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ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE AUTOMATED SURFACE-WATER MONITORING REPORT Water Year 2002

U.S. DEPARTMENT OF ENERGY

Rocky Flats Environmental Technology Site

Golden, Colorado

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ADMIN RECORD

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1. EXECUTIVE SUMMARY

This Report presents the data collected to satisfy selected surface-water monitoring objectives implemented at the Rocky Flats Environmental Technology Site (RFETS or Site) in accordance with the *Rocky Flats Cleanup Agreement* (RFCA; CDPHE, USDOE, USEPA, 1996) and the *RFETS Integrated Monitoring Plan FY2002* (IMP; Kaiser-Hill, 2001). The IMP provides a framework for monitoring in support of closure activities at the Site. This framework includes implementation of a high-resolution surface-water monitoring program that supports data-driven decisions determined by the IMP Data Quality Objectives (DQO) process. The automated surface-water monitoring program is intended to provide:

- Monitoring of multiple parameters for the safe and effective operation of the Site detention ponds;
- Monitoring of flows and contaminant levels in subdrainages to facilitate the identification of contaminant sources;
- Monitoring of various surface-water parameters at various locations on an Ad Hoc basis in support of special projects and/or building operations;
- Monitoring of indicator parameter values at various locations to determine correlations between indicator parameters and analytical water-quality measurements;
- Detection of a release of contaminants from specific high-risk projects within the Industrial Area (IA);
- Detection of statistically significant increases of contaminants in surface water from within the IA in general;
- Detection of contaminants corresponding to RFCA Action Levels in discharges entering Stream Segment 5 and the Site detention ponds;
- Detection of contaminants corresponding to RFCA Standards in discharges entering Stream Segment 4 and at the Site boundary;
- Monitoring of indicator parameters in discharges leaving the Site boundary as a prudent management action; and
- Monitoring of flows and water-quality in the Buffer Zone (BZ) for ecological and water rights issues, closure planning and design, as well as supporting studies regarding the interaction between media.

The intent of this report is to provide a comprehensive and detailed summary of the automated surface-water monitoring conducted at RFETS, which fulfills the applicable requirements of the Site IMP. As such, this report is organized to follow the framework of the IMP, with each report section providing the objective-specific data evaluations.

This report includes all data collected during Water Year 2002. The term 'water year' (abbreviated as WY) is defined as the period from October 1st through September 30th. For example, WY02 refers to the period from 10/1/01 through 9/30/02. Future reports will be completed annually for each water year by the end of following water year (September 30th).

This report also includes more recent data specifically used in Section 6: Source Location Monitoring as specifically related to ongoing source evaluations. The data are presented here to provide timely response to recent observations. The source evaluation presentation in Section 6 fulfills the Site's requirement to perform source evaluation in response to reportable values at Points of Evaluation (POEs) GS10 and SW093 during WY03. The WY03 Annual Report will include evaluation of all data collected during WY03 in addition to the WY03 Source Evaluation data presented herein.

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2. INTRODUCTION

2.1 MONITORING HIGHLIGHTS: WATER YEAR 2002

During WY02, the automated surface-water monitoring network successfully fulfilled the targeted monitoring objectives as required by the Site IMP. During the year, six new monitoring locations were installed to provide increased monitoring resolution as the Site moves toward closure. By the end of the water year the network consisted of 56 locations. During WY02 these locations collected 233 composite samples composed of 11,163 individual grabs.

WY02 was an extremely dry year with approximately 7.7 inches of precipitation, which is 58% of average. April, normally the 2nd wettest month at the Site, had less than 4% of the average April precipitation. The largest events occurred on 5/23/02 (0.74") and 5/24/02 (0.68"). The largest two-day total (1.42") consisted of these same two events. January was somewhat wetter than average, while both April and July were significantly drier than average. The 5/23-5/24/02 event resulted in the highest peak flow rates for the year from the IA estimated at 37 cfs in North Walnut Creek and 27 cfs in South Walnut Creek.

All water-quality data at the RFCA Points of Compliance (POCs) were well below the applicable standards. For the RFCA POEs, all water-quality data were below the applicable action levels, with the exception of GS10 (South Walnut Creek). These reportable values are addressed in Section 6 of this report.

New Source Detection (NSD) monitoring of surface-water in the five major pathways from the IA indicated no new source(s) of statistically significant contamination (see Section 11). Source Location monitoring upstream of POE GS10 continued to characterize these drainage areas. Data continued to support the conclusions detailed in previous source evaluation reports for GS10.

Performance monitoring of closure projects at the Site was significantly enhanced with the addition of 5 new locations. Location GS28 was re-installed to support the 800 Area D&D; location GS57 was installed to support the D&D of the 400 Area; GS58 was installed to support the D&D of B886; GS55 was installed to support the D&D of B881; SW036 was installed in support of accelerated actions for the Original Landfill; and GS56 was installed in support of accelerated actions for the Present Landfill. Data from all Performance locations continued to show that Site projects were not significantly affecting water quality, confirming the effectiveness of the administrative and engineering controls intended to protect surface water. Data collected from locations GS57 and GS58 will also be used to further characterize the GS10 drainage area.

2.1.1 Planned Activities for Water Year 2003

The following program changes were implemented for Water Year 2003:

- A new 3-foot HL flume was constructed at POC GS03. The location was fully operational on 2/12/03.
- A new 3-foot H flume was constructed at POE SW093. The location was fully operational on 5/29/03.
- Uranium isotopes (U-233,234; U-235; U-238) were added to the analyte suites for POCs GS01 and GS03 in November 2002.
- Performance monitoring location GS59 was installed on 11/19/02 to support accelerated actions for the Original Landfill.
- Performance monitoring location SW021 was installed on 5/6/03 to support D&D of B991.
- Performance monitoring location GS60 was installed on 8/5/03 to support D&D of B371/374.
- Performance monitoring location GS21 was re-installed on 12/10/03 to support closure activities at B664.
- Metals were added to the analyte suite for location GS38 on 5/16/03, effectively upgrading this location to a Performance monitoring location in support of D&D projects in the 100, 300, 400, and 600 Areas.

- Buffer Zone Hydrologic sampling was discontinued at GS02, GS05, and GS06.

The addition of the above Performance monitoring locations will give the Site comprehensive coverage of nearly all closure projects that have the possibility of significantly impacting surface-water quality.

2.2 PURPOSE

This Report presents the data from the automated surface-water monitoring objectives implemented at the Site in accordance with the RFCA and the IMP. The IMP provides a framework for monitoring in support of transition activities at the Site. This framework includes implementation of a high-resolution surface-water monitoring program that supports data-driven decisions determined by the IMP DQO process. This automated monitoring program is intended to provide:

- Monitoring of multiple parameters for the safe and effective operation of the Site detention ponds;
- Monitoring of flows and contaminant levels in subdrainages to allow for the location of contaminant sources;
- Monitoring of various surface-water parameters at various locations on an Ad Hoc basis in support of special projects and/or building operations;
- Monitoring of indicator and field parameters at various locations to provide enhanced analytical data assessment;
- Routine monitoring of point source discharges and reporting of results in compliance with the NPDES permit program to control the release of pollutants into the waters of the United States.
- Detection of a release of contaminants from specific high-risk projects within the IA;
- Detection of statistically significant increases of contaminants in runoff from within the IA in general;
- Detection of contaminants exceeding RFCA Action Levels in discharges entering Stream Segment 5 and the Site detention ponds;
- Detection of contaminants exceeding RFCA Standards in discharges entering Stream Segment 4 and at the Site boundary;
- Monitoring of indicator parameters in discharges leaving the Site boundary as a prudent management action; and
- Monitoring of flows and water-quality in the BZ for ecological and water rights issues, as well as supporting studies into the interaction between media.

2.3 SCOPE

This Report includes:

- A description of the site automated surface-water monitoring program and monitoring network;
- A presentation of discharge and precipitation data summary statistics;
- A loading for selected radionuclides at POEs and POCs;
- A presentation of analytical water-quality results;
- An evaluation of analytical results as required by the Site IMP, organized by monitoring objective;
- A presentation and evaluation of real-time water-quality data;
- An appendix with hydrologic and water-quality data; and,

- A compact disc with appendix tables in digital format.

In addition, this report includes more recent data specifically used in Section 6: Source Location Monitoring as specifically related to ongoing source evaluations. The source evaluation presentation in Section 6 is intended to fulfill the Site's requirement to perform timely source evaluation in response to reportable values at POEs GS10 and SW093 during WY03. The WY03 Annual Report will include evaluation of all data collected during WY03 in addition to the WY03 Source Evaluation data presented herein.

2.4 BACKGROUND

2.4.1 Environmental History

Processing and fabrication of weapons-related components began at the Site in 1952 and continued through 1989. Fabrication of stainless steel components continued in one building, however, through the early 1990's. During operation, environmental protection measures were established that seemed consistent with prudent environmental management. However, some activities resulted in the environmental contamination of portions of the Site. Efforts to document the extent of Site contamination became a major focus in the 1980s and continue today in accordance with the Resource Conservation and Recovery Act (RCRA), the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), and the RFCA, a cooperative agreement between U.S. Department of Energy (DOE), U.S. Environmental Protection Agency (EPA), and Colorado Department of Public Health and Environment (CDPHE). In addition, a historical release report (HRR) (DOE, 1992) has been developed that documents contamination arising from past practices. The HRR is updated on an annual basis with the knowledge gained from ongoing monitoring and investigative activities. The additional information is submitted on an annual basis to the EPA and CDPHE as addenda to the original document.

Documented areas of soil contamination have been designated as Individual Hazardous Substance Sites (IHSSs). Many of these IHSSs have been characterized as part of the Remedial Investigation/Feasibility Study (RI/FS) process which was conducted under the Interagency Agreement (IAG; 1991) between DOE, CDPHE, and EPA. Some IHSSs have already been remediated and the Environmental Restoration Department, in accordance with a Site environmental remediation priority ranking system, currently schedules others for remediation.

2.4.2 Rocky Flats Cleanup Agreement

The RFCA was officially adopted on July 19, 1996 (CDPHE et. al., 1996). The RFCA replaces the IAG as the environmental cleanup agreement for RFETS. The RFCA outlines the goals, objectives, and strategies that will lead to the RFETS cleanup and closure mission objectives. The Action Level Framework (ALF) attachment to the RFCA contains specific requirements for environmental monitoring and reporting, and it sets action levels for contaminant concentrations in surface water and in other media. The IMP is required under RFCA to further define the monitoring programs for the Site.

To align the surface-water monitoring program with the new RFETS mission and RFCA requirements, the monitoring network was evaluated in 1996. The DQO process was used to determine what decisions were necessary for surface water and the function of each location in the network in supporting those decisions. DOE, CDPHE, EPA, and stakeholders were directly involved in decisions involving the monitoring network. Results of this evaluation were integral to the development of the IMP, which is discussed below.

2.4.3 Integrated Monitoring Plan for Surface Water

The Site automated surface-water monitoring network is designed to meet the requirements documented in the Site IMP, which groups all Site surface-water monitoring objectives into five primary categories: Site-Wide, Industrial Area, Industrial Area Discharges to Ponds, Water Leaving the Site, and Off-Site. The ten IMP objectives that are accomplished through the automated monitoring as detailed in the annual Rocky Flats Environmental Technology Site Automated Surface-Water Monitoring Work Plans (SSOC, 2001) are described

briefly below.[1,2] During WY02, the Site monitoring network included 56 monitoring stations (Figure 2-2) to achieve these objectives.[3] In some situations, the same location may serve multiple objectives. Monitoring tasks and data collection, compilation, evaluation, and reporting for each objective included in this report are detailed in Sections 6 through 15.

The IMP used the DQO process to determine necessary and sufficient monitoring requirements. The process yielded 19 individual, data-driven, surface-water monitoring objectives (a.k.a. decision rules under the DQO process), a subset of which (10) is implemented through automated monitoring. Some decisions need a higher priority than others, and some need greater confidence. The DQO process produced descriptions that expose the strengths and weaknesses of each data-driven decision and the value of the data (resources required) in making each decision. Management decisions often must be made based on incomplete information. The individual DQO sections of the IMP document guide management in establishing funding priorities for surface-water monitoring objectives.

Five of the IMP automated surface-water monitoring objectives are organized in a roughly upstream-to-downstream direction, beginning with Performance monitoring within the IA and ending downstream at the POCs at Indiana Street (Figure 2-1). These monitoring objectives are summarized in the following paragraphs and are discussed in detail in Sections 10 through 14.

For the first of the upstream-to-downstream monitoring categories (IA Objectives), the IMP requires the Site to characterize significant surface-water releases within the IA. Within the IA [usually], individual high-risk projects will sometimes warrant Performance monitoring (Section 10) to detect a spill or release of contaminants specifically associated with that project.

For the next upstream-to-downstream monitoring category (IA Discharges to Ponds / Segment 5 Objectives), the IMP requires the Site to identify and correct significant accidental or undetected releases of contaminants from the IA to the Site detention ponds (surface water leaving the IA and entering Segment 5). The New Source Detection (Section 11) and Point of Evaluation (Section 12) objectives deal with discharges from the IA to the ponds. In order to decide whether a significant release has occurred, the Site performs NSD monitoring of IA runoff for significant increases in contaminants. Additionally, RFCA specifies Stream Segment 5 / POE monitoring for the upstream reaches of Site drainages (above the ponds) and specifies action levels for contaminants (Action Level Framework).

The next, and perhaps most significant monitoring category, is Water Leaving the Site (Segment 4 Objectives). The Site is required to monitor at Point of Compliance locations below the terminal ponds to protect state stream standards in Segment 4 (Section 13), as specified in RFCA. In addition, there are RFCA POCs that are located at the Site boundary at Indiana Street (Section 13) for both Walnut and Woman Creeks. The Non-POC decision rule (Section 14) also requires the Site to collect data for selected water-quality parameters at the Indiana Street POCs.

Monitoring objectives that do not fit into the upstream-to-downstream sequence are considered as Site-Wide Monitoring Objectives. Monitoring in support of these objectives can occur at any location within the Site boundary.

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[1] The IDLH decision rule (locations indicated in Table 2-1; included in the RFETS Automated Surface-Water Monitoring Work Plans) requires the collection of hydrologic data to support the management of the Site detention ponds. This objective does not require any detailed data analysis. Therefore, this decision rule is not included in this report, however, hydrologic data is presented here for completeness.

[2] Data evaluation from the NPDES monitoring is also included here for the completeness. Additional details on the implementation of NPDES monitoring can be found in the applicable NPDES permit.

[3] The period of operation of these locations varies based on project needs and regulatory requirements.

For example, Imminent Danger to Life and Health (IDLH) monitoring provides information necessary for safe operation of the Site detention pond dams. This monitoring objective is not discussed in this document, however the hydrologic data associated with this decision rule is presented in Section 3.

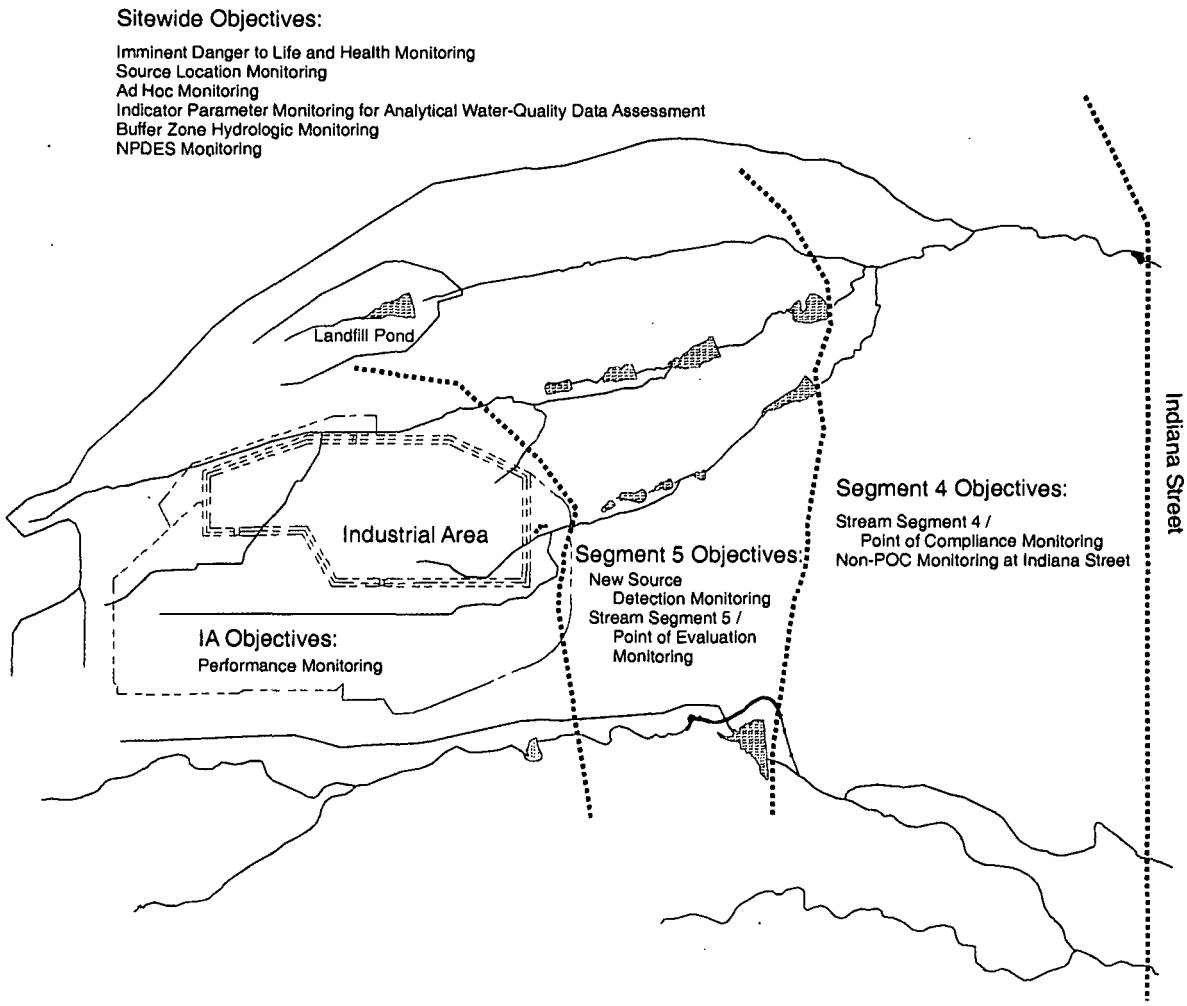

Figure 2-1. Conceptual Model of Site Automated Surface-Water Monitoring Objectives.

Another sitewide monitoring objective, Source Location monitoring (covered in Section 6), is designed to locate a source of contamination detected by other monitoring objectives, and can take place anywhere within the Site boundary. Unplanned, special-request monitoring activities are discussed as Ad Hoc monitoring in Section 7. For example, monitoring may be performed at various locations to evaluate alternatives for surface-water management, such as controlled-detention pond management or re-routing of wastewater treatment plant (WWTP) effluent. Similarly, monitoring may need to be performed to provide data to special projects such as the Actinide Migration Evaluation and the Site-Wide Water Balance.

Indicator Parameter Monitoring for Analytical Water-Quality Data Assessment (Section 8) in also implemented sitewide. This objective provides the justification for the collection of general water-quality and quantity information to be used for various data assessments. Specifically, this objective outlines the current and expected uses of parameters such as total suspended solids (TSS), turbidity, and flow rate.

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Figure 2-2. RFETS Automated Surface-Water Monitoring Locations and Precipitation Gages: Water Year 2002.

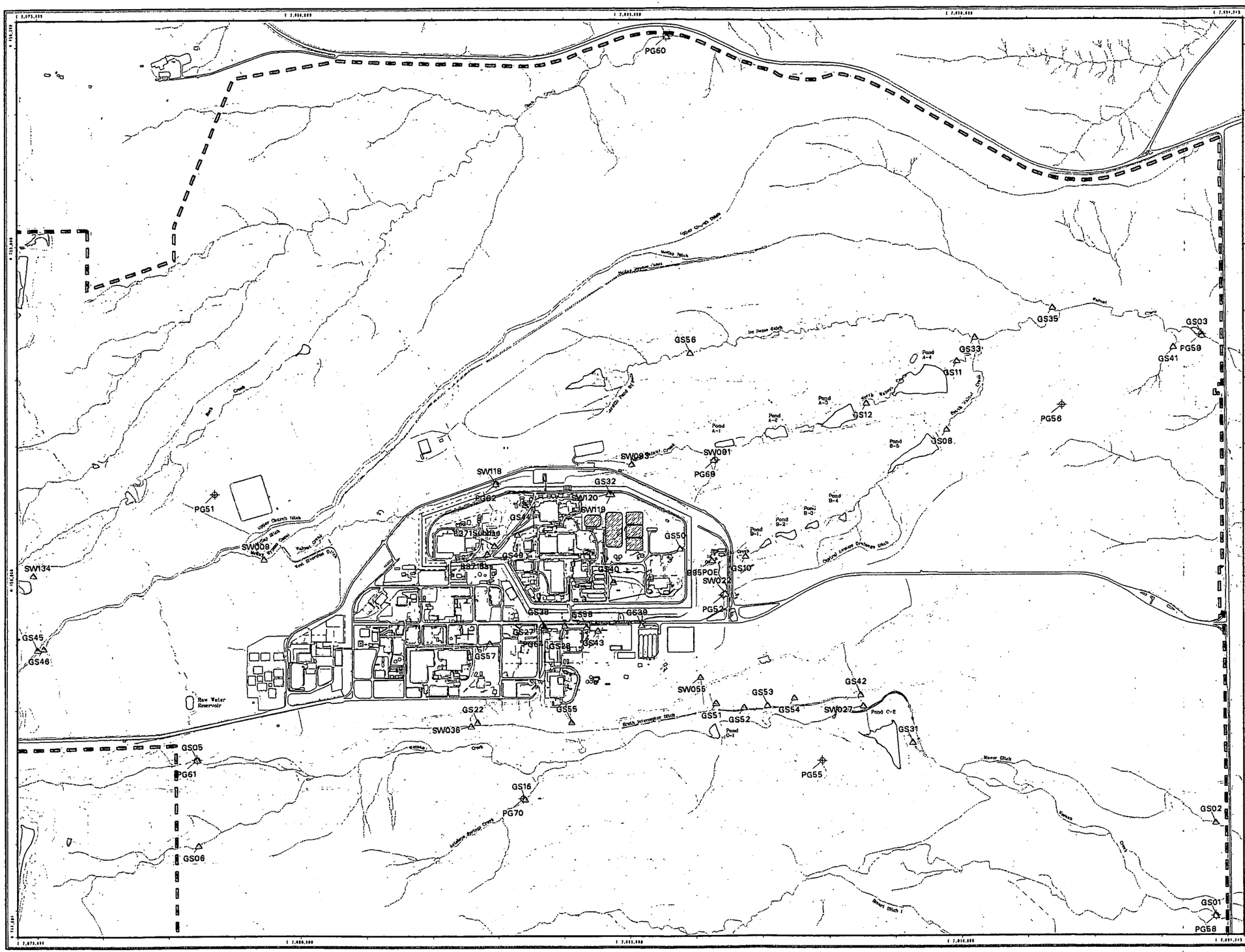

Figure 2-2

RFETS Automated Surface-Water Monitoring Locations and Precipitation Gages Water Year 2002

EXPLANATION

- Precipitation Gage
- Automated Surface Water Monitoring Location

Standard Map Features

- Buildings and other structures
- Solar Evaporation Ponds (SEPs)
- Lakes and ponds
- Streams, ditches, or other drainage features
- Fences and other barriers
- Topographic Contour (20-Foot)
- Rocky Flats Environmental Technology Site boundary
- Paved roads

DATA SOURCE BASE FEATURES:
Buildings, fences, hydrography, roads and other structures from 1994 aerial fly-over data captured by EG&G RSL, Las Vegas. Digitized from the orthophotographs. 1/95
Topographic contours were derived from digital elevation model (DEM) data by Morrison Knudson (MK) using ESRI Arc TIN and LATTICE to process the DEM data to create 5-foot contours. The DEM data was captured by the Remote Sensing Lab, Las Vegas, NV, 1994 Aerial Flyover at ~ 10 meter resolution. DEM post-processing performed by MK, Winter 1997.

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Scale = 1 : 17800
1 inch represents approximately 1483 feet

500 0 1000 2000ft

State Plane Coordinate Projection
Colorado Central Zone
Datum: NAD27

U.S. Department of Energy
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Prepared by: CH2MHILL Communications Group

Prepared for: KAISER•HILL COMPANY

September 23, 2003

NT_Svr w:/projects/fy2003/03-0564/auto-sw loca_wy02.aml

The NPDES permit program controls the release of pollutants into the waters of the United States and requires routine monitoring of point source discharges and reporting of results (Section 9). The Site's first NPDES permit was issued by EPA in 1974. The permit was reissued by EPA in 1984, expired in 1989, and administratively extended through April 2001. The current NPDES permit became effective May 1, 2001 and required an update to the RFCA Action Level Framework by adding a new POE at the WWTP (995POE). All monitoring for NPDES compliance is prescriptively required by EPA and is not covered by the IMP process. For the period covered by this report, NPDES monitoring is performed at six locations (two locations after May 1, 2001).

Finally, Buffer Zone Hydrologic monitoring occurs at various locations across the Site and addresses the interfaces between surface water and other media: soil, groundwater, air, and ecology (Section 15).

Table 2-1. Matrix of Monitoring Locations and Supported IMP Decision Rules: Water Year 2002.

	Supported Decision Rule										
ID Code	IDLH	Source Location	Ad Hoc	Indicator Parameter	Performance	New Source Detection	POE	POC	Non-POC	BZ Hydro	Precip-itation
GS01				✓				✓	✓	✓	✓
GS02				✓						✓	
GS03				✓				✓	✓	✓	✓
GS04				✓						✓	✓
GS05				✓						✓	✓
GS06				✓						✓	
GS08	✓			✓				✓			
GS10	✓			✓		✓	✓				
GS11	✓			✓				✓			
GS12	✓										
GS16										✓	✓
GS22				✓	✓						
GS27		✓		✓	✓						✓
GS28		✓		✓	✓						
GS31	✓			✓				✓			
GS32				✓	✓						
GS33			✓								
GS35			✓								
GS38		✓		✓							
GS39		✓		✓	✓						
GS40		✓		✓	✓						
GS41			✓								
GS42				✓	✓						
GS43		✓		✓	✓						
GS44				✓	✓						
GS45			✓								
GS46			✓								
GS49				✓	✓						
GS50		✓		✓	✓						
GS51				✓	✓						
GS52				✓	✓						
GS53				✓	✓						
GS54				✓	✓						
GS55				✓	✓						
GS56				✓	✓						
GS57		✓		✓	✓						
GS58		✓		✓	✓						
SW009			✓								
SW022		✓		✓		✓					✓
SW027	✓			✓		✓	✓				
SW036				✓	✓						
SW055				✓	✓						
SW091				✓	✓	✓					✓
SW093	✓			✓		✓	✓				
SW118										✓	✓

	Supported Decision Rule										
ID Code	IDLH	Source Location	Ad Hoc	Indicator Parameter	Performance	New Source Detection	POE	POC	Non-POC	BZ Hydro	Precip-itation
SW119				✓	✓						
SW120				✓	✓						
SW134				✓						✓	
995POE	✓						✓				
B371BAS			✓								
B371SUBBAS			✓								
RPTR											✓
RPTR2											✓
RPTR3											✓

Note: NPDES locations are not included in this table since all monitoring for NPDES compliance is prescriptively required by EPA and is not covered by the IMP process.
Many locations provide flow data to the Sitewide Water Balance as AdHoc locations. Only those locations specifically installed as AdHoc locations are noted above.

2.5 SETTING

2.5.1 Site Description

The Site is a government-owned, contractor-operated facility in the DOE nuclear weapons complex, located in Golden, Colorado. The Site is owned by the DOE, managed by the DOE Rocky Flats Field Office (DOE, RFFO), and operated by Kaiser-Hill, L.L.C. (K-H). The RFCA surface-water monitoring program is managed and implemented by the Water Programs Group of URS, Corp. (URS), under contract to K-H.

This automated surface-water monitoring program is implemented at multiple locations throughout the Site. Figure 2-2 shows the locations of the automated surface-water monitoring locations operated during WY02 that are included in this report.

2.5.2 Hydrology

Streams and seeps at RFETS are largely ephemeral, with stream reaches gaining or losing flow, depending on the season and precipitation amounts. Surface water flow across RFETS is primarily from west to east, with three major drainages traversing the Site. Fourteen detention ponds (plus several small stock ponds) collect surface water runoff, although only ten ponds are actively managed. The Site drainages and detention ponds, including their respective pertinence to this report, are described below and shown in Figure 2-3.

Walnut Creek

Walnut Creek receives surface-water flow from the central third of RFETS, including the majority of the IA. It consists of several tributaries; North Walnut Creek, South Walnut Creek, and No Name Gulch that join prior to Walnut Creek flowing off RFETS at the eastern boundary (Indiana Street). East of Indiana Street, Walnut Creek flows through a diversion structure normally configured to divert flow to the Broomfield Diversion Ditch around Great Western Reservoir and into Big Dry Creek. The Walnut Creek tributaries, from north to south, are described below:

McKay Ditch

The McKay Ditch was formerly a tributary to Walnut Creek within the RFETS boundaries but was diverted in July 1999 into a new pipeline to keep McKay Ditch water from co-mingling with RFETS water in Walnut Creek. Although no longer a contributor to Walnut Creek, the McKay Ditch drainage is described here to clarify water routing at the Site. The new configuration allows the City of Broomfield to transport water from the South Boulder Diversion Canal, across the northern Rocky Flats BZ and directly into Great Western Reservoir without entering Walnut Creek. This configuration prevents commingling of McKay water with discharged water from the Site detention ponds.

No-Name Gulch

This drainage is located downstream from the Present Landfill and Landfill Pond. A surface-water diversion ditch was constructed around the perimeter of the Present Landfill in 1974 to divert surface-water runoff around the landfill and reduce infiltration of surface water into the landfill. On the north side of the landfill, the ditch runs under a perimeter road through a small culvert and east into a small, natural drainage that eventually joins No Name Gulch below the Landfill Pond dam. On the south side of the landfill, the ditch runs east above the Landfill Pond and drops into No Name Gulch below the dam. The Landfill Pond covers approximately 2.5 acres. Surface-water from the landfill and from the area surrounding the pond is a major contributor to pond water. Some portion of the runoff is diverted by the surface-water diversion ditch, while a significant fraction flows to the Landfill Pond. Water is periodically transferred to the A-Series Ponds to control the water level in the Landfill Pond. Runoff from the IA does not flow into this basin.

North Walnut Creek

Runoff from the northern portion of the IA flows into this drainage, which has four detention ponds (Ponds A-1, A-2, A-3, and A-4). The combined capacity of the A-Series ponds is approximately 197,000 cubic meters (m^3) (52 million gallons [160 acre-feet]). In the normal operational configuration, Ponds A-1 and A-2 are bypassed and maintained for emergency spill control; evaporation or transfer controls water levels in these ponds. Pond A-1 also receives water pumped from the Landfill Pond roughly once per year. North Walnut Creek flow is diverted around Ponds A-1 and A-2 to Pond A-3 for detainment and settling of solids. Pond A-3 is discharged in batches to the A-Series "terminal pond", Pond A-4. After filling to a maximum safe level (typically approximately 50 percent of capacity), Pond A-4 water is isolated, sampled, and released if downstream surface-water quality criteria are met. These off-site discharges, each averaging approximately 63,000 m^3 (16.6 million gallons [51 acre-feet]), typically occur 2 to 4 times per year.

South Walnut Creek

Runoff from the central portion of the IA flows into this drainage, which has five detention ponds (Ponds B-1, B-2, B-3, B-4, and B-5). The combined capacity of the South Walnut Creek B-series ponds is approximately 102,000 m^3 (27 million gallons [83 acre-feet]). Ponds B-1 and B-2 are bypassed and maintained for emergency spill control; evaporation or transfer controls water levels in these ponds. Pond B-3 receives effluent from the Site's WWTP and flows into Pond B-4. South Walnut Creek flow is diverted around Ponds B-1, B-2, and B-3, and into Pond B-4, which flows continuously into "terminal pond" Pond B-5. After filling to a maximum safe level, Pond B-5 is released in batches of approximately 54,000 m^3 (14.3 million gallons [44 acre-feet]) to South Walnut Creek. Pond B-5 discharges typically occur 6 to 8 times per year.

South Interceptor Ditch

South of the IA is the South Interceptor Ditch (SID)/Woman Creek drainage system. Although it is tributary to Woman Creek, the SID warrants more thorough discussion than other comparable tributaries at the Site because it captures runoff from the southern portion of the IA, a drainage basin that includes the Original Landfill and the 903 Pad.

Surface water runoff from the southern portion of the IA is captured by the SID, which flows from west to east into Pond C-2. After 1992, Pond C-2 was pump discharged to the Broomfield Diversion Ditch after reaching a pre-designated level. Water from Pond C-2 is sampled and, if downstream surface-water quality is met, pump discharged into Woman Creek which flows to the Woman Creek Reservoir. (See the Woman Creek description below.) These off-site discharges from Pond C-2, each averaging approximately 46,900 m^3 (12.4 million gallons [38 acre-feet]), typically occur once per year.

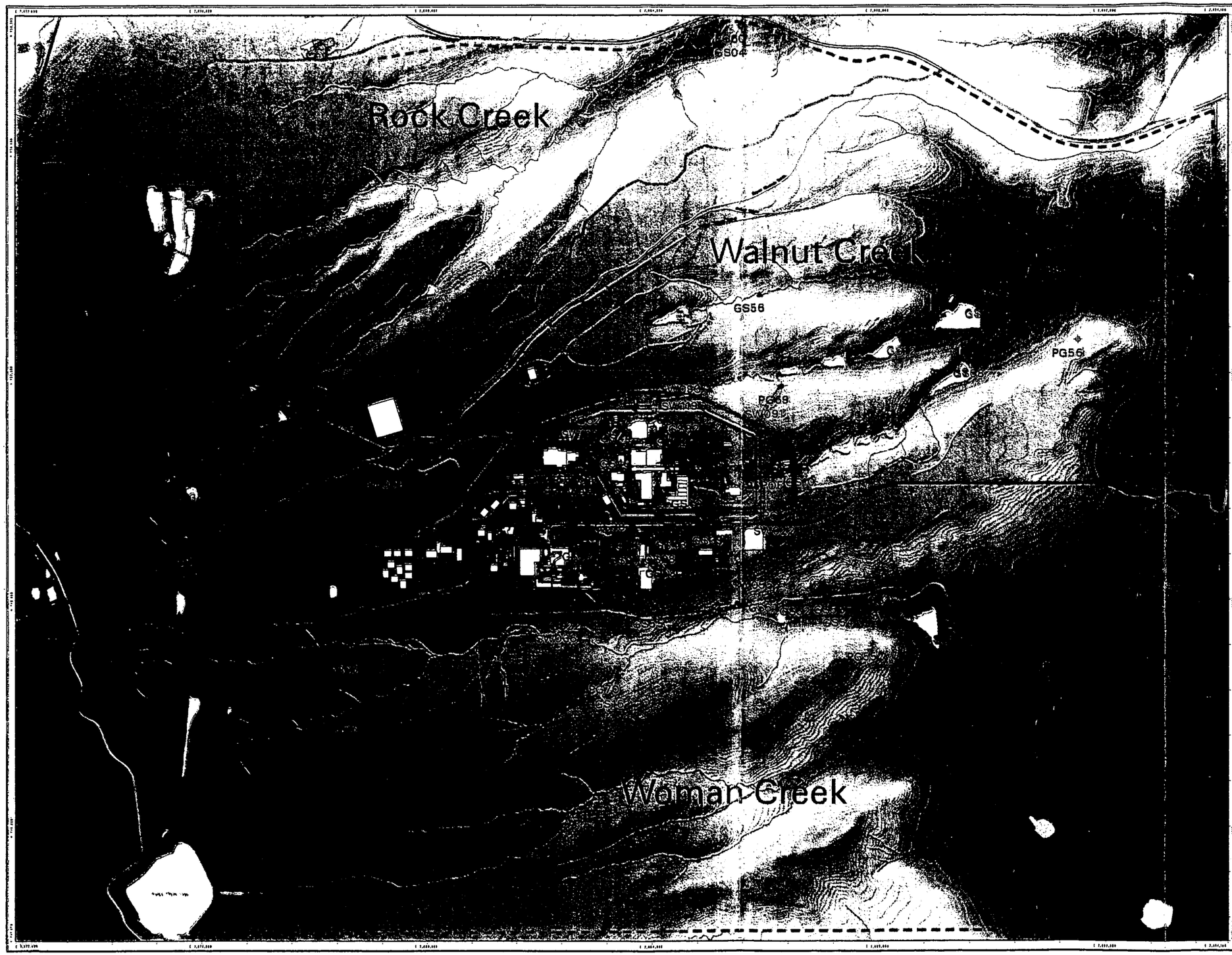
Woman Creek

South of the SID is Woman Creek, which flows through Pond C-1 and off-site at Indiana Street. The Woman Creek drainage basin extends eastward from the base of the foothills, near Coal Creek Canyon, to Standley Lake. In the current configuration, Woman Creek flows into the Woman Creek Reservoir located upstream of Standley Lake, where the water is held until it is pump transferred to Big Dry Creek by the City of Westminster.

Other Drainages

The third major drainage at the Site, other than Walnut and Woman Creeks, is Rock Creek. The Rock Creek drainage covers the northwestern portion of the Site's BZ. East sloping alluvial plains to the west, several small stock ponds within the creek bed, and multiple steep gullies and stream channels to the east characterize the drainage channel. This basin receives no runoff from the IA.

Smart Ditch, located south of Woman Creek, is also hydrologically isolated from the IA. The D-series Ponds (D-1 and D-2) are located on Smart Ditch. This drainage and these ponds are not discussed in this report.



Rocky Flats Environmental Technology Site

Figure 2-3
Major Site Drainage Areas: Walnut Creek, Woman Creek, and Rock Creek

EXPLANATION

- Precipitation Gage
- Automated Surface Water Monitoring Location
- Major Drainage Basins

Standard Map Features

- Buildings and other structures
- Solar Evaporation Ponds (SEPs)
- Lakes and ponds
- Streams, ditches, or other drainage features
- Fences and other barriers
- Topographic Contour (20-Foot)
- Rocky Flats Environmental Technology Site boundary
- Paved roads

DATA SOURCE BASE FEATURES:
Buildings, fences, hydrography, roads and other structures from 1994 aerial fly-over data captured by EG&G RSL, Las Vegas. Digitized from the orthophotographs. 1/95
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Scale = 1 : 21070
1 inch represents approximately 1756 feet

150 0 300 1200ft

State Plane Coordinate Projection
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3. HYDROLOGIC DATA

3.1 DATA PRESENTATION

3.1.1 Discharge Data Collection and Computation

The data obtained at a continuous surface-water gaging station on a stream or conveyance, such as an irrigation ditch, consist of a continuous record of stage[4], individual measurements of discharge throughout a range of stages, and notations regarding factors that might affect the relation of stage to discharge. These data, together with supplemental information such as climatological records, are used to compute daily mean discharges.

Continuous records of stage are obtained with electronic recorders that store stage values at selected time intervals or secondarily with radio-telemetry data-collection platforms that transmit near real-time data at selected time intervals to a central database for subsequent processing. Direct field measurements of discharge are made with current meters, using methods adapted by the USGS as a result of experience accumulated since 1880, or with flumes or weirs that are calibrated to provide a relation of observed stage to discharge. These methods are described by Carter and Davidian (1968) and by Rantz and others (1982).

In computing discharge records for non-standard flow-control devices, results of individual measurements are plotted against the corresponding stage, and stage-discharge relation curves are constructed. From these curves, rating tables indicating the computed discharge for any stage within the range of the measurements are prepared. For standard devices (e.g. flumes, weirs), rating tables indicating the discharge for any stage within the range of the device are prepared based on the geometry of the device. If it is necessary to define extremes of discharge outside the range of the device, the curves can be extended using: (1) Logarithmic plotting; (2) velocity-area studies; (3) results of indirect measurements of peak discharge, such as slope-area or contracted-opening measurements, and computations of flow over dams or weirs; or (4) step-back-water techniques.

Daily mean discharges are computed by averaging the individual discharge measurements using the stage-discharge curves or tables. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is determined by the shifting-control method, in which correction factors based on the individual discharge measurements and notes by the personnel making the measurements are applied to the gage heights before the discharges are determined from the curves or tables. This shifting-control method also is used if the stage-discharge relation is changed temporarily because of aquatic vegetation growth or debris on the control. For some gaging stations, formation of ice in the winter can obscure the stage-discharge relations so that daily mean discharges need to be estimated from other information, such as temperature and precipitation records, notes of observations, and records for other gaging stations in the same or nearby basins for comparable periods.

For most gaging stations, there may be periods when no gage-height record is obtained or the recorded gage height is so faulty that it cannot be used to compute daily mean discharge or contents. This record loss occurs when recording instruments malfunction or otherwise fail to operate properly, intakes are plugged, the stilling well is frozen, or various other reasons. For such periods, the daily discharges are estimated from the recorded range in stage, previous or following record, discharge measurements, climatological records, and comparison with other gaging-station records from the same or nearby basins. Information explaining how estimated daily discharge values are identified in gaging-station records is provided in the "Identifying Estimated Daily Discharge" section below.

3.1.2 Data Presentation

The information published for each continuous-record surface-water gaging station consists of six parts: the station description; a map showing the drainage area for the station; a plot of the daily mean discharge for the water year(s); a table of daily mean discharge values for the water year with summary data; a tabular statistical

[4] Stage is the water level (in units such as feet or meters) in a conveyance structure.

summary of monthly mean discharge data for the water year; and a summary statistics table that includes statistical data of annual discharge and runoff. The tables are included in Appendix A: Hydrologic Data, while the other information is presented below.

3.1.3 Station Description

The station description provides, under various headings, descriptive information included gaging-station location, drainage area, period of record, and gage information. The following information is provided:

LOCATION - This entry provides the gaging-station state plane coordinates and geographic location. Gaging station state plane coordinates were obtained by GPS or digitized from RFETS GIS coverages.

DRAINAGE AREA - This entry provides the drainage area (in acres) of the gaged basin. If, because of unusual natural conditions or artificial controls, some part of the basin does not contribute flow to the total flow measured at the gage, the noncontributing drainage area also is identified. Drainage area is usually measured using digital techniques and the most accurate maps available. Because the type of map available might vary from one drainage basin to another, the accuracy of digitized drainage areas also can vary. Drainage areas are updated as better maps become available. Some of the gaging stations included in this report measure stage and discharge in channels that convey water to or from reservoirs or other features; these channels might have little or no contributing drainage area. Drainage areas in this report were provided by RFETS GIS coverages.

PERIOD OF RECORD - This entry provides the period for which the Site has been collecting records at the gage. This entry includes the month and year of the start of collection of hydrologic records by the Site and the words "to current year" if the records are to be continued into the following year.

GAGE - This entry provides the type of gage currently in use; and a condensed history of the types and locations of previous gages.

3.1.4 Daily Mean Discharge Values

The daily mean discharge values computed for each gaging station during a water year are listed in the body of the data tables in Appendix A. In the monthly "FLOW RATE" summary part of the table, the line headed "AVERAGE" lists the average discharge, in cubic feet per second, during the month; and the lines headed "MAXIMUM" and "MINIMUM" list the maximum and minimum daily mean discharges for each month. Total discharge for the month also is expressed in cubic feet ("CUBIC FEET"), gallons ("GALLONS"), and acre-feet ("ACRE-FEET"). The term "PARTIAL DATA" denotes a month with incomplete data.

3.1.5 Summary Statistics

A section of the table titled ANNUAL SUMMARIES FOR WY02 follows the monthly mean data section. This section provides a statistical summary of annual discharge flow rates and volumes for the labeled water year. The applicable units are to the left of the table value. The term "PARTIAL DATA" denotes a year with incomplete data.

3.1.6 Identifying Estimated Daily Discharge

Estimated daily discharges published in water-discharge tables and figures of this annual report are identified by *italicizing* individual daily values or through color-coding in hydrographs.

3.1.7 Other Records Available

Information used in the preparation of the records in this report, such as discharge-measurement notes, gage-height records, and rating tables, are on file at the Site. Information on the availability of the unpublished information or on the published statistical analyses is available from RFETS personnel involved with data collection at the Site.

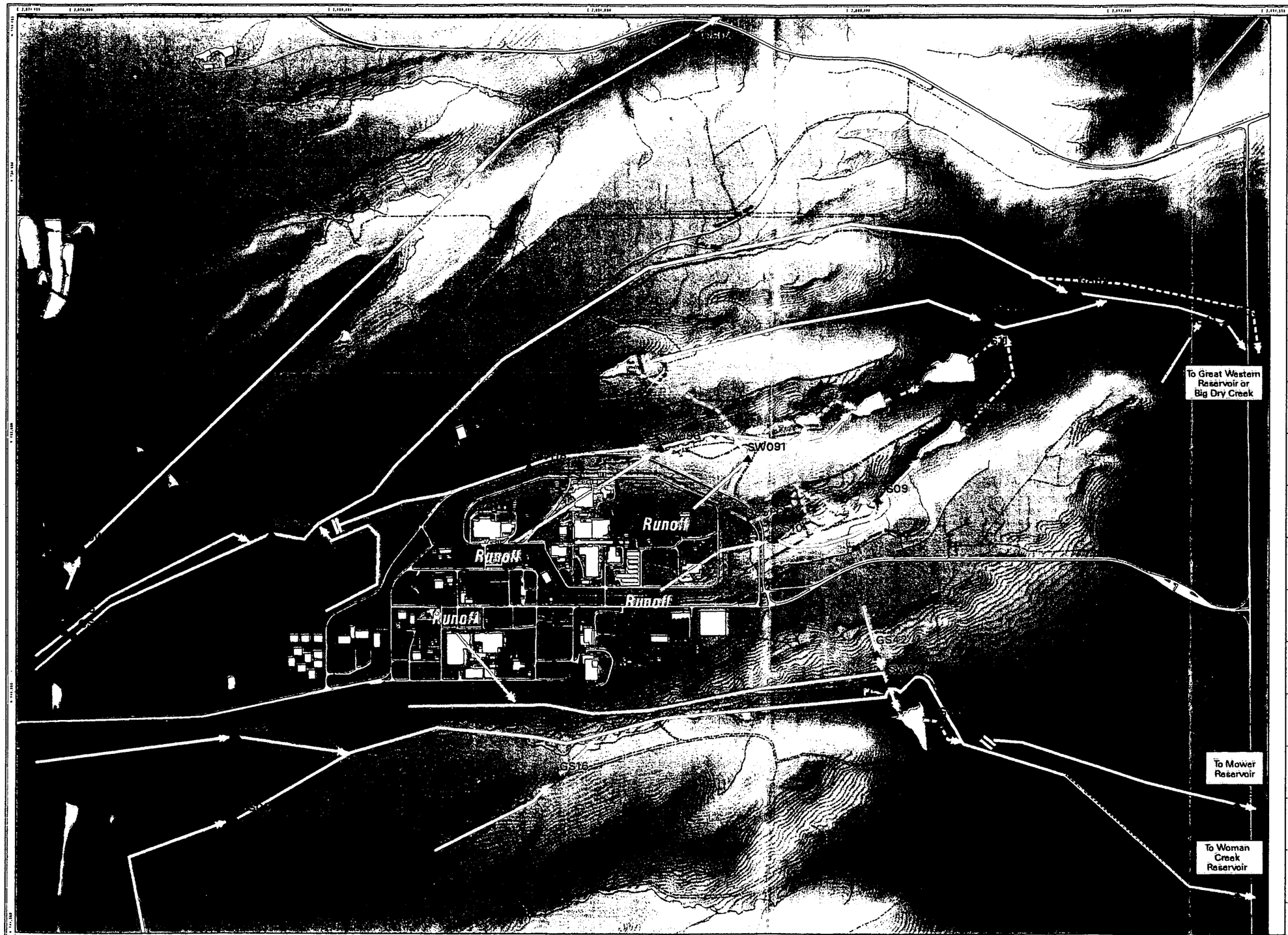

Figure 3-1
RFETS Buffer Zone Water Routing Schematic Water Year 2002

EXPLANATION

- Automated Monitoring Station
- Normal Uncontrolled Runoff Pathway
- Normal Controlled Flow Pathway

Standard Map Features

- Buildings and other structures
- Demolished buildings and Other Structures
- Paved roads fill
- Solar Evaporation Ponds (SEPs)
- Lakes and ponds
- Streams, ditches, or other drainage features
- Fences and other barriers
- Paved roads
- Dirt roads

DATA SOURCE BASE FEATURES:
Buildings, fences, hydrography, roads and other structures from 1994 aerial fly-over data captured by EG&G RSL, Las Vegas. Digitized from the orthophotographs. 1/95

NOTES:
The monitoring locations, flow and runoff pathways on this map are approximate and, as such, are not intended to accurately portray the true locations of these features. This schematic has been modified to clearly identify the relationships between the surface water map features.

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Scale = 1 : 18190
1 inch represents approximately 1516 feet

State Plane Coordinate Projection
Colorado Central Zone
Datum: NAD27

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Prepared by: CH2MHILL Communications Group

Prepared for: KAISER-HILL COMPANY

November 18, 2003

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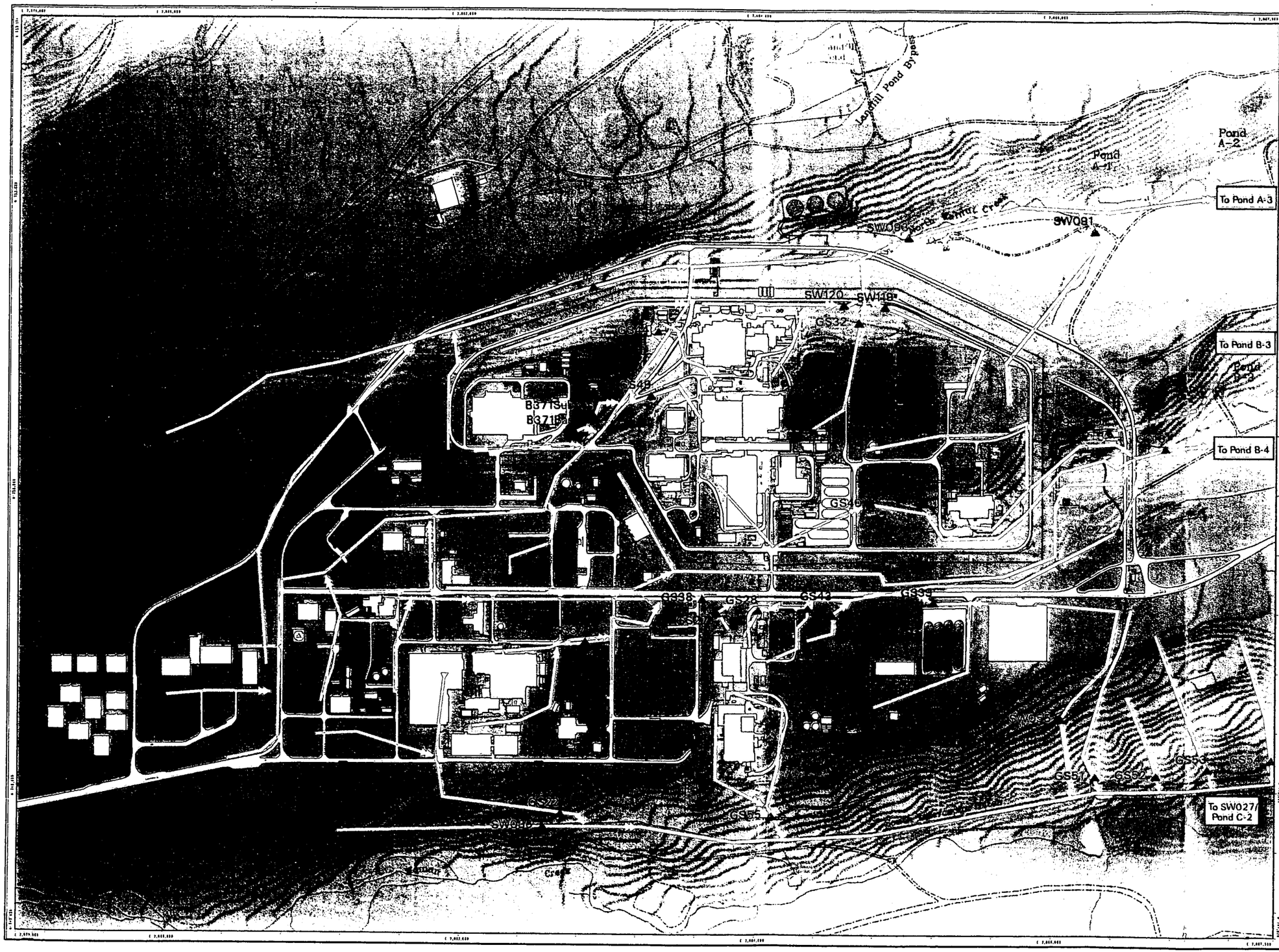

Figure 3-2
RFETS Industrial Area Water Routing Schematic Water Year 2002

EXPLANATION

- Automated Monitoring Station
- Normal Uncontrolled Runoff Pathway
- Normal Controlled Flow Pathway

Standard Map Features

- Buildings and other structures
- Demolished buildings and Other Structures
- Paved roads fill
- Solar Evaporation Ponds (SEPs)
- Lakes and ponds
- Streams, ditches, or other drainage features
- Fences and other barriers
- Paved roads
- Dirt roads

DATA SOURCE BASE FEATURES:
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NOTES:
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200 0 400 800ft

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3.2 DISCHARGE DATA SUMMARIES

The following section provides information on all automated surface-water monitoring locations at RFETS operating during Water Year 2002. Some locations do not have continuous flow record; they were operated only to collect automated surface-water samples for laboratory analysis. For locations with continuous flow measurement, graphical discharge summaries are given below. Numerical discharge values are included in the tables in Appendix A. The hydrologic routing diagrams for the locations included in this report are given in Figure 3-1 and Figure 3-2.

3.2.1 Sitewide Discharge Summary

Discharge summaries for the three major Site drainage areas (Walnut, Woman, and Rock Creeks) are given in Figure 3-3 and Figure 3-4. Walnut Creek flows are measured at GS03, Woman Creek flows are measured at GS01, and Rock Creek flows are measured at GS04. Figure 3-5 shows the relative total WY97-02 discharge volumes from the major Site drainages as measured at GS01, GS03, and GS04.

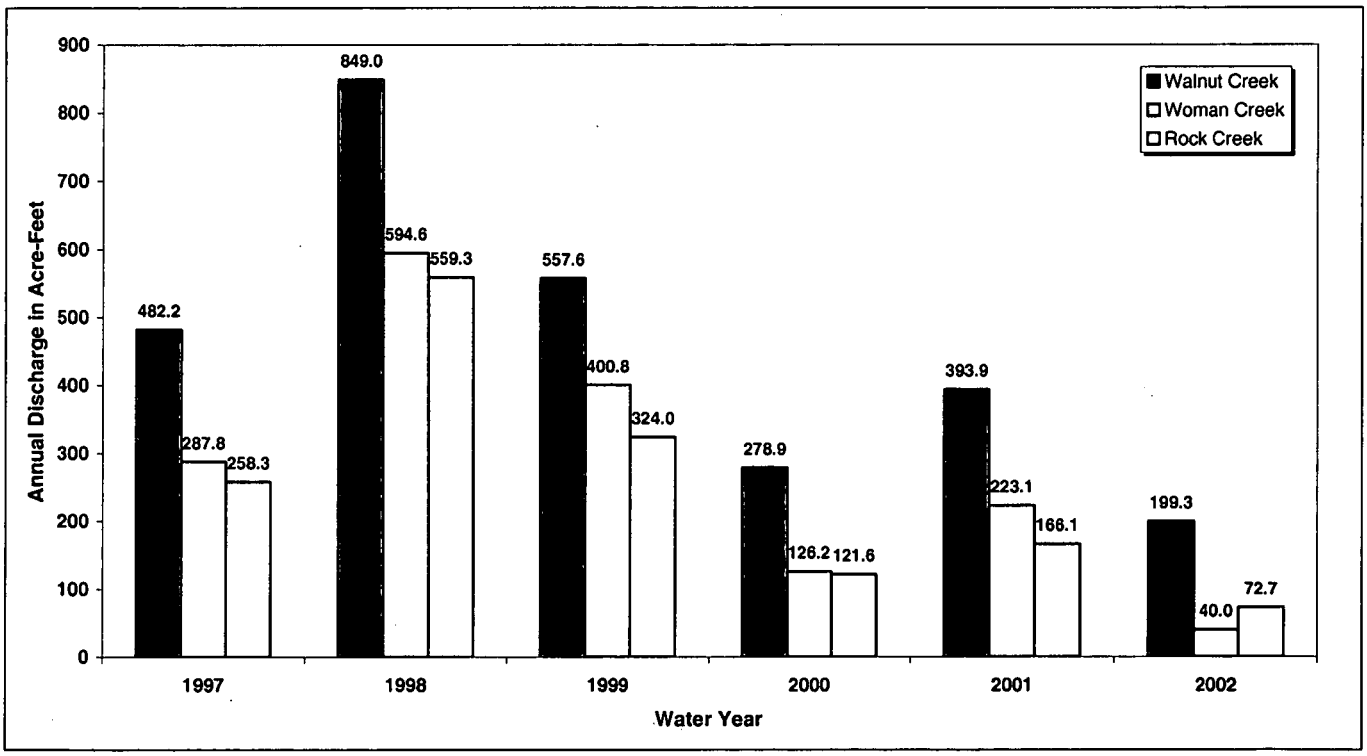


Figure 3-3. Annual Discharge Summary from Major Site Drainages: WY97-02.

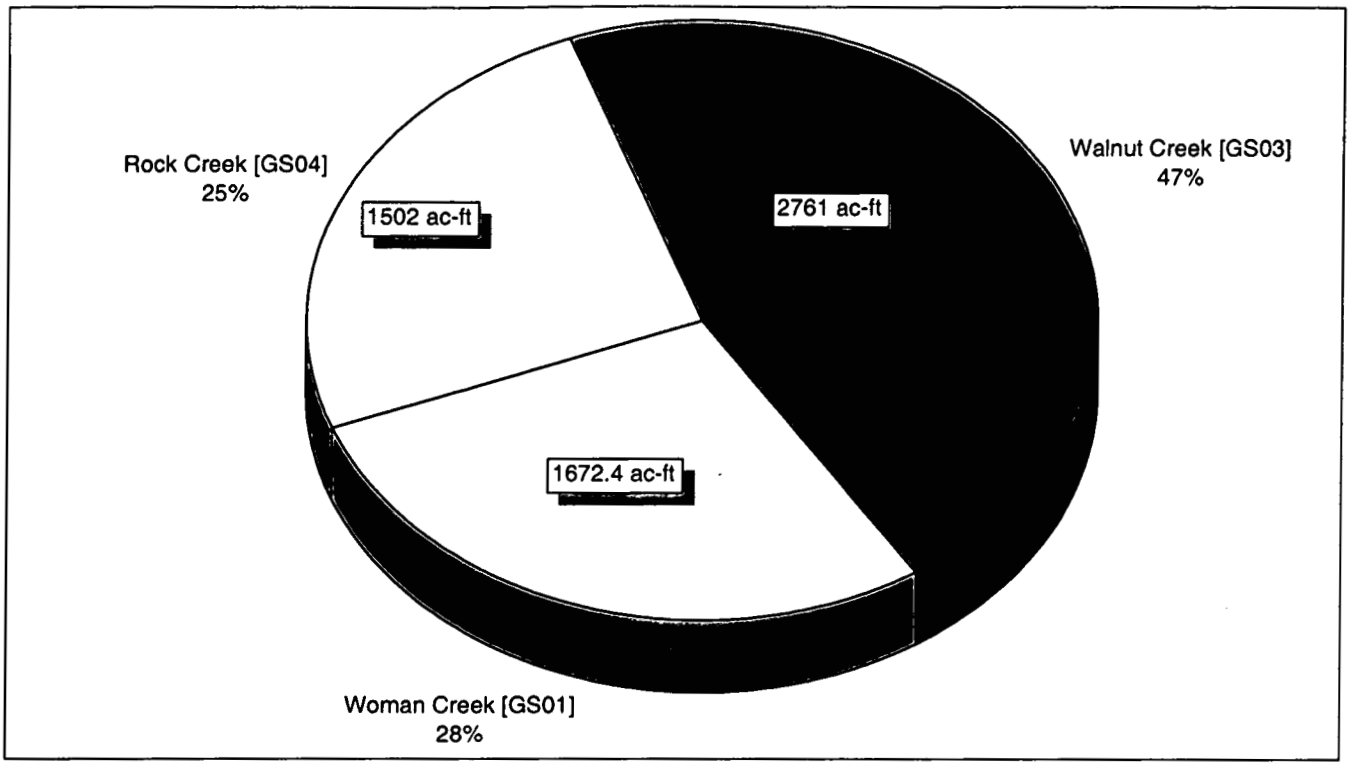


Figure 3-4. Relative Total Discharge Summary from Major Site Drainages: WY97-02.

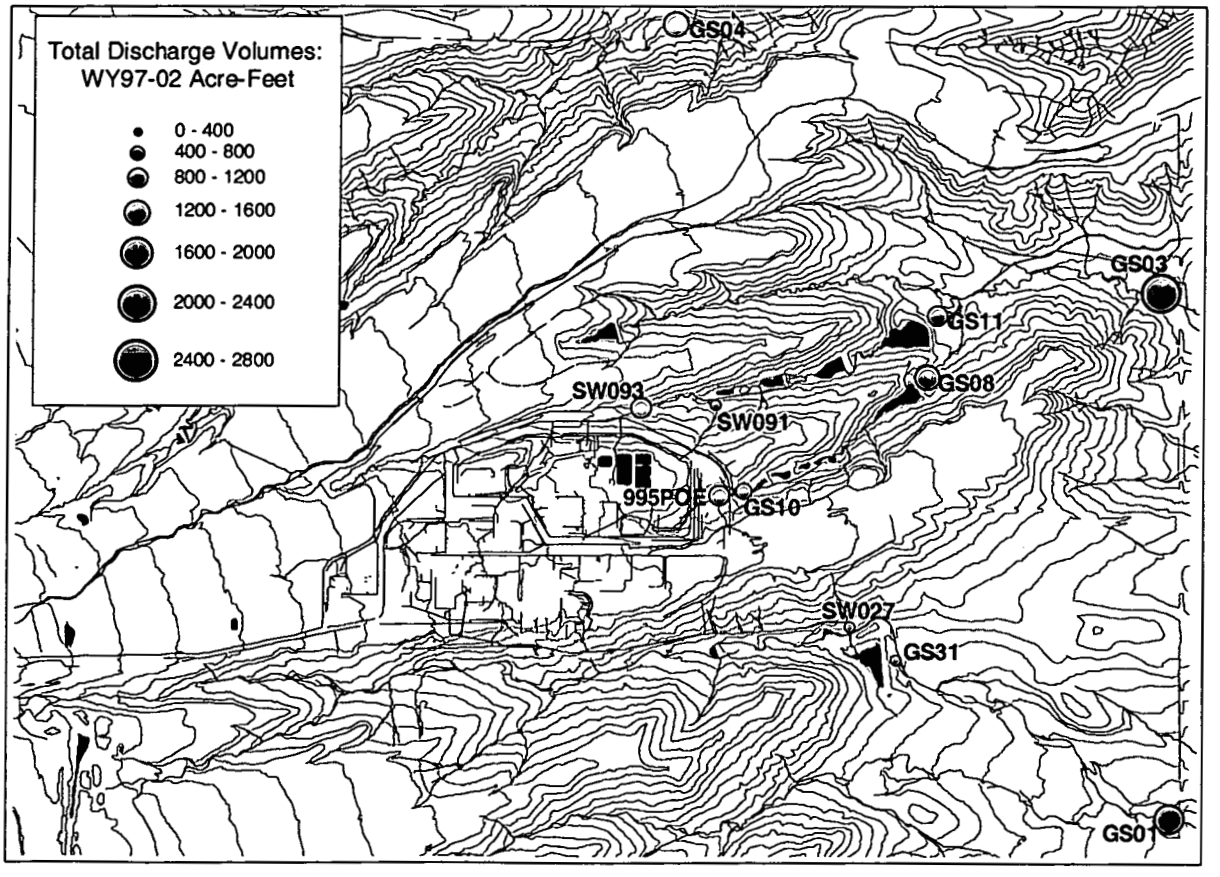
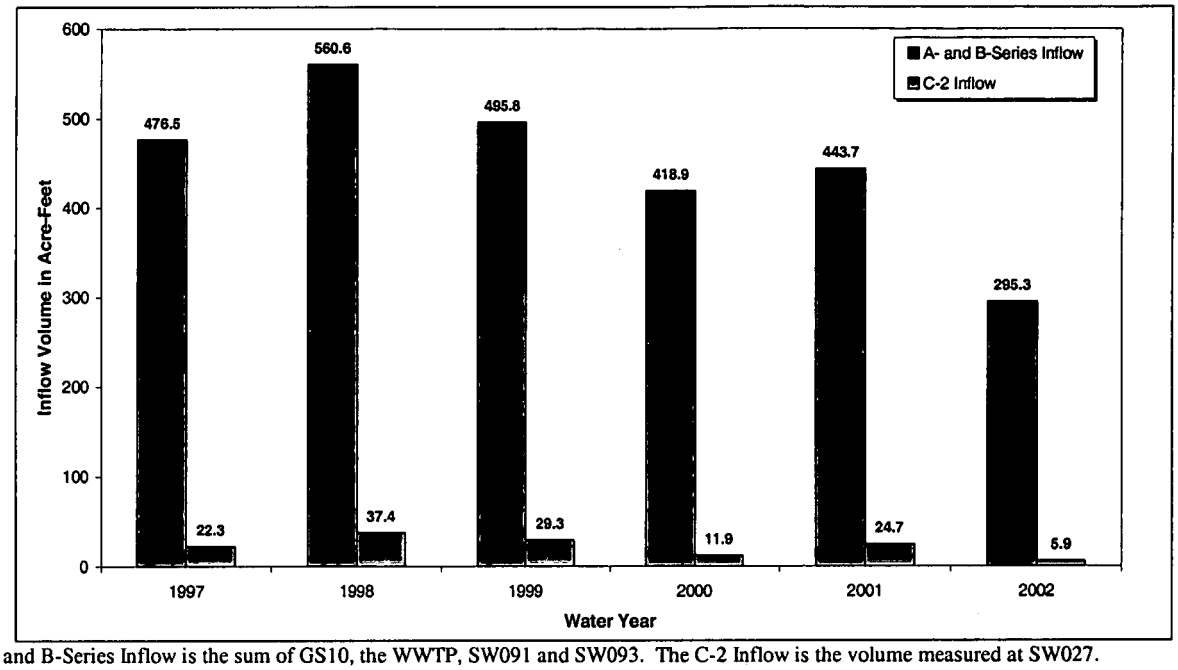


Figure 3-5. Map Showing Relative WY97-02 Discharge Volumes for Selected Gaging Stations.

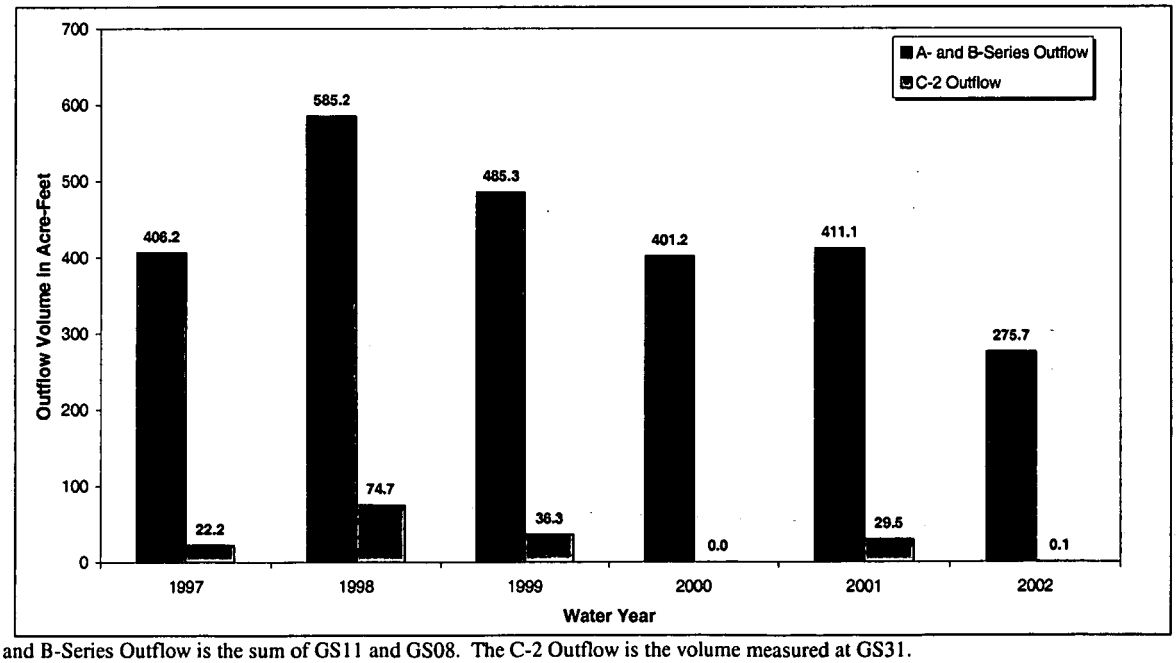
3.2.2 Detention Ponds Discharge Summary

Figure 3-6 and Figure 3-7 show the relative annual detention ponds inflows and outflows, respectively. Due to the routine WY97 pump transfers of Pond B-5 water to Pond A-4, the volumes for the A- and B-Series ponds are combined. Figure 3-5 shows the relative total WY97-02 discharge volumes from the detention ponds (as measured at GS08, GS11, and GS31) and from the major IA drainages to the ponds (as measured at GS10, SW027, SW093, and the WWTP [995POE]). Pond inflows do not necessarily equal outflows for any given year due to the storage of water in the ponds across water years.



Notes: A- and B-Series Inflow is the sum of GS10, the WWTP, SW091 and SW093. The C-2 Inflow is the volume measured at SW027.

Figure 3-6. Detention Pond Inflows: WY97-02.



Notes: A- and B-Series Outflow is the sum of GS11 and GS08. The C-2 Outflow is the volume measured at GS31.

Figure 3-7. Detention Pond Outflows: WY97-02.

3.2.3 GS01: Woman Creek at Indiana Street

Location

Woman Creek 200' upstream of Indiana Street; State Plane: 2093820; 744894

Drainage Area

- The basin includes the Woman Creek drainage and southern portions of the IA; areas west of Highway 93 also contribute runoff (total drainage acreage undetermined)
- IA Areas tributary to GS01: 900, 800, 600, and 400

Period of Record

September 16, 1991 to current year

Gage

Water-stage recorder and 18" Parshall flume (flume is located just east of Indiana Street, sampling conducted on Site property); prior to 3/24/98 flow measurement was at the onsite sampling location on 9" Parshall flume

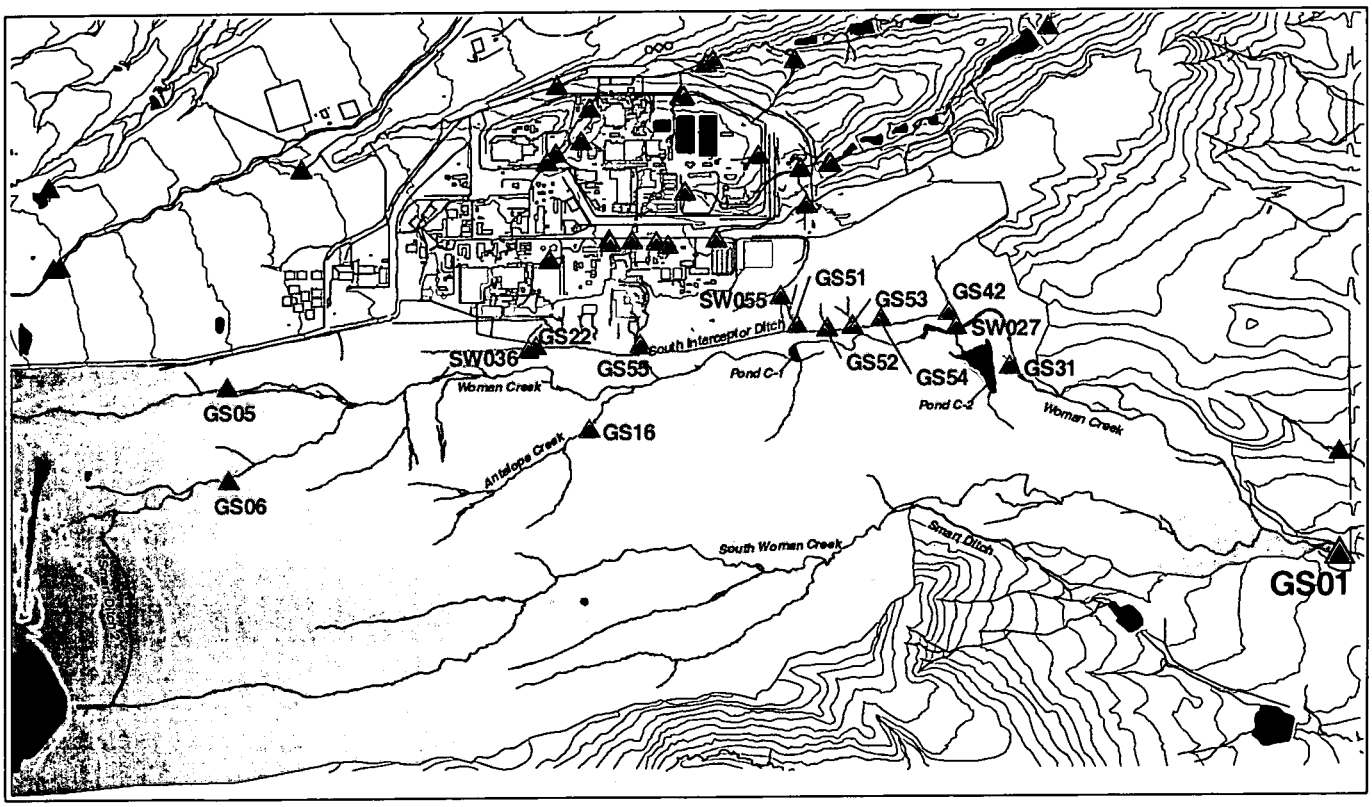


Figure 3-8. Map Showing GS01 Drainage Area.

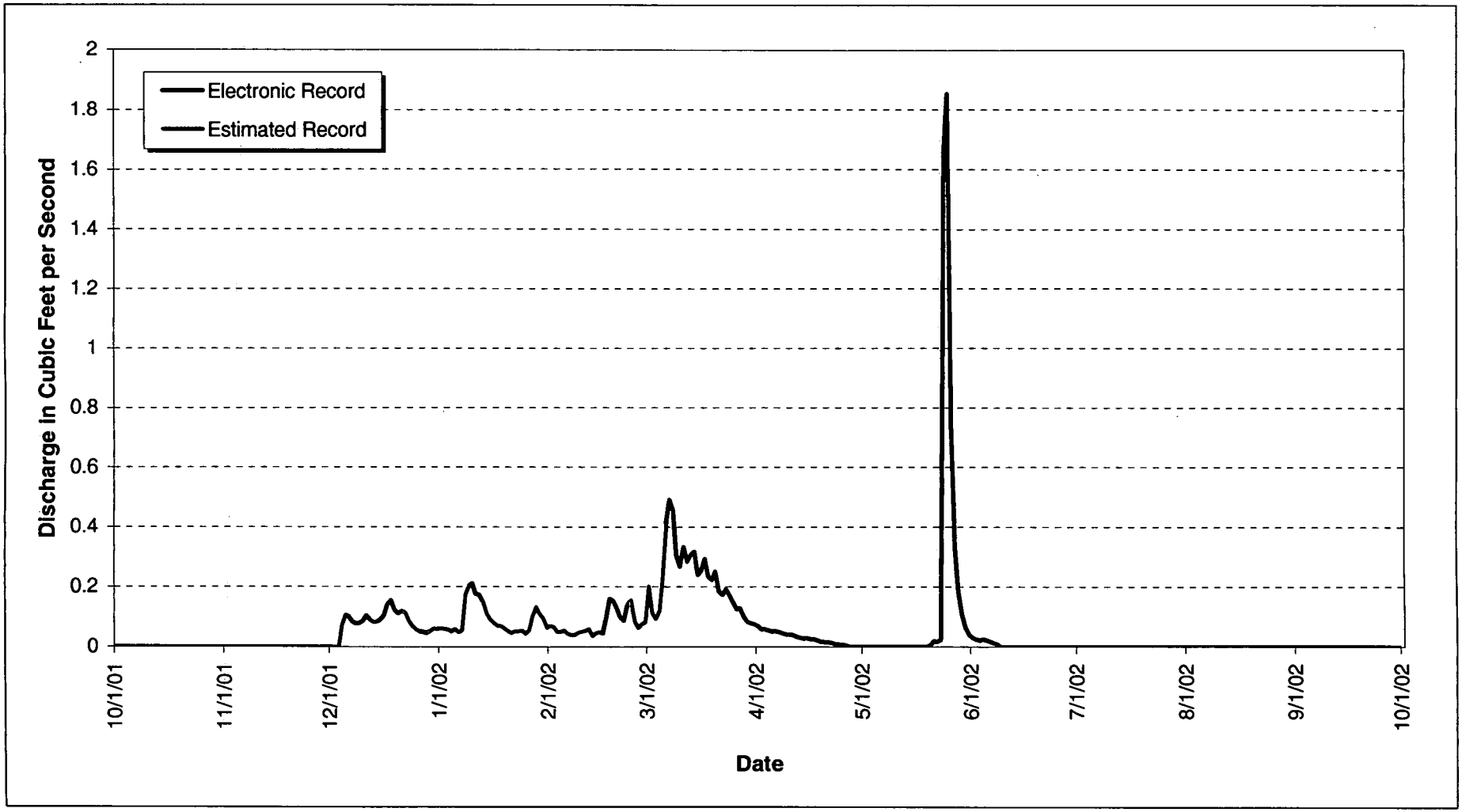


Figure 3-9. WY02 Mean Daily Hydrograph at GS01: Woman Creek at Indiana Street.

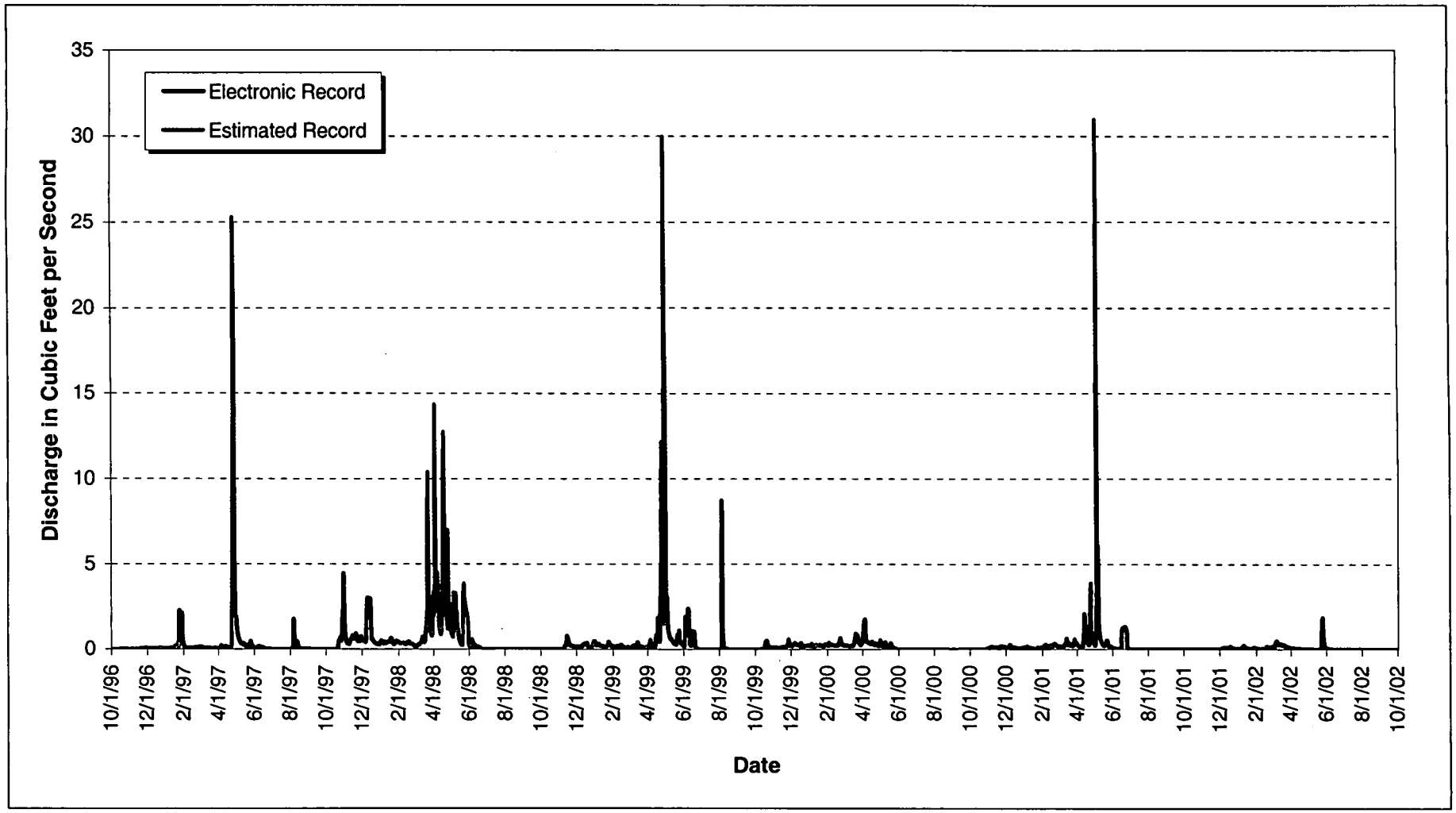


Figure 3-10. WY97-02 Mean Daily Hydrograph at GS01: Woman Creek at Indiana Street.

3.2.4 GS02: Mower Ditch at Indiana Street

Location

Mower Ditch 200' upstream of Indiana Street; State Plane: 2093817; 746302

Drainage Area

- The basin includes areas upgradient of Mower Ditch (total of 157.7 acres)
- IA Areas draining to GS02: none

Period of Record

9/16/91 to current year

Gage

Water-stage recorder and 9" Parshall flume; weir insert installed 3/8/99

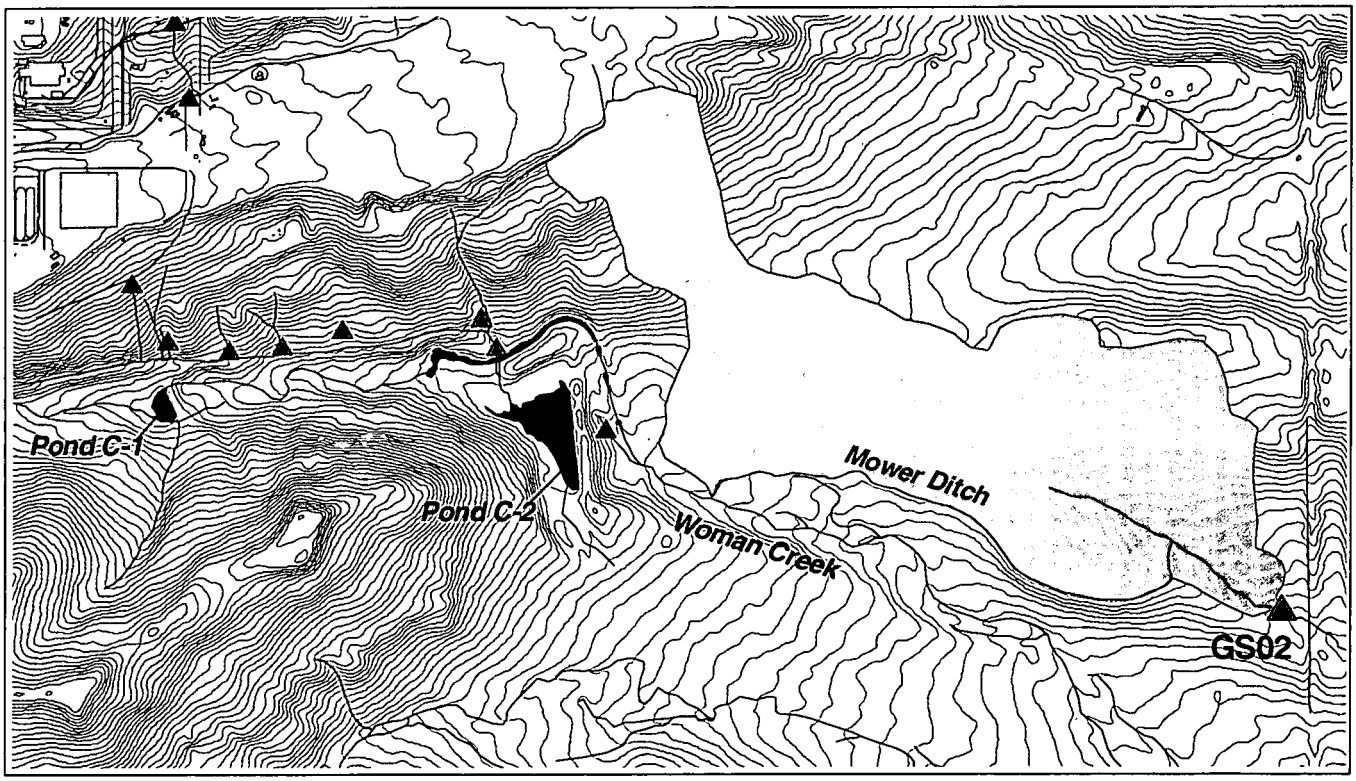


Figure 3-11. Map Showing GS02 Drainage Area.

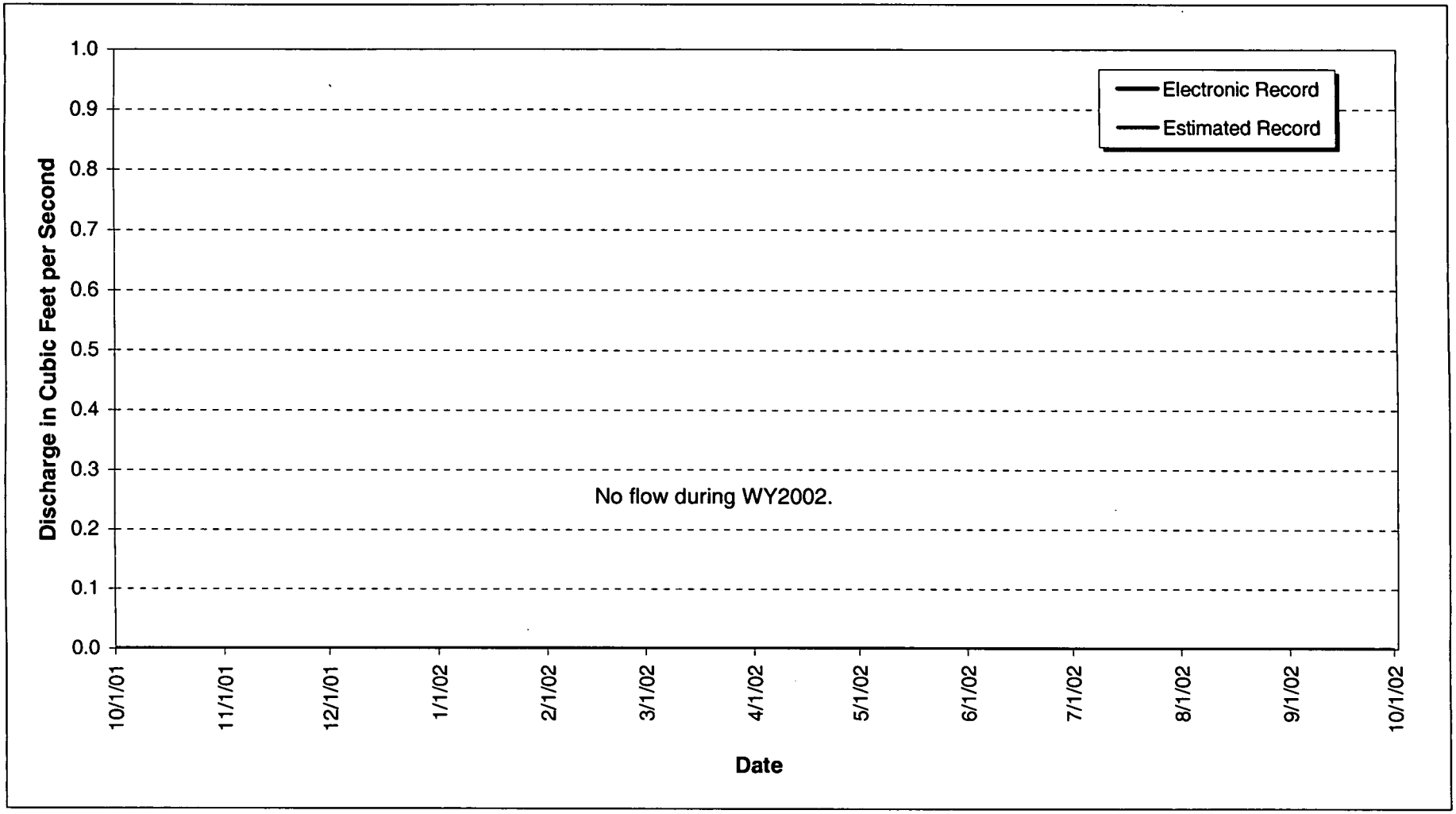


Figure 3-12. WY02 Mean Daily Hydrograph at GS02: Mower Ditch at Indiana Street.

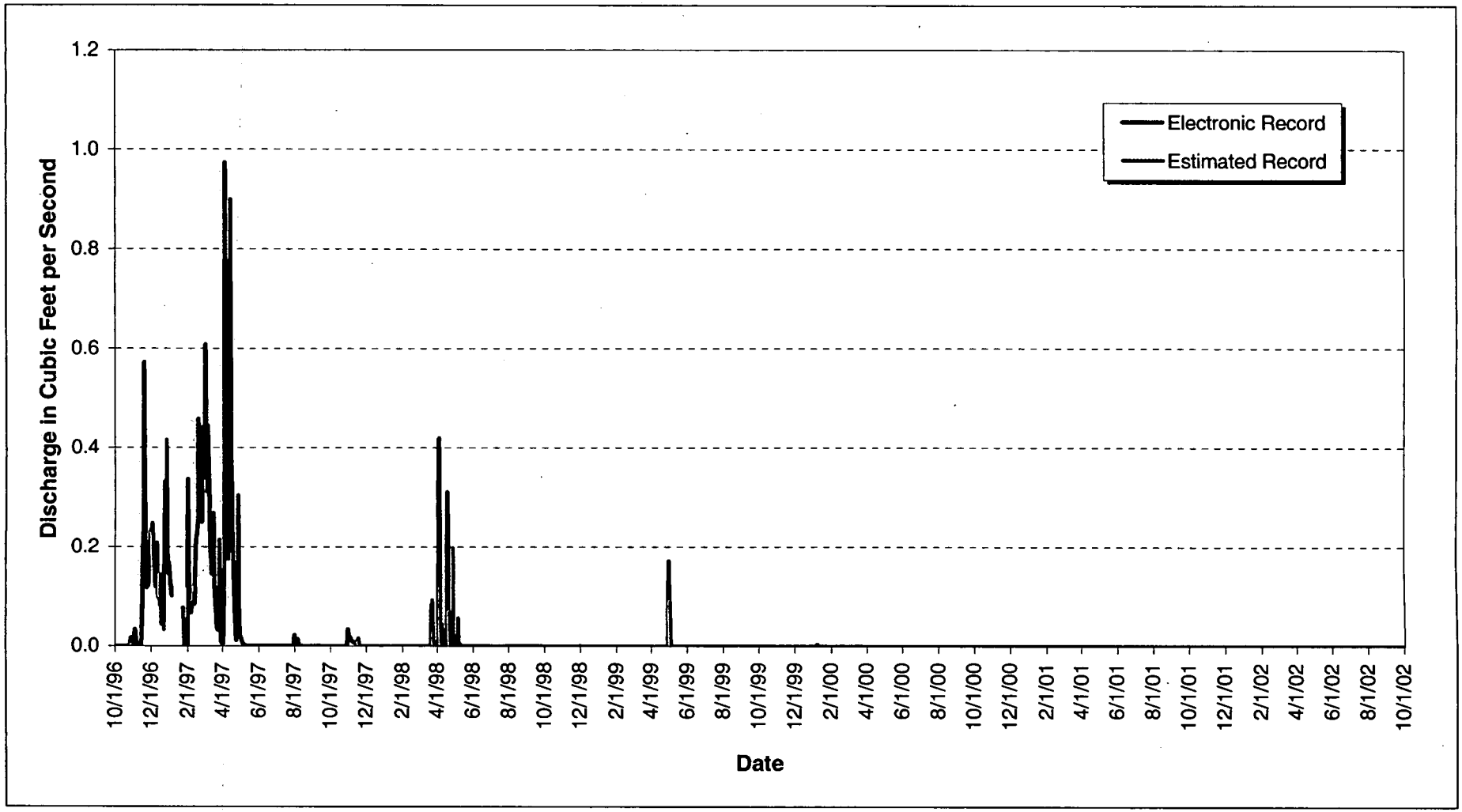


Figure 3-13. WY97-02 Mean Daily Hydrograph at GS02: Mower Ditch at Indiana Street.

3.2.5 GS03: Walnut Creek at Indiana Street

Location

Walnut Creek at Flume Pond outlet upstream of Indiana Street; State Plane: 2093606; 753652

Drainage Area

- The basin includes the Walnut Creek drainage and the majority of the IA; areas west of Highway 93 also contribute runoff (total drainage acreage undetermined)
- IA Areas draining to GS03: all Areas

Period of Record

9/2/91 to current year

Gage

Water-stage recorder and parallel 6" and 36" Parshall flumes

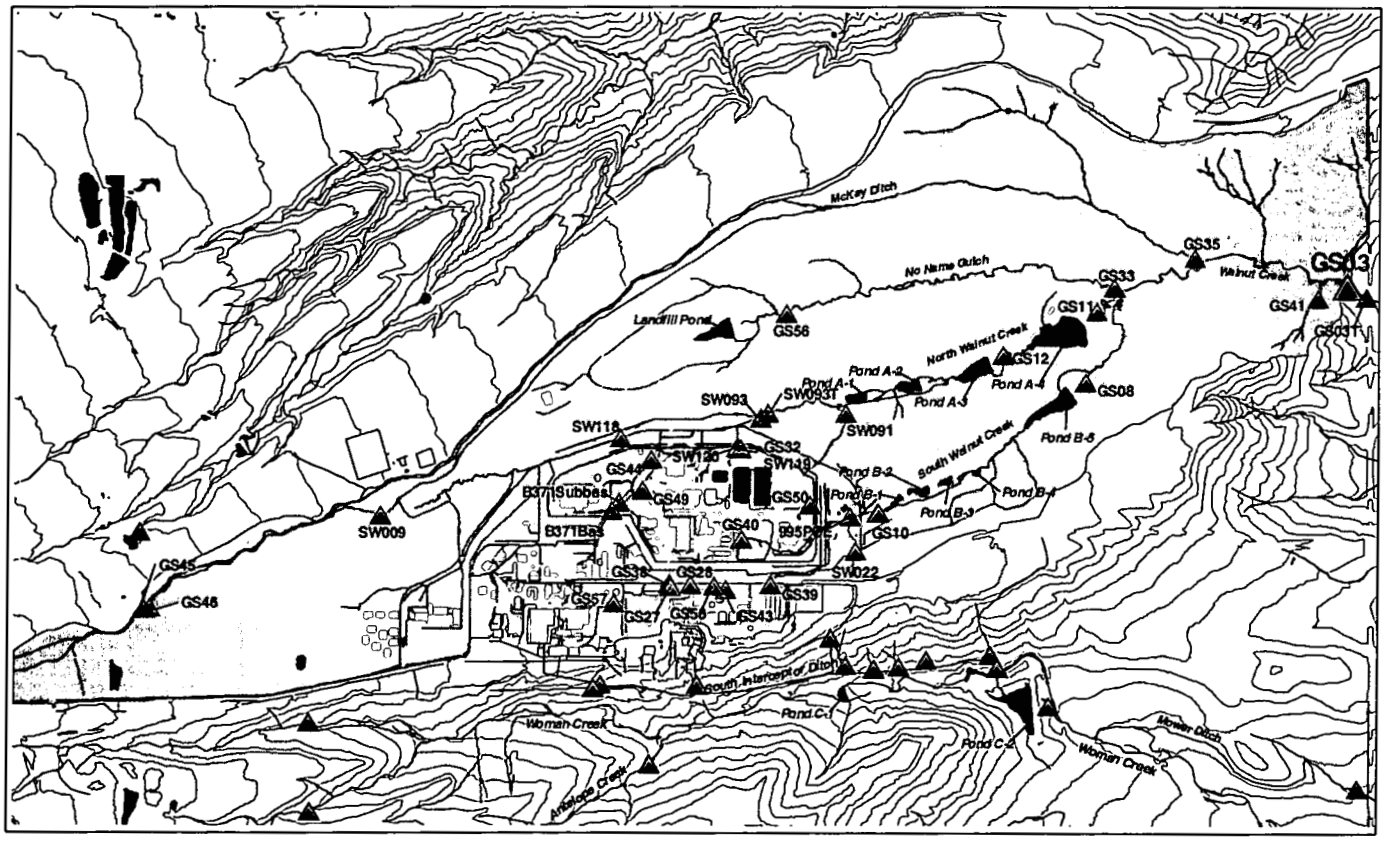


Figure 3-14. Map Showing GS03 Drainage Area.

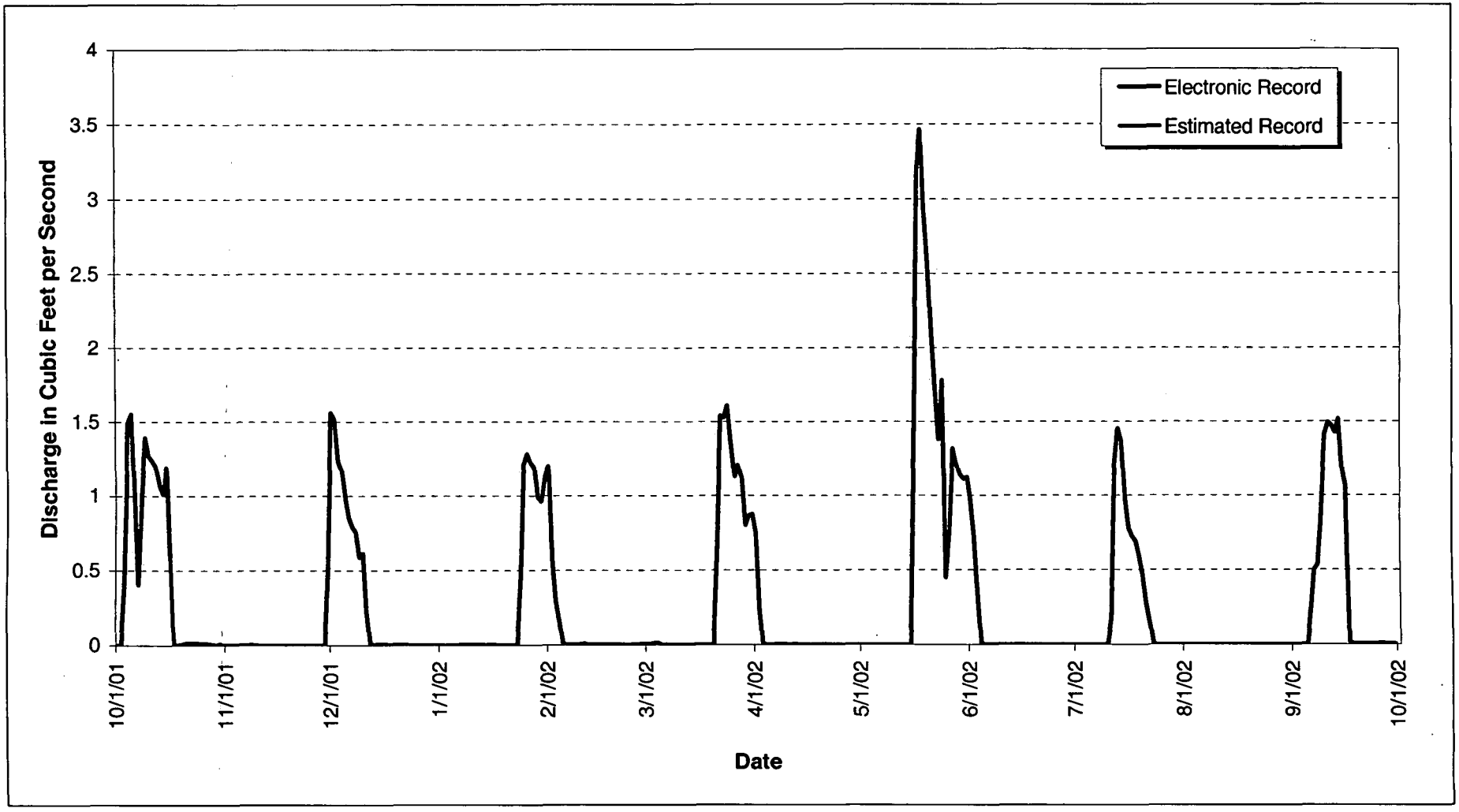


Figure 3-15. WY02 Mean Daily Hydrograph at GS03: Walnut Creek at Indiana Street.

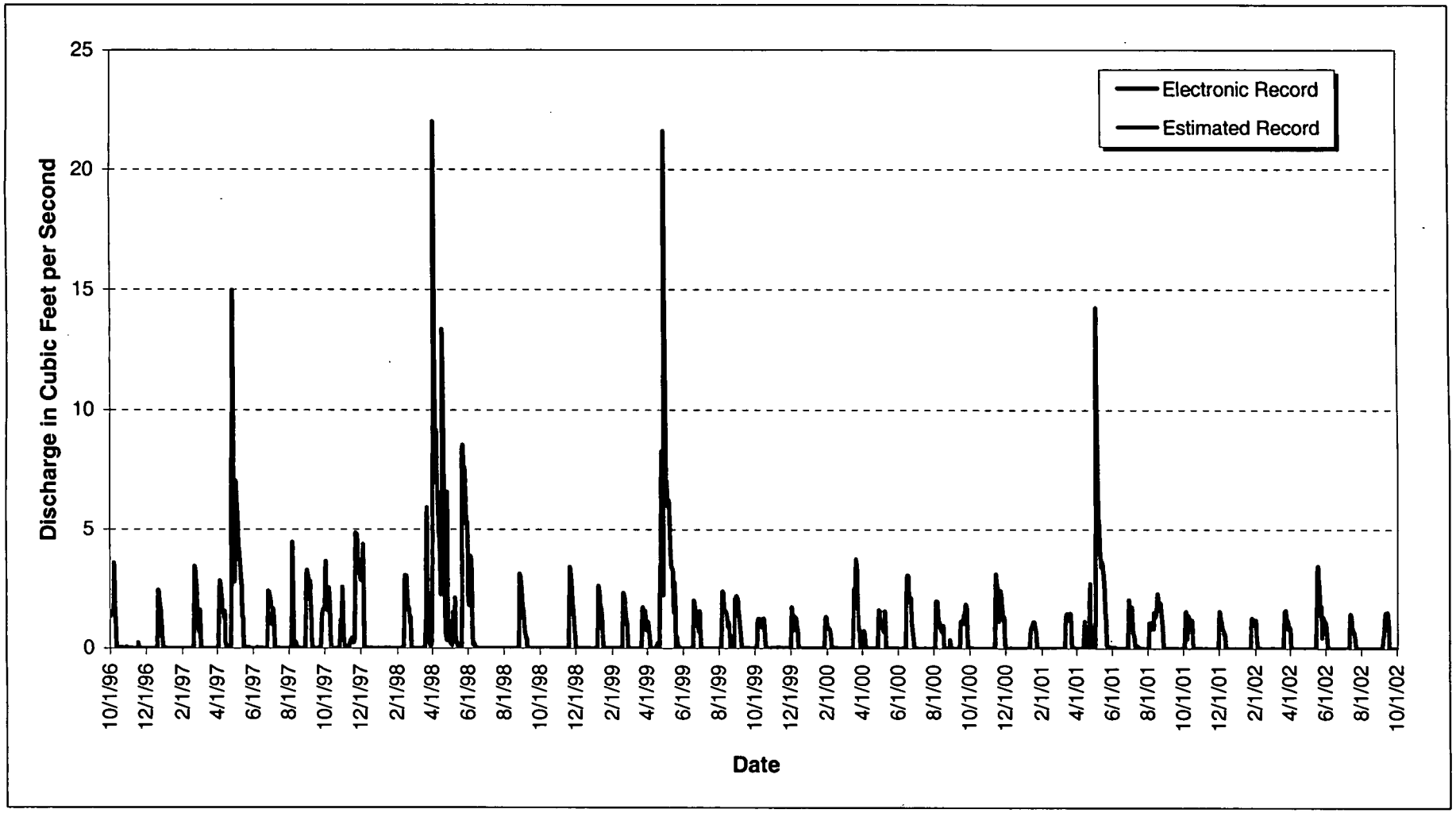


Figure 3-16. WY97-02 Mean Daily Hydrograph at GS03: Walnut Creek at Indiana Street.

3.2.6 GS04: Rock Creek at Highway 128

Location

Rock Creek 200' upstream of box culvert under Route 128; State Plane: 2085552; 758149

Drainage Area

- The basin includes the Rock Creek basin; total drainage acreage undetermined
- IA Areas draining to GS04: none

Period of Record

9/27/91 to current year

Gage

Water-stage recorder and 9" Parshall flume; weir insert installed 3/4/99

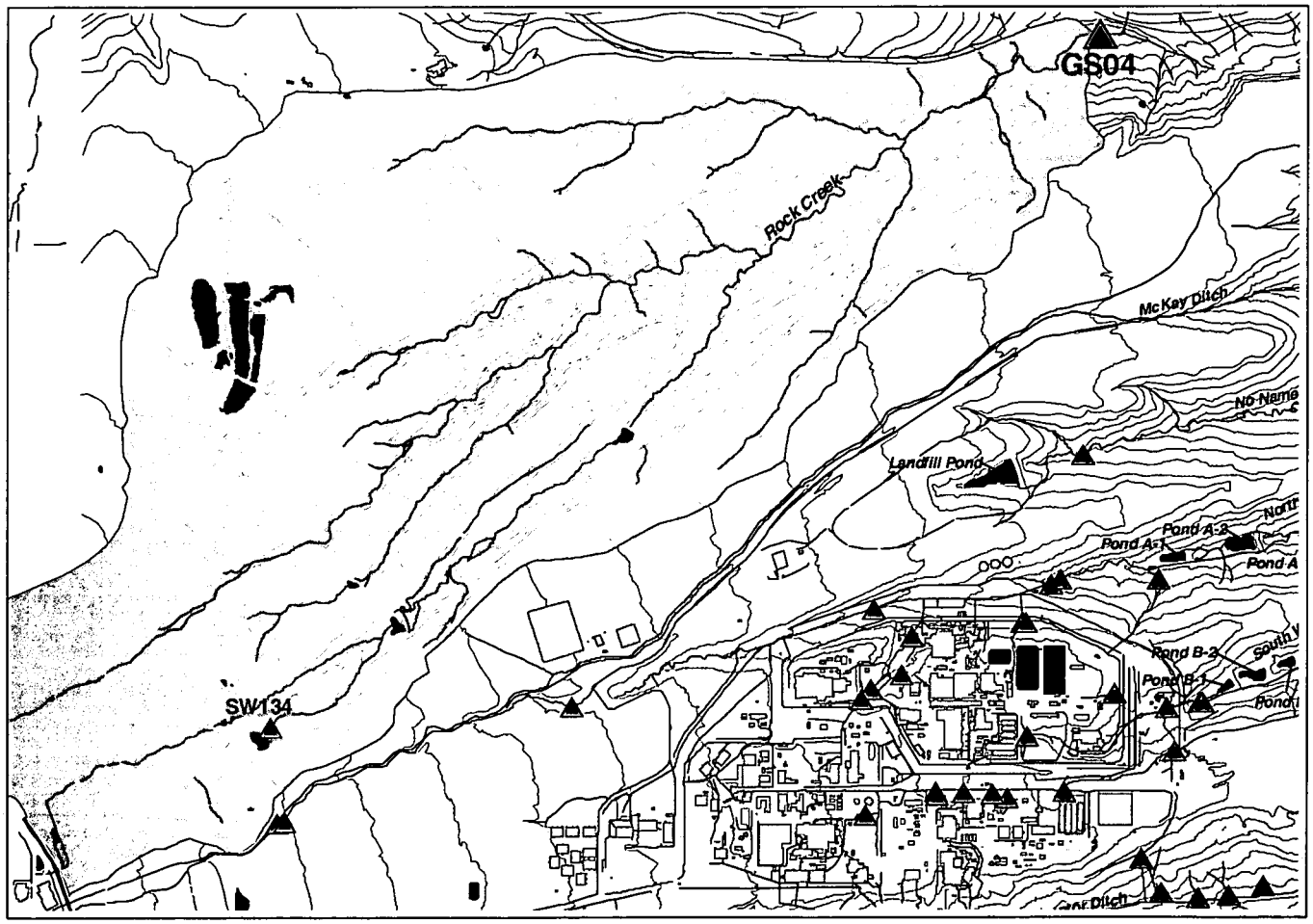


Figure 3-17. Map Showing GS04 Drainage Area.

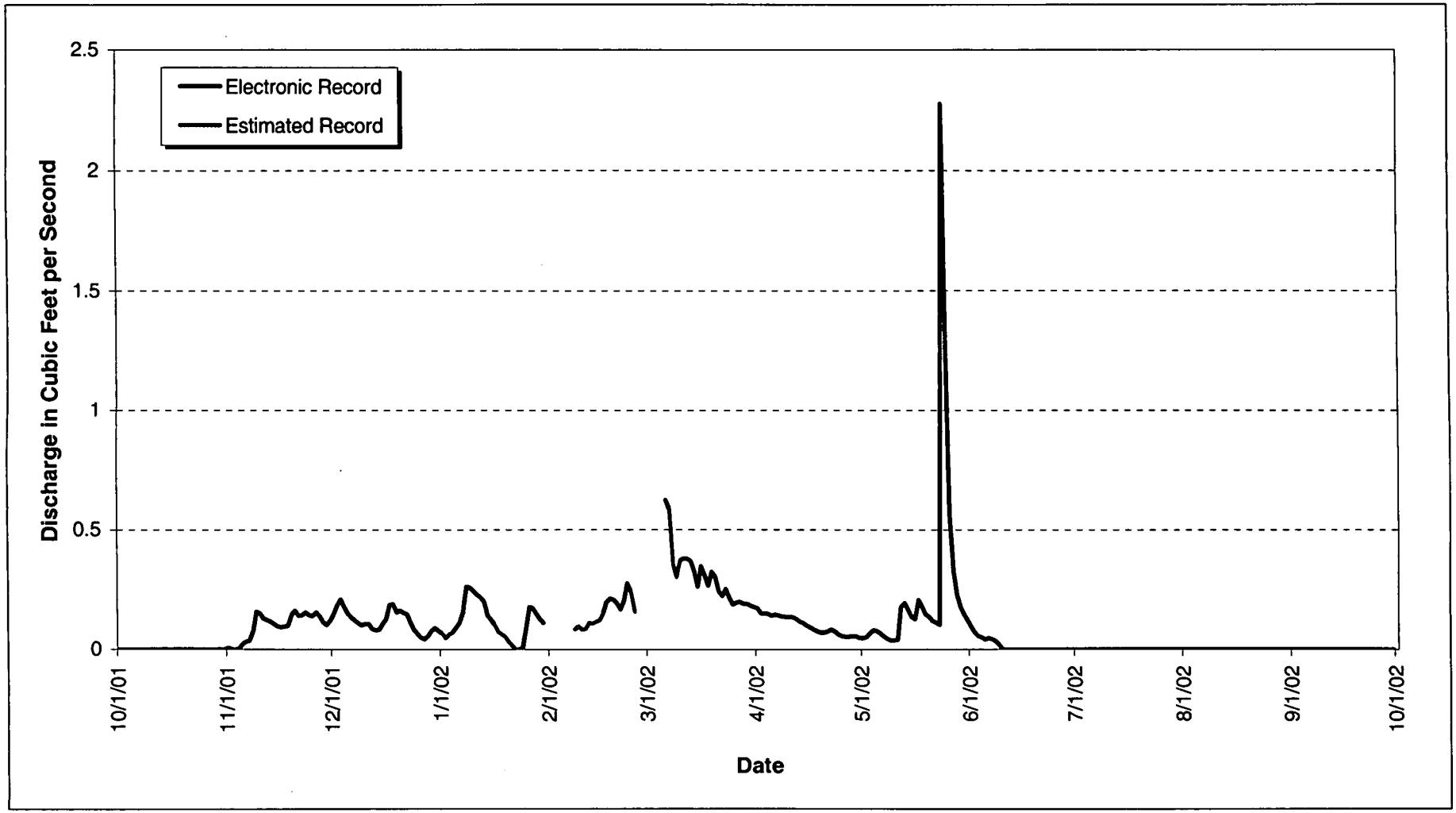


Figure 3-18. WY02 Mean Daily Hydrograph at GS04: Rock Creek at Highway 128.

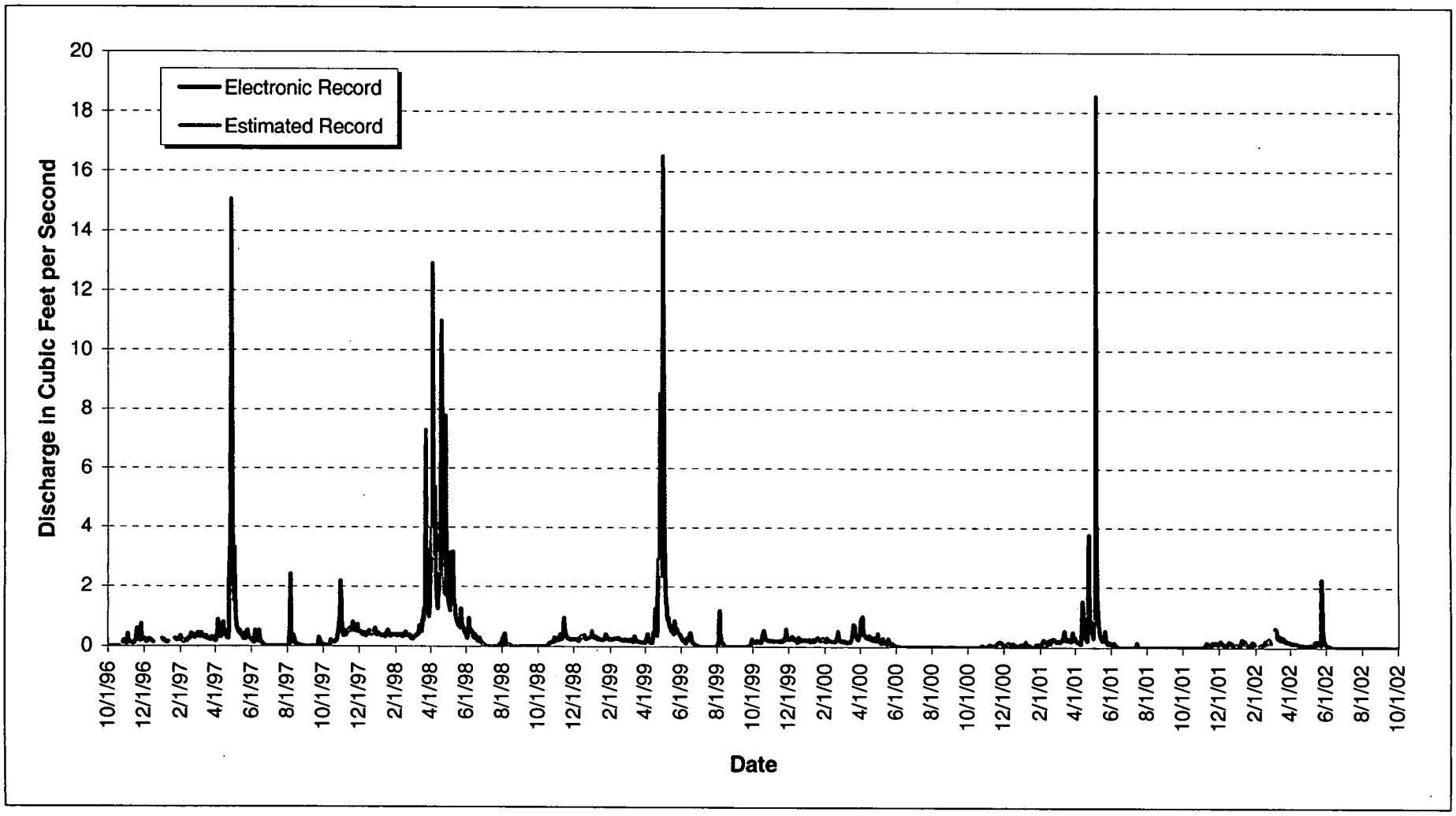


Figure 3-19. WY97-02 Mean Daily Hydrograph at GS04: Rock Creek at Highway 128.

3.2.7 GS05: Woman Creek at West Fenceline

Location

Woman Creek east of west Site boundary; State Plane: 2078428; 747260

Drainage Area

- The basin includes a portion of the Woman Creek drainage; areas west of Highway 93 also contribute runoff (total drainage acreage undetermined)
- IA Areas draining to GS05: none

Period of Record

9/23/91 to current year

Gage

Water-stage recorder and 9" Parshall flume

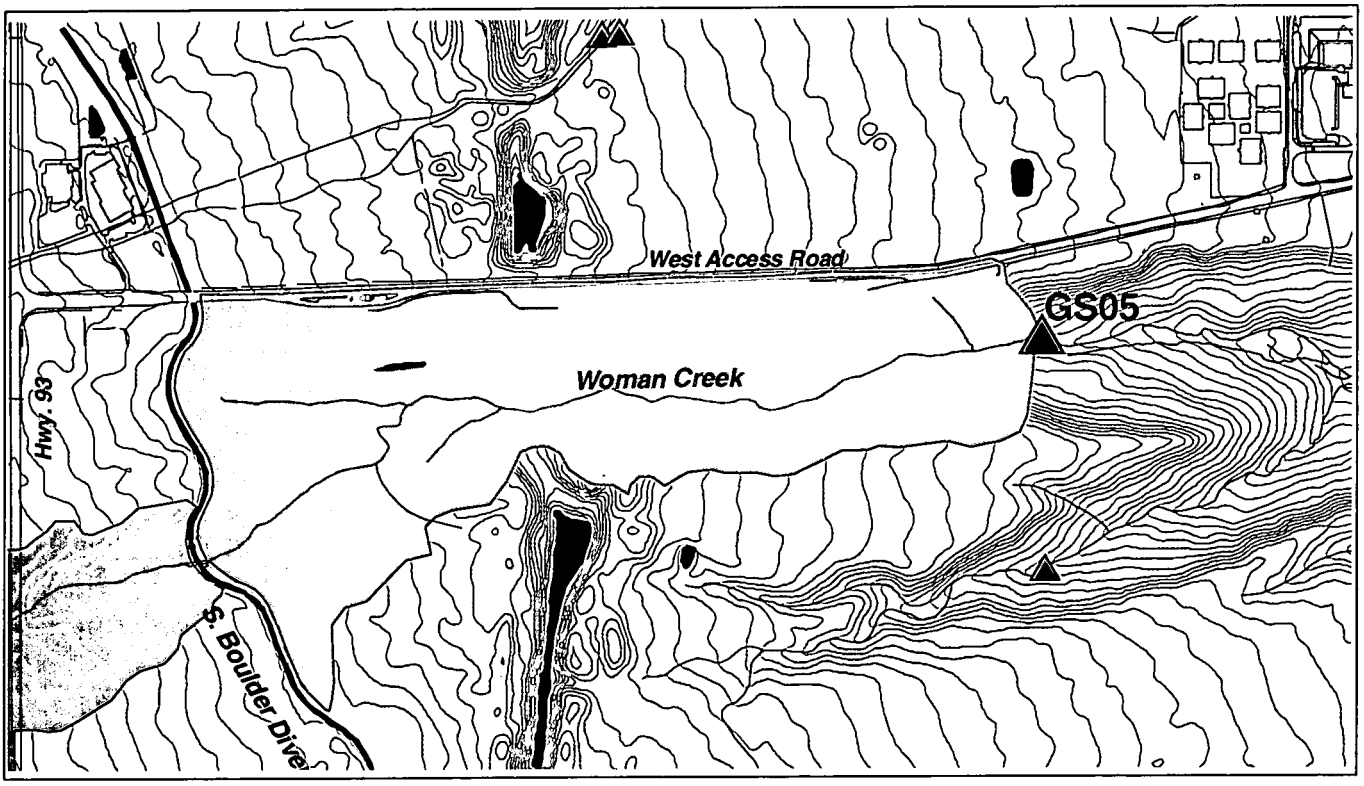


Figure 3-20. Map Showing GS05 Drainage Area.

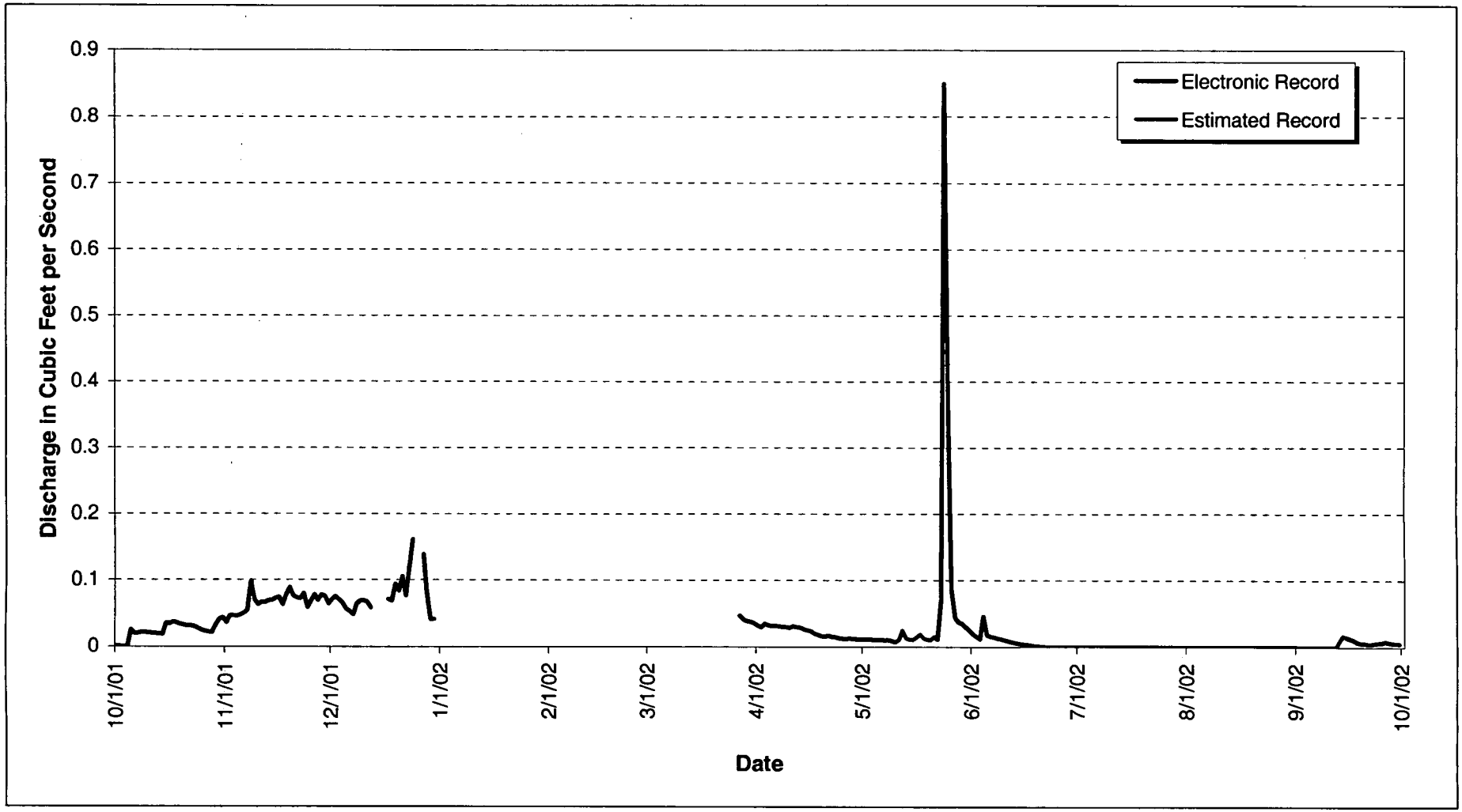


Figure 3-21. WY02 Mean Daily Hydrograph at GS05: North Woman Creek at West Fenceline.

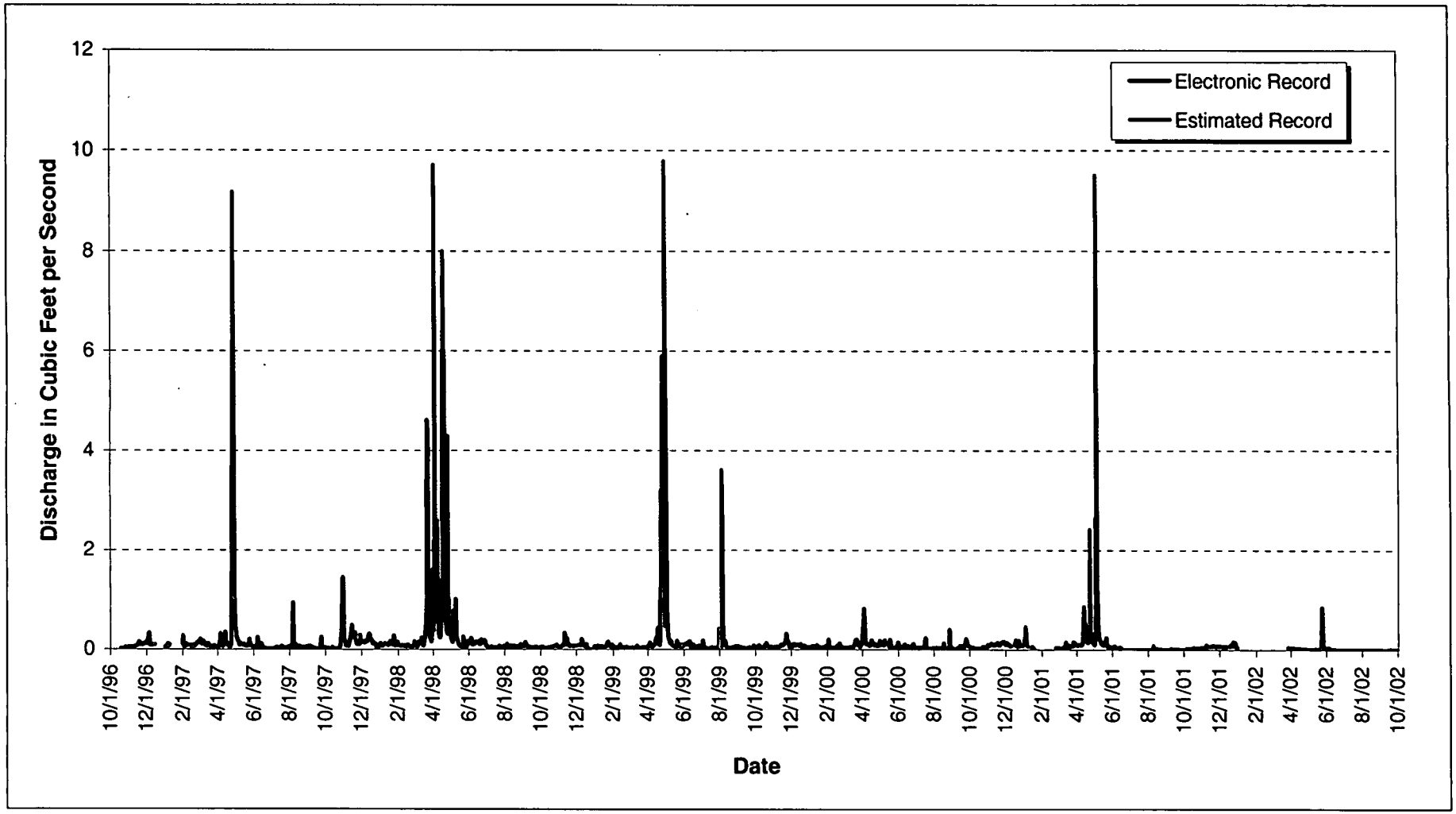


Figure 3-22. WY97-02 Mean Daily Hydrograph at GS05: North Woman Creek at West Fenceline.

3.2.8 GS06: Owl Branch at West Fenceline

Location

Owl Branch east of west Site boundary; State Plane: 2078449; 745968

Drainage Area

- The basin includes the Owl Branch of Woman Creek (total drainage acreage undetermined)
- IA Areas draining to GS06: none

Period of Record

9/23/91 to current year

Gage

Water-stage recorder and 6" Parshall flume; weir insert installed 11/13/96

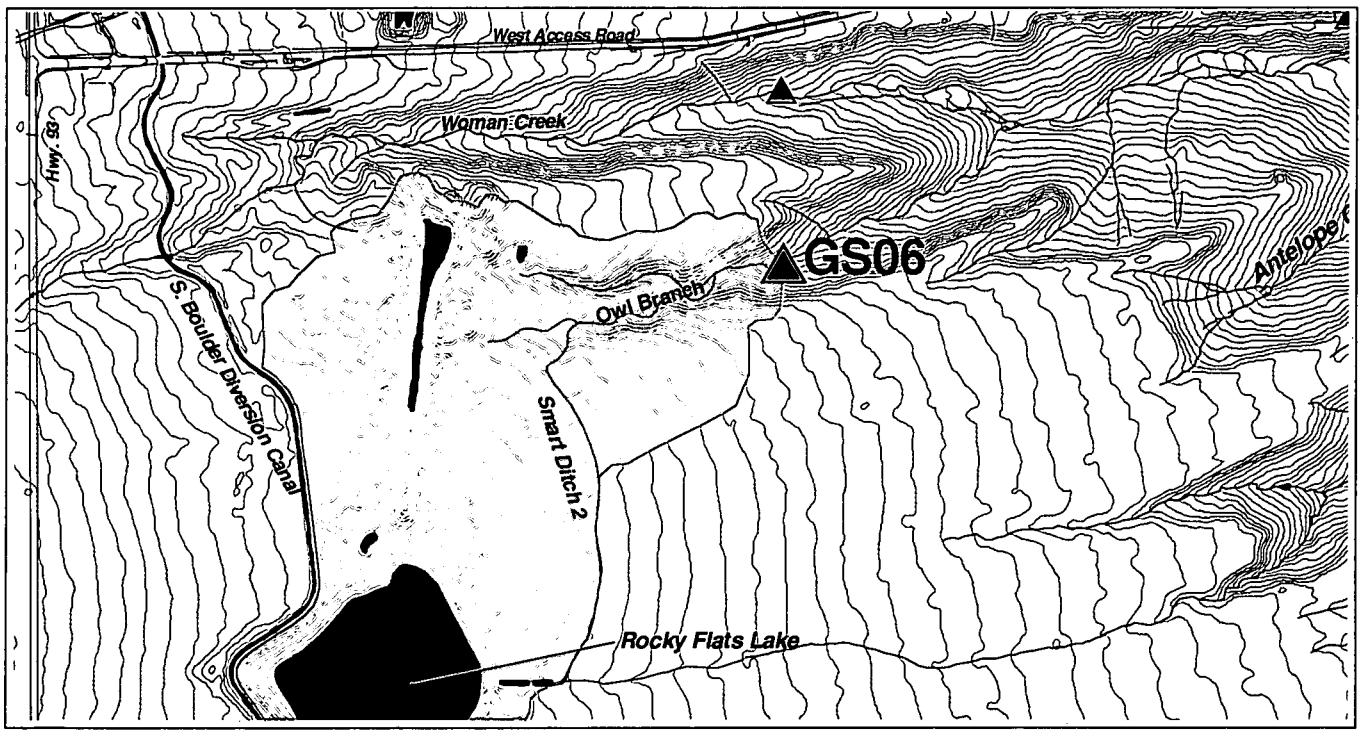


Figure 3-23. Map Showing GS06 Drainage Area.

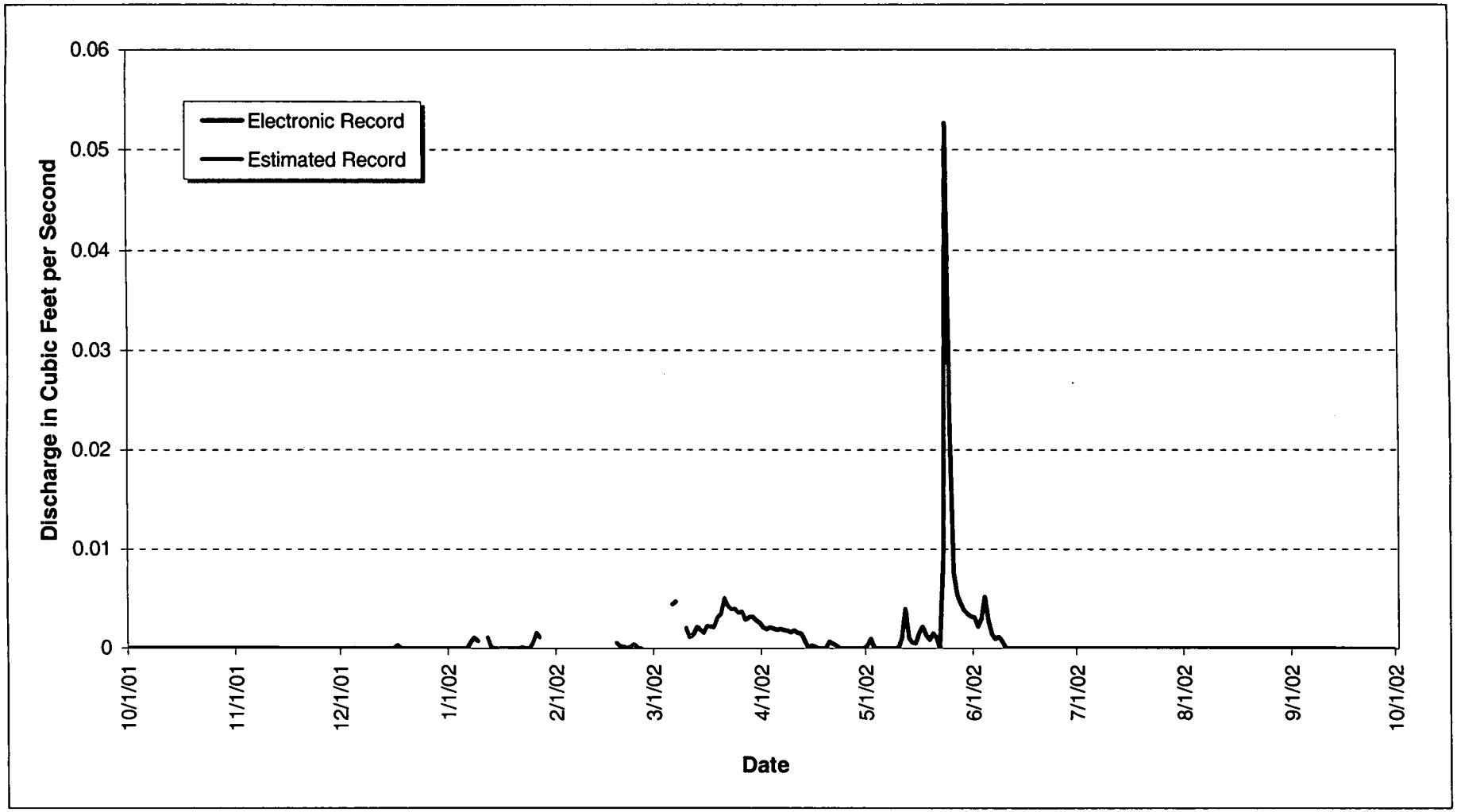


Figure 3-24. WY02 Mean Daily Hydrograph at GS06: South Woman Creek at West Fenceline.

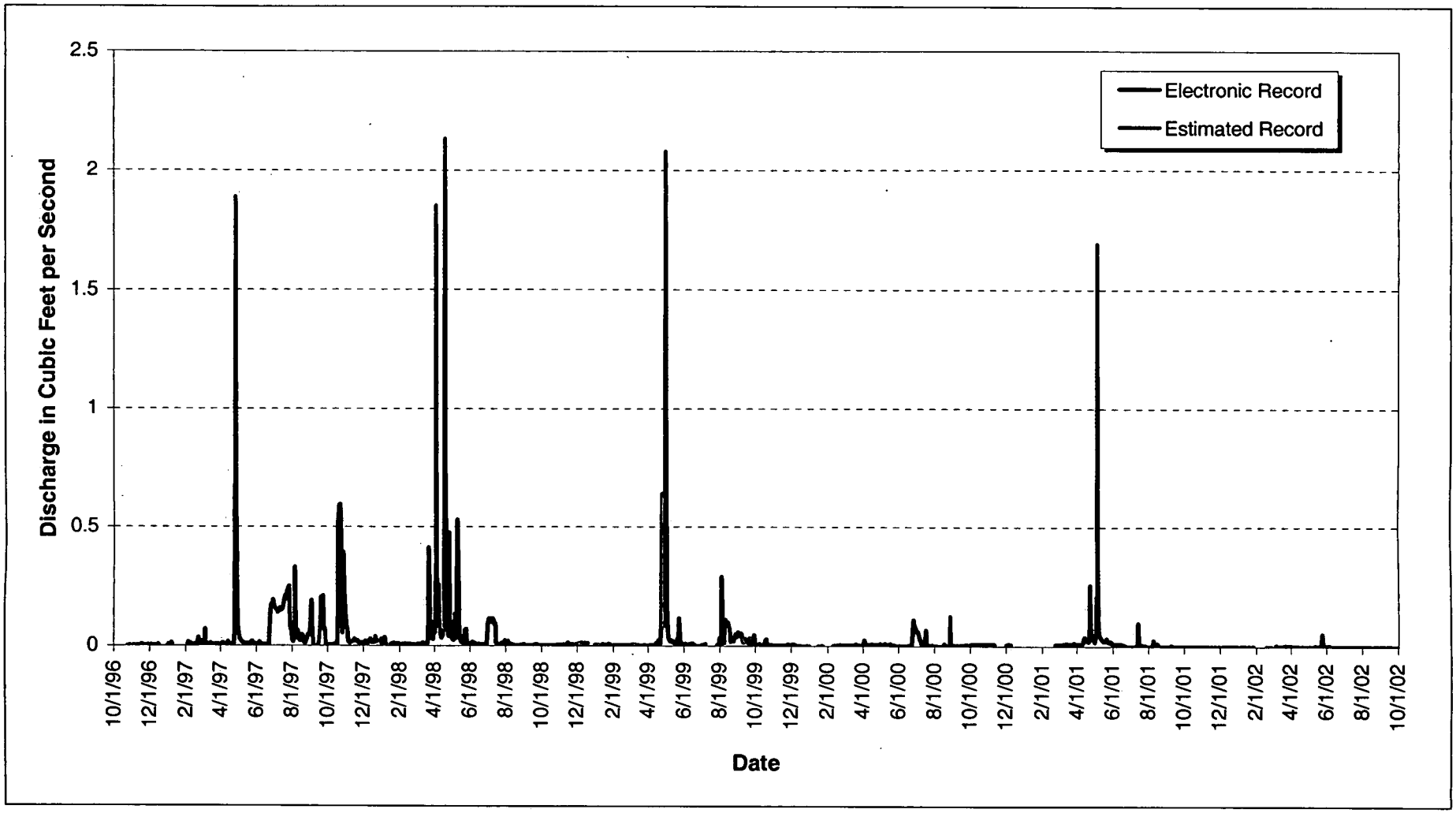


Figure 3-25. WY97-02 Mean Daily Hydrograph at GS06: South Woman Creek at West Fenceline.

3.2.9 GS08: South Walnut Creek at Pond B-5 Outlet

Location

South Walnut Creek at Pond B-5 outlet; State Plane: 2089779; 752234

Drainage Area

- The basin includes the South Walnut Creek drainage and southern portions of the IA (total of 262.7 acres); Pond B-1 is normally pump transferred to Pond B-2, with Pond B-2 normally pump transferred to Pond A-2
- IA Areas draining to GS08: 900, 800, 700, 500, 600, 400, 300 and 100

Period of Record

3/23/94 to current year

Gage

Water-stage recorder and 24" Parshall flume

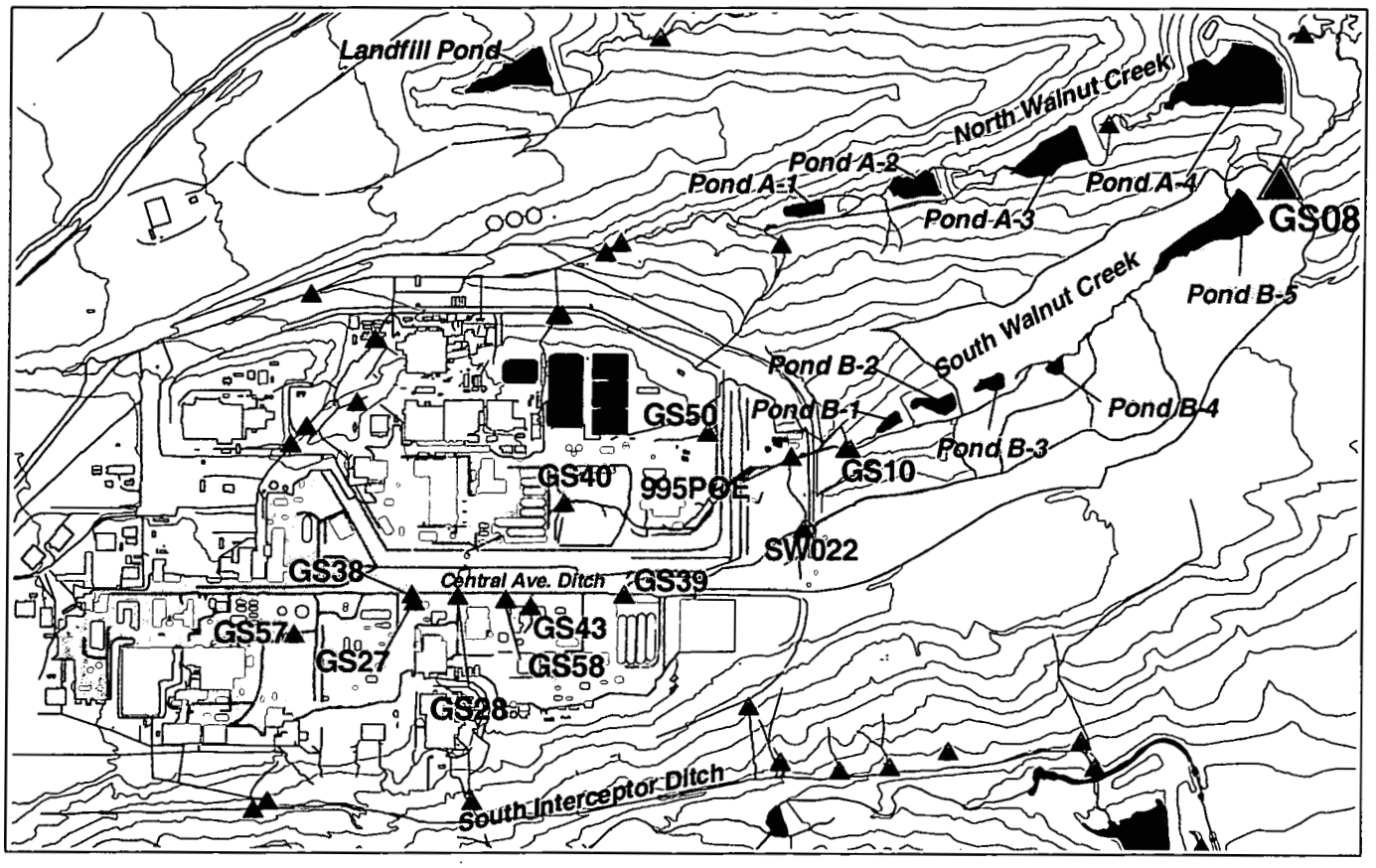


Figure 3-26. Map Showing GS08 Drainage Area.

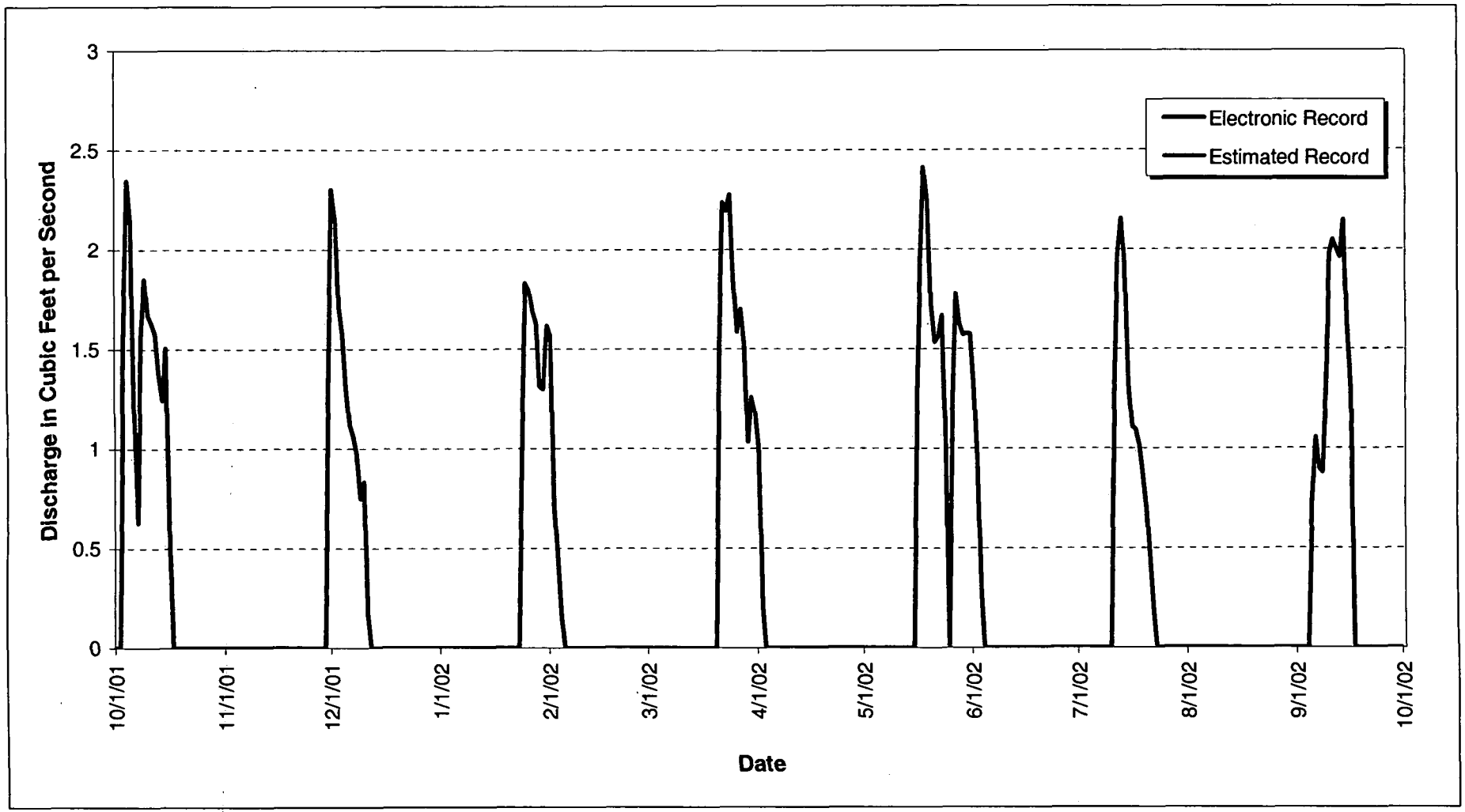


Figure 3-27. WY02 Mean Daily Hydrograph at GS08: South Walnut Creek at Pond B-5 Outlet.

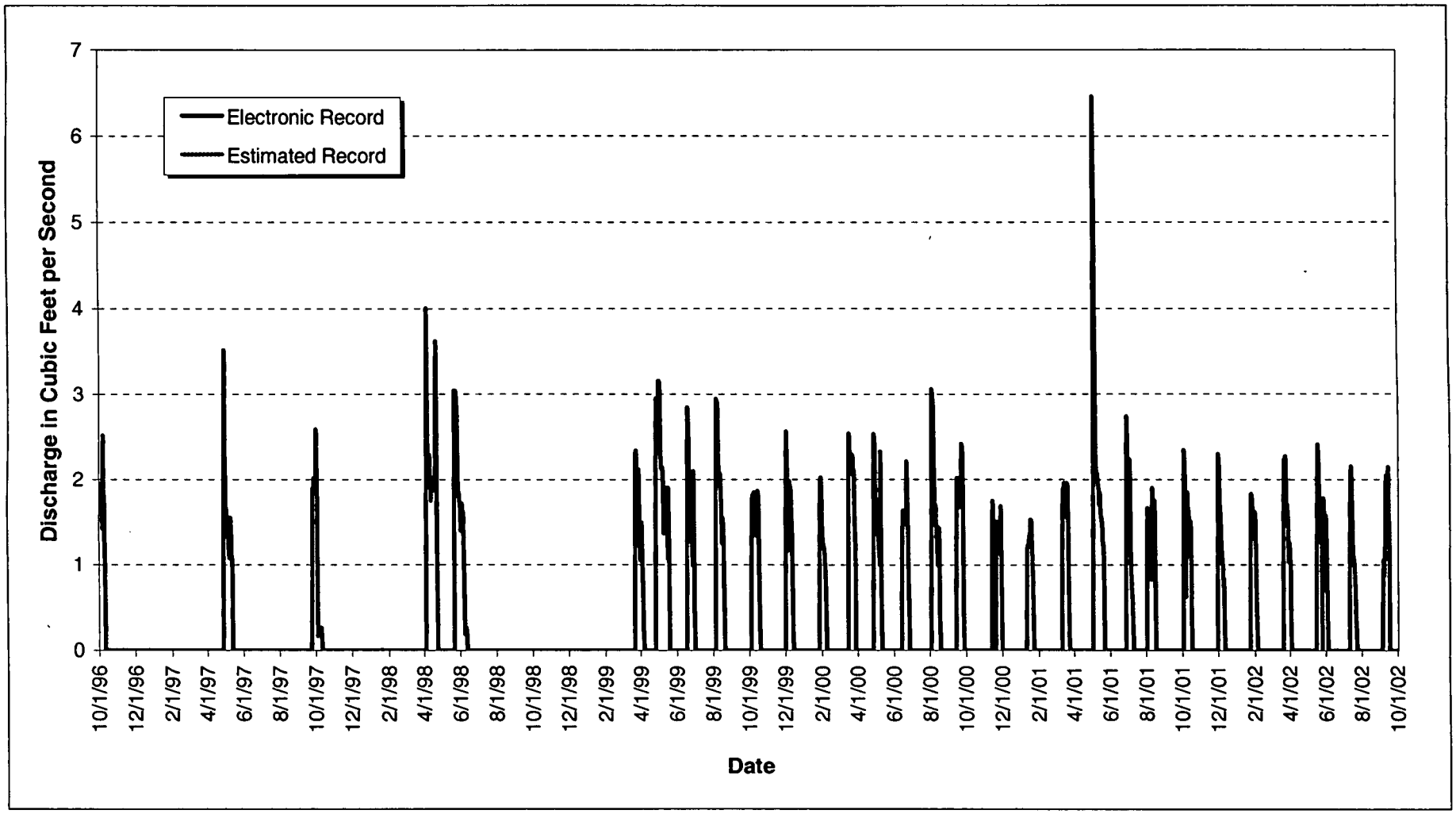


Figure 3-28. WY97-02 Mean Daily Hydrograph at GS08: South Walnut Creek at Pond B-5 Outlet.

3.2.10 GS10: South Walnut Creek at B-1 Bypass

Location

South Walnut Creek above B-1 Bypass; State Plane: 2086741, 750326

Drainage Area

- The basin includes the central and southern portions of the IA (total of 166.6 acres)
- IA Areas draining to GS10: 900, 800, 700, 600, 500, 400, 300, and 100

Period of Record

4/1/93 to current year

Gage

Water-stage recorder and 9" Parshall flume

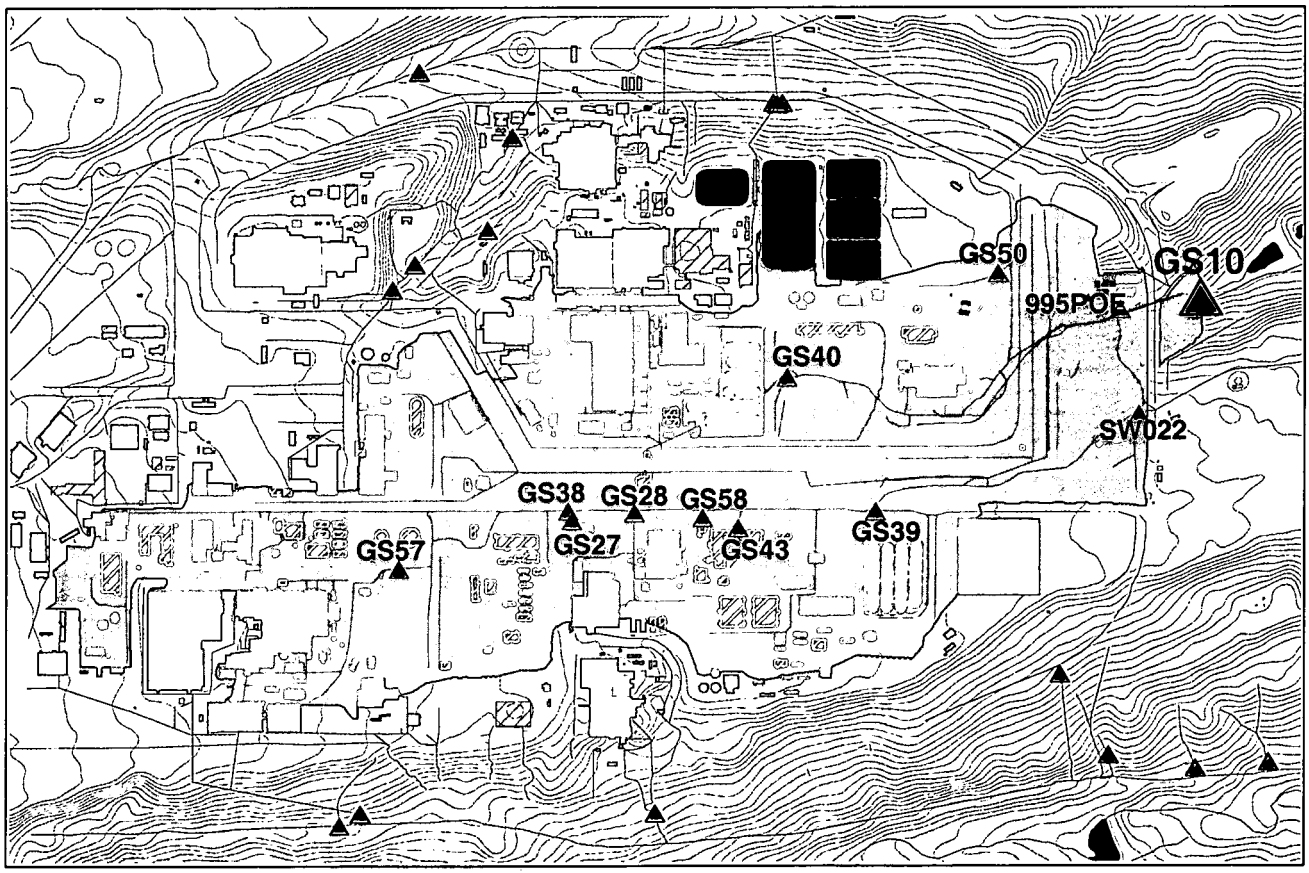


Figure 3-29. Map Showing GS10 Drainage Area.

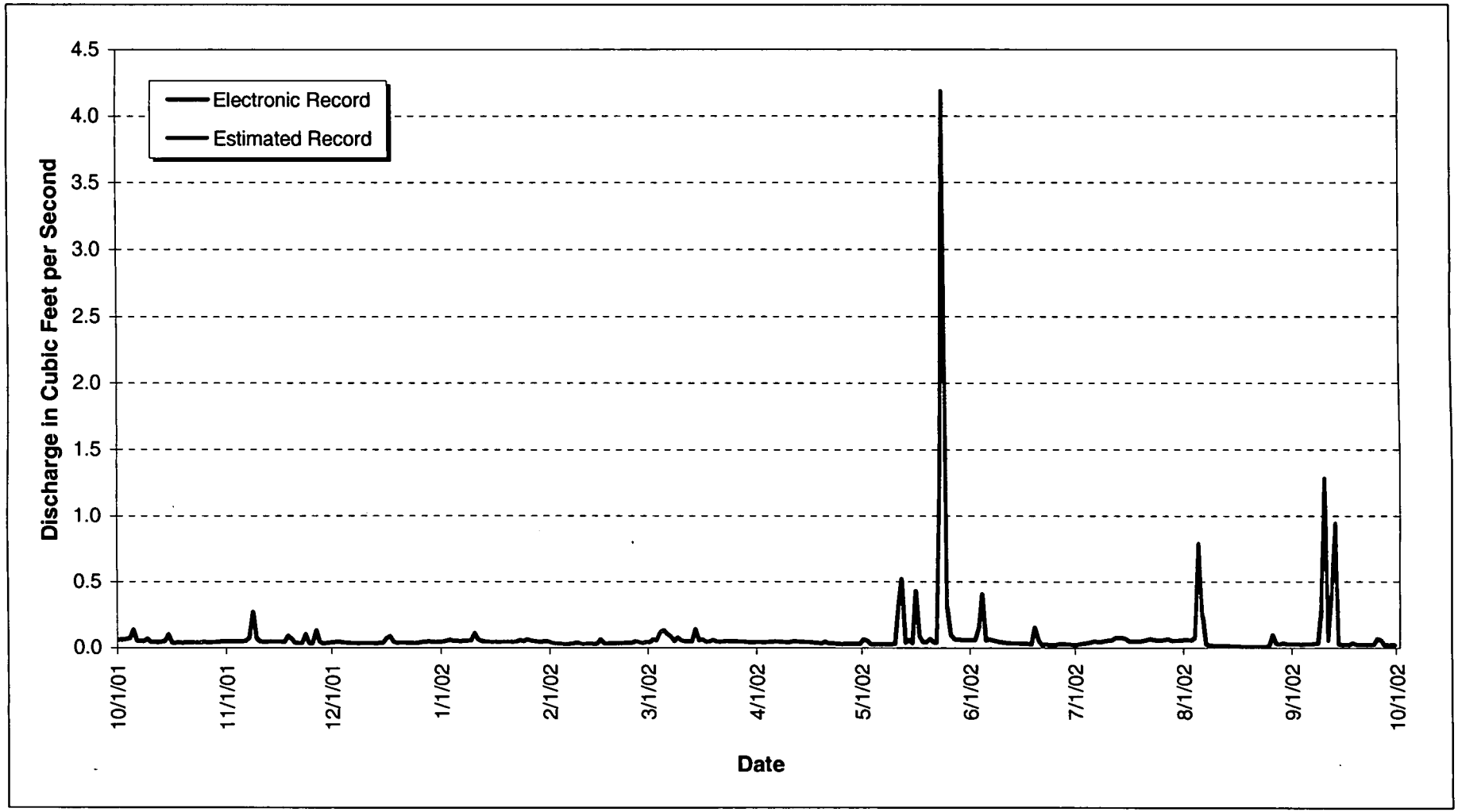


Figure 3-30. WY02 Mean Daily Hydrograph at GS10: South Walnut Creek at B-1 Bypass.

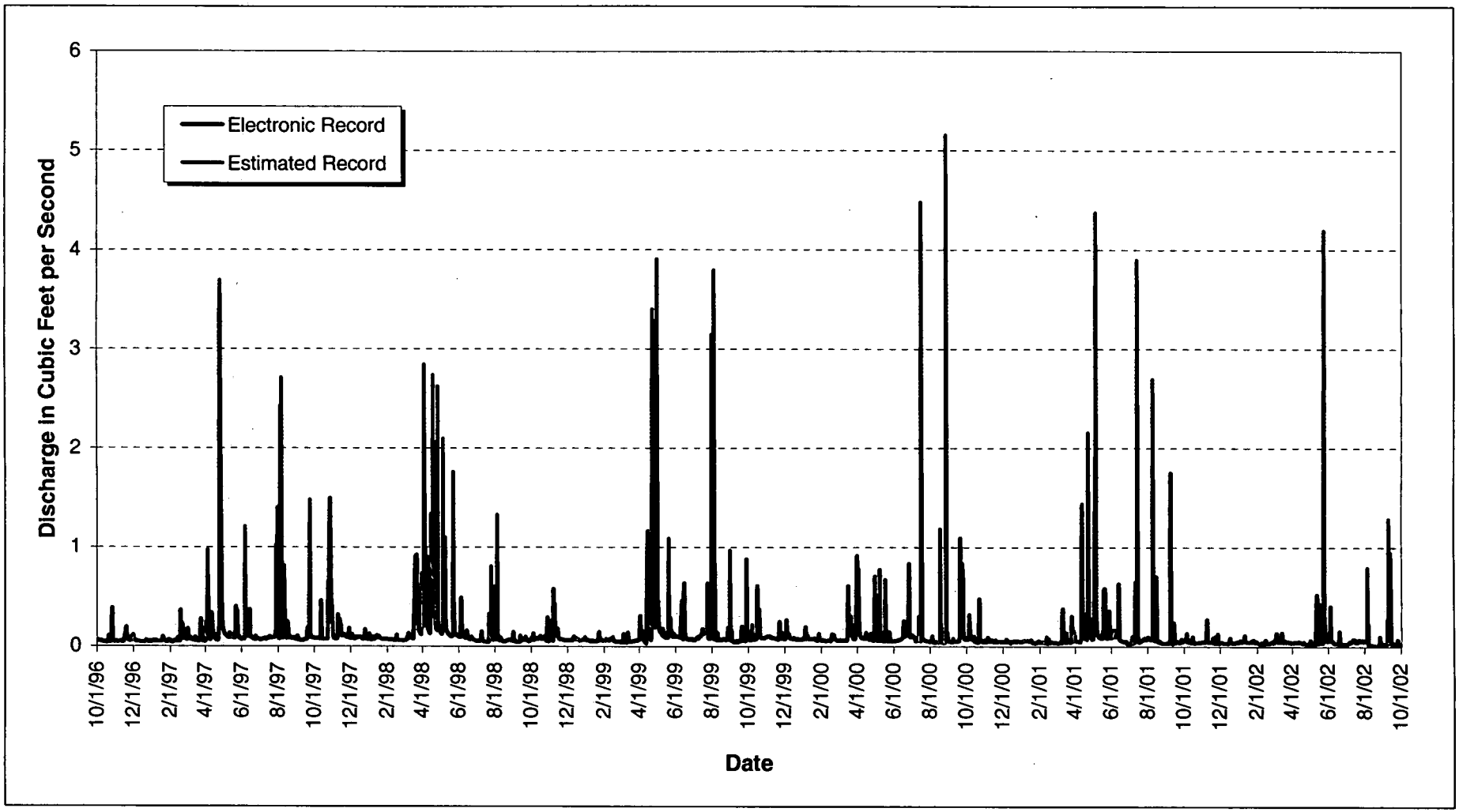


Figure 3-31. WY97-02 Mean Daily Hydrograph at GS10: South Walnut Creek at B-1 Bypass.

3.2.11 GS11: North Walnut Creek at Pond A-4 Outlet

Location

North Walnut Creek at Pond A-4 outlet; State Plane: 2089934, 753267

Drainage Area

- The basin includes the North Walnut Creek drainage, the Landfill Pond (pump transferred to A-Series ponds), Ponds B-1 and B-2 (normally pump transferred to Pond A-2), and northern portions of the IA (total of 467.6 acres)
- IA Areas draining to GS11: 900, 700, 300, and 100

Period of Record

5/12/92 to current year

Gage

Water-stage recorder and 24" Parshall flume

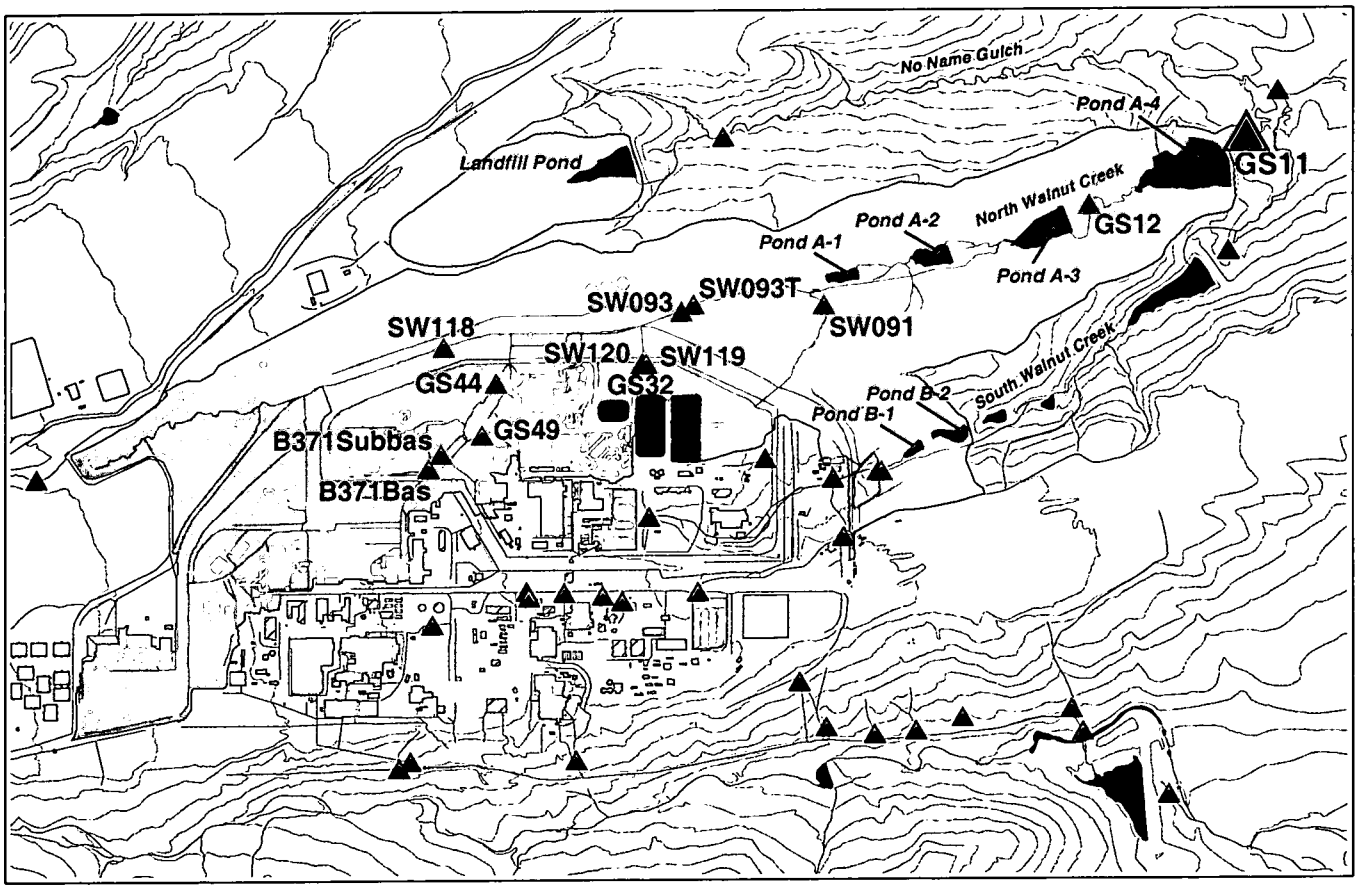


Figure 3-32. Map Showing GS11 Drainage Area.

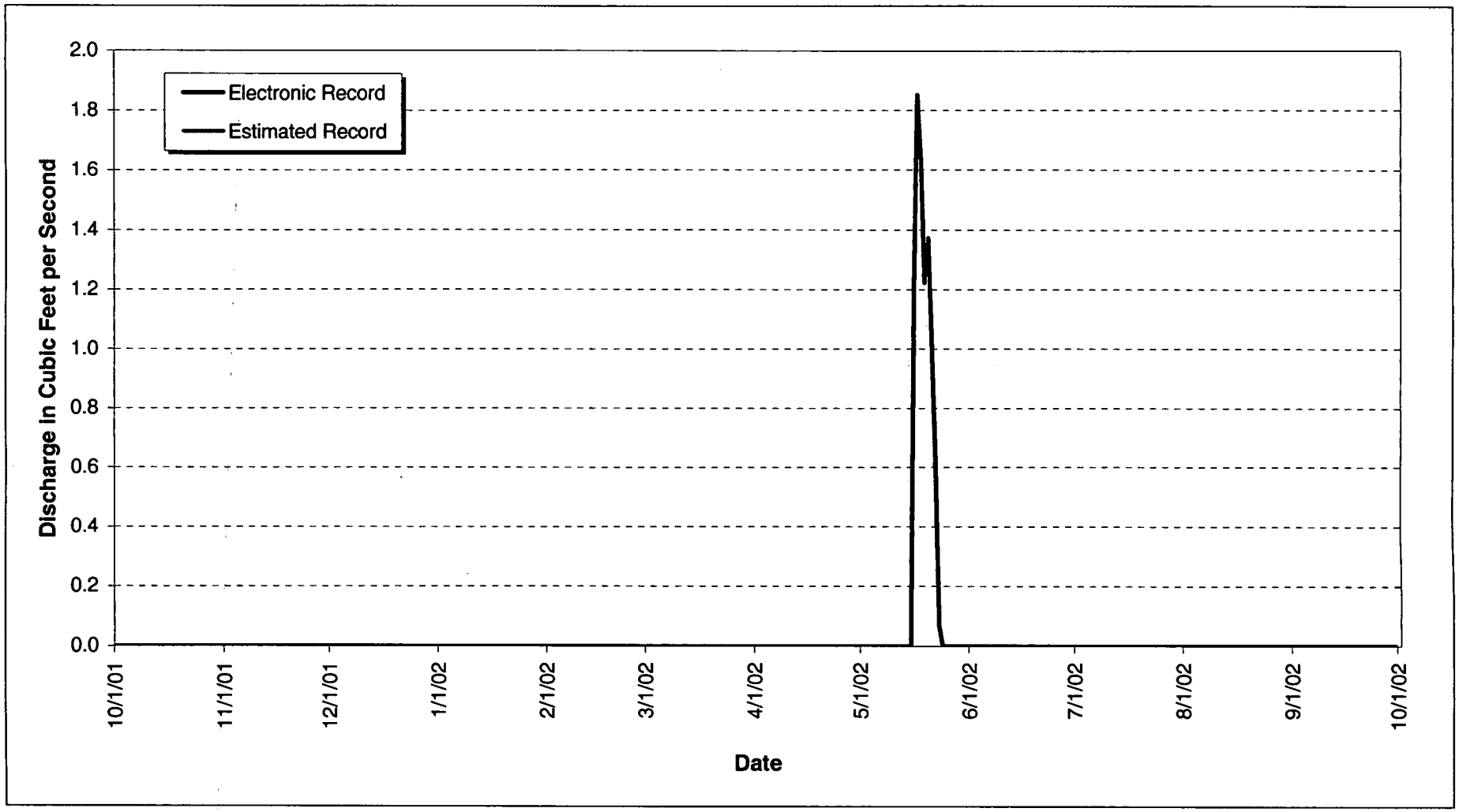


Figure 3-33. WY02 Mean Daily Hydrograph at GS11: North Walnut Creek at Pond A-4 Outlet.

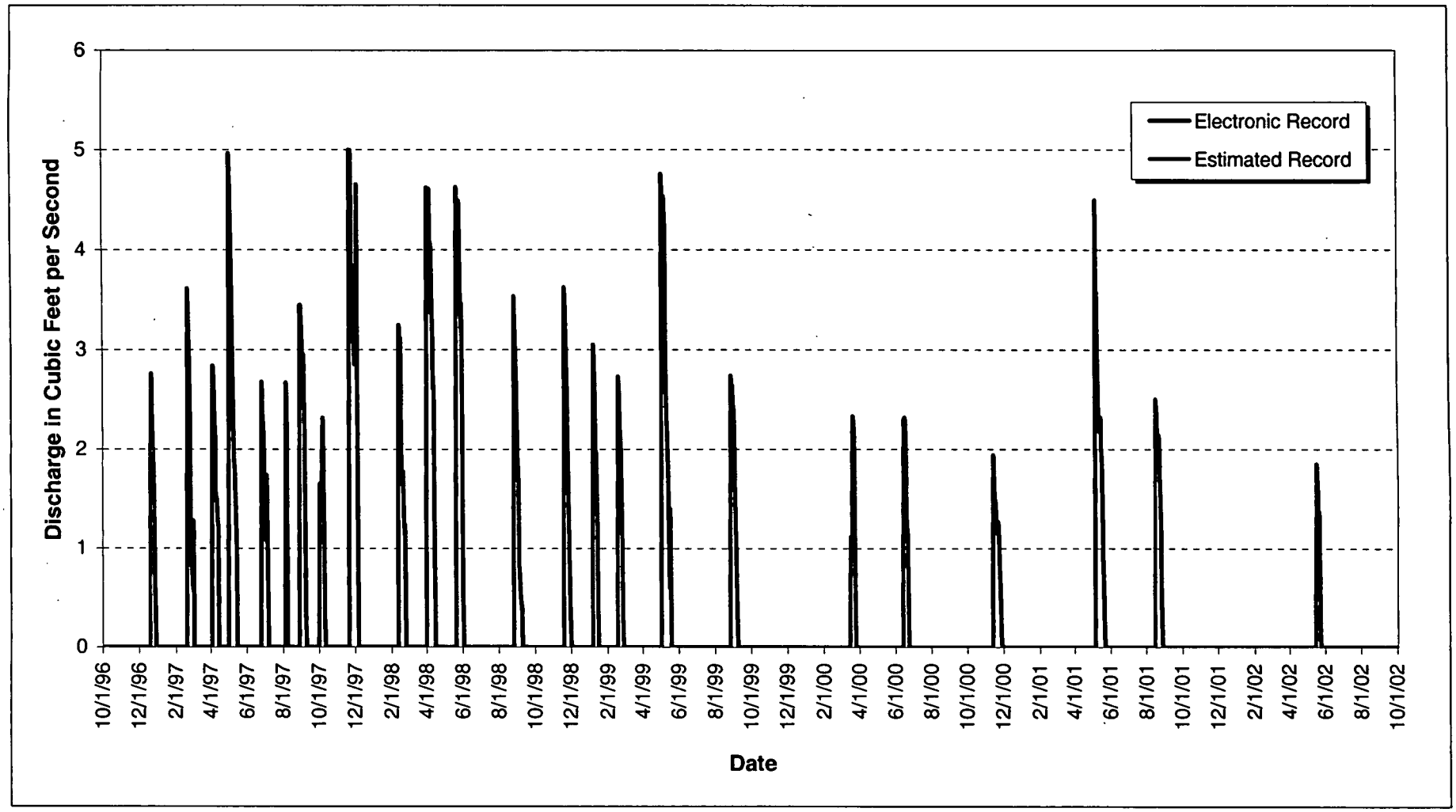


Figure 3-34. WY97-02 Mean Daily Hydrograph at GS11: North Walnut Creek at Pond A-4 Outlet.

3.2.12 GS12: North Walnut Creek at Pond A-3 Outlet

Location

North Walnut Creek at Pond A-3 outlet; State Plane: 2088569, 752633

Drainage Area

- The basin includes the North Walnut Creek drainage, the Landfill Pond (pump transferred to A-Series ponds), Ponds B-1 and B-2 (normally pump transferred to Pond A-2), and northern portions of the IA (total of 433.3 acres)
- IA Areas draining to GS12: 900, 700, 300, and 100

Period of Record

5/13/92 to current year

Gage

Water-stage recorder and 30" Parshall flume

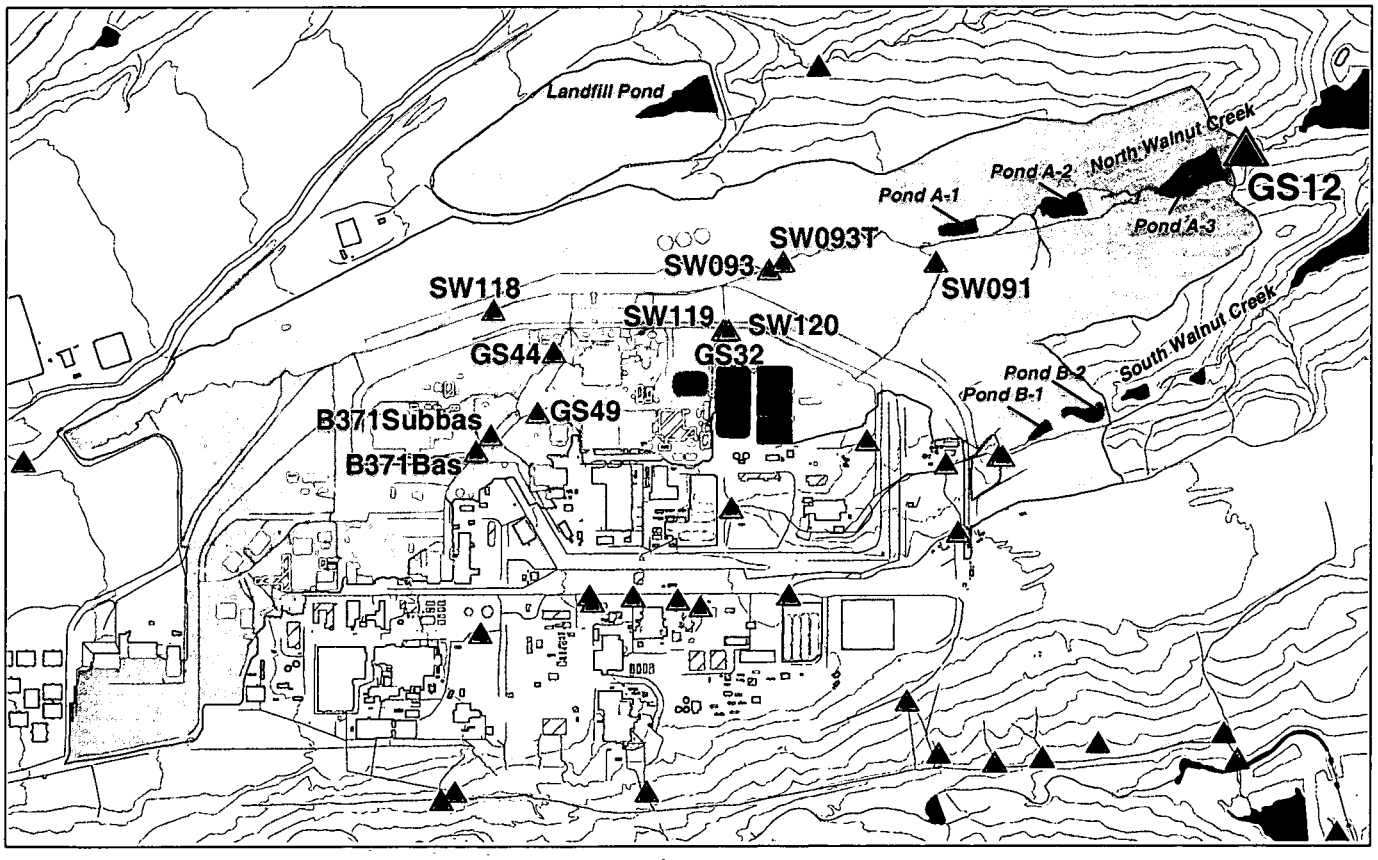


Figure 3-35. Map Showing GS12 Drainage Area.

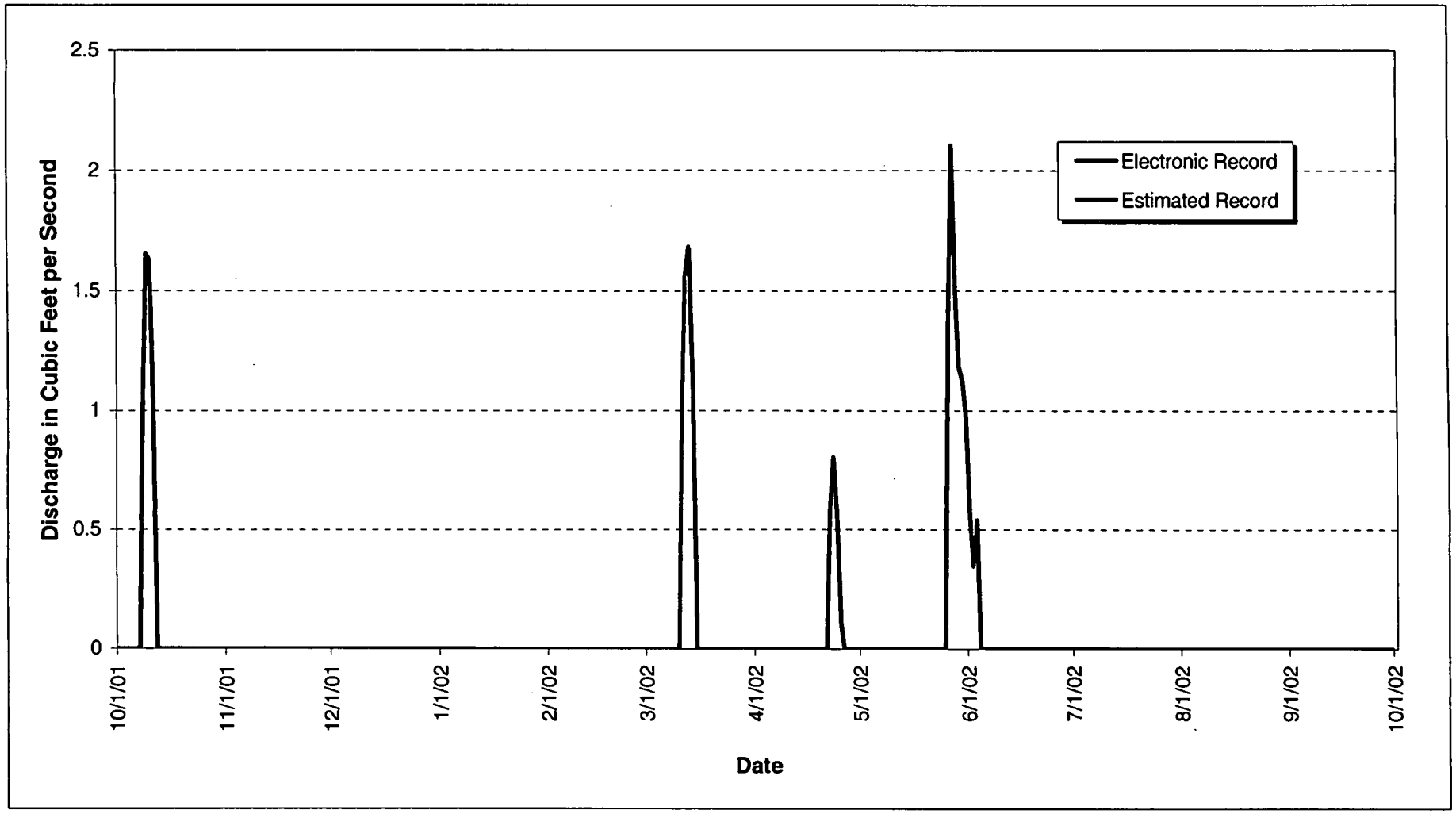


Figure 3-36. WY02 Mean Daily Hydrograph at GS12: North Walnut Creek at Pond A-3 Outlet.

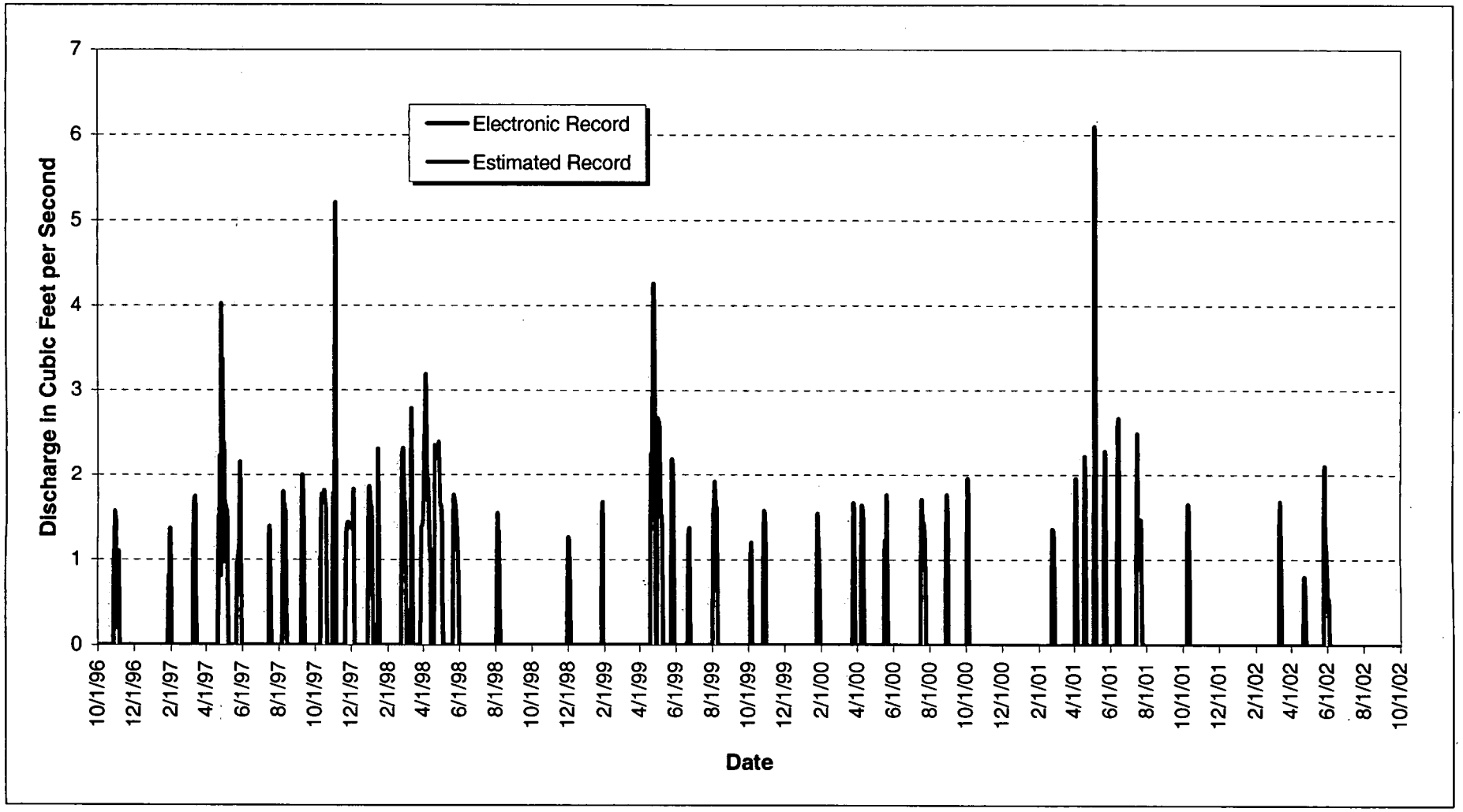


Figure 3-37. WY97-02 Mean Daily Hydrograph at GS12: North Walnut Creek at Pond A-3 Outlet.

3.2.13 GS16: Antelope Springs

Location

Antelope Springs Creek in southern BZ; State Plane: 2083406, 746659

Drainage Area

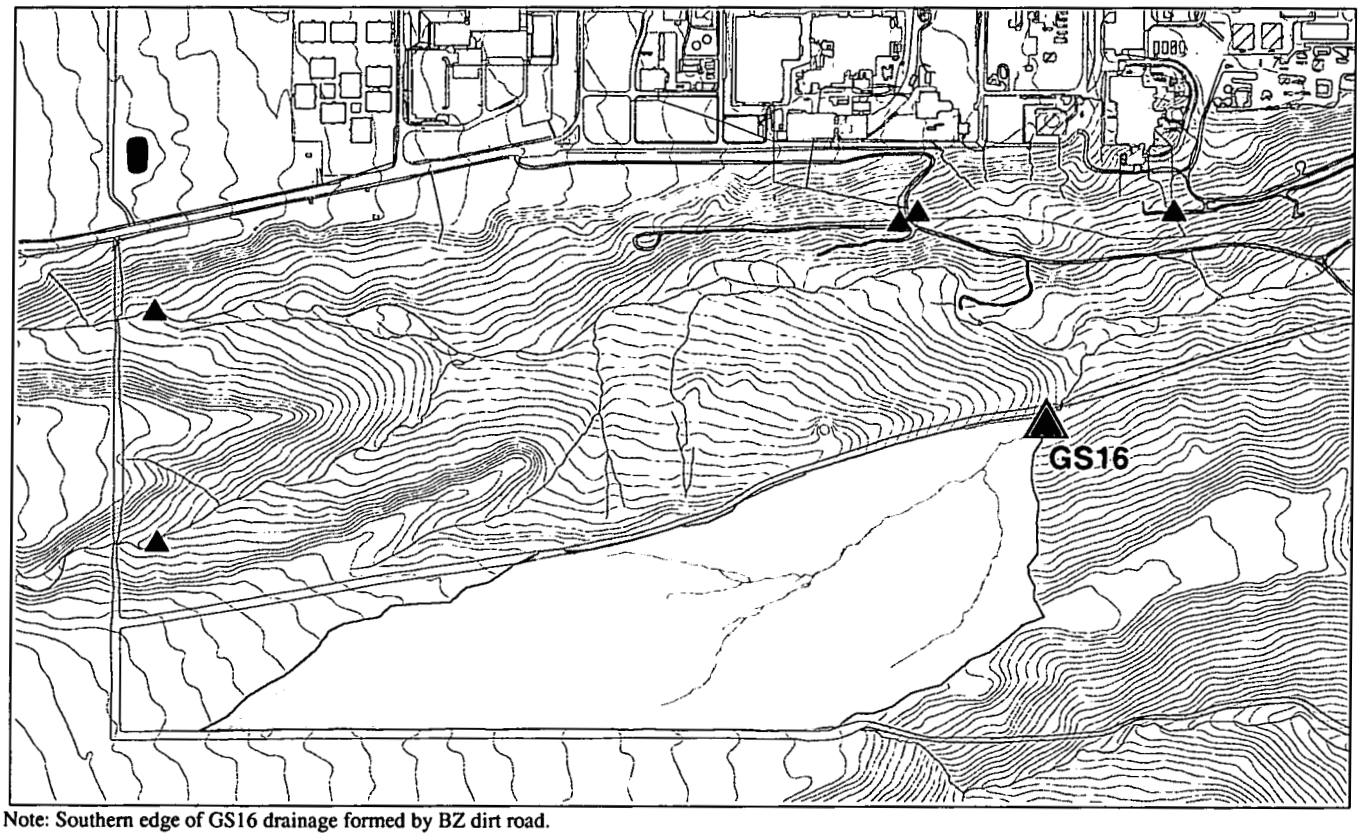
- The basin includes the Antelope Springs Creek drainage (total of 104.7 acres)
- IA Areas draining to GS16: none

Period of Record

4/8/93 to current year

Gage

Water-stage recorder and 6" Parshall flume; 6" Parshall flume 150' downstream prior to 11/30/98



Note: Southern edge of GS16 drainage formed by BZ dirt road.

Figure 3-38. Map Showing GS16 Drainage Area.

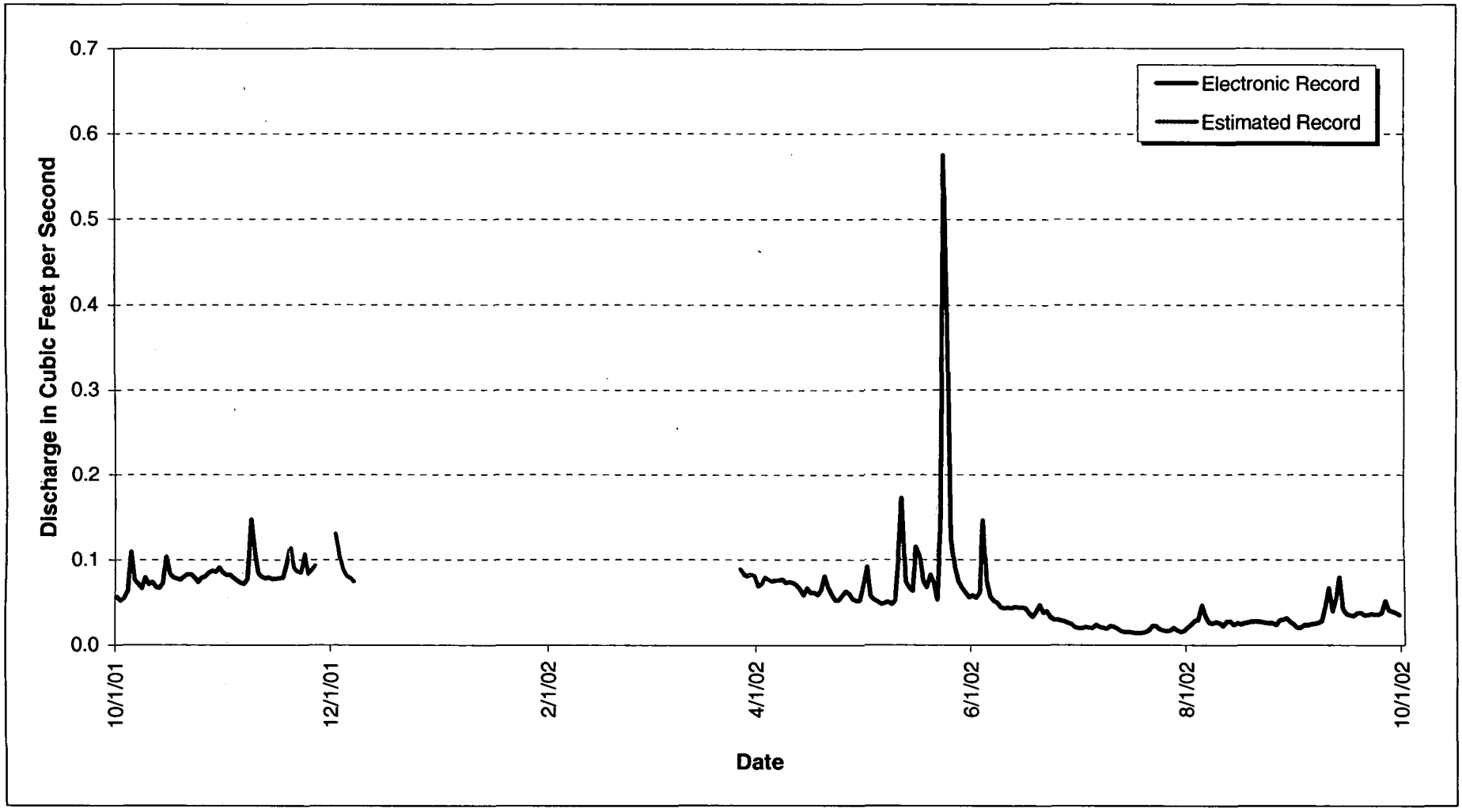


Figure 3-39. WY02 Mean Daily Hydrograph at GS16: Antelope Springs.

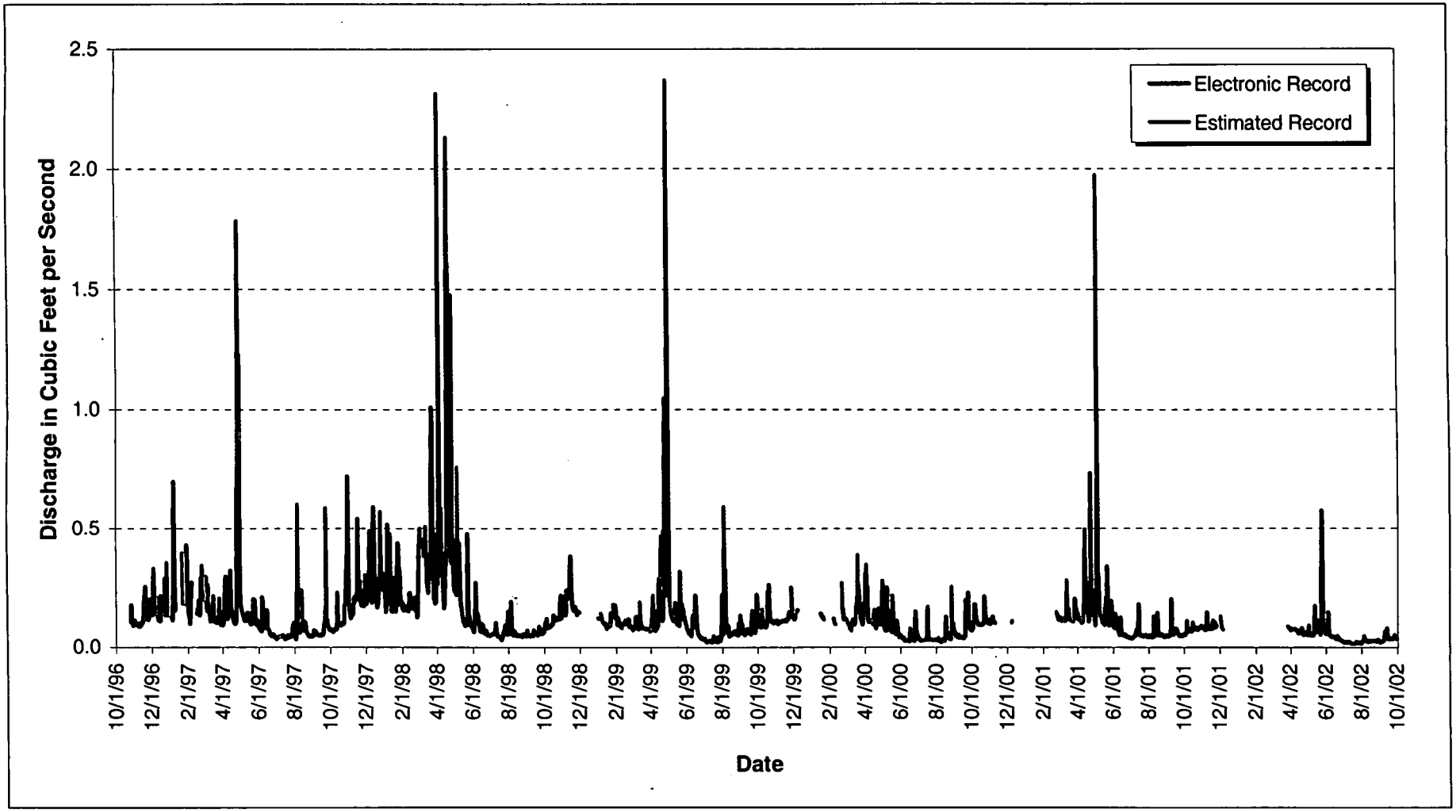


Figure 3-40. WY97-02 Mean Daily Hydrograph at GS16: Antelope Springs.

3.2.14 GS22: 400 Area Outfall to SID

Location

400 Area outfall to SID; State Plane: 2082678, 747820

Drainage Area

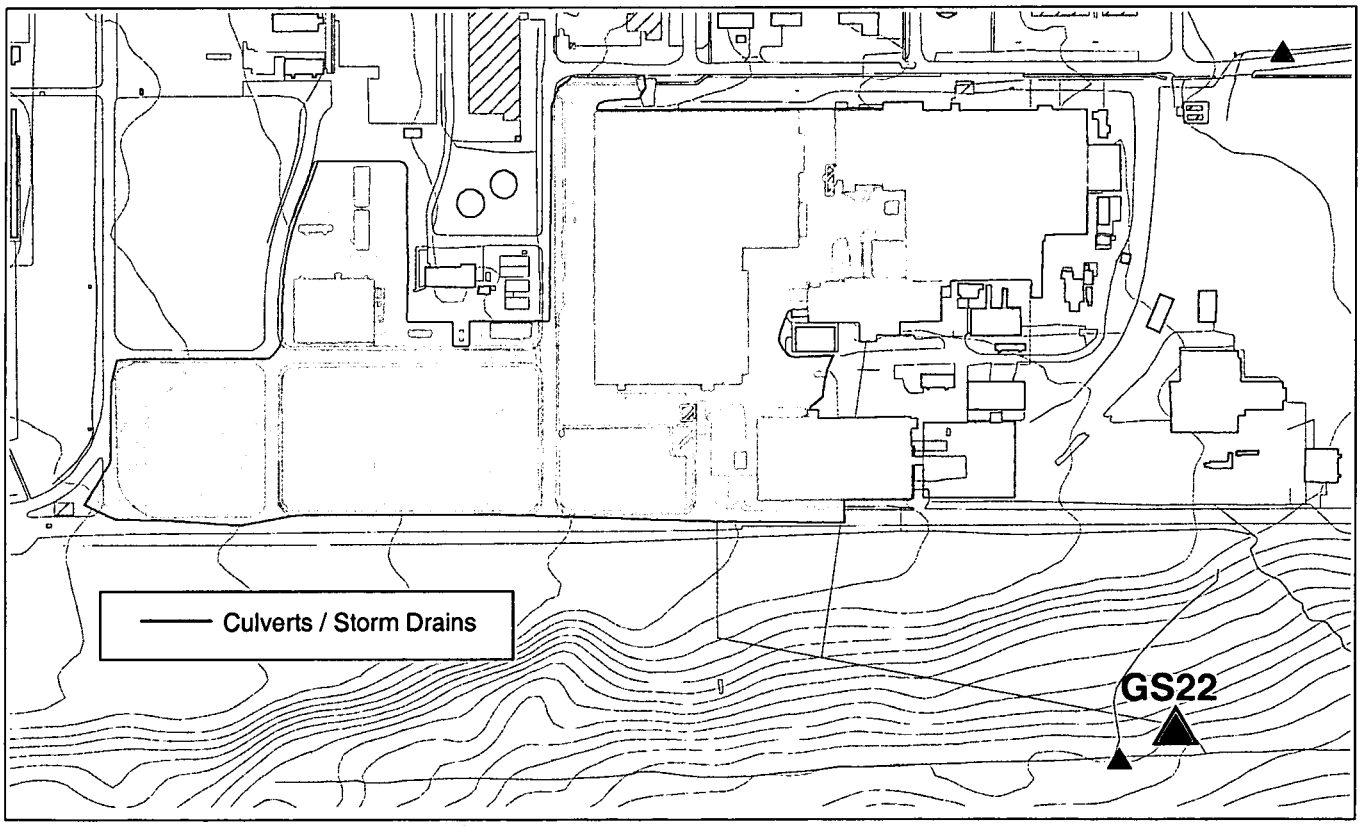
- The basin includes a portion of the southern IA (total of 17.2 acres)
- IA Areas draining to GS22: 400 and 100

Period of Record

4/18/95 – 10/1/96; 1/7/00 to current year

Gage

Water-stage recorder and 1.5' H-flume



Note: Water reaches GS22 via underground stormdrains.

Figure 3-41. Map Showing GS22 Drainage Area.

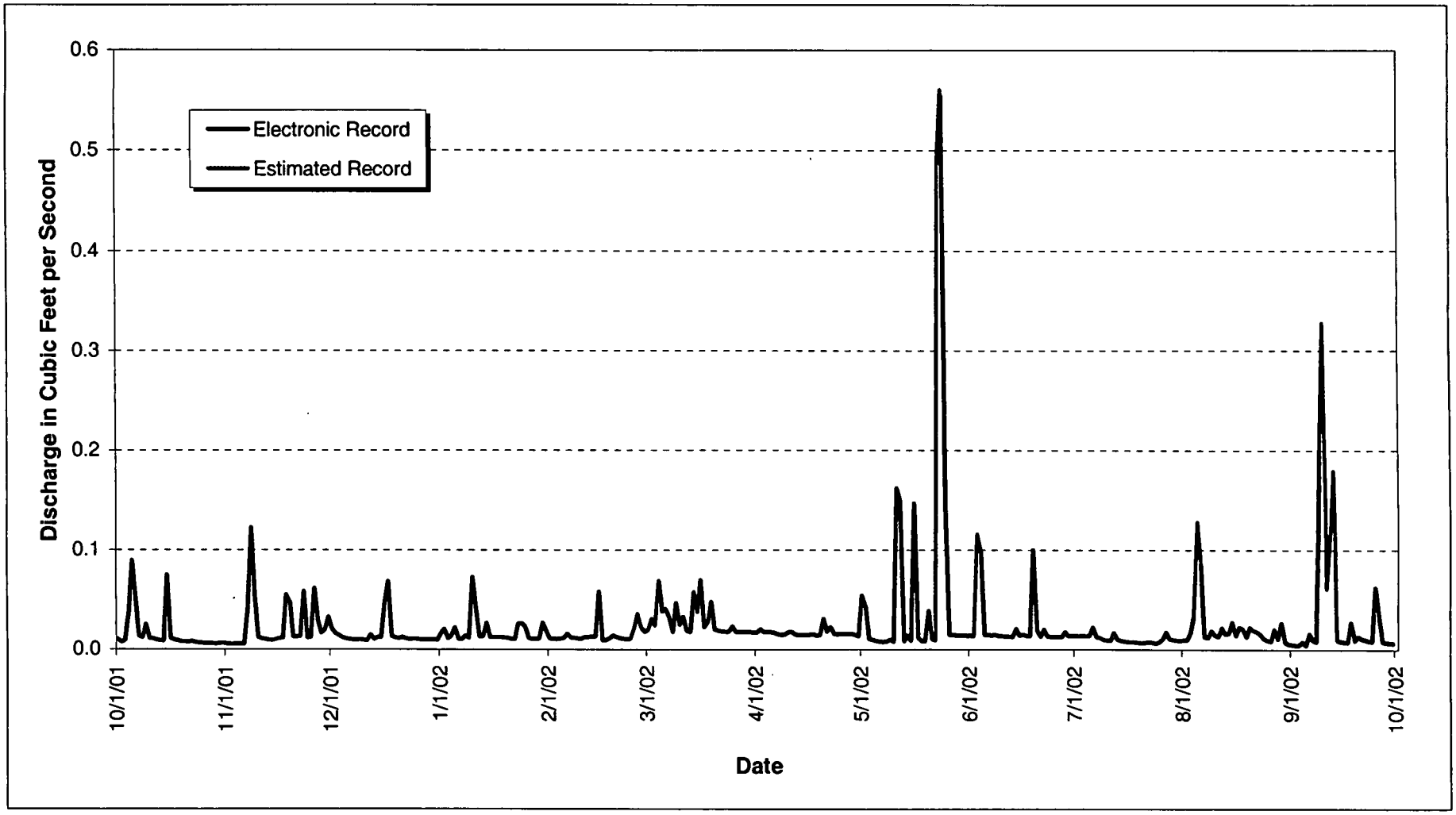


Figure 3-42. WY02 Mean Daily Hydrograph at GS22: 400 Area Outfall to SID.

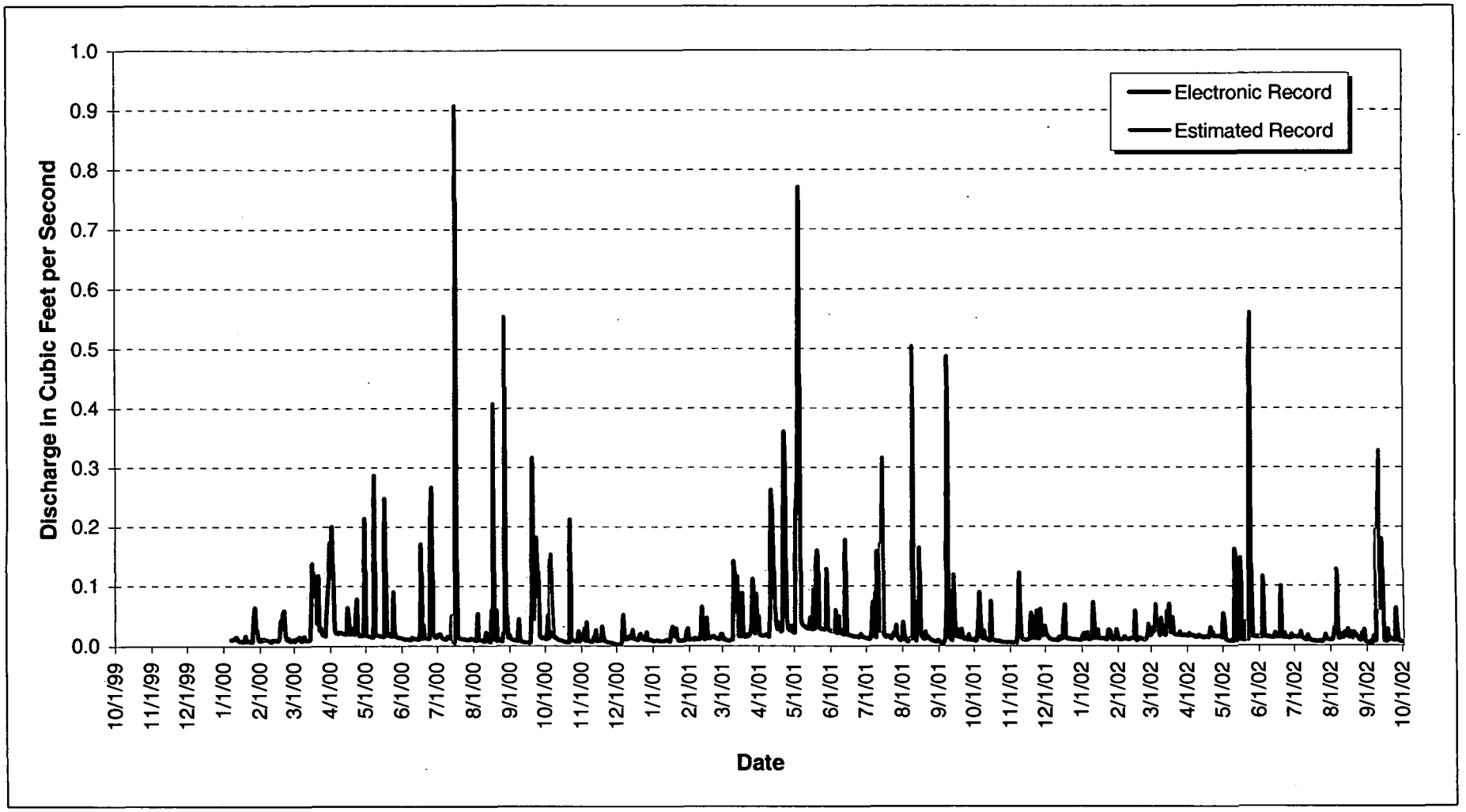


Figure 3-43. WY00-02 Mean Daily Hydrograph at GS22: 400 Area Outfall to SID.

3.2.15 GS27: Building 889/884 Subdrainage Area

Location

Building 889/884 subdrainage area; State Plane: 2083703, 749242

Drainage Area

- The basin includes the 889/884 area (total of 0.4 acres)
- IA Areas draining to GS27: 800

Period of Record

3/9/95 to current year

Gage

Water-stage recorder and 2" cutthroat flume

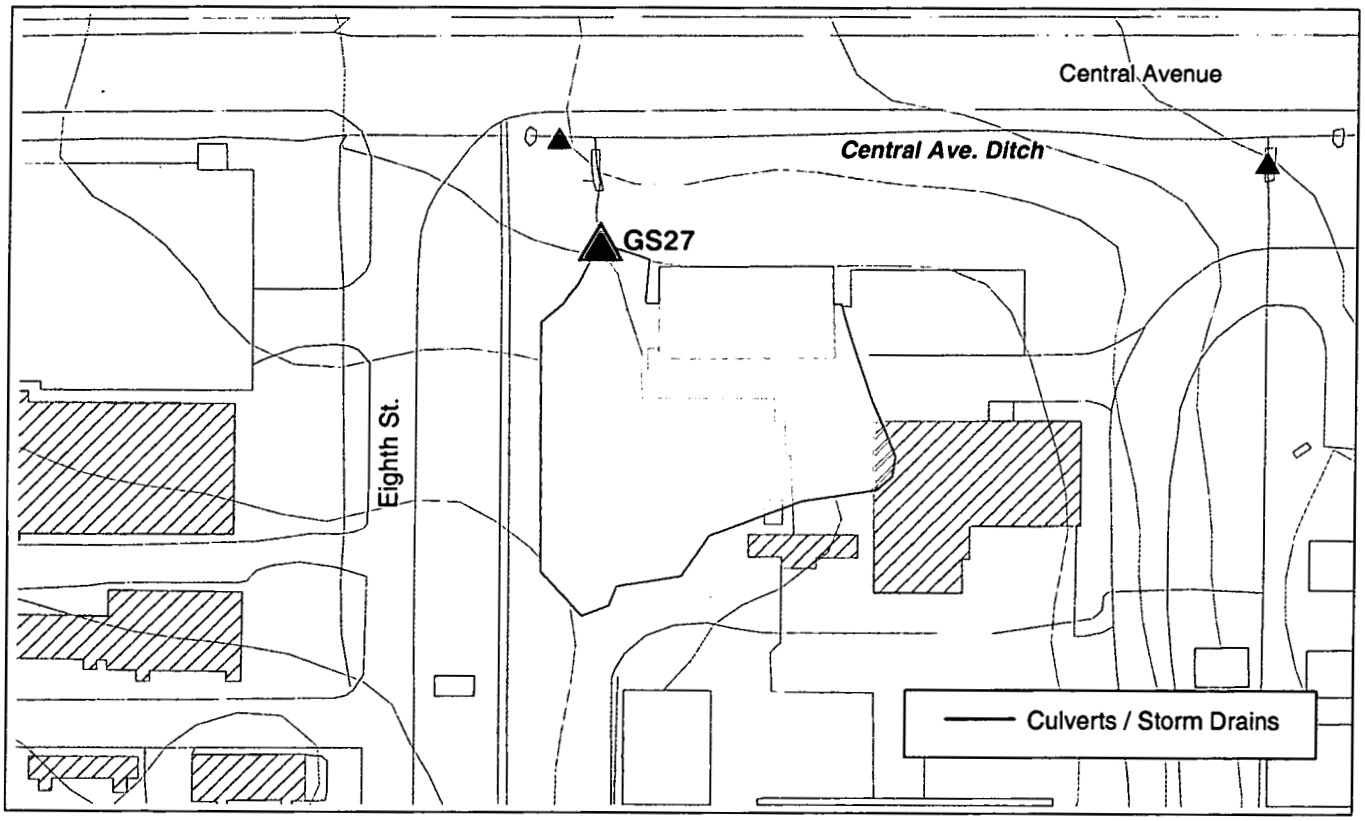


Figure 3-44. Map Showing GS27 Drainage Area.

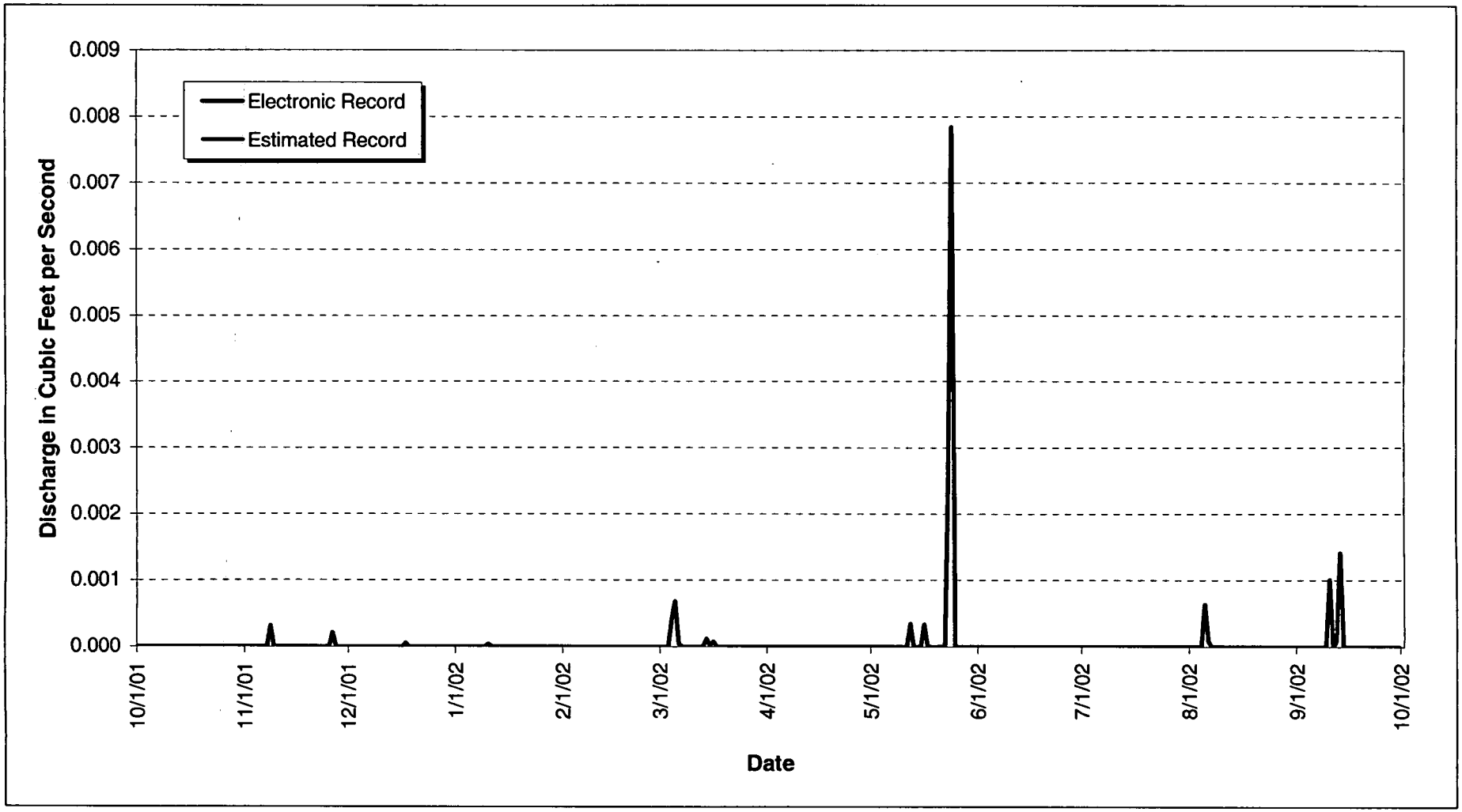


Figure 3-45. WY02 Mean Daily Hydrograph at GS27: Building 889/884 Subdrainage Area.

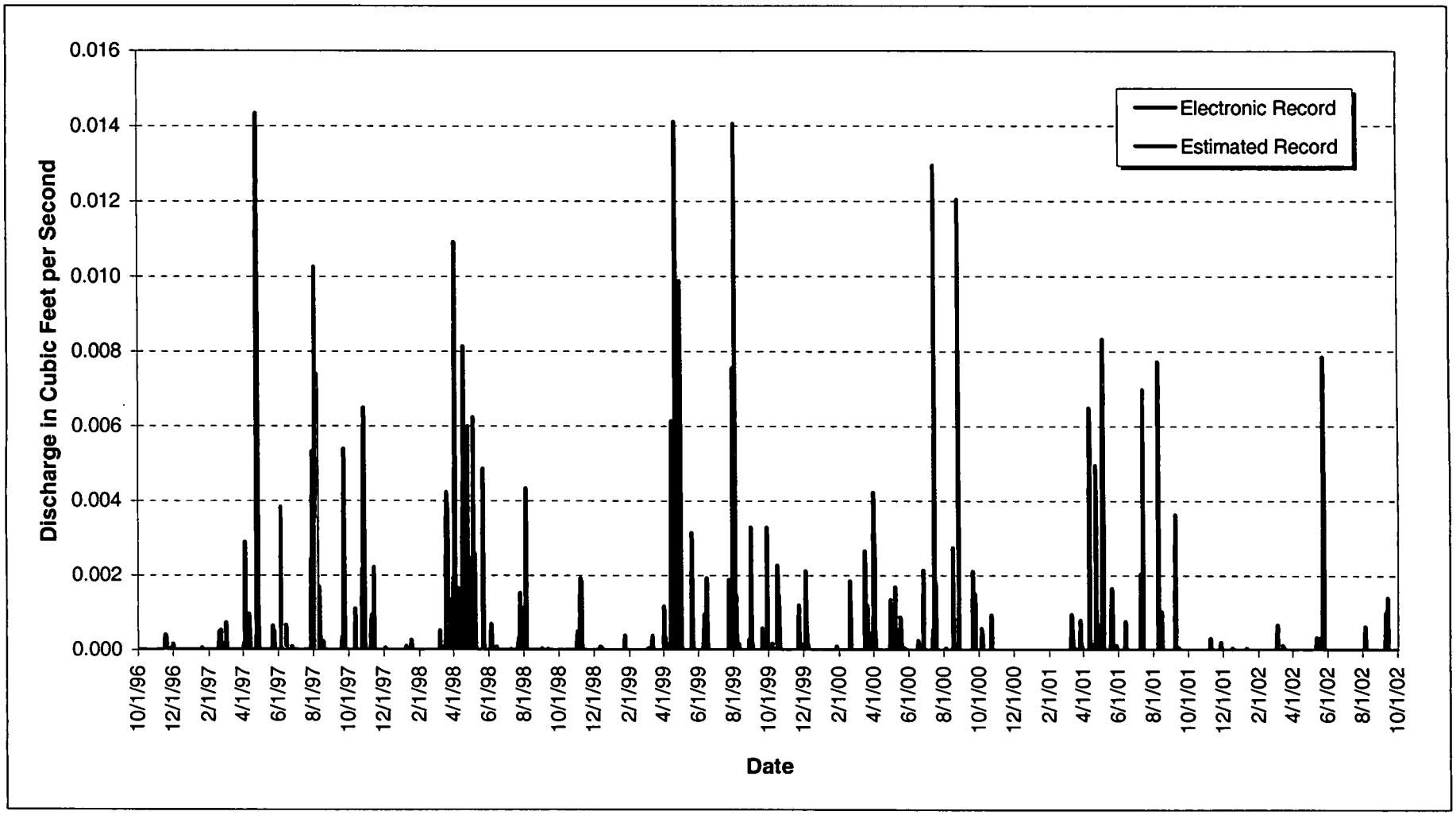


Figure 3-46. WY97-02 Mean Daily Hydrograph at GS27: Building 889/884 Subdrainage Area.

3.2.16 GS28: Ditch NW of B865

Location

Ditch NW of B865 draining to Central Ave. Ditch; State Plane: 2083072, 749156

Drainage Area

- The basin includes an area surrounding B883 and west of B865 (total of 2.8 acres)
- IA Areas draining to GS28: 800

Period of Record

2/19/02 to current year

Gage

Water-stage recorder and 3" Parshall flume

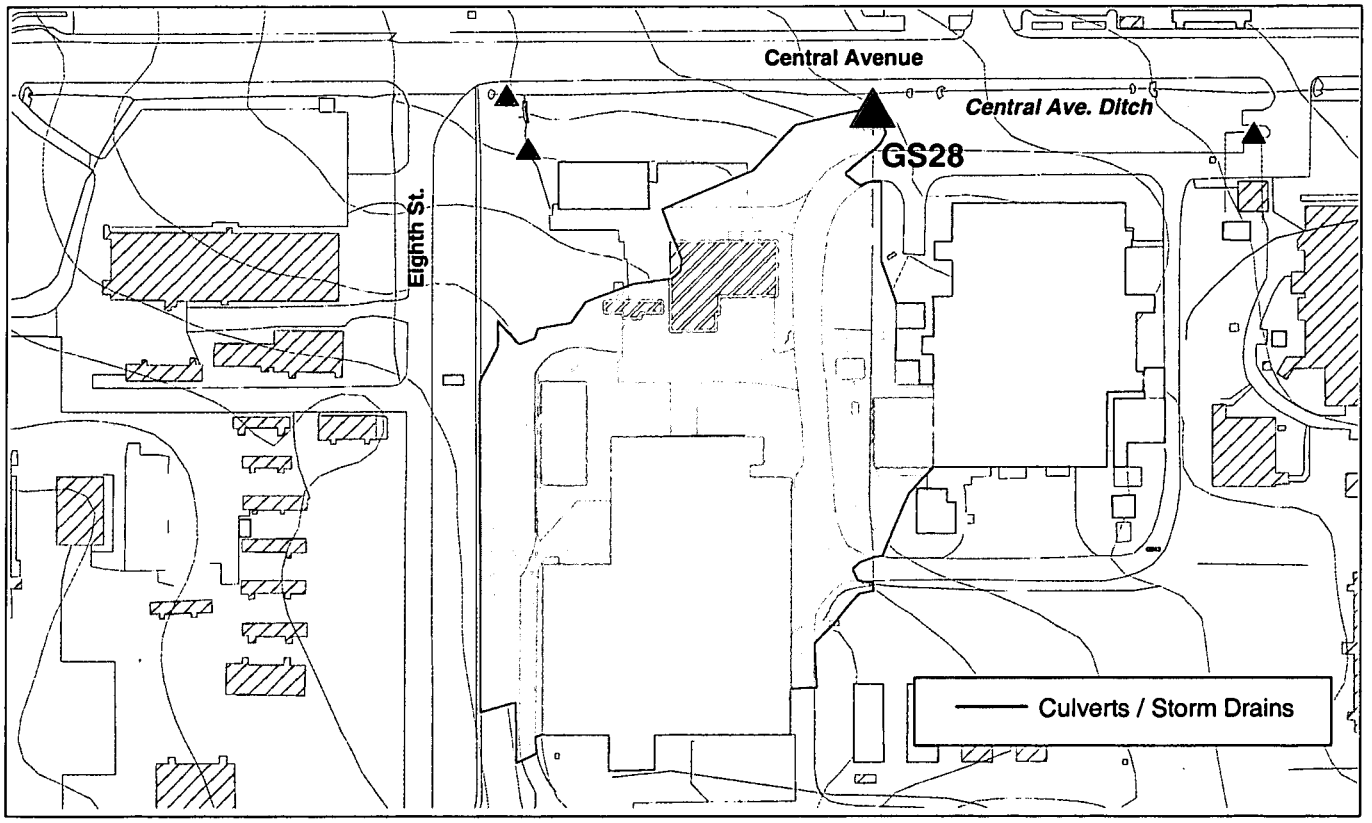


Figure 3-47. Map Showing GS28 Drainage Area.

50

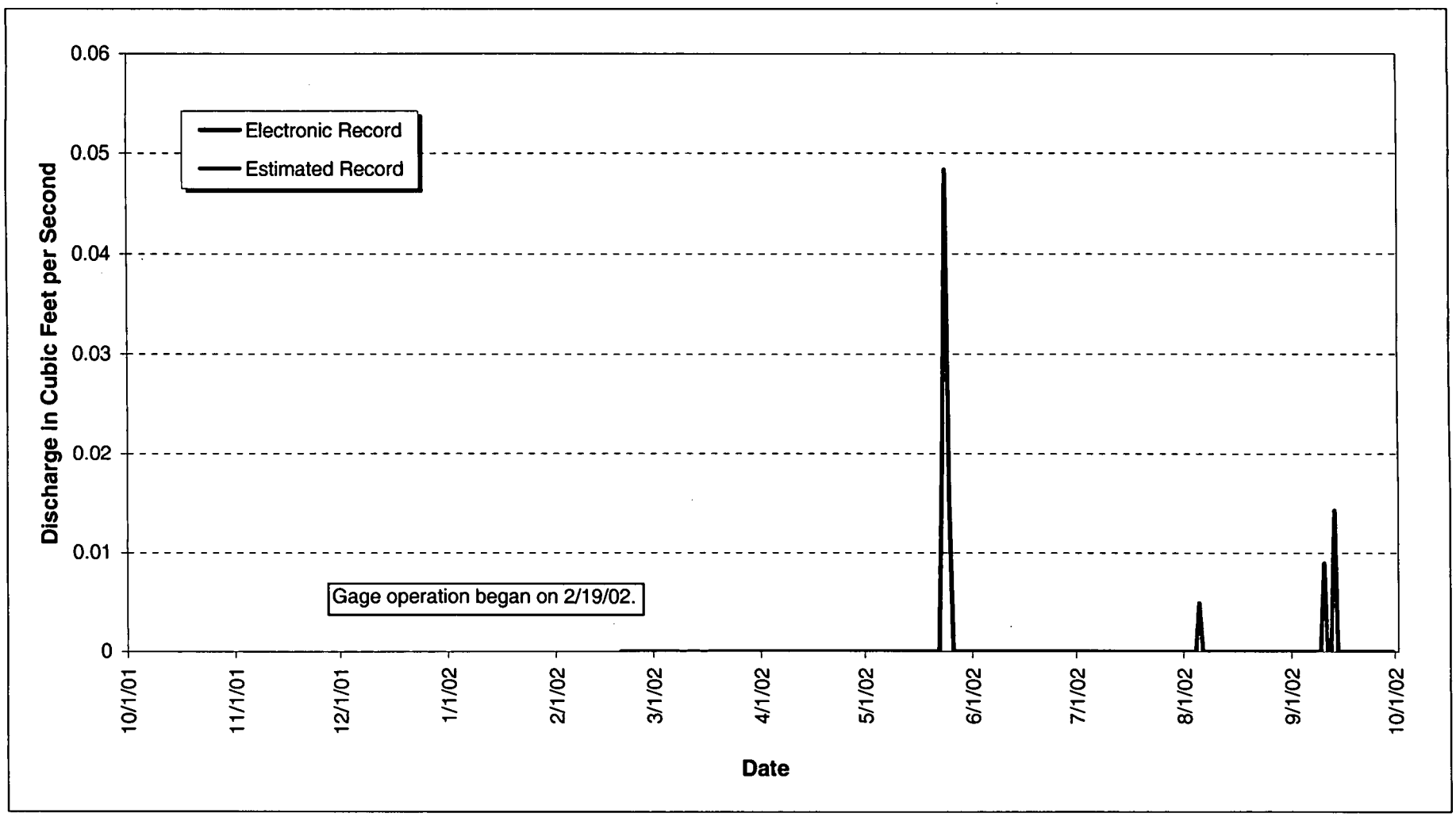


Figure 3-48. WY02 Mean Daily Hydrograph at GS28: Ditch NW of B865.

3.2.17 GS31: Woman Creek at Pond C-2 Outlet

Location

Pond C-2 outlet; State Plane: 2089262, 747515

Drainage Area

- The basin includes a portion of the southern IA draining to the SID and the area surrounding Pond C-2 (total of 240.1 acres)
- IA Areas draining to GS31: 900, 800, 600, 400, and 100

Period of Record

10/1/96 to current year

Gage

Water-stage recorder and 24" Parshall flume

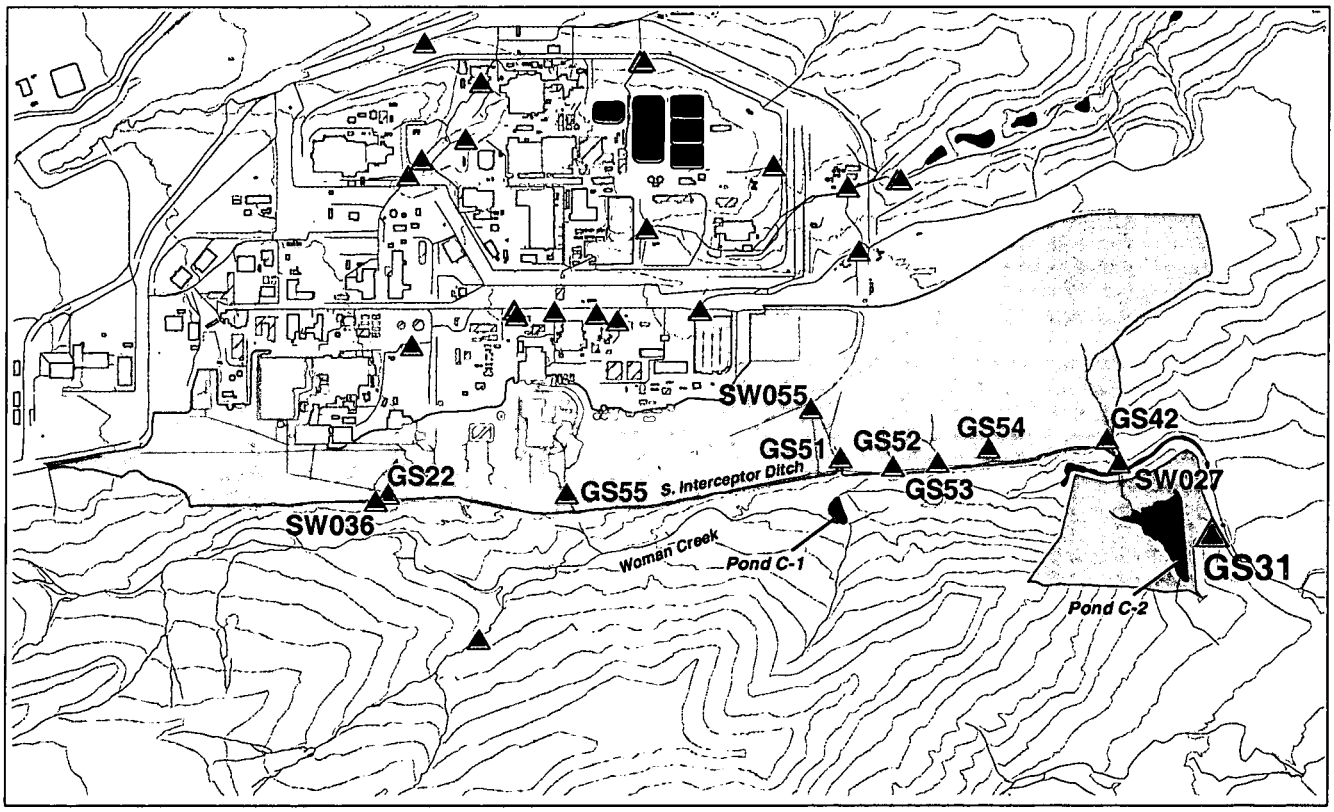


Figure 3-49. Map Showing GS31 Drainage Area.

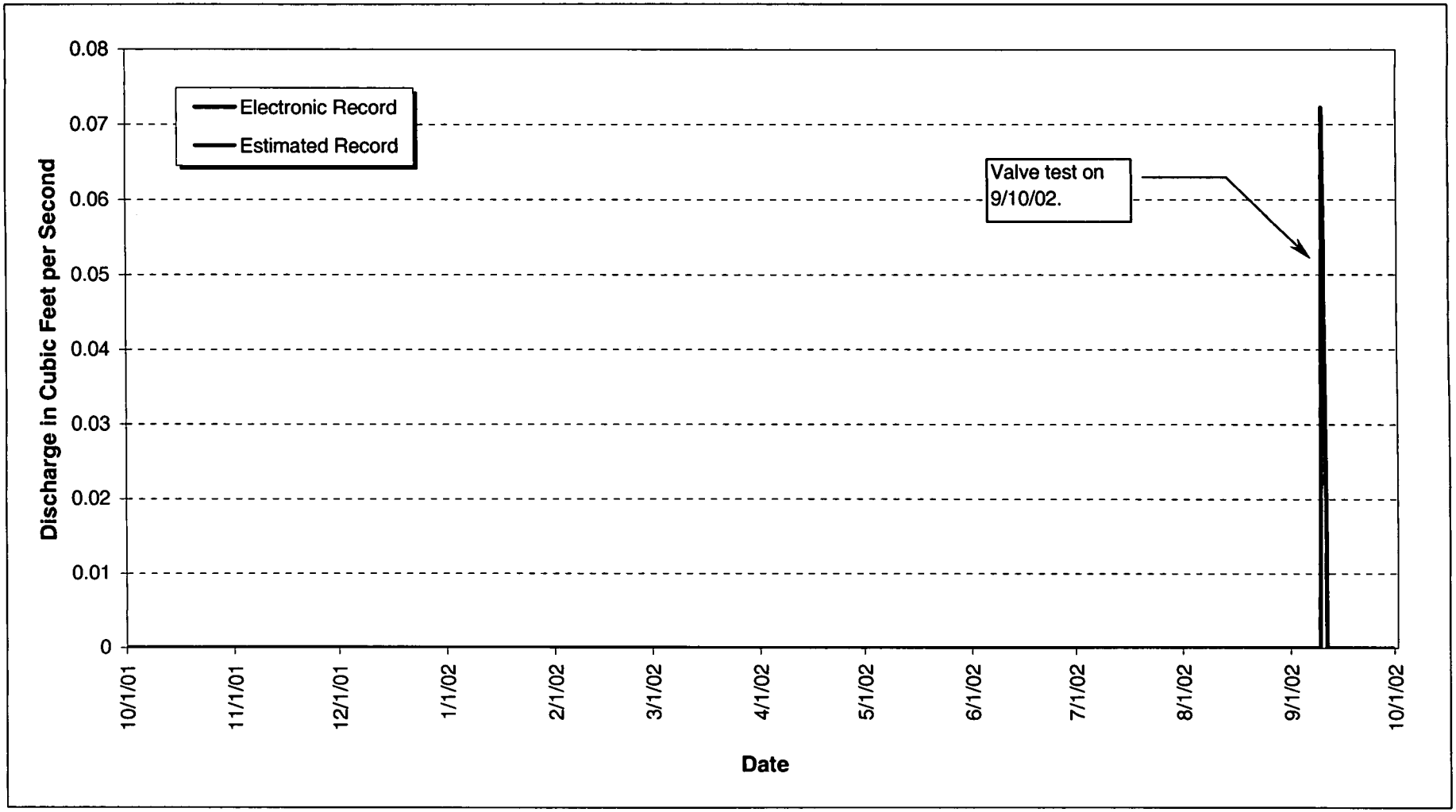


Figure 3-50. WY02 Mean Daily Hydrograph at GS31: Woman Creek at Pond C-2 Outlet.

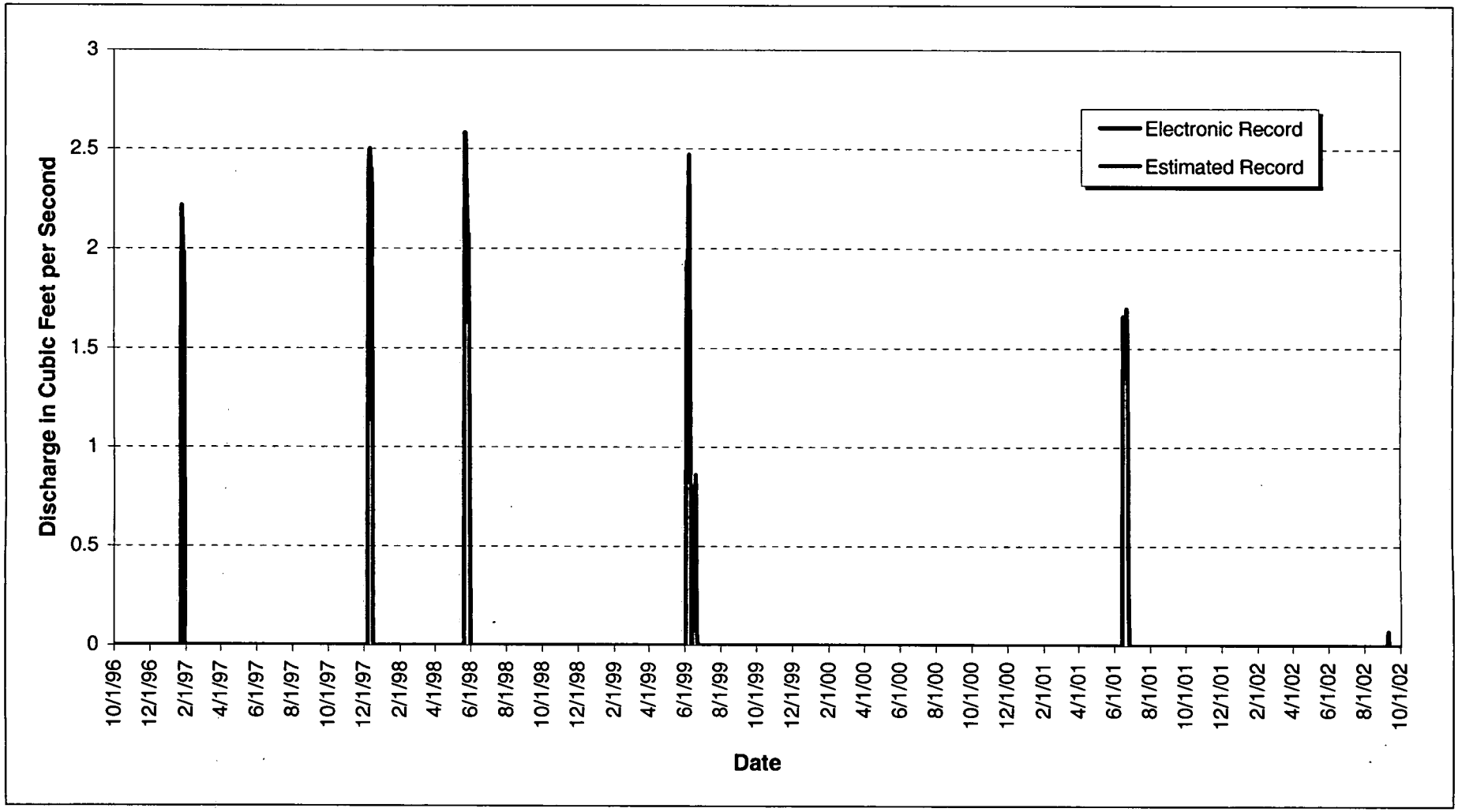


Figure 3-51. WY97-02 Mean Daily Hydrograph at GS31: Woman Creek at Pond C-2 Outlet.

3.2.18 GS32: Building 779 Subdrainage Area

Location

B779 area outfall; State Plane: 2084700, 751262

Drainage Area

- The basin includes the B779 subdrainage (total of 5.6 acres)
- IA Areas draining to GS32: 700

Period of Record

1/31/97 to current year

Gage

No flow measurement at GS32

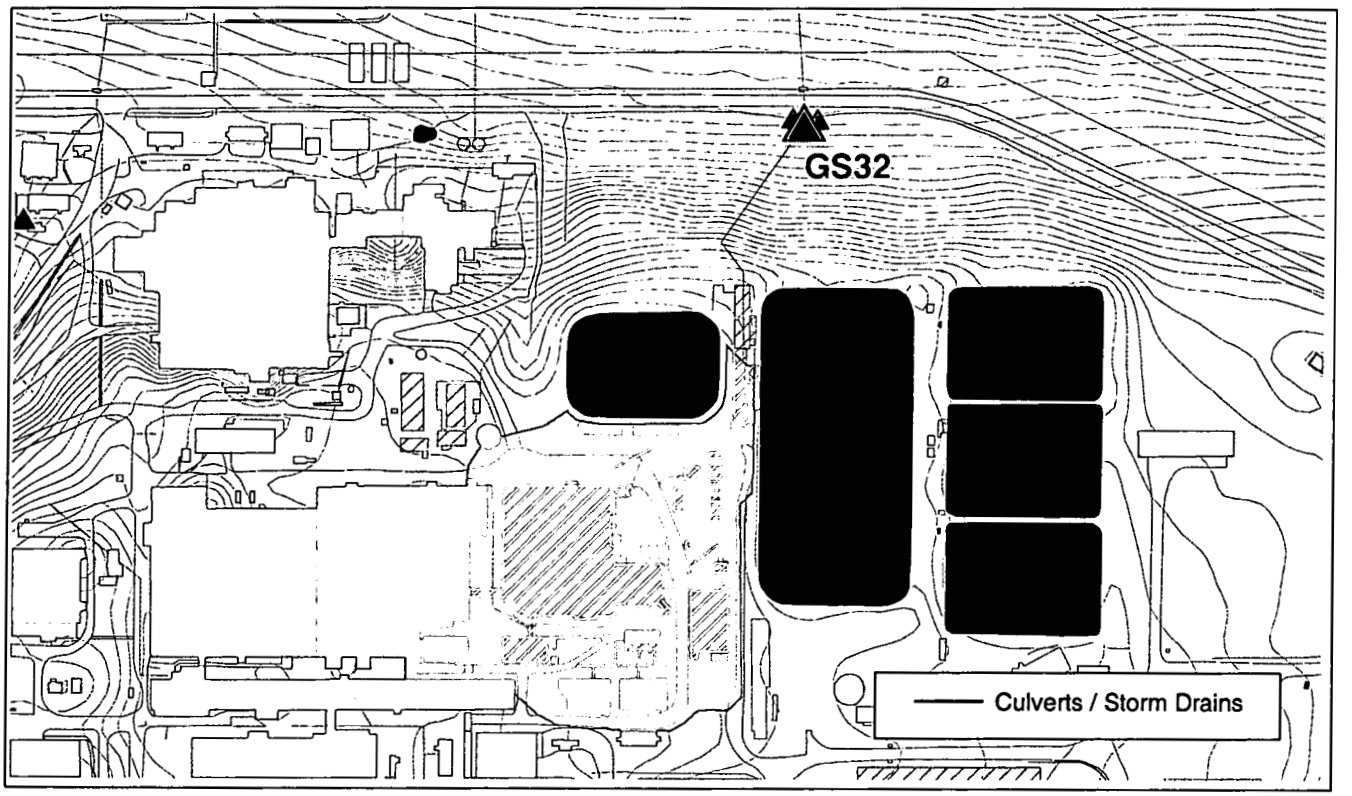


Figure 3-52. Map Showing GS32 Drainage Area.

3.2.19 GS33: No Name Gulch at Walnut Creek

Location

No Name Gulch at Walnut Creek; State Plane: 2090209, 753621

Drainage Area

- The basin is the No Name Gulch drainage not including the Landfill Pond which is pump transferred to the A-Series Ponds (total of 245.8 acres)
- IA Areas draining to GS33: none

Period of Record

9/16/97 to current year

Gage

Water-stage recorder and 9.5" Parshall flume

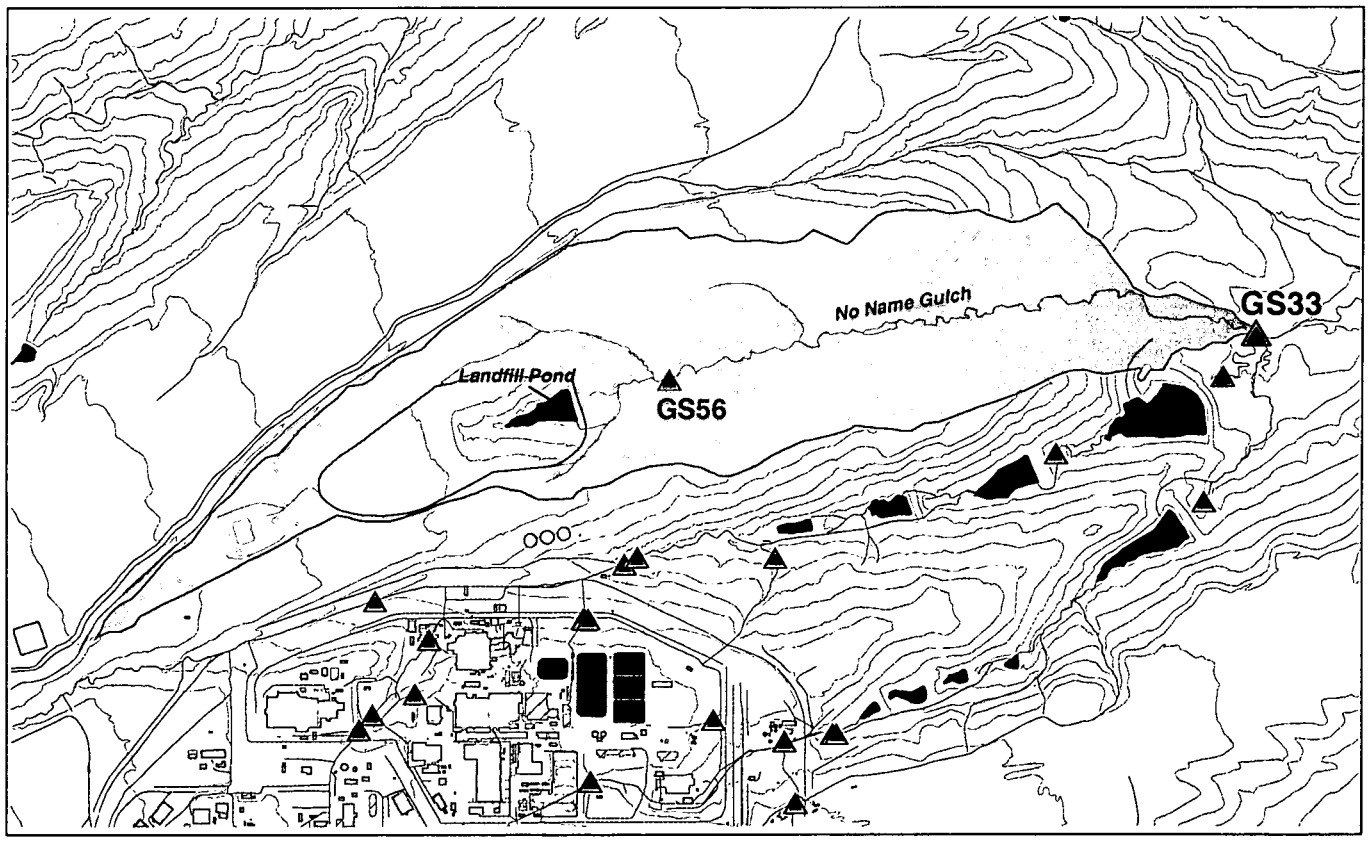


Figure 3-53. Map Showing GS33 Drainage Area.

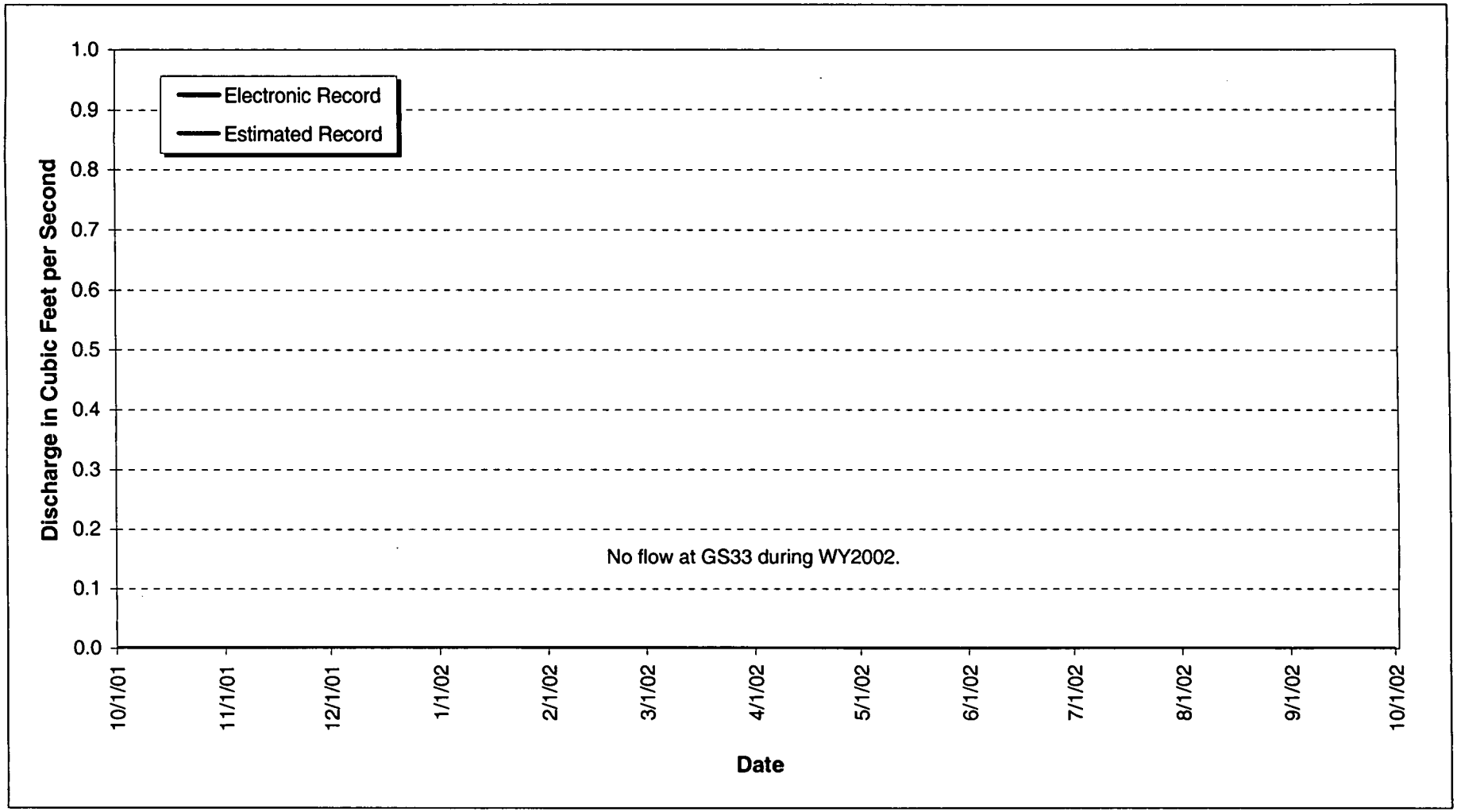


Figure 3-54. WY02 Mean Daily Hydrograph at GS33: No Name Gulch at Walnut Creek.

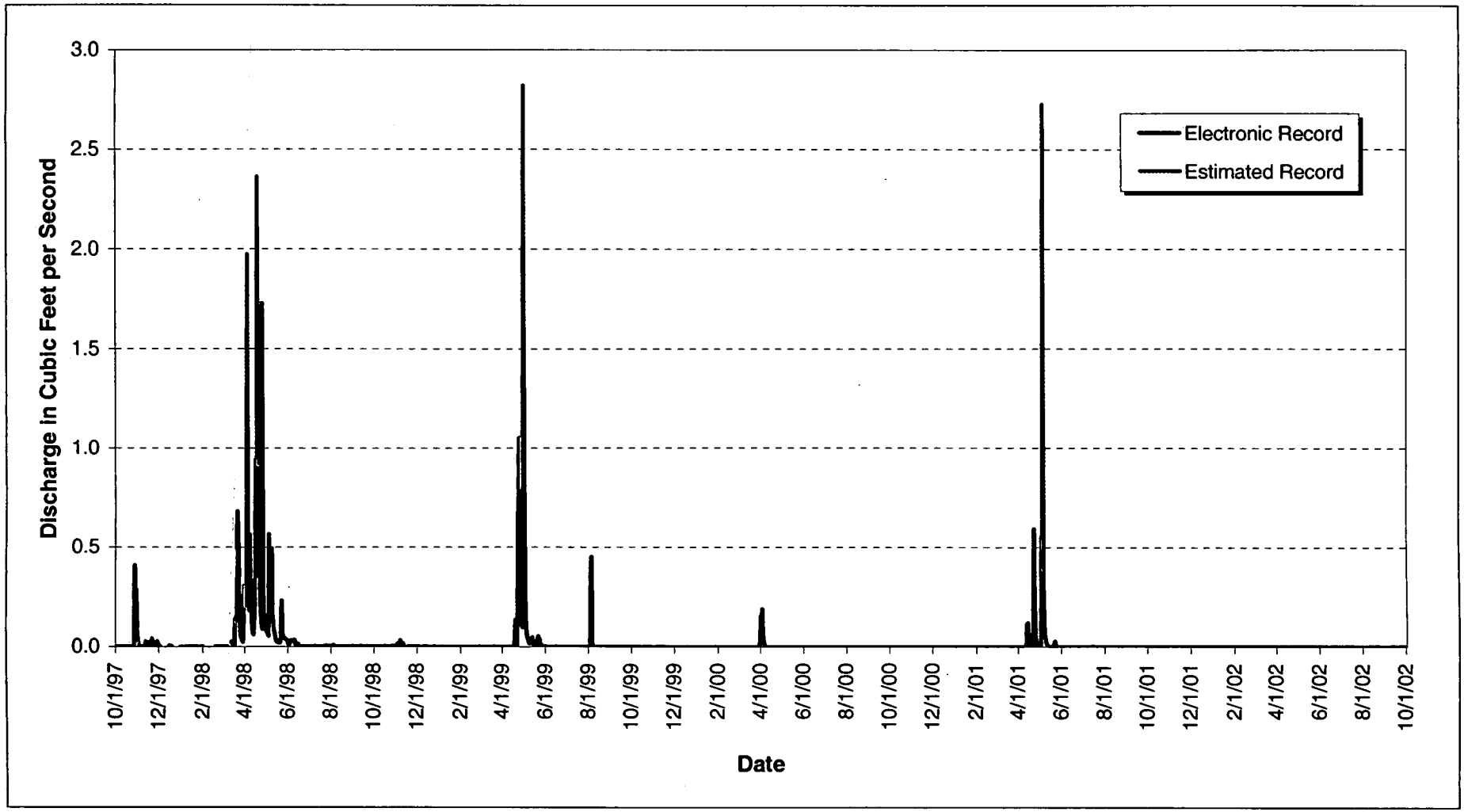


Figure 3-55. WY98-02 Mean Daily Hydrograph at GS33: No Name Gulch at Walnut Creek.

3.2.20 GS35: McKay Ditch at Walnut Creek

Location

McKay Ditch at Walnut Creek; State Plane: 2091379, 754062

Drainage Area

- The basin includes the McKay Ditch and areas west of the Site up to Coal Creek (total drainage acreage undetermined). Completed in the summer of 1999, the McKay Bypass pipeline diverts water from McKay Ditch upstream of GS35 (Figure 3-1). The diverted water flows around lower Walnut Creek to Great Western Reservoir. Small flows are still allowed to reach GS35 as habitat enhancement, and all flow can be diverted to GS35 at any time.
- IA Areas draining to GS35: 100

Period of Record

9/18/97 to current year

Gage

Water-stage recorder and 36" contracted rectangular weir

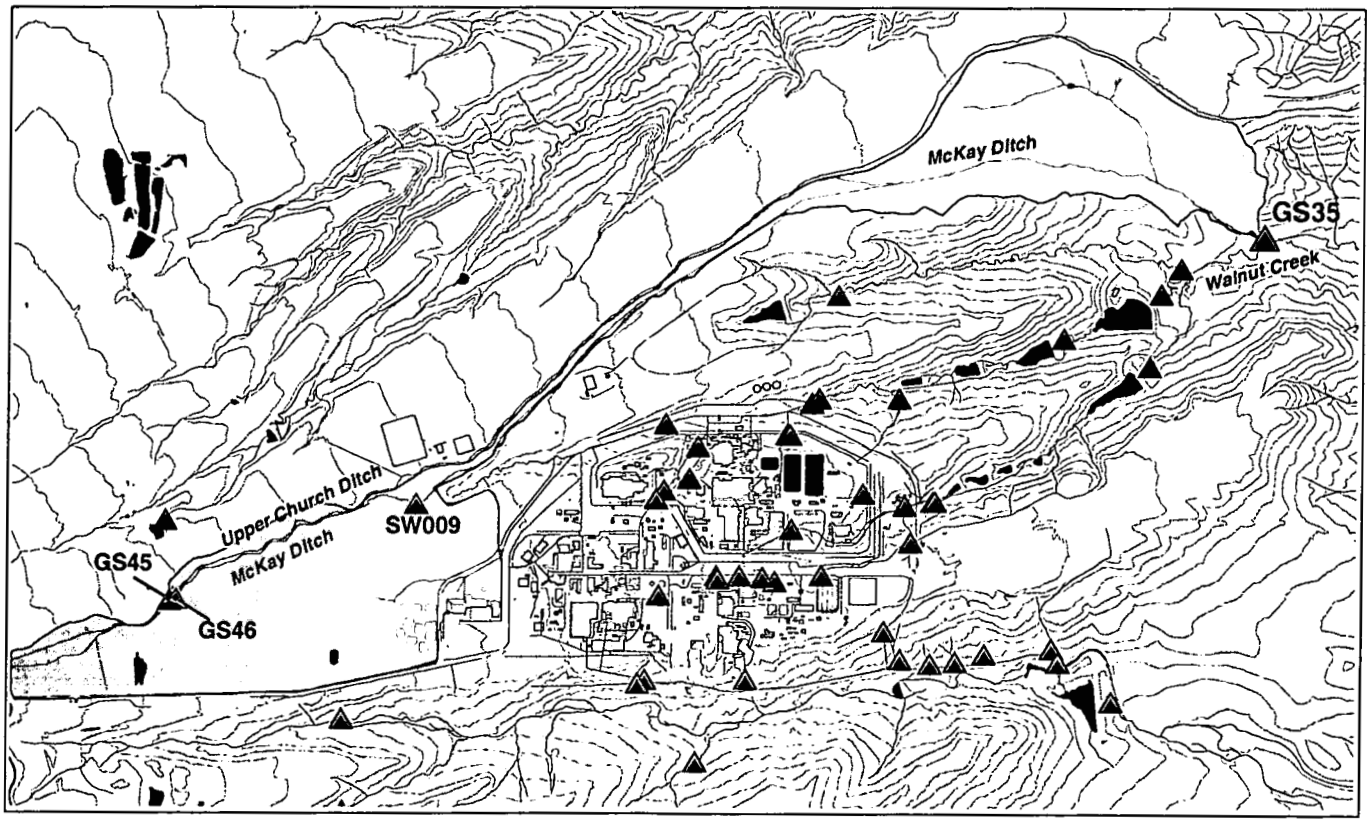


Figure 3-56. Map Showing GS35 Drainage Area.

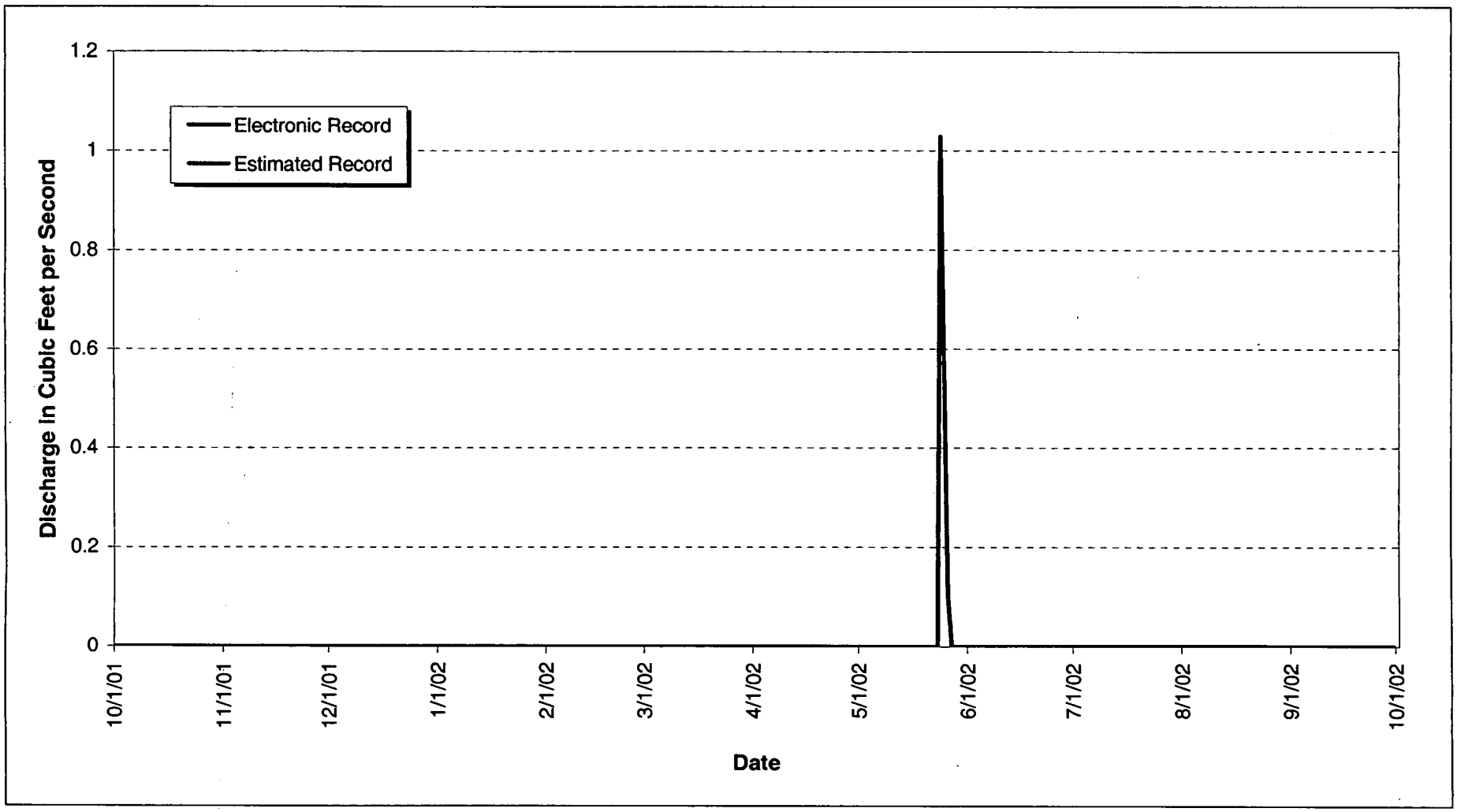


Figure 3-57. WY02 Mean Daily Hydrograph at GS35: McKay Ditch at Walnut Creek.

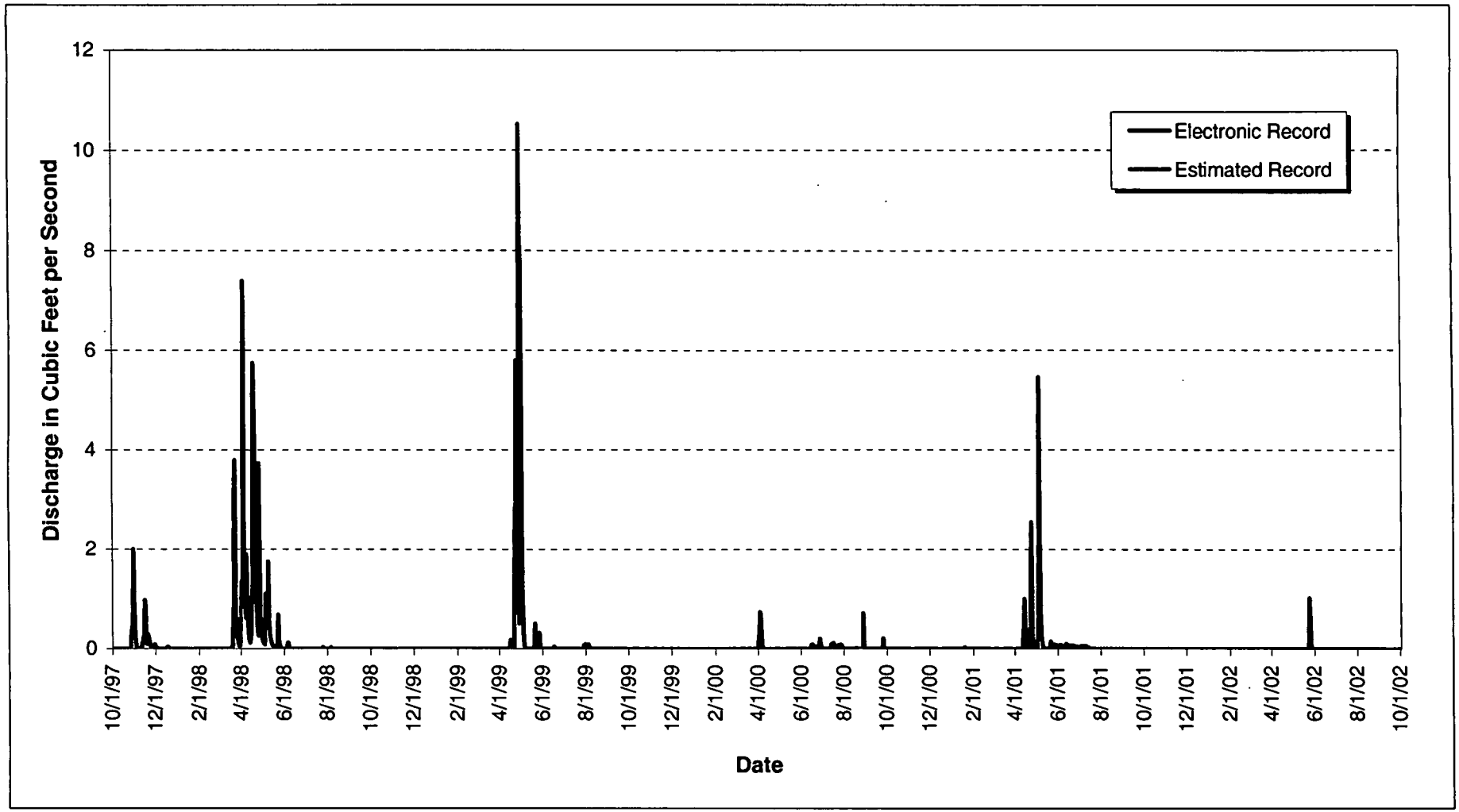


Figure 3-58. WY98-02 Mean Daily Hydrograph at GS35: McKay Ditch at Walnut Creek.

3.2.21 GS38: Central Avenue Ditch at Eighth Street

Location

Central Avenue Ditch at Eighth Street; State Plane: 2083684, 749289

Drainage Area

- The basin includes a portion of the southwestern IA (total of 40.7 acres)
- IA Areas draining to GS38: 600, 400, and 100

Period of Record

1/28/98 to current year

Gage

Water-stage recorder and 9.5" Parshall flume

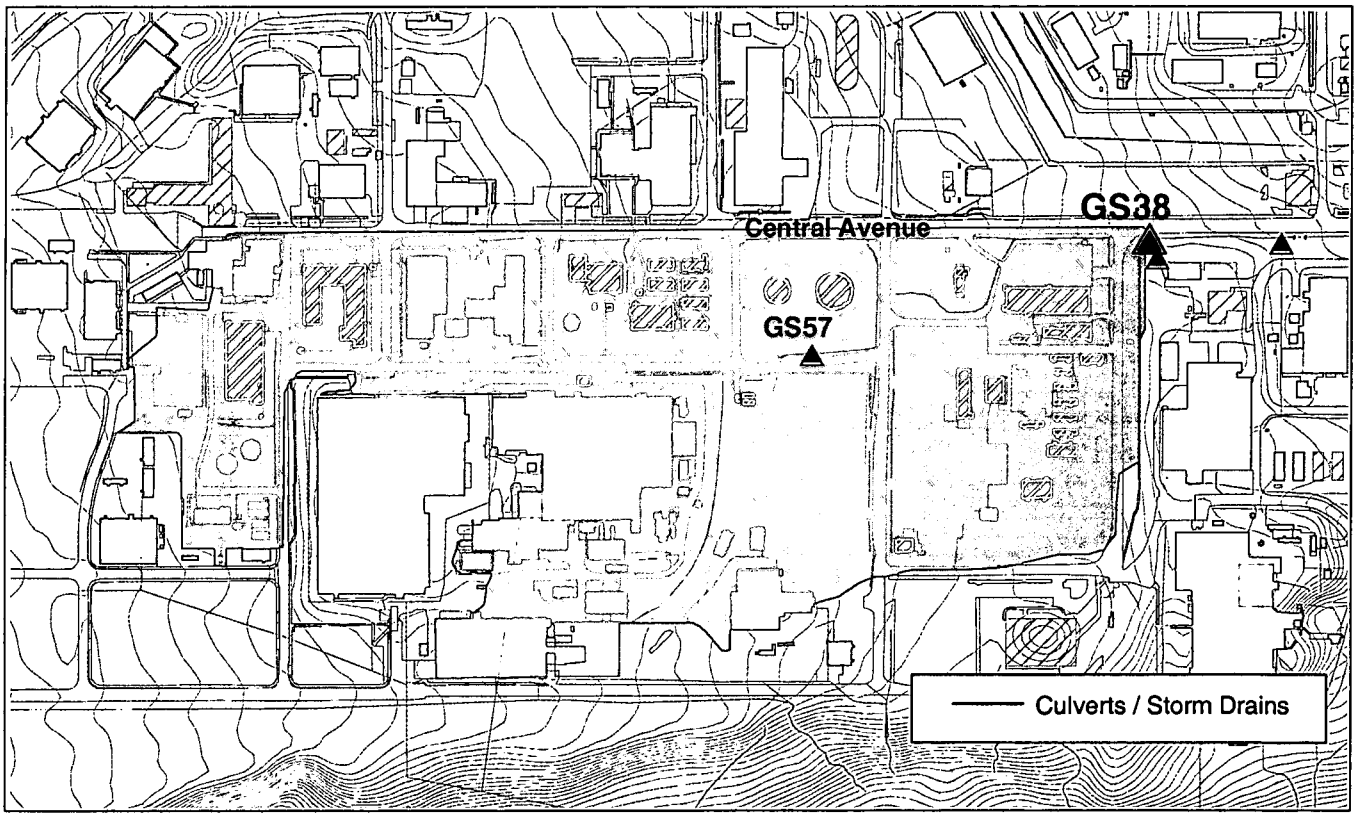


Figure 3-59. Map Showing GS38 Drainage Area.

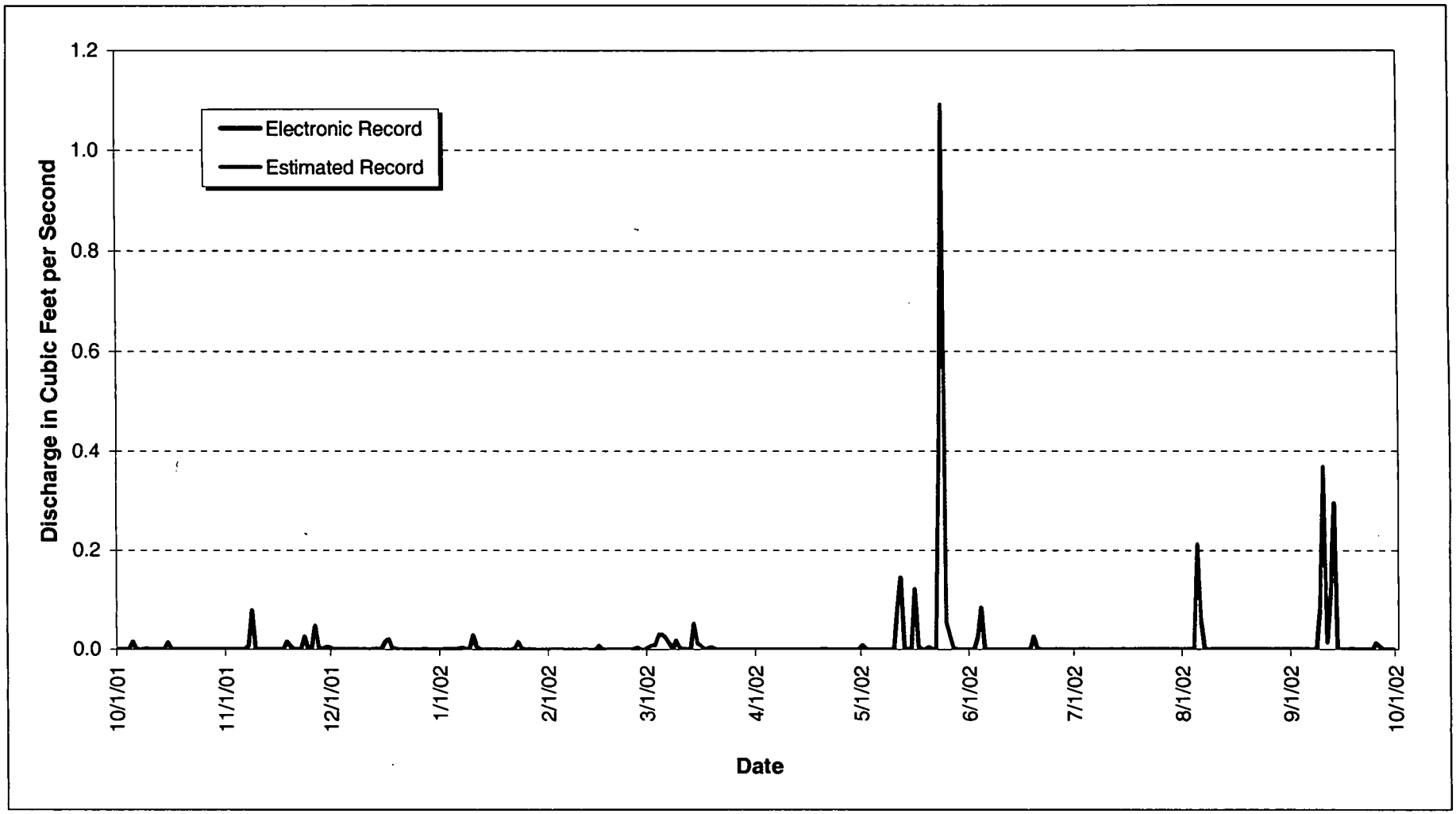


Figure 3-60. WY02 Mean Daily Hydrograph at GS38: Central Avenue Ditch at Eighth Street.

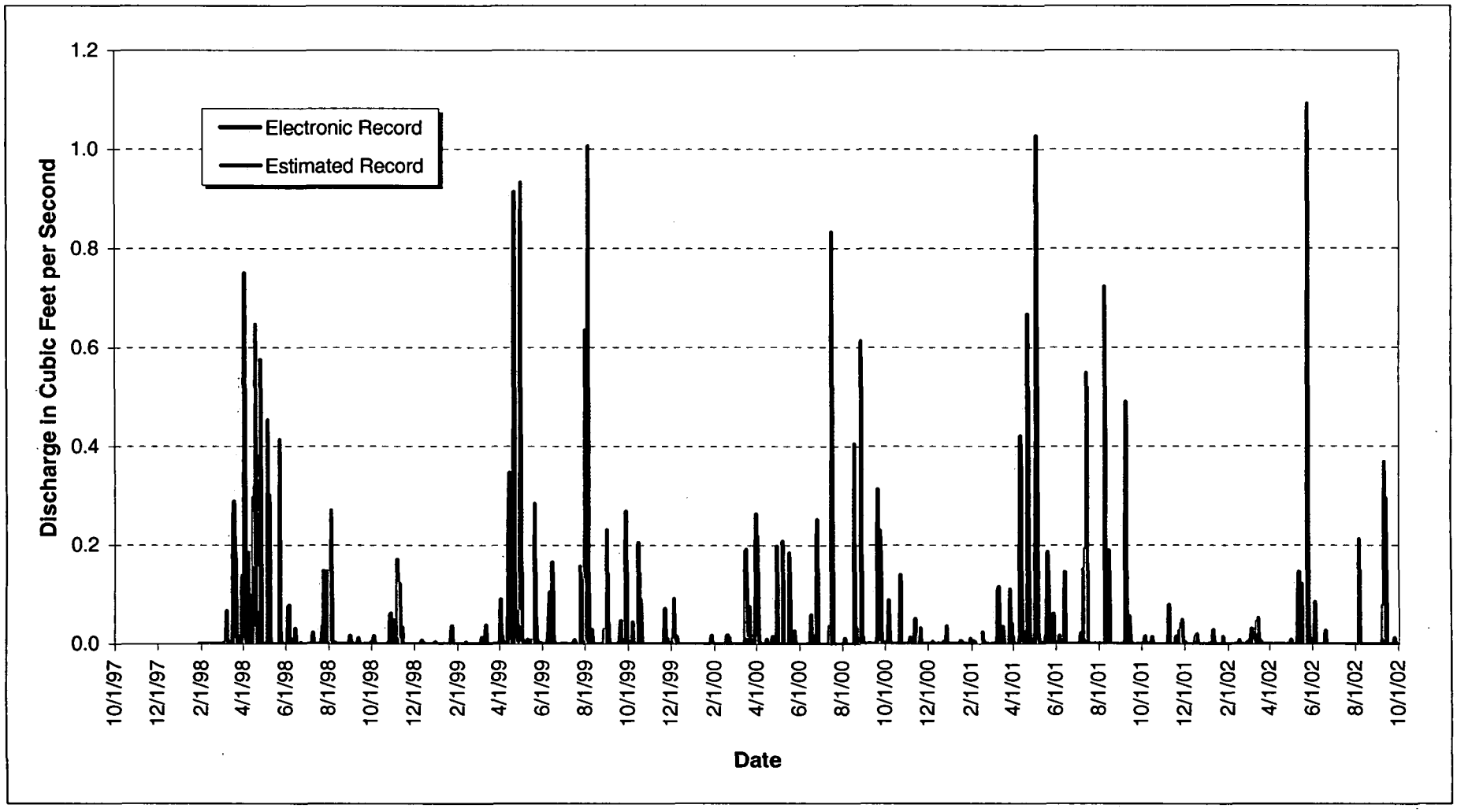


Figure 3-61. WY98-02 Mean Daily Hydrograph at GS38: Central Avenue Ditch at Eighth Street.

3.2.22 GS39: 903/904 Pad Subdrainage Area

Location

Ditch NW of 903 Pad; State Plane: 2085175, 749286

Drainage Area

- The basin includes a portion of the Contractor Yard, the 904 Pad, and the west side of the 903 Pad (total of 8.1 acres)
- IA Areas draining to GS39: 900

Period of Record

1/15/98 to current year

Gage

Water-stage recorder and 1' H-flume

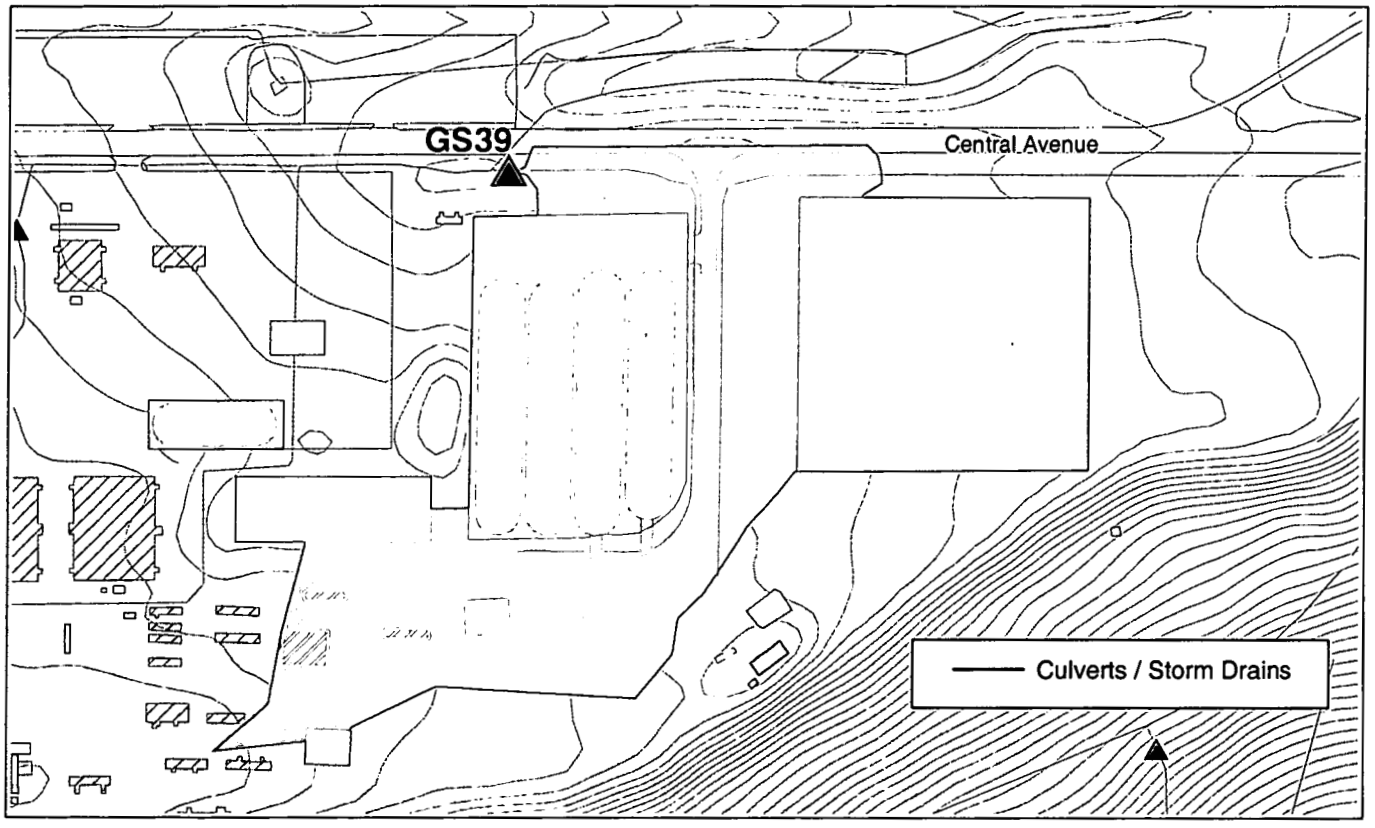


Figure 3-62. Map Showing GS39 Drainage Area.

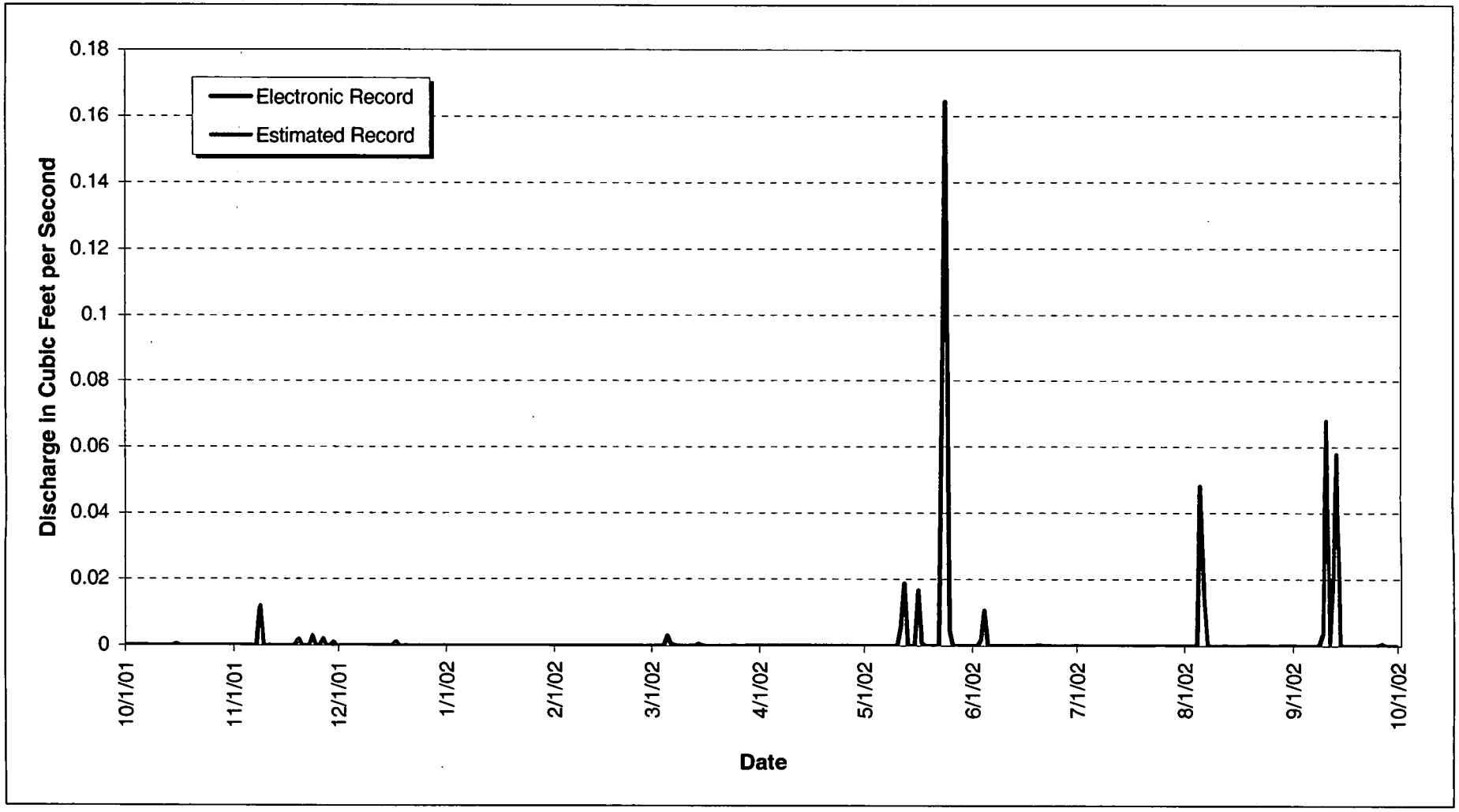


Figure 3-63. WY02 Mean Daily Hydrograph at GS39: 903/904 Pad Subdrainage Area.

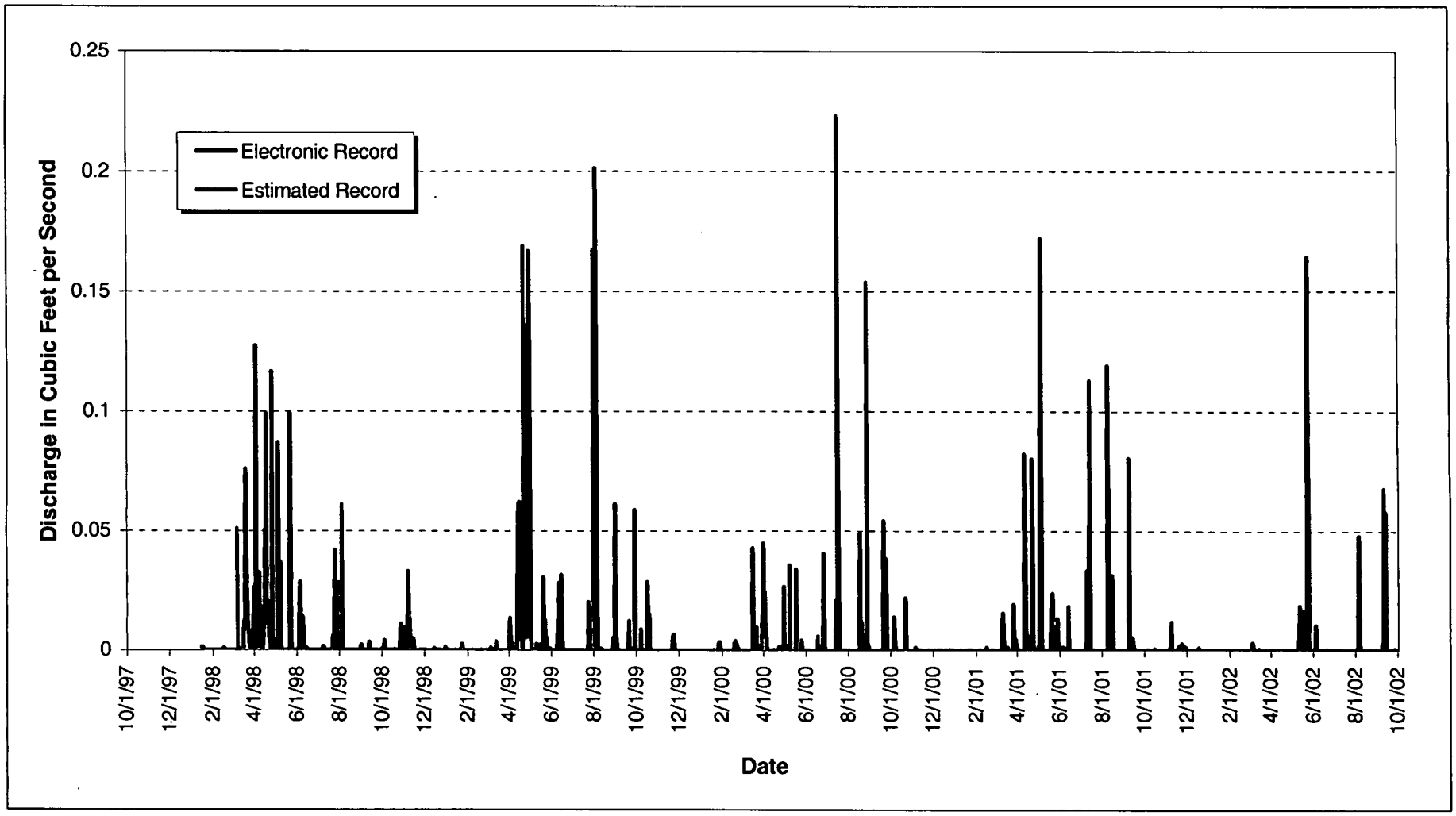


Figure 3-64. WY98-02 Mean Daily Hydrograph at GS39: 903/904 Pad Subdrainage Area.

3.2.23 GS40: South Walnut Creek East of 750 Pad

Location

700 Area outfall to North Walnut Creek east of 750 Pad; State Plane: 2084748, 749938

Drainage Area

- The basin includes a portion of the 700 Area inside the PA (total of 24.4 acres)
- IA Areas draining to GS40: 700

Period of Record

3/4/98 to current year

Gage

Water-stage recorder and 1' Parshall flume

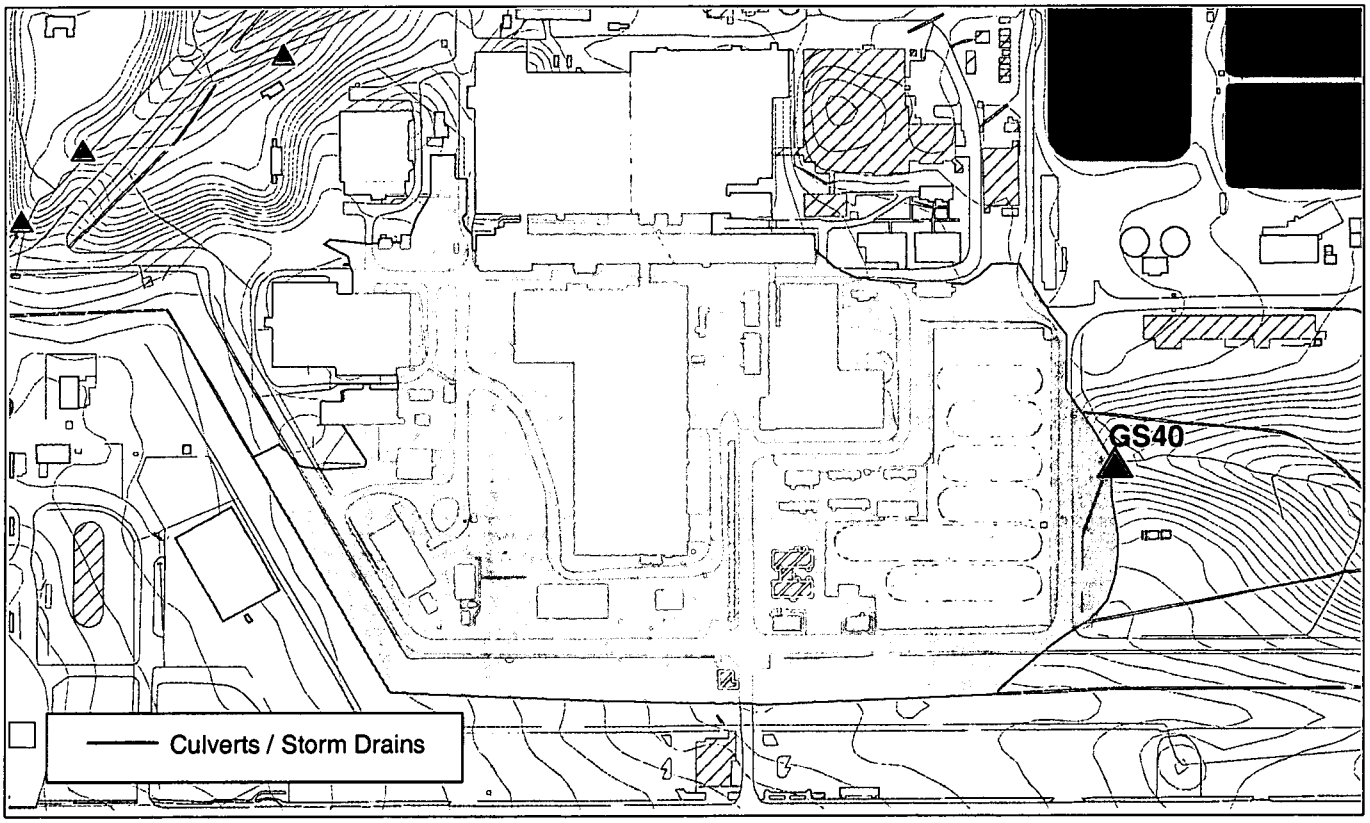


Figure 3-65. Map Showing GS40 Drainage Area.

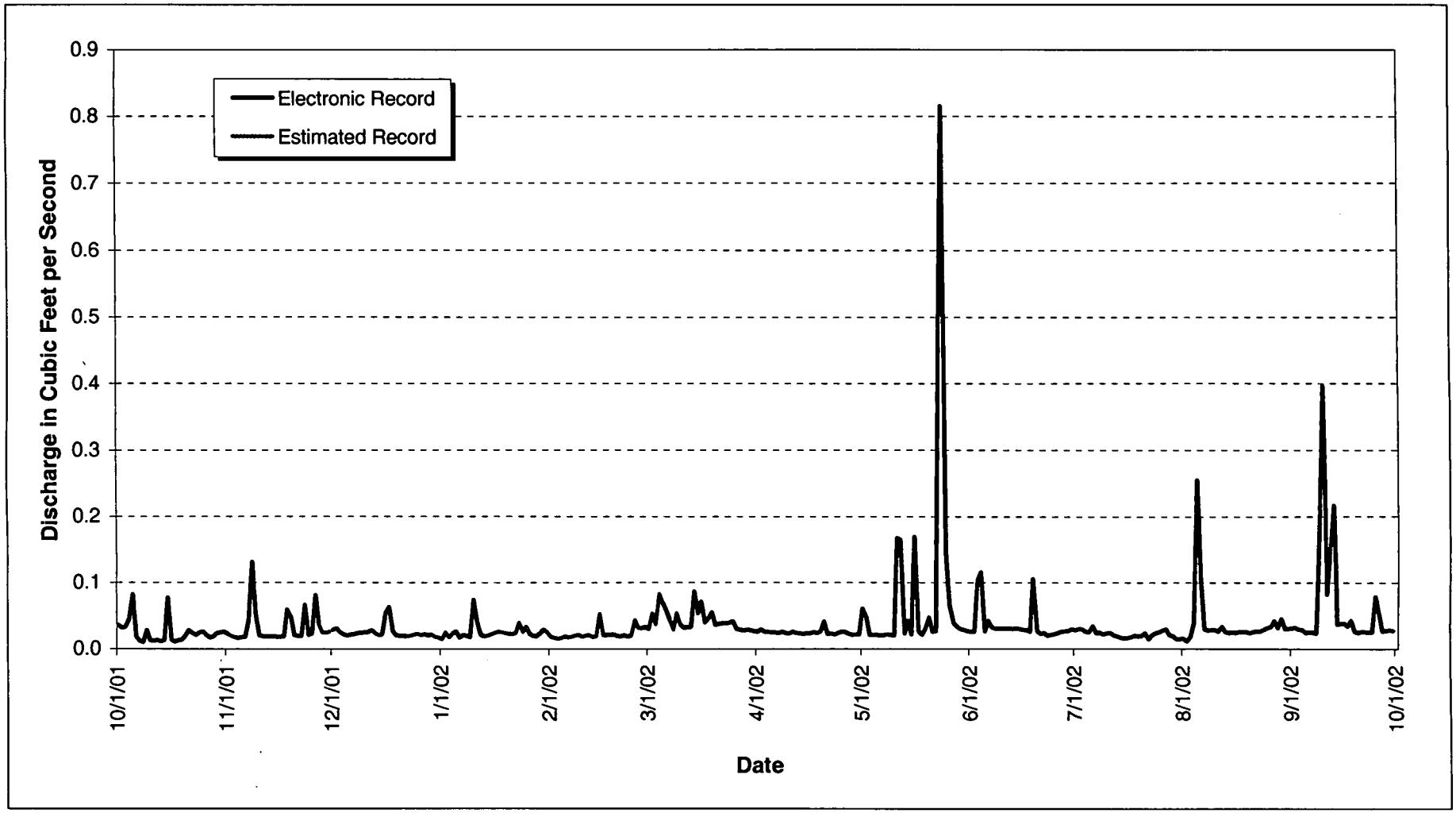


Figure 3-66. WY02 Mean Daily Hydrograph at GS40: South Walnut Creek East of 750 Pad.

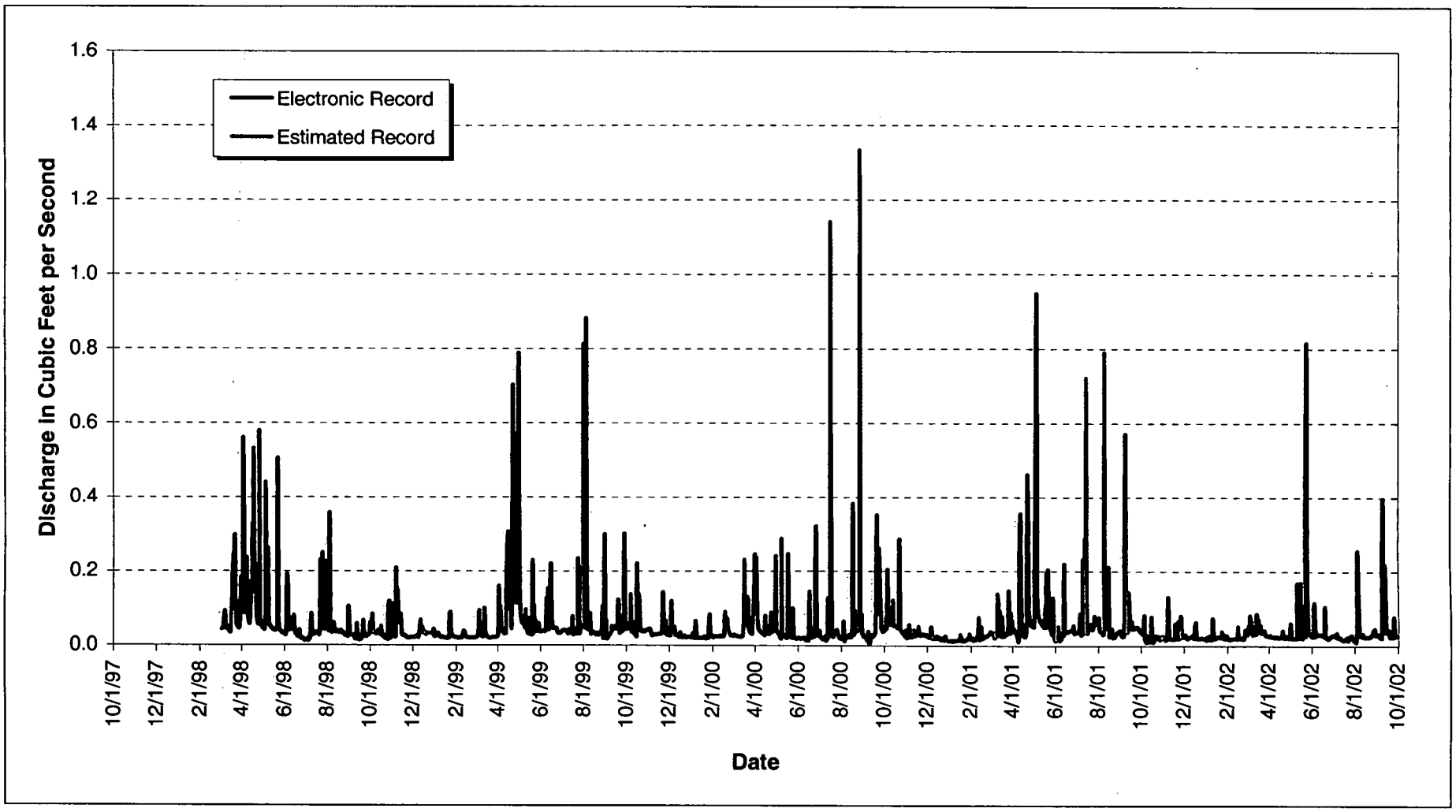


Figure 3-67. WY98-02 Mean Daily Hydrograph at GS40: South Walnut Creek East of 750 Pad.

3.2.24 GS41: Unnamed Gulch Tributary to Walnut Creek Southwest of GS03

Location

Small gulch SW of GS03; State Plane: 2093188, 753472

Drainage Area

- The basin includes the gulch only (total of 13.6 acres)
- IA Areas draining to GS41: none

Period of Record

6/10/98 to current year

Gage

Water-stage recorder and 0.5' H-flume

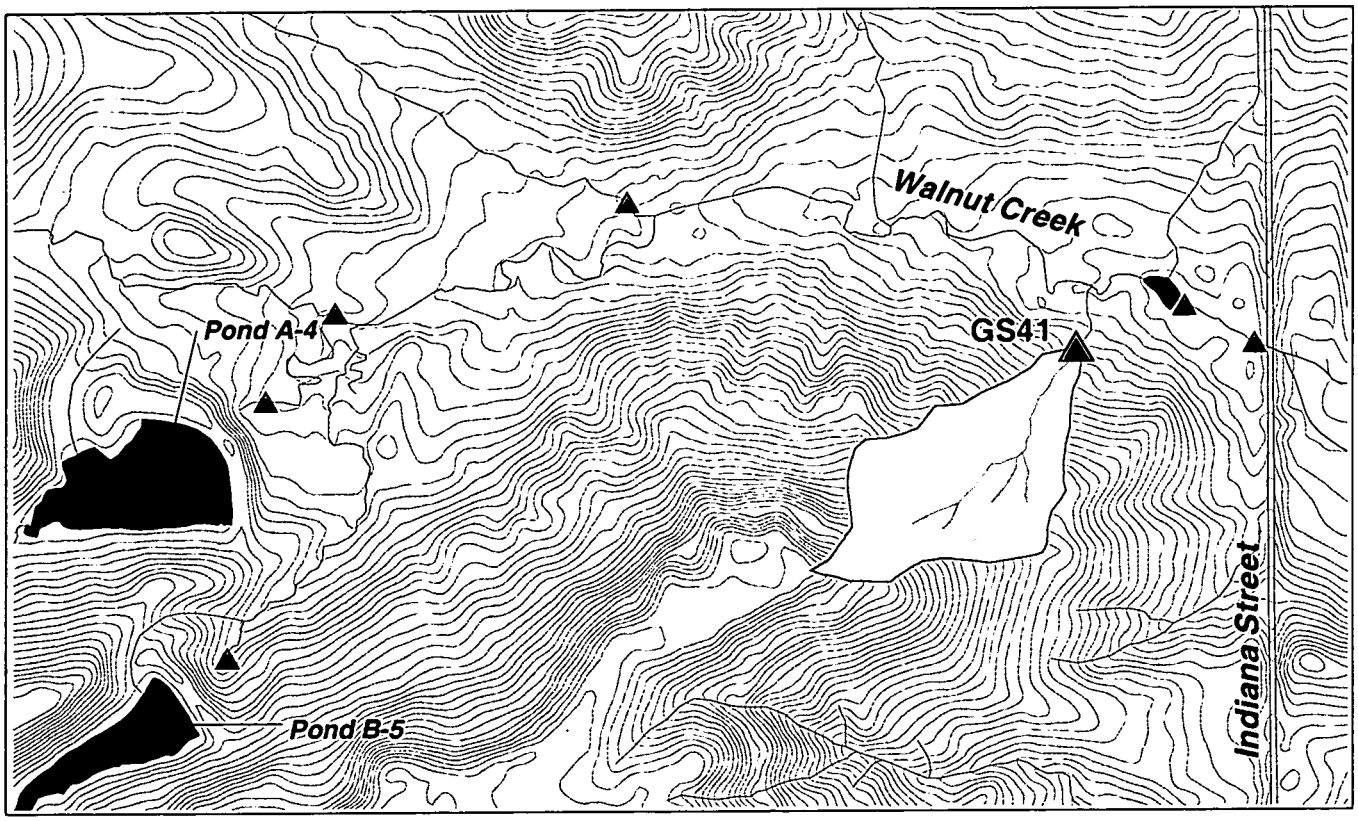


Figure 3-68. Map Showing GS41 Drainage Area.

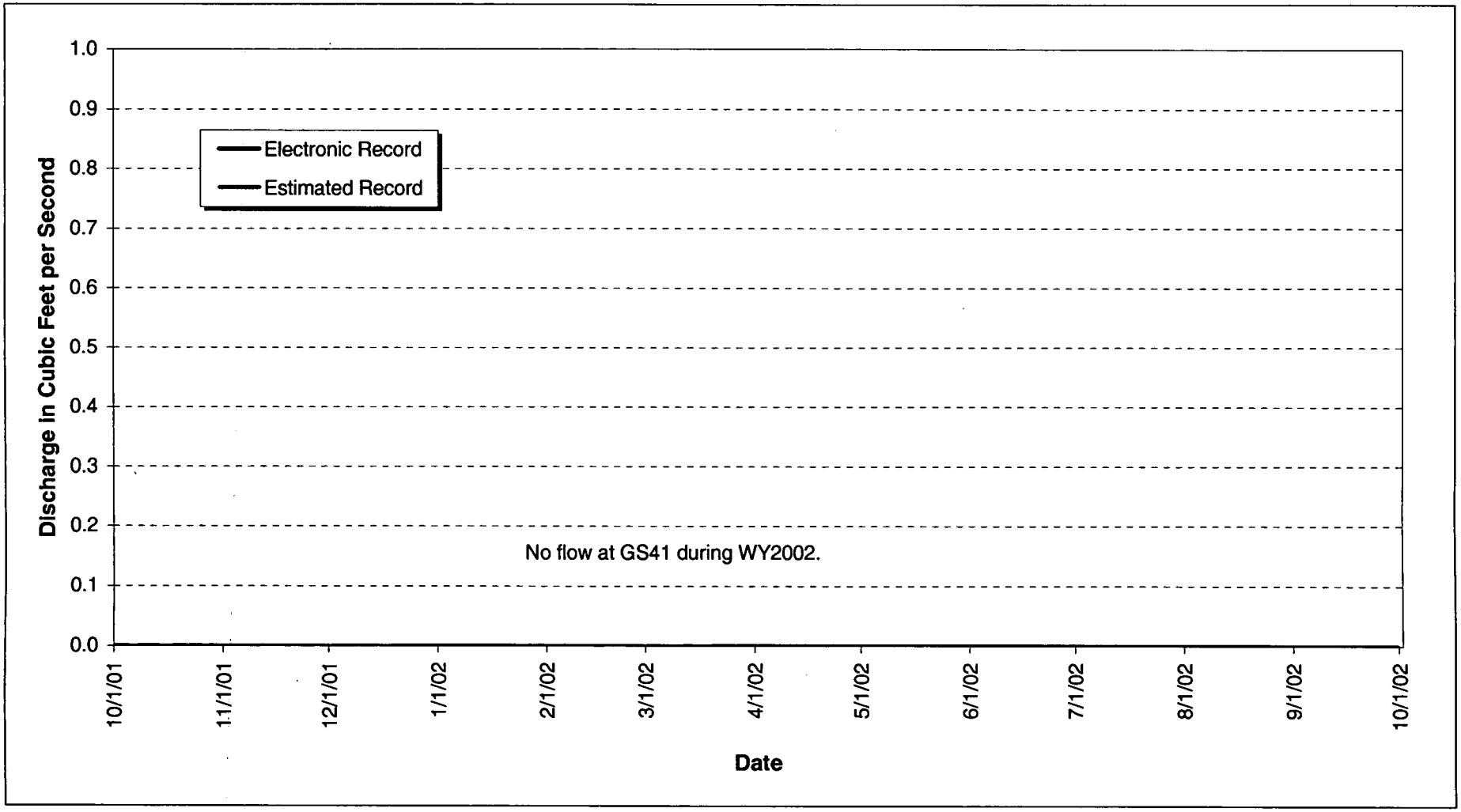


Figure 3-69. WY02 Mean Daily Hydrograph at GS41: Unnamed Walnut Creek Tributary.

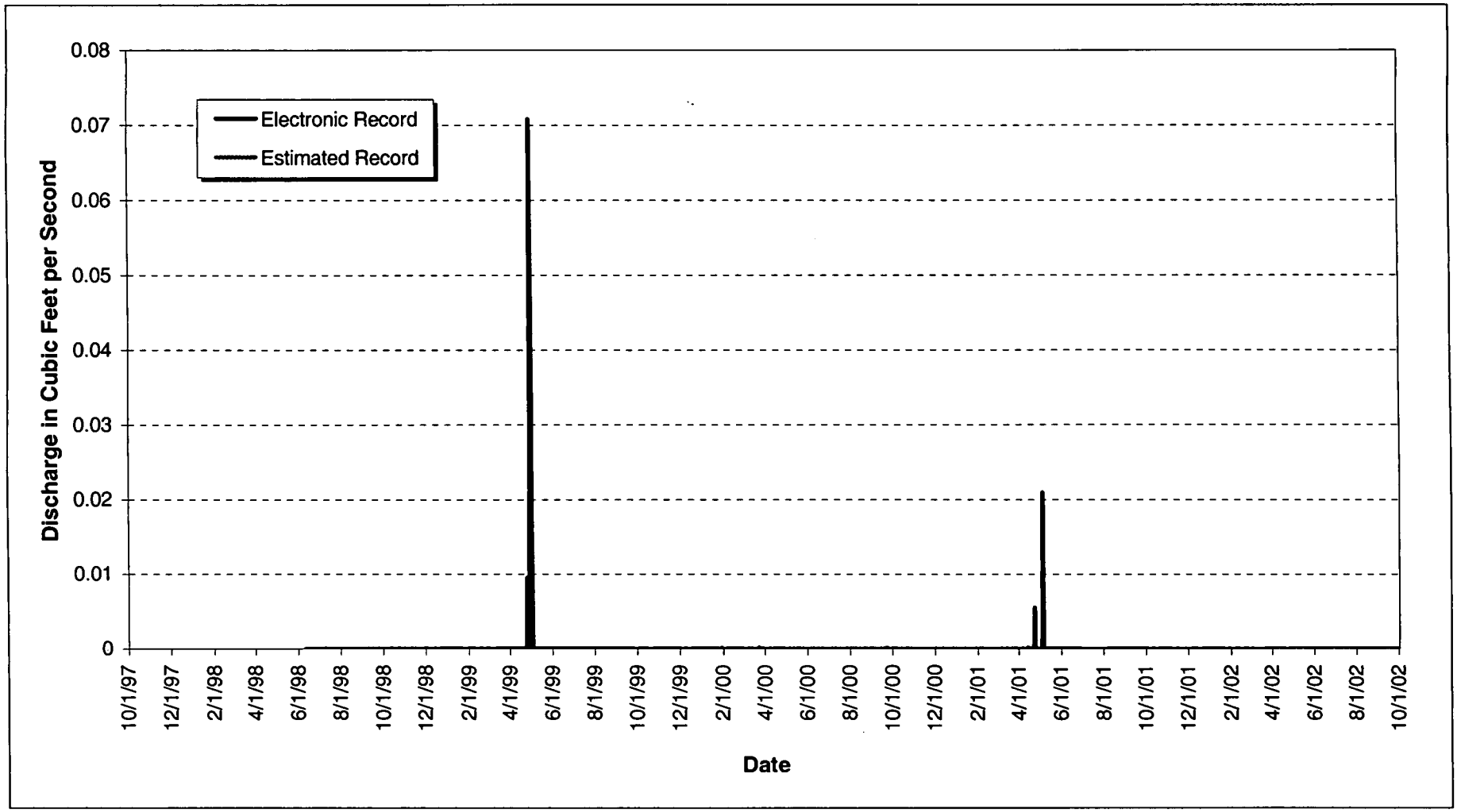


Figure 3-70. WY98-02 Mean Daily Hydrograph at GS41: Unnamed Walnut Creek Tributary.

3.2.25 GS42: Unnamed Gulch Tributary to the SID North of SW027

Location

Unnamed gulch tributary to the SID north of SW027; State Plane: 2088476, 748237

Drainage Area

- The basin includes a portion of the West Access Road (total of 45.2 acres)
- IA Areas draining to GS42: none

Period of Record

6/23/98 to current year

Gage

Water-stage recorder and 3" Parshall flume

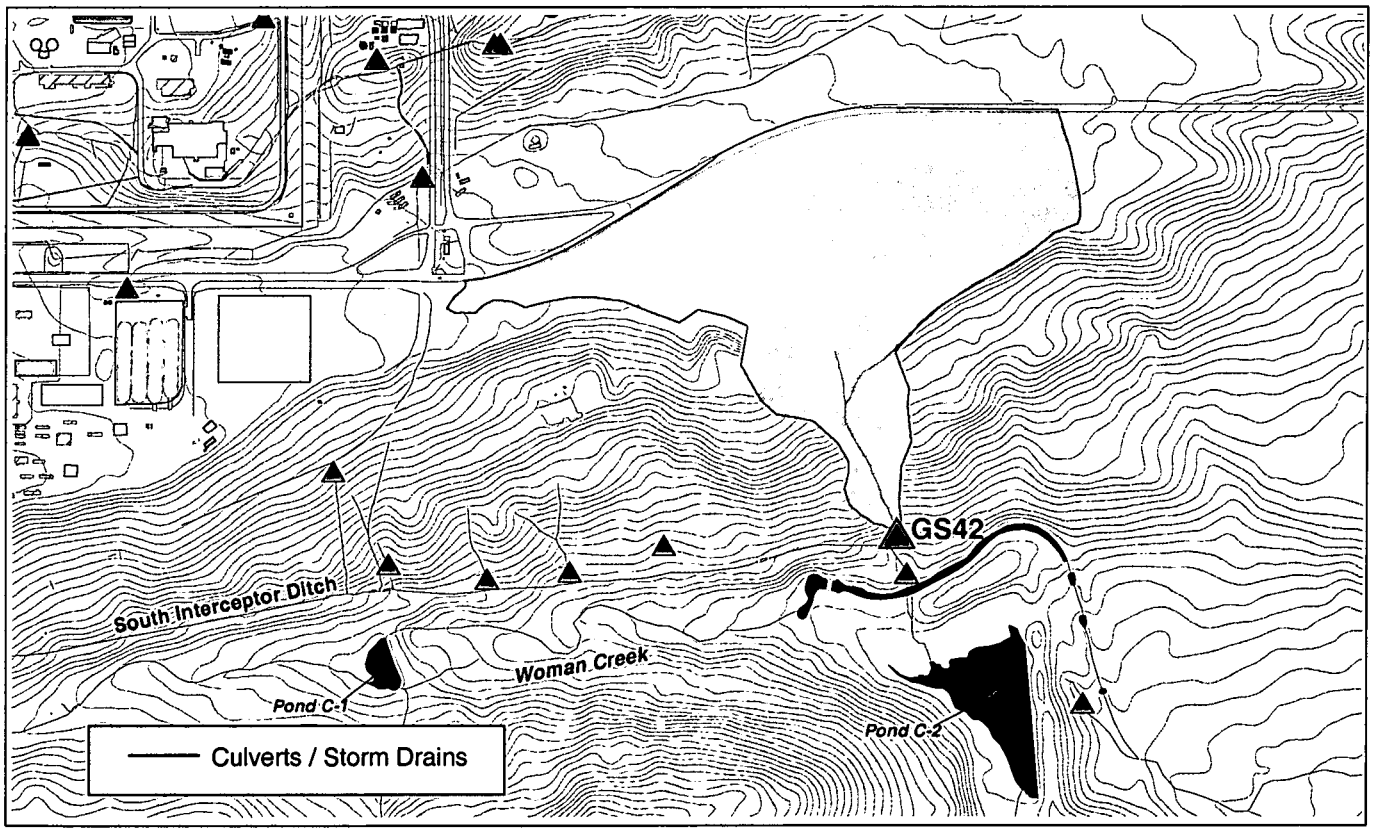


Figure 3-71. Map Showing GS42 Drainage Area.

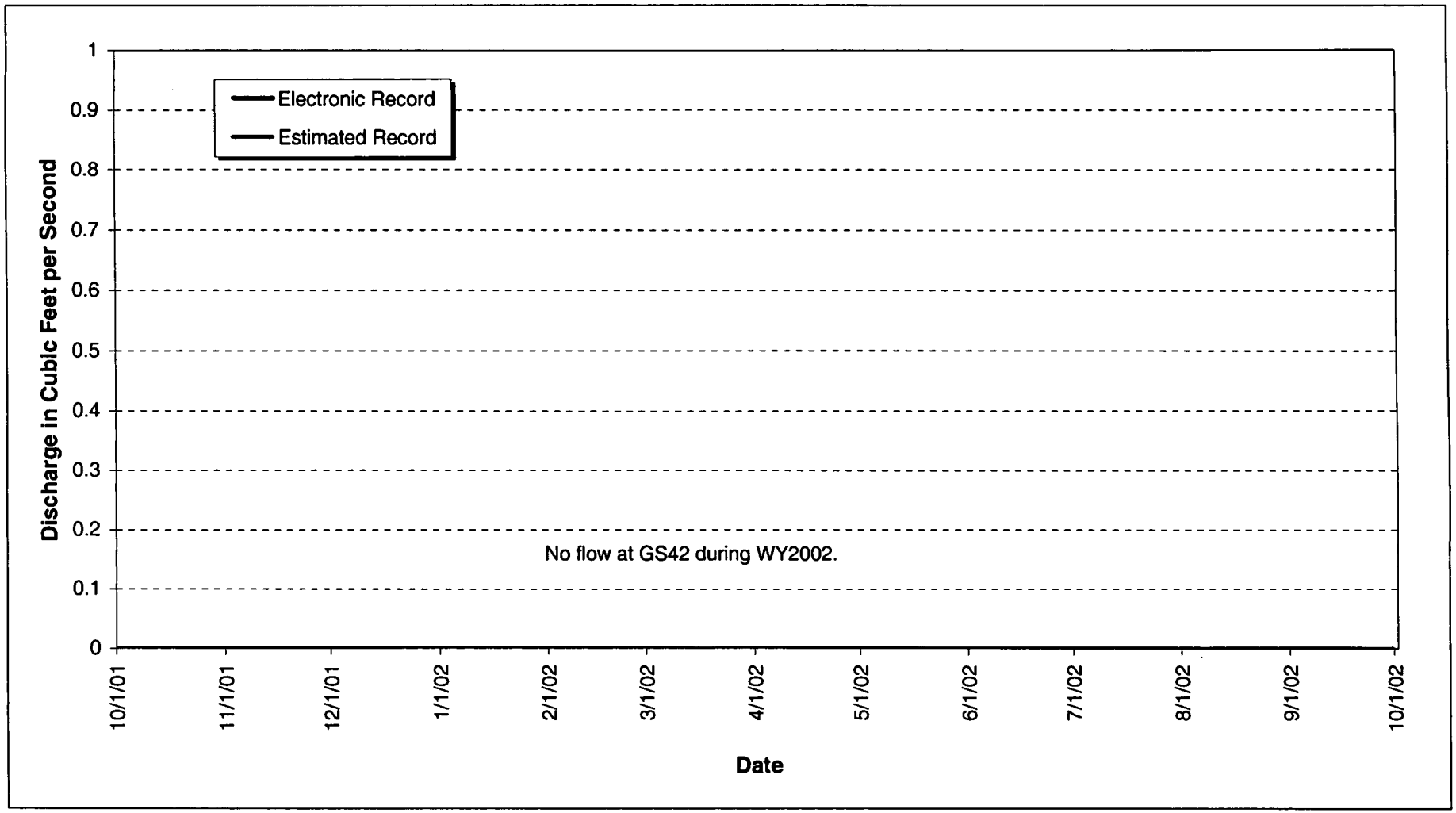


Figure 3-72. WY02 Mean Daily Hydrograph at GS42: Unnamed Gulch Tributary to SID.

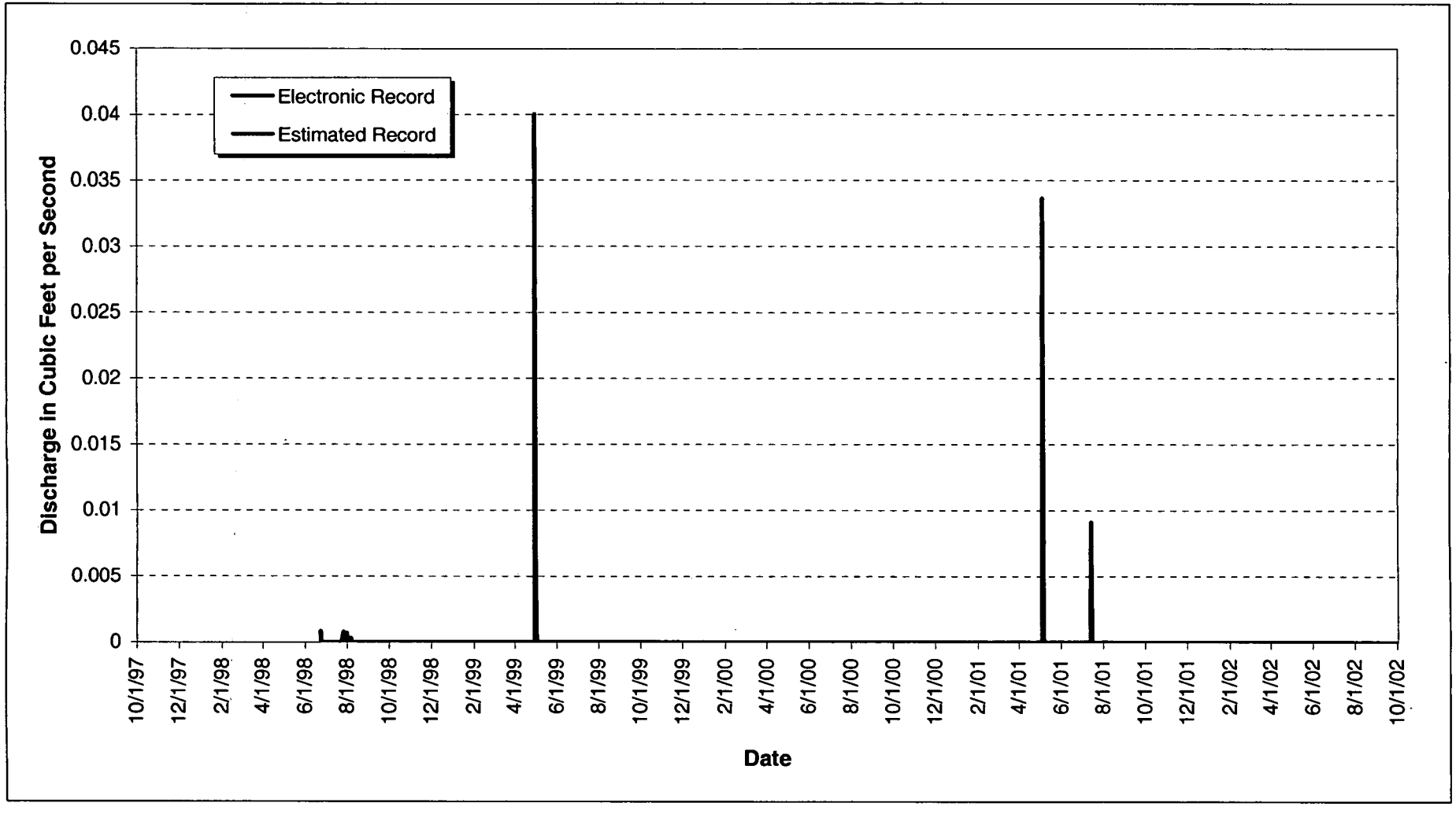


Figure 3-73. WY98-02 Mean Daily Hydrograph at GS42: Unnamed Gulch Tributary to SID.

3.2.26 GS43: Building 886 Subdrainage Area

Location

B886 subdrainage; State Plane: 2084513, 749206

Drainage Area

- The basin includes the areas surrounding B886 (total of 1.1 acres before 4/02; 3.2 acres after 4/02)
- IA Areas draining to GS43: 800
- Demolition of B886 and subsequent regrading was completed in May 2002. The demolition of the building, re-grading of the GS43 drainage area, and construction of a ditch east from B865 resulted in significant changes to the drainage area. As such, a map is provided below for each configuration.

Period of Record

6/1/99 to current year

Gage

Water-stage recorder and 0.75' H-flume

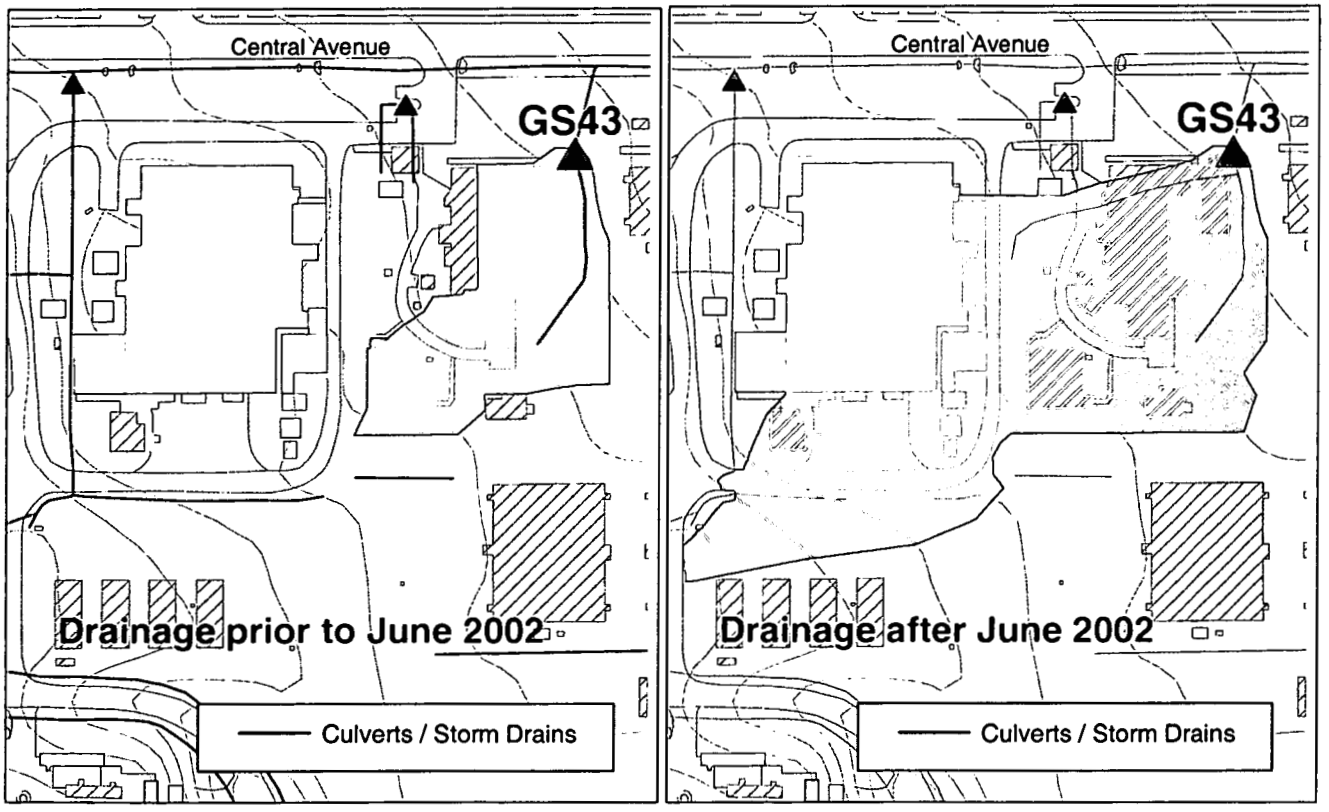


Figure 3-74. Map Showing GS43 Drainage Areas.

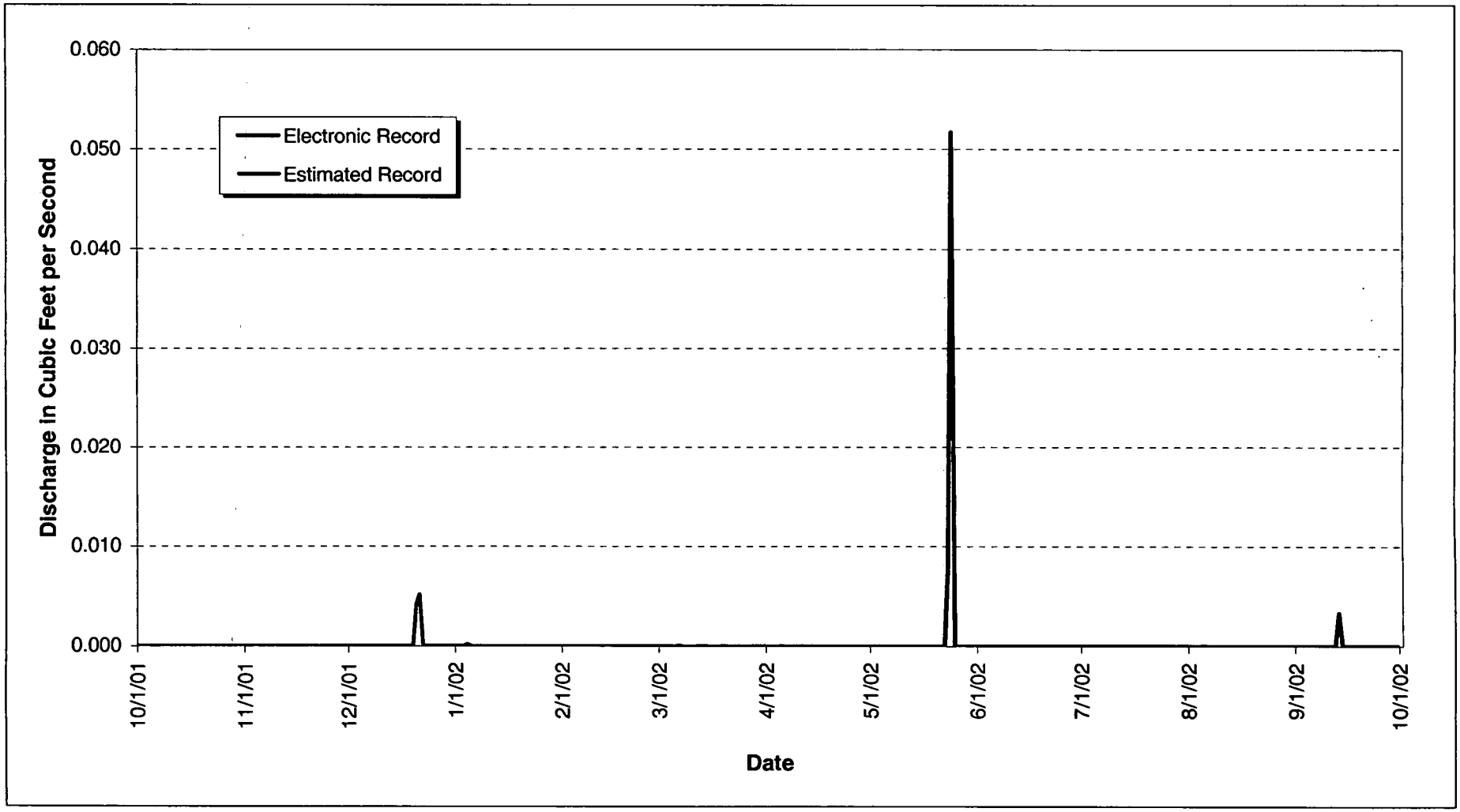


Figure 3-75. WY02 Mean Daily Hydrograph at GS43: B886 Subdrainage.

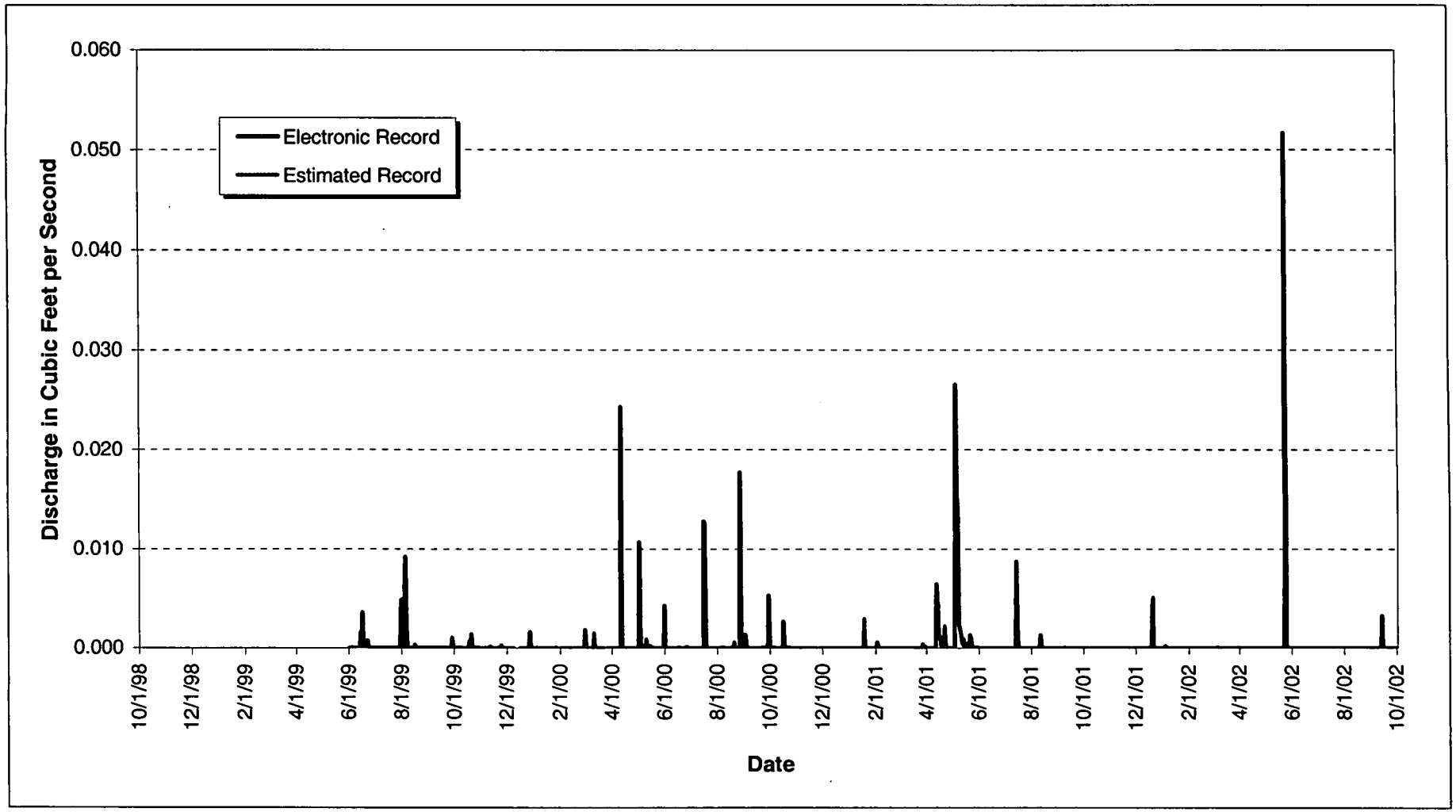


Figure 3-76. WY99-02 Mean Daily Hydrograph at GS43: B886 Subdrainage.

