	degrees Celsius

Approved By

Director	/ / (Date)
Project Manager	/ / (Date)
Quality Assurance Program Manager	/ / (Date)

1.0 OBJECTIVES

The objective of this Technical Memorandum is to present a Field Sampling Plan (FSP) for the collection of surface-water and sediment samples in the Industrial Area of Rocky Flats Environmental Technology Site (RFETS) Surface water and sediment sampling is to be completed as part of the Integrated Operable Unit (IOU) Phase I, Stage I Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI) and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Remedial Investigation (RI) This Technical Memorandum is intended to serve as an addendum to the *RFI/RI Work Plan*, 400/800 Area, Operable Unit (OU) 12 (EG&G 1992a) and will apply to OUs 8, 9, 10, 12, 13, and 14 The objectives of the OU12 RFI/RI field investigation are to characterize the nature and extent of contamination, support health risk assessment and environmental evaluation, and support corrective measures studies, feasibility studies, and treatability studies The specific objectives of this FSP are not intended to meet all of the objectives of the OU12 RFI/RI but to provide a rationale for selection of sampling locations, analytical parameters, and field procedures and equipment required to conduct sampling activities and to meet the applicable data quality objectives (DQOs) for the OUs and the Interagency Agreement (IAG) (U S Department of Energy [DOE], et al. 1991).

The DQOs applicable to this FSP are the following

- Establish the presence or absence of contamination
- Collect data that will support human health baseline risk assessments (HHBRAs)

To meet the objective of establishing the presence or absence of contamination, surface-water samples will be collected during the extremes of high- and low-flow conditions, and sediment samples will be collected during high-flow conditions This approach will require two sampling events The first sampling event will be performed in the spring to collect sediment and surface-water samples. The second sampling event will be performed in the late summer to collect surface-water samples The two sampling events for surface water will generate data to determine the effects of high- and low-flow conditions or to identify possible source areas where flow is intermittent.

An important DQO for the IOUs, as described in each OU work plan, is to collect data that will support a HHBRA Data collected as part of previous investigations and monitoring programs were examined to determine the purpose and objectives of those programs and investigations Data from programs and investigations that were not risk based, but primarily associated with regulatory compliance, were not considered usable for the purposes of this FSP Different program DQOs, chemicals of concern, and analytical detection limits preclude using the data to support human-health risk assessment. The data from programs and investigations that do not meet the DQOs of this FSP are considered "data gaps" and will be subject to investigation and evaluation under this FSP

As previously mentioned, this FSP is being developed under the Stage I, Phase I RFI/RI for the IOU Media sampling is part of a comprehensive, multistage program of site characterization, feasibility studies, and remedial/corrective actions currently in progress at RFETS These activities are being conducted pursuant to an IAG among the DOE, the U.S Environmental Protection Agency (EPA), and the State of Colorado Department of Health

(now known as the Colorado Department of Public Health and Environment [CDPHE]) dated January 22, 1991 (DOE et al 1991). The IAG program developed by these agencies addresses both RCRA and CERCLA requirements

Approved By

_____ ___/___/___
Director (Date)

_____ ___/___/___
Project Manager (Date)

_____ ___/___/___
Quality Assurance Program Manager (Date)

2.0 PREVIOUS STUDIES AND INVESTIGATIONS

The objective of this section is to review historical surface-water and sediment data collected at RFETS The purpose of this review was to identify existing surface-water and sediment data collected within or near the Industrial Area These data will assist in scoping the current sampling program by identifying potential areas of concern and identifying relevant high-quality data that can be used to support subsequent decision making in the IOU in lieu of collecting additional samples

Surface-water and sediment data for the Industrial Area are relatively limited because surface-water and sediment monitoring at RFETS has historically focused on and continues to focus on compliance with regulatory requirements and IAG Historically, the majority of sampling has occurred at the drainage ponds, which have been governed by a National Pollutant Discharge Elimination System (NPDES) permit (1974 to date) Currently, most surface-water and sediment sampling for investigations occurs in individual OUs. RFETS has conducted several nonregulatory-driven programs, which were designed to characterize background and site-wide surface-water (including stormwater) and sediment quality and to research specific aspects of contaminant transport Data applicable to meeting the objectives of this FSP were extracted from the Rocky Flats Environmental Database System (RFEDS).

For the purpose of this data review, more than 30 major surface-water documents were reviewed and evaluated for their pertinence to this FSP In general, documents reviewed included background geochemical characterization reports, baseflow and stormwater characterization reports, innovative and/or experimental monitoring programs, OU-related monitoring programs, and regulatory monitoring programs After review of these documents and programs, several were selected for more intensive scrutiny because of their data quality and proximity of sampling points to the Industrial Area. In addition to reviewing documents, interviews were conducted with a number of EG&G Rocky Flats, Inc (EG&G) staff from both the Surface Water and Environmental Restoration Divisions The data obtained from these sources are discussed in the following sections.

A number of ongoing investigations will be addressed in Section 3 0, Existing Monitoring and Investigation Programs Included among these are the following

- OU2 Interim Measure/Interim Remedial Action (IM/IRA) Project,
- OU8 Footing Drains Survey;
- Event-Related Surface-Water Monitoring Program;
- NPDES Stormwater Permit Application Monitoring, and
- 750 Pad, 904 Pad, and 750 Culvert Monitoring Program

These investigations have produced data that were reviewed to technically evaluate the sampling locations

2.1 SITE-WIDE SURFACE-WATER AND SEDIMENT GEOCHEMICAL CHARACTERIZATION PROGRAM

Monitoring at approximately 116 surface-water locations and 47 sediment locations was initiated in 1989 at RFETS as part of a site-wide characterization program that also supported specific regulatory requirements of the IAG The locations of the IAG monitoring points are indicated in Figure 2-1. Beginning in 1989, the site-wide characterization program sampled 73 surface-water monitoring locations on a monthly basis and 25 sediment locations on a biannual basis (EG&G 1992b) By 1992, the program had evolved into sampling 82 surface-water stations and 25 sediment stations on a quarterly basis (EG&G 1992c) Samples were analyzed for metals, radionuclides, volatile organic compounds (VOCs), oil and grease, and water-quality parameters Of the 25 sediment sampling locations included in the program, only 15 are in the Industrial Area or immediately downstream of the Industrial Area The site-wide characterization program for surface water and sediment was essentially eliminated in 1992 and was replaced with sediment or surface-water monitoring in response to specific regulatory needs

Major conclusions of each year's findings and application of findings to the Industrial Area are provided below. Because the reports did not focus on sediment quality, sediment results were retrieved from RFEDS and are discussed separately in Section 2.2.

2.1.1 1989 Surface-Water and Sediment Characterization Report

During the 1989 characterization program, 73 surface-water locations and 25 sediment locations were sampled Of these, 25 surface-water locations are of particular relevance to the Industrial Area 903 Pad Area (SW050, SW053, SW055, SW058, SW065, and SW077), the Solar Ponds Area (SW084 to SW090, SW092 to SW095, SW105, and SW106), and

Upper South Walnut Creek (SW022, SW023, SW056, SW060, SW061/SED011, and SW101) (EG&G 1992b)

Analytical data collected during this investigation in the vicinity of the Industrial Area are presented in Table 2-1 Several of the analytes exceeded stream standards Most of the radionuclide values exceeded stream standards at many locations, however, data validators rejected much of the radionuclide data, so these data are of no use (EG&G 1992b).

2.1.2 1990 Surface-Water and Sediment Characterization Report

The major emphasis of the 1990 characterization program was the identification of trends and processes affecting the nature and extent of contaminants in surface-water and sediment. Surface-water data used in the report were retrieved from RFEDS for 98 surface-water locations and approximately 25 sediment locations (EG&G 1992d)

The only organic constituents examined in this report were trichloroethylene (TCE), carbon tetrachloride, and toluene These constituents were selected because they were widely used in past operations at the former Rocky Flats Plant, now known as RFETS. For example, toluene was investigated because it was believed to be a major component of soil binders sprayed to inhibit soil erosion and transport (EG&G 1992d)

Organic contaminants were found in selected bottom sediment samples, but the number of sediment samples acquired in 1990 were too few to be statistically significant Box plots of TCE and carbon tetrachloride showed that they were generally present in surface-water in very low concentrations The maximum concentrations of TCE and carbon tetrachloride for 1990 were in the OU2 area (SW050, SW055, SW056, SW059, SW060, SW061, and

SW064) located within the Industrial Area boundaries or along the southeastern boundary of the Industrial Area plateau The sample with the maximum TCE concentration of 200 milligrams per liter (mg/L) was observed at SW059, which is located in the Mound Area. Overall, organic compound contamination in RFETS surface waters appeared to be limited to seeps For the Industrial Area, these contaminated seeps are confined to the 903 Pad and Lip Area (SW050, SW055, and SW064) and the Mound Area (SW056, SW059, SW060, and SW061) of OU2 (EG&G 1992d)

Radionuclide characterization involved evaluating activities of gross alpha, gross beta, uranium-235,-236, plutonium-239,-240, and americium-241 The Solar Ponds Area surface-water samples (SW087 to SW090, and SW105) exhibited higher gross alpha and gross beta activity than the other RFETS surface waters The maximum gross alpha activity of 1,750 picocuries per liter (pCi/L) was located at SW090 in the Solar Ponds Area In general, the samples taken in the Solar Ponds Area were from sumps and seeps draining the colluvium near the Solar Ponds The Solar Ponds Area also showed elevated uranium-235, -236 activities Radionuclide activities were low in samples collected from the South Walnut Creek drainage at locations SW092 and SW093 (900 and 1,600 feet, respectively, downgradient from the Solar Ponds) Radiochemical data were missing at many locations; thus, only the Solar Ponds were discussed in the 1990 report (EG&G 1992d).

2.1.3 1989 and 1990 Conclusions

Based on the data collected and evaluated in the 1989 and 1990 Surface Water and Sediment Geochemical Characterization Reports (EG&G 1992b,d), areas of surface-water contamination within the Industrial Area include the Solar Ponds Area (OU4), the 903 Pad Area (OU2), and Upper South Walnut Creek near the northeastern boundary of the Industrial Area (Mound Area, OU2) In the Solar Ponds Area, constituents elevated above 99 percent background upper tolerance limits (UTLs) included specific conductivity, pH, chloride,

sulfate, nitrite/nitrate, various metals, a variety of radionuclides, VOCs, semivolatile organic compounds (SVOCs), and one polychlorinated biphenyl (PCB) detection. In the 903 Pad Area, radionuclides, VOCs, and a few metals occurred above background In the Upper South Walnut Creek area, metals, plutonium, and VOC concentrations were elevated. Radionuclides and organic constituents of concern in these areas are shown in Table 2-2. In most cases, the highest levels of contamination were found in seeps and sumps.

The Surface Water and Sediment Geochemical Reports had limited data for the western and south-central portion of the Industrial Area In addition, efforts to backtrack water quality in the upper South Interceptor Ditch (SID) to sources in the western Industrial Area were not successful because of limited data According to the 1989 report (EG&G 1992b), it is possible that Individual Hazardous Substance Sites (IHSSs) in the western Industrial Area may contribute to elevated concentrations of sulfate, radionuclides, and some metals in the upper SID The 1990 report (EG&G 1992d) noted gross alpha; gross beta; plutonium-239, -240, uranium, nitrite/nitrate, and total suspended solids (TSS) elevated above background but was focused on the old landfill, the 881 Hillside Area, and the americium zone outside the Industrial Area

Neither the 1989 nor the 1990 report discussed results of sediment sampling near the boundary of the Industrial Area The 1990 report stated that sediment data collected during 1990 were insufficient to conduct statistical analyses Consequently, the report contained no conclusions or data for sediments

2.2 RFEDS SEDIMENT SUMMARY

Historical analytical data were extracted from RFEDS to characterize and assess the distribution of contamination previously detected and to identify data gaps in the current

TABLE 2-2

OU12 Field Sampling Plan
Primary Organic and Radionuclide Constituents of Concern in the Industrial Area Identified in the 1989 and 1990 Surface-Water and Sediment Geochemical Reports

Constituents of Concern	Solar Ponds	903 Pad	Upper South Walnut Creek (Mound Area)
ORGANICS			
Acetone	X		X
Bis [2-Ethylhexyl]-Phthalate	X		
Carbon Tetrachloride	XX	XX	XX
Chloroform	X	X	X
1,2-Dichloroethylene	X	XX	
Methylene Chloride	X		X
Tetrachlorethene		X	XX
Trichloroethylene		XX	XX
Polychlorinated Biphenyls (Aroclor-1254)	X		
RADIONUCLIDES			
Americium-241	XX	XX	
Gross Alpha	XX	XX	XX
Gross Beta	XX	XX	XX
Plutonium-239	XX	XX	
Tritium	XX		
Uranium-233,234	XX		
Uranium-235, 236	XX		
Uranium-238	XX		
Total Uranium	XX		

Notes X = contaminant detected at individual monitoring location, but not widespread
XX = widespread contaminant

monitoring network Surface-water and sediment data were retrieved for 1991 through 1993, which represent the most recent data that are fully validated During this period, data were collected at 48 surface-water and 16 sediment sampling locations in and downgradient from the Industrial Area A table presenting the detected analytes for these sampling locations is included as Appendix A Descriptions of the sampling stations are provided in Table 2-3

A variety of organic compounds were detected at each location in addition to metals and radionuclides in excess of the background UTLs (99/99 percent) for sediments. Summaries of detected compounds by sediment sampling station are contained in Table 2-4. For metals, radionuclides, and inorganics at each sample station, the 85th percentile concentration for the sample population was calculated and compared to background UTLs (99/99 percent). For organics, the presence of VOCs, SVOCs, pesticides, and PCBs was noted. Table 2-4 is a summary of these comparisons The northern portion of the Industrial Area had more exceedances for toxic metals, radionuclides, and nitrate/nitrite than did the southern portion of the Industrial Area (SID). Organic compounds were widespread at all sediment sampling locations Zinc was the metal most commonly exceeding UTLs in each area

TABLE 2-3
OU12 Field Sampling Plan
Description of Sediment Sampling Locations
Near the Industrial Area
September 1991

Location	Sediment Station[1]	Description
Northern portion of Industrial Area (Tributary to North Walnut Creek)	SED010 (SW018)	Stream ponded with water Located west of Building 771, west of road Width 3 to 4 feet, depth 1 inch, length 6 inches Discharge unmeasureable Also has cut banks
	SED120 (SW120)	A ditch that is located north of Solar Evaporation Ponds, south of the perimeter road, 30 feet below the Interceptor Trench System Flows into 1-foot concrete pipe Ditch parallels road and is usually dry
	SED124 (SW124)	Located east of Building 771 just upstream from SED120 Ditch fed by 3 culverts Width 2 to 4 feet, depth 0 5 to 3 inches Slow velocity with unmeasurable discharge
North Walnut Creek	SED009 (SW017)	Located to the north of the Solar Evaporation Ponds and about 110 feet downstream of SW093 in North Walnut Creek Width 1 to 4 feet, depth 1 to 4 inches Slow velocity with unmeasurable discharge
	SED117 (SW117)	Located north and just a little west of Building 371 at northeast perimeter of Industrial Area Ditch with ponded water Width 2 to 5 feet, depth 0 5 to 2 5 inches Water is stagnant and discharge is unmeasurable
	SED118 (SW118)	Located northwest of Building 771, just downstream of SED117 Width 6 inches to 3 feet, depth 1 to 2 inches Cloudy, stagnant water and very low flow
South Walnut Creek in Industrial Area	SED012 (SW023)	Located east of Building 995 just upstream of SED12 at influent to Pond B-1 headgates Stream has clear water with a slow velocity.
	SED011 (SW061)	Located southwest of Building 988 Stream width 3 to 4 feet, depth 2 to 4 inches Clear water with slow velocity and less than 0 01 cubic feet per second discharge

TABLE 2-3 (continued)
Description of Sediment Sampling Locations
Near the Industrial Area
September 1991

Location	Sediment Station[1]	Description
South Interceptor Ditch	SED028 (SW030)	Located southeast of Building 881 in the South Interceptor Ditch Ditch with no water but bed is damp Site is frequently dry
	SED037 (SW035)	Located south of 850 Parking Lot Ponded water in South Interceptor Ditch Width 10 feet, depth 8 inches Cloudy water with a stagnant velocity
	SED029 (SW054)	Located west of 881 Hillside Ditch with a width of 15 to 20 feet and depth of 4 to 6 inches Clear stagnant water with no discharge
	SED039 (SW070)	Located east (upstream) of SED028 A ditch with ponded water that has a width of 16 to 20 feet, depth up to 4 feet, and a length of 40 feet
	SED126 (SW126)	Located southwest of Building 881 This narrow channel has been highly eroded The source of water may be upgradient seep Site usually dry
881 Hillside (OU1)	SED038 (SW057)	Located to the east of Building 881 and about 60 feet north of road on hillside Site is a depression on hillside and is fed by seep Site is dry except for winter
	SED125 (SW125)	Located east of Building 881 Site is adjacent to road and is usually dry Body of water created by influent from 12-inch culvert

[1] Number in parenthesis represents the surface-water stations that correspond to the sediment stations

Table 2-4
OU12 Field Sampling Plan
Summary of Analytes Exceeding Background Upper Tolerance Limits in Sediment Samples

	North Walnut Creek			South Walnut Creek	South Interceptor Ditch					881 Hillside		Northern portion of IA	
	SED009	SED117	SED118	SED011	SED028	SED029	SED037	SED039	SED126	SED038	SED125	SED120	SED124
Metals													
Barium							X						
Cadmium													X
Calcium				X	X	X		X					
Chromium													X
Copper								X					X
Magnesium								X					
Nickel							X						
Silicon			X		X				X				
Sodium								X				X	
Zinc	X	X		X			X	X			X		X
Radionuclides													
Gross Alpha				X				X					
Gross Beta											X	X	
Plutonium-239, -240								X					
Radium-226													X
Strontium-89, -90						X						X	
Tritium													X
Inorganics													
Nitrate/Nitrite												X	
VOCs	X	X	X	X	X	X	X	X	X	X	X	X	X
SVOCs	X	X	X	X	X	X	X	X	X	X	X	X	X
PCBs	X			X		X	X		X	X	X	X	X
Pesticides		X	X	X	X	X	X	X			X		

Note Background UTL = 99/99 percent IA = Industrial Area VOC = volatile organic compound SVOC = semivolatile organic compound
PCB = polychlorinated biphenyl X = 85th percentile > UTL

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Approved By

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Director (Date)

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Project Manager (Date)

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Quality Assurance Program Manager (Date)

3.0 EXISTING MONITORING AND INVESTIGATION PROGRAMS

As discussed in Section 2 0, available data sources were reviewed to compile information to support the proposed surface-water and sediment sampling program The following sections describe existing programs that currently monitor or previously monitored surface-water and sediments at RFETS

3.1 SURFACE-WATER AND SEDIMENT MONITORING PROGRAM

The RFETS surface-water and sediment monitoring programs consist of compliance, operational, and characterization monitoring programs The EG&G Surface Water Division is working toward development of a permanent, automated, fixed-station monitoring network to collect information for regulatory compliance and overall RFETS surface-water management During 1989 and 1990, surface-water and sediment monitoring programs were expanded to respond to data-collection needs for CERCLA, RCRA, DOE Order, and Best Management Practice requirements Currently, compliance monitoring is conducted in response to NPDES, Agreement in Principle (AIP), and DOE operational monitoring Building-sump and foundation-drain sampling programs are also ongoing (EG&G 1993a)

Analytical results are available for previous surface-water and sediment samples collected as part of the compliance and operational monitoring programs Because of the volume of

surface-water and sediment results available, selected data are summarized in Appendices A and B

Stormwater NPDES Permit Application Monitoring. The Stormwater NPDES Permit Application Monitoring Program for RFETS was conducted by EG&G Rocky Flats, Inc. in 1992 The goal of the program was to characterize surface-water quality during runoff or high-flow events (EG&G 1993b). The program included collection and analysis of stormwater samples from six stations that capture the majority of runoff (including footing drain discharges) from the Industrial Area. Sampling locations included in the program were SW022, SW023, SW027, SW093, SW118, and SW998 (Figure 2-1) A total of 116 surface-water samples and 19 bulk-precipitation samples were collected and analyzed during a 15-month period (October 1991 through December 1992) containing 32 storm events Chemical analyses were performed for selected trace metals, anions, and nutrient species.

The results of this study are presented in the *Stormwater NPDES Permit - Application Monitoring Program, Rocky Flats Plant Site* (EG&G 1993b) Table 3-1 summarizes the hydrograph-integrated stormwater quality data to provide an integrated water quality characterization for multiple storm events during November 1991 through August 1992 Data in this table include maximum and average concentrations for each analyte at different locations If an analyte was not detected in a sample, one-half the detection limit was used to calculate the average. The metals reported are total recoverable metal concentrations.

Metals having the highest concentrations in the storm-runoff samples were consistently aluminum and iron. Anion and nutrient species concentrations at all sites were determined to be at acceptable levels for storm runoff. Only one storm event was successfully sampled

for organics because of the timing of the storm events and the standard sampling methods that necessitate manual "grab" samples These data were not included in the report, although they were included in the permit application Organics were not detected at detection limits greater than 50 mg/L (DOE 1992a)

A review of Table 3-1 does not indicate large differences between the quality of water from sampling areas where all or a majority of the drainage is from the Industrial Area (SW022, SW023, and SW093) compared with sampling areas where only a portion of the drainage is from the Industrial Area (SW027, SW118, and SW098) For metals known to be processed at RFETS (e g , beryllium and, to a lesser extent, cadmium), mean concentrations at the station upgradient from the Industrial Area (SW098) were slightly lower than stations receiving runoff from the Industrial Area

3.2 EVENT-RELATED MONITORING PROGRAMS

The event-related surface-water monitoring program is described in the *Event-Related Surface-Water Monitoring Report* (EG&G 1993c) The purpose of this program is to present available data for the RFETS gaging-station network This network serves as the long-term, fixed-station, surface-water monitoring network for the site The network will be used to support Clean Water Act compliance and monitor for RCRA/CERCLA objectives The report includes the following

- annual hydrographs of mean daily discharge for 12 RFETS gaging stations,
- total radionuclide activity and total mean concentration and loading data for selected storm events,
- suspended sediment concentration data,

- annual RFETS precipitation hydrographs,
- interpretation of metal and radionuclide loading in drainages, and
- information about the history and development of the Event-Related Surface-Water Monitoring Program.

The key conclusions listed in the *Event-Related Surface-Water Monitoring Report* are listed in the following paragraphs (EG&G 1993c)

1 Total metal and radionuclide loads in Walnut Creek appeared to be higher than overall constituent loads in other RFETS drainages because of runoff from impervious areas within the Industrial Area Because of limited data, this conclusion was made without statistical verification

2 Plutonium-239,-240 activity increased in unfiltered samples with increasing aluminum and iron concentrations in the Walnut Creek drainage, indicating that the plutonium was associated with iron-coated or iron-containing aluminosilicates in suspended sediment

3 Uranium-238 activity and major cation concentrations decreased with increasing stream discharge at station GS13 on North Walnut Creek. This was interpreted as indicating dilution of these naturally occurring constituents Trace metal concentrations increased with increasing stream discharge at GS13. This conclusion indicated the flushing of metals from impervious portions of the Industrial Area or from wetland areas that had attenuated the metals

4 Americium-241 activity decreased with increasing stream discharge at station GS10 in South Walnut Creek, indicating dilution of dissolved or suspended americium-241.

5. Pesticides and SVOCs were monitored during two storm events No compounds were detected at detection limits ranging from 10 to 50 mg/L

Of particular relevance to the Industrial Area are gaging stations GS10 and GS13, which capture stormwater immediately downstream of the Industrial Area GS13 captures runoff directly from the northeast corner of the Industrial Area and also receives upstream flow from North Walnut Creek GS10, located at the eastern boundary of the Industrial Area, receives drainage from a large portion of the southern part of the Industrial Area. Table 3-2 contains a summary of data collected at stations GS10 and GS13 including the reported 1991 and 1992 data as well as data available but not currently published in a periodic report summary The following observations are based on the Table 3-2 data·

1 GS10 showed relatively frequent exceedances of Segment 5 stream standards for americium-241 and plutonium-239 and a few exceedances for gross alpha, gross beta, and uranium-233 Frequent exceedances of dissolved cadmium, lead, mercury, and silver standards were also noted with a few exceedances of copper, iron, and zinc standards For total metals, arsenic, copper, lead, selenium, and zinc, standards were frequently exceeded, and some exceedances of iron and manganese standards were noted Water quality parameters tested were within the stream standards.

2 Americium-241 and plutonium-239 activities were in excess of the stream standards at GS13 in slightly less than half of the samples taken For dissolved metals, cadmium, lead, and silver exceeded stream standards For total metals, frequent exceedances of arsenic, lead, and selenium standards were noted, and some samples

contained high copper and iron All water-quality parameters tested were within standards

3 Statistical analyses using a paired t-test of mean radionuclide concentrations at GS10 and GS13 determined that only uranium-238 had significantly different mean concentrations between stations A higher mean concentration of uranium-238 was identified at GS13, however, this mean concentration did not exceed Segment 5 stream standards

The purpose of the program as stated in the *Event-Related Surface-Water Monitoring Report* (EG&G 1993c) does not explicitly include collecting data to support a human-health risk assessment, therefore, the data collected for this program were not evaluated for inclusion into the proposed OU12 surface-water and sediment sampling program

3.3 750 PAD, 750 CULVERT, AND 904 PAD MONITORING

According to the OU10 *Phase I RFI/RI Work Plan* (EG&G 1992e), the 750 Pad was initially constructed as a parking lot for Building 750 Currently, the 750 Pad is used for the storage of pondcrete, a low-level mixed waste resulting from the solidification of Solar Pond sludge or sediment with portland cement, and saltcrete, which consists of solidified low-level radioactive and hazardous waste extracted from liquid process waste from the Building 374 evaporator The pad is bermed to control runoff and run-on Surface-water is directed around the north side of the pad and exits through a culvert located on the east side of the pad The 750 Pad remediation is included as part of the long-term activities for OU10

Beginning in 1986, stormwater puddles on the 750 Pad and the 750 Culvert were sampled. Between 1986 and 1989, spills of pondcrete to the asphalt had occurred The spills totaled

0 5 cubic feet Past routine inspections have identified leaking and deformed saltcrete containers (EG&G 1992f).

Gross alpha and gross beta analyses of soil samples collected in the area indicate the presence of radionuclide contamination Analyses of surface-water samples indicate the presence of radionuclide, nitrate, cyanide, and cadmium contamination Metals and other inorganics were also detected in the surface-water samples From approximately 1989 to 1993, runoff from the 750 Pad was sampled after every precipitation event and analyzed for gross alpha and gross beta, nitrate, cyanide, metals, total dissolved solids (TDS), ammonia, target compound list (TCL) VOCs, and mercury Surface-water at the 750 Culvert was monitored weekly for gross alpha and gross beta, TDS, and nitrate. Recently, monitoring has been reduced to twice per year for the pads and has been eliminated at the 750 Culvert (EG&G 1994a)

In 1992, EG&G's Surface Water Division conducted a study that compared data from 750/904 Pad runoff analytical results with RFETS stormwater data (EG&G 1992f) The purpose of the study was to evaluate the need for continued collection of the stormwater from the pads and subsequent treatment at Building 374 The study involved comparing samples collected at the 750 and 904 Pads to stormwater samples collected at SW022 and SW023 and samples collected at the Pond A-4 discharge to Walnut Creek. The samples collected at the pads were from puddles All data used in the study were limited to 1991 data to simplify the comparison. The results of the comparisons generally showed lower levels of contaminants in water collected on the pads than those at stormwater sampling locations Nitrate concentrations and gross beta activities from the pads were comparable to stormwaters throughout RFETS, however, the gross alpha measurements were generally higher for approximately half of the storm events evaluated. Cadmium, chromium, arsenic, and mercury were detected in the pad puddle samples, along with methylene chloride, toluene, acetone, and chloroform (EG&G 1992f)

The historical purpose of the program does not explicitly include collecting data to support a human-health risk assessment, therefore, the data collected for this program were not evaluated for inclusion into the proposed OU12 surface-water and sediment sampling program.

3.4 OU2 SURFACE-WATER AND SEDIMENT SAMPLING

A surface-water IM/IRA, which includes the 903 Pad and Mound Area, is being implemented at OU2 and is based in part on the data collected during the 1989 and 1990 surface-water and sediment geochemical characterization program This IM/IRA treats surface-water contamination consisting primarily of TCE, tetrachloroethylene (PCE), carbon tetrachloride, and associated degradation products. Several metals, uranium, and other inorganic constituents were also noted to be at levels above background in individual environmental media, but no strong conclusions were drawn with regard to the source of these contaminants

Samples collected in the South Walnut Creek basin as part of the OU2 investigation (stations SW056, SW059, SW060, SW061, and SW101) showed carbon tetrachloride, TCE, and PCE concentrations in excess of 200 micrograms per liter (μg/L), with lower and infrequent concentrations of 1,1-dichloroethene, 1,1-dichloroethane, 1,2-dichloroethene, vinyl chloride, acetone, bromodichloromethane, and methylene chloride These stations also frequently showed high surface-water concentrations for uranium. Seeps in the vicinity of the 903 Pad Lip (SW050, SW053, and SW054) had detectable plutonium and/or americium during one or more 1989 sampling events The source of these radionuclides was hypothesized to be contaminated soils (DOE 1992b, EG&G 1991a) These conclusions are consistent with those in the 1989 and 1990 Geochemical Characterization Reports

Under the IM/IRA for OU2, surface-water from locations SW059, SW061, and SW132 was originally collected for treatment SW059 is a seep, SW061 is located at the outlet of a concrete culvert, and SW132 is located at a buried corrugated metal culvert approximately 225 feet downgradient of SW061 The SW132 culvert was identified as a conduit for flow from the upper reach of South Walnut Creek from within the Protected Area The surface water at these locations was collected upstream of the B-series ponds to reduce the potential for downstream contamination The combined flows from the three locations were approximately 15 2 gallons per minute most of the year (DOE 1992a) Currently, only the seep at SW059 is being collected for treatment of flows ranging from 0.5 to 1 gallon per minute Surface waters from the other two locations are no longer being collected because treatment of those waters was deemed unnecessary because the low levels of contaminants were not further reduced by treatment (DOE 1993)

3.5 OU13 SEDIMENT SAMPLING

Surface-water and sediment sampling locations for IHSSs in OU13 are described in the draft OU13 Technical Memorandum No 1 (EG&G 1994b). The purpose of this document was to compile the results of visual inspections conducted to evaluate possible hazards and overhead utilities at each IHSS and to delineate paved and unpaved areas to identify potential sampling locations.

Representatives of DOE and EG&G performed a site reconnaissance of ditches within or adjacent to the OU13 IHSSs to identify sediment and surface-water sampling locations The ditches within OU13 include the Central Avenue Ditch and the tributaries to Walnut Creek as they flow through the Industrial Area. During the site reconnaissance, accumulations of sediment were observed in areas where ditches converge, sediments accumulate, and standing water occurs Proposed sampling locations were identified (1) at wide spots where flow velocities tend to decrease, (2) at areas where silt accumulation has been noted, (3) upstream

of culverts, and (4) downgradient of abrupt grade transitions where settling is likely to occur Locations were also proposed upstream and downstream of confluences where water and sediments can be transported from other IHSSs within the Industrial Area. A total of 26 sediment samples were proposed for collection from the ditches and other surface-water features in or adjacent to IHSSs in OU13 Additionally, as many as 10 opportunistic surface-water grab samples were proposed to be collected concurrently, if standing water was observed (EG&G 1994b) Sampling locations are shown in Figure 15 in the OU13 Technical Memorandum (EG&G 1994b) When sample results are available for proposed locations, they will be used to support the proposed surface-water and sediment sampling program. Although samples have not been collected to date, a discussion of the proposed OU13 sediment sampling locations has been included in the sampling rationale presented in Section 4 0 of this OU12 FSP

3.6 OU12 SEDIMENT SAMPLING

The objectives of the OU12 RFI/RI field investigation, as presented in the *Final RFI/RI Work Plan* for OU12 (EG&G 1992a), are to (1) characterize the nature and extent of contamination at each IHSS in OU12, (2) support health risk assessment and environmental evaluation, and (3) support corrective measures studies, feasibility studies, and treatability studies. The purpose of the proposed OU12 sediment sampling is to investigate the potential presence or absence of surficial contaminants in sediments and surface-water runoff Drainage paths identified at specific IHSSs were also proposed for sampling to determine whether compounds have migrated from the site to drainage ditches via surface-water runoff. At IHSSs where historical information indicates runoff may have occurred, sediment samples were proposed for collection and analysis for suspected compounds including TCL VOCs, target analyte list (TAL) metals, radionuclides, and PCBs (EG&G 1992a)

3.7 BUILDING SUMPS AND FOOTING DRAINS

Information about the building sumps and footing drains at RFETS is compiled in *Technical Memorandum No 1* for OU8 (EG&G 1994c) The building sumps and foundation drains have been sampled since 1977, and this sampling program is a voluntary effort at RFETS to characterize incidental waters and footing drains The sample results are not subject to regulatory standards and are not generally of sufficient quality to support a quantitative human health risk assessment The following subsections summarize the information presented in the OU8 technical memorandum

3.7.1 Locations

The OU8 Technical Memorandum (EG&G 1994c) provides a detailed, building-by-building description of each foundation-drain system that has been identified within the Industrial Area This information was compiled by conducting a building-by-building survey. The following paragraphs describing the foundation-drain locations were summarized from the OU8 Technical Memorandum (EG&G 1994c)

111 The current sampling location (BS-111-2) is a sump in the south end of the Building 111 basement The station currently is not sampled because the outfall is normally dry

124 The foundation drain for this building was located around the exterior of the foundation. This drain has never been sampled.

371/374 **517/518** The foundation drains for these buildings are located around the perimeter and beneath the foundations Foundation-drain water discharges at six outfalls, three for each building complex. Samples currently are collected from one of these foundation drains at Station FD-371-3

440 No foundation drains were determined to exist for this building

444 The foundation drain for this building drains the southern end of the basement and leads to a sump The foundation drains for Building 444 have never been sampled

447 A foundation drain exists on the western half of the basement foundation and joins a storm drain that runs north and south underneath the building This water discharges to an outfall to the south of Building 664 that is currently being sampled

559 No foundation drain was found for Building 559, however, there is a drain for the tunnel that connects Building 559 to 561 Currently, the water is pumped from the sump to the sanitary sewer system Both the sump (FD-559-561) and the outfall (FD-561-1) have been sampled but are not currently being sampled

707 Foundation drains exist under Building 707 and tie into the storm sewer system at the southwest corner of the building Sampling is currently conducted at BS-707-2, a vault next to the cooling tower south of the building

771 The foundation-drain system for this building has three discharge locations on the northwest side of the building The first is a pipe that discharges to Manhole No 3 near the northwest corner of the building This manhole is connected to the storm sewer, which discharges to a small pond on the north side of Building 774. The second outfall is located on the west side of Building 771, and it discharges to the ground surface The third and last outfall discharges to the storm sewer near the western addition and is currently sampled as FD-771-1

774 Foundation drains located around the perimeter of this building drain to three outfalls. The first outfall discharges from a storm drain and flows into a small pond north of the building and then into North Walnut Creek, or possibly the OU4 Interceptor Trench system The second outfall also discharges to the pond However, because of recent construction, this drain has likely been blocked The last outfall discharges through a storm drain located on the hillside northeast of the building The first outfall (FD-774-1) is the only one that has been sampled.

779 A foundation drain was constructed for the addition of this building The drain is connected to a storm drain that discharges to the hillside north of the Solar Ponds Sampling is currently conducted at FD-779-1, an outfall north of the Solar Ponds.

850 The foundation drains for this building discharge to an outfall on the hillside south of the building This outfall was selected for sampling in the past; however, it is often dry and is not part of the current sampling program.

865 Foundation drains for Building 865 flow to a sump on the west side of the building The sump (BS-865-1) is sampled under the current program.

881 This building has three separate foundation/underdrain systems that discharge to different locations The first is a foundation-drain system that runs around the perimeter of Buildings 881 and 887 The second system collects roof drain water and ties into a subbasement storm drain system The third discharge is from the utility tunnel network and floor drains, which discharge to a sump in the boiler room near the south end of the building. The first and third discharges have been historically sampled.

883 The foundation-drain system discharges to a sump at the southwest corner of the building. The sump is currently sampled as FD-883-1, but the outfall has never been sampled

887 The foundation-drain system for this building is connected to Building 881.

910 The drain system for this building collects at a sump and discharges to the ground surface northeast of the building This sump is currently sampled as FD-910

991/998 These two buildings are connected by a tunnel that has a foundation-drain system These drains flow toward the east and historically discharged to a ditch on the eastern side of Building 991. This outfall has been sampled in the past but can no longer be located

995 Drains from this facility likely discharge to three outfalls south of the facility However, these drains were sludge bed underdrains that may not have existed or may have been altered by the relining of the sludge beds None of these outfalls has been sampled

996, 997 999 Foundation drains for these structures are believed to be connected to a storm sewer east of Building 991 These drains have not been sampled

3.7.2 Sampling and Data Analysis Plan

Table 3-3 summarizes the recommended sampling and analysis program for foundation drains in the OU8 IHSSs summarized from the OU8 Technical Memorandum (EG&G 1994c).

3.8 SOILS MONITORING PROGRAM

Currently, RFETS has no existing routine soils monitoring program A significant number of soil samples have been collected from locations within the Industrial Area as part of various characterization tasks; however, these tasks required soil samples from unique locations specific to the objective of each field investigation These soil sample results were determined to be not applicable to the proposed surface-water and sediment sampling program

TABLE 3-3
OU12 Field Sampling Plan
Summary of Recommended Foundation Drain Sampling

BUILDING	CURRENT SAMPLING STATION	RECOMMENDED SAMPLING (Current Sample No.)	ANALYTICAL REQUIREMENTS
111	BS-111-2	No sampling recommended	None
124	None	Sample sump east of building (None)	VOCs, SVOCs, Metals, Rads
371/374	FD-371-3 FD-371-MC	Sample FD-371-2 if flow is observed Collect sediment samples at FD-371-2 and FD-371-3 (3-10) No sampling recommended	Water - VOCs, SVOCs, Metals, Rads Sediment-SVOCs, Rads None
444/447	FD-444-460	No sampling recommended	None
559	None	Collect sediment sample from FD-516-1 (3-22)	SVOCs, Rads
707	FD-707-2	No sampling recommended	None
771	FD-771-1	No sampling recommended	None
774	FD-774-1 FD-774-2	Collect sediment samples at outfalls FD-774-1 and FD 774-2 (3-28)	SVOCs, Rads
779	FD-779-1	No sampling recommended	None
850	None	No sampling recommended	None

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TABLE 3-3
Summary of Recommended Foundation Drain Sampling
(continued)

BUILDING	CURRENT SAMPLING STATION	RECOMMENDED SAMPLING (Current Sample No.)	ANALYTICAL REQUIREMENTS
865	BS-865-1 BS-865-2	No sampling recommended	None
886	None	No sampling recommended	None
881	None	Sample FD-881-4, once (5-7)	VOCs, SVOCs, Metals, Rads
883	FD-883-1	No sampling recommended	None
991/998	BS-991-2	No sampling recommended	None
995	None	No sampling recommended	None
996/997/999	None	No sampling recommended	None

Table 3-3 is summarized from information presented in EG&G 1994c. Recommendations are associated with Operable Unit 8 Samples have been incorporated into the Field Sampling Plan rationale

Notes
SVOCs = Semivolatile Organic Compounds
VOCs = Volatile Organic Compounds
Rads = Radionuclide isotopes
SWD = EG&G Surface Water Division

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Approved By

_____ ___/___/___
Director (Date)

_____ ___/___/___
Project Manager (Date)

_____ ___/___/___
Quality Assurance Program Manager (Date)

4.0 FIELD SAMPLING RATIONALE

Section 4 0 of this technical memorandum discusses the field sampling rationale for surface water and sediments in the Industrial Area The rationale for sampling site locations, sampling methodology, chemicals of concern, and discussions regarding contaminant sources, analytical methods, and fate and transport are presented in this section Also provided is a general overview of the drainage basins in the Industrial Area and the individual drainage basin characteristics

4.1 DRAINAGE BASIN OVERVIEW

For the selection of surface-water and sediment sampling locations, distinct surface-water drainages (or pathways) were identified and evaluated within the Industrial Area. These pathways consist of subbasins, which are topographically distinguishable areas that drain to distinct locations The drainage basins for the Industrial Area are shown on Plate 2

Major drainage basins within the Industrial Area have subbasins identified in the *Rocky Flats Plant Drainage and Flood Control Master Plan* (EG&G 1992g) The subbasin identification nomenclature used in that report will also be used for this FSP The *Rocky Flats Plant Drainage and Flood Control Master Plan* (EG&G 1992g) divides the area into seven main drainage basins with 29 subbasins; each subbasin was given a designator beginning with "C."

The letters following "C" designate the stream to which the basin ultimately drains, "WA" indicates North Walnut Creek, "SWA" indicates South Walnut Creek and "DIV" refers to a diversion (SID or the Walnut Creek Diversion)

The following sections discuss the seven main drainage basins within the Industrial Area and provide a general description of the drainage area and the discharge locations Each section contains a table that defines the subbasins, the major buildings in the subbasin, drainage area (acres), and the location of the subbasin drainage point.

4.1.1 Drainage Basin 1

This basin includes most of the southern portion of the Industrial Area Under normal conditions, the basin discharges to the east into the buffer zone and eventually into the B-series ponds The diversion structure at SW022 diverts the Central Avenue Ditch into South Walnut Creek at Building 995 Most flood waters would flow directly into Pond B-5. Much of the Industrial Area located south of Central Avenue discharges into Drainage Basin 1. The basin has a drainage area of 84 acres that encompasses five main subbasins and 29 major buildings (EG&G 1994d) Table 4-1 details the subbasins, major buildings, drainage area, and drain locations

4.1.2 Drainage Basin 2

Drainage Basin 2 includes the central and east-central portions of the Industrial Area The drainage flow is to the east and discharges into the B-series ponds via South Walnut Creek. The basin has 91 acres that encompass five main subbasins and 32 major buildings Drainage characteristics are detailed in Table 4-2

TABLE 4-1
OU12 Field Sampling Plan
Drainage Basin 1 Characteristics

Subbasin	Major Buildings in Subbasin	Drainage Area (acres)	Drains to	Location of Subbasin Drain
CSWAA2	122, 123, 124, 125, 441, 443, 442, 452	13	CSWAA4	A 21-inch CMP located in the northeast corner of subbasin CSWAA2
CSWAA3	439, 440 (northeast), 444, 445, 447 (east), 463, 668	12	CSWAA4	A ditch at the northeast corner of subbasin CSWAA3
CSWAA4	221, 224, 275, 662, 663, 664	16	CSWAA5	An 18-inch CMP culvert location in the northeast corner of subbasin CSWAA4
CSWAA5	865, 866, 883 (north), 884, 886, 888, 889, 880	28	CSWAA6	A 24-inch CMP under Central Ave located near the northeast corner of subbasin CSWAA5
CSWAA6	NONE	15	CSWAB5	Two culverts, a 30-inch RCP and a 30-inch CMP, drain the northeast corner of CSWAA6 and empty to a channel east of the Industrial Area that drains to Pond B-5

Notes
CMP = corrugated metal pipe
RCP = reinforced concrete pipe

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TABLE 4-2
OU12 Field Sampling Plan
Drainage Basin 2 Characteristics

Subbasin	Major Buildings in Subbasin	Drainage Area (acres)	Drains to	Overflows to	Location of Subbasin Drain
CSWAB1	223, 333 (south), 334 (south), 549, 551 (east), 552, 553, 554, 555, 558	20	CSWAB5		A 72-inch CMP storm sewer located at ponded area at east end of subbasin CSWAB1
CSWAB2	NONE	6	CSWAB3	CSWAB4	A 4-foot by 3-foot elliptical CMP storm sewer located southeast of Building 707, near the middle of subbasin CSWAB2
CSWAB3	559 (southeast) 561 (south), 564, 707, 708, 750, 776 (southeast), 777 (south), 778 (east), 980	31	CSWAB5	CSWAB2	A 60-inch CMP storm sewer located at the eastern end of subbasin CSWAB3
CSWAB4	965, 968, 984, 985, 989, 990, 991, 996	19	CSWAB5		A 54-inch-diameter culvert located at the eastern end of subbasin CSWAB4
CSWAB5	987, 988, 993, 995	15	South Walnut Creek (SW023)		Two culverts, both 30-inch RCP, located at the eastern end of subbasin CSWAB5

Notes

CMP = corrugated metal pipe
RCP = reinforced concrete pipe

48 of 218

4.1.3 Drainage Basin 3

Drainage Basin 3 drains the north end of the Industrial Area to North Walnut Creek and ultimately to the A-series ponds The water from approximately six acres of this drainage basin discharges into the adjacent Interceptor Trench System The basin is composed of 144 acres and encompasses the majority of the Protected Area Wetland/seep areas are found in the drainage basin especially near Buildings 111 and 374 (EG&G 1994d) Table 4-3 details the drainage characteristics for Drainage Basin 3

4.1.4 Drainage Basin 4

Drainage Basin 4 consists of the western portion of the Industrial Area and exits to the McKay Diversion Canal The McKay Diversion Canal drains to the Walnut Creek Diversion Canal, which flows toward the north end of the Industrial Area The 29 acres of the drainage area have little industrial development (i e , a warehouse and a material storage yard near Building 130) The area mainly consists engineering and administrative buildings (EG&G 1994d). The drainage characteristics are summarized in Table 4-4

4.1.5 Drainage Basin 5

This drainage area is a collection of drains that cover portions of the southern Industrial Area that eventually exit to the SID Hydrologically, the area around the buildings drains south and down the 881 Hillside toward the SID Seeps are located near the southwestern Industrial Area boundary (EG&G 1994d) The drainage area characteristics are outlined in Table 4-5

TABLE 4-3
OU12 Field Sampling Plan
Drainage Basin 3 Characteristics

Subbasin	Major Buildings in Subbasin	Drainage Area (acres)	Drains to	Location of Subbasin Drain
CWAC12	119, 127, 128	9	CWAC1	Three storm sewer outfalls flowing north under the northern edge of CWAC12 drain the subbasin to a ditch running through CWAC1
CWAC1	111, 112, 113, 115, 335	17	CWAC13	Ditch north of Sage Ave drains to CWAC13 at the eastern end of CWAC1
CWAC11	331, 333 (north), 334 (north), 551 (west)	9	CWAC13	Two culverts, an 18-inch CMP and an 8-inch CMP, are located at the northeast corner of subbasin CWAC11
CWAC13	NONE	3	CWAC3	A 64-inch CMP culvert is located at the north end of CWAC13
CWAC10	559 (except southeast), 561 (north), 776 (west), 778 (west)	9	CWAC3	An 18-inch CMP culvert located along the northwestern boundary of CWAC10 drains to the channel that runs through CWAC3, also a 14-inch CMP crosses the subbasin boundary under the intersection of Sixth Street and South 71 Drive
CWAC3	371, 374, 516, 517, 518	26	North Walnut Creek	A 48-inch CMP culvert is located near the northeast corner of subbasin CSWA3 This sewer drains directly into the 72-inch storm sewer that empties into North Walnut Creek
CWAC2	367	18	CWAC5	A 54-inch CMP storm sewer is located at northern end of CWAC2
CWAC5	NONE	10	North Walnut Creek	A 72-inch CMP storm sewer carries flow from east end of CWAC5 to North Walnut Creek
CWAC4	262, 373, 376, 790	10	North Walnut Creek	A 36-inch-diameter culvert located at north end of CWAA1 drains to North Walnut Creek
CWAC6	701, 712, 713, 770, 771, 774, 776 (northeast), 777 (northwest)	10	CWAC7	An 8-inch-diameter PVC storm sewer is located at the northeast corner of subbasin CWAC6
CWAC7	NONE	8	North Walnut Creek	Only a portion of CWAC7 drains to N Walnut Creek The flow that enters from CWAC6 and the flow contributing north (or downgradient) of the Interceptor Trench System will flow through the 60-inch-diameter storm sewer at the north end of CWAC7 This sewer connects to the 72-inch storm sewer that drains to North Walnut Creek
CWAA1	NONE	15	North Walnut Creek	A 36-inch culvert located at the center of the northern boundary of the CWAA1 drains the subbasin to North Walnut Creek

Notes CMP = corrugated metal pipe PVC = polyvinyl chloride

TABLE 4-4
OU12 Field Sampling Plan
Drainage Basin 4 Characteristics

Drainage Basin	Major Building in Subbasin	Drainage Area (acres)	Drains to	Location of Subbasin Drain
CWADIV2	130, 131	29	McKay Diversion Canal	A 36-inch CMP culvert located at the northern end of CWADIV2 that drains to the McKay Diversion Canal

CMP = corrugated metal pipe

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TABLE 4-5
OU12 Field Sampling Plan
Drainage Basin 5 Characteristics

Subbasin	Major Buildings in Subbasin	Drainage Area (acres)	Drains to	Location of Subbasin Drain
CDIV1	440 (except northeast), 447 (west), 448, 451, 460	14	DIV3	A 36-inch-diameter culvert drains the storm sewer network, south of Building 460, the storm sewers daylight on the hillside south of Building 664 into the South Interceptor Ditch (SID)
DIV3	850, 881 883 (south), 885, 887		SID	Drainage in the vicinity of Buildings 850 and 881 drains to the south The Building 881 footing drain is collected and diverted to the OU1 treatment facility

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4.1.6 Drainage Basin 6

Drainage Basin 6 encompasses two subbasins totaling 11 acres in the northeastern portion of the Industrial Area An extensive area of seepage occurs north of the Interceptor Trench System, and water flow may discharge into this drainage basin This drainage basin contains only one major building (Building 964) and discharges to the A-series ponds. Table 4-6 summarizes the drainage characteristics for Drainage Basin 6.

4.1.7 Drainage Basin 7

Drainage Basin 7 is associated with the Interceptor Trench System and the Solar Evaporation Ponds. This area encompasses three subbasins and drains an area of 24 acres The water collected by the Interceptor Trench System is stored in tanks north of the Industrial Area and is eventually treated in either the OU4 evaporators or at Building 374 Groundwater flow beneath Drainage Basin 7 is also collected by the Interceptor Trench System and treated using the onsite systems CWAC8 is composed of the Solar Evaporation Ponds that are associated with OU4 activities (EG&G 1994d) Table 4-7 details the drainage characteristics for this drainage basin

4.2 LOCATION SCREENING CRITERIA

The DQOs for this FSP are (1) to establish the presence or absence of contamination, and (2) to collect data that will support HHBRA

TABLE 4-6
OU12 Field Sampling Plan
Drainage Basin 6 Characteristics

Subbasin	Major Buildings in Subbasin	Drainage Area (acres)	Drains to	Location of Subbasin Drain
CWAB1	964	7	CWAB2	A 48-inch-diameter culvert drains CWAB1 toward the northeast into CWAB2
CWAB2	NONE	4	A-series ponds	A 48-inch CMP culvert drains CWAB2 toward the northeast into a channel leading to the A-series ponds

Notes

CMP = corrugated metal pipe

TABLE 4-7
OU12 Field Sampling Plan
Drainage Basin 7 Characteristics

Subbasin	Major Buildings in Subbasin	Drainage Area (acres)	Drains to	Location of Subbasin Drain
CWAC9	215, 705, 706, 729, 777 (northeast), 779, 782, 928, 966	6	CWAC7	An 18-inch CMP storm sewer that drains CWAC9 between the 207A and 207C Solar Ponds and daylights on the hillside just north of the Solar Ponds
CWAC8	788, Solar Ponds 207A, 207B, 207C	10	Infiltration/ITS	Not hydrologically connected to Industrial Area drainage patterns Precipitation falling in subbasin CWAC8 is collected and sent to the Building 374 treatment facility
CWAC7	NONE	8	ITS	The portion of CWAC7 upgradient from the ITS flows into the ITS

Notes

CMP = corrugated metal pipe
ITS = Interceptor Trench System
PCB = polychlorinated biphenyl

Proposed sampling locations were selected based on the evaluation of the following criteria·

- location of drainage with respect to known or suspected areas of contamination, i.e , IHSSs,
- location and data quality of previously collected samples, and
- location of proposed sampling efforts under other RFETS programs.

Each of the seven major drainage basins (Plate 1) was inventoried for the IHSSs that they contained, and the potential for either sheet wash or leaching and near-surface advective transport was evaluated Because there are more than 200 IHSSs, virtually all of the surface drainage structures have at least the potential for contamination of sediment and surface-water Thus, this evaluation was not an effective screening tool

The second criterion was a review of the data collected during previous sampling campaigns One of the DQOs for this sampling campaign is to provide data that can be used for quantitative risk assessments This criterion requires that any data used have sufficiently low detection limits to meet the appropriate hazard levels. Virtually none of the historical sampling efforts were planned or executed with the objective of providing data for a quantitative baseline risk assessment Therefore, there is a considerable spread on the reported detection limits and the levels to which the data were validated This criterion did not allow the elimination of any potential sediment-sampling sites However, it did lead to the removal from the OU12 program of several surface-water sampling sites that are part of the EG&G quarterly monitoring program and have DQOs consistent with the proposed OU12 surface-water sampling program

The last criterion was an evaluation of the locations that have been proposed for surface-water or sediment sampling under other RFETS programs. Currently, there are three proposed sampling campaigns. The first is the OU13 sediment sampling plan to be conducted along the course of the Central Avenue Ditch and out to the confluence of the ditch with South Walnut Creek A second series of samples will be collected during the characterization of OU4 for the Phase II RI, which is not a part of this investigation The third sampling effort consists of the foundation drains that are proposed for sampling as part of the OU8 RI/RFI Because the OU13 sampling is not scheduled until fiscal year 1996, it is possible that the OU13 sampling will be incorporated into the OU12 sampling effort (EG&G 1994e) A total of 30 percent of the proposed sampling locations were planned and funded under existing sampling and monitoring programs In addition to these proposed OU sampling programs, outfalls were selected for incorporation into this proposed surface-water and sediment sampling program using information from the evaluation of building sumps and footing drains summarized in the OU8 Technical Memorandum (EG&G 1994c).

Selection of the actual sampling sites was accomplished during a series of walks along the various flow paths through the individual basins Particular attention was paid to locations identified in the *Rocky Flats Plant Drainage and Flood Control Master Plan* (EG&G 1992g) as being undersized for a 100-year recurrance interval, six-hour storm event. At these locations, areas that would be flooded as a result of drainage system overflow were included for sampling In addition, sampling sites were selected at the outfalls of foundation drains for the major buildings that contribute to surface-water drainages At these locations, both sediment and surface-water will be collected

4.3 TECHNICAL SAMPLING APPROACH

The nature of the pathways in which surface-water collects and migrates (i e , along channels and other topographic depressions) requires a focused sampling strategy to generate representative samples The collection of both surface-water and sediment samples will be confined to the thalweg of the pathway channels In the case of building foundation drains, the samples will be collected in the immediate vicinity of the outfall Where samples are collected from the same drainage, sampling will progress from downstream toward upstream locations to avoid cross contamination During the site reconnaissance, particular attention was paid to the areas where sediments would collect over the long term and location accessibility Examples of these locations are changes in slope along a drainage, upstream ends of culverts, and areas of over-bank flow in the vicinity of undersized stormwater conveyance structures.