3.2.27 GS44: Ditch West of B771 North of T771L

Location

End of corrugated metal pipe (cmp) between T771L and T771F; State Plane: 2083411, 751100

Drainage Area

- The basin includes areas on the west side of B771 (total of 4.1 acres)
- IA Areas draining to GS44: 700

Period of Record

10/4/00 to current year

Gage

Water-stage recorder and 1.0' H-flume

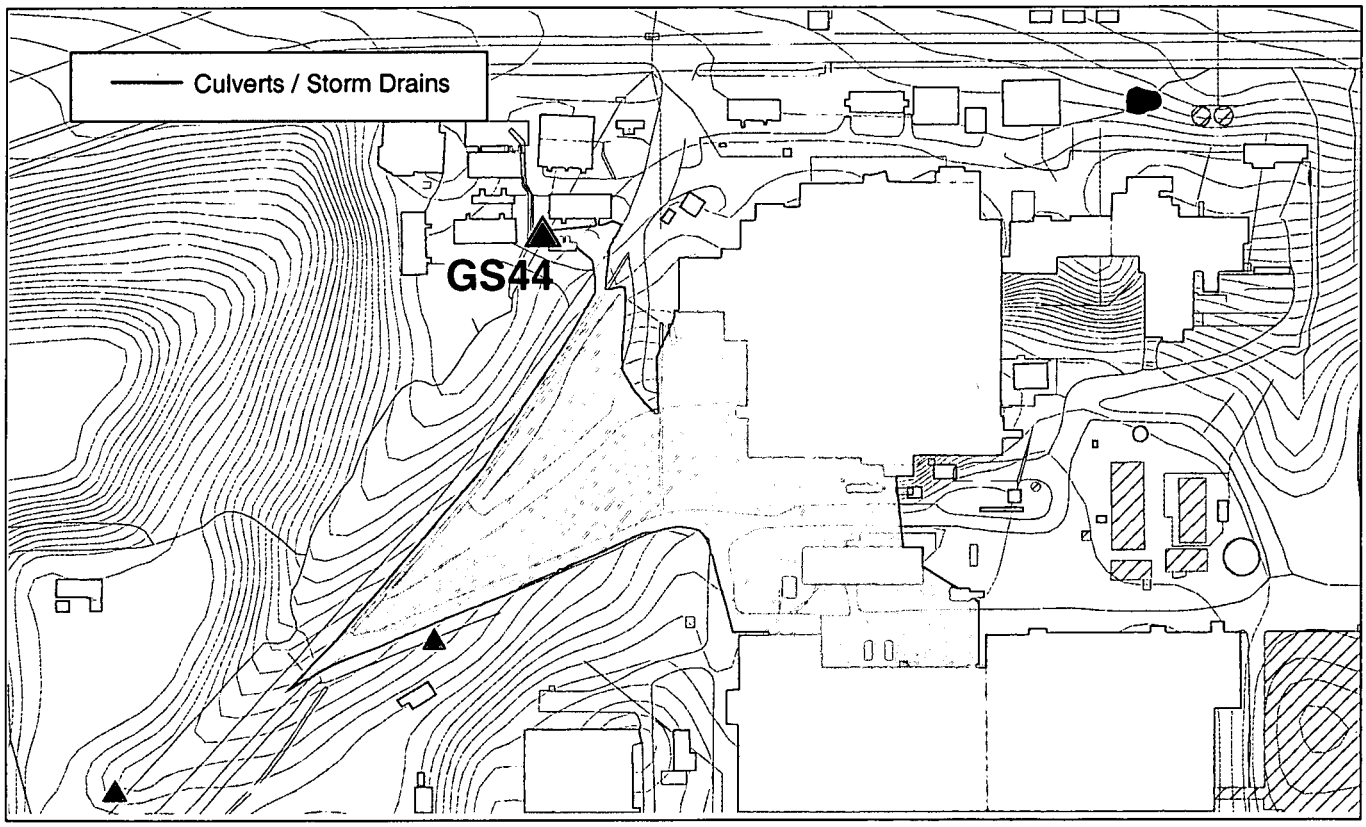


Figure 3-77. Map Showing GS44 Drainage Area.

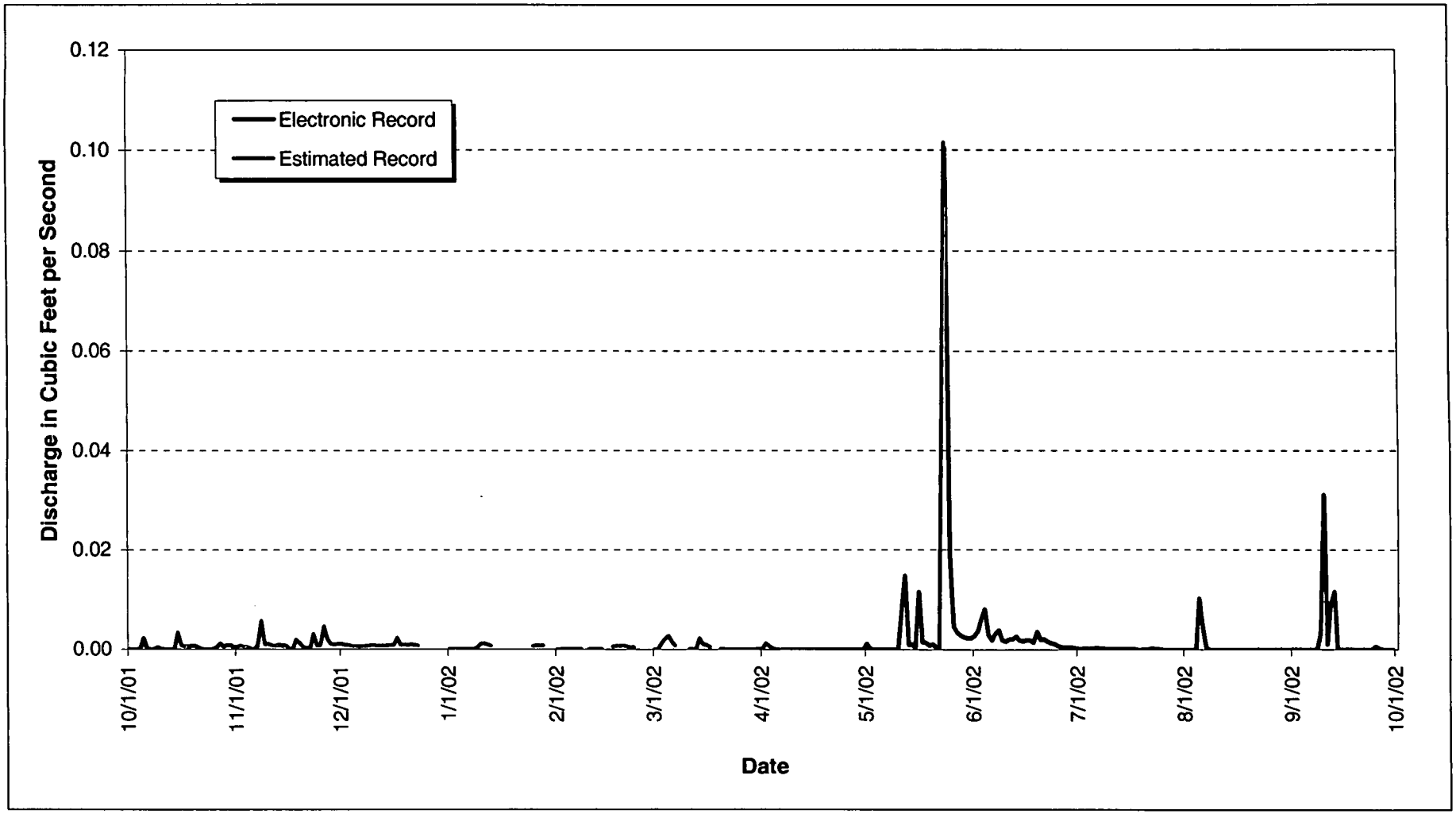


Figure 3-78. WY02 Mean Daily Hydrograph at GS44: Ditch West of B771 North of T771L.

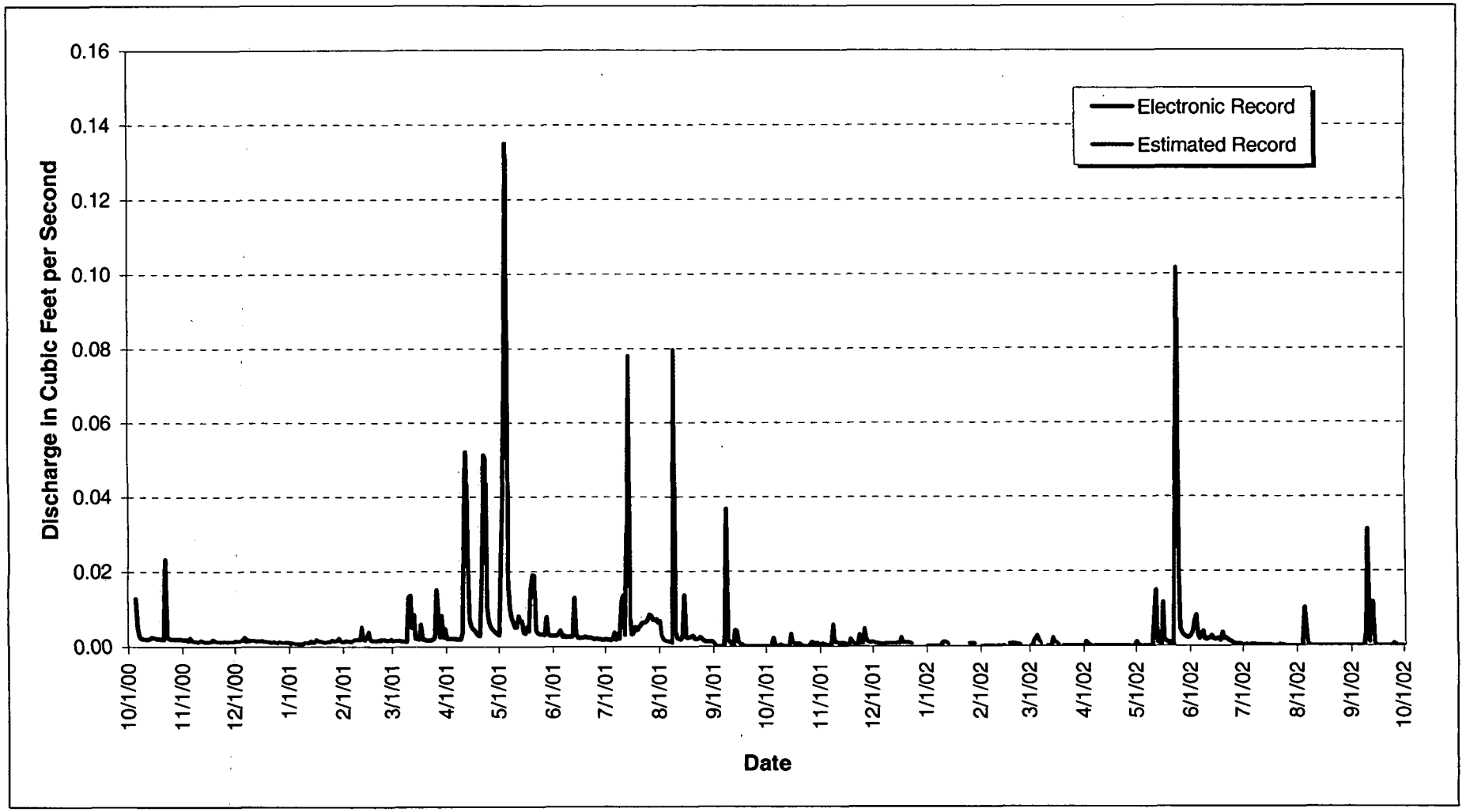


Figure 3-79. WY01-02 Mean Daily Hydrograph at GS44: Ditch West of B771 North of T771L.

3.2.28 GS45: Upper Church Ditch at West Gravel Pits

Location

Upper Church Ditch at West Gravel Pits; State Plane: 2076006, 748922

Drainage Area

- The basin includes areas tributary to Upper Church Ditch west of the Site (total drainage acreage undetermined)
- IA Areas draining to GS45: none

Period of Record

4/10/00 to current year

Gage

Water-stage recorder and 9.5" Parshall flume

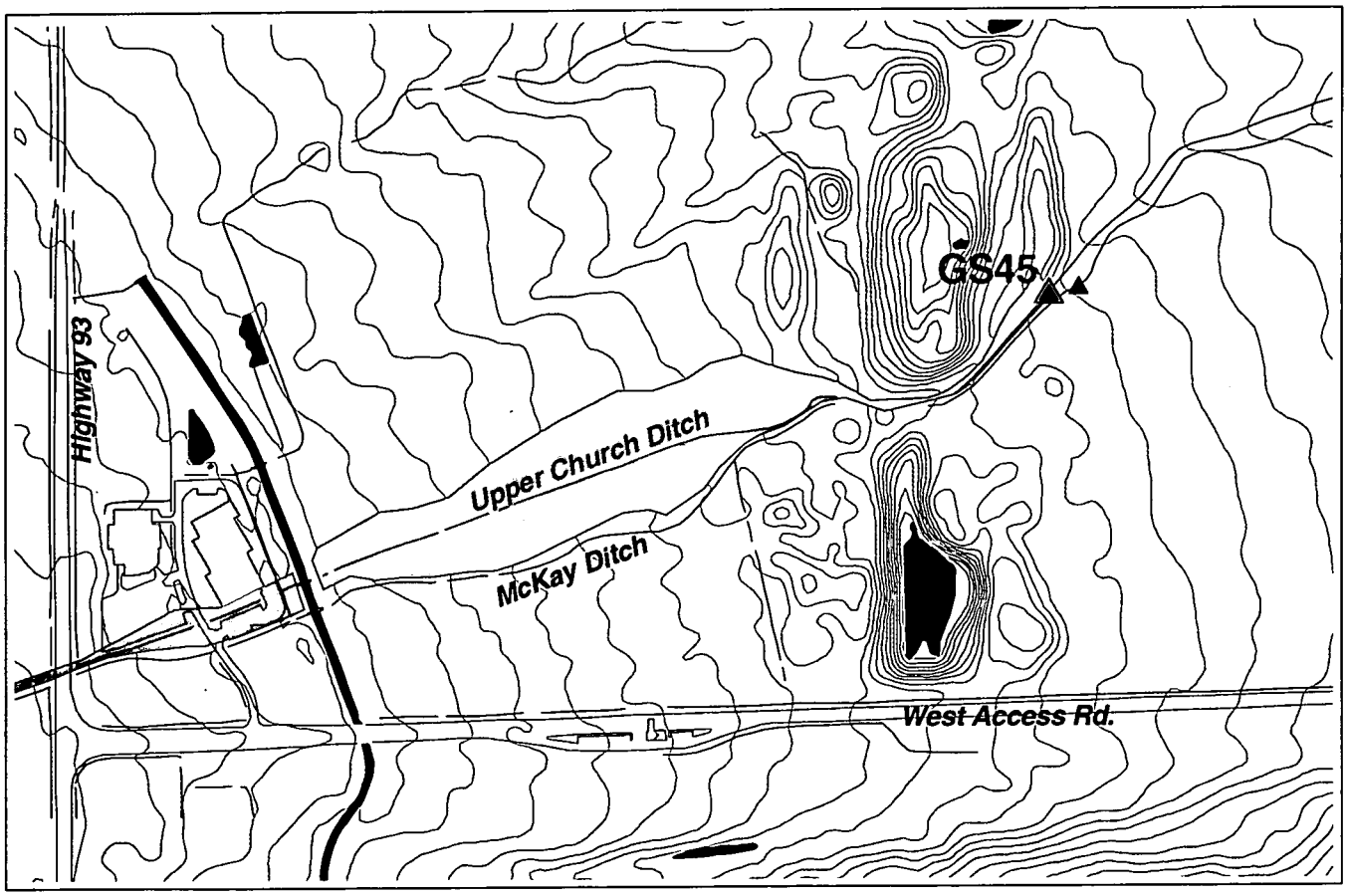


Figure 3-80. Map Showing GS45 Drainage Area.

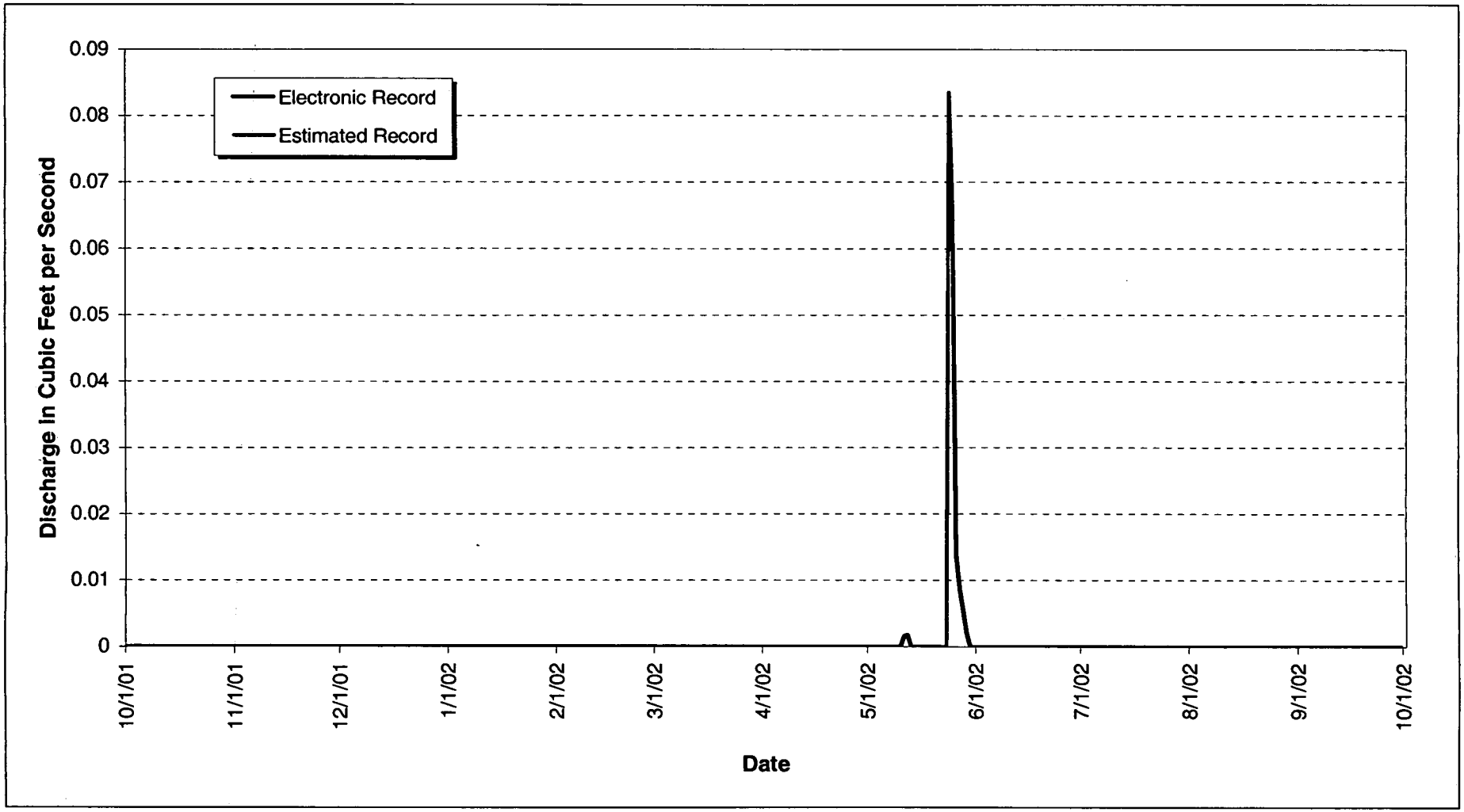


Figure 3-81. WY02 Mean Daily Hydrograph at GS45: Upper Church Ditch at West Gravel Pits.

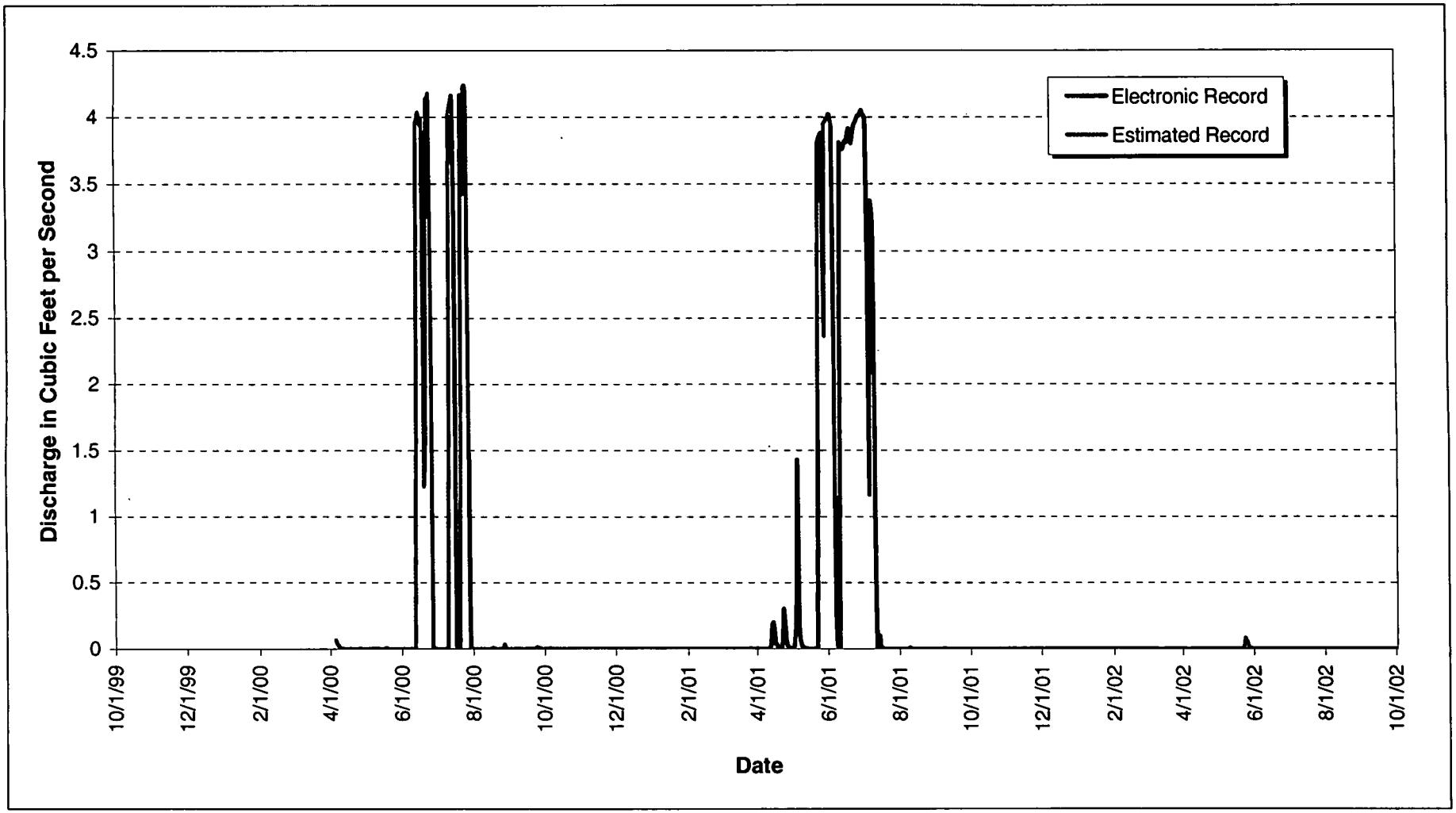


Figure 3-82. WY00-02 Mean Daily Hydrograph at GS45: Upper Church Ditch at West Gravel Pits.

3.2.29 GS46: McKay Ditch at West Gravel Pits

Location

McKay Ditch at West Gravel Pits; State Plane: 2076099, 748941

Drainage Area

- The basin includes areas tributary to McKay Ditch west of the Site (total drainage acreage undetermined)
- IA Areas draining to GS46: none

Period of Record

4/11/00 to current year

Gage

Water-stage recorder and 9.5" Parshall flume

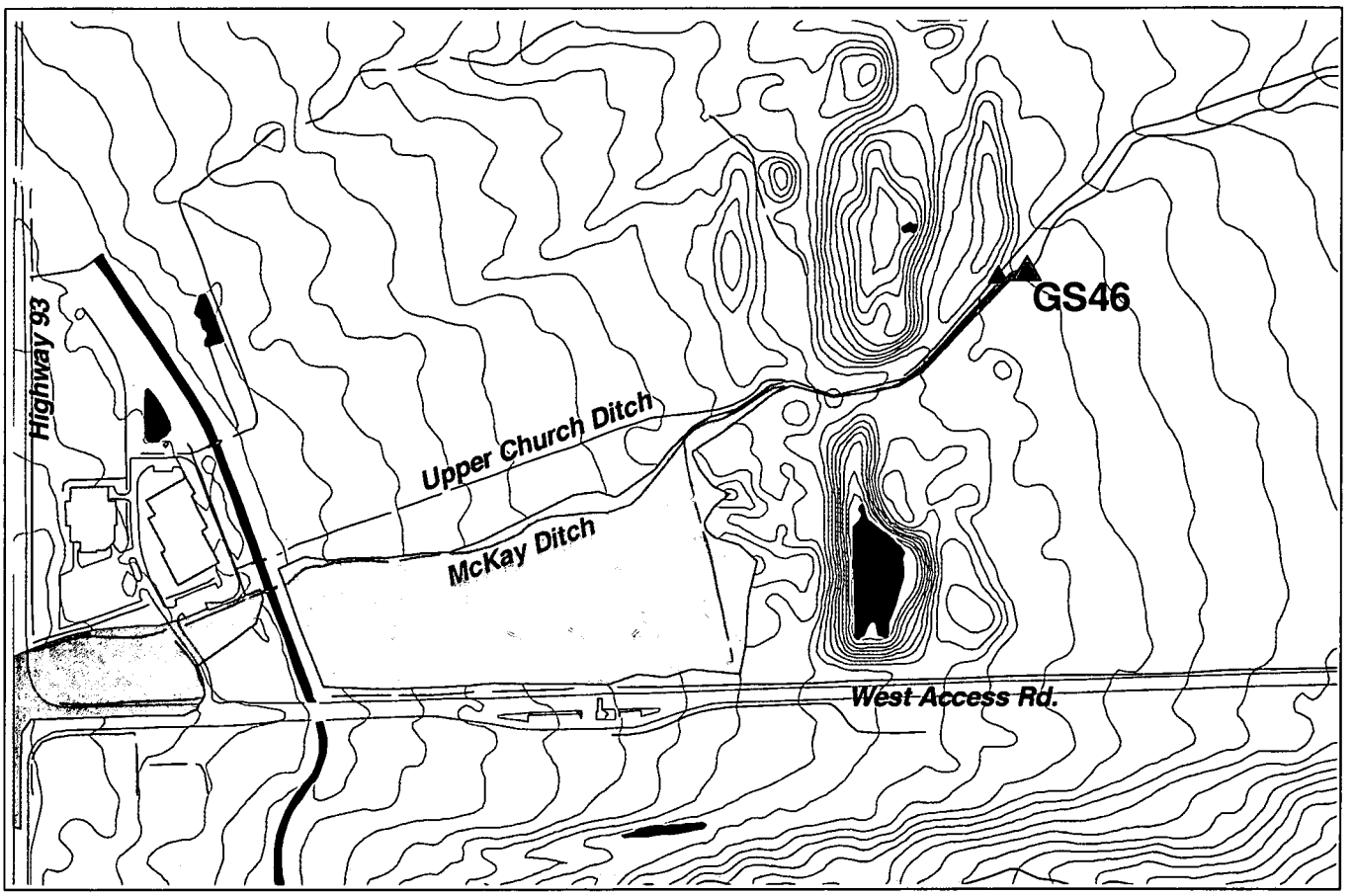


Figure 3-83. Map Showing GS46 Drainage Area.

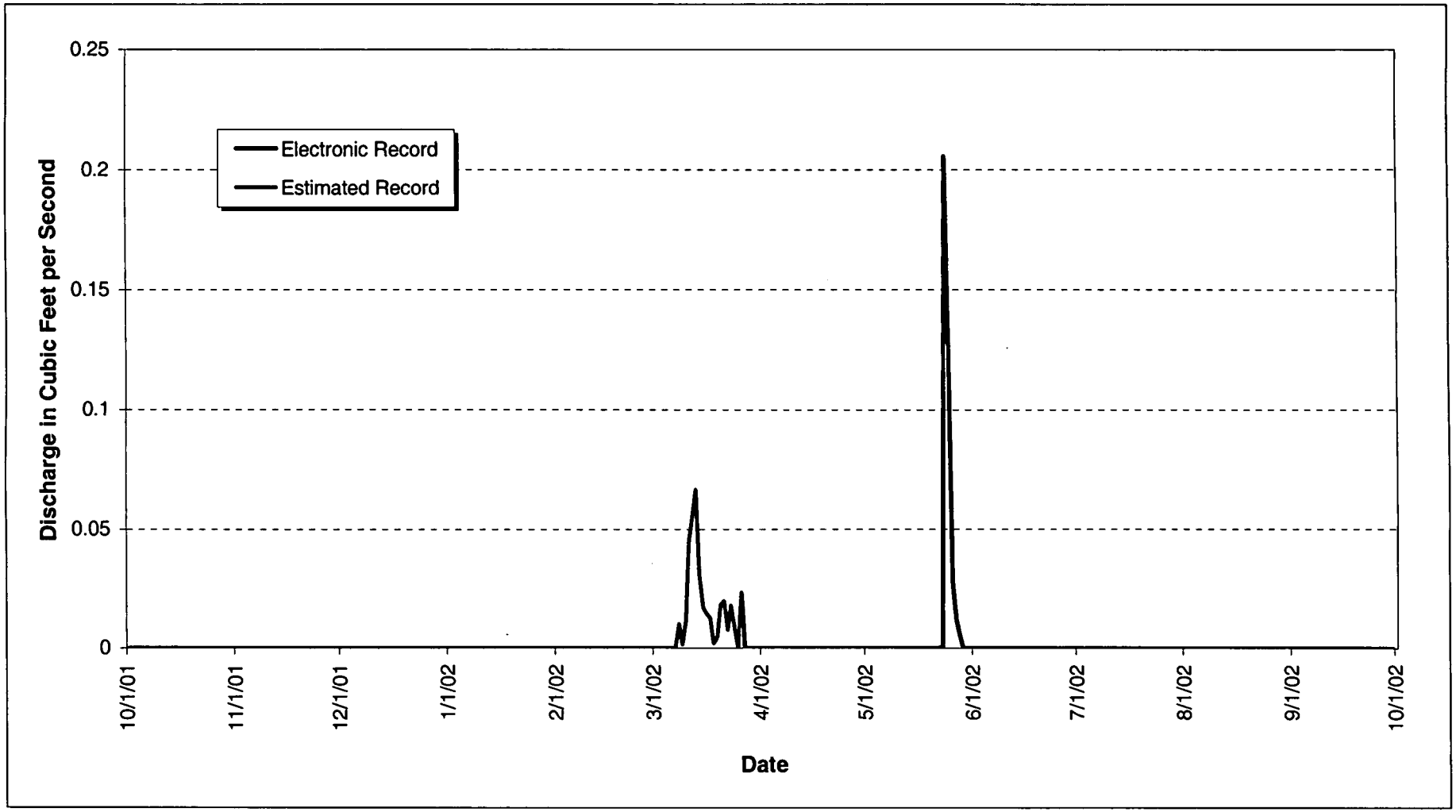


Figure 3-84. WY02 Mean Daily Hydrograph at GS46: Upper Church Ditch at West Gravel Pits.

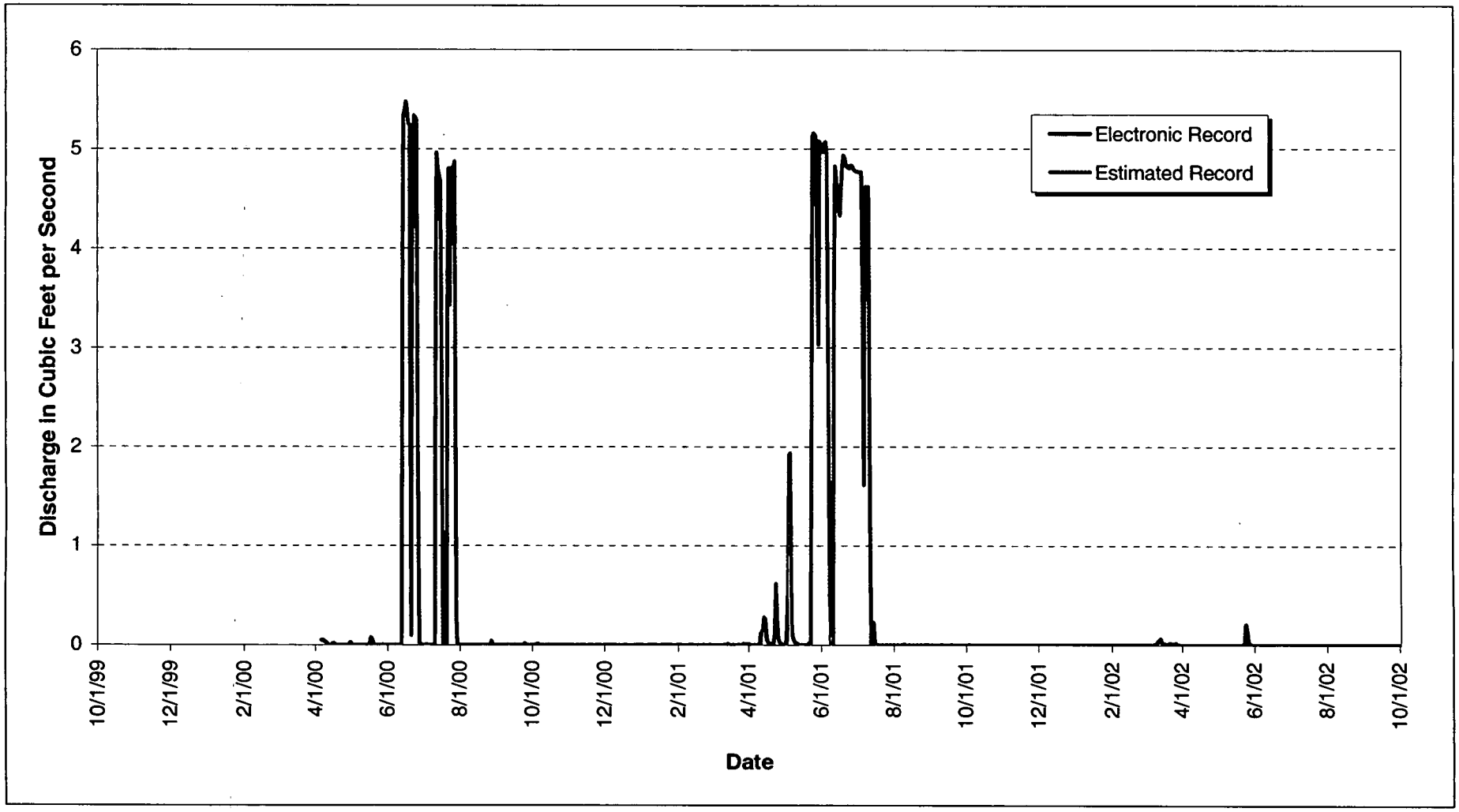


Figure 3-85. WY00-02 Mean Daily Hydrograph at GS46: Upper Church Ditch at West Gravel Pits.

3.2.30 GS49: Ditch Northwest of B566

Location

Ditch Northwest of B566; State Plane: 2083292, 750652

Drainage Area

- The basin includes areas on west side of B776 (total of 3.3 acres)
- IA Areas draining to GS49: 500, 700

Period of Record

12/29/00 to current year

Gage

Water-stage recorder and 6" Parshall flume

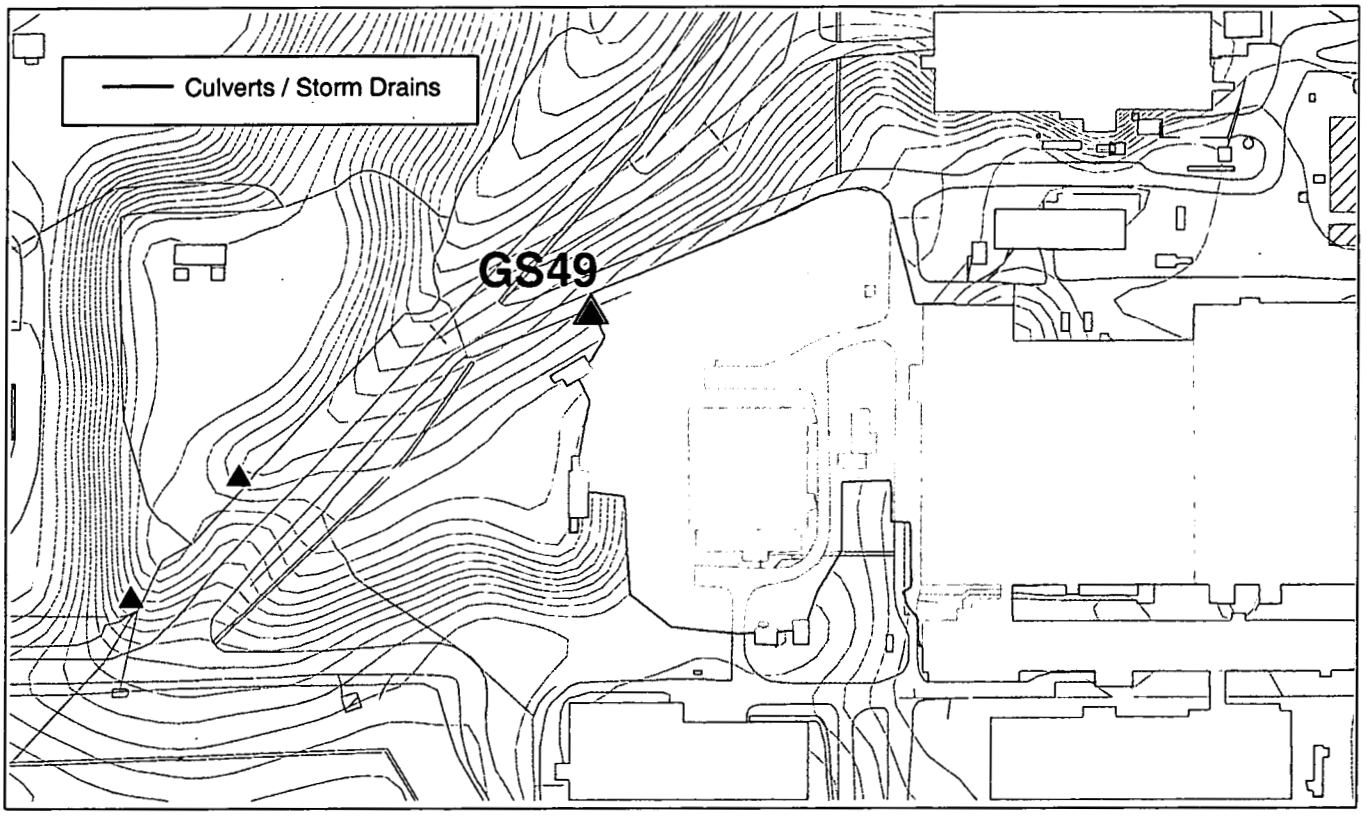


Figure 3-86. Map Showing GS49 Drainage Area.

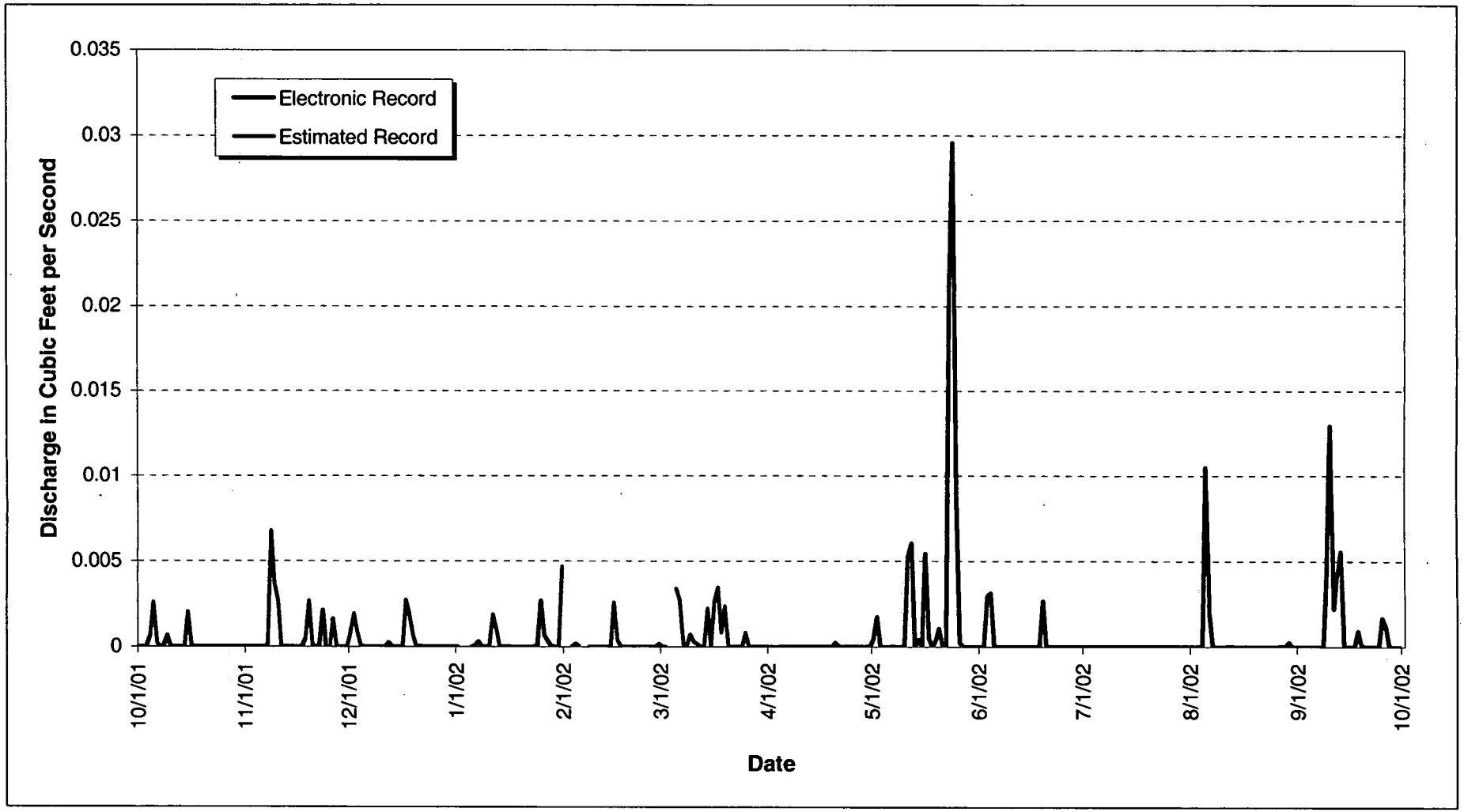


Figure 3-87. WY02 Mean Daily Hydrograph at GS49: Ditch Northwest of B566.

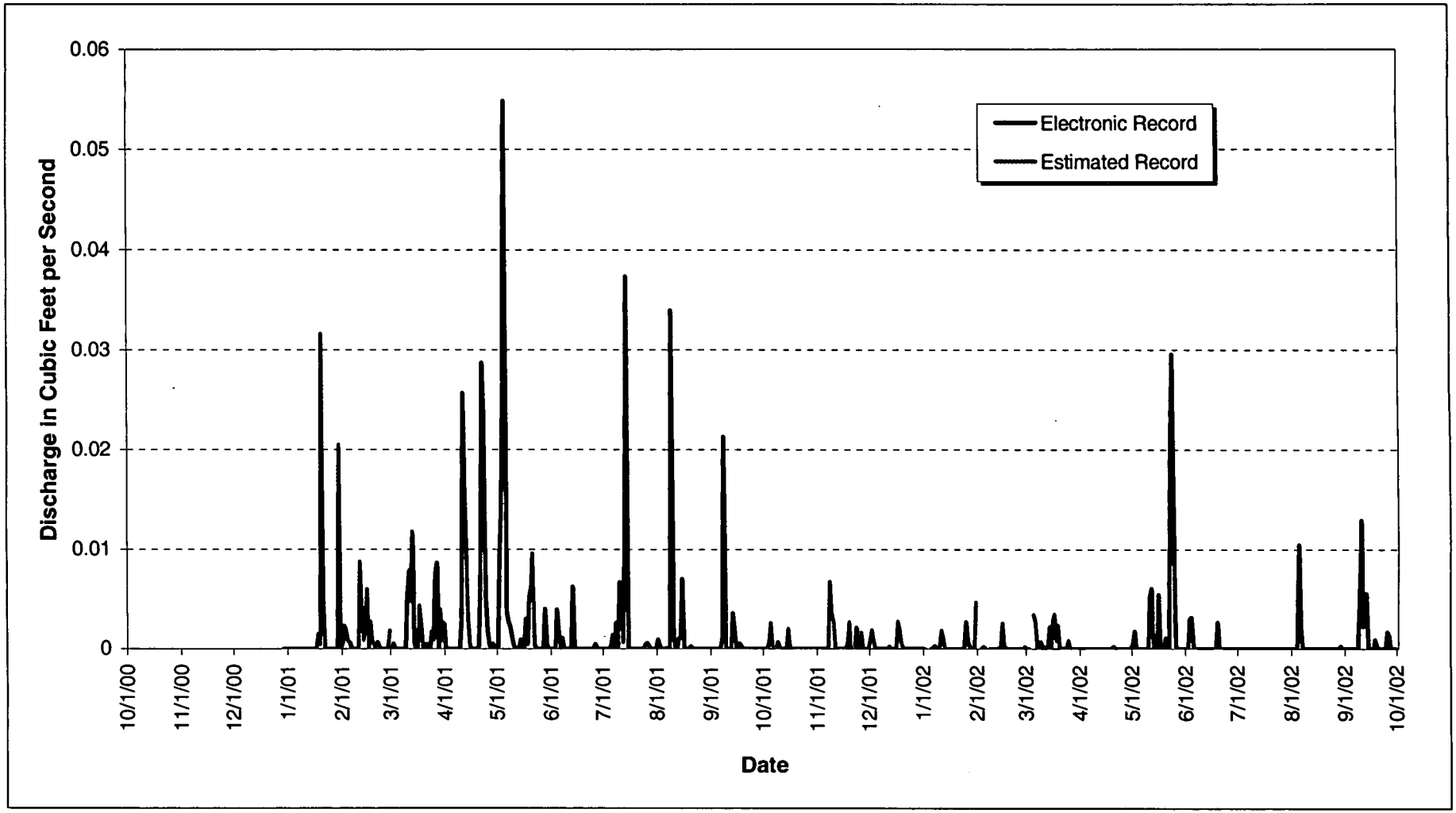


Figure 3-88. WY01-02 Mean Daily Hydrograph at GS49: Ditch Northwest of B566.

3.2.31 GS50: Ditch Northeast of B990

Location

Ditch northeast of B990; State Plane: 2085760, 750441

Drainage Area

- The basin includes areas surrounding the Solar Ponds (total of 4.1 acres)
- IA Areas draining to GS50: 700, 900

Period of Record

3/28/01 to current year

Gage

Water-stage recorder and 6" Parshall flume

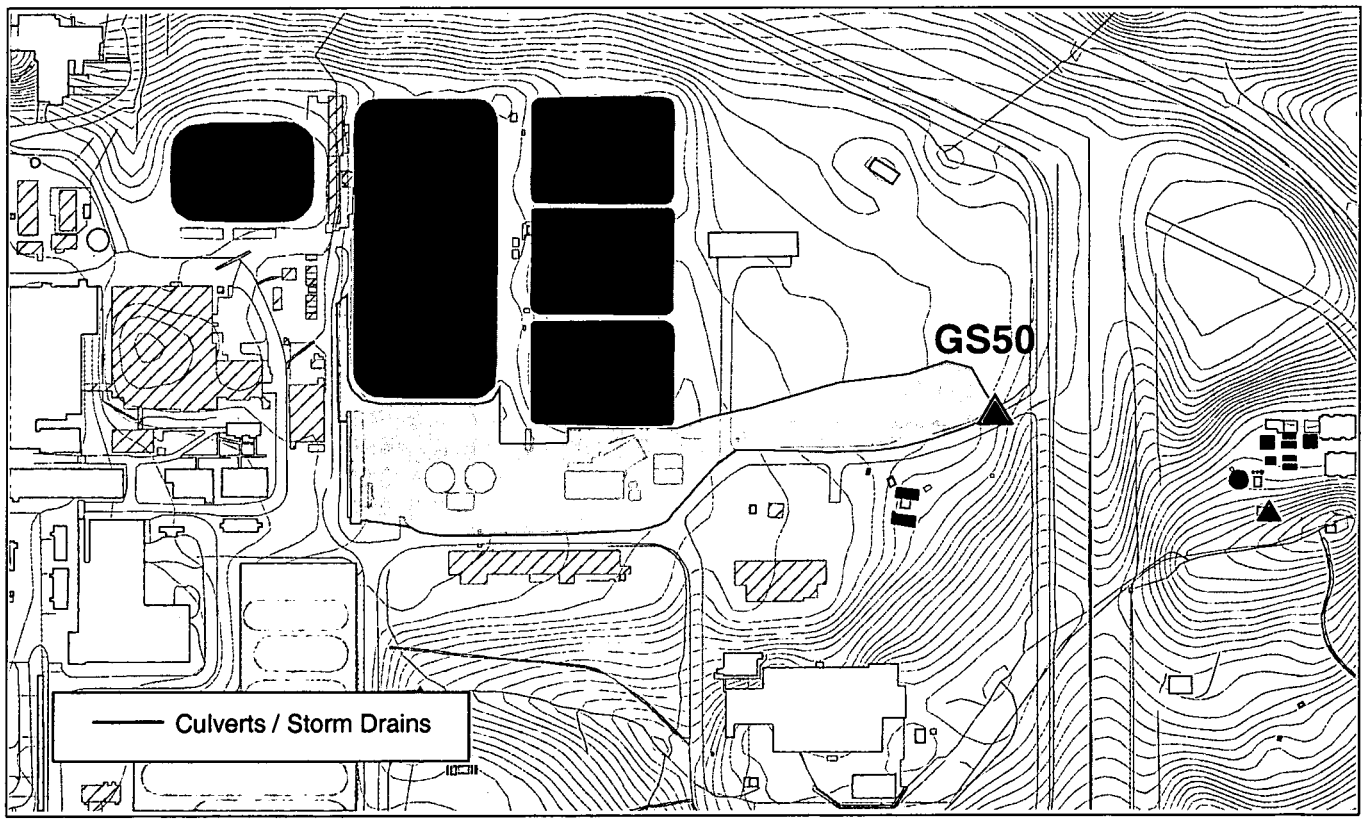


Figure 3-89. Map Showing GS50 Drainage Area.

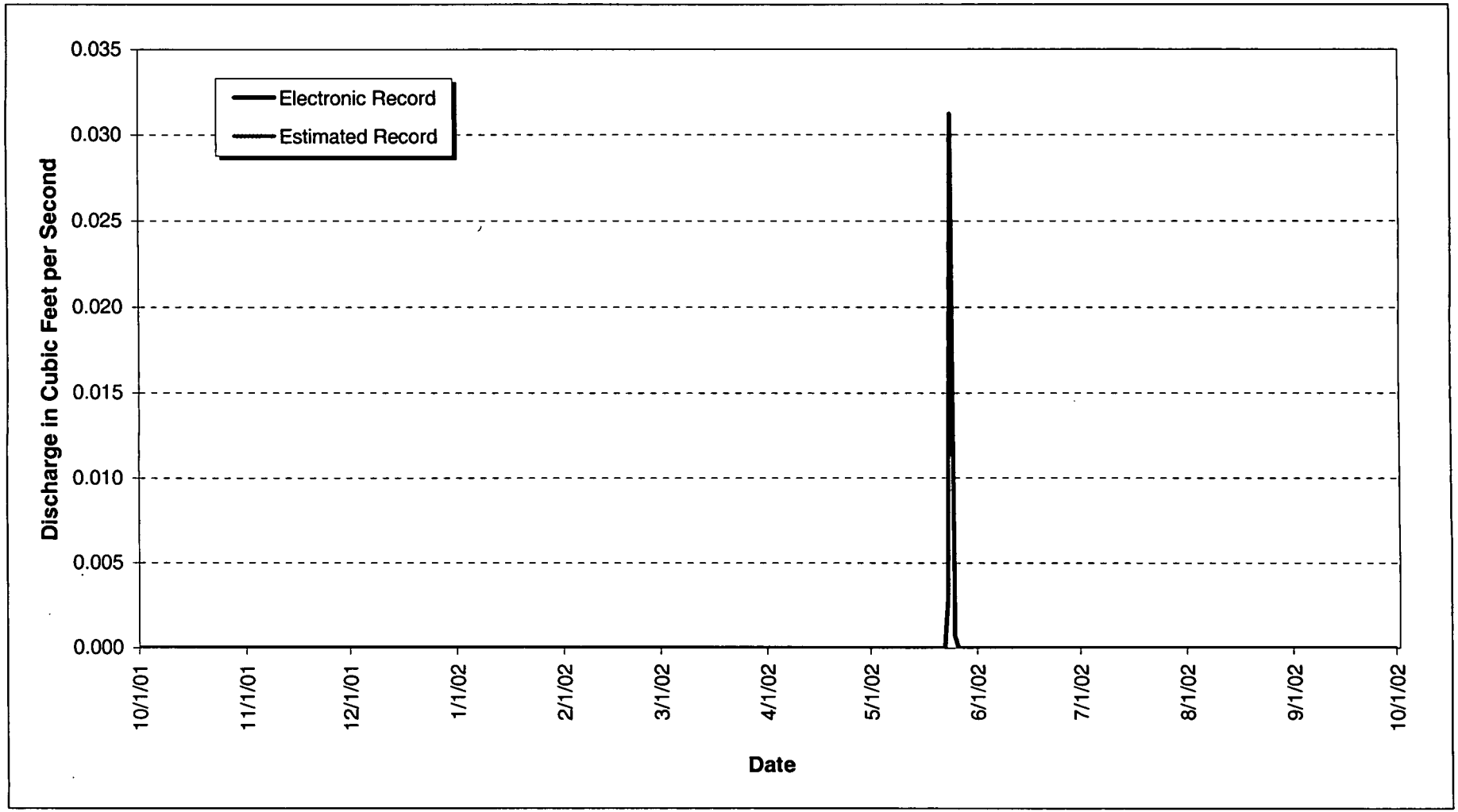


Figure 3-90. WY02 Mean Daily Hydrograph at GS50: Ditch Northeast of B990.

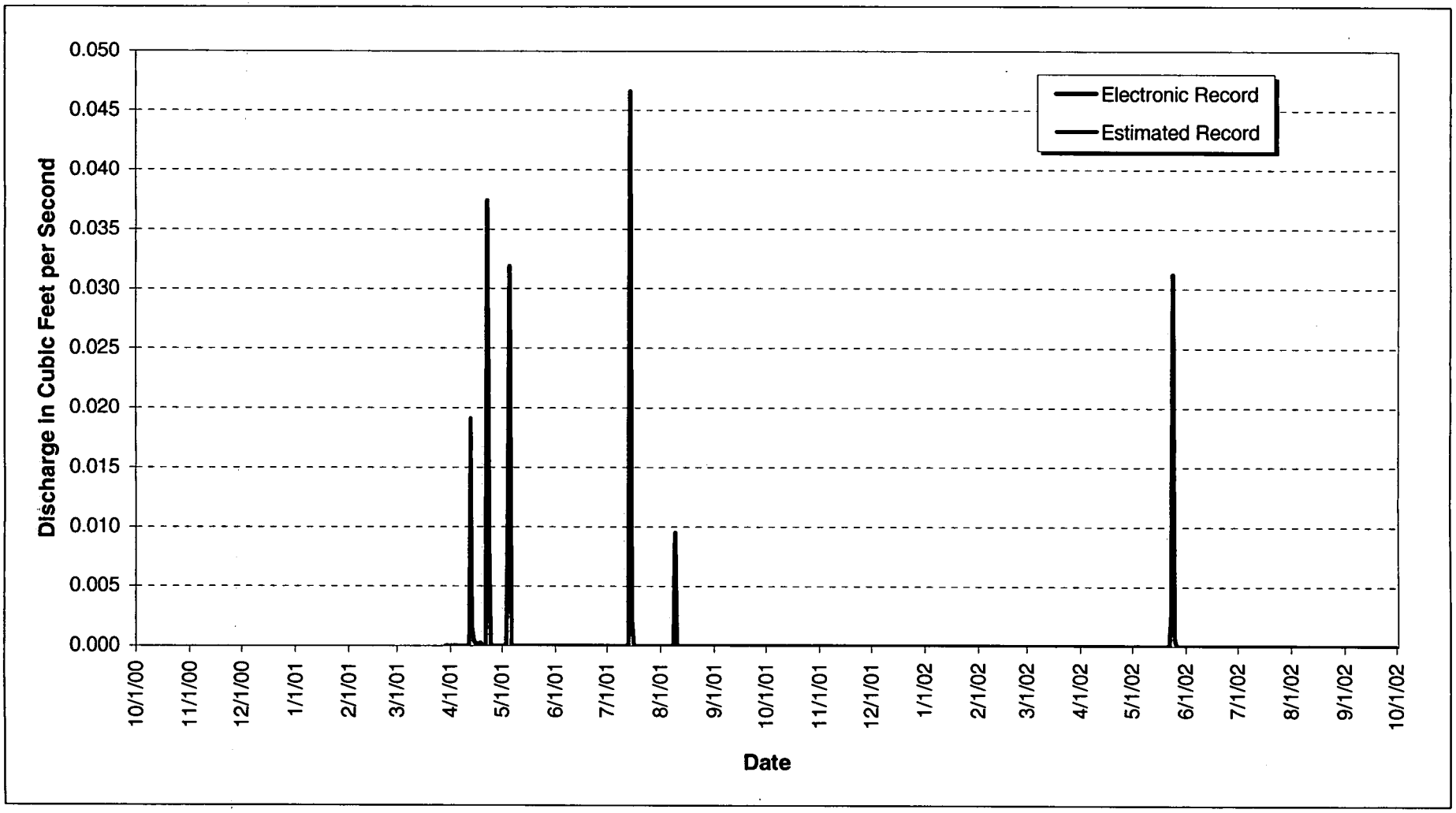


Figure 3-91. WY01-02 Mean Daily Hydrograph at GS50: Ditch Northeast of B990.

3.2.32 GS51: Ditch South of 903 Pad

Location

Ditch south of 903 Pad; State Plane: 2086295, 748107

Drainage Area

- The basin includes an area south and east of the 903 Pad (total of 3.9 acres)
- IA Areas draining to GS51: 900

Period of Record

8/13/01 to current year

Gage

Water-stage recorder and 0.75' H-flume

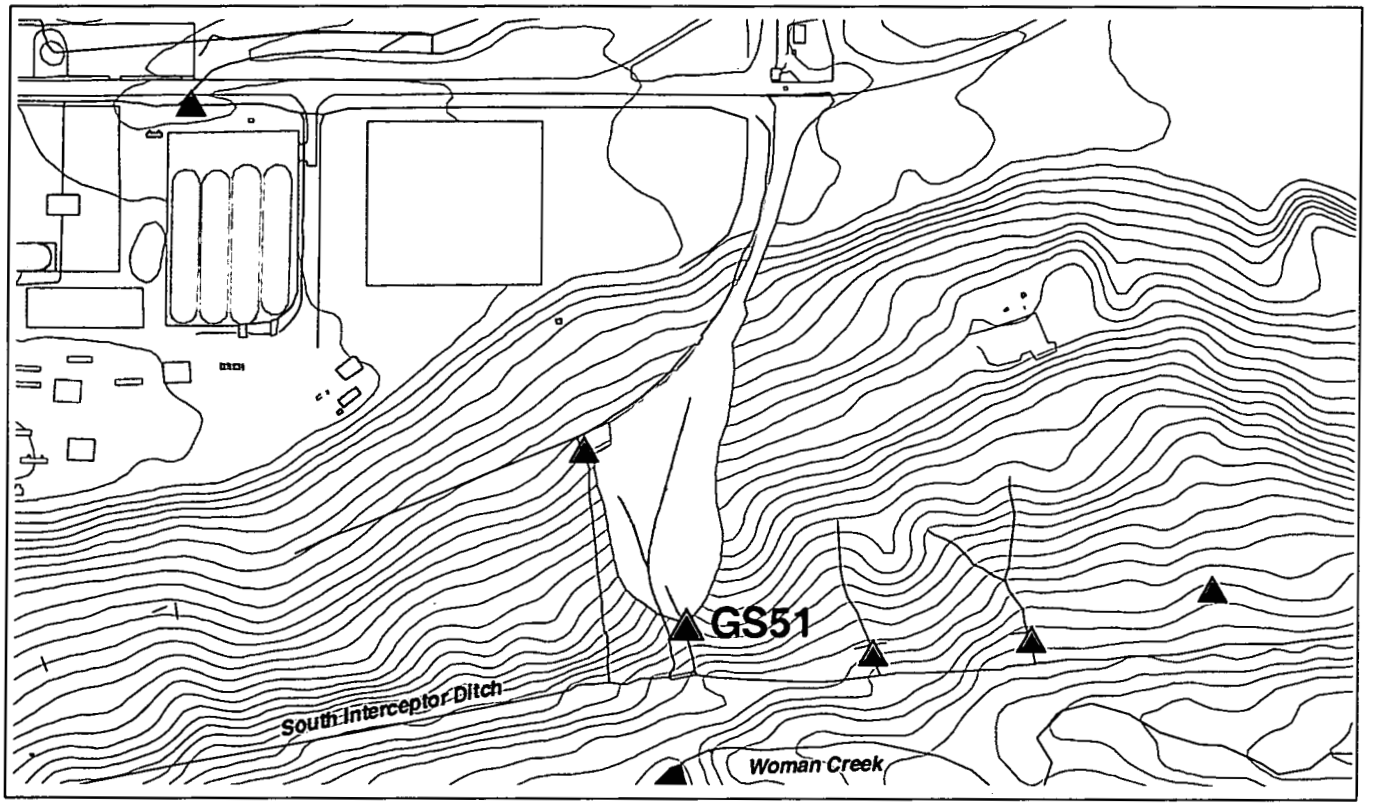


Figure 3-92. Map Showing GS51 Drainage Area.

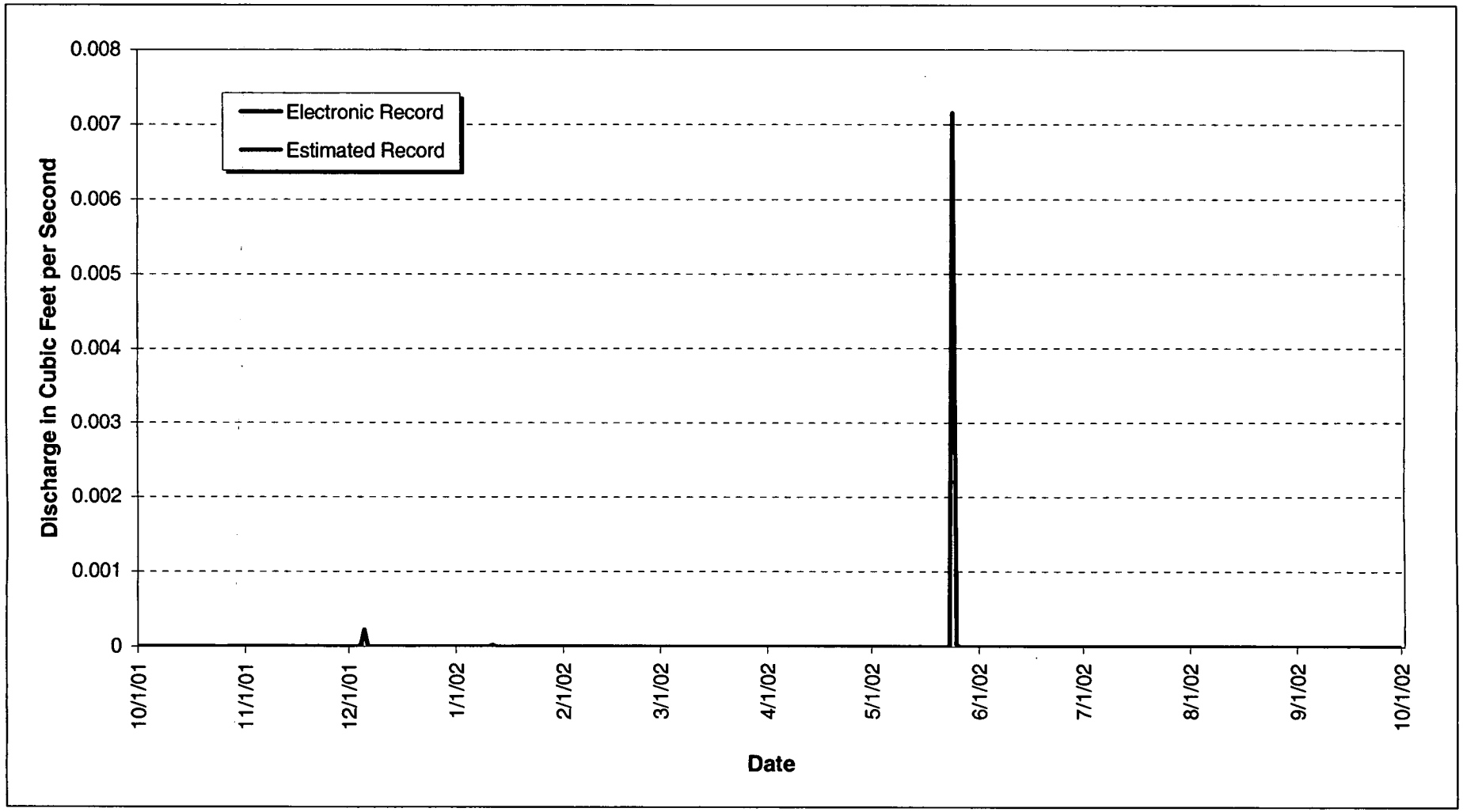


Figure 3-93. WY02 Mean Daily Hydrograph at GS51: Ditch South of 903 Pad.

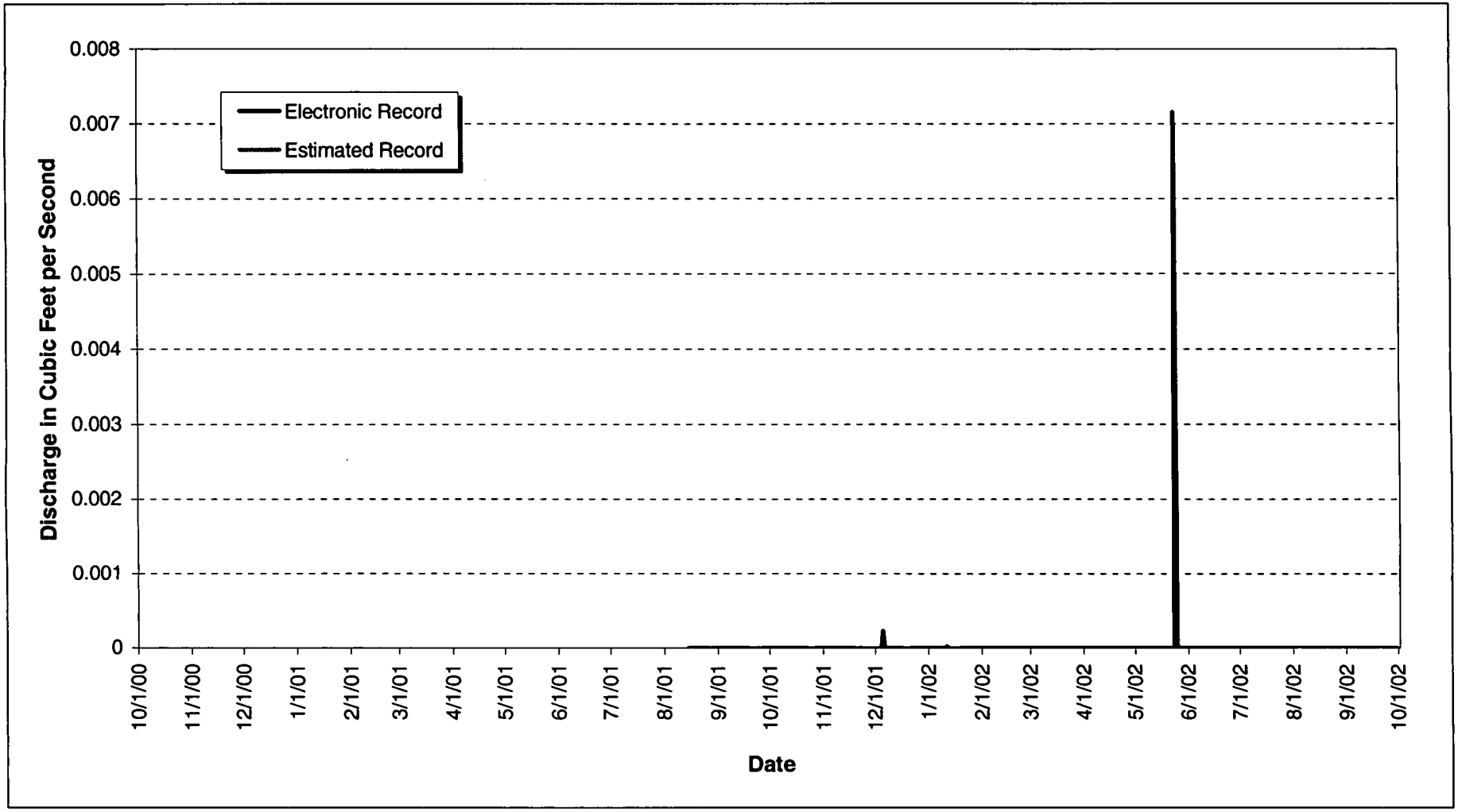


Figure 3-94. WY01-02 Mean Daily Hydrograph at GS51: Ditch South of 903 Pad.

3.2.33 GS52: Drainage Swale Southeast of 903 Pad

Location

Drainage Swale Southeast of 903 Pad; State Plane: 2086715, 748043

Drainage Area

- The basin includes a swale south and east of the 903 Pad (total of 4.3 acres)
- IA Areas draining to GS52: 900

Period of Record

7/26/01 to current year

Gage

Water-stage recorder and 0.6' HS-flume

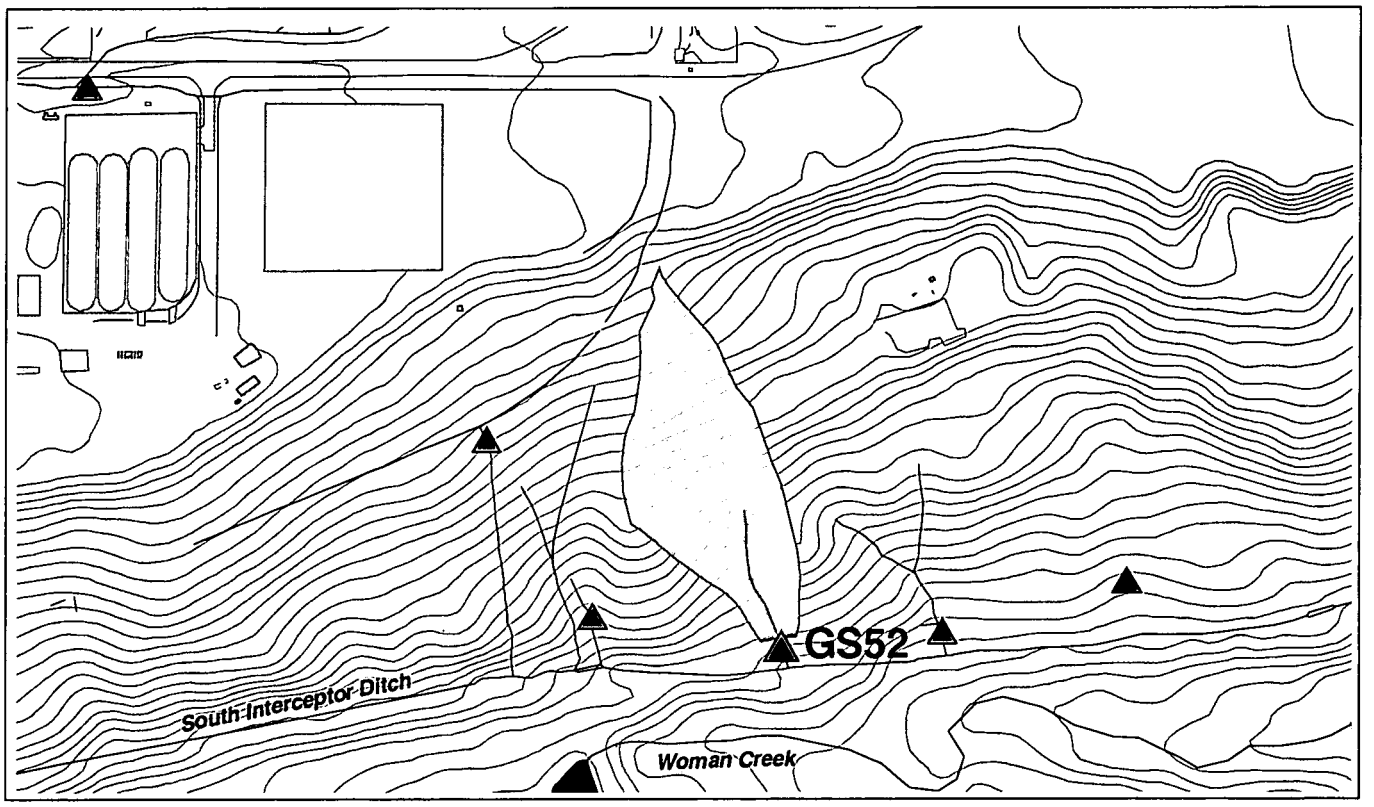


Figure 3-95. Map Showing GS52 Drainage Area.

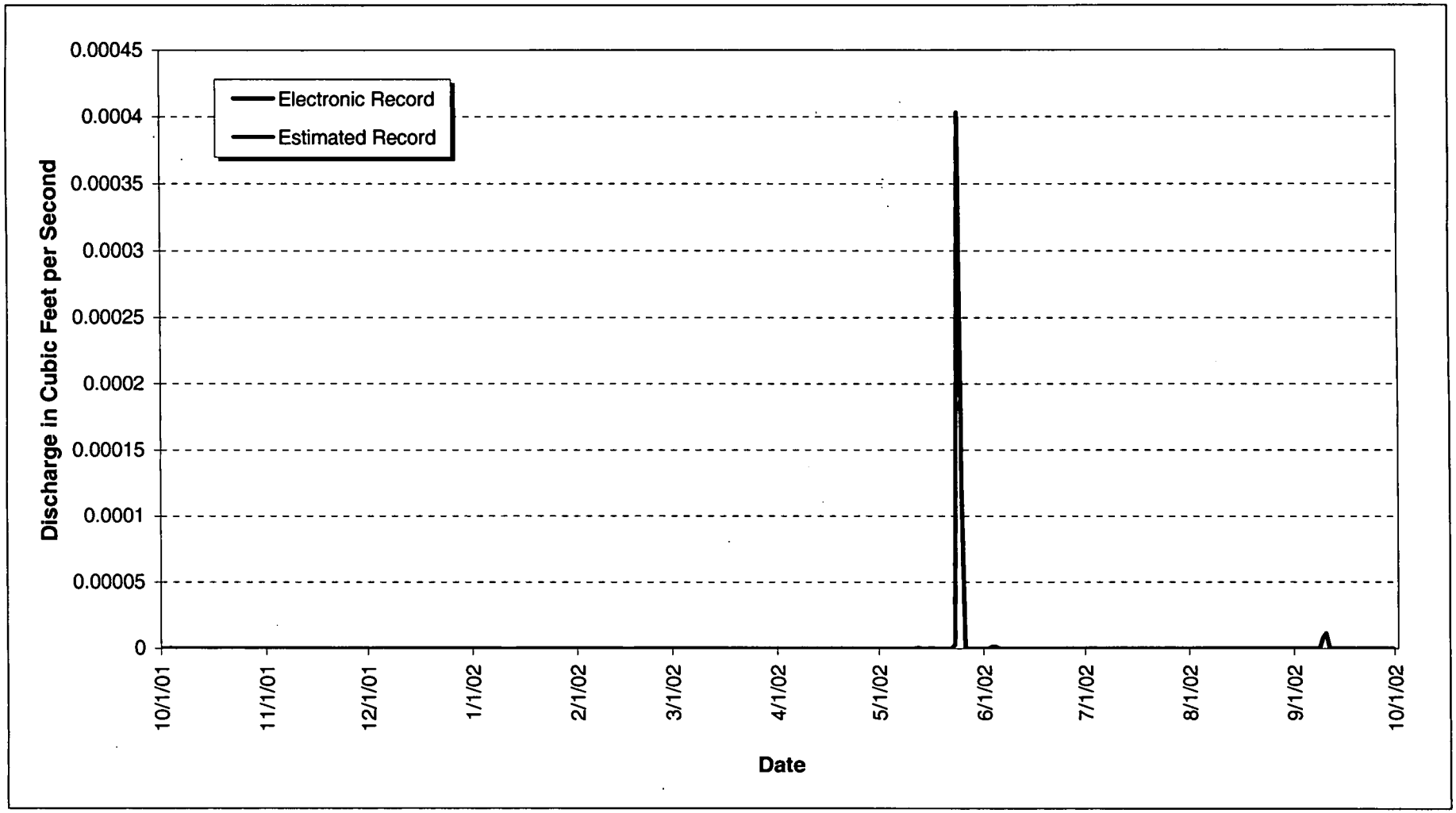


Figure 3-96. WY02 Mean Daily Hydrograph at GS52: Drainage Swale Southeast of 903 Pad.

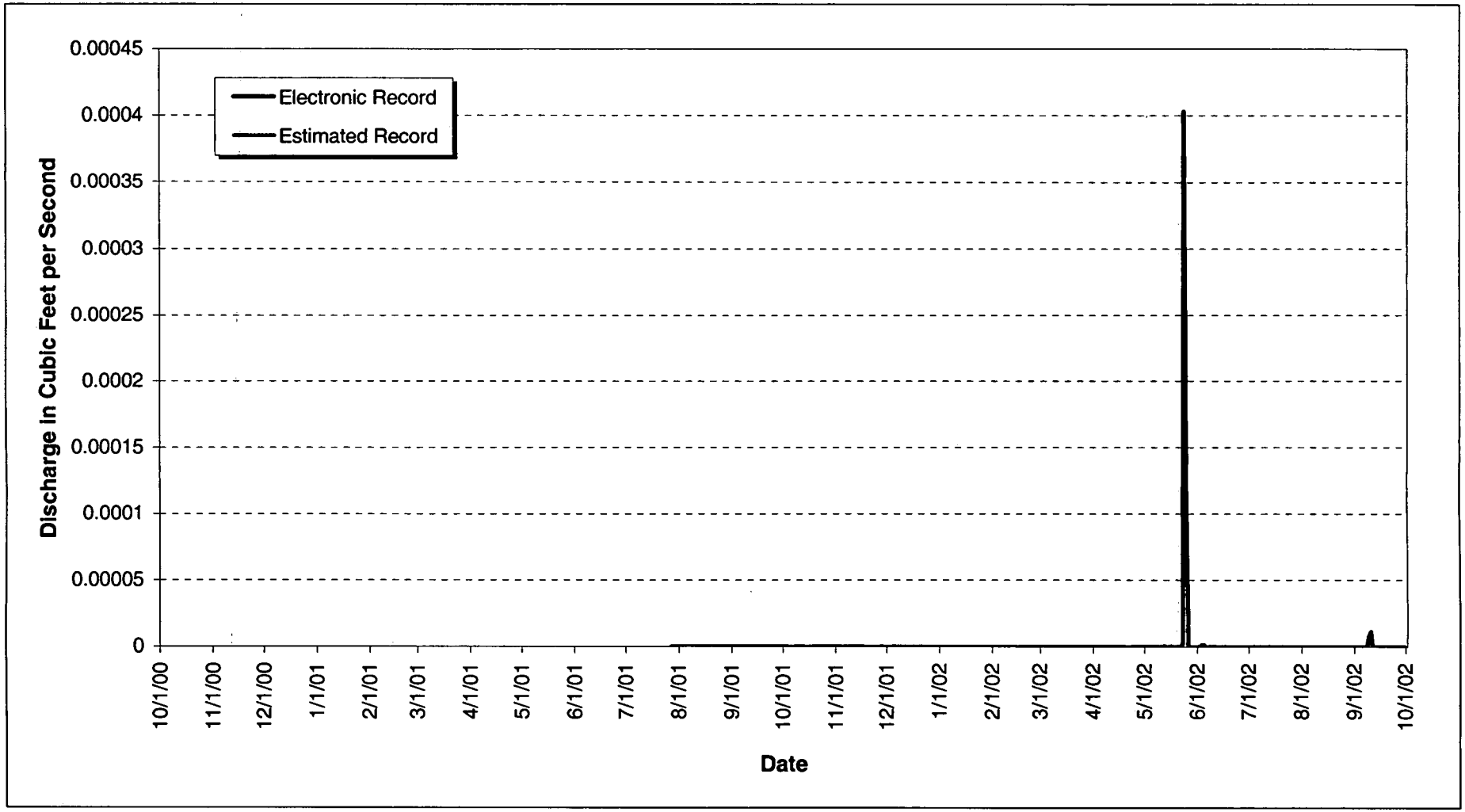


Figure 3-97. WY01-02 Mean Daily Hydrograph at GS52: Drainage Swale Southeast of 903 Pad.

3.2.34 GS53: Drainage Swale Southeast of 903 Pad

Location

Drainage Swale Southeast of 903 Pad; State Plane: 2087071, 748074

Drainage Area

- The basin includes a swale south and east of the 903 Pad (total of 10.1 acres)
- IA Areas draining to GS53: 900

Period of Record

8/1/01 to current year

Gage

Water-stage recorder and 0.6' HS-flume

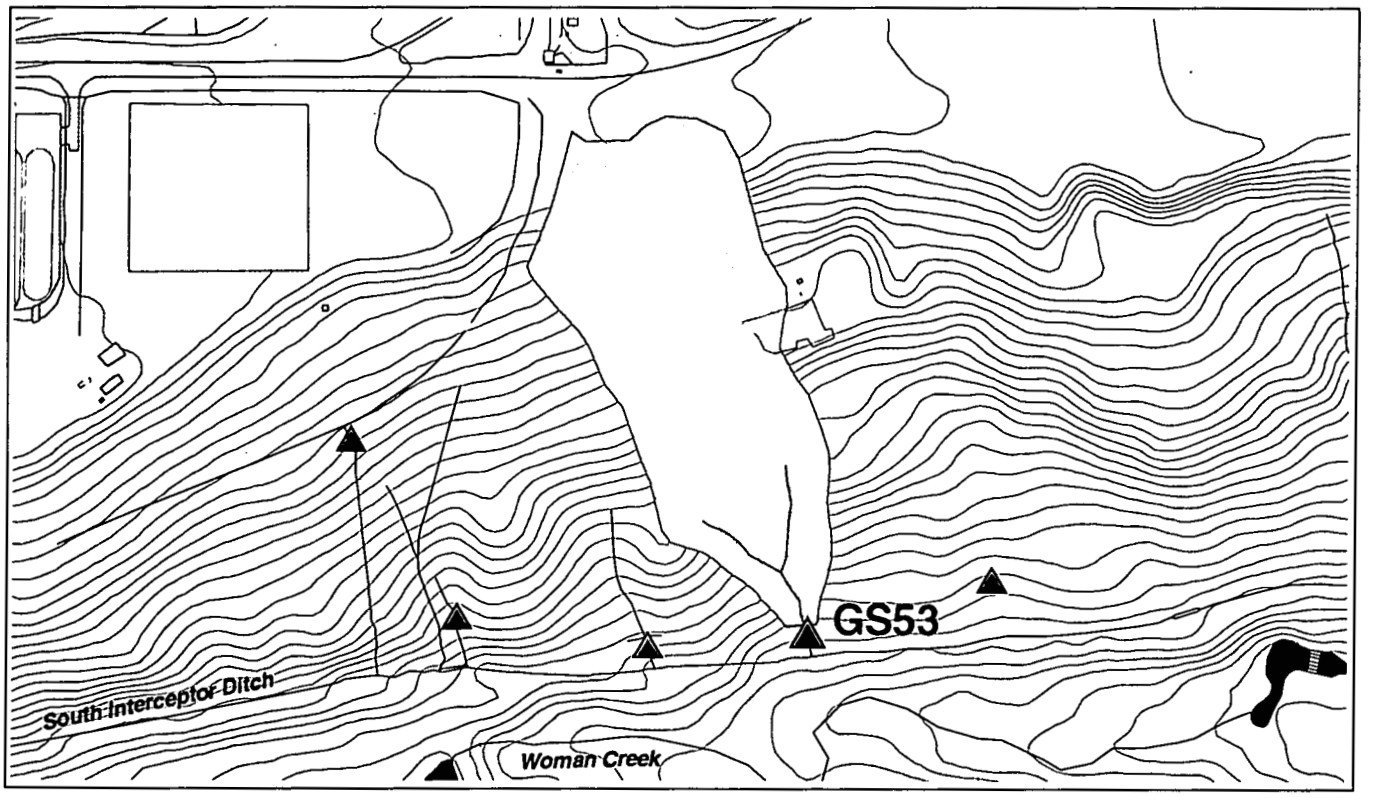


Figure 3-98. Map Showing GS53 Drainage Area.

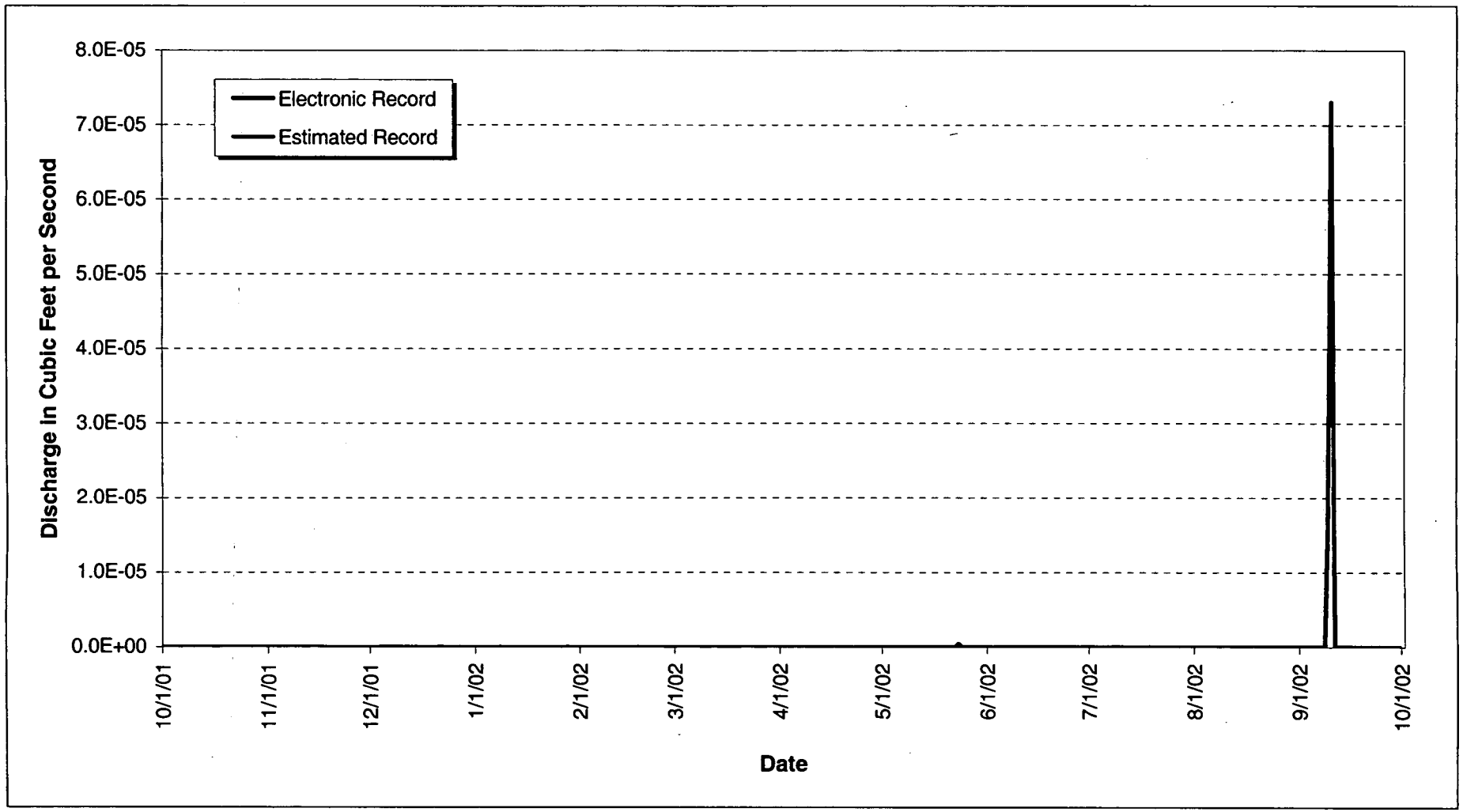


Figure 3-99. WY02 Mean Daily Hydrograph at GS53: Drainage Swale Southeast of 903 Pad.

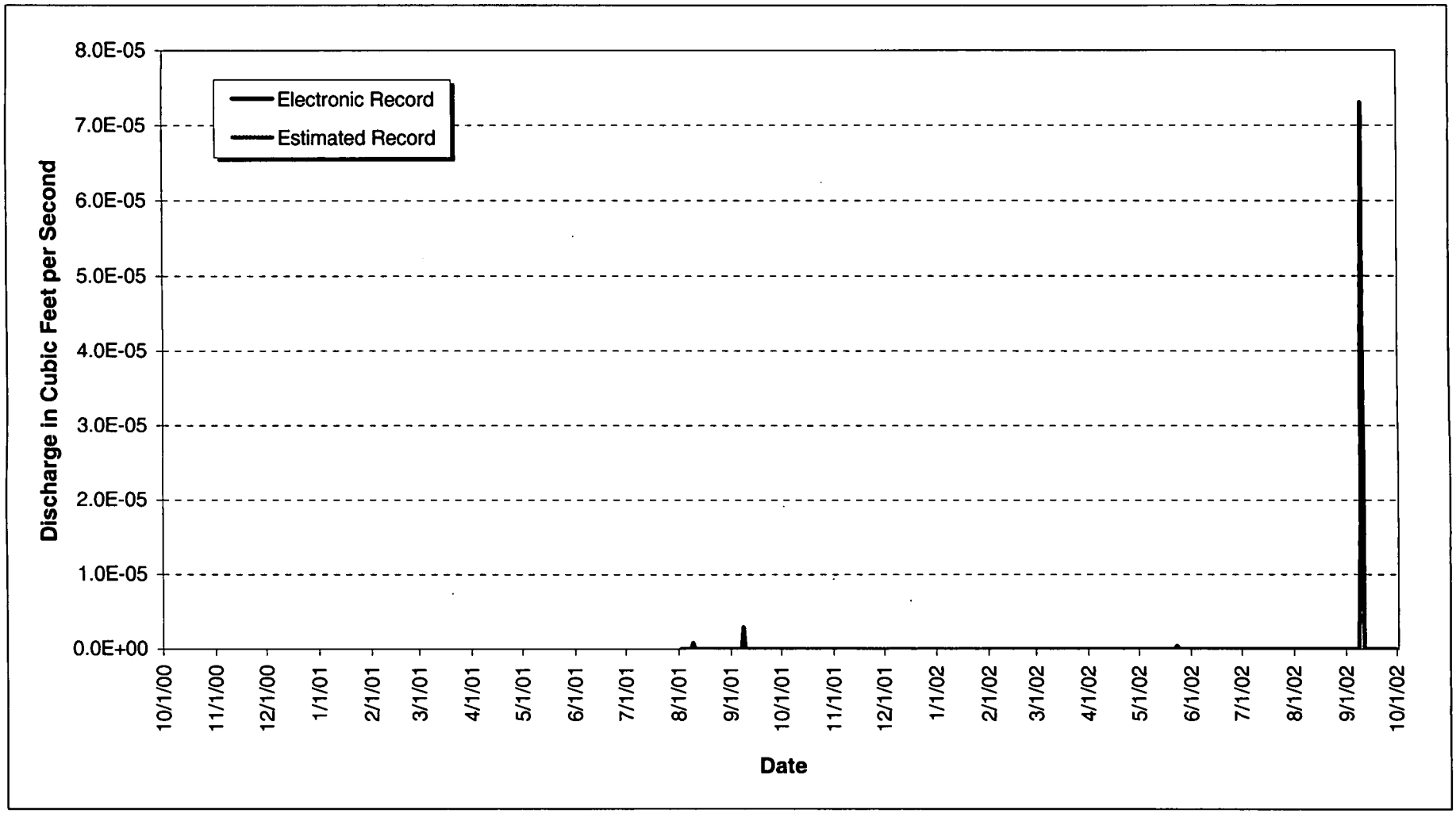


Figure 3-100. WY01-02 Mean Daily Hydrograph at GS53: Drainage Swale Southeast of 903 Pad.

3.2.35 GS54: Drainage Swale East-Southeast of 903 Pad

Location

Drainage Swale East-Southeast of 903 Pad; State Plane: 2087476, 748188

Drainage Area

- The basin includes a swale south and east of the 903 Pad (total of 9.5 acres)
- IA Areas draining to GS54: 900

Period of Record

8/22/01 to current year

Gage

Water-stage recorder and 0.6' HS-flume

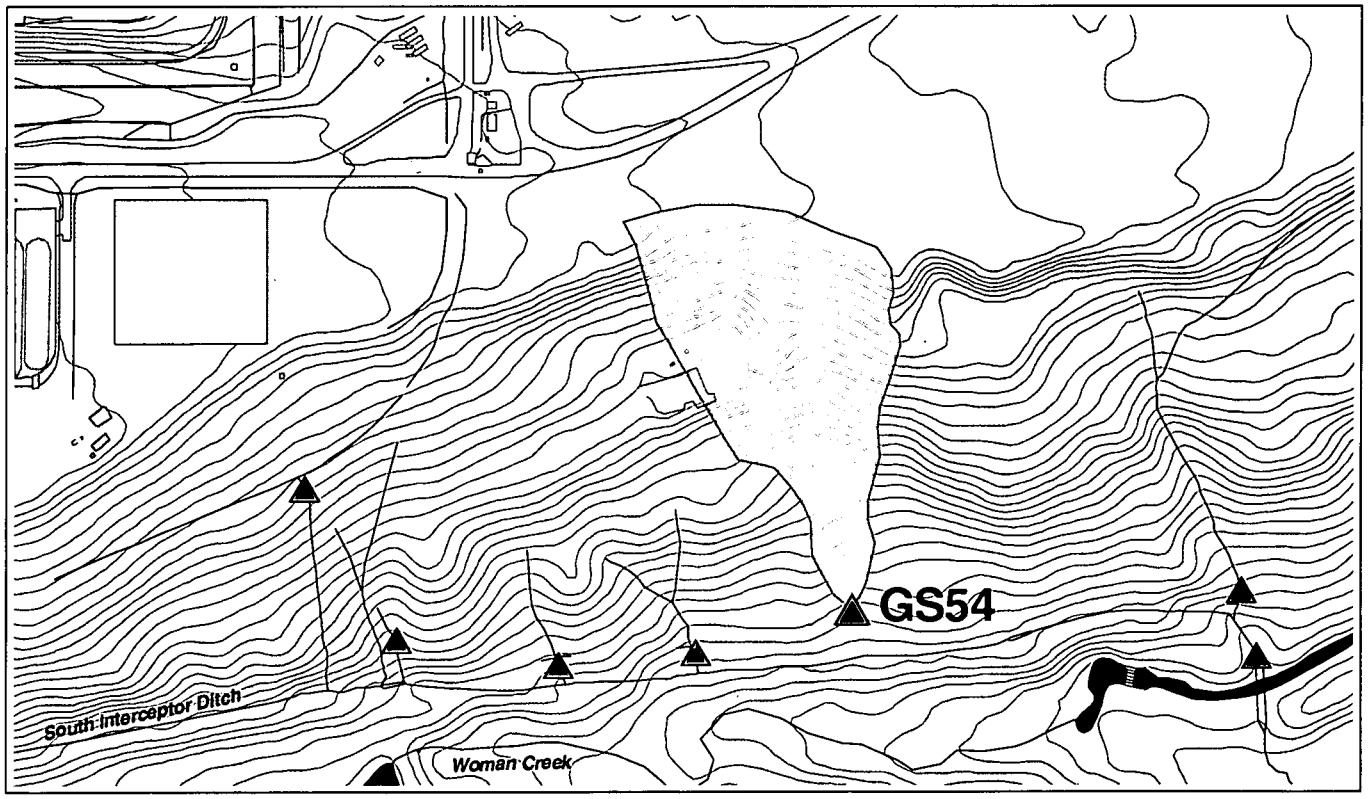


Figure 3-101. Map Showing GS54 Drainage Area.

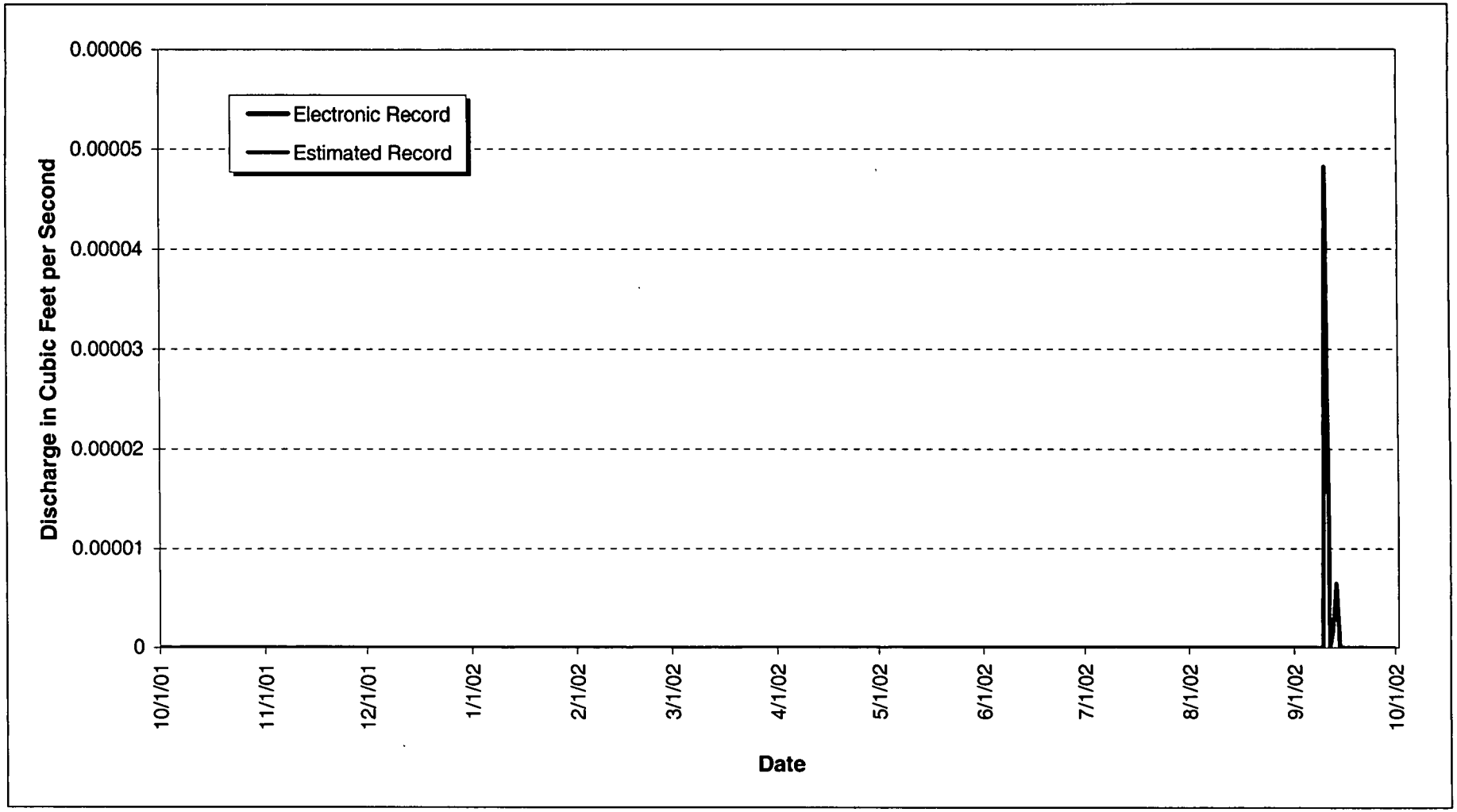


Figure 3-102. WY02 Mean Daily Hydrograph at GS54: Drainage Swale East-Southeast of 903 Pad.

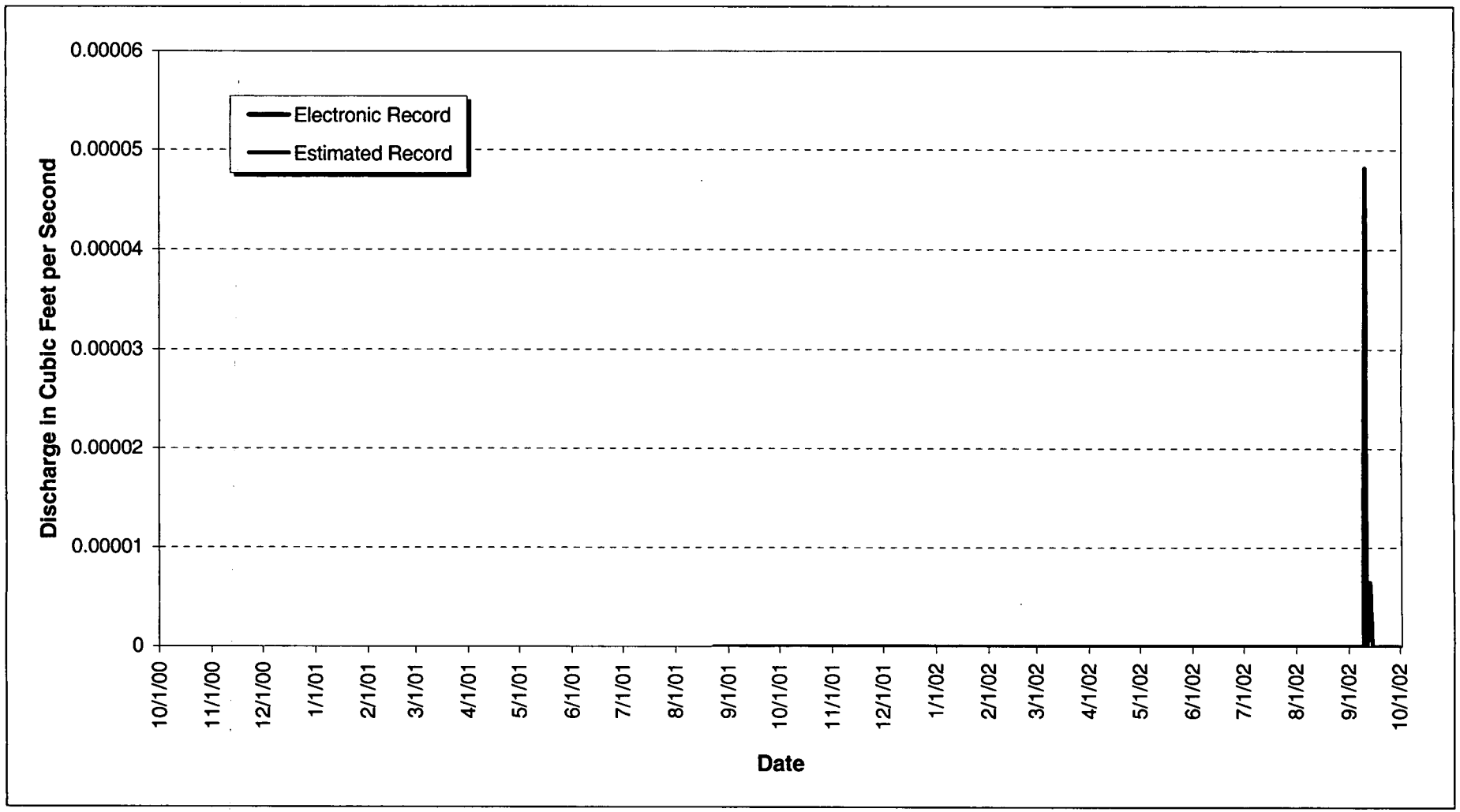


Figure 3-103. WY01-02 Mean Daily Hydrograph at GS54: Drainage Swale East-Southeast of 903 Pad.

3.2.36 GS55: Outfall to SID Draining B881 Area

Location

Outfall of small wetland area south of B881; State Plane: 2084112, 747824

Drainage Area

- The basin includes the entire area surrounding B881 (total of 14.8 acres)
- IA Areas draining to GS55: 800

Period of Record

4/8/02 to current year

Gage

Water-stage recorder and 120° V-notch weir box

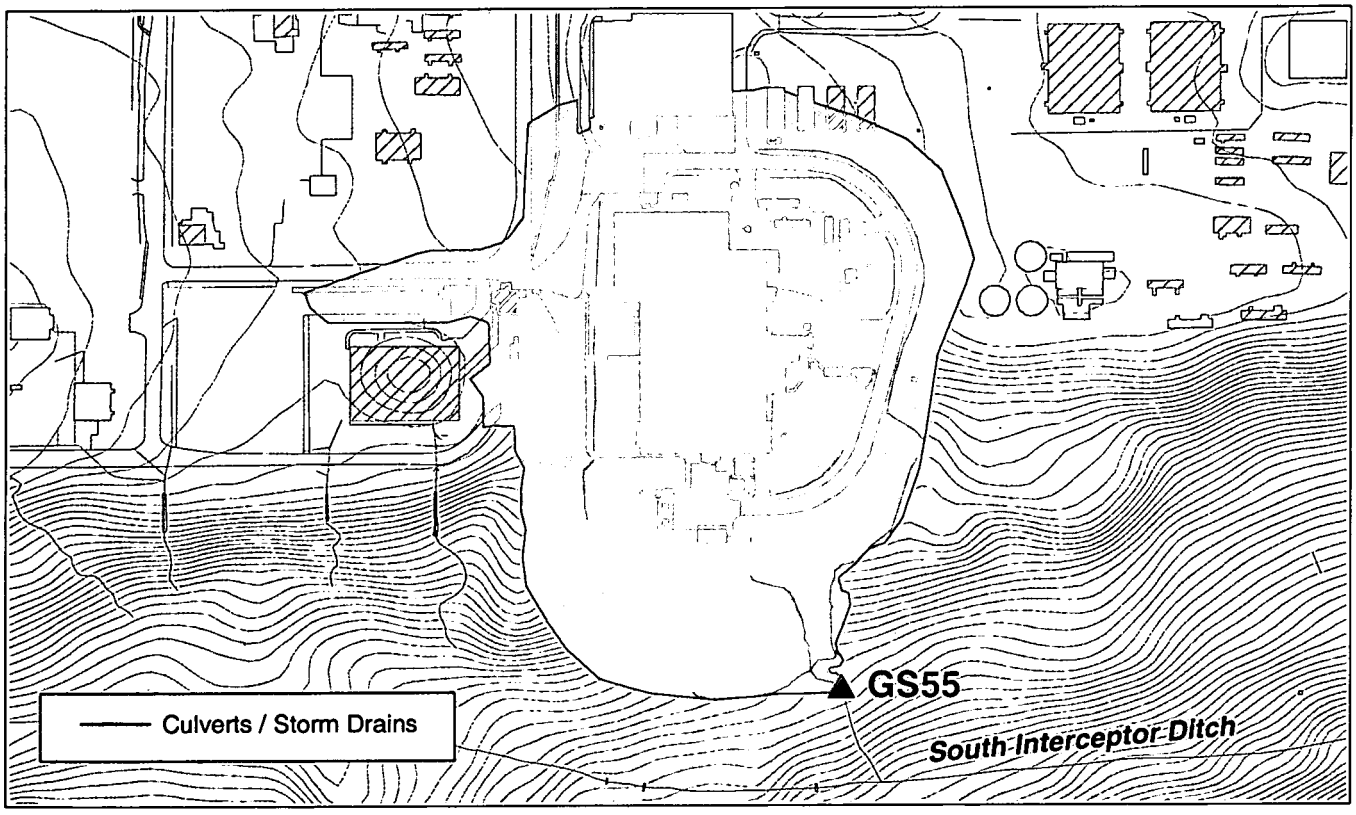


Figure 3-104. Map Showing GS55 Drainage Area.

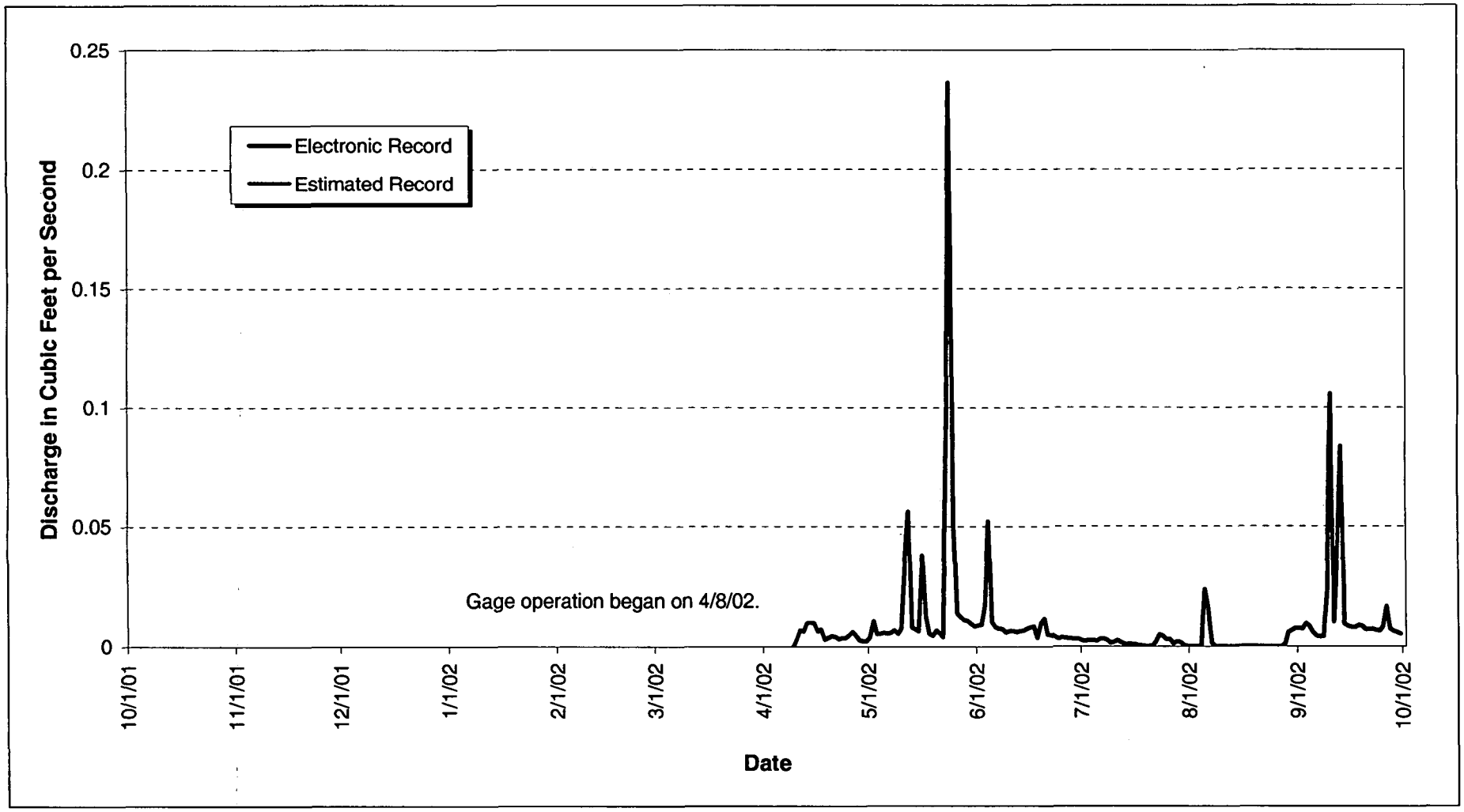


Figure 3-105. WY02 Mean Daily Hydrograph at GS55: Outfall to SID Draining B881 Area.

3.2.37 GS56: No Name Gulch 1350 feet Downstream of Landfill Pond

Location

No Name Gulch 1350ft below Landfill Pond; State Plane: 2085908, 753385

Drainage Area

- The basin includes the entire area surrounding the Present Landfill (total of 106.9 acres); water from the area draining directly to the Landfill Pond is normally pump transferred to the A-Series Ponds
- IA Areas draining to GS56: none

Period of Record

9/26/02 to current year

Gage

Water-stage recorder and 9-inch Parshall flume

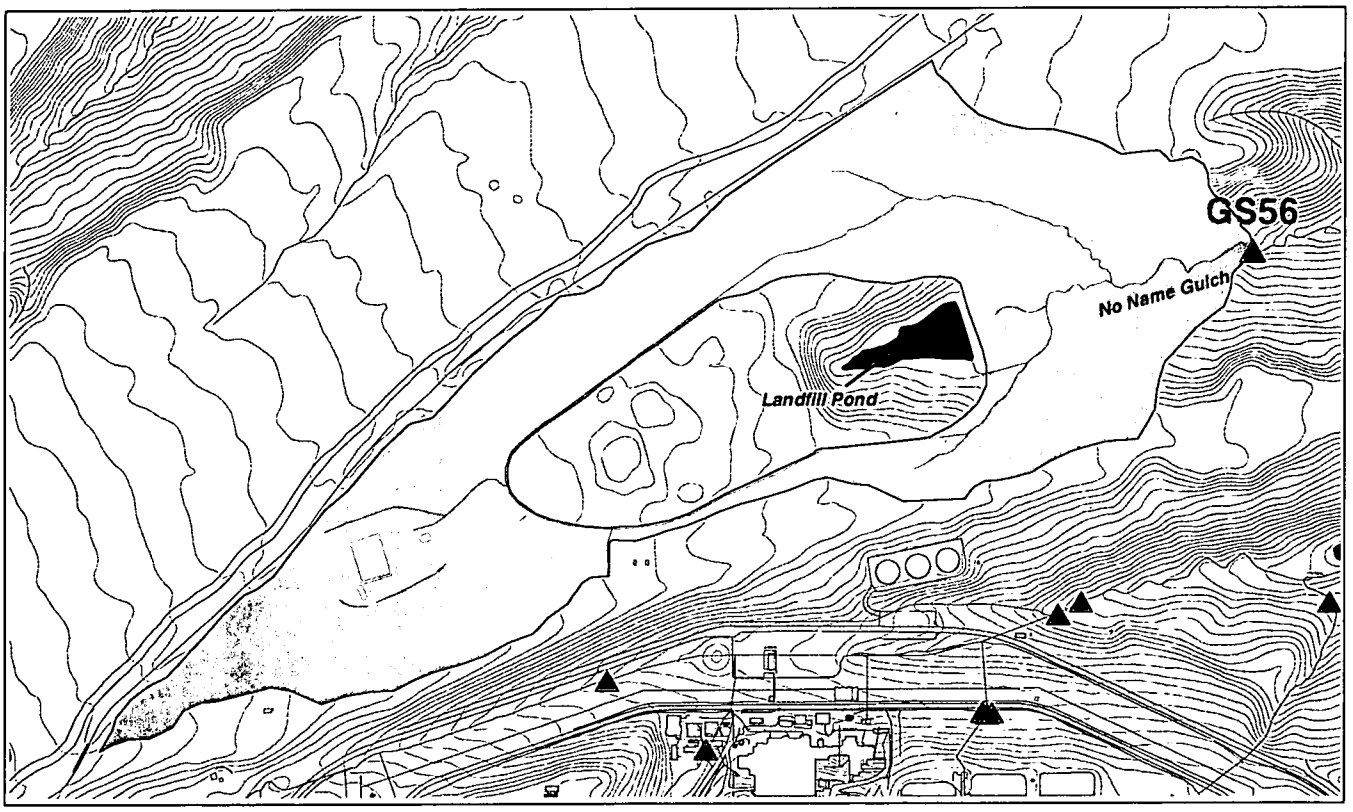


Figure 3-106. Map Showing GS56 Drainage Area.

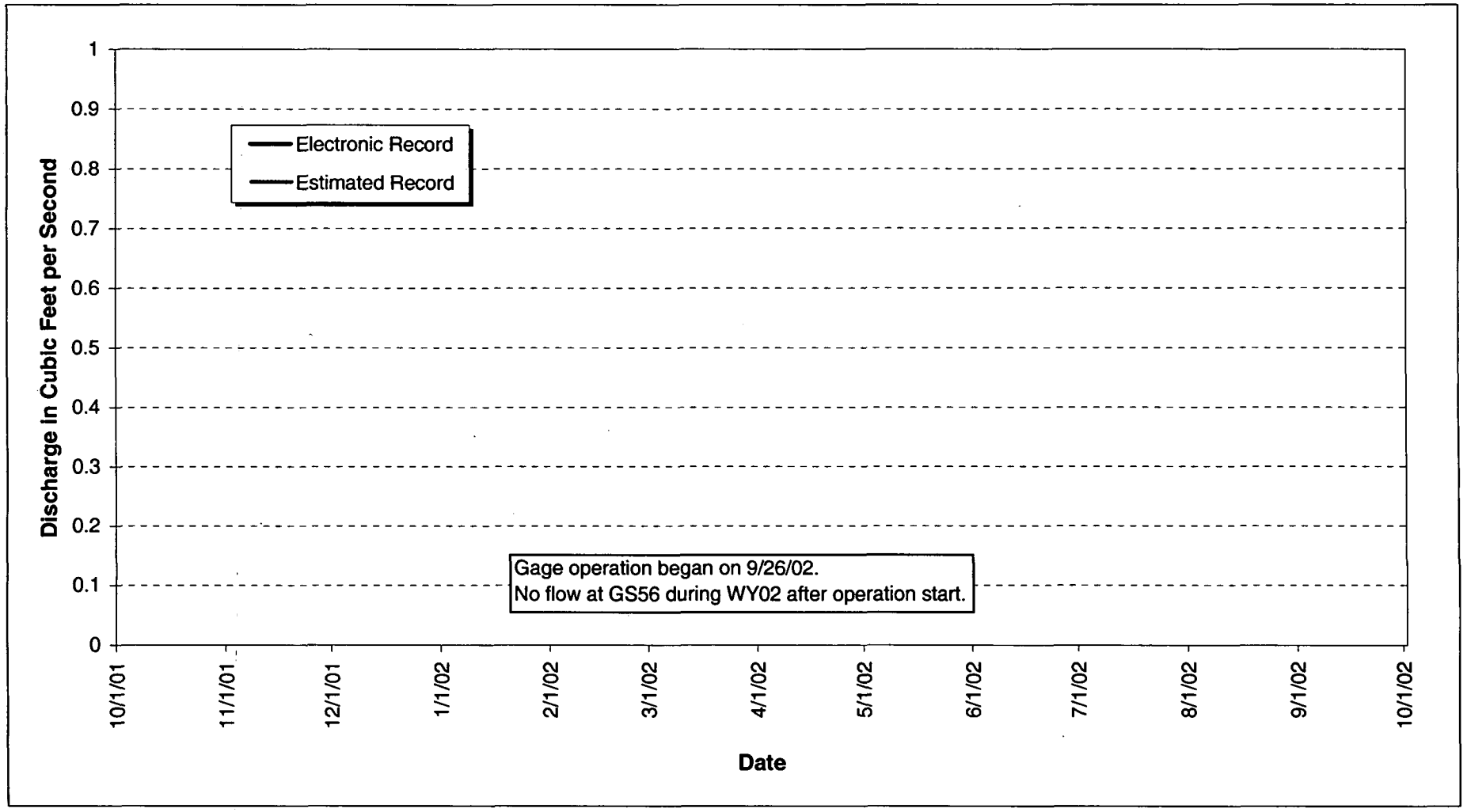


Figure 3-107. WY02 Mean Daily Hydrograph at GS56: No Name Gulch 1350 feet Downstream of Landfill Pond.

3.2.38 GS57: Northeast Corner 6th and Cottonwood

Location

Ditch NE of B444 area; State Plane: 2082847, 749006

Drainage Area

- The basin includes the northeast portion of the 400 Area (total of 8.6 acres)
- IA Areas draining to GS57: 400

Period of Record

3/13/02 to current year

Gage

Water-stage recorder and 9.5-inch Parshall flume

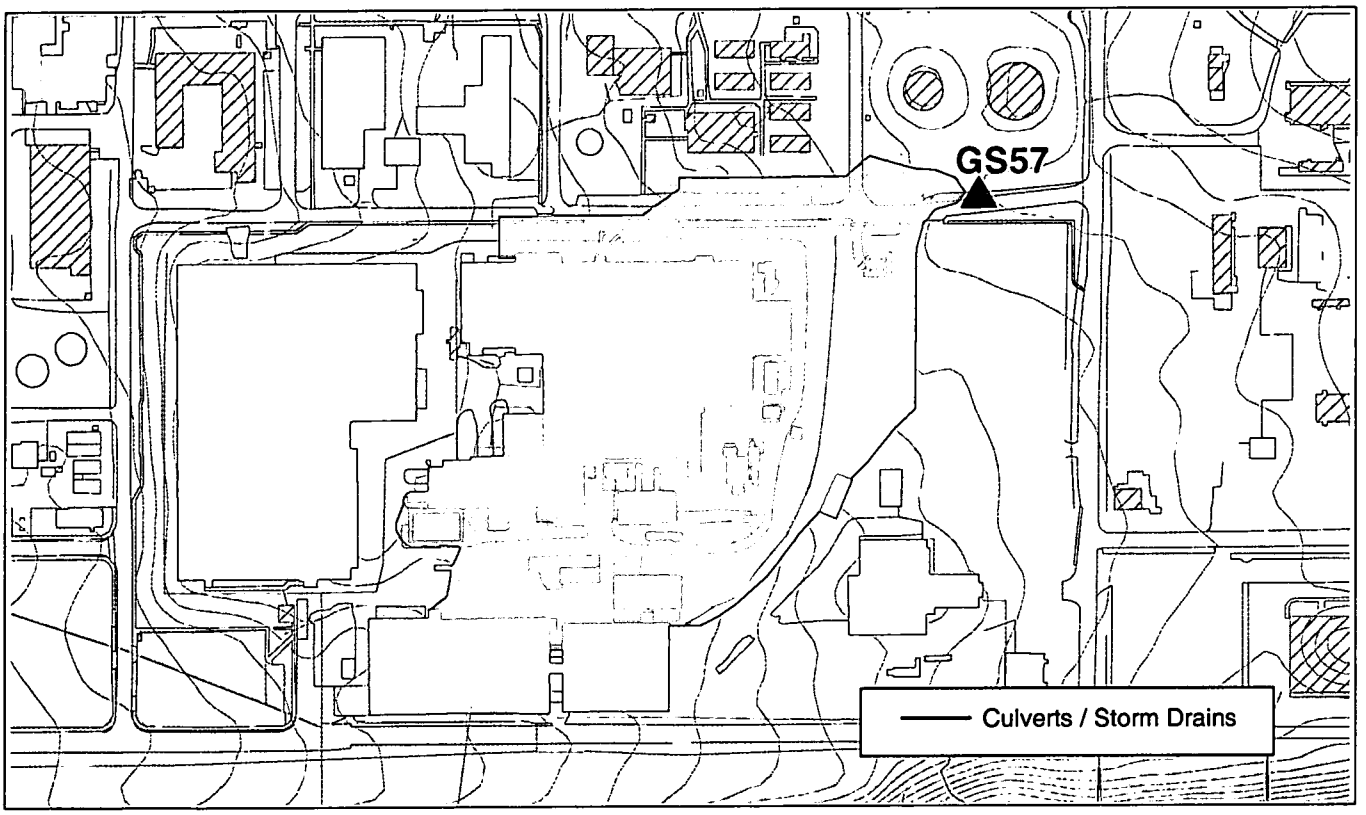


Figure 3-108. Map Showing GS57 Drainage Area.

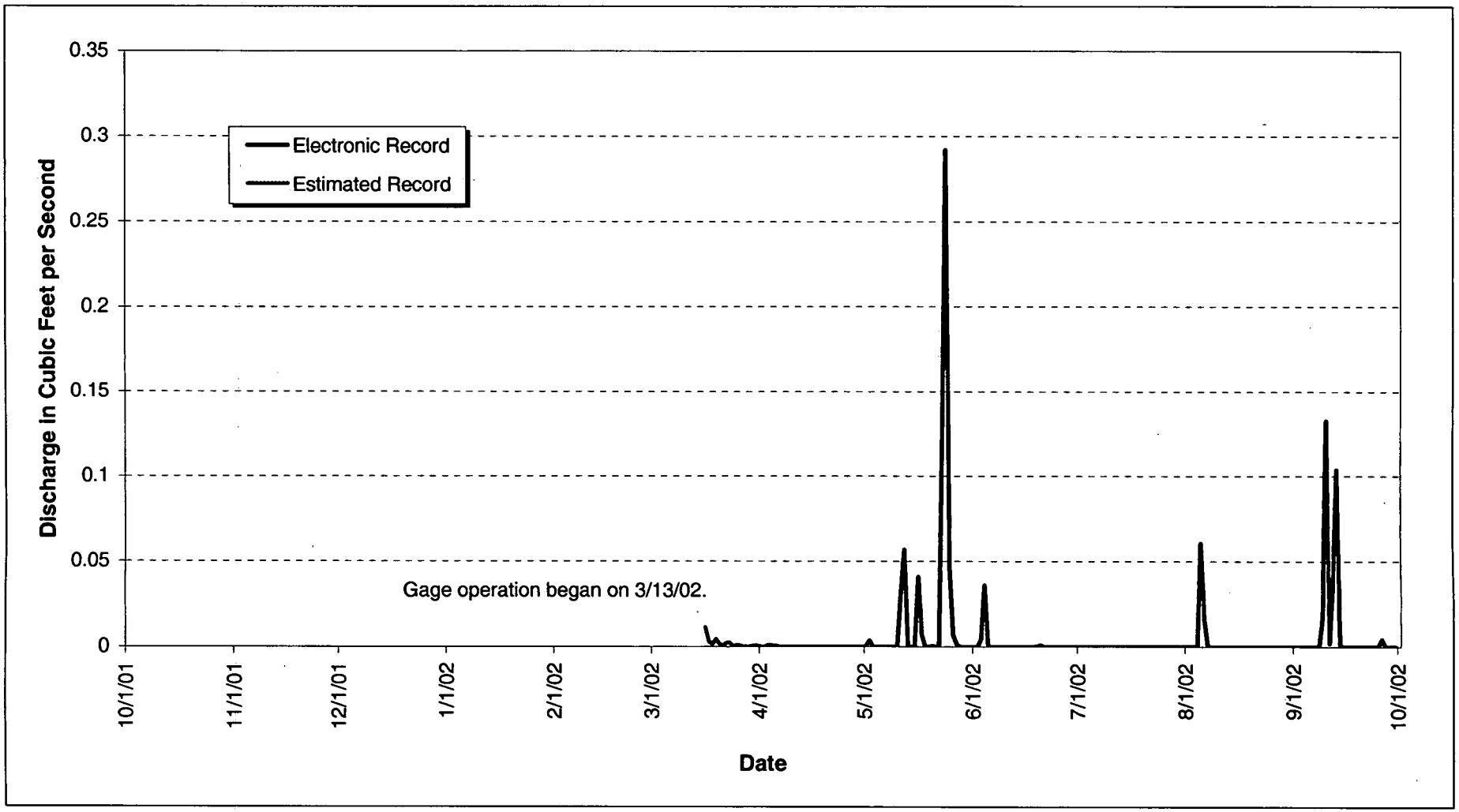


Figure 3-109. WY02 Mean Daily Hydrograph at GS57: Northeast Corner 6th and Cottonwood.

3.2.39 GS58: Culverts NW of B886

Location

Ditch below culverts NW of B886 area; State Plane: 2084349, 749255

Drainage Area

- Demolition of B886 and subsequent regrading was completed in May 2002. The demolition of the building, re-grading of the drainage area, and construction of a ditch east from B865 resulted in significant changes to the drainage area. As such, the location was removed on 8/26/02.
- The basin included the area between B865 and B886 (total of 2.2 acres)
- IA Areas draining to GS58: 800

Period of Record

3/19/02 to 8/26/02

Gage

No flow measurement at GS58

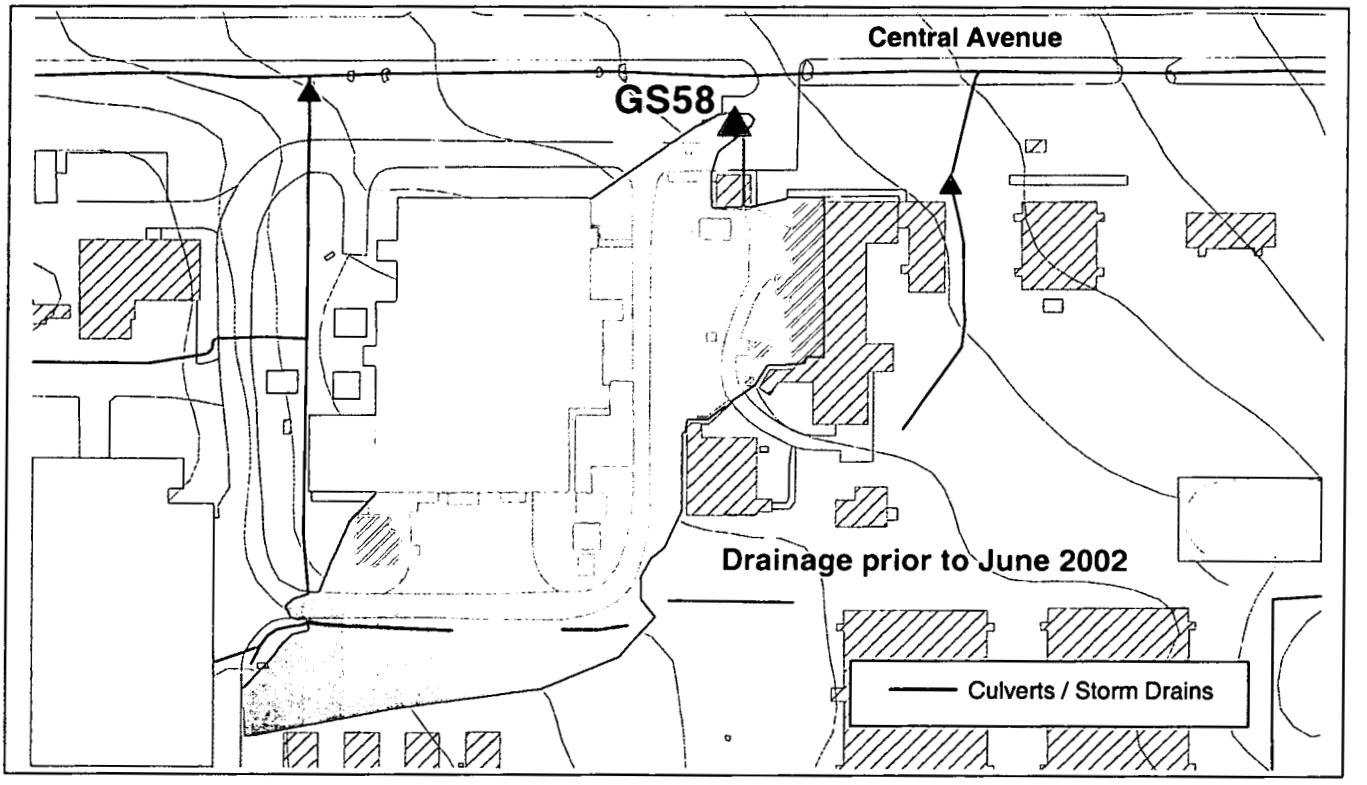


Figure 3-110. Map Showing GS58 Drainage Area.

3.2.40 SW009: McKay Bypass Upstream of West Diversion

Location

McKay Bypass upstream of West Diversion; State Plane: 2079449, 750287

Drainage Area

- The basin includes areas tributary to Upper Church and McKay ditches (total drainage acreage undetermined)
- IA Areas draining to SW009: none

Period of Record

4/19/00 to current year

Gage

Water-stage recorder and 1' Parshall flume

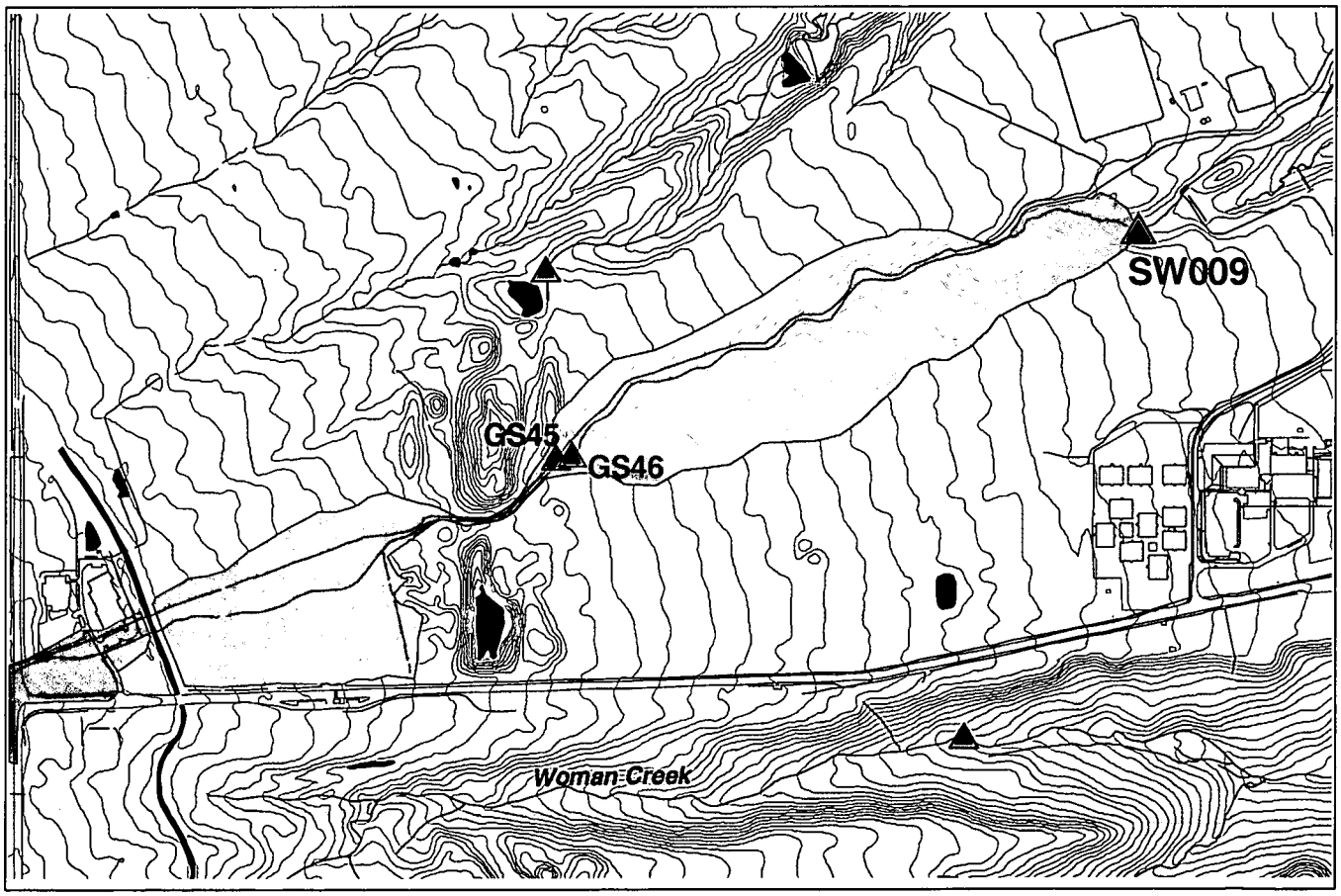


Figure 3-111. Map Showing SW009 Drainage Area.

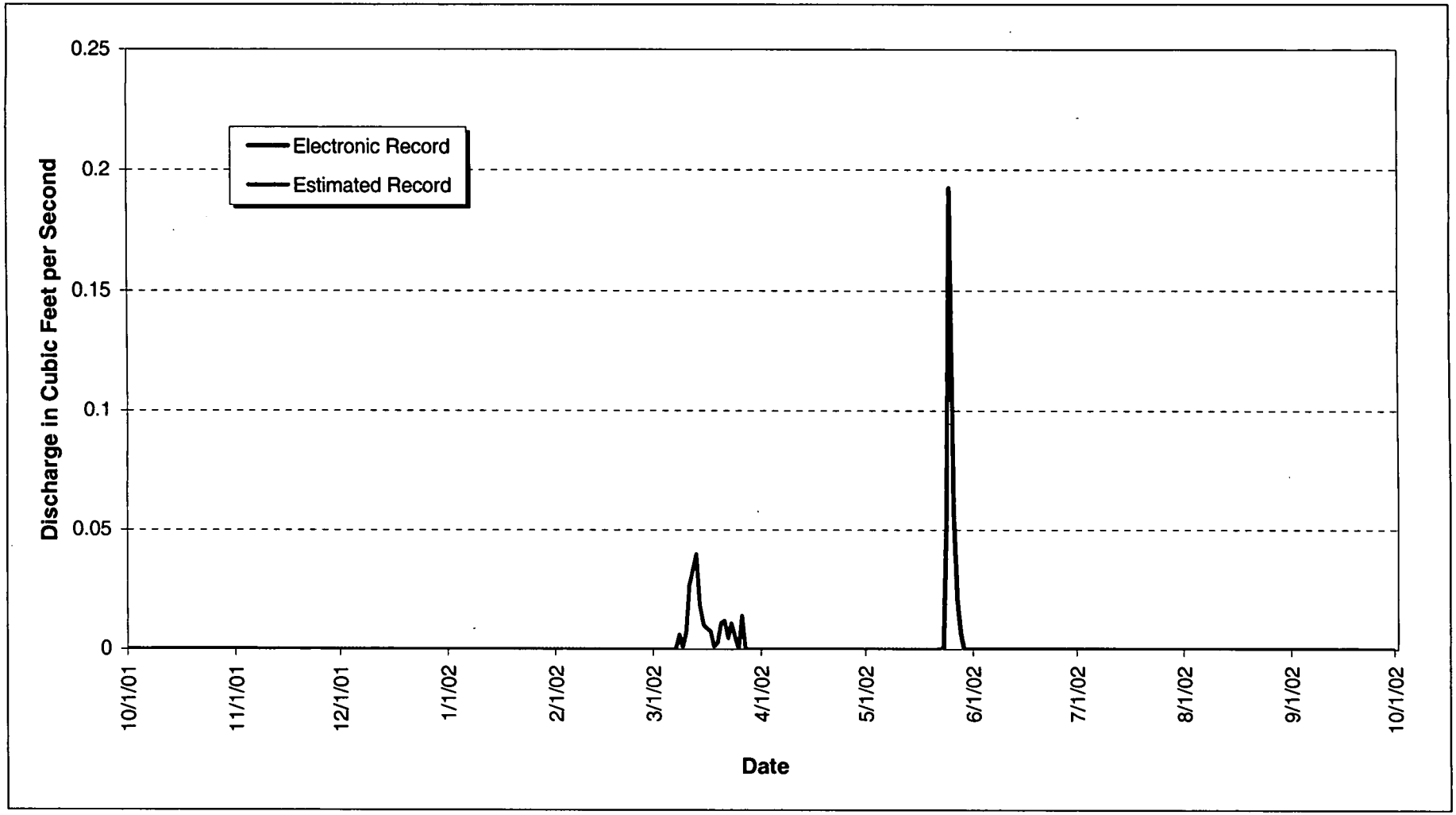


Figure 3-112. WY02 Mean Daily Hydrograph at SW009: McKay Bypass Canal Upstream of West Diversion.

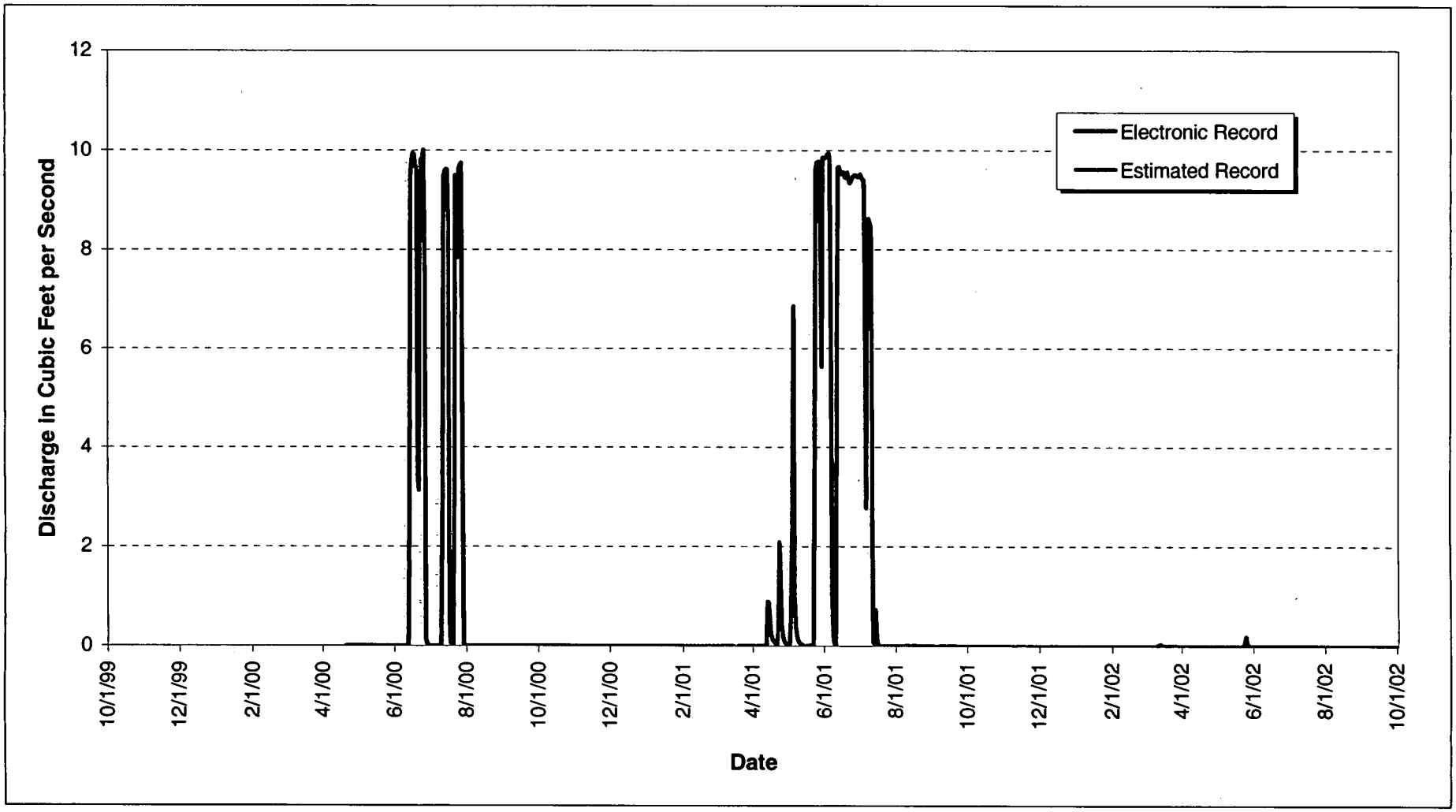


Figure 3-113. WY00-02 Mean Daily Hydrograph at SW009: McKay Bypass Canal Upstream of West Diversion.

3.2.41 SW022: East End of Central Avenue Ditch

Location

East end of Central Ave. Ditch; State Plane: 2086438, 749759

Drainage Area

- The basin includes the IA south of Central Ave. Ditch (total of 76.1 acres)
- IA Areas draining to SW022: 900, 800, 600, 400, and 100

Period of Record

9/11/91 to current year

Gage

Water-stage recorder and 9.5" Parshall flume

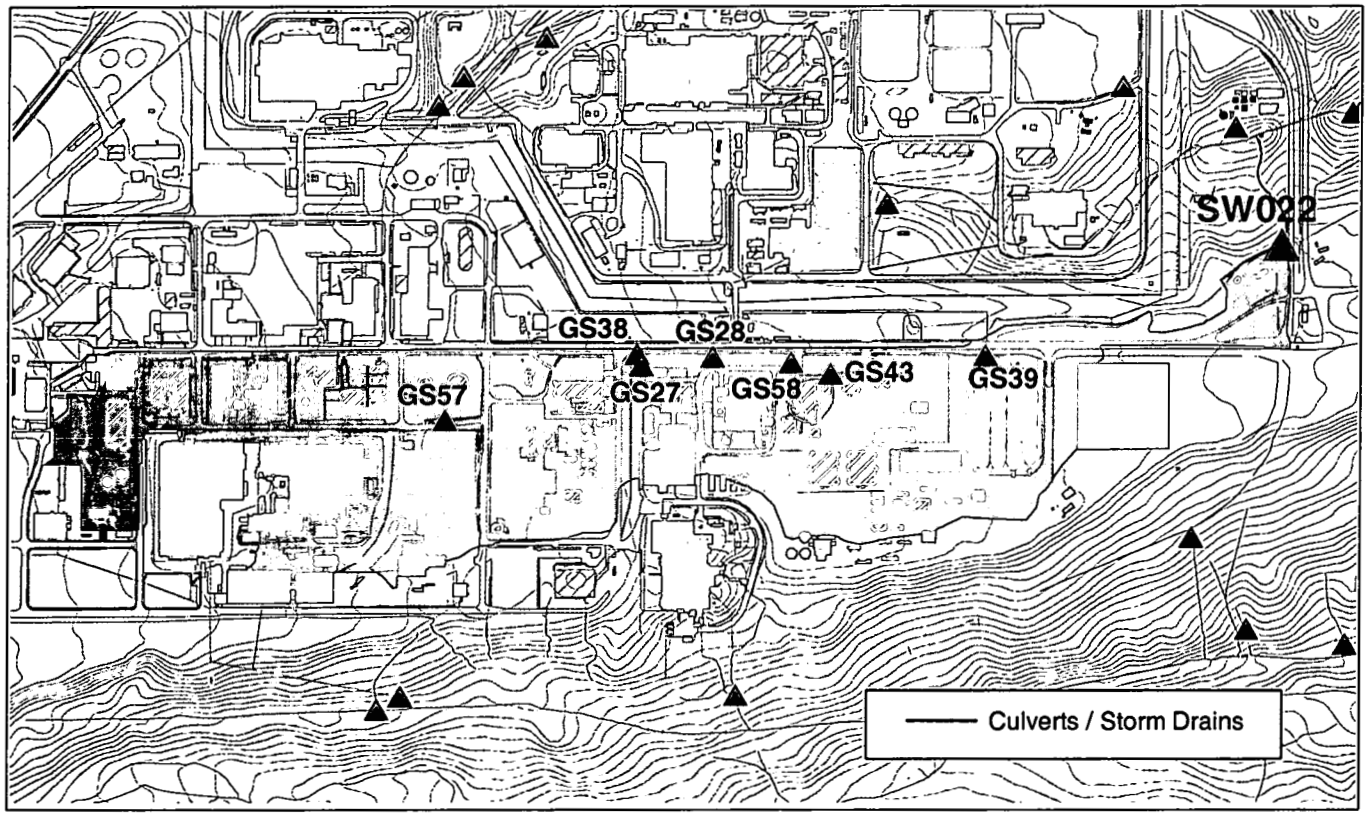


Figure 3-114. Map Showing SW022 Drainage Area.

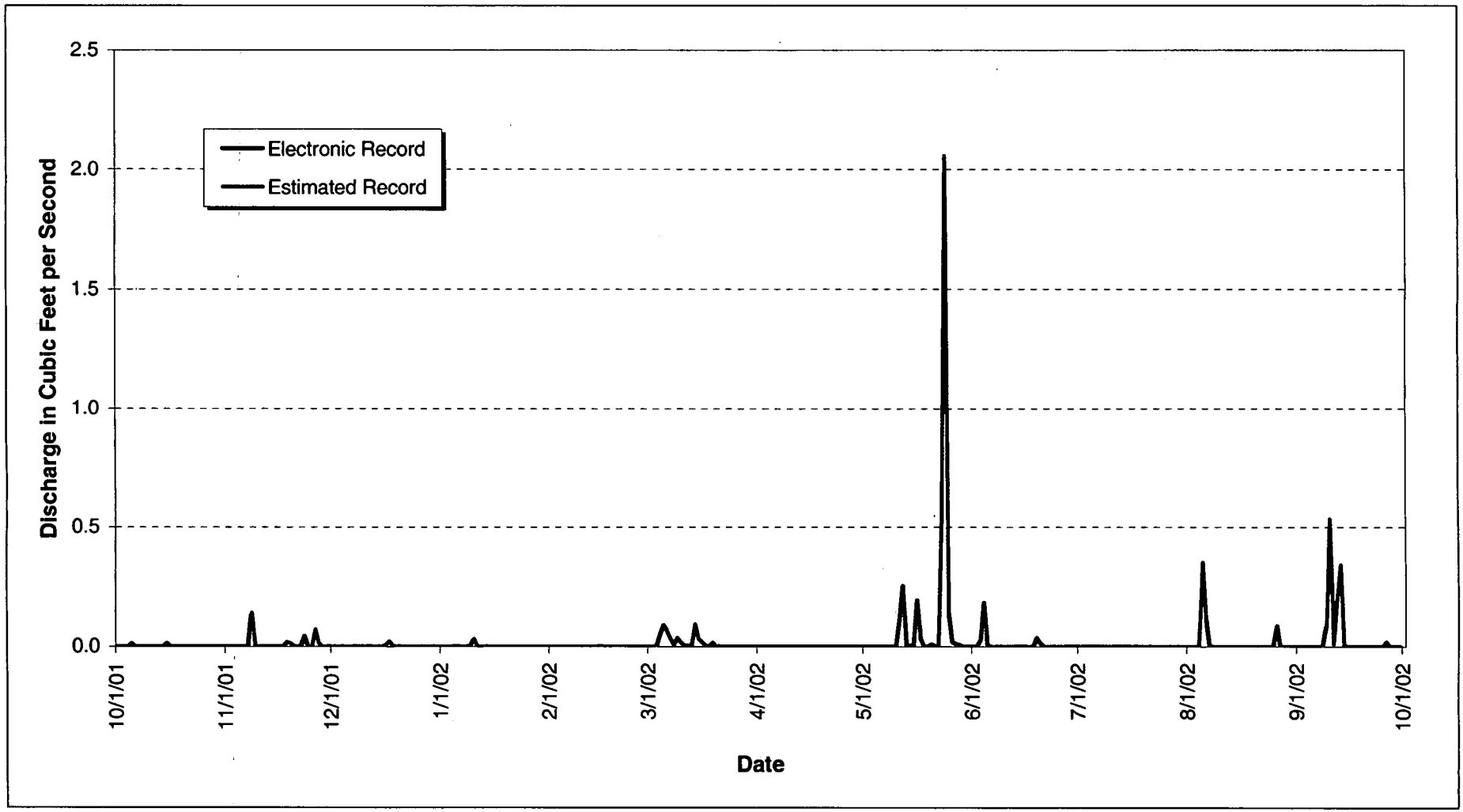


Figure 3-115. WY02 Mean Daily Hydrograph at SW022: East End of Central Avenue Ditch.

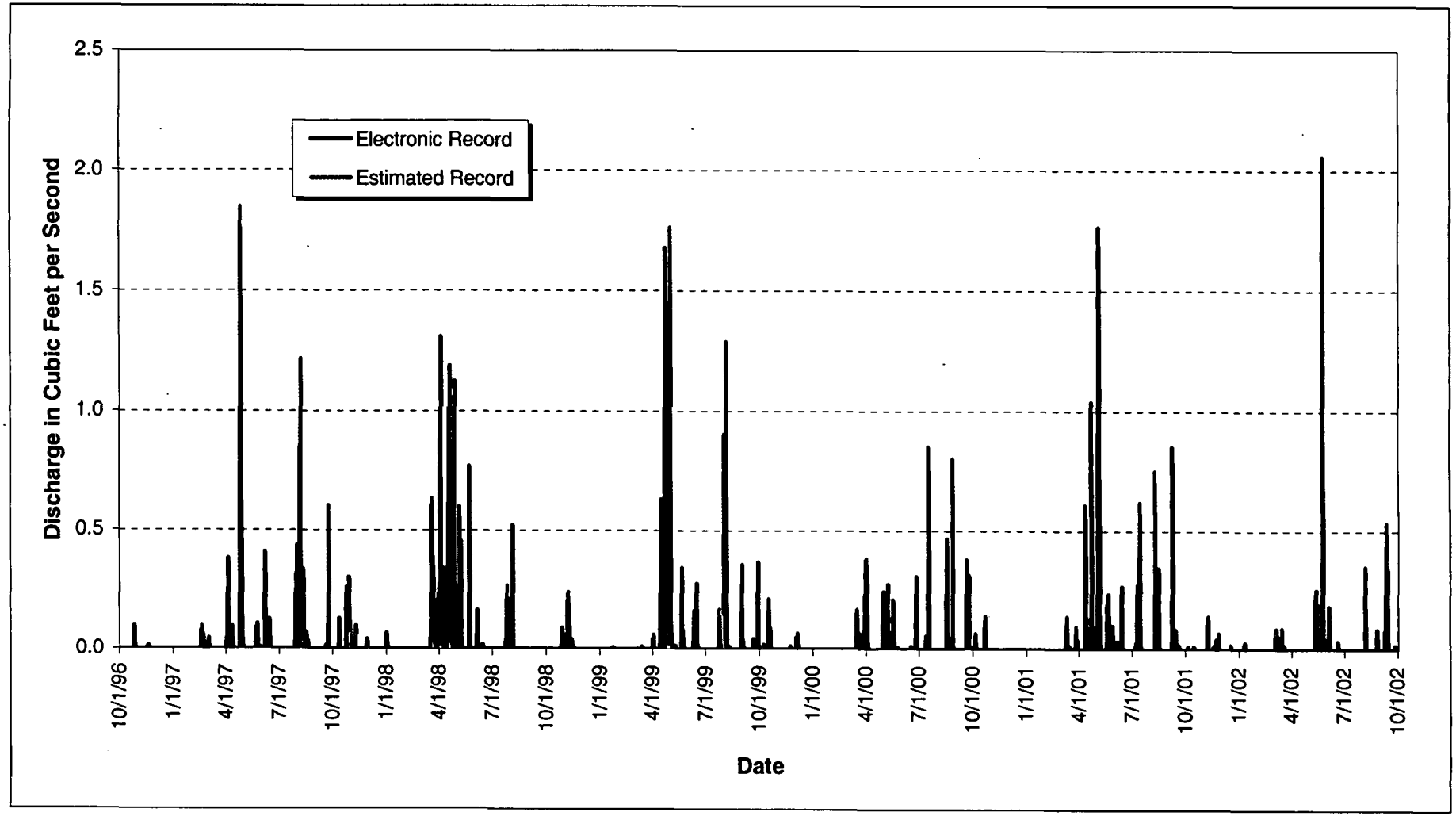


Figure 3-116. WY97-02 Mean Daily Hydrograph at SW022: East End of Central Avenue Ditch.

3.2.42 SW027: South Interceptor Ditch at Pond C-2

Location

East end of South Interceptor Ditch at Pond C-2; State Plane: 2088515, 748067

Drainage Area

- The basin includes the a portion of the southern IA and the area east of the inner fence and south of the East Access Rd. (total of 215.9 acres)
- IA Areas draining to SW027: 900, 800, 600, and 400

Period of Record

9/11/91 to current year

Gage

Water-stage recorder and dual, parallel 120° v-notch weirs

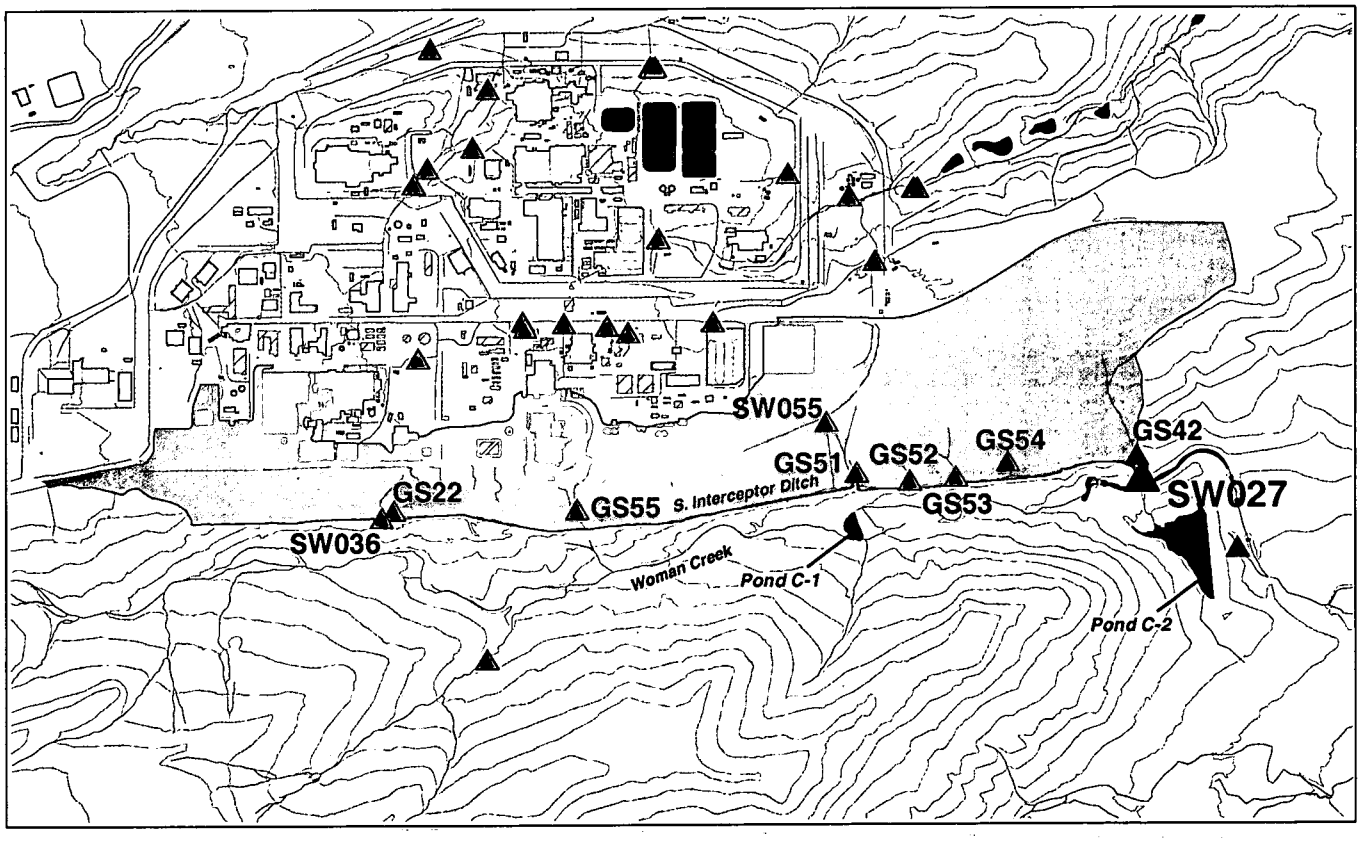


Figure 3-117. Map Showing SW027 Drainage Area.

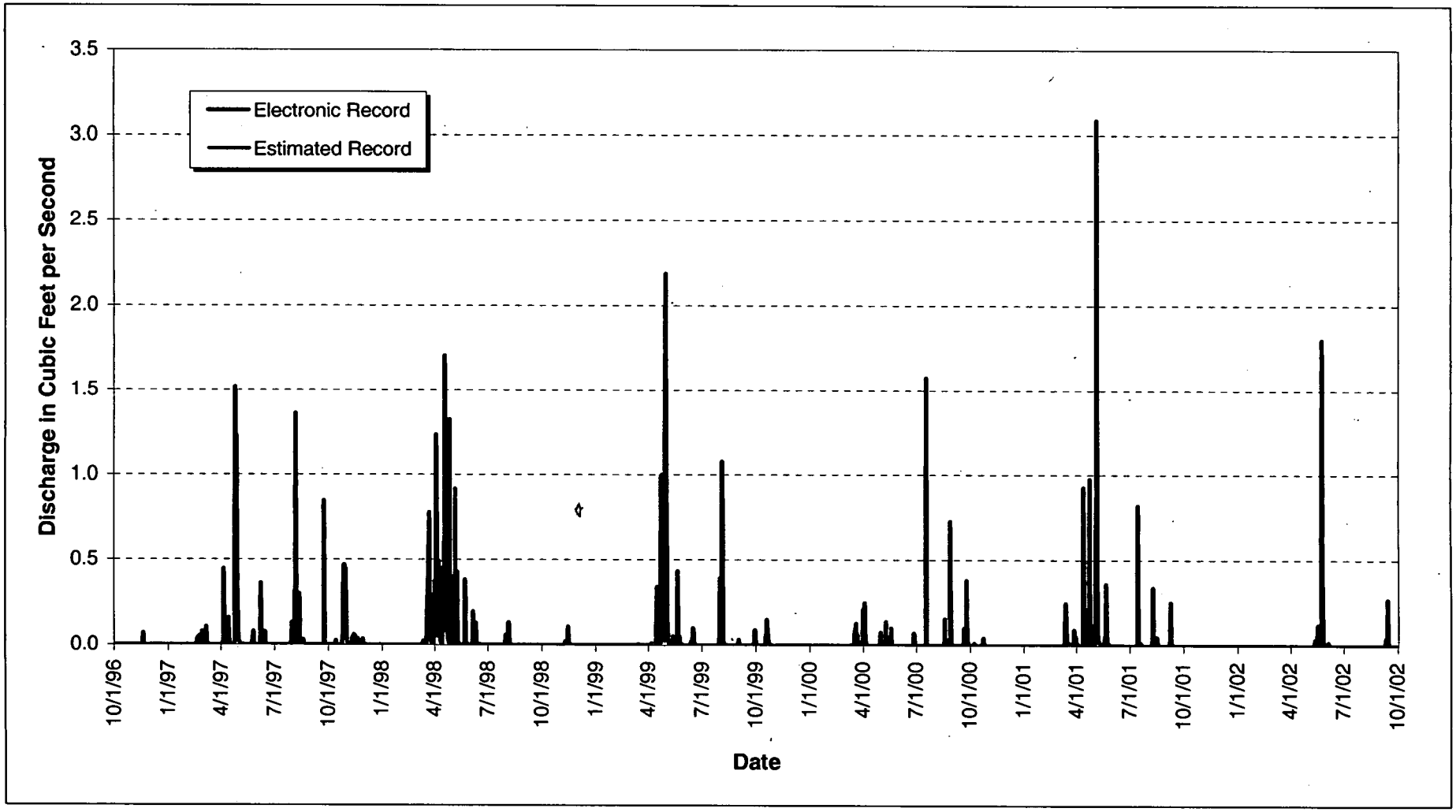


Figure 3-119. WY97-02 Mean Daily Hydrograph at SW027: South Interceptor Ditch at Pond C-2.

3.2.43 SW036: SID South of B664 Upstream of 400 Area Outfall

Location

South Interceptor Ditch 500 feet downstream of Original Landfill; State Plane: 2082579, 747762

Drainage Area

- The basin includes the majority of the hillside south of the 400 Area north of the SID (total of 16.4 acres)
- IA Areas draining to SW036: None

Period of Record

6/13/02 to current year

Gage

Water-stage recorder and 6-inch Parshall flume

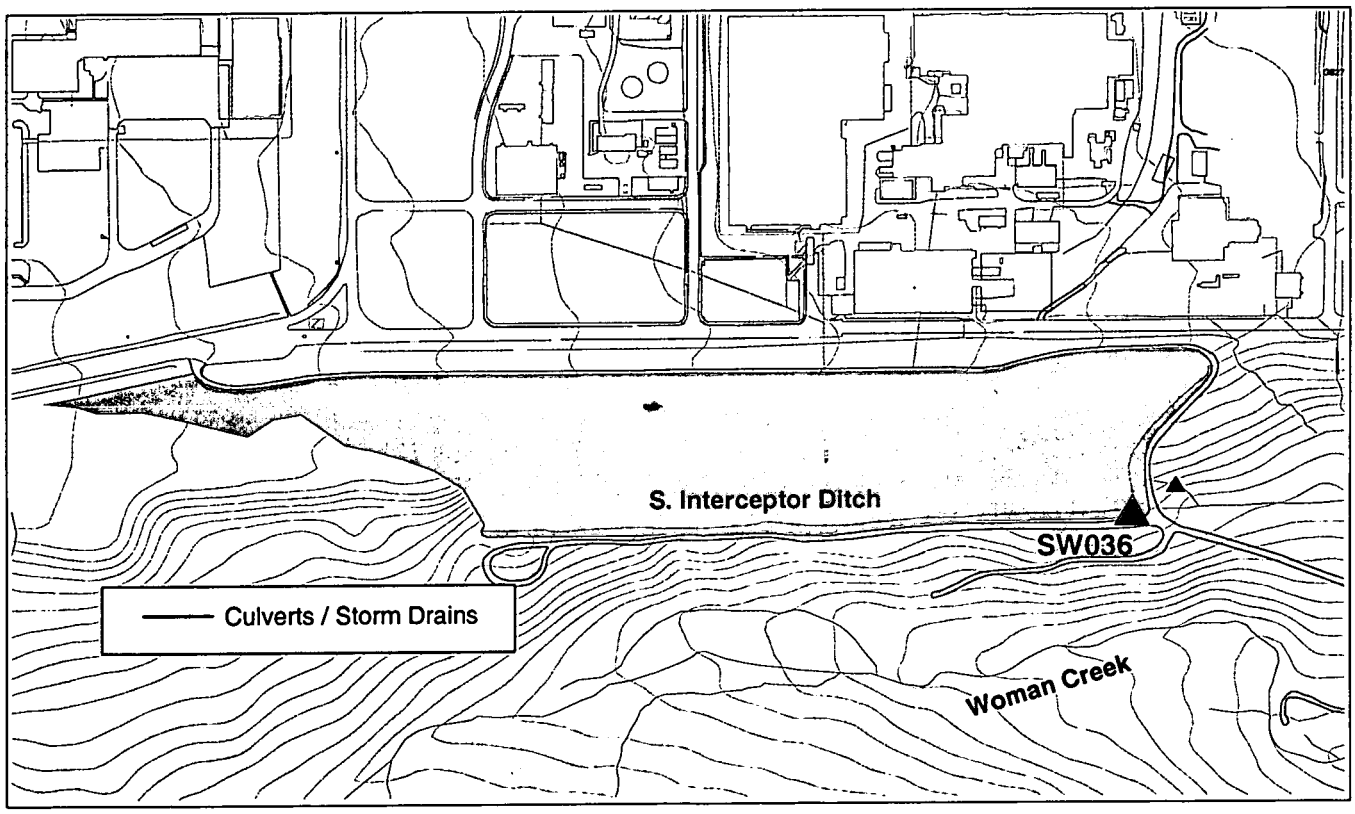


Figure 3-120. Map Showing SW036 Drainage Area.

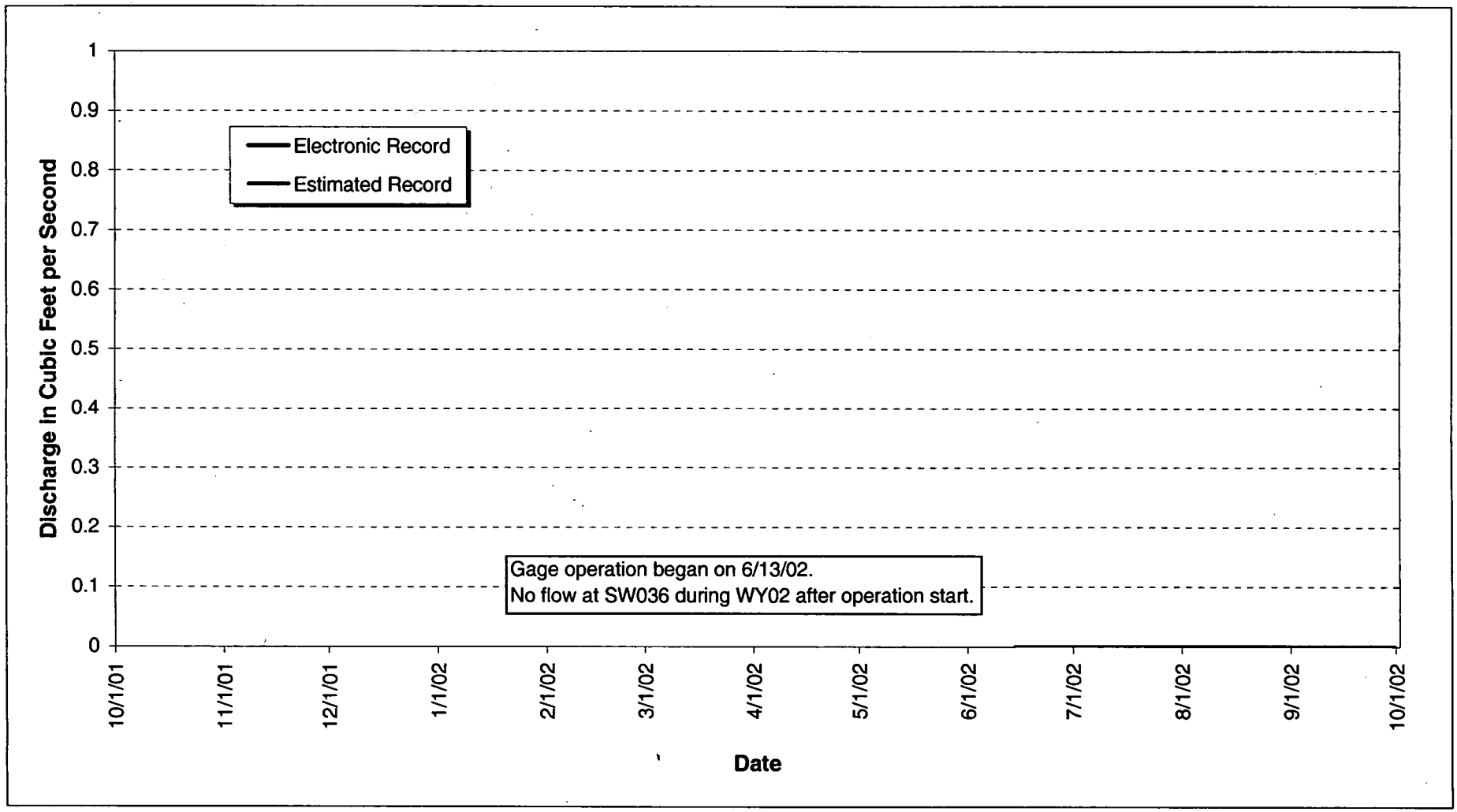


Figure 3-121. WY02 Mean Daily Hydrograph at SW036: SID South of B664 Upstream of 400 Area Outfall.

3.2.44 SW055: Ditch South of 903 Pad at Inner Fence

Location

Ditch South of 903 Pad at Inner Fence; State Plane: 2086059, 748501

Drainage Area

- The basin includes areas south and east of the 903 Pad (total of 17.3 acres)
- IA Areas draining to SW055: 900

Period of Record

5/22/01 to current year

Gage

Water-stage recorder and 0.75' H-flume

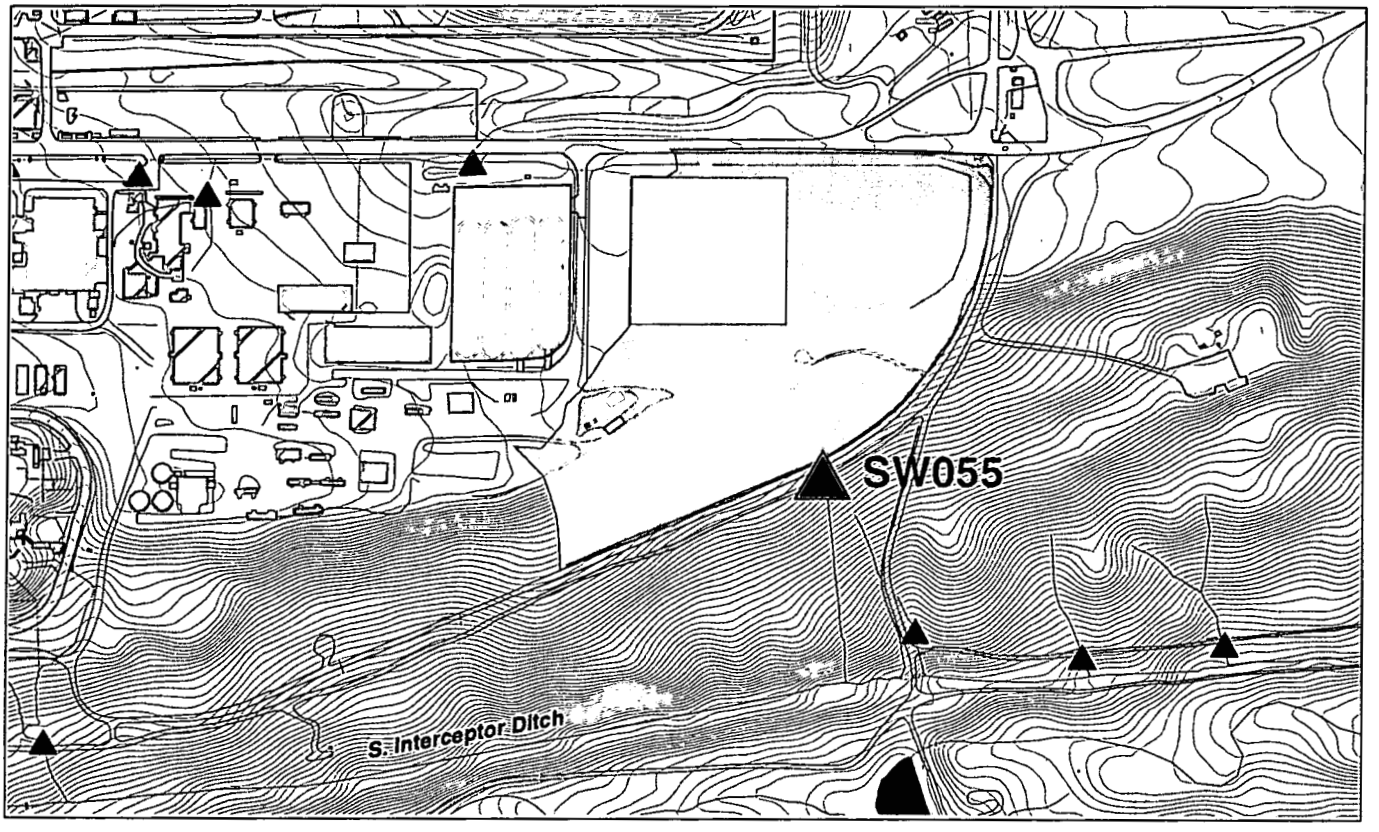


Figure 3-122. Map Showing SW055 Drainage Area.

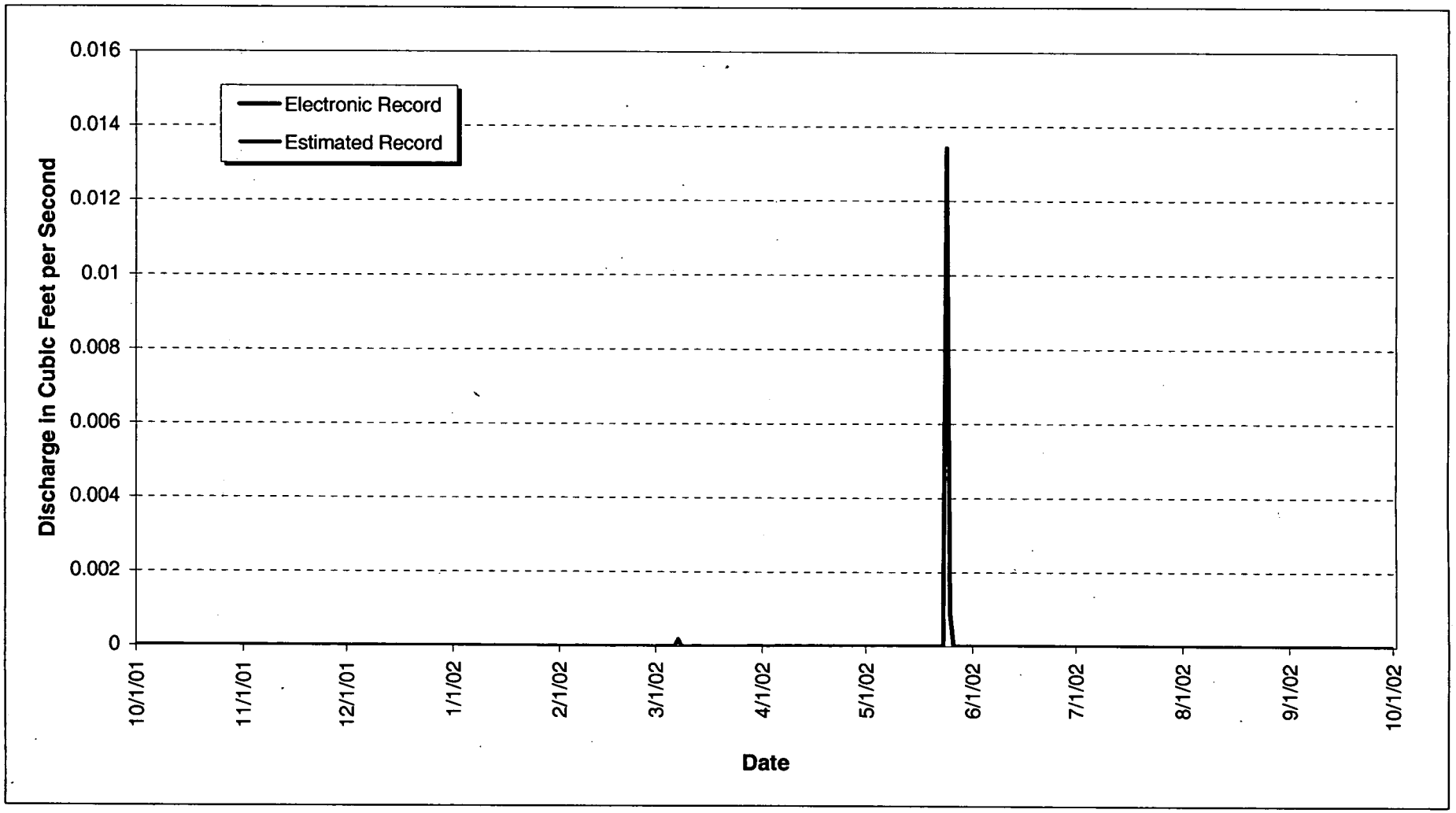


Figure 3-123. WY02 Mean Daily Hydrograph at SW055: Ditch South of 903 Pad at Inner Fence.

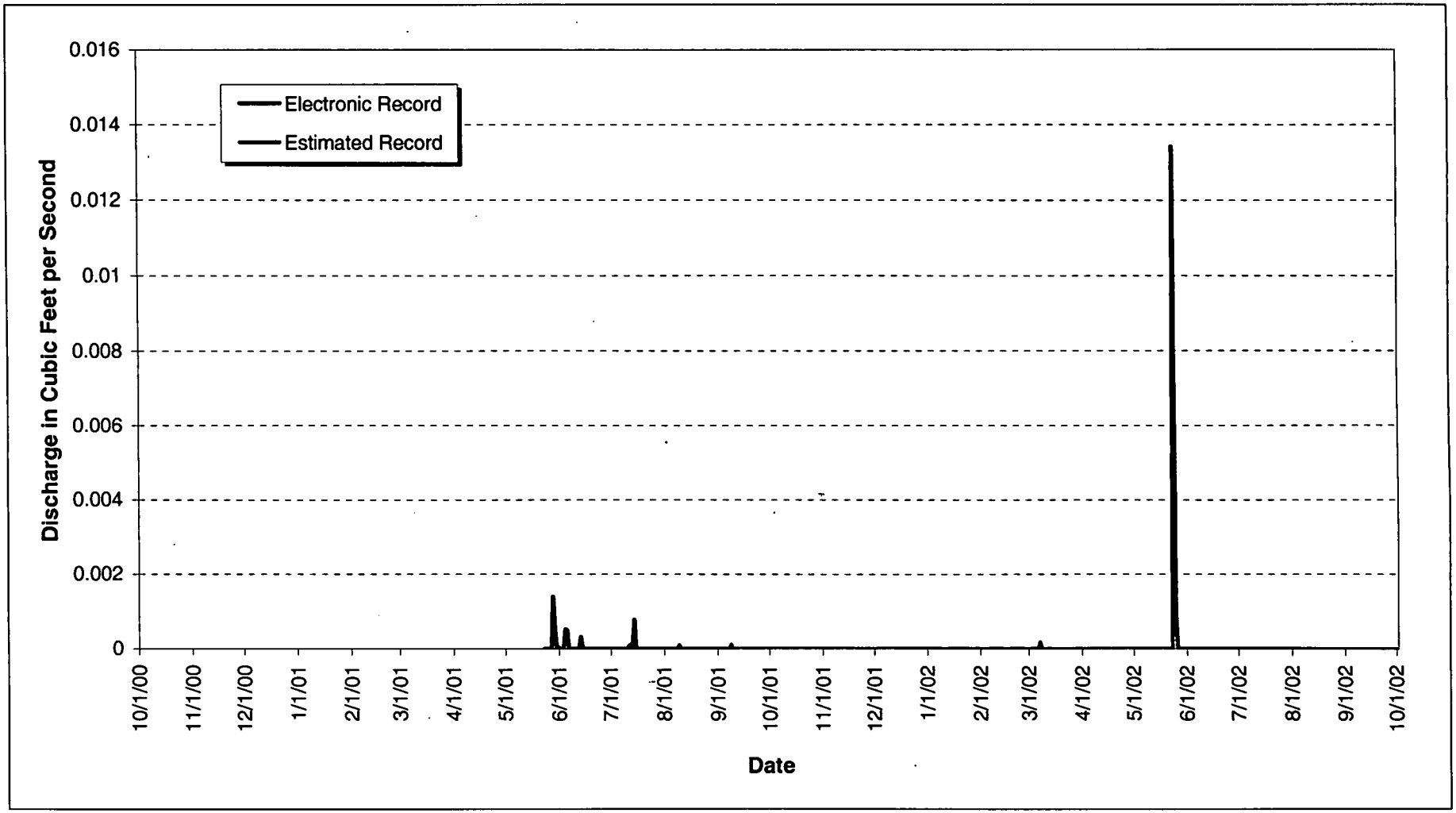


Figure 3-124. WY01-02 Mean Daily Hydrograph at SW055: Ditch South of 903 Pad at Inner Fence.

3.2.45 SW091: North Walnut Creek Tributary Northeast of Solar Ponds

Location

North Walnut Creek tributary draining area NE of Solar Ponds; State Plane: 2086267, 751775

Drainage Area

- The basin includes the area NE of the Solar Ponds (total of 10.2 acres)
- IA Areas draining to SW091: 900

Period of Record

4/18/95 to current year

Gage

Water-stage recorder and 6" cutthroat flume; 1.5' H-flume located 400 feet upstream prior to 5/4/98.

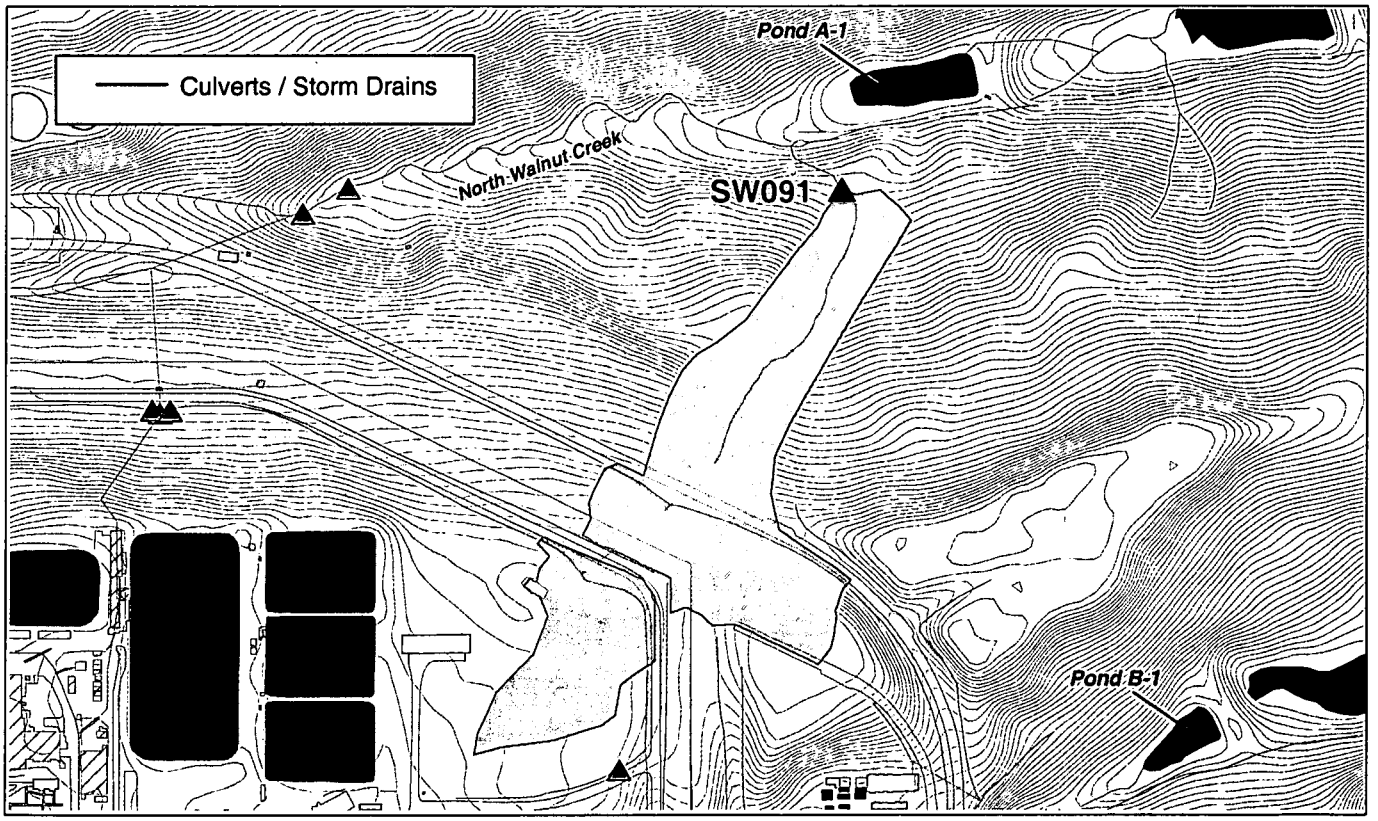


Figure 3-125. Map Showing SW091 Drainage Area.

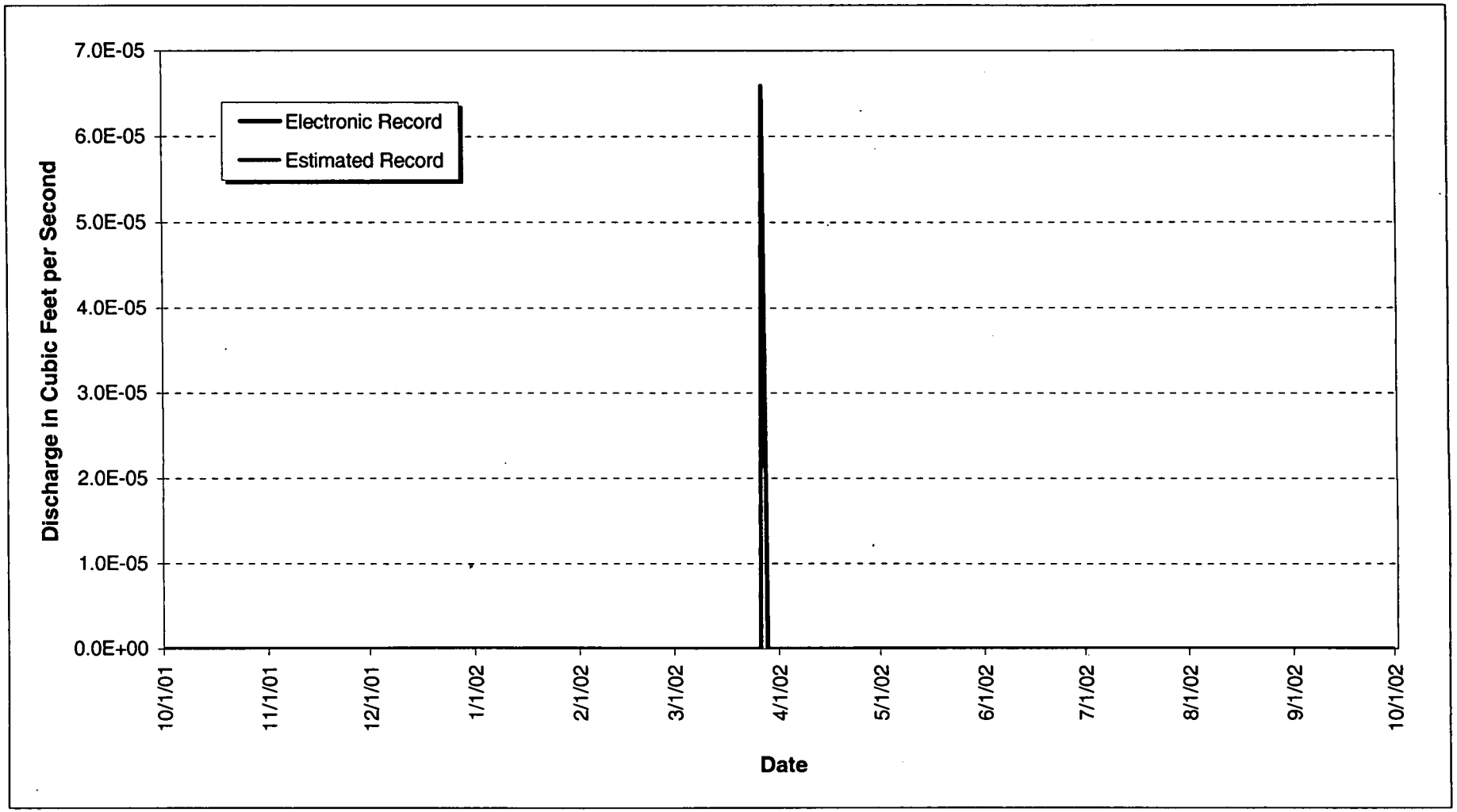


Figure 3-126. WY02 Mean Daily Hydrograph at SW091: North Walnut Creek Tributary Northeast of Solar Ponds.

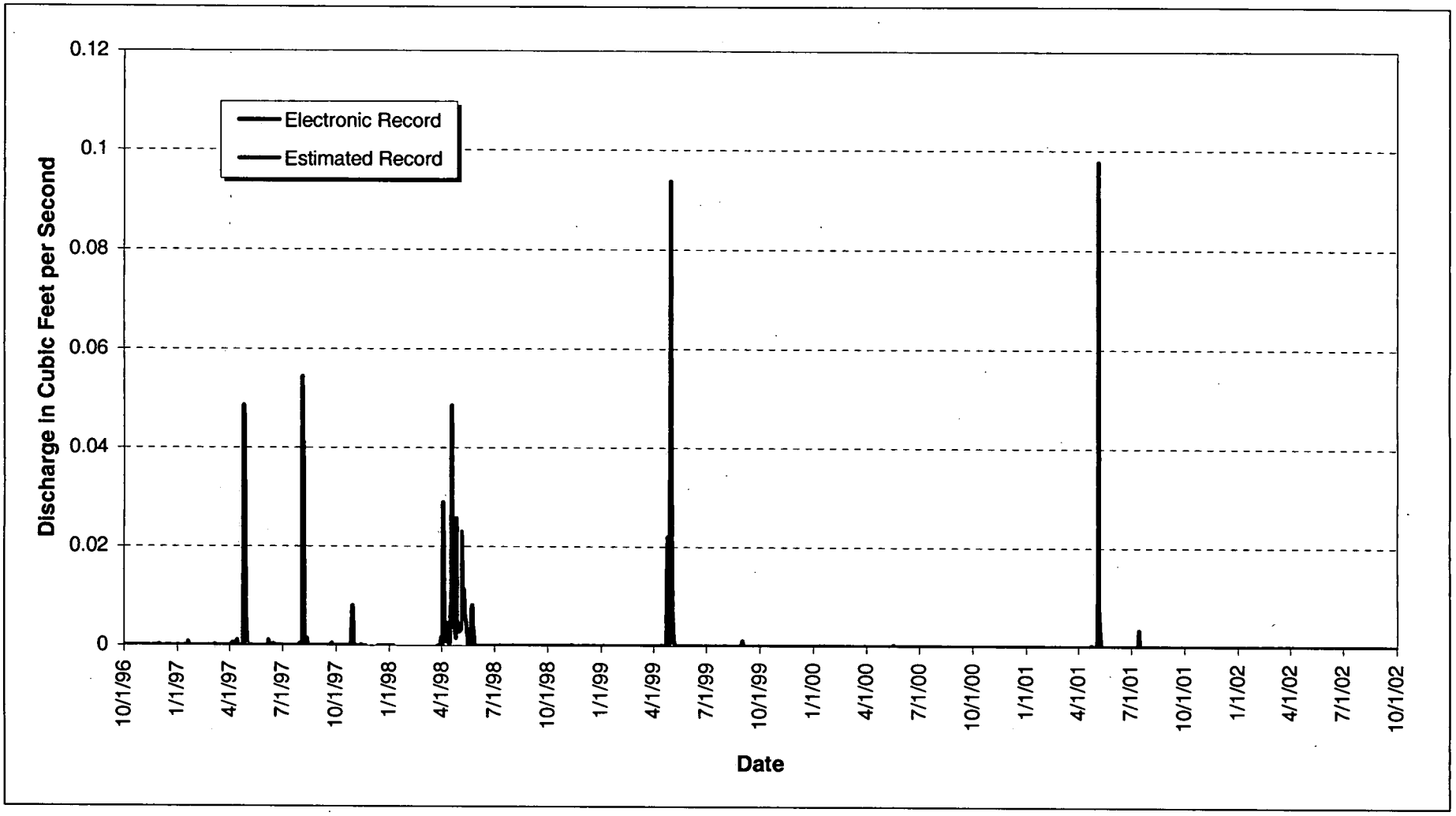


Figure 3-127. WY97-02 Mean Daily Hydrograph at SW091: North Walnut Creek Tributary Northeast of Solar Ponds.

3.2.46 SW093: North Walnut Creek 1300' Upstream of A-1 Bypass

Location

North Walnut Creek 1300' above A-1 Bypass; State Plane: 2085026, 751720

Drainage Area

- The basin includes the northern portion of the PA and portions of the western IA south (total of 242.7 acres)
- IA Areas draining to SW093: 900, 700, 500, 300, and 100

Period of Record

9/11/91 to current year

Gage

Water-stage recorder and 36" suppressed, rectangular, sharp-crested weir

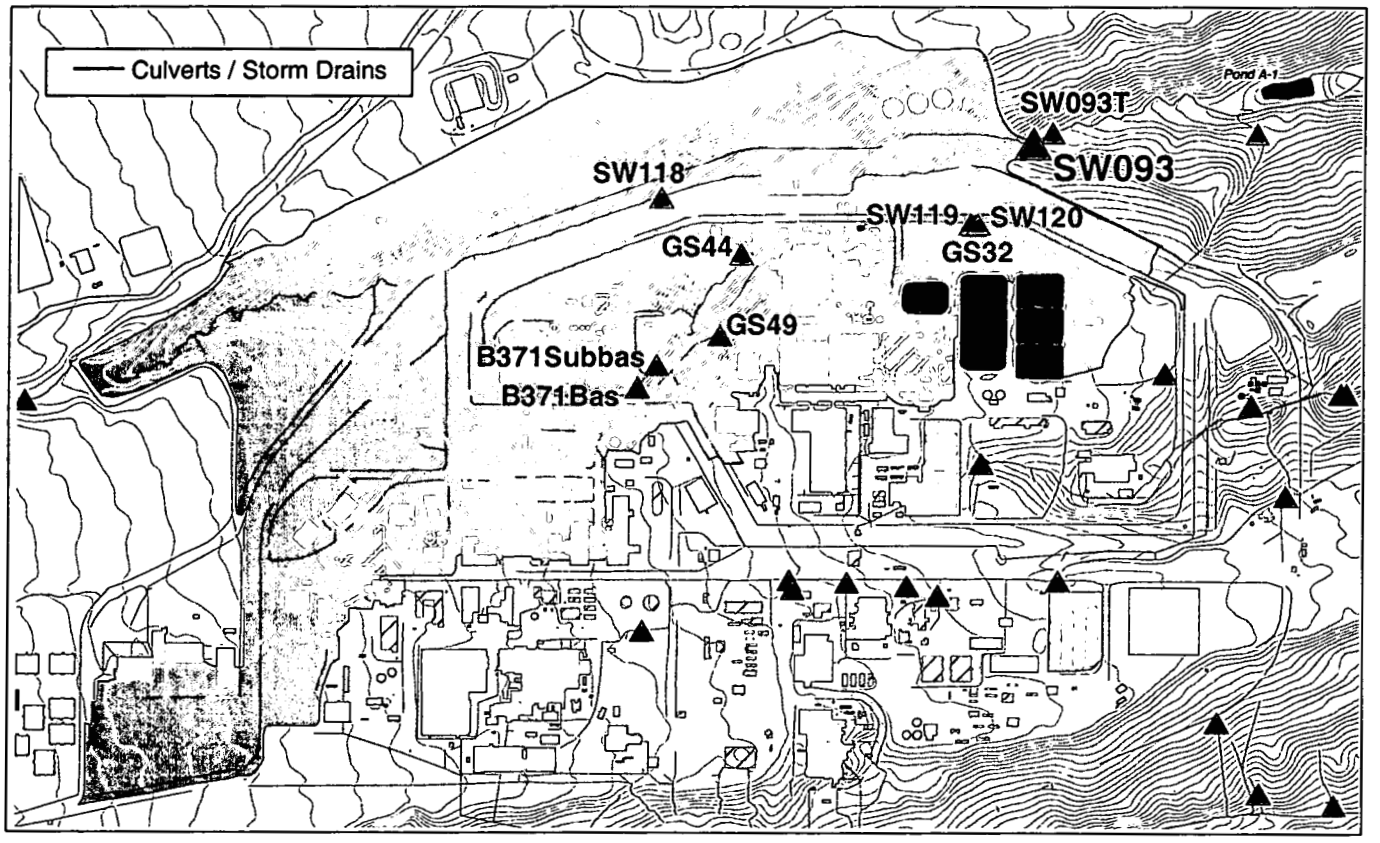


Figure 3-128. Map Showing SW093 Drainage Area.

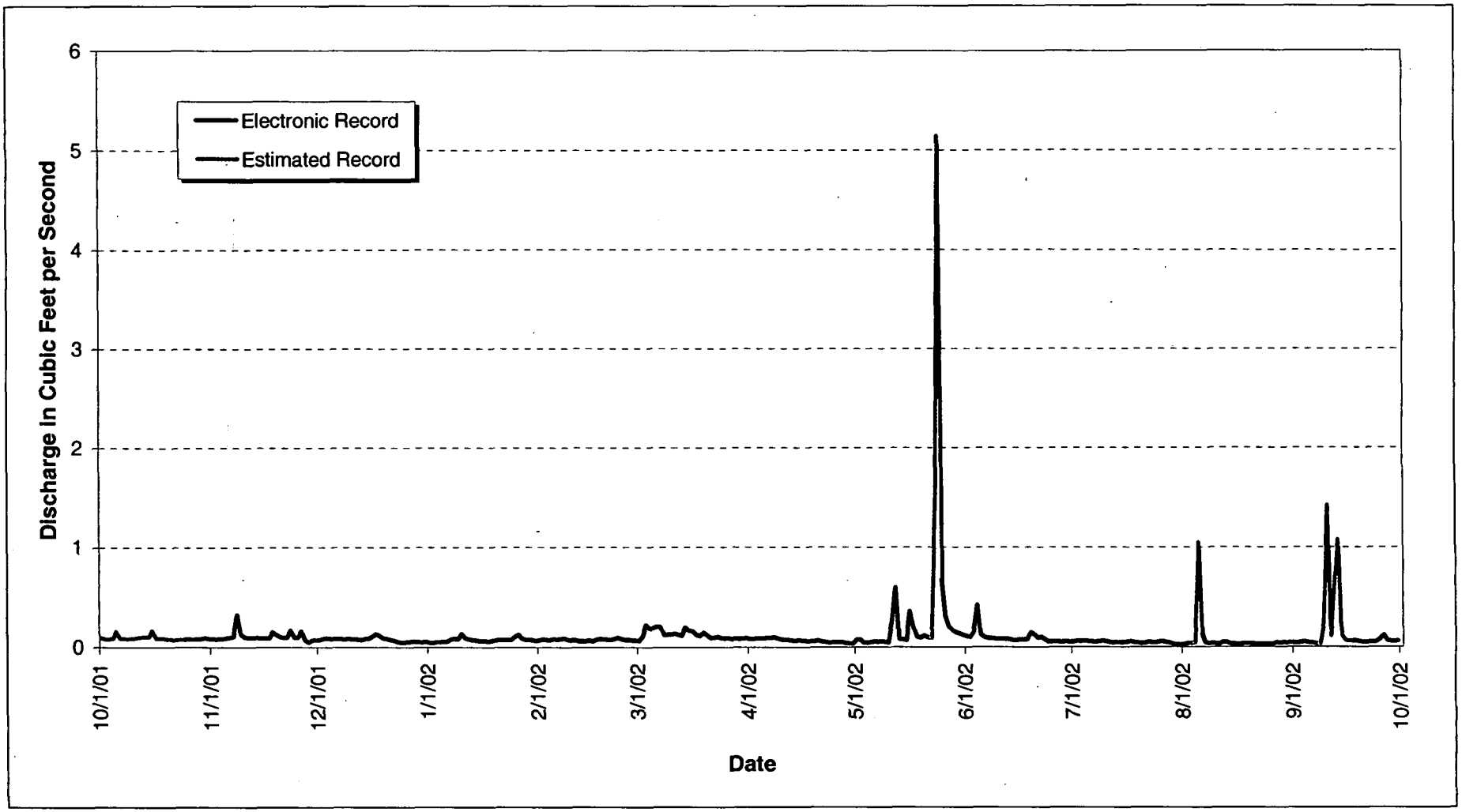


Figure 3-129. WY02 Mean Daily Hydrograph at SW093: North Walnut Creek Upstream of A-1 Bypass.

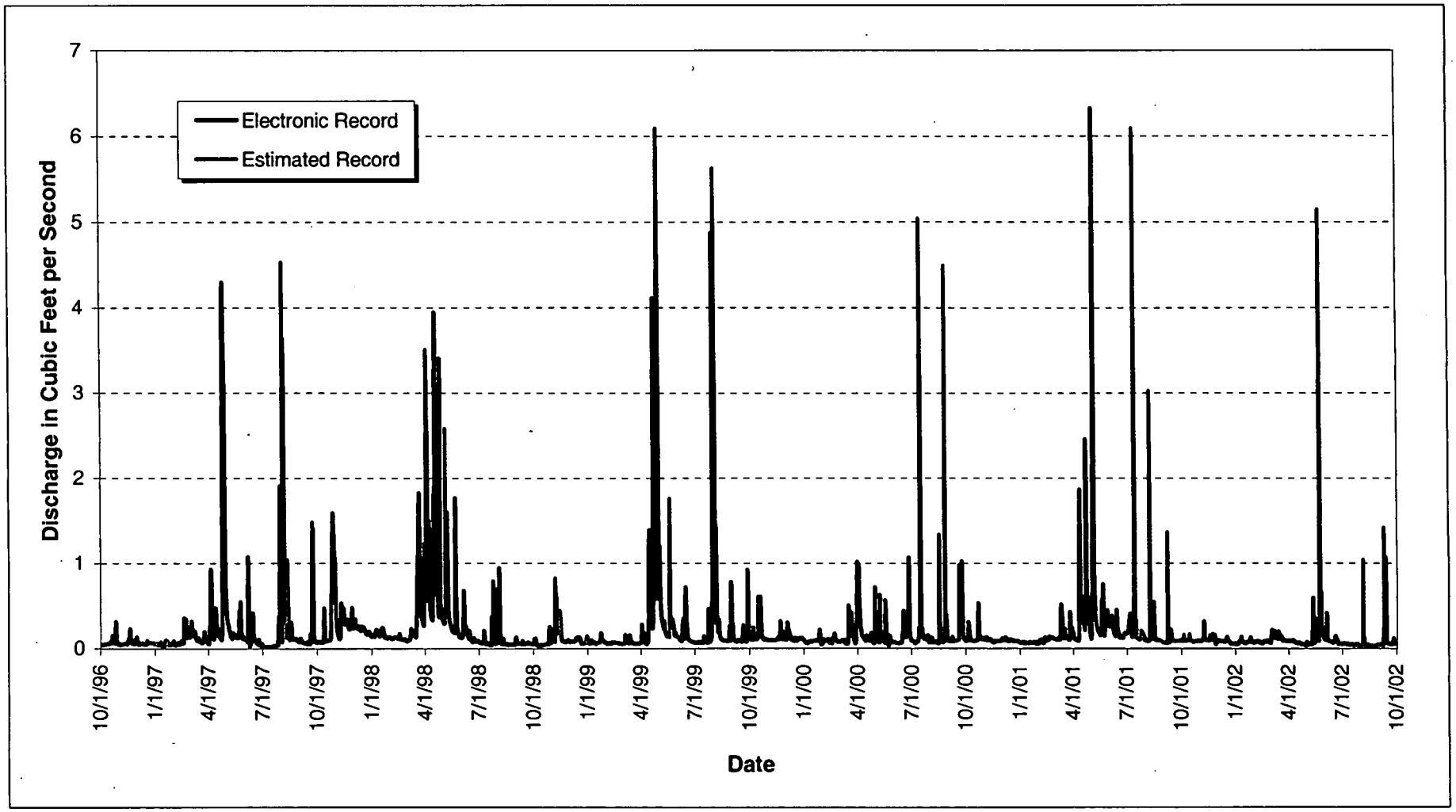


Figure 3-130. WY97-02 Mean Daily Hydrograph at SW093: North Walnut Creek Upstream of A-1 Bypass.

3.2.47 SW118: North Walnut Creek 560' Upstream of Portal 3

Location

North Walnut Creek west of Portal 3; State Plane: 2082961, 751417

Drainage Area

- The basin includes the North Walnut Creek drainage west of the PA and downstream of the West Diversion Ditch (total of 50.3 acres)
- IA areas draining to SW118: 300

Period of Record

9/11/91 to current year

Gage

Water-stage recorder 169.5° sharp-crested, v-notch weir

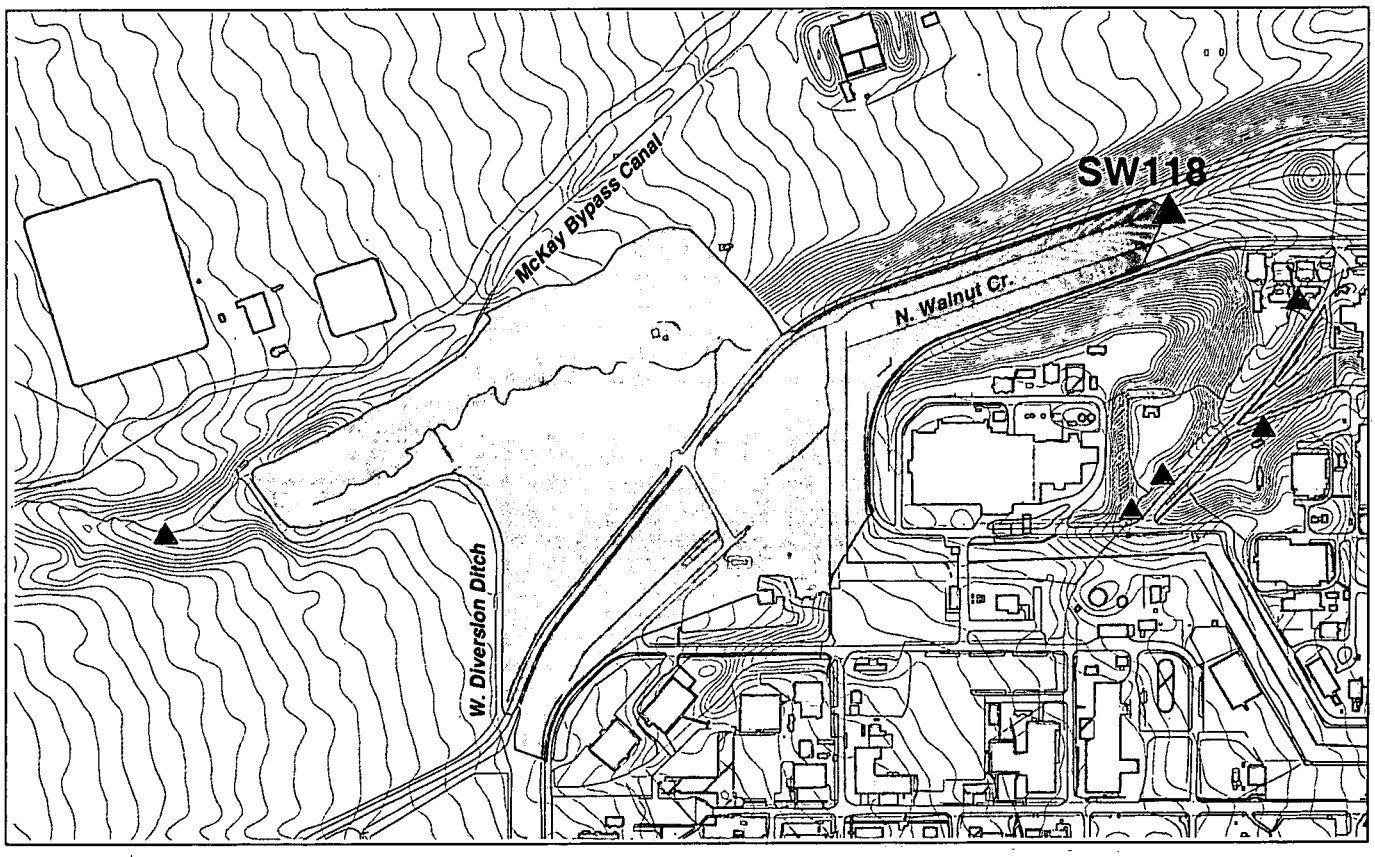


Figure 3-131. Map Showing SW118 Drainage Area.

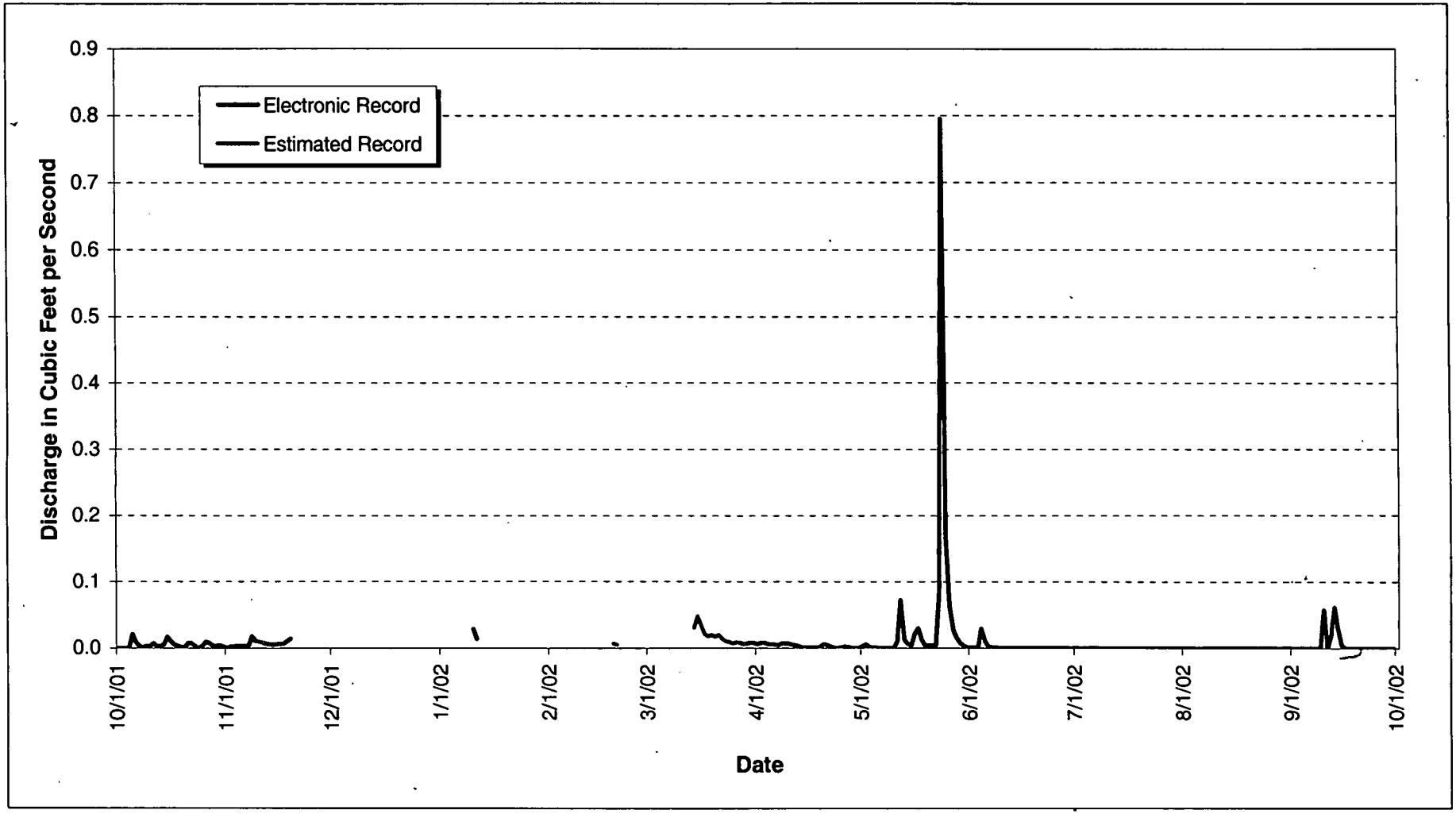


Figure 3-132. WY02 Mean Daily Hydrograph at SW118: North Walnut Creek Upstream of Portal 3.

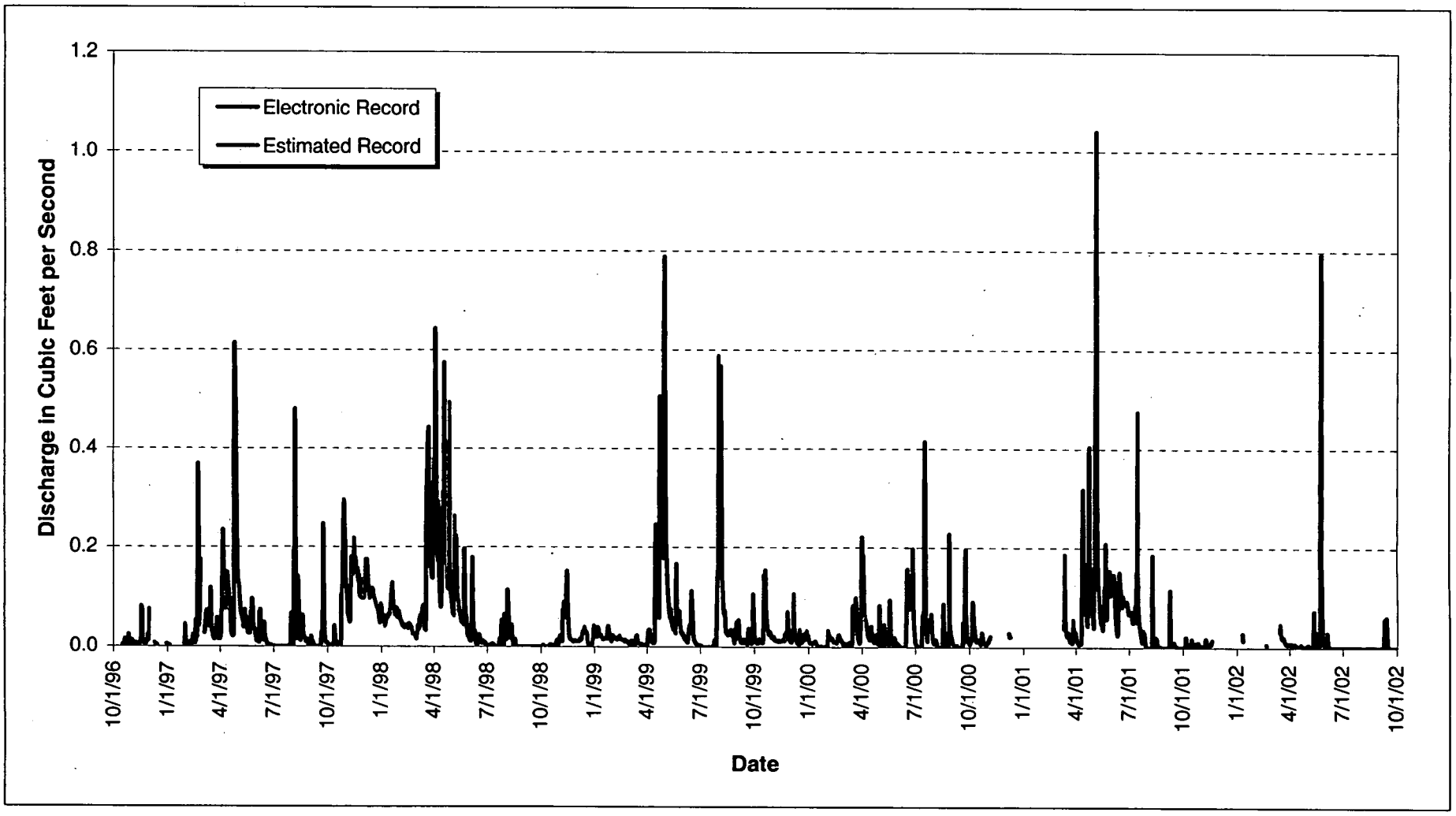


Figure 3-133. WY97-02 Mean Daily Hydrograph at SW118: North Walnut Creek Upstream of Portal 3.

3.2.48 SW119: Ditch Along PA Perimeter Road North of Solar Pond 207B

Location

Ditch along PA Perimeter Road north of Solar Pond 207B; State Plane: 2084723, 751268

Drainage Area

- The basin includes areas north and east of the Solar Ponds (total of 7.8 acres)
- IA Areas draining to SW119: 900

Period of Record

4/4/01 to current year

Gage

Water-stage recorder and 9" Parshall flume

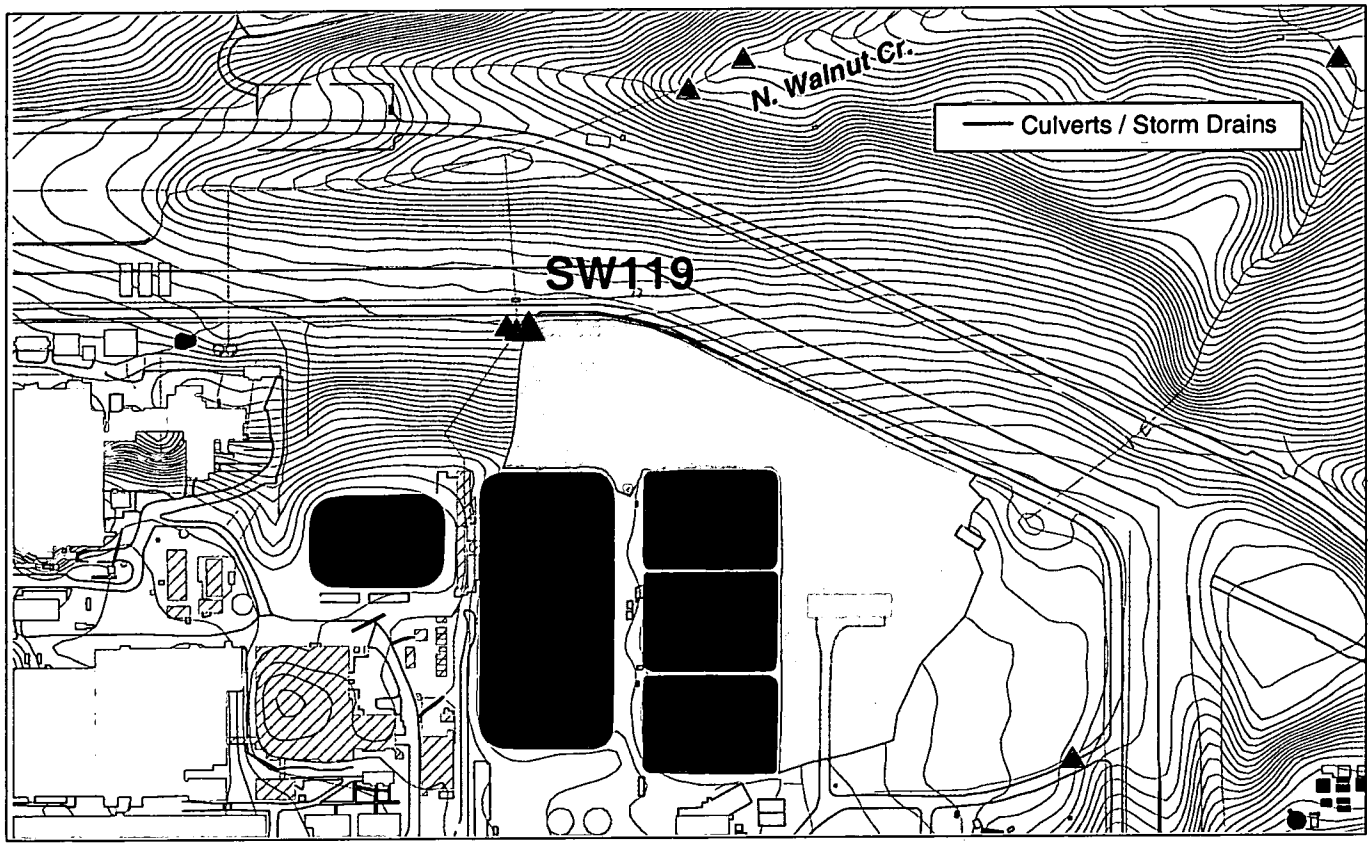


Figure 3-134. Map Showing SW119 Drainage Area.

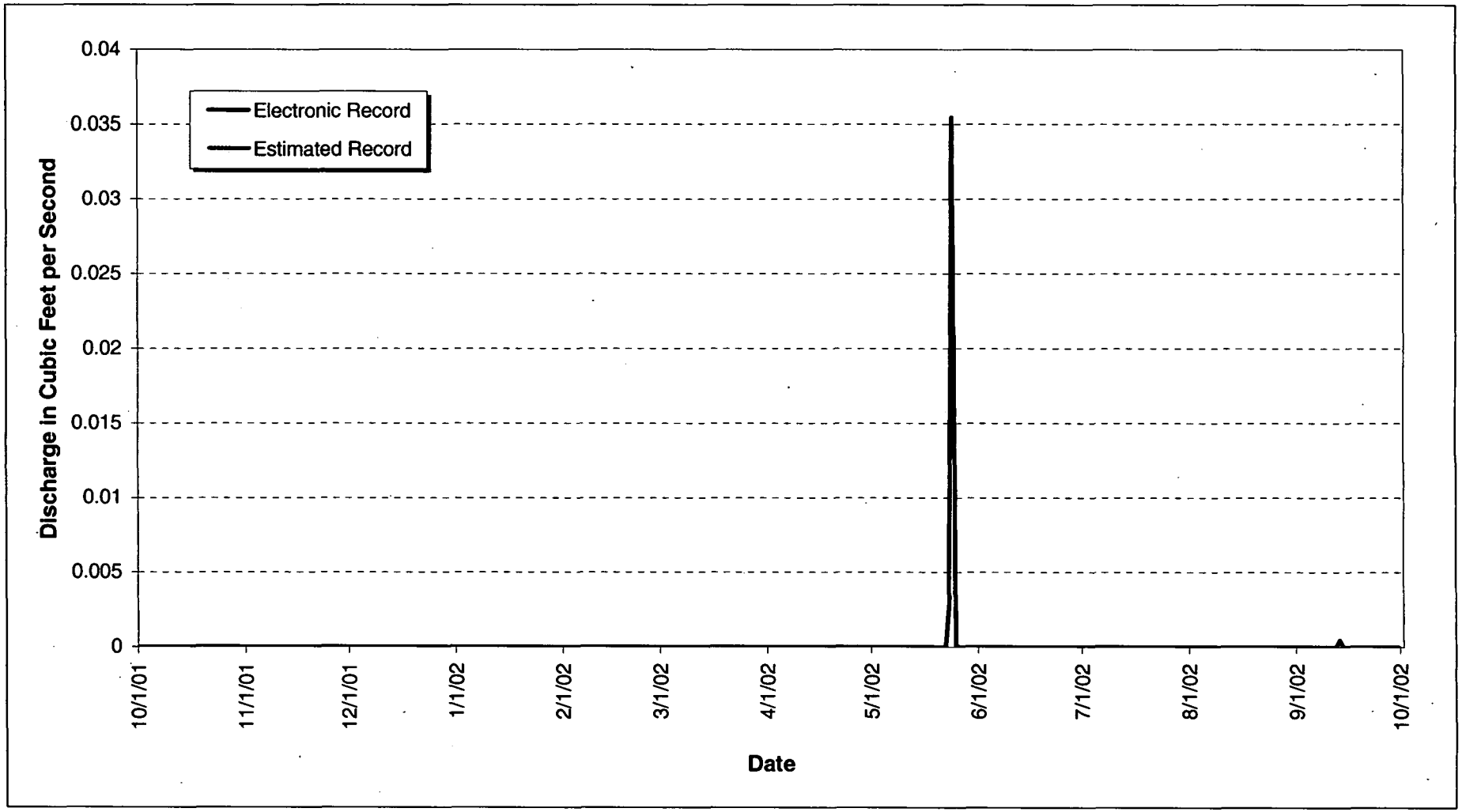


Figure 3-135. WY02 Mean Daily Hydrograph at SW119: Ditch Along PA Perimeter Road North of Solar Pond 207B.

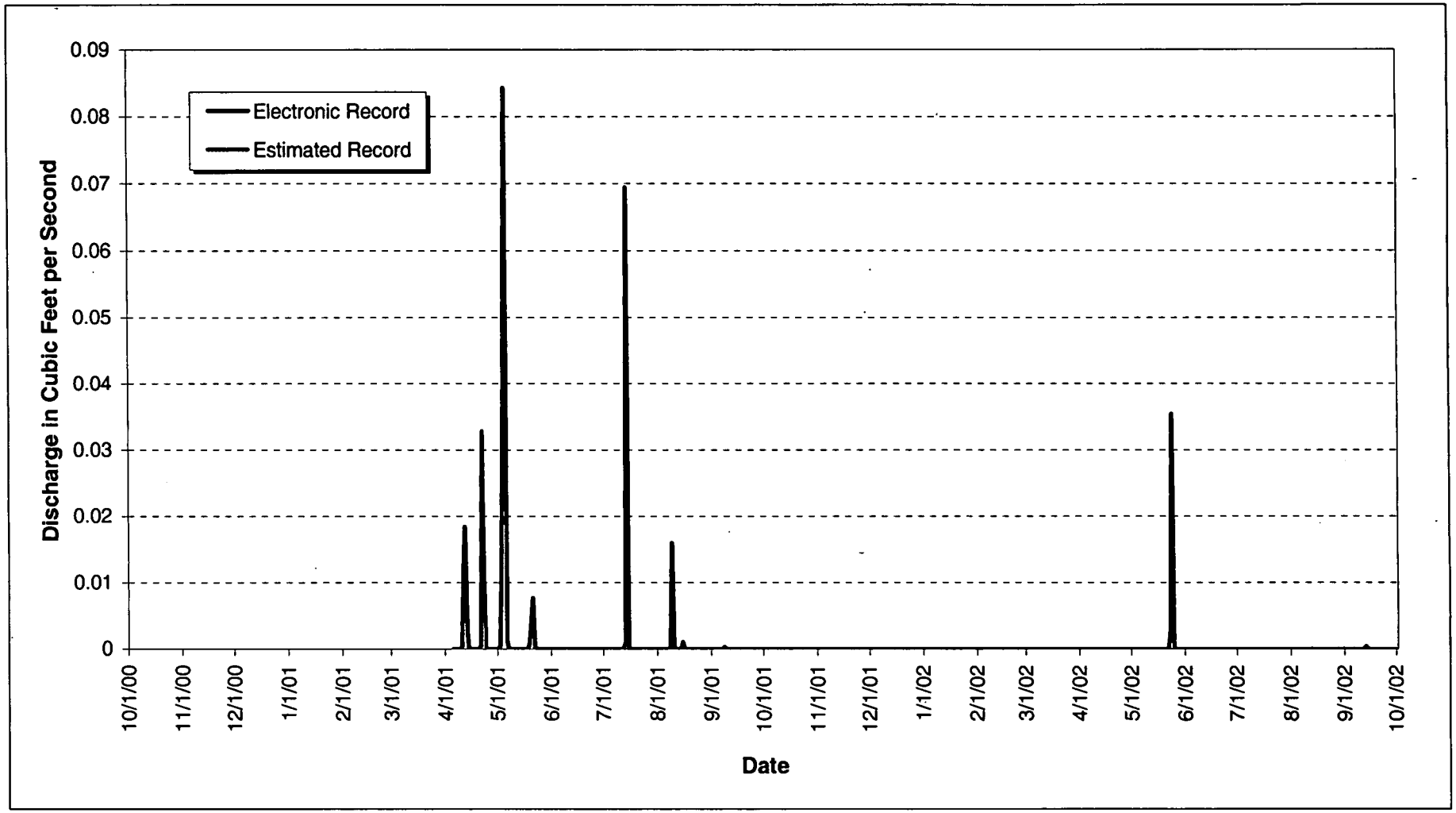


Figure 3-136. WY01-02 Mean Daily Hydrograph at SW119: Ditch Along PA Perimeter Road North of Solar Pond 207B.

3.2.49 SW120: Ditch Along PA Perimeter Road North of Solar Pond 207A

Location

Ditch along PA Perimeter Rd. draining 771/774 area; State Plane: 2084682, 751269

Drainage Area

- The basin includes the northeast potion of the B771/774 subdrainage (total of 12.9 acres)
- IA Areas draining to SW120: 700

Period of Record

3/14/00 to current year

Gage

Water-stage recorder and 4" cutthroat flume

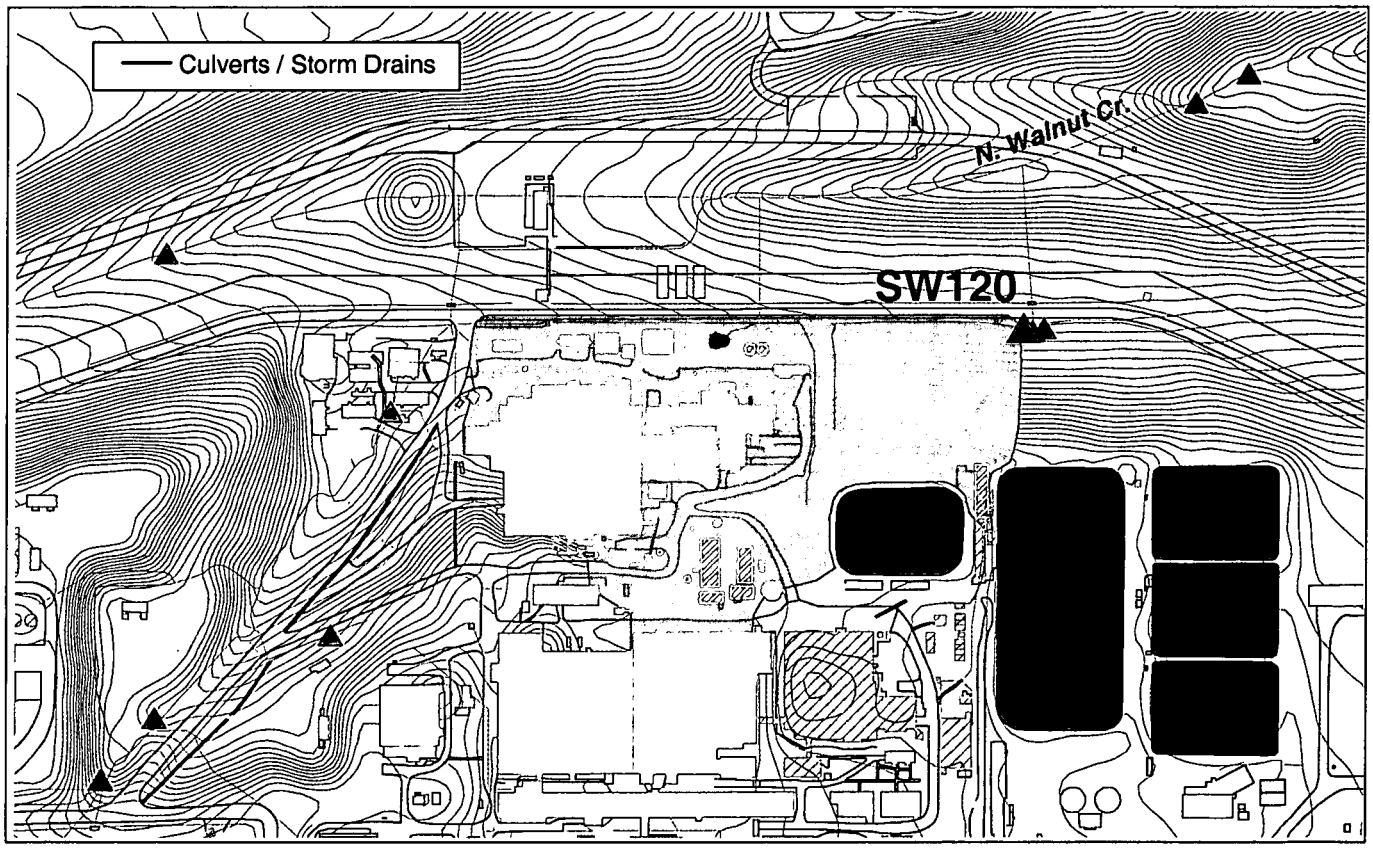


Figure 3-137. Map Showing SW120 Drainage Area.

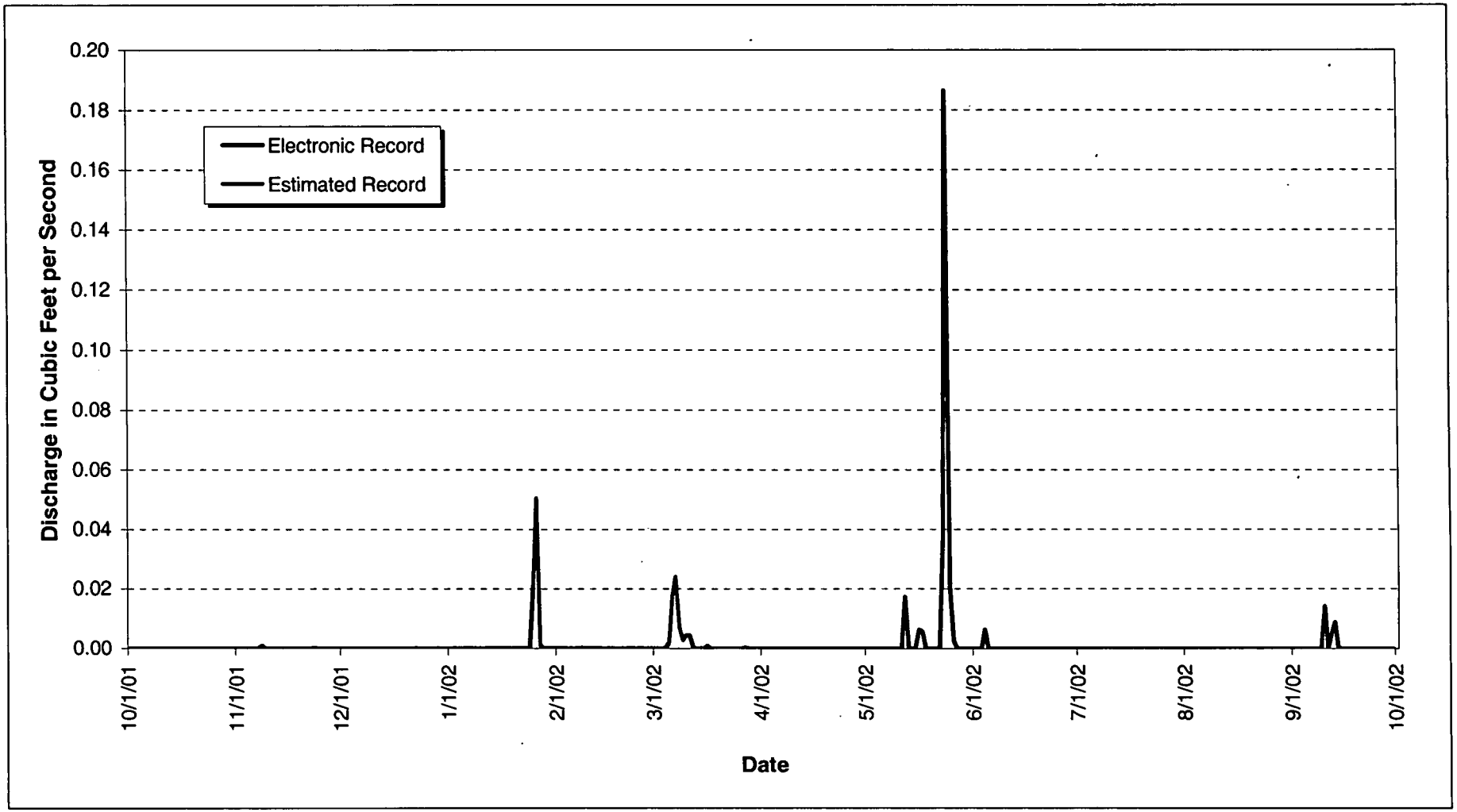


Figure 3-138. WY02 Mean Daily Hydrograph at SW120: PA Perimeter Road Ditch North of Solar Pond 207A.

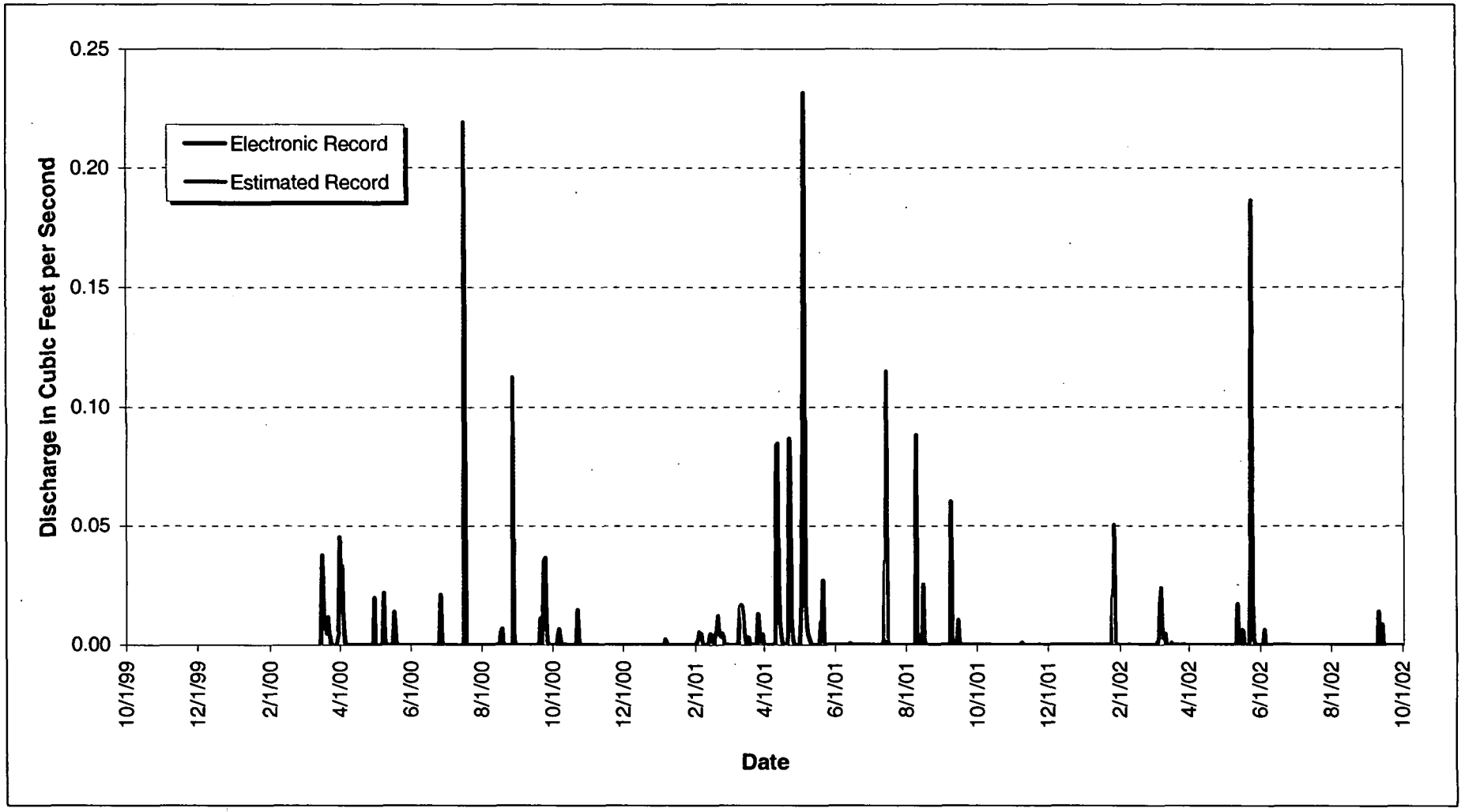


Figure 3-139. WY00-02 Mean Daily Hydrograph at SW120: PA Perimeter Road Ditch North of Solar Pond 207A.

3.2.50 SW134: Rock Creek Tributary at Gravel Pits Northeast of West Gate

Location

Pump discharge outfall for gravel pits northeast of West Gate; State Plane: 2075942, 750049

Drainage Area

- The basin includes the gravel pit areas that are pump discharged to Rock Creek
- IA Areas draining to SW134: none

Period of Record

5/4/94 to current year

Gage

Water-stage recorder and 6" Parshall flume with weir insert

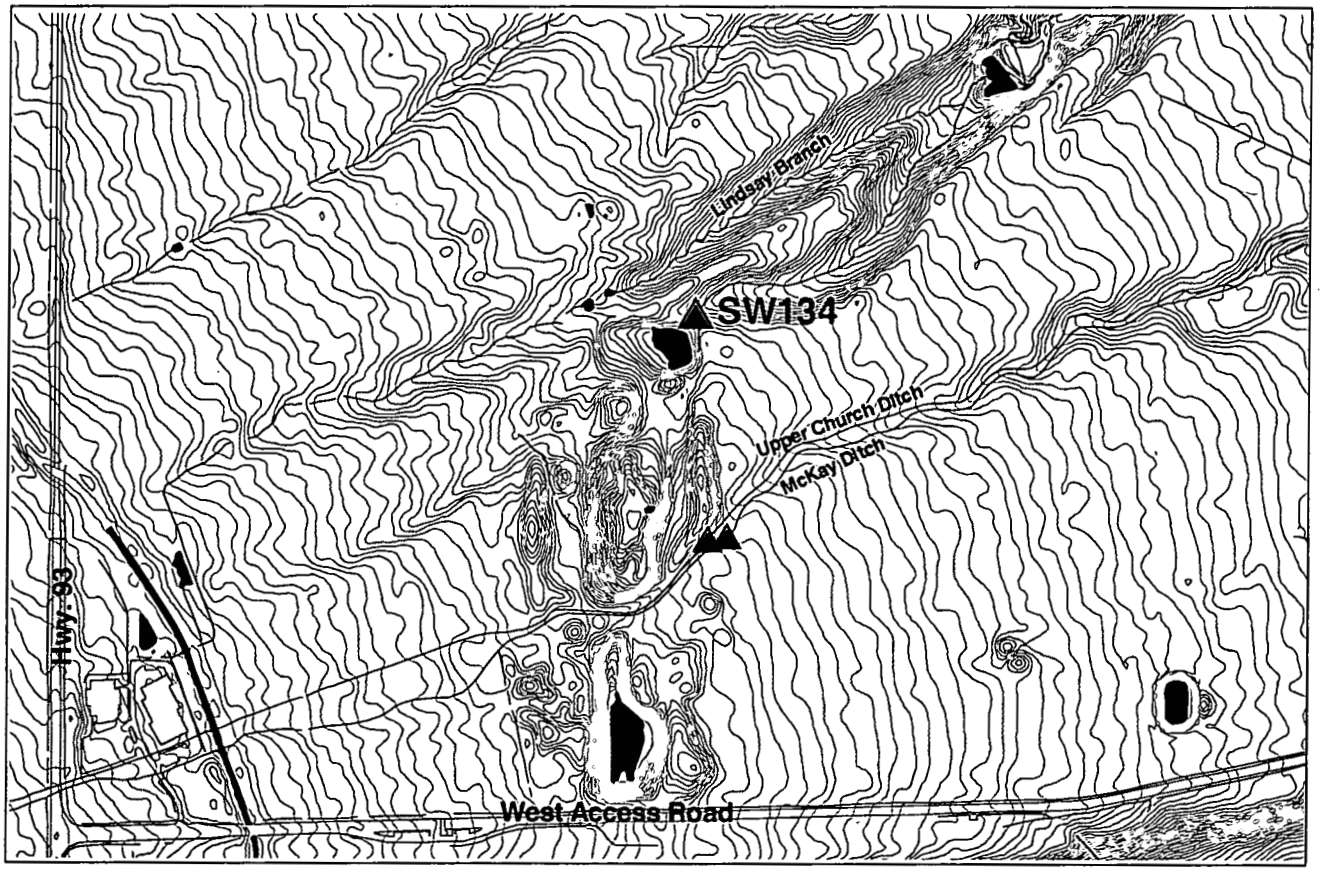


Figure 3-140. Map Showing SW134 Location.

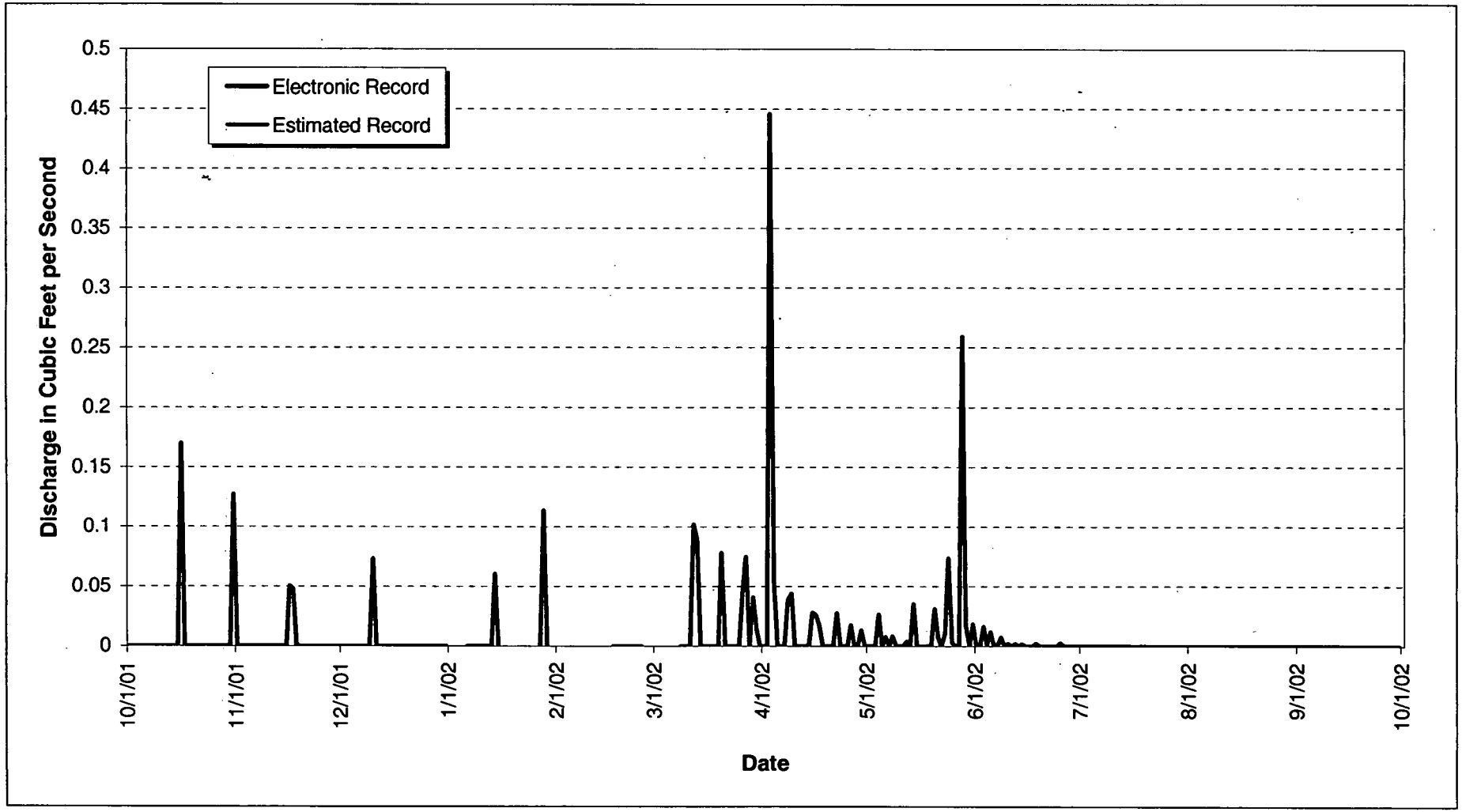


Figure 3-141. WY02 Mean Daily Hydrograph at SW134: Rock Creek Tributary at Gravel Pits Northeast of West Gate.

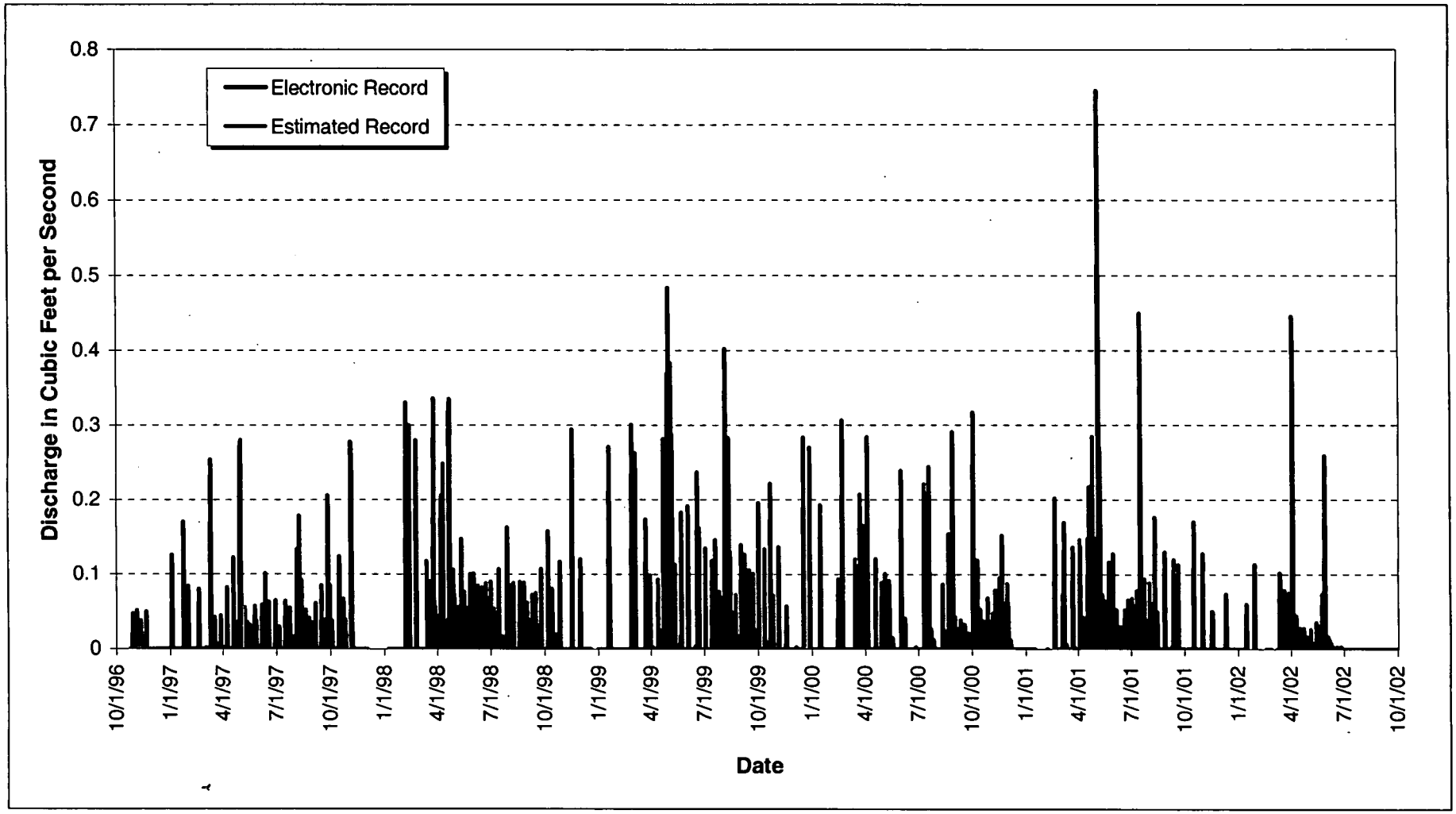


Figure 3-142. WY97-02 Mean Daily Hydrograph at SW134: Rock Creek Tributary at Gravel Pits Northeast of West Gate.

3.2.51 B371Bas and B371Subbas: B371 Basement and Subbasement Footing Drain Outfalls

Location

B371 footing drain outfalls to a ditch tributary to North Walnut Creek

B371Bas: State Plane 2082831, 750362

B371Subbas: State Plane 2082939, 750485

Drainage Area

- NA

Period of Record

WY98 to current year

Gage

11.4 Degree V-Notch Weirs

Flow data are not given in this report. Data can be found as reported in Appendix 1 of the *Building 371 Subsurface Drain System* procedure (4-K14-SDS-371).

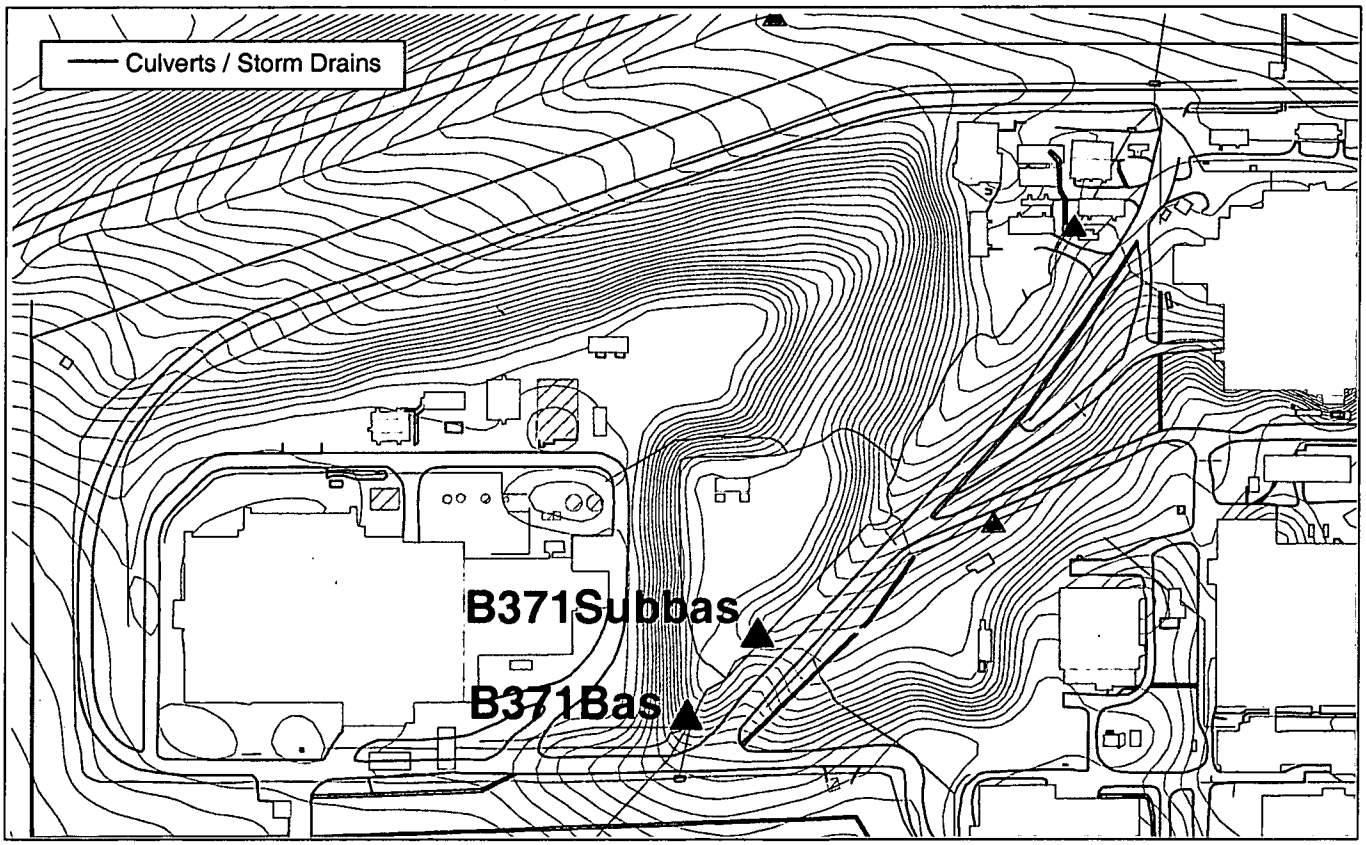


Figure 3-143. Map Showing B371 Basement and Subbasement Footing Drain Outfall Locations.

3.2.52 995POE: WWTP Effluent

Location

Outfall for WWTP effluent at UV disinfection building; State Plane: 2086240, 750261

Drainage Area

- NA; effluent discharges to Pond B-3

Period of Record

10/1/00 to current year; POE sampling began on 10/27/00; flow record reported is from WWTP facility system

Gage

60 Degree V-Notch Weir

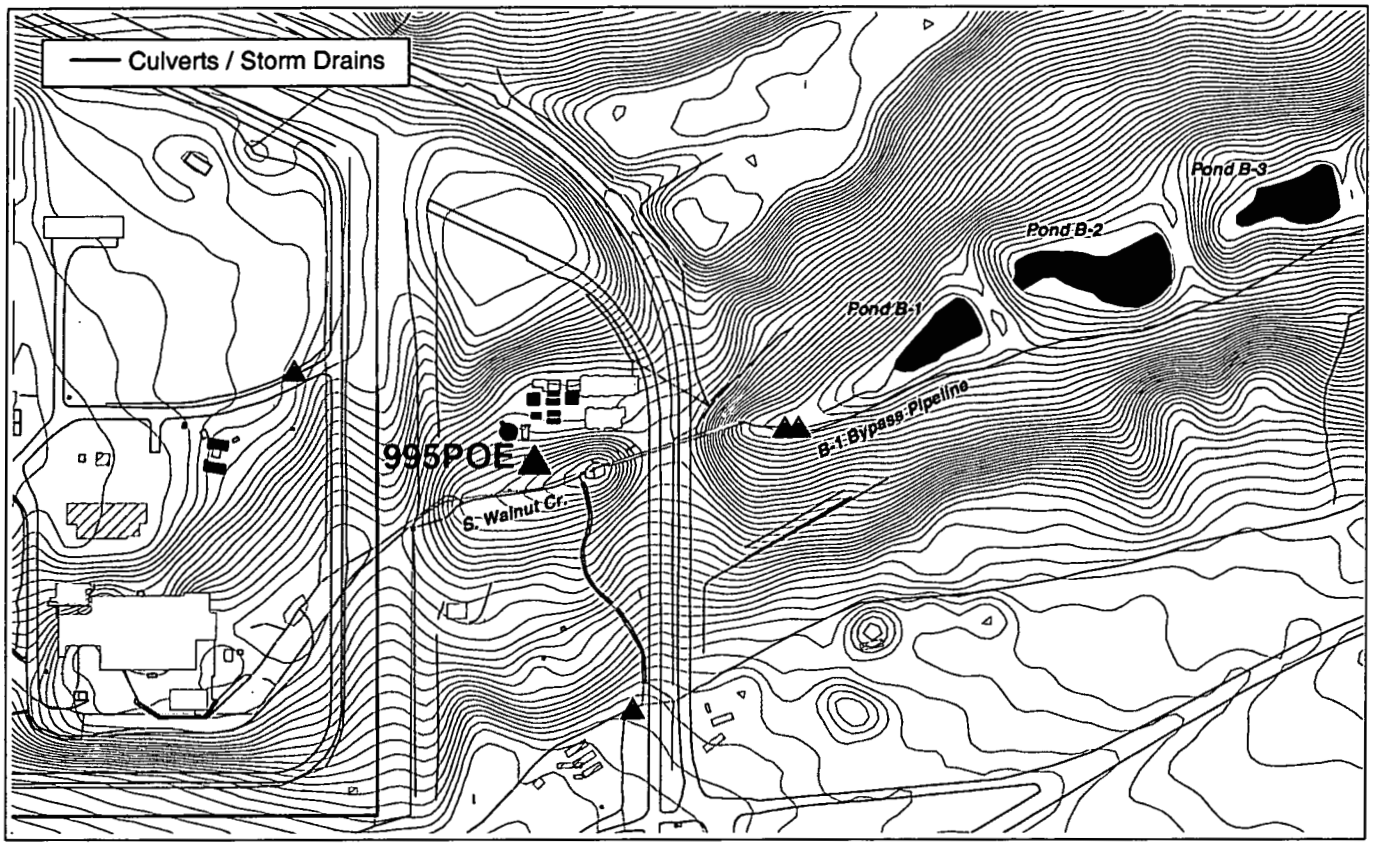


Figure 3-144. Map Showing 995POE Location.

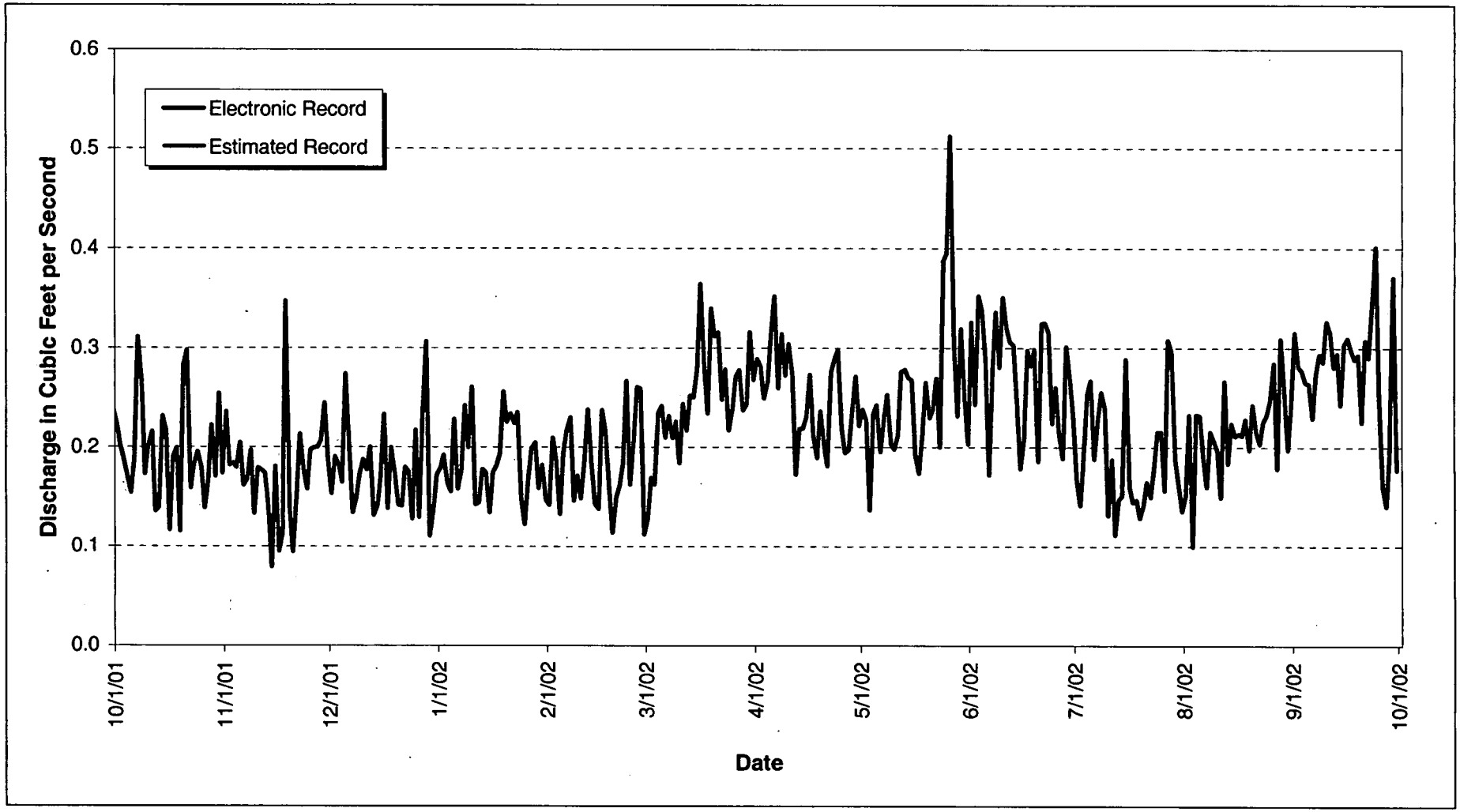


Figure 3-145. WY02 Mean Daily Hydrograph at 995POE: WWTP Effluent.

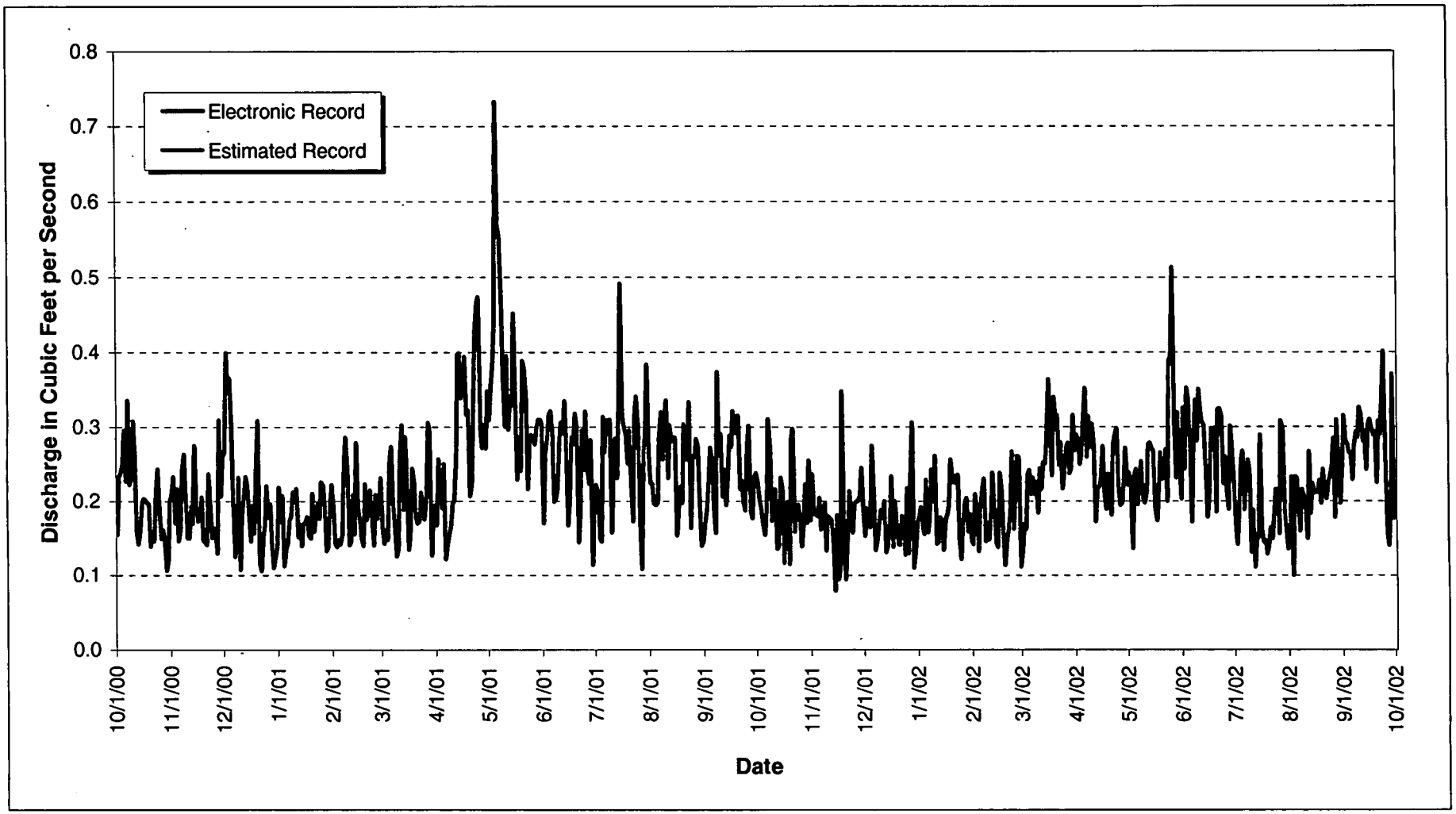


Figure 3-146. WY01-02 Mean Daily Hydrograph at 995POE: WWTP Effluent.

3.3 PRECIPITATION DATA

During Water Year 2002, 12 precipitation gages were operated as part of the automated surface-water monitoring network. The locations employ tipping-bucket rain gages generally mounted at ground level. Precipitation totals are logged on 5- and/or 15-minute intervals. The gages are not heated and may not accurately record equivalent precipitation in snowfall. The following sections present multiple figures summarizing the precipitation data collected for Water Years 1997-2002.

Table 3-1. Monitoring Network Precipitation Gage Information.

Location Code [Surface-Water Gage]	X Coordinate [State Plane]	Y Coordinate [State Plane]	Period of Operation
PG51 [NA]	2078704	751264	<10/1/92 – current year
PG52 [SW022]	2086407	749734	<10/1/92 – current year
PG55 [NA]	2087896	747239	7/19/94 – current year
PG56 [NA]	2091513	752593	7/18/94 – current year
PG58 [GS01]	2093820	744893	10/11/96 – current year
PG59 [GS03]	2093611	753649	4/1/96 – current year
PG60 [GS04]	2085544	758125	4/1/96 – current year
PG61 [GS05]	2078428	747260	4/1/96 – current year
PG62 [SW118]	2082961	751417	10/29/96 – current year
PG64 [GS27]	2083689	749208	2/15/00 – current year
PG69 [GS16]	2086290	751773	3/27/02 – current year
PG70 [SW091]	2083373	746665	3/29/02 – current year

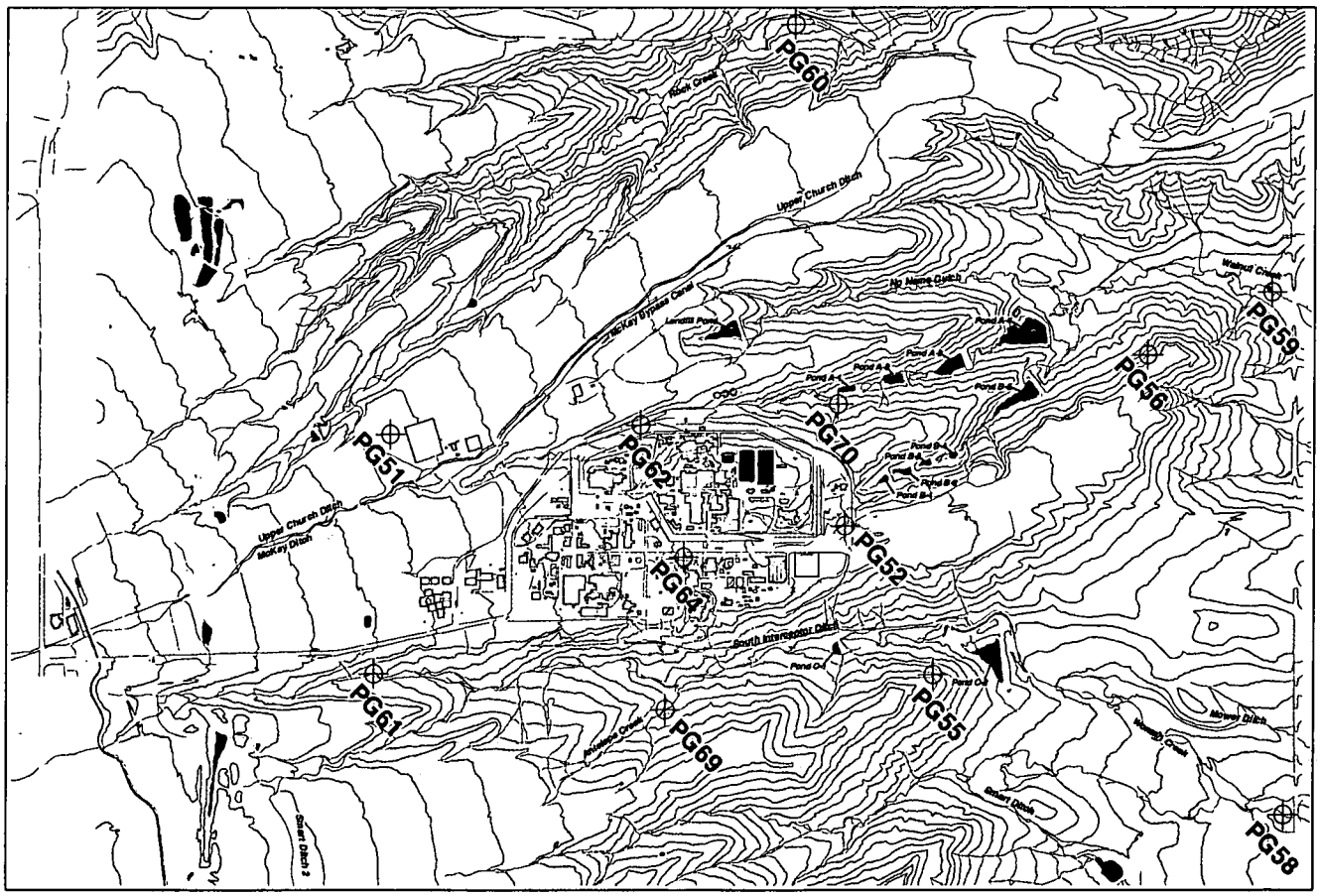
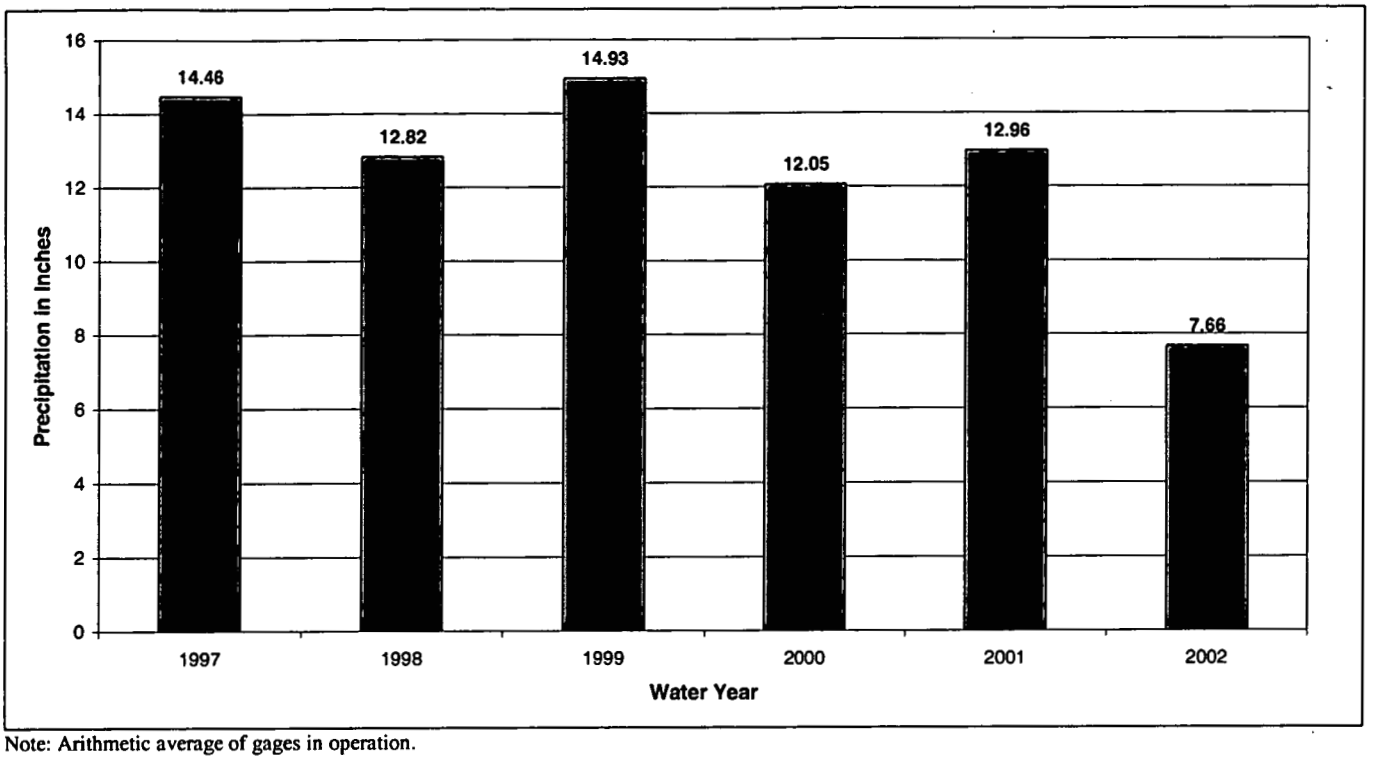


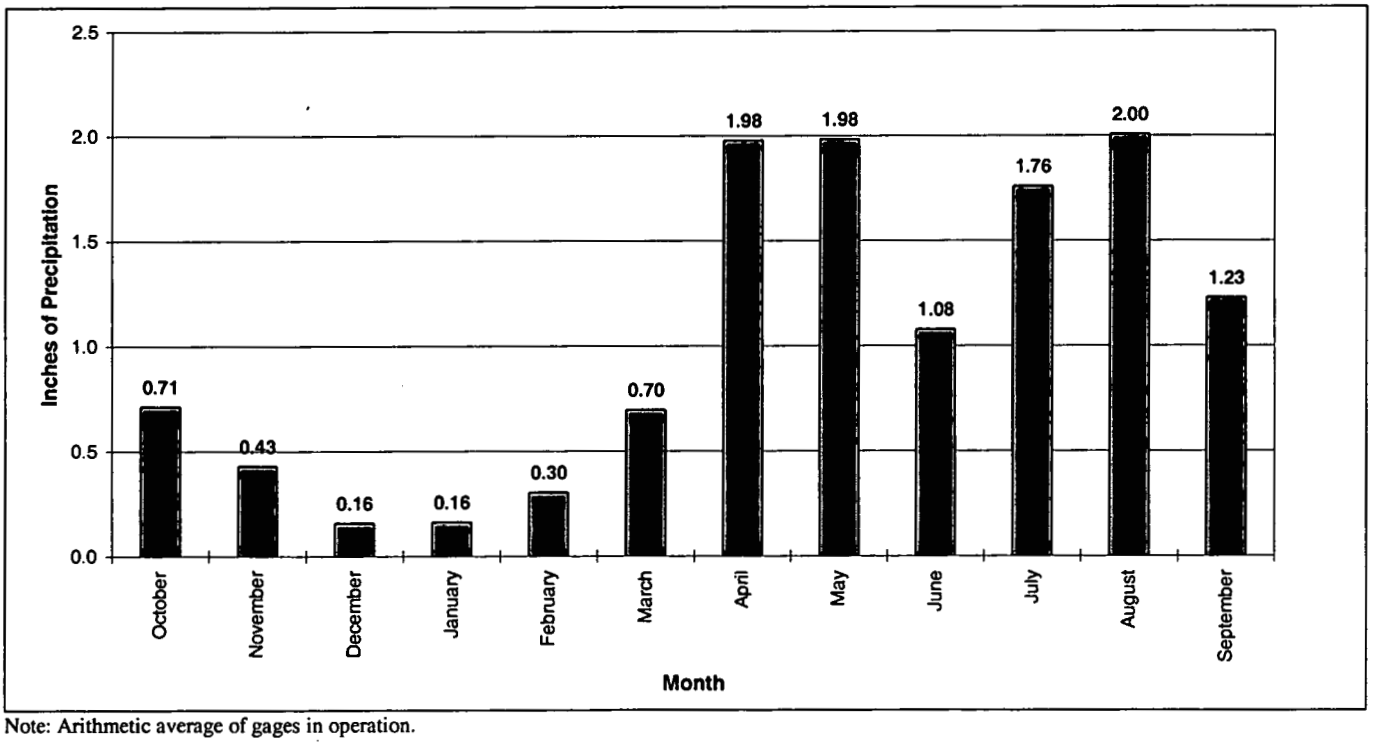
Figure 3-147. Map of Automated Surface-Water Monitoring Precipitation Gages: WY02.

3.3.1 WY97–02 Summary



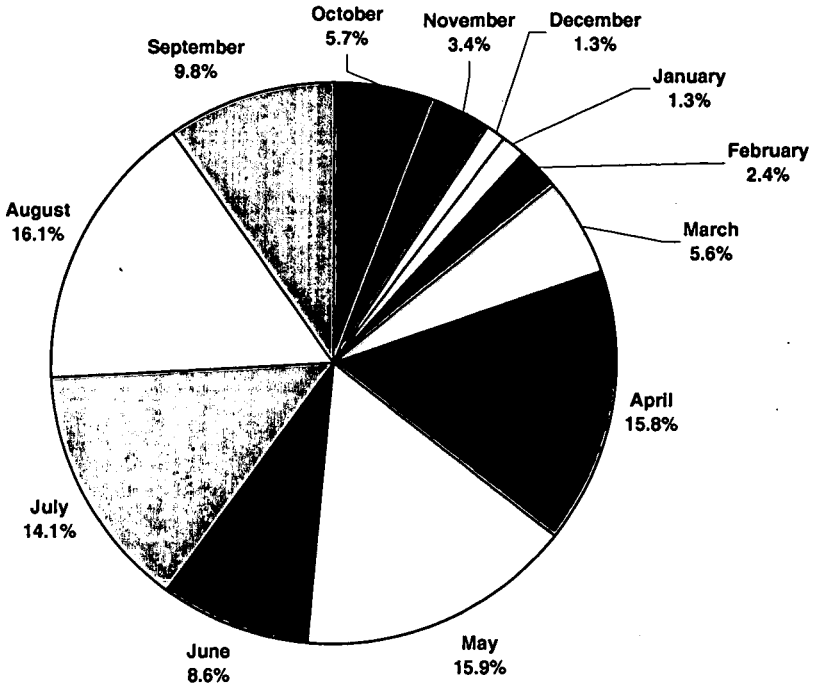
Note: Arithmetic average of gages in operation.

Figure 3-148. Total Precipitation for Water Years 1997 – 2002.



Note: Arithmetic average of gages in operation.

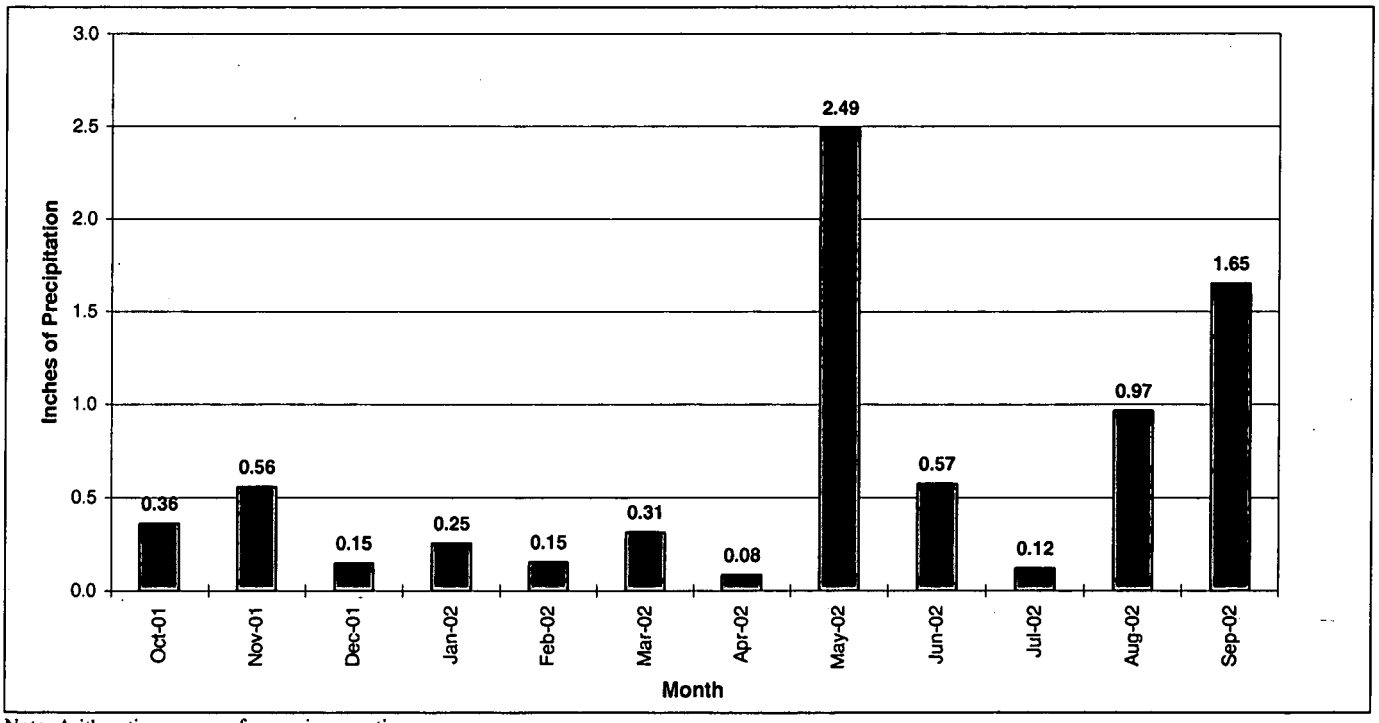
Figure 3-149. Average Monthly Precipitation for Water Years 1997 – 2002.



Note: Arithmetic average of gages in operation.

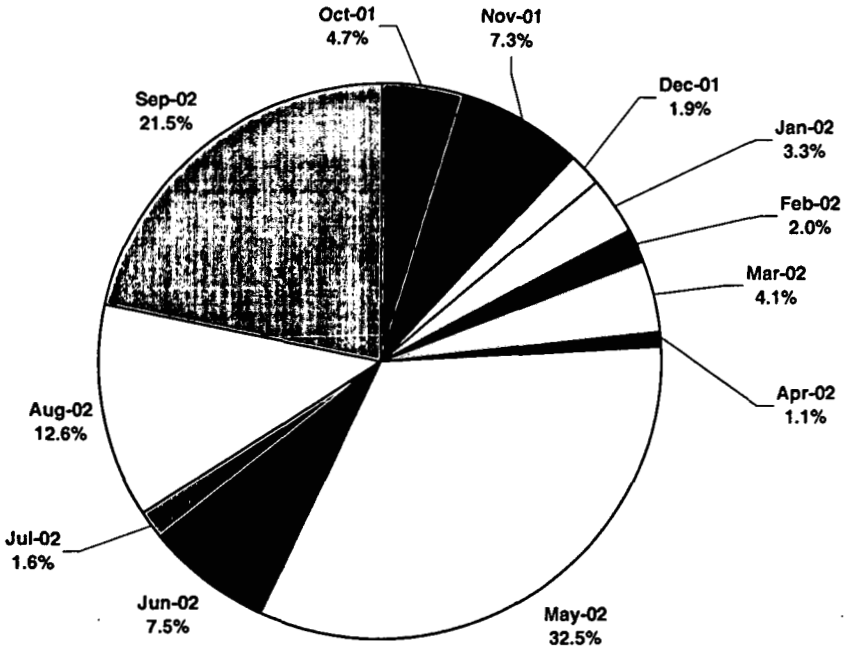
Figure 3-150. Relative Monthly Precipitation Totals for Water Years 1997 – 2002.

3.3.2 Water Year 2002



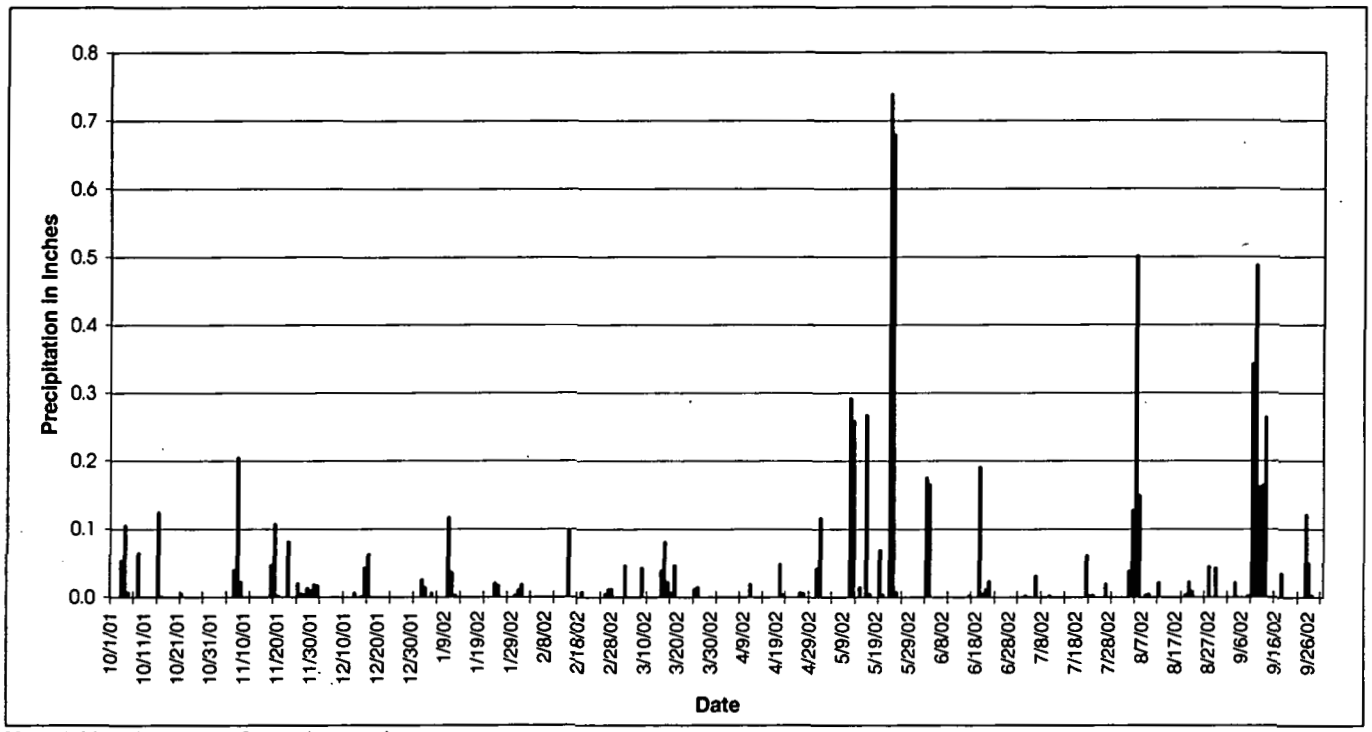
Note: Arithmetic average of gages in operation.

Figure 3-151. Average Monthly Precipitation for Water Year 2002.



Note: Arithmetic average of gages in operation.

Figure 3-152. Relative Monthly Precipitation Volumes for Water Year 2002.



Note: Arithmetic average of gages in operation.

Figure 3-153. Daily Precipitation Totals for Water Year 2002.

4. WATER-QUALITY SUMMARIES

This section presents water-quality summaries for selected analytes for the period October 1, 1996 through September 30, 2002 (WY97–02) for the locations operational in WY02. Radionuclides summarized in Section 4.1 include Pu; Am[5]; U-233,234; U-235; U-238; and tritium. Additionally, the POE metals (total Be, dissolved Cd, total Cr, dissolved Ag) are summarized in Section 4.2. Many additional analyses are also performed based on the specific monitoring objective. The results and evaluation for these analytes are presented in detail in the specific sections (Section 6 through 15) by monitoring objective.

4.1 RADIONUCLIDES

The following summaries include all results that were not rejected through the verification/validation process. When a negative radionuclide result (e.g. -0.002 pCi/L) is returned from the laboratory due to blank correction, then a value of 0.0 pCi/L is used for calculation purposes. When a sample has a corresponding field duplicate, the value used in calculations is the arithmetic average of the 'real' value and the 'duplicate'. When a sample has multiple 'real' analyses (Site requested 're-runs'), the value used in calculations is the arithmetic average of the multiple 'real' analyses. Total uranium is calculated by summing the activities for the analyzed isotopes (U-233,234 + U-235 + U-238).

The Pu/Am ratio is calculated for each sample by dividing the Pu result by the corresponding Am result. Ratios are only calculated for samples where *both* the Pu and Am results are greater than 0.015 pCi/L (generally the MDA for Pu and Am analyses) to exclude ratios for very low results with high relative error.

The U-233,234/U-238 ratio is calculated for each sample by dividing the U-233,234 result by the corresponding U-238 result. Ratios are only calculated for samples where *both* the U-233,234 and U-238 results are greater than 0.025 pCi/L (generally the MDA for these isotope analyses) to exclude ratios for very low results with high relative error.

Each table includes only those locations that collected samples that were analyzed for the referenced analyte. Maps are also included showing the spatial variation of the location-specific median value for the referenced parameter. Only locations that had four or more individual results are mapped. Since tritium was analyzed for only eight locations, no map is presented.

Table 4-1. Summary Statistics for Tritium Analytical Results in WY97-02.

Location	Samples [N]	Median [pCi/L]	85th Percentile [pCi/L]	Maximum [pCi/L]
GS01	**111**	**67**	**211**	**480**
GS03	**172**	**50**	**234**	**490**
GS32	19	28	91	152
GS40	29	27	129	220
GS44	19	15	59	100
GS49	13	0	82	111
SW120	14	75	141	258
995POE	**23**	**0**	**53**	**132**

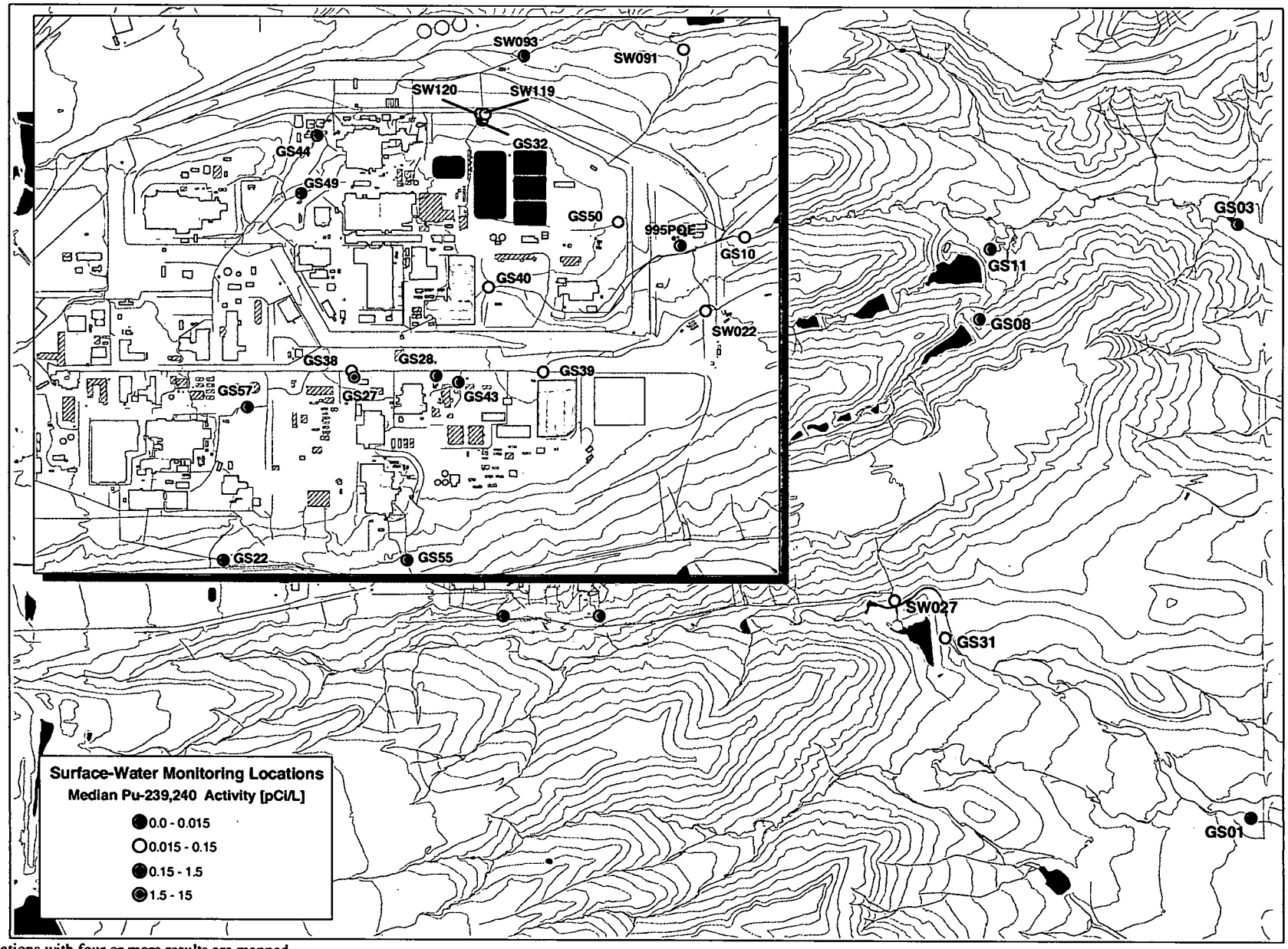
[5] In this report, 'plutonium' or 'Pu' refers to Pu-239,-240 and 'americium' or 'Am' refers to Am-241.

Table 4-2 and Figure 4-1 show that median Pu activities for almost all locations outside the IA are well below the action level of 0.15 pCi/L[6]. Outside the IA, only GS42 (2 samples; median 1.09 pCi/L Pu), GS51 (1 sample; 2.41 pCi/L Pu), GS52 (1 sample; 0.37 pCi/L Pu), and SW055 (3 samples; median 0.432 pCi/L Pu) had median activities greater than 0.15 pCi/L. These activities are likely due to the proximity of these monitoring location drainage areas to the 903 Pad. Several locations within the IA showed median Pu activities greater than 0.15 pCi/L.

Table 4-2. Summary Statistics for Pu-239,240 Analytical Results in WY97-02.

Location	Samples [N]	Median [pCi/L]	85th Percentile [pCi/L]	Maximum [pCi/L]
GS01	**116**	**0.002**	**0.010**	**0.024**
GS03	**178**	**0.006**	**0.022**	**0.220**
GS08	**76**	**0.005**	**0.013**	**0.864**
GS10	**189**	**0.047**	**0.187**	**2.270**
GS11	**73**	**0.002**	**0.011**	**0.070**
GS22	8	0.002	0.009	0.011
GS27	60	1.835	7.814	84.8
GS28	3	0.124	0.131	0.134
GS31	**18**	**0.017**	**0.098**	**0.348**
GS32	52	0.502	3.568	11.5
GS38	48	0.065	0.151	0.307
GS39	44	0.065	0.155	0.825
GS40	51	0.016	0.046	0.085
GS42	2	1.090	1.132	1.150
GS43	15	0.006	0.024	0.075
GS44	19	0.010	0.033	0.055
GS49	13	0.006	0.041	0.101
GS50	5	0.046	0.208	0.225
GS51	1	2.410	NA	NA
GS52	1	0.370	NA	NA
GS53	0	NA	NA	NA
GS54	0	NA	NA	NA
GS55	12	0.005	0.049	0.052
GS57	7	0.015	0.022	0.026
GS58	7	0.001	0.040	0.338
SW022	60	0.085	0.378	9.490
SW027	**45**	**0.021**	**0.102**	**1.030**
SW036	0	NA	NA	NA
SW055	3	0.432	2.342	3.160
SW091	15	0.062	0.222	0.958
SW093	**207**	**0.007**	**0.038**	**1.060**
SW119	6	0.060	0.147	0.300
SW120	17	0.055	0.296	1.160
995POE	**23**	**0.000**	**0.007**	**0.020**

[6] The action levels noted in this section only apply to Points of Evaluation (995POE, GS10, SW027, and SW093; Section 12) compared to 30-day averages. The same numeric values are applied as standards only at Points of Compliance (GS01, GS03, GS08, GS11, and GS31; Section 13) compared to 30-day averages. Comparisons of standards and action levels to other locations are noted in this section for reference only. POEs and POCs are highlighted in bold in the tables.



Only locations with four or more results are mapped.

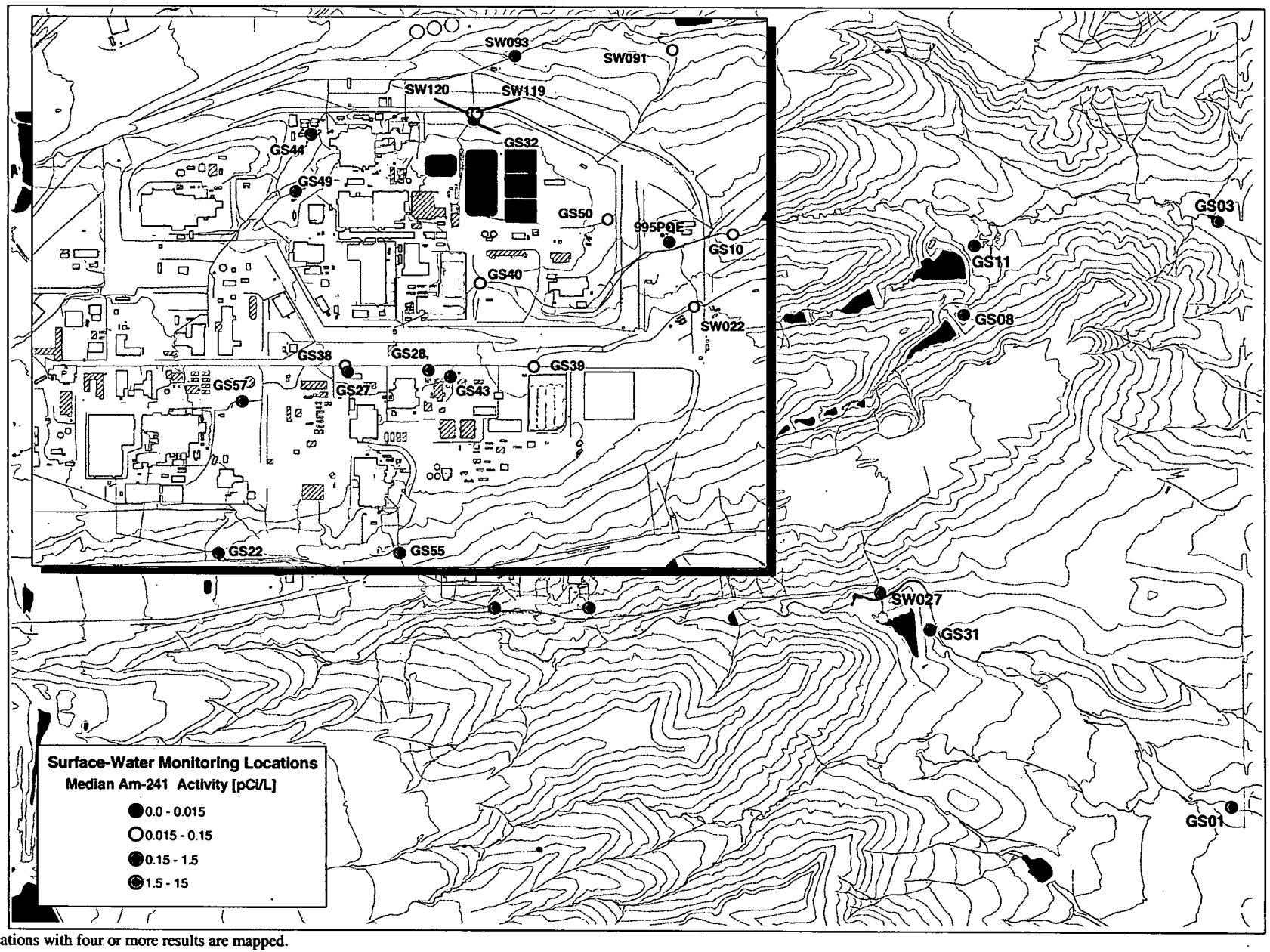
Figure 4-1. Map Showing Median Pu-239,240 Activities for WY97–02.

Table 4-3 and Figure 4-2 show that median Am activities for almost all locations outside the IA are well below the action level of 0.15 pCi/L.[7] Outside the IA, only GS42 (2 samples; median 0.185 pCi/L Am) and GS51 (1 sample; 0.389 pCi/L Am) had median activities greater than 0.15 pCi/L. These activities are likely due to the proximity of these monitoring location drainage areas to the 903 Pad. Several locations within the IA showed median Am activities greater than 0.15 pCi/L.

Table 4-3. Summary Statistics for Am-241 Analytical Results in WY97-02.

Location	Samples [N]	Median [pCi/L]	85th Percentile [pCi/L]	Maximum [pCi/L]
GS01	**115**	**0.002**	**0.008**	**0.039**
GS03	**179**	**0.005**	**0.018**	**0.059**
GS08	**76**	**0.005**	**0.013**	**0.275**
GS10	**186**	**0.054**	**0.163**	**8.385**
GS11	**73**	**0.003**	**0.008**	**0.047**
GS22	8	0.003	0.005	0.008
GS27	59	0.431	2.558	15.00
GS28	3	0.028	0.056	0.068
GS31	**18**	**0.011**	**0.023**	**0.116**
GS32	52	0.545	2.401	4.06
GS38	48	0.019	0.039	0.077
GS39	44	0.021	0.049	0.160
GS40	51	0.025	0.068	0.140
GS41	6	0.008	0.017	0.019
GS42	2	0.185	0.195	0.200
GS43	15	0.005	0.011	0.018
GS44	19	0.014	0.023	0.064
GS49	13	0.004	0.027	0.050
GS50	5	0.138	0.285	0.442
GS51	1	0.389	0.389	0.389
GS52	1	0.065	0.065	0.065
GS53	0	NA	NA	NA
GS54	0	NA	NA	NA
GS55	12	0.001	0.010	0.013
GS57	7	0.002	0.010	0.015
GS58	7	0.000	0.032	0.199
SW022	61	0.023	0.106	1.760
SW027	**45**	**0.007**	**0.022**	**0.177**
SW036	0	NA	NA	NA
SW055	3	0.084	0.415	0.557
SW091	15	0.051	0.236	0.686
SW093	**205**	**0.008**	**0.033**	**0.628**
SW119	6	0.100	0.185	0.384
SW120	17	0.050	0.114	0.336
995POE	**23**	**0.000**	**0.008**	**0.025**

[7] The action levels noted in this section only apply to Points of Evaluation (995POE, GS10, SW027, and SW093; Section 12) compared to 30-day averages. The same numeric values are applied as standards only at Points of Compliance (GS01, GS03, GS08, GS11, and GS31; Section 13) compared to 30-day averages. Comparisons of standards and action levels to other locations are noted in this section for reference only. POEs and POCs are highlighted in bold in the tables.



Only locations with four or more results are mapped.

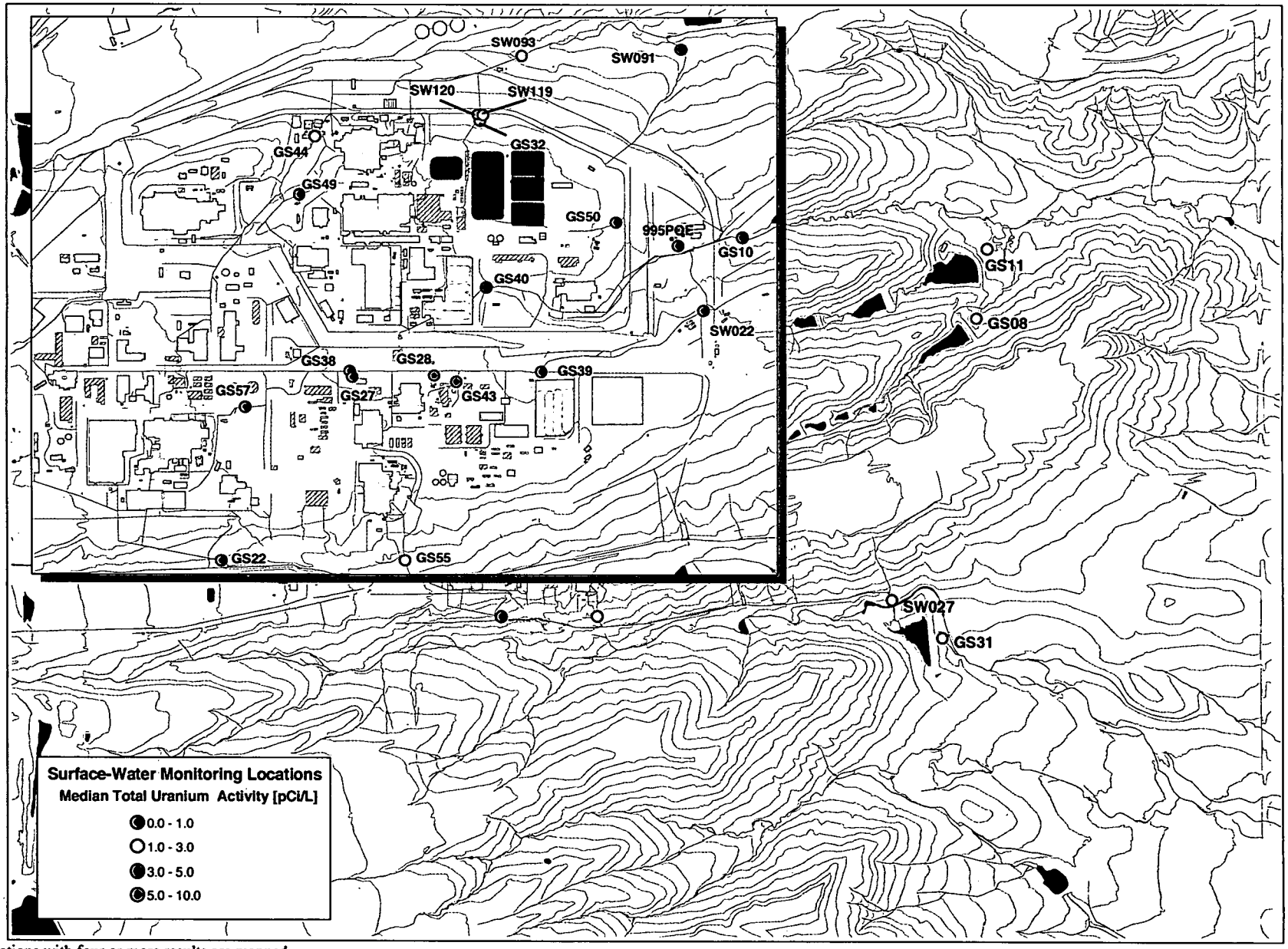
Figure 4-2. Map Showing Median Am-241 Activities for WY97–02.

Table 4-4 and Figure 4-3 show that median total uranium activities for all locations are below the action level of 10 pCi/L (11 pCi/L for Woman Creek).[8] Locations GS32, GS40, GS43, and SW120 showed sample results greater than the action level. These activities are likely due to the proximity of GS43 to Building 886 and both GS32 and SW120 to the Solar Ponds. Similarly, the higher results measured at SW091, SW093, and SW119 are also likely due to their proximity to the Solar Ponds, while GS58 measures runoff from B886. GS44 measures footing drain flows from B771, baseflow for GS55 is sustained by footing drain flows from B881, and baseflow for both GS10 and GS40 is sustained by footing drain flows from the 700 Area. The measurements at these locations may be due to naturally occurring uranium in the intercepted groundwater.

Table 4-4. Summary Statistics for Total Uranium Analytical Results in WY97-02.

Location	Samples [N]	Median [pCi/L]	85th Percentile [pCi/L]	Maximum [pCi/L]
GS08	**76**	**1.186**	**2.057**	**4.579**
GS10	**189**	**3.023**	**4.320**	**6.480**
GS11	**73**	**2.004**	**2.927**	**3.952**
GS22	8	0.832	1.001	1.214
GS27	60	0.294	0.851	3.558
GS28	3	0.459	0.531	0.562
GS31	**18**	**2.372**	**2.703**	**3.917**
GS32	52	1.565	3.325	17.529
GS38	9	0.518	0.562	0.861
GS39	6	0.145	0.209	0.242
GS40	30	3.163	4.569	11.264
GS43	12	9.381	15.635	23.088
GS44	18	2.444	4.460	5.075
GS49	13	0.316	1.480	2.933
GS50	5	0.292	0.383	0.438
GS51	1	2.637	NA	NA
GS52	1	2.860	NA	NA
GS53	0	NA	NA	NA
GS54	0	NA	NA	NA
GS55	12	2.900	5.355	9.448
GS57	7	0.500	0.653	0.679
GS58	7	5.455	7.830	8.634
SW022	61	0.837	2.080	3.913
SW027	**45**	**1.713**	**3.057**	**4.476**
SW036	0	NA	NA	NA
SW055	3	0.117	2.071	2.908
SW091	15	4.206	5.214	6.970
SW093	**207**	**2.690**	**4.200**	**6.640**
SW119	6	2.184	3.578	5.664
SW120	17	2.123	6.741	10.198
995POE	**23**	**0.331**	**0.923**	**1.835**

[8] The action levels noted in this section only apply to Points of Evaluation (995POE, GS10, SW027, and SW093; Section 12) compared to 30-day averages. The same numeric values are applied as standards only at Points of Compliance (GS01, GS03, GS08, GS11, and GS31; Section 13) compared to 30-day averages. Comparisons of standards and action levels to other locations are noted in this section for reference only. POEs and POCs are highlighted in **bold** in the tables.



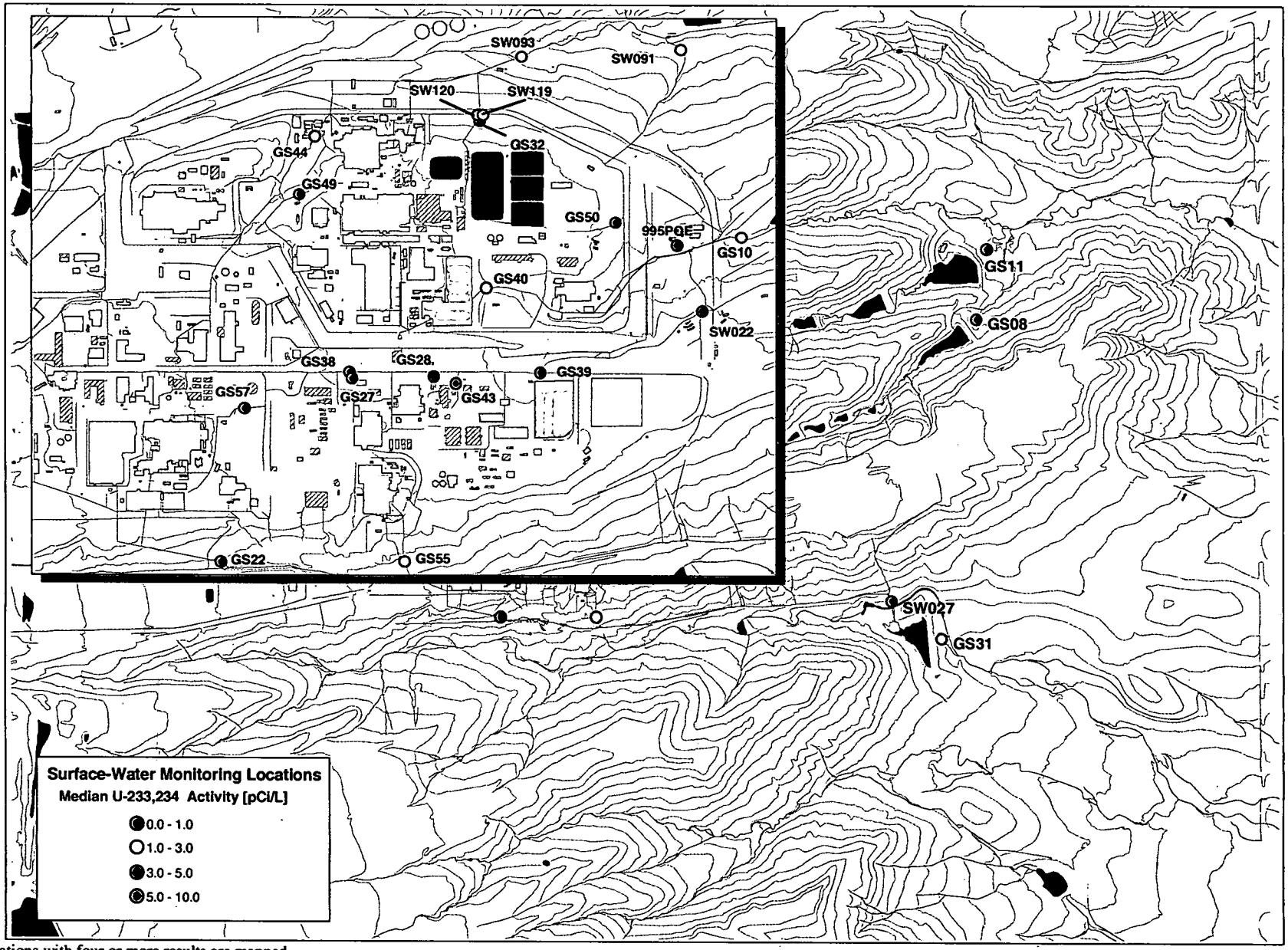
Only locations with four or more results are mapped.

Figure 4-3. Map Showing Median Total Uranium Activities for WY97–02.

Table 4-5 and Figure 4-4 show that the highest U-233,234 activities were measured at GS43 and GS32. These activities are likely due to the proximity of GS43 and GS32 to Building 886 and the Solar Ponds, respectively. GS58 also measures runoff from B886. Similarly, the higher results measured at SW091, SW093, SW119, and SW120 are likely due to their proximity to the Solar Ponds. Baseflow for GS55 is sustained by footing drain flows from B881, and baseflow for GS40 is sustained by footing drain flows from the 700 Area. The measurements at these locations may be due to naturally occurring uranium in the intercepted groundwater.

Table 4-5. Summary Statistics for U-233,234 Analytical Results in WY97-02.

Location	Samples [N]	Median [pCi/L]	85th Percentile [pCi/L]	Maximum [pCi/L]
GS08	**76**	**0.608**	**0.994**	**2.550**
GS10	**189**	**1.520**	**2.272**	**3.270**
GS11	**73**	**0.952**	**1.484**	**2.040**
GS22	8	0.427	0.543	0.631
GS27	60	0.153	0.406	1.980
GS28	3	0.182	0.228	0.247
GS31	**18**	**1.055**	**1.245**	**1.790**
GS32	52	0.862	1.929	10.8
GS38	9	0.241	0.267	0.436
GS39	6	0.075	0.099	0.114
GS40	30	1.310	1.993	5.660
GS43	12	6.895	11.835	17.900
GS44	18	1.295	2.464	2.830
GS49	13	0.163	0.699	1.490
GS50	5	0.159	0.196	0.224
GS51	1	1.420	NA	NA
GS52	1	1.570	NA	NA
GS53	0	NA	NA	NA
GS54	0	NA	NA	NA
GS55	12	1.685	3.102	5.430
GS57	7	0.193	0.239	0.253
GS58	7	3.050	4.269	4.710
SW022	61	0.381	0.843	1.750
SW027	**45**	**0.718**	**1.220**	**1.560**
SW036	0	NA	NA	NA
SW055	3	0.054	1.080	1.520
SW091	15	2.200	2.816	3.840
SW093	**207**	**1.250**	**1.942**	**2.820**
SW119	6	1.280	2.160	3.510
SW120	17	1.250	3.978	5.940
995POE	**23**	**0.147**	**0.454**	**0.872**



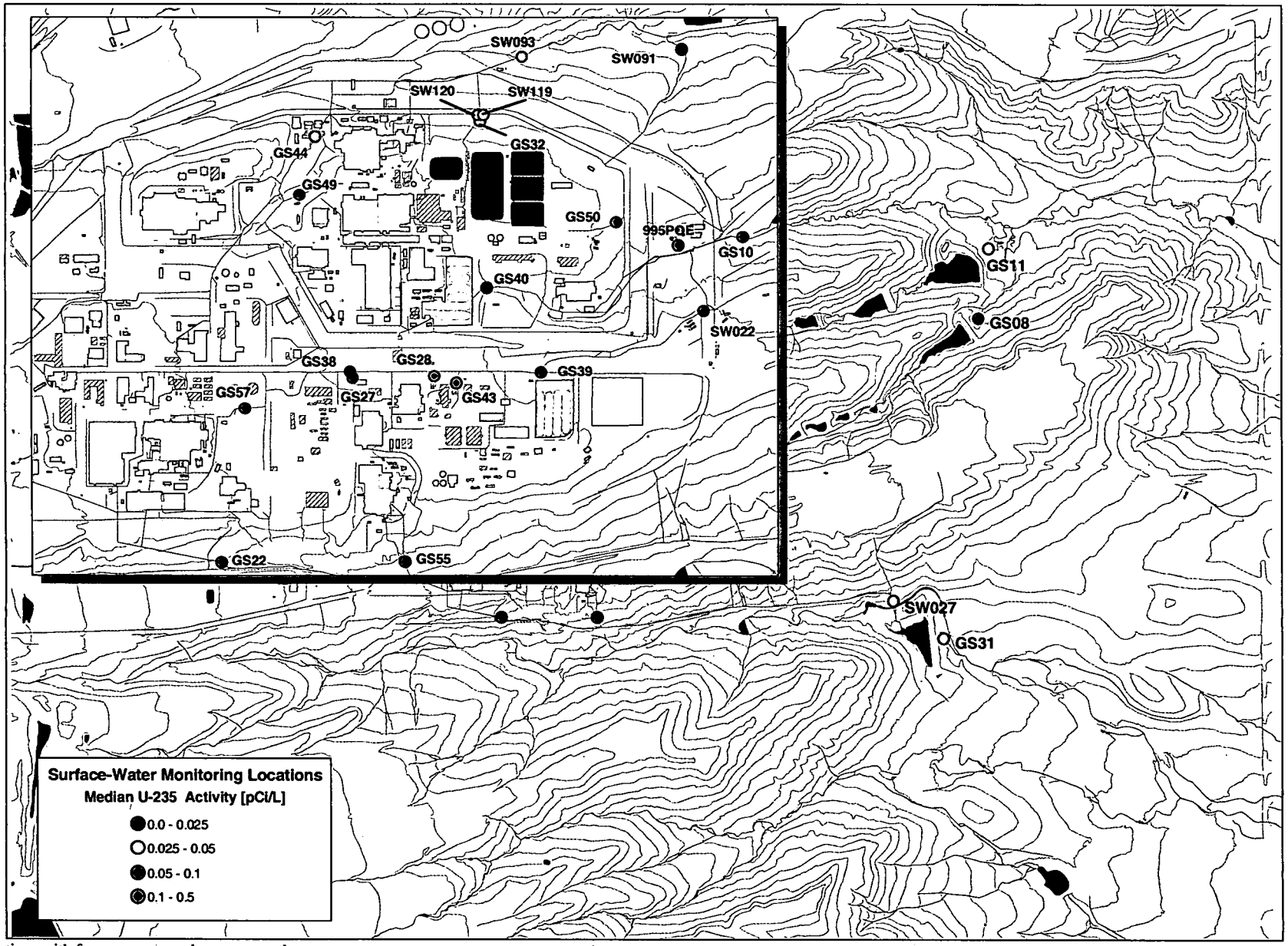
Only locations with four or more results are mapped.

Figure 4-4. Map Showing Median U-233,234 Activities for WY97–02.

Table 4-6 and Figure 4-5 show that the highest U-235 activities were measured at GS43 and GS32. These activities are likely due to the proximity of GS43 and GS32 to Building 886 and the Solar Ponds, respectively. Similarly, the higher results measured at SW091, SW093, SW119, and SW120 are likely due to their proximity to the Solar Ponds.

Table 4-6. Summary Statistics for U-235 Analytical Results in WY97-02.

Location	Samples [N]	Median [pCi/L]	85th Percentile [pCi/L]	Maximum [pCi/L]
GS08	**76**	**0.022**	**0.047**	**0.165**
GS10	**189**	**0.056**	**0.096**	**0.167**
GS11	**73**	**0.043**	**0.068**	**0.107**
GS22	8	0.009	0.027	0.035
GS27	60	0.008	0.033	0.116
GS28	3	0.007	0.008	0.008
GS31	**18**	**0.045**	**0.069**	**0.107**
GS32	52	0.044	0.087	0.319
GS38	9	0.001	0.017	0.021
GS39	6	0.000	0.002	0.008
GS40	30	0.061	0.078	0.214
GS43	12	0.260	0.444	0.593
GS44	18	0.041	0.090	0.139
GS49	13	0.004	0.044	0.103
GS50	5	0.004	0.009	0.015
GS51	1	0.027	NA	NA
GS52	1	0.040	NA	NA
GS53	0	NA	NA	NA
GS54	0	NA	NA	NA
GS55	12	0.056	0.105	0.158
GS57	7	0.004	0.013	0.016
GS58	7	0.104	0.115	0.181
SW022	61	0.021	0.056	0.187
SW027	**45**	**0.027**	**0.057**	**0.080**
SW036	0	NA	NA	NA
SW055	3	0.000	0.020	0.028
SW091	15	0.090	0.133	0.190
SW093	**207**	**0.046**	**0.091**	**0.150**
SW119	6	0.047	0.074	0.114
SW120	17	0.028	0.163	0.258
995POE	**23**	**0.004**	**0.020**	**0.038**



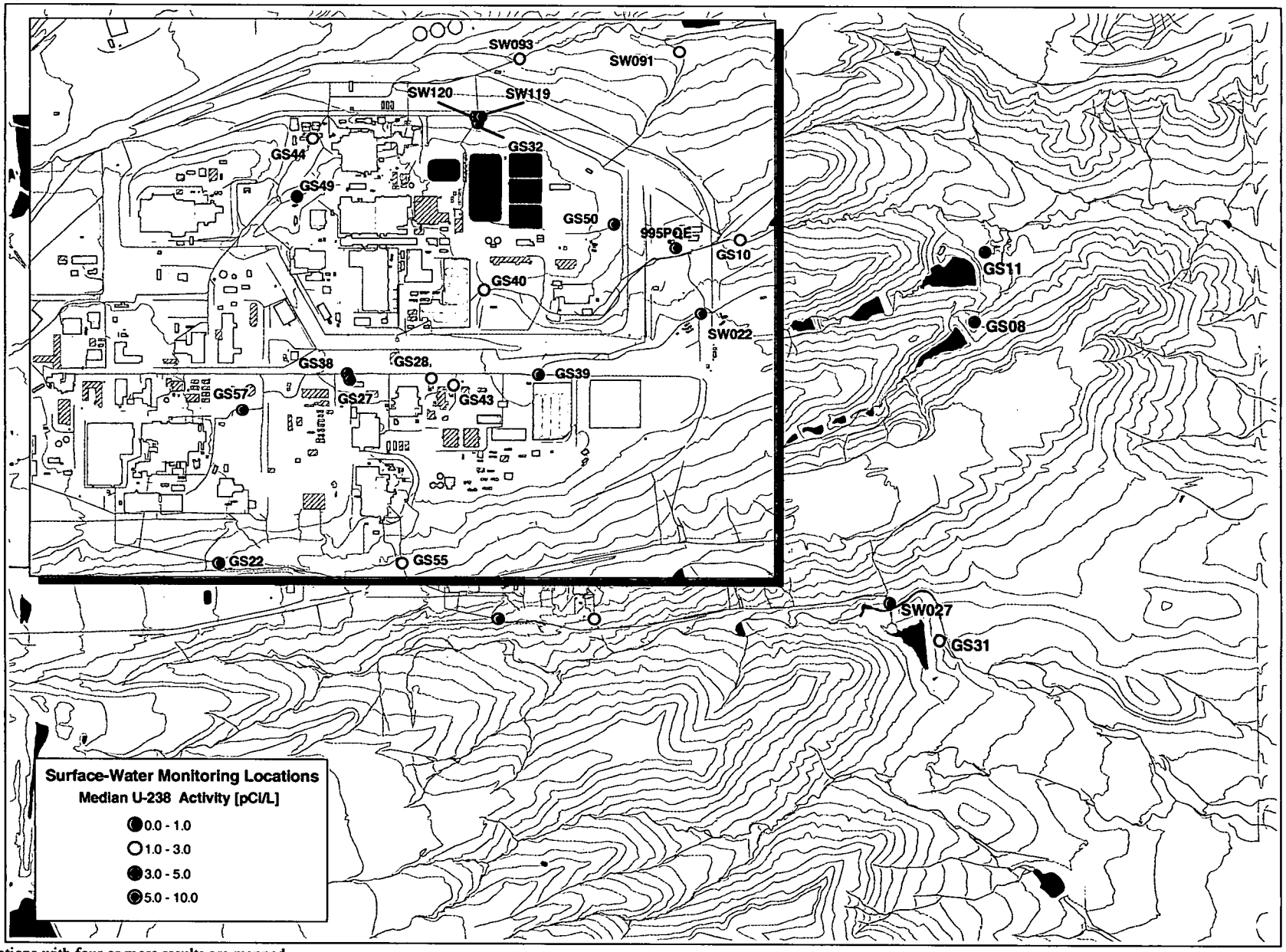
Only locations with four or more results are mapped.

Figure 4-5. Map Showing Median U-235 Activities for WY97–02.

Table 4-7 and Figure 4-6 show that the highest U-238 activities were measured at GS40, GS43, and GS32. These activities are likely due to the proximity of GS43 and GS32 to Building 886 and the Solar Ponds, respectively. GS58 also measures runoff from B886. Similarly, the higher results measured at SW091, SW093, SW119, and SW120 are likely due to their proximity to the Solar Ponds. Baseflow for GS55 is sustained by footing drain flows from B881, and baseflow for both GS10 and GS40 is sustained by footing drain flows from the 700 Area. The measurements at these locations may be due to naturally occurring uranium in the intercepted groundwater.

Table 4-7. Summary Statistics for U-238 Analytical Results in WY97-02.

Location	Samples [N]	Median [pCi/L]	85th Percentile [pCi/L]	Maximum [pCi/L]
GS08	**76**	**0.523**	**0.977**	**1.920**
GS10	**189**	**1.470**	**2.066**	**3.080**
GS11	**73**	**0.971**	**1.402**	**1.880**
GS22	8	0.371	0.453	0.563
GS27	60	0.157	0.441	1.500
GS28	3	0.284	0.306	0.315
GS31	**18**	**1.200**	**1.414**	**2.020**
GS32	52	0.606	1.294	6.41
GS38	9	0.238	0.302	0.404
GS39	6	0.070	0.110	0.128
GS40	30	1.755	2.392	5.390
GS43	12	2.215	3.337	4.650
GS44	18	1.065	1.897	2.110
GS49	13	0.153	0.712	1.440
GS50	5	0.115	0.194	0.211
GS51	1	1.190	NA	NA
GS52	1	1.250	NA	NA
GS53	0	NA	NA	NA
GS54	0	NA	NA	NA
GS55	12	1.145	2.148	3.860
GS57	7	0.303	0.395	0.426
GS58	7	2.320	3.388	3.820
SW022	61	0.420	1.290	2.601
SW027	**45**	**0.930**	**1.602**	**2.910**
SW036	0	NA	NA	NA
SW055	3	0.063	0.971	1.360
SW091	15	1.770	2.535	2.950
SW093	**207**	**1.340**	**2.291**	**3.960**
SW119	6	0.848	1.358	2.040
SW120	17	0.899	2.620	4.000
995POE	**23**	**0.170**	**0.450**	**0.946**



Only locations with four or more results are mapped.

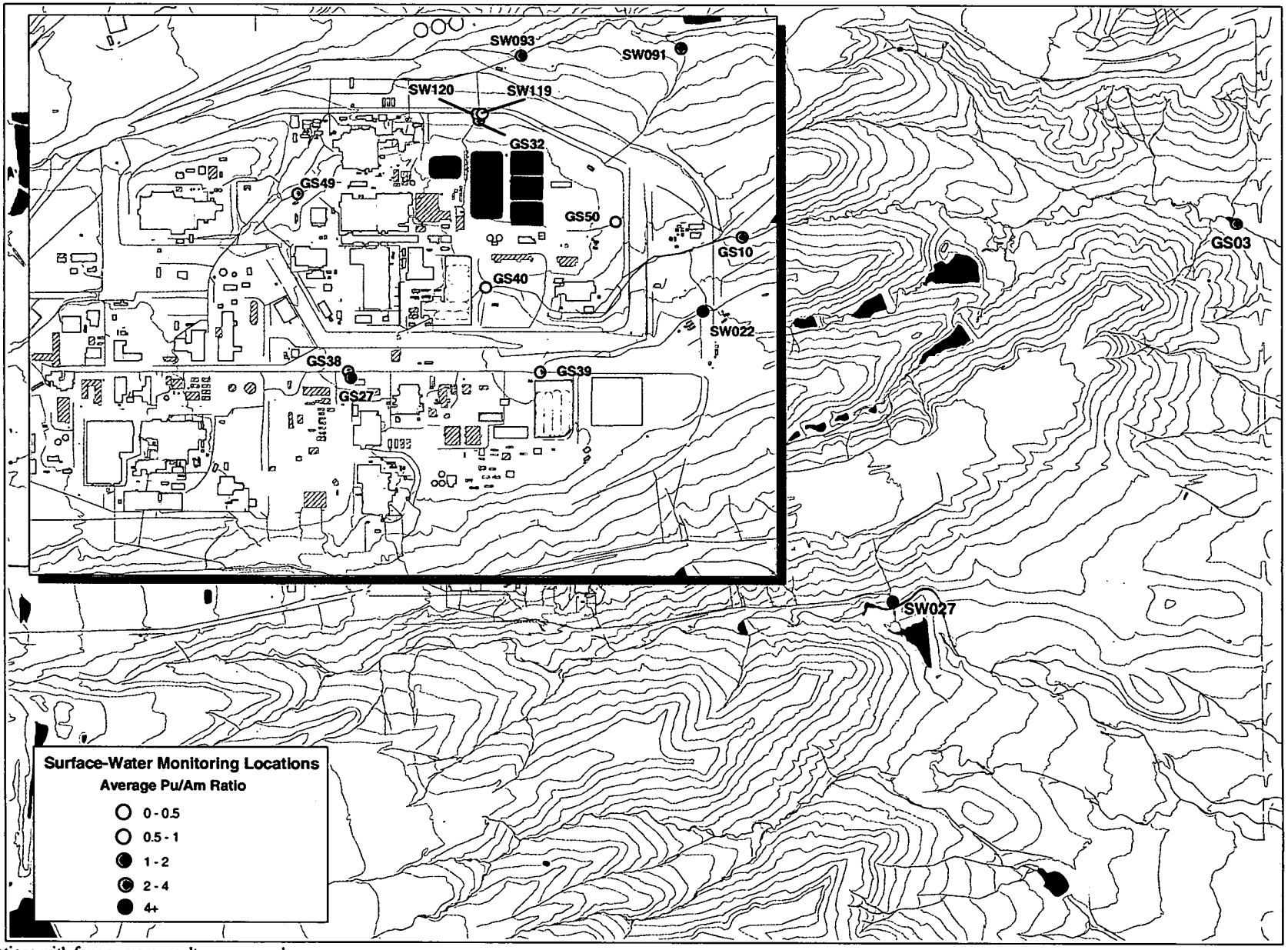
Figure 4-6. Map Showing Median U-238 Activities for WY97–02.

Table 4-8 lists the average Pu/Am activity ratios for all locations where samples are analyzed for Pu and Am. A ratio greater than one indicates Pu activity in excess of Am activity. Conversely, a ratio less than one indicates Am activity in excess of Pu activity. Generally, Pu activities are greater than Am activities in surface water at the Site. However, several locations in the IA show ratios less than one (Figure 4-7). The significance of these ratios has been extensively evaluated in the various Source Evaluation reports for GS10 (see Section 6).

Table 4-8. Average Pu/Am Ratios for Analytical Results in WY97-02.

Location	Samples [N][a]	Average Pu/Am Ratio
GS01	**2**	**1.06**
GS03	**15**	**1.98**
GS08	**3**	**8.39**
GS10	**140**	**1.14**
GS11	*	*
GS22	*	*
GS27	58	4.21
GS28	2	3.20
GS31	**3**	**4.53**
GS32	51	1.43
GS38	31	3.81
GS39	26	3.43
GS40	23	0.85
GS41	1	1.06
GS42	2	5.92
GS43	2	2.98
GS44	3	1.30
GS49	4	2.10
GS50	5	0.48
GS51	1	6.2
GS52	1	5.69
GS53	*	*
GS54	*	*
GS55	*	*
GS57	1	1.73
GS58	1	1.70
SW022	37	4.23
SW027	**10**	**4.42**
SW036	*	*
SW055	3	5.42
SW091	12	1.22
SW093	**53**	**1.80**
SW119	6	0.68
SW120	12	2.22
995POE	*	*

Note: [a] – Number of samples where both Pu and Am were greater than 0.015 pCi/L.
* - No results greater than 0.015 pCi/L



Only locations with four or more results are mapped.

Figure 4-7. Map Showing Average Pu/Am Ratios for WY97–02.

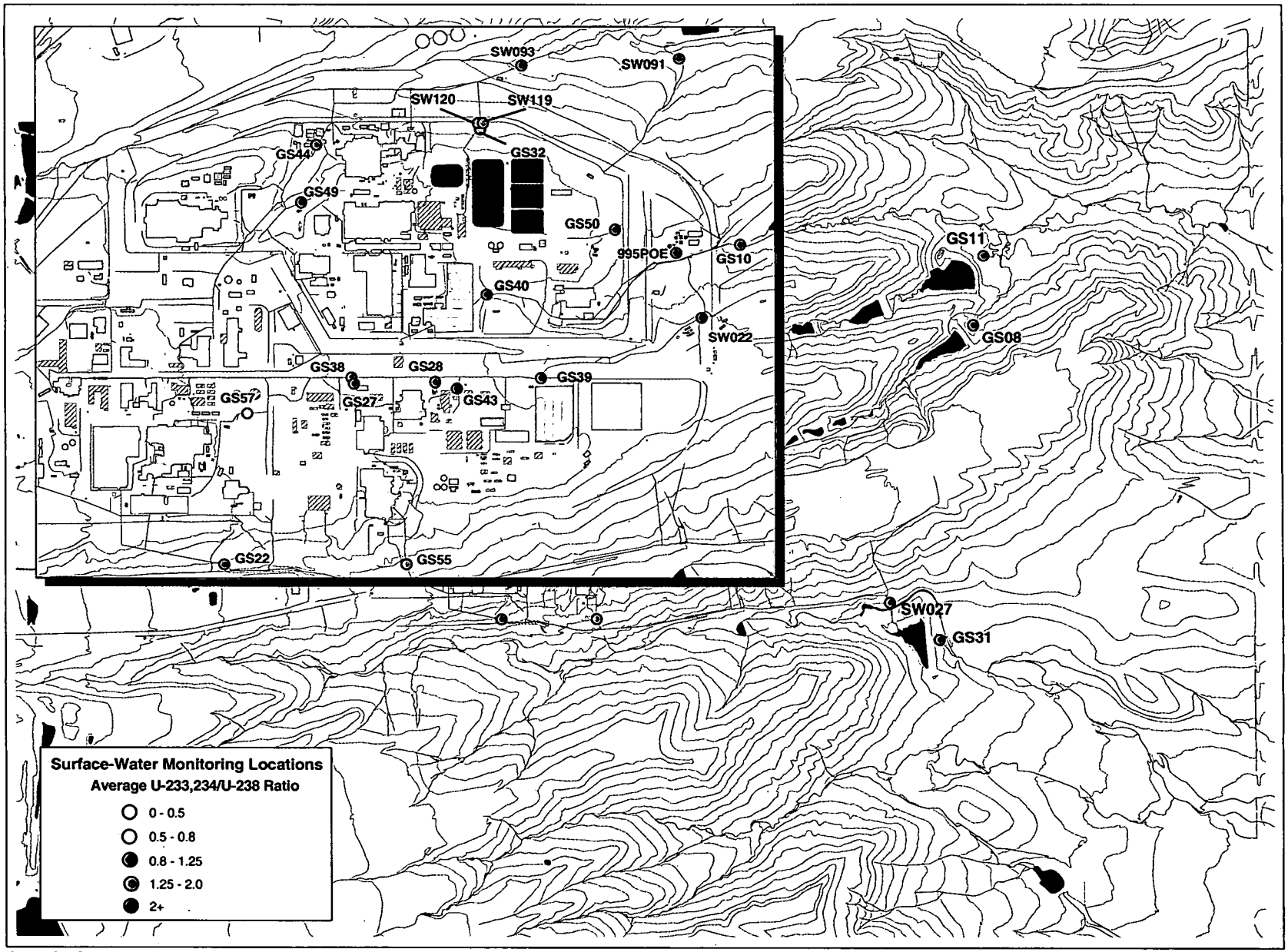
Naturally occurring uranium generally shows a U-233,234/U-238 activity ratio of approximately one. The U-233,234/U-238 activity ratios at Site surface-water monitoring locations may be used as an indication of the existence of uranium with 'unnatural' ratios. Although this evaluation does not deal systematically with analytical counting errors, Table 4-9 and Figure 4-8 are presented here for reference.

Location GS43 shows an average ratio significantly greater than one, indicating the possible existence of uranium modified by Site activities. The ratios at this location are likely due to the proximity of GS43 to Building 886. Similarly, GS32, SW119, and SW120 show ratios somewhat greater than one, likely due to the proximity of these locations to the Solar Ponds. GS55 also shows a ratio somewhat greater than one, likely due to the proximity of this location to B881.

Table 4-9. Average U-233,234 / U-238 Ratios for Analytical Results in WY97-02.

Location	Samples [N][a]	Average U-233,234 / U-238 Ratio
GS08	**76**	**1.09**
GS10	**189**	**1.07**
GS11	**73**	**1.00**
GS22	8	1.19
GS27	53	1.08
GS28	3	0.69
GS31	**18**	**0.88**
GS32	51	1.50
GS38	9	1.04
GS39	6	1.07
GS40	30	0.85
GS43	12	3.26
GS44	18	1.28
GS49	13	1.16
GS50	5	1.16
GS51	1	1.19
GS52	1	1.26
GS53	*	*
GS54	*	*
GS55	12	1.48
GS57	7	0.56
GS58	7	1.24
SW022	60	0.89
SW027	**45**	**0.81**
SW036	*	*
SW055	3	0.95
SW091	15	1.20
SW093	**207**	**0.91**
SW119	6	1.45
SW120	17	1.39
995POE	**23**	**0.95**

Note: [a] – Number of samples where both U-233,234 and U-238 were greater than 0.025 pCi/L.



Only locations with four or more results are mapped.

Figure 4-8. Map Showing Average U-233,234 / U-238 Ratios for WY97–02.

4.2 POE METALS

The following summaries include all results that were not rejected through the verification/validation process. When an 'undetect' is returned from the lab for metals analyses, then half the detection limit is used for calculation purposes. When a sample has a corresponding field duplicate, the value used in calculations is the arithmetic average of the 'real' value and the 'duplicate'. When a sample has multiple 'real' analyses (Site requested 're-runs'), the value used in calculations is the arithmetic average of the multiple 'real' analyses.

Table 4-10. Summary Statistics for POE Metals Results from GS10 in WY97-02.

Analyte	Samples [N]	Percent Undetect	Median [µg/L]	85th Percentile [µg/L]	Maximum [µg/L]
Total Be	186	40.3%	0.12	0.56	2.50
Dissolved Cd	177	50.3%	0.08	0.17	0.62
Total Cr	187	20.3%	2.05	5.80	23.20
Dissolved Ag	177	87.6%	0.11	0.18	1.10

Table 4-11. Summary Statistics for POE Metals Results from SW027 in WY97-02.

Analyte	Samples [N]	Percent Undetect	Median [µg/L]	85th Percentile [µg/L]	Maximum [µg/L]
Total Be	44	61.4%	0.100	0.68	0.75
Dissolved Cd	44	59.1%	0.050	0.16	0.70
Total Cr	44	13.6%	1.450	2.40	9.60
Dissolved Ag	44	84.1%	0.125	0.24	0.72

Table 4-12. Summary Statistics for POE Metals Results from SW093 in WY97-02.

Analyte	Samples [N]	Percent Undetect	Median [µg/L]	85th Percentile [µg/L]	Maximum [µg/L]
Total Be	206	43.7%	0.11	0.50	2.10
Dissolved Cd	199	65.8%	0.05	0.15	2.20
Total Cr	205	24.4%	1.60	4.80	34.9
Dissolved Ag	196	88.3%	0.10	0.18	1.00

5. LOADING ANALYSIS

This section provides a summary of actinide loads for RFCA POEs and POCs. These locations collect continuous flow paced composite samples for laboratory analysis. The nature of the continuous sampling during all flow conditions allows for more accurate load estimations compared to storm-event sampling. The method for load estimation (in pCi) is given in Appendix B1: Data Evaluation Methods. The total pCi value is then converted to µg using the conversion factors in Table 5-1.[9]

Table 5-1. Activity to Mass Conversion Factors for Pu, Am, and U Isotopes.

Analyte	Mass/Activity (g/Ci)
Pu-239,240	14.085
Am-241	0.292
U-233,234	1.6 E+02
U-235	4.63 E+05
U-238	2.98 E+06

The Pu-239,240 conversion factor was derived from Table 2.7.2-2 in the April 1980 *Final Environmental Impact Statement (Final Statement to ERDA 1545-D)*, Rocky Flats Plant Site.

The conversion factors for Am-241, U-233,234, U-235, and U-238 were taken from the *U.S. Code of Federal Regulations, Title 40, Chapter I, Part 302.4, Appendix B, October 7, 2000.*[10]

5.1 SITEWIDE

This section summarizes the calculated offsite Pu and Am loads from Walnut and Woman Creeks. The following points are noted:

- Walnut Creek accounts for 79% and 77% of the Pu (Figure 5-4) and Am (Figure 5-5) loads, respectively, from the Site. The fact that Walnut Creek accounts for 63% of the combined Walnut and Woman Creek flow volumes (Section **3.2.1**) indicates that the activities in Walnut Creek are somewhat higher than Woman Creek.

Table 5-2. Offsite Pu and Am Loads from Walnut and Woman Creeks: WY97–02.

	Pu-239,-240 (µg)			Am-241 (µg)		
Water Year	**Walnut Creek**	**Woman Creek**	**Site Total**	**Walnut Creek**	**Woman Creek**	**Site Total**
1997	254.7	47.8	302.5	2.60	0.49	3.09
1998	181.3	59.1	240.4	2.84	1.01	3.84
1999	148.9	56.1	205.0	2.06	0.77	2.83
2000	23.7	6.6	30.3	0.75	0.18	0.93
2001	59.0	23.7	82.7	0.65	0.30	0.96
2002	43.2	1.0	44.2	0.32	0.04	0.35
Total	710.8	194.3	905.2	9.22	2.78	11.99

Note: During WY97, flows from Woman Creek were routinely diverted to Mower Ditch for subsequent monitoring at GS02 (Figure 3-1). Therefore, the load calculated for Woman Creek at Indiana Street (GS01) includes the water that was measured at GS02. The estimated load diverted to GS02 is calculated by multiplying the WY97 volume-weighted activities at GS01 by the streamflow volume measured at GS02, and converting for units. This diverted load is then added to the calculated load at GS01 to obtain the total WY97 load at GS01. For subsequent water years, the Mower diversion structure has been upgraded and configured to prevent Woman Creek flows from entering the Mower Ditch.

[9] In the following tables and plots, values are rounded for clarity.

[10] The U-234 conversion factor was used to represent U-233,234 due to the small relative abundance of U-233.

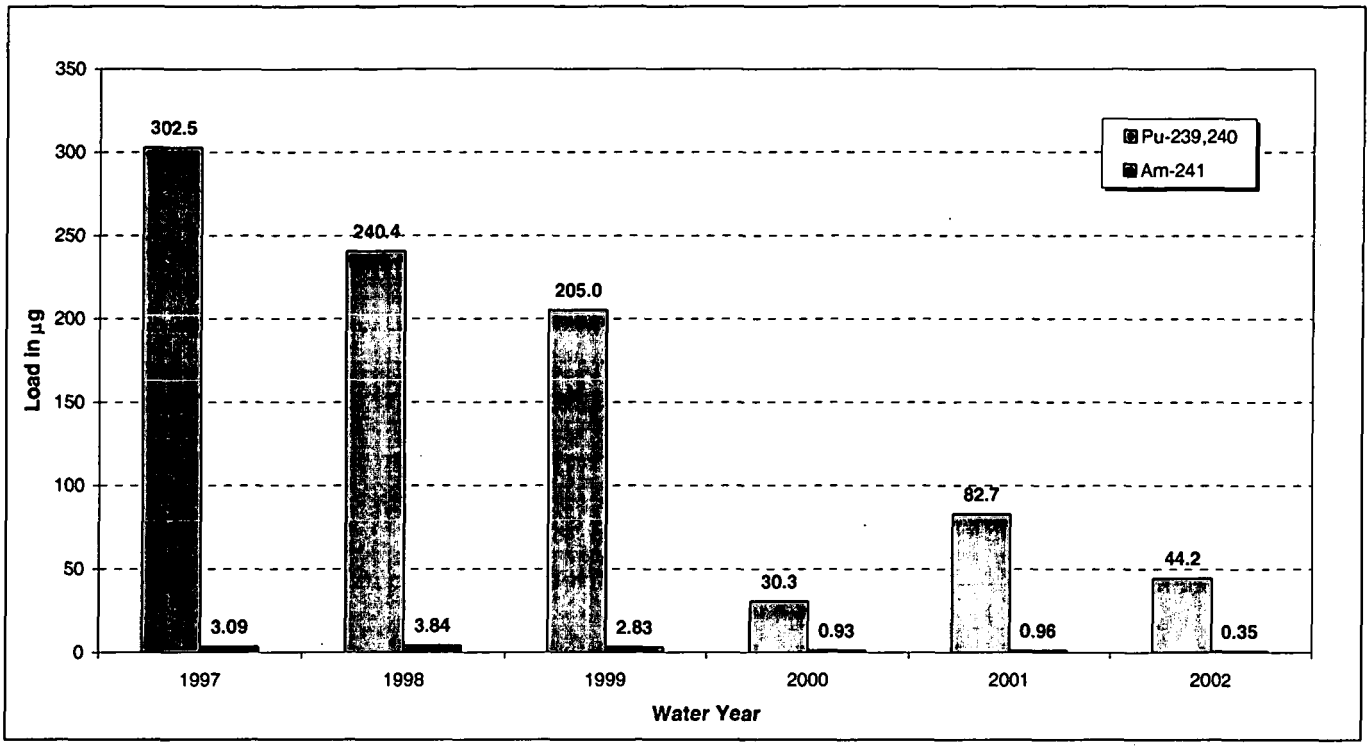


Figure 5-1. Combined Annual Pu and Am Loads from Walnut and Woman Creeks: WY97–02.

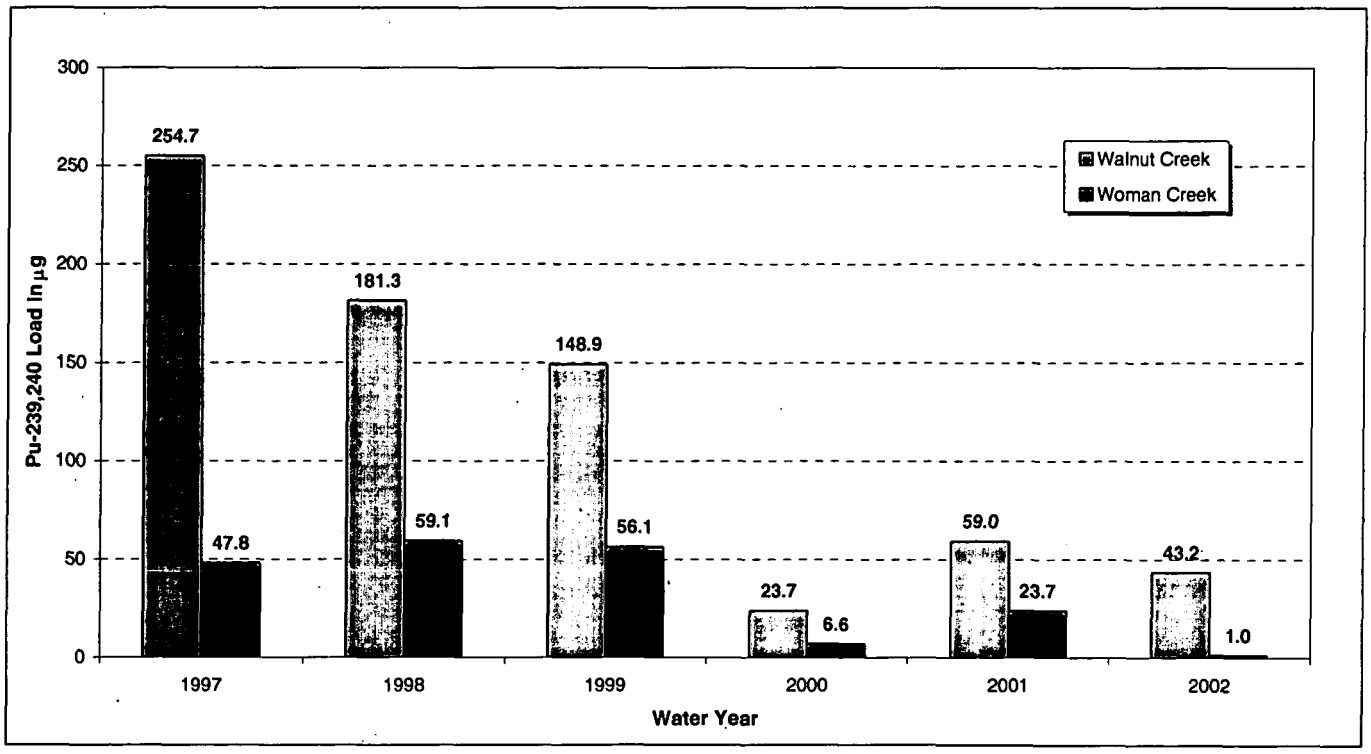


Figure 5-2. Annual Pu Loads from Walnut and Woman Creeks: WY97–02.

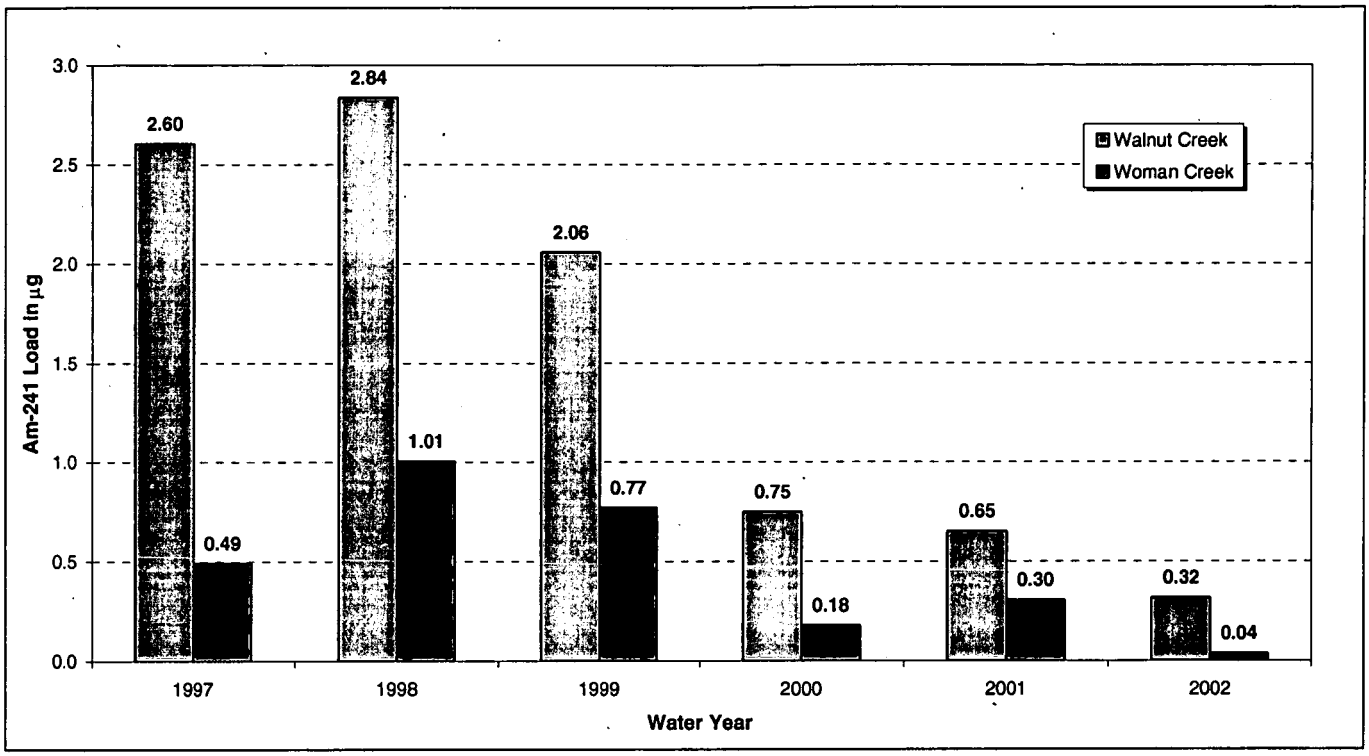


Figure 5-3. Annual Am Loads from Walnut and Woman Creeks: WY97–02.

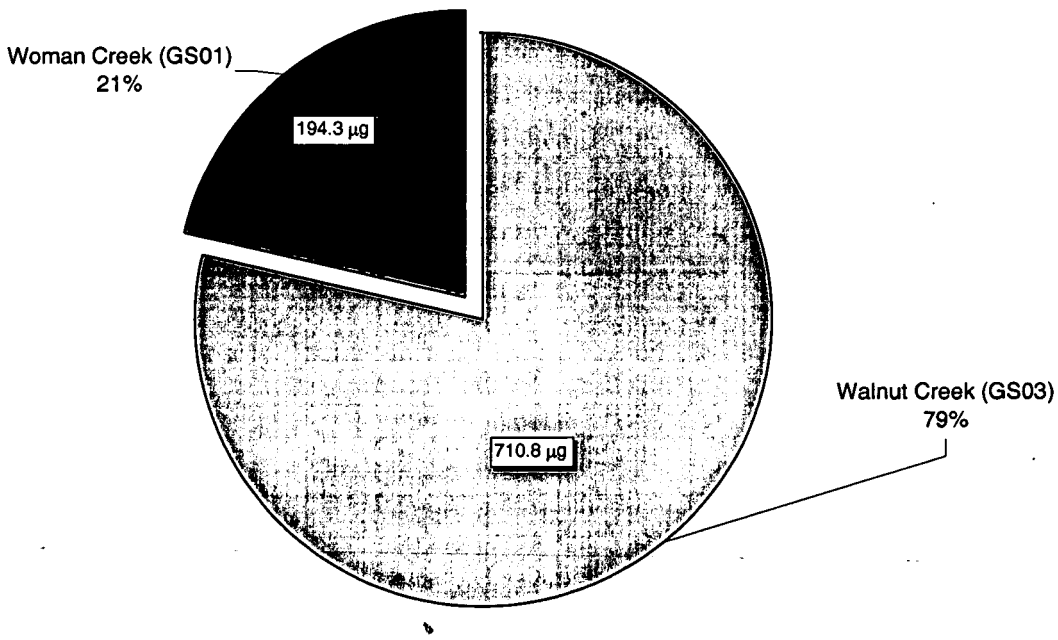


Figure 5-4. Relative Pu Load Totals from Walnut and Woman Creeks: WY97–02.

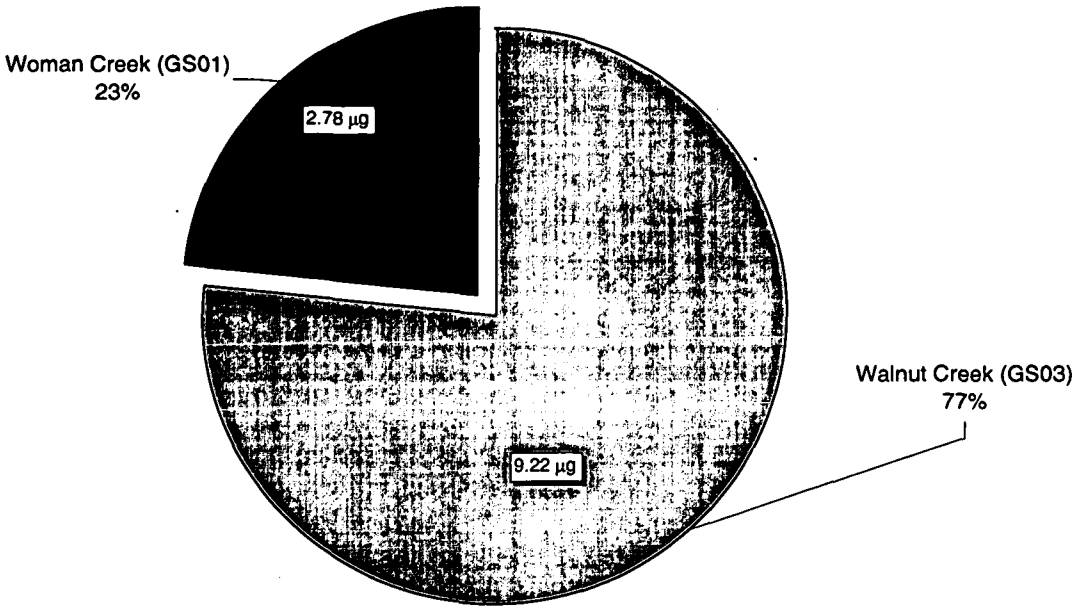


Figure 5-5. Relative Am Load Totals from Walnut and Woman Creeks: WY97–02.

5.2 WALNUT CREEK (POC GS03)

This section summarizes the calculated Pu and Am loads in Walnut Creek at GS03 (Walnut and Indiana Street), GS08 (Pond B-5), and GS11 (Pond A-4). The following points are noted:

- Annual Pu and Am loads vary by up to two orders of magnitude year-to-year (Figure 5-7 and Figure 5-8).
- Pu and Am loads appear to be decreasing at GS03 (Figure 5-6).
- Loads from B-5 are significantly greater than loads from A-4 (Table 5-3).
- Total Pu loads from A-4 and B-5 are marginally greater than the loads at GS03 (Figure 5-9), indicating a small loss of load to the Walnut Creek streambed below A-4 and B-5.
- Total Am loads from A-4 and B-5 are marginally less than the loads at GS03 (Figure 5-10), indicating a small gain of load from the Walnut Creek streambed below A-4 and B-5.

Table 5-3. Pu Loads at GS03, GS08, and GS11: WY97–02.

	Pu-239,-240 (µg)			
Water Year	**Pond A-4 [GS11]**	**Pond B-5 [GS08]**	**Walnut Cr. Terminal Ponds**	**POC GS03**
1997	46.0	11.8	57.9	254.7
1998	30.7	22.4	53.1	181.3
1999	27.0	255.9	283.0	148.9
2000	27.9	245.3	273.2	23.7
2001	5.3	32.0	37.3	59.0
2002	0.1	12.9	13.0	43.2
Total	136.9	580.4	717.3	710.8

Table 5-4. Am Loads at GS03, GS08, and GS11: WY97–02.

	Am-241 (µg)			
Water Year	**Pond A-4**	**Pond B-5**	**Terminal Ponds**	**POC GS03**
1997	0.52	0.28	0.80	2.60
1998	1.33	0.40	1.73	2.84
1999	0.35	1.73	2.08	2.06
2000	0.02	3.16	3.18	0.75
2001	0.11	0.46	0.57	0.65
2002	0.02	0.27	0.29	0.32
Total	2.35	6.29	8.65	9.22

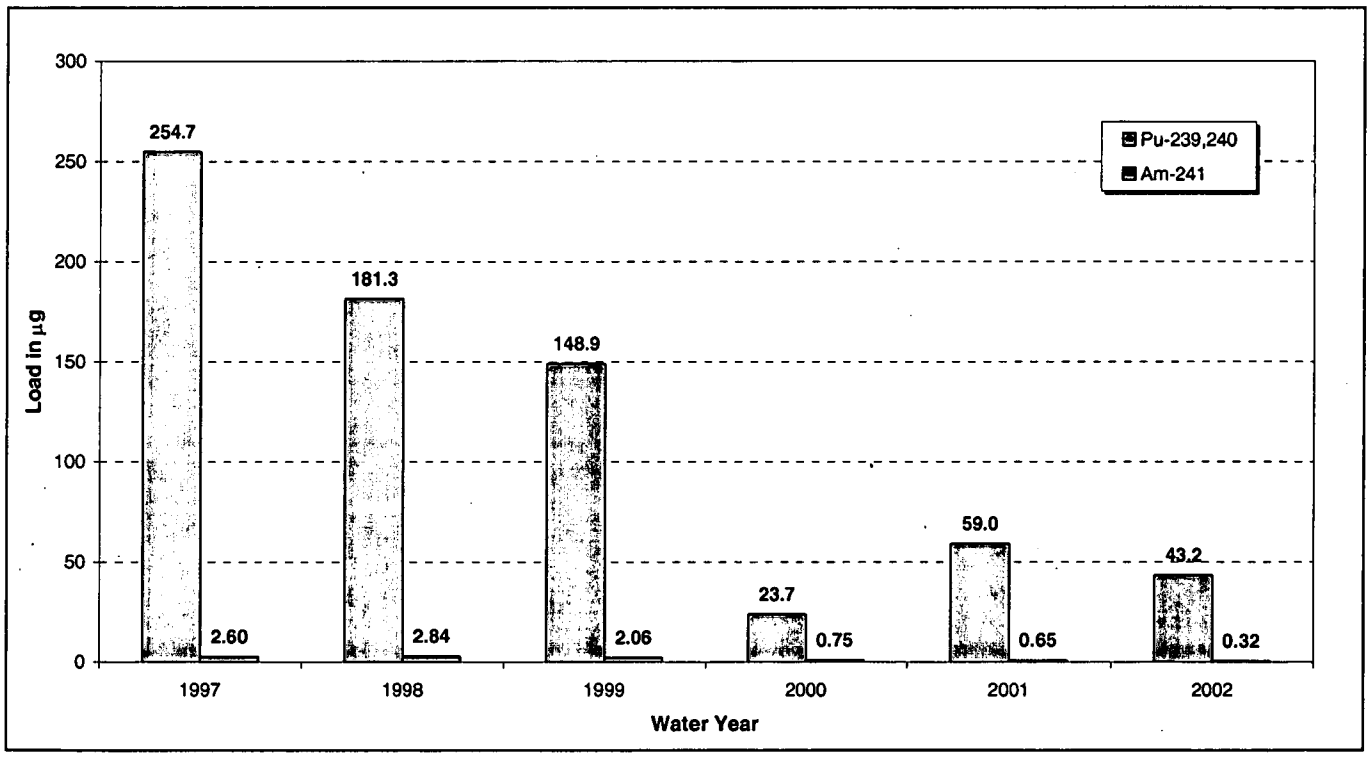


Figure 5-6. Annual Pu and Am Loads at GS03: WY97–02.

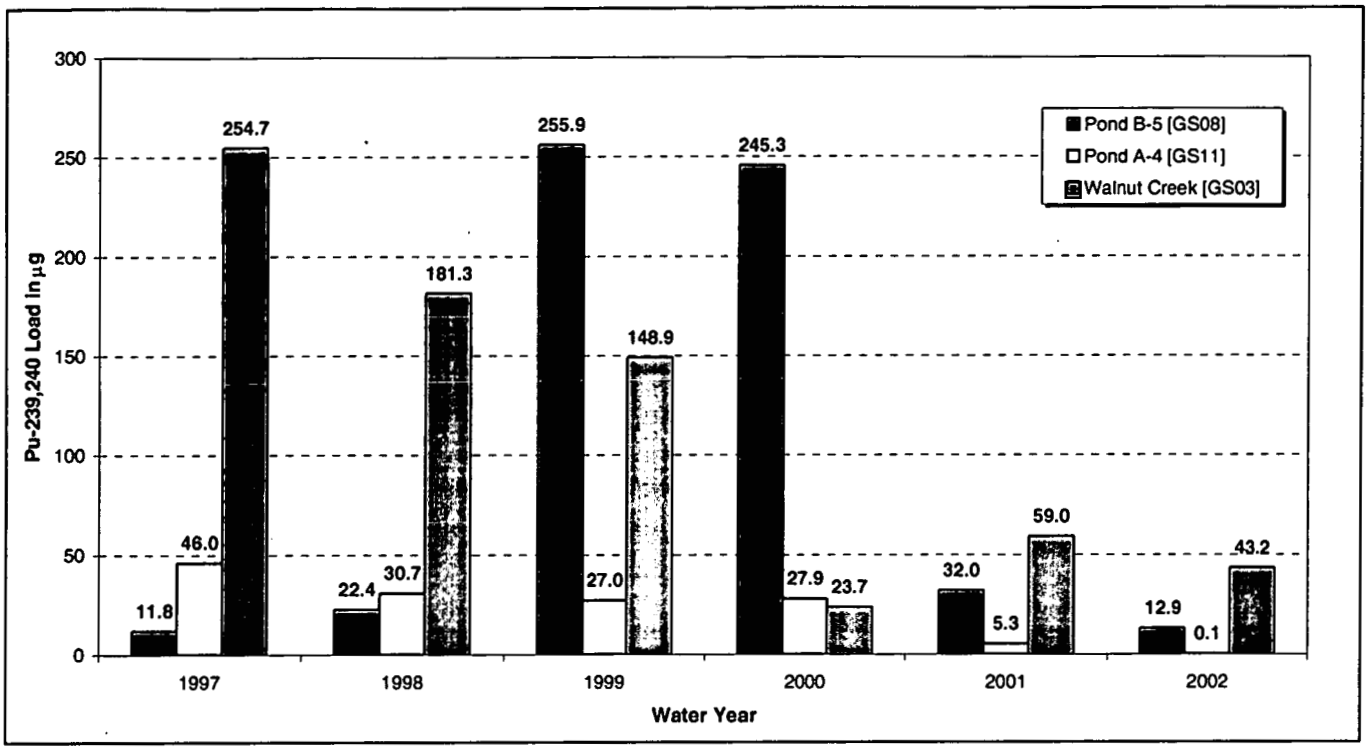


Figure 5-7. Annual Pu Loads at GS03, GS08, and GS11: WY97–02.

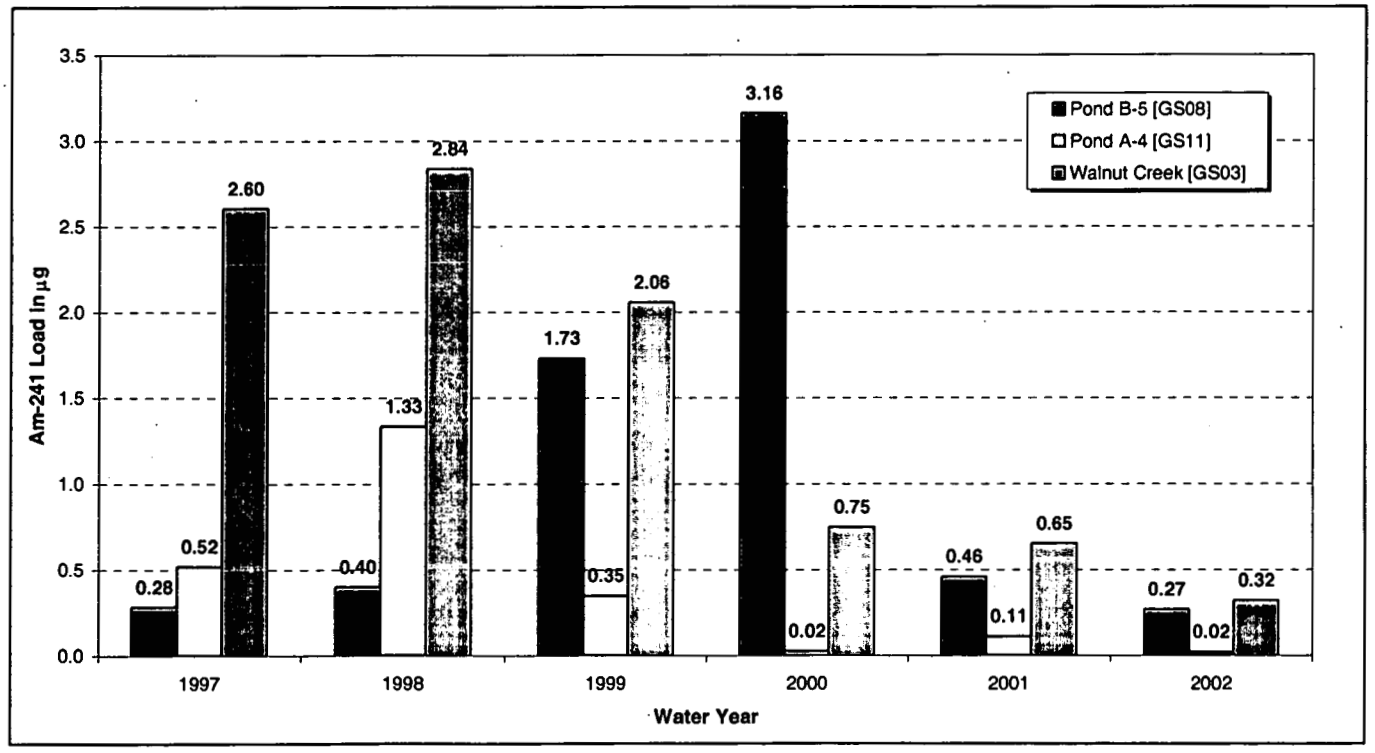


Figure 5-8. Annual Am Loads at GS03, GS08, and GS11: WY97–02.

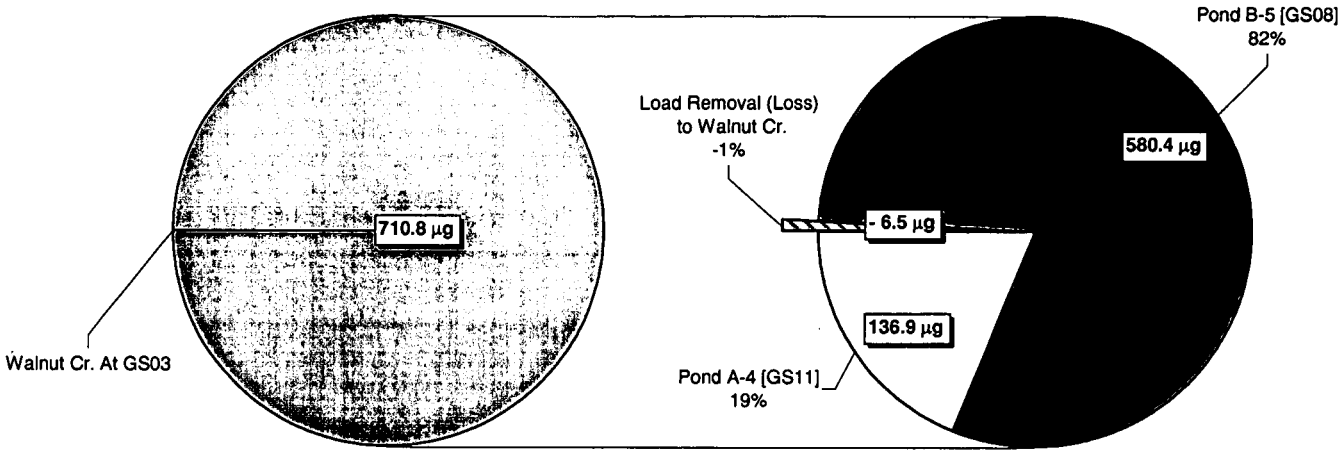


Figure 5-9. Relative Pu Load Totals at GS03, GS08, and GS11: WY97–02.

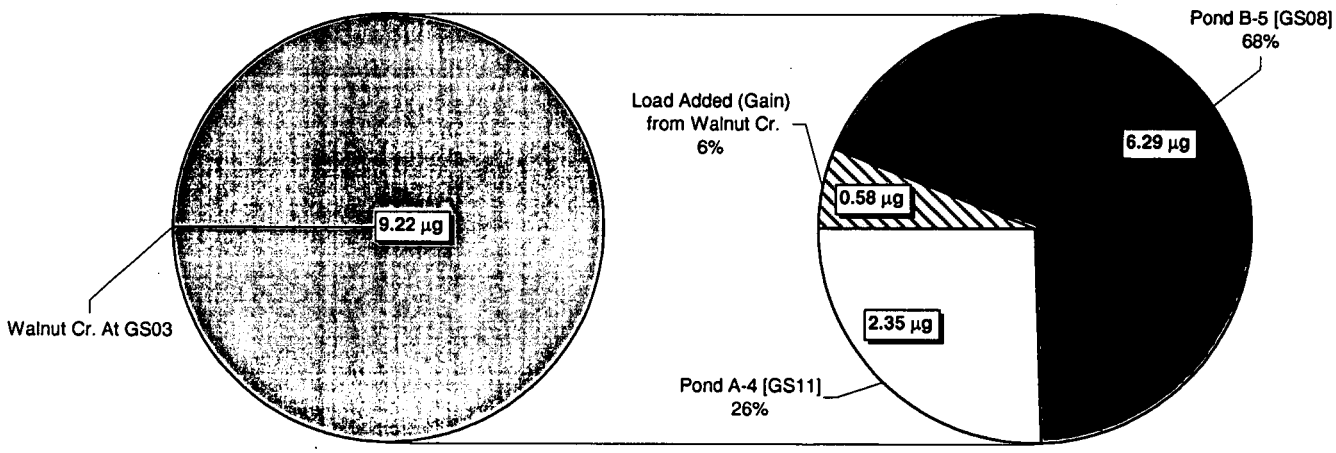


Figure 5-10. Relative Am Load Totals at GS03, GS08, and GS11: WY97–02.

5.3 WOMAN CREEK (POC GS01)

This section summarizes the calculated Pu and Am loads in Woman Creek at GS01 (Woman and Indiana Street) and GS31 (Pond C-2). The following points are noted:

- Annual Pu and Am loads generally vary by up to two orders of magnitude year-to-year (Figure 5-12 and Figure 5-13).
- Total Pu loads from C-2 are significantly less than the loads at GS01 (Figure 5-14), indicating a significant gain of load from the Woman Creek drainage.
- Total Am loads from C-2 are significantly less than the loads at GS01 (Figure 5-15), indicating a significant gain of load from the Woman Creek drainage.

Table 5-5. Pu and Am Loads at GS01 and GS31: WY97–02.

	Pu-239,-240 (μg)		Am-241 (μg)	
Water Year	**Pond C-2 [GS31]**	**POC GS01**	**Pond C-2 [GS31]**	**POC GS01**
1997	6.8	47.8	0.04	0.49
1998	12.1	59.1	0.40	1.01
1999	26.9	56.1	0.13	0.77
2000	0.0; No C-2 Discharge	6.6	0.00; No C-2 Discharge	0.18
2001	11.0	23.7	0.14	0.30
2002	0.2	1.0	0.00	0.04
Total	57.0	194.3	0.71	2.78

Note: During WY97, flows from Woman Creek were routinely diverted to Mower Ditch for subsequent monitoring at GS02 (Figure 3-1). Therefore, the load calculated for Woman Creek at Indiana Street (GS01) includes the water that was measured at GS02. The estimated load diverted to GS02 is calculated by multiplying the WY97 volume-weighted activities at GS01 by the streamflow volume measured at GS02, and converting for units. This diverted load is then added to the calculated load at GS01 to obtain the total WY97 load at GS01. For subsequent water years, the Mower diversion structure has been upgraded and configured to prevent Woman Creek flows from entering the Mower Ditch.

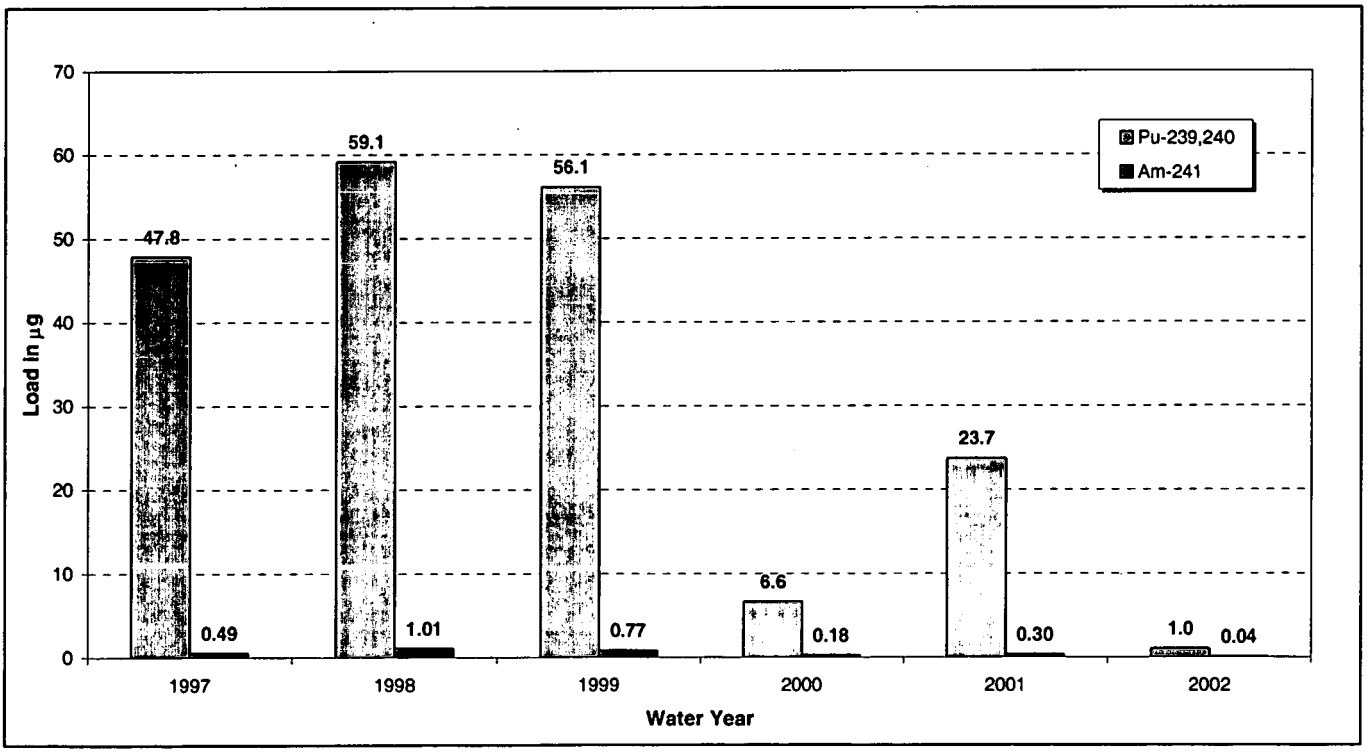


Figure 5-11. Annual Pu and Am Loads at GS01: WY97–02.

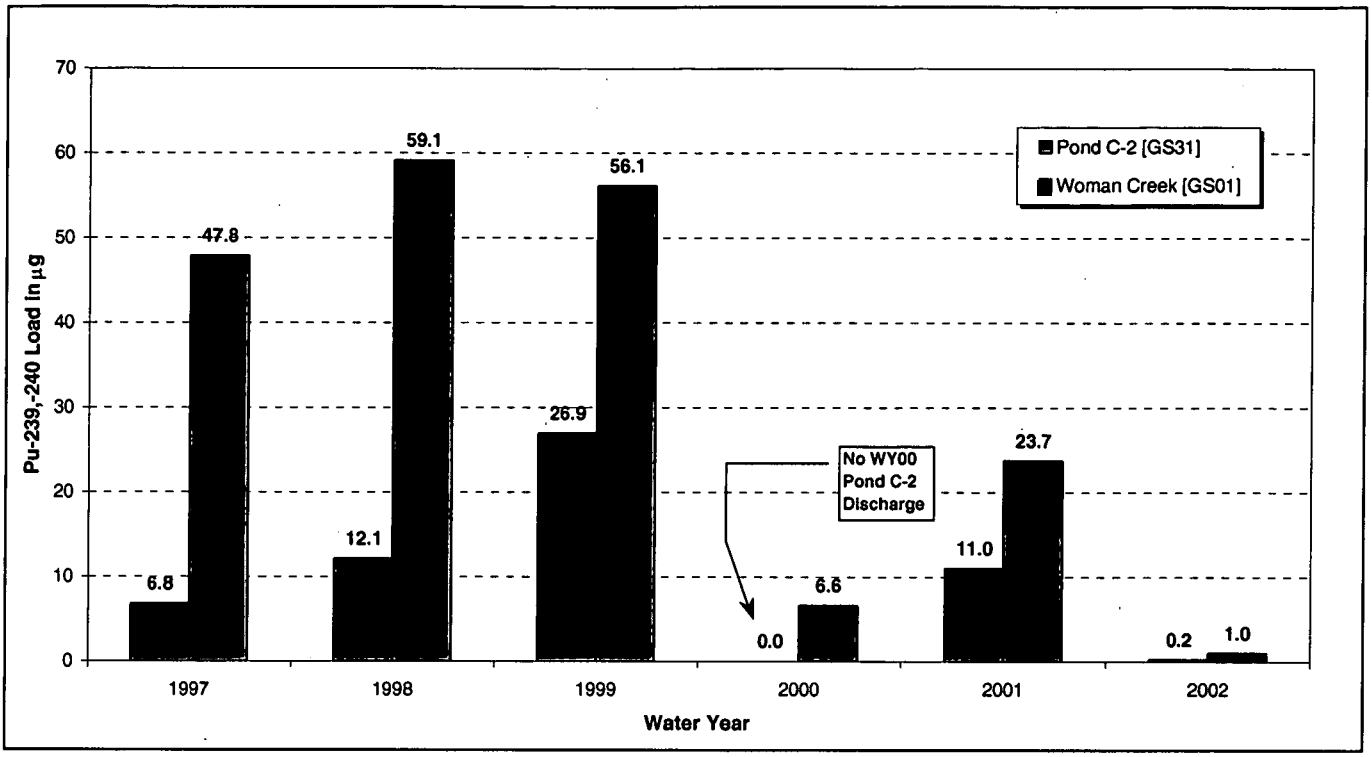


Figure 5-12. Annual Pu Loads at GS01 and GS31: WY97–02.

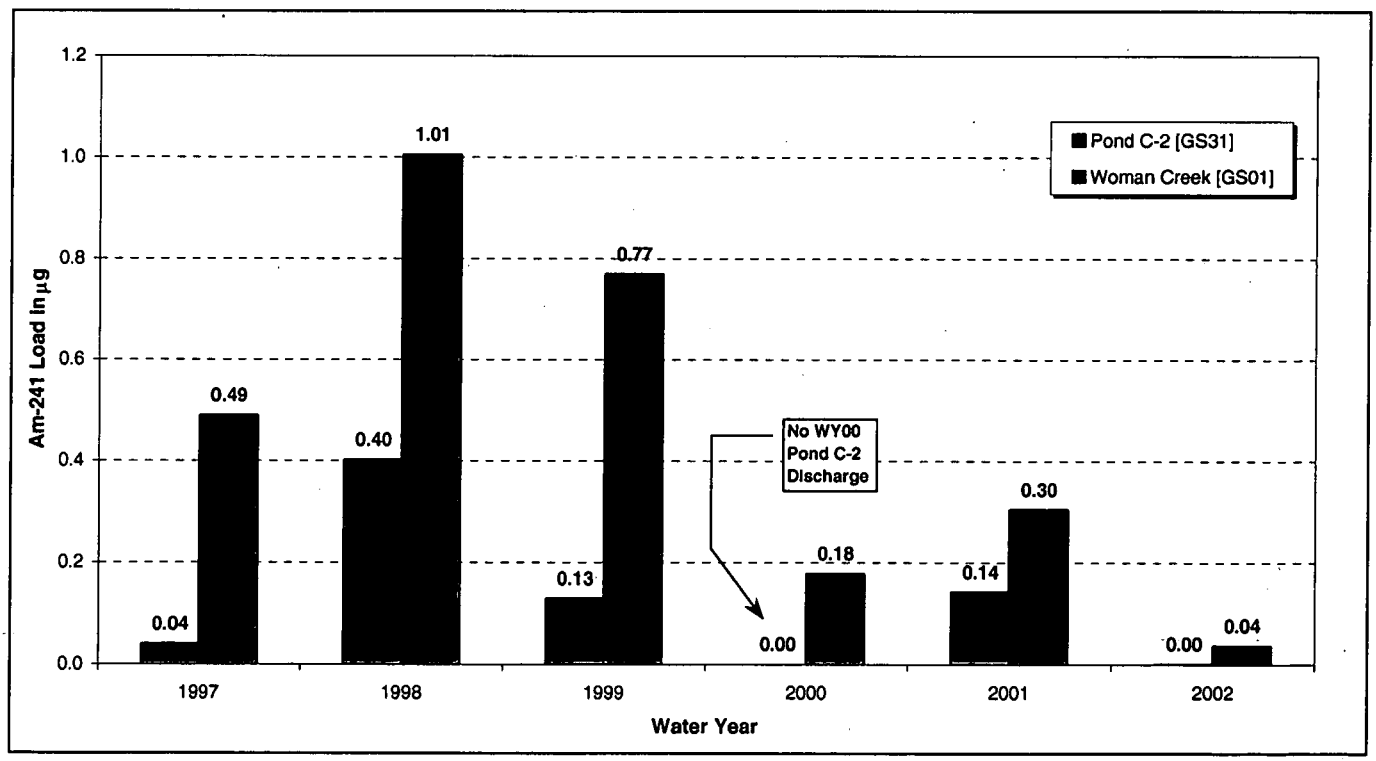


Figure 5-13. Annual Am Loads at GS01 and GS31: WY97–02.

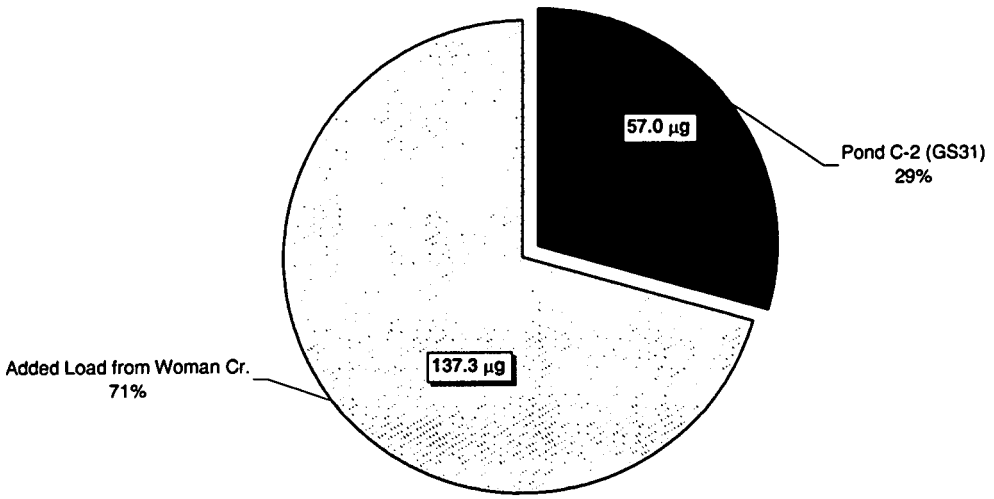


Figure 5-14. Relative Pu Load Totals at GS01 and GS31: WY97–02.

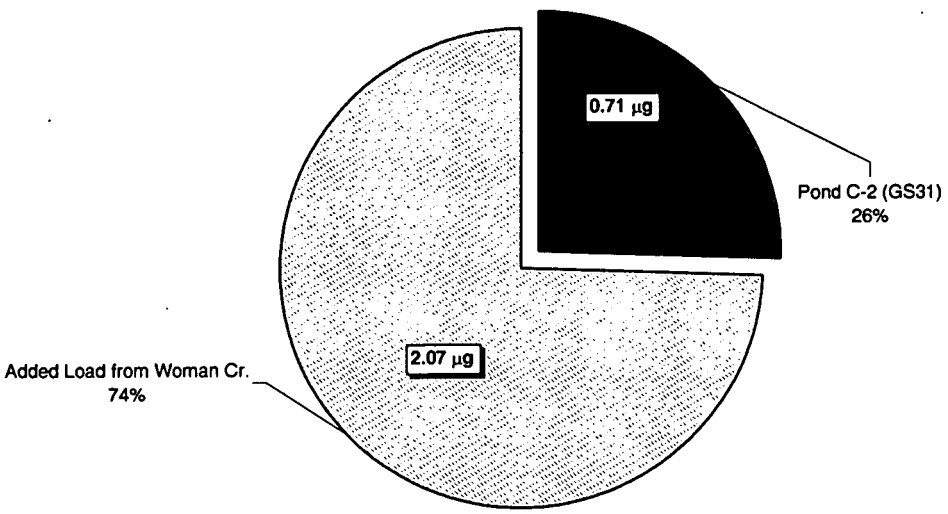


Figure 5-15. Relative Am Load Totals at GS01 and GS31: WY97–02.

5.4 TERMINAL DETENTION PONDS

This section summarizes the calculated Pu, Am, and isotopic uranium loads from terminal ponds A-4, B-5, and C-2. The following points are noted:

- Annual Pu and Am loads vary significantly year-to-year (Figure 5-16 and Figure 5-18).
- Pond B-5 accounts for a majority (75%) of the Pu load from the Site terminal ponds (Figure 5-17).
- Pond B-5 accounts for a majority (67%) of the Am load from the Site terminal ponds (Figure 5-19).
- Annual isotopic uranium loads are more consistent year-to-year and appear to be decreasing over time (Figure 5-20, Figure 5-22 and Figure 5-24).
- Pond A-4 accounts for a majority (53%) of the isotopic uranium loads from the Site terminal ponds (Figure 5-21, Figure 5-23 and Figure 5-25).

Table 5-6. Pu and Am Loads from Terminal Ponds A-4, B-5, and C-2: WY97–02.

	Pu-239,-240 (μg)			Am-241 (μg)		
Water Year	**Pond A-4 [GS11]**	**Pond B-5 [GS08]**	**Pond C-2 [GS31]**	**Pond A-4 [GS11]**	**Pond B-5 [GS08]**	**Pond C-2 [GS31]**
1997	46.0	11.8	6.8	0.52	0.28	0.04
1998	30.7	22.4	12.1	1.33	0.40	0.40
1999	27.0	255.9	26.9	0.35	1.73	0.13
2000	27.9	245.3	0.0; No C-2 Discharge	0.02	3.16	0.00; No C-2 Discharge
2001	5.3	32.0	11.0	0.11	0.46	0.14
2002	0.1	12.9	0.2	0.02	0.27	0.00
Total	136.9	580.4	57.0	2.35	6.29	0.71

Notes: * No Pond C-2 discharge in WY00.

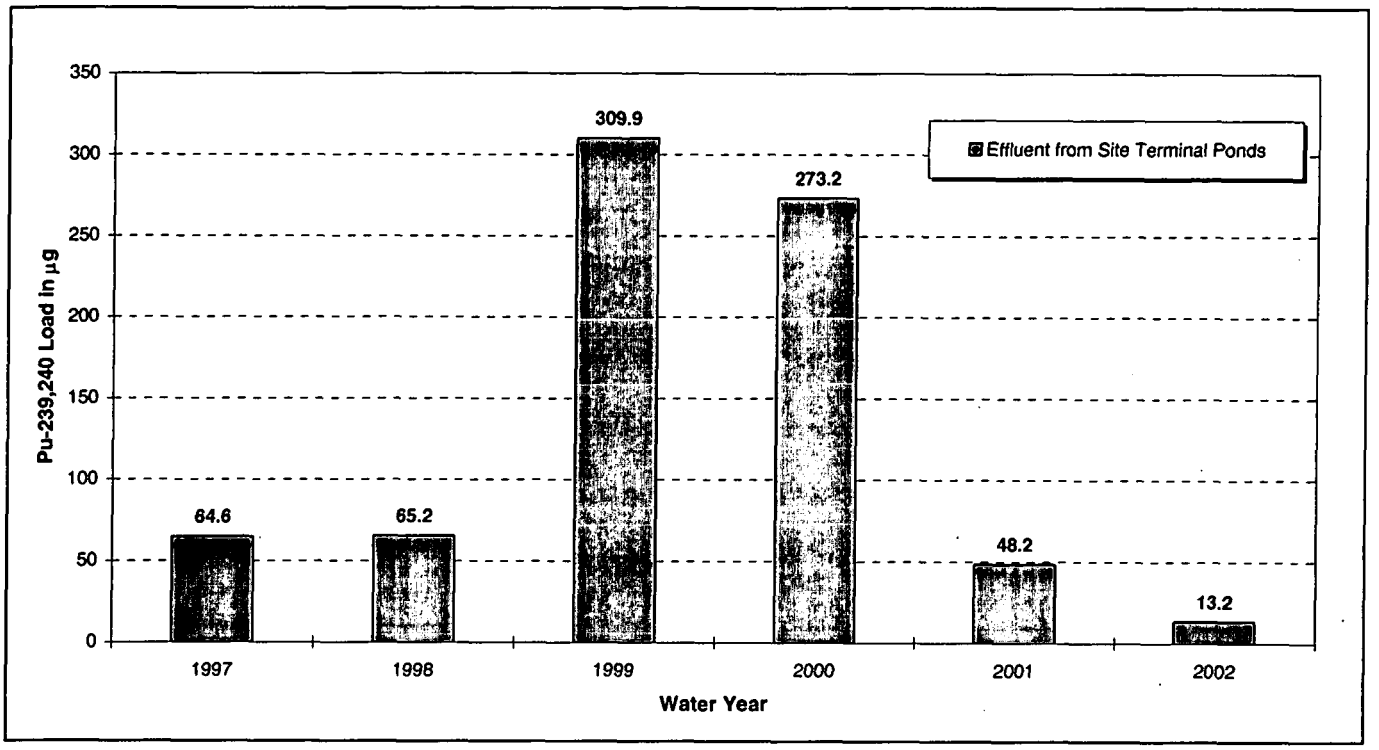


Figure 5-16. Annual Pu Loads from Terminal Ponds A-4, B-5, and C-2: WY97–02.

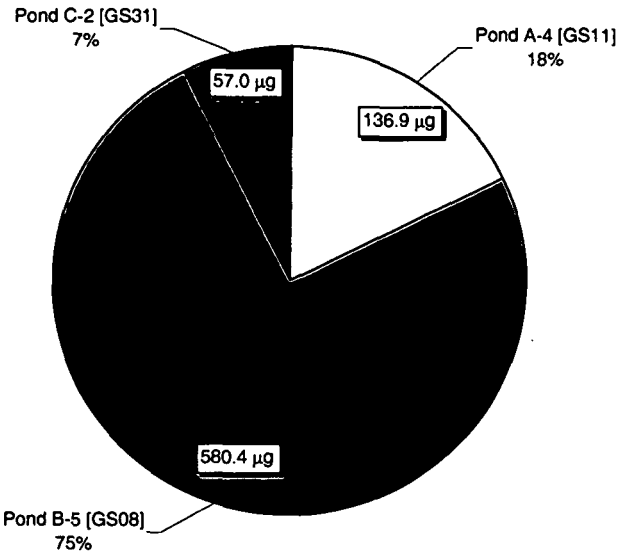


Figure 5-17. Relative Pu Load Totals from Terminal Ponds A-4, B-5, and C-2: WY97–02.

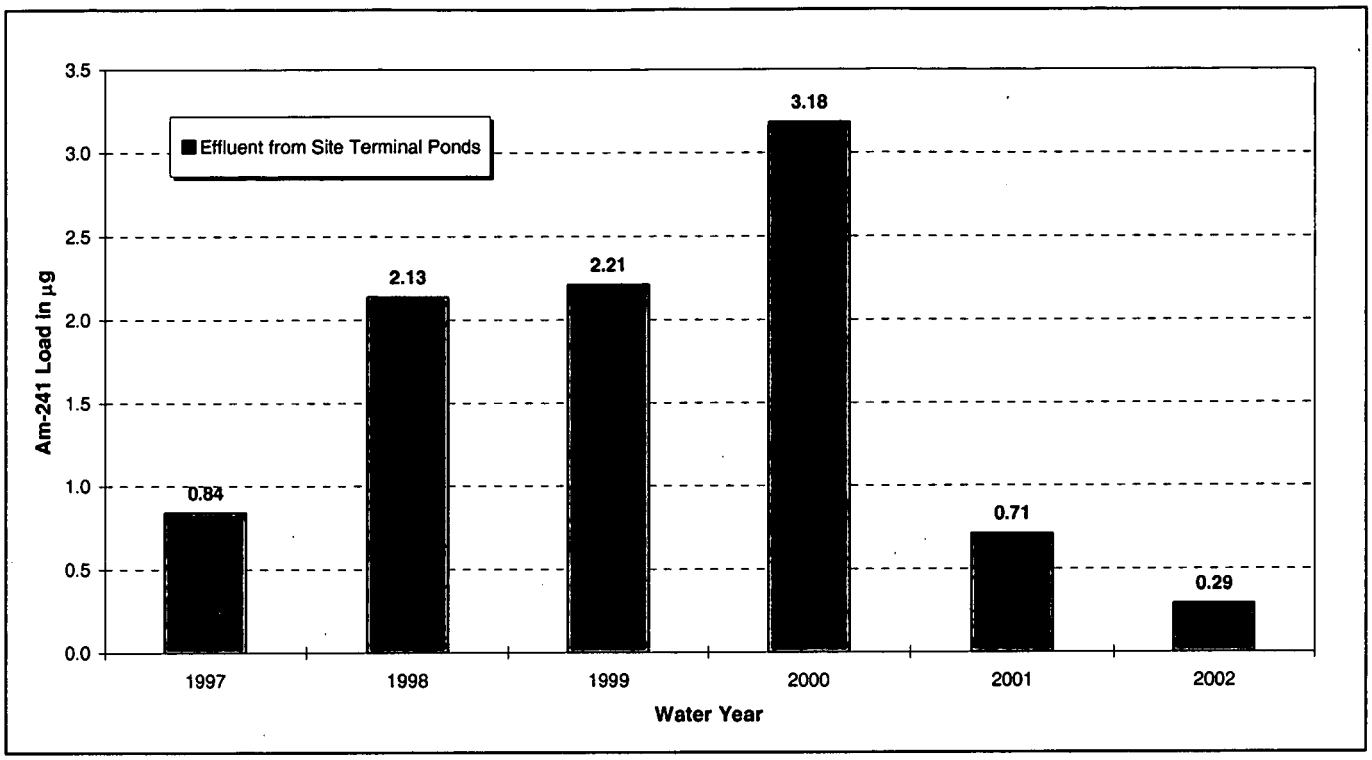


Figure 5-18. Annual Am Loads from Terminal Ponds A-4, B-5, and C-2: WY97–02.

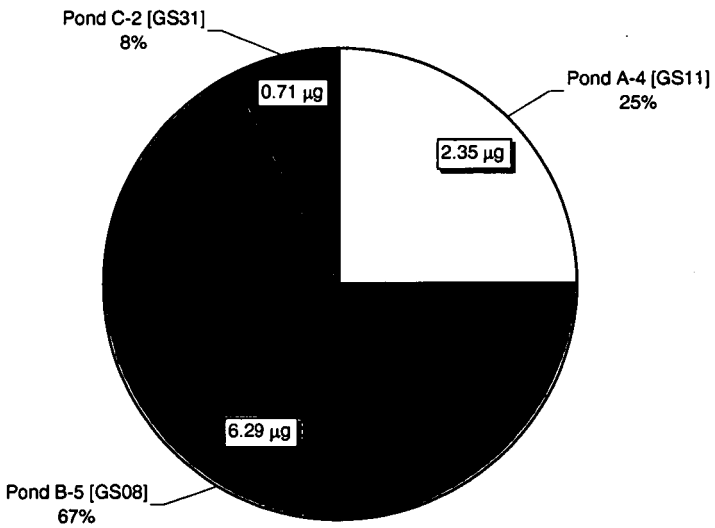


Figure 5-19. Relative Am Load Totals from Terminal Ponds A-4, B-5, and C-2: WY97–02.

Table 5-7. U-233,234 Loads from Terminal Ponds A-4, B-5, and C-2: WY97–02.

	U-233,234 (g)		
Water Year	**Pond A-4 [GS11]**	**Pond B-5 [GS08]**	**Pond C-2 [GS31]**
1997	0.055	0.018	0.005
1998	0.083	0.037	0.014
1999	0.041	0.033	0.009
2000	0.018	0.036	0.00; No C-2 Discharge
2001	0.036	0.035	0.004
2002	0.005	0.019	0.000
Total	0.237	0.179	0.031

Table 5-8. U-235 Loads from Terminal Ponds A-4, B-5, and C-2: WY97–02.

	U-235 (g)		
Water Year	**Pond A-4 [GS11]**	**Pond B-5 [GS08]**	**Pond C-2 [GS31]**
1997	7.82	3.45	0.75
1998	9.04	4.63	1.09
1999	5.29	5.29	1.66
2000	2.25	3.95	0.00; No C-2 Discharge
2001	4.20	3.16	0.34
2002	0.61	1.57	0.00
Total	29.20	22.07	3.84

Table 5-9. U-238 Loads from Terminal Ponds A-4, B-5, and C-2: WY97–02.

	U-238 (g)		
Water Year	**Pond A-4 [GS11]**	**Pond B-5 [GS08]**	**Pond C-2 [GS31]**
1997	1006.6	323.7	102.4
1998	1602.2	647.9	342.1
1999	762.5	625.4	187.5
2000	309.5	583.0	0.00; No C-2 Discharge
2001	634.2	570.3	66.6
2002	92.9	343.1	0.6
Total	4407.9	3093.4	699.2

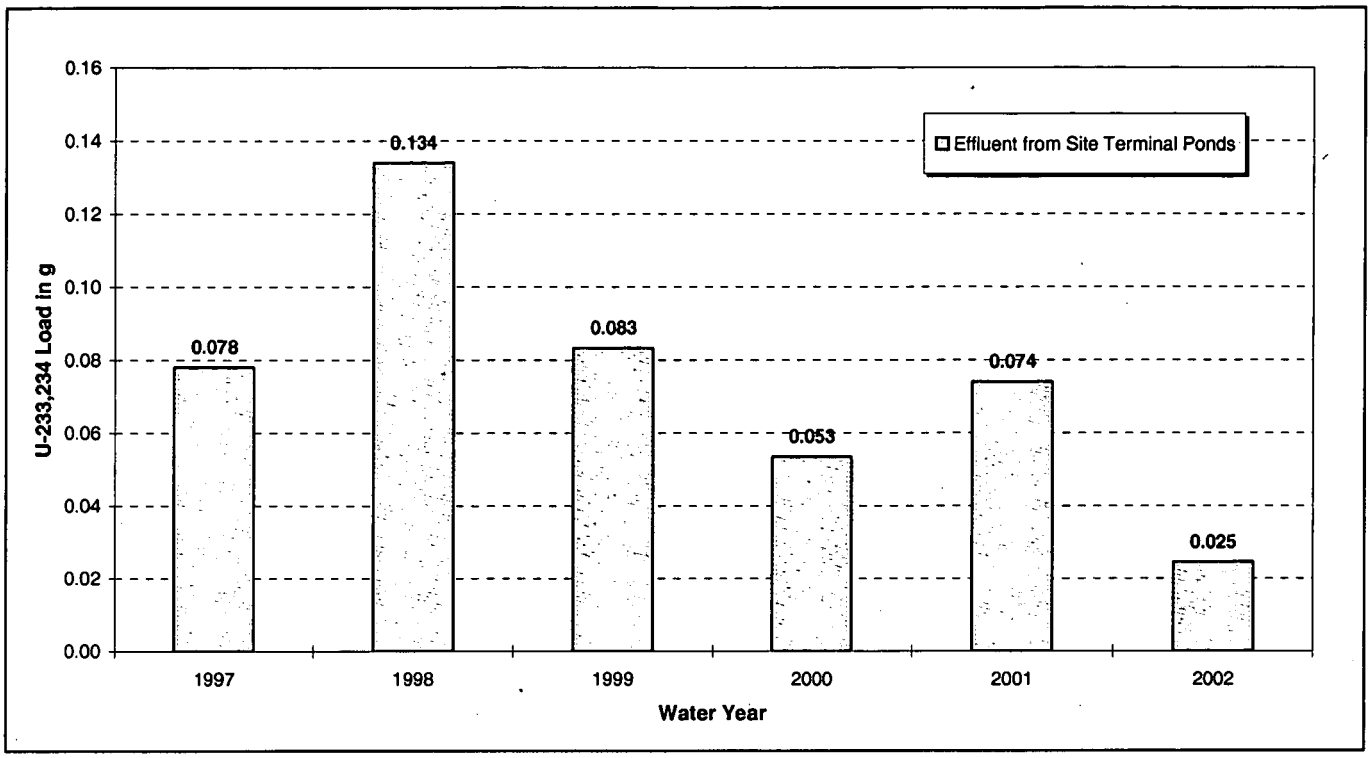


Figure 5-20. Annual U-233,234 Loads from Terminal Ponds A-4, B-5, and C-2: WY97–02.

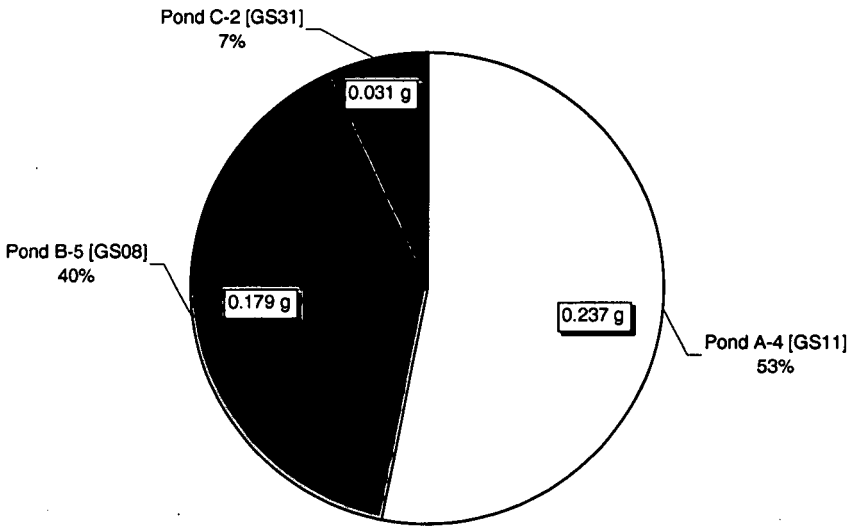


Figure 5-21. Relative U-233,234 Load Totals from Terminal Ponds A-4, B-5, and C-2: WY97–02.

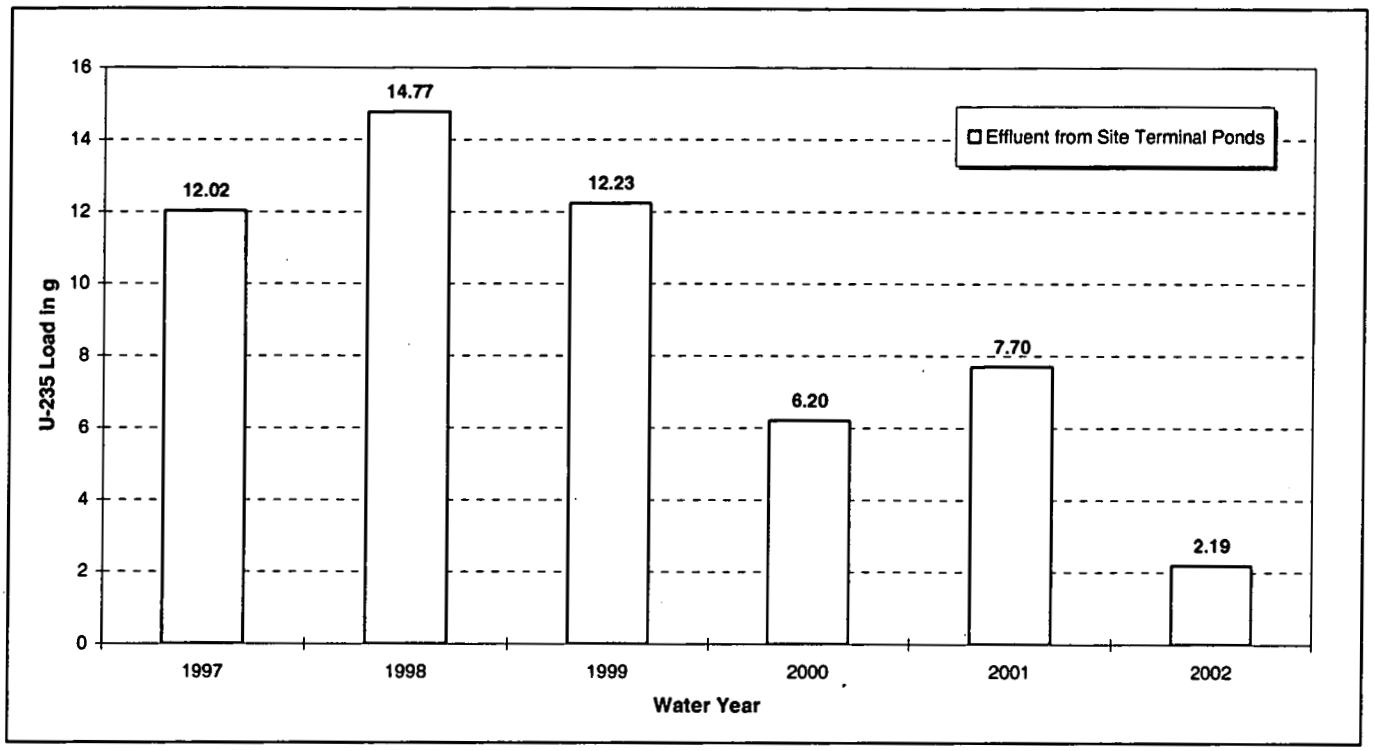


Figure 5-22. Annual U-235 Loads from Terminal Ponds A-4, B-5, and C-2: WY97–02.

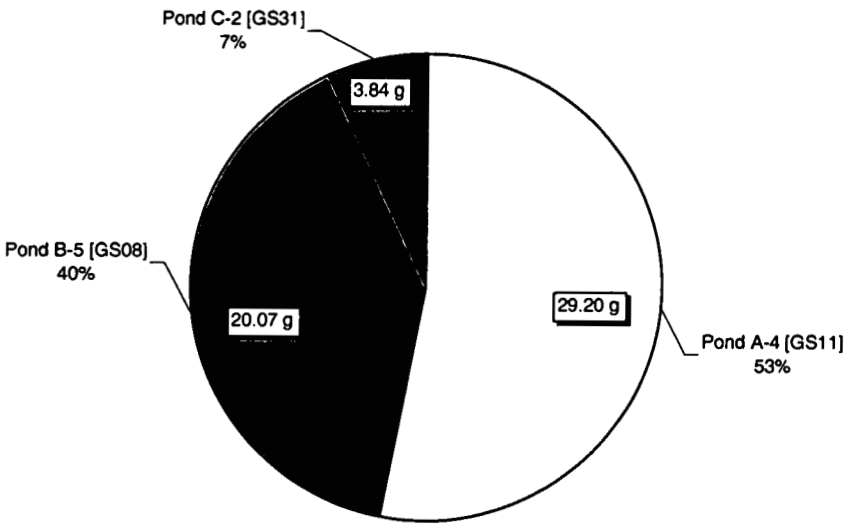


Figure 5-23. Relative U-235 Load Totals from Terminal Ponds A-4, B-5, and C-2: WY97–02.

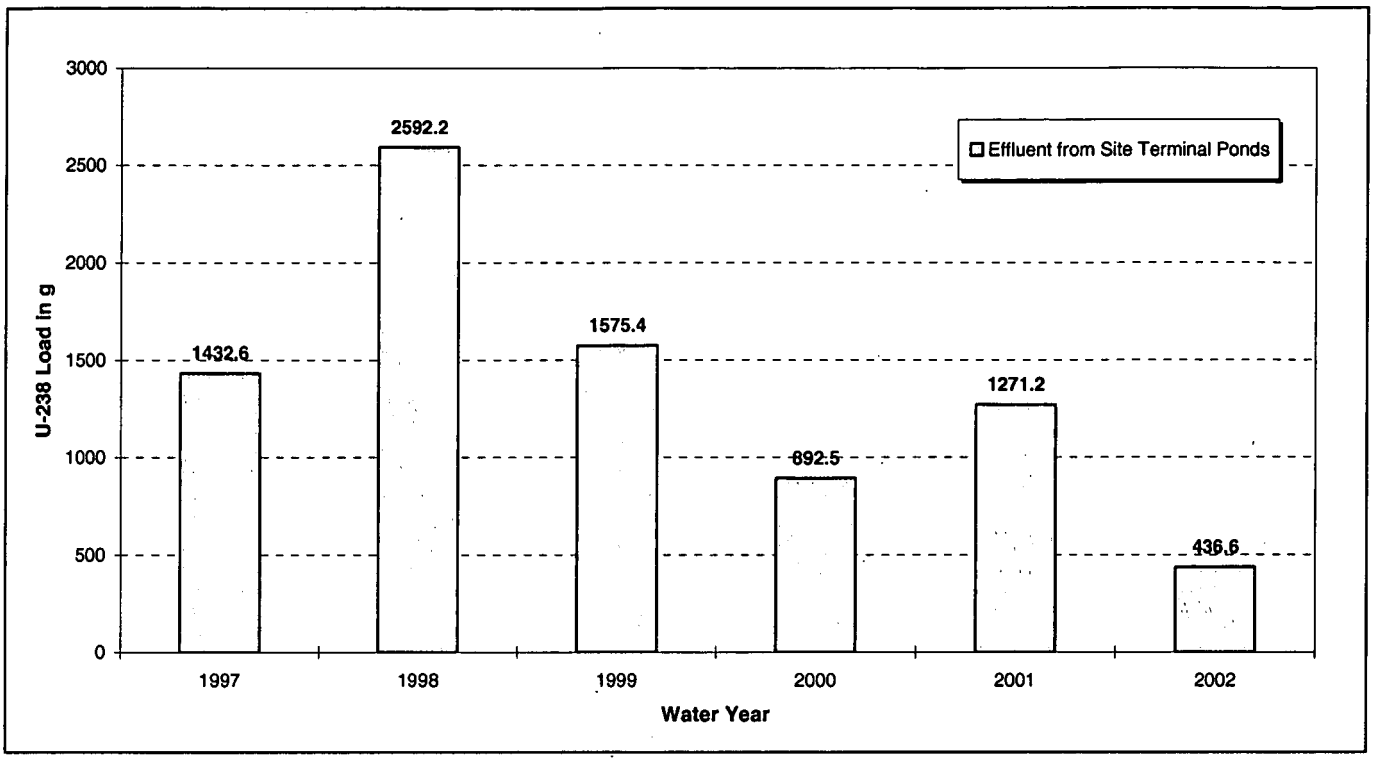


Figure 5-24. Annual U-238 Loads from Terminal Ponds A-4, B-5, and C-2: WY97–02.

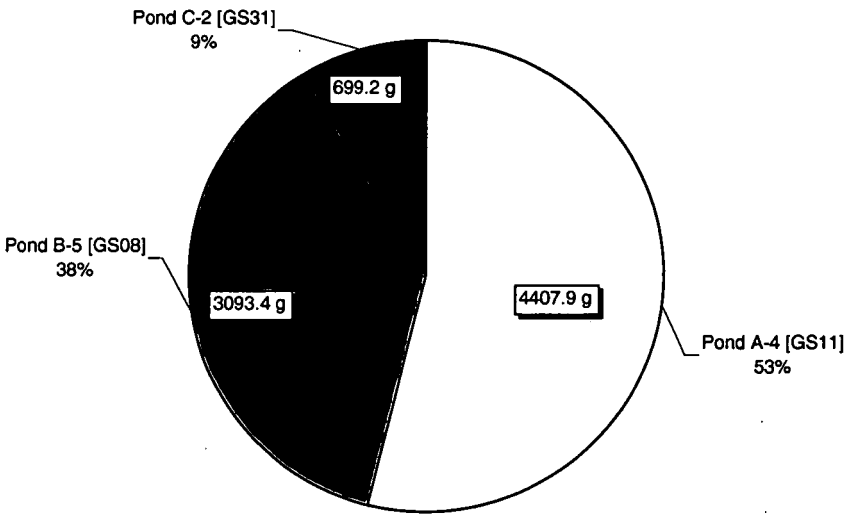


Figure 5-25. Relative U-238 Load Totals from Terminal Ponds A-4, B-5, and C-2: WY97–02.

5.4.1 A- and B-Series Ponds (POCs GS08 and GS11)

This section summarizes the calculated Pu, Am, and isotopic uranium loads for the A- and B-Series Ponds. Since water transfers occur between ponds, the load analysis below is performed for both pond series combined. The influent load sources are GS10 and the WWTP (South Walnut), and SW093 (North Walnut). The effluent loads are GS08 (Pond B-5 outlet) and GS11 (Pond A-4 outlet). The following points are noted:

- Total Pu load removal by Pond A-4 and B-5 is calculated as 69% (Table 5-10).
- Annual Pu loads both into and out of Ponds A-4 and B-5 appear to be decreasing over time (Figure 5-26).
- Total Am load removal by Pond A-4 and B-5 is calculated as 85% (Table 5-11).
- Annual Pu and Am loads vary significantly year-to-year (Figure 5-26 and Figure 5-29).
- Annual isotopic uranium loads are more consistent year-to-year (Figure 5-32, Figure 5-35 and Figure 5-38).
- There is little isotopic uranium load removal in Ponds A-4 and B-5. Some years show gains while others show losses (Figure 5-34, Figure 5-37 and Figure 5-40).

Table 5-10. Pu Load Summary for the A- and B-Series Ponds: WY97–02.

	Pu-239,240 (µg)					
Water Year	**Influent (WWTP)**	**Influent (GS10)**	**Influent (SW093)**	**Effluent (GS08)**	**Effluent (GS11)**	**Percent Removal**
1997	13.4	564.0	178.7	11.8	46.0	92%
1998	8.7	345.3	70.9	22.4	30.7	87%
1999	23.2	306.8	126.9	255.9	27.0	38%
2000	18.4	329.6	88.5	245.3	27.9	37%
2001	9.1	140.9	44.6	32.0	5.3	81%
2002	7.2	50.6	10.0	12.9	0.1	81%
Total	80.1	1737.2	519.5	580.4	136.9	69%

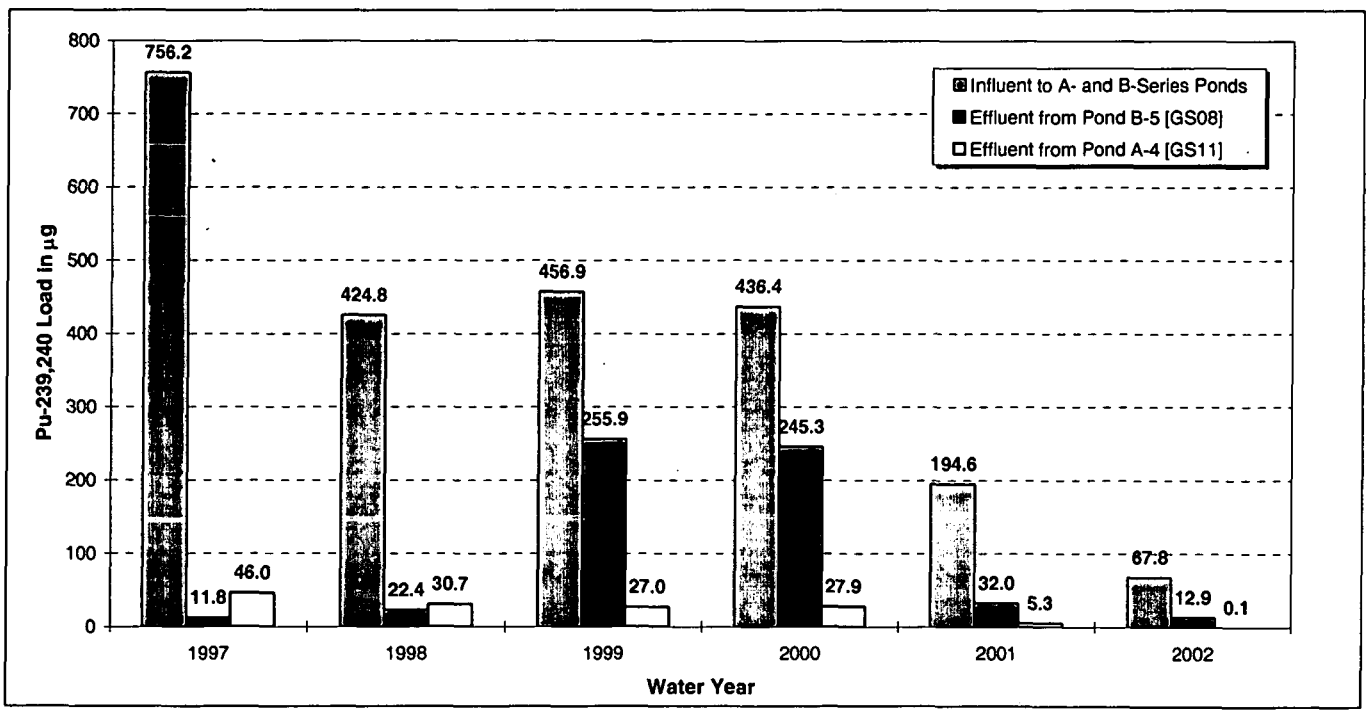


Figure 5-26. Annual Pu Loads for the A- and B-Series Ponds: WY97–02.

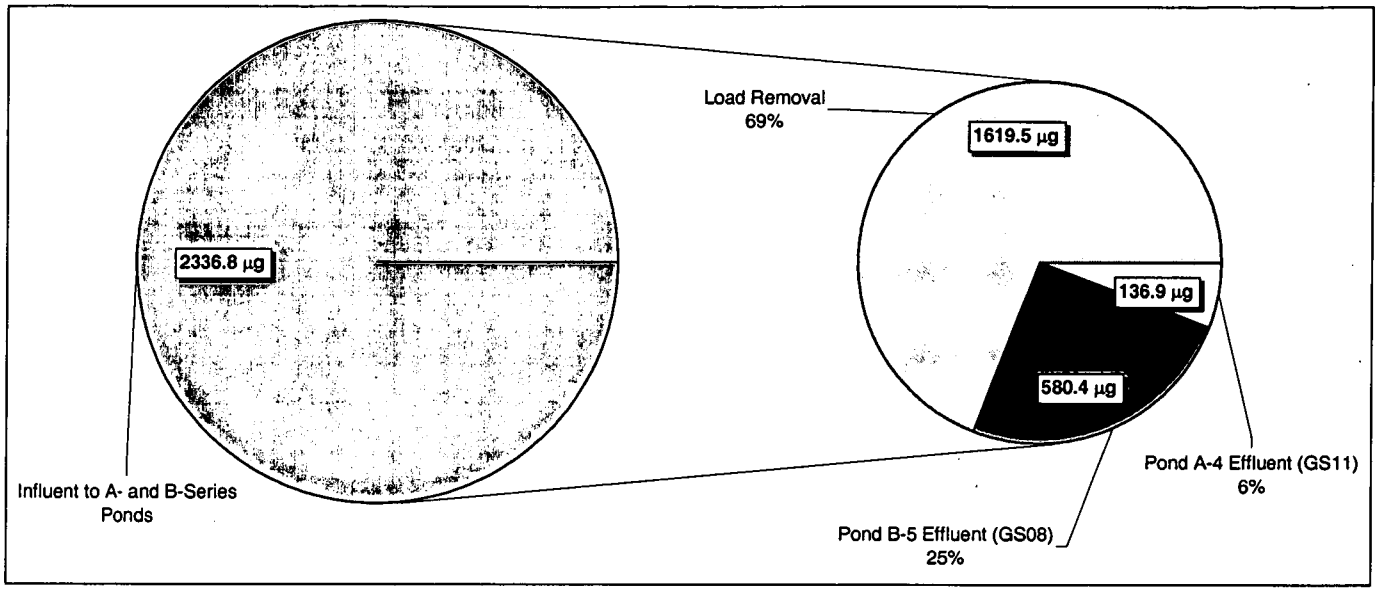


Figure 5-27. Relative Pu Load Totals for the A- and B-Series Terminal Ponds: WY97–02.

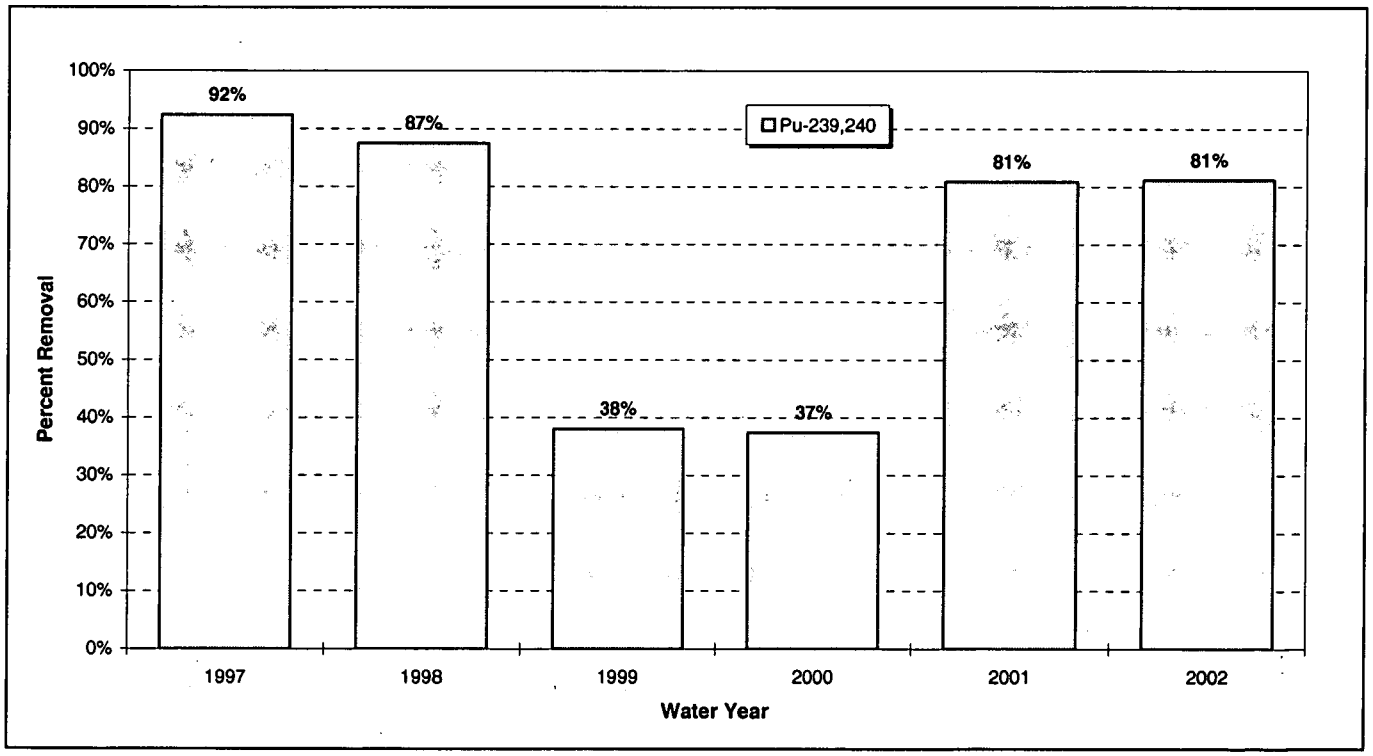


Figure 5-28. Annual Pu Load Removal for the A- and B-Series Ponds: WY97–02.

Table 5-11. Am Load Summary for the A- and B-Series Ponds: WY97–02.

	Am-241 (µg)					
Water Year	**Influent (WWTP)**	**Influent (GS10)**	**Influent (SW093)**	**Effluent (GS08)**	**Effluent (GS11)**	**Percent Removal**
1997	0.44	11.98	2.27	0.28	0.52	95%
1998	0.58	4.95	1.38	0.40	1.33	75%
1999	0.11	12.55	1.69	1.73	0.35	86%
2000	0.33	14.65	1.03	3.16	0.02	80%
2001	0.26	2.71	0.65	0.46	0.11	84%
2002	0.23	1.64	0.50	0.27	0.02	88%
Total	1.94	48.47	7.52	6.29	2.35	85%

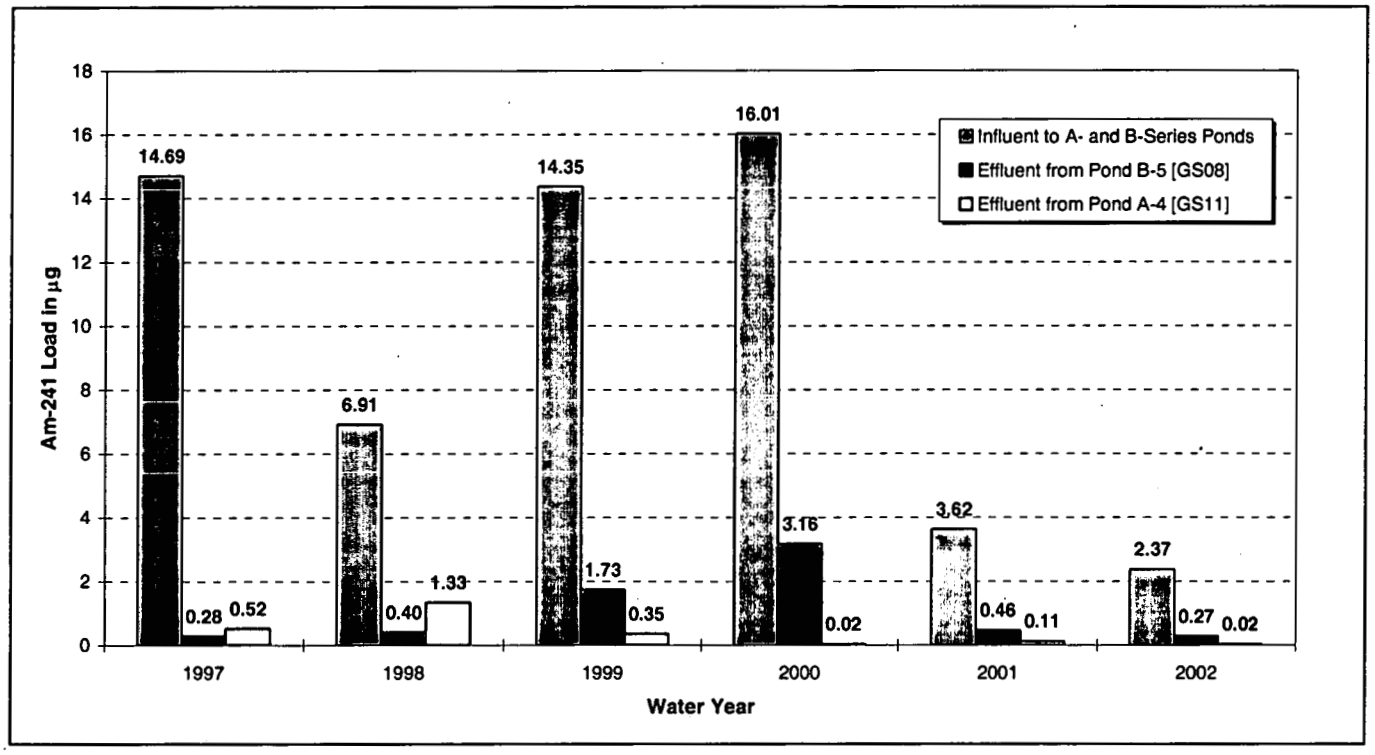


Figure 5-29. Annual Am Loads for the A- and B-Series Ponds: WY97–02.

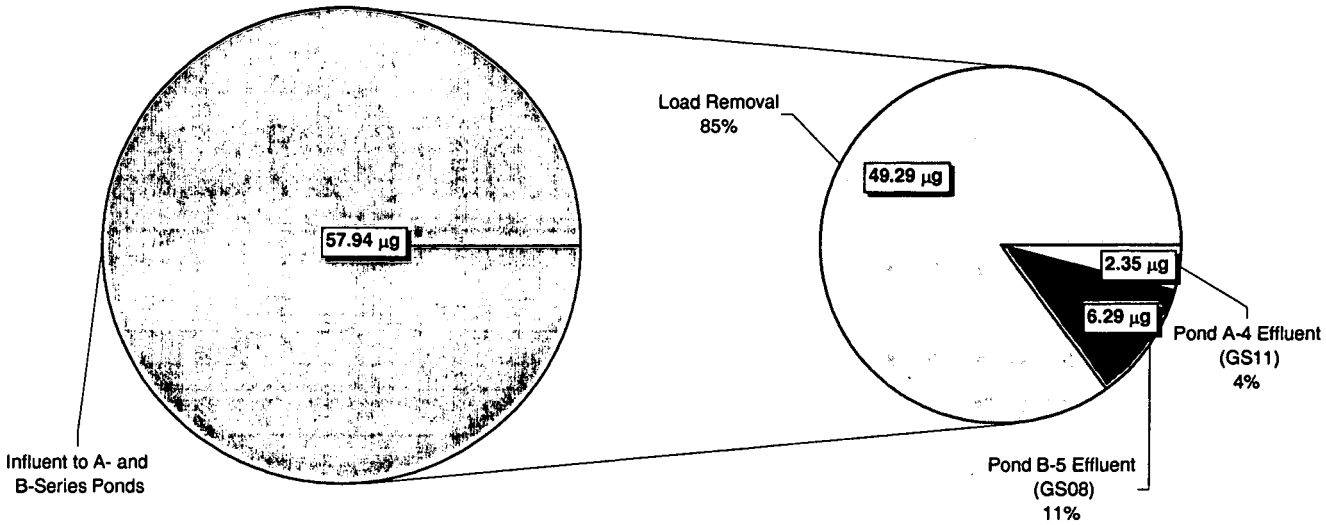


Figure 5-30. Relative Am Load Totals for the A- and B-Series Ponds: WY97–02.

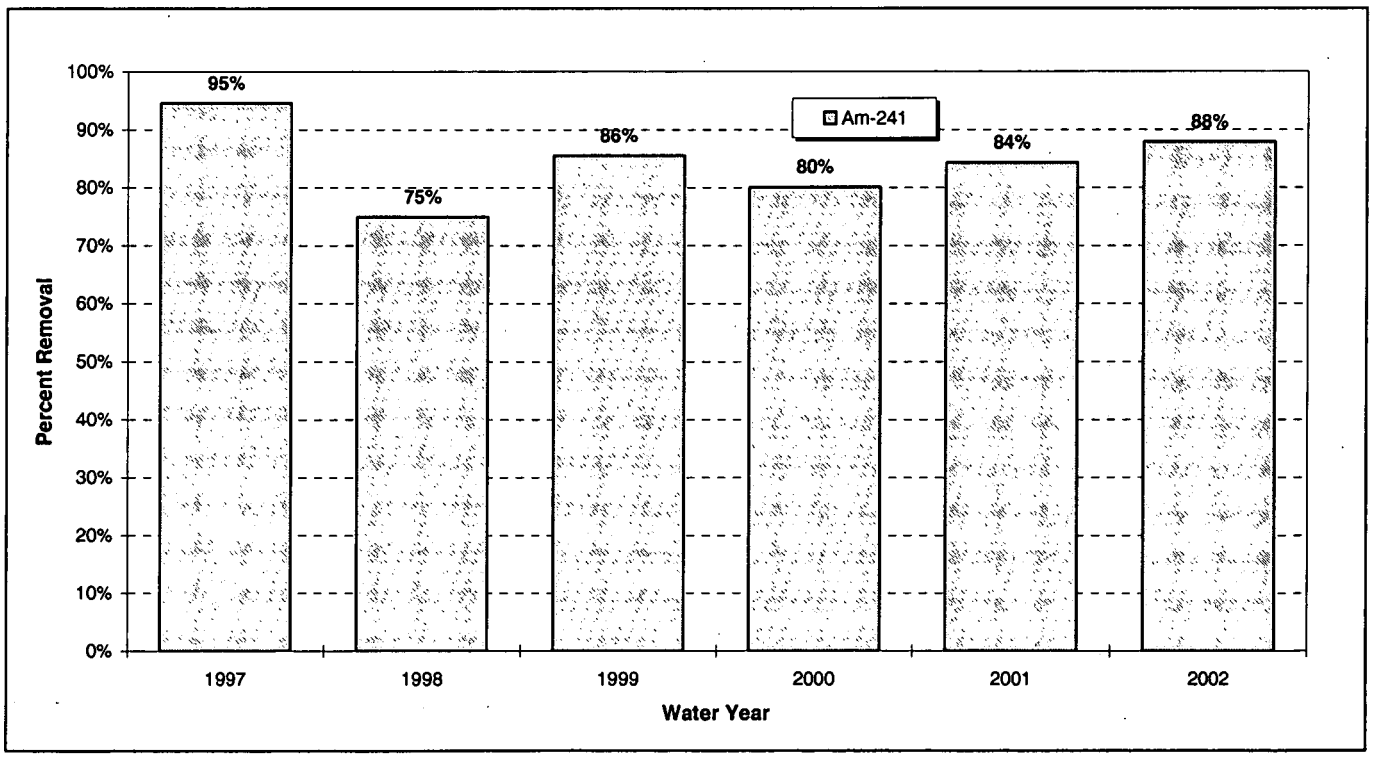


Figure 5-31. Annual Am Load Removal for the A- and B-Series Ponds: WY97–02.

Table 5-12. U-233,234 Load Summary for the A- and B-Series Ponds: WY97–02.

	U-233,234 (g)					
Water Year	**Influent (WWTP)**	**Influent (GS10)**	**Influent (SW093)**	**Effluent (GS08)**	**Effluent (GS11)**	**Percent Removal**
1997	0.013	0.031	0.033	0.018	0.055	4%
1998	0.023	0.039	0.041	0.037	0.083	-16%
1999	0.005	0.030	0.033	0.033	0.041	-9%
2000	0.006	0.022	0.026	0.036	0.018	1%
2001	0.013	0.030	0.035	0.035	0.036	9%
2002	0.003	0.017	0.021	0.019	0.005	39%
Total	0.063	0.168	0.190	0.179	0.237	1%

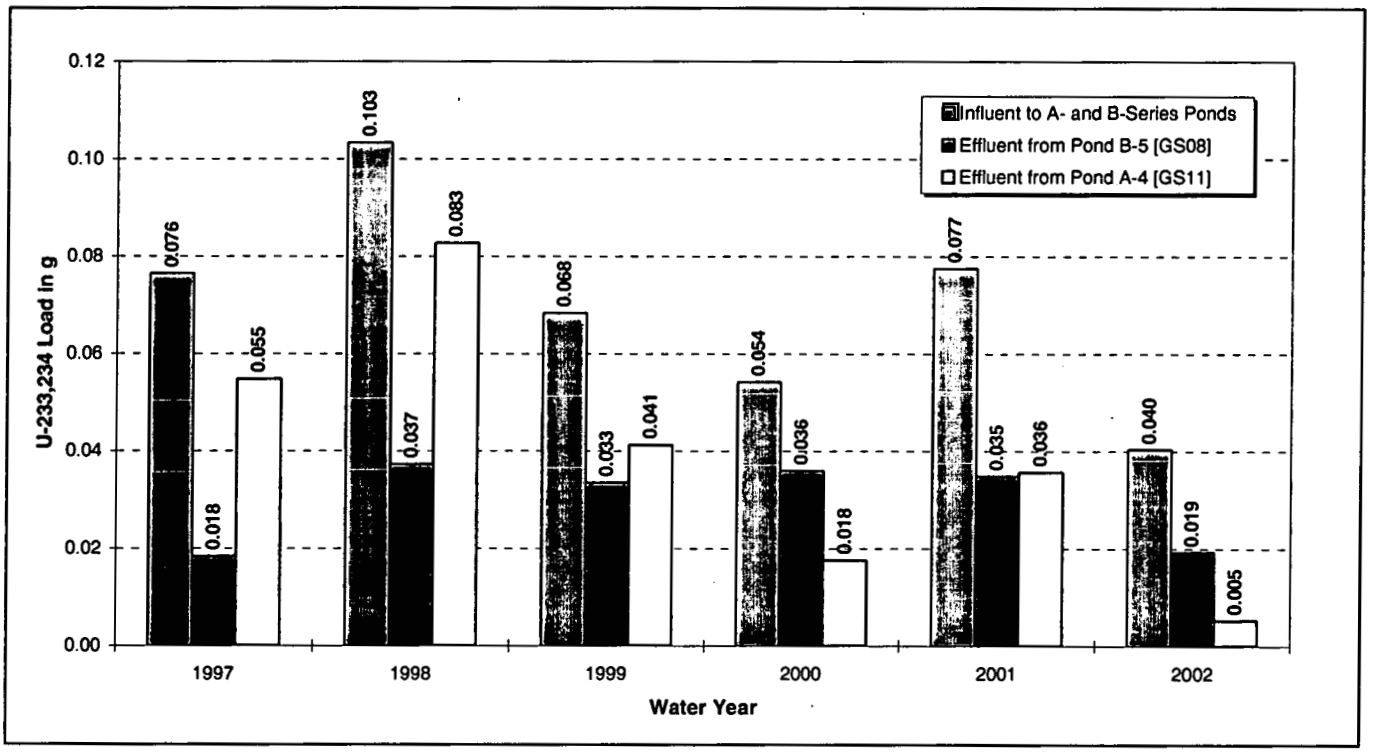


Figure 5-32. Annual U-233,234 Loads for the A- and B-Series Ponds: WY97–02.

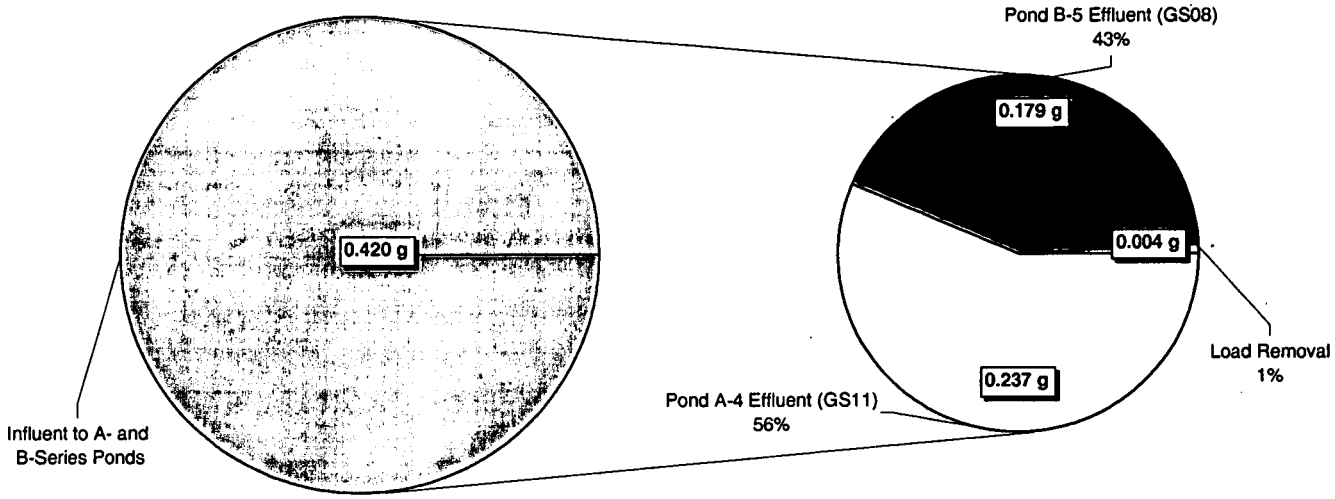


Figure 5-33. Relative U-233,234 Load Totals for the A- and B-Series Ponds: WY97–02.

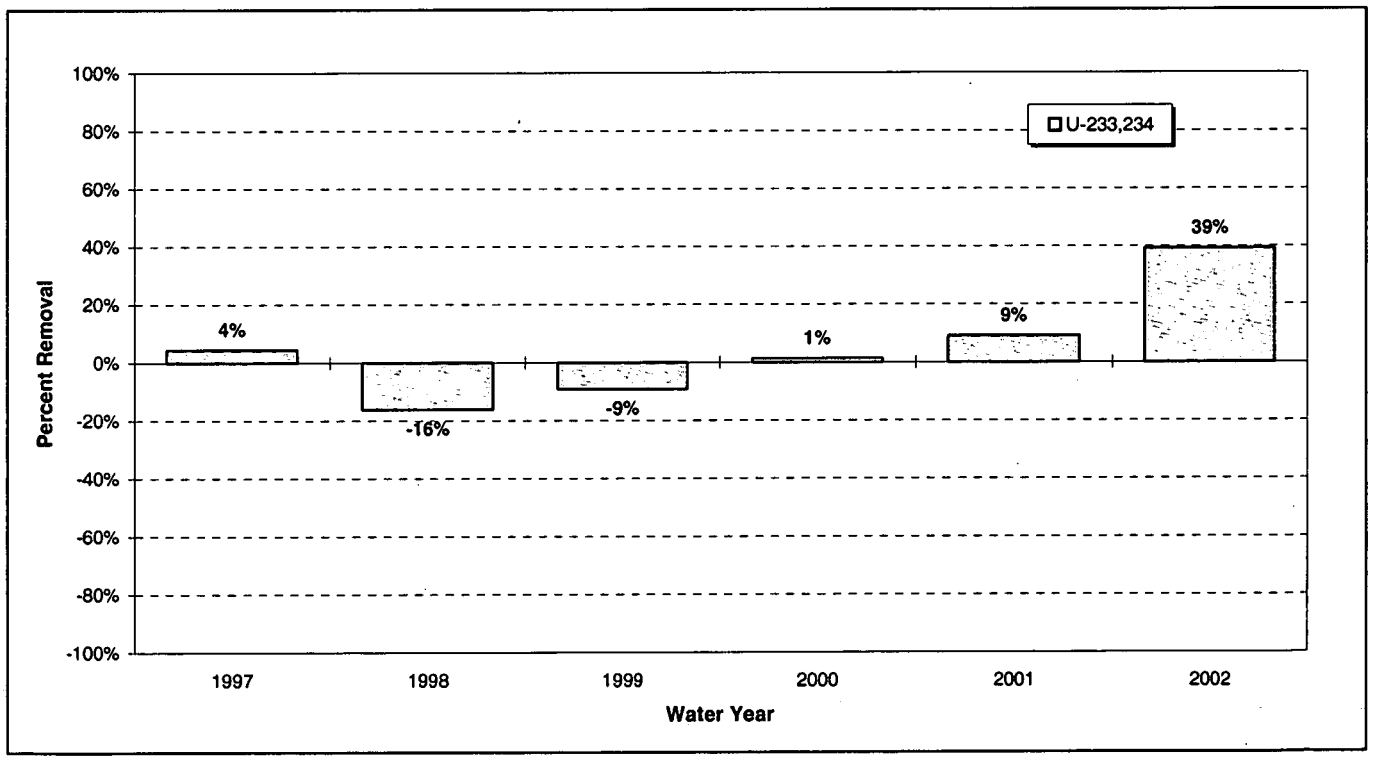


Figure 5-34. Annual U-233,234 Load Removal for the A- and B-Series Ponds: WY97–02.

Table 5-13. U-235 Load Summary for the A- and B-Series Ponds: WY97–02.

Water Year	U-235 (g)					
	Influent (WWTP)	Influent (GS10)	Influent (SW093)	Effluent (GS08)	Effluent (GS11)	Percent Removal
1997	2.57	4.05	4.77	3.45	7.82	1%
1998	2.09	4.48	5.32	4.63	9.04	-15%
1999	1.21	3.57	3.53	5.29	5.29	-27%
2000	0.71	2.64	3.36	3.95	2.25	8%
2001	1.62	3.04	3.37	3.16	4.20	8%
2002	0.12	1.62	2.08	1.57	0.61	43%
Total	8.31	19.41	22.43	22.07	29.20	-2%

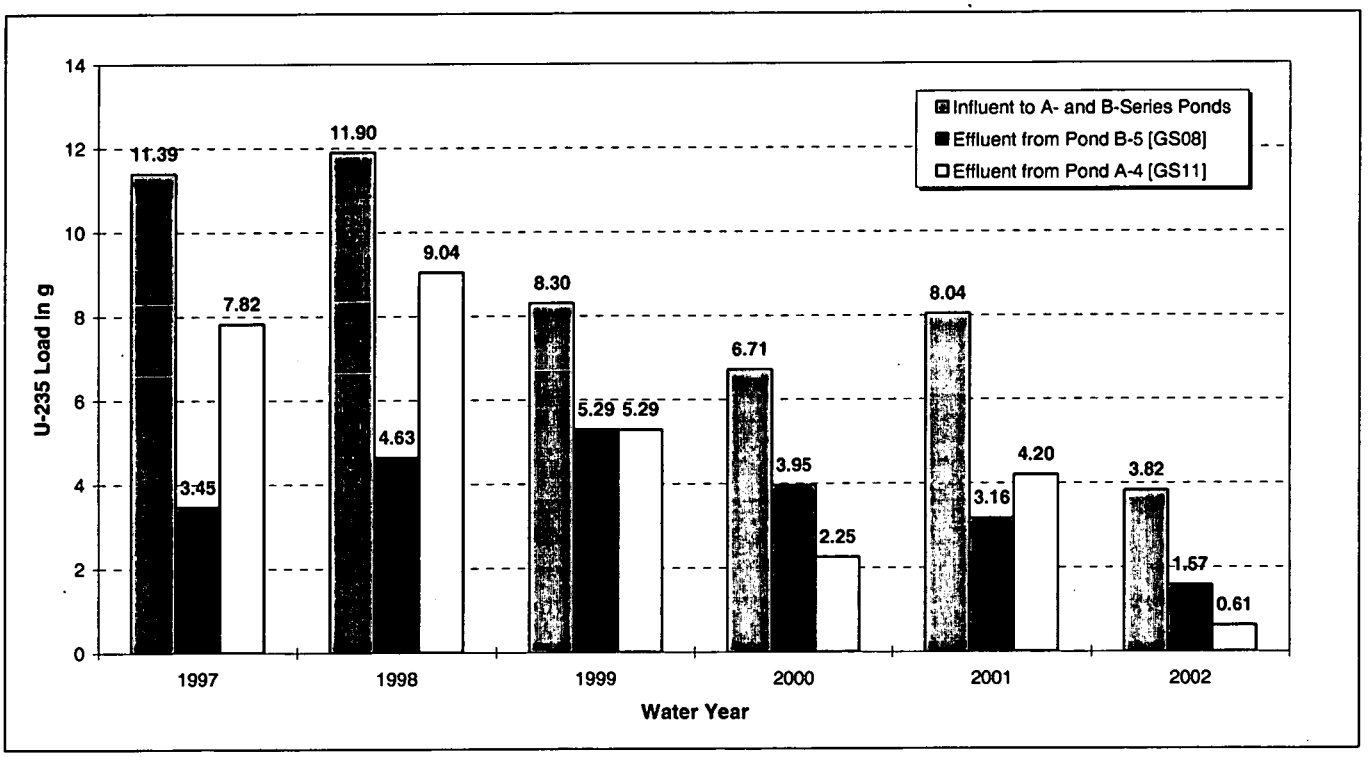


Figure 5-35. Annual U-235 Loads for the A- and B-Series Ponds: WY97–02.

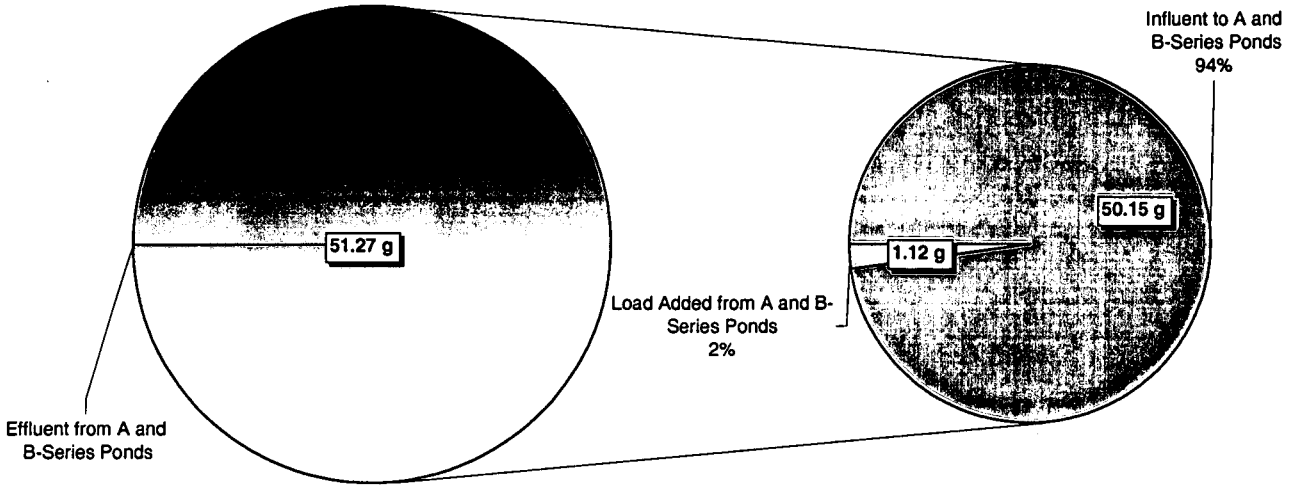


Figure 5-36. Relative U-235 Load Totals for the A- and B-Series Ponds: WY97–02.

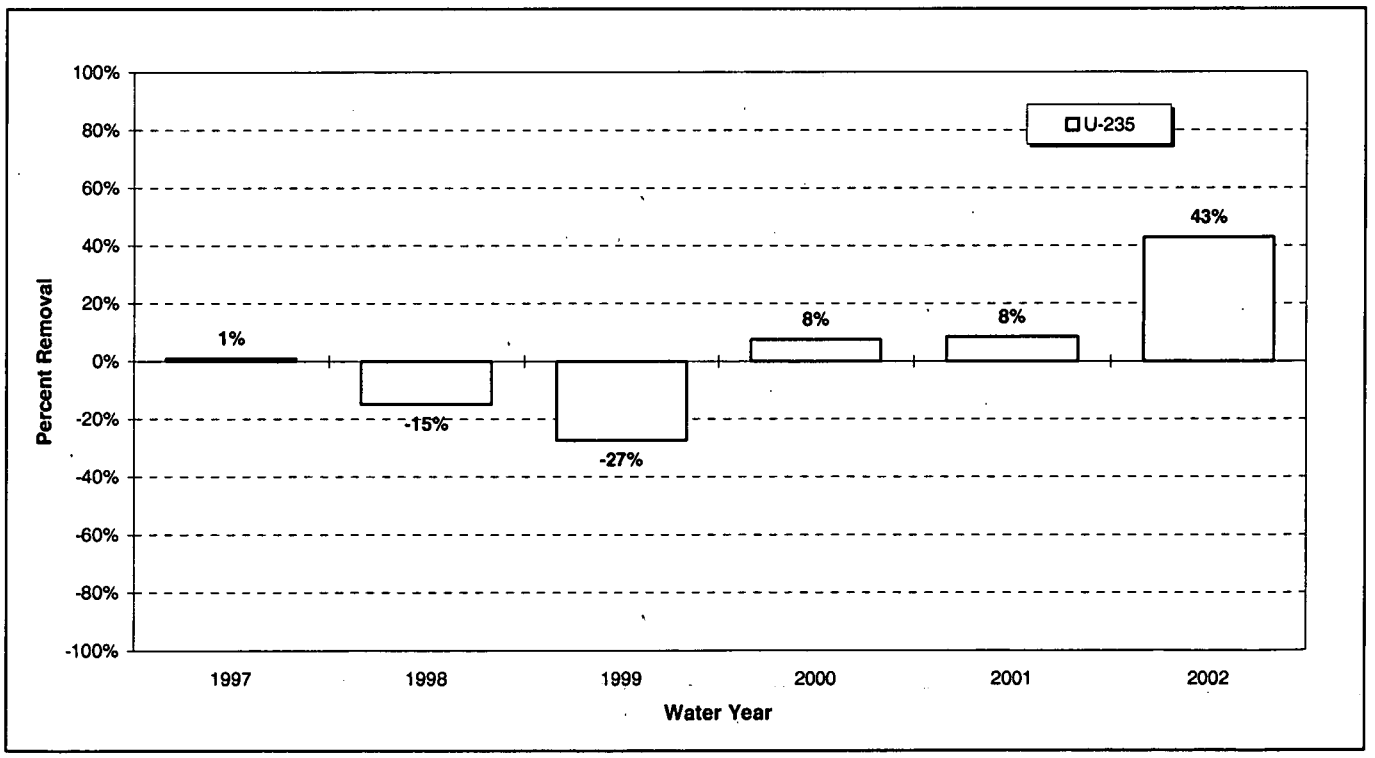


Figure 5-37. Annual U-235 Load Removal for the A- and B-Series Ponds: WY97–02.

Table 5-14. U-238 Load Summary for the A- and B-Series Ponds: WY97–02.

	U-238 (g)					
Water Year	**Influent (WWTP)**	**Influent (GS10)**	**Influent (SW093)**	**Effluent (GS08)**	**Effluent (GS11)**	**Percent Removal**
1997	215.3	555.6	778.3	323.7	1006.6	14%
1998	514.1	678.9	875.5	647.9	1602.2	-9%
1999	106.4	573.8	676.7	625.4	762.5	-2%
2000	108.9	396.0	530.5	583.0	309.5	14%
2001	252.4	514.6	637.7	570.3	634.2	14%
2002	71.5	286.7	437.2	343.1	92.9	45%
Total	1268.7	3005.6	3936.1	3093.4	4407.9	9%

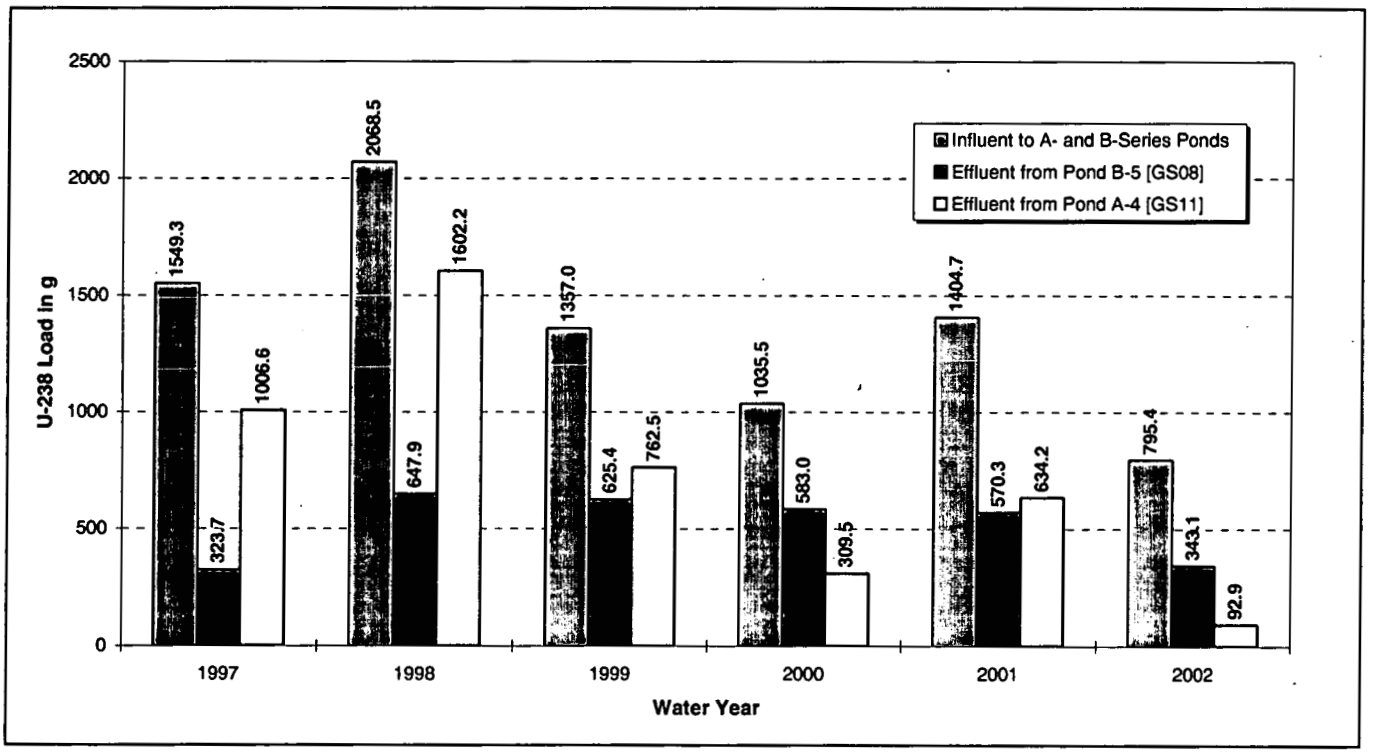


Figure 5-38. Annual U-238 Loads for the A- and B-Series Ponds: WY97–02.

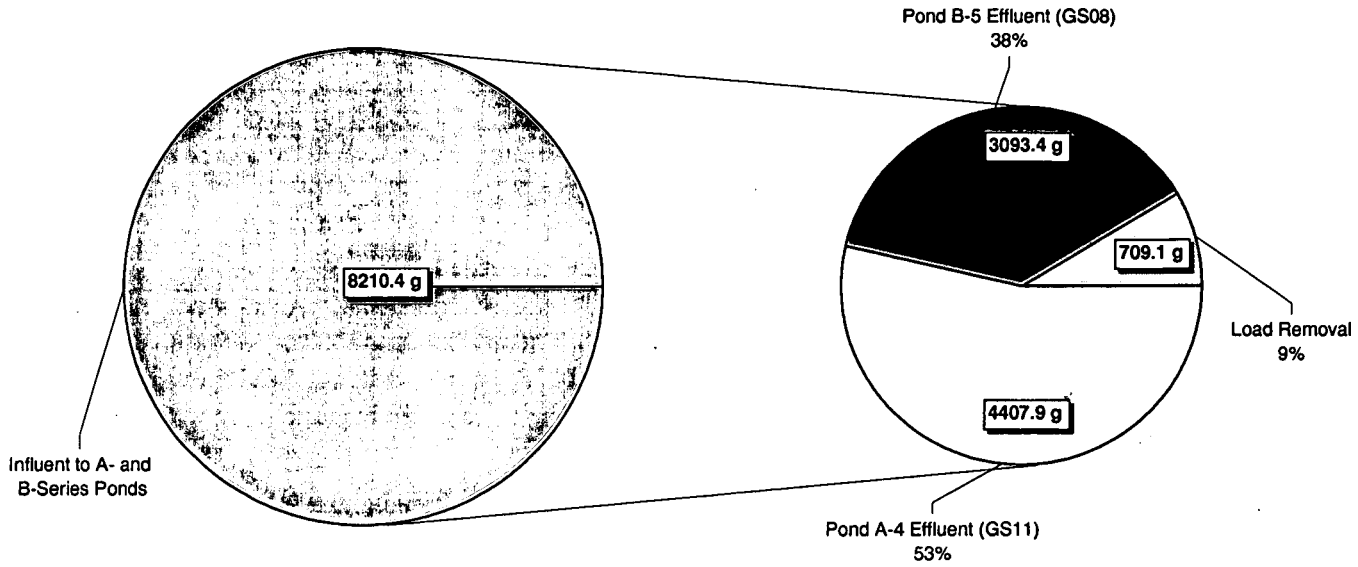


Figure 5-39. Relative U-238 Load Totals for the A- and B-Series Ponds: WY97–02.

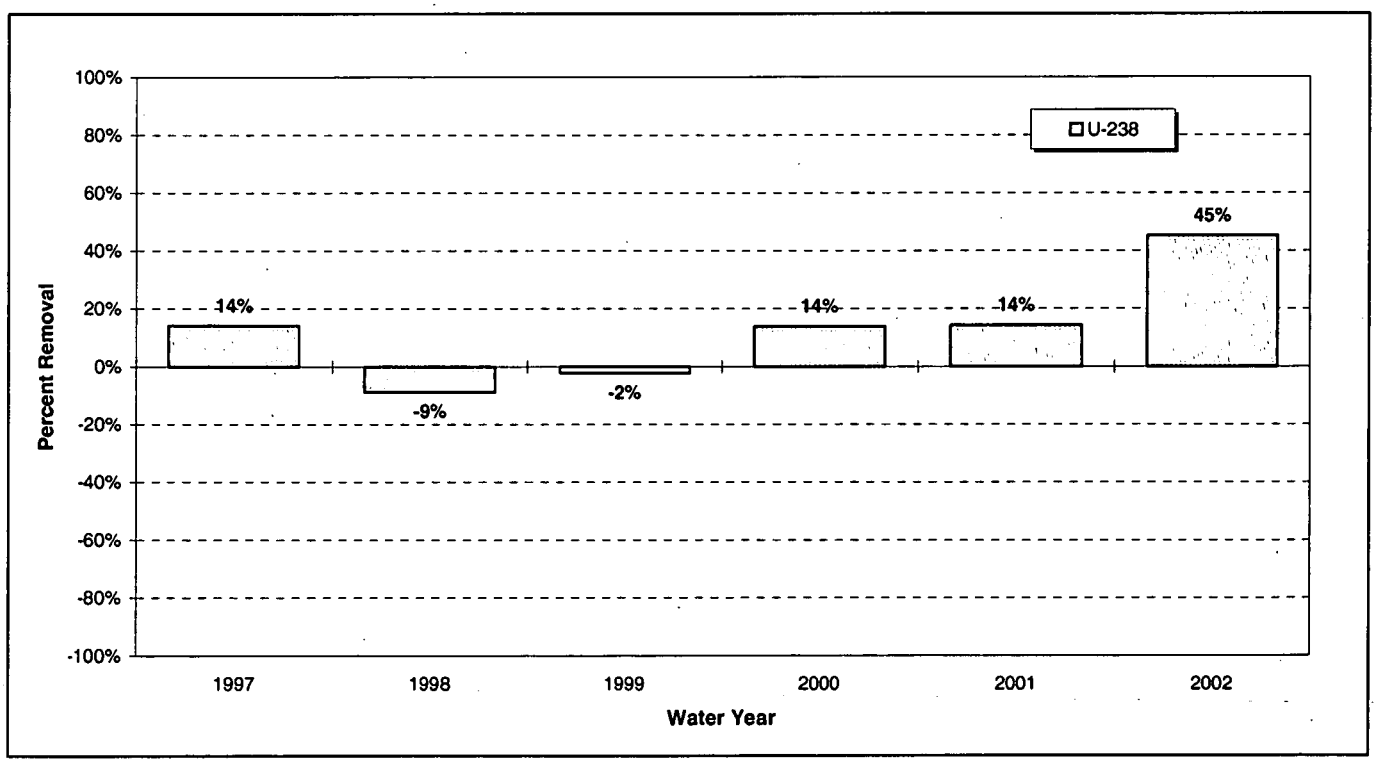


Figure 5-40. Annual U-238 Load Removal for the A- and B-Series Ponds: WY97–02.

5.4.2 Pond C-2 (POC GS31)

This section summarizes the calculated Pu, Am, and isotopic uranium loads for Pond C-2. The influent load source is SW027 (SID at Pond C-2 inlet). The effluent loads are calculated at GS31 (Pond C-2 outlet). The following points are noted:

- Total Pu load removal by Pond C-2 is calculated as 74% (Table 5-15).
- Total Am load removal by Pond C-2 is calculated as 14% (Table 5-16).
- Water years 1998 and 2001 show that Am load from Pond C-2 exceeded inflow load. Similarly, for WY01 and WY02 Pu load from Pond C-2 exceeded inflow load. This lack of removal is likely due to the fact that higher activity samples were collected during pond dewatering to allow for video surveillance of the outlet works and routine valve tests. During these types of operations, the outlet works valve on the bottom (essentially in the pond bottom sediments) of the pond is used to drain the pond. At these low pond levels, higher turbidity values are expected. Since Pu and Am tend to be transported in association with particulate matter, the higher activities are expected.
- Annual Pu and Am loads vary significantly year-to-year (Figure 5-41 and Figure 5-44).
- Annual isotopic uranium loads also vary significantly year-to-year (Figure 5-47, Figure 5-50 and Figure 5-53).
- There is significant isotopic uranium load gain in Pond C-2. This may be caused by groundwater with naturally occurring uranium entering Pond C-2 (Figure 5-48, Figure 5-51 and Figure 5-54).

Table 5-15. Pu Load Summary for Terminal Pond C-2: WY97–02.

Water Year	Pu-239,240 (µg)		
	Influent (SW027)	Effluent (GS31)	Percent Removal
1997	14.2	6.8	52%
1998	90.8	12.1	87%
1999	34.1	26.9	21%
2000	67.5	0.0; No C-2 Discharge	100%[a]
2001	10.7	11.0	-3%
2002	0.20	0.22	-9%
Total	217.4	57.0	74%

Notes: [a] No Pond C-2 discharge.

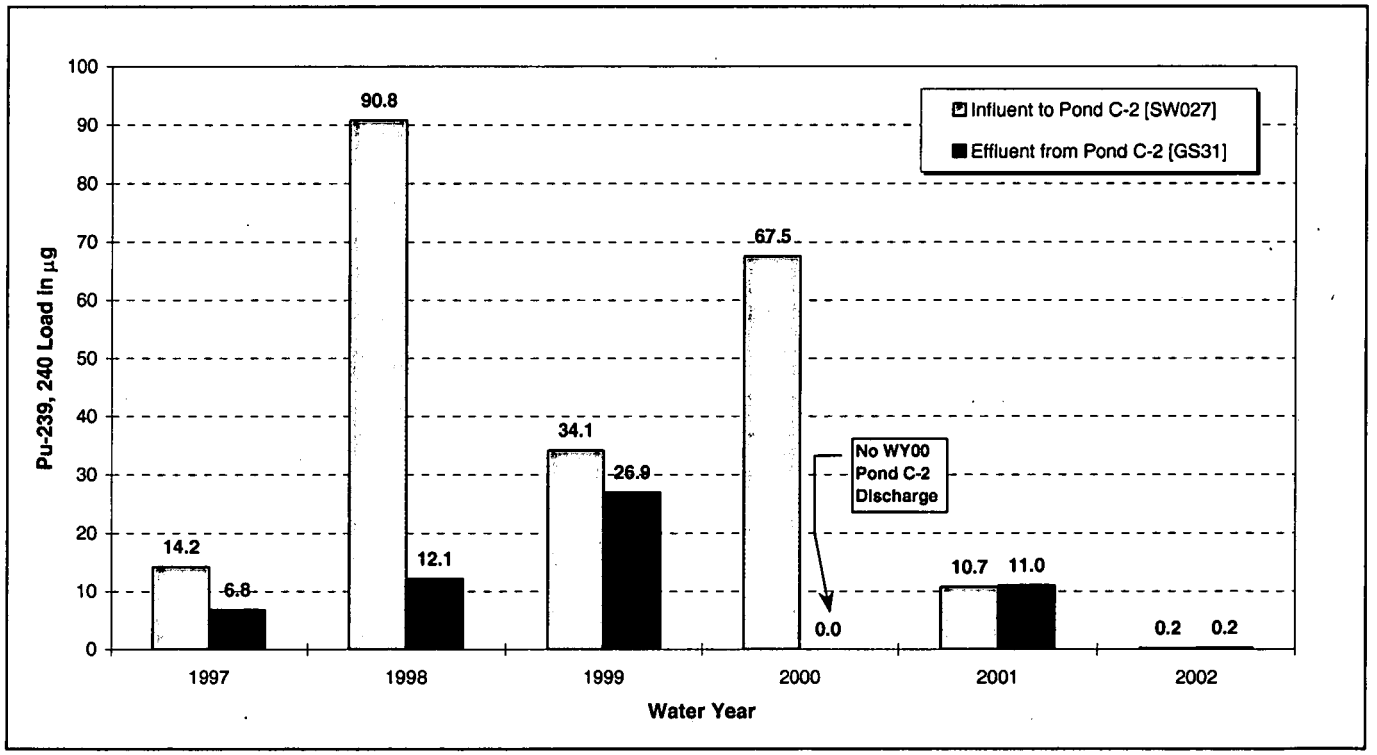


Figure 5-41. Annual Pu Loads for Pond C-2: WY97–02.

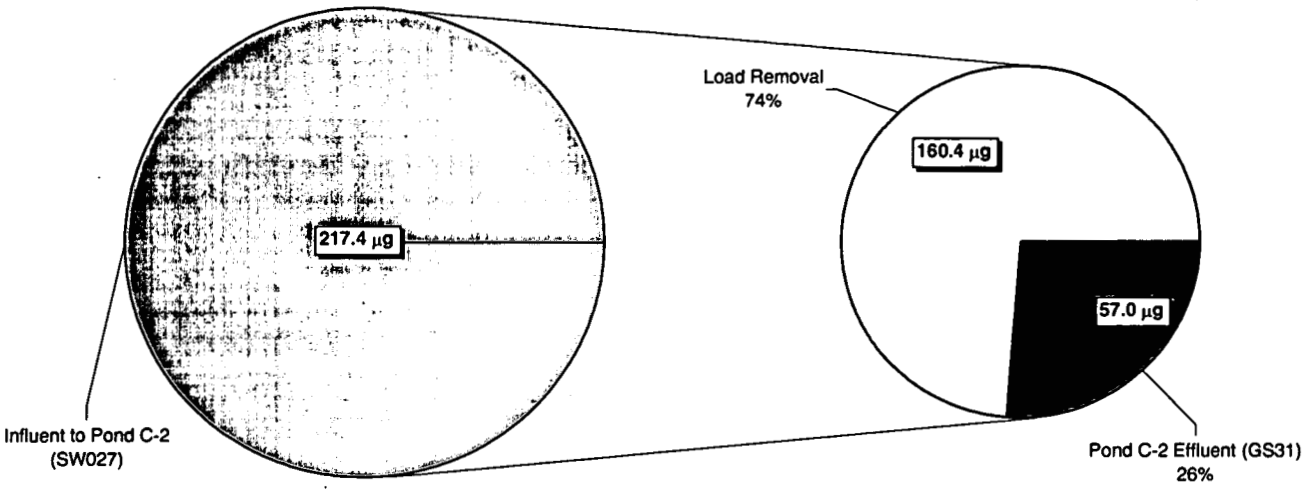


Figure 5-42. Relative Pu Load Totals for Pond C-2: WY97–02.

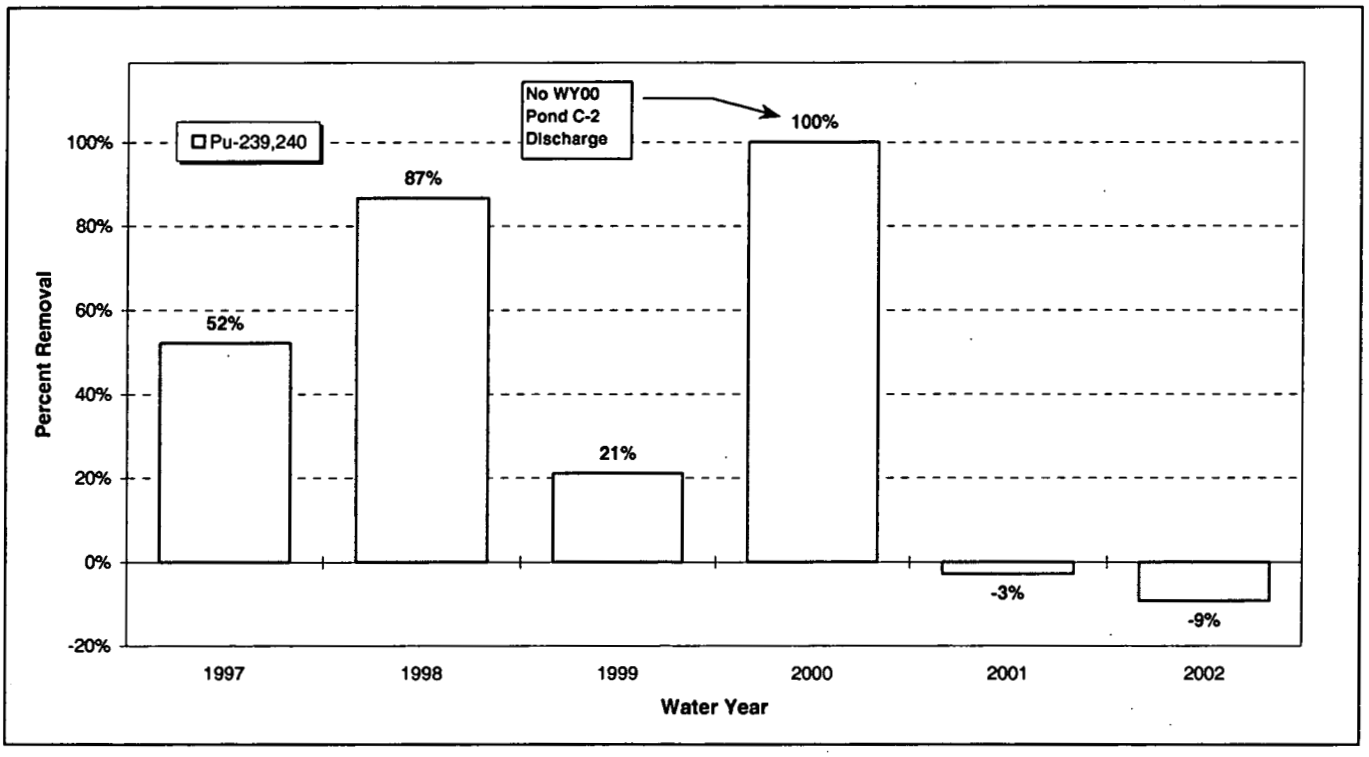


Figure 5-43. Annual Pu Load Removal for Pond C-2: WY97–02.

Table 5-16. Am Load Summary for Terminal Pond C-2: WY97–02.

Water Year	Am-241 (µg)		
	Influent (SW027)	Effluent (GS31)	Percent Removal
1997	0.06	0.04	27%
1998	0.28	0.40	-45%
1999	0.19	0.13	33%
2000	0.25	0.00; No C-2 Discharge	100%[a]
2001	0.05	0.14	-168%
2002	0.002	0.001	66%
Total	0.83	0.71	14%

Notes: [a] No Pond C-2 discharge.

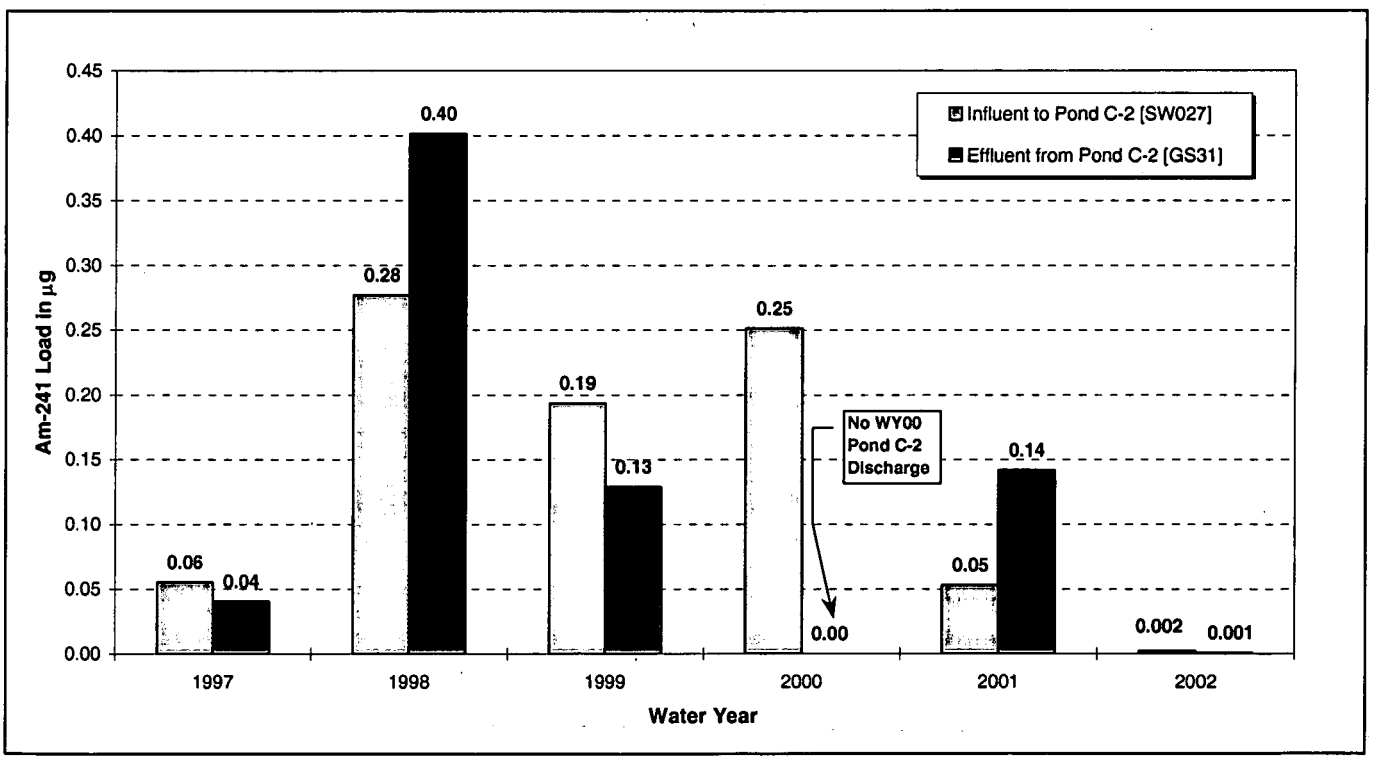


Figure 5-44. Annual Am Loads for Pond C-2: WY97–02.

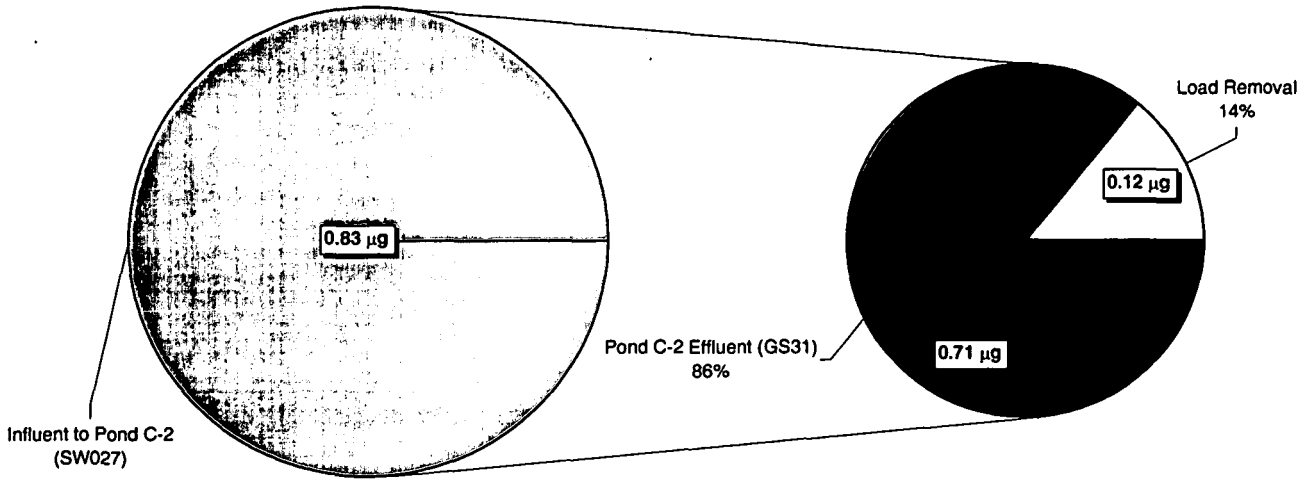


Figure 5-45. Relative Am Load Totals for Pond C-2: WY97–021.

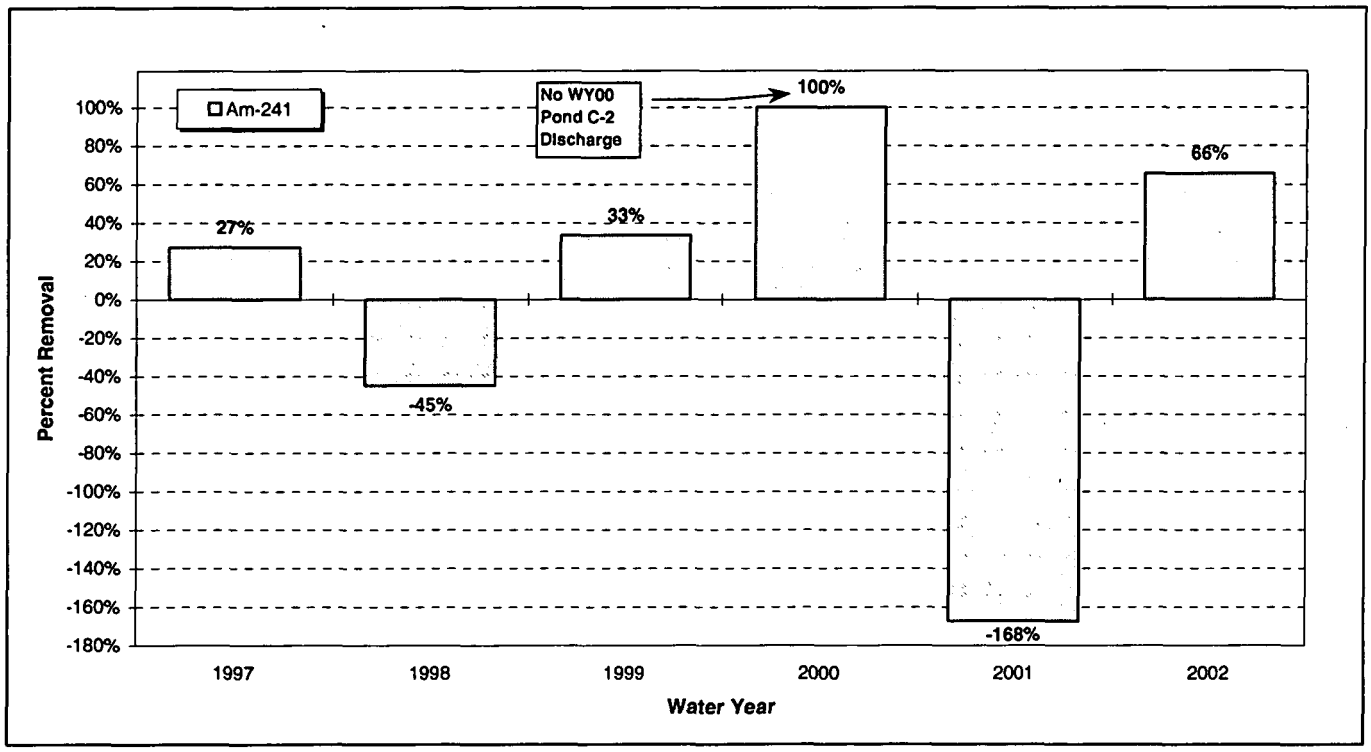


Figure 5-46. Annual Am Load Removal for Pond C-2: WY97–02.

Table 5-17. U-233,234 Load Summary for Terminal Pond C-2: WY97–02.

Water Year	U-233,234 (g)		
	Influent (SW027)	Effluent (GS31)	Percent Removal
1997	0.003	0.005	-92%
1998	0.010	0.014	-46%
1999	0.005	0.009	-91%
2000	0.001	0.00; No C-2 Discharge	100%[a]
2001	0.003	0.004	-26%
2002	0.000	0.000	87%[b]
Total	0.021	0.031	-47%

Notes: [a] No Pond C-2 discharge. [b] Calculated for very small load.

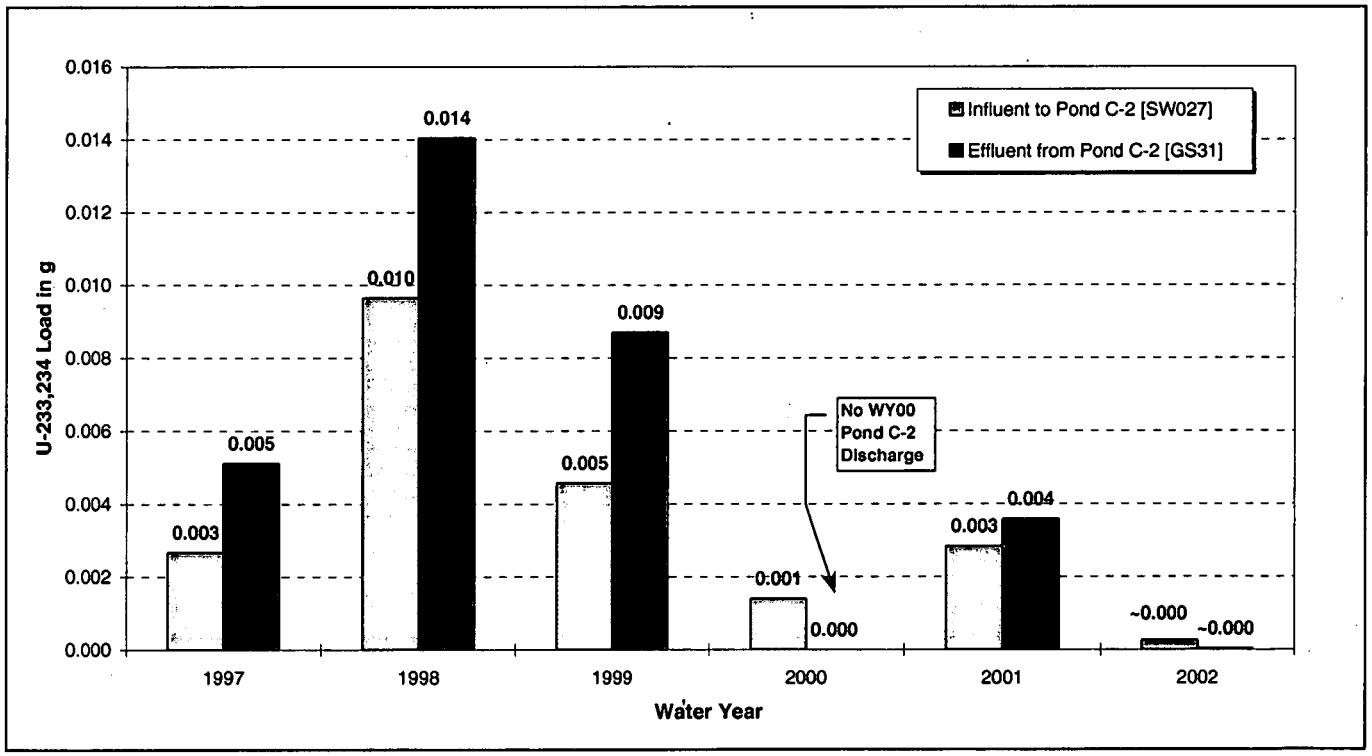


Figure 5-47. Annual U-233,234 Loads for Pond C-2: WY97–02.

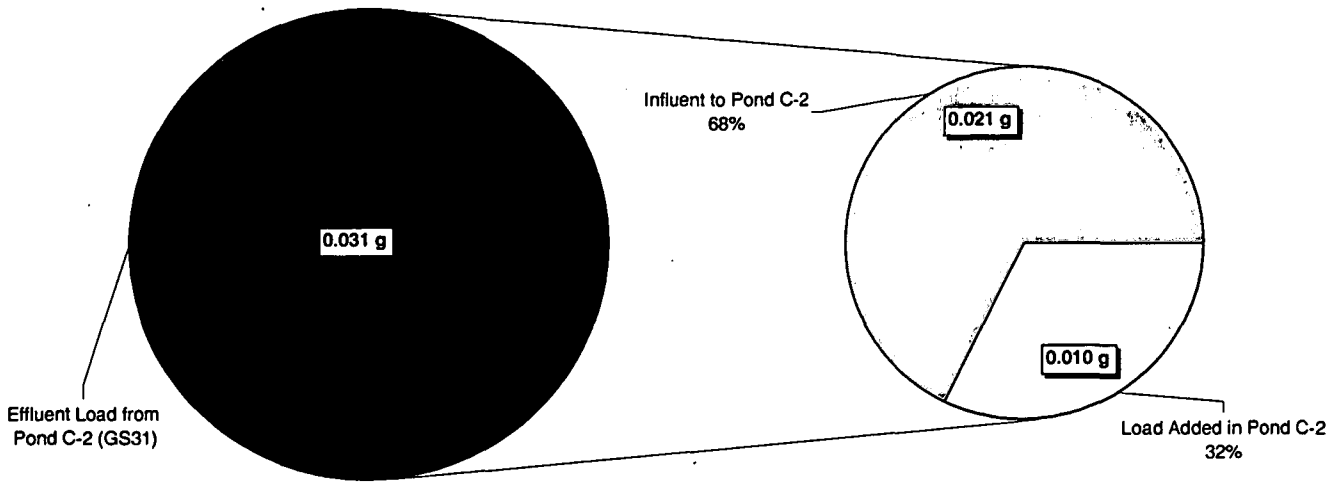


Figure 5-48. Relative U-233,234 Load Totals for Pond C-2: WY97–02.

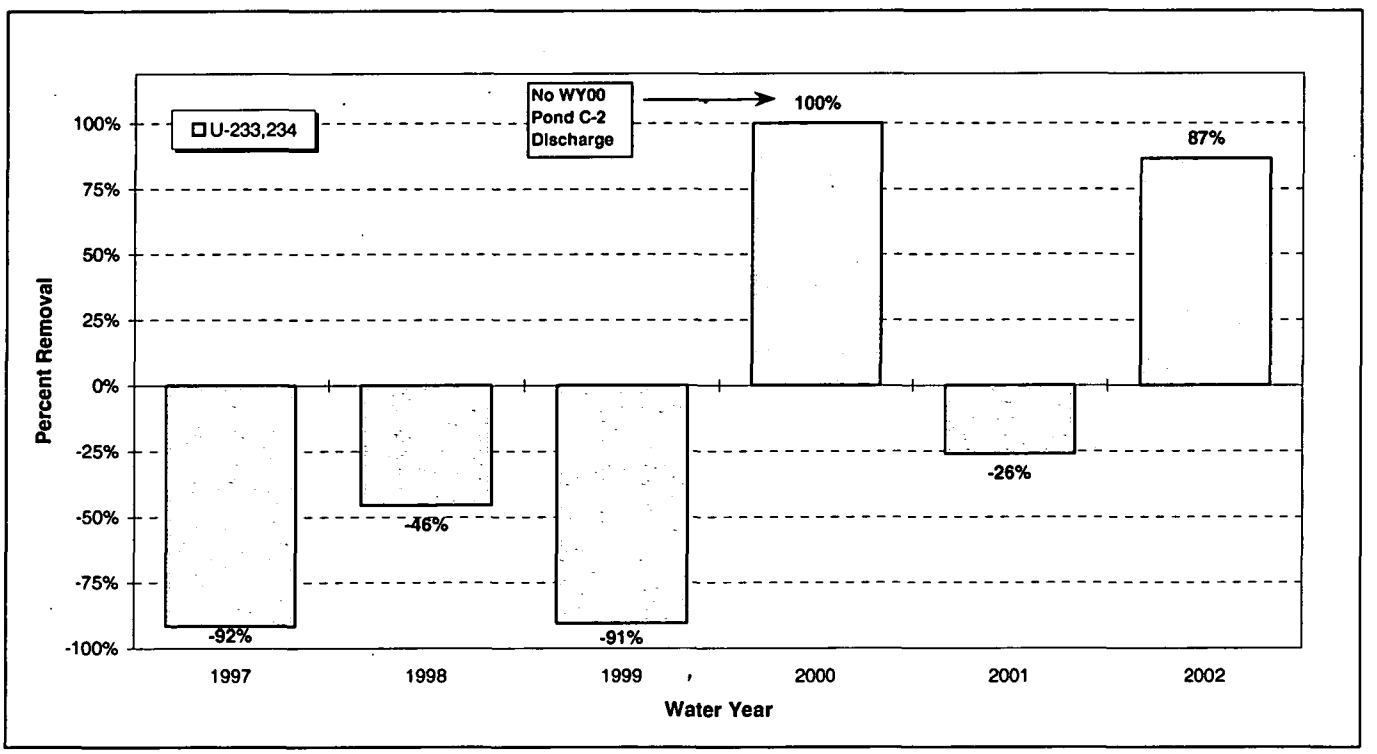


Figure 5-49. Annual U-233,234 Load Removal for Pond C-2: WY97–02.

Table 5-18. U-235 Load Summary for Terminal Pond C-2: WY97–02.

Water Year	U-235 (g)		
	Influent (SW027)	Effluent (GS31)	Percent Removal
1997	0.43	0.75	-75%
1998	1.00	1.09	-9%
1999	0.63	1.66	-164%
2000	0.18	0.00; No C-2 Discharge	100%[a]
2001	0.33	0.34	-1%
2002	0.01	0.00	68%
Total	2.58	3.84	-49%

Notes: [a] No Pond C-2 discharge.

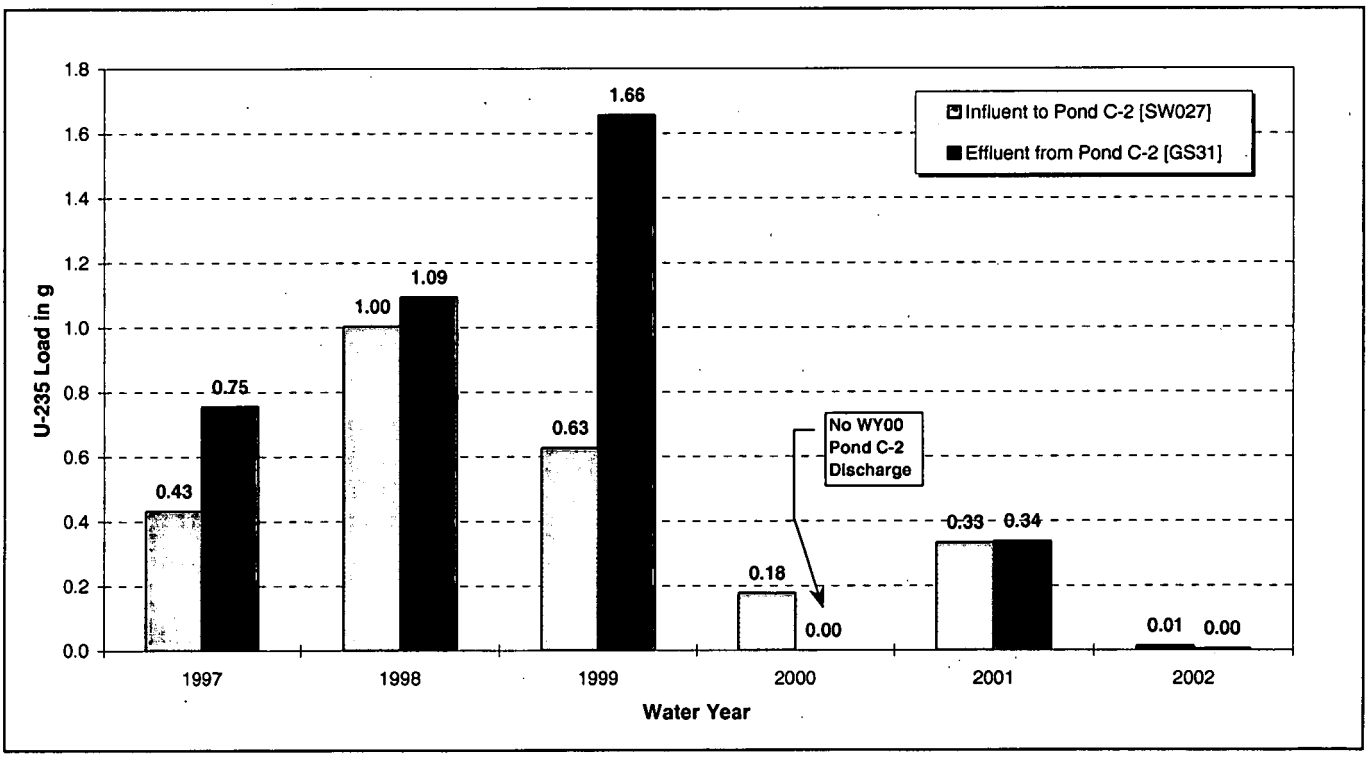


Figure 5-50. Annual U-235 Loads for Pond C-2: WY97–02.

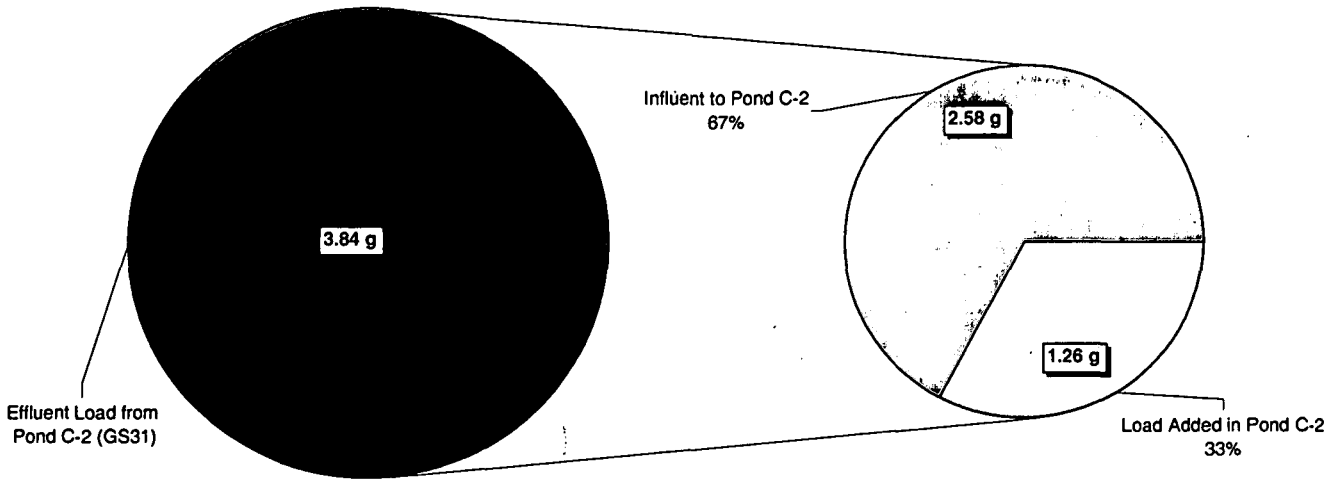


Figure 5-51. Relative U-235 Load Totals for Pond C-2: WY97–02.

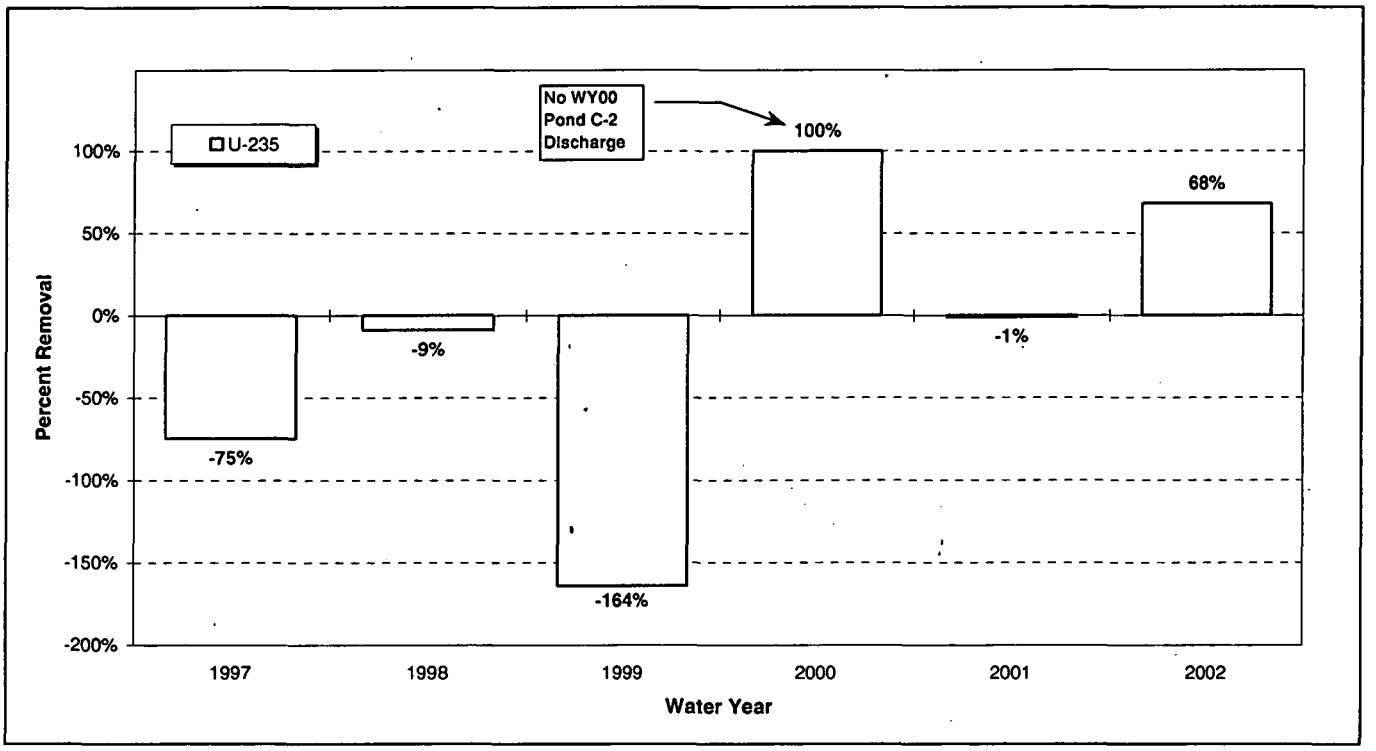


Figure 5-52. Annual U-235 Load Removal for Pond C-2: WY97–02.

Table 5-19. U-238 Load Summary for Terminal Pond C-2: WY97–02.

Water Year	U-238 (g)		
	Influent (SW027)	Effluent (GS31)	Percent Removal
1997	65.2	102.4	-57%
1998	255.0	342.1	-34%
1999	112.4	187.5	-67%
2000	25.7	0.00; No C-2 Discharge	100%[a]
2001	66.1	66.6	-1%
2002	5.9	0.6	90%
Total	530.3	699.2	-32%

Notes: [a] No Pond C-2 discharge.

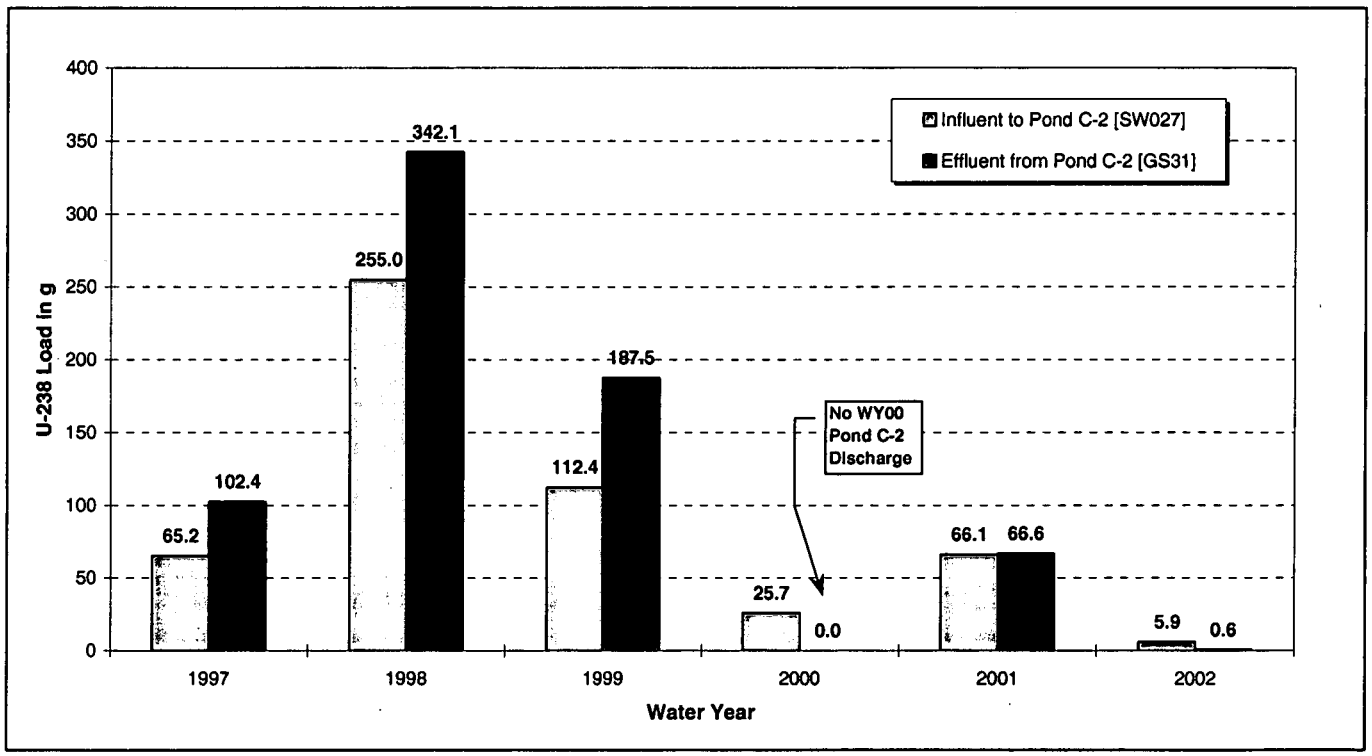


Figure 5-53. Annual U-238 Loads for Pond C-2: WY97–02.

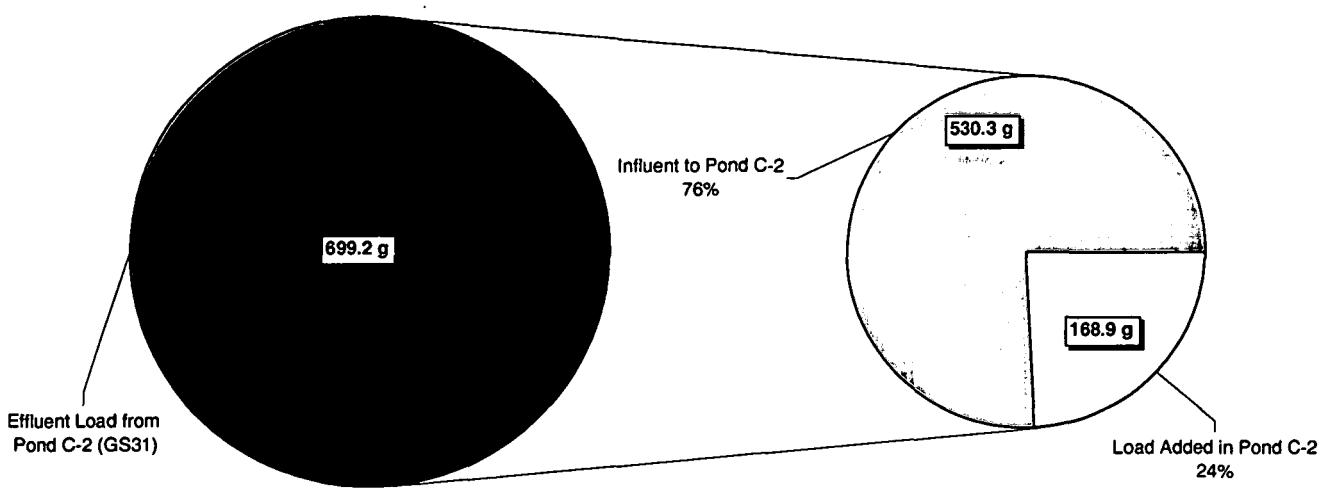


Figure 5-54. Relative U-238 Load Totals for Pond C-2: WY97–02.

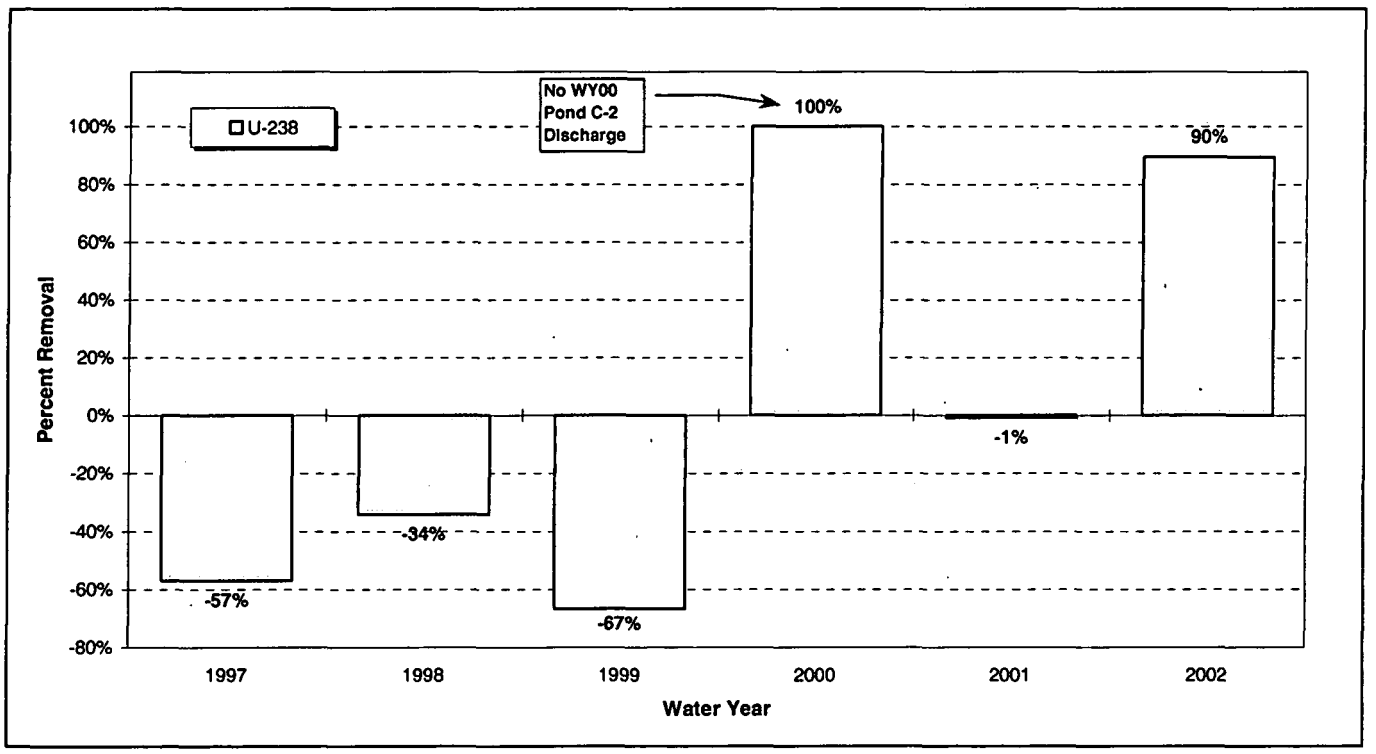


Figure 5-55. Annual U-238 Load Removal for Pond C-2: WY97–02.

5.5 RFCA POINTS OF EVALUATION

5.5.1 Major IA Drainages

This section summarizes the calculated Pu, Am, and isotopic uranium loads for the three major IA drainages: North Walnut Creek (SW093)[11], South Walnut Creek (GS10 and the WWTP), and the SID (SW027). The following points are noted:

- Total Pu load from the IA varies year-to-year and may suggest a decreasing trend (Figure 5-56).
- Total Am load from the IA varies more year-to-year (Figure 5-58). This variation is predominantly the result of Am variability at GS10.
- South Walnut accounts for a majority (71%) of the Pu load from the IA (Figure 5-57). Of the South Walnut Pu load, GS10 accounts for 96% while the WWTP accounts for the remaining 4%.
- South Walnut accounts for a majority (87%) of the Am load from the IA (Figure 5-59). Of the South Walnut Am load, GS10 accounts for 95% while the WWTP accounts for the remaining 5%.
- Annual isotopic uranium loads are fairly consistent year-to-year (Figure 5-60, Figure 5-62 and Figure 5-64).
- Isotopic uranium loads are fairly evenly divided (49%-53%) between North and South Walnut Creeks (Figure 5-61, Figure 5-63 and Figure 5-65).

Table 5-20. Industrial Area Pu and Am Loads: WY97–02.

	Pu-239,-240 (μg)				Am-241 (μg)			
Water Year	N. Walnut [SW093]	S. Walnut [GS10]	S. Walnut [WWTP]	SID [SW027]	N. Walnut [SW093]	S. Walnut [GS10]	S. Walnut [WWTP]	SID [SW027]
1997	178.7	564.0	13.4	14.2	2.27	11.98	0.44	0.06
1998	70.9	345.3	8.7	90.8	1.38	4.95	0.58	0.28
1999	126.9	306.8	23.2	34.1	1.69	12.55	0.11	0.19
2000	88.5	329.6	18.4	67.5	1.03	14.65	0.33	0.25
2001	44.6	140.9	9.1	10.7	0.65	2.71	0.26	0.05
2002	10.0	50.6	7.2	0.2	0.50	1.64	0.23	0.00
Total	519.5	1737.2	80.1	217.4	7.52	48.47	1.94	0.83

[11] Although SW091 is also a load source to North Walnut (Figure 3-2), the flow volumes at SW091 are approximately 0.4% of the volumes at SW093. Additionally, SW091 does not collect continuous flow-paced sample to allow for more accurate load calculations. Therefore, SW091 load is not included due to it's relative insignificance.

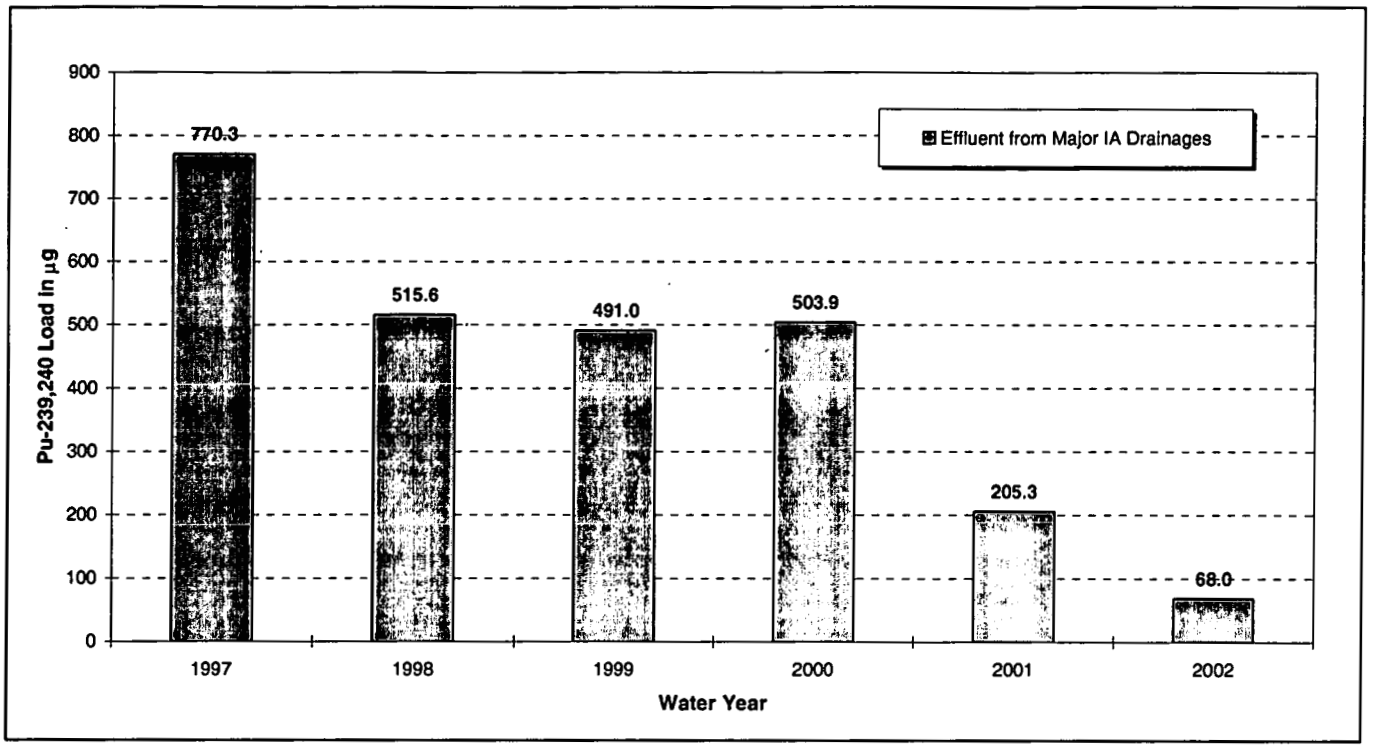


Figure 5-56. Combined Annual Pu Loads from Major IA Drainages and WWTP: WY97–02.

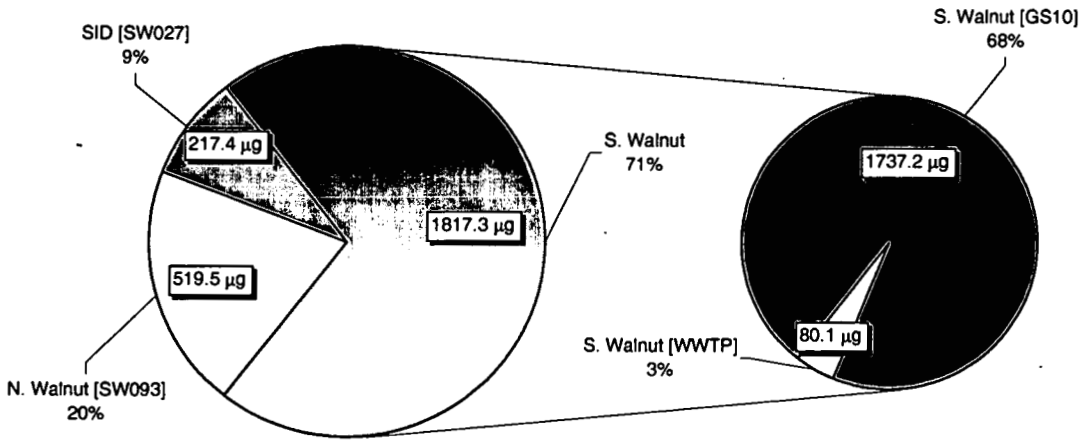


Figure 5-57. Relative Pu Load Totals from Major IA Drainages and WWTP: WY97–02.

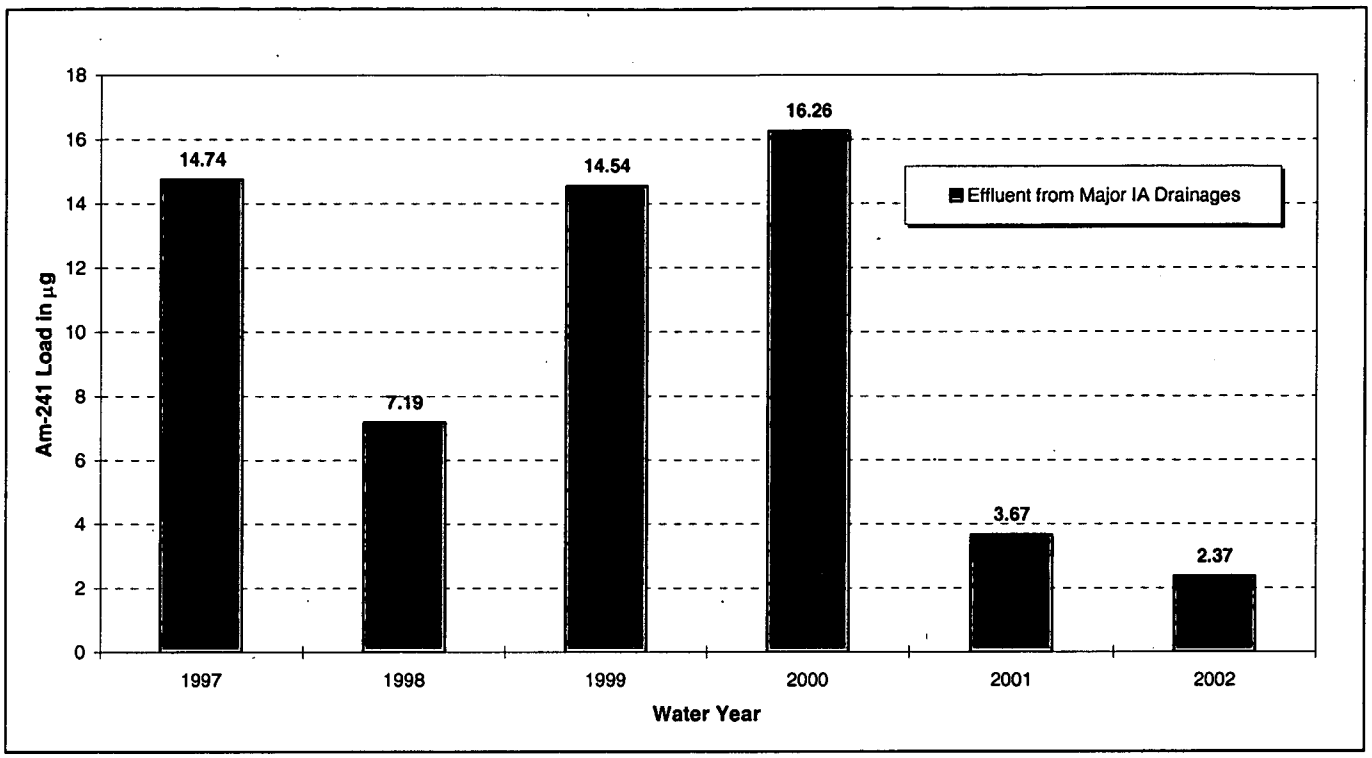


Figure 5-58. Annual Am Loads from Major IA Drainages and WWTP: WY97–02.

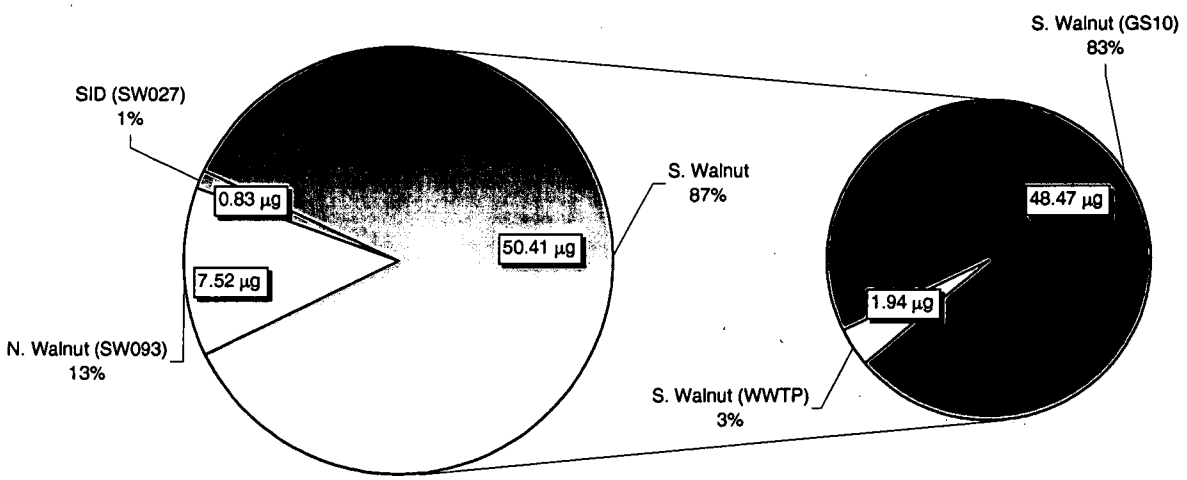


Figure 5-59. Relative Am Load Totals from Major IA Drainages and WWTP: WY97–02.

Table 5-21. Industrial Area U-233,234 Loads: WY97–02.

	U-233,234 (g)			
Water Year	N. Walnut [SW093]	S. Walnut [GS10]	S. Walnut [WWTP]	SID [SW027]
1997	0.033	0.031	0.013	0.003
1998	0.041	0.039	0.023	0.010
1999	0.033	0.030	0.005	0.005
2000	0.026	0.022	0.006	0.001
2001	0.035	0.030	0.013	0.003
2002	0.021	0.017	0.003	0.000
Total	0.190	0.168	0.063	0.021

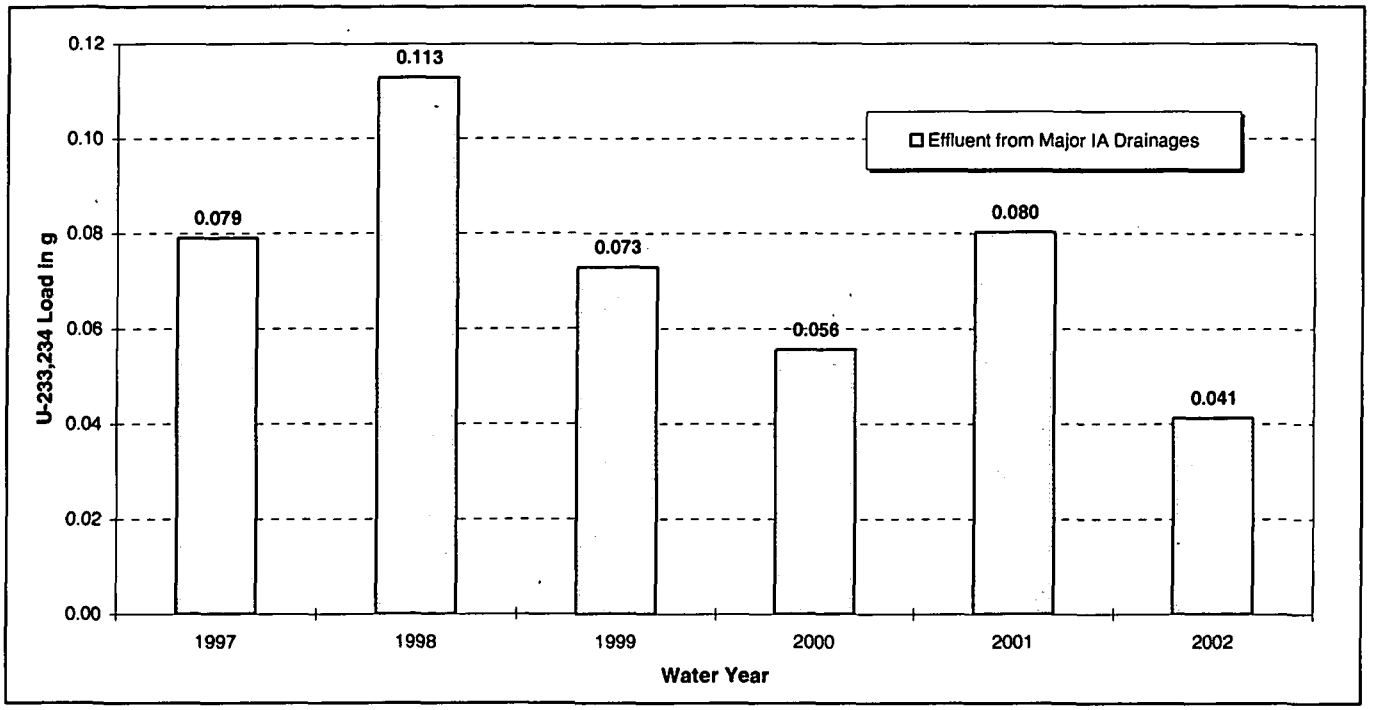


Figure 5-60. Annual U-233,234 Loads from Major IA Drainages and WWTP: WY97–02.

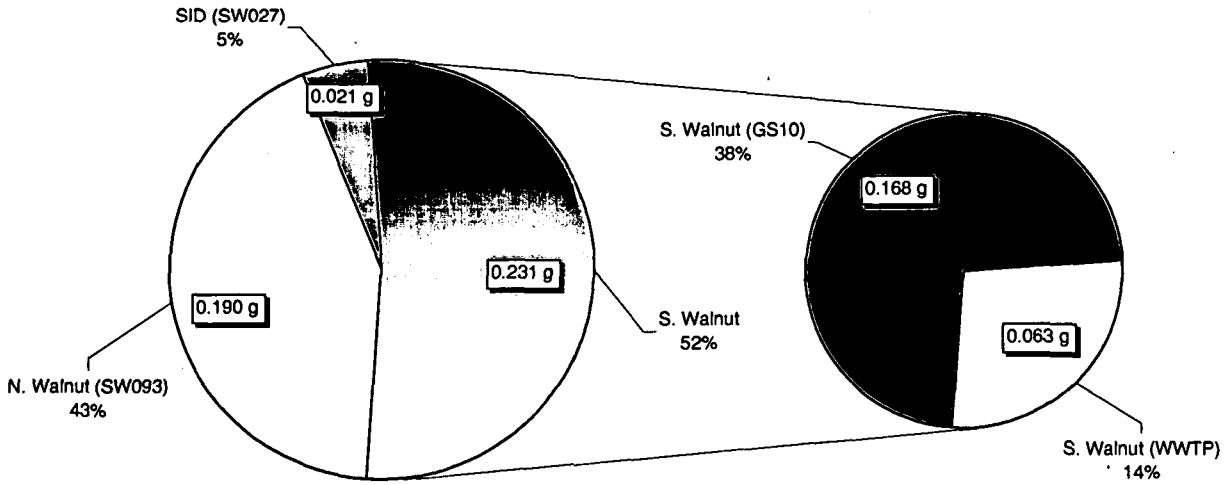


Figure 5-61. Relative U-233,234 Load Totals from Major IA Drainages and WWTP: WY97–02.

Table 5-22. Industrial Area U-235 Loads: WY97–02.

	U-235 (g)			
Water Year	N. Walnut [SW093]	S. Walnut [GS10]	S. Walnut [WWTP]	SID [SW027]
1997	4.77	4.05	2.57	0.43
1998	5.32	4.48	2.09	1.00
1999	3.53	3.57	1.21	0.63
2000	3.36	2.64	0.71	0.18
2001	3.37	3.04	1.62	0.33
2002	2.08	1.62	0.12	0.01
Total	22.43	19.41	8.32	2.58

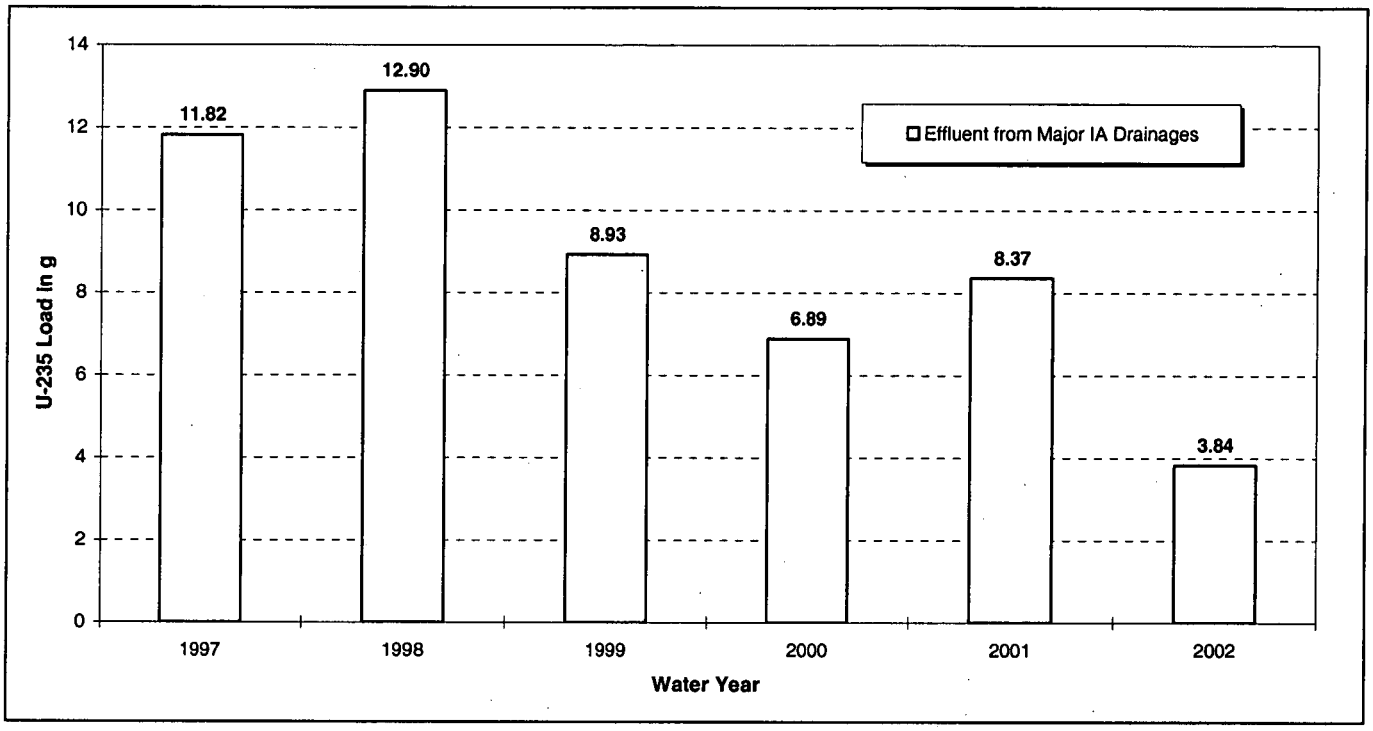


Figure 5-62. Annual U-235 Loads from Major IA Drainages and WWTP: WY97–02.

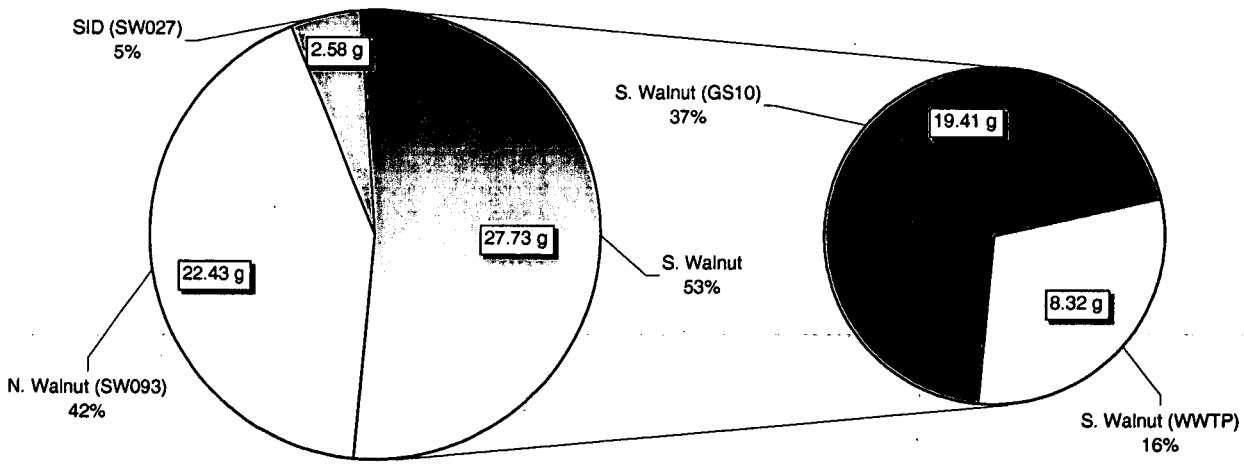


Figure 5-63. Relative U-235 Load Totals from Major IA Drainages and WWTP: WY97–02.

Table 5-23. Industrial Area U-238 Loads: WY97–02.

	U-238 (g)			
Water Year	N. Walnut [SW093]	S. Walnut [GS10]	S. Walnut [WWTP]	SID [SW027]
1997	778.3	555.6	215.3	65.2
1998	875.5	678.9	514.1	255.0
1999	676.7	573.8	106.4	112.4
2000	530.5	396.0	108.9	25.7
2001	637.7	514.6	252.4	66.1
2002	437.2	286.7	74.4	5.9
Total	3936.1	3005.6	1271.6	530.3

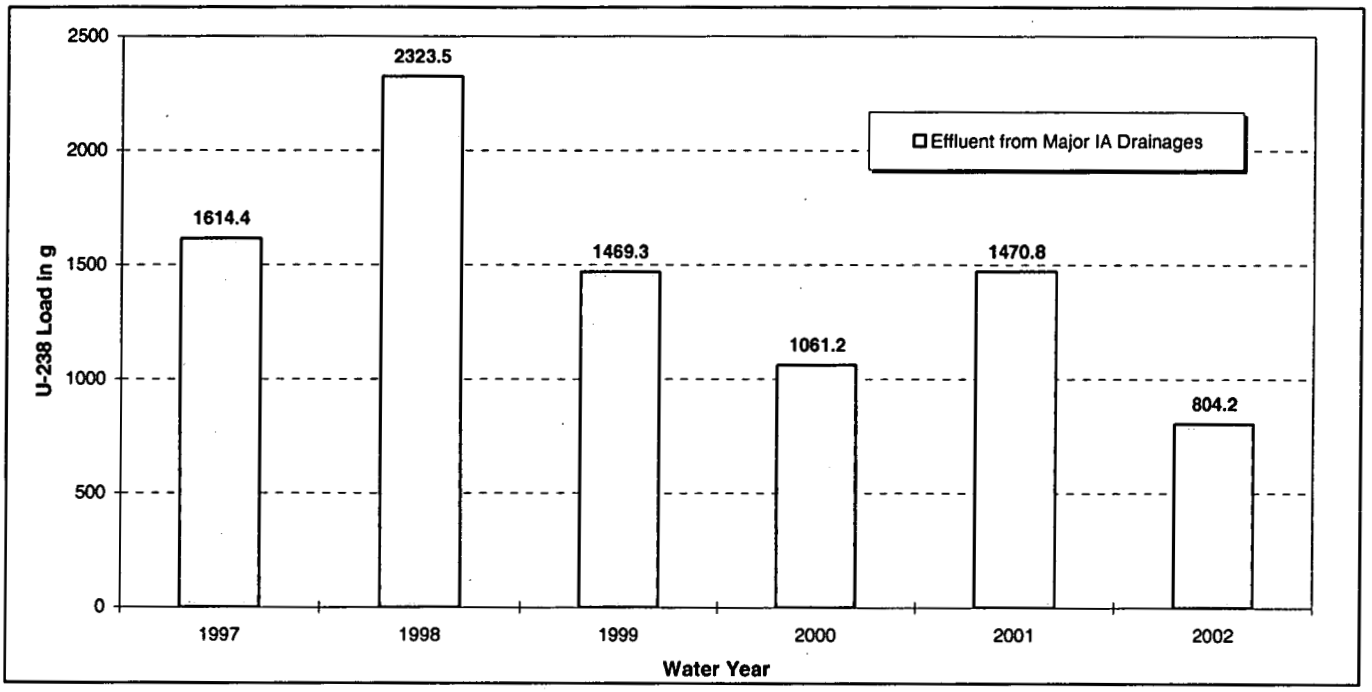


Figure 5-64. Annual U-238 Loads from Major IA Drainages and WWTP: WY97–02.

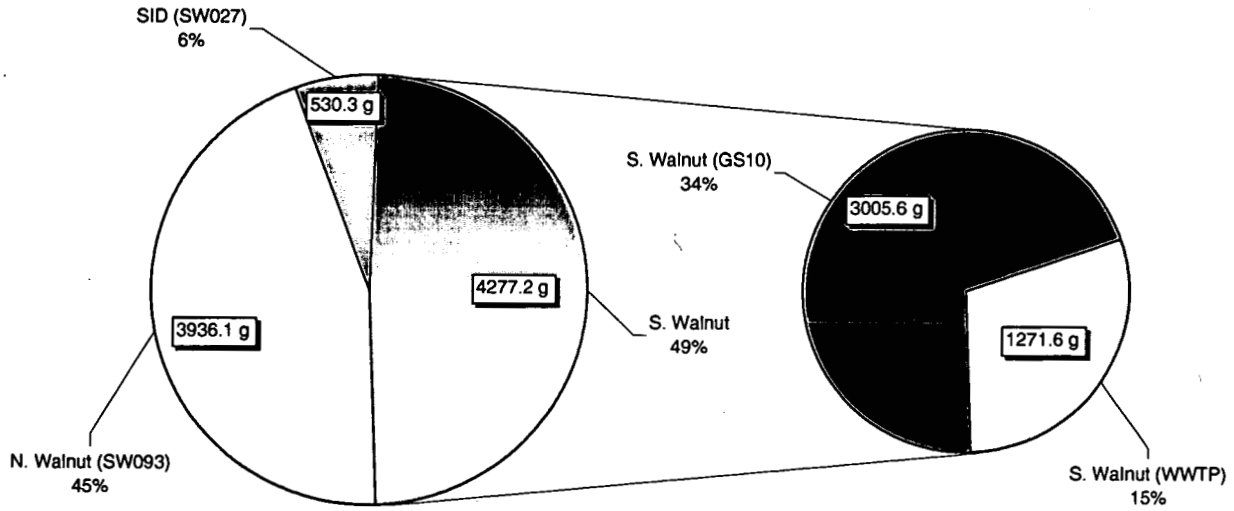


Figure 5-65. Relative U-238 Load Totals from Major IA Drainages and WWTP: WY97–02.

5.5.2 North Walnut Creek at SW093

This section summarizes the calculated Pu, Am, and isotopic uranium loads for North Walnut Creek at SW093. The following points are noted:

- Annual Pu loads at SW093 vary significantly year-to-year (Figure 5-66).
- Annual Am loads at SW093 are more consistent year-to-year (Figure 5-66).
- Annual isotopic uranium loads are fairly consistent year-to-year (Figure 5-67), with the suggestion of a slight downward trend.

Table 5-24. Actinide Loads in North Walnut Creek at SW093: WY97–02.

Water Year	Pu-239,240 [µg]	Am-241 [µg]	U-233,234 [g]	U-235 [g]	U-238 [g]
1997	178.7	2.27	0.033	4.77	778.3
1998	70.9	1.38	0.041	5.32	875.5
1999	126.9	1.69	0.033	3.53	676.7
2000	88.5	1.03	0.026	3.36	530.5
2001	44.6	0.65	0.035	3.37	637.7
2002	10.0	0.50	0.021	2.08	437.2
Total	519.5	7.52	0.190	22.43	3936.1

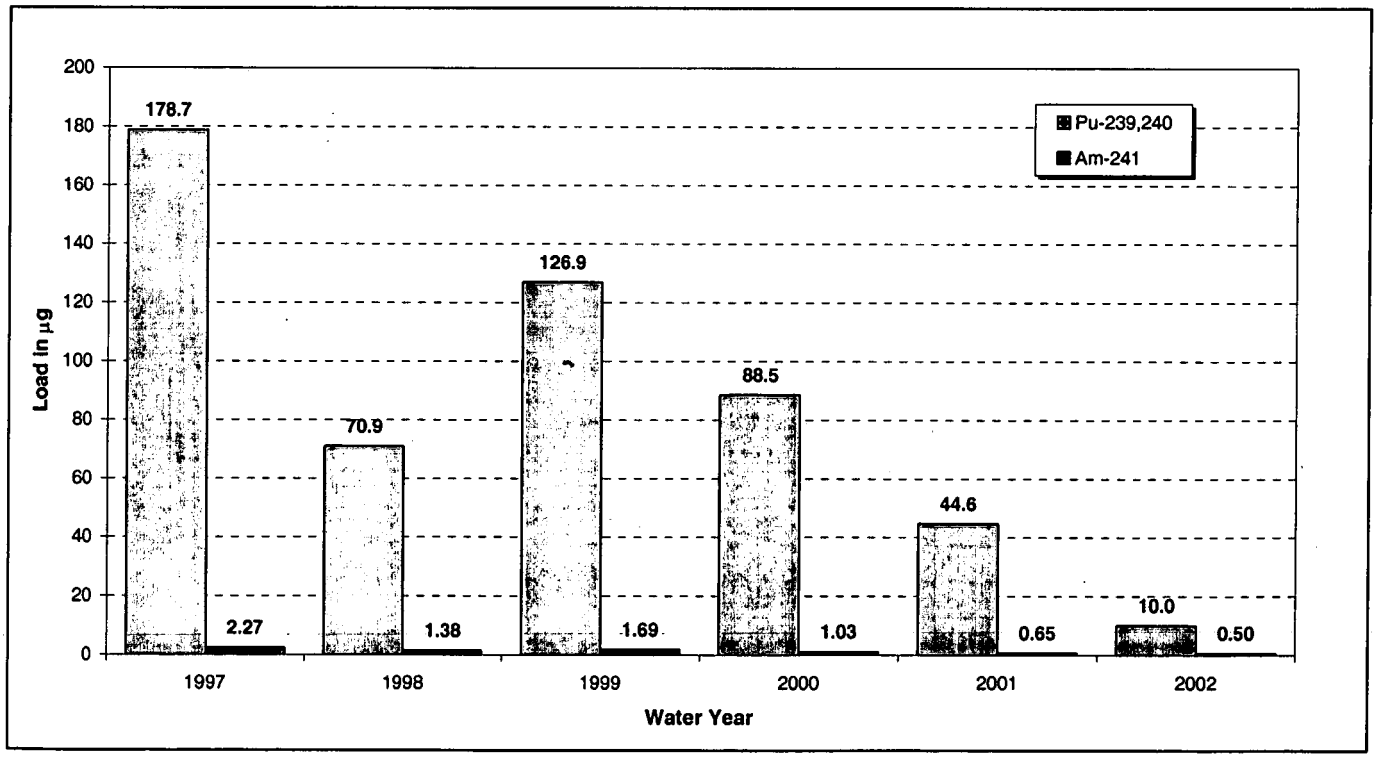


Figure 5-66. Annual Pu and Am Loads at SW093: WY97–02.

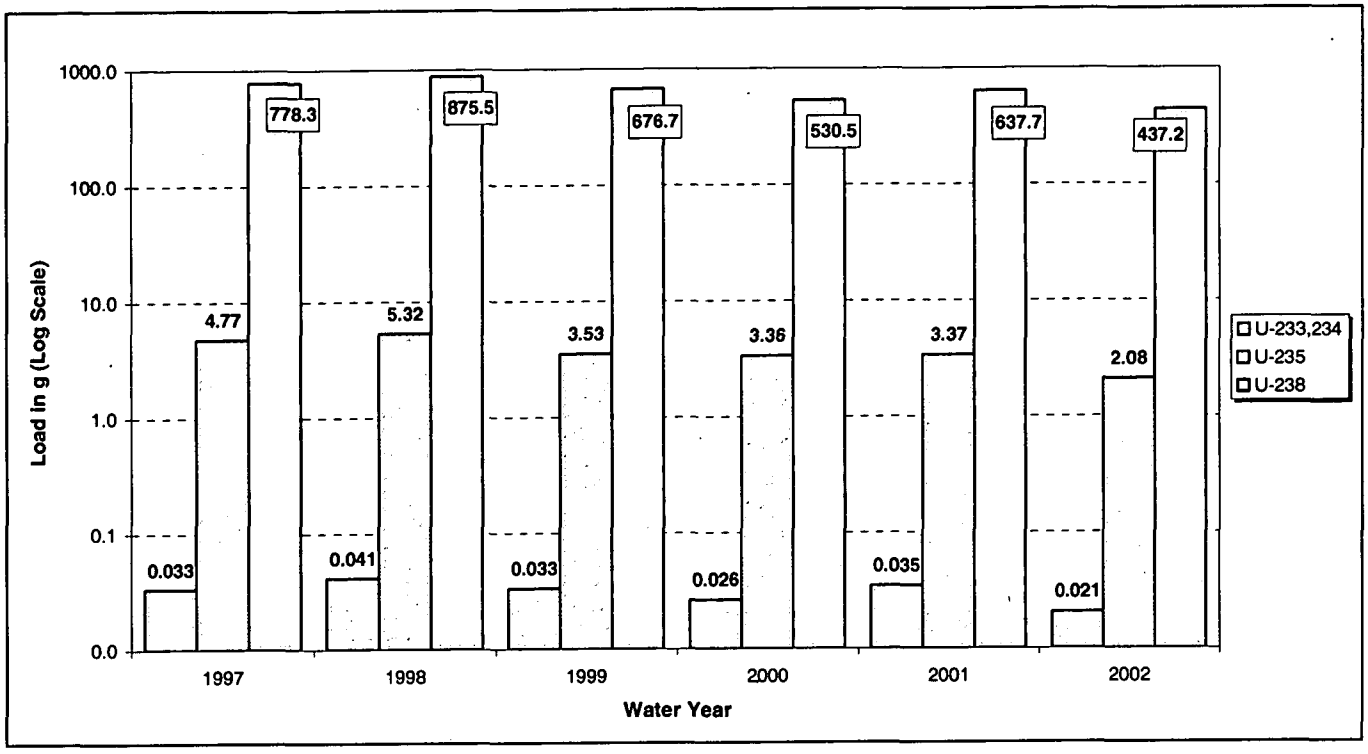


Figure 5-67. Annual Isotopic Uranium Loads at SW093: WY97–02.

5.5.3 South Walnut Creek at GS10

This section summarizes the calculated Pu, Am, and isotopic uranium loads for South Walnut Creek at GS10. The following points are noted:

- Annual Pu loads at GS10 vary year-to-year (Figure 5-68), with the suggestion of a downward trend.
- Annual Am loads at GS10 are more variable year-to-year (Figure 5-68).
- Annual isotopic uranium loads are fairly consistent year-to-year (Figure 5-69).

Table 5-25. Actinide Loads in South Walnut Creek at GS10: WY97–02.

Water Year	Pu-239,240 [µg]	Am-241 [µg]	U-233,234 [g]	U-235 [g]	U-238 [g]
1997	564.0	11.98	0.031	4.05	555.6
1998	345.3	4.95	0.039	4.48	678.9
1999	306.8	12.55	0.030	3.57	573.8
2000	329.6	14.65	0.022	2.64	396.0
2001	140.9	2.71	0.030	3.04	514.6
2002	50.6	1.64	0.017	1.62	286.7
Total	1737.2	48.47	0.168	19.41	3005.6

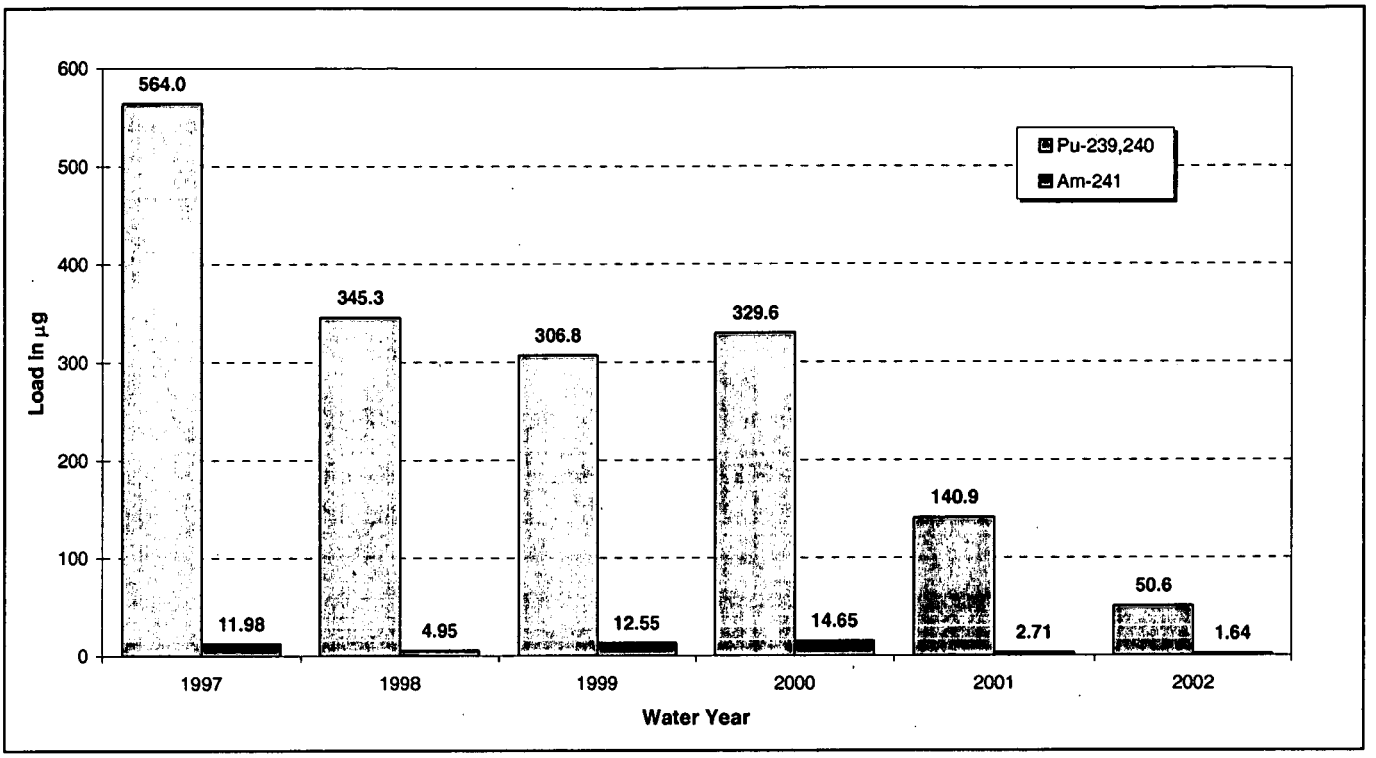


Figure 5-68. Annual Pu and Am Loads at GS10: WY97–02.

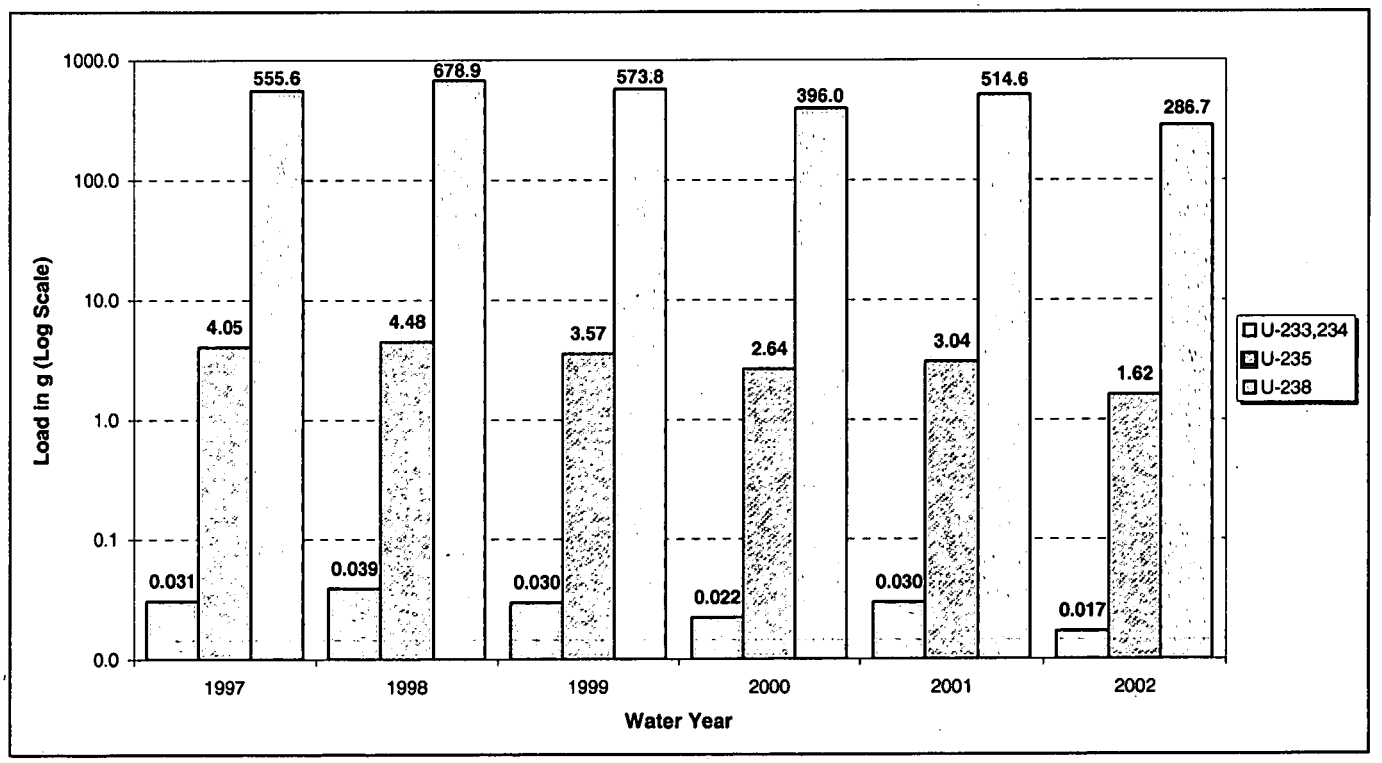


Figure 5-69. Annual Isotopic Uranium Loads at GS10: WY97–02.

5.5.4 South Walnut Creek at the WWTP

This section summarizes the calculated Pu, Am, and isotopic uranium loads for South Walnut Creek at the WWTP. The following points are noted:

- Annual Pu loads at the WWTP vary year-to-year (Figure 5-70).
- Annual Am loads at the WWTP also vary year-to-year (Figure 5-70).
- Annual isotopic uranium loads are also variable year-to-year (Figure 5-71).

Table 5-26. Actinide Loads in South Walnut Creek at the WWTP: WY97–02.

Water Year	Pu-239,240 [µg]	Am-241 [µg]	U-233,234 [g]	U-235 [g]	U-238 [g]
1997	13.4	0.44	0.013	2.57	215.3
1998	8.7	0.58	0.023	2.09	514.1
1999	23.2	0.11	0.005	1.21	106.4
2000	18.4	0.33	0.006	0.71	108.9
2001	9.1	0.26	0.013	1.62	252.4
2002	7.2	0.23	0.003	0.12	74.4
Total	80.1	1.94	0.063	8.32	1271.6

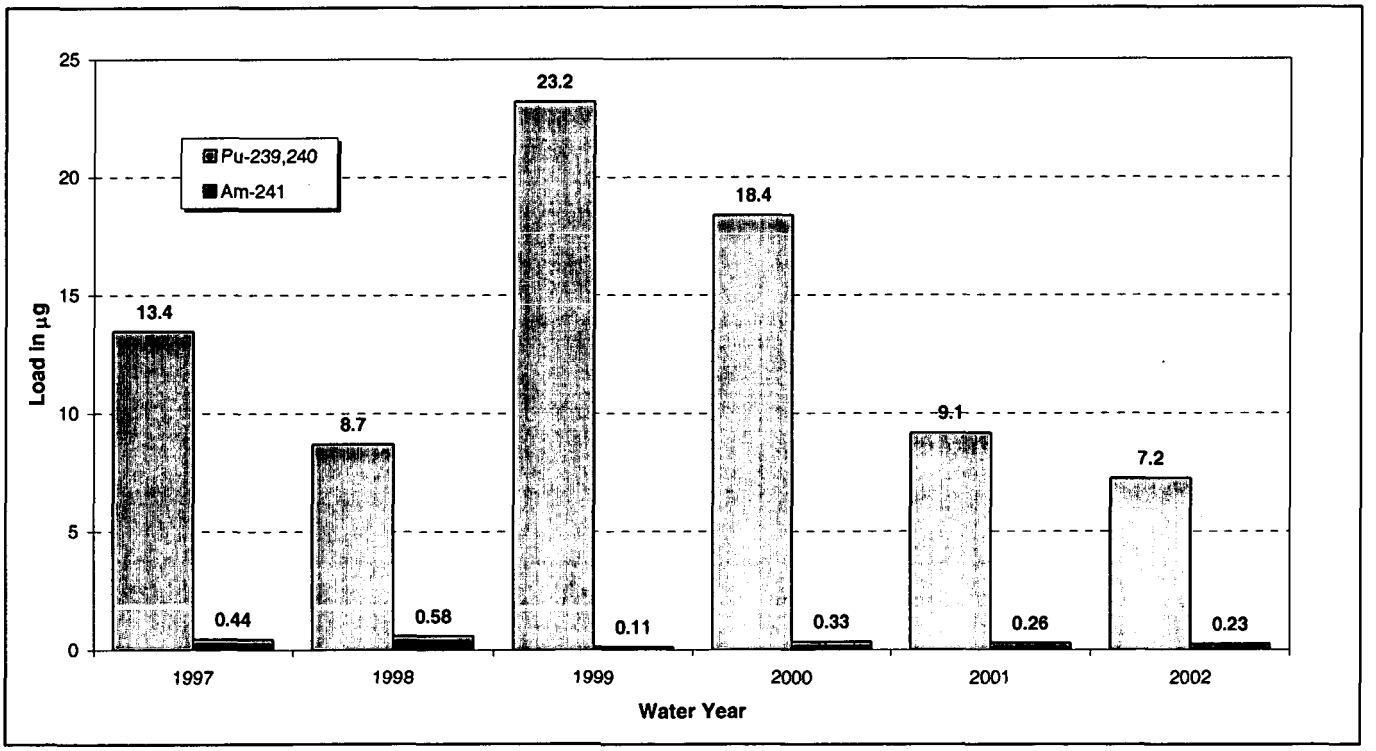


Figure 5-70. Annual Pu and Am Loads at the WWTP: WY97–02.

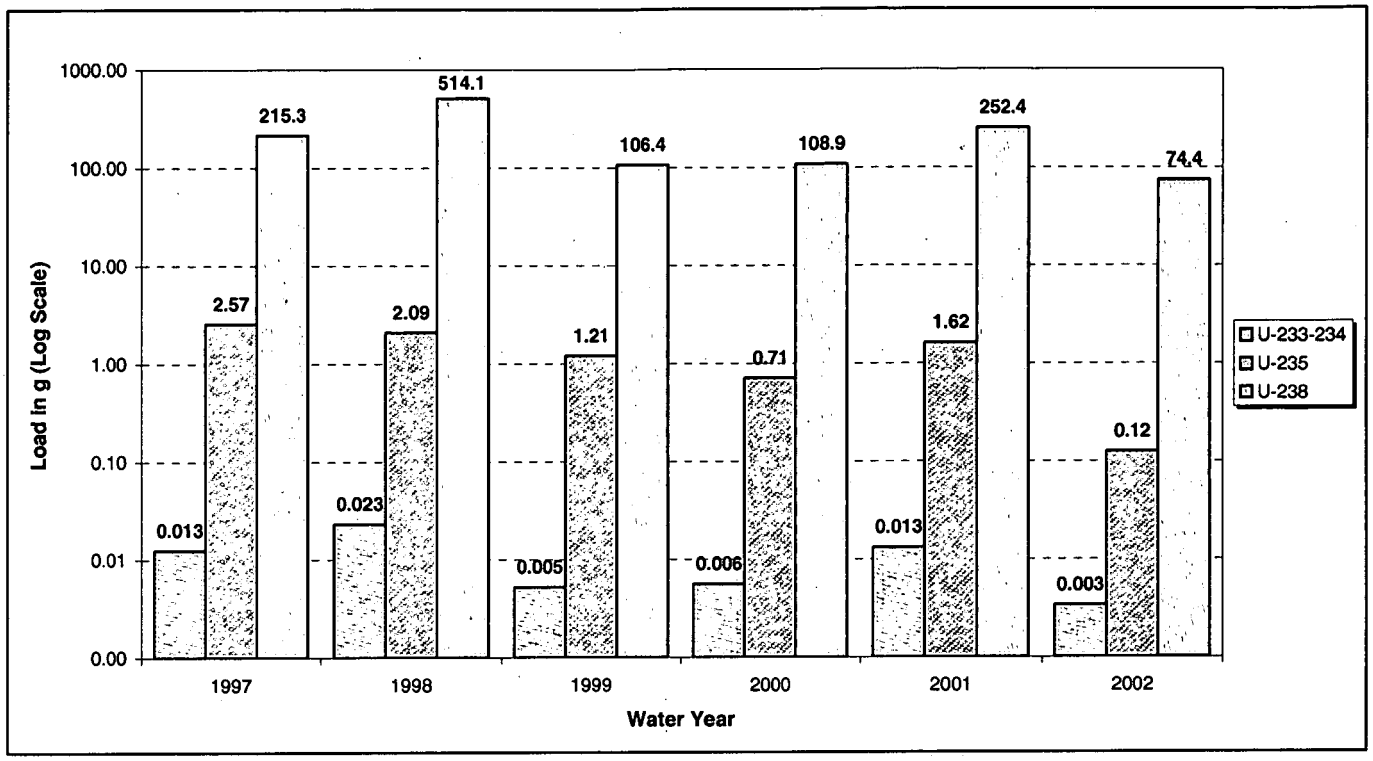


Figure 5-71. Annual Isotopic Uranium Loads at the WWTP: WY97–02.

5.5.5 South Interceptor Ditch at SW027

This section summarizes the calculated Pu, Am, and isotopic uranium loads for the SID at SW027. The following points are noted:

- Annual Pu loads at SW027 vary significantly year-to-year (Figure 5-72).
- Annual Am loads at SW027 also vary significantly year-to-year (Figure 5-72).
- Annual isotopic uranium loads also vary significantly year-to-year (Figure 5-73).

Table 5-27. Actinide Loads in the South Interceptor Ditch at SW027: WY97–02.

Water Year	Pu-239,240 [µg]	Am-241 [µg]	U-233,234 [g]	U-235 [g]	U-238 [g]
1997	14.2	0.06	0.003	0.43	65.2
1998	90.8	0.28	0.010	1.00	255.0
1999	34.1	0.19	0.005	0.63	112.4
2000	67.5	0.25	0.001	0.18	25.7
2001	10.7	0.05	0.003	0.33	66.1
2002	0.2	0.00	0.000	0.01	5.9
Total	217.4	0.83	0.021	2.58	530.3

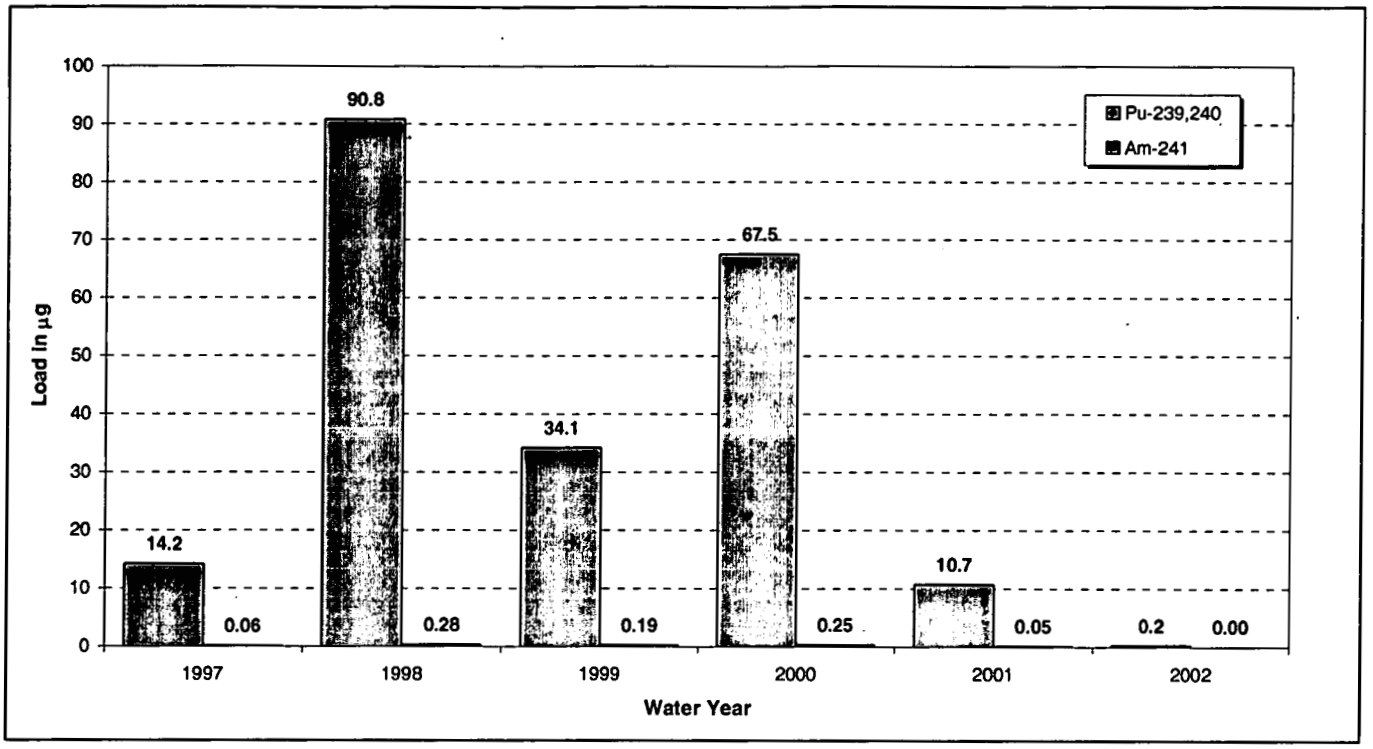


Figure 5-72. Annual Pu and Am Loads at SW027: WY97–02.

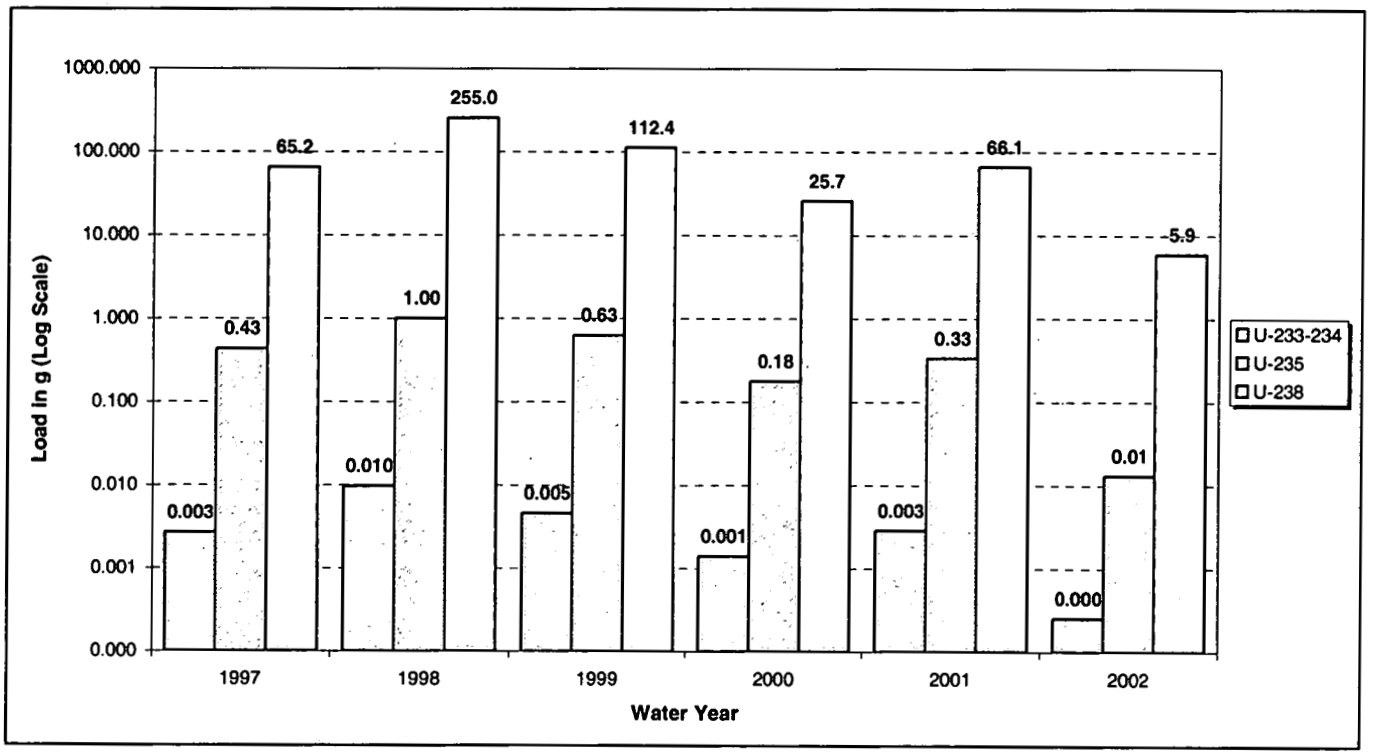


Figure 5-73. Annual Isotopic Uranium Loads at SW027: WY97–02.

6. SOURCE LOCATION MONITORING

As used in this section a "source" is a contaminant source. The term "new source", as used in this section, means any source that has not previously been located, halted, mitigated, quantified, or corrected.

When new contaminant sources are detected by surface-water monitoring at a NSD location, POE, or POC, or in a downstream reservoir, additional monitoring may be required to identify[12] the source and evaluate for corrective actions pursuant to the RFCA Action Level Framework (ALF). The Source Location monitoring objective is intended to locate the source of contamination when a new source of contamination is detected.[13]

The monitoring details in Section 6.1 are based on Source Location monitoring performed in WY02.

6.1 DATA TYPES, FREQUENCY, AND COLLECTION PROTOCOLS

Source Location monitoring may be implemented anywhere within a Site surface-water drainage area (including within the IA) where a new contaminant source is detected. The selection of monitoring points is determined by the details of the specific source evaluation to quickly determine source location and to efficiently utilize resources. For example, if monitoring (just outside the IA) through NSD monitoring suggests a new source within the IA, then portable-sampling equipment may be installed within the IA, to locate the source. Similarly, if monitoring for compliance in Segment 4 (POC) suggests a new source, then monitoring to identify the source may begin in Segment 5.

Source Location monitoring should begin as soon as practicable after initial source detection and continue until the source is identified and/or evaluated or is no longer detected. The number of samples will be based on the status of the source evaluation, taking into account, but not limited to, weather conditions, water availability, and process knowledge.

Analyte suites under this monitoring objective are determined based on the detected contaminant of current concern, or related indicators. The information types are entirely dependent on the results of other monitoring objectives under which the source was detected. The analyte suites are limited to parameters that will aid in the identification and evaluation of a contaminant source.

Flow data should be collected, where possible, to provide flow volumes required for contaminant loading analysis. Samples collected should be continuous flow-paced composites to facilitate comparison to POCs and POEs and allow for continuous contaminant loading analysis. Collection of real-time water-quality data may be initiated if such data would facilitate the specific source evaluation.

The specific scope for each source location investigation is detailed in either a sampling and analysis plan (SAP) or included as part of a Letter of Notification from the Site to the regulators.

6.2 WY02 MONITORING SCOPE

Table 6-1 lists the Source Location monitoring locations that were operational during W2002. Figure 2-2 shows the location of these monitoring stations.

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[12] Note that the term "identify" is used here to mean "locate." Characterization is also implied.

[13] The various monitoring objectives might "detect" a new source through an increase in baseline or exceedance of an action level, standard, permit limitation, etc., depending on the monitoring objective under which the potential new source was detected.

Table 6-1. Source Location Monitoring Locations

ID Code	Location	Flow Measurement Device	Telemetry	Notes
GS27	Small ditch NW of B884	2" Cutthroat Flume	Yes	Supports ongoing source evaluation for GS10 and 800 Area D&D
GS28	Small ditch NW of B865	3" Parshall flume	Yes	Supports ongoing source evaluation for GS10 and 800 Area D&D
GS38	Central Ave. Ditch NW of Building 889	9.5" Parshall Flume	Yes	Supports ongoing source evaluation for GS10
GS39	Ditch NW of 904 Pad	1' H Flume	Yes	Supports ongoing source evaluation for GS10 and 903 Pad characterization
GS40	Drainage Ditch in PA E of Tenth St. (750 Pad) S of Building 997	1' Parshall Flume	Yes	Supports ongoing source evaluation for GS10 and 700 Area D&D
GS43	Drainage ditch NE of T886A	0.5' H-Flume	Yes	Supports ongoing source evaluation for GS10 and B886 D&D
GS50	Drainage ditch N of B990	6" Parshall flume	Yes	Supports ongoing source evaluation for GS10 and Solar Ponds activities
GS57	Ditch NE of B444 Area	9.5" Parshall flume	Yes	Supports ongoing source evaluation for GS10 and 400 Area D&D
GS58	Culverts draining east side of B865 and west side of B886	No flow measurement[a]	Yes	Supports ongoing source evaluation for GS10 and B886 D&D
SW022	Central Avenue Ditch at inner east fence	9.5" Parshall flume	Yes	Supports ongoing source evaluation for GS10

Notes: All locations collect 5- and 15-minute flow data.
[a] Due to the current configuration of in-place stormwater culverts, flow measurement at this location is not possible without significant construction modifications.

Table 6-2. Source Location Sample Collection Protocols.

ID Code	Frequency: WY02 Actual (Target)	Type[b]
GS27	6 (1 per month)	Storm-event rising-limb flow-paced composites[c]
GS28	3 (12 per year[a])	Continuous flow-paced composites
GS38	9 (12 per year[a])	Continuous flow-paced composites
GS39	5 (12 per year[a])	Continuous flow-paced composites
GS40	13 (12 per year[a])	Continuous flow-paced composites
GS43	1 (12 per year[a])	Continuous flow-paced composites
GS50	1 (12 per year[a])	Continuous flow-paced composites
GS57	7 (12 per year[a])	Continuous flow-paced composites
GS58	7 (1 per month)	Storm-event rising-limb time-paced composites[c]
SW022	7 (12 per year[a])	Continuous flow-paced composites[d]

Notes: [a] Annual total samples is 12 per year. Frequency of collection is based on expected flow volumes such that each sample collects water representing similar stream discharge volumes; for example, more samples are collected in wet spring months than dry winter months.
[b] Sample types are defined in the RFETS Automated Surface-Water Monitoring Work Plan.
[c] Storm-event sampling at locations that are often dry and normally only receive stormwater runoff is opportunistic. Some locations may see flow only during wet months. Every attempt is made to achieve the target sample frequency; however, this is not always possible.
[d] Prior to WY00, SW022 collected storm-event samples.

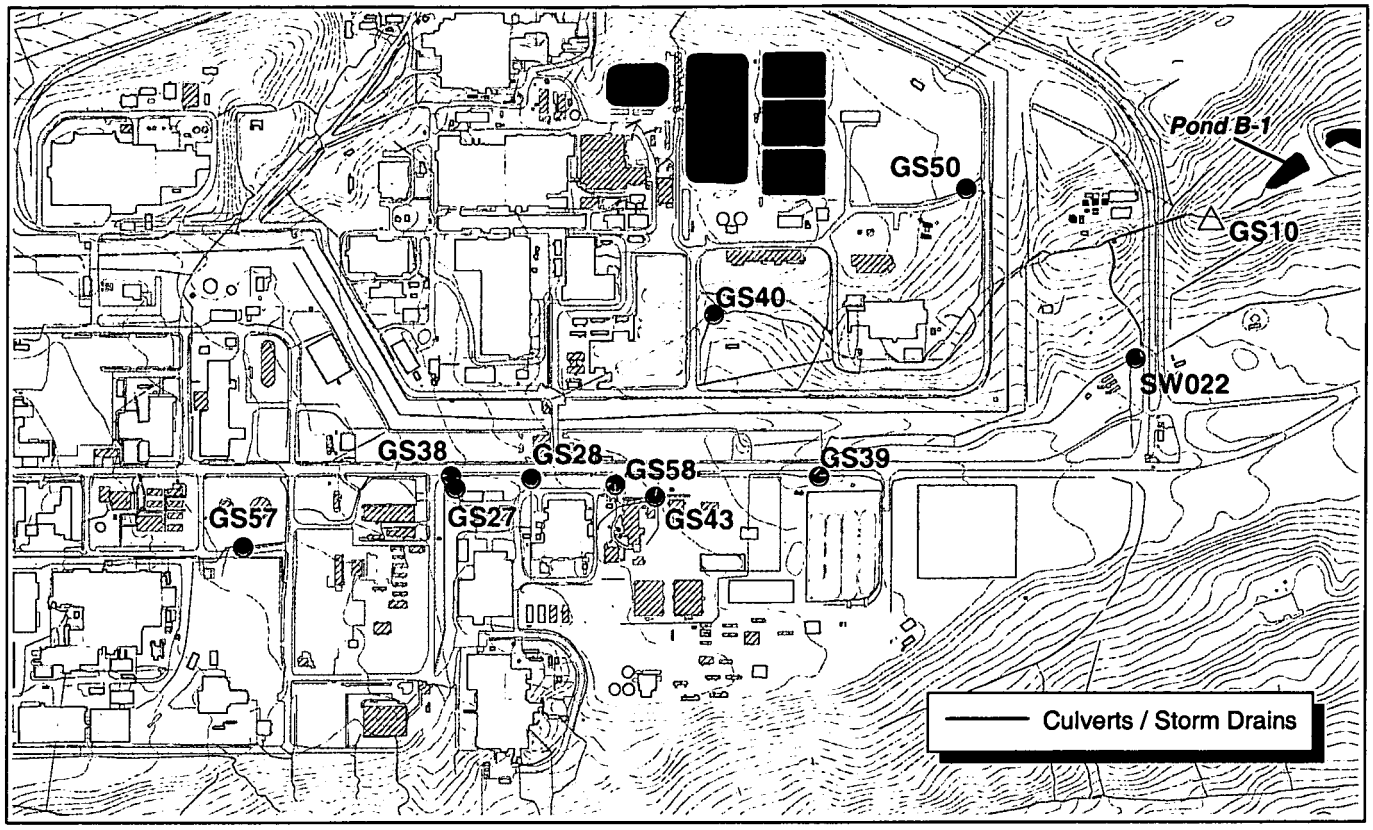


Figure 6-1. Water Year 2002 Source Location Monitoring Locations.

Table 6-3. Source Location Analytical Targets (Analyses per Year).

ID Code	TSS[a]: WY02 Actual (Target)	Pu, Am: WY02 Actual (Target)
GS27	6 (12)	6 (12)
GS28	2 (12)	3 (12)
GS38	1 (12)	9 (12)
GS39	1 (12)	5 (12)
GS40	0 (12)	13 (12)
GS43	0 (12)	1 (12)
GS50	0 (12)	1 (12)
GS57	0 (12)	7 (12)
GS58	5 (12)	7 (12)
SW022	1 (12)	7 (12)

Notes: [a] Ideally, TSS would be analyzed for all samples collected at the above locations. However, continuous flow-paced sampling protocols often result in composite samples which are collected over periods exceeding the 7-day hold time for TSS analyses. Therefore, TSS can not be analyzed for all continuous flow-paced composite samples, but will be analyzed when possible.

6.3 DATA EVALUATION

Data collected at Source Location monitoring locations are analyzed based on their intent to aid in a specific source evaluation. These analyses include, but are not limited to, loading, fate and transport, correlations and trending, and other statistical evaluation. The WY02 source evaluation locations were operated in support of ongoing source evaluation for POE GS10. The recurring nature of reportable Pu and Am values at GS10 necessitated the continued operation of these locations. Although no GS10 source evaluation report is currently underway, the source location data continues to be evaluated in an attempt to understand the water-quality results from GS10. WY97 Walnut Creek Source Evaluation Reports (Reports #1, #2, #3, and Final; RMRS 1997a,

1997b, 1997c, and 1998a), the WY98–99 Source Evaluation Report for Point of Evaluation GS10 (RMRS 1999a), and the WY00-01 Source Evaluation Report for Point of Evaluation GS10 (RMRS 2001d) contain more detailed analysis of the data collected at the above locations. The content of these reports is summarized below.

Summaries for Pu and Am at each location are given below. The following summaries include all results that were not rejected through the verification/validation process. When a negative radionuclide result (e.g. -0.002 pCi/L) is returned from the laboratory due to blank correction, then a value of 0.0 pCi/L is used for calculation purposes. When a sample has a corresponding field duplicate, the value used in calculations is the arithmetic average of the 'real' value and the 'duplicate'. When a sample has multiple 'real' analyses (Site requested 're-runs'), the value used in calculations is the arithmetic average of the multiple 'real' analyses. Other data are evaluated in the associated Source Evaluation Reports. All data are presented in Appendix B.2 Analytical Data.

Flow data are summarized in Section 3 Hydrologic Data; more detailed flow data are included in Appendix A.1 Discharge Data.

6.3.1 Location-Specific Summary Statistics

Table 6-4 shows both the volume-weighted average activity and the maximum sample activity for Pu and Am at the WY02 Source Location monitoring locations. The method for calculating the volume-weighted activities is given in Appendix B.1 Data Evaluation Methods.

Table 6-4. Selected Summary Statistics for Pu and Am at WY02 Source Location Monitoring Locations.

		Volume-Weighted Average Activity (pCi/L)		Maximum Sample Result (pCi/L)	
Location	**Period of Data**	***Am-241***	***Pu-239,-240***	***Am-241***	***Pu-239,-240***
GS27	10/1/01 – 9/30/02	NA	NA	15.0	84.8
GS28	2/19/02 – 9/30/02	0.034	0.093	0.068	0.134
GS38	10/1/01 – 9/30/02	0.030	0.110	0.054	0.270
GS39	10/1/01 – 9/30/02	0.018	0.039	0.037	0.056
GS40	10/1/01 – 9/30/02	0.023	0.017	0.087	0.049
GS43	10/1/01 – 9/30/02	0.014	0.061	0.017	0.075
GS50	10/1/01 – 9/30/02	0.128	0.043	0.138	0.046
GS57	3/13/02 – 9/30/02	0.003	0.015	0.015	0.026
GS58	3/19/02 – 8/26/02	NA	NA	0.199	0.338
SW022	10/1/01 – 9/30/02	0.045	0.130	0.122	0.327
GS10	10/1/01 – 9/30/02	0.083	0.053	0.203	0.232

Note: NA = Volume-weighted average activities are not calculated for storm-event sampling locations. Locations GS27, GS28, GS38, GS39, GS43, GS57, and GS58 are tributary to SW022 before GS10 (see Figure 3-2). Similarly, GS57 is tributary to GS38 before SW022.

6.3.2 Summary of Completed Source Evaluations for POE GS10

WY97 Source Evaluation for Walnut Creek

The WY97 Walnut Creek Source Evaluation Reports (Reports #1, #2, #3, and Final; RMRS 1997a, 1997b, 1997c, and 1998a) included source evaluations for POC GS03 and POEs GS10 and SW093. These reports were completed in response to reportable water-quality levels at these locations during Water Year 1997. The scope of the investigation for each report is summarized below.

The following text is taken directly from Progress Report #1 to the Source Evaluation and Preliminary Mitigation Plan for Walnut Creek, Rev. 0 (RMRS 1997a) describing the contents of that report related to GS10:

- An evaluation of sampling and analysis QA/QC protocol to verify elevated water-quality results;

- Results and analysis of ongoing RFCA monitoring;
- A summary of current Actinide Migration Study findings with cross-links to source evaluations;
- Details on the new monitoring locations upgradient of GS10;
- An initial qualitative evaluation for GS10;
- A discussion of the recent change from rising-limb to continuous flow-paced sampling at RFCA POE and POC locations; and
- A summary of the status for sampling and operational modifications.

The following text is taken directly from Progress Report #2 to the Source Evaluation and Preliminary Mitigation Plan for Walnut Creek, Rev. 0 (RMRS 1997b) describing the contents of that report:

- Hypotheses for source location(s) with supporting and non-supporting information, including preliminary results on source location;
- Results and analysis of ongoing RFCA monitoring;
- A summary of walk-down activities and observations for GS10;
- An assessment of existing monitoring data for GS10;
- A detailed description of new sediment/soil sampling locations for GS10;
- A detailed description of proposed new Source Location monitoring stations for GS10;
- A summary of current Actinide Migration Study findings with cross-links to source evaluations; and
- A summary of the status for sampling and operational modifications.

The following text is taken directly from Progress Report #3 to the Source Evaluation and Preliminary Mitigation Plan for Walnut Creek, Rev. 0 (RMRS 1997c) describing the contents of that report:

- Results and analysis of ongoing RFCA monitoring;
- Updates to the ongoing GS10 evaluation;
- Updates for the new Source Location monitoring stations for GS10;
- An evaluation of the effects that watershed improvements may have had on Site water quality;
- A summary of current Actinide Migration Study findings with cross-links to source evaluations; and
- A summary of the status for sampling and operational modifications.

The following text is taken directly from the Final Report to the Source Evaluation and Preliminary Mitigation Plan for Walnut Creek, Rev. 0 (RMRS 1998a) describing the contents of that report:

- Updates to the ongoing GS10 evaluation;
- Results and analysis of ongoing RFCA monitoring;
- An assessment and incorporation of available new data for GS10;
- Updates for the new Source Location monitoring stations for GS10;
- Hypotheses for source location(s) with supporting and non-supporting information;

- An identification of data gaps and uncertainties in the source evaluation process with suggested modifications (if any) to the AMS Workscope and the IMP;
- A summary of current AMS findings with cross-links to source evaluations;
- A summary of the status for sampling and operational modifications;
- Results of the source location evaluation;
- A detailed description of identified source areas; and
- A general description of mitigating actions applicable to sources which may be identified in the future.

In the Final Report, the following findings regarding the possible source(s) of the reportable values at GS10 were noted:

> To date, a singular source for GS10 can not be identified. Information collected to date does not point to any singular conclusion. In fact, it is likely that multiple sources and transport mechanisms are responsible for the elevated activities at GS10. *To date, no localized areas of radiological contamination have been identified — either historical or resulting from current operations. The Site concludes that the likely source of the exceedance of the 30-day average for Pu and Am at POE GS10, resulted from diffuse radionuclide contamination from past Site operations released to the environment through events and conditions over past years.*

The Final Report further lists the possible GS10 source(s):

- Diffuse soil and sediment contamination in the GS10 drainage
- Localized contamination near the GS10 sampling location
- Tributary surface-water source transporting contamination

WY98–99 Source Evaluation for POE GS10

The WY98–99 Source Evaluation Report for Point of Evaluation GS10 (RMRS 1999a) was completed in response to reportable water-quality levels at GS10 during Water Years 1998 and 1999. The following text is taken directly from that report describing the contents:

- Results and analysis of ongoing automated surface-water monitoring;
- A brief review of existing soil/sediment data;
- An assessment of Decontamination and Decommissioning (D&D), Environmental Restoration, and Site Closure projects; and
- A summary of current Actinide Migration Evaluation findings.

This following text summarizes the findings, and presents preliminary conclusions based on information presented and analyzed in this report:

- Surface-water and soil/sediment sampling results suggest that one or more low-level distributed actinide source areas exist within the GS10 drainage. Further, surface-water activities have been of similar magnitudes for the last decade, suggesting source areas that originated as legacy contamination.
- Surface-water sampling results from GS10 show Pu/Am activity ratios that are distinguishable from Pu/Am ratios at other surface-water monitoring location at the Site. This suggests a source relatively 'enriched' in americium may exist in the GS10 drainage.

- Recent surface-water sampling results from Source Location monitoring stations has further refined the estimation of relative plutonium load contributions to GS10 from upstream subdrainage areas. These load estimations suggest that plutonium source terms may exist in the following subdrainage areas:

  1. The Central Avenue Ditch reach between surface-water monitoring locations GS38 and SW022;

  2. Portions of the 800 Area;

  3. A portion of the 500 Area outside the PA; and

  4. The South Walnut Creek reach between surface-water monitoring locations GS40 and GS10.

- Recent surface-water sampling results from Source Location monitoring stations have further refined the estimation of relative americium load contributions to GS10 from upstream subdrainage areas. These load estimations suggest that americium source terms may exist in the following subdrainage areas:

  1. A portion of the 500 Area outside the PA; and

  2. The South Walnut Creek reach between surface-water monitoring locations GS40 and GS10.

- Evaluation of readings from *insitu* water-quality monitoring probes indicates no unusual or unexpected conditions for WY99 to date. WY99 trends for all parameters are similar to those observed in WY98 and WY97.

- A review of current Site activities indicate that no D&D, ER Projects, excavation, nor routine Site operations caused a release of plutonium or americium that resulted in the elevated activities measured at GS10.

- The elevated values observed at GS10 and other monitoring locations in the GS10 drainage are not being observed at the Ponds or downstream POCs.

WY00–01 Source Evaluation for POE GS10

The WY00–01 Source Evaluation Report for Point of Evaluation GS10 (RMRS 2001d) was completed in response to reportable water-quality levels at GS10 during Water Years 2000 and 2001. The following text is taken directly from that report describing the contents:

- Summary of current applicable Actinide Migration Evaluation findings;
- Evaluation of ongoing automated surface-water monitoring including automated synoptic sampling within the GS10 drainage;
- Estimated actinide loads within the GS10 drainage area;
- Evaluation of Pu/Am ratios within the GS10 drainage area;
- Evaluation of water-quality correlations;
- Evaluation of existing soil/sediment data as well as recent sediment sampling within the GS10 drainage; and,
- Assessment of Decontamination and Decommissioning (D&D), Environmental Restoration, and Site Closure projects.

This following text summarizes the findings, and presents preliminary conclusions based on information presented and analyzed in this report:

The Site concludes that the likely sources of the reportable 30-day moving average values at GS10 are:

1. Diffuse actinide contamination associated with soils and sediments from past Site operations released to the environment through events and conditions over past years. This actinide contamination is transported with suspended solids in surface-water runoff during precipitation events.
2. Actinide contamination 'enriched' in Am that has been incorporated into the stream sediments in South Walnut Creek from past Site operations through events and conditions over past years. This actinide contamination is transported through sediment resuspension by surface-water runoff during precipitation events.

Based on this evaluation, Site personnel conclude that no specific remedial action(s) is indicated at this time, other than scheduled remedial actions and closure activities for the Site. This source investigation has identified no highly localized source(s) of contamination that warrant targeted remediation based on the available information. The conclusions detailed in this report are summarized below:

- Based on the details regarding recent Site activities outlined in Section 5, it is concluded that neither D&D, construction, environmental remediation, excavation, nor routine operations caused a release that resulted in the reportable Pu and Am values measured at GS10.
- Historical GS10 data suggest that actinides have been available for transport to GS10 for some time and that the recent measurements at GS10 are likely the result of legacy contamination (Section 4.2.1).
- The loading analysis in Section 4.2.2 indicates that the South Walnut Creek reach between GS40 and GS10 is the likely origin of the majority of the Pu and Am load measured at GS10.
- Results in Section 4.2.3 also indicate that the average Pu/Am activity ratio for surface-water samples from GS10 is lower than that generally observed in other drainages and subdrainages across the Site. Results also indicated that the Pu/Am ratios observed at GS10 are significantly lower than those observed at monitoring locations GS27, GS28, GS 38, GS39, and SW022. Although monitoring locations GS40 and GS50 show low Pu/Am ratios, these locations do not contribute significant loads to GS10. These results indicate that a source 'enriched' in Am exists within the GS10 drainage, specifically in the main South Walnut Creek reach between GS40 and GS10.
- Extensive evaluation of water-quality correlations indicate that a source term 'enriched' in Am is associated with the sediments in the main South Walnut Creek stream reach (Section 4.2.4). This source term appears to affect GS10 water-quality to varying degrees based on streambed erosion/resuspension rates, relative load contributions from distributed sources, and hydrologic conditions. The HRR and soil/sediment data provide information supporting this hypothesis. However, sufficient data do not exist to establish the extent and exact location of this source term.
- Surface-soil and sediment data (Section 4.4) clearly show the existence of distributed Pu and Am source terms throughout the GS10 drainage. The areas near the Solar Ponds and within the South Walnut Creek stream reach show lower Pu/Am ratios. However, sufficient data do not exist to establish the extent and exact location of the Am 'enriched' source term in the main South Walnut Creek stream reach.

6.3.3 Updated Loading Analysis and Source Evaluation for GS10

The following source evaluation is provided in accordance with the *Final Rocky Flats Cleanup Agreement* (RFCA) (CDPHE et al., 1996) (Attachment 5, §2.4(B)) under "Action Determinations". The RFCA requires reporting "when contaminant concentrations in Segment 5 exceed the Table 1 action levels" and that "source evaluation will be required". Further, RFCA states "if mitigating action is appropriate, the specific actions will be determined on a case-by-case basis, but must be designed such that surface water will meet applicable standards at the POCs.

Specifically, this source evaluation addresses the Site notification(s) of reportable 30-day moving average values for plutonium and americium water-quality results at the POE monitoring location GS10, located above Pond B-1 in South Walnut Creek. Reportable values for Pu were measured for the periods September 5 through September 9, 2002, and March 9 through April 3, 2003. Reportable values for Am were measured for the periods April 29 through May 10, 2002, and August 25 through August 28, 2002.

This evaluation for Walnut Creek gaging station GS10 covers data received through September 10, 2003. The following are included in this section:

- Evaluation of ongoing automated surface-water monitoring within the GS10 drainage;
- Estimated actinide loads within the GS10 drainage area;
- Evaluation of Pu/Am ratios within the GS10 drainage area;
- A brief assessment of Decontamination and Decommissioning (D&D), Environmental Restoration, and Site Closure projects.

Hydrology

North and South Walnut Creek Flow Controls

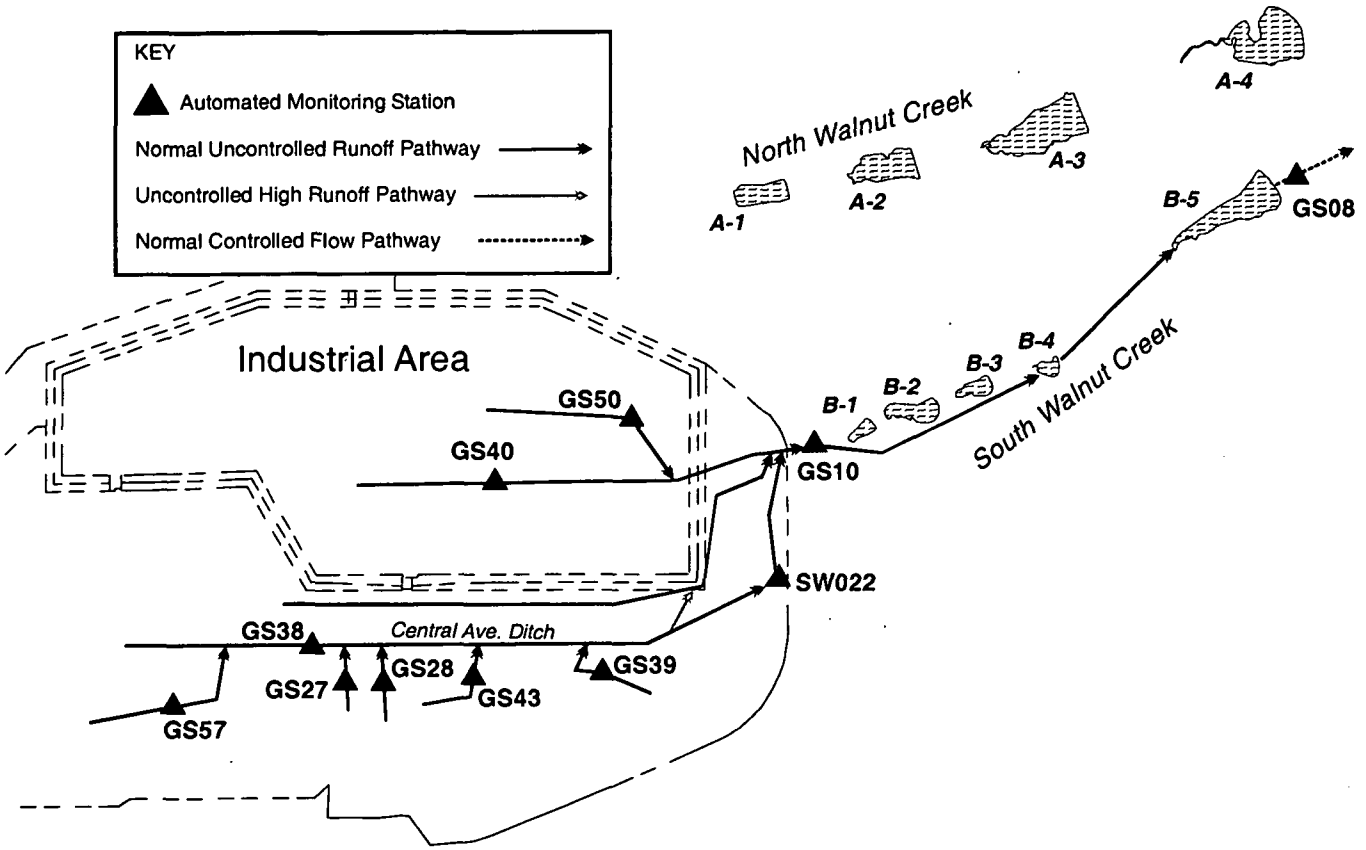
All Industrial Area (IA; the developed area within the Inner Security Fence) surface-water runoff that flows into North or South Walnut Creek is collected by a system of stormwater detention ponds. The ponds serve three main purposes for surface-water management: (1) storm water detention and settling of sediments, (2) water storage for sampling prior to release, and (3) emergency spill control in those instances where a spill cannot be adequately managed without use of the ponds.

GS10 is the POE for IA surface-water flows to South Walnut Creek. Surface water in South Walnut Creek is routed through the B-Series ponds (Figure 6-2). Steps in the water collection and transfer process are briefly outlined as follows:

- Runoff from the south-central IA flows through the Central Avenue Ditch past monitoring location SW022, and then past GS10 (during high runoff periods, some water in the Central Avenue Ditch overflows to a large cmp and flows directly to GS10; shown by the blue line in Figure 6-2);
- Runoff from the central IA flows directly to GS10;
- Runoff from GS10 then flows downstream through conveyance structures, through Pond B-4, and then to Pond B-5 where it is detained; and
- Water detained in Pond B-5 is discharged periodically in batches to Walnut Creek.

As indicated above, all of the IA runoff that flows into South Walnut Creek is ultimately routed to Pond B-5, detained, and sampled prior to being released to lower Walnut Creek. There is no source of IA runoff to South

Walnut Creek that can enter lower Walnut Creek without first passing through the pond system for subsequent batch discharge from Pond B-5.[14]



Note: GS58 is not included in this source evaluation since flow data are not collected at this location. Estimates of flow volumes relative to GS10 are small, and the impact of GS58 on water quality at GS10 is assumed to also be insignificant.

Figure 6-2. Hydrologic Routing Diagram for POE GS10 (WY2002-2003).

GS10 Monitoring Results

As specified in the IMP, Site personnel evaluate 30-day moving average values[15] for selected radionuclides at POE surface-water monitoring location GS10. Recent evaluations of water-quality measurements at POE GS10 showed reportable values for Pu and Am requiring notification and source evaluation under the RFCA Action Level Framework. Results for recent 30-day moving average values using available data at GS10 are summarized below in Table 6-5 and are shown on Figure 6-3.

[14] A gate structure exists immediately below SW022 that can be configured to allow Central Ave. Ditch water to flow directly to Pond B-5. However, this gate is normally configured to direct flows to GS10.

[15] The method for calculating 30-day averages in given in Appendix B.1 Analytical Data Evaluation Methods.

Table 6-5. Recent Water-Quality Information from GS10.

Location	Parameter	Date(s) of 30-Day Average Requiring Reporting	Date(s) of Maximum 30-Day Average	Maximum 30-Day Average (pCi/l)	Volume-Weighted Average for Water Year[16] (pCi/l)
GS10	Pu-239,240	9/5 – 9/9/02; and 3/9 – 4/3/03	3/19/03	0.52	WY02: 0.053 WY03[17]: 0.119
GS10	Am-241	4/29 – 5/10/02; and 8/25 – 8/28/02	5/2/02	0.18	WY02: 0.083 WY03[17]: 0.123

The analytical results for the composite samples collected around the period of reportable values have been verified. A review of historical GS10 monitoring data shows that these results are somewhat higher than usual, though not as high as results associated with previous reportable periods. Additionally, the Am levels measured at GS10 are higher than typically measured at other gaging stations given the measured plutonium levels.[18] Storm-event[19] samples collected at GS10 from WY92 through WY96 (under pre-RFCA protocols[20]) had an arithmetic average Pu activity of 0.25 pCi/l with a maximum of 1.4 pCi/l. For the same period, the arithmetic average Am activity was 0.22 pCi/l with a maximum of 1.0 pCi/l. Additionally, during the period of continuous flow-paced monitoring under RFCA, there were multiple occurrences of reportable 30-day average values for both analytes (Figure 6-3). The reportable measurements generally occur during periods of increased stormwater runoff in the spring and summer months (Figure 6-4). Individual composite-sample results for GS10 are listed in Table 6-6 and plotted in Figure 6-5 for the period of interest.

[16] A Water Year is defined as the period from October 1 through September 30. The term water year is abbreviated as WY; e.g. Water Year 2002 is WY2002 or WY02.

[17] Through 7/29/03

[18] Pu levels in the environment at RFETS usually are greater than Am levels. Ratios of activities of co-existing radionuclides may provide valuable insight into the origin and age of radionuclide materials -- in effect a radionuclide "signature". Pu/Am ratios (Am-241 being a daughter of Pu-241 and found in man-made plutonium) at RFETS typically show values greater than 2.0 and significant and verifiable deviations from these values suggest atypical source(s) "enriched" in Am. In the case of radionuclide data and Pu/Am ratios at GS10, significant deviations from typical Pu/Am ratios > 2, and (fractional) Pu/Am ratios < 1 are associated with recent elevated Pu and Am water-quality data. In fact, the Am levels at GS10 are often greater than the Pu levels.

[19] Storm-event samples are generally flow-paced composites consisting of 15 grab samples taken during a direct runoff hydrograph. The grab samples are targeted to be taken on the rising limb. This type of sampling was performed at GS10 from 4/93 through 9/30/96.

[20] Currently under RFCA, samples collected at POEs are continuous flow-paced composites where grab samples are collected during all flow conditions. This type of sampling began at POEs and POCs on 10/1/96.

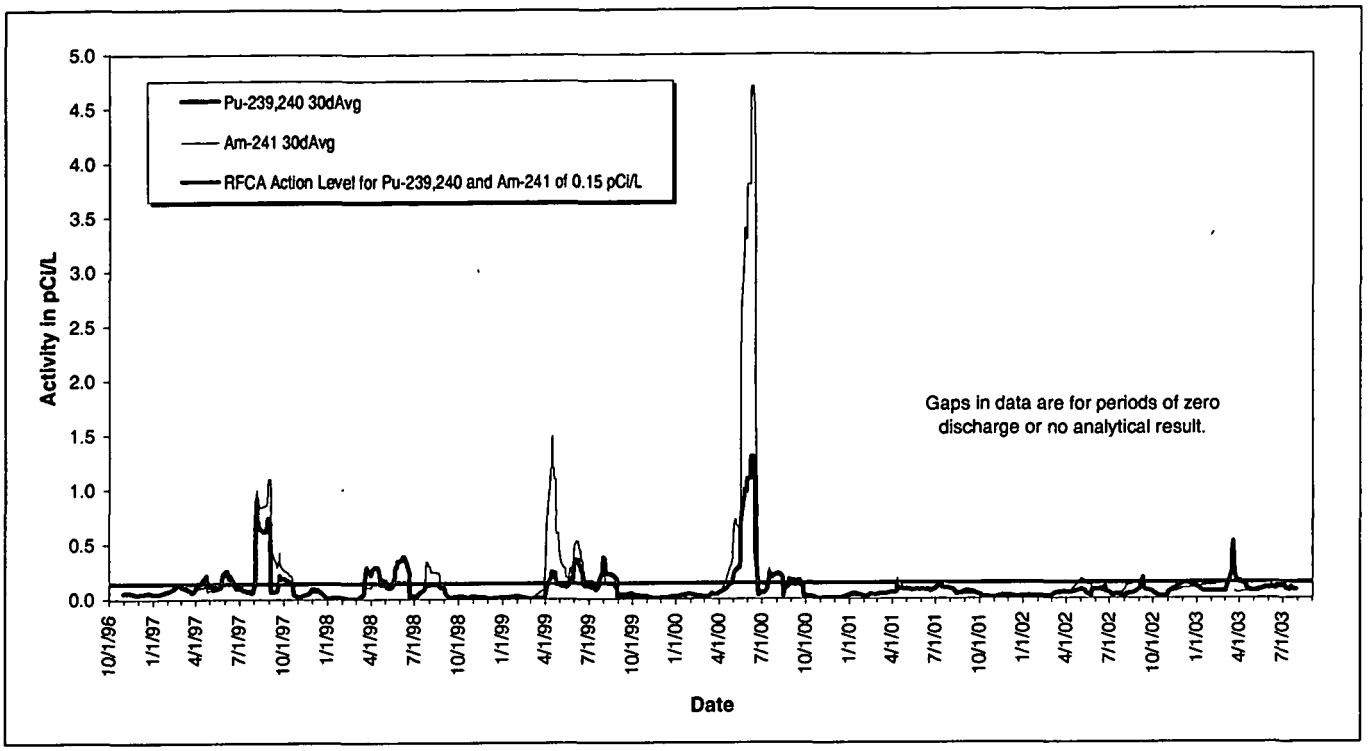


Figure 6-3. POE Gaging Station GS10: 30-Day Volume-Weighted Average Values for Pu and Am Activities (10/1/96 – 7/29/03).

Table 6-6. WY02-03 Composite Sample Analytical Results for GS10 Reportable Periods.

Composite Sample Period	Pu-239,240 (pCi/l)		Am-241 (pCi/l)		Composite Sample Volume (Liters)	S. Walnut Cr. Discharge Volume During Sample Period (Mgals)
	Result	Error (±)	Result	Error (±)		
3/14-4/3/02	0.042	0.036	0.028	0.031	7.2	0.65
4/3-5/3/02	0.081	0.031	0.176	0.055	7.2	0.77
5/3-5/17/02	0.020	0.015	0.113	0.041	9.6	1.08
7/17-7/29/02	0.011	0.016	0.046	0.024	7.8	0.44
7/29-8/6/02	0.030	0.020	0.196	0.063	11.2	0.79
8/6-9/3/02	0.145	0.048	0.085	0.035	7.8	0.51
9/3-9/10/02	0.232	0.067	0.203	0.062	18.4	1.09
12/17/02-2/10/03	0.065	0.030	0.118	0.052	7.4	0.68
2/10-3/3/03	0.063	0.029	Rejected Data		16.2	0.77
3/3-3/20/03	0.642	0.167			22.0	1.85
3/20-3/22/03	0.048	0.023			16.8	1.88
3/22-3/23/03	0.084	0.032	0.050	0.025	9.6	2.12
3/23-3/31/03	0.089	0.036	0.051	0.025	18.6	5.61
3/31-4/7/03	0.049	0.025	0.068	0.030	11.2	1.59

Notes: Activities greater than the Action Level are indicated in red. Action Levels apply only to 30-day averages and the selective formatting in this table is provided for reference only.

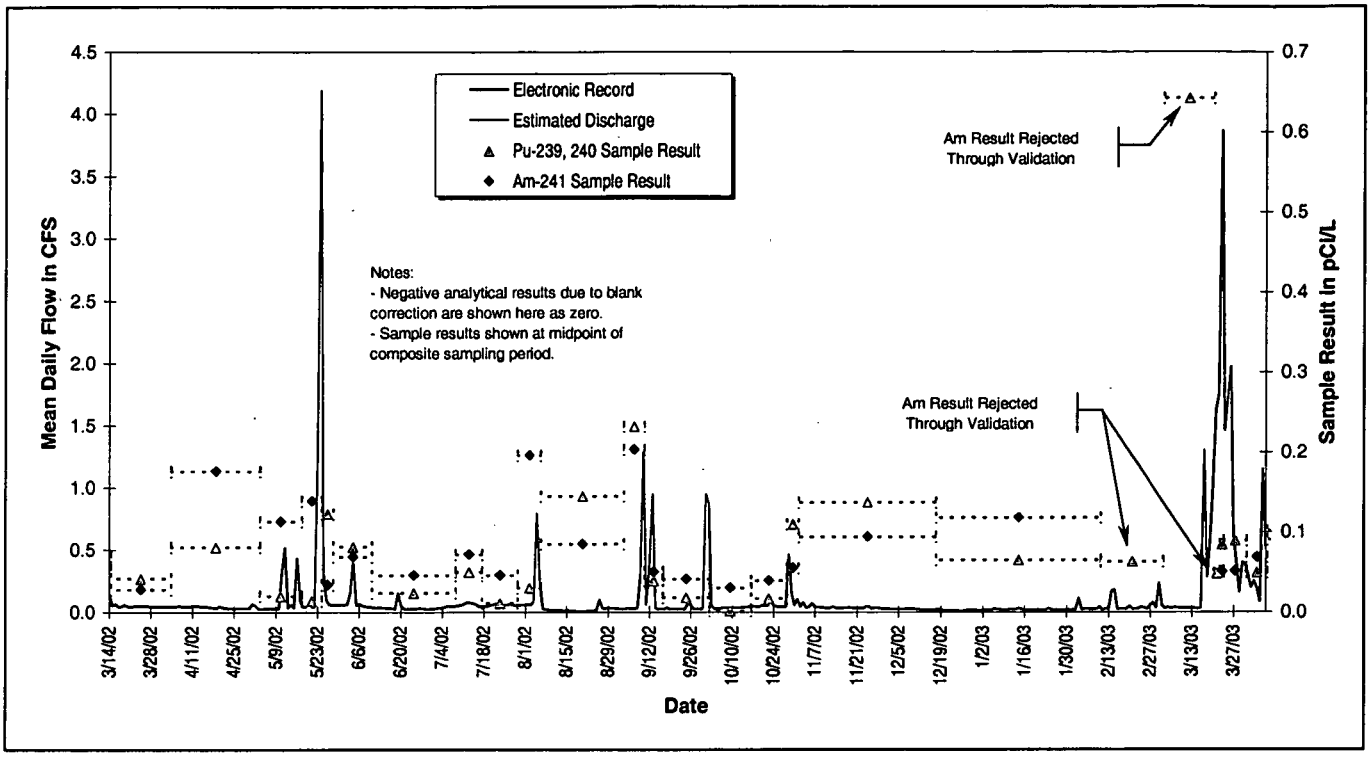


Figure 6-4. Gaging Station GS10 Hydrograph with Individual Sample Results: 3/14/02 – 4/7/03.

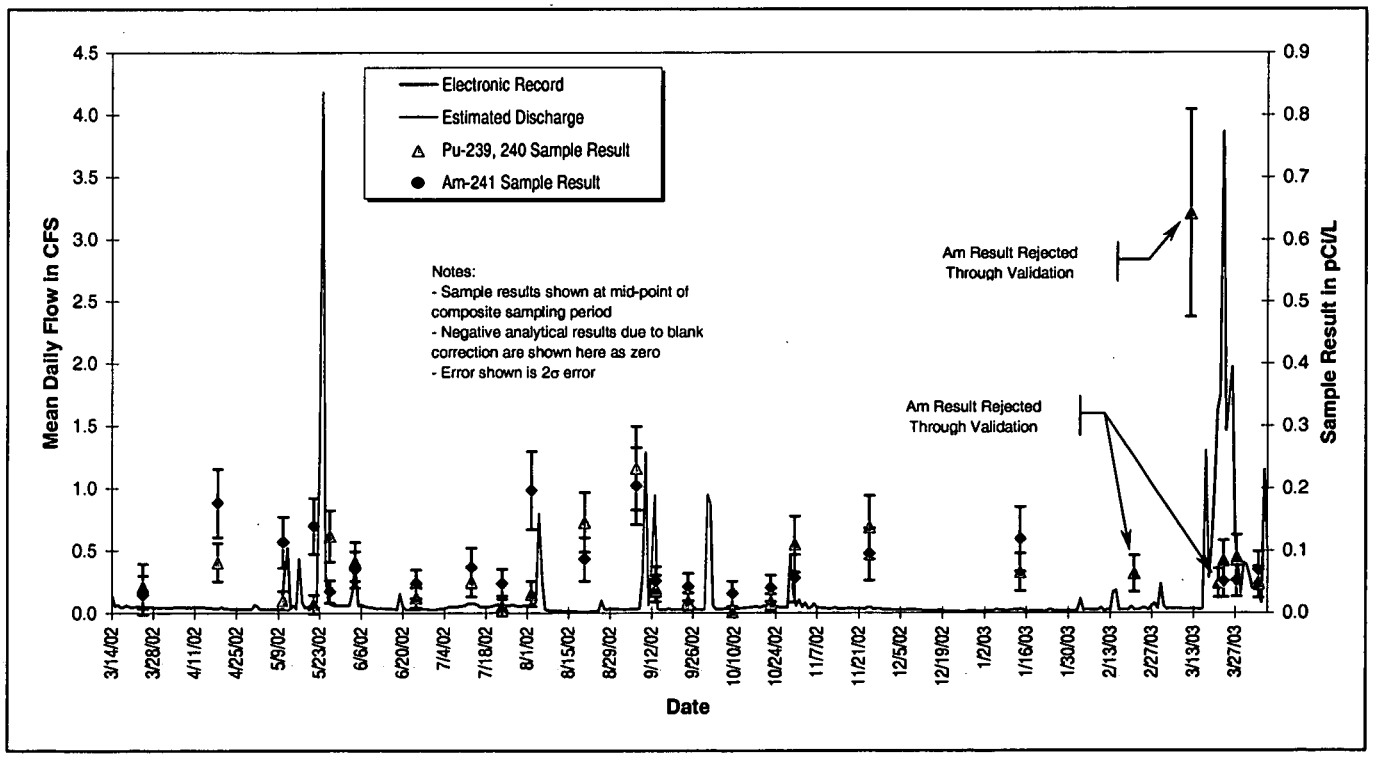


Figure 6-5. Gaging Station GS10 Hydrograph with Individual Sample Results and Error Bars: 3/14/02 – 4/7/03.

All water monitored at GS10 during this period flowed to Pond B-5 and was eventually direct discharged to lower Walnut Creek. Pre-discharge samples of the water in Pond B-5 indicated acceptable water quality prior to all planned discharges. All Pu and Am analytical results from composite samples collected at POC gaging station GS08 (Pond B-5 outfall; Figure 6-2) during this period were well below 0.15 pCi/L (Figure 6-6) and there were no reportable 30-day average values.

All water discharged from Pond B-5 to Walnut Creek subsequently flowed through RFCA POC GS03 at the eastern Site boundary. Pu and Am analytical results from composite samples collected at GS03 during the period of interest were all well below 0.15 pCi/L (Figure 6-7) and there were no reportable 30-day average values.

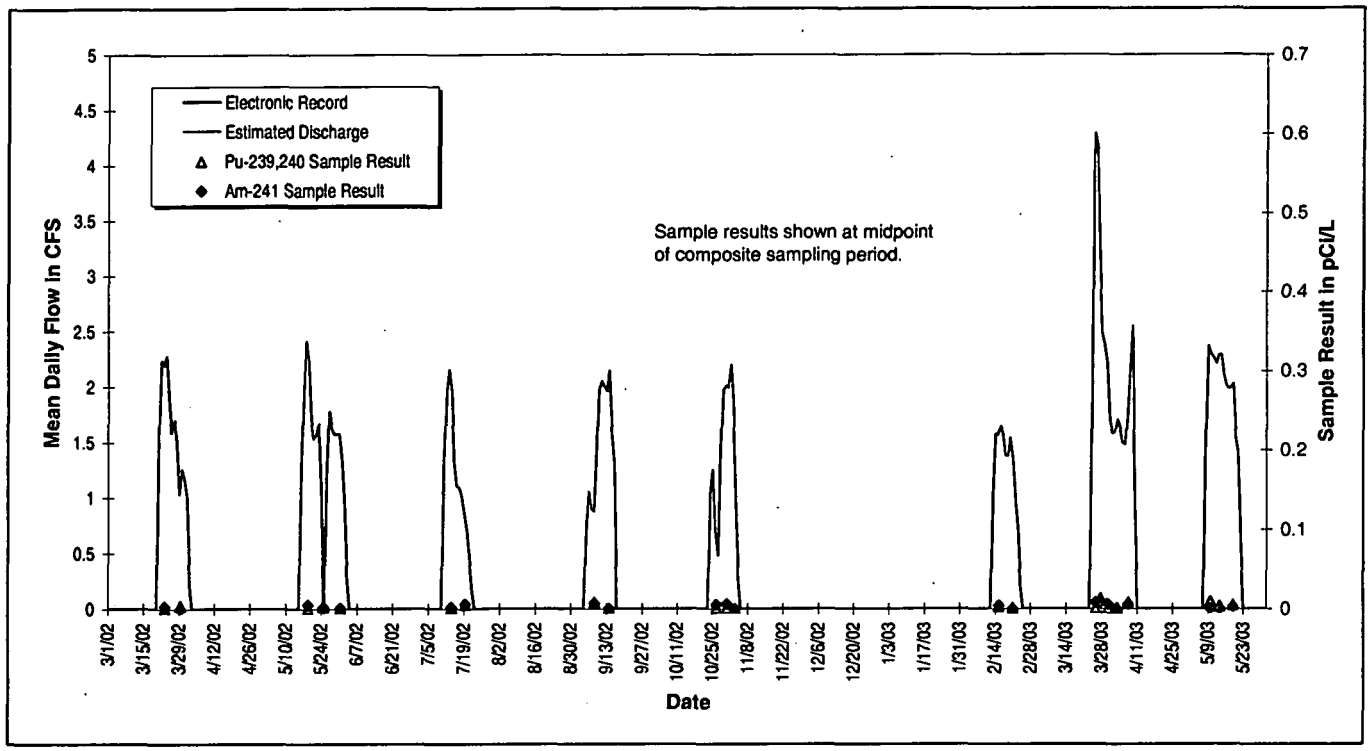


Figure 6-6. Gaging Station GS08 Hydrograph with Individual Sample Results: 3/1/02 – 6/1/03.

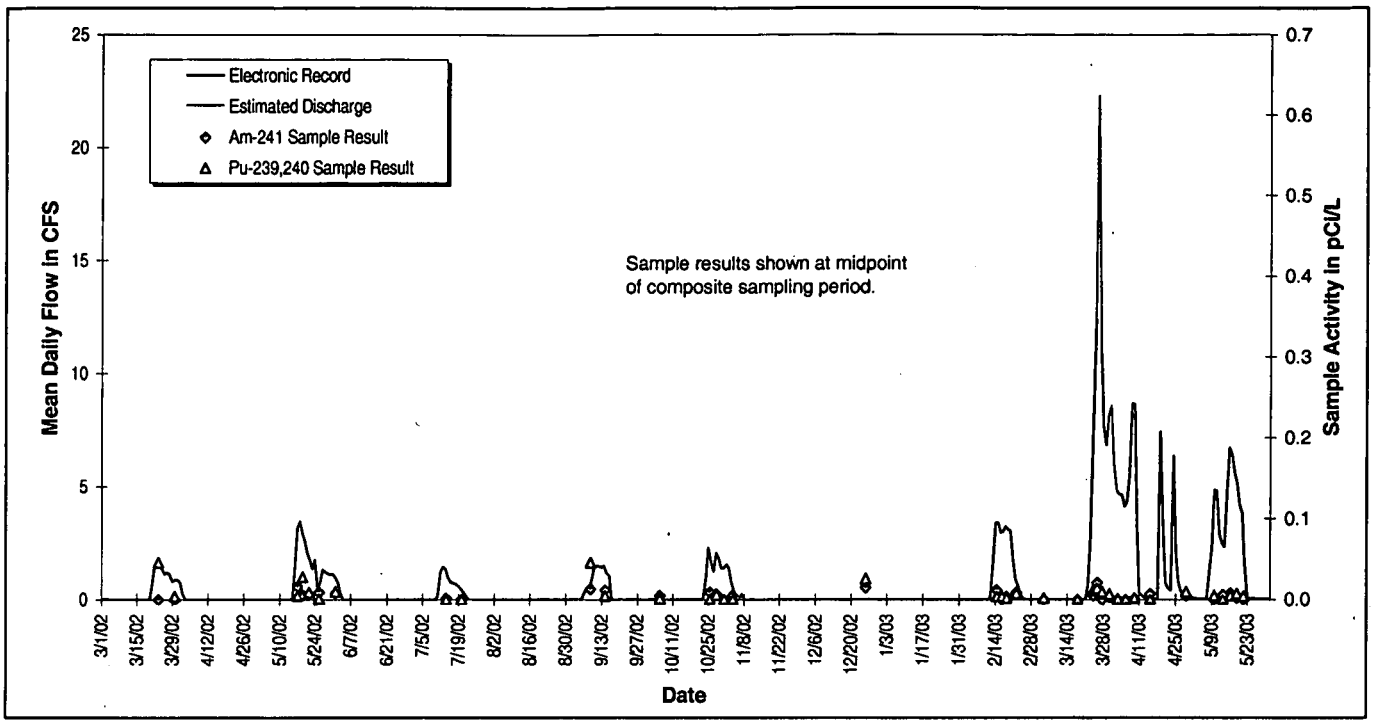


Figure 6-7. Gaging Station GS03 Hydrograph with Individual Sample Results: 3/1/02 – 6/1/03.

Data Summary and Analysis

The following data evaluation includes all surface-water data available as of 9/10/03. Monitoring data were extracted from the Site Soil-Water Database (SWD) or taken from hardcopy analysis reports for the locations of interest and subsequently reconciled against SWD. The following list describes the environmental data compilation process:

- Individual sample result values are calculated as arithmetic averages of real and field duplicate results when both results are from the same sampling event;
- When available, Site-requested laboratory re-runs are averaged with initial runs for the same sampling event;
- Laboratory duplicate and replicate QC results are not used;
- When negative values for actinide measurement are returned from the laboratories due to blank correction, 0.0 pCi/l is used in the calculations;
- Only total radionuclide measurements are used; and
- Data that did not pass validation (rejected data) are not used.

Verification and Validation of Surface-Water Analytical Results

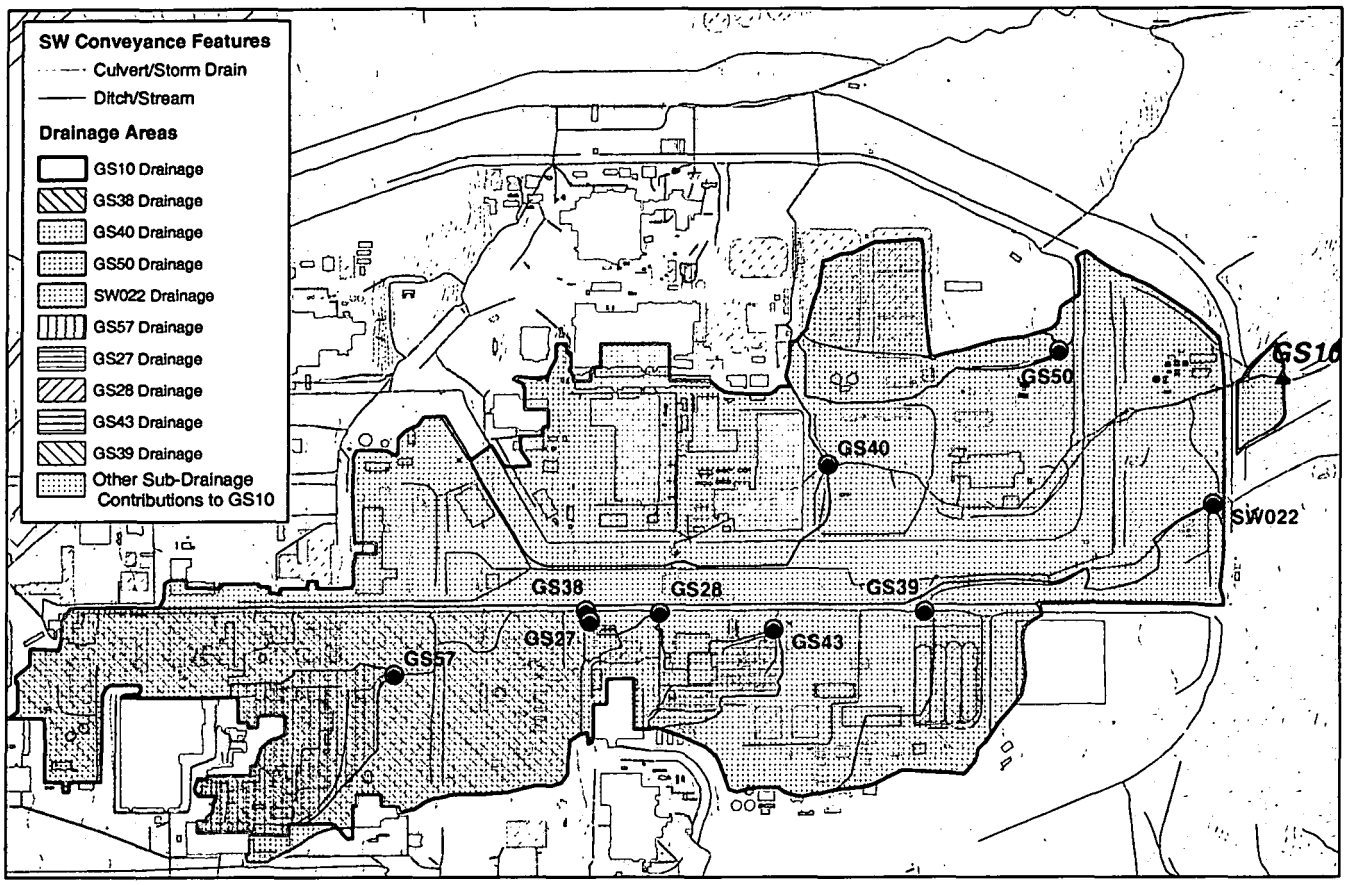
All surface water isotopic data are either verified or validated, based on criteria determined by Analytical Services Division (ASD), or at the special request of the customer. Approximately 75% of all isotopic data are verified and the remaining 25% are validated. Validation is typically determined randomly for each subcontracted laboratory, based on the specific analytical suites. This random validation selection may or may not routinely include POE or POC locations. However, when reportable values are observed, all analytical results used in the calculations receive formal validation.

For samples collected at GS10 during the reportable periods, all isotopic data not randomly selected for validation were specifically submitted for validation at the request of Site personnel. All isotopic data package

validation was performed by a subcontractor to ASD, and all packages in the date range identified were considered valid.

Actinide Data Summary

Since March 3, 1998, five upstream automated monitoring locations have been operating as part of the continuing source evaluation for GS10 as a response action to reportable Pu and Am measurements during WY97. These locations are GS27, GS38, GS39, GS40 and SW022 (Figure 6-8). Additionally, GS43 was installed on June 1, 1999, GS50 was installed on March 28, 2001, and GS28 and GS57 were installed on February 19 and March 13, 2002, respectively. These stations were installed or upgraded to monitor sub-drainages that are tributary to GS10. These locations are operated Source Location monitoring stations (see Section 6) to characterize water quality and specifically measure Pu and Am loads from the respective sub-drainages in an attempt to identify any discrete source areas. Summary statistics for sample results from these locations are shown in Table 6-7. The activities for GS27 are arithmetic averages since this location has historically sampled only selected storm events. Location SW022 was upgraded to collect continuous flow-paced samples on 10/1/99. As such, the average(s) shown are volume-weighted for the continuous flow-paced samples, with the arithmetic average of storm-event samples given in parentheses[21]. Continuous flow-paced sampling is used for GS10, GS28, GS38, GS39, GS40, GS43, GS50, and GS57 and volume-weighted average activities are given in Table 6-7.



Note: Drainage areas have changed as the Site moves toward Closure and the land and drainage features are reconfigured. The drainage areas shown are current as of 9/10/03.

Figure 6-8. Automated Surface Water Monitoring Locations and Corresponding Sub-Drainage Areas Tributary to GS10.

[21] The arithmetic average also includes storm-event samples collected during WY2000-2001 as part of the automated synoptic sampling activities.

Table 6-7. Summary Statistics for Samples from GS10 and Monitoring Locations Tributary to GS10: March 3, 1998 to Present.

Sampling Location	Number of Samples	Pu-239,-240		Am-241	
		Average Activity (pCi/l)	Maximum Sample Result (pCi/l)	Average Activity (pCi/l)	Maximum Sample Result (pCi/l)
GS10	166	0.134	2.270	0.193	8.385
GS27	58	6.689	84.8	1.642	15.0
GS28	9	0.048	0.134	0.020	0.068
GS38	57	0.108	0.345	0.026	0.087
GS39	50	0.126	0.825	0.039	0.237
GS40	71	0.040	0.874	0.087	2.635
GS43	25	0.032	0.122	0.012	0.045
GS50	7	0.078	0.225	0.147	0.442
GS57	19	0.012	0.026	0.005	0.015
SW022	34 (25)	0.125 (0.691)	0.546 (9.490)	0.034 (0.139)	0.144 (1.76)

Note: Data for GS28 begins on 2/19/03; GS43 begins on 6/1/99; GS50 begins on 3/28/01; GS57 begins on 3/13/02.

Figure 6-9 shows the average annual activities at GS10 for WY93 – WY03[22]. For WY93 - WY96, arithmetic averages of individual storm-event sample results are plotted. However, due to the continuous flow-paced sampling protocols currently in place under RFCA, the more representative volume-weighted average activities are shown for WY97-WY03. It is important to note that although elevated 30-day average values occurred in recent years, the volume-weighted average is comparable to the activities for other years. This suggests that actinides have been available for transport to GS10 for some time and that the recent measurements at GS10 are likely the result of legacy contamination. The unusual Pu/Am ratios are evaluated in greater detail below.

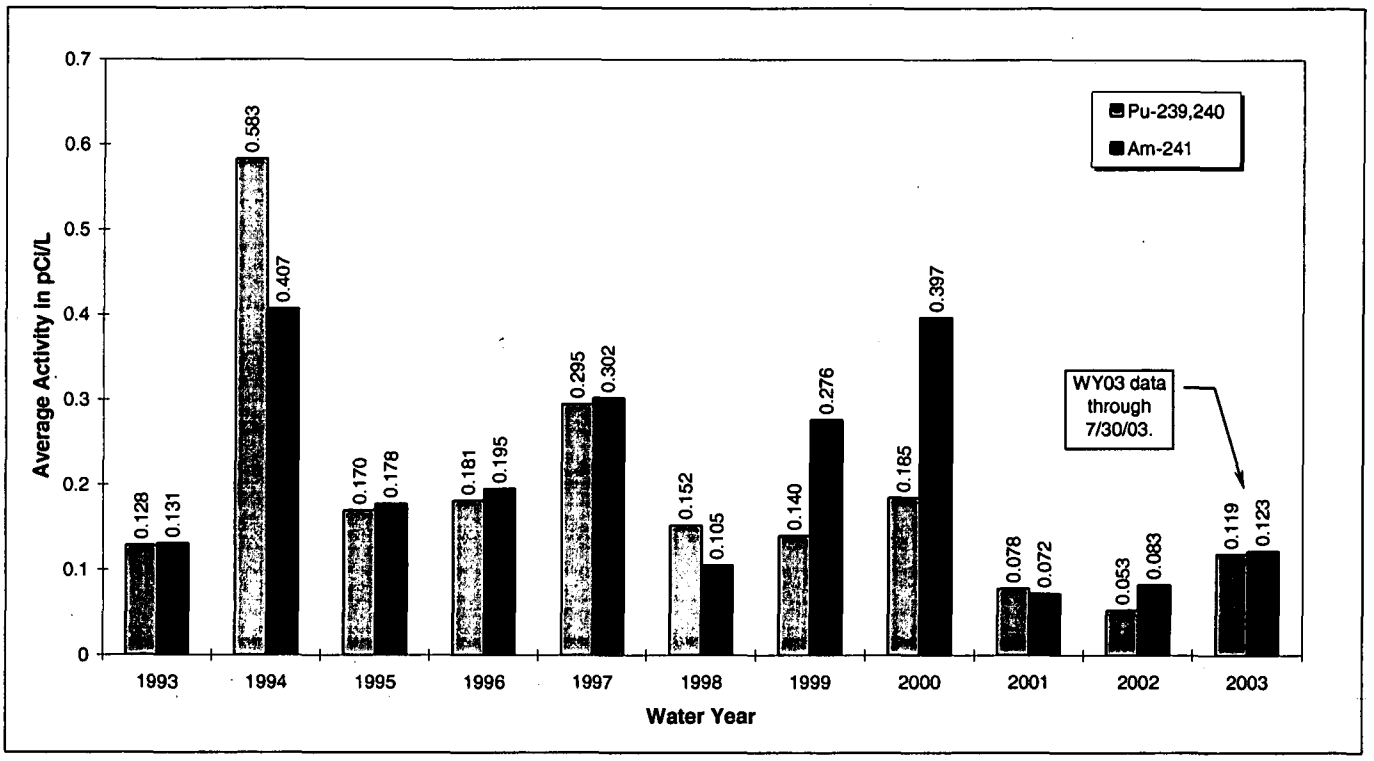
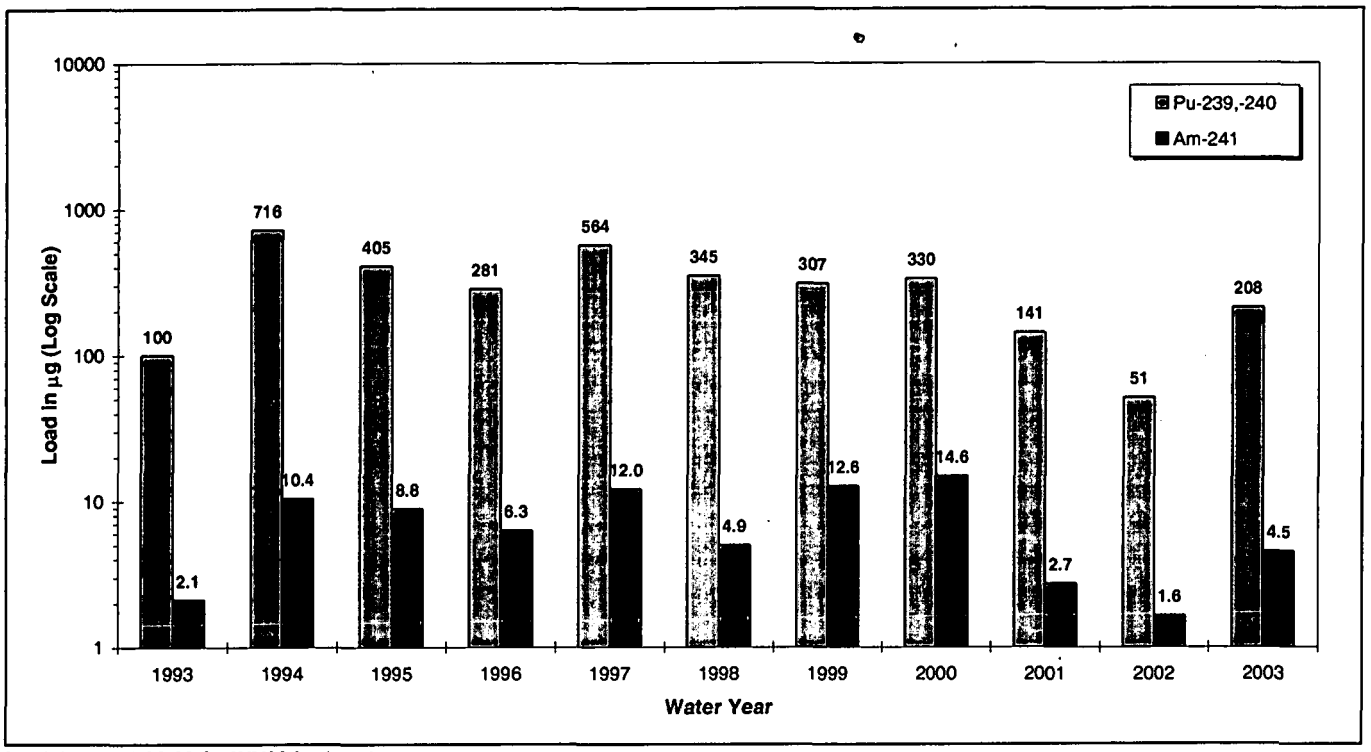


Figure 6-9. Average Annual Pu and Am Activities at GS10: Water Years 1993-2003.

[22] For WY03 the average shown is through 7/30/03.

Annual GS10 Loads

Annual radionuclide loads for GS10 in micrograms are plotted in Figure 6-10 to show long term loading to GS10. For WY93 - WY96, the arithmetic average activity of individual sample results is multiplied by the associated total annual discharge volume to get pCi, then converted to micrograms[23]. For WY97-WY03, the activity for each flow-paced composite sample is multiplied by the associated discharge volume to get pCi, then converted to micrograms and summed.[24] As stated previously, this suggests that actinides have been available for transport to GS10 for some time and that the recent measurements at GS10 are likely the result of legacy contamination.



Load through 7/30/03 for WY03 is plotted.

Figure 6-10. Annual Pu and Am Loads at GS10: Water Years 1993-2003.

Relative Loading Analysis

This loading analysis uses data from all automated monitoring locations that are tributary to GS10 (Figure 6-8). These locations are GS27, GS28, GS38, GS39, GS40, GS43, GS50, GS57, and SW022. The analysis is performed for two overlapping time periods based on the operational periods for two groups of locations. For the first period, 3/27/01 to date, monitoring locations GS27, GS38, GS39, GS40, GS43, GS50, and SW022 were all operational. For the second period, 3/13/02 to date, monitoring locations GS27, GS28, GS38, GS39, GS40, GS43, GS50, GS57, and SW022 were all operational.

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[23] Picocuries of plutonium are multiplied by 14.085 to get picograms, and divided by 10^6 to get micrograms. Similarly, picocuries of americium are multiplied by 0.292 to get picograms, and divided by 10^6 to get micrograms.

[24] Storm-event samples are generally flow-paced composites consisting of 15 grabs taken during a direct runoff hydrograph and not during baseflow conditions. The grabs are targeted to be taken on the rising limb of a runoff period as flow rates increase to the peak. This is the period during direct runoff when the highest contaminant concentrations are expected to be measured. Under RFCA (starting 10/1/96), samples collected at POEs are continuous flow-paced composites where grab samples are collected during all flow conditions.

The 100, 300, 400, 500, 600, 800, and 900 Areas all contribute runoff to SW022 via the Central Ave. Ditch. During high flows, a portion of the flow in the Central Avenue Ditch overflows to a 48-inch pipe which leads directly to South Walnut Creek, bypassing SW022, as indicated by the dotted flow line in Figure 6-11. This upstream flow bypass causes the calculated load for SW022 to be an underestimate of the total Central Avenue Ditch sub-drainage area contribution to GS10.

Table 6-8 gives location and drainage basin detail for the monitoring locations used in this loading analysis. The hydrologic connectivity of these locations is shown in Figure 6-11 and Figure 6-2

Table 6-8. Location and Drainage Basin Detail.

Location Code	Location Detail	Contributing Areas
GS10	S. Walnut Cr. 40 feet upstream of the B-1 Bypass	100, 300, 400, 500, 600, 700, 800, 900; 173.1 acres
GS27	Drainage ditch NW of B884	Area south and west of B884; 0.4 acres
GS28	Ditch NW of B865 10' above Central Ave. Ditch	800; 2.8 acres
GS38	Central Ave. Ditch at 8th Street	100, 300, 400, 500, 600; 40.7 acres
GS39	Drainage ditch N of 904 Pad	903 Pad, 904 Pad, Contractor Yard; 8.1 acres
GS40	Culvert E of 750 pad draining 700 Area to S. Walnut Cr.	700; 25.8 acres
GS43	Drainage ditch NE of B886	B886 area; 3.2 acres
GS50	Ditch N of B990	Solar Ponds, 900; 9.3 acres
GS57	Ditch NE of B444 Area	400; 8.6 acres
SW022	East end of Central Ave. Ditch at Inner East Fence	100, 300, 400, 500, 600, 800, 900; 76.1 acres

Loads for GS10, GS28, GS38, GS39, GS40, GS43, GS50, GS57, and SW022 continuous flow-paced samples were calculated as detailed in Appendix B.1 Analytical Data Evaluation Methods. The load for any period is then the sum of the individual sample loads during that period.

For GS27, loads for any period are calculated by multiplying an estimated overall activity by the corresponding discharge measured at the gage, and then converting to micrograms.[25] The following methods were used to estimate a range of loads for GS27:

- The annual arithmetic average activity is multiplied by the corresponding measured annual discharge volume to estimate annual loads. The annual loads are then totaled for the analysis period.[26]
- The overall seasonal arithmetic average activity is multiplied by the corresponding measured total seasonal discharge volume for each year to estimate seasonal loads. The seasonal loads are then totaled for the analysis period.

[25] Storm-event sampling collects samples during the rising limb of a direct runoff hydrograph following a precipitation event. The highest TSS measurements, and corresponding Pu and Am activities, are typically measured during these hydrologic conditions. Therefore, simple arithmetic average activities using these sample results would be expected to be biased high relative to the 'true' mean activity for a given location. Additionally, actinide water-quality variation tends to be lognormal, and also varies with flow rate, season, storm size, and time. Therefore, various activity estimation techniques and periods are used to calculate a range of estimated loads.

[26] As stated previously, two analysis periods were used based on the operation dates of the monitoring locations: 3/27/01 to date, and 3/13/02 to date.

- The annual median activity is multiplied by the corresponding measured annual discharge volume to estimate annual loads. The annual loads are then totaled for the analysis period.
- The annual geometric mean activity is multiplied by the corresponding measured annual discharge volume to estimate annual loads. The annual loads are then totaled for the analysis period.
- The seasonal arithmetic average activity for each year is multiplied by the corresponding measured seasonal discharge volume to estimate annual loads. The annual loads are then totaled for the analysis period.
- The seasonal median activity for each year is multiplied by the corresponding measured seasonal discharge volume to estimate annual loads. The annual loads are then totaled for the analysis period.

The loads estimated for GS27 are summarized in the following analysis by using the minimum and maximum estimated loads from the various methods.

Relative Sub-Drainage Loads: March 27, 2001 to Date

The loading analysis in this section uses all available data for the period 3/27/01 through the present using all available data from GS10 and the seven upstream Source Location monitoring stations (GS27, GS38, GS39, GS40, GS43, GS50, and SW022). This loading analysis does not address the attenuation of actinides as they are transported from one monitoring location to the next. The analysis assumes that as the period of sampling is increased, the temporal effects of actinide transport will not significantly affect the relative loads from the various sub-drainages. The hydrologic connectivity of these locations is shown in Figure 6-11.

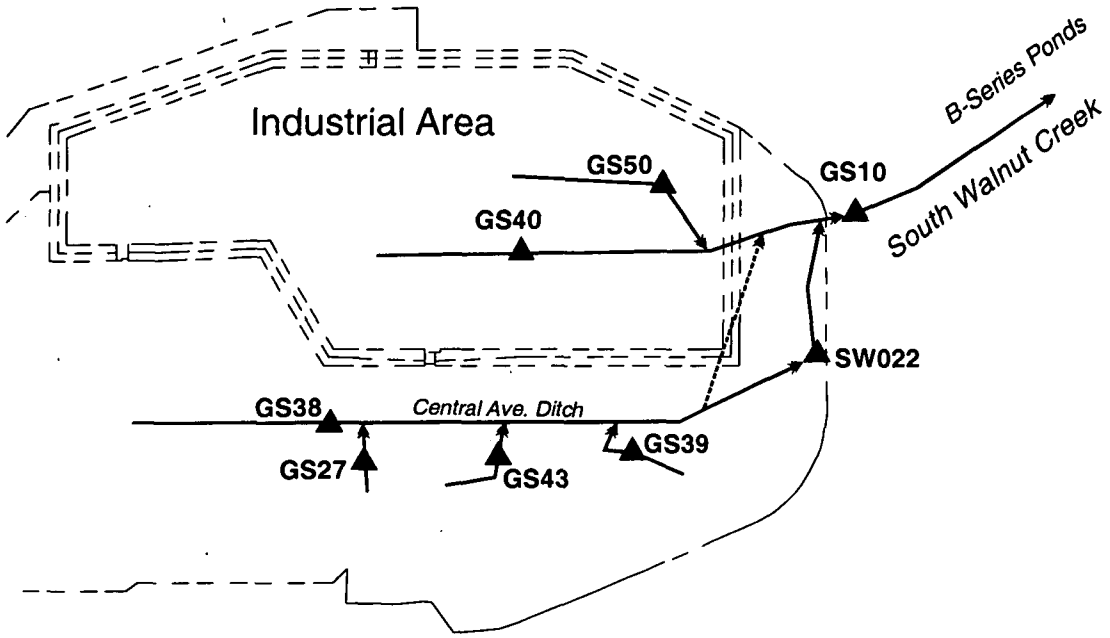


Figure 6-11. Hydrologic Connectivity of Monitoring Locations Tributary to GS10 (as of 3/27/01).

Table 6-9 and Figure 6-12 indicate that the Central Ave. Ditch sub-drainage (as measured by SW022) is contributing a significant portion of the Pu load estimated at GS10. However, the partial bypassing of high flows from Central Ave. Ditch directly to GS10 would cause the load at SW022 to be a slight underestimation of the total load from the Central Ave. Ditch sub-drainage area. The analysis also indicates that the 700 Area monitored by GS40 is contributing a significant portion of the Pu loads estimated at GS10. However, a majority of the GS40 loads are a result of the two most recent samples (0.874 and 0.249 pCi/L Pu; total of 67.6 µg). Water Programs staff is in consultation with the projects within the GS40 drainage, under the Performance monitoring

objective, regarding these recent monitoring results at GS40. In general, the Pu loads are evenly distributed between SW022 (Central Ave. Ditch drainage), GS40 (700 Area), and the South Walnut Creek stream reach between GS40 and GS10 (labeled as 'Other Sub-Drainage Contributions to GS10'). This suggests that diffuse, low-level Pu contamination is the cause of Pu measured at GS10, rather than a single source term..

Table 6-9 and Figure 6-13 indicate that the Central Ave. Ditch sub-drainage (as measured at SW022) contributed a small portion (8.7%) of the Am load measured at GS10. This suggests that the majority of the Am load at GS10 originates from tributary areas other than the Central Ave. Ditch sub-drainage. The analysis also indicates that the 700 Area monitored by GS40 is contributing a significant portion of the Am loads estimated at GS10. However, a majority of the GS40 loads are a result of the two most recent samples (2.635 and 0.497 pCi/L Am; total of 4.09 µg). Water Programs staff is in consultation with the projects within the GS40 drainage, under the Performance monitoring objective, regarding these recent monitoring results at GS40. It should be noted that during the period of reportable values at GS10, activities at GS40 were measured at historically low levels. In general, a majority (90.8%) of the Am loads appear to originate in the GS40 sub-drainage (700 Area), and the South Walnut Creek stream reach between GS40 and GS10 (labeled as 'Other Sub-Drainage Contributions to GS10'). This suggests that a source of Am may exist in these areas. Additional information evaluated in the following sections of this report support this hypothesis of a source 'enriched'[27] in Am in this stream reach.

Table 6-9 and Figure 6-12 also indicate that the GS38 sub-drainage contributes 25.1% of the Pu load reaching GS10. The Pu activities at GS38 may be the result of legacy contamination from past material storage in the 600 Area. Since Pu activities at GS38 have remained fairly constant since gage operation began on 1/15/98, the hypothesis of legacy contamination is further supported.

Table 6-9. Comparison of Plutonium and Americium Loads at Tributary Locations with GS10: 3/27/01 through Present.

Location	Pu-239,240 Load in µg	Am-241 Load in µg
GS10	389.7	8.59

Location	Pu-239,-240		Am-241	
	Load in µg	Load as a Percent of GS10 Load	Load in µg	Load as a Percent of GS10 Load
GS50	1.1	0.3%	0.04	0.5%
GS40	110.7	28.4%	5.26	61.2%
"Other Sub-Drainage Contributions to GS10"	154.2	39.6%	2.55	29.6%
SW022	123.7	31.7%	0.74	8.7%
GS39	10.2	2.6%	0.09	1.0%
GS43	1.0	0.3%	< 0.01	< 0.1%
GS27	3.5 – 20.2	0.9% - 5.2%	0.02 – 0.10	0.2% - 1.2%
GS38	97.9	25.1%	0.45	5.3%

[27] The term 'enriched' is used in this document to identify source terms where Am activities are higher than predicted given the corresponding Pu activity. The expected ratios are based on the material that was historically used at the Site.

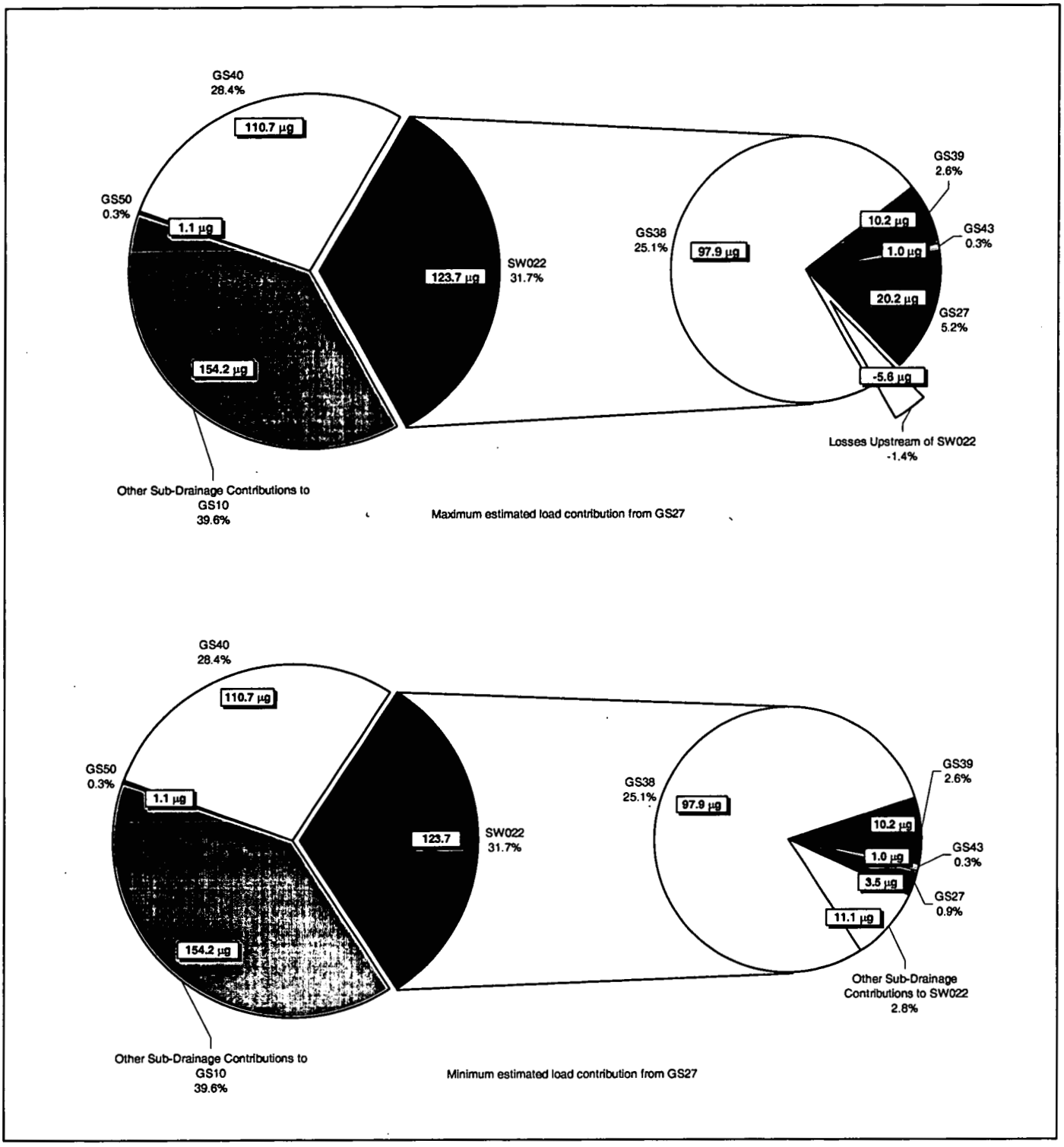


Figure 6-12. Relative Plutonium Load Contributions from Locations Tributary to GS10: 3/27/01 through Present.

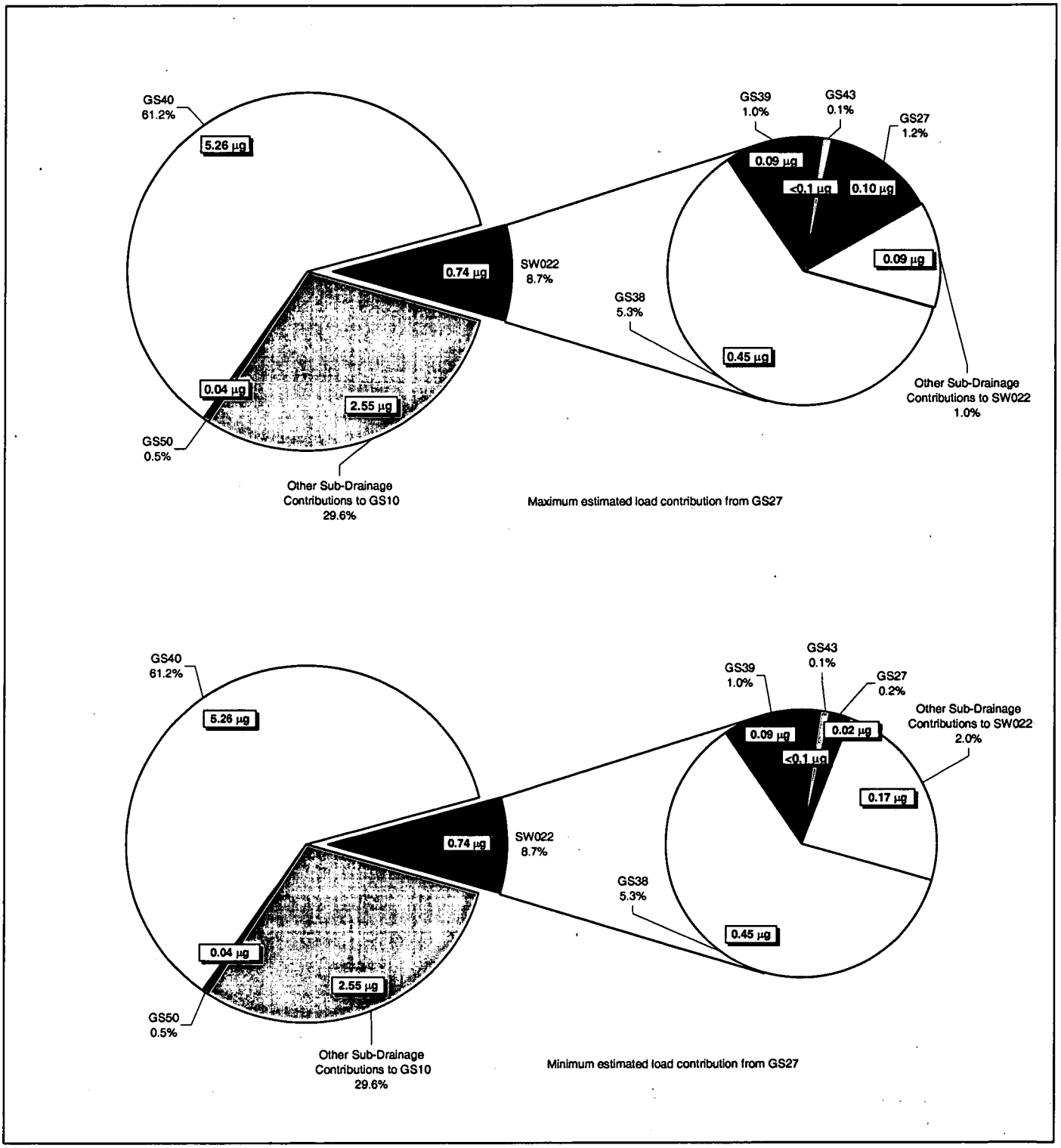


Figure 6-13. Relative Americium Load Contributions from Locations Tributary to GS10: 3/21/01 through Present.

Relative Sub-Drainage Loads: March 13, 2002 to Date

The loading analysis in this section uses all available data for the period 3/13/02 through the present using all available data from GS10 and the seven upstream Source Location monitoring stations (GS27, GS28, GS38, GS39, GS40, GS43, GS50, GS57, and SW022). This loading analysis does not address the attenuation of actinides as they are transported from one monitoring location to the next. The analysis assumes that as the period of sampling is increased, the temporal effects of actinide transport will not significantly affect the relative loads from the various sub-drainages. The hydrologic connectivity of these locations is shown in Figure 6-11.

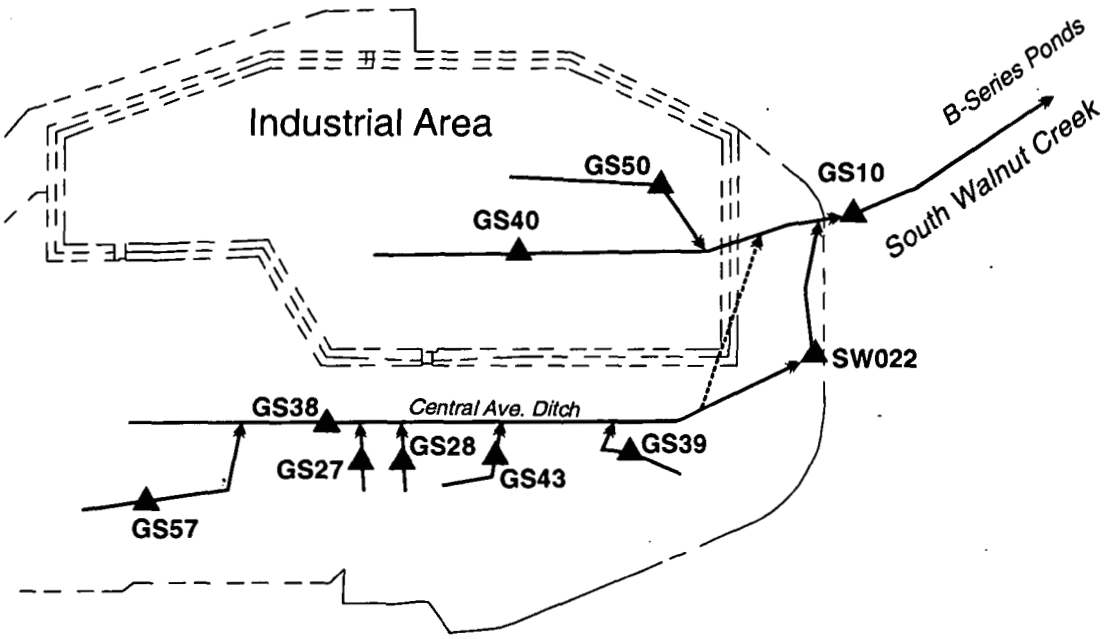


Figure 6-14. Hydrologic Connectivity of Monitoring Locations Tributary to GS10 (as of 3/13/02).

Table 6-9 and Figure 6-12 indicate that the additional locations GS28 and GS57 do not significantly change the conclusions drawn from the analysis period given above. GS28 and GS57 (tributary to GS38 and not shown separately in the pie charts) do not contribute significant loads to GS10. Again, a majority of the GS40 loads are a result of the two most recent samples, as discussed previously.

Table 6-10. Comparison of Plutonium and Americium Loads at Tributary Locations with GS10: 3/13/02 through Present.

Location	Pu-239,240 Load in µg	Am-241 Load in µg
GS10	251.6	5.91

Location	Pu-239,-240		Am-241	
	Load in µg	Load as a Percent of GS10 Load	Load in µg	Load as a Percent of GS10 Load
GS50	0.4	<0.2%	<0.02	0.3%
GS40	94.3	37.5%	4.72	79.9%
"Other Sub-Drainage Contributions to GS10"	70.4	28.0%	0.64	10.8%
SW022	86.5	34.4%	0.54	9.1%
GS39	6.4	2.5%	0.07	1.1%
GS43	0.9	0.4%	< 0.01	0.1%
GS28	0.8	0.3%	< 0.01	0.1%
GS27	2.1 – 13.2	0.8% - 5.2%	0.02 – 0.06	0.2% - 1.1%
GS38	71.4	28.4%	0.34	5.7%
GS57	2.3	0.9%	0.02	0.3%

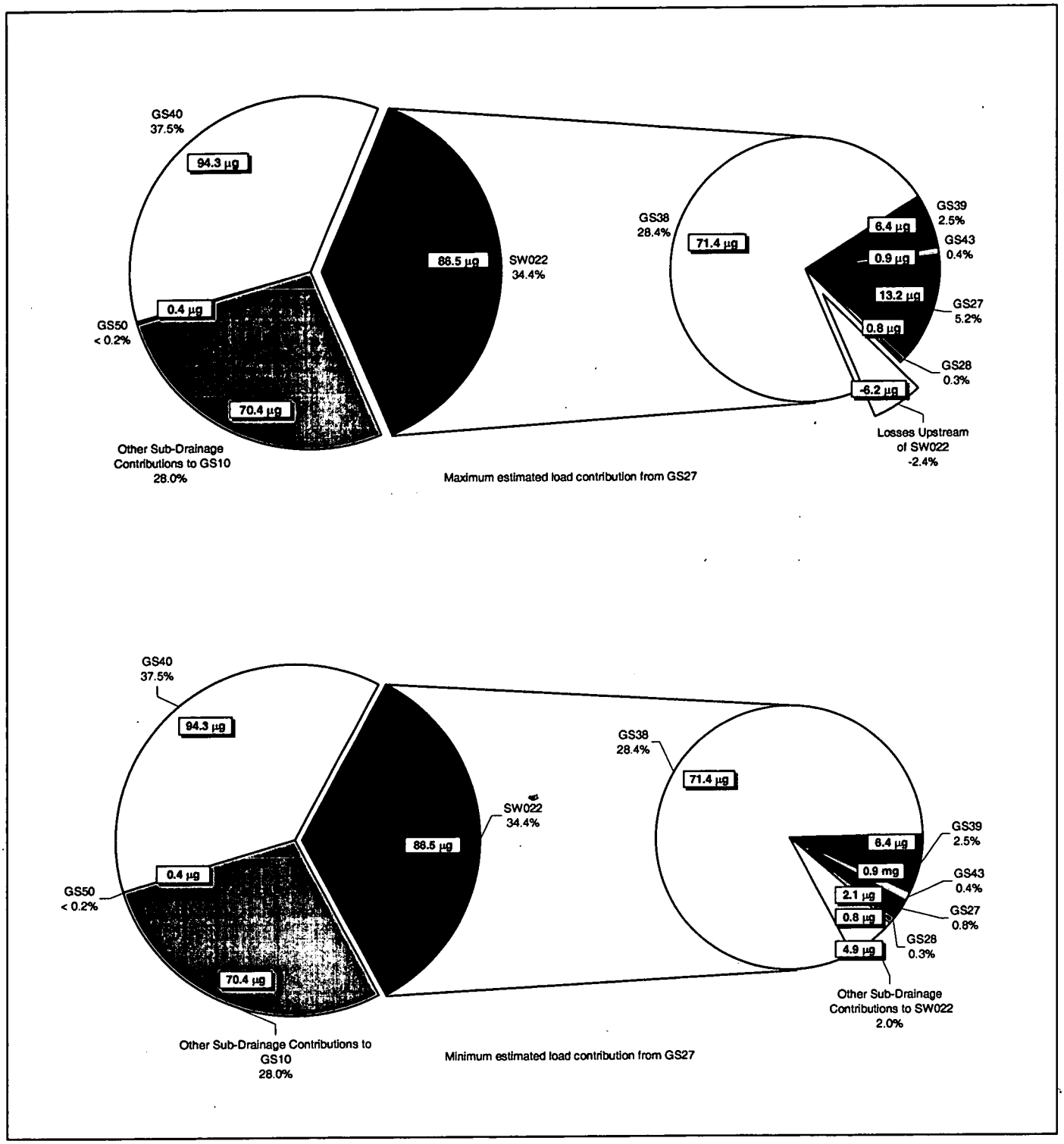


Figure 6-15. Relative Plutonium Load Contributions from Locations Tributary to GS10: 3/13/02 through Present.

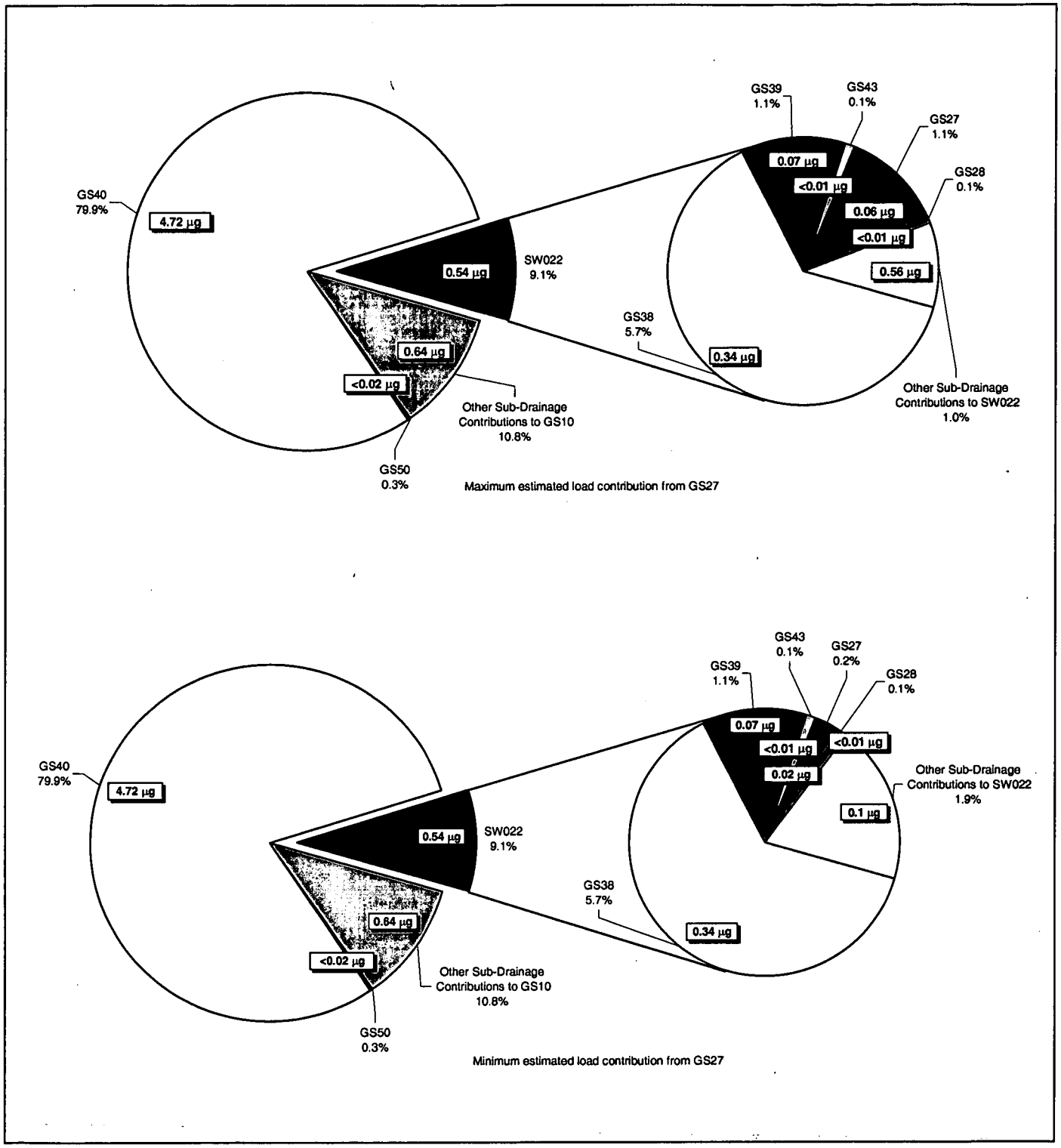
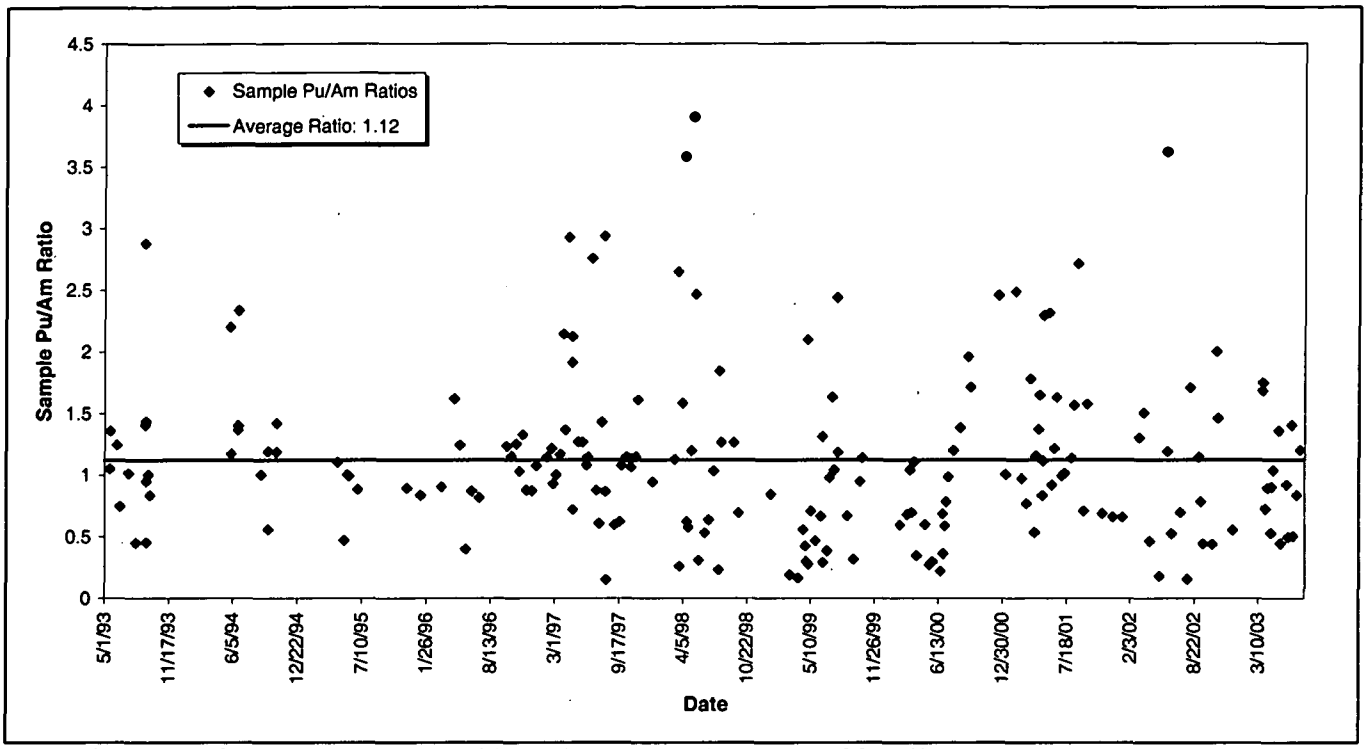


Figure 6-16. Relative Americium Load Contributions from Locations Tributary to GS10: 3/13/02 through Present.