The focus of this investigation is on surficial sediments and surface water. The collection of surface water is simply a matter of adjusting the collection method for the flow conditions, e g , low-flow sampling as described in RFETS standard operating procedure (SOP) SW 03 (EG&G 1994f) Because the alluvium on RFETS contains some gravel and cobbles, sediment sampling is more complex. Generally, the majority of hazardous constituents are associated with fine-grained materials, particularly clays and iron and manganese oxides Within the drainages at RFETS, most of the sediment left in the channels after the latest storm event is relatively fine grained The approach will be to collect bulk samples from the fine-grained material (sand size or less than 1 millimeter in diameter) along the course of the channel The samples will be collected from the top 5 centimeters of saturated sediment and over a sufficient area along the channel to provide the necessary mass of sample The surface layer of sediment will be sampled because this top 5-centimeter layer is most likely to be transported downstream or downwind

4.4 ANALYTICAL RATIONALE

One objective of the proposed surface-water and sediment sampling program is to determine the presence or absence of contamination in these media for future evaluation tasks Because contaminants could potentially be transported via these media, the sampling rationale was developed considering the hydrology of the drainage basins As described previously, the drainage basins constitute the surface-water discharge pathways from the Industrial Area Because the chemical handling activities and production operations conducted within the Industrial Area perimeter were not generally specific to a drainage basin, the proposed analyses for the surface-water and sediment samples are not specific to a drainage basin. Proposed surface-water and sediment samples in each Industrial Area drainage basin will be analyzed for an identical set of parameters, with one noted exception stated at the end of this section

Fate and transport considerations for the proposed analytical parameters were also evaluated Many of the contaminants of concern associated with the Industrial Area are either very volatile, soluble in water, or insoluble in water Because the objective of the sampling program is to determine the presence or absence of contamination, analytical parameters are proposed for both surface-water and sediment, regardless of the solubility or volatility of the contaminants. The results of these analyses will be evaluated to assess fate and transport mechanisms

As described in Section 4 2, surface-water and sediment samples will be collected from specific locations in each major drainage basin in the Industrial Area and sent to the laboratory for analysis Based on information from the data sources described in Section 2 1, an evaluation was made to determine potential sources of contaminants of concern in each drainage basin Information pertaining to the following was reviewed to evaluate possible analyte lists for Industrial Area drainage basins

- CERCLA OUs,
- RCRA storage unit locations,
- PCB areas of concern,
- historical operations and activities, and
- previous surface-water and sediment analytical data

The potential contaminants of concern associated with IHSSs in portions of the OUs, the list of RCRA storage unit locations, and PCB potential areas of concern for each Industrial Area drainage basin are summarized in Table 4-8. Selected data from previous surface-water and sediment sampling programs are summarized in Tables 3-1 and 3-2

Based on the information presented in Table 4-8, the following list of analytes for both Industrial Area surface-water and sediment samples for each drainage basin was identified·

- radionuclides,
- Contract Laboratory Program (CLP) metals,
- VOCs
- hexavalent chromium (sediment), and
- major cations and anions (surface-water)

Analytes detected in previous surface-water and sediment samples are summarized in Appendices A and B The following analyses were also included for proposed Industrial Area samples in each drainage basin

- SVOCs
- PCBs, and
- organochlorine pesticides

TABLE 4-8
OU12 Field Sampling Plan
Summary of Drainage Basin Contaminants of Concern
in the Industrial Area

Drainage Basin	Operable Units	Potential Contaminants of Concern (a)	RCRA Unit Locations	PCB PAC NO.
1	OU2	RADIONUCLIDES, BERYLLIUM, SOLVENTS, ORGANIC LIQUIDS, INORGANICS	Building 444 Building 884 904 Pad	400-800 600-1000 600-1002 600-1003 800-1209 800-1210
	OU8	SOLVENTS AND RADIONUCLIDES	Building 447	
	OU9	RADIONUCLIDES, ACIDS, BASES, NITRATES, HEXAVALENT CHROMIUM, METALS, PHOSPHATES, SOLVENTS	Building 889 Building 428 Building 866	
	OU10	FUEL OIL, ACIDS, METALS, RADIONUCLIDES, VOLATILE ORGANIC COMPOUNDS, NITRATES	Building 123 Building 865	
	OU12	RADIONUCLIDES, BERYLLIUM, SOLVENTS, HEXAVALENT CHROMIUM, METALS, ACIDS		
	OU13	RADIONUCLIDES, NITRATES, FUEL OIL, BERYLLIUM, BASES, HYDROGEN PEROXIDE, SOLVENTS		
	OU14	RADIONUCLIDES, COOLANTS, SOLVENTS, VOLATILE ORGANIC COMPOUNDS, BERYLLIUM		

TABLE 4-8
OU12 Field Sampling Plan
Summary of Drainage Basin Contaminants of Concern
in the Industrial Area
(continued)

Drainage Basin	Operable Units	Potential Contaminants of Concern (a)	RCRA Unit Locations	PCB PAC NO.
2	OU6	RADIONUCLIDES	Building 750	500-901 500-904
	OU8	SOLVENTS, RADIONUCLIDES, BERYLLIUM	Building 561 Building 980	500-905 700-1103 700-1104 700-1111
	OU9	RADIONUCLIDES, PROCESS WASTE	Tent 1 750 Pad	900-1306
	OU10	WASTE OILS, SOLVENTS, PAINTS, RADIONUCLIDES, VOLATILE ORGANIC COMPOUNDS, NITRATES	Building 569 Building 707	
	OU13	RADIONUCLIDES, METALS, BERYLLIUM, SOLVENTS, ACIDS	Building 991 Building 777	
	OU14	RADIONUCLIDES, PROCESS WASTE	Building 528	
	OU16	SOLVENTS, ETHYLENE GLYCOL, RADIONUCLIDES, PCBS		

TABLE 4-8
OU12 Field Sampling Plan
Summary of Drainage Basin Contaminants of Concern in the Industrial Area
(continued)

Drainage Basin	Operable Units	Potential Contaminants of Concern (a)	RCRA Unit Locations	PCB PAC NO.
3	OU6	RADIONUCLIDES	Building 331	300-708 300-702
	OU8	SOLVENTS, PHOSPHATES, RADIONUCLIDES, BASES, PROCESS WASTE, ACIDS, METALS	Building 561 Building 776 Building 374	100-607 300-709 500-900 500-902 700-1102 700-1112 700-1105
	OU9	RADIONUCLIDES, ORGANICS, PROCESS WASTE, INORGANICS	Building 732 Building 774	
	OU10	METALS, OILS, SOLVENTS, RADIONUCLIDES, COOLANTS	Building 371 Building 771	
	OU13	RADIONUCLIDES, OILS, METALS, GASOLINE, DIESEL, PROCESS WASTE	Building 559 Building 777 Building 779	
	OU14	RADIONUCLIDES, PROCESS WASTE		
	OU15	RADIONUCLIDES, SOLVENTS		
4	OU7	RADIONUCLIDES, OILS, SOLVENTS, PCBS	None identified	100-608
	OU10	RADIONUCLIDES, OILS, SOLVENTS, METALS		
	OU11	NITRATES, VOLATILE ORGANIC COMPOUNDS, RADIONUCLIDES		

TABLE 4-8
OU12 Field Sampling Plan
Summary of Drainage Basin Contaminants of Concern in the Industrial Area
(continued)

Drainage Basin	Operable Units	Potential Contaminants of Concern (a)	RCRA Unit Locations	PCB PAC NO.
5	OU1	FUEL OIL, DIESEL, RADIONUCLIDES, METALS, SOLVENTS, NITRATES	Building 444 Building 447 Building 460	400-116 1 400-801 800-1207 800-1208 800-1211
	OU2	RADIONUCLIDES, OILS, SOLVENTS, METALS	903 Pad	
	OU5	RADIONUCLIDES, OILS, SOLVENTS, PCBS	Building 664 Building 881	
	OU6	RADIONUCLIDES	Building 883	
	OU10	RADIONUCLIDES, OILS, SOLVENTS, PAINTS, ACIDS, CYANIDE	Building 952 Building 887	
	OU12	RADIONUCLIDES, PCBS, BERYLLIUM, SOLVENTS, METALS, HEXAVALENT CHROMIUM	Building	
	OU14	RADIONUCLIDES, OILS, SOLVENTS, PROCESS WASTE		
	OU15	RADIONUCLIDES, VOLATILE ORGANICS, SOLVENTS, LABORATORY WASTE		
6	OU6	RADIONUCLIDES	None identified	None identified
	OU9	PROCESS WASTE		
	OU10	RADIONUCLIDES, OILS, METALS, VOLATILE ORGANIC COMPOUNDS, NITRATES		

TABLE 4-8
OU12 Field Sampling Plan
Summary of Drainage Basin Contaminants of Concern
in the Industrial Area
(continued)

Drainage Basin	Operable Units	Potential Contaminants of Concern (a)	RCRA Unit Locations	PCB PAC NO.
7	OU8	RADIONUCLIDES, METALS	Building 788	None identified
	OU9	PROCESS WASTE, RADIONUCLIDES, NITRATES, ACIDS	Building 777	
			Solar Pond Surge Tanks	
			Building 910	
			Building 779	

Note

(a) = Contaminants that may have been associated with activities at Individual Hazardous Substance Sites (IHSSs) within each Operable Unit (OU)
PAC = Potential Area of Concern
PCB = polychlorinated biphenyl
RCRA = Resource Conservation and Recovery Act

A review of previous operations and activities identified an area previously used as a herbicide mixing and storage area located in Drainage Basin 3 Because of these previous activities, one proposed surface-water and sediment sampling location from Drainage Basin 3, downstream of the herbicide area, will be analyzed for herbicides in addition to the analyses listed above

Approved By

_____ ___/___/___
Director (Date)

_____ ___/___/___
Project Manager (Date)

_____ ___/___/___
Quality Assurance Program Manager (Date)

5.0 SAMPLE COLLECTION AND ANALYSIS

The following sections provide a description of the proposed surface-water and sediment sampling locations, the types and frequency of sample collection; the equipment and procedures that will be used to collect the samples, the sample handling and documentation procedures, and the analytical requirements Sampling locations, sample types and frequency, and analytical requirements are based on the rationale presented in Section 4.0.

5.1 SAMPLING LOCATION AND FREQUENCY

The rationale for the selection of sampling locations is presented in the previous section. These locations are plotted on Plate 2 The sampling frequency will be different for the two media Sample types and locations are summarized in Table 5-1 Sediments will be sampled once as a "snapshot" in time during the wet season (spring) It is not expected that the concentrations of the contaminants will vary significantly during the sampling period now that production operations have ceased

The collection of surface-water samples will require two sampling events to be able to determine the effects of high- and low-flow conditions or the onset of a source whose flow is intermittent The first set of samples will be the most extensive. It will be collected in the

TABLE 5-1
OU12 Field Sampling Plan
Sample Types and Locations

Sample Designation	Type	Location
DRAINAGE BASIN 1		
1-1	Sediment	Inlet to S-1020
1-2	Sediment	Inlet to C-62
1-3	Sediment	Outlet to C-62
1-4	Sediment	Inlet to C-19
1-5	Sediment	Inlet to S-1015
1-6	Sediment/Surface Water	Inlet to C-18
1-7	Sediment	Inlet to C-68
1-8	Sediment	Outlet to C-9
1-9	Sediment	Inlet to C-15
1-10	Sediment	Outlet to C-14
1-11	Sediment	Inlet to S-1013
1-12	Sediment	Inlet to S-1036
1-13	Sediment	Inlet to C-70
1-14	Sediment	Inlet to C-149
1-15	Sediment	Inlet to C-71
1-16	Sediment	Central Avenue Ditch between S-1011 and C-83
1-17	Sediment	Inlet to C-146
1-18	Sediment	Inlet to C-144
1-19	Sediment	Central Avenue Ditch between C-83 and C-84
1-20	Sediment	Outlet to C-92
1-21	Sediment	Depression between Buildings 865 and 886
1-22	Sediment	Outlet to C-142
1-23	Sediment	Inlet to C-89
1-24	Sediment	Inlet to C-86
1-25	Sediment	Inlet to S-1005
1-26	Sediment/Surface Water	Inlet to C-95

TABLE 5-1 (continued)
OU12 Field Sampling Plan
Sample Types and Locations

Sample Designation	Type	Location
DRAINAGE BASIN 1 (continued)		
1-27	Sediment	Inlet to C-97
1-28	Sediment	Inlet to C-136
1-29	Sediment	Inlet to C-107
1-30	Sediment	Inlet to C-10
NB	A maximum of five additional surface water samples will be collected at sediment sampling locations if water is present	
DRAINAGE BASIN 2		
2-1	Sediment	Inlet to C-60
2-2	Sediment	Inlet to C-74
2-3	Sediment	Inlet to S-1037
2-4	Sediment	Outlet of C-77
2-5	Sediment	Inlet to C-76
2-6	Sediment	Inlet to C-80
2-7	Sediment	Depression on south side of Building 708
2-8	Sediment	Ditch on south side of Protected Area Perimeter Road
2-9	Sediment	Confluence of ED-1, C-138, and EE-5
2-10	Sediment	Inlet to C-82
2-11	Sediment/Surface Water	Inlet to BB-7
2-12	Sediment	Below outlet of S-2014
2-13	Sediment/Surface Water	Outlet of EE-1
2-14	Sediment	South drainage into EE-1
2-15	Sediment/Surface Water	Seep on north facing hillside
2-16	Sediment/Surface Water	Inlet to AA-8
2-17	Sediment/Surface Water	Wetlands in vicinity of S-2016
2-18	Sediment	Outlet of C-112
2-19	Sediment	Inlet to C-113
2-20	Sediment/Surface Water	Wetland at AA-2

TABLE 5-1 (continued)
OU12 Field Sampling Plan
Sample Types and Locations

Sample Designation	Type	Location
DRAINAGE BASIN 3		
3-1	Sediment	Inlet to S-1054
3-2	Sediment	Hillside south of storage pad/parking lot
3-3	Sediment/Surface Water	Inlet of C-34
3-4	Sediment/Surface Water	Inlet of S-1023
3-5	Sediment	Inlet of C-44
3-6	Sediment	Inlet of C-57
3-7	Sediment	Inlet of S-1028
3-8	Sediment	Inlet of S-2052
3-9	Sediment/Surface Water	Seep west of Building 371 (outside fence)
3-10	Sediment	Inlet of KK-5
3-11	Sediment	Ditch south of road
3-12	Sediment/Surface Water	Near SW-118
3-13	Sediment	Inlet to C-50
3-14	Sediment	Inlet to S-2026
3-15	Sediment/Surface Water	Wetland around substation
3-16	Sediment/Surface Water	Wetland at inlet of JC-3
3-17	Sediment	Ditch on north side of Protected Area perimeter road
3-18	Sediment/Surface Water	Wetland to west of north portal
3-19	Sediment	Inlet to JD-1
3-20	Sediment/Surface Water	Wetland at outlet of C-120
3-21	Sediment/Surface Water	Wetland at inlet to C-117
3-22	Sediment	Outlet of GA-1
3-23	Sediment/Surface Water	Wetland at outlet of GG-1
3-24	Sediment/Surface Water	Wetland at power poles
3-25	Sediment	Outlet of C-124
3-26	Sediment	Inlet of C-122
3-27	Sediment	Outlet of propane storage pad
3-28	Sediment/Surface Water	Outlet of Building 771/774 floor drains

TABLE 5-1 (continued)
OU12 Field Sampling Plan
Sample Types and Locations

Sample Designation	Type	Location
3-29	Sediment/Surface Water	Location of SW093
3-30	Sediment	Outlet of Building 371 roof drains
DRAINAGE BASIN 4		
4-1	Sediment/Surface Water	Inlet of C-31
DRAINAGE BASIN 5		
5-1	Sediment/Surface Water	Outfall of YY-1 and WW-1 collection
5-2	Sediment	Outfall of PP-1
5-3	Sediment	Outfall of OO-1
5-4	Sediment	Outfall of NN-1
5-5	Sediment	Inlet of C-142
5-6	Sediment	Inlet of S-1072
5-7	Sediment/Surface Water	Outlet of MM-1 (wetland)
5-8	Sediment	Outlet of C-5
5-9	Sediment/Surface Water	SID below Pad 904
DRAINAGE BASIN 6		
6-1	Sediment	Inlet of C-115
DRAINAGE BASIN 7		
7-1	Sediment	About 300 feet from the west end of interceptor trench (N 1/3)
7-2	Sediment	Below outlet of DDD-1
7-3	Sediment	Interceptor trench below large Solar Pond
7-4	Sediment	Interceptor trench below eastern Solar Ponds

Notes

C = culvert
S = surface ditch or culvert

Stormwater control structure designations and locations are plotted on Plate 3 (Wright Water Engineers 1993)

spring after the first sustained thaw The intermittent and perennial streams and the foundation drains around the buildings will be sampled. The second set of samples will be collected in the late summer when the perennial streams are at low flow and the intermittent streams and many of the building foundation drains are dry These data will allow checking of the seasonal variability of the water quality without duplicating the efforts of the EG&G Surface Water Group

5.2 SAMPLING EQUIPMENT AND PROCEDURES

All sediment and surface-water samples will be collected in accordance with currently approved SOPs contained within the EG&G Environmental Management Division Manual (5-21000-OPS) (EG&G 1994f) Of particular importance for the collection of surface-water samples are the following SOPs

- SOP SW 01, *Surface Water Data Collection Activities*,
- SOP SW 02, *Field Measurement of Surface Water Parameters*,
- SOP SW 03, *Surface Water Sampling*,
- SOP SW 08, *Pond Sampling*,
- SOP SW 09, *Industrial Effluent and Pond Discharge Sampling*, and
- SOP SW 15, *River and Ditch Sampling*

The SOP that applies specifically to the collection of sediments is the following:

- SOP SW 06, *Sediment Sampling*

The SOPs that apply to both surface-water and sediment sampling activities are the following.

- SOP FO 03, *General Equipment Decontamination*,
- SOP FO 07, *Handling of Decontamination Water and Wash Water*,
- SOP FO.10, *Receiving, Labeling, and Handling Environmental Materials Containers*, and
- SOP FO.13, *Containerizing, Preserving, Handling, and Shipping of Soil and Water Samples*

5.2.1 Surface-Water Sampling

The appropriate equipment and instrumentation are specified in each of the above SOPs. As discussed previously, the focus of this effort will be to collect surface water from the various drainage pathways and ponding areas. It is anticipated that the surface-water bodies along most of the drainages will be little more than seeps Therefore, of particular importance are the specifications in SOP SW 03, *Surface Water Sampling*, for sampling under low-flow conditions Surface-water samples will be collected using Teflon® or stainless-steel beakers attached to handles of an appropriate length to reach the area of maximum flow Seeps or marshes will be sampled by installing a stainless-steel bowl slightly below water level and collecting the sample from the bowl after the sediment has an opportunity to settle

Field measurements of temperature, pH, alkalinity, dissolved oxygen, and conductivity will be made in accordance with the specifications in SOP SW 02, *Field Measurement of Surface Water Parameters*, which specifies that (1) temperature will be measured with a

thermocouple that can be traced to a National Bureau of Standards (NBS) standard, (2) pH will be measured with a Hach One® pH meter or equivalent, (3) alkalinity will be measured with a Hach Digital Titrator® or equivalent, (4) dissolved oxygen will be measured with either a Yellow Springs Instrument (YSI) dissolved-oxygen meter or equivalent or a Hach DREL 2000® spectrophotometer or equivalent, and (5) conductivity will be measured with a Hach 44600® conductivity meter or equivalent

5.2.2 Sediment Sampling

The appropriate equipment and instrumentation are specified in the SOPs noted above. Because the sediment samples will be collected along the courses of stormwater control structures and in areas of stormwater overflow and only surface samples are of interest, it is anticipated that all of the sediments will be relatively fine grained Therefore, it will not be necessary to sieve the samples The major implements to be used in sediment sample collection are stainless-steel scoops and spoons and stainless-steel pans or bowls Any vegetation will be removed by hand sorting

Selected sediment samples collected from the drainage ditches will be at or near saturation. To ensure the collection of a homogeneous sample for analysis, the procedures outlined in SOP SW.06, *Sediment Sampling*, will be followed The only sample fraction that will not be mixed before collection will be those collected for analyses of VOCs The sediment samples will be handled, preserved, labeled, and shipped in accordance with EPA protocols and RFETS SOPs

5.3 SAMPLE ANALYSES

This section describes the sample handling procedures and analytical program for proposed surface-water and sediment samples collected in the Industrial Area It also presents

requirements for sample designations, analyses, sample containers and preservation, and sample handling and documentation.

5.3.1 Sample Designation

All sediment and surface-water sample designations generated for this program will conform to the input requirements of RFEDS Each sample designation will contain a nine-character sample number consisting of a two-letter prefix identifying the sample medium (e g , SE for sediment samples), a unique five-digit number, and a two-letter suffix identifying the contractor One sample number will be required for each sample generated, including each quality control (QC) sample

5.3.2 Analytical Requirements

The proposed EPA Level IV analytical methods from the General Radiochemistry and Routine Analytical Services Protocol (GRRASP) (EG&G 1994g) for the surface-water and sediment samples are presented in Table 5-2 The list of analytes has been identified for the Industrial Area based on the analytical rationale presented in Section 4.4. The contract-required detection limits (CRDL) for the metals analysis are presented in Table 5-2 These limits of detection are identical to those specified in the GRRASP (EG&G 1994g) and the EPA SOW for inorganic analysis (ILMO3.0) For metals analysis, the CRDLs for all analytes are verified on each instrument by routinely establishing instrument detection limits (IDLs) However, the detection limits for samples may be considerably higher depending on the sample matrix For organic analyses, the contract-required quantitation limits (CRQL) are presented in Table 5-2 These quantitation limits are identical to those specified in the GRRASP (EG&G 1994g) and the EPA-CLP SOW for organic analysis (OLM01-8). Quantitation limits are highly dependent on sample matrix The quantitation limits listed in Table 5-2 are provided as guidance and may not always be achievable Sample detection

TABLE 5-2
OU12 Field Sampling Plan
Analytical Parameters and Contract-Required Detection Limits (CRDL) for Surface-Water and Sediment Samples

Analytical Parameter	Water CRDL	Sediment CRDL
Target Analyte List Metals By EPA-CLP SOW (ILM03.0)	(µg/l)	(mg/kg)
Aluminum	200	40
Antimony	60	12
Arsenic (a)	10	2
Barium	200	40
Beryllium (a)	5	1.0
Cadmium	5	1 0
Calcium	5000	1000
Chromium	10	2.0
Cobalt	50	10
Copper	25	5.0
Cyanide	10	10
Iron	100	20
Lead	5	1 0
Magnesium	5000	1000
Manganese	15	3.0
Mercury	0 2	0.2
Nickel	40	8.0
Potassium	5000	1000
Selenium	5	1.0
Silver	10	2.0
Sodium	5000	1000
Thallium	10	2.0
Vanadium	50	10 0
Zinc	20	4.0
Non-Target Analyte List Metals By EPA-CLP SOW (ILM03.0)	(µg/l)	(mg/kg)
Cesium	1000	200
Lithium	100	20
Molybdenum	200	40
Silicon	100	NA
Strontium	200	40
Tin	200	40
Chromium VI (Hexavalent Cr) By Method SW7196	µg/L	mg/kg
Chromium VI	20	0 10

TABLE 5-2
OU12 Field Sampling Plan
Analytical Parameters and Contract-Required Quantitation Limits (CRQL)
for Surface-Water and Sediment Samples (continued)

Analytical Parameter	Water CRQL	Sediment CRQL
Target Compound List Volatiles by EPA-CLP SOW (OLM01.8)	(µg/l)	(mg/kg)
Chloromethane	10	10
Bromomethane	10	10
Vinyl Chloride (a)	10	10
Chloroethane	10	10
Methylene Chloride	10	10
Acetone	10	10
Carbon Disulfide	10	10
1,1-Dichloroethene(a)	10	10
1,1-Dichloroethane	10	10
1,2-Dichloroethene (Total)	10	10
Chloroform(a)	10	10
1,2-Dichloroethane(a)	10	10
2-Butanone	10	10
1,1,1-Trichloroethane(a)	10	10
Carbon Tetrachloride(a)	10	10
Bromodichloromethane(a)	10	10
1,2-Dichloropropane(a)	10	10
cis-1,3-Dichloropropene(a)	10	10
Trichloroethene(a)	10	10
Dibromochloromethane(a)	10	10
1,1,2-Trichloroethane	10	10
Benzene(a)	10	10
trans-1,3-Dichloropropene(a)	10	10
Bromoform(a)	10	10
4-Methyl-2-pentanone	10	10
2-Hexanone	10	10
Tetrachloroethene(a)	10	10
Toluene	10	10
1,1,2,2-Tetrachloroethane(a)	10	10
Chlorobenzene	10	10
Ethylbenzene	10	10
Styrene	10	10
Total Xylenes	10	10
	10	10

TABLE 5-2
OU12 Field Sampling Plan
Analytical Parameters and Contract-Required Quantitation Limites (CRQL)
for Surface-Water and Sediment Samples (continued)

Analytical Parameter	Water CRQL	Sediment CRQL
BNA by EPA-CLP SOW (OLM01.8)	(µg/l)	(µg/kg)
Phenol	10	330
2-Chloroethylether, bis-	10	330
2-Chlorophenol	10	330
1,3-Dichlorobenzene	10	330
1,4-Dichlorobenzene	10	330
1,2-Dichlorobenzene	10	330
2-Mehthylphenol	10	330
1-Chloropropane, 2,2'-oxybis-	10	330
4-Methylphenol	10	330
Nitrosodi-n-propylamine, N-	10	330
Hexachloroethane	10	330
Nitrobenzene	10	330
Isophorone	10	330
2-Nitrophenol	10	330
2,4-Dimethylphenol	10	330
2-Chloroethoxymethane, bis-	10	330
2,4-Dichlorophenol	10	330
1,2,4-Trichlorobenzene	10	330
Naphthalene	10	330
4-Chloroaniline	10	330
Hexachlorobutadiene	10	330
4-Chloro-3-methylphenol	10	330
2-Methylnaphthalene	10	330
Hexachlorocyclopentadiene	10	330
2,4,6-Trichlorophenol	10	330
2,4,5-Trichlorophenol	25	800
2-Chloronaphthalene	10	330
2-Nitroaniline	25	800
Dimethylphthalate	10	330
Acenaphthylene	10	330
2,6-Dinitrotoluene	10	330
3-Nitroaniline	25	800
Acenaphthene	10	330
2,4-Dinitrophenol	25	800
4-Nitrophenol	25	800
Dibenzofuran	10	330
2,4-Dinitrotoluene	10	330

TABLE 5-2
OU12 Field Sampling Plan
Analytical Parameters and Contract-Required Quantitation Limits (CRQL)
for Surface-Water and Sediment Samples (continued)

Analytical Parameter	Water CRQL	Sediment CRQL
Diethylphthalate	10	330
4-Chlorophenylphenylether	10	330
Fluorene	10	330
4-Nitroaniline	25	800
4,6-Dinitro-2-methylphenol	25	800
Nitroso-diphenylamine, N-	10	330
4-Bromophenylphenylether	10	330
Hexachlorobenzene	10	330
Pentachlorophenol	25	800
Phenanthrene	10	330
Anthracene	10	330
Carbazole	10	330
Di-n-butylphthalate	10	330
Fluoranthene	10	330
Pyrene	10	330
Butylbenzylphthalate	10	330
3,3'-Dichlorobenzidine	10	330
Benzo(a)anthracene	10	330
Chrysene	10	330
2-Ethylhexylphthalate, bis-	10	330
Di-n-octylphthalate	10	330
Benzo(b)fluoranthene	10	330
Benzo(k)fluoranthene	10	330
Benzo(a)pyrene	10	330
Indeno(1,2,3-cd)pyrene	10	330
Dibenz(a,h)anthracene	10	330
Benzo(g,h,i)perylene	10	330

TABLE 5-2
OU12 Field Sampling Plan
Analytical Parameters and Contract-Required Quantitation Limits (CRQL) for Surface-Water and Sediment Samples (continued)

Analytical Parameter	Water CRQL	Sediment CRQL
Pesticides/PCB by EPA-CLP SOW (2/88)	(µg/l)	(µg/kg)
BHC, alpha-	0.050	1.7
BHC, beta-	0 050	1.7
BHC, delta-	0 050	1 7
BHC, gamma- (Lindane)	0 050	1.7
Heptachlor	0 050	1.7
Aldrin	0 050	1.7
Heptachlor epoxide	0 050	1.7
Endosulfan I	0.050	1.7
Dieldrin	0 10	3.3
4,4'-DDE	0.10	3.3
Endrin	0 10	3.3
Endosulfan II	0 10	3 3
4,4'-DDD	0 10	3 3
Endosulfan sulfate	0 10	3.3
4,4'-DDT	0 10	3.3
Methoxychlor	0 50	17 0
Endrin ketone	0 10	3.3
Endrin aldehyde	0 10	3.3
Chlordane, alpha-	0 050	1.7
Chlordane, gamma-	0 050	1 7
Toxaphene	5 0	170.0
Aroclor-1016	1 0	33.0
Aroclor-1221	2 0	67 0
Aroclor-1232	1 0	33 0
Aroclor-1242	1 0	33.0
Aroclor-1248	1 0	33.0
Aroclor-1254	1 0	33 0
Aroclor-1260	1 0	33.0

TABLE 5-2
OU12 Field Sampling Plan
Analytical Parameters and Required Detection Limits (RDL)
for Surface-Water and Sediment Samples (continuted)

Analytical Parameter	Water RDL	Sediment RDL
Radionuclides (RDL)	(pCi/l)	(dry)(pCi/g)
Gross Alpha	2	
Gross Beta	4	4
Uranium 233/234, 235 (a), and 238 (each isotope)	0.6	10
Americium 241	0.01	0 3
Plutonium 239/240	0 01	0 02
Tritium	400	0 03
Cesium 137	1	400
Strontium 89/90	1	(pCi/ml)
		0 5
		1

Table 5-2
OU12 Field Sampling Plan
Analytical Parameters and Method Detection Limits (MDL)
for Surface-Water and Sediment Samples

Analytical Parameter	Water MDL	Sediment MDL
Anions by Method E300.0	(mg/l)	(mg/kg)
Nitrate as N	5	2.5
Nitrite as N	5	2 5
Sulfate	5	2 5
Chloride	5	2 5
Fluoride	0.1	2 5
pH at 25°C	0 1 pH unit	0 1 pH unit
Specific Conductance at 25°C	10μmhos/cm	NA
Total Organic Carbon by Method E415 1	0 1 μg/l	0.5 mg/kg
Dissolved Oxygen(b)	NA	NA
Temperature(b)	NA	NA
Alkalinity(b)	NA	NA

TABLE 5-2
OU12 Field Sampling Plan
Analytical Parameters and Method Detection Limits (MDL)
for Surface-Water Samples (continued)

Analytical Parameter	Water MDL
Chlorinated Herbicides by EPA Method 615	(µg/l)
Dalapon	5.80
Dicamba	0.27
Dichlorophenoxyacetic Acid (2,4-D)	1.20
Dichlorophenoxybutanoic Acid (2,4-DB)	0 91
Dichlorophenoxypropionic Acid	0 65
Dinoseb	0 07
MCPA	249
MCPP	192
Trichlorophenoxyacetic Acid (2,4,5-T)	0.20
Trichlorophenoxypropionic Acid (2,4,5-TP)	0 17

(a) Human health risk-based preliminary remediation goals are lower than detection limit or quantitation limits
(b) field measurements
CLP Contract Laboratory Program
CRDL contract-required detection limits
CRQL contract-required quantitation limits
EPA U S Environmental Protection Agency
MDL method detection limit
mg/kg milligrams per kilogram
mg/l milligrams per liter
NA not applicable
pCi/g picocuries per gram
pCi/ml picocuries per milliliter
RDL required detection limit
SOW Statement of Work
µg/kg micrograms per kilogram
µg/l micrograms per liter
µmhos/cm micromhos per centimeter
°C degrees Celsius
Notes The actual sample detection and quantitation limits are highly matrix dependent and may be elevated as a result The limits listed here are the minimum achievable under ideal conditions Actual limits may be higher

limits will be based on a dry-weight basis for sediment and will be higher than those listed in Table 5-2

The required detection limits (RDL) as established in the GRRASP (EG&G 1994g) are presented in Table 5-2 for the radionuclide parameters In addition, all non-CLP methods listed reference the method detection limits (MDL) found in the GRRASP (EG&G 1994g) Method detection or quantitation limits that do not meet preliminary remediation goals (PRGs) are noted in Table 5-2

The holding time for hexavalent chromium analysis of water samples is 24 hours. Because there are requirements for screening samples for radioactivity before they are shipped offsite, it is not feasible to meet the hexavalent chromium analysis holding time for water samples. Onsite laboratory capabilities for hexavalent chromium are not currently available Water samples will not be analyzed for hexavalent chromium

5.3.3 Sample Containers and Preservation

Sample volume requirements, preservation techniques, holding times, and container material requirements are specific to the analysis and to the surface-water and sediment media. Table 5-3 lists the types of analyses for the surface-water and sediment samples, associated container size, preservatives, and holding times Additional guidance for appropriate use of containers and preservative is provided in SOP FO 13, *Containerizing, Preserving, Handling, and Shipping of Soil and Water Samples* (EG&G 1994f), which will be followed during this sampling program

5.3.4 Sample Handling and Documentation

Sample handling and documentation procedures are necessary to ensure the defensibility of data and to verify the quality and quantity of work performed in the field. Accountability

TABLE 5-3
OU12 Field Sampling Plan
Sample Containers, Preservation, and Holding Times for Sediment and Surface Water

SEDIMENT SAMPLES			
Parameter	**Container**	**Preservative**	**Holding Time**
TAL and Non-TAL Metals	1 x 250 mL wide-mouth glass jar	Cool, 4°C	180 days[1]
TCL Volatiles	2 x 125 mL wide-mouth Teflon-lined jar	Cool, 4°C	7 days
Pesticides/PCBs	1 x 9 oz wide-mouth Teflon-lined glass vials	Cool, 4°C	7 days until extraction, 40 days after extraction
Herbicides	1 x 9 oz wide-mouth Teflon-lined glass vials	Cool, 4°C	7 days until extraction, 40 days after extraction
Radionuclides	1 x 1 L wide-mouth glass jar	None	180 days
TOC, Anions, pH, and Specific Conductance	1 x 250 mL wide-mouth glass jar	Cool, 4°C	28 days

SURFACE WATER SAMPLES			
Parameter	**Container**	**Preservative**	**Holding Time**
TAL Metals	1 x 1 L polyethylene bottle	Nitric acid pH <2, Cool, 4°C	180 days[1]
TCL Volatiles	2 x 40 mL VOA vials with Teflon-lined septum lids	Cool, 4°C	7 days
Pesticides/PCBs	1 x 4 L amber glass bottle	Cool, 4°C	7 days until extraction, 40 days after extraction
Herbicides	1 x 4 L amber glass bottle	Cool, 4°C	7 days until extraction, 40 days after extraction
Radionuclides	12 L polyethylene bottle(s)	Nitric acid pH <2	180 days
TOC	1 x 250 mL polyethylene bottle	Sulfuric acid pH <2, Cool, 4°C	28 days
Anions	1 x 1 L polyethylene bottle	Cool, 4°C	28 days
Nitrate/Nitrite	1 x 250 mL polyethylene bottle	Sulfuric acid pH <2, Cool, 4°C	28 days
pH, Temperature, and Specific Conductance	In situ, beaker or bucket	None	Analyze immediately

Notes

[1] Holding time for mercury is 28 days

°C = degrees Celsius
L = liter
mL = milliliter
PCB = polychlorinated biphenyl
TAL = target analyte list
TCL = target compound list
TOC = total organic carbon
oz = ounce

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documents include logbooks, data-collection forms, sample labels or tags, chain-of-custody records, field data documentation, and analytical records or reports Information pertaining to documentation of samples, packaging, and shipping is provided in SOP FO 13 (EG&G 1994f), which will be followed during this sampling program

5.3.5 Data Validation

Data validation will be conducted on surface-water and sediment sample data, in accordance with the *Sitewide Quality Assurance Project Plan* (EG&G 1991b) Data validation activities will consist of reviewing and verifying laboratory data and evaluating the verified data for data quality

Approved By

_____ ___/___/___
Director (Date)

_____ ___/___/___
Project Manager (Date)

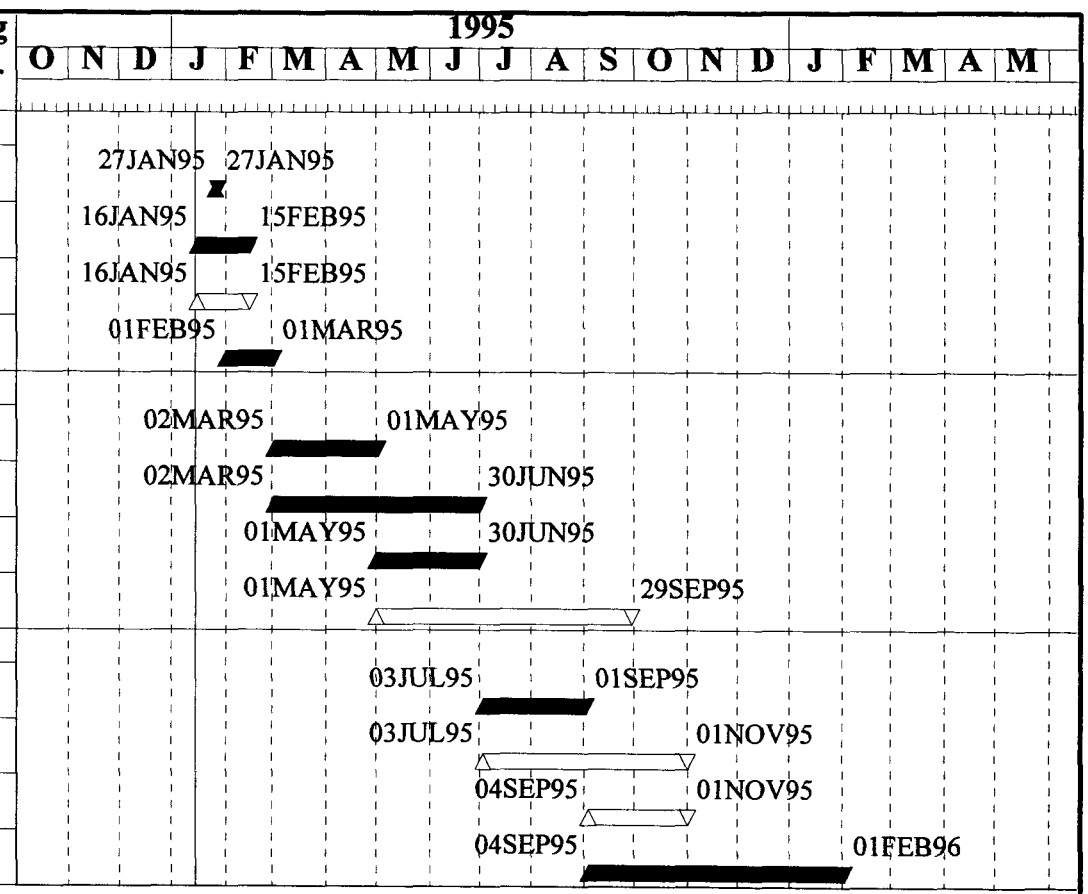
_____ ___/___/___
Quality Assurance Program Manager (Date)

6.0 FIELD SAMPLING PLAN SCHEDULE

The proposed FSP schedule is shown in Figure 6-1 The schedule incorporates subcontractor coordination, field sampling activities, laboratory analyses, data evaluation and data validation The schedule is based on the following assumptions·

- DOE, EG&G, EPA, and CDPHE concur and approve of the Final Technical Memorandum FSP (this document) by January 6, 1995
- The schedule for the development and review of this Technical Memorandum FSP is not altered
- Funding for the project is available from DOE.
- There are no conflicts with other surface-water and sediment collection programs
- There are no changes in scope after approval of the Draft Technical Memorandum, such as new or additional sampling locations, frequencies, or testing parameters

Act ID	Activity Description	Orig Dur
HOME OFFICE		
10	OU12-Technical Memo (FSP) Issued	1
20	OU12-Procure Subcontractor Support (Sampling)	23
30	OU12-Procure Analytical Subcontractor	23
40	OU12-Coordinate Protected Area Entry	21
SURFACE WATER/SEDIMENT SAMPLING I		
50	OU12-Surface Water/Sediment Sampling	43
60	OU12-Laboratory Analysis	87
70	OU12-Data Evaluation	45
80	OU12-Data Validation	110
SURFACE WATER SAMPLING II		
90	OU12-Surface Water Sampling II	45
100	OU12-Laboratory Analysis	88
110	OU12-Data Evaluation	43
120	OU12-Data Validation	109



Project Start 01JAN95
Project Finish 01FEB96
Data Date 15JAN95
Plot Date 19OCT94

(c) Primavera Systems, Inc

Early Bar
Progress Bar
Critical Activity

12FS

Sheet 1 of 1

FIGURE 6-1
DRAFT
SAMPLING SCHEDULE

JACOBS ENGINEERING GROUP INC.

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- Laboratory subcontractor provides 60-day turnaround reporting results of analyses for all chemical parameters

- Data are usable for Phase I interpretation and environmental evaluation before data validation

- No resampling because of laboratory QC problems

Approved By

_____ ___/___/___
Director (Date)

_____ ___/___/___
Project Manager (Date)

_____ ___/___/___
Quality Assurance Program Manager (Date)

7.0 DATA MANAGEMENT AND REPORTING

Sample-location numbers are assigned in blocks by request to the EG&G Sample Management Office After sampling begins, field data will be input to RFEDS using DATACAP remote entry module supplied by EG&G Data will be entered on a daily basis, and a 3 5-inch computer diskette will be delivered to EG&G on a weekly basis Data from the system will be available to the contractor immediately after the weekly update A hard copy report will be generated from the module for contractor use The data will undergo a prescribed QC based on SOP FO 14, *Field Data Management* (EG&G 1994f)

The contractor will maintain a database for field data that are collected during screening tasks The contractor will provide 3 5-inch diskettes and hard copies to EG&G for their use

A sample-tracking spreadsheet will be maintained by the contractor for use in tracking sample collection and shipment The sample-tracking spreadsheet will be updated weekly and will be available to EG&G in hardcopy or on a 3 5-inch computer diskette. These data will also be delivered to EG&G on 3 5-inch computer diskettes. Computer hardware and software requirements for contractors using government-supplied equipment will be supplied by EG&G Computer and data security measures will also follow acceptable procedures outlined by EG&G in SOP FO.14 Data management will follow RFEDS procedures in effect at the time this fieldwork is implemented

Results of laboratory analyses will be loaded into RFEDS based on a separate contract between the analytical laboratories and EG&G Data will be extracted from RFEDS to analyze and interpret the data for reporting

Forms provided in the various SOPs applicable to this project will also be used as appropriate to document and manage the data obtained

Approved By

_____ ___/___/___
Director (Date)

_____ ___/___/___
Project Manager (Date)

_____ ___/___/___
Quality Assurance Program Manager (Date)

8.0 FIELD QUALITY CONTROL PROCEDURES

Sample duplicates, field preservation blanks, and equipment rinsate blanks will be prepared. The analytical results obtained for the surface-water and sediment samples will be used by the contractor to assess the quality of the field sampling effort The types of field QC samples that will be collected and their application are discussed below The frequency of QC samples collection and analysis is summarized in Table 8-1

Duplicate samples will be collected by the sampling team for use as a relative measure of the precision of the sample collection process Duplicate samples will be collected from the same location as the primary sample Duplicate samples will be collected using the same procedures and equipment and in the same types of containers as required for the primary samples The duplicate samples will be preserved in the same manner and submitted for the same analyses required for the primary samples

Field blanks will consist of analyte-free American Society for Testing and Materials (ASTM) Type II reagent-grade water and will be prepared by the sampling team to provide an indication of contamination introduced during sample preparation

Equipment or rinsate blanks will be collected from the final decontamination rinse waters to evaluate the adequacy of the sample collection equipment decontamination procedures

TABLE 8-1
OU12 Field Sampling Plan
Field Quality Control Sample Frequency

Sample Type	Type of Analysis	Sample Frequency	
		Solids	Liquids
Duplicates	Organics	1/10	1/10
	Inorganics	1/10	1/10
	Radionuclides	1/10	1/10
Field Blanks	Organics		1/20
	Inorganics		1/20
	Radionuclides		1/20
Equipment Blanks	Organics	1/Day or 1/20	1/Day or 1/20
	Inorganics	1/Day or 1/20	1/Day or 1/20
	Radionuclides	1/Day or 1/20	1/Day or 1/20
Trip Blanks	Volatile Organics		1 per shipping container

1/10 = one Quality Control sample for every 10 samples collected

For equipment blanks, samples will be collected once each day or once for every 20 samples, whichever is more frequent

performed by the sampling team Equipment blanks will be collected by rinsing decontaminated equipment with distilled water before sample collection The blank sample will be collected and placed in the appropriate sample containers

Trip blanks are used to assess the potential for cross contamination of VOCs within sample containers used during storage, sample collection, and transport activities Trip blanks consist of ASTM Type II reagent-grade water and are prepared by the analytical laboratory Trip blanks will be shipped to the sampling site with the empty sample containers and transported back to the laboratory with the samples Trip blanks will remain unopened throughout the sampling event Trip blanks will be prepared and analyzed for VOCs by the laboratory along with the other samples

Comprehensive procedures for field QC and data usability are provided in *Rocky Flats Plant Site-Wide Quality Assurance Project Plan (EG&G* 1991b) including control of measuring and test equipment, sample handling, storage and shipping, and reporting requirements.

Approved By

_____ ___/___/___
Director (Date)

_____ ___/___/___
Project Manager (Date)

_____ ___/___/___
Quality Assurance Program Manager (Date)

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97g218

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Wright Water Engineers 1993 Storm Sewer Controls Inventory

A-OU12-000262

PLATE 1

35 mm DRAWING

PLATE 2

35 mm DRAWING

PLATE 3

35 mm DRAWING

APPENDIX A

SUMMARY STATISTICS FOR SEDIMENT DATA - DETECTS ONLY FROM ROCKY FLATS ENVIRONMENTAL DATABASE SYSTEM (RFEDS)

Summary Statistics for Sediment Data - Detects Only
1991 - 1992

LOCATION SED009

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value	99/99 UTL
% SOLIDS	%	5	86 60	63 30	73 52	8 55	82 41	
2-METHYLNAPHTHALENE	ug/kg	1	58 00	58 00	58 00			
ACENAPHTHENE	ug/kg	1	320 00	320 00	320 00			
ACETONE	ug/kg	2	140 00	16 00	78 00	87 68	169 19	
ALKALINITY AS CACO3	mg/kg	2	6,200 00	5,400 00	5,800 00	565 69	6,388 31	19,839 86
ALUMINUM	mg/kg	5	9,130 00	1,700 00	5,022 00	3 621 59	8,788 45	21,387 27
AMERICIUM-241	pCi/g	4	0 39	0 02	0 20	0 16	0 37	1 77
ANTHRACENE	ug/kg	3	370 00	79 00	176 00	168 01	350 73	
AROCLOR-1254	ug/L	1	0 11	0 11	0 11			
ARSENIC	mg/kg	5	4 10	1 10	2 26	1 39	3 70	10 13
BARIUM	mg/kg	5	143 00	24 90	75 72	52 60	130 42	253 82
BENZO(a)ANTHRACENE	ug/kg	4	590 00	55 00	241 25	237 71	488 47	
BENZO(a)PYRENE	ug/kg	3	440 00	150 00	246 67	167 43	420 80	
BENZO(b)FLUORANTHENE	ug/kg	3	390 00	160 00	236 67	132 79	374 77	
BENZO(ghi)PERYLENE	ug/kg	1	460 00	460 00	460 00			
BENZO(k)FLUORANTHENE	ug/kg	3	250 00	120 00	163 33	75 06	241 39	
BERYLLIUM	mg/kg	4	0 90	0 20	0 45	0 32	0 77	11 65
BIS(2-ETHYLHEXYL)PHTHALAT	ug/kg	4	650 00	100 00	425 00	272 34	708 23	
CADMIUM	mg/kg	1	1 30	1 30	1 30			2 55
CALCIUM	mg/kg	5	14 600 00	1,880 00	6,476 00	5,633 09	12,334 41	18,446 12
CESIUM-134	pCi/g	1	0 09	0 09	0 09			
CESIUM-137	pCi/g	5	0 10	0 00	0 05	0 04	0 08	1 54
CHROMIUM	mg/kg	4	10 20	2 20	6 35	4 40	10 92	31 88
CHRYSENE	ug/kg	4	610 00	70 00	250 00	243 72	503 47	
COBALT	mg/kg	5	8 20	2 40	5 20	2 36	7 66	16 43
COPPER	mg/kg	5	14 80	6 20	10 18	3 97	14 31	36 78
DI-n-BUTYL PHTHALATE	ug/kg	2	62 00	51 00	56 50	7 78	64 59	
DIBENZO(a,h)ANTHRACENE	ug/kg	1	290 00	290 00	290 00			
DIBENZOFURAN	ug/kg	1	120 00	120 00	120 00			
FLUORANTHENE	ug/kg	4	1,600 00	130 00	552 50	700 26	1 280 77	
FLUORENE	ug/kg	1	250 00	250 00	250 00			
GROSS ALPHA	pCi/g	5	67 00	3 61	19 55	26 79	47 41	87 54
GROSS BETA	pCi/g	5	38 00	7 19	22 01	13 99	36 56	66 83
INDENO(1,2,3-cd)PYRENE	ug/kg	1	410 00	410 00	410 00			
IRON	mg/kg	5	14,500 00	6,130 00	9,500 00	3,759 67	13,410 06	28,612 98
LEAD	mg/kg	5	21 50	4 70	11 20	6 99	18 47	138 09
LITHIUM	mg/kg	5	5 70	1 80	3 54	1 94	5 56	41 01
MAGNESIUM	mg/kg	5	2,660 00	721 00	1,451 80	940 55	2,429 97	5,358 56
MANGANESE	mg/kg	5	1,700 00	241 00	882 00	558 49	1,462 83	907 35
METHYLENE CHLORIDE	ug/kg	3	39 00	17 00	26 33	11 37	38 16	
MOLYBDENUM	mg/kg	2	4 60	3 60	4 10	0 71	4 84	31 75
NAPHTHALENE	ug/kg	1	120 00	120 00	120 00			

UTLs based on Background Geochemical Characterization Report (EG&G 1993d)

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Summary Statistics for Sediment Data - Detects Only
1991 - 1992

LOCATION SED009

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value	99/99 UTL
NICKEL	mg/kg	5	14 80	3 20	8 70	4 71	13 60	24 16
NITRATE/NITRITE	mg/kg	2	27 70	4 20	15 95	16 62	33 23	57 19
pH	pH	5	8 20	7 30	7 62	0 36	7 99	9 34
PHENANTHRENE	ug/kg	4	1,700 00	72 00	603 00	740 62	1,373 24	
PLUTONIUM-239/240	pCi/g	4	1 30	0 19	0 73	0 52	1 27	5 62
POTASSIUM	mg/kg	5	1 510 00	402 00	838 80	560 33	1,421 55	3,159 74
PYRENE	ug/kg	4	1,300 00	110 00	592 50	502 88	1,115 50	
RADIUM-226	pCi/g	5	0 90	0 54	0 65	0 15	0 80	2 22
RADIUM-228	pCi/g	5	1 96	0 82	1 38	0 53	1 93	4 55
SELENIUM	mg/kg	1	0 35	0 35	0 35			2 18
SILICON	mg/kg	5	689 00	241 00	380 40	189 32	577 29	1 741 79
SODIUM	mg/kg	5	298 00	60 30	132 02	101 28	237 35	593 09
STRONTIUM	mg/kg	5	49 90	5 50	24 40	19 42	44 60	291 42
STRONTIUM-89,90	pCi/g	5	0 47	0 01	0 15	0 20	0 36	1 07
SUB BENZENEDICARBOXYLIC	ug/kg	1	500 00	500 00	500 00			
SUB HEXANEDIOIC ACID	ug/kg	1	200 00	200 00	200 00			
TIN	mg/kg	2	8 30	4 50	6 40	2 69	9 19	40 57
TRITIUM	pCi/L	4	1,000 00	-33 30	350 63	450 48	819 13	1,030 59
UNKNOWN	ug/kg	12	5,000 00	10 00	1,350 83	1,565 05	2,978 48	
UNKNOWN HYDROCARABON	ug/kg	1	200 00	200 00	200 00			
UNKNOWN HYDROCARBON	ug/kg	3	800 00	200 00	400 00	346 41	760 27	
URANIUM-233,-234	pCi/g	5	1 50	0 16	0 96	0 52	1 50	5 29
URANIUM-235	pCi/g	5	0 09	0 00	0 05	0 04	0 09	0 21
URANIUM-238	pCi/g	5	1 52	0 13	1 01	0 59	1 62	4 82
VANADIUM	mg/kg	5	27 60	6 70	14 70	9 29	24 36	63 39
ZINC	mg/kg	5	158 00	32 10	95 44	54 62	152 24	139 04

UTLs based on Background Geochemical Characterization Report (EG&G 1993d)

DRAFT

Summary Statistics for Sediment Data - Detects Only
1991 - 1992

LOCATION SED011

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value	99/99 UTL
% SOLIDS	%	6	85 10	61 00	68 97	10 18	79 55	
ACENAPHTHENE	ug/kg	1	56 00	56 00	56 00			
ACETONE	ug/kg	3	35 00	6 00	21 67	14 64	36 89	
Aldol Condensation	ug/kg	2	4,200 00	3,200 00	3,700 00	707 11	4,435 39	
ALKALINITY AS CACO3	mg/kg	5	6,200 00	1,300 00	3,960 00	1,942 42	5,980 12	19,839 86
ALUMINUM	mg/kg	8	14,900 00	1,930 00	8,230 00	3,942 55	12,330 25	21,387 27
AMERICIUM-241	pCi/g	8	0 33	0 02	0 19	0 11	0 30	1 77
ANTIMONY	mg/kg	1	4 30	4 30	4 30			17 68
AROCLOR-1254	ug/kg	10	850 00	0 70	430 67	348 83	793 45	
ARSENIC	mg/kg	8	8 40	1 10	4 31	2 07	6 47	10 13
BARIUM	mg/kg	8	141 00	42 90	102 63	34 10	138 09	253 82
BENZO(a)ANTHRACENE	ug/kg	3	95 00	77 00	88 00	9 64	98 03	
BENZO(a)PYRENE	ug/kg	1	95 00	95 00	95 00			
BENZO(b)FLUORANTHENE	ug/kg	2	110 00	66 00	88 00	31 11	120 36	
BENZO(k)FLUORANTHENE	ug/kg	2	97 00	67 00	82 00	21 21	104 06	
BERYLLIUM	mg/kg	7	1 00	0 31	0 51	0 23	0 75	11 65
BICARBONATE AS CACO3	UG/G	2	2,890 00	2,580 00	2,735 00	219 20	2,962 97	18,993 76
BIS(2-ETHYLHEXYL)PHTHALAT	ug/kg	4	160 00	88 00	132 00	31 87	165 15	
CADMIUM	mg/kg	2	1 00	0 79	0 90	0 15	1 05	2 55
CALCIUM	mg/kg	8	39,800 00	6,370 00	21,417 50	12,203 19	34,108 82	18,446 12
CARBONATE AS CACO3	UG/G	2	143 00	119 00	131 00	16 97	148 65	
CESIUM	mg/kg	1	1 80	1 80	1 80			442 39
CESIUM-134	pCi/g	2	0 12	0 12	0 12	0 00	0 12	
CESIUM-137	pCi/g	8	0 17	0 03	0 08	0 05	0 12	1 54
CHROMIUM	mg/kg	8	14 40	1 90	7 80	3 68	11 63	31 88
CHRYSENE	ug/kg	3	120 00	80 00	98 00	20 30	119 11	
COBALT	mg/kg	8	9 50	2 10	5 23	2 26	7 57	16 43
COPPER	mg/kg	8	14 70	5 10	11 19	3 16	14 48	36 78
DI-n-BUTYL PHTHALATE	ug/kg	2	74 00	58 00	66 00	11 31	77 77	
FLUORANTHENE	ug/kg	5	240 00	61 00	150 40	78 26	231 79	
GROSS ALPHA	pCi/g	8	160 00	4 23	42 54	55 70	100 47	87 54
GROSS BETA	pCi/g	8	64 00	5 12	28 75	16 34	45 75	66 83
Hexadecanoic Acid	ug/kg	2	2,300 00	280 00	1,290 00	1,428 36	2 775 49	
HEXADECENOIC ACID	ug/kg	1	700 00	700 00	700 00			
INDENO(1,2,3-cd)PYRENE	ug/kg	2	74 00	61 00	67 50	9 19	77 06	
IRON	mg/kg	8	19,700 00	5,270 00	11,880 00	4,557 51	16,619 82	28,612 98
LEAD	mg/kg	8	26 70	6 00	16 48	5 93	22 64	138 09
LITHIUM	mg/kg	7	9 50	1 90	5 86	2 29	8 24	41 01
MAGNESIUM	mg/kg	8	3,240 00	822 00	2,200 25	748 43	2,978 62	5,358 56
MANGANESE	mg/kg	8	290 00	121 00	175 38	51 41	228 84	907 35
METHYLENE CHLORIDE	ug/kg	3	40 00	4 00	18 33	19 09	38 18	
MOLYBDENUM	mg/kg	3	4 50	4 10	4 23	0 23	4 47	31 75

UTLs based on Background Geochemical Characterization Report (EG&G 1993d)

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Summary Statistics for Sediment Data - Detects Only
1991 - 1992

LOCATION SED011

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value	99/99 UTL
NAPHTHALENE	ug/kg	1	59 00	59 00	59 00			
NICKEL	mg/kg	6	14 00	3 40	9 87	3 71	13 72	24 16
NITRATE/NITRITE	mg/kg	2	3 00	1 70	2 35	0 92	3 31	57 19
pH	pH	8	8 60	7 00	7 88	0 48	8 38	9 34
PHENANTHRENE	ug/kg	5	240 00	53 00	130 80	80 63	214 66	
PLUTONIUM-239/240	pCi/g	8	0 45	0 04	0 21	0 12	0 33	5 62
POTASSIUM	mg/kg	8	1,780 00	321 00	1,139 25	443 52	1,600 51	3,159 74
PYRENE	ug/kg	5	240 00	81 00	151 20	67 97	221 89	
RADIUM-226	pCi/g	9	1 15	0 36	0 79	0 24	1 04	2 22
RADIUM-228	pCi/g	9	2 90	0 00	1 43	0 76	2 22	4 55
SELENIUM	mg/kg	3	0 43	0 26	0 37	0 09	0 46	2 18
SILICON	mg/kg	7	589 00	79 20	289 46	151 69	447 22	1,741 79
SILVER	mg/kg	3	2 00	0 79	1 36	0 61	2 00	3 11
SODIUM	mg/kg	8	330 00	74 90	171 84	86 07	261 35	593 09
Stigmast-5-en-3-ol, (3 beta	ug/kg	1	680 00	680 00	680 00			
STRONTIUM	mg/kg	8	76 70	12 80	54 53	21 86	77 26	291 42
STRONTIUM-89,90	pCi/g	7	1 06	0 05	0 28	0 36	0 65	1 07
SUB BENZENEDICARBOXYLIC	ug/kg	2	600 00	500 00	550 00	70 71	623 54	
SUB HEXANEDIOIC ACID	ug/kg	1	10,000 00	10,000 00	10,000 00			
TETRACHLOROETHENE	ug/kg	3	7 00	3 00	4 67	2 08	6 83	
Tetradecanoic acid, tetradec	ug/kg	1	610 00	610 00	610 00			
TIN	mg/kg	2	11 30	4 60	7 95	4 74	12 88	40 57
TRITIUM	pCi/L	7	1,000 00	60 71	316 20	322 32	651 41	1,030 59
UNKNOWN	ug/kg	19	20 000 00	10 00	3,495 26	4,960 06	8,653 73	
UNKNOWN HYDROCARBON	ug/kg	6	700 00	200 00	466 67	175 12	648 79	
Unknown-1	ug/kg	2	840 00	300 00	570 00	381 84	967 11	
Unknown-10	ug/kg	1	2,400 00	2,400 00	2,400 00			
Unknown-11	ug/kg	1	710 00	710 00	710 00			
Unknown-12	ug/kg	1	940 00	940 00	940 00			
Unknown-13	ug/kg	1	960 00	960 00	960 00			
Unknown-15	ug/kg	1	1 600 00	1,600 00	1 600 00			
Unknown-16	ug/kg	1	770 00	770 00	770 00			
Unknown-17	ug/kg	1	780 00	780 00	780 00			
Unknown-18	ug/kg	1	880 00	880 00	880 00			
Unknown-19	ug/kg	1	1,100 00	1,100 00	1,100 00			
Unknown-2	ug/kg	2	740 00	740 00	740 00	0 00	740 00	
Unknown-3	ug/kg	2	500 00	380 00	440 00	84 85	528 25	
Unknown-4	ug/kg	2	410 00	260 00	335 00	106 07	445 31	
Unknown-5	ug/kg	2	2 800 00	960 00	1,880 00	1,301 08	3,233 12	
Unknown-6	ug/kg	1	570 00	570 00	570 00			
Unknown-7	ug/kg	2	250 00	230 00	240 00	14 14	254 71	
Unknown-8	ug/kg	2	260 00	220 00	240 00	28 28	269 42	

UTLs based on Background Geochemical Characterization Report (EG&G 1993d)

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Summary Statistics for Sediment Data - Detects Only
1991 - 1992

LOCATION SED011

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value	99/99 UTL
Unknown-9	ug/kg	1	420 00	420 00	420 00			
URANIUM-233,-234	pCi/g	9	2 40	0 41	1 07	0 59	1 68	5 29
URANIUM-235	pCi/g	9	0 08	0 00	0 04	0 03	0 07	0 21
URANIUM-238	pCi/g	9	2 00	0 40	0 97	0 48	1 47	4 82
VANADIUM	mg/kg	8	41 10	9 60	25 50	10 49	36 41	63 39
ZINC	mg/kg	8	507 00	29 00	243 76	163 19	413 48	139 04

UTLs based on Background Geochemical Characterization Report (EG&G 1993d)

DRAFT

Summary Statistics for Sediment Data - Detects Only
1991 - 1992

LOCATION SED028

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value	99/99 UTL
% SOLIDS	%	3	67 50	50 00	57 47	9 03	66 86	
2-BUTANONE	ug/kg	1	16 00	16 00	16 00			
4-METHYLPHENOL	ug/kg	2	110 00	110 00	110 00	0 00	110 00	
ACETONE	ug/kg	1	130 00	130 00	130 00			
ALDRIN	ug/kg	1	0 00	0 00	0 00			
ALKALINITY AS CACO3	mg/kg	2	9,100 00	5,900 00	7,500 00	2,262 74	9,853 25	19,839 86
alpha-CHLORDANE	ug/kg	1	0 00	0 00	0 00			
ALUMINUM	mg/kg	3	18,000 00	12,000 00	15,133 33	3,008 88	18,262 56	21,387 27
AMERICIUM-241	pCi/g	2	0 04	0 04	0 04	0 00	0 04	1 77
AROCLOR-1254	ug/kg	2	46 00	40 00	43 00	4 24	47 41	
ARSENIC	mg/kg	3	7 20	5 00	6 20	1 11	7 36	10 13
BARIUM	mg/kg	3	214 00	162 00	185 33	26 41	212 80	253 82
BERYLLIUM	mg/kg	3	1 10	0 79	0 96	0 16	1 12	11 65
beta-BHC	ug/kg	1	0 00	0 00	0 00			
BIS(2-ETHYLHEXYL)PHTHALAT	ug/kg	4	130 00	87 00	108 50	24 83	134 32	
CADMIUM	mg/kg	1	0 86	0 86	0 86			2 55
CALCIUM	mg/kg	3	27,100 00	16,000 00	19,900 00	6,242 60	26,392 30	18,446 12
CESIUM-134	pCi/g	1	0 07	0 07	0 07			
CESIUM-137	pCi/g	3	0 10	0 07	0 09	0 02	0 10	1 54
CHROMIUM	mg/kg	3	18 30	10 00	14 27	4 15	18 59	31 88
COBALT	mg/kg	3	10 00	7 80	8 67	1 17	9 89	16 43
COPPER	mg/kg	3	22 50	18 10	20 53	2 24	22 86	36 78
delta-BHC	ug/kg	1	0 00	0 00	0 00			
DI-n-BUTYL PHTHALATE	ug/kg	1	57 00	57 00	57 00			
ENDOSULFAN I	ug/kg	1	0 00	0 00	0 00			
gamma-CHLORDANE	ug/kg	1	0 00	0 00	0 00			
GROSS ALPHA	pCi/g	3	9 48	2 43	5 99	3 53	9 66	87 54
GROSS BETA	pCi/g	3	26 46	6 17	13 84	11 02	25 29	66 83
HEPTACHLOR	ug/kg	1	0 00	0 00	0 00			
HEPTACHLOR EPOXIDE	ug/kg	1	0 00	0 00	0 00			
IRON	mg/kg	3	22,300 00	17,000 00	19,833 33	2,668 96	22,609 05	28,612 98
LEAD	mg/kg	3	23 10	20 40	21 83	1 36	23 25	138 09
LITHIUM	mg/kg	4	14 00	12 00	12 90	1 05	13 99	41 01
MAGNESIUM	mg/kg	3	4,510 00	3,600 00	4,146 67	481 91	4 647 85	5,358 56
MANGANESE	mg/kg	3	268 00	212 00	240 00	28 00	269 12	907 35
METHYLENE CHLORIDE	ug/kg	1	19 00	19 00	19 00			
NICKEL	mg/kg	3	18 80	15 00	17 53	2 19	19 82	24 16
NITRATE/NITRITE	mg/kg	3	3 80	2 00	2 63	1 01	3 69	57 19
pH	pH	3	8 00	7 10	7 57	0 45	8 04	9 34
PLUTONIUM-239/240	pCi/g	2	0 18	0 12	0 15	0 04	0 19	5 62
POTASSIUM	mg/kg	3	2 240 00	1,700 00	2,013 33	280 24	2,304 78	3,159 74
PYRENE	ug/kg	2	61 00	61 00	61 00	0 00	61 00	

UTLs based on Background Geochemical Characterization Report (EG&G 1993d)

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Summary Statistics for Sediment Data - Detects Only
1991 - 1992

LOCATION SED028

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value	99/99 UTL
RADIUM-226	pCi/g	3	1 50	0 95	1 26	0 28	1 55	2 22
RADIUM-228	pCi/g	3	2 50	1 06	1 89	0 75	2 67	4 55
SELENIUM	mg/kg	2	0 63	0 41	0 52	0 16	0 68	2 18
SILICON	mg/kg	3	1,740 00	342 00	1,025 33	699 53	1,752 84	1,741 79
SODIUM	mg/kg	3	225 00	183 00	209 33	22 94	233 19	593 09
STRONTIUM	mg/kg	4	97 30	72 10	80 35	11 45	92 26	291 42
STRONTIUM-89,90	pCi/g	2	0 12	-0 30	-0 09	0 30	0 22	1 07
TIN	mg/kg	1	13 90	13 90	13 90			40 57
TRITIUM	pCi/L	3	1,000 00	17 61	426 12	511 65	958 23	1,030 59
URANIUM-233,-234	pCi/g	3	1 12	0 25	0 65	0 44	1 11	5 29
URANIUM-235	pCi/g	3	0 05	0 01	0 03	0 02	0 05	0 21
URANIUM-238	pCi/g	3	1 09	0 25	0 64	0 42	1 08	4 82
VANADIUM	mg/kg	3	42 50	31 00	38 30	6 35	44 90	63 39
ZINC	mg/kg	3	94 00	81 00	86 97	6 57	93 79	139 04

UTLs based on Background Geochemical Characterization Report (EG&G 1993d)

DRAFT

Summary Statistics for Sediment Data - Detects Only
1991 - 1992

LOCATION SED029

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value	99/99 UTL
% SOLIDS	%	4	87 00	44 40	56 40	20 47	77 69	
2-BUTANONE	ug/kg	1	10 00	10 00	10 00			
4,4'-DDT	ug/kg	1	5 50	5 50	5 50			
4-METHYL-2-PENTANONE	ug/kg	1	3 00	3 00	3 00			
4-METHYLPHENOL	ug/kg	2	720 00	93 00	406 50	443 36	867 59	
ACETONE	ug/kg	2	66 00	23 00	44 50	30 41	76 12	
Aldol Condensation	ug/kg	2	20 000 00	5 800 00	12,900 00	10 040 92	23,342 55	
ALKALINITY AS CACO3	mg/kg	3	10,000 00	3,300 00	6,400 00	3,377 87	9,912 98	19,839 86
ALUMINUM	mg/kg	6	18,100 00	8,560 00	13,693 33	3,576 85	17,413 26	21,387 27
AMERICIUM-241	pCi/g	5	0 13	0 02	0 08	0 05	0 13	1 77
ANTIMONY	mg/kg	1	4 90	4 90	4 90			17 68
AROCLOR-1254	ug/kg	4	510 00	140 00	257 50	171 73	436 10	
ARSENIC	mg/kg	6	5 20	3 60	4 37	0 55	4 94	10 13
BARIUM	mg/kg	6	167 00	142 00	155 67	8 89	164 91	253 82
BENZO(a)ANTHRACENE	ug/kg	1	64 00	64 00	64 00			
BENZO(a)PYRENE	ug/kg	1	110 00	110 00	110 00			
BENZO(b)FLUORANTHENE	ug/kg	1	120 00	120 00	120 00			
BENZO(k)FLUORANTHENE	ug/kg	1	110 00	110 00	110 00			
BERYLLIUM	mg/kg	5	1 20	0 57	0 88	0 23	1 12	11 65
BICARBONATE AS CACO3	UG/G	2	2 650 00	1,720 00	2 185 00	657 61	2,868 91	18 993 76
BIS(2-ETHYLHEXYL)PHTHALAT	ug/kg	5	310 00	67 00	191 40	89 47	284 45	
CADMIUM	mg/kg	1	1 30	1 30	1 30			2 55
CALCIUM	mg/kg	6	18,900 00	6,400 00	14,850 00	4,780 27	19,821 48	18,446 12
CARBONATE AS CACO3	UG/G	1	30 60	30 60	30 60			
CESIUM	mg/kg	2	3 40	3 20	3 30	0 14	3 45	442 39
CESIUM-134	pCi/g	2	0 12	0 04	0 08	0 05	0 14	
CESIUM-137	pCi/g	6	0 20	0 11	0 15	0 04	0 19	1 54
Cholest-5-en-3-ol (3 beta)-	ug/kg	1	3,300 00	3,300 00	3,300 00			
CHOLESTEROL	ug/kg	1	2,000 00	2 000 00	2 000 00			
CHROMIUM	mg/kg	6	17 50	8 50	14 58	3 49	18 21	31 88
CHRYSENE	ug/kg	1	87 00	87 00	87 00			
COBALT	mg/kg	6	12 80	6 40	8 48	2 24	10 82	16 43
COPPER	mg/kg	6	31 00	20 40	24 50	3 49	28 13	36 78
DI-n-BUTYL PHTHALATE	ug/kg	2	68 00	46 00	57 00	15 56	73 18	
ETHYLBENZENE	ug/kg	1	5 00	5 00	5 00			
FLUORANTHENE	ug/kg	1	120 00	120 00	120 00			
gamma-BHC (LINDANE)	ug/kg	1	4 40	4 40	4 40			
GROSS ALPHA	pCi/g	6	21 60	10 02	16 76	4 71	21 65	87 54
GROSS BETA	pCi/g	6	29 35	8 94	22 48	7 95	30 75	66 83
Hexadecanoic Acid	ug/kg	2	2,700 00	1 600 00	2,150 00	777 82	2 958 93	
HYDROCARBON C6H14	ug/kg	1	20 00	20 00	20 00			
IRON	mg/kg	6	22 200 00	14 000 00	17,683 33	2 702 16	20,493 58	28 612 98

UTLs based on Background Geochemical Characterization Report (EG&G 1993d)

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Summary Statistics for Sediment Data - Detects Only
1991 - 1992

LOCATION SED029

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value	99/99 UTL
LEAD	mg/kg	6	39 80	27 60	34 90	4 35	39 42	138 09
LITHIUM	mg/kg	4	14 00	11 60	12 63	1 10	13 77	41 01
MAGNESIUM	mg/kg	6	3,870 00	2,810 00	3,538 33	391 17	3,945 15	5,358 56
MANGANESE	mg/kg	6	264 00	177 00	214 50	30 47	246 19	907 35
METHYLENE CHLORIDE	ug/kg	1	16 00	16 00	16 00			
MOLYBDENUM	mg/kg	2	6 70	5 40	6 05	0 92	7 01	31 75
NICKEL	mg/kg	5	19 80	15 20	17 84	1 72	19 62	24 16
NITRATE/NITRITE	mg/kg	4	13 50	0 61	5 65	5 73	11 61	57 19
pH	pH	6	7 80	7 20	7 46	0 22	7 69	9 34
PHENANTHRENE	ug/kg	1	66 00	66 00	66 00			
PLUTONIUM-239/240	pCi/g	5	0 73	0 29	0 54	0 19	0 74	5 62
POTASSIUM	mg/kg	5	3,110 00	1,840 00	2,558 00	493 93	3,071 69	3,159 74
PYRENE	ug/kg	2	140 00	73 00	106 50	47 38	155 77	
RADIUM-226	pCi/g	5	2 10	0 90	1 33	0 48	1 83	2 22
RADIUM-228	pCi/g	5	3 00	1 28	2 11	0 61	2 75	4 55
SELENIUM	mg/kg	4	0 64	0 33	0 52	0 14	0 66	2 18
SILICON	mg/kg	5	1,750 00	222 00	767 00	629 53	1,421 71	1,741 79
SILVER	mg/kg	1	1 70	1 70	1 70			3 11
SODIUM	mg/kg	6	299 00	142 00	212 50	68 35	283 58	593 09
Stigmast-5-en-3-ol, (3 beta	ug/kg	2	2,900 00	2,100 00	2,500 00	565 69	3,088 31	
STRONTIUM	mg/kg	6	74 50	52 60	65 00	7 83	73 15	291 42
STRONTIUM-89,90	pCi/g	5	3 24	0 04	1 12	1 40	2 57	1 07
SUB BENZENEDICARBOXYLIC	ug/kg	1	400 00	400 00	400 00			
Sulfur, mol (S8)	ug/kg	1	2,200 00	2,200 00	2,200 00			
TIN	mg/kg	3	18 80	10 40	14 50	4 20	18 87	40 57
TOLUENE	ug/kg	1	2 00	2 00	2 00			
TRITIUM	pCi/L	5	651 00	0 00	182 61	268 63	461 98	1,030 59
UNKNOWN	ug/kg	7	6,000 00	400 00	2,400 00	2,077 66	4,560 77	
UNKNOWN HYDROCARBON	ug/kg	2	2,000 00	1,000 00	1,500 00	707 11	2,235 39	
Unknown-1	ug/kg	1	1,600 00	1,600 00	1,600 00			
Unknown-10	ug/kg	1	980 00	980 00	980 00			
Unknown-11	ug/kg	2	2,000 00	950 00	1,475 00	742 46	2,247 16	
Unknown-12	ug/kg	1	860 00	860 00	860 00			
Unknown-13	ug/kg	2	4,700 00	1,200 00	2,950 00	2,474 87	5,523 87	
Unknown-14	ug/kg	1	650 00	650 00	650 00			
Unknown-15	ug/kg	2	1,100 00	1 100 00	1 100 00	0 00	1,100 00	
Unknown-16	ug/kg	2	1,300 00	830 00	1,065 00	332 34	1 410 63	
Unknown-17	ug/kg	2	2 200 00	620 00	1,410 00	1,117 23	2,571 92	
Unknown-2	ug/kg	2	2,000 00	1,500 00	1,750 00	353 55	2,117 70	
Unknown-3	ug/kg	2	5,600 00	2,300 00	3 950 00	2,333 45	6,376 79	
Unknown-4	ug/kg	2	3,500 00	1,000 00	2,250 00	1,767 77	4,088 48	
Unknown-5	ug/kg	1	2,500 00	2,500 00	2,500 00			

UTLs based on Background Geochemical Characterization Report (EG&G 1993d)

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Summary Statistics for Sediment Data - Detects Only
1991 - 1992

LOCATION SED029

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value	99/99 UTL
Unknown-6	ug/kg	2	1,900 00	1,800 00	1,850 00	70 71	1,923 54	
Unknown-7	ug/kg	2	1,400 00	630 00	1,015 00	544 47	1,581 25	
Unknown-8	ug/kg	1	880 00	880 00	880 00			
Unknown-9	ug/kg	1	930 00	930 00	930 00			
URANIUM-233,-234	pCi/g	6	1 42	0 20	0 84	0 44	1 30	5 29
URANIUM-235	pCi/g	6	0 06	0 01	0 04	0 02	0 06	0 21
URANIUM-238	pCi/g	6	1 64	0 29	1 07	0 55	1 65	4 82
VANADIUM	mg/kg	6	43 40	24 60	37 17	6 61	44 04	63 39
ZINC	mg/kg	6	120 00	87 50	98 98	12 36	111 83	139 04

UTLs based on Background Geochemical Characterization Report (EG&G 1993d)

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Summary Statistics for Sediment Data - Detects Only
1991 - 1992

LOCATION SED037

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value	99/99 UTL
% SOLIDS	%	1	67 00	67 00	67 00			
2-BUTANONE	ug/kg	1	11 00	11 00	11 00			
4-METHYLPHENOL	ug/kg	1	510 00	510 00	510 00			
ACETONE	ug/kg	1	54 00	54 00	54 00			
Aldol Condensation	ug/kg	1	7,100 00	7,100 00	7,100 00			
ALUMINUM	mg/kg	2	14,100 00	10,700 00	12,400 00	2,404 16	14,900 33	21,387 27
AMERICIUM-241	pCi/g	2	0 03	0 02	0 02	0 01	0 03	1 77
AROCLOR-1254	ug/kg	2	86 00	51 00	68 50	24 75	94 24	
ARSENIC	mg/kg	2	5 90	4 80	5 35	0 78	6 16	10 13
BARIUM	mg/kg	2	240 00	167 00	203 50	51 62	257 18	253 82
BERYLLIUM	mg/kg	2	0 97	0 81	0 89	0 11	1 01	11 65
BICARBONATE AS CACO3	UG/G	1	1,720 00	1 720 00	1,720 00			18,993 76
BIS(2-ETHYLHEXYL)PHTHALAT	ug/kg	2	440 00	260 00	350 00	127 28	482 37	
CADMIUM	mg/kg	1	0 79	0 79	0 79			2 55
CALCIUM	mg/kg	2	15,500 00	8 680 00	12 090 00	4,822 47	17,105 37	18,446 12
CARBONATE AS CACO3	UG/G	1	0 00	0 00	0 00			
CESIUM	mg/kg	1	5 20	5 20	5 20			442 39
CESIUM-134	pCi/g	1	0 04	0 04	0 04			
CESIUM-137	pCi/g	2	0 15	0 07	0 11	0 06	0 17	1 54
CHOLESTEROL	ug/kg	1	800 00	800 00	800 00			
CHROMIUM	mg/kg	2	14 20	13 60	13 90	0 42	14 34	31 88
COBALT	mg/kg	2	13 10	10 10	11 60	2 12	13 81	16 43
COPPER	mg/kg	2	38 30	26 00	32 15	8 70	41 20	36 78
FLUORANTHENE	ug/kg	1	120 00	120 00	120 00			
GROSS ALPHA	pCi/g	2	15 51	15 30	15 41	0 15	15 56	87 54
GROSS BETA	pCi/g	2	27 52	21 20	24 36	4 47	29 01	66 83
HEXADECANOIC ACID	ug/kg	2	7,700 00	900 00	4,300 00	4,808 33	9,300 66	
IRON	mg/kg	2	17,000 00	14 600 00	15,800 00	1,697 06	17,564 94	28,612 98
LEAD	mg/kg	2	32 20	27 50	29 85	3 32	33 31	138 09
LITHIUM	mg/kg	1	8 40	8 40	8 40			41 01
MAGNESIUM	mg/kg	2	3,480 00	3,370 00	3,425 00	77 78	3,505 89	5,358 56
MANGANESE	mg/kg	2	108 00	103 00	105 50	3 54	109 18	907 35
METHYLENE CHLORIDE	ug/kg	1	8 00	8 00	8 00			
MOLYBDENUM	mg/kg	1	4 80	4 80	4 80			31 75
NICKEL	mg/kg	2	33 00	26 90	29 95	4 31	34 44	24 16
NITRATE/NITRITE	UG/G	1	1 14	1 14	1 14			57 19
Octadecanoic Acid	ug/kg	1	2,400 00	2 400 00	2,400 00			
pH	pH	2	7 40	7 06	7 23	0 24	7 48	9 34
PLUTONIUM-239/240	pCi/g	2	0 35	0 03	0 19	0 23	0 43	5 62
POTASSIUM	mg/kg	1	1,610 00	1,610 00	1,610 00			3,159 74
PYRENE	ug/kg	1	100 00	100 00	100 00			
RADIUM-226	pCi/g	1	0 94	0 94	0 94			2 22

UTLs based on Background Geochemical Characterization Report (EG&G 1993d)

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113 8218

Summary Statistics for Sediment Data - Detects Only
1991 - 1992

LOCATION SED037

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value	99/99 UTL
RADIUM-228	pCi/g	1	1 86	1 86	1 86			4 55
SILICON	mg/kg	2	1,160 00	254 00	707 00	640 64	1 373 26	1,741 79
SODIUM	mg/kg	2	399 00	130 00	264 50	190 21	462 32	593 09
Stigmast-5-en-3-ol, (3 beta	ug/kg	1	10,000 00	10,000 00	10,000 00			
STRONTIUM	mg/kg	2	81 10	73 30	77 20	5 52	82 94	291 42
STRONTIUM-89,90	pCi/g	2	0 26	0 08	0 17	0 13	0 30	1 07
Tetradecanoic Acid	ug/kg	1	4,200 00	4,200 00	4,200 00			
TIN	mg/kg	1	10 20	10 20	10 20			40 57
TOLUENE	ug/kg	1	8 00	8 00	8 00			
TRITIUM	pCi/L	2	133 10	79 49	106 30	37 91	145 72	1,030 59
Unknown-10	ug/kg	1	2,500 00	2,500 00	2,500 00			
Unknown-11	ug/kg	1	4,300 00	4,300 00	4,300 00			
Unknown-12	ug/kg	1	6,300 00	6 300 00	6 300 00			
Unknown-13	ug/kg	1	16,000 00	16,000 00	16,000 00			
Unknown-14	ug/kg	1	6,100 00	6,100 00	6,100 00			
Unknown-15	ug/kg	1	2,800 00	2,800 00	2,800 00			
Unknown-3	ug/kg	1	3,100 00	3,100 00	3,100 00			
Unknown-4	ug/kg	1	2,600 00	2,600 00	2,600 00			
Unknown-5	ug/kg	1	1,800 00	1,800 00	1,800 00			
Unknown-6	ug/kg	1	12,000 00	12,000 00	12,000 00			
Unknown-7	ug/kg	1	3 400 00	3,400 00	3,400 00			
Unknown-8	ug/kg	1	1,600 00	1,600 00	1,600 00			
Unknown-9	ug/kg	1	1,500 00	1 500 00	1,500 00			
URANIUM-233,-234	pCi/g	2	1 09	0 32	0 70	0 54	1 27	5 29
URANIUM-235	pCi/g	2	0 06	0 02	0 04	0 03	0 06	0 21
URANIUM-238	pCi/g	2	1 20	0 31	0 76	0 63	1 41	4 82
VANADIUM	mg/kg	2	38 80	30 90	34 85	5 59	40 66	63 39
ZINC	mg/kg	2	291 00	126 00	208 50	116 67	329 84	139 04

UTLs based on Background Geochemical Characterization Report (EG&G 1993d)

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Summary Statistics for Sediment Data - Detects Only
1991 - 1992

LOCATION SED038

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value	99/99 UTL
% SOLIDS	%	1	61 70	61 70	61 70			
2-BUTANONE	ug/kg	1	19 00	19 00	19 00			
ACETONE	ug/kg	1	71 00	71 00	71 00			
ALUMINUM	mg/kg	1	16,600 00	16,600 00	16,600 00			21,387 27
AMERICIUM-241	pCi/g	1	0 02	0 02	0 02			1 77
AROCLOR-1254	ug/kg	2	84 00	70 00	77 00	9 90	87 30	
ARSENIC	mg/kg	1	4 40	4 40	4 40			10 13
BARIUM	mg/kg	1	143 00	143 00	143 00			253 82
BERYLLIUM	mg/kg	1	0 86	0 86	0 86			11 65
BIS(2-ETHYLHEXYL)PHTHALAT	ug/kg	1	1,400 00	1,400 00	1,400 00			
CALCIUM	mg/kg	1	11,000 00	11,000 00	11,000 00			18,446 12
CESIUM-134	pCi/g	1	0 11	0 11	0 11			
CESIUM-137	pCi/g	1	0 08	0 08	0 08			1 54
CHROMIUM	mg/kg	1	15 50	15 50	15 50			31 88
COBALT	mg/kg	1	10 10	10 10	10 10			16 43
COPPER	mg/kg	1	16 90	16 90	16 90			36 78
DI-n-BUTYL PHTHALATE	ug/kg	1	65 00	65 00	65 00			
DI-n-OCTYL PHTHALATE	ug/kg	1	210 00	210 00	210 00			
FLUORANTHENE	ug/kg	1	70 00	70 00	70 00			
GROSS ALPHA	pCi/g	1	37 40	37 40	37 40			87 54
GROSS BETA	pCi/g	1	33 80	33 80	33 80			66 83
HYDROCARBON C6H14	ug/kg	1	30 00	30 00	30 00			
IRON	mg/kg	1	20,400 00	20,400 00	20,400 00			28,612 98
LEAD	mg/kg	1	21 40	21 40	21 40			138 09
LITHIUM	mg/kg	1	13 80	13 80	13 80			41 01
MAGNESIUM	mg/kg	1	4,520 00	4,520 00	4,520 00			5,358 56
MANGANESE	mg/kg	1	285 00	285 00	285 00			907 35
METHYLENE CHLORIDE	ug/kg	1	14 00	14 00	14 00			
MOLYBDENUM	mg/kg	1	5 20	5 20	5 20			31 75
NICKEL	mg/kg	1	17 60	17 60	17 60			24 16
NITRATE/NITRITE	mg/kg	1	1 80	1 80	1 80			57 19
pH	pH	1	8 00	8 00	8 00			9 34
PLUTONIUM-239/240	pCi/g	1	0 03	0 03	0 03			5 62
POTASSIUM	mg/kg	1	2,330 00	2 330 00	2,330 00			3,159 74
PYRENE	ug/kg	1	87 00	87 00	87 00			
SELENIUM	mg/kg	1	0 41	0 41	0 41			2 18
SILICON	mg/kg	1	242 00	242 00	242 00			1,741 79
SODIUM	mg/kg	1	128 00	128 00	128 00			593 09
STRONTIUM	mg/kg	1	52 50	52 50	52 50			291 42
STRONTIUM-89 90	pCi/g	1	0 20	0 20	0 20			1 07
SUB BENZENEDICARBOXYLIC	ug/kg	1	300 00	300 00	300 00			
TIN	mg/kg	1	13 10	13 10	13 10			40 57

UTLs based on Background Geochemical Characterization Report (EG&G 1993d)

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Summary Statistics for Sediment Data - Detects Only
1991 - 1992

LOCATION SED038

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value	99/99 UTL
TRITIUM	pCi/L	1	140 38	140 38	140 38			1,030 59
UNKNOWN	ug/kg	7	5,000 00	200 00	1,742 86	1,741 51	3,554 03	
UNKNOWN HYDROCARBON	ug/kg	5	1 000 00	300 00	680 00	311 45	1,003 91	
URANIUM-233,-234	pCi/g	1	0 31	0 31	0 31			5 29
URANIUM-235	pCi/g	1	0 00	0 00	0 00			0 21
URANIUM-238	pCi/g	1	0 38	0 38	0 38			4 82
VANADIUM	mg/kg	1	38 90	38 90	38 90			63 39
ZINC	mg/kg	1	77 10	77 10	77 10			139 04

UTLs based on Background Geochemical Characterization Report (EG&G 1993d)

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Summary Statistics for Sediment Data - Detects Only
1991 - 1992

LOCATION SED039

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value	99/99 UTL
2-BUTANONE	ug/kg	1	11 00	11 00	11 00			
9-Hexadecenoic Acid	ug/kg	1	16,000 00	16,000 00	16,000 00			
ACETONE	ug/kg	2	350 00	36 00	193 00	222 03	423 91	
Aldol Condensation	ug/kg	2	23,000 00	9,800 00	16,400 00	9,333 81	26,107 16	
ALUMINUM	mg/kg	3	16,100 00	8,760 00	12,420 00	3,670 04	16,236 84	21,387 27
AMERICIUM-241	pCi/g	3	0 40	0 02	0 15	0 21	0 38	1 77
ARSENIC	mg/kg	3	6 50	1 73	4 28	2 40	6 77	10 13
BARIUM	mg/kg	3	189 00	100 00	141 33	44 84	187 96	253 82
BENZO(b)FLUORANTHENE	ug/kg	1	190 00	190 00	190 00			
BENZO(k)FLUORANTHENE	ug/kg	1	110 00	110 00	110 00			
BERYLLIUM	mg/kg	1	0 87	0 87	0 87			11 65
BICARBONATE AS CACO3	UG/G	2	5,340 00	2,330 00	3,835 00	2,128 39	6,048 53	18,993 76
BIS(2-ETHYLHEXYL)PHTHALAT	ug/kg	3	280 00	120 00	213 33	83 27	299 93	
CALCIUM	mg/kg	3	36,600 00	9,110 00	19,303 33	15,058 82	34,964 51	18,446 12
CARBONATE AS CACO3	UG/G	1	0 00	0 00	0 00			
CESIUM	mg/kg	3	3 90	2 23	2 94	0 86	3 84	442 39
CESIUM-134	pCi/g	1	0 13	0 13	0 13			
CESIUM-137	pCi/g	3	0 25	0 07	0 17	0 09	0 27	1 54
Cholest-5-en-3-ol (3 beta)-	ug/kg	1	11,000 00	11,000 00	11,000 00			
CHROMIUM	mg/kg	3	23 90	10 70	18 83	7 11	26 23	31 88
CHRYSENE	ug/kg	2	190 00	63 00	126 50	89 80	219 89	
COBALT	mg/kg	3	11 60	6 40	8 53	2 72	11 36	16 43
COPPER	mg/kg	3	39 00	16 40	26 20	11 59	38 26	36 78
Ergost-5-en-3-ol, (3 beta)-	ug/kg	1	4,300 00	4,300 00	4,300 00			
FLUORANTHENE	ug/kg	2	380 00	130 00	255 00	176 78	438 85	
GROSS ALPHA	pCi/g	3	320 00	17 07	119 18	173 93	300 06	87 54
GROSS BETA	pCi/g	3	38 10	26 57	31 75	5 85	37 84	66 83
Hexadecanoic Acid	ug/kg	1	8,600 00	8,600 00	8,600 00			
IRON	mg/kg	3	19,800 00	13,700 00	15,900 00	3,386 74	19,422 21	28,612 98
LEAD	mg/kg	3	31 30	18 60	24 08	6 53	30 87	138 09
LITHIUM	mg/kg	1	10 00	10 00	10 00			41 01
MAGNESIUM	mg/kg	3	6,050 00	3,170 00	4,166 67	1 631 94	5,863 89	5,358 56
MANGANESE	mg/kg	3	338 00	192 00	260 33	73 45	336 72	907 35
METHYLENE CHLORIDE	ug/kg	1	5 00	5 00	5 00			
NICKEL	mg/kg	1	11 80	11 80	11 80			24 16
NITRATE/NITRITE	UG/G	2	7 96	1 01	4 49	4 91	9 60	57 19
pH	pH	3	8 03	7 36	7 60	0 37	7 99	9 34
PHENANTHRENE	ug/kg	1	190 00	190 00	190 00			
PLUTONIUM-239/240	pCi/g	3	17 06	0 08	5 76	9 79	15 94	5 62
POTASSIUM	mg/kg	2	2 930 00	2,450 00	2 690 00	339 41	3,042 99	3,159 74
PYRENE	ug/kg	1	310 00	310 00	310 00			
RADIUM-226	pCi/g	2	1 02	0 93	0 97	0 06	1 04	2 22

UTLs based on Background Geochemical Characterization Report (EG&G 1993d)

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Summary Statistics for Sediment Data - Detects Only
1991 - 1992

LOCATION SED039

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value	99/99 UTL
RADIUM-228	pCi/g	2	2 01	1 90	1 95	0 08	2 04	4 55
SILICON	mg/kg	2	861 00	83 80	472 40	549 56	1,043 95	1,741 79
SODIUM	mg/kg	2	696 00	372 00	534 00	229 10	772 27	593 09
Stigmast-5-en-3-ol, (3 beta	ug/kg	1	8,200 00	8,200 00	8,200 00			
STRONTIUM	mg/kg	3	135 00	44 60	78 20	49 46	129 64	291 42
STRONTIUM-89,90	pCi/g	3	1 54	0 04	0 55	0 86	1 44	1 07
Tetradecanoic Acid	ug/kg	1	2,900 00	2,900 00	2,900 00			
TOLUENE	ug/kg	1	5 00	5 00	5 00			
TRITIUM	pCi/L	3	98 47	0 00	49 49	49 24	100 70	1,030 59
Unknown-1	ug/kg	2	3,700 00	2,100 00	2,900 00	1,131 37	4,076 63	
Unknown-10	ug/kg	2	3,500 00	670 00	2,085 00	2,001 11	4,166 16	
Unknown-11	ug/kg	2	2,400 00	850 00	1,625 00	1,096 02	2,764 86	
Unknown-12	ug/kg	1	900 00	900 00	900 00			
Unknown-13	ug/kg	1	4,200 00	4,200 00	4,200 00			
Unknown-14	ug/kg	2	2,500 00	1,600 00	2,050 00	636 40	2,711 85	
Unknown-15	ug/kg	1	560 00	560 00	560 00			
Unknown-17	ug/kg	1	590 00	590 00	590 00			
Unknown-18	ug/kg	1	810 00	810 00	810 00			
Unknown-19	ug/kg	1	800 00	800 00	800 00			
Unknown-2	ug/kg	1	2,100 00	2,100 00	2,100 00			
Unknown-20	ug/kg	1	1,200 00	1,200 00	1,200 00			
Unknown-3	ug/kg	1	2 200 00	2,200 00	2,200 00			
Unknown-4	ug/kg	2	3,400 00	950 00	2,175 00	1,732 41	3,976 71	
Unknown-6	ug/kg	2	25,000 00	640 00	12,820 00	17,225 12	30 734 13	
Unknown-7	ug/kg	1	1,000 00	1 000 00	1,000 00			
Unknown-8	ug/kg	1	1,100 00	1,100 00	1,100 00			
Unknown-9	ug/kg	2	3,100 00	1,400 00	2,250 00	1,202 08	3,500 16	
URANIUM-233,-234	pCi/g	3	1 53	0 23	0 92	0 66	1 61	5 29
URANIUM-235	pCi/g	3	0 06	0 00	0 03	0 03	0 06	0 21
URANIUM-238	pCi/g	3	1 72	0 31	1 22	0 79	2 04	4 82
VANADIUM	mg/kg	3	46 70	23 70	34 83	11 52	46 81	63 39
ZINC	mg/kg	3	199 00	46 90	119 30	76 31	198 66	139 04

UTLs based on Background Geochemical Characterization Report (EG&G 1993d)

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Summary Statistics for Sediment Data - Detects Only
1991 - 1992

LOCATION SED117

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value	99/99 UTL
% SOLIDS	%	5	67 00	61 90	65 30	2 01	67 39	
2-BUTANONE	ug/kg	2	29 00	19 00	24 00	7 07	31 35	
2-METHYLNAPHTHALENE	ug/kg	2	120 00	63 00	91 50	40 31	133 42	
4,4'-DDT	ug/kg	1	4 10	4 10	4 10			
ACENAPHTHENE	ug/kg	5	620 00	110 00	294 00	211 02	513 46	
ACETONE	ug/kg	3	180 00	30 00	110 00	75 50	188 52	
ALKALINITY AS CACO3	mg/kg	2	4,500 00	1,800 00	3,150 00	1,909 19	5,135 56	19,839 86
ALUMINUM	mg/kg	5	23,700 00	11,000 00	14,240 00	5 344 90	19,798 70	21,387 27
AMERICIUM-241	pCi/g	3	0 02	0 00	0 01	0 01	0 02	1 77
ANTHRACENE	ug/kg	5	970 00	140 00	390 00	336 82	740 30	
ANTIMONY	mg/kg	1	5 60	5 60	5 60			17 68
AROM HYDROCARBON(C17H12	ug/kg	1	600 00	600 00	600 00			
ARSENIC	mg/kg	5	7 20	5 30	6 26	0 78	7 07	10 13
BARIUM	mg/kg	5	145 00	117 00	127 40	11 15	138 99	253 82
BENZO(a)ANTHRACENE	ug/kg	5	1 400 00	380 00	746 00	414 89	1,177 48	
BENZO(a)PYRENE	ug/kg	5	1,300 00	270 00	600 00	408 47	1,024 81	
BENZO(b)FLUORANTHENE	ug/kg	5	1,500 00	350 00	692 00	480 44	1,191 65	
BENZO(ghi)PERYLENE	ug/kg	4	560 00	180 00	357 50	190 85	555 99	
BENZO(k)FLUORANTHENE	ug/kg	5	1,100 00	210 00	560 00	345 47	919 29	
BERYLLIUM	mg/kg	5	1 00	0 52	0 81	0 20	1 02	11 65
BIS(2-ETHYLHEXYL)PHTHALAT	ug/kg	3	1,500 00	86 00	560 33	813 79	1,406 67	
CALCIUM	mg/kg	5	7,190 00	5,160 00	6,104 00	828 99	6,966 15	18,446 12
CESIUM-134	pCi/g	1	0 10	0 10	0 10			
CESIUM-137	pCi/g	5	0 13	0 09	0 11	0 02	0 13	1 54
CHROMIUM	mg/kg	4	11 30	9 40	10 03	0 87	10 93	31 88
CHRYSENE	ug/kg	5	1,500 00	400 00	746 00	452 31	1,216 40	
COBALT	mg/kg	5	9 60	5 00	7 24	1 73	9 04	16 43
COPPER	mg/kg	5	18 60	12 60	15 46	2 46	18 02	36 78
DIBENZOFURAN	ug/kg	3	300 00	100 00	190 00	101 49	295 55	
ENDOSULFAN I	ug/kg	1	20 00	20 00	20 00			
FLUORANTHENE	ug/kg	5	3,100 00	770 00	1,610 00	936 32	2,583 78	
FLUORENE	ug/kg	5	650 00	94 00	274 80	228 18	512 11	
GROSS ALPHA	pCi/g	5	33 00	4 50	13 35	11 38	25 19	87 54
GROSS BETA	pCi/g	5	36 00	5 42	21 18	13 42	35 14	66 83
HEXADECANOIC ACID	ug/kg	1	400 00	400 00	400 00			
INDENO(1,2,3-cd)PYRENE	ug/kg	4	560 00	170 00	362 50	191 38	561 53	
IRON	mg/kg	5	26,000 00	18,200 00	21,280 00	3,174 43	24,581 41	28,612 98
LEAD	mg/kg	5	22 10	15 60	17 54	2 61	20 26	138 09
LITHIUM	mg/kg	5	13 20	6 90	9 04	2 44	11 57	41 01
MAGNESIUM	mg/kg	5	4,500 00	2,980 00	3,468 00	614 06	4,106 62	5,358 56
MANGANESE	mg/kg	5	634 00	323 00	412 40	128 38	545 91	907 35
METHYLENE CHLORIDE	ug/kg	1	41 00	41 00	41 00			

UTLs based on Background Geochemical Characterization Report (EG&G 1993d)

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Summary Statistics for Sediment Data - Detects Only
1991 - 1992

LOCATION SED117

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value	99/99 UTL
MOLYBDENUM	mg/kg	2	9 80	6 80	8 30	2 12	10 51	31 75
NAPHTHALENE	ug/kg	3	290 00	110 00	210 00	91 65	305 32	
NICKEL	mg/kg	5	18 90	12 60	14 96	2 51	17 57	24 16
NITRATE/NITRITE	mg/kg	2	2 10	1 40	1 75	0 49	2 26	57 19
pH	pH	5	8 00	7 00	7 28	0 41	7 71	9 34
PHENANTHRENE	ug/kg	5	3,300 00	680 00	1,622 00	1,098 96	2,764 92	
PLUTONIUM-239/240	pCi/g	3	0 03	0 02	0 03	0 01	0 03	5 62
POTASSIUM	mg/kg	5	2,240 00	1,550 00	1,780 00	284 17	2,075 53	3,159 74
PYRENE	ug/kg	5	3,900 00	900 00	1,912 00	1 220 95	3,181 79	
RADIUM-226	pCi/g	5	1 40	0 93	1 11	0 20	1 32	2 22
RADIUM-228	pCi/g	5	2 14	1 21	1 66	0 34	2 02	4 55
SILICON	mg/kg	5	1,220 00	207 00	630 80	477 44	1,127 34	1,741 79
SILVER	mg/kg	2	2 10	0 95	1 53	0 81	2 37	3 11
SODIUM	mg/kg	5	369 00	167 00	268 80	76 89	348 76	593 09
STRONTIUM	mg/kg	5	46 70	35 90	41 56	5 22	46 99	291 42
STRONTIUM-89,90	pCi/g	3	0 16	0 08	0 13	0 04	0 17	1 07
SUB BENZENEDICARBOXYLIC	ug/kg	1	400 00	400 00	400 00			
TIN	mg/kg	2	13 40	12 90	13 15	0 35	13 52	40 57
TRITIUM	pCi/L	4	158 96	-77 60	12 47	102 73	119 30	1 030 59
UNKNOWN	ug/kg	13	6 000 00	20 00	1,724 62	1,924 72	3,726 32	
UNKNOWN HYDROCARBON	ug/kg	4	1,000 00	500 00	650 00	238 05	897 57	
URANIUM-233,-234	pCi/g	5	1 06	0 31	0 83	0 31	1 15	5 29
URANIUM-235	pCi/g	5	0 14	0 00	0 04	0 06	0 10	0 21
URANIUM-238	pCi/g	5	1 40	0 15	0 80	0 48	1 30	4 82
VANADIUM	mg/kg	5	41 40	24 60	30 06	6 64	36 96	63 39
ZINC	mg/kg	5	182 00	69 30	109 26	46 10	157 20	139 04

UTLs based on Background Geochemical Characterization Report (EG&G 1993d)

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Summary Statistics for Sediment Data - Detects Only
1991 - 1992

LOCATION SED118

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value	99/99 UTL
% SOLIDS	%	5	69 20	50 80	62 88	7 24	70 41	
4,4'-DDT	ug/kg	2	4 80	2 90	3 85	1 34	5 25	
ALKALINITY AS CACO3	mg/kg	5	4,400 00	1,100 00	2,680 00	1,269 65	4,000 43	19,839 86
ALUMINUM	mg/kg	5	17,900 00	7,710 00	10,478 00	4,202 43	14,848 53	21,387 27
AMERICIUM-241	pCi/g	4	0 03	0 01	0 01	0 01	0 02	1 77
ARSENIC	mg/kg	5	7 30	4 60	5 92	1 10	7 07	10 13
BARIUM	mg/kg	5	138 00	83 40	104 58	21 31	126 75	253 82
BENZO(a)ANTHRACENE	ug/kg	3	78 00	49 00	59 33	16 20	76 18	
BENZO(a)PYRENE	ug/kg	1	76 00	76 00	76 00			
BENZO(b)FLUORANTHENE	ug/kg	3	82 00	61 00	68 33	11 85	80 65	
BENZO(k)FLUORANTHENE	ug/kg	1	96 00	96 00	96 00			
BENZOIC ACID	ug/kg	1	197 00	197 00	197 00			
BERYLLIUM	mg/kg	5	0 82	0 64	0 70	0 07	0 78	11 65
BIS(2-ETHYLHEXYL)PHTHALAT	ug/kg	1	110 00	110 00	110 00			
CADMIUM	mg/kg	1	1 40	1 40	1 40			2 55
CALCIUM	mg/kg	5	9,560 00	6,730 00	8,214 00	1,343 46	9,611 20	18,446 12
CESIUM-134	pCi/g	1	0 03	0 03	0 03			
CESIUM-137	pCi/g	5	0 12	0 04	0 08	0 03	0 11	1 54
CHROMIUM	mg/kg	5	15 60	5 80	8 96	3 95	13 06	31 88
CHRYSENE	ug/kg	3	88 00	51 00	64 00	20 81	85 64	
COBALT	mg/kg	5	8 00	4 70	6 22	1 32	7 59	16 43
COPPER	mg/kg	5	17 60	11 10	13 86	2 43	16 38	36 78
DI-n-BUTYL PHTHALATE	ug/kg	1	54 00	54 00	54 00			
FLUORANTHENE	ug/kg	5	170 00	68 00	103 40	41 43	146 49	
GROSS ALPHA	pCi/g	5	28 00	5 07	14 72	11 13	26 30	87 54
GROSS BETA	pCi/g	5	37 00	3 28	18 75	13 53	32 83	66 83
HEXADECANOIC ACID	ug/kg	1	1,000 00	1,000 00	1 000 00			
IRON	mg/kg	5	18,600 00	11,700 00	14,060 00	2,780 83	16,952 06	28 612 98
LEAD	mg/kg	5	21 40	13 60	16 40	3 02	19 54	138 09
LITHIUM	mg/kg	6	11 50	6 00	7 53	2 00	9 61	41 01
MAGNESIUM	mg/kg	5	3,770 00	2 180 00	2 642 00	657 85	3 326 17	5 358 56
MANGANESE	mg/kg	5	375 00	189 00	263 20	91 00	357 84	907 35
METHYLENE CHLORIDE	ug/kg	1	110 00	110 00	110 00			
MOLYBDENUM	mg/kg	1	6 20	6 20	6 20			31 75
NICKEL	mg/kg	5	16 70	10 80	12 42	2 49	15 00	24 16
NITRATE/NITRITE	mg/kg	3	6 30	3 10	4 53	1 63	6 22	57 19
pH	pH	5	8 30	7 20	7 78	0 43	8 23	9 34
PHENANTHRENE	ug/kg	3	120 00	71 00	95 33	24 50	120 82	
PLUTONIUM-239/240	pCi/g	4	0 04	0 02	0 03	0 01	0 03	5 62
POTASSIUM	mg/kg	5	1,990 00	1,000 00	1 340 00	380 99	1,736 22	3 159 74
PYRENE	ug/kg	5	190 00	68 00	111 20	47 85	160 96	
RADIUM-226	pCi/g	5	1 20	0 74	0 97	0 18	1 15	2 22

UTLs based on Background Geochemical Characterization Report (EG&G 1993d)

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Summary Statistics for Sediment Data - Detects Only
1991 - 1992

LOCATION SED118

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value	99/99 UTL
RADIUM-228	pCi/g	5	2 05	1 20	1 51	0 34	1 87	4 55
SILICON	mg/kg	5	1,320 00	214 00	665 60	505 11	1,190 91	1,741 79
SILVER	mg/kg	2	1 80	0 99	1 40	0 57	1 99	3 11
SODIUM	mg/kg	5	260 00	112 00	168 60	58 20	229 12	593 09
STRONTIUM	mg/kg	6	57 40	38 10	43 25	7 04	50 57	291 42
STRONTIUM-89,90	pCi/g	4	0 36	0 02	0 16	0 14	0 31	1 07
SUB BENZENEDICARBOXYLIC	ug/kg	2	700 00	400 00	550 00	212 13	770 62	
THALLIUM	mg/kg	1	0 45	0 45	0 45			1 10
TIN	mg/kg	2	11 90	9 20	10 55	1 91	12 54	40 57
TRITIUM	pCi/L	4	316 70	0 00	115 48	138 46	259 47	1,030 59
UNKNOWN	ug/kg	14	8,000 00	20 00	2,372 86	2,700 91	5,181 81	
UNKNOWN HYDROCARBON	ug/kg	9	2 000 00	200 00	788 89	530 20	1,340 30	
URANIUM-233,-234	pCi/g	5	1 32	0 15	0 81	0 46	1 29	5 29
URANIUM-235	pCi/g	5	0 06	0 01	0 04	0 03	0 06	0 21
URANIUM-238	pCi/g	5	1 30	0 13	0 81	0 48	1 31	4 82
VANADIUM	mg/kg	5	33 80	17 50	24 12	6 09	30 45	63 39
ZINC	mg/kg	5	99 60	49 60	64 08	20 45	85 35	139 04

UTLs based on Background Geochemical Characterization Report (EG&G 1993d)

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Summary Statistics for Sediment Data - Detects Only
1991 - 1992

LOCATION SED120

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value	99/99 UTL
% SOLIDS	%	4	94 40	63 40	85 07	14 57	100 23	
ACENAPHTHENE	ug/kg	1	56 00	56 00	56 00			
ALKALINITY AS CACO3	mg/kg	3	11,000 00	1,300 00	4,533 33	5,600 30	10,357 64	19,839 86
ALUMINUM	mg/kg	4	12,400 00	6,970 00	9,182 50	2 363 66	11,640 71	21,387 27
AMERICIUM-241	pCi/g	3	0 26	0 03	0 11	0 13	0 24	1 77
ANTHRACENE	ug/kg	1	68 00	68 00	68 00			
AROCLOR-1254	ug/L	2	50 00	6 10	28 05	31 04	60 33	
ARSENIC	mg/kg	4	5 10	4 00	4 45	0 51	4 98	10 13
BARIUM	mg/kg	4	184 00	85 10	117 75	44 92	164 46	253 82
BENZO(a)ANTHRACENE	ug/kg	3	190 00	64 00	110 33	69 30	182 40	
BENZO(a)PYRENE	ug/kg	2	210 00	120 00	165 00	63 64	231 19	
BENZO(b)FLUORANTHENE	ug/kg	3	230 00	55 00	135 00	88 46	227 00	
BENZO(ghi)PERYLENE	ug/kg	1	64 00	64 00	64 00			
BENZO(k)FLUORANTHENE	ug/kg	3	250 00	37 00	127 67	109 97	242 04	
BERYLLIUM	mg/kg	4	0 80	0 63	0 68	0 08	0 76	11 65
BIS(2-ETHYLHEXYL)PHTHALAT	ug/kg	3	280 00	110 00	170 00	95 39	269 21	
CALCIUM	mg/kg	4	26 300 00	9,030 00	20,482 50	8,142 07	28,950 25	18,446 12
CESIUM-134	pCi/g	2	0 16	0 11	0 14	0 04	0 17	
CESIUM-137	pCi/g	4	0 49	0 06	0 19	0 20	0 40	1 54
CHROMIUM	mg/kg	4	12 30	5 50	8 05	3 02	11 19	31 88
CHRYSENE	ug/kg	3	210 00	64 00	124 67	76 06	203 77	
COBALT	mg/kg	4	5 60	4 60	5 25	0 45	5 72	16 43
COPPER	mg/kg	4	13 50	11 40	12 58	1 04	13 66	36 78
DI-n-BUTYL PHTHALATE	ug/kg	2	130 00	39 00	84 50	64 35	151 42	
FLUORANTHENE	ug/kg	3	440 00	120 00	240 00	174 36	421 33	
GROSS ALPHA	pCi/g	4	49 80	5 80	18 26	21 14	40 25	87 54
GROSS BETA	pCi/g	4	240 40	4 82	70 56	113 73	188 84	66 83
INDENO(1,2,3-cd)PYRENE	ug/kg	1	60 00	60 00	60 00			
IRON	mg/kg	4	18,300 00	11,500 00	14,575 00	2,886 03	17,576 47	28,612 98
LEAD	mg/kg	4	21 80	13 60	17 88	4 49	22 54	138 09
LITHIUM	mg/kg	4	10 20	7 00	8 05	1 46	9 57	41 01
MAGNESIUM	mg/kg	4	2,820 00	2,030 00	2,447 50	345 96	2,807 30	5,358 56
MANGANESE	mg/kg	4	267 00	160 00	207 25	46 65	255 77	907 35
NICKEL	mg/kg	4	13 80	9 10	11 65	2 05	13 79	24 16
NITRATE/NITRITE	mg/kg	4	163 00	3 40	58 83	74 94	136 76	57 19
pH	pH	4	8 90	7 60	8 40	0 57	8 99	9 34
PHENANTHRENE	ug/kg	3	360 00	84 00	184 67	152 40	343 16	
PLUTONIUM-239/240	pCi/g	3	1 01	0 10	0 61	0 47	1 10	5 62
POTASSIUM	mg/kg	4	1,730 00	1,120 00	1 422 50	316 90	1 752 07	3,159 74
PYRENE	ug/kg	3	510 00	110 00	256 67	220 30	485 78	
RADIUM-226	pCi/g	4	2 19	0 60	1 10	0 74	1 87	2 22
RADIUM-228	pCi/g	4	2 59	1 10	1 63	0 66	2 32	4 55

UTLs based on Background Geochemical Characterization Report (EG&G 1993d)

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Summary Statistics for Sediment Data - Detects Only
1991 - 1992

LOCATION SED120

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value	99/99 UTL
SELENIUM	mg/kg	2	0 28	0 26	0 27	0 01	0 28	2 18
SILICON	mg/kg	4	1,190 00	168 00	537 50	452 25	1,007 84	1,741 79
SODIUM	mg/kg	4	742 00	93 40	417 35	337 86	768 72	593 09
STRONTIUM	mg/kg	4	64 80	42 90	54 10	10 68	65 21	291 42
STRONTIUM-89 90	pCi/g	3	1 46	0 09	0 58	0 77	1 37	1 07
THALLIUM	mg/kg	1	0 54	0 54	0 54			1 10
TIN	mg/kg	3	14 80	9 00	11 53	2 97	14 62	40 57
TRITIUM	pCi/L	3	258 44	0 00	163 95	142 53	312 18	1,030 59
URANIUM-233,-234	pCi/g	4	1 44	0 44	0 78	0 46	1 26	5 29
URANIUM-235	pCi/g	4	0 05	0 01	0 02	0 02	0 04	0 21
URANIUM-238	pCi/g	4	1 73	0 28	0 71	0 69	1 42	4 82
VANADIUM	mg/kg	4	37 90	22 00	30 70	7 57	38 57	63 39
ZINC	mg/kg	4	95 00	41 60	73 68	22 87	97 46	139 04

UTLs based on Background Geochemical Characterization Report (EG&G 1993d)

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Summary Statistics for Sediment Data - Detects Only
1991 - 1992

LOCATION SED124

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value	99/99 UTL
% SOLIDS	%	4	77 80	41 40	61 10	15 28	76 99	
2-BUTANONE	ug/kg	1	27 00	27 00	27 00			
2-METHYLNAPHTHALENE	ug/kg	2	1,700 00	490 00	1 095 00	855 60	1,984 82	
4-METHYLPHENOL	ug/kg	1	990 00	990 00	990 00			
4-NITROANILINE	ug/kg	1	5,300 00	5 300 00	5,300 00			
ACENAPHTHENE	ug/kg	3	9,200 00	1,900 00	4,500 00	4,077 99	8,741 11	
ACENAPHTHYLENE	ug/kg	2	440 00	50 00	245 00	275 77	531 80	
ALKALINITY AS CACO3	mg/kg	3	11 000 00	1,000 00	4,533 33	5,608 33	10,365 99	19,839 86
ALUMINUM	mg/kg	4	11,200 00	6,860 00	9,142 50	2,088 58	11,314 62	21,387 27
AMERICIUM-241	pCi/g	3	0 86	0 03	0 32	0 47	0 81	1 77
ANTHRACENE	ug/kg	3	15,000 00	1,800 00	6,566 67	7,324 16	14,183 79	
AROCLOR-1254	ug/kg	3	67 000 00	19,000 00	48,666 67	25,929 39	75,633 23	
ARSENIC	mg/kg	4	5 10	3 00	4 25	0 99	5 28	10 13
BARIUM	mg/kg	4	142 00	94 80	119 70	20 16	140 66	253 82
BENZO(a)ANTHRACENE	ug/kg	3	21 000 00	3,300 00	10,466 67	9 317 90	20,157 29	
BENZO(a)PYRENE	ug/kg	3	24,000 00	3,100 00	11,133 33	11,257 15	22,840 77	
BENZO(b)FLUORANTHENE	ug/kg	3	27,000 00	3,200 00	12 433 33	12,764 93	25,708 86	
BENZO(ghi)PERYLENE	ug/kg	3	26,000 00	1,500 00	11,066 67	13,102 04	24 692 78	
BENZO(k)FLUORANTHENE	ug/kg	3	17,000 00	2,000 00	8,433 33	7,724 20	16,466 51	
BERYLLIUM	mg/kg	4	0 86	0 46	0 70	0 18	0 88	11 65
BIS(2-ETHYLHEXYL)PHTHALAT	ug/kg	3	24,000 00	420 00	8,940 00	13,079 86	22,543 06	
BUTYL BENZYL PHTHALATE	ug/kg	1	2,300 00	2 300 00	2,300 00			
CADMIUM	mg/kg	2	3 20	1 90	2 55	0 92	3 51	2 55
CALCIUM	mg/kg	4	19,200 00	7 520 00	12,505 00	5,506 97	18,232 25	18,446 12
CESIUM-134	pCi/g	2	0 12	0 11	0 11	0 01	0 12	
CESIUM-137	pCi/g	4	0 80	0 13	0 34	0 31	0 67	1 54
CHROMIUM	mg/kg	4	70 10	9 80	30 00	28 05	59 17	31 88
CHRYSENE	ug/kg	3	25,000 00	3,300 00	12,166 67	11 380 83	24,002 73	
COBALT	mg/kg	4	7 60	6 30	6 80	0 56	7 38	16 43
COPPER	mg/kg	4	46 70	12 80	25 15	15 26	41 02	36 78
DIBENZO(a,h)ANTHRACENE	ug/kg	1	9,100 00	9,100 00	9,100 00			
DIBENZOFURAN	ug/kg	3	4,100 00	1,000 00	2,033 33	1,789 79	3,894 71	
FLUORANTHENE	ug/kg	3	50,000 00	6,700 00	24,233 33	22,793 93	47,939 02	
FLUORENE	ug/kg	3	8,900 00	1,600 00	4,166 67	4,104 06	8,434 89	
GROSS ALPHA	pCi/g	4	32 56	3 94	18 73	12 36	31 58	87 54
GROSS BETA	pCi/g	4	32 94	3 78	14 07	12 92	27 50	66 83
INDENO(1,2,3-cd)PYRENE	ug/kg	3	22,000 00	1 300 00	9,433 33	11,039 17	20 914 07	
IRON	mg/kg	4	18,500 00	11,300 00	14,000 00	3,203 12	17,331 25	28,612 98
LEAD	mg/kg	4	56 20	18 20	33 93	16 51	51 10	138 09
LITHIUM	mg/kg	4	8 70	6 50	7 43	0 93	8 39	41 01
MAGNESIUM	mg/kg	4	3,110 00	2,040 00	2,432 50	478 70	2,930 35	5,358 56
MANGANESE	mg/kg	4	299 00	167 00	231 50	67 63	301 83	907 35

UTLs based on Background Geochemical Characterization Report (EG&G 1993d)

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Summary Statistics for Sediment Data - Detects Only
1991 - 1992

LOCATION SED124

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value	99/99 UTL
MERCURY	mg/kg	1	0 21	0 21	0 21			0 46
NAPHTHALENE	ug/kg	3	4,400 00	1,000 00	2,166 67	1,934 77	4,178 83	
NICKEL	mg/kg	4	49 00	13 70	24 15	16 78	41 60	24 16
NITRATE/NITRITE	mg/kg	4	33 20	1 60	11 18	14 81	26 58	57 19
pH	pH	4	8 20	7 40	7 90	0 36	8 27	9 34
PHENANTHRENE	ug/kg	3	41,000 00	7,800 00	21,600 00	17,293 93	39,585 69	
PLUTONIUM-239/240	pCi/g	3	1 13	0 33	0 70	0 40	1 12	5 62
POTASSIUM	mg/kg	4	1,780 00	1,110 00	1,405 00	290 34	1,706 96	3,159 74
PYRENE	ug/kg	3	42,000 00	8,400 00	23,133 33	17,177 12	40,997 53	
RADIUM-226	pCi/g	4	2 50	0 94	1 65	0 81	2 50	2 22
RADIUM-228	pCi/g	4	2 20	1 29	1 72	0 41	2 15	4 55
SELENIUM	mg/kg	3	0 94	0 63	0 76	0 16	0 93	2 18
SILICON	mg/kg	4	1,710 00	172 00	883 50	776 70	1,691 27	1,741 79
SODIUM	mg/kg	4	198 00	111 00	151 75	43 26	196 74	593 09
STRONTIUM	mg/kg	4	53 00	31 90	43 43	8 78	52 56	291 42
STRONTIUM-89,90	pCi/g	3	0 14	0 10	0 12	0 02	0 14	1 07
THALLIUM	mg/kg	2	0 72	0 57	0 65	0 11	0 76	1 10
TIN	mg/kg	4	17 80	9 80	12 40	3 65	16 19	40 57
TRITIUM	pCi/L	4	1,000 00	213 36	684 70	334 56	1,032 65	1,030 59
URANIUM-233,-234	pCi/g	4	1 95	0 24	0 96	0 72	1 70	5 29
URANIUM-235	pCi/g	4	0 10	0 01	0 04	0 04	0 08	0 21
URANIUM-238	pCi/g	4	1 23	0 24	0 93	0 47	1 42	4 82
VANADIUM	mg/kg	4	28 40	17 80	23 23	4 37	27 77	63 39
ZINC	mg/kg	4	1,150 00	64 70	566 18	462 36	1,047 03	139 04

UTLs based on Background Geochemical Characterization Report (EG&G 1993d)

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Summary Statistics for Sediment Data - Detects Only
1991 - 1992