Pu/Am Activity Ratio Evaluation

The ratios of sample Pu activity to Am activity (Pu/Am ratios) for surface-water samples collected within the GS10 drainage area are evaluated in this section. Figure 6-17 presents Pu/Am ratios for all surface-water samples collected at GS10 (10/1/92 – 7/30/03). Only samples with both Pu and Am results greater than or equal to 0.015 pCi/l are included in this evaluation to minimize the effects of analytical error near the detection limit.

Figure 6-17 suggests no long-term trend of increasing or decreasing Pu/Am ratios with time at GS10. Further analysis of data showed no strong seasonal, monthly, or annual trends in Pu/Am ratios. In short, the average Pu/Am ratio (1.16) at GS10 has been fairly constant for several years. Additionally, 47% of the samples displayed in Figure 6-17 had Am activities in excess of Pu activities.



Note: Ratios shown are for samples where both Pu and Am results were greater than or equal to 0.015 pCi/l.

Figure 6-17. Pu/Am Ratios for Surface-Water Samples at GS10.

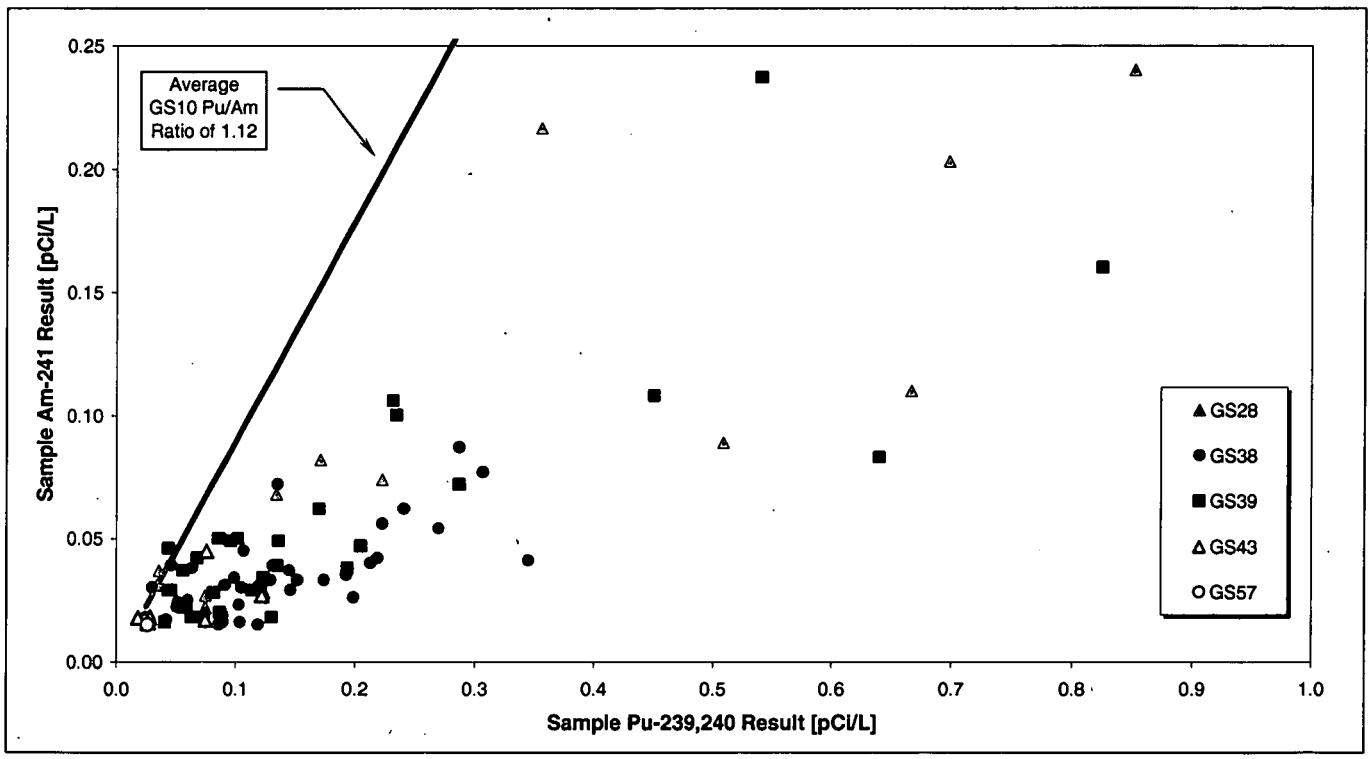
Table 6-11 summarizes average Pu/Am ratios for surface-water samples collected at automated monitoring locations within the GS10 drainage (10/1/92 to date). Again, only samples with both Pu and Am results greater than or equal to 0.015 pCi/l were included to minimize the effects of analytical error near the detection limit.

Table 6-11 indicates that the average Pu/Am ratios from monitoring locations in the Central Ave. Ditch sub-drainage range from 1.73 to 4.05 (these locations are GS27, GS28, GS38, GS39, GS43, GS57, and SW022). The data from these locations are plotted in Figure 6-18 through Figure 6-20. These ratios are closer to the 'expected' range based on the material that has historically been used in Site operations. However, average Pu/Am ratios from monitoring locations in the main South Walnut Creek reach (GS10, GS40) and near the Solar Ponds (GS50) range from 0.51 to 1.12 (plotted in Figure 6-21 and Figure 6-22). Further, Figure 6-23 displays the ratios for all surface-water sampling locations within the GS10 drainage. This information further supports the hypothesis of a source 'enriched' in Am in the main South Walnut Creek stream reach.

Table 6-11. Summary Statistics for Surface-Water Pu/Am Activity Ratios for Automated Monitoring Locations Tributary to GS10.

Drainage/ Location	Average Pu/Am Ratio	# Samples in Calculation
GS10	1.12	194
GS27	4.05	74
GS28	2.89	15
GS38	4.02	38
GS39	3.24	31
GS40	0.83	33
GS43	2.48	6
GS50	0.51	7
GS57	1.73	2
SW022	3.90	53

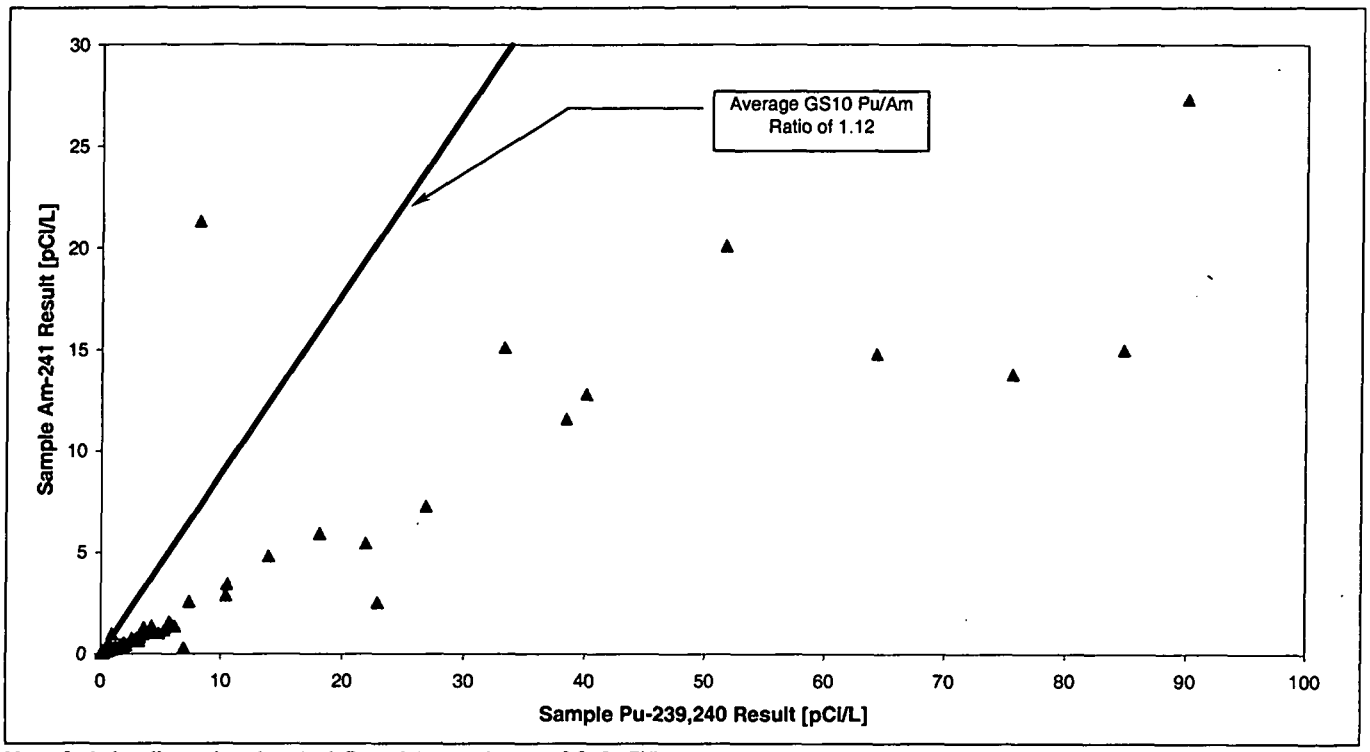
Notes: Ratios shown are for samples where both Pu and Am results were greater than or equal to 0.015 pCi/l.



Note: Includes all samples where both Pu and Am results are ≥ 0.015 pCi/l.

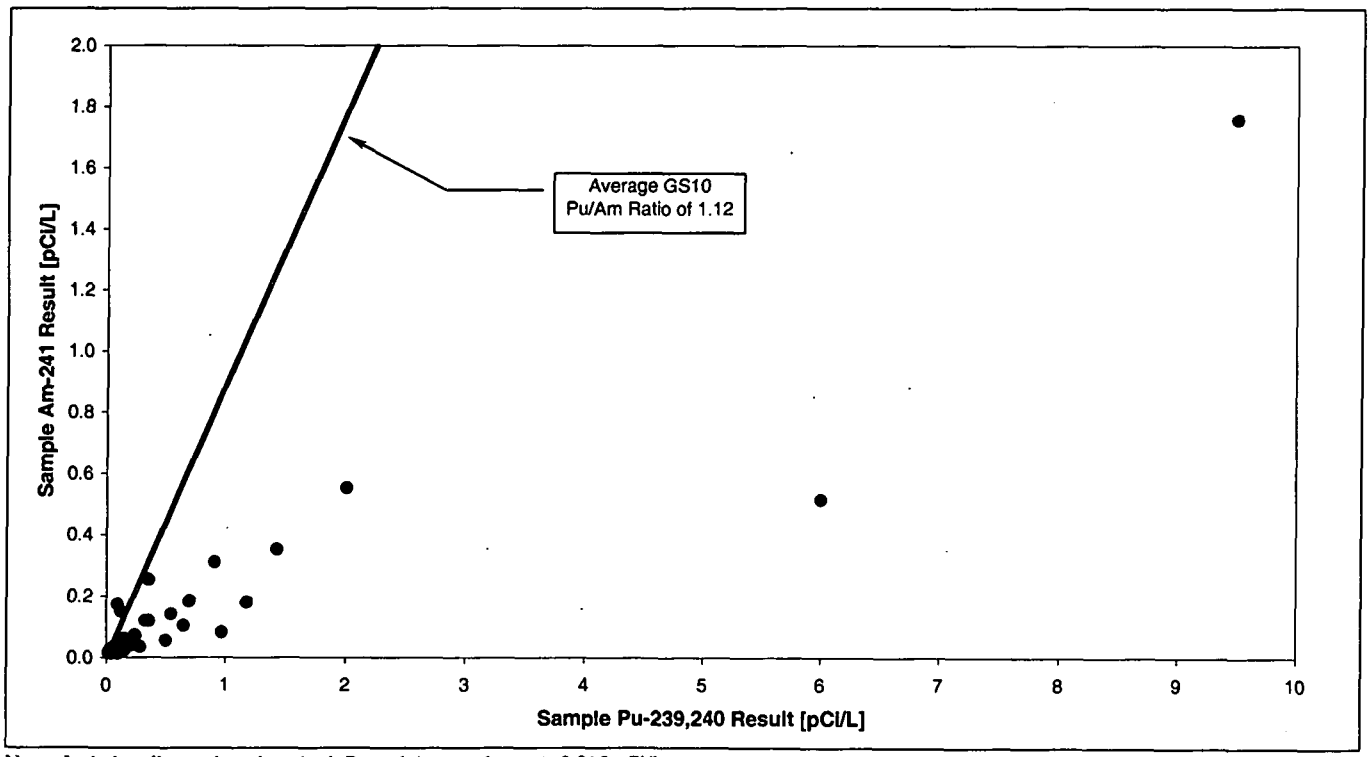
Figure 6-18. Variation of Sample Am-241 with Pu-239,240 Activity at GS28, GS38, GS39, GS43, and GS57.

150



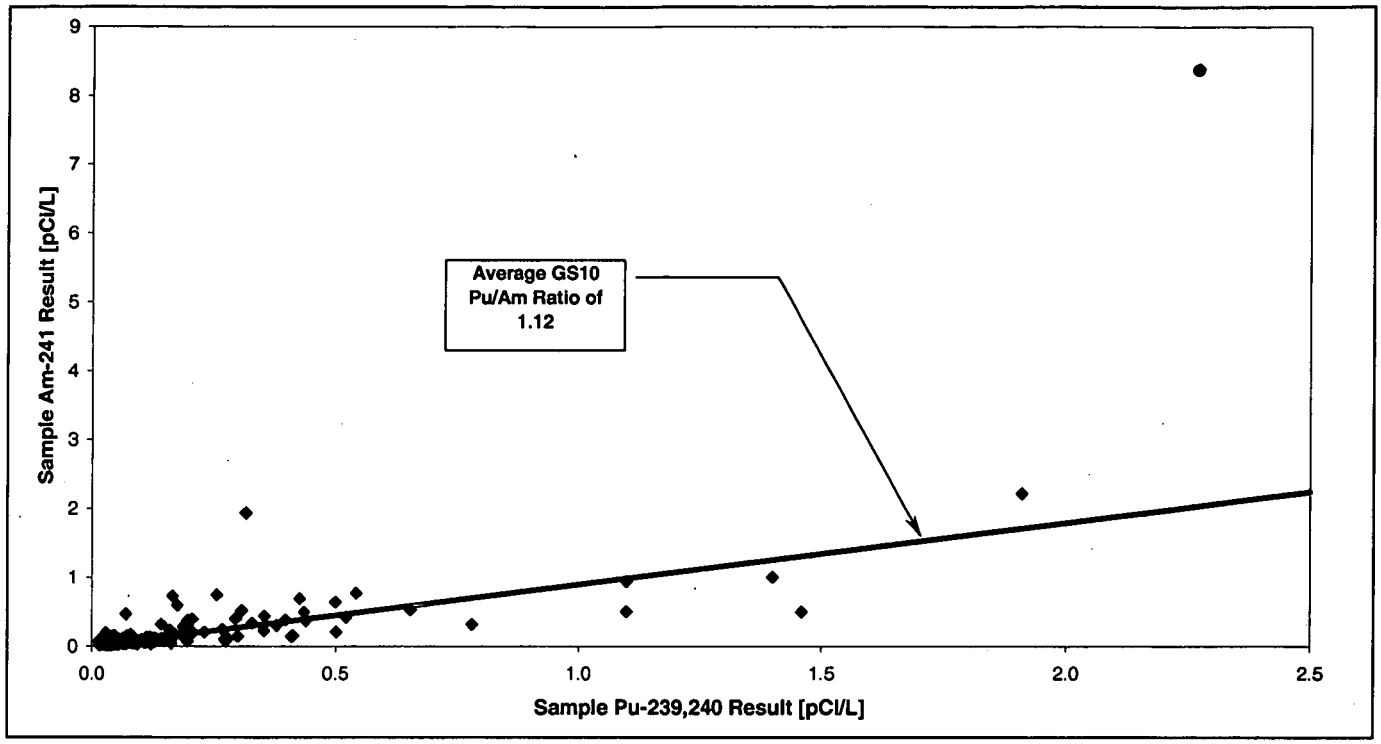
Note: Includes all samples where both Pu and Am results are ≥ 0.015 pCi/l.

Figure 6-19. Variation of Sample Am-241 with Pu-239,240 Activity at GS27.



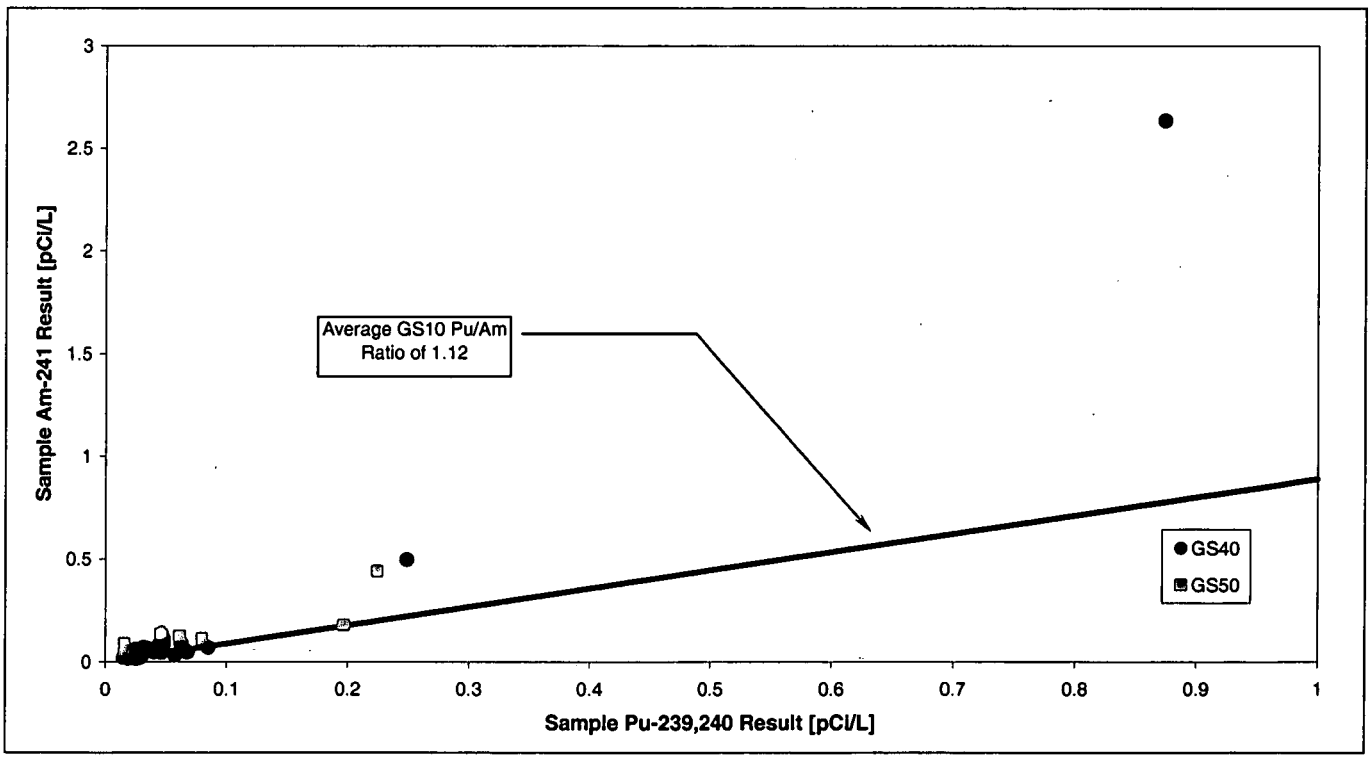
Note: Includes all samples where both Pu and Am results are ≥ 0.015 pCi/l.

Figure 6-20. Variation of Sample Am-241 with Pu-239,240 Activity at SW022.



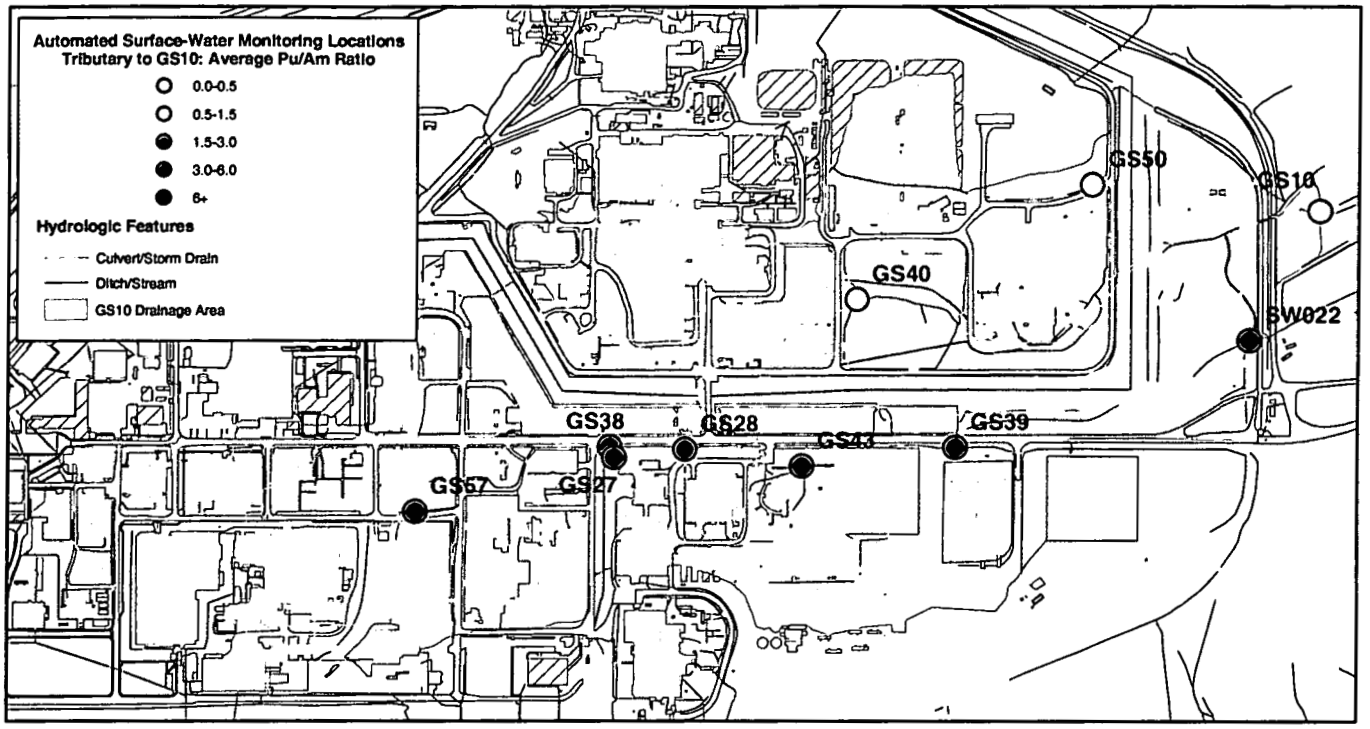
Note: Includes all samples where both Pu and Am results are ≥ 0.015 pCi/l.

Figure 6-21. Variation of Sample Am-241 with Pu-239,240 Activity at GS10.



Note: Includes all samples where both Pu and Am results are ≥ 0.015 pCi/l.

Figure 6-22. Variation of Sample Am-241 with Pu-239,240 Activity at GS40 and GS50.



Note: Location averages include all samples where both Pu and Am results are ≥ 0.015 pCi/l.

Figure 6-23. Map Showing Average Pu/Am Ratios for Surface-Water Sampling Locations Tributary to GS10.

Site Activities and Projects

During the most recent period of reportable values at GS10, the following Site activities occurred within the GS10 drainage area (discussed in more detail below):

- 750 Pad Sludge Removal project;
- 903 Pad Accelerated Actions;
- 904 Pad D&D activities;
- Building 444 Cluster Type 1 Facilities (B427, B449, B453) D&D project;
- Building 779 Rubble Pile; and,
- Building 441 D&D project.

750 Pad Sludge Removal

All sludge removal activities at the 750 Pad take place within tent structures. Therefore, the project should not normally come in contact with runoff from precipitation or snowfall events. All water that may enter the tents or is used during routine operations is dispositioned appropriately and not allowed to enter the environment without proper evaluation (see Incidental Waters below). The 750 Pad is immediately upstream of GS40 and all runoff from this area is sampled at GS40. During the period of reportable values at GS10, the maximum Pu result from GS40 was 0.068 pCi/L.

903 Pad Accelerated Actions

Activities at the 903 Pad generally take place within tent structures. Therefore, the highest risk activities do not come in contact with runoff from precipitation or snowfall events. All water that may enter the tents or is used during routine operations is dispositioned appropriately and not allowed to enter the environment without proper evaluation (see Incidental Waters below). The portion of the 903 Pad tributary to GS10 is immediately upstream of GS39, and all runoff from this area is sampled at GS39. During the period of reportable values at GS10, the maximum Pu result from GS40 was 0.235 pCi/L. However, the load evaluation above indicates that the GS39 drainage area is a not a significant contributor of Pu loads to GS10.

904 Pad D&D

A portion of the 904 Pad is tributary to GS39, while the remaining portion is tributary to SW022. As stated previously, the relative load estimated for GS39, coupled with the GS39 and SW022 Pu activities within the historic range, suggest that the reportable values measured at GS10 are not a direct result of the 904 Pad D&D.

Building 444 Cluster Type 1 Facilities D&D

The B444 area is immediately upstream of GS57 and all runoff from this area is sampled at GS57. During the period of reportable values at GS10, the maximum Pu result from GS57 was 0.026 pCi/L. Additionally, the load evaluation above indicates that the GS57 drainage area is not a significant contributor of Pu loads to GS10.

Building 779 Rubble Pile

The B779 rubble pile has existed within the GS10 drainage for several years. Although runoff from the pile is not sampled prior to reaching GS10, past source evaluations have indicated that the rubble pile is not contributing a significant Pu load to GS10.

Shift Superintendent Reports

Site shift superintendent reports for March 2003 were reviewed with an emphasis on occurrences with the potential for environmental releases of radionuclide contamination to surface water. No items that are likely to have resulted in an environmental release were noted.

Incidental Waters

Excavation work and routine operations in the GS10 drainage area were also examined. All excavation work and routine operations at the Site are subject to the Site Incidental Waters program. Water that collects in utility pits, valve vaults, or excavations is sampled prior to being dispositioned. Following sampling, such water is pumped to the ground if the water quality is acceptable, or sent to an on-Site treatment facility if sample results indicate the water is not suitable for a release to the environment. During February through March 2003, three incidental waters was sent to ground within the GS10 drainage. This water (approx. 640 gals) was within limits for release to the environment.

Summary and Conclusions

The Site is continuing the ongoing source evaluation for potential cause(s) of reportable 30-day moving average values for Pu at the POE monitoring location GS10. As for previous reports, the Site concludes that the likely sources of the reportable 30-day moving average values at GS10 are:

1. Diffuse actinide contamination associated with soils and sediments from past Site operations released to the environment through events and conditions over past years. This actinide contamination is transported with suspended solids in surface-water runoff during precipitation events.
2. Actinide contamination enriched in Am that has been incorporated into the stream sediments in South Walnut Creek from past Site operations through events and conditions over past years. This actinide contamination is transported through sediment resuspension by surface-water runoff during precipitation events.

Based on the ongoing evaluation, Site personnel conclude that no specific remedial action(s) is indicated at this time, other than scheduled remedial actions and closure activities for the Site. This source investigation has identified no highly localized source(s) of contamination that warrant targeted remediation based on the available information. The current conclusions are summarized below:

- Based on the details regarding recent Site activities outlined above, it is concluded that neither D&D, construction, environmental remediation, excavation, nor routine operations caused a release that directly resulted in the recent reportable values measured at GS10.
- Historical GS10 data suggests that actinides have been available for transport to GS10 for some time and that the recent measurements at GS10 are likely the result of legacy contamination.
- The loading analysis above indicates that the South Walnut Creek reach upstream of GS10 is the likely origin of the majority of the Pu and Am load measured at GS10.
- Results shown above also indicate that the average Pu/Am activity ratio for surface-water samples from GS10 is lower than that generally observed in other drainages and sub-drainages across the Site. Results also indicated that the Pu/Am ratios observed at GS10 are significantly lower than those observed at monitoring locations GS27, GS28, GS 38, GS39, GS43, GS57, and SW022. Although monitoring location GS50 shows low Pu/Am ratios, this location does not contribute significant loads to GS10. These results indicate that a source relatively 'enriched' in Am exists within the GS10 drainage, specifically in the main South Walnut Creek upstream of GS10.
- Extensive evaluation of water-quality correlations in past reports indicate that a source term relatively 'enriched' in Am is associated with the sediments in the main South Walnut Creek stream reach. This source term appears to affect GS10 water-quality to varying degrees based on streambed erosion/resuspension rates, relative load contributions from distributed sources, and hydrologic conditions. The HRR and soil/sediment data provide information supporting this hypothesis. However, sufficient data do not exist to establish the extent and exact location of this source term.
- Surface-soil and sediment data presented in past reports clearly show the existence of distributed Pu and Am source terms throughout the GS10 drainage. The areas near the Solar Ponds and within the South Walnut Creek stream reach show lower Pu/Am ratios. However, sufficient data do not exist to establish the extent and exact location of the Am 'enriched' source term in the main South Walnut Creek stream reach.

The Site's proposed course of action includes: (1) continuing observation (routine monitoring and special sampling as appropriate), and (2) erosion modeling of the drainage areas above GS10 as part of the Land Configuration Erosion Evaluation. Effective best management practices, such as the use of the existing terminal ponds in batch or flow-through mode to clarify stormwater of potentially-contaminated sediment and particulate matter, should also be continued. Specifically, DOE and the K-H Team propose the following actions as the path forward:

- Continued observation (routine monitoring and special sampling, as appropriate) and ongoing data interpretation to provide better understanding of actinide transport directly related to the operation of the Site automated surface-water monitoring network. This monitoring and the associated routine data evaluations will be valuable should reportable values be measured in the future.
- Erosion modeling of the drainage areas above GS10 as part of the Land Configuration Erosion Evaluation in FY04. Data suggest the more immediate areas above GS10 typically contribute the majority of the actinide load observed at GS10, with smaller contributions from the western part of the drainage.

- Continued use of the existing detention ponds in batch or flow-through mode as an effective best management practice to clarify stormwater containing potentially contaminated sediment and particulate matter.
- Continued progress reporting through Quarterly RFCA Reports, Quarterly State Exchange Meetings, and Annual Automated Surface-Water Monitoring Reports.

6.3.4 Summary of Completed Source Evaluations for POE SW093

WY97 Source Evaluation for Walnut Creek

The WY97 Walnut Creek Source Evaluation Reports (Reports #1, #2, #3, and Final; RMRS 1997a, 1997b, 1997c, and 1998a) included source evaluations for POC GS03 and POEs GS10 and SW093. These reports were completed in response to reportable water-quality levels at these locations during Water Year 1997. The scope of the investigation for each report is summarized below.

Progress Report #1 to the Source Evaluation and Preliminary Mitigation Plan for Walnut Creek, Rev. 0 (RMRS 1997a) did not include SW093. The following text is taken directly from Progress Report #2 (RMRS 1997b) describing the contents of that report related to SW093:

- Results and analysis of ongoing RFCA monitoring;
- A detailed description of new sediment/soil sampling locations for SW093;
- A detailed description of proposed new Source Location monitoring stations for SW093;
- A summary of current Actinide Migration Study findings with cross-links to source evaluations; and
- A summary of the status for sampling and operational modifications.

The following text is taken directly from Progress Report #3 to the Source Evaluation and Preliminary Mitigation Plan for Walnut Creek, Rev. 0 (RMRS 1997c) describing the contents of that report:

- Results and analysis of ongoing RFCA monitoring;
- An assessment of existing monitoring data for SW093;
- Updates for the new Source Location monitoring stations for SW093;
- An evaluation of the effects that watershed improvements may have had on Site water quality;
- A summary of current Actinide Migration Study findings with cross-links to source evaluations; and
- A summary of the status for sampling and operational modifications.

The following text is taken directly from the Final Report to the Source Evaluation and Preliminary Mitigation Plan for Walnut Creek, Rev. 0 (RMRS 1998a) describing the contents of that report:

- Updates to the ongoing SW093 evaluation;
- Results and analysis of ongoing RFCA monitoring;
- An assessment and incorporation of available new data for SW093;
- Updates for the new Source Location monitoring stations for SW093;
- Hypotheses for source location(s) with supporting and non-supporting information;

- An identification of data gaps and uncertainties in the source evaluation process with suggested modifications (if any) to the AMS Workscope and the IMP;
- A summary of current AMS findings with cross-links to source evaluations;
- A summary of the status for sampling and operational modifications;
- Results of the source location evaluation;
- A detailed description of identified source areas; and
- A general description of mitigating actions applicable to sources which may be identified in the future.

In the Final Report, the following findings regarding the possible source(s) of the reportable values at SW093 were noted:

> To date, a singular source for SW093 can not be identified. Information collected to date does not point to any singular conclusion. In fact, it is likely that multiple sources and transport mechanisms are responsible for the elevated activities at SW093. *To date, no localized areas of radiological contamination have been identified — either historical or resulting from current operations. The Site concludes that the likely source of the exceedance of the 30-day average for Pu at POE SW093, resulted from diffuse radionuclide contamination from past Site operations released to the environment through events and conditions over past years.*

The Final Report further lists the possible SW093 source(s):

- Diffuse soil and sediment contamination in the SW093 drainage
- Tributary surface-water source transporting contamination

WY99 Source Evaluation for POE SW093

The WY99 Source Evaluation Report for Point of Evaluation SW093 (RMRS 1999b) was completed in response to reportable water-quality levels at SW093 during Water Year 1999. The following text is taken directly from that report describing the contents:

- Results and analysis of ongoing, automated surface-water monitoring data including trending and correlations, statistical analysis, and loading analysis;
- A review of existing soil/sediment data;
- An assessment of Decontamination and Decommissioning (D&D), Environmental Restoration, and Site Closure projects; and
- A summary of current Actinide Migration Evaluation findings.

This following text summarizes the findings, and presents preliminary conclusions based on information presented and analyzed in this report:

- Surface-water and soil/sediment sampling results suggest that one or more low-level distributed actinide source areas exist within the SW093 drainage. Further, surface-water activities have been of similar magnitudes for the last decade, suggesting source areas that originated as legacy contamination.
- Recent surface-water sampling results from Source Location monitoring stations have further refined the estimation of relative plutonium and americium load contributions to SW093 from upstream sub-drainage areas. These load estimations suggest that significant plutonium and americium source terms may exist in the B779 area (GS32 sub-drainage). Data indicate

that these sources are legacy contamination as a result of past Site operations, and are not a result of current D&D activities.

- Load estimations and soil/sediment data also suggest that plutonium and americium source terms may exist in the following sub-drainage areas:
    1. North Walnut Creek reach between SW118 and SW093;
    2. A portion of the 700 Area including B771/774 and B776/777;
    3. A portion of the 500 Area including B559;
    4. A portion of the 300 Area including B371/374; and
    5. A portion of the 100 Area.
- Evaluation of readings from in-situ, water-quality monitoring probes indicates no unusual or unexpected conditions for WY99 to date. WY99 trends for all parameters are similar to those observed in WY98 and WY97, and real-time water-quality data cannot be linked to discrete upstream source areas.
- A review of current Site activities indicate no reason to suspect that D&D, ER Projects, excavation, or routine Site operations caused a release of plutonium or americium that resulted in the elevated activities measured at SW093.
- The elevated values observed at SW093 and other monitoring locations in the SW093 drainage are not being observed at the Ponds or downstream POCs.

6.3.5 Updated Loading Analysis and Source Evaluation for SW093

The following source evaluation is provided in accordance with the *Final Rocky Flats Cleanup Agreement* (RFCA) (CDPHE et al., 1996) (Attachment 5, §2.4(B)) under "Action Determinations". The RFCA requires reporting "when contaminant concentrations in Segment 5 exceed the Table 1 action levels" and that "source evaluation will be required". Further, RFCA states "if mitigating action is appropriate, the specific actions will be determined on a case-by-case basis, but must be designed such that surface water will meet applicable standards at the POCs.

Specifically, this source evaluation addresses the Site notification(s) of reportable 30-day moving average values for plutonium and americium water-quality results at the POE monitoring location SW093, located 1300' above Pond A-1 in North Walnut Creek. Reportable values for Pu were measured for the period February 28 through March 21, 2003.

This evaluation for Walnut Creek gaging station SW093 covers data received through September 10, 2003. The following are included in this section:

- Evaluation of ongoing automated surface-water monitoring within the SW093 drainage;
- Estimated actinide loads within the SW093 drainage area;
- A brief assessment of Decontamination and Decommissioning (D&D), Environmental Restoration, and Site Closure projects.

Hydrology

North and South Walnut Creek Flow Controls

All IA surface-water runoff that flows into North or South Walnut Creek is collected by a system of stormwater detention ponds. The ponds serve three main purposes for surface-water management: (1) storm water detention and settling of sediments, (2) water storage for sampling prior to release, and (3) emergency spill control in those instances where a spill cannot be adequately managed without use of the ponds.

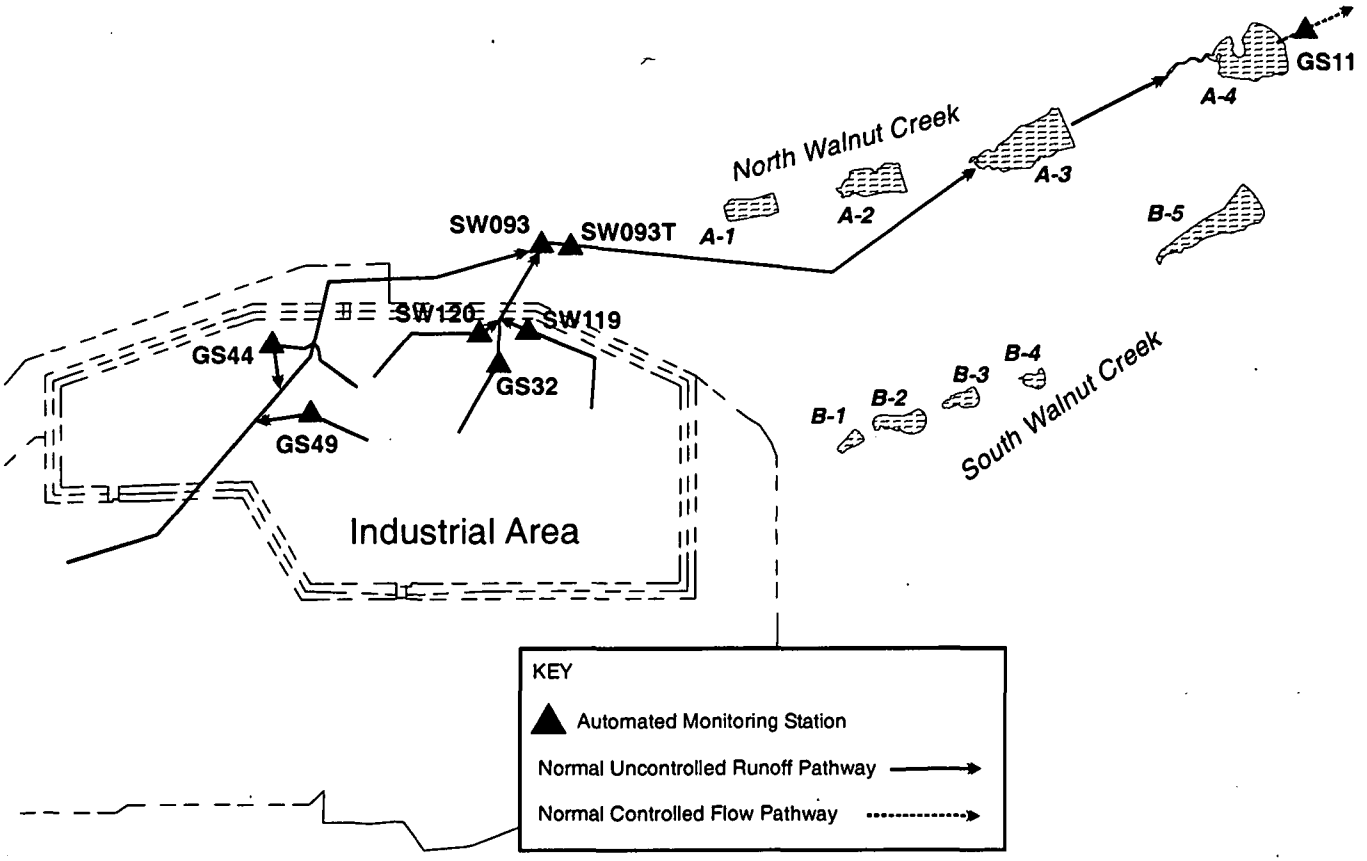


Figure 6-24. Hydrologic Routing Diagram for POE SW093 (WY2003).

SW093 is the POE for IA surface-water flows to North Walnut Creek. Surface water in North Walnut Creek is routed through the A-Series ponds (Figure 6-24). Steps in the water collection and transfer process are briefly outlined as follows:

- Runoff from the northern and western IA flows through various ditches and channels to a large cmp and directly to SW093 (Figure 6-24);
- Runoff from SW093 then flows downstream through conveyance structures, through Pond A-3, and then to Pond A-4 where it is detained; and
- Water detained in Pond A-4 is discharged periodically in batches to Walnut Creek.

As indicated above, all of the IA runoff that flows into North Walnut Creek is ultimately routed to Pond A-4, detained, and sampled prior to being released to lower Walnut Creek. There is no source of IA runoff to South Walnut Creek that can enter lower Walnut Creek without first passing through the pond system for subsequent batch discharge from Pond B-5.[28]

[28] A small area NE of the Solar Ponds flows directly to the A-Series Ponds and is not monitored at SW093.

SW093 Monitoring Results

As specified in the IMP, Site personnel evaluate 30-day moving average values[29] for selected radionuclides at POE surface-water monitoring location SW093. Recent evaluations of water-quality measurements at POE SW093 showed reportable values for Pu requiring notification and source evaluation under the RFCA Action Level Framework. Results for recent 30-day moving average values using available data at SW093 are summarized below in Table 6-5 and are shown on Figure 6-3.

The existing weir/flume at SW093 was replaced with a single 3-foot H flume during the period of February 6 through May 5, 2003. To facilitate the collection of samples to be used for comparison with the applicable RFCA action levels during construction, the Site established a temporary monitoring location on North Walnut Creek 165 feet downstream of SW093 (state plane 2085176, 751788). This location was given the identifier SW093T (Figure 6-24). Composite samples at SW093T were collected using the identical protocols established for POE SW093. Although analytical results from this location were uploaded to the SWD with the identifier SW093T, these results were used to calculate the reportable 30-day moving average values for POE SW093. Data for SW093T are included in the evaluations below; no distinction is made for the SW093T samples.

Table 6-12. Recent Water-Quality Information from SW093.

Location	Parameter	Date(s) of 30-Day Average Requiring Reporting	Date(s) of Maximum 30-Day Average	Maximum 30-Day Average (pCi/l)	Volume-Weighted Average for Water Year[30] (pCi/l)
SW093	Pu-239,240	2/28 – 3/21/03	3/19/03	0.33	WY03[31]: 0.094

The analytical results for the composite samples collected around the period of reportable values have been verified. A review of historical SW093 monitoring data shows that these results are higher than usual, and comparable to results associated with previous reportable periods. Storm-event[32] samples collected at SW093 from WY92 through WY96 (under pre-RFCA protocols[33]) had an arithmetic average Pu activity of 0.664 pCi/l with a maximum of 5.3 pCi/l. Additionally, during the period of continuous flow-paced monitoring under RFCA, there has been one other occurrence of reportable 30-day average values for Pu (Figure 6-25). The reportable measurements generally occur during periods of increased stormwater runoff in the spring and summer months (Figure 6-25). Individual composite-sample results for SW093 are listed in Table 6-13 and plotted in Figure 6-26 for the period of interest.

[29] The method for calculating 30-day averages in given in Appendix B.1 Analytical Data Evaluation Methods.

[30] A Water Year is defined as the period from October 1 through September 30. The term water year is abbreviated as WY; e.g. Water Year 2002 is WY2002 or WY02.

[31] Through 7/10/03

[32] Storm-event samples are generally flow-paced composites consisting of 15 grab samples taken during a direct runoff hydrograph. The grab samples are targeted to be taken on the rising limb. This type of sampling was performed at SW093 starting in the early 1990's through 9/30/96.

[33] Currently under RFCA, samples collected at POEs are continuous flow-paced composites where grab samples are collected during all flow conditions. This type of sampling began at POEs and POCs on 10/1/96.

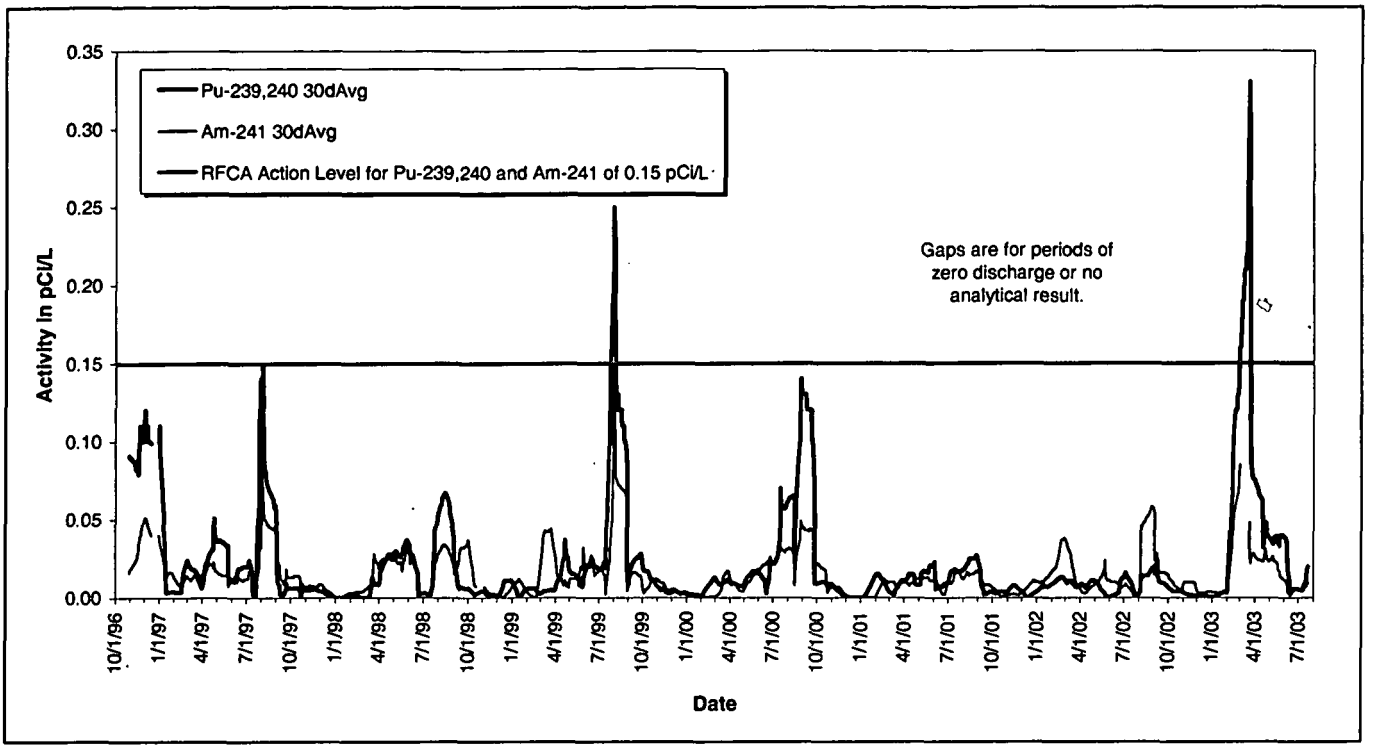


Figure 6-25. POE Gaging Station SW093: 30-Day Volume-Weighted Average Values for Pu and Am Activities (10/1/96 – 7/21/03).

Table 6-13. WY03 Composite Sample Analytical Results for SW093 Reportable Period.

Composite Sample Period	Pu-239,240 (pCi/l)		Am-241 (pCi/l)		Composite Sample Volume (Liters)	N. Walnut Cr. Discharge Volume During Sample Period (Mgals)
	Result	Error (±)	Result	Error (±)		
1/27 – 2/3/03	0.004	0.007	0.001	0.006	8.6	0.41
2/3 – 2/17/03	0.230	0.066	0.113	0.059	11.6	0.69
2/17 – 3/3/03	0.088	0.041	0.059	0.040	9.6	0.62
3/3 – 3/20/03	0.384	0.117	Rejected Data		14.6	2.93
3/20 – 3/22/03	0.001	0.008	0.006	0.011	15.0	3.30

Notes: Activities greater than the Action Level are indicated in red. Action Levels apply only to 30-day averages and the selective formatting in this table is provided for reference only.

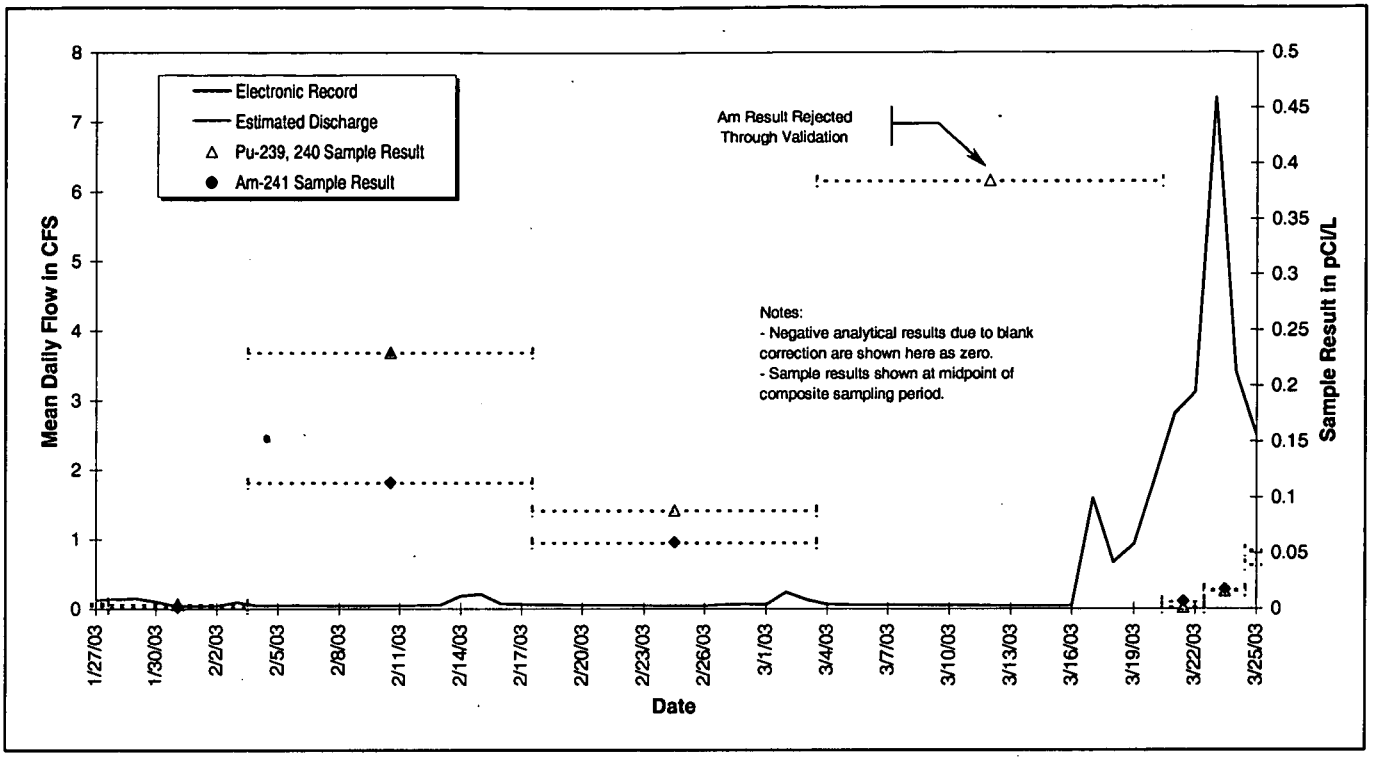


Figure 6-26. Gaging Station SW093 Hydrograph with Individual Sample Results: 1/27/03 – 3/25/03.

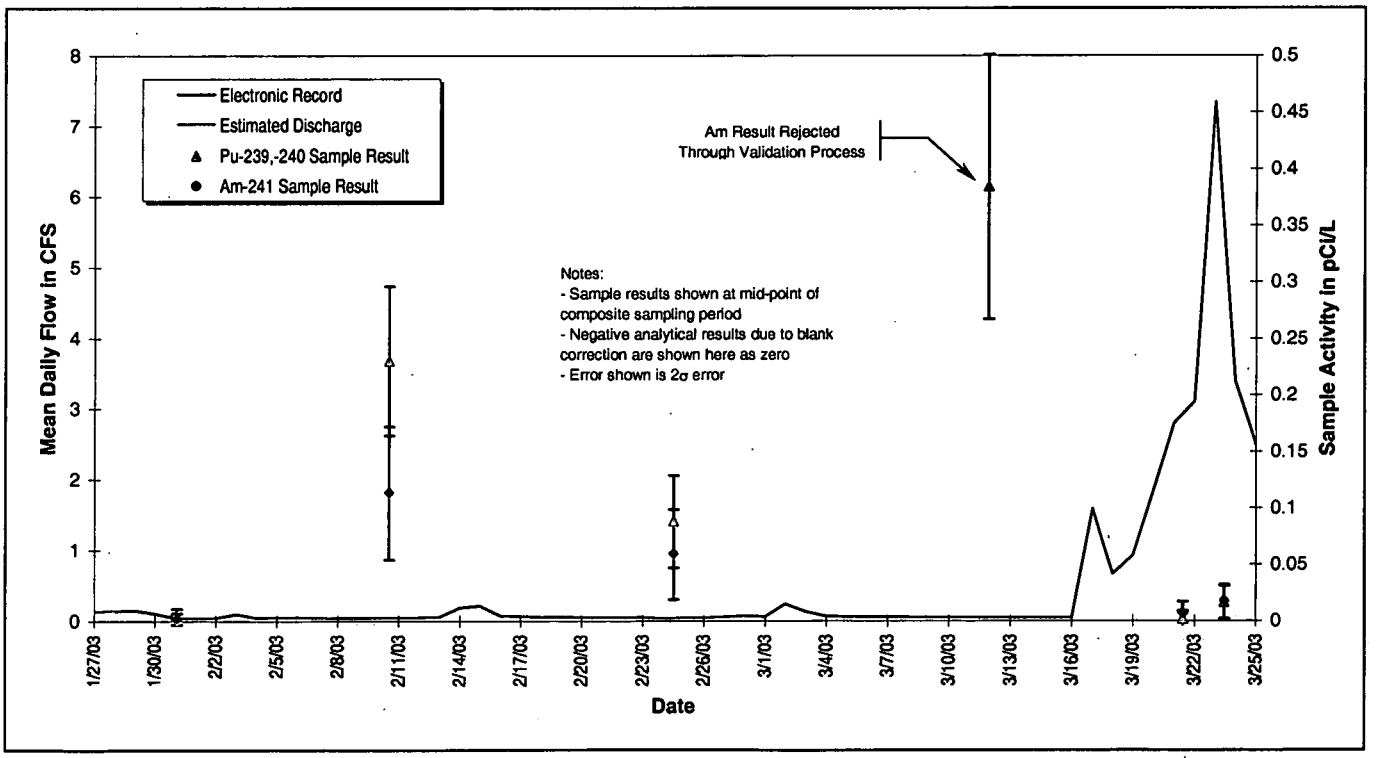


Figure 6-27. Gaging Station SW093 Hydrograph with Individual Sample Results and Error Bars: 1/27/03 – 3/25/03.

All water monitored at SW093 during this period flowed to Pond B-5 and was eventually direct discharged to lower Walnut Creek. Pre-discharge samples of the water in Pond A-4 indicated acceptable water quality prior to all planned discharges. All Pu and Am analytical results from composite samples collected at POC gaging station GS11 (Pond A-4 outfall; Figure 6-24) during this period were well below 0.15 pCi/L (Figure 6-28) and there were no reportable 30-day average values.

All water discharged from Pond B-5 to Walnut Creek subsequently flowed through RFCA POC GS03 at the eastern Site boundary. Pu and Am analytical results from composite samples collected at GS03 during the period of interest were all well below 0.15 pCi/L (Figure 6-7) and there were no reportable 30-day average values.

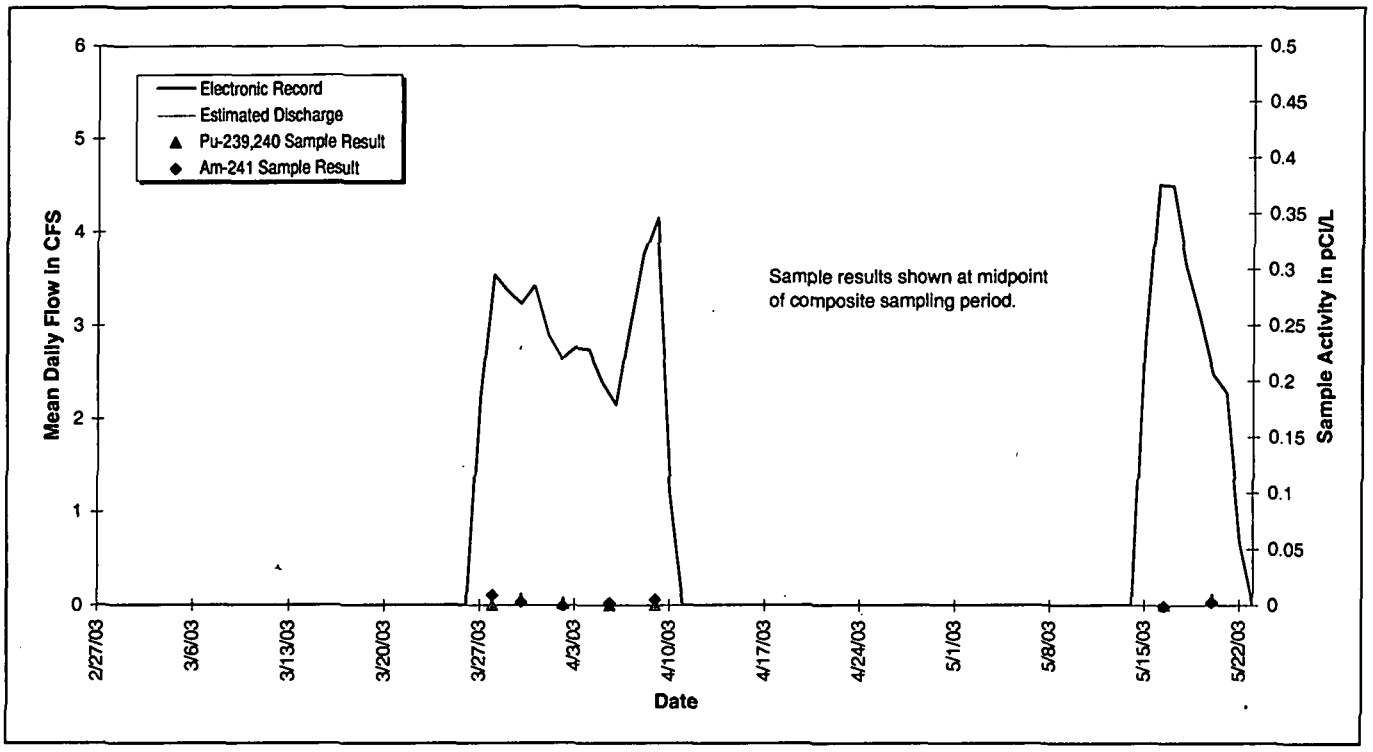


Figure 6-28. Gaging Station GS11 Hydrograph with Individual Sample Results: 2/27/03 – 5/23/03.

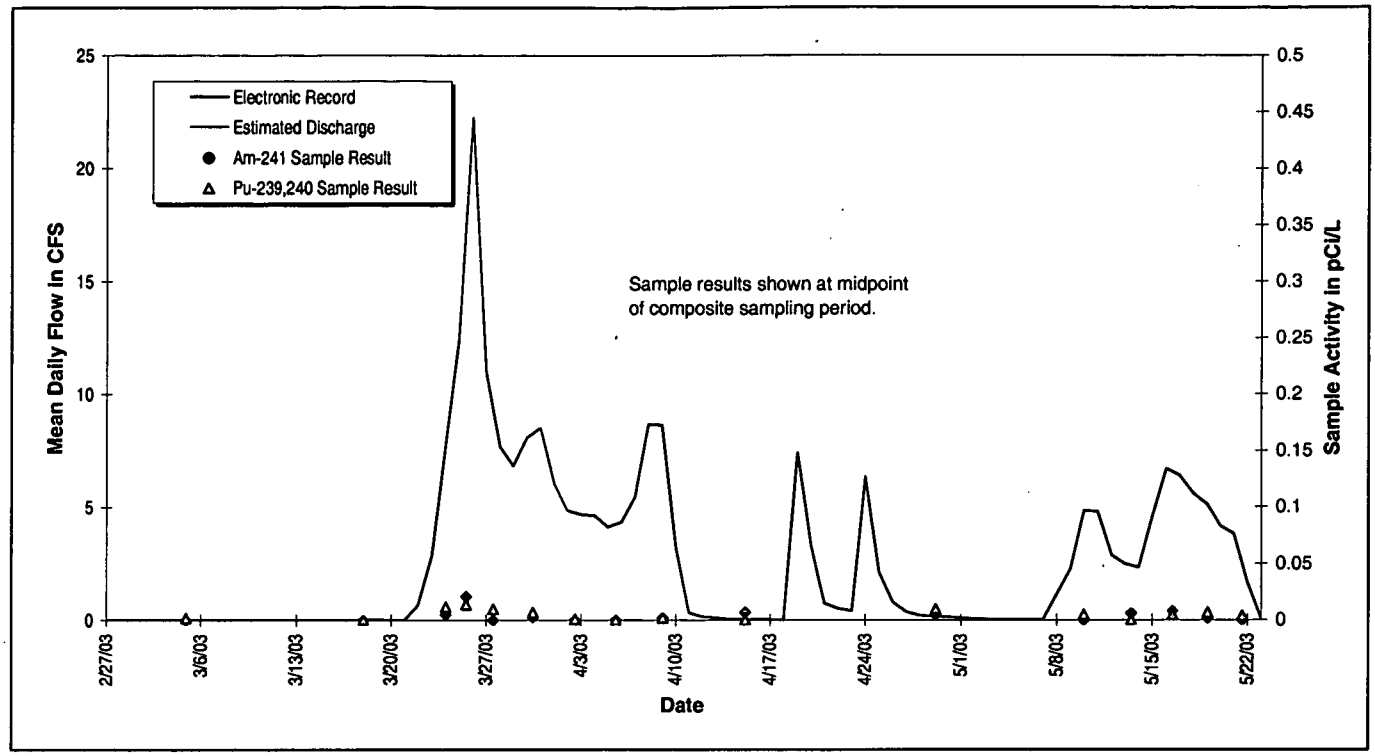


Figure 6-29. Gaging Station GS03 Hydrograph with Individual Sample Results: 2/27/03 – 5/23/03.

Data Summary and Analysis

The following data evaluation includes all surface-water data available as of 9/10/03. Monitoring data were extracted from the Site Soil-Water Database (SWD) or taken from hardcopy analysis reports for the locations of interest and subsequently reconciled against SWD. The following list describes the environmental data compilation process:

- Individual sample result values are calculated as arithmetic averages of real and field duplicate results when both results are from the same sampling event;
- When available, Site-requested laboratory re-runs are averaged with initial runs for the same sampling event;
- Laboratory duplicate and replicate QC results are not used;
- When negative values for actinide measurement are returned from the laboratories due to blank correction, 0.0 pCi/l is used in the calculations;
- Only total radionuclide measurements are used; and
- Data that did not pass validation (rejected data) are not used.

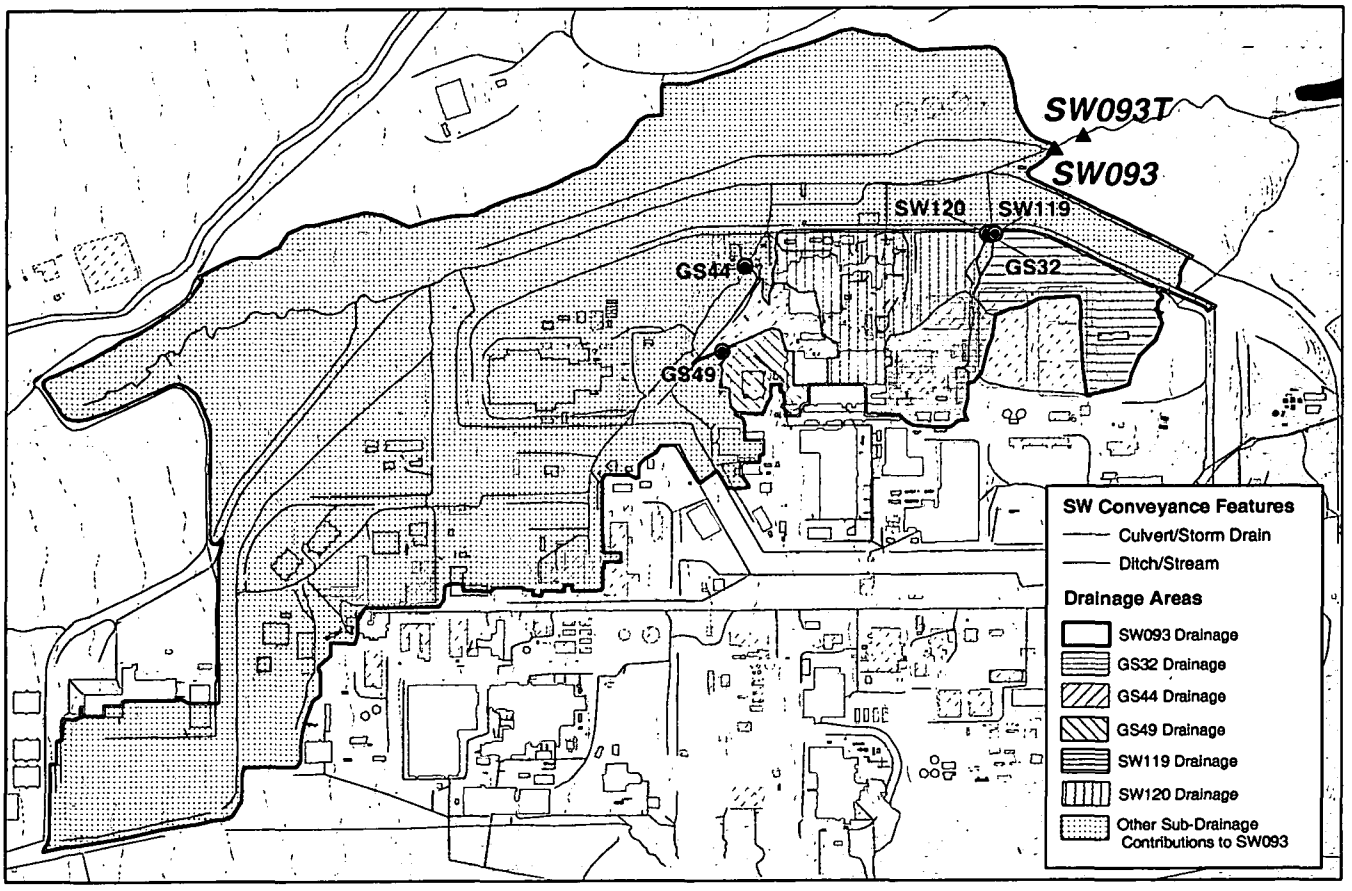
Verification and Validation of Surface-Water Analytical Results

All surface water isotopic data are either verified or validated, based on criteria determined by Analytical Services Division (ASD), or at the special request of the customer. Approximately 75% of all isotopic data are verified and the remaining 25% are validated. Validation is typically determined randomly for each subcontracted laboratory, based on the specific analytical suites. This random validation selection may or may not routinely include POE or POC locations. However, when reportable values are observed, all analytical results used in the calculations receive formal validation.

For samples collected at SW093 during the reportable periods, all isotopic data not randomly selected for validation were specifically submitted for validation at the request of Site personnel. All isotopic data package validation was performed by a subcontractor to ASD, and all packages in the date range identified were considered valid.

Actinide Data Summary

Since April 6, 2001, five upstream automated monitoring locations have been operating as Performance monitoring locations upstream of SW093. These locations are GS32, GS44, GS49, SW119, and SW120 (Figure 6-24). Data from these locations can also be used to characterize water quality and specifically measure Pu and Am loads from the respective sub-drainages in an attempt to identify any discrete source areas. Summary statistics for sample results from these locations are shown in Table 6-14. The activities for GS32 are arithmetic averages since this location has historically sampled only selected storm events. Continuous flow-paced sampling is used for SW093, GS44, GS49, SW119, and SW120 and volume-weighted average activities are given in Table 6-14.



Note: Drainage areas have changed as the Site moves toward Closure and the land and drainage features are reconfigured. The drainage areas shown are current as of 9/10/03.

Figure 6-30. Automated Surface Water Monitoring Locations and Corresponding Sub-Drainage Areas Tributary to SW093.

Table 6-14. Summary Statistics for Samples from SW093 and Monitoring Locations Tributary to SW093: April 6, 1998 to Present.

Sampling Location	Number of Samples	Pu-239,-240		Am-241	
		Average Activity (pCi/l)	Maximum Sample Result (pCi/l)	Average Activity (pCi/l)	Maximum Sample Result (pCi/l)
SW093	76	0.030	0.384	0.024	0.113
GS32	29	0.811	4.980	0.667	2.680
GS44	25	0.020	0.055	0.016	0.038
GS49	20	0.022	0.101	0.018	0.050
SW119	14	0.080	0.300	0.104	0.384
SW120	19	0.206	1.16	0.086	0.336

Figure 6-31 shows the average annual activities at SW093 for WY95 – WY03[34]. For WY95 - WY96, arithmetic averages of individual storm-event sample results are plotted. However, due to the continuous flow-paced sampling protocols currently in place under RFCA, the more representative volume-weighted average activities are shown for WY97-WY03. It is important to note that although elevated 30-day average values occurred in recent years, the volume-weighted average is significantly less than the activities for other years. This suggests that actinides have been available for transport to SW093 for some time and that the recent measurements at SW093 are likely the result of legacy contamination.

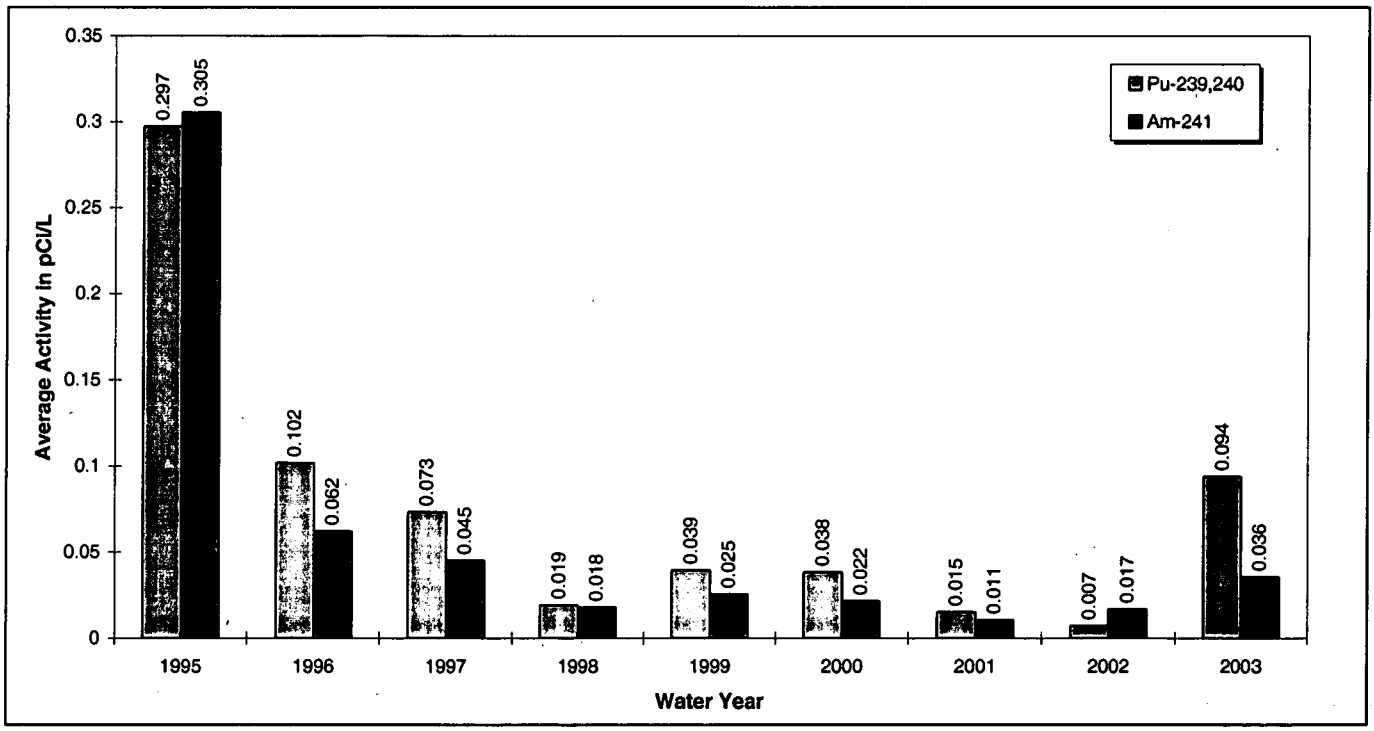
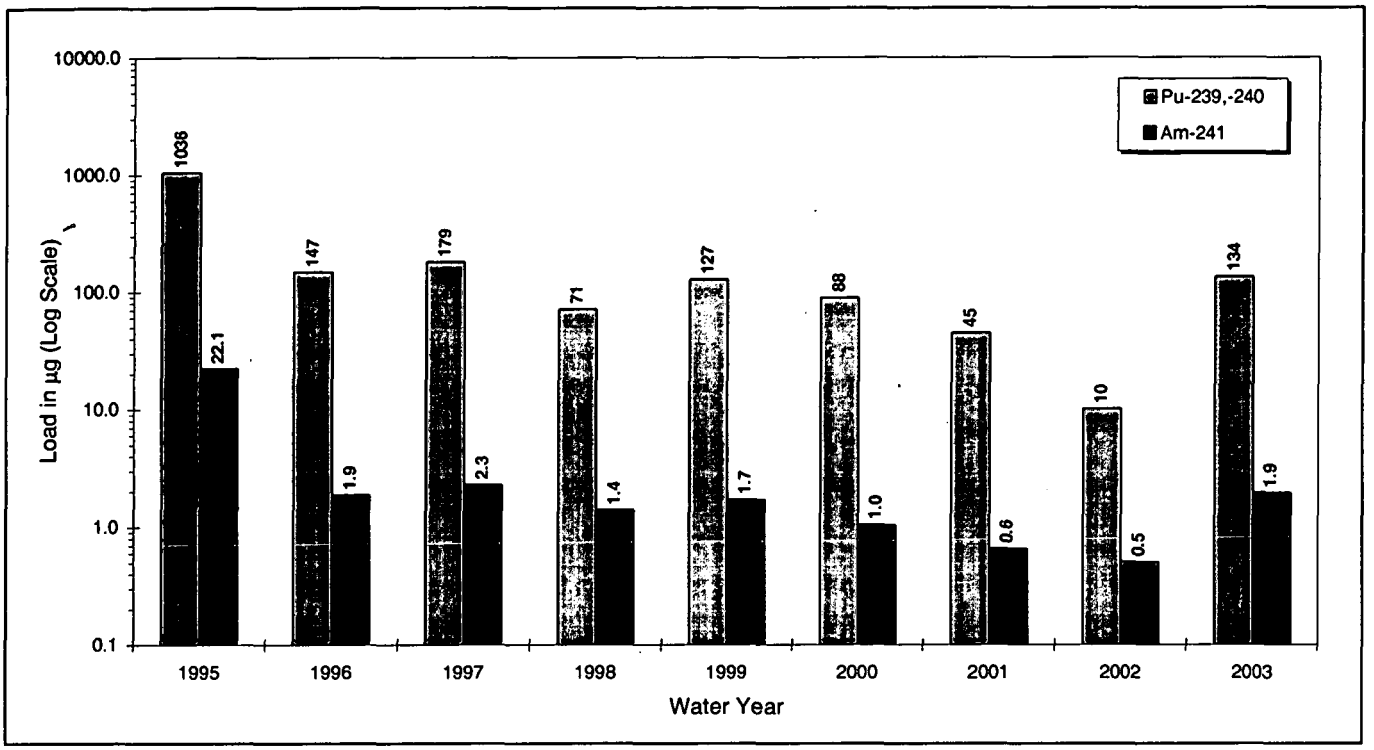


Figure 6-31. Average Annual Pu and Am Activities at SW093: Water Years 1995-2003.

[34] Continuous flow measurement at SW093 began on 3/12/94. For WY03 the average shown is through 7/10/03.

Annual SW093 Loads

Annual radionuclide loads for SW093 in micrograms are plotted in Figure 6-32 to show long term loading to SW093. For WY95 - WY96, the arithmetic average activity of individual sample results is multiplied by the associated total annual discharge volume to get pCi, then converted to micrograms[35]. For WY97-WY03, the activity for each flow-paced composite sample is multiplied by the associated discharge volume to get pCi, then converted to micrograms and summed.[36] As stated previously, this suggests that actinides have been available for transport to SW093 for some time and that the recent measurements at SW093 are likely the result of legacy contamination.



Load through 7/10/03 for WY03 is plotted.

Figure 6-32. Annual Pu and Am Loads at SW093: Water Years 1995-2003.

Relative Loading Analysis

This loading analysis uses data from all automated monitoring locations that are tributary to SW093 (Figure 6-33). These locations are GS32, GS44, GS49, SW119, and SW120. The analysis is performed based on the operational periods of the locations. For the period, 4/6/01 to date, all of the above monitoring locations were operational.

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[35] Picocuries of plutonium are multiplied by 14.085 to get picograms, and divided by 10^6 to get micrograms. Similarly, picocuries of americium are multiplied by 0.292 to get picograms, and divided by 10^6 to get micrograms.

[36] Storm-event samples are generally flow-paced composites consisting of 15 grabs taken during a direct runoff hydrograph and not during baseflow conditions. The grabs are targeted to be taken on the rising limb of a runoff period as flow rates increase to the peak. This is the period during direct runoff when the highest contaminant concentrations are expected to be measured. Under RFCA (starting 10/1/96), samples collected at POEs are continuous flow-paced composites where grab samples are collected during all flow conditions.

Table 6-15 gives location and drainage basin detail for the monitoring locations used in this loading analysis. The hydrologic connectivity of these locations is shown in Figure 6-33.

Table 6-15. Location and Drainage Basin Detail.

Location Code	Location Detail	Contributing Areas
SW093	N. Walnut Cr. 1300' upstream from the A-1 Bypass	100, 300, 500, 700, 900; 233.6 acres
GS32	Corrugated metal pipe (1.5') north of Solar Ponds in PA draining B779 area	Former B779 area; 6.9 acres
GS44	Culvert between T771F and T771L	B771 area; 4.09 acres
GS49	Ditch NW of B566	B566 and west side of B776; 3.3 acres
SW119	Drainage ditch north of Solar Ponds along PA perimeter road	NE portion of Solar Ponds area; 9.5 acres
SW120	Drainage ditch north of Solar Ponds along PA perimeter road	B771/774 area; 12.9 acres

Loads for continuous flow-paced samples from the locations SW093, GS44, GS49, SW119, and SW120 were calculated as detailed in Appendix B.1 Analytical Data Evaluation Methods. The load for any period is then the sum of the individual sample loads during that period.

For GS32, loads for any period are calculated by multiplying an estimated overall activity by the corresponding estimated discharge, and then converting to micrograms.[37] Since there is no direct flow measurement at GS32, the discharge for the loading period was estimated using seasonal runoff coefficients and measured Site precipitation. Seasonal runoff coefficients (total runoff depth divided by total depth of precipitation) were calculated using flow data from GS38 (the GS38 sub-drainage has similar characteristics to the GS32 sub-drainage[38]) and arithmetic average precipitation from all Site precipitation gages. These seasonal runoff coefficients were then used to estimate the GS32 discharge volumes for the loading period based on measured precipitation and the GS32 drainage area size. The following methods were used to estimate a range of loads for GS32:

- The overall seasonal arithmetic average activity is multiplied by the corresponding estimated total seasonal discharge volume for each year to estimate seasonal loads. The seasonal loads are then totaled for the analysis period.
- The annual median activity is multiplied by the corresponding estimated annual discharge volume to estimate annual loads. The annual loads are then totaled for the analysis period.
- The overall arithmetic average activity is multiplied by the corresponding estimated annual discharge volume for each year to estimate annual loads. The annual loads are then totaled for the analysis period.
- The annual arithmetic average activity is multiplied by the corresponding estimated annual discharge volume to estimate annual loads. The annual loads are then totaled for the analysis period.
- The seasonal arithmetic average activity for each year is multiplied by the corresponding estimated seasonal discharge volume to estimate annual loads. The annual loads are then totaled for the analysis period.

[37] Storm-event sampling collects samples during the rising limb of a direct runoff hydrograph following a precipitation event. The highest TSS measurements, and corresponding Pu and Am activities, are typically measured during these hydrologic conditions. Therefore, simple arithmetic average activities using these sample results would be expected to be biased high relative to the 'true' mean activity for a given location. Additionally, actinide water-quality variation tends to be lognormal, and also varies with flow rate, season, storm size, and time. Therefore, various activity estimation techniques and periods are used to calculate a range of estimated loads.

[38] GS38 is located on Central Avenue Ditch just east of 8th Street. The sub-drainage is of a similar grade and percent impervious area. The GS38 sub-drainage included portions of the 100, 400, and 600 Areas.

The loads estimated for GS32 are summarized in the following analysis by using the minimum and maximum estimated loads from the various methods.

Relative Sub-Drainage Loads: April 6, 2001 to May 10, 2003

The loading analysis in this section uses all available data for the period 4/6/01 through 5/10/03[39] using all available data from SW093 and the five upstream monitoring stations. This loading analysis does not address the attenuation of actinides as they are transported from one monitoring location to the next. The analysis assumes that as the period of sampling is increased, the temporal effects of actinide transport will not significantly affect the relative loads from the various sub-drainages. The hydrologic connectivity of these locations is shown in Figure 6-33.

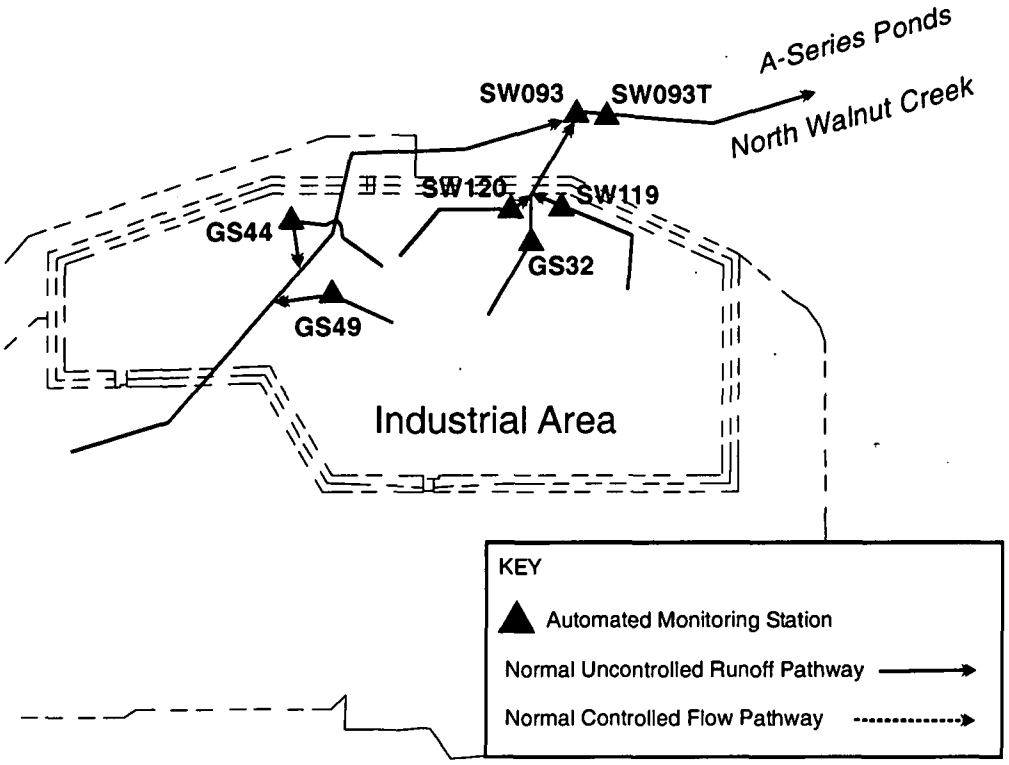


Figure 6-33. Hydrologic Connectivity of Monitoring Locations Tributary to SW093 (as of 4/6/01).

Table 6-16 and Figure 6-34 indicate that the GS32 sub-drainage may be contributing a significant portion of the Pu and Am loads estimated at SW093. However, the range of estimated loads is considerable. It should also be noted that recent activities measured at GS32 are lower than previous, and the calculated activity of the suspended solids has actually shown a downward trend over time. This indicates that recent projects impacting the GS32 drainage, especially the Solar Ponds, have not negatively impacted water quality.

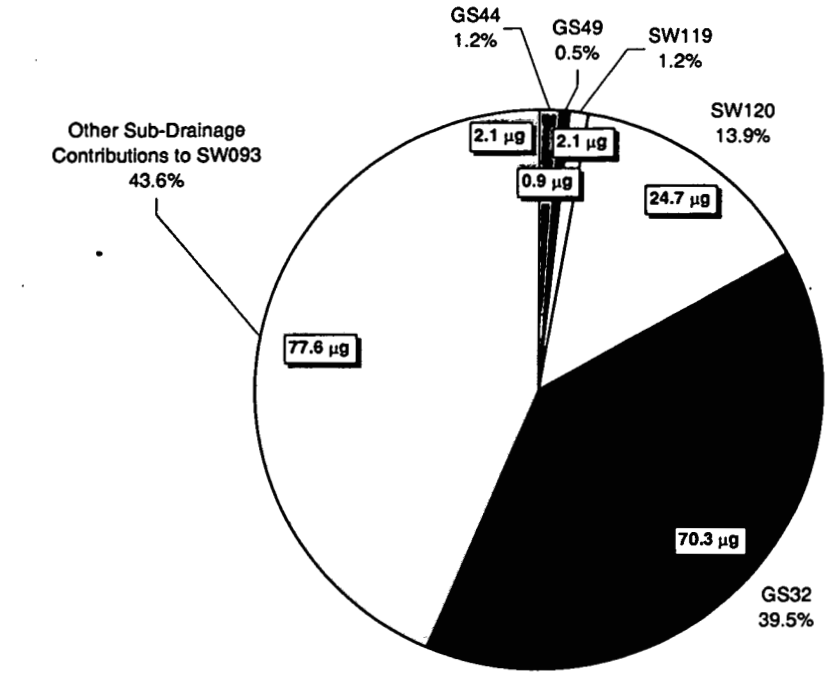
Table 6-16 and Figure 6-34 also indicate that the majority of the Pu and Am load reaching SW093 is likely to originate in areas not monitored by upstream monitoring locations. Three new Performance monitoring locations, in support of B371/374, will be operational starting in FY04. These new locations will provide additional resolution for upstream areas in the SW093 drainage, should future reportable values be measured at SW093.

[39] The end date of 5/10/03 was chosen due to the fact that data for subsequent dates was not available as of 9/10/03. Composite samples started after 5/10/03 were still filling as of 9/10/03, for selected locations, due to seasonally dry conditions.

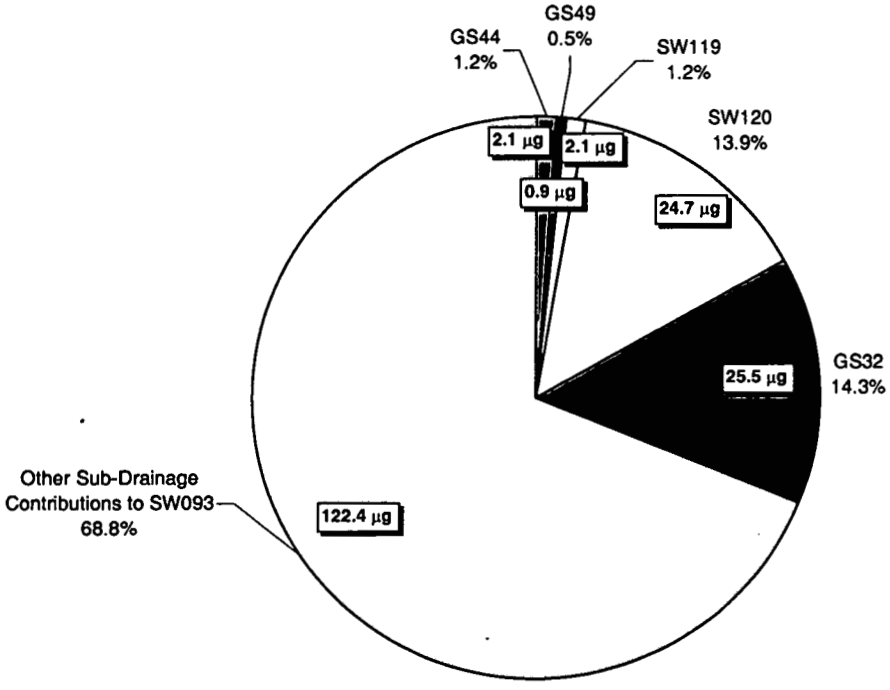
Table 6-16. Comparison of Plutonium and Americium Loads at Tributary Locations with SW093: 4/6/01 through 5/10/03.

Location	Pu-239,-240 Load in μg	Am-241 Load in μg
SW093	177.8	2.95

Location	Pu-239,-240		Am-241	
	Load in μg	Load as a Percent of SW093 Load	Load in μg	Load as a Percent of SW093 Load
GS32	25.5 – 70.3	14.3% - 39.5%	0.73 – 1.32	24.7% - 44.8%
GS44	2.1	1.2%	0.04	1.2%
GS49	0.9	0.5%	0.02	0.5%
SW119	2.1	1.2%	0.06	2.0%
SW120	24.7	13.9%	0.21	7.2%
"Other Sub-Drainage Contributions to SW093"	77.6 - 122.4	43.6% - 68.8%	1.31 – 1.90	44.3% - 64.3%

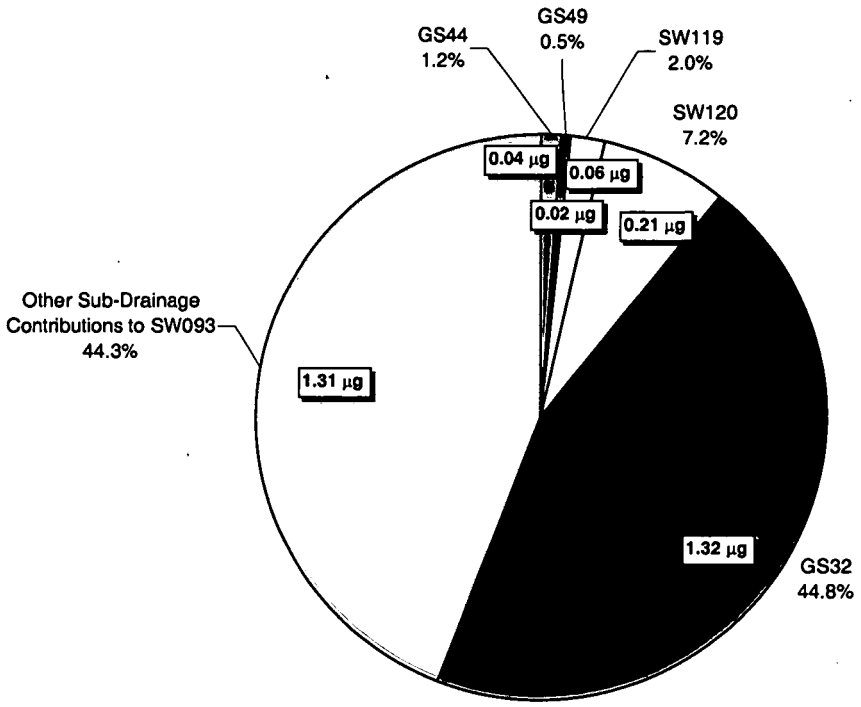


Maximum estimated load contribution from GS32

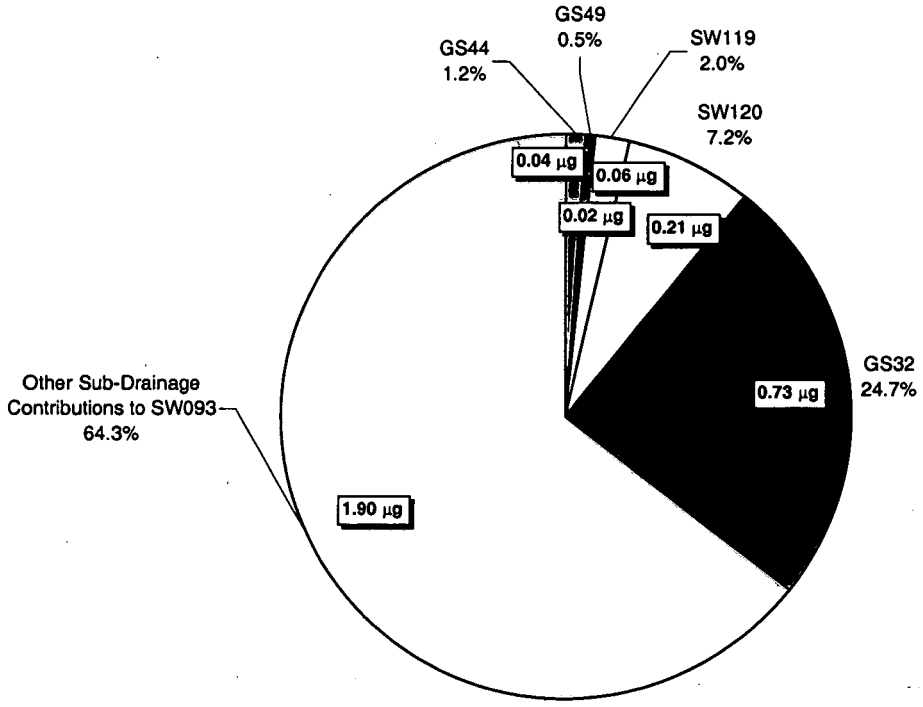


Minimum estimated load contribution from GS32

Figure 6-34. Relative Plutonium Load Contributions from Locations Tributary to SW093: 4/6/01 through 5/10/03.



Maximum estimated load contribution from GS32



Minimum estimated load contribution from GS32

Figure 6-35. Relative Americium Load Contributions from Locations Tributary to SW093: 4/6/01 through 5/10/03.

Site Activities and Projects

During the period of reportable values at SW093, none of the buildings within the SW093 drainage underwent D&D or had significant external modifications. Two significant projects that included earthwork were performed that may have impacted water quality at SW093 (discussed in more detail below):

- Solar Ponds accelerated actions and regrading, and
- Flume construction at SW093

Site shift superintendent reports for February through March 2003 were reviewed with an emphasis on occurrences with the potential for environmental releases of radionuclide contamination to surface water. No items that may have resulted in an environmental release were noted. One event, a sludge spill at Tank 231 A, prior to the period noted above may have contributed to the reportable values at SW093.

Excavation work and routine operations in the SW093 drainage area were also examined. All excavation work and routine operations at the Site are subject to the Site Incidental Waters program. Water that collects in utility pits, valve vaults, or excavations is sampled prior to being dispositioned. Following sampling, such water is pumped to the ground if the water quality is acceptable, or sent to an on-Site treatment facility if sample results indicate the water is not suitable for a release to the environment. During February through March 2003, one incidental water was sent to ground within the SW093 drainage. This water (approx. 300 gals) was from a sump at B966 and was within limits for release to the environment.

Solar Ponds Actions

Significant regrading occurred at the former Solar Ponds area near the time of reportable values at SW093. The regrading activities were complete by the end of calendar year 2002. As noted above, all runoff tributary to SW093 from this area is monitored by Performance monitoring locations GS32, SW119, and SW120. Data from these locations indicate that the former Solar Ponds area is not the sole contributor of actinide loads to SW093. Recent analytical data from these locations actually indicate that water-quality has improved in the Solar Ponds area as the Site moves toward Closure.

Tank 231 A Sludge Spill

On November 22, 2002, a broken hose leaked approximately 25-35 gallons of sludge from Tank 231 A, south of B371. Approximately 10-15 gallons moved outside of the secondary containment to the surrounding area. Personnel completed extensive clean-up of the area, however it is not clear if any residual contamination remained.

This are is directly tributary to SW093, and any runoff from the area would be presumed to contain any residual contamination. The fact that higher activities were not measured at SW093 until February 2003 does not necessarily indicate that residual contamination did not exist. There were no large runoff events in the SW093 drainage until mid-February 2003, and any residual contamination may not have been mobilized until that time. The lack of large runoff events during this period, coupled with sample results from the upstream locations discussed above, suggest that residual contamination from the Tank 231 A spill could have been the cause of the temporarily reportable values observed at SW093.

Flume Construction at SW093

Originally installed in the early 1990's, a 36" rectangular weir plate installed in the throat of a galvanized metal 36-inch Parshall flume was previously employed to measure flow rates at SW093. Several issues had been noted that either affected flow measurement or may affect flow measurement in the future. Consequently, the existing weir/flume was replaced with a single 3-foot H flume during the period of February 6 through May 5, 2003. Significant excavation of potentially contaminated sediments occurred during this period. All material to be removed from the construction site via rolloff was screened. However, personnel screening was not required due to the relatively low levels of soil contamination.

To facilitate the collection of samples to be used for comparison with the applicable RFCA action levels during construction, the Site established a temporary monitoring location on North Walnut Creek 165 feet downstream of SW093 (state plane 2085176, 751788). This location was given the identifier SW093T (Figure 6-24). Composite samples at SW093T were collected using the identical protocols established for POE SW093. Although analytical results from this location were uploaded to the SWD with the identifier SW093T, these results were used to calculate the reportable 30-day moving average values for POE SW093. A plot of SW093 Pu and Am results (from SW093T samples) with significant project activity dates is shown in Figure 6-36.

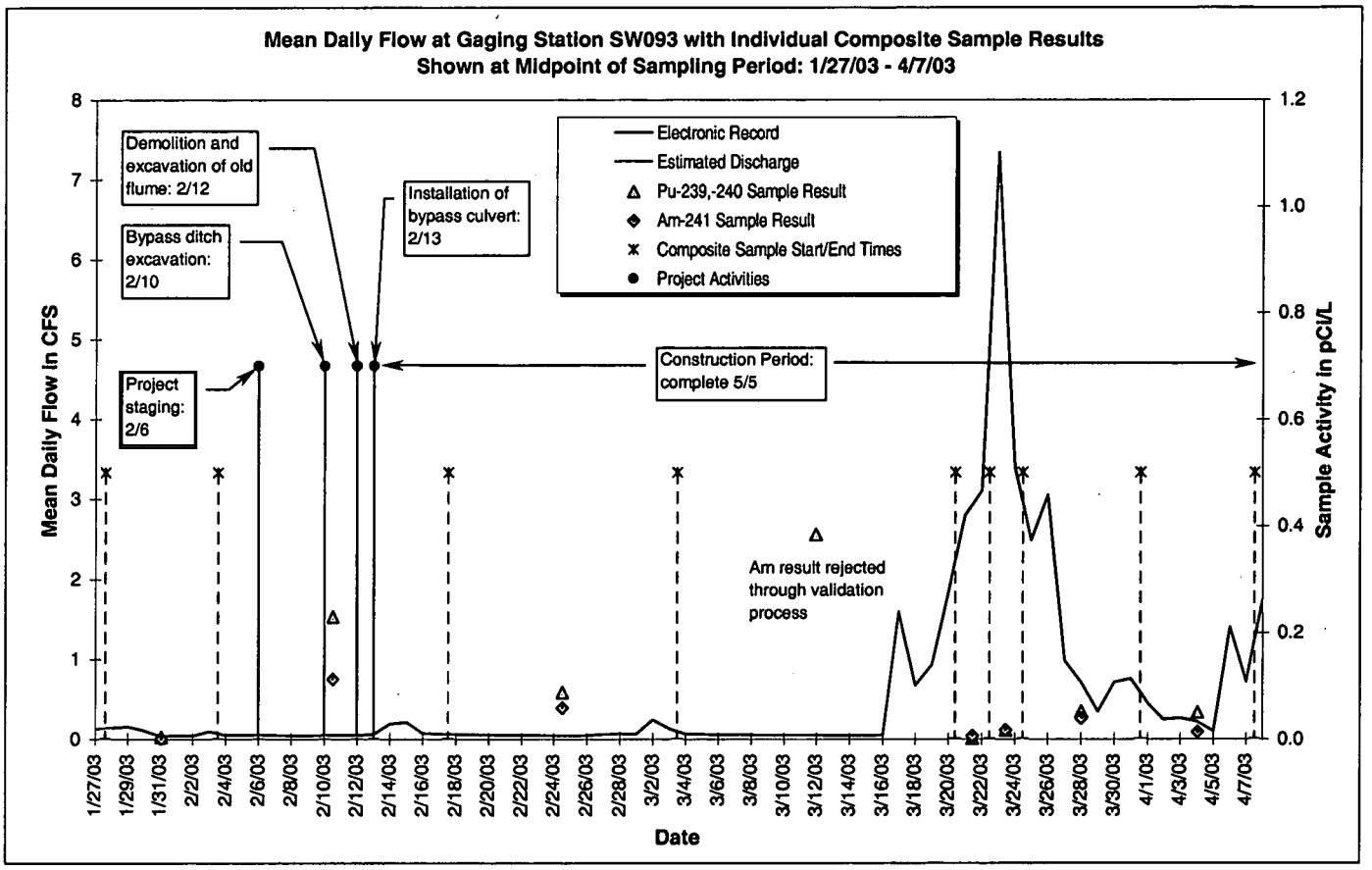


Figure 6-36. Plot of Pu and Am Sample Results for SW093 with Significant Flume Construction Project Activities Indicated.

Although sediment activities at SW093 are of relatively low levels, even small amounts of suspended solids (with associated actinides) can result in reportable surface-water activities given the Pu and Am action level of 0.15 pCi/L. Recent TSS results at SW093 have been as high as 1000 mg/L, suggesting that suspended sediment activities of only 0.15 pCi/g could challenge the action level. TSS data were not available for the samples resulting in the reportable values since all composite samples were collected over periods exceeding the 7-day hold time requirement for TSS analyses.

Summary and Conclusions

The findings and conclusions of this and prior Walnut Creek and SW093 source evaluations suggest that one or more low-level distributed actinide source areas exist within the SW093 subdrainage. These source evaluations and the more recent review of ongoing RFETS closure activities contained herein suggest that these upstream activities did not contribute to increased contamination and reportable values. The Tank 231 A sludge spill and

recent flume construction activities at SW093, with the associated sediment excavations, are the most likely cause(s) of the recent reportable values. The Site concludes that the likely sources of the reportable 30-day moving average values at GS10 are:

1. Diffuse actinide contamination associated with soils and sediments from past Site operations released to the environment through events and conditions over past years. This actinide contamination is transported with suspended solids in surface-water runoff during precipitation events.
2. Low-level actinide contamination associated with streambed sediments likely to have been suspended as a result of flume replacement excavations.
3. Residual contamination resulting from the sludge spill from Tank 231 A.

Based on this evaluation, the temporary nature of the reportable values at SW093, and no impact to downstream water quality, Site personnel conclude that no specific remedial action(s) is indicated at this time, other than scheduled remedial actions and closure activities for the Site. This source investigation has identified no highly localized and persistent source(s) of contamination that warrant targeted remediation based on the available information. The conclusions detailed in this report are summarized below:

- Historical SW093 data suggests that actinides have been available for transport to SW093 for some time and that the recent measurements at SW093 are likely the result of legacy contamination.
- The loading analysis above indicates that the GS32 drainage is a significant contributor of the actinide load measured at SW093. The analysis further suggests that the recent Solar Ponds actions have not negatively impacted water quality.
- Surface-soil and sediment data presented in previous reports clearly show the existence of low-level, distributed Pu and Am source terms throughout the SW093 drainage.

Effective best management practices, such as the use of the existing terminal ponds in batch or flow-through mode to clarify stormwater of potentially-contaminated sediment and particulate matter, should be continued. Specifically, DOE and the K-H Team propose the following actions as the path forward:

- Continued observation (routine monitoring and special sampling, as appropriate) and ongoing data interpretation to provide better understanding of actinide transport directly related to the operation of the Site automated surface-water monitoring network. This monitoring and the associated routine data evaluations will be valuable should reportable values be measured in the future.
- Additional evaluations should they be warranted by continuing observations of reportable values at SW093.
- Continued use of the existing detention ponds in batch or flow-through mode as an effective best management practice to clarify stormwater containing potentially contaminated sediment and particulate matter.
- Continued progress reporting through Quarterly RFCA Reports, Quarterly State Exchange Meetings, and Annual Automated Surface-Water Monitoring Reports.

Table 7-2. Ad Hoc Field Data Collection: Parameters and Frequency.

ID Code	Parameter Discharge
B371BAS	hourly averages of 1-min. measurements
B371SUBBAS	hourly averages of 1-min. measurements
GS33	15-min continuous
GS35	15-min continuous
GS41	15-min continuous
GS45	15-min continuous
GS46	15-min continuous
SW009	15-min continuous

Note: Only locations specifically installed in support of an Ad Hoc project are shown. All locations providing information (flow and precipitation) are shown in Figure 7-1.

7.3 DATA EVALUATION

7.3.1 Building 371 Footing Drain Monitoring Locations

Operation of B371BAS and B371SUBBAS provides real-time data confirming the proper operation of the B371 footing drain systems. B371 personnel are notified of a no-flow or high-flow condition, which would initiate investigation of those systems. Telemetry has been made available to B371 personnel to allow for direct tracking of footing drain operation and for the monthly building surveillance activity. Flow data are not given in this report. Data can be found in Appendix 1 of the *Building 371 Subsurface Drain System* procedure (4-K14-SDS-371). No sample collection is performed at these locations.

7.3.2 Sitewide Water Balance Flow Measurement Locations

Monitoring locations GS33, GS35, GS45, GS46, and SW009 were operated to specifically collect flow data in support of collected the Site-Wide Water Balance Modeling Project. Flow data from these locations will be applied to configuration and calibration of the model. Flow and precipitation data from existing monitoring locations at the Site are also used by this project (see Section 7.2). These locations are described under the other decision rules included in this report. Flow data are summarized in Section 3 Hydrologic Data; more detailed flow data are included in Appendix A.1 Discharge Data.

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7. AD HOC MONITORING

The Site often monitors surface waters on an *ad hoc* basis for a variety of reasons. This monitoring may be requested by DOE, RFFO, cities, agencies, building managers, and Site facility managers (e.g. the WWTP). It is anticipated that various parties will continue to request such *ad hoc* monitoring in the future, regardless of whether funding is allocated for that purpose. This monitoring will not always require sample analyses. In some cases, only flow or continuously recording water-quality monitoring will be needed. Examples of situations that may warrant *ad hoc* monitoring include:

- Major precipitation events that disrupt routine pond predischarge monitoring and discharge schedules,
- Community assurance monitoring at the request of downstream cities and the DOE RFFO,
- Unanticipated changes in regulatory permits, agreements, or funding,
- Special projects such as Actinide Migration Evaluation and Site-Wide Water Balance,
- Anticipated but unfunded changes in permits or agreements,
- Construction projects,
- Spill events, and
- Operational monitoring (i.e. footing drains, septic lift stations).

The Ad Hoc monitoring details in Section 7.1 are based on the automated Ad Hoc monitoring performed in WY02.

7.1 DATA TYPES, FREQUENCY, AND COLLECTION PROTOCOLS

The type of data collected depends exclusively on the predetermined intent of the specific Ad Hoc monitoring location. The collected data can then be processed to provide decision support or input to a technical analysis. In most cases, flow is the primary data collected.

7.2 WY02 MONITORING SCOPE

Table 7-1 lists the Ad Hoc monitoring locations that were operational during WY02. Figure 2-2 shows the location of these monitoring stations.

Table 7-1. Ad Hoc Monitoring Locations.

ID Code	Location	Primary Flow Measurement Device	Telemetry	Notes
B371BAS	Building 371 basement footing drain	11.4° V-Notch Weir	Yes	Data collection to confirm proper operation of footing drain systems; funded by Safe Sites
B371SUBBAS	Building 371 sub-basement footing drain	11.4° V-Notch Weir	Yes	Data collection to confirm proper operation of footing drain systems; funded by Safe Sites
GS33	No Name Gulch at confluence with Walnut Creek	9.5" Parshall Flume	Yes	Data collection for Site Water Balance

ID Code	Location	Primary Flow Measurement Device	Telemetry	Notes
GS35	McKay Ditch at confluence with Walnut Creek	36" Sharp-Crested Rectangular Weir with End Contractions	Yes	Data collection for Site Water Balance
GS41	Subdrainage SW of GS03; drains to Walnut Creek	0.5' H Flume	Yes	Data collection for Site Water Balance
GS45	Upper Church Ditch east of Site fenceline	9.5" Parshall Flume	No	Data collection for Site Water Balance
GS46	McKay Ditch east of Site fenceline	9.5" Parshall Flume	No	Data collection for Site Water Balance
SW009	McKay Bypass Canal upstream of confluence with West Diversion Ditch	1' Parshall Flume	No	Data collection for Site Water Balance

Note: Only locations specifically installed in support of an Ad Hoc project are shown. All locations providing information (flow and precipitation) to the Site Water Balance are shown in Figure 7-1.

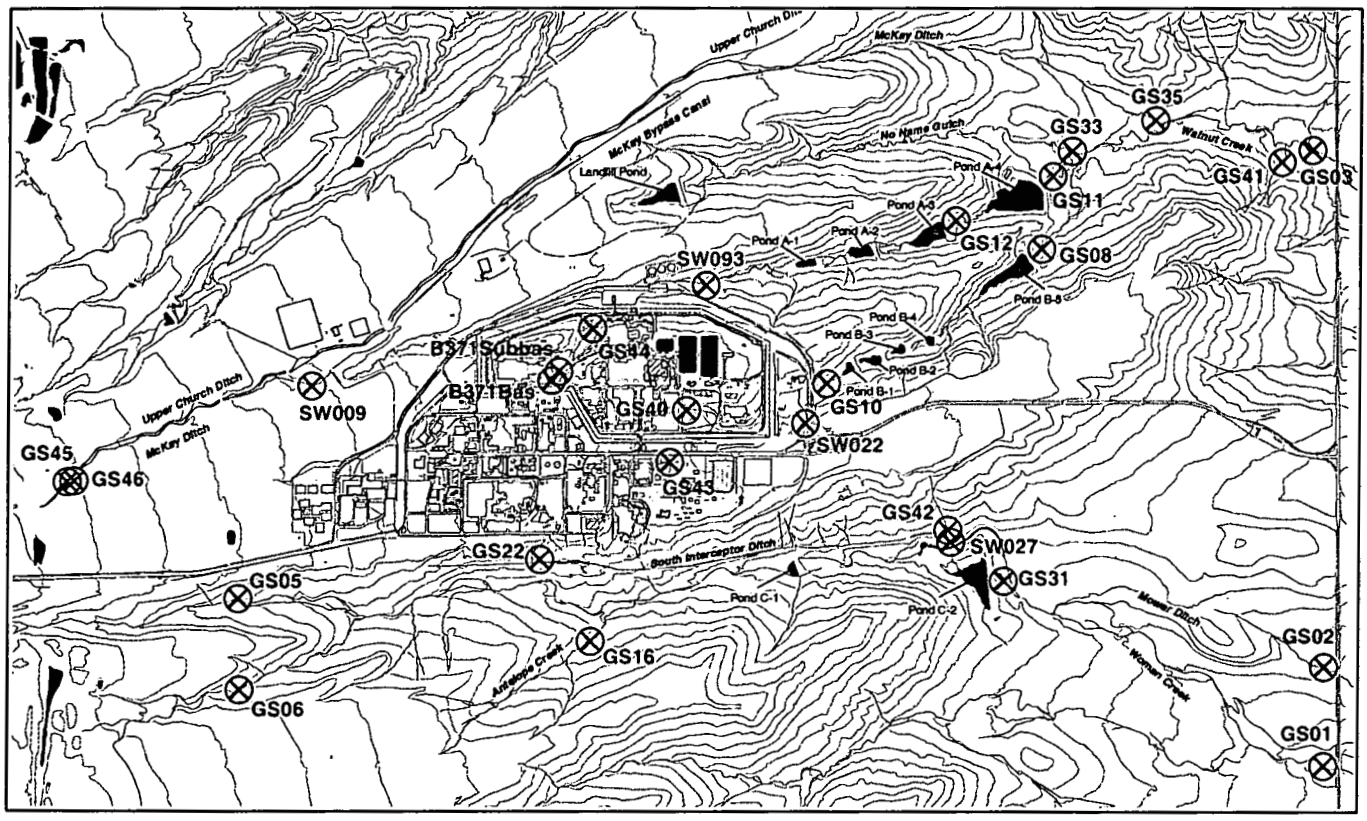


Figure 7-1. Water Year 2002 AdHoc Monitoring Locations.

8. INDICATOR PARAMETER MONITORING FOR ASSESSMENT OF ANALYTICAL WATER-QUALITY DATA

This objective provides the justification for the collection of general water-quality and quantity information to be used for various data assessments. Specifically, this objective outlines the current and expected uses of parameters such as TSS, turbidity, and flow rate.

This monitoring objective is intended to establish relationships between analytical measurements of constituents such as actinides and metals with selected indicator parameters, such as TSS, turbidity, precipitation, and flow rate. The determination of these relationships will support evaluation of erosion control measures, design of final Site land configuration options, future pond operations, investigations into actinide transport, assessment of statistically significant changes in water quality, and management decision making. Table 8-3 provides a listing of data uses for this monitoring objective.

8.1 DATA TYPES, FREQUENCY, AND COLLECTION PROTOCOLS

To evaluate the relationship between TSS and analytical constituents[40], TSS would ideally be analyzed for all samples collected at the locations covered by the other decision rules in this report. However, sampling protocols (continuous flow paced) often result in composite samples that are collected over periods exceeding the 7-day hold time for TSS analyses. Therefore, TSS cannot be analyzed for all composite samples but will be analyzed whenever hold time requirements are met.

To evaluate the relationship between turbidity and analytical constituents, turbidity will be monitored at the locations where required by the other applicable decision rules. These locations include POEs [GS10, SW093, and SW027] and terminal pond POCs [GS08, GS11, and GS31]. Each of these stations is equipped with a real-time, water-quality probe to continuously monitor turbidity.

To evaluate the relationship between precipitation and analytical constituents, precipitation is currently monitored at 12 locations across the Site. The location of precipitation gages allows for the calculation of areal precipitation for any drainage area tributary to each monitoring location. Each of these locations is equipped with a continuously recording precipitation gage.

To evaluate the relationship between flow rate and analytical constituents, flow is currently monitored at almost all monitoring locations across the Site. Each of these locations is equipped with continuously-recording flow-measurement instrumentation. Some locations do not collect flow data due to specific water routing configuration limitations. However, flow can be estimated for these locations using flow from comparable locations, runoff coefficients, and subdrainage area.

This decision rule does not limit the data uses to those given in Table 8-3. Relationships can be determined for any data combinations as required. For example, relationships between flow and precipitation, turbidity and TSS, precipitation and TSS, etc. may be useful depending on the specific data evaluation.

[40] The term 'analytical constituents' is used here to refer to constituents measured for samples collected as defined by the other decision rules in this report.

8.2 WY02 MONITORING SCOPE

The following tables detail the Indicator Parameter monitoring scope for WY02. Figure 8-1 shows the locations evaluated in this section.

Table 8-1. Indicator Parameter Data Collection: Parameters and Frequency.

Parameter	Frequency	Monitoring Location(s)
Turbidity[a]	15-min continuous	GS08, GS10, GS11, GS31, SW027, and SW093
Flow rate	5-min continuous	All locations where feasible
Precipitation	5-min continuous	12 locations sitewide
Flow volume	Derived from flow rate for any selected time period	All locations where feasible

Notes: [a] Turbidity is collected using real-time water-quality probes. These probes can not handle winter icing conditions without being damaged. Therefore, these probes collect data whenever possible, and data collection may not be possible for significant periods during the winter.

Table 8-2. Analytical Data Collection: Analytes and Frequency.

Analyte	Frequency	Monitoring Location(s)
Radionuclides	Determined by applicable monitoring objective	All locations as applicable
Total Suspended Solids (TSS)	Determined by applicable monitoring objective; all samples that meet TSS hold time limits	All locations as applicable

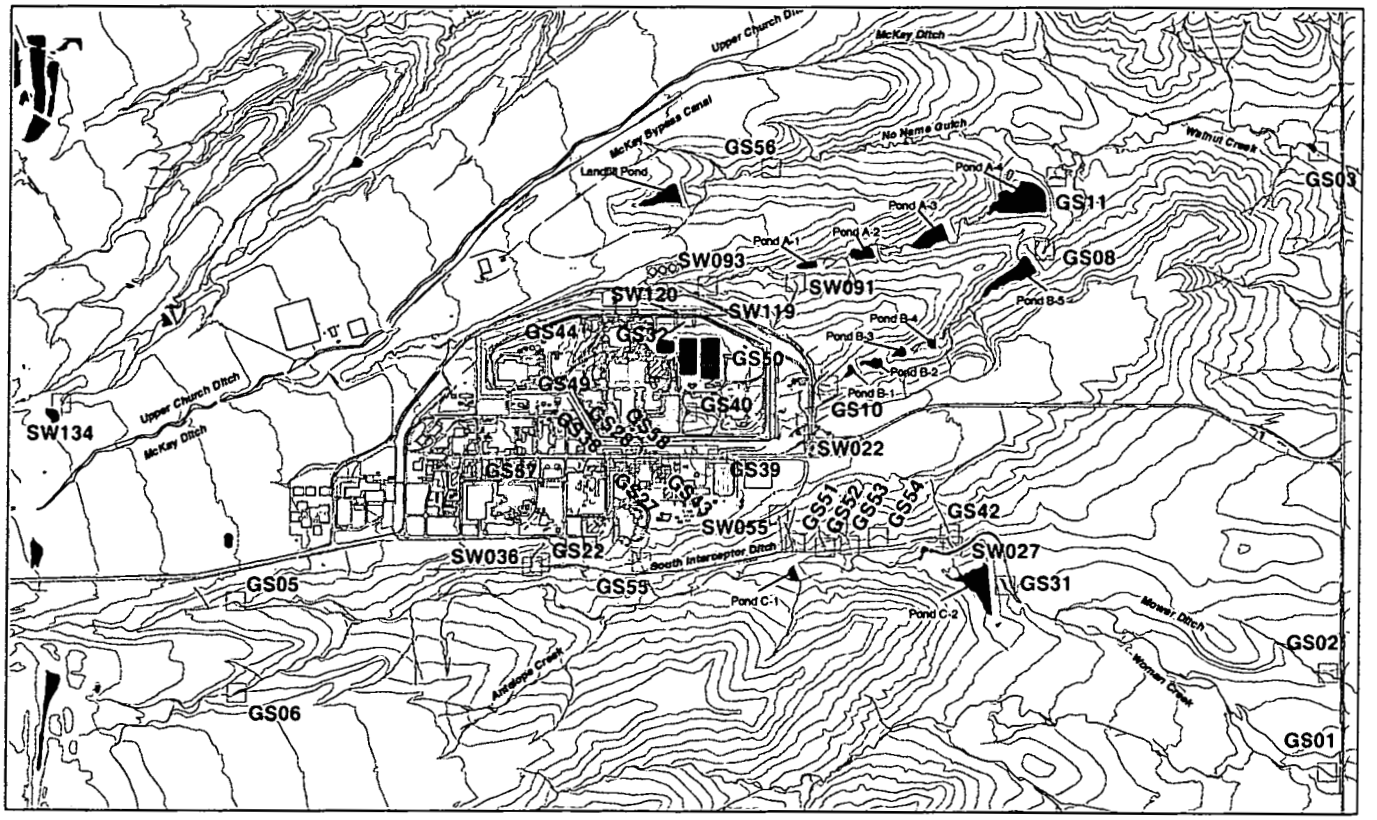


Figure 8-1. Water Year 2002 Indicator Parameter Monitoring Locations.

8.3 DATA EVALUATION

Table 8-3 outlines the anticipated or past data uses associated with this decision rule. This list provides examples of data uses; future data uses are expected to be developed as needs arise. The data uses listed in **bold** are included in this section. Other data uses are included in Source Evaluation reports (see Section 6) or in reports from other Site projects.

The following evaluations include all results from Water Years 1997 through 2002[41] that were not rejected through the verification/validation process. When a negative radionuclide result (e.g. -0.002 pCi/L) is returned from the laboratory due to blank correction, then a value of 0.0 pCi/L is used for calculation purposes. When a sample has a corresponding field duplicate, the value used in calculations is the arithmetic average of the 'real' value and the 'duplicate'. When a sample has multiple 'real' analyses (Site requested 're-runs'), the value used in calculations is the arithmetic average of the multiple 'real' analyses. Total uranium is calculated by summing the activities for the analyzed isotopes (U-233,234 + U-235 + U-238).

Linear, logarithmic, 2nd-order polynomial, power, and exponential curve fits were tested for each of the data sets. The curve fit with the highest R^2 value was then selected for plotting. In general, but not exclusively, data sets with R^2 values of less than 0.4 were plotted without a trendline. The R^2 values were then used to qualitatively assess the plotted fits. Generally, $0.4<R^2<0.5$ is considered weak, $0.5<R^2<0.7$ is considered fair, $0.7<R^2<0.9$ is considered good, and $R^2>0.9$ is considered strong.

Table 8-3. Selected Data Uses of Indicator Parameter Monitoring for Analytical Water-Quality Assessment.

Data Use	Required Parameters	Description
Correlation of Actinides with TSS	**Actinides, TSS**	**Use of TSS measurements to predict actinide concentrations**
Correlation of Actinides with Turbidity	**Actinides, turbidity**	**Use of turbidity measurements to predict actinide concentrations**
Correlation of Radionuclides with Flow Rate	**Radionuclides, flow rate**	**Use of flow rate measurements to predict radionuclides concentrations**
Rainfall-Runoff Relationships	Precipitation, flow rate, flow volume	Determination of hydrologic characteristics for specific drainage areas
Correlation of TSS with Turbidity	**TSS, turbidity**	**Use of turbidity measurements to predict TSS concentrations**
Correlation of TSS and Turbidity with Flow Rate	**TSS, turbidity, flow rate**	**Use of flow rate measurements to predict TSS concentrations and turbidity**
Assessment of Actinide Measurements	Actinides, TSS, turbidity, flow rate	Determine if cause of elevated actinide measurement is likely due to Site activity (i.e. D&D work) or unusual hydrologic conditions
Assessment of Closure Activities	Actinides, TSS, turbidity, flow rate	Determine effects of closure activities on water quality and drainage characteristics
Erosion Modeling	TSS, flow rate, actinides	Model design, calibration, and verification
Water Balance Modeling	Flow rate, flow volume	Model design, calibration, and verification
BMP Assessment	TSS, turbidity, flow rate	Determine effectiveness of various erosion control measures
Land Configuration Design	Flow rate, flow volume, TSS	Design land configuration options: determine flow routing, size hydraulic components, assess sedimentation rates, design maintenance and operation protocols
Long-Term Stewardship	Flow rate, flow volume, TSS, turbidity	Assess post-closure conditions

[41] All water years with current IMP sample collection protocols are used in this section. The data are not limited to WY2002 in order to have a larger data set for evaluation.

8.3.1 Correlation of Actinides with TSS

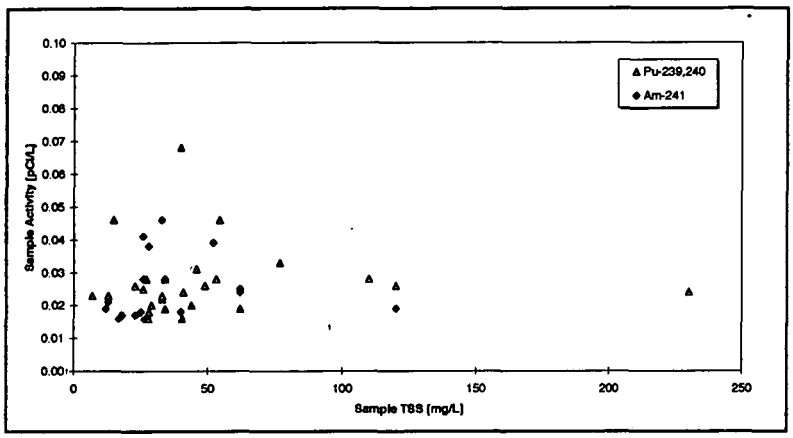
Since Pu and Am tend to be transported in surface water in association with particulate matter (measured as TSS), a relationship between activity and TSS could be used as an indicator of Pu and Am transport. This section evaluates the variation of composite sample Pu and Am activity with the corresponding TSS concentration. Plots are presented for all locations where both Pu and Am data are collected with TSS.

The sample Pu and Am activities are the values obtained through laboratory analysis given in pCi/L. Only Pu and Am values greater than the MDA (generally 0.015 pCi/L) are included.

The sample TSS is the value obtained through laboratory analysis given in mg/L. TSS analysis is only performed for composite samples that are collected over a period of less than the TSS hold time (7 days). Consequently, not all samples collected at the locations below were analyzed for TSS. Only TSS values greater than the detection limit (generally 5 mg/L) are included.

Plots are also included to assess the variability of composite-sample suspended solids activity (as pCi/g Pu or Am) with the corresponding TSS. The suspended solids activity is calculated by dividing the activity by the TSS concentration and converting for units.

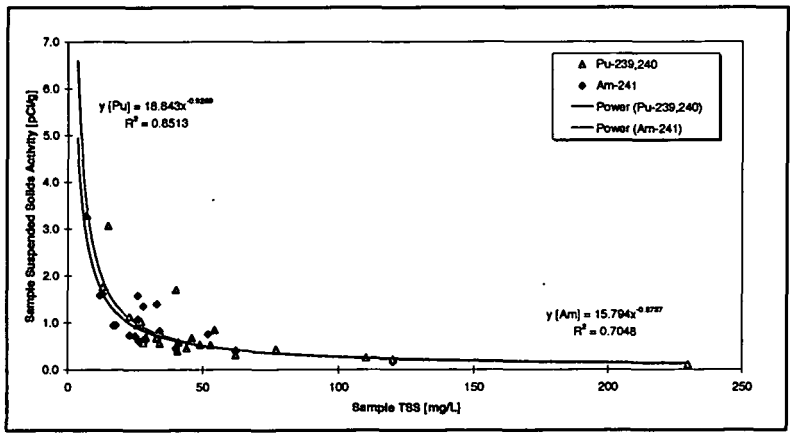
Only locations that had greater than two data pairs are plotted. As such, locations GS01, GS22, GS28, GS40, GS42, GS43, GS44, GS49, GS50, GS51, GS52, GS53, GS54, GS55, GS56, GS57, GS58, SW036, SW055, SW119, and SW120 are not presented.



Location GS03

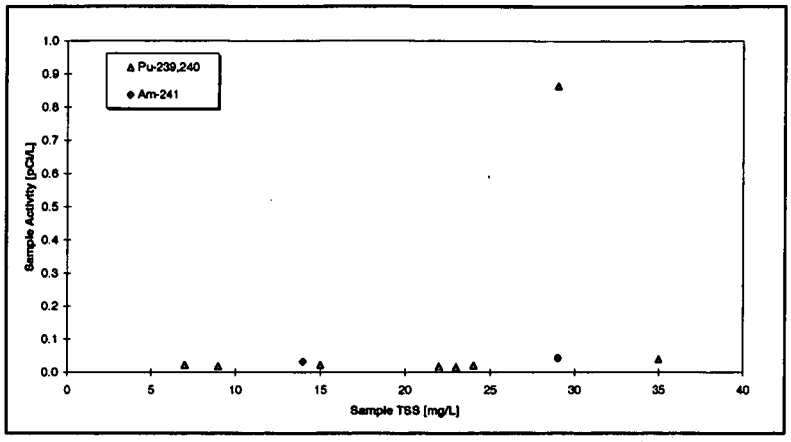
GS03 shows no statistically significant correlation between activity and TSS.

Figure 8-2. Variation of Pu and Am with TSS at GS03.



Good correlations exist at GS03 for decreasing solids activity with increasing TSS. If all TSS particles were of similar activity, then suspended solids activity would not vary with TSS concentration. Since TSS generally increases with increasing flow rate at GS03 (Figure 8-92), the data suggest that the more easily mobilized particles are of a higher activity per unit mass than the heavier particles that are more likely to move at higher flow rates.

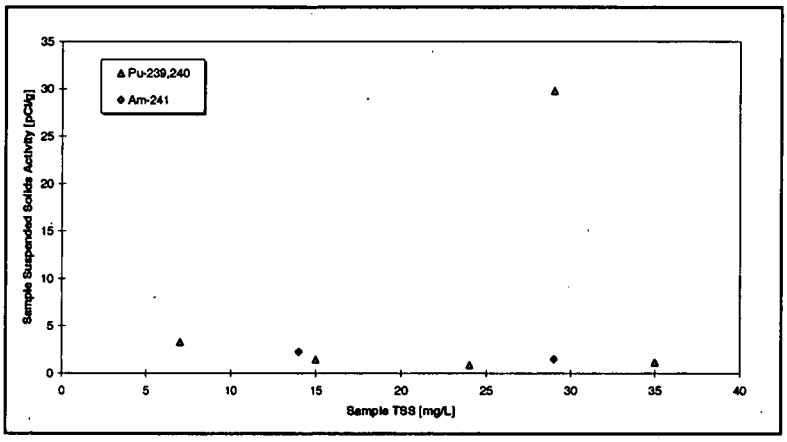
Figure 8-3. Variation of Suspended Solids Activity with TSS at GS03.



Location GS08

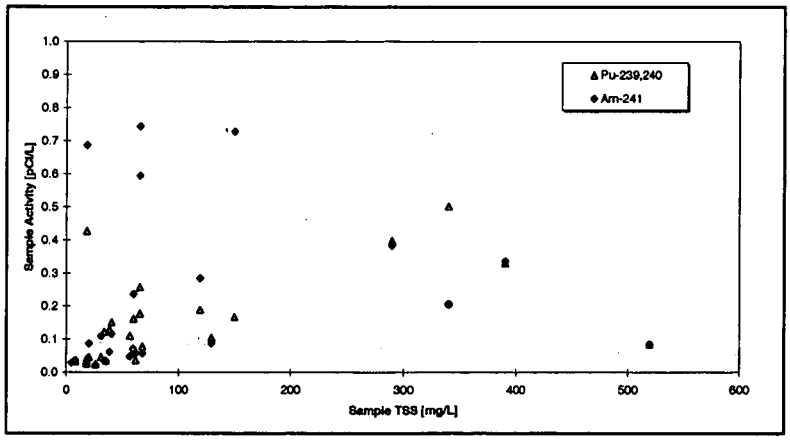
GS08 shows no statistically significant correlation between activity and TSS.

Figure 8-4. Variation of Pu and Am with TSS at GS08.



GS08 also shows no statistically significant correlation between suspended solids activity and TSS.

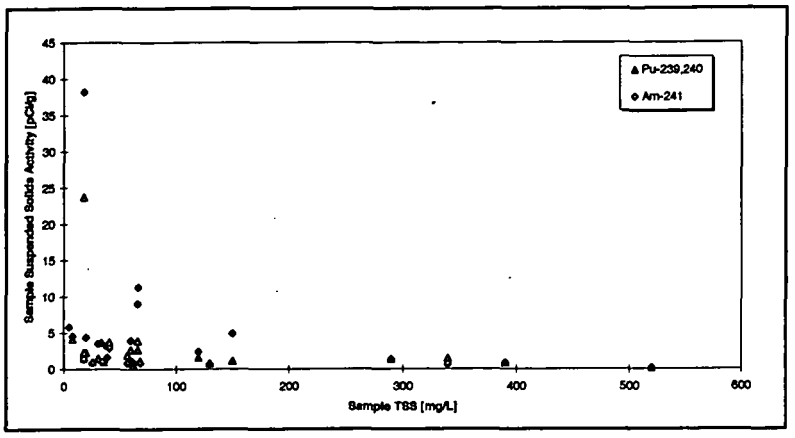
Figure 8-5. Variation of Suspended Solids Activity with TSS at GS08.



Location GS10

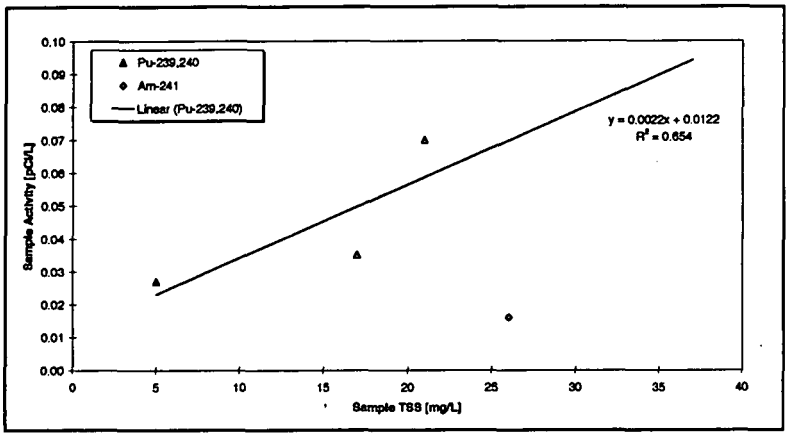
GS10 shows a weak trend between increasing Pu and increasing TSS. However, no trend is evident between Am and TSS. This lack of correlation may be caused by the variability of contamination levels throughout the drainage and the possible existence of localized Am source areas (see Section 6.3.2).

Figure 8-6. Variation of Pu and Am with TSS at GS10.



GS10 shows no statistically significant correlation between suspended solids activity and TSS. This lack of correlation may also be caused by the variability of contamination levels throughout the drainage and the possible existence of localized Am source areas (see Section 6.3.2).

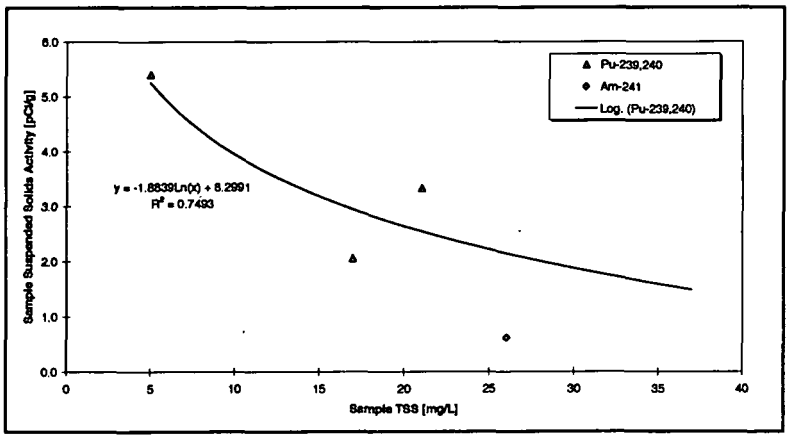
Figure 8-7. Variation of Suspended Solids Activity with TSS at GS10.



Location GS11

GS11 shows a fair correlation between increasing Pu and increasing TSS for the few data points available. Only one Am-TSS point was available.

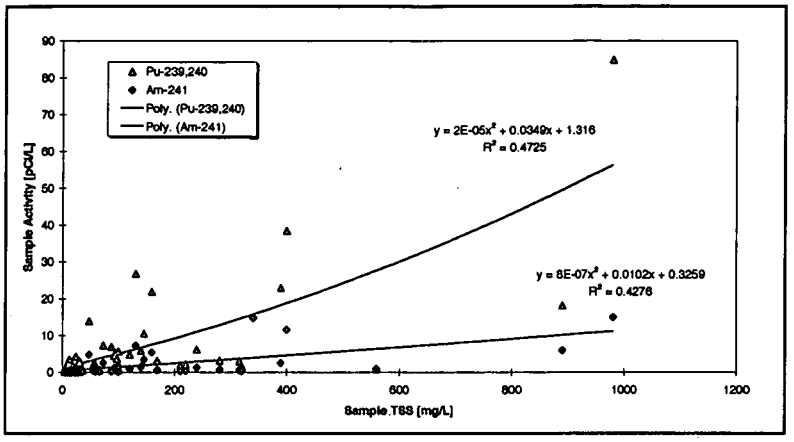
Figure 8-8. Variation of Pu and Am with TSS at GS11.



GS11 shows a good correlation between *decreasing* Pu and increasing TSS for the few data points available. This may be caused by the preferential association of Pu with smaller/lighter particles.

Only one Am-TSS point was available.

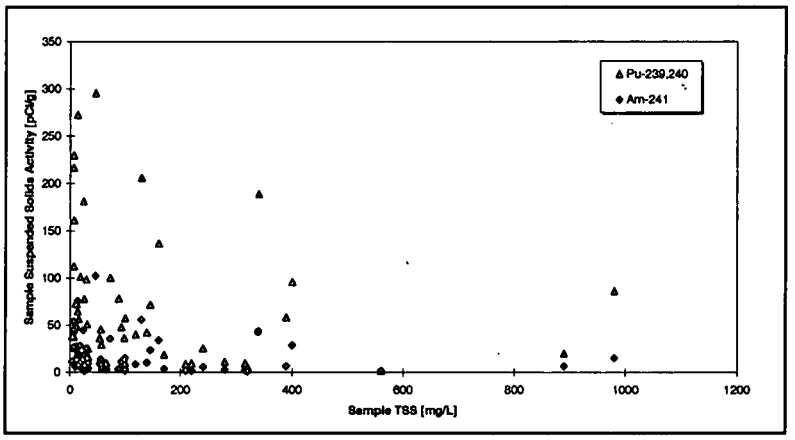
Figure 8-9. Variation of Suspended Solids Activity with TSS at GS11.



Location GS27

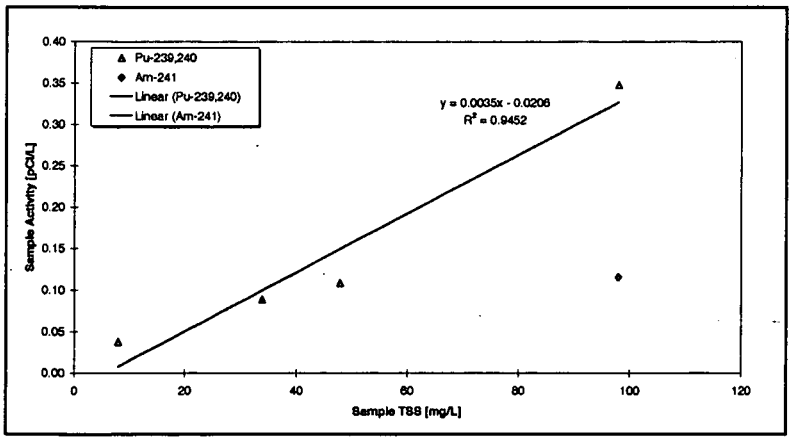
GS27 shows that the highest Pu and Am activities are associated with higher TSS, although the correlations are weak.

Figure 8-10. Variation of Pu and Am with TSS at GS27.



GS27 shows no statistically significant correlation between suspended solids activity and TSS.

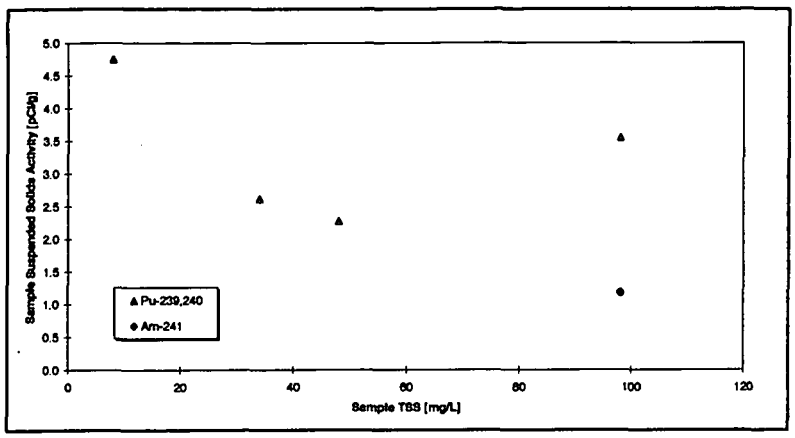
Figure 8-11. Variation of Suspended Solids Activity with TSS at GS27.



Location GS31

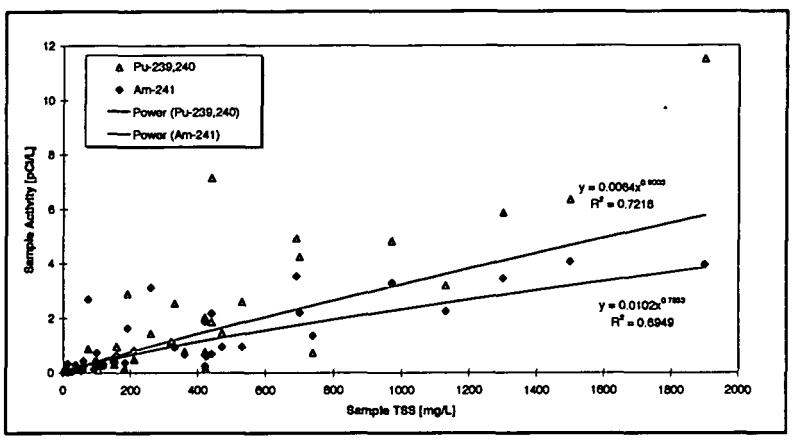
GS31 shows a strong correlation between increasing Pu activity and increasing TSS for the few points available. Only one Am-TSS data point was available.

Figure 8-12. Variation of Pu and Am with TSS at GS31.



GS31 shows no statistically significant correlation between suspended solids activity and TSS.

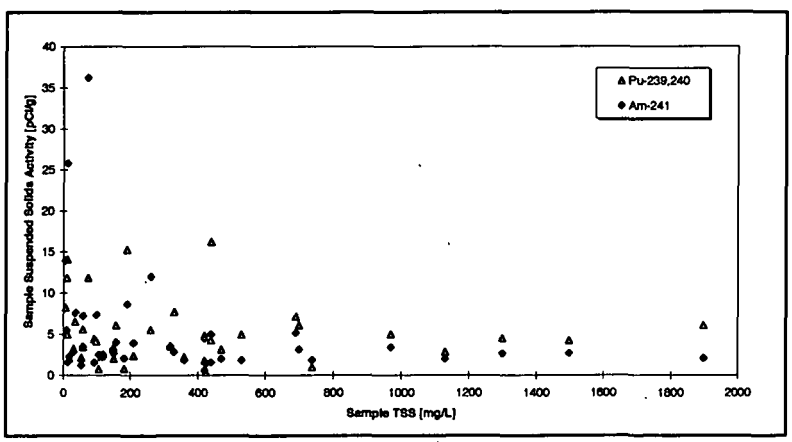
Figure 8-13. Variation of Suspended Solids Activity with TSS at GS31.



Location GS32

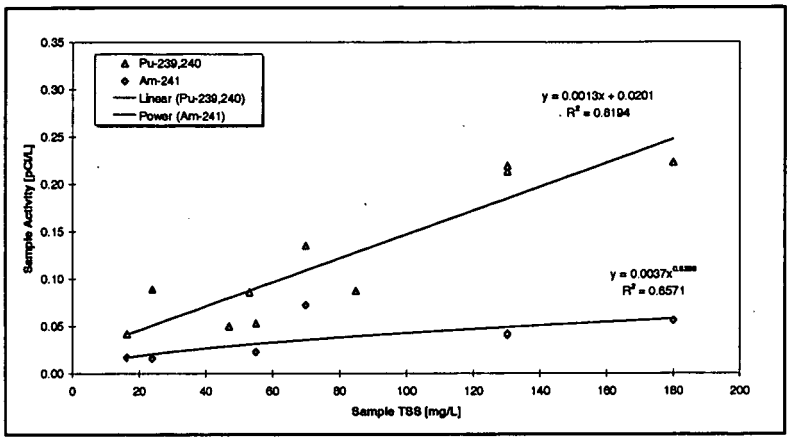
GS32 shows a good correlation between increasing Pu activity and increasing TSS. Similarly, a fair correlation exists between increasing Am activity and increasing TSS.

Figure 8-14. Variation of Pu and Am with TSS at GS32.



GS32 shows no statistically significant correlation between suspended solids activity and TSS.

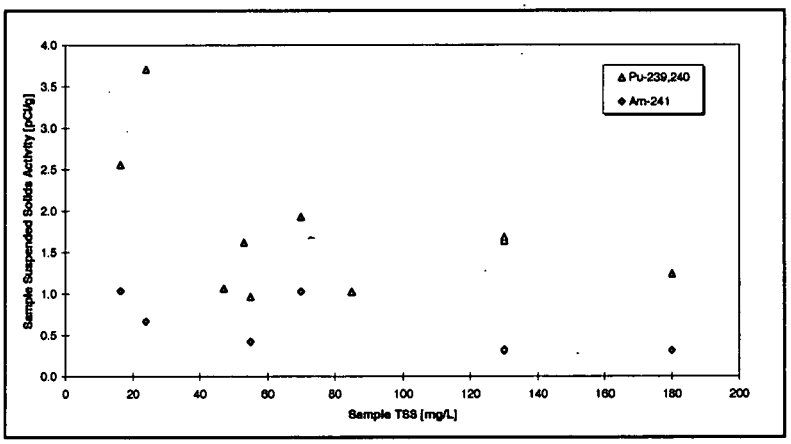
Figure 8-15. Variation of Suspended Solids Activity with TSS at GS32.



Location GS38

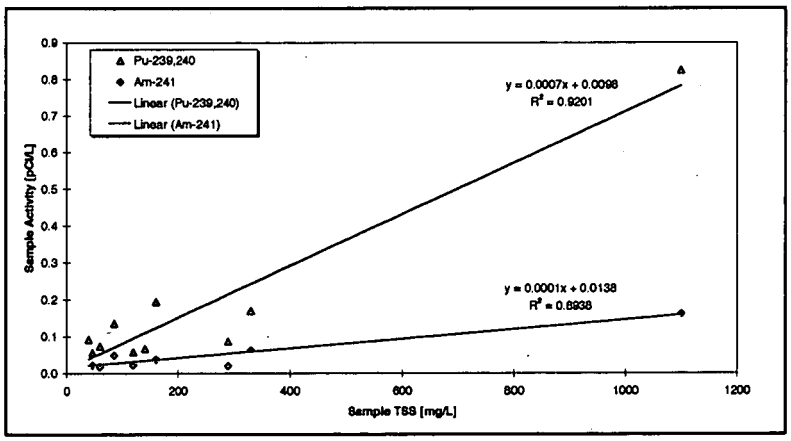
GS38 shows a good correlation between increasing Pu activity and increasing TSS for the few points available. Similarly, a fair correlation exists between increasing Am activity and increasing TSS.

Figure 8-16. Variation of Pu and Am with TSS at GS38.



GS38 shows no statistically significant correlation between suspended solids activity and TSS.

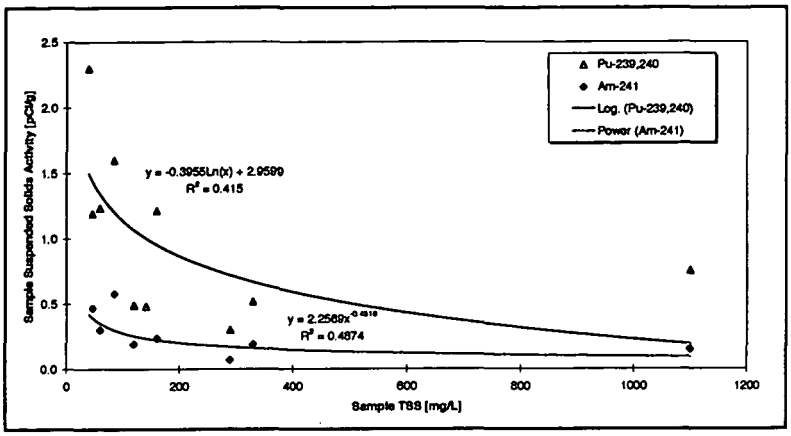
Figure 8-17. Variation of Suspended Solids Activity with TSS at GS38.



Location GS39

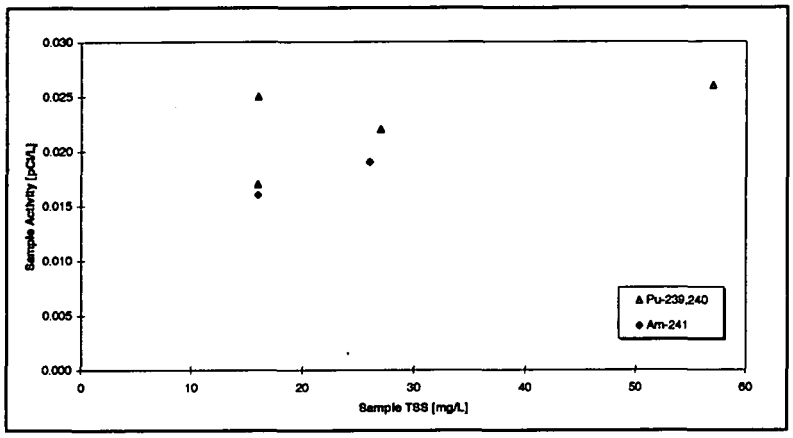
GS39 shows strong correlations between increasing Pu and Am activity with increasing TSS. However, both are highly influenced by a single data point.

Figure 8-18. Variation of Pu and Am with TSS at GS39.



GS39 shows weak correlations between *decreasing* Pu and Am with increasing TSS. This may be caused by the preferential association of Pu with smaller/lighter particles.

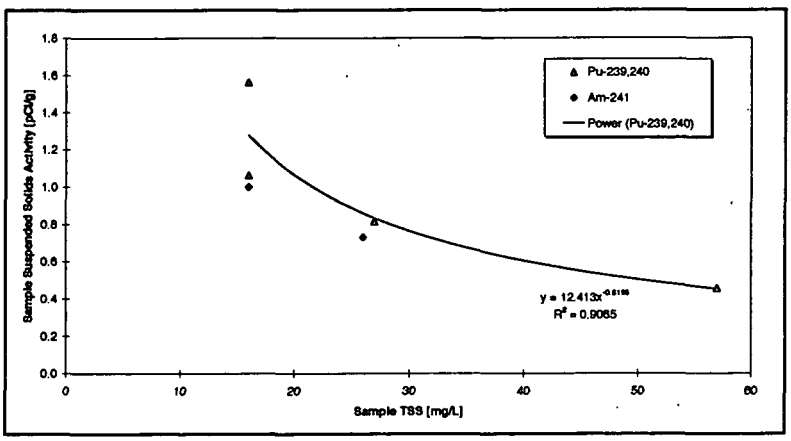
Figure 8-19. Variation of Suspended Solids Activity with TSS at GS39.



Location GS41

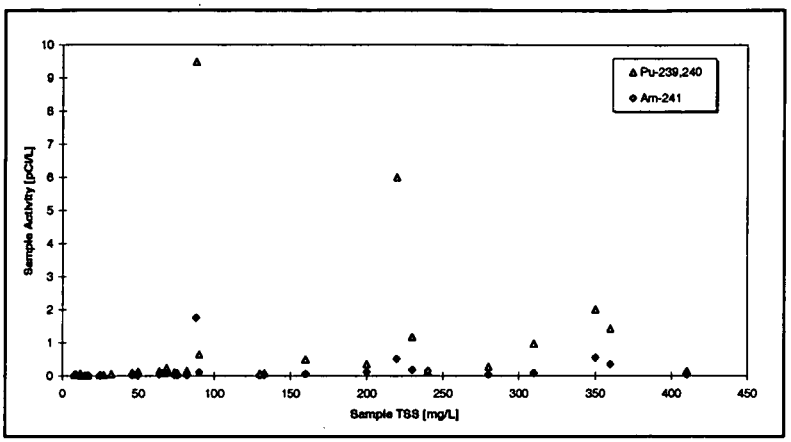
GS41 shows no statistically significant correlation between activity and TSS.

Figure 8-20. Variation of Pu and Am with TSS at GS41.



GS41 shows a strong correlation between *decreasing* Pu activity with increasing TSS for the relatively few data points available. Only two suspended solids Am points were available.

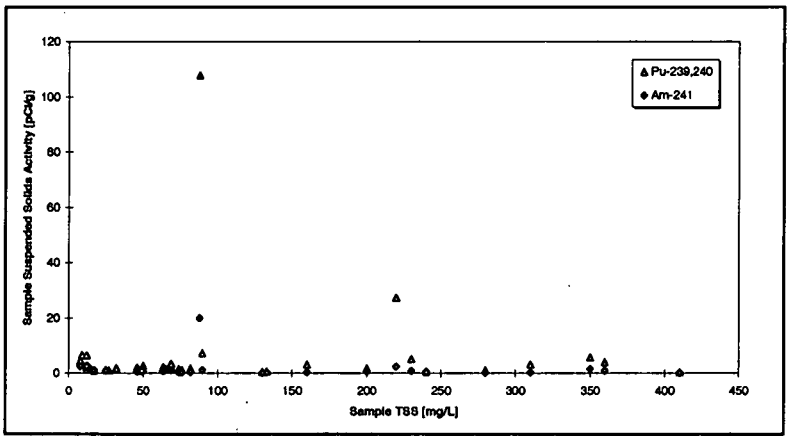
Figure 8-21. Variation of Suspended Solids Activity with TSS at GS41.



Location SW022

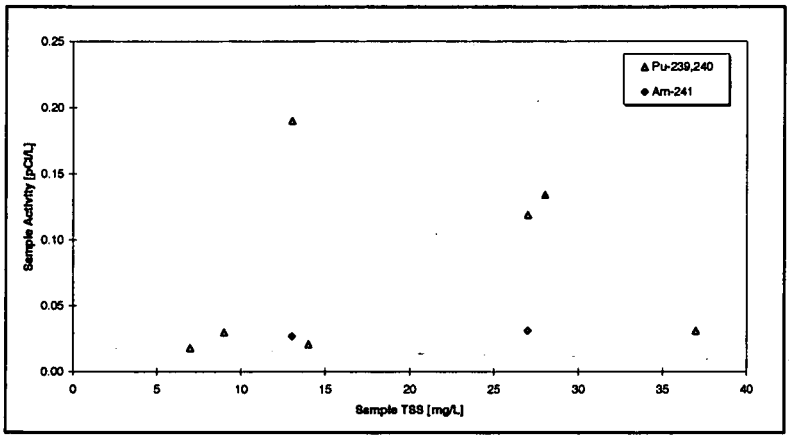
SW022 shows no statistically significant correlation between activity and TSS.

Figure 8-22. Variation of Pu and Am with TSS at SW022.



SW022 shows no statistically significant correlation between suspended solids activity and TSS.

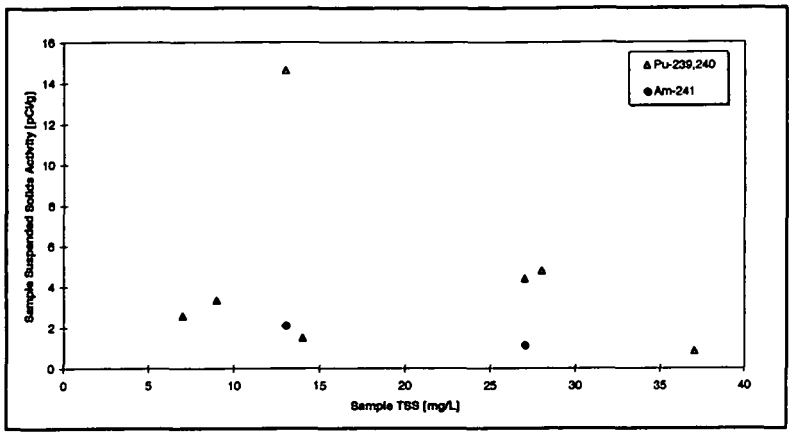
Figure 8-23. Variation of Suspended Solids Activity with TSS at SW022.



Location SW027

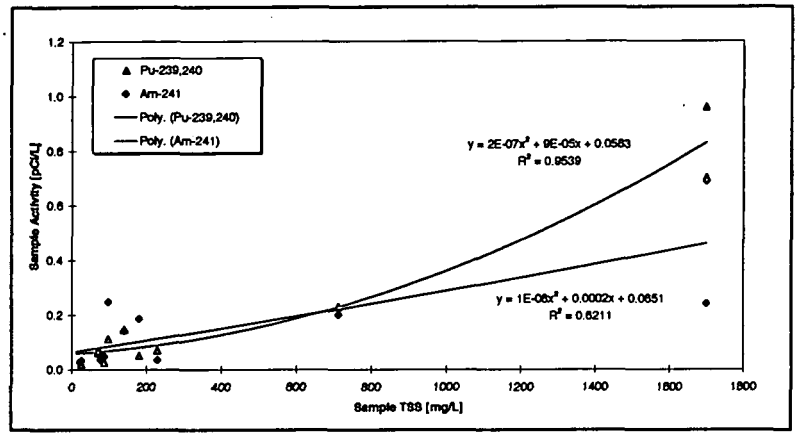
SW027 shows no statistically significant correlation between activity and TSS.

Figure 8-24. Variation of Pu and Am with TSS at SW027.



SW027 shows no statistically significant correlation between suspended solids activity and TSS.

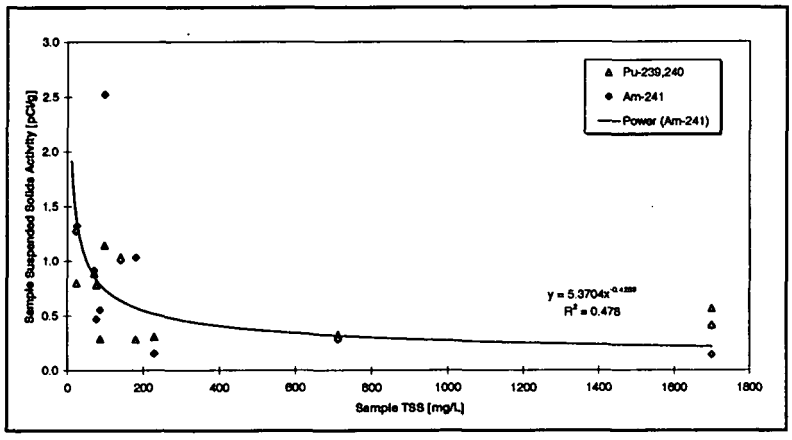
Figure 8-25. Variation of Suspended Solids Activity with TSS at SW027.



Location SW091

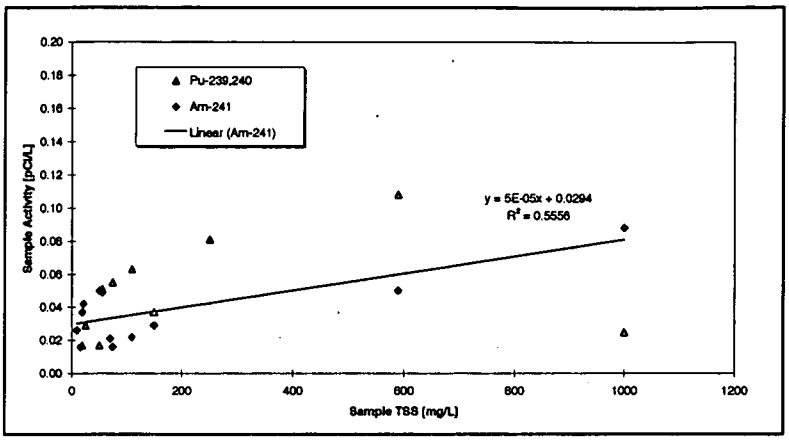
SW091 shows a strong correlation between increasing Pu activity and increasing TSS for the few points available. Similarly, a fair correlation exists between increasing Am activity and increasing TSS.

Figure 8-26. Variation of Pu and Am with TSS at SW091.



SW091 shows a weak correlation between *decreasing* suspended solids Am activity with increasing TSS. No statistically significant correlation is noted for suspended solids Pu activity and TSS.

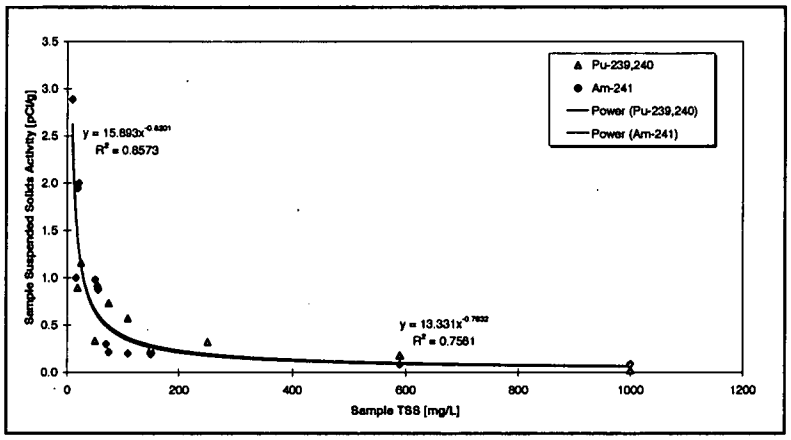
Figure 8-27. Variation of Suspended Solids Activity with TSS at SW091.



Location SW093

SW093 shows a good correlation (highly influenced by two data points) between increasing Am activity and increasing TSS for the few points available. However, no statistically significant correlation exists between Pu activity and TSS.

Figure 8-28. Variation of Pu and Am with TSS at SW093.



SW093 shows good correlations between *decreasing* Pu and Am with increasing TSS. This may be caused by the preferential association of Pu with smaller/lighter particles.

Figure 8-29. Variation of Suspended Solids Activity with TSS at SW093.

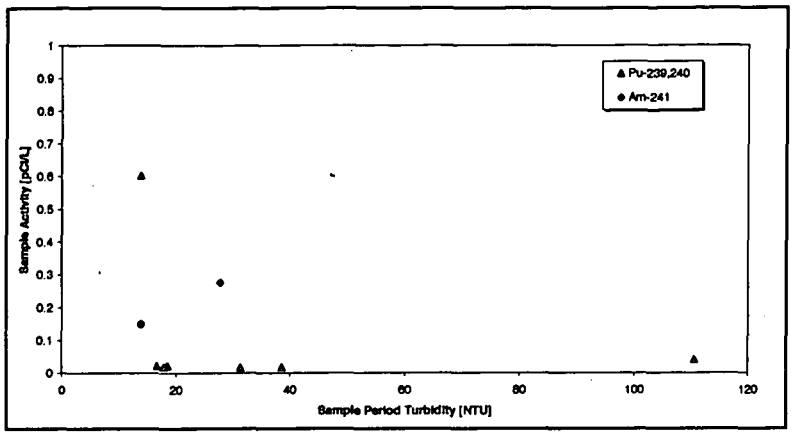
8.3.2 Correlation of Actinides with Turbidity

Since Pu and Am tend to be transported in surface water in association with particulate matter (measured as TSS), a relationship between activity and turbidity could be used as an indicator of Pu and Am transport. This section evaluates the variation of composite sample Pu and Am activity with the corresponding average real-time turbidity data. Plots are presented for all locations where turbidity data are collected. These locations are GS08, GS10, GS11, GS31, SW027, and SW093.

The sample Pu and Am activities are the values obtained through laboratory analysis given in pCi/L. Only Pu and Am values greater than the MDA (generally 0.015 pCi/L) are included.

The average composite-sample period turbidity (NTU) is calculated as follows:

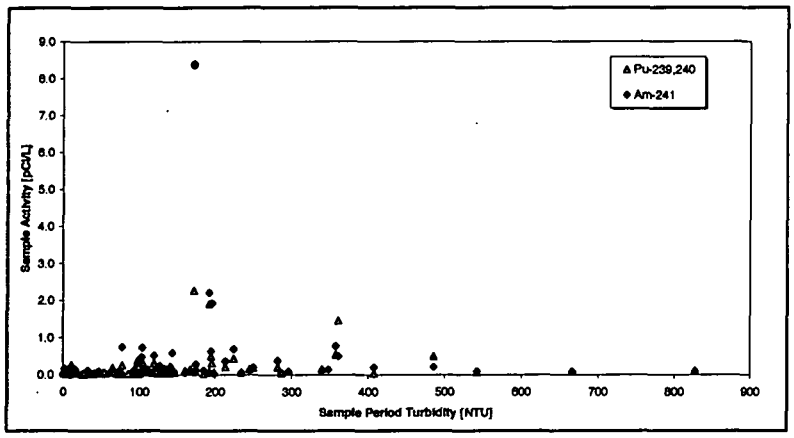
1. The date and time of each grab sample comprising the composite is obtained from the monitoring instrumentation.
2. The corresponding turbidity value for each grab sample is interpolated from the 15-minute interval turbidity data. Some samples may not have turbidity values due to equipment failures and periodic equipment removal for winter icing conditions.
3. Since each grab sample is of the same volume (200 ml), the interpolated turbidity values are arithmetically averaged to obtain the applicable turbidity for the entire composite sampling period.



Location GS08

GS08 shows no statistically significant correlation between increasing activity and increasing turbidity.

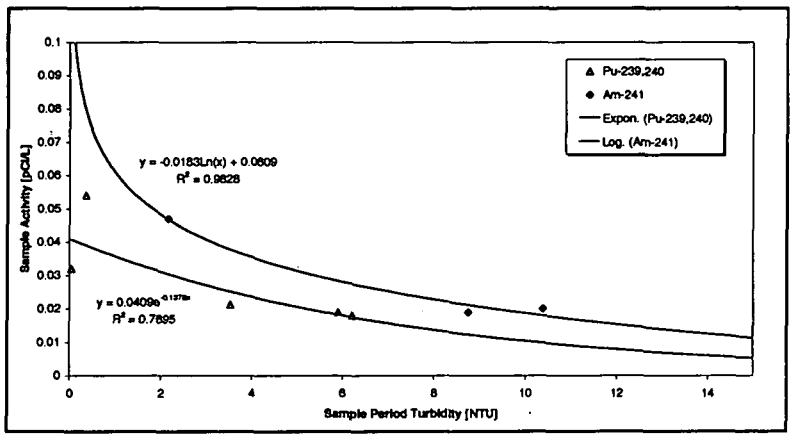
Figure 8-30. Variation of Pu and Am Activity with Turbidity at GS08.



Location GS10

GS10 also shows no statistically significant correlation between increasing activity and increasing turbidity.

Figure 8-31. Variation of Pu and Am Activity with Turbidity at GS10.



Location GS11

GS11 shows good correlation between *decreasing* activity and increasing turbidity for the limited number of data points available. The possible cause of this phenomena is not clear, though the correlations could be serendipitous due to the small number of data points.

Figure 8-32. Variation of Pu and Am Activity with Turbidity at GS11.

Location GS31

GS31 shows correlations between increasing activity and increasing turbidity for the limited number of data points available. It should be noted that the two high points most influencing the correlations are associated with a sample collected during pond dewatering to allow for video surveillance of the outlet works. To achieve dewatering, the outlet works valve on the bottom (essentially in the pond bottom sediments) of the pond is used to drain the pond. At these low pond levels, higher turbidity values are expected. The other values are for samples collected during normal pump discharge operations where water is taken from the pond surface.

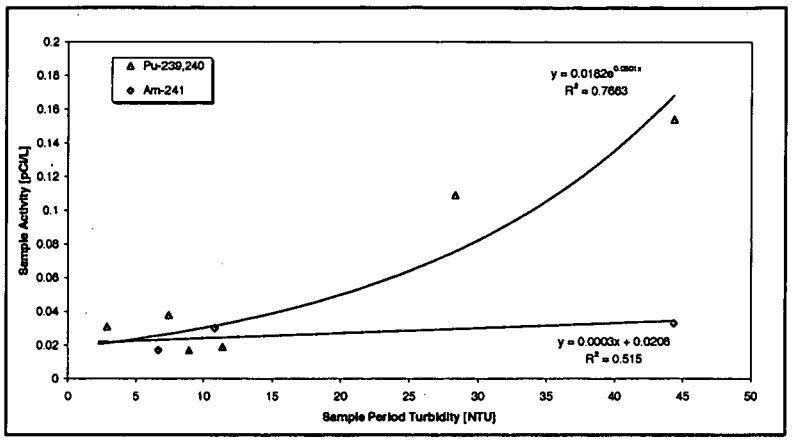


Figure 8-33. Variation of Pu and Am Activity with Turbidity at GS31.

Location SW027

SW027 also shows no statistically significant correlation between increasing activity and increasing turbidity.

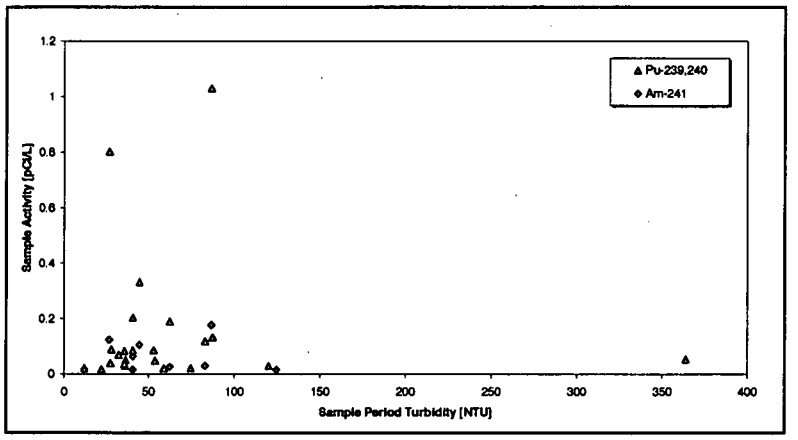


Figure 8-34. Variation of Pu and Am Activity with Turbidity at SW027.

Location SW093

SW093 also shows no statistically significant correlation between increasing activity and increasing turbidity. However, the higher activities are generally associated with higher turbidities.

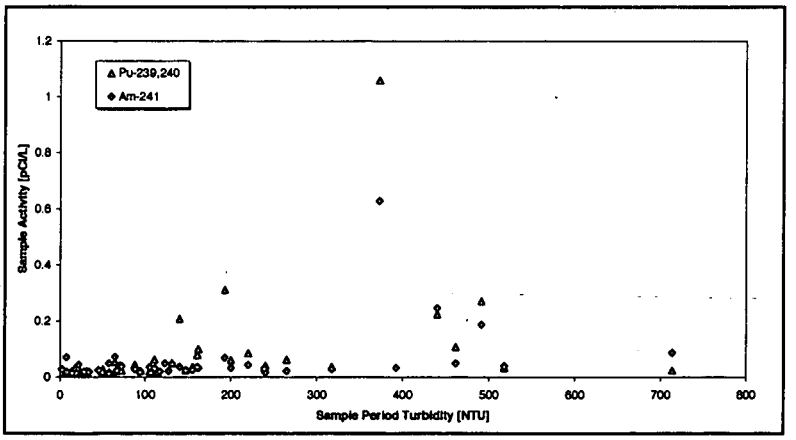


Figure 8-35. Variation of Pu and Am Activity with Turbidity at SW093.

8.3.3 Correlation of Radionuclides with Flow Rate

Since Pu and Am tend to be transported in surface water in association with particulate matter, and assuming that higher flow rates tend to transport more sediment, a relationship between activity and flow rate could be used as an indicator of Pu and Am transport. This section evaluates the variation of composite sample Pu and Am activity with the corresponding average flow rate. Plots are presented for all locations where both Pu and Am data are collected with flow measurement.

The sample Pu and Am activities are the values obtained through laboratory analysis given in pCi/L. Only Pu and Am values greater than the MDA (generally 0.015 pCi/L) are included.

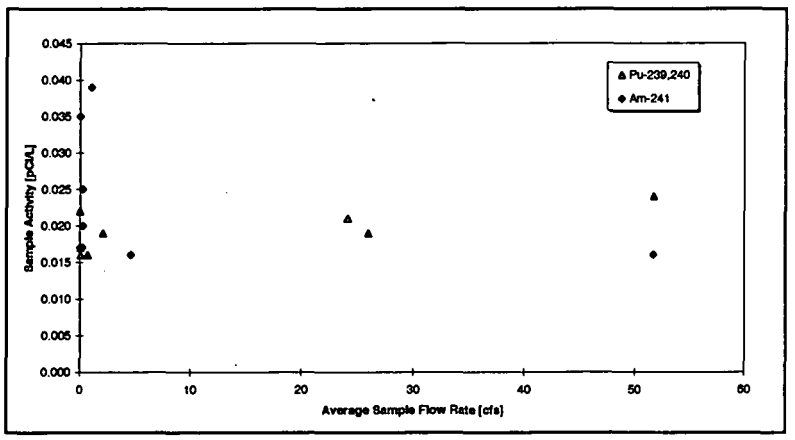
Plots are also presented showing the variability of total uranium with flow rate. Plots are presented for all locations where uranium data are collected with flow measurement.

The sample total uranium activity is the sum of the isotopic values obtained through laboratory analysis given in pCi/L (U-233,234 + U-235 + U-238).

The average composite-sample period flow rate (CFS) is calculated as follows:

1. The date and time of each grab sample comprising the composite is obtained from the monitoring instrumentation.
2. The corresponding flow value for each grab sample is interpolated from the 15-minute interval flow data. Some samples may not have flow values due to equipment failures and periodic winter icing conditions.
3. Since each grab sample is of the same volume (200 ml), the interpolated flow values are arithmetically averaged to obtain the applicable flow for the entire composite sampling period.

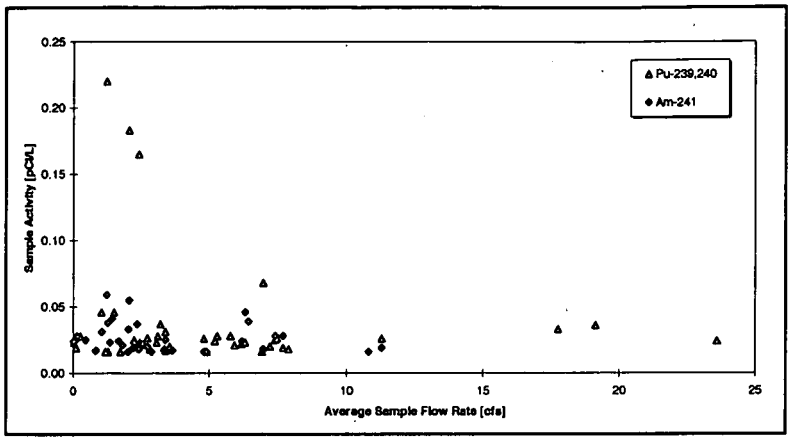
Only locations that had greater than two data pairs are plotted. As such, Pu and Am plots are not presented for locations GS22, GS42, GS51, GS52, GS53, GS54, GS56, and SW036. Similarly, uranium plots are not presented for locations GS42, GS51, GS52, GS53, GS54, GS56, and SW036. Data for 995POE are not given since flows are controlled by treatment operations at the WWTP.



Location GS01

GS01 shows no statistically significant correlation between Pu and Am activity with flow rate.

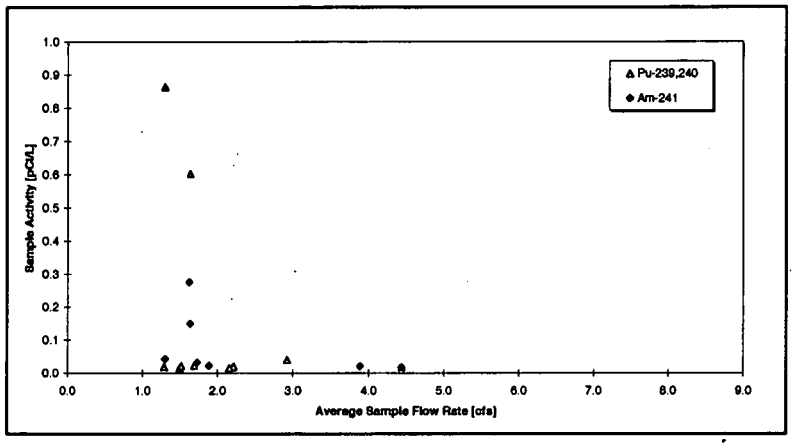
Figure 8-36. Variation of Pu and Am with Flow Rate at GS01.



Location GS03

GS03 shows no statistically significant correlation between Pu and Am activity with flow rate.

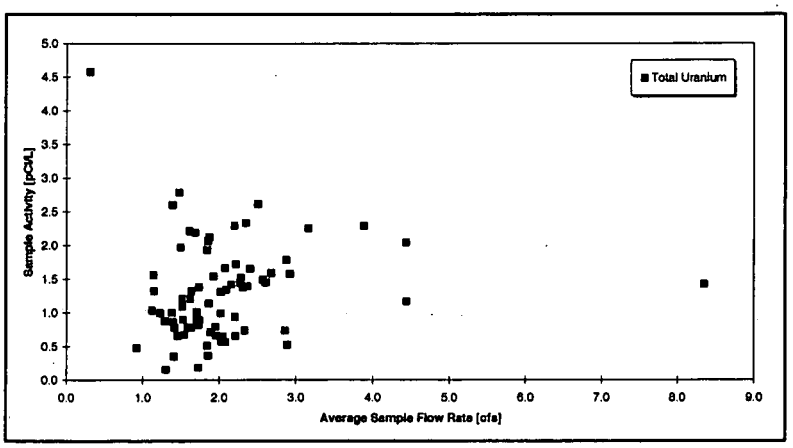
Figure 8-37. Variation of Pu and Am with Flow Rate at GS03.



Location GS08

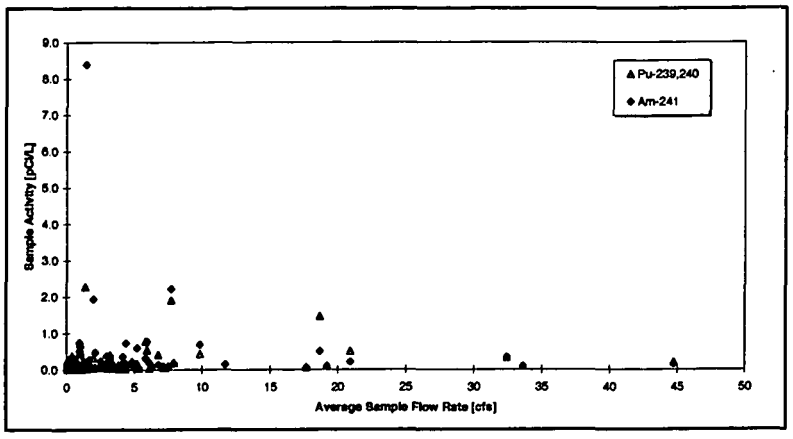
GS08 shows no statistically significant correlation between Pu and Am activity with flow rate.

Figure 8-38. Variation of Pu and Am with Flow Rate at GS08.



GS08 shows no statistically significant correlation between uranium activity and flow rate.

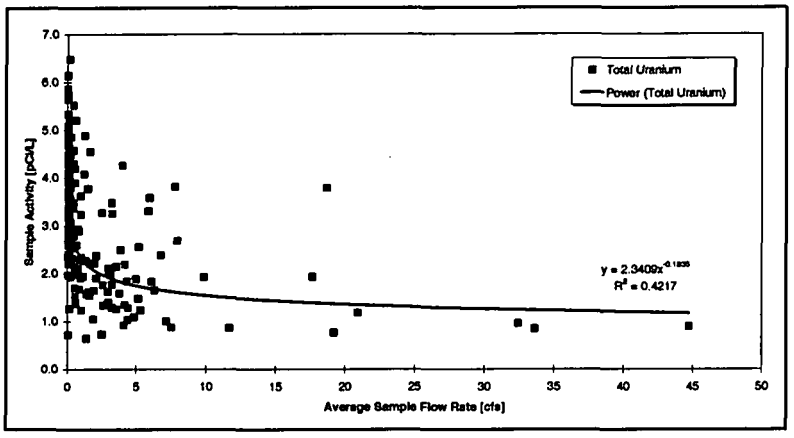
Figure 8-39. Variation of Total Uranium with Flow Rate at GS08.



Location GS10

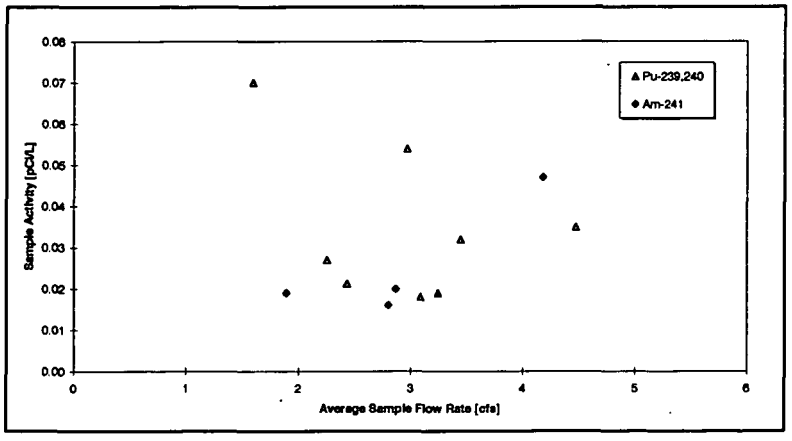
GS10 shows no statistically significant correlation between Pu and Am activity with flow rate.

Figure 8-40. Variation of Pu and Am with Flow Rate at GS10.



GS10 shows a weak correlation between decreasing uranium activity and increasing flow rate. Baseflow (low flow rates) at GS10 is sustained by footing drain flows (700 Area) and possibly intercepted groundwater. If naturally occurring (or possibly anthropogenic) uranium is associated with these flows, then the decrease in uranium activity at higher flow rates could be caused by dilution from stormwater runoff. The highest activities are associated with the lowest flows.

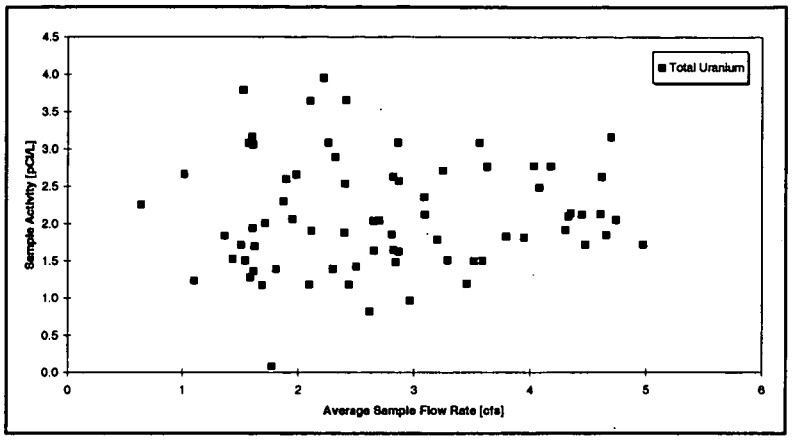
Figure 8-41. Variation of Total Uranium with Flow Rate at GS10.



Location GS11

GS11 shows no statistically significant correlation between Pu and Am activity with flow rate.

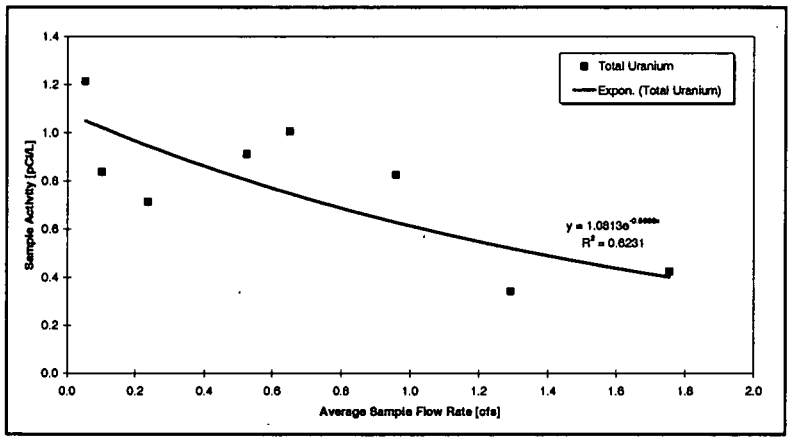
Figure 8-42. Variation of Pu and Am with Flow Rate at GS11.



GS11 shows no statistically significant correlation between uranium and flow rate.

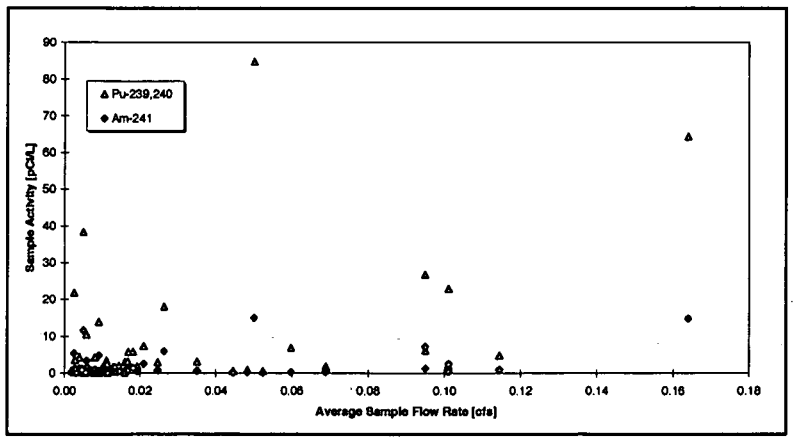
Figure 8-43. Variation of Total Uranium with Flow Rate at GS11.

Location GS22



GS22 shows a fair correlation between decreasing uranium activity and increasing flow rate. Baseflow (low flow rates) at GS22 is sustained by footing drain flows (400 Area) and possibly intercepted groundwater. If naturally occurring (or possibly anthropogenic) uranium is associated with these flows, then the decrease in uranium activity at higher flow rates could be caused by dilution from stormwater runoff. The highest activities are associated with the lowest flows

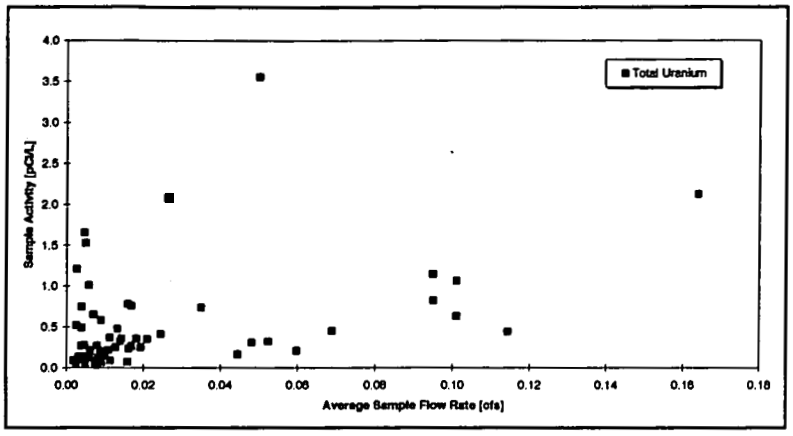
Figure 8-44. Variation of Total Uranium with Flow Rate at GS22.



Location GS27

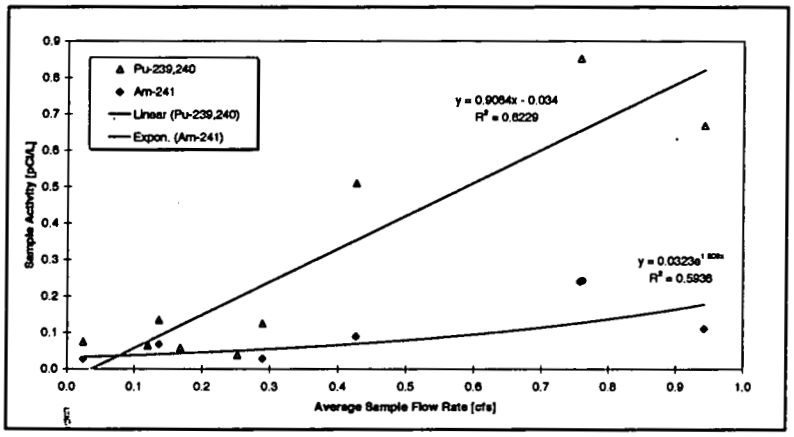
GS27 shows no statistically significant correlation between Pu or Am activity with flow rate

Figure 8-45. Variation of Pu and Am with Flow Rate at GS27.



GS27 shows no statistically significant correlation between uranium and flow rate.

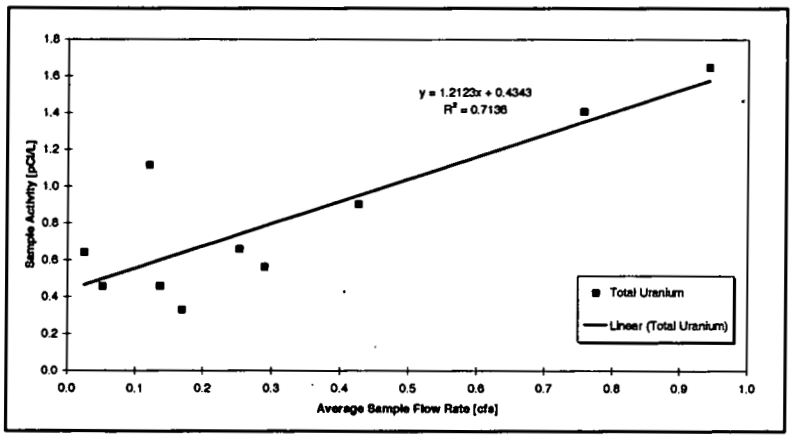
Figure 8-46. Variation of Total Uranium with Flow Rate at GS27.



Location GS28

GS28 shows a good correlation between increasing Pu activity and increasing flow rate flow rate. A fair correlation also is shown for Am. This is likely caused by the increased transport of suspended solids during larger runoff events.

Figure 8-47. Variation of Pu and Am with Flow Rate at GS28.



GS28 shows a good correlation between increasing total uranium activity and increasing flow rate. This is likely caused by the increased transport of uranium associated with suspended solids during larger runoff events.

Figure 8-48. Variation of Total Uranium with Flow Rate at GS28.

Location GS31

GS31 shows a good correlation between *decreasing* Am activity and increasing flow rate for the limited number of data points available. It should be noted that the two higher Am activity points most influencing the correlation are associated with samples collected during pond dewatering to allow for video surveillance of the outlet works. To achieve dewatering, the outlet works valve on the bottom (essentially in the pond bottom sediments) of the pond is used to drain the pond. At these low pond levels, higher turbidity values as an indication of suspended solids, are expected (Figure 8-33). Since Pu and Am tend to be transported in association with particulate matter, the higher activities are expected. The other values are for samples collected during normal pump discharge operations where water is taken from the pond surface.

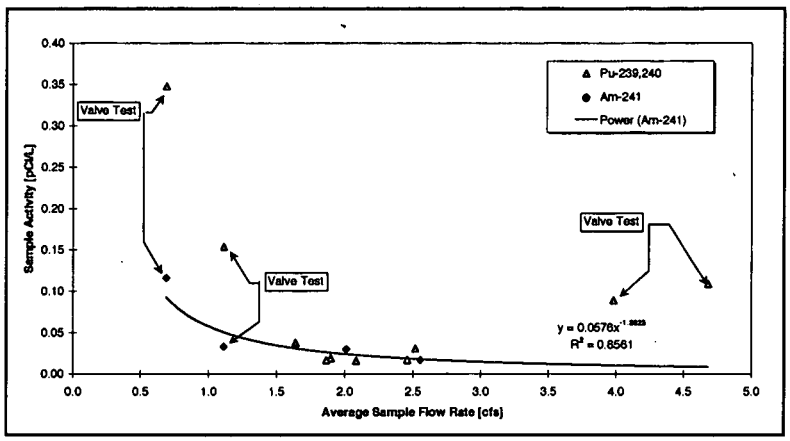


Figure 8-49. Variation of Pu and Am with Flow Rate at GS31.

For Pu, GS31 shows no statistically significant correlation. The highest Pu values are also associated with valve test samples (the Am values for the two valve test samples above 4 cfs were not above the MDA and were not included).

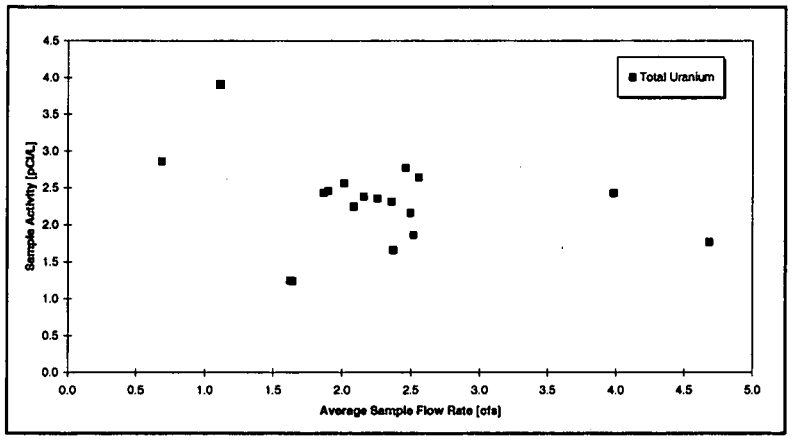
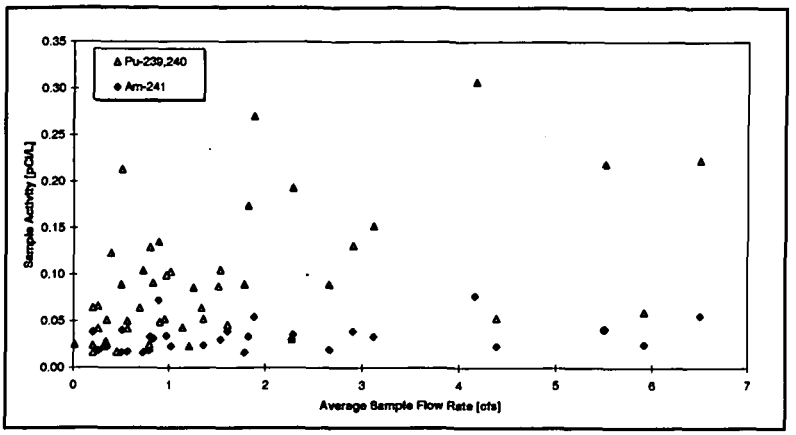


Figure 8-50. Variation of Total Uranium with Flow Rate at GS31.

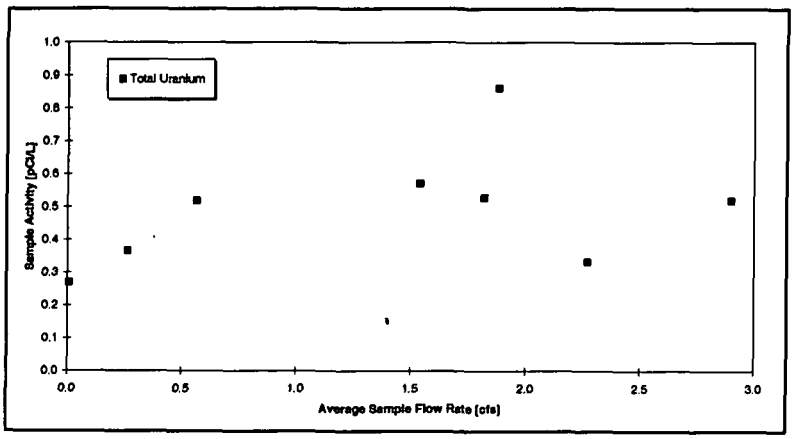
GS31 shows no statistically significant correlation between uranium and flow rate.



Location GS38

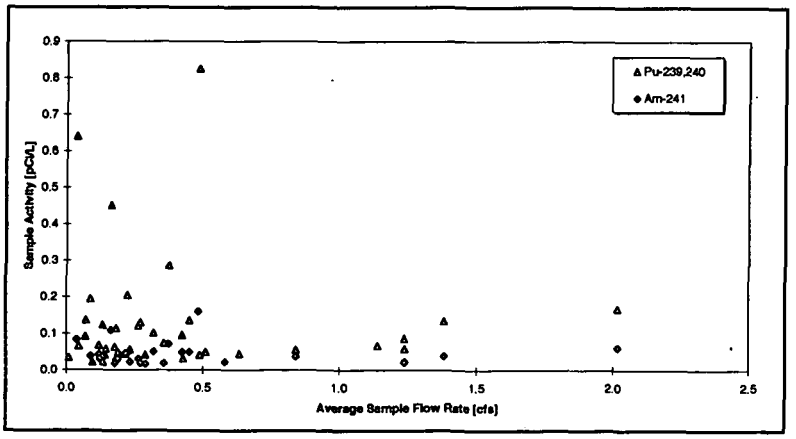
GS38 shows no statistically significant correlation between activity and flow rate.

Figure 8-51. Variation of Pu and Am with Flow Rate at GS38.



GS38 shows no statistically significant correlation between uranium and flow rate.

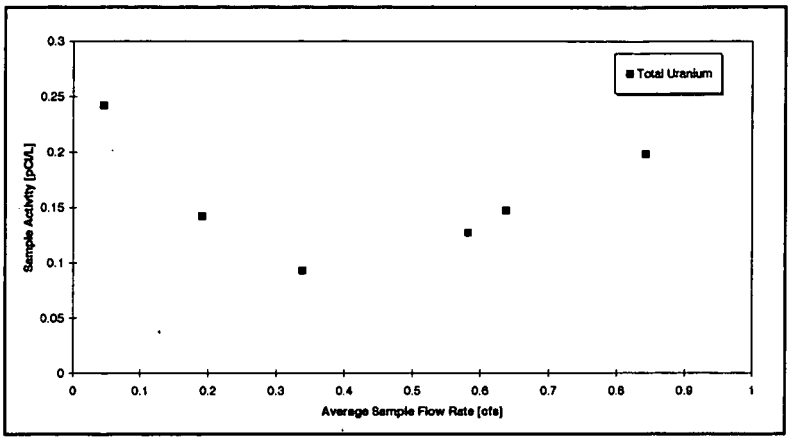
Figure 8-52. Variation of Total Uranium with Flow Rate at GS38.



Location GS39

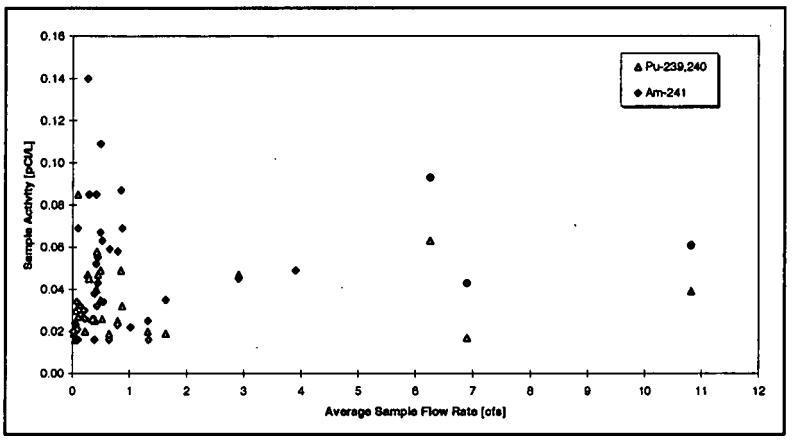
GS39 shows no statistically significant correlation between Pu and Am activity with flow rate.

Figure 8-53. Variation of Pu and Am with Flow Rate at GS39.



GS39 shows no statistically significant correlation between activity and flow rate.

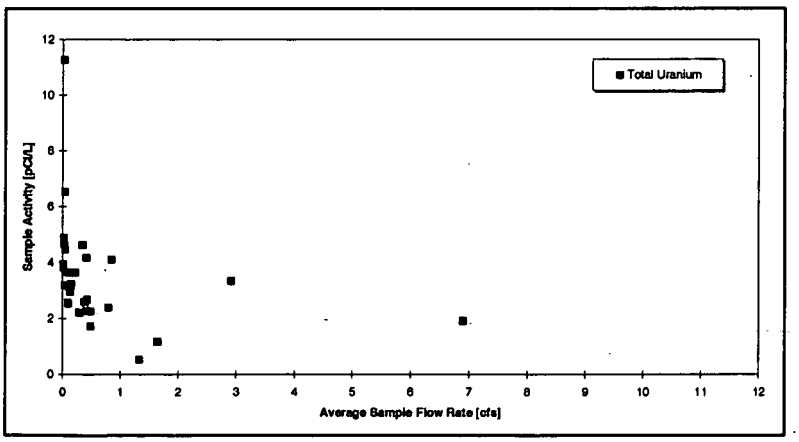
Figure 8-54. Variation of Pu and Am with Flow Rate at GS39.



Location GS40

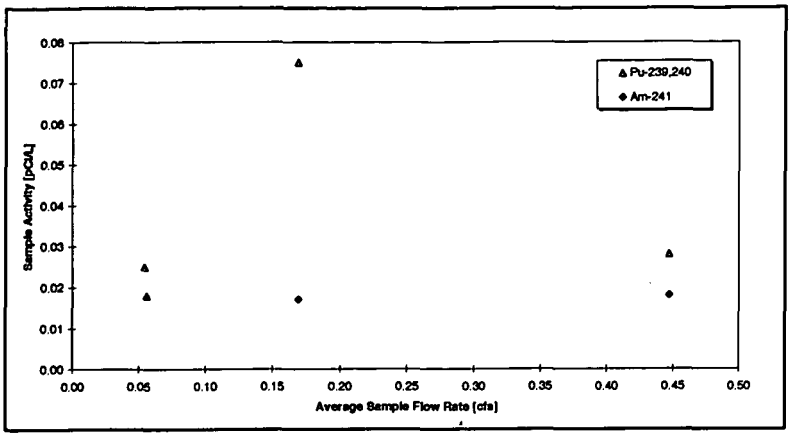
GS40 shows no statistically significant correlation between Pu and Am activity with flow rate.

Figure 8-55. Variation of Pu and Am with Flow Rate at GS40.



GS40 shows no statistically significant correlation between total uranium activity with flow rate.

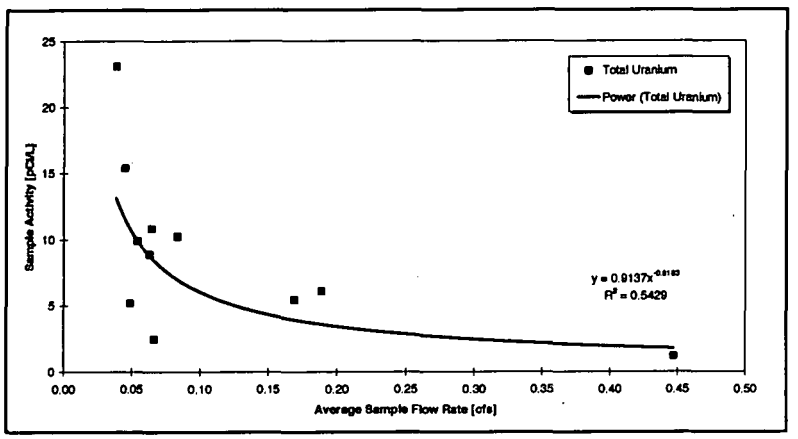
Figure 8-56. Variation of Total Uranium with Flow Rate at GS40.



Location GS43

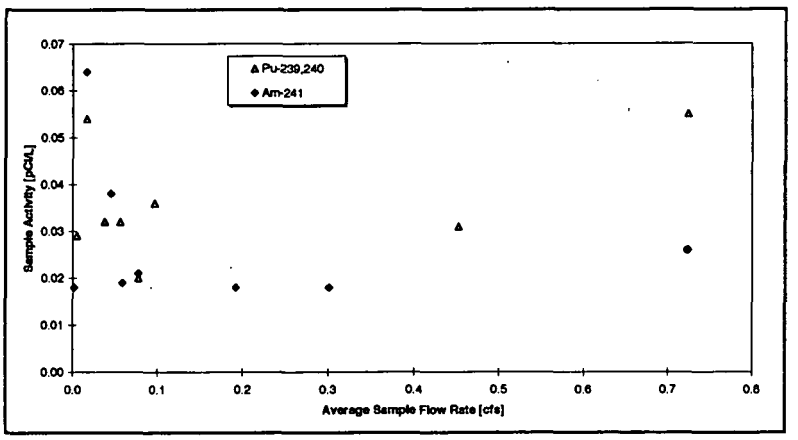
GS43 shows no statistically significant correlation between Pu and Am activity with flow rate.

Figure 8-57. Variation of Pu and Am with Flow Rate at GS43.



GS43 shows a fair correlation between *decreasing* uranium activity and increasing flow rate. GS43 receives pumped footing drain discharges from the 886 and 865 building cluster, as well as runoff. If naturally occurring (or possibly anthropogenic) uranium is associated with these footing drain flows, then the decrease in uranium activity at higher flow rates could be caused by dilution from stormwater runoff during large precipitation events.

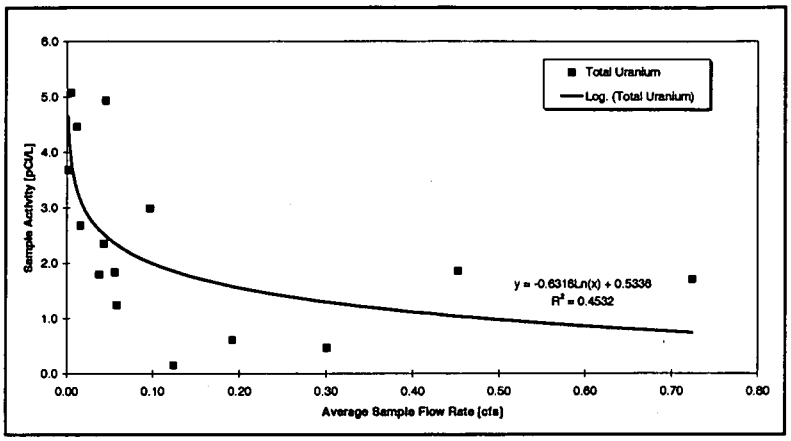
Figure 8-58. Variation of Total Uranium with Flow Rate at GS43.



Location GS44

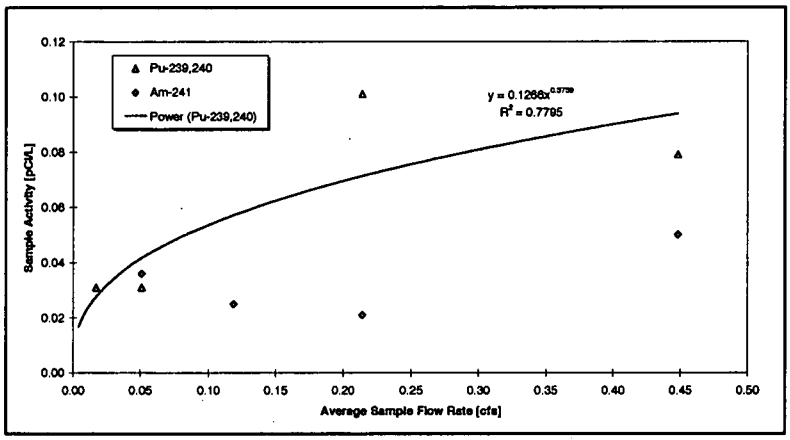
GS44 shows no statistically significant correlation between Pu and Am activity with flow rate.

Figure 8-59. Variation of Pu and Am with Flow Rate at GS44.



GS44 shows a weak correlation between *decreasing* uranium activity and increasing flow rate. GS44 receives footing drain discharge from B771, as well as runoff. If naturally occurring (or possibly anthropogenic) uranium is associated with these footing drain flows, then the decrease in uranium activity at higher flow rates could be caused by dilution from stormwater runoff during large precipitation events.

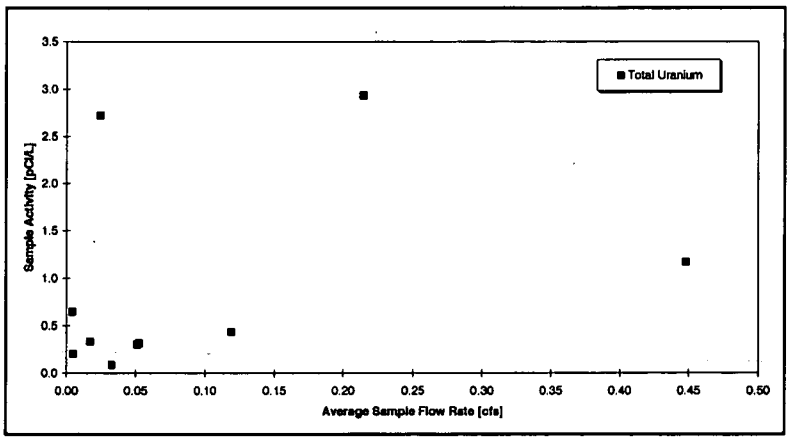
Figure 8-60. Variation of Total Uranium with Flow Rate at GS44.



Location GS49

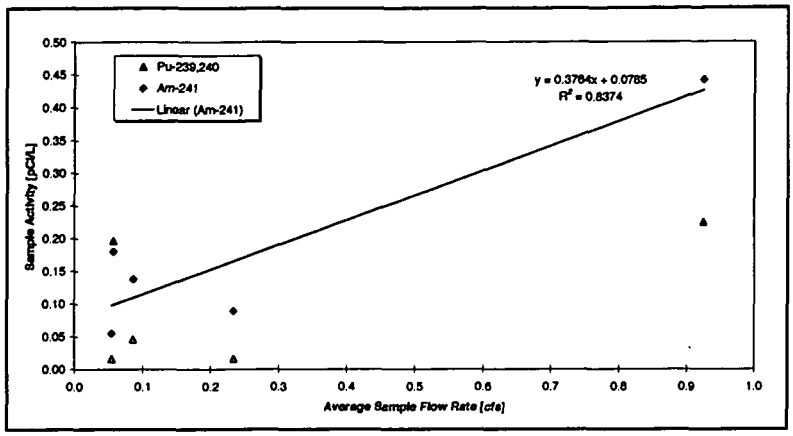
GS49 shows a good correlation between increasing Pu activity and increasing flow rate for the few points available. Am results do not show a statistically significant correlation with flow rate.

Figure 8-61. Variation of Pu and Am with Flow Rate at GS49.



GS49 shows no statistically significant correlation between total uranium activity with flow rate.

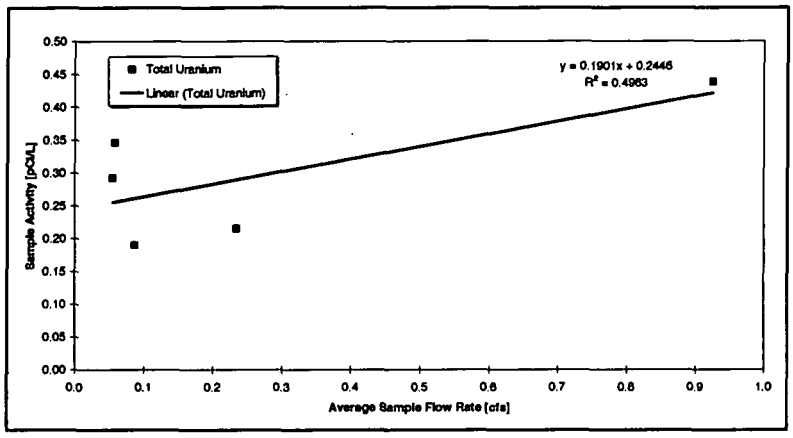
Figure 8-62. Variation of Total Uranium with Flow Rate at GS49.



Location GS50

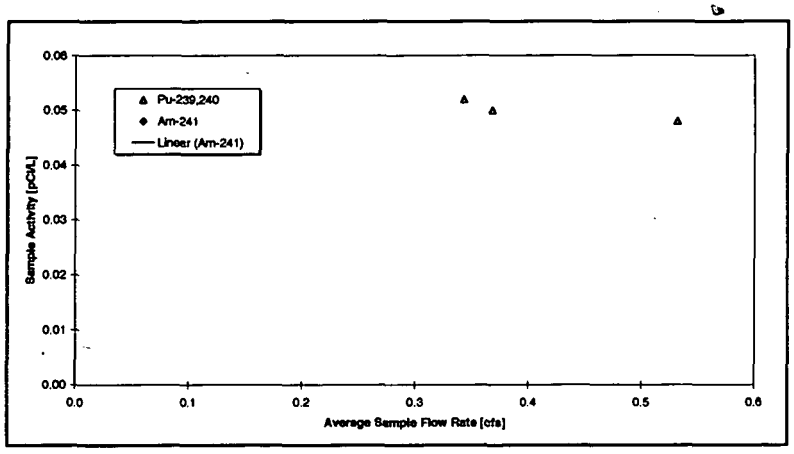
GS50 shows a good correlation between increasing Am activity and increasing flow rate. However, the correlation is strongly influenced by a single point. No statistically significant correlation was noted for Pu.

Figure 8-63. Variation of Pu and Am with Flow Rate at GS50.



GS50 shows a fair correlation between increasing total uranium activity and increasing flow rate. However, the correlation is strongly influenced by a single point.

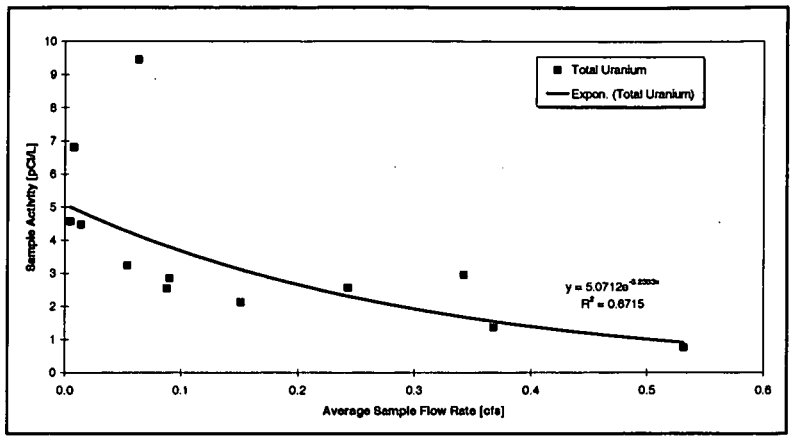
Figure 8-64. Variation of Total Uranium with Flow Rate at GS50.



Location GS55

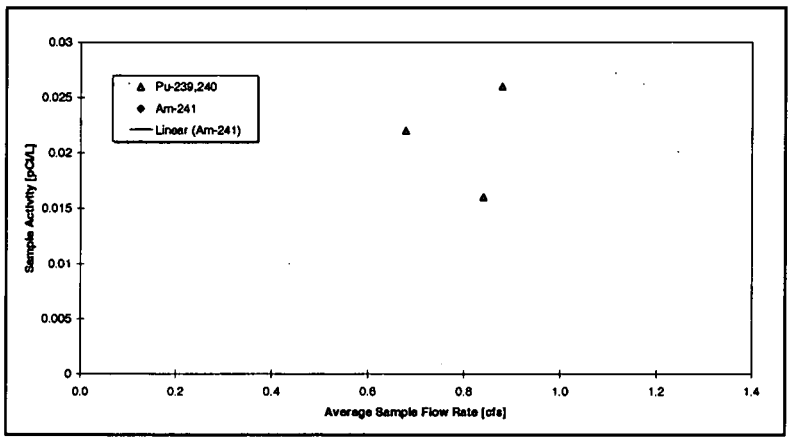
GS55 shows no statistically significant correlation between Pu and flow rate. There were no Am samples greater 0.015 pCi/L.

Figure 8-65. Variation of Pu and Am with Flow Rate at GS55.



GS55 shows a fair correlation between *decreasing* uranium activity and increasing flow rate. GS55 receives footing drain discharge from B881, as well as runoff. If naturally occurring (or possibly anthropogenic) uranium is associated with these footing drain flows, then the decrease in uranium activity at higher flow rates could be caused by dilution from stormwater runoff during large precipitation events.

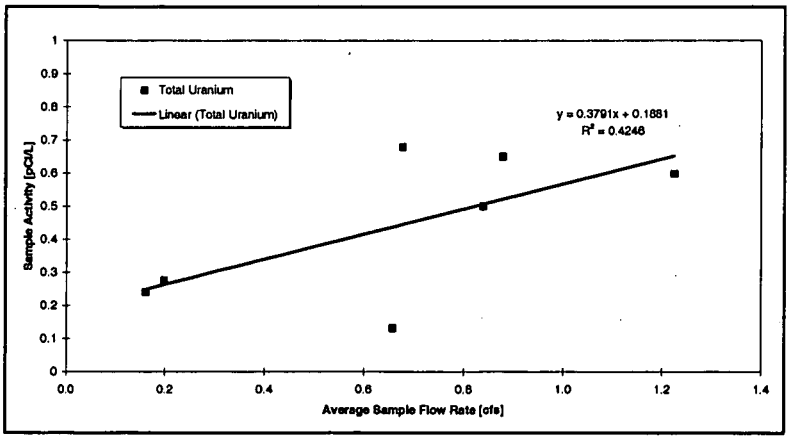
Figure 8-66. Variation of Total Uranium with Flow Rate at GS55.



Location GS57

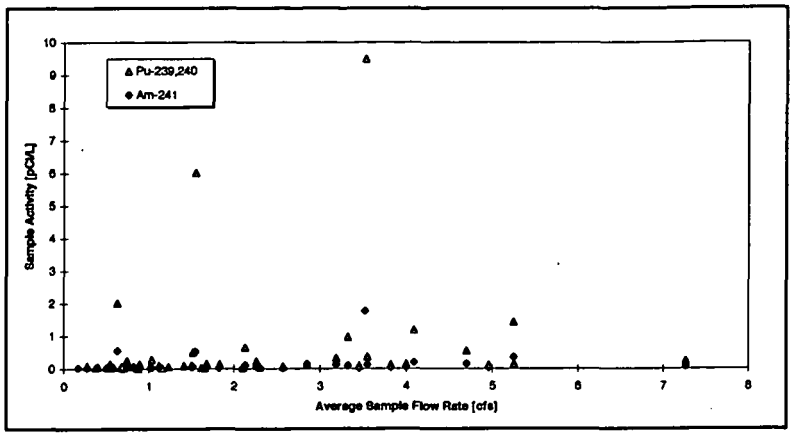
GS57 shows no statistically significant correlation between Pu and flow rate. There were no Am samples greater 0.015 pCi/L.

Figure 8-67. Variation of Pu and Am with Flow Rate at GS57.



GS57 shows a weak correlation between increasing total uranium activity and increasing flow rate. This is likely caused by the increased transport of uranium associated with suspended solids during larger runoff events.

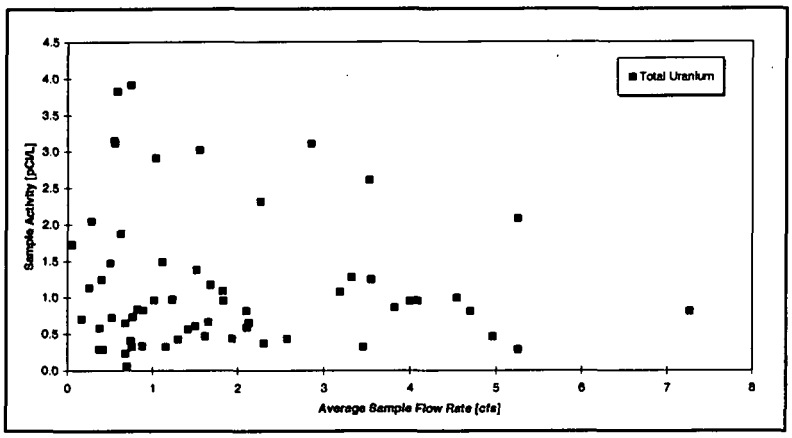
Figure 8-68. Variation of Total Uranium with Flow Rate at GS57.



Location SW022

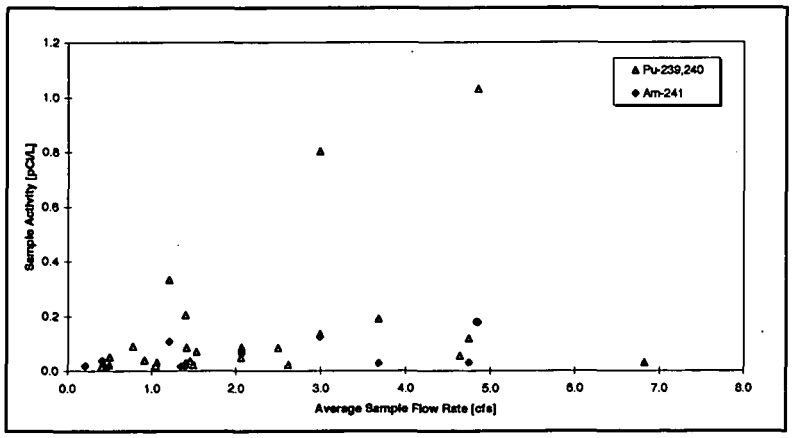
SW022 shows no statistically significant correlation between Pu and Am activity with flow rate.

Figure 8-69. Variation of Pu and Am with Flow Rate at SW022.



SW022 shows no statistically significant correlation between uranium and flow rate.

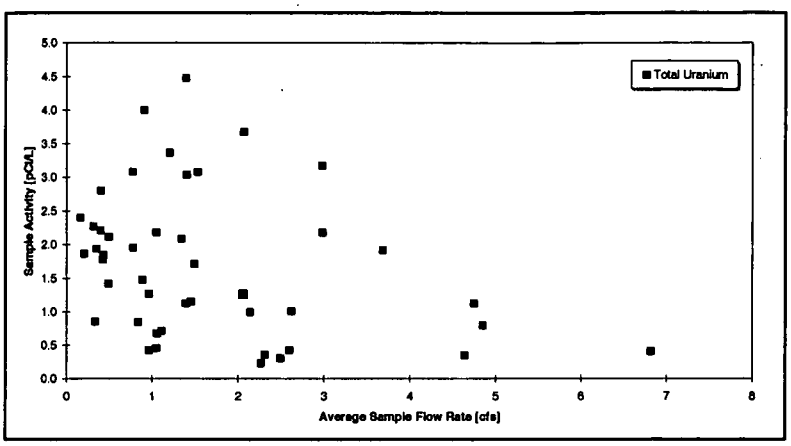
Figure 8-70. Variation of Total Uranium with Flow Rate at SW022.



Location SW027

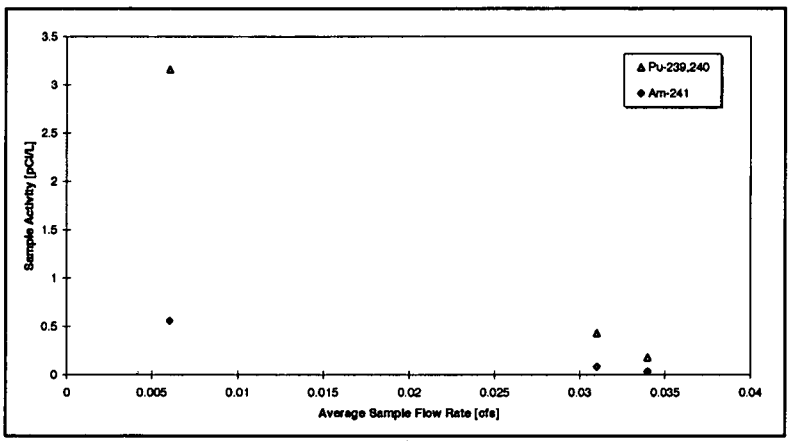
SW027 shows no statistically significant correlation between Pu and Am activity with flow rate.

Figure 8-71. Variation of Pu and Am with Flow Rate at SW027.



SW027 shows a weak trend between *decreasing* uranium activity and increasing flow rate. Baseflow (low flow rates) at SW027 is sustained in the spring by footing drain flows (400 Area) and possibly intercepted groundwater. If naturally occurring (or possibly anthropogenic) uranium is associated with these flows, then the decrease in uranium activity at higher flow rates could be caused by dilution from stormwater runoff.

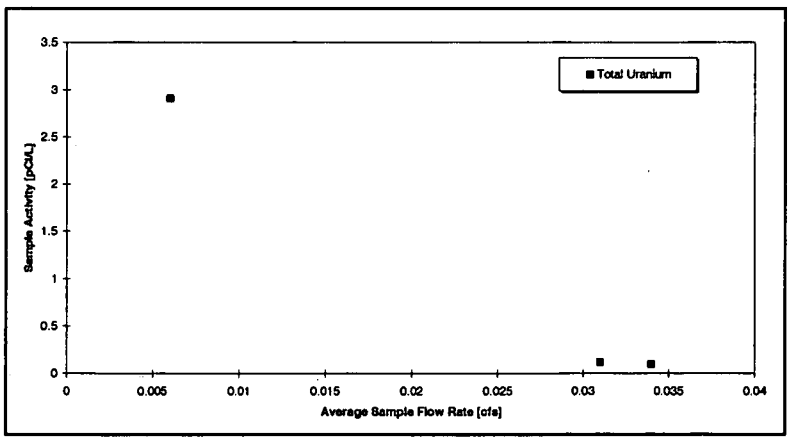
Figure 8-72. Variation of Total Uranium with Flow Rate at SW027.



Location SW055

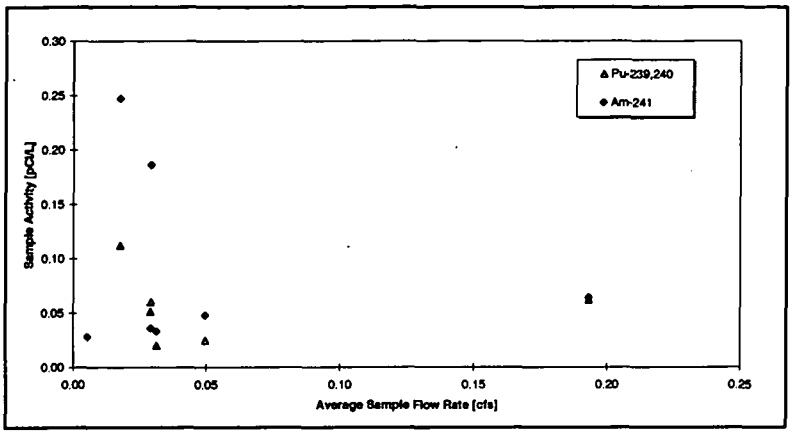
SW055 has only three data pairs, and correlations are not plotted.

Figure 8-73. Variation of Pu and Am with Flow Rate at SW055.



SW055 has only three data pairs, and correlations are not plotted.

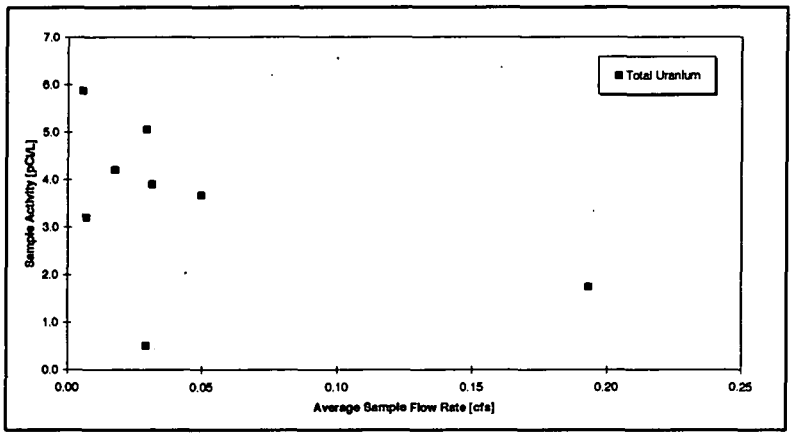
Figure 8-74. Variation of Total Uranium with Flow Rate at SW055.



Location SW091

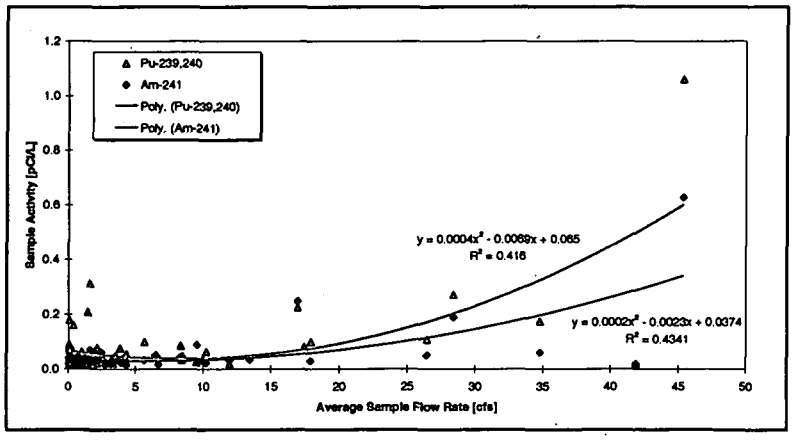
SW091 shows no statistically significant correlation between Pu and Am activity with flow rate.

Figure 8-75. Variation of Pu and Am with Flow Rate at SW091.



SW091 shows no statistically significant correlation between total uranium and flow rate.

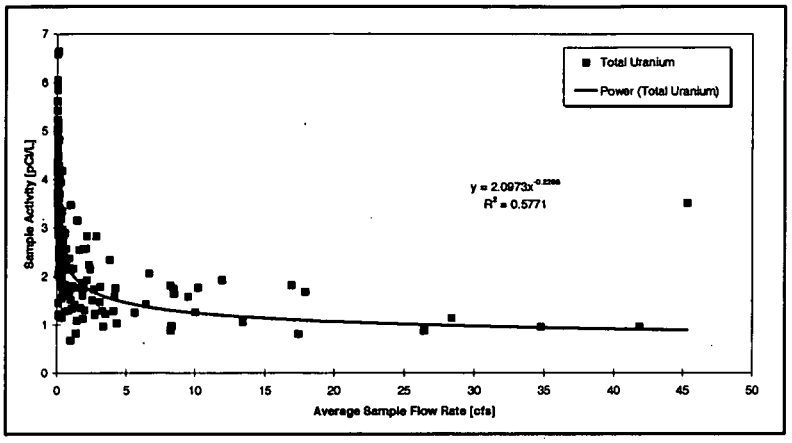
Figure 8-76. Variation of Total Uranium with Flow Rate at SW091.



Location SW093

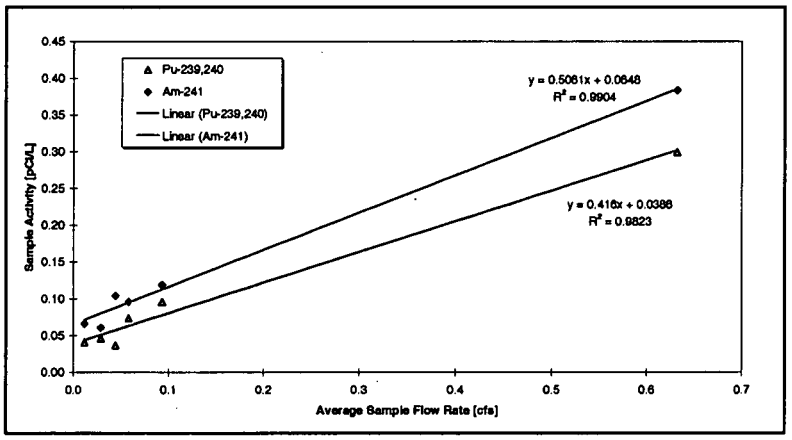
SW093 shows weak correlations between increasing Pu and Am activity with increasing flow rate.

Figure 8-77. Variation of Pu and Am with Flow Rate at SW093.



SW093 shows a fair trend between *decreasing* uranium activity and increasing flow rate. Baseflow (low flow rates) at SW093 is sustained by footing drain flows (northern IA) and possibly intercepted groundwater. If naturally occurring (or possibly anthropogenic) uranium is associated with these flows, then the decrease in uranium activity at higher flow rates could be caused by dilution from stormwater runoff. The highest activities are associated with the lowest flows.

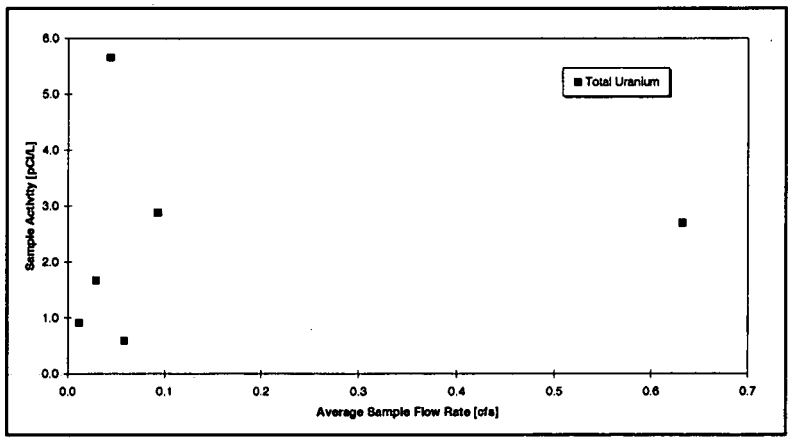
Figure 8-78. Variation of Total Uranium with Flow Rate at SW093.



Location SW119

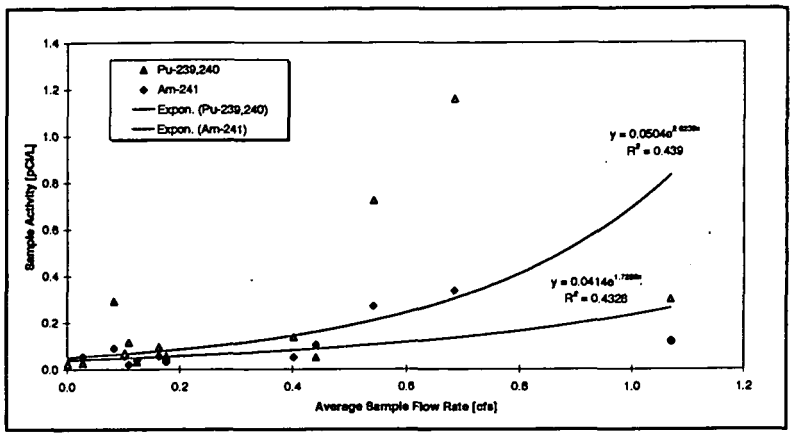
SW119 shows strong correlations between increasing Pu and Am activity and increasing flow rate for the limited number of points available. However, the correlations are strongly influenced by a single point.

Figure 8-79. Variation of Pu and Am with Flow Rate at SW119.



SW119 shows no statistically significant correlation between total uranium and flow rate.

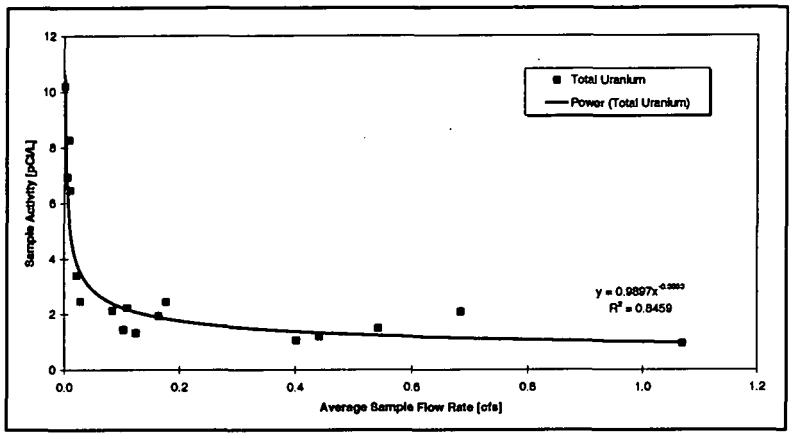
Figure 8-80. Variation of Total Uranium with Flow Rate at SW119.



Location SW120

SW120 shows weak correlations between increasing Pu and Am activity with increasing flow rate.

Figure 8-81. Variation of Pu and Am with Flow Rate at SW120.



SW120 shows a good correlation between *decreasing* uranium activity and increasing flow rate. Baseflow (low flow rates) at SW120 is mostly made up of flows passing through Bowman's Pond which is sustained by footing drain flows (771/774 area) and possibly intercepted groundwater. If naturally occurring (or possibly anthropogenic) uranium is associated with these flows, then the decrease in uranium activity at higher flow rates could be caused by dilution from stormwater runoff.

Figure 8-82. Variation of Total Uranium with Flow Rate at SW120.

8.3.4 Correlation of TSS with Turbidity

Since many contaminants tend to be transported in surface water in association with particulate matter (measured as TSS) and turbidity is an indicator of TSS, a relationship between TSS and turbidity could be used as an indicator of contaminant transport. This section evaluates the variation of composite sample TSS with the corresponding average real-time turbidity data. Plots are presented for all locations where turbidity data are collected. These locations are GS08, GS10, GS11, GS31, SW027, and SW093.

The sample TSS is the value obtained through laboratory analysis given in mg/L. TSS analysis is only performed for composite samples that are collected over a period of less than the TSS hold time (7 days). Consequently, not all samples collected at the above locations were analyzed for TSS. Only TSS values greater than the detection limit (generally 5 mg/L) are included.

The average composite sample period turbidity (NTU) is calculated as follows:

1. The date and time of each grab sample comprising the composite is obtained from the monitoring instrumentation.
2. The corresponding turbidity value for each grab sample is interpolated from the 15-minute interval turbidity data. Some TSS samples may not have turbidity values due to equipment failures and periodic equipment removal for winter icing conditions.
3. Since each grab sample is of the same volume (200 ml), the interpolated turbidity values are arithmetically averaged to obtain the applicable turbidity for the entire composite sampling period.

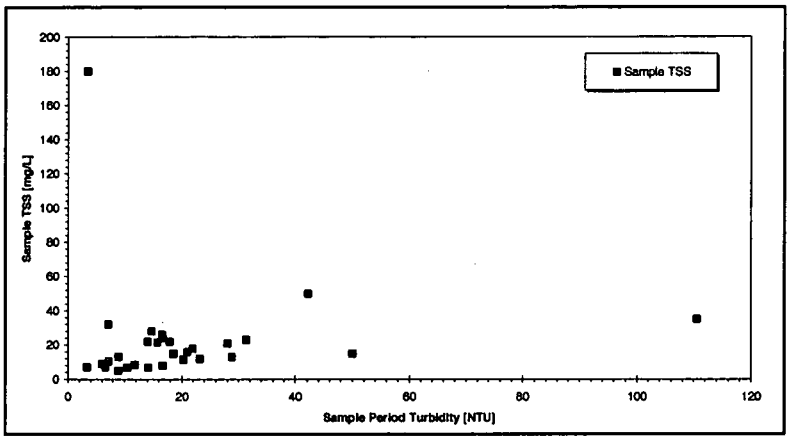


Figure 8-83. Variation of TSS with Turbidity at GS08.

Location GS08

GS08 does not show a strong relationship due to a single point with high TSS and low turbidity (Figure 8-83). This may have been caused by the sample intake temporarily sucking streambed sediments while the corresponding turbidity was measured higher in the water column.

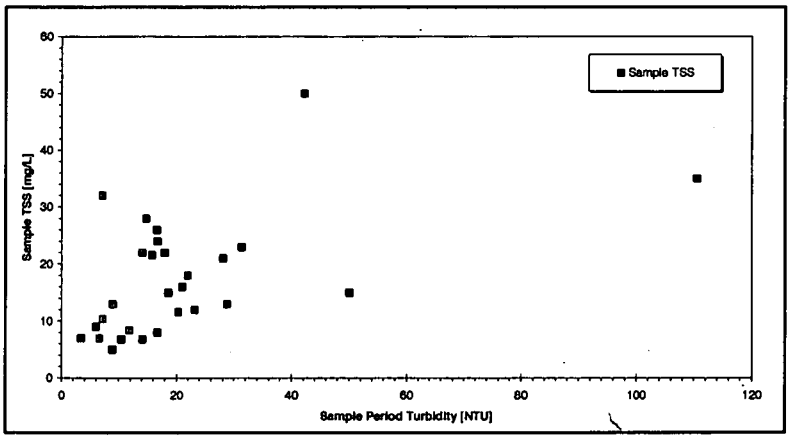


Figure 8-84. Variation of TSS with Turbidity at GS08: Data Subset.

Figure 8-84 shows the GS08 data with the point noted above removed from the evaluation. However, no statistically significant correlation is noted.

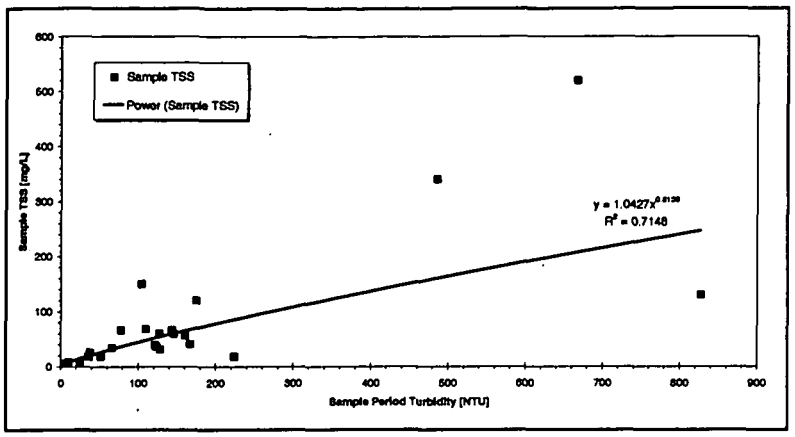


Figure 8-85. Variation of TSS with Turbidity at GS10.

Location GS10

GS10 shows a good correlation between increasing TSS and increasing turbidity.

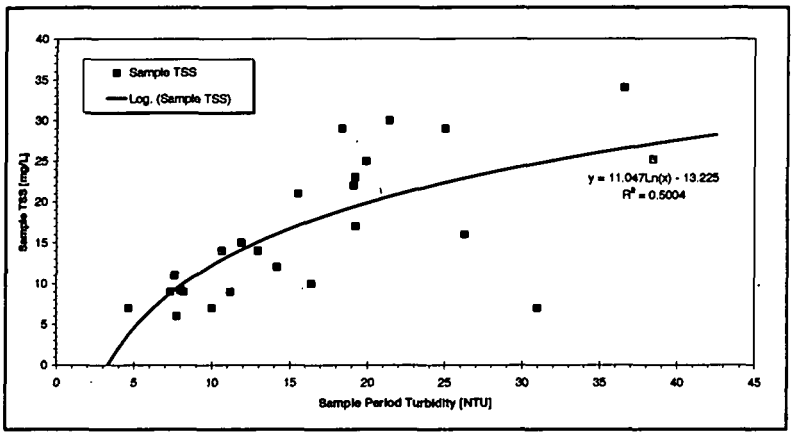


Figure 8-86. Variation of TSS with Turbidity at GS11.

Location GS11

GS11 shows a fair correlation between increasing TSS and increasing turbidity.

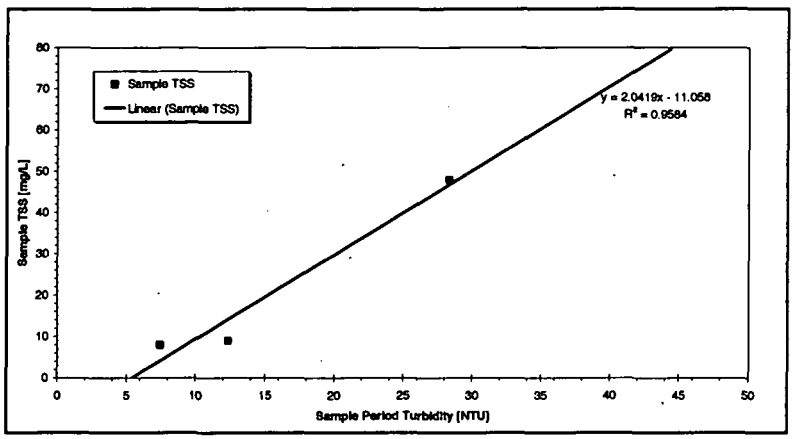


Figure 8-87. Variation of TSS with Turbidity at GS31.

Location GS31

GS31 shows a strong correlation between increasing TSS and increasing turbidity for the few points available.

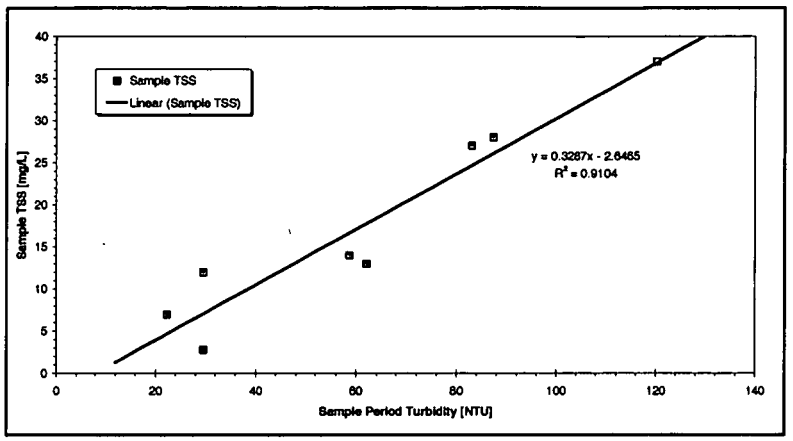


Figure 8-88. Variation of TSS with Turbidity at SW027.

Location SW027

SW027 shows a strong correlation between increasing turbidity and increasing TSS.

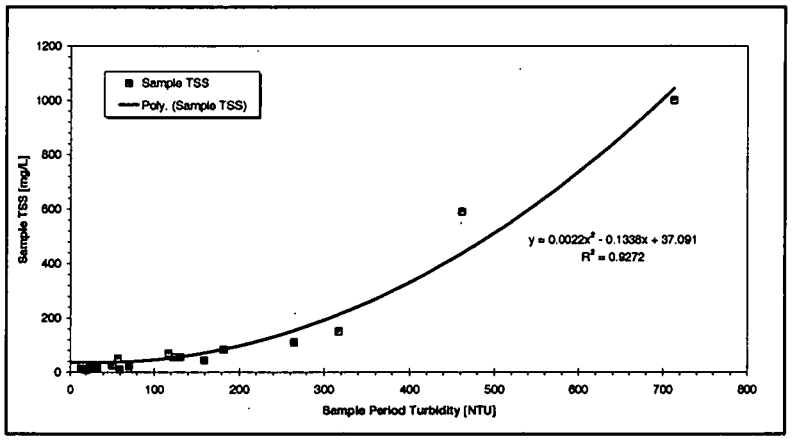


Figure 8-89. Variation of TSS with Turbidity at SW093.

Location SW093

SW093 shows a strong correlation between increasing turbidity and increasing TSS.

8.3.5 Correlation of TSS with Flow Rate

Since many contaminants tend to be transported in surface water in association with particulate matter (measured as TSS), if a relationship between TSS and flow rate could be established, then flow could be used as an indicator of contaminant transport. This section evaluates the variation of composite sample TSS with the corresponding average flow rate. Plots are presented for all locations where both flow and TSS data are collected.

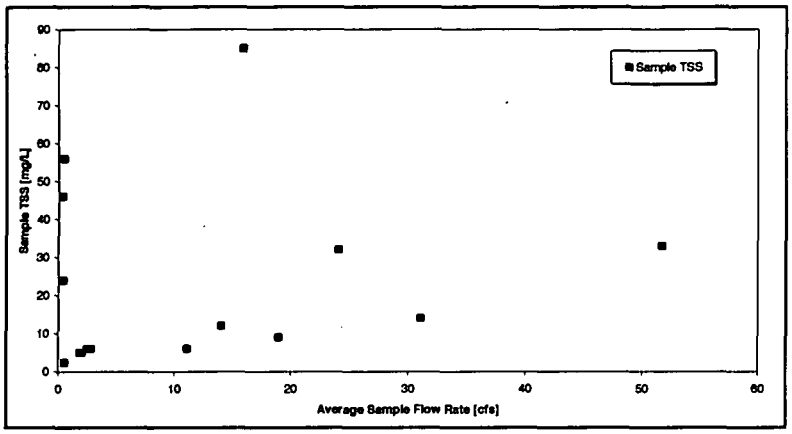
The sample TSS is the value obtained through laboratory analysis given in mg/L. TSS analysis is only performed for composite samples that are collected over a period of less than the TSS hold time (7 days). Consequently, not all samples collected at the locations evaluated were analyzed for TSS. Only TSS values greater than the detection limit (generally 5 mg/L) are included.

The average composite sample period flow rate (CFS) is calculated as follows:

1. The date and time of each grab sample comprising the composite is obtained from the monitoring instrumentation.
2. The corresponding flow value for each grab sample is interpolated from the 15-minute interval flow data. Some TSS samples may not have flow values due to equipment failures and poor flow data due to winter icing conditions.

3. Since each grab sample is of the same volume (200 ml for flow-paced composites and generally 1L for storm-event composites), the interpolated flow values are arithmetically averaged to obtain the applicable flow for the entire composite sampling period.

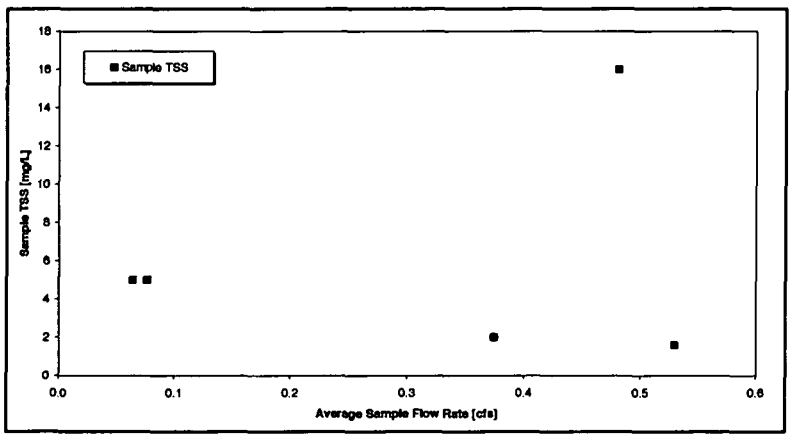
GS22, GS28, GS40, GS42, GS44, GS49, GS50, GS51, GS52, GS53, GS54, GS55, GS56, GS57, SW036, SW055, SW119, and SW120 are not presented below, as there were less than three TSS-flow data points at these locations



Location GS01

GS01 shows a general increase in TSS with increasing flow rate, although there is no statistically significant correlation.

Figure 8-90. Variation of TSS with Flow Rate at GS01.



Location GS02

GS02 shows no statistically significant correlation between TSS and increasing flow rate.

Figure 8-91. Variation of TSS with Flow Rate at GS02.

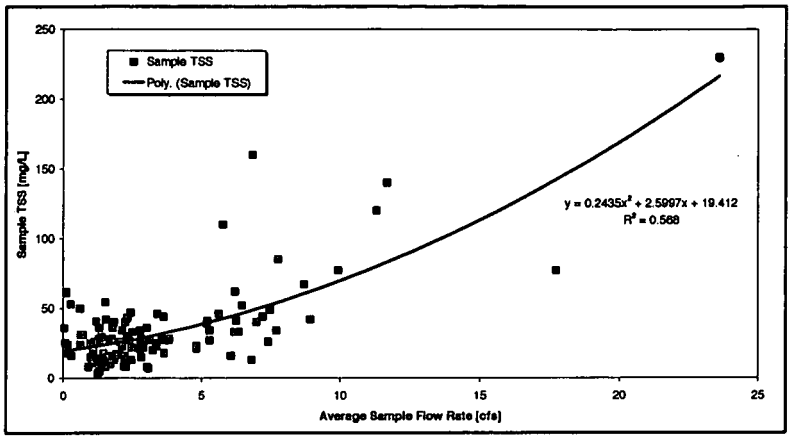


Figure 8-92. Variation of TSS with Flow Rate at GS03.

Location GS03

GS03 shows a fair correlation between increasing TSS and increasing flow rate.

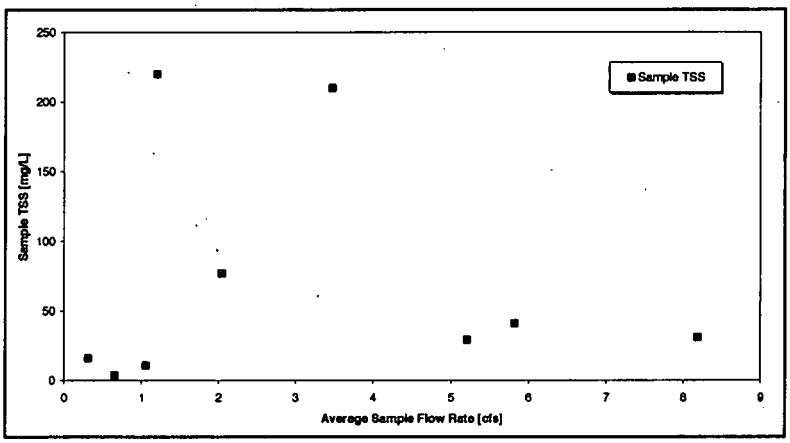


Figure 8-93. Variation of TSS with Flow Rate at GS04.

Location GS04

GS04 shows no statistically significant correlation between TSS and increasing flow rate.

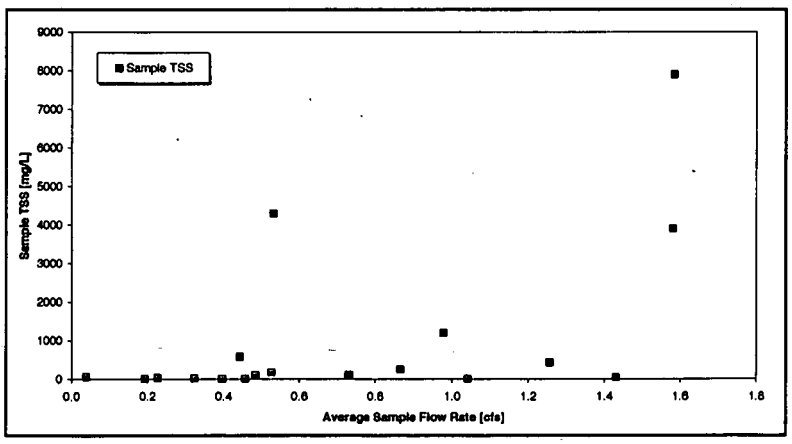


Figure 8-94. Variation of TSS with Flow Rate at GS05.

Location GS05

GS05 shows no statistically significant correlation between TSS and increasing flow rate, although the higher TSS values are associated with the higher flow rates.

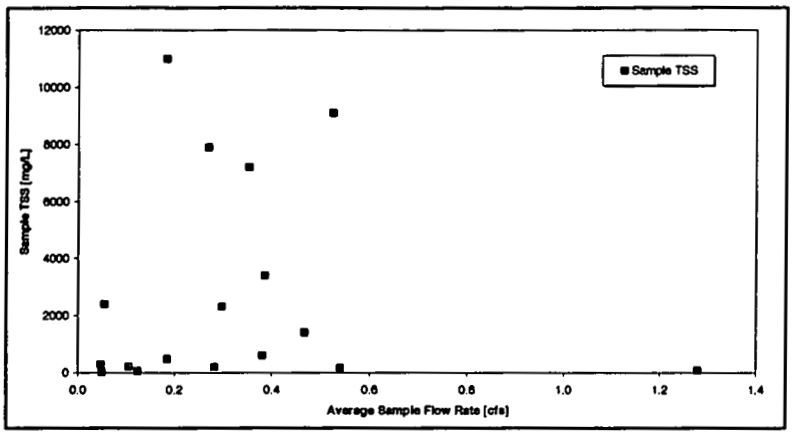


Figure 8-95. Variation of TSS with Flow Rate at GS06.

Location GS06

GS06 shows no statistically significant correlation between TSS and increasing flow rate.

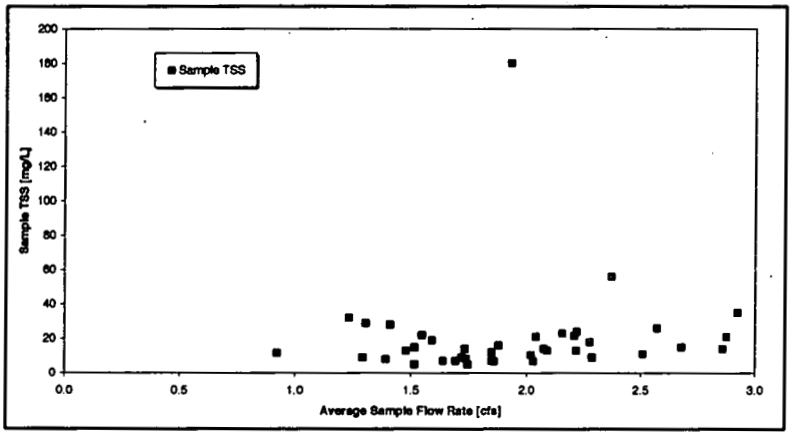


Figure 8-96. Variation of TSS with Flow Rate at GS08.

Location GS08

GS08 does not show a relationship between TSS and flow rate due to a single point with high TSS (Figure 8-96). This may have been caused by the sample intake temporarily sucking streambed sediments.

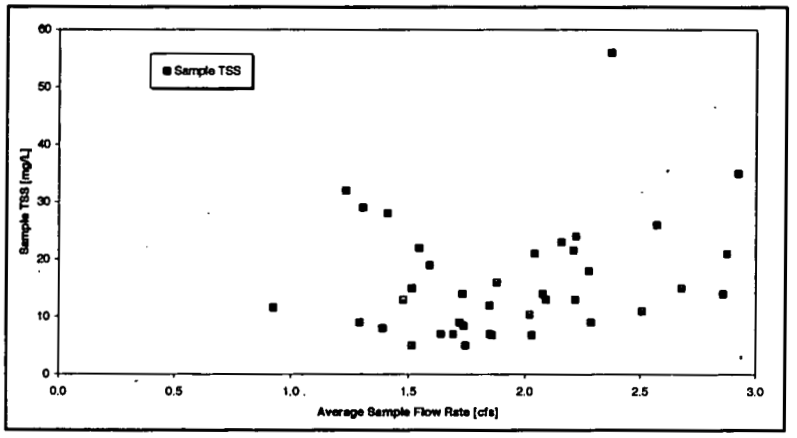


Figure 8-97. Variation of TSS with Flow Rate at GS08: Data Subset.

Figure 8-97 shows the GS08 data with the point noted above removed from the evaluation. With this data subset no statistically significant correlation is noted between TSS and flow rate.

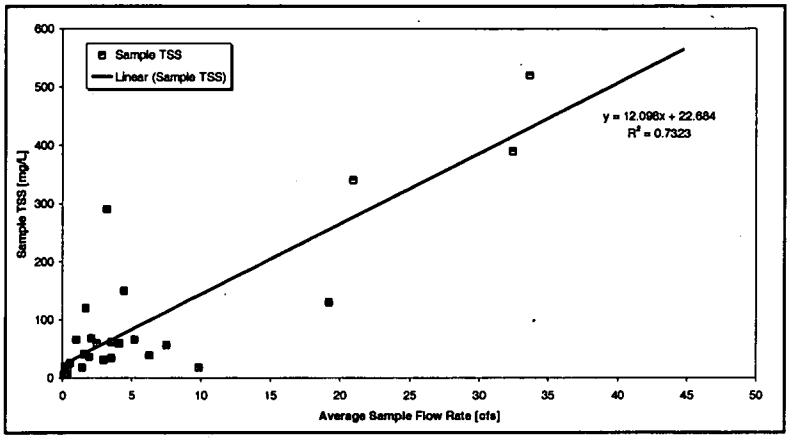


Figure 8-98. Variation of TSS with Flow Rate at GS10.

Location GS10

GS10 shows a good correlation between increasing TSS and increasing flow rate.

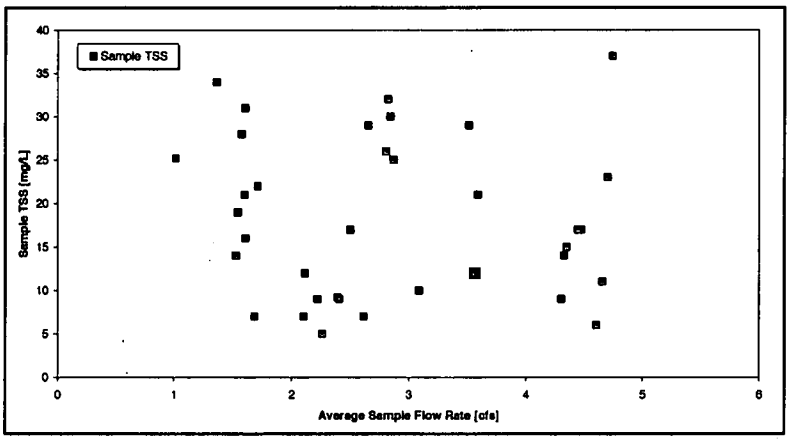


Figure 8-99. Variation of TSS with Flow Rate at GS11.

Location GS11

GS11 shows no statistically significant correlation between TSS and increasing flow rate.

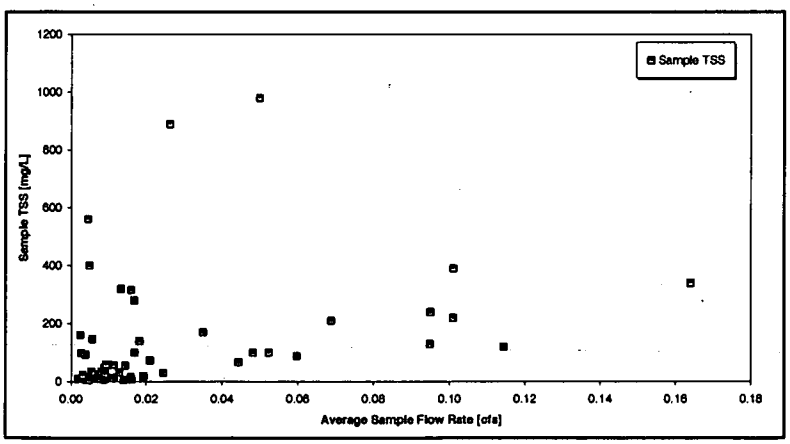


Figure 8-100. Variation of TSS with Flow Rate at GS27.

Location GS27

GS27 shows no statistically significant correlation between TSS and increasing flow rate. The high TSS values for low flow rates may be the result of intense low-volume precipitation events (possibly with hail) that pulverize local soils to yield high TSS with lower peak flow rates.

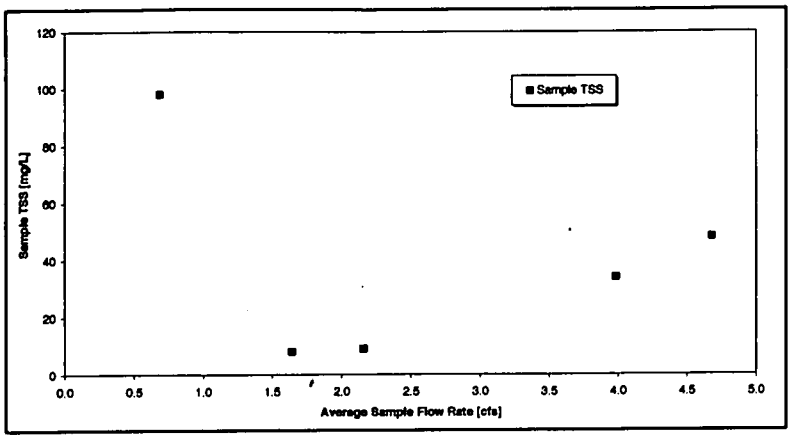


Figure 8-101. Variation of TSS with Flow Rate at GS31.

Location GS31

GS31 shows no statistically significant correlation between TSS and increasing flow rate for the few points available.

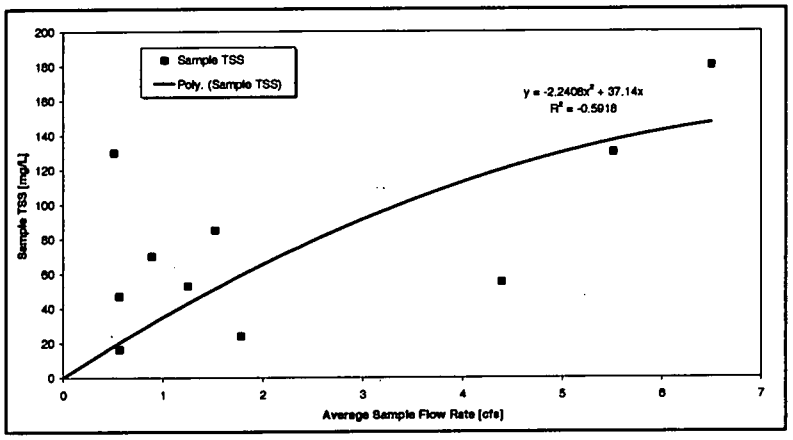


Figure 8-102. Variation of TSS with Flow Rate at GS38.

Location GS38

GS38 shows a fair correlation between increasing TSS and increasing flow rate.

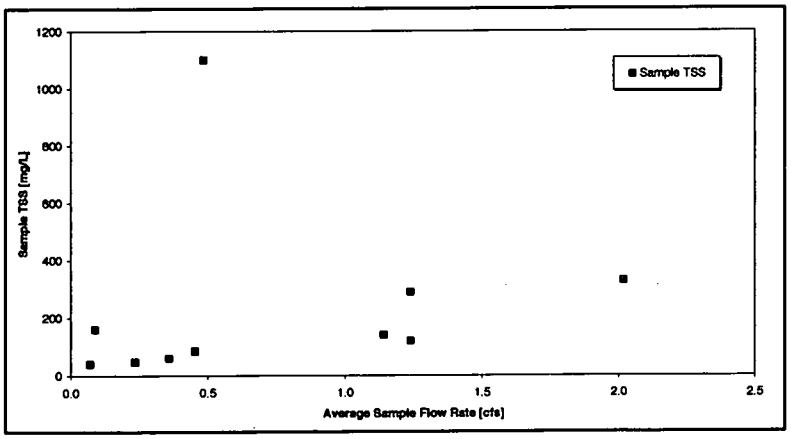


Figure 8-103. Variation of TSS with Flow Rate at GS39.

Location GS39

GS39 does not show a statistically significant correlation due to a single point with high TSS (Figure 8-103). This location is located near a high-traffic dirt road that accesses the Contractor Yard. During runoff events, especially snowmelts, traffic on this road results in runoff with visibly high TSS. Since this sample was collected in March 1998, the high TSS may have been a result of vehicle traffic.

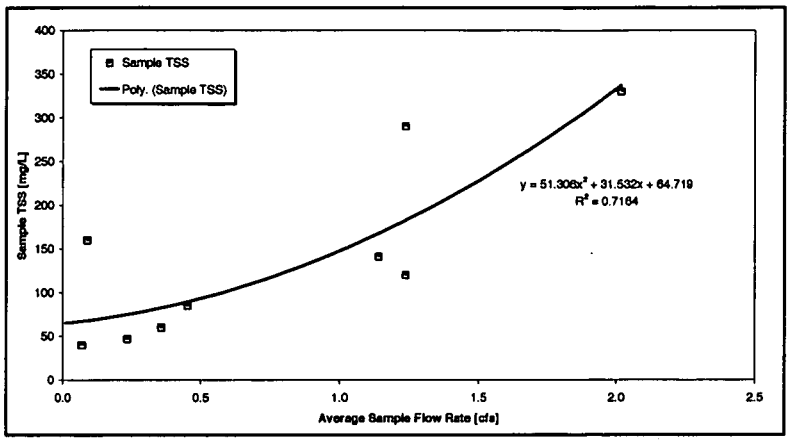
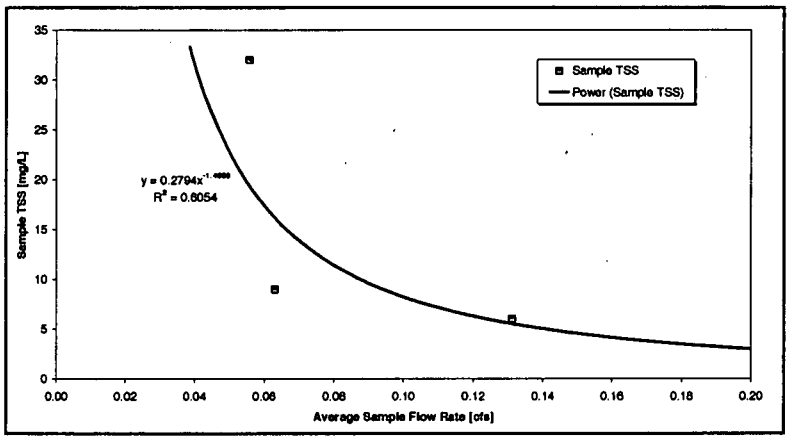


Figure 8-104 shows the GS39 data with the point noted above removed from the evaluation. The plot shows a good correlation between increasing TSS and increasing flow rate.

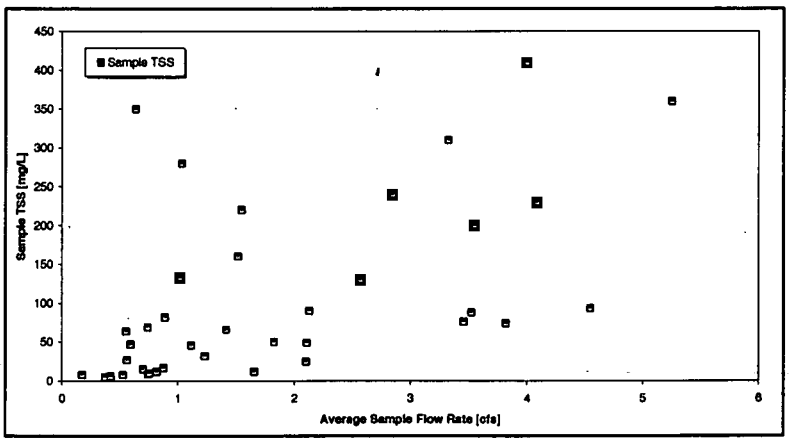
Figure 8-104. Variation of TSS with Flow Rate at GS39: Data Subset.



Location GS43

GS43 shows a fair correlation between *decreasing* TSS and increasing flow rate for the few points available. Since samples collected at GS43 include both runoff and pumped footing drain discharges, samples of predominantly footing drain water could have higher flow rates and (presumably) lower TSS.

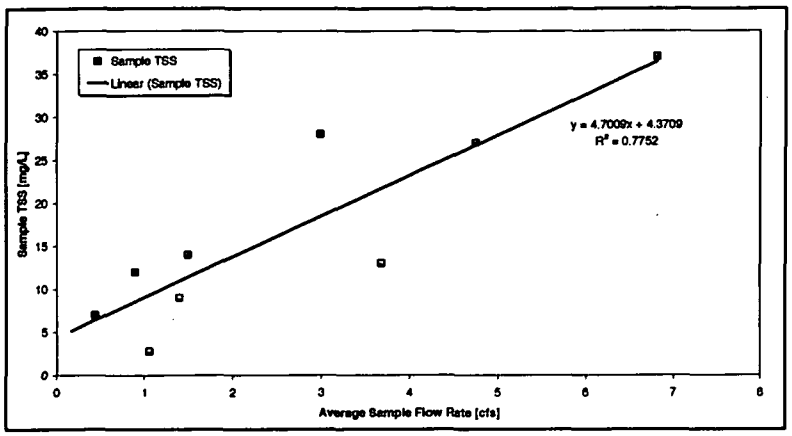
Figure 8-105. Variation of TSS with Flow Rate at GS43.



Location SW022

SW022 shows no statistically significant correlation between TSS and increasing flow rate.

Figure 8-106. Variation of TSS with Flow Rate at SW022.

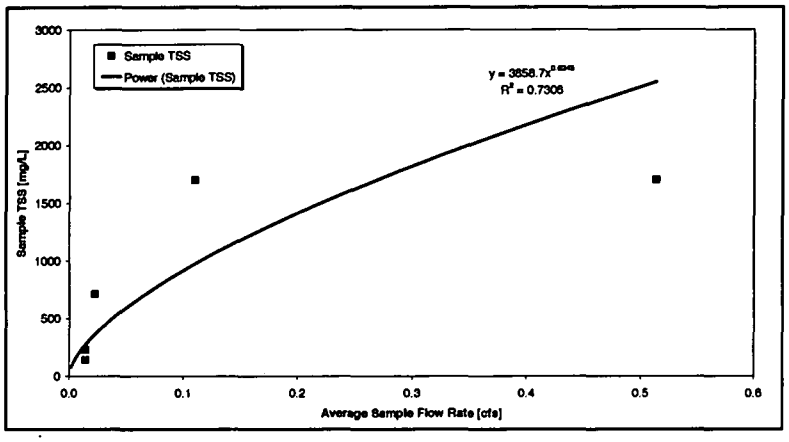


Location SW027

SW027 shows a good correlation between increasing TSS and increasing flow rate.

Figure 8-107. Variation of TSS with Flow Rate at SW027.

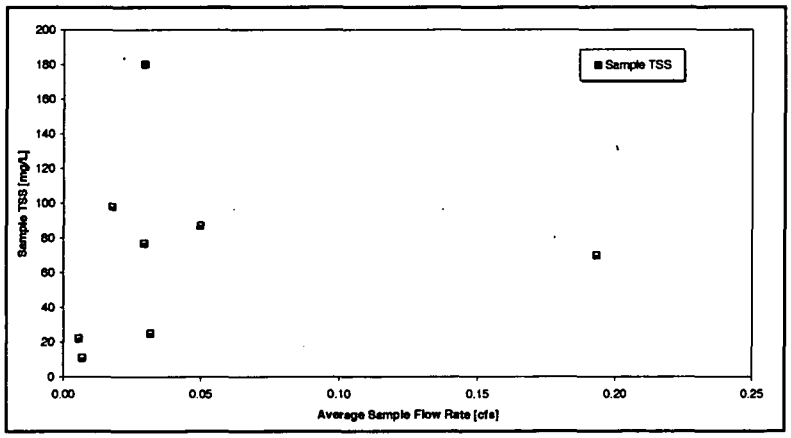
Location SW091



SW091 shows a good correlation between increasing TSS and increasing flow rate for the relatively few samples available.

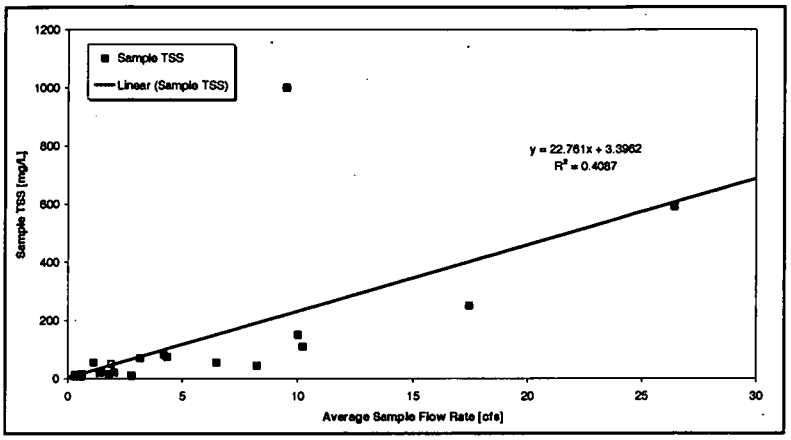
Due to high channel erosion rates and frequent winter icing conditions, SW091 was moved 500' downstream on 5/4/98. Since the new location is below a small depression where flows are temporarily detained, water quality is expected to vary between the two locations. Therefore, data from the original location are presented in Figure 8-108 and data from the current location are presented in Figure 8-109.

Figure 8-108. Variation of TSS with Flow Rate at SW091: Original Location.



SW091 (current location) shows no statistically significant correlation between increasing TSS and increasing flow rate.

Figure 8-109. Variation of TSS with Flow Rate at SW091: Current Location.



Location SW093

SW093 shows a weak correlation between increasing TSS and increasing flow rate. However, a single point is noted to be negatively influencing the correlation.

Figure 8-110. Variation of TSS with Flow Rate at SW093.

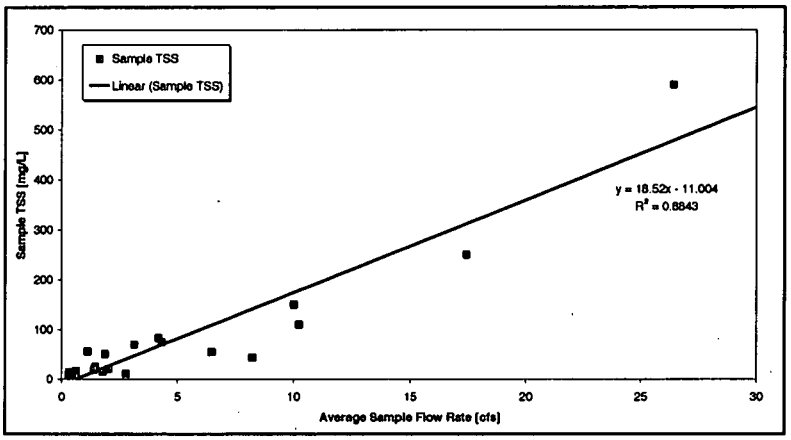
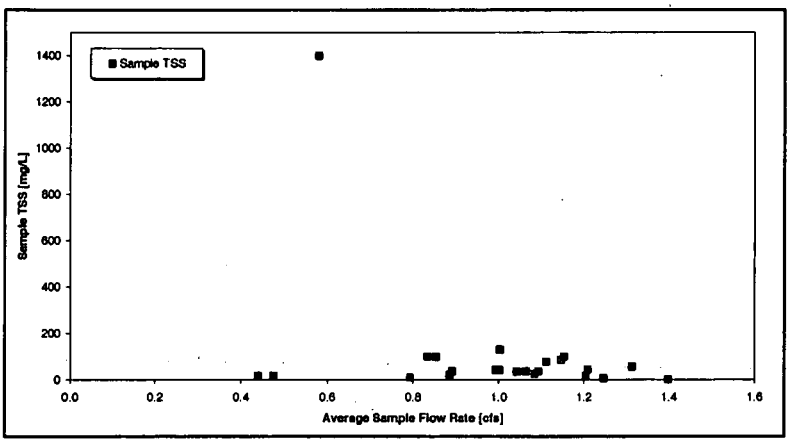


Figure 8-111 shows the SW093 data with the point noted above removed from the evaluation. The plot shows a good correlation between increasing TSS and increasing flow rate.

Figure 8-111. Variation of TSS with Flow Rate at SW093: Data Subset.



Location SW134

SW134 shows no statistically significant correlation between TSS and increasing flow rate. Since SW134 generally monitors pumped discharges from a series of active gravel pits, the origin of the pumped water could be expected to result in varying water quality. However, samples are occasionally collected during storm runoff period with higher TSS. Figure 8-113 does not include storm runoff samples.

Figure 8-112. Variation of TSS with Flow Rate at SW134.

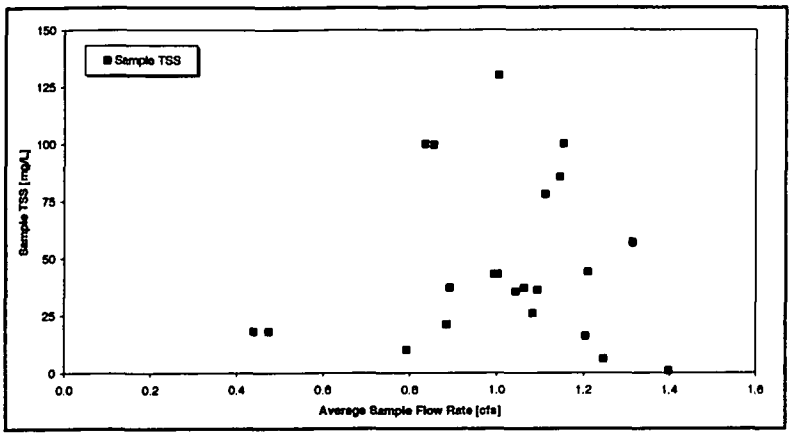


Figure 8-113 shows the SW134 data with the samples noted above removed from the evaluation. Again, no statistically significant correlation is noted due to the pump discharges, as noted above.

Figure 8-113. Variation of TSS with Flow Rate at SW093: Data Subset.

8.3.6 Correlation of Turbidity with Flow Rate

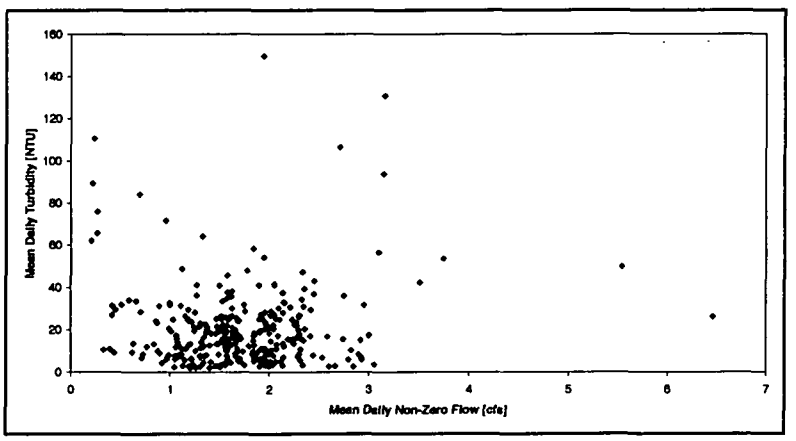
This section evaluates the variation of volume-weighted mean daily turbidity with the corresponding average flow rate. Plots are presented for all locations where both flow and real-time turbidity data are collected. These locations are GS08, GS10, GS11, GS31, SW027, and SW093.

The volume-weighted mean daily turbidity is the 15-minute interval turbidity data volume-weighted by the corresponding 15-minute interval discharge volume during periods of greater than zero streamflow for any given date. The corresponding average flow rate is the arithmetic average of the 15-minute interval flow data during periods of greater than zero streamflow for the same date. Only days where complete record (no missing data) for both turbidity and flow rate are included.

Location GS08

GS08 shows no statistically significant correlation between turbidity and increasing flow rate.

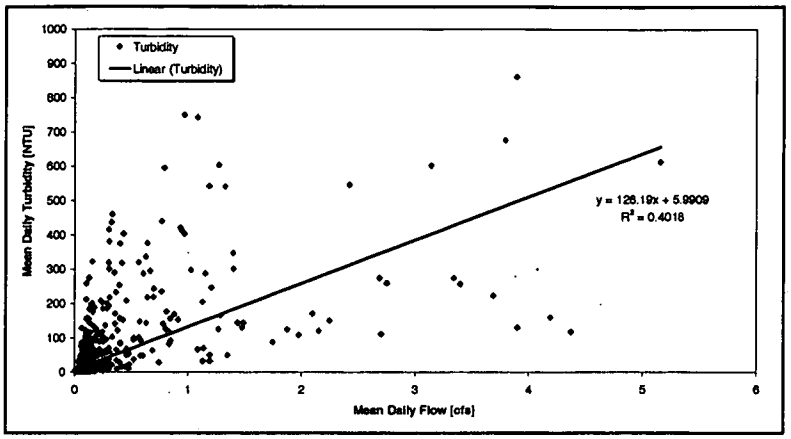
Since GS08 is on the outfall of Pond B-5, the flow rates are valve controlled and not dependent on runoff conditions. In order to maintain a 1-foot per day drawdown rate in the pond (to prevent sloughing due to excessive soil dewatering rates), the lowest flow rates tend to occur at the lowest pond levels. At low pond levels, the residence time (for passive settling) of runoff inflows (from GS10) is shorter and less water is also available to dilute the associated turbidity. Consequently, low-flow and high-turbidity points could be for discharge days at the end of a batch discharge period.



Additionally, at these lower pond levels, biologic growth rates may be enhanced resulting in higher turbidity measurements.

Finally, higher discharge rates can be maintained when runoff inflow rates (from GS10) are higher. Consequently, high-flow and high-turbidity points could be for discharge days when significant runoff (with higher expected turbidity; see Figure 8-115) is entering Pond B-5.

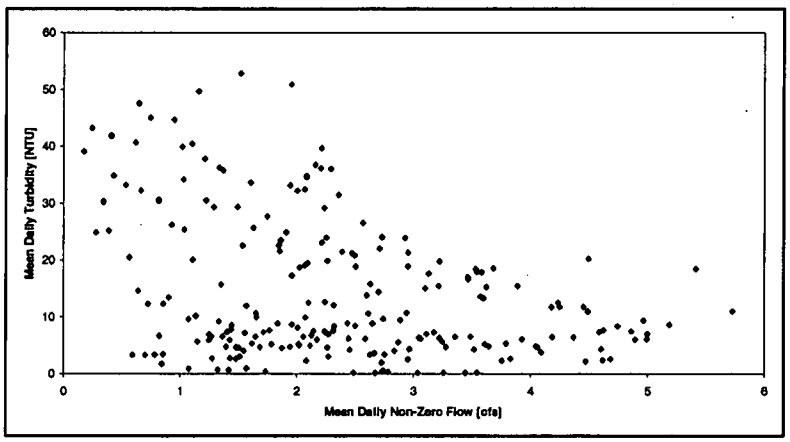
Figure 8-114. Variation of Turbidity with Flow Rate at GS08.



Location GS10

GS10 shows a weak correlation between increasing turbidity and increasing flow rate. This is expected since TSS (as indicated by turbidity) generally increases with increasing flow rate at GS10 (Figure 8-98).

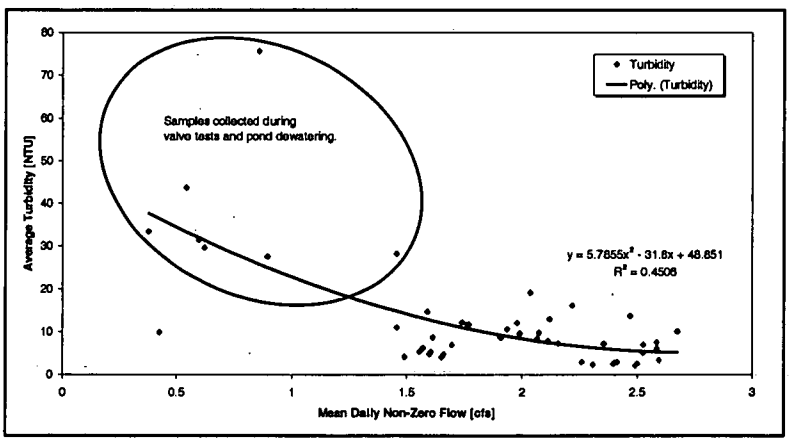
Figure 8-115. Variation of Turbidity with Flow Rate at GS10.



Location GS11

GS11 shows a general trend between decreasing turbidity and increasing flow rate. Since GS11 is on the outfall of Pond A-4, the flow rates are valve controlled and not dependent on runoff conditions. In order to maintain a 1-foot per day drawdown rate in the pond, the lowest flow rates tend to occur at the lowest pond levels. At these lower pond levels, biologic growth rates may be enhanced resulting in higher turbidity measurements.

Figure 8-116. Variation of Turbidity with Flow Rate at GS11.



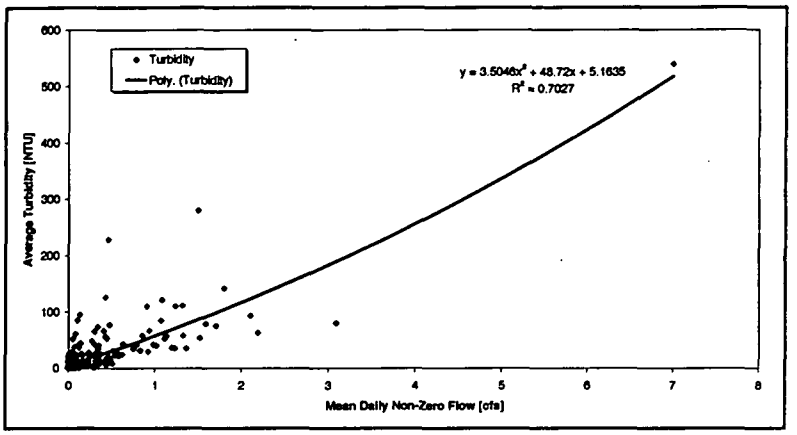
Location GS31

GS31 shows a weak correlation between decreasing turbidity and increasing flow rate. Since GS31 is on the outfall of Pond C-2, the flow rates are controlled by pumping rates and not dependent on runoff conditions. In order to maintain a 1-foot per day drawdown rate in the pond, the lowest flow rates tend to occur at the lowest pond levels. At these lower pond levels, biologic growth rates may be enhanced resulting in higher turbidity measurements.

Figure 8-117. Variation of Turbidity with Flow Rate at GS31.

It should be noted that the points circled in Figure 8-117 are associated with data collected during pond dewatering to allow for video surveillance and/or testing of the outlet works. To achieve dewatering, the outlet

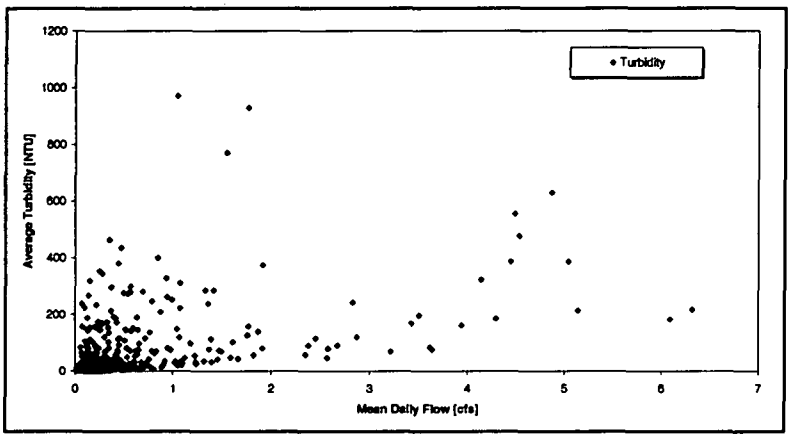
works valve on the bottom of the pond (essentially in the pond bottom sediments) is used to drain the pond. At these low pond levels, higher turbidity values are expected. The other values are for samples collected during normal pump discharge operations where water is taken from the pond surface.



Location SW027

SW027 shows a good correlation between increasing turbidity and increasing flow rate, although the fit is strongly influenced by a single data point. This is expected since TSS (as indicated by turbidity) generally increases with increasing flow rate at SW027 (Figure 8-107).

Figure 8-118. Variation of Turbidity with Flow Rate at SW027.



Location SW093

SW093 shows no statistically significant correlation between increasing turbidity and increasing flow rate. However, higher turbidities are generally associated with higher flow rates. This is expected since TSS (as indicated by turbidity) generally increases with increasing flow rate at SW093 (Figure 8-110).

Figure 8-119. Variation of Turbidity with Flow Rate at SW093.

9. NPDES DISCHARGE MONITORING

The National Pollutant Discharge Elimination System (NPDES) permit program controls the release of pollutants into the waters of the United States and requires routine monitoring of point source discharges and reporting of results. The Site's first NPDES permit, CO-0001333, was issued by EPA in 1974. The permit in force during the reporting period covered in this document was renewed by EPA in late October 2000.

9.1 DATA TYPES, FREQUENCY, AND COLLECTION PROTOCOLS

As of October 2000, EPA had issued a renewal NPDES permit to three co-permittees at the Site, the DOE, K-H, and Rocky Flats Closure Sites Services (RFCSS). The permit covered point discharges from the WWTP and Building 374. The latter had been included in the permit application a number of years previously, but as a result of the changing mission of the Site, was no longer needed in the NPDES permit. The co-permittees had asked that the outfall be removed from the renewal permit, but EPA declined. Upon issuance, the co-permittees appealed the permit provisions applicable to the 374 outfall, as allowed by regulation. EPA acknowledged the appeal and suspended the requirements for 374 until the issues were resolved. The rest of the permit became effective on October 27, 2000. The appeal was resolved in early 2001, and the modified permit requirements became effective on May 1, 2001. The modified permit provisions applicable for Bldg. 374 accepted the existing monitoring program for the treatment systems' product water. Summary data for the 374 outfall only are compiled annually and provided to EPA and the State in March of each year. Those data are not included in the tables below. As of March 2002, Bldg. 374 curtailed all discharges.

With the implementation of the renewed permit, only two locations were defined as permitted outfalls, STP1 (discharge from Sewage Treatment Plant, Bldg. 995) and 014A (discharge from Bldg. 374 Evaporator). Samples are also collected at the influent to the Sewage Treatment Plant, but the parameters are for reporting purposes only and have no limitation. The outfalls are identified in Table 9-1. All monitoring for NPDES compliance is prescriptively required by EPA in the permit. Table 9-2 details the specific analytes, collection frequencies, and parameter limitations as applicable, for each monitoring location. Table 9-3 provides summary data for each of the permitted locations. Finally, Table 9-4 details measurements that were reported to EPA in the monthly Discharge Monitoring Report as being greater than the permitted limitations for specific location and analyte.

The permit specifically identifies four stormwater outfalls for monitoring as follows:

- 008 The storm water discharge from the area outlined on Sheet 2 (Basin SW022) of the maps in the Form 2F application submitted October 1, 1992, located at the point where Central Avenue Ditch crosses the outer industrial area security fence.
- GS10 The storm water discharge from the area outlined on sheet 3 (Basin SW023) of the maps in the Form 2F application submitted October 1, 1992, located on South Walnut Creek upstream of Pond B-1.
- 010 The storm water discharge from the area outlined on Sheet 4 (Basin SW027) of the maps in the Form 2F application submitted October 1, 1992, located at the downstream end of the south interceptor ditch.
- 011 The storm water discharge from the area outlined on Sheet 5 (Basin SW093) of the maps in the Form 2F application submitted October 1, 1992, located on North Walnut Creek at a point upstream of Pond A-1. This area receives any storm water discharge from Outfall 012.

Monitoring at these locations is performed as detailed under the NSD (Section 11) and POE (Section 12) monitoring objectives. Monitoring for outfall 008 is accomplished at NSD location SW022 at the east end of Central Ave. Ditch. Monitoring at outfalls GS10, 010, and 011 is accomplished at NSD/POE locations GS10 (South Walnut Cr. above B-Series Ponds), SW027 (east end of SID), and SW093 (North Walnut Creek above A-Series Ponds), respectively. The monitoring conducted in accordance with the IMP targets the same points and

constituents of concern identified in the current NPDES permit. Data generated by this monitoring is adequate for determining the efficacy of the Storm Water Pollution Prevention Plan developed under the permit.

9.2 WY02 MONITORING SCOPE

Table 9-1. NPDES Monitoring Locations for WY02.

Outfall Code	Location Description
Outfall STP 1	The outfall from the sewage treatment plant (STP), located at Building 995, prior to the mixture with the receiving stream, known as South Walnut Creek, at the pint of discharge into Pond B-3 (Big Dry Creek Segment 5). Use of STP1 as the primary discharge point is expected to continue throughout the remaining life of the STP.
Outfall 014 A	This is a point where internal effluent limitations apply and is the discharge of product water from the evaporators in building 374. The point of compliance is following the evaporator(s) and prior to routing the water to the cooling tower makeup water system or to the boiler feedwater system.

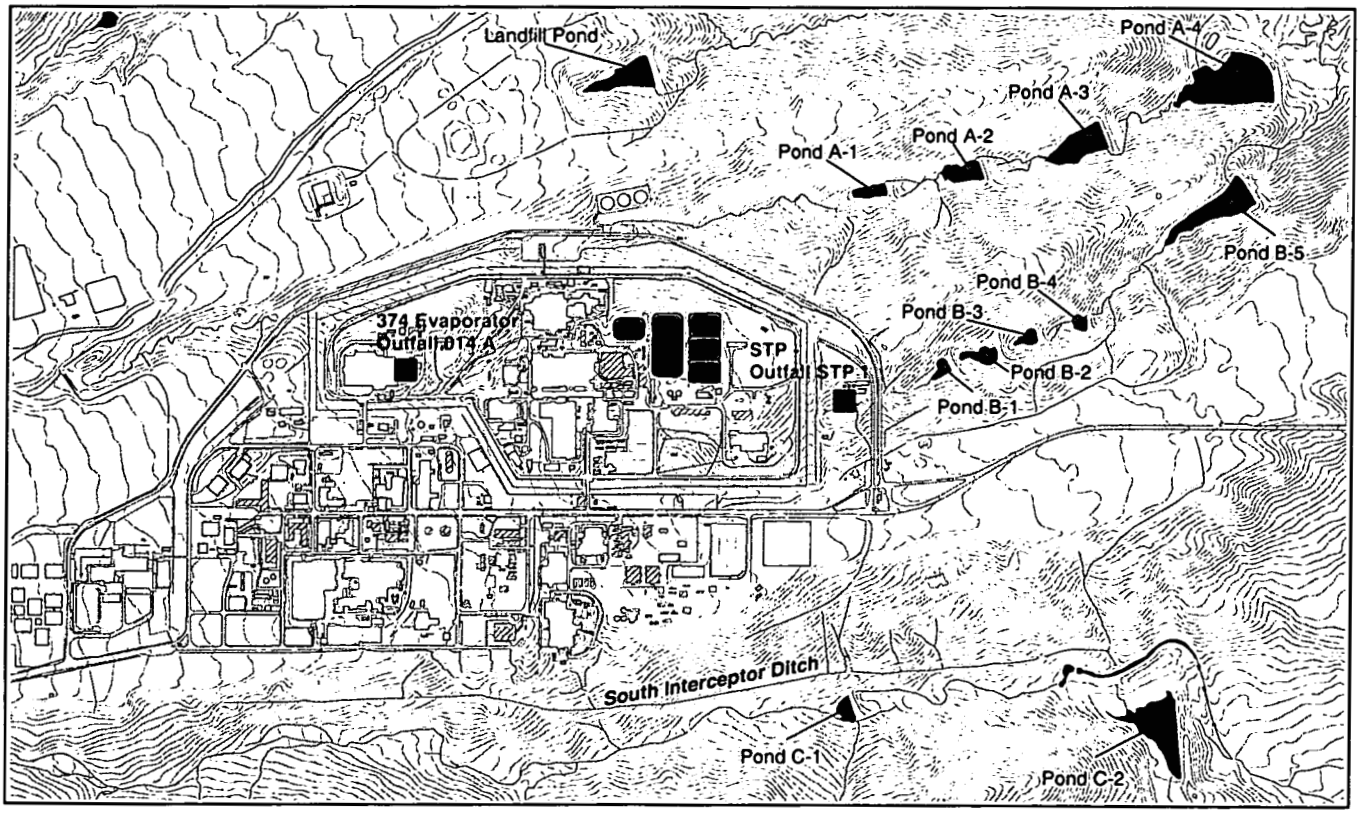


Figure 9-1. Water Year 2002 NPDES Monitoring Locations.

Table 9-2. NPDES Sample Collection Requirements for WY02.

Outfall Code	Analyte	Frequency	Type	Limitation(s)
STP 1	pH	daily	grab	6.5 – 9.0 S.U.
	Total Suspended Solids	2 X week	composite	15 mg/l, 30 day average; 25 mg/l, daily maximum
	Oil and Grease, visual	daily	visual observation	no sheen
	Oil and Grease, gravimetric method	collected if sheen observed	grab	10 mg/l, daily maximum
	Total Phosphorous (as P)	2 X week	composite	8 mg/l, 30 day average; 12 mg/l, daily maximum
	Flow	continuous recorder	contiguous recorder	0.5 MG, 30 day average
	Fecal Coliform	2 X week	grab	200 colonies/100 ml, 30 day geometric mean; 400 colonies/100 ml, 7 day geometric mean
	Carbonaceous Biochemical Oxygen Demand, 5 day test	2 X week	composite	8 mg/l, 30 day average; 20 mg/l, daily maximum
	Dissolved Hexavalent Chromium	Quarterly, only if total chromium results are >11 µg/l	grab	11 µg/l, 30 day average; 16 µg/l, daily maximum
	Total Recoverable Chromium	2 X month	composite	50 µg/l, daily maximum
	Potentially Dissolved Silver	1 X week	composite	0.6 µg/l, 30 day average; 3.8 µg/l daily maximum
	Alkalinity, total (as CaCO3)	2 X week	composite	No limitation, report only
	Total Nitrate/nitrite (as N)	2 X week	composite	No limitation, report only
	Nitrite (as N)	2 X week	composite	4.5 mg/l, daily maximum
	Ammonia (as N)	2 X week	composite	No limitation, report only
	Gross alpha	2 X month	composite	11 pCi/L, 30 day average
	Gross beta	2 X month	composite	19 pCi/L, 30 day average
	Carbon Tetrachloride	1 X month	grab	5 µg/l, 30 day average
	1, 2 dichloroethane	1 X month	grab	5 µg/l, 30 day average
	Benzene	1 X month	grab	5 µg/l, 30 day average
	1,1 dichloroethylene	1 X month	grab	7 µg/l, 30 day average
	1,1,1 trichloroethane	1 X month	grab	200 µg/l, 30 day average
	(trans) 1,2 dichloroethene	1 X month	grab	70 µg/l, 30 day average
	Trichloroethylene	1 x month	grab	5 µg/l, 30 day average
	Tetrachlorethylene	1 X month	grab	5 µg/l, 30 day average
	Whole Effluent Toxicity, acute test	quarterly	composite	No toxicity
	Whole Effluent Toxicity, chronic test	2 X year, first three years of permit	composite	No limitation, report only for first three years of permit

9.3 DATA EVALUATION

Table 9-3. NPDES Monitoring Analytical Data Summary for WY02.

Outfall Code	Analyte	Analyses Performed During Reporting Period	Minimum	Maximum	Average
STP 1	pH	365	6.6 S.U.	8.9 S.U.	N/A
	Total Suspended Solids	153	< 2 mg/l	11 mg/l	< 4 mg/l
	Oil and Grease, visual	365	N/A	N/A	N/A
	Oil and Grease, gravimetric method	0	N/A	N/A	N/A
	Total Phosphorous (as P)	154	< 1 mg/l	11 mg/l	2 mg/l
	Flow	365	51,000 gallons	332,000 gallons	141,000 gallons
	Fecal Coliform	104	< 2 colonies/100 ml	220 colonies/100 ml	N/A
	Carbonaceous Biochemical Oxygen Demand, 5 day test	154	< 2 mg/l	19 mg/l	< 4 mg/l
	Dissolved Hexavalent Chromium	0	N/A	N/A	N/A
	Total Recoverable Chromium	25	< 2 µg/l	2 µg/l	< 2 µg/l
	Potentially Dissolved Silver	52	<0.3 µg/l	0.5 µg/l	<0.3 µg/l
	Alkalinity, total (as CaCO3)	154	61 mg/l	138 mg/l	92 mg/l
	Total Nitrate/nitrite (as N)	152	0.4 mg/l	13.0 mg/l	3 mg/l
	Nitrite (as N)	152	0.02 mg/l	5.8 mg/l	0.9 mg/l
	Ammonia (as N)	157	0.1 mg/l	15 mg/l	2 mg/l
	Gross alpha	24	-0.6 pCi/L	1.4 pCi/L	0.3
	Gross beta	24	2.0	10.0 pCi/L	5.6 pCi/L
	Carbon Tetrachloride	12	< 1 µg/l	< 1 µg/l	< 1 µg/l
	1, 2 dichloroethane	12	< 1 µg/l	< 1 µg/l	< 1 µg/l
	Benzene	12	< 1 µg/l	< 1 µg/l	< 1 µg/l
	1,1 dichloroethylene	12	< 1 µg/l	< 1 µg/l	< 1 µg/l
	1,1,1 trichloroethane	12	< 1 µg/l	< 1 µg/l	< 1 µg/l
	(trans) 1,2 dichloroethene	12	< 1 µg/l	< 1 µg/l	< 1 µg/l
	Trichloroethylene	12	< 1 µg/l	< 1 µg/l	< 1 µg/l
	Tetrachlorethylene	11	< 1 µg/l	< 1 µg/l	< 1 µg/l
	Whole Effluent Toxicity, acute test	4	N/A	No toxicity	N/A
	Whole Effluent Toxicity, chronic test	2	N/A	No toxicity	N/A

Table 9-4. Summary of NPDES Measurements Greater than Permit Limitations for WY02.

Outfall Code	Date(s)	Parameter/Limitation	Measurements Greater than Permit Limitation (or as noted)
STP 1	12/11/01	Nitrite, daily maximum, 4.5 mg/l	4.8 mg/l
STP 1	3/18/03 and 3/21/03	Nitrite, daily maximum, 4.5 mg/l	4.7 mg/l and 5.8 mg/l respectively
STP 1	4/2/03 and 4/5/03	Nitrite, daily maximum 4.5 mg/l	4.9 mg/l and 5.1 mg/l respectively

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10.PERFORMANCE MONITORING

This section addresses monitoring the performance of specific actions[42] on Site for the release of contaminants to the environment. Project-specific Performance monitoring may be specified in the project plan through the review and approval process for those projects which pose a concern for a contaminant release, especially for a contaminant that may not be adequately monitored by other monitoring objectives downstream. Each Performance monitoring location will target contaminants of the greatest concern for the specific action being monitored. For example, Performance monitoring for specific analytes may be needed for the evaluation of the following:

- Building D&D Activities: The review and approval process for a D&D action may identify the need for Performance monitoring specific to that action.
- Accelerated Actions: Specific monitoring requirements may be identified for specific ER activities. For example, Performance monitoring for RFETS's operating groundwater plume treatment systems is specified in the related work plans (i.e., *Final Mound Site Plume Decision Document, Final Proposed Action Memorandum for the East Trenches Plume, Final Solar Ponds Plume Decision Document*).
- Other Closure Activities: Specific Performance monitoring may be needed for certain activities if other monitoring described in this IMP fails to provide adequate assurance of protecting the environment and public health.
- Off Normal Conditions: Monitoring of remedies intended to control contaminant transport in surface water runoff may be required. For example, when a BMP (barrier, trap, filter, or other watershed improvement) is installed to control a potential source of contaminated runoff, RFETS would like to determine the BMP effectiveness so that resources may be allocated where they are most effective.

Monitoring of activities within the IA is achieved, in general, through NSD and POE monitoring (see Sections 11 and 12 for details) at the IA boundary. Project-specific Performance monitoring stations monitor specific high-risk Site activities, such as D&D of a particular building or building cluster. These mobile, temporary stations will be placed upstream from the routine monitoring stations (POE and NSD), closer to specific projects/activities to monitor a specific subdrainage for releases of contaminants associated with the activity in the subdrainage.

10.1 DATA TYPES, FREQUENCY, AND COLLECTION PROTOCOLS

Data quality objectives must be specified in the project plan. Analyte suites (data types for collection) are generally determined by the contaminants of concern associated with a specific activity. Generally, automated samples are continuous flow-paced composites. However, protocols may be modified depending on the specific conditions for a monitoring location or drainage basin. Regardless, the sampling protocols are designed to accurately characterize existing flows, and confidently monitor for changes during the project activities.

Generally, monitoring is initiated prior to the start of project activities such that 10 - 15 samples over varying flow rates can be collected (preferably 18 months prior to project initiation[43]). Results from these samples are used to establish a baseline for the subdrainage. Monitoring continues during the activity, attempting to collect one sample per month. After project completion, monitoring continues long enough (approximately 3 months) to determine any impacts (both positive and negative) to surface-water quality.

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[42] This is project-specific, versus the global monitoring (NSD and POE) of the IA discussed in Sections 11 and 12.

[43] Due to the dynamic nature of Site Cleanup, initiation of Performance monitoring 18 months prior to an activity is rarely achieved. However, additional samples are often collected at an increased rate to establish baseline prior to initiation of project activities.

Performance monitoring can occur anywhere within the Site surface-water drainage area (especially within the IA), downstream from a BMP, remediation, or high-risk activity.

10.2 WY02 MONITORING SCOPE

Table 10-1. Performance Monitoring Locations.

ID Code	Location	Primary Flow Measurement Device	Telemetry	Project [Project Contact]
GS22	Outfall to South Interceptor Ditch draining 400 Area	1.5' H-Flume	Yes	400 Area D&D activities; [Contact: K. Oman, x7129]
GS27	Small ditch NW of B884 tributary to Central Avenue Ditch	2" Cutthroat Flume	Yes	D&D of B889; Watershed Improvements evaluation; [Contact: NA]
GS28	Small ditch NW of B865	3" Parshall Flume	Yes	B883 and B865 D&D activities; also serves as Source Location monitoring station for GS10 Source Evaluation; [Contact: M. Shafer, x4375]
GS32	Corrugated metal pipe (1.5') north of Solar Ponds in PA draining B779 area	18" cmp[a]	Yes	D&D of B779 and B776/777; [Contacts: J. Stevens, x5797, B779; R. Lesser, x2298, B776/777]
GS39	Corrugated metal pipe (1.0') north of 904 Pad draining 903/904 Pads and Contractor Yard areas	1' H Flume	Yes	Accelerated actions for 903 Pad; [Contact: T. Spence, x4322]
GS40	Drainage Ditch in PA E of Tenth St. (750 Pad) S of Building 997	1' Parshall Flume	Yes	B707 area D&D activities; [Contact: R. Lesser, x2298]
GS42	Gulch tributary to SID 150' above POE SW027	3" Parshall Flume	Yes	Accelerated actions for 903 Pad; [Contact: T. Spence, x4322]
GS43	Drainage ditch northeast of T886A	0.5' H-Flume	Yes	D&D of B886; [Contact: M. Shafer, x4375]
GS44	Culvert between T771F and T771L	1' H Flume	Yes	B771/774 and B776/777 D&D activities; [Contacts: C. Gilbreath, x7355, B771/774; R. Lesser, x2298, B776/777]
GS49	Ditch NW of B566	6" Parshall Flume	Yes	D&D of B776/777; [Contact: R. Lesser, x2298, B776/777]
GS50	Ditch N of B990	6" Parshall Flume	Yes	Solar Ponds accelerated actions; [Contact: T. Lindsay, x5705, Solar Ponds]
GS51	Ditch along abandoned road S of 903 Pad just upstream of SID	0.75' H-Flume	Yes	Accelerated actions for 903 Pad; [Contact: T. Spence, x4322]
GS52	Gully SSE of 903 Pad just upstream of SID	0.6' HS-Flume	No	Accelerated actions for 903 Pad; [Contact: T. Spence, x4322]
GS53	Gully SE of 903 Pad just upstream of SID	0.6' HS-Flume	No	Accelerated actions for 903 Pad; [Contact: T. Spence, x4322]
GS54	Gully ESE of 903 Pad just upstream of SID	0.6' HS-Flume	No	Accelerated actions for 903 Pad; [Contact: T. Spence, x4322]
GS55	Outfall to SID draining B881 area	120° V-Notch Weir	Yes	B881 and B883 D&D activities; [Contacts: C. Albin, x5164, B881; M. Shafer, x4375, B883]
GS56	No Name Gulch below Landfill Pond	9" Parshall Flume	Yes	Landfill remediation activities; [Contact: T. Lindsay, x5705]
GS57	Ditch NE of B444 area	9.5" Parshall Flume	Yes	B444 and 400 Area D&D activities; [Contact: K. Oman, x7129]

ID Code	Location	Primary Flow Measurement Device	Telemetry	Project [Project Contact]
GS58	Culverts draining B865 and west side of B886	NA[a]	Yes	B886 and B865 D&D activities; [Contact: M. Shafer, x4375]
SW036	South Interceptor Ditch downstream of Old Landfill	6" Parshall flume	Yes	Old Landfill remediation activities; [Contact: T. Lindsay, x5705]
SW055	Culvert under inner fence SE of 903 Pad	0.75' H-Flume	Yes	Accelerated actions for 903 Pad; [Contact: T. Spence, x4322]
SW091	Downstream end of gully at confluence with N. Walnut Cr. draining NE Solar Ponds area	6" Cutthroat Flume	Yes	Solar Ponds accelerated actions; [Contact: T. Lindsay, x5705, Solar Ponds]
SW119	Drainage ditch north of Solar Ponds along PA perimeter road	9" Parshall Flume	Yes	Solar Ponds accelerated actions; [Contact: T. Lindsay, x5705, Solar Ponds]
SW120	Drainage ditch north of Solar Ponds along PA perimeter road	4" Cutthroat Flume	Yes	B771/774 D&D and Solar Ponds accelerated actions; [Contact: T. Lindsay, x5705, Solar Ponds; C. Gilbreath, x7355, B771/774]

Notes: [a] Due to the current configuration of in place stormwater culverts, flow measurement at this location is not possible without significant construction modifications. All other locations collect 5- and 15-minute flow data.

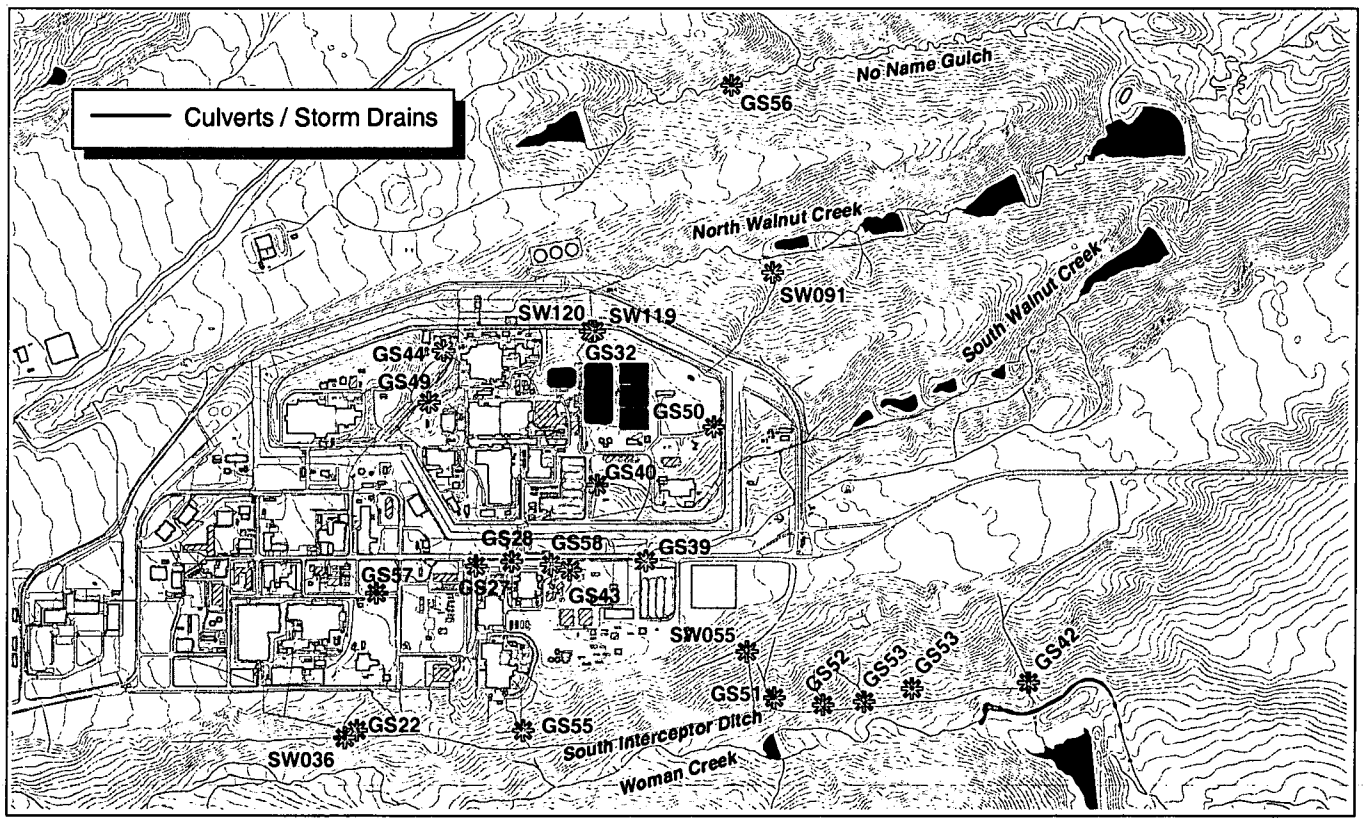


Figure 10-1. Water Year 2002 Performance Monitoring Locations.

Table 10-2. Performance Sample Collection Protocols.

ID Code	Frequency: WY02 Actual (Target)	Type[b]
GS22	8 (12 per year[c])	Continuous flow-paced composites
GS27	6 (1 per month)	Storm-event rising-limb flow-paced composites[a]
GS28	3 (12 per year[c])	Continuous flow-paced composites
GS32	11 (1 per month)	Storm-event rising-limb time-paced composites[a]
GS39	5 (12 per year[c])	Continuous flow-paced composites
GS40	13 (12 per year[c])	Continuous flow-paced composites
GS42	0 (12 per year[c])	Continuous flow-paced composites
GS43	1 (12 per year[c])	Continuous flow-paced composites
GS44	5 (12 per year[c])	Continuous flow-paced composites
GS49	7 (12 per year[c])	Continuous flow-paced composites
GS50	1 (12 per year[c])	Continuous flow-paced composites
GS51	1 (12 per year[c])	Continuous flow-paced composites
GS52	1 (12 per year[c])	Continuous flow-paced composites
GS53	0 (12 per year[c])	Continuous flow-paced composites
GS54	0 (12 per year[c])	Continuous flow-paced composites
GS55	12 (12 per year[c])	Continuous flow-paced composites
GS56	0 (12 per year[c])	Continuous flow-paced composites
GS57	7 (12 per year[c])	Continuous flow-paced composites
GS58	7 (1 per month)	Storm-event rising-limb time-paced composites[a]
SW036	0 (12 per year[c])	Continuous flow-paced composites
SW055	2 (12 per year[c])	Continuous flow-paced composites
SW091	0 (1 per month)	Storm-event rising-limb flow-paced composites[a]
SW119	1 (12 per year[c])	Continuous flow-paced composites
SW120	4 (12 per year[c])	Continuous flow-paced composites

Notes:
[a] Storm-event sampling at locations which are often dry and normally only receive direct runoff is opportunistic. Some locations may see flow only during wet months. Every attempt is made to achieve the target sample frequency; however, this is not always possible.
[b] Sample types are defined in the RFETS Automated Surface-Water Monitoring Work Plan.
[c] Annual total samples is 12 per year. Frequency of collection is based on expected flow volumes such that each sample collects water representing similar stream discharge volumes; for example, more samples are collected in wet spring months than dry winter months.

Table 10-3. Performance Analytical Targets (Analyses per Year).

ID Code	TSS[a]: WY02 Actual (Target)	Pu, U, Am: WY02 Actual (Target)	Tritium: WY02 Actual (Target)	CLP Metals: WY02 Actual (Target)
GS22	0 (12)	8 (12)	NA	8 (12)
GS27	6 (12)	6 (12)	NA	NA
GS28	2 (12)	3 (12)	NA	3 (12)
GS32	11 (12)	11 (12)	11 (12)	11 (12)
GS39	5 (12)	5 (12)	NA	NA
GS40	0 (12)	13 (12)	13 (12)	13 (12)
GS42	0 (12)	0 (12)	NA	NA
GS43	0 (12)	1 (12)	NA	1 (12)
GS44	0 (12)	5 (12)	5 (12)	5 (12)
GS49	1 (12)	7 (12)	7 (12)	7 (12)
GS50	0 (12)	1 (12)	NA	1 (12)
GS51	0 (12)	1 (12)	NA	NA
GS52	1 (12)	1 (12)	NA	NA
GS53	0 (12)	0 (12)	NA	NA

ID Code	TSS[a]: WY02 Actual (Target)	Pu, U, Am: WY02 Actual (Target)	Tritium: WY02 Actual (Target)	CLP Metals: WY02 Actual (Target)
GS54	0 (12)	0 (12)	NA	NA
GS55	1 (12)	12 (12)	NA	12 (12)
GS56	0 (12)	0 (12)	NA	0 (12)
GS57	0 (12)	7 (12)	NA	7 (12)
GS58	5 (12)	7 (12)	NA	7 (12)
SW036	0 (12)	0 (12)	NA	0 (12)
SW055	2 (12)	2 (12)	NA	NA
SW091	0 (12)	0 (12)	NA	NA
SW119	0 (12)	1 (12)	NA	1 (12)
SW120	0 (12)	4 (12)	4 (12)	4 (12)

Notes: [a] Ideally, TSS would be analyzed for all samples collected at the above locations. However, continuous flow-paced sampling protocols often result in composite samples which are collected over periods exceeding the 7-day hold time for TSS analyses. Therefore, TSS can not be analyzed for all continuous flow-paced composite samples, but will be analyzed when possible.

10.3 DATA EVALUATION

Data evaluation will be specified for individual projects. A project-specific indicator might be a single monitoring result, a 30-day average for a specific analyte, or an indicator for the analyte of concern. An example decision rule is shown below. Generally, evaluation is performed as data become available, especially if an initial qualitative screening based on process knowledge indicates that an analytical result is higher than normal for a particular location.

IF	The project-specific indicator is greater than the 95% upper tolerance limit (UTL) of baseline,
THEN	The Site will evaluate the specific activity to improve performance. The appropriate project contacts will be notified
IF	The project-specific indicator is less than the 95% lower tolerance level (LTL),
THEN	The Site will conclude that the project has reduced environmental releases of the specific contaminant.

Generally, UTLs are calculated on a semi-monthly basis. While this is the only routine data evaluation performed for Performance monitoring locations, project-specific evaluations may also be detailed in the applicable project plans.

The following sections present the Performance monitoring data evaluations on a project-specific basis. Each section includes a table of summary statistics for the location-specific analytes of interest, 95% UTL plots, box plots, and plots of the temporal variation of suspended solids Pu and Am activity. For this report, data from the three year period of WY00–02 were used in the evaluations.[44]

The following evaluations include all results that were not rejected through the verification/validation process. When a sample has a corresponding field duplicate, the value used in calculations is the arithmetic average of the 'real' value and the 'duplicate'. When a sample has multiple 'real' analyses (Site requested 're-runs'), the value used in calculations is the arithmetic average of the multiple 'real' analyses. Total uranium is calculated by summing the activities for the analyzed isotopes (U-233,234 + U-235 + U-238).

[44] A 3-year moving window is chosen where possible. For many Performance locations, monitoring only lasts a year or two. Under those circumstances, all data is used, and particular qualitative/quantitative attention is given to the effects of hydrology and seasonality on the results.

For the summary tables, when a negative radionuclide result (e.g. -0.002 pCi/L) is returned from the laboratory due to blank correction, then a value of 0.0 pCi/L is used for calculation purposes. When metals and TSS results are returned from the laboratory as 'undetect', ½ of the detection limit is used for calculation purposes.

The method for calculating UTLs is given in Appendix B.1: Data Evaluation Methods. UTL lines are shown on the plots only for the determined distribution. When the data may satisfy either distribution, both UTL lines are plotted; when no distribution is determined, no UTL line is plotted. A common legend is used in all UTL plots.

Box plots were prepared using S-Plus statistical evaluation software. For these plots, when a negative radionuclide result (e.g. -0.002 pCi/L) is returned from the laboratory due to blank correction, then a value of 0.0 pCi/L is used for calculation purposes. When metals and TSS results are returned from the laboratory as 'undetect', ½ of the detection limit is used for calculation purposes. Pu/Am ratios are calculated only for samples where both the Pu and Am results were greater than 0.015 pCi/L to avoid ratios for samples with activities near the MDA. A key describing the components of the box plots is given in Appendix B.1: Data Evaluation Methods.

The temporal variation of suspended solids activity plots are included as an indication of changes in the contamination characteristics of a particular drainage basin. All available data for the period of operation for each location is included in the analysis. A suspended solids activity that decreases over time may indicate that contaminant sources have been removed from the drainage, clean solids have become more available to runoff, or contaminant sources have been naturally attenuated over time. Similarly, a suspended solids activity that increases over time may indicate that new contaminant sources have become available for transport in the drainage. TSS analysis is only performed for composite samples that are collected over a period of less than the TSS hold time (7 days). Consequently, not all samples collected at the locations below were analyzed for TSS. Only values greater than the detection limit (generally 5 mg/L for TSS, 0.015 pCi/L for Pu and Am) are included.

10.3.1 400 Area D&D

Performance monitoring for the 400 Area is supported by locations GS22 and GS57. Monitoring location GS22 was originally installed under the IA IM/IRA (DOE, 1994) on 4/1/95, and discontinued on 9/30/96. GS22 was reinstalled on 1/7/00 in support of the 400 Area D&D. Monitoring location GS57 was installed on 3/13/02 in support of the 400 Area D&D, specifically B444.

Figure 10-2 shows the drainage areas for both GS22 and GS57. Major buildings within the drainage area include 460, 444, 447, and 440.

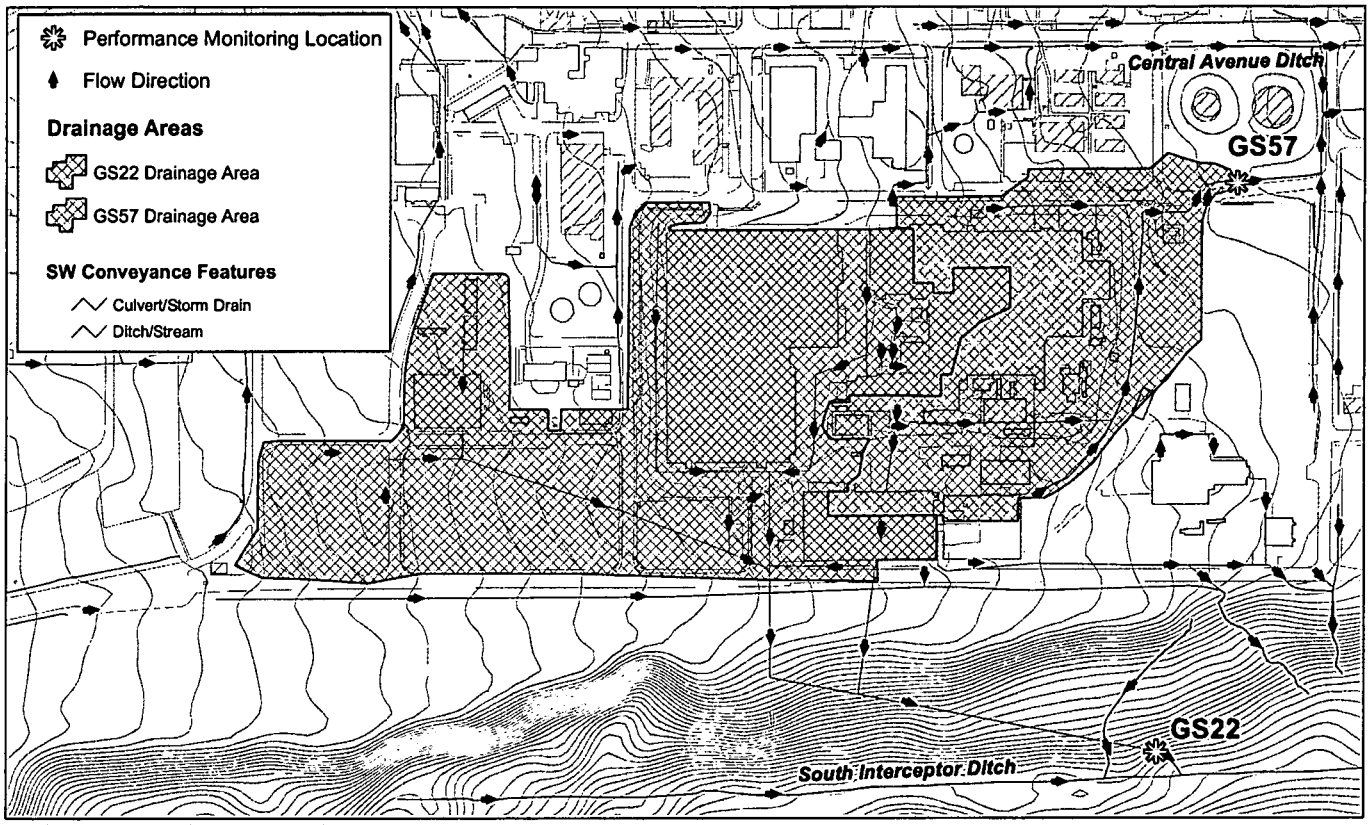
The Performance monitoring data from GS22 and GS57 indicate that closure activities within the 400 Area did not significantly affect water quality as of the end of WY02. Complete data evaluation for these locations is given below.

Monitoring data collected at GS22 show low Pu and Am activities (Table 10-4). Figure 10-3 and Figure 10-4 show the UTL plots for Pu and Am, respectively. During WY00–02, no Pu and Am results exceeded the calculated UTLs.

Figure 10-5 also shows that none total uranium activities were greater than the UTLs. Figure 10-7 further shows that the median U-233,234/U-238 ratio is approximately 1.2, slightly higher than expected.[45]

The temporal variation of suspended solids activity is not given as no TSS samples were collected for the period.

[45] Naturally occurring uranium generally shows a U-233,234/U-238 activity ratio of approximately one. The U-233,234/U-238 activity ratios at Site surface-water monitoring locations may be used as an indication of the existence of uranium with 'unnatural' ratios. Although this evaluation does not deal systematically with analytical counting errors, ratios are presented here for reference.



Rooftop drainage divides are approximated.

Figure 10-2. Performance Monitoring Drainage Areas for 400 Area D&D.

Table 10-4. Summary Statistics for Radionuclide Results from GS22 in WY00-02.

Analyte	Samples [N]	Median [pCi/L]	85th Percentile [pCi/L]	Maximum [pCi/L]	95% UTL [pCi/L]
TSS [mg/L]	0	NA	NA	NA	NA
Pu-239,240	8	0.002	0.009	0.011	0.039[a]/0.021[b]
Am-241	8	0.003	0.005	0.008	0.018[a]/0.014[b]
U-233,234	8	0.427	0.543	0.631	1.963[a]/1.707[b]
U-235	8	0.009	0.027	0.035	
U-238	8	0.371	0.453	0.563	

Note: [a] Lognormal distribution; [b] Normal distribution; [c] Undetermined distribution.
TSS is given in mg/L.
Uranium UTL given for total uranium.

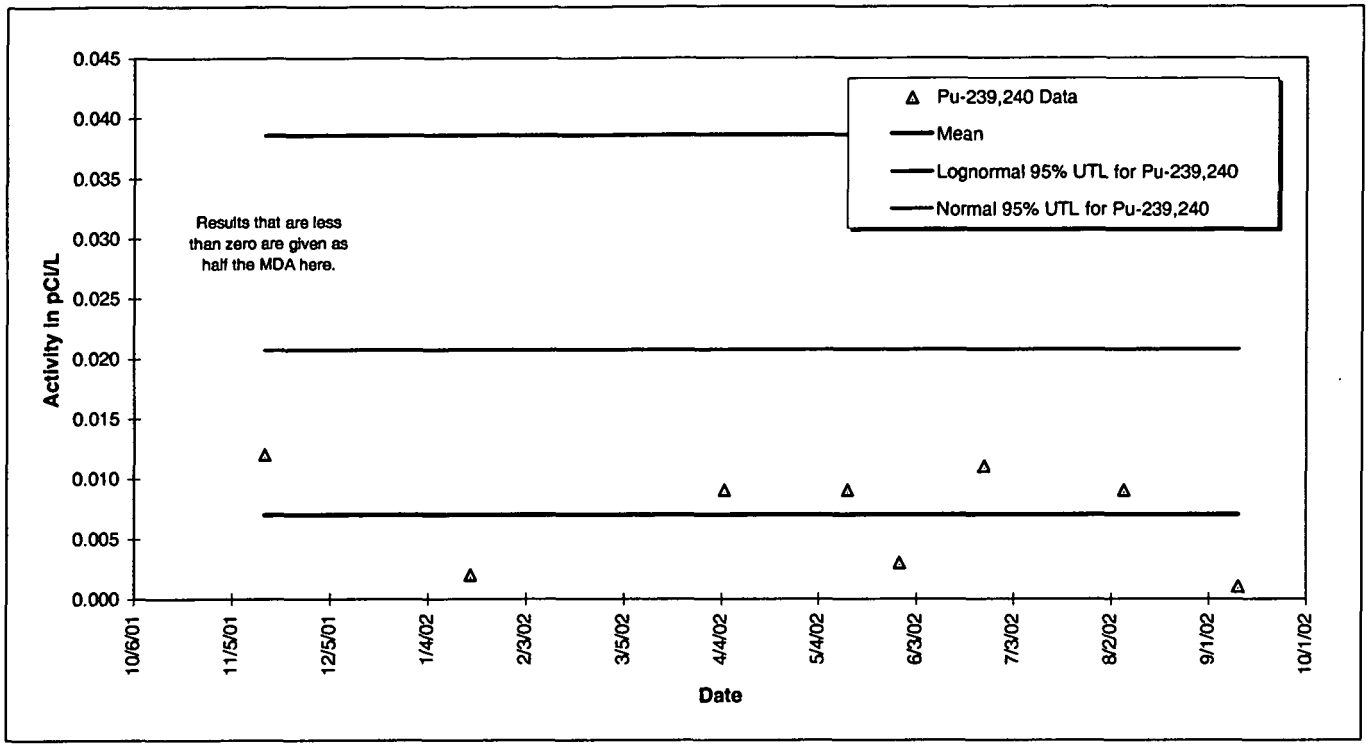


Figure 10-3. 95% UTL for Pu-239,240 at GS22: WY00-02.

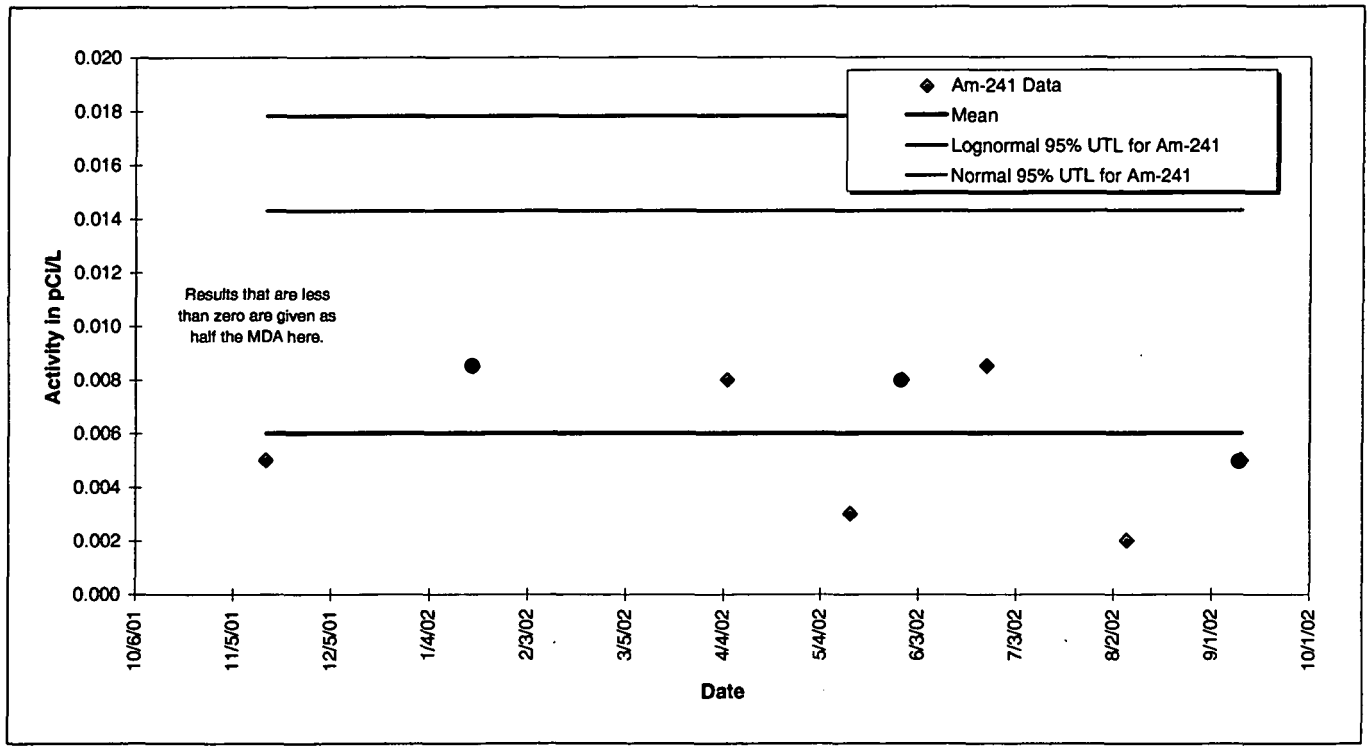


Figure 10-4. 95% UTL Plot for Am-241 at GS22: WY00-02.

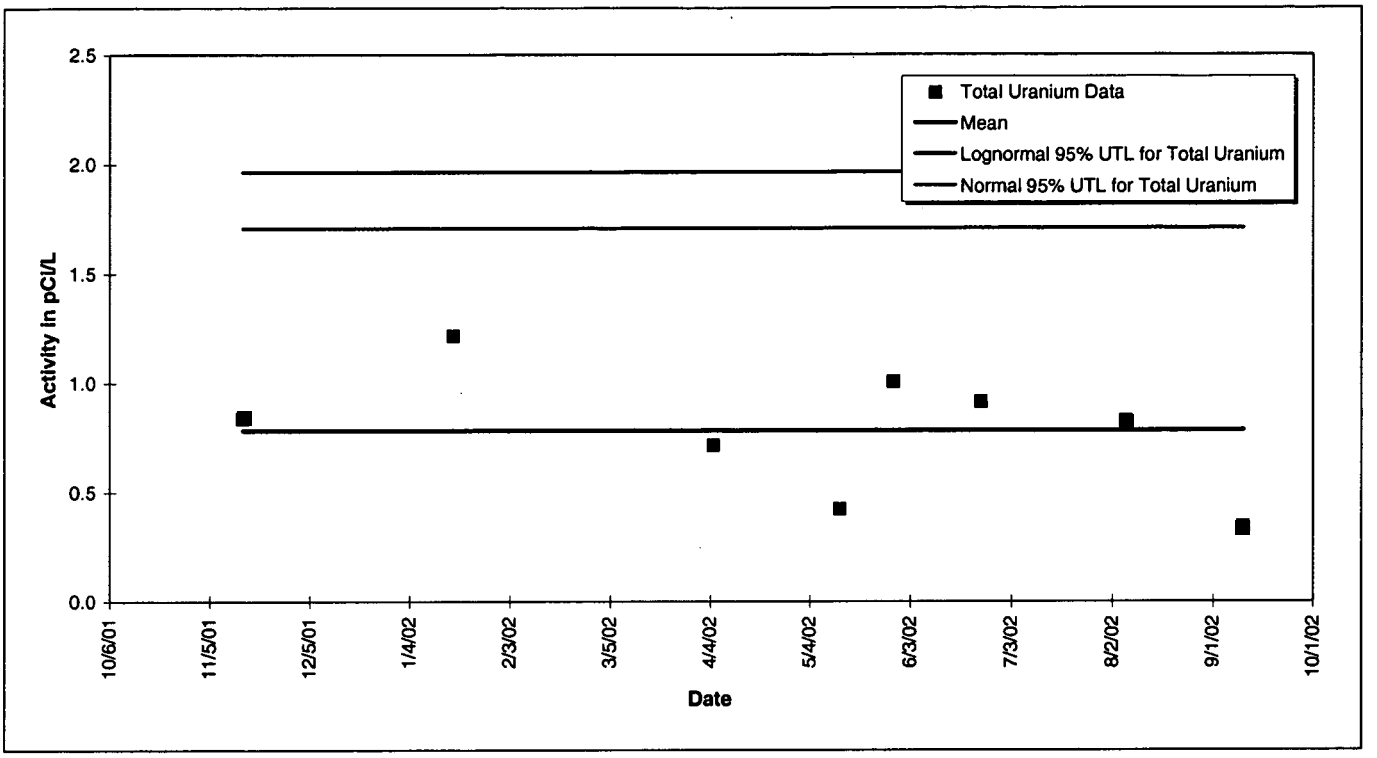


Figure 10-5. 95% UTL Plot for Total Uranium at GS22: WY00-02.