LOCATION SED125

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value	99/99 UTL
% SOLIDS	%	3	92 60	86 80	89 07	3 10	92 29	
2-METHYLNAPHTHALENE	ug/kg	4	350 00	110 00	212 50	121 76	339 13	
4,4'-DDT	ug/kg	2	73 00	18 00	45 50	38 89	85 95	
ACENAPHTHENE	ug/kg	3	1,800 00	510 00	1,270 00	675 06	1,972 06	
ACENAPHTHYLENE	ug/kg	2	64 00	52 00	58 00	8 49	66 82	
ACETONE	ug/kg	1	14 00	14 00	14 00			
ALKALINITY AS CACO3	mg/kg	1	1,300 00	1,300 00	1,300 00			19,839 86
ALUMINUM	mg/kg	3	11,100 00	5,650 00	8,916 67	2,881 98	11,913 93	21,387 27
AMERICIUM-241	pCi/g	2	0 06	0 01	0 04	0 04	0 08	1 77
ANTHRACENE	ug/kg	3	1,900 00	470 00	1,290 00	737 77	2,057 28	
AROCLOR-1254	ug/kg	1	530 00	530 00	530 00			
ARSENIC	mg/kg	3	4 70	3 30	3 93	0 71	4 67	10 13
BARIUM	mg/kg	3	225 00	95 70	170 23	66 88	239 79	253 82
BENZO(a)ANTHRACENE	ug/kg	3	4 500 00	1,200 00	3,033 33	1,680 28	4,780 82	
BENZO(a)PYRENE	ug/kg	3	3 900 00	970 00	2,723 33	1,547 78	4,333 03	
BENZO(b)FLUORANTHENE	ug/kg	3	4,100 00	1,500 00	2 900 00	1,311 49	4,263 95	
BENZO(ghi)PERYLENE	ug/kg	3	1,900 00	630 00	1,410 00	682 86	2,120 18	
BENZO(k)FLUORANTHENE	ug/kg	3	3,700 00	690 00	2,363 33	1,532 98	3,957 63	
BENZOIC ACID	ug/kg	1	98 00	98 00	98 00			
BERYLLIUM	mg/kg	3	0 83	0 62	0 71	0 11	0 82	11 65
BIS(2-ETHYLHEXYL)PHTHALAT	ug/kg	2	220 00	220 00	220 00	0 00	220 00	
CADMIUM	mg/kg	1	0 71	0 71	0 71			2 55
CALCIUM	mg/kg	3	13,500 00	11,100 00	12,200 00	1,212 44	13,460 93	18,446 12
CESIUM-134	pCi/g	1	0 11	0 11	0 11			
CESIUM-137	pCi/g	3	0 70	0 15	0 51	0 31	0 83	1 54
CHROMIUM	mg/kg	3	22 10	9 10	15 73	6 50	22 50	31 88
CHRYSENE	ug/kg	3	4,600 00	1 200 00	3,133 33	1,747 38	4,950 61	
COBALT	mg/kg	3	10 00	6 30	7 80	1 95	9 82	16 43
COPPER	mg/kg	3	21 20	10 20	16 80	5 82	22 85	36 78
DI-n-BUTYL PHTHALATE	ug/kg	3	46 00	39 00	41 67	3 79	45 60	
DIBENZO(a,h)ANTHRACENE	ug/kg	3	930 00	220 00	620 00	363 46	997 99	
DIBENZOFURAN	ug/kg	3	740 00	230 00	530 00	266 65	807 31	
FLUORANTHENE	ug/kg	3	11,000 00	2,900 00	7,400 00	4,124 32	11,689 29	
FLUORENE	ug/kg	3	1,400 00	400 00	1,000 00	529 15	1,550 32	
GROSS ALPHA	pCi/g	3	26 52	2 20	11 76	12 97	25 25	87 54
GROSS BETA	pCi/g	3	247 10	6 46	87 67	138 08	231 27	66 83
INDENO(1,2,3-cd)PYRENE	ug/kg	3	1 800 00	440 00	1,280 00	734 30	2,043 67	
IRON	mg/kg	3	12,600 00	8,150 00	10,583 33	2,254 07	12,927 57	28,612 98
LEAD	mg/kg	3	32 00	21 00	27 97	6 06	34 27	138 09
LITHIUM	mg/kg	4	7 60	3 80	6 60	1 87	8 54	41 01
MAGNESIUM	mg/kg	3	2 470 00	1,600 00	2,156 67	483 36	2,659 36	5,358 56
MANGANESE	mg/kg	3	686 00	170 00	348 67	292 31	652 67	907 35

UTLs based on Background Geochemical Characterization Report (EG&G 1993d)

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Summary Statistics for Sediment Data - Detects Only
1991 - 1992

LOCATION SED125

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value	99/99 UTL
METHYLENE CHLORIDE	ug/kg	1	3 00	3 00	3 00			
NAPHTHALENE	ug/kg	3	870 00	300 00	640 00	300 50	952 52	
NICKEL	mg/kg	3	18 60	6 60	11 20	6 47	17 93	24 16
NITRATE/NITRITE	mg/kg	3	9 40	1 30	4 63	4 24	9 04	57 19
pH	pH	3	8 60	7 90	8 17	0 38	8 56	9 34
PHENANTHRENE	ug/kg	3	11,000 00	2,900 00	7,533 33	4,174 13	11,874 43	
PLUTONIUM-239/240	pCi/g	2	0 37	0 07	0 22	0 21	0 45	5 62
POTASSIUM	mg/kg	3	1,680 00	814 00	1,298 00	441 92	1,757 60	3,159 74
PYRENE	ug/kg	3	13,000 00	3,100 00	8,300 00	4,968 90	13,467 66	
RADIUM-226	pCi/g	3	0 90	0 80	0 85	0 05	0 90	2 22
RADIUM-228	pCi/g	3	1 65	0 90	1 18	0 41	1 60	4 55
SILICON	mg/kg	3	530 00	181 00	305 33	194 94	508 07	1,741 79
SODIUM	mg/kg	3	170 00	75 90	117 63	47 94	167 49	593 09
STRONTIUM	mg/kg	4	54 00	31 90	47 70	10 63	58 76	291 42
STRONTIUM-89,90	pCi/g	2	0 31	0 14	0 22	0 12	0 35	1 07
TRITIUM	pCi/L	3	457 46	0 00	199 12	234 41	442 91	1,030 59
URANIUM-233 -234	pCi/g	3	2 13	0 44	1 17	0 87	2 07	5 29
URANIUM-235	pCi/g	3	0 09	0 01	0 04	0 04	0 08	0 21
URANIUM-238	pCi/g	3	1 17	0 22	0 65	0 48	1 15	4 82
VANADIUM	mg/kg	3	32 90	15 40	24 77	8 81	33 93	63 39
ZINC	mg/kg	3	190 00	123 00	146 67	37 58	185 75	139 04

UTLs based on Background Geochemical Characterization Report (EG&G 1993d)

DRAFT

Summary Statistics for Sediment Data - Detects Only
1991 - 1992

LOCATION SED126

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value	99/99 UTL
% SOLIDS	%	3	93 60	56 50	78 70	19 60	99 08	
ACETONE	ug/kg	1	49 00	49 00	49 00			
ALKALINITY AS CACO3	mg/kg	1	12,000 00	12,000 00	12,000 00			19,839 86
ALUMINUM	mg/kg	3	12,000 00	9,920 00	10,673 33	1,152 45	11,871 88	21,387 27
AMERICIUM-241	pCi/g	2	0 03	0 01	0 02	0 01	0 03	1 77
AROCLOR-1254	ug/kg	1	26 00	26 00	26 00			
ARSENIC	mg/kg	3	5 20	3 10	3 90	1 14	5 08	10 13
BARIUM	mg/kg	3	160 00	115 00	137 33	22 50	160 74	253 82
BENZO(a)ANTHRACENE	ug/kg	3	120 00	53 00	75 33	38 68	115 56	
BENZO(a)PYRENE	ug/kg	2	57 00	57 00	57 00	0 00	57 00	
BENZO(b)FLUORANTHENE	ug/kg	3	210 00	84 00	126 00	72 75	201 66	
BENZO(k)FLUORANTHENE	ug/kg	3	83 00	72 00	75 67	6 35	82 27	
BENZOIC ACID	ug/kg	1	210 00	210 00	210 00			
BERYLLIUM	mg/kg	3	0 84	0 72	0 78	0 06	0 84	11 65
BIS(2-ETHYLHEXYL)PHTHALAT	ug/kg	3	550 00	74 00	232 67	274 82	518 48	
CALCIUM	mg/kg	3	23,000 00	5,200 00	12,333 33	9,411 34	22,121 13	18,446 12
CESIUM-134	pCi/g	1	0 09	0 09	0 09			
CESIUM-137	pCi/g	3	0 11	0 00	0 06	0 06	0 12	1 54
CHROMIUM	mg/kg	3	9 70	7 20	8 73	1 34	10 13	31 88
CHRYSENE	ug/kg	3	170 00	73 00	105 33	56 00	163 58	
COBALT	mg/kg	3	8 90	7 70	8 17	0 64	8 84	16 43
COPPER	mg/kg	3	17 80	14 00	15 90	1 90	17 88	36 78
DI-n-BUTYL PHTHALATE	ug/kg	1	39 00	39 00	39 00			
FLUORANTHENE	ug/kg	4	190 00	60 00	110 00	55 83	168 06	
GROSS ALPHA	pCi/g	3	7 28	3 24	5 07	2 05	7 19	87 54
GROSS BETA	pCi/g	3	18 61	4 81	11 97	6 91	19 16	66 83
IRON	mg/kg	3	18,400 00	14,800 00	16,400 00	1,833 03	18,306 35	28,612 98
LEAD	mg/kg	3	18 50	16 00	17 50	1 32	18 88	138 09
LITHIUM	mg/kg	4	9 80	6 90	8 38	1 65	10 09	41 01
MAGNESIUM	mg/kg	3	3,100 00	2,320 00	2,640 00	408 41	3,064 75	5,358 56
MANGANESE	mg/kg	3	256 00	193 00	216 33	34 53	252 24	907 35
METHYLENE CHLORIDE	ug/kg	1	12 00	12 00	12 00			
NICKEL	mg/kg	3	20 70	13 00	15 93	4 16	20 26	24 16
NITRATE/NITRITE	mg/kg	2	6 80	3 00	4 90	2 69	7 69	57 19
pH	pH	3	7 90	7 80	7 87	0 06	7 93	9 34
PHENANTHRENE	ug/kg	3	150 00	94 00	112 67	32 33	146 29	
PLUTONIUM-239/240	pCi/g	2	0 07	0 03	0 05	0 03	0 08	5 62
POTASSIUM	mg/kg	4	1 310 00	1,160 00	1,232 50	83 82	1,319 67	3 159 74
PYRENE	ug/kg	3	200 00	130 00	153 33	40 41	195 36	
RADIUM-226	pCi/g	2	1 06	0 84	0 95	0 15	1 11	2 22
RADIUM-228	pCi/g	2	1 37	1 02	1 20	0 25	1 46	4 55
SELENIUM	mg/kg	3	0 34	0 24	0 31	0 06	0 37	2 18

UTLs based on Background Geochemical Characterization Report (EG&G 1993d)

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Summary Statistics for Sediment Data - Detects Only
1991 - 1992

LOCATION SED126

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value	99/99 UTL
SILICON	mg/kg	3	1 940 00	321 00	981 67	849 56	1 865 20	1,741 79
SODIUM	mg/kg	3	150 00	80 60	123 20	37 30	161 99	593 09
STRONTIUM	mg/kg	4	80 00	47 60	65 95	16 60	83 21	291 42
STRONTIUM-89,90	pCi/g	2	0 24	-0 04	0 10	0 20	0 31	1 07
TIN	mg/kg	1	11 50	11 50	11 50			40 57
TOLUENE	ug/kg	2	6 00	6 00	6 00	0 00	6 00	
TOTAL XYLENES	ug/kg	2	5 00	5 00	5 00	0 00	5 00	
TRITIUM	pCi/L	3	88 89	0 00	44 39	44 45	90 62	1,030 59
URANIUM-233,-234	pCi/g	3	1 06	0 15	0 58	0 46	1 06	5 29
URANIUM-235	pCi/g	3	0 07	0 00	0 02	0 04	0 06	0 21
URANIUM-238	pCi/g	3	0 92	0 12	0 47	0 40	0 89	4 82
VANADIUM	mg/kg	3	28 10	23 30	26 47	2 74	29 32	63 39
ZINC	mg/kg	3	111 00	71 00	96 33	22 03	119 24	139 04

UTLs based on Background Geochemical Characterization Report (EG&G 1993d)

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APPENDIX B

SUMMARY STATISTICS FOR SURFACE-WATER DATA - DETECTS ONLY FROM ROCKY FLATS ENVIRONMENTAL DATABASE SYSTEM (RFEDS)

Summary Statistics for Surface-Water Data - Detects Only
1991 - 1993

LOCATION SW017

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value
ACETONE	ug/L	2	130 00	6 00	68 00	87 68	159 19
ALUMINUM	ug/L	10	10,400 00	32 50	1,130 48	3,257 45	4,518 23
AMERICIUM-241	pCi/L	5	0 01	0 01	0 01	0 00	0 01
ANTIMONY	ug/L	2	21 60	18 00	19 80	2 55	22 45
ARSENIC	ug/L	2	3 00	0 80	1 90	1 56	3 52
BARIUM	ug/L	16	164 00	35 40	120 28	26 82	148 17
BENZENE	ug/L	1	2 00	2 00	2 00		
BERYLLIUM	ug/L	1	0 80	0 80	0 80		
BICARBONATE AS CACO3	mg/L	9	286 00	48 00	219 33	77 34	299 77
BIS(2-ETHYLHEXYL)PHTHALAT	ug/L	1	3 00	3 00	3 00		
CADMIUM	ug/L	1	3 20	3 20	3 20		
CALCIUM	ug/L	16	99,000 00	16,200 00	73 893 75	23,866 34	98,714 74
CARBONATE AS CACO3	mg/L	3	4 00	0 00	1 67	2 08	3 83
CESIUM	ug/L	2	60 00	50 00	55 00	7 07	62 35
CESIUM-137	pCi/L	6	0 32	-0 27	0 02	0 26	0 29
CHLORIDE	mg/L	9	87 00	22 40	53 16	18 30	72 19
CHROMIUM	ug/L	1	16 90	16 90	16 90		
COBALT	ug/L	1	9 30	9 30	9 30		
COPPER	ug/L	4	32 10	4 90	12 13	13 34	26 00
DI-n-BUTYL PHTHALATE	ug/L	1	5 00	5 00	5 00		
DISSOLVED ORGANIC CARBON	mg/L	8	17 00	2 00	7 41	6 08	13 74
FLUORIDE	mg/L	9	0 55	0 20	0 45	0 11	0 57
GROSS ALPHA	pCi/L	9	10 82	1 29	6 37	3 05	9 53
GROSS BETA	pCi/L	10	69 57	2 96	16 04	19 77	36 60
IRON	ug/L	14	14,000 00	29 00	1,494 43	3,616 72	5,255 82
LEAD	ug/L	8	79 00	1 00	16 18	28 20	45 51
LITHIUM	ug/L	13	43 20	6 50	18 15	12 52	31 17
MAGNESIUM	ug/L	16	22,000 00	3,150 00	17,176 88	5,501 42	22,898 35
MANGANESE	ug/L	16	650 00	53 60	435 54	158 75	600 64
METHYLENE CHLORIDE	ug/L	2	4 00	1 00	2 50	2 12	4 71
NEPTUNIUM-237	pCi/L	2	0 01	0 00	0 00	0 00	0 01
NICKEL	ug/L	1	5 50	5 50	5 50		
NITRATE/NITRITE	ug/L	10	1,230 00	0 15	124 86	388 31	528 70
NITRITE	mg/L	1	0 02	0 02	0 02		
OIL AND GREASE	mg/L	4	37 10	1 70	11 88	16 87	29 43
PHOSPHORUS	ug/L	3	54 30	0 03	18 21	31 26	50 72
PLUTONIUM-239/240	pCi/L	7	0 03	0 00	0 01	0 01	0 02
POTASSIUM	ug/L	14	8,320 00	2,760 00	3 793 57	1,786 64	5,651 68
RADIUM-226	pCi/L	2	1 00	0 07	0 53	0 66	1 22
SELENIUM	ug/L	3	5 90	1 30	2 90	2 60	5 60
SILICA	mg/L	2	6 00	1 20	3 60	3 39	7 13
SILICON	ug/L	19	11,000 00	4,070 00	5,963 16	2,075 40	8,121 58
SODIUM	ug/L	16	50,700 00	33,000 00	42,718 75	5,571 14	48,512 74

Summary Statistics for Surface-Water Data - Detects Only
1991 - 1993

LOCATION SW017

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value
STRONTIUM	ug/L	17	560 00	98 60	450 74	138 05	594 31
STRONTIUM-89,90	pCi/L	6	1 14	0 34	0 73	0 33	1 08
SULFATE	mg/L	9	88 10	29 00	46 83	17 74	65 28
TOTAL DISSOLVED SOLIDS	mg/L	9	534 00	240 00	394 89	96 51	495 26
TOTAL ORGANIC CARBON	mg/L	8	10 00	3 00	5 65	2 82	8 58
TOTAL SUSPENDED SOLIDS	mg/L	8	300 00	2 00	53 38	101 08	158 50
TRITIUM	pCi/L	5	530 00	-93 90	182 06	225 34	416 42
URANIUM-233,-234	pCi/L	8	3 48	0 14	2 00	1 02	3 07
URANIUM-234	pCi/L	2	36 00	3 00	19 50	23 33	43 77
URANIUM-235	pCi/L	7	0 98	0 03	0 26	0 34	0 61
URANIUM-238	pCi/L	10	22 00	0 03	5 67	6 09	12 00
VANADIUM	ug/L	5	29 30	2 40	9 46	11 41	21 33
ZINC	ug/L	14	279 00	8 00	49 86	66 78	119 32

Summary Statistics for Surface-Water Data - Detects Only
1991 - 1993

LOCATION SW018

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value
ALUMINUM	ug/L	10	196 00	24 00	86 64	53 43	142 21
AMERICIUM-241	pCi/L	5	0 01	0 00	0 00	0 00	0 01
ANTIMONY	ug/L	1	19 70	19 70	19 70		
BARIUM	ug/L	16	140 00	90 80	120 84	16 70	138 22
BICARBONATE AS CACO3	mg/L	10	288 00	145 00	223 80	41 28	266 73
CADMIUM	ug/L	3	2 40	1 10	1 63	0 68	2 34
CALCIUM	ug/L	16	89,000 00	59,400 00	76,875 00	8,581 03	85,799 27
CARBON TETRACHLORIDE	ug/L	2	8 00	4 00	6 00	2 83	8 94
CARBONATE AS CACO3	mg/L	1	12 30	12 30	12 30		
CESIUM	ug/L	3	60 00	50 00	56 67	5 77	62 67
CESIUM-137	pCi/L	6	1 50	0 07	0 40	0 54	0 97
CHLORIDE	mg/L	9	67 00	34 30	49 80	10 59	60 82
CHLOROMETHANE	ug/L	1	130 00	130 00	130 00		
CHROMIUM	ug/L	1	4 80	4 80	4 80		
COBALT	ug/L	1	2 70	2 70	2 70		
COPPER	ug/L	4	19 00	4 40	11 25	6 40	17 91
DISSOLVED ORGANIC CARBON	mg/L	8	6 90	2 00	4 39	2 15	6 62
FLUORIDE	mg/L	9	0 64	0 48	0 52	0 05	0 58
GROSS ALPHA	pCi/L	8	12 00	2 92	6 03	2 64	8 77
GROSS BETA	pCi/L	9	104 25	5 70	18 99	32 04	52 31
IRON	ug/L	16	531 00	8 50	212 99	175 10	395 10
LEAD	ug/L	9	3 20	1 30	2 27	0 68	2 98
LITHIUM	ug/L	15	21 70	5 60	8 19	3 87	12 21
MAGNESIUM	ug/L	16	17,700 00	11,500 00	15,150 00	1,893 50	17 119 24
MANGANESE	ug/L	16	248 00	100 00	163 63	41 75	207 05
MERCURY	ug/L	2	0 23	0 20	0 22	0 02	0 24
METHYLENE CHLORIDE	ug/L	2	36 00	5 00	20 50	21 92	43 30
MOLYBDENUM	ug/L	1	11 40	11 40	11 40		
NEPTUNIUM-237	pCi/L	2	-0 14	-0 40	-0 27	0 18	-0 08
NICKEL	ug/L	2	12 00	10 00	11 00	1 41	12 47
NITRATE/NITRITE	mg/L	9	2 10	0 89	1 54	0 44	2 00
OIL AND GREASE	mg/L	1	13 10	13 10	13 10		
PHOSPHORUS	mg/L	1	0 74	0 74	0 74		
PLUTONIUM-239/240	pCi/L	5	0 01	0 00	0 01	0 00	0 01
POTASSIUM	ug/L	16	4,700 00	1,600 00	2 740 00	873 30	3,648 23
RADIUM-226	pCi/L	4	0 38	0 09	0 23	0 15	0 39
SILICON	ug/L	21	7,480 00	4,450 00	6,059 52	856 29	6,950 07
SODIUM	ug/L	16	37,100 00	25 000 00	29,887 50	3,738 43	33,775 46
STRONTIUM	ug/L	19	480 00	336 00	430 53	45 96	478 33
STRONTIUM-89,90	pCi/L	6	1 07	-0 35	0 39	0 45	0 86
SULFATE	mg/L	9	40 20	25 80	32 38	4 74	37 30
TOTAL DISSOLVED SOLIDS	mg/L	9	396 00	312 00	355 78	26 05	382 87
TOTAL ORGANIC CARBON	mg/L	8	4 60	2 00	3 61	0 88	4 53

Summary Statistics for Surface-Water Data - Detects Only
1991 - 1993

LOCATION SW018

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value
TOTAL SUSPENDED SOLIDS	mg/L	4	10 00	5 00	6 75	2 36	9 21
TRITIUM	pCi/L	4	127 30	72 57	96 02	27 03	124 14
UNKNOWN HYDROCARBON	ug/L	2	7 00	6 00	6 50	0 71	7 24
URANIUM-233,-234	pCi/L	7	3 44	0 62	2 26	0 88	3 17
URANIUM-234	pCi/L	2	3 10	1 50	2 30	1 13	3 48
URANIUM-235	pCi/L	6	0 22	-0 01	0 09	0 09	0 18
URANIUM-238	pCi/L	9	8 43	1 46	5 84	2 08	8 00
ZINC	ug/L	11	27 00	10 50	18 38	5 30	23 89

Summary Statistics for Surface-Water Data - Detects Only
1991 - 1993

LOCATION SW019

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value
alpha-BHC	ug/L	1	0 01	0 01	0 01		
ALUMINUM	ug/L	2	6,290 00	411 00	3,350 50	4,157 08	7,673 86
AMERICIUM-241	pCi/L	2	0 27	0 00	0 14	0 19	0 33
BARIUM	ug/L	4	68 60	12 20	40 65	25 89	67 58
BICARBONATE AS CACO3	mg/L	2	52 40	25 70	39 05	18 88	58 68
BIS(2-ETHYLHEXYL)PHTHALAT	ug/L	1	2 00	2 00	2 00		
CALCIUM	ug/L	4	16,700 00	10,900 00	13,025 00	2,531 63	15,657 90
CESIUM-137	pCi/L	2	0 26	0 26	0 26	0 00	0 26
CHLORIDE	mg/L	2	123 00	22 50	72 75	71 06	146 66
CHROMIUM	ug/L	1	12 80	12 80	12 80		
COBALT	ug/L	1	5 40	5 40	5 40		
COPPER	ug/L	2	16 20	7 10	11 65	6 43	18 34
DISSOLVED ORGANIC CARBON	mg/L	1	6 30	6 30	6 30		
FLUORIDE	mg/L	2	0 24	0 16	0 20	0 06	0 26
GROSS ALPHA	pCi/L	2	4 50	1 40	2 95	2 19	5 23
GROSS BETA	pCi/L	2	26 00	6 65	16 33	13 68	30 55
IRON	ug/L	4	6,400 00	106 00	2,133 25	2,964 18	5,216 00
LEAD	ug/L	3	29 10	3 10	12 60	14 34	27 52
LITHIUM	ug/L	2	6 90	2 00	4 45	3 46	8 05
MAGNESIUM	ug/L	4	4,850 00	1,150 00	2,467 50	1,716 32	4,252 47
MANGANESE	ug/L	4	193 00	4 80	77 50	87 34	168 34
MOLYBDENUM	ug/L	1	10 60	10 60	10 60		
NEPTUNIUM-237	pCi/L	1	0 42	0 42	0 42		
NITRATE/NITRITE	mg/L	2	3 00	1 70	2 35	0 92	3 31
NITRITE	mg/L	2	0 06	0 03	0 04	0 02	0 06
ORTHOPHOSPHATE	mg/L	2	0 33	0 33	0 33	0 00	0 33
PHOSPHORUS	mg/L	2	0 76	0 26	0 51	0 35	0 88
PLUTONIUM-239/240	pCi/L	1	0 01	0 01	0 01		
POTASSIUM	ug/L	4	21 600 00	3 280 00	12 247 50	9 849 66	22,491 15
SILICON	ug/L	4	14,700 00	969 00	6,159 75	6,209 12	12,617 23
SODIUM	ug/L	4	64,000 00	15,800 00	39,875 00	27,285 33	68,251 74
STRONTIUM	ug/L	4	113 00	55 20	73 70	26 51	101 27
STRONTIUM-89,90	pCi/L	1	0 36	0 36	0 36		
SULFATE	mg/L	2	43 00	9 40	26 20	23 76	50 91
TOTAL DISSOLVED SOLIDS	mg/L	2	292 00	118 00	205 00	123 04	332 96
TOTAL ORGANIC CARBON	mg/L	2	6 00	5 90	5 95	0 07	6 02
TOTAL SUSPENDED SOLIDS	mg/L	2	110 00	15 00	62 50	67 18	132 36
TRITIUM	pCi/L	1	241 70	241 70	241 70		
URANIUM-233 -234	pCi/L	1	0 48	0 48	0 48		
URANIUM-234	pCi/L	1	0 49	0 49	0 49		
URANIUM-235	pCi/L	1	0 05	0 05	0 05		
URANIUM-238	pCi/L	2	0 30	0 22	0 26	0 06	0 32
VANADIUM	ug/L	1	18 60	18 60	18 60		

Summary Statistics for Surface-Water Data - Detects Only
1991 - 1993

LOCATION SW019

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value
ZINC	ug/L	3	144 00	7 20	61 63	72 55	137 09

Summary Statistics for Surface-Water Data - Detects Only
1991 - 1993

LOCATION: SW020

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value
alpha-BHC	ug/L	1	0 01	0 01	0 01		
ALUMINUM	ug/L	3	13,000 00	38 40	4,759 47	7,161 76	12,207 69
AMERICIUM-241	pCi/L	2	0 04	0 03	0 03	0 01	0 04
ARSENIC	ug/L	1	1 60	1 60	1 60		
BARIUM	ug/L	3	94 50	17 30	46 57	41 85	90 09
BERYLLIUM	ug/L	1	0 70	0 70	0 70		
BICARBONATE AS CACO3	mg/L	2	45 60	27 50	36 55	12 80	49 86
BIS(2-ETHYLHEXYL)PHTHALAT	ug/L	1	2 00	2 00	2 00		
CALCIUM	ug/L	4	18,800 00	8,110 00	12,927 50	4,596 05	17,707 39
CESIUM-137	pCi/L	2	0 27	-0 05	0 11	0 23	0 35
CHLORIDE	mg/L	2	56 50	9 80	33 15	33 02	67 49
CHROMIUM	ug/L	1	10 80	10 80	10 80		
COBALT	ug/L	1	4 10	4 10	4 10		
COPPER	ug/L	4	19 70	5 50	12 28	7 42	19 99
DISSOLVED ORGANIC CARBON	mg/L	2	7 40	7 10	7 25	0 21	7 47
FLUORIDE	mg/L	2	0 21	0 15	0 18	0 04	0 22
GROSS ALPHA	pCi/L	2	5 40	1 57	3 48	2 71	6 30
GROSS BETA	pCi/L	2	14 00	6 32	10 16	5 43	15 81
IRON	ug/L	4	12,200 00	89 40	3,393 23	5,893 98	9,522 96
LEAD	ug/L	4	26 40	1 90	10 03	11 30	21 77
LITHIUM	ug/L	2	10 40	2 00	6 20	5 94	12 38
MAGNESIUM	ug/L	4	4 080 00	864 00	1,926 00	1 470 69	3,455 52
MANGANESE	ug/L	4	149 00	6 20	44 95	69 50	117 23
NEPTUNIUM-237	pCi/L	1	0 04	0 04	0 04		
NICKEL	ug/L	2	20 60	15 50	18 05	3 61	21 80
NITRATE/NITRITE	mg/L	2	1 30	0 87	1 09	0 30	1 40
NITRITE	mg/L	1	0 06	0 06	0 06		
ORTHOPHOSPHATE	mg/L	2	0 31	0 31	0 31	0 00	0 31
PHOSPHORUS	mg/L	2	0 46	0 30	0 38	0 11	0 50
PLUTONIUM-239/240	pCi/L	2	0 15	0 14	0 14	0 01	0 15
POTASSIUM	ug/L	4	6,750 00	1 190 00	4,327 50	2 331 84	6 752 62
SILICON	ug/L	4	29,300 00	1,030 00	9,085 00	13,567 56	23,195 26
SODIUM	ug/L	4	32,900 00	7,470 00	22,667 50	12,491 58	35,658 74
STRONTIUM	ug/L	4	88 80	40 10	63 55	21 73	86 14
STRONTIUM-89,90	pCi/L	1	0 67	0 67	0 67		
SULFATE	mg/L	2	69 60	6 10	37 85	44 90	84 55
TOTAL DISSOLVED SOLIDS	mg/L	2	194 00	68 00	131 00	89 10	223 66
TOTAL ORGANIC CARBON	mg/L	2	6 20	6 00	6 10	0 14	6 25
TOTAL SUSPENDED SOLIDS	mg/L	2	244 00	70 00	157 00	123 04	284 96
TRITIUM	pCi/L	1	234 00	234 00	234 00		
URANIUM-233,-234	pCi/L	1	0 34	0 34	0 34		
URANIUM-234	pCi/L	1	0 40	0 40	0 40		
URANIUM-235	pCi/L	1	-0 02	-0 02	-0 02		

Summary Statistics for Surface-Water Data - Detects Only
1991 - 1993

LOCATION SW020

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value
URANIUM-238	pCi/L	2	0 48	0 14	0 31	0 24	0 56
VANADIUM	ug/L	1	30 30	30 30	30 30		
ZINC	ug/L	3	164 00	16 20	73 70	79 17	156 04

Summary Statistics for Surface-Water Data - Detects Only
1991 - 1993

LOCATION SW022

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value
ALKALINITY AS CACO3	mg/L	8	110 00	42 00	61 63	21 71	84 21
ALUMINUM	ug/L	10	35,100 00	47 20	17,102 02	12,762 90	30,375 44
AMERICIUM-241	pCi/L	1	0 01	0 01	0 01		
ANTIMONY	ug/L	1	40 20	40 20	40 20		
ARSENIC	ug/L	4	6 00	3 00	4 60	1 32	5 98
BARIUM	ug/L	10	465 00	14 20	203 85	157 74	367 90
BERYLLIUM	ug/L	5	2 70	1 40	2 02	0 59	2 64
BICARBONATE AS CACO3	mg/L	12	260 00	42 00	98 08	73 84	174 87
CADMIUM	ug/L	3	3 90	2 00	2 97	0 95	3 96
CALCIUM	ug/L	10	106,000 00	9,950 00	47,675 00	33,104 32	82 103 50
CARBONATE AS CACO3	mg/L	1	2 00	2 00	2 00		
CESIUM	ug/L	1	50 00	50 00	50 00		
CESIUM-137	pCi/L	1	-0 06	-0 06	-0 06		
CHLORIDE	mg/L	12	19 00	4 00	8 96	4 11	13 23
CHROMIUM	ug/L	8	49 20	4 80	25 01	14 49	40 08
COBALT	ug/L	8	21 50	2 10	10 66	6 40	17 32
COPPER	ug/L	9	71 60	6 50	40 23	23 63	64 81
FLUORIDE	mg/L	4	0 30	0 19	0 22	0 05	0 28
GROSS ALPHA	pCi/L	17	31 00	-1 00	5 56	7 42	13 27
GROSS BETA	pCi/L	22	36 00	1 99	9 40	8 47	18 21
IRON	ug/L	10	38,700 00	80 50	16,802 05	13,126 74	30,453 86
LEAD	ug/L	9	125 00	10 00	61 09	39 12	101 78
LITHIUM	ug/L	8	27 40	7 30	15 73	6 73	22 72
MAGNESIUM	ug/L	10	15,900 00	1 230 00	7,470 00	4,670 89	12,327 72
MANGANESE	ug/L	10	894 00	4 10	346 62	313 53	672 69
MOLYBDENUM	ug/L	1	30 00	30 00	30 00		
NICKEL	ug/L	7	45 70	11 00	23 90	11 57	35 93
NITRATE/NITRITE	mg/L	12	1 70	0 67	1 19	0 34	1 55
NITRITE	mg/L	11	0 56	0 03	0 13	0 15	0 28
ORTHOPHOSPHATE	mg/L	8	0 17	0 03	0 07	0 05	0 12
PHOSPHORUS	mg/L	1	0 09	0 09	0 09		
PLUTONIUM-239/240	pCi/L	1	0 04	0 04	0 04		
POTASSIUM	ug/L	10	8 610 00	2,410 00	5,418 00	2,083 10	7 584 42
SILICA	mg/L	3	1 00	1 00	1 00	0 00	1 00
SILICON	ug/L	2	1,770 00	1,700 00	1,735 00	49 50	1,786 48
SODIUM	ug/L	10	19 000 00	4,700 00	9,554 00	4 033 00	13 748 32
STRONTIUM	ug/L	10	288 00	45 20	163 16	80 07	246 43
STRONTIUM-89,90	pCi/L	1	0 82	0 82	0 82		
SULFATE	mg/L	10	19 00	6 00	11 74	4 41	16 33
TIN	ug/L	2	30 80	26 70	28 75	2 90	31 77
TOTAL DISSOLVED SOLIDS	mg/L	13	160 00	82 00	115 08	23 50	139 52
TOTAL SUSPENDED SOLIDS	mg/L	12	2 500 00	36 00	856 58	954 55	1 849 32
TRITIUM	pCi/L	35	211 80	-42 90	45 02	71 98	119 87

Summary Statistics for Surface-Water Data - Detects Only
1991 - 1993

LOCATION SW022

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value
URANIUM-233,-234	pCi/L	1	0 08	0 08	0 08		
URANIUM-235	pCi/L	1	-0 01	-0 01	-0 01		
URANIUM-238	pCi/L	1	0 35	0 35	0 35		
VANADIUM	ug/L	8	93 80	13 00	54 26	26 01	81 32
ZINC	ug/L	9	560 00	69 10	299 90	176 29	483 24

Summary Statistics for Surface-Water Data - Detects Only
1991 - 1993

LOCATION SW023

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value
1,2-DICHLOROETHENE	ug/L	1	1 00	1 00	1 00		
ALKALINITY AS CACO3	mg/L	11	160 00	58 00	85 55	28 46	115 14
ALUMINUM	ug/L	25	39,000 00	13 00	5,217 73	9 751 51	15,359 31
AMERICIUM-241	pCi/L	5	0 17	0 00	0 04	0 07	0 11
AMMONIA	mg/L	1	0 70	0 70	0 70		
ANTIMONY	ug/L	5	20 30	15 90	18 30	1 89	20 27
ARSENIC	ug/L	7	10 00	1 20	5 00	2 89	8 01
BARIUM	ug/L	30	400 00	50 00	128 34	70 16	201 31
BERYLLIUM	ug/L	4	2 30	0 70	1 43	0 67	2 12
BICARBONATE AS CACO3	mg/L	24	301 00	30 00	149 88	84 41	237 66
CADMIUM	ug/L	4	2 30	1 20	1 75	0 58	2 35
CALCIUM	ug/L	30	95,000 00	17 000 00	61,093 33	21,579 04	83,535 54
CARBONATE AS CACO3	mg/L	4	12 50	0 00	3 63	5 99	9 86
CESIUM	ug/L	5	110 00	50 00	66 00	25 10	92 10
CESIUM-137	pCi/L	8	1 10	0 11	0 41	0 35	0 77
CHLORIDE	mg/L	23	250 00	5 00	60 68	63 47	126 69
CHROMIUM	ug/L	9	36 00	4 20	16 29	9 35	26 02
COBALT	ug/L	7	19 00	2 40	8 83	5 42	14 46
COPPER	ug/L	19	88 00	2 10	21 87	23 55	46 36
DISSOLVED ORGANIC CARBON	mg/L	12	5 00	1 80	3 15	1 17	4 37
FLUORIDE	mg/L	13	0 93	0 08	0 71	0 22	0 94
GROSS ALPHA	pCi/L	25	17 15	1 83	5 76	3 51	9 41
GROSS BETA	pCi/L	25	20 00	3 00	8 19	4 36	12 72
IRON	ug/L	28	34,000 00	17 00	4,964 60	8 955 20	14,278 01
LEAD	ug/L	25	75 00	1 00	13 68	21 75	36 30
LITHIUM	ug/L	29	21 00	3 70	10 50	3 53	14 17
MAGNESIUM	ug/L	30	25,000 00	3,500 00	15,420 00	6,094 79	21,758 58
MANGANESE	ug/L	30	1,300 00	13 30	189 22	327 01	529 31
MERCURY	ug/L	2	0 36	0 34	0 35	0 01	0 36
METHYLENE CHLORIDE	ug/L	1	2 00	2 00	2 00		
MOLYBDENUM	ug/L	8	43 00	3 70	13 93	13 30	27 76
NEPTUNIUM-237	pCi/L	3	0 04	-0 01	0 02	0 03	0 05
NICKEL	ug/L	8	31 00	6 40	16 34	7 67	24 32
NITRATE/NITRITE	mg/L	23	5 40	0 40	2 72	1 55	4 33
NITRITE	mg/L	9	0 11	0 02	0 05	0 03	0 08
OIL AND GREASE	mg/L	4	56 00	0 20	16 45	26 70	44 22
ORTHOPHOSPHATE	mg/L	3	0 15	0 01	0 10	0 08	0 18
PHOSPHORUS	mg/L	4	0 05	0 01	0 03	0 02	0 05
PLUTONIUM-236	pCi/L	1	0 00	0 00	0 00		
PLUTONIUM-238	pCi/L	1	-0 02	-0 02	-0 02		
PLUTONIUM-239/240	pCi/L	8	0 04	0 00	0 01	0 01	0 02
POTASSIUM	ug/L	30	8 600 00	1 700 00	3,499 67	2 012 80	5,592 98
RADIUM-226	pCi/L	6	1 40	0 10	0 38	0 51	0 91

Summary Statistics for Surface-Water Data - Detects Only
1991 - 1993

LOCATION SW023

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value
SELENIUM	ug/L	15	6 90	1 40	3 19	1 36	4 61
SILICA	mg/L	3	5 20	2 80	4 03	1 20	5 28
SILICON	ug/L	22	5 490 00	1 700 00	3,915 45	1,178 59	5 141 19
SILVER	ug/L	1	3 20	3 20	3 20		
SODIUM	ug/L	30	105,000 00	4,600 00	41,860 00	21,785 25	64,516 66
STRONTIUM	ug/L	30	668 00	100 00	410 20	171 19	588 24
STRONTIUM-89	pCi/L	1	0 05	0 05	0 05		
STRONTIUM-89,90	pCi/L	8	6 63	0 21	1 34	2 15	3 58
STRONTIUM-90	pCi/L	2	0 83	0 28	0 55	0 39	0 96
SULFATE	mg/L	20	69 90	10 00	34 11	16 81	51 59
TETRACHLOROETHANE	ug/L	1	5 00	5 00	5 00		
THALLIUM	ug/L	1	1 00	1 00	1 00		
TIN	ug/L	3	19 30	16 10	18 00	1 68	19 75
TOTAL DISSOLVED SOLIDS	mg/L	21	1,530 00	74 00	374 38	312 11	698 97
TOTAL ORGANIC CARBON	mg/L	12	4 00	1 40	2 68	1 11	3 84
TOTAL SUSPENDED SOLIDS	mg/L	17	1 050 00	3 00	188 06	287 87	487 44
TRITIUM	pCi/L	29	890 00	-26 10	160 07	167 25	334 01
URANIUM-233 -234	pCi/L	8	5 04	0 52	3 31	1 32	4 69
URANIUM-234	pCi/L	4	3 40	2 70	3 05	0 29	3 35
URANIUM-235	pCi/L	9	0 44	0 02	0 15	0 14	0 30
URANIUM-238	pCi/L	12	4 57	0 44	2 63	0 97	3 64
VANADIUM	ug/L	15	95 00	2 10	24 05	27 34	52 49
ZINC	ug/L	26	1,200 00	2 80	177 85	278 76	467 76

Summary Statistics for Surface-Water Data - Detects Only
1991 - 1993

LOCATION SW030

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value
ALUMINUM	ug/L	3	667 00	23 00	356 67	322 63	692 21
AMERICIUM-241	pCi/L	2	0 02	0 01	0 01	0 01	0 02
BARIUM	ug/L	4	102 00	54 70	75 68	19 71	96 17
BERYLLIUM	ug/L	1	0 50	0 50	0 50		
beta-BHC	ug/L	1	0 02	0 02	0 02		
BICARBONATE AS CACO3	mg/L	2	169 00	139 00	154 00	21 21	176 06
CALCIUM	ug/L	4	51,000 00	45,400 00	49,100 00	2,511 31	51,711 76
CESIUM	ug/L	2	50 00	50 00	50 00	0 00	50 00
CESIUM-137	pCi/L	1	-0 33	-0 33	-0 33		
CHLORIDE	mg/L	2	36 40	34 80	35 60	1 13	36 78
COPPER	ug/L	3	7 00	3 30	5 40	1 90	7 38
FLUORIDE	mg/L	2	0 58	0 47	0 52	0 08	0 61
GROSS ALPHA	pCi/L	2	6 80	2 48	4 64	3 06	7 82
GROSS BETA	pCi/L	2	7 20	6 32	6 76	0 62	7 41
IRON	ug/L	4	661 00	35 00	320 90	331 74	665 91
LEAD	ug/L	3	2 20	1 80	2 03	0 21	2 25
LITHIUM	ug/L	3	9 90	6 00	8 37	2 08	10 53
MAGNESIUM	ug/L	4	10,800 00	10,000 00	10,225 00	386 22	10,626 67
MANGANESE	ug/L	4	71 00	19 00	33 63	24 97	59 60
MOLYBDENUM	ug/L	1	3 20	3 20	3 20		
NICKEL	ug/L	1	5 00	5 00	5 00		
NITRATE/NITRITE	mg/L	1	0 12	0 12	0 12		
OIL AND GREASE	mg/L	1	13 40	13 40	13 40		
PHOSPHORUS	mg/L	1	0 09	0 09	0 09		
PLUTONIUM-239/240	pCi/L	2	0 04	0 01	0 02	0 02	0 04
POTASSIUM	ug/L	4	2,960 00	2,540 00	2 825 00	192 09	3 024 78
RADIUM-226	pCi/L	1	0 20	0 20	0 20		
SILICON	ug/L	7	5,200 00	3,670 00	4,690 00	703 49	5,421 63
SODIUM	ug/L	4	22 000 00	19,600 00	21,050 00	1,170 47	22,267 29
STRONTIUM	ug/L	5	300 00	270 00	284 40	13 67	298 61
STRONTIUM-89,90	pCi/L	2	1 12	0 44	0 78	0 48	1 28
SULFATE	mg/L	2	26 50	20 40	23 45	4 31	27 94
TOTAL DISSOLVED SOLIDS	mg/L	2	258 00	240 00	249 00	12 73	262 24
TOTAL ORGANIC CARBON	mg/L	1	7 00	7 00	7 00		
TOTAL SUSPENDED SOLIDS	mg/L	3	88 00	10 00	36 00	45 03	82 83
TRITIUM	pCi/L	2	350 00	210 60	280 30	98 57	382 81
URANIUM-233,-234	pCi/L	2	1 41	1 40	1 40	0 01	1 41
URANIUM-235	pCi/L	1	0 05	0 05	0 05		
URANIUM-238	pCi/L	2	1 85	1 70	1 77	0 11	1 88
ZINC	ug/L	3	37 60	4 60	17 00	17 96	35 68

Summary Statistics for Surface-Water Data - Detects Only
1991 - 1993

LOCATION SW031

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value
ALUMINUM	ug/L	7	270 00	20 00	145 43	111 01	260 87
AMERICIUM-241	pCi/L	2	0 00	0 00	0 00	0 00	0 00
ANTIMONY	ug/L	1	12 00	12 00	12 00		
BARIUM	ug/L	8	130 00	89 70	112 45	15 89	128 98
BERYLLIUM	ug/L	2	0 60	0 60	0 60	0 00	0 60
BICARBONATE AS CACO3	mg/L	5	256 00	188 00	213 00	30 02	244 22
CADMIUM	ug/L	1	1 40	1 40	1 40		
CALCIUM	ug/L	8	84,000 00	50,900 00	71,725 00	13,287 02	85,543 50
CESIUM	ug/L	3	110 00	50 00	76 67	30 55	108 44
CESIUM-137	pCi/L	2	0 29	0 01	0 15	0 20	0 35
CHLORIDE	mg/L	4	67 50	59 30	63 85	3 41	67 40
COPPER	ug/L	3	3 10	2 40	2 77	0 35	3 13
DISSOLVED ORGANIC CARBON	mg/L	8	7 40	2 00	4 24	2 08	6 40
FLUORIDE	mg/L	4	0 71	0 60	0 66	0 05	0 71
GROSS ALPHA	pCi/L	3	4 90	3 40	3 94	0 83	4 81
GROSS BETA	pCi/L	4	5 50	3 80	4 59	0 91	5 53
IRON	ug/L	7	340 00	22 70	168 81	125 66	299 50
LEAD	ug/L	5	5 00	1 70	2 86	1 27	4 18
LITHIUM	ug/L	8	12 00	7 40	9 46	1 40	10 91
MAGNESIUM	ug/L	8	17,000 00	11,800 00	14,725 00	1,875 98	16,676 01
MANGANESE	ug/L	8	27 00	13 00	19 29	4 91	24 40
MERCURY	ug/L	1	0 53	0 53	0 53		
NEPTUNIUM-237	pCi/L	1	0 00	0 00	0 00		
NITRATE/NITRITE	mg/L	5	4 20	1 80	2 70	0 90	3 64
ORTHOPHOSPHATE	mg/L	2	0 06	0 06	0 06	0 00	0 06
PLUTONIUM-239/240	pCi/L	2	0 01	0 00	0 01	0 01	0 01
POTASSIUM	ug/L	8	2,700 00	1,900 00	2,220 00	289 28	2,520 86
SILICON	ug/L	12	7,280 00	1,750 00	6,061 67	1,926 64	8,065 37
SODIUM	ug/L	8	34 000 00	27 000 00	29 987 50	2,508 52	32 596 36
STRONTIUM	ug/L	8	500 00	322 00	416 75	65 05	484 41
STRONTIUM-89,90	pCi/L	1	0 37	0 37	0 37		
SULFATE	mg/L	4	49 40	32 10	38 05	7 78	46 14
TETRACHLOROETHANE	ug/L	1	6 00	6 00	6 00		
TOTAL DISSOLVED SOLIDS	mg/L	4	434 00	334 00	394 00	42 93	438 64
TOTAL ORGANIC CARBON	mg/L	8	5 00	1 00	3 25	1 32	4 62
TOTAL SUSPENDED SOLIDS	mg/L	5	11 00	6 00	7 40	2 07	9 56
TRITIUM	pCi/L	1	61 95	61 95	61 95		
UNKNOWN	ug/L	1	5 00	5 00	5 00		
UNKNOWN HYDROCARBON	ug/L	1	5 00	5 00	5 00		
URANIUM-233,-234	pCi/L	3	2 90	2 30	2 50	0 34	2 86
URANIUM-234	pCi/L	1	2 90	2 90	2 90		
URANIUM-235	pCi/L	2	0 18	0 10	0 14	0 06	0 20
URANIUM-238	pCi/L	4	2 40	1 70	2 04	0 29	2 34

Summary Statistics for Surface-Water Data - Detects Only
1991 - 1993

LOCATION SW031

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value
ZINC	ug/L	7	36 00	4 00	20 00	10 31	30 72

Summary Statistics for Surface-Water Data - Detects Only
1991 - 1993

LOCATION SW035

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value
1,2-DICHLOROETHANE	ug/L	1	3 00	3 00	3 00		
2-BUTANONE	ug/L	1	12 00	12 00	12 00		
ALUMINUM	ug/L	14	11,000 00	27 00	1,905 89	2,969 07	4,993 72
AMERICIUM-241	pCi/L	7	0 05	0 00	0 01	0 02	0 03
ANTIMONY	ug/L	2	56 10	41 90	49 00	10 04	59 44
ARSENIC	ug/L	1	2 20	2 20	2 20		
BARIUM	ug/L	23	415 00	36 00	134 57	93 27	231 57
BENZYL ALCOHOL	ug/L	1	3 00	3 00	3 00		
BERYLLIUM	ug/L	2	0 80	0 60	0 70	0 14	0 85
beta-BHC	ug/L	2	0 17	0 17	0 17	0 00	0 17
BICARBONATE AS CACO3	mg/L	12	200 00	73 90	153 83	39 60	195 01
BIS(2-ETHYLHEXYL)PHTHALAT	ug/L	2	2 00	2 00	2 00	0 00	2 00
CADMIUM	ug/L	3	2 90	1 10	1 90	0 92	2 85
CALCIUM	ug/L	23	90,000 00	24,600 00	66,856 52	17,273 89	84,821 36
CESIUM	ug/L	4	70 00	50 00	62 50	9 57	72 46
CESIUM-137	pCi/L	7	1 16	-0 16	0 37	0 48	0 87
CHLORIDE	mg/L	12	74 30	22 10	47 20	16 08	63 92
CHROMIUM	ug/L	4	66 00	3 30	21 90	29 53	52 61
COBALT	ug/L	4	7 50	2 30	4 10	2 34	6 53
COPPER	ug/L	16	51 90	2 40	14 31	14 39	29 28
DISSOLVED ORGANIC CARBON	mg/L	11	20 40	4 00	11 79	7 35	19 43
ETHYLPHENOL	ug/L	1	5 00	5 00	5 00		
FLUORIDE	mg/L	12	0 97	0 37	0 52	0 17	0 69
GROSS ALPHA	pCi/L	10	8 35	1 80	4 36	2 19	6 63
GROSS BETA	pCi/L	9	14 00	2 62	6 42	4 16	10 75
HYDROXY BENZALDEHYDE	ug/L	1	6 00	6 00	6 00		
IRON	ug/L	19	10 700 00	17 90	1,385 29	2,547 60	4,034 80
LEAD	ug/L	20	24 10	0 90	4 57	5 85	10 65
LITHIUM	ug/L	22	16 50	3 20	7 44	2 61	10 15
MAGNESIUM	ug/L	23	18,700 00	4,020 00	11,884 35	3,881 70	15,921 32
MANGANESE	ug/L	23	487 00	17 00	120 27	108 27	232 87
MERCURY	ug/L	1	1 00	1 00	1 00		
MOLYBDENUM	ug/L	1	8 80	8 80	8 80		
NEPTUNIUM-237	pCi/L	2	0 25	0 22	0 24	0 02	0 26
NICKEL	ug/L	3	50 00	6 70	23 60	23 16	47 69
NITRATE/NITRITE	mg/L	12	5 50	0 18	2 66	1 39	4 10
NITRITE	mg/L	11	0 20	0 03	0 08	0 05	0 13
OIL AND GREASE	mg/L	1	10 50	10 50	10 50		
ORTHOPHOSPHATE	mg/L	1	0 47	0 47	0 47		
PHOSPHORUS	mg/L	7	0 90	0 06	0 32	0 32	0 65
PLUTONIUM-236	pCi/L	1	0 02	0 02	0 02		
PLUTONIUM-238	pCi/L	1	0 00	0 00	0 00		
PLUTONIUM-239/240	pCi/L	9	0 01	0 00	0 00	0 00	0 01

Summary Statistics for Surface-Water Data - Detects Only
1991 - 1993

LOCATION SW035

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value
POTASSIUM	ug/L	22	5 580 00	1 060 00	2 545 91	1 175 80	3,768 74
RADIUM-226	pCi/L	1	1 40	1 40	1 40		
SELENIUM	ug/L	1	1 20	1 20	1 20		
SILICON	ug/L	26	29,400 00	1 030 00	7,126 15	5 168 61	12,501 51
SILVER	ug/L	2	4 90	4 90	4 90	0 00	4 90
SODIUM	ug/L	23	49,200 00	12,800 00	22,634 78	9,556 08	32,573 11
STRONTIUM	ug/L	25	485 00	120 00	344 84	96 26	444 95
STRONTIUM-89	pCi/L	1	0 36	0 36	0 36		
STRONTIUM-89,90	pCi/L	5	6 65	0 12	1 71	2 77	4 59
STRONTIUM-90	pCi/L	1	0 14	0 14	0 14		
SULFATE	mg/L	12	83 00	16 40	38 90	20 72	60 45
SULFIDE	mg/L	1	1 10	1 10	1 10		
TIN	ug/L	2	16 00	16 00	16 00	0 00	16 00
TOTAL DISSOLVED SOLIDS	mg/L	12	658 00	240 00	376 67	137 30	519 46
TOTAL ORGANIC CARBON	mg/L	12	16 00	5 00	11 26	3 76	15 17
TOTAL SUSPENDED SOLIDS	mg/L	14	326 00	7 50	94 93	107 64	206 87
TRICHLOROETHENE	ug/L	1	13 00	13 00	13 00		
TRITIUM	pCi/L	8	250 00	73 42	138 70	61 14	202 29
UNKNOWN	ug/L	1	7 00	7 00	7 00		
UNKNOWN HYDROCARBON	ug/L	7	70 00	8 00	38 29	23 82	63 06
URANIUM-233,-234	pCi/L	8	2 59	0 92	1 42	0 54	1 98
URANIUM-234	pCi/L	3	2 80	0 59	1 90	1 16	3 10
URANIUM-235	pCi/L	7	0 17	-0 01	0 07	0 06	0 13
URANIUM-238	pCi/L	11	7 89	0 86	2 23	1 95	4 26
VANADIUM	ug/L	14	32 00	2 30	10 44	11 26	22 15
ZINC	ug/L	20	362 00	3 60	72 22	88 24	164 00

148 of 218

Summary Statistics for Surface-Water Data - Detects Only
1991 - 1993

LOCATION SW036

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value
ALUMINUM	ug/L	8	210 00	15 00	130 21	67 86	200 79
AMERICIUM-241	pCi/L	2	0 02	0 01	0 01	0 00	0 02
ANTIMONY	ug/L	1	11 00	11 00	11 00		
ARSENIC	ug/L	3	5 90	3 60	4 40	1 30	5 75
BARIUM	ug/L	14	160 00	96 40	119 99	18 92	139 66
BERYLLIUM	ug/L	4	0 60	0 40	0 53	0 10	0 62
BICARBONATE AS CACO3	mg/L	8	244 00	16 90	170 11	69 58	242 48
BIS(2-ETHYLHEXYL)PHTHALAT	ug/L	1	2 00	2 00	2 00		
CADMIUM	ug/L	1	3 60	3 60	3 60		
CALCIUM	ug/L	14	93,700 00	55,600 00	68,564 29	11,418 04	80,439 05
CESIUM	ug/L	2	60 00	50 00	55 00	7 07	62 35
CESIUM-137	pCi/L	3	0 32	-0 14	0 06	0 24	0 31
CHLORIDE	mg/L	8	61 20	25 90	43 61	12 76	56 88
COPPER	ug/L	7	9 20	2 30	4 79	2 22	7 09
DISSOLVED ORGANIC CARBON	mg/L	9	11 50	4 00	7 93	2 42	10 45
FLUORIDE	mg/L	8	0 66	0 50	0 59	0 07	0 66
GROSS ALPHA	pCi/L	7	11 71	3 20	7 15	3 37	10 66
GROSS BETA	pCi/L	7	16 12	6 50	11 92	3 36	15 42
IRON	ug/L	12	270 00	22 80	135 73	108 23	248 29
LEAD	ug/L	8	7 30	0 80	2 79	2 30	5 18
LITHIUM	ug/L	11	12 70	4 10	7 28	3 02	10 42
MAGNESIUM	ug/L	14	27,100 00	14,000 00	19,478 57	3,877 58	23,511 26
MANGANESE	ug/L	12	170 00	2 10	36 92	49 14	88 02
MERCURY	ug/L	2	1 00	0 20	0 60	0 57	1 19
MOLYBDENUM	ug/L	3	4 40	4 00	4 17	0 21	4 38
NEPTUNIUM-237	pCi/L	2	0 25	-0 04	0 11	0 21	0 32
NITRATE/NITRITE	mg/L	1	0 10	0 10	0 10		
PHOSPHORUS	mg/L	1	0 06	0 06	0 06		
PLUTONIUM-236	pCi/L	2	0 00	0 00	0 00	0 00	0 00
PLUTONIUM-238	pCi/L	1	0 00	0 00	0 00		
PLUTONIUM-239/240	pCi/L	4	0 34	0 00	0 09	0 17	0 26
POTASSIUM	ug/L	14	5,000 00	2 570 00	3 600 00	883 74	4,519 09
RADIUM-226	pCi/L	1	0 07	0 07	0 07		
SILICON	ug/L	16	9 990 00	477 00	5,187 25	3,405 92	8,729 41
SODIUM	ug/L	14	36,500 00	9,770 00	18,983 57	7,333 32	26,610 23
STRONTIUM	ug/L	14	614 00	339 00	453 64	85 58	542 64
STRONTIUM-89	pCi/L	1	-0 25	-0 25	-0 25		
STRONTIUM-89,90	pCi/L	3	6 48	0 41	3 29	3 05	6 46
STRONTIUM-90	pCi/L	1	0 06	0 06	0 06		
SULFATE	mg/L	8	117 00	28 00	50 84	29 81	81 84
TOTAL DISSOLVED SOLIDS	mg/L	8	536 00	296 00	398 00	89 41	490 99
TOTAL ORGANIC CARBON	mg/L	8	14 00	7 00	9 70	2 57	12 37
TOTAL SUSPENDED SOLIDS	mg/L	7	15 00	6 00	8 86	3 18	12 17

Summary Statistics for Surface-Water Data - Detects Only
1991 - 1993

LOCATION SW036

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value
TRICHLOROETHENE	ug/L	1	8 00	8 00	8 00		
TRITIUM	pCi/L	5	339 00	110 00	186 90	90 19	280 69
URANIUM-233,-234	pCi/L	4	14 53	0 25	5 44	6 28	11 98
URANIUM-234	pCi/L	3	3 80	3 30	3 63	0 29	3 93
URANIUM-235	pCi/L	4	0 31	0 20	0 25	0 04	0 29
URANIUM-238	pCi/L	7	54 58	0 01	14 55	18 13	33 41
VANADIUM	ug/L	1	2 60	2 60	2 60		
ZINC	ug/L	7	8 00	3 00	5 49	1 69	7 25