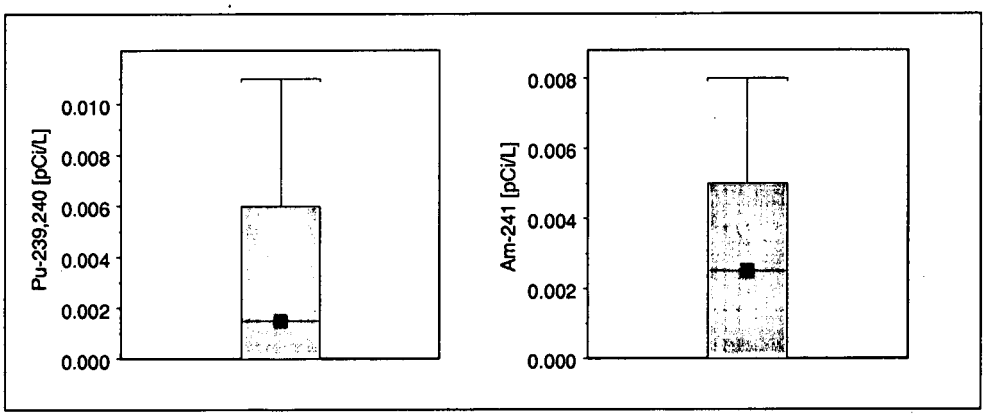


Figure 10-6. Pu and Am Box Plots for GS22: WY00–02.

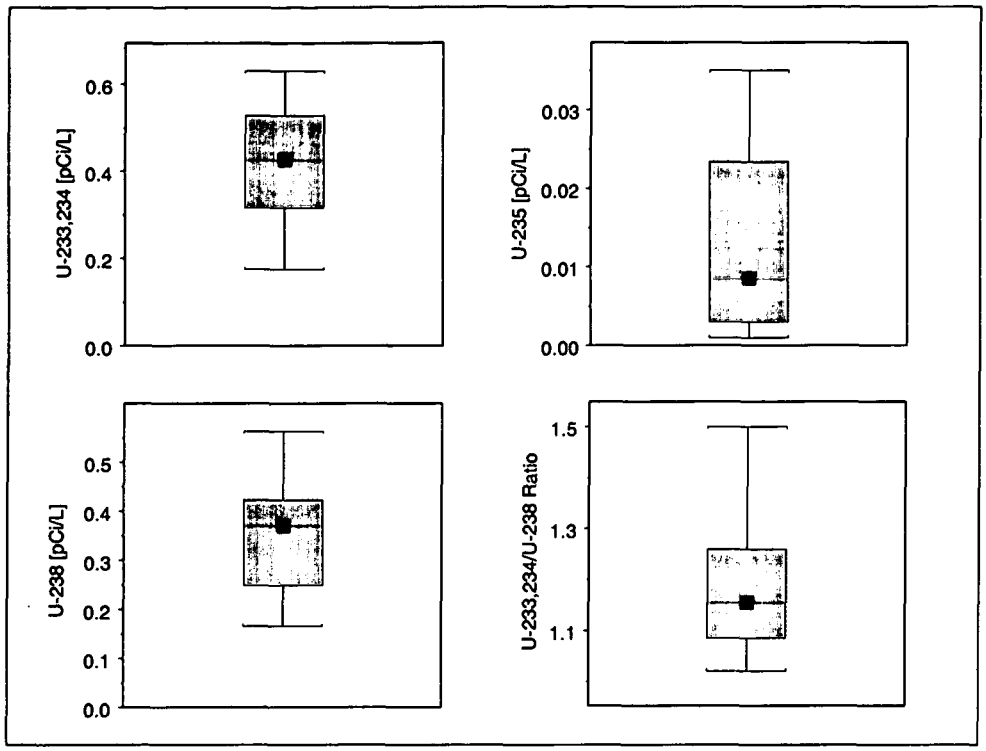


Figure 10-7. Uranium Box Plots for GS22: WY00–02.

Table 10-5 shows the total metals results for samples collected at GS22. Figure 10-8 through Figure 10-12 show the UTL plots for the metals. For the metals with a determined distribution, none exceeded the calculated UTL.

Data for metals Cu, Hg, Se, Ag, and Tl had undetermined distributions. All of the Tl data were 'undetects'. For Cu, one result (6/24-8/6/02; 90.2 µg/L) is indicated as 'suspect' by the boxplot (Figure 10-14). Subsequent Cu analyses showed normal levels and no trend is noted. For Hg, all but one of the results were 'undetects'; the cause of this result (6/24-8/6/02; 0.16 µg/L) is unknown. For Se, all but one of the results were 'undetects'; the cause of this result (8/6-9/10/02; 1.1 µg/L) is unknown. Finally for Ag, all but one of the results were 'undetects'; the cause of this result (6/24-8/6/02; 2.4 µg/L) is unknown.

Table 10-5. Summary Statistics for Metals Results from GS22 in WY00-02.

Analyte	Samples [N]	Percent Undetect	Median [µg/L]	85th Percentile [µg/L]	Maximum [µg/L]	95% UTL [µg/L]
ALUMINUM	8	0.0%	1935	2800	4620	6547[a]/6112[b]
ANTIMONY	8	75.0%	0.44	0.89	1.20	1.63[a]
ARSENIC	8	12.5%	1.90	2.49	3.10	6.75[a]/4.68[b]
BARIUM	8	0.0%	147	162	239	396[a]/332[b]
BERYLLIUM	8	12.5%	0.11	0.17	0.37	0.96[a]/0.48[b]
CADMIUM	8	0.0%	0.23	0.62	0.70	1.15[a]
CALCIUM	8	0.0%	73400	86745	87900	149264[b]
CHROMIUM	8	0.0%	4.15	5.97	14.1	14.6[a]
COBALT	8	12.5%	0.77	1.94	2.00	4.06[a]/3.10[b]
COPPER	8	0.0%	11.7	15.3	90.2	NA[c]
IRON	8	0.0%	1840	2789	6150	7396[a]
LEAD	8	0.0%	6.20	8.72	29.6	32.8[a]
LITHIUM	8	0.0%	12.3	31.4	66.2	95.4[a]
MAGNESIUM	8	0.0%	11800	13665	13800	23439[b]
MANGANESE	8	0.0%	56.9	64.4	108	151[a]/137[b]
MERCURY	8	87.5%	0.05	0.05	0.16	NA[c]
MOLYBDENUM	8	0.0%	1.05	1.20	2.10	2.37[a]
NICKEL	8	0.0%	2.55	3.47	6.10	7.14[a]
POTASSIUM	8	0.0%	3500	5805	7810	12300[a]/10908[b]
SELENIUM	8	87.5%	0.45	0.50	1.10	NA[c]
SILVER	8	87.5%	0.12	0.18	2.40	NA[c]
SODIUM	8	0.0%	40450	686400	1120000	3720048[a]
STRONTIUM	8	0.0%	355	449	489	1023[a]/776[b]
THALLIUM	8	100.0%	0.70	0.80	0.80	NA[c]
TIN	8	62.5%	0.60	0.93	2.50	2.65[a]
VANADIUM	8	0.0%	4.80	7.35	11.4	14.6[a]/14.7[b]
ZINC	8	0.0%	257	390	730	821[a]

Note: [a] Lognormal distribution; [b] Normal distribution; [c] Undetermined distribution.

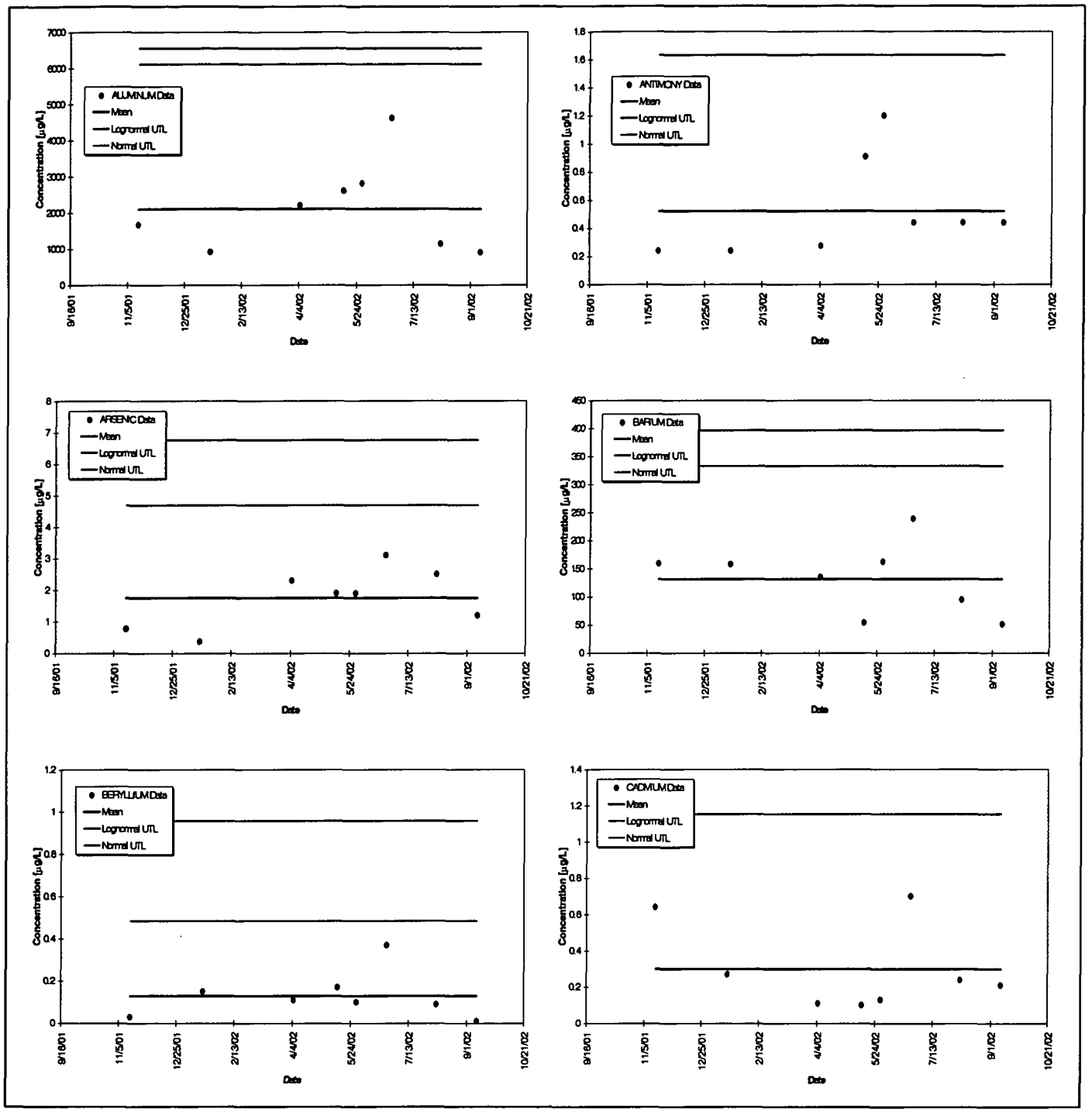


Figure 10-8. Total Metals UTL Plots for GS22: Aluminum through Cadmium.

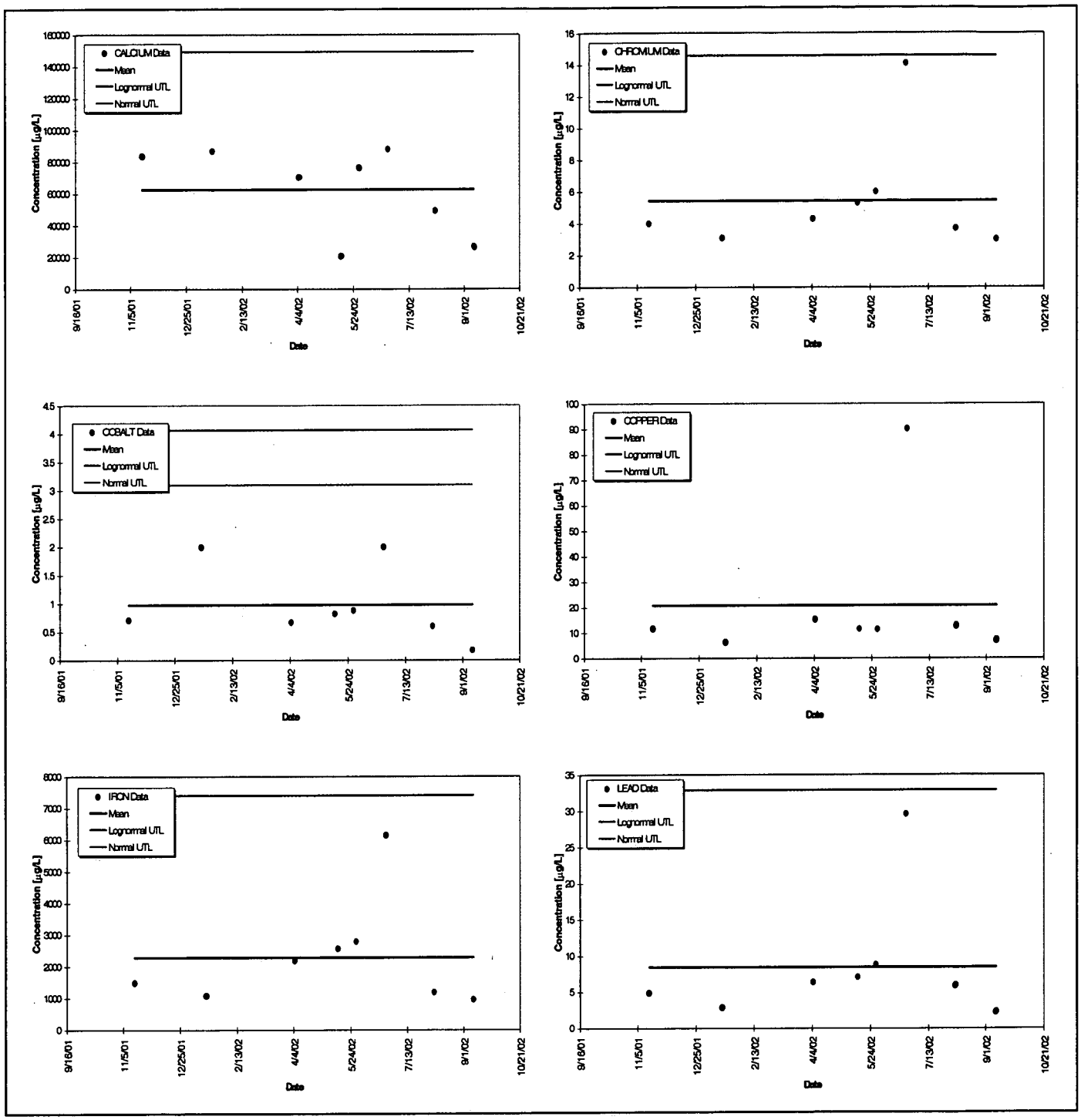


Figure 10-9. Total Metals UTL Plots for GS22: Calcium through Lead.

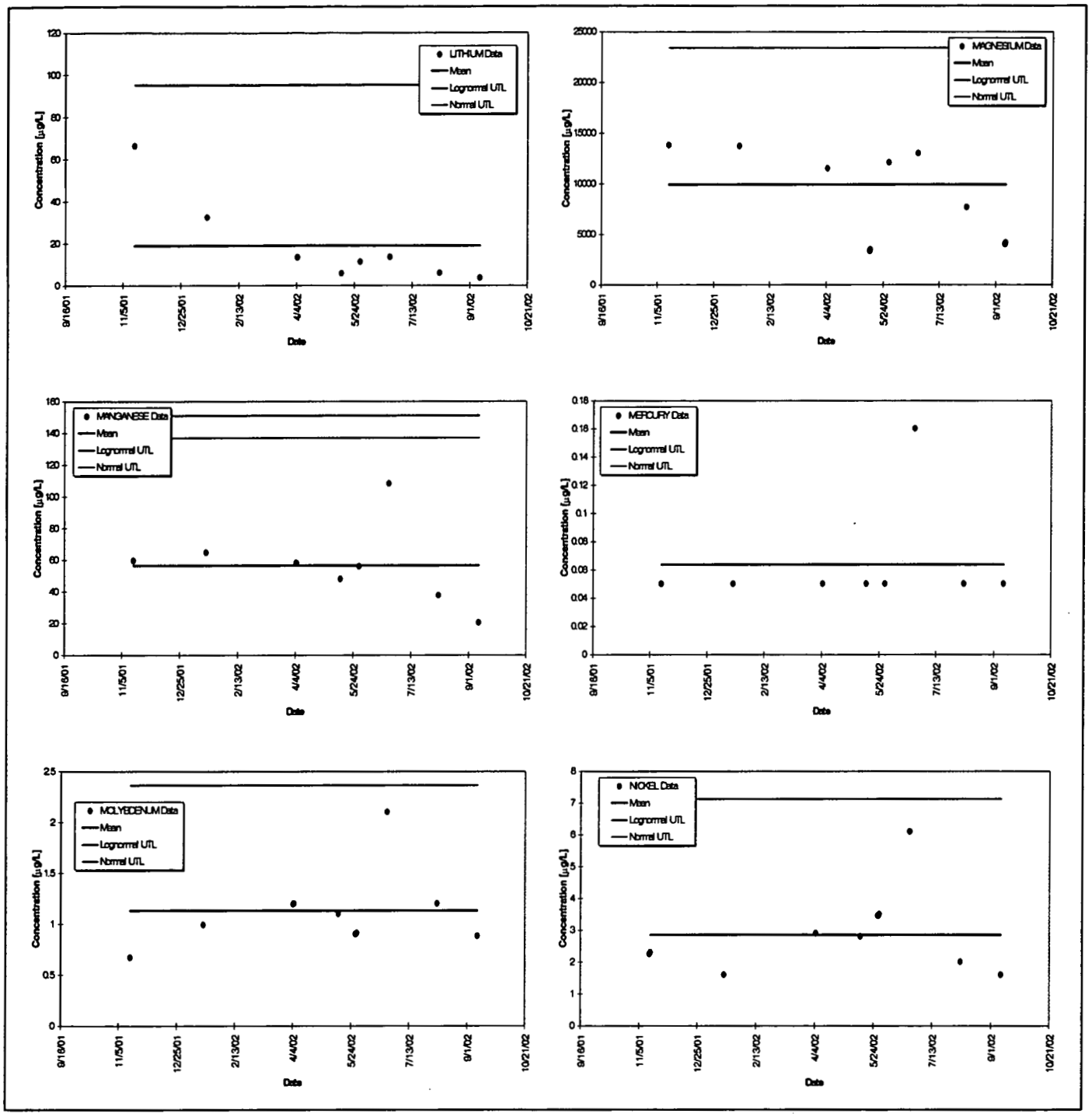


Figure 10-10. Total Metals UTL Plots for GS22: Lithium through Nickel.

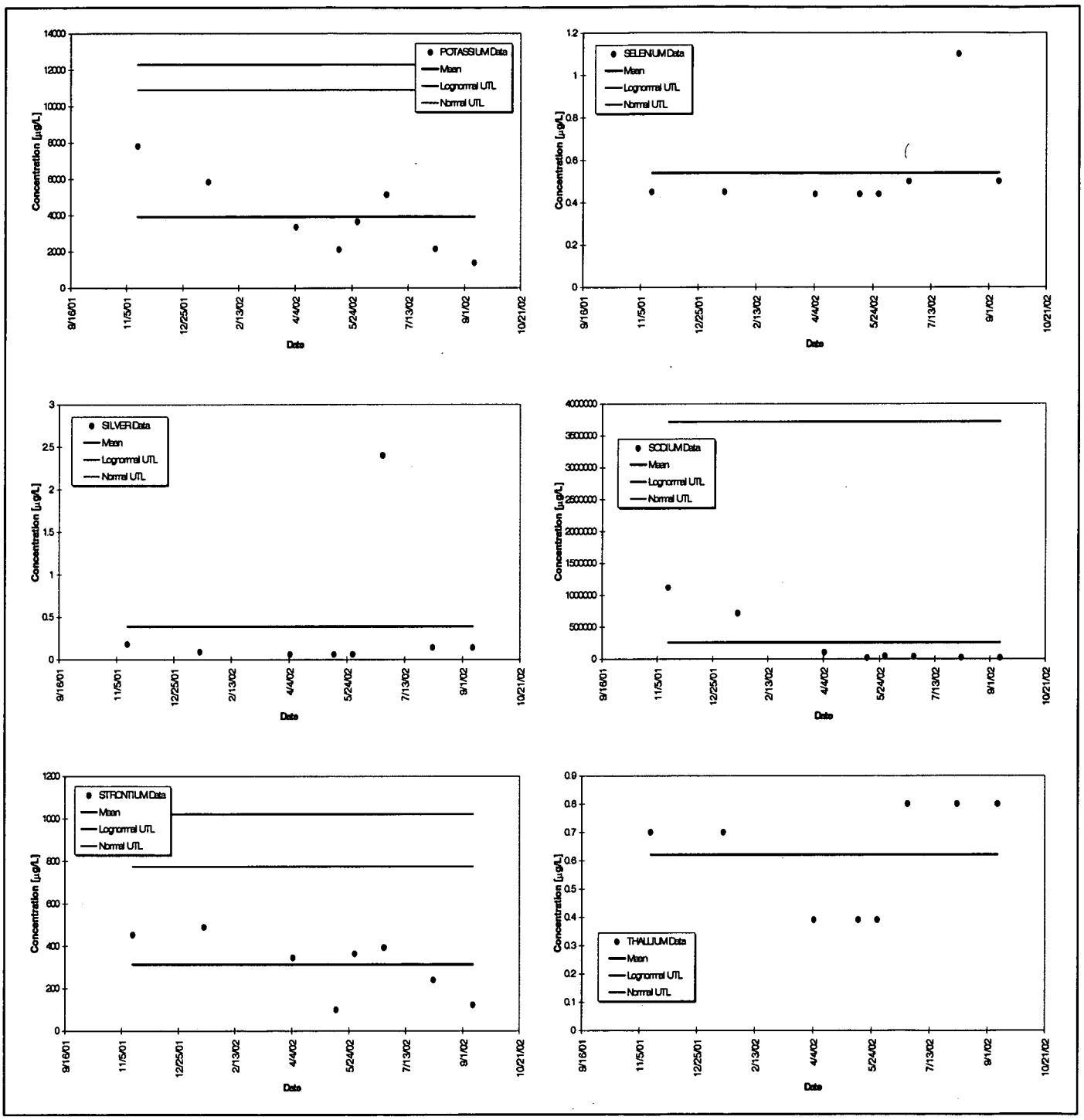


Figure 10-11. Total Metals UTL Plots for GS22: Potassium through Thallium.

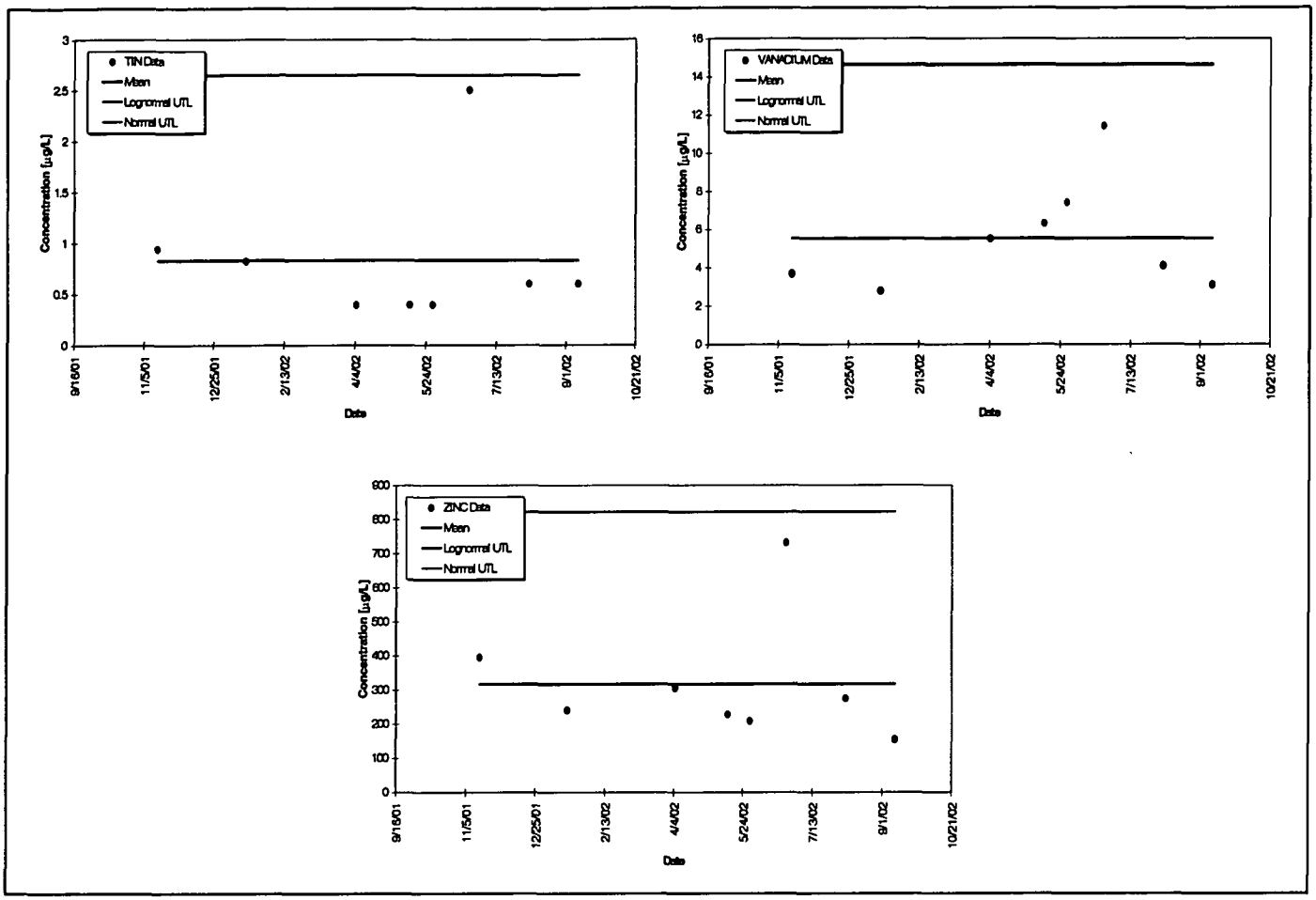


Figure 10-12. Total Metals UTL Plots for GS22: Tin through Zinc.

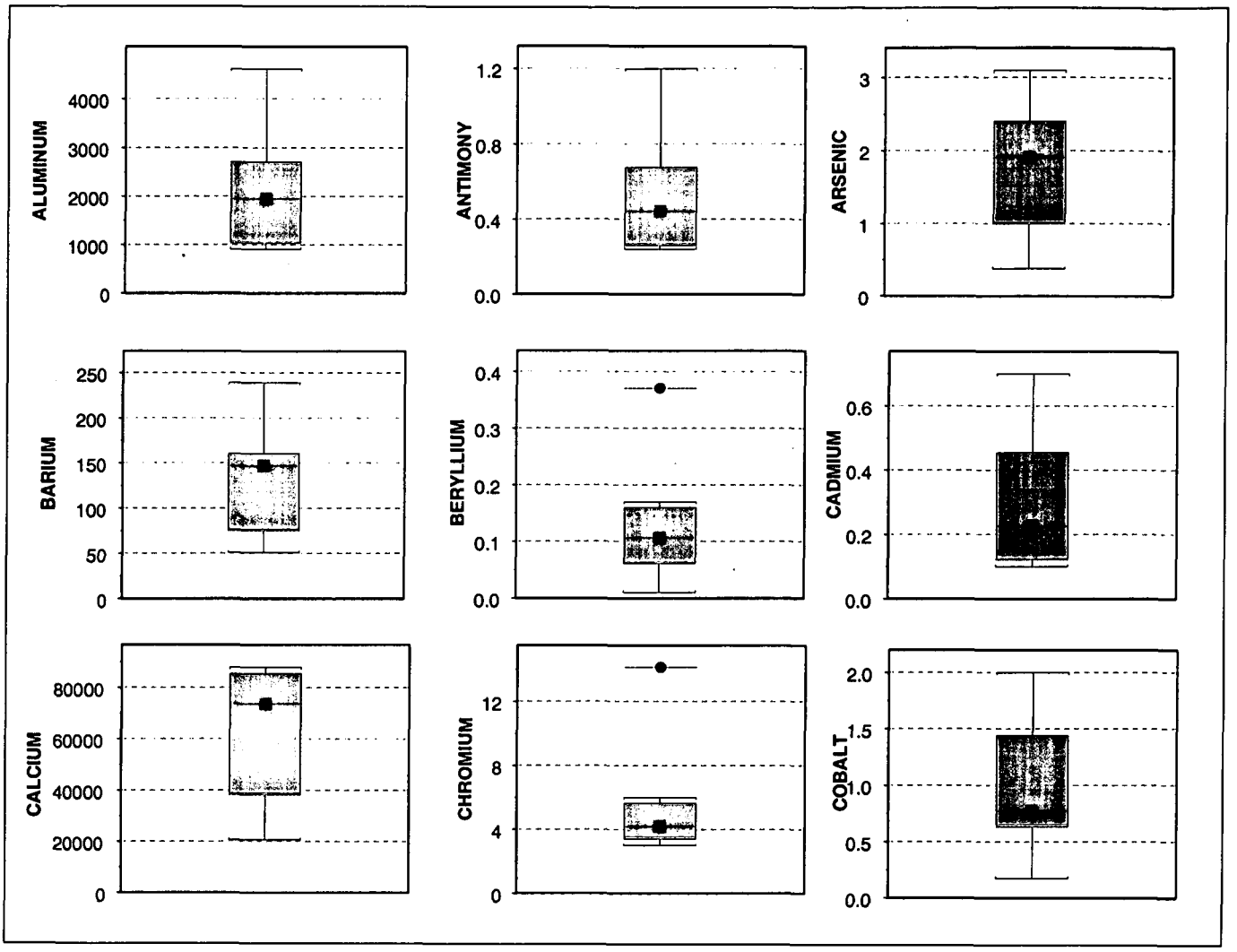


Figure 10-13. Total Metals Box Plots for GS22: Aluminum through Cobalt.

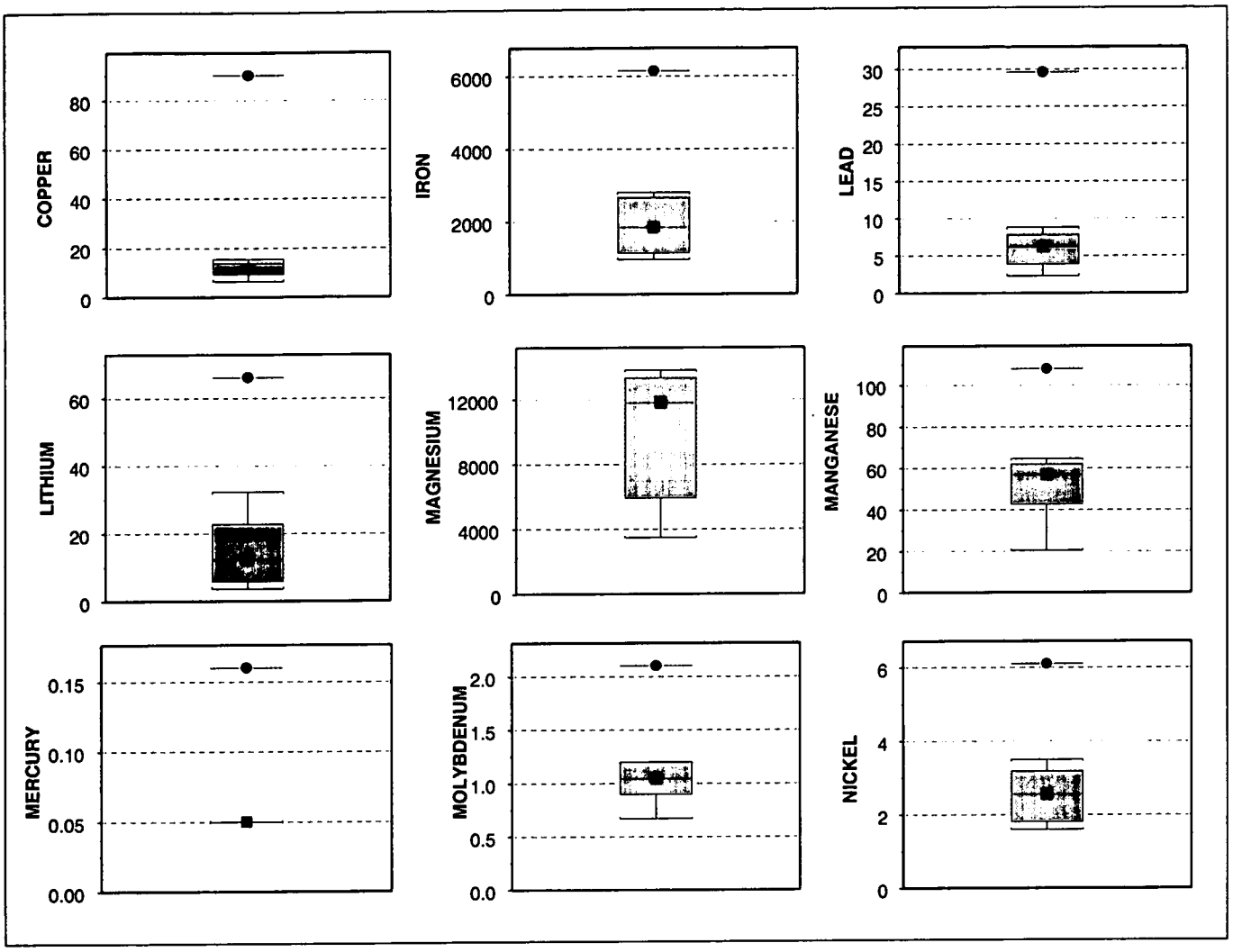


Figure 10-14. Total Metals Box Plots for GS22: Copper through Nickel.

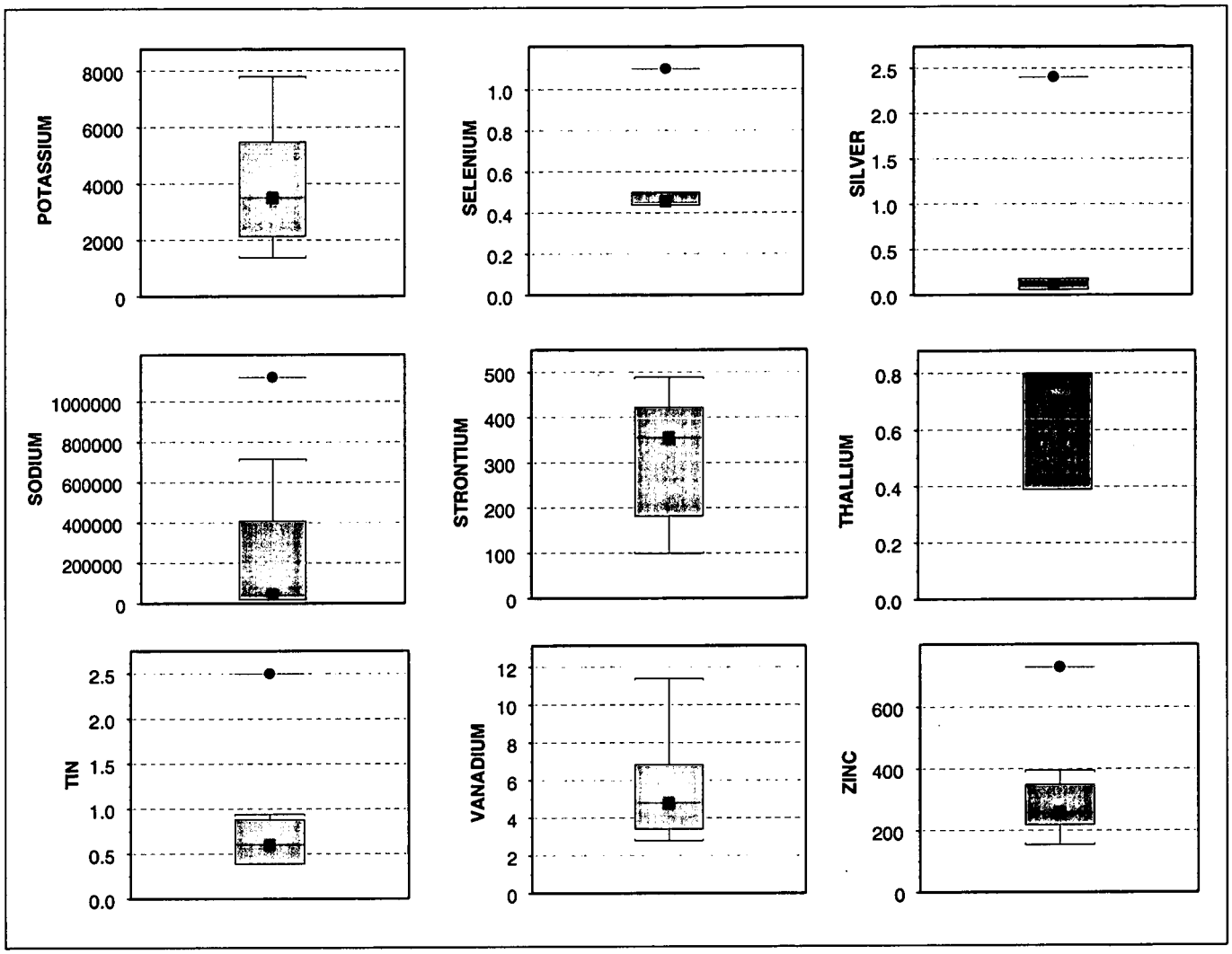


Figure 10-15. Total Metals Box Plots for GS22: Potassium through Zinc.

200

Monitoring data collected at GS57 show low Pu and Am activities (Table 10-6). Figure 10-16 and Figure 10-17 show the UTL plots for Pu and Am, respectively. During WY00–02, no Pu and Am results exceeded the calculated UTLs.

Figure 10-18 also shows that none total uranium activities were greater than the UTLs. Figure 10-20 further shows that the median U-233,234/U-238 ratio is approximately 0.56, significantly lower than expected.

The temporal variation of suspended solids activity is not given as no TSS samples were collected for the period.

Table 10-6. Summary Statistics for Radionuclide Results from GS57 in WY00-02.

Analyte	Samples [N]	Median [pCi/L]	85th Percentile [pCi/L]	Maximum [pCi/L]	95% UTL [pCi/L]
TSS [mg/L]	0	NA	NA	NA	NA
Pu-239,240	7	0.015	0.022	0.026	0.076[a]/0.044[b]
Am-241	7	0.002	0.010	0.015	0.029[a]
U-233,234	7	0.193	0.239	0.253	1.546[a]/1.188[b]
U-235	7	0.004	0.013	0.016	
U-238	7	0.303	0.395	0.426	

Note: [a] Lognormal distribution; [b] Normal distribution; [c] Undetermined distribution.
TSS is given in mg/L.
Uranium UTL given for total uranium.

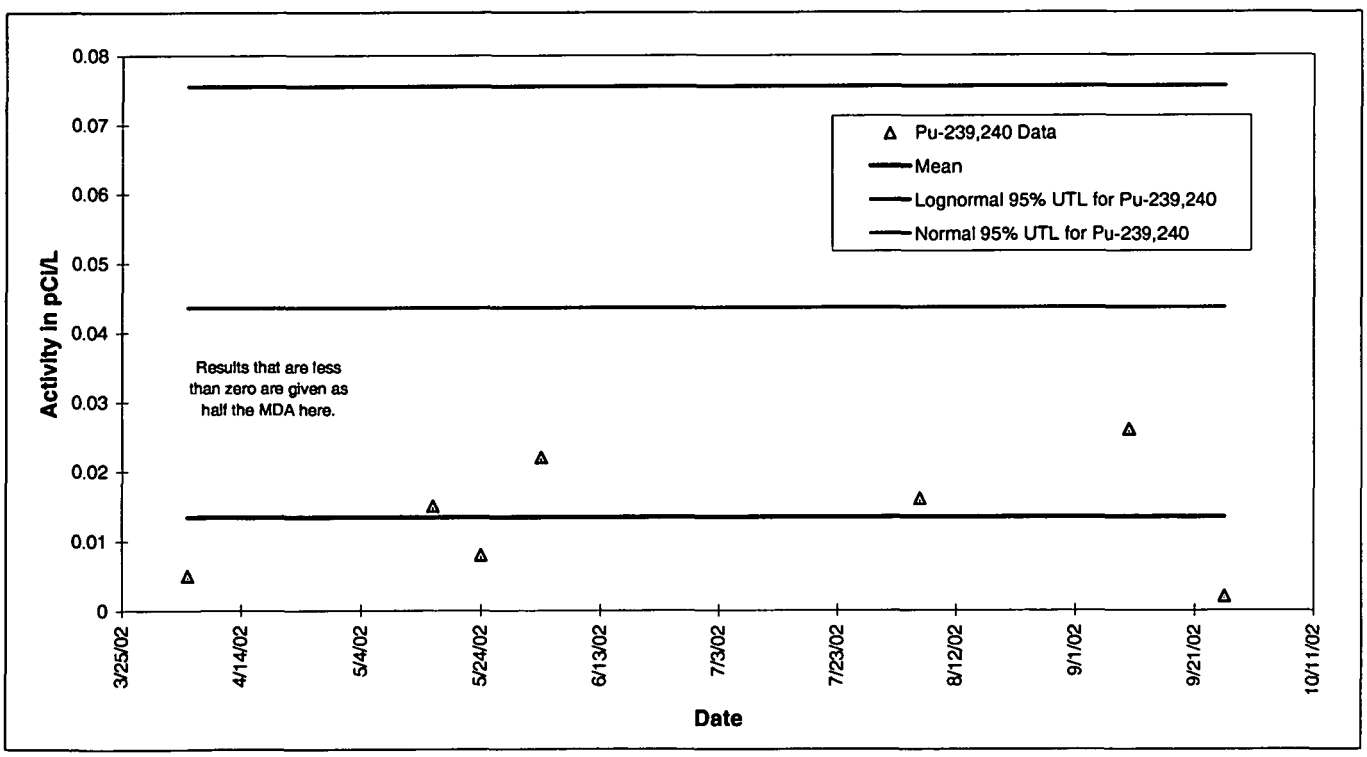


Figure 10-16. 95% UTL for Pu-239,240 at GS57: WY00-02.

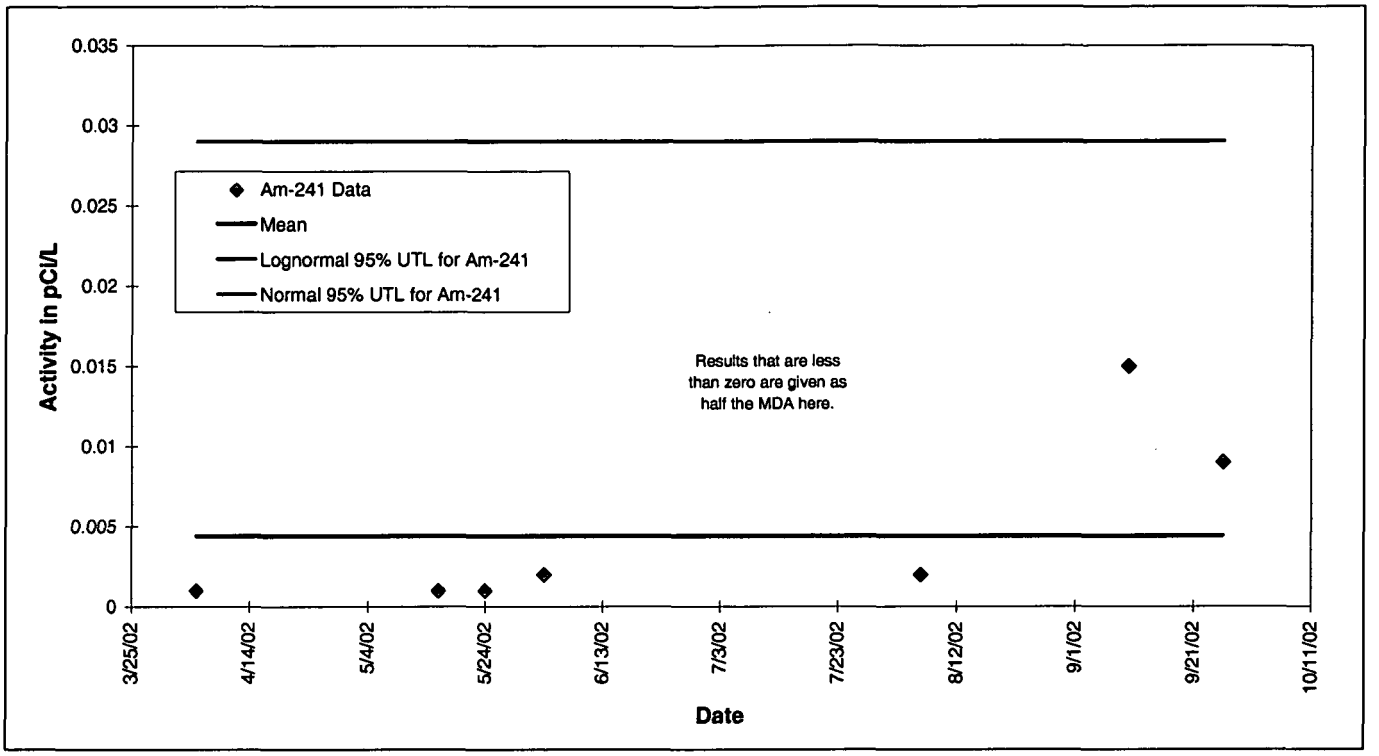


Figure 10-17. 95% UTL Plot for Am-241 at GS57: WY00-02.

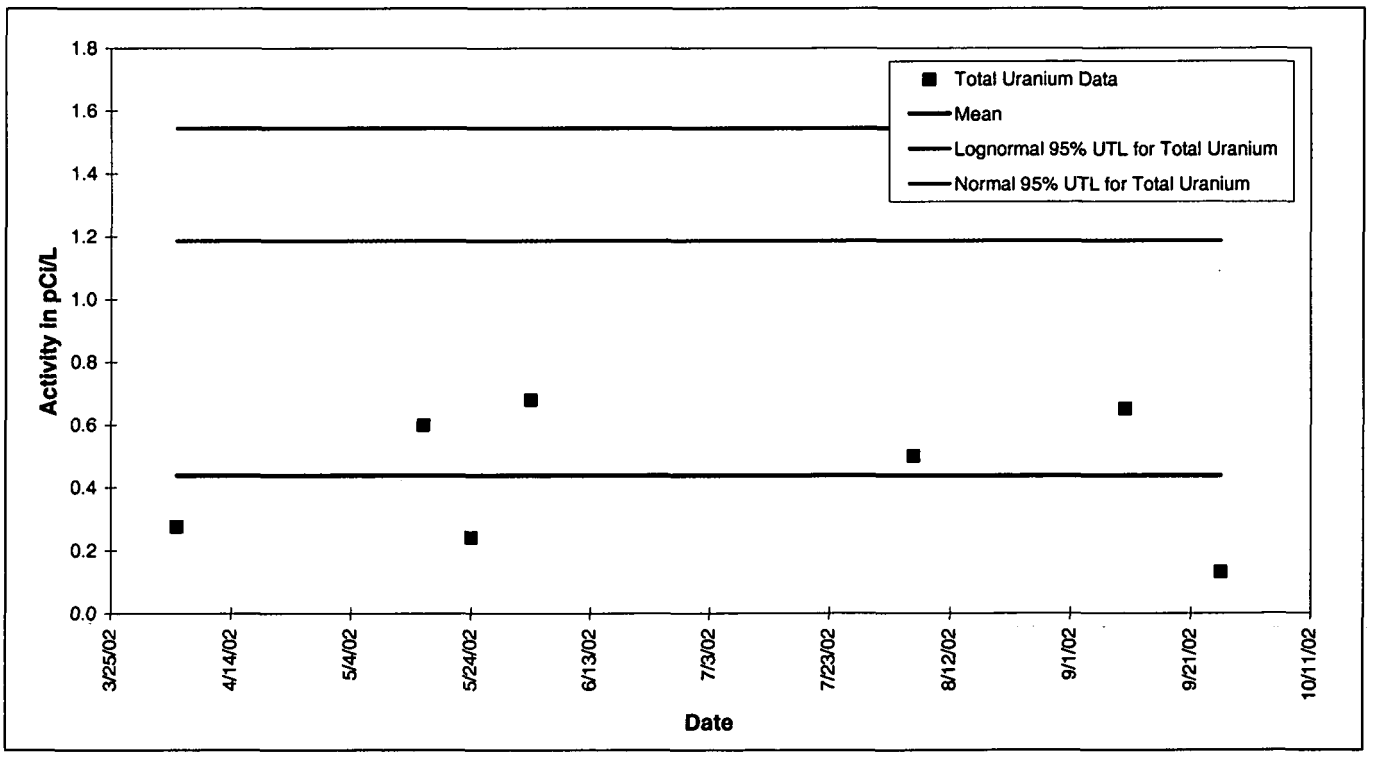


Figure 10-18. 95% UTL Plot for Total Uranium at GS57: WY00-02.

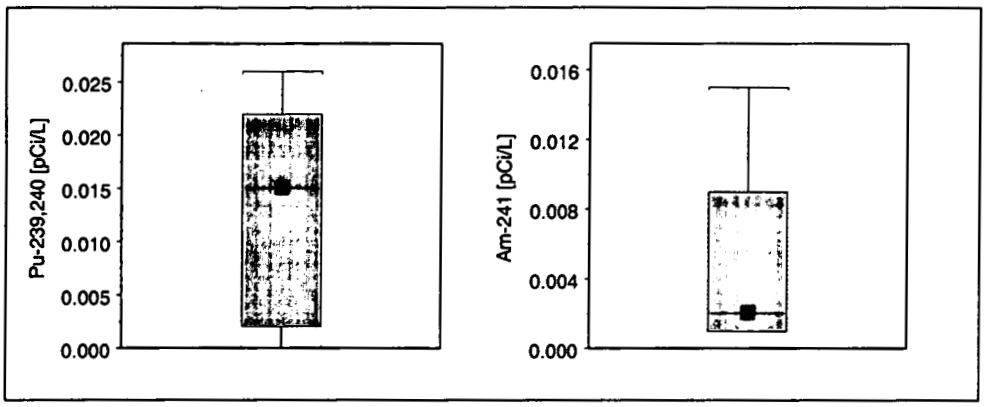


Figure 10-19. Pu and Am Box Plots for GS57: WY00–02.

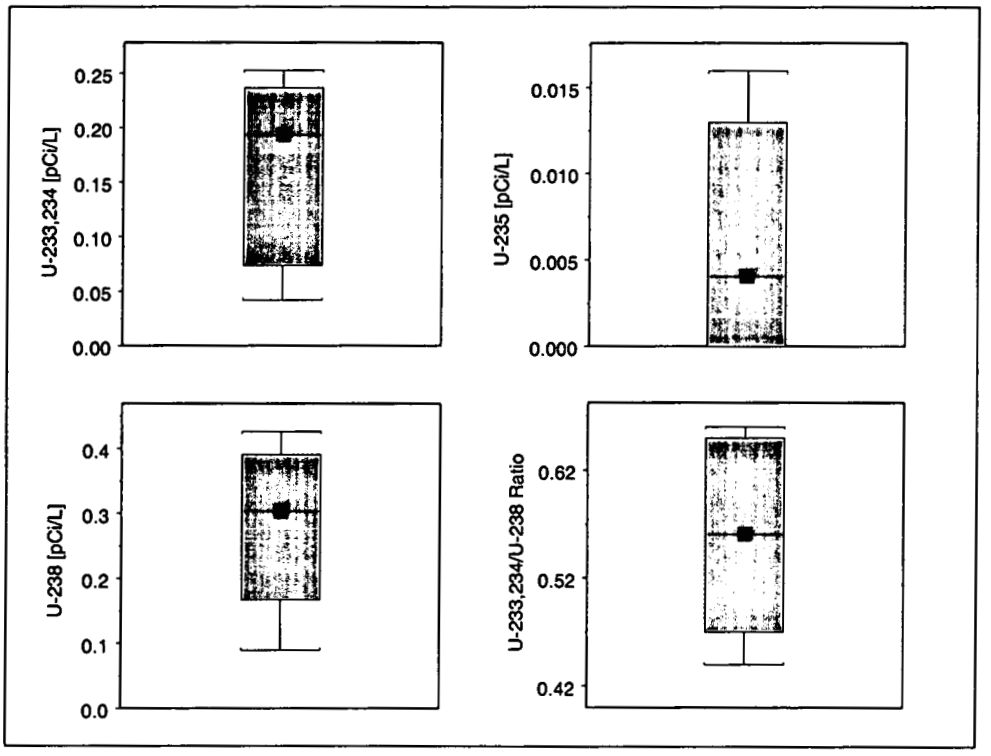


Figure 10-20. Uranium Box Plots for GS57: WY00–02.

Table 10-7 shows the total metals results for samples collected at GS57. Figure 10-21 through Figure 10-25 show the UTL plots for the metals. For the metals with a determined distribution, none exceeded the calculated UTL.

Data for metals Hg and Tl had undetermined distributions. All of the Tl and Hg data were 'undetects'.

Table 10-7. Summary Statistics for Metals Results from GS57 in WY00-02.

Analyte	Samples [N]	Percent Undetect	Median [µg/L]	85th Percentile [µg/L]	Maximum [µg/L]	95% UTL [µg/L]
ALUMINUM	7	0.0%	7360	8527	9580	24583[a]/16638[b]
ANTIMONY	7	14.3%	1.50	2.33	2.55	4.51[a]/3.87[b]
ARSENIC	7	0.0%	4.10	5.09	5.90	8.79[a]/8.37[b]
BARIUM	7	0.0%	54.2	63.2	72.0	113[a]/105[b]
BERYLLIUM	7	0.0%	0.32	0.43	0.65	1.28[a]/0.97[b]
CADMIUM	7	0.0%	0.38	0.41	0.53	0.69[a]/0.68[b]
CALCIUM	7	0.0%	11200	14230	23500	28875[a]/30573[b]
CHROMIUM	7	0.0%	9.60	11.8	12.6	26.0[a]/21.6[b]
COBALT	7	0.0%	2.40	2.65	3.10	9.64[a]/5.54[b]
COPPER	7	0.0%	19.4	23.9	33.0	58.7[a]/48.6[b]
IRON	7	0.0%	6790	7986	8130	27298[a]/15681[b]
LEAD	7	0.0%	9.10	9.60	12.3	31.2[a]/20.9[b]
LITHIUM	7	0.0%	8.25	10.6	11.7	22.4[a]/18.6[b]
MAGNESIUM	7	0.0%	2955	3109	3730	5870[a]/5240[b]
MANGANESE	7	0.0%	105	146	163	530[a]/286[b]
MERCURY	6	100.0%	0.05	0.05	0.05	NA[c]
MOLYBDENUM	7	0.0%	3.20	4.04	8.00	9.43[a]
NICKEL	7	0.0%	7.40	8.29	9.10	18.2[a]/15.1[b]
POTASSIUM	7	0.0%	4060	7490	9380	14164[a]/13652[b]
SELENIUM	7	85.7%	0.50	0.90	0.92	1.39[a]
SILVER	7	57.1%	0.14	0.41	0.53	1.16[a]/0.88[b]
SODIUM	7	0.0%	44400	69600	138000	182256[a]
STRONTIUM	7	0.0%	54.4	68.9	97.3	129[a]/128[b]
THALLIUM	7	100.0%	0.80	0.80	0.80	NA[c]
TIN	7	100.0%	0.60	0.62	0.80	1.09[a]/1.05[b]
VANADIUM	7	0.0%	15.6	19.2	19.3	50.9[a]/35.8[b]
ZINC	7	0.0%	335	445	481	852[a]/733[b]

Note: [a] Lognormal distribution; [b] Normal distribution; [c] Undetermined distribution.

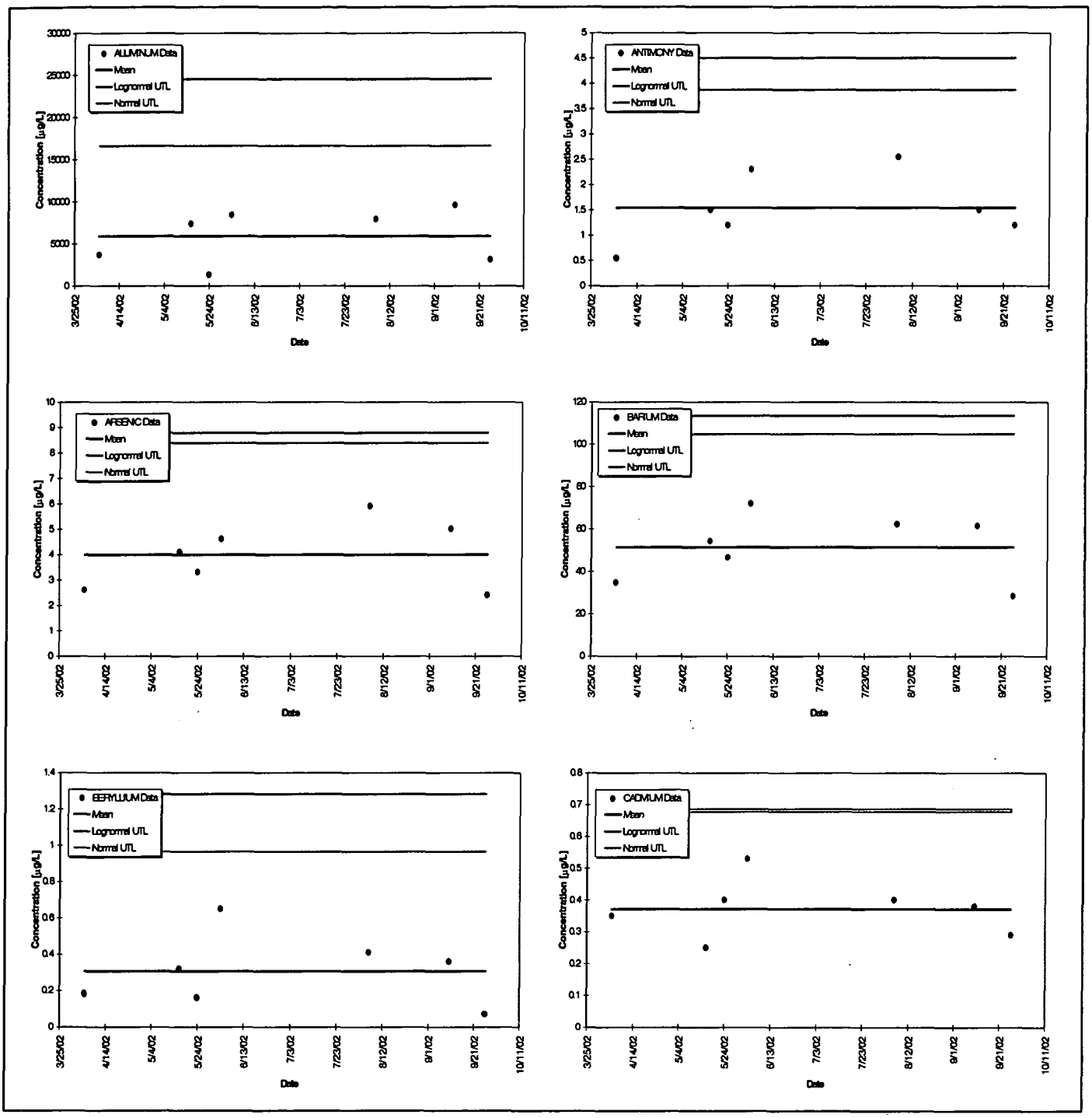


Figure 10-21. Total Metals UTL Plots for GS57: Aluminum through Cadmium.

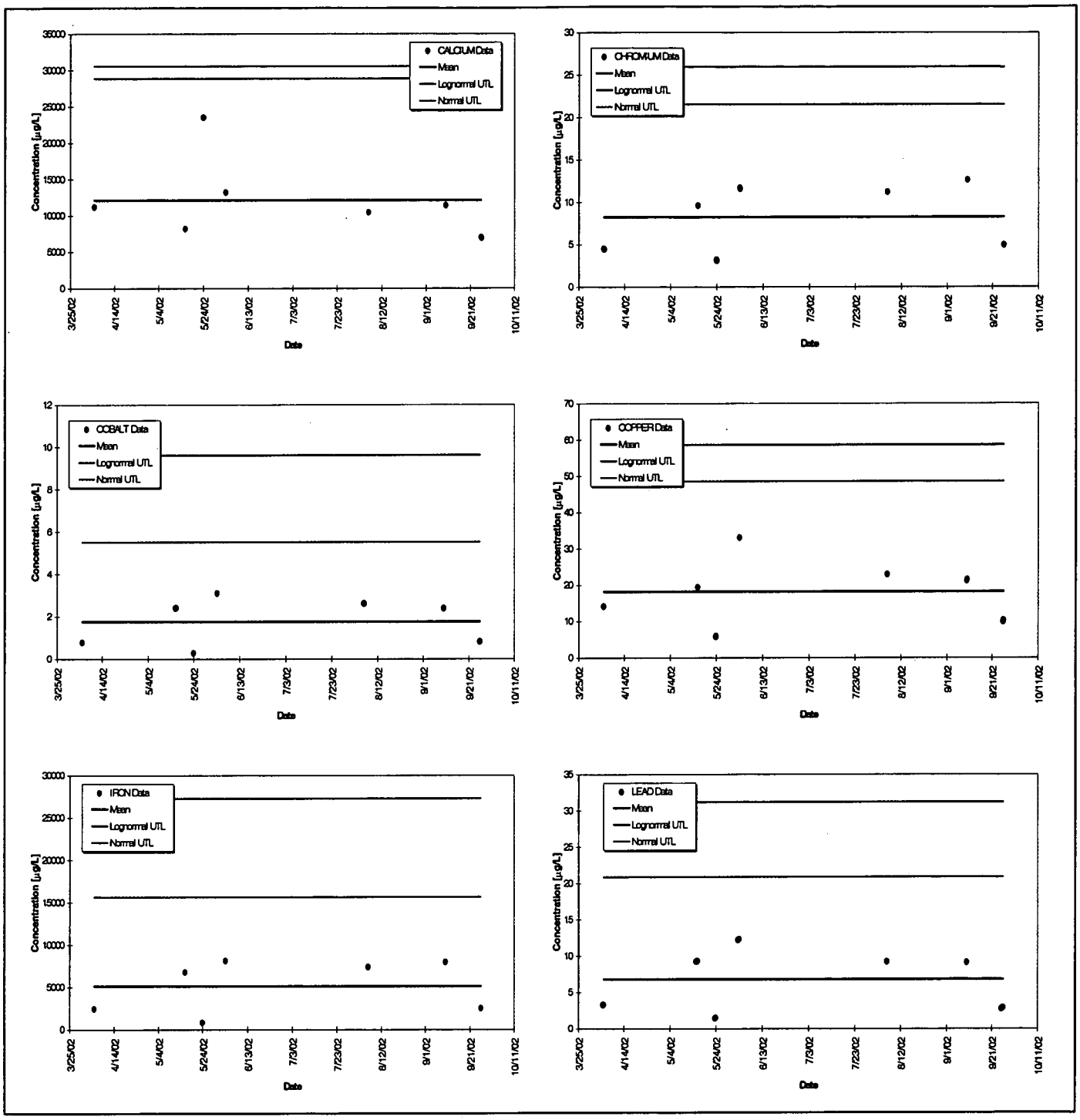


Figure 10-22. Total Metals UTL Plots for GS57: Calcium through Lead.

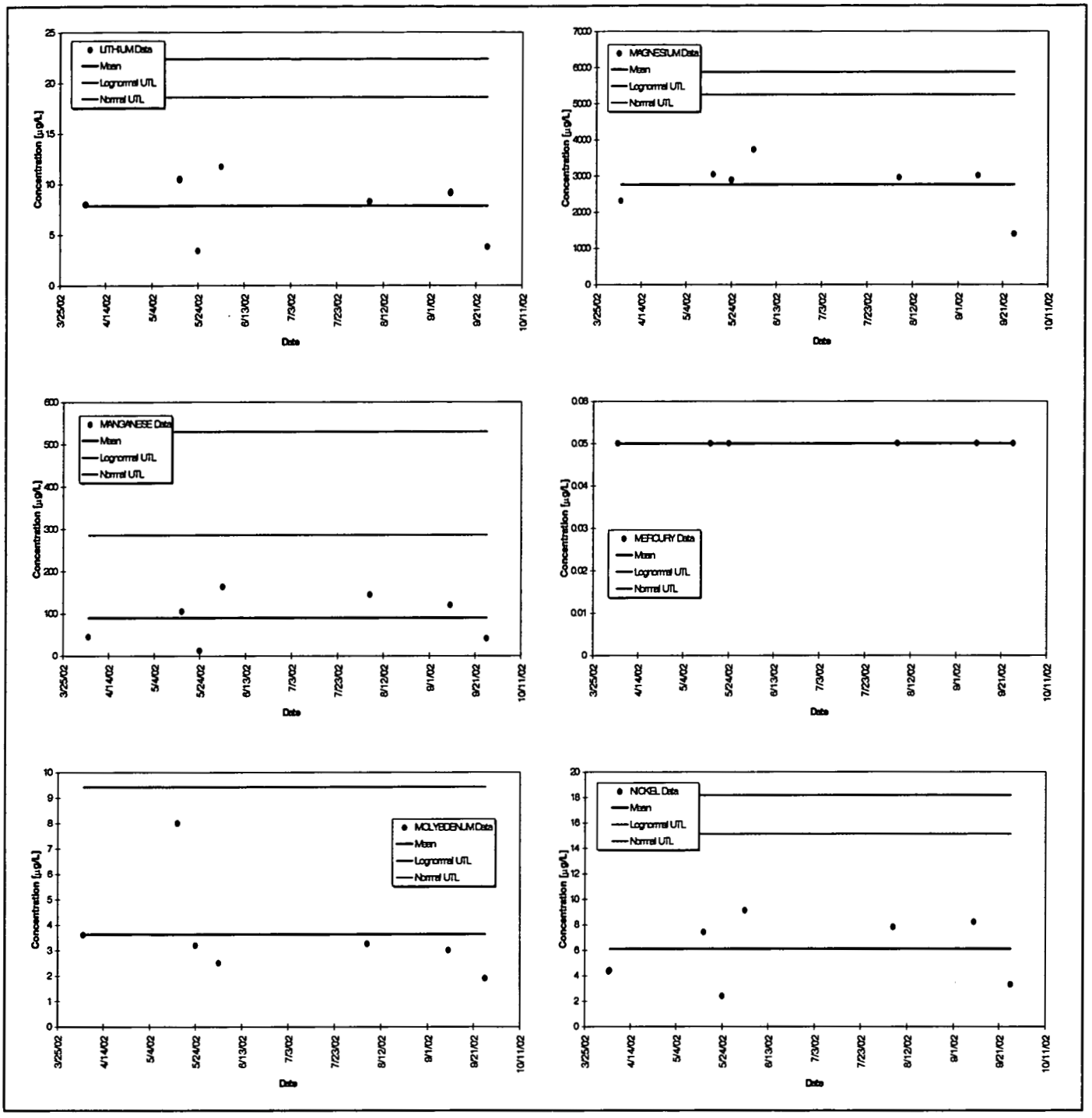


Figure 10-23. Total Metals UTL Plots for GS57: Lithium through Nickel.

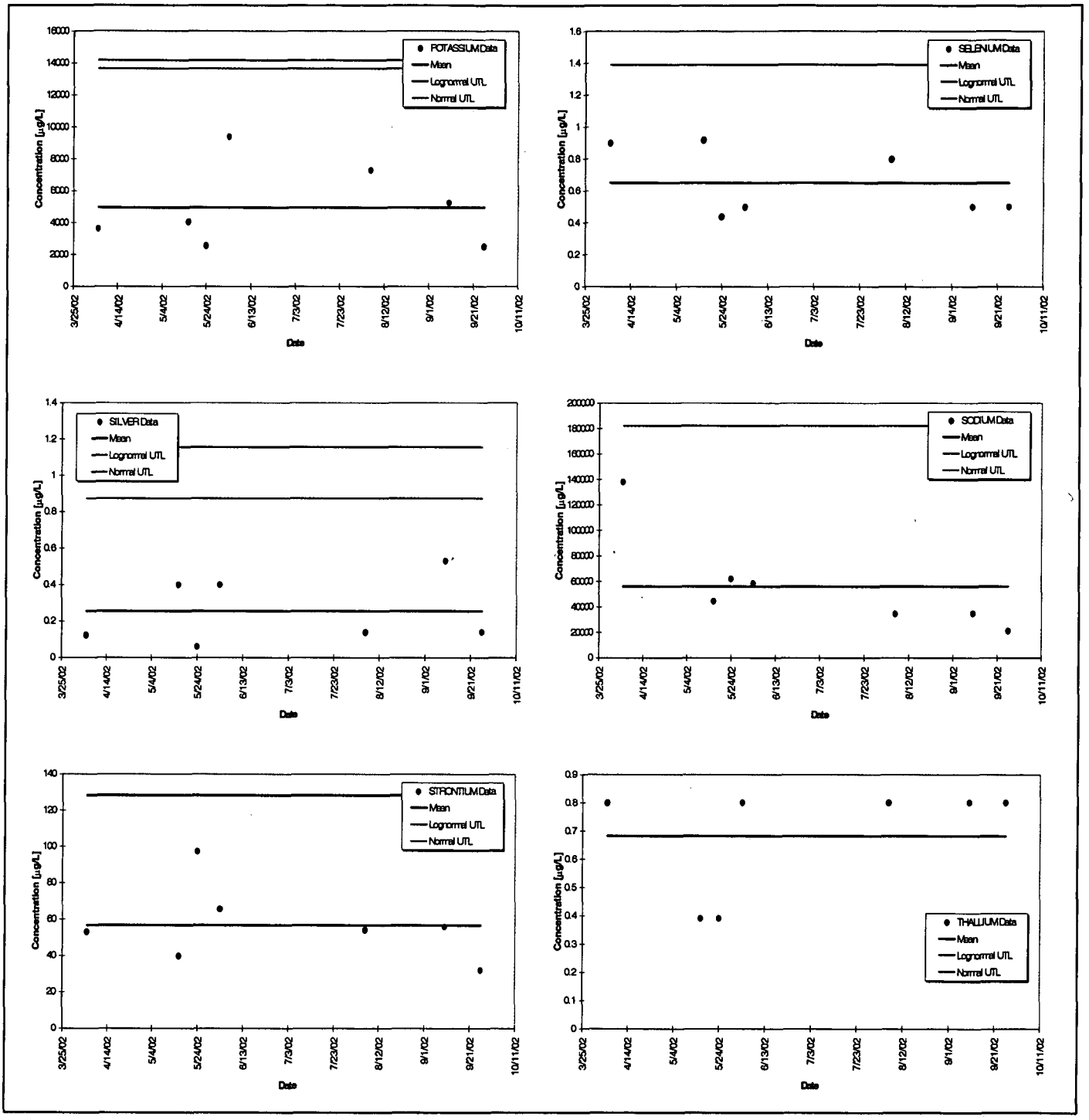


Figure 10-24. Total Metals UTL Plots for GS57: Potassium through Thallium.

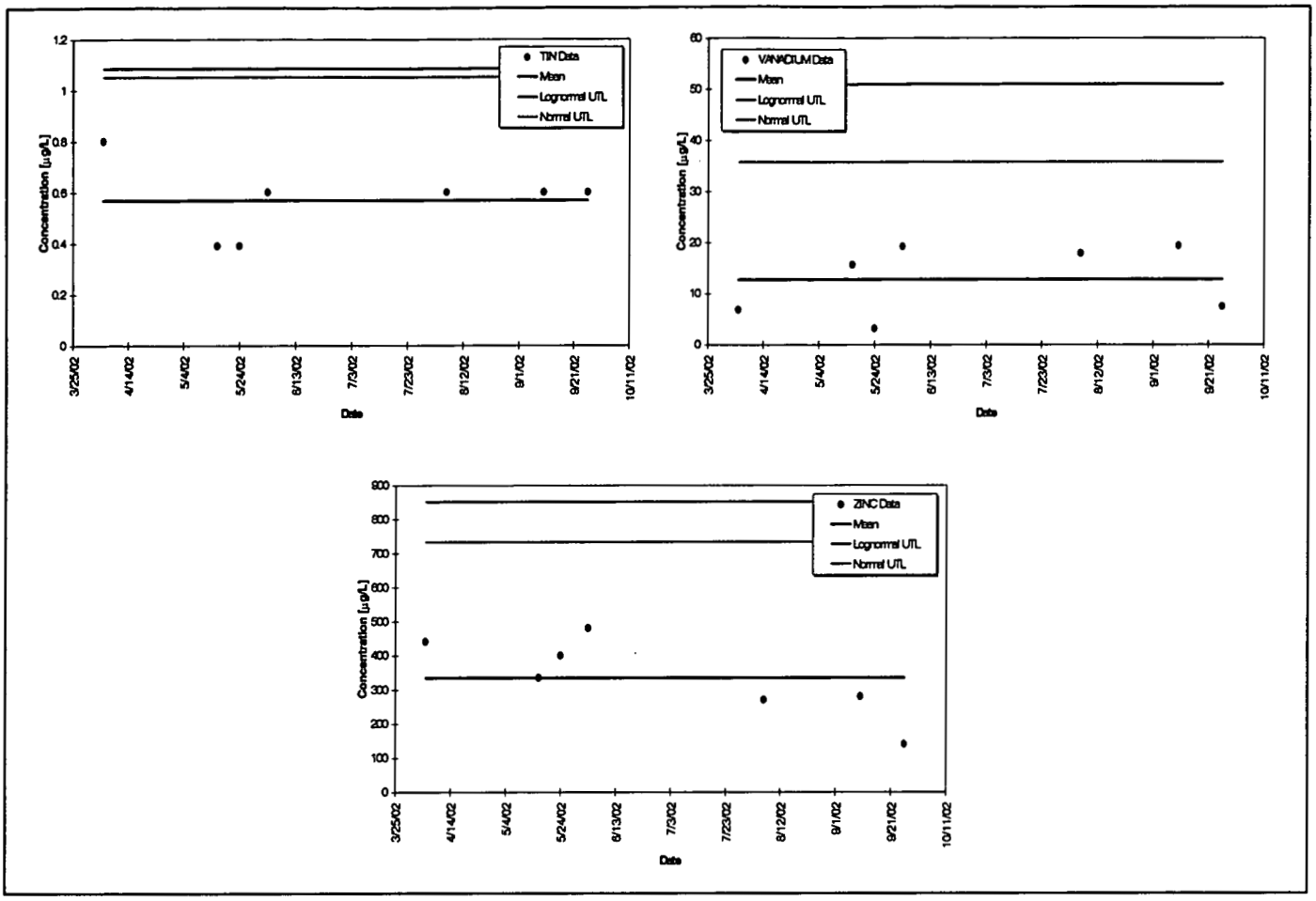


Figure 10-25. Total Metals UTL Plots for GS57: Tin through Zinc.

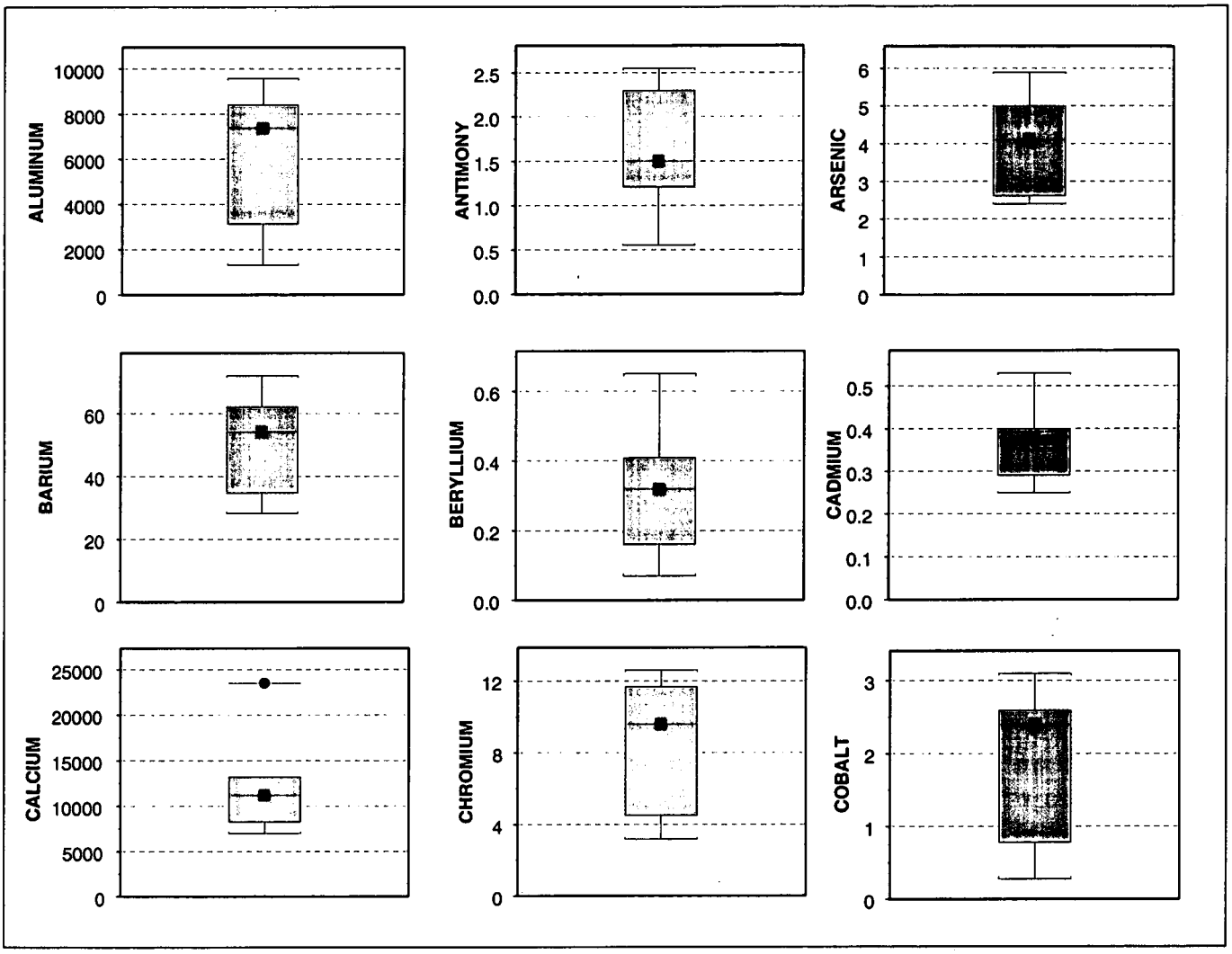


Figure 10-26. Total Metals Box Plots for GS57: Aluminum through Cobalt.

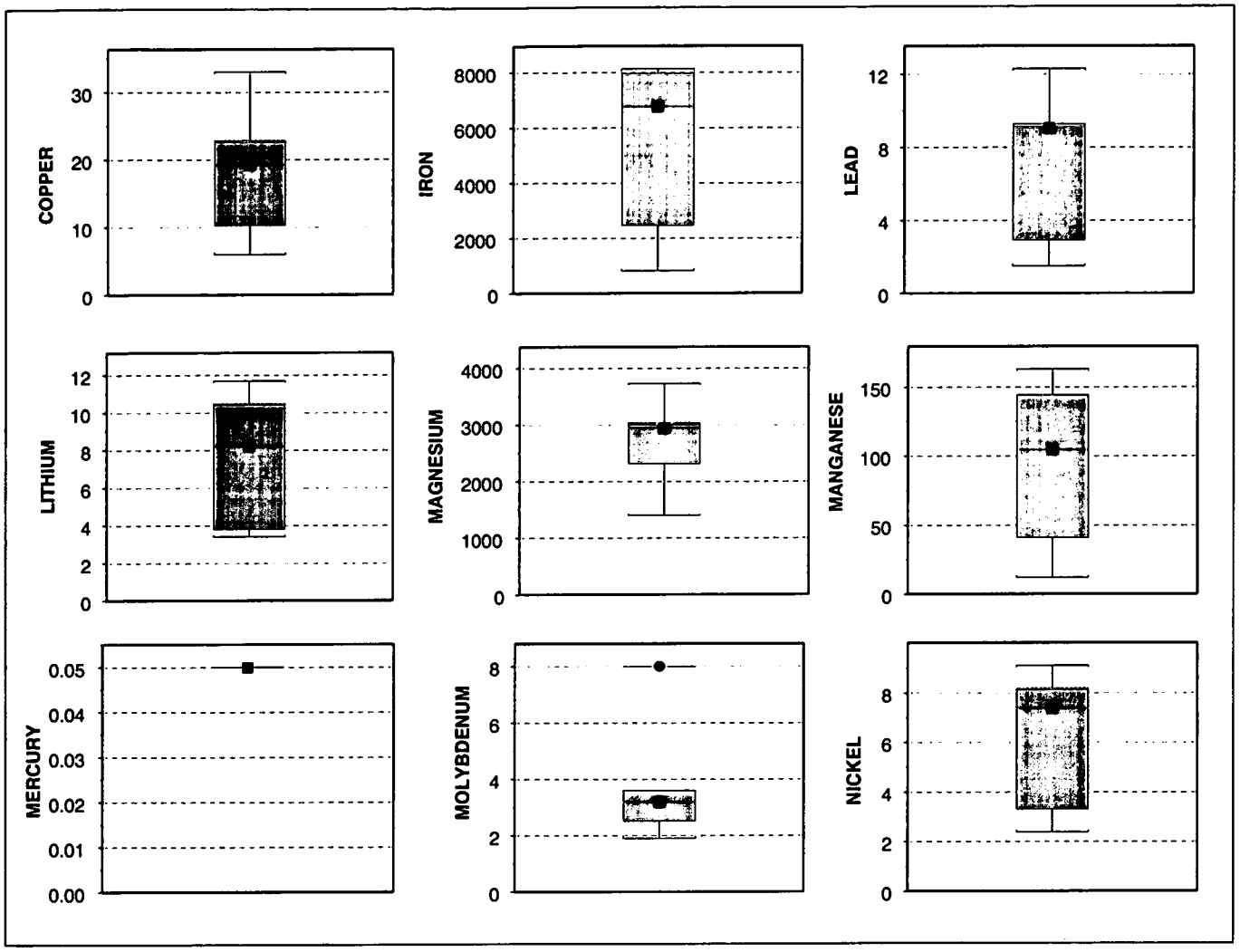


Figure 10-27. Total Metals Box Plots for GS57: Copper through Nickel.

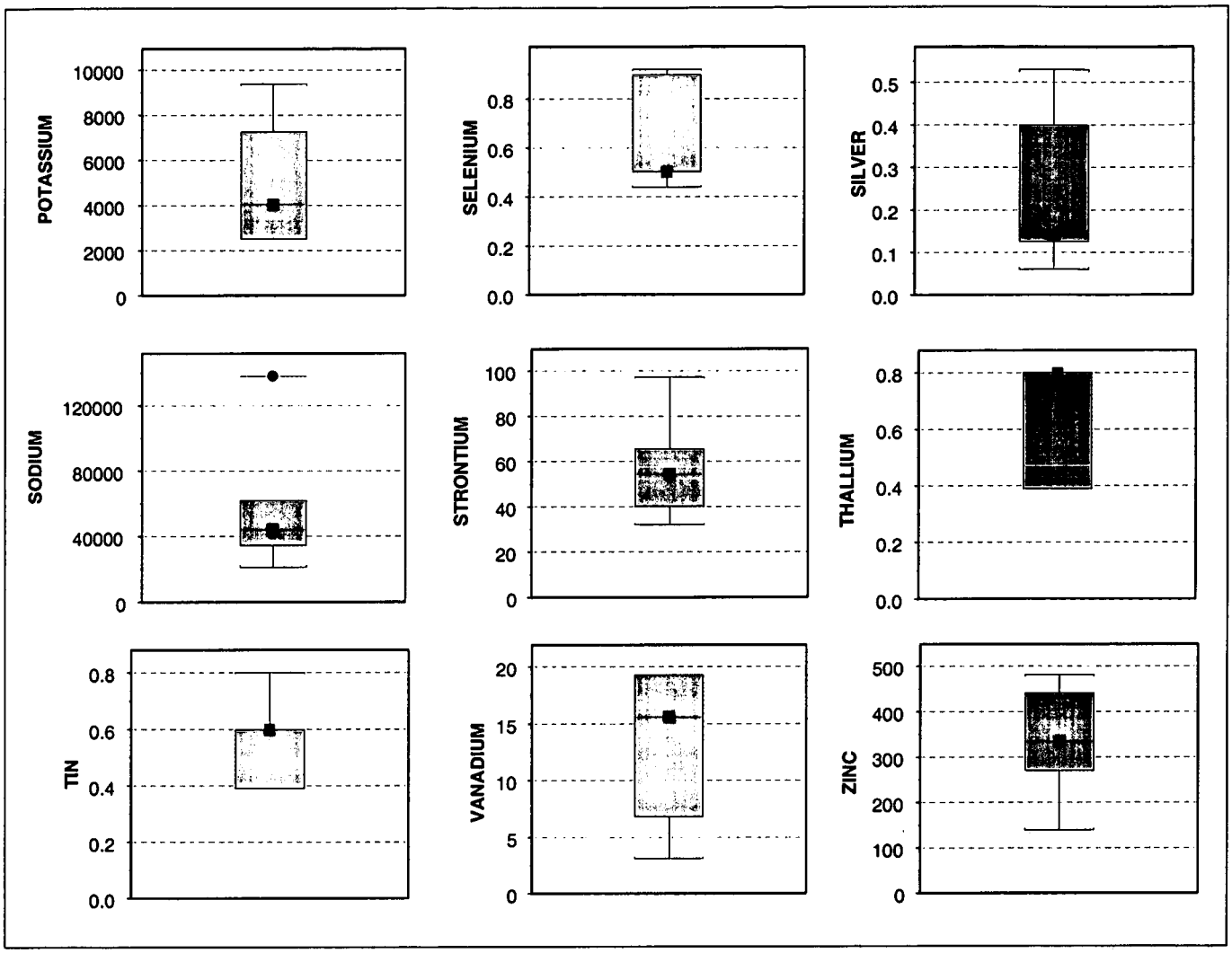


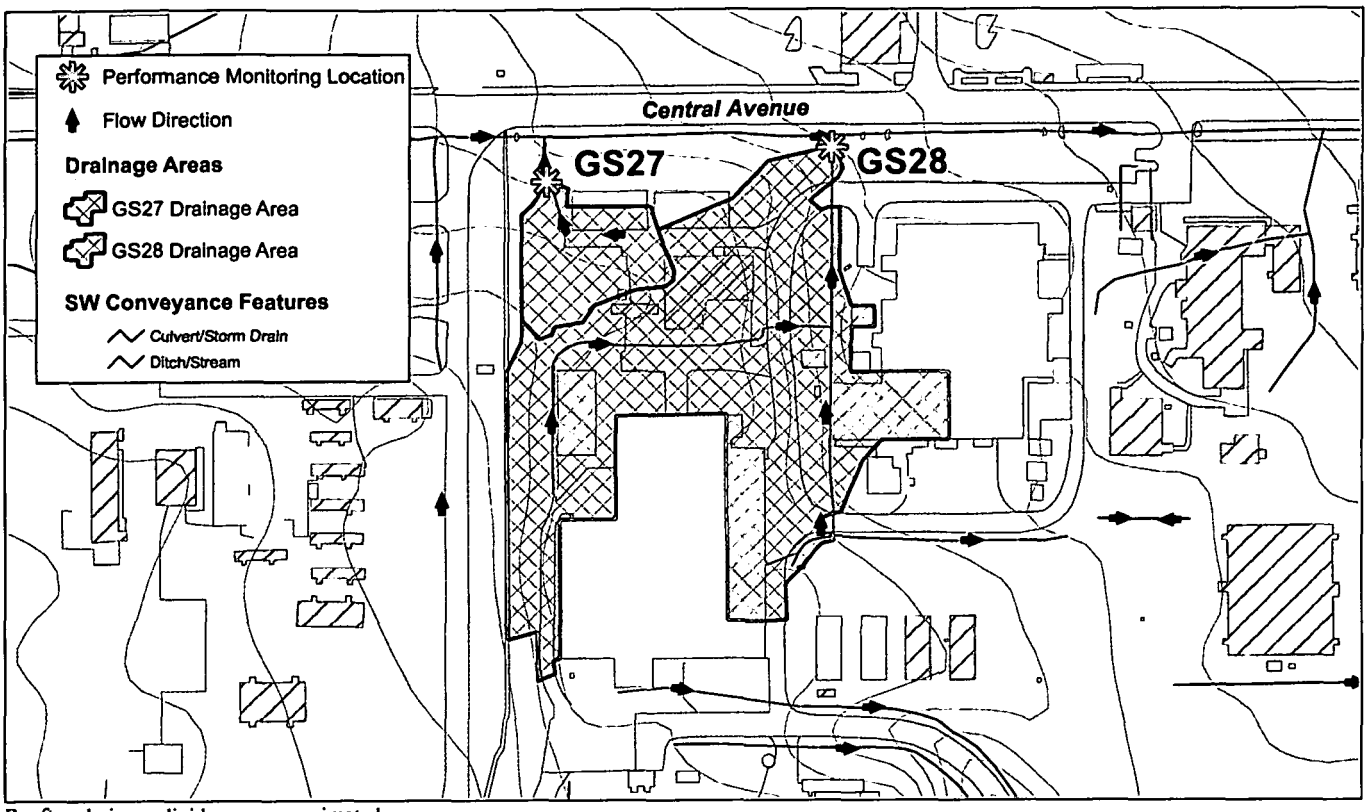
Figure 10-28. Total Metals Box Plots for GS57: Potassium through Zinc.

10.3.2 Northern 800 Area D&D

Performance monitoring for the northern 800 Area is supported by locations GS27 and GS28. Monitoring location GS27 was originally installed on 3/9/95 under the IA IM/IRA in support of the D&D of Building 889. Location GS28 was originally installed on 5/9/95 under the IA IM/IRA also in support of the D&D of Building 889, and discontinued on 8/26/97. GS28 was reinstalled on 2/19/02 in support of the northern 800 Area D&D.

Figure 10-29 shows the drainage areas for both GS27 and GS28. Major buildings within the drainage area include 883 and 865.

The Performance monitoring data from GS27 and GS28 indicate that closure activities within the Northern 800 Area did not result in significant water quality changes as of the end of WY02. Complete data evaluation for these locations is given below.



Rooftop drainage divides are approximated.

Figure 10-29. Performance Monitoring Drainage Areas for Northern 800 Area D&D.

Monitoring data collected at GS27 have shown the highest Pu and Am activities for automated monitoring locations (Table 10-8). These activities prompted the Site to initiate an investigation, with the intent being the mitigation of contaminated soils and/or the removal of 'hot spots'. However, surface-soil and sediment sampling, in addition to FIDLER surveys, in the GS27 subdrainage have shown only moderate activities in the single pCi/g range. The fact that suspended solids activities are frequently 1 to 2 orders of magnitude higher than the surface-soil/sediment activities (Figure 10-35) suggests that preferential suspension in runoff of more contaminated particles may be occurring at this location.

In an attempt to mitigate the movement of contaminated soils, some sediment was removed from the drainage ditch immediately upstream of GS27, and exposed soils were treated with a soil stabilizer called Topseal® in September 1996. Although lower activities have been measured during subsequent years, somewhat higher activities were again measured in WY02 (Figure 10-30 and Figure 10-31). It is not clear if the Topseal, the completion of the B889 D&D, or natural variability are the cause of these temporarily lower activities. However, Figure 10-35 shows a general reduction in suspended solids activity over time.

Figure 10-30 and Figure 10-31 show the UTL plots for Pu and Am, respectively. During WY00–02, a single Am result exceeded the calculated UTL. However, these levels did not persist and this sample was associated with high TSS (980 mg/L). Similarly, the suspended solids activity for this sample was not particularly unusual for this location. The slightly higher Pu and Am activities for WY02 (along with TSS) are likely the result of the B889 Slab Removal Project (4/22-7/8/02) that involved significant soil disturbances and vehicle traffic in the drainage area. It should be noted that the WY02 levels are comparable to historic levels measured in WY98 and WY99.

Figure 10-32 shows that a single of total uranium activity was greater than the UTL. Although WY02 total uranium activities were higher than normal for this location, the levels are low. Figure 10-34 further shows that the median U-233,234/U-238 ratio is approximately 1.25, slightly higher than expected.

Table 10-8. Summary Statistics for Radionuclide Results from GS27 in WY00-02.

Analyte	Samples [N]	Median [pCi/L]	85th Percentile [pCi/L]	Maximum [pCi/L]	95% UTL [pCi/L]
TSS [mg/L]	27	59	221	980	NA
Pu-239,240	27	0.662	7.260	84.8	101.7[a]
Am-241	27	0.200	1.525	15.0	10.83[a]
U-233,234	27	0.101	0.571	1.980	2.544[a]
U-235	27	0.004	0.023	0.078	
U-238	27	0.089	0.448	1.500	

Note: [a] Lognormal distribution; [b] Normal distribution; [c] Undetermined distribution.
TSS is given in mg/L.
Uranium UTL given for total uranium.

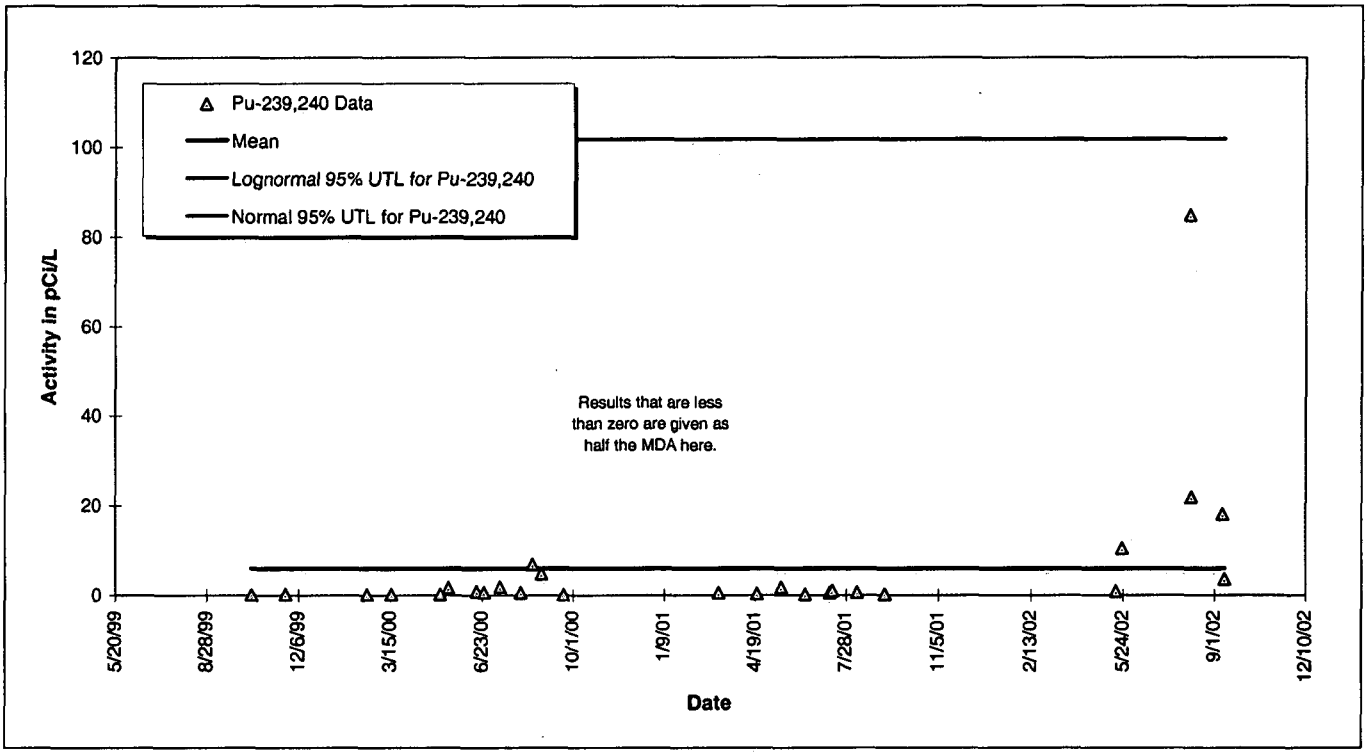


Figure 10-30. 95% UTL for Pu-239,240 at GS27: WY00-02.

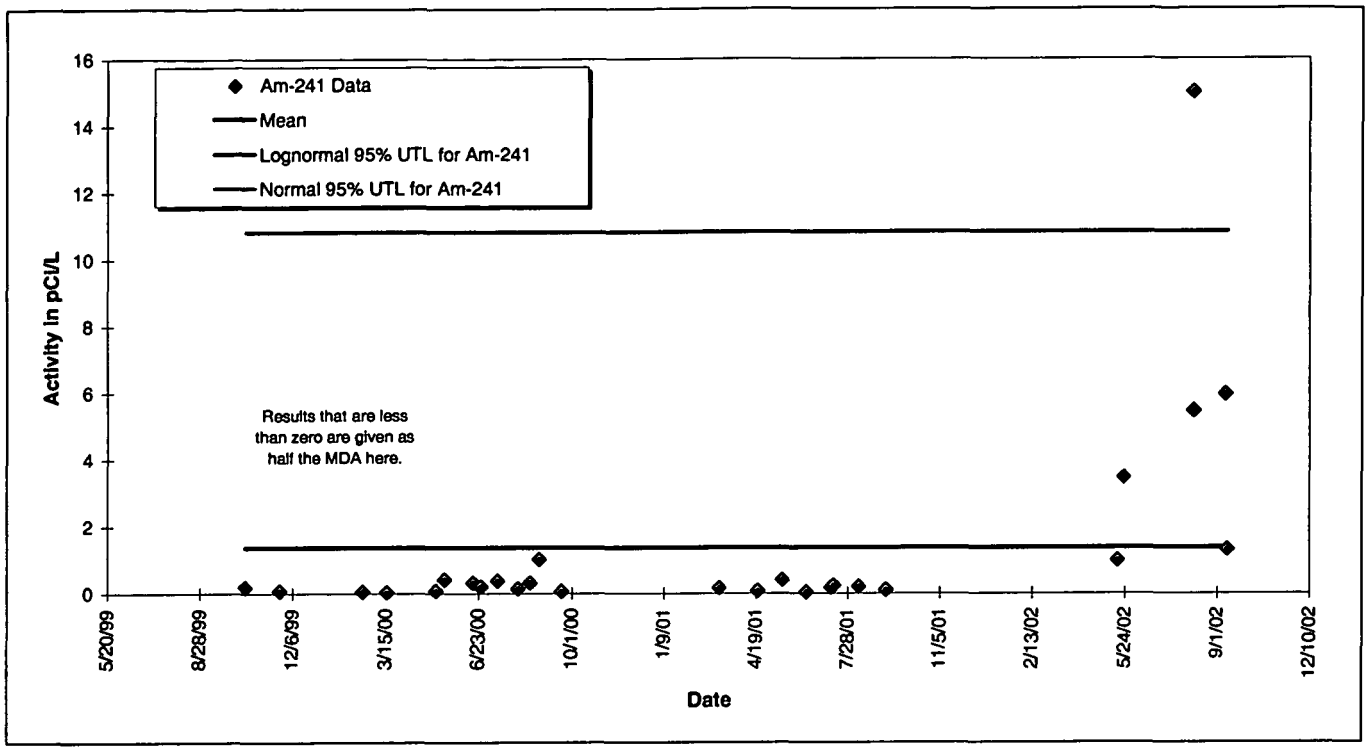


Figure 10-31. 95% UTL Plot for Am-241 at GS27: WY00-02.

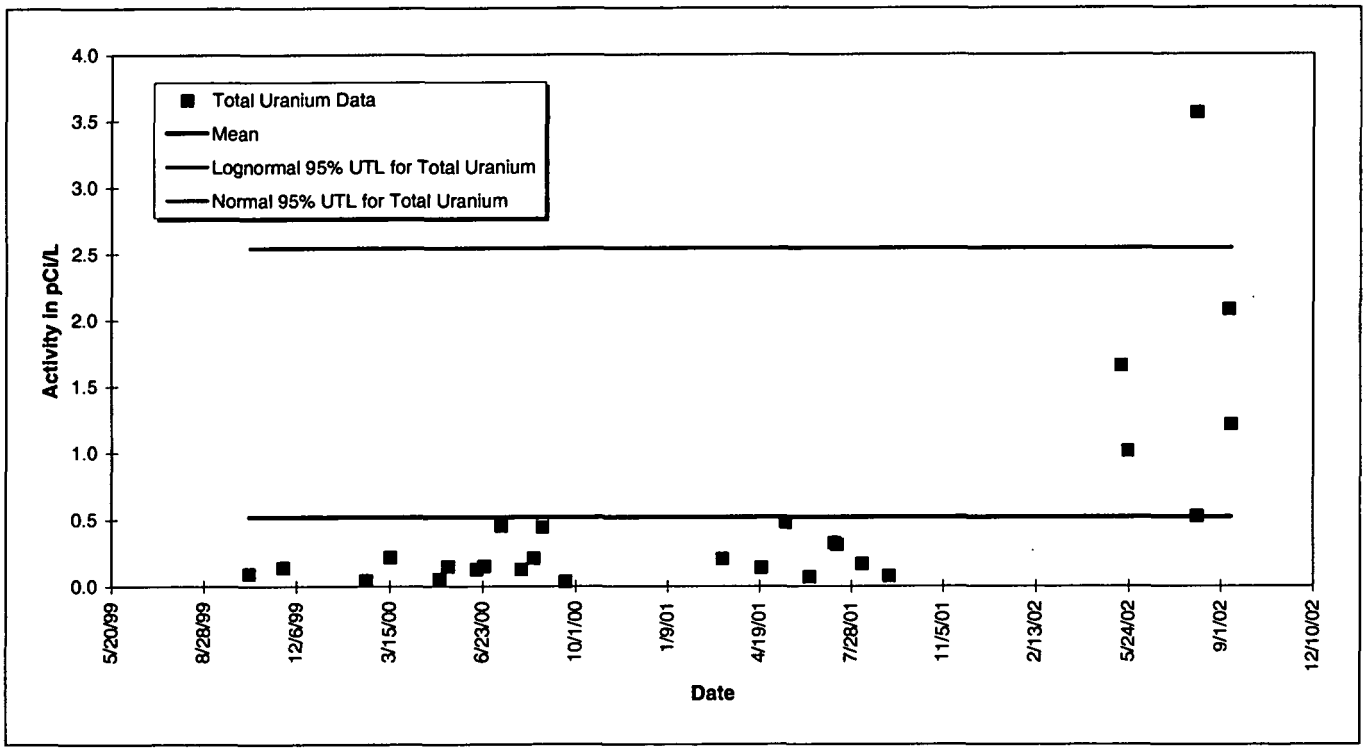


Figure 10-32. 95% UTL Plot for Total Uranium at GS27: WY00-02.

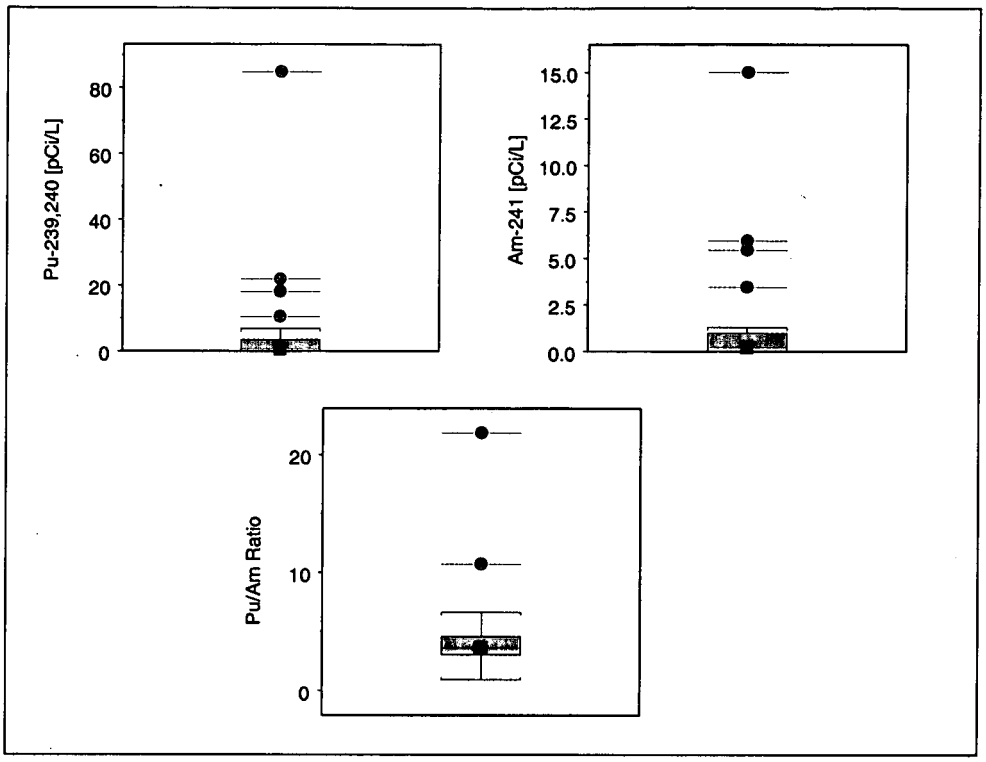


Figure 10-33. Pu and Am Box Plots for GS27: WY00–02.

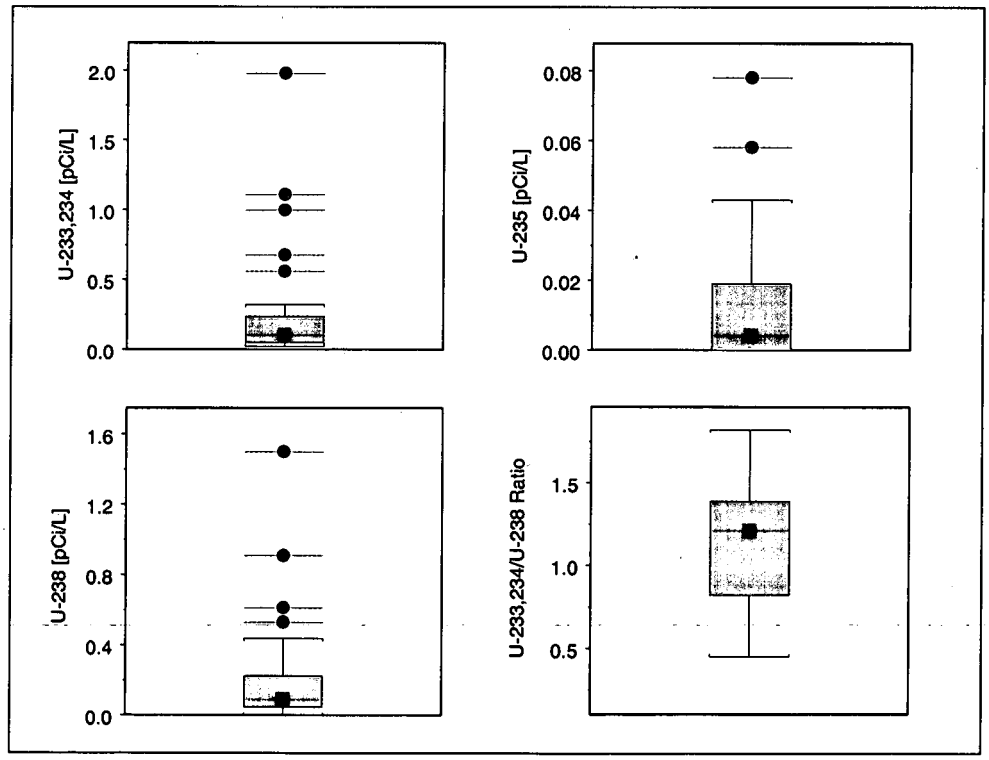


Figure 10-34. Uranium Box Plots for GS27: WY00–02.

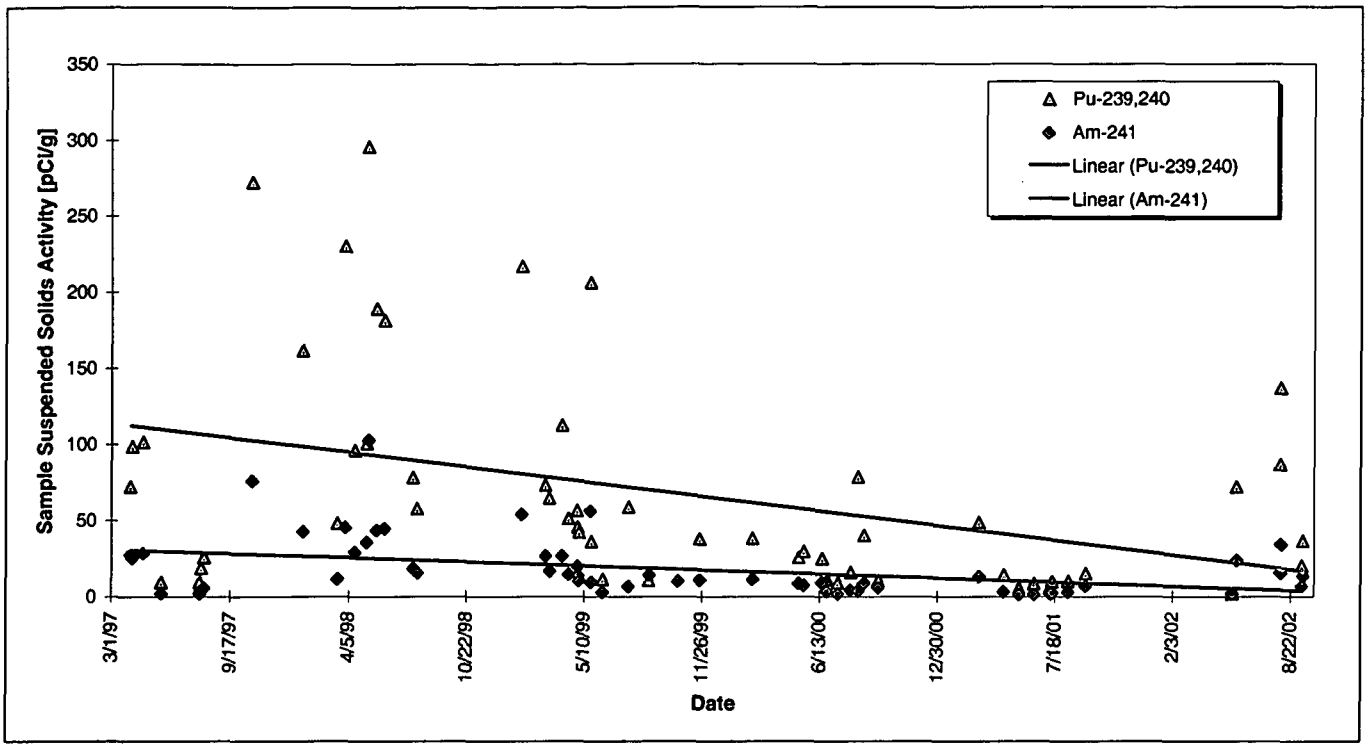


Figure 10-35. Temporal Variation of Suspended Solids Activity at GS27: WY97–02.

Monitoring data collected at GS28 show moderate Pu and Am activities (Table 10-9). Figure 10-36 and Figure 10-37 show the UTL plots for Pu and Am, respectively. During WY00–02, no Pu and Am results exceeded the calculated UTLs for the few results available.

Figure 10-38 shows that a distribution could not be determined for total uranium activities, but that the activities were very low. Figure 10-40 further shows that the median U-233,234/U-238 ratio is approximately 0.68, significantly lower than expected.

The temporal variation of suspended solids activity (Figure 10-41) shows no significant trend for the period.

Table 10-9. Summary Statistics for Radionuclide Results from GS28 in WY00-02.

Analyte	Samples [N]	Median [pCi/L]	85th Percentile [pCi/L]	Maximum [pCi/L]	95% UTL [pCi/L]
TSS [mg/L]	2	32	54	63	NA
Pu-239,240	3	0.124	0.131	0.134	2.562[a]/0.604[b]
Am-241	3	0.028	0.056	0.068	0.353[a]/0.254[b]
U-233,234	3	0.182	0.228	0.247	NA[c]
U-235	3	0.007	0.008	0.008	
U-238	3	0.284	0.306	0.315	

Note: [a] Lognormal distribution; [b] Normal distribution; [c] Undetermined distribution.
TSS is given in mg/L.
Uranium UTL given for total uranium.

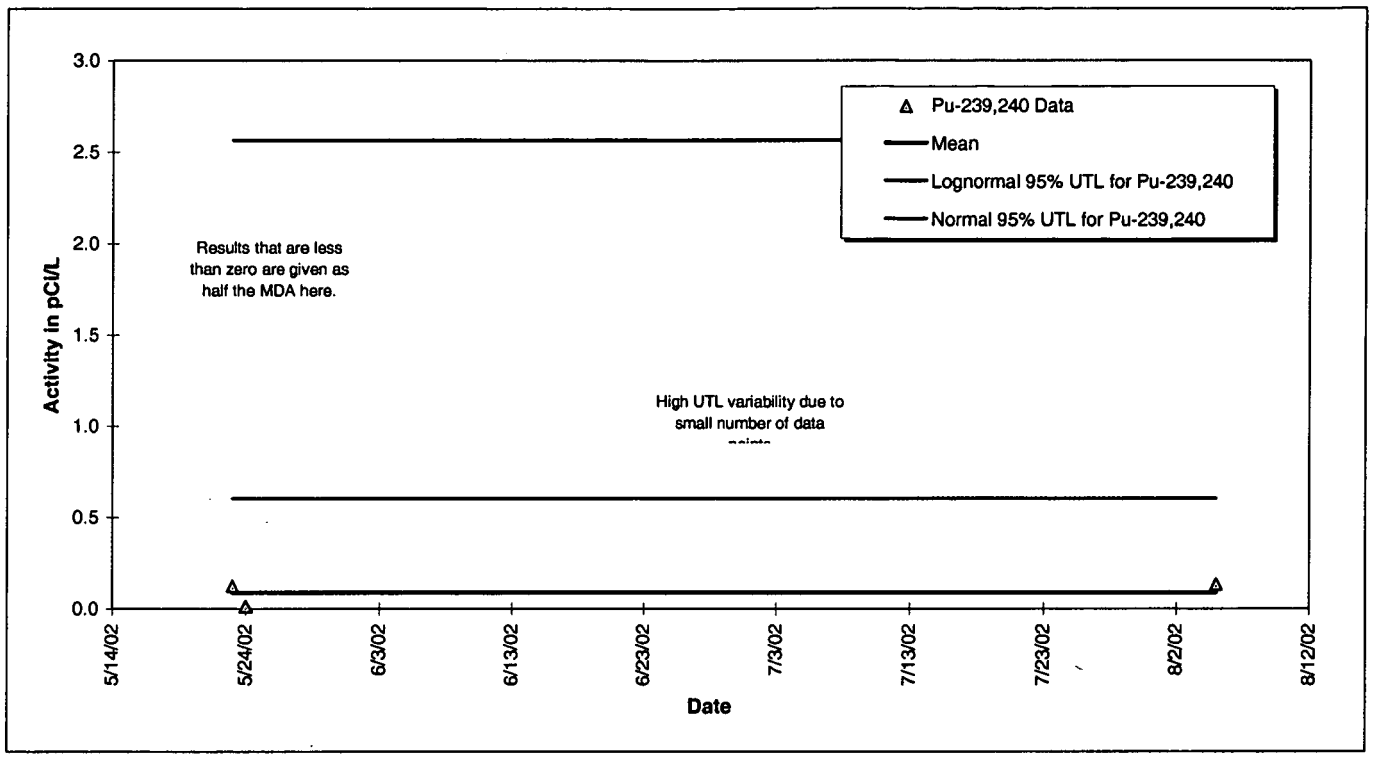


Figure 10-36. 95% UTL for Pu-239,240 at GS28: WY00-02.

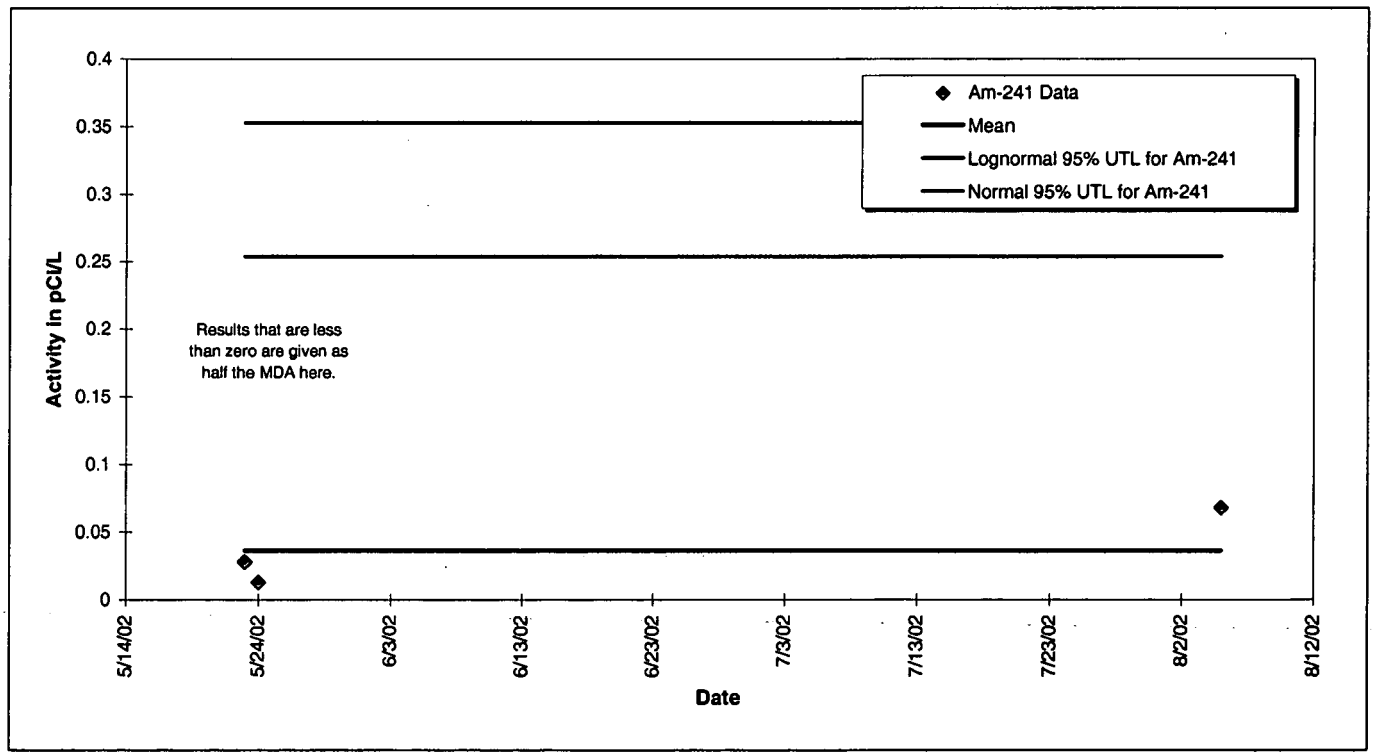


Figure 10-37. 95% UTL Plot for Am-241 at GS28: WY00-02.

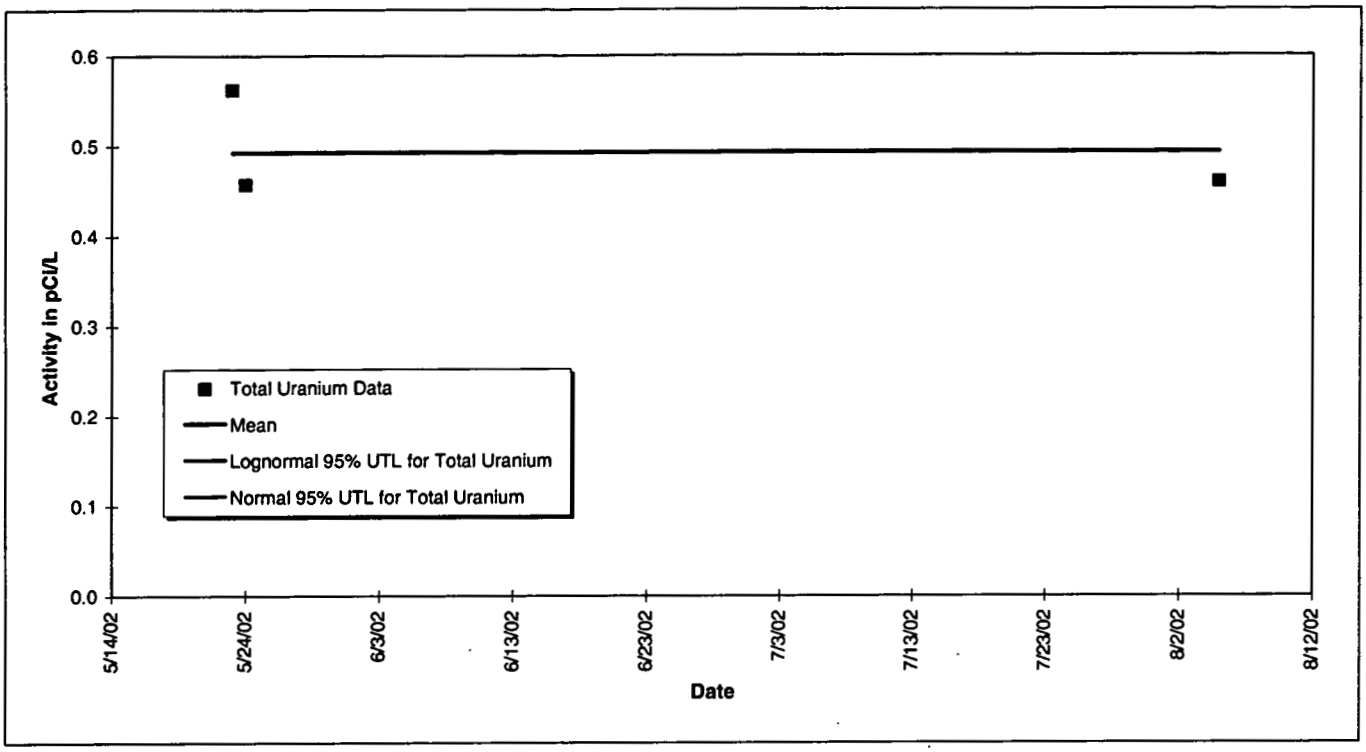


Figure 10-38. 95% UTL Plot for Total Uranium at GS28: WY00-02.

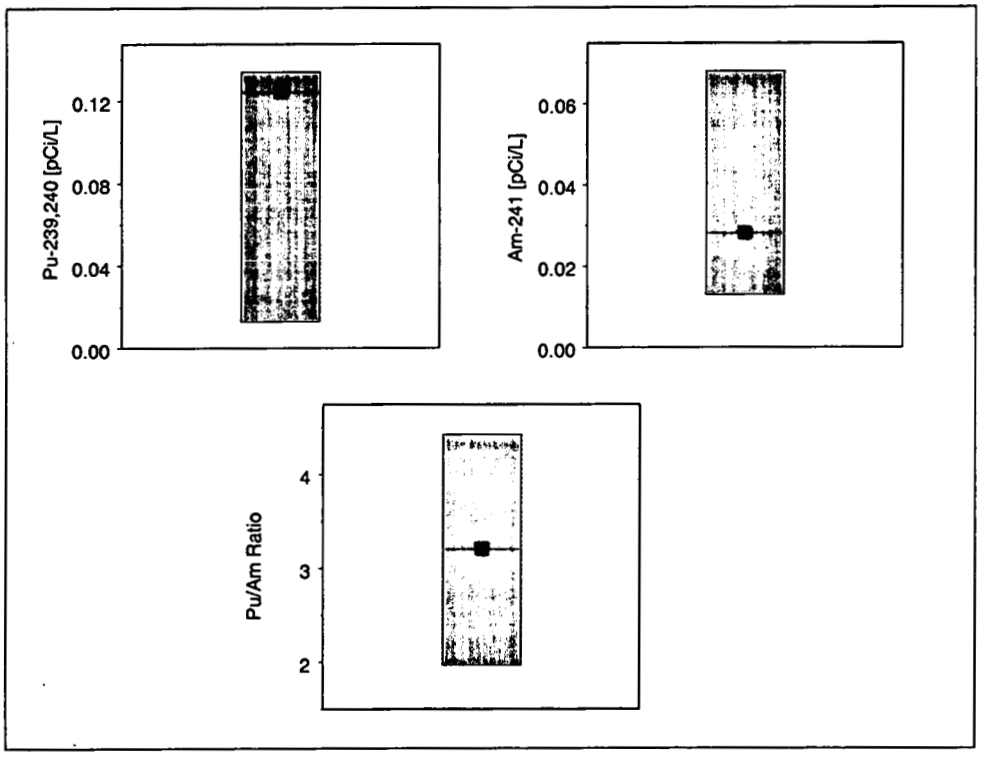


Figure 10-39. Pu and Am Box Plots for GS28: WY00–02.

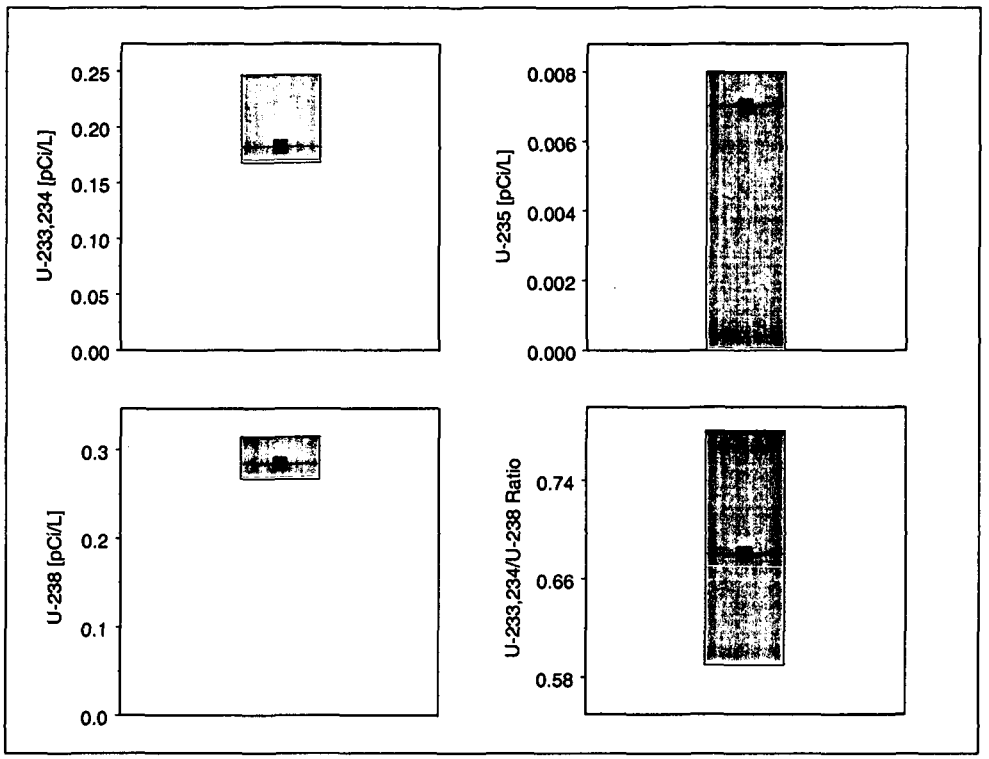


Figure 10-40. Uranium Box Plots for GS28: WY00–02.

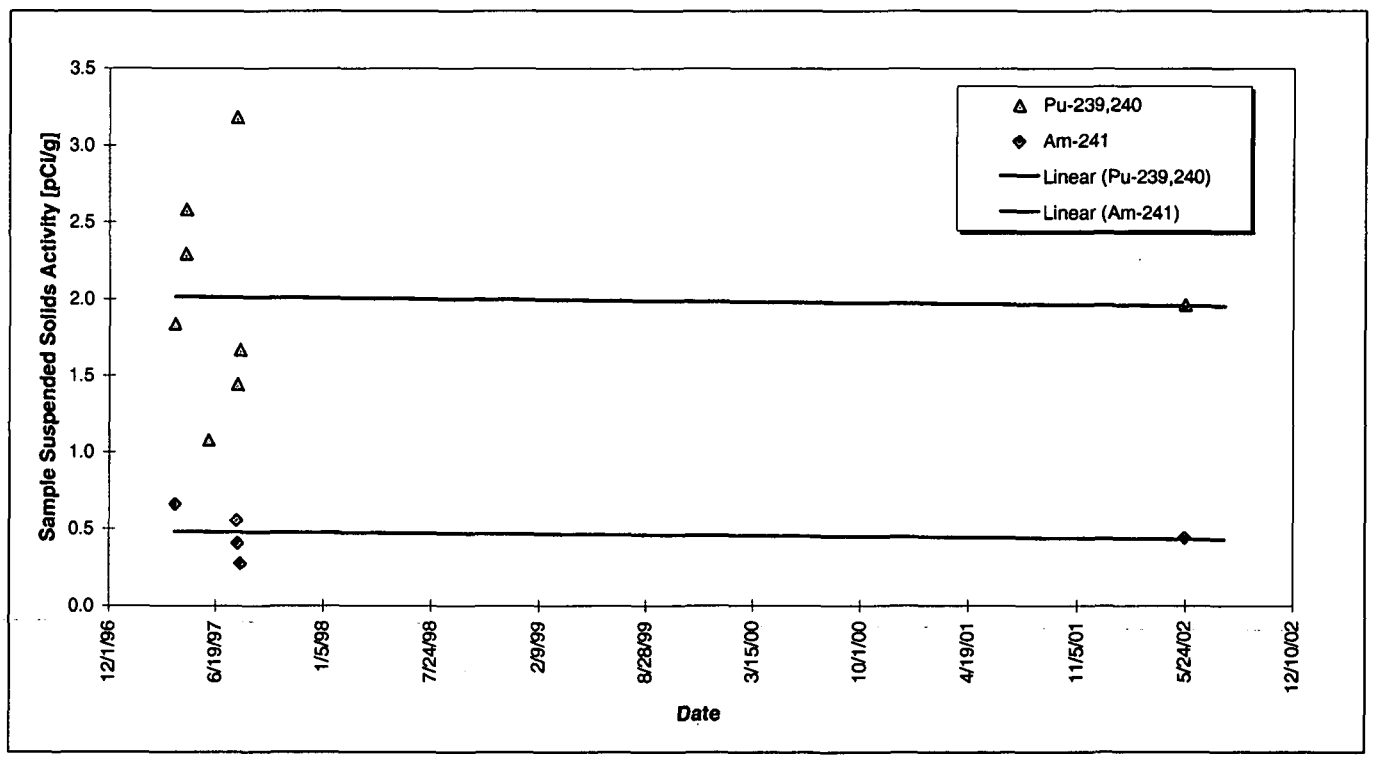


Figure 10-41. Temporal Variation of Suspended Solids Activity at GS28: WY97–02.

Table 10-10 shows the total metals results for samples collected at GS28. Figure 10-42 through Figure 10-46 show the UTL plots for the metals. For the metals with a determined distribution, none exceeded the calculated UTL for the few data points available.

Data for metals Ca, Hg, Se, Ag, Tl, and Sn had undetermined distributions. All of the Hg, Se, Ag, Tl, and Sn data were 'undetects'. For Ca, no results are indicated as 'suspect' by the boxplot (Figure 10-47).

Table 10-10. Summary Statistics for Metals Results from GS28 in WY00-02.

Analyte	Samples [N]	Percent Undetect	Median [µg/L]	85th Percentile [µg/L]	Maximum [µg/L]	95% UTL [µg/L]
ALUMINUM	3	0.0%	3920	6216	7200	163993[a]/29816[b]
ANTIMONY	3	66.7%	0.44	0.76	0.89	3.37[a]/2.97[b]
ARSENIC	3	33.3%	2.70	2.77	2.80	12.7[b]
BARIUM	3	0.0%	40.2	59.8	68.2	235[a]/212[b]
BERYLLIUM	3	0.0%	0.16	0.22	0.25	0.76[a]/0.72[b]
CADMIUM	3	33.3%	0.22	0.37	0.44	5.21[a]/1.77[b]
CALCIUM	3	0.0%	11300	15780	17700	NA[c]
CHROMIUM	3	0.0%	4.60	6.91	7.90	65.1[a]/30.6[b]
COBALT	3	33.3%	1.40	2.10	2.40	115[a]/10.2[b]
COPPER	3	0.0%	12.1	20.6	24.2	120[a]/87.1[b]
IRON	3	0.0%	3370	5155	5920	189333[a]/24810[b]
LEAD	3	0.0%	5.50	8.65	10.0	253[a]/41.6[b]
LITHIUM	3	0.0%	4.30	6.40	7.30	33.7[a]/25.2[b]
MAGNESIUM	3	0.0%	1650	2259	2520	6939[a]/6748[b]
MANGANESE	3	0.0%	52.1	85.0	99.1	4700[a]/417[b]
MERCURY	2	100.0%	0.05	0.05	0.05	NA[c]
MOLYBDENUM	3	0.0%	0.80	1.15	1.30	4.19[a]/3.87[b]
NICKEL	3	0.0%	4.10	5.50	6.10	60.5[a]/24.2[b]
POTASSIUM	3	0.0%	2140	3918	4680	16405[a]/15372[b]
SELENIUM	3	100.0%	0.44	0.48	0.50	NA[c]
SILVER	3	100.0%	0.06	0.12	0.14	NA[c]
SODIUM	3	0.0%	13300	13370	13400	30230[b]
STRONTIUM	3	0.0%	61.2	63.9	65.0	128[a]/124[b]
THALLIUM	3	100.0%	0.39	0.68	0.80	NA[c]
TIN	3	100.0%	0.39	0.54	0.60	NA[c]
VANADIUM	3	0.0%	9.00	13.8	15.9	171[a]/63.2[b]
ZINC	3	0.0%	159	195	211	913[a]/695[b]

Note: [a] Lognormal distribution; [b] Normal distribution; [c] Undetermined distribution.

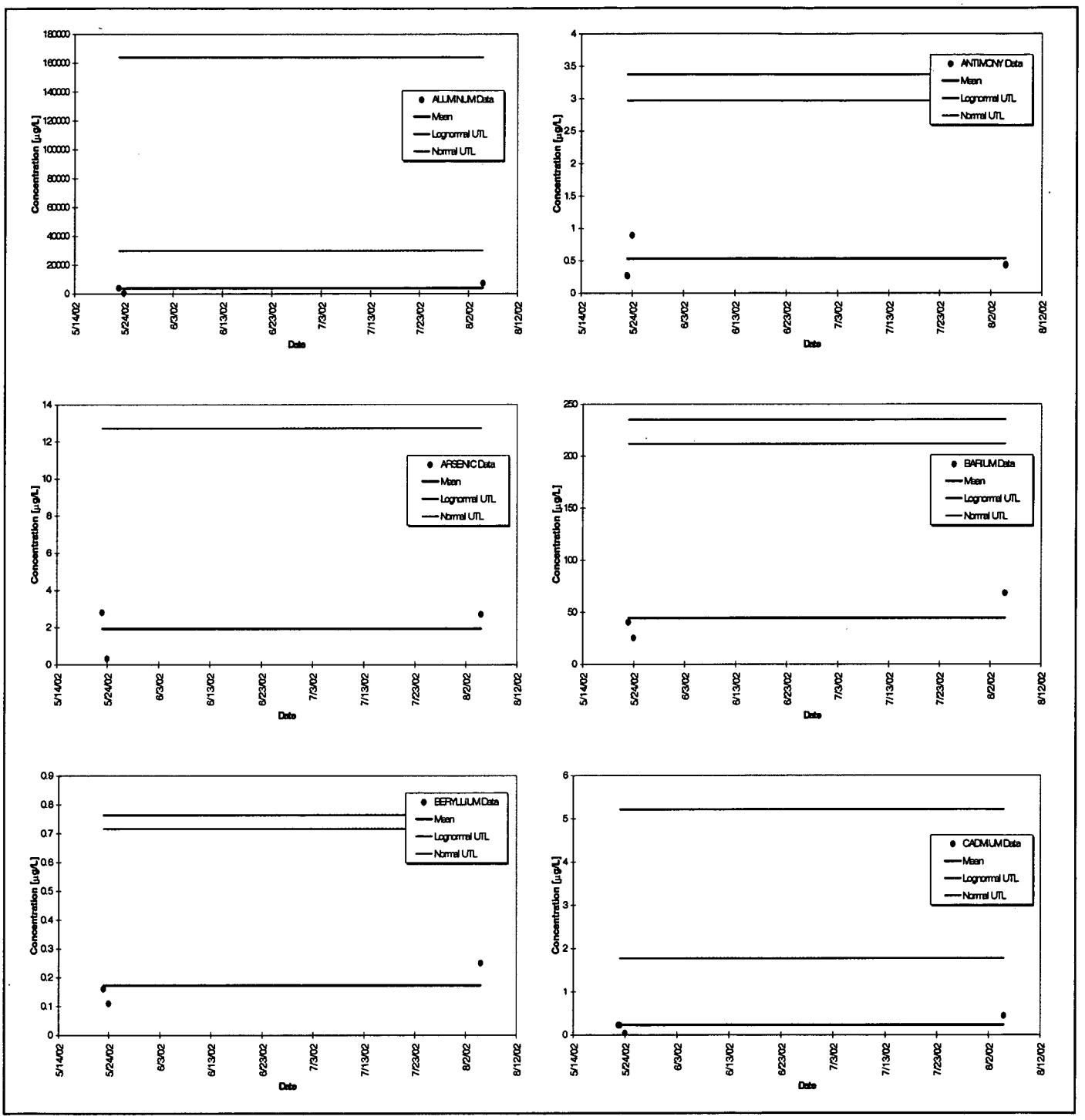


Figure 10-42. Total Metals UTL Plots for GS28: Aluminum through Cadmium.

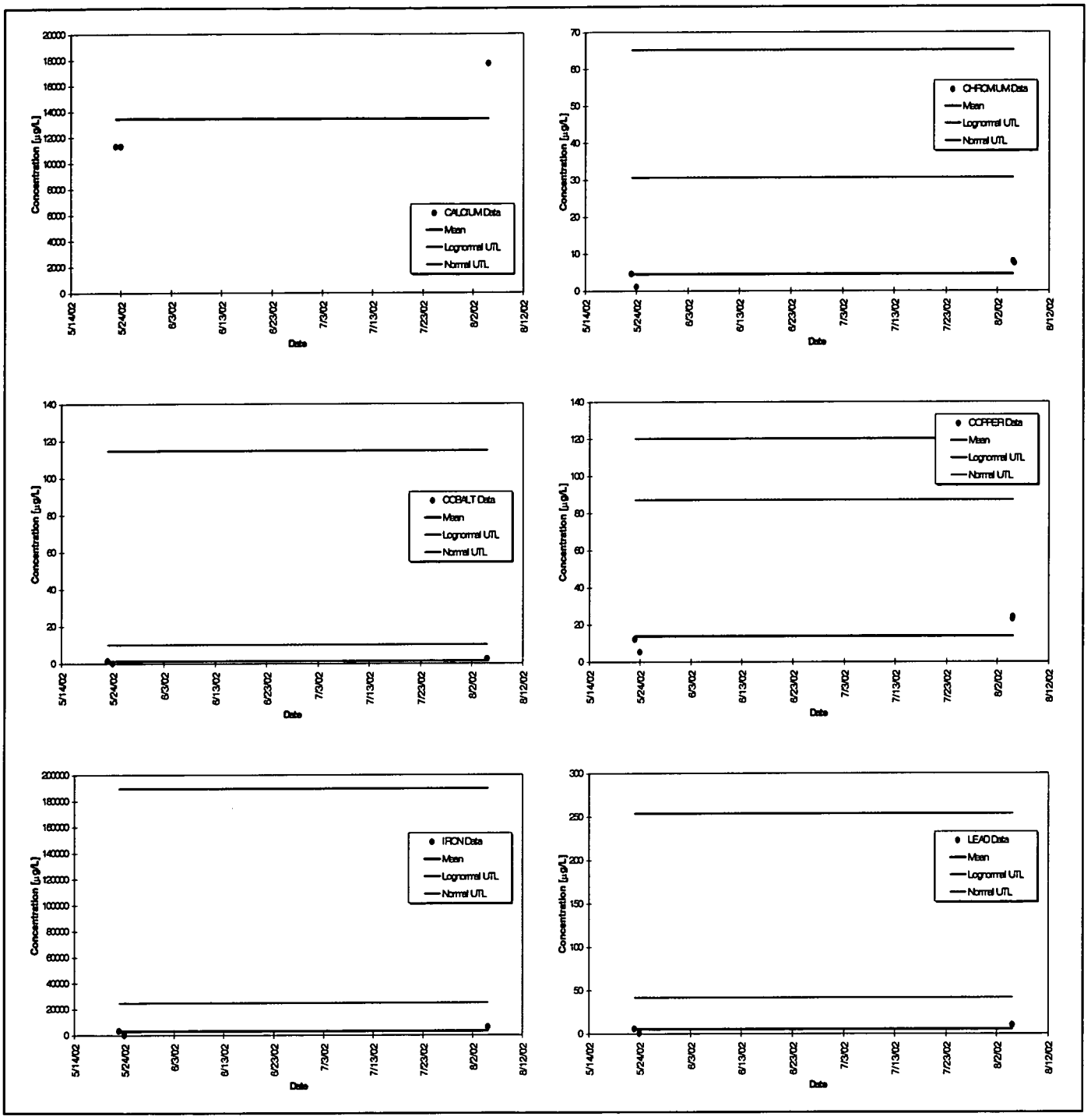


Figure 10-43. Total Metals UTL Plots for GS28: Calcium through Lead.

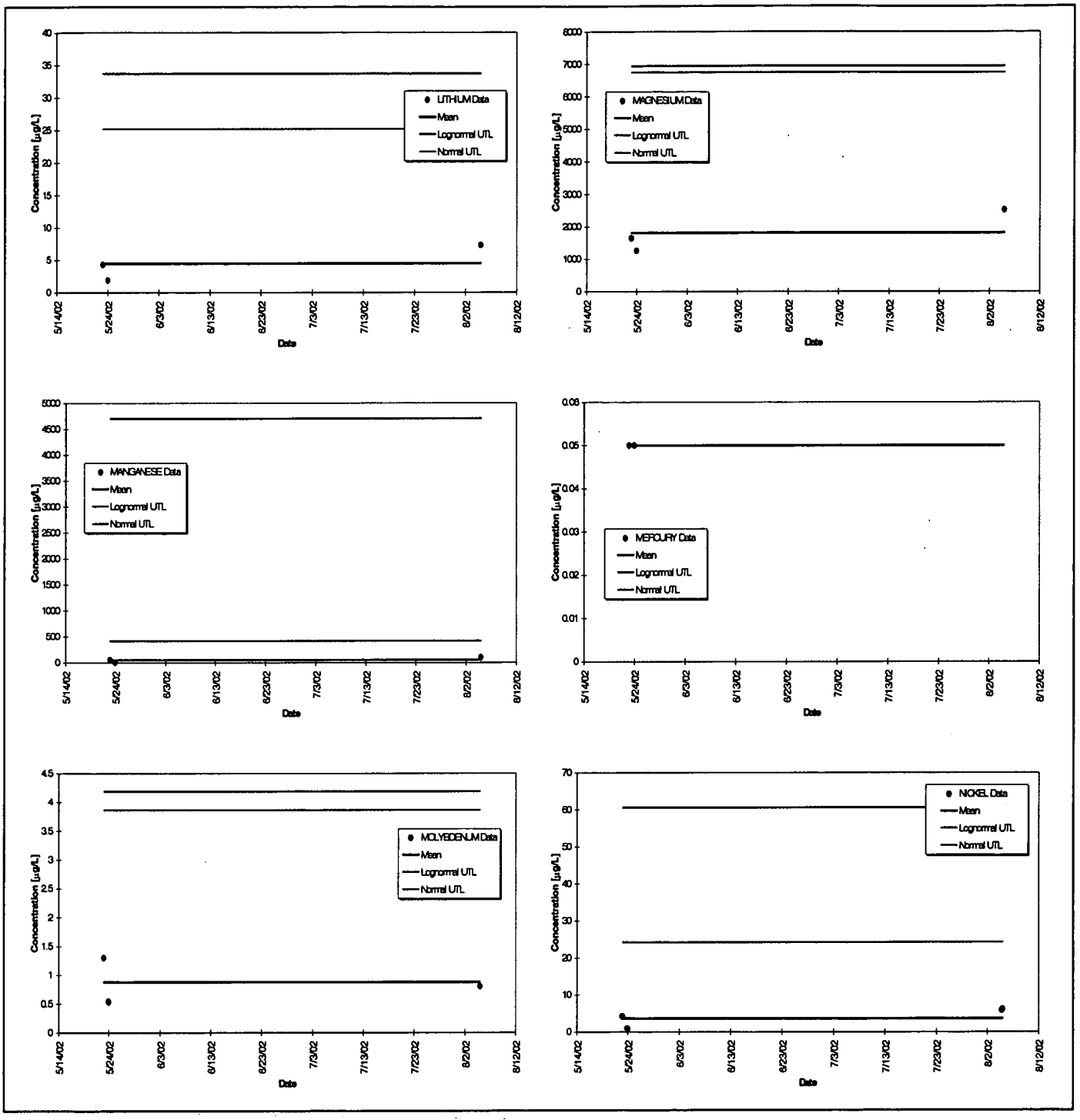


Figure 10-44. Total Metals UTL Plots for GS28: Lithium through Nickel.

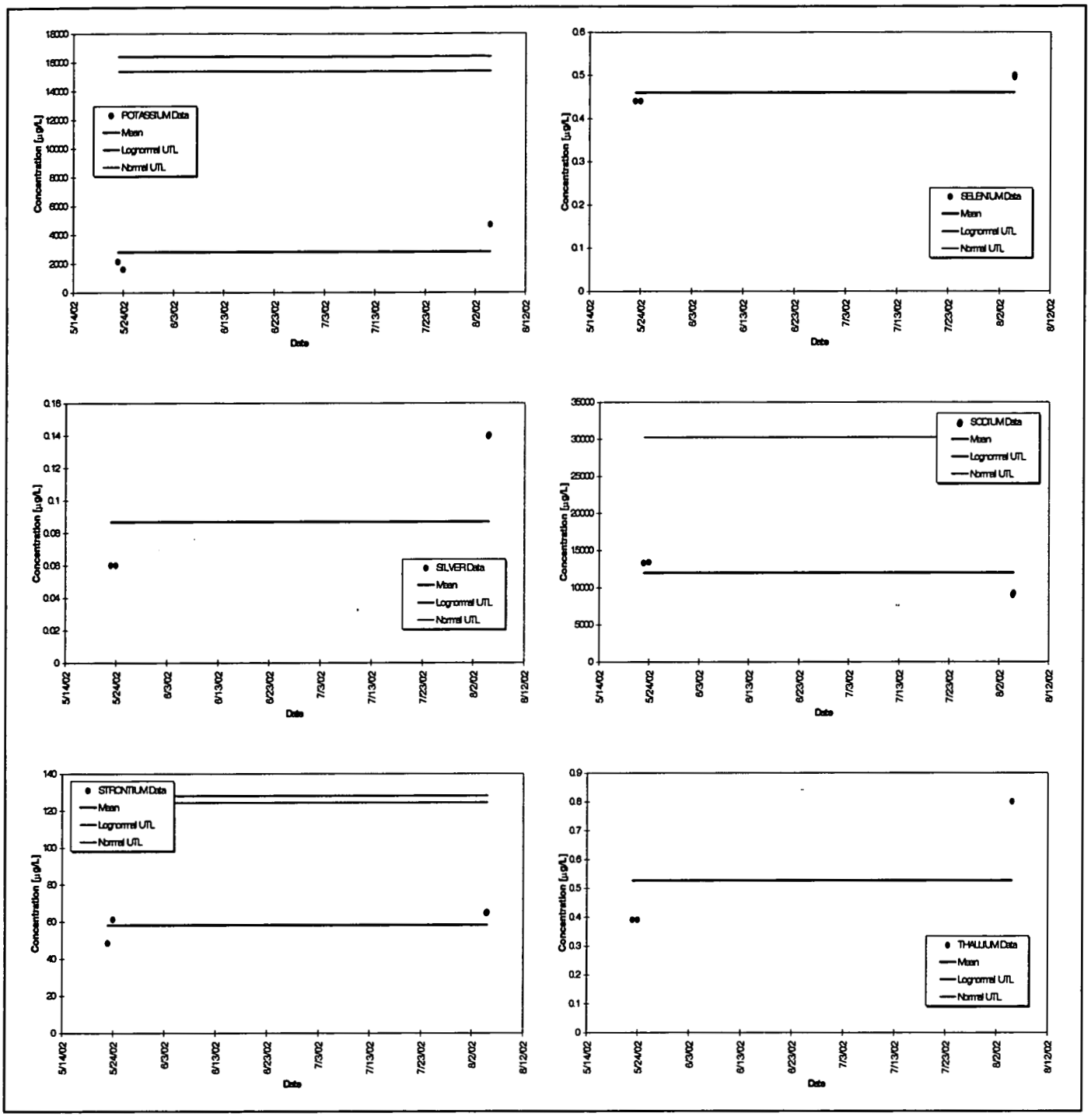


Figure 10-45. Total Metals UTL Plots for GS28: Potassium through Thallium.

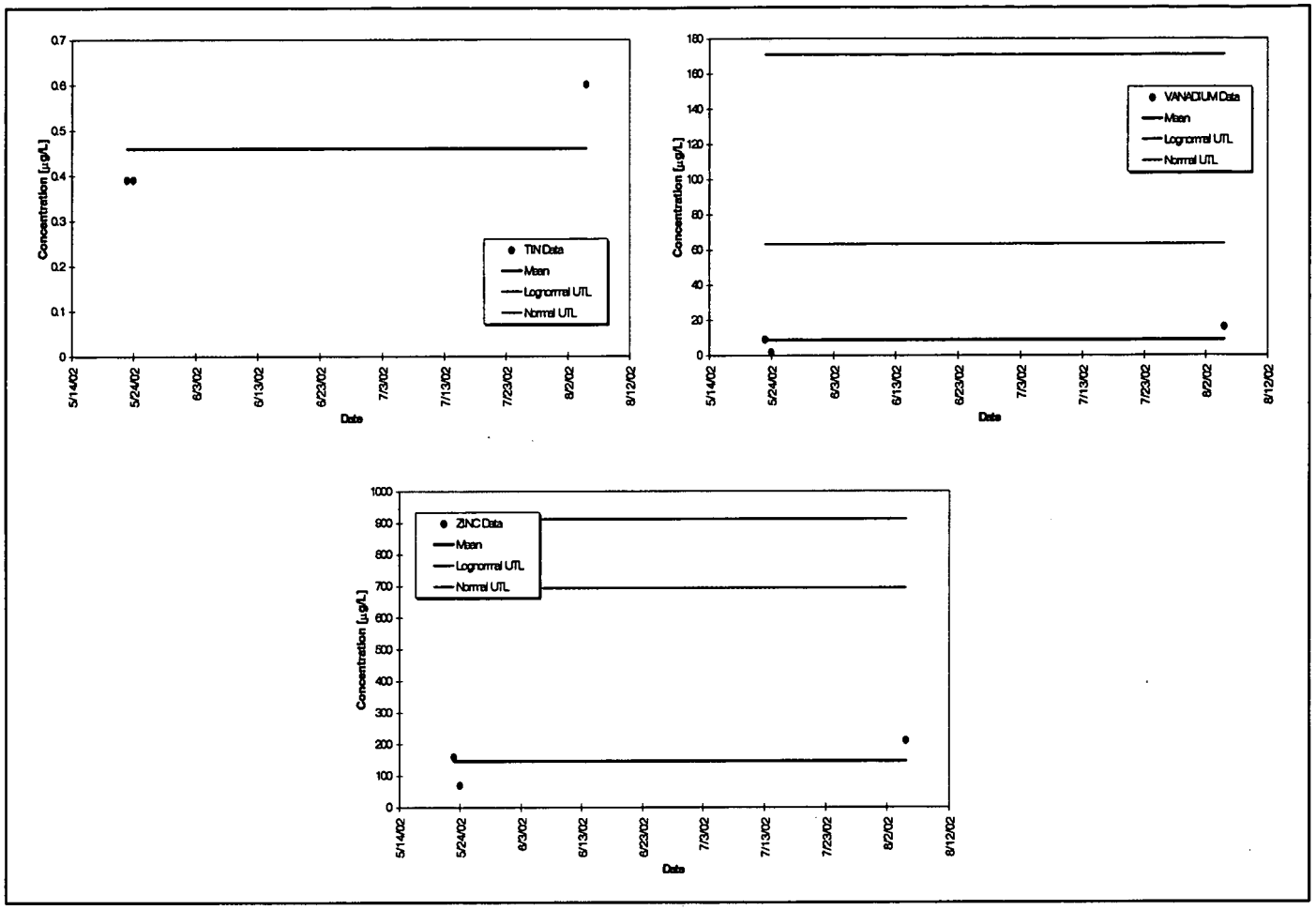


Figure 10-46. Total Metals UTL Plots for GS28: Tin through Zinc.

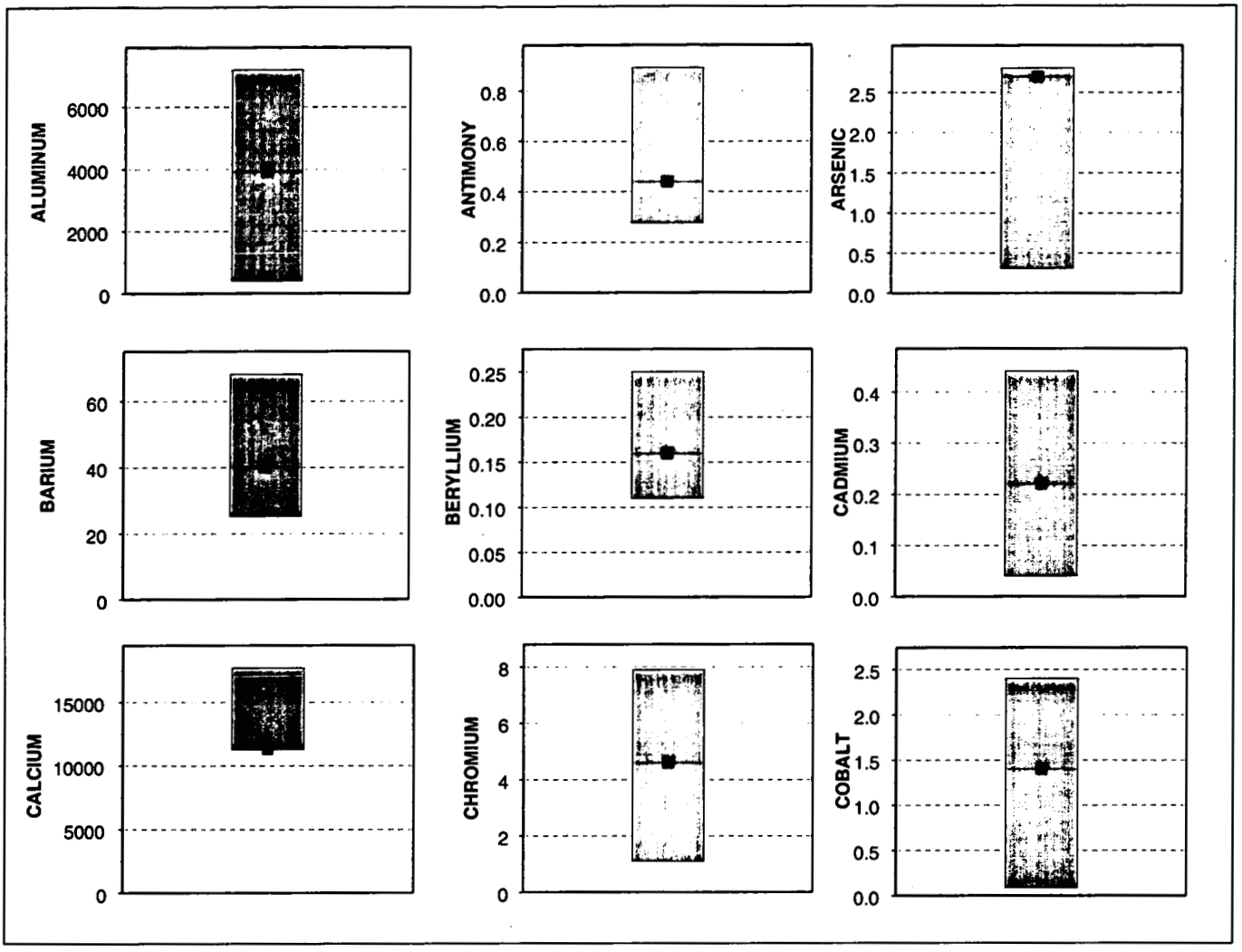


Figure 10-47. Total Metals Box Plots for GS28: Aluminum through Cobalt.

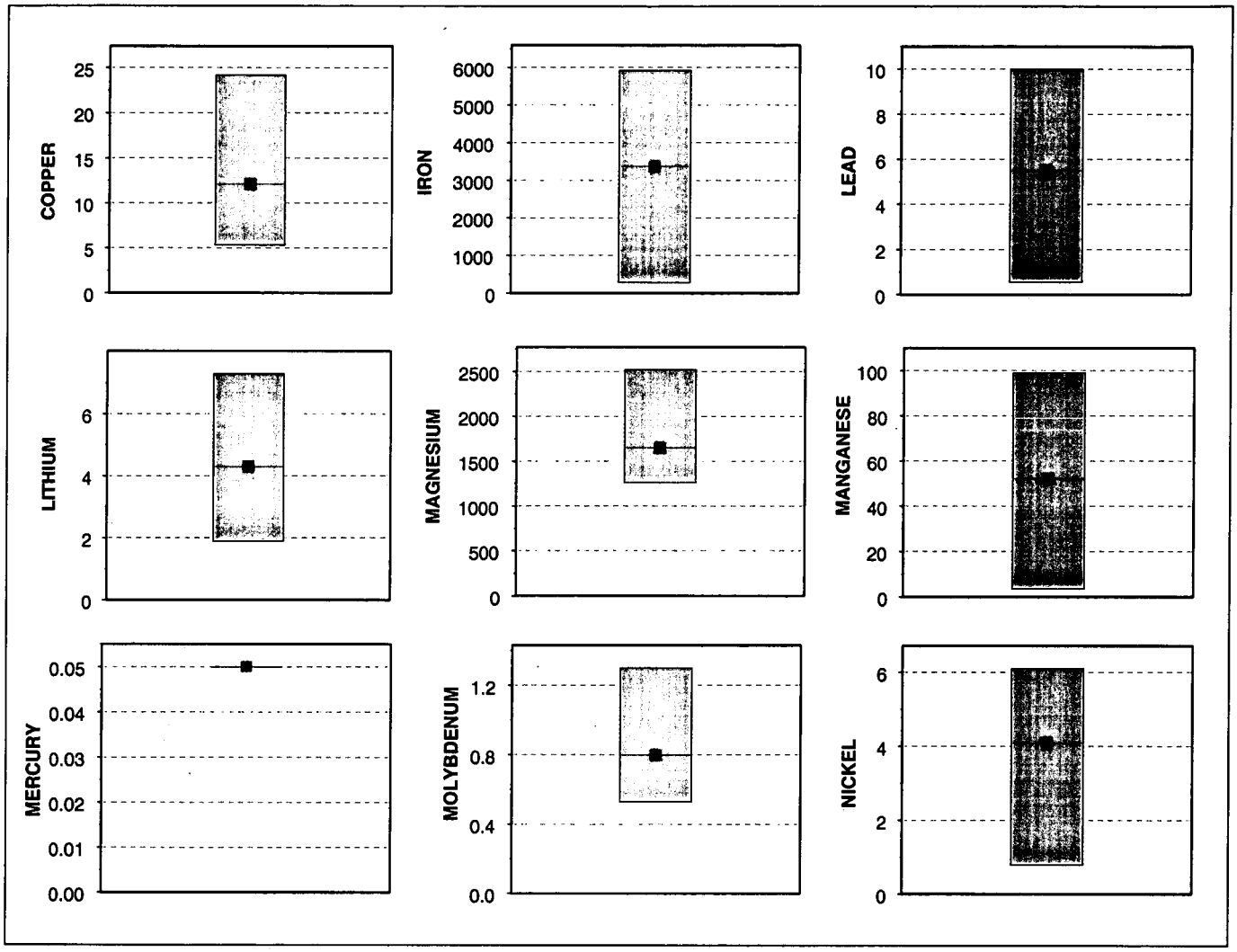


Figure 10-48. Total Metals Box Plots for GS28: Copper through Nickel.

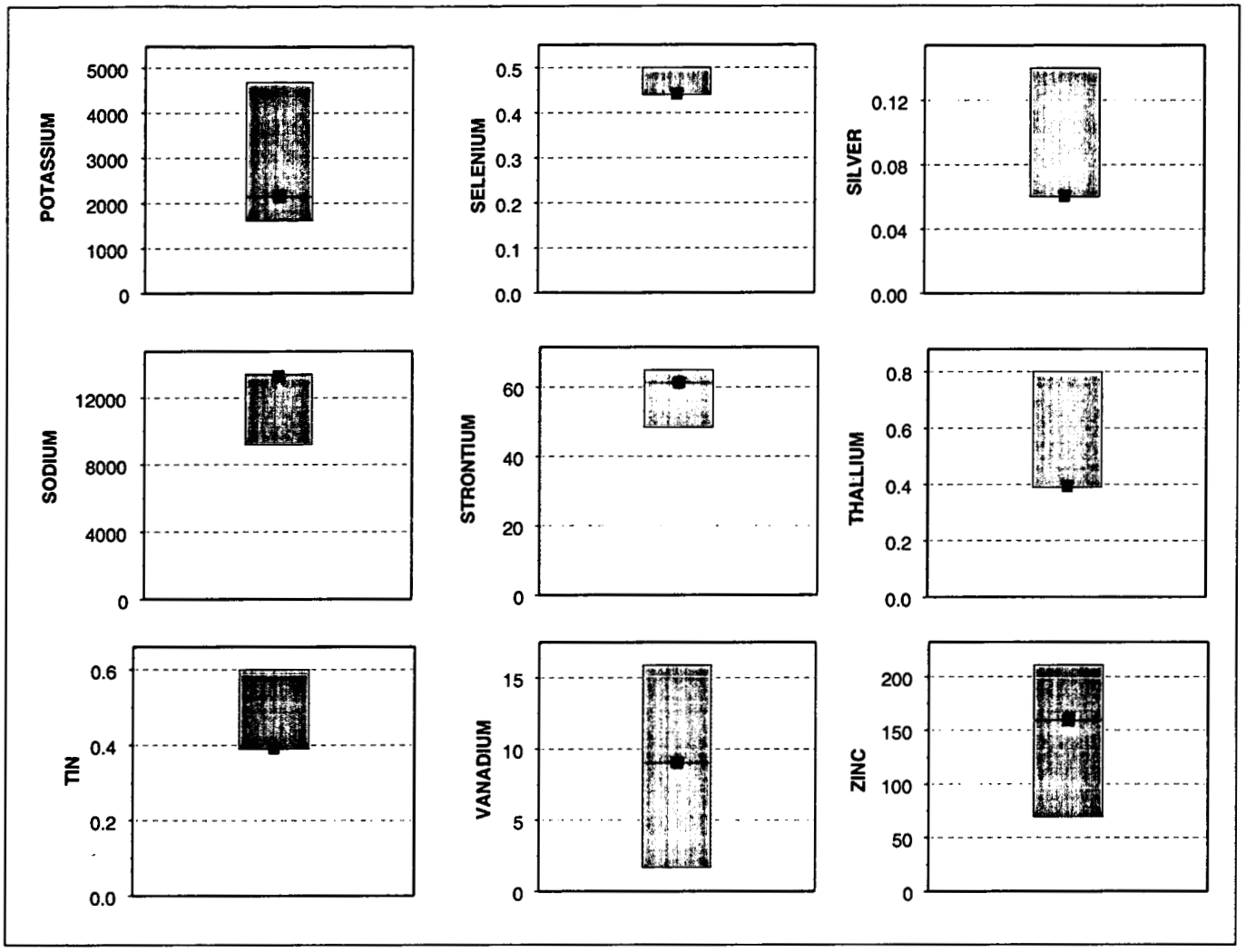
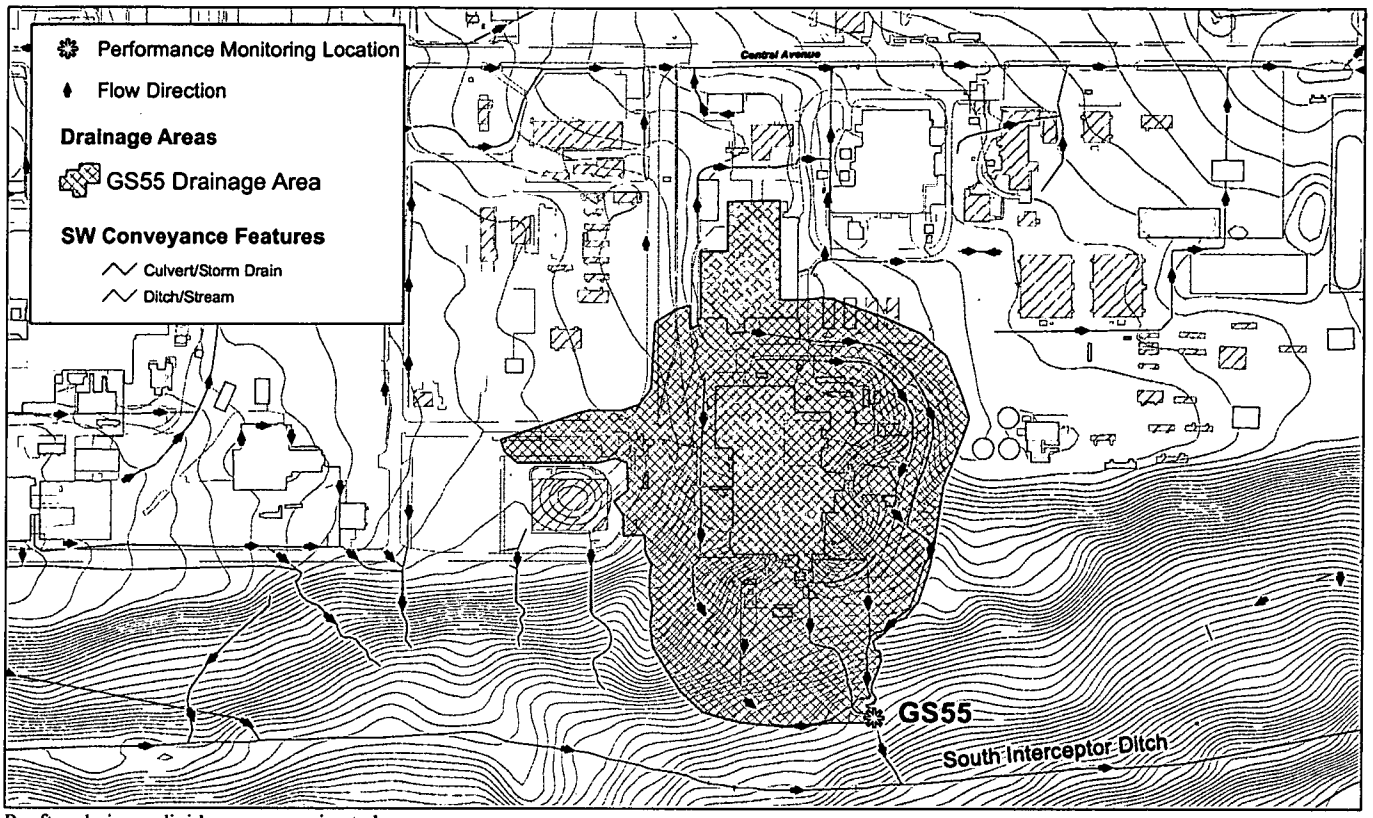


Figure 10-49. Total Metals Box Plots for GS28: Potassium through Zinc.

10.3.3 Southern 800 Area D&D

Performance monitoring for the southern 800 Area is supported by location GS55. Monitoring location GS55 was installed on 4/8/02 specifically in support of the D&D of Building 881. Figure 10-50 shows the drainage area for GS55.

The Performance monitoring data from GS55 indicate that closure activities within the Southern 800 Area did not significantly affect water quality as of the end of WY02. Complete data evaluation for this location is given below.



Rooftop drainage divides are approximated.

Figure 10-50. Performance Monitoring Drainage Area for Southern 800 Area D&D.

Monitoring data collected at GS55 show very low Pu and Am activities (Table 10-11). Figure 10-51 and Figure 10-52 show the UTL plots for Pu and Am, respectively. During WY00–02, no Pu results exceeded the calculated UTL. Although a distribution could not be determined for Am, the Am boxplot (Figure 10-54) indicates no 'suspect' values.

Figure 10-18 also shows that none total uranium activities were greater than the UTLs. Figure 10-20 further shows that the median U-233,234/U-238 ratio is approximately 1.45, significantly higher than expected. This relative abundance of U-238 may be results of the proximity of GS55 to B881.

The temporal variation of suspended solids activity is not given as only one TSS sample were collected for the period.

Table 10-11. Summary Statistics for Radionuclide Results from GS55 in WY00-02.

Analyte	Samples [N]	Median [pCi/L]	85th Percentile [pCi/L]	Maximum [pCi/L]	95% UTL [pCi/L]
TSS [mg/L]	1	80	80	80	NA
Pu-239,240	12	0.005	0.049	0.052	0.110[a]
Am-241	12	0.001	0.010	0.013	NA[c]
U-233,234	12	1.685	3.102	5.430	11.558[a]/10.277[b]
U-235	12	0.056	0.105	0.158	
U-238	12	1.145	2.148	3.860	

Note: [a] Lognormal distribution; [b] Normal distribution; [c] Undetermined distribution.
TSS is given in mg/L.
Uranium UTL given for total uranium.

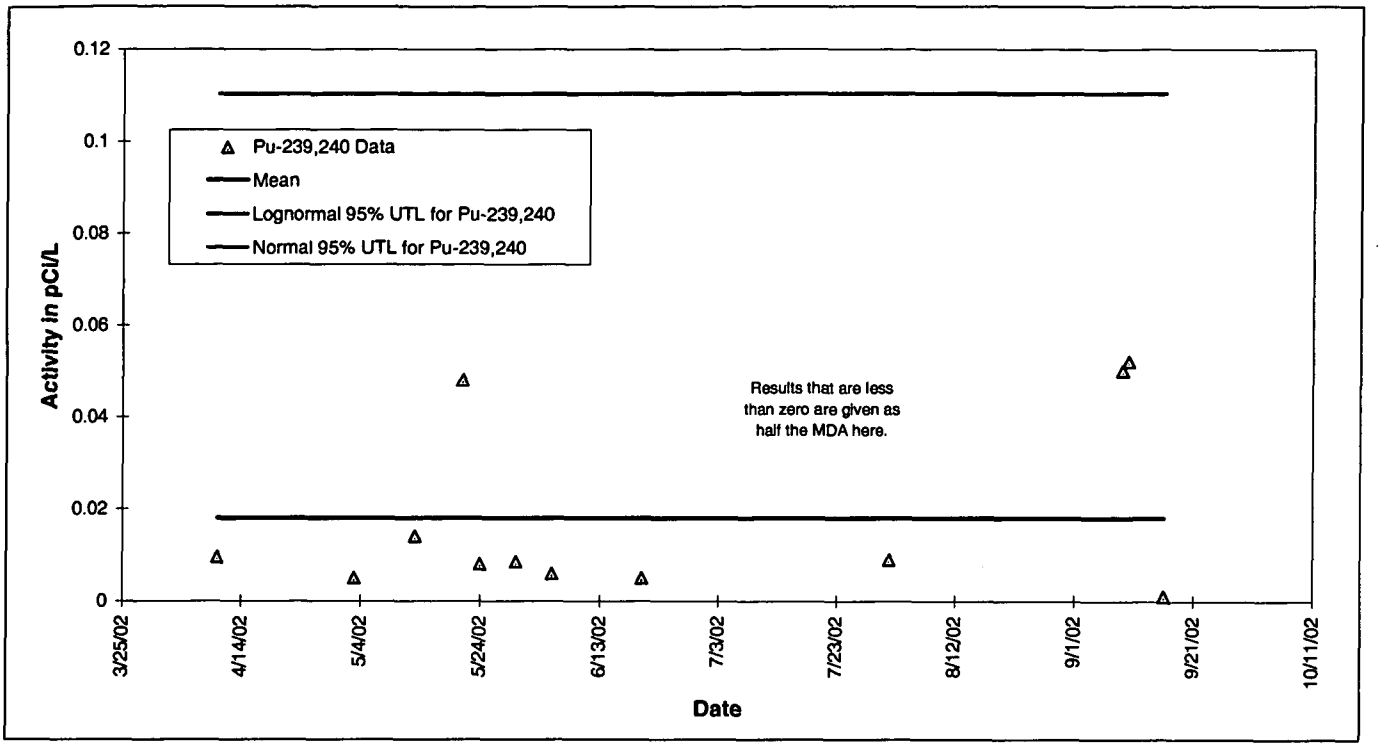


Figure 10-51. 95% UTL for Pu-239,240 at GS55: WY00-02.

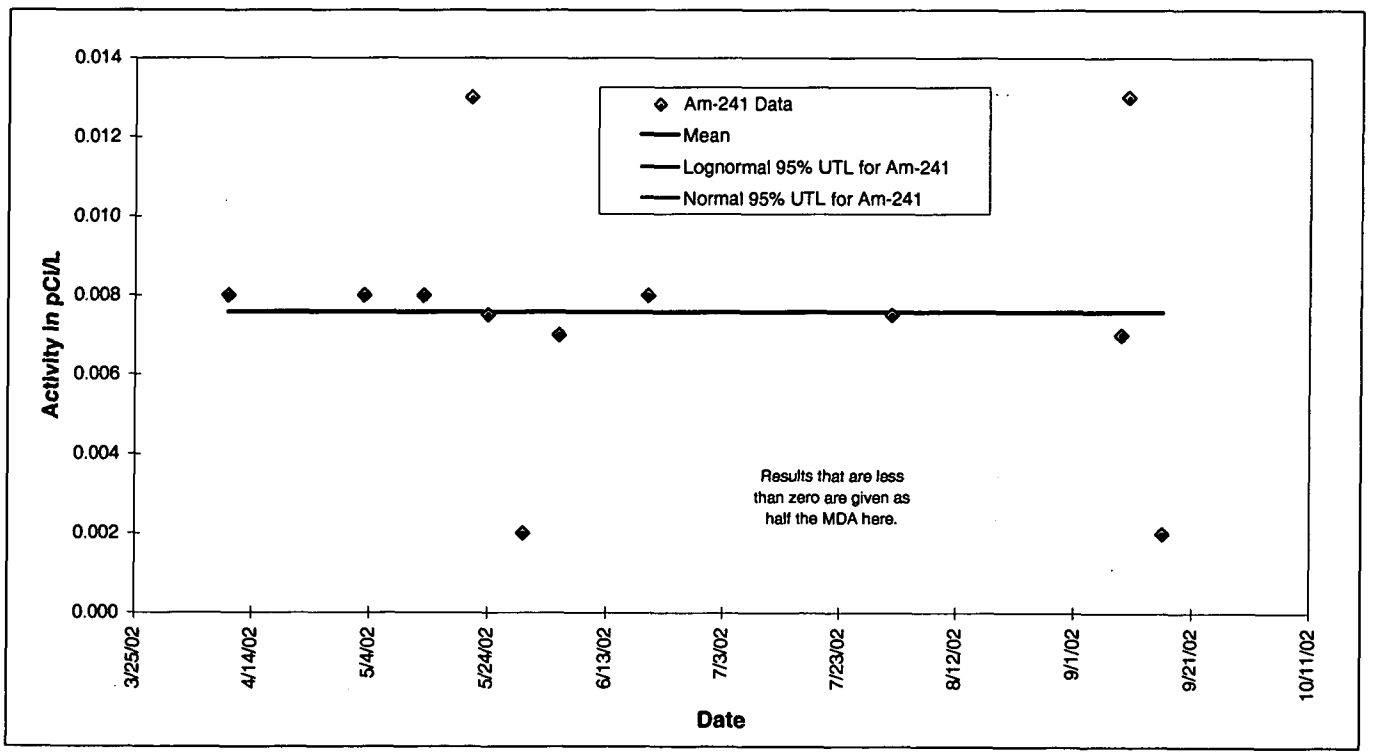


Figure 10-52. 95% UTL Plot for Am-241 at GS55: WY00-02.

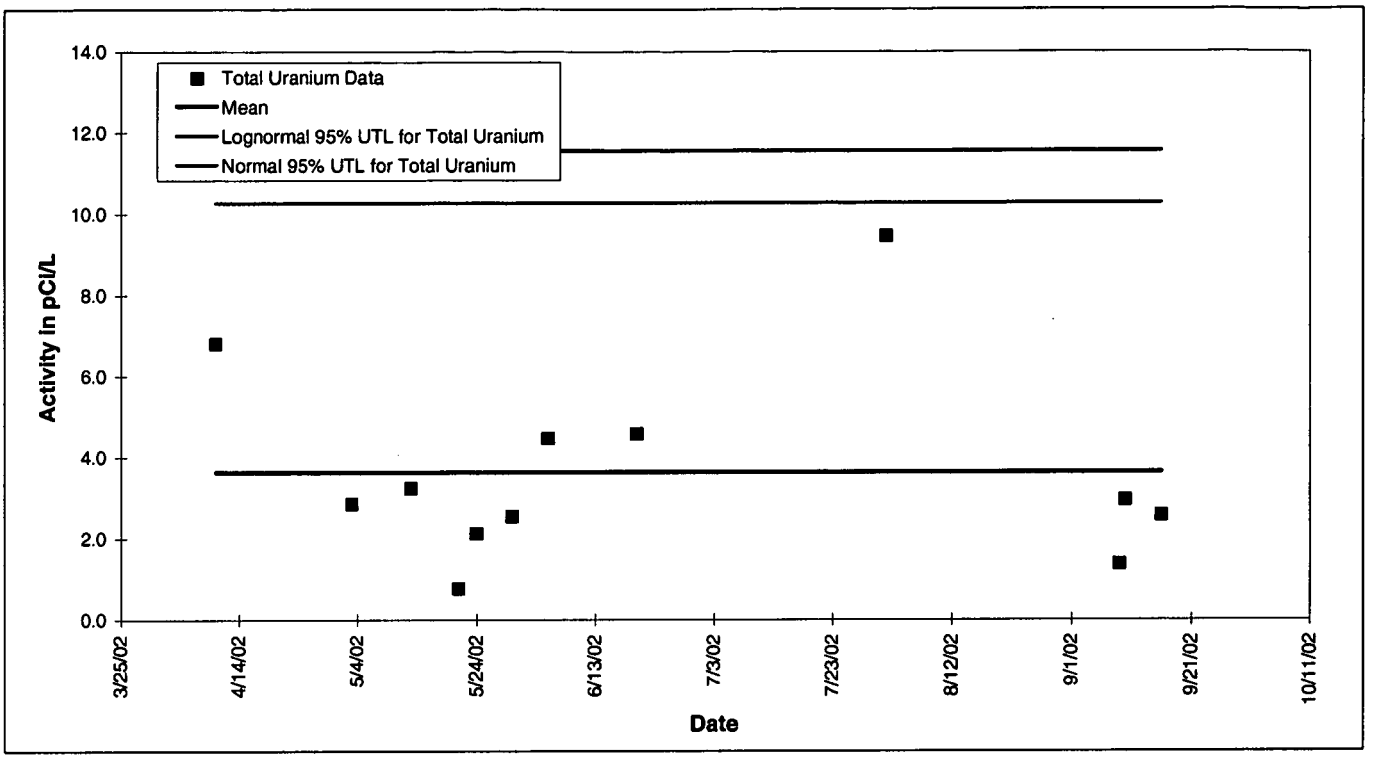


Figure 10-53. 95% UTL Plot for Total Uranium at GS55: WY00-02.

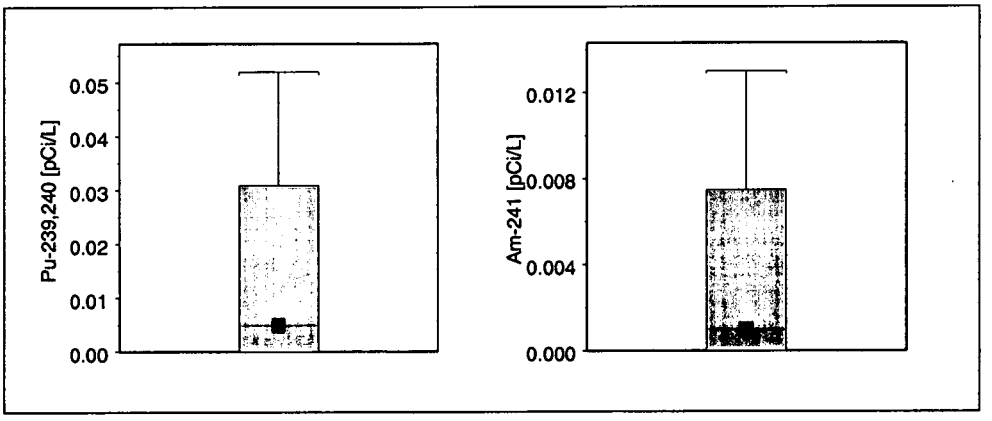


Figure 10-54. Pu and Am Box Plots for GS55: WY00–02.

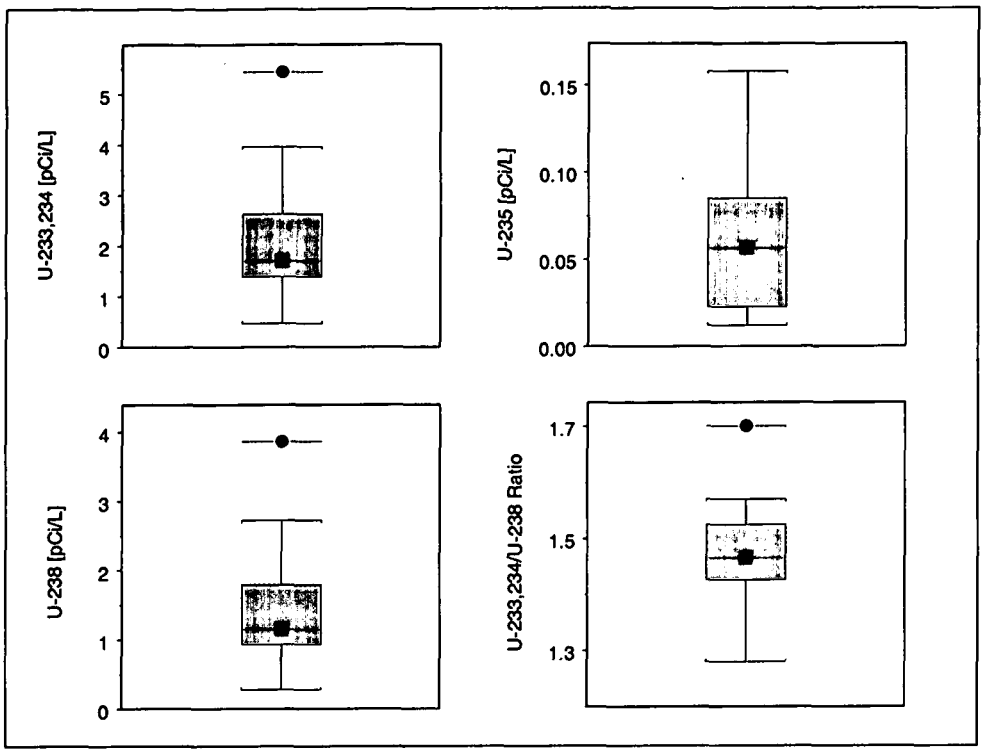


Figure 10-55. Uranium Box Plots for GS55: WY00–02.

Table 10-12 shows the total metals results for samples collected at GS55. Figure 10-56 through Figure 10-60 show the UTL plots for the metals. For the metals with a determined distribution, none exceeded the calculated UTL.

Data for metals Hg, Se, Ag, Tl, and Sn had undetermined distributions. All of the Hg data were 'undetects'. For Se, none of the results are indicated as 'suspect' by the boxplot (Figure 10-63). For Ag, all but one of the results were 'undetects'; the cause of this result (9/10-9/16/02; 0.31 µg/L) is unknown. For Tl, none of the results are indicated as 'suspect' by the boxplot (Figure 10-63). Finally for Sn, all but one of the results were 'undetects'; the cause of this result (4/10-5/3/02; 1.1 µg/L) is unknown.

Table 10-12. Summary Statistics for Metals Results from GS55 in WY00-02.

Analyte	Samples [N]	Percent Undetect	Median [µg/L]	85th Percentile [µg/L]	Maximum [µg/L]	95% UTL [µg/L]
ALUMINUM	12	0.0%	1125	4861	7920	14620[a]
ANTIMONY	12	41.7%	0.69	1.50	1.60	2.58[a]/2.21[b]
ARSENIC	12	25.0%	1.70	2.45	2.90	4.04[b]
BARIUM	12	0.0%	130	232	311	359[a]/355[b]
BERYLLIUM	12	16.7%	0.12	0.18	0.32	0.80[a]/0.37[b]
CADMIUM	12	8.3%	0.20	0.31	0.70	0.80[a]
CALCIUM	12	0.0%	62400	120350	121000	208804[a]/169014[b]
CHROMIUM	12	0.0%	1.70	5.44	8.30	10.6[a]
COBALT	12	0.0%	0.54	1.40	1.80	2.26[a]
COPPER	12	0.0%	6.50	12.0	13.6	23.2[a]/18.2[b]
IRON	12	0.0%	1140	3619	5870	7056[a]
LEAD	12	8.3%	1.45	5.01	9.50	12.1[a]
LITHIUM	12	0.0%	14.0	22.3	25.5	34.2[a]/32.6[b]
MAGNESIUM	12	0.0%	17650	34040	36900	62182[a]/49746[b]
MANGANESE	12	0.0%	130	206	212	374[a]/308[b]
MERCURY	12	100.0%	0.05	0.05	0.05	NA[c]
MOLYBDENUM	12	0.0%	1.55	2.04	2.80	2.83[a]/2.91[b]
NICKEL	12	0.0%	2.00	3.97	6.30	6.55[a]
POTASSIUM	12	0.0%	3900	5522	6660	7722[a]/7823[b]
SELENIUM	12	66.7%	0.50	1.10	1.30	NA[c]
SILVER	12	91.7%	0.06	0.14	0.31	NA[c]
SODIUM	12	0.0%	56000	81430	91800	129341[a]/118982[b]
STRONTIUM	12	0.0%	501	967	1030	1807[a]/1401[b]
THALLIUM	12	91.7%	0.60	0.80	1.20	NA[c]
TIN	12	91.7%	0.50	0.60	1.10	NA[c]
VANADIUM	12	0.0%	2.85	11.7	17.6	30.2[a]
ZINC	12	0.0%	50.6	87.7	146	194[a]/163[b]

Note: [a] Lognormal distribution; [b] Normal distribution; [c] Undetermined distribution.

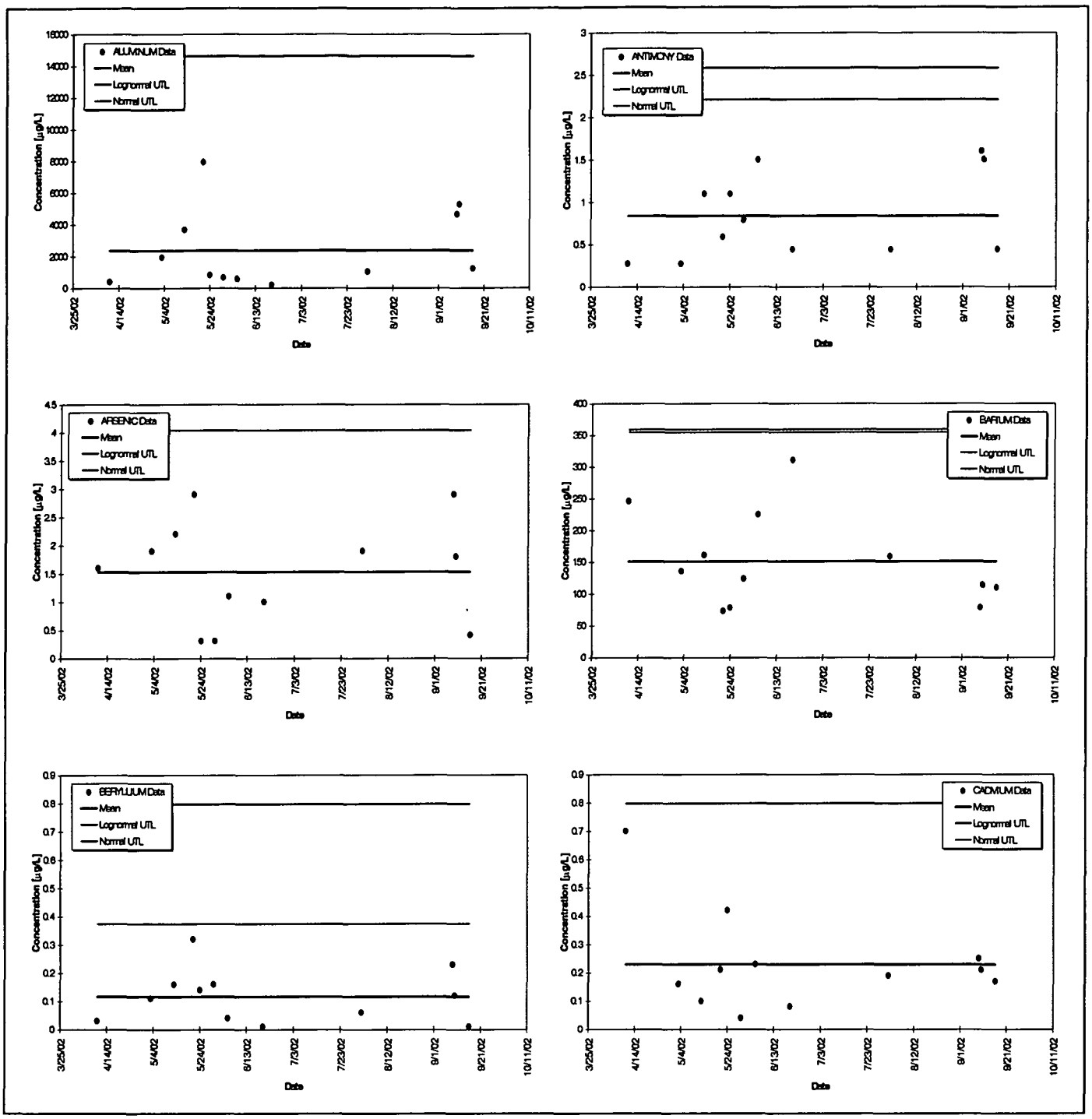


Figure 10-56. Total Metals UTL Plots for GS55: Aluminum through Cadmium.

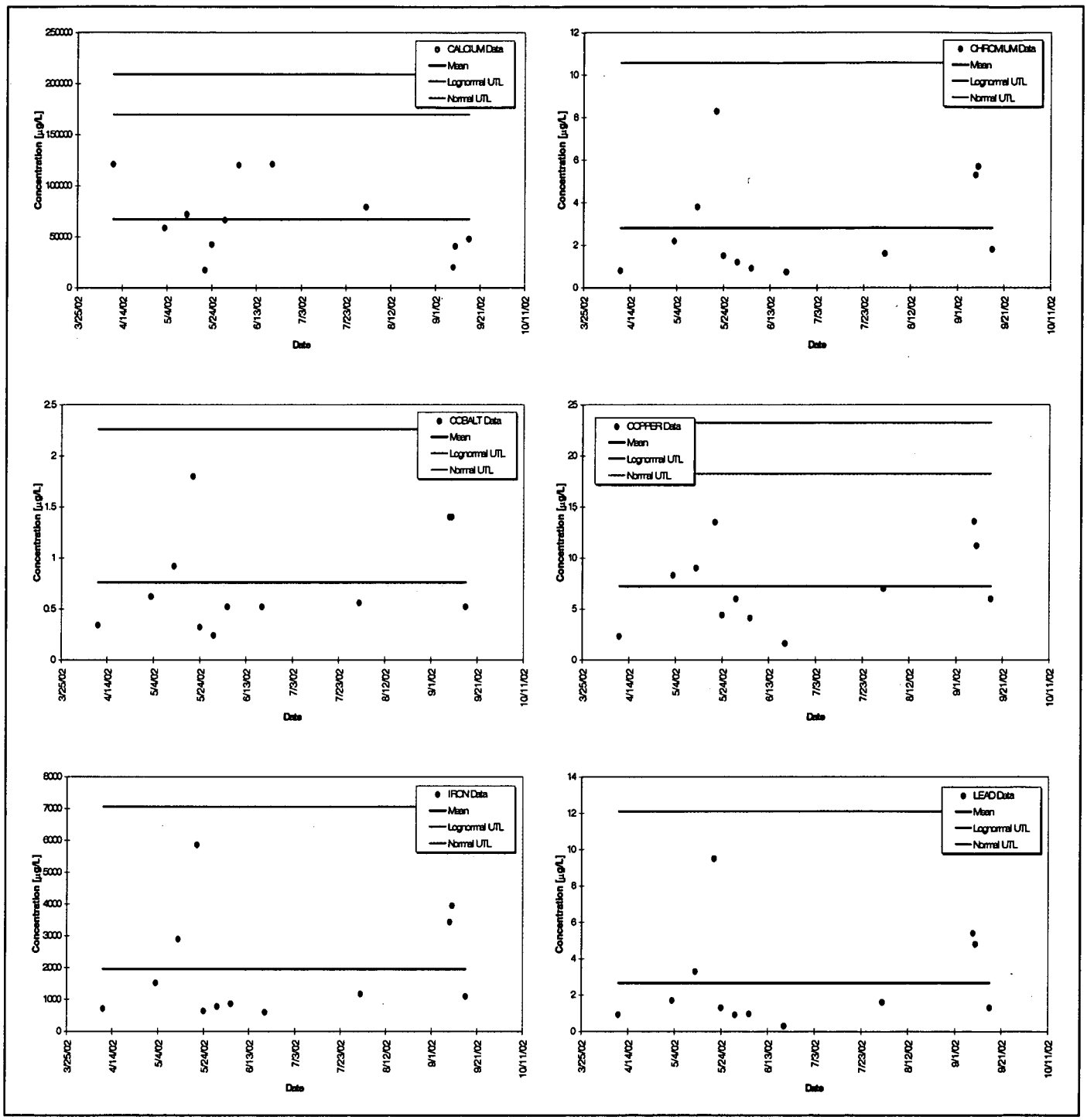


Figure 10-57. Total Metals UTL Plots for GS55: Calcium through Lead.

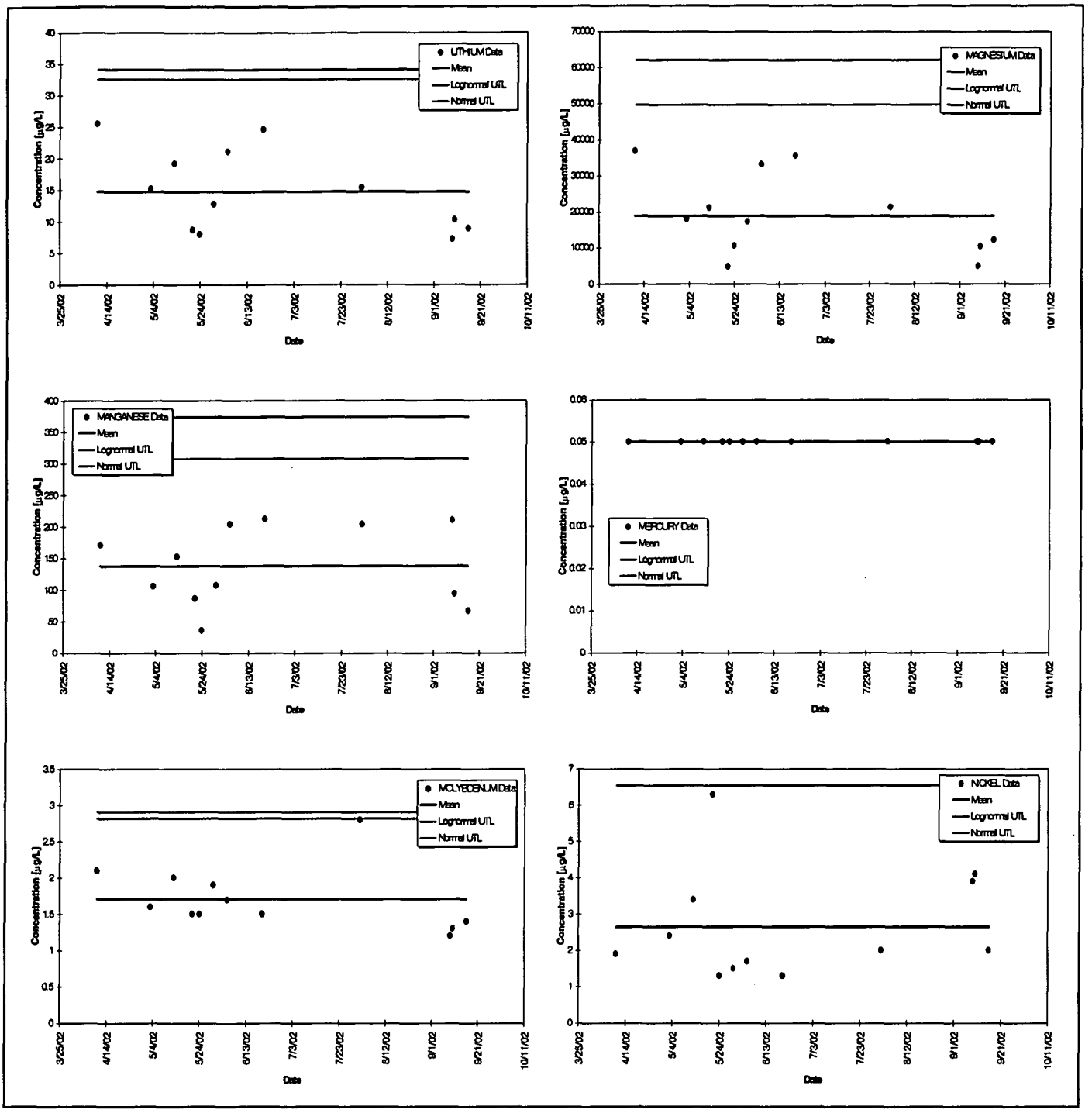


Figure 10-58. Total Metals UTL Plots for GS55: Lithium through Nickel.

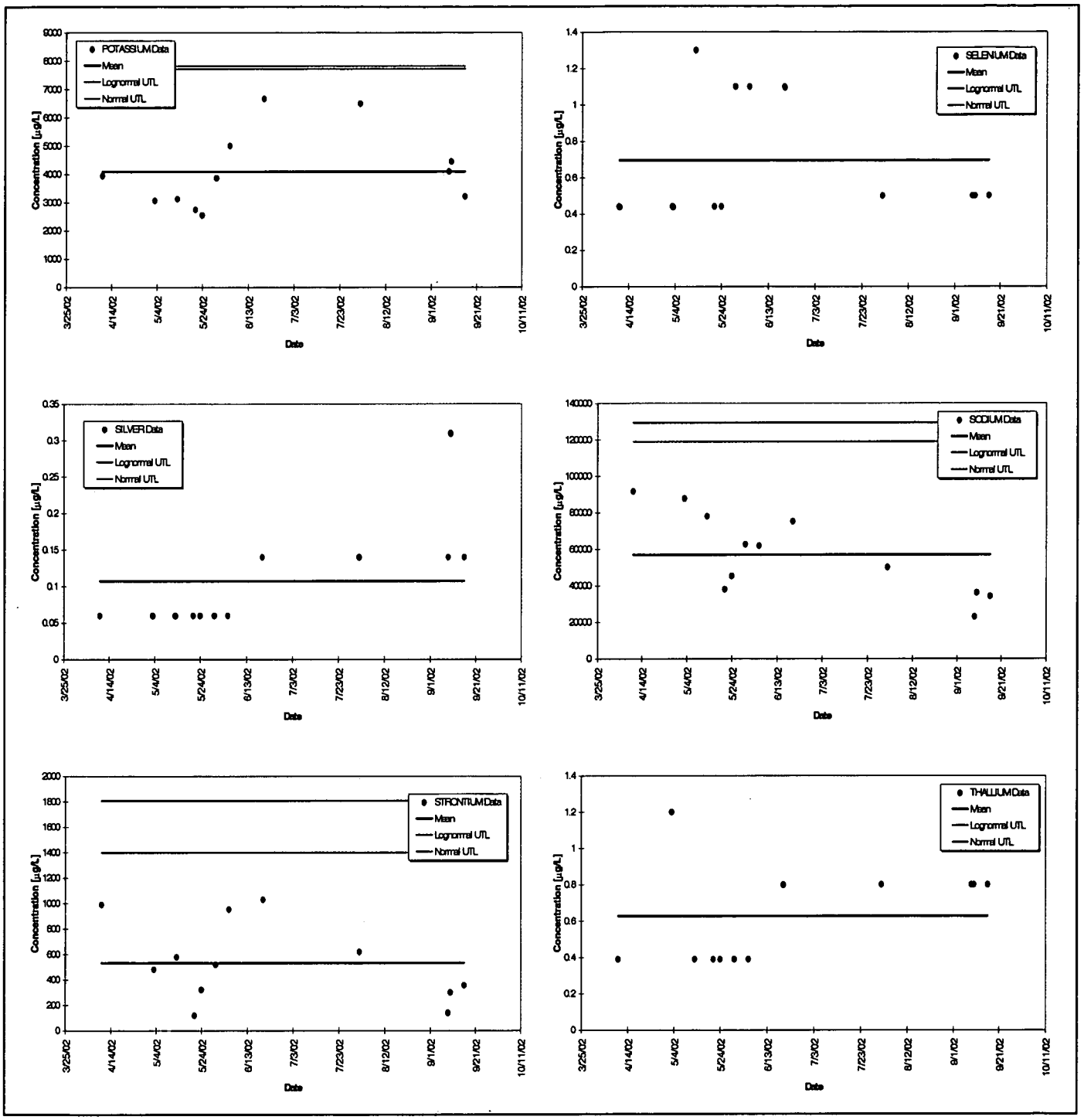


Figure 10-59. Total Metals UTL Plots for GS55: Potassium through Thallium.

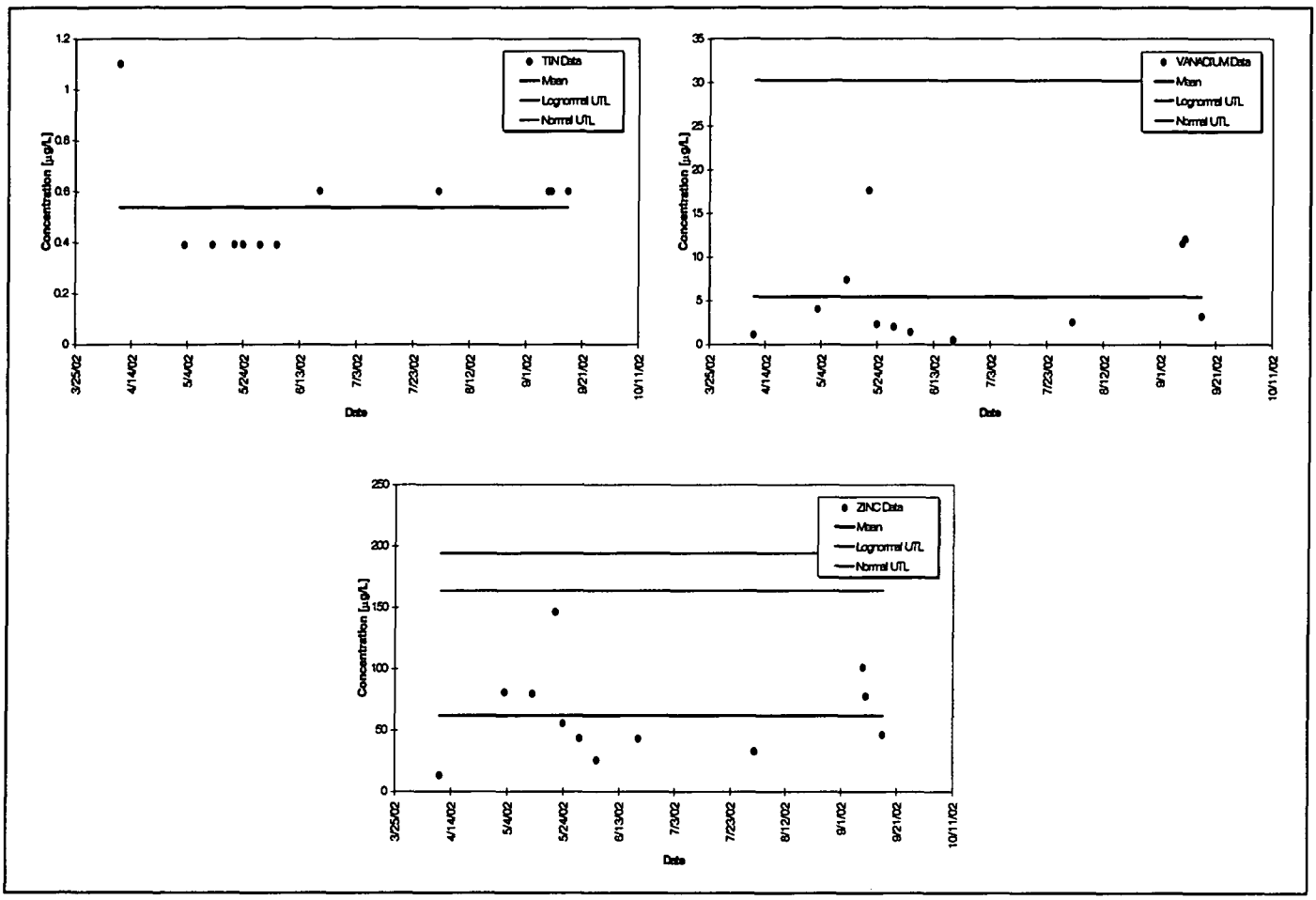


Figure 10-60. Total Metals UTL Plots for GS55: Tin through Zinc.

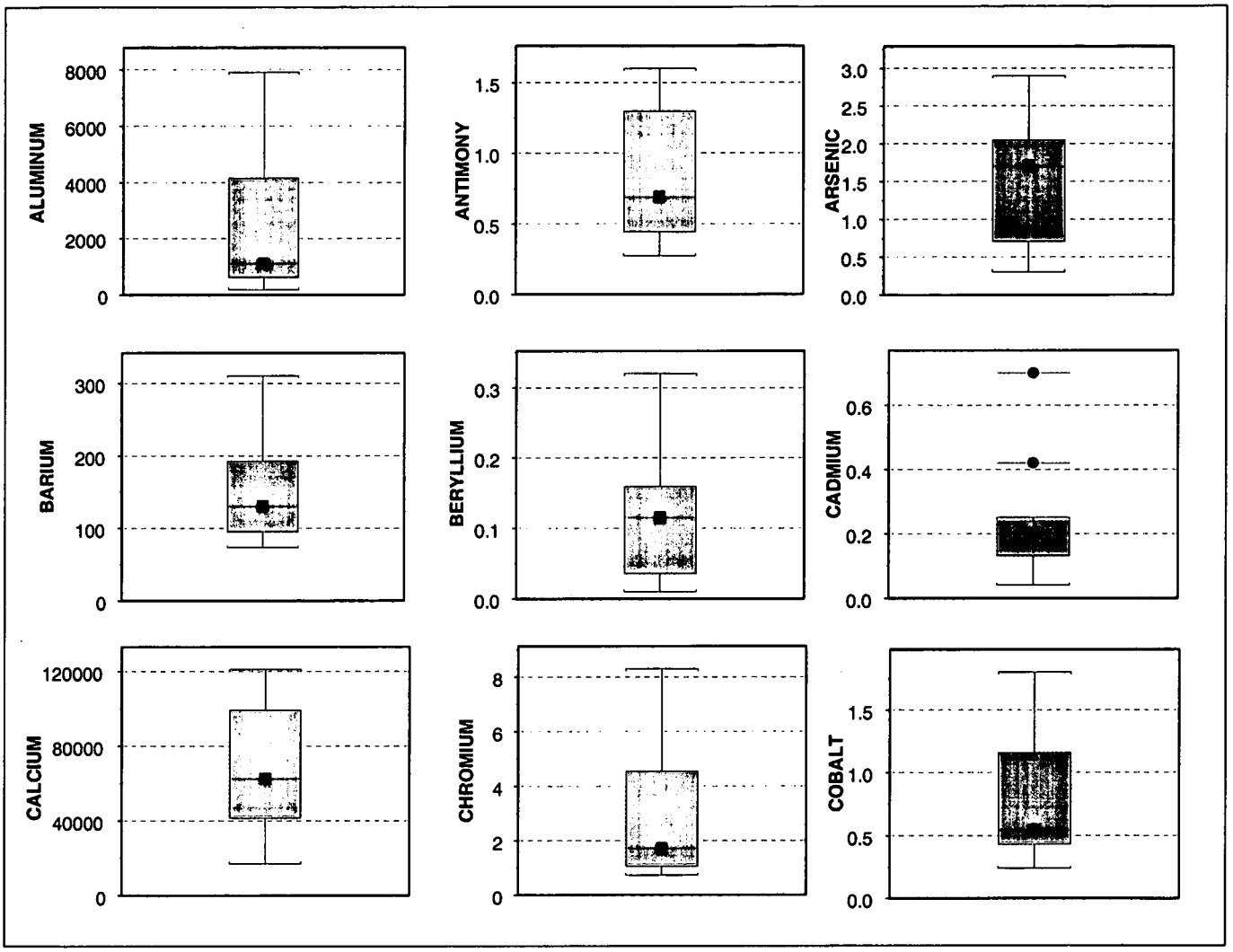


Figure 10-61. Total Metals Box Plots for GS55: Aluminum through Cobalt.

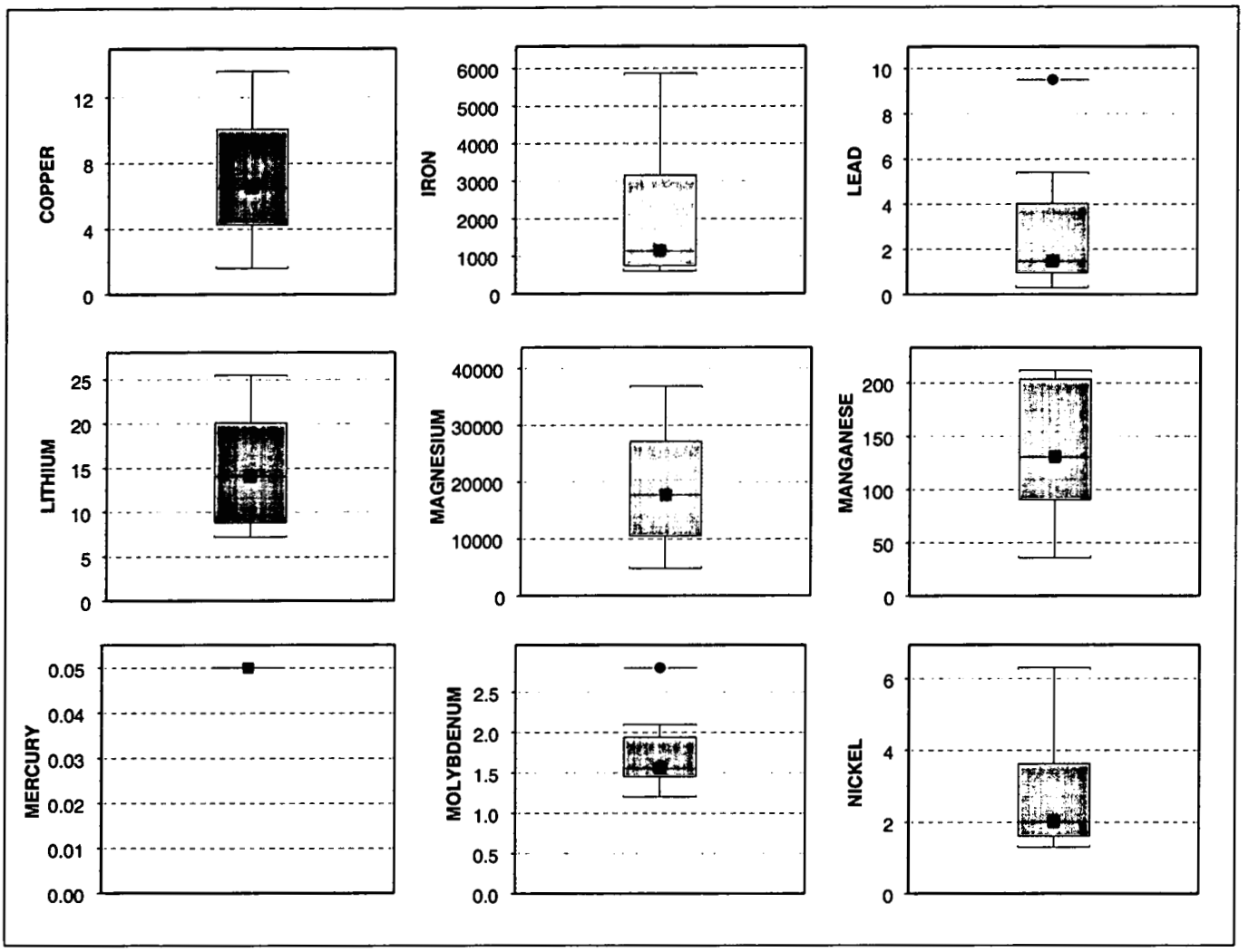


Figure 10-62. Total Metals Box Plots for GS55: Copper through Nickel.

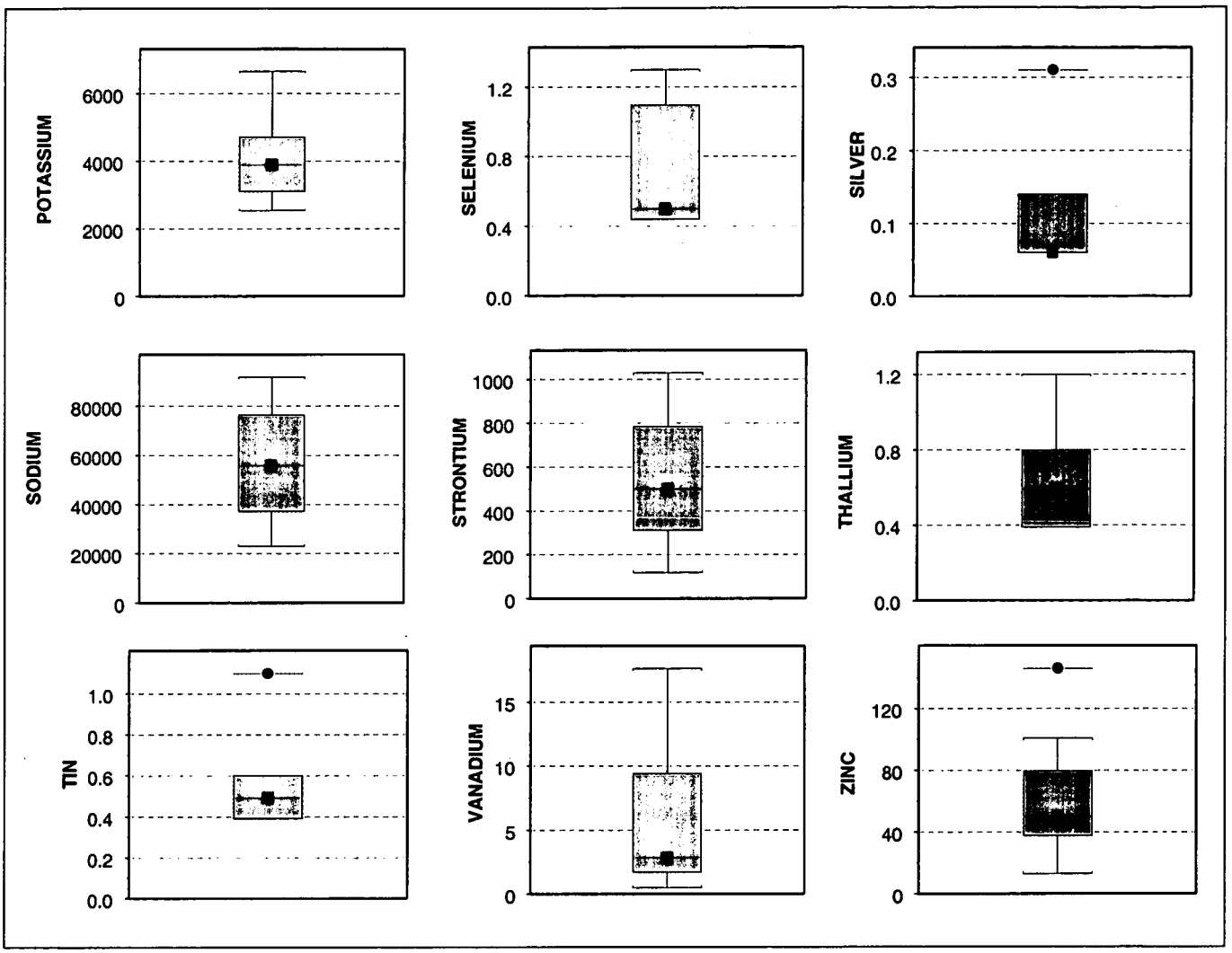


Figure 10-63. Total Metals Box Plots for GS55: Potassium through Zinc.

10.3.4 903 Pad and Lip Area Accelerated Actions

Monitoring location GS39 was originally installed on 1/15/98 in support of the source evaluation efforts related to GS10. GS39 also supports actions associated with the 903 Pad and Lip area. Several other locations were installed or upgraded to support 903 Pad actions in WY01. These new/upgraded locations are GS42, GS51, GS52, GS53, GS54, and SW055.

Figure 10-64 shows the drainage areas for the 903 Pad monitoring locations. Other structures within this drainage include B906 and the 904 Pad tents.

Although the Performance monitoring data from GS39, GS51, GS52, and SW055 show somewhat higher levels of actinides, analysis indicates that activities associated with the 903 Pad and Lip area did not result in significant changes in water quality as of the end of WY02. Complete data evaluation for these locations is given below.

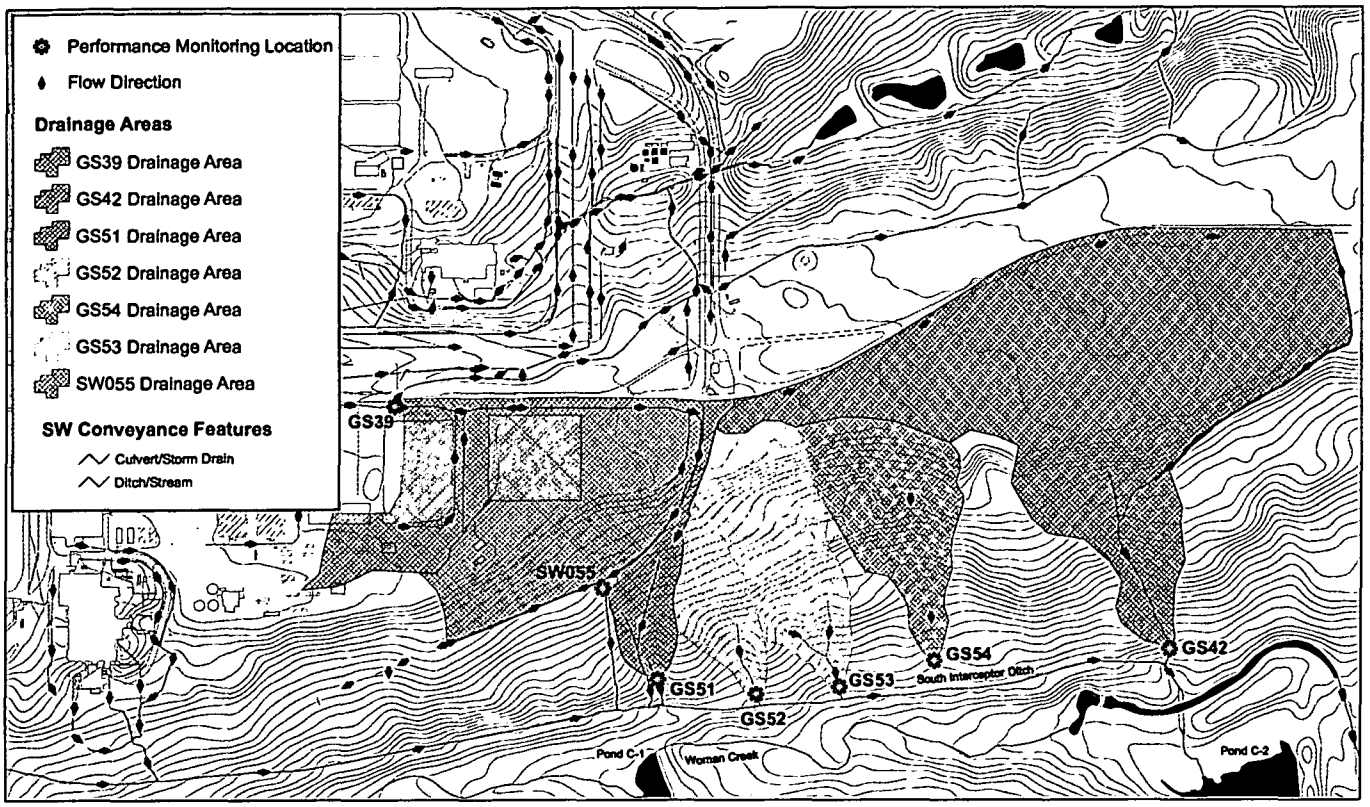


Figure 10-64. Performance Monitoring Drainage Areas for 903 Pad Accelerated Actions.

Monitoring data collected at GS39 show moderate median Pu and Am activities (Table 10-13). Figure 10-65 and Figure 10-66 show the UTL plots for Pu and Am, respectively. During WY00–02, a single Pu result exceeded the calculated UTL. However, Pu results returned to more normal levels for subsequent samples. For Am, the distribution could not be determined. Although the Am box plot (Figure 10-68) indicates a single 'suspect' value, the activity was only 0.083 pCi/L and within the historic range.

Figure 10-67 also shows that none total uranium activities were greater than the UTLs. Figure 10-69 further shows that the median U-233,234/U-238 ratio is approximately 1.05, as expected.

Figure 10-70 shows that there may have been some reduction in the Pu activity of the suspended solids. However, Am shows no trend.

Table 10-13. Summary Statistics for Radionuclide Results from GS39 in WY00-02.

Analyte	Samples [N]	Median [pCi/L]	85th Percentile [pCi/L]	Maximum [pCi/L]	95% UTL [pCi/L]
TSS [mg/L]	6	151	300	330	NA
Pu-239,240	25	0.056	0.150	0.640	0.434[a]
Am-241	25	0.020	0.044	0.083	NA[c]
U-233,234	6	0.075	0.099	0.114	0.364[a]/0.356[b]
U-235	6	0.000	0.002	0.008	
U-238	6	0.070	0.110	0.128	

Note: [a] Lognormal distribution; [b] Normal distribution; [c] Undetermined distribution.
TSS is given in mg/L. Uranium UTL given for total uranium.
Uranium UTL given for total uranium.

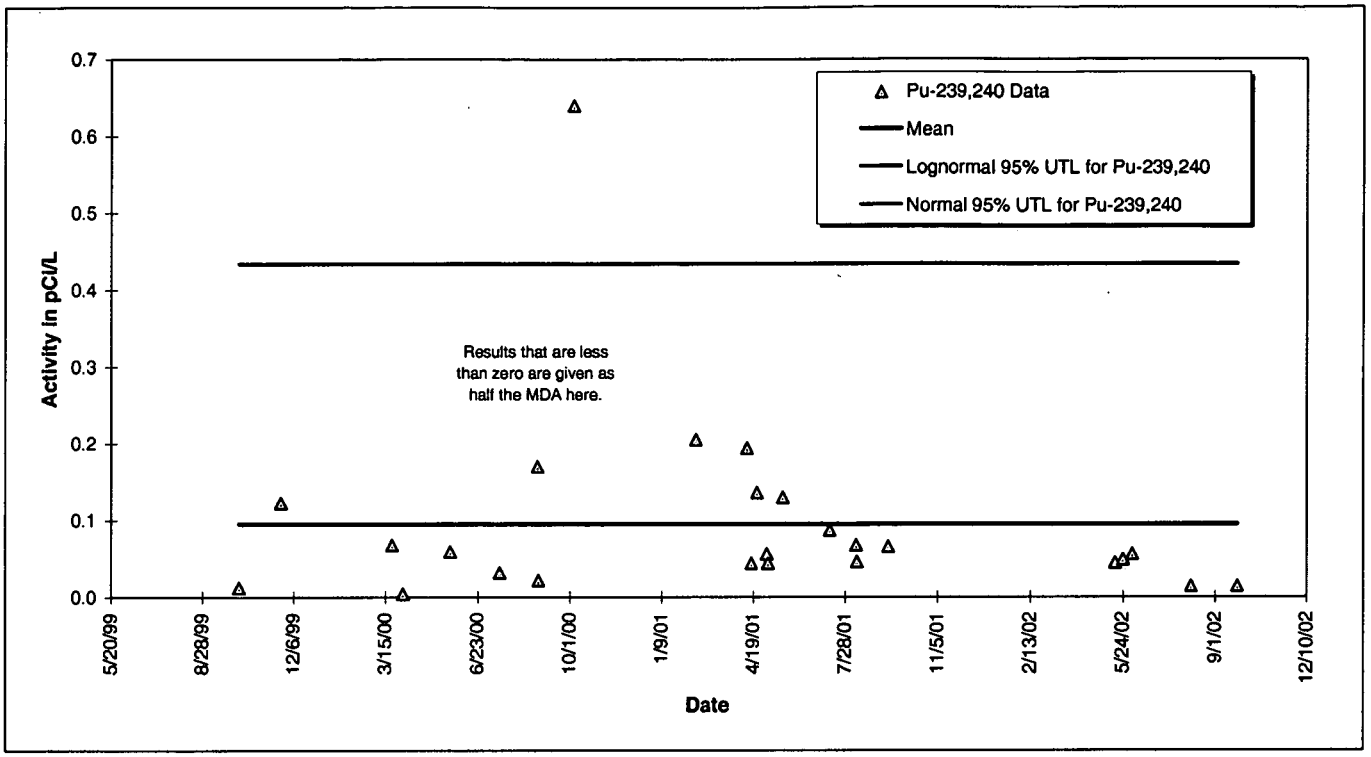


Figure 10-65. 95% UTL Plot for Pu-239,240 at GS39: WY00-02.

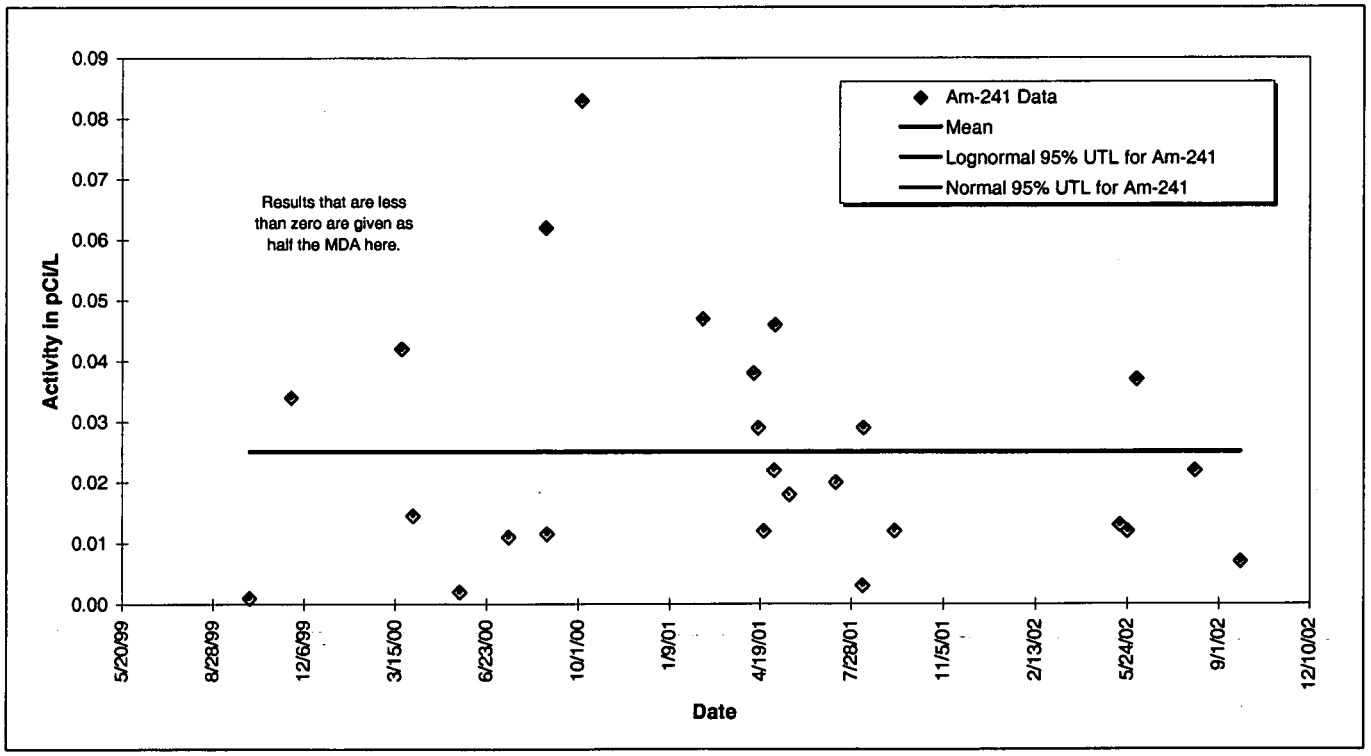


Figure 10-66. 95% UTL Plot for Am-241 at GS39: WY00-02.

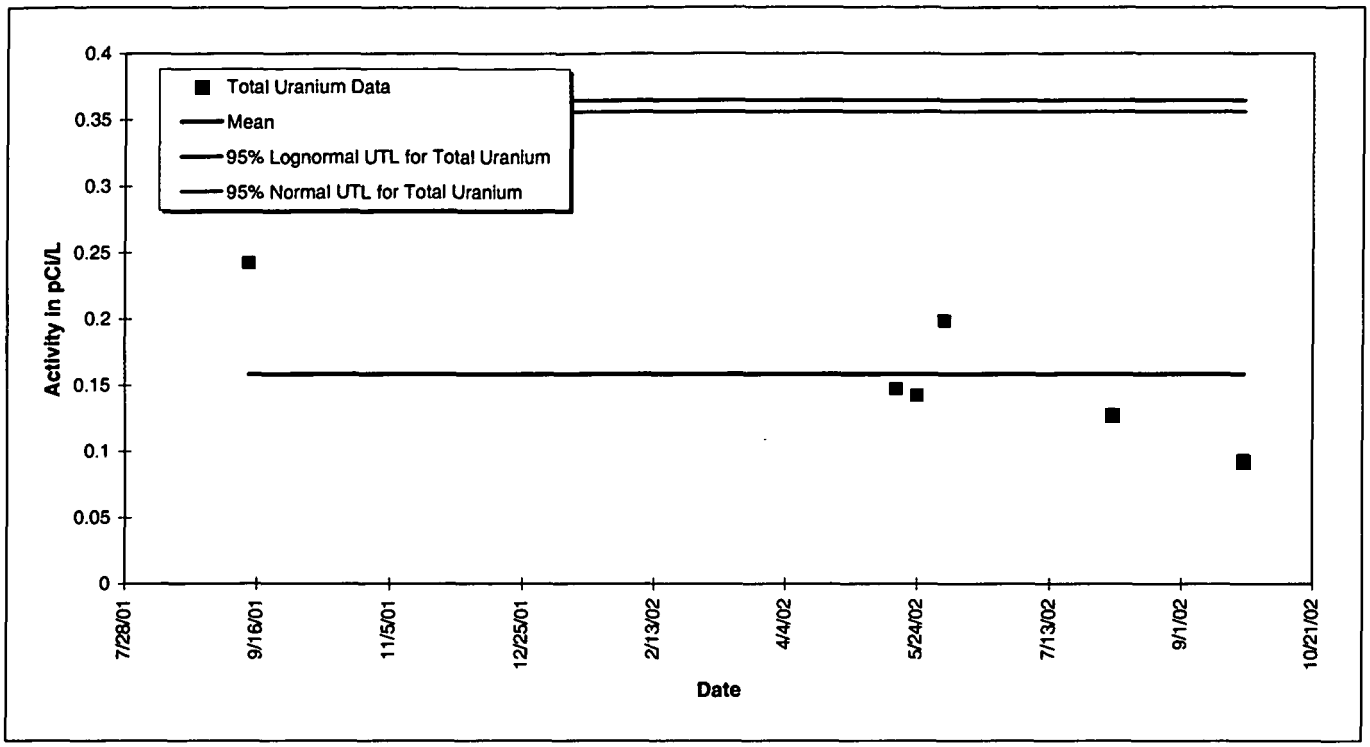


Figure 10-67. 95% UTL Plot for Total Uranium at GS39: WY00-02.

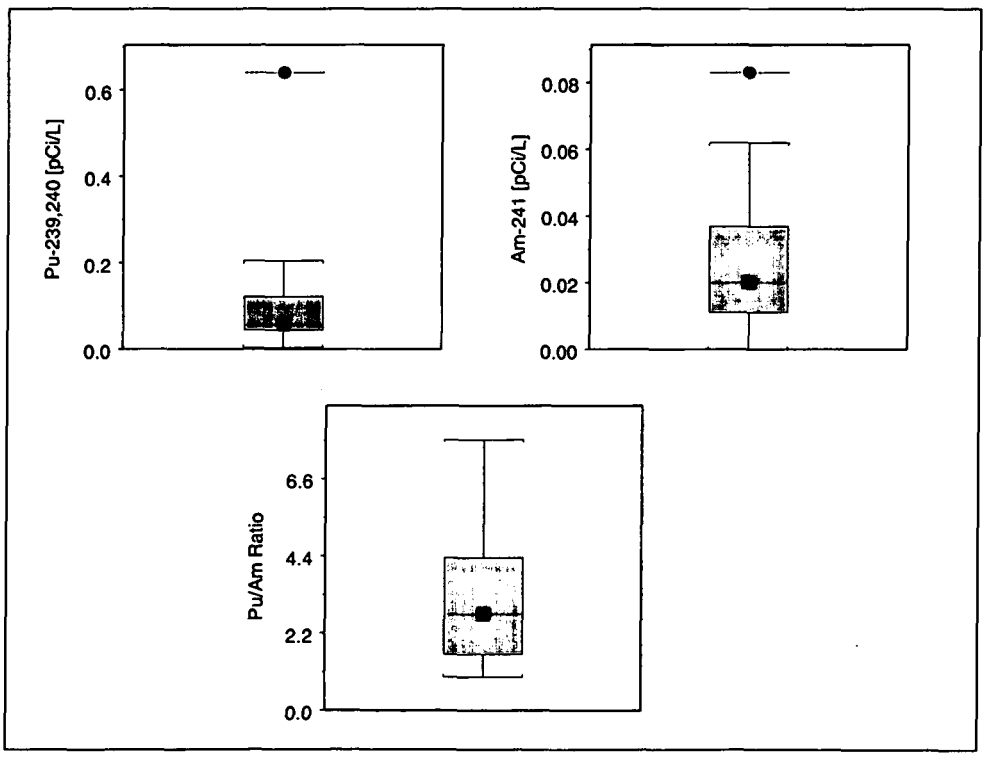


Figure 10-68. Pu and Am Box Plots for GS39: WY00–02.

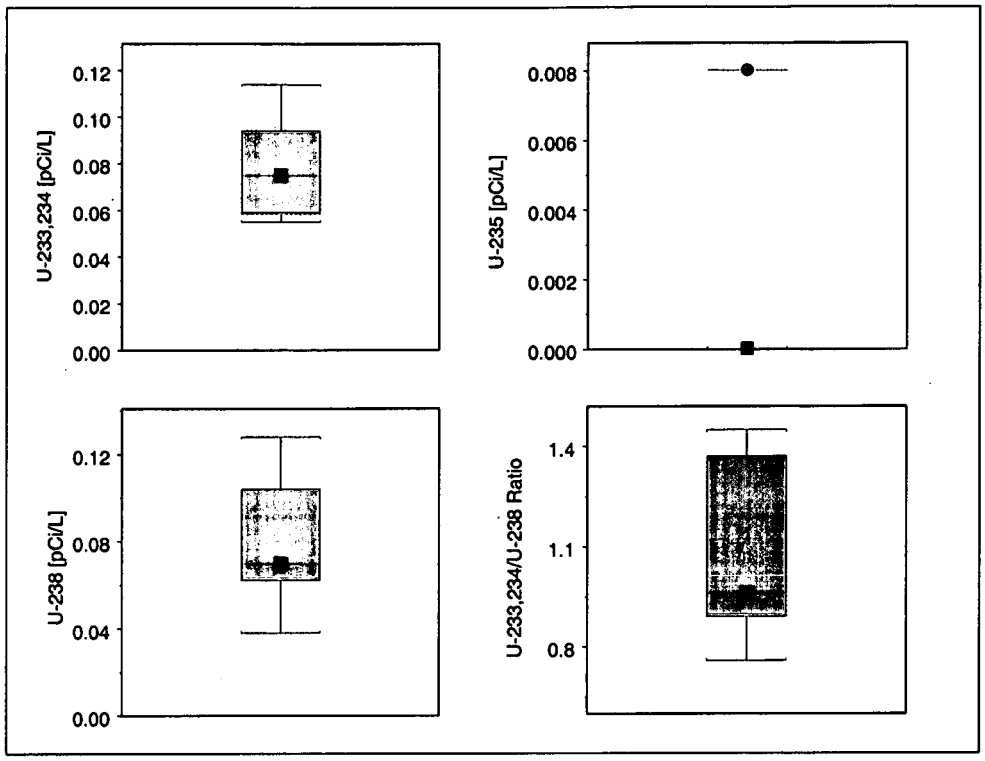


Figure 10-69. Uranium Box Plots for GS39: WY00–02.

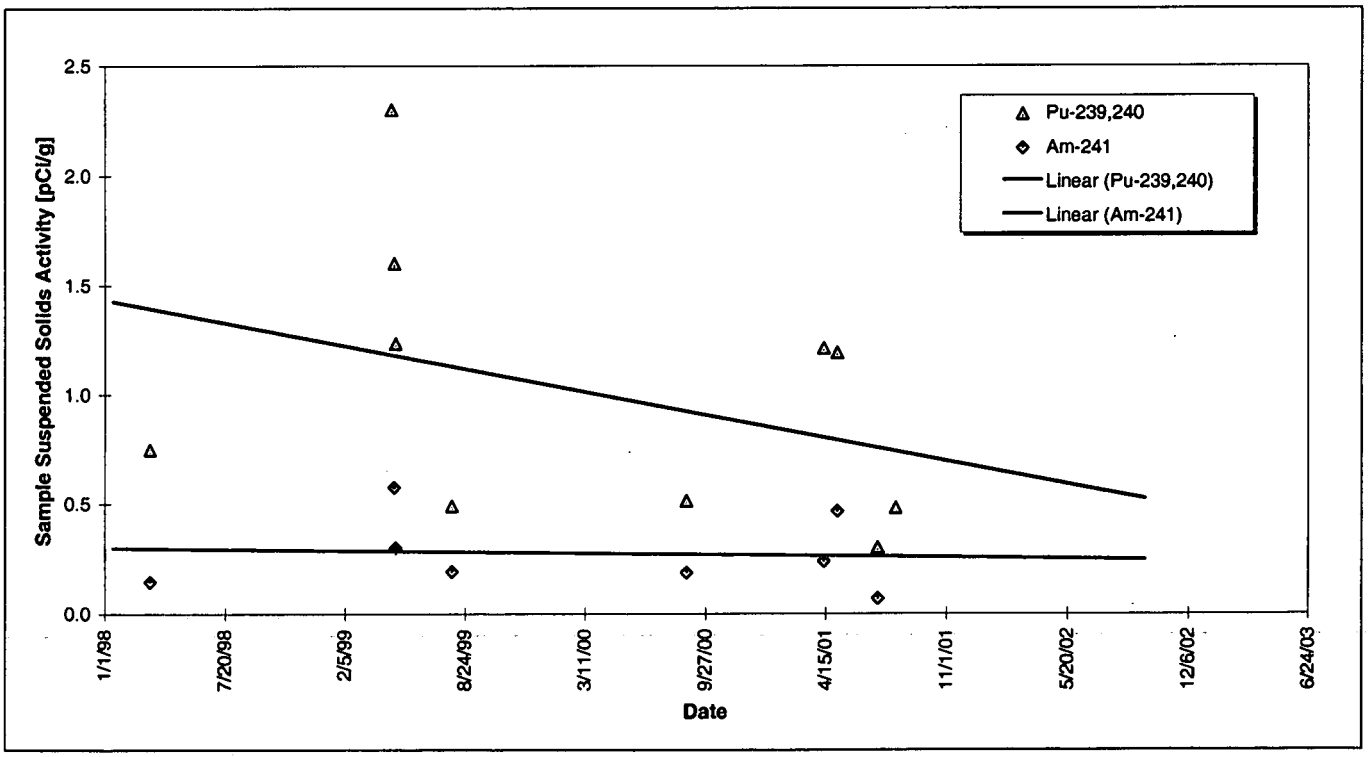


Figure 10-70. Temporal Variation of Suspended Solids Activity at GS39: WY97–02.

During WY01-02, locations GS42, GS53, and GS54 did not flow sufficiently to collect a sample. Locations GS51 and GS52 collected a single sample each for the same period. As such, no evaluation for these locations is given.

Table 10-14. Summary Statistics for Radionuclide Results from GS51 in WY99-02.

Analyte	Samples [N]	Median [pCi/L]	85th Percentile [pCi/L]	Maximum [pCi/L]	95% UTL [pCi/L]
TSS [mg/L]	0	NA	NA	NA	NA
Pu-239,240	1	2.410	2.410	2.410	NA
Am-241	1	0.389	0.389	0.389	NA
U-233,234	1	1.420	1.420	1.420	NA
U-235	1	0.027	0.027	0.027	
U-238	1	1.190	1.190	1.190	

Note: [a] Lognormal distribution; [b] Normal distribution; [c] Undetermined distribution.
TSS is given in mg/L.
Uranium UTL given for total uranium.

Table 10-15. Summary Statistics for Radionuclide Results from GS52 in WY99-02.

Analyte	Samples [N]	Median [pCi/L]	85th Percentile [pCi/L]	Maximum [pCi/L]	95% UTL [pCi/L]
TSS [mg/L]	1	137	137	137	NA
Pu-239,240	1	0.370	0.370	0.370	NA
Am-241	1	0.065	0.065	0.065	NA
U-233,234	1	1.570	1.570	1.570	NA
U-235	1	0.040	0.040	0.040	
U-238	1	1.250	1.250	1.250	

Note: [a] Lognormal distribution; [b] Normal distribution; [c] Undetermined distribution.
TSS is given in mg/L.
Uranium UTL given for total uranium.

Monitoring data collected at SW055 show higher median Pu and Am activities (Table 10-16) than most other automated monitoring locations. These activities are likely the result of the proximity of SW055 to the 903 Pad and Lip area. Figure 10-71 and Figure 10-72 show the UTL plots for Pu and Am, respectively. During WY00–02, no Pu or Am results exceeded the calculated UTL for the few results available.

Figure 10-73 also shows that none total uranium activities were greater than the UTLs for the few results available. Figure 10-75 further shows that the median U-233,234/U-238 ratio is approximately 0.9, as expected.

The temporal variation of suspended solids activity is not given as only two TSS samples were collected for the period.

Table 10-16. Summary Statistics for Radionuclide Results from SW055 in WY00-02.

Analyte	Samples [N]	Median [pCi/L]	85th Percentile [pCi/L]	Maximum [pCi/L]	95% UTL [pCi/L]
TSS [mg/L]	2	9.200	10.600	11.200	NA
Pu-239,240	3	0.432	2.342	3.160	40.78[a]/13.91[b]
Am-241	3	0.084	0.415	0.557	6.902[c]/2.436[b]
U-233,234	3	0.054	1.080	1.520	96.45[a]
U-235	3	0.000	0.020	0.028	
U-238	3	0.063	0.971	1.360	

Note: [a] Lognormal distribution; [b] Normal distribution; [c] Undetermined distribution.
TSS is given in mg/L. Uranium UTL given for total uranium.
Uranium UTL given for total uranium.

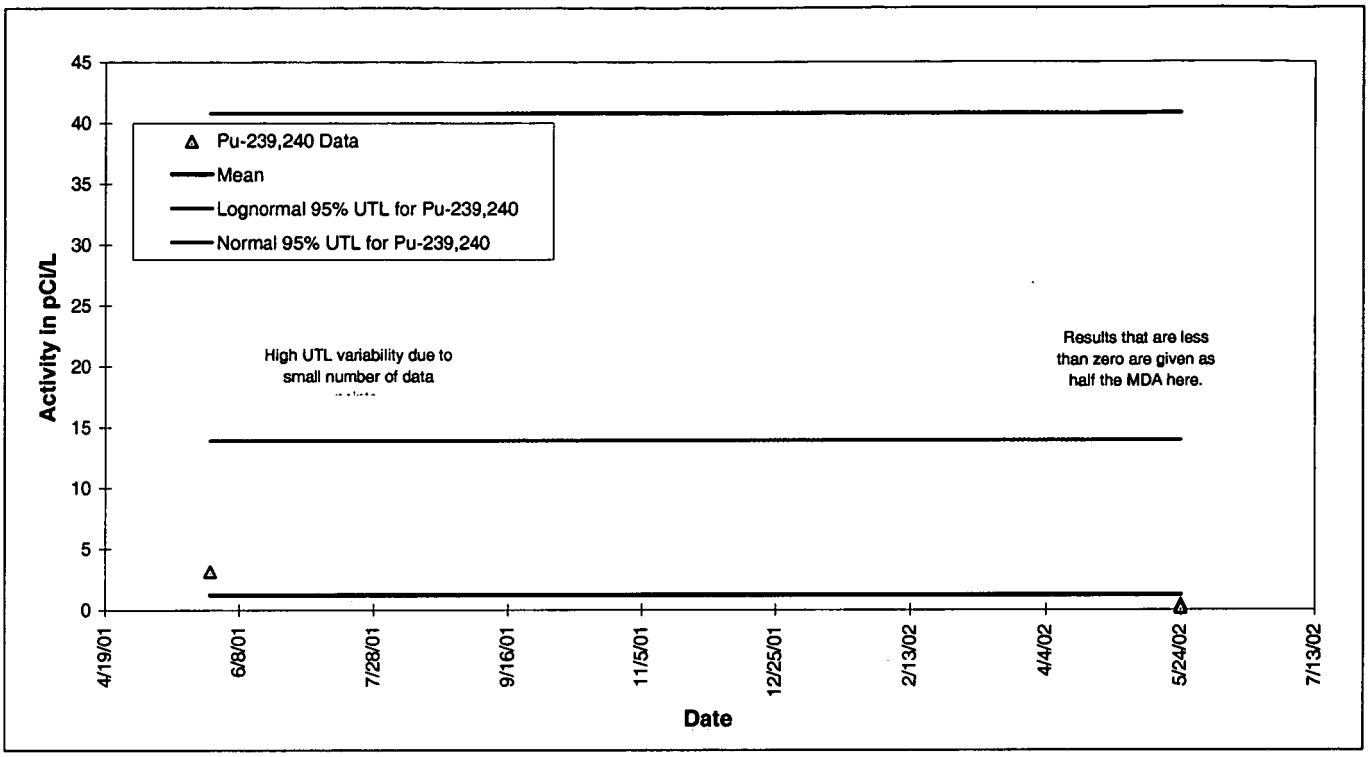


Figure 10-71. 95% UTL Plot for Pu-239,240 at SW055: WY00-02.

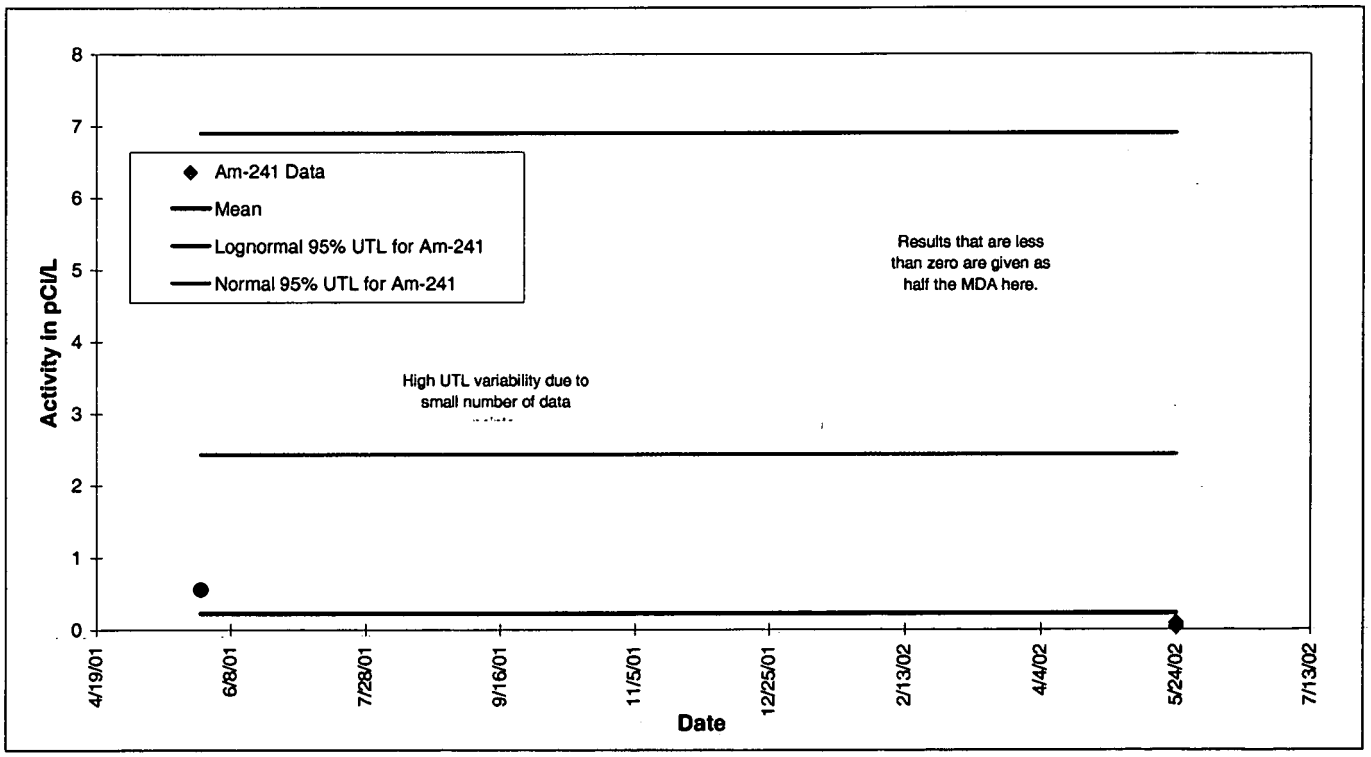


Figure 10-72. 95% UTL Plot for Am-241 at SW055: WY00-02.

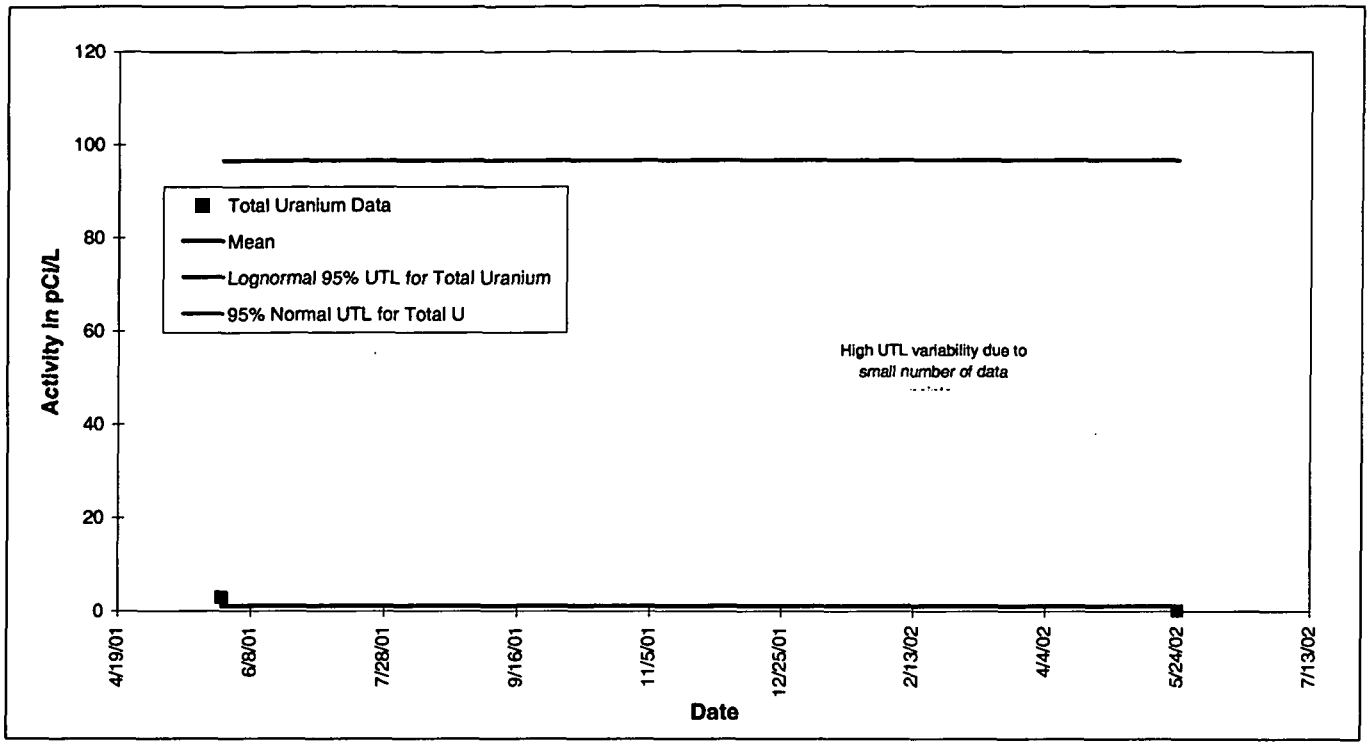


Figure 10-73. 95% UTL Plot for Total Uranium at SW055: WY00-02.

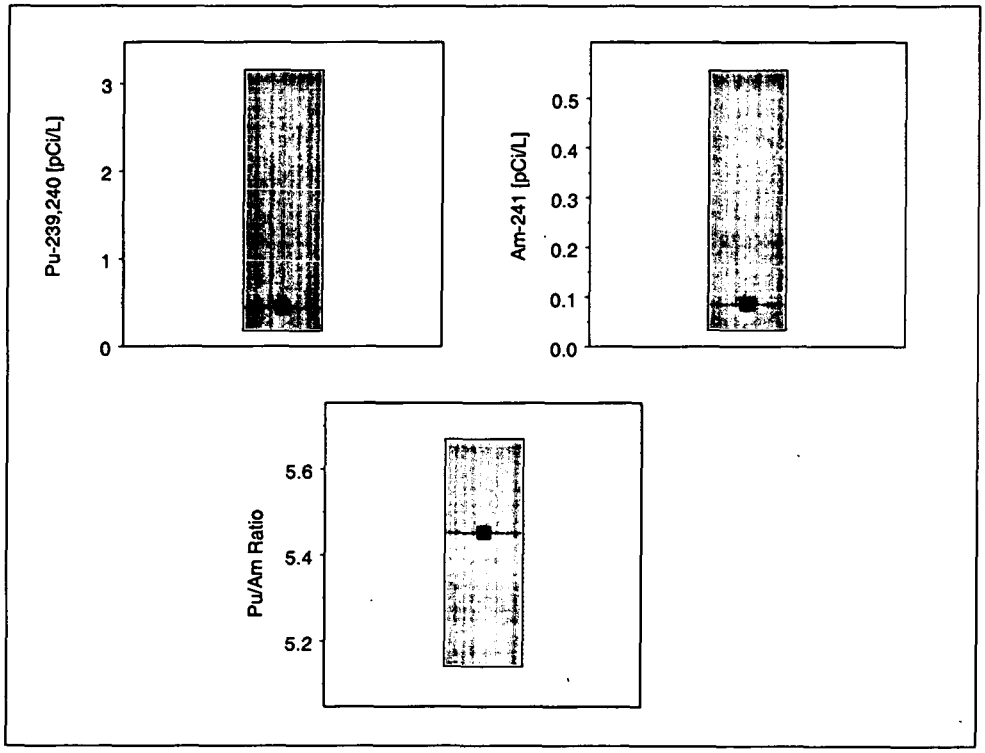


Figure 10-74. Pu and Am Box Plots for SW055: WY00–02.

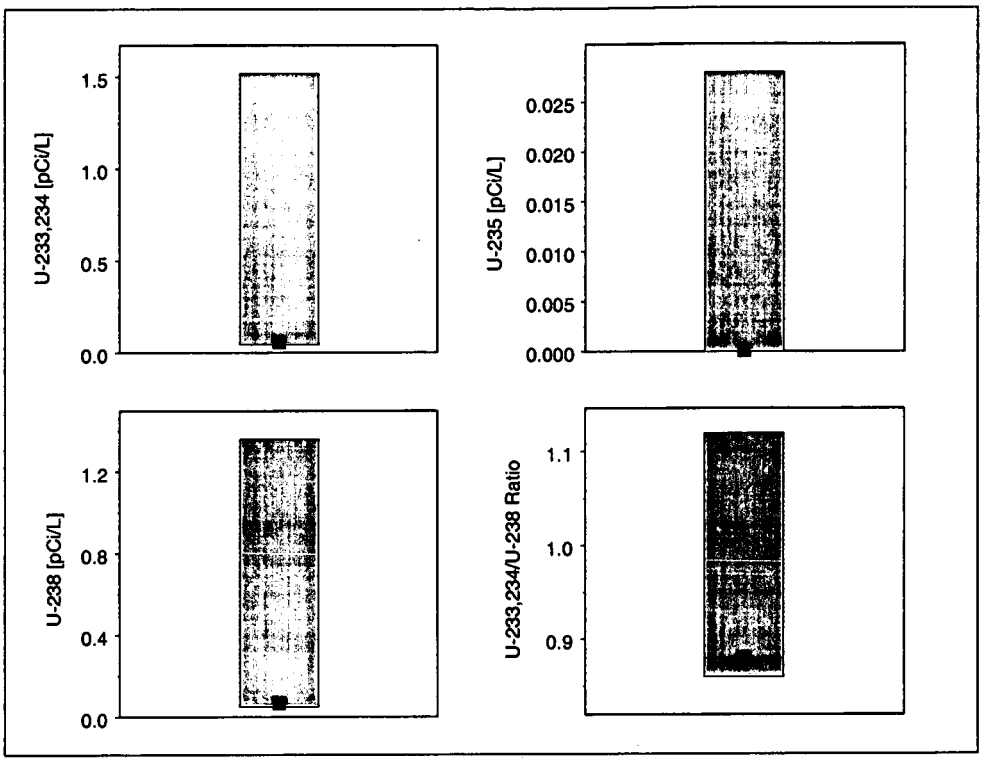


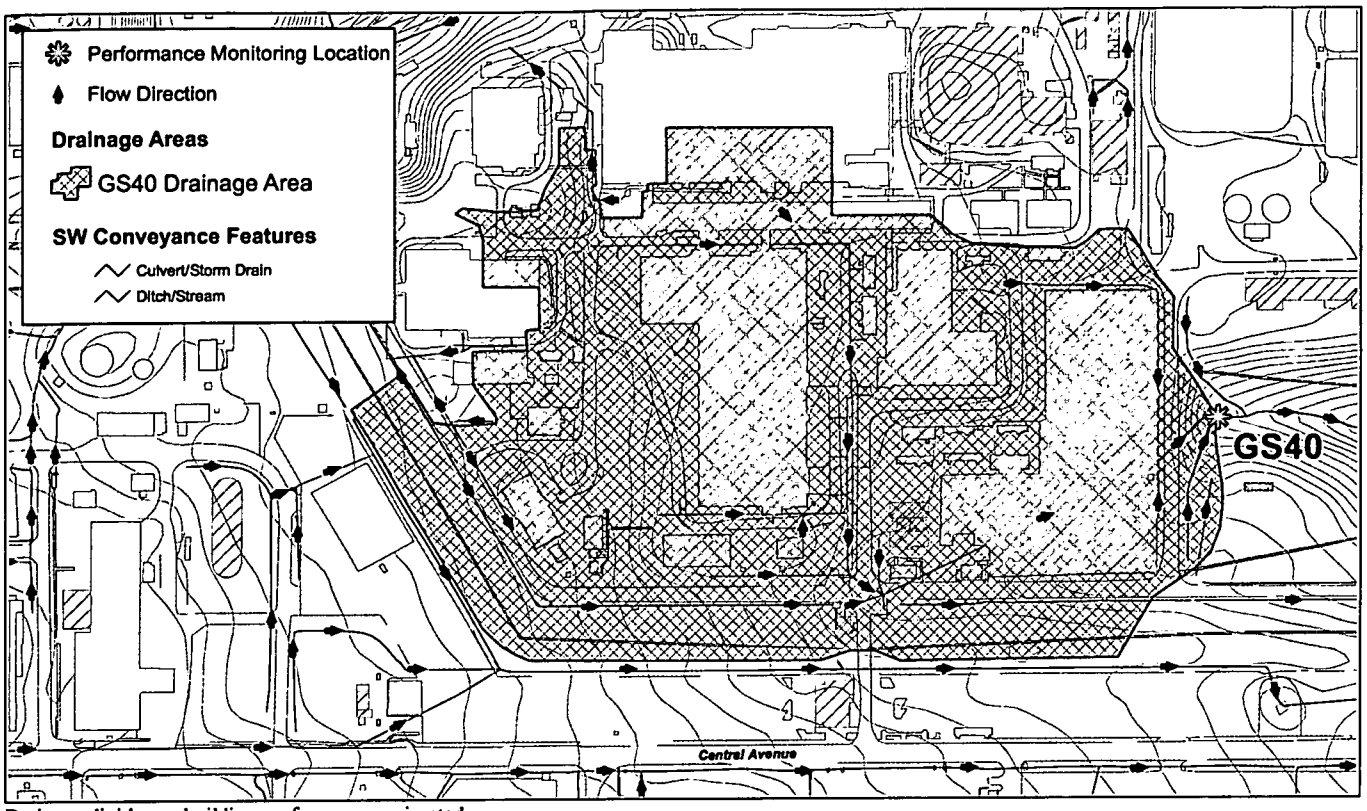
Figure 10-75. Uranium Box Plots for SW055: WY00–02.

10.3.5 700 Area [B707] D&D

Monitoring location GS40 was installed on 3/4/98 in support of the source evaluation efforts related to GS10. GS40 also monitors D&D activities in the 700 Area, specifically around B707.

Figure 10-76 shows the drainage area for GS40. Other major buildings within this drainage include 559, 561, 564, 569, 708, 776, 777, 778, 750, and the 750 Pad tents.

The Performance monitoring data from GS40 indicate that closure activities within the 700 Area did not significantly affect water quality as of the end of WY02. Complete data evaluation for this location is given below.



Drainage divides on building roofs are approximated.

Figure 10-76. Performance Monitoring Drainage Areas for 700 Area D&D.

Monitoring data collected at GS40 show moderate median Pu and Am activities (Table 10-17). Figure 10-77 and Figure 10-78 show the UTL plots for Pu and Am, respectively. For WY00–02, no results were greater than the calculated UTLs.

Table 10-17 also shows moderate tritium activities, with no results exceeding the calculated UTL (Figure 10-79).

Figure 10-80 shows that a single total uranium result was greater than the UTL (12/24/01-1/21/02; 11.264 pCi/L). However, total uranium results for subsequent samples showed more normal levels and increased total uranium levels were not measured at the downstream POE (GS10). Figure 10-83 further shows that the median U-233,234/U-238 ratio is approximately 0.85, close to the expected 1.0 ratio.

Only one TSS result was available during the WY97-02 period. Therefore, temporal variation of suspended solids activity is not presented.

Table 10-17. Summary Statistics for Radionuclide Results from GS40 in WY00-02.

Analyte	Samples [N]	Median [pCi/L]	85th Percentile [pCi/L]	Maximum [pCi/L]	95% UTL [pCi/L]
TSS [mg/L]	1	21.0	21.0	21.0	NA
Pu-239,240	39	0.017	0.047	0.085	0.110[a]
Am-241	39	0.023	0.074	0.140	0.185[a]
Tritium	29	27	129	220	240[b]
U-233,234	30	1.310	1.993	5.660	7.984[a]
U-235	30	0.061	0.078	0.214	
U-238	30	1.755	2.392	5.390	

Note: [a] Lognormal distribution; [b] Normal distribution; [c] Undetermined distribution.
TSS is given in mg/L.
Uranium UTL given for total uranium.

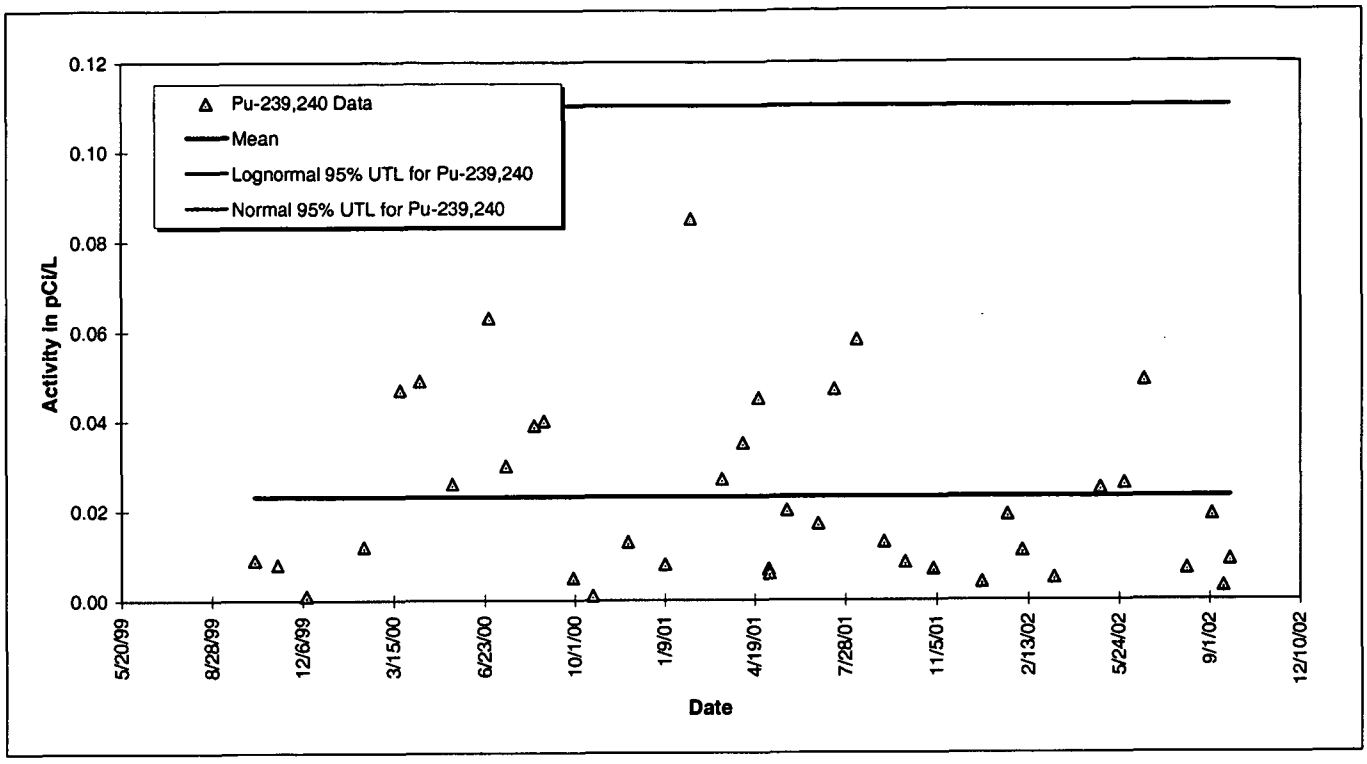


Figure 10-77. 95% UTL Plot for Pu-239,240 at GS40: WY00-02.

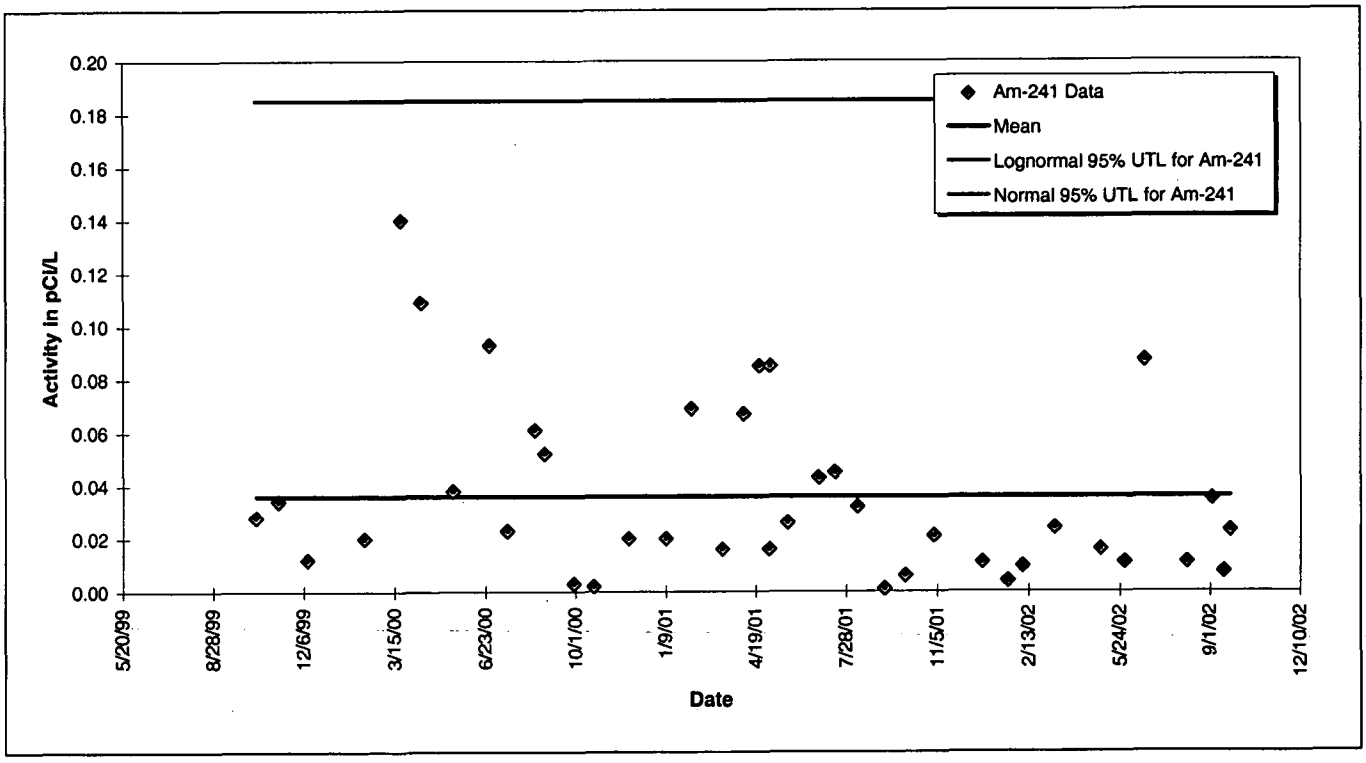


Figure 10-78. 95% UTL Plot for Am-241 at GS40: WY00-02.

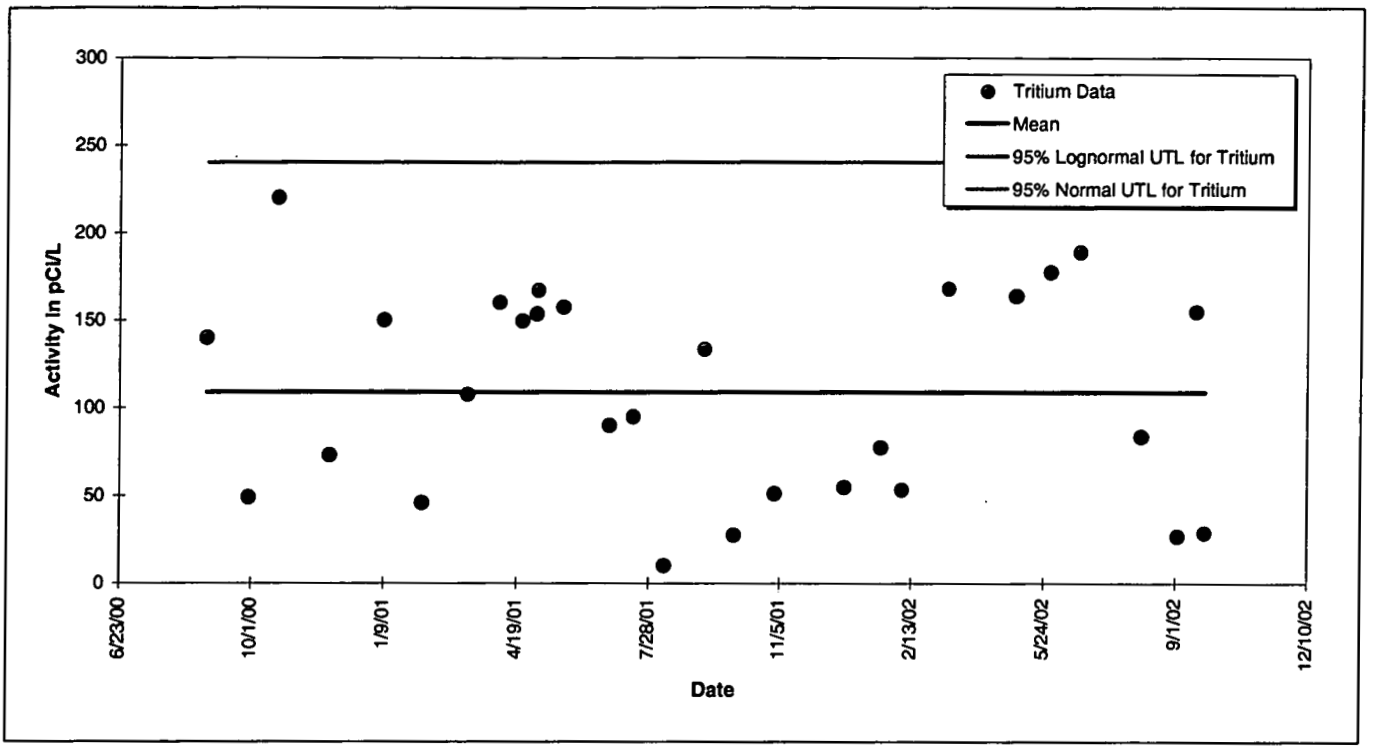


Figure 10-79. 95% UTL Plot for Tritium at GS40: WY00-02.

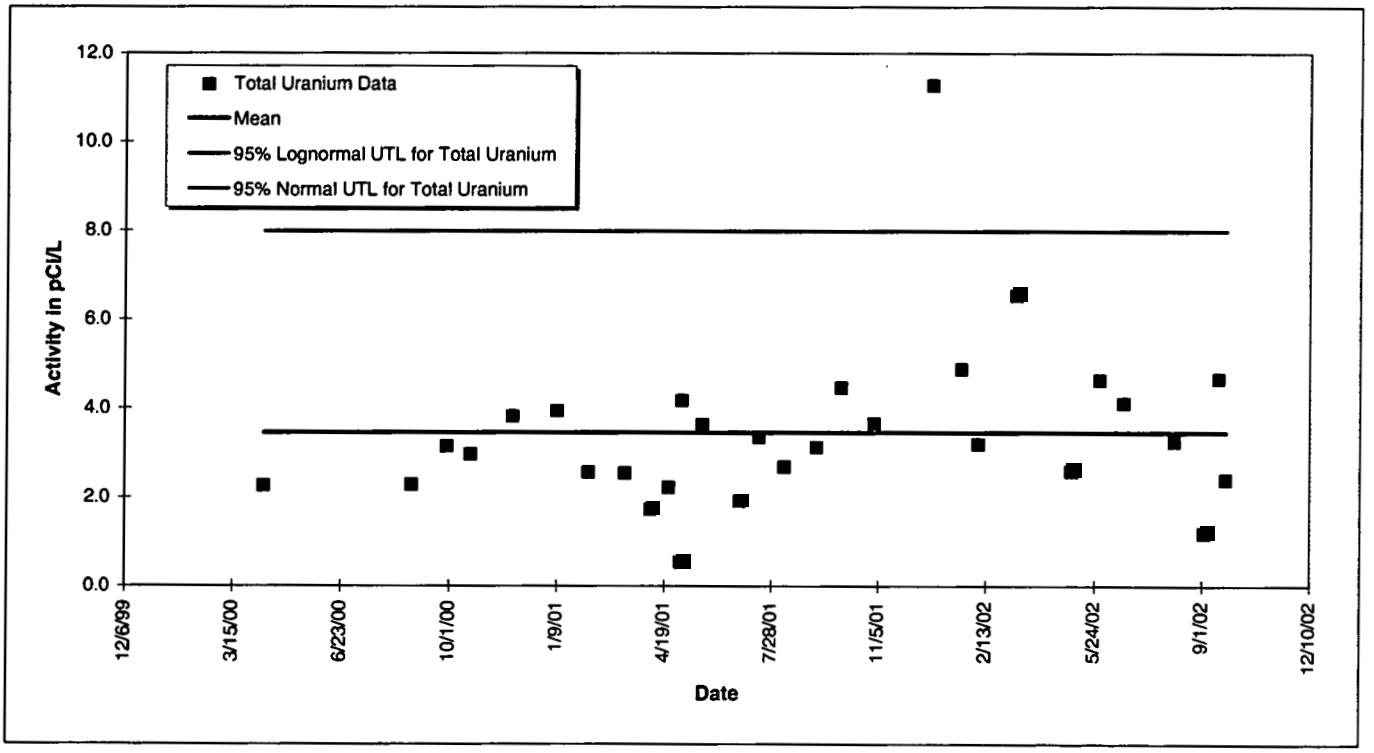


Figure 10-80. 95% UTL Plot for Total Uranium at GS40: WY00-02.

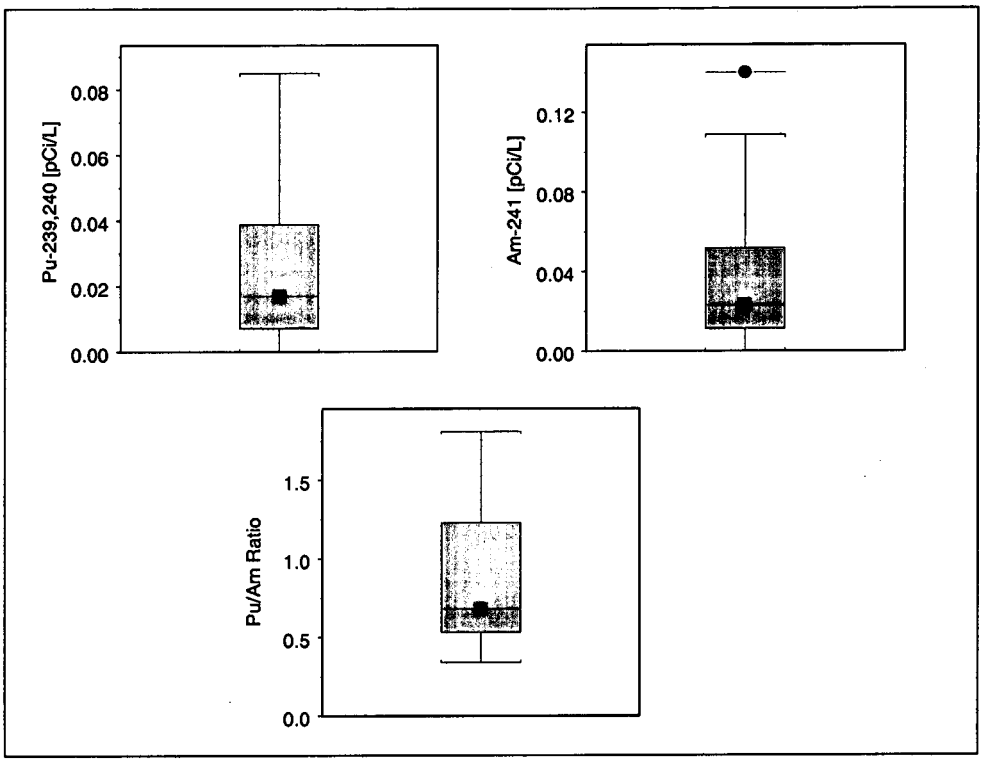


Figure 10-81. Pu and Am Box Plots for GS40: WY00–02.

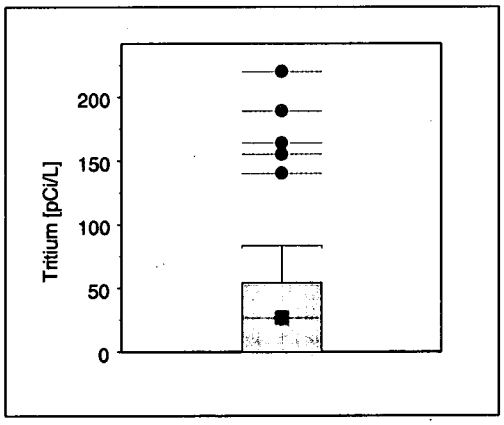


Figure 10-82. Tritium Box Plot for GS40: WY00–02.

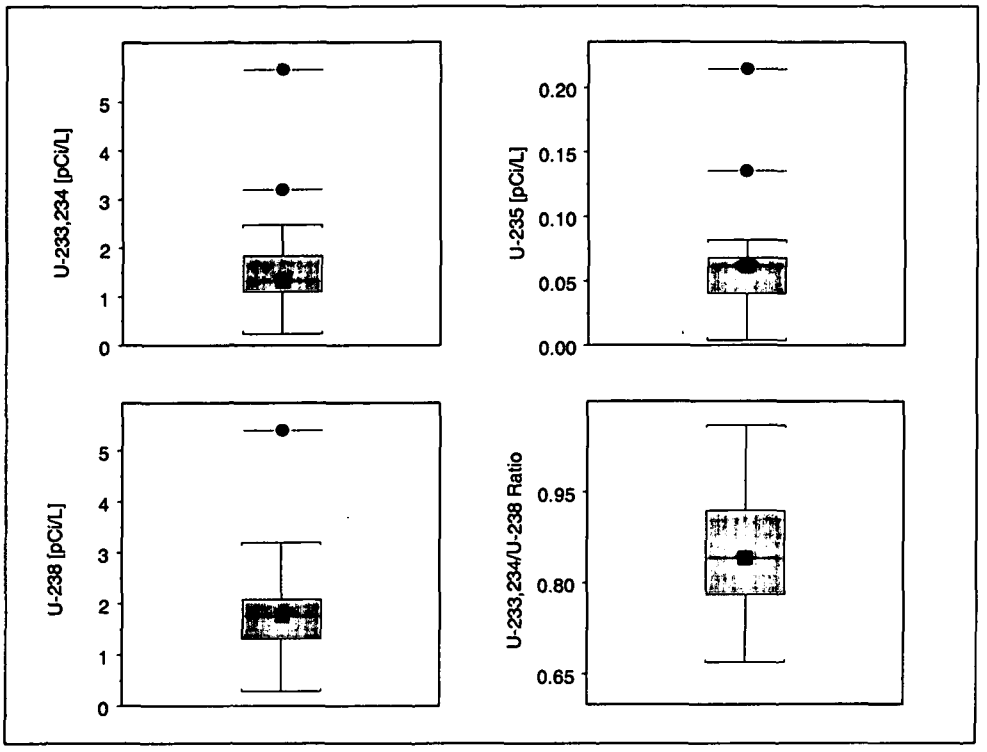


Figure 10-83. Uranium Box Plots for GS40: WY00–02.

Table 10-18 shows the total metals results for samples collected at GS40. Figure 10-84 through Figure 10-88 show the UTL plots for the metals. For the metals with a determined distribution, As, Ba, Cu, Fe, Li, Mg, Mn, K, Sr, and Z all showed values greater than the calculated UTL. The boxplots for Ba and Mg (Figure 10-89 and Figure 10-90, respectively) indicate no 'suspect' values. For the remaining analytes, the higher values were not noted for most other samples.

Data for metals Cd, Co, Hg, Se, Ag, Tl, and Sn had undetermined distributions. All of the Hg data were 'undetects'. For Cd, one result (6/20-8/6/02; 4.2 µg/L) is indicated as 'suspect' by the boxplot (Figure 10-89). Subsequent Cd analyses showed normal levels and no trend is noted. For Co, three results (6/20-8/6/02, 5.3 µg/L; 6/28-7/16/01, 3.7 µg/L; 9/3-9/16/02, 3.0 µg/L) are indicated as 'suspect' by the boxplot (Figure 10-89). Although these values are statistically 'suspect', visual interpretation does not suggest that these values are an indication of a new contaminant source in the drainage. For Se, three results (4/6-4/23/01, 1.7 µg/L; 7/16-8/9/01, 1.4 µg/L; 9/8-10/1/01, 1.6 µg/L) are indicated as 'suspect' by the boxplot (Figure 10-91). Although these values are statistically 'suspect', the values are marginally above the detection limit and visual interpretation does not suggest that these values are an indication of a new contaminant source in the drainage. For Ag, all but two of the results were 'undetects'; the cause of these results (5/24-6/28/01, 0.27 µg/L; 6/28-7/16/01, 0.87 µg/L) is unknown. For Tl, two results (5/24-6/28/02, 1.5 µg/L; 1/21-2/6/02, 1.9 µg/L) are indicated as 'suspect' by the boxplot (Figure 10-91). Although these values are statistically 'suspect', visual interpretation does not suggest that these values are an indication of a new contaminant source in the drainage. For Sn, four results (2/7-3/13/01, 1.4 µg/L; 6/28-7/16/01, 1.5 µg/L; 2/6-3/13/02, 1.9 µg/L; 5/3-5/29/02, 1.1 µg/L) are indicated as 'suspect' by the boxplot (Figure 10-91). The cause of these intermittent values is unknown and they are only marginally greater than the detection limit.

Table 10-18. Summary Statistics for Metals Results from GS40 in WY00-02.

Analyte	Samples [N]	Percent Undetect	Median [µg/L]	85th Percentile [µg/L]	Maximum [µg/L]	95% UTL [µg/L]
ALUMINUM	29	0.0%	2010	5524	9170	21106[a]
ANTIMONY	29	0.0%	14.3	25.5	50.3	50.5[a]
ARSENIC	29	3.4%	2.80	5.50	14.1	10.3[a]
BARIUM	29	0.0%	379	644	893	863[b]
BERYLLIUM	29	10.3%	0.13	0.31	0.52	0.71[a]
CADMIUM	29	3.4%	0.93	1.98	4.20	NA[c]
CALCIUM	29	0.0%	106000	183400	224000	250153[b]
CHROMIUM	29	0.0%	3.30	7.96	13.3	15.8[a]
COBALT	29	6.9%	1.40	2.76	5.30	NA[c]
COPPER	29	0.0%	7.60	19.2	31.3	28.4[a]
IRON	29	0.0%	4700	13120	43000	32643[a]
LEAD	29	10.3%	3.30	10.4	17.5	31.7[a]
LITHIUM	29	0.0%	16.1	39.4	76.6	70.3[a]
MAGNESIUM	29	0.0%	28900	49260	78700	70877[b]
MANGANESE	29	0.0%	850	1322	2450	2219[b]
MERCURY	28	100.0%	0.05	0.05	0.05	NA[c]
MOLYBDENUM	29	0.0%	1.70	2.10	2.30	2.69[b]
NICKEL	29	0.0%	3.50	6.58	8.80	9.71[a]
POTASSIUM	29	0.0%	10600	20940	40500	34886[a]
SELENIUM	29	69.0%	0.50	1.13	1.70	NA[c]
SILVER	29	93.1%	0.13	0.14	0.87	NA[c]
SODIUM	29	0.0%	216000	1066000	1610000	2096500[a]
STRONTIUM	29	0.0%	884	1572	2700	2323[b]
THALLIUM	29	89.7%	0.49	0.80	1.90	NA[c]
TIN	29	86.2%	0.44	0.60	1.90	NA[c]
VANADIUM	29	3.4%	5.40	16.7	22.2	44.3[a]
ZINC	29	0.0%	362	618	1190	1407[a]/985[b]

Note: [a] Lognormal distribution; [b] Normal distribution; [c] Undetermined distribution.

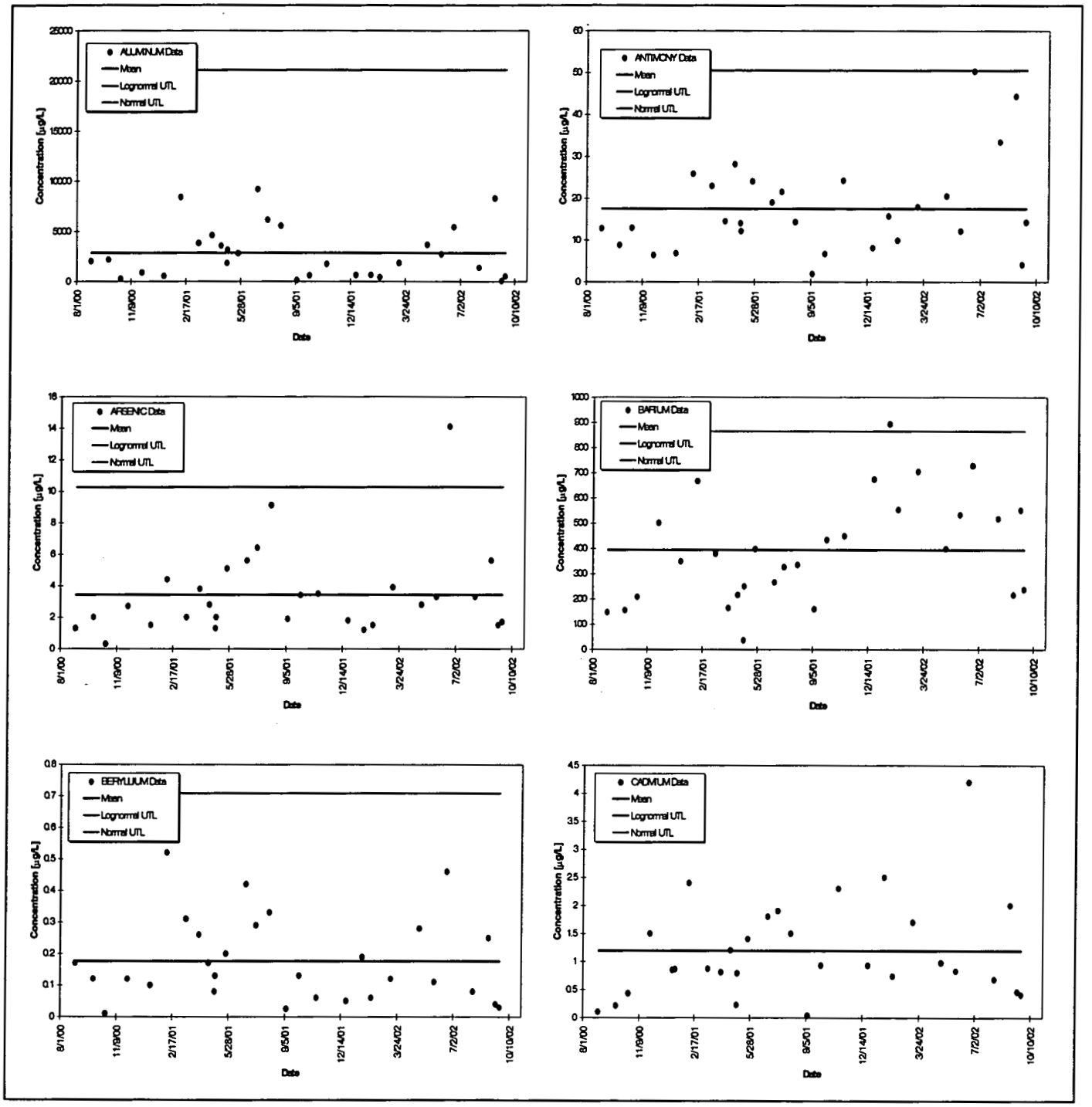


Figure 10-84. Total Metals UTL Plots for GS40: Aluminum through Cadmium.

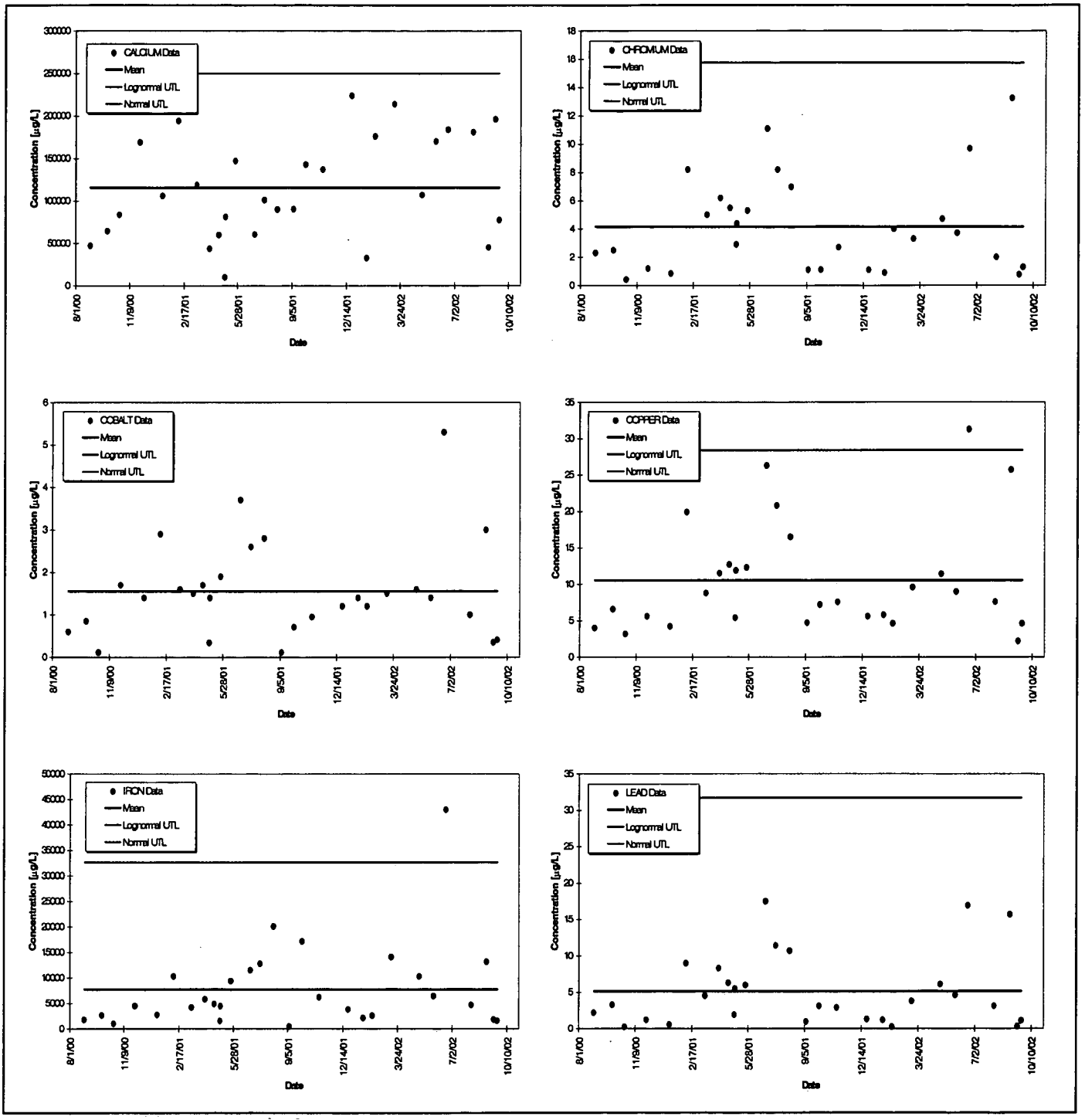


Figure 10-85. Total Metals UTL Plots for GS40: Calcium through Lead.

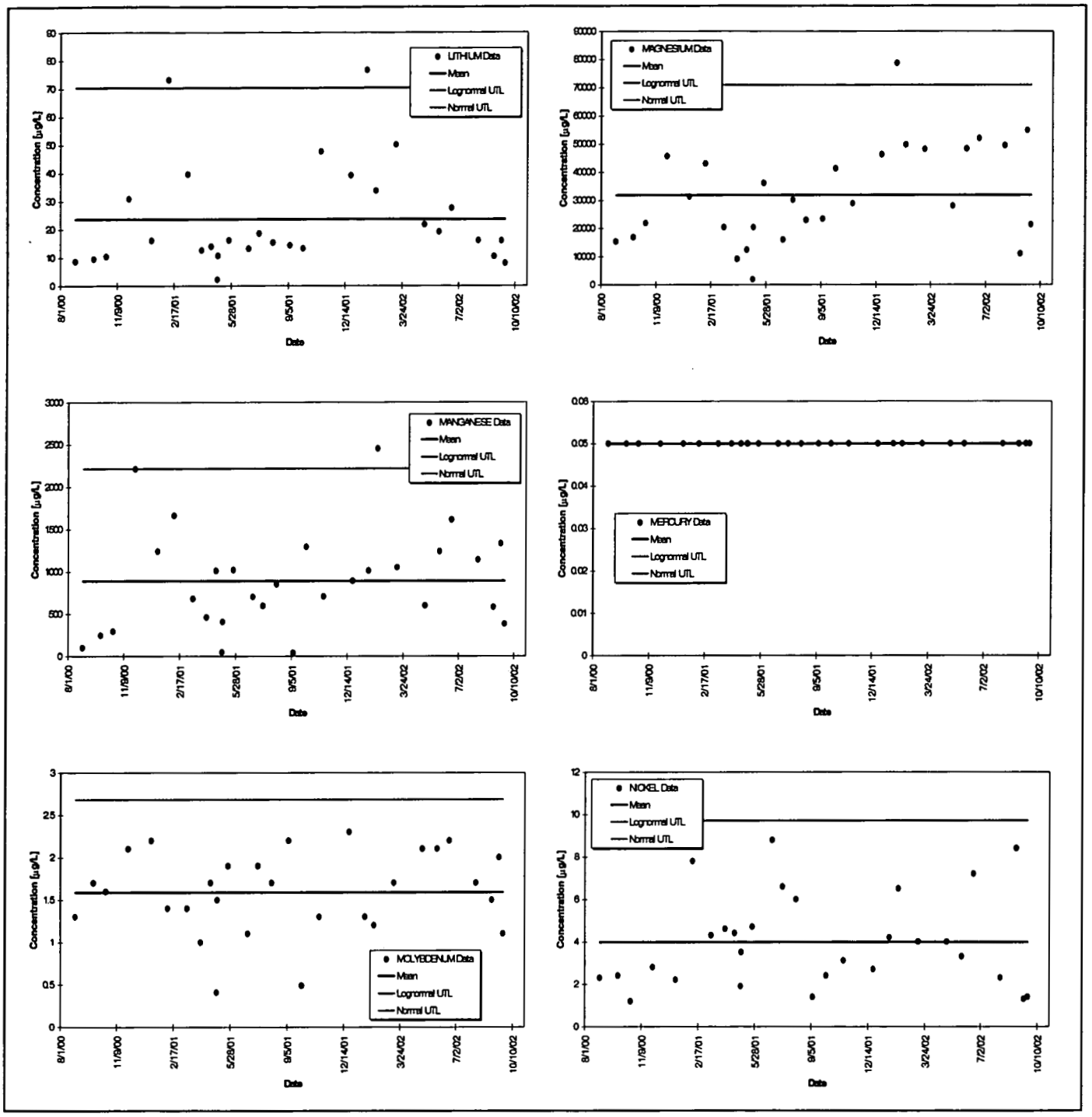


Figure 10-86. Total Metals UTL Plots for GS40: Lithium through Nickel.

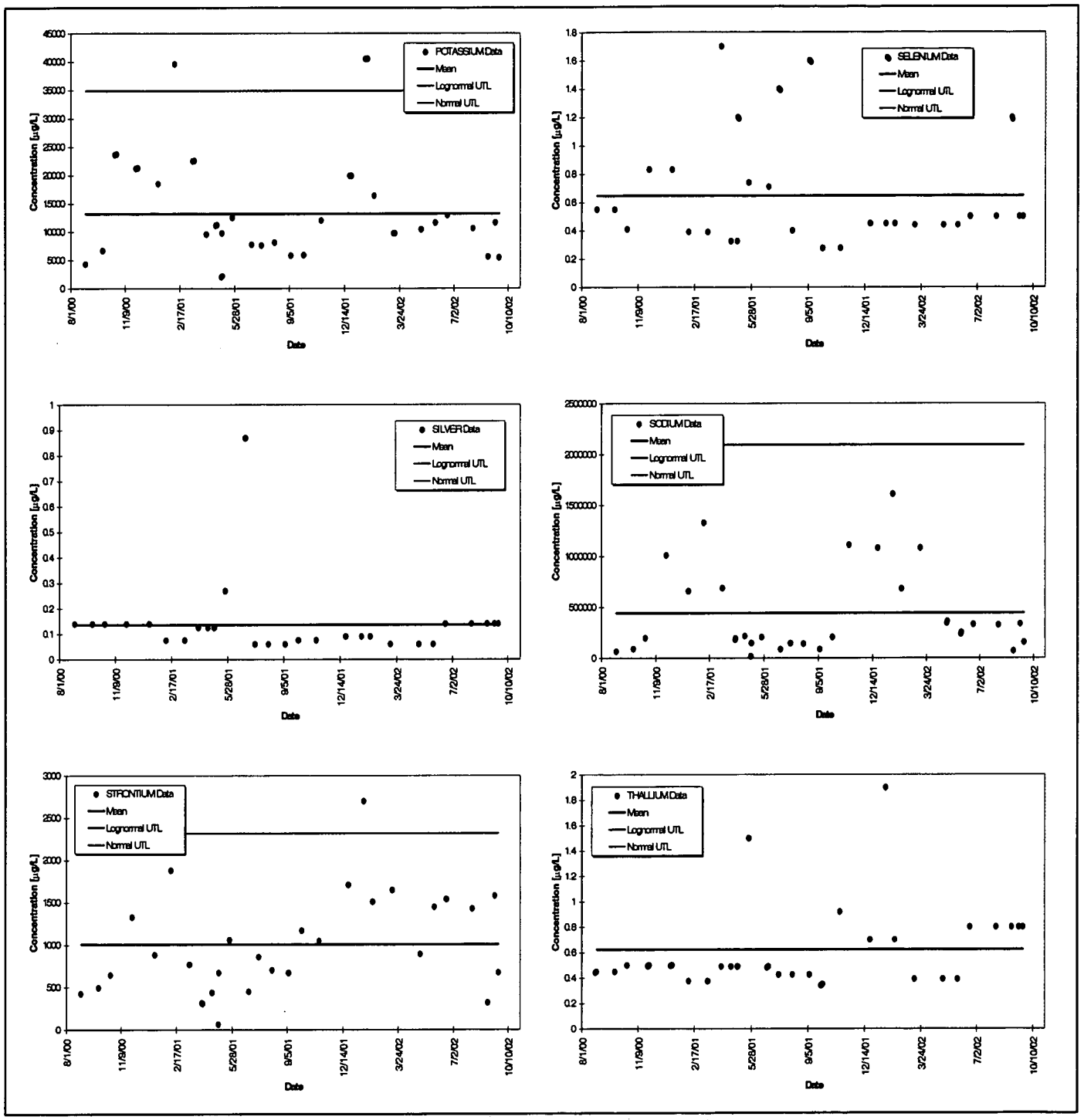


Figure 10-87. Total Metals UTL Plots for GS40: Potassium through Thallium.

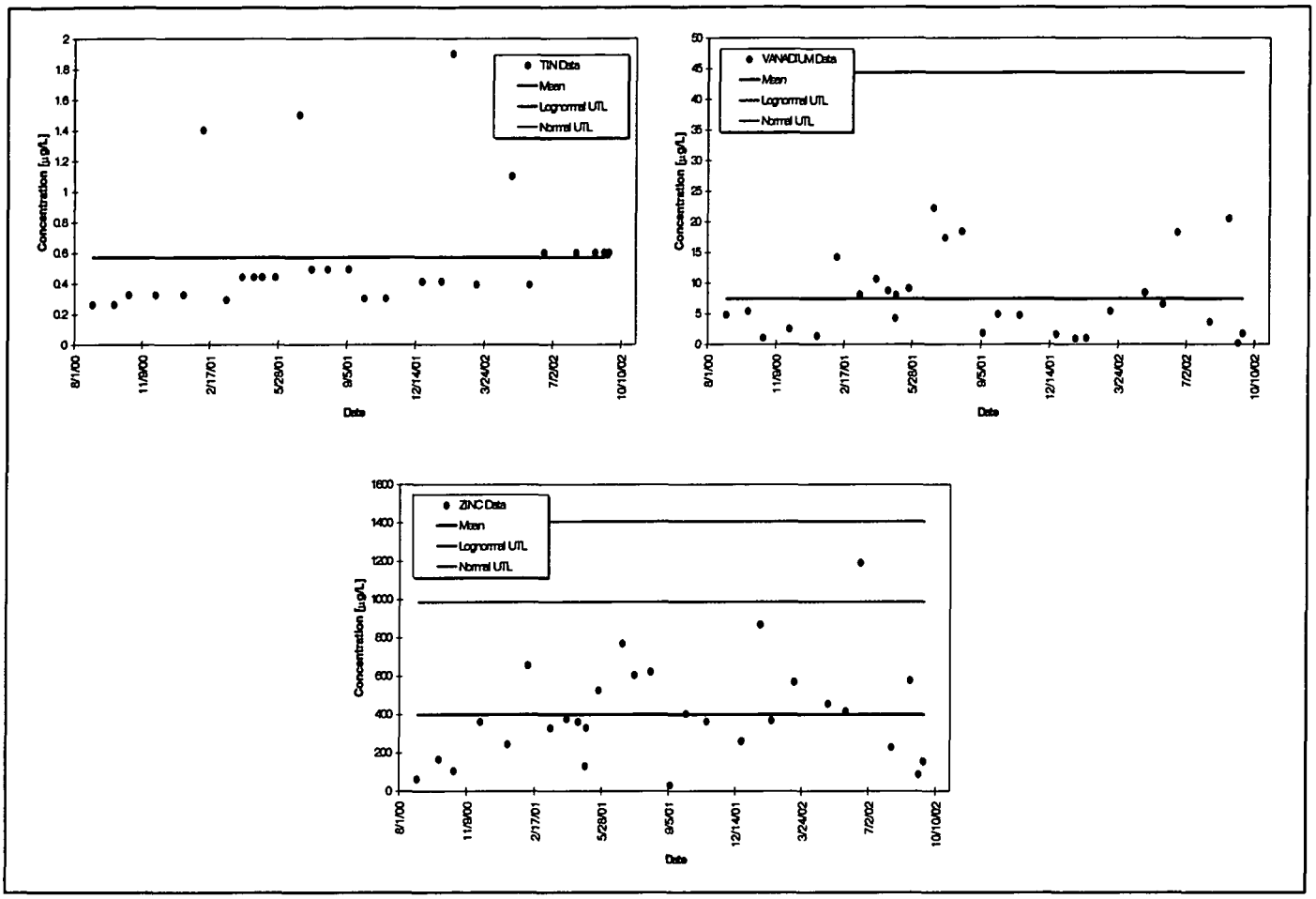


Figure 10-88. Total Metals UTL Plots for GS40: Tin through Zinc.

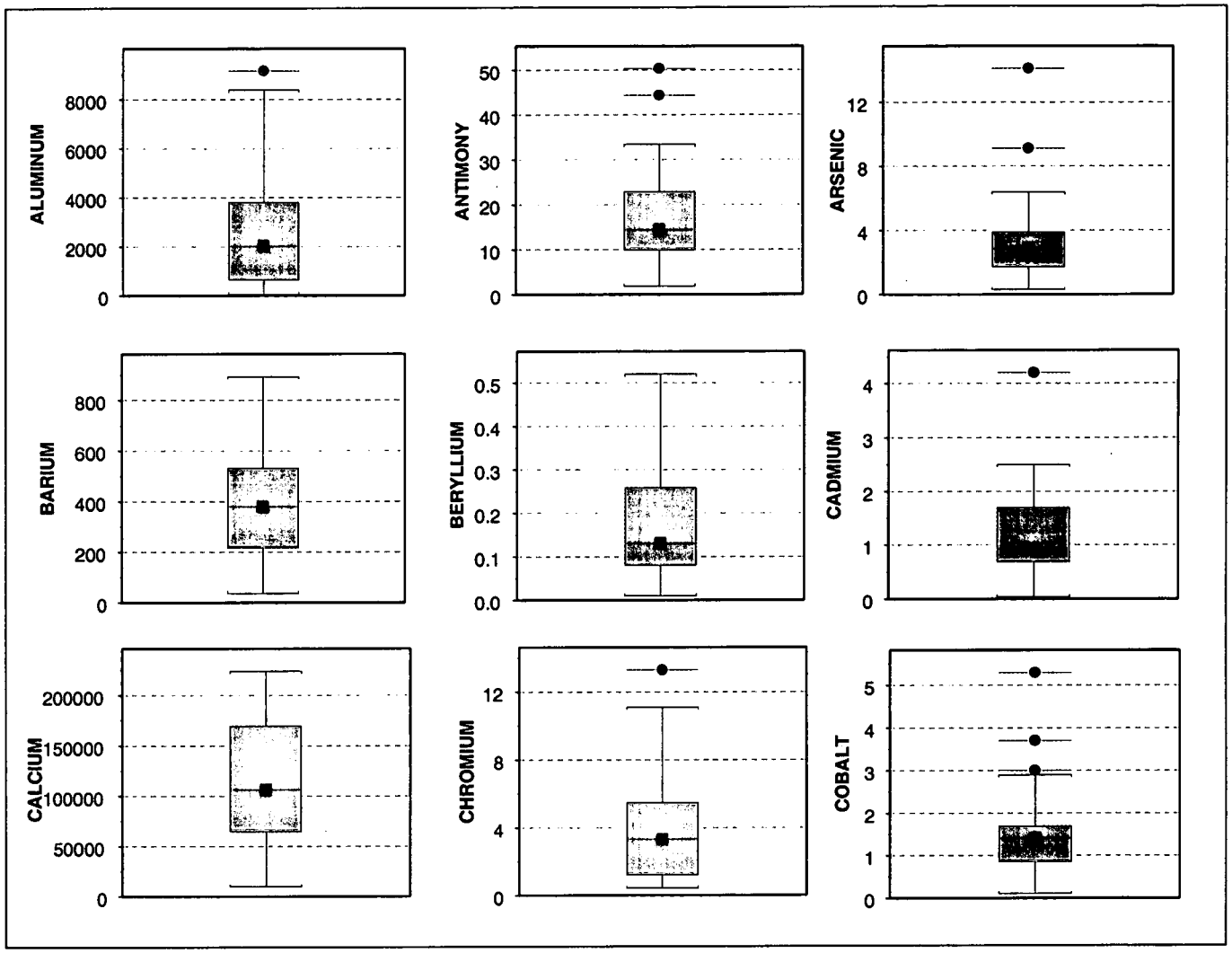


Figure 10-89. Total Metals Box Plots for GS40: Aluminum through Cobalt.

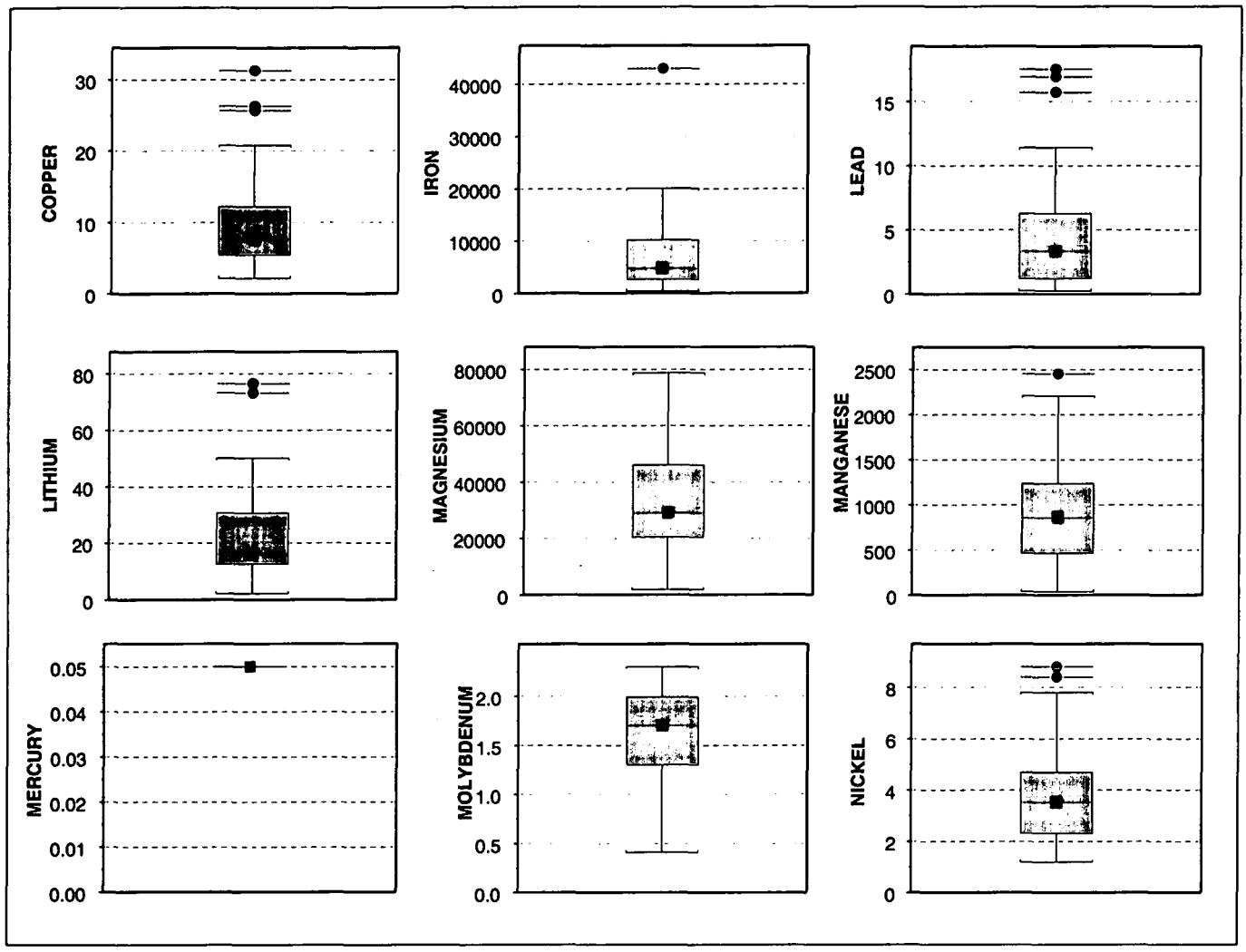


Figure 10-90. Total Metals Box Plots for GS40: Copper through Nickel.

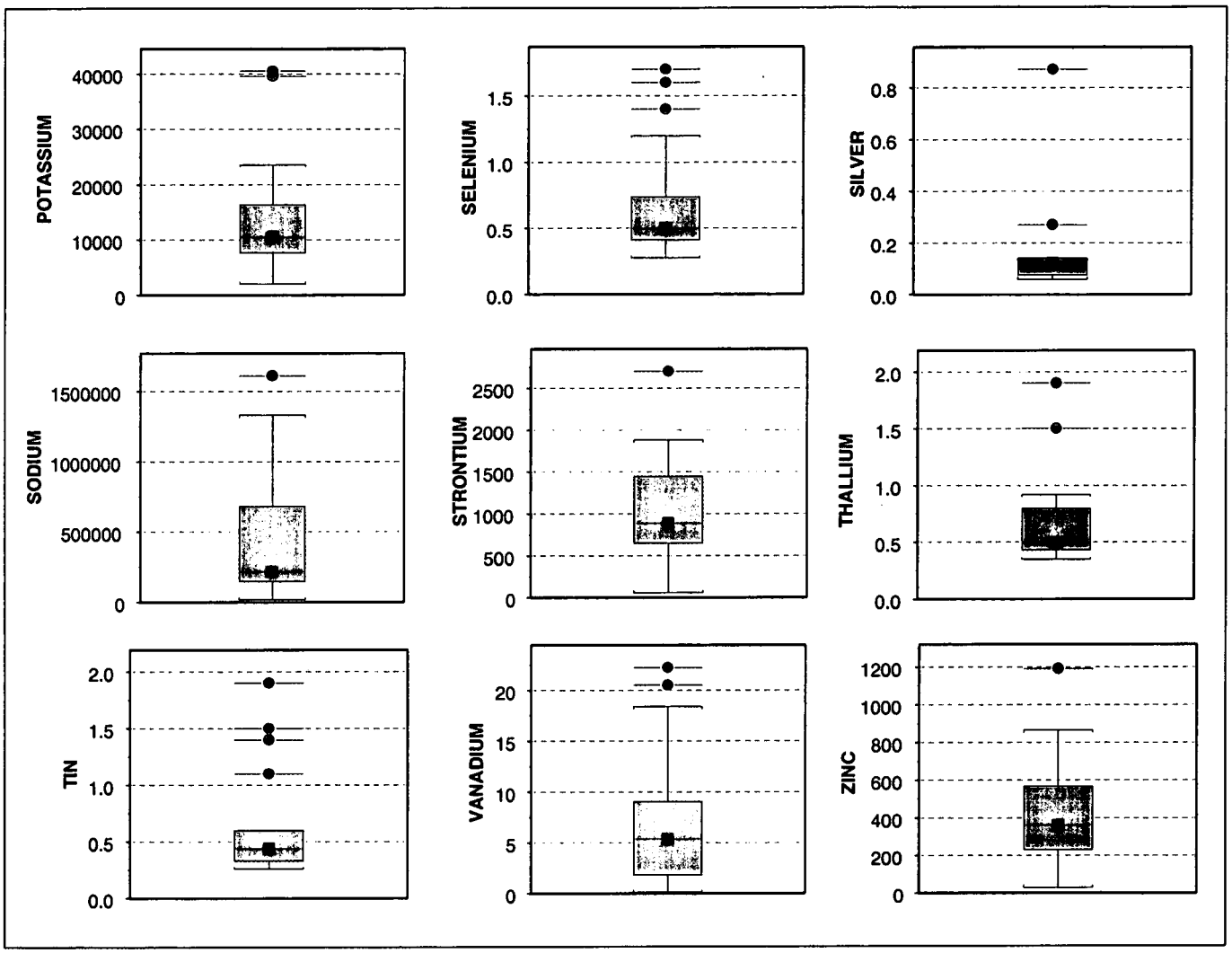


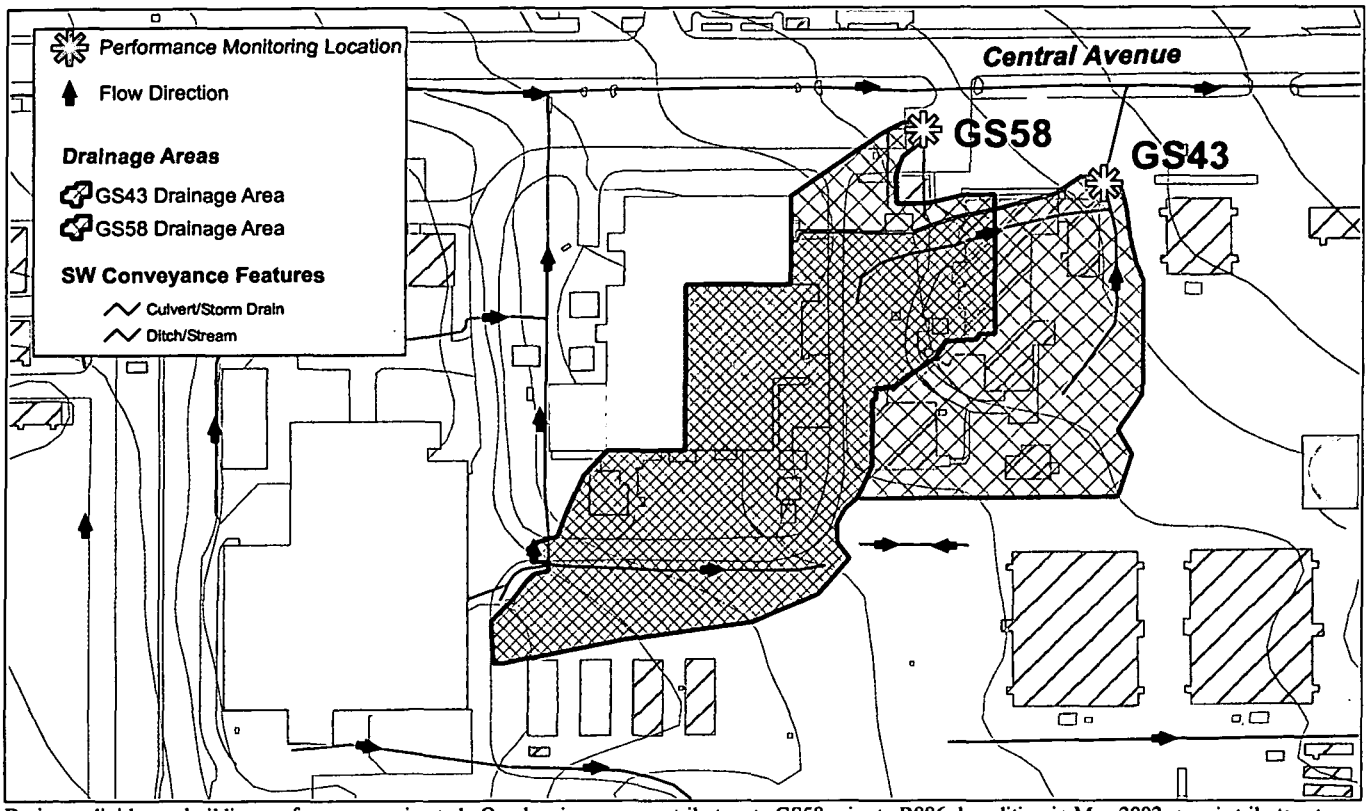
Figure 10-91. Total Metals Box Plots for GS40: Potassium through Zinc.

10.3.6 Building 886 D&D

Monitoring locations GS43 and GS58 were installed in support of the D&D of Building 886 on 6/1/99 and 3/19/02, respectively. Figure 10-92 shows the drainage areas for GS43 and GS58. Other buildings within these drainages include 865, 875, and 880.

Demolition of B886 commenced on 3/18/02 and was concluded on 5/20/02. The regrading for the area eliminated the need for GS58, and significantly enlarged the drainage area for GS43 (Figure 10-92).

The Performance monitoring data from GS43 and GS58 indicate that closure activities within the B886 area did not result in significant changes in water quality as of the end of WY02. Complete data evaluation for these locations is given below.



Drainage divides on building roofs are approximated. Overlapping area was tributary to GS58 prior to B886 demolition in May 2002; area is tributary to GS43 after May 2002. Ditches shown are for post B886 demolition.

Figure 10-92. Performance Monitoring Drainage Areas for B886 D&D.

Monitoring data collected at GS43 show low Pu and Am activities (Table 10-19). Figure 10-93 and Figure 10-94 show the UTL plots for Pu and Am, respectively. During WY00–02, no Pu or Am results exceeded the calculated UTLs.

Table 10-19 shows that GS43 has the highest measured uranium activities for automated monitoring locations, as expected due to the proximity of B886. Figure 10-95 shows that none of total uranium activities were greater than the UTL, indicating that the activities did not change significantly during the evaluation period. It should be noted that GS43 shows a median U-233,234/U-238 ratio significantly greater than 1 (Figure 10-97; ratio approximately 3.2), indicating a relative abundance of U-238. The ratios at this location are likely due to the proximity of GS43 to Building 886.

The Pu/Am ratio box plot is not included since only two samples met the MDA criteria. The trend plot for suspended solids activity is also not included since only one sample met the MDA criteria.

Table 10-19. Summary Statistics for Radionuclide Results from GS43 in WY00-02.

Analyte	Samples [N]	Median [pCi/L]	85th Percentile [pCi/L]	Maximum [pCi/L]	95% UTL [pCi/L]
TSS [mg/L]	1	9	9	9	NA
Pu-239,240	11	0.006	0.027	0.075	0.075[a]
Am-241	11	0.004	0.014	0.018	0.050[a]/0.025[b]
U-233,234	11	6.540	11.85	17.90	41.15[a]/27.89[b]
U-235	11	0.265	0.466	0.593	
U-238	11	2.070	3.400	4.650	

Note: [a] Lognormal distribution; [b] Normal distribution; [c] Undetermined distribution.
TSS is given in mg/L.
Uranium UTL given for total uranium.

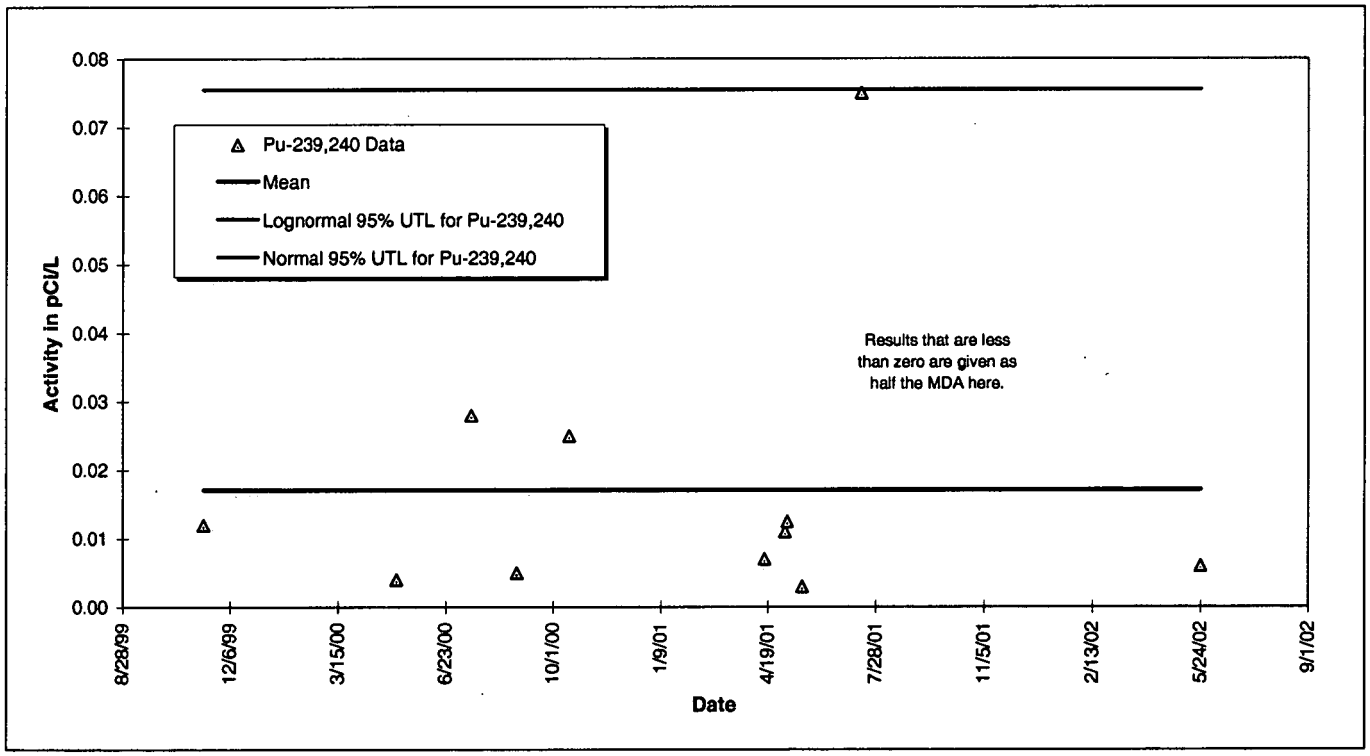


Figure 10-93. 95% UTL Plot for Pu-239,240 at GS43: WY00-02.

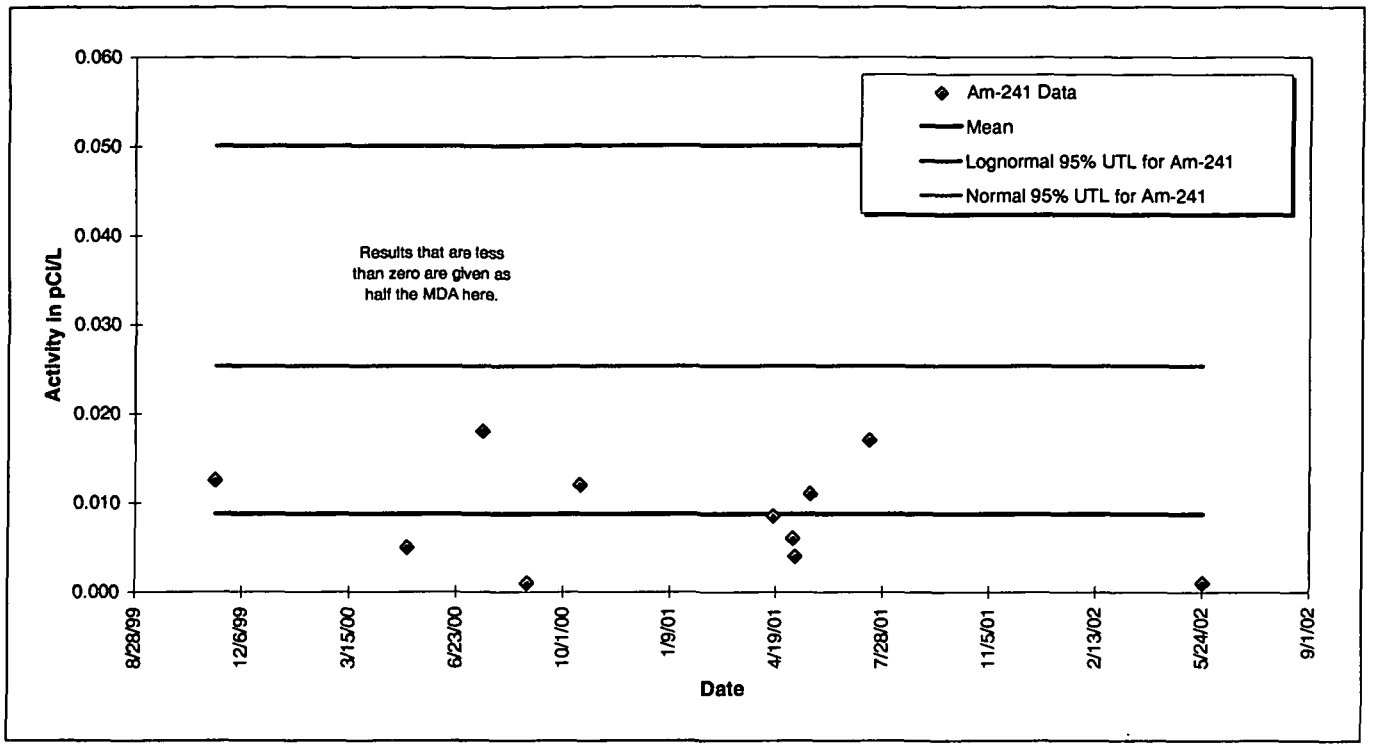


Figure 10-94. 95% UTL Plot for Am-241 at GS43: WY00-02.

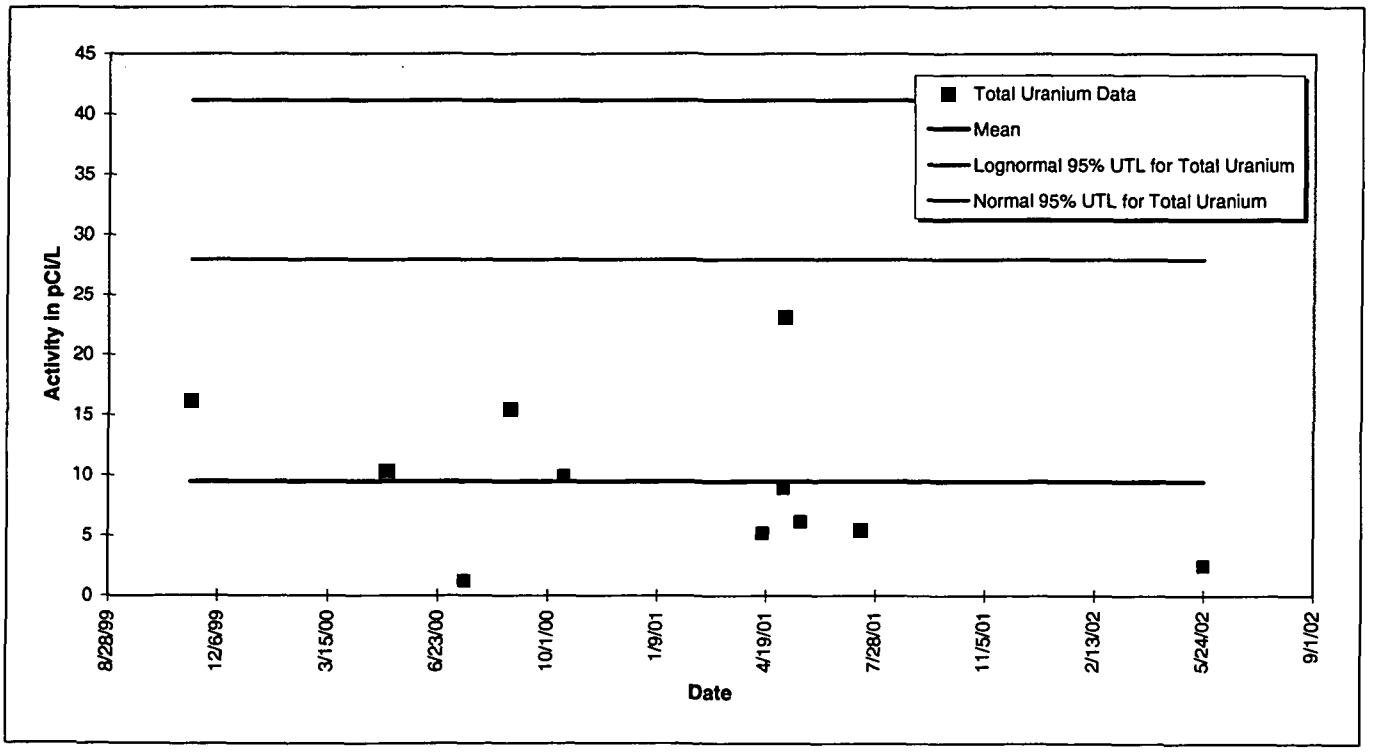


Figure 10-95. 95% UTL Plot for Total Uranium at GS43: WY00-02.

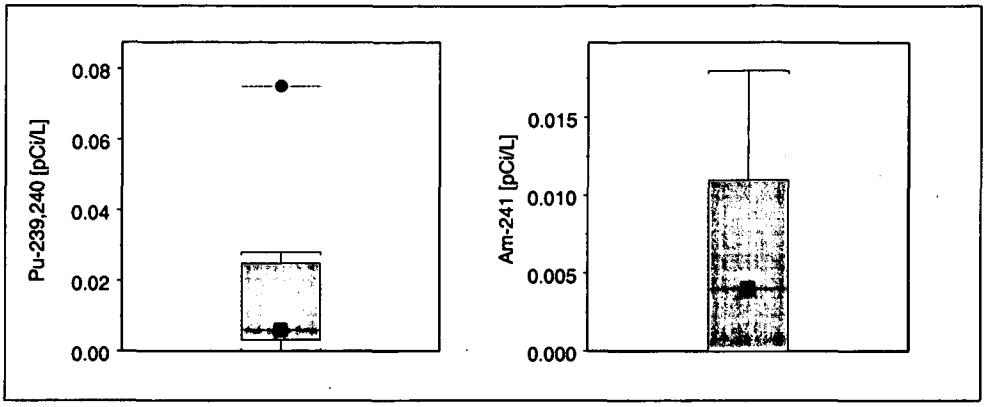


Figure 10-96. Pu and Am Box Plots for GS43: WY00–02.

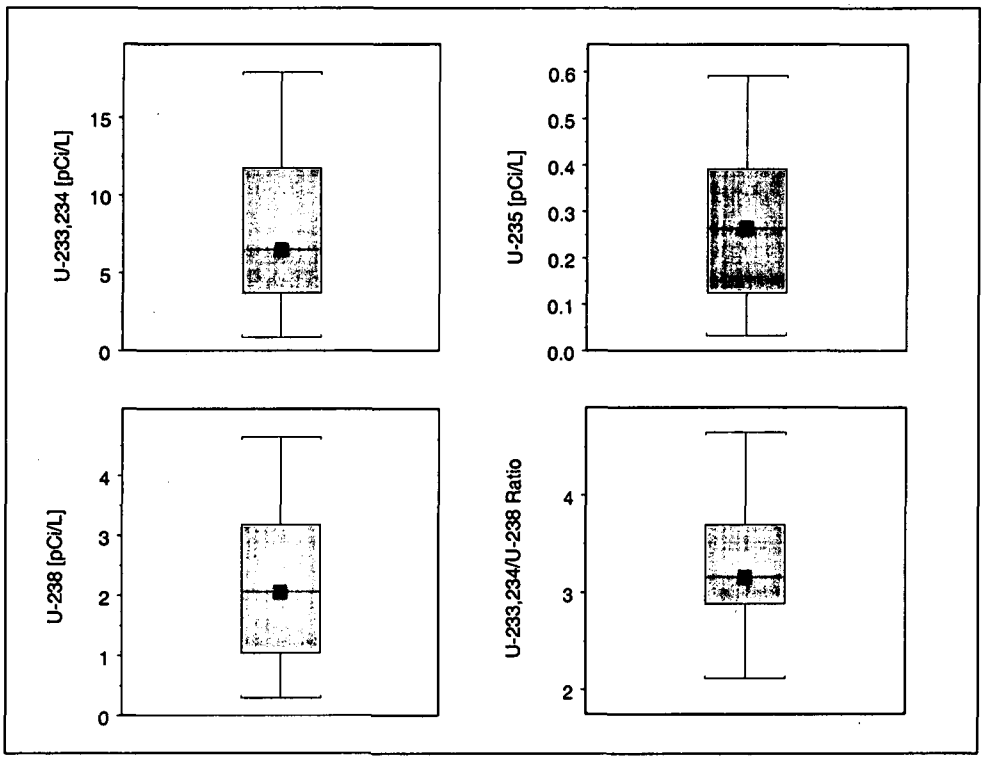


Figure 10-97. Uranium Box Plots for GS43: WY00–02.

Table 10-20 shows the total metals results for samples collected at GS43. Figure 10-98 through Figure 10-102 show the UTL plots for the metals. For the metals with a determined distribution, Ni showed a single result that exceeded the calculated UTL. Limited sample data was available after this result to adequately assess the persistence of these values.

Data for metals Co, Pb, Hg, Ag, Tl, Sn, and V had undetermined distributions. All of the Hg, Ag, and Tl data were 'undetects'. For Co, two results (7/15/01-5/24/02, 3.9 µg/L; 5/24-10/29/02, 2.6 µg/L) are indicated as 'suspect' by the boxplot (Figure 10-103). Limited sample data was available after this result to adequately assess the persistence of these values. However, it should be noted that these samples were associated with large runoff

events on 7/14/01, 5/23-5/24/02, and 9/13/02. During significant runoff events, higher TSS values are expected, and increased metals levels are often the result of these higher TSS concentrations. For Pb, one result (7/15/01-5/24/02, 15.5 µg/L) is indicated as 'suspect' by the boxplot (Figure 10-104). Limited sample data was available after this result to adequately assess the persistence of these values. As noted above, this sample was also associated with the large runoff events on 7/14/01 and 5/23-5/24/02. For Sn, all but two of the results were 'undetects', with one of those results (5/21-7/15/01, 0.92 µg/L) indicated as 'suspect' by the boxplot (Figure 10-105). Subsequent sample results do not support a persistent trend and the result is only marginally greater than the detection limit.

Table 10-20. Summary Statistics for Metals Results from GS43 in WY00-02.