Summary Statistics for Surface-Water Data - Detects Only
1991 - 1993

LOCATION SW038

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value
2-BUTANONE	ug/L	1	12 00	12 00	12 00		
ACETONE	ug/L	4	210 00	2 00	56 50	102 37	162 97
ALUMINUM	ug/L	15	672 00	10 00	99 53	161 91	267 92
AMERICIUM-241	pCi/L	5	0 11	0 00	0 03	0 05	0 07
ANTIMONY	ug/L	8	36 60	11 00	19 15	9 08	28 59
ARSENIC	ug/L	4	4 00	2 00	2 75	0 96	3 75
BARIUM	ug/L	24	186 00	136 00	158 42	13 78	172 75
BERYLLIUM	ug/L	4	1 00	0 70	0 90	0 14	1 05
BICARBONATE AS CACO3	mg/L	15	260 00	165 00	223 47	22 67	247 05
CADMIUM	ug/L	3	2 50	1 00	1 70	0 75	2 49
CALCIUM	ug/L	24	106,000 00	0 00	76,283 33	25,400 10	102,699 43
CARBONATE AS CACO3	mg/L	2	1 00	0 00	0 50	0 71	1 24
CESIUM	ug/L	2	60 00	50 00	55 00	7 07	62 35
CESIUM-137	pCi/L	6	0 79	-0 39	0 09	0 42	0 52
CHLORIDE	mg/L	15	50 20	36 50	41 95	4 74	46 87
CHROMIUM	ug/L	5	6 50	2 00	4 04	2 26	6 39
COBALT	ug/L	2	2 00	2 00	2 00	0 00	2 00
COPPER	ug/L	6	9 60	3 10	5 27	2 35	7 71
DISSOLVED ORGANIC CARBON	mg/L	10	39 00	1 00	10 12	15 29	26 02
FLUORIDE	mg/L	15	0 68	0 48	0 57	0 05	0 62
GROSS ALPHA	pCi/L	10	8 50	0 47	3 32	2 28	5 69
GROSS BETA	pCi/L	8	5 30	1 00	2 53	1 29	3 88
IRON	ug/L	19	514 00	7 00	111 70	120 94	237 48
LEAD	ug/L	7	6 50	0 70	2 84	2 08	5 00
LITHIUM	ug/L	13	11 00	2 60	5 46	2 54	8 10
MAGNESIUM	ug/L	24	24,400 00	0 00	15,875 00	5,440 13	21,532 73
MANGANESE	ug/L	22	32 00	1 70	13 54	8 18	22 05
MERCURY	ug/L	2	0 20	0 20	0 20	0 00	0 20
METHYLENE CHLORIDE	ug/L	4	20 00	2 00	7 75	8 26	16 34
MOLYBDENUM	ug/L	3	3 50	3 00	3 17	0 29	3 47
NEPTUNIUM-237	pCi/L	3	0 24	-0 32	-0 03	0 28	0 27
NICKEL	ug/L	3	11 20	4 00	6 40	4 16	10 72
NITRATE/NITRITE	mg/L	15	2 70	0 15	1 24	0 81	2 08
OIL AND GREASE	mg/L	3	6 20	0 50	2 77	3 02	5 91
PHOSPHORUS	mg/L	5	0 10	0 01	0 04	0 04	0 09
PLUTONIUM-236	pCi/L	1	0 02	0 02	0 02		
PLUTONIUM-238	pCi/L	1	0 03	0 03	0 03		
PLUTONIUM-239/240	pCi/L	5	0 01	0 00	0 00	0 01	0 01
POTASSIUM	ug/L	13	2,630 00	0 00	1,089 08	745 36	1,864 25
RADIUM-226	pCi/L	2	0 63	0 16	0 40	0 33	0 74
SELENIUM	ug/L	3	20 00	2 00	8 67	9 87	18 93
SILICA	mg/L	3	9 10	6 20	7 20	1 65	8 91
SILICON	ug/L	20	9,400 00	5 860 00	7,495 50	1,039 55	8,576 63

Summary Statistics for Surface-Water Data - Detects Only
1991 - 1993

LOCATION SW038

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value
SILVER	ug/L	2	2 00	2 00	2 00	0 00	2 00
SODIUM	ug/L	24	20,100 00	0 00	11 511 25	4 765 61	16,467 48
STRONTIUM	ug/L	24	596 00	396 00	466 29	54 75	523 23
STRONTIUM-89	pCi/L	1	-0 04	-0 04	-0 04		
STRONTIUM-89 90	pCi/L	3	0 54	0 19	0 42	0 20	0 63
STRONTIUM-90	pCi/L	1	0 10	0 10	0 10		
SULFATE	mg/L	15	150 00	20 70	34 15	32 33	67 78
SULFIDE	mg/L	1	1 00	1 00	1 00		
THALLIUM	ug/L	3	3 00	1 00	2 03	1 00	3 08
TIN	ug/L	4	29 40	13 00	19 15	7 21	26 64
TOTAL DISSOLVED SOLIDS	mg/L	15	640 00	310 00	382 80	80 93	466 96
TOTAL ORGANIC CARBON	mg/L	11	6 00	2 00	3 51	1 25	4 81
TOTAL SUSPENDED SOLIDS	mg/L	11	22 00	5 00	10 55	5 01	15 75
TRITIUM	pCi/L	8	700 00	16 47	248 02	229 93	487 15
URANIUM-233,-234	pCi/L	9	3 98	1 50	2 15	0 75	2 93
URANIUM-234	pCi/L	3	4 50	0 55	2 27	2 02	4 38
URANIUM-235	pCi/L	7	0 30	-0 02	0 12	0 11	0 24
URANIUM-238	pCi/L	12	3 00	0 60	1 37	0 73	2 13
VANADIUM	ug/L	6	4 10	2 00	3 02	0 88	3 93
ZINC	ug/L	14	68 50	2 90	13 54	17 15	31 38

Summary Statistics for Surface-Water Data - Detects Only
1991 - 1993

LOCATION SW043

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value
ALUMINUM	ug/L	3	818 00	245 00	475 00	302 75	789 86
AMERICIUM-241	pCi/L	2	0 61	0 00	0 31	0 43	0 75
BARIUM	ug/L	4	147 00	124 00	135 25	11 00	146 69
BICARBONATE AS CACO3	mg/L	2	159 00	121 00	140 00	26 87	167 94
CALCIUM	ug/L	4	59,900 00	52,500 00	56,325 00	3,247 95	59,702 87
CESIUM-137	pCi/L	2	0 13	0 07	0 10	0 04	0 14
CHLORIDE	mg/L	2	25 20	24 70	24 95	0 35	25 32
COPPER	ug/L	2	15 50	6 10	10 80	6 65	17 71
DISSOLVED ORGANIC CARBON	mg/L	4	29 50	3 80	16 65	14 50	31 73
FLUORIDE	mg/L	2	0 36	0 28	0 32	0 06	0 38
GROSS ALPHA	pCi/L	2	5 50	2 70	4 10	1 98	6 16
GROSS BETA	pCi/L	2	7 80	3 40	5 60	3 11	8 84
IRON	ug/L	4	996 00	42 00	419 75	416 98	853 40
LEAD	ug/L	3	3 00	1 30	2 30	0 89	3 22
LITHIUM	ug/L	3	6 60	6 30	6 50	0 17	6 68
MAGNESIUM	ug/L	4	9 080 00	8,250 00	8,665 00	415 73	9 097 36
MANGANESE	ug/L	4	124 00	6 80	72 25	55 44	129 91
MOLYBDENUM	ug/L	1	6 20	6 20	6 20		
NEPTUNIUM-237	pCi/L	2	-0 01	-0 14	-0 08	0 09	0 02
NITRATE/NITRITE	mg/L	2	6 80	2 10	4 45	3 32	7 91
PHOSPHORUS	mg/L	1	0 07	0 07	0 07		
PLUTONIUM-239/240	pCi/L	1	0 00	0 00	0 00		
POTASSIUM	ug/L	2	1,340 00	991 00	1,165 50	246 78	1,422 15
SILICON	ug/L	4	8,970 00	7,570 00	8,085 00	646 04	8,756 88
SODIUM	ug/L	4	19,300 00	17,400 00	18,400 00	941 63	19,379 29
STRONTIUM	ug/L	4	239 00	232 00	236 75	3 20	240 08
STRONTIUM-89	pCi/L	1	-0 16	-0 16	-0 16		
STRONTIUM-90	pCi/L	1	0 25	0 25	0 25		
SULFATE	mg/L	2	47 80	43 20	45 50	3 25	48 88
TOTAL DISSOLVED SOLIDS	mg/L	2	290 00	258 00	274 00	22 63	297 53
TOTAL ORGANIC CARBON	mg/L	4	3 90	3 10	3 50	0 41	3 92
TOTAL SUSPENDED SOLIDS	mg/L	2	28 00	11 00	19 50	12 02	32 00
TRITIUM	pCi/L	1	170 00	170 00	170 00		
URANIUM-234	pCi/L	1	0 02	0 02	0 02		
URANIUM-235	pCi/L	1	0 02	0 02	0 02		
URANIUM-238	pCi/L	2	0 42	0 05	0 24	0 26	0 51
ZINC	ug/L	4	42 60	5 50	18 23	16 67	35 56

Summary Statistics for Surface-Water Data - Detects Only
1991 - 1993

LOCATION SW044

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value
ALUMINUM	ug/L	6	1,200 00	36 00	521 83	454 55	994 57
AMERICIUM-241	pCi/L	3	0 05	0 00	0 02	0 03	0 04
BARIUM	ug/L	8	140 00	64 40	108 98	28 77	138 90
BERYLLIUM	ug/L	2	0 60	0 60	0 60	0 00	0 60
BICARBONATE AS CACO3	mg/L	4	199 00	96 60	171 90	50 25	224 16
BIS(2-ETHYLHEXYL)PHTHALAT	ug/L	1	2 00	2 00	2 00		
CADMIUM	ug/L	1	1 30	1 30	1 30		
CALCIUM	ug/L	8	79,000 00	30,900 00	63,112 50	19,759 80	83,662 70
CESIUM	ug/L	2	60 00	50 00	55 00	7 07	62 35
CESIUM-137	pCi/L	4	0 23	-0 17	0 07	0 17	0 25
CHLORIDE	mg/L	4	67 70	32 90	57 68	16 65	74 99
COBALT	ug/L	1	2 10	2 10	2 10		
COPPER	ug/L	5	12 00	3 40	7 42	3 39	10 94
DISSOLVED ORGANIC CARBON	mg/L	2	15 20	15 10	15 15	0 07	15 22
FLUORIDE	mg/L	4	0 62	0 40	0 51	0 09	0 60
GROSS ALPHA	pCi/L	4	6 20	1 42	3 18	2 10	5 36
GROSS BETA	pCi/L	4	6 50	3 50	4 51	1 37	5 93
IRON	ug/L	7	1,300 00	22 00	535 43	467 08	1,021 19
LEAD	ug/L	7	9 20	1 10	3 39	2 81	6 30
LITHIUM	ug/L	7	7 40	5 10	6 27	0 99	7 30
MAGNESIUM	ug/L	8	14,700 00	5,710 00	11,792 50	3,609 88	15 546 77
MANGANESE	ug/L	8	80 00	25 30	52 53	19 54	72 85
MOLYBDENUM	ug/L	3	9 40	3 60	5 57	3 32	9 02
NEPTUNIUM-237	pCi/L	2	0 21	-0 01	0 10	0 16	0 26
NITRATE/NITRITE	mg/L	4	2 30	0 23	1 19	1 01	2 25
NITRITE	mg/L	1	0 10	0 10	0 10		
PHOSPHORUS	mg/L	2	0 11	0 05	0 08	0 04	0 12
PLUTONIUM-239/240	pCi/L	3	0 00	0 00	0 00	0 00	0 00
POTASSIUM	ug/L	8	4 890 00	1,900 00	2,607 50	1 037 59	3 686 59
SILICON	ug/L	9	5 650 00	1,620 00	3,605 56	1,690 78	5,363 97
SODIUM	ug/L	8	35,000 00	17,800 00	29,412 50	6,812 48	36,497 47
STRONTIUM	ug/L	8	440 00	164 00	347 63	109 19	461 18
STRONTIUM-89	pCi/L	1	-0 14	-0 14	-0 14		
STRONTIUM-89,90	pCi/L	2	0 59	0 52	0 55	0 05	0 60
STRONTIUM-90	pCi/L	1	0 29	0 29	0 29		
SULFATE	mg/L	4	41 80	19 60	29 25	9 25	38 87
TOTAL DISSOLVED SOLIDS	mg/L	4	578 00	294 00	394 00	125 94	524 98
TOTAL ORGANIC CARBON	mg/L	2	14 70	14 60	14 65	0 07	14 72
TOTAL SUSPENDED SOLIDS	mg/L	4	39 00	6 00	20 50	15 33	36 44
TRICHLOROETHENE	ug/L	1	7 00	7 00	7 00		
TRITIUM	pCi/L	3	123 60	58 00	92 69	32 96	126 98
URANIUM-233 -234	pCi/L	2	1 82	1 39	1 60	0 30	1 92
URANIUM-234	pCi/L	2	1 90	0 76	1 33	0 81	2 17

Summary Statistics for Surface-Water Data - Detects Only
1991 - 1993

LOCATION SW044

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value
URANIUM-235	pCi/L	3	0 08	0 03	0 07	0 03	0 10
URANIUM-238	pCi/L	4	2 30	0 76	1 72	0 67	2 42
VANADIUM	ug/L	4	6 30	2 00	3 60	1 87	5 55
ZINC	ug/L	7	47 50	7 30	30 24	14 23	45 05

Summary Statistics for Surface-Water Data - Detects Only
1991 - 1993

LOCATION SW046

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value
ALDRIN	ug/L	1	0 01	0 01	0 01		
alpha-CHLORDANE	ug/L	1	2 60	2 60	2 60		
ALUMINUM	ug/L	13	595 00	27 00	167 22	194 66	369 67
AMERICIUM-241	pCi/L	6	0 24	0 00	0 04	0 10	0 14
ANTIMONY	ug/L	4	20 50	11 20	16 55	3 93	20 64
BARIUM	ug/L	18	160 00	99 00	137 27	21 19	159 31
beta-BHC	ug/L	1	0 01	0 01	0 01		
BICARBONATE AS CACO3	mg/L	10	265 00	136 00	197 80	39 42	238 79
BIS(2-ETHYLHEXYL)PHTHALAT	ug/L	1	2 00	2 00	2 00		
CADMIUM	ug/L	3	2 00	1 70	1 87	0 15	2 03
CALCIUM	ug/L	18	94,100 00	65 900 00	84 216 67	9,901 23	94 513 95
CARBONATE AS CACO3	mg/L	1	0 00	0 00	0 00		
CESIUM	ug/L	8	80 00	14 50	48 98	23 06	72 95
CESIUM-137	pCi/L	8	0 90	-0 33	0 15	0 48	0 65
CHLORIDE	mg/L	9	122 00	73 00	104 54	15 11	120 26
CHROMIUM	ug/L	4	11 40	2 70	7 65	4 10	11 91
COPPER	ug/L	5	12 50	5 50	9 18	2 84	12 13
CYANIDE	ug/L	1	6 50	6 50	6 50		
DISSOLVED ORGANIC CARBON	mg/L	9	6 80	3 80	4 96	1 22	6 23
FLUORIDE	mg/L	9	1 10	0 88	0 95	0 07	1 03
GROSS ALPHA	pCi/L	9	8 00	3 50	5 48	1 65	7 20
GROSS BETA	pCi/L	10	7 90	2 03	5 91	1 93	7 91
IRON	ug/L	14	604 00	10 10	125 99	169 83	302 61
LEAD	ug/L	10	8 50	1 20	3 14	2 14	5 36
LITHIUM	ug/L	20	19 00	10 90	15 39	2 20	17 68
MAGNESIUM	ug/L	18	24,000 00	18,000 00	21,094 44	1,524 11	22,679 52
MANGANESE	ug/L	18	25 00	2 10	8 79	7 04	16 11
MERCURY	ug/L	1	0 21	0 21	0 21		
METHYLENE CHLORIDE	ug/L	1	29 00	29 00	29 00		
MOLYBDENUM	ug/L	5	14 50	3 10	6 86	4 97	12 02
NEPTUNIUM-237	pCi/L	2	-0 05	-0 35	-0 20	0 21	0 02
NITRATE/NITRITE	mg/L	10	11 00	6 50	8 02	1 44	9 51
NITRITE	mg/L	8	0 54	0 04	0 19	0 22	0 42
OIL AND GREASE	mg/L	2	7 30	0 20	3 75	5 02	8 97
PHOSPHORUS	mg/L	5	0 19	0 04	0 09	0 06	0 15
PLUTONIUM-239/240	pCi/L	5	0 01	0 00	0 00	0 00	0 01
POTASSIUM	ug/L	18	4 100 00	2,230 00	2,945 56	455 03	3 418 78
RADIUM-226	pCi/L	3	0 99	0 33	0 56	0 37	0 95
SELENIUM	ug/L	11	5 50	2 20	3 27	0 97	4 28
SILICA	mg/L	1	4 30	4 30	4 30		
SILICON	ug/L	22	7,980 00	2 480 00	5 035 00	1,562 45	6,659 95
SILVER	ug/L	2	6 30	6 30	6 30	0 00	6 30
SODIUM	ug/L	18	54,000 00	36,500 00	46,038 89	4,479 65	50,697 72

Summary Statistics for Surface-Water Data - Detects Only
1991 - 1993

LOCATION SW046

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value
STRONTIUM	ug/L	20	700 00	480 00	609 45	62 01	673 94
STRONTIUM-89,90	pCi/L	6	1 09	0 10	0 59	0 37	0 98
STRONTIUM-90	pCi/L	1	0 39	0 39	0 39		
SULFATE	mg/L	9	67 80	35 50	47 48	12 03	59 99
TETRACHLOROETHENE	ug/L	2	6 00	4 00	5 00	1 41	6 47
TIN	ug/L	2	35 70	32 80	34 25	2 05	36 38
TOLUENE	ug/L	1	4 00	4 00	4 00		
TOTAL DISSOLVED SOLIDS	mg/L	9	758 00	420 00	504 22	100 91	609 17
TOTAL ORGANIC CARBON	mg/L	9	6 30	3 50	4 71	1 11	5 86
TOTAL SUSPENDED SOLIDS	mg/L	10	35 00	5 00	12 20	9 82	22 41
TRICHLOROETHENE	ug/L	1	7 00	7 00	7 00		
TRITIUM	pCi/L	7	328 00	81 25	172 67	86 74	262 88
UNKNOWN HYDROCARBON	ug/L	4	9 00	4 00	6 75	2 22	9 06
URANIUM-233,-234	pCi/L	7	5 24	3 71	4 34	0 53	4 89
URANIUM-234	pCi/L	3	3 30	3 00	3 13	0 15	3 29
URANIUM-235	pCi/L	7	0 36	0 00	0 12	0 13	0 25
URANIUM-238	pCi/L	10	3 85	2 40	3 00	0 47	3 48
VANADIUM	ug/L	5	8 30	2 50	5 14	2 59	7 83
ZINC	ug/L	14	162 00	5 30	40 03	40 17	81 80

Summary Statistics for Surface-Water Data - Detects Only
1991 - 1993

LOCATION SW050

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value
ALUMINUM	ug/L	1	300 00	300 00	300 00		
AMERICIUM-241	pCi/L	1	0 32	0 32	0 32		
ARSENIC	ug/L	1	1 10	1 10	1 10		
BARIUM	ug/L	2	202 00	186 00	194 00	11 31	205 77
BICARBONATE AS CACO3	mg/L	1	241 00	241 00	241 00		
CALCIUM	ug/L	2	115,000 00	111,000 00	113,000 00	2,828 43	115,941 56
CARBON TETRACHLORIDE	ug/L	1	21 00	21 00	21 00		
CARBONATE AS CACO3	mg/L	1	0 00	0 00	0 00		
CHLORIDE	mg/L	1	35 10	35 10	35 10		
CHLOROFORM	ug/L	1	4 00	4 00	4 00		
DISSOLVED ORGANIC CARBON	mg/L	1	8 00	8 00	8 00		
FLUORIDE	mg/L	1	0 30	0 30	0 30		
GROSS ALPHA	pCi/L	1	0 00	0 00	0 00		
GROSS BETA	pCi/L	1	24 13	24 13	24 13		
IRON	ug/L	2	363 00	23 20	193 10	240 27	442 99
LEAD	ug/L	1	1 40	1 40	1 40		
LITHIUM	ug/L	2	66 40	47 10	56 75	13 65	70 94
MAGNESIUM	ug/L	2	9,660 00	9,240 00	9 450 00	296 98	9,758 86
MANGANESE	ug/L	2	7 60	1 40	4 50	4 38	9 06
NITRATE/NITRITE	ug/L	1	1,500 00	1,500 00	1,500 00		
OIL AND GREASE	mg/L	1	9 35	9 35	9 35		
ORTHOPHOSPHATE	mg/L	1	0 04	0 04	0 04		
PHOSPHORUS	ug/L	1	107 00	107 00	107 00		
PLUTONIUM-236	pCi/L	1	0 00	0 00	0 00		
PLUTONIUM-238	pCi/L	1	0 02	0 02	0 02		
PLUTONIUM-239/240	pCi/L	1	1 47	1 47	1 47		
POTASSIUM	ug/L	1	2,860 00	2,860 00	2,860 00		
SILICON	ug/L	2	5 780 00	5 130 00	5 455 00	459 62	5,933 00
SODIUM	ug/L	2	8,680 00	8,600 00	8,640 00	56 57	8,698 83
STRONTIUM	ug/L	2	370 00	357 00	363 50	9 19	373 06
STRONTIUM-89,90	pCi/L	1	0 00	0 00	0 00		
SULFATE	mg/L	1	24 80	24 80	24 80		
TETRACHLOROETHENE	ug/L	1	9 00	9 00	9 00		
TOTAL DISSOLVED SOLIDS	mg/L	1	411 00	411 00	411 00		
TOTAL ORGANIC CARBON	mg/L	1	10 00	10 00	10 00		
TOTAL SUSPENDED SOLIDS	mg/L	1	13 00	13 00	13 00		
TRICHLOROETHENE	ug/L	1	4 00	4 00	4 00		
TRITIUM	pCi/L	1	122 50	122 50	122 50		
Unknown-1	ug/L	1	6 00	6 00	6 00		
URANIUM-233,-234	pCi/L	1	1 16	1 16	1 16		
URANIUM-235	pCi/L	1	0 15	0 15	0 15		
URANIUM-238	pCi/L	1	1 85	1 85	1 85		
ZINC	ug/L	2	5 80	5 10	5 45	0 49	5 96

Summary Statistics for Surface-Water Data - Detects Only
1991 - 1993

LOCATION SW051

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value
1,2-DICHLOROETHENE	ug/L	1	5 00	5 00	5 00		
ALUMINUM	ug/L	1	60 10	60 10	60 10		
AMERICIUM-241	pCi/L	1	0 06	0 06	0 06		
BARIUM	ug/L	2	153 00	140 00	146 50	9 19	156 06
BICARBONATE AS CACO3	mg/L	1	191 00	191 00	191 00		
CALCIUM	ug/L	2	81,300 00	78,100 00	79,700 00	2,262 74	82,053 25
CARBON TETRACHLORIDE	ug/L	1	76 00	76 00	76 00		
CHLORIDE	mg/L	1	27 20	27 20	27 20		
COPPER	ug/L	1	2 80	2 80	2 80		
DISSOLVED ORGANIC CARBON	mg/L	1	5 00	5 00	5 00		
FLUORIDE	mg/L	1	0 35	0 35	0 35		
GROSS ALPHA	pCi/L	1	5 76	5 76	5 76		
GROSS BETA	pCi/L	1	20 81	20 81	20 81		
IRON	ug/L	2	62 90	18 80	40 85	31 18	73 28
LITHIUM	ug/L	2	4 10	3 00	3 55	0 78	4 36
MAGNESIUM	ug/L	2	6,770 00	6,460 00	6,615 00	219 20	6,842 97
MOLYBDENUM	ug/L	1	4 90	4 90	4 90		
NITRATE/NITRITE	mg/L	1	1 80	1 80	1 80		
PLUTONIUM-236	pCi/L	1	0 00	0 00	0 00		
PLUTONIUM-238	pCi/L	1	0 01	0 01	0 01		
PLUTONIUM-239/240	pCi/L	1	1 03	1 03	1 03		
POTASSIUM	ug/L	2	1 880 00	1,780 00	1,830 00	70 71	1,903 54
SILICON	ug/L	2	4,990 00	4,770 00	4,880 00	155 56	5,041 79
SODIUM	ug/L	2	6,250 00	6,070 00	6,160 00	127 28	6,292 37
STRONTIUM	ug/L	2	296 00	282 00	289 00	9 90	299 30
STRONTIUM-89,90	pCi/L	1	0 00	0 00	0 00		
SULFATE	mg/L	1	18 80	18 80	18 80		
TETRACHLOROETHENE	ug/L	1	11 00	11 00	11 00		
TOTAL DISSOLVED SOLIDS	mg/L	1	298 00	298 00	298 00		
TOTAL ORGANIC CARBON	mg/L	1	8 00	8 00	8 00		
TOTAL SUSPENDED SOLIDS	mg/L	1	5 50	5 50	5 50		
TRICHLOROETHENE	ug/L	1	8 00	8 00	8 00		
TRITIUM	pCi/L	1	0 00	0 00	0 00		
URANIUM-233,-234	pCi/L	1	0 00	0 00	0 00		
URANIUM-235	pCi/L	1	0 38	0 38	0 38		
URANIUM-238	pCi/L	1	0 57	0 57	0 57		
ZINC	ug/L	1	2 80	2 80	2 80		

Summary Statistics for Surface-Water Data - Detects Only
1991 - 1993

LOCATION SW052

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value
ALUMINUM	ug/L	1	947 00	947 00	947 00		
AMERICIUM-241	pCi/L	1	0 16	0 16	0 16		
BARIUM	ug/L	2	138 00	121 00	129 50	12 02	142 00
BICARBONATE AS CACO3	mg/L	1	183 00	183 00	183 00		
CALCIUM	ug/L	2	124,000 00	121,000 00	122,500 00	2,121 32	124,706 17
CARBON TETRACHLORIDE	ug/L	1	16 00	16 00	16 00		
CHLORIDE	mg/L	1	59 40	59 40	59 40		
CHLOROFORM	ug/L	1	3 00	3 00	3 00		
COPPER	ug/L	1	4 40	4 40	4 40		
DISSOLVED ORGANIC CARBON	mg/L	1	5 00	5 00	5 00		
FLUORIDE	mg/L	1	0 31	0 31	0 31		
GROSS ALPHA	pCi/L	1	0 00	0 00	0 00		
GROSS BETA	pCi/L	1	24 87	24 87	24 87		
IRON	ug/L	1	912 00	912 00	912 00		
LEAD	ug/L	1	2 50	2 50	2 50		
LITHIUM	ug/L	2	45 60	37 40	41 50	5 80	47 53
MAGNESIUM	ug/L	2	17,000 00	16,300 00	16,650 00	494 97	17,164 77
MANGANESE	ug/L	2	37 00	14 90	25 95	15 63	42 20
NITRATE/NITRITE	mg/L	1	1 10	1 10	1 10		
PHOSPHORUS	mg/L	1	0 07	0 07	0 07		
PLUTONIUM-236	pCi/L	1	0 00	0 00	0 00		
PLUTONIUM-238	pCi/L	1	0 01	0 01	0 01		
PLUTONIUM-239/240	pCi/L	1	0 92	0 92	0 92		
POTASSIUM	ug/L	2	1,920 00	1,480 00	1,700 00	311 13	2,023 57
SILICON	ug/L	2	7,760 00	5,250 00	6,505 00	1,774 84	8,350 83
SODIUM	ug/L	2	35,300 00	34,200 00	34,750 00	777 82	35,558 93
STRONTIUM	ug/L	2	561 00	536 00	548 50	17 68	566 88
STRONTIUM-89,90	pCi/L	1	0 00	0 00	0 00		
SULFATE	mg/L	1	39 10	39 10	39 10		
TETRACHLOROETHENE	ug/L	1	18 00	18 00	18 00		
TOTAL DISSOLVED SOLIDS	mg/L	1	544 00	544 00	544 00		
TOTAL ORGANIC CARBON	mg/L	1	8 00	8 00	8 00		
TOTAL SUSPENDED SOLIDS	mg/L	1	12 50	12 50	12 50		
TRICHLOROETHENE	ug/L	1	4 00	4 00	4 00		
TRITIUM	pCi/L	1	0 00	0 00	0 00		
URANIUM-233,-234	pCi/L	1	0 30	0 30	0 30		
URANIUM-235	pCi/L	1	0 16	0 16	0 16		
URANIUM-238	pCi/L	1	0 57	0 57	0 57		
ZINC	ug/L	2	5 50	4 20	4 85	0 92	5 81

Summary Statistics for Surface-Water Data - Detects Only
1991 - 1993

LOCATION: SW053

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value
1,2-DICHLOROETHENE	ug/L	4	38 00	15 00	27 75	11 53	39 74
ALUMINUM	ug/L	6	1,730 00	48 10	838 50	724 26	1,591 73
AMERICIUM-241	pCi/L	4	3 48	0 01	1 04	1 64	2 74
ANTIMONY	ug/L	1	28 20	28 20	28 20		
AROCLOR-1254	ug/L	1	2 70	2 70	2 70		
ARSENIC	ug/L	8	8 40	1 00	3 99	2 88	6 98
BARIUM	ug/L	9	336 00	33 20	185 24	84 74	273 37
BICARBONATE AS CACO3	mg/L	4	393 00	243 00	308 50	65 73	376 86
CALCIUM	ug/L	9	155 000 00	15,000 00	94,544 44	37,771 45	133,826 76
CARBON TETRACHLORIDE	ug/L	1	4 00	4 00	4 00		
CESIUM-137	pCi/L	3	0 45	0 33	0 38	0 06	0 45
CHLORIDE	mg/L	4	56 40	52 90	54 18	1 54	55 78
CHLOROFORM	ug/L	1	3 00	3 00	3 00		
CHROMIUM	ug/L	1	8 70	8 70	8 70		
COPPER	ug/L	3	2 70	2 50	2 63	0 12	2 75
DISSOLVED ORGANIC CARBON	mg/L	3	7 00	6 00	6 37	0 55	6 94
FLUORIDE	mg/L	4	1 10	0 79	0 91	0 13	1 05
GROSS ALPHA	pCi/L	5	23 00	5 70	10 11	7 24	17 64
GROSS BETA	pCi/L	4	8 30	3 10	6 10	2 17	8 36
IRON	ug/L	9	12,100 00	1,050 00	5,127 78	4 129 30	9,422 25
LEAD	ug/L	6	7 90	1 50	4 65	2 70	7 46
LITHIUM	ug/L	8	22 20	11 90	17 04	3 87	21 07
MAGNESIUM	ug/L	9	32,900 00	2,480 00	22,475 56	8,334 83	31,143 78
MANGANESE	ug/L	9	526 00	29 20	340 13	164 53	511 24
MERCURY	ug/L	1	0 26	0 26	0 26		
METHYLENE CHLORIDE	ug/L	1	3 00	3 00	3 00		
MOLYBDENUM	ug/L	1	7 80	7 80	7 80		
NEPTUNIUM-237	pCi/L	2	-0 07	-0 53	-0 30	0 33	0 04
NITRATE/NITRITE	mg/L	1	0 20	0 20	0 20		
PHOSPHORUS	mg/L	4	0 22	0 06	0 13	0 07	0 20
PLUTONIUM-239/240	pCi/L	4	42 25	1 60	13 19	19 43	33 39
POTASSIUM	ug/L	8	4,760 00	1,090 00	1,831 25	1,223 33	3,103 51
RADIUM-226	pCi/L	2	0 52	0 52	0 52	0 00	0 52
SILICON	ug/L	8	10,300 00	5,180 00	7 526 25	1,847 84	9 448 00
SODIUM	ug/L	9	18,300 00	10 200 00	15,255 56	2,317 39	17,665 64
STRONTIUM	ug/L	9	972 00	82 70	604 19	242 80	856 70
STRONTIUM-89	pCi/L	2	0 38	-0 08	0 15	0 33	0 49
STRONTIUM-89,90	pCi/L	1	1 55	1 55	1 55		
STRONTIUM-90	pCi/L	2	0 26	0 18	0 22	0 06	0 28
SULFATE	mg/L	4	140 00	8 50	44 75	63 66	110 96
TOTAL DISSOLVED SOLIDS	mg/L	4	1 020 00	422 00	652 50	287 96	951 98
TOTAL ORGANIC CARBON	mg/L	4	8 50	6 20	7 35	1 22	8 62
TOTAL SUSPENDED SOLIDS	mg/L	4	181 00	44 00	84 50	64 82	151 91

Summary Statistics for Surface-Water Data - Detects Only
1991 - 1993

LOCATION SW053

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value
TRICHLOROETHENE	ug/L	1	8 00	8 00	8 00		
TRITIUM	pCi/L	3	120 00	38 78	76 59	40 90	119 13
URANIUM-233,-234	pCi/L	1	3 62	3 62	3 62		
URANIUM-234	pCi/L	3	0 94	0 59	0 79	0 18	0 97
URANIUM-235	pCi/L	3	0 14	0 02	0 06	0 07	0 13
URANIUM-238	pCi/L	4	2 50	0 37	1 06	0 99	2 09
VANADIUM	ug/L	3	5 80	4 30	5 20	0 79	6 03
ZINC	ug/L	5	47 40	7 60	18 40	17 09	36 17

Summary Statistics for Surface-Water Data - Detects Only
1991 - 1993

LOCATION SW054

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value
ACETONE	ug/L	2	11 00	11 00	11 00	0 00	11 00
ALUMINUM	ug/L	11	983 00	37 10	355 05	309 95	677 40
AMERICIUM-241	pCi/L	6	0 08	0 00	0 02	0 03	0 06
ANTIMONY	ug/L	4	19 60	8 90	15 38	4 58	20 13
ARSENIC	ug/L	1	0 80	0 80	0 80		
BARIUM	ug/L	18	130 00	60 10	97 72	22 61	121 23
BERYLLIUM	ug/L	2	0 60	0 40	0 50	0 14	0 65
beta-BHC	ug/L	1	0 06	0 06	0 06		
BICARBONATE AS CACO3	mg/L	10	202 00	110 00	146 00	30 61	177 84
CADMIUM	ug/L	1	1 90	1 90	1 90		
CALCIUM	ug/L	18	68,000 00	35 800 00	51,561 11	9,877 02	61,833 21
CARBONATE AS CACO3	mg/L	1	25 50	25 50	25 50		
CESIUM	ug/L	3	60 00	50 00	53 33	5 77	59 34
CESIUM-137	pCi/L	5	0 56	-0 15	0 18	0 26	0 44
CHLORIDE	mg/L	10	81 70	22 30	48 32	20 09	69 22
COPPER	ug/L	8	6 50	2 70	4 09	1 43	5 58
delta-BHC	ug/L	1	0 02	0 02	0 02		
DISSOLVED ORGANIC CARBON	mg/L	8	13 50	4 00	8 57	3 34	12 04
FLUORIDE	mg/L	10	0 71	0 42	0 56	0 11	0 68
GROSS ALPHA	pCi/L	8	7 60	0 23	3 57	2 87	6 56
GROSS BETA	pCi/L	9	13 00	3 25	6 40	3 15	9 68
IRON	ug/L	17	1,210 00	20 70	375 02	368 09	757 83
LEAD	ug/L	14	5 60	0 80	2 61	1 56	4 23
LITHIUM	ug/L	16	13 30	4 80	8 27	2 56	10 93
MAGNESIUM	ug/L	18	16,600 00	7 360 00	11,345 00	3,132 02	14,602 30
MANGANESE	ug/L	18	296 00	8 60	74 14	91 51	169 31
MERCURY	ug/L	1	0 29	0 29	0 29		
METHYLENE CHLORIDE	ug/L	2	12 00	12 00	12 00	0 00	12 00
MOLYBDENUM	ug/L	2	6 00	4 40	5 20	1 13	6 38
NEPTUNIUM-237	pCi/L	2	0 37	-0 24	0 07	0 43	0 51
NICKEL	ug/L	2	7 20	6 10	6 65	0 78	7 46
NITRATE/NITRITE	mg/L	3	2 20	0 23	1 54	1 14	2 73
NITRITE	mg/L	2	0 05	0 03	0 04	0 01	0 05
OIL AND GREASE	mg/L	3	18 40	6 20	11 10	6 44	17 80
ORTHOPHOSPHATE	mg/L	2	0 20	0 07	0 14	0 10	0 24
PHOSPHORUS	mg/L	7	0 21	0 05	0 09	0 06	0 15
PLUTONIUM-236	pCi/L	1	0 00	0 00	0 00		
PLUTONIUM-239/240	pCi/L	7	0 04	0 01	0 02	0 01	0 03
POTASSIUM	ug/L	18	4,270 00	2,080 00	3,149 44	638 59	3,813 58
RADIUM-226	pCi/L	2	0 16	0 15	0 15	0 01	0 16
SELENIUM	ug/L	3	2 00	1 20	1 50	0 44	1 95
SILICON	ug/L	22	6,070 00	408 00	2 754 77	1 423 62	4,235 34
SODIUM	ug/L	18	44,900 00	14 400 00	30 494 44	11 345 66	42,293 93

Summary Statistics for Surface-Water Data - Detects Only
1991 - 1993

LOCATION SW054

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value
STRONTIUM	ug/L	20	460 00	217 00	315 45	84 94	403 79
STRONTIUM-89	pCi/L	1	-0 09	-0 09	-0 09		
STRONTIUM-89,90	pCi/L	6	6 55	0 26	1 46	2 50	4 05
STRONTIUM-90	pCi/L	1	0 16	0 16	0 16		
SULFATE	mg/L	10	65 10	16 10	32 77	17 19	50 64
TOTAL DISSOLVED SOLIDS	mg/L	10	536 00	190 00	298 40	99 86	402 25
TOTAL ORGANIC CARBON	mg/L	8	16 30	4 00	9 86	4 46	14 49
TOTAL SUSPENDED SOLIDS	mg/L	12	61 00	5 00	20 17	17 24	38 09
TRITIUM	pCi/L	6	400 00	-79 20	150 94	186 36	344 75
URANIUM-233,-234	pCi/L	7	8 17	0 20	2 34	2 71	5 16
URANIUM-234	pCi/L	3	3 10	1 80	2 60	0 70	3 33
URANIUM-235	pCi/L	9	0 33	-0 02	0 14	0 12	0 27
URANIUM-238	pCi/L	10	13 72	0 60	3 42	3 84	7 41
VANADIUM	ug/L	4	8 10	3 20	4 73	2 27	7 09
ZINC	ug/L	13	34 30	2 60	13 62	8 26	22 20

Summary Statistics for Surface-Water Data - Detects Only
1991 - 1993

LOCATION SW055

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value
1,1,1-TRICHLOROETHANE	ug/L	1	2 00	2 00	2 00		
1,2-DICHLOROETHENE	ug/L	2	6 00	6 00	6 00	0 00	6 00
ACETONE	ug/L	1	96 00	96 00	96 00		
ALUMINUM	ug/L	4	2,300 00	134 00	874 25	983 22	1,896 80
AMERICIUM-241	pCi/L	4	0 76	0 11	0 34	0 30	0 65
AROCLOR-1254	ug/L	1	20 00	20 00	20 00		
BARIUM	ug/L	8	328 00	177 00	250 75	54 69	307 62
BERYLLIUM	ug/L	1	0 60	0 60	0 60		
BICARBONATE AS CACO3	mg/L	6	369 00	121 00	284 17	107 80	396 28
CALCIUM	ug/L	8	166,000 00	93,700 00	116,912 50	23,538 38	141,392 42
CARBON TETRACHLORIDE	ug/L	1	5 00	5 00	5 00		
CESIUM	ug/L	2	60 00	60 00	60 00	0 00	60 00
CESIUM-137	pCi/L	3	0 11	-0 08	0 03	0 09	0 12
CHLORIDE	mg/L	6	1,170 00	52 30	294 05	430 67	741 94
COPPER	ug/L	4	6 40	2 30	4 53	1 84	6 44
DISSOLVED ORGANIC CARBON	mg/L	1	7 00	7 00	7 00		
FLUORIDE	mg/L	7	0 49	0 33	0 42	0 07	0 50
GROSS ALPHA	pCi/L	4	8 95	3 45	5 96	2 88	8 95
GROSS BETA	pCi/L	4	37 16	6 99	19 91	15 10	35 62
IRON	ug/L	7	5,750 00	12 90	1 238 60	2,117 17	3,440 46
LEAD	ug/L	5	5 80	1 80	3 44	1 80	5 31
LITHIUM	ug/L	7	129 00	8 90	52 90	38 20	92 63
MAGNESIUM	ug/L	8	33,600 00	13,100 00	19,375 00	6,854 98	26,504 18
MANGANESE	ug/L	8	796 00	2 30	170 56	293 47	475 77
MERCURY	ug/L	1	0 56	0 56	0 56		
METHYLENE CHLORIDE	ug/L	2	3 00	3 00	3 00	0 00	3 00
MOLYBDENUM	ug/L	2	7 20	5 10	6 15	1 48	7 69
NEPTUNIUM-237	pCi/L	1	-0 51	-0 51	-0 51		
NICKEL	ug/L	1	5 70	5 70	5 70		
NITRATE/NITRITE	mg/L	6	1 40	0 64	1 12	0 37	1 50
NITRITE	mg/L	4	0 07	0 02	0 06	0 03	0 09
ORTHOPHOSPHATE	mg/L	5	0 10	0 03	0 07	0 03	0 10
PHOSPHORUS	mg/L	4	0 14	0 09	0 10	0 02	0 13
PLUTONIUM-236	pCi/L	1	0 00	0 00	0 00		
PLUTONIUM-238	pCi/L	1	0 02	0 02	0 02		
PLUTONIUM-239/240	pCi/L	4	4 54	0 40	1 72	1 92	3 71
POTASSIUM	ug/L	8	17 800 00	1 760 00	6,840 00	6 646 43	13,752 28
RADIUM-226	pCi/L	1	0 27	0 27	0 27		
SELENIUM	ug/L	2	4 20	2 90	3 55	0 92	4 51
SILICON	ug/L	8	11,700 00	4,170 00	6 696 25	2,492 27	9,288 21
SILVER	ug/L	1	2 70	2 70	2 70		
SODIUM	ug/L	8	721,000 00	18,100 00	202 900 00	308,237 87	523 467 38
STRONTIUM	ug/L	8	1,030 00	442 00	668 50	189 25	865 32

Summary Statistics for Surface-Water Data - Detects Only
1991 - 1993

LOCATION SW055

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value
STRONTIUM-89	pCi/L	1	0 74	0 74	0 74		
STRONTIUM-89,90	pCi/L	3	1 22	0 00	0 60	0 61	1 23
STRONTIUM-90	pCi/L	1	0 58	0 58	0 58		
SULFATE	mg/L	6	64 50	27 00	46 45	19 82	67 06
THALLIUM	ug/L	1	1 70	1 70	1 70		
TIN	ug/L	1	10 40	10 40	10 40		
TOTAL DISSOLVED SOLIDS	mg/L	6	2,910 00	420 00	1,006 67	945 57	1,990 06
TOTAL ORGANIC CARBON	mg/L	1	6 00	6 00	6 00		
TOTAL SUSPENDED SOLIDS	mg/L	6	57 00	5 50	22 75	21 06	44 65
TRICHLOROETHENE	ug/L	5	33 00	12 00	26 80	8 41	35 54
TRITIUM	pCi/L	4	42 30	-29 00	15 88	31 01	48 13
UNKNOWN	ug/L	1	10 00	10 00	10 00		
URANIUM-233,-234	pCi/L	3	2 71	1 16	1 99	0 78	2 80
URANIUM-234	pCi/L	1	1 20	1 20	1 20		
URANIUM-235	pCi/L	4	0 09	0 03	0 06	0 02	0 09
URANIUM-238	pCi/L	4	2 44	1 17	1 70	0 54	2 26
VANADIUM	ug/L	4	6 80	3 80	5 23	1 50	6 78
ZINC	ug/L	7	516 00	8 00	139 27	181 52	328 05

Summary Statistics for Surface-Water Data - Detects Only
1991 - 1993

LOCATION SW056

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value
1,1,1-TRICHLOROETHANE	ug/L	8	5 00	3 00	3 88	0 83	4 74
1,1-DICHLOROETHANE	ug/L	8	6 00	2 00	3 63	1 30	4 98
1,1-DICHLOROETHENE	ug/L	1	1 00	1 00	1 00		
1,2-DICHLOROETHANE	ug/L	1	23 00	23 00	23 00		
1,2-DICHLOROETHENE	ug/L	13	370 00	210 00	295 38	42 15	339 22
ALUMINUM	ug/L	7	513 00	17 80	119 74	183 38	310 46
AMERICIUM-241	pCi/L	7	0 06	0 00	0 01	0 02	0 03
ANTIMONY	ug/L	5	36 60	17 00	25 22	10 33	35 97
ARSENIC	ug/L	7	2 60	1 50	2 04	0 33	2 38
BARIUM	ug/L	14	241 00	207 00	224 43	11 84	236 74
BERYLLIUM	ug/L	3	1 20	1 00	1 07	0 12	1 19
BICARBONATE AS CACO3	mg/L	8	431 00	281 00	378 75	52 67	433 52
CADMIUM	ug/L	3	3 00	1 50	2 50	0 87	3 40
CALCIUM	ug/L	12	134,000 00	110,000 00	122,583 33	8,522 25	131,446 48
CARBON TETRACHLORIDE	ug/L	5	3 00	2 00	2 60	0 55	3 17
CESIUM	ug/L	4	70 00	50 00	57 50	9 57	67 46
CESIUM-137	pCi/L	6	0 55	-0 19	0 21	0 27	0 49
CHLORIDE	mg/L	8	80 10	62 10	72 14	6 77	79 18
CHROMIUM	ug/L	4	16 00	3 00	8 82	6 82	15 91
COBALT	ug/L	4	4 30	2 40	3 68	0 86	4 57
COPPER	ug/L	6	17 00	4 00	8 97	5 81	15 01
DISSOLVED ORGANIC CARBON	mg/L	5	12 10	3 00	6 92	4 48	11 58
FLUORIDE	mg/L	8	1 10	0 82	0 93	0 09	1 02
GROSS ALPHA	pCi/L	6	7 80	2 63	5 75	2 02	7 85
GROSS BETA	pCi/L	8	12 29	5 17	7 47	2 21	9 76
IRON	ug/L	14	915 00	20 10	352 45	270 67	633 95
LEAD	ug/L	7	4 20	1 50	2 51	0 92	3 47
LITHIUM	ug/L	14	12 70	6 50	10 74	1 71	12 51
MAGNESIUM	ug/L	12	25 400 00	20 000 00	22 533 33	2 092 12	24 709 14
MANGANESE	ug/L	14	1,020 00	500 00	753 21	211 08	972 74
MERCURY	ug/L	2	0 20	0 20	0 20	0 00	0 20
METHYLENE CHLORIDE	ug/L	2	6 00	3 00	4 50	2 12	6 71
MOLYBDENUM	ug/L	5	26 00	3 60	13 48	11 47	25 41
NEPTUNIUM-237	pCi/L	2	0 10	-0 01	0 05	0 08	0 13
NICKEL	ug/L	3	14 20	5 00	8 07	5 31	13 59
NITRATE/NITRITE	mg/L	8	5 30	2 90	4 03	0 83	4 89
OIL AND GREASE	mg/L	3	15 40	0 50	7 57	7 48	15 35
PHOSPHORUS	mg/L	1	0 01	0 01	0 01		
PLUTONIUM-239/240	pCi/L	7	0 01	0 00	0 00	0 00	0 01
POTASSIUM	ug/L	11	3,180 00	1,020 00	1 821 82	662 02	2,510 32
RADIUM-226	pCi/L	3	0 82	0 32	0 61	0 26	0 87
SELENIUM	ug/L	7	4 00	1 10	2 36	1 28	3 68
SILICA	mg/L	1	8 00	8 00	8 00		

Summary Statistics for Surface-Water Data - Detects Only
1991 - 1993

LOCATION SW056

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value
SILICON	ug/L	15	7 420 00	5,900 00	6,366 67	445 34	6,829 82
SILVER	ug/L	3	5 00	2 90	4 30	1 21	5 56
SODIUM	ug/L	12	69,600 00	52,400 00	60,958 33	5,080 17	66,241 71
STRONTIUM	ug/L	14	788 00	619 00	679 64	59 03	741 03
STRONTIUM-89	pCi/L	1	0 34	0 34	0 34		
STRONTIUM-89,90	pCi/L	5	0 81	0 34	0 57	0 23	0 80
STRONTIUM-90	pCi/L	1	0 04	0 04	0 04		
SULFATE	mg/L	8	65 20	46 20	55 94	6 61	62 81
TETRACHLOROETHENE	ug/L	10	150 00	93 00	118 50	22 76	142 17
THALLIUM	ug/L	2	15 00	2 00	8 50	9 19	18 06
TIN	ug/L	3	21 20	16 00	17 73	3 00	20 86
TOTAL DISSOLVED SOLIDS	mg/L	8	650 00	566 00	597 25	30 39	628 85
TOTAL ORGANIC CARBON	mg/L	5	4 80	3 00	3 78	0 78	4 59
TOTAL SUSPENDED SOLIDS	mg/L	1	5 00	5 00	5 00		
TRICHLOROETHENE	ug/L	10	110 00	73 00	89 30	12 70	102 51
TRITIUM	pCi/L	5	197 80	82 00	138 26	57 07	197 61
Unknown	ug/L	2	7 00	6 00	6 50	0 71	7 24
URANIUM-233,-234	pCi/L	7	4 74	3 80	4 37	0 32	4 71
URANIUM-234	pCi/L	2	4 30	4 10	4 20	0 14	4 35
URANIUM-235	pCi/L	6	0 32	0 05	0 19	0 09	0 28
URANIUM-238	pCi/L	9	4 65	2 70	3 70	0 67	4 40
VANADIUM	ug/L	4	7 70	3 00	5 05	2 42	7 56
VINYL CHLORIDE	ug/L	7	27 00	13 00	20 43	6 27	26 95
ZINC	ug/L	8	35 30	5 50	14 04	9 83	24 26

Summary Statistics for Surface-Water Data - Detects Only
1991 - 1993

LOCATION SW057

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value
ALUMINUM	ug/L	1	1,020 00	1 020 00	1 020 00		
AMERICIUM-241	pCi/L	1	0 67	0 67	0 67		
ARSENIC	ug/L	2	1 70	1 50	1 60	0 14	1 75
BARIUM	ug/L	2	165 00	147 00	156 00	12 73	169 24
BICARBONATE AS CACO3	mg/L	1	251 00	251 00	251 00		
CALCIUM	ug/L	2	116,000 00	115,000 00	115,500 00	707 11	116,235 39
CARBON TETRACHLORIDE	ug/L	1	1 00	1 00	1 00		
CARBONATE AS CACO3	mg/L	1	0 00	0 00	0 00		
CHLORIDE	mg/L	1	83 50	83 50	83 50		
CHLOROFORM	ug/L	1	4 00	4 00	4 00		
CHROMIUM	ug/L	2	29 00	14 80	21 90	10 04	32 34
DISSOLVED ORGANIC CARBON	mg/L	1	8 00	8 00	8 00		
FLUORIDE	mg/L	1	0 27	0 27	0 27		
GROSS ALPHA	pCi/L	1	2 23	2 23	2 23		
GROSS BETA	pCi/L	1	33 90	33 90	33 90		
IRON	ug/L	1	670 00	670 00	670 00		
LEAD	ug/L	1	1 40	1 40	1 40		
MAGNESIUM	ug/L	2	19,500 00	18,800 00	19 150 00	494 97	19 664 77
MANGANESE	ug/L	2	61 80	32 60	47 20	20 65	68 67
OIL AND GREASE	mg/L	1	45 00	45 00	45 00		
PHOSPHORUS	ug/L	1	60 70	60 70	60 70		
PLUTONIUM-236	pCi/L	1	0 00	0 00	0 00		
PLUTONIUM-238	pCi/L	1	0 09	0 09	0 09		
PLUTONIUM-239/240	pCi/L	1	5 70	5 70	5 70		
SILICON	ug/L	2	7,270 00	4,980 00	6,125 00	1,619 27	7,809 05
SODIUM	ug/L	2	20 100 00	19,500 00	19,800 00	424 26	20,241 23
STRONTIUM	ug/L	2	668 00	640 00	654 00	19 80	674 59
STRONTIUM-89,90	pCi/L	1	0 00	0 00	0 00		
SULFATE	mg/L	1	30 70	30 70	30 70		
TETRACHLOROETHENE	ug/L	1	1 00	1 00	1 00		
TOTAL DISSOLVED SOLIDS	mg/L	1	498 00	498 00	498 00		
TOTAL ORGANIC CARBON	mg/L	1	11 00	11 00	11 00		
TOTAL SUSPENDED SOLIDS	mg/L	1	15 00	15 00	15 00		
TRITIUM	pCi/L	1	91 40	91 40	91 40		
URANIUM-233,-234	pCi/L	1	1 74	1 74	1 74		
URANIUM-235	pCi/L	1	0 11	0 11	0 11		
URANIUM-238	pCi/L	1	1 33	1 33	1 33		

Summary Statistics for Surface-Water Data - Detects Only
1991 - 1993

LOCATION SW058

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value
ALUMINUM	ug/L	2	980 00	48 40	514 20	658 74	1,199 29
AMERICIUM-241	pCi/L	2	1 21	0 22	0 72	0 70	1 44
BARIUM	ug/L	4	190 00	145 00	165 75	19 12	185 64
BERYLLIUM	ug/L	1	0 70	0 70	0 70		
BICARBONATE AS CACO3	mg/L	2	259 00	189 00	224 00	49 50	275 48
CALCIUM	ug/L	4	100,000 00	78,100 00	89,725 00	11,915 64	102,117 27
CARBON TETRACHLORIDE	ug/L	1	14 00	14 00	14 00		
CESIUM	ug/L	2	50 00	50 00	50 00	0 00	50 00
CESIUM-137	pCi/L	1	0 13	0 13	0 13		
CHLORIDE	mg/L	2	29 20	20 70	24 95	6 01	31 20
COBALT	ug/L	1	2 50	2 50	2 50		
COPPER	ug/L	2	13 00	3 40	8 20	6 79	15 26
DISSOLVED ORGANIC CARBON	mg/L	1	7 00	7 00	7 00		
FLUORIDE	mg/L	2	0 44	0 38	0 41	0 04	0 45
GROSS ALPHA	pCi/L	2	3 29	0 20	1 74	2 18	4 01
GROSS BETA	pCi/L	2	22 25	1 31	11 78	14 81	27 18
IRON	ug/L	3	1,400 00	66 00	515 27	766 23	1,312 15
LEAD	ug/L	1	6 50	6 50	6 50		
LITHIUM	ug/L	4	6 00	4 00	5 03	0 84	5 90
MAGNESIUM	ug/L	4	9,600 00	7,780 00	8,752 50	886 24	9,674 19
MANGANESE	ug/L	4	160 00	1 60	50 78	74 87	128 64
MOLYBDENUM	ug/L	1	4 00	4 00	4 00		
NITRATE/NITRITE	mg/L	1	0 86	0 86	0 86		
PLUTONIUM-236	pCi/L	1	0 00	0 00	0 00		
PLUTONIUM-238	pCi/L	1	0 03	0 03	0 03		
PLUTONIUM-239/240	pCi/L	2	11 03	0 99	6 01	7 10	13 39
POTASSIUM	ug/L	4	2,740 00	1,200 00	2,195 00	703 59	2,926 73
SILICON	ug/L	4	7 310 00	4 420 00	5,817 50	1,211 46	7 077 41
SODIUM	ug/L	4	8 400 00	7,700 00	7,997 50	294 43	8,303 71
STRONTIUM	ug/L	4	400 00	320 00	366 75	39 94	408 29
STRONTIUM-89,90	pCi/L	2	0 40	0 00	0 20	0 28	0 50
SULFATE	mg/L	2	24 50	15 50	20 00	6 36	26 62
TETRACHLOROETHENE	ug/L	1	3 00	3 00	3 00		
TOTAL DISSOLVED SOLIDS	mg/L	2	316 00	276 00	296 00	28 28	325 42
TOTAL ORGANIC CARBON	mg/L	1	13 00	13 00	13 00		
TOTAL SUSPENDED SOLIDS	mg/L	1	18 00	18 00	18 00		
TRITIUM	pCi/L	2	33 42	0 00	16 71	23 63	41 29
URANIUM-233,-234	pCi/L	1	1 82	1 82	1 82		
URANIUM-235	pCi/L	1	0 06	0 06	0 06		
URANIUM-238	pCi/L	1	1 36	1 36	1 36		
VANADIUM	ug/L	2	5 80	4 10	4 95	1 20	6 20
ZINC	ug/L	4	23 00	5 00	11 98	7 76	20 04

Summary Statistics for Surface-Water Data - Detects Only
1991 - 1993

LOCATION SW059

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value
1,1,1-TRICHLOROETHANE	ug/L	61	32 00	4 00	10 59	5 49	16 30
1,1-DICHLOROETHANE	ug/L	30	6 00	1 00	3 30	1 49	4 85
1,1-DICHLOROETHENE	ug/L	45	11 00	1 00	5 20	2 61	7 91
1,2-DICHLOROETHANE	ug/L	4	5 00	1 00	2 75	2 06	4 89
1,2-DICHLOROETHENE	ug/L	49	130 00	15 00	61 12	31 02	93 38
2-BUTANONE	ug/L	1	7 00	7 00	7 00		
2-HEXANONE	ug/L	1	3 00	3 00	3 00		
4,4'-DDT	ug/L	1	0 01	0 01	0 01		
4-METHYL-2-PENTANONE	ug/L	1	5 00	5 00	5 00		
ACETONE	ug/L	3	43 00	7 00	19 67	20 23	40 71
ALUMINUM	ug/L	59	3,950 00	17 40	542 18	836 73	1,412 37
AMERICIUM-241	pCi/L	31	0 44	-0 06	0 05	0 10	0 15
ANTIMONY	ug/L	11	46 80	10 00	25 47	11 52	37 45
ARSENIC	ug/L	8	4 30	1 00	1 79	1 23	3 07
BARIUM	ug/L	112	211 00	58 60	164 59	28 48	194 22
BENZENE	ug/L	1	3 00	3 00	3 00		
BERYLLIUM	ug/L	7	1 60	0 60	1 03	0 40	1 45
BICARBONATE AS CACO3	mg/L	56	432 00	87 10	326 36	74 07	403 39
BIS(2-ETHYLHEXYL)PHTHALAT	ug/L	1	1 00	1 00	1 00		
BROMODICHLOROMETHANE	ug/L	1	0 60	0 60	0 60		
CADMIUM	ug/L	3	3 70	2 10	2 93	0 80	3 77
CALCIUM	ug/L	114	139,000 00	41,500 00	103,180 70	17,960 09	121,859 19
CARBON TETRACHLORIDE	ug/L	63	250 00	16 00	116 29	50 63	168 94
CARBONATE AS CACO3	mg/L	2	12 30	0 00	6 15	8 70	15 20
CESIUM	ug/L	6	80 00	14 60	43 82	24 20	68 99
CESIUM-134	pCi/L	1	1 04	1 04	1 04		
CESIUM-137	pCi/L	11	1 27	-0 46	0 34	0 45	0 81
CHLORIDE	mg/L	56	130 00	20 00	59 42	18 73	78 90
CHLOROFORM	ug/L	63	34 00	4 00	19 56	7 80	27 66
CHROMIUM	ug/L	13	26 60	3 50	8 58	6 47	15 31
cis-1,2-DICHLOROETHENE	ug/L	11	76 00	34 00	50 55	13 20	64 27
COBALT	ug/L	4	3 60	1 50	2 70	0 88	3 61
COPPER	ug/L	44	13 80	2 00	4 33	2 42	6 85
DISSOLVED ORGANIC CARBON	mg/L	10	7 30	2 00	4 80	1 54	6 40
FLUORIDE	mg/L	56	1 60	0 50	1 04	0 18	1 23
GROSS ALPHA	pCi/L	48	21 91	-0 26	5 59	4 62	10 39
GROSS BETA	pCi/L	51	56 33	1 80	7 33	8 67	16 35
IRON	ug/L	67	3,770 00	8 60	397 97	671 60	1 096 43
LEAD	ug/L	44	13 70	0 90	3 16	2 73	6 00
LITHIUM	ug/L	86	22 00	4 80	14 79	3 70	18 63
MAGNESIUM	ug/L	114	37,300 00	11 200 00	27,284 21	5,610 81	33,119 45
MANGANESE	ug/L	85	111 00	1 00	14 21	16 61	31 49
MERCURY	ug/L	8	1 40	0 20	0 42	0 41	0 85

Summary Statistics for Surface-Water Data - Detects Only
1991 - 1993

LOCATION SW059

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value
METHANE, ISOCYANO-	ug/L	1	8 10	8 10	8 10		
METHYLENE CHLORIDE	ug/L	9	7 00	1 00	2 89	1 76	4 72
MOLYBDENUM	ug/L	12	12 30	1 70	5 39	3 66	9 20
NEPTUNIUM-237	pCi/L	4	0 24	-0 02	0 08	0 13	0 22
NICKEL	ug/L	8	36 50	3 70	10 70	10 77	21 90
NITRATE/NITRITE	mg/L	10	6 40	2 20	3 95	1 15	5 15
OIL AND GREASE	mg/L	3	12 10	0 30	4 53	6 57	11 36
ORTHOPHOSPHATE	mg/L	2	0 04	0 01	0 03	0 02	0 05
PHOSPHORUS	mg/L	4	0 14	0 04	0 09	0 04	0 14
PLUTONIUM-236	pCi/L	8	0 00	-0 02	0 00	0 01	0 01
PLUTONIUM-238	pCi/L	2	0 00	-0 01	-0 01	0 01	0 00
PLUTONIUM-239/240	pCi/L	33	0 56	0 00	0 05	0 10	0 15
POTASSIUM	ug/L	96	2,960 00	720 00	1,293 81	419 42	1 730 01
RADIUM-226	pCi/L	6	0 81	0 15	0 37	0 24	0 62
SELENIUM	ug/L	19	3 40	1 00	1 50	0 68	2 21
SILICA	mg/L	2	5 80	4 70	5 25	0 78	6 06
SILICON	ug/L	88	13,600 00	3,800 00	6,245 34	1,536 92	7,843 74
SILVER	ug/L	5	6 40	2 90	4 12	1 56	5 74
SODIUM	ug/L	114	62,900 00	18,400 00	38,963 16	7,257 25	46,510 70
STRONTIUM	ug/L	90	928 00	310 00	697 56	128 14	830 82
STRONTIUM-89	pCi/L	1	0 05	0 05	0 05		
STRONTIUM-89,90	pCi/L	20	9 25	-0 06	2 35	3 08	5 55
STRONTIUM-90	pCi/L	1	0 16	0 16	0 16		
SULFATE	mg/L	56	49 00	14 80	38 28	7 90	46 49
TETRACHLOROETHENE	ug/L	63	180 00	20 00	61 86	34 51	97 75
THALLIUM	ug/L	1	1 00	1 00	1 00		
TIN	ug/L	8	46 20	11 20	23 88	11 42	35 75
TOLUENE	ug/L	1	2 00	2 00	2 00		
TOTAL DISSOLVED SOLIDS	mg/L	56	617 00	190 00	493 96	83 86	581 18
TOTAL ORGANIC CARBON	mg/L	54	16 00	2 00	4 07	2 39	6 56
TOTAL RADIOCESIUM	pCi/L	3	1 30	0 53	1 01	0 42	1 45
TOTAL SUSPENDED SOLIDS	mg/L	35	130 00	4 00	36 10	34 54	72 02
TRICHLOROETHENE	ug/L	63	170 00	18 00	69 81	36 37	107 63
TRICHLOROFUOROMETHANE	ug/L	1	9 00	9 00	9 00		
TRITIUM	pCi/L	6	580 00	-17 60	175 01	221 16	405 02
UNKNOWN	ug/L	1	10 00	10 00	10 00		
URANIUM, TOTAL	pCi/L	7	6 10	3 52	5 19	0 99	6 22
URANIUM-233,-234	pCi/L	52	5 82	0 03	3 19	1 18	4 42
URANIUM-234	pCi/L	6	3 50	1 29	2 75	0 94	3 73
URANIUM-235	pCi/L	38	0 52	-0 01	0 16	0 11	0 27
URANIUM-238	pCi/L	58	5 73	0 01	2 75	1 07	3 86
VANADIUM	ug/L	40	29 70	2 60	7 52	7 55	15 38
VINYL CHLORIDE	ug/L	11	14 00	2 00	5 27	3 93	9 36

Summary Statistics for Surface-Water Data - Detects Only
1991 - 1993

LOCATION SW059

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value
ZINC	ug/L	113	400 00	22 00	183 15	78 35	264 63

173 of 218

Summary Statistics for Surface-Water Data - Detects Only
1991 - 1993

LOCATION SW060

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value
1,1,1-TRICHLOROETHANE	ug/L	5	8 00	4 00	5 20	1 64	6 91
ALUMINUM	ug/L	11	4,930 00	19 10	527 03	1,461 26	2,046 73
AMERICIUM-241	pCi/L	7	0 63	0 00	0 19	0 24	0 44
ANTIMONY	ug/L	1	18 90	18 90	18 90		
AROCLOR-1254	ug/L	2	24 00	24 00	24 00	0 00	24 00
BARIUM	ug/L	19	231 00	23 50	165 59	46 35	213 79
BERYLLIUM	ug/L	2	1 30	1 10	1 20	0 14	1 35
BICARBONATE AS CACO3	mg/L	11	278 00	43 30	235 57	65 09	303 26
BIS(2-ETHYLHEXYL)PHTHALAT	ug/L	2	4 00	1 00	2 50	2 12	4 71
CADMIUM	ug/L	1	3 50	3 50	3 50		
CALCIUM	ug/L	19	123,000 00	11,300 00	88,642 11	27 575 78	117 320 92
CARBON TETRACHLORIDE	ug/L	9	35 00	7 00	19 00	9 03	28 39
CARBONATE AS CACO3	mg/L	4	14 90	10 60	12 90	1 78	14 75
CESIUM	ug/L	1	50 00	50 00	50 00		
CESIUM-137	pCi/L	5	0 25	-0 23	0 04	0 25	0 30
CHLORIDE	mg/L	10	77 00	45 40	63 14	9 97	73 51
CHLOROFORM	ug/L	2	3 00	2 00	2 50	0 71	3 24
CHROMIUM	ug/L	2	12 50	7 80	10 15	3 32	13 61
COBALT	ug/L	2	5 70	3 50	4 60	1 56	6 22
COPPER	ug/L	7	10 90	2 70	4 94	2 89	7 95
DISSOLVED ORGANIC CARBON	mg/L	11	15 50	2 00	5 86	4 83	10 89
FLUORIDE	mg/L	10	0 94	0 35	0 81	0 17	0 98
GROSS ALPHA	pCi/L	10	10 50	1 37	4 49	2 95	7 57
GROSS BETA	pCi/L	10	20 30	2 68	7 72	6 14	14 10
HEXADECANOIC ACID	ug/L	1	5 00	5 00	5 00		
IRON	ug/L	15	4,520 00	8 70	381 88	1,147 37	1,575 15
LEAD	ug/L	12	40 60	0 90	8 01	12 34	20 84
LITHIUM	ug/L	18	11 90	2 10	7 53	2 00	9 61
MAGNESIUM	ug/L	19	17 400 00	1,950 00	14,211 05	4 340 12	18 724 78
MANGANESE	ug/L	18	68 40	2 80	16 93	23 18	41 04
METHYLENE CHLORIDE	ug/L	1	2 00	2 00	2 00		
MOLYBDENUM	ug/L	1	3 60	3 60	3 60		
NEPTUNIUM-237	pCi/L	2	-0 22	-0 37	-0 30	0 11	-0 18
NITRATE/NITRITE	mg/L	11	5 10	1 20	4 46	1 12	5 63
NITRITE	mg/L	1	0 03	0 03	0 03		
OIL AND GREASE	mg/L	2	62 30	8 80	35 55	37 83	74 89
ORTHOPHOSPHATE	mg/L	3	0 06	0 06	0 06	0 00	0 06
PHOSPHORUS	mg/L	2	0 19	0 06	0 12	0 09	0 22
PLUTONIUM-236	pCi/L	1	0 00	0 00	0 00		
PLUTONIUM-239/240	pCi/L	8	0 04	0 00	0 02	0 01	0 03
POTASSIUM	ug/L	17	5,010 00	746 00	1,829 71	1 099 79	2,973 49
RADIUM-226	pCi/L	2	0 17	0 17	0 17	0 00	0 17
SELENIUM	ug/L	5	3 80	1 10	1 90	1 12	3 06

Summary Statistics for Surface-Water Data - Detects Only
1991 - 1993

LOCATION SW060

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value
SILICON	ug/L	23	11,400 00	985 00	5,633 70	1,684 89	7,385 98
SILVER	ug/L	4	4 40	2 20	3 70	1 04	4 78
SODIUM	ug/L	19	42,700 00	26,700 00	34 121 05	4 811 63	39,125 14
STRONTIUM	ug/L	20	561 00	61 00	445 53	135 60	586 55
STRONTIUM-89	pCi/L	1	0 56	0 56	0 56		
STRONTIUM-89,90	pCi/L	6	7 49	0 21	1 69	2 86	4 66
STRONTIUM-90	pCi/L	1	0 05	0 05	0 05		
SULFATE	mg/L	10	44 60	14 80	33 65	7 52	41 47
TETRACHLOROETHENE	ug/L	8	20 00	3 00	12 13	5 72	18 07
THALLIUM	ug/L	1	1 80	1 80	1 80		
TOTAL DISSOLVED SOLIDS	mg/L	10	568 00	204 00	434 40	99 25	537 62
TOTAL ORGANIC CARBON	mg/L	10	10 50	2 00	5 10	2 86	8 08
TOTAL SUSPENDED SOLIDS	mg/L	7	88 00	5 00	41 86	37 33	80 68
TRICHLOROETHENE	ug/L	7	16 00	6 00	11 29	3 40	14 82
TRICHLOROFLUOROMETHANE	ug/L	1	6 00	6 00	6 00		
TRITIUM	pCi/L	7	1,200 00	60 39	313 20	421 22	751 27
UNKNOWN	ug/L	1	6 00	6 00	6 00		
UNKNOWN HYDROCARBON	ug/L	5	10 00	5 00	7 80	1 92	9 80
URANIUM-233 -234	pCi/L	7	3 20	0 88	2 27	0 78	3 08
URANIUM-234	pCi/L	3	3 80	2 90	3 30	0 46	3 78
URANIUM-235	pCi/L	7	0 22	0 03	0 09	0 06	0 16
URANIUM-238	pCi/L	11	4 10	0 54	2 38	1 02	3 43
VANADIUM	ug/L	3	14 00	2 40	6 80	6 29	13 34
ZINC	ug/L	14	547 00	3 50	284 71	169 23	460 71

Summary Statistics for Surface-Water Data - Detects Only
1991 - 1993

LOCATION SW061

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value
1,1,1-TRICHLOROETHANE	ug/L	31	9 00	0 60	3 15	2 12	5 35
1,1-DICHLOROETHANE	ug/L	22	7 00	0 80	1 99	1 32	3 36
1,1-DICHLOROETHENE	ug/L	1	11 00	11 00	11 00		
1,2-DICHLOROETHANE	ug/L	1	1 00	1 00	1 00		
1,2-DICHLOROETHENE	ug/L	45	120 00	2 00	22 80	20 79	44 42
2-BUTANONE	ug/L	1	14 00	14 00	14 00		
2-HEXANONE	ug/L	1	12 00	12 00	12 00		
4-METHYL-2-PENTANONE	ug/L	1	11 00	11 00	11 00		
ACETONE	ug/L	5	55 00	2 00	22 40	25 15	48 55
ALUMINUM	ug/L	67	19 000 00	14 80	567 57	2,375 69	3,038 28
AMERICIUM-241	pCi/L	43	1 33	0 00	0 06	0 21	0 28
ANTIMONY	ug/L	13	37 40	20 10	28 98	6 56	35 81
ARSENIC	ug/L	11	3 50	1 00	1 85	1 02	2 91
BARIUM	ug/L	127	258 00	22 80	154 70	26 35	182 11
BENZENE	ug/L	1	4 00	4 00	4 00		
BENZOIC ACID	ug/L	1	4 00	4 00	4 00		
BERYLLIUM	ug/L	10	1 80	0 36	1 02	0 51	1 54
BICARBONATE AS CACO3	mg/L	65	322 00	19 60	226 37	47 53	275 81
BIS(2-ETHYLHEXYL)PHTHALAT	ug/L	1	7 00	7 00	7 00		
CADMIUM	ug/L	6	4 70	1 60	2 83	1 23	4 11
CALCIUM	ug/L	127	108,000 00	11,100 00	81,652 76	14,476 24	96,708 04
CARBON TETRACHLORIDE	ug/L	46	18 00	1 00	6 37	3 99	10 52
CARBONATE AS CACO3	mg/L	10	25 50	4 00	11 70	7 38	19 38
CESIUM	ug/L	6	110 00	50 00	63 33	23 38	87 65
CESIUM-137	pCi/L	12	1 20	-0 60	0 22	0 54	0 78
CHLORIDE	mg/L	64	104 00	10 10	56 26	14 72	71 57
CHLOROBENZENE	ug/L	1	4 00	4 00	4 00		
CHLOROFORM	ug/L	18	3 00	0 40	1 29	0 70	2 02
CHROMIUM	ug/L	13	37 10	2 70	6 98	9 20	16 54
cis-1,2-DICHLOROETHENE	ug/L	9	36 00	5 00	19 22	11 26	30 93
COBALT	ug/L	10	11 40	1 50	3 72	2 95	6 79
COPPER	ug/L	38	39 80	2 30	5 21	6 31	11 78
DISSOLVED ORGANIC CARBON	mg/L	12	12 30	3 00	5 33	3 18	8 64
FLUORIDE	mg/L	64	1 10	0 32	0 76	0 17	0 93
GROSS ALPHA	pCi/L	57	14 00	-0 54	4 78	3 04	7 95
GROSS BETA	pCi/L	64	34 00	2 04	7 55	7 29	15 14
IRON	ug/L	97	24,500 00	6 80	563 61	2 503 55	3,167 31
LEAD	ug/L	47	92 50	0 80	5 61	13 47	19 62
LITHIUM	ug/L	92	21 60	2 40	8 75	3 00	11 87
MAGNESIUM	ug/L	127	28,800 00	1,950 00	15,321 02	2,735 17	18,165 60
MANGANESE	ug/L	127	496 00	2 80	66 75	65 03	134 37
MERCURY	ug/L	6	0 88	0 13	0 32	0 28	0 61
METHYLENE CHLORIDE	ug/L	12	36 00	0 90	6 83	10 26	17 50

Summary Statistics for Surface-Water Data - Detects Only
1991 - 1993

LOCATION SW061

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value
MOLYBDENUM	ug/L	12	11 50	1 70	3 67	2 70	6 48
NEPTUNIUM-237	pCi/L	3	0 14	-0 22	-0 03	0 18	0 15
NICKEL	ug/L	6	21 40	2 70	9 70	6 82	16 79
NITRATE/NITRITE	mg/L	12	5 20	1 50	3 70	1 13	4 88
NITRITE	mg/L	1	0 03	0 03	0 03		
OIL AND GREASE	mg/L	1	9 00	9 00	9 00		
ORTHOPHOSPHATE	mg/L	3	0 06	0 05	0 05	0 01	0 06
PHOSPHORUS	mg/L	1	0 74	0 74	0 74		
PLUTONIUM-236	pCi/L	9	0 04	-0 11	-0 01	0 04	0 04
PLUTONIUM-238	pCi/L	4	0 03	-0 02	0 01	0 02	0 04
PLUTONIUM-239/240	pCi/L	44	0 63	0 00	0 05	0 12	0 18
POTASSIUM	ug/L	116	13,600 00	837 00	2,081 16	1,852 17	4,007 42
RADIUM-226	pCi/L	7	0 70	0 17	0 30	0 19	0 49
SELENIUM	ug/L	35	7 40	1 00	1 81	1 14	3 00
SILICON	ug/L	107	38,600 00	1,110 00	5,554 39	3 408 29	9,099 02
SILVER	ug/L	6	8 30	2 00	4 97	2 24	7 30
SODIUM	ug/L	127	61 200 00	21,800 00	37,366 14	6,508 36	44,134 84
STRONTIUM	ug/L	104	747 00	58 30	462 07	85 02	550 49
STRONTIUM-89	pCi/L	1	0 29	0 29	0 29		
STRONTIUM-89,90	pCi/L	27	8 61	0 07	1 64	2 57	4 31
STRONTIUM-90	pCi/L	1	0 22	0 22	0 22		
SULFATE	mg/L	64	89 10	10 80	37 60	10 34	48 35
TETRACHLOROETHENE	ug/L	42	22 00	0 60	5 94	5 84	12 01
THALLIUM	ug/L	3	2 20	1 00	1 67	0 61	2 30
TIN	ug/L	3	64 00	9 80	29 67	29 86	60 72
TOLUENE	ug/L	4	7 00	0 40	3 60	2 96	6 68
TOTAL DISSOLVED SOLIDS	mg/L	64	520 00	226 00	401 28	54 91	458 38
TOTAL ORGANIC CARBON	mg/L	64	37 00	2 00	4 63	4 59	9 40
TOTAL RADIOCESIUM	pCi/L	2	1 20	0 33	0 77	0 62	1 40
TOTAL SUSPENDED SOLIDS	mg/L	27	830 00	5 00	46 98	158 03	211 33
TOTAL XYLENES	ug/L	1	2 00	2 00	2 00		
TRICHLOROETHENE	ug/L	44	32 00	0 60	6 45	6 51	13 22
TRICHLOROFLUOROMETHANE	ug/L	1	7 00	7 00	7 00		
TRITIUM	pCi/L	7	390 00	-25 10	109 08	133 93	248 37
UNKNOWN	ug/L	2	40 00	20 00	30 00	14 14	44 71
UNKNOWN HYDROCARBON	ug/L	1	4 00	4 00	4 00		
URANIUM, TOTAL	pCi/L	7	6 30	5 00	5 71	0 58	6 31
URANIUM-233,-234	pCi/L	62	6 17	0 02	2 38	1 12	3 55
URANIUM-234	pCi/L	3	4 00	0 87	2 46	1 57	4 08
URANIUM-235	pCi/L	40	0 54	-0 03	0 12	0 12	0 24
URANIUM-238	pCi/L	66	5 67	0 01	2 19	1 06	3 29
VANADIUM	ug/L	32	57 30	2 40	8 80	10 62	19 85
VINYL CHLORIDE	ug/L	20	37 00	1 00	7 00	7 95	15 27

Summary Statistics for Surface-Water Data - Detects Only
1991 - 1993

LOCATION SW061

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value
ZINC	ug/L	89	722 00	2 10	94 43	98 21	196 57

Summary Statistics for Surface-Water Data - Detects Only
1991 - 1993

LOCATION SW068

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value
ACETONE	ug/L	1	9 00	9 00	9 00		
ALUMINUM	ug/L	11	1,000 00	15 00	296 18	287 01	594 67
AMERICIUM-241	pCi/L	5	0 11	0 00	0 03	0 05	0 07
AMMONIA	mg/L	1	0 54	0 54	0 54		
ANTIMONY	ug/L	3	37 50	22 60	30 43	7 48	38 21
BARIUM	ug/L	18	163 00	38 20	102 18	32 88	136 37
BICARBONATE AS CACO3	mg/L	10	206 00	92 00	151 60	42 53	195 83
CADMIUM	ug/L	3	2 10	1 20	1 60	0 46	2 08
CALCIUM	ug/L	18	87,000 00	39,900 00	63,761 11	15,599 21	79,984 29
CARBONATE AS CACO3	mg/L	3	30 20	12 30	18 33	10 28	29 02
CESIUM	ug/L	4	60 00	50 00	55 00	5 77	61 00
CESIUM-137	pCi/L	5	0 27	-0 14	0 04	0 15	0 20
CHLORIDE	mg/L	9	140 00	37 90	72 79	28 93	102 88
COBALT	ug/L	1	3 10	3 10	3 10		
COPPER	ug/L	7	11 00	2 70	5 20	3 02	8 34
DISSOLVED ORGANIC CARBON	mg/L	7	7 40	3 00	5 46	1 79	7 32
FLUORIDE	mg/L	9	0 82	0 32	0 61	0 15	0 77
GROSS ALPHA	pCi/L	7	7 00	0 93	4 42	2 15	6 65
GROSS BETA	pCi/L	9	9 80	-10 00	3 83	5 77	9 83
IRON	ug/L	14	1,000 00	11 10	304 60	294 35	610 72
LEAD	ug/L	13	8 50	1 00	3 28	2 16	5 53
LITHIUM	ug/L	16	14 00	5 70	9 44	2 24	11 77
MAGNESIUM	ug/L	18	18 700 00	7,620 00	13,533 33	3,396 51	17,065 70
MANGANESE	ug/L	16	159 00	8 70	39 27	37 73	78 51
METHYLENE CHLORIDE	ug/L	1	7 00	7 00	7 00		
MOLYBDENUM	ug/L	1	4 20	4 20	4 20		
NEPTUNIUM-237	pCi/L	2	0 22	0 20	0 21	0 01	0 22
NICKEL	ug/L	1	8 70	8 70	8 70		
NITRATE/NITRITE	mg/L	10	10 00	0 47	2 75	2 70	5 56
NITRITE	mg/L	2	0 08	0 00	0 04	0 05	0 09
OIL AND GREASE	mg/L	1	8 60	8 60	8 60		
PHOSPHORUS	mg/L	3	0 09	0 05	0 07	0 02	0 09
PLUTONIUM-239/240	pCi/L	7	0 01	0 00	0 00	0 00	0 01
POTASSIUM	ug/L	18	5,750 00	1,760 00	2,751 11	1,104 09	3,899 37
RADIUM-226	pCi/L	3	0 69	0 19	0 35	0 29	0 66
SELENIUM	ug/L	1	1 10	1 10	1 10		
SILICON	ug/L	22	7,120 00	1 410 00	4,548 18	1 653 72	6,268 05
SODIUM	ug/L	18	62,700 00	21,000 00	35,716 67	11,623 11	47,804 70
STRONTIUM	ug/L	18	500 00	253 00	380 94	88 73	473 22
STRONTIUM-89	pCi/L	1	0 27	0 27	0 27		
STRONTIUM-89,90	pCi/L	5	0 75	0 33	0 58	0 16	0 75
STRONTIUM-90	pCi/L	1	0 15	0 15	0 15		
SULFATE	mg/L	9	56 60	20 60	37 38	10 33	48 13

Summary Statistics for Surface-Water Data - Detects Only
1991 - 1993

LOCATION SW068

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value
TETRACHLOROETHANE	ug/L	1	8 00	8 00	8 00		
THALLIUM	ug/L	1	6 20	6 20	6 20		
TOLUENE	ug/L	1	5 00	5 00	5 00		
TOTAL DISSOLVED SOLIDS	mg/L	9	488 00	208 00	363 33	77 65	444 09
TOTAL ORGANIC CARBON	mg/L	9	22 00	3 60	7 56	5 57	13 34
TOTAL SUSPENDED SOLIDS	mg/L	11	146 00	14 00	43 55	51 14	96 73
TRITIUM	pCi/L	6	319 60	75 32	164 22	86 01	253 67
UNKNOWN CYCLIC HYDROCAR	ug/L	1	10 00	10 00	10 00		
UNKNOWN HYDROCARBON	ug/L	5	10 00	4 00	6 60	2 41	9 10
URANIUM-233 -234	pCi/L	6	3 02	0 86	2 24	0 76	3 03
URANIUM-234	pCi/L	3	2 80	1 80	2 27	0 50	2 79
URANIUM-235	pCi/L	7	0 15	0 05	0 11	0 04	0 15
URANIUM-238	pCi/L	9	3 00	1 10	2 27	0 68	2 97
VANADIUM	ug/L	7	4 10	2 40	3 14	0 58	3 75
ZINC	ug/L	9	58 00	9 80	24 83	17 64	43 18

Summary Statistics for Surface-Water Data - Detects Only
1991 - 1993

LOCATION SW069

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value
ACETONE	ug/L	1	10 00	10 00	10 00		
ALUMINUM	ug/L	12	1,020 00	28 00	405 83	367 19	787 72
AMERICIUM-241	pCi/L	6	0 02	0 00	0 01	0 01	0 01
ARSENIC	ug/L	1	0 70	0 70	0 70		
BARIUM	ug/L	16	450 00	34 30	129 22	96 18	229 24
BICARBONATE AS CACO3	mg/L	9	199 00	123 00	154 89	23 65	179 48
BIS(2-ETHYLHEXYL)PHTHALAT	ug/L	1	1 00	1 00	1 00		
CADMIUM	ug/L	3	1 80	1 20	1 57	0 32	1 90
CALCIUM	ug/L	16	75,000 00	48,000 00	60,625 00	9,273 44	70,269 38
CARBONATE AS CACO3	mg/L	1	12 50	12 50	12 50		
CESIUM	ug/L	4	70 00	50 00	57 50	9 57	67 46
CESIUM-137	pCi/L	6	0 99	-0 23	0 16	0 45	0 62
CHLORIDE	mg/L	8	89 10	40 60	62 53	15 40	78 54
CHROMIUM	ug/L	2	4 30	2 00	3 15	1 63	4 84
COBALT	ug/L	1	2 40	2 40	2 40		
COPPER	ug/L	7	11 00	3 40	6 40	3 20	9 72
DISSOLVED ORGANIC CARBON	mg/L	4	15 00	4 00	8 00	4 81	13 01
FLUORIDE	mg/L	8	0 86	0 46	0 66	0 12	0 78
GROSS ALPHA	pCi/L	8	12 00	1 64	4 92	3 16	8 21
GROSS BETA	pCi/L	8	9 50	2 57	6 12	2 78	9 01
IRON	ug/L	14	1,120 00	8 80	401 08	382 66	799 05
LEAD	ug/L	10	4 10	1 30	2 34	0 92	3 30
LITHIUM	ug/L	16	13 70	5 70	9 16	1 85	11 08
MAGNESIUM	ug/L	16	18,700 00	9,400 00	13,950 00	2,678 81	16,735 96
MANGANESE	ug/L	16	160 00	6 70	46 36	41 32	89 34
METHYLENE CHLORIDE	ug/L	1	8 00	8 00	8 00		
NEPTUNIUM-237	pCi/L	2	0 23	0 19	0 21	0 03	0 24
NITRATE/NITRITE	mg/L	8	3 00	0 20	1 64	0 90	2 58
NITRITE	mg/L	4	0 06	0 02	0 03	0 02	0 05
OIL AND GREASE	mg/L	2	6 70	5 90	6 30	0 57	6 89
PHOSPHORUS	mg/L	5	0 84	0 06	0 29	0 32	0 62
PLUTONIUM-239/240	pCi/L	6	0 09	0 00	0 02	0 04	0 06
POTASSIUM	ug/L	16	3 930 00	1,820 00	2,606 25	576 41	3,205 72
RADIUM-226	pCi/L	1	1 30	1 30	1 30		
SELENIUM	ug/L	1	1 70	1 70	1 70		
SILICON	ug/L	20	7,440 00	1 540 00	4,690 50	1,552 49	6 305 09
SODIUM	ug/L	16	47,700 00	21,000 00	31,906 25	6,913 32	39,096 10
STRONTIUM	ug/L	16	487 00	280 00	380 13	66 57	449 35
STRONTIUM-89	pCi/L	1	0 33	0 33	0 33		
STRONTIUM-89,90	pCi/L	4	0 61	0 33	0 45	0 13	0 59
STRONTIUM-90	pCi/L	1	0 13	0 13	0 13		
SULFATE	mg/L	8	69 60	20 60	39 64	14 17	54 38
TETRACHLOROETHANE	ug/L	1	50 00	50 00	50 00		

Summary Statistics for Surface-Water Data - Detects Only
1991 - 1993

LOCATION SW069

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value
TOLUENE	ug/L	1	7 00	7 00	7 00		
TOTAL DISSOLVED SOLIDS	mg/L	8	458 00	226 00	355 75	71 28	429 88
TOTAL ORGANIC CARBON	mg/L	6	19 00	4 90	7 80	5 54	13 56
TOTAL SUSPENDED SOLIDS	mg/L	12	212 00	7 50	71 29	77 04	151 41
TRITIUM	pCi/L	5	329 80	-94 80	166 52	159 03	331 91
UNKNOWN	ug/L	2	9 00	6 00	7 50	2 12	9 71
UNKNOWN HYDROCARBON	ug/L	5	20 00	5 00	10 00	5 87	16 11
URANIUM-233,-234	pCi/L	5	3 90	1 81	2 58	0 82	3 43
URANIUM-234	pCi/L	3	3 60	1 70	2 67	0 95	3 66
URANIUM-235	pCi/L	5	0 21	-0 02	0 07	0 08	0 16
URANIUM-238	pCi/L	8	3 30	1 66	2 58	0 61	3 21
VANADIUM	ug/L	5	3 90	2 50	3 26	0 65	3 94
ZINC	ug/L	11	28 80	6 50	14 64	7 11	22 03

Summary Statistics for Surface-Water Data - Detects Only
1991 - 1993

LOCATION SW070

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value
2-BUTANONE	ug/L	1	17 00	17 00	17 00		
ACETONE	ug/L	1	10 00	10 00	10 00		
ALUMINUM	ug/L	17	1 790 00	23 00	462 86	486 69	969 02
AMERICIUM-241	pCi/L	9	5 52	0 00	0 63	1 84	2 53
ANTIMONY	ug/L	2	18 80	17 00	17 90	1 27	19 22
BARIUM	ug/L	21	160 00	30 00	93 79	37 18	132 46
BERYLLIUM	ug/L	3	1 50	0 50	0 83	0 58	1 43
BICARBONATE AS CACO3	mg/L	13	206 00	79 20	133 27	43 96	178 99
CADMIUM	ug/L	5	1 90	1 20	1 50	0 33	1 84
CALCIUM	ug/L	22	80,800 00	26,500 00	51,650 00	15,580 75	67,853 98
CARBON DISULFIDE	ug/L	1	8 00	8 00	8 00		
Carbon Oxide Sulfide	ug/L	1	9 00	9 00	9 00		
CARBONATE AS CACO3	mg/L	2	12 50	12 30	12 40	0 14	12 55
CESIUM	ug/L	5	80 00	50 00	56 00	13 42	69 95
CESIUM-137	pCi/L	6	0 11	-0 31	-0 09	0 18	0 10
CHLORIDE	mg/L	11	83 00	27 00	50 05	17 51	68 26
CHROMIUM	ug/L	3	63 00	2 00	22 97	34 68	59 04
COPPER	ug/L	14	12 00	2 20	5 14	2 56	7 80
DISSOLVED ORGANIC CARBON	mg/L	9	23 00	2 00	7 17	6 14	13 56
FLUORIDE	mg/L	12	0 82	0 35	0 56	0 16	0 72
GROSS ALPHA	pCi/L	10	12 85	-0 05	4 12	3 86	8 14
GROSS BETA	pCi/L	11	8 30	2 32	5 06	1 99	7 13
IRON	ug/L	20	1,390 00	12 20	440 56	425 94	883 54
LEAD	ug/L	16	7 80	0 90	2 69	1 78	4 55
LITHIUM	ug/L	20	11 40	3 90	7 77	1 82	9 67
MAGNESIUM	ug/L	22	19,600 00	4,840 00	12,404 55	4,213 54	16,786 63
MANGANESE	ug/L	22	155 00	6 80	47 26	38 14	86 92
MERCURY	ug/L	1	0 20	0 20	0 20		
METHYLENE CHLORIDE	ug/L	1	17 00	17 00	17 00		
MOLYBDENUM	ug/L	2	6 10	4 50	5 30	1 13	6 48
NEPTUNIUM-237	pCi/L	2	0 24	0 19	0 22	0 04	0 25
NICKEL	ug/L	3	37 00	6 50	17 17	17 19	35 05
NITRATE/NITRITE	mg/L	10	3 00	0 23	1 44	0 82	2 29
NITRITE	mg/L	5	0 16	0 03	0 07	0 06	0 13
OIL AND GREASE	mg/L	2	10 90	7 00	8 95	2 76	11 82
ORTHOPHOSPHATE	mg/L	1	0 24	0 24	0 24		
PHOSPHORUS	mg/L	4	0 27	0 05	0 13	0 10	0 24
PLUTONIUM-236	pCi/L	1	0 01	0 01	0 01		
PLUTONIUM-238	pCi/L	1	-0 01	-0 01	-0 01		
PLUTONIUM-239/240	pCi/L	7	0 02	0 00	0 01	0 01	0 01
POTASSIUM	ug/L	22	4,060 00	2,100 00	2,810 00	516 46	3,347 12
RADIUM-226	pCi/L	1	0 21	0 21	0 21		
SELENIUM	ug/L	1	0 90	0 90	0 90		

Summary Statistics for Surface-Water Data - Detects Only
1991 - 1993

LOCATION SW070

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value
SILICON	ug/L	24	7,480 00	1,420 00	4 207 08	1,594 15	5,864 99
SILVER	ug/L	1	3 00	3 00	3 00		
SODIUM	ug/L	22	51,000 00	14,000 00	28,477 27	10,143 73	39,026 75
STRONTIUM	ug/L	22	520 00	145 00	325 82	108 86	439 03
STRONTIUM-89	pCi/L	1	0 96	0 96	0 96		
STRONTIUM-89,90	pCi/L	8	5 98	0 27	1 15	1 96	3 18
STRONTIUM-90	pCi/L	1	0 08	0 08	0 08		
SULFATE	mg/L	12	82 40	13 20	35 32	22 02	58 21
TETRACHLOROETHANE	ug/L	1	20 00	20 00	20 00		
TOLUENE	ug/L	1	9 00	9 00	9 00		
TOTAL DISSOLVED SOLIDS	mg/L	12	462 00	190 00	302 25	91 67	397 58
TOTAL ORGANIC CARBON	mg/L	10	44 00	4 00	9 63	12 14	22 25
TOTAL SUSPENDED SOLIDS	mg/L	16	134 00	8 00	42 69	44 21	88 66
TRITIUM	pCi/L	8	320 00	-36 20	116 52	115 98	237 13
UNKNOWN HYDROCARBON	ug/L	4	10 00	5 00	7 50	2 38	9 98
URANIUM-233,-234	pCi/L	8	3 67	0 24	1 65	1 09	2 78
URANIUM-234	pCi/L	3	3 00	1 50	2 37	0 78	3 17
URANIUM-235	pCi/L	8	5 69	0 06	0 81	1 97	2 86
URANIUM-238	pCi/L	12	7 93	0 05	2 37	1 96	4 41
VANADIUM	ug/L	6	4 70	2 30	3 17	0 90	4 10
ZINC	ug/L	18	109 00	3 60	18 64	23 68	43 28

Summary Statistics for Surface-Water Data - Detects Only
1991 - 1993

LOCATION SW084

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value
ACETONE	ug/L	1	14 00	14 00	14 00		
alpha-CHLORDANE	ug/L	1	0 00	0 00	0 00		
ALUMINUM	ug/L	5	2 800 00	21 00	977 00	1 096 37	2,117 22
AMERICIUM-241	pCi/L	5	0 25	0 01	0 07	0 10	0 18
AROCLOR-1254	ug/L	1	0 54	0 54	0 54		
BARIUM	ug/L	8	130 00	68 00	106 63	18 59	125 95
BICARBONATE AS CACO3	mg/L	5	166 00	133 00	151 40	12 54	164 44
CADMIUM	ug/L	2	1 60	1 50	1 55	0 07	1 62
CALCIUM	ug/L	8	84,000 00	69,700 00	76,287 50	4 955 35	81,441 07
CARBON TETRACHLORIDE	ug/L	1	13 00	13 00	13 00		
CARBONATE AS CACO3	mg/L	1	13 30	13 30	13 30		
CESIUM	ug/L	3	70 00	60 00	63 33	5 77	69 34
CESIUM-137	pCi/L	3	0 55	-0 16	0 22	0 36	0 60
CHLORIDE	mg/L	5	39 30	26 60	32 44	5 69	38 36
CHLOROFORM	ug/L	1	40 00	40 00	40 00		
CHROMIUM	ug/L	2	4 20	3 80	4 00	0 28	4 29
COPPER	ug/L	3	16 00	4 80	9 10	6 04	15 38
DISSOLVED ORGANIC CARBON	mg/L	2	3 00	2 00	2 50	0 71	3 24
FLUORIDE	mg/L	5	0 67	0 41	0 54	0 12	0 66
gamma-CHLORDANE	ug/L	1	0 00	0 00	0 00		
GROSS ALPHA	pCi/L	5	8 90	2 95	5 52	2 43	8 05
GROSS BETA	pCi/L	5	11 00	5 02	7 60	2 93	10 65
HEPTACHLOR EPOXIDE	ug/L	1	0 05	0 05	0 05		
IRON	ug/L	7	2,000 00	20 50	560 21	730 58	1,320 02
LEAD	ug/L	6	6 20	1 30	2 82	1 81	4 70
LITHIUM	ug/L	7	14 00	10 20	12 57	1 46	14 09
MAGNESIUM	ug/L	8	12,000 00	10,100 00	10,937 50	730 83	11,697 56
MANGANESE	ug/L	7	23 00	5 20	11 74	7 56	19 61
METHYLENE CHLORIDE	ug/L	1	15 00	15 00	15 00		
NITRATE/NITRITE	mg/L	7	42 90	14 20	24 04	13 07	37 63
NITRITE	mg/L	4	0 08	0 02	0 05	0 03	0 08
ORTHOPHOSPHATE	mg/L	4	0 08	0 05	0 07	0 02	0 09
PHOSPHORUS	mg/L	5	0 13	0 05	0 08	0 03	0 12
PLUTONIUM-239/240	pCi/L	5	0 09	0 01	0 04	0 04	0 08
POTASSIUM	ug/L	8	6,000 00	4,460 00	5,030 00	531 22	5,582 47
RADIUM-226	pCi/L	3	0 52	0 27	0 41	0 13	0 55
SELENIUM	ug/L	7	14 00	2 60	6 29	4 55	11 02
SILICON	ug/L	15	8,780 00	5 510 00	6,599 33	1 167 94	7,813 99
SODIUM	ug/L	8	41,000 00	30,900 00	36,950 00	3,689 37	40,786 94
STRONTIUM	ug/L	9	380 00	293 00	329 22	31 55	362 03
STRONTIUM-89 90	pCi/L	4	0 54	0 10	0 30	0 19	0 49
SULFATE	mg/L	5	87 50	74 00	80 46	5 79	86 48
TETRACHLOROETHANE	ug/L	1	7 00	7 00	7 00		

Summary Statistics for Surface-Water Data - Detects Only
1991 - 1993

LOCATION SW084

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value
TIN	ug/L	1	60 00	60 00	60 00		
TOTAL DISSOLVED SOLIDS	mg/L	5	452 00	366 00	409 20	38 59	449 33
TOTAL ORGANIC CARBON	mg/L	2	4 00	4 00	4 00	0 00	4 00
TOTAL SUSPENDED SOLIDS	mg/L	8	83 00	6 00	45 88	28 58	75 60
TRITIUM	pCi/L	5	950 10	550 00	736 96	185 50	929 88
UNKNOWN	ug/L	2	8 00	6 00	7 00	1 41	8 47
UNKNOWN HYDROCARBON	ug/L	1	5 00	5 00	5 00		
URANIUM-233,-234	pCi/L	5	2 64	2 00	2 30	0 27	2 57
URANIUM-235	pCi/L	4	0 13	0 00	0 08	0 06	0 14
URANIUM-238	pCi/L	5	1 72	1 20	1 46	0 24	1 71
VANADIUM	ug/L	4	7 60	2 10	4 88	2 34	7 31
ZINC	ug/L	8	155 00	9 50	65 95	50 01	117 96

Summary Statistics for Surface-Water Data - Detects Only
1991 - 1993

LOCATION SW086

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value
ACETONE	ug/L	1	9 00	9 00	9 00		
ALUMINUM	ug/L	9	2,500 00	27 00	562 81	780 84	1,374 89
AMERICIUM-241	pCi/L	7	0 48	0 01	0 11	0 17	0 28
AROCLOR-1254	ug/L	1	1 60	1 60	1 60		
ARSENIC	ug/L	2	4 30	2 30	3 30	1 41	4 77
BARIUM	ug/L	12	130 00	76 70	104 88	18 99	124 64
BICARBONATE AS CACO3	mg/L	8	190 00	98 10	162 89	29 22	193 28
CADMIUM	ug/L	3	2 60	1 20	1 90	0 70	2 63
CALCIUM	ug/L	12	87,000 00	59,700 00	74,316 67	9,493 81	84,190 23
CARBON TETRACHLORIDE	ug/L	1	3 00	3 00	3 00		
CESIUM	ug/L	3	80 00	50 00	66 67	15 28	82 55
CESIUM-137	pCi/L	4	0 26	0 03	0 15	0 10	0 25
CHLORIDE	mg/L	7	39 40	27 00	32 54	4 64	37 37
CHROMIUM	ug/L	3	6 10	2 20	3 63	2 15	5 86
COBALT	ug/L	2	3 30	3 10	3 20	0 14	3 35
COPPER	ug/L	7	15 00	5 40	8 27	3 30	11 70
DISSOLVED ORGANIC CARBON	mg/L	3	4 70	2 00	3 57	1 40	5 02
FLUORIDE	mg/L	7	0 60	0 51	0 57	0 03	0 60
GROSS ALPHA	pCi/L	7	14 00	2 89	6 19	4 31	10 67
GROSS BETA	pCi/L	7	99 35	3 87	20 75	34 88	57 03
IRON	ug/L	11	6,300 00	27 00	1,287 39	1,890 00	3,252 99
LEAD	ug/L	7	10 00	2 70	4 94	2 41	7 45
LITHIUM	ug/L	12	15 30	5 90	11 25	3 12	14 49
MAGNESIUM	ug/L	12	21 300 00	8 500 00	11,756 67	3,310 04	15,199 11
MANGANESE	ug/L	12	170 00	13 30	54 40	44 96	101 16
MERCURY	ug/L	1	1 10	1 10	1 10		
METHYLENE CHLORIDE	ug/L	6	30 00	4 00	11 83	11 07	23 35
NEPTUNIUM-237	pCi/L	1	-0 01	-0 01	-0 01		
NICKEL	ug/L	2	18 90	4 60	11 75	10 11	22 27
NITRATE/NITRITE	mg/L	9	42 20	11 00	18 99	8 97	28 32
NITRITE	mg/L	4	0 05	0 02	0 03	0 01	0 05
ORTHOPHOSPHATE	mg/L	6	0 10	0 06	0 07	0 01	0 08
PHOSPHORUS	mg/L	6	0 24	0 05	0 10	0 07	0 17
PLUTONIUM-239/240	pCi/L	7	0 05	0 01	0 03	0 01	0 04
POTASSIUM	ug/L	12	6,600 00	2 770 00	5,031 67	973 03	6,043 61
RADIUM-226	pCi/L	1	1 10	1 10	1 10		
SELENIUM	ug/L	9	5 40	1 30	2 60	1 45	4 11
SILICON	ug/L	17	7,510 00	4 430 00	5,967 06	860 57	6,862 05
SODIUM	ug/L	12	47,000 00	32,100 00	40,458 33	4,791 37	45,441 35
STRONTIUM	ug/L	12	531 00	266 00	348 17	69 23	420 16
STRONTIUM-89	pCi/L	1	0 18	0 18	0 18		
STRONTIUM-89 90	pCi/L	5	0 57	-0 06	0 24	0 23	0 48
STRONTIUM-90	pCi/L	1	0 12	0 12	0 12		

Summary Statistics for Surface-Water Data - Detects Only
1991 - 1993

LOCATION SW086

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value
SULFATE	mg/L	7	83 60	69 90	76 83	5 56	82 61
TOTAL DISSOLVED SOLIDS	mg/L	7	492 00	350 00	427 14	51 12	480 31
TOTAL ORGANIC CARBON	mg/L	4	4 10	4 00	4 03	0 05	4 08
TOTAL SUSPENDED SOLIDS	mg/L	9	86 00	6 00	25 06	23 65	49 65
TRITIUM	pCi/L	7	4,451 00	770 00	1,422 09	1,343 44	2,819 26
Unknown	ug/L	1	20 00	20 00	20 00		
UNKNOWN HYDROCARBON	ug/L	5	10 00	5 00	7 60	2 07	9 76
URANIUM-233,-234	pCi/L	6	3 01	0 70	2 24	0 86	3 13
URANIUM-234	pCi/L	1	2 80	2 80	2 80		
URANIUM-235	pCi/L	6	0 15	0 02	0 08	0 05	0 14
URANIUM-238	pCi/L	7	3 06	0 51	1 97	0 82	2 83
VANADIUM	ug/L	3	6 60	2 10	4 00	2 33	6 42
ZINC	ug/L	11	430 00	7 10	173 98	150 66	330 67

Summary Statistics for Surface-Water Data - Detects Only
1991 - 1993

LOCATION SW087

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value
ACETONE	ug/L	1	2 00	2 00	2 00		
ALUMINUM	ug/L	9	258 00	103 00	174 56	58 78	235 69
AMERICIUM-241	pCi/L	7	0 34	0 00	0 05	0 13	0 19
ANTIMONY	ug/L	8	188 00	101 00	133 50	30 44	165 16
ARSENIC	ug/L	3	2 00	1 50	1 77	0 25	2 03
BARIUM	ug/L	12	247 00	166 00	203 67	33 19	238 19
BERYLLIUM	ug/L	2	1 50	1 50	1 50	0 00	1 50
BICARBONATE AS CACO3	mg/L	8	320 00	240 00	293 00	26 79	320 86
CADMIUM	ug/L	8	10 70	6 10	8 66	1 74	10 48
CALCIUM	ug/L	12	699,000 00	375,000 00	494,500 00	115,226 65	614,335 72
CARBON DISULFIDE	ug/L	1	1 00	1 00	1 00		
CARBON TETRACHLORIDE	ug/L	1	1 00	1 00	1 00		
CESIUM-137	pCi/L	5	0 53	-0 31	0 17	0 32	0 49
CHLORIDE	mg/L	8	330 00	140 00	213 88	56 47	272 60
CHROMIUM	ug/L	9	46 60	5 90	36 28	13 13	49 93
COBALT	ug/L	5	20 40	7 20	13 50	5 70	19 42
COPPER	ug/L	4	69 90	10 80	33 00	26 94	61 01
CYANIDE	ug/L	2	5 00	2 50	3 75	1 77	5 59
DISSOLVED ORGANIC CARBON	mg/L	5	8 00	5 00	6 60	1 52	8 18
FLUORIDE	mg/L	8	1 90	1 50	1 68	0 18	1 86
GROSS ALPHA	pCi/L	8	437 60	320 00	385 88	42 65	430 23
GROSS BETA	pCi/L	8	750 00	347 30	520 84	142 48	669 01
IRON	ug/L	6	273 00	42 10	132 37	105 64	242 23
LEAD	ug/L	1	3 90	3 90	3 90		
LITHIUM	ug/L	12	1,690 00	1,050 00	1,270 83	202 33	1,481 25
MAGNESIUM	ug/L	12	239 000 00	128,000 00	168,666 67	36,079 04	206,188 87
MANGANESE	ug/L	12	74 50	31 10	47 74	15 23	63 58
MERCURY	ug/L	10	40,591 00	0 47	4,060 35	12,835 56	17,409 33
METHYLENE CHLORIDE	ug/L	1	9 00	9 00	9 00		
MOLYBDENUM	ug/L	4	21 40	19 70	20 45	0 70	21 18
NEPTUNIUM-237	pCi/L	1	-0 15	-0 15	-0 15		
NICKEL	ug/L	9	43 20	16 90	31 03	8 50	39 88
NITRATE/NITRITE	mg/L	8	8,820 00	1,000 00	2 127 50	2,714 57	4 950 66
NITRITE	mg/L	8	1 40	0 22	0 74	0 36	1 11
OIL AND GREASE	mg/L	4	0 80	0 20	0 58	0 26	0 85
ORTHOPHOSPHATE	mg/L	1	0 01	0 01	0 01		
PHOSPHORUS	mg/L	8	0 12	0 01	0 04	0 03	0 07
PLUTONIUM-239/240	pCi/L	7	0 03	0 00	0 02	0 01	0 02
POTASSIUM	ug/L	12	455,000 00	291,000 00	341 416 67	51,873 02	395,364 61
RADIUM-226	pCi/L	5	1 70	1 10	1 35	0 25	1 61
SELENIUM	ug/L	10	6 70	1 90	4 28	2 03	6 39
SILICA	mg/L	6	5 80	4 30	4 93	0 62	5 57
SILICON	ug/L	3	5,250 00	1 500 00	3,890 00	2,076 37	6,049 42

Summary Statistics for Surface-Water Data - Detects Only
1991 - 1993

LOCATION SW087

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value
SILVER	ug/L	5	9 50	2 40	5 40	2 61	8 11
SODIUM	ug/L	12	,640,000 0	,100,000 0	,286,666 6	162,219 45	,455,374 9
STRONTIUM	ug/L	12	6,580 00	3,970 00	5,007 50	909 51	5,953 39
STRONTIUM-89,90	pCi/L	5	2 70	0 40	1 37	1 13	2 54
SULFATE	mg/L	8	350 00	140 00	255 38	75 67	334 07
THALLIUM	ug/L	2	1 00	1 00	1 00	0 00	1 00
TIN	ug/L	6	142 00	20 10	84 55	52 92	139 58
TOTAL DISSOLVED SOLIDS	mg/L	8	13,000 00	7,700 00	9,606 25	1,578 98	11,248 39
TOTAL ORGANIC CARBON	mg/L	5	15 00	5 00	9 20	3 70	13 05
TOTAL SUSPENDED SOLIDS	mg/L	5	28 00	11 00	19 80	7 09	27 17
TRITIUM	pCi/L	8	6,500 00	3,600 00	4 804 63	1,078 50	5,926 27
URANIUM-233,-234	pCi/L	6	330 40	250 00	286 58	32 52	320 41
URANIUM-234	pCi/L	2	420 00	380 00	400 00	28 28	429 42
URANIUM-235	pCi/L	8	17 00	7 25	11 25	3 23	14 60
URANIUM-238	pCi/L	8	260 00	150 00	198 65	39 28	239 50
VANADIUM	ug/L	6	18 70	8 70	12 92	3 30	16 35
ZINC	ug/L	6	77 90	4 90	31 48	24 77	57 25

Summary Statistics for Surface-Water Data - Detects Only
1991 - 1993

LOCATION SW088

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value
ACETONE	ug/L	1	3 00	3 00	3 00		
ALUMINUM	ug/L	11	10,300 00	15 00	1,809 80	3,545 14	5,496 75
AMERICIUM-241	pCi/L	9	0 44	0 01	0 11	0 16	0 28
ANTIMONY	ug/L	9	101 00	55 50	74 97	14 62	90 17
ARSENIC	ug/L	4	2 00	1 00	1 53	0 55	2 10
BARIUM	ug/L	16	240 00	113 00	168 25	37 04	206 77
BERYLLIUM	ug/L	2	3 70	1 10	2 40	1 84	4 31
BICARBONATE AS CACO3	mg/L	11	290 00	0 00	226 09	78 98	308 23
CADMIUM	ug/L	7	9 90	2 30	6 20	2 77	9 08
CALCIUM	ug/L	16	283,000 00	163,000 00	216,125 00	29,314 10	246,611 67
CARBON TETRACHLORIDE	ug/L	5	13 00	2 00	6 00	4 64	10 82
CARBONATE AS CACO3	mg/L	1	1 00	1 00	1 00		
CESIUM	ug/L	1	70 00	70 00	70 00		
CESIUM-137	pCi/L	5	0 45	-0 46	0 02	0 33	0 36
CHLORIDE	mg/L	10	140 00	33 00	97 69	26 56	125 32
CHLOROFORM	ug/L	3	3 00	1 00	2 00	1 00	3 04
CHROMIUM	ug/L	11	39 40	5 80	23 95	9 47	33 80
COBALT	ug/L	6	10 00	3 50	5 95	2 59	8 64
COPPER	ug/L	7	28 20	5 50	15 76	8 05	24 13
CYANIDE	ug/L	6	15 00	3 50	6 42	4 35	10 94
DISSOLVED ORGANIC CARBON	mg/L	6	8 00	5 00	6 33	1 03	7 41
FLUORIDE	mg/L	10	1 30	0 84	1 10	0 15	1 26
GROSS ALPHA	pCi/L	9	200 00	30 00	99 75	51 55	153 35
GROSS BETA	pCi/L	9	370 00	68 13	184 13	89 73	277 45
IRON	ug/L	11	8,600 00	9 00	1,462 33	2,865 60	4,442 55
LEAD	ug/L	2	8 80	7 00	7 90	1 27	9 22
LITHIUM	ug/L	16	479 00	194 00	375 31	79 74	458 24
MAGNESIUM	ug/L	16	76,500 00	38 500 00	58,075 00	10,013 02	68,488 55
MANGANESE	ug/L	16	198 00	9 40	38 15	52 23	92 47
MERCURY	ug/L	10	1 60	0 21	0 50	0 41	0 93
METHYLENE CHLORIDE	ug/L	2	5 00	5 00	5 00	0 00	5 00
MOLYBDENUM	ug/L	4	12 70	8 50	10 18	1 79	12 03
NEPTUNIUM-237	pCi/L	2	0 09	-0 07	0 01	0 11	0 13
NICKEL	ug/L	8	23 80	9 80	17 06	4 82	22 07
NITRATE/NITRITE	mg/L	10	817 00	220 00	441 70	150 00	597 70
NITRITE	mg/L	10	0 40	0 05	0 17	0 10	0 27
OIL AND GREASE	mg/L	6	0 90	0 40	0 68	0 21	0 91
ORTHOPHOSPHATE	mg/L	10	0 06	0 01	0 04	0 02	0 06
PHOSPHORUS	mg/L	9	0 20	0 02	0 09	0 07	0 16
PLUTONIUM-239/240	pCi/L	8	0 59	0 01	0 14	0 21	0 36
POTASSIUM	ug/L	16	118,000 00	41,200 00	87,537 50	22,145 51	110,568 84
RADIUM-226	pCi/L	5	1 80	0 35	0 81	0 58	1 41
SELENIUM	ug/L	15	3 60	1 50	2 46	0 61	3 10

Summary Statistics for Surface-Water Data - Detects Only
1991 - 1993

LOCATION SW088

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value
SILICA	mg/L	8	6 50	4 60	5 83	0 56	6 40
SILICON	ug/L	4	4,710 00	1,890 00	3,482 50	1,283 42	4,817 25
SILVER	ug/L	8	8 20	2 40	4 49	2 06	6 63
SODIUM	ug/L	16	576,000 00	278,000 00	460,562 50	80,487 65	544,269 66
STRONTIUM	ug/L	16	2,290 00	1,150 00	1,737 50	284 43	2,033 31
STRONTIUM-89	pCi/L	1	0 35	0 35	0 35		
STRONTIUM-89,90	pCi/L	5	2 20	-0 06	0 77	0 85	1 65
STRONTIUM-90	pCi/L	1	0 17	0 17	0 17		
SULFATE	mg/L	10	220 00	100 00	155 60	39 92	197 12
THALLIUM	ug/L	2	1 00	1 00	1 00	0 00	1 00
TIN	ug/L	10	66 10	12 60	39 60	18 46	58 80
TOTAL DISSOLVED SOLIDS	mg/L	10	5,300 00	2,000 00	3,535 00	923 78	4,495 73
TOTAL ORGANIC CARBON	mg/L	6	15 00	4 00	7 50	4 04	11 70
TOTAL RADIOCESIUM	pCi/L	1	1 00	1 00	1 00		
TOTAL SUSPENDED SOLIDS	mg/L	9	330 00	4 00	102 11	140 42	248 15
TRICHLOROETHENE	ug/L	5	9 00	2 00	5 00	2 74	7 85
TRITIUM	pCi/L	9	2,355 00	1,100 00	1,725 75	452 56	2,196 41
URANIUM-233 -234	pCi/L	7	159 60	9 08	86 07	46 56	134 49
URANIUM-234	pCi/L	2	120 00	44 00	82 00	53 74	137 89
URANIUM-235	pCi/L	9	4 80	0 51	2 90	1 50	4 46
URANIUM-238	pCi/L	9	99 39	5 11	53 71	28 05	82 89
VANADIUM	ug/L	10	37 70	4 10	14 76	10 42	25 59
ZINC	ug/L	13	129 00	16 30	68 55	37 00	107 03

Summary Statistics for Surface-Water Data - Detects Only
1991 - 1993

LOCATION SW090

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value
2-PENTANONE, 4-HYDROXY-4-	ug/L	1	54 00	54 00	54 00		
ALUMINUM	ug/L	11	4,890 00	58 40	1,356 80	1,653 52	3,076 46
AMERICIUM-241	pCi/L	7	0 68	0 01	0 18	0 23	0 42
ANTIMONY	ug/L	2	67 50	22 60	45 05	31 75	78 07
ARSENIC	ug/L	8	3 30	2 00	2 60	0 60	3 23
BARIUM	ug/L	9	208 00	9 30	63 67	74 69	141 34
BERYLLIUM	ug/L	2	18 50	7 70	13 10	7 64	21 04
BICARBONATE AS CACO3	mg/L	7	430 00	110 00	257 86	118 18	380 76
CADMIUM	ug/L	8	44 10	3 50	13 21	13 93	27 70
CALCIUM	ug/L	12	681,000 00	11,100 00	154,075 00	238,677 38	402,299 48
CARBONATE AS CACO3	mg/L	3	12 00	1 00	5 00	6 08	11 33
CESIUM	ug/L	1	50 00	50 00	50 00		
CESIUM-137	pCi/L	5	0 83	-0 14	0 36	0 39	0 77
CHLORIDE	mg/L	7	510 00	31 00	174 29	177 17	358 54
CHLOROBENZENE	ug/L	1	2 00	2 00	2 00		
CHROMIUM	ug/L	3	19 40	7 00	12 53	6 31	19 09
COBALT	ug/L	4	32 20	3 90	17 63	12 79	30 93
COPPER	ug/L	12	205 00	22 00	122 71	54 26	179 14
CYANIDE	ug/L	6	211 00	0 06	92 18	82 77	178 27
DISSOLVED ORGANIC CARBON	mg/L	4	18 00	14 00	15 50	1 91	17 49
FLUORIDE	mg/L	7	1 10	0 50	0 78	0 23	1 02
GROSS ALPHA	pCi/L	7	880 00	58 22	287 30	281 15	579 70
GROSS BETA	pCi/L	7	2,200 00	79 08	853 24	859 61	1,747 24
IRON	ug/L	12	114,000 00	66 40	17,485 18	38,904 85	57,946 22
LEAD	ug/L	6	7 80	1 00	4 07	2 53	6 70
LITHIUM	ug/L	12	4,090 00	150 00	1,049 67	1,375 64	2,480 33
MAGNESIUM	ug/L	12	154,000 00	2,430 00	35,063 33	56,068 04	93,374 10
MANGANESE	ug/L	12	1,140 00	1 10	204 05	411 14	631 64
MERCURY	ug/L	2	0 25	0 23	0 24	0 01	0 25
METHYLENE CHLORIDE	ug/L	1	3 00	3 00	3 00		
MOLYBDENUM	ug/L	3	12 90	3 60	9 13	4 90	14 22
NEPTUNIUM-237	pCi/L	2	0 10	-0 08	0 01	0 13	0 14
NICKEL	ug/L	8	80 70	3 10	32 30	28 65	62 09
NITRATE/NITRITE	mg/L	7	3,600 00	160 00	1,187 14	1,324 21	2,564 32
NITRITE	mg/L	6	2 00	0 29	1 05	0 66	1 73
OIL AND GREASE	mg/L	5	1 00	0 40	0 62	0 25	0 88
ORTHOPHOSPHATE	mg/L	8	0 14	0 03	0 09	0 04	0 13
PHOSPHORUS	mg/L	7	0 38	0 09	0 17	0 10	0 27
PLUTONIUM-239/240	pCi/L	7	0 19	0 02	0 09	0 07	0 16
POTASSIUM	ug/L	12	,730,000 0	89,000 00	497,500 00	578,044 59	,098,666 3
RADIUM-226	pCi/L	3	1 34	0 10	0 53	0 70	1 26
SELENIUM	ug/L	2	2 00	1 20	1 60	0 57	2 19
SILICA	mg/L	5	3 30	1 30	2 36	0 80	3 19