Analyte	Samples [N]	Percent Undetect	Median [µg/L]	85th Percentile [µg/L]	Maximum [µg/L]	95% UTL [µg/L]
ALUMINUM	11	0.0%	395	6530	16700	94306[a]
ANTIMONY	11	27.3%	0.56	0.83	0.91	1.43[a]/1.25[b]
ARSENIC	11	27.3%	0.88	2.75	6.30	6.87[a]
BARIUM	11	0.0%	84.5	115	137	172[b]
BERYLLIUM	11	27.3%	0.12	0.27	0.66	0.91[a]
CADMIUM	11	36.4%	0.10	0.21	0.22	0.38[a]/0.31[b]
CALCIUM	11	0.0%	39600	48750	60000	75827[b]
CHROMIUM	11	0.0%	1.20	9.05	21.4	28.6[a]
COBALT	11	54.5%	0.10	1.61	3.90	NA[c]
COPPER	11	0.0%	3.20	7.90	16.9	18.2[a]
IRON	11	0.0%	280	4410	11800	60744[a]
LEAD	11	54.5%	0.33	4.60	15.5	NA[c]
LITHIUM	11	0.0%	8.90	14.0	17.9	26.7[a]/22.0[b]
MAGNESIUM	11	0.0%	12800	17450	25100	44702[a]/31028[b]
MANGANESE	11	0.0%	4.30	63.5	134	266[a]
MERCURY	8	100.0%	0.05	0.05	0.05	NA[c]
MOLYBDENUM	11	0.0%	3.30	5.05	6.00	10.6[a]/8.06[b]
NICKEL	11	0.0%	1.30	5.60	18.2	16.6[a]
POTASSIUM	11	0.0%	4890	5710	7060	8298[a]/8064[b]
SELENIUM	11	9.1%	1.60	3.00	4.40	5.86[a]/5.23[b]
SILVER	11	100.0%	0.13	0.14	0.18	NA[c]
SODIUM	11	0.0%	34100	40050	59100	73166[b]
STRONTIUM	11	0.0%	375	492	718	1202[a]/867[b]
THALLIUM	11	100.0%	0.49	0.49	0.70	NA[c]
TIN	11	90.9%	0.41	0.44	0.92	NA[c]
VANADIUM	11	0.0%	2.80	14.3	32.4	NA[c]
ZINC	11	0.0%	129	155	210	329[a]/265[b]

Note: [a] Lognormal distribution; [b] Normal distribution; [c] Undetermined distribution.

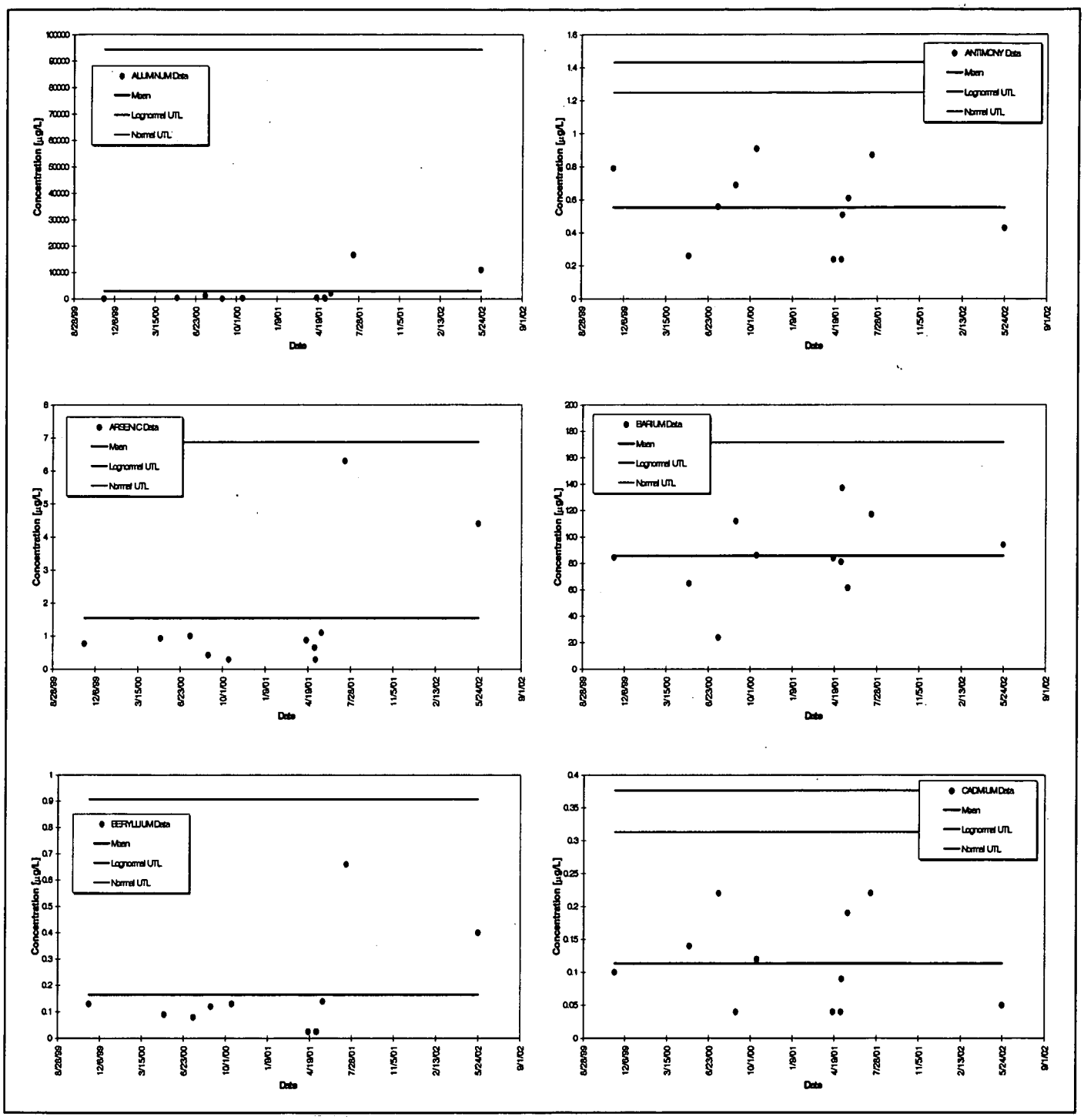


Figure 10-98. Total Metals UTL Plots for GS43: Aluminum through Cadmium.

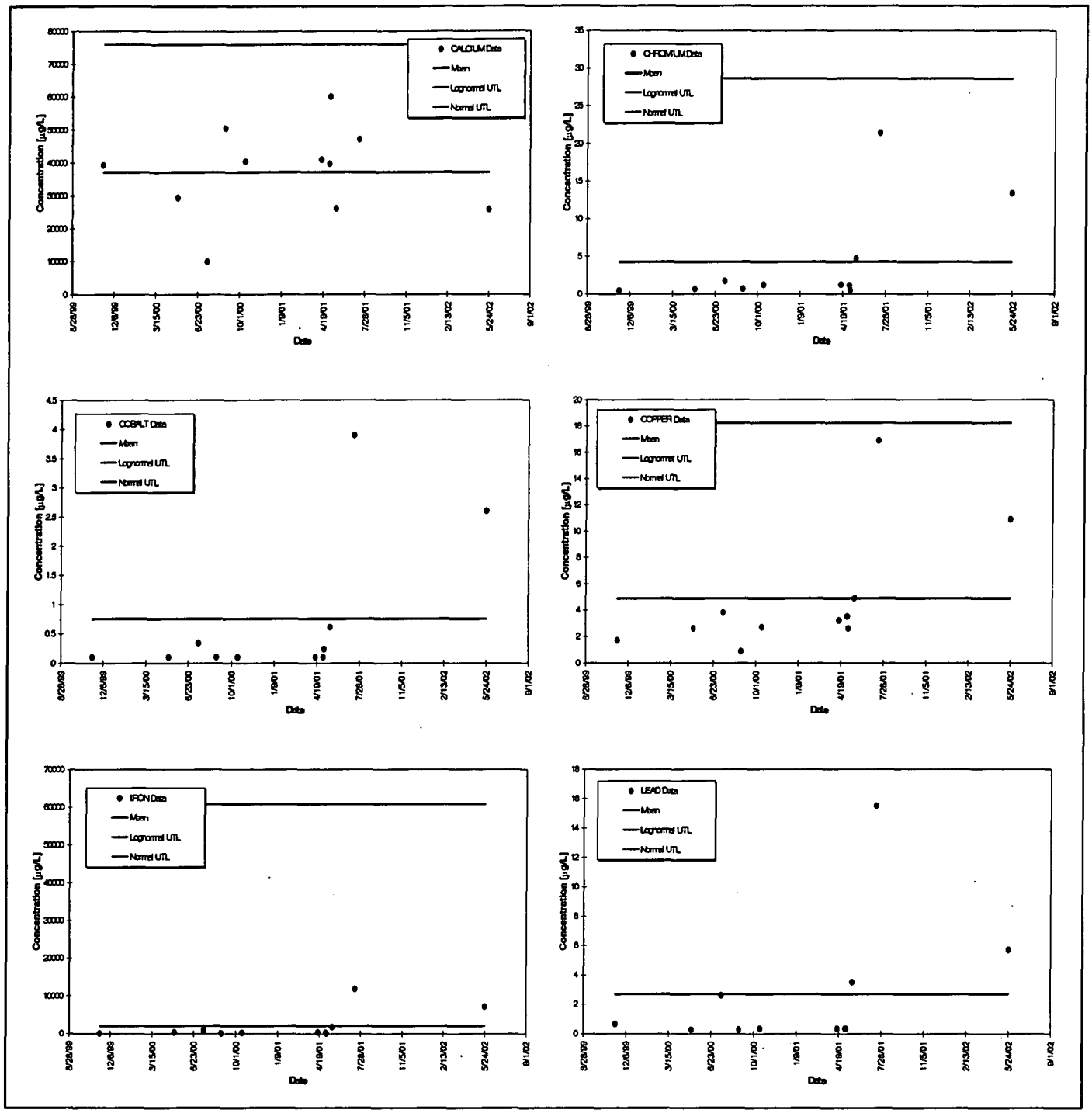


Figure 10-99. Total Metals UTL Plots for GS43: Calcium through Lead.

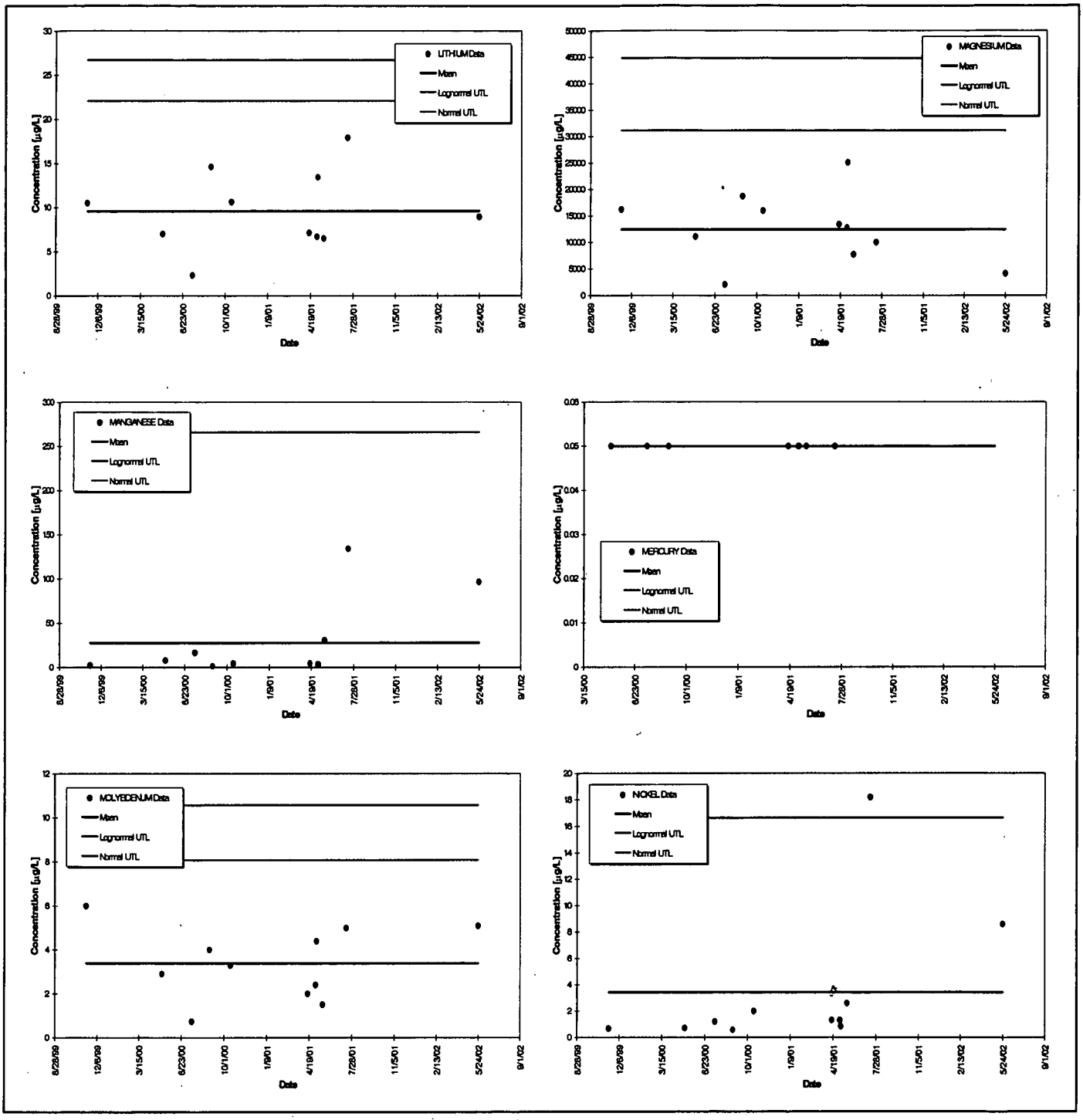


Figure 10-100. Total Metals UTL Plots for GS43: Lithium through Nickel.

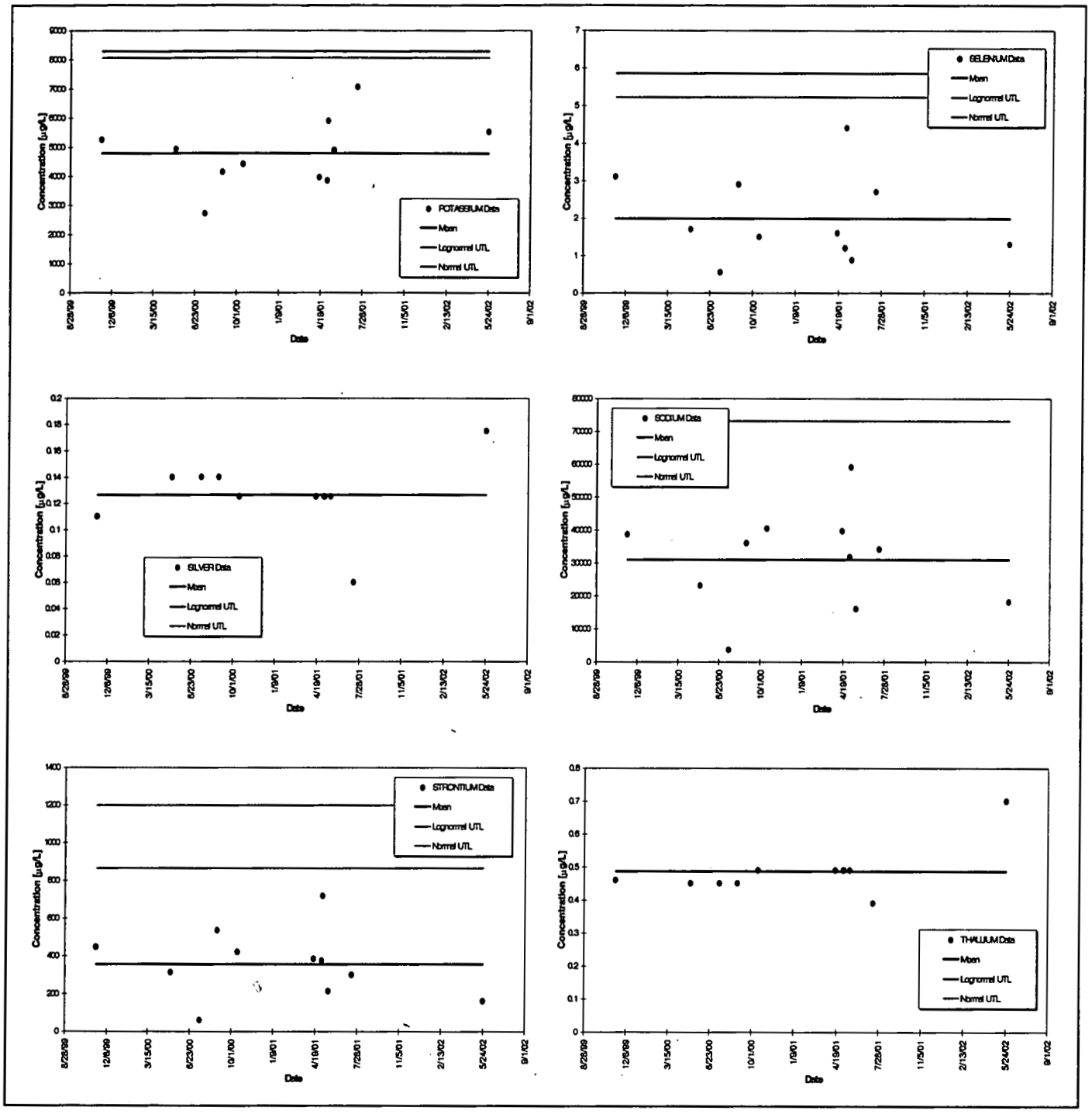


Figure 10-101. Total Metals UTL Plots for GS43: Potassium through Thallium.

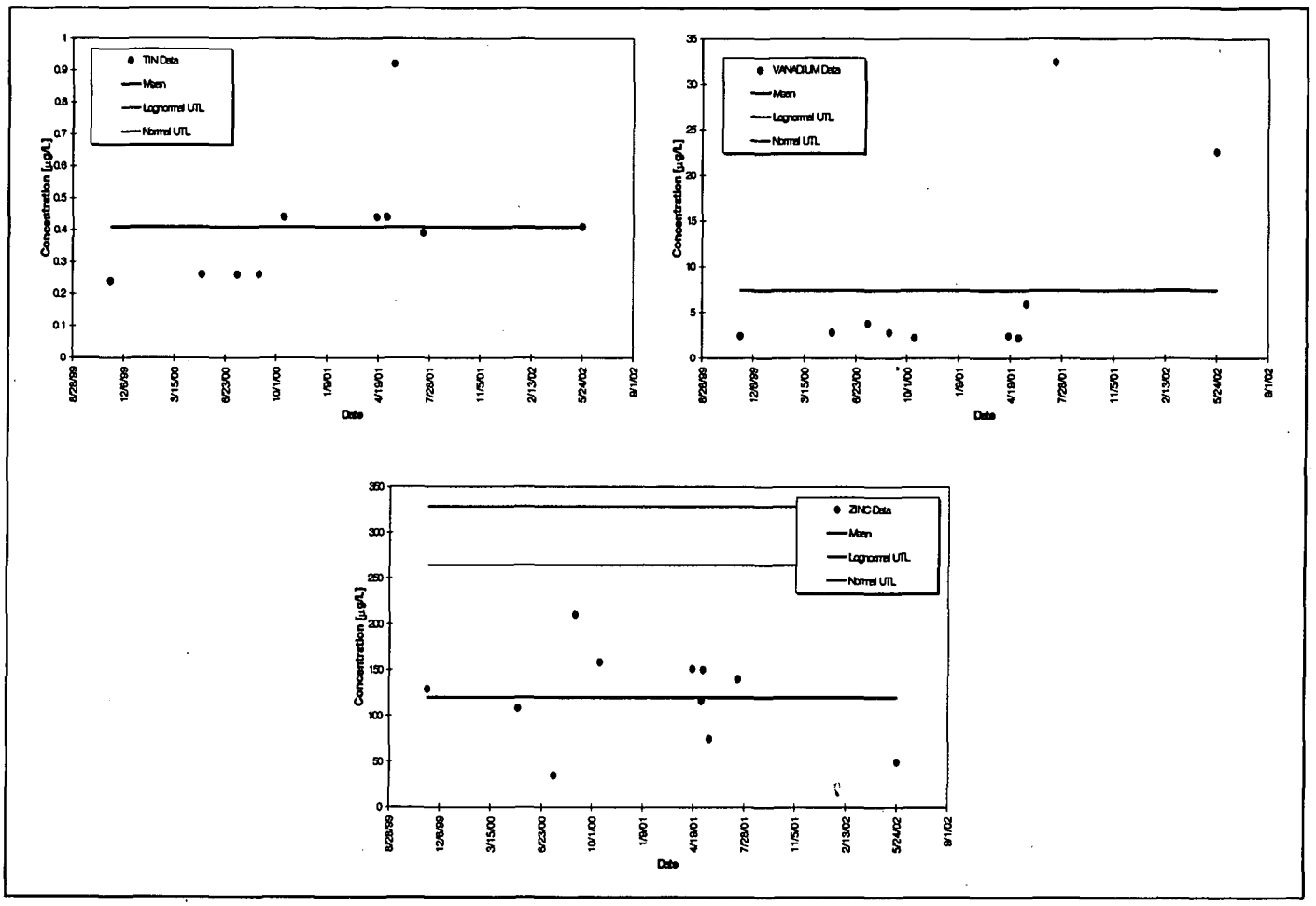


Figure 10-102. Total Metals UTL Plots for GS43: Tin through Zinc.

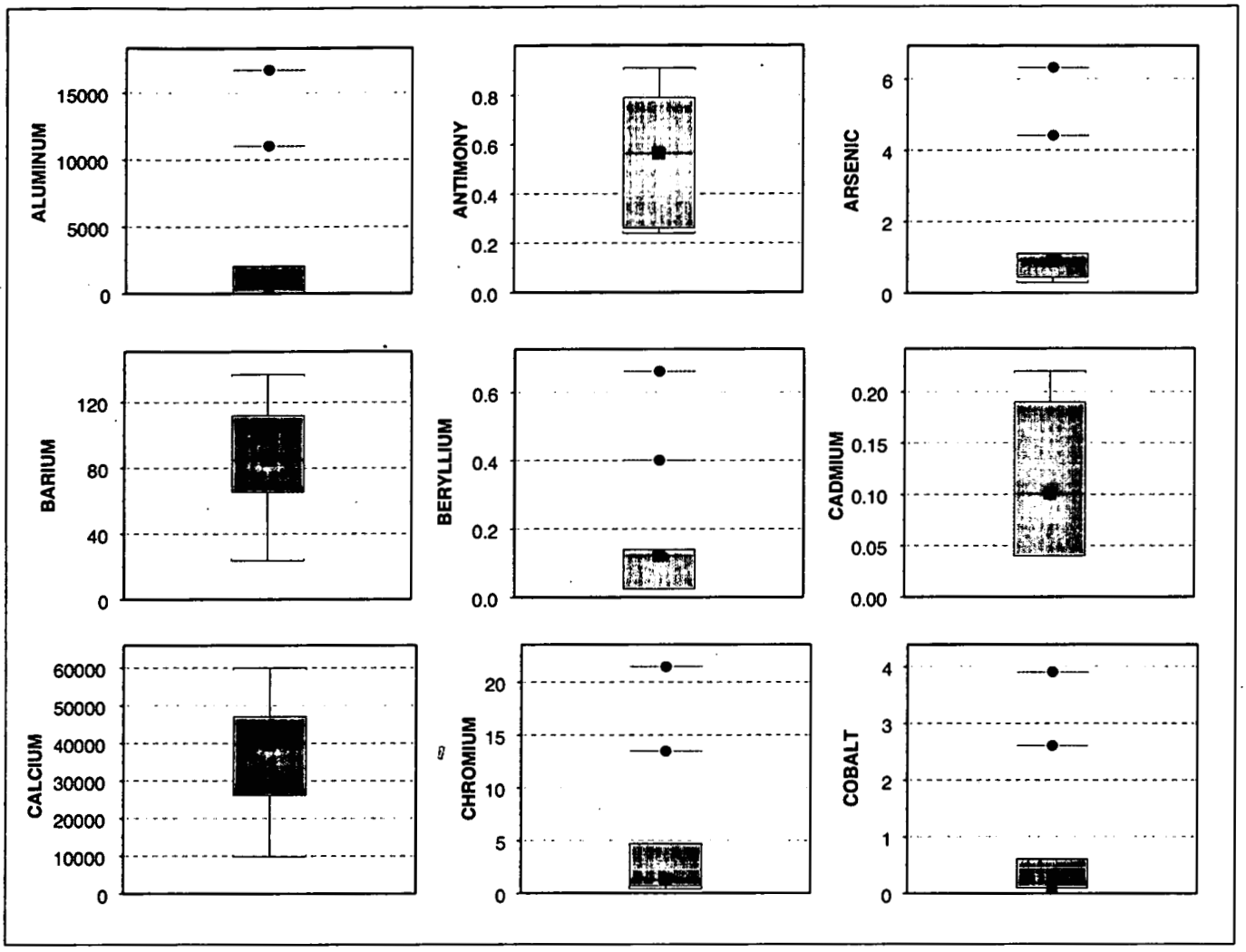


Figure 10-103. Total Metals Box Plots for GS43: Aluminum through Cobalt.

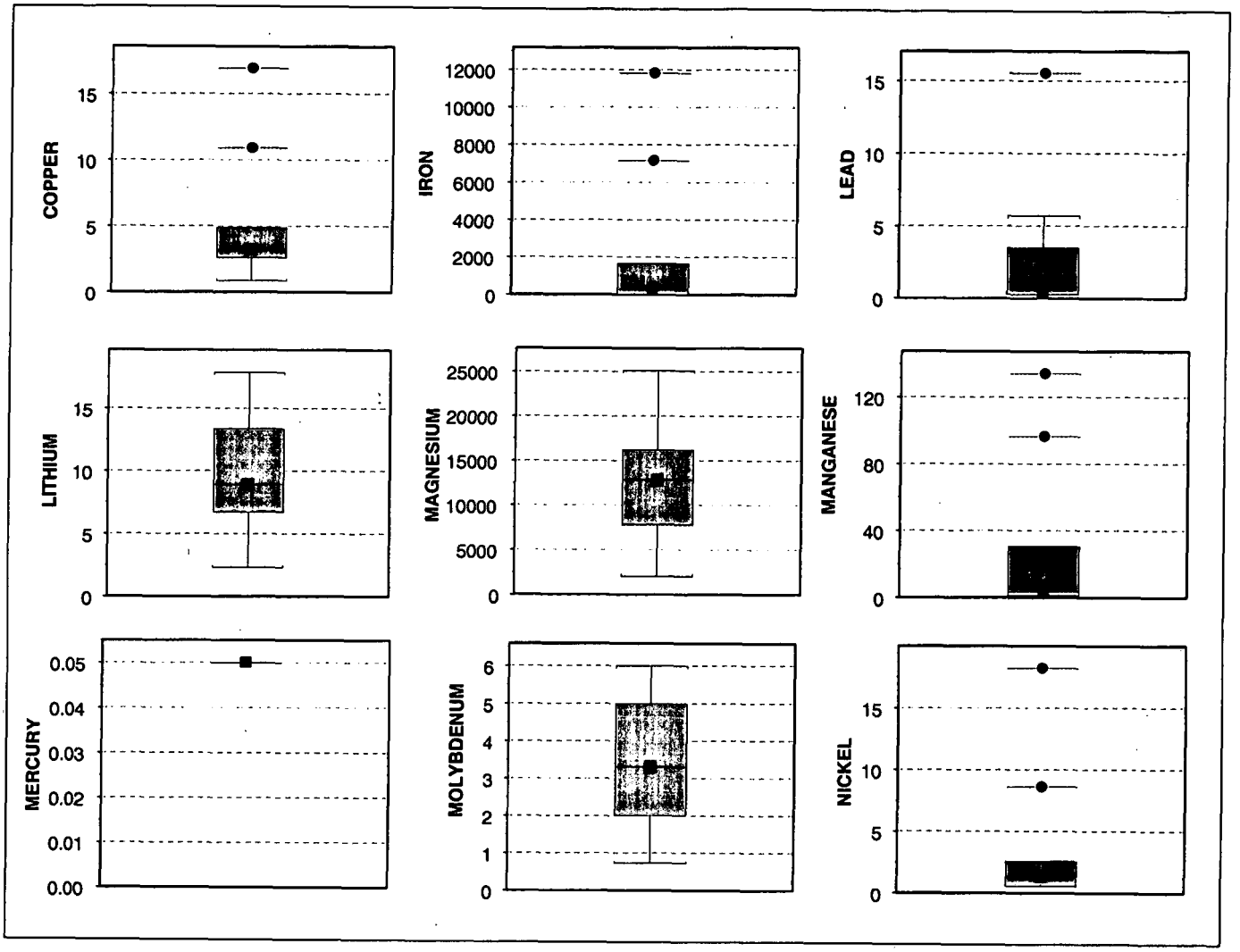


Figure 10-104. Total Metals Box Plots for GS43: Copper through Nickel.

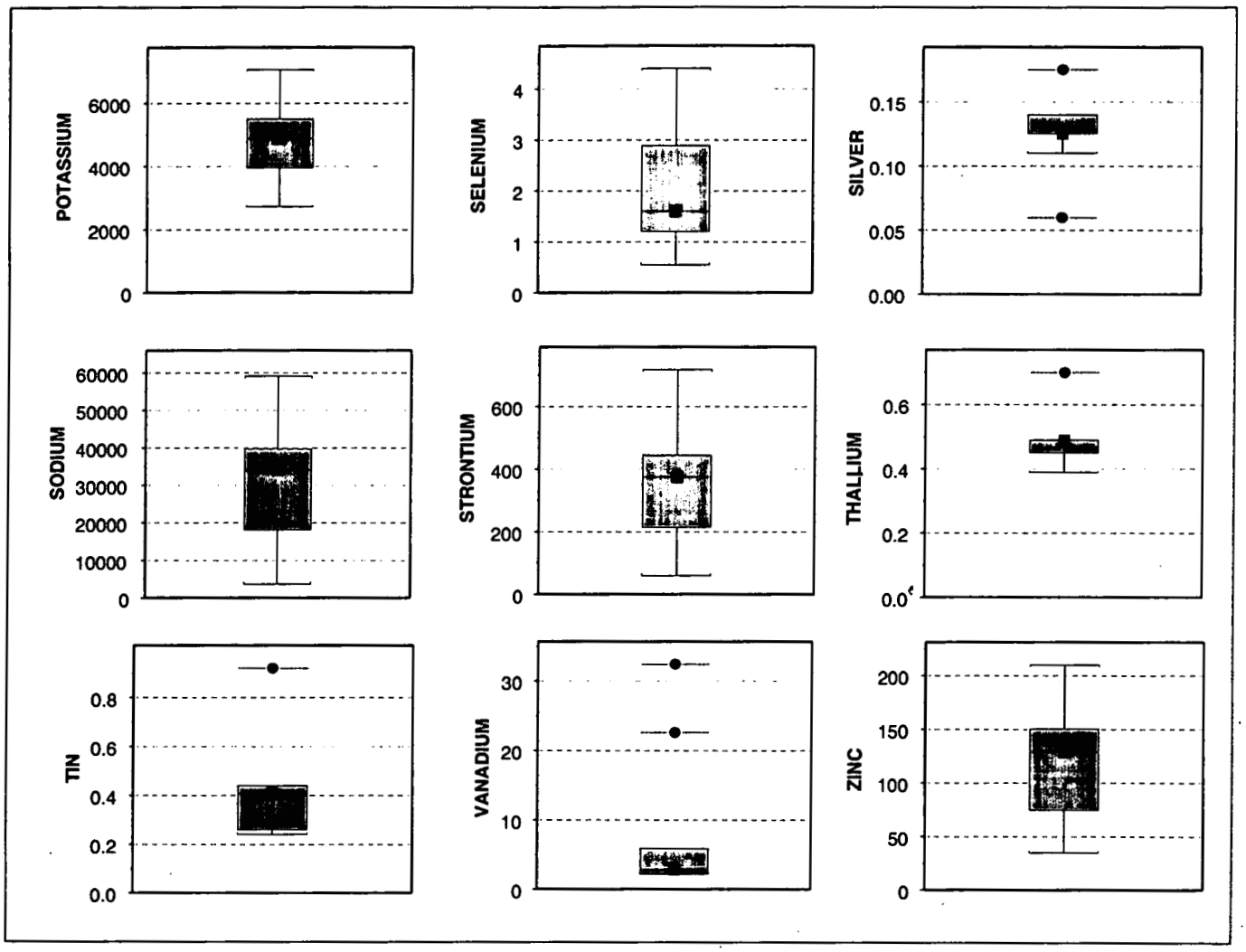


Figure 10-105. Total Metals Box Plots for GS43: Potassium through Zinc.

Monitoring data collected at GS58 generally show low Pu and Am activities (Table 10-21). Figure 10-106 and Figure 10-107 show the UTL plots for Pu and Am, respectively. During WY00–02, a single Pu result was greater than the calculated UTL. Subsequent sample data was not available to assess the persistence of this value as the location was removed as part of the B886 demolition. However, it should be noted that this composite sample (5/23/02 22:39-23:35) was collected subsequent to the D&D of B886. The fact that significant areas of disturbed soil were available for transport as TSS in runoff may have resulted in the higher Pu activities. A distribution for Am could not be determined for the available data. A single Am result, from the same sample as noted for Pu above, is indicated as 'suspect' by the boxplot (Figure 10-109). Although B886 primarily worked with uranium, low-level Pu and Am activities in the soil surrounding B886 (up to 0.086 pCi/g Pu and 0.029 pCi/g Am) with preferential suspension of solids with higher activity could give the measured Pu and Am values.

Table 10-21 shows moderate total uranium activities for samples collected at GS58. Figure 10-108 shows that none of total uranium activities were greater than the UTL, indicating that the activities did not change significantly during the evaluation period. It should be noted that GS58 shows a median U-233,234/U-238 ratio significantly greater than 1 (Figure 10-110; approximately 1.24), indicating a relative abundance of U-238. The ratios at this location are likely due to the proximity of GS58 to Building 886.

The Pu/Am ratio box plot is not included since only one sample met the MDA criteria. The trend plot for suspended solids activity is also not included since no samples met the MDA criteria.

Table 10-21. Summary Statistics for Radionuclide Results from GS58 in WY00-02.

Analyte	Samples [N]	Median [pCi/L]	85th Percentile [pCi/L]	Maximum [pCi/L]	95% UTL [pCi/L]
TSS [mg/L]	5	1	2	4	NA
Pu-239,240	7	0.001	0.040	0.338	1.222[a]
Am-241	7	0.000	0.032	0.199	NA[c]
U-233,234	7	3.050	4.269	4.710	5.460[a]/14.07[b]
U-235	7	0.104	0.115	0.181	
U-238	7	2.320	3.388	3.820	

Note: [a] Lognormal distribution; [b] Normal distribution; [c] Undetermined distribution.
TSS is given in mg/L.
Uranium UTL given for total uranium.

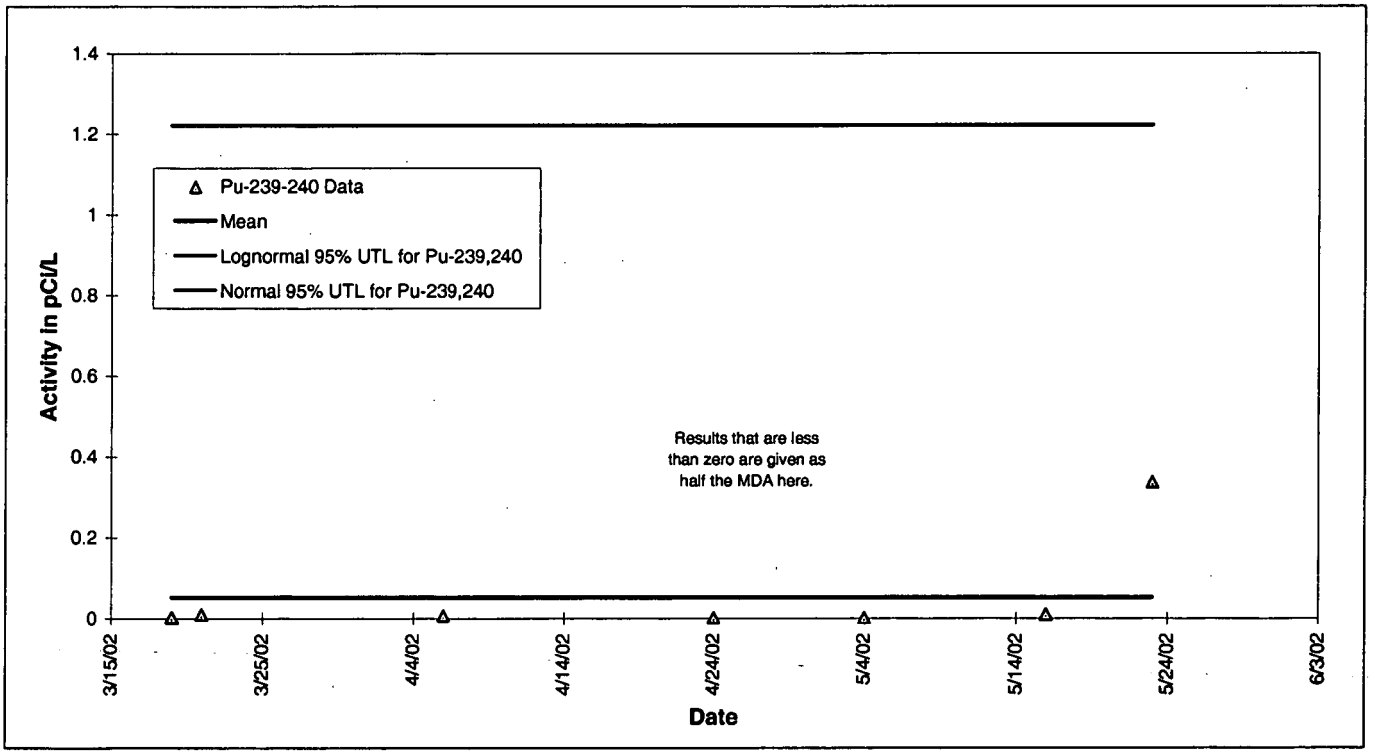


Figure 10-106. 95% UTL Plot for Pu-239,240 at GS58: WY00-02.

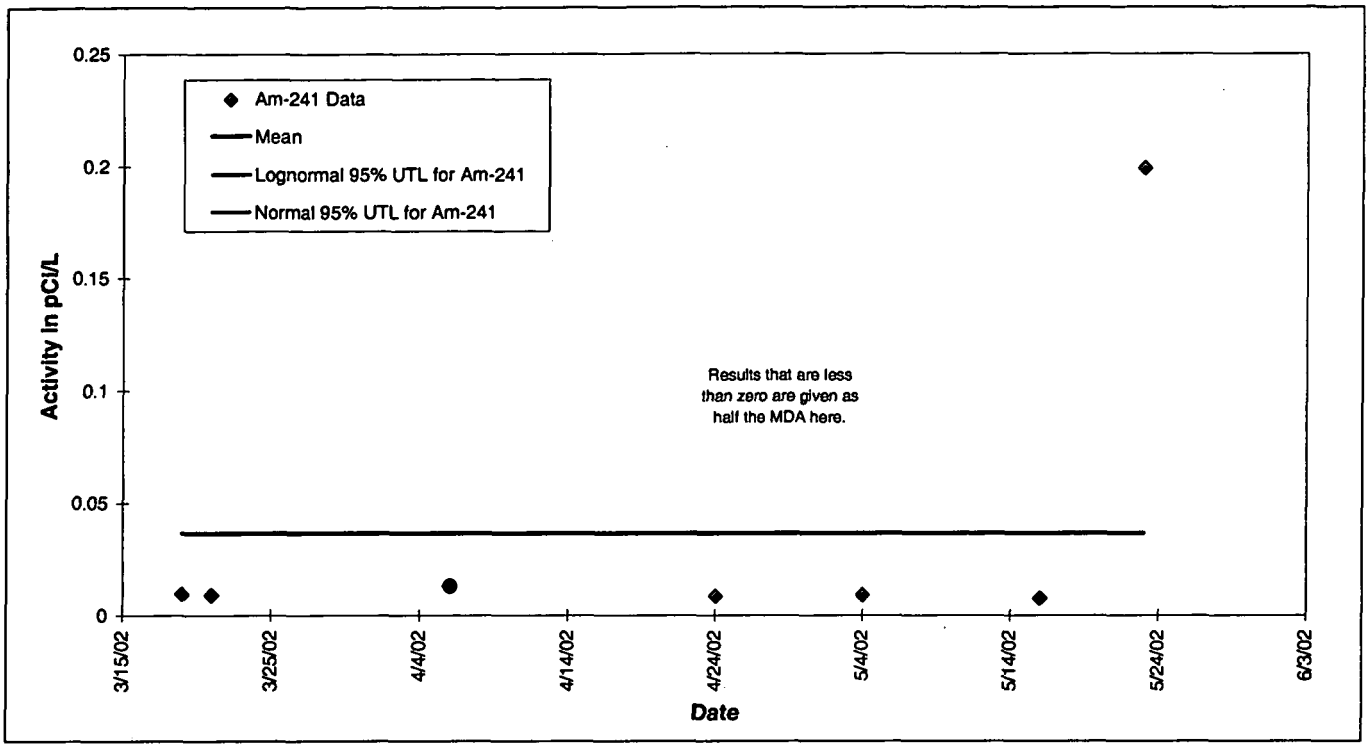


Figure 10-107. 95% UTL Plot for Am-241 at GS58: WY00-02.

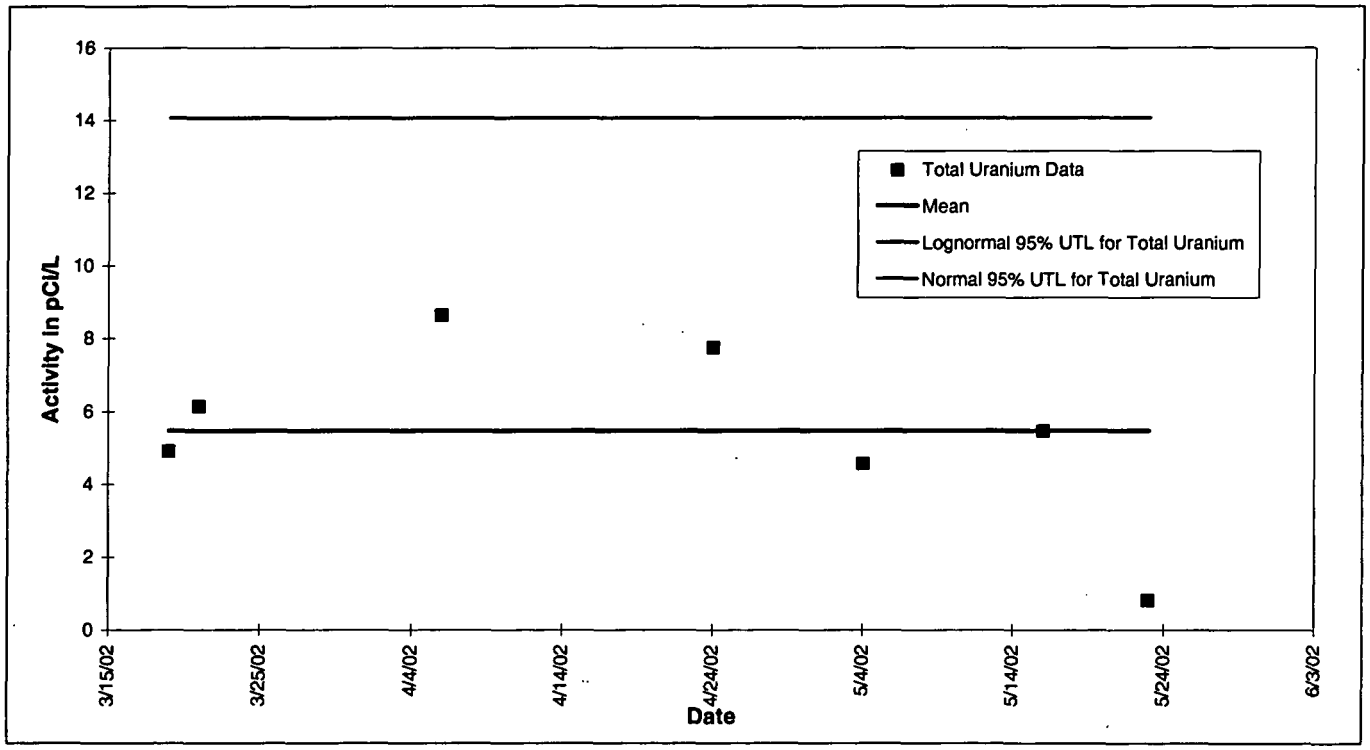


Figure 10-108. 95% UTL Plot for Total Uranium at GS58: WY00-02.

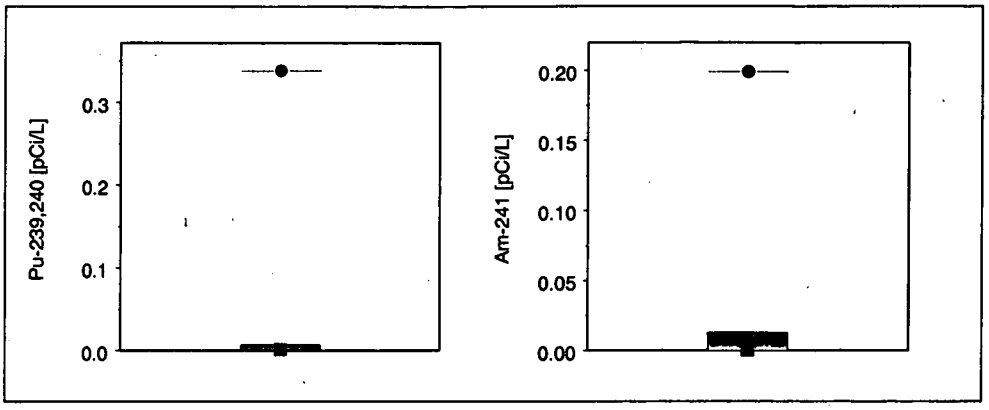


Figure 10-109. Pu and Am Box Plots for GS58: WY00–02.

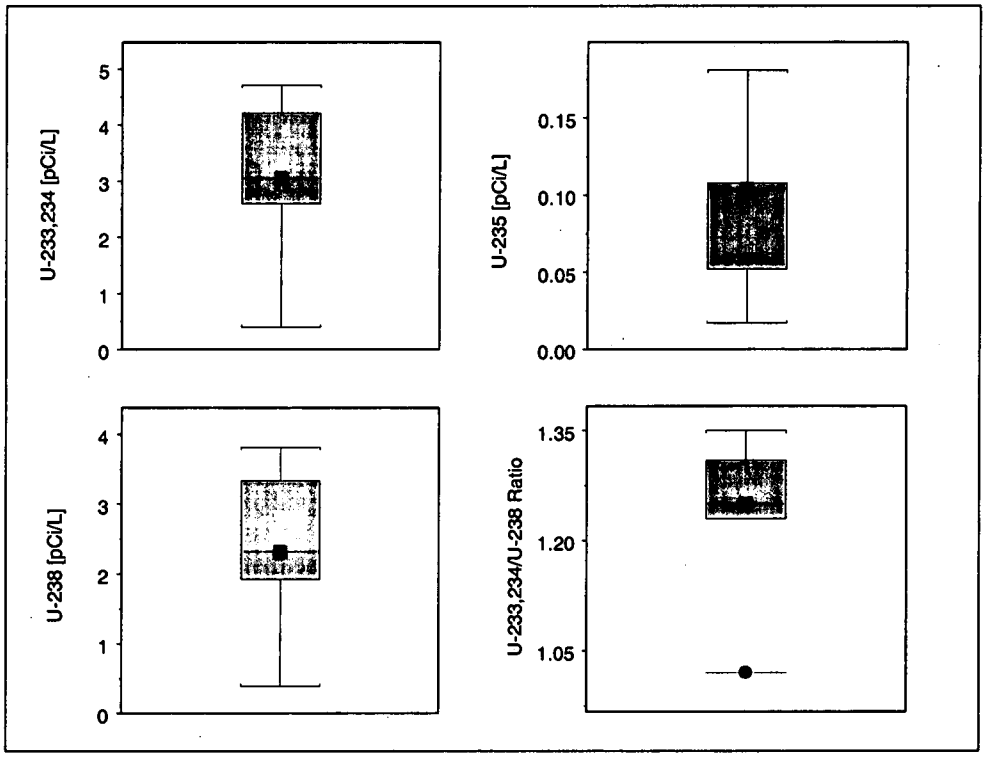


Figure 10-110. Uranium Box Plots for GS58: WY00–02.

Table 10-22 shows the total metals results for samples collected at GS58. Figure 10-111 through Figure 10-115 show the UTL plots for the metals. For the metals with a determined distribution, none were greater than the calculated UTL.

Data for metals Al, Co, Fe, Mn, Hg, Ni, Ag, Tl, Sn, and V had undetermined distributions. All of the Hg, Ag, Tl, and Sn data were 'undetects'. For Al, Co, Fe, and Mn, one result each (all for sample 5/23/02; 14900 µg/L, 6.0 µg/L, 11000 µg/L, and 158 µg/L, respectively) are indicated as 'suspect' by the boxplots (Figure 10-116 and Figure 10-117). No sample data was available after this result to adequately assess the persistence of these values. However, it should be noted that these samples were associated with a large runoff event on 5/23-5/24/02

after significant soil disturbance associated with the demolition of B886. During significant runoff events, higher TSS values are expected, and increased metals levels are often the result of these higher TSS concentrations. For Ni and Sn, none of the results are indicated as 'suspect' by the boxplots (Figure 10-117 and Figure 10-118, respectively).

Table 10-22. Summary Statistics for Metals Results from GS58 in WY00-02.

Analyte	Samples [N]	Percent Undetect	Median [µg/L]	85th Percentile [µg/L]	Maximum [µg/L]	95% UTL [µg/L]
ALUMINUM	7	0.0%	54.4	1659	14900	NA[c]
ANTIMONY	7	28.6%	0.81	1.06	1.70	2.97[a]/2.45[b]
ARSENIC	7	42.9%	0.74	1.33	3.40	4.44[a]
BARIUM	7	0.0%	132	162	169	250[a]/237[b]
BERYLLIUM	7	28.6%	0.04	0.14	0.72	1.42[a]
CADMIUM	7	42.9%	0.13	0.18	0.22	0.37[b]
CALCIUM	7	0.0%	53000	70190	80900	144537[a]/120186[b]
CHROMIUM	7	0.0%	2.90	7.65	15.3	58.6[a]
COBALT	7	57.1%	0.09	0.82	6.00	NA[c]
COPPER	7	0.0%	4.80	6.41	17.3	19.8[a]
IRON	7	0.0%	61.9	1265	11000	NA[c]
LEAD	7	0.0%	1.30	3.82	13.9	16.4[a]
LITHIUM	7	0.0%	17.1	25.1	27.5	38.7[a]/38.3[b]
MAGNESIUM	7	0.0%	22500	38560	39100	65717[b]
MANGANESE	7	0.0%	5.60	31.3	158	NA[c]
MERCURY	7	100.0%	0.05	0.05	0.05	NA[c]
MOLYBDENUM	7	0.0%	3.30	3.90	3.90	6.29[b]
NICKEL	7	0.0%	1.20	10.8	15.6	NA[c]
POTASSIUM	7	0.0%	3260	3663	4050	6215[b]
SELENIUM	7	14.3%	1.60	2.01	2.10	4.49[a]/3.40[b]
SILVER	7	100.0%	0.06	0.09	0.09	NA[c]
SODIUM	7	0.0%	62500	85160	88400	157548[b]
STRONTIUM	7	0.0%	623	962	979	1662[b]
THALLIUM	7	100.0%	0.39	0.70	0.70	NA[c]
TIN	7	100.0%	0.39	0.41	0.41	NA[c]
VANADIUM	7	0.0%	2.50	6.31	34.3	NA[c]
ZINC	7	0.0%	110	149	163	264[a]/246[b]

Note: [a] Lognormal distribution; [b] Normal distribution; [c] Undetermined distribution.

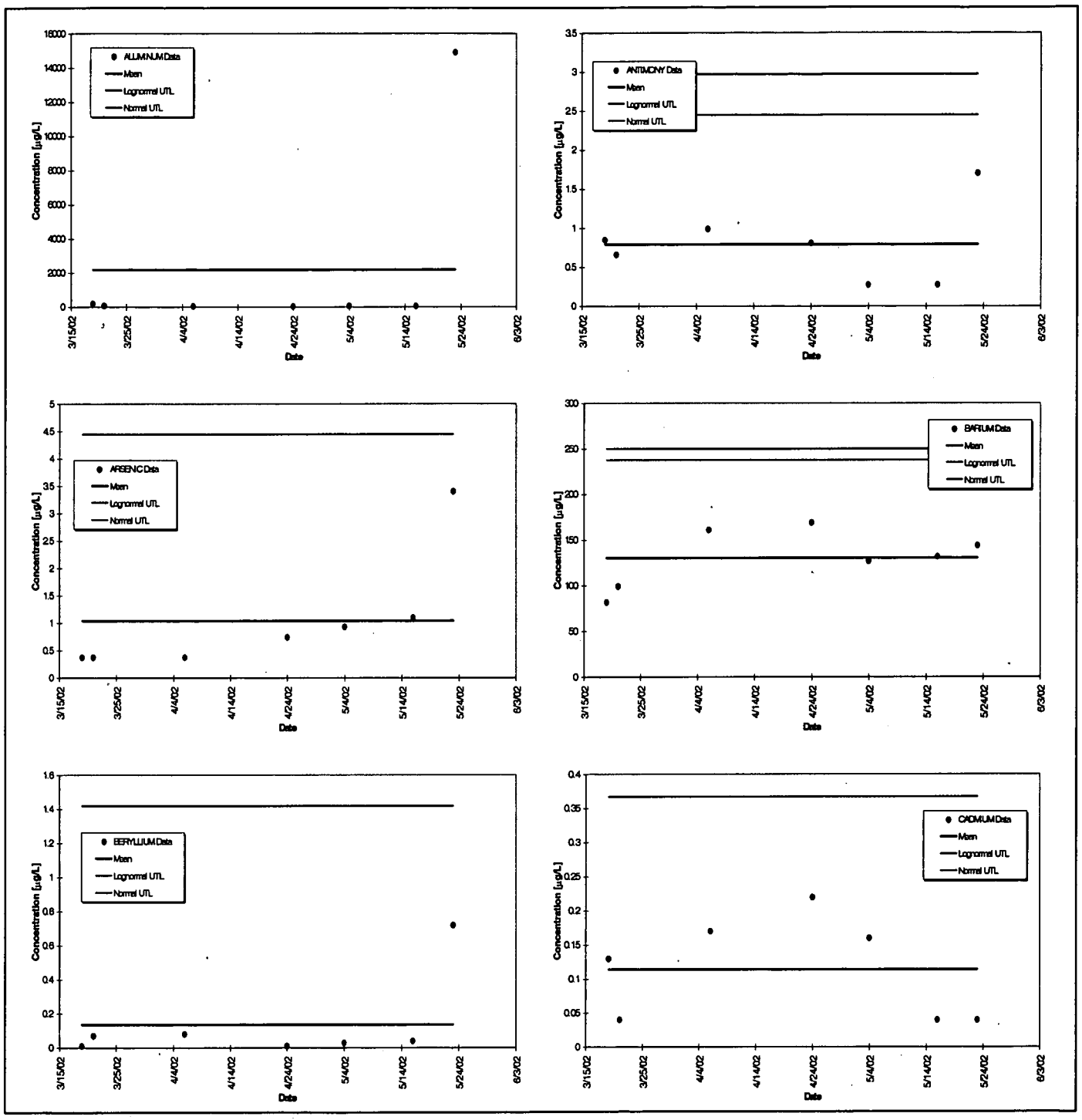


Figure 10-111. Total Metals UTL Plots for GS58: Aluminum through Cadmium.

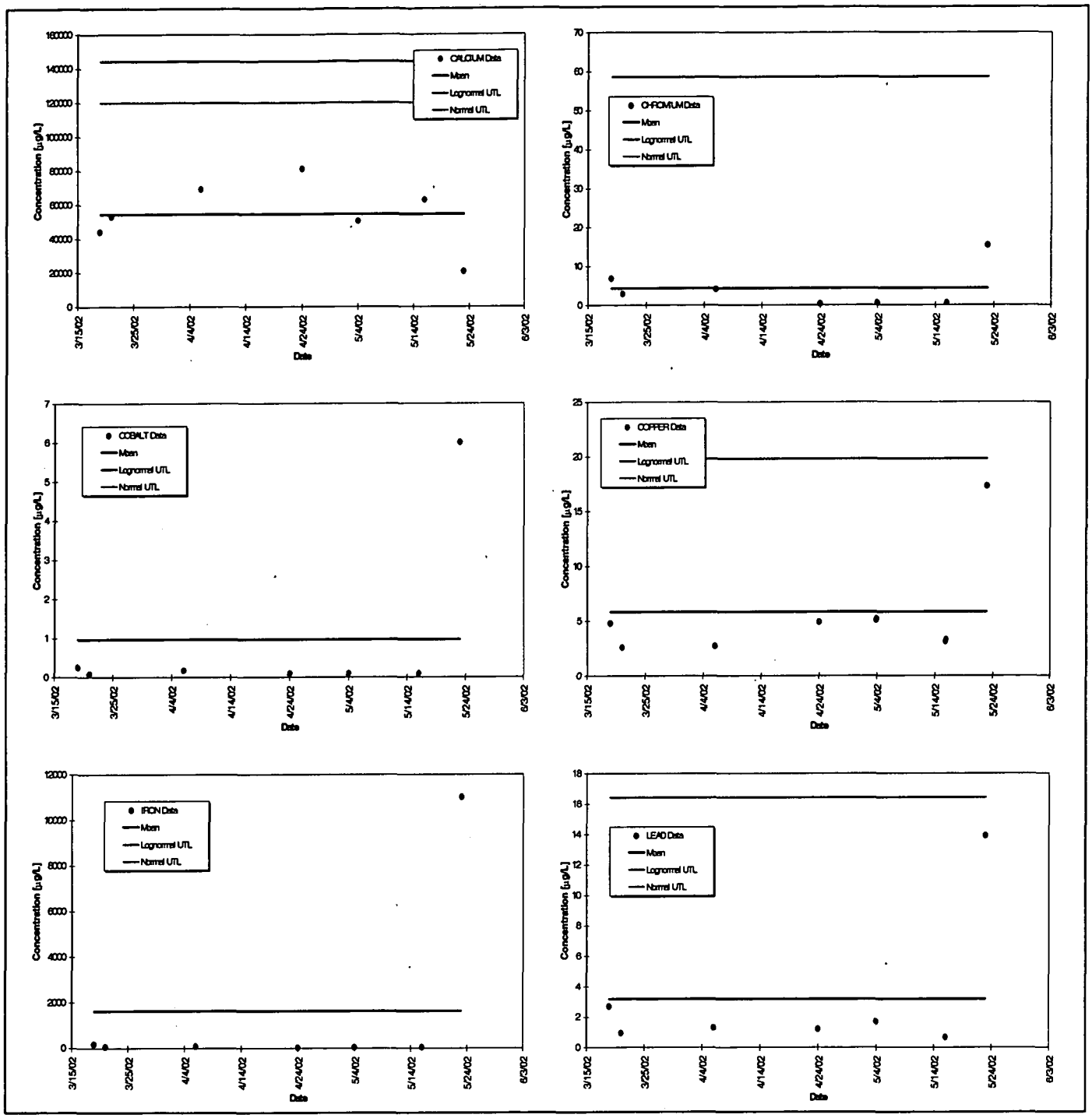


Figure 10-112. Total Metals UTL Plots for GS58: Calcium through Lead.

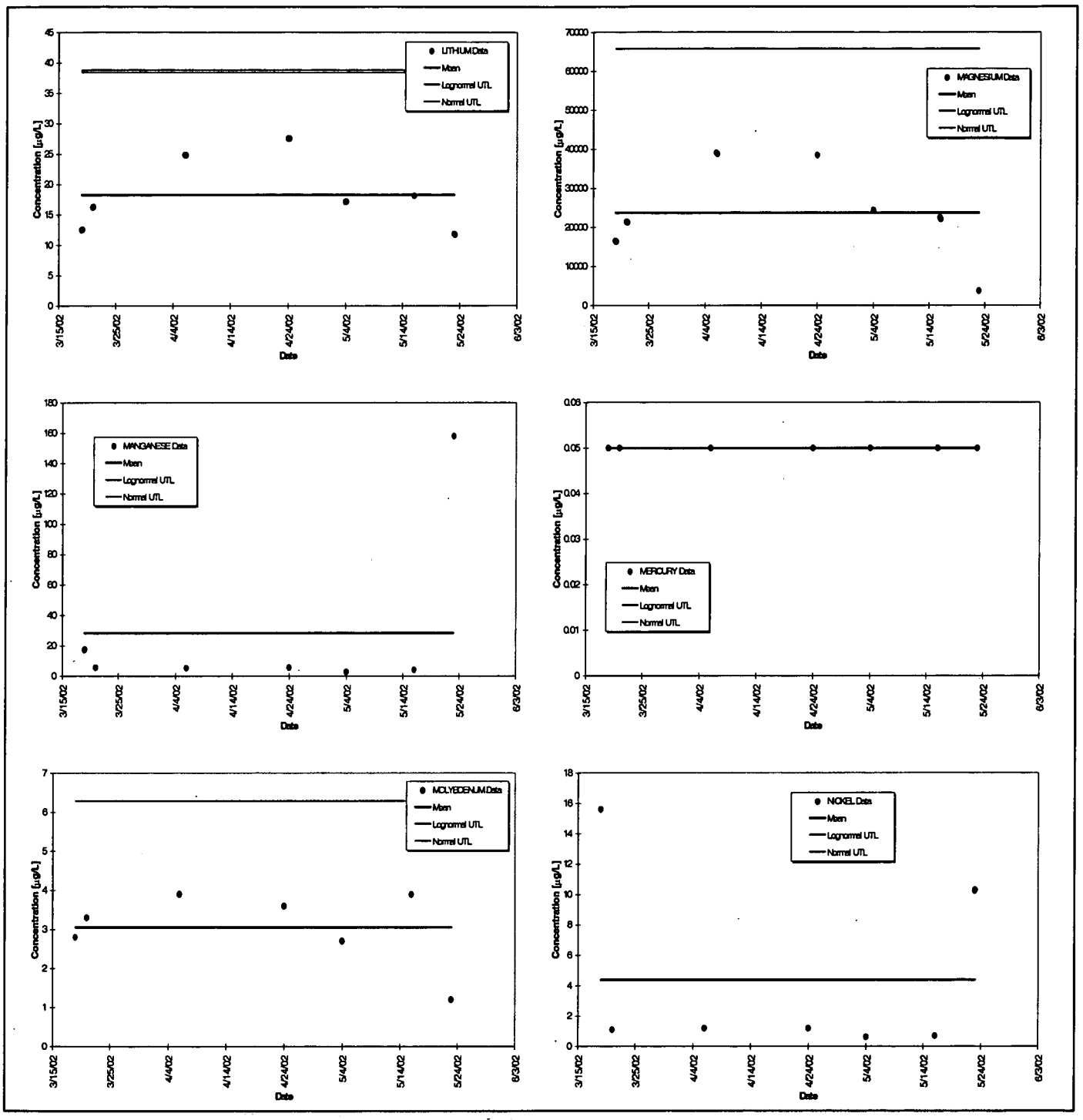


Figure 10-113. Total Metals UTL Plots for GS58: Lithium through Nickel.

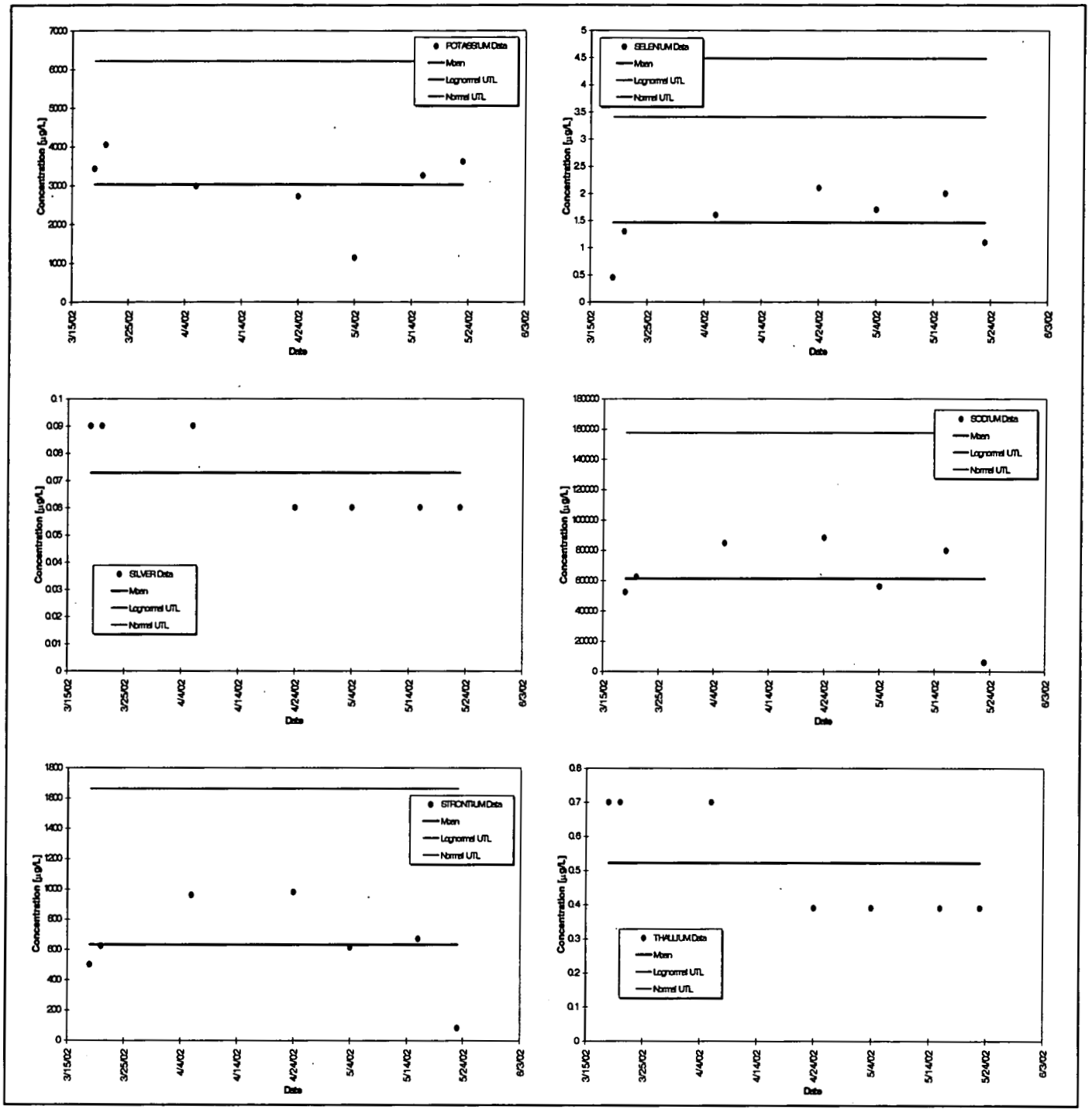


Figure 10-114. Total Metals UTL Plots for GS58: Potassium through Thallium.

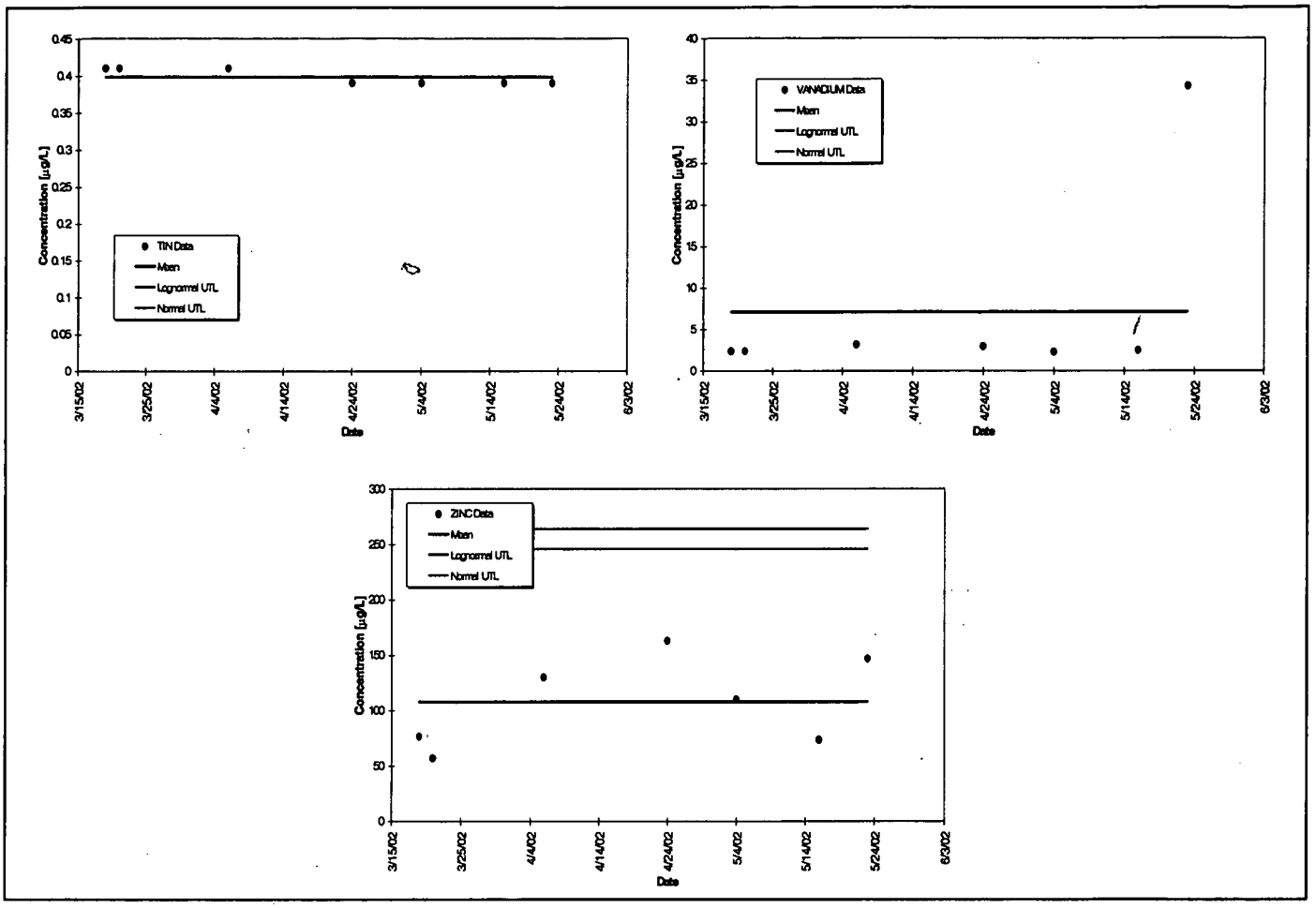


Figure 10-115. Total Metals UTL Plots for GS58: Tin through Zinc.

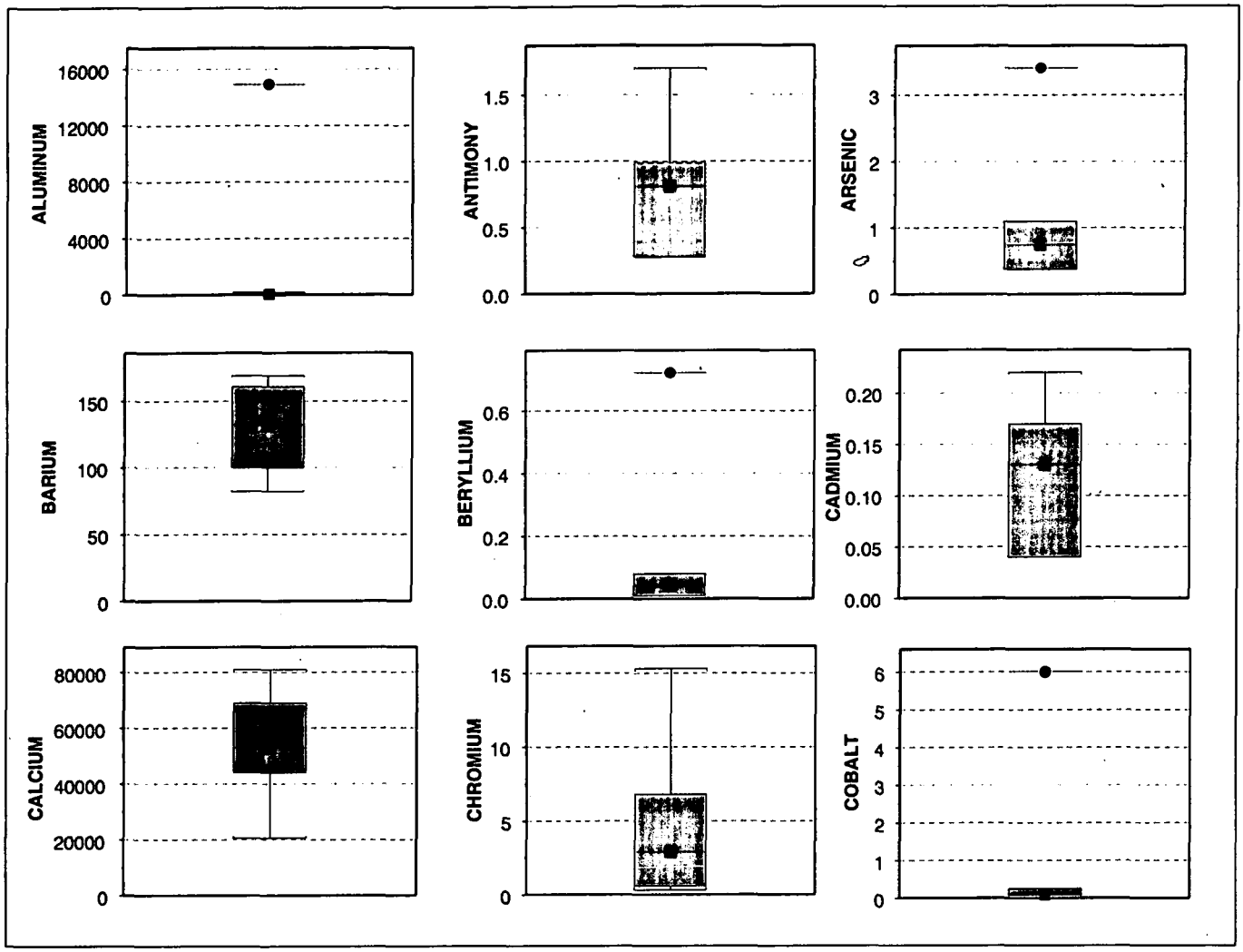


Figure 10-116. Total Metals Box Plots for GS58: Aluminum through Cobalt.

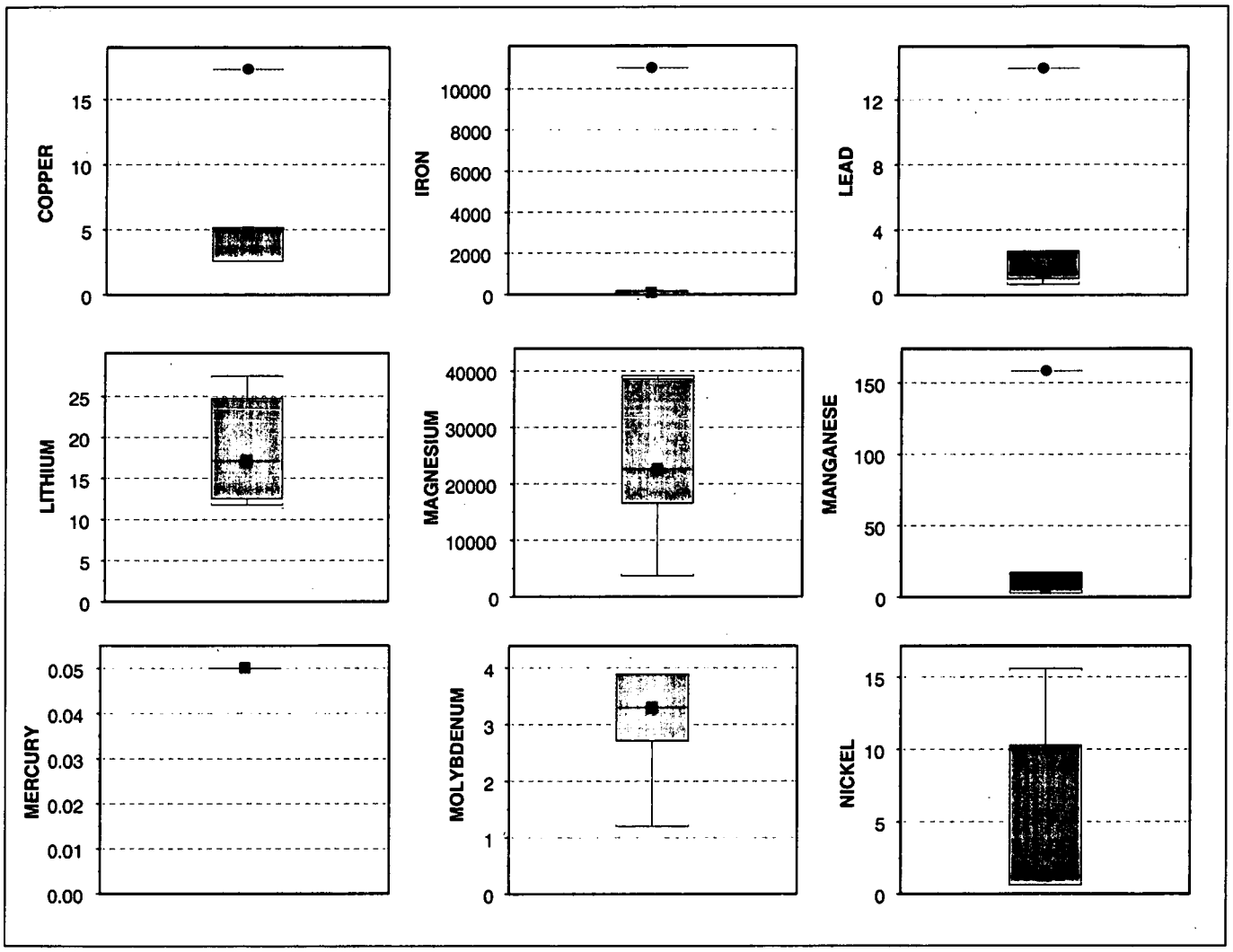


Figure 10-117. Total Metals Box Plots for GS58: Copper through Nickel.

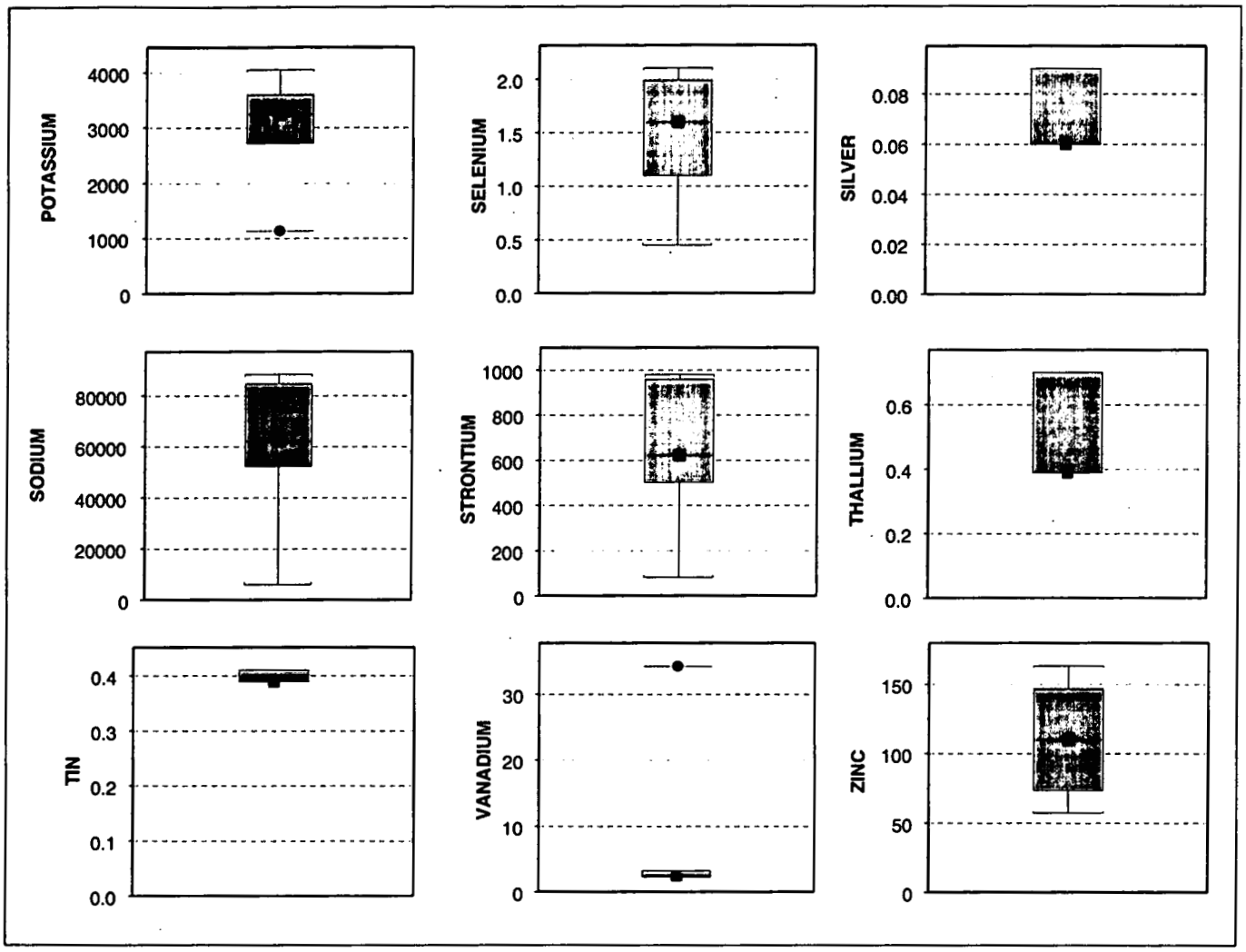
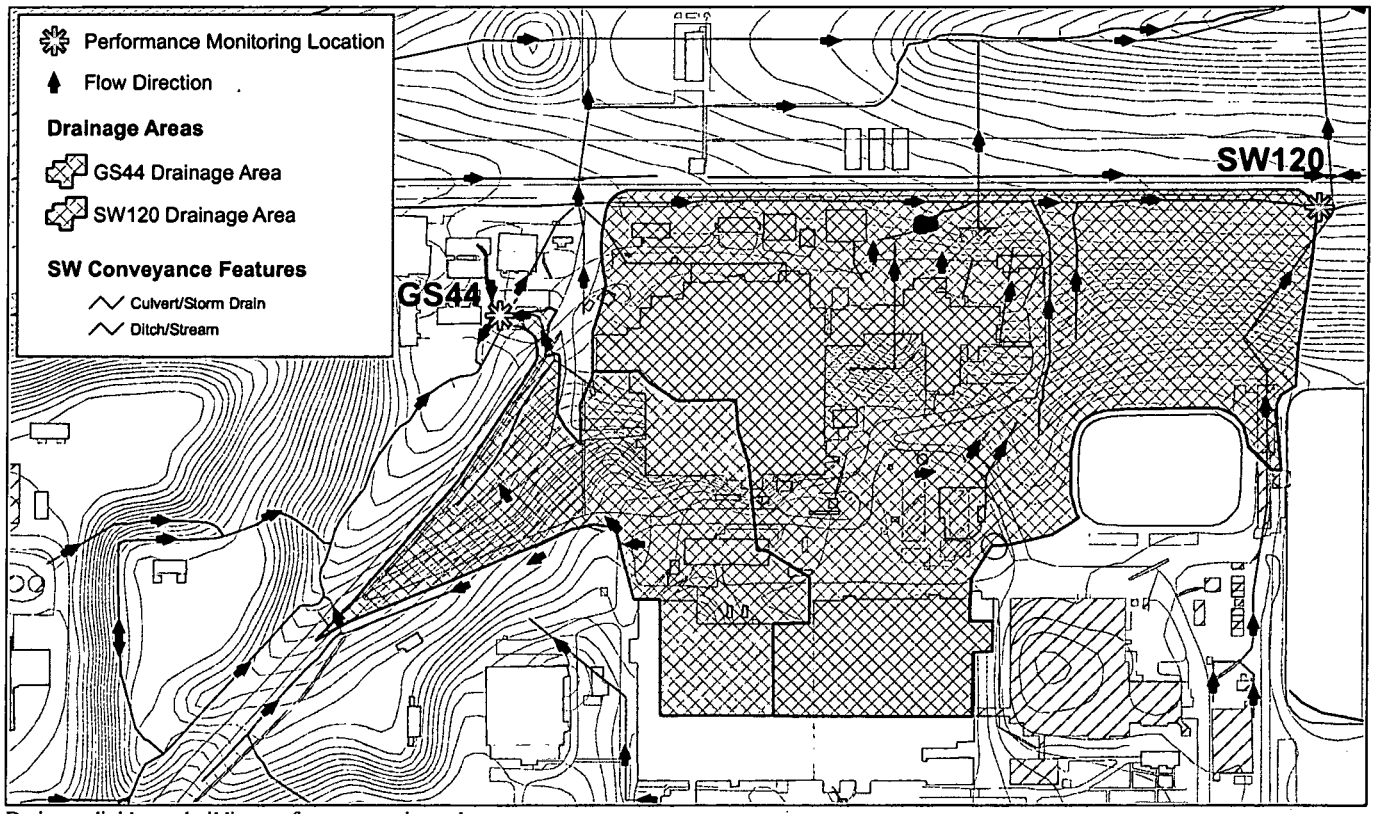


Figure 10-118. Total Metals Box Plots for GS58: Potassium through Zinc.

10.3.7 Building 771/774 D&D

Monitoring location SW120 was installed on 3/14/00 in support of the D&D of Buildings 771/774. This location also supports D&D activities for Building 776/777 and activities for the Solar Ponds. In support of the B776/777 D&D, tritium was added to the SW120 analyte suite in the end of WY00. Monitoring location GS44 was installed on 10/4/00 also in support of the D&D of Buildings 771/774. Figure 10-119 shows the drainage areas for SW120 and GS44.

The Performance monitoring data from SW120 and GS44 indicate that closure activities within the B771/774 area did not result in significant changes in water quality as of the end of WY02. Complete data evaluation for these locations is given below.



Drainage divides on building roofs are approximated.

Figure 10-119. Performance Monitoring Drainage Areas for B771/774 D&D.

Monitoring data collected at SW120 have somewhat higher Pu and Am activities than for other automated monitoring locations (Table 10-23). Figure 10-120 and Figure 10-121 show the UTL plots for Pu and Am, respectively. During WY00–02, no Pu or Am results exceeded the calculated UTLs. Figure 10-124 shows a slightly lower than expected Pu/Am ratio for SW120 data, likely due to runoff from the Solar Ponds area.

Monitoring data collected at SW120 show moderate median total uranium activities (Table 10-23). Figure 10-123 shows that a single total uranium result (2/23-3/13/01; 10.198 pCi/L) was greater than the calculated UTL. This result was only marginally greater than the UTL and a trend is not indicated by the data. Subsequent sample results were significantly less than the UTL. It should be noted that SW120 shows a median U-233,234/U-238 ratio significantly greater than 1 (Figure 10-126; approximately 1.39), indicating a relative abundance of U-233,234. Similar ratios are seen at GS32 (see Section 10.3.8) which also monitors runoff from the Solar Ponds area.

Monitoring data collected at SW120 show low median tritium activities (Table 10-23). Figure 10-122 shows the UTL plot for tritium. During WY00–02, no tritium results exceeded the calculated UTL.

The temporal variation of suspended solids activity is not given since only a single sample was collected within TSS hold time criteria.

Table 10-23. Summary Statistics for Radionuclide Results from SW120 in WY00-02.

Analyte	Samples [N]	Median [pCi/L]	85th Percentile [pCi/L]	Maximum [pCi/L]	95% UTL [pCi/L]
TSS [mg/L]	1	23	23	23	NA
Pu-239,240	17	0.055	0.296	1.160	1.762[a]
Am-241	17	0.050	0.114	0.336	1.242[a]
Tritium	14	75	141	258	392[a]/303[b]
U-233,234	17	1.250	3.978	5.940	10.18[a]
U-235	17	0.028	0.163	0.258	
U-238	17	0.899	2.620	4.000	

Note: [a] Lognormal distribution; [b] Normal distribution; [c] Undetermined distribution.
TSS is given in mg/L.
Uranium UTL given for total uranium.

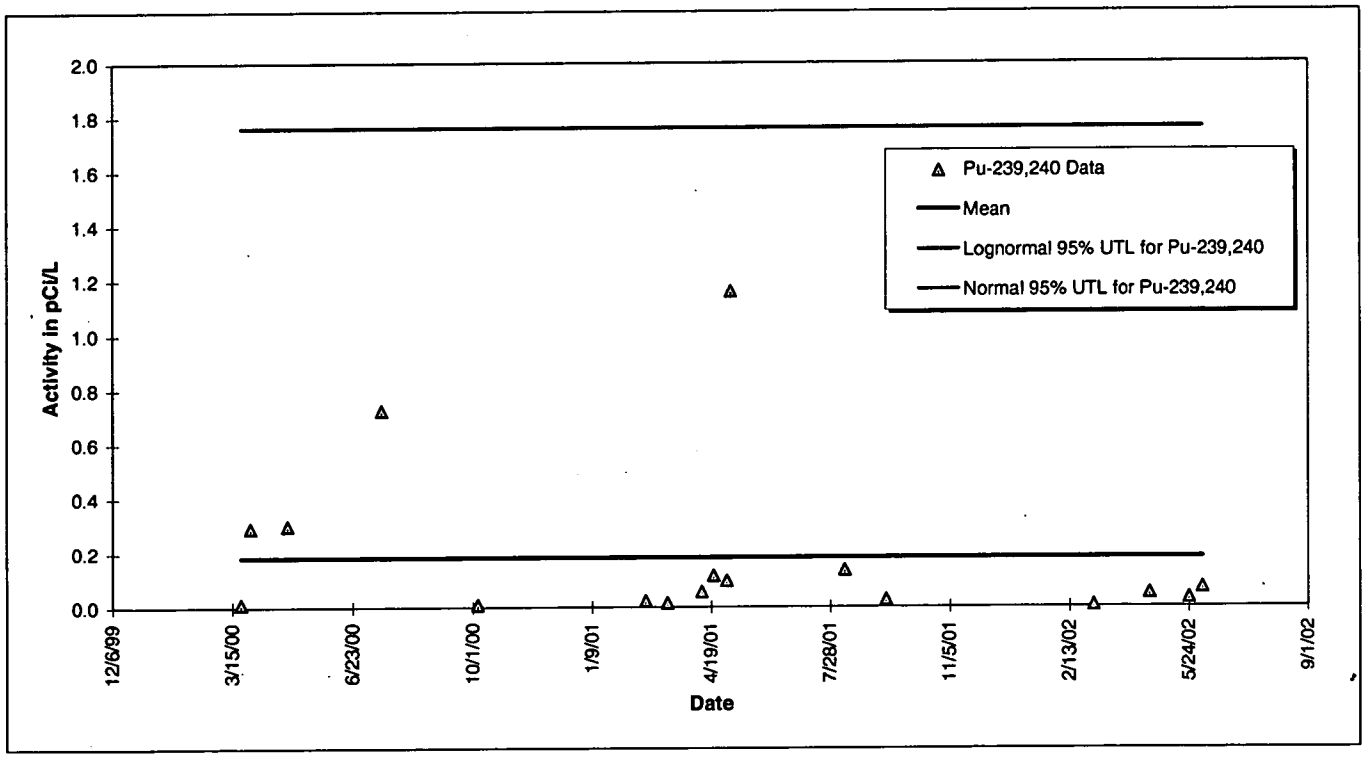


Figure 10-120. 95% UTL Plot for Pu-239,240 at SW120: WY00-02.

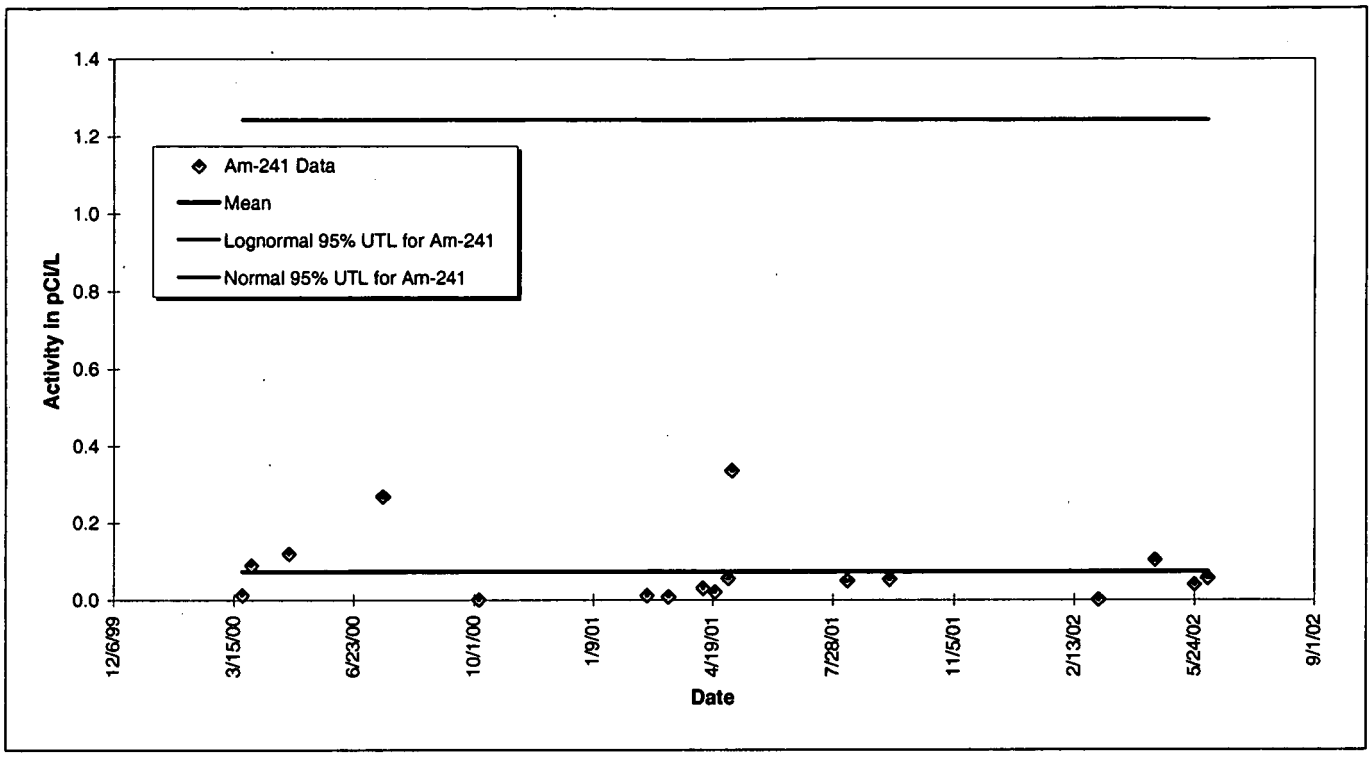


Figure 10-121. 95% UTL Plot for Am-241 at SW120: WY00-02.

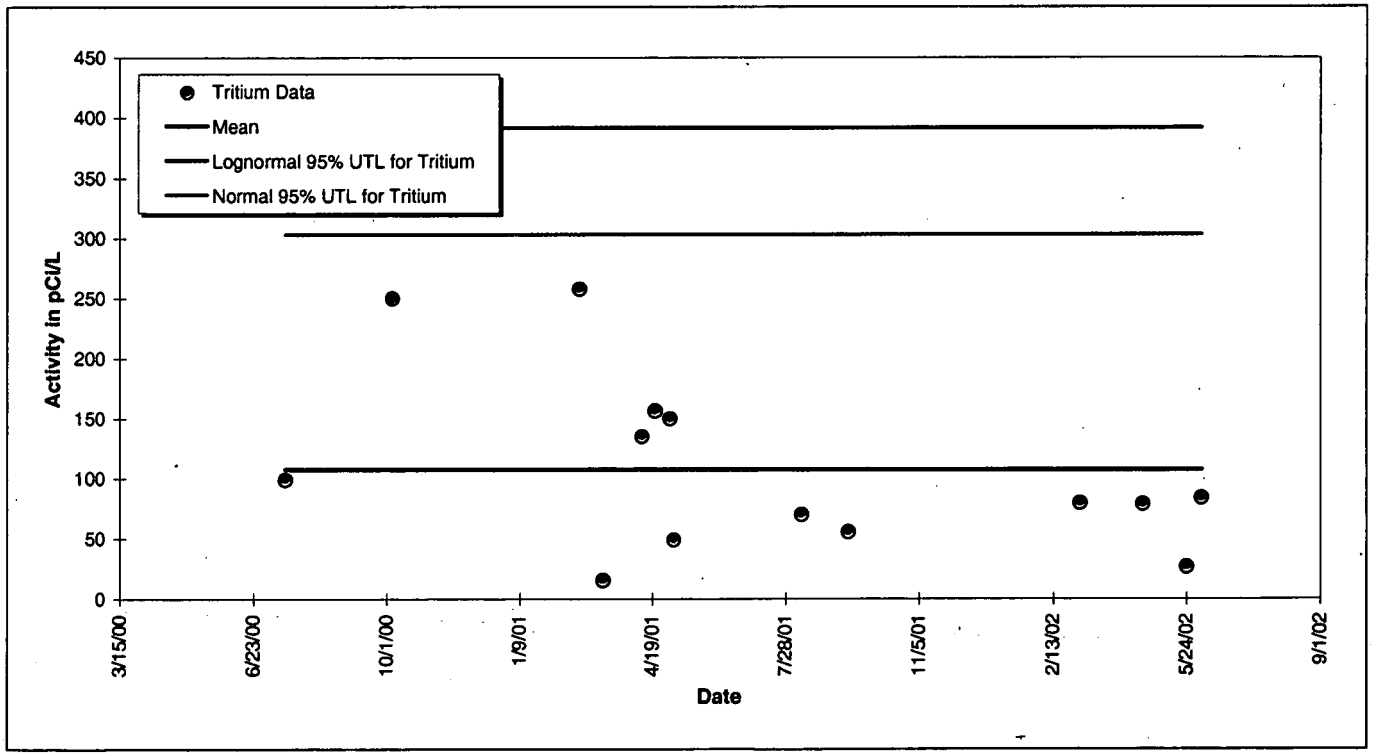


Figure 10-122. 95% UTL Plot for Tritium at SW120: WY00-02.

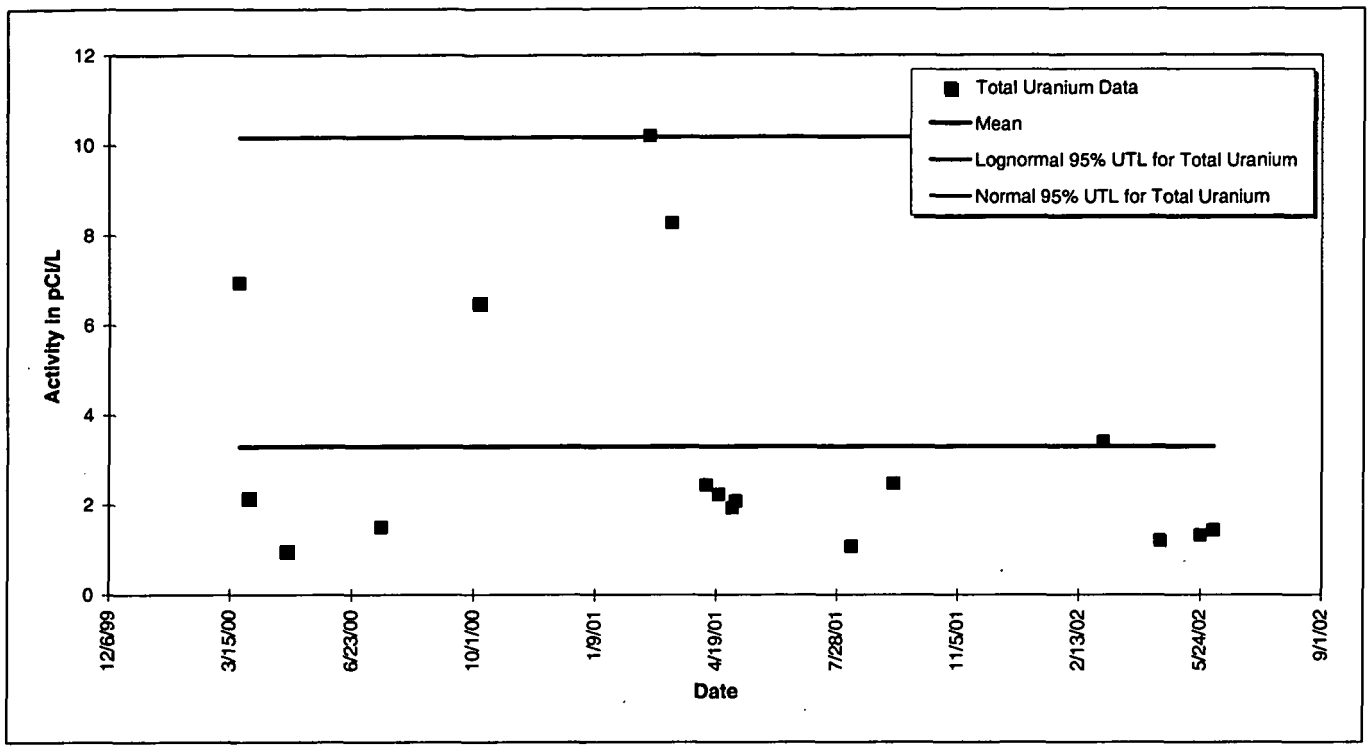


Figure 10-123. 95% UTL Plot for Total Uranium at SW120: WY00-02.

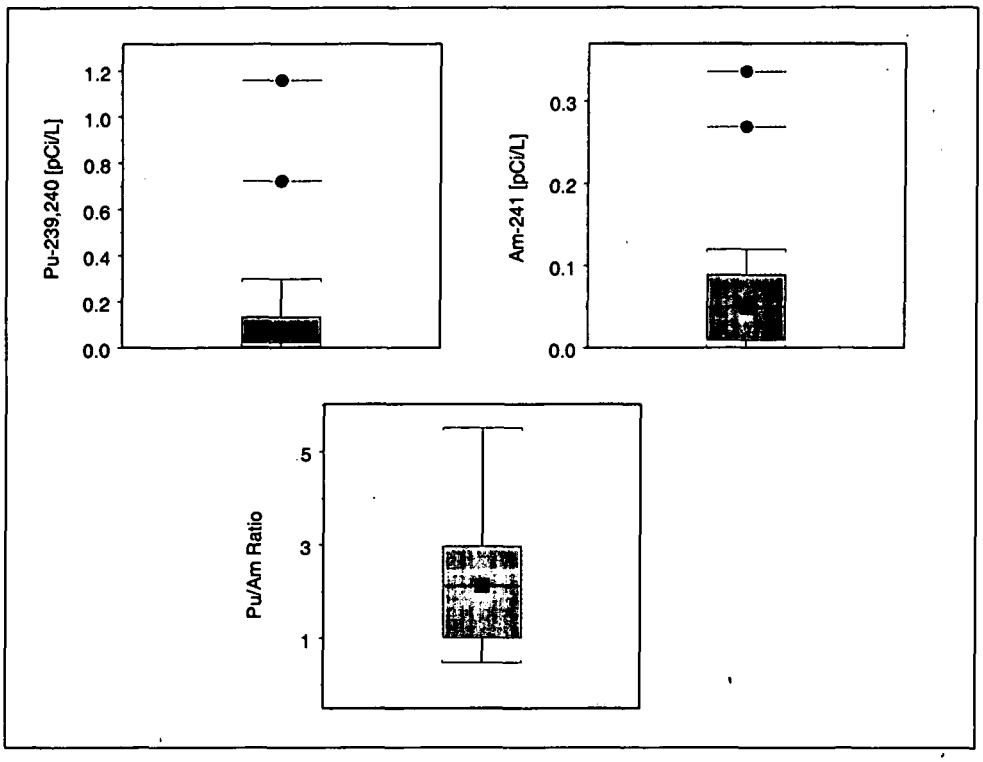


Figure 10-124. Pu and Am Box Plots for SW120: WY00–02.

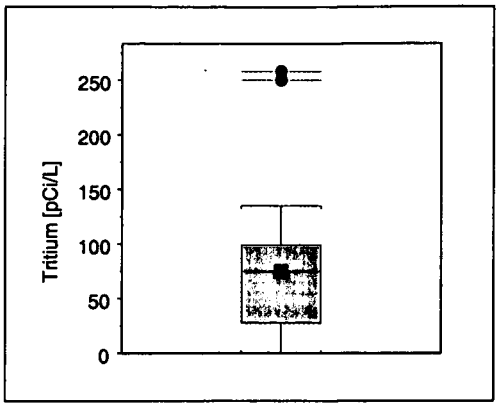


Figure 10-125. Tritium Box Plot for SW120: WY00–02.

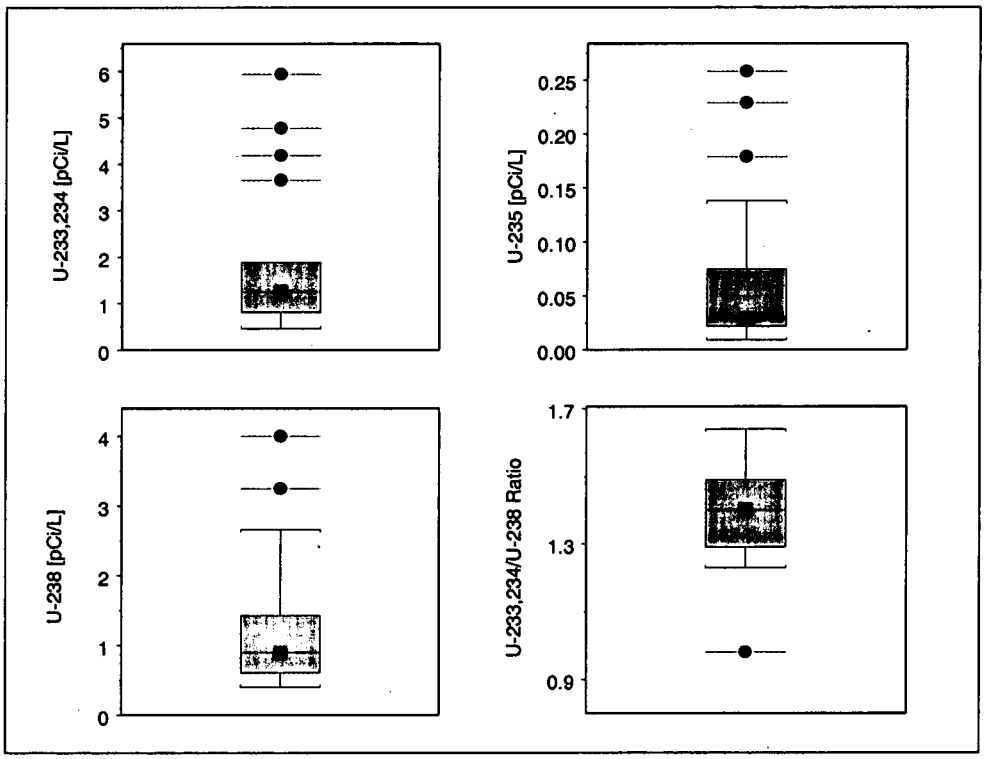


Figure 10-126. Uranium Box Plots for SW120: WY00–02.

Table 10-24 shows the total metals results for samples collected at SW120. Figure 10-127 through Figure 10-131 show the UTL plots for the metals. For the metals with a determined distribution, only Mo showed a value that exceeded the calculated UTL. However, this result was only 0.2 µg/L above the UTL and a trend is not indicated by the data.

Data for metals Al, Cd, Fe, Li, Mg, Ag, Sr, Tl, and Sn had undetermined distributions. All of the Ag data were 'undetects'. For Al, Cd, Li, Mg, and Sr none of the results are indicated as 'suspect' by the boxplots (Figure 10-132 through Figure 10-134). For Fe, one result (5/5-8/9/01, 8530 µg/L) is indicated as 'suspect' by the boxplot (Figure 10-133). However, a trend is not indicated by the data and this sample had the 2nd highest

average flow rate which is likely to have resulted in higher than normal TSS concentrations. For Tl, all but one of the results were 'undetects', with that result (3/30-4/30/00, 1.2 µg/L) indicated as 'suspect' by the boxplot (Figure 10-134). Subsequent sample results do not support a persistent trend and the result is only marginally greater than the detection limit. For Sn, all but two of the results were 'undetects', with both results (3/5-4/21/02, 1.3 µg/L; 10/5/00-2/23/01, 1.6 µg/L) indicated as 'suspect' by the boxplot (Figure 10-134). Subsequent sample results do not support a persistent trend and the results are only marginally greater than the detection limit.

Table 10-24. Summary Statistics for Metals Results from SW120 in WY00-02.

Analyte	Samples [N]	Percent Undetect	Median [µg/L]	85th Percentile [µg/L]	Maximum [µg/L]	95% UTL [µg/L]
ALUMINUM	17	0.0%	2320	6288	9750	NA[c]
ANTIMONY	17	0.0%	1.40	2.42	3.10	3.47[a]/3.41[b]
ARSENIC	17	17.6%	1.80	4.73	6.20	11.4[a]
BARIUM	17	0.0%	98.9	263	331	358[a]
BERYLLIUM	17	11.8%	0.19	0.31	0.43	0.62[a]/0.48[b]
CADMIUM	17	35.3%	0.15	0.33	0.38	NA[c]
CALCIUM	17	0.0%	44300	118200	159000	191690[a]
CHROMIUM	17	0.0%	3.60	7.94	10.6	22.3[a]/12.3[b]
COBALT	17	5.9%	0.55	1.70	2.70	2.99[a]
COPPER	17	0.0%	8.40	15.0	20.5	24.2[a]/22.3[b]
IRON	17	0.0%	1620	4930	8530	NA[c]
LEAD	17	23.5%	1.80	6.10	8.70	19.9[a]
LITHIUM	17	0.0%	18.7	57.3	63.0	NA[c]
MAGNESIUM	17	0.0%	9230	26300	32100	NA[c]
MANGANESE	17	0.0%	44.8	110	179	317[a]
MERCURY	16	87.5%	0.05	0.05	5.50	NA[c]
MOLYBDENUM	17	0.0%	1.20	1.56	2.50	2.30[a]
NICKEL	17	0.0%	3.00	6.82	8.90	9.56[a]
POTASSIUM	17	0.0%	12100	12980	18800	19961[a]
SELENIUM	17	58.8%	0.55	1.42	1.90	2.02[a]
SILVER	17	100.0%	0.11	0.13	0.14	NA[c]
SODIUM	17	0.0%	138000	438400	620000	837699[a]
STRONTIUM	17	0.0%	256	744	968	NA[c]
THALLIUM	17	94.1%	0.46	0.73	1.20	NA[c]
TIN	17	88.2%	0.41	0.58	1.60	NA[c]
VANADIUM	17	0.0%	5.00	14.9	23.4	70.4[a]
ZINC	17	0.0%	65.0	101.2	135	217[a]/160[b]

Note: [a] Lognormal distribution; [b] Normal distribution; [c] Undetermined distribution.

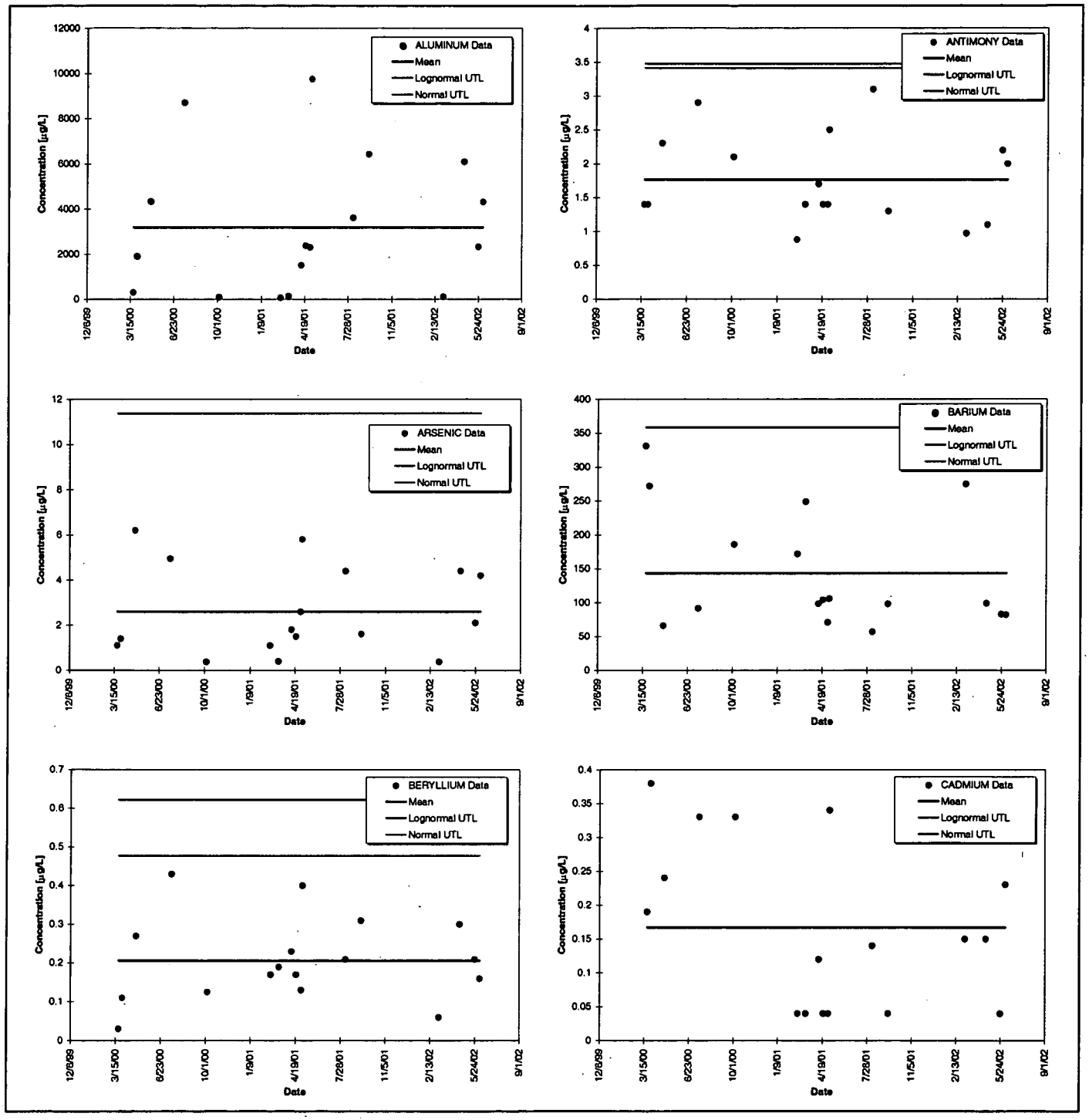


Figure 10-127. Total Metals UTL Plots for SW120: Aluminum through Cadmium.

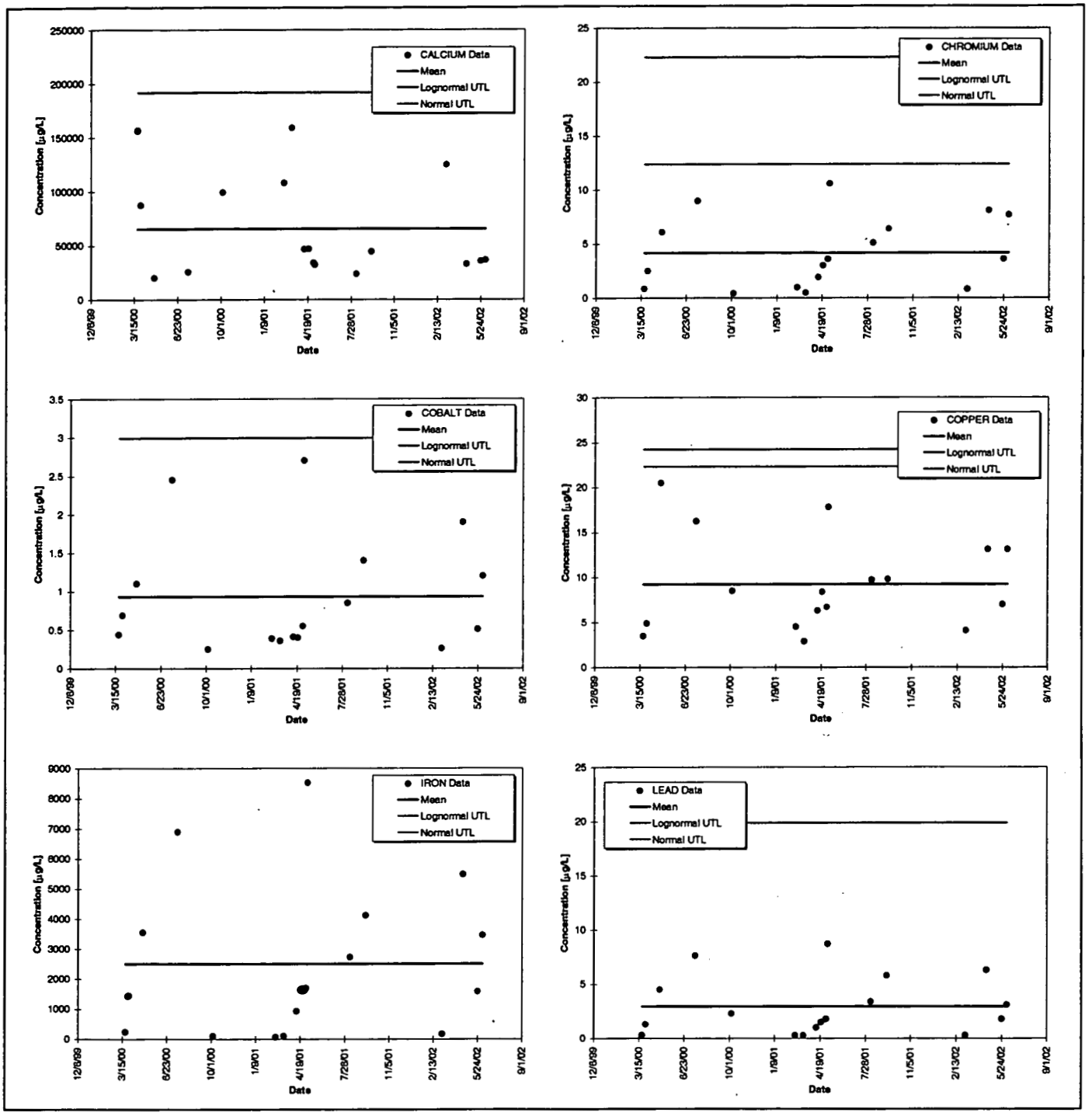


Figure 10-128. Total Metals UTL Plots for SW120: Calcium through Lead.

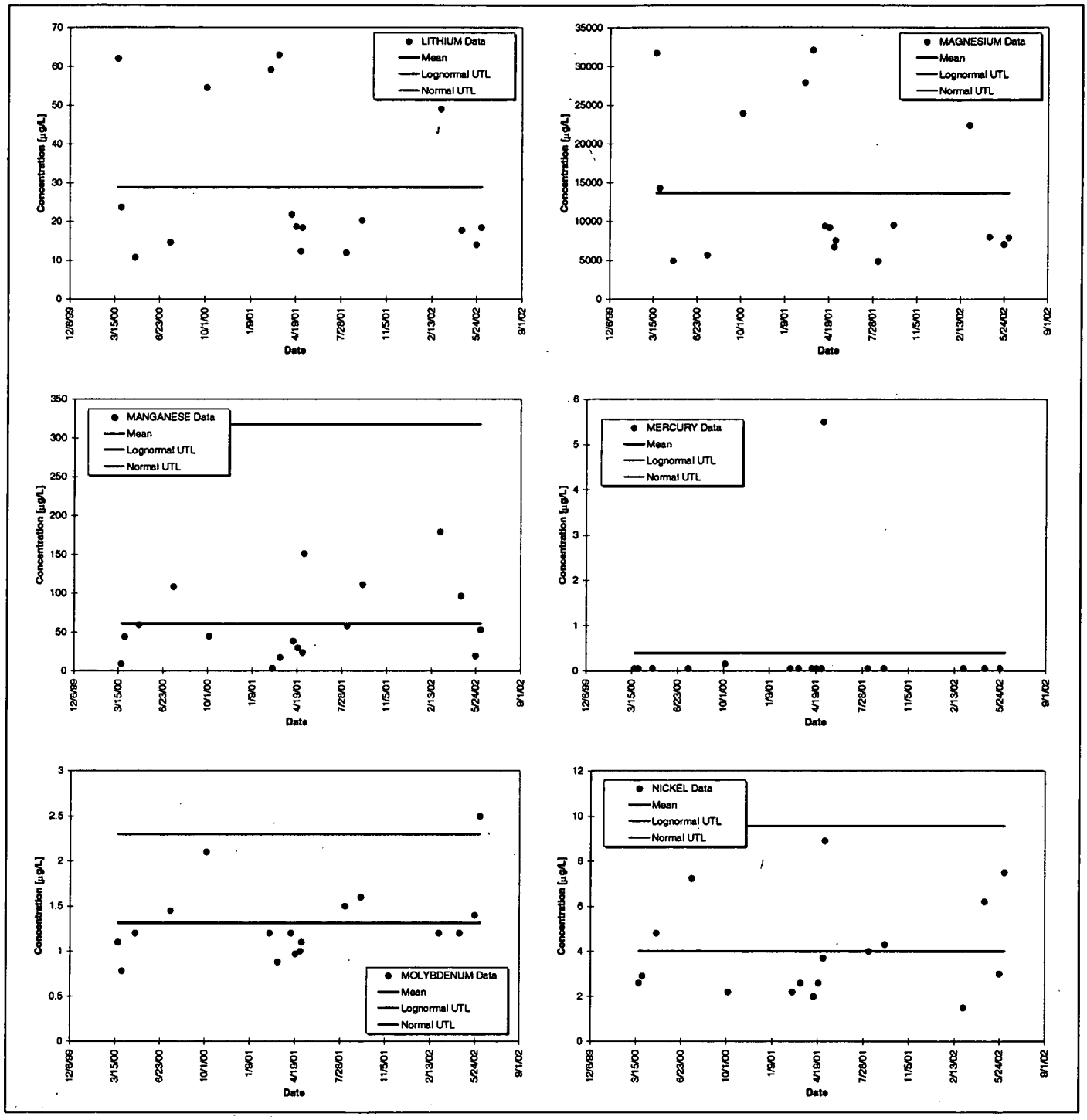


Figure 10-129. Total Metals UTL Plots for SW120: Lithium through Nickel.

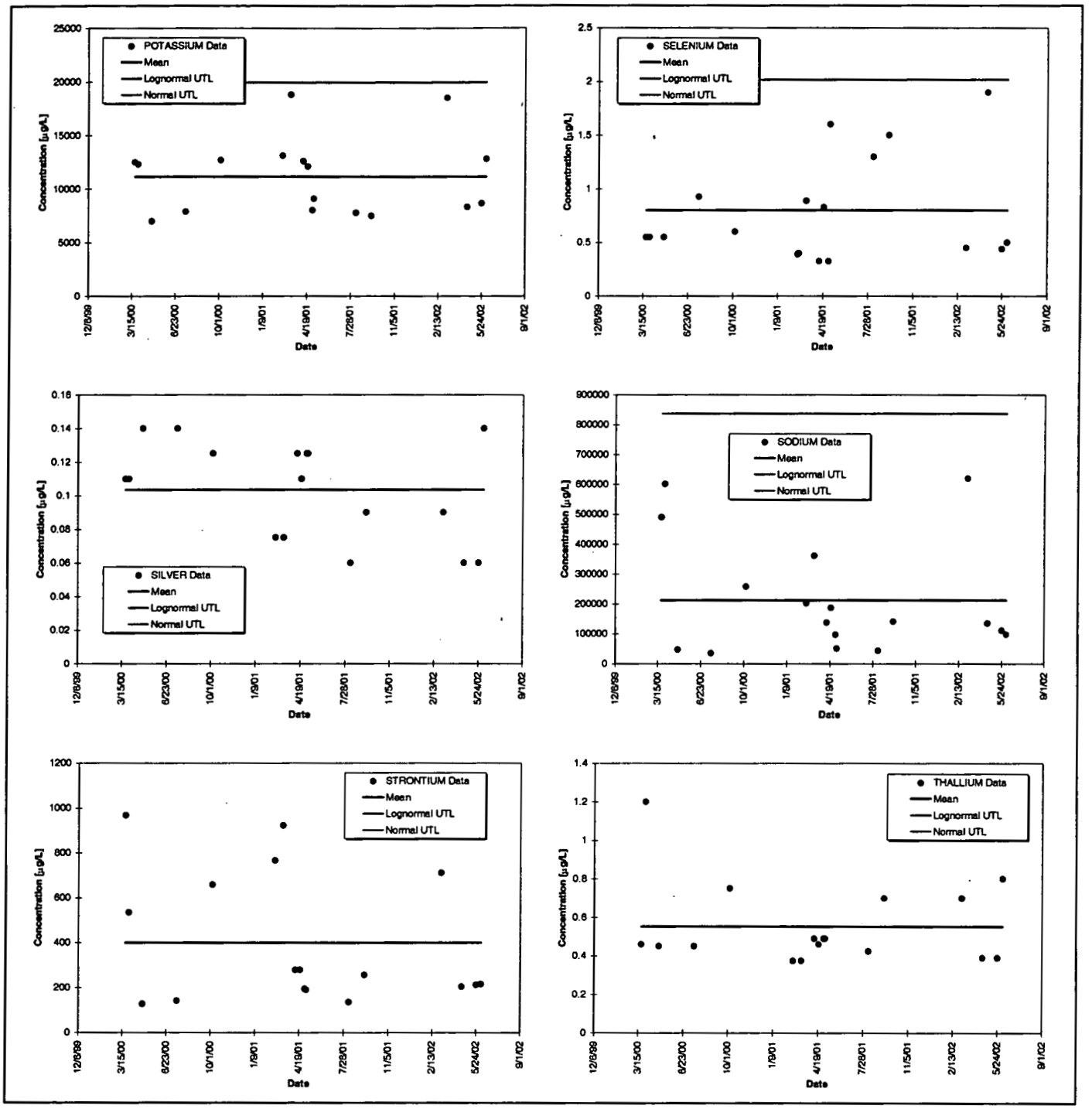


Figure 10-130. Total Metals UTL Plots for SW120: Potassium through Thallium.

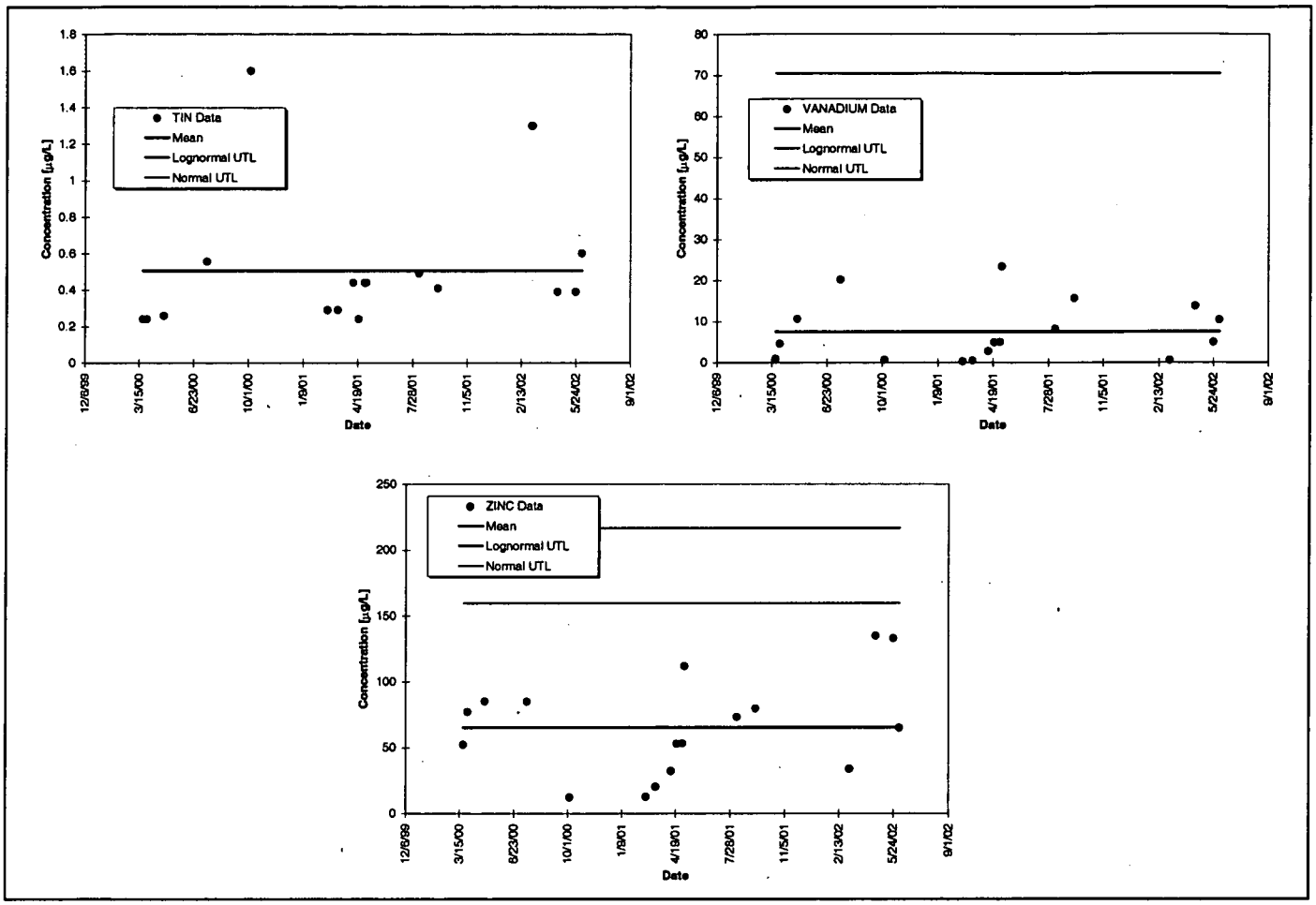


Figure 10-131. Total Metals UTL Plots for SW120: Tin through Zinc.

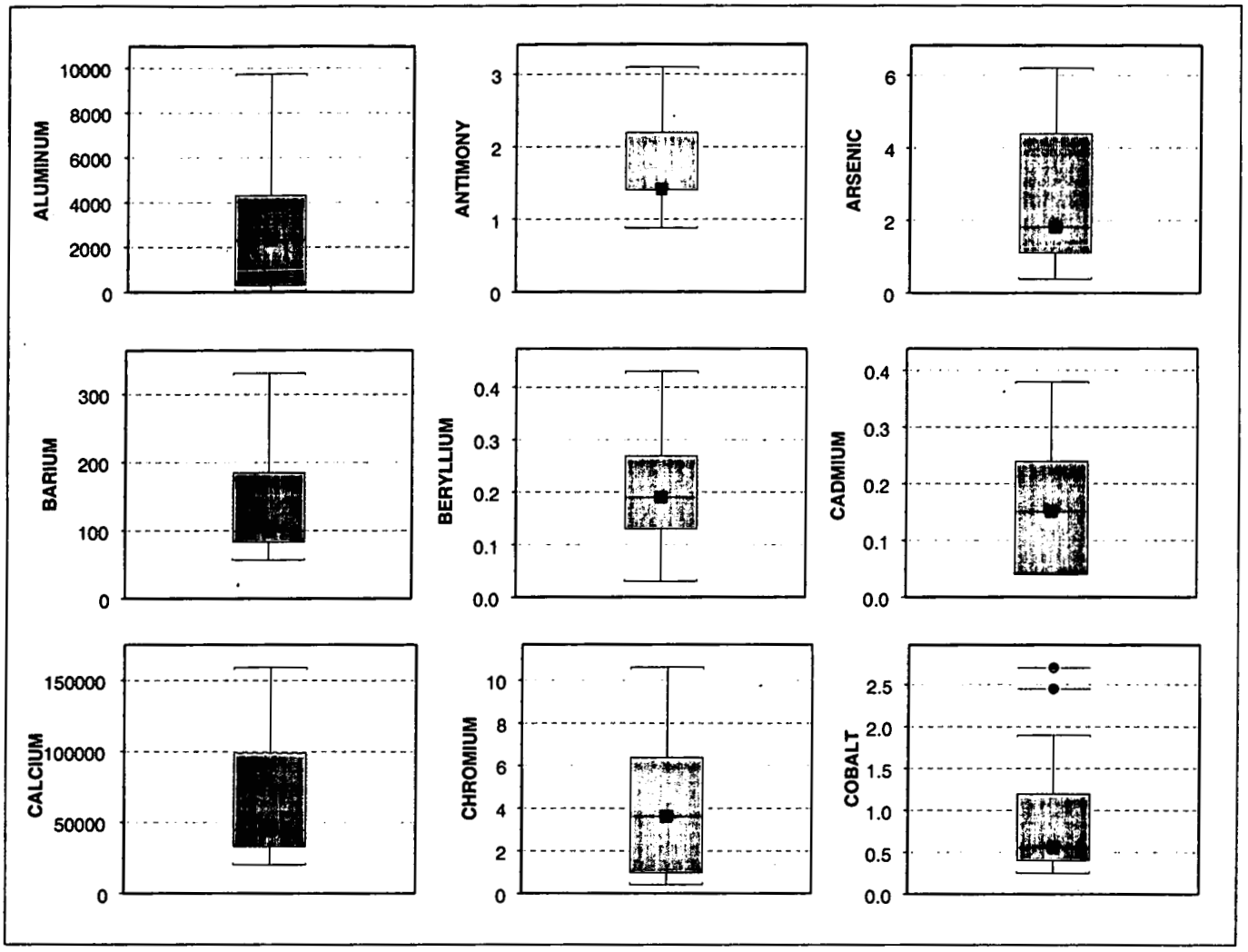


Figure 10-132. Total Metals Box Plots for SW120: Aluminum through Cobalt.

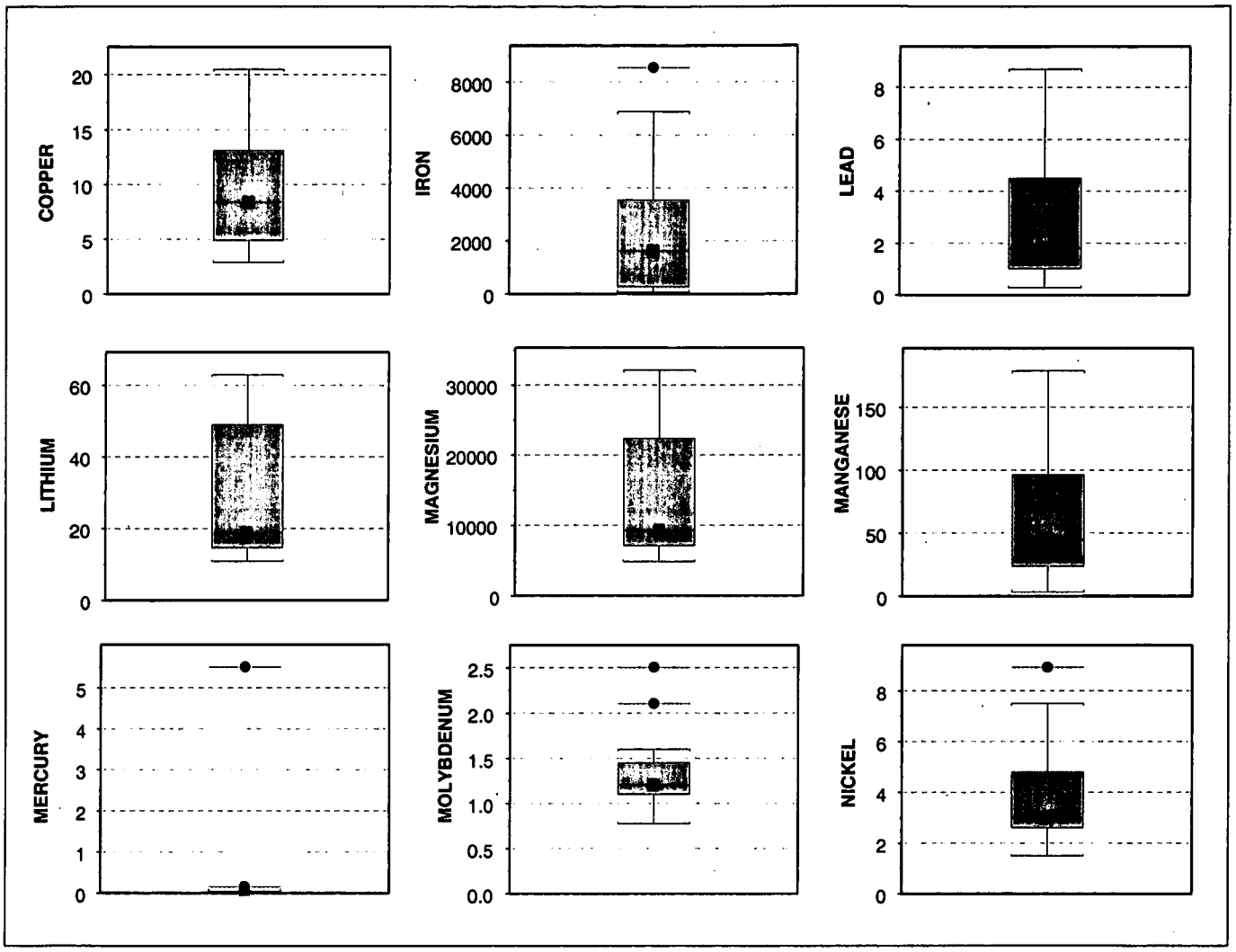


Figure 10-133. Total Metals Box Plots for SW120: Copper through Nickel.

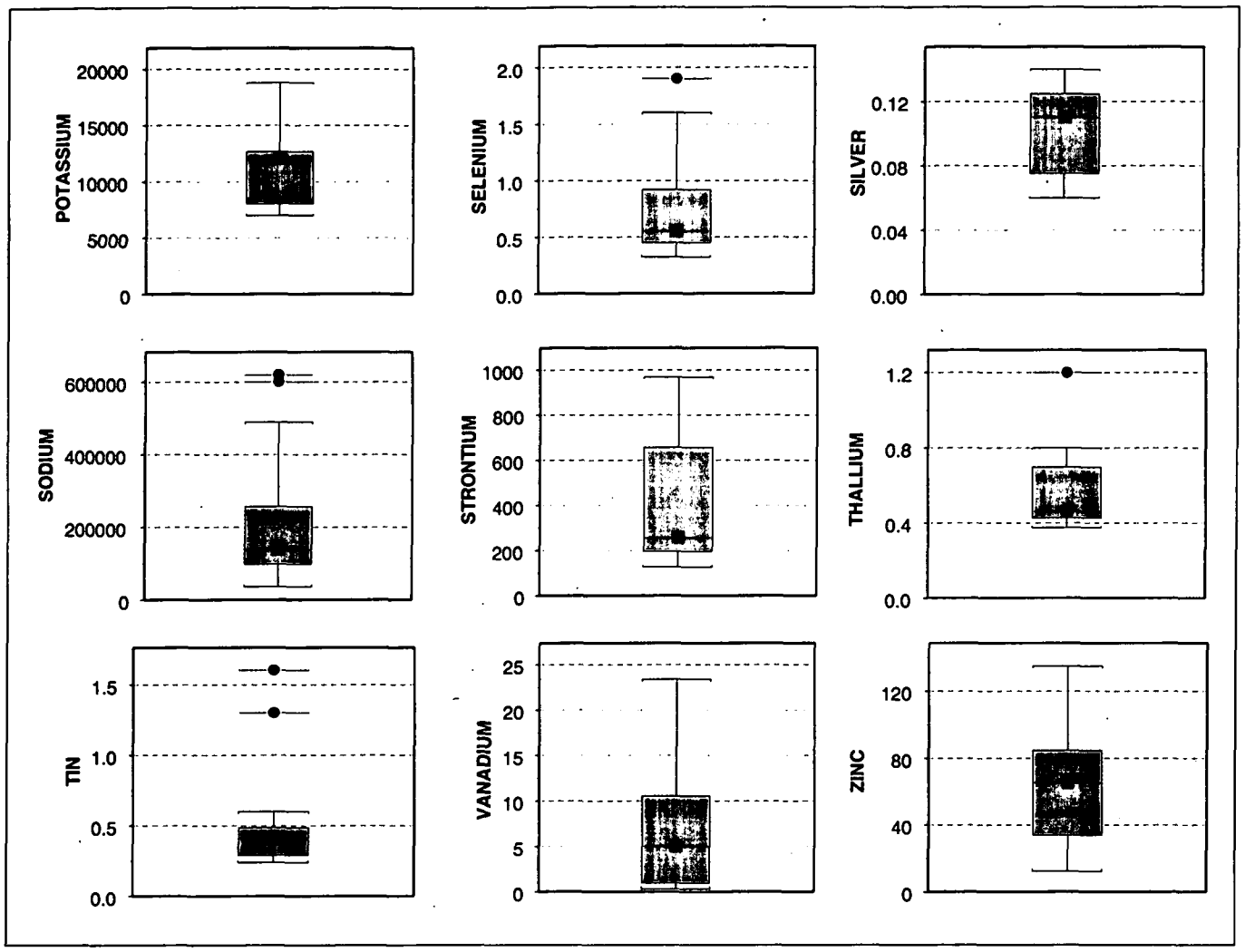


Figure 10-134. Total Metals Box Plots for SW120: Potassium through Zinc.

Monitoring data collected at GS44 show low Pu and Am activities (Table 10-25). Figure 10-135 and Figure 10-136 show the UTL plots for Pu and Am, respectively. During WY00–02, no Pu results were greater than the calculated UTL. A distribution could not be determined for Am. Two Am results are indicated as 'suspect' by the boxplot (Figure 10-139), however the levels were low and subsequent results returned to more normal levels.

Monitoring data collected at GS44 show moderate median total uranium activities (Table 10-25). Figure 10-138 shows that none of the total uranium results were greater than the calculated UTL. It should be noted that GS44 shows a median U-233,234/U-238 ratio somewhat greater than 1 (Figure 10-141, approximately 1.28), indicating a relative abundance of U-233,234.

Monitoring data collected at GS44 show a low median tritium activity (Table 10-25). Figure 10-137 shows the UTL plot for tritium. No distribution could be determined for the tritium data. The boxplot indicates two results as 'suspect' (Figure 10-137). However, for both of these results the 2σ error was greater than the result (100±107 pCi/L and 100±110 pCi/L).

The temporal variation of suspended solids activity is not given since only a single sample was collected within TSS hold time criteria. No Pu/Am ratio boxplot is given due to the small number (3) of values that met the MDA criteria.

Table 10-25. Summary Statistics for Radionuclide Results from GS44 in WY00-02.

Analyte	Samples [N]	Median [pCi/L]	85th Percentile [pCi/L]	Maximum [pCi/L]	95% UTL [pCi/L]
TSS [mg/L]	1	53	NA	NA	NA
Pu-239,240	19	0.010	0.033	0.055	0.082[a]
Am-241	19	0.014	0.023	0.064	NA[c]
Tritium	19	15	59	100	NA[c]
U-233,234	18	1.295	2.464	2.830	6.343[b]
U-235	18	0.041	0.090	0.139	
U-238	18	1.065	1.897	2.110	

Note: [a] Lognormal distribution; [b] Normal distribution; [c] Undetermined distribution.
TSS is given in mg/L.
Uranium UTL given for total uranium.

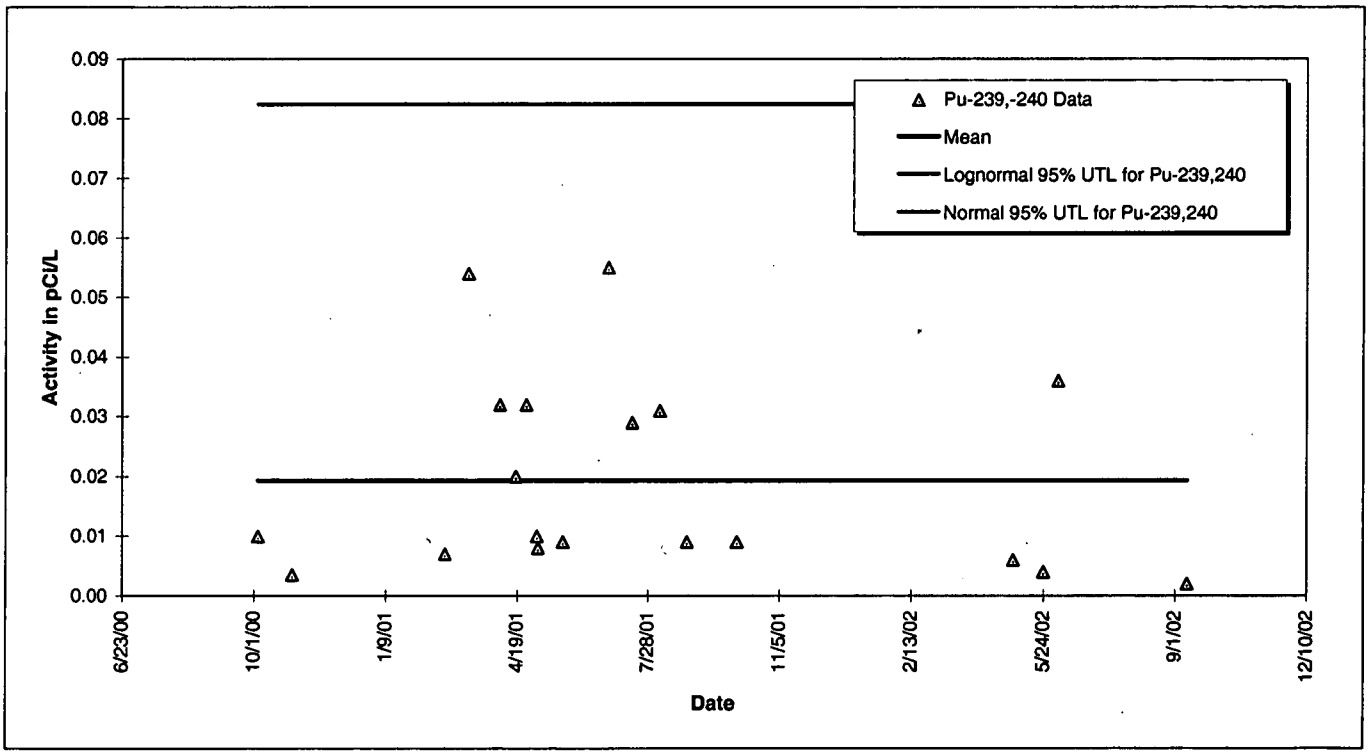


Figure 10-135. 95% UTL Plot for Pu-239,240 at GS44: WY00-02.

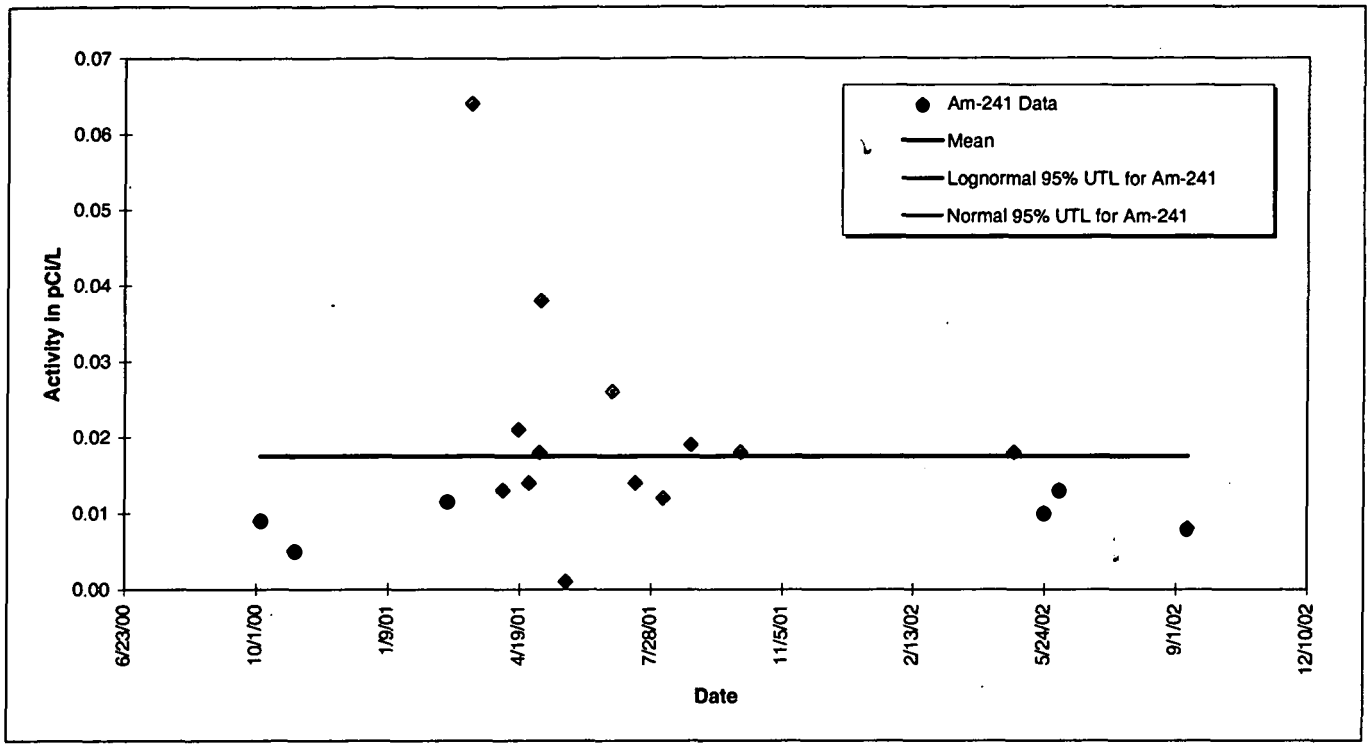


Figure 10-136. 95% UTL Plot for Am-241 at GS44: WY00-02.

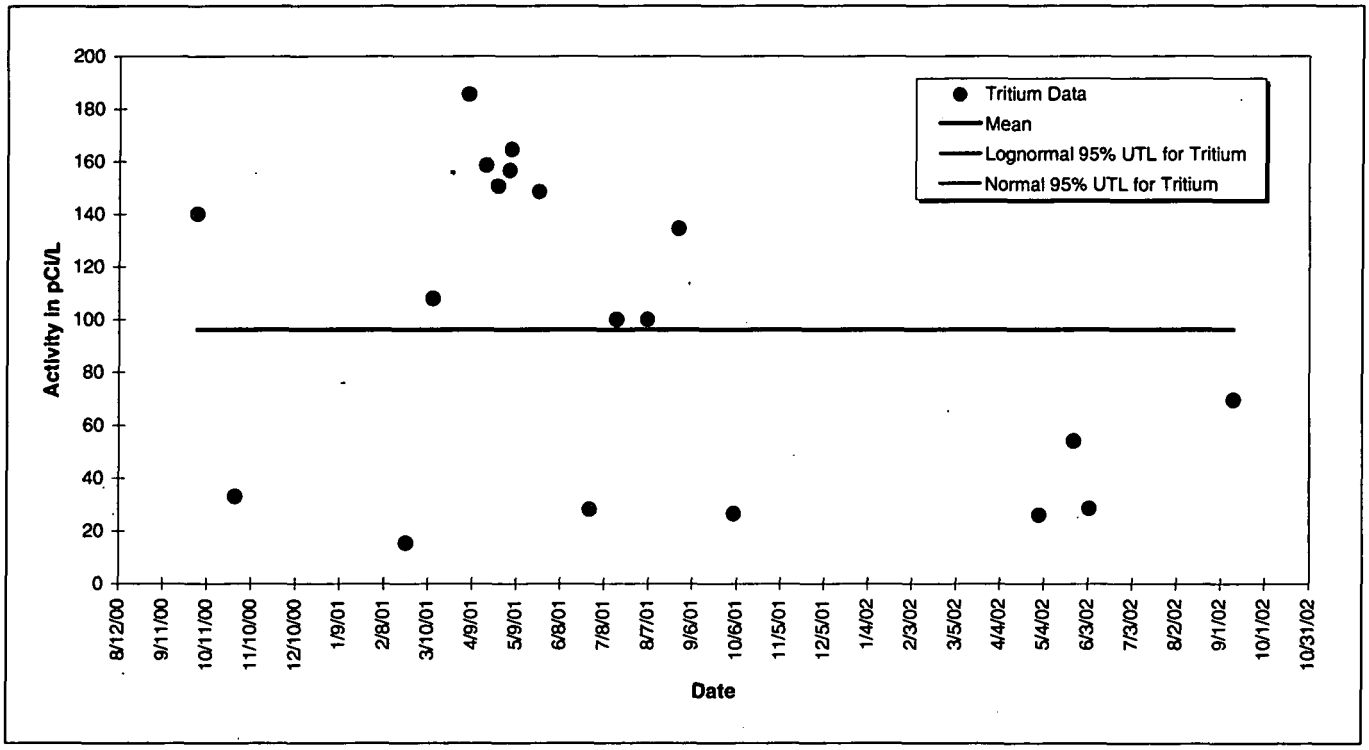


Figure 10-137. 95% UTL Plot for Tritium at GS44: WY00-02.

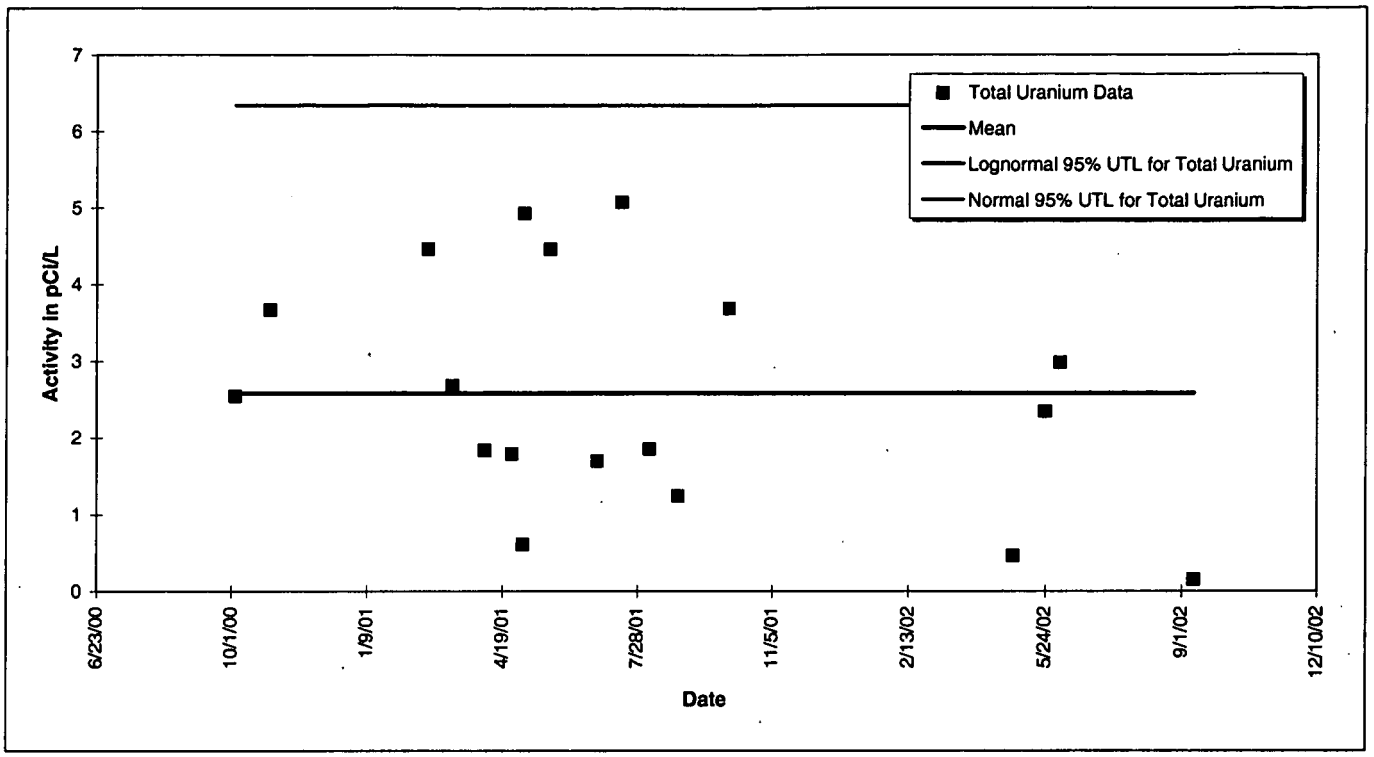


Figure 10-138. 95% UTL Plot for Total Uranium at GS44: WY00-02.

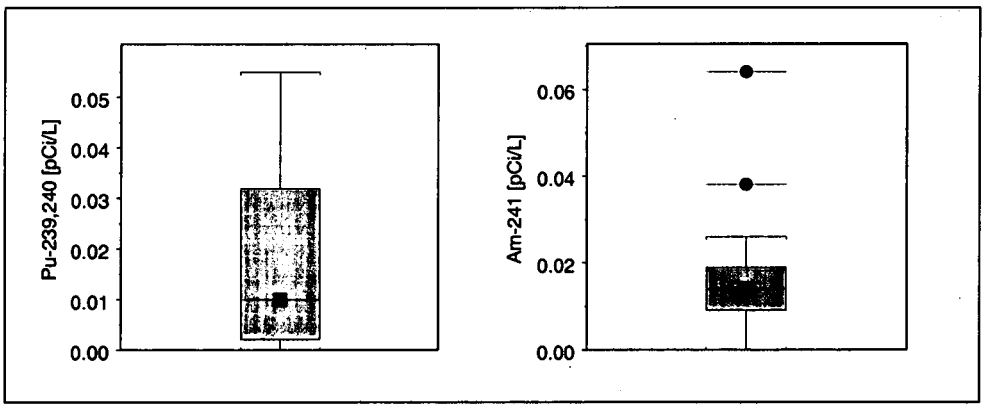


Figure 10-139. Pu and Am Box Plots for GS44: WY00–02.

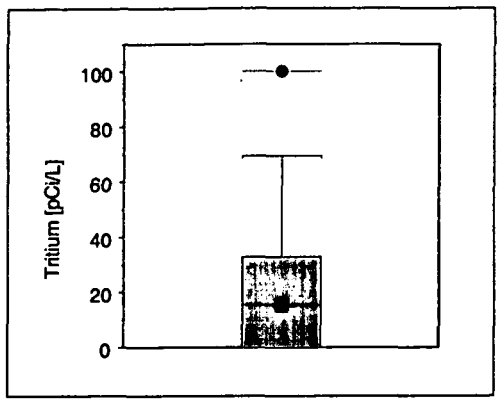


Figure 10-140. Tritium Box Plot for GS44: WY00–02.

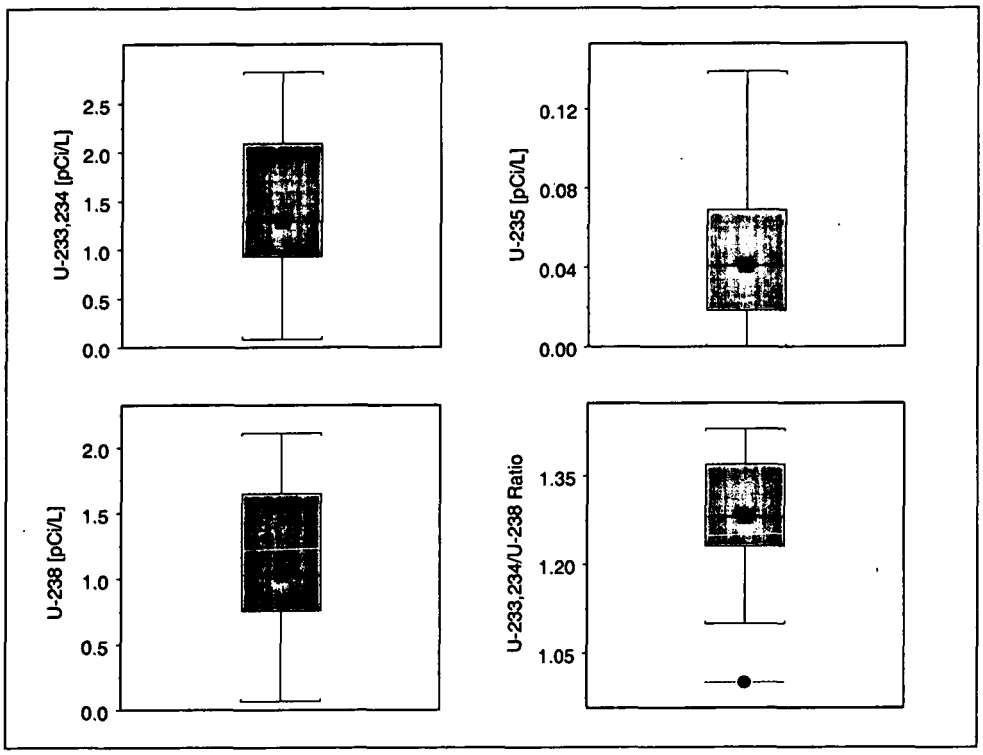


Figure 10-141. Uranium Box Plots for GS44: WY00–02.

Table 10-26 shows the total metals results for samples collected at GS44. Figure 10-142 through Figure 10-146 show the UTL plots for the metals. For the metals with a determined distribution, only Pb and K showed values that exceeded the calculated UTL. For Pb, none of the results were indicated as 'suspect' by the boxplot (Figure 10-148). Although the cause of the single K result greater than the UTL is unknown, subsequent sampling showed lower K values.

Data for metals Ba, Cd, Ca, Li, Mg, Mn, Hg, Ag, Sr, Tl, Sn, and Zn all had undetermined distributions. All of the Tl data were 'undetects'. For Ca, Li, Mg, Ag, Sr, and Zn, one result each is indicated as 'suspect' by the boxplots (Figure 10-147 through Figure 10-149). Similarly, Ba, Cd, Mn, and Sn all show two 'suspect' results; Hg shows three 'suspect' results. In all cases, a visual interpretation of the data does not suggest a persistent trend in these values.

Table 10-26. Summary Statistics for Metals Results from GS44 in WY00-02.

Analyte	Samples [N]	Percent Undetect	Median [µg/L]	85th Percentile [µg/L]	Maximum [µg/L]	95% UTL [µg/L]
ALUMINUM	19	0.0%	5800	8372	12600	13972[b]
ANTIMONY	19	15.8%	0.76	1.10	1.40	1.79[a]/1.53[b]
ARSENIC	19	10.5%	2.10	3.52	5.60	6.68[a]/5.50[b]
BARIUM	19	0.0%	104	170	373	NA[c]
BERYLLIUM	19	10.5%	0.24	0.41	0.49	0.62[b]
CADMIUM	19	47.4%	0.08	0.19	0.47	NA[c]
CALCIUM	19	0.0%	44500	89000	224000	NA[c]
CHROMIUM	19	5.3%	5.70	8.69	14.1	15.0[b]
COBALT	19	15.8%	0.78	1.95	3.40	5.51[a]
COPPER	19	0.0%	8.90	13.3	21.1	29.4[a]/21.9[b]
IRON	19	0.0%	3920	6564	10900	11037[b]
LEAD	19	15.8%	3.70	7.32	12.5	12.0[b]
LITHIUM	19	0.0%	31.6	75.6	182	NA[c]
MAGNESIUM	19	0.0%	7730	16720	33300	NA[c]
MANGANESE	19	0.0%	39.7	81.7	165	NA[c]
MERCURY	17	82.4%	0.05	0.10	1.20	NA[c]
MOLYBDENUM	19	0.0%	1.60	2.10	2.60	2.94[b]
NICKEL	19	0.0%	4.60	6.78	11.1	13.8[a]/11.0[b]
POTASSIUM	19	0.0%	9850	14250	24300	22701[b]
SELENIUM	19	15.8%	1.60	2.98	4.00	4.44[b]
SILVER	19	94.7%	0.13	0.14	1.10	NA[c]
SODIUM	19	0.0%	48200	210900	821000	909176[a]
STRONTIUM	19	0.0%	238	506	1220	NA[c]
THALLIUM	19	100.0%	0.49	0.49	0.80	NA[c]
TIN	19	84.2%	0.44	0.60	2.00	NA[c]
VANADIUM	19	0.0%	11.2	17.7	28.8	29.8[b]
ZINC	19	0.0%	102	182	384	NA[c]

Note: [a] Lognormal distribution; [b] Normal distribution; [c] Undetermined distribution.

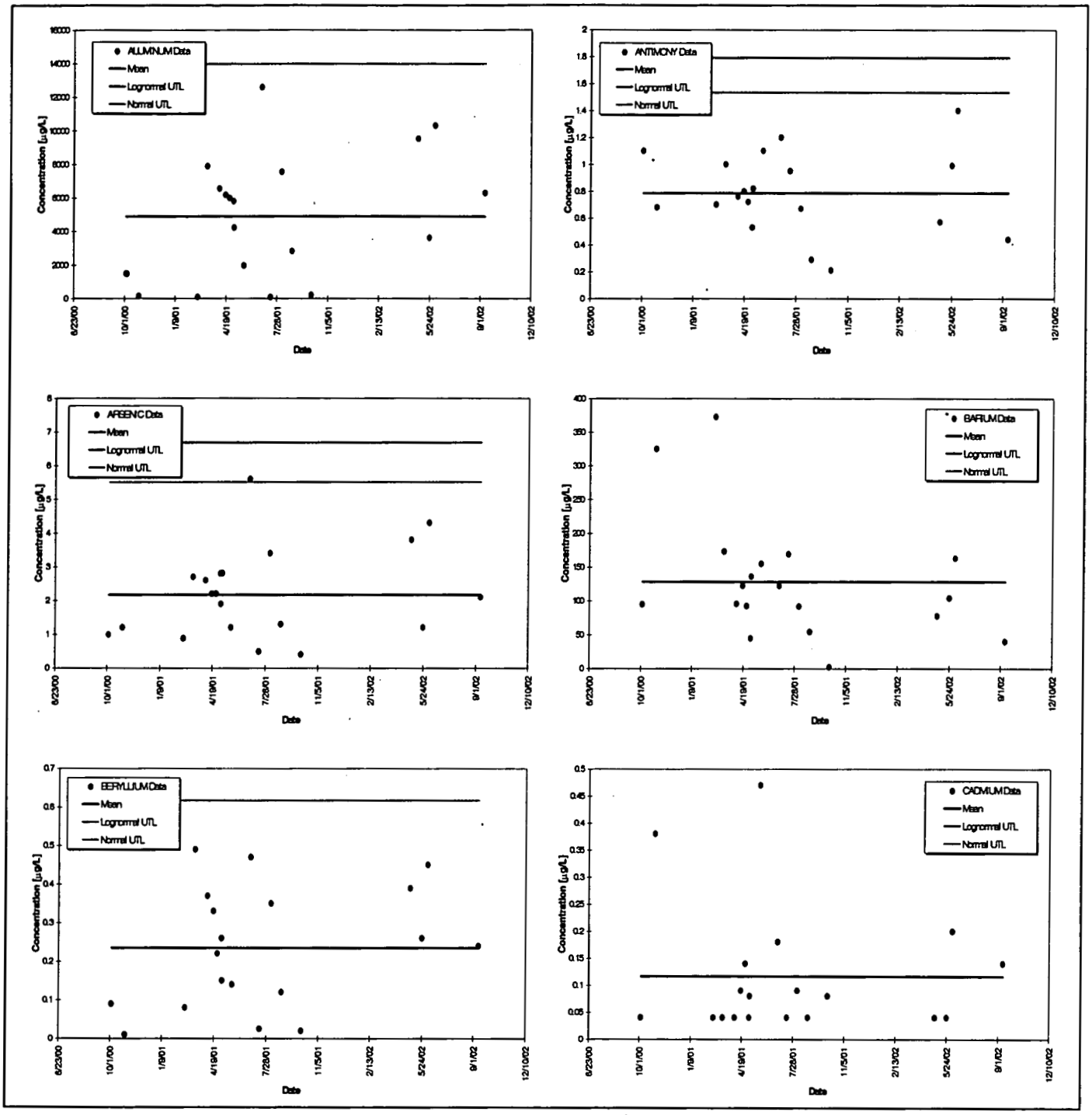


Figure 10-142. Total Metals UTL Plots for GS44: Aluminum through Cadmium.

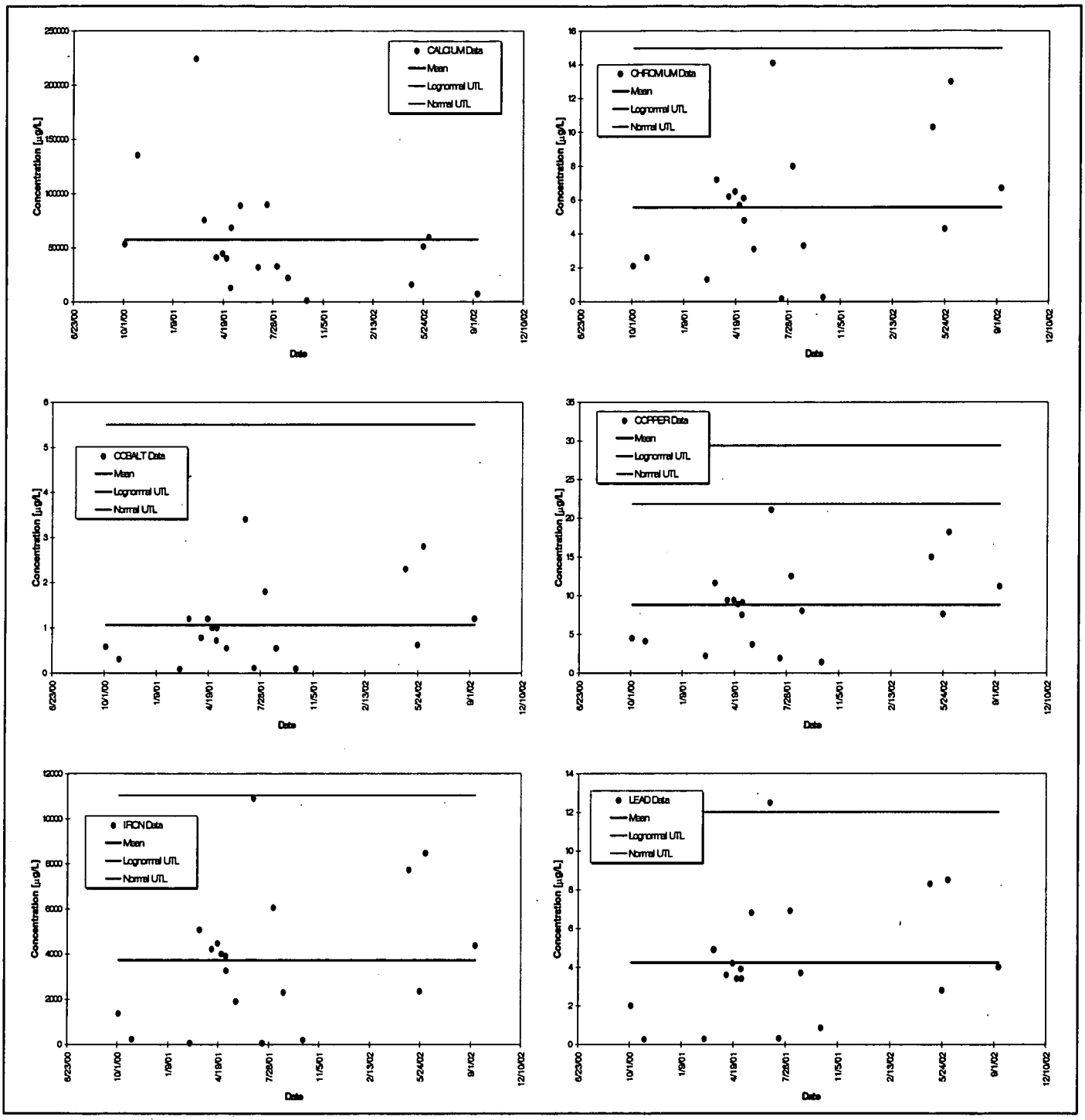


Figure 10-143. Total Metals UTL Plots for GS44: Calcium through Lead.

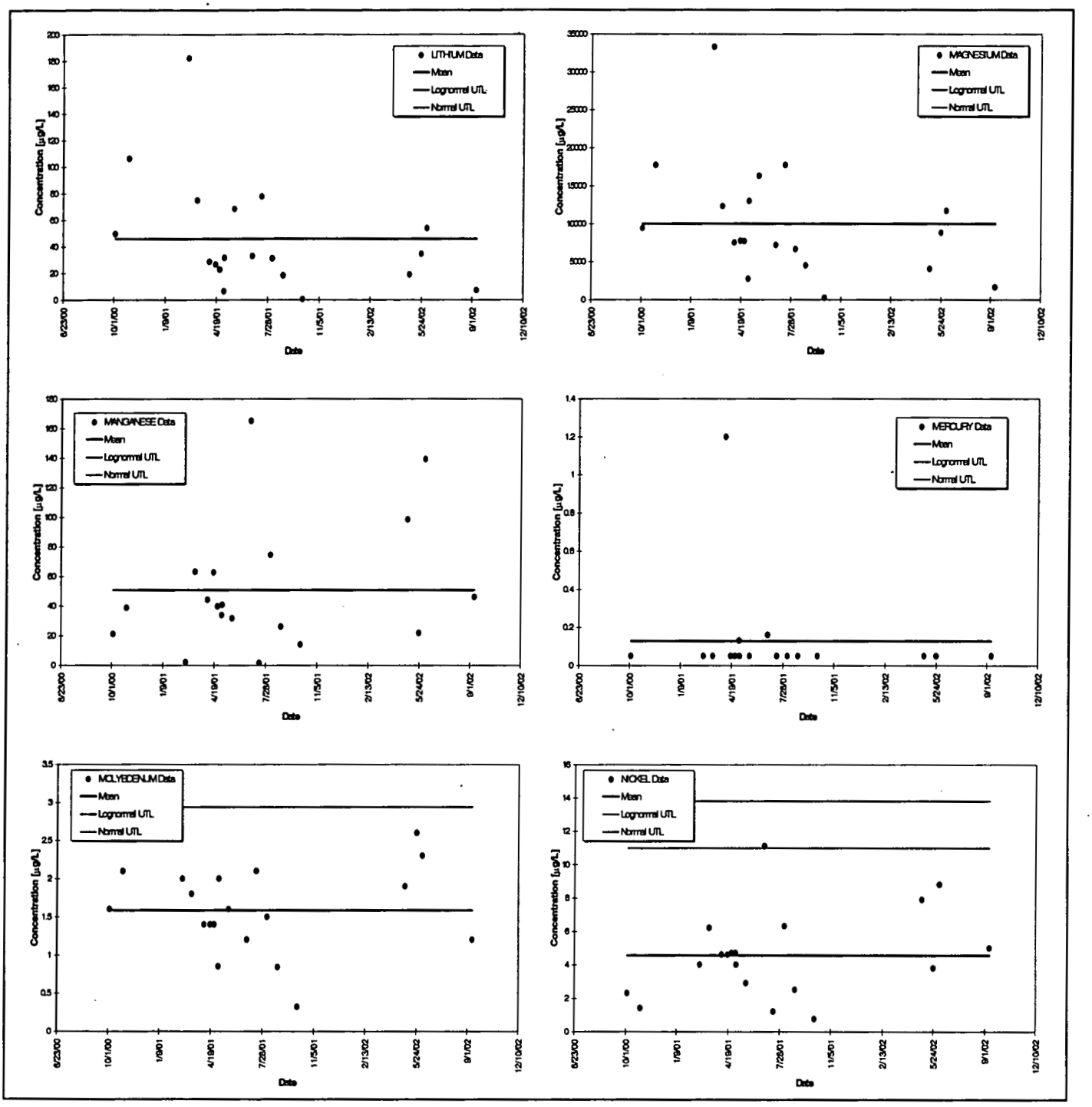


Figure 10-144. Total Metals UTL Plots for GS44: Lithium through Nickel.

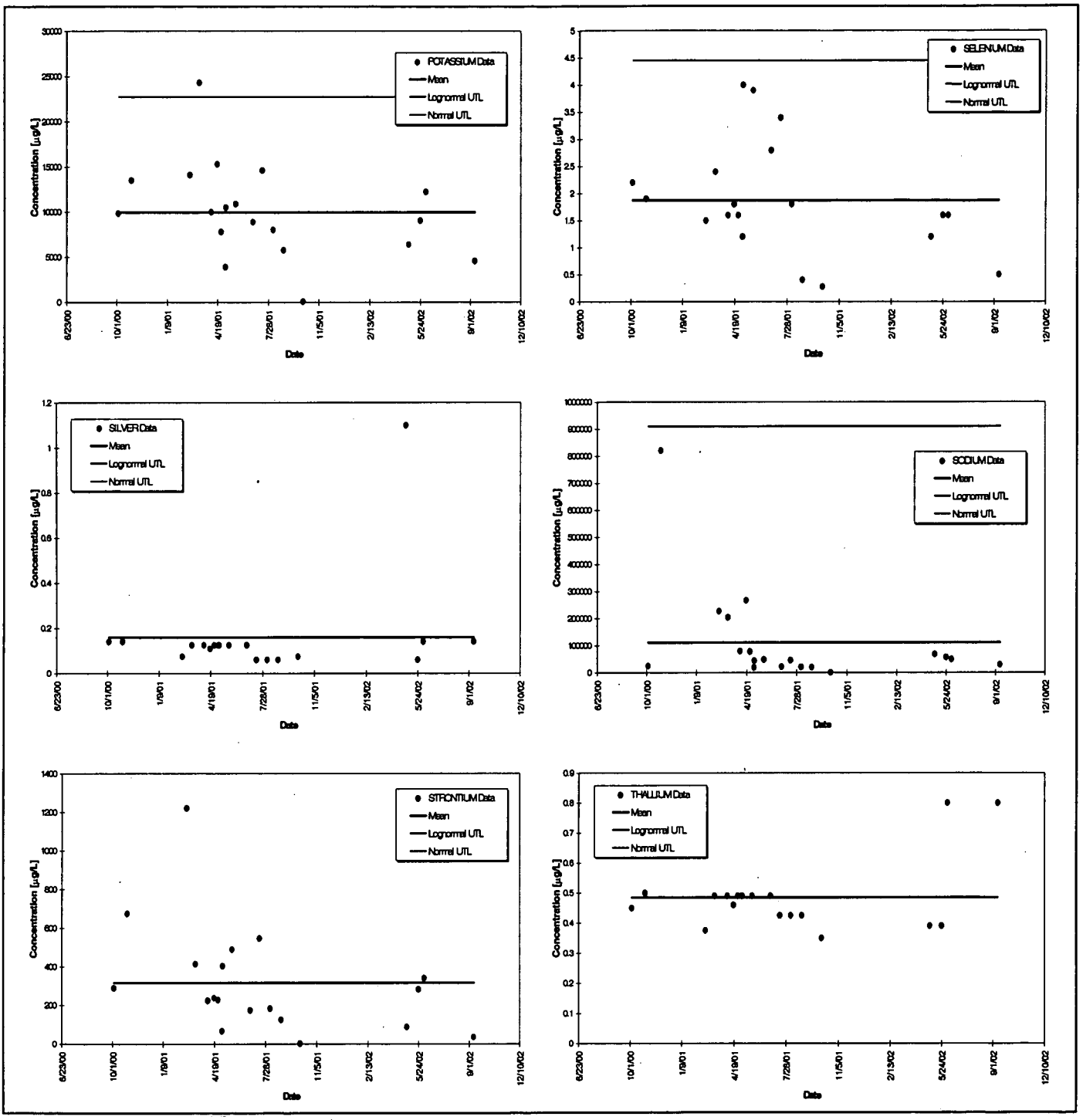


Figure 10-145. Total Metals UTL Plots for GS44: Potassium through Thallium.

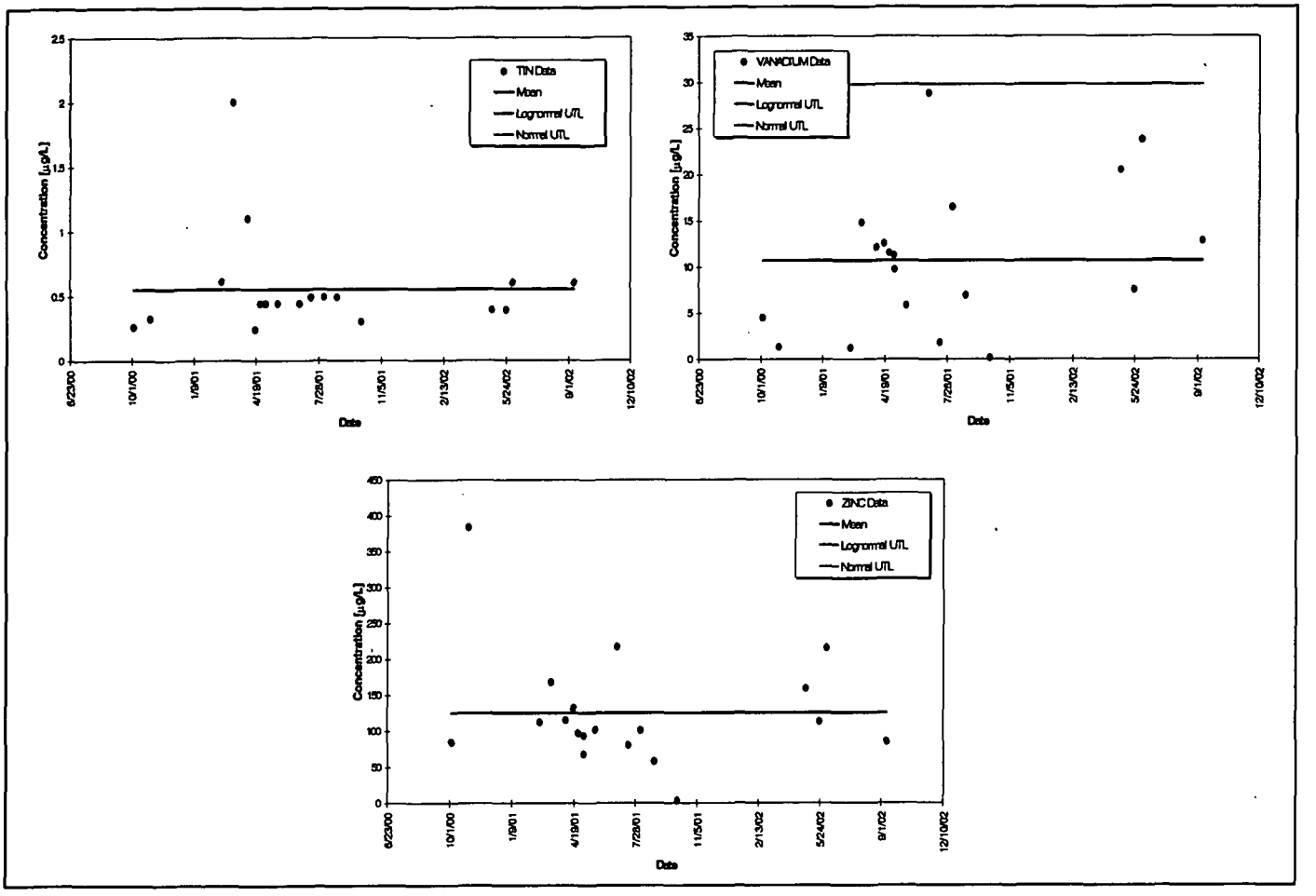


Figure 10-146. Total Metals UTL Plots for GS44: Tin through Zinc.

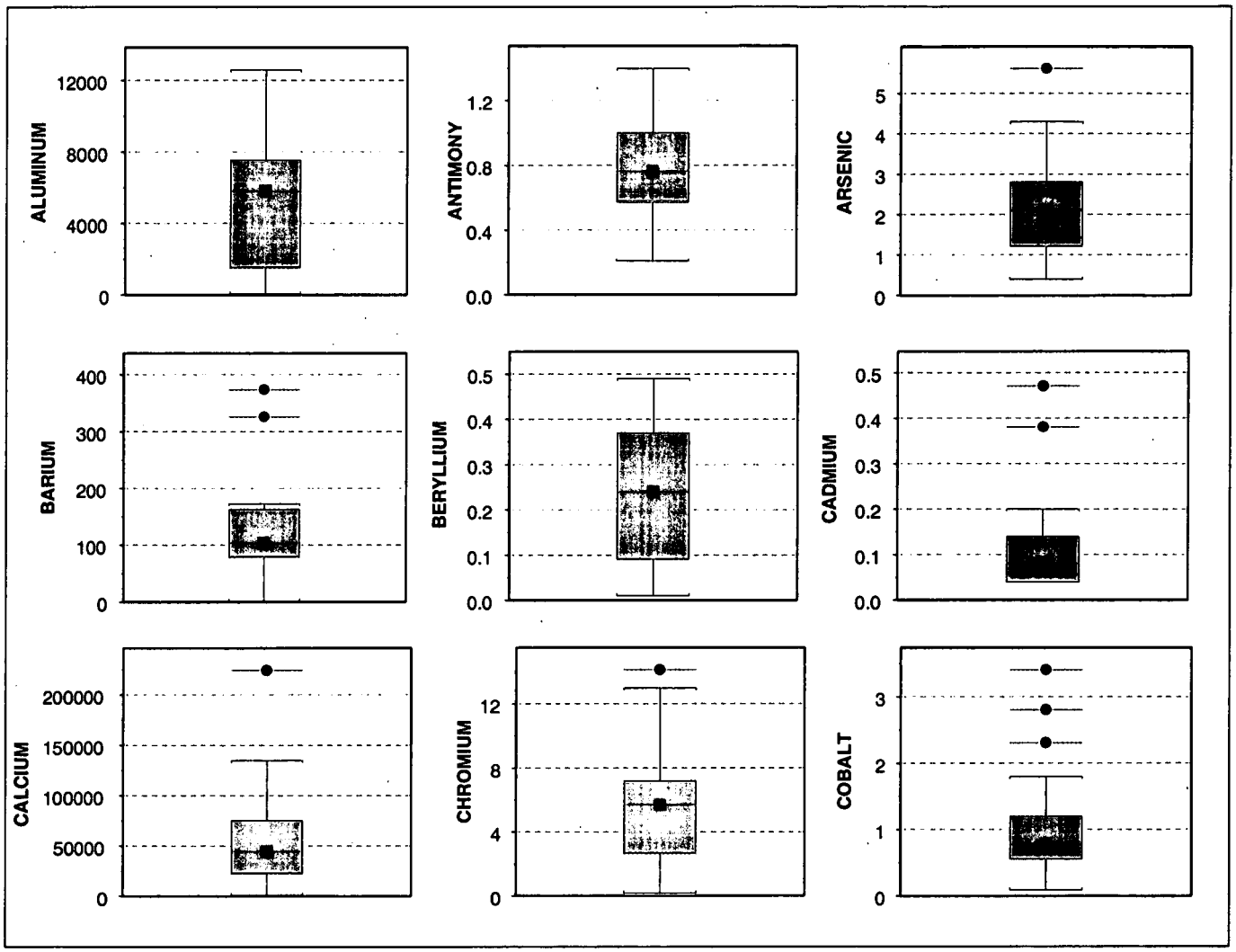


Figure 10-147. Total Metals Box Plots for GS44: Aluminum through Cobalt.

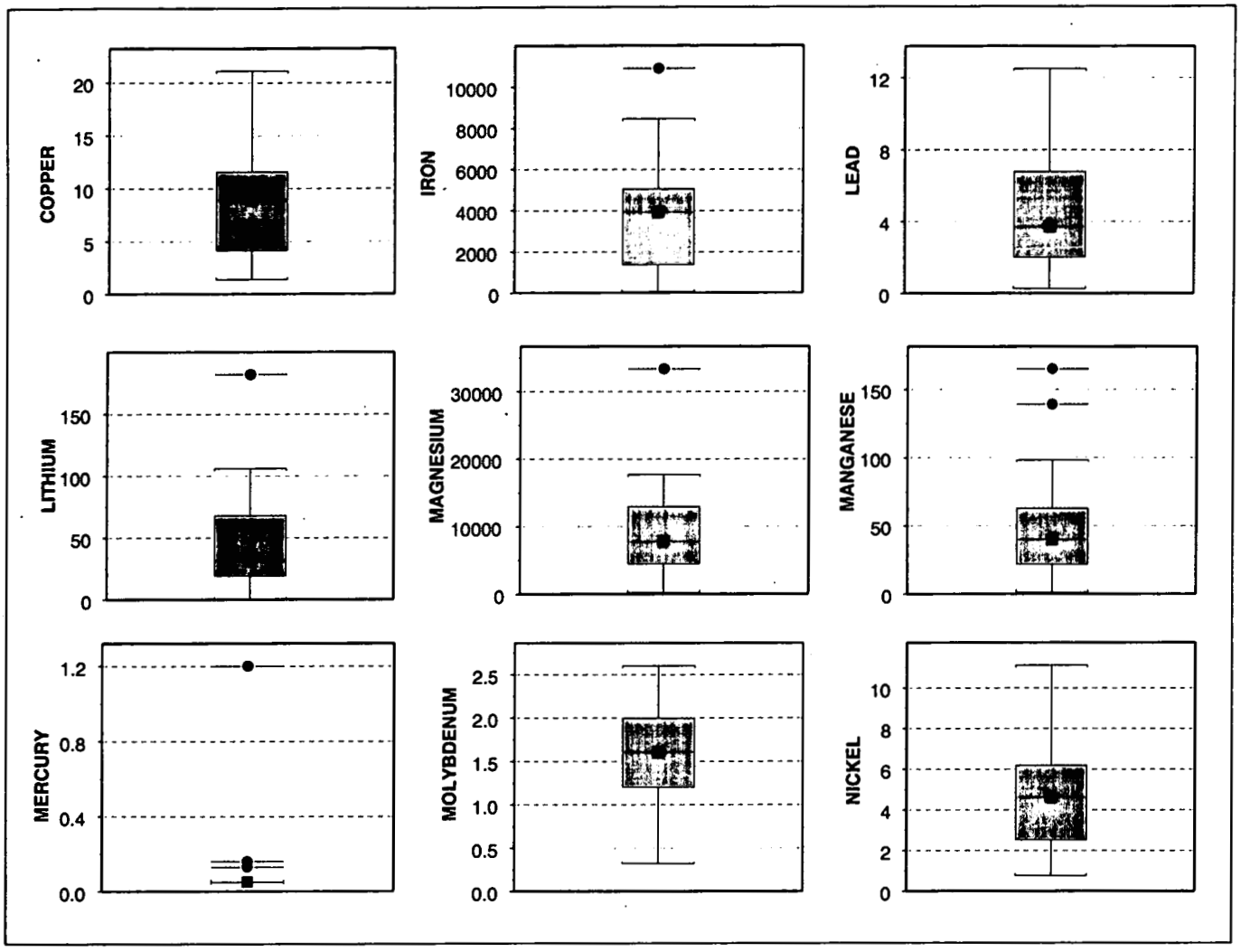


Figure 10-148. Total Metals Box Plots for GS44: Copper through Nickel.

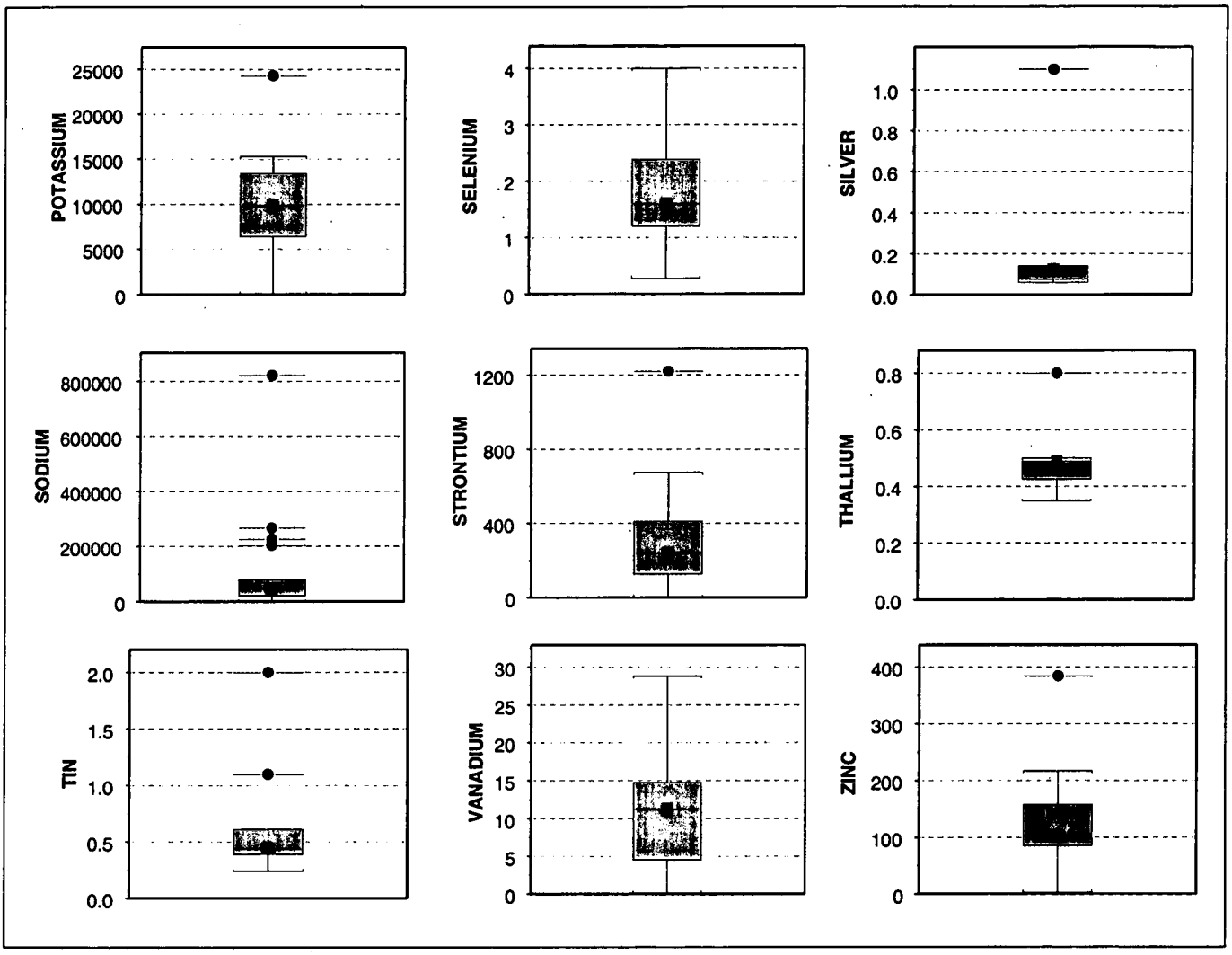


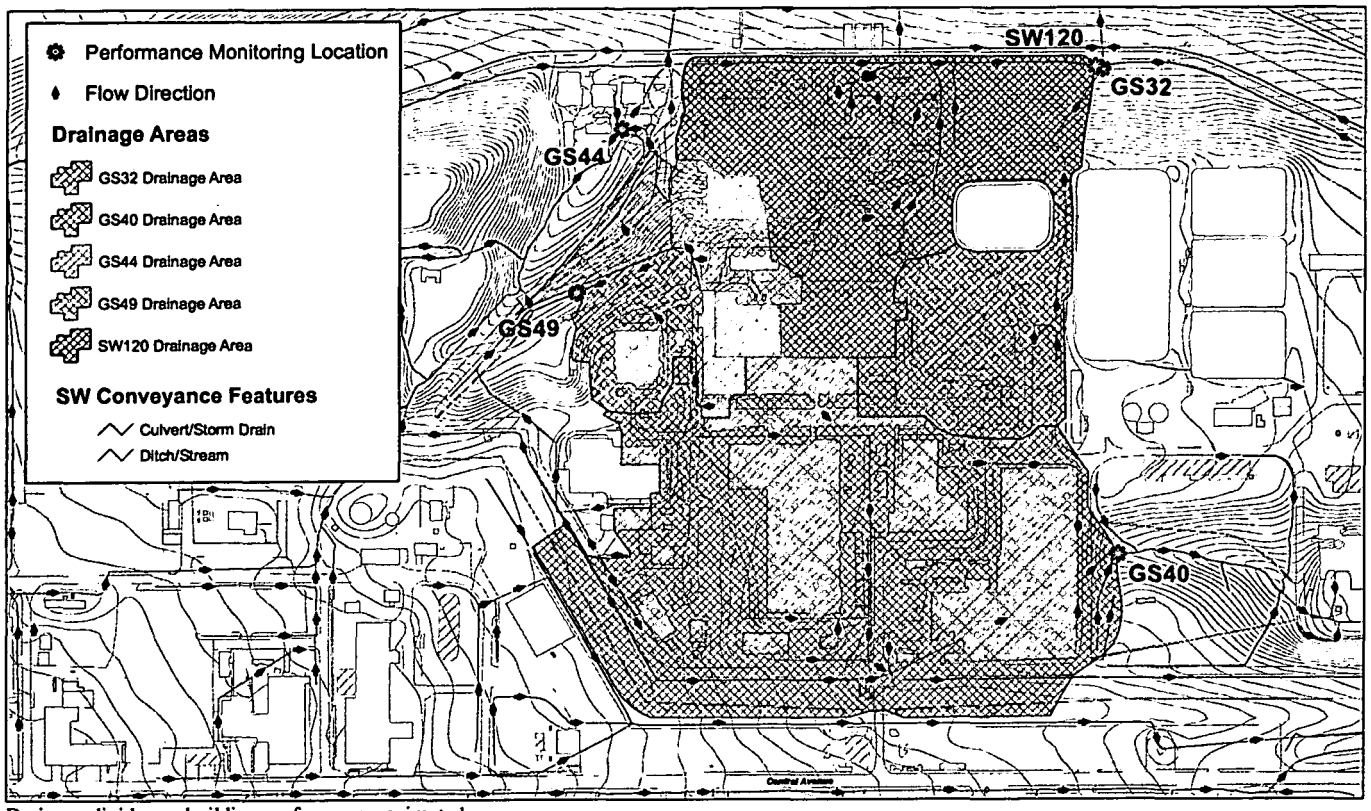
Figure 10-149. Total Metals Box Plots for GS44: Potassium through Zinc.

10.3.8 Building 776/777 D&D

Due to the location of B776/777, multiple downstream Performance monitoring locations are employed. Monitoring location GS32 was originally installed on 1/31/97 in support of the D&D of Building 779, and remains to support the D&D activities for Building 776/777. In support of the B776/777 D&D, tritium was added to the original B779 analyte suite in WY01. Location GS40, originally installed in support of the GS10 Source Evaluation effort on 3/4/98, also supports B776/777. GS44, GS49, and SW120 were installed on 10/4/00, 12/29/00, and 3/14/00, respectively. Figure 10-150 shows the drainage areas for the above locations. Numerous other 700 Area buildings are within these drainages.

Monitoring data for GS40 was previously presented in Section 10.3.5. Monitoring data for GS44 and SW120 was previously presented in Section 10.3.7.

The Performance monitoring data from GS32, GS40, GS44, GS49, and SW120 indicate that closure activities within the B776/777 area did not result in significant changes in water quality as of the end of WY02. Complete data evaluation for GS32 and GS49 is given below.



Drainage divides on building roofs are approximated.

Figure 10-150. Performance Monitoring Drainage Areas for B776/777 D&D.

Monitoring data collected at GS32 have somewhat higher Pu and Am activities than for other automated monitoring locations (Table 10-27). Figure 10-151 and Figure 10-152 show the UTL plots for Pu and Am, respectively. During WY00–02, no Pu or Am results exceeded the calculated UTLs. Figure 10-155 also shows a somewhat lower Pu/Am ratio than expected. This is likely due to the proximity of GS32 to the Solar Ponds.

Figure 10-153 shows the UTL plot for tritium. During WY00–02, no tritium results exceeded the calculated UTL.

A distribution for total uranium could not be determined. Figure 10-157 shows several results for the uranium isotopes that are indicated as 'suspect' by the boxplots (Figure 10-154) The UTL plots show these results as a significant short-term increase in total uranium activities. These samples were collected soon after completion of the demolition of B779. Building personnel were notified of the results and a field investigation ensued. The investigation looked into the possible existence of sumps or drains that may be flowing to GS32. No causes could be determined, and subsequent sample results reverted to normal levels. Figure 10-157 shows a somewhat higher U-233,234/U-238 ratio (approximately 1.54) than expected. This indicates a relative abundance of U-233,234 and is likely due to the proximity of GS32 to the Solar Ponds.

Figure 10-158 shows that suspended solids activity may be decreasing over time.

Table 10-27. Summary Statistics for Radionuclide Results from GS32 in WY00-02.

Analyte	Samples [N]	Median [pCi/L]	85th Percentile [pCi/L]	Maximum [pCi/L]	95% UTL [pCi/L]
TSS [mg/L]	27	182	704	1500	NA
Pu-239,240	31	0.479	2.615	7.14	8.78[a]
Am-241	31	0.494	2.220	4.06	6.36[a]
Tritium	18	21	94	152	241[b]
U-233,234	31	1.290	2.500	10.80	NA[c]
U-235	31	0.057	0.110	0.319	
U-238	31	0.842	1.370	6.41	

Note: [a] Lognormal distribution; [b] Normal distribution; [c] Undetermined distribution.
TSS is given in mg/L.
Uranium UTL given for total uranium.

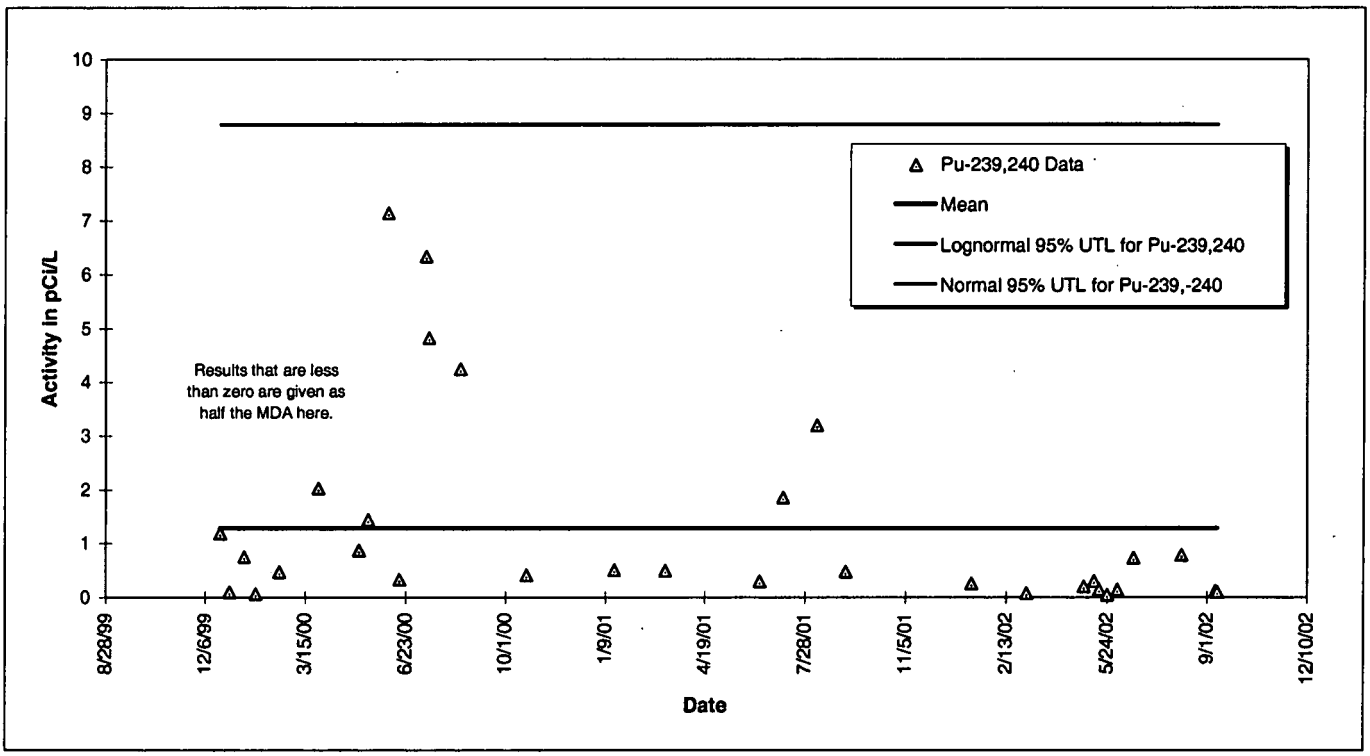


Figure 10-151. 95% UTL Plot for Pu-239,240 at GS32: WY00-02.

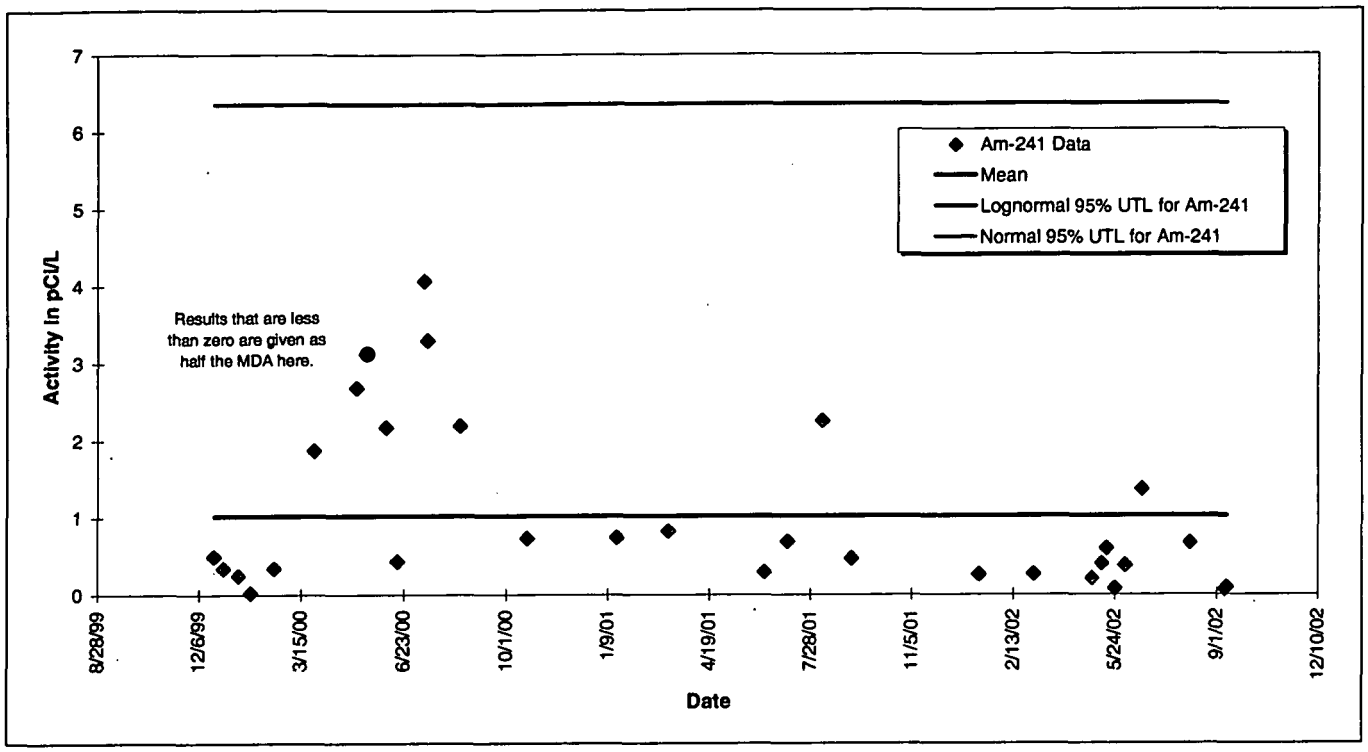


Figure 10-152. 95% UTL Plot for Am-241 at GS32: WY00-02.

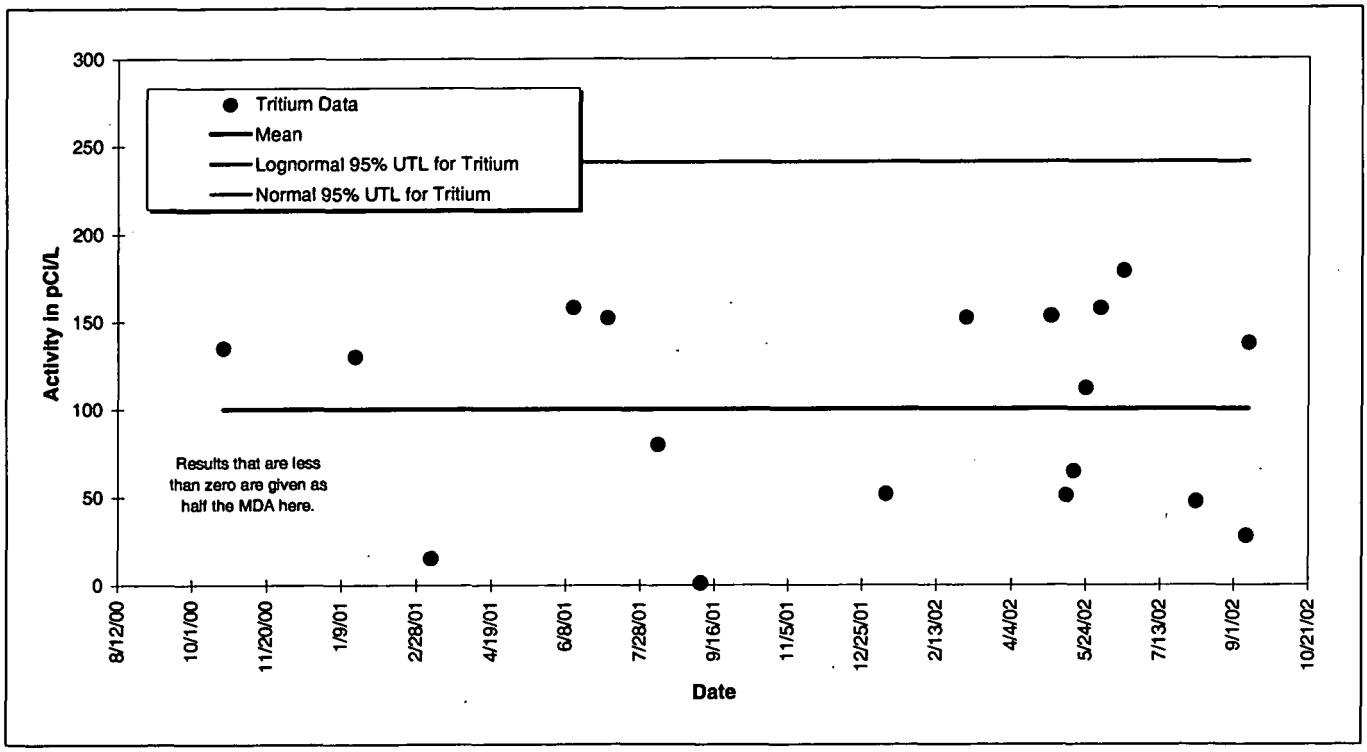


Figure 10-153. 95% UTL Plot for Tritium at GS32: WY00-02.

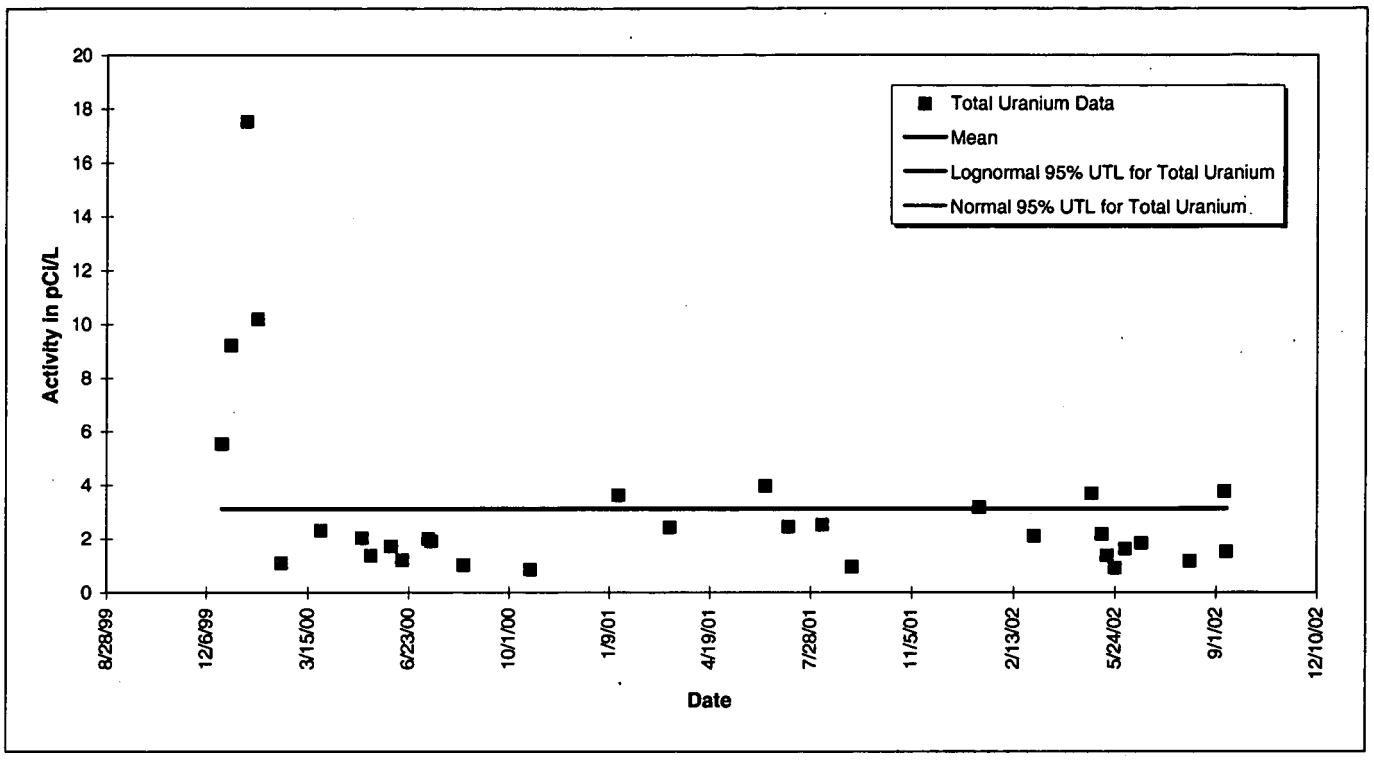


Figure 10-154. 95% UTL Plot for Total Uranium at GS32: WY00-02.

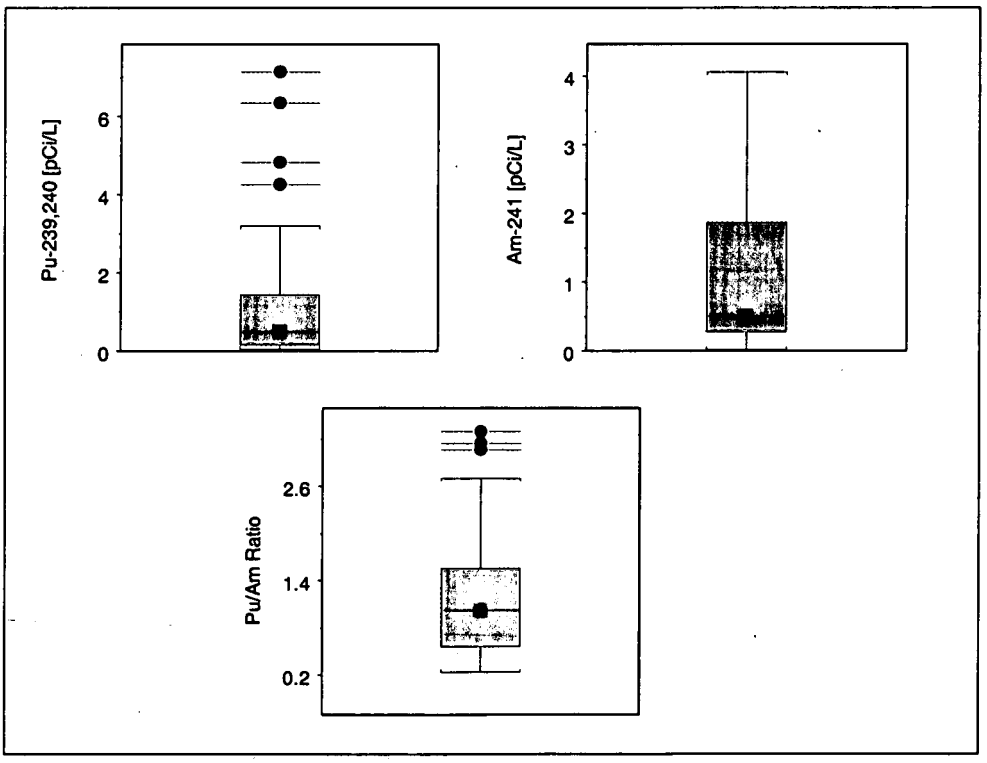


Figure 10-155. Pu and Am Box Plots for GS32: WY00–02.

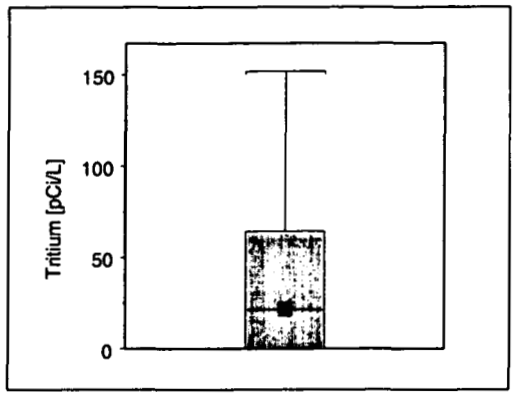


Figure 10-156. Tritium Box Plot for GS32: WY00–02.

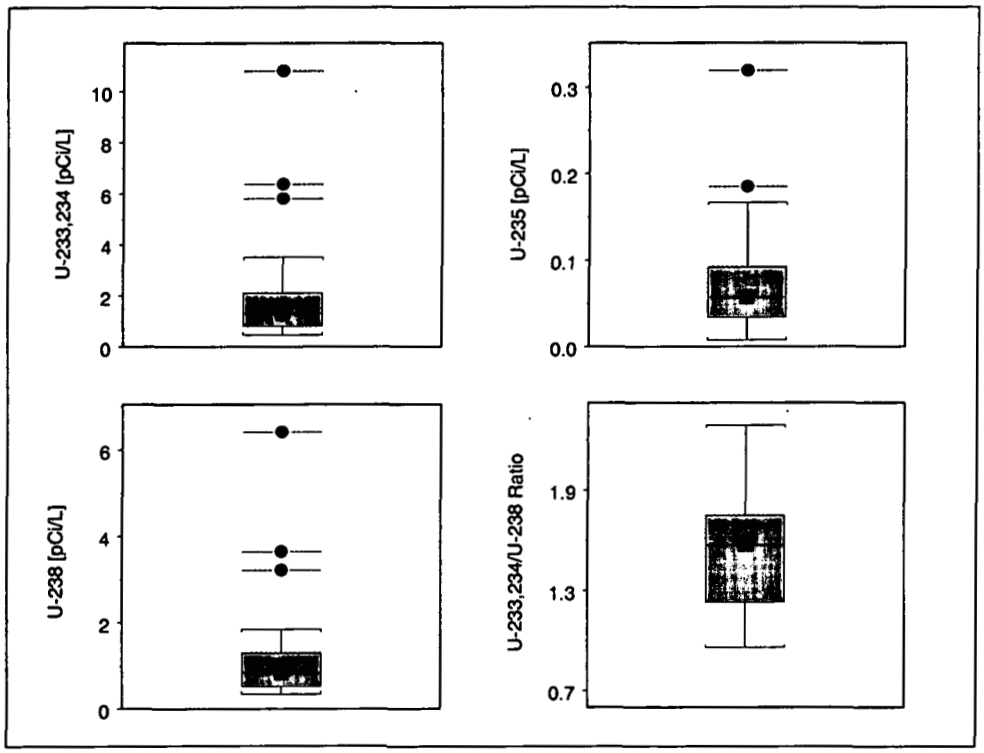


Figure 10-157. Uranium Box Plots for GS32: WY00–02.

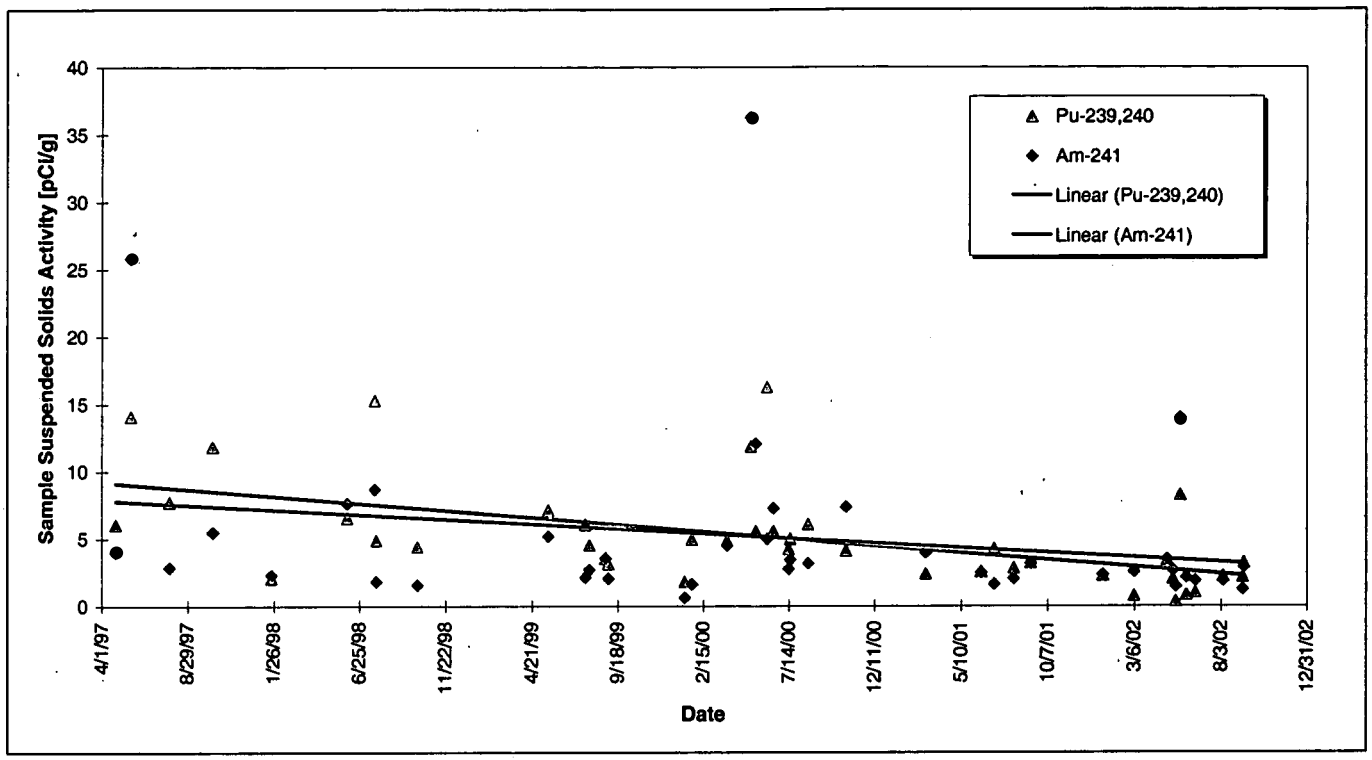


Figure 10-158. Temporal Variation of Suspended Solids Activity at GS32: WY97–02.

Table 10-28 shows the total metals results for samples collected at GS32. Figure 10-159 through Figure 10-163 show the UTL plots for the metals. For the metals with a determined distribution, most results did not exceed the calculated UTL. Only Ba, Ca, Li, Mg, Mn, and Sn showed results greater than the UTL. For Ba and Mn, none of the results are indicated as 'suspect' by the boxplots (Figure 10-164 and Figure 10-166). For Ca and Mg. The higher metals values coincide with the completion of the B779 demolition. The increased deconstruction activities and accumulation of demolition debris may have resulted in the higher concentrations. In addition, heavy winter road/walkway salting has been noted to cause water-quality impacts at the Site. Expected increases in K and Na can clearly be seen below. Trace constituents in these products could also be causing elevated concentrations for other metals. For both Li and Sn, a single result for each was greater than the UTL, but a persistent trend is not noted. In all cases, subsequent samples showed normal concentrations for the metals noted above.

For the metals with undetermined distributions, Sb, Hg, Mo, K, Ag, Na, Sr, and Tl show 'suspect' values as indicated by the boxplots. The K, Na, and Sr values are likely associated with salting operations (a relationship between Na and Sr has been noted at the Site). Additionally, trace constituents in these products could also be causing elevated concentrations for other metals. The single 'suspect' Sb value is associated with a large storm event and a corresponding TSS value of 1130 mg/L. For Hg, Mo, and Ag, the higher metals values coincide with the completion of the B779 demolition. The increased deconstruction activities and accumulation of demolition debris may have resulted in the higher concentrations. Subsequent sample results do not indicate a persistent trend. For Tl, nearly all of the results were below the detection limit, and the data do not indicate a persistent trend.

Table 10-28. Summary Statistics for Metals Results from GS32 in WY00-02.

Analyte	Samples [N]	Percent Undetect	Median [µg/L]	85th Percentile [µg/L]	Maximum [µg/L]	95% UTL [µg/L]
ALUMINUM	31	0.0%	5440	17950	30200	40425[a]
ANTIMONY	31	3.2%	9.40	16.2	31.5	NA[c]
ARSENIC	31	0.0%	3.70	8.40	12.6	12.9[a]
BARIUM	31	0.0%	173	254	361	357[b]
BERYLLIUM	31	0.0%	0.40	0.95	1.40	1.97[a]
CADMIUM	31	3.2%	1.30	2.25	3.00	3.08[b]
CALCIUM	31	0.0%	58600	84250	164000	145455[a]
CHROMIUM	31	0.0%	13.4	30.3	49.6	26.6[a]
COBALT	31	0.0%	3.50	6.80	12.3	14.7[a]
COPPER	31	0.0%	38.6	64.9	109	114[a]/98.1[b]
IRON	31	0.0%	8340	18650	35500	43555[a]
LEAD	31	0.0%	19.0	52.3	91.8	109[a]
LITHIUM	31	0.0%	32.2	91.7	177	151[a]
MAGNESIUM	31	0.0%	7070	10350	18200	17795[a]/16288[b]
MANGANESE	31	0.0%	272	471	767	705[b]
MERCURY	31	71.0%	0.05	0.12	0.27	NA[c]
MOLYBDENUM	31	0.0%	3.90	5.85	28.5	NA[c]
NICKEL	31	0.0%	10.6	20.7	33.1	38.9[a]
POTASSIUM	31	0.0%	16600	34700	674000	NA[c]
SELENIUM	31	54.8%	0.60	1.85	2.40	NA[c]
SILVER	31	77.4%	0.13	0.27	2.10	NA[c]
SODIUM	31	0.0%	98600	1250000	3360000	NA[c]
STRONTIUM	31	0.0%	253	743	2050	NA[c]
THALLIUM	31	87.1%	0.49	0.80	1.80	NA[c]
TIN	31	54.8%	0.60	1.65	3.50	2.68[a]
VANADIUM	31	0.0%	20.4	45.0	79.4	82.6[a]
ZINC	31	0.0%	1240	5080	8150	10390[a]

Note: [a] Lognormal distribution; [b] Normal distribution; [c] Undetermined distribution.

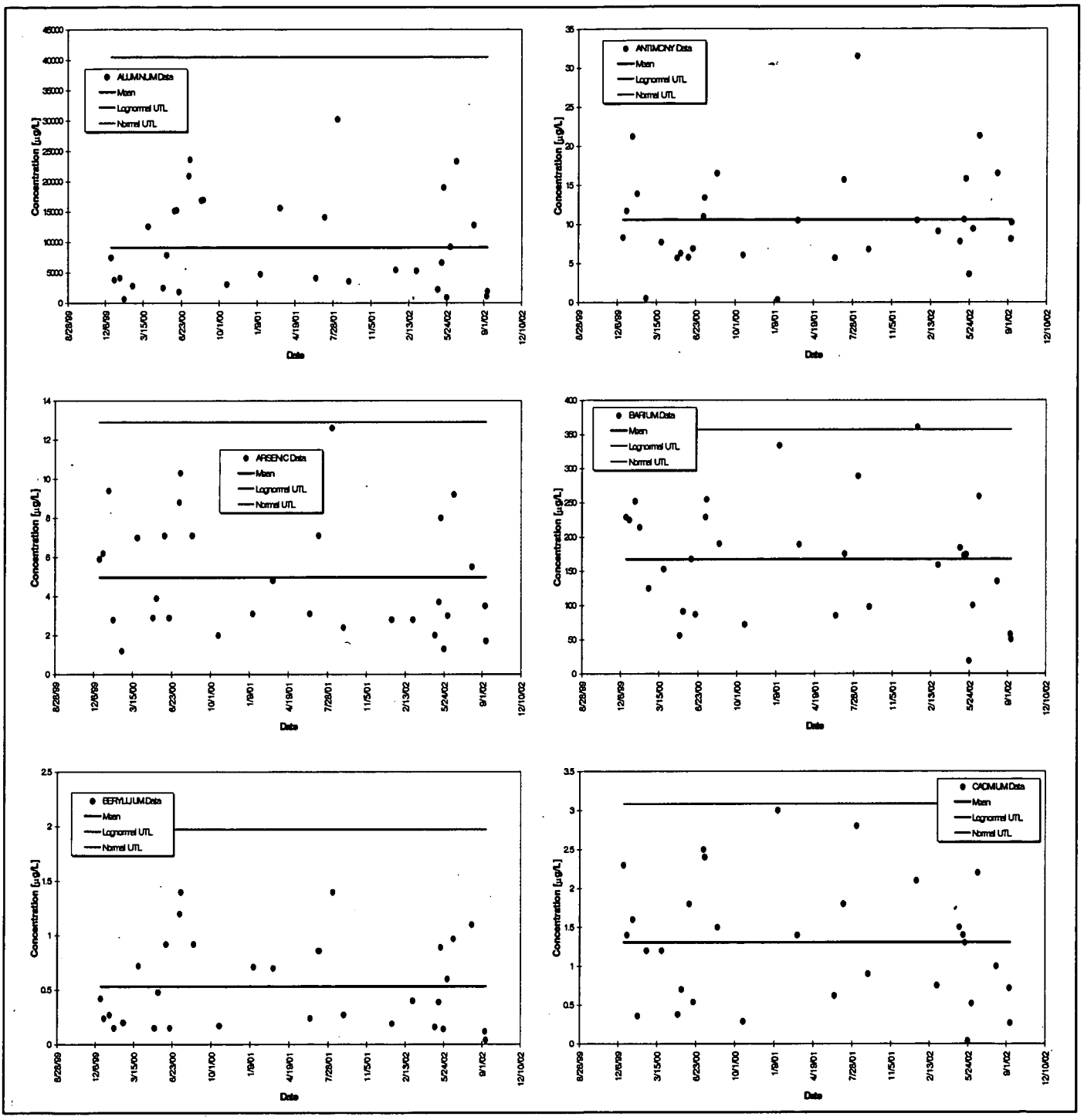


Figure 10-159. Total Metals UTL Plots for GS32: Aluminum through Cadmium.

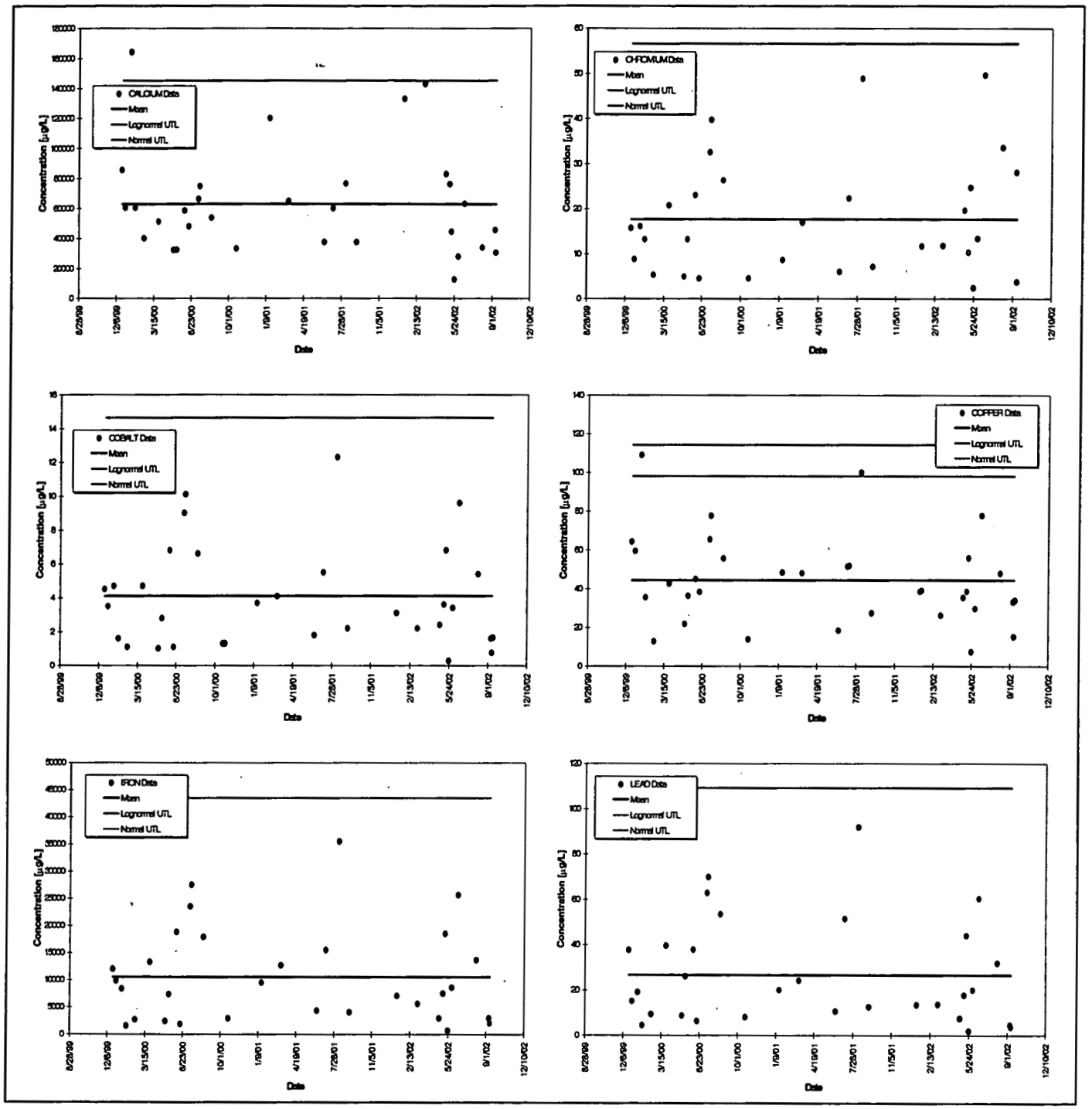


Figure 10-160. Total Metals UTL Plots for GS32: Calcium through Lead.

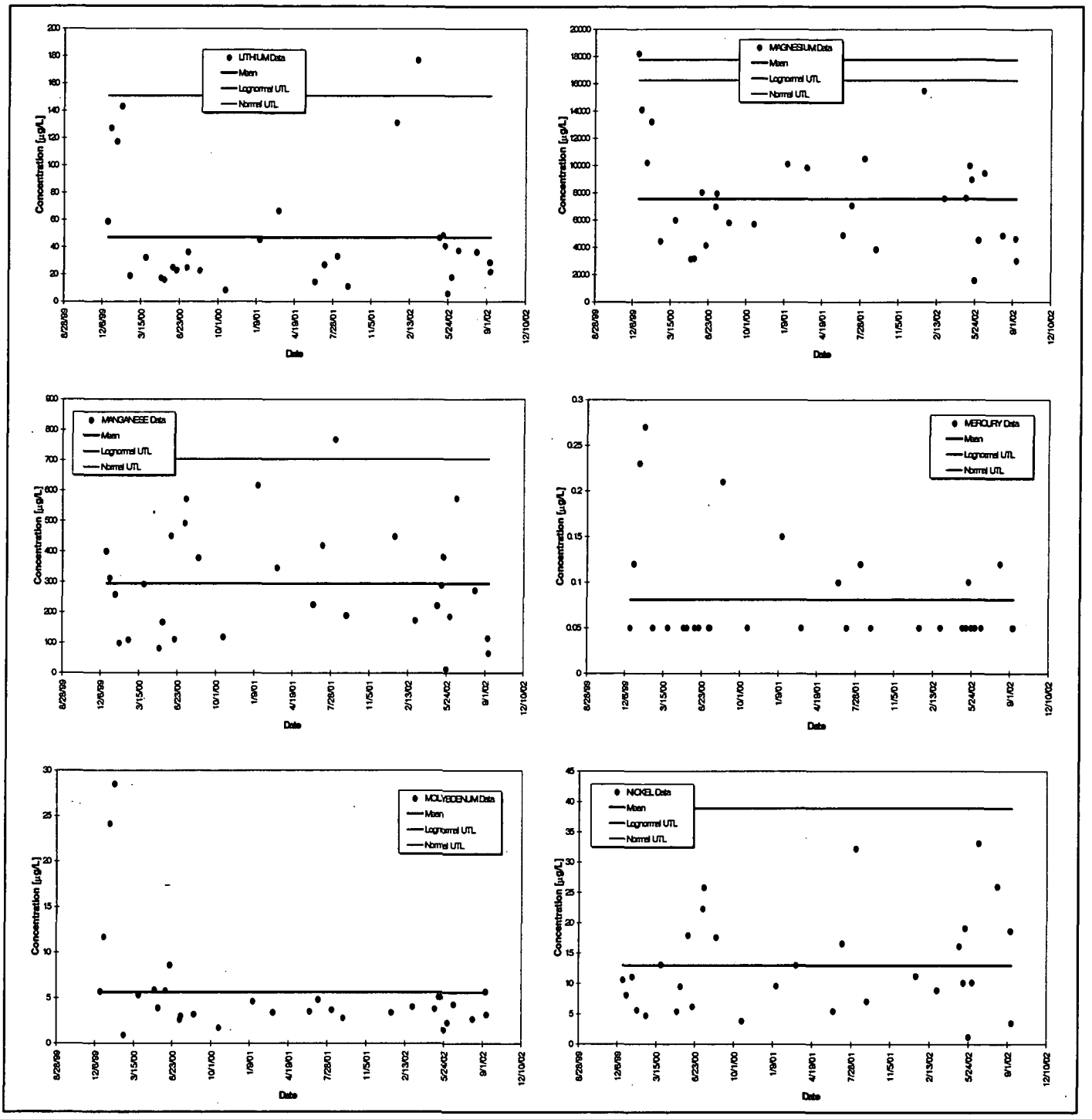


Figure 10-161. Total Metals UTL Plots for GS32: Lithium through Nickel.

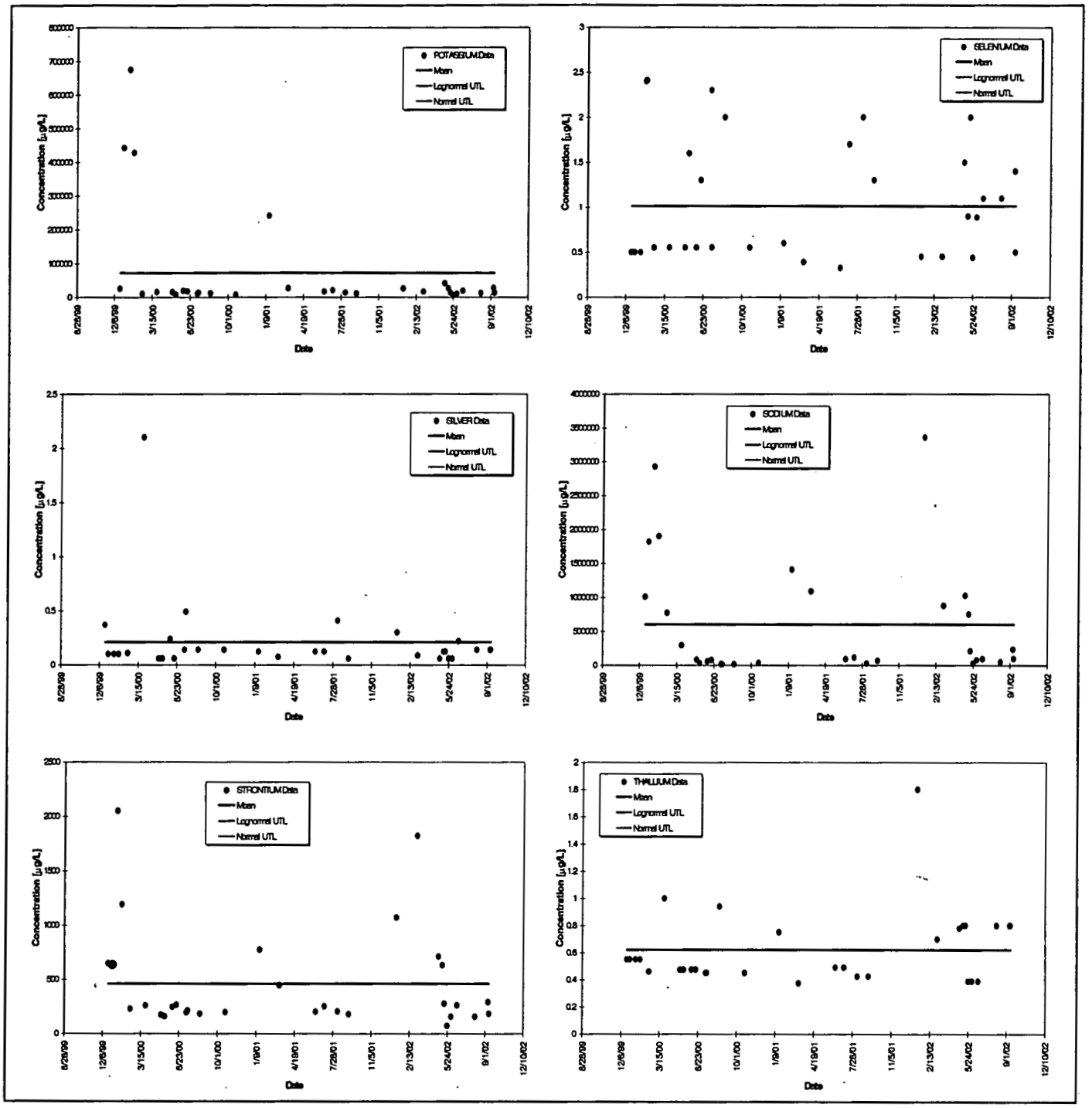


Figure 10-162. Total Metals UTL Plots for GS32: Potassium through Thallium.

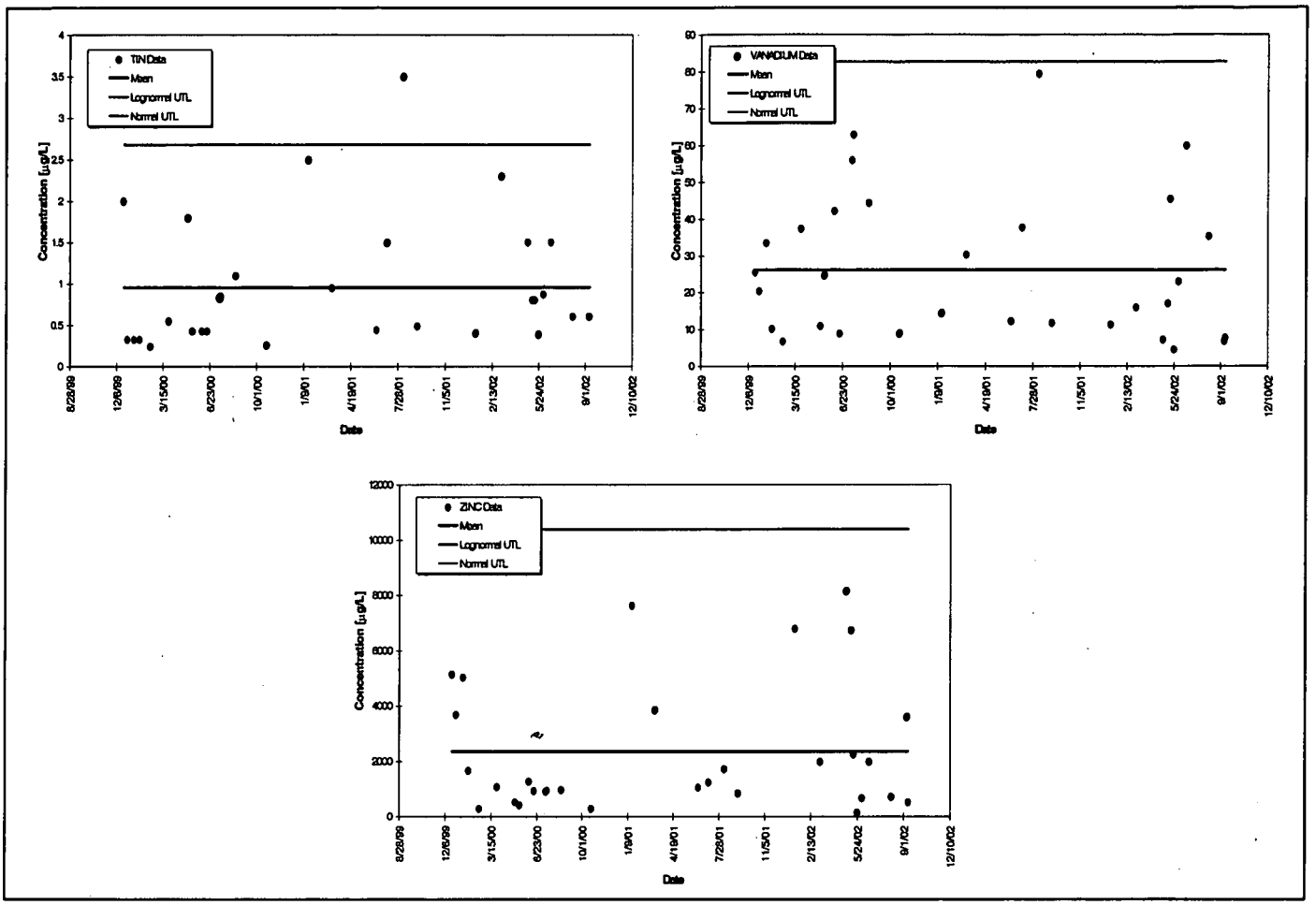


Figure 10-163. Total Metals UTL Plots for GS32: Tin through Zinc.

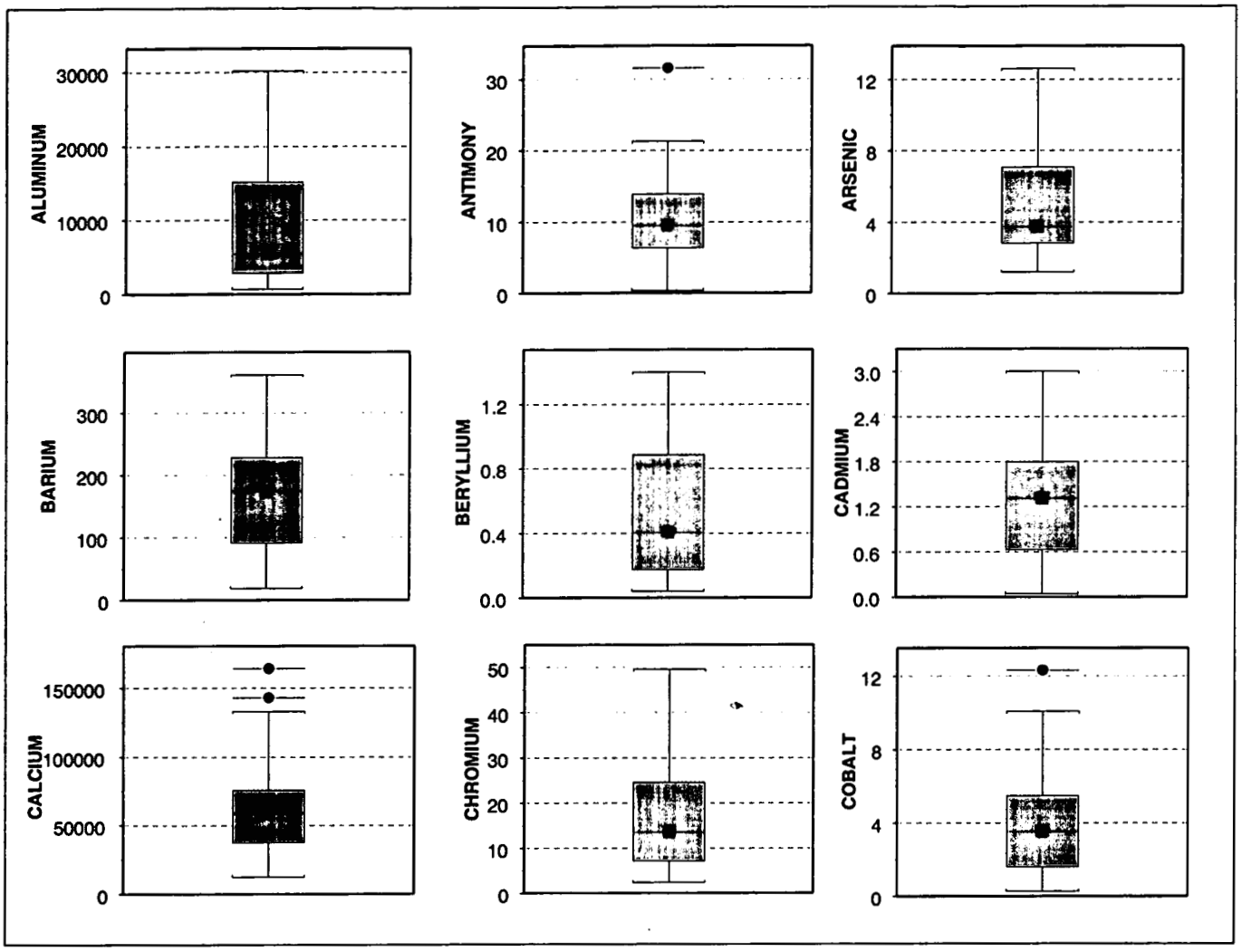


Figure 10-164. Total Metals Box Plots for GS32: Aluminum through Cobalt.

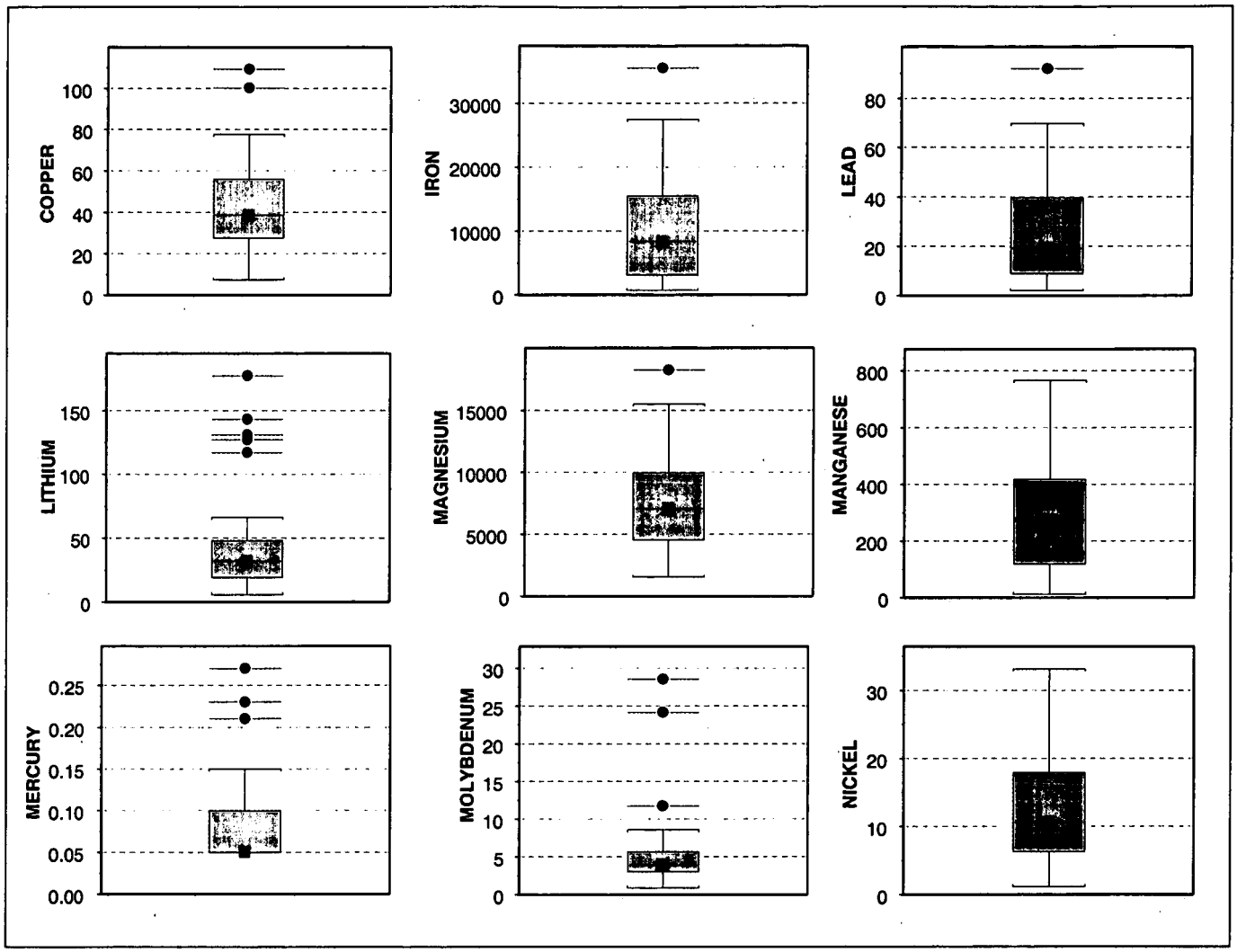


Figure 10-165. Total Metals Box Plots for GS32: Copper through Nickel.

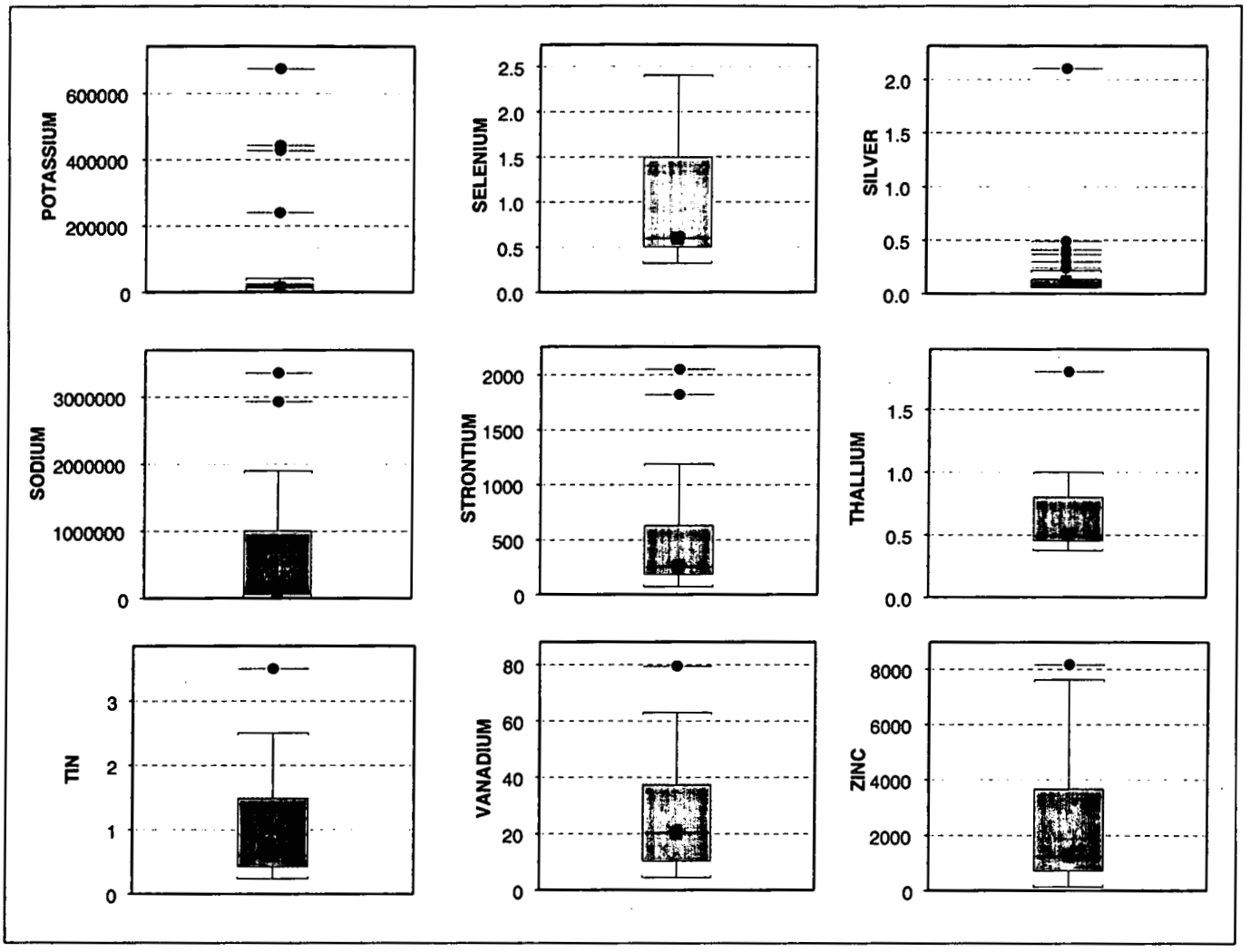


Figure 10-166. Total Metals Box Plots for GS32: Potassium through Zinc.

Monitoring data collected at GS49 show low Pu and Am activities (Table 10-29). Figure 10-167 and Figure 10-168 show the UTL plots for Pu and Am, respectively. During WY00–02, no Pu or Am results exceeded the calculated UTLs.

Figure 10-169 shows the UTL plot for tritium. During WY00–02, no tritium results exceeded the calculated UTL.

Monitoring data collected at GS49 show low median total uranium activities (Table 10-29). Figure 10-170 shows that none of the total uranium results were greater than the calculated UTL.

Figure 10-173 shows a U-233,234/U-238 ratio of approximately 1.16, as expected.

The temporal variation of suspended solids activity is not given since a single sample was collected within TSS hold time criteria.

Table 10-29. Summary Statistics for Radionuclide Results from GS49 in WY00-02.

Analyte	Samples [N]	Median [pCi/L]	85th Percentile [pCi/L]	Maximum [pCi/L]	95% UTL [pCi/L]
TSS [mg/L]	1	271	271	271	NA
Pu-239,240	13	0.006	0.041	0.101	0.179[a]
Am-241	13	0.004	0.027	0.050	0.095[a]
Tritium	13	0	82	111	232[b]
U-233,234	13	0.163	0.699	1.490	3.678[a]
U-235	13	0.004	0.044	0.103	
U-238	13	0.153	0.712	1.440	

Note: [a] Lognormal distribution; [b] Normal distribution; [c] Undetermined distribution.
TSS is given in mg/L.
Uranium UTL given for total uranium.

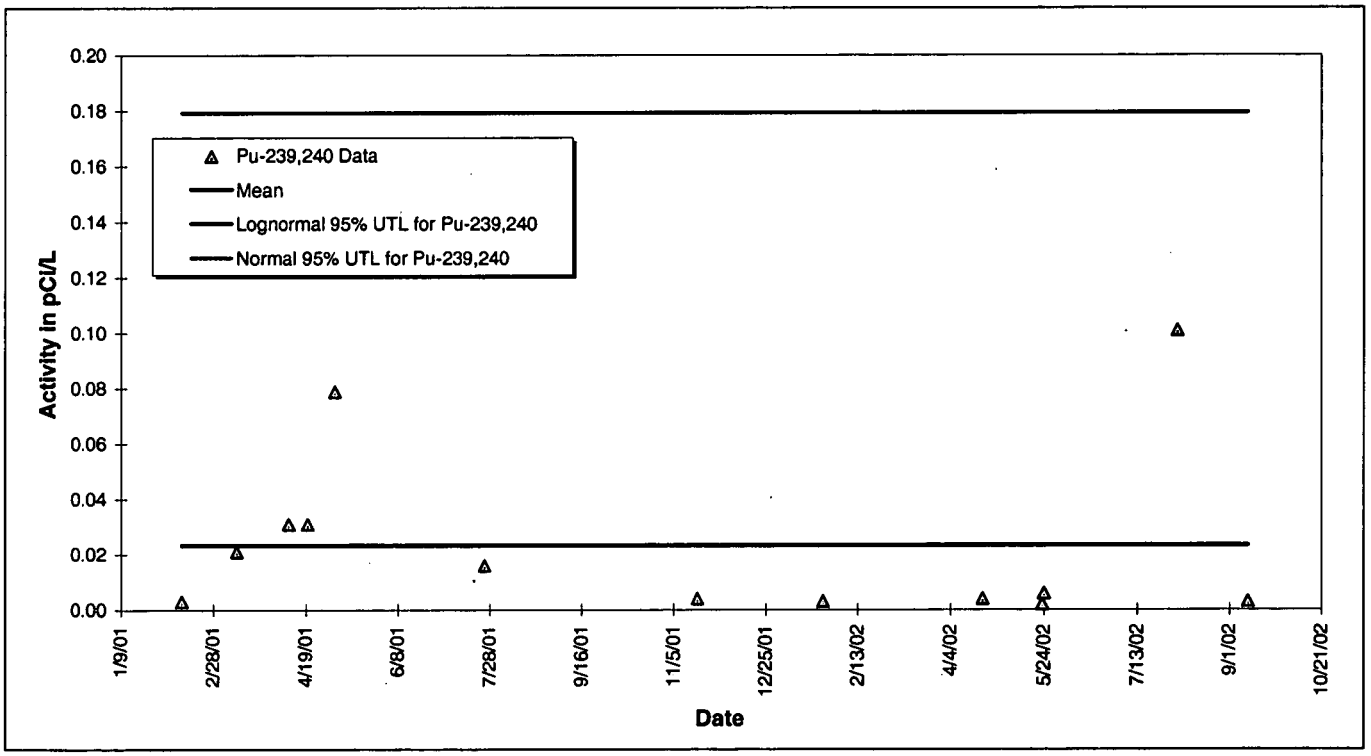


Figure 10-167. 95% UTL Plot for Pu-239,240 at GS49: WY00-02.

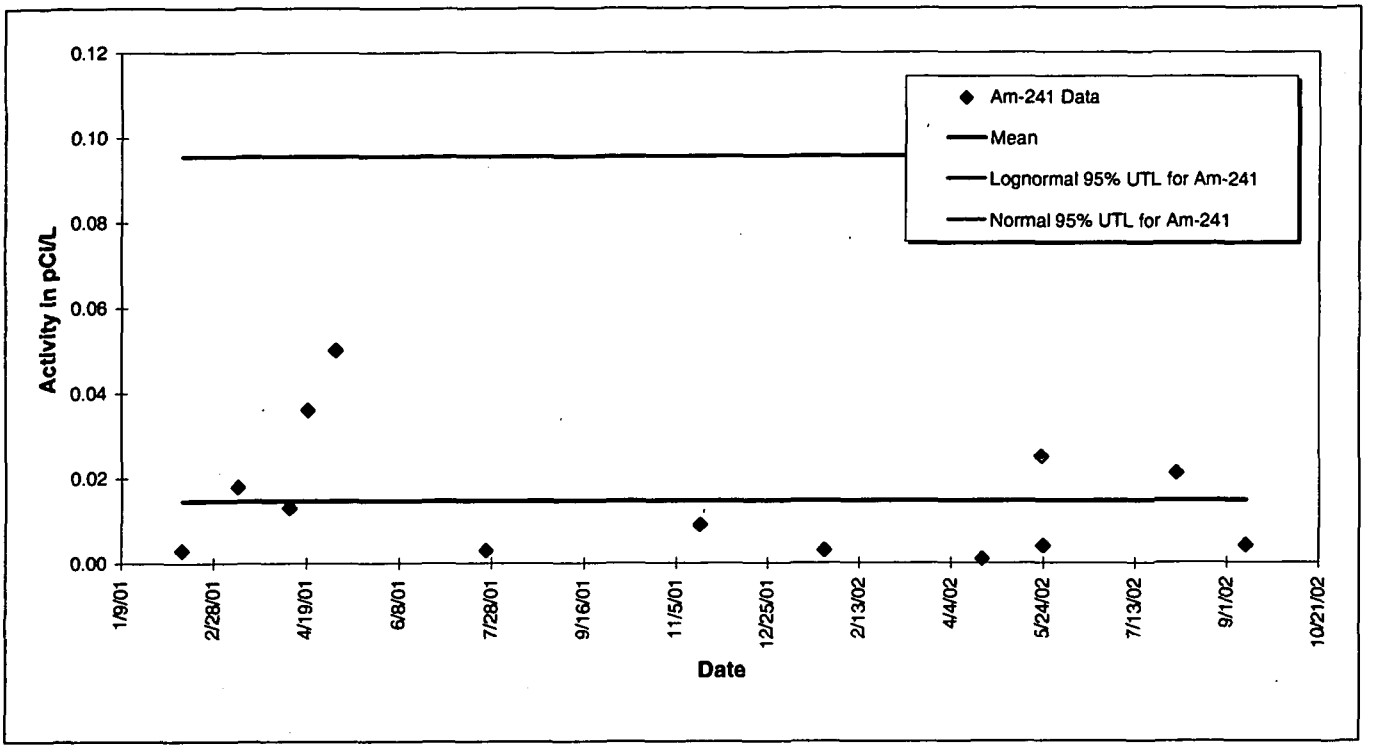


Figure 10-168. 95% UTL Plot for Am-241 at GS49: WY00-02.

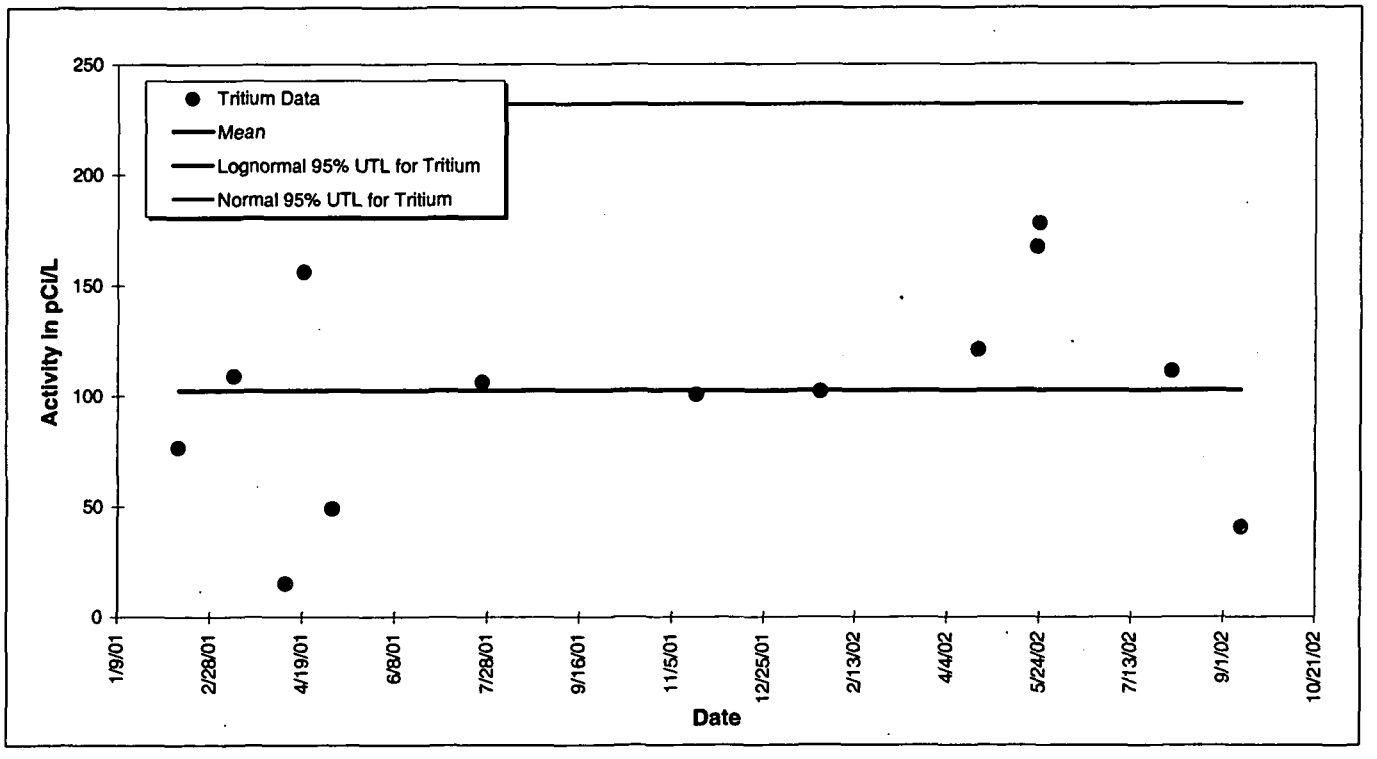


Figure 10-169. 95% UTL Plot for Tritium at GS49: WY00-02.

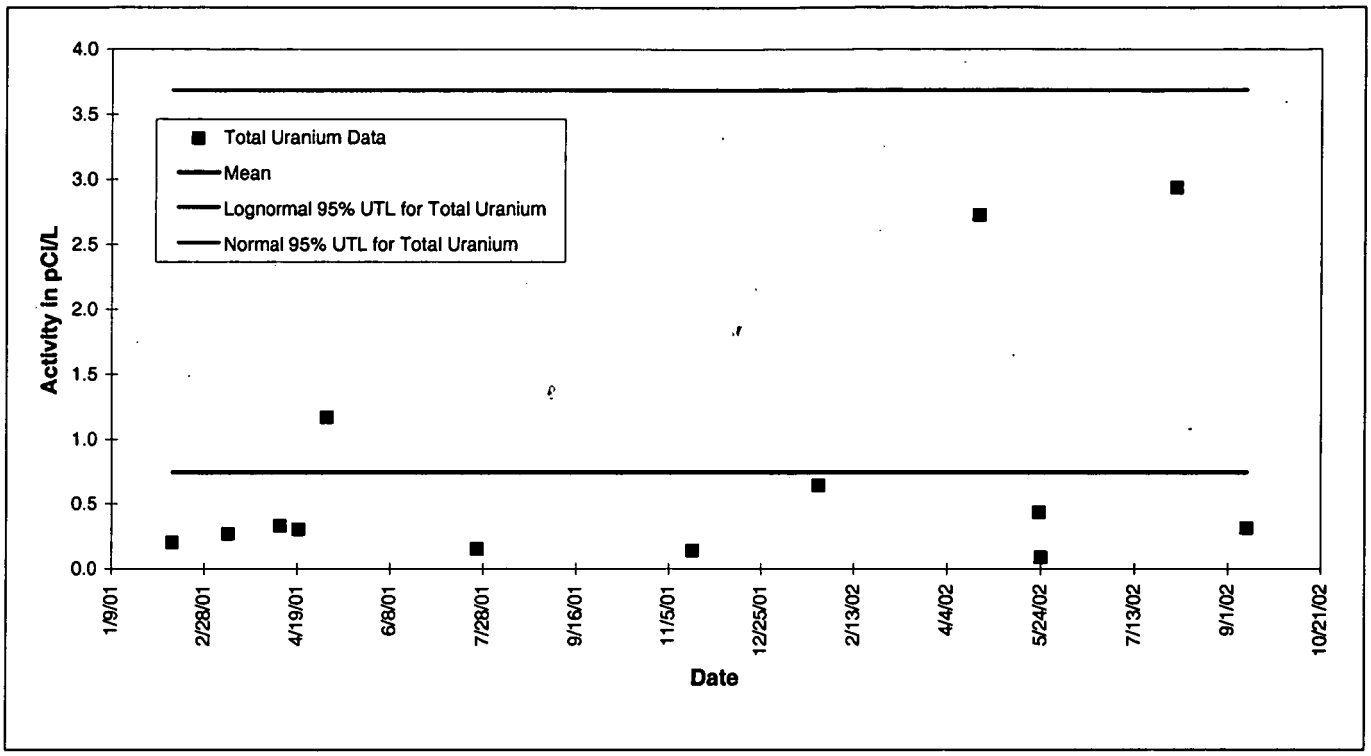


Figure 10-170. 95% UTL Plot for Total Uranium at GS49: WY00-02.

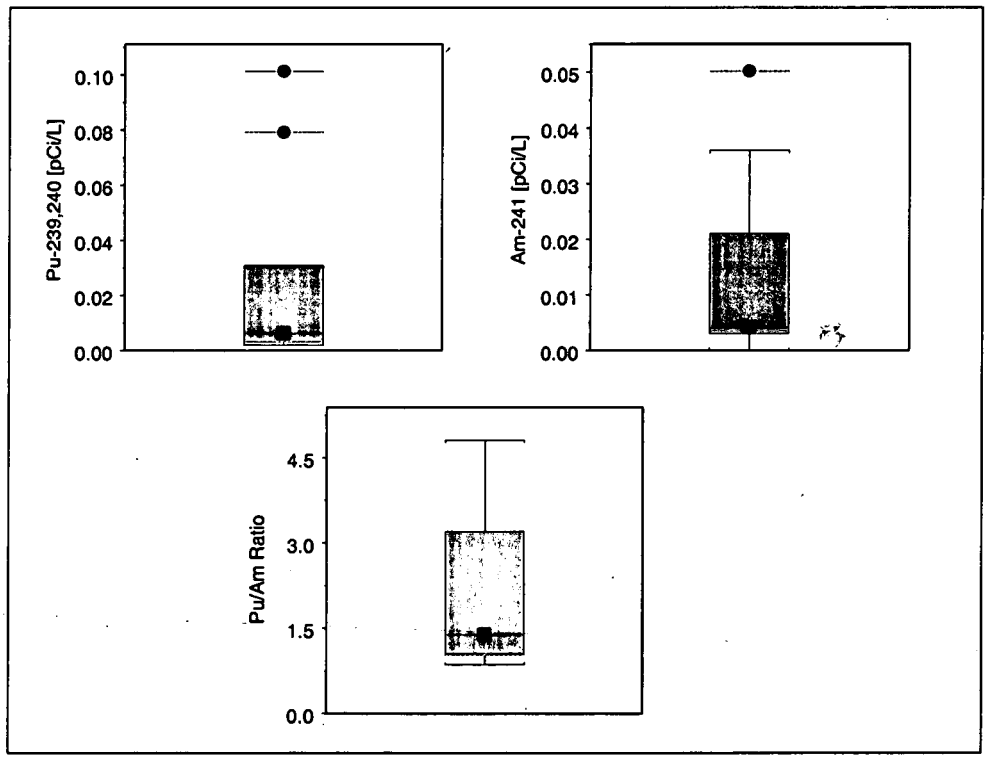


Figure 10-171. Pu and Am Box Plots for GS49: WY00–02.

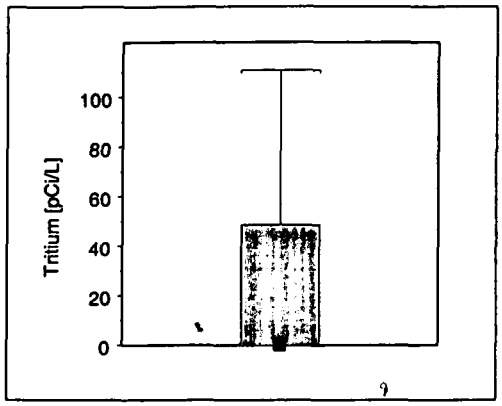


Figure 10-172. Tritium Box Plot for GS49: WY00–02.

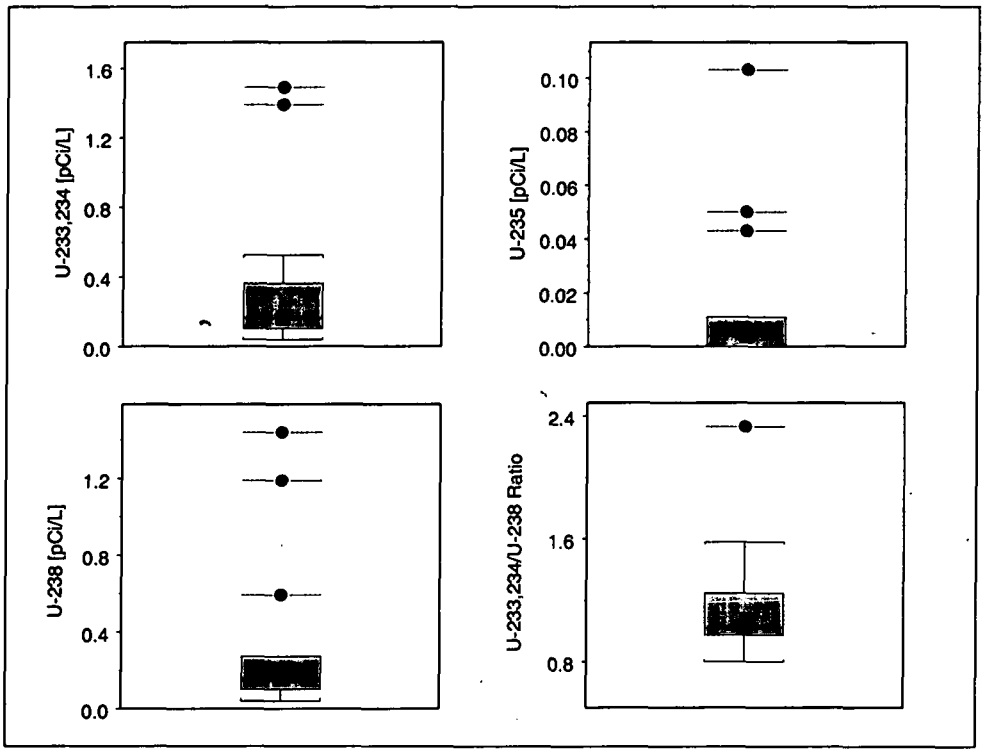


Figure 10-173. Uranium Box Plots for GS49: WY00–02.

Table 10-30 shows the total metals results for samples collected at GS49. Figure 10-174 through Figure 10-178 show the UTL plots for the metals. For the metals with a determined distribution, Ca, Cr, Co, Li, Mn, Mo, Ni, and Sr showed results greater than the calculated UTL. For Ca and Sr, the single result for each was associated with a sample for the period 11/18/01-1/25/02. Heavy winter road/walkway salting has been noted to cause water-quality impacts at the Site. Trace constituents in these products could also be causing elevated concentrations for other metals (Sr has been noted to be associated with deicing operations at the Site). The higher Cr, Co, Li, Mn, and Ni results are all associated with the same sample (8/4-9/11/02) with the highest average flow rate to date at GS49. These high flow rates are likely the cause of the measured metals as TSS

concentrations are likely to have been elevated accordingly. The cause of the single Mo result greater than the UTL is unknown, though no persistent trend is noted.

Data for metals Cu, Hg, Ag, Tl, and Sn had undetermined distributions. All of the Hg and Ag data were 'undetects'. None of the Tl results are indicated as 'suspect' by the boxplots (Figure 10-181). For Fe, one result (5/5-8/9/01, 8530 µg/L) is indicated as 'suspect' by the boxplot (Figure 10-133). For Cu, the single 'suspect' result was from the high runoff sample noted above. For Sn, one of the 'suspect' results was marginally above the detection limit, while the cause of the other result is unknown. Subsequent sample results do not support a persistent trend.

Table 10-30. Summary Statistics for Metals Results from GS49 in WY00-02.

Analyte	Samples [N]	Percent Undetect	Median [µg/L]	85th Percentile [µg/L]	Maximum [µg/L]	95% UTL [µg/L]
ALUMINUM	13	0.0%	6170	17580	41400	62059[a]
ANTIMONY	13	30.8%	0.87	2.48	2.90	6.20[a]/3.95[b]
ARSENIC	13	15.4%	2.60	7.60	14.4	22.0[a]
BARIUM	13	0.0%	50.1	176	289	465[a]
BERYLLIUM	13	7.7%	0.28	0.81	2.20	4.19[a]
CADMIUM	13	23.1%	0.18	0.76	2.00	2.99[a]
CALCIUM	13	0.0%	9610	25740	70900	54794[a]
CHROMIUM	13	0.0%	7.30	17.6	48.6	43.9[a]
COBALT	13	0.0%	1.00	4.78	13.8	11.4[a]
COPPER	13	0.0%	23.8	46.2	84.6	NA[c]
IRON	13	0.0%	4620	14900	37300	51633[a]
LEAD	13	0.0%	4.10	13.2	31.2	34.1[a]
LITHIUM	13	0.0%	5.90	13.6	33.5	31.7[a]
MAGNESIUM	13	0.0%	1740	5376	8180	10990[a]
MANGANESE	13	0.0%	71.3	193	672	522[a]
MERCURY	12	100.0%	0.05	0.05	0.05	NA[c]
MOLYBDENUM	13	15.4%	0.88	1.84	12.6	9.28[a]
NICKEL	13	0.0%	5.30	14.5	34.0	28.5[a]
POTASSIUM	13	0.0%	2930	6364	10600	15328[a]/11219[b]
SELENIUM	13	46.2%	0.82	1.72	2.30	3.23[a]/2.77[b]
SILVER	13	100.0%	0.09	0.13	0.14	NA[c]
SODIUM	13	0.0%	36400	121200	319000	1313638[a]
STRONTIUM	13	0.0%	44.8	116	347	296[a]
THALLIUM	13	92.3%	0.49	0.78	0.80	NA[c]
TIN	13	76.9%	0.44	0.84	2.10	NA[c]
VANADIUM	13	0.0%	11.3	35.3	83.7	145[a]
ZINC	13	0.0%	171	400	928	1454[a]

Note: [a] Lognormal distribution; [b] Normal distribution; [c] Undetermined distribution.

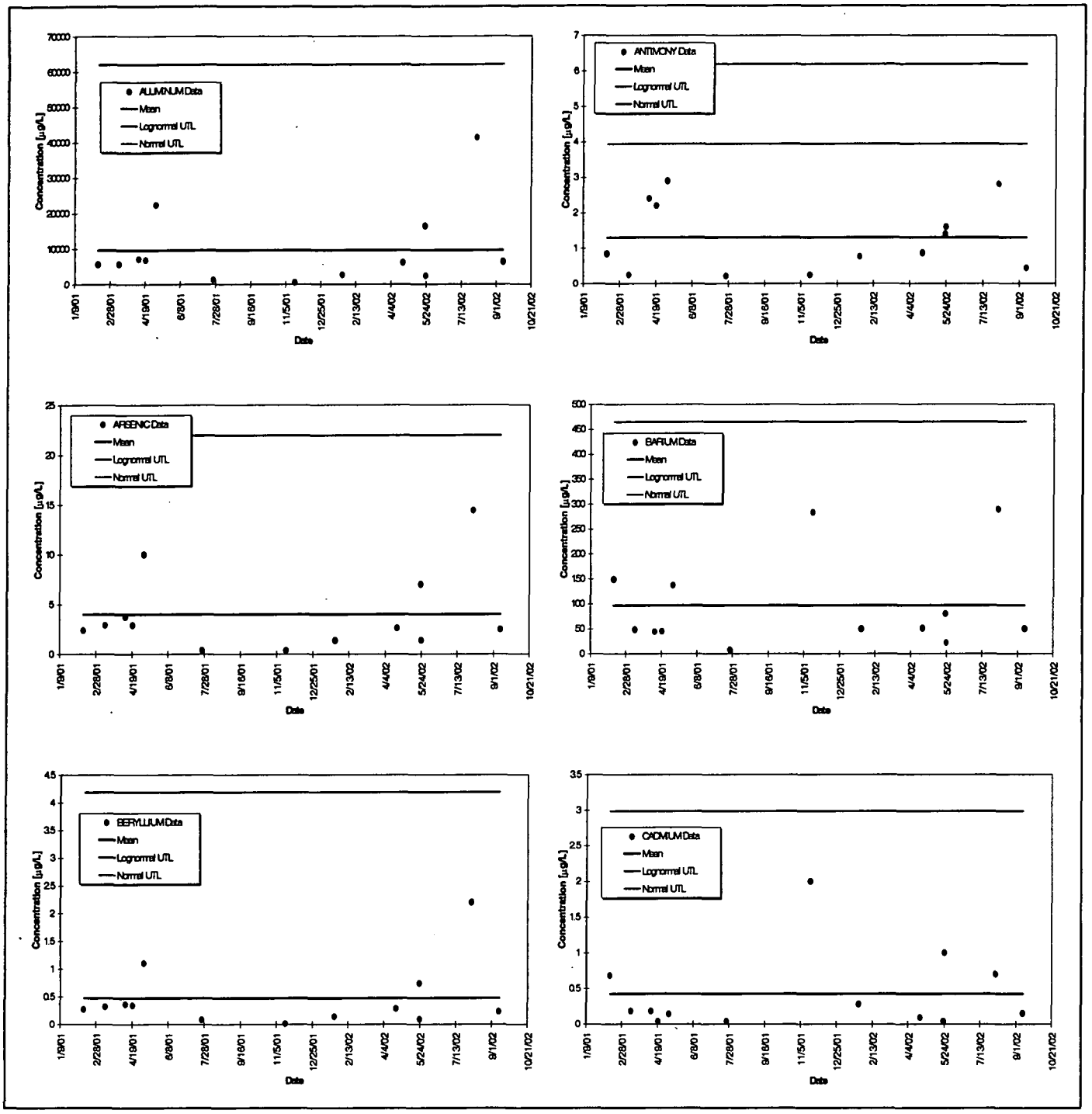


Figure 10-174. Total Metals UTL Plots for GS49: Aluminum through Cadmium.

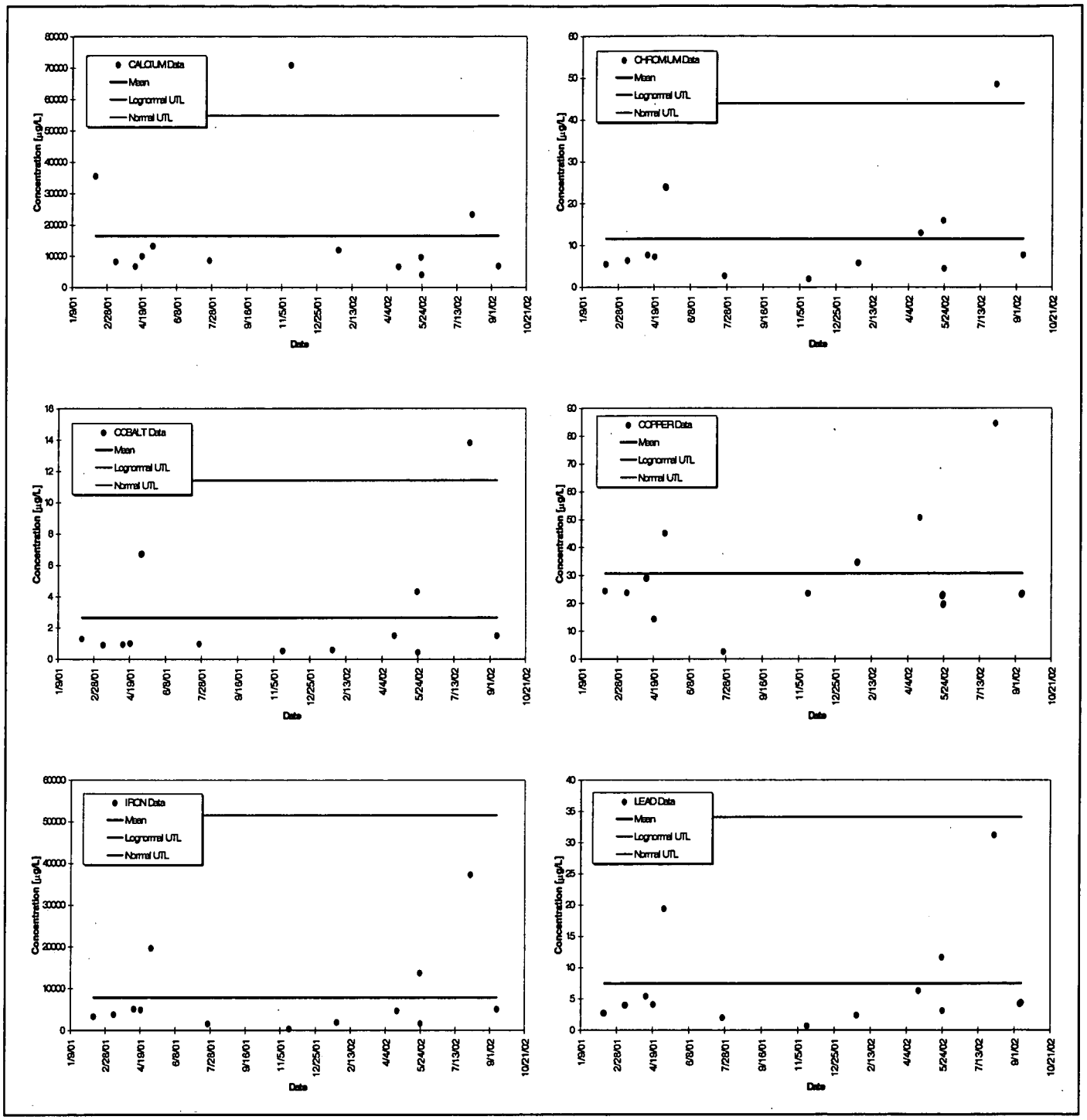


Figure 10-175. Total Metals UTL Plots for GS49: Calcium through Lead.

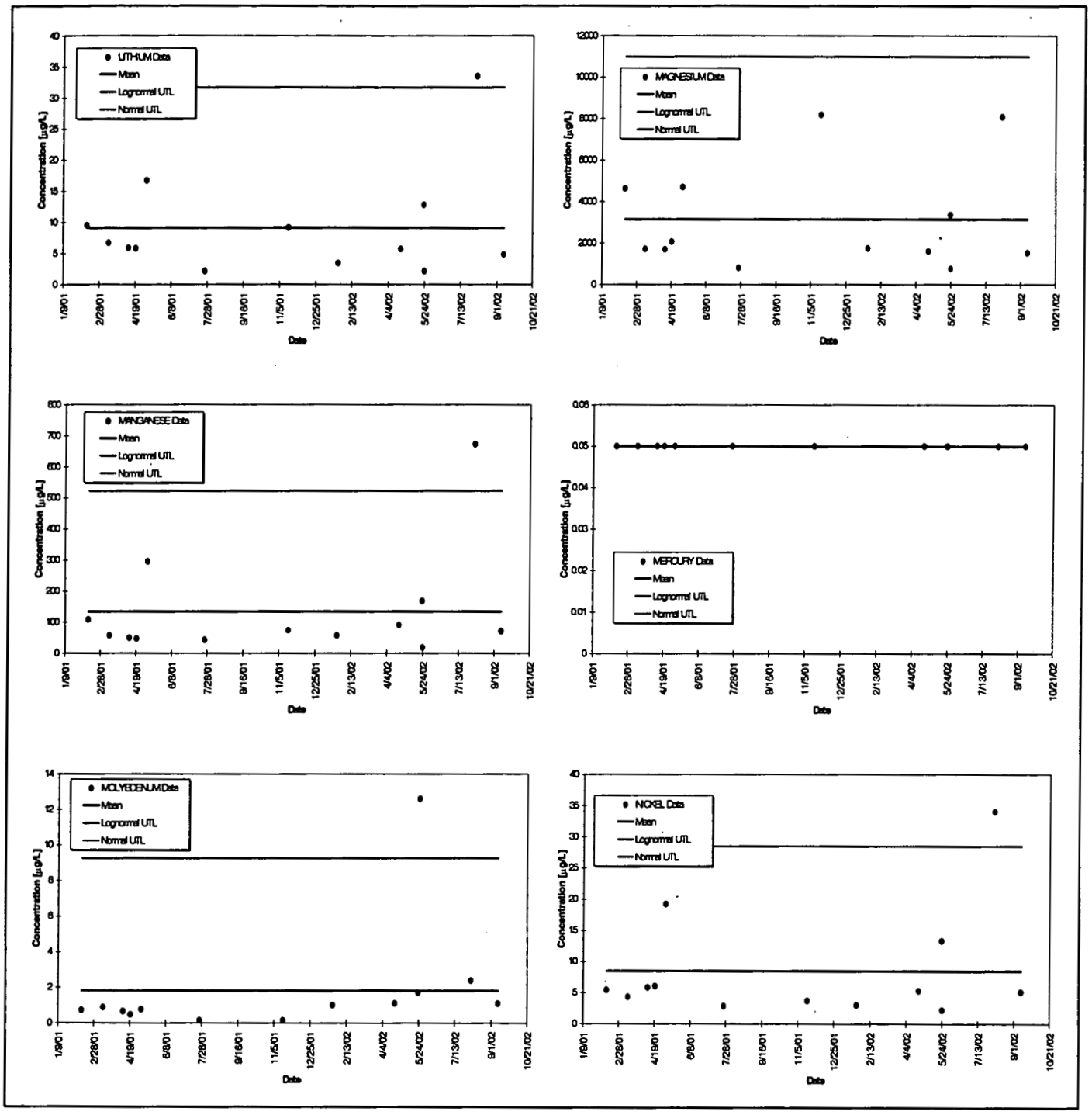


Figure 10-176. Total Metals UTL Plots for GS49: Lithium through Nickel.

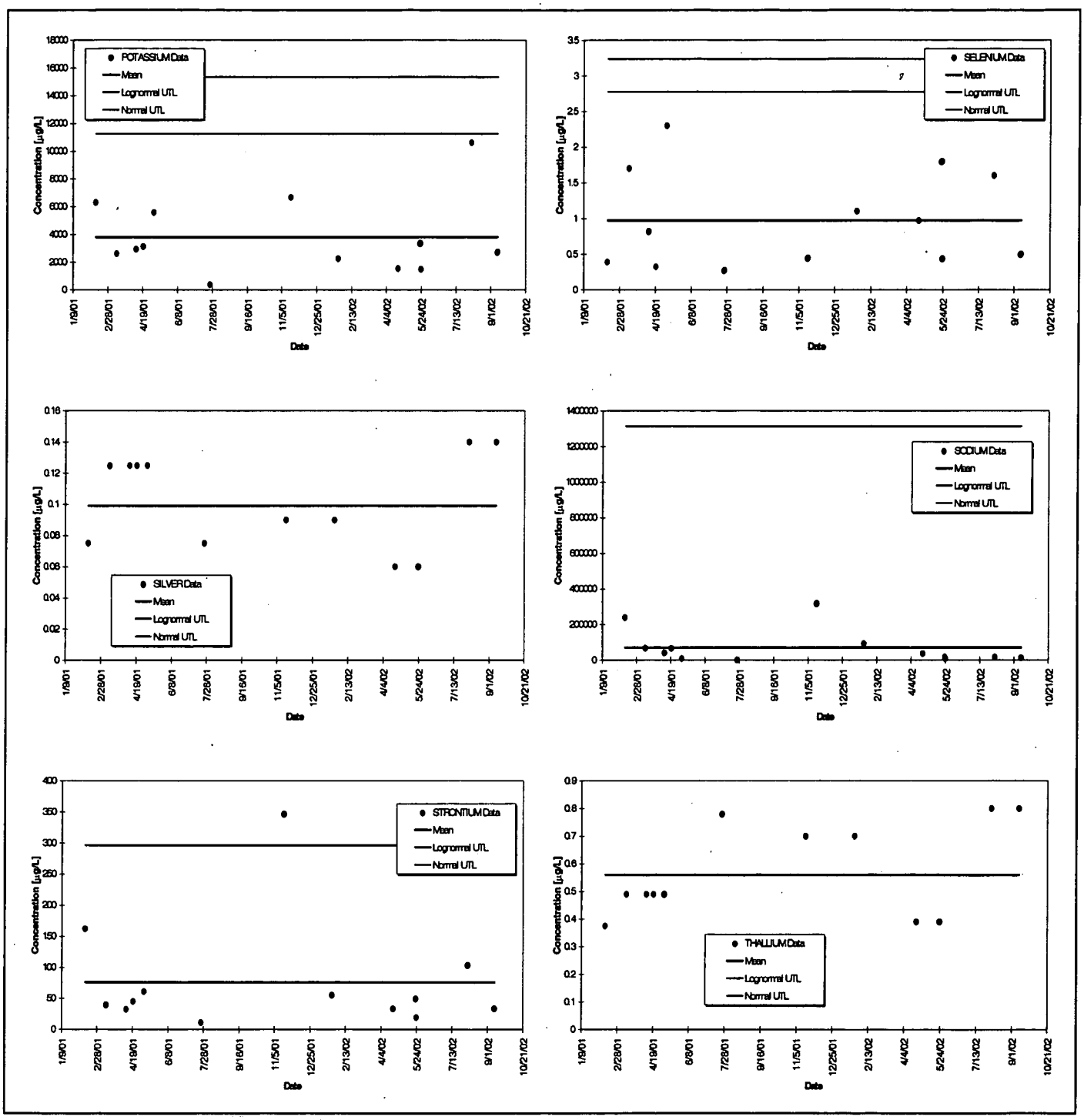


Figure 10-177. Total Metals UTL Plots for GS49: Potassium through Thallium.

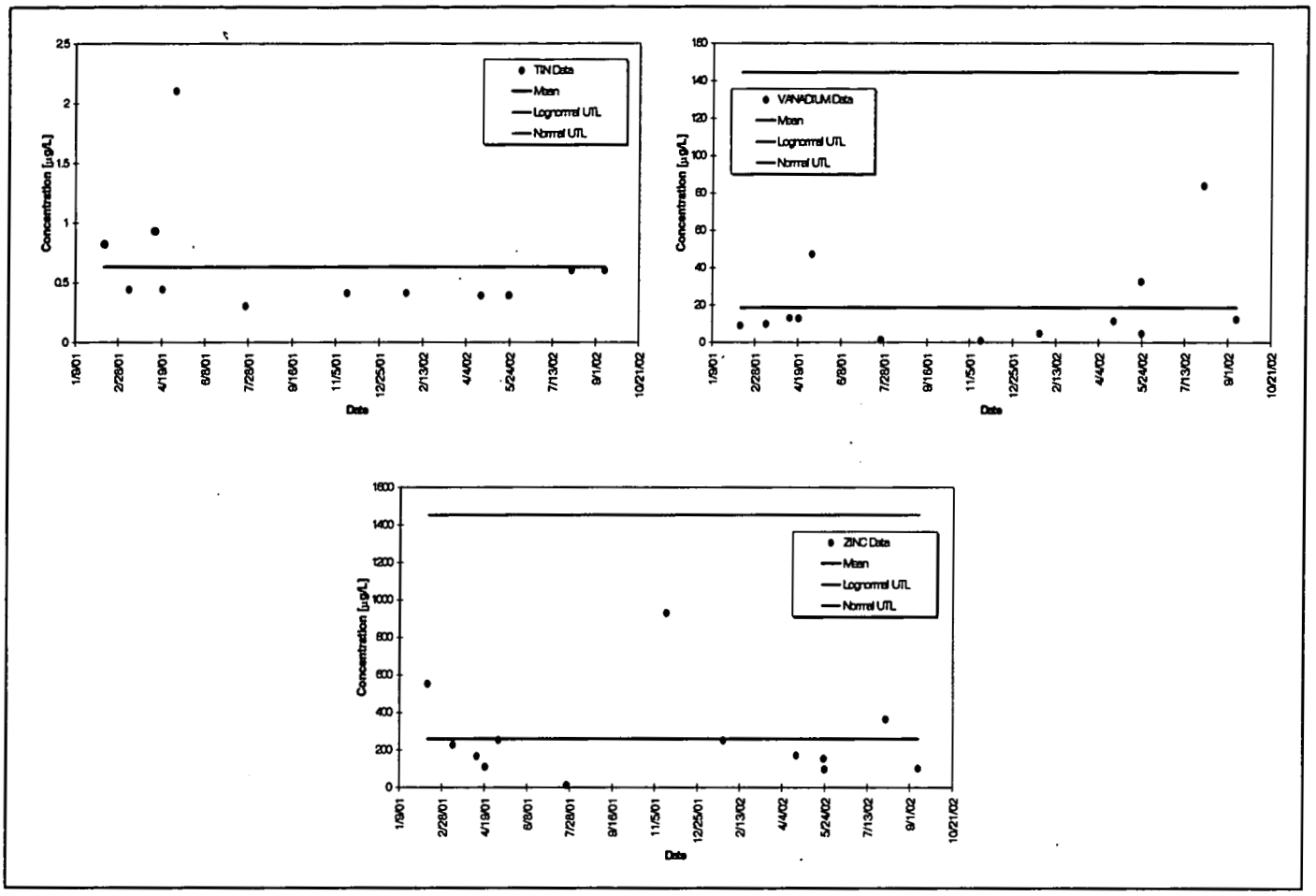


Figure 10-178. Total Metals UTL Plots for GS49: Tin through Zinc.

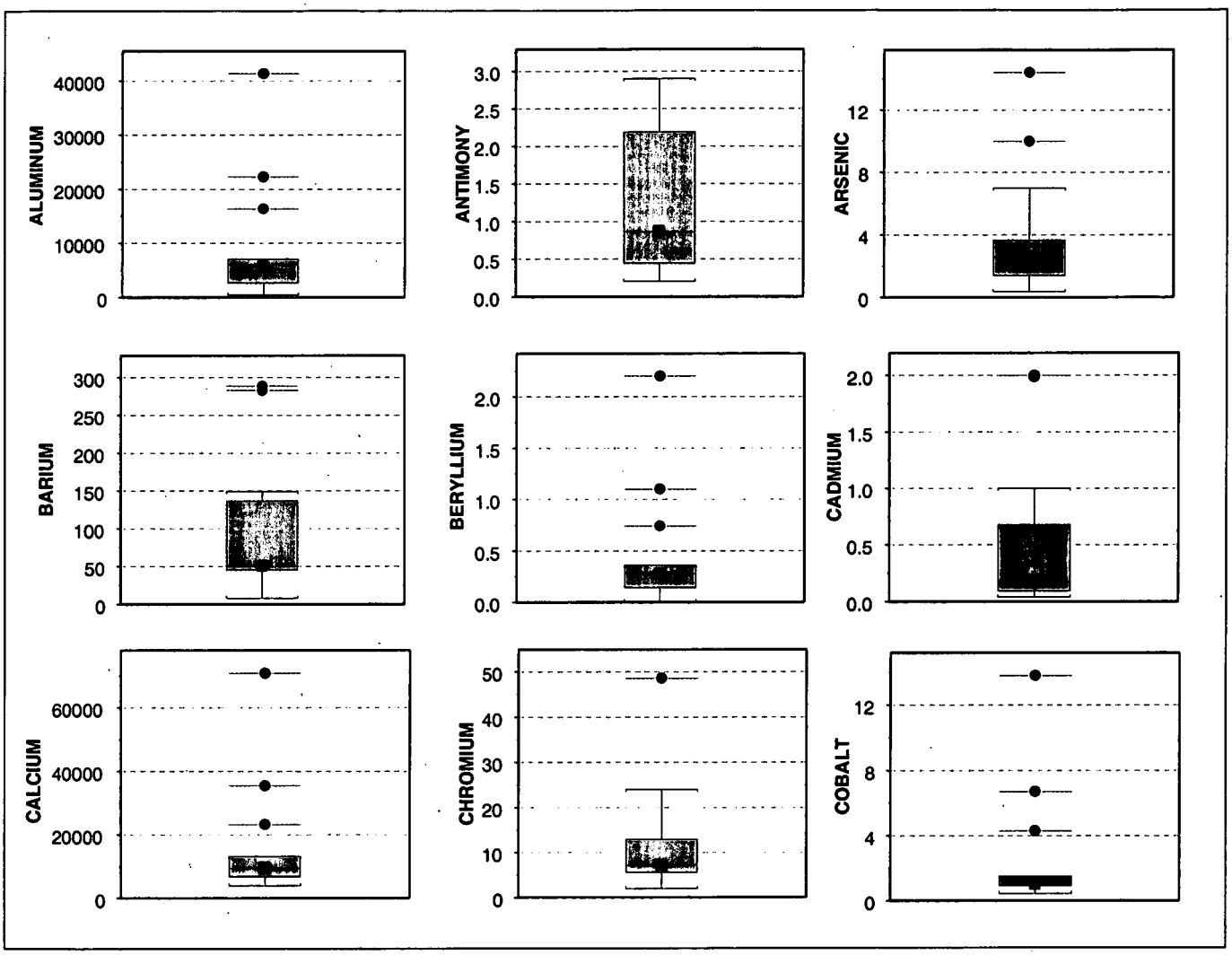


Figure 10-179. Total Metals Box Plots for GS49: Aluminum through Cobalt.

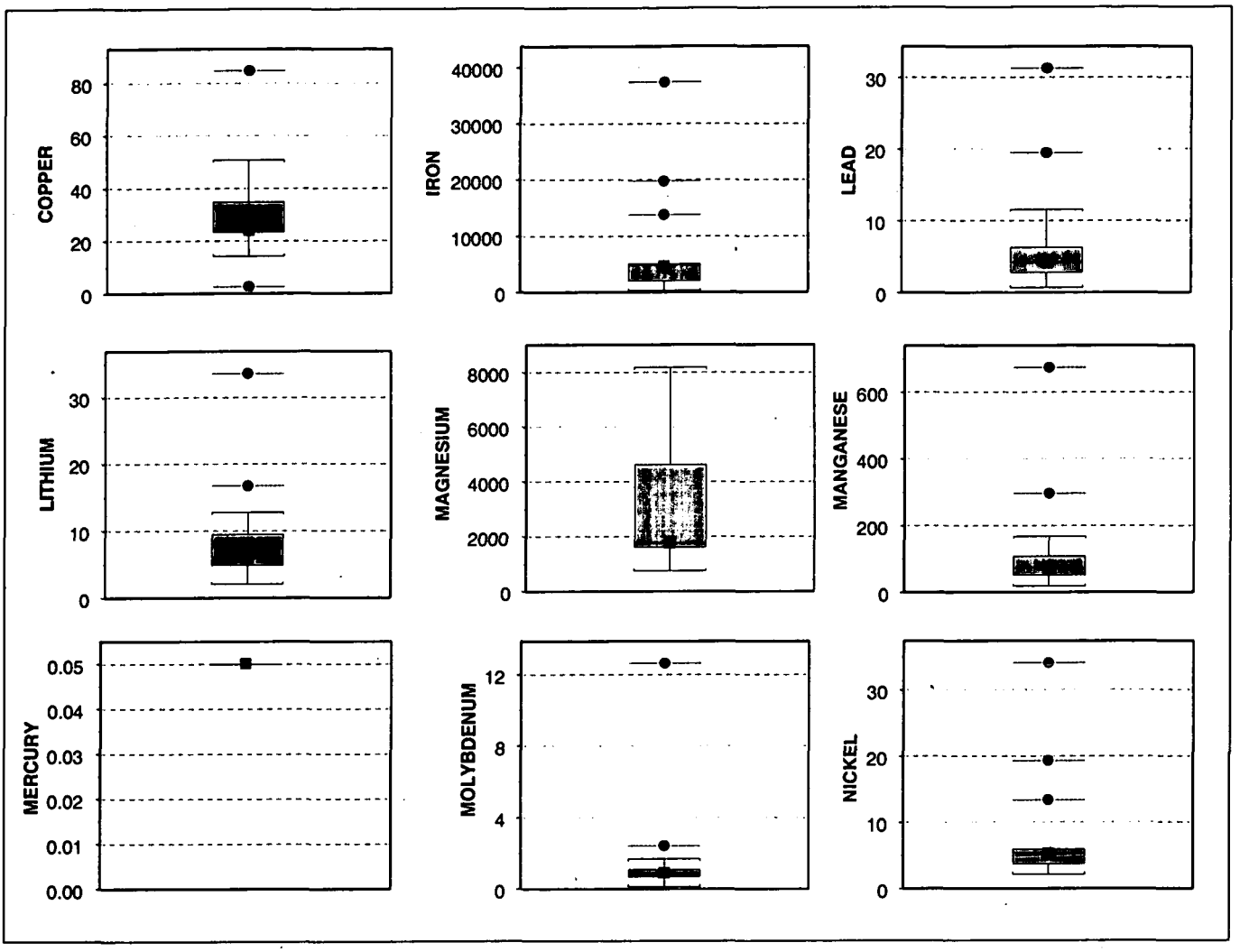


Figure 10-180. Total Metals Box Plots for GS49: Copper through Nickel.

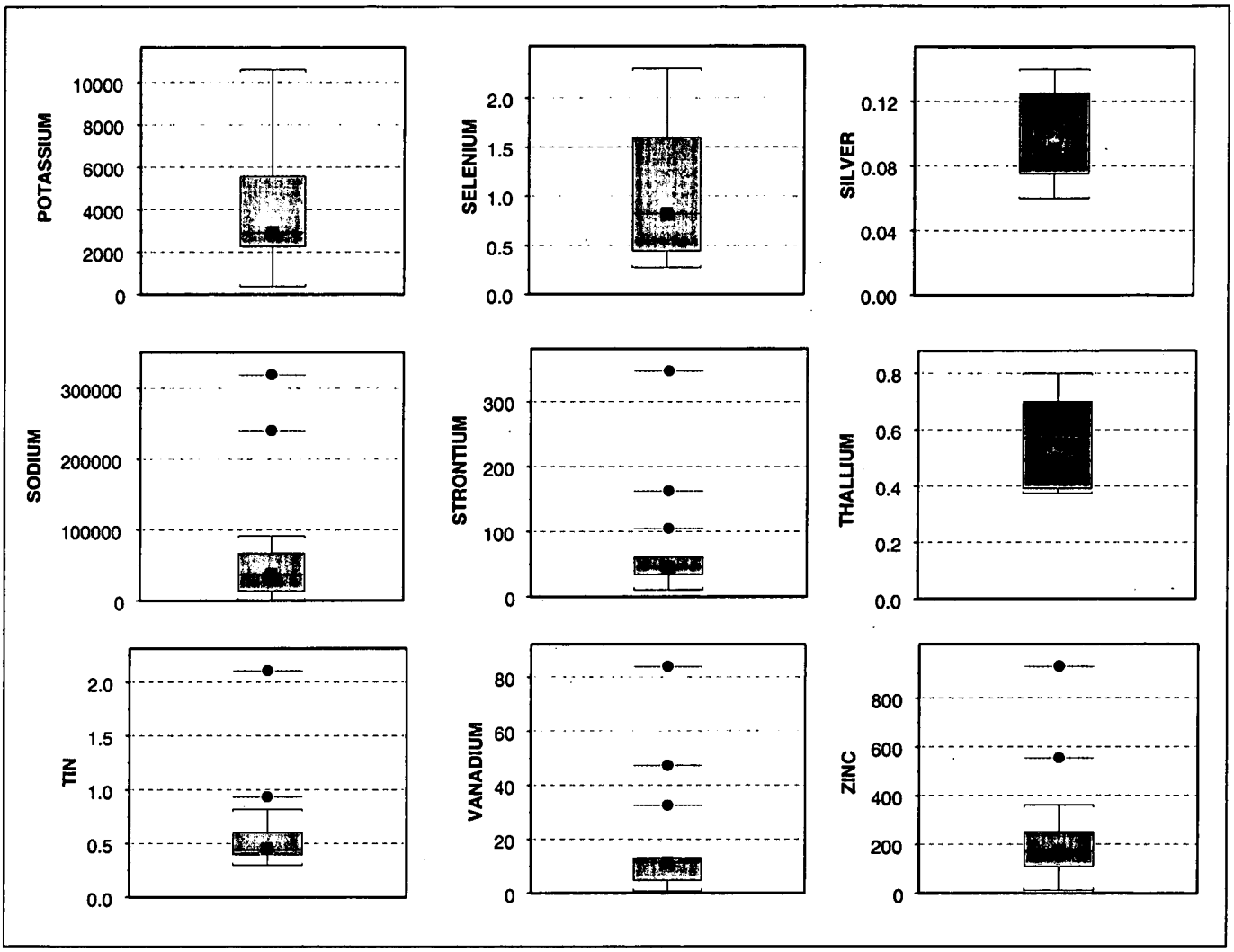


Figure 10-181. Total Metals Box Plots for GS49: Potassium through Zinc.

10.3.9 Original Landfill Accelerated Actions

Monitoring location SW036 was installed on 6/13/02 in support of accelerated actions for the Original Landfill. Figure 10-182 shows the drainage area for the above location.

During WY02 no flow was measured at SW036 and no samples were collected. Therefore, no data evaluation is presented below.

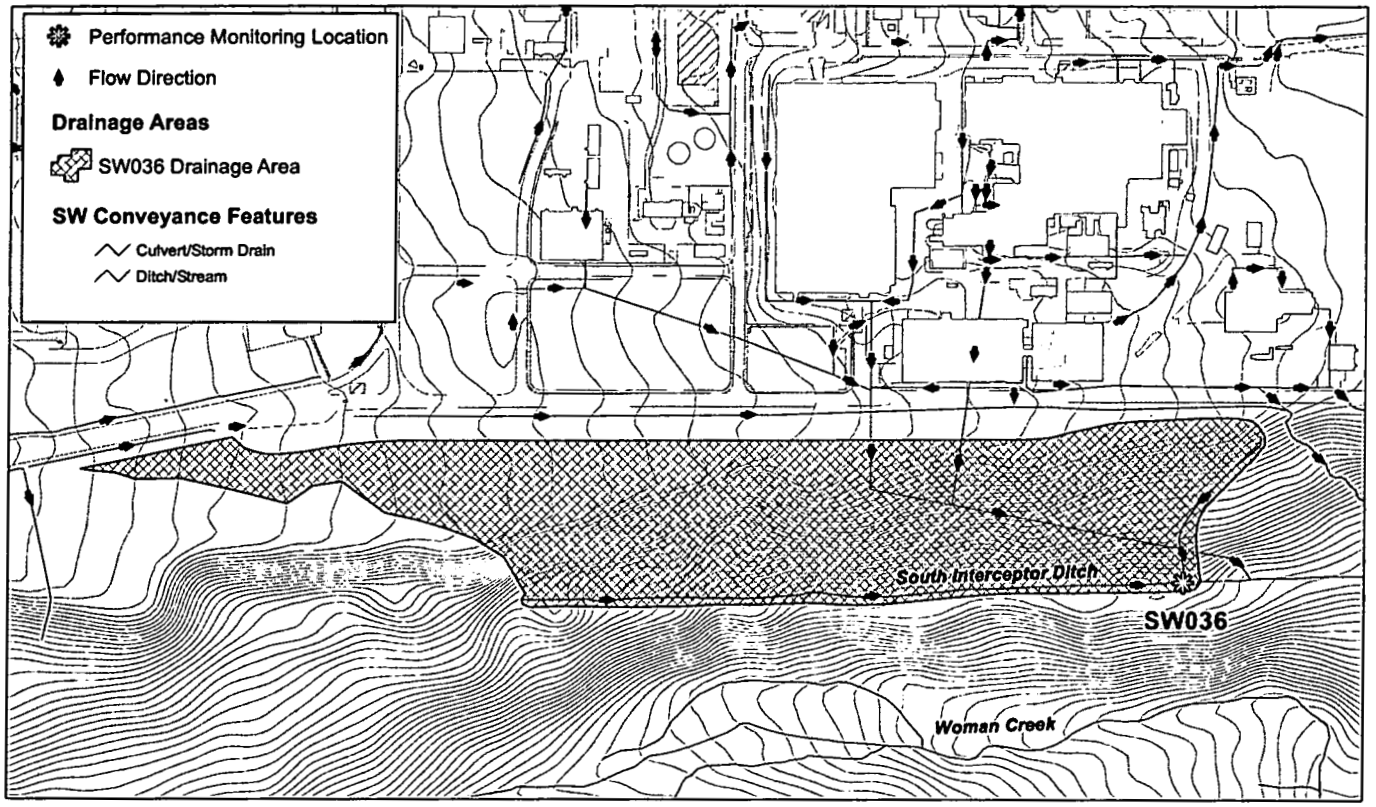
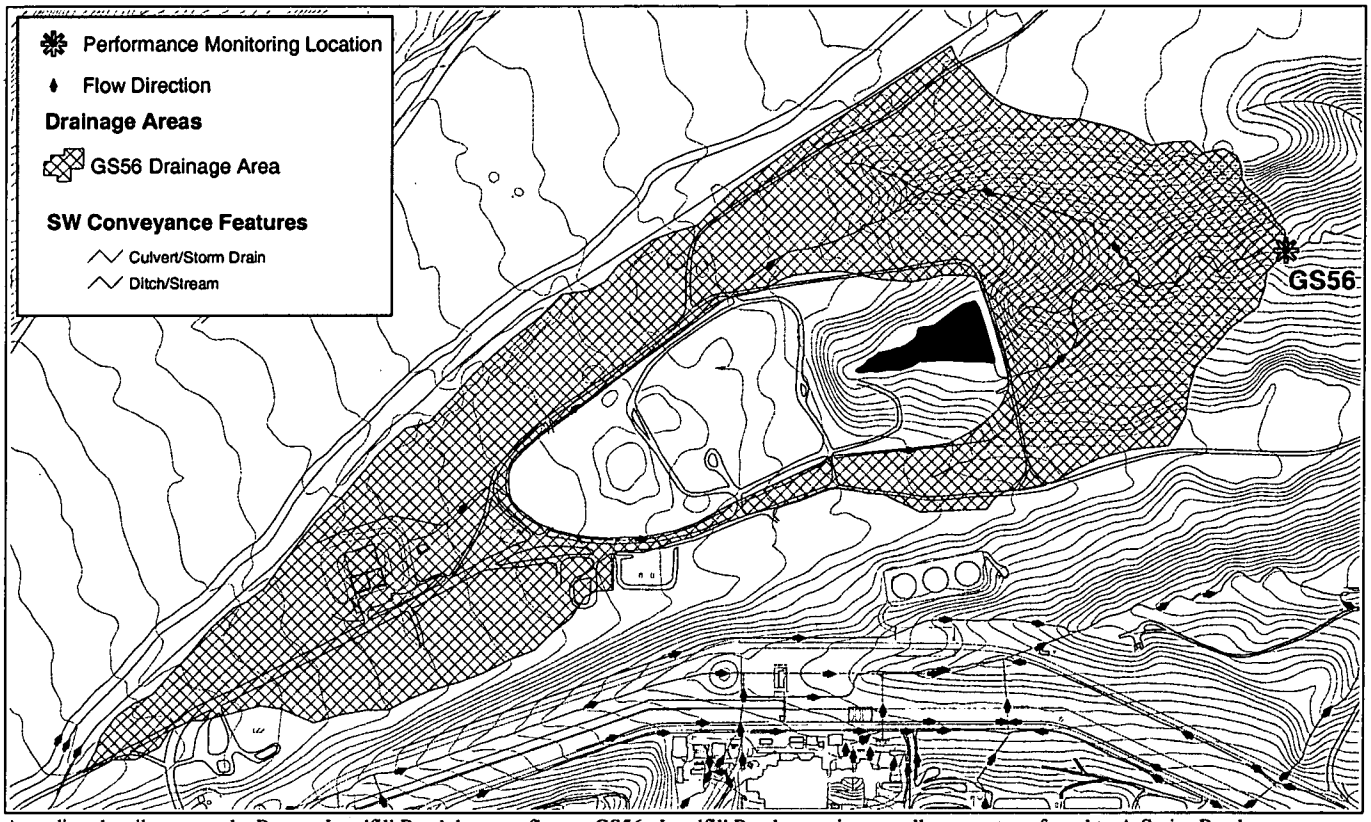


Figure 10-182. Performance Monitoring Drainage Areas for the Original Landfill.

10.3.10 Present Landfill Accelerated Actions

Monitoring location GS56 was installed on 9/26/02 in support of accelerated actions for the Present Landfill. Figure 10-183 shows the drainage area for the above location.

During WY02 no flow was measured at GS56 and no samples were collected. Therefore, no data evaluation is presented below.



Area directly tributary to the Present Landfill Pond does not flow to GS56. Landfill Pond water is normally pump transferred to A-Series Ponds.

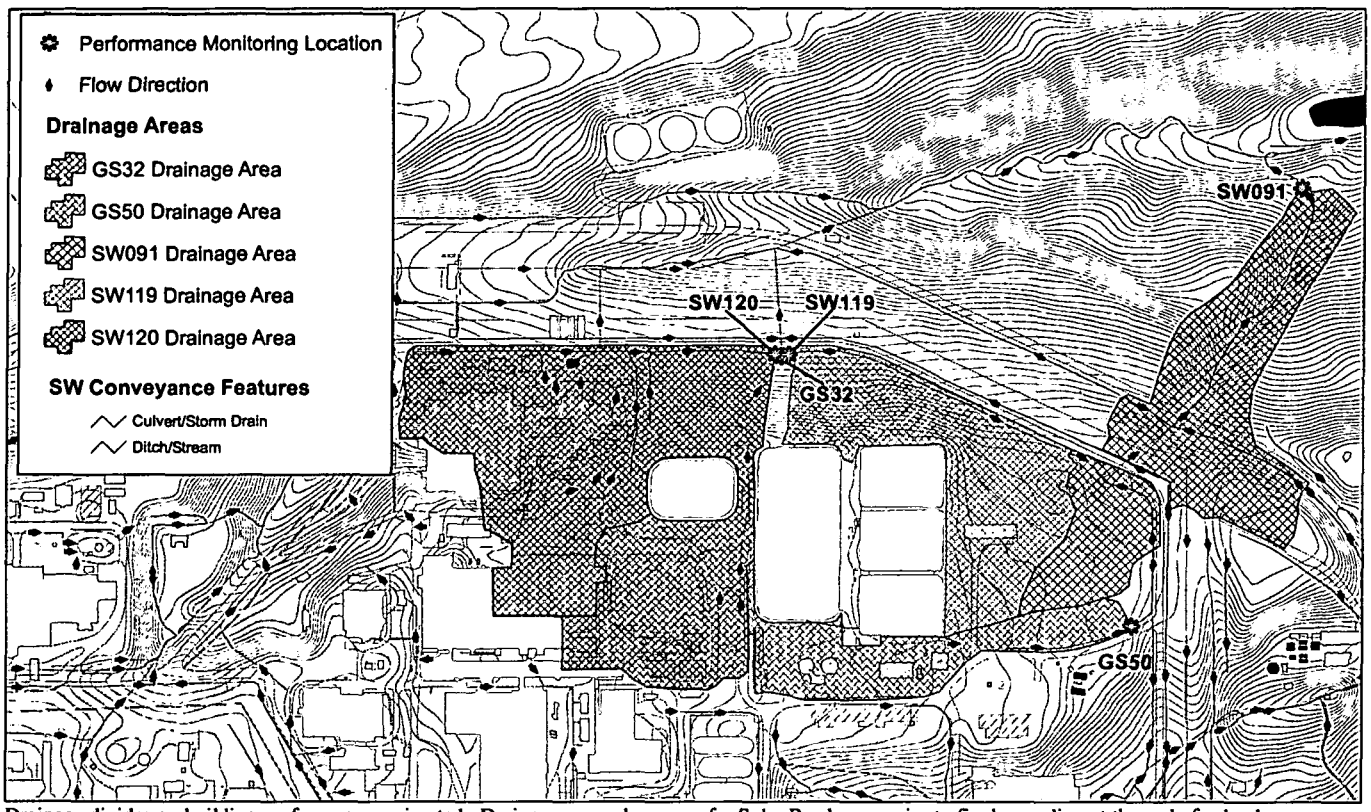
Figure 10-183. Performance Monitoring Drainage Area for the Present Landfill.

10.3.11 Solar Ponds Accelerated Actions

Monitoring location GS32 was originally installed on 1/31/97 in support of the D&D of Building 779, and remains to support the accelerated actions for the Solar Ponds. GS50, originally installed in support of the GS10 Source Evaluation effort on 3/28/01, also supports the accelerated actions for the Solar Ponds. Data from SW091, a permanent NSD location, is also used to support the Solar Ponds. SW119 was installed on 4/4/01 in support of the Solar Ponds. Finally, SW120, originally installed on 3/14/00 in support of the D&D of Building 771, also supports the Solar Ponds. Figure 10-184 shows the drainage areas for the above locations.

Monitoring data for GS32 was previously presented in Section 10.3.8. Monitoring data for SW120 was previously presented in Section 10.3.7.

The Performance monitoring data from GS32, GS50, and SW119 indicate that accelerated actions within the Solar Ponds area did not result in significant changes in water quality as of the end of WY02. Complete data evaluation for GS50, SW091, and SW119 is given below.



Drainage divides on building roofs are approximated. Drainage areas shown are for Solar Ponds area prior to final regrading at the end of calendar year 2002.

Figure 10-184. Performance Monitoring Drainage Areas for the Solar Ponds.

Monitoring data collected at GS50 have somewhat higher Pu and Am activities than for other automated monitoring locations (Table 10-31). Figure 10-185 and Figure 10-186 show the UTL plots for Pu and Am, respectively. During WY00–02, no Pu or Am results exceeded the calculated UTL. Figure 10-188 also shows a significantly lower Pu/Am ratio than expected. This is likely due to the proximity of GS50 to the Solar Ponds.

Monitoring data collected at GS50 show low median total uranium activities (Table 10-31). Figure 10-187 shows that none of the total uranium results were greater than the calculated UTL. Figure 10-189 shows that the mean U-233,234/U-238 ratio near 1.0 (approximately 1.16), as expected.

The temporal variation of suspended solids activity is not given since no samples were collected within TSS hold time criteria.

Table 10-31. Summary Statistics for Radionuclide Results from GS50 in WY00-02.

Analyte	Samples [N]	Median [pCi/L]	85th Percentile [pCi/L]	Maximum [pCi/L]	95% UTL [pCi/L]
TSS [mg/L]	0	NA	NA	NA	NA
Pu-239,240	5	0.046	0.208	0.225	1.244[a]/1.530[b]
Am-241	5	0.138	0.285	0.442	0.928[a]/0.825[b]
U-233,234	5	0.159	0.196	0.224	0.743[a]/0.719[b]
U-235	5	0.004	0.009	0.015	
U-238	5	0.115	0.194	0.211	

Note: [a] Lognormal distribution; [b] Normal distribution; [c] Undetermined distribution.
TSS is given in mg/L.
Uranium UTL given for total uranium.

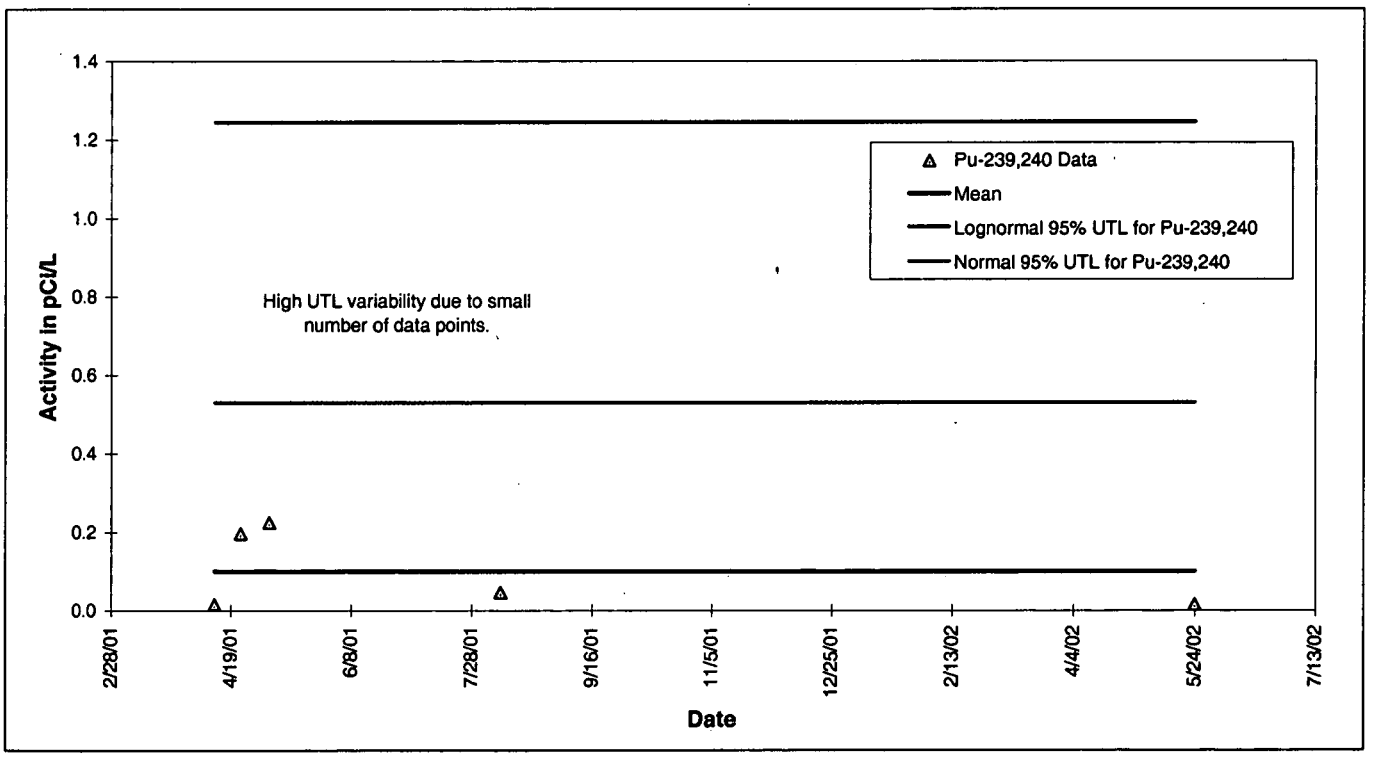


Figure 10-185. 95% UTL Plot for Pu-239,240 at GS50: WY00-02.

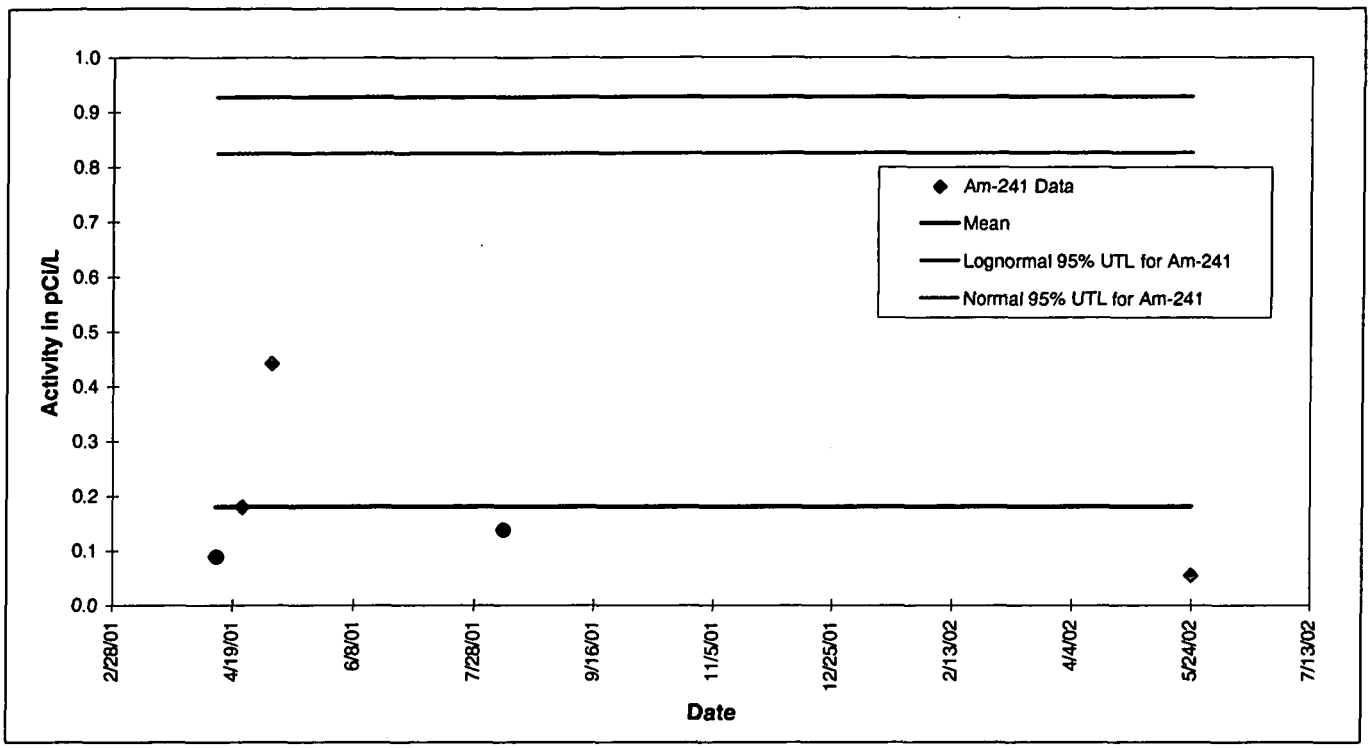


Figure 10-186. 95% UTL Plot for Am-241 at GS50: WY00-02.

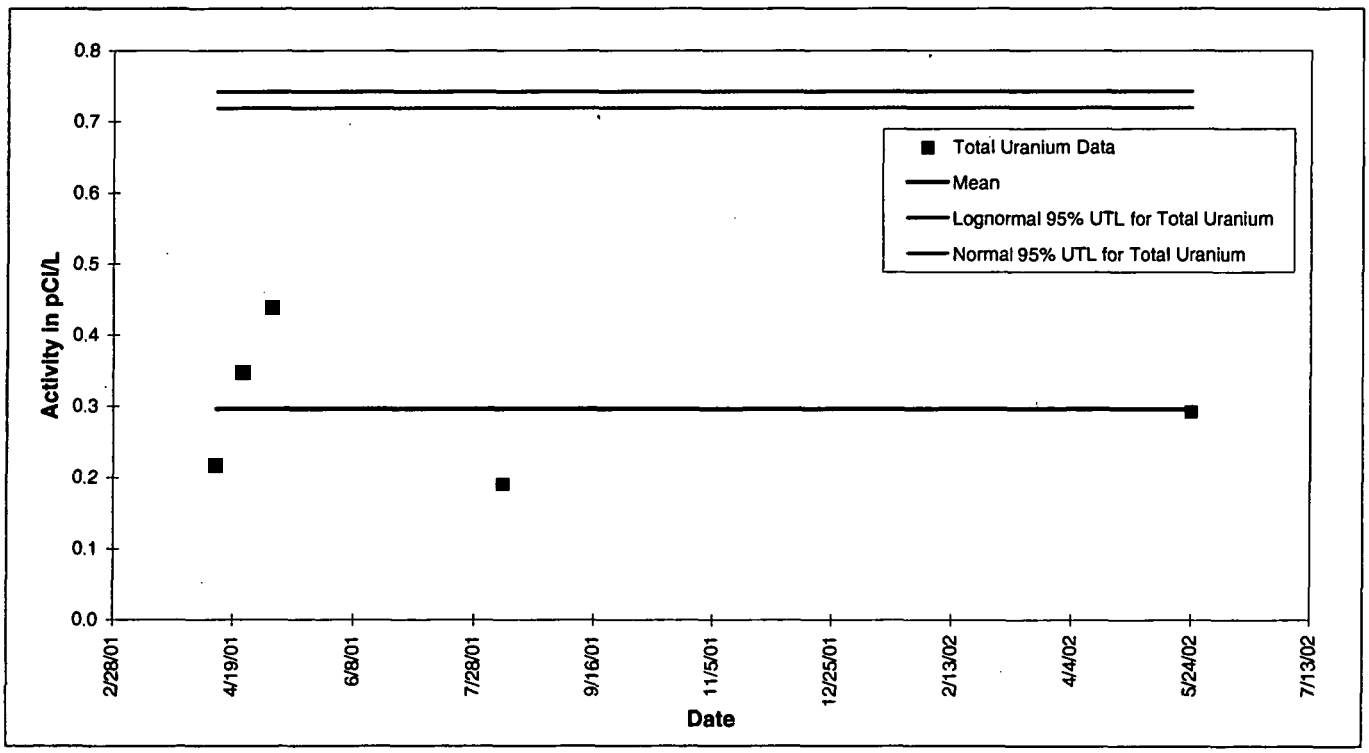


Figure 10-187. 95% UTL Plot for Total Uranium at GS50: WY00-02.

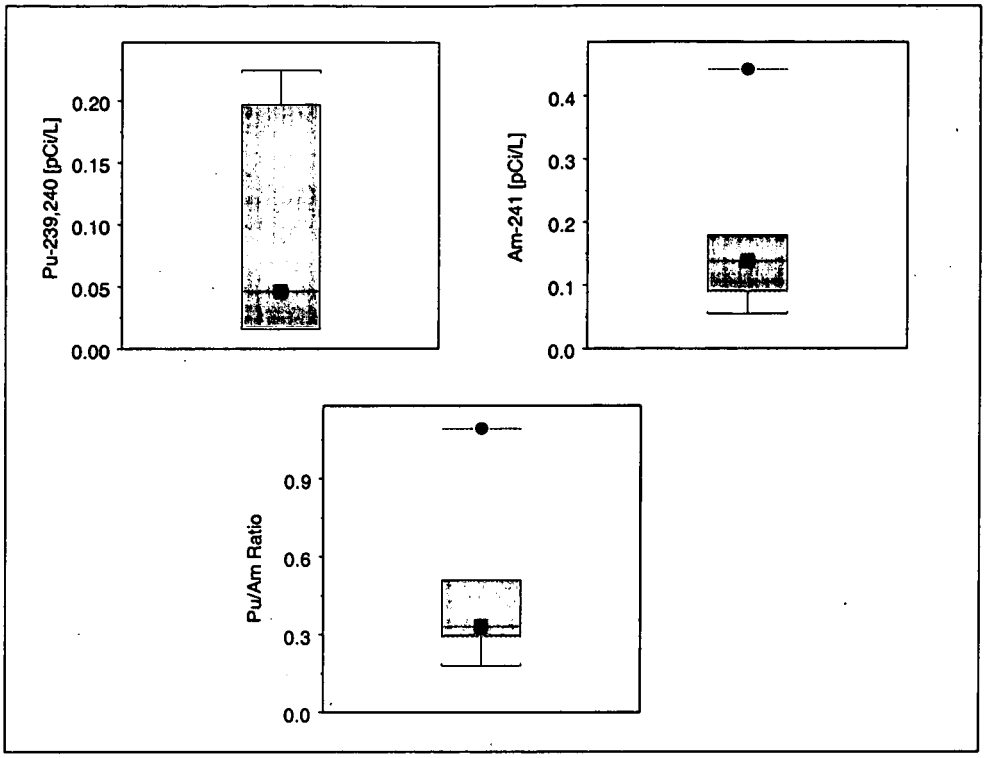


Figure 10-188. Pu and Am Box Plots for GS50: WY00–02.

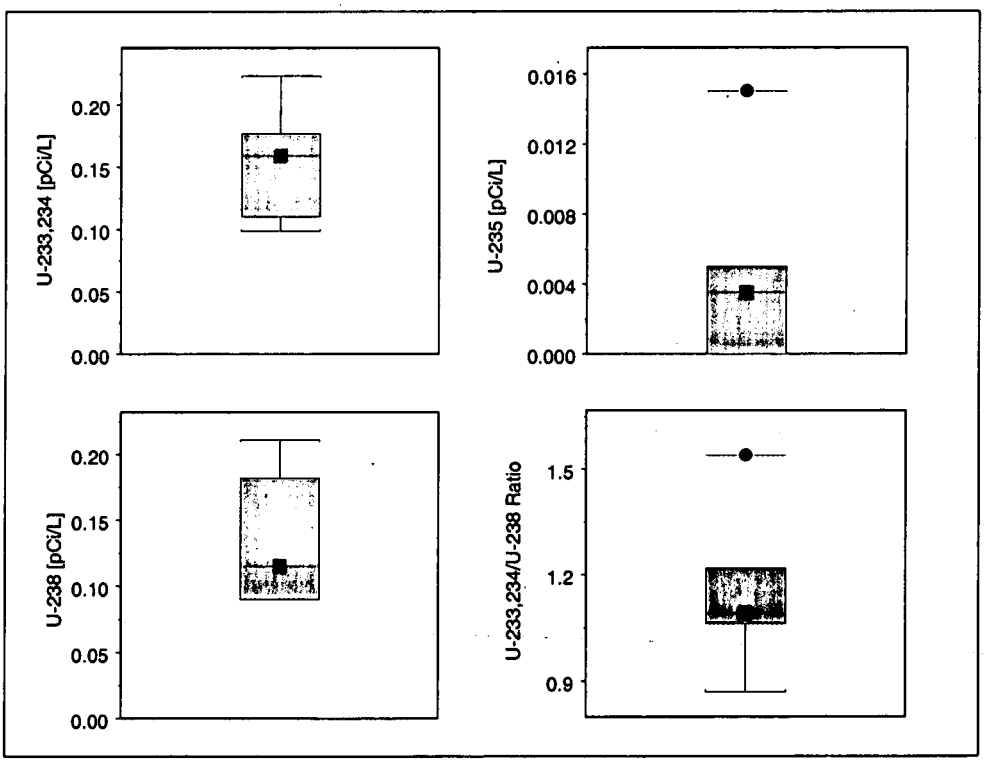


Figure 10-189. Uranium Box Plots for GS50: WY00–02.

Table 10-32 shows the total metals results for samples collected at GS50. Figure 10-190 through Figure 10-194 show the UTL plots for the metals. Although there were few data points, for the metals with a determined distribution, no results exceeded the calculated UTLs.

Data for metals Hg, Tl, Sn, and Zn all had undetermined distributions. All of the Hg and Sn data were 'undetects'. For both Tl and Zn, one result each is indicated as 'suspect' by the boxplots (Figure 10-197). In both cases, a visual interpretation of the data does not suggest a persistent trend in these values and subsequent results showed lower levels.

Table 10-32. Summary Statistics for Metals Results from GS50 in WY00-02.

Analyte	Samples [N]	Percent Undetect	Median [µg/L]	85th Percentile [µg/L]	Maximum [µg/L]	95% UTL [µg/L]
ALUMINUM	5	0.0%	1960	5094	8025	15585[a]/14914[b]
ANTIMONY	5	0.0%	1.20	1.50	1.65	3.06[a]/2.79[b]
ARSENIC	5	0.0%	2.00	3.24	4.80	8.00[a]/8.31[b]
BARIUM	5	0.0%	35.5	71.5	77.1	156[a]/146[b]
BERYLLIUM	5	0.0%	0.16	0.26	0.31	0.69[a]/0.58[b]
CADMIUM	5	20.0%	0.18	0.41	0.72	1.22[a]
CALCIUM	5	0.0%	15600	25290	38100	61093[a]/65289[b]
CHROMIUM	5	0.0%	4.70	8.49	8.70	26.0[a]/18.6[b]
COBALT	5	20.0%	0.52	1.24	2.25	6.81[a]
COPPER	5	0.0%	6.00	11.1	17.5	27.7[a]
IRON	5	0.0%	1440	4018	6565	13430[a]/12364[b]
LEAD	5	0.0%	10.9	16.9	17.0	60.7[a]/38.6[b]
LITHIUM	5	0.0%	3.70	6.43	6.95	14.1[a]/12.9[b]
MAGNESIUM	5	0.0%	1750	2949	3660	6088[a]/6111[b]
MANGANESE	5	0.0%	20.8	58.2	106	202[a]
MERCURY	4	100.0%	0.05	0.05	0.05	NA[c]
MOLYBDENUM	5	0.0%	0.89	1.18	1.30	2.18[a]/2.07[b]
NICKEL	5	0.0%	2.70	6.38	6.65	17.5[a]/14.1[b]
POTASSIUM	5	0.0%	4950	6030	7305	10267[a]/10528[b]
SELENIUM	5	60.0%	0.44	1.11	1.13	2.72[a]
SILVER	5	100.0%	0.13	0.17	0.24	0.43[a]/0.41[b]
SODIUM	5	0.0%	15000	86520	192000	503018[a]
STRONTIUM	5	0.0%	55.1	90.2	134	216[a]/229[b]
THALLIUM	5	80.0%	0.49	0.89	1.50	NA[c]
TIN	5	100.0%	0.44	0.64	0.92	NA[c]
VANADIUM	5	0.0%	5.10	12.0	19.5	37.6[a]/36.1[b]
ZINC	5	0.0%	25.4	52.5	89.6	NA[c]

Note: [a] Lognormal distribution; [b] Normal distribution; [c] Undetermined distribution.

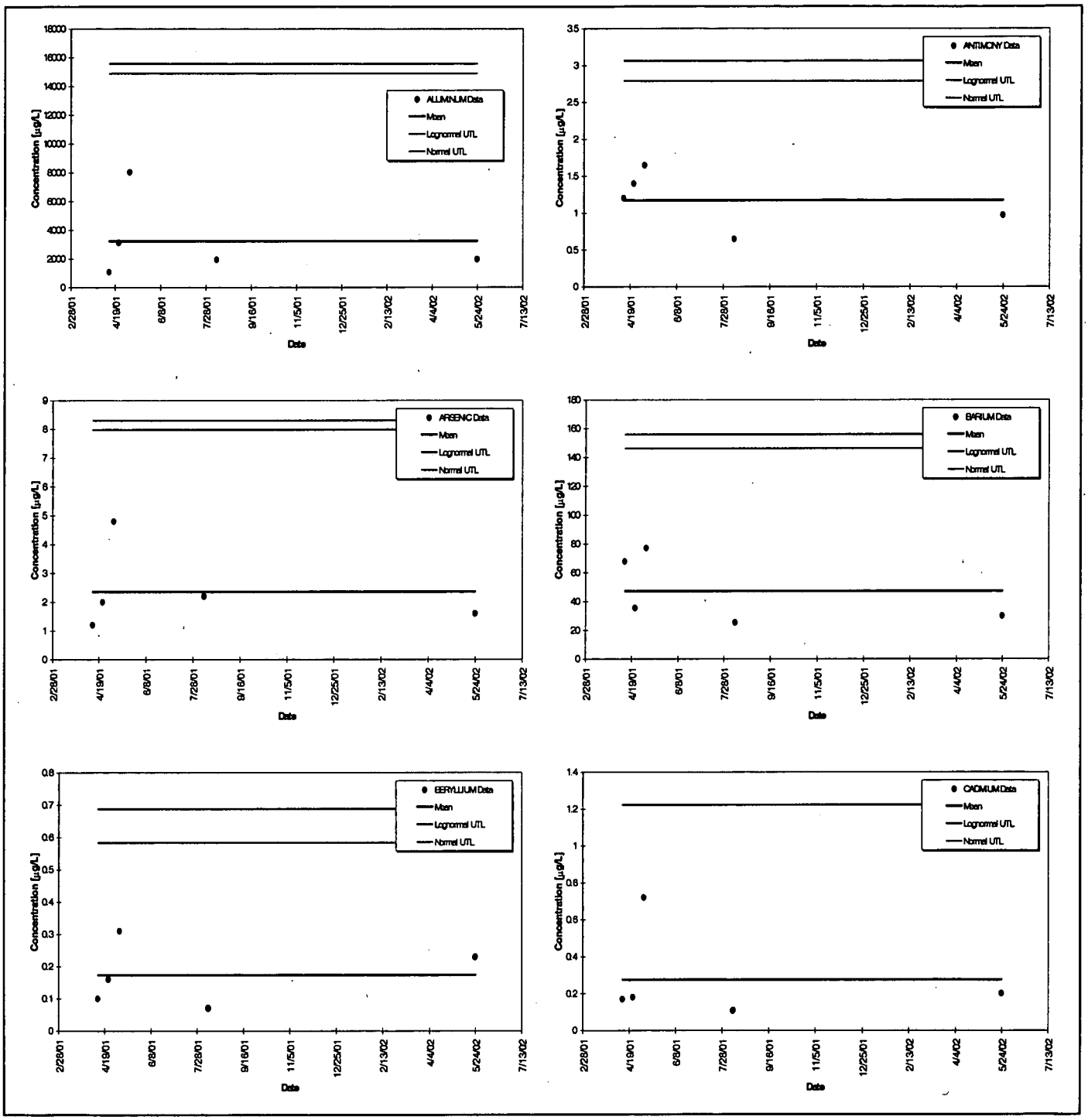


Figure 10-190. Total Metals UTL Plots for GS50: Aluminum through Cadmium.

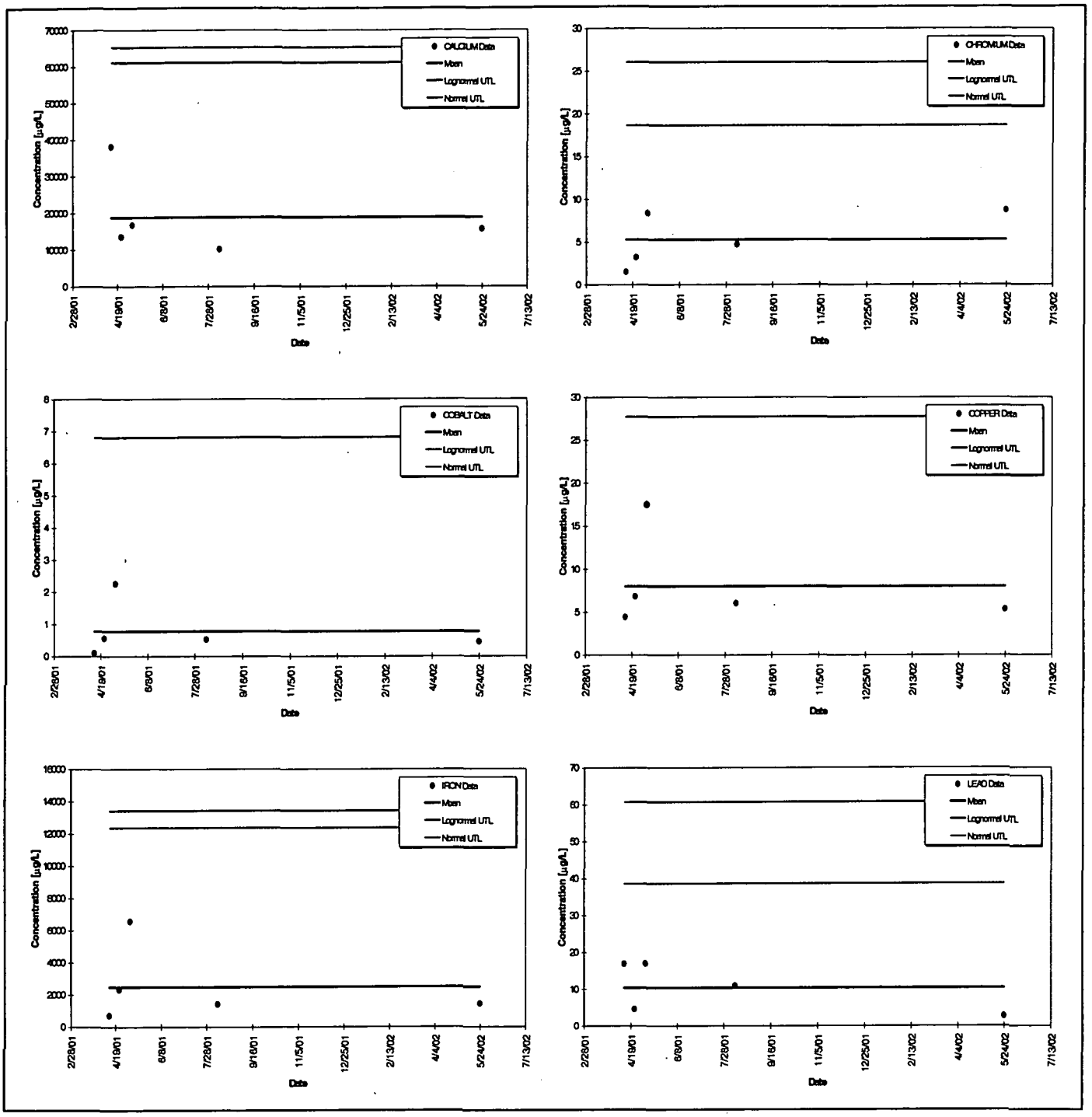


Figure 10-191. Total Metals UTL Plots for GS50: Calcium through Lead.

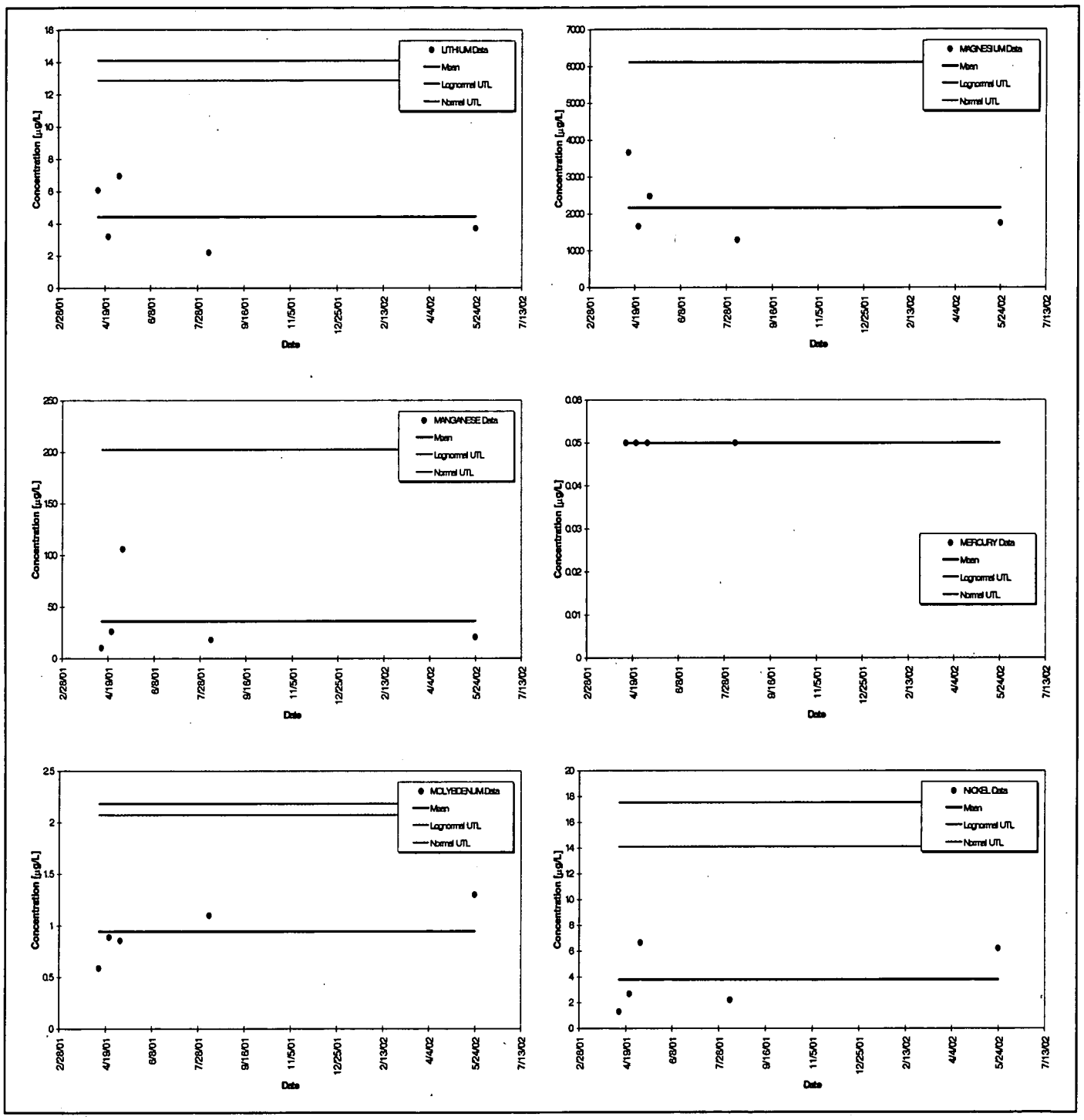


Figure 10-192. Total Metals UTL Plots for GS50: Lithium through Nickel.

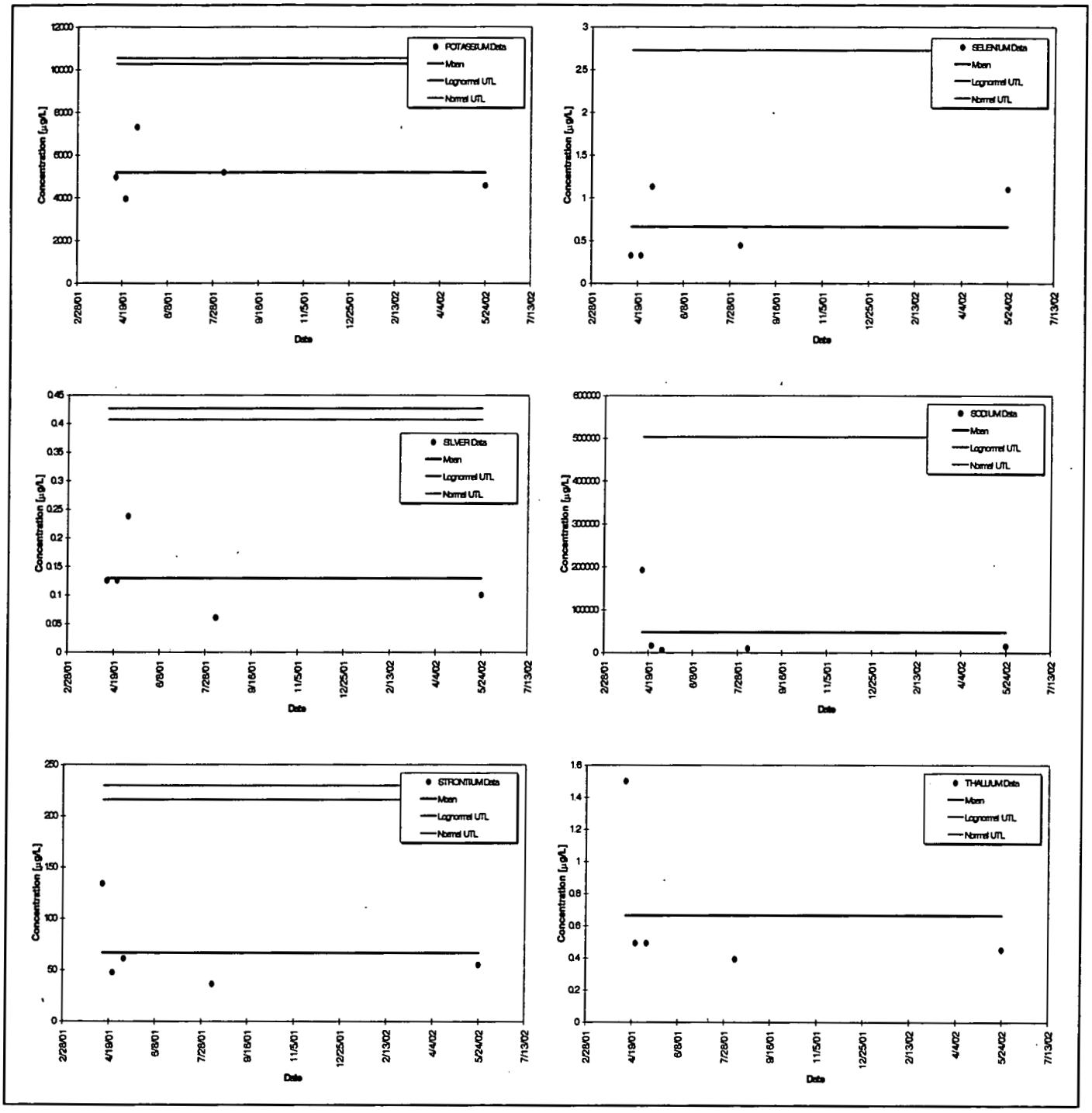


Figure 10-193. Total Metals UTL Plots for GS50: Potassium through Thallium.

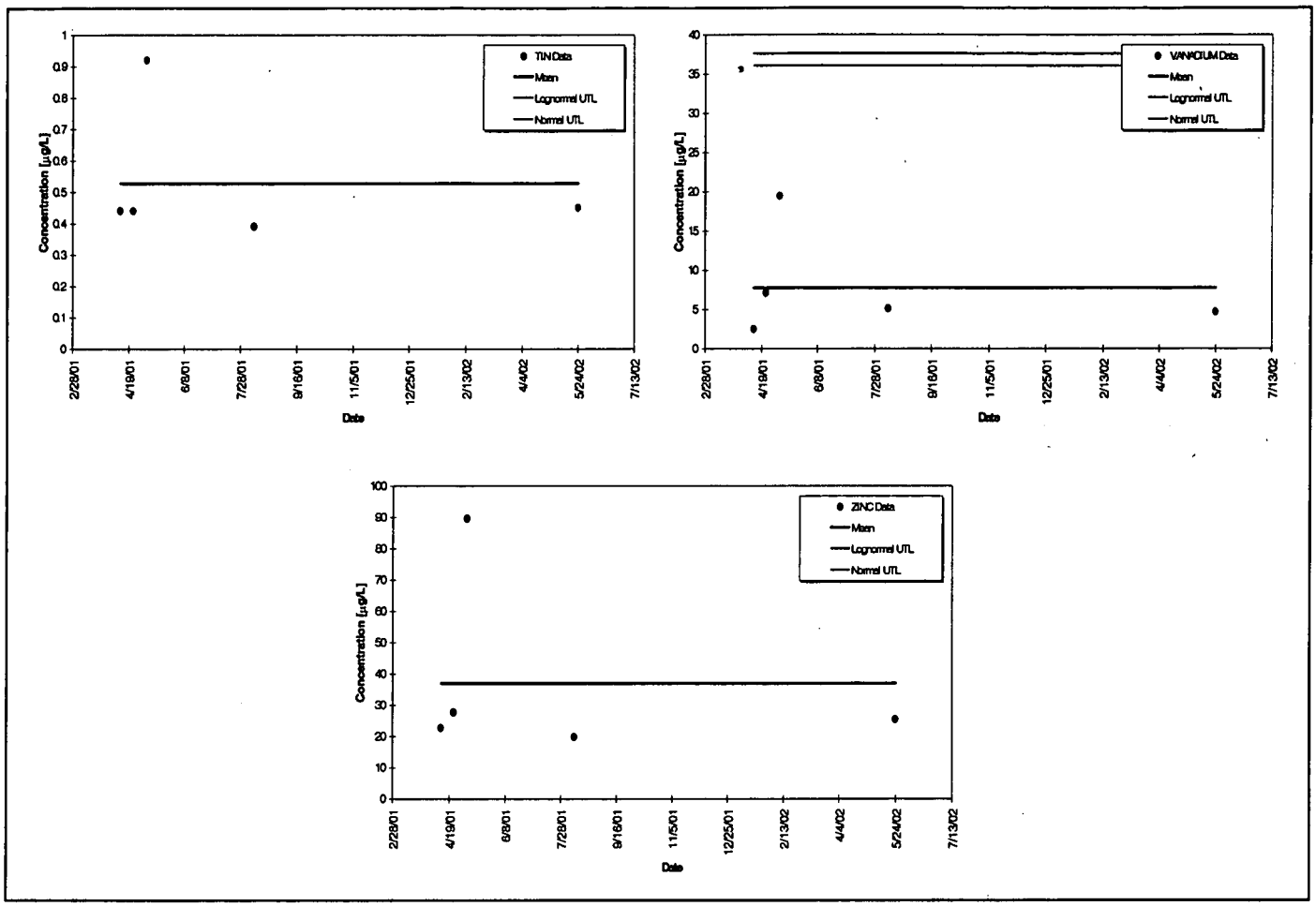


Figure 10-194. Total Metals UTL Plots for GS50: Tin through Zinc.

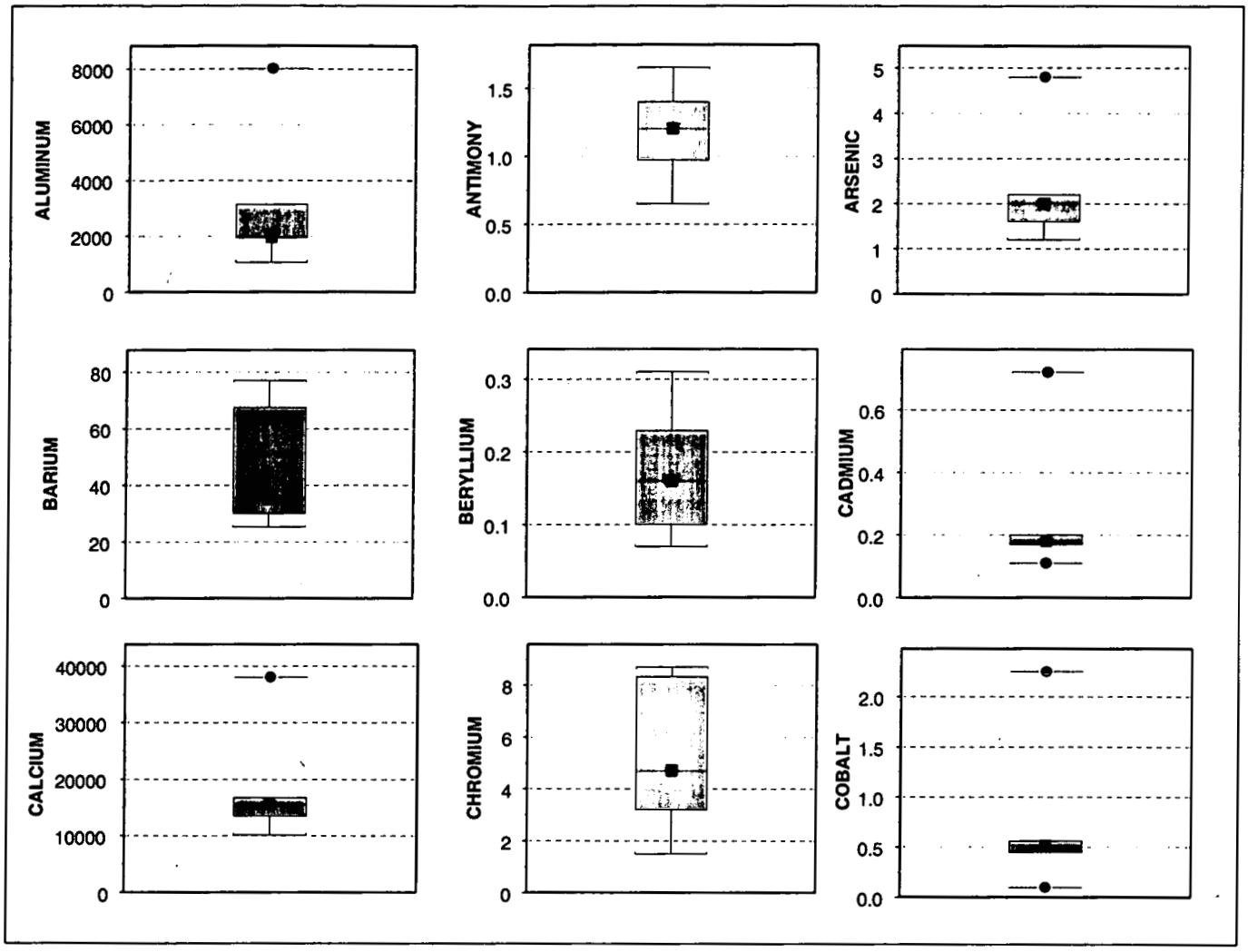


Figure 10-195. Total Metals Box Plots for GS50: Aluminum through Cobalt.

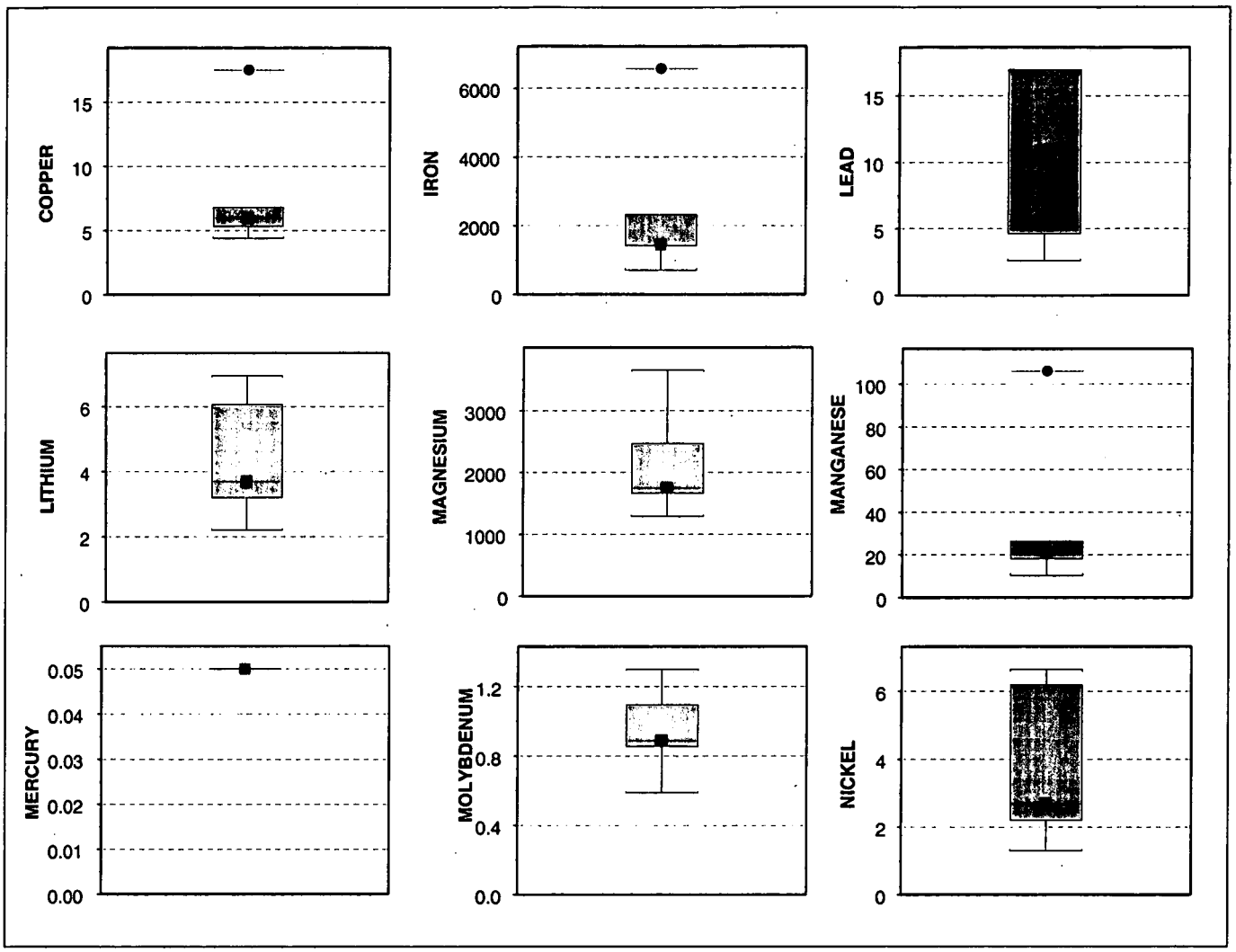


Figure 10-196. Total Metals Box Plots for GS50: Copper through Nickel.

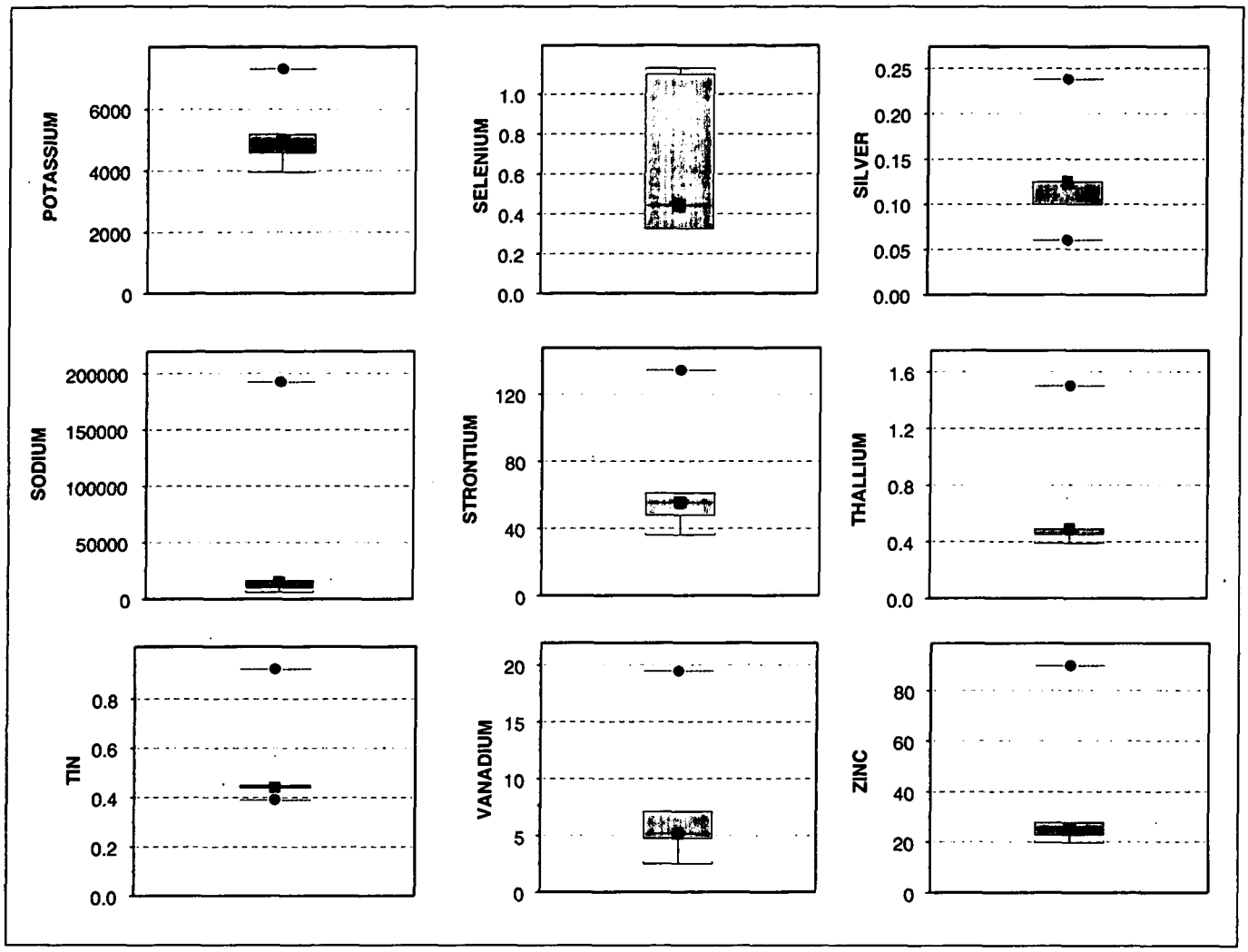


Figure 10-197. Total Metals Box Plots for GS50: Potassium through Zinc.

Monitoring data collected at SW119 show moderate Pu and Am activities (Table 10-33). Figure 10-198 and Figure 10-199 show the UTL plots for Pu and Am, respectively. During WY00–02, no Pu or Am results exceeded the calculated UTLs for the small number of data points. Figure 10-201 also shows a lower Pu/Am ratio than expected. This is likely due to the proximity of SW119 to the Solar Ponds.

Monitoring data collected at SW119 show low median total uranium activities (Table 10-33). Figure 10-200 shows that none of the total uranium results were greater than the calculated UTLs for the small number of data points. It should be noted that SW119 shows a median U-233,234/U-238 ratio significantly greater than 1 (Figure 10-202; approximately 1.45), indicating a relative abundance of U-233,234. The ratios at this location are likely due to the proximity of SW119 to the Solar Ponds, as also observed for GS32 and SW120.

The temporal variation of suspended solids activity is not given since only one sample was collected within TSS hold time criteria.

Table 10-33. Summary Statistics for Radionuclide Results from SW119 in WY00-02.

Analyte	Samples [N]	Median [pCi/L]	85th Percentile [pCi/L]	Maximum [pCi/L]	95% UTL [pCi/L]
TSS [mg/L]	1	53	NA	NA	NA
Pu-239,240	6	0.060	0.147	0.300	0.437[a]/0.473[b]
Am-241	6	0.100	0.185	0.384	0.517[a]
U-233,234	6	1.280	2.160	3.510	12.07[a]/9.24[b]
U-235	6	0.047	0.074	0.114	
U-238	6	0.848	1.358	2.040	

Note: [a] Lognormal distribution; [b] Normal distribution; [c] Undetermined distribution.
TSS is given in mg/L.
Uranium UTL given for total uranium.

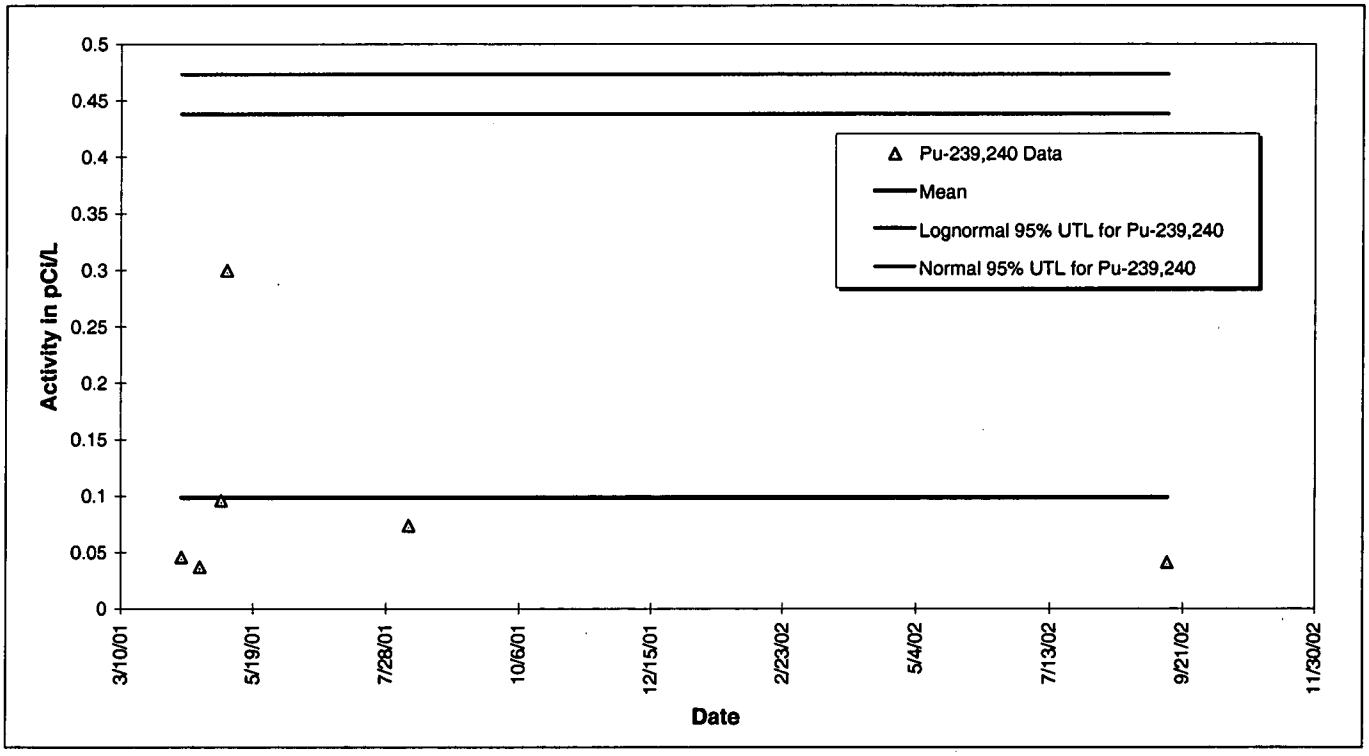


Figure 10-198. 95% UTL Plot for Pu-239,240 at SW119: WY00-02.

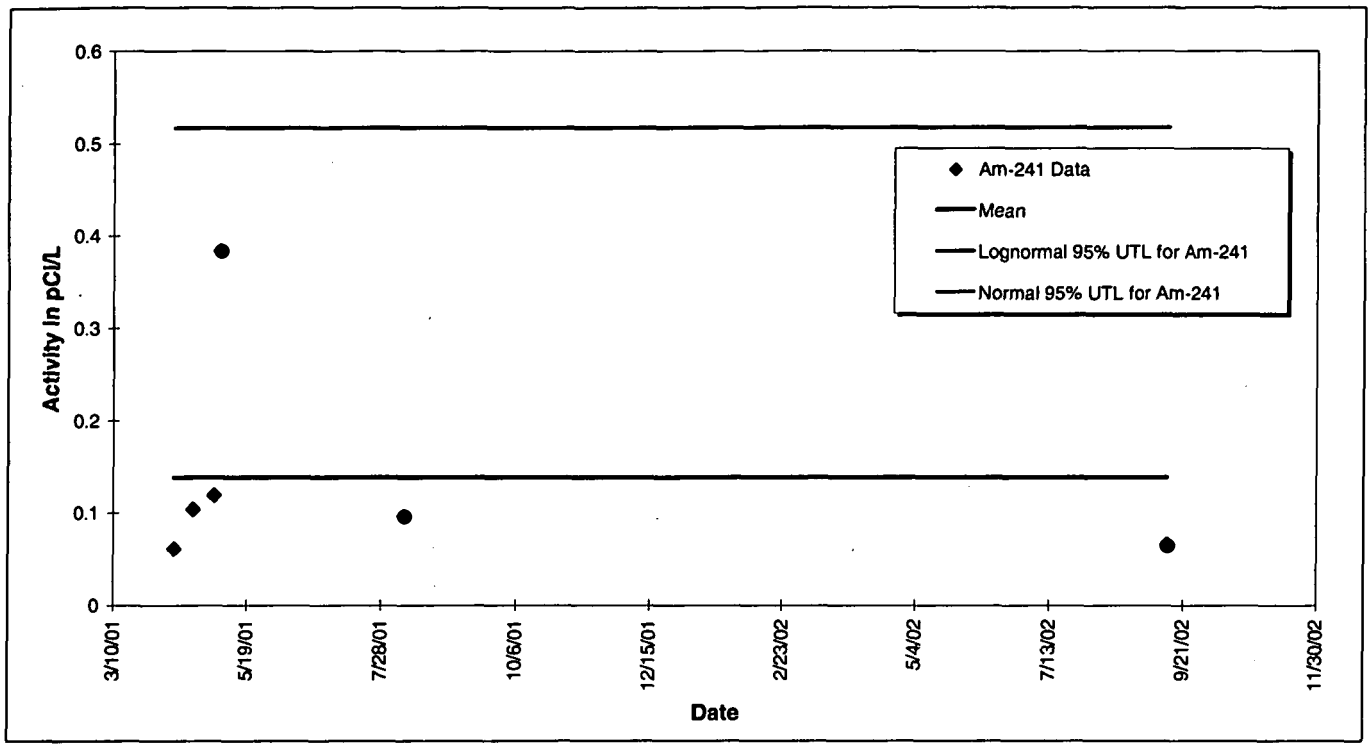


Figure 10-199. 95% UTL Plot for Am-241 at SW119: WY00-02.

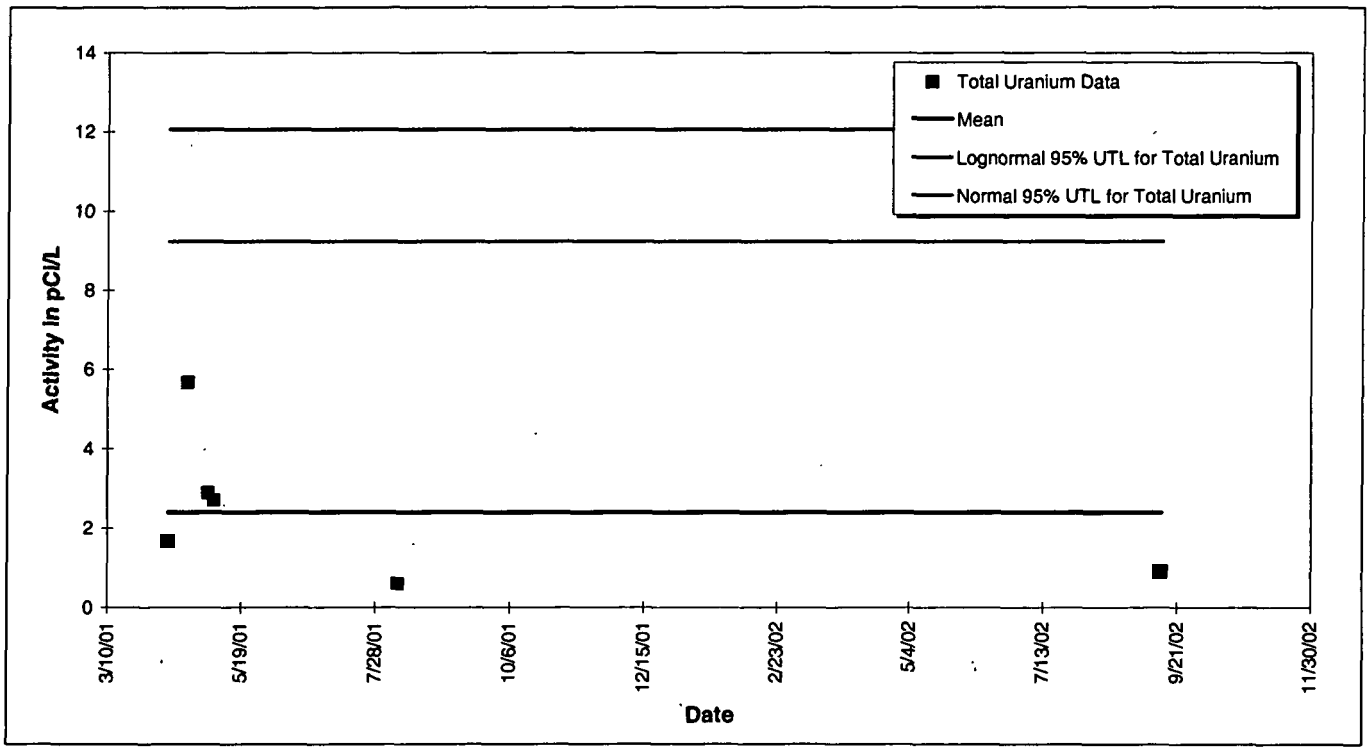


Figure 10-200. 95% UTL Plot for Total Uranium at SW119: WY00-02.

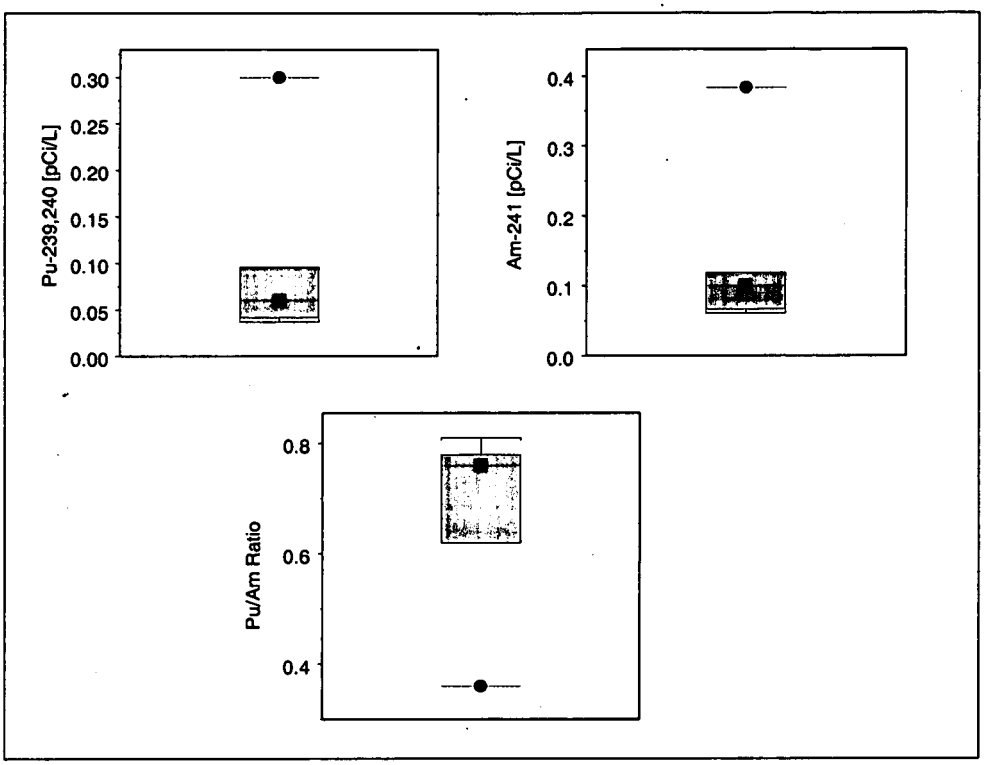


Figure 10-201. Pu and Am Box Plots for SW119: WY00–02.

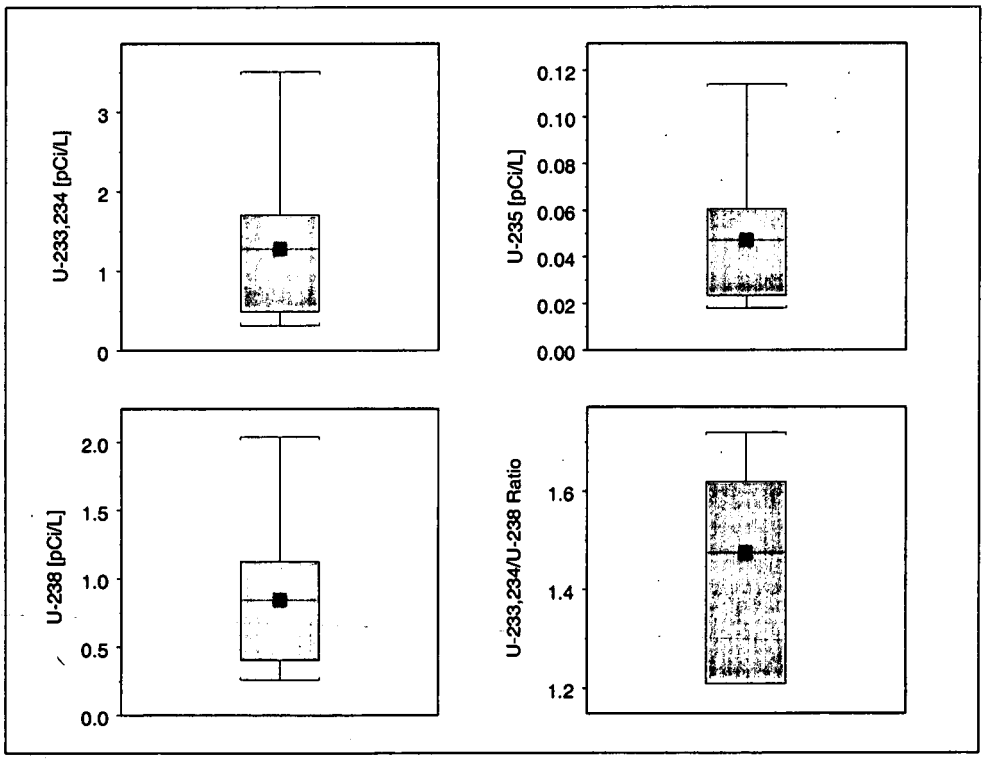


Figure 10-202. Uranium Box Plots for SW119: WY00–02.

Table 10-34 shows the total metals results for samples collected at SW119. Figure 10-203 through Figure 10-207 show the UTL plots for the metals. For the metals with a determined distribution, no results were greater than the calculated UTLs for the small number of points available.

Data for metals Cu, Hg, and Ag all had undetermined distributions. All of the Ag data were 'undetects'. For both Cu and Hg, one result each is indicated as 'suspect' by the boxplots (Figure 10-209). In both cases, a visual interpretation of the data does not suggest a persistent trend in these values and subsequent results showed lower levels.

Table 10-34. Summary Statistics for Metals Results from SW119 in WY00-02.

Analyte	Samples [N]	Percent Undetect	Median [µg/L]	85th Percentile [µg/L]	Maximum [µg/L]	95% UTL [µg/L]
ALUMINUM	6	0.0%	3255	5715	7110	11099[a]/10959[b]
ANTIMONY	6	0.0%	1.35	1.48	1.70	2.25[a]/2.22[b]
ARSENIC	6	0.0%	1.60	2.79	3.05	4.78[a]/4.78[b]
BARIUM	6	0.0%	102	130	141	233[a]/220[b]
BERYLLIUM	6	0.0%	0.27	0.33	0.35	0.63[b]
CADMIUM	6	0.0%	0.26	0.58	1.20	1.69[a]
CALCIUM	6	0.0%	25025	45050	45500	73898[a]
CHROMIUM	6	0.0%	3.55	6.30	8.10	12.1[a]/12.3[b]
COBALT	6	0.0%	0.88	1.34	2.05	2.66[a]
COPPER	6	0.0%	7.60	8.79	11.2	NA[c]
IRON	6	0.0%	2025	4078	5420	8166[a]/8375[b]
LEAD	6	0.0%	2.00	6.66	8.80	16.3[a]
LITHIUM	6	0.0%	21.5	34.6	37.7	58.0[a]/57.3[b]
MAGNESIUM	6	0.0%	6648	10123	10700	17304[a]/16821[b]
MANGANESE	6	0.0%	29.6	48.1	76.4	102[a]
MERCURY	6	83.3%	0.05	0.23	0.75	NA[c]
MOLYBDENUM	6	0.0%	1.30	1.55	1.70	2.53[a]/2.41[b]
NICKEL	6	0.0%	3.45	4.90	6.40	8.59[a]/8.96[b]
POTASSIUM	6	0.0%	8330	12100	16900	22625[a]/23917[b]
SELENIUM	6	66.7%	0.47	1.30	1.61	2.90[a]/2.73[b]
SILVER	6	100.0%	0.13	0.13	0.14	NA[c]
SODIUM	6	0.0%	80700	262000	343000	594376[a]
STRONTIUM	6	0.0%	188	343	344	578[a]/572[b]
THALLIUM	6	100.0%	0.49	0.57	0.80	0.99[a]
TIN	6	100.0%	0.44	0.48	0.60	0.92[a]/0.85[b]
VANADIUM	6	0.0%	7.10	13.2	16.8	25.4[a]/25.8[b]
ZINC	6	0.0%	65.8	82.8	91.2	162[a]/147[b]

Note: [a] Lognormal distribution; [b] Normal distribution; [c] Undetermined distribution.

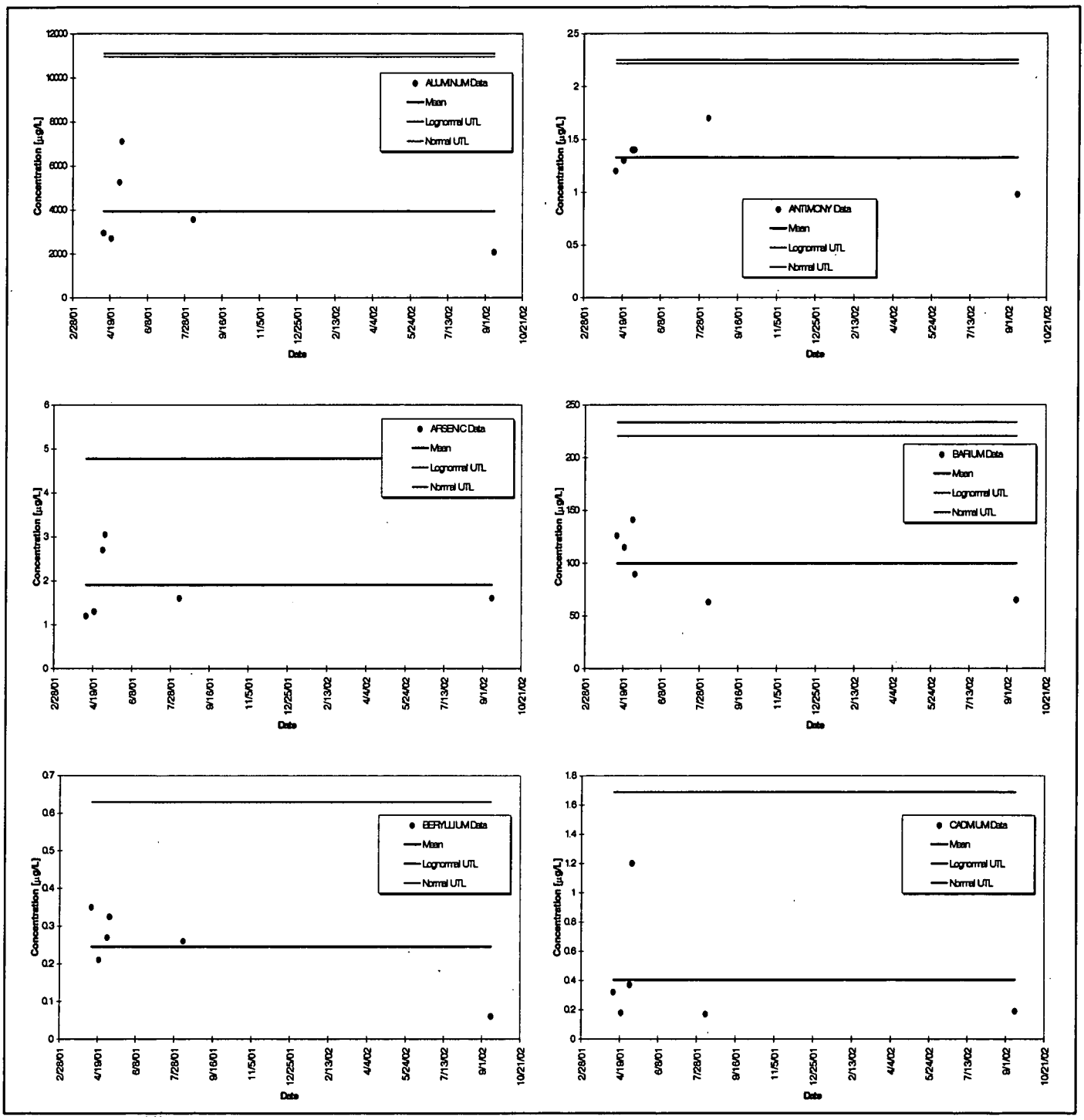


Figure 10-203. Total Metals UTL Plots for SW119: Aluminum through Cadmium.

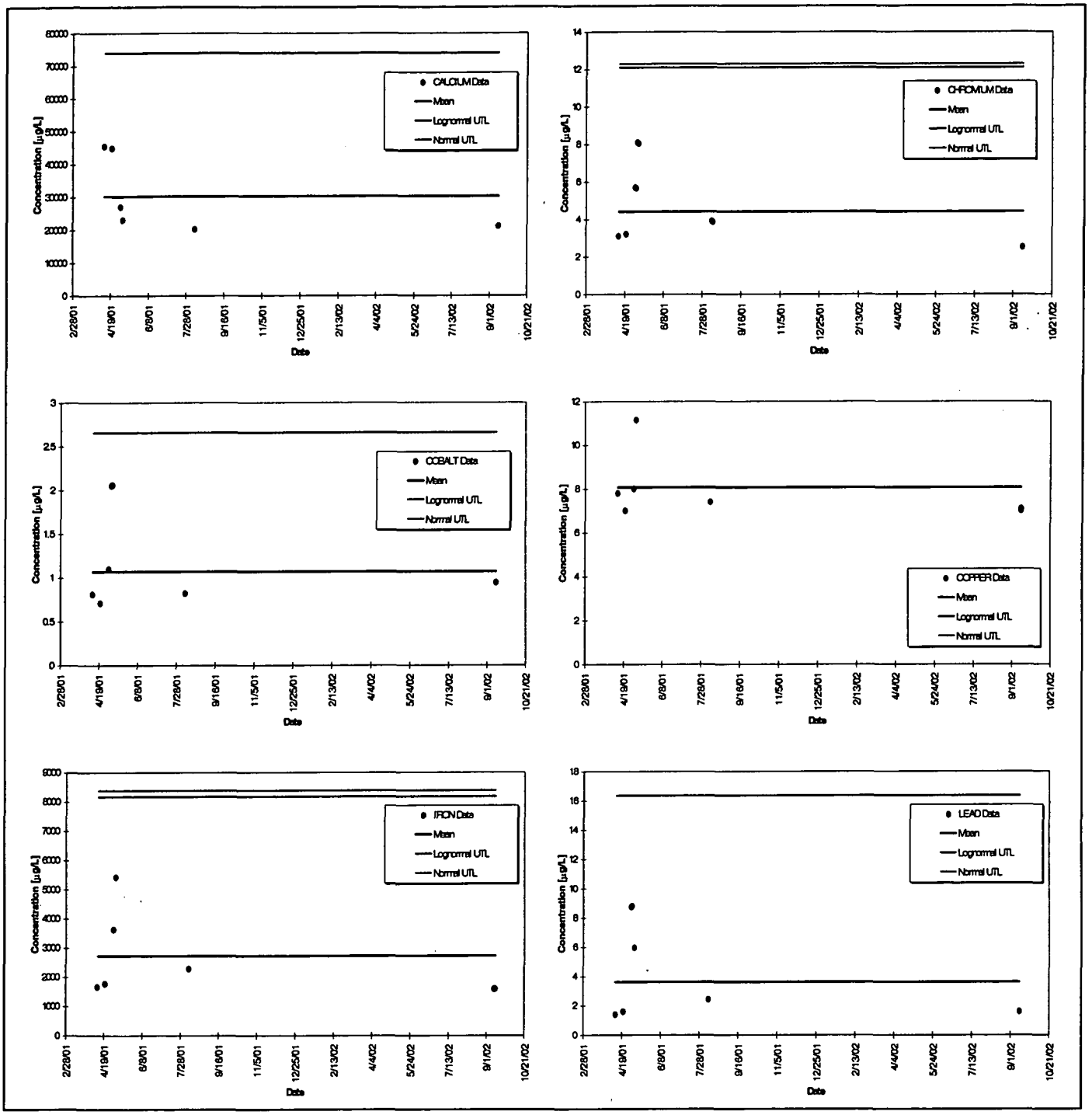


Figure 10-204. Total Metals UTL Plots for SW119: Calcium through Lead.

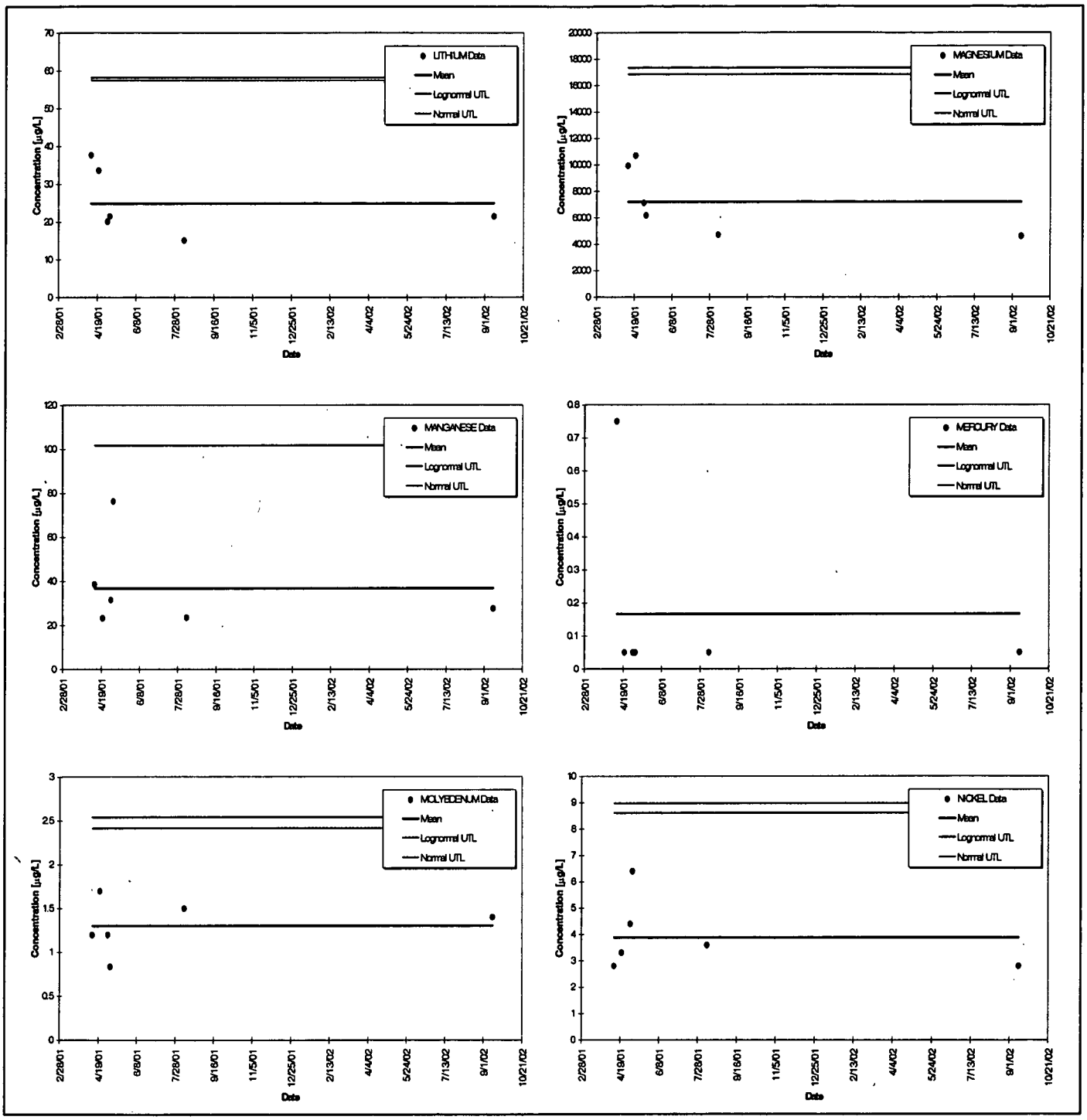


Figure 10-205. Total Metals UTL Plots for SW119: Lithium through Nickel.

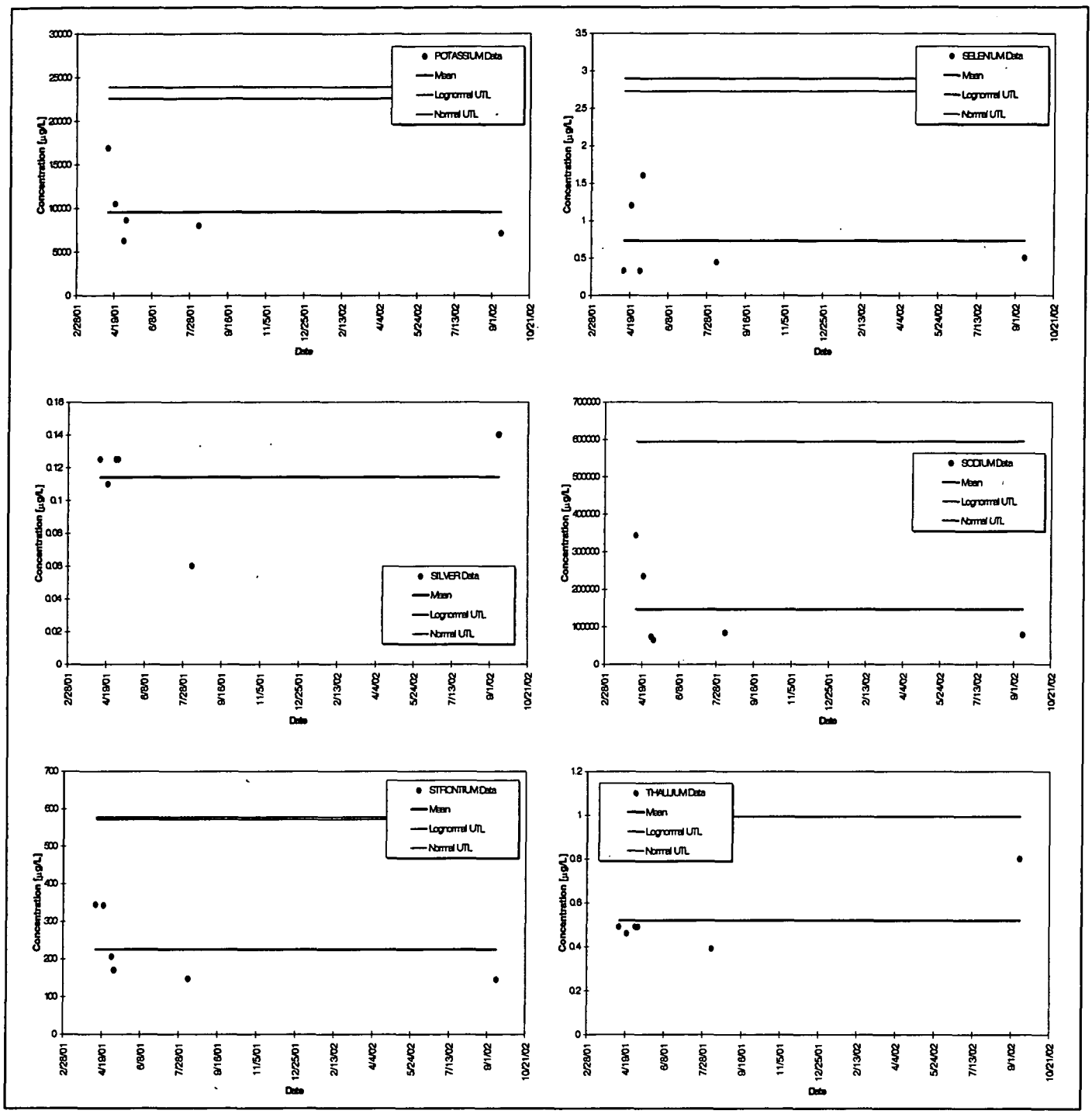


Figure 10-206. Total Metals UTL Plots for SW119: Potassium through Thallium.

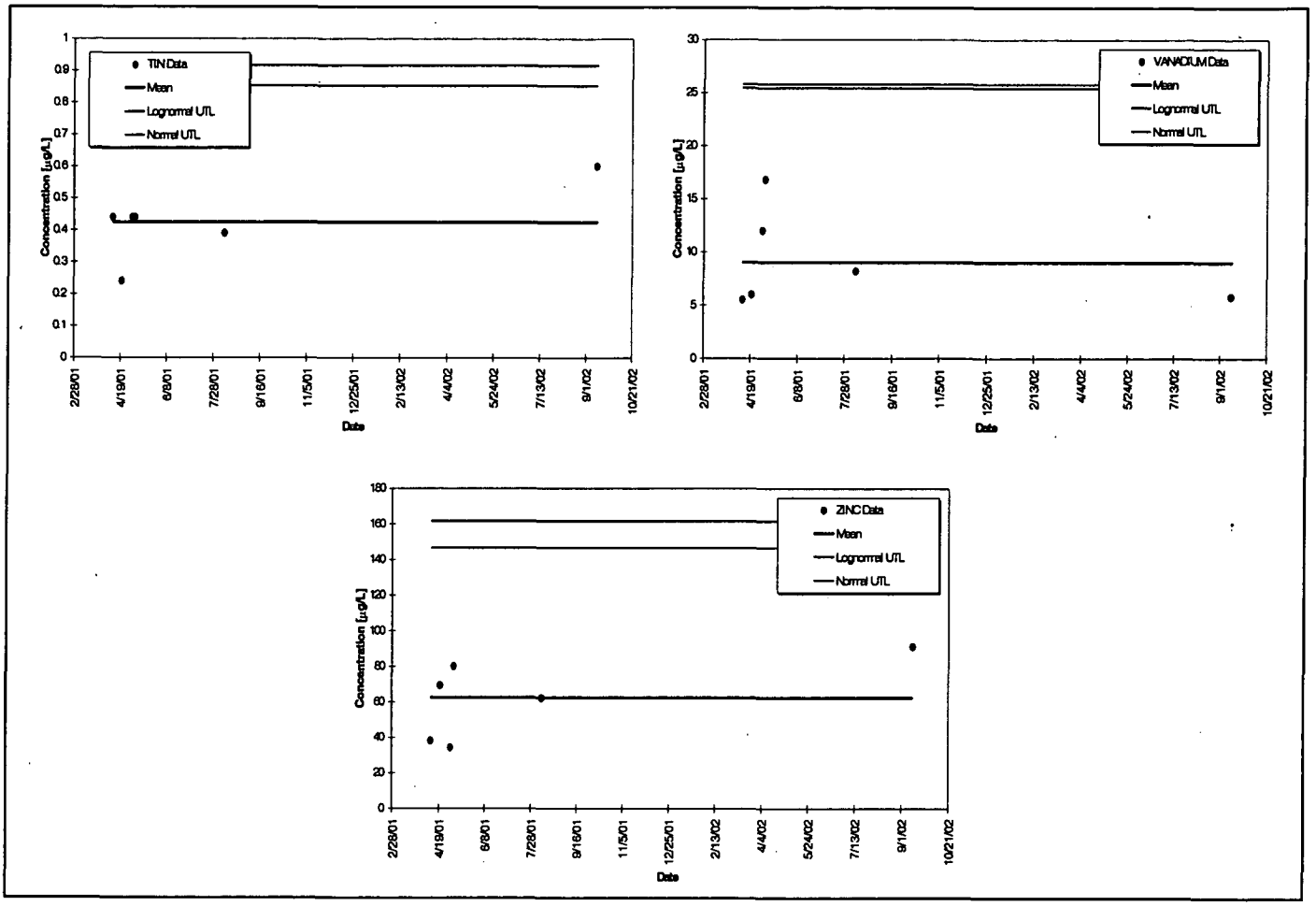


Figure 10-207. Total Metals UTL Plots for SW119: Tin through Zinc.

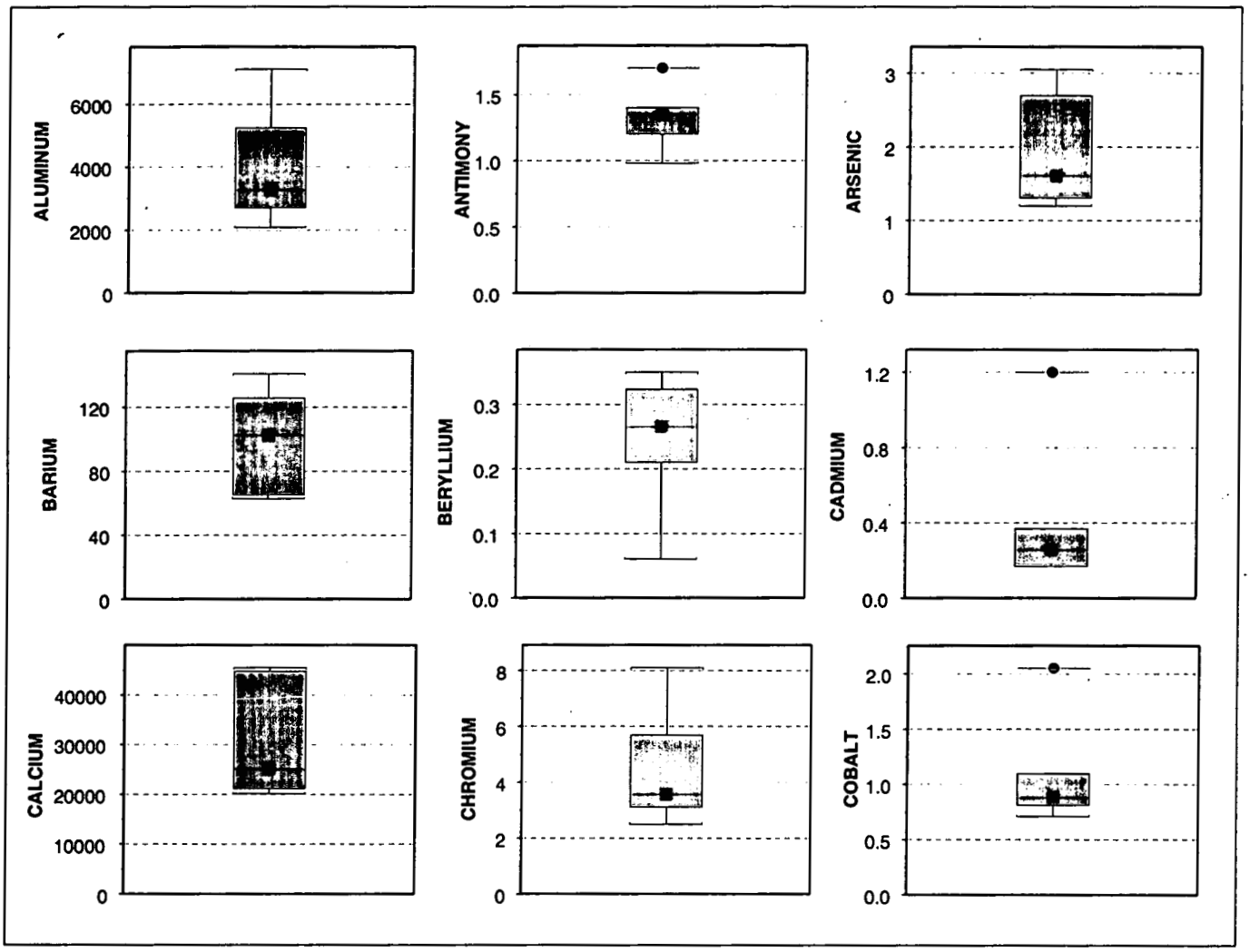


Figure 10-208. Total Metals Box Plots for SW119: Aluminum through Cobalt.

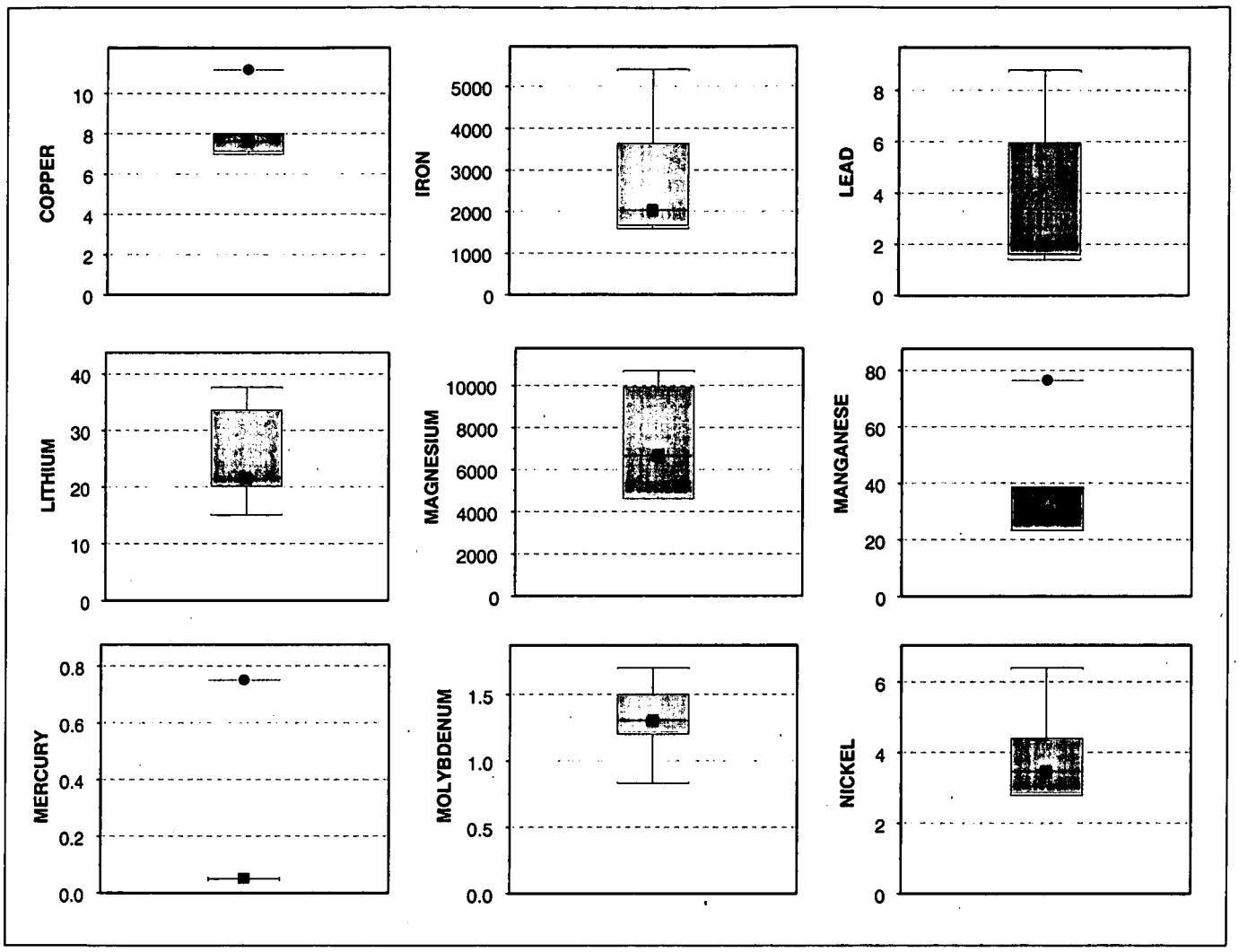


Figure 10-209. Total Metals Box Plots for SW119: Copper through Nickel.

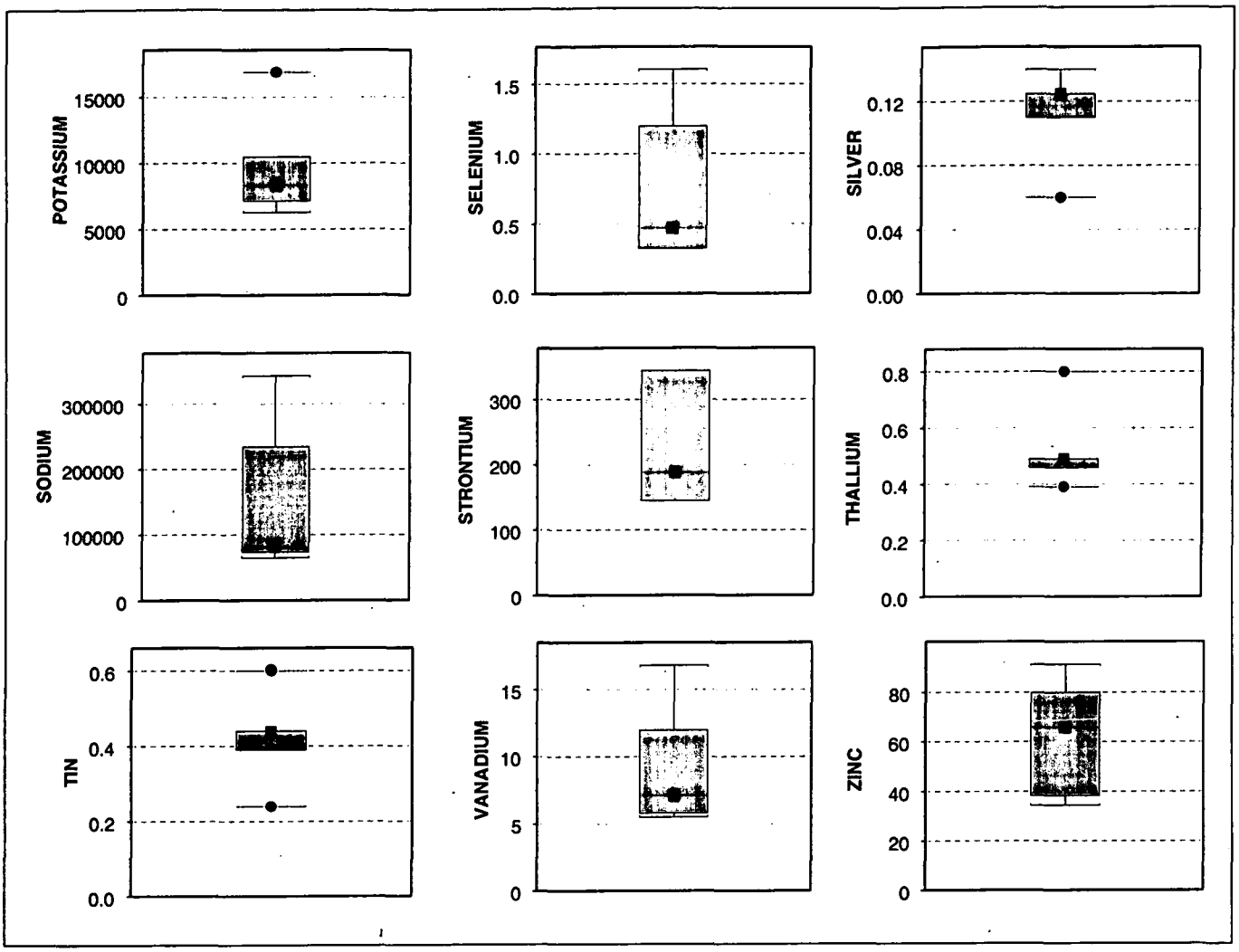


Figure 10-210. Total Metals Box Plots for SW119: Potassium through Zinc.

Monitoring data collected at SW091 show moderate Pu and Am activities (Table 10-35). No UTLs or box plots were generated due to the small number of data points available for the period.

Monitoring data collected at SW091 show low median total uranium activities (Table 10-35).

The temporal variation of suspended solids activity (Figure 10-211) shows no significant change.

Samples collected at SW091 are currently not analyzed for metals.

Table 10-35. Summary Statistics for Radionuclide Results from SW091 in WY00-02.

Analyte	Samples [N]	Median [pCi/L]	85th Percentile [pCi/L]	Maximum [pCi/L]	95% UTL [pCi/L]
TSS [mg/L]	2	125	164	180	NA
Pu-239,240	2	0.057	0.060	0.062	NA
Am-241	2	0.125	0.168	0.186	NA
U-233,234	2	0.568	0.809	0.913	NA
U-235	2	0.019	0.020	0.021	
U-238	2	0.537	0.728	0.810	

Note: [a] Lognormal distribution; [b] Normal distribution; [c] Undetermined distribution.
TSS is given in mg/L.
Uranium UTL given for total uranium.

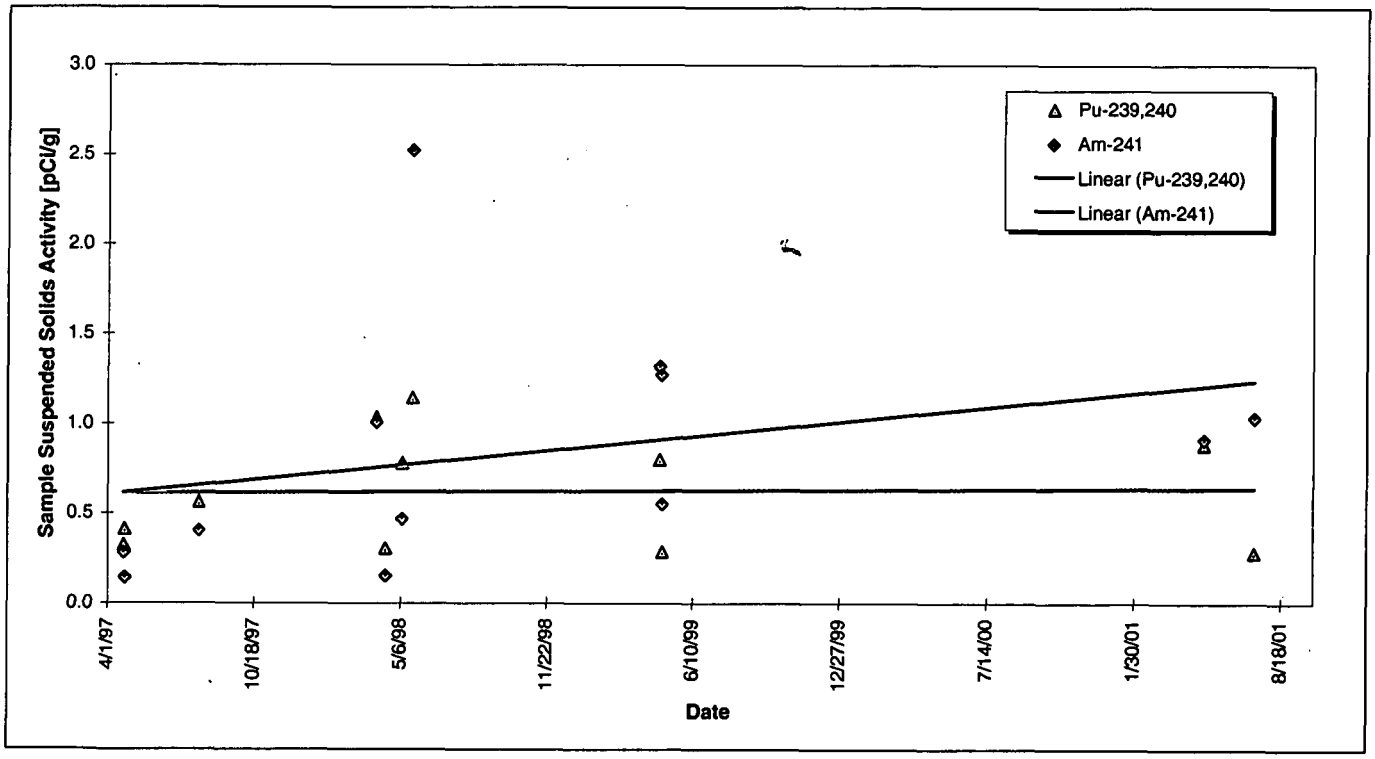


Figure 10-211. Temporal Variation of Suspended Solids Activity at SW091: WY97–02.

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11.NEW SOURCE DETECTION MONITORING

The NSD monitoring objective provides comprehensive coverage of the entire IA but is not specifically focused on individual actions within the IA. Performance monitoring of specific activities within the IA (or elsewhere) may be carried out under the Performance monitoring objective. This NSD objective monitors the performance of all remedial activities within the IA with respect to their impact on surface waters. However, it does not necessarily identify and locate a specific source within the IA[46]. This monitoring objective provides for monitoring of all main drainages from the IA into the three main channels of Stream Segment 5.

11.1 DATA TYPES, FREQUENCY, AND COLLECTION PROTOCOLS

This objective requires contaminant concentration data from surface-water samples taken at permanent monitoring locations located on the five main surface-water pathways to the Site detention ponds. Analyses are performed for each of the contaminants and parameters listed below in order to establish a baseline. After a baseline has been established, evaluations will be performed as required by the decision rules. The basis for selecting these contaminants of concern and indicator parameters is described below.

- Pu, U, and Am are primary contaminants of concern to the regulators and the public.
- Turbidity, pH, nitrate (NO_3^-), and conductivity are analyses performed continuously because they are inexpensive per measurement and can be used as real-time indicators to provide or negate reasonable cause to analyze for other specific contaminants.
- Turbidity may indicate increased contaminant loads in general and increased Pu specifically. (Pu in surface water is generally bound to particulates).
- pH can be used to detect an acid or caustic spill.
- Nitrate can be used in real-time to detect chemical spills that include plutonium nitrate.
- Conductivity can be used to corroborate a pH reading and to detect salt solution spills or significant concentrations of ionic contaminants.
- Precipitation data are used to determine whether a flow event results from rain/snow runoff, an operational discharge[47], or a spill. Precipitation data are collected at 12 locations across the Site. From these, effective precipitation for a given monitoring location drainage can be calculated.
- Water flow rate is needed to identify an event, trigger an automatic sampler, control the flow-paced sampling, and evaluate the magnitude of the spill or contaminant source (mass loading).
- Small changes to apparent base flow not attributable to rain and snow melt, or unusual runoff hydrograph shapes, may indicate a spill or operational discharge.

This monitoring objective is limited to information collected at the IA boundary, as represented by surface-water monitoring stations SW022, SW091, SW093, SW027, and GS10[48] (see Figure 11-1). This monitoring focuses on runoff into the three main drainage areas leaving the IA: North Walnut Creek, South Walnut Creek, and the South Interceptor Ditch / Pond C-2 drainage (see Figure 2-3). SW022 waters are normally monitored subsequently at GS10, so there is some redundancy in this set of monitoring stations. SW022 has been included at the request of

[46] Location of a specific source would be performed under the Source Location monitoring objective described in Section 6.

[47] An operational discharge can be defined as a footing drain or sump discharged to ground, incidental water discharged to ground, spray water used for dust suppression during D&D, fire hydrant testing, a utility line break, etc.

[48] Subdrainage monitoring stations within the IA are used for Performance monitoring and source location but are excluded from the planned monitoring for this NSD decision rule.

the EPA to provide increased sensitivity for its drainage area. Data from SW022 would also be used to aid the location of any new source detected at GS10.

For SW022 (10/1/96 – 9/30/99) and SW091, sampling is event-specific, focused on the time period during which the first-flush conditions prevail; specifically, during the rising limb of a direct runoff hydrograph after any storm event.[49] Starting on 10/1/99, SW022 began collecting continuous flow-paced composite samples. For SW093, GS10, and SW027, the analytical data used for the NSD objective will be the same data as collected from the continuous flow-paced sampling used for monitoring Segment 5 Action Level compliance (see Section 12).

Only surface-water runoff from the IA is included, (i.e., baseflow, stormwater runoff flow, operational discharges, and spills to surface water). Spills are only included in this NSD monitoring as a secondary monitoring objective if an increase in flow rate is detected and cannot be attributed to precipitation runoff or other identified discharge. However, other management controls (e.g., Spill Prevention, Control, and Countermeasures Plan [SPCC; RFCSS 2002] and Storm Water Pollution Prevention Plan [SWPPP; RFCSS 2001) address monitoring of spills as a primary objective. Three of these NSD locations also provide confirmation that containment measures for spills or accidental discharges have been effective through monitoring of the real-time indicator parameters.[50]

Indicator monitoring will be performed for the parameters specified at the top of each column of Table 11-1. The first three columns are Analytes of Interest (AoIs) monitored directly through sample analytical measurements. Although these three columns and rows have a different relationship than the others, they have been included so that all monitored parameters are shown on the same table. The remaining columns are indicator parameters that are monitored with inexpensive real-time probes in lieu of analyzing for the AoIs identified at the left of each row.

Table 11-1. Screening for New Source Detection: AoIs vs. Indicator Parameters.

	Routinely Monitored Parameters							
	Monitored AoIs			Indicator Parameters for AoIs				
AoIs	Pu	U	Am	Turbidity	pH	Conductivity	Nitrate	Flow Rate; Precipitation[a]
Plutonium	X			X			X	X
Uranium		X						X
Americium			X	X				X
Turbidity				X				X
pH					X		X	X
Conductivity						X		X
Nitrate						X	X	X
Chromium					X	X	X	X
Beryllium						X		X
Silver						X		X
Cadmium						X	X	X

Notes: [a] Precipitation data are collected at Sitewide locations. Precipitation data collection is not required at each NSD location, but Sitewide data are used for NSD evaluation.

[49] Descriptions of sample collection protocols are given in the RFETS Automated Surface-Water Monitoring Work Plan.

[50] Real-time indicator measurement at SW022 and SW091 has proven impractical due to the ephemeral nature of the flow at these locations. The real-time water quality probes require that their sensors remain wet at all times. Since these locations are dry except during periods of direct runoff, the Site has historically employed 'sump' systems that use tap water to keep the sensors wet. These systems were designed to flush during direct runoff so that the tap water was replaced by runoff water. However, the relatively slow response time of the sensors often resulted in data that was poor or unusable. These sump systems were also susceptible to freezing during cold weather, which occasionally resulted in damage to the equipment. For these reasons, the Site has very limited real-time indicator data for SW022 and SW091, and water-quality probes are not routinely deployed at these locations.

11.2 WY02 MONITORING SCOPE

Table 11-2. New Source Detection Monitoring Locations.

ID Code	Location	Primary Flow Measurement Device	Telemetry
SW093	N. Walnut Cr. 1300' upstream from the A-1 Bypass	36" Suppressed Rectangular Sharp-Crested Weir	Yes
SW091	Gully NE of Solar Ponds outside inner fence	6" Cutthroat Flume	Yes
GS10	S. Walnut Cr. upstream from the B-1 Bypass	9" Parshall Flume	Yes
SW022	Central Avenue Ditch at inner east fence	9.5" Parshall Flume	Yes
SW027	South Interceptor Ditch just upstream of Pond C-2	Dual Parallel 120° V-Notch Weirs	Yes

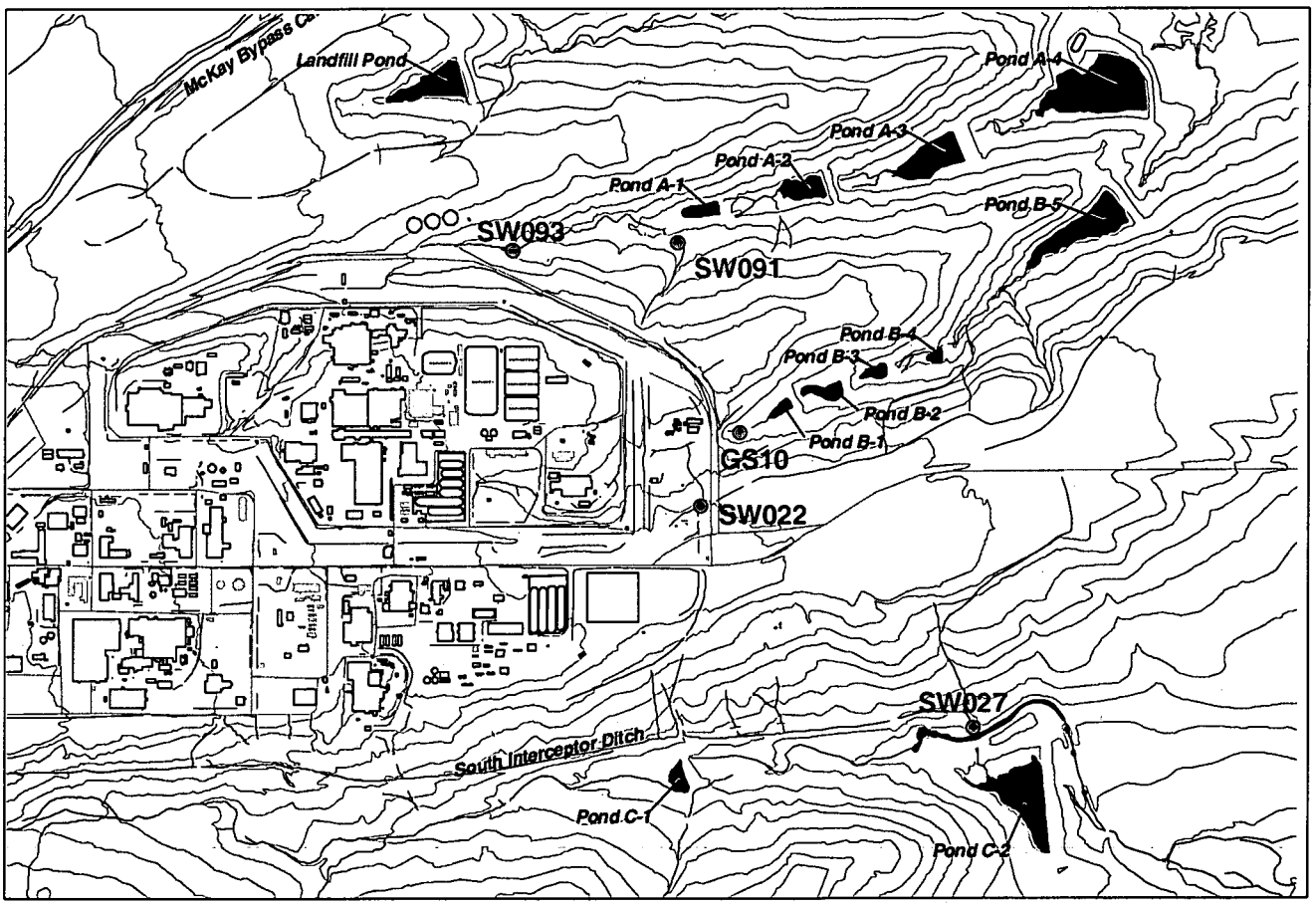

Figure 11-1. Water Year 2002 New Source Detection Monitoring Locations.

Table 11-3. New Source Detection Field Data Collection: Parameters and Frequency.

ID Code	Parameter		
	Discharge	Real-Time pH, Conductivity, Turbidity, Nitrate	Precipitation
SW093	15-min continuous	15-min continuous	NA
SW091	15-min continuous	See footnote 50	5-min continuous
GS10	15-min continuous	15-min continuous	NA
SW022	15-min continuous	See footnote 50	5-min continuous
SW027	15-min continuous	15-min continuous	NA

Table 11-4. New Source Detection Sample Collection Protocols.

ID Code	Frequency[a]: WY02 Actual (Target)	Type[b]
SW093	26 (12 per year[c])	Continuous flow-paced composites
SW091	0 (1 per month[d])	Storm-event rising-limb flow-paced composites
GS10	23 (12 per year[c])	Continuous flow-paced composites
SW022	1 per month[d]; 7 (12 per year[c])	Storm-event rising-limb flow-paced composites (10/1/96 – 9/30/99; Continuous flow-paced composites (10/1/99 -)
SW027	3 (12 per year[c])	Continuous flow-paced composites

Notes: [a] Only SW091 and SW022 (through 9/30/99) are sampled on the rising limb of the hydrograph, as originally specified for this decision rule. Stations SW093, SW027, and GS10 are the Segment 5 Action Level (POE) monitoring stations (see Section 12). At these Segment 5 stations, NSD is performed by statistically testing the continuous flow-paced sample results required for the POE objective. The same test criterion will be used, except that continuous flow-paced samples will be tested against flow-paced variability. These locations will collect more than the target 12 samples for the NSD objective. All results collected at these locations under the POE objective will be used in the NSD objective.

[b] Sample types are defined in the RFETS Automated Surface-Water Monitoring Work Plan.

[c] Sample frequency distribution during the year for SW093, GS10, and SW027 (POEs) is given in Section 12.

[d] Storm-event sampling at locations which are often dry and normally only receive direct runoff is opportunistic. These locations may see flow only during wet months. Every attempt is made to achieve the target sample frequency; however, this is not always possible.

Table 11-5. New Source Detection Analytical Targets (Analyses per Year).

ID Code	Pu, U, Am: WY02 Actual (Target)
SW093[a]	26 (12)
SW091	0 (12)
GS10[a]	23 (12)
SW022	7 (12)
SW027[a]	3 (12)

Notes: [a] Stations SW093, SW027, and GS10 are the Segment 5 Action Level (POE) monitoring stations (see Section 12). At these Segment 5 stations, NSD will be performed by statistically testing the continuous flow-paced sample results required for the POE objective. The same NSD test criterion will be used, except that continuous flow-paced samples will be tested against flow-paced variability. These POEs will collect more than the target 12 samples for the NSD objective. All results collected at these locations under the POE objective will be used in the NSD objective.

11.3 DATA EVALUATION

Indicator monitoring is performed for the parameters specified at the top of each column of Table 11-1. The first three columns are Analytes of Interest (AoIs) monitored directly through sample analytical measurements. The remaining columns are indicator parameters that are monitored with inexpensive real-time probes in lieu of analyzing for the AoIs identified at the left of each row. If a significant increase is detected in any one of these indicator parameters, then there is reasonable cause to suspect the presence of the AoI identified at the left end of the row in which an "X" appears. For example, if the nitrate probe detects a high nitrate concentration, then the

Site would have reasonable cause to suspect the presence of plutonium nitrate, extreme pH, cadmium nitrate, and, of course, high nitrate, all of which are AoIs for Segment 5. If there were reasonable cause to suspect the presence of these analytes of interest, then the Site would perform additional analytical procedures specific for the analytes of interest.

Data collected by water-quality probes at NSD locations are considered and evaluated, at a minimum, in the following ways:

- Daily average values are checked qualitatively (daily on work days) using the radio telemetry equipment;
- A general qualitative evaluation of data is performed (generally monthly);
- A detailed work-up of 15-minute data is generated and archived (generally monthly); and
- A detailed work-up and evaluation of daily averages is completed and archived (generally monthly).

Each of these data evaluation activities is completed for all water-quality parameters measured by the probes. Additional evaluation may be performed for a variety of reasons including spill investigations, special requests, and studies of probe performance. The above listed data evaluation activities are described individually, in greater detail in Appendix B.5: Real-Time Water-Quality Parameters. Due to the relatively high error associated with the nitrate sensor readings (see footnote in Appendix B.5.1), nitrate data are not presented in this section. Nitrate data are presented in Appendix B.5.2 for reference. Plots of the other mean daily water-quality parameter values are given below. More detailed data for all parameters are presented in Appendix B.5.2.

Generally, analytical data evaluation is performed as data become available, especially if an initial qualitative screening based on process knowledge indicates that an analytical result is higher than normal for a particular location. The desired evaluation frequency is semi-monthly, within one week of the 15th and last day of any given month.

Screening for reasonable cause to suspect a new source:

IF	The mean concentration of any of the screening indicator variables in Table 11-1 exceeds the 95% UTL/LTL of baseline for that variable,
THEN	The Site will evaluate the need for further action under RFCA ALF, such as source evaluation and control. Evaluations will address persistence, trends, and risk of Action Level exceedances at POEs.

Table 11-6. New Source Detection Monitoring Analytical Data Evaluation.

ID Code	Evaluation Type[a]
SW093	95% UTLs; Loading Analysis
SW091	95% UTLs
GS10	95% UTLs; Loading Analysis
SW022	95% UTLs
SW027	95% UTLs; Loading Analysis

Notes: [a] Details on the evaluation of analytical results are given in the RFETS Automated Surface-Water Monitoring Work Plan.

The following sections present the NSD monitoring data evaluations on a location-specific basis. Each section includes a table of summary statistics for the location-specific analytes of interest, 95% UTL plots, box plots, and plots of the temporal variation of suspended solids Pu and Am activity.

The following evaluations include all results that were not rejected through the verification/validation process. When a sample has a corresponding field duplicate, the value used in calculations is the arithmetic average of the 'real' value and the 'duplicate'. When a sample has multiple 'real' analyses (Site requested 're-runs'), the value used in calculations is the arithmetic average of the multiple 'real' analyses. Total uranium is calculated by summing the activities for the analyzed isotopes (U-233,234 + U-235 + U-238).

For the summary tables, when a negative radionuclide result (e.g. -0.002 pCi/L) is returned from the laboratory due to blank correction, then a value of 0.0 pCi/L is used for calculation purposes. When TSS results are returned from the laboratory as 'undetect', ½ of the detection limit is used for calculation purposes.

The method for calculating UTLs is given in Appendix B.1: Data Evaluation Methods. For this report, the three year period of WY00–02 was used to calculate the UTL values. UTL lines are shown on the plots only for the determined distribution. When the data may satisfy either distribution, both UTL lines are plotted; when no distribution is determined, no line is plotted. A common legend is used in all UTL plots.

Box plots were calculated using S-Plus statistical evaluation software. For these plots, when a negative radionuclide result (e.g. -0.002 pCi/L) is returned from the laboratory due to blank correction, then a value of 0.0 pCi/L is used for calculation purposes. A key describing the components of the box plots is given in Appendix B.1: Data Evaluation Methods.

The temporal variation of suspended solids activity plots are included as an indication of changes in the contamination characteristics of a particular drainage basin. A suspended solids activity that decreases over time may indicate that contaminant sources have been removed from the drainage, clean solids have become more available to runoff, or contaminant sources have been naturally attenuated over time. Similarly, a suspended solids activity that increases over time may indicate that new contaminant sources have become available for transport in the drainage. TSS analysis is only performed for composite samples that are collected over a period of less than the TSS hold time (7 days). Consequently, not all samples collected at the locations below were analyzed for TSS. Only values greater than the detection limit (generally 5 mg/L for TSS, 0.015 pCi/L for Pu and Am) are included.

Plots of mean daily water temperature, pH, specific conductivity, and turbidity are also included.[51] The methods used for the water-quality parameter evaluations are given in Appendix B.5: Real-Time Water-Quality Parameters.

The loading analysis for GS10, SW027, and SW093 is presented in Section 5.

11.3.1 Location GS10

Monitoring location GS10 is located on South Walnut Creek at the perimeter of the IA just upstream of the B-Series ponds. Figure 3-29 shows the drainage area for GS10. The 100, 300, 400, 500, 600, 700, 800, and 900 areas all contribute flow to GS10.

Monitoring data collected at GS10 show the highest Pu and Am activities measured for the NSD monitoring locations (Table 11-7). Figure 11-2 and Figure 11-3 show the UTL plots for Pu and Am, respectively. During WY00–02, two Pu results were greater than the calculated UTL, with significant variability in the results. A distribution could not be determined for Am, with significant variability in the results. The Am boxplot in Figure 11-5 show numerous 'suspect' values. These higher Pu and Am activities resulted in reportable 30-day averages under the POE monitoring objective (Section 12). In response, the Site was required to continue the ongoing source evaluations to address these reportable values. A summary of the extensive investigations is given in Section 6.3.

[51] Mean daily water-quality values are given for days of measurable flow. Some data may be missing due to equipment failures and removal for calibration.

Table 11-7 shows moderate total uranium activities at GS10. Figure 11-4 shows the UTL plot for total uranium. During WY00–02, no uranium results were greater than the calculated UTL.

GS10 shows a downward trend in suspended solids activity (Figure 11-6) for both Pu and Am. However, this may only be a result of dry climactic conditions in recent years.

Table 11-7. Summary Statistics for Radionuclide Results from GS10: Water Years 2000-2002.

Analyte	Samples [N]	Median [pCi/L]	85th Percentile [pCi/L]	Maximum [pCi/L]	95% UTL [pCi/L]
Pu-239,240	87	0.039	0.130	2.270	0.417[a]
Am-241	87	0.046	0.140	8.385	NA[c]
Total Uranium	87	3.204	4.843	6.480	7.321[a]

Note: Total uranium is calculated as the sum of the isotopic (U-233,234; U-235; U-238) activities.
[a] Lognormal distribution; [b] Normal distribution; [c] Undetermined distribution.

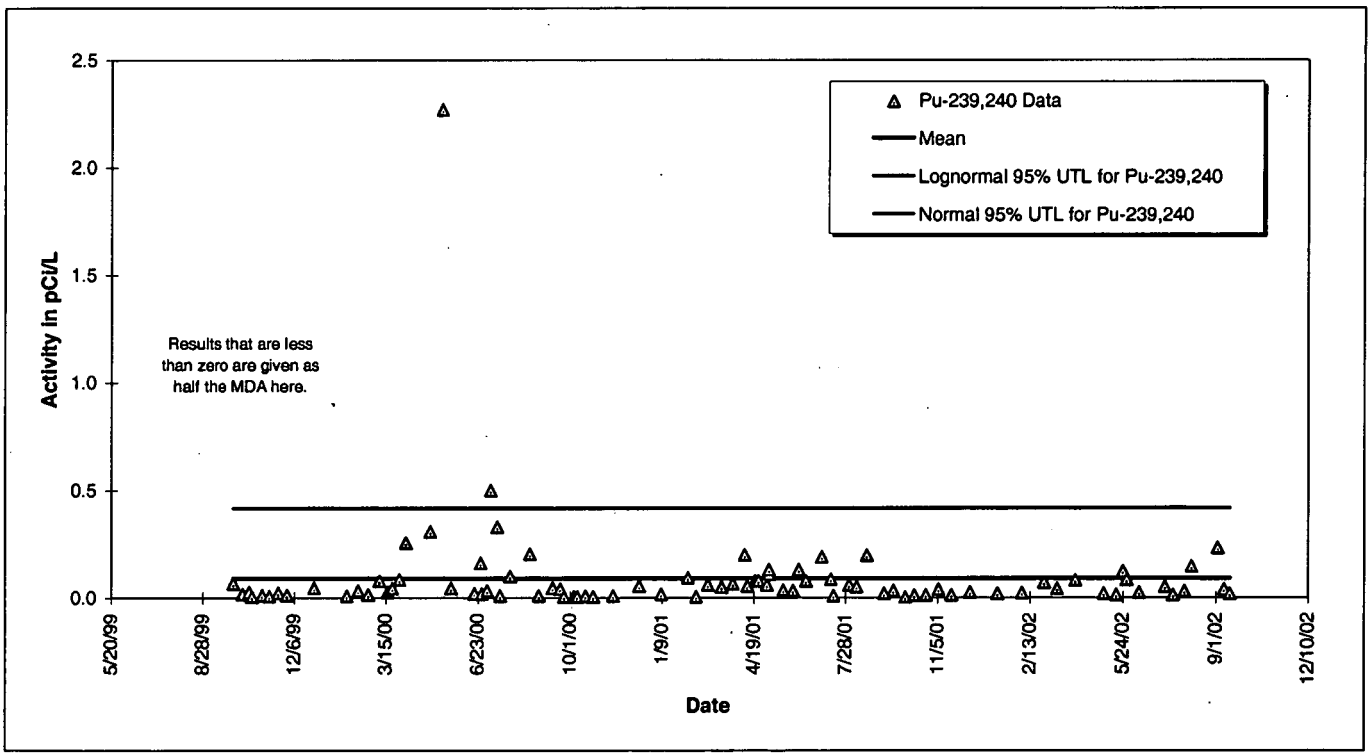

Figure 11-2. 95% UTL Plot for Pu-239,240 at GS10: WY00-02.

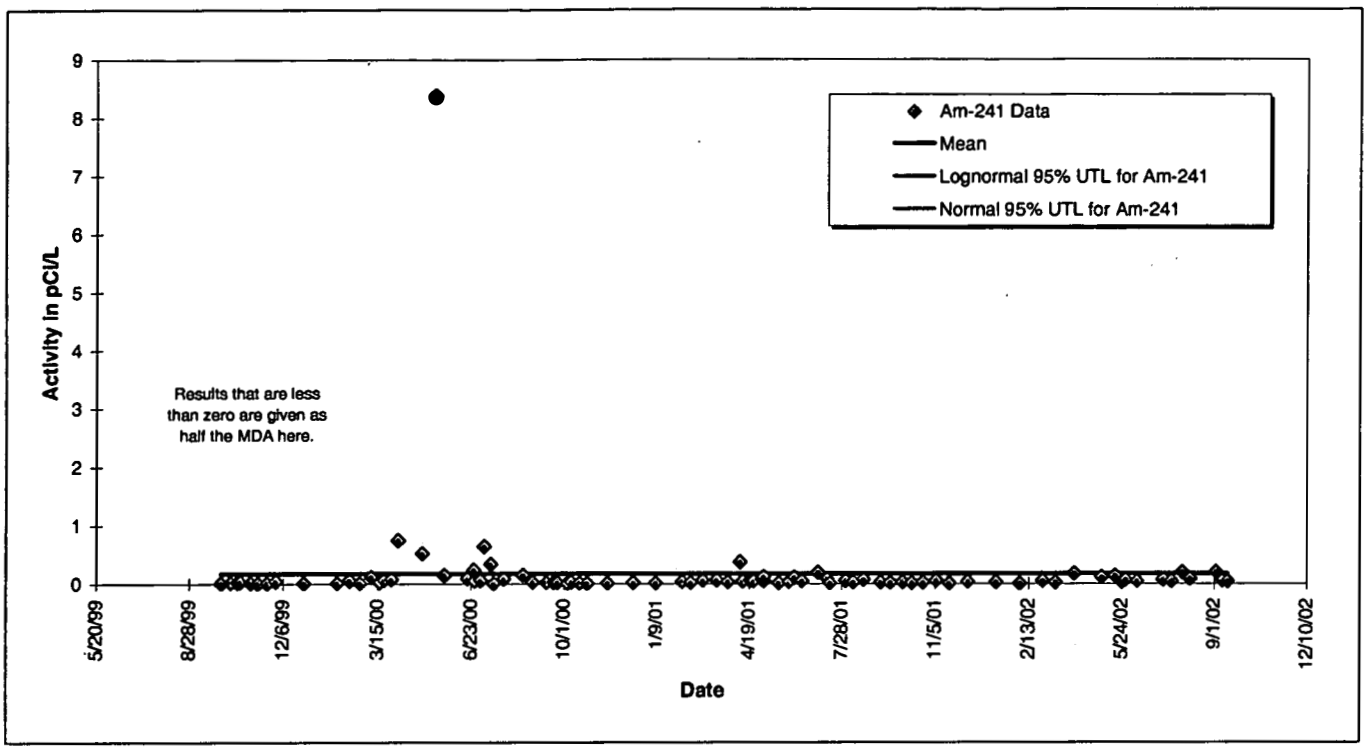

Figure 11-3. 95% UTL Plot for Am-241 at GS10: WY00-02.

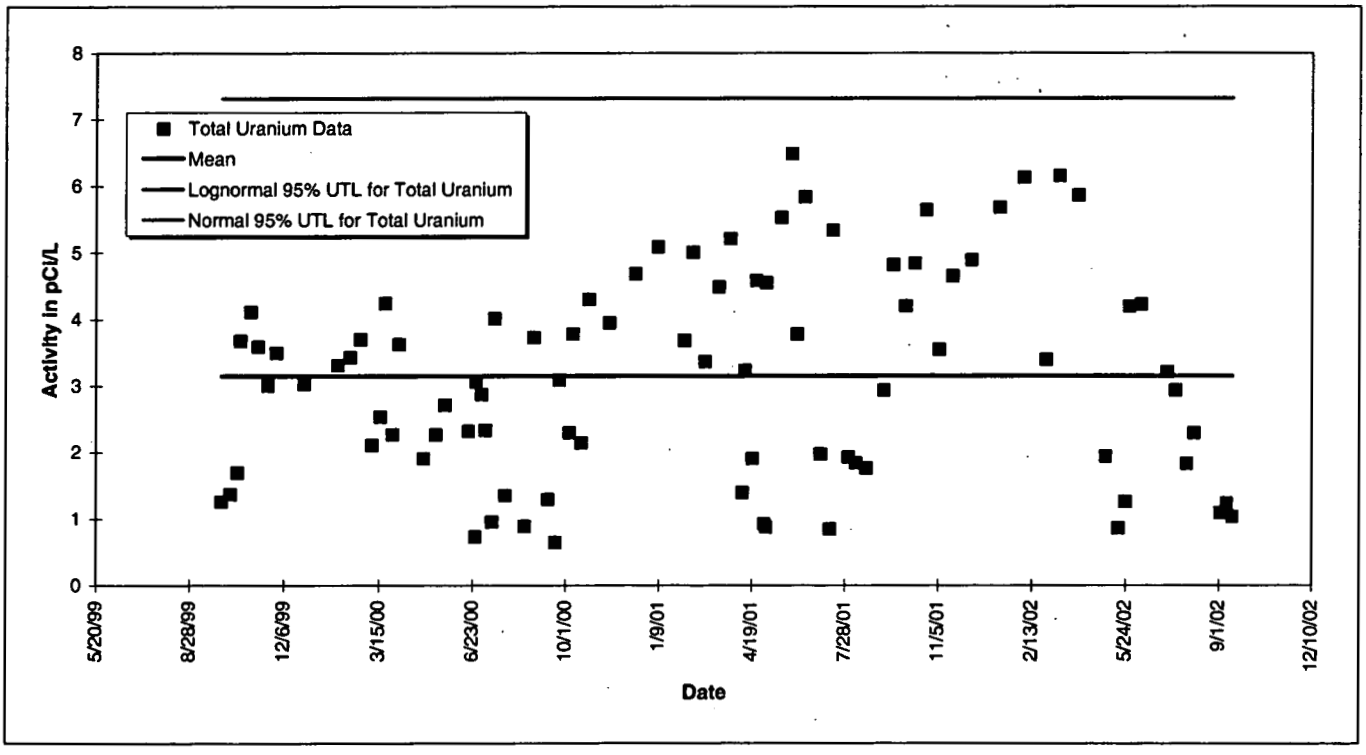

Figure 11-4. 95% UTL Plot for Total Uranium at GS10: WY00-02.

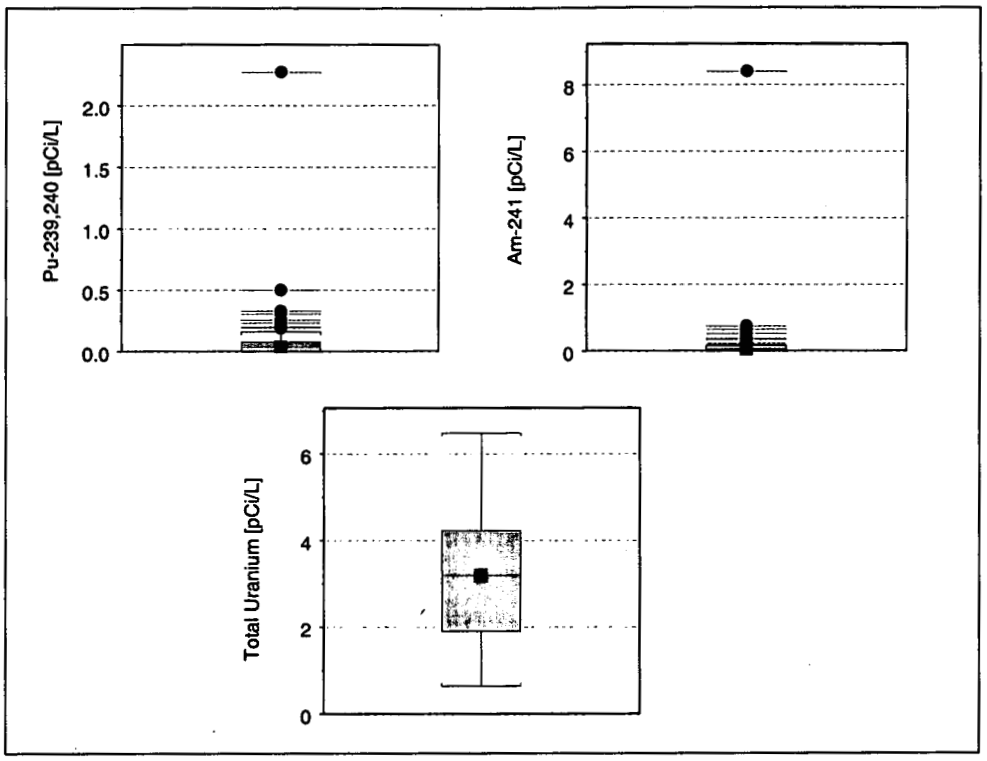

Figure 11-5. Radionuclide Box Plots for GS10: WY00–02.

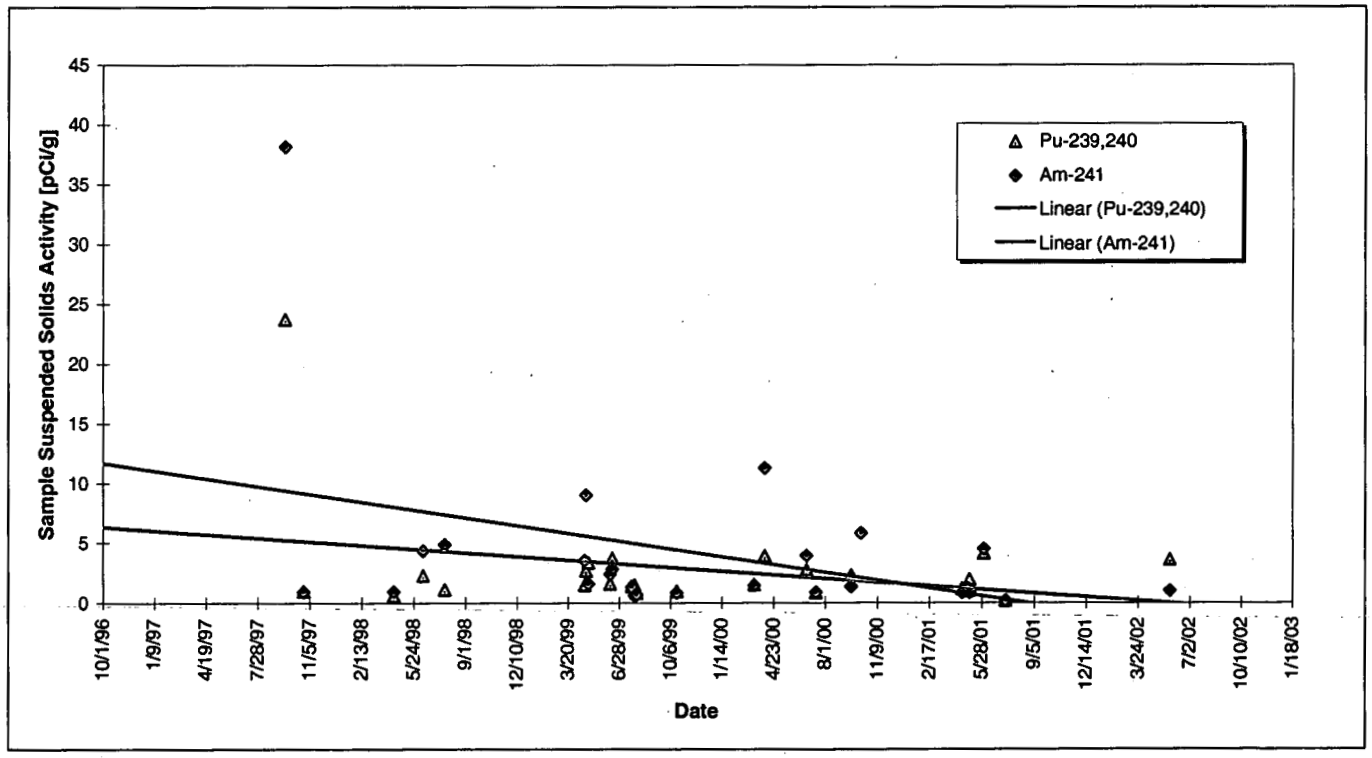

Figure 11-6. Temporal Variation of Suspended Solids Activity at GS10: WY97–02.

Mean daily water-quality parameter data are plotted in Figure 11-7 through Figure 11-14 along with the mean daily flow rate. Figure 11-7 and Figure 11-8 show the expected annual variation in water temperature.

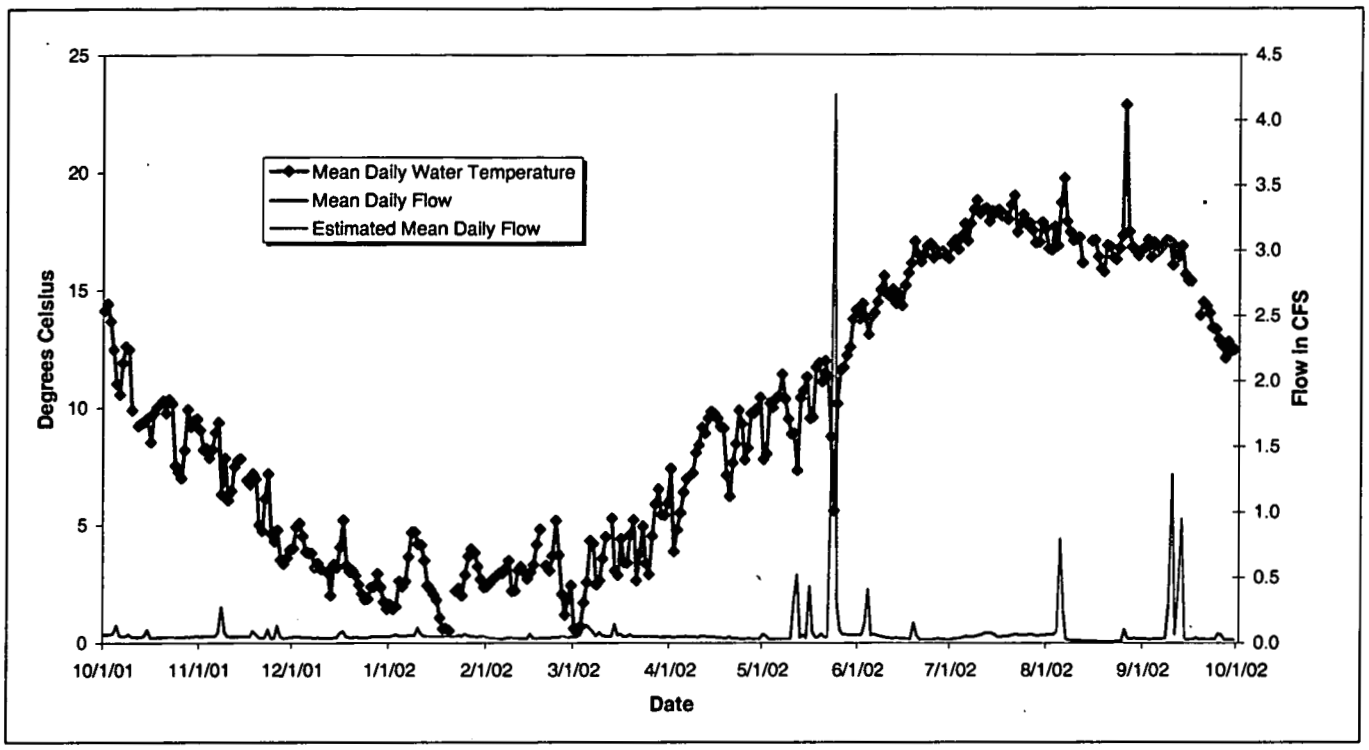

Figure 11-7. Mean Daily Water Temperature at GS10: Water Year 2002.

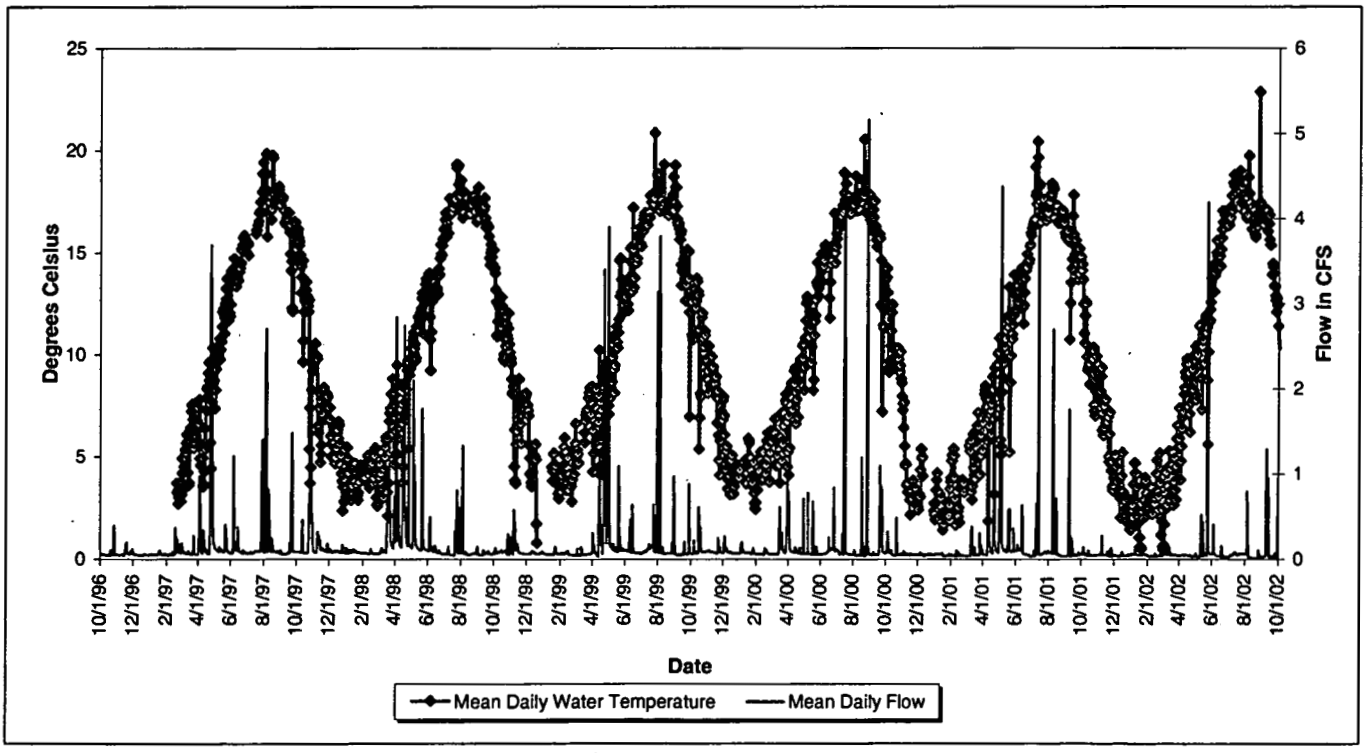

Figure 11-8. Mean Daily Water Temperature at GS10: Water Years 1997-2002.

Figure 11-9 and Figure 11-10 show elevated conductivities during the winter months, most likely a result of road and walkway deicing operations. The effects of changes in deicing products starting in WY00 can be clearly seen in Figure 11-10.

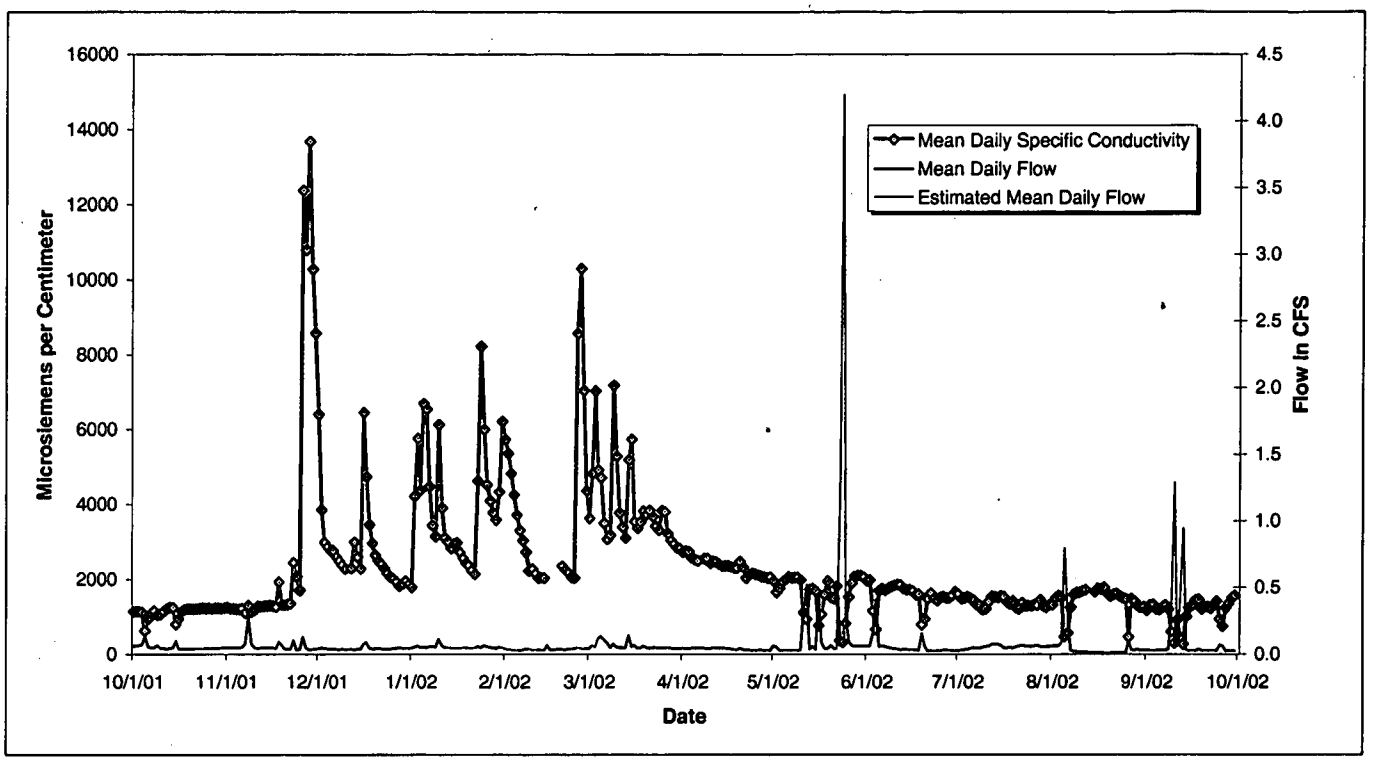

Figure 11-9. Mean Daily Specific Conductivity at GS10: Water Year 2002.

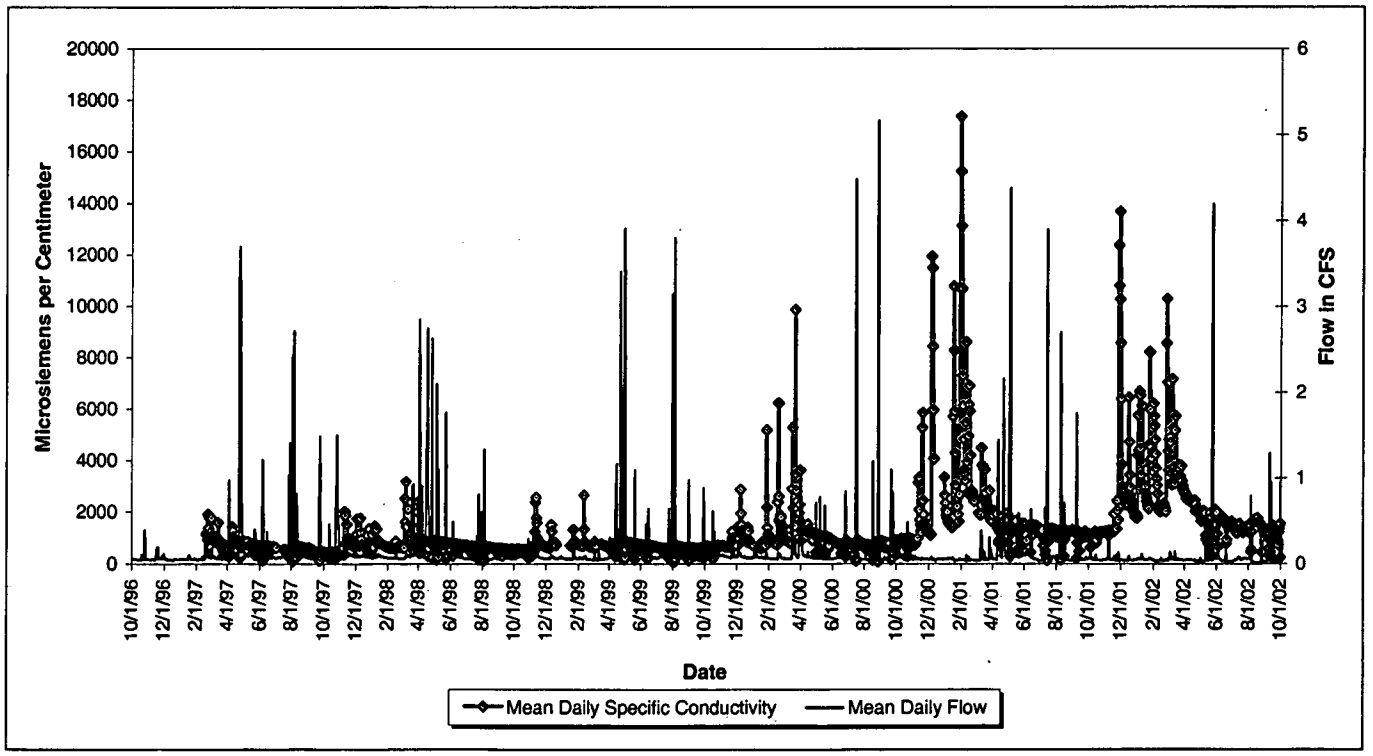

Figure 11-10. Mean Daily Specific Conductivity at GS10: Water Years 1997-2002.

Figure 11-11 and Figure 11-12 show the mean daily pH varying between 7.0 and 8.5.

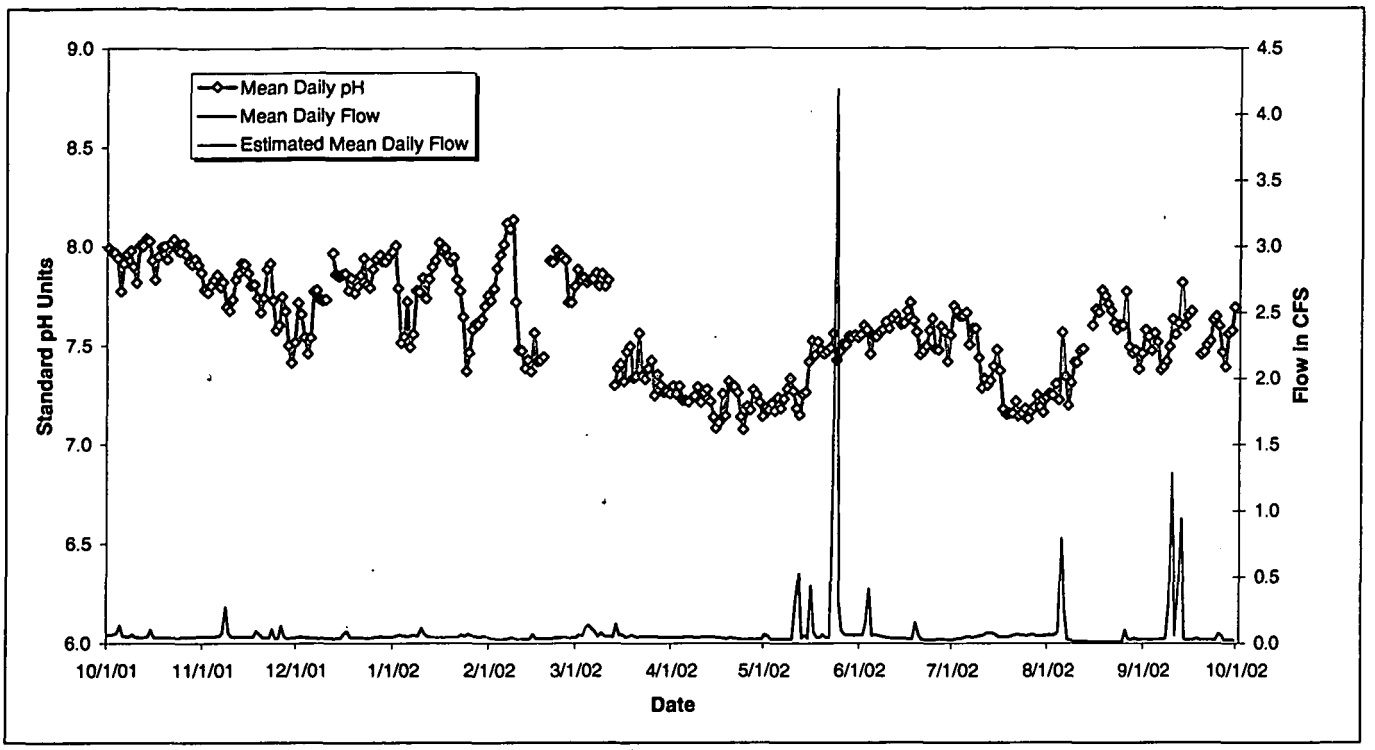

Figure 11-11. Mean Daily pH at GS10: Water Year 2002.

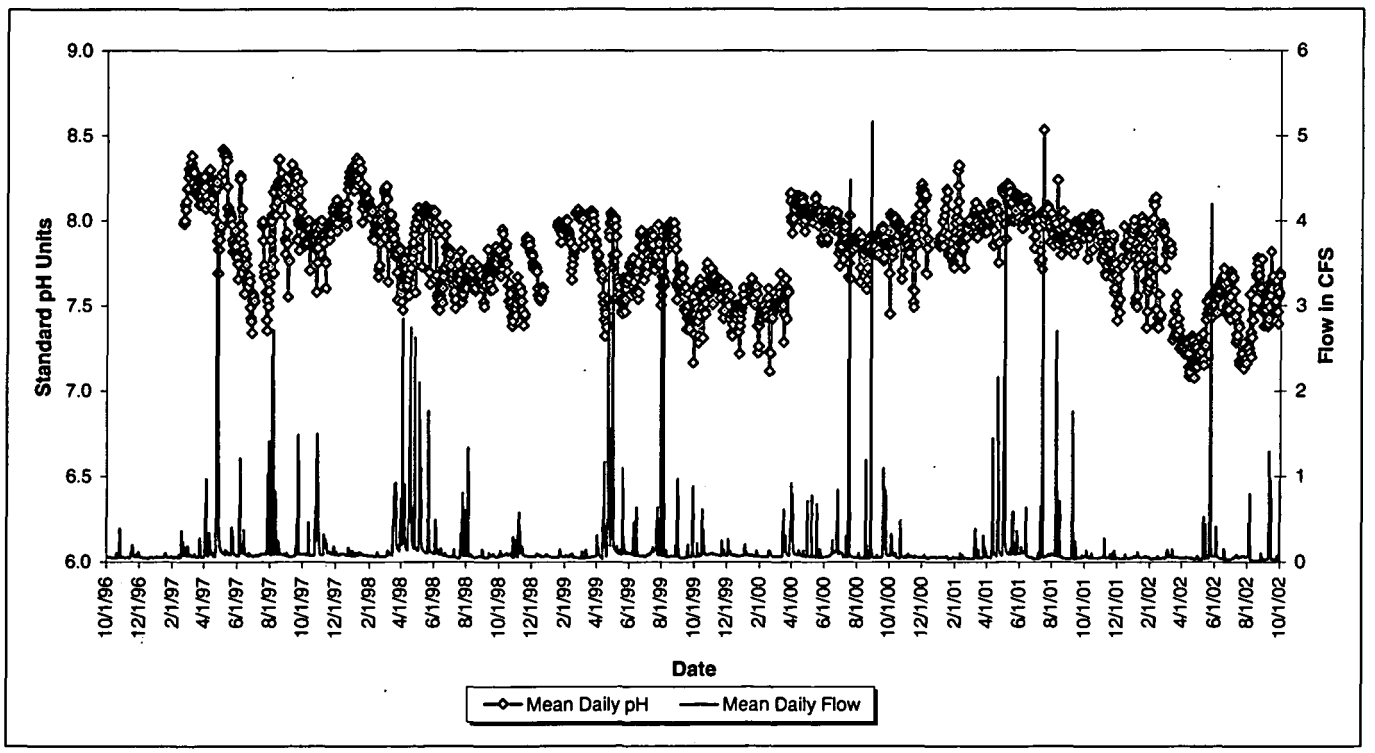

Figure 11-12. Mean Daily pH at GS10: Water Years 1997-2002.

Finally, Figure 11-13 and Figure 11-14 show elevated turbidity measurements tracking the flow rate in time and magnitude, as expected when higher flow rates transport more suspended solids.

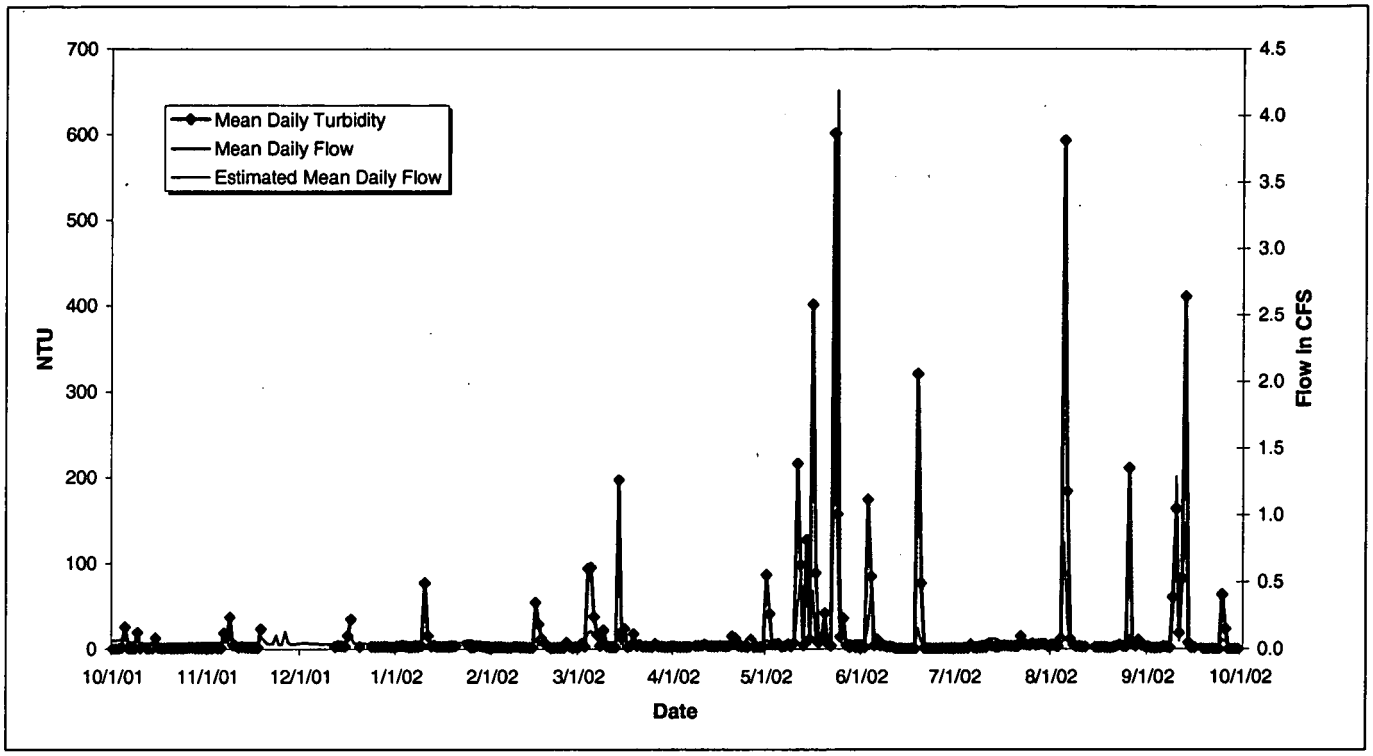

Figure 11-13. Mean Daily Turbidity at GS10: Water Year 2002.

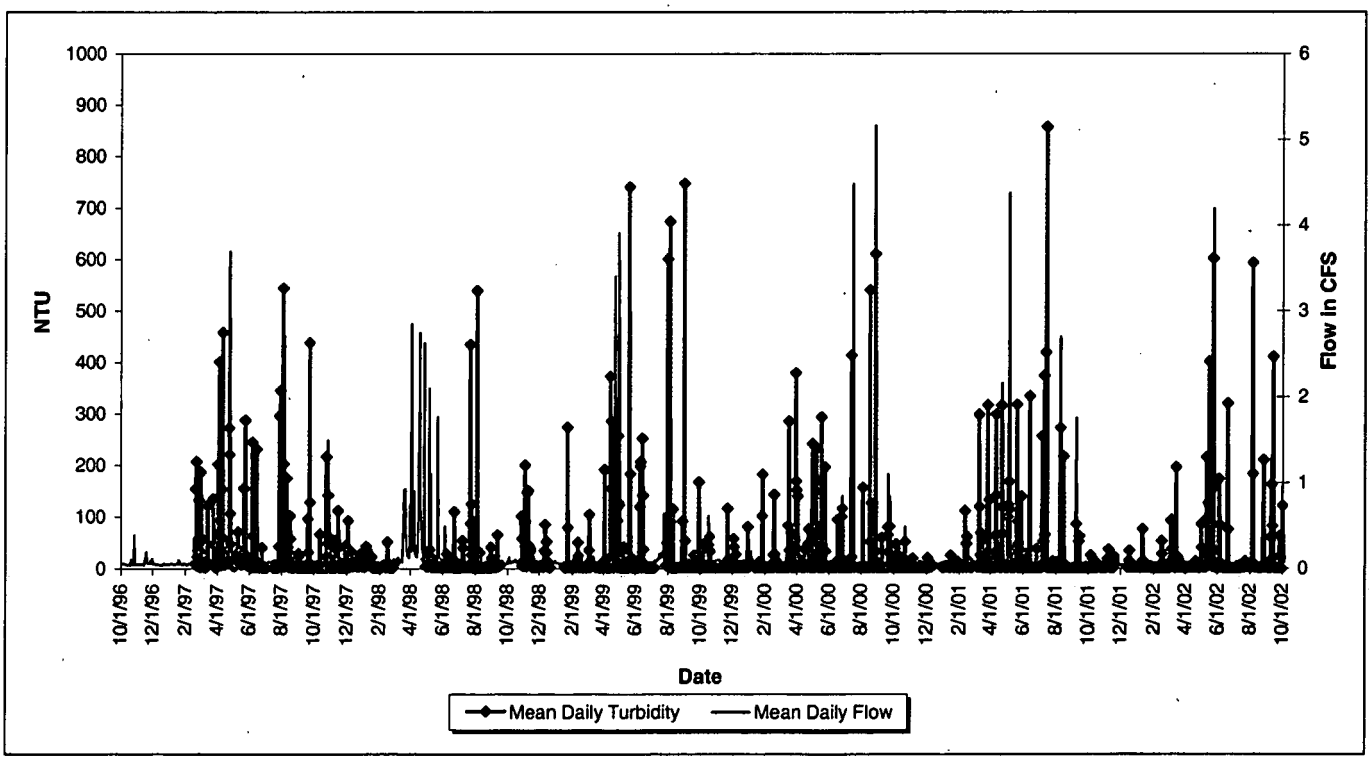

Figure 11-14. Mean Daily Turbidity at GS10: Water Years 1997-2002.

11.3.2 Location SW022

Monitoring location SW022 is located at the end of Central Avenue Ditch just upstream of the diversion structure that routes flows to South Walnut Creek and GS10. **Figure 3-114** shows the drainage area for SW022. The 100, 400, 600, 800, and 900 areas all contribute flow to SW022.

Monitoring data collected at SW022 show moderate median Pu and Am activities (Table 11-8), although several higher results have been measured (Figure 11-18). Figure 11-15 and Figure 11-16 show the Pu and Am UTL plots, respectively. During WY00–02, no Pu or Am results were greater than the calculated UTLs.

Monitoring data collected at SW022 show low median total uranium activities (Table 11-8). Figure 11-17 shows that a single total uranium result was marginally greater than the calculated UTLs. However, the measured value was low, and subsequent results were all less than the UTLs.

The temporal variation of suspended solids activity (Figure 11-19) shows a noticeable trend downward, though the data show significant variability.

Table 11-8. Summary Statistics for Radionuclide Results from SW022 in WY00-02.

Analyte	Samples [N]	Median [pCi/L]	85th Percentile [pCi/L]	Maximum [pCi/L]	95% UTL [pCi/L]
Pu-239,240	25	0.074	0.148	0.546	0.733[a]
Am-241	25	0.015	0.042	0.144	0.153[a]
Total Uranium	25	0.664	1.148	1.725	1.691[a]/1.631[b]

Note: [a] Lognormal distribution; [b] Normal distribution; [c] Undetermined distribution.

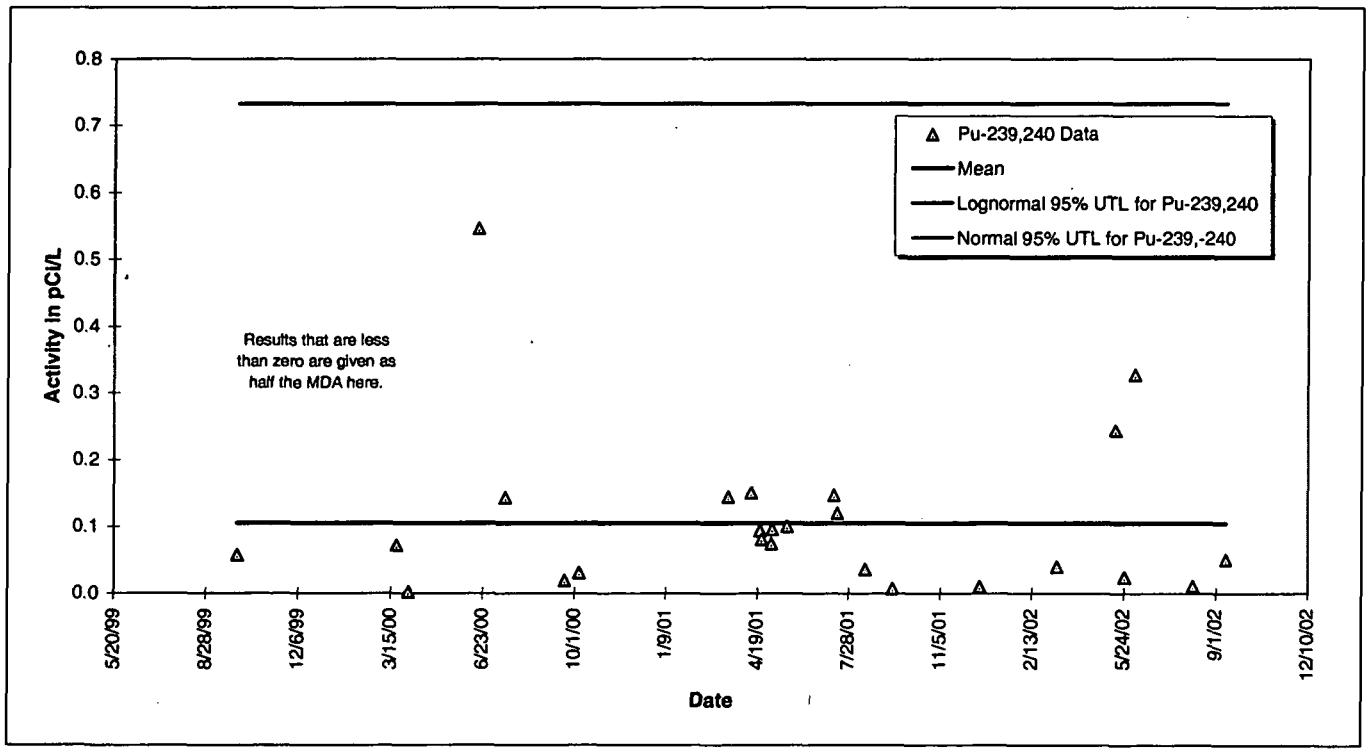

Figure 11-15. 95% UTL Plot for Pu-239,240 at SW022: WY00-02.

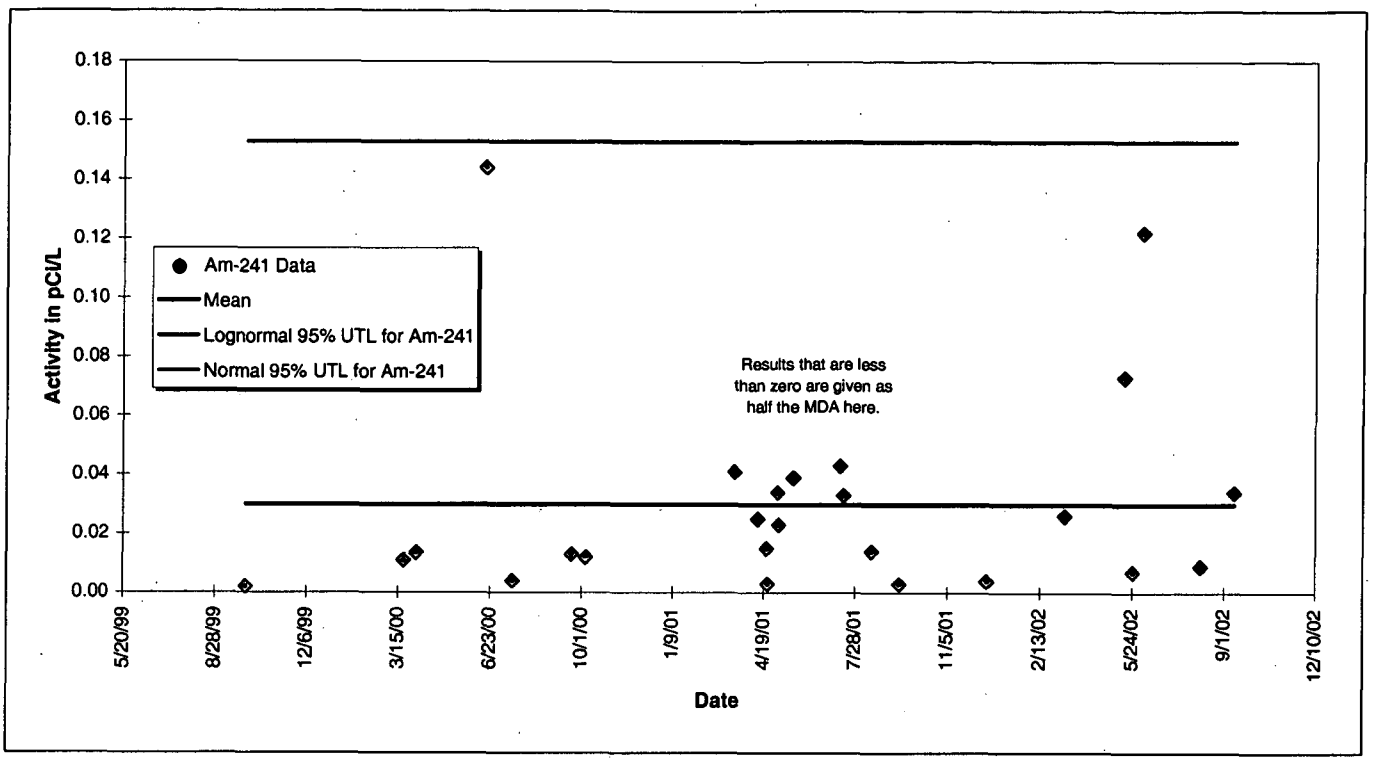

Figure 11-16. 95% UTL Plot for Am-241 at SW022: WY00-02.

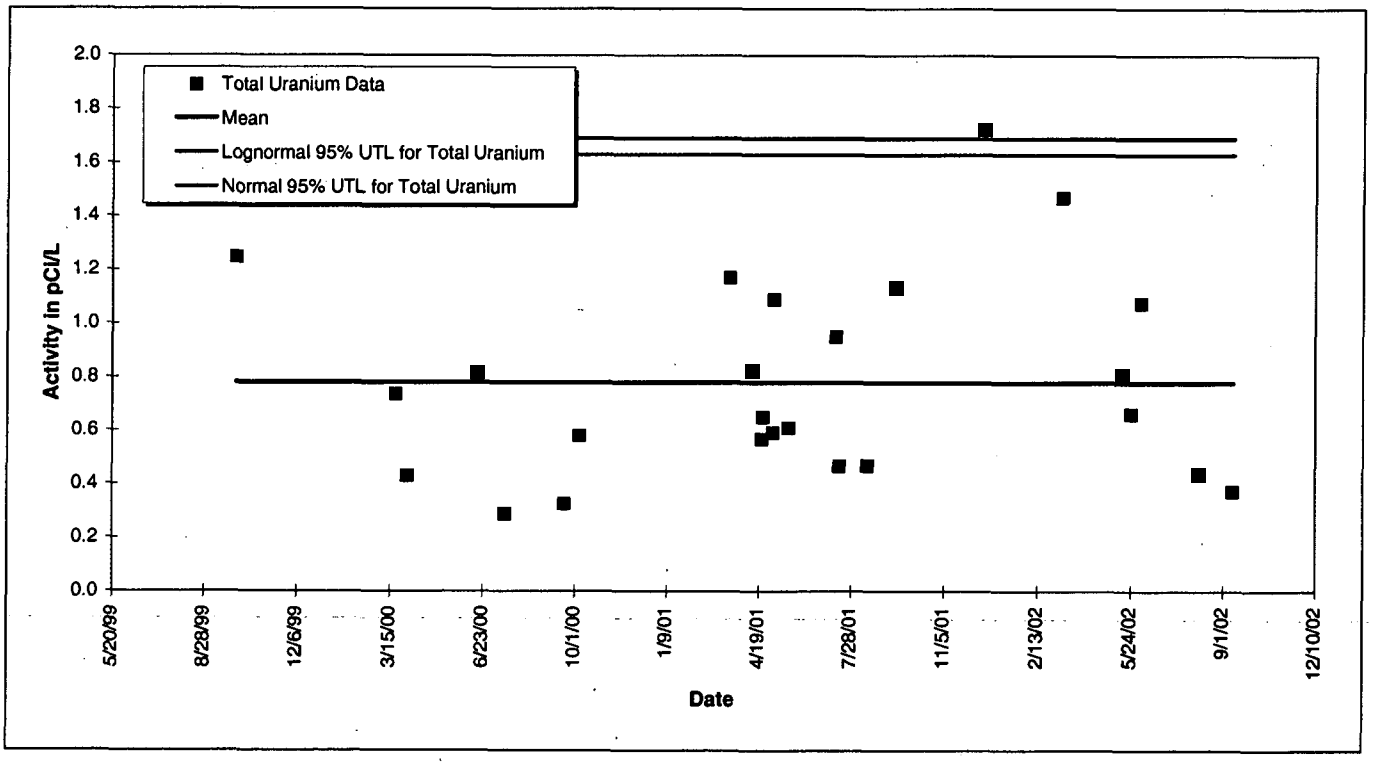

Figure 11-17. 95% UTL Plot for Total Uranium at SW022: WY00-02.

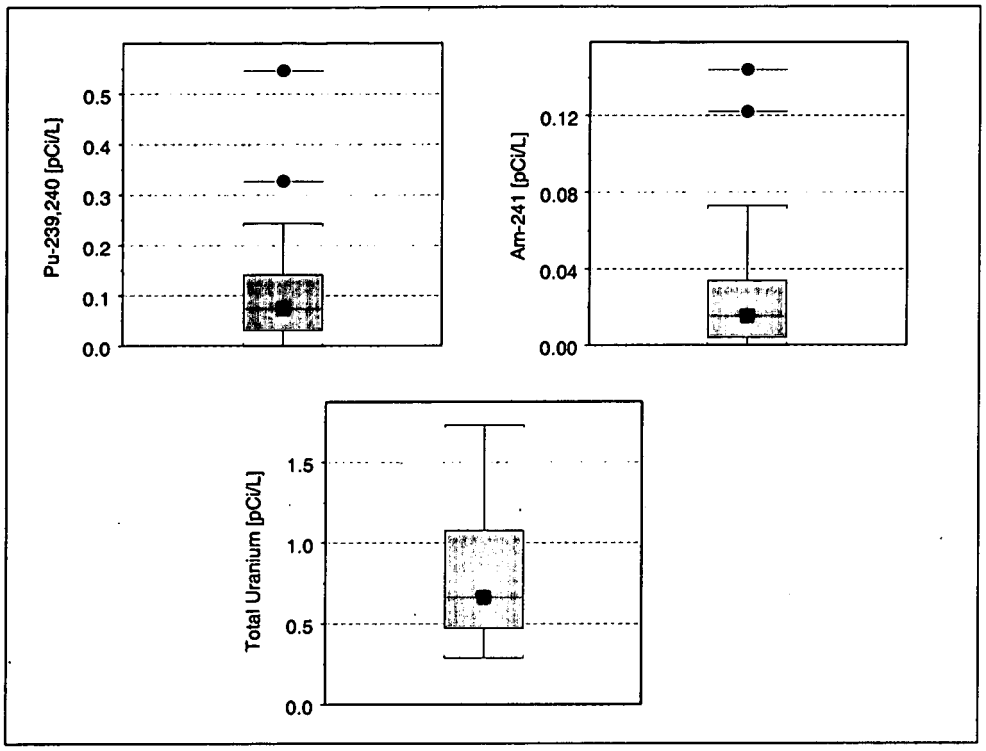

Figure 11-18. Radionuclide Box Plots for SW022: WY00–02.

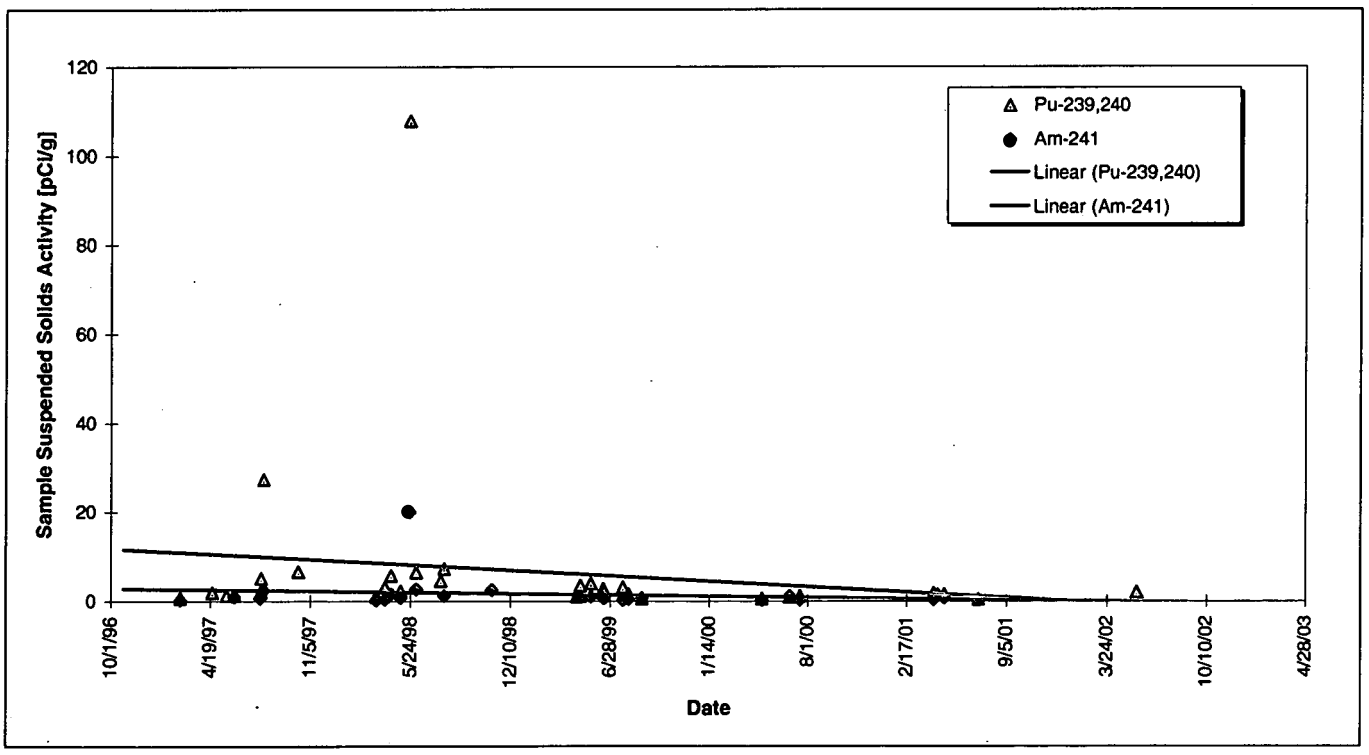

Figure 11-19. Temporal Variation of Suspended Solids Activity at SW022: WY97–02.

11.3.3 Location SW027

Monitoring location SW027 is located at the end of the SID at the inlet to Pond C-2. **Figure 3-117** shows the drainage area for SW027. The 100, 400, 600, 800, and 900 areas all contribute flow to SW027.

Monitoring data collected at SW027 show low Pu and Am activities, though some higher results have been obtained (Table 11-9 and Figure 11-23). Figure 11-20 and Figure 11-21 show the UTL plots for Pu and Am, respectively. During WY00–02, a single Pu and Am result was greater than the calculated UTL, with significant variability in the results. This higher Pu activity resulted in reportable 30-day averages under the POE monitoring objective (Section 12), though Am was not reportable. In response, the Site was required to perform a source evaluation to address these reportable values (RMRS, 2001b).

Table 11-9 shows low total uranium activities at SW027. During WY00-02, no results were greater than the UTL (Figure 11-22).

SW027 shows no significant temporal trend in suspended solids activity (Figure 11-24) for the few TSS results obtained.

Table 11-9. Summary Statistics for Radionuclide Results from SW027: Water Years 2000-2002.

Analyte	Samples [N]	Median [pCi/L]	85th Percentile [pCi/L]	Maximum [pCi/L]	95% UTL [pCi/L]
Pu-239,240	17	0.011	0.048	1.030	0.527[a]
Am-241	17	0.003	0.011	0.177	0.072[a]
Total Uranium	17	1.123	2.100	2.400	3.405[a]/2.908[b]

Note: Total uranium is calculated as the sum of the isotopic (U-233,234; U-235; U-238) activities.
[a] Lognormal distribution; [b] Normal distribution; [c] Undetermined distribution.

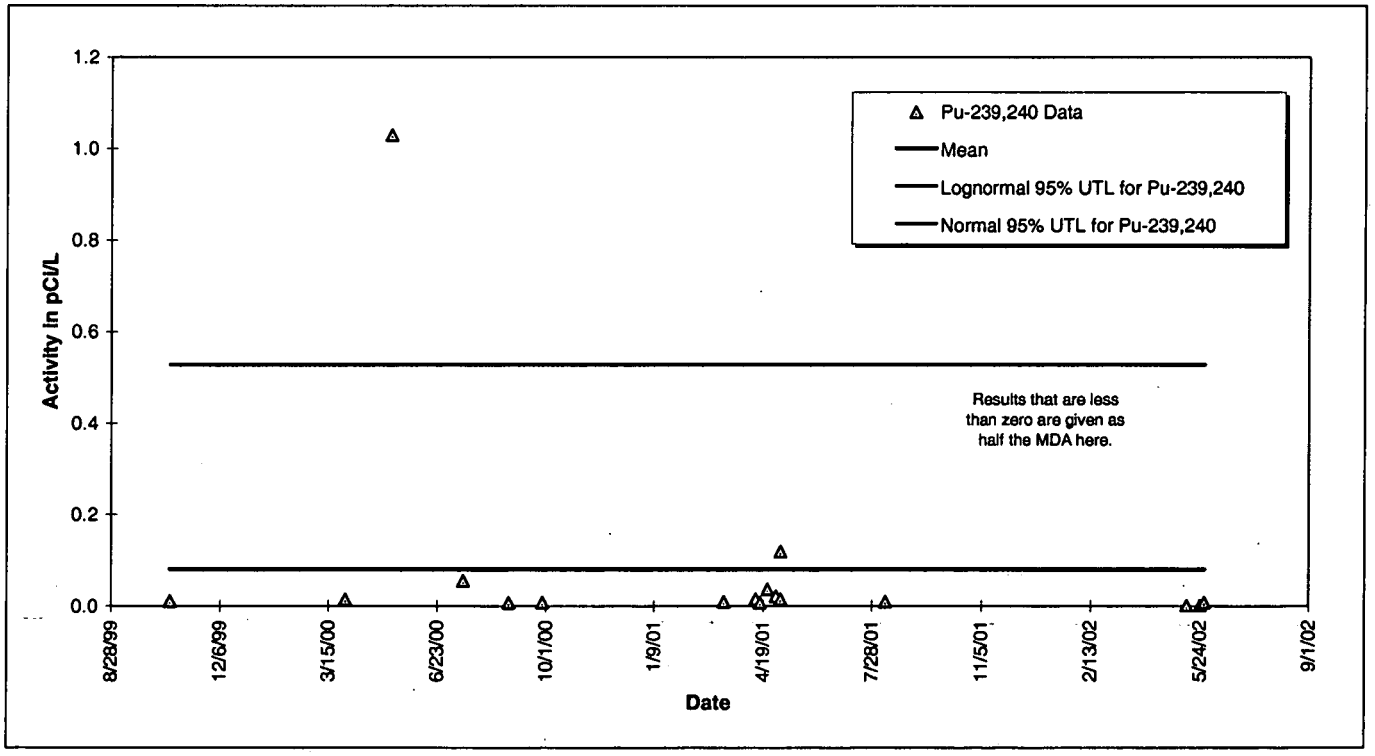

Figure 11-20. 95% UTL Plot for Pu-239,240 at SW027: WY00-02.

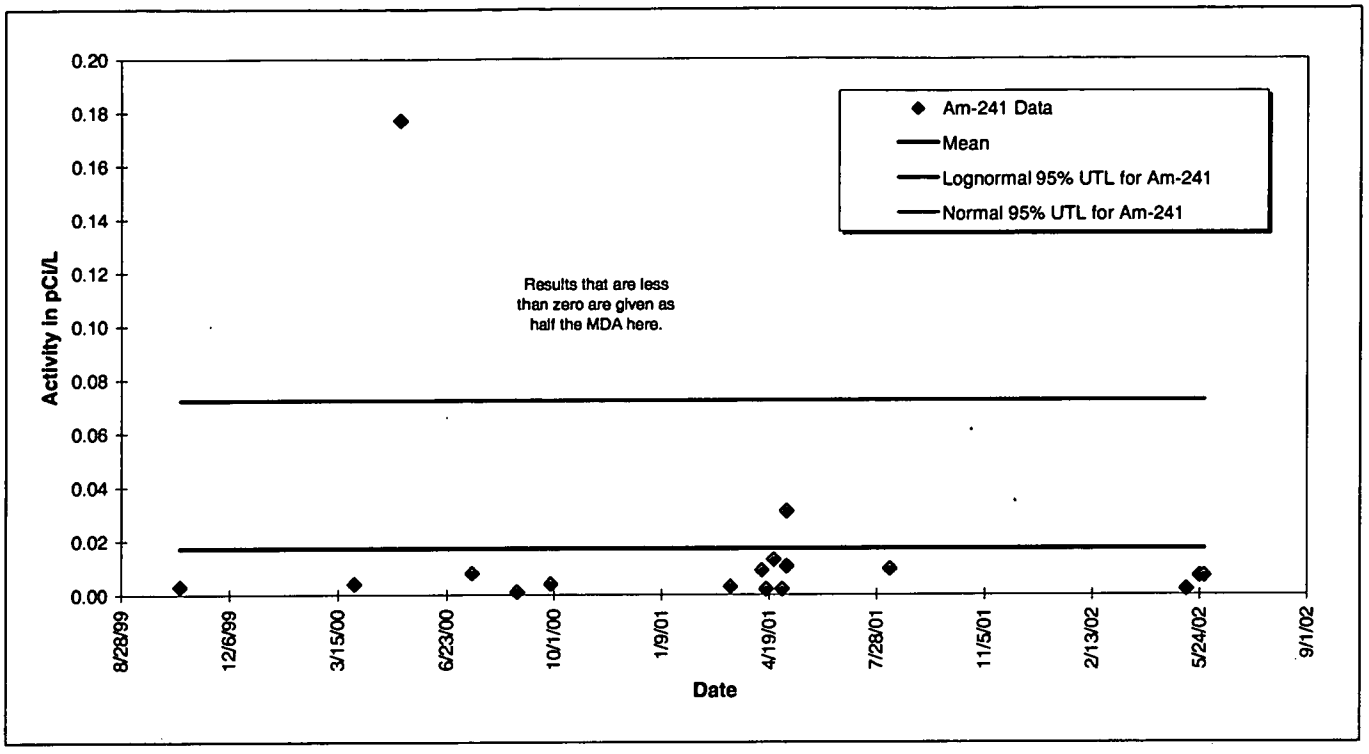

Figure 11-21. 95% UTL Plot for Am-241 at SW027: WY00-02.

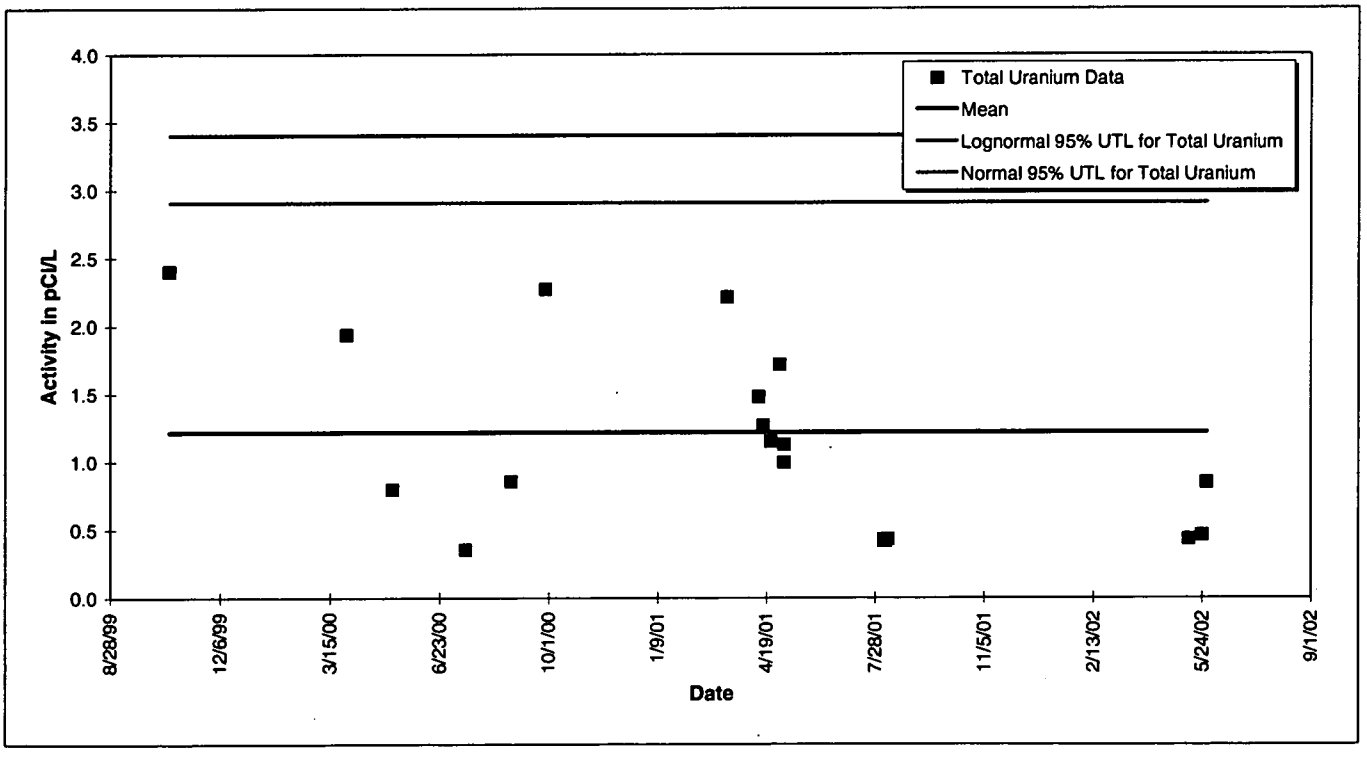

Figure 11-22. 95% UTL Plot for Total Uranium at SW027: WY00-02.

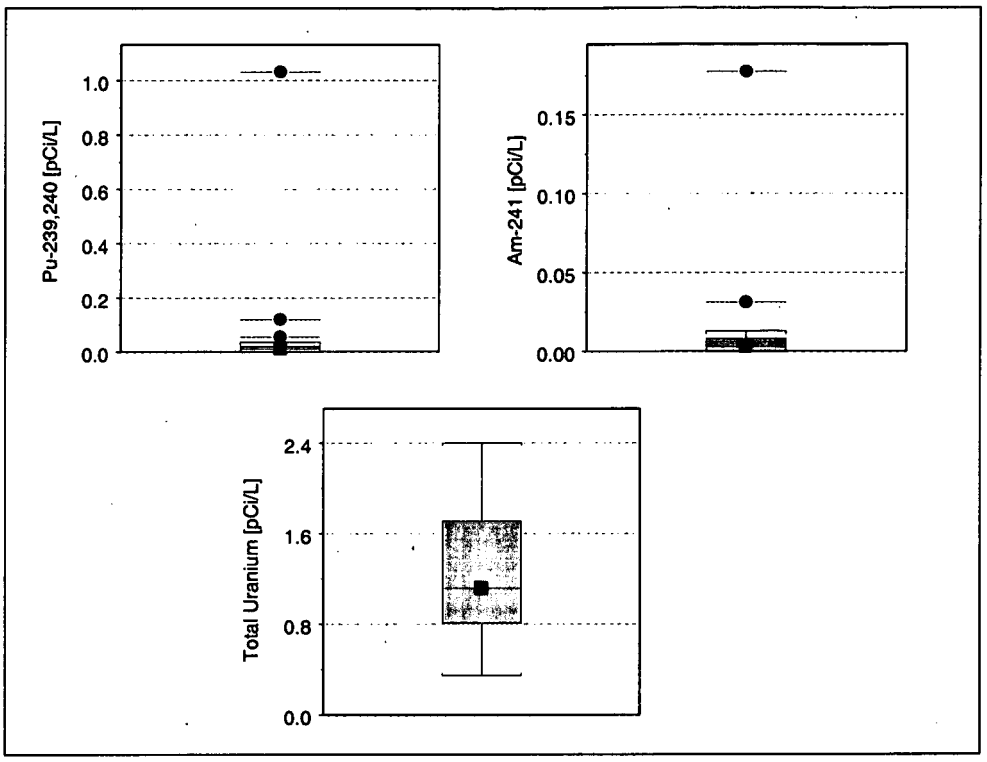

Figure 11-23. Radionuclide Box Plots for SW027: WY00–02.

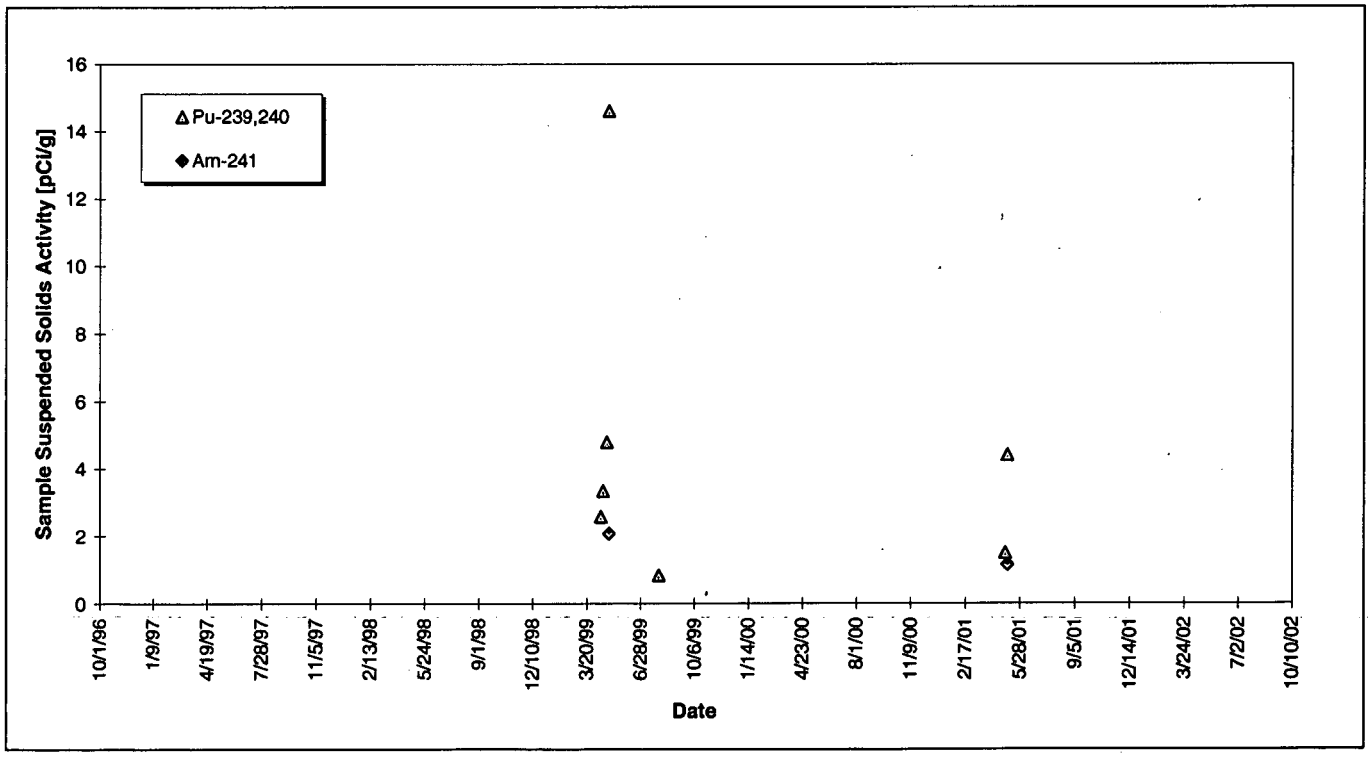

Figure 11-24. Temporal Variation of Suspended Solids Activity at SW027: WY97–02.

Mean daily water-quality parameter data are plotted in Figure 11-25 through Figure 11-32 along with the mean daily flow rate. Figure 11-25 and Figure 11-27 show the expected annual variation in water temperature.

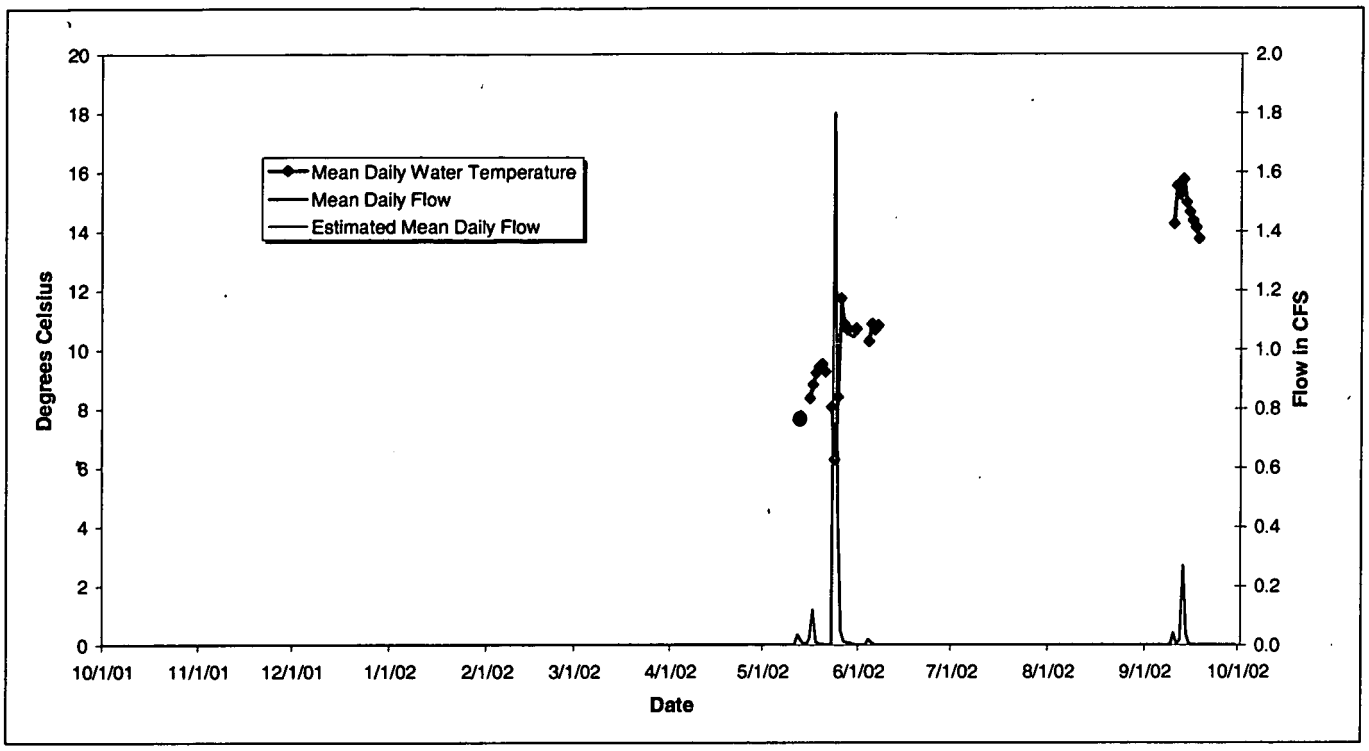

Figure 11-25. Mean Daily Water Temperature at SW027: Water Year 2002.

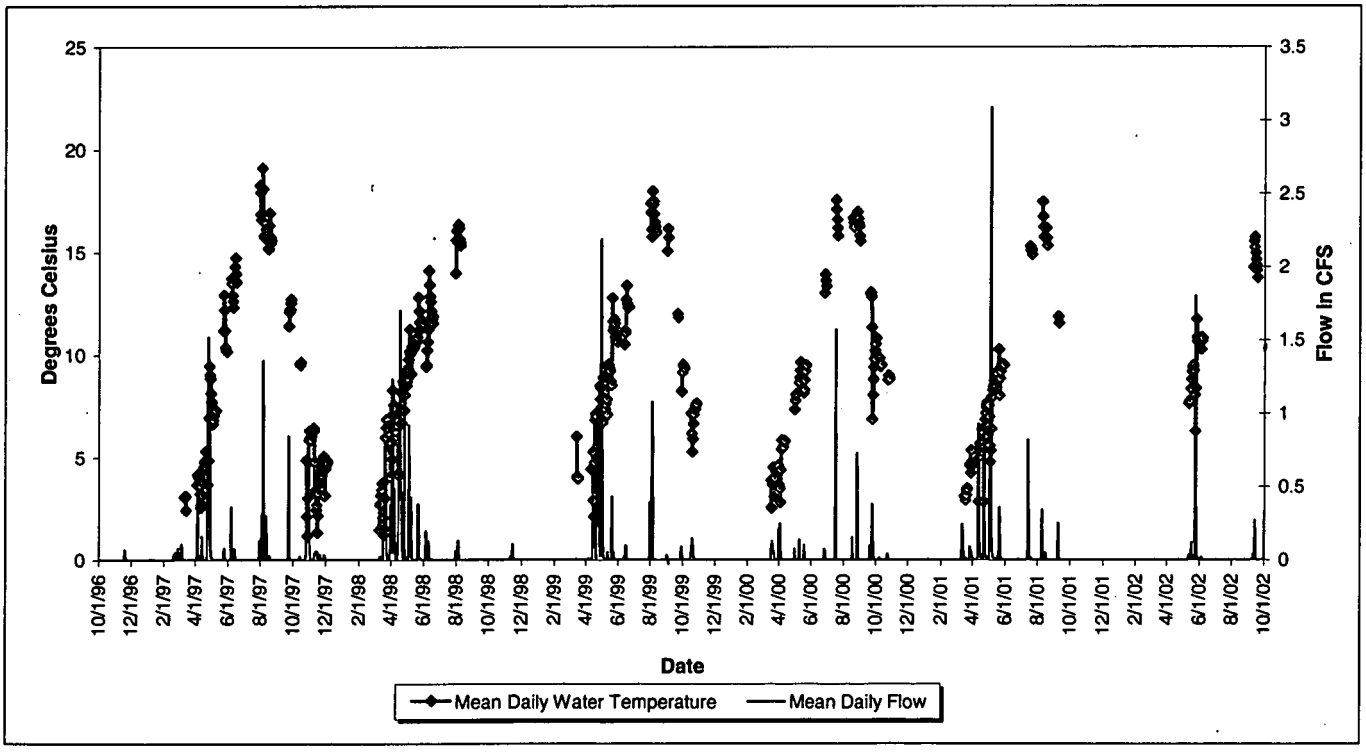

Figure 11-26. Mean Daily Water Temperature at SW027: Water Years 1997-2002.

Figure 11-27 and Figure 11-28 show elevated conductivities during the winter months, most likely a result of road and walkway deicing operations.

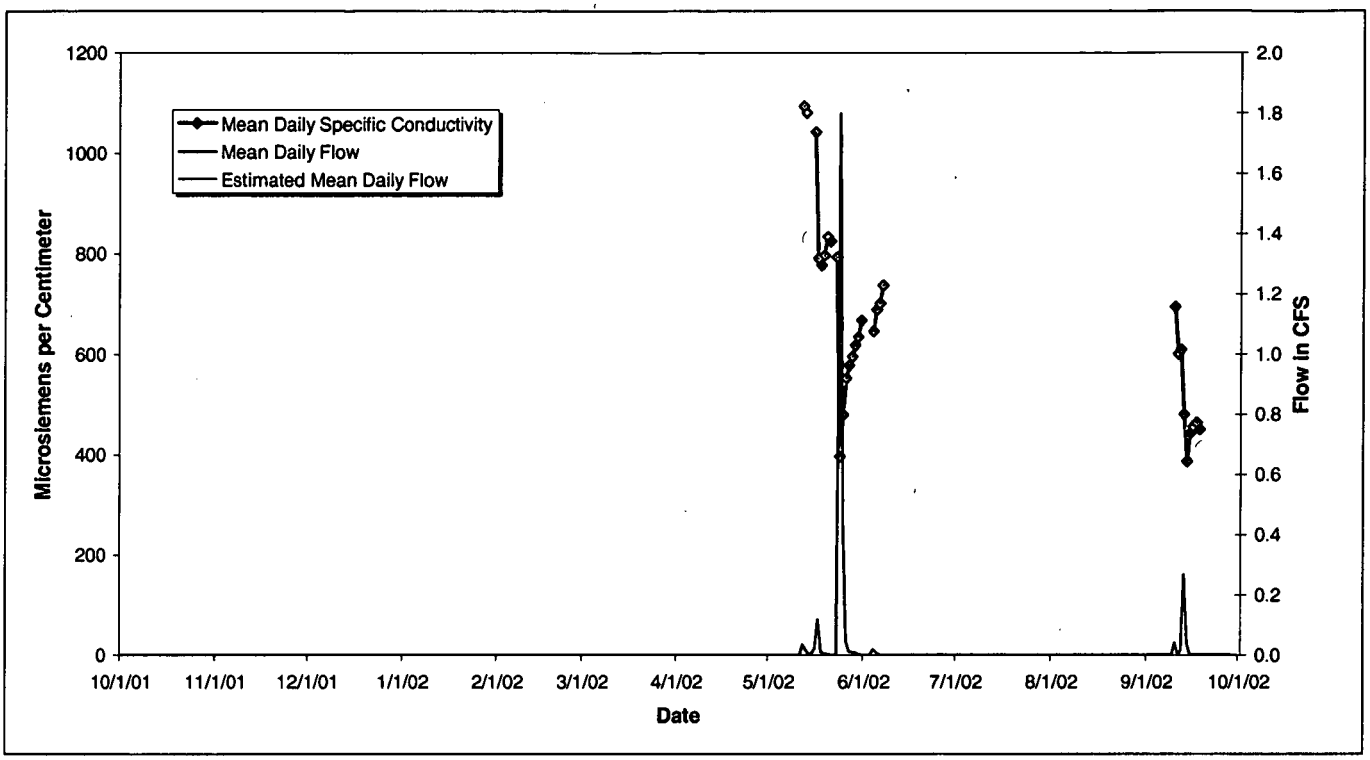

Figure 11-27. Mean Daily Specific Conductivity at SW027: Water Year 2002.

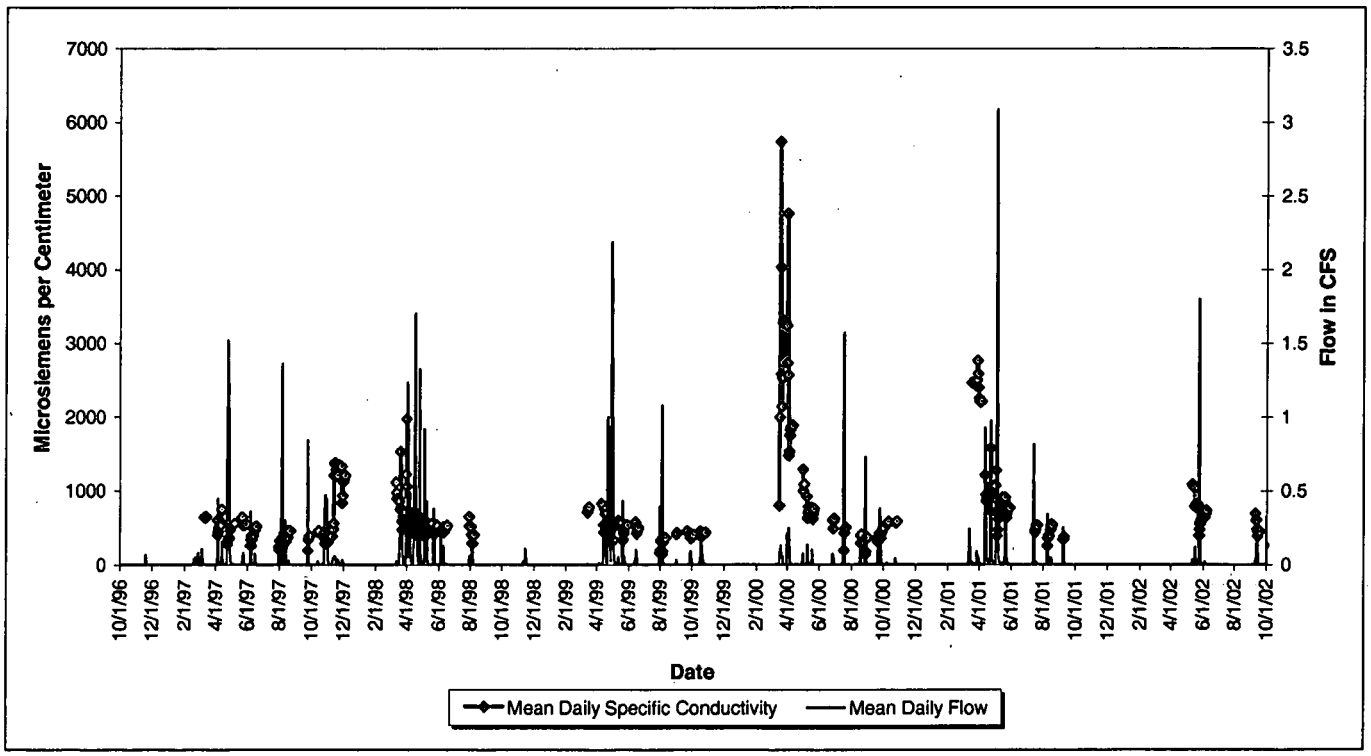

Figure 11-28. Mean Daily Specific Conductivity at SW027: Water Years 1997-2002.

Figure 11-29 and Figure 11-30 show the mean daily pH varying between 7.2 and 8.2.

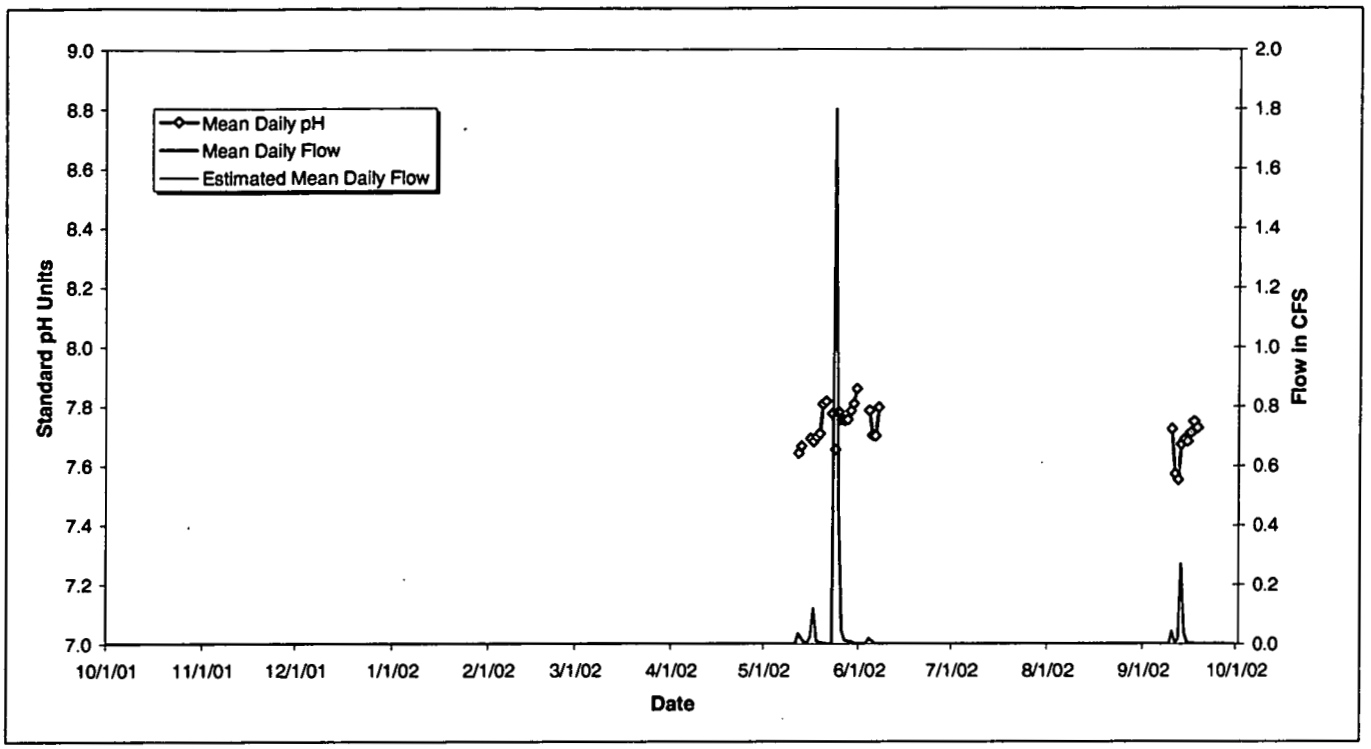

Figure 11-29. Mean Daily pH at SW027: Water Year 2002.

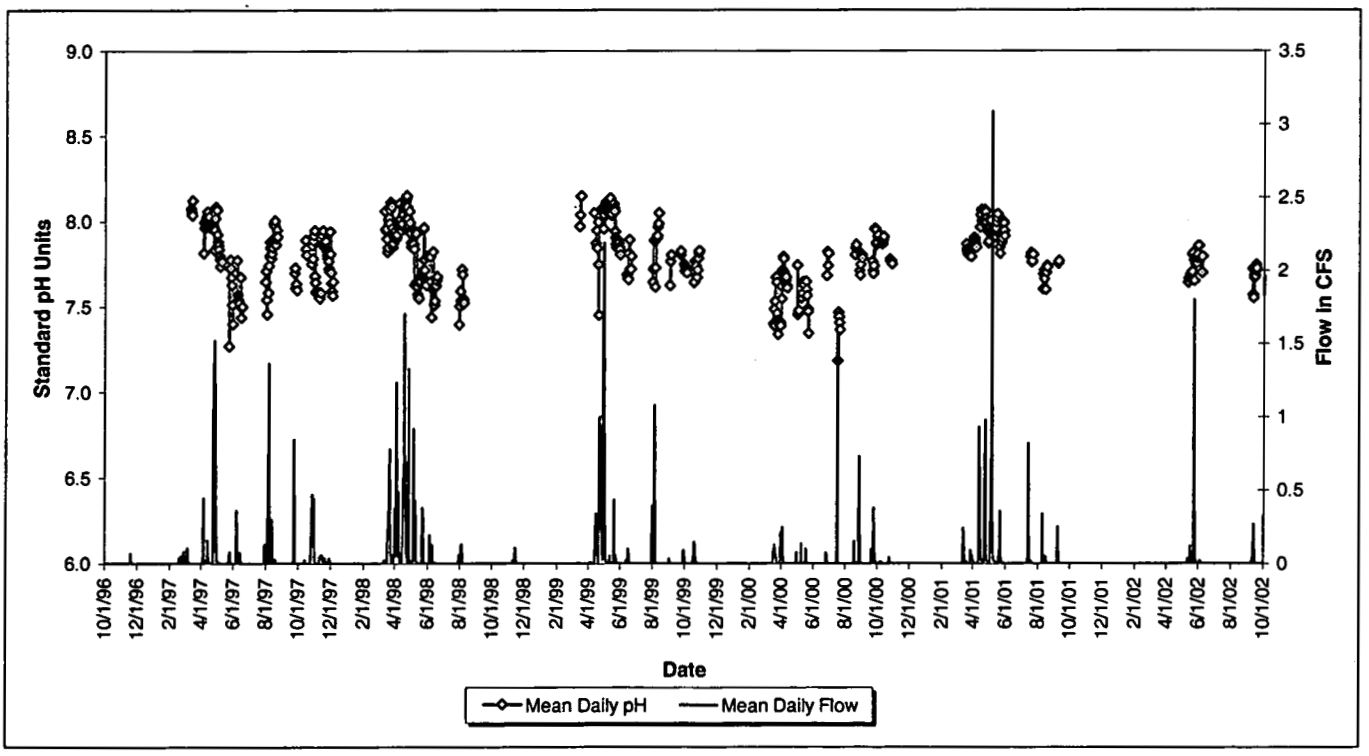

Figure 11-30. Mean Daily pH at SW027: Water Years 1997-2002.

Finally, Figure 11-31 and Figure 11-32 show elevated turbidity measurements tracking the flow rate in time and magnitude, as expected when higher flow rates transport more suspended solids.

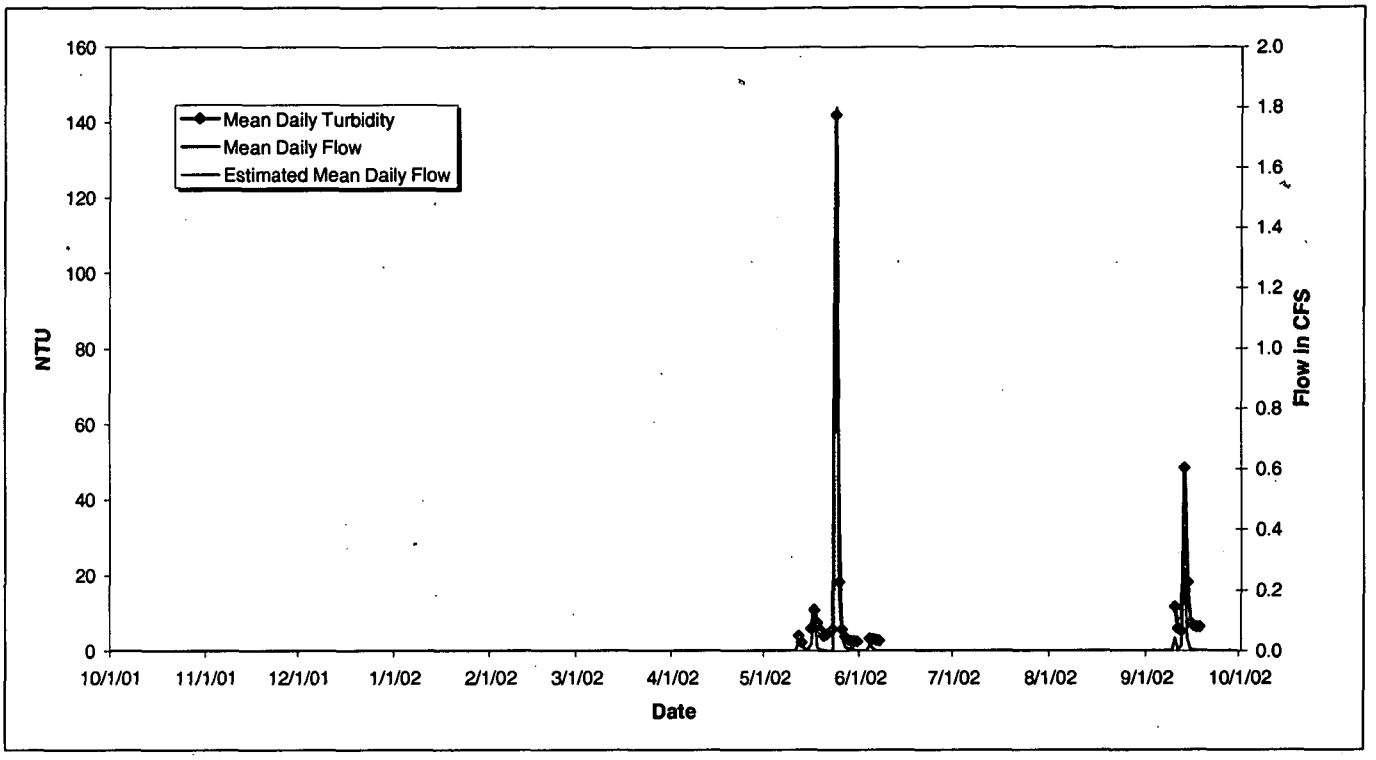

Figure 11-31. Mean Daily Turbidity at SW027: Water Year 2002.

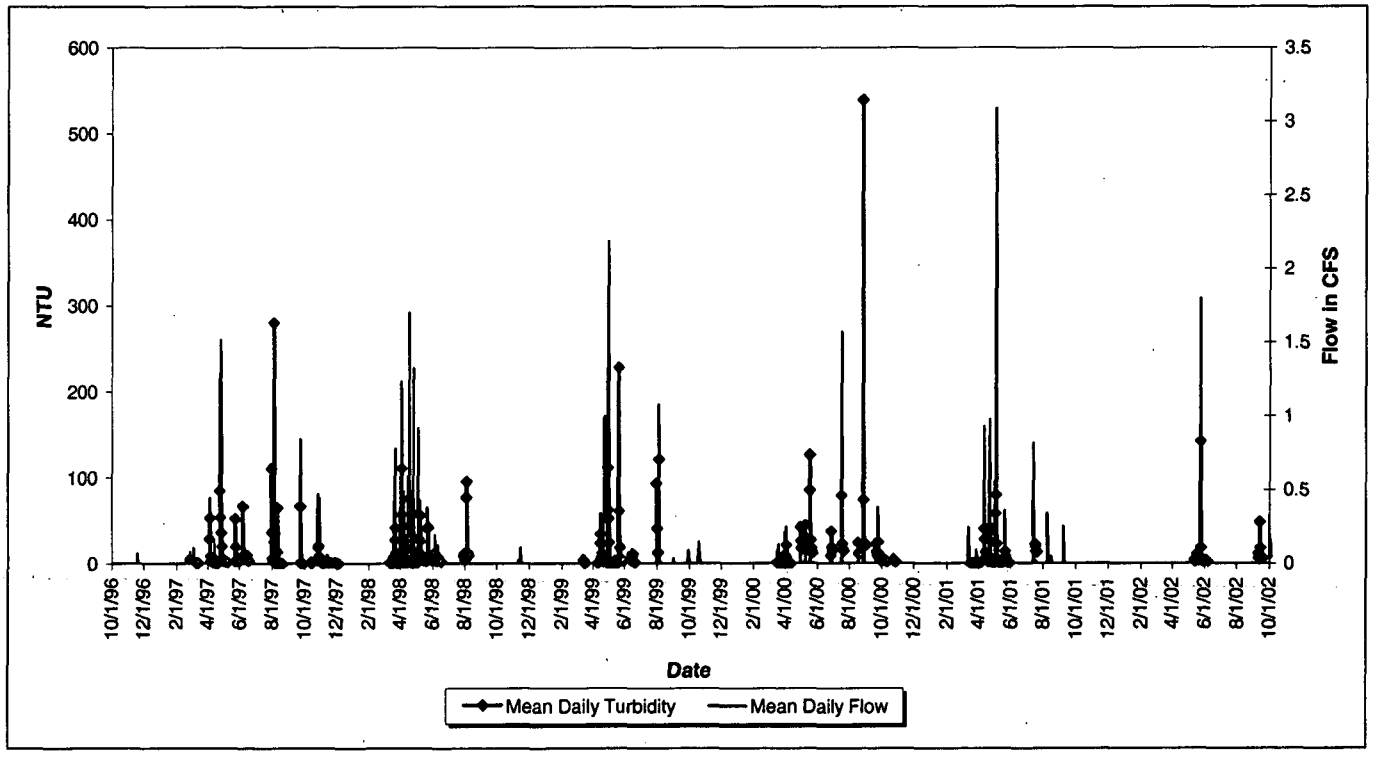

Figure 11-32. Mean Daily Turbidity at SW027: Water Years 1997-2002.

11.3.4 Location SW091

Monitoring location SW091 is located at the end of a small drainage swale just upstream of North Walnut Creek. Figure 3-125 shows the drainage area for SW091. The area east of the Solar Ponds contributes runoff to SW091.

As only two data points were available for the period WY00-02, no UTL plots are presented.

The temporal variation of suspended solids activity (Figure 11-33) shows no significant change.

Table 11-10. Summary Statistics for Radionuclide Results from SW091: Water Years 2000-2002.

Analyte	Samples [N]	Median [pCi/L]	85th Percentile [pCi/L]	Maximum [pCi/L]	95% UTL [pCi/L]
Pu-239,240	2	0.057	0.060	0.062	NA
Am-241	2	0.125	0.168	0.186	NA
Total Uranium	2	1.124	1.555	1.740	NA

Note: Total uranium is calculated as the sum of the isotopic (U-233,234; U-235; U-238) activities.
[a] Lognormal distribution; [b] Normal distribution; [c] Undetermined distribution.

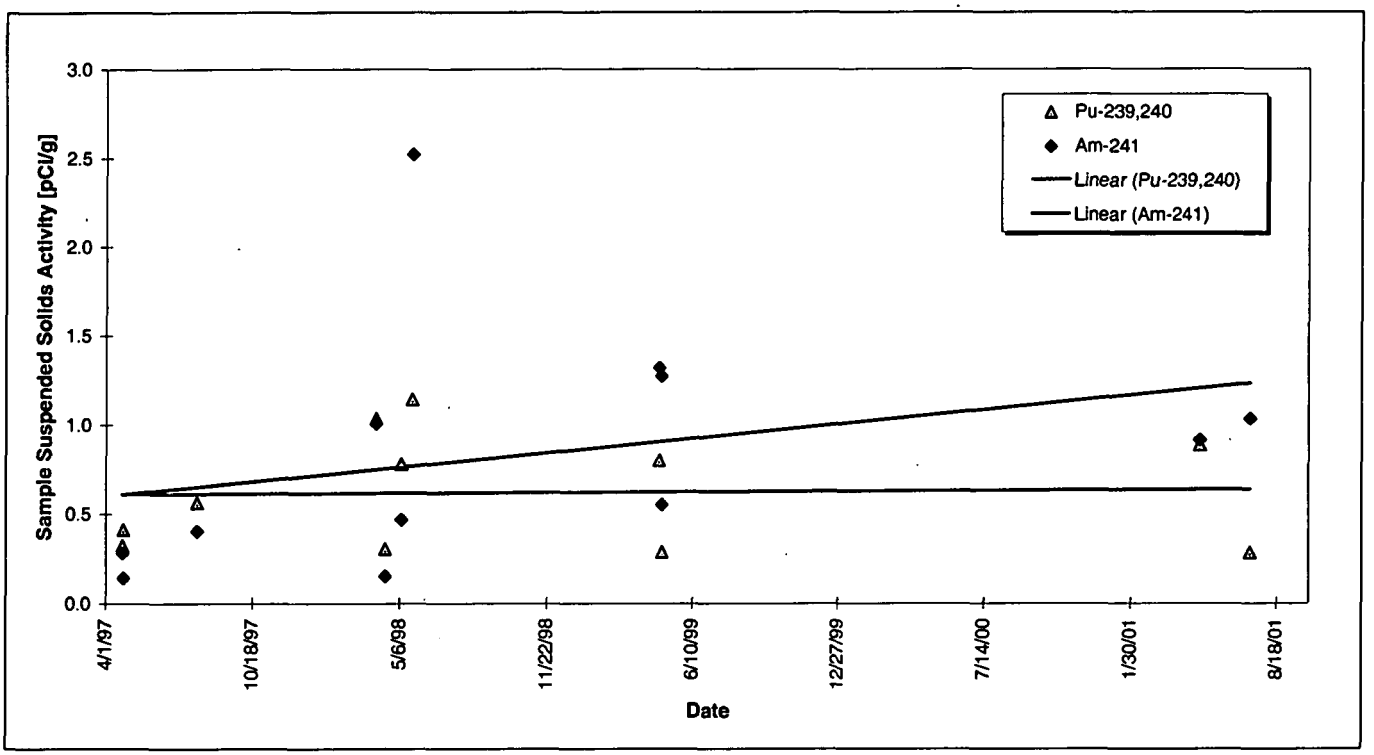

Figure 11-33. Temporal Variation of Suspended Solids Activity at SW091: WY97–02.

11.3.5 Location SW093

Monitoring location SW093 is located on North Walnut Creek at the perimeter of the IA 1300' upstream of the A-Series ponds. Figure 3-128 shows the drainage area for SW093. The 100, 300, 500, 700, and 900 areas all contribute flow to SW093.

Monitoring data collected at SW093 show low median Pu and Am activities (Table 11-11), although several higher results have been obtained (Table 11-11 and Figure 11-37). Figure 11-34 and Figure 11-35 show the UTL plots for Pu and Am, respectively. A distribution could not be determined for either Pu or Am, but the box plot

indicates numerous 'suspect' results (Figure 11-37). However, none of these activities during WY00-02 resulted in reportable 30-day averages under the POE monitoring objective (Section 12). Results prior to WY00 did result in reportable Pu values. In response, the Site was required to perform a source evaluation to address these reportable values. A summary of the extensive investigations is given in Section 6 of the Final Automated Surface-Water Monitoring Report: Water Years 1997 – 2000.

Table 11-11 shows low uranium activities at SW093. The UTL plot (Figure 11-36) shows several results marginally greater than the calculated UTLs. However, none of the results are indicated as 'suspect' by the boxplot (Figure 11-37). These higher results during WY02 are likely the result of dry conditions and the resulting lack of direct runoff to attenuate the uranium in baseflow. Baseflow at SW093 is sustained by seep and footing drain flow which are likely to contain higher uranium activities than direct runoff. In fact, the average flow rates for these samples were the 4th, 5th, and 10th lowest for the 181 samples collected at SW093 through WY02.

SW093 shows a decreasing temporal trend in suspended solids activity (Figure 11-38), but the correlation is weak.

Table 11-11. Summary Statistics for Radionuclide Results from SW093: Water Years 2000-2002.

Analyte	Samples [N]	Median [pCi/L]	85th Percentile [pCi/L]	Maximum [pCi/L]	95% UTL [pCi/L]
Pu-239,240	97	0.007	0.020	0.174	NA[c]
Am-241	97	0.008	0.024	0.088	NA[c]
Total Uranium	97	2.469	3.707	5.234	5.117[a]/4.699[b]

Note: Total uranium is calculated as the sum of the isotopic (U-233,234; U-235; U-238) activities.
[a] Lognormal distribution; [b] Normal distribution; [c] Undetermined distribution.

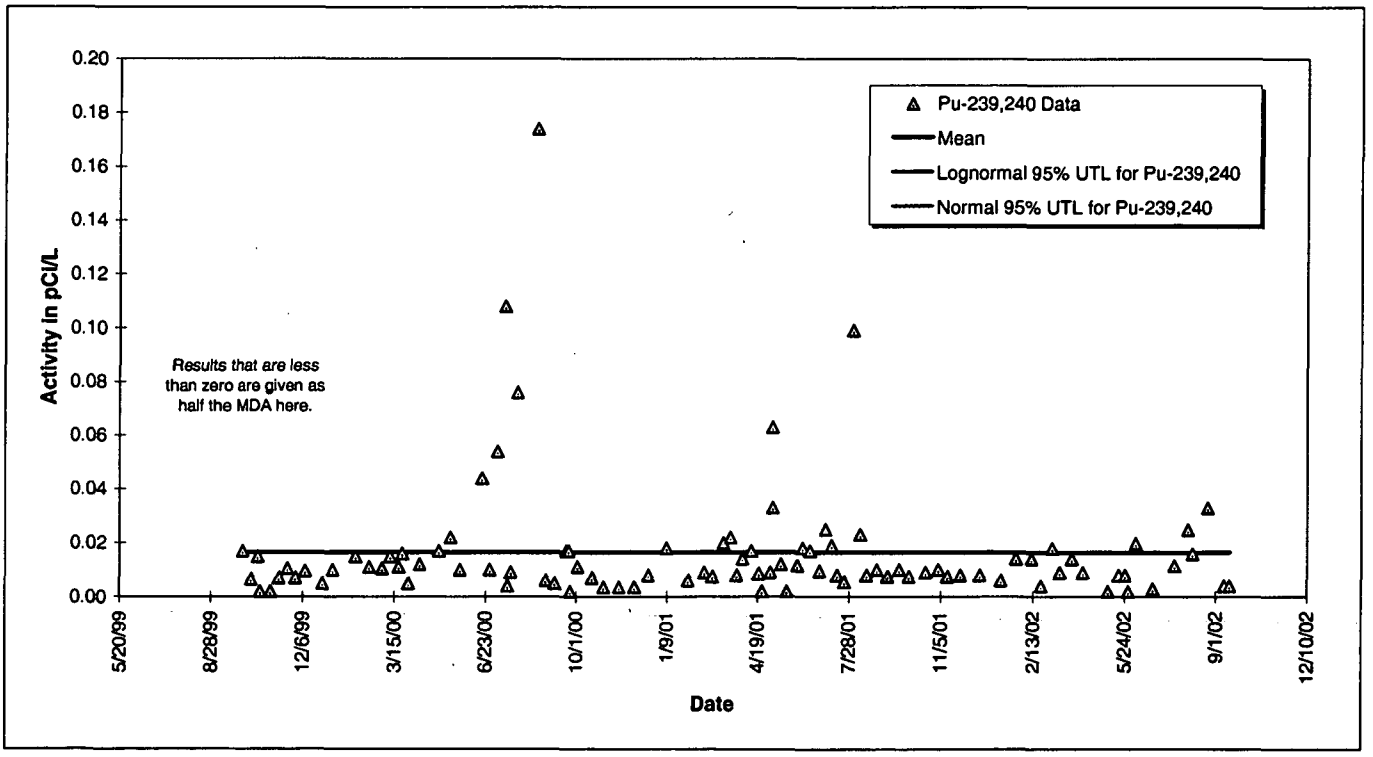

Figure 11-34. 95% UTL Plot for Pu-239,240 at SW093: WY00-02.

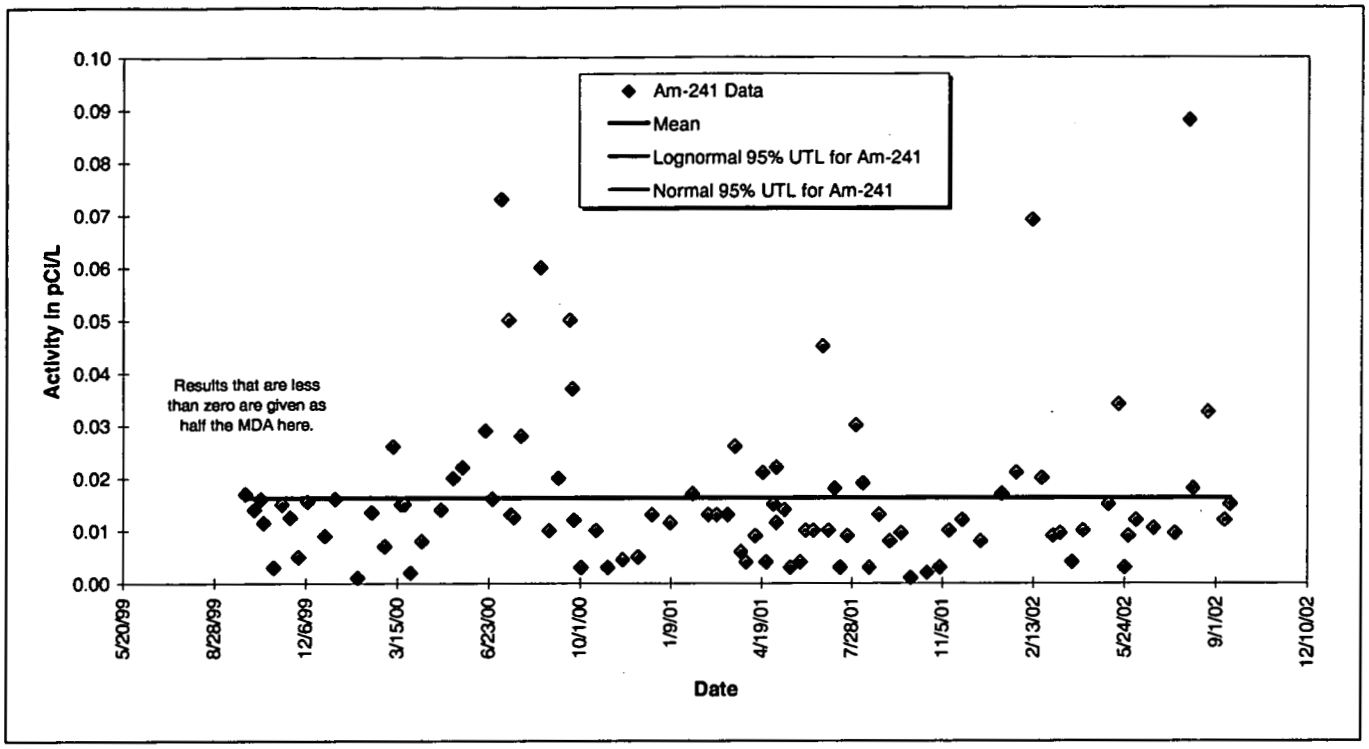

Figure 11-35. 95% UTL Plot for Am-241 at SW093: WY00-02.

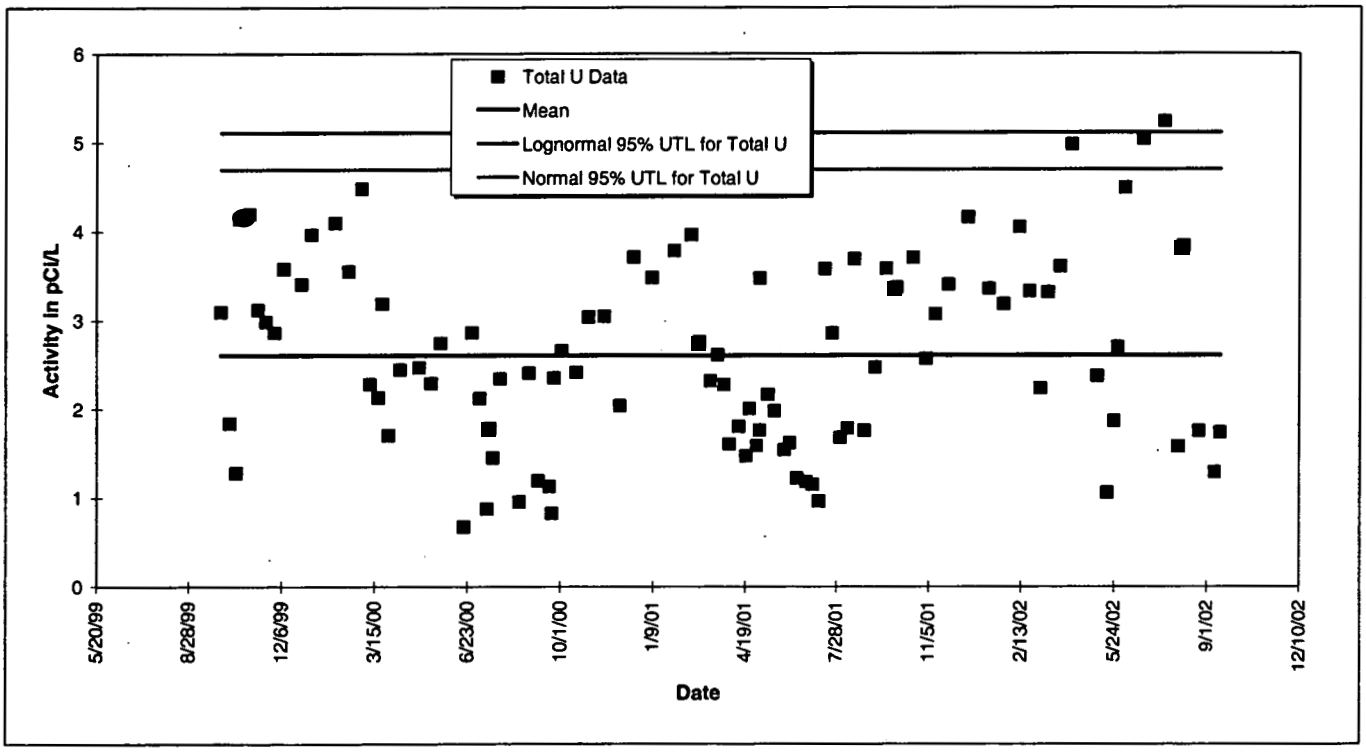

Figure 11-36. 95% UTL Plot for Total Uranium at SW093: WY00-02.

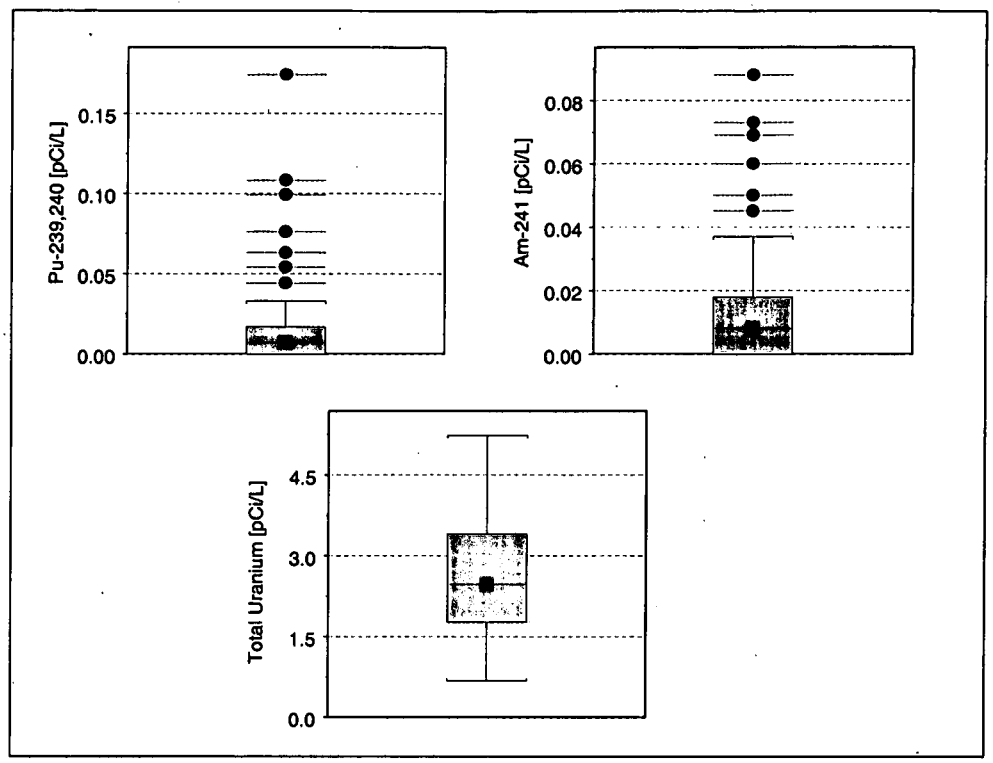

Figure 11-37. Radionuclide Box Plots for SW093: WY00–02.

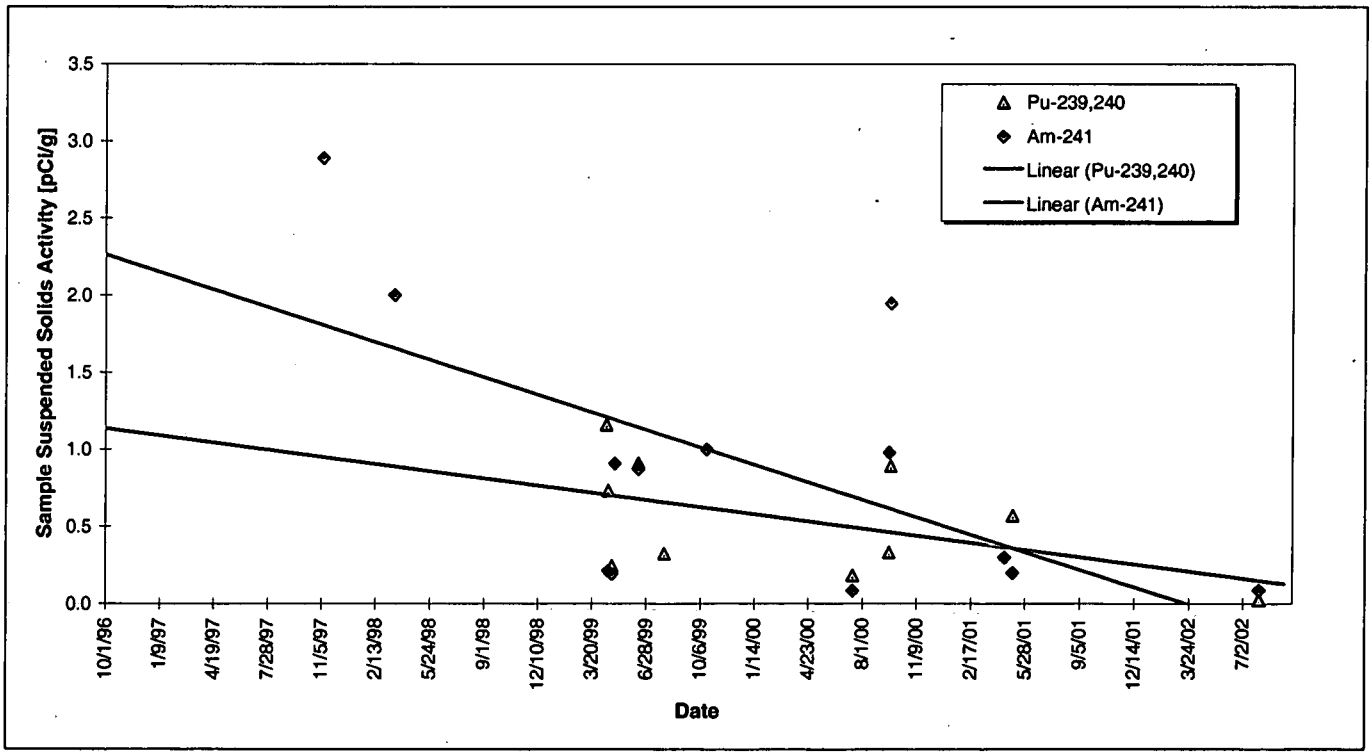

Figure 11-38. Temporal Variation of Suspended Solids Activity at SW093: WY97–02.

Mean daily water-quality parameter data are plotted in Figure 11-39 through Figure 11-46 along with the mean daily flow rate. Figure 11-39 and Figure 11-40 show the expected annual variation in water temperature.

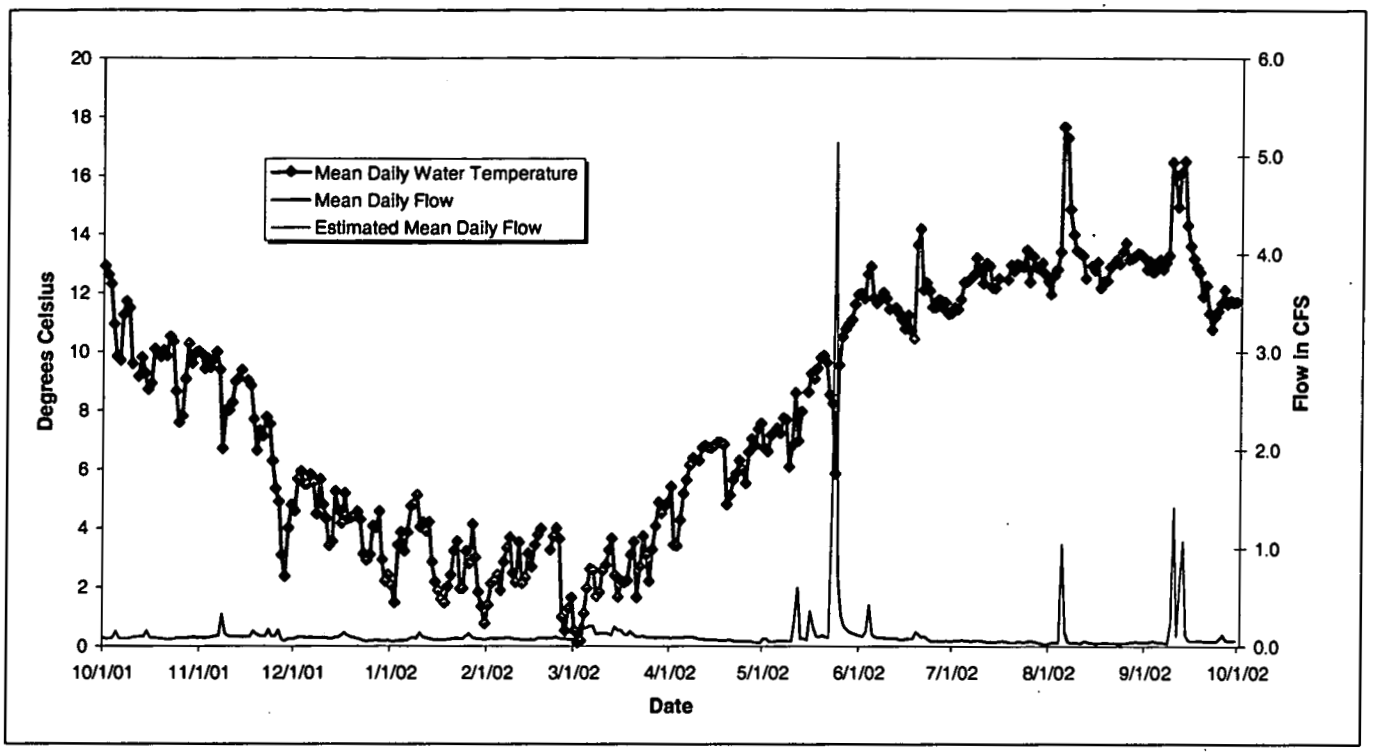

Figure 11-39. Mean Daily Water Temperature at SW093: Water Year 2002.

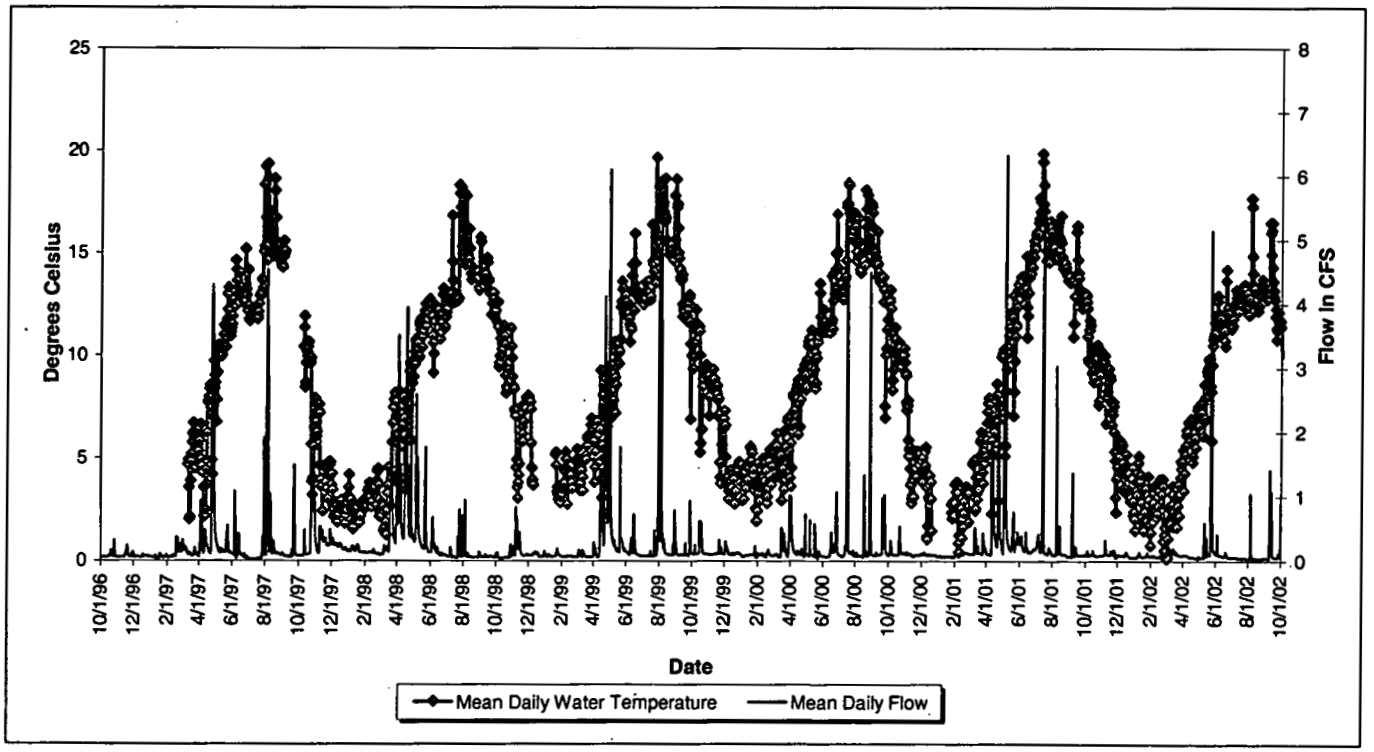

Figure 11-40. Mean Daily Water Temperature at SW093: Water Years 1997-2002.

Figure 11-41 and Figure 11-42 show elevated conductivities during the winter months, most likely a result of road and walkway deicing operations. The effects of changes in deicing products starting in WY00 can be clearly seen in Figure 11-42.

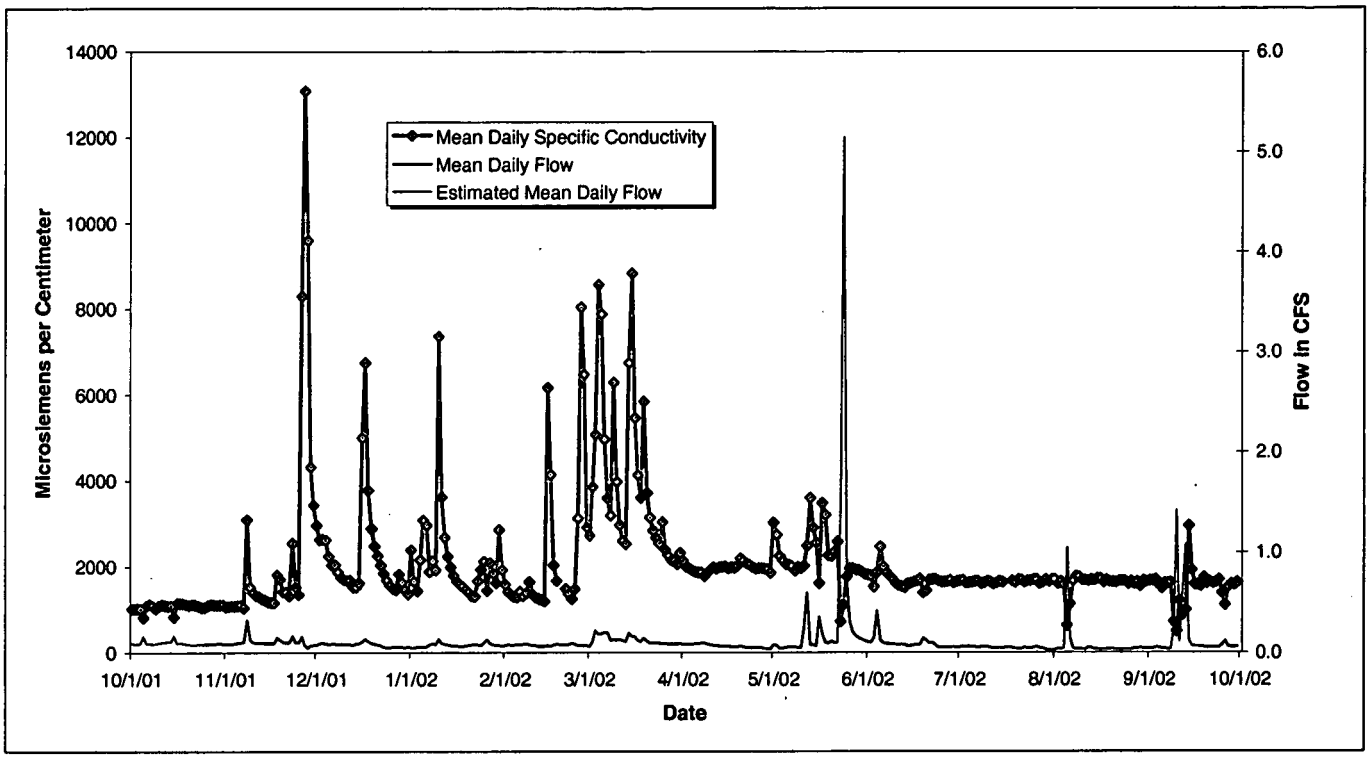

Figure 11-41. Mean Daily Specific Conductivity at SW093: Water Year 2002.

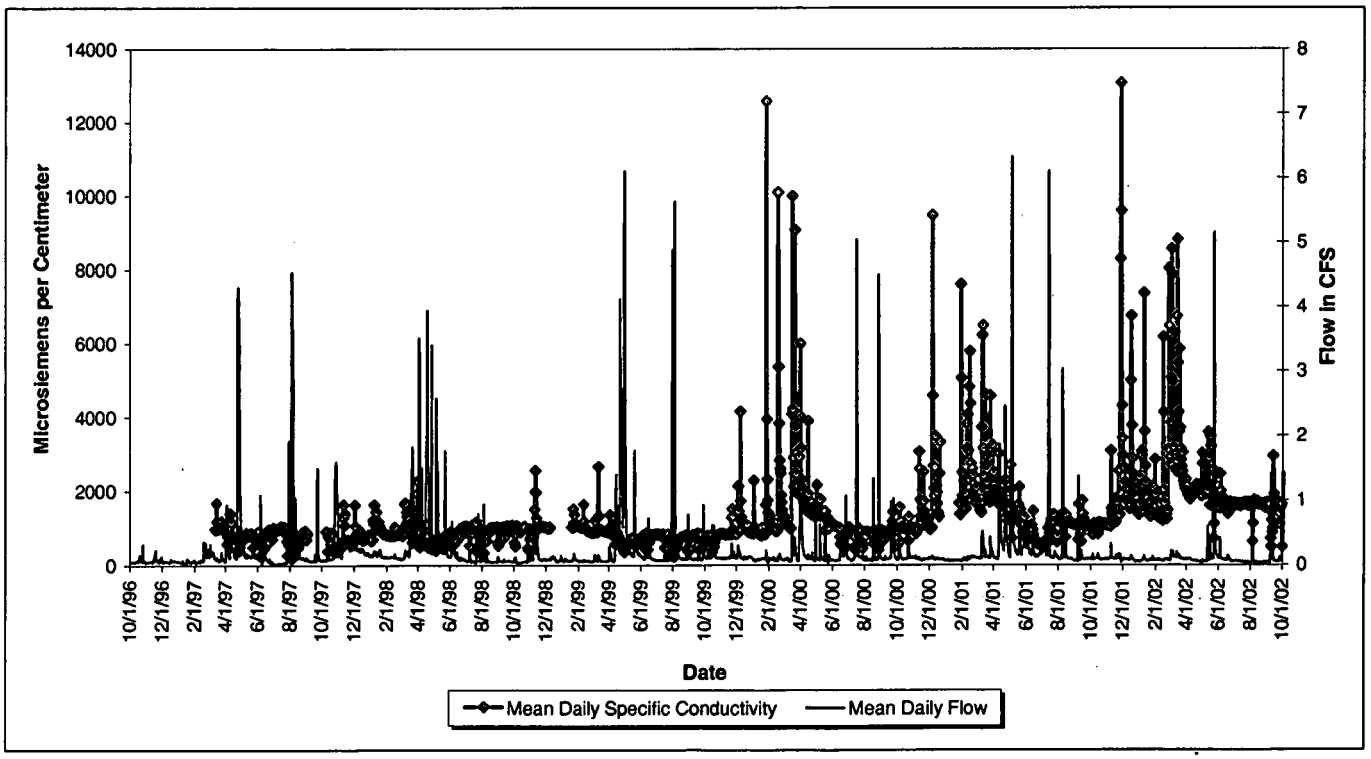

Figure 11-42. Mean Daily Specific Conductivity at SW093: Water Years 1997-2002.

Figure 11-43 and show the mean daily pH varying between 6.8 and 8.3.

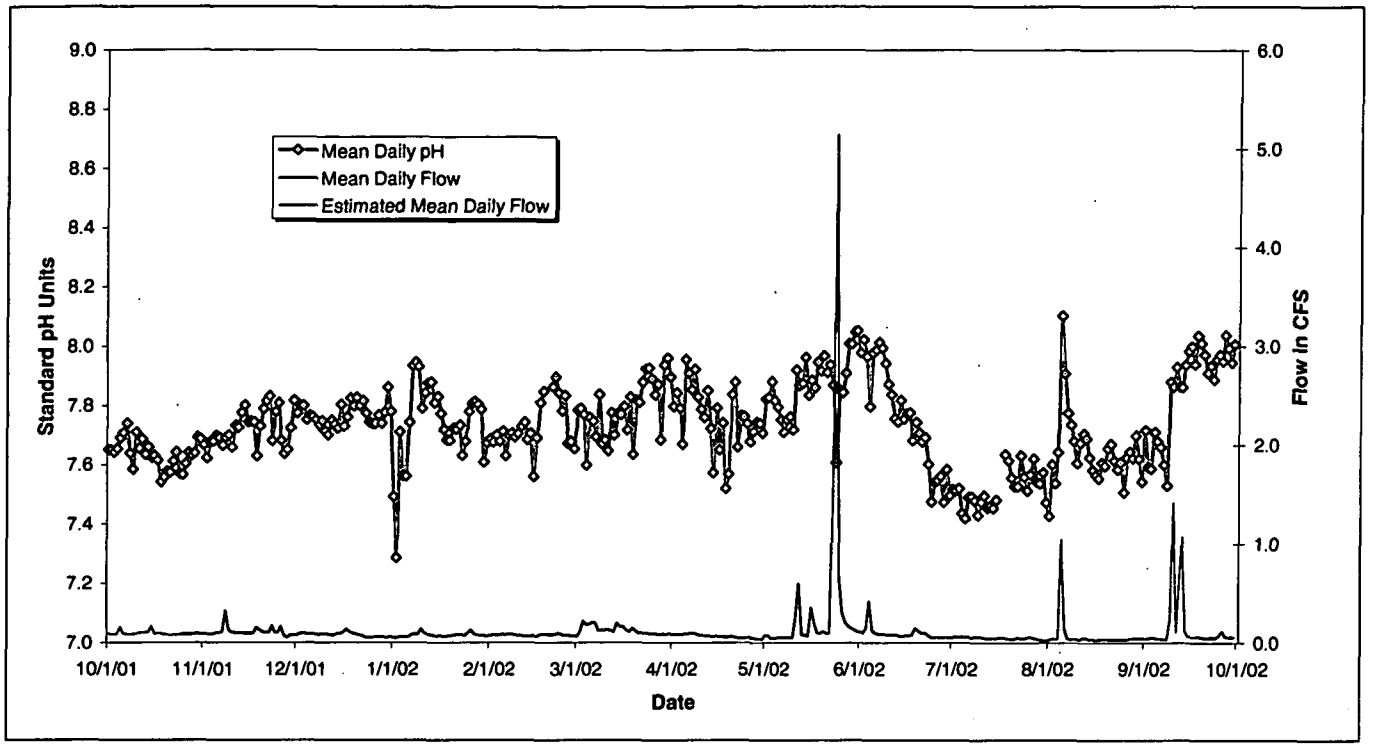

Figure 11-43. Mean Daily pH at SW093: Water Year 2002.

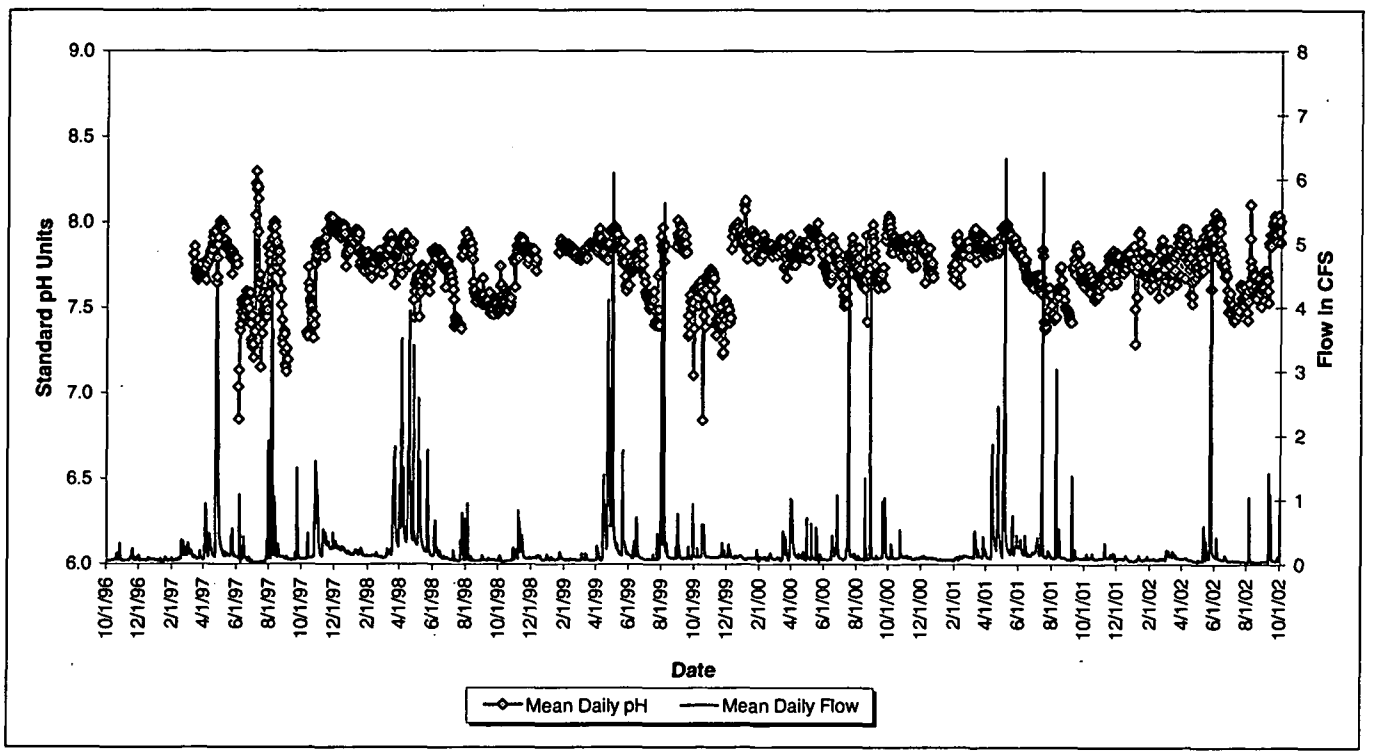

Figure 11-44. Mean Daily pH at SW093: Water Years 1997-2002.

Finally, Figure 11-45 and Figure 11-46 show elevated turbidity measurements tracking the flow rate in time and magnitude, as expected when higher flow rates transport more suspended solids.

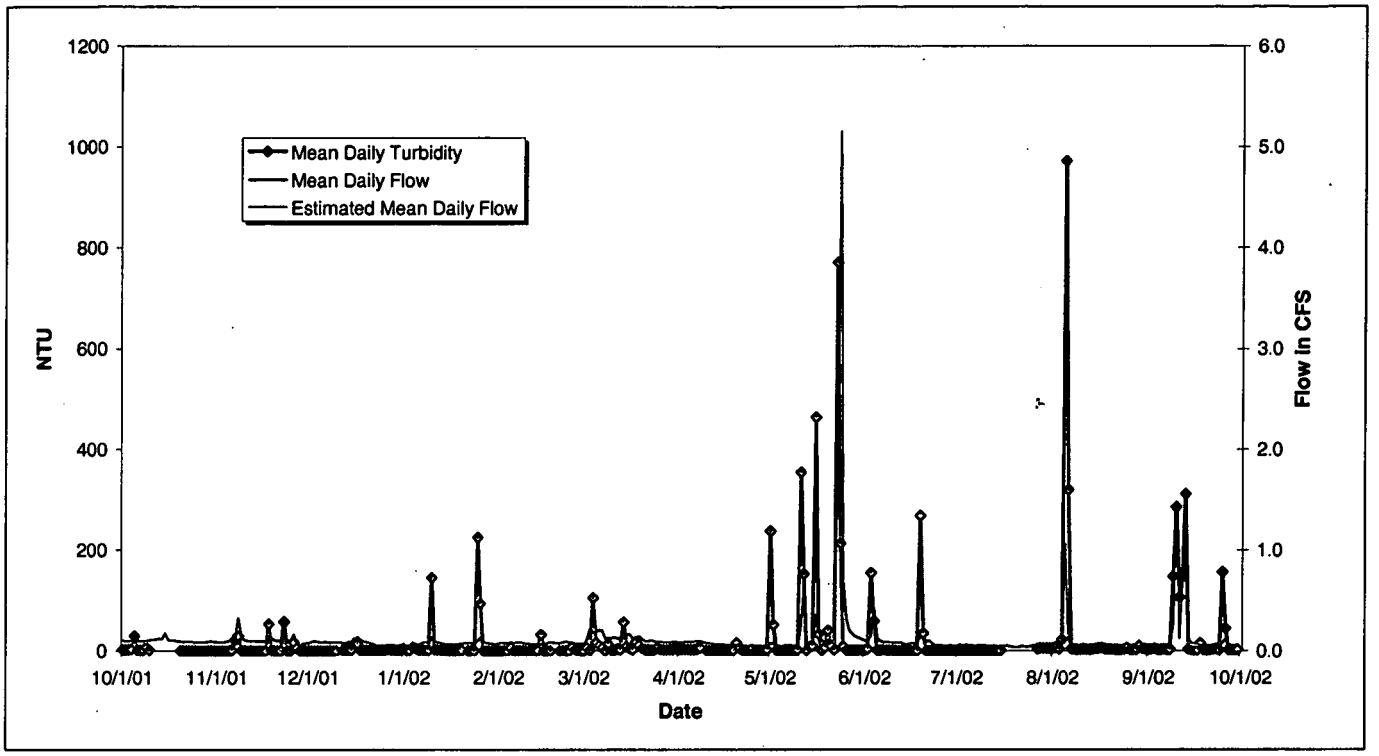

Figure 11-45. Mean Daily Turbidity at SW093: Water Year 2002.

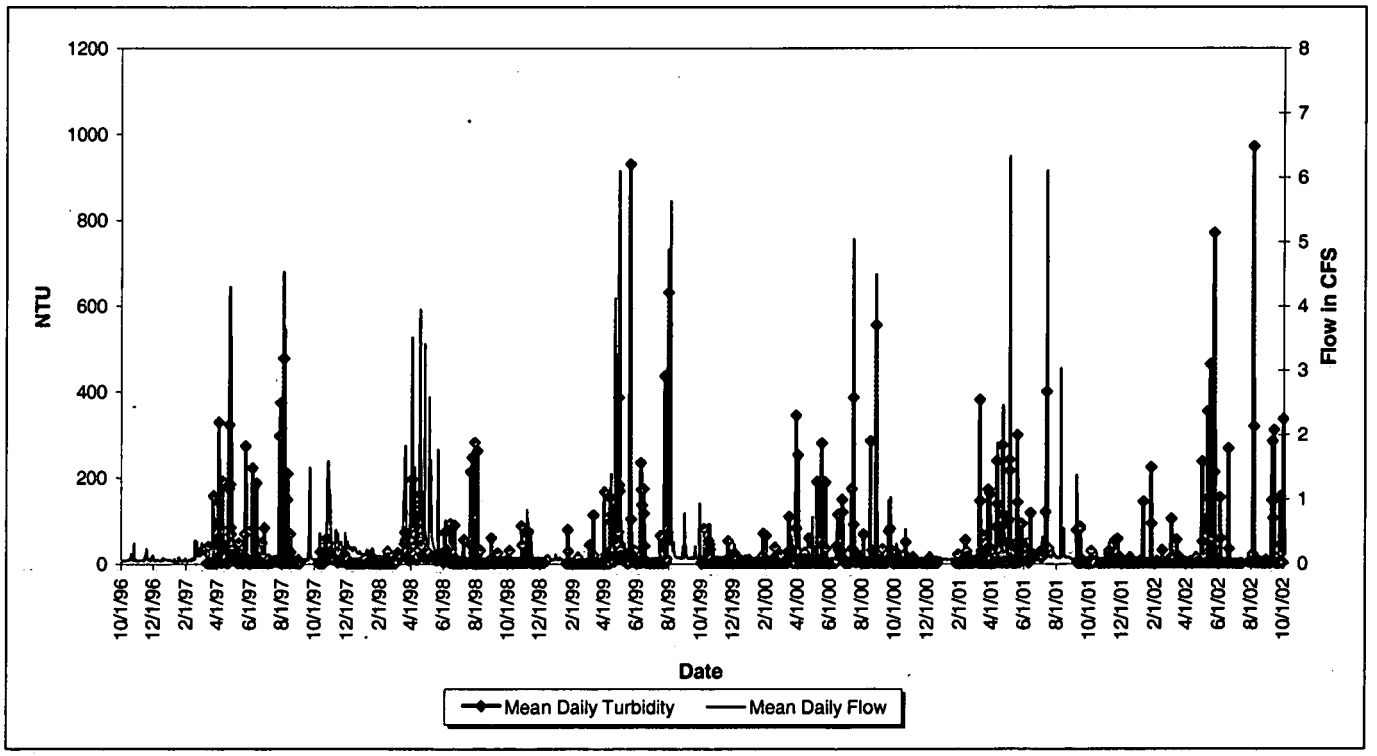

Figure 11-46. Mean Daily Turbidity at SW093: Water Years 1997-2002.

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12.STREAM SEGMENT 5 POINT OF EVALUATION MONITORING

This monitoring objective deals with POE monitoring of Segment 5 for adherence with the RFCA Action Level Framework (ALF). Responses to reportable values relative to Action Levels at POEs are different than the responses associated with contaminated runoff before it reaches Segment 5 or after it enters Segment 4. IA monitoring upgradient of Segment 5 is designed to detect new contaminant sources within the IA. Downstream, Segment 4 is monitored at POCs to protect designated uses, the ecology, and the public health.

Data collected during RFCA monitoring have resulted in reportable levels for Pu and Am under the RFCA action level criteria at the designated POEs. Such reportable values have required source evaluation and the development of a mitigation plan, when appropriate. These reportable values have caused the Site to invoke the Source Location decision rule, perform special monitoring tailored to the specific source evaluation, and take action upstream of Segment 5 to protect Segment 5 from contaminant sources that caused such reportable values.

12.1 DATA TYPES, FREQUENCY, AND COLLECTION PROTOCOLS

The analytical decision inputs are those analytes specified as the Segment 5 AoIs per Table 12-1, as sampled at the POEs for Stream Segment 5. RFCA provides specific criteria for virtually every possible contaminant for the main stream channels of Segment 5. In developing the IMP, the DQO team identified a subset of those contaminants that are of sufficient interest to warrant monitoring under ALF.

Segment 5 includes North and South Walnut Creek between the IA and the terminal ponds, and the SID between the IA and Pond C-2. Monitoring will be performed for Stream Segment 5 only as represented by POEs 995POE, SW093, SW027, and GS10 (see Figure 2-2).

Sampling for AoIs at POEs is performed by collecting continuous flow-paced composite samples. The recommended monitoring design detailed in the IMP is to take samples for WY02 as specified in Table 12-5 and Table 12-6. The intent is to take no less than one sample per quarter, and no more than four composite samples per month from each of the three monitoring locations.

Table 12-5 presents the approximate location-specific number of samples per month based on recommendations by statisticians at Pacific Northwest National Laboratory (PNNL) that worked with the DQO working group. There are both practical and statistical advantages to this sample allocation design. Averaging a larger number of samples is more expensive, but it protects the Site from regulatory action in response to a spurious, non-representative monitoring result.

There are secondary advantages to this monitoring plan. A larger number of samples allows for estimates of variability that can be used to refine the monitoring plan over time. The monitoring program specified in the IMP is a technically defensible approach that represents a compromise between a statistical design, a design based on professional judgment, and a design based on budgetary constraints. This design will generate data that are representative of actual contaminant levels and loads.

This design is consistent with the intent of the 30-day moving average specified in RFCA but allows some flexibility. Where there is no significant flow, there may be no samples completed within a 30-day period, and where the flows, loads, and variability are expected to be higher, sample numbers are also higher. Note that flow-paced monitoring will continue during dry periods, although flows may be so low that it takes more than 30 days to fill the composite sample container.

Indicator parameters are measured using real-time water-quality probes as discussed in Section 10.3.9 for the NSD monitoring objective. These data may be used in this decision rule for correlations and trending.

Table 12-1. RFCA Segment 5 AoIs.

Radionuclides:	Total Pu-239,240	High level of public concern. Known carcinogen. Known past measurements (within the past 8 years) have exceeded RFCA Action Levels. This provides reasonable cause to expect future measurements in excess of RFCA Action Levels.
	Total U-233,234, U-235, U-238	Known renal toxicity. Present on Site. Past measurements provide reasonable cause to expect future measurements in excess of RFCA Action Levels.
	Total Am-241	Known carcinogen. Present on Site. Known past measurements have exceeded RFCA Action Levels. This provides reasonable cause to expect future measurements in excess of RFCA Action Levels.
Metals:	Total Be	Known to cause berylliosis in susceptible individuals when exposed by inhalation. May also cause contact dermatitis. Present on Site. Will be monitored as an indicator of releases from process and waste storage areas.
	Total Cr	Physiological and dermal toxicity. High level of regulatory concern due, in part to the chromic acid incident of 1989. Low levels can cause significant ecological damage.
	Dissolved Ag	Highly toxic to fish at low levels if chronic. State of Colorado has temporarily removed its stream standard for silver, while under study. The study has been completed, and the standard will be reinstated at the next triennial review of South Platte stream standards, if not before. Used on Site only for photographic development. Routinely accepted by POTWs as municipal waste, but discharge is regulated. May be removed from this list later, if data do not support concern.
	Dissolved Cd	Highly toxic to fish at low levels if chronic. Known human carcinogen (prostate cancer) and depletes physiologic calcium. Used on Site in plating processes. Monitoring data for the Interceptor Trench System (ITS) and the proposed discharge of untreated ITS waters into Walnut Creek provide reasonable cause to expect future releases in excess of RFCA Action Levels.
	Hardness	Required to evaluate metals analyses, due to its effect on solubility of these metals.
Real Time Monitoring of Physical and Indicator Parameters: These parameters provide real-time alarms for a wide variety of regulated contaminants, and are also a required component of monitoring for AoIs. They require no laboratory analyses, and are the Site's most cost effective defensive monitoring.	pH	Toxicity to humans and ecology. Regulatory concern due to chromic acid incident. Real-time monitoring is inexpensive and effective method of detecting acid spills such as (chromic acid or plutonium nitrate) or failure of treatment systems.
	Conductivity	Conductivity is an indicator of total dissolved solids, metals, anions, and pH. Real-time monitoring of conductivity is an inexpensive indicator of overall water quality.
	Turbidity	Turbidity is a general indicator of elevated contaminant levels, and may be correlated with Pu.
	Nitrate	Past releases near RFCA stream standards and action levels upstream of ponds provide reasonable cause to expect future releases in excess of RFCA stream standards and action levels. ITS discharges are often high in nitrate, and may challenge RFCA action levels.
	Flow	Required to detect flow events, pace automated samplers, evaluate contaminant loads, and plan pond operations and discharges. Affects nearly every decision rule, and is the most commonly discussed attribute of Site surface waters.

Notes: ITS = Interceptor Trench System; POTW = Publicly owned treatment works; VOA = Volatile organic analysis

12.2 WY02 MONITORING SCOPE

Table 12-2. POE Monitoring Locations.

ID Code	Location	Primary Flow Measurement Device	Telemetry
GS10	S. Walnut Cr. upstream from the B-1 Bypass	9" Parshall Flume	Yes
SW027	South Interceptor Ditch just upstream of Pond C-2	Dual Parallel 120° V-Notch Weirs	Yes
SW093	N. Walnut Cr. 1300' upstream from the A-1 Bypass	36" Suppressed Rectangular Sharp-Crested Weir	Yes
995POE	WWTP effluent stream at UV disinfection building	60° V-Notch Weir	Yes

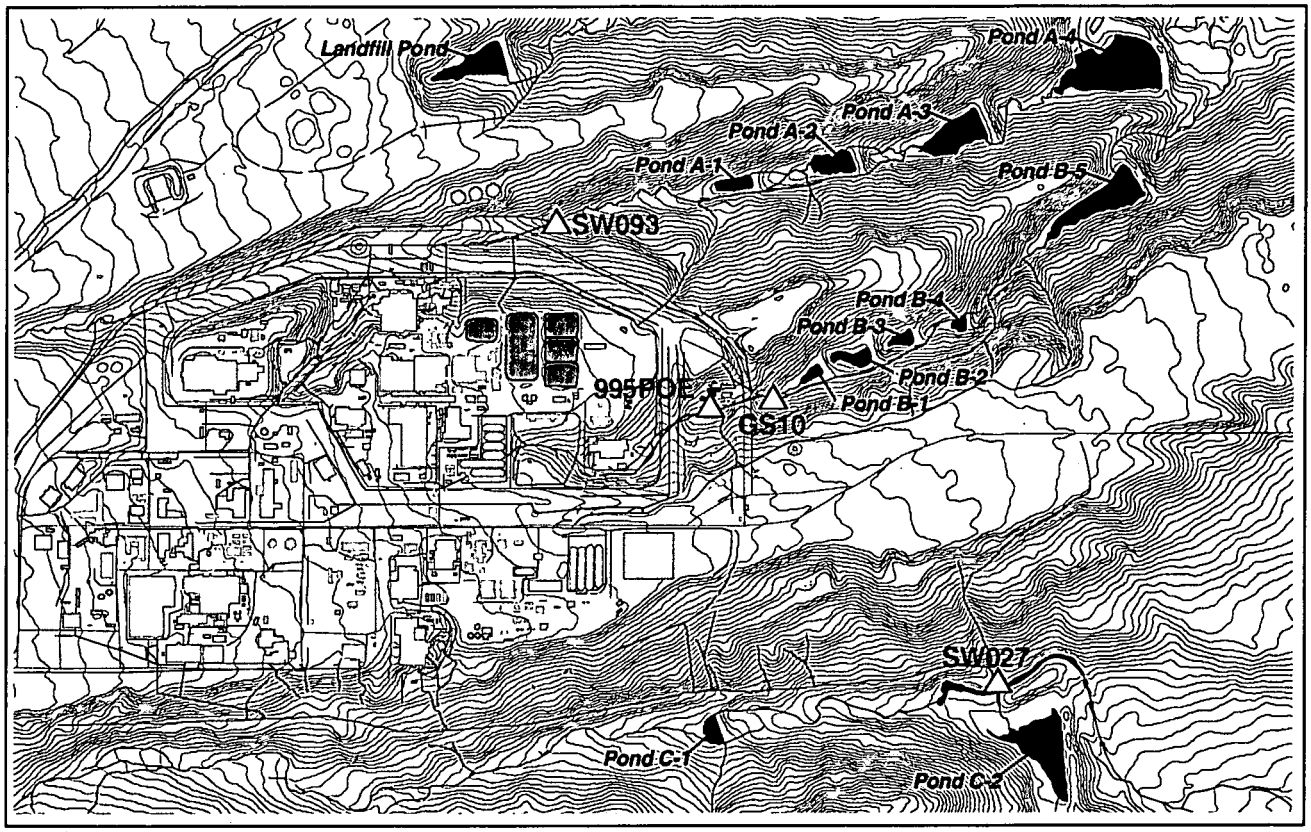


Figure 12-1. Water Year 2002 Point of Evaluation Monitoring Locations.

Table 12-3. POE Field Data Collection: Parameters and Frequency.

ID Code	Parameter	
	Discharge	Real-Time pH, Conductivity, Turbidity, Nitrate
GS10	15-min continuous	15-min continuous
SW027	15-min continuous	15-min continuous
SW093	15-min continuous	15-min continuous
995POE	NA; daily discharge data provided by B995 building personnel used in analytical data evaluations	NA

Note: All locations collect 5- and 15-minute flow data.

Table 12-4. POE Sample Collection Protocols.

ID Code	Frequency[a]: WY02 Actual (Target)	Type[b]
GS10	23 (34 per year)	Continuous flow-paced composites
SW027	3 (17 per year)	Continuous flow-paced composites
SW093	26 (36 per year)	Continuous flow-paced composites
995POE	34 (36 per year[c])	Continuous flow-paced composites

Notes: [a] Sample frequency distribution during the year for SW093, GS10, and SW027 (POEs) is given in Table 12-5.
[b] Sample types are defined in the RFETS Automated Surface-Water Monitoring Work Plan.
[c] Groups of three composite samples will be combined for analysis, resulting in 12 analytical results annually.

Table 12-5. POE Target Sample Distribution.

Month	SW093: WY02 Actual (Target)	GS10: WY02 Actual (Target)	SW027: WY02 Actual (Target)	995POE: WY02 Actual (Target)	Totals: WY02 Actual (Target)
Oct 01	2 (2)	3 (3)	0 (1)	3 (3)	8 (9)
Nov 01	3 (3)	2 (2)	0 (1)	3 (3)	8 (10)
Dec 01	1 (2)	1 (1)	0 (0)	3 (3)	5 (7)
Jan 02	2 (2)	1 (1)	0 (1)	2 (2)	5 (5)
Feb 02	2 (2)	2 (2)	0 (0)	2 (2)	6 (6)
Mar 02	3 (4)	1 (3)	0 (1)	3 (3)	7 (12)
Apr 02	1 (4)	1 (4)	0 (4)	4 (4)	6 (16)
May 02	4 (4)	4 (4)	3 (4)	3 (4)	14 (16)
Jun 02	2 (4)	1 (3)	0 (2)	3 (3)	6 (15)
Jul 02	1 (3)	3 (4)	0 (1)	2 (3)	6 (8)
Aug 02	3 (4)	1 (4)	0 (1)	3 (3)	7 (8)
Sep 02	2 (2)	3 (3)	0 (1)	3 (3)	8 (10)
Totals	**26 (36)**	**23 (34)**	**3 (17)**	**34 (36[a])**	**86 (123)**

Notes: [a] Composites collected at 995POE will be analyzed in groups of 3, for 12 analyses per year.

Table 12-6. POE Analytical Targets (Analyses per Year).

ID Code	Dissolved Ag, Total Be, Dissolved Cd, Total Cr Actual (Target)	Hardness Actual (Target)	Tritium Actual (Target)	Pu, U, Am Actual (Target)
GS10	23 (34)	23 (34)	NA	23 (34)
SW027	3 (17)	3 (17)	NA	3 (17)
SW093	26 (36)	26 (36)	NA	26 (36)
995POE	NA	NA	11 (12)	11 (12)

12.3 DATA EVALUATION

Sampling for AoIs at POEs is performed by collecting continuous flow-paced composite samples. Indicator parameters are measured using real-time water-quality probes. The AoIs are evaluated using 30-day moving averages, as specified in RFCA and implemented by the ALF or DQO working groups involving consensus of all parties to RFCA. Pu, Am, U, Be, Cr, dissolved Ag, and dissolved Cd are evaluated using volume-weighted 30-day moving averages at POEs[52]. Indicator parameters are evaluated qualitatively to assess chronic trends and annual variability.

[52] The 30-day average for a particular day is calculated as a volume-weighted average of a 'window' of time containing the previous 30-days which had flow. Each day has its own discharge volume (measured at the location with a flow meter) and activity (analytical result from the sample in place at the end of that day). Therefore, there are 365 30-day moving average values for a location that flows all year (366 values in a leap year). At locations which monitor pond discharges or have

The parties to RFCA agree that continuous monitoring probes will be used as indicators that may suggest a need for additional monitoring, mitigating action, or management decision. The parties agree that compliance and enforcement issues will be resolved based on standard analytical procedures required by the applicable agreement or regulations, e.g., RFCA, or CERCLA. The parties agree that continuous monitoring field probes should NOT be used to determine compliance or serve as a basis for enforcement action, unless the applicable regulation specifies such a probe as the enforceable analytical method for a particular measurement.

Generally, analytical data evaluation is performed as preliminary data become available. If an initial qualitative screening indicates that an analytical result is higher than the action level for a particular AoI, then the 30-day average is calculated immediately upon receipt of the preliminary result. The desired evaluation frequency is semi-monthly, within one week of the 15th and last day of any given month.

IF — The appropriate summary statistic for any AoI in the main stream channels of Stream Segment 5, as monitored at the designated POEs, exceeds the appropriate RFCA action level[53] (Table 12-8)

THEN — The Site must notify EPA and CDPHE, evaluate for source location, and implement mitigating action[54] if appropriate[55].

Table 12-7. POE Monitoring Analytical Data Evaluation.

ID Code	Evaluation Type[a]
GS10	30-Day Volume-Weighted Moving Averages; Loading Analysis
SW027	30-Day Volume-Weighted Moving Averages; Loading Analysis
SW093	30-Day Volume-Weighted Moving Averages; Loading Analysis
995POE	30-Day Volume-Weighted Moving Averages; Loading Analysis

Notes: [a] Details on the evaluation of analytical results are given in Appendix B.1: Data Evaluation Methods. Loading analysis for POEs is given in Section 5.

Table 12-8. POE Monitoring RFCA Action Levels.

Analyte	Action Level
Am-241	0.15 pCi/L
Pu-239,240	0.15 pCi/L
Total Uranium	10 pCi/L (995POE, GS10 and SW093); 11 pCi/L (SW027)
Total Be	4 µg/L
Dissolved Cd	1.5 µg/L
Total Cr	50 µg/L
Dissolved Ag	0.6 µg/L

Note: The above action levels only apply to 30-day average values. Comparisons to other values are provided for reference only.

intermittent flows, 30-day averages are reported as averages of the previous 30 days of greater than zero flow. For days where no activity is available, either due to a failed lab analysis or non-sufficient quantity (NSQ) for analysis, no 30-day average is reported. The calculation of 30-day averages is discussed in detail in Appendix B1: Data Evaluation Methods.

[53] Appropriate action levels and standards for volume-weighted 30-day moving averages are specified for individual contaminants in RFCA.

[54] Mitigating action may include, but not be limited to, the following examples: 1) Immediate action to halt a discharge or contain a spill; or 2) Use of the Source Location decision rule to seek out and mitigate upstream contaminant sources.

[55] EPA determines the consequences for an exceedance of any action level (not just those for AoIs) at any location within the segment (not just at the consensus monitoring points). This decision rule presents the consensus decision rule that drives our monitoring activities. It is an implementation, rather than a reiteration, of RFCA.

The following sections include summary tables and plots showing the 30-day volume-weighted averages, periodic volume-weighted averages, and 365 calendar-day volume-weighted averages for the POE analytes. Prior to 1/1/00, the action levels for both dissolved Cd and Ag were calculated to take into account the toxicity of these metals in relation to hardness. The action levels were calculated for each day using the corresponding 30-day volume-weighted hardness values. Therefore, the action levels vary with varying hardness. Starting on 1/1/00, in consultation with the Regulators and Stakeholders, the action levels used for these metals assumes a fixed hardness of 143 mg/L, which is consistent with State water-quality standard methodology.

The following evaluations include all results that were not rejected through the verification/validation process. When a sample has a corresponding field duplicate, the value used in calculations is the arithmetic average of the 'real' value and the 'duplicate'. When a sample has multiple 'real' analyses (Site requested 're-runs'), the value used in calculations is the arithmetic average of the multiple 'real' analyses. Total uranium is calculated by summing the activities for the analyzed isotopes (U-233,234 + U-235 + U-238).

The methods used for the evaluations are given in Appendix B.1: Data Evaluation Methods.

The loading analysis for GS10, SW027, SW093, and 995POE is presented in Section 5.

Real-time water quality data are not presented in this section. Plots of mean daily water temperature, specific conductivity, pH, and turbidity values are given in Section 11.3. More detailed data for all parameters are presented in Appendix B.5.2. The methods used for the water-quality parameter evaluations are given in Appendix B.5: Real-Time Water-Quality Parameters.

12.3.1 Location GS10

Monitoring location GS10 is located on South Walnut Creek at the perimeter of the IA just upstream of the B-Series ponds. Figure 3-29 shows the drainage area for GS10. The 100, 300, 400, 500, 600, 700, 800, and 900 areas all contribute flow to GS10.

Table 12-9 shows that most of the annual average Pu and Am activities were greater than 0.15 pCi/L, but a significant reduction is seen in recent years. However, this may be due to dry conditions with few storm events to transport actinides associated with soils and sediments.. Additionally, the long-term Pu and Am averages (WY97-02) are greater than 0.15 pCi/L. The total uranium average activities are all well below 10 pCi/L.

Figure 12-2 shows multiple occurrences of reportable 30-day averages. In response, the Site was required to perform multiple source evaluations to address these reportable values. A summary of the extensive investigations is given in Section 6.3.

Figure 12-3 shows that the 30-day averages for uranium were below reporting levels for the entire period.

Figure 12-6 shows the 365 calendar-day averages using a modified calculation method (see Appendix B.1: Data Evaluation Methods). It can be seen that by using this method the variability is 'dampened' by the longer evaluation period, but many values would still be reportable using the current 0.15 pCi/L Action Level.

Table 12-9. Annual Volume-Weighted Average Radionuclide Activities at GS10 in WY97-02.

Water Year	Volume-Weighted Average Activity (pCi/L)		
	Am-241	*Pu-239,240*	*Total Uranium*
1997	0.302	0.295	2.849
1998	0.105	0.152	2.985
1999	0.276	0.140	2.483
2000	0.397	0.185	2.191
2001	0.072	0.078	2.841
2002	0.083	0.053	3.042
Total (WY97-02)	0.214	0.159	2.712

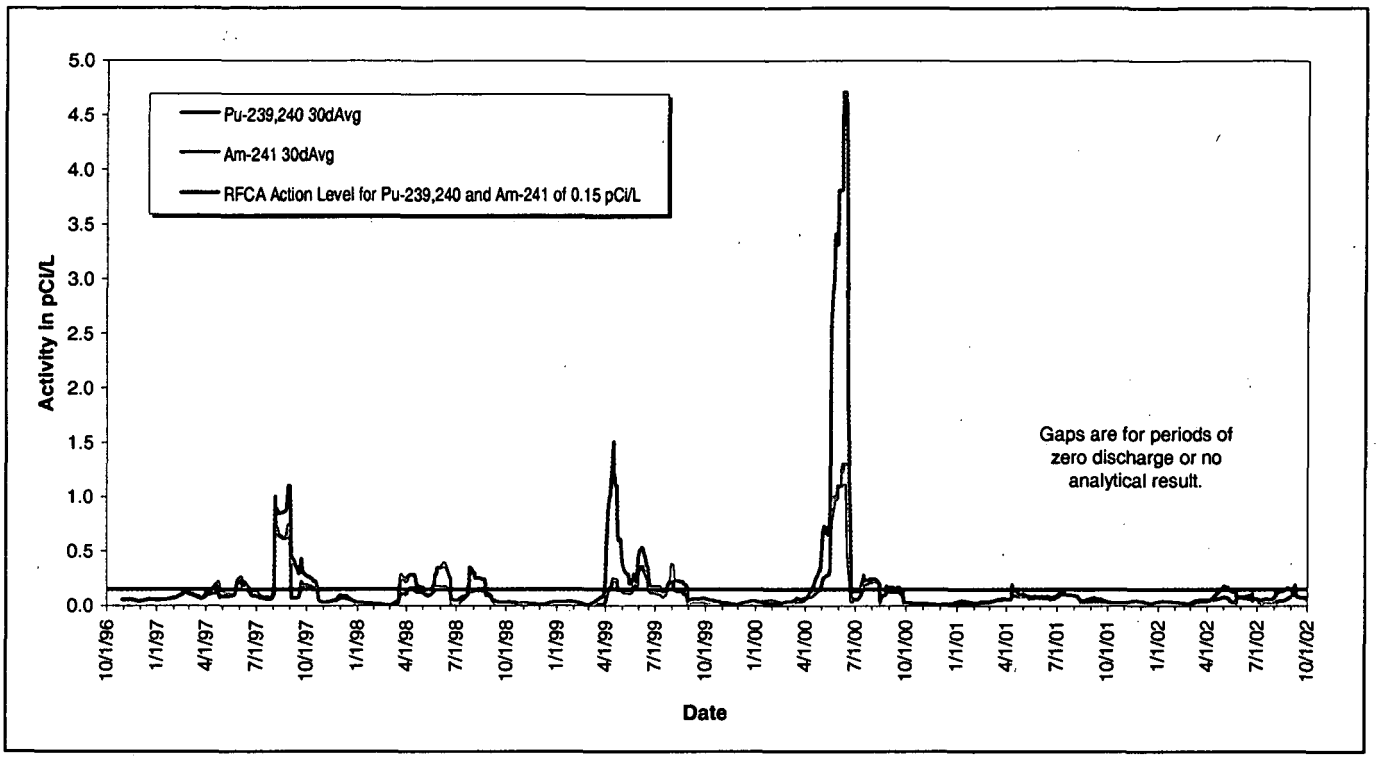


Figure 12-2. Volume-Weighted 30-Day Average Pu and Am Activities at GS10: WY97–02.

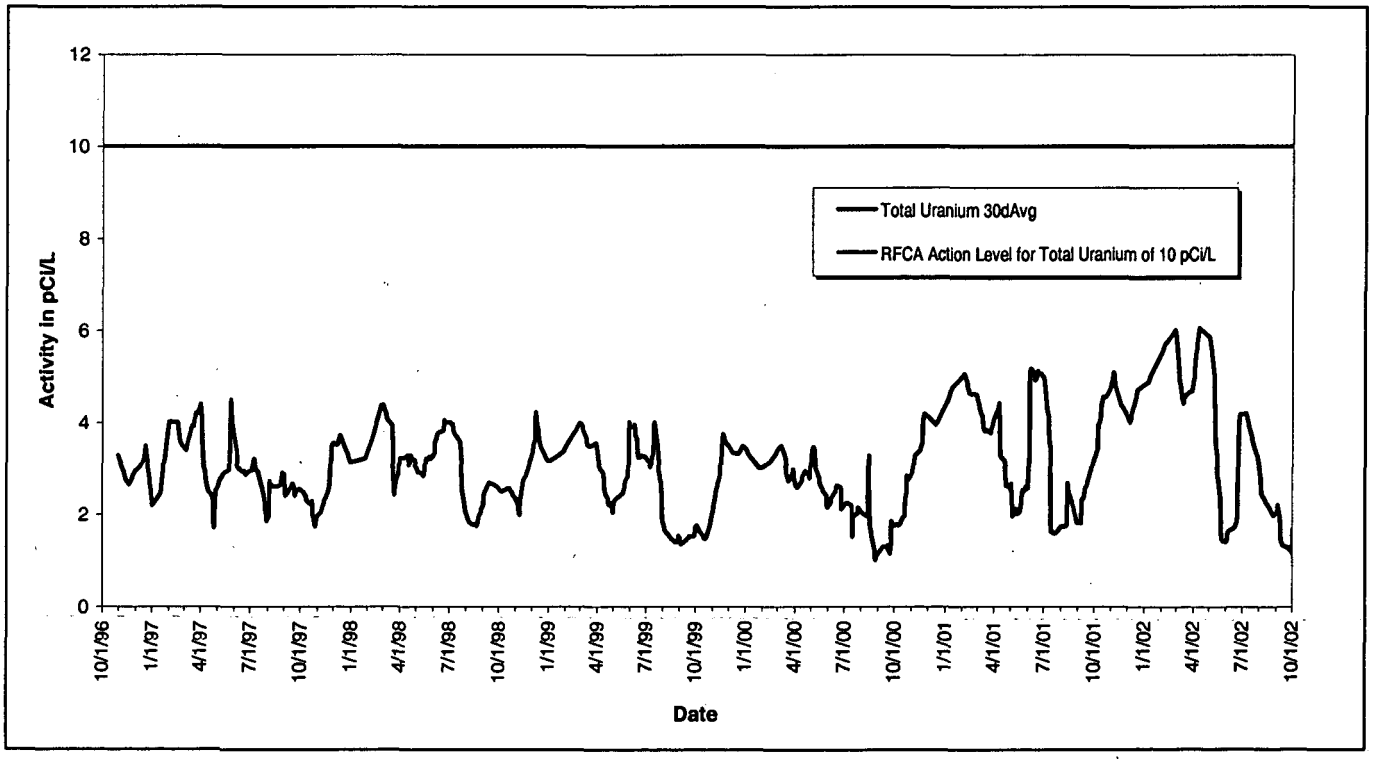


Figure 12-3. Volume-Weighted 30-Day Average Total Uranium Activities at GS10: WY97–02.

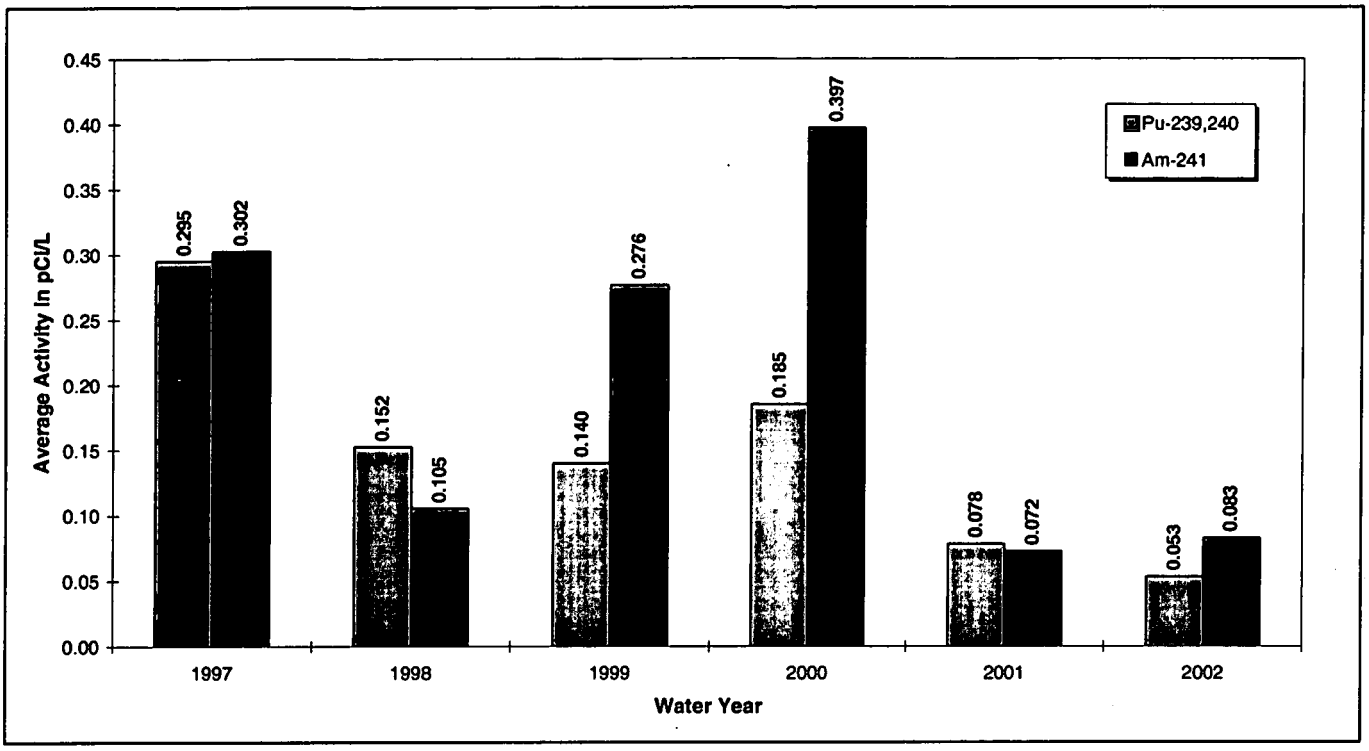


Figure 12-4. Annual Volume-Weighted Average Pu and Am Activities at GS10: WY97–02.

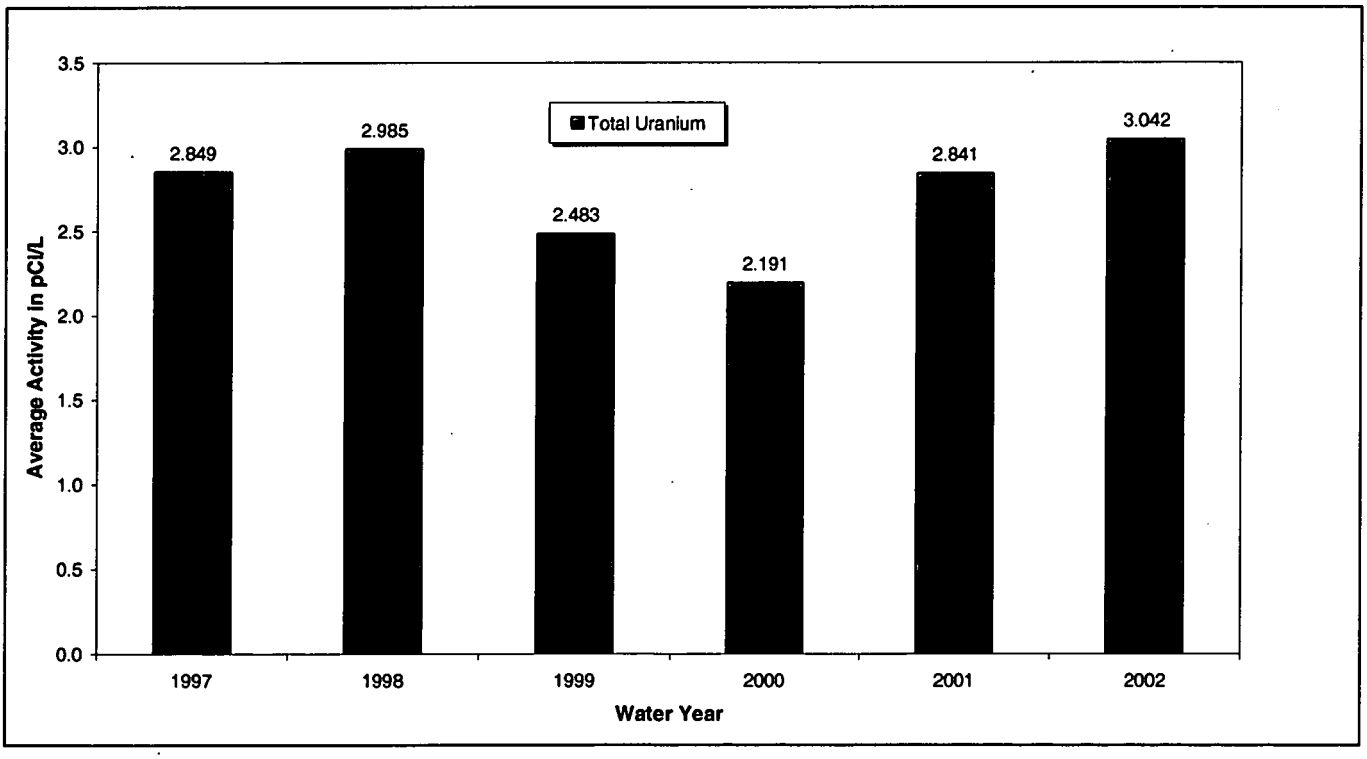
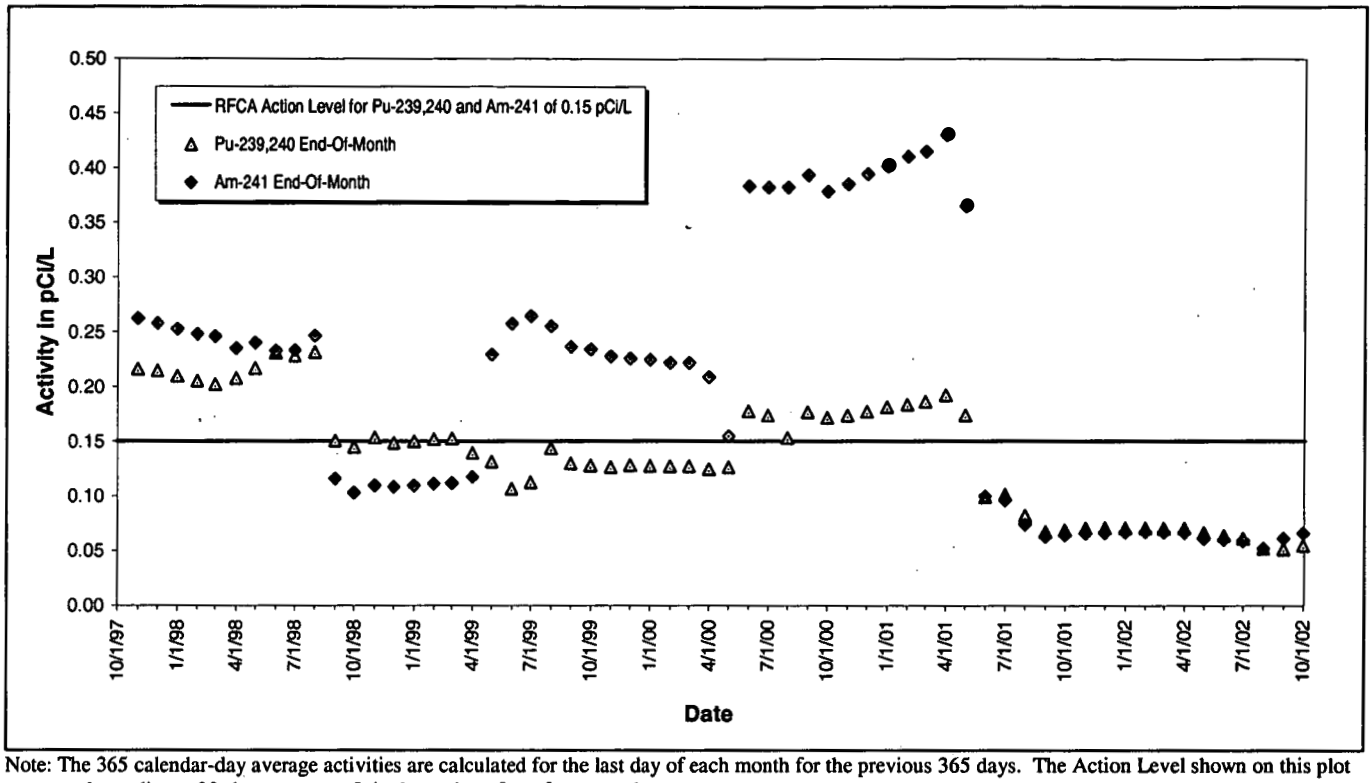


Figure 12-5. Annual Volume-Weighted Average Total Uranium Activities at GS10: WY97–02.



Note: The 365 calendar-day average activities are calculated for the last day of each month for the previous 365 days. The Action Level shown on this plot only applies to 30-day averages. It is shown here for reference only.

Figure 12-6. Volume-Weighted 365 Calendar-Day Average Pu and Am Activities at GS10: WY97–02.

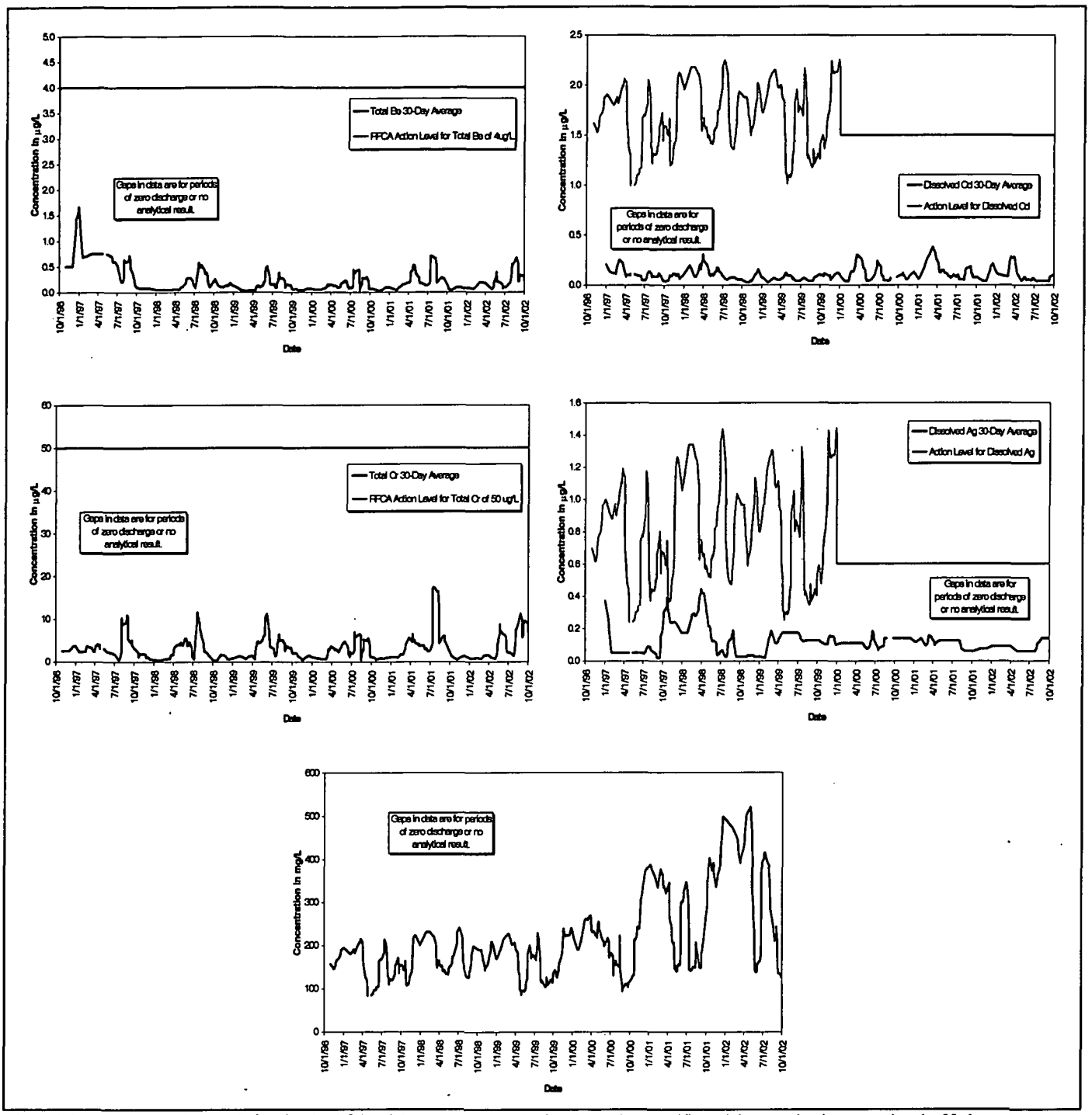
Table 12-10 shows that all of the annual average metals concentrations were less than the action level. Additionally, the long-term metals averages (WY97-02) were less than the action levels.

Figure 12-7 shows that none of the 30-day averages were reportable. The recent increases in the 30-day average hardness levels is likely the result of winter deicing operations and the WY00 change to new deicing products.

Table 12-10. Annual Volume-Weighted Average Hardness and Metals Concentrations at GS10 in WY97-02.

Water Year	Volume-Weighted Average Concentration (µg/L)				
	Hardness [mg/L]	Total Be	Dissolved Cd	Total Cr	Dissolved Ag
1997	137	0.64	0.09	4.62	0.08
1998	159	0.14	0.13	3.19	0.24
1999	134	0.17	0.07	4.09	0.13
2000	173	0.20	0.11	3.53	0.11
2001	213	0.32	0.11	5.82	0.12
2002	283	0.24	0.08	5.10	0.08
Total (WY97-02)	172	0.28	0.10	4.28	0.13

Note: Hardness units are mg/L.



Note: Prior to 1/1/00, action levels for dissolved Cd and Ag were calculated using the analyte specific toxicity equation incorporating the 30-day volume-weighted hardness values.

Figure 12-7. Volume-Weighted 30-Day Average Metals and Hardness Concentrations at GS10: WY97–02.

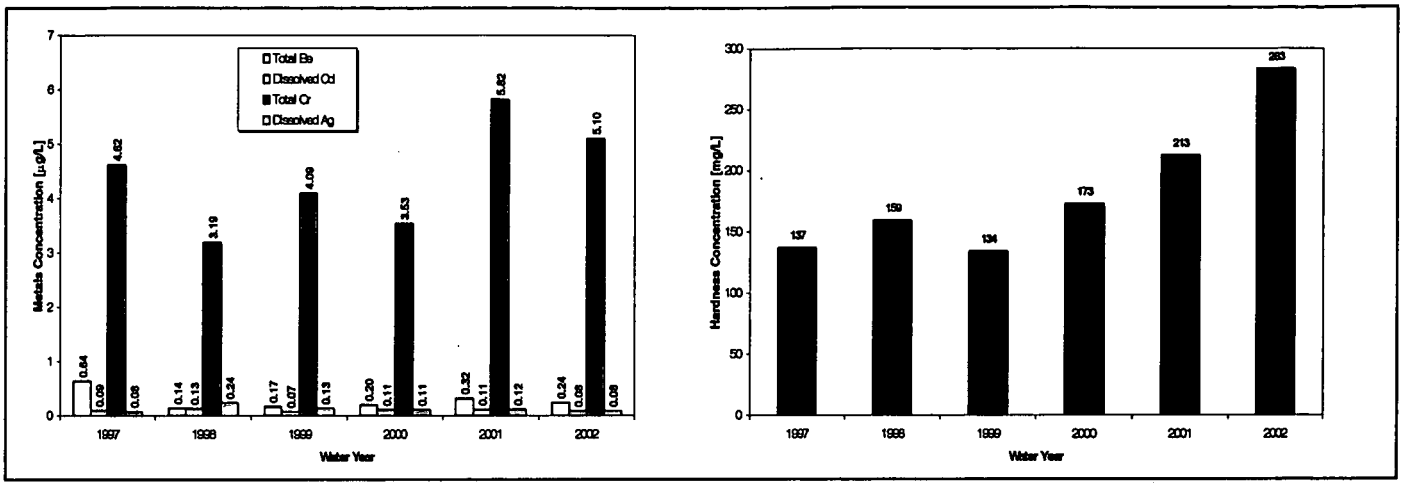


Figure 12-8. Annual Volume-Weighted Average Metals and Hardness Concentrations at GS10: WY97–02.

12.3.2 Location SW027

Monitoring location SW027 is located at the end of the SID at the inlet to Pond C-2. **Figure 3-117** shows the drainage area for SW027. The 100, 400, 600, 800, and 900 areas all contribute flow to SW027.

Table 12-11 shows that most of the annual average Pu and Am activities were less than 0.15 pCi/L. The WY00 Pu activity was the result of a single sample (5/11-7/17/00, 1.03 pCi/L). Additionally, neither of the long-term Pu and Am averages (WY97-02) is greater than 0.15 pCi/L. The total uranium average activities are well below 11 pCi/L.

Figure 12-9 shows two periods of reportable 30-day averages for Pu. In response, the Site was required to perform source evaluations to address these reportable values. A summary of the first investigation (RMRS, 1998c) is given in Section 6 of the Automated Surface-Water Monitoring Report: Water Years 1997-2000. The second investigation, the *Final Source Evaluation Report for Point of Evaluation SW027, Water Year 2000* (RMRS, 2001b), was completed in March 2001.

Figure 12-10 shows that the 30-day average for uranium was below reporting levels for the entire period.

Figure 12-13 shows the 365 calendar-day averages using a modified calculation method (see Appendix B.1: Data Evaluation Methods). It can be seen that by using this method the variability is 'dampened' by the longer evaluation period, but several values would still be reportable using the current 0.15 pCi/L Action Level.

Table 12-11. Annual Volume-Weighted Average Radionuclide Activities at SW027 in WY97-02.

Water Year	Volume-Weighted Average Activity (pCi/L)		
	Am-241	*Pu-239,240*	*Total Uranium*
1997	0.007	0.037	1.432
1998	0.021	0.140	3.208
1999	0.018	0.067	1.870
2000	0.059	0.327	1.212
2001	0.006	0.025	1.333
2002	0.001	0.002	0.497
Total (WY97-02)	0.018	0.095	1.955

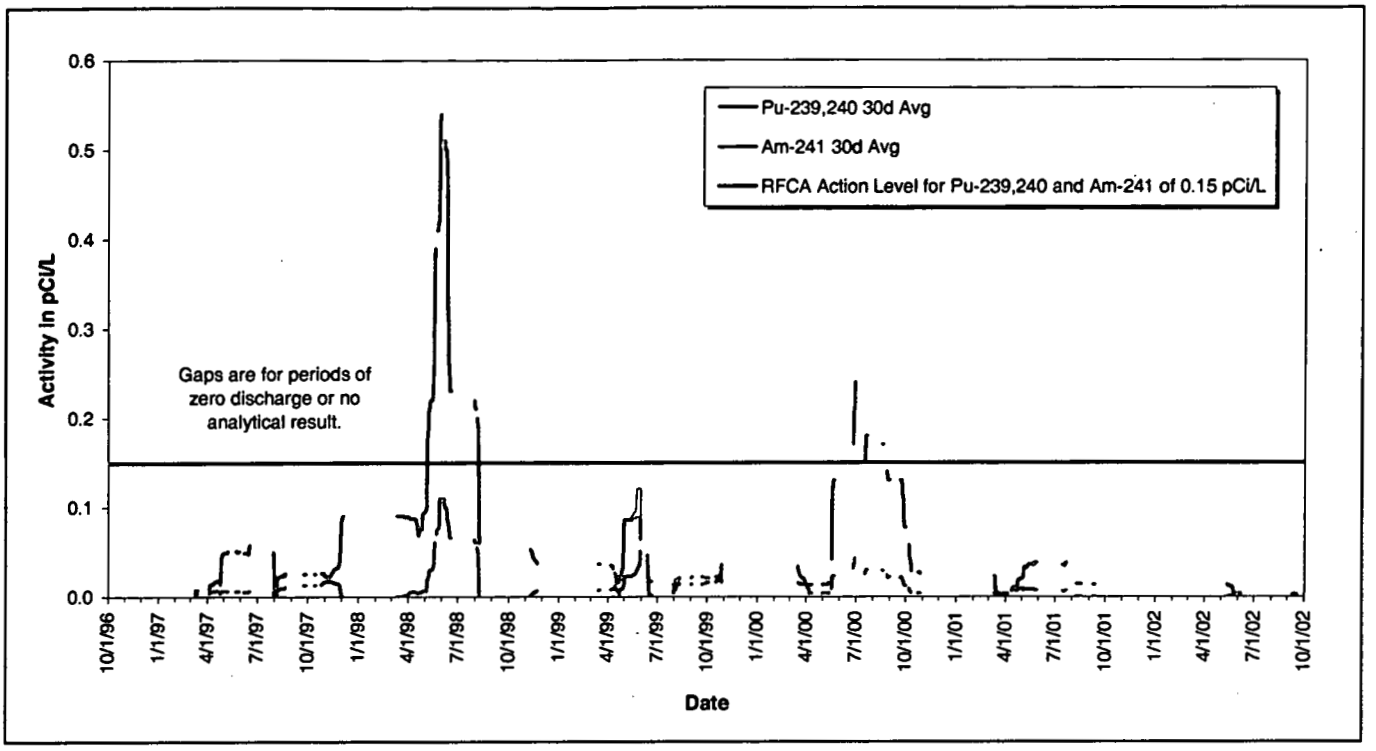


Figure 12-9. Volume-Weighted 30-Day Average Pu and Am Activities at SW027: WY97–02.

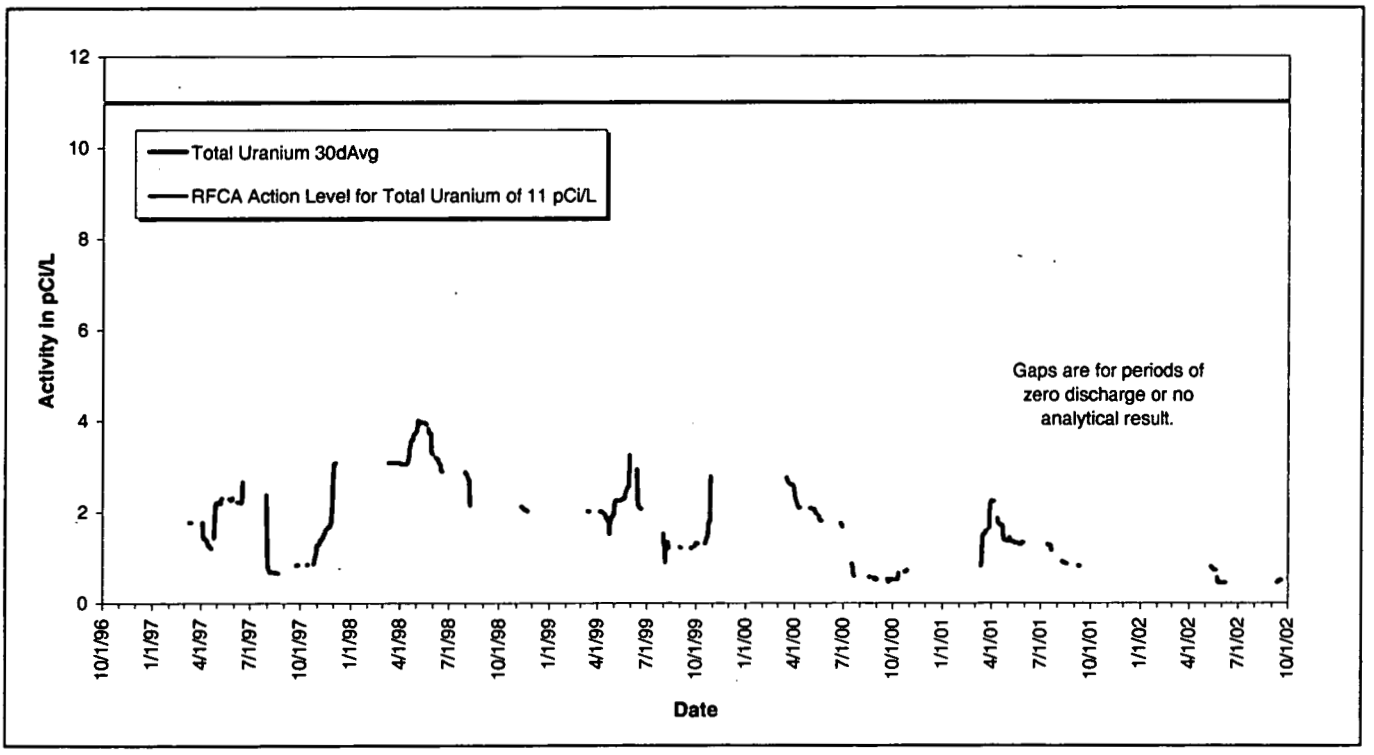


Figure 12-10. Volume-Weighted 30-Day Average Total Uranium Activities at SW027: WY97–02.

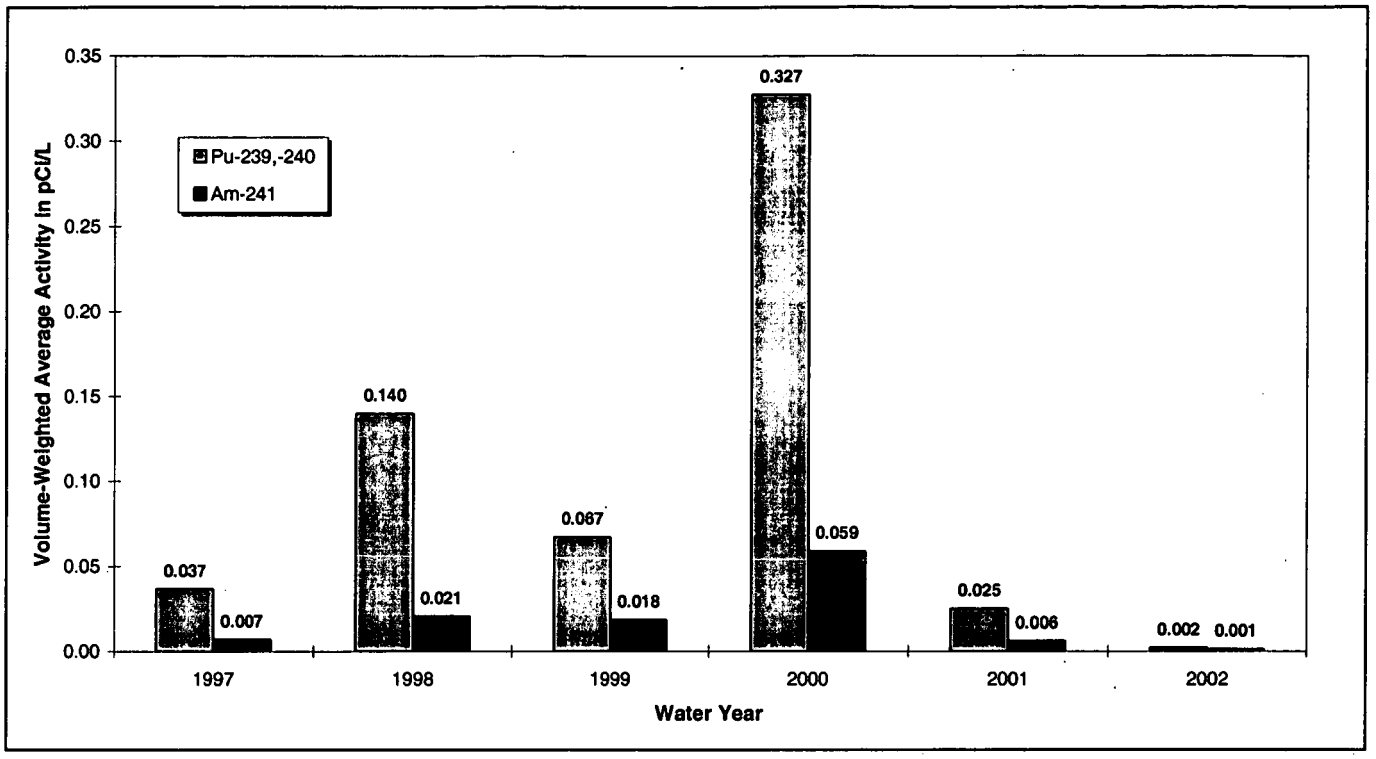


Figure 12-11. Annual Volume-Weighted Average Pu and Am Activities at SW027: WY97–02.

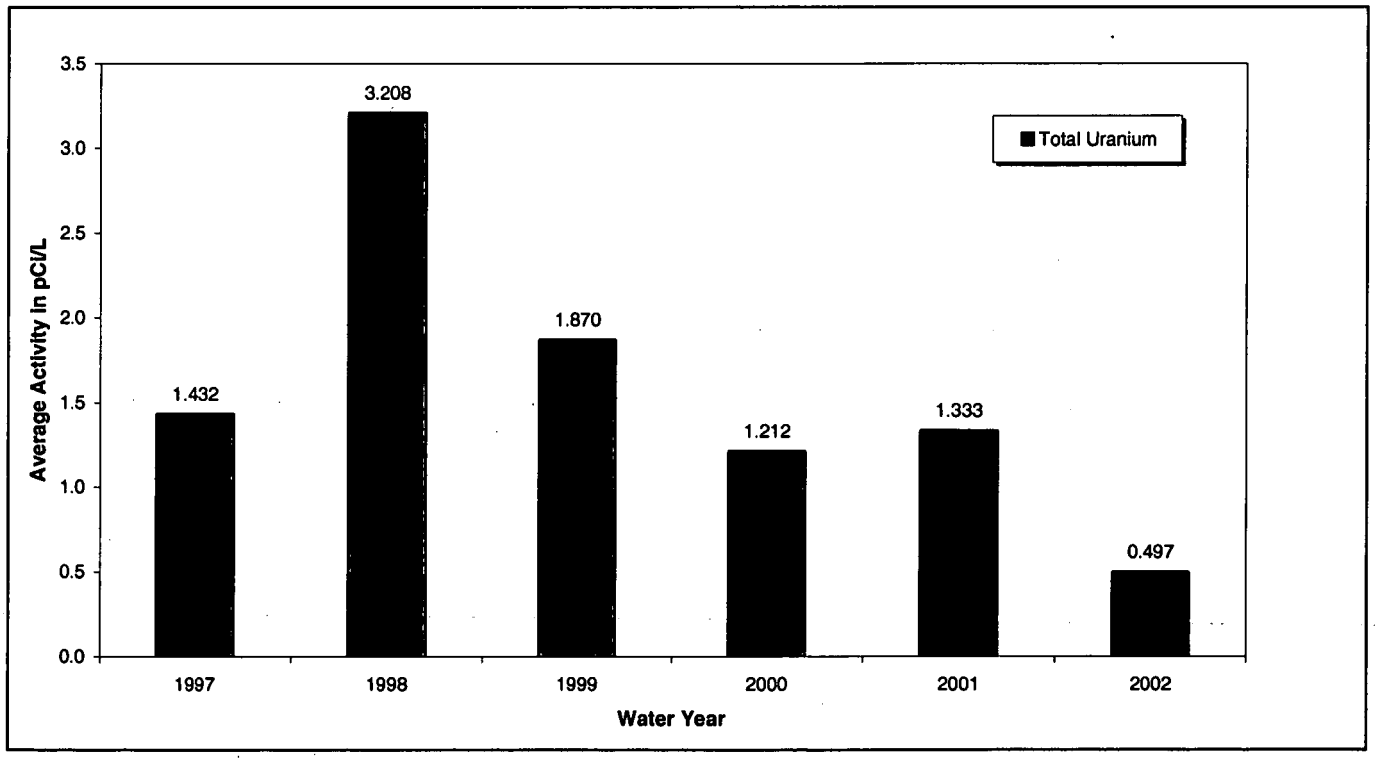
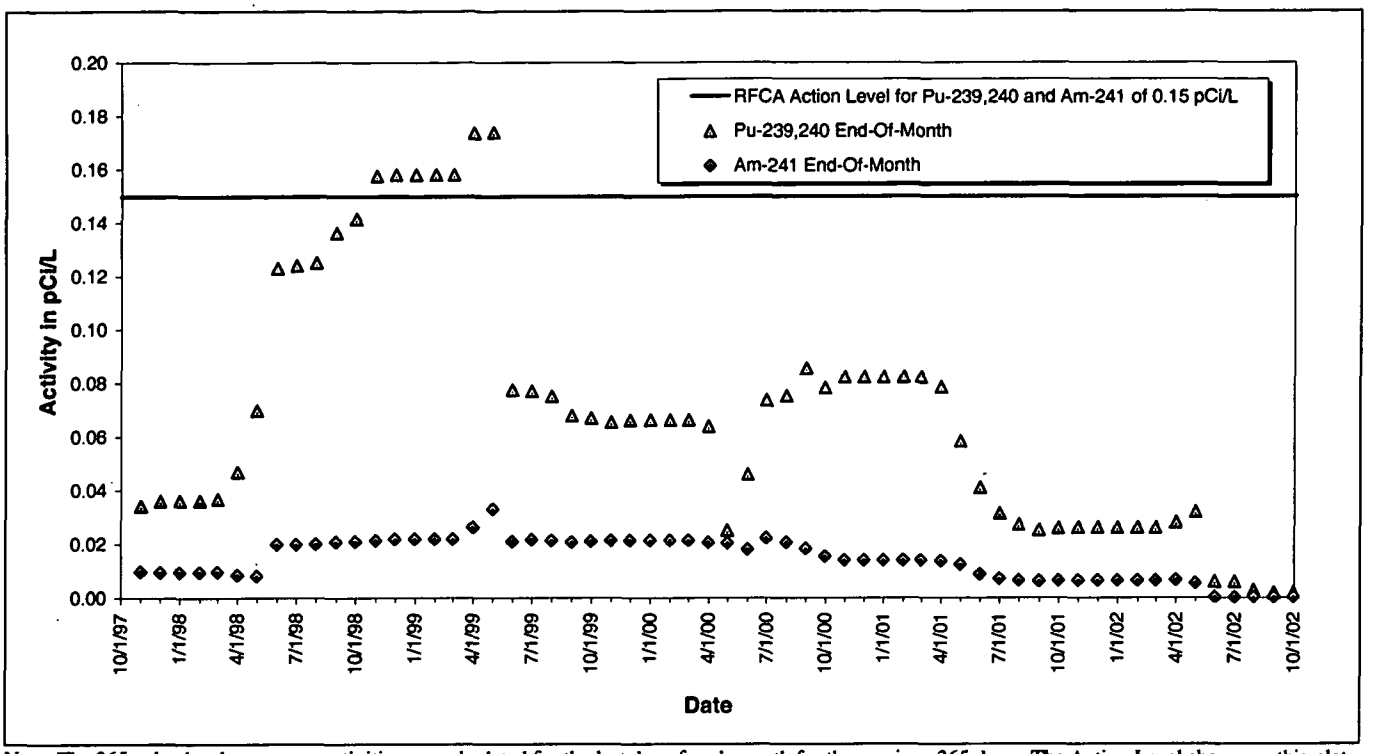


Figure 12-12. Annual Volume-Weighted Average Total Uranium Activities at SW027: WY97–02.



Note: The 365 calendar-day average activities are calculated for the last day of each month for the previous 365 days. The Action Level shown on this plot only applies to 30-day averages. It is shown here for reference only.

Figure 12-13. Volume-Weighted 365 Calendar-Day Average Pu and Am Activities at SW027: WY97–02.

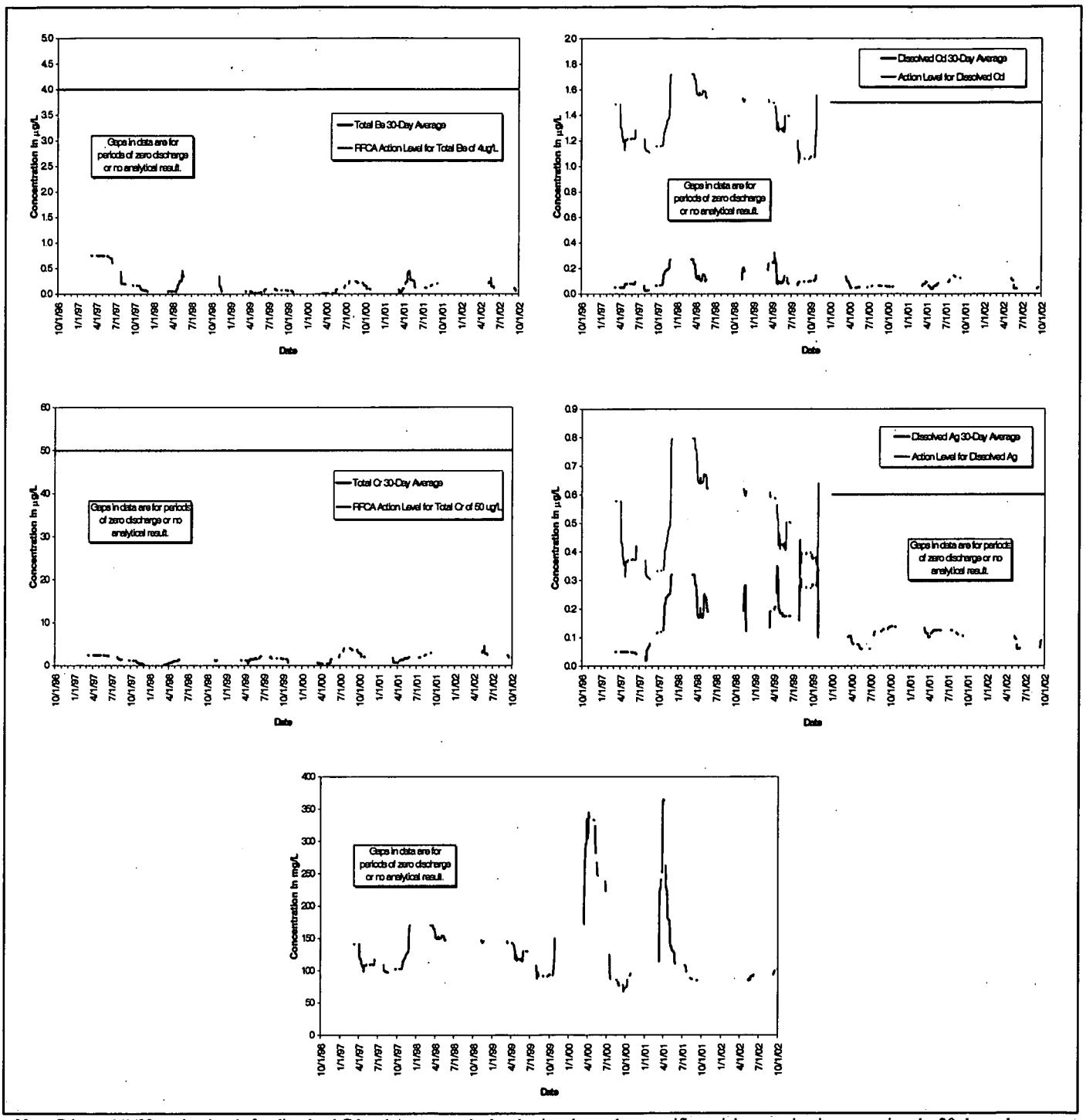
Table 12-12 shows that all of the annual average metals concentrations were less than the action level. Additionally, the long-term metals averages (WY97-02) were less than the action levels.

Figure 12-14 shows that none of the 30-day averages were reportable for Be, Cr, and Cd. For dissolved Ag, the 30-day average was above the hardness-adjusted action level. However, using the agreed upon fixed hardness of 143 mg/L noted above, these values were not reportable. The recent increases in the 30-day average hardness levels is likely the result of winter deicing operations and the WY00 change to new deicing products.

Table 12-12. Annual Volume-Weighted Average Hardness and Metals Concentrations at SW027 in WY97-02.

Water Year	Volume-Weighted Average Concentration (µg/L)				
	Hardness [mg/L]	Total Be	Dissolved Cd	Total Cr	Dissolved Ag
1997	103	0.53	0.06	2.01	0.06
1998	149	0.13	0.15	0.85	0.21
1999	109	0.03	0.10	1.56	0.25
2000	148	0.26	0.06	3.92	0.09
2001	147	0.23	0.07	1.81	0.12
2002	112	0.14	0.05	3.04	0.09
Total (WY97-02)	130	0.21	0.10	1.76	0.16

Note: Hardness units are mg/L.



Note: Prior to 1/1/00, action levels for dissolved Cd and Ag were calculated using the analyte specific toxicity equation incorporating the 30-day volume-weighted hardness values.

Figure 12-14. Volume-Weighted 30-Day Average Metals and Hardness Concentrations at SW027: WY97–02.

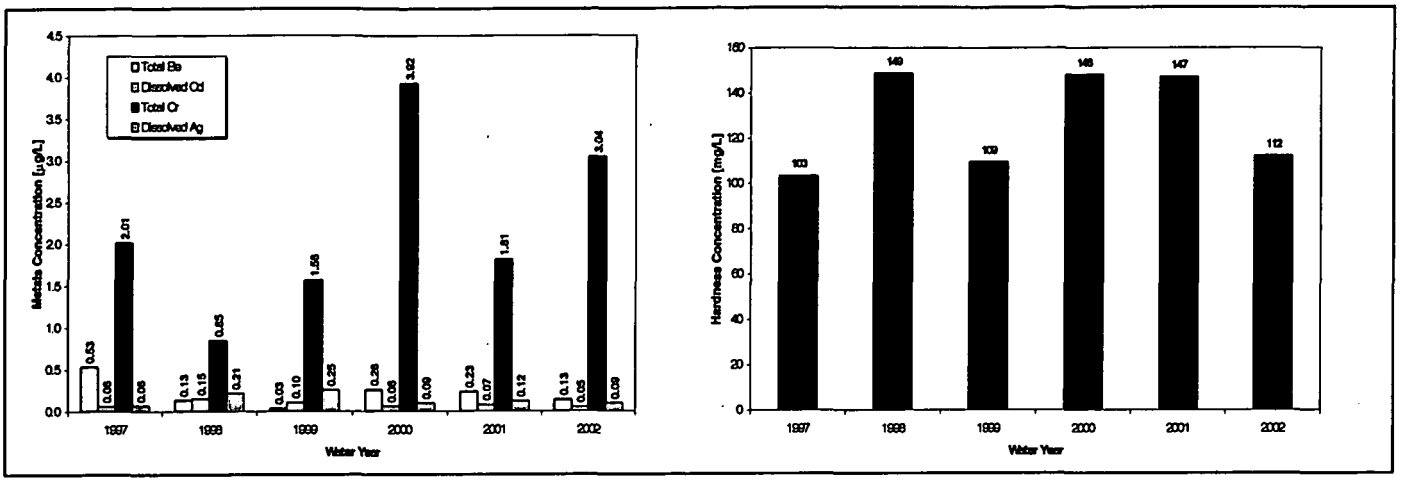


Figure 12-15. Annual Volume-Weighted Average Metals and Hardness Concentrations at SW027: WY97–02.

12.3.3 Location SW093

Monitoring location SW093 is located on North Walnut Creek at the perimeter of the IA 1300' upstream of the A-Series ponds. Figure 3-128 shows the drainage area for SW093. The 100, 300, 500, 700, and 900 areas all contribute flow to SW093.

Table 12-13 shows that all of the annual average Pu and Am activities were less than 0.15 pCi/L. Additionally, neither of the long-term Pu and Am averages (WY97-02) is greater than 0.15 pCi/L. The total uranium average activities are well below 10 pCi/L.

Figure 12-16 shows one period of reportable 30-day averages for Pu. In response, the Site was required to perform a source evaluation to address these reportable values. A summary of the extensive investigations (RMRS, 1999b) is given in Section 6 of the Automated Surface-Water Monitoring Report: Water Years 1997-2000.

Figure 12-17 shows that the 30-day average for uranium was below reporting levels for the entire period.

Figure 12-20 shows the 365 calendar-day averages using a modified calculation method (see Appendix B.1: Data Evaluation Methods). It can be seen that by using this method the variability is 'dampened' by the longer evaluation period, and no values would be reportable using the current 0.15 pCi/L Action Level.

Table 12-13. Annual Volume-Weighted Average Radionuclide Activities at SW093 in WY97-02.

Water Year	Volume-Weighted Average Activity (pCi/L)		
	Am-241	*Pu-239,240*	*Total Uranium*
1997	0.045	0.073	2.764
1998	0.018	0.019	2.116
1999	0.025	0.039	1.935
2000	0.022	0.038	2.137
2001	0.011	0.015	2.086
2002	0.017	0.007	2.764
Total (WY97-02)	0.023	0.032	2.233

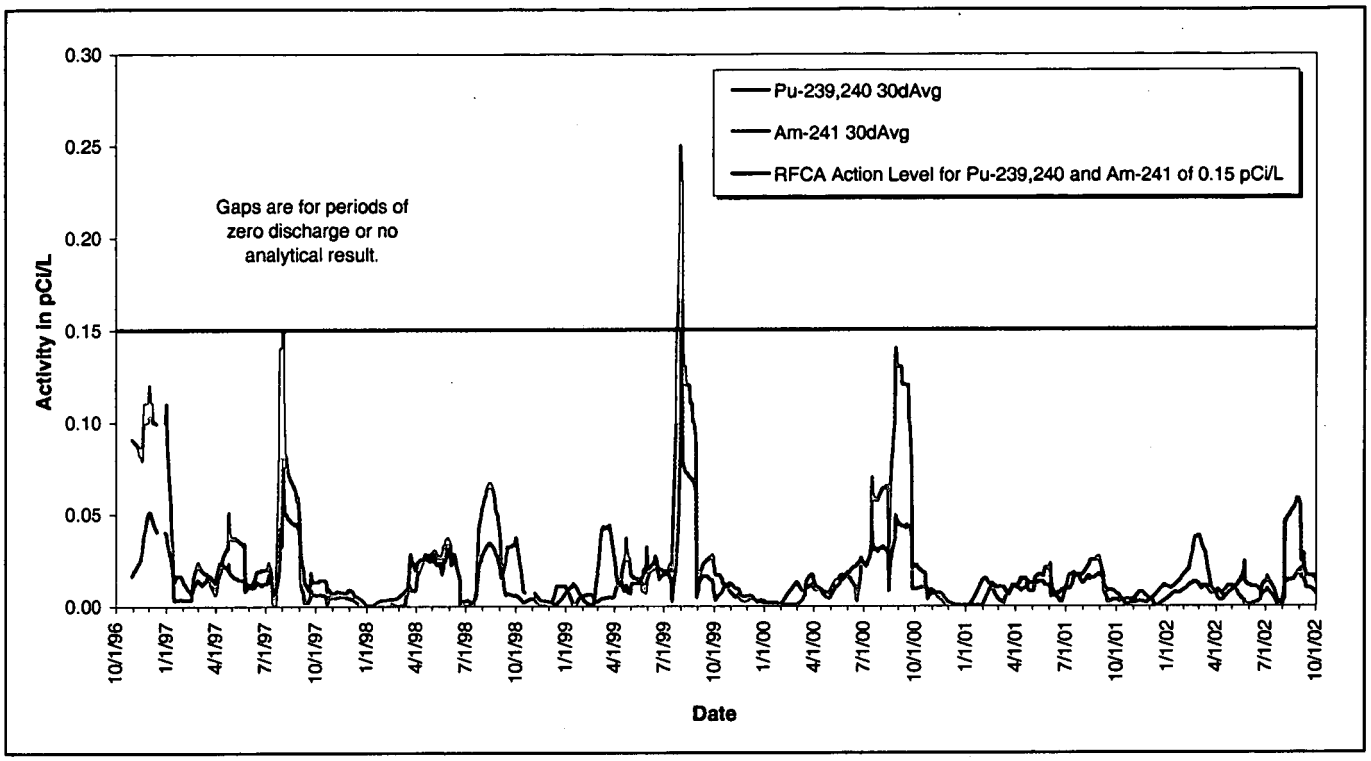


Figure 12-16. Volume-Weighted 30-Day Average Pu and Am Activities at SW093: WY97–02.