Summary Statistics for Surface-Water Data - Detects Only
1991 - 1993

LOCATION SW090

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value
SILICON	ug/L	4	5,380 00	781 00	3 182 75	1,906 00	5,164 99
SILVER	ug/L	3	9 20	2 40	6 67	3 72	10 53
SODIUM	ug/L	12	,240,000 0	132,000 00	899,500 00	,122,739 7	,067,149 3
STRONTIUM	ug/L	12	3,680 00	59 70	876 31	1,326 31	2,255 67
STRONTIUM-89	pCi/L	1	0 03	0 03	0 03		
STRONTIUM-89,90	pCi/L	4	2 15	0 45	1 07	0 75	1 85
STRONTIUM-90	pCi/L	1	0 22	0 22	0 22		
SULFATE	mg/L	7	480 00	21 00	183 29	159 58	349 24
THALLIUM	ug/L	1	1 00	1 00	1 00		
TIN	ug/L	4	25 20	11 00	18 85	5 99	25 08
TOLUENE	ug/L	1	1 00	1 00	1 00		
TOTAL DISSOLVED SOLIDS	mg/L	7	24,000 00	1 200 00	8,272 86	8,754 63	17,377 67
TOTAL ORGANIC CARBON	mg/L	4	18 00	14 00	16 00	2 31	18 40
TOTAL SUSPENDED SOLIDS	mg/L	7	290 00	5 00	51 00	105 81	161 04
TRITIUM	pCi/L	7	10,000 00	0 93	2,342 99	3,592 18	6,078 86
URANIUM-233,-234	pCi/L	5	583 00	44 55	217 23	219 93	445 96
URANIUM-234	pCi/L	2	780 00	190 00	485 00	417 19	918 88
URANIUM-235	pCi/L	7	22 00	1 01	8 89	7 90	17 11
URANIUM-238	pCi/L	7	330 00	17 38	124 79	119 62	249 20
VANADIUM	ug/L	7	26 00	3 70	10 01	7 57	17 88
ZINC	ug/L	11	385 00	32 40	148 81	118 86	272 43

Summary Statistics for Surface-Water Data - Detects Only
1991 - 1993

LOCATION SW092

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value
ALUMINUM	ug/L	12	6 360 00	19 20	618 39	1,810 47	2,501 28
AMERICIUM-241	pCi/L	5	0 01	0 00	0 00	0 00	0 01
ANTIMONY	ug/L	3	18 30	15 30	17 07	1 57	18 70
BARIUM	ug/L	20	140 00	90 60	113 12	14 73	128 44
BERYLLIUM	ug/L	1	0 90	0 90	0 90		
BICARBONATE AS CACO3	mg/L	10	324 00	168 00	251 70	51 15	304 90
CADMIUM	ug/L	1	1 50	1 50	1 50		
CALCIUM	ug/L	20	100,000 00	25,800 00	77,040 00	17,680 21	95,427 42
CESIUM	ug/L	5	130 00	50 00	72 00	34 93	108 33
CESIUM-137	pCi/L	5	0 28	-0 69	-0 03	0 38	0 37
CHLORIDE	mg/L	10	80 60	40 10	59 20	12 88	72 59
CHROMIUM	ug/L	1	5 50	5 50	5 50		
COBALT	ug/L	1	5 50	5 50	5 50		
COPPER	ug/L	7	15 80	3 00	8 41	5 09	13 71
DISSOLVED ORGANIC CARBON	mg/L	8	9 10	3 00	4 76	1 94	6 78
FLUORIDE	mg/L	10	0 58	0 36	0 50	0 07	0 57
GROSS ALPHA	pCi/L	9	8 50	0 69	4 75	2 98	7 85
GROSS BETA	pCi/L	9	11 00	3 72	7 07	2 47	9 65
IRON	ug/L	17	6 970 00	15 90	527 23	1 663 96	2 257 75
LEAD	ug/L	13	13 00	1 20	3 35	3 39	6 88
LITHIUM	ug/L	20	30 00	10 00	15 90	5 19	21 29
MAGNESIUM	ug/L	20	24,000 00	6,500 00	18 645 00	4,682 05	23,514 33
MANGANESE	ug/L	20	208 00	9 30	64 18	60 81	127 42
MERCURY	ug/L	3	0 89	0 20	0 45	0 38	0 85
METHYLENE CHLORIDE	ug/L	1	14 00	14 00	14 00		
MOLYBDENUM	ug/L	2	15 90	3 40	9 65	8 84	18 84
NEPTUNIUM-237	pCi/L	1	0 05	0 05	0 05		
NICKEL	ug/L	2	23 00	16 90	19 95	4 31	24 44
NITRATE/NITRITE	mg/L	10	8 70	3 80	5 74	1 75	7 56
ORTHOPHOSPHATE	mg/L	2	0 08	0 08	0 08	0 00	0 08
PLUTONIUM-239/240	pCi/L	6	0 01	0 00	0 01	0 00	0 01
POTASSIUM	ug/L	20	4,750 00	1,290 00	3,296 50	679 47	4,003 15
RADIUM-226	pCi/L	3	0 23	0 01	0 12	0 11	0 23
SELENIUM	ug/L	12	6 90	1 30	2 97	1 62	4 65
SILICON	ug/L	25	13,900 00	4,040 00	5,360 80	1,923 16	7,360 88
SILVER	ug/L	2	3 50	3 50	3 50	0 00	3 50
SODIUM	ug/L	20	57,700 00	25,100 00	44,930 00	7,632 00	52,867 28
STRONTIUM	ug/L	20	640 00	156 00	480 05	120 02	604 87
STRONTIUM-89,90	pCi/L	6	0 74	0 45	0 57	0 13	0 70
STRONTIUM-90	pCi/L	1	0 52	0 52	0 52		
SULFATE	mg/L	10	58 90	31 40	45 41	8 56	54 32
TIN	ug/L	1	24 90	24 90	24 90		
TOTAL DISSOLVED SOLIDS	mg/L	10	566 00	334 00	454 80	85 50	543 72

Summary Statistics for Surface-Water Data - Detects Only
1991 - 1993

LOCATION SW092

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value
TOTAL ORGANIC CARBON	mg/L	9	7 00	3 00	5 04	1 14	6 23
TOTAL SUSPENDED SOLIDS	mg/L	5	13 00	7 00	9 80	2 39	12 28
TRICHLOROETHENE	ug/L	2	2 00	1 00	1 50	0 71	2 24
TRITIUM	pCi/L	5	400 00	-31 00	113 83	177 79	298 73
UNKNOWN	ug/L	1	10 00	10 00	10 00		
UNKNOWN HYDROCARBON C9	ug/L	1	6 00	6 00	6 00		
URANIUM-233 -234	pCi/L	7	4 57	2 51	3 29	0 72	4 04
URANIUM-234	pCi/L	2	4 40	2 60	3 50	1 27	4 82
URANIUM-235	pCi/L	7	0 33	0 03	0 14	0 10	0 24
URANIUM-238	pCi/L	9	5 80	3 40	4 57	0 85	5 45
VANADIUM	ug/L	4	15 50	2 00	5 63	6 60	12 48
ZINC	ug/L	12	73 10	5 10	18 58	19 47	38 83

Summary Statistics for Surface-Water Data - Detects Only
1991 - 1993

LOCATION SW093

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value
1,1-DICHLOROETHANE	ug/L	1	2 00	2 00	2 00		
ACETONE	ug/L	1	7 00	7 00	7 00		
ALKALINITY AS CACO3	mg/L	5	115 00	36 00	77 80	30 29	109 30
ALUMINUM	ug/L	16	110,000 00	17 00	18 104 83	31,326 23	50,684 11
AMERICIUM-241	pCi/L	7	0 01	0 00	0 00	0 00	0 01
ANTIMONY	ug/L	2	39 30	16 00	27 65	16 48	44 78
ARSENIC	ug/L	2	5 70	3 00	4 35	1 91	6 34
BARIUM	ug/L	25	1,000 00	83 00	188 10	194 35	390 22
BERYLLIUM	ug/L	5	6 80	1 10	3 44	2 09	5 61
BICARBONATE AS CACO3	mg/L	15	292 00	36 00	166 13	92 87	262 72
CADMIUM	ug/L	6	5 00	1 10	3 32	1 79	5 18
CALCIUM	ug/L	25	95,000 00	24,000 00	64,384 00	21,787 87	87,043 39
CESIUM	ug/L	8	60 00	50 00	53 75	5 18	59 13
CESIUM-137	pCi/L	8	1 60	-0 54	0 17	0 65	0 85
CHLORIDE	mg/L	15	71 00	12 00	38 77	18 34	57 85
CHROMIUM	ug/L	7	99 00	7 60	46 14	29 00	76 30
COBALT	ug/L	7	53 00	4 90	20 60	15 83	37 07
COPPER	ug/L	11	120 00	3 10	33 59	37 74	72 84
DISSOLVED ORGANIC CARBON	mg/L	8	7 60	2 00	4 81	2 29	7 19
FLUORIDE	mg/L	10	0 59	0 06	0 41	0 17	0 59
GROSS ALPHA	pCi/L	17	74 97	0 88	9 41	17 26	27 36
GROSS BETA	pCi/L	20	96 97	4 00	18 19	25 91	45 14
IRON	ug/L	24	110,000 00	7 20	11,979 42	26,065 69	39,087 74
LEAD	ug/L	17	89 00	1 30	27 75	33 95	63 06
LITHIUM	ug/L	25	70 00	3 70	15 16	13 35	29 05
MAGNESIUM	ug/L	25	31,000 00	6 900 00	15,696 00	5,256 23	21,162 48
MANGANESE	ug/L	25	2,100 00	76 70	511 86	384 89	912 14
MERCURY	ug/L	3	0 54	0 21	0 34	0 18	0 52
METHYLENE CHLORIDE	ug/L	2	38 00	19 00	28 50	13 44	42 47
NAPHTHALENE	ug/L	1	1 00	1 00	1 00		
NEPTUNIUM-237	pCi/L	3	0 34	0 01	0 13	0 18	0 32
NICKEL	ug/L	7	100 00	6 10	36 30	33 09	70 71
NITRATE/NITRITE	mg/L	15	4 30	0 40	1 73	0 95	2 72
NITRITE	mg/L	6	0 09	0 03	0 05	0 02	0 08
OIL AND GREASE	mg/L	1	7 20	7 20	7 20		
ORTHOPHOSPHATE	mg/L	4	0 04	0 02	0 04	0 01	0 05
PLUTONIUM-239/240	pCi/L	5	0 01	0 00	0 00	0 00	0 01
POTASSIUM	ug/L	26	18,000 00	1,710 00	4,423 08	3,483 86	8,046 29
RADIUM-226	pCi/L	3	0 36	0 14	0 22	0 13	0 35
SELENIUM	ug/L	5	5 00	1 10	1 98	1 70	3 75
SILICA	mg/L	1	1 70	1 70	1 70		
SILICON	ug/L	26	9,070 00	3 00	5 746 27	1,784 79	7 602 45
SILVER	ug/L	3	3 30	3 20	3 23	0 06	3 29

Summary Statistics for Surface-Water Data - Detects Only
1991 - 1993

LOCATION SW093

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value
SODIUM	ug/L	25	46,000 00	9,100 00	30,972 00	11,371 69	42,798 56
STRONTIUM	ug/L	25	550 00	140 00	376 76	128 22	510 10
STRONTIUM-89,90	pCi/L	6	1 36	0 58	0 86	0 30	1 17
SULFATE	mg/L	15	57 20	8 00	31 59	12 65	44 75
TETRACHLOROETHENE	ug/L	1	6 00	6 00	6 00		
THALLIUM	ug/L	1	1 00	1 00	1 00		
TIN	ug/L	2	36 20	20 00	28 10	11 46	40 01
TOTAL DISSOLVED SOLIDS	mg/L	15	458 00	100 00	292 27	131 12	428 63
TOTAL ORGANIC CARBON	mg/L	8	5 30	3 00	4 21	0 91	5 16
TOTAL SUSPENDED SOLIDS	mg/L	13	1,900 00	6 00	287 08	583 27	893 68
TRITIUM	pCi/L	21	1,424 00	-81 30	131 90	315 64	460 17
URANIUM-233,-234	pCi/L	8	2 65	0 00	1 76	0 89	2 68
URANIUM-234	pCi/L	3	3 00	1 10	2 07	0 95	3 06
URANIUM-235	pCi/L	6	0 11	0 00	0 06	0 04	0 10
URANIUM-238	pCi/L	11	5 70	0 00	3 46	1 76	5 30
VANADIUM	ug/L	10	250 00	2 00	66 54	80 94	150 71
ZINC	ug/L	21	750 00	6 60	147 88	209 29	365 54

Summary Statistics for Surface-Water Data - Detects Only
1991 - 1993

LOCATION SW094

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value
ACETONE	ug/L	1	8 00	8 00	8 00		
ALUMINUM	ug/L	15	332 00	69 70	136 91	73 65	213 50
AMERICIUM-241	pCi/L	5	0 01	0 00	0 01	0 00	0 01
ANTIMONY	ug/L	14	99 10	10 30	57 26	27 79	86 16
BARIUM	ug/L	18	227 00	146 00	199 72	23 10	223 74
BERYLLIUM	ug/L	2	3 40	2 50	2 95	0 64	3 61
BICARBONATE AS CACO3	mg/L	10	360 00	280 00	319 00	32 47	352 77
CADMIUM	ug/L	6	4 70	1 90	3 62	1 05	4 71
CALCIUM	ug/L	18	328,000 00	181,000 00	230,555 56	43,095 27	275,374 64
CARBONATE AS CACO3	mg/L	4	6 00	0 00	1 75	2 87	4 74
CESIUM	ug/L	2	130 00	110 00	120 00	14 14	134 71
CESIUM-137	pCi/L	7	0 66	-0 46	0 15	0 34	0 51
CHLORIDE	mg/L	10	97 00	60 00	74 50	13 34	88 38
CHROMIUM	ug/L	16	26 60	9 00	18 92	4 55	23 65
COBALT	ug/L	8	8 50	3 40	5 84	2 08	8 00
COPPER	ug/L	5	13 00	4 40	7 70	3 36	11 19
DI-n-BUTYL PHTHALATE	ug/L	1	3 00	3 00	3 00		
DISSOLVED ORGANIC CARBON	mg/L	8	4 00	2 00	3 50	0 76	4 29
FLUORIDE	mg/L	10	0 70	0 50	0 58	0 06	0 65
GROSS ALPHA	pCi/L	9	68 07	7 87	28 65	17 40	46 75
GROSS BETA	pCi/L	10	209 50	26 02	63 90	52 68	118 68
IRON	ug/L	15	483 00	22 90	131 08	134 36	270 81
LITHIUM	ug/L	18	360 00	174 00	261 33	59 94	323 67
MAGNESIUM	ug/L	18	86,800 00	52,500 00	67,394 44	12,401 92	80,292 44
MANGANESE	ug/L	11	8 50	1 00	3 56	2 41	6 07
MERCURY	ug/L	1	0 26	0 26	0 26		
MOLYBDENUM	ug/L	9	22 20	4 70	9 73	5 12	15 06
NEPTUNIUM-237	pCi/L	2	0 31	0 13	0 22	0 13	0 35
NICKEL	ug/L	9	16 00	4 40	8 59	3 80	12 54
NITRATE/NITRITE	mg/L	10	390 00	210 00	293 00	70 88	366 71
NITRITE	mg/L	4	0 09	0 03	0 05	0 03	0 08
OIL AND GREASE	mg/L	9	1 30	0 30	0 63	0 33	0 97
ORTHOPHOSPHATE	mg/L	13	0 04	0 01	0 02	0 01	0 03
PHOSPHORUS	mg/L	11	0 08	0 03	0 04	0 02	0 06
PLUTONIUM-239/240	pCi/L	6	0 03	0 00	0 01	0 01	0 02
POTASSIUM	ug/L	18	57,500 00	27,400 00	37,661 11	9,037 90	47,060 53
RADIUM-226	pCi/L	5	0 64	0 29	0 39	0 14	0 54
SELENIUM	ug/L	16	12 00	2 00	3 10	2 45	5 65
SILICA	mg/L	10	8 50	7 20	7 88	0 41	8 30
SILVER	ug/L	6	5 70	2 10	3 88	1 38	5 31
SODIUM	ug/L	18	422,000 00	239,000 00	317,944 44	61,615 96	382,025 04
STRONTIUM	ug/L	18	2,600 00	1 530 00	1,922 22	368 63	2 305 60
STRONTIUM-89,90	pCi/L	5	1 91	0 45	1 08	0 64	1 75

Summary Statistics for Surface-Water Data - Detects Only
1991 - 1993

LOCATION SW094

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value
SULFATE	mg/L	10	140 00	65 00	103 30	21 65	125 82
SULFIDE	mg/L	2	1 00	1 00	1 00	0 00	1 00
TIN	ug/L	9	64 90	23 10	46 61	13 10	60 23
TOTAL DISSOLVED SOLIDS	mg/L	10	3 400 00	1,800 00	2 540 00	483 51	3,042 85
TOTAL ORGANIC CARBON	mg/L	8	5 00	2 00	3 75	1 16	4 96
TOTAL SUSPENDED SOLIDS	mg/L	8	21 00	5 00	10 38	5 60	16 20
TRICHLOROETHENE	ug/L	1	1 00	1 00	1 00		
TRITIUM	pCi/L	9	1,589 00	900 00	1,243 04	229 21	1,481 42
URANIUM-233,-234	pCi/L	8	39 25	0 05	21 99	12 55	35 05
URANIUM-234	pCi/L	2	28 00	28 00	28 00	0 00	28 00
URANIUM-235	pCi/L	10	1 60	0 03	0 78	0 42	1 21
URANIUM-238	pCi/L	9	22 50	4 57	15 54	4 97	20 71
VANADIUM	ug/L	16	12 80	4 20	8 12	2 30	10 51
ZINC	ug/L	8	41 00	10 20	22 18	12 48	35 15

Summary Statistics for Surface-Water Data - Detects Only
1991 - 1993

LOCATION SW095

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value
ALKALINITY AS CACO3	mg/L	1	290 00	290 00	290 00		
ALUMINUM	ug/L	21	1,360 00	12 00	197 80	273 87	482 63
AMERICIUM-241	pCi/L	8	0 18	0 00	0 03	0 06	0 10
ANTIMONY	ug/L	13	94 70	28 00	66 52	22 98	90 42
ARSENIC	ug/L	3	2 00	1 10	1 70	0 52	2 24
BARIUM	ug/L	23	217 00	65 00	155 91	30 78	187 92
BERYLLIUM	ug/L	3	4 00	1 00	2 00	1 73	3 80
BICARBONATE AS CACO3	mg/L	14	338 00	150 00	280 29	44 79	326 87
BROMOCHLOROMETHANE	ug/L	1	6 50	6 50	6 50		
CADMIUM	ug/L	6	7 50	1 90	4 98	2 41	7 49
CALCIUM	ug/L	23	392,000 00	122,000 00	290,043 48	66,037 51	358,722 49
CARBON TETRACHLORIDE	ug/L	4	3 00	1 00	1 58	0 95	2 57
CARBONATE AS CACO3	mg/L	3	1 00	0 00	0 33	0 58	0 93
CESIUM	ug/L	3	150 00	50 00	96 67	50 33	149 01
CESIUM-137	pCi/L	8	0 92	-0 63	0 14	0 45	0 60
CHLORIDE	mg/L	13	160 00	72 00	112 92	19 70	133 42
CHLOROFORM	ug/L	8	2 40	1 00	1 71	0 61	2 34
CHROMIUM	ug/L	16	32 50	3 50	20 47	9 35	30 20
cis-1,2-DICHLOROETHENE	ug/L	1	0 32	0 32	0 32		
COBALT	ug/L	10	6 90	2 30	4 32	1 66	6 05
COPPER	ug/L	5	21 00	2 90	9 60	7 55	17 45
CYANIDE	ug/L	1	62 50	62 50	62 50		
DI-n-BUTYL PHTHALATE	ug/L	1	4 00	4 00	4 00		
DIETHYL PHTHALATE	ug/L	1	4 00	4 00	4 00		
DISSOLVED ORGANIC CARBON	mg/L	8	9 00	3 00	5 38	2 33	7 79
ENDOSULFAN I	ug/L	1	5 60	5 60	5 60		
FLUORIDE	mg/L	14	1 20	0 80	1 08	0 13	1 21
GROSS ALPHA	pCi/L	12	113 50	11 00	58 92	28 65	88 72
GROSS BETA	pCi/L	12	160 00	11 00	85 78	39 73	127 10
IRON	ug/L	17	1,550 00	10 50	237 09	394 15	647 00
LEAD	ug/L	5	8 70	1 10	3 52	2 97	6 61
LITHIUM	ug/L	23	410 00	170 00	333 87	65 04	401 51
MAGNESIUM	ug/L	23	107,000 00	30,200 00	78,208 70	18,522 54	97,472 14
MANGANESE	ug/L	21	25 80	2 90	7 77	4 56	12 51
MERCURY	ug/L	5	0 63	0 10	0 31	0 22	0 54
METHYLENE CHLORIDE	ug/L	3	7 80	1 00	3 93	3 49	7 57
MOLYBDENUM	ug/L	8	13 30	4 10	8 50	3 08	11 70
NEPTUNIUM-237	pCi/L	3	0 33	0 00	0 22	0 19	0 41
NICKEL	ug/L	11	17 00	4 60	8 86	4 23	13 26
NITRATE/NITRITE	mg/L	15	620 00	47 60	395 04	137 34	537 87
NITRITE	mg/L	11	0 12	0 02	0 06	0 04	0 10
OIL AND GREASE	mg/L	8	1 60	0 30	0 83	0 44	1 28
ORTHOPHOSPHATE	mg/L	12	0 11	0 01	0 03	0 04	0 07

Summary Statistics for Surface-Water Data - Detects Only
1991 - 1993

LOCATION SW095

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value
PENTACHLOROPHENOL	ug/L	1	20 00	20 00	20 00		
pH	pH	1	7 60	7 60	7 60		
PHOSPHORUS	mg/L	11	0 16	0 02	0 04	0 04	0 09
PLUTONIUM-239/240	pCi/L	7	0 06	0 01	0 02	0 02	0 04
POTASSIUM	ug/L	23	77,000 00	23,600 00	57,052 17	14,023 87	71,637 00
RADIUM-226	pCi/L	5	0 73	0 39	0 49	0 14	0 63
SELENIUM	ug/L	23	9 40	1 80	6 55	2 30	8 94
SILICA	mg/L	12	7 20	4 50	6 61	0 72	7 35
SILICON	ug/L	7	7 740 00	5 720 00	6 455 71	886 17	7 377 33
SILVER	ug/L	4	7 60	2 30	4 78	2 23	7 09
SODIUM	ug/L	23	477,000 00	202,000 00	400,695 65	74,051 85	477,709 57
SPECIFIC CONDUCTIVITY	MHOS/C	1	3,880 00	3,880 00	3 880 00		
STRONTIUM	ug/L	23	3,440 00	965 00	2,378 48	574 28	2,975 73
STRONTIUM-89,90	pCi/L	6	1 50	0 30	0 85	0 45	1 32
SULFATE	mg/L	14	270 00	120 00	173 36	49 53	224 86
SULFIDE	mg/L	4	3 00	2 00	2 50	0 58	3 10
TIN	ug/L	6	76 40	19 60	43 28	23 28	67 49
TOLUENE	ug/L	1	0 49	0 49	0 49		
TOTAL DISSOLVED SOLIDS	mg/L	15	4,400 00	1,500 00	3,488 67	745 45	4,263 94
TOTAL ORGANIC CARBON	mg/L	9	9 00	3 00	6 08	1 99	8 15
TOTAL SUSPENDED SOLIDS	mg/L	9	48 00	6 00	16 78	13 90	31 23
TRICHLOROETHENE	ug/L	11	7 00	1 00	3 26	1 47	4 80
TRITIUM	pCi/L	10	3,659 90	630 00	1,619 19	830 03	2,482 42
URANIUM-233,-234	pCi/L	8	76 34	6 19	54 52	22 32	77 74
URANIUM-234	pCi/L	2	64 00	2 10	33 05	43 77	78 57
URANIUM-235	pCi/L	9	2 85	0 35	2 08	0 75	2 86
URANIUM-238	pCi/L	10	46 45	1 10	31 15	16 55	48 36
VANADIUM	ug/L	13	14 70	2 00	8 64	4 27	13 07
ZINC	ug/L	15	71 30	9 80	32 94	16 51	50 11

Summary Statistics for Surface-Water Data - Detects Only
1991 - 1993

LOCATION SW101

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value
ACETONE	ug/L	2	14 00	12 00	13 00	1 41	14 47
ALUMINUM	ug/L	9	1,000 00	30 00	335 22	306 85	654 35
AMERICIUM-241	pCi/L	7	0 35	0 00	0 06	0 13	0 20
BARIUM	ug/L	12	54 00	23 70	36 69	8 31	45 34
BICARBONATE AS CACO3	mg/L	8	43 80	28 30	34 56	6 24	41 05
BIS(2-ETHYLHEXYL)PHTHALAT	ug/L	1	1 00	1 00	1 00		
BROMODICHLOROMETHANE	ug/L	1	4 00	4 00	4 00		
CADMIUM	ug/L	1	1 60	1 60	1 60		
CALCIUM	ug/L	12	20,000 00	11,300 00	14,691 67	3,103 21	17,919 01
CESIUM	ug/L	1	50 00	50 00	50 00		
CESIUM-137	pCi/L	6	0 88	-0 30	0 31	0 38	0 70
CHLORIDE	mg/L	3	8 00	7 20	7 60	0 40	8 02
CHLOROFORM	ug/L	9	41 00	17 00	27 67	10 49	38 57
CHROMIUM	ug/L	1	2 90	2 90	2 90		
COPPER	ug/L	6	15 50	2 40	7 23	5 00	12 43
DISSOLVED ORGANIC CARBON	mg/L	4	6 20	2 00	4 13	1 96	6 16
FLUORIDE	mg/L	7	0 29	0 13	0 20	0 05	0 26
GROSS ALPHA	pCi/L	6	2 00	0 15	0 68	0 70	1 41
GROSS BETA	pCi/L	8	170 10	1 30	23 73	59 17	85 26
IRON	ug/L	12	1,000 00	23 20	335 77	313 85	662 17
LEAD	ug/L	6	4 90	1 00	3 13	1 43	4 62
LITHIUM	ug/L	4	4 30	2 60	3 45	0 93	4 41
MAGNESIUM	ug/L	12	2 790 00	1,490 00	1,998 33	475 24	2,492 58
MANGANESE	ug/L	12	120 00	3 20	28 73	31 23	61 20
METHYLENE CHLORIDE	ug/L	5	21 00	3 00	10 00	7 38	17 68
NEPTUNIUM-237	pCi/L	2	0 10	-0 01	0 04	0 08	0 12
NITRATE/NITRITE	mg/L	2	3 20	3 20	3 20	0 00	3 20
NITRITE	mg/L	1	0 02	0 02	0 02		
ORTHOPHOSPHATE	mg/L	2	0 06	0 06	0 06	0 00	0 06
PHOSPHORUS	mg/L	3	0 09	0 07	0 07	0 01	0 09
PLUTONIUM-239/240	pCi/L	6	0 03	0 00	0 01	0 01	0 02
POTASSIUM	ug/L	8	1,560 00	740 00	1 109 75	300 31	1,422 08
SILICON	ug/L	14	8,130 00	2,190 00	3,595 71	1,503 17	5,159 01
SODIUM	ug/L	12	12,600 00	3,320 00	5 705 83	3,207 73	9,041 87
STRONTIUM	ug/L	12	95 80	48 60	67 82	17 10	85 61
STRONTIUM-89	pCi/L	1	-0 41	-0 41	-0 41		
STRONTIUM-89,90	pCi/L	6	0 48	-0 28	0 30	0 29	0 60
STRONTIUM-90	pCi/L	1	0 22	0 22	0 22		
SULFATE	mg/L	7	37 00	16 80	22 76	7 56	30 62
THALLIUM	ug/L	1	1 40	1 40	1 40		
TOTAL DISSOLVED SOLIDS	mg/L	7	118 00	26 00	81 43	30 48	113 13
TOTAL ORGANIC CARBON	mg/L	4	3 00	1 70	2 15	0 58	2 75
TOTAL SUSPENDED SOLIDS	mg/L	9	118 00	6 00	44 56	45 32	91 69

Summary Statistics for Surface-Water Data - Detects Only
1991 - 1993

LOCATION SW101

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value
TRITIUM	pCi/L	6	284 30	-77 93	92 88	123 72	221 54
UNKNOWN HYDROCARBON	ug/L	5	40 00	6 00	21 20	14 04	35 80
UNKNOWN HYDROCARBON]	ug/L	1	7 00	7 00	7 00		
URANIUM-233 -234	pCi/L	7	0 49	0 01	0 21	0 18	0 40
URANIUM-234	pCi/L	1	0 15	0 15	0 15		
URANIUM-235	pCi/L	7	0 13	-0 01	0 06	0 06	0 12
URANIUM-238	pCi/L	7	0 22	0 04	0 14	0 06	0 21
VANADIUM	ug/L	1	3 90	3 90	3 90		
ZINC	ug/L	8	29 00	4 30	13 99	9 17	23 52

Summary Statistics for Surface-Water Data - Detects Only
1991 - 1993

LOCATION SW117

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value
ALUMINUM	ug/L	3	7,390 00	170 00	2,807 00	3,984 00	6,950 36
AMERICIUM-241	pCi/L	1	0 00	0 00	0 00		
ANTIMONY	ug/L	1	16 40	16 40	16 40		
ARSENIC	ug/L	1	2 10	2 10	2 10		
BARIUM	ug/L	4	180 00	52 80	128 45	61 87	192 79
BERYLLIUM	ug/L	1	1 00	1 00	1 00		
BICARBONATE AS CACO3	mg/L	2	279 00	45 80	162 40	164 90	333 89
CALCIUM	ug/L	4	80,000 00	21,200 00	49,450 00	32,126 99	82,862 07
CESIUM-137	pCi/L	1	0 00	0 00	0 00		
CHLORIDE	mg/L	2	84 10	52 70	68 40	22 20	91 49
CHROMIUM	ug/L	3	11 00	5 50	7 97	2 79	10 87
COBALT	ug/L	1	8 50	8 50	8 50		
COPPER	ug/L	3	11 80	8 40	10 03	1 70	11 81
DISSOLVED ORGANIC CARBON	mg/L	3	5 40	5 00	5 20	0 20	5 41
FLUORIDE	mg/L	2	0 51	0 24	0 38	0 19	0 57
GROSS ALPHA	pCi/L	2	1 80	0 07	0 93	1 22	2 21
GROSS BETA	pCi/L	2	5 70	1 10	3 40	3 25	6 78
IRON	ug/L	4	6,040 00	128 00	3 714 50	2 584 06	6,401 92
LEAD	ug/L	3	7 80	4 00	5 43	2 06	7 58
LITHIUM	ug/L	3	5 00	4 70	4 87	0 15	5 03
MAGNESIUM	ug/L	4	18,400 00	5,180 00	11,777 50	7,145 28	19,208 60
MANGANESE	ug/L	4	1,460 00	50 10	717 78	736 10	1,483 32
MOLYBDENUM	ug/L	1	9 20	9 20	9 20		
NEPTUNIUM-237	pCi/L	1	-0 05	-0 05	-0 05		
NITRATE/NITRITE	mg/L	2	0 69	0 61	0 65	0 06	0 71
OIL AND GREASE	mg/L	1	7 60	7 60	7 60		
ORTHOPHOSPHATE	mg/L	1	0 10	0 10	0 10		
PHOSPHORUS	mg/L	1	0 14	0 14	0 14		
PLUTONIUM-236	pCi/L	1	0 00	0 00	0 00		
PLUTONIUM-238	pCi/L	1	0 00	0 00	0 00		
PLUTONIUM-239/240	pCi/L	1	0 00	0 00	0 00		
POTASSIUM	ug/L	3	3 650 00	2 370 00	3,003 33	640 10	3,669 04
SILICON	ug/L	4	19,400 00	3,100 00	8,810 00	7,266 11	16,366 76
SILVER	ug/L	2	5 10	3 30	4 20	1 27	5 52
SODIUM	ug/L	4	52,900 00	43,200 00	47,700 00	4,257 54	52,127 84
STRONTIUM	ug/L	4	460 00	142 00	295 50	173 09	475 52
STRONTIUM-89,90	pCi/L	1	6 17	6 17	6 17		
STRONTIUM-90	pCi/L	1	0 72	0 72	0 72		
SULFATE	mg/L	1	30 60	30 60	30 60		
TIN	ug/L	2	30 60	26 60	28 60	2 83	31 54
TOTAL DISSOLVED SOLIDS	mg/L	2	400 00	194 00	297 00	145 66	448 49
TOTAL ORGANIC CARBON	mg/L	2	7 00	4 70	5 85	1 63	7 54
TOTAL SUSPENDED SOLIDS	mg/L	2	129 00	43 00	86 00	60 81	149 24

2059218

Summary Statistics for Surface-Water Data - Detects Only
1991 - 1993

LOCATION SW117

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value
TRITIUM	pCi/L	1	295 00	295 00	295 00		
URANIUM-233 -234	pCi/L	1	0 39	0 39	0 39		
URANIUM-234	pCi/L	1	1 10	1 10	1 10		
URANIUM-235	pCi/L	1	0 07	0 07	0 07		
URANIUM-238	pCi/L	2	0 92	0 27	0 59	0 46	1 07
VANADIUM	ug/L	2	12 60	7 90	10 25	3 32	13 71
ZINC	ug/L	4	67 60	11 80	34 08	23 75	58 78

Summary Statistics for Surface-Water Data - Detects Only
1991 - 1993

LOCATION SW118

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value
ALKALINITY AS CACO3	mg/L	3	85 00	57 00	70 67	14 01	85 24
ALUMINUM	ug/L	13	120,000 00	21 90	22,061 00	38,486 42	62,086 88
AMERICIUM-241	pCi/L	5	2 70	0 00	0 54	1 21	1 80
ANTIMONY	ug/L	2	92 60	55 40	74 00	26 30	101 36
ARSENIC	ug/L	4	5 80	3 00	4 55	1 18	5 78
BARIUM	ug/L	18	1,980 00	65 20	288 58	462 82	769 91
BERYLLIUM	ug/L	5	10 80	0 60	4 18	4 03	8 37
BICARBONATE AS CACO3	mg/L	14	239 00	57 00	141 47	68 05	212 24
CADMIUM	ug/L	2	9 80	4 90	7 35	3 46	10 95
CALCIUM	ug/L	18	125,000 00	25,000 00	56,238 89	24,748 74	81,977 58
CESIUM	ug/L	3	60 00	50 00	53 33	5 77	59 34
CESIUM-137	pCi/L	5	0 25	-0 20	0 04	0 19	0 24
CHLORIDE	mg/L	14	123 00	17 00	44 79	31 72	77 77
CHROMIUM	ug/L	6	130 00	5 50	49 67	47 90	99 49
COBALT	ug/L	4	87 10	11 00	38 60	33 43	73 36
COPPER	ug/L	9	192 00	3 40	43 83	61 89	108 20
DISSOLVED ORGANIC CARBON	mg/L	4	6 00	4 90	5 28	0 50	5 79
FLUORIDE	mg/L	11	0 53	0 28	0 40	0 08	0 48
GROSS ALPHA	pCi/L	20	79 00	-0 06	8 71	18 36	27 81
GROSS BETA	pCi/L	24	110 00	1 79	10 68	22 12	33 69
IRON	ug/L	18	156,000 00	13 00	18,000 54	40,788 09	60,420 16
LEAD	ug/L	9	103 00	1 70	26 36	34 74	62 48
LITHIUM	ug/L	17	119 00	4 00	24 36	31 38	57 00
MAGNESIUM	ug/L	18	50,000 00	6,990 00	16,602 78	9,696 98	26,687 64
MANGANESE	ug/L	18	3,640 00	5 40	398 97	889 82	1,324 38
MOLYBDENUM	ug/L	1	15 80	15 80	15 80		
NEPTUNIUM-237	pCi/L	2	-0 05	-0 26	-0 16	0 15	0 00
NICKEL	ug/L	5	183 00	6 50	68 96	68 61	140 31
NITRATE/NITRITE	mg/L	6	1 80	0 11	0 94	0 63	1 60
NITRITE	mg/L	3	0 04	0 02	0 03	0 01	0 04
OIL AND GREASE	mg/L	1	7 50	7 50	7 50		
ORTHOPHOSPHATE	mg/L	1	0 04	0 04	0 04		
PHOSPHORUS	mg/L	3	0 06	0 04	0 05	0 01	0 06
PLUTONIUM-236	pCi/L	1	0 00	0 00	0 00		
PLUTONIUM-238	pCi/L	1	0 00	0 00	0 00		
PLUTONIUM-239/240	pCi/L	6	0 02	0 00	0 01	0 01	0 01
POTASSIUM	ug/L	16	17,200 00	1,100 00	4,479 38	4,432 90	9,089 59
RADIUM-226	pCi/L	1	0 28	0 28	0 28		
SELENIUM	ug/L	1	1 10	1 10	1 10		
SILICA	mg/L	2	3 20	2 70	2 95	0 35	3 32
SILICON	ug/L	17	8,160 00	3 00	4,841 35	1,933 15	6,851 83
SODIUM	ug/L	18	76,600 00	16,000 00	39,877 78	17,773 10	58,361 80
STRONTIUM	ug/L	18	805 00	190 00	371 00	165 04	542 64

Summary Statistics for Surface-Water Data - Detects Only
1991 - 1993

LOCATION SW118

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value
STRONTIUM-89	pCi/L	1	-0 01	-0 01	-0 01		
STRONTIUM-89,90	pCi/L	4	1 81	0 00	0 74	0 76	1 53
STRONTIUM-90	pCi/L	1	0 54	0 54	0 54		
SULFATE	mg/L	13	25 50	9 00	16 67	4 77	21 63
TIN	ug/L	3	94 60	26 40	58 80	34 23	94 40
TOTAL DISSOLVED SOLIDS	mg/L	15	372 00	130 00	248 00	74 12	325 08
TOTAL ORGANIC CARBON	mg/L	4	6 00	4 10	4 83	0 85	5 71
TOTAL SUSPENDED SOLIDS	mg/L	13	8 200 00	6 00	1,132 38	2,328 92	3,554 46
TRITIUM	pCi/L	31	197 70	-85 70	35 12	82 04	120 43
URANIUM-233,-234	pCi/L	4	2 27	0 34	1 32	0 79	2 14
URANIUM-234	pCi/L	3	2 30	1 50	2 00	0 44	2 45
URANIUM-235	pCi/L	5	0 08	0 00	0 04	0 03	0 07
URANIUM-238	pCi/L	7	2 00	0 25	1 23	0 72	1 98
VANADIUM	ug/L	8	305 00	2 00	87 26	110 21	201 88
ZINC	ug/L	15	1 260 00	3 30	231 10	360 72	606 25

Summary Statistics for Surface-Water Data - Detects Only
1991 - 1993

LOCATION SW122

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value
alpha-BHC	ug/L	1	0 01	0 01	0 01		
ALUMINUM	ug/L	10	229 00	30 00	72 56	62 44	137 50
AMERICIUM-241	pCi/L	5	0 53	0 00	0 11	0 23	0 35
ANTIMONY	ug/L	1	14 90	14 90	14 90		
ARSENIC	ug/L	1	1 00	1 00	1 00		
BARIUM	ug/L	16	150 00	19 00	92 82	42 06	136 56
beta-BHC	ug/L	1	0 02	0 02	0 02		
BICARBONATE AS CACO3	mg/L	10	282 00	33 70	191 51	83 52	278 37
CADMIUM	ug/L	1	1 20	1 20	1 20		
CALCIUM	ug/L	16	81,000 00	9,800 00	53,012 50	23,072 29	77,007 68
CARBONATE AS CACO3	mg/L	2	24 50	22 50	23 50	1 41	24 97
CESIUM	ug/L	3	70 00	50 00	60 00	10 00	70 40
CESIUM-137	pCi/L	5	0 35	0 07	0 24	0 11	0 36
CHLORIDE	mg/L	9	93 50	22 00	63 50	22 80	87 21
CHLOROMETHANE	ug/L	1	17 00	17 00	17 00		
COBALT	ug/L	1	2 70	2 70	2 70		
COPPER	ug/L	11	21 00	3 10	12 10	6 42	18 78
delta-BHC	ug/L	1	0 01	0 01	0 01		
DISSOLVED ORGANIC CARBON	mg/L	6	8 10	3 00	5 28	2 09	7 46
FLUORIDE	mg/L	9	0 96	0 36	0 70	0 19	0 90
GROSS ALPHA	pCi/L	8	11 79	1 18	5 59	3 30	9 02
GROSS BETA	pCi/L	9	110 55	1 83	17 39	35 01	53 80
IRON	ug/L	15	475 00	11 00	127 58	134 47	267 43
LEAD	ug/L	10	5 50	0 90	2 51	1 26	3 82
LITHIUM	ug/L	13	9 30	5 40	7 38	1 24	8 66
MAGNESIUM	ug/L	16	22,000 00	2,200 00	14,357 50	6 592 75	21,213 96
MANGANESE	ug/L	16	98 50	8 30	45 09	26 12	72 26
MERCURY	ug/L	3	0 22	0 21	0 21	0 01	0 22
METHYLENE CHLORIDE	ug/L	1	4 00	4 00	4 00		
MOLYBDENUM	ug/L	1	6 00	6 00	6 00		
NEPTUNIUM-237	pCi/L	2	0 09	-0 15	-0 03	0 17	0 15
NICKEL	ug/L	1	19 00	19 00	19 00		
NITRATE/NITRITE	mg/L	9	4 80	1 20	2 46	1 14	3 65
NITRITE	mg/L	3	0 41	0 03	0 28	0 22	0 50
OIL AND GREASE	mg/L	2	8 80	8 20	8 50	0 42	8 94
PLUTONIUM-239/240	pCi/L	6	0 70	0 00	0 12	0 28	0 41
POTASSIUM	ug/L	15	9,300 00	1 470 00	3,927 33	2,280 94	6,299 51
RADIUM-226	pCi/L	3	0 41	0 11	0 21	0 17	0 39
SILICON	ug/L	23	5,860 00	1 010 00	3 540 87	1 569 65	5 173 30
SODIUM	ug/L	16	70,000 00	14,000 00	44,356 25	17,813 03	62,881 80
STRONTIUM	ug/L	19	640 00	70 00	411 79	172 72	591 42
STRONTIUM-89	pCi/L	1	0 15	0 15	0 15		
STRONTIUM-89 90	pCi/L	6	1 02	-0 40	0 38	0 48	0 88

Summary Statistics for Surface-Water Data - Detects Only
1991 - 1993

LOCATION SW122

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value
STRONTIUM-90	pCi/L	1	0 34	0 34	0 34		
SULFATE	mg/L	9	43 00	8 20	31 74	11 96	44 18
TOTAL DISSOLVED SOLIDS	mg/L	9	540 00	112 00	342 00	140 29	487 90
TOTAL ORGANIC CARBON	mg/L	5	10 00	3 50	5 10	2 75	7 96
TOTAL SUSPENDED SOLIDS	mg/L	5	11 00	6 00	7 80	2 05	9 93
TRITIUM	pCi/L	6	361 80	92 70	204 04	107 98	316 34
UNKNOWN HYDROCARBON	ug/L	4	10 00	5 00	7 75	2 22	10 06
URANIUM-233,-234	pCi/L	7	4 29	0 70	2 60	1 32	3 98
URANIUM-234	pCi/L	2	2 20	0 99	1 60	0 86	2 48
URANIUM-235	pCi/L	7	0 29	0 04	0 16	0 09	0 26
URANIUM-238	pCi/L	9	4 12	0 78	2 43	1 10	3 58
VANADIUM	ug/L	1	3 00	3 00	3 00		
ZINC	ug/L	15	46 00	7 90	28 09	12 74	41 34

Summary Statistics for Surface-Water Data - Detects Only
1991 - 1993

LOCATION SW123

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value
ALUMINUM	ug/L	2	260 00	28 00	144 00	164 05	314 61
AMERICIUM-241	pCi/L	3	0 02	0 00	0 01	0 01	0 02
ARSENIC	ug/L	1	2 50	2 50	2 50		
BARIUM	ug/L	2	160 00	160 00	160 00	0 00	160 00
BICARBONATE AS CACO3	mg/L	2	249 00	197 00	223 00	36 77	261 24
CALCIUM	ug/L	2	88,000 00	87,000 00	87,500 00	707 11	88,235 39
CESIUM-137	pCi/L	3	0 35	0 16	0 23	0 10	0 34
CHLORIDE	mg/L	2	102 00	98 50	100 25	2 47	102 82
FLUORIDE	mg/L	2	1 60	1 60	1 60	0 00	1 60
GROSS ALPHA	pCi/L	3	7 11	2 80	5 22	2 20	7 51
GROSS BETA	pCi/L	3	8 96	3 34	6 63	2 93	9 68
IRON	ug/L	1	210 00	210 00	210 00		
LEAD	ug/L	2	15 00	1 60	8 30	9 48	18 15
LITHIUM	ug/L	2	18 00	14 00	16 00	2 83	18 94
MAGNESIUM	ug/L	2	24,000 00	23,000 00	23,500 00	707 11	24,235 39
MANGANESE	ug/L	2	6 60	6 30	6 45	0 21	6 67
METHYLENE CHLORIDE	ug/L	1	7 00	7 00	7 00		
NITRATE/NITRITE	mg/L	2	8 20	8 20	8 20	0 00	8 20
PHOSPHORUS	mg/L	1	0 07	0 07	0 07		
PLUTONIUM-239/240	pCi/L	3	0 01	0 00	0 00	0 01	0 01
POTASSIUM	ug/L	2	3,400 00	3,300 00	3,350 00	70 71	3,423 54
RADIUM-226	pCi/L	2	0 20	0 17	0 19	0 02	0 20
SELENIUM	ug/L	1	7 10	7 10	7 10		
SILICON	ug/L	6	6,720 00	5,430 00	6,221 67	532 74	6,775 72
SODIUM	ug/L	2	61,000 00	57,000 00	59,000 00	2,828 43	61,941 56
STRONTIUM	ug/L	2	710 00	700 00	705 00	7 07	712 35
STRONTIUM-89,90	pCi/L	3	0 47	0 21	0 30	0 15	0 45
SULFATE	mg/L	2	67 60	50 60	59 10	12 02	71 60
TETRACHLOROETHENE	ug/L	2	5 00	3 00	4 00	1 41	5 47
TOTAL DISSOLVED SOLIDS	mg/L	2	508 00	494 00	501 00	9 90	511 30
TOTAL SUSPENDED SOLIDS	mg/L	2	6 00	6 00	6 00	0 00	6 00
TRITIUM	pCi/L	3	161 60	63 67	113 79	49 01	164 76
URANIUM-233,-234	pCi/L	3	4 73	4 46	4 57	0 14	4 72
URANIUM-235	pCi/L	3	0 21	0 04	0 12	0 09	0 21
URANIUM-238	pCi/L	3	4 41	4 04	4 19	0 20	4 39
VANADIUM	ug/L	2	11 00	10 00	10 50	0 71	11 24
ZINC	ug/L	2	55 00	37 00	46 00	12 73	59 24

Summary Statistics for Surface-Water Data - Detects Only
1991 - 1993

LOCATION SW124

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value
ALUMINUM	ug/L	1	1 970 00	1 970 00	1,970 00		
AMERICIUM-241	pCi/L	1	0 15	0 15	0 15		
AROCLOR-1254	ug/L	1	12 00	12 00	12 00		
BARIUM	ug/L	2	89 50	66 50	78 00	16 26	94 91
BICARBONATE AS CACO3	mg/L	1	93 40	93 40	93 40		
BIS(2-ETHYLHEXYL)PHTHALAT	ug/L	1	1 00	1 00	1 00		
CALCIUM	ug/L	2	57,500 00	55,200 00	56,350 00	1,626 35	58,041 40
CARBON TETRACHLORIDE	ug/L	1	28 00	28 00	28 00		
CESIUM-137	pCi/L	1	0 12	0 12	0 12		
CHLORIDE	mg/L	1	23 20	23 20	23 20		
CHROMIUM	ug/L	1	10 60	10 60	10 60		
COPPER	ug/L	2	13 40	8 10	10 75	3 75	14 65
DISSOLVED ORGANIC CARBON	mg/L	1	5 70	5 70	5 70		
FLUORIDE	mg/L	1	0 44	0 44	0 44		
GROSS ALPHA	pCi/L	1	10 00	10 00	10 00		
GROSS BETA	pCi/L	1	15 00	15 00	15 00		
IRON	ug/L	2	2,670 00	22 10	1,346 05	1,872 35	3,293 29
LEAD	ug/L	1	11 70	11 70	11 70		
LITHIUM	ug/L	2	9 50	5 90	7 70	2 55	10 35
MAGNESIUM	ug/L	2	8 140 00	7,750 00	7,945 00	275 77	8,231 80
MANGANESE	ug/L	2	42 60	5 60	24 10	26 16	51 31
MOLYBDENUM	ug/L	1	7 20	7 20	7 20		
NEPTUNIUM-237	pCi/L	1	-0 01	-0 01	-0 01		
NITRATE/NITRITE	mg/L	1	10 50	10 50	10 50		
NITRITE	mg/L	1	0 06	0 06	0 06		
PHOSPHORUS	mg/L	1	0 22	0 22	0 22		
PLUTONIUM-239/240	pCi/L	1	0 01	0 01	0 01		
POTASSIUM	ug/L	2	4 080 00	3 800 00	3 940 00	197 99	4,145 91
SELENIUM	ug/L	2	2 00	1 90	1 95	0 07	2 02
SILICON	ug/L	2	8,350 00	4,590 00	6,470 00	2,658 72	9 235 07
SODIUM	ug/L	2	25,000 00	24 300 00	24,650 00	494 97	25,164 77
STRONTIUM	ug/L	2	252 00	252 00	252 00	0 00	252 00
STRONTIUM-89	pCi/L	1	-0 61	-0 61	-0 61		
STRONTIUM-90	pCi/L	1	0 30	0 30	0 30		
SULFATE	mg/L	1	81 60	81 60	81 60		
TOTAL DISSOLVED SOLIDS	mg/L	1	358 00	358 00	358 00		
TOTAL ORGANIC CARBON	mg/L	2	4 20	4 10	4 15	0 07	4 22
TOTAL SUSPENDED SOLIDS	mg/L	1	112 00	112 00	112 00		
TRITIUM	pCi/L	1	630 00	630 00	630 00		
URANIUM-234	pCi/L	1	1 90	1 90	1 90		
URANIUM-235	pCi/L	1	0 10	0 10	0 10		
URANIUM-238	pCi/L	1	1 10	1 10	1 10		
VANADIUM	ug/L	1	7 10	7 10	7 10		

Summary Statistics for Surface-Water Data - Detects Only
1991 - 1993

LOCATION SW124

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value
ZINC	ug/L	1	253 00	253 00	253 00		

Summary Statistics for Surface-Water Data - Detects Only
1991 - 1993

LOCATION SW129

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value
ACETONE	ug/L	1	2 00	2 00	2 00		
ALUMINUM	ug/L	11	1,400 00	19 00	463 06	508 73	992 14
AMERICIUM-241	pCi/L	5	0 03	0 00	0 01	0 01	0 02
ANTIMONY	ug/L	2	16 70	15 40	16 05	0 92	17 01
ARSENIC	ug/L	2	2 30	0 80	1 55	1 06	2 65
BARIUM	ug/L	16	177 00	38 90	136 99	32 10	170 38
BERYLLIUM	ug/L	1	1 10	1 10	1 10		
BICARBONATE AS CACO3	mg/L	9	250 00	185 00	227 44	19 01	247 21
CADMIUM	ug/L	1	4 80	4 80	4 80		
CALCIUM	ug/L	16	87,000 00	13,300 00	69,943 75	16,455 43	87,057 40
CARBONATE AS CACO3	mg/L	1	4 00	4 00	4 00		
CESIUM	ug/L	2	60 00	50 00	55 00	7 07	62 35
CESIUM-137	pCi/L	6	0 82	-0 20	0 33	0 33	0 67
CHLORIDE	mg/L	9	53 80	32 30	45 22	7 05	52 56
CHROMIUM	ug/L	4	6 30	2 20	4 33	2 28	6 70
COBALT	ug/L	1	2 80	2 80	2 80		
COPPER	ug/L	8	14 10	3 20	7 37	3 42	10 93
DISSOLVED ORGANIC CARBON	mg/L	6	6 40	2 00	4 10	1 64	5 80
FLUORIDE	mg/L	9	0 66	0 54	0 60	0 04	0 64
GROSS ALPHA	pCi/L	7	9 63	1 10	4 80	2 84	7 76
GROSS BETA	pCi/L	8	9 10	2 70	5 66	2 42	8 17
IRON	ug/L	13	1,200 00	22 40	358 15	404 26	778 58
LEAD	ug/L	10	5 30	1 40	2 94	1 23	4 22
LITHIUM	ug/L	11	8 90	4 30	6 63	1 62	8 31
MAGNESIUM	ug/L	16	23,000 00	1,570 00	18,585 63	4,776 17	23,552 85
MANGANESE	ug/L	16	160 00	6 70	50 48	42 46	94 64
MERCURY	ug/L	3	0 54	0 32	0 46	0 12	0 59
METHYLENE CHLORIDE	ug/L	1	6 00	6 00	6 00		
MOLYBDENUM	ug/L	1	5 00	5 00	5 00		
NEPTUNIUM-237	pCi/L	3	0 16	-0 33	-0 06	0 25	0 20
NICKEL	ug/L	1	7 30	7 30	7 30		
NITRATE/NITRITE	mg/L	2	0 33	0 14	0 24	0 13	0 37
OIL AND GREASE	mg/L	1	1 00	1 00	1 00		
ORTHOPHOSPHATE	mg/L	4	0 09	0 05	0 07	0 02	0 09
PHOSPHORUS	mg/L	3	0 07	0 03	0 06	0 02	0 08
PLUTONIUM-239/240	pCi/L	4	0 01	0 00	0 00	0 00	0 01
POTASSIUM	ug/L	14	3,520 00	1,200 00	2,036 43	641 76	2,703 86
RADIUM-226	pCi/L	3	0 54	0 19	0 31	0 20	0 52
SILICA	mg/L	1	6 10	6 10	6 10		
SILICON	ug/L	16	10,200 00	2,630 00	6 161 25	2,580 15	8,844 61
SILVER	ug/L	1	3 30	3 30	3 30		
SODIUM	ug/L	16	20,000 00	5,270 00	15,335 63	3,480 81	18 955 67
STRONTIUM	ug/L	16	530 00	58 50	440 16	109 49	554 03

Summary Statistics for Surface-Water Data - Detects Only
1991 - 1993

LOCATION SW129

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value
STRONTIUM-89	pCi/L	1	-0 23	-0 23	-0 23		
STRONTIUM-89,90	pCi/L	3	0 92	0 77	0 86	0 08	0 94
STRONTIUM-90	pCi/L	2	0 59	-0 08	0 26	0 47	0 75
SULFATE	mg/L	9	53 60	18 00	30 50	11 89	42 87
TOTAL DISSOLVED SOLIDS	mg/L	9	622 00	338 00	379 11	91 66	474 43
TOTAL ORGANIC CARBON	mg/L	7	9 00	2 00	5 03	2 61	7 75
TOTAL SUSPENDED SOLIDS	mg/L	9	44 00	6 00	27 89	15 24	43 73
TRITIUM	pCi/L	6	1,000 00	59 15	280 41	370 15	665 36
URANIUM-233,-234	pCi/L	5	2 60	1 69	1 93	0 38	2 33
URANIUM-234	pCi/L	3	2 90	1 80	2 50	0 61	3 13
URANIUM-235	pCi/L	5	0 12	0 00	0 06	0 05	0 12
URANIUM-238	pCi/L	8	5 20	1 30	2 91	1 26	4 22
VANADIUM	ug/L	8	6 30	2 60	4 38	1 20	5 63
ZINC	ug/L	9	15 10	3 40	7 71	3 65	11 51

Summary Statistics for Surface-Water Data - Detects Only
1991 - 1993

LOCATION SW132

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value
1,1,1-TRICHLOROETHANE	ug/L	1	2 00	2 00	2 00		
1,1,2,2-TETRACHLOROETHANE	ug/L	1	1 00	1 00	1 00		
1,1-DICHLOROETHANE	ug/L	8	1 00	0 50	0 71	0 16	0 88
1,2-DICHLOROETHENE	ug/L	36	7 00	1 00	4 06	1 66	5 78
2-BUTANONE	ug/L	2	12 00	6 00	9 00	4 24	13 41
2-HEXANONE	ug/L	1	4 00	4 00	4 00		
4-METHYL-2-PENTANONE	ug/L	1	3 00	3 00	3 00		
ACETONE	ug/L	3	28 00	11 00	16 67	9 81	26 87
ALUMINUM	ug/L	70	21,400 00	17 00	531 62	2,594 74	3,230 15
AMERICIUM-241	pCi/L	46	0 66	0 00	0 04	0 11	0 16
ANTIMONY	ug/L	10	48 50	12 00	30 25	13 45	44 24
ARSENIC	ug/L	46	7 10	0 70	2 19	1 24	3 48
BARIUM	ug/L	135	269 00	15 20	98 52	32 30	132 11
BERYLLIUM	ug/L	12	1 80	0 36	0 86	0 42	1 29
BICARBONATE AS CACO3	mg/L	67	290 00	17 70	197 36	86 75	287 57
CADMIUM	ug/L	7	5 30	2 20	3 34	1 32	4 72
CALCIUM	ug/L	135	273,000 00	12,200 00	84,482 96	34,214 11	120,065 64
CARBONATE AS CACO3	mg/L	17	20 50	2 00	8 74	5 88	14 86
CESIUM	ug/L	12	100 00	2 20	48 52	24 42	73 91
CESIUM-137	pCi/L	10	1 50	-0 15	0 19	0 48	0 70
CHLORIDE	mg/L	67	460 00	9 00	84 62	70 33	157 76
CHLOROFORM	ug/L	1	6 00	6 00	6 00		
CHROMIUM	ug/L	13	44 00	2 90	10 35	13 01	23 88
cis-1,2-DICHLOROETHENE	ug/L	7	3 00	2 00	2 29	0 49	2 79
COBALT	ug/L	4	9 50	1 50	5 73	3 80	9 67
COPPER	ug/L	67	49 60	2 00	5 55	6 68	12 50
DISSOLVED ORGANIC CARBON	mg/L	10	16 80	2 00	6 23	5 58	12 04
FLUORIDE	mg/L	67	1 20	0 20	0 83	0 21	1 04
GROSS ALPHA	pCi/L	55	21 06	0 35	5 26	3 67	9 08
GROSS BETA	pCi/L	58	67 78	1 40	8 36	10 22	18 98
IRON	ug/L	100	30,000 00	6 40	660 19	3,090 72	3 874 54
LEAD	ug/L	45	45 50	0 90	4 38	6 74	11 39
LITHIUM	ug/L	114	83 90	2 80	12 29	8 22	20 84
MAGNESIUM	ug/L	135	35,000 00	1,800 00	18,805 19	6,394 44	25,455 40
MANGANESE	ug/L	130	806 00	3 50	61 77	103 11	169 01
MERCURY	ug/L	12	1 10	0 13	0 34	0 27	0 62
METHYLENE CHLORIDE	ug/L	13	34 00	1 00	7 69	10 08	18 17
MOLYBDENUM	ug/L	21	13 10	2 10	4 50	2 29	6 89
NEPTUNIUM-237	pCi/L	2	0 25	0 03	0 14	0 16	0 30
NICKEL	ug/L	11	25 50	2 70	9 25	6 64	16 16
NITRATE/NITRITE	mg/L	10	7 50	1 80	4 35	1 64	6 06
NITRITE	mg/L	2	0 02	0 02	0 02	0 00	0 02
OIL AND GREASE	mg/L	1	6 90	6 90	6 90		

Summary Statistics for Surface-Water Data - Detects Only
1991 - 1993

LOCATION SW132

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value
ORTHOPHOSPHATE	mg/L	3	0 06	0 05	0 06	0 01	0 06
PHOSPHORUS	mg/L	2	0 11	0 06	0 08	0 04	0 12
PLUTONIUM-236	pCi/L	8	0 02	0 00	0 01	0 01	0 01
PLUTONIUM-238	pCi/L	5	0 06	0 00	0 02	0 02	0 04
PLUTONIUM-239/240	pCi/L	40	0 38	0 00	0 02	0 06	0 08
POTASSIUM	ug/L	128	41,900 00	796 00	4,493 59	5,870 87	10,599 29
RADIUM-226	pCi/L	5	0 83	0 17	0 33	0 28	0 62
SELENIUM	ug/L	111	15 00	1 30	3 56	1 75	5 38
SILICON	ug/L	124	41,900 00	1,110 00	5,075 32	3,629 30	8,849 80
SILVER	ug/L	4	6 70	3 10	5 03	1 94	7 05
SODIUM	ug/L	135	205,000 00	7,820 00	62,915 56	34,461 54	98,755 55
STRONTIUM	ug/L	123	846 00	65 40	519 61	144 62	670 02
STRONTIUM-89	pCi/L	1	0 81	0 81	0 81		
STRONTIUM-89,90	pCi/L	28	8 66	-0 08	1 81	2 60	4 52
STRONTIUM-90	pCi/L	1	0 63	0 63	0 63		
SULFATE	mg/L	67	697 00	3 00	119 50	131 65	256 42
TETRACHLOROETHENE	ug/L	8	1 00	0 10	0 39	0 31	0 71
THALLIUM	ug/L	2	1 40	1 40	1 40	0 00	1 40
TIN	ug/L	2	21 90	14 90	18 40	4 95	23 55
TOLUENE	ug/L	1	1 00	1 00	1 00		
TOTAL DISSOLVED SOLIDS	mg/L	67	1,200 00	76 00	523 21	184 43	715 01
TOTAL ORGANIC CARBON	mg/L	62	33 00	1 00	5 50	4 40	10 07
TOTAL RADIOCESIUM	pCi/L	2	5 40	0 80	3 10	3 25	6 48
TOTAL SUSPENDED SOLIDS	mg/L	27	740 00	4 00	47 19	147 60	200 69
TRICHLOROETHENE	ug/L	4	4 00	0 20	1 80	1 64	3 51
TRICHLOROFLUOROMETHANE	ug/L	1	8 00	8 00	8 00		
TRITIUM	pCi/L	7	720 00	22 97	210 94	237 27	457 70
UNKNOWN	ug/L	1	10 00	10 00	10 00		
URANIUM, TOTAL	pCi/L	5	8 54	5 70	7 61	1 11	8 76
URANIUM-233,-234	pCi/L	62	5 70	0 01	2 76	1 42	4 24
URANIUM-234	pCi/L	2	2 60	1 50	2 05	0 78	2 86
URANIUM-235	pCi/L	43	0 52	-0 02	0 15	0 11	0 26
URANIUM-238	pCi/L	63	4 85	0 00	2 55	1 29	3 89
VANADIUM	ug/L	28	62 40	2 30	13 04	15 71	29 38
VINYL CHLORIDE	ug/L	2	2 00	1 00	1 50	0 71	2 24
ZINC	ug/L	92	543 00	2 10	46 49	81 00	130 74

Summary Statistics for Surface-Water Data - Detects Only
1991 - 1993

LOCATION SW507

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value
2-HEPTANONE 3-HYDROXY-3-	ug/L	1	26 00	26 00	26 00		
2-PENTANONE 4-HYDROXY-4-M	ug/L	1	26 00	26 00	26 00		
2-PENTANONE,4-HYDROXY-4-M	ug/L	1	12 00	12 00	12 00		
ALUMINUM	ug/L	3	90 80	46 60	72 20	22 92	96 03
AMERICIUM-241	pCi/L	4	0 08	-0 02	0 02	0 04	0 06
ARSENIC	ug/L	3	1 30	1 00	1 17	0 15	1 33
BARIUM	ug/L	6	165 00	149 00	154 83	6 31	161 39
BICARBONATE AS CACO3	mg/L	3	230 00	210 00	216 67	11 55	228 68
CALCIUM	ug/L	6	80,700 00	76,900 00	78,733 33	1,392 36	80,181 39
CARBONATE AS CACO3	mg/L	1	4 00	4 00	4 00		
CESIUM	ug/L	1	30 00	30 00	30 00		
CHLORIDE	mg/L	3	63 00	55 00	60 00	4 36	64 53
COPPER	ug/L	1	2 20	2 20	2 20		
DISSOLVED ORGANIC CARBON	mg/L	3	14 00	8 00	10 67	3 06	13 84
FLUORIDE	mg/L	3	0 70	0 50	0 57	0 12	0 69
GROSS ALPHA	pCi/L	6	8 30	4 32	6 01	1 64	7 72
GROSS BETA	pCi/L	6	13 00	4 20	9 29	3 55	12 98
IRON	ug/L	4	292 00	195 00	247 75	49 56	299 29
LITHIUM	ug/L	6	7 20	4 20	6 03	1 39	7 48
MAGNESIUM	ug/L	6	23,000 00	21,700 00	22,550 00	561 25	23,133 70
MANGANESE	ug/L	6	36 80	13 90	27 43	8 47	36 24
PENTACHLOROPHENOL	ug/L	1	5 00	5 00	5 00		
PLUTONIUM-239/240	pCi/L	5	0 00	-0 03	-0 01	0 01	0 01
POTASSIUM	ug/L	6	4,830 00	2,270 00	3,278 33	1,215 79	4,542 75
RADIUM-226	pCi/L	3	0 32	0 05	0 18	0 14	0 32
SILICON	ug/L	6	5,280 00	2,360 00	3,523 33	1,342 78	4,919 83
SODIUM	ug/L	6	20 600 00	19 200 00	19,800 00	469 04	20,287 80
STRONTIUM	ug/L	6	546 00	493 00	524 33	22 38	547 60
STRONTIUM-89,90	pCi/L	6	0 83	0 19	0 50	0 23	0 74
SULFATE	mg/L	3	47 00	24 00	38 00	12 29	50 78
TOTAL DISSOLVED SOLIDS	mg/L	3	380 00	370 00	376 67	5 77	382 67
TOTAL ORGANIC CARBON	mg/L	3	15 00	7 00	12 00	4 36	16 53
TOTAL RADIOCESIUM	pCi/L	4	0 70	-0 18	0 43	0 41	0 85
TOTAL SUSPENDED SOLIDS	mg/L	1	5 00	5 00	5 00		
URANIUM-233 -234	pCi/L	5	4 68	0 59	3 00	1 72	4 79
URANIUM-235	pCi/L	5	0 28	0 02	0 17	0 11	0 28
URANIUM-238	pCi/L	5	7 50	0 88	4 73	2 77	7 61
ZINC	ug/L	2	14 90	2 50	8 70	8 77	17 82

Summary Statistics for Surface-Water Data - Detects Only
1991 - 1993

LOCATION SW60492

Chemical Name	Units	# Samples	Max Value	Min Value	Avg Value	Sample Standard Deviation	85% Value
ALUMINUM	ug/L	1	420 00	420 00	420 00		
AMERICIUM-241	pCi/L	2	0 01	0 01	0 01	0 00	0 01
BARIUM	ug/L	2	91 50	89 90	90 70	1 13	91 88
BICARBONATE AS CACO3	mg/L	1	226 00	226 00	226 00		
CALCIUM	ug/L	2	74,000 00	70,500 00	72,250 00	2,474 87	74,823 87
CESIUM-137	pCi/L	2	0 33	0 28	0 31	0 04	0 35
CHLORIDE	mg/L	1	36 60	36 60	36 60		
COBALT	ug/L	2	2 60	2 50	2 55	0 07	2 62
GROSS ALPHA	pCi/L	1	7 88	7 88	7 88		
GROSS BETA	pCi/L	1	5 35	5 35	5 35		
IRON	ug/L	2	486 00	7 70	246 85	338 21	598 59
LEAD	ug/L	1	4 30	4 30	4 30		
LITHIUM	ug/L	2	13 40	11 90	12 65	1 06	13 75
MAGNESIUM	ug/L	2	17,900 00	16 900 00	17,400 00	707 11	18,135 39
MANGANESE	ug/L	2	67 50	61 20	64 35	4 45	68 98
MOLYBDENUM	ug/L	1	2 00	2 00	2 00		
NITRATE	mg/L	1	3 40	3 40	3 40		
PLUTONIUM-239/240	pCi/L	2	0 01	0 00	0 00	0 00	0 01
POTASSIUM	ug/L	2	2 840 00	2 700 00	2,770 00	98 99	2,872 95
SELENIUM	ug/L	1	8 30	8 30	8 30		
SILICON	ug/L	2	6,880 00	6 640 00	6,760 00	169 71	6,936 49
SODIUM	ug/L	2	36 900 00	34,700 00	35,800 00	1,555 63	37,417 86
STRONTIUM	ug/L	2	445 00	418 00	431 50	19 09	451 36
STRONTIUM-89,90	pCi/L	2	0 35	0 22	0 29	0 09	0 38
SULFATE	mg/L	1	48 20	48 20	48 20		
TOTAL DISSOLVED SOLIDS	mg/L	1	346 00	346 00	346 00		
TRITIUM	pCi/L	1	234 70	234 70	234 70		
UNKNOWN HYDROCARBON	ug/L	3	7 00	4 00	5 67	1 53	7 26
URANIUM-233,-234	pCi/L	2	3 09	2 55	2 82	0 38	3 22
URANIUM-235	pCi/L	2	0 12	-0 01	0 06	0 09	0 15
URANIUM-238	pCi/L	2	4 48	4 31	4 39	0 12	4 51
ZINC	ug/L	1	15 30	15 30	15 30		

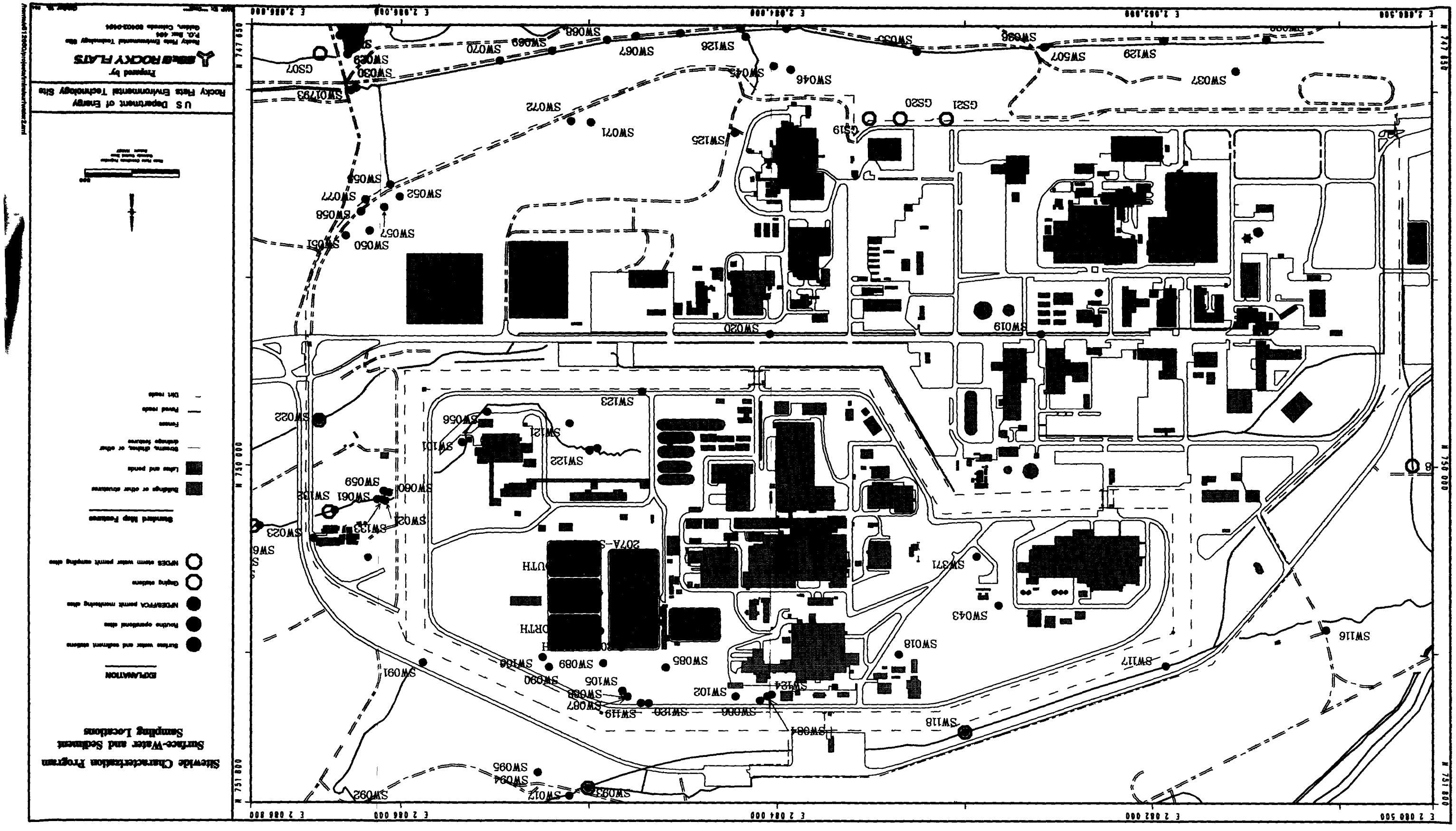
Sitewide Characterization Program
Surface-Water and Sediment
Sampling Locations
EXPLANATION
Surface water and sediment stations
Routine operational data
NPDES/RFCA permit monitoring data
Gaging stations
NPDES storm water permit sampling sites
Standard Map Features
Buildings or other structures
Lake and ponds
Streams, ditches, or other drainage features
Fences
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TABLE 2 1
OU12 Field Sampling Plan
1989 Surface-Water and Sediment Geochemical Characterization Report Results
Selected Radionuclides Organics Metals and Water Quality Parameters at Selected Locations in the Industrial Area

PARAMETER	Source of Standard (1)	Stream Standard (2)	UTL (3)	Solar Ponds				903 Pad				Upper South Walnut Creek			
				Average	Maximum	Std Deviation	Sample Size	Average	Maximum	Std Deviation	Sample Size	Average	Maximum	Std Deviation	Sample Size
TOTAL RADIONUCLIDES (pCi/L)															
Americium-241	WQCC (5)	0 05	0 02	1 89	90	11	68	5 5	33	9 9	17	0 12	1 3	0 25	30
Cesium 137	NA	NA	NA	0 11	4 7	0 69	76								
Gross alpha	WQCC (5)	7 /11	28 06	200 00	1400	280	70	67	350	99	17	66	780	150	31
Gross beta	WQCC (5)	5 /19	30 35	240 00	2500	370	70	18	65	14	17	51	570	120	31
Plutonium-239	WQCC (5	0 05	0 02	2 43	120	14 5	73	17	110	30	17	0 40	3 3	0 88	32
Radium-226	WQCC (SW)	5	16 56	1 62	20	3 6	59					1 9	7 2	2 3	18
Strontium-90	WQCC (SW)	8	4 88	0 35	3 2	0 604	76					0 19	2 2	0 50	32
Tritium	WQCC (5)	500	711 94	2000 00	13000	2400	78					100	500	200	32
Uranium, Total	WQCC (5)	5 /10	2 69	130 00	1000	190	49	7 4	18	5 7	11	5 7	17	3 4	25
Uranium-233, 234	WQCC (5)	5 /10	2 16	100 00	860	170	76	3 5	10	2 6	17	2 9	7 7	1 7	32
Uranium-235	WQCC (5)	5 /10	0 28	4 34	66	10	76	0 16	0 70	0 19	17	0 17	1 0	0 19	32
Uranium-238	WQCC (5)	5 /10	1 73	54 33	370	78	76	2 9	7 8	2 2	17	2 5	7 9	1 4	32
DISSOLVED RADIONUCLIDES (pCi/L)															
Americium-241	NA	NA	0 50	0 04	0 64	0 15	19								
Cesium-137	NA	NA	4 67	0 04	0 90	0 36	19					0 00	0 60	0 59	6
Gross alpha	NA	NA	28 71	280 00	1900	440	19	5 0	8 0	4 2	2	5 5	16	5 6	6
Gross beta	NA	NA	25 30	390 00	3800	870	19								
Plutonium-239	NA	NA	0 79	0 15	2 4	0 55	19	0 10	0 20	0 14	2				
Uranium-235	NA	NA	0 78	3 13	12	3 4	19								
Uranium-238	NA	NA	10 93	48 23	130	45	19								
VOLATILE ORGANICS (µg/L)															
1,1-dichloroethane	NA	NA	NA									4 7	50	8 03	37
1,2 dichloroethylene	WQCC (SW)	70 (cis)/100(tran)	NA	3 50	15	3 0	81	7 2	44	12	25				
Acetone	NA	NA	NA	19 00	180	36	56					13	130	26	29
Carbon disulfide	NA	NA	NA	3 60	19	3 3	77								
Carbon tetrachloride	WQCC (5)	18	NA	8.20	100	16	81	4 5	46	8 8	25	47	430	95	36
Chloroform	WQCC (SW)	6	NA	3 50	13	2 9	81	2 9	8 0	1 3	25	18	82	24	36
Ethylbenzene	WQCC (SW)	680	NA	3 40	13	2 7	81								
Methylene chloride	WQCC (SW)	4 7	NA	4 50	13	3 6	47	2 8	9 0	1 5	20	3 3	11	2 02	25
Tetrachloroethene	WQCC (SW)	0 8	NA					3 9	19	4 2	25	53	280	84	37
Trichloroethene	WQCC (SW)	66	NA	3 40	13	2 8	80	11	65	15 8	25	41	260	63	37
Vinyl chloride	WQCC (SW)	2	NA									7 1	25	5 1	37
SEMIVOLATILE ORGANICS (µg/L)															
Bis[2-ethylhexyl]-phthalate	WQCC (SW)	1 8	NA	7 4	32	9 0	13	(None Detected)				(None Detected)			

(See footnotes on following page)

1 1 0 2 1 0

Table 2 1 (continued)
OU12 Field Sampling Plan
1989 Surface-Water and Sediment Geochemical Characterization Report Results
Selected Radionuclides Organics Metals and Water Quality Parameters at Selected Locations in the Industrial Area

PARAMETER	Source of Standard (1)	Stream Standard (2)	UTL (3)	Solar Ponds				903 Pad				Upper South Walnut Creek			
				Average	Maximum	Std Deviation	Sample Size	Average	Maximum	Std Deviation	Sample Size	Average	Maximum	Std Deviation	Sample Size
WATER QUALITY (mg/L)															
Specific conductivity (umhos/cm)	NA	NA	NA	4500 00	37000	5100	122	900	1500	280	31	740	1400	370	48
Dissolved oxygen	WQCC (5)	5 00	NA	4 99	23	3 2	122	2 4	10	2 3	31	6 6	70	9 8	48
Field pH	WQCC (5)	6 5-9 0	9 32	7 50	10	0 67	122	7 4	9 6	0 65	31	7 5	8 5	0 65	48
Total dissolved solids	NA	NA	302 28	5100 00	41000	7600	119	500	790	140	34	420	3300	450	51
Bicarbonate	NA	NA	191 32	330 00	1000	180	119	390	710	140	34	280	540	160	51
Chloride	WQCC (5)	250	53 20	130 00	960	170	119	51	170	28	34	36	81	20	51
Nitrate (N)	WQCC (5)	10 0	NA	2100 00	19000	3000	119	14	110	22	25	13	25	7 5	35
Nitrate/Nitrite (N)	WQCC (5)	10 0	1 35	660 00	9900	1200	119	3 4	24	4 6	34	3 0	5 6	1 7	51
Sulfate	WQCC (5)	250	37 83	190 00	1400	200	119	60	120	30	34	43	74	17	51
DISSOLVED METALS (mg/L)															
Aluminum	WQCC (SW)	0 087	0 48	0 19	2 4	0 27	82								
Antimony	NA	NA	0 06	0 04	0 25	0 028	88	0 045	0.25	0 05	27				
Barium	NA	NA	0 13	0 13	0 73	0 093	91	0 203	0 34	0 08	27	0 14	0 24	0 50	33
Beryllium	WQCC (5)	0 004	NA									0 0023	0 0053	0 00085	29
Cadmium	WQCC (5)	0 0015	NA	0 01	0 048	0 007	86								
Calcium	NA	NA	50 36	230 00	1500	250	91	110	150	23	27	84	130	38	33
Chromium	WQCC (5) (Cr VI)	0 011	NA	0 01	0 032	0 0046	84								
Copper	WQCC (5)	0 016	0 02	0 02	0 0908	0 017	80					0 013	0 029	0 0034	27
Iron	WQCC (5)	0 3	0 56	0 25	9 9	1 1	86	0 74	8 5	1 8	27				
Lead	WQCC (5)	0 00646	0 01	0 00	0 025	0 0044	74								
Lithium	NA	NA	0 06	2 46	85	13	88								
Magnesium	NA	NA	9 80	57 62	390	62	91	19	31	7 4	27	16	29	7 2	33
Manganese	WQCC (5)	0 56	0 14	0 12	1 03	0 22	91	0 21	0 59	0 19	26	0 11	0 701	0 21	33
Mercury	WQCC (SW)	0 00001	NA	0 00	0 0018	0 0002	86								
Molybdenum	NA	NA	NA	0 05	0 25	0 026	91								
Nickel	WQCC (5)	0 125	NA	0 02	0 087	0 0102	87								
Potassium	NA	NA	3 59	160 00	3300	440	89	3 4	16	3 1	25	2.2	2 5	0 60	29
Selenium	WQCC (SW)	0 017	0 01	0 01	0 037	0 0065	89	0 0030	0 013	0 0025	19				
Sodium	NA	NA	34 10	530 00	7600	1000	91	33	89	23	27	32	60	15	33
Strontium	NA	NA	0 97	1 78	12	1.8	88					0.52	1.2	0 19	31
Zinc	WQCC (5)	0 144	0 06	0 18	4.2	0 62	89	0 34	1 8	0.52	24	0 13	0 63	0 14	31

Source
Adapted from the final *1989 Surface Water And Sediment Geochemical Characterization Report* (EG&G 1992b)

Units
Cr VI = hexavalent chromium
mg/L = milligrams per liter
pCi/L = picocuries per liter
Std = standard
UTL = Upper Tolerance Limit
µg/L = micrograms per liter
µmhos/cm = micromhos per cubic meter

NOTES
(1) Sources of potentially applicable standards include (a) Water Quality Control Commission (WQCC) Segment 5 stream standards as identified in Section 3 8 0 of 5 CCR 1002-8 Classifications and Numeric Standards for the South Platte River Basin Laramie River Basin Republican River Basin, Smoky Hill River Basin, and b) WQCC state-wide (WQCC SW) standards for constituents that have no site-specific standards. Where more than one state-wide standard was available, the most conservative value was chosen For constituents with *Table Value Standards a hardness value of 143 mg/L was used to calculate the standard. NA indicates that no WQCC standard is applicable For constituents with *Table Value Standards, a hardness value of 143 mg/L was used to calculate the standard NA indicates that no WQCC standard is applicable
(2) In cases where two values are given, denotes the standard for Woman Creek and ** denotes the standard for Walnut Creek.
(3) Background Upper Tolerance Limits (UTLs) were taken from the 1993 *Background Geochemical Characterization Report (EG&G 1993a)* These UTLs are based on 99/99 upper tolerance limits, which are the values below which [illegible] percent

TABLE 3-1
OU12 Field Sampling Plan
Hydrograph Integrated Stormwater Quality Data from November 1991 to August 1992 (A)

Sample Location	Source of Standard (B)	Stream Standard	SW022		SW023		SW093		SW118		SW027		SW998	
			Maximum	Average	Maximum	Average	Maximum	Average	Maximum	Average	Maximum	Average	Maximum	Average
TOTAL METALS (µg/L) (C)														
Aluminum	NA	NA	24100	5840	38900	11828	34800	13018	78200	22234	20200	4604	11600	5423
Antimony	WQCC (SW)	14	402	68 5	55 6	20 2	34 9	19	53 6	15 6	12 5	12	12 5	10
Arsenic	WQCC (4/5)	50	69	31	72	27 8	37 5	27 3	37 5	26 6	37 5	31 3	37 5	23 5
Arsenic (D)	WQCC (4/5)	50	6 5	2 71	14 9	5 6	7 2	2 9	16 9	4 28	1 9	0 82	3 9	2.2
Barium	WQCC (SW)	1000	200	79 6	282	139	225	132	509	229	179	112	62 5	38 9
Beryllium	WQCC (SW)	0 0076	2 2	0 79	1 5	0 58	1 5	0 7	1 8	0 78	0 5	0 47	0 5	0 43
Cadmium	WQCC (SW)	10	7	2 65	3 7	1 83	5 6	2 54	2	1 51	2	1 93	2	1 52
Chromium	WQCC (4/5) for Cr III/Cr VI (F)	50/50	34 9	10 9	53 4	19 6	39 1	16	72 8	22 6	25 5	6 68	21 7	10 1
Cobalt	NA	NA	11 6	4 64	13 7	5 15	8 5	6.2	24 1	8 01	3.5	3 1	3 5	2 9
Copper	WQCC (SW)/WQCC (5)	1000/23	45 4	15 5	60 6	27 7	39 5	19	73	27 3	22 7	7 15	21.2	11
Iron	WQCC (4)/WQCC (5)	1000/13200	26300	6140	32800	11996	34300	12960	66200	21896	17100	3837	9990	4733
Lead	WQCC (SW)/WQCC (5)	50/28	59 5	32 5	60 5	33 7	29	23 7	29 1	25 9	27	23 1	29	24 6
Lead (D)	WQCC (SW)/WQCC (5)	50/28	32 9	12 9	82 2	33 8	36	24 6	56.2	18 1	8.2	3 52	37 3	20 6
Manganese	WQCC (4/5)	1000	482	116	912	341	536	380	1870	679	155	47.2	151	66 6
Mercury (E)	WQCC (SW)	2	0.2	0 11	0.2	0 11	0 1	0 1	0 23	0 11	0 1	0 1	0 1	0 1
Molydbenum	NA	NA	60 4	13	6	5 07	6	5 28	6	5.21	16 7	7 98	6	5 03
Nickel	WQCC (SW)	200	21 3	10 8	45 5	13 4	14 1	9 51	50 9	20 6	9 5	8 74	17 5	10 7
Selenium	WQCC (4/5)	10	40	22 7	31	19.2	31	21 8	31	21	31	26	31	18 8
Selenium (D)	WQCC (4/5)	10	1 3	0 77	1 9	1 13	0 5	0 5	21	0 97	0 5	0 5	0 5	0 5
Silver	WQCC (SW)	50	7	2 91	2 5	1 85	2 5	2	2 5	1 94	2 5	2 25	2 5	1 83
Strontium	NA	NA	262	136	411	190	136	104	348	253	457	268	40 6	26.2
Thallium	WQCC (SW)	0 012	288	78	66 5	45 4	66 5	47 5	66 5	47 6	66 5	55 5	66 5	41 4
Thallium (D)	WQCC (SW)	0 012	1	0 57	3	0 68	0 5	0 5	4.2	1.26	0.5	0 5	1 5	1
Vanadium	NA	NA	59 9	15 3	91 3	32.2	84 4	31.2	160	49.2	45 7	12 5	26 3	14 3
Zinc	WQCC (SW)/WQCC (5)	2000/350	346	103	658	342	280	203	473	188	107	41 7	221	146
INORGANICS (mg/L)														
Calcium	NA	NA	39.2	26 4	60 6	34 6	19 8	18 1	47 1	34 5	73 4	44 3	6 61	5 31
Magnesium	NA	NA	8 15	5 1	13 7	7 62	8 09	5 15	22 1	11 9	14 7	9 26	2 98	1 75
Potassium	NA	NA	6 8	4 58	8 09	4 81	7 21	4 36	13.2	5 75	5.65	4 1	4 18	2 54
Sodium	NA	NA	39 6	18 6	44 6	17 3	24 9	17 8	141	85 5	37.2	22 3	6 55	3 63
Sulfate	WQCC (4/5)	250	25 9	6 66	38 4	14 3	11	6 72	23	12.2	63 1	24 8	4 85	3 9
Chloride	WQCC (4/5)	250	68	29 6	172	47 9	120	57 3	297	176	123	72	3 95	3 01
Fluoride	WQCC (SW)	2	0 71	0.26	0 57	0.24	0 35	0.23	1 3	0 33	0.48	0 32	0 27	0.26
Alkalinity	NA	NA	142	53 5	112	78 9	54 4	43 8	86 1	61 1	156	113 3	12.2	8 6
pH	WQCC (4/5)	6 5-9 0	8 1	7 6	8	7.5	7 9	7 3	7 9	7 4	8 1	7 8	7 6	6 9
Specific Conductance	NA	NA	540	216	560	311	260	203	1040	709	770	402	100	70
Dissolved Solids	NA	NA	271	153	470	224	184	131	582	394	474	273	102	58
Total Suspended Solids	NA	NA	570	200	1232	402	568	380	1659	505	384	94	219	90
Ammonia as N	WQCC (4)/WQCC (5)	0 1/(1 8/0 7) (G)	0 32	0 1	1 7	0 35	0.26	0 11	0 5	0 09	0 1	0 04	0 1	0 06
NO3/NO2 as N	WQCC (4/5)	10	1 76	0 97	1 82	1.28	1.22	0 99	0 84	0 63	1.2	0 74	0 61	0 39
Total Phosphorus as P	NA	NA	0 54	0.28	1 44	0 54	1 1	0 68	0 86	0 35	0.84	0 07	0 06	0 03

Table Notes

(A) Hydrograph events were sampled with automatic samplers at the beginning of the storm runoff at pre-set time intervals until the stream-channel stage declined to a pre-set level
Data were reported in the NPDES Permit Application Monitoring Report for RFETS (EG&G 1993b)
(B) Sources of potentially applicable standards include (a) Water Quality Control Commision (WQCC) Segment 4 and 5 stream standards as identified in Section 3 8 0 of 5 CCR 1002-8 Classifications and Numeric Standards for the South Platte River Basin, Laramie River Basin Republican River Basin· Smoky Hill River Basin· and (b) WQCC statewide (WQCC SW) standards for constituents that have no site-specific standards. When more than one statewide standard was applicable the most conservative standard was selected. For constituents with "Table Value Standards, a hardness value of 143 milligrams per liter (mg/L) was used to calculate the standard. NA indicates that no WQCC standard is applicable.
(C) All stormwater quality metals data are total recoverable concentrations.
(D) Analytical method used was graphite furnace atomic adsorption (AA) spectroscopy
(E) Analytical method used was cold vapor atomic absorption (AA) spectroscopy
(F) Cr-III is chromium III and Cr VI is hexavalent chromium.
(G) Temporary modifiations to Segment 5 have a value of 1 8 mg/L for March 1 through June 30 and a value of 0 7 mg/L for July 1 through April 31

Table 3-2
OU12 Field Sampling Plan
RFETS Stormwater Quality Data Summary
Water Years 1991 1993

PARAMETER	GS10							GS13						
Dissolved Metals (µg/L)	Sample #	Max Value	Min Value	Avg Value	# < MDL	Exceeds	Standard	Sample #	Max Value	Min Value	Avg Value	# < MDL	Exceeds	Standard*
ALUMINUM	18	4450	19	312 11	17	5	87	10	120	28 3	62 79	10	2	87
ANTIMONY	18	33	23	24 67	18	18	6	10	29	23	23 60	10	10	6
ANTIMONY	2	71	59	65 00	1	2	6	1	26	26	26 00	0	1	6
ARSENIC	18	90	2 8	58 69	18	0	150	10	90	64	66 60	10	0	150
BARIUM	18	87 4	1	42 70	18	0		10	93 3	30 3	48.29	10	0	
BERYLLIUM	18	1	1	1 00	18	0	4	10	1	1	1 00	10	0	4
CADMIUM	18	5	3	4 72	18	0	1 5	10	5	4	4 90	10	10	1 5
CALCIUM	18	63300	330	27502 50	1	0		10	75900	19200	34040 00	0	0	
CESIUM	2	617	617	617 00	2	0		0				0		
CESIUM	13	5	1	2 54	13	0		6	5	1	1 67	6	0	
CHROMIUM	18	11 4	3	7 79	17	0	50	10	8	4 5	7 65	10	0	50
COBALT	18	8	5	7 55	18	0		10	8	5	7 70	10	0	
COPPER	18	26 3	3	9 44	17	2	16	10	9 3	3	5 70	10	0	16
IRON	18	6000	5.2	387.29	15	1	300	10	82 7	27 5	57 77	10	0	300
LEAD	18	286	2	98.22	16	17	6 46	10	75	47	72.20	10	10	6 46
LEAD	11	142	1	25 18	9	2	6 46	5	5	1	1 80	4	0	6 46
LITHIUM	18	10 3	1	4 54	18	0		10	16 8	2 6	5 24	10	0	
MAGNESIUM	18	11800	44	5046 33	8	0		10	23100	3990	7980 00	2	0	
MANGANESE	18	458	1	60 60	7	0	560	10	32 4	1 6	15 03	4	0	560
MERCURY	4	0.2	0.2	0.20	4	4	0 01	0				0	0	0 01
MOLYBDENUM	18	15	9	10 01	18	0		10	11	9	9.20	10	0	
NICKEL	18	15	12	14 61	18	0	125	10	15	12	14 70	10	0	125
POTASSIUM	18	4410	575	2647 72	18	0		10	5730	2300	3733 00	8	0	
SELENIUM	18	48	2	37 06	18	16	17	10	48	41	41 70	10	10	17
SILICON	17	9960	110	2621 00	0	0		9	6960	2360	3602.22	0	0	
SILVER	18	6	4	5 72	18	18	0 59	10	6	5	5 90	10	10	0 59
SODIUM	18	41900	332	18862.22	2	0		10	52000	13300	21490 00	0		
STRONTIUM	18	381	1	171 56	12	0		10	591	119	225 90	6	0	
THALLIUM	18	191	3	166 56	18	16	15	10	191	127	184 60	10	10	15
THALLIUM	13	5	1	2 54	13	0	15	6	5	1	1 67	6	0	15
TIN	18	21	10	19 17	18	0		10	21	10	19 90	10	0	
VANADIUM	18	14 1	5	10 62	18	0		10	11	7	10 60	10	0	
ZINC	18	313	5 3	42 72	12	1	144	10	10 7	4 7	7.27	9	0	144
No value is presented for those analytes without Numeric Standards														
	GS10							GS13						
Total Metals (µg/L)	Sample #	Max Value	Min Value	Avg Value	# < MDL	Exceeds	Standard**	Sample #	Max Value	Min Value	Avg Value	# < MDL	*Exceeds	Standard*
ALUMINUM	31	26000	19	8616 09	5	0		21	33000	67 3	8277 87	1	0	
ANTIMONY	31	33	6 9	21.23	31	23	14	19	30	6 9	21 99	19	16	14
ANTIMONY	2	29	25	27 00	0	2	14	1	1	1	1 00	0	0	14
ARSENIC	31	90	0 35	37 01	22	16	50	20	94	0 35	37 30	14	10	50
BARIUM	31	367	1	116 07	18	0	1000	21	280	52 9	115 92	10	0	1000
BERYLLIUM	31	2 6	0 3	1 14	28	0	0 0076	19	2 8	0.3	1.24	17	19	0 0076
CADMIUM	29	5	1 15	3.53	28	0	10	17	40	1.2	5 67	17	1	10
CALCIUM	31	83300	330	37064.35	2	0		21	82100	22700	39419 05	0	0	
CESIUM	14	617	250	356 00	14	0		9	500	50	283 33	9	0	
CESIUM	13	147	1	24 77	0	0		6	5	1	1 67	0	0	
CHROMIUM	31	34.5	2 75	13 81	11	0	50	20	35	2 75	10.53	13	0	50
COBALT	31	25	1.35	7.64	25	0		19	25	1 8	7 16	16		
COPPER	31	69.2	3	26.23	10	16	23	21	36	2 7	14.31	12	2	23
IRON	31	35300	11	9116 92	4	6	13200	21	33000	77.8	7811 75	1	4	13200
LEAD	31	286	0 4	135.32	19	19	28	21	286	0 4	112 85	10	122	28
LEAD **	11	2624	8	822.09	0	10	28	5	1192	86	481 60	0	5	28
LITHIUM	31	50	1	11.26	20	0		21	23	4 8	10 71	10	0	
MAGNESIUM	31	21800	44	7964.32	7	0		21	21600	5220	9634.29	0	0	
MANGANESE	31	1370	1	338.28	5	2	1000	21	950	10	243 96	1	0	

SCQ218

Table 3-2
OU12 Field Sampling Plan
RFETS Stormwater Quality Data Summary
Water Years 1991 1993

MERCURY	14	0 3	0 1	0 14	12	14	2	9	1 1	0 1	0 26	8	0	2
MOLYBDENUM	31	100	1 75	11 85	27	0		19	25	2 9	10 41	19	0	
NICKEL	31	35.2	5 35	14.24	24	0	200	19	29	2 95	14 57	16	0	200
POTASSIUM	31	6750	575	3905 45	15	0		21	8100	2260	4520 95	6	0	
	GS10							GS13						
Total Metals [µg/L]	Sample #	Max Value	Min Value	Avg Value	# < MDL	Exceeds	Standard	Sample #	Max Value	Min Value	Avg Value	# < MDL	Exceeds	Standard*
SELENIUM	29	48	0 35	23 92	29	16	10	19	48	0 6	23.25	18	10	10
SILICON	27	9960	0	1710 11	1	0		20	7490	0	2091 50	0	0	
SILVER	30	8 8	1 05	4 81	26	0	50	20	7	1 45	4 84	20	0	50
SODIUM	31	55000	343	20582 61	3	0		21	49800	13500	24609 52	0	0	
STRONTIUM	18	433	1	192 83	11	0		10	572	141	234 90	5	0	
THALLIUM	31	191	0 45	93 39	30	31	0 012	20	191	0 7	85 68	20	20	0 012
THALLIUM	13	5	1	2 54	0	13	0 012	6	5	1	1 67	0	6	0 012
TIN	31	100	4 7	22 92	30	0		18	100	5.2	27 54	18	0	
VANADIUM	18	59.2	5	23 38	16	0		10	18 7	7	11 11	10	0	
ZINC	31	1190	7	331 90	4	12		21	340	3 6	93 96	2	0	350
No value is presented for those analytes without Numeric Standards														
	GS10							GS13						
Radionuclides [pCi/L]	Sample #	Max Value	Min Value	Avg Value		Exceeds	Standard*	Sample #	Max Value	Min Value	Avg Value		Exceeds	Standard**
AMERICIUM-241	22	0 45	-0 003075	0 15		16	0 05	10	0 093	0 002	0 04		4	0 05
CESIUM-137	8	0 34	0 024	0 14		0		10	0.28	-0 095	0 08		0	
CURIUM 244	3	0 016	-0 004	0 01		0		3	0 028	-0 012	0 01		0	
GROSS ALPHA	23	25	1 8	7 55		4	11	16	7	-0 37	4 06		0	11
GROSS BETA	22	21 5	2	10 34		3	19	14	10	0 63	5 90		0	19
NEPTUNIUM-237	3	0	-0 009	0 00		0		2	0 041	0 018	0 03		0	
PLUTONIUM-239	28	0 58	0 005	0 12		13	0 05	18	0 285	-0 003	0 06		7	0 05
RADIUM-226	2	0 47	0 38	0 43		0	5	2	0 16	0 11	0 14		0	5
RADIUM-228	1	2 7	2 7	2 70		0	5	1	1 4	1 4	1 40		0	5
STRONTIUM-89	7	0 42	-0 74	0 07		0		11	0 65	-0 069	0.33		0	
STRONTIUM-90	1	0 27	0.27	0.27		0	8	1	0 39	0 39	0 39		0	8
THORIUM-232	3	0 91	0 19	0 59		0	60	3	0 69	0 01	0.28		0	60
TRITIUM	11	276 3	150	31.34		0	500	8	140 55	21	84 98		0	500
URANIUM-233	15	55	0.26	4.27		1	10	7	2 773	0 499	0 99		0	10
URANIUM-234	0					0	10	1	1 1	1 1	1 10		0	10
URANIUM-235	28	0.29	-0 044	0 04		0	10	18	0 44	-0 005	0 08		0	10
URANIUM-238	28	2.222	0 072	0 85		0	10	18	4 9	0 442	1 81		0	10
No value is presented for those analytes without Numeric Standards														
	GS10													
Water Quality [mg/L]	Sample #	Max Value	Min Value	Avg Value		Exceeds	Standard*	Sample #	Max Value	Min Value	Avg Value		*Exceeds	Standard*
ALKALINITY	14	116	43 6	68 32		0		7	246 6	65.2	108 84		0	
CARBONATE	15	10	0	0 67		0		7	7 7	0	1 10		0	
CHLORIDE	15	44.5	12 9	20 95		0	250	7	49 6	16 6	26 44		0	250
CONDUCTIVITY	14	674	190	359 93		0		7	766	216	362 00		0	
FLUORIDE	15	2 5	0.23	0 75		1	2	7	0 94	0.5	0 65		0	2
NITRATE	12	4 56	1 03	1 84		0	10	5	1 39	0 78	0 97		0	10
pH	14	7 9	6.51	7 13		0	6 5-9 0	7	7 9	6 9	7 43		0	6 5-9 0
SULFATE	15	121	14.3	50 09		0	250	7	53 1	13 1	23 86		0	250
TOTAL DISSOLVED SOLIDS	15	440	132	225.80		0		7	469	157	241 00			
TOTAL SUSPENDED SOLIDS	15	550	13	194 47		0		7	233	4	83 00			

No value is presented for those analytes without Numeric Standards The test method used for metals analyses was inductively coupled plasma emissions spectrometry (ICPES) This test method has relatively high detection limits; therefore the majority of exceedances noted are due to artificially inflated values calculated based on one-half of the method detection limit (MDL)

** WQCC Segment 5 stream standards for Big Dry Creek are provided for purposes of comparison. No value is presented for those analytes without WQCC numberic standards.

*** Sample was measured using Inductively Coupled Plasma Spectrometry which has lower detection limits than ICPES These data are available for selected metals for water year 1993 only

Source Wetherbee Greg 1994 Personal Communication between Greg Wetherbee EG&G Surface Water Division and Wright Water Engineers.

Note # < MDL not available for radionuclides and water quality parameters.

avg value = average value MDL = maximum detection limit µg/L = micrograms per liter

max value = maximum value min value = minimum value Mg/L = milligrams per liter

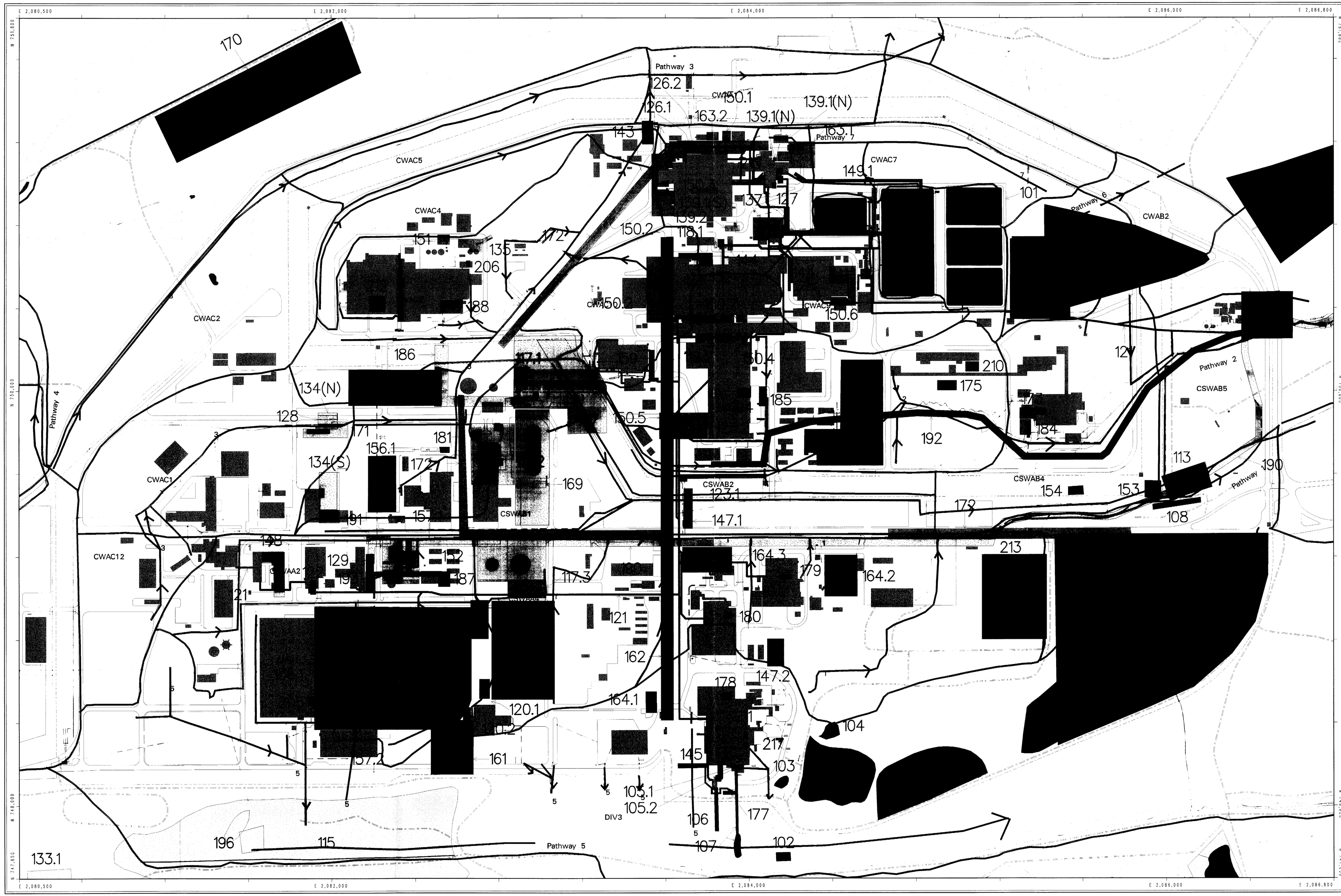

PLATE 1
Operable Unit and IHSS Location Map

EXPLANATION

- Storm Drain System
- Wetlands
- Drainage Sub Basins
- Overland Flow Pathways
- CSWAB4 - Sub Basin Pathway
- Operable Unit 1
- Operable Unit 2
- Operable Unit 4
- Operable Unit 5
- Operable Unit 6
- Operable Unit 8
- Operable Unit 9
- Operable Unit 10
- Operable Unit 12
- Operable Unit 13
- Operable Unit 14
- Operable Unit 15
- Operable Unit 16
- Buildings or other structures
- Lakes and ponds
- Streams, ditches, or other drainage features
- Fences
- Paved roads
- Dirt roads

Scale = 1 : 2400
1 inch represents 200 feet

200 0 400 800ft

State Plane Coordinate Projection
Colorado Central Zone
Datum: NAD27

U.S. Department of Energy
Rocky Flats Environmental Technology Site

Prepared by:
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Golden, Colorado 80402-0464

MAP ID: ***Draft***

September 09, 1994

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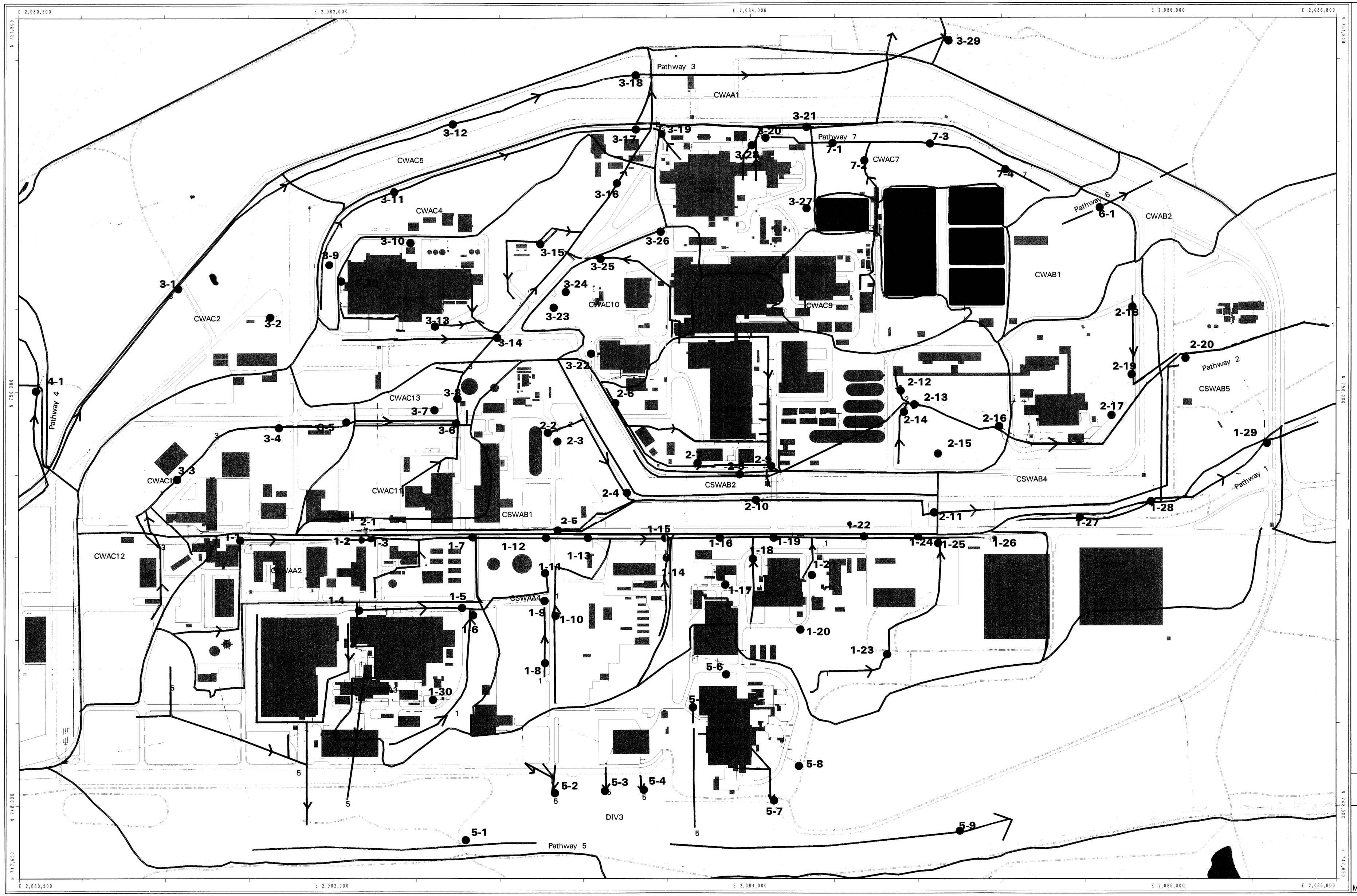

PLATE 2
Proposed Surface-Water and Sediment Sampling Locations

EXPLANATION

- Sediment Sampling Location
- Surface-Water Sampling Location
- Storm Drain System
- Wetlands
- Drainage Subbasins
- Overland Flow Pathways
- CSWAB4 - Subbasin Pathway
- Buildings or other structures
- Lakes and ponds
- Streams, ditches, or other drainage features
- Fences
- Paved roads
- Dirt roads

Pathway Descriptions

Pathway 1 - Drains most of southern Industrial Area and discharges to the east into buffer zone and B-series ponds.

Pathway 2 - Drains central and east-central portions of the Industrial Area and discharges to the east into B-series ponds via South Walnut Creek.

Pathway 3 - Drains north end of the Industrial Area to North Walnut Creek and A-series ponds.

Pathway 4 - Drains western Industrial Area and discharges to McKay Diversion Canal.

Pathway 5 - Drains from the southern Industrial Area and into the South Interceptor Ditch.

Pathway 6 - Drains area east of Solar Evaporation Ponds, discharging to the A-series ponds.

Pathway 7 - Drains area south of Interceptor Trench System.

N

Scale = 1 : 2400
1 inch represents 200 feet
200 0 400 800ft

State Plane Coordinate Projection
Colorado Central Zone
Datum: NAD27

U.S. Department of Energy
Rocky Flats Environmental Technology Site

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MAP ID: ***Draft***

October 14, 1994

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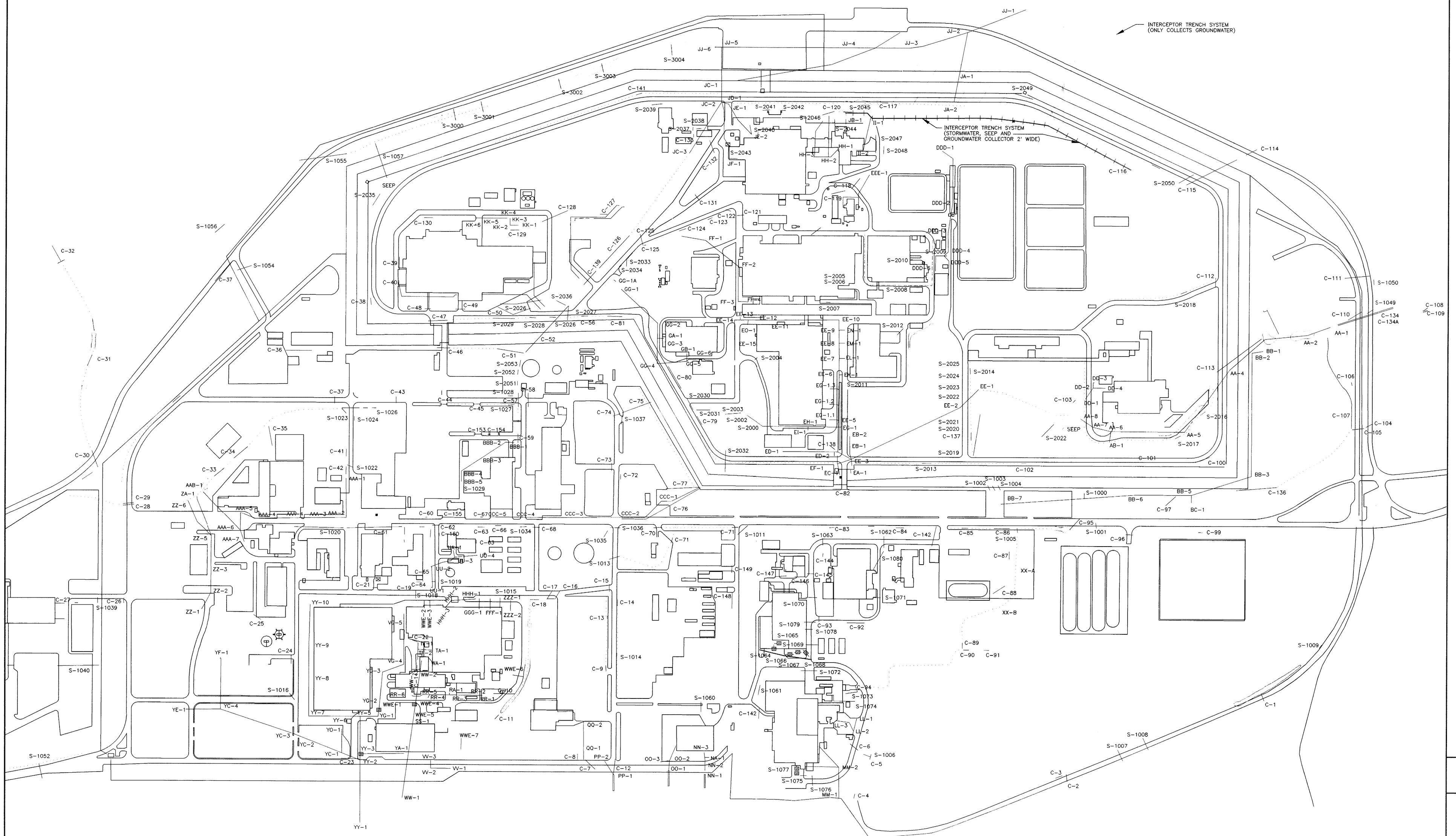

PLATE 3

Rocky Flats Environmental Technology Site
Structural Storm-Sewer Controls Inventory

LEGEND

- XX-00 STORM-SEWER STRUCTURES
- CURB & GUTTER
- FENCELINE
- INTERCEPTOR TRENCH
- DITCH
- CONCRETE DITCH
- APPROXIMATE BOUNDARY OF WETLAND VEGETATION
- INLET
- GRATE
- MANHOLE

-N-

200 100 0 200 400
SCALE IN FEET

NOTE: BASE MAPPING BY SCHARF AND ASSOCIATES. FACILITIES FROM DRAWINGS 15501-1-M THRU 15501-59-M BY U.S. DEPARTMENT OF ENERGY, AND BY WRIGHT WATER ENGINEERS, INC. FIELD INVESTIGATIONS.

U.S. Department of Energy
Rocky Flats Environmental Technology Site

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