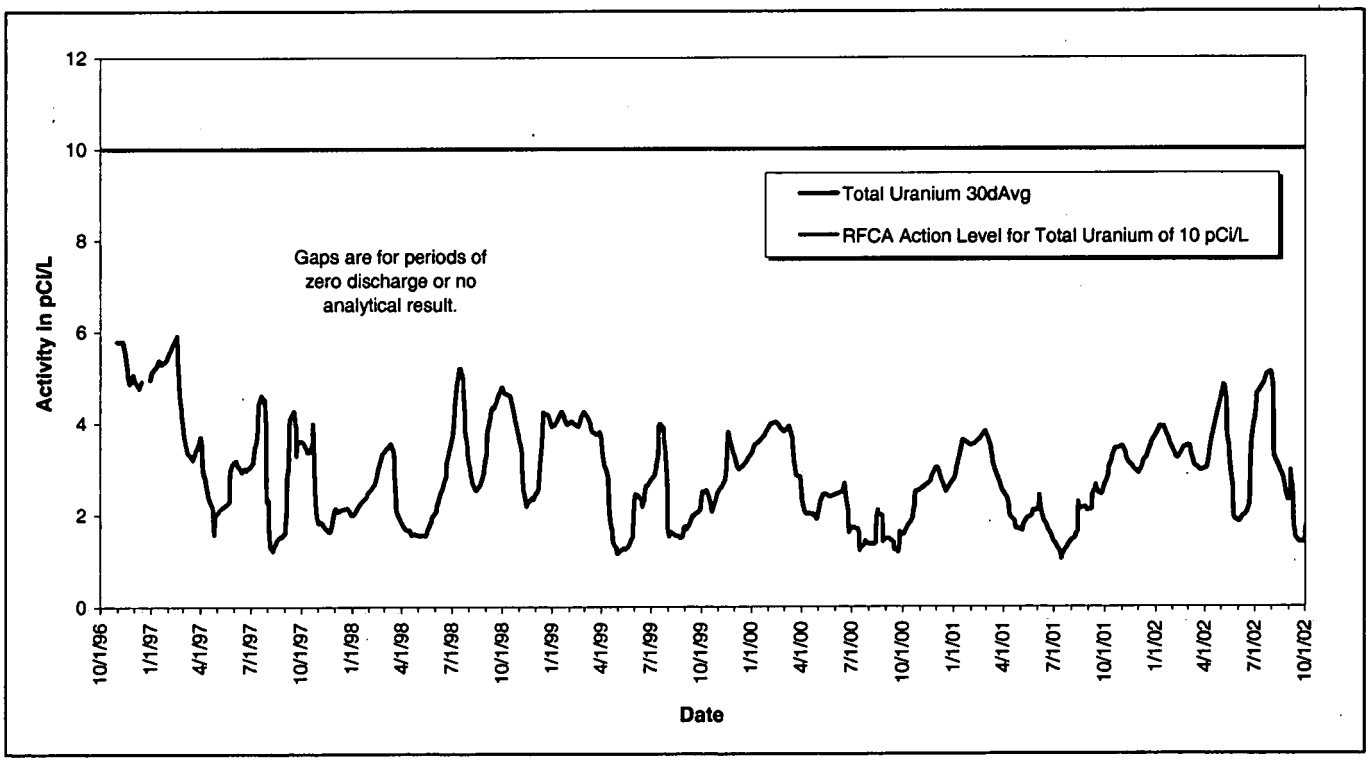


Figure 12-17. Volume-Weighted 30-Day Average Total Uranium Activities at SW093: WY97–02.

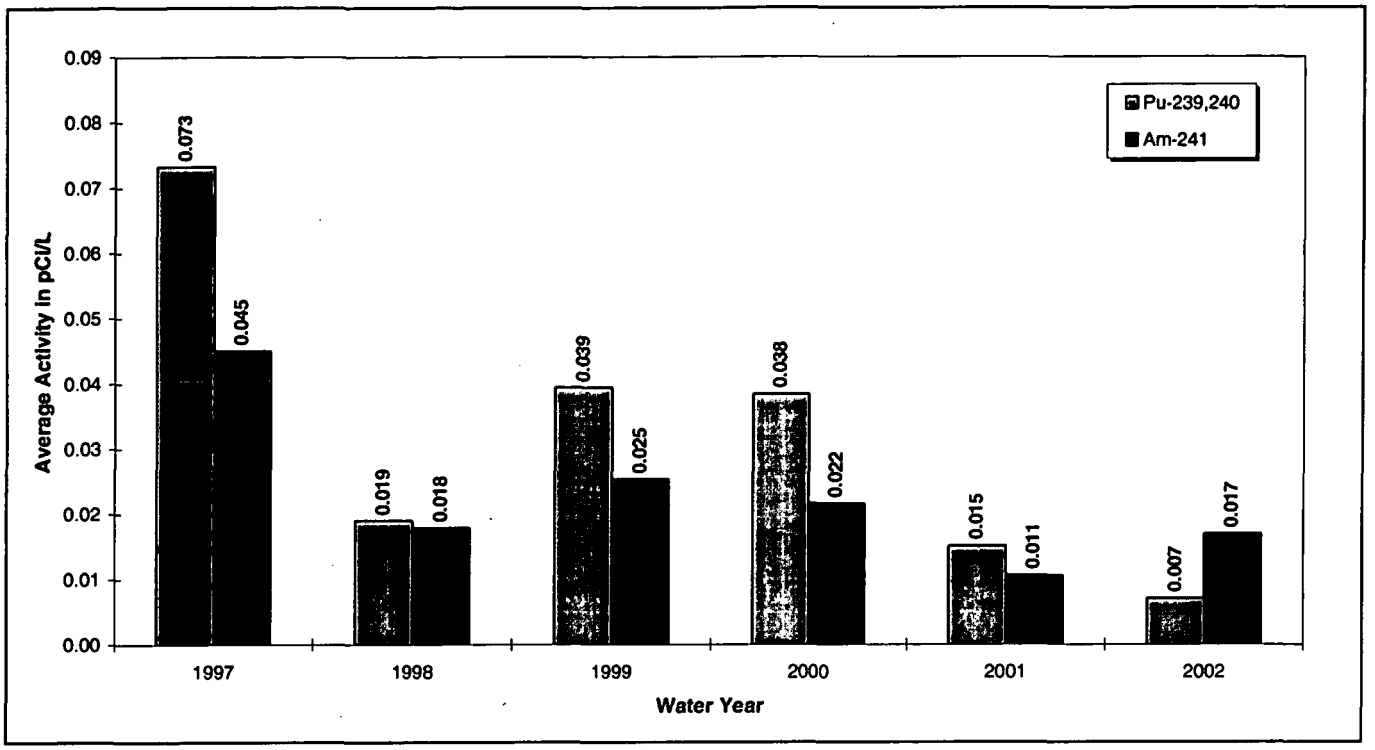


Figure 12-18. Annual Volume-Weighted Average Pu and Am Activities at SW093: WY97–02.

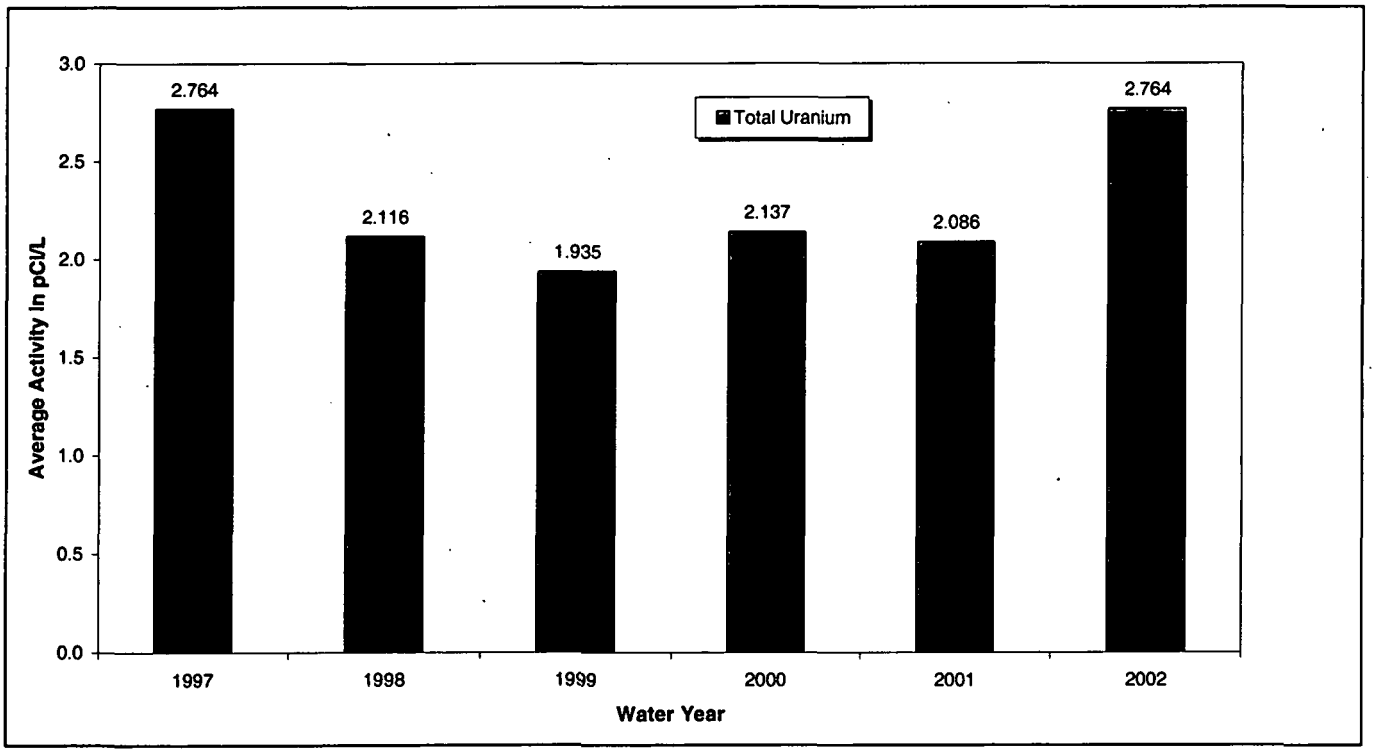
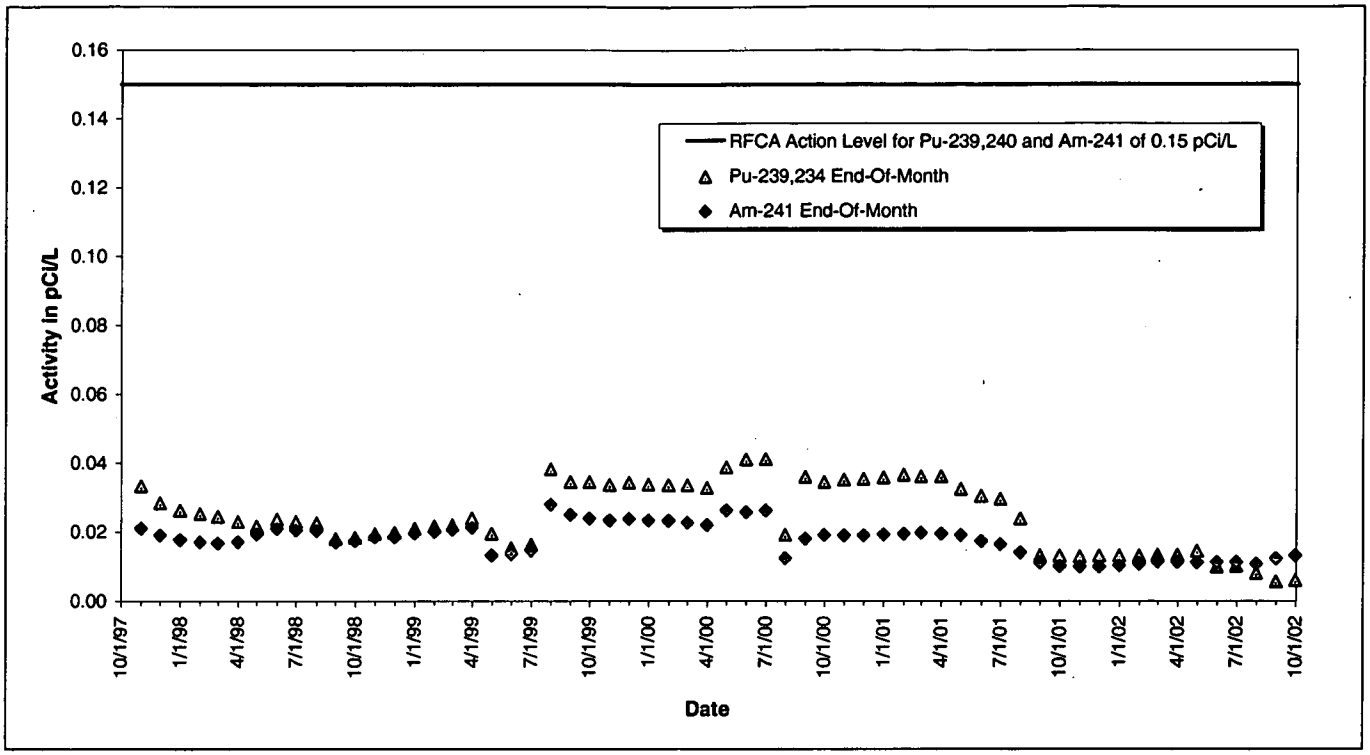


Figure 12-19. Annual Volume-Weighted Average Total Uranium Activities at SW093: WY97–02.



Note: The 365 calendar-day average activities are calculated for the last day of each month for the previous 365 days. The Action Level shown on this plot only applies to 30-day averages. It is shown here for reference only.

Figure 12-20. Volume-Weighted 365 Calendar-Day Average Pu and Am Activities at SW093: WY97–02.

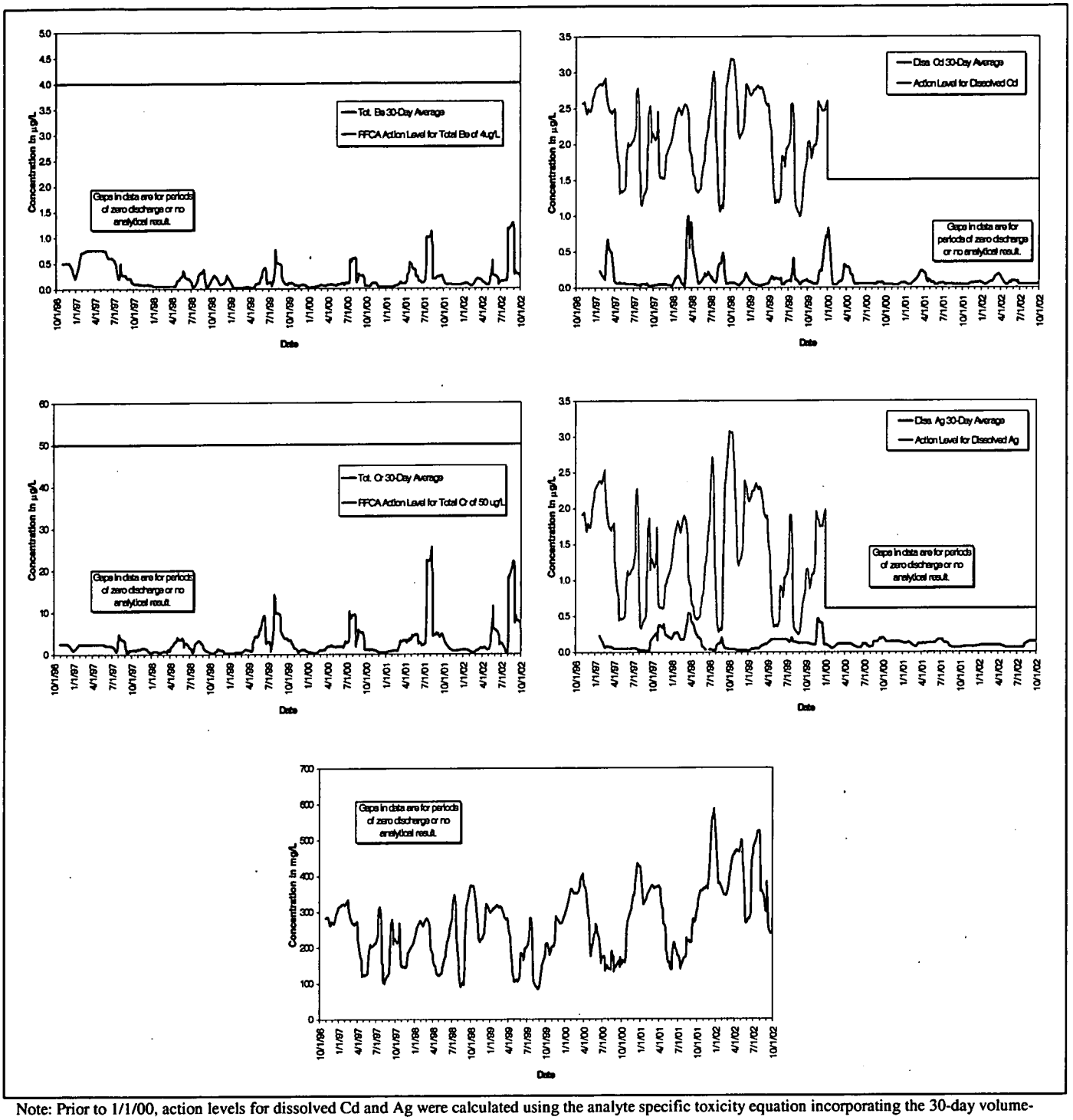
Table 12-14 shows that all of the annual average metals concentrations were less than the action level. Additionally, the long-term metals averages (WY97-01) were less than the action levels.

Figure 12-21 shows that none of the 30-day averages were reportable. The recent increases in the 30-day average hardness levels is likely the result of winter deicing operations and the WY00 change to new deicing products.

Table 12-14. Annual Volume-Weighted Average Hardness and Metals Concentrations at SW093 in WY97-02.

Water Year	Volume-Weighted Average Concentration (µg/L)				
	Hardness [mg/L]	Total Be	Dissolved Cd	Total Cr	Dissolved Ag
1997	172	0.57	0.09	2.79	0.06
1998	175	0.12	0.20	2.12	0.25
1999	151	0.21	0.10	5.16	0.14
2000	220	0.20	0.13	3.85	0.13
2001	239	0.36	0.07	6.38	0.12
2002	351	0.30	0.07	5.84	0.08
Total (WY97-02)	203	0.28	0.12	4.19	0.14

Note: Hardness units are mg/L.



Note: Prior to 1/1/00, action levels for dissolved Cd and Ag were calculated using the analyte specific toxicity equation incorporating the 30-day volume-weighted hardness values.

Figure 12-21. Volume-Weighted 30-Day Average Metals and Hardness Concentrations at SW093: WY97–02.

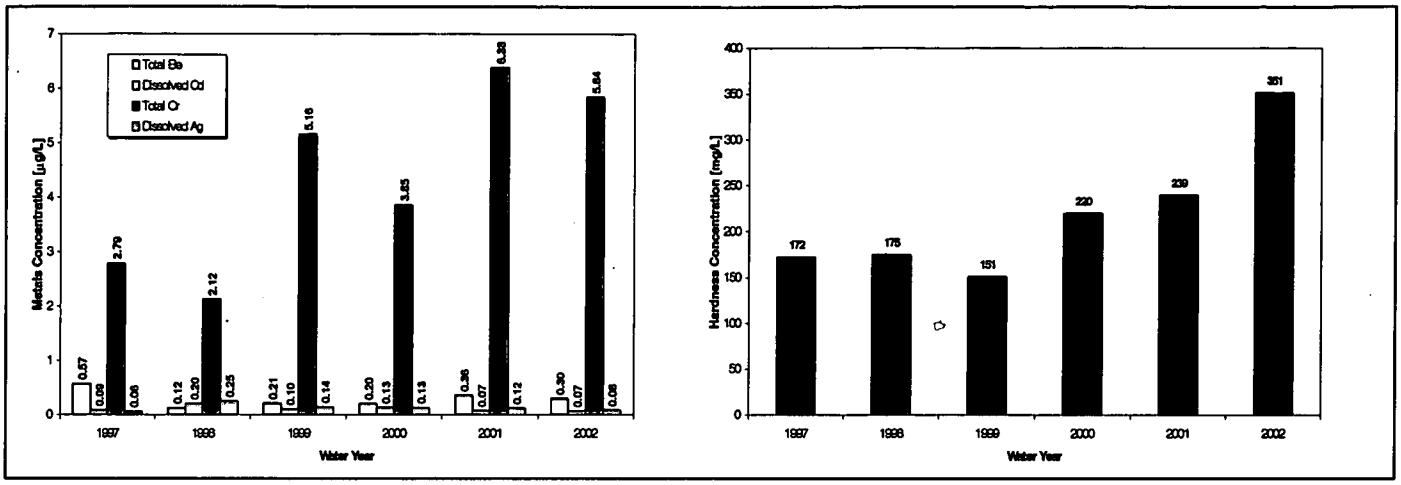


Figure 12-22. Annual Volume-Weighted Average Metals and Hardness Concentrations at SW093: WY97–02.

12.3.4 Location 995POE

Monitoring location 995POE is located at the B995 complex UV disinfection building on the WWTP effluent.

Table 12-15 shows that all of the annual average Pu and Am activity was less than 0.15 pCi/L. The total uranium average activity is well below 10 pCi/L, and the tritium activity is well below 500 pCi/L.

Figure 12-23 shows no reportable 30-day averages for Pu or Am. Figure 12-24 shows that the 30-day average for tritium was below reporting levels for the entire period. Finally, Figure 12-25 shows that the 30-day average for uranium was below reporting levels for the entire period.

Figure 12-27 shows the 365 calendar-day averages using a modified calculation method (see Appendix B.1: Data Evaluation Methods). It can be seen that by using this method the variability is 'dampened' by the longer evaluation period, and no values would be reportable using the current 0.15 pCi/L Action Level.

Table 12-15. Annual Volume-Weighted Average Radionuclide Activities at 995POE in WY01-02.

Water Year	Volume-Weighted Average Activity (pCi/L)			
	Am-241	*Pu-239,240*	*Tritium*	*Total Uranium*
2001	0.004	0.003	10	0.769
2002	0.004	0.003	42	0.233
Total (WY01-02)	0.004	0.003	25	0.515

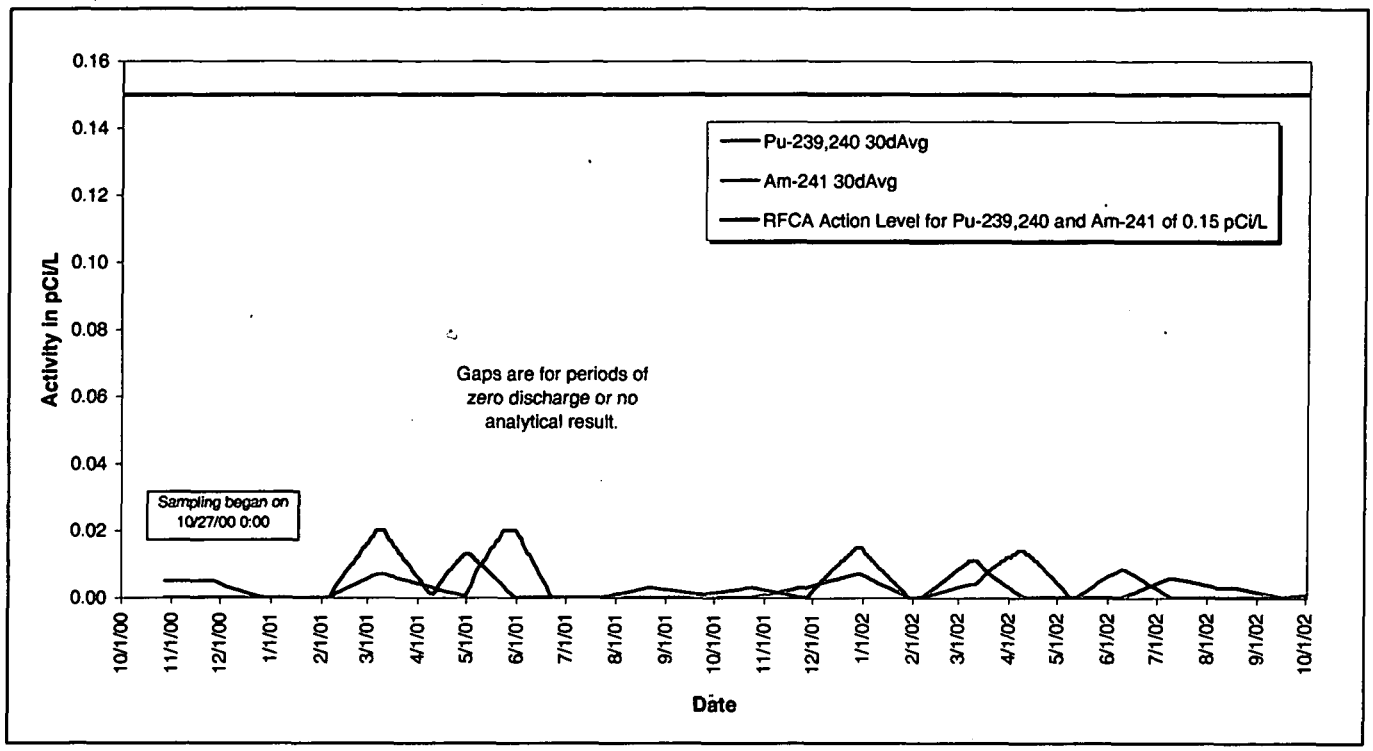


Figure 12-23. Volume-Weighted 30-Day Average Pu and Am Activities at 995POE: WY01-02.

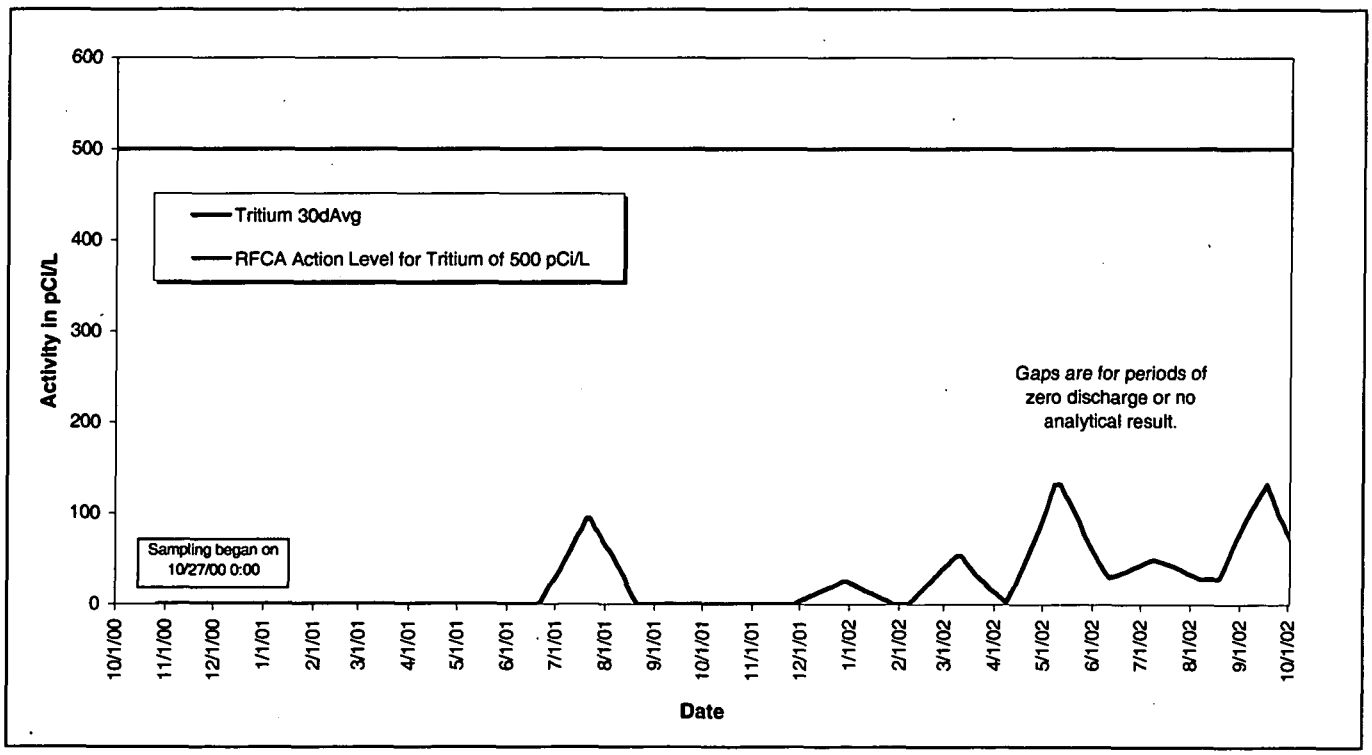


Figure 12-24. Volume-Weighted 30-Day Average Tritium Activities at 995POE: WY01-02.

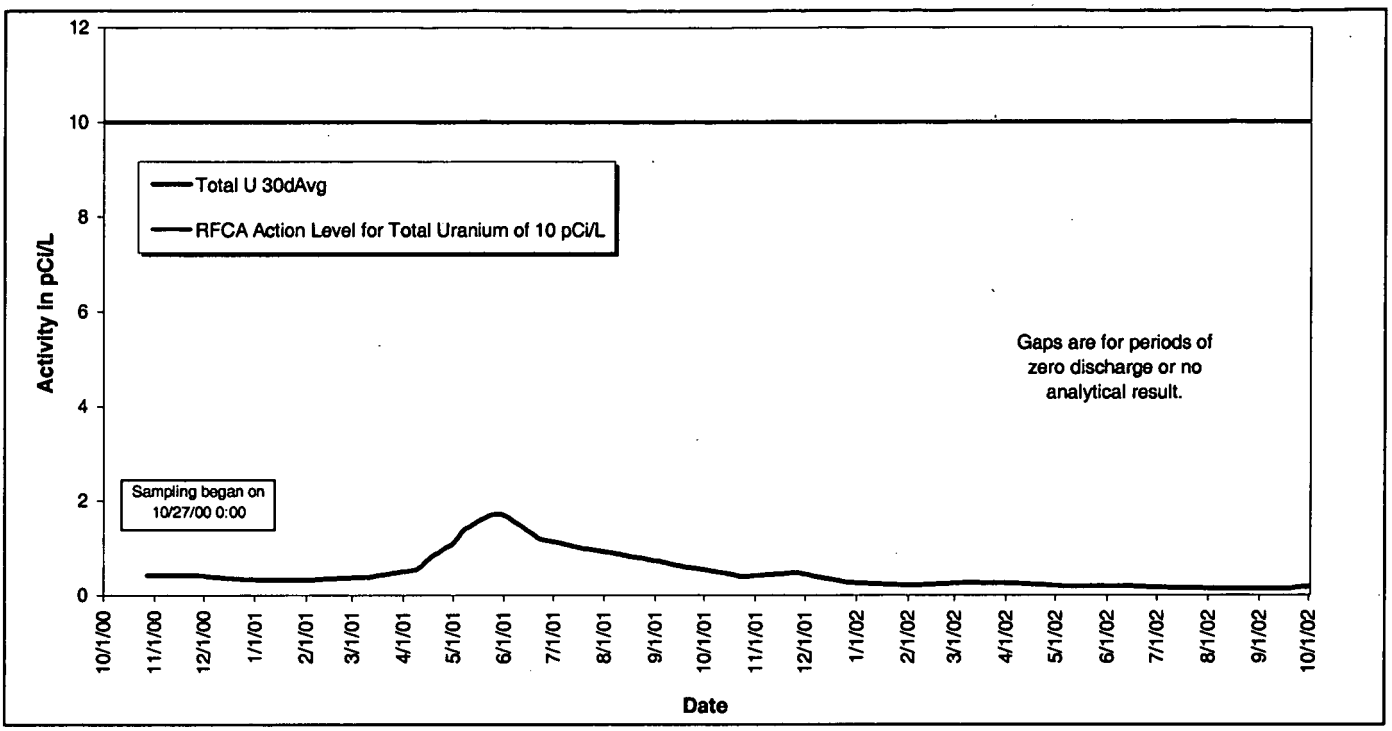


Figure 12-25. Volume-Weighted 30-Day Average Total Uranium Activities at 995POE: WY01-02.

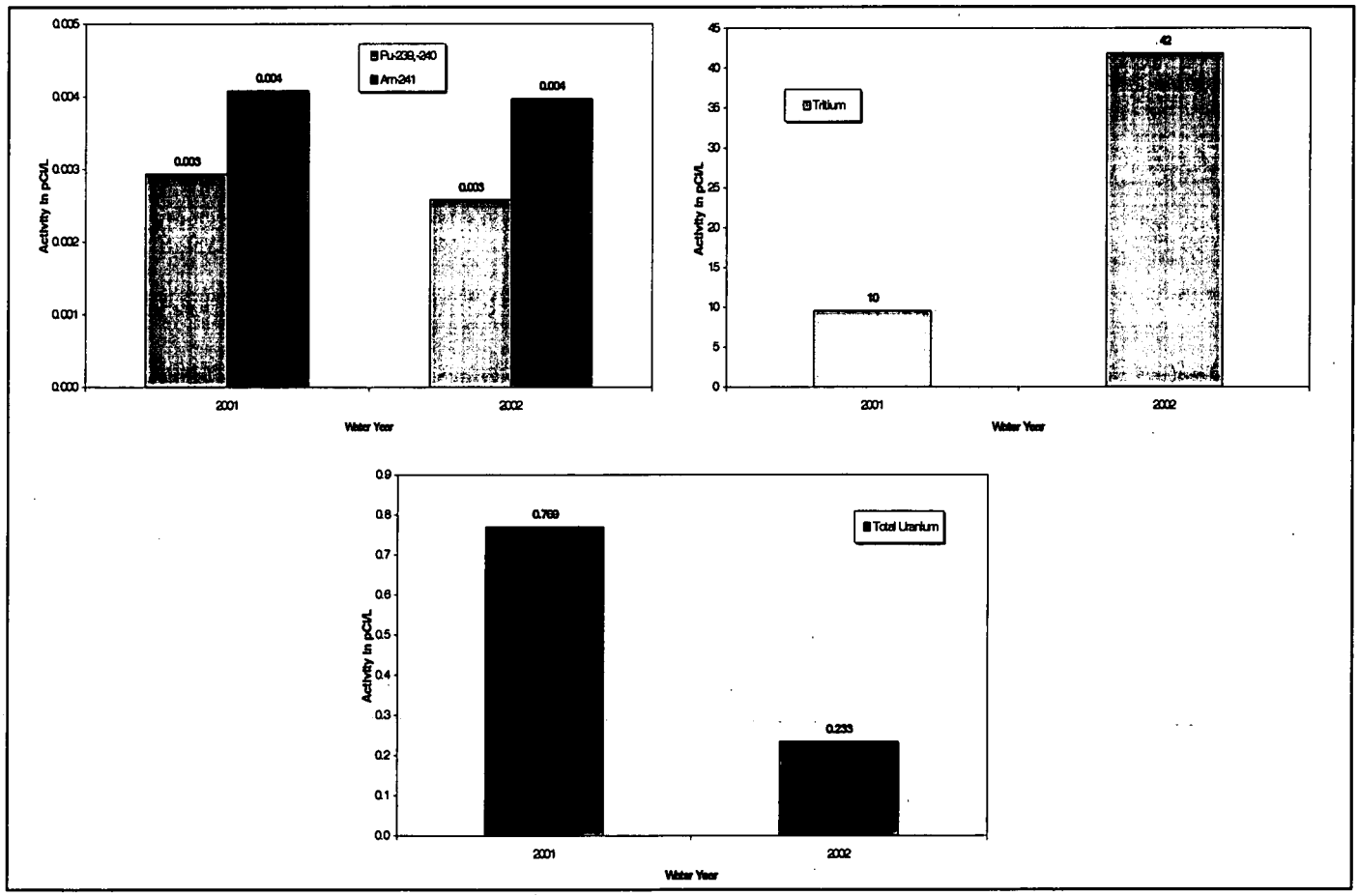


Figure 12-26. Annual Volume-Weighted Average Radionuclide Activities at 995POE: WY01-02.

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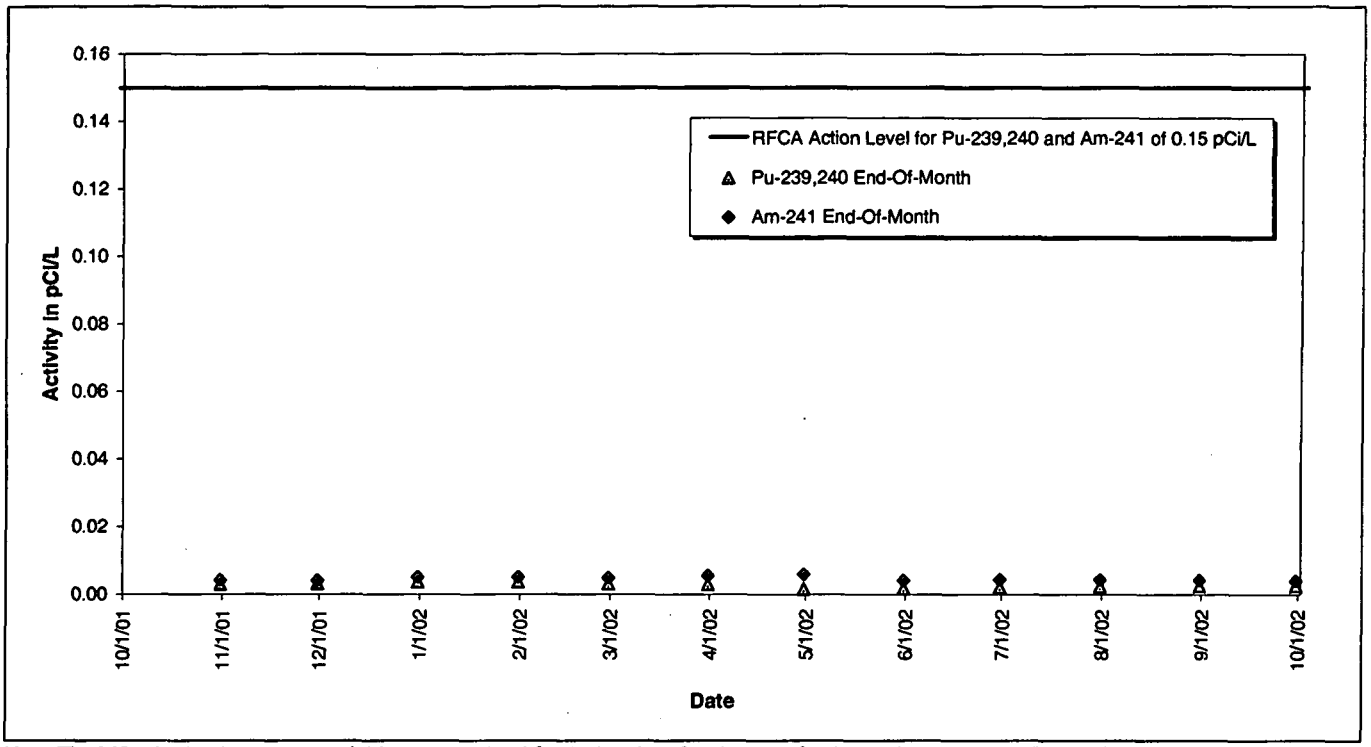


Note: The 365 calendar-day average activities are calculated for the last day of each month for the previous 365 days. The Action Level shown on this plot only applies to 30-day averages. It is shown here for reference only.

Figure 12-27. Volume-Weighted 365 Calendar-Day Average Pu and Am Activities at 995POE: WY02.

13.STREAM SEGMENT 4 POINT OF COMPLIANCE MONITORING

RFCA provides specific standards for Walnut and Woman Creeks below the terminal ponds (Segment 4). These criteria and the responses to them are different than the criteria and actions associated with Segment 5. This section deals only with monitoring discharges from the terminal ponds into Segment 4 and the additional POCs for Segment 4 at Indiana Street. Terminal pond discharges are monitored by POCs GS11, GS08, and GS31. Walnut Creek is monitored at Indiana Street by POC GS03. Woman Creek is monitored at Indiana Street by POC GS01. These locations are shown on Figure 13-1.

With the completion of the Woman Creek Reservoir, located just east of Indiana Street and operated by the city of Westminster, all Woman Creek flows are detained in cells of the reservoir until the water quality has been assured by monitoring of Woman Creek at Indiana Street. There is concern that solely monitoring Pond C-2 discharge does not adequately demonstrate that all water leaving the Site via Woman Creek is meeting the radiologic standards. All Woman Creek water, either combined with Pond C-2 discharge or flowing in the absence of any Pond C-2 water, enters the Woman Creek Reservoir. This is the basis for setting an additional RFCA POC for Woman Creek at Indiana Street (GS01) for those radiologic contaminants that could be directly attributable to the Site (i.e., not naturally occurring).

For Walnut Creek, a similar POC, GS03, has been established at Walnut Creek and Indiana Street. As for Woman Creek, it is possible that contaminated overland runoff or landfill drainage may enter Walnut Creek below the terminal pond monitoring points (GS11 and GS08), yet upstream of Indiana Street.

13.1 DATA TYPES, FREQUENCY, AND COLLECTION PROTOCOLS

The analytical decision inputs are those analytes specified as the Segment 4 AoIs (Table 13-1), as sampled at the POCs for Stream Segment 4. Monitoring performed for Stream Segment 4 is limited to POCs GS11, GS08, GS31, GS03, and GS01.

Sampling for AoIs at POCs is performed by collecting continuous flow-paced composite samples. The recommended monitoring design detailed in the IMP is to take samples for WY02 as specified in Table 13-4 and Table 13-5. Flow-paced monitoring is maintained at all times for all five POCs in Segment 4, although no samples are anticipated from terminal pond stations except during planned pond discharges.

Historically, terminal pond discharges occurred on average once per year for Pond C-2 and 9 times per year for A-4 and B-5 combined. Since the DQO process originally targeted 3 composite samples per discharge (for WY97), terminal pond POCs targeted 30 composite samples to be collected annually.

During WY97, all routine North and South Walnut Creek water was discharged from A-4 (B-5 was pump transferred to A-4, except during periods of high stormwater runoff). Starting in WY98, Pond B-5 began routine direct discharge to Walnut Creek, effectively dividing discharges to Walnut Creek between Ponds A-4 and B-5. Therefore, sampling protocols starting in WY98 were modified such that the total number of continuous flow-paced composite samples to be collected annually for discharges from both A-4 and B-5 would be comparable to the WY97 targets. For Fiscal Years 1993 through 1997, the total combined discharge volume for A-4 and B-5 was 687 Mgals in 43 discharge batches, or 16 Mgals per discharge batch on average. Targeting three composite samples per discharge gives one composite sample per 5.3 Mgals of discharge volume. This composite sample frequency (1 per 5.3 Mgals) will preserve the targeted sampling frequencies (based on discharge volume) while maintaining effective cost controls (based on total sample costs).

For FY02 planning purposes, 8 samples were to be collected from A-4, and 19 from B-5, resulting in the collection of the targeted 27 composite samples (see Table 13-5). This sample planning is also dependent on the routing for the WWTP effluent. Any future changes in the management of Walnut Creek water could result in sampling protocol modifications to preserve the initial intent of the DQO process.

Table 13-1. RFCA Segment 4 AoIs.

Terminal Pond POCs		
Radionuclides:	Total Pu-239,240	High level of public concern. Known carcinogen. Known past measurements (within the past 8 years) have exceeded RFCA Action Levels. This provides reasonable cause to expect future measurements in excess of RFCA Standards.
	Total U-233,234, U-235, U-238	Known renal toxicity. Present on Site. Past measurements provide reasonable cause to expect future measurements in excess of RFCA Standards.
	Total Am-241	Known carcinogen. Present on Site. Known past measurements have exceeded RFCA Action Levels. This provides reasonable cause to expect future measurements in excess of RFCA Standards.
Real Time Monitoring of Physical and Indicator Parameters: These parameters provide real-time alarms for a variety of regulated contaminants, and are also a required component of monitoring for AoIs. They require no laboratory analyses, and are the Site's *most cost effective defensive* monitoring.	pH	Extremes are toxic to humans and ecology. Regulatory concern due to chromic acid incident. *Real-time monitoring is inexpensive and* effective method of detecting acid spills such as (chromic acid or plutonium nitrate) or failure of treatment systems.
	Conductivity	Conductivity is an indicator of total dissolved ions, metals, anions, and pH. Real-time monitoring of conductivity is an inexpensive indicator of overall water quality.
	Turbidity	Turbidity is a general indicator of elevated contaminant levels, and may be correlated with Pu.
	Nitrate	Past releases near RFCA stream standards and action levels upstream of ponds provide reasonable cause to expect future releases in excess of RFCA stream standards and action levels. Certain discharges often include nitrate, and may challenge RFCA action levels.
	Flow	Required to detect flow events, pace automatic samplers, evaluate contaminant loads, and plan pond operations and discharges. Affects nearly every decision rule, and is the most commonly discussed attribute of Site surface waters.
Indiana Street POCs		
Radionuclides:	Total Pu-239,240	High level of public concern. Known carcinogen. Known past releases (within the past 8 years) have exceeded RFCA stream standards and action levels. This provides reasonable cause to expect future releases in excess of RFCA stream standards and action levels.
	Total Am-241	Known carcinogen. Present onsite. Known past exceedances provide reasonable cause to expect future releases in excess of RFCA stream standards and action levels.
	Tritium	Tritium is an AoI for the cities, due to the past release of tritium (1973).
Real Time Monitoring of Physical and Indicator Parameters:	Water-Quality Parameters	Indiana Street is not a point of compliance for the real-time monitoring parameters.
	Flow	Required to detect flow events, pace automatic samplers, and evaluate contaminant loads. Affects nearly every decision rule, and is the most commonly discussed attribute of Site surface waters.

The source(s) of the water sampled at the Indiana Street POCs (GS01 and GS03) must be determined prior to sample planning at these locations. Monitoring at GS01 and GS03 calls for samples to be segregated based on water origin (natural creek flows or terminal pond discharges commingled with natural flows).

POC GS01 targets 3 samples during each Pond C-2 discharge; storm runoff and baseflow samples are based on average annual volumes. During storm runoff and baseflow, the target at GS01 is one sample per 500,000 gallons, with a maximum of 3 samples during any one month (see Table 13-5). GS03 targets 27 samples during A-4 and B-5 discharges (GS03 collects the same number of composite samples as the terminal pond POCs for

each discharge). During storm runoff and baseflow periods between pond discharges, GS03 targets 2 composite samples every 15 days. The goal is to have at least 2 analytical results for any 30-day period for averaging purposes. The Site may combine samples of the same flow pacing to reduce analytical costs and avoid samples of non-sufficient quantity for analysis.

13.2 WY02 MONITORING SCOPE

Table 13-2. POC Monitoring Locations.

ID Code	Location	Primary Flow Measurement Device	Telemetry
GS11	Pond A-4 outlet works	24" Parshall Flume	Yes
GS08	Pond B-5 outlet works	24" Parshall Flume	Yes
GS31	Pond C-2 outlet works	24" Parshall Flume	Yes
GS03	Walnut Creek and Indiana St.	6" and 36" Parallel Parshall Flumes	Yes
GS01	Woman Creek and Indiana St.	9" Parshall Flume	Yes

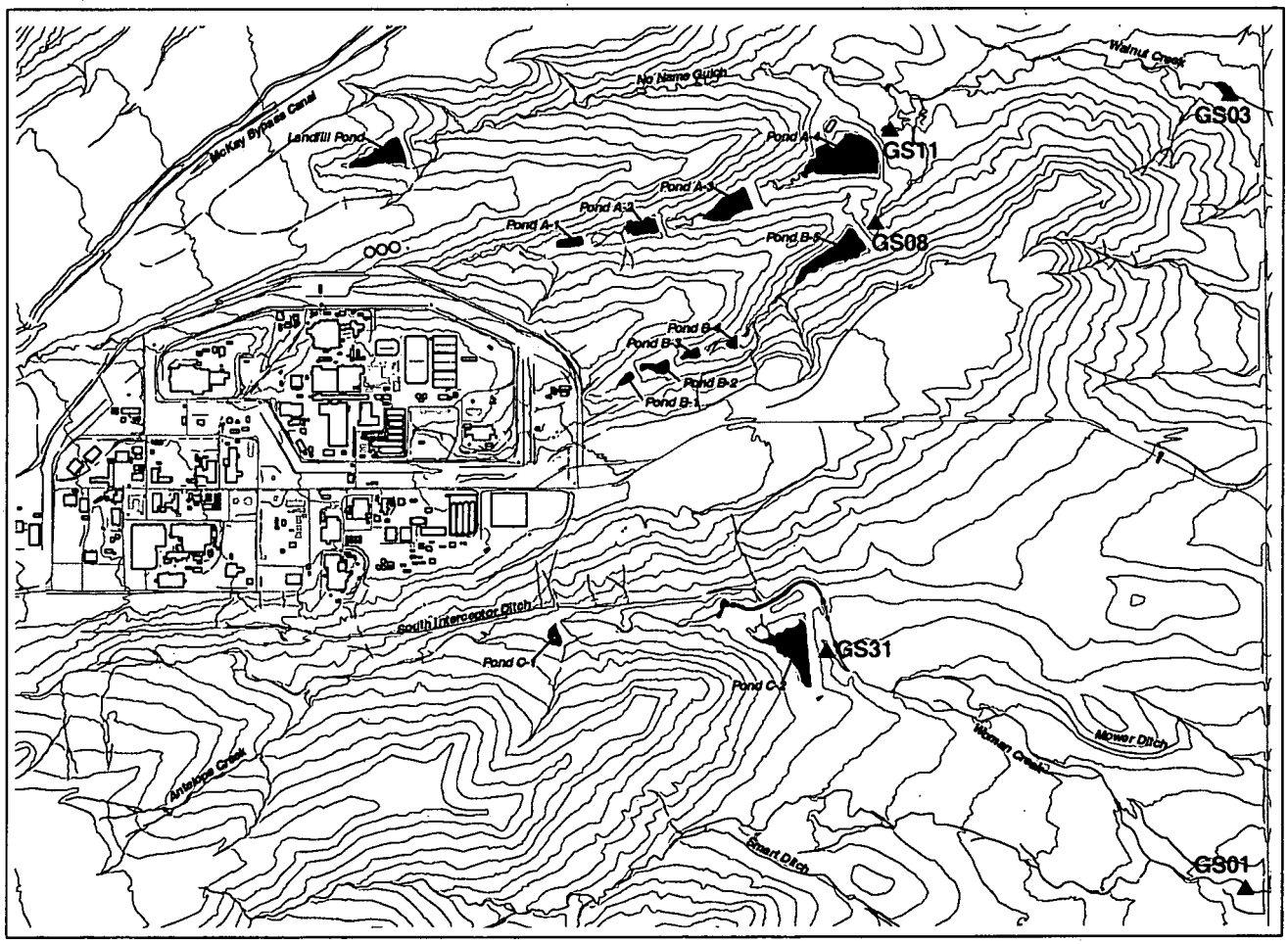


Figure 13-1. Water Year 2002 Point of Compliance Monitoring Locations.

Table 13-3. POC Field Data Collection: Parameters and Frequency.

ID Code	Parameter	
	Discharge	Real-Time pH, Conductivity, Turbidity, Nitrate
GS11	15-min continuous	15-min continuous
GS08	15-min continuous	15-min continuous
GS31	15-min continuous	15-min continuous
GS03	15-min continuous	None
GS01	15-min continuous	None

Note: All locations collect both 5- and 15-minute interval flow data.

Table 13-4. POC Sample Collection Protocols.

ID Code	Frequency: WY02 Actual (Target)	Type[b]
GS11	2 (8 per year[a])	Continuous flow-paced composites
GS08	15 (19 per year[a])	Continuous flow-paced composites
GS31	1 (3 per year[c])	Continuous flow-paced composites
GS03	20 (55 per year[a])	Continuous flow-paced composites
GS01	12 (28 per year[c])	Continuous flow-paced composites

Notes: [a] Assuming one composite sample per 5.3 Mgals of terminal pond discharge volume. Number may vary due to pond-water management activities.
[b] Sample types are defined in the RFETS Automated Surface-Water Monitoring Work Plan.
[c] Assumes one C-2 discharge per year; 3 composite samples per discharge.

Table 13-5. POC Target Sample Distribution.[56]

Time Period	Pond: WY02 Actual (Target)			Walnut Cr. at Indiana St. [GS03]: WY02 Actual (Target)	Woman Cr. at Indiana St. [GS01]: WY02 Actual (Target)	Total Number of Samples: WY02 Actual (Target)
	A-4 [GS11]	B-5 [GS08]	C-2 [GS31]			
During Discharge	2 (8[a])	15 (19[a])	1 (3[b])	17 (27[a])	0 (3[b])	35 (60)
Storm and Base Flow						
October 01	NA	NA	NA	1 (3)	0 (1)	1 (4)
November 01	NA	NA	NA	0 (2)	0 (1)	0 (3)
December 01	NA	NA	NA	0 (3)	2 (2)	2 (5)
January 02	NA	NA	NA	0 (2)	3 (2)	3 (4)
February 02	NA	NA	NA	1 (3)	2 (2)	3 (5)
March 02	NA	NA	NA	0 (2)	3 (3)	3 (5)
April 02	NA	NA	NA	0 (3)	1 (4)	1 (7)
May 02	NA	NA	NA	0 (2)	1 (4)	1 (6)
June 02	NA	NA	NA	0 (2)	0 (4)	0 (6)
July 02	NA	NA	NA	0 (3)	0 (1)	0 (4)
August 02	NA	NA	NA	0 (1)	0 (1)	0 (2)
September 02	NA	NA	NA	1 (2)	0 (0)	1 (2)
Annual Totals	2 (8)	15 (19)	1 (3)	20 (55)	12 (28)	50 (114)

Notes: [a] Assuming one composite sample per 5.3 Mgals of terminal pond discharge volume. Number may vary due to pond-water management activities.
[b] Assumes one C-2 discharge per year; 3 composite samples per discharge.
[c] GS01 and GS31 distribution based on PNNL recommendations; GS03 distribution based on average monthly number of day without a terminal pond discharge using historic data (period when neither A-4 nor B-5 direct discharged) assuming approximately one composite every 8 days.

[56] The number of samples collected at each pond depends on the amount of water discharged from each pond. Of the combined North and South Walnut Creek inflows, 65% flows to B-5 and 35% flows to A-4, on average. Depending on pond operation protocols, it is possible that no water could be direct discharged from Pond B-5, and no samples would be collected at GS08. All B-5 water would be pumped to A-4, and all POC samples for both A-4 and B-5 would then be collected at GS11. Regardless, the targeted 27 samples is specified for budget planning purposes.

Table 13-6. POC Analytical Targets (Analyses per Year).

ID Code	TSS[a]: WY02 Actual (Target)	Pu, U, Am: WY02 Actual (Target)	Pu, Am, Tritium: WY02 Actual (Target)
GS11	2 (8)	2 (8)	NA
GS08	8 (19)	15 (19)	NA
GS31	1 (3)	1 (3)	NA
GS03	9 (55)	NA	20 (55)
GS01	1 (28)	NA	12 (28)

Notes: [a] Ideally, TSS would be analyzed for all samples collected at the above locations. However, continuous flow-paced sampling protocols often result in composite samples which are collected over periods exceeding the 7-day hold time for TSS analyses. Therefore, TSS can not be analyzed for all continuous flow-paced composite samples, but will be analyzed when possible.

13.3 DATA EVALUATION

Sampling for AoIs at POCs is performed by collecting continuous flow-paced composite samples. Indicator parameters are measured using real-time water-quality probes. These AoIs and indicator parameters are evaluated using 30-day or 1-day moving averages, as specified in RFCA and implemented by the ALF or DQO working groups involving consensus of all parties to RFCA. Pu, Am, U, and tritium are evaluated using volume-weighted 30-day moving averages at POCs[57]. Indicator parameters pH and nitrate are evaluated as 1-day arithmetic averages. Indicators are not evaluated under this monitoring objective for the Indiana Street POCs.

The parties to RFCA agree that continuous monitoring probes will be used as indicators that may suggest a need for additional monitoring, mitigating action, or management decision. The parties agree that compliance and enforcement issues will be resolved on the basis of standard analytical procedures specified by the applicable regulation or agreement, e.g., NPDES, RFCA, or CERCLA. The parties agree that continuous monitoring field probes should NOT be used to determine compliance or serve as a basis for enforcement action, unless the applicable regulation specifies such a probe as the enforceable analytical method for a particular measurement.

Generally, analytical data evaluation is performed as data become available. If an initial qualitative screening indicates that an analytical result is higher than the standard for a particular AoI, then the 30-day average is calculated immediately. If the 30-day average values are reportable, then validation is requested for all data packages used in the calculation. The desired evaluation frequency is semi-monthly, within one week of the 15th and last day of any given month. RFCA requires that DOE, RFFO inform regulators within 15 days of DOE, RFFO gaining knowledge (not just a suspicion) that an exceedance (verified) has (actually) occurred.

IF The volume-weighted 30-day moving average for any AoI in Stream Segment 4, as represented by samples from the specified RFCA POCs (i.e., terminal pond discharges and Indiana Street) exceeds the appropriate RFCA standard (Table 13-8)

THEN The Site must:

— Notify EPA, CDPHE, and either Broomfield or Westminster, whichever is affected;

— Submit a plan and schedule to evaluate for source location, and implement mitigating action if appropriate; and

— The Site may receive a notice of violation.

[57] The 30-day average for a particular day is calculated as a volume-weighted average of a 'window' of time containing the previous 30-days which had both flow and an analytical result. Each day has its own discharge volume (measured at the location with a flow meter) and activity (analytical result from the sample in place at the end of that day). Therefore, there are 365 30-day moving averages for a location which flows all year (366 in a leap year). At locations which monitor pond discharges or have intermittent flows, 30-day averages are calculated as averages of the previous 30 days of greater than zero flow. For days where no activity is available, either due to failed lab analysis or NSQ for analysis, no 30-day average is reported. The calculation of 30-day averages is discussed in detail in Appendix B.1: Data Evaluation Methods.

Table 13-7. POC Monitoring Analytical Data Evaluation.

ID Code	Evaluation Type[a]
GS11	30-Day Volume-Weighted Moving Averages; Loading Analysis
GS08	30-Day Volume-Weighted Moving Averages; Loading Analysis
GS31	30-Day Volume-Weighted Moving Averages; Loading Analysis
GS03	30-Day Volume-Weighted Moving Averages; Loading Analysis
GS01	30-Day Volume-Weighted Moving Averages; Loading Analysis

Notes: [a] Details on the evaluation of analytical results are given in Appendix B.1: Data Evaluation Methods. Loading analysis for POCs is given in Section 5.

Table 13-8. POC Monitoring RFCA Standards.

Analyte	Standard
Am-241	0.15 pCi/L
Pu-239,240	0.15 pCi/L
Total Uranium	10 pCi/L (Walnut Cr.); 11 pCi/L (Woman Cr.)
Tritium	500 pCi/L

Note: The above standards only apply to 30-day average values. Comparisons to other values are provided for reference only.

The following sections include summary tables and plots showing the 30-day moving averages, periodic volume-weighted averages, and 365 calendar-day volume-weighted averages for the POC analytes.

The following evaluations include all results that were not rejected through the verification/validation process. When a sample has a corresponding field duplicate, the value used in calculations is the arithmetic average of the 'real' value and the 'duplicate'. When a sample has multiple 'real' analyses (Site requested 're-runs'), the value used in calculations is the arithmetic average of the multiple 'real' analyses. Total uranium is calculated by summing the activities for the analyzed isotopes (U-233,234 + U-235 + U-238).

The methods used for the evaluations are given in Appendix B.1: Data Evaluation Methods.

The loading analysis for the POCs is presented in Section 5.

Plots of mean daily water temperature, specific conductivity, pH, and turbidity values (terminal pond POCs only) are given below.[58] Plots of mean daily water temperature, specific conductivity, and pH for the Indiana Street POCs (GS01 and GS03) are given in Section 14: Non-POC Monitoring at Indiana Street. More detailed data for all parameters are presented in Appendix B.5.2. The methods used for the water-quality parameter evaluations are given in Appendix B.5: Real-Time Water-Quality Parameters.

13.3.1 Location GS01

Monitoring location GS01 is located on Woman Creek at Indiana Street. **Figure 3-8** shows the drainage area for GS01. The Woman Creek headwaters, the southern portion of the IA, and Pond C-2 contribute flow to GS01.

Table 13-9 shows that all of the annual average Pu and Am activities were well below 0.15 pCi/L. Additionally, the long-term Pu and Am averages (WY97-02) are well below 0.15 pCi/L. The average tritium activities are all well below 500 pCi/L.

Figure 13-2 and Figure 13-3 show no occurrences of reportable 30-day averages.

[58] Mean daily water-quality values are given for days of measurable flow. Some data may be missing due to equipment failures and removal for calibration.

Figure 13-6 shows the 365 calendar-day averages using a modified calculation method (see Appendix B.1: Data Evaluation Methods). It can be seen that by using this method the variability is 'dampened' by the longer evaluation period, and no values would be reportable using the current 0.15 pCi/L Standard.

Table 13-9. Annual Volume-Weighted Average Radionuclide Activities at GS01 in WY97-02.

Water Year	Volume-Weighted Average Activity (pCi/L)		
	Am-241	*Pu-239,-240*	*Tritium*
1997	0.003	0.010	70
1998	0.005	0.006	136
1999	0.005	0.008	107
2000	0.004	0.003	80
2001	0.004	0.006	11
2002	0.003	0.001	77
Total (WY97-02)	0.004	0.007	96

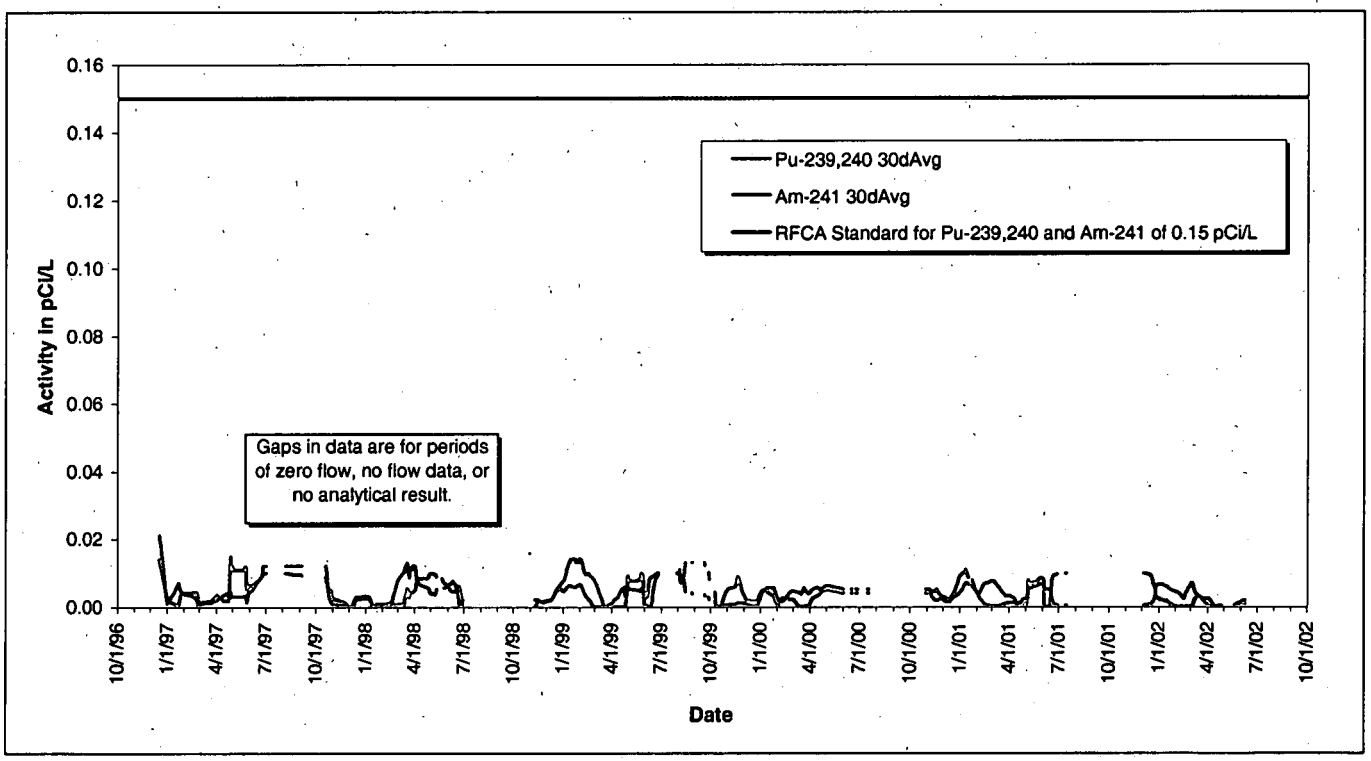


Figure 13-2. Volume-Weighted 30-Day Average Pu and Am Activities at GS01: WY97–02.

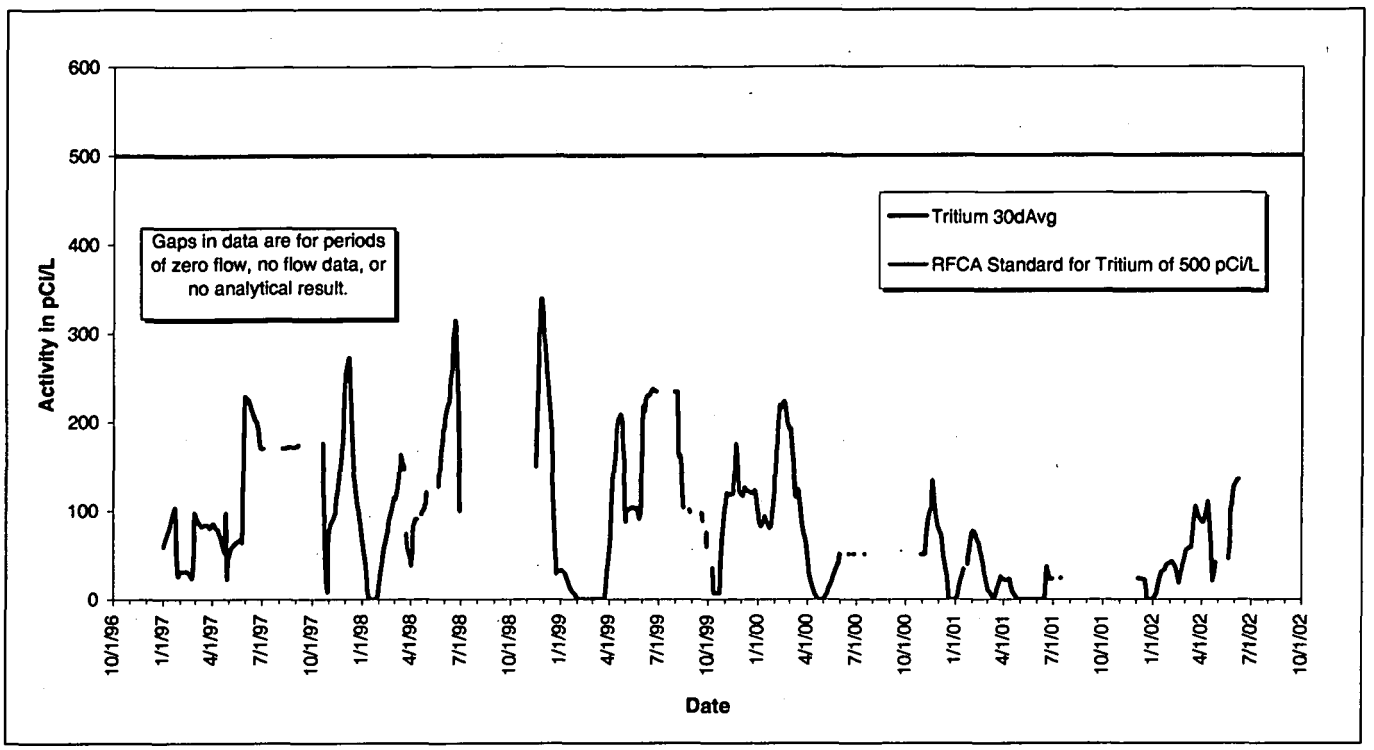


Figure 13-3. Volume-Weighted 30-Day Average Tritium Activities at GS01: WY97–02.

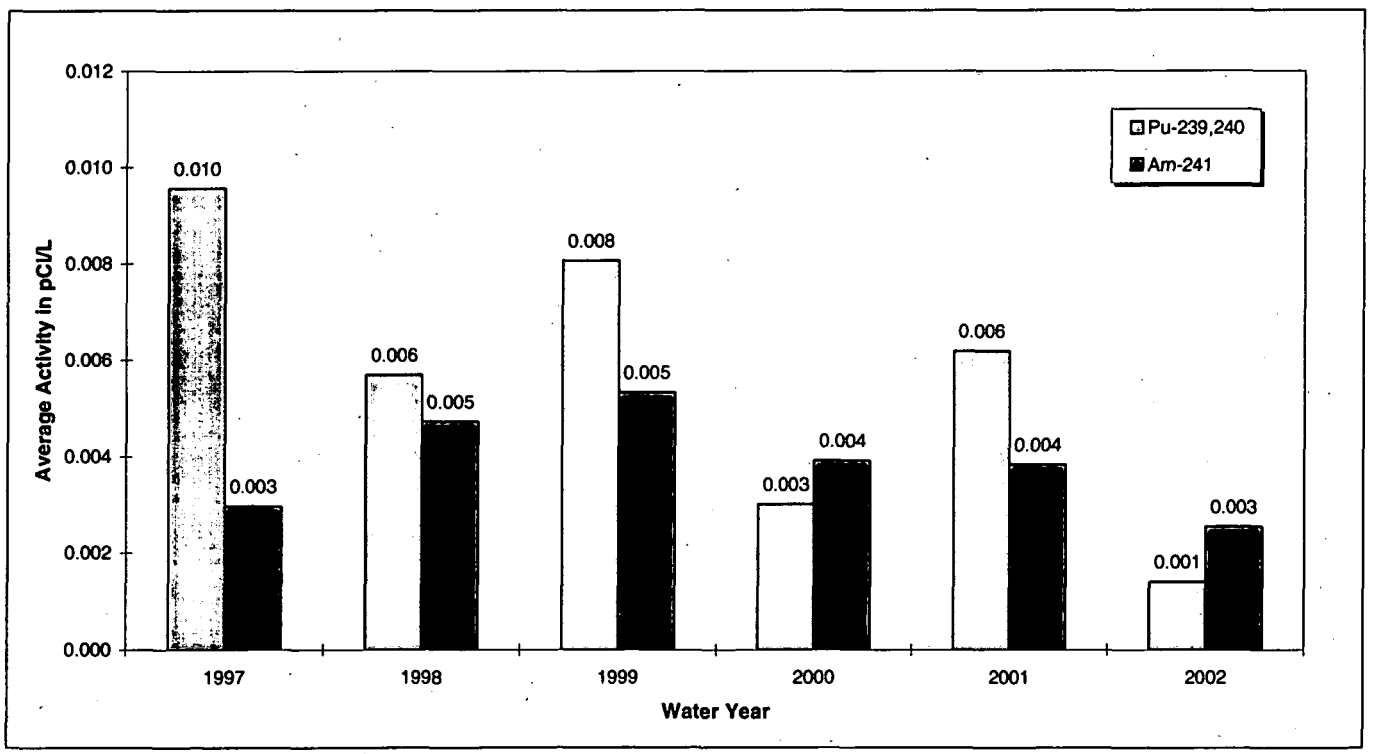


Figure 13-4. Annual Volume-Weighted Average Pu and Am Activities at GS01: WY97–02.

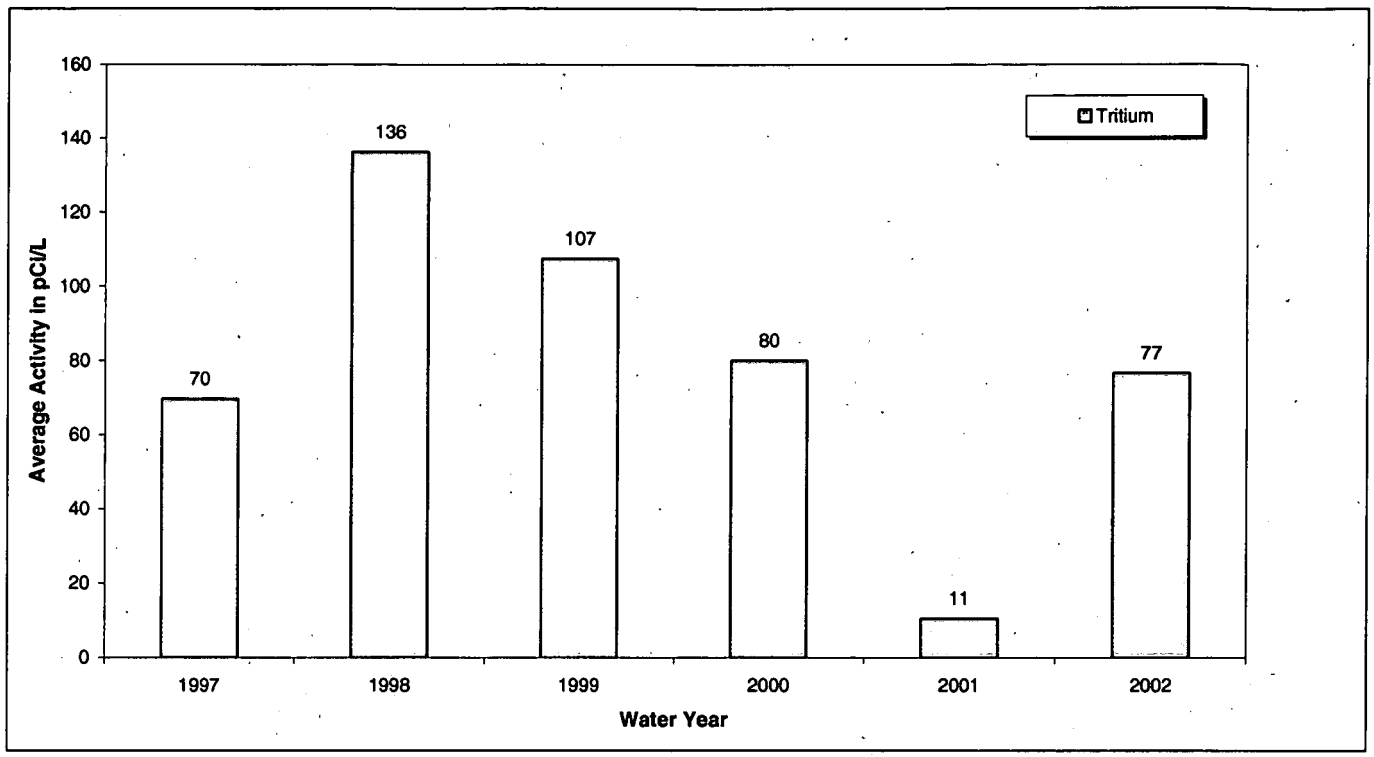
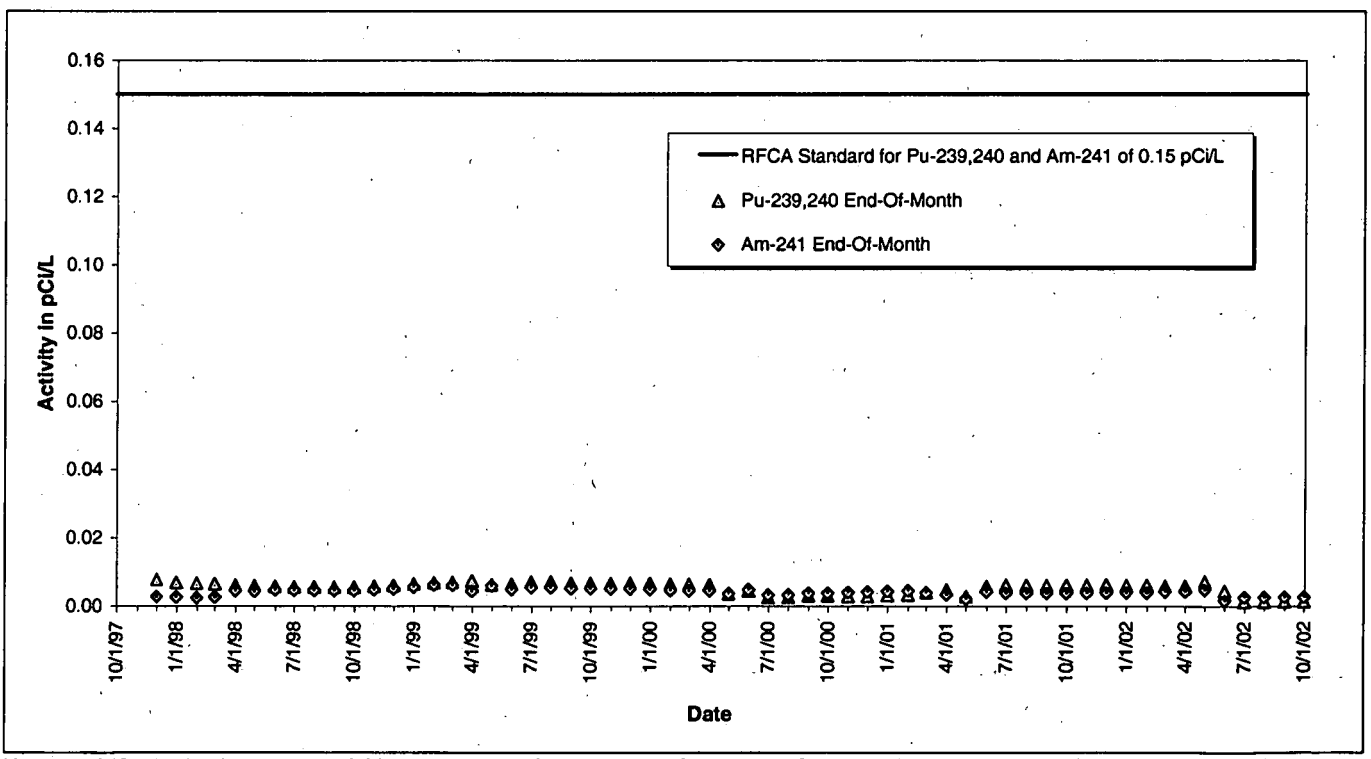


Figure 13-5. Annual Volume-Weighted Average Tritium Activities at GS01: WY97–02.



Note: The 365 calendar-day average activities are calculated for the last day of each month for the previous 365 days. The Standard shown on this plot only applies to 30-day averages. It is shown here for reference only.

Figure 13-6. Volume-Weighted 365 Calendar-Day Average Pu and Am Activities at GS01: WY97–02.

13.3.2 Location GS03

Monitoring location GS03 is located on Walnut Creek at Indiana Street. **Figure 3-14** shows the drainage area for GS03. The Walnut Creek headwaters, the majority of the IA, Pond A-4, and Pond B-5 contribute flow to GS03.

Table 13-10 shows that all of the annual average Pu and Am activities were well below 0.15 pCi/L. Additionally, the long-term Pu and Am averages (WY97-02) are well below 0.15 pCi/L. The average tritium activities are all well below 500 pCi/L.

Figure 13-7 and Figure 13-8 show no occurrences of reportable 30-day averages.

Figure 13-11 shows the 365 calendar-day averages using a modified calculation method (see Appendix B.1: Data Evaluation Methods). It can be seen that by using this method the variability is 'dampened' by the longer evaluation period, and no values would be reportable using the current 0.15 pCi/L Standard.

Table 13-10. Annual Volume-Weighted Average Radionuclide Activities at GS03 in WY97-02.

Water Year	Volume-Weighted Average Activity (pCi/L)		
	Am-241	*Pu-239,-240*	*Tritium*
1997	0.015	0.030	108
1998	0.009	0.012	167
1999	0.010	0.015	108
2000	0.007	0.005	71
2001	0.005	0.009	20
2002	0.004	0.012	56
Total (WY97-02)	0.009	0.015	106

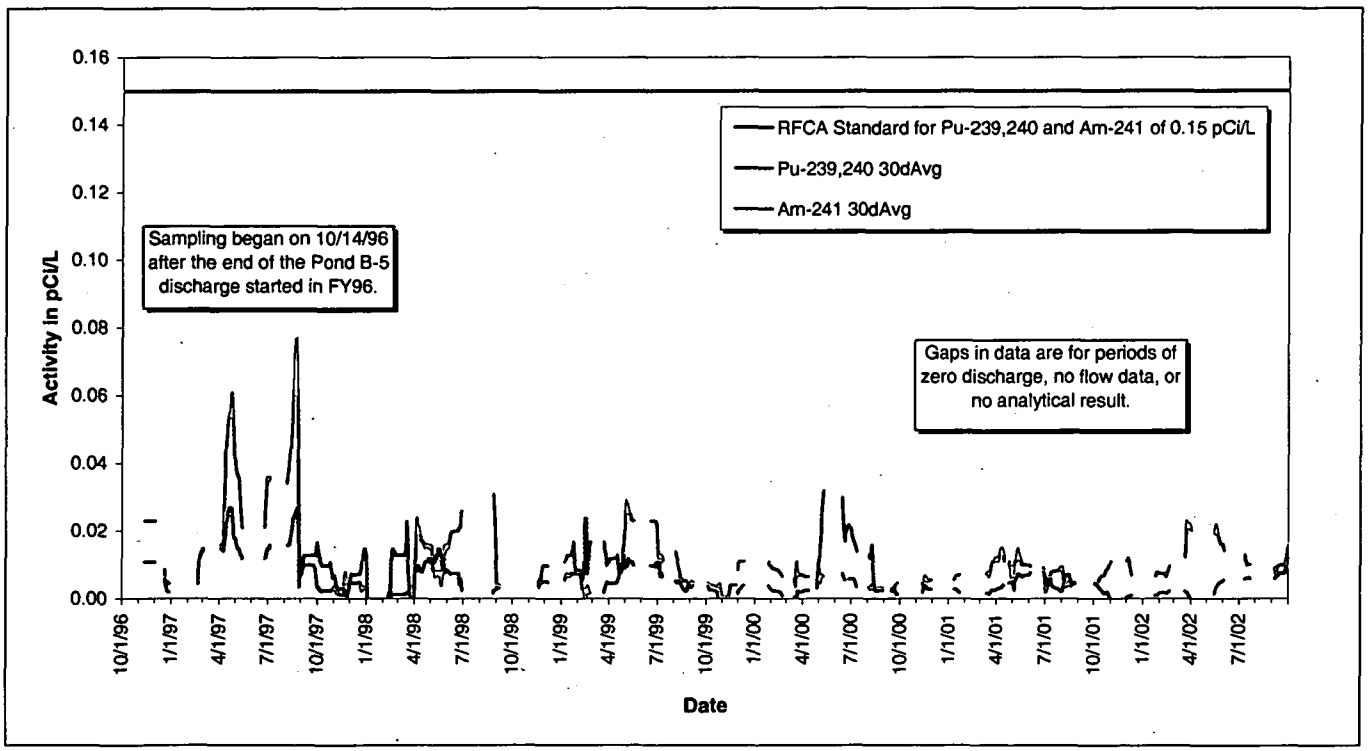


Figure 13-7. Volume-Weighted 30-Day Average Pu and Am Activities at GS03: WY97–02.

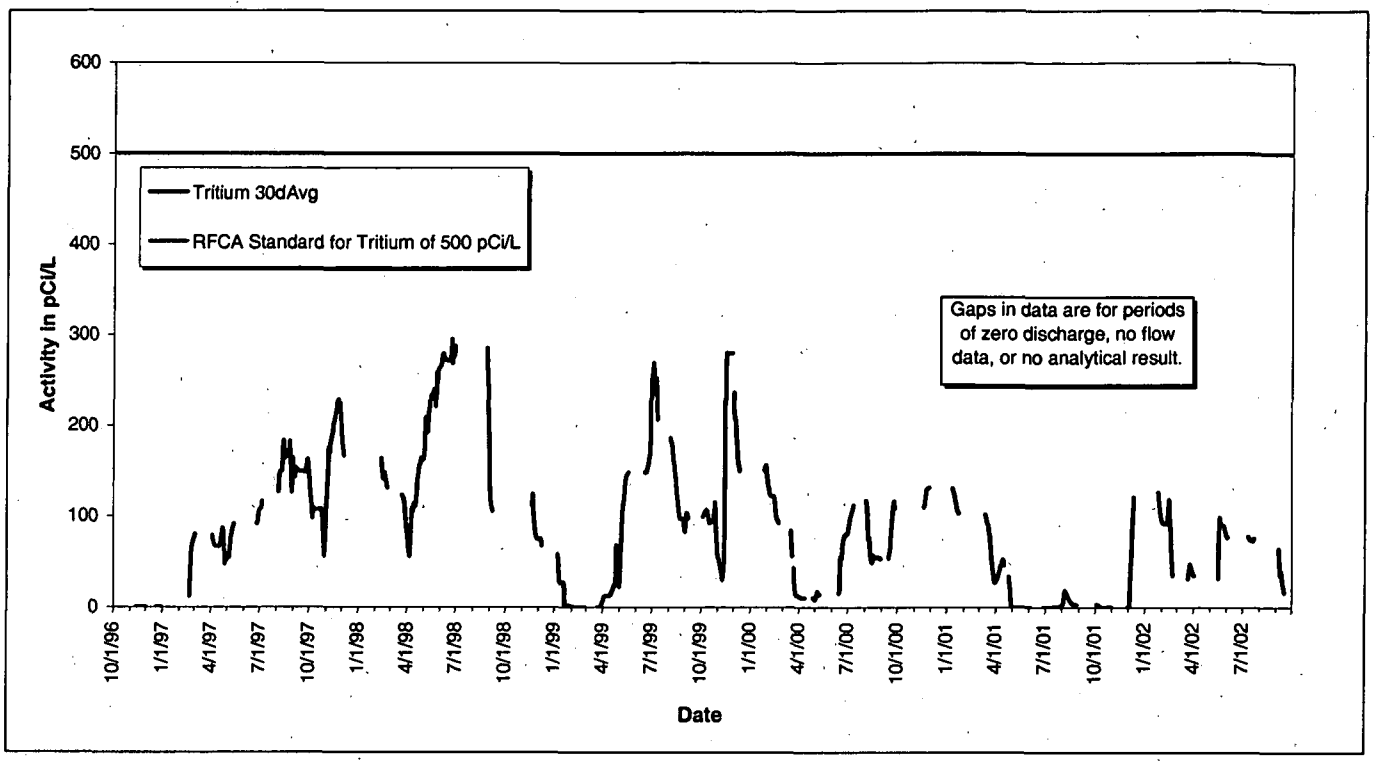


Figure 13-8. Volume-Weighted 30-Day Average Tritium Activities at GS03: WY97–02.

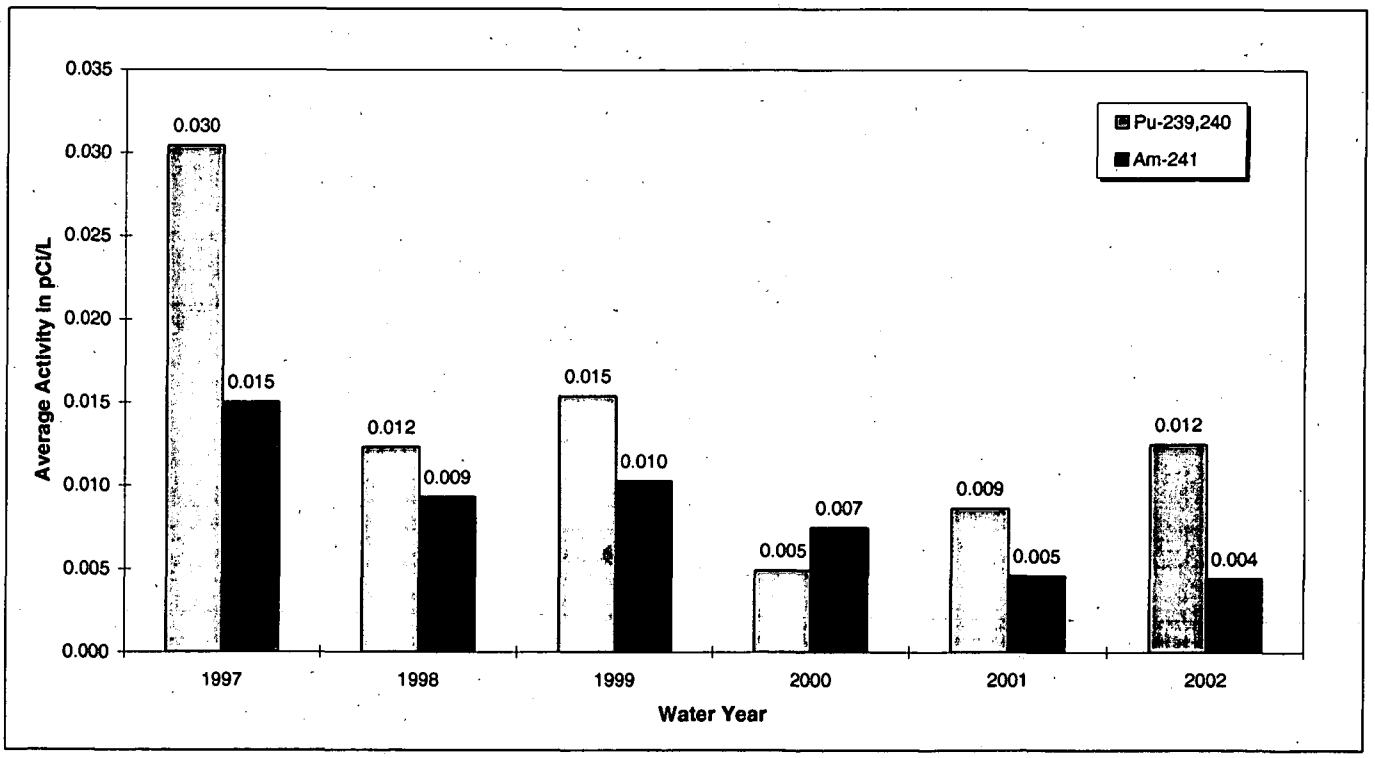


Figure 13-9. Annual Volume-Weighted Average Pu and Am Activities at GS03: WY97–02.

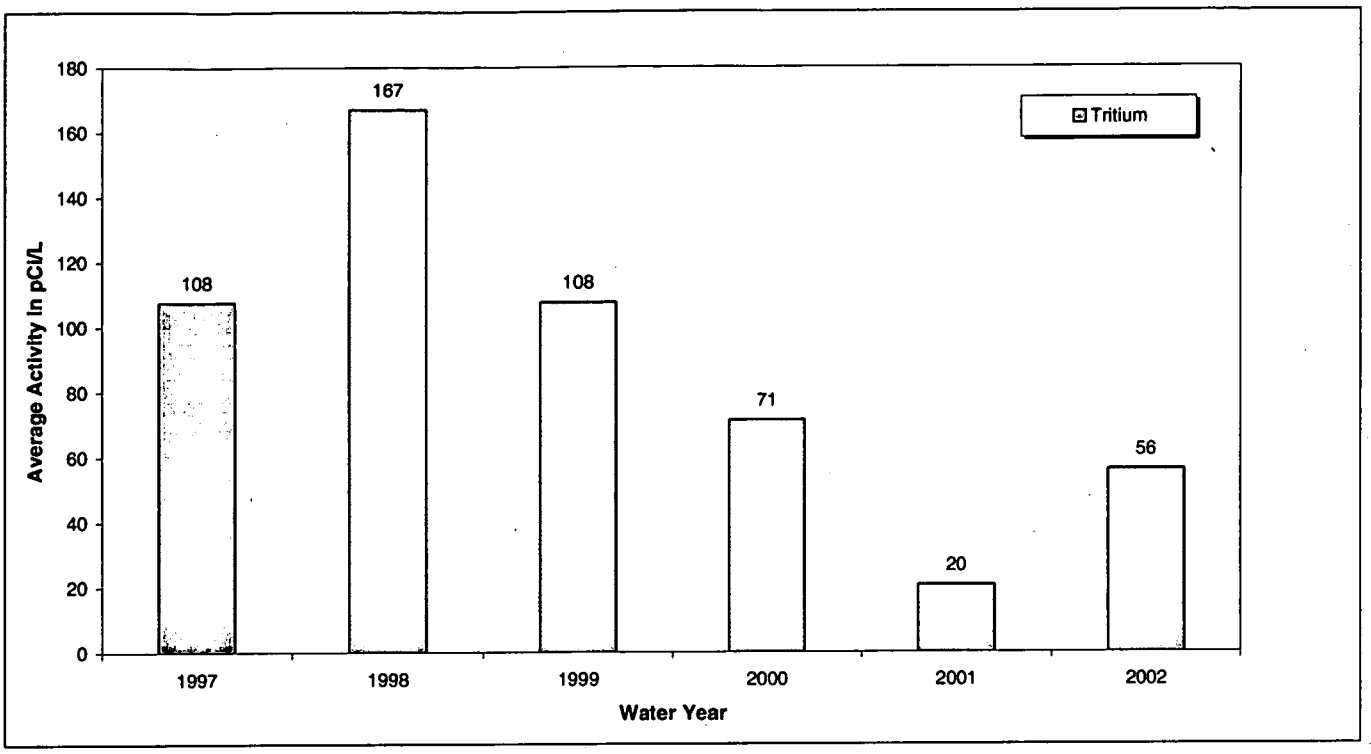
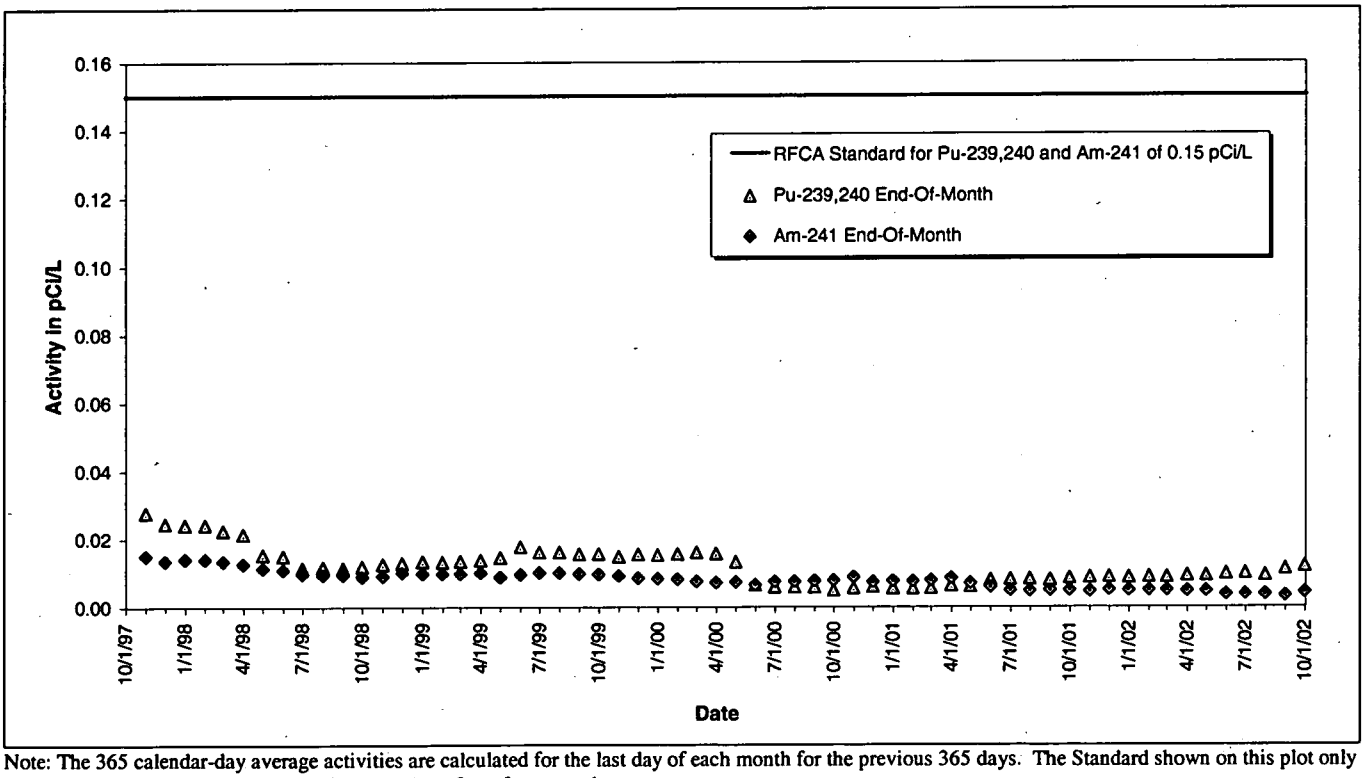


Figure 13-10. Annual Volume-Weighted Average Tritium Activities at GS03: WY97–02.



Note: The 365 calendar-day average activities are calculated for the last day of each month for the previous 365 days. The Standard shown on this plot only applies to 30-day averages. It is shown here for reference only.

Figure 13-11. Volume-Weighted 365 Calendar-Day Average Pu and Am Activities at GS03: WY97–02.

13.3.3 Location GS08

Monitoring location GS08 is located on South Walnut Creek at the outlet of Pond B-5. **Figure 3-26** shows the drainage area for GS08. The central portion of the IA contributes flow to GS08.

Table 13-11 shows that all of the annual average Pu and Am activities were below 0.15 pCi/L. Additionally, the long-term Pu and Am averages (WY97-02) are well below 0.15 pCi/L. The average uranium activities are all well below 10 pCi/L.

Figure 13-12 and Figure 13-13 show no occurrences of reportable 30-day averages. However, between 9/14/00 and 11/24/00 five values of 0.15 pCi/L Pu were calculated. Although not required to perform a source evaluation, the Site did produce a report. The *Source Evaluation Report for RFCA Point of Compliance GS08: Water Years 2000-2001* (RMRS, 2001c) was completed in May 2001.

Figure 13-16 shows the 365 calendar-day averages using a modified calculation method (see Appendix B.1: Data Evaluation Methods). It can be seen that by using this method the variability is 'dampened' by the longer evaluation period, and no values would be reportable using the current 0.15 pCi/L Standard.

Table 13-11. Annual Volume-Weighted Average Radionuclide Activities at GS08 in WY97-02.

Water Year	Volume-Weighted Average Activity (pCi/L)		
	Am-241	*Pu-239,-240*	*Total Uranium*
1997	0.007	0.008	1.740
1998	0.007	0.008	2.263
1999	0.020	0.061	1.451
2000	0.025	0.041	1.002
2001	0.005	0.007	1.265
2002	0.003	0.003	0.751
Total (WY97-02)	0.013	0.024	1.292

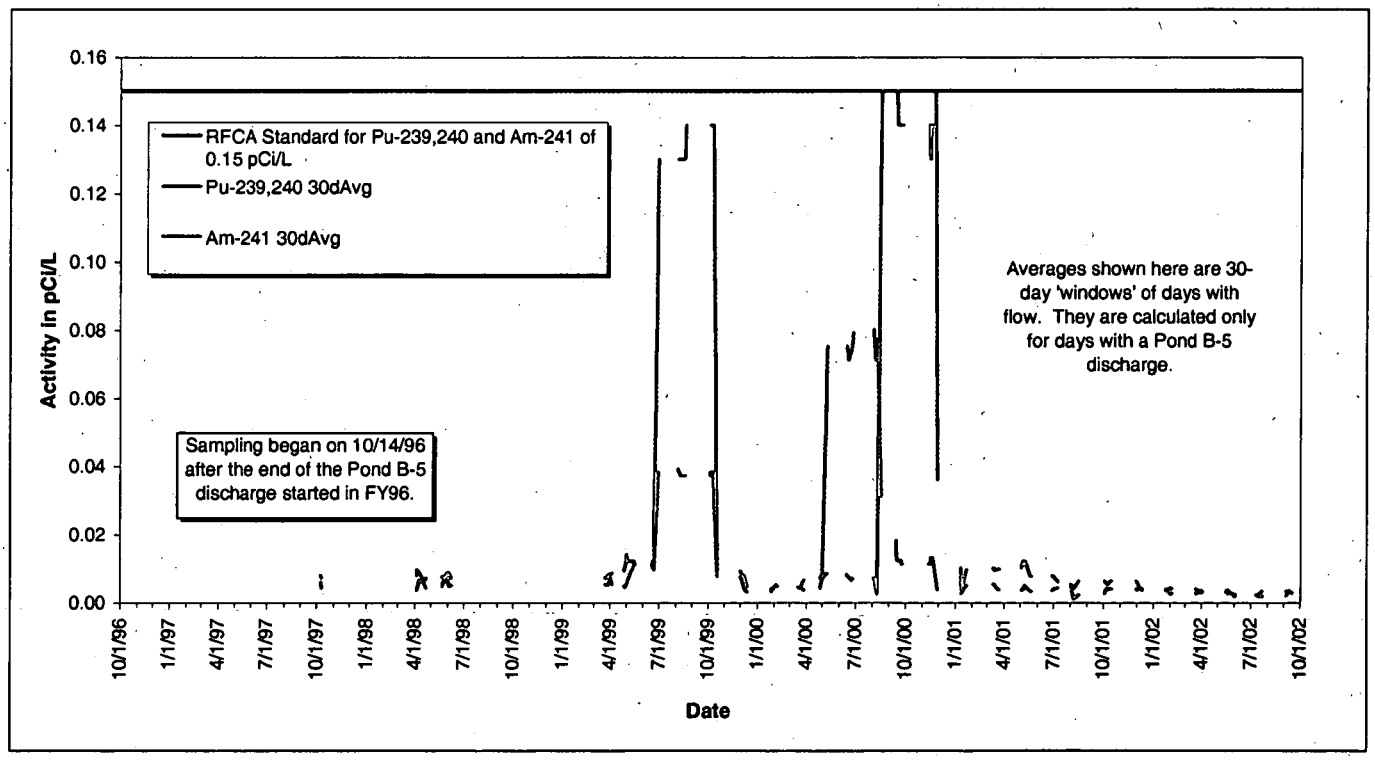


Figure 13-12. Volume-Weighted 30-Day Average Pu and Am Activities at GS08: WY97–02.

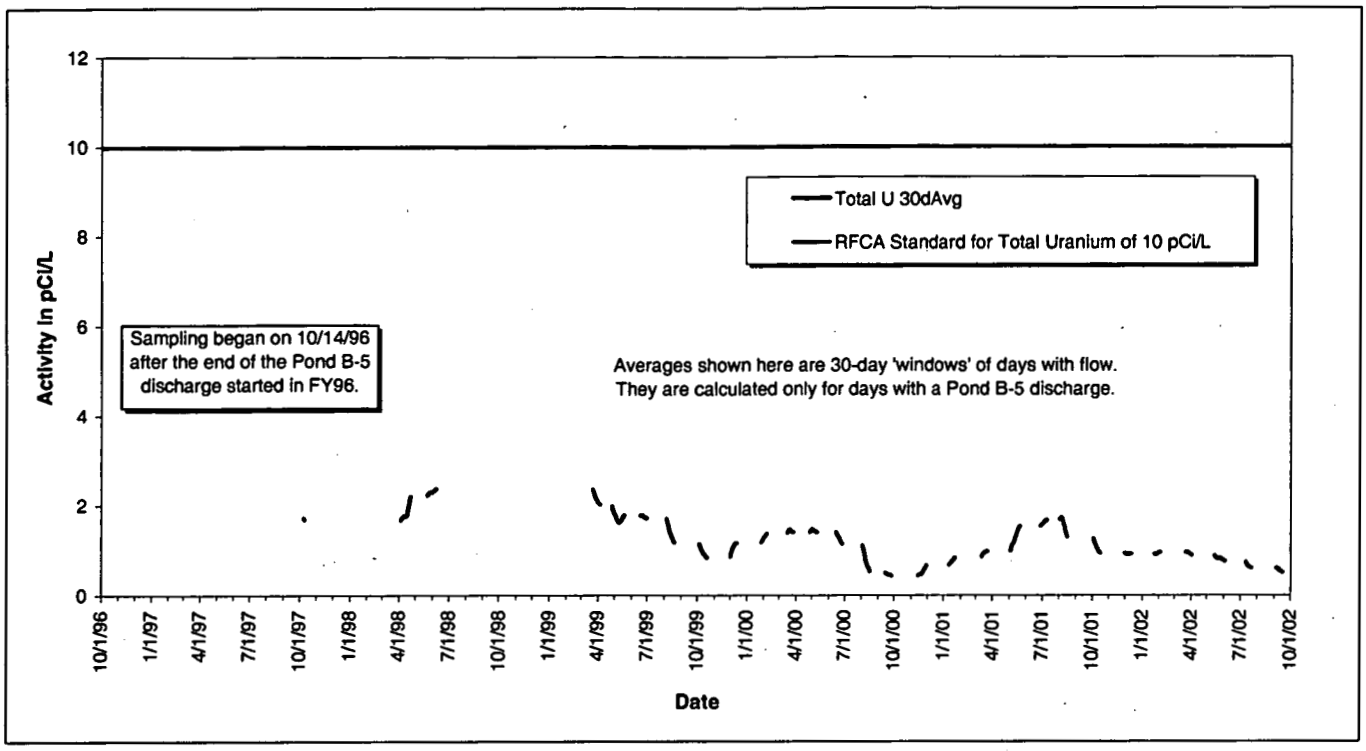


Figure 13-13. Volume-Weighted 30-Day Average Total Uranium Activities at GS08: WY97–02.

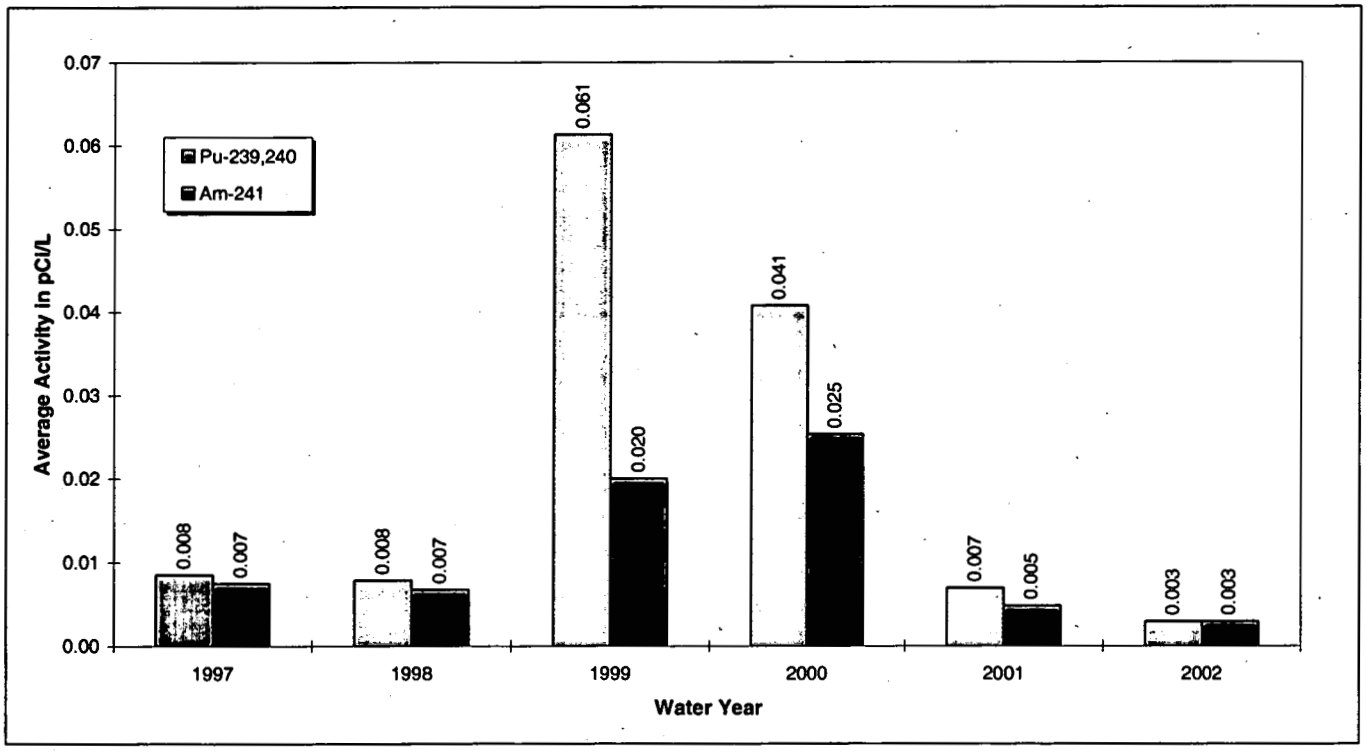


Figure 13-14. Annual Volume-Weighted Average Pu and Am Activities at GS08: WY97–02.

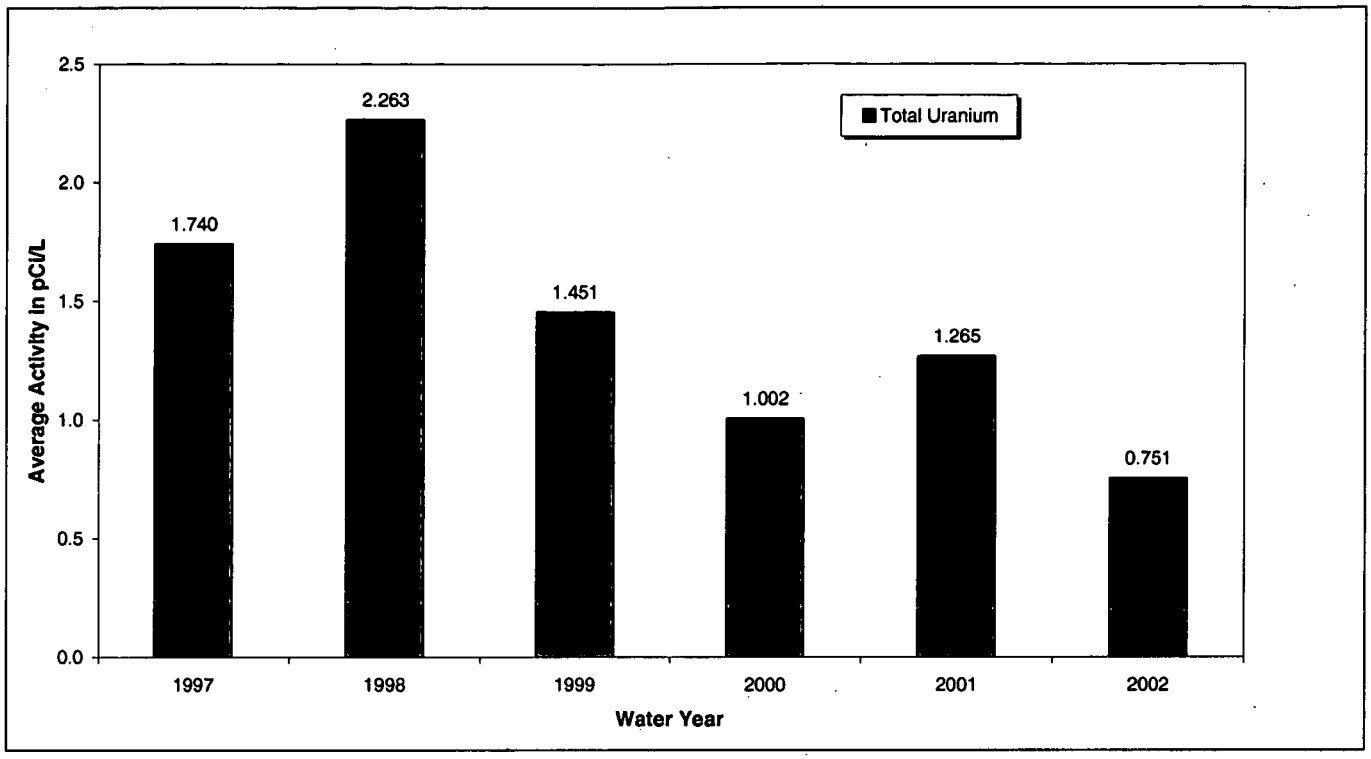
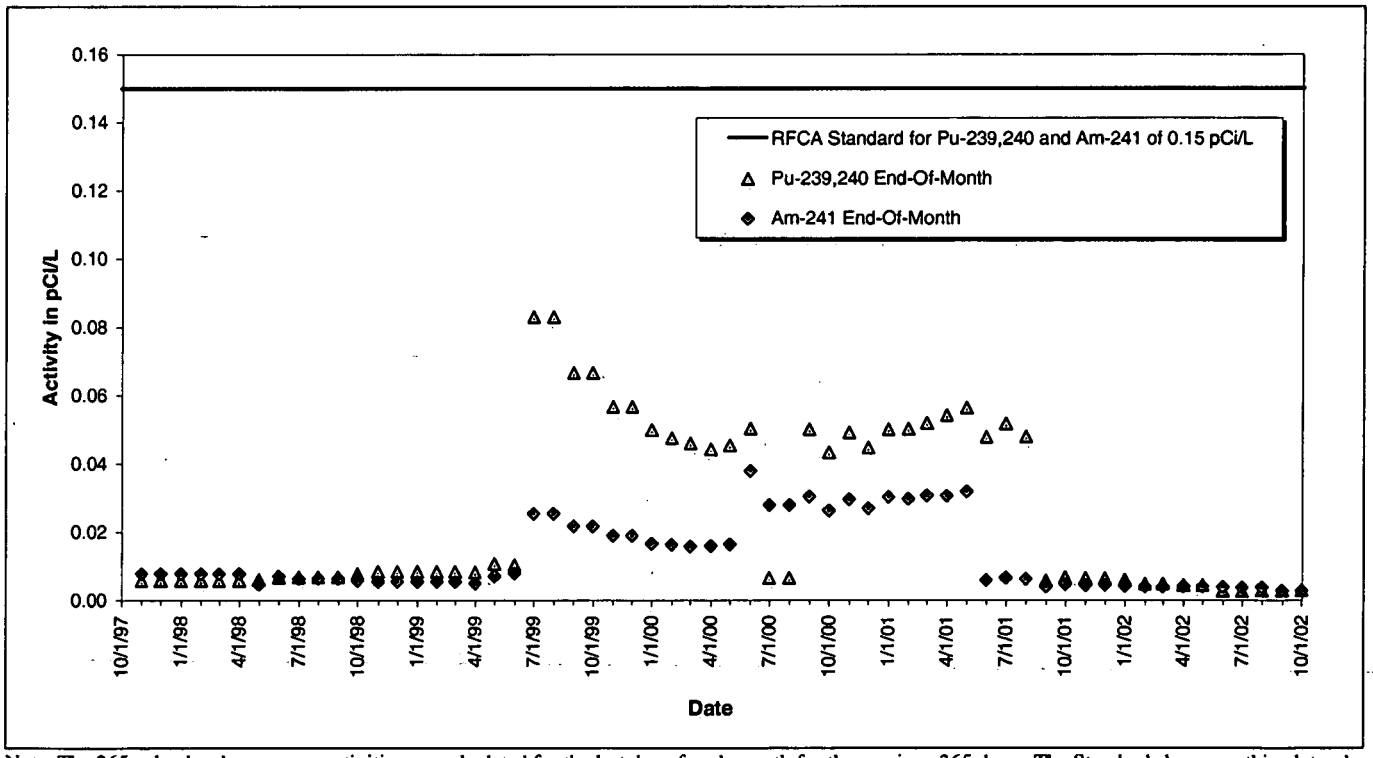


Figure 13-15. Annual Volume-Weighted Average Total Uranium Activities at GS08: WY97–02.



Note: The 365 calendar-day average activities are calculated for the last day of each month for the previous 365 days. The Standard shown on this plot only applies to 30-day averages. It is shown here for reference only.

Figure 13-16. Volume-Weighted 365 Calendar-Day Average Pu and Am Activities at GS08: WY97–02.

Mean daily water-quality parameter data are plotted in Figure 13-17 through Figure 13-24 along with the mean daily flow rate. Figure 13-17 and Figure 13-18 show the expected annual variation in water temperature.

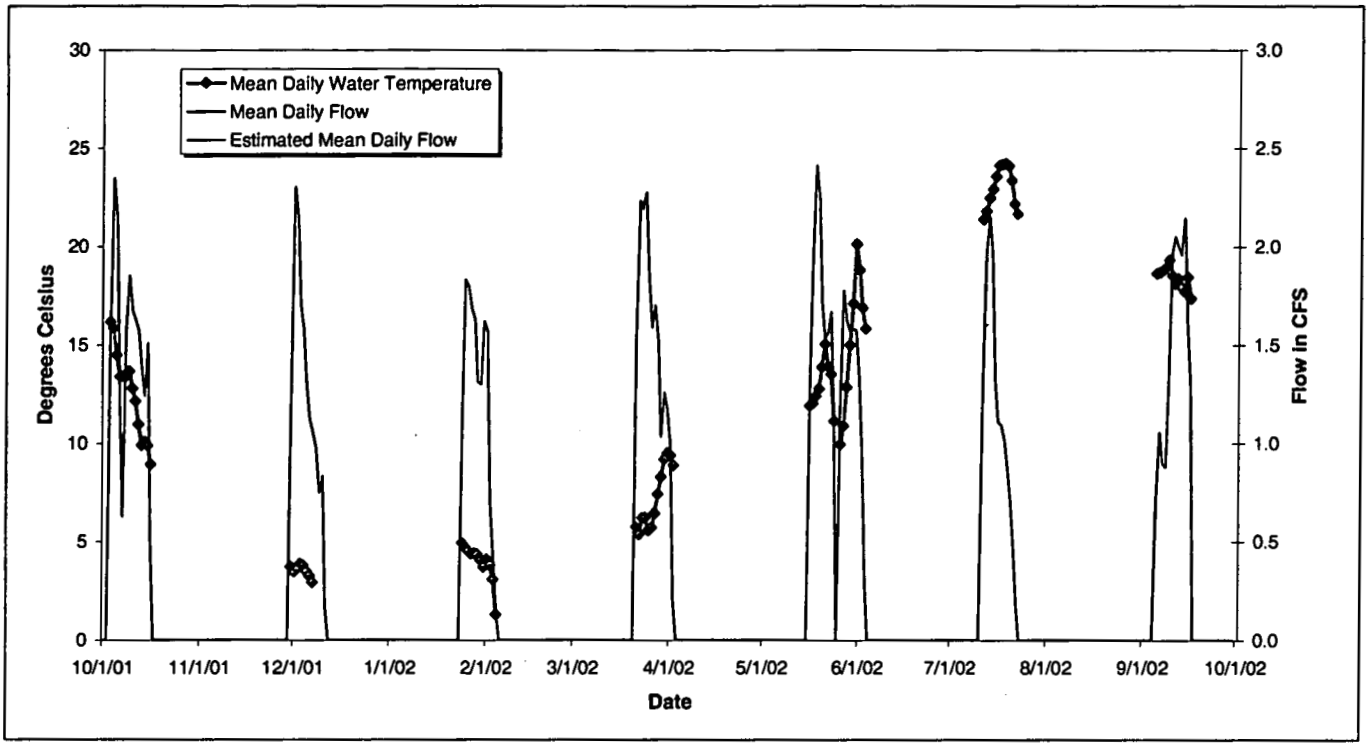


Figure 13-17. Mean Daily Water Temperature at GS08: Water Year 2002.

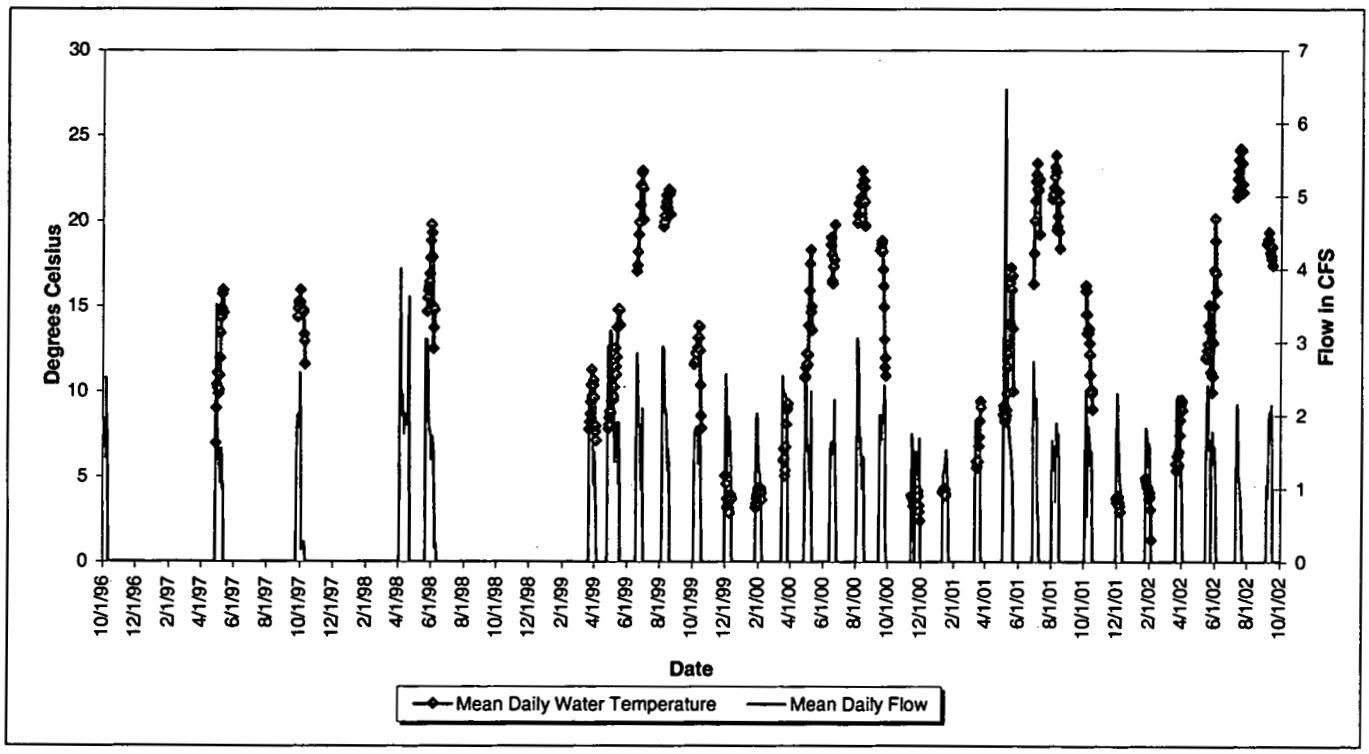


Figure 13-18. Mean Daily Water Temperature at GS08: Water Years 1997-2002.

Figure 13-19 and Figure 13-20 show elevated conductivities during the winter months, most likely a result of road and walkway deicing operations. The effects of changes in deicing products starting in WY00 can be clearly seen in Figure 13-20.

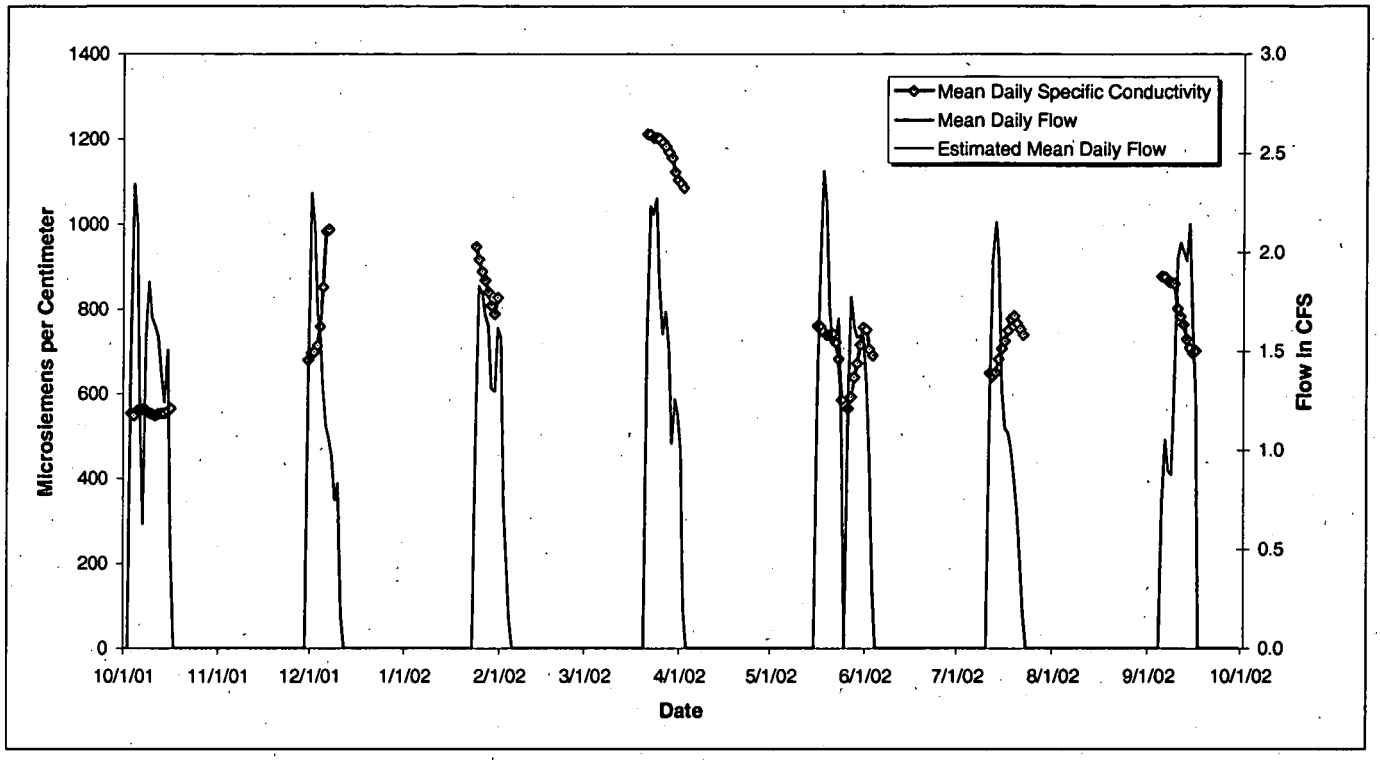


Figure 13-19. Mean Daily Specific Conductivity at GS08: Water Year 2002.

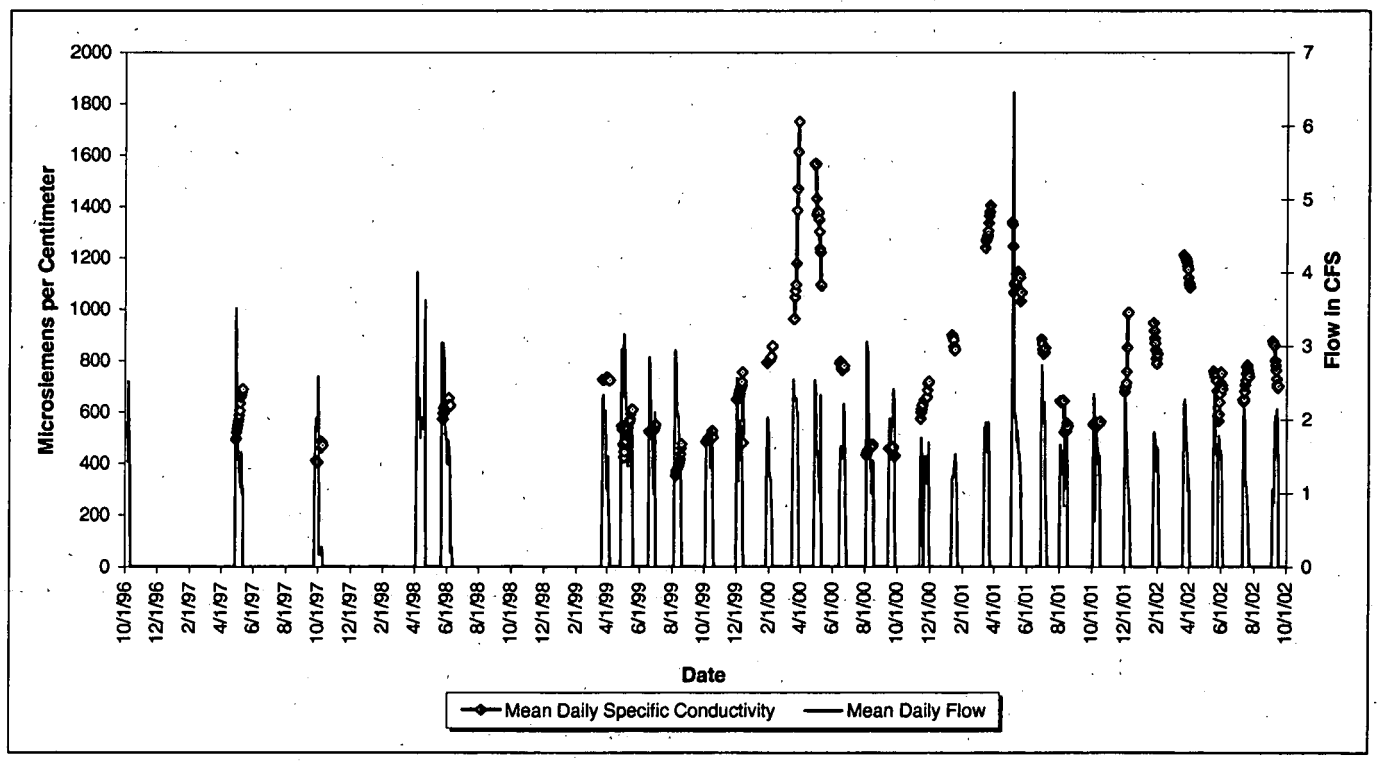


Figure 13-20. Mean Daily Specific Conductivity at GS08: Water Years 1997-2002.

Figure 13-21 and Figure 13-22 show the mean daily pH varying between 7.4 and 10.7. The somewhat higher pH values are likely due to algae growth affecting the CO_2 buffering capacity.

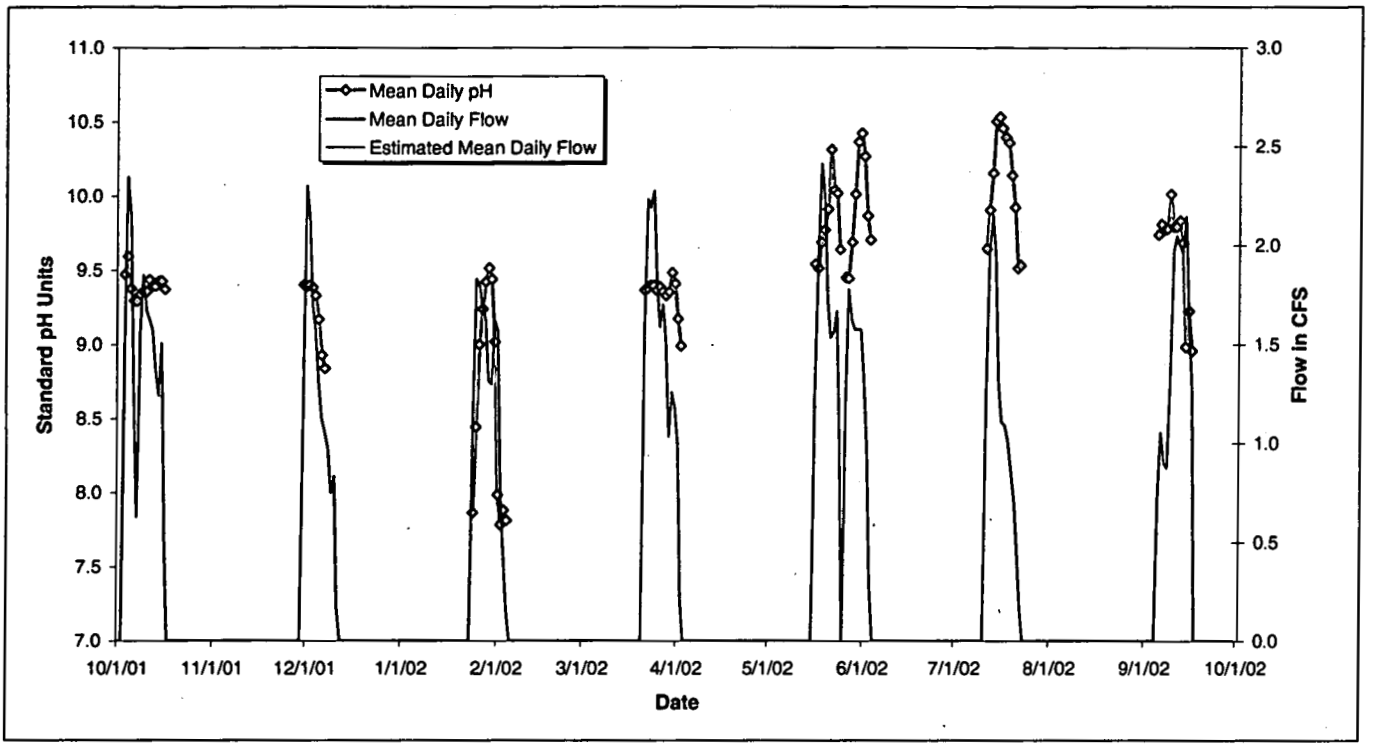


Figure 13-21. Mean Daily pH at GS08: Water Year 2002.

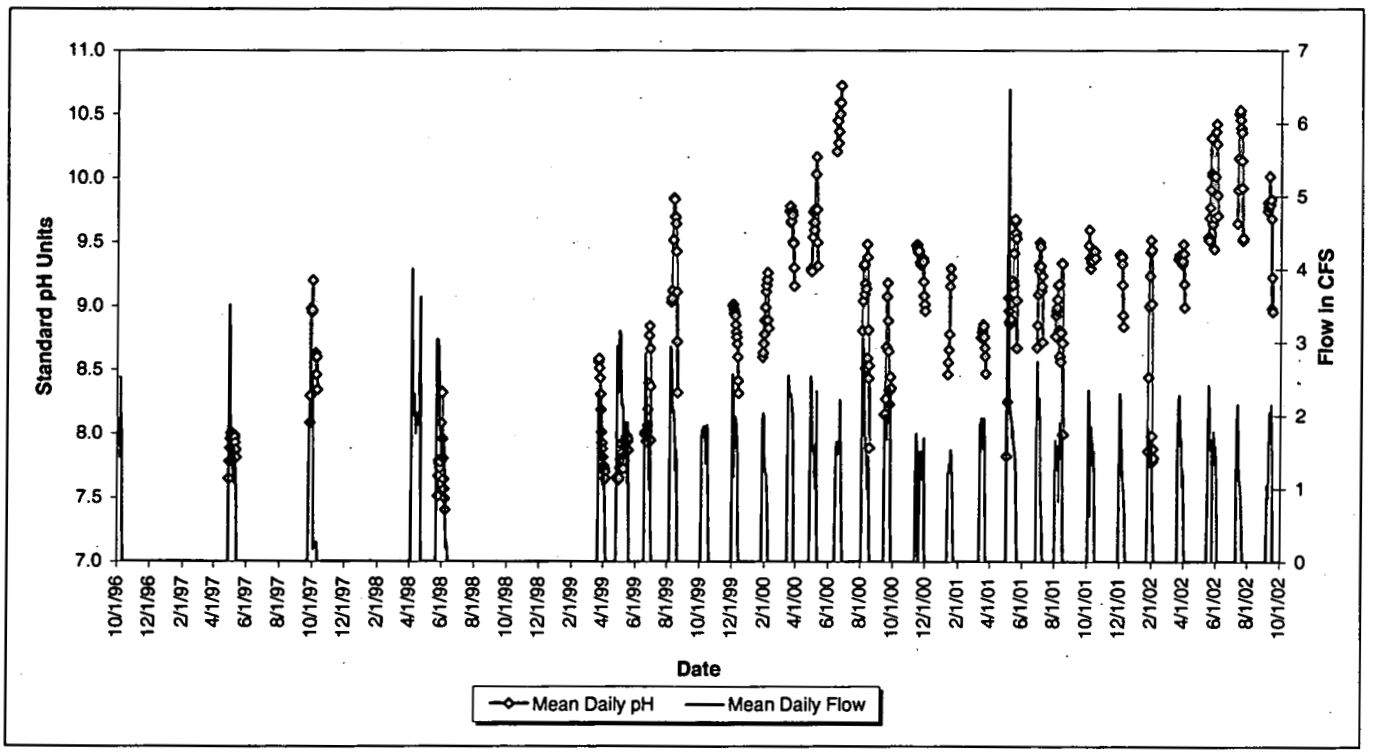


Figure 13-22. Mean Daily pH at GS08: Water Years 1997-2002.

Finally, Figure 13-23 and Figure 13-24 show variable turbidity measurements. These variations are likely the result of biological growth in the pond and/or turbidity from recent pond inflows.

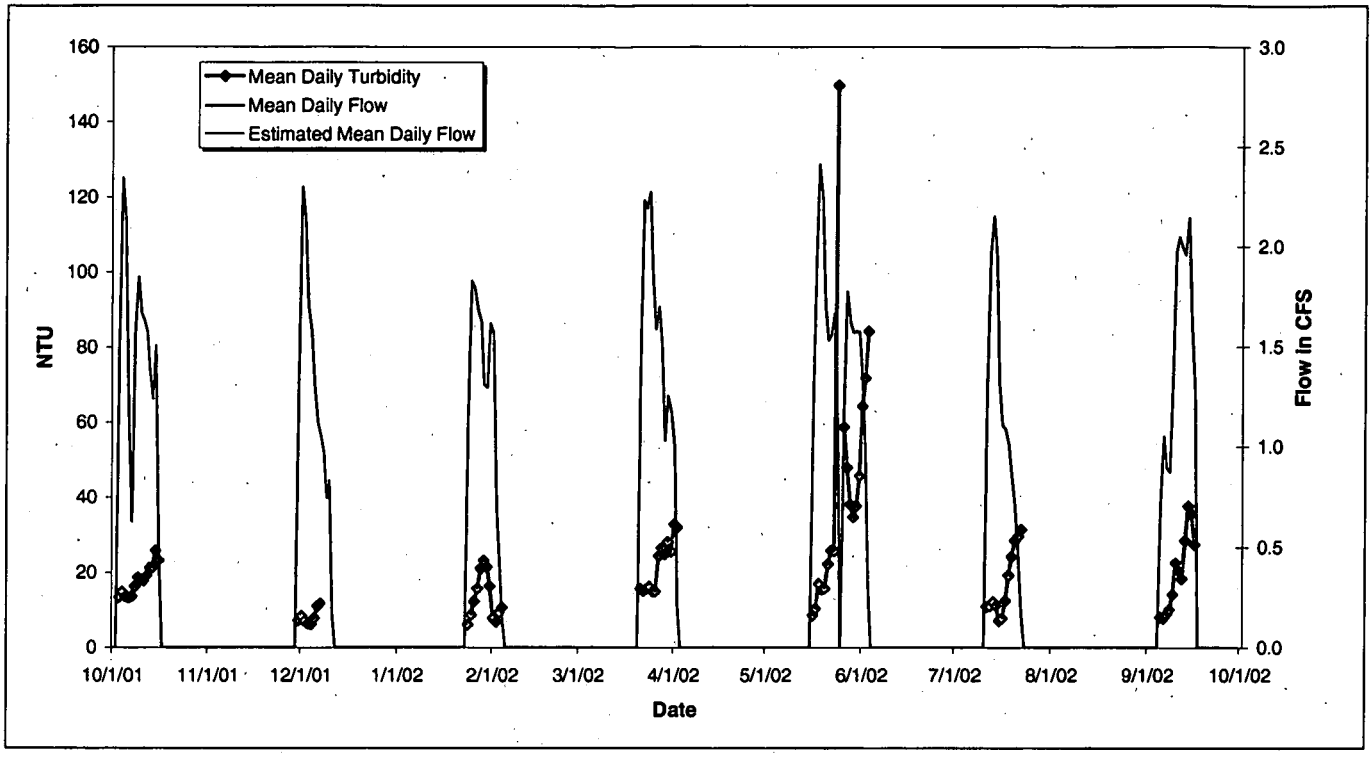


Figure 13-23. Mean Daily Turbidity at GS08: Water Year 2002.

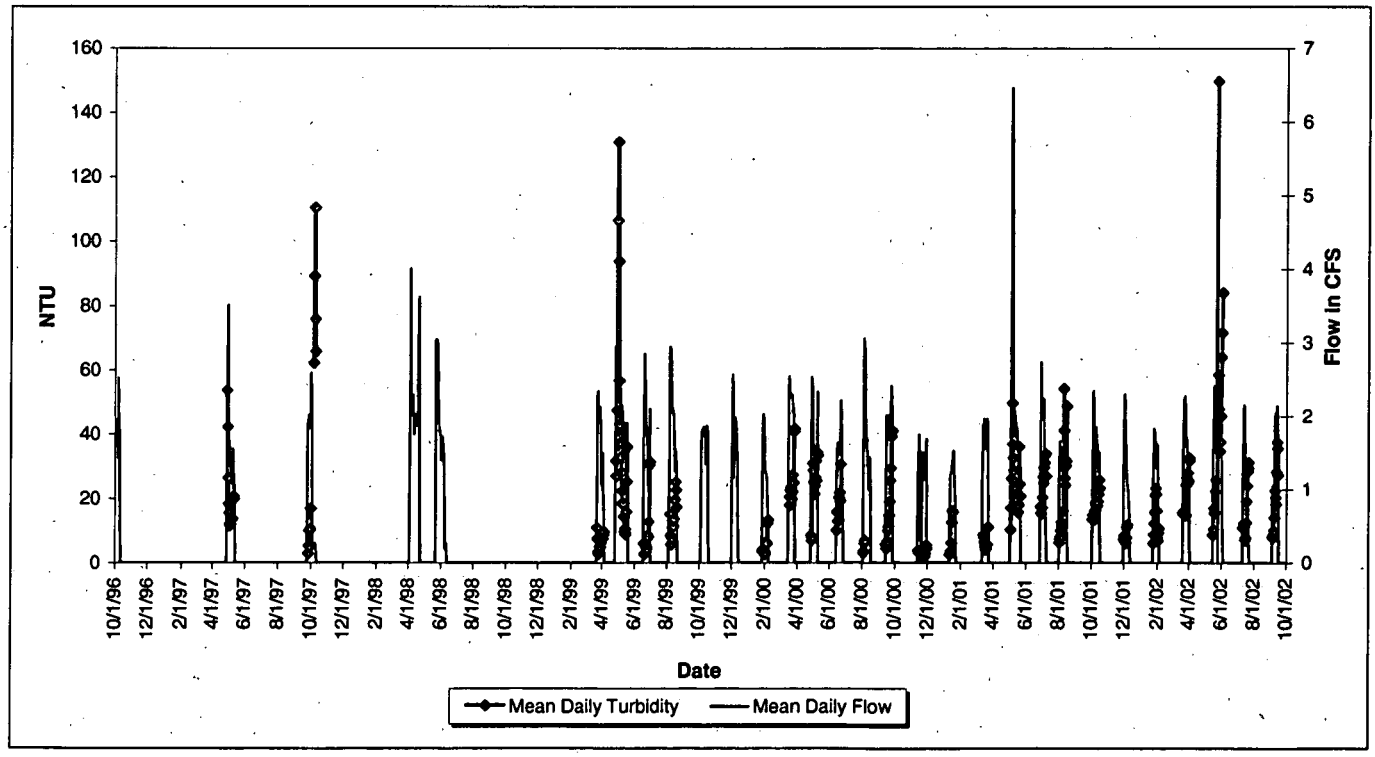


Figure 13-24. Mean Daily Turbidity at GS08: Water Years 1997-2002.

13.3.4 Location GS11

Monitoring location GS11 is located on North Walnut Creek at the outlet of Pond A-4. **Figure 3-32** shows the drainage area for GS11. The northern portion of the IA contributes flow to GS11.

Table 13-12 shows that all of the annual average Pu and Am activities were well below 0.15 pCi/L. Additionally, the long-term Pu and Am averages (WY97-02) are well below 0.15 pCi/L. The average uranium activities are all well below 10 pCi/L.

Figure 13-25 and Figure 13-26 show no occurrences of reportable 30-day averages.

Figure 13-29 shows the 365 calendar-day averages using a modified calculation method (see Appendix B.1: Data Evaluation Methods). It can be seen that by using this method the variability is 'dampened' by the longer evaluation period, and no values would be reportable using the current 0.15 pCi/L Standard.

Table 13-12. Annual Volume-Weighted Average Radionuclide Activities at GS11 in WY97-02.

Water Year	Volume-Weighted Average Activity (pCi/L)		
	Am-241	*Pu-239,-240*	*Total Uranium*
1997	0.005	0.009	1.890
1998	0.009	0.004	2.072
1999	0.004	0.006	1.735
2000	0.001	0.029	3.229
2001	0.002	0.002	2.489
2002	0.003	0.000	2.964
Total (WY97-02)	0.006	0.007	2.074

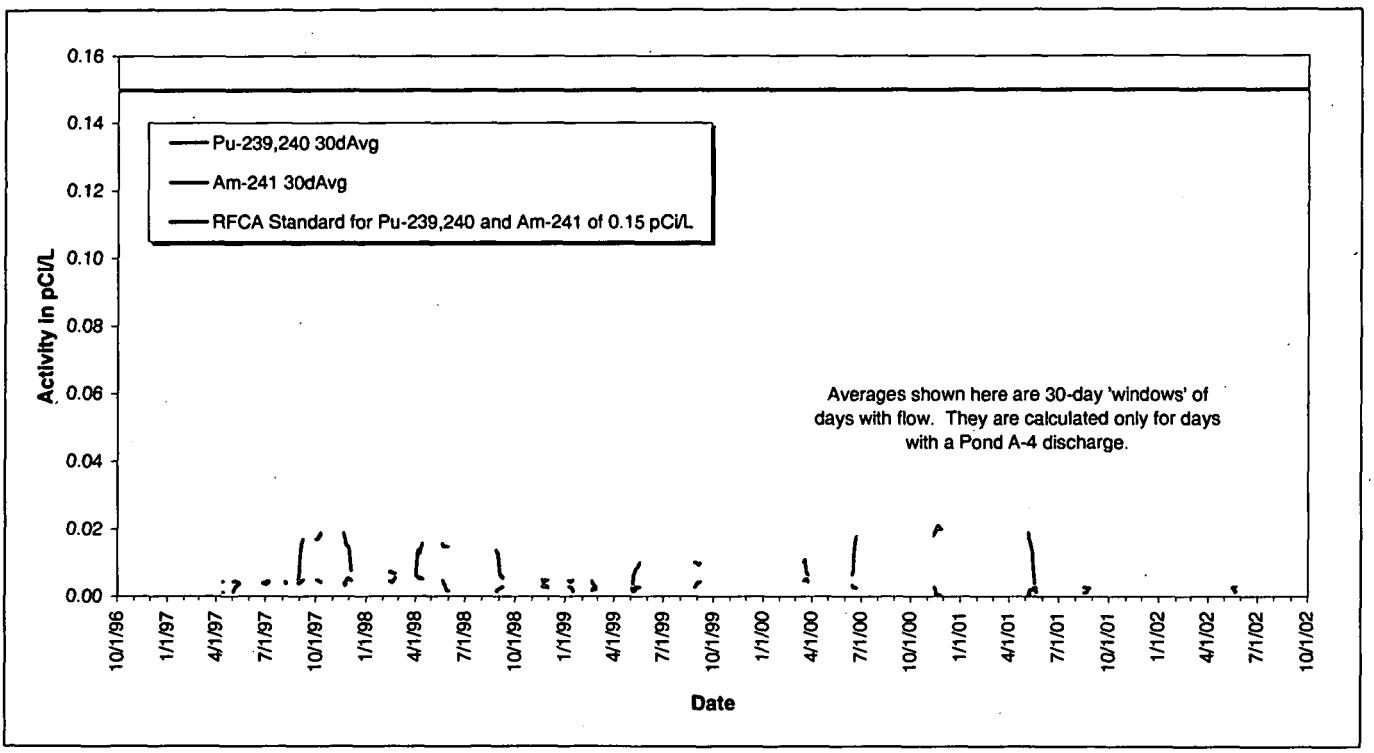


Figure 13-25. Volume-Weighted 30-Day Average Pu and Am Activities at GS11: WY97–02.

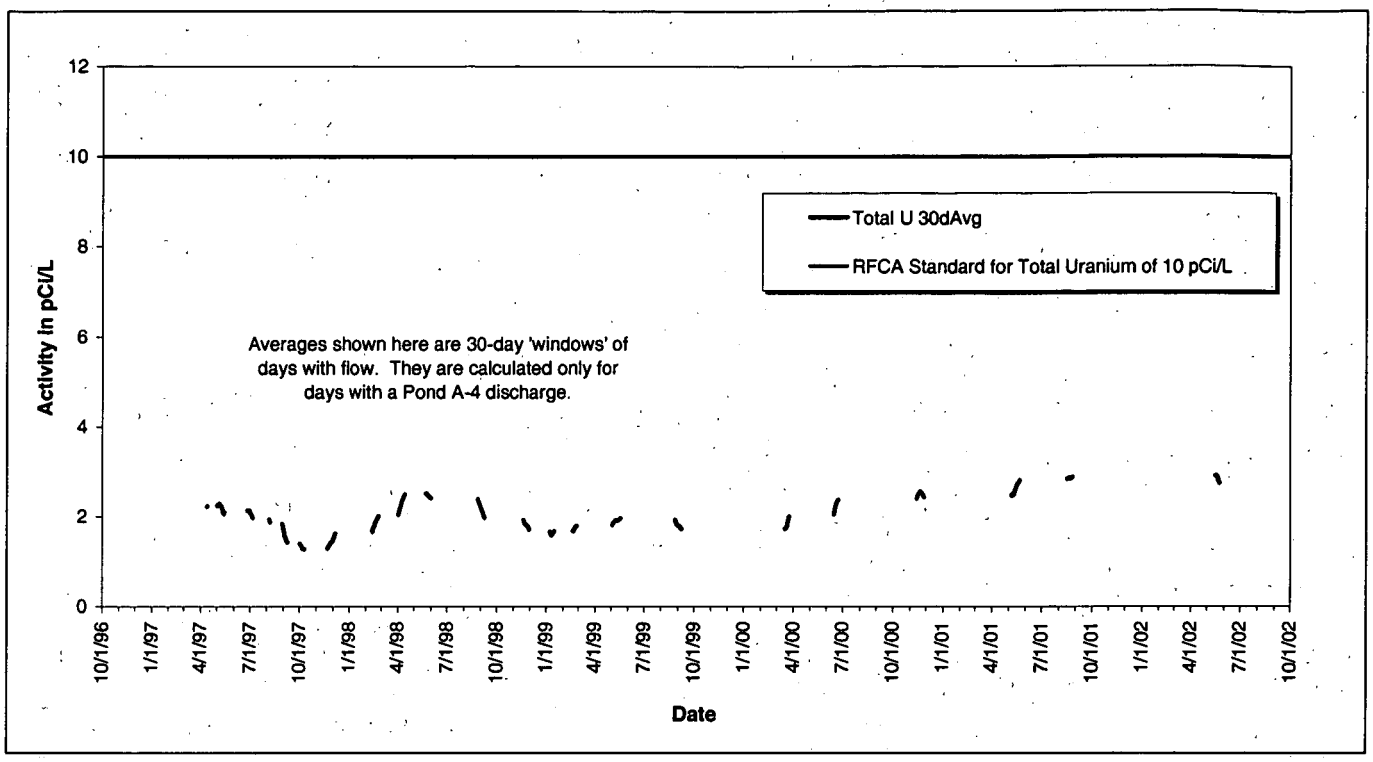


Figure 13-26. Volume-Weighted 30-Day Average Total Uranium Activities at GS11: WY97–02.

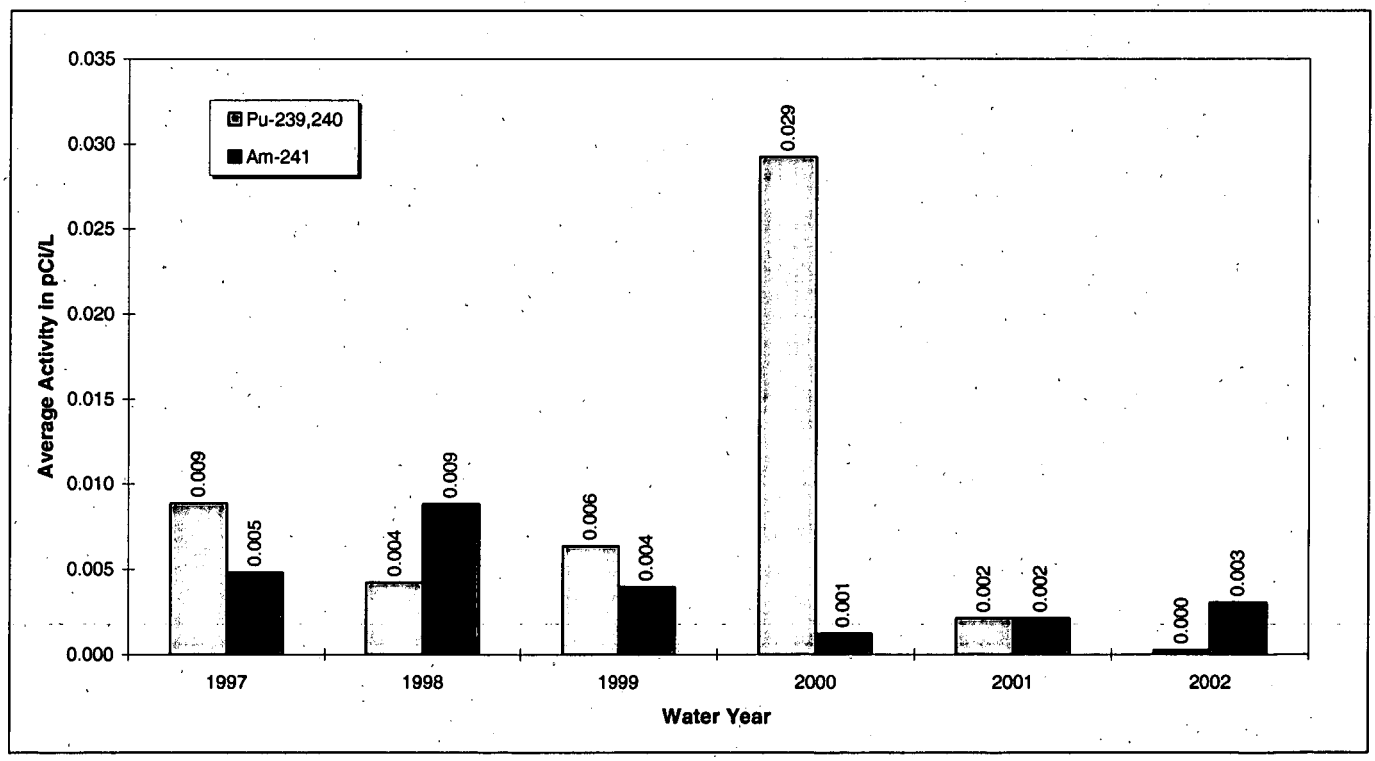


Figure 13-27. Annual Volume-Weighted Average Pu and Am Activities at GS11: WY97–02.

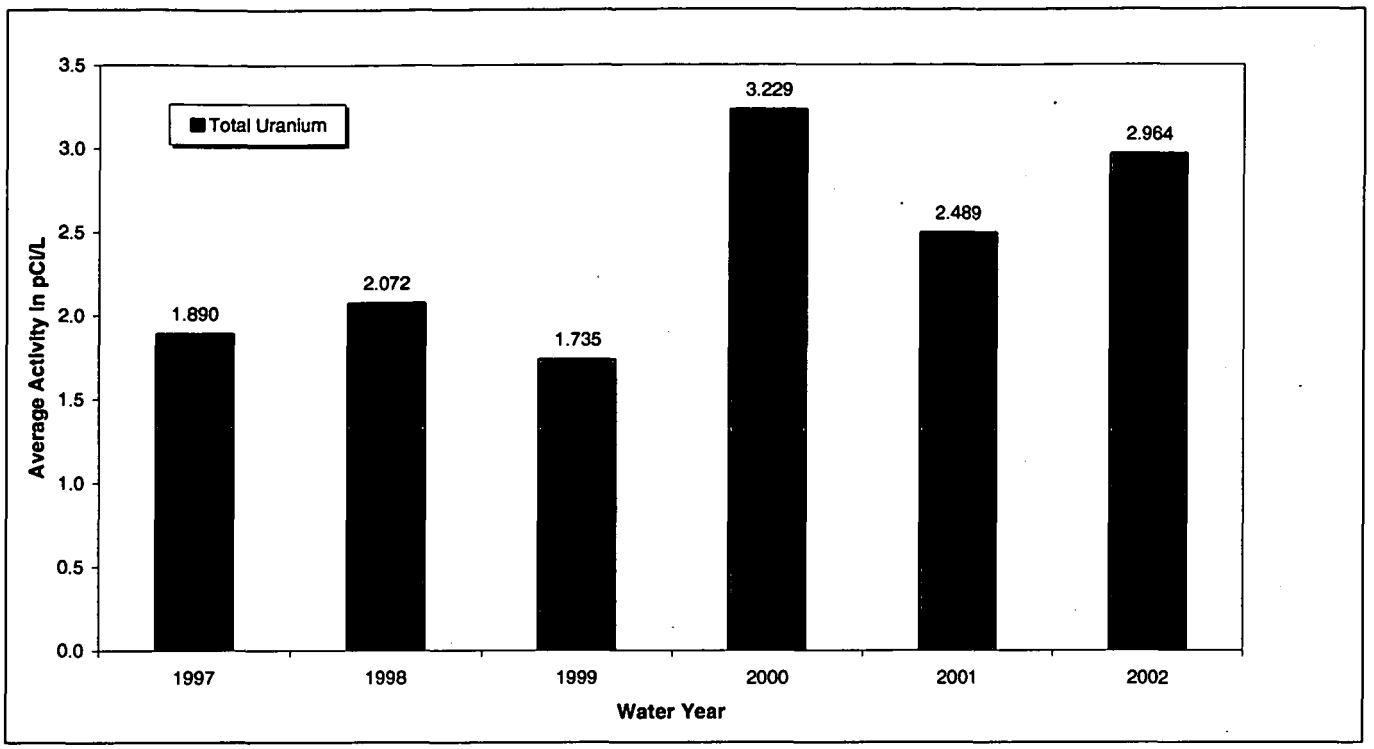
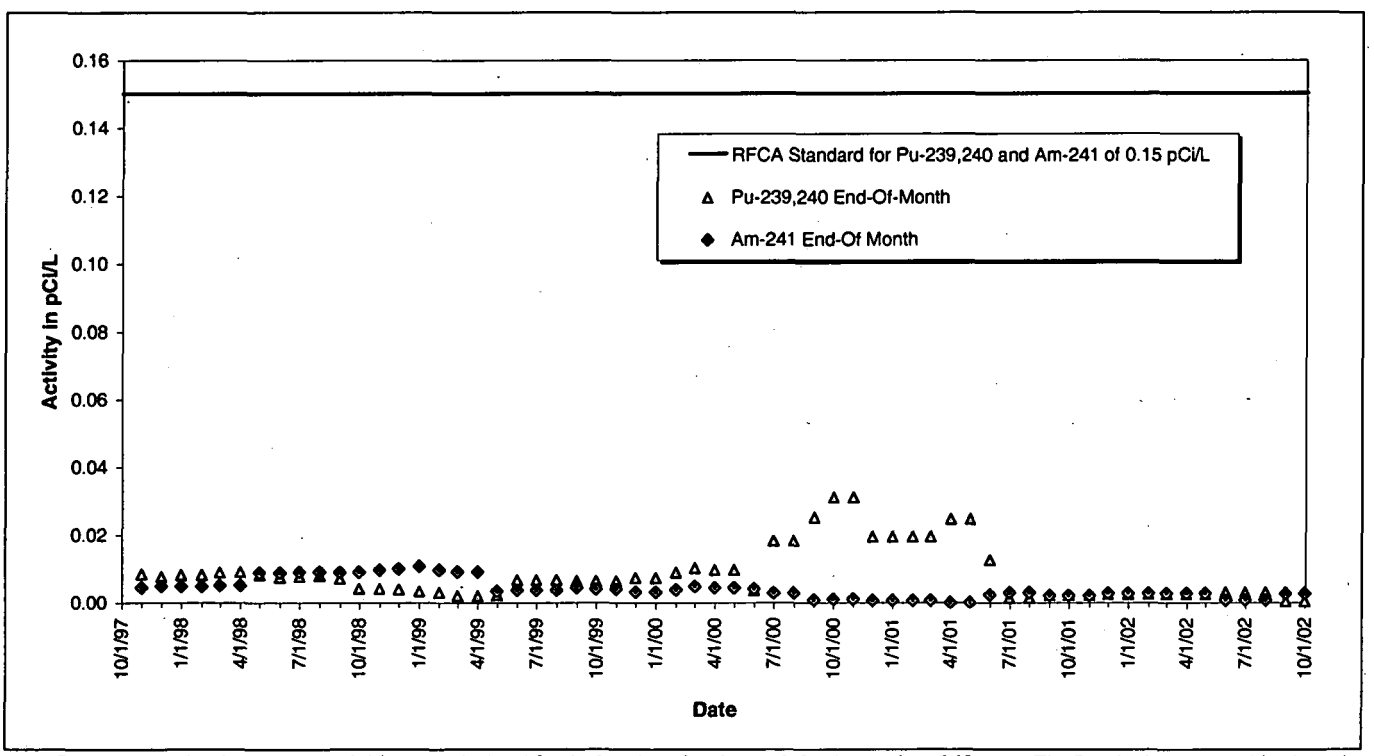


Figure 13-28. Annual Volume-Weighted Average Total Uranium Activities at GS11: WY97–02.



Note: The 365 calendar-day average activities are calculated for the last day of each month for the previous 365 days. The Standard shown on this plot only applies to 30-day averages. It is shown here for reference only.

Figure 13-29. Volume-Weighted 365 Calendar-Day Average Pu and Am Activities at GS11: WY97–02.

Mean daily water-quality parameter data are plotted in Figure 13-30 through Figure 13-37 along with the mean daily flow rate. Figure 13-30 and Figure 13-31 show the expected annual variation in water temperature.

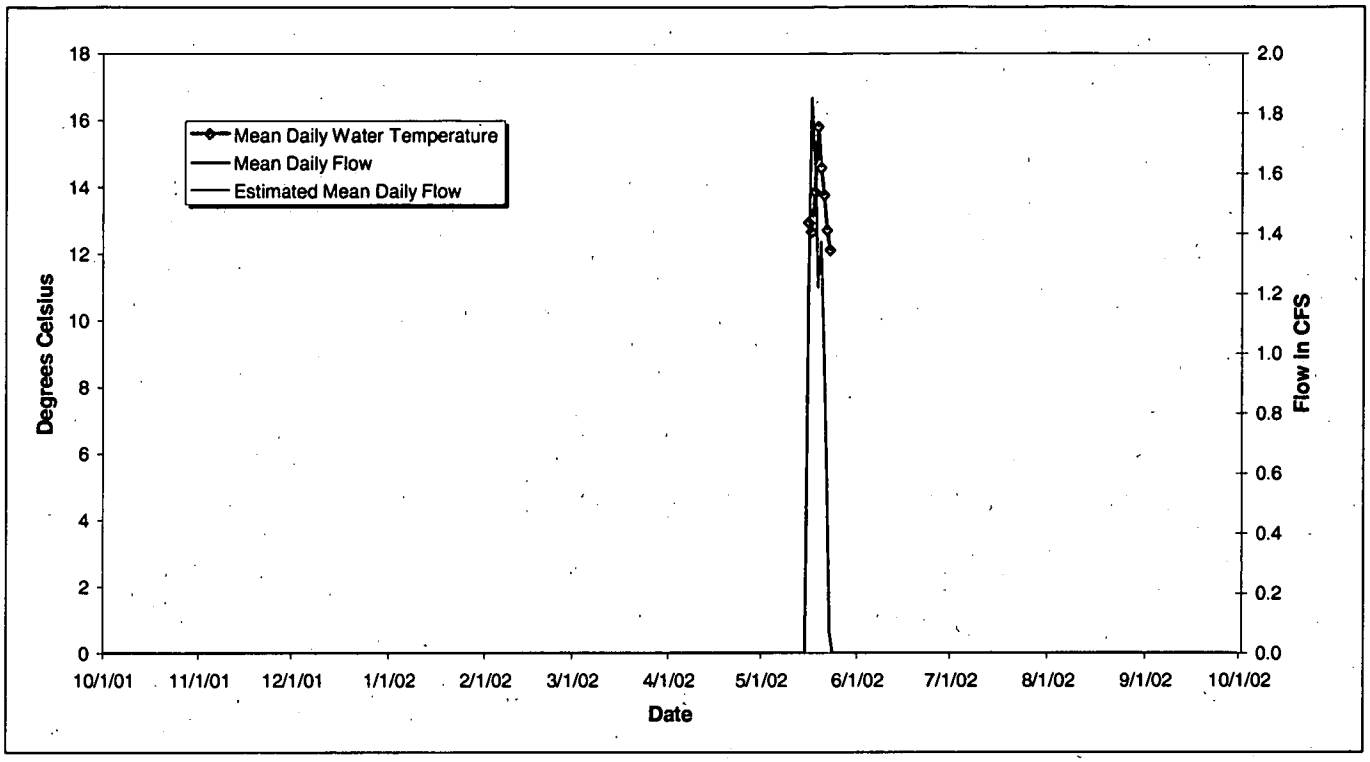


Figure 13-30. Mean Daily Water Temperature at GS11: Water Year 2002.

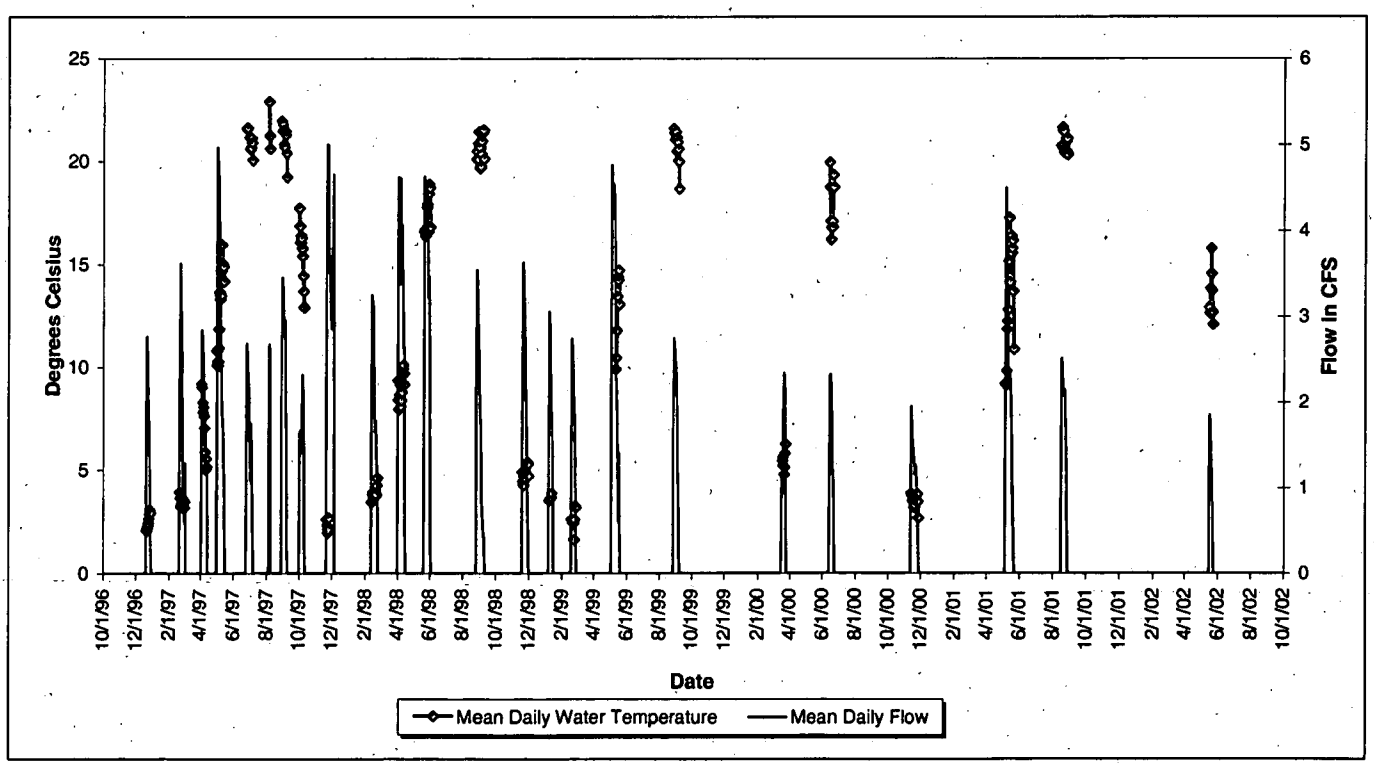


Figure 13-31. Mean Daily Water Temperature at GS11: Water Years 1997-2002.

Figure 13-32 and Figure 13-33 show elevated conductivities, most likely a result of road and walkway deicing operations. The effects of changes in deicing products starting in WY00 can be clearly seen in Figure 13-33. The higher May 2001 conductivities are likely caused by runoff that entered A-4 during previous winter months.

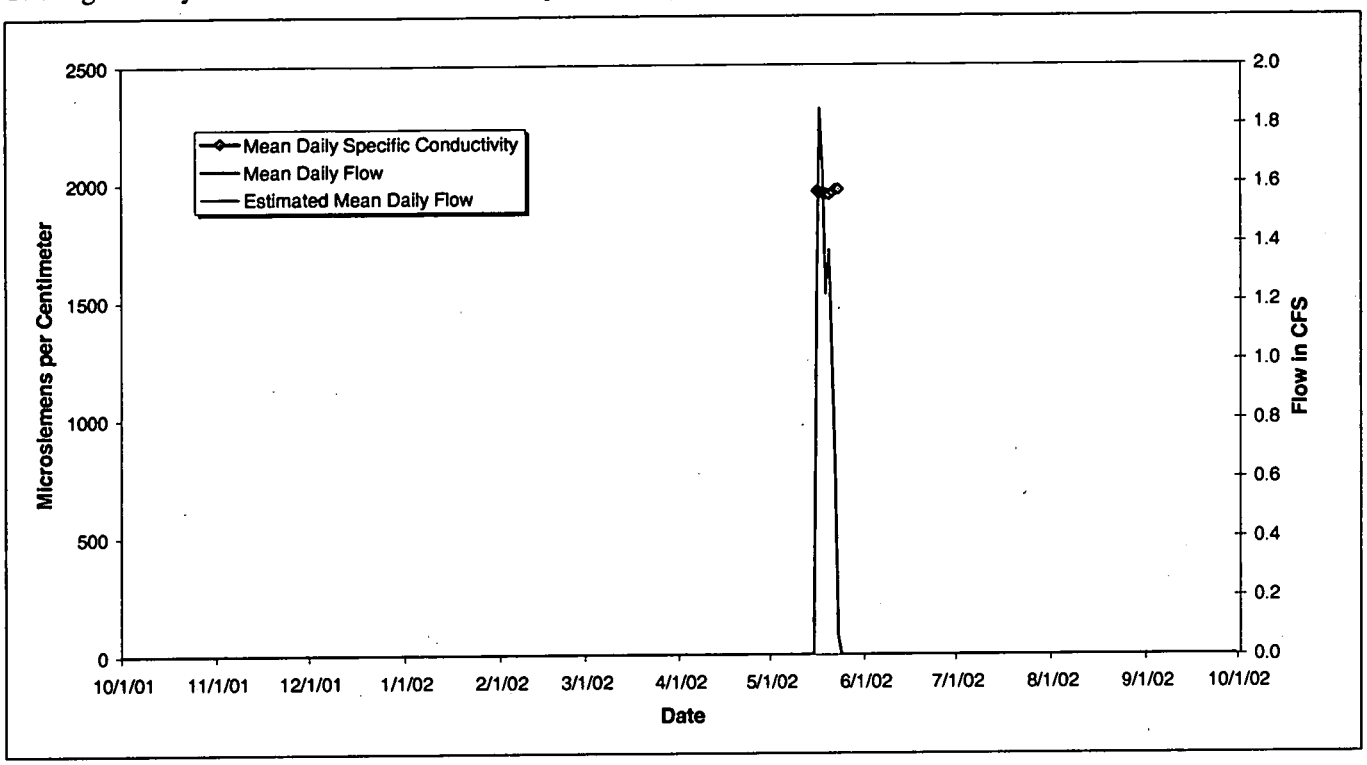


Figure 13-32. Mean Daily Specific Conductivity at GS11: Water Year 2002.

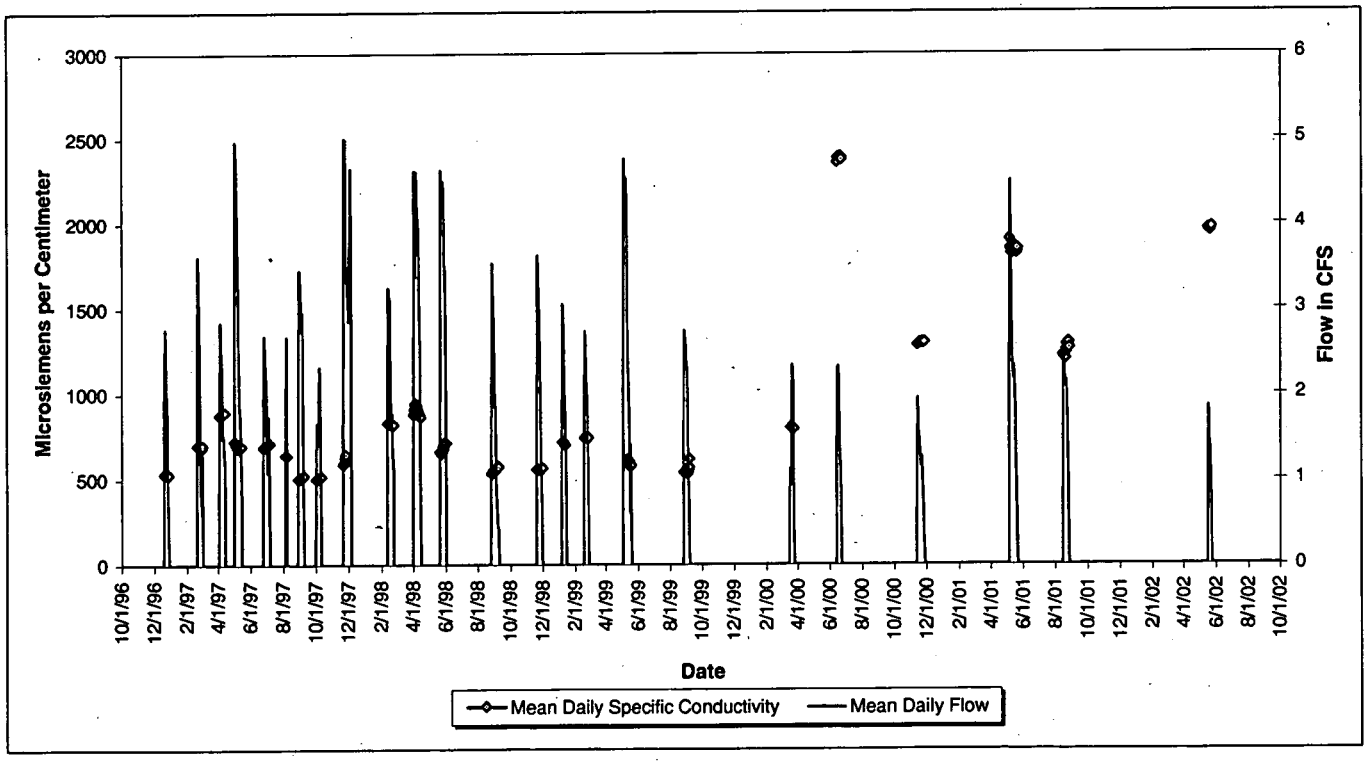


Figure 13-33. Mean Daily Specific Conductivity at GS11: Water Years 1997-2002.

Figure 13-34 and Figure 13-35 show the mean daily pH varying between 7.4 and 10.4. The somewhat higher pH values are likely due to algae growth affecting the CO_2 buffering capacity.

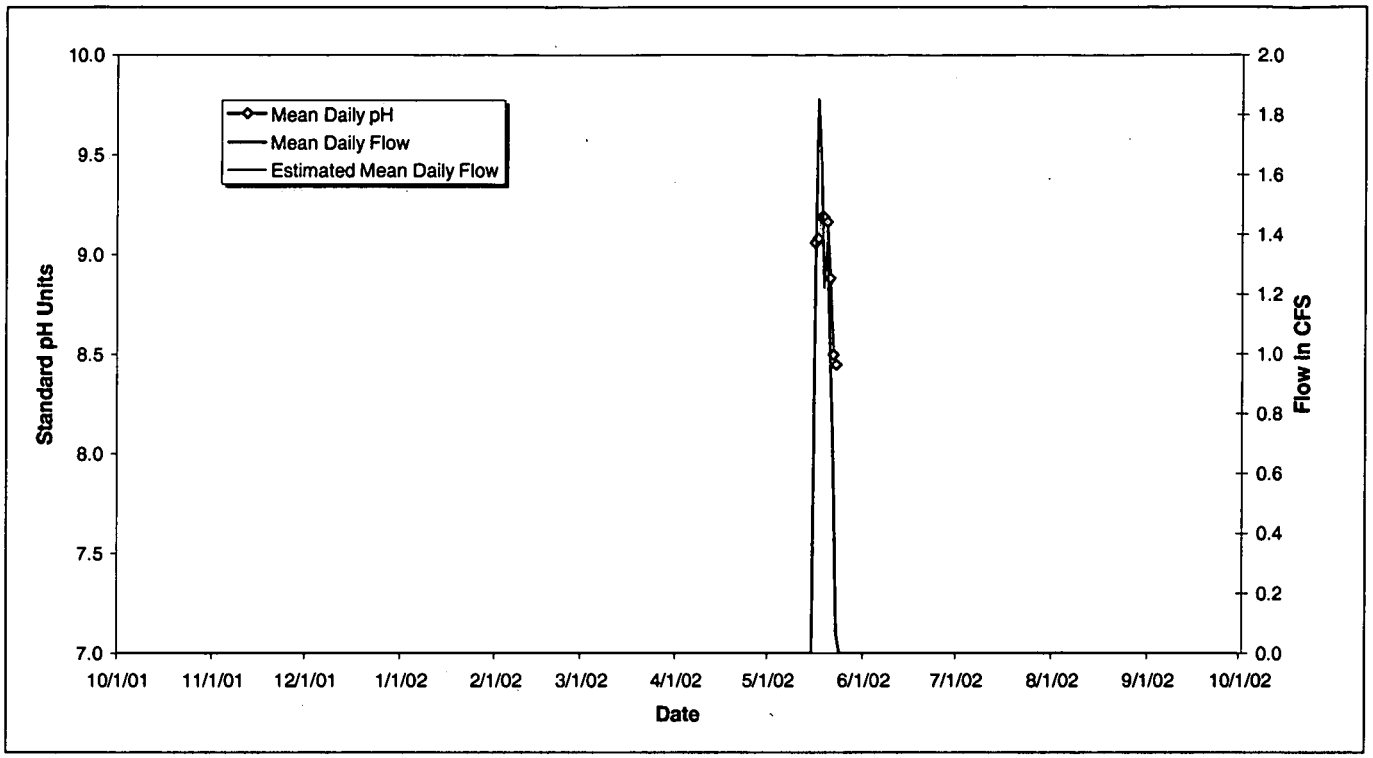


Figure 13-34. Mean Daily pH at GS11: Water Year 2002.

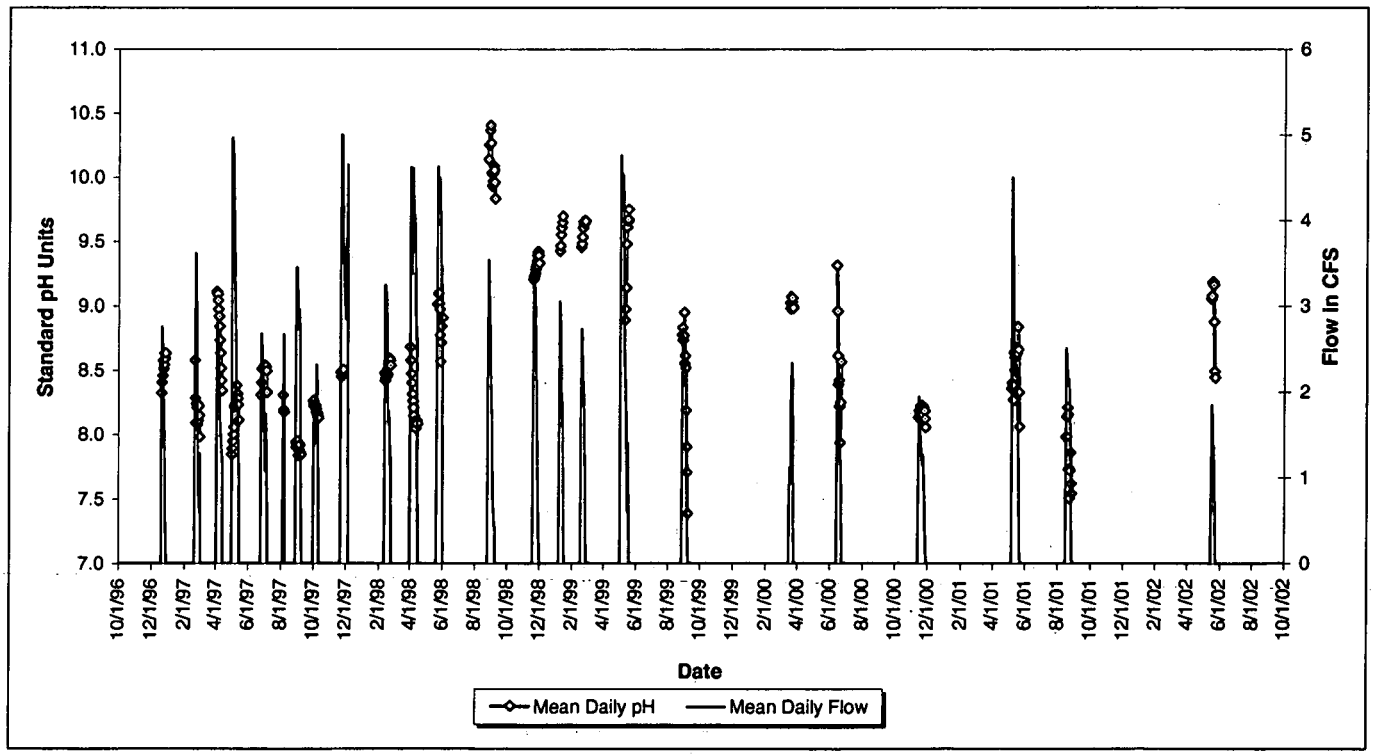


Figure 13-35. Mean Daily pH at GS11: Water Years 1997-2002.

Finally, Figure 13-36 and Figure 13-37 show variable turbidity measurements. These variations are likely the result of biological growth in the pond and turbidity from recent pond inflows.

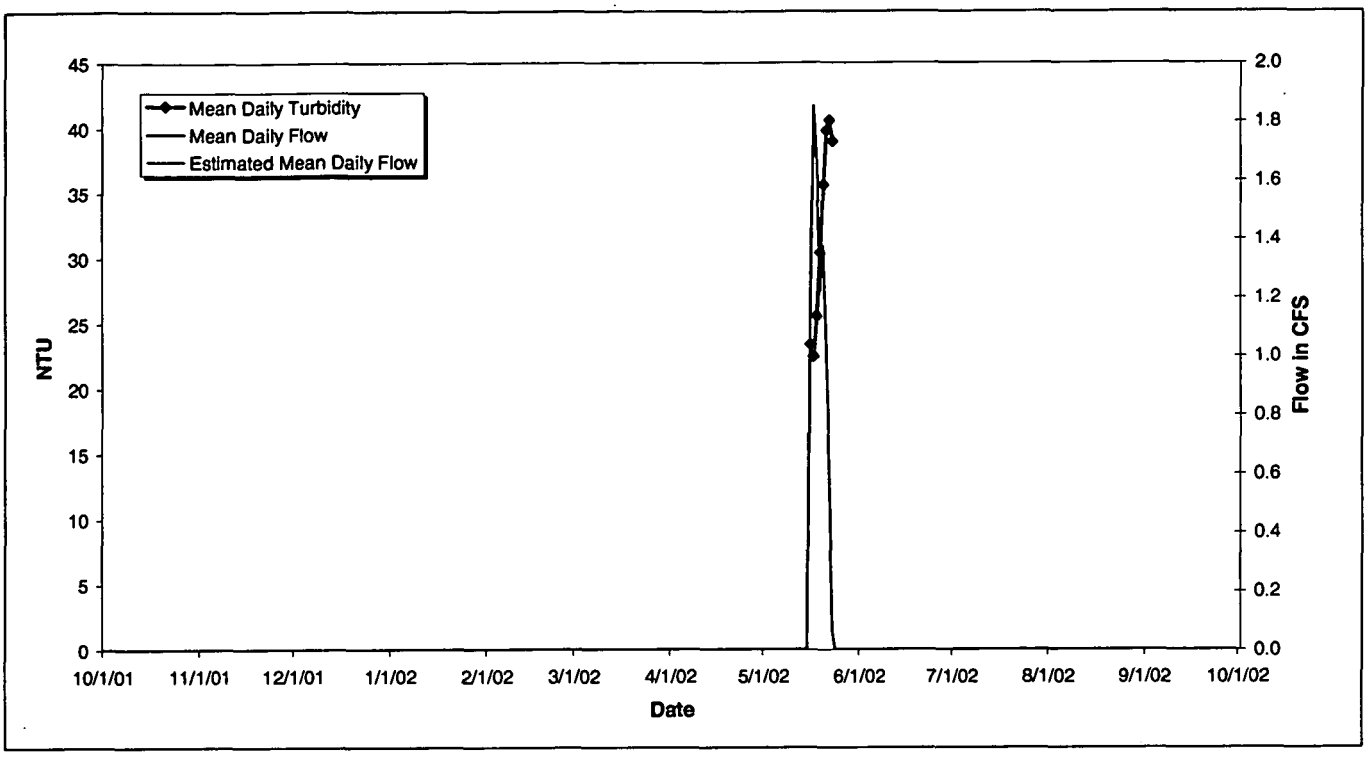


Figure 13-36. Mean Daily Turbidity at GS11: Water Year 2002.

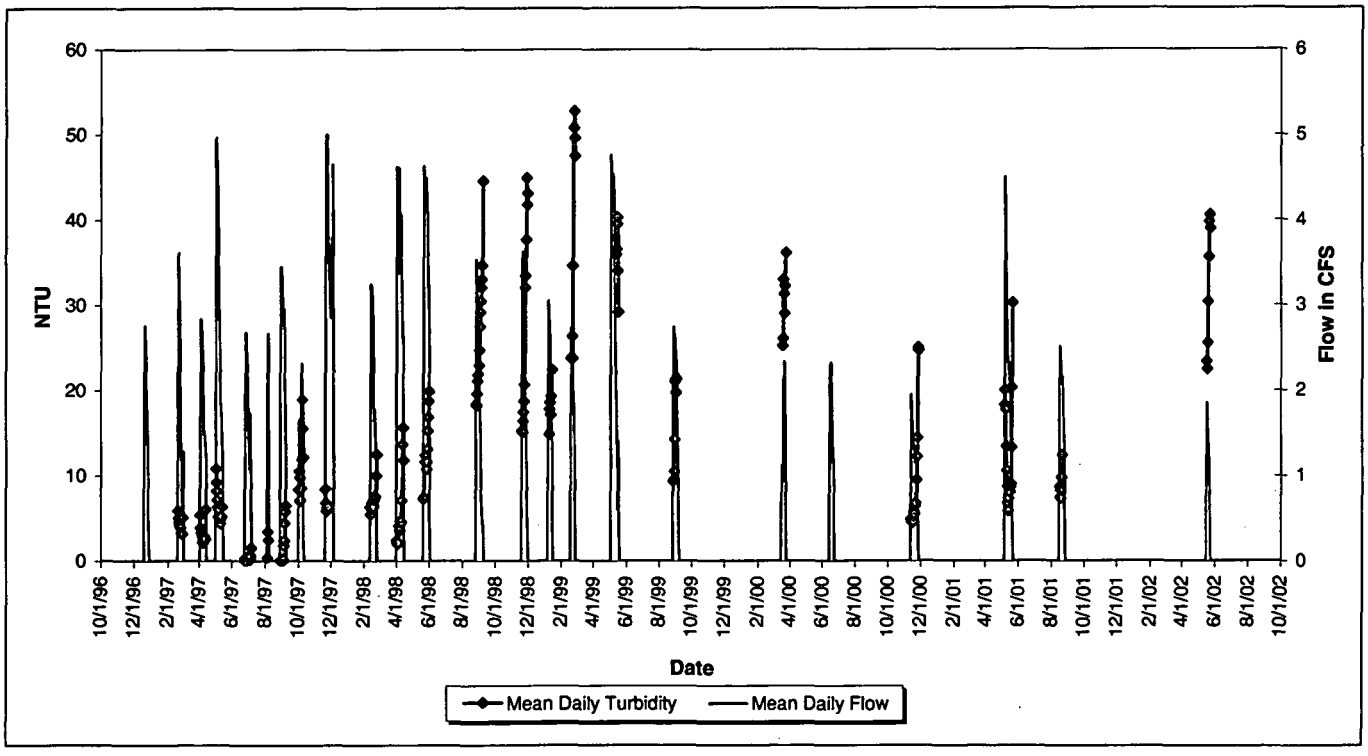


Figure 13-37. Mean Daily Turbidity at GS11: Water Years 1997-2002.

13.3.5 Location GS31

Monitoring location GS31 is located on Woman Creek at the outlet of Pond C-2. **Figure 3-49** shows the drainage area for GS31. The southern portion of the IA contributes flow to GS31.

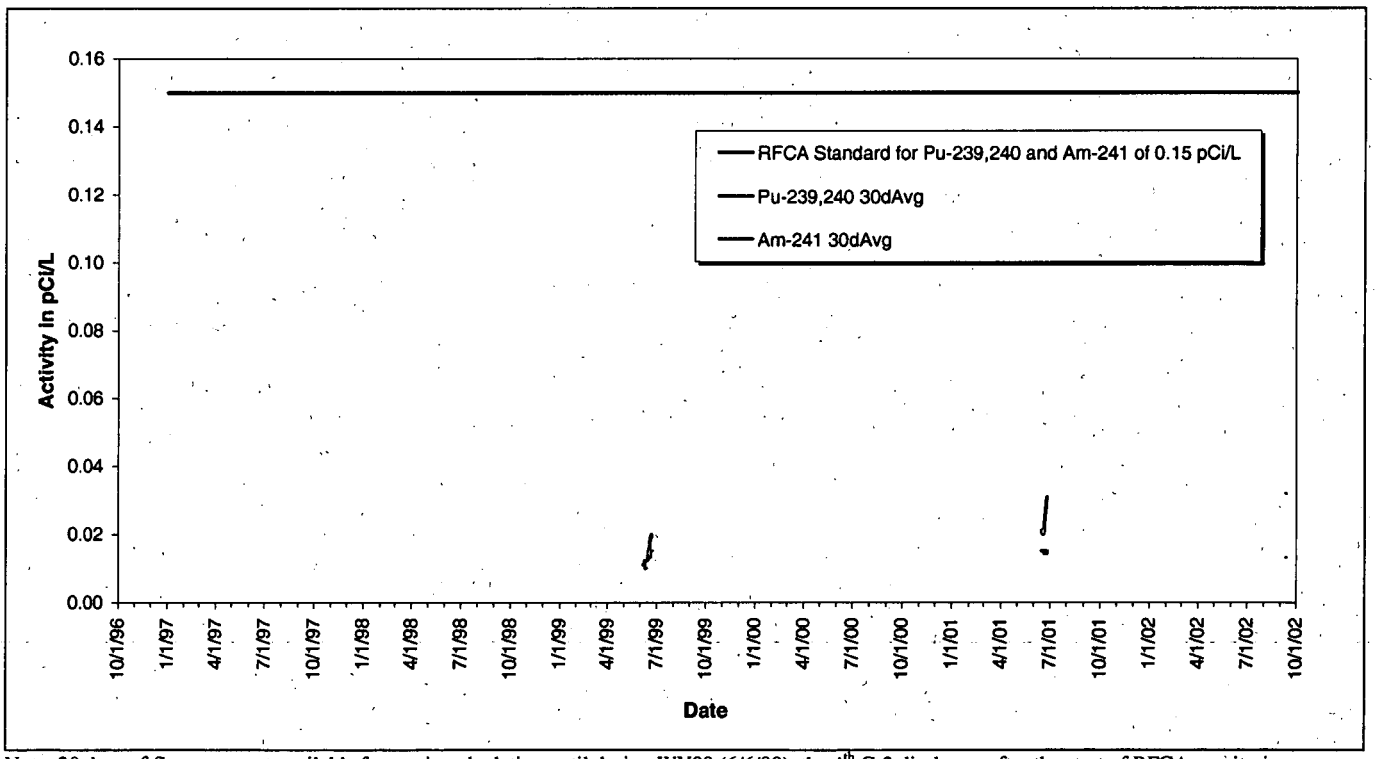
Table 13-13 shows that all of the annual average Pu and Am activities were below 0.15 pCi/L. Additionally, the long-term Pu and Am averages (WY97-02) are well below 0.15 pCi/L. The average uranium activities are all well below 11 pCi/L.

Figure 13-38 and Figure 13-39 show no occurrences of reportable 30-day averages.

Figure 13-42 shows the 365 calendar-day averages using a modified calculation method (see Appendix B.1: Data Evaluation Methods). It can be seen that by using this method the variability is 'dampened' by the longer evaluation period, more values are calculated using a calendar window, and no values would be reportable using the current 0.15 pCi/L Standard.

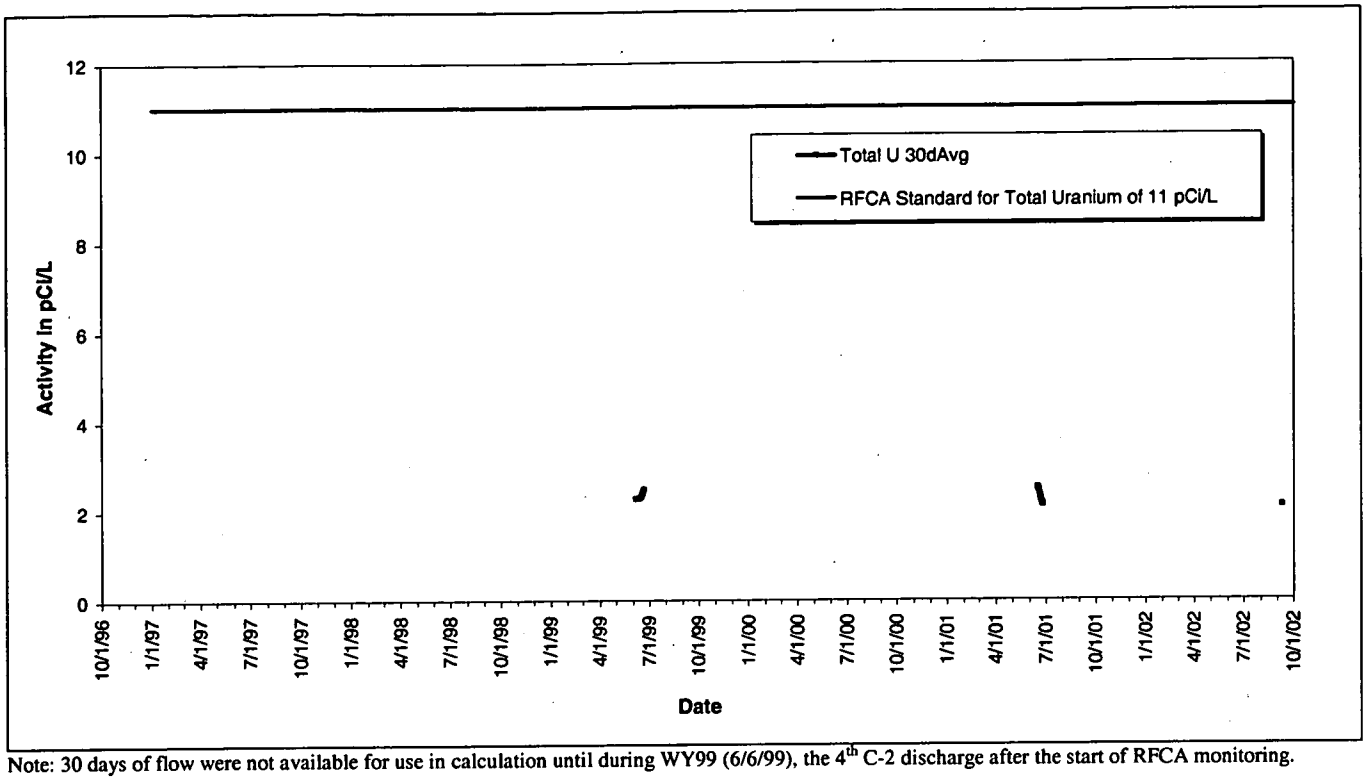
Table 13-13. Annual Volume-Weighted Average Radionuclide Activities at GS31 in WY97-02.

Water Year	Volume-Weighted Average Activity (pCi/L)		
	Am-241	*Pu-239,-240*	*Total Uranium*
1997	0.005	0.018	2.475
1998	0.015	0.009	2.223
1999	0.010	0.043	2.699
2000	No C-2 Discharge	No C-2 Discharge	No C-2 Discharge
2001	0.013	0.021	1.249
2002	0.015	0.089	2.431
Total (WY97-02)	0.012	0.020	2.187



Note: 30 days of flow were not available for use in calculation until during WY99 (6/6/99), the 4th C-2 discharge after the start of RFCA monitoring.

Figure 13-38. Volume-Weighted 30-Day Average Pu and Am Activities at GS31: WY97–02.



Note: 30 days of flow were not available for use in calculation until during WY99 (6/6/99), the 4th C-2 discharge after the start of RFCA monitoring.

Figure 13-39. Volume-Weighted 30-Day Average Total Uranium Activities at GS31: WY97–02.

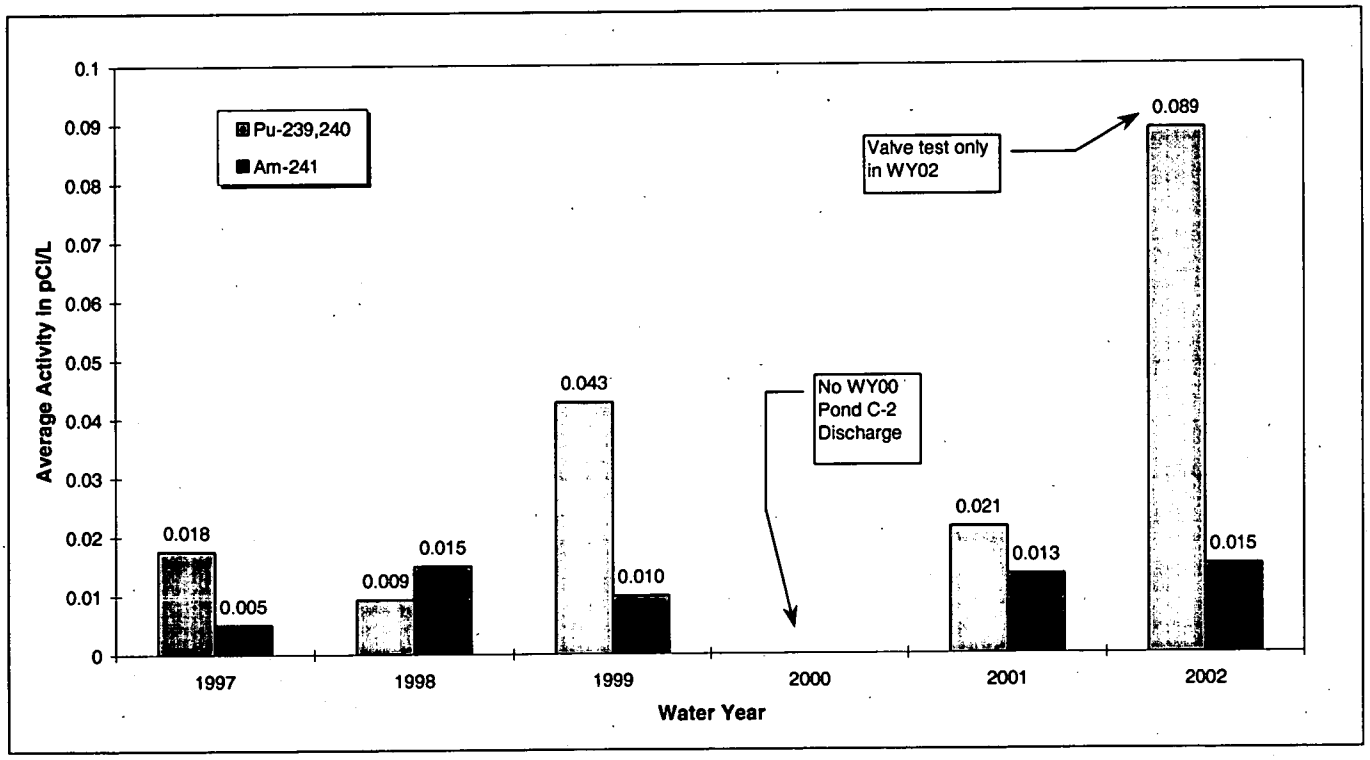


Figure 13-40. Annual Volume-Weighted Average Pu and Am Activities at GS31: WY97–02.

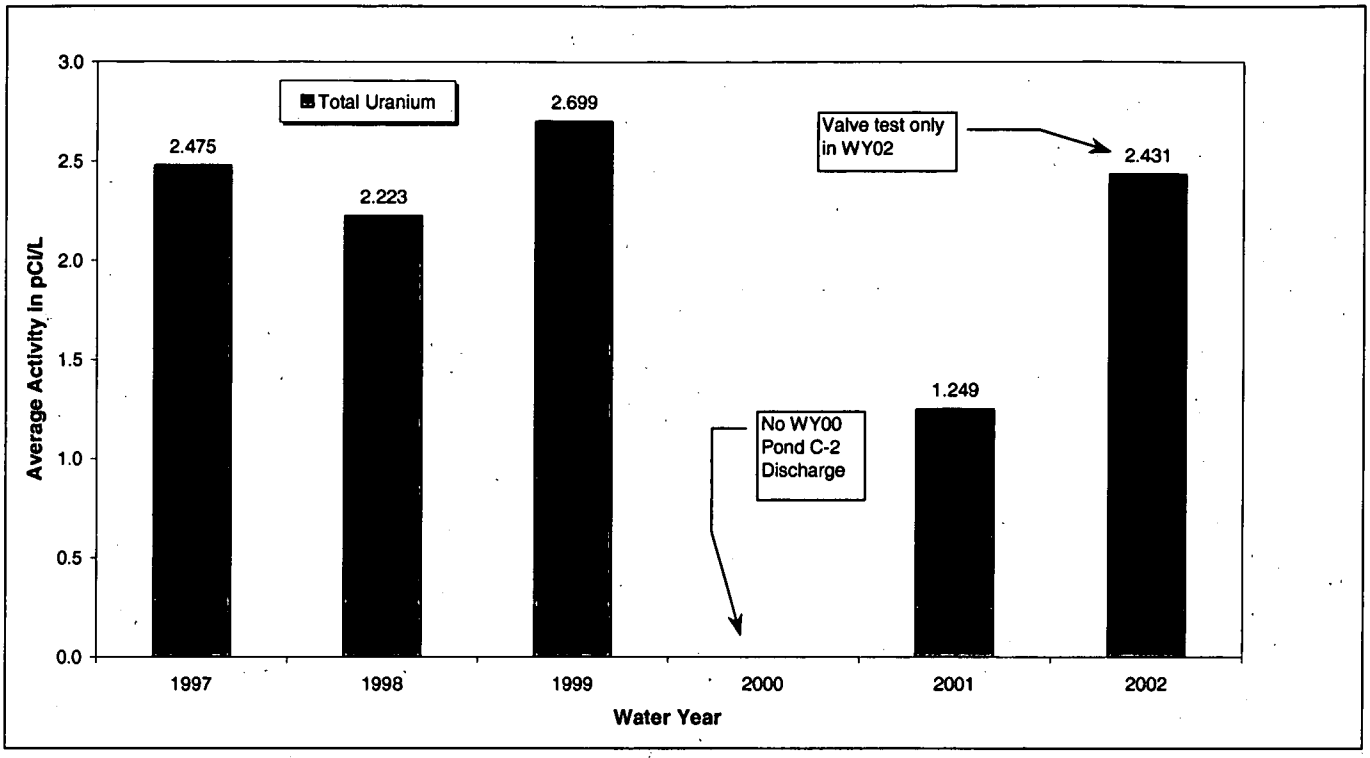
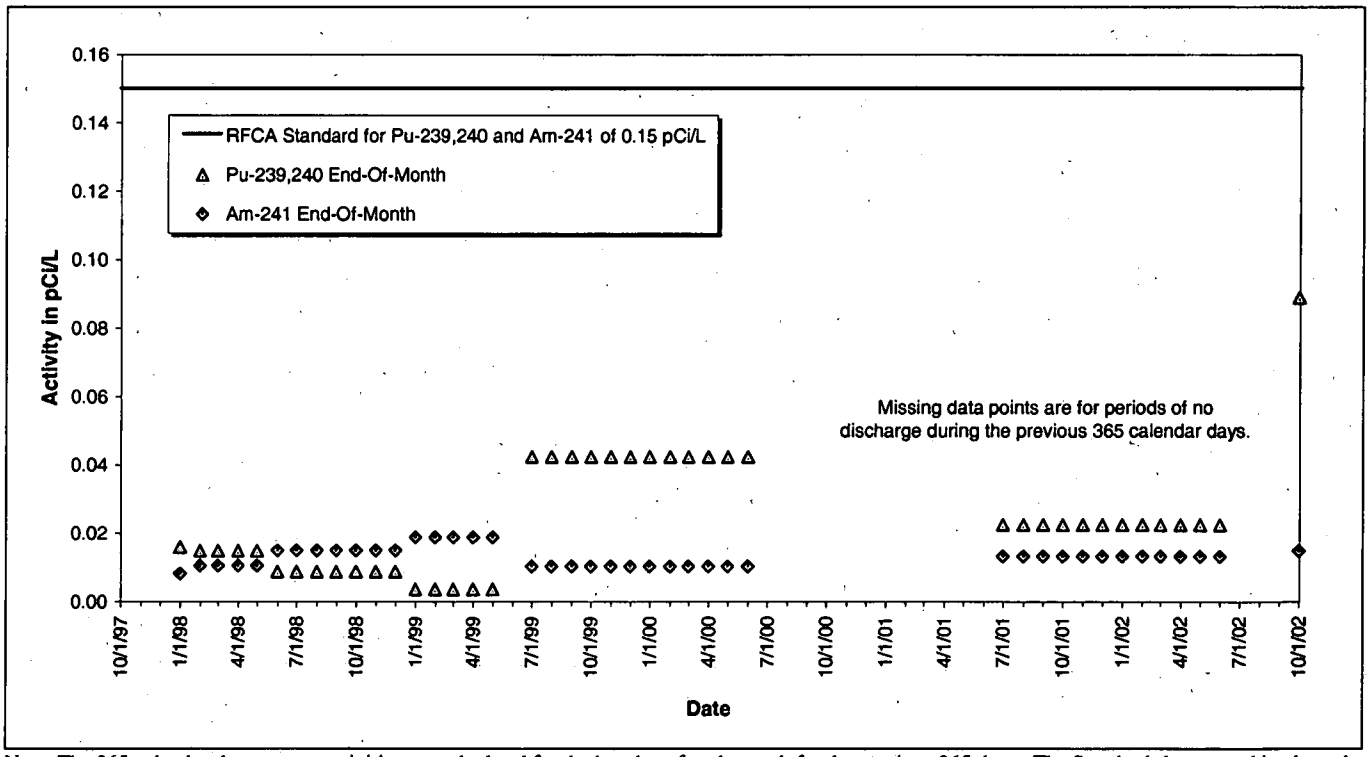


Figure 13-41. Annual Volume-Weighted Average Total Uranium Activities at GS31: WY97–02.



Note: The 365 calendar-day average activities are calculated for the last day of each month for the previous 365 days. The Standard shown on this plot only applies to 30-day averages. It is shown here for reference only.

Figure 13-42. Volume-Weighted 365 Calendar-Day Average Pu and Am Activities at GS31: WY97–02.

No real-time water-quality data were collected for the valve test in WY02. Therefore, no WY02 data are plotted; only mean daily water-quality data for the RFCA period are plotted in Figure 13-43 through Figure 13-46 along with the mean daily flow rate. Figure 13-43 shows the expected annual variation in water temperature.

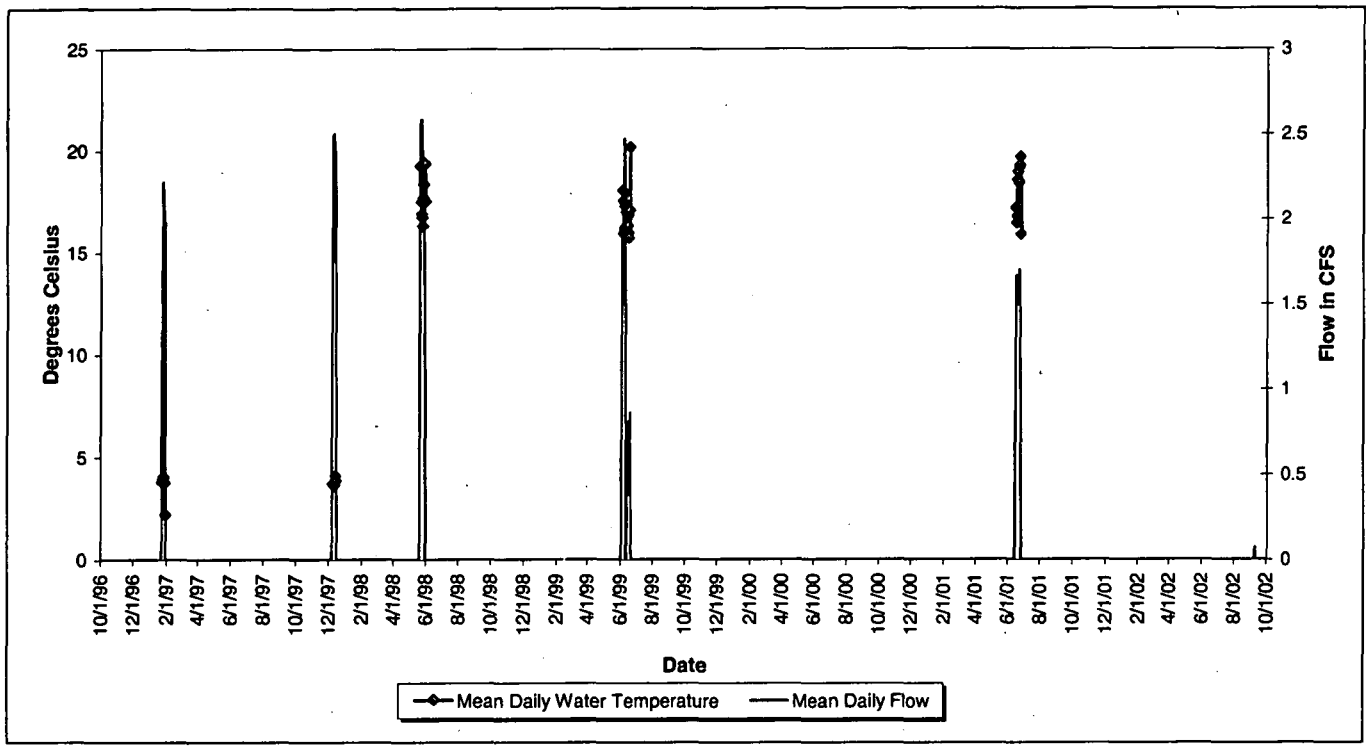


Figure 13-43. Mean Daily Water Temperature at GS31: Water Years 1997-2002.

Figure 13-44 shows fairly constant conductivities for each Pond C-2 discharge. The spike in conductivity during WY99 is during pond dewatering for valve testing and inspection. The higher June 2001 conductivities are likely caused by runoff that entered C-2 during previous winter months. The June 2001 conductivities are also likely a result of changes in deicing products starting in WY00.

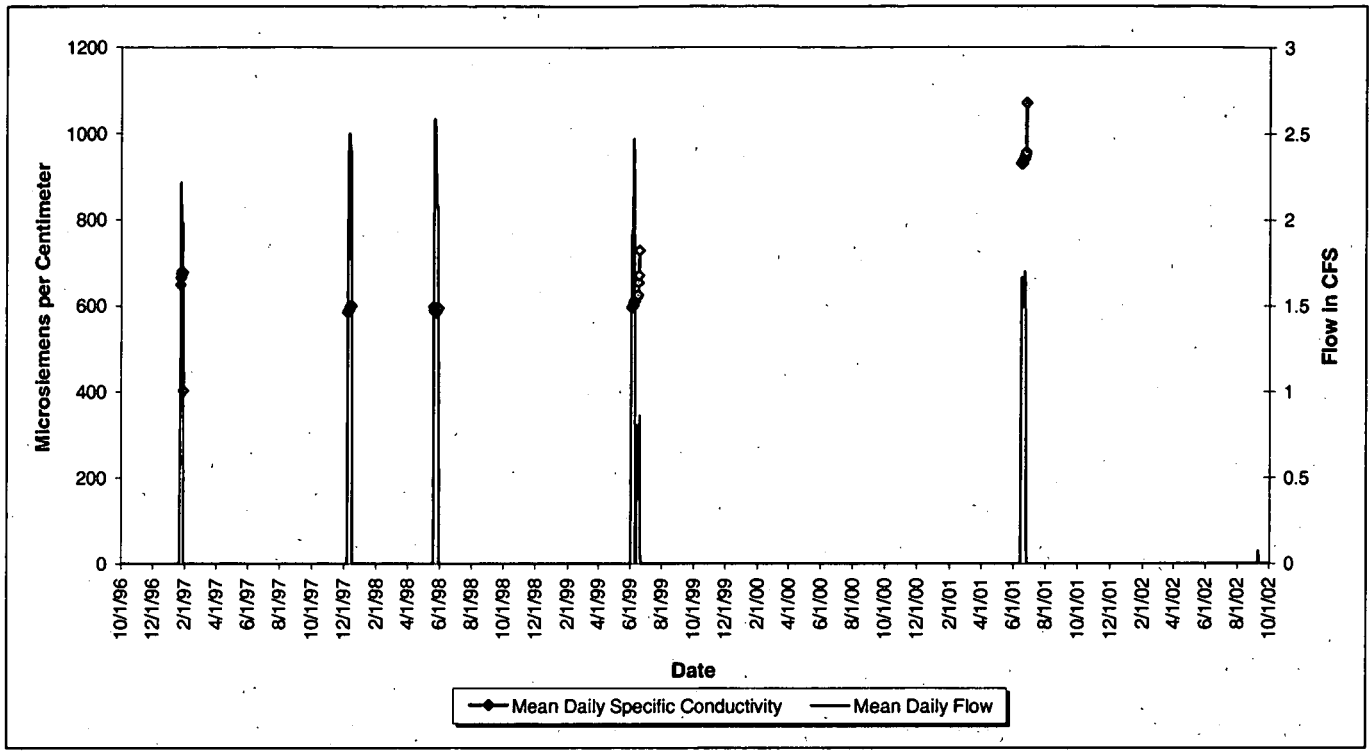


Figure 13-44. Mean Daily Specific Conductivity at GS31: Water Years 1997-2002.

Figure 13-45 shows the mean daily pH varying between 6.9 and 8.2.

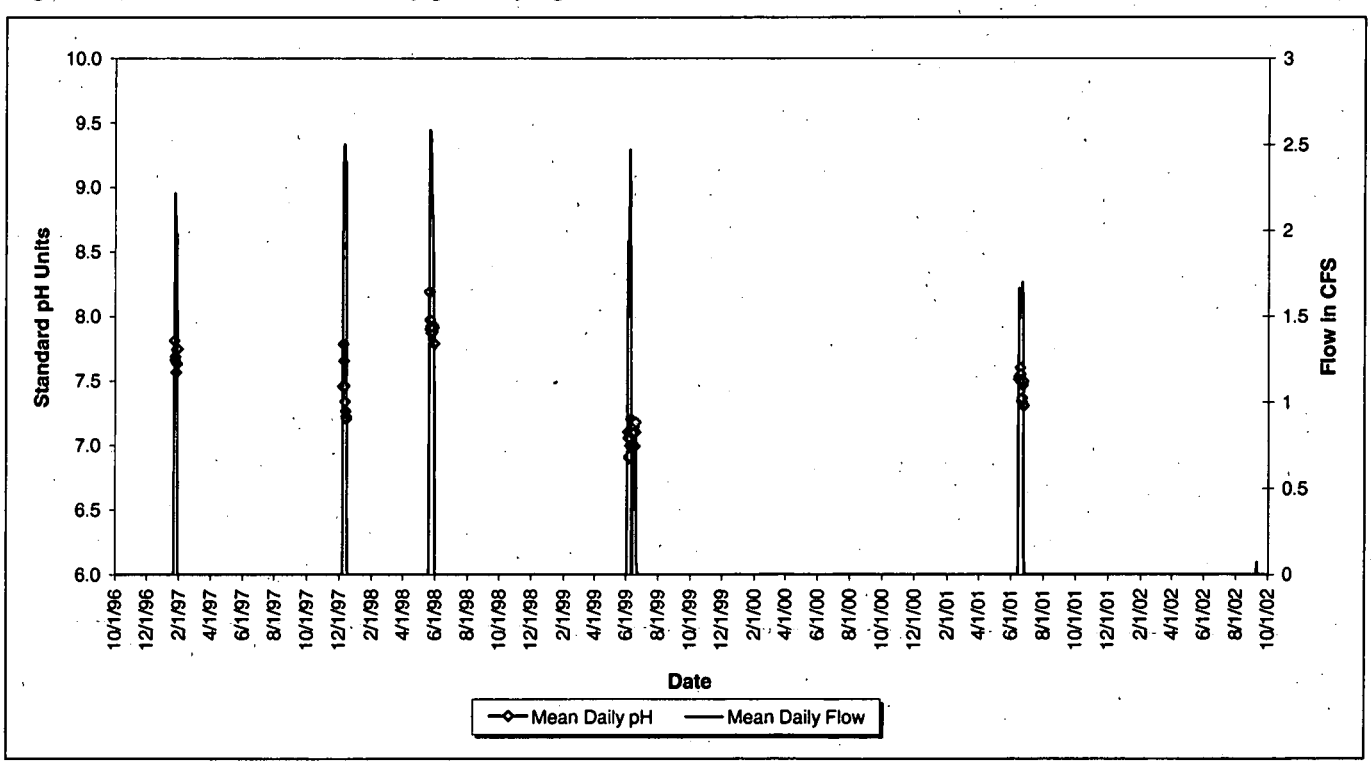


Figure 13-45. Mean Daily pH at GS31: Water Years 1997-2002.

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Finally, Figure 13-46 shows variable turbidity measurements. These variations are likely the result of biological growth in the pond and/or turbidity from recent pond inflows.

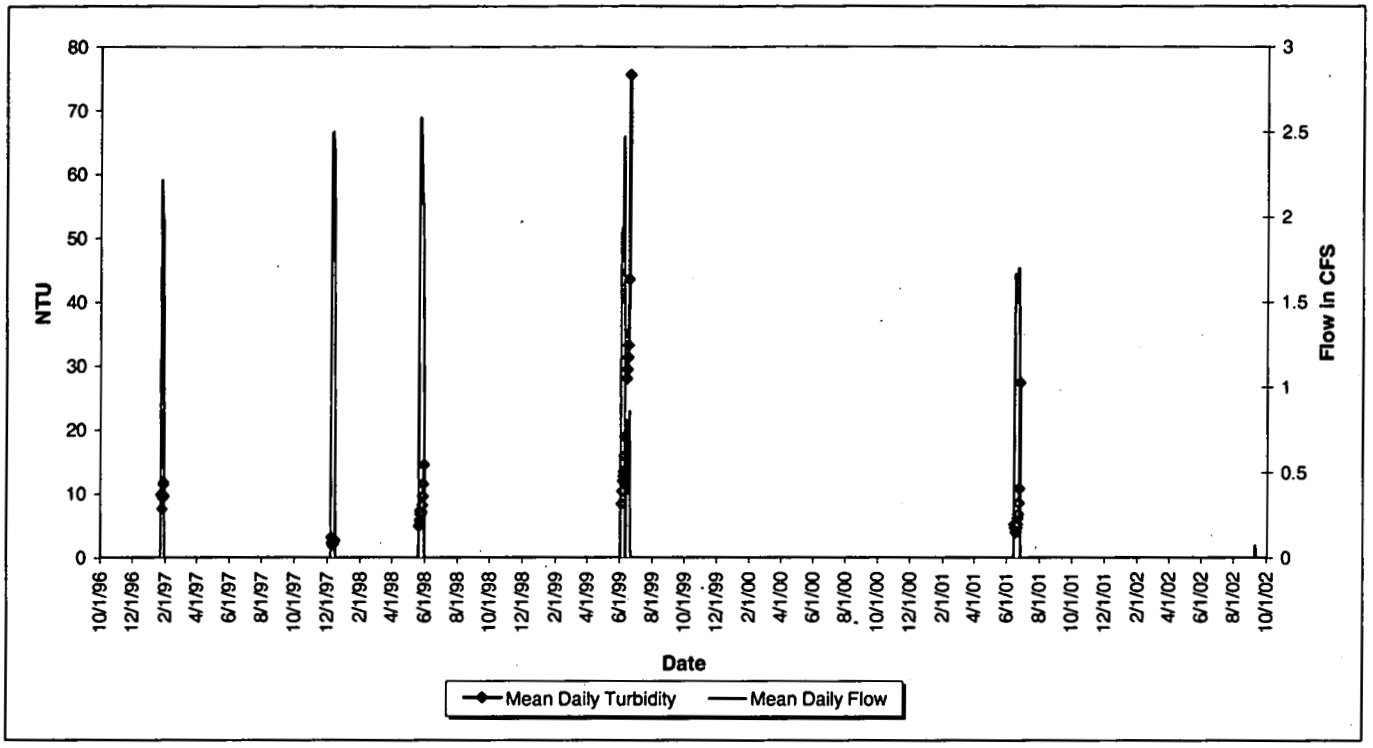

Figure 13-46. Mean Daily Turbidity at GS31: Water Years 1997-2002.

14.NON-POC MONITORING AT INDIANA STREET

The State of Colorado has proposed to conduct this non-POC monitoring as a prudent management action, and it is the intent of the RFCA parties that no enforcement action will be taken on the basis of this monitoring. Metals monitoring of flows coming from the IA is done by RFETS at POEs. This monitoring, in combination with D&D project-specific monitoring (Performance Monitoring), should detect significant changes in loadings of metals to surface waters from the IA. In addition to this monitoring, CDPHE will be monitoring metals in North and South Walnut Creek below the Solar Ponds, Mound and East Trenches Plumes to assess loadings from these only other known potential sources of metals above the A, B, and C series ponds.

Still, the ponds themselves have likely accumulated sediments containing some metals. As RFETS progresses through closure, the hydrology of the stream/pond system is likely to change, with a gradual reduction in domestic water supply and wastewater effluent. The effect of both reduced flows (domestic water supply leakage and wastewater effluent) and reduced nutrient loading into the B-series ponds on stream/pond chemistry is unknown.

Therefore, the monitoring described in this section is done in order to ensure metal concentrations leaving RFETS meet stream standards, and to provide an assessment of nutrients and physical parameters that might help explain any observed changes in metal concentrations over time.

Since the primary focus of this monitoring is to obtain an assessment of chemistry changes within the ponds, only pond releases are monitored. And, as a practical matter, flows other than pond releases are only significant as a result of direct precipitation runoff, which will be difficult to accurately assess with only the grab sampling provided by CDPHE.

14.1 DATA TYPES, FREQUENCY, AND COLLECTION PROTOCOLS

The complete list of parameters and analytes (analytes collected by CDPHE) is given in Table 14-1. Only the continuously-measured water-quality parameters pH and conductivity are collected by the Site.

Table 14-1. Non-POC Monitoring Analytes and Parameters.

Analyte	Number of Samples
Total ammonia	5
Nitrate/Nitrite	5
Total phosphate as P	5
Orthophosphate	5
Ag, Cu, Mn, Ni, Se (dissolved)	5
As, Be, Cd, Cr, Fe, Li (total)	5
Total Hardness, as $CaCO_3$	5
pH	Continuous 15 min intervals
Temperature	Continuous 15 min intervals
Conductivity	Continuous 15 min intervals
Flow	Continuous 15 min intervals

Non-POC monitoring is limited to Stream Segment 4, as represented by samples taken from Walnut Creek at Indiana Street and Woman Creek at Indiana Street (GS03 and GS01 respectively, see Figure 13-1).

14.2 WY02 MONITORING SCOPE

Table 14-2. Non POC Monitoring Locations.

ID Code	Location	Primary Flow Measurement Device	Telemetry
GS01	Woman Creek and Indiana St.	9" Parshall Flume	Yes
GS03	Walnut Creek and Indiana St.	6" and 36" Parallel Parshall Flumes	Yes

Table 14-3. Non POC Field Data Collection: Parameters and Frequency.

ID Code	Parameters		
	Discharge	Real-Time pH and Conductivity	Precipitation
GS01	15-min continuous	15-min continuous	5-min continuous
GS03	15-min continuous	15-min continuous	5-min continuous

Notes: Parameters are measured opportunistically when continuous flow is present and freezing conditions will not damage the probes.

14.3 DATA EVALUATION

No specific data evaluations are required of the Site for this monitoring objective.

Plots of mean daily water temperature, specific conductivity, and pH for the Indiana Street POCs (GS01 and GS03) are given below.[59] More detailed data for all parameters are presented in Appendix B.5.2. The methods used for the water-quality parameter evaluations are given in Appendix B.5: Real-Time Water-Quality Parameters.

14.3.1 Location GS01

No real-time water-quality data were collected at GS01 during WY02. Plots of real-time water quality for the RFCA period are included.

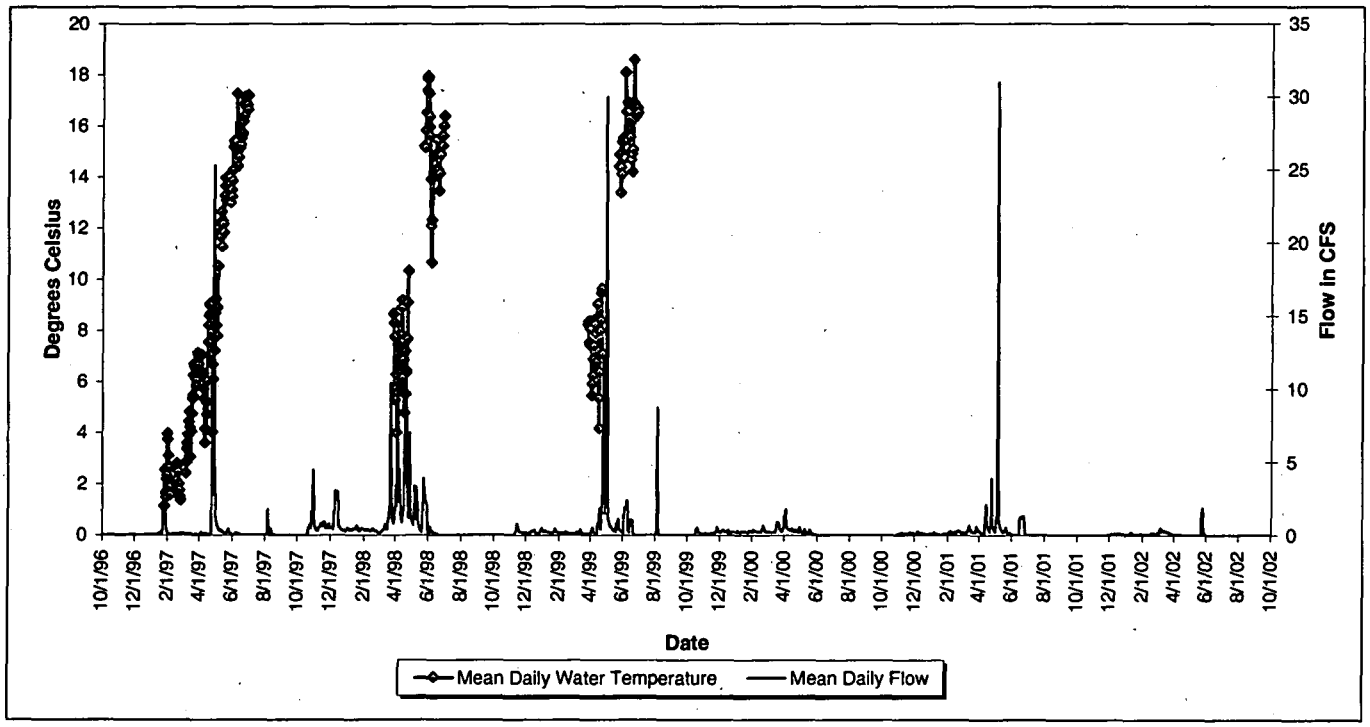

Figure 14-1. Mean Daily Water Temperature at GS01: Water Years 1997-2002.

[59] Mean daily water-quality values are given for days of measurable flow. Some data may be missing due to equipment failures and removal for calibration.

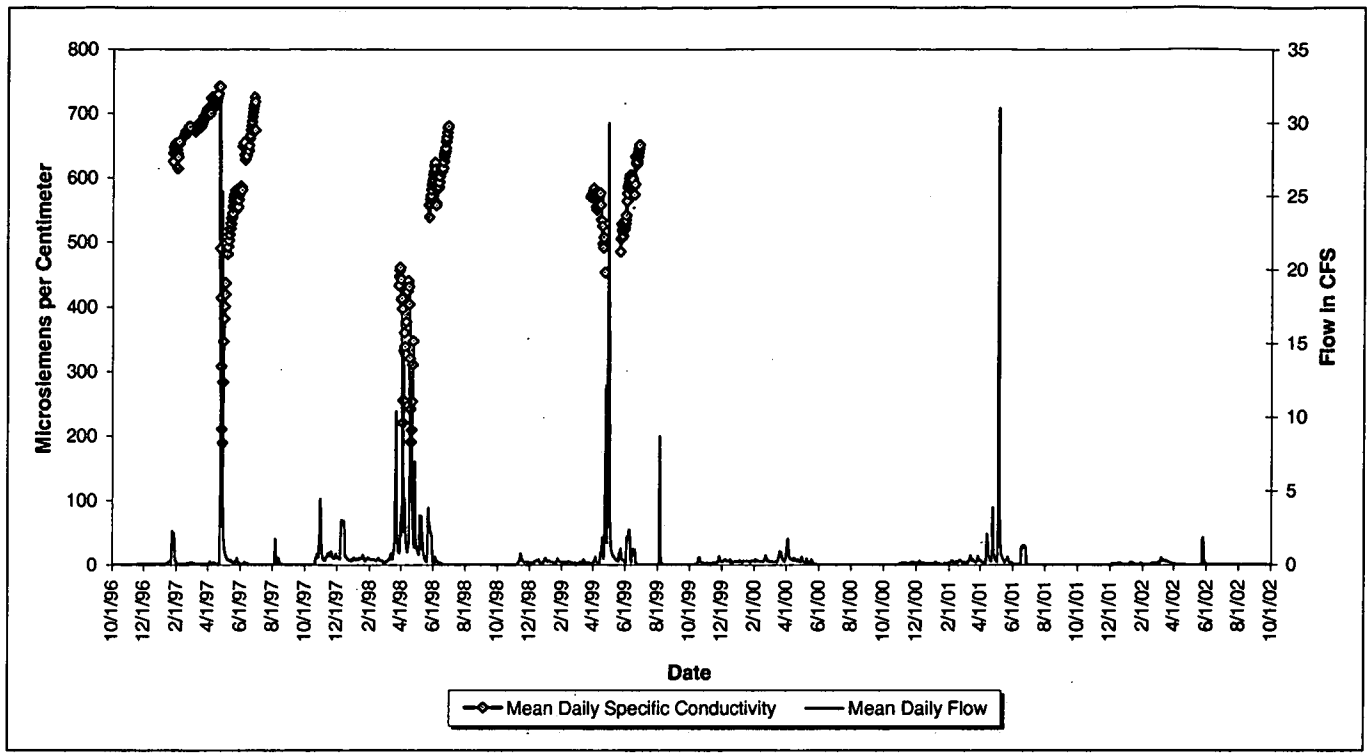

Figure 14-2. Mean Daily Specific Conductivity at GS01: Water Years 1997-2002.

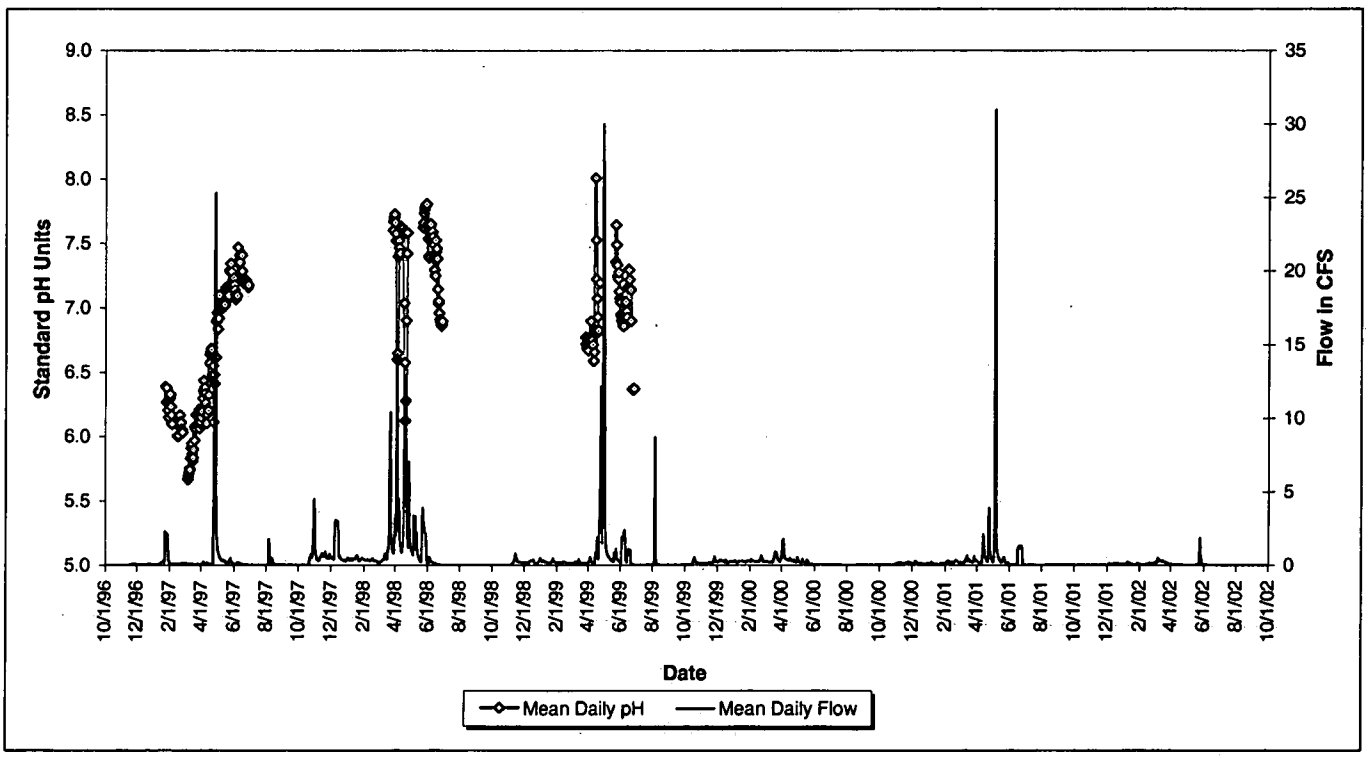

Figure 14-3. Mean Daily pH at GS01: Water Years 1997-2002.

14.3.2 Location GS03

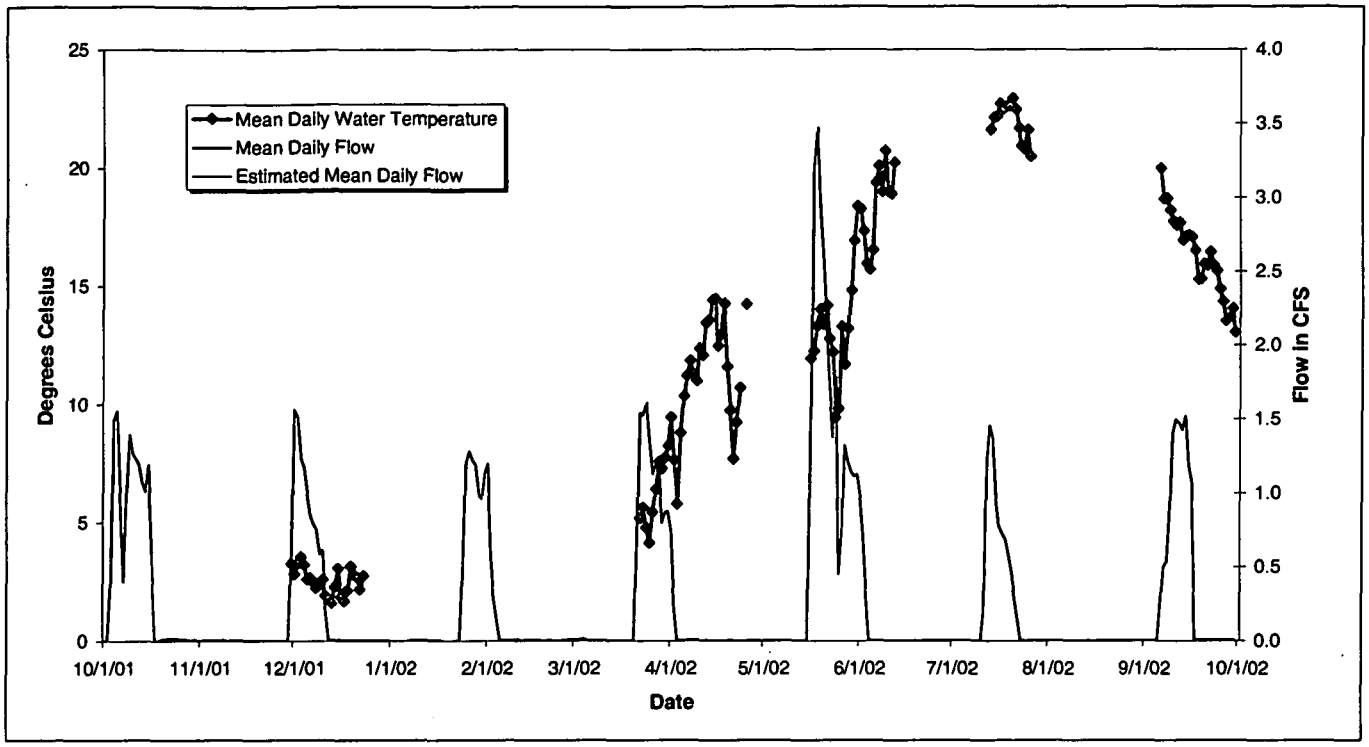

Figure 14-4. Mean Daily Water Temperature at GS03: Water Year 2002.

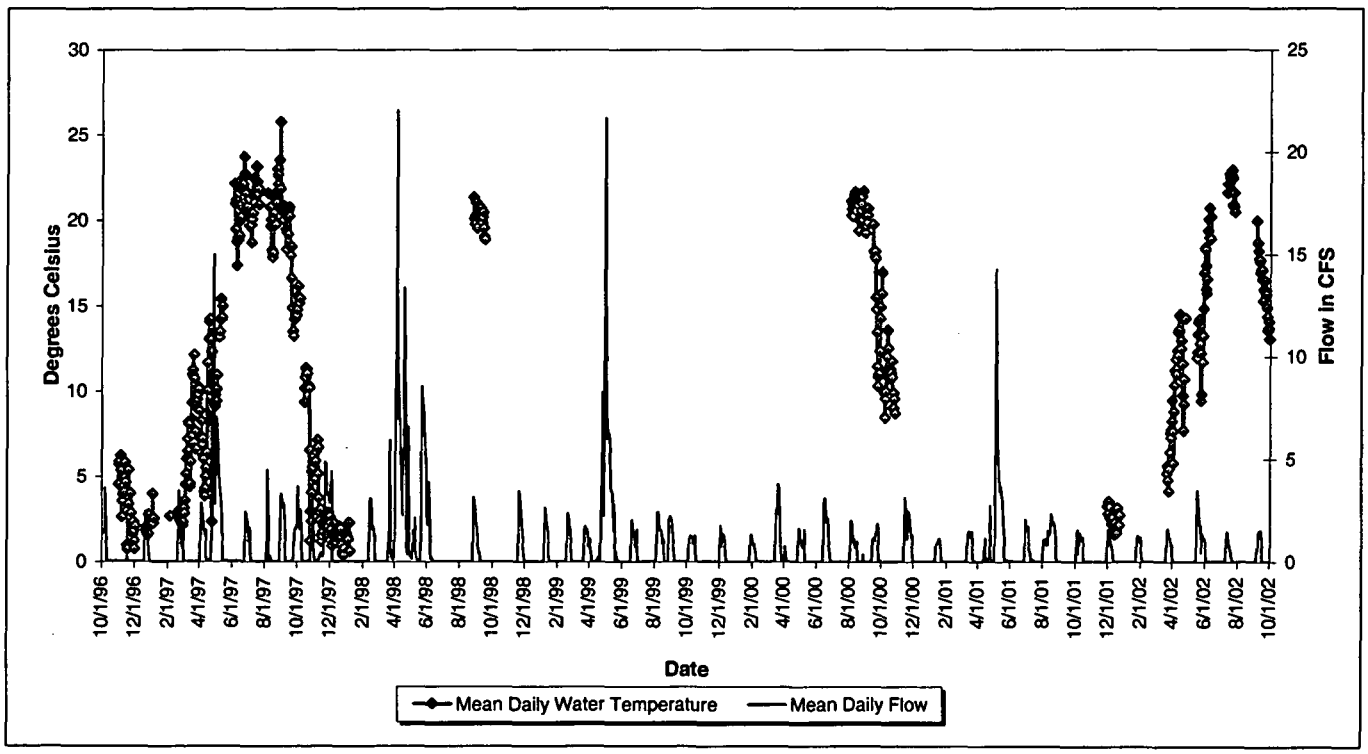

Figure 14-5. Mean Daily Water Temperature at GS03: Water Years 1997-2002.

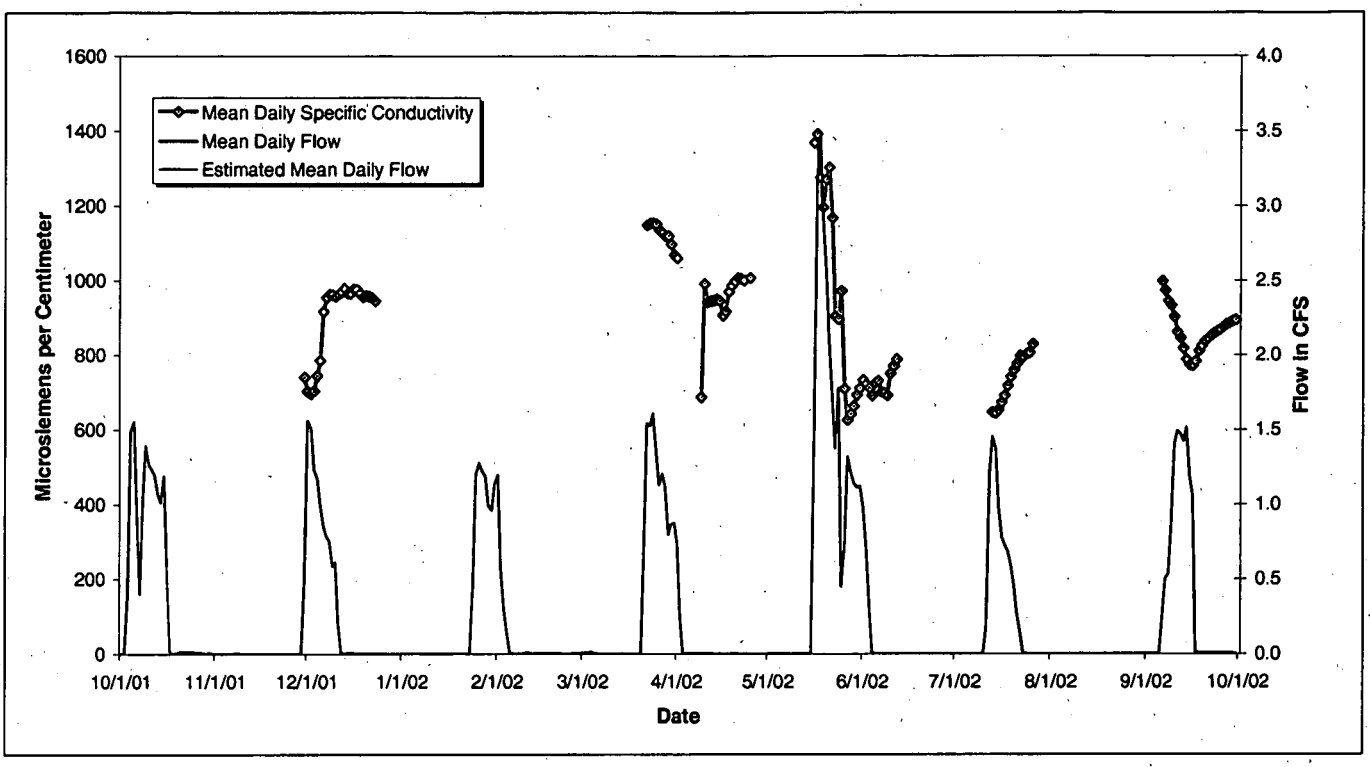

Figure 14-6. Mean Daily Specific Conductivity at GS03: Water Year 2002.

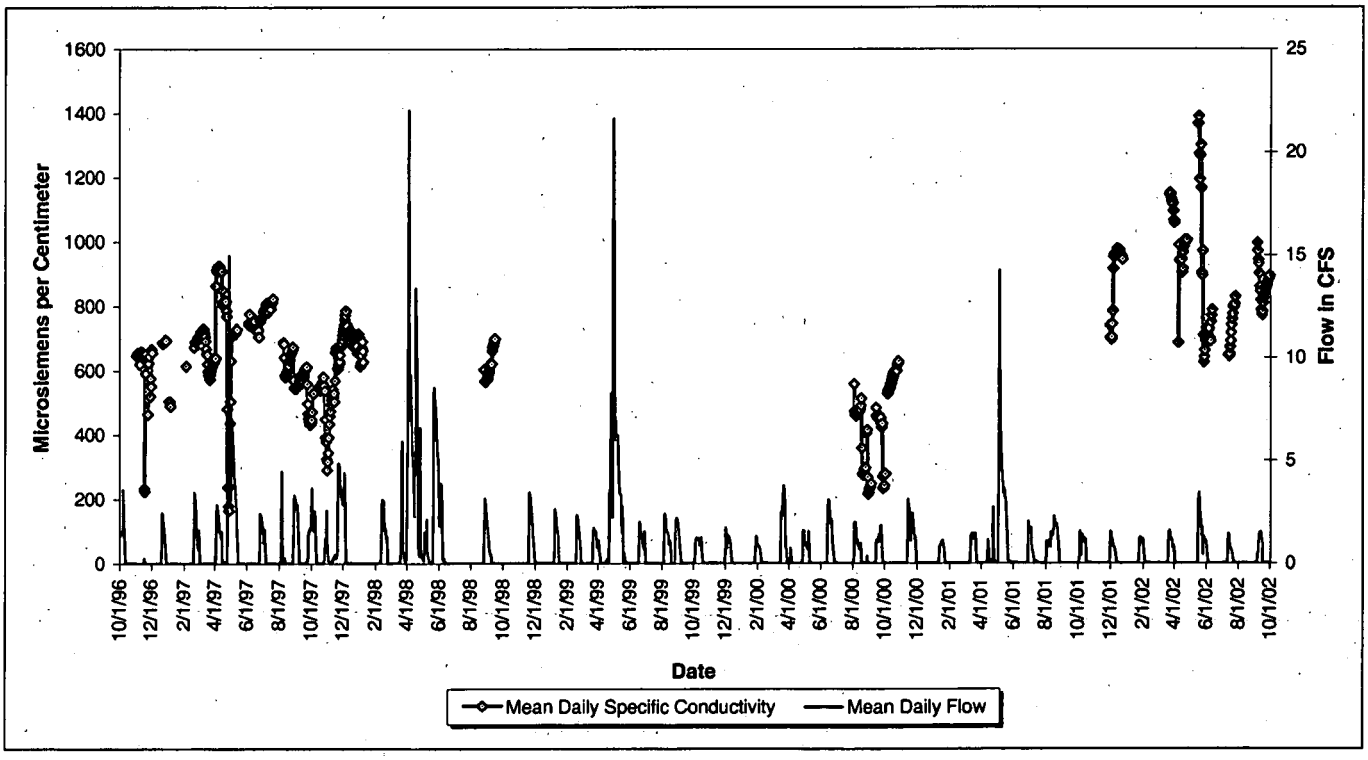

Figure 14-7. Mean Daily Specific Conductivity at GS03: Water Years 1997-2002.

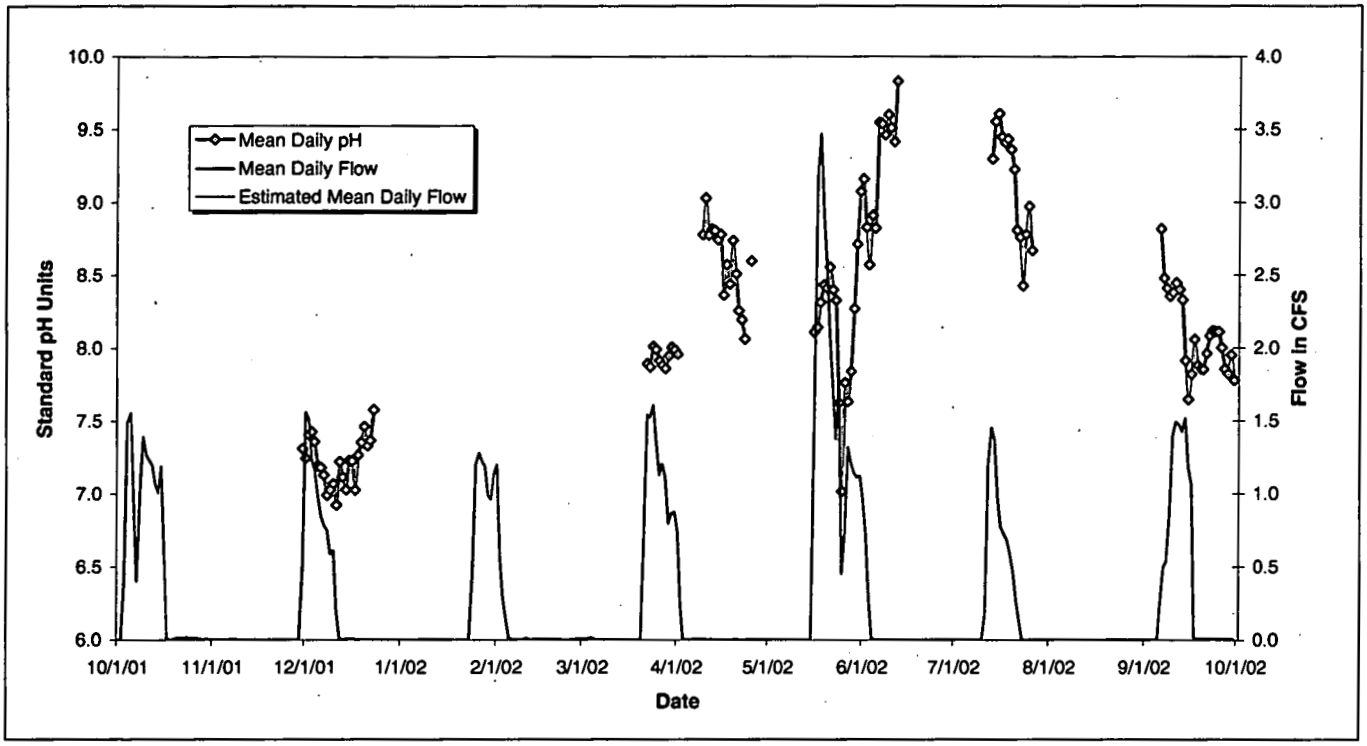

Figure 14-8. Mean Daily pH at GS03: Water Year 2002.

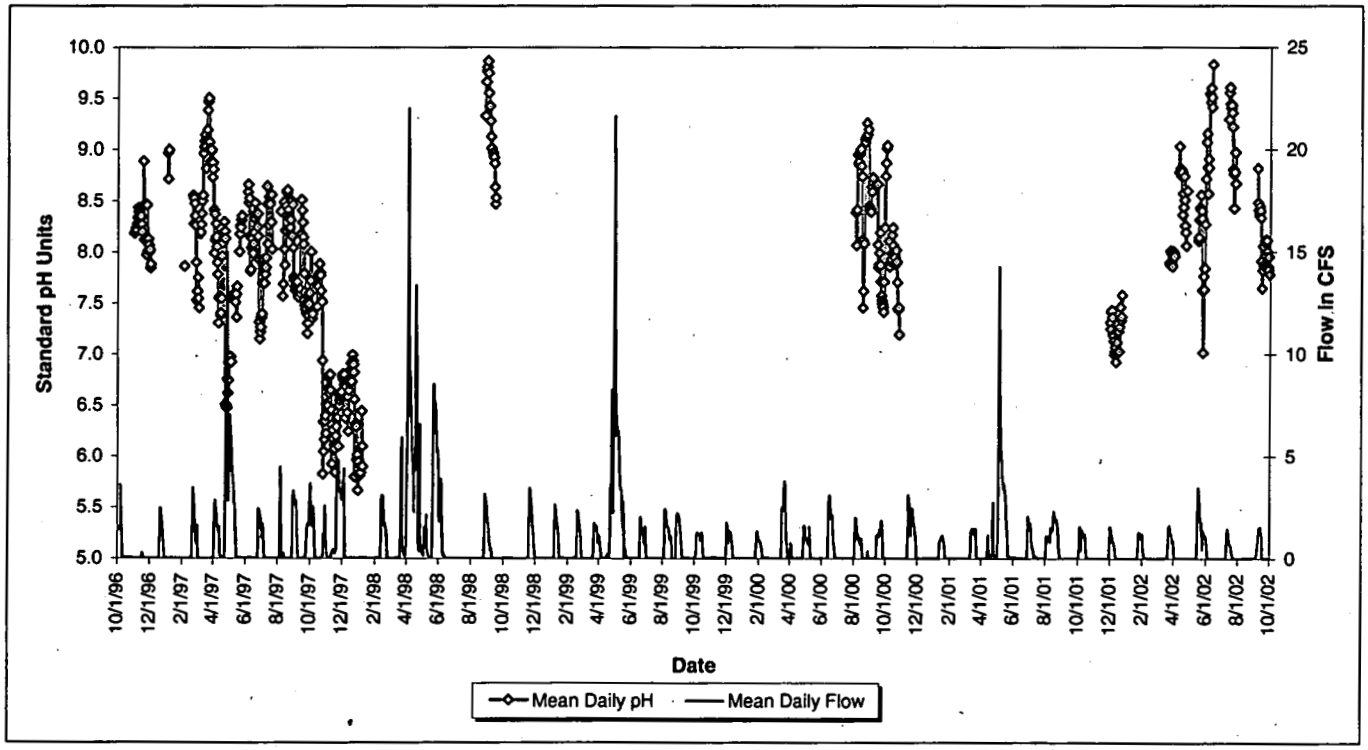

Figure 14-9. Mean Daily pH at GS03: Water Years 1997-2002.

15.BUFFER ZONE HYDROLOGIC MONITORING

Buffer Zone hydrologic monitoring is performed to characterize interactions between the various environmental media. Possible interactions are presented in Table 15-1, which represents a conceptual model of integrated monitoring at the Site

As indicated in Table 15-1, there are interactions between surface water, air, groundwater, and the flora and fauna of the Site. Concerns have been expressed that changes in flow into and out of the Site could impact habitat and species of concern both onsite and downstream (e.g., the Prebles meadow jumping mouse onsite, and whooping cranes in Nebraska). For example, aggregate mining activities west of the Site may alter surface water flowing onto the Site and could impact species of concern on Site and downstream. The DOE, RFFO could be held responsible for these impacts. Also, Site closure activities (e.g., closure of the Building 995 WWTP and modification of the Interceptor Trench System) could significantly alter drainage and flow patterns. In fact, water is one of the key abiotic components structuring some of the significant habitats. Should the availability or quality of water be affected by upgradient off-Site activities or upgradient on-Site activities, significant habitats could be adversely affected.

Table 15-1. Interactions Between Media, Significance at RFETS, and Monitoring to Evaluate Interactions.

Interactions Between Media	Significance at RFETS	Monitoring to Evaluate Interactions
Surface Water to Ecology	Potentially significant; surface water flow and contamination could impact local ecology. However, the local ecology has remained healthy during a variety of climatic and flow conditions.	Data from existing Site-wide surface water monitoring may be used to assess potential ecological impacts. The ecological monitoring program is also designed to detect ecological changes and assess general ecological health. In addition, project-specific evaluations are conducted to assess potential impacts.
Surface Water to Groundwater	Not significant; groundwater recharge from surface water is not significant.	No monitoring is necessary to characterize or assess groundwater impacts.
Surface Water to Air	Not significant; surface water quality will not significantly impact air quality (i.e., cause exceedances of air quality standards).	Any significant impacts on air or water quality will be detected by existing DOE, CDPHE, and project-specific monitoring.
Surface Water to Soil	Potentially significant; water in drainages and ponds will not significantly increase contaminant concentrations in soil; however, runoff could spread contaminants on surface soils and increase sediment concentrations.	Soil monitoring is conducted to determine the impacts of surface water runoff and the extent of required soil removal before, during, and after individual remediation projects. Results of the actinide migration studies will be used to determine whether existing soil monitoring needs to be modified or expanded.
Groundwater to Surface Water	Significant; most of the Site groundwater flows into Site surface water drainages.	Existing surface water monitoring will detect any impacts from groundwater. Data from Site-wide groundwater monitoring (Site-wide and project-specific) are also used to assess and predict potential surface water impacts.

Interactions Between Media	Significance at RFETS	Monitoring to Evaluate Interactions
Air to Surface Water	Potentially significant; point source and fugitive emission sources could degrade surface water quality.	Surface water monitoring (Site-wide and project-specific) will detect increases in contaminant concentrations. Also, any significant impacts on air quality will be detected by existing DOE, CDPHE, and project-specific air monitoring.
Soil to Surface Water	Significant; contaminants in soils are transported to surface water via runoff and surface water quality is degraded.	Site-wide and project-specific surface water monitoring will detect increases in contaminant concentrations. Soil monitoring is also conducted to determine the impacts of runoff and the extent of required soil removal before, during, and after individual remediation projects. Results of the actinide migration studies will be used to determine whether existing soil monitoring needs to be modified or expanded.

In consideration of these potential impacts, watershed-level information is collected regarding water availability in the BZ. Current flow monitoring in the BZ, in addition to that performed under RFCA, is shown in Table 15-2. The flow data are collected at 15-minute intervals, downloaded, and compiled monthly (presented in Section 3). However, data-quality objectives (DQOs) for this monitoring have not yet been developed, and data evaluation to assess ecological impacts is not included in this report

15.1 DATA TYPES, FREQUENCY, AND COLLECTION PROTOCOLS

BZ hydrologic monitoring will be performed only as represented by GS01, GS02, GS03, GS04, GS05, GS06, GS16, SW118, and SW134 (see Figure 15-1).

Sampling at selected BZ stations is performed by collecting storm-event, rising-limb, flow-paced composites. The recommended monitoring design detailed in the IMP was to take samples for WY02 as specified in Table 15-4.

15.2 WY02 MONITORING SCOPE

Table 15-2. BZ Hydrologic Monitoring Locations.

ID Code	Location	Primary Flow Measurement Device	Telemetry
GS01	Woman Creek and Indiana St.	9" Parshall Flume	Yes
GS02	Mower Ditch and Indiana St.	9" Parshall Flume	No
GS03	Walnut Creek and Indiana St.	6" and 36" Parallel Parshall Flumes	Yes
GS04	Rock Creek at Rte. 128	9" Parshall Flume	Yes
GS05	North Woman Creek at West Site Boundary	9" Parshall Flume	Yes
GS06	South Woman Creek at West Site Boundary	6" Parshall Flume	Yes
GS16	Antelope Springs	6" Parshall Flume	No
SW118	N. Walnut Creek W of Portal 3	169.5° V-Notch Weir	Yes
SW134	Gravel Pits on Rock Creek Near West Site Boundary	6" Parshall Flume	Yes

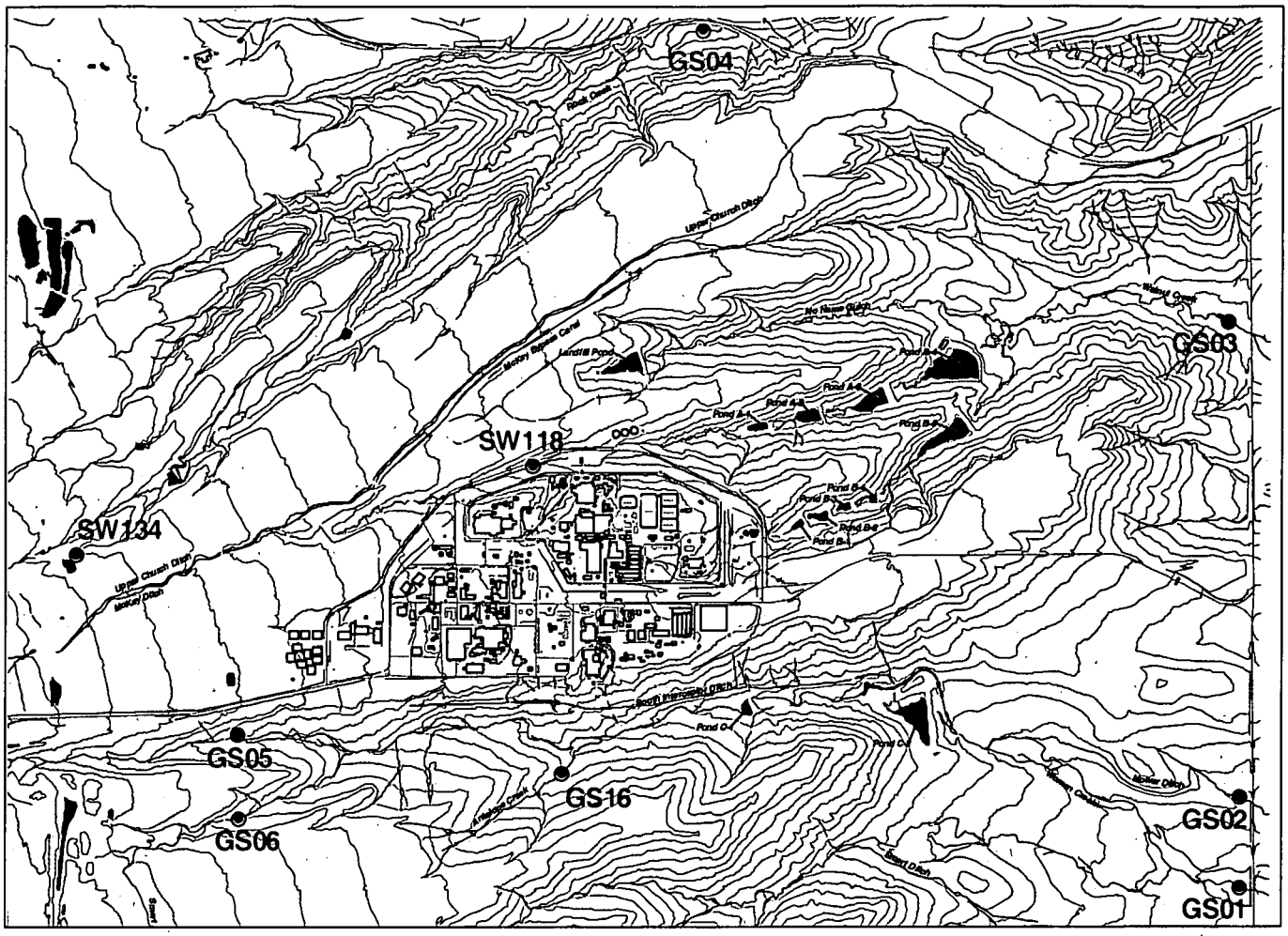

Figure 15-1. Water Year 2002 Buffer Zone Hydrologic Monitoring Locations.

Table 15-3. BZ Hydrologic Field Data Collection: Parameters and Frequency.

ID Code	Parameter	
	Discharge	Precipitation
GS01	15-min continuous	15-min continuous
GS02	15-min continuous	NA
GS03	15-min continuous	15-min continuous
GS04	15-min continuous	15-min continuous
GS05	15-min continuous	15-min continuous
GS06	15-min continuous	NA
GS16	15-min continuous	NA
SW118	15-min continuous	15-min continuous
SW134	15-min continuous	NA

All locations collect 5- and 15-minute flow data.

Table 15-4. BZ Hydrologic Sample Collection Protocols.

ID Code	Frequency	Type[a]
GS01	Quarterly with an additional TSS in spring	Storm-event, flow-paced composites
GS02	Quarterly with an additional TSS in spring	Storm-event, flow-paced composites
GS03	Quarterly with an additional TSS in spring	Storm-event, flow-paced composites
GS04	Quarterly with an additional TSS in spring	Storm-event, flow-paced composites
GS05	Quarterly with an additional TSS in spring	Storm-event, flow-paced composites
GS06	Quarterly with an additional TSS in spring	Storm-event, flow-paced composites
GS16	NA	NA
SW118	NA	NA
SW134	Quarterly	Storm-event, flow-paced composites

Notes: [a] Sample types are defined in the RFETS Automated Surface-Water Monitoring Work Plan.

Table 15-5. BZ Hydrologic Analytical Targets (Analyses per Year).

ID Code	TSS: WY02 Actual (Target)	Sed/Sand: WY02 Actual (Target)	Ca,Mg,Na,K,Cl,F,SO_4,HCO_3: WY02 Actual (Target)
GS01	1 (5)	1 (4)	1 (4)
GS02	0 (5)	0 (4)	0 (4)
GS03	1 (5)	1 (4)	1 (4)
GS04	1 (5)	1 (4)	1 (4)
GS05	2 (5)	2 (4)	2 (4)
GS06	1 (5)	1 (4)	1 (4)
SW134	3 (4)	3 (4)	3 (4)

15.3 DATA EVALUATION

Although no routine data evaluations are required, the following preliminary decision rules have been proposed by the IMP:

IF The seasonal average or yearly average water availability or quality entering Rock Creek, Walnut Creek, or Woman Creek drainages diminishes below baseline due to off-Site activities,

THEN The Site will notify Jefferson County and the U.S. Fish and Wildlife Service (USFWS) to determine what actions, if any, should be taken to restore availability and/or quality to historical levels.

IF Activities occurring within Site boundaries result in a depletion of the seasonal or yearly average natural flow greater than the historic baseline, or at rates that are determined to have a negative impact on downstream habitats or individual species,

THEN The Site will determine what management actions should be taken to ameliorate this problem.

IF Significant changes to alluvial groundwater availability in a wetlands habitat are determined,

THEN Notify parties of potential impacts to the wetlands habitat and continue groundwater and ecological monitoring.

IF A proposed action could adversely affect a listed species or its critical habitat,

THEN The Site will consult with the USFWS.

Secondary Data Uses Could Include:

- Determining the impact of mining on Rock Creek water quality and availability;
- Interpreting potential causes of declines in any of the valued habitats on Site;
- Supporting water management planning;
- Evaluating cumulative impacts of all actions (on and off Site);
- Validating any predicted impacts of the selected alternative to downstream resources; and
- Supporting the Site's biological assessment and USFWS's biological opinion.

Flow summaries for the BZ locations are given in Section 3: Hydrologic Data. More detailed hydrologic data are given in Appendix A.1: Hydrologic Data.

The following sections present the Buffer Zone Hydrologic data on a location-specific basis for the entire period of BZ Hydro monitoring. Each section includes a table of summary statistics for the location-specific analytes of interest and box plots.

The following evaluations include all results that were not rejected through the verification/validation process. When a sample has a corresponding field duplicate, the value used in calculations is the arithmetic average of the 'real' value and the 'duplicate'. When a sample has multiple 'real' analyses (Site requested 're-runs'), the value used in calculations is the arithmetic average of the multiple 'real' analyses.

For the summary tables, when metals and TSS results are returned from the laboratory as 'undetect', ½ of the detection limit is used for calculation purposes.

Box plots were calculated using S-Plus statistical evaluation software. For these plots, when metals and TSS results are returned from the laboratory as 'undetect', ½ of the detection limit is used for calculation purposes. A key describing the components of the box plots is given in Appendix B.1: Data Evaluation Methods.

No discussion of the BZ Hydro data is provided below. The tables and box plots are intended to summarize the collected data.

15.3.1 Location GS01

Monitoring location GS01 is located on Woman Creek at Indiana Street. **Figure 3-8** shows the drainage area for GS01. Table 15-6 presents the analyte-specific summary statistics for BZ samples collected at GS01. Figure 15-2 through Figure 15-7 show the analyte-specific box plots for BZ samples collected at GS01. The southern portion of the IA and Pond C-2 contribute flow to GS01.

Table 15-6. BZ Summary Statistics for Analytical Results from GS01 in WY97-02.

Analyte	Samples [N]	Percent Undetect	Median	85th Percentile	Maximum
TSS [mg/L]	15	47%	2.50	22.5	85.0
CHLORIDE [mg/L]	16	0%	43.5	60.3	103
FLUORIDE [mg/L]	16	0%	0.41	0.52	0.69
SULFATE [mg/L]	16	0%	37.0	52.5	100
TOTAL ALKALINITY [mg/L]	15	0%	167	180	230
TDS [mg/L]	14	0%	330	408	510
ALUMINUM [µg/L]	16	0%	87.5	1061	5010
ANTIMONY [µg/L]	16	63%	0.41	1.18	11.2
ARSENIC [µg/L]	16	56%	0.69	1.94	2.65
BARIUM [µg/L]	16	0%	100	112	158
BERYLLIUM [µg/L]	16	63%	0.13	0.26	0.75
CADMIUM [µg/L]	16	81%	0.05	0.12	2.50
CALCIUM [µg/L]	16	0%	53050	65900	80600
CHROMIUM [µg/L]	16	38%	0.45	2.31	4.60
COBALT [µg/L]	16	75%	0.25	0.81	2.65
COPPER [µg/L]	16	25%	1.20	4.15	5.80
IRON [µg/L]	16	6%	114	763	3570
LEAD [µg/L]	16	56%	0.53	2.48	3.10
LITHIUM [µg/L]	14	0%	11.9	15.1	38.5
MAGNESIUM [µg/L]	16	0%	13950	18150	23300
MANGANESE [µg/L]	16	6%	8.13	18.6	56.4
MERCURY [µg/L]	16	100%	0.05	0.05	0.10
MOLYBDENUM [µg/L]	14	21%	0.99	1.65	6.45
NICKEL [µg/L]	16	25%	1.20	3.88	6.60
POTASSIUM [µg/L]	16	0%	2450	3963	7700
SELENIUM [µg/L]	16	63%	0.95	2.36	6.30
SILVER [µg/L]	16	94%	0.11	0.34	1.35
SODIUM [µg/L]	16	0%	33000	49150	64400
STRONTIUM [µg/L]	14	0%	367	475	565
THALLIUM [µg/L]	16	88%	0.44	0.84	7.80
TIN [µg/L]	14	93%	0.36	1.52	7.60
VANADIUM [µg/L]	16	19%	1.09	3.89	10.6
ZINC [µg/L]	16	6%	8.85	13.3	26.7

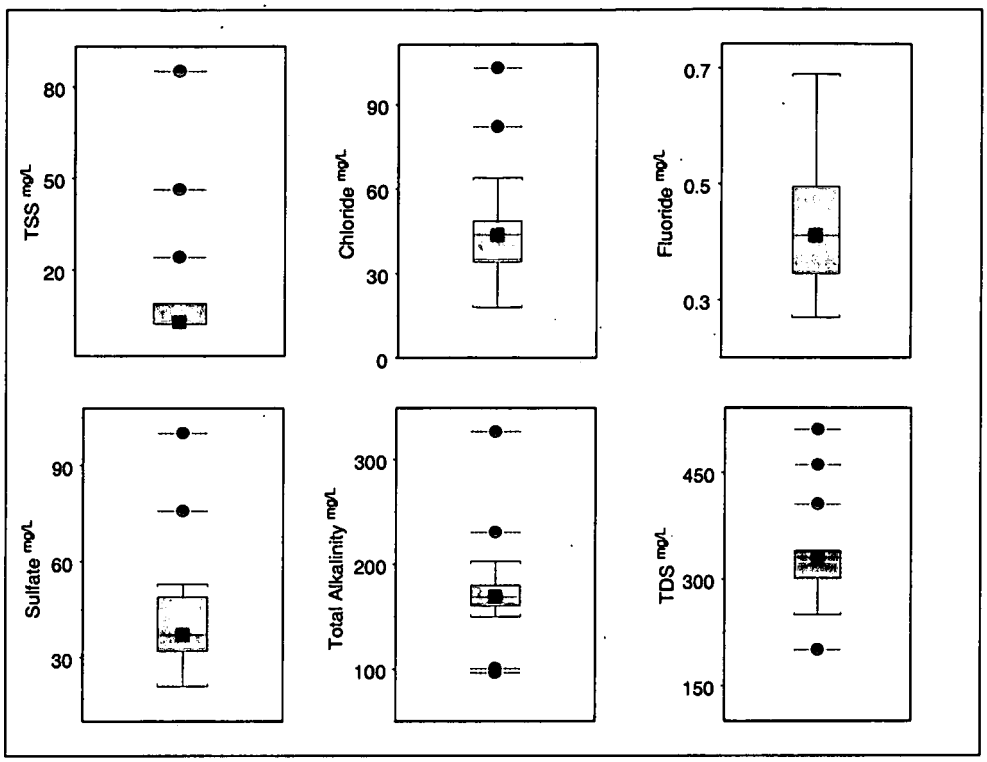

Figure 15-2. Water-Quality Parameter Box Plots for Location GS01.

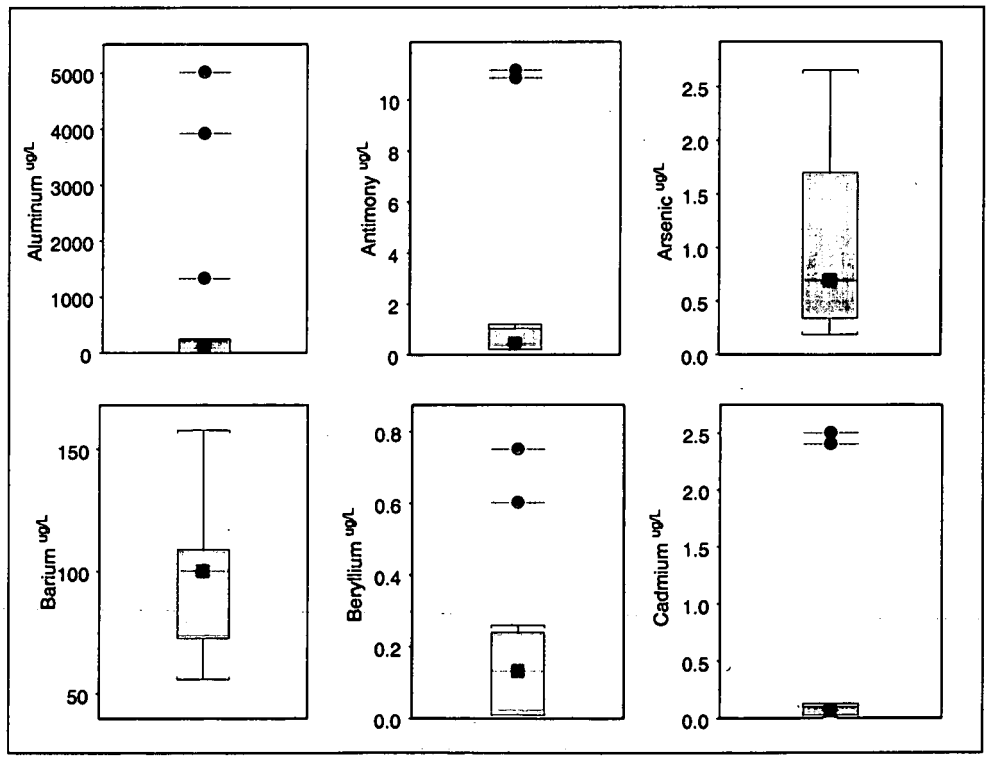

Figure 15-3. Total Metals Box Plots for Location GS01: Aluminum through Cadmium.

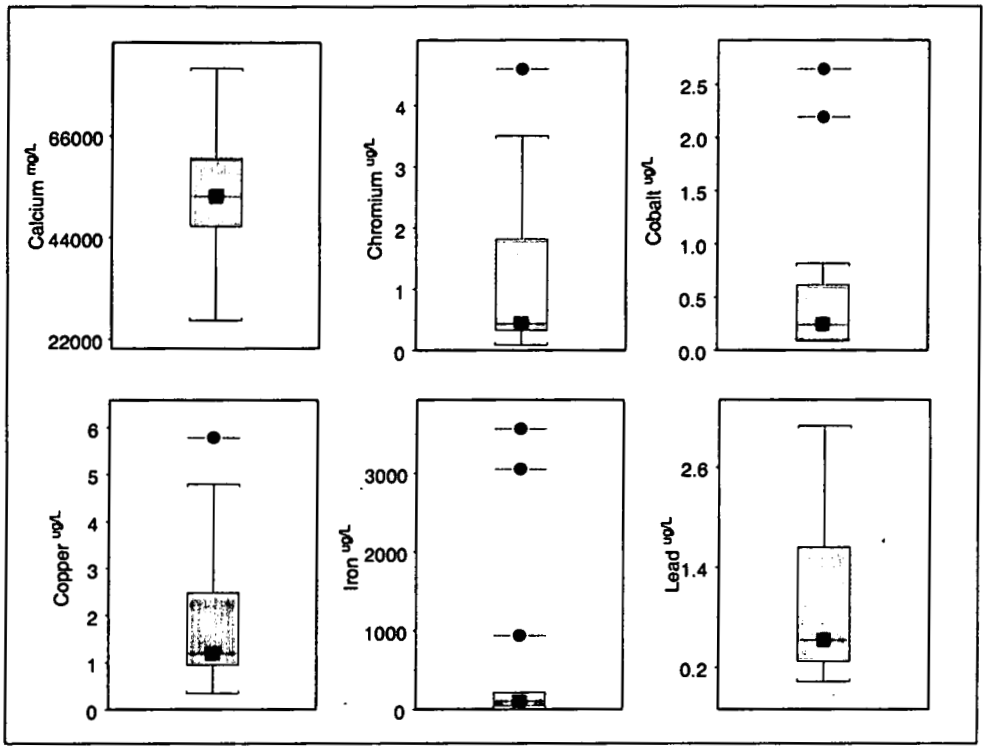

Figure 15-4. Total Metals Box Plots for Location GS01: Calcium through Lead.

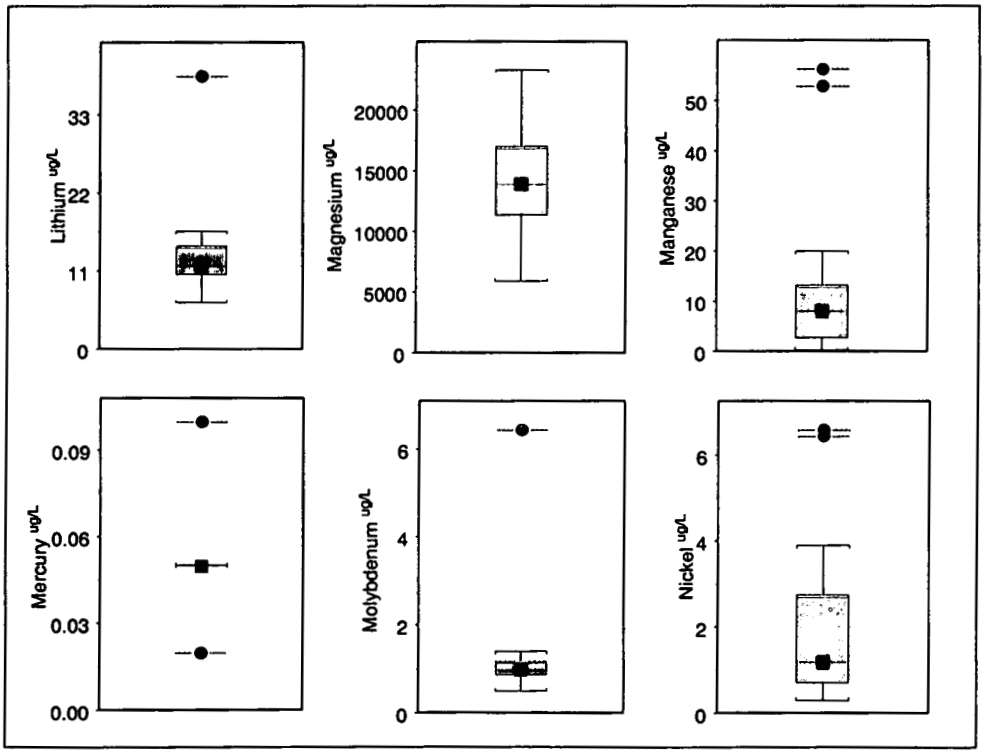

Figure 15-5. Total Metals Box Plots for Location GS01: Lithium through Nickel.

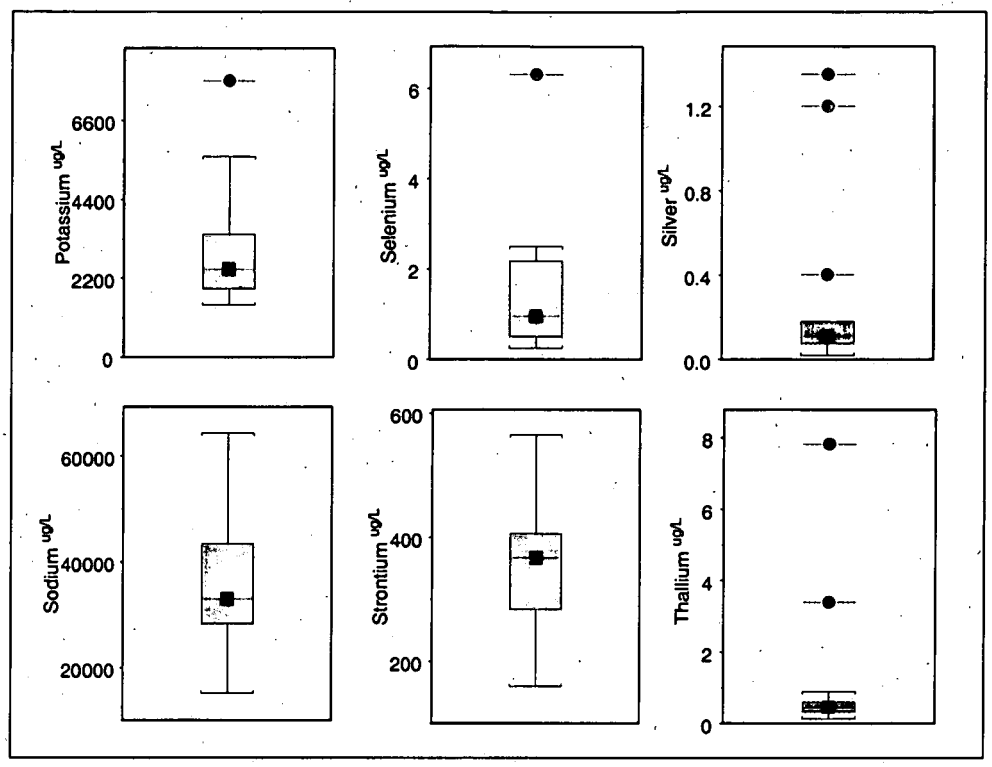

Figure 15-6. Total Metals Box Plots for Location GS01: Potassium through Thallium.

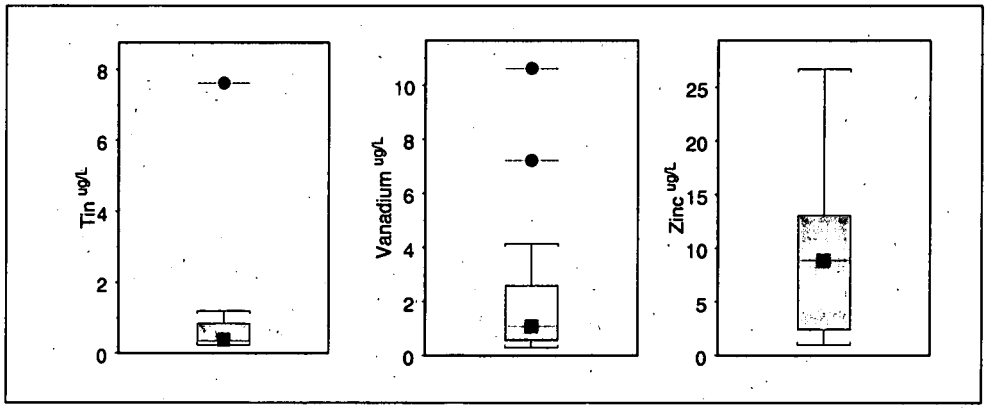

Figure 15-7. Total Metals Box Plots for Location GS01: Tin through Zinc.

15.3.2 Location GS02

Monitoring location GS02 is located on Mower Ditch at Indiana Street. Table 15-7 presents the analyte-specific summary statistics for BZ samples collected at GS02. Figure 15-8 through Figure 15-13 show the analyte-specific box plots for BZ samples collected at GS02. **Figure 3-11** shows the drainage area for GS01. The splitter box at Woman Creek is normally configured so no Woman Creek water enters Mower Ditch.

Table 15-7. BZ Summary Statistics for Analytical Results from GS02 in WY97-02.

Analyte	Samples [N]	Percent Undetect	Median	85th Percentile	Maximum
TSS [mg/L]	5	0%	5.00	9.40	16.0
CHLORIDE [mg/L]	5	0%	44.0	62.3	86.0
FLUORIDE [mg/L]	5	0%	0.39	0.43	0.47
SULFATE [mg/L]	5	0%	28.7	74.8	140
TOTAL ALKALINITY [mg/L]	5	0%	153	170	170
TDS [mg/L]	5	0%	300	445	660
ALUMINUM [µg/L]	5	0%	330	656	837
ANTIMONY [µg/L]	5	100%	0.43	10.9	10.9
ARSENIC [µg/L]	5	60%	1.50	1.95	1.95
BARIUM [µg/L]	5	0%	89.8	122	151
BERYLLIUM [µg/L]	4	75%	0.58	0.75	0.75
CADMIUM [µg/L]	5	60%	0.10	2.50	2.50
CALCIUM [µg/L]	5	0%	54500	61980	66900
CHROMIUM [µg/L]	5	60%	1.90	2.40	2.40
COBALT [µg/L]	5	100%	0.45	2.65	2.65
COPPER [µg/L]	5	60%	1.10	1.22	1.40
IRON [µg/L]	5	0%	223	433	569
LEAD [µg/L]	5	60%	1.50	1.94	2.60
LITHIUM [µg/L]	3	0%	14.3	18.9	20.8
MAGNESIUM [µg/L]	5	0%	11500	14320	16000
MANGANESE [µg/L]	5	40%	3.30	6.86	7.40
MERCURY [µg/L]	5	100%	0.05	0.10	0.10
MOLYBDENUM [µg/L]	3	33%	1.10	4.85	6.45
NICKEL [µg/L]	5	60%	2.10	6.60	6.60
POTASSIUM [µg/L]	5	0%	3410	5594	8270
SELENIUM [µg/L]	5	40%	1.40	1.85	1.85
SILVER [µg/L]	5	40%	0.32	1.97	2.90
SODIUM [µg/L]	5	0%	30800	41100	56100
STRONTIUM [µg/L]	3	0%	337	410	441
THALLIUM [µg/L]	5	100%	0.23	2.25	2.25
TIN [µg/L]	3	100%	1.05	5.64	7.60
VANADIUM [µg/L]	5	20%	2.80	3.58	4.00
ZINC [µg/L]	5	40%	4.50	7.66	10.9

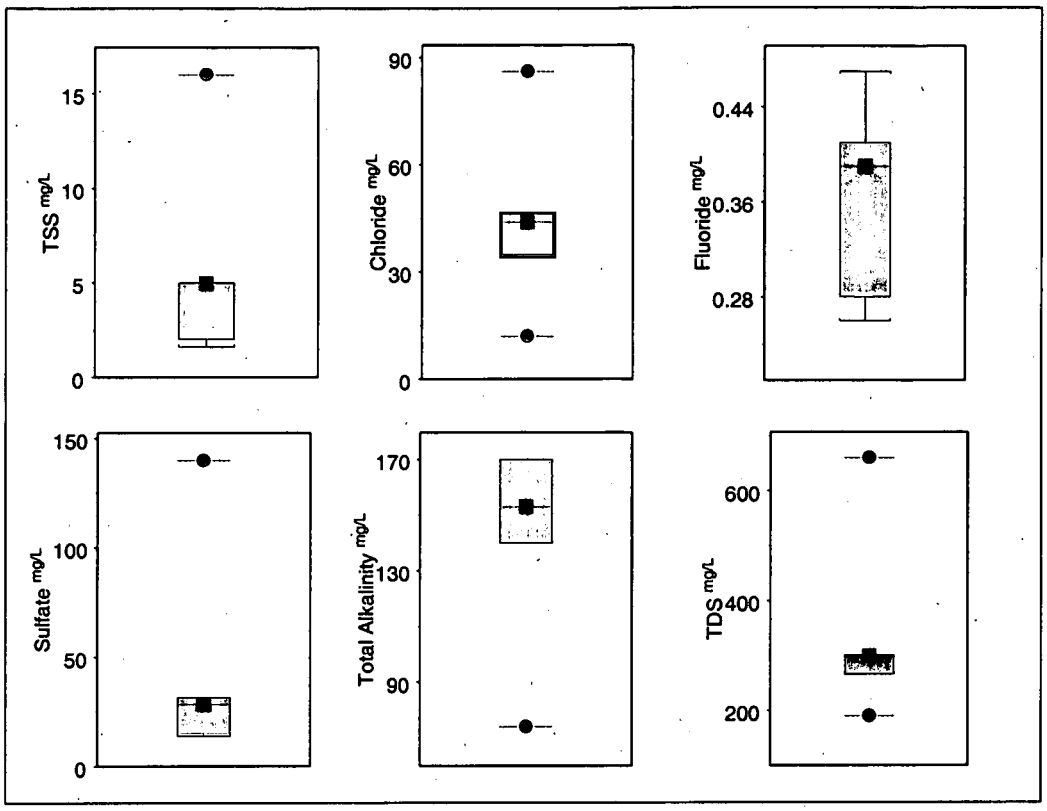

Figure 15-8. Water-Quality Parameter Box Plots for Location GS02.

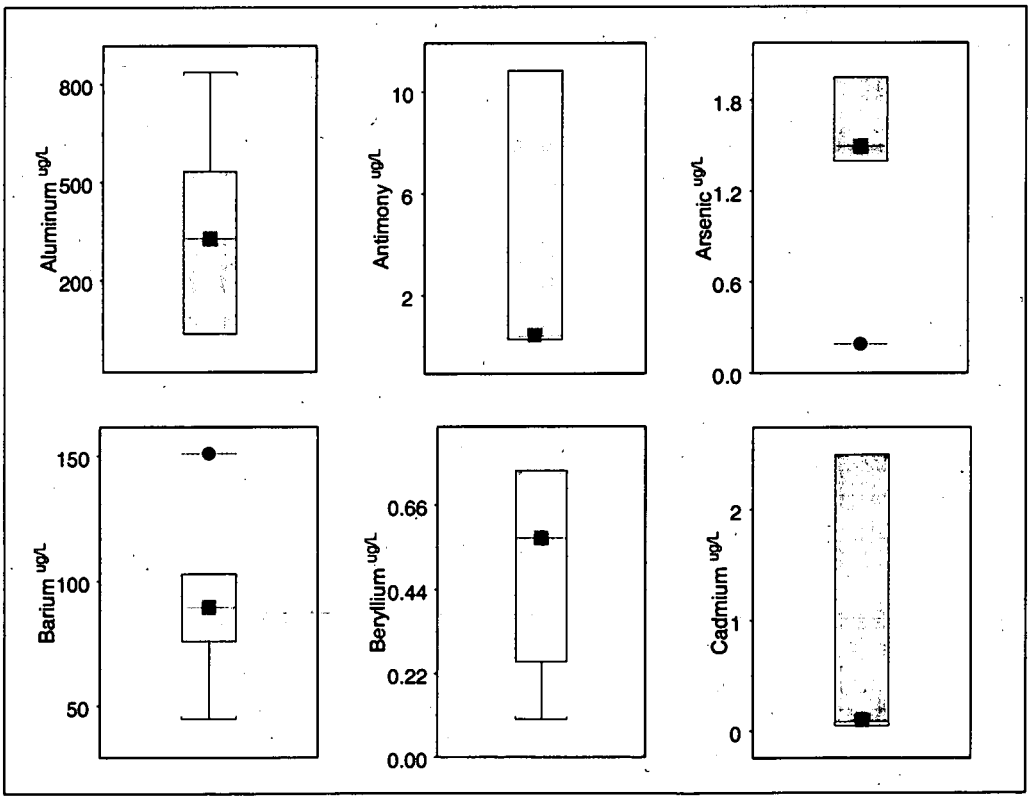

Figure 15-9. Total Metals Box Plots for Location GS02: Aluminum through Cadmium.

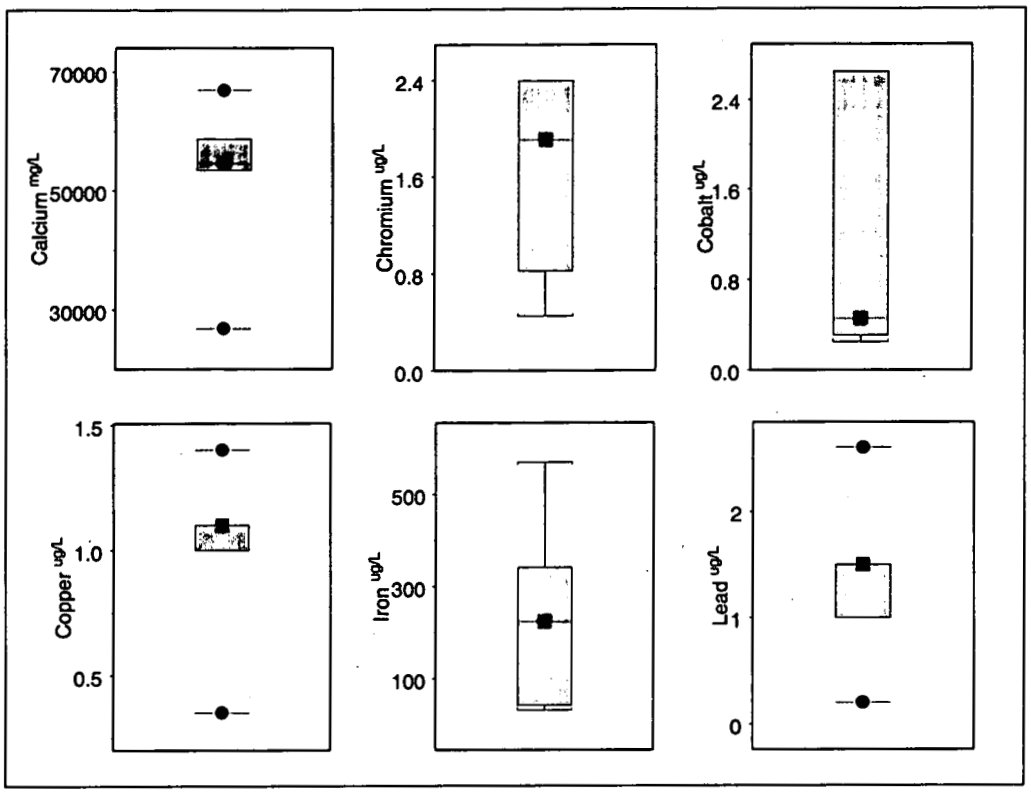

Figure 15-10. Total Metals Box Plots for Location GS02: Calcium through Lead.

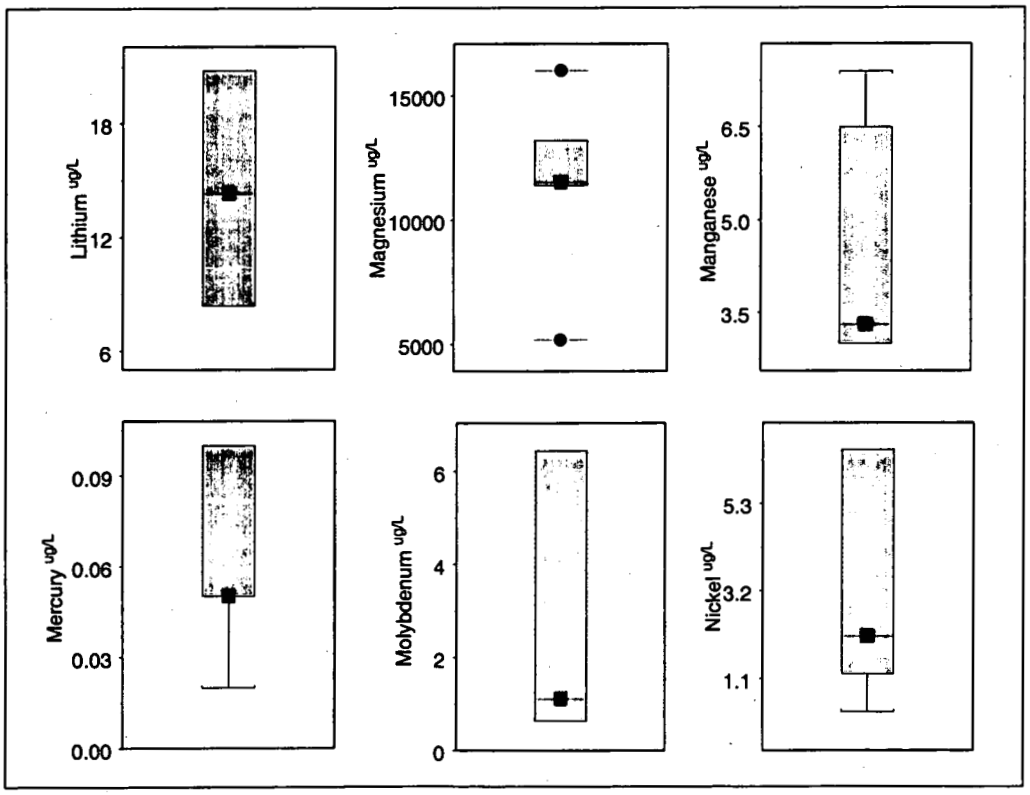

Figure 15-11. Total Metals Box Plots for Location GS02: Lithium through Nickel.

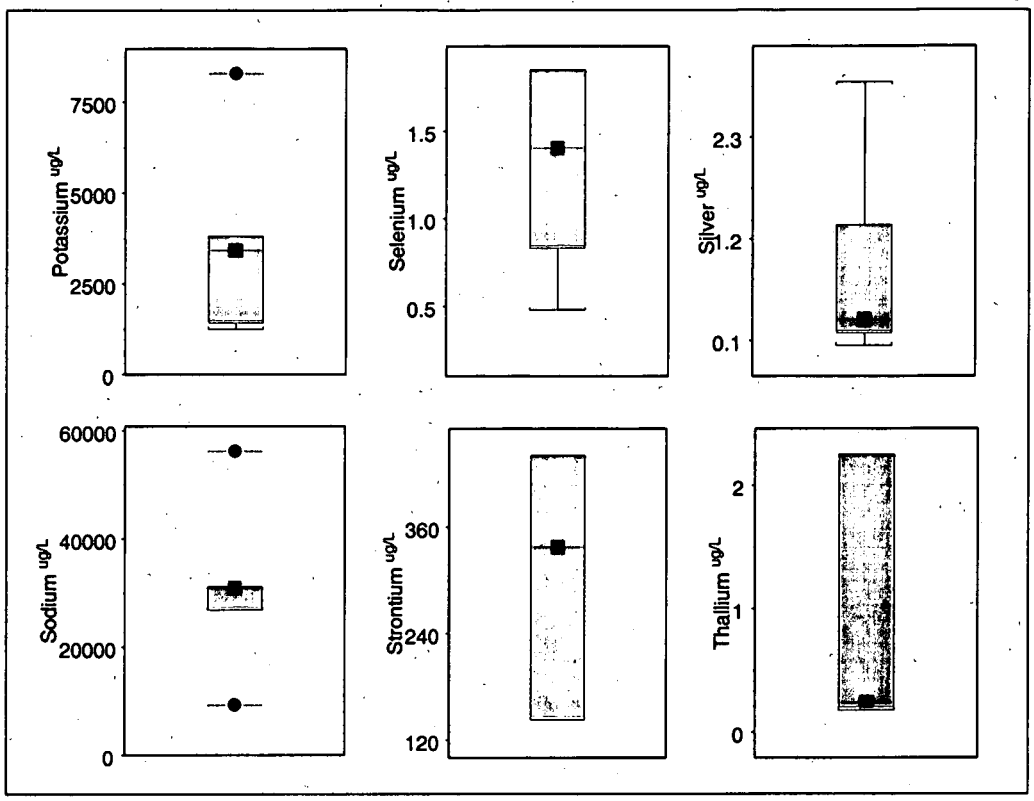

Figure 15-12. Total Metals Box Plots for Location GS02: Potassium through Thallium.

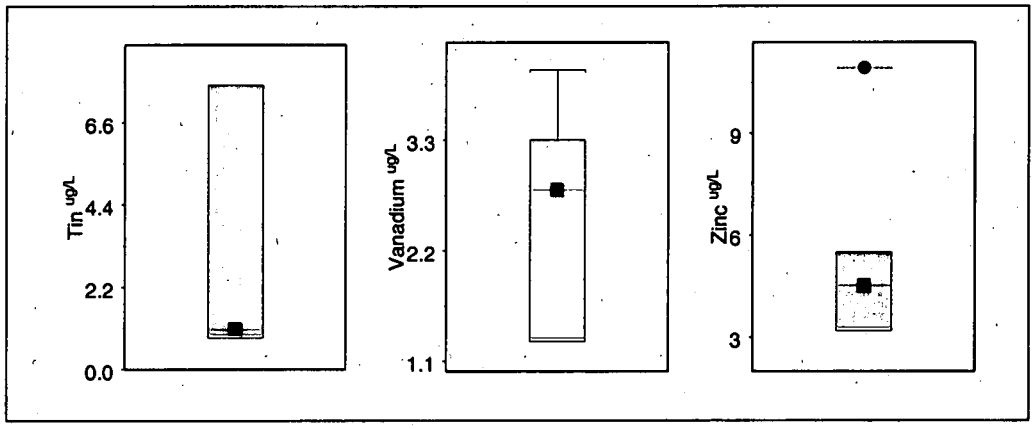

Figure 15-13. Total Metals Box Plots for Location GS02: Tin through Zinc.

15.3.3 Location GS03

Monitoring location GS03 is located on Walnut Creek at Indiana Street. Table 15-8 presents the analyte-specific summary statistics for BZ samples collected at GS03. Figure 15-14 through Figure 15-19 show the analyte-specific box plots for BZ samples collected at GS03. **Figure 3-14** shows the drainage area for GS03. The majority of the IA, Pond A-4, and Pond B-5 contribute flow to GS03.

Table 15-8. BZ Summary Statistics for Analytical Results from GS03 in WY97-02.

Analyte	Samples [N]	Percent Undetect	Median	85th Percentile	Maximum
TSS [mg/L]	14	0%	28.2	50.6	160
CHLORIDE [mg/L]	14	0%	97.5	221	260
FLUORIDE [mg/L]	14	0%	0.38	0.42	0.64
SULFATE [mg/L]	14	0%	35.6	60.3	67.0
TOTAL ALKALINITY [mg/L]	13	0%	120	180	200
TDS [mg/L]	13	0%	430	572	680
ALUMINUM [µg/L]	14	0%	611	1681	6000
ANTIMONY [µg/L]	14	36%	0.86	1.92	11.2
ARSENIC [µg/L]	14	7%	1.40	2.83	8.50
BARIUM [µg/L]	14	0%	82.2	97.6	117
BERYLLIUM [µg/L]	14	43%	0.10	0.20	0.60
CADMIUM [µg/L]	14	64%	0.05	0.15	2.40
CALCIUM [µg/L]	14	0%	48300	56865	73100
CHROMIUM [µg/L]	14	7%	1.20	2.10	6.10
COBALT [µg/L]	14	29%	0.94	1.82	2.20
COPPER [µg/L]	14	29%	2.50	3.46	7.40
IRON [µg/L]	14	0%	734	1143	3950
LEAD [µg/L]	14	21%	1.40	2.65	3.50
LITHIUM [µg/L]	13	0%	24.4	28.2	31.3
MAGNESIUM [µg/L]	14	0%	11550	15515	16000
MANGANESE [µg/L]	14	0%	101	186	526
MERCURY [µg/L]	14	100%	0.05	0.05	0.10
MOLYBDENUM [µg/L]	13	8%	2.90	6.60	8.60
NICKEL [µg/L]	14	14%	3.15	4.75	6.45
POTASSIUM [µg/L]	14	0%	6370	8908	9980
SELENIUM [µg/L]	14	71%	0.51	1.01	2.25
SILVER [µg/L]	14	71%	0.16	0.35	2.80
SODIUM [µg/L]	14	0%	56500	100650	125000
STRONTIUM [µg/L]	13	0%	295	380	444
THALLIUM [µg/L]	14	100%	0.46	0.66	2.60
TIN [µg/L]	13	100%	0.44	1.08	7.60
VANADIUM [µg/L]	14	0%	3.15	7.61	14.0
ZINC [µg/L]	14	0%	9.55	16.5	37.7

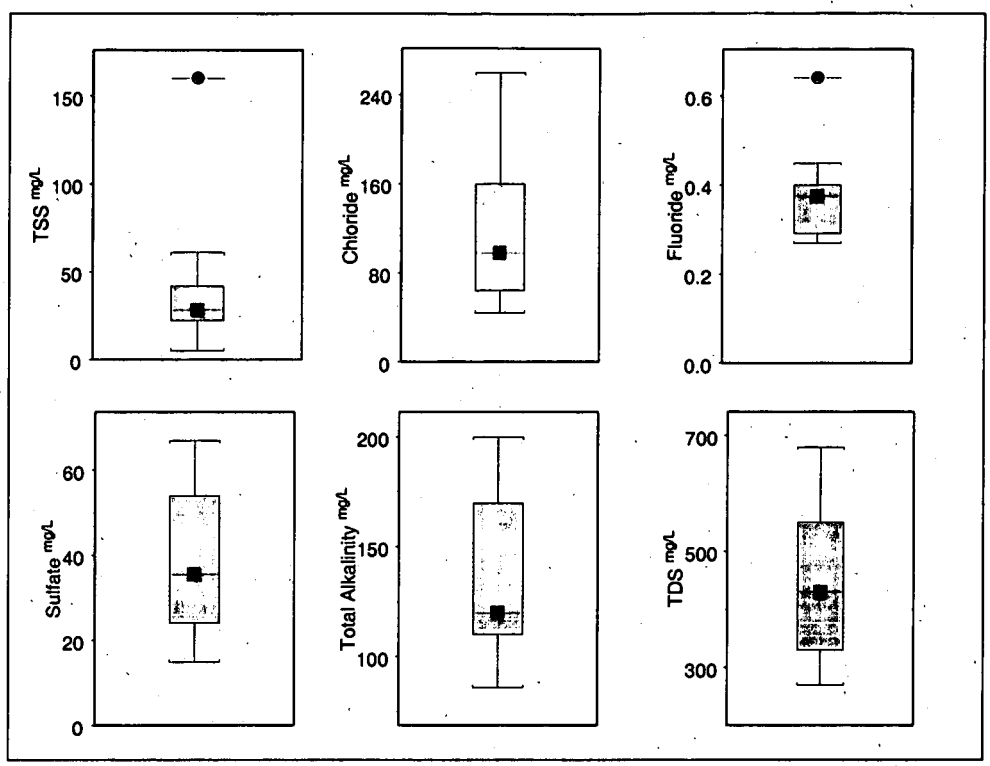

Figure 15-14. Water-Quality Parameter Box Plots for Location GS03.

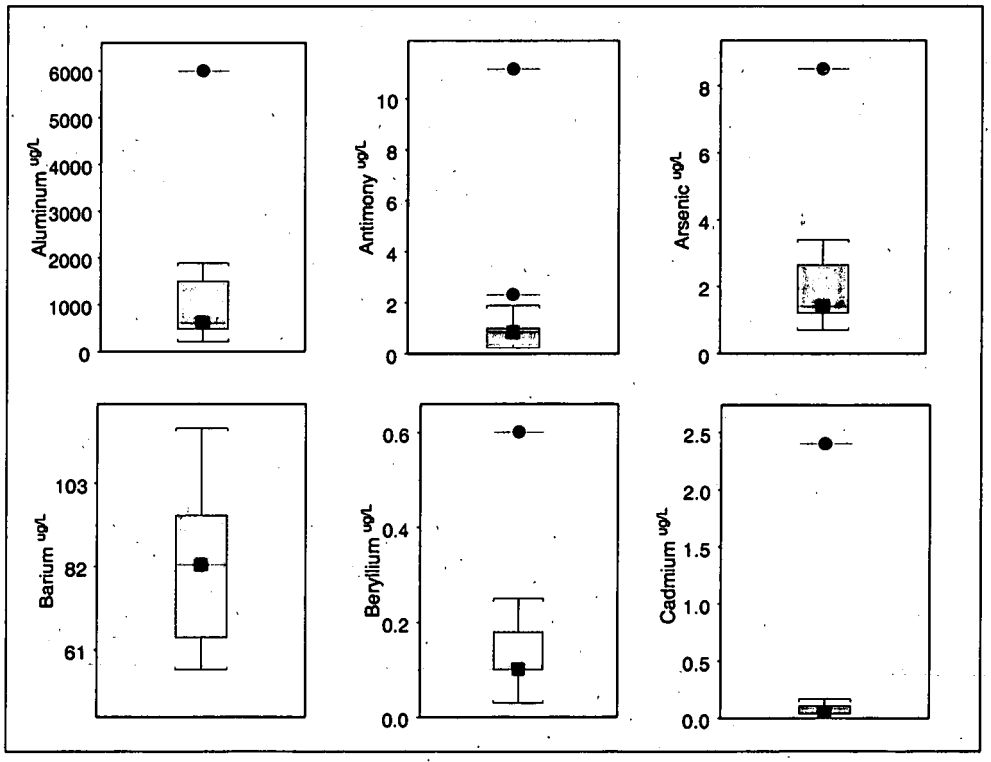

Figure 15-15. Total Metals Box Plots for Location GS03: Aluminum through Cadmium.

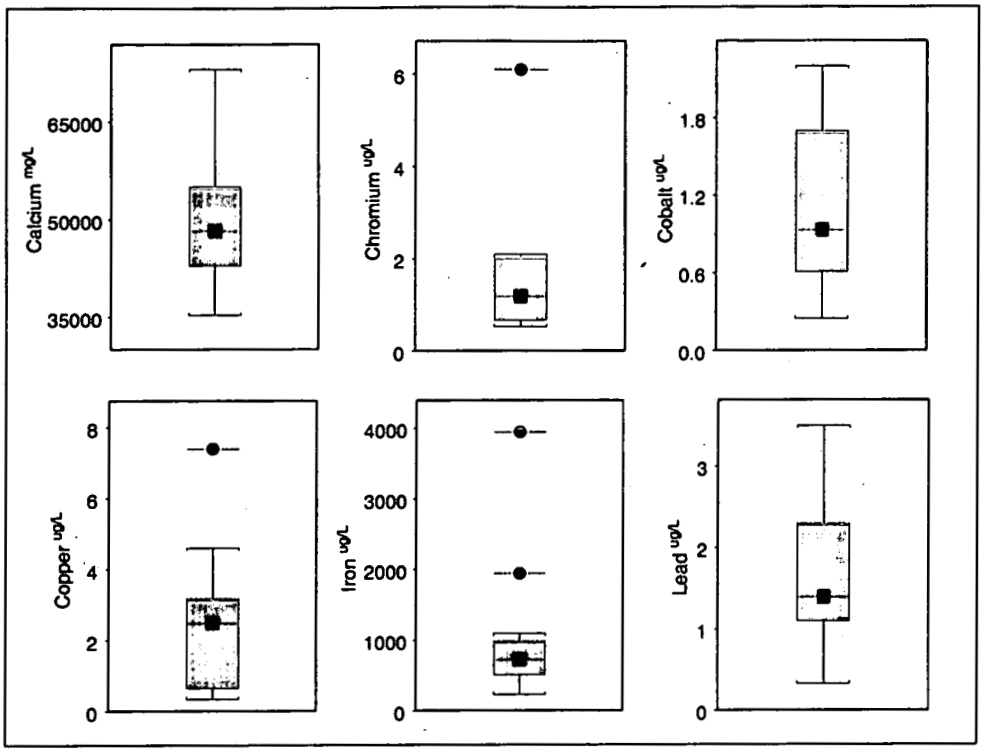

Figure 15-16. Total Metals Box Plots for Location GS03: Calcium through Lead.

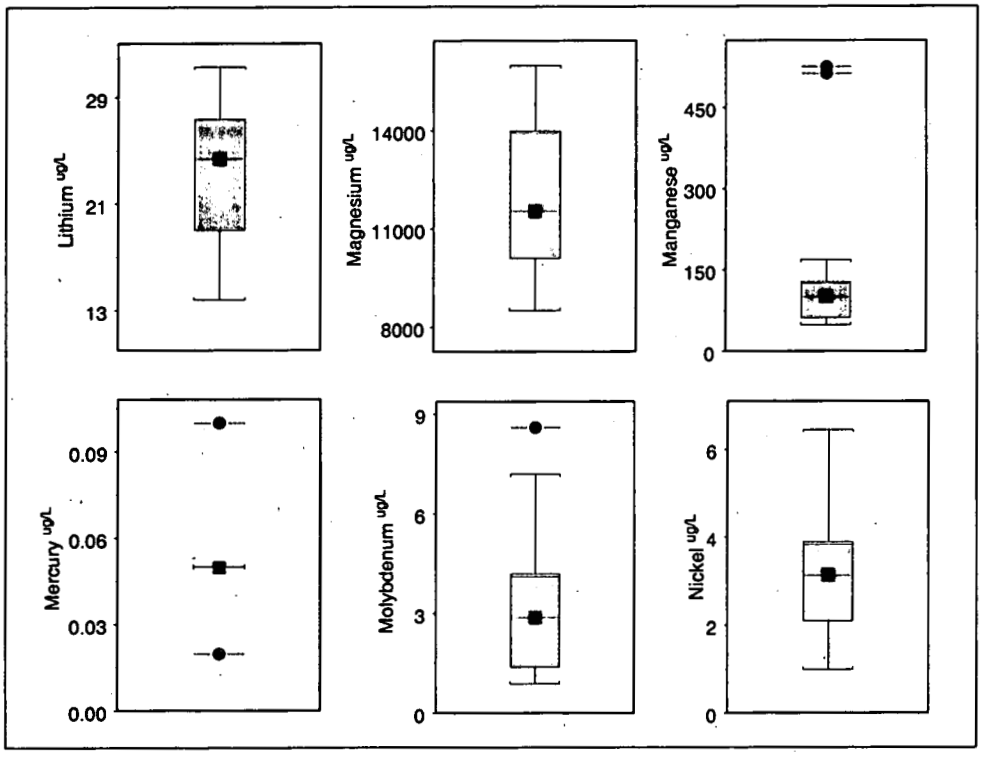

Figure 15-17. Total Metals Box Plots for Location GS03: Lithium through Nickel.

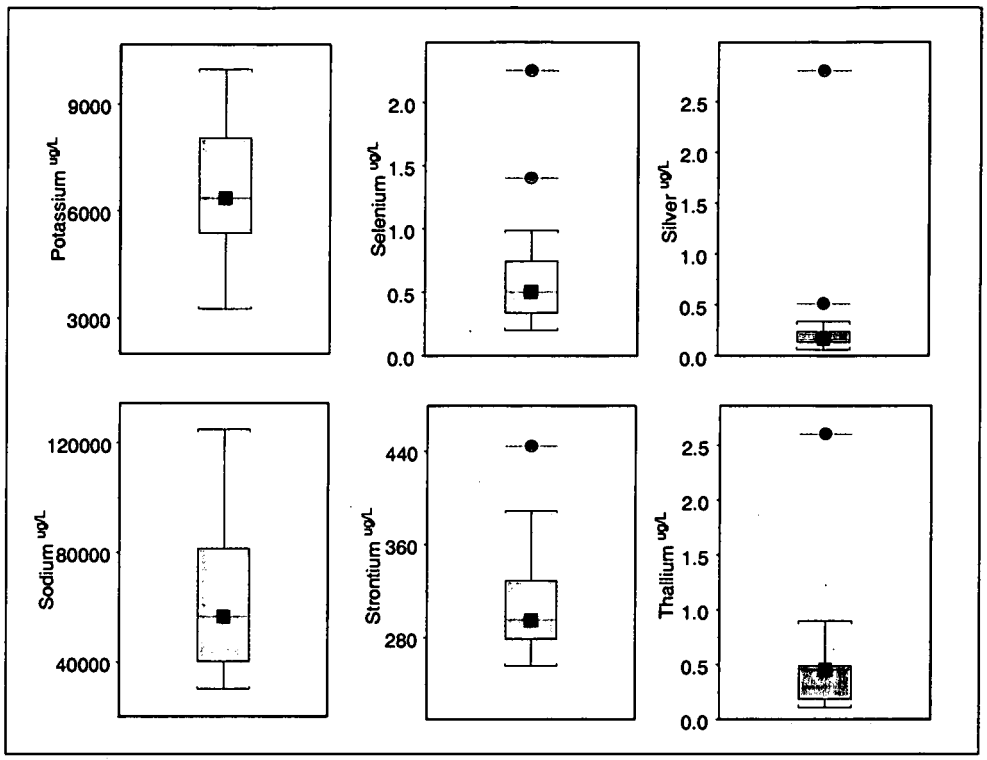

Figure 15-18. Total Metals Box Plots for Location GS03: Potassium through Thallium.

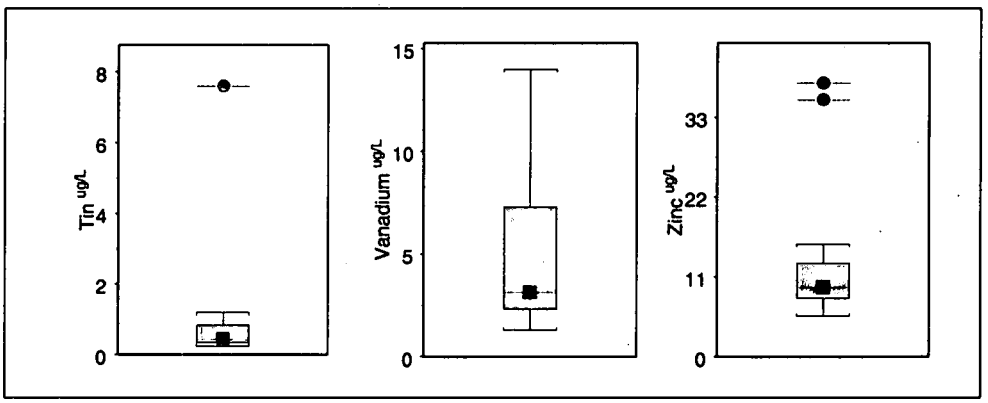

Figure 15-19. Total Metals Box Plots for Location GS03: Tin through Zinc.

15.3.4 Location GS04

Monitoring location GS04 is located on Rock Creek at Route 128. Table 15-9 presents the analyte-specific summary statistics for BZ samples collected at GS04. Figure 15-20 through Figure 15-25 show the analyte-specific box plots for BZ samples collected at GS04. **Figure 3-17** shows the drainage area for GS04.

Table 15-9. BZ Summary Statistics for Analytical Results from GS04 in WY97-02.

Analyte	Samples [N]	Percent Undetect	Median	85th Percentile	Maximum
TSS [mg/L]	16	44%	7.20	68.0	220
CHLORIDE [mg/L]	17	0%	14.0	20.6	36.0
FLUORIDE [mg/L]	17	0%	0.36	0.41	0.52
SULFATE [mg/L]	17	0%	31.0	38.6	40.0
TOTAL ALKALINITY [mg/L]	14	0%	111	131	170
TDS [mg/L]	16	0%	240	270	290
ALUMINUM [µg/L]	17	0%	319	3744	11600
ANTIMONY [µg/L]	17	53%	0.54	10.9	11.2
ARSENIC [µg/L]	17	47%	1.50	2.65	3.90
BARIUM [µg/L]	17	0%	83.2	107	132
BERYLLIUM [µg/L]	17	41%	0.10	0.60	0.75
CADMIUM [µg/L]	17	82%	0.05	2.40	2.50
CALCIUM [µg/L]	17	0%	35200	44880	48100
CHROMIUM [µg/L]	17	41%	2.40	4.80	13.0
COBALT [µg/L]	17	53%	0.52	2.47	3.20
COPPER [µg/L]	17	29%	2.40	4.40	7.70
IRON [µg/L]	17	0%	361	2880	8100
LEAD [µg/L]	17	35%	1.80	2.46	7.30
LITHIUM [µg/L]	13	0%	13.1	16.9	113
MAGNESIUM [µg/L]	17	0%	8370	10100	10800
MANGANESE [µg/L]	17	12%	15.5	61.7	103
MERCURY [µg/L]	17	100%	0.05	0.10	0.10
MOLYBDENUM [µg/L]	13	31%	0.65	1.30	6.45
NICKEL [µg/L]	17	29%	3.20	6.54	11.1
POTASSIUM [µg/L]	17	0%	2060	4706	8200
SELENIUM [µg/L]	17	71%	0.60	2.25	3.10
SILVER [µg/L]	17	76%	0.18	1.20	1.35
SODIUM [µg/L]	17	0%	20800	26820	29400
STRONTIUM [µg/L]	13	0%	206	268	294
THALLIUM [µg/L]	17	82%	0.44	2.46	8.00
TIN [µg/L]	13	92%	0.44	1.26	7.60
VANADIUM [µg/L]	17	29%	3.40	8.34	24.0
ZINC [µg/L]	17	12%	9.10	20.8	35.9

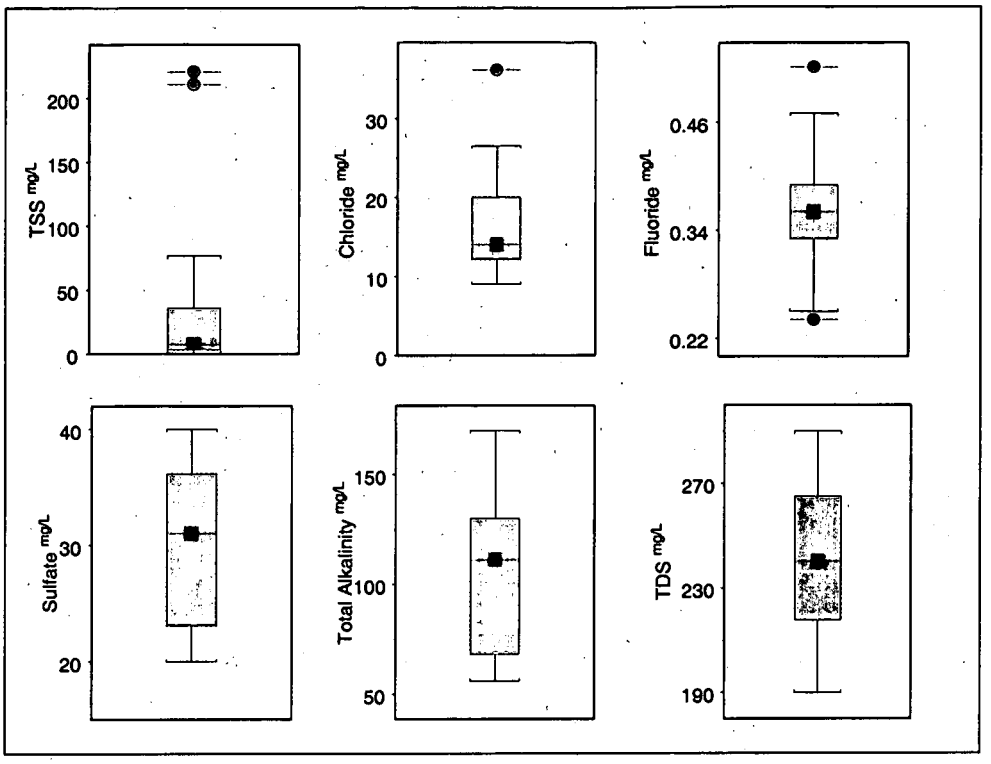

Figure 15-20. Water-Quality Parameter Box Plots for Location GS04.

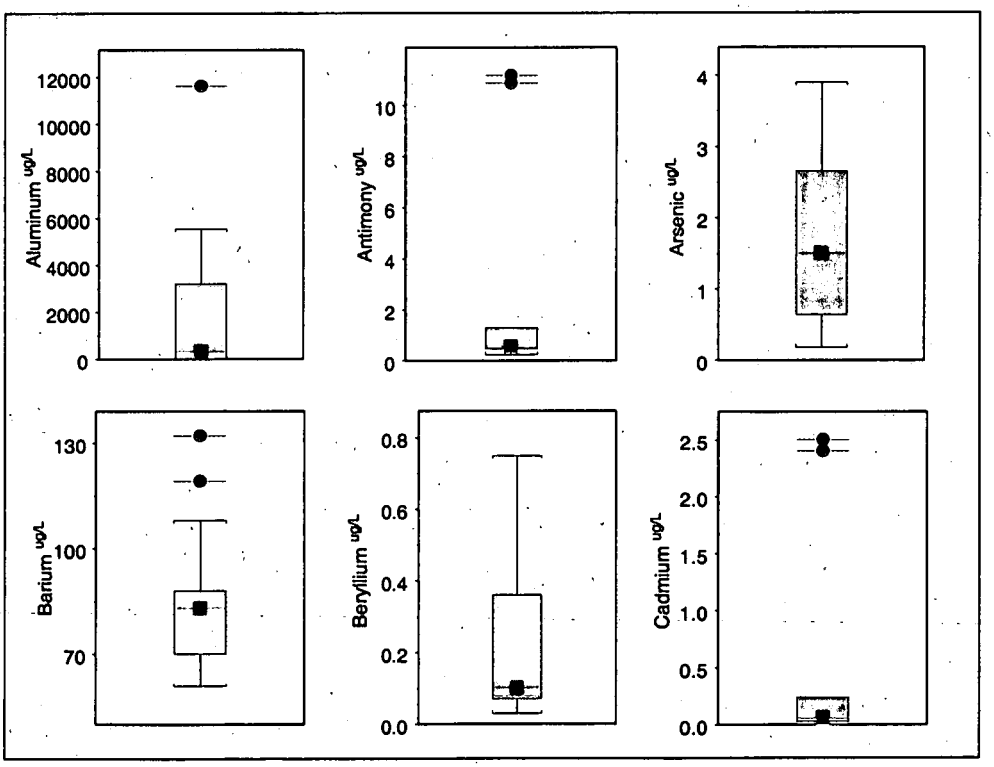

Figure 15-21. Total Metals Box Plots for Location GS04: Aluminum through Cadmium.

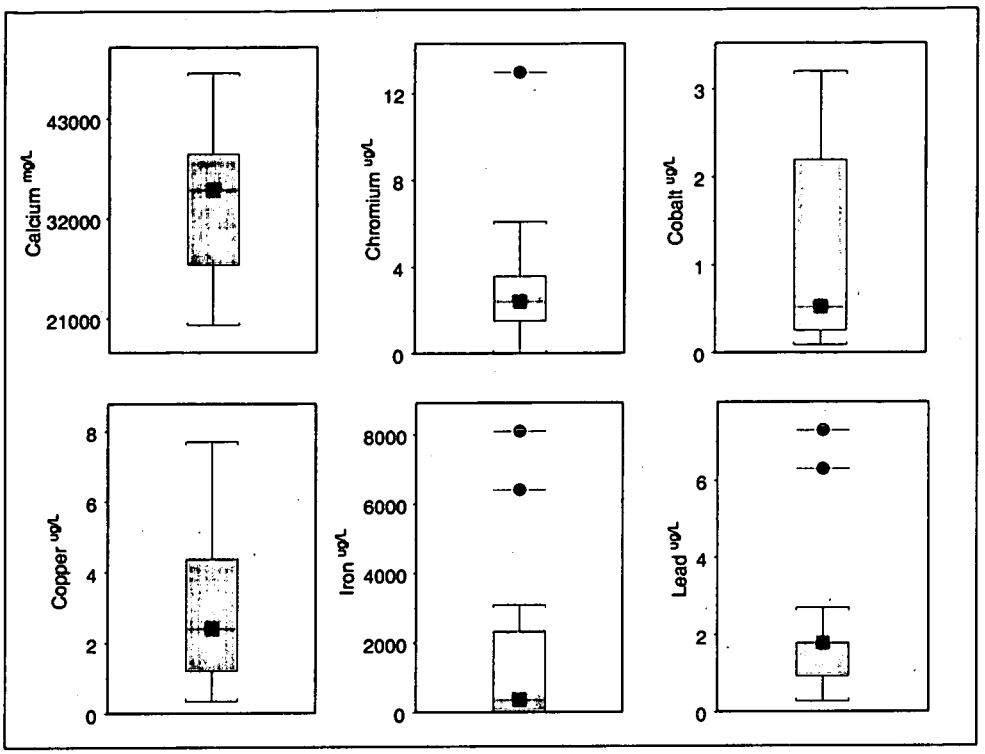

Figure 15-22. Total Metals Box Plots for Location GS04: Calcium through Lead.

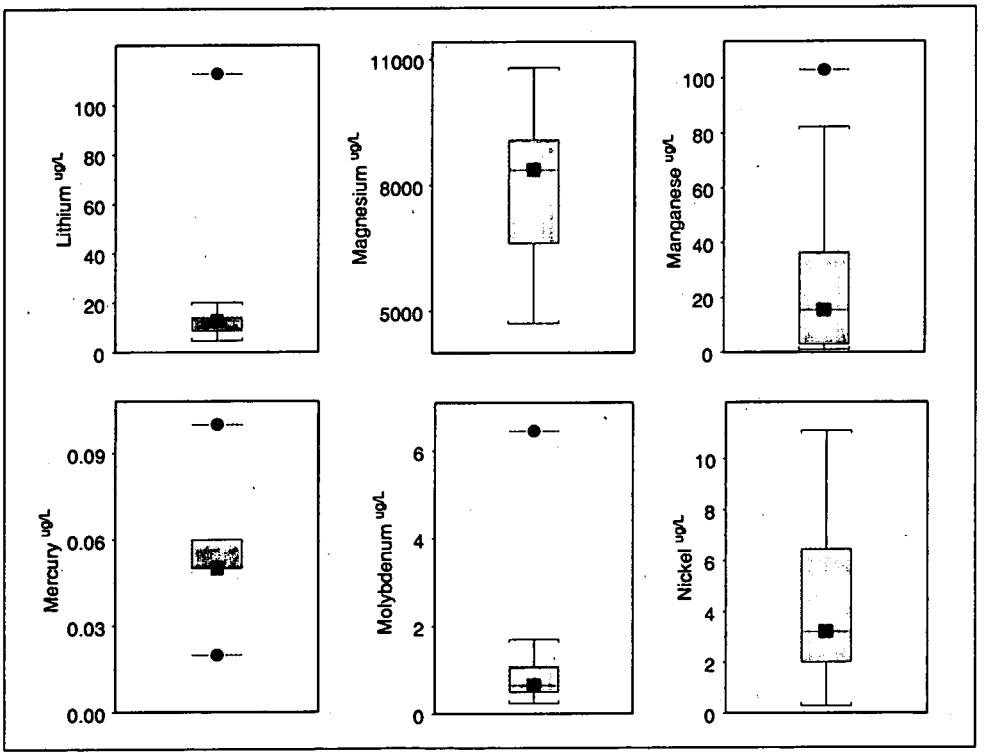

Figure 15-23. Total Metals Box Plots for Location GS04: Lithium through Nickel.

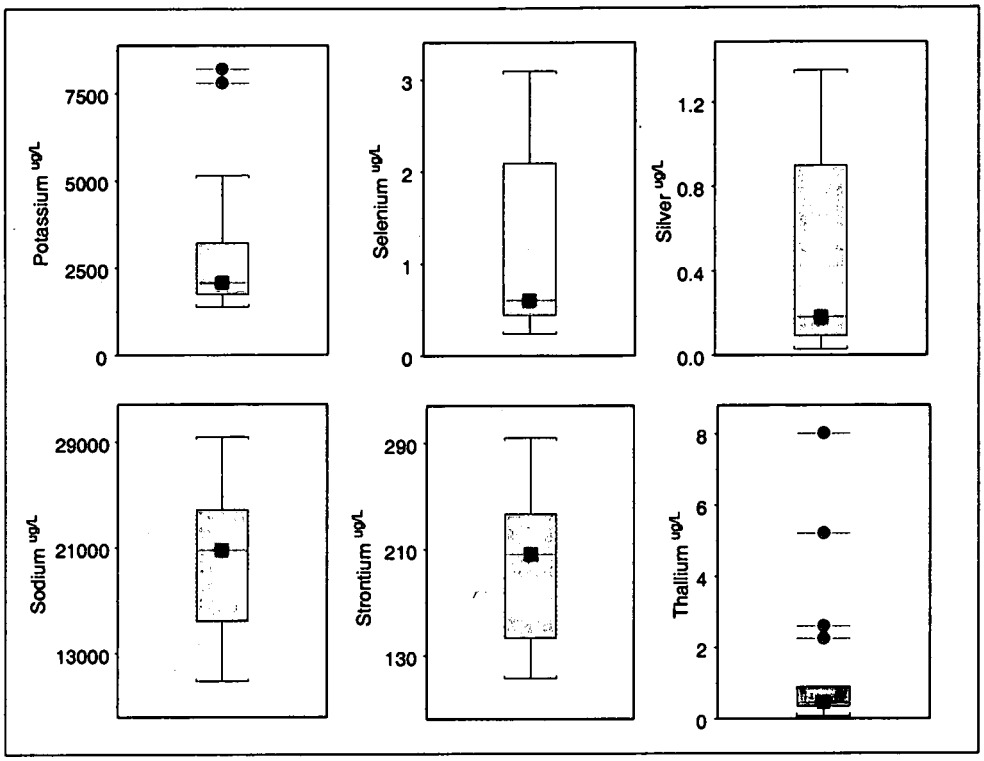

Figure 15-24. Total Metals Box Plots for Location GS04: Potassium through Thallium.

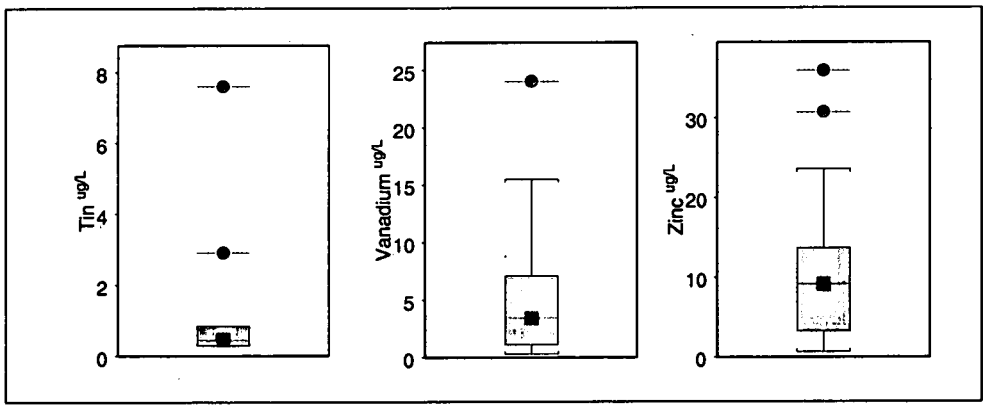

Figure 15-25. Total Metals Box Plots for Location GS04: Tin through Zinc.

15.3.5 Location GS05

Monitoring location GS05 is located on Woman Creek at the west Site fenceline. Table 15-10 presents the analyte-specific summary statistics for BZ samples collected at GS05. Figure 15-26 through Figure 15-31 show the analyte-specific box plots for BZ samples collected at GS05. **Figure 3-20** shows the drainage area for GS05.

Table 15-10. BZ Summary Statistics for Analytical Results from GS05 in WY97-02.

Analyte	Samples [N]	Percent Undetect	Median	85th Percentile	Maximum
TSS [mg/L]	20	0%	84.0	1605	7900
CHLORIDE [mg/L]	21	0%	20.0	67.4	170
FLUORIDE [mg/L]	21	5%	0.23	0.30	0.37
SULFATE [mg/L]	21	0%	12.0	23.0	350
TOTAL ALKALINITY [mg/L]	20	0%	61.0	85.2	95.0
TDS [mg/L]	19	0%	230	442	690
ALUMINUM [µg/L]	21	0%	3150	90100	296000
ANTIMONY [µg/L]	20	55%	0.72	10.9	11.2
ARSENIC [µg/L]	21	24%	2.65	31.9	90.8
BARIUM [µg/L]	21	0%	101	393	1210
BERYLLIUM [µg/L]	20	30%	0.75	6.19	17.9
CADMIUM [µg/L]	21	57%	0.20	2.40	2.50
CALCIUM [µg/L]	21	0%	27600	43100	110000
CHROMIUM [µg/L]	21	14%	2.80	70.2	215
COBALT [µg/L]	21	19%	2.65	21.4	51.0
COPPER [µg/L]	21	14%	4.10	41.5	128
IRON [µg/L]	21	0%	3000	73300	228000
LEAD [µg/L]	21	19%	3.00	35.5	137
LITHIUM [µg/L]	17	0%	19.7	54.3	138
MAGNESIUM [µg/L]	21	0%	8750	15900	30300
MANGANESE [µg/L]	21	0%	204	1010	1480
MERCURY [µg/L]	21	67%	0.05	0.17	1.20
MOLYBDENUM [µg/L]	17	12%	1.00	2.18	6.45
NICKEL [µg/L]	21	19%	6.60	58.0	167
POTASSIUM [µg/L]	21	0%	3580	12400	23900
SELENIUM [µg/L]	21	52%	0.77	3.60	18.4
SILVER [µg/L]	21	67%	0.14	1.35	7.00
SODIUM [µg/L]	21	0%	17100	42500	62600
STRONTIUM [µg/L]	17	0%	191	307	634
THALLIUM [µg/L]	20	80%	0.65	2.60	2.60
TIN [µg/L]	17	59%	0.75	4.96	22.6
VANADIUM [µg/L]	21	10%	6.10	165	484
ZINC [µg/L]	21	5%	31.3	107	335

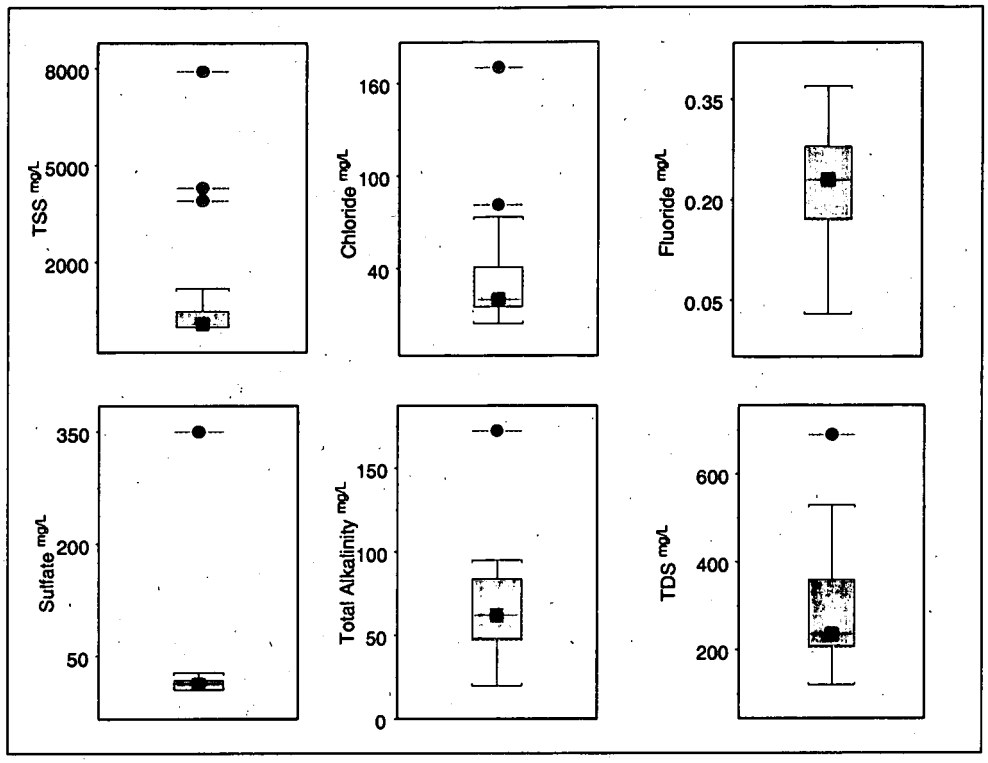

Figure 15-26. Water-Quality Parameter Box Plots for Location GS05.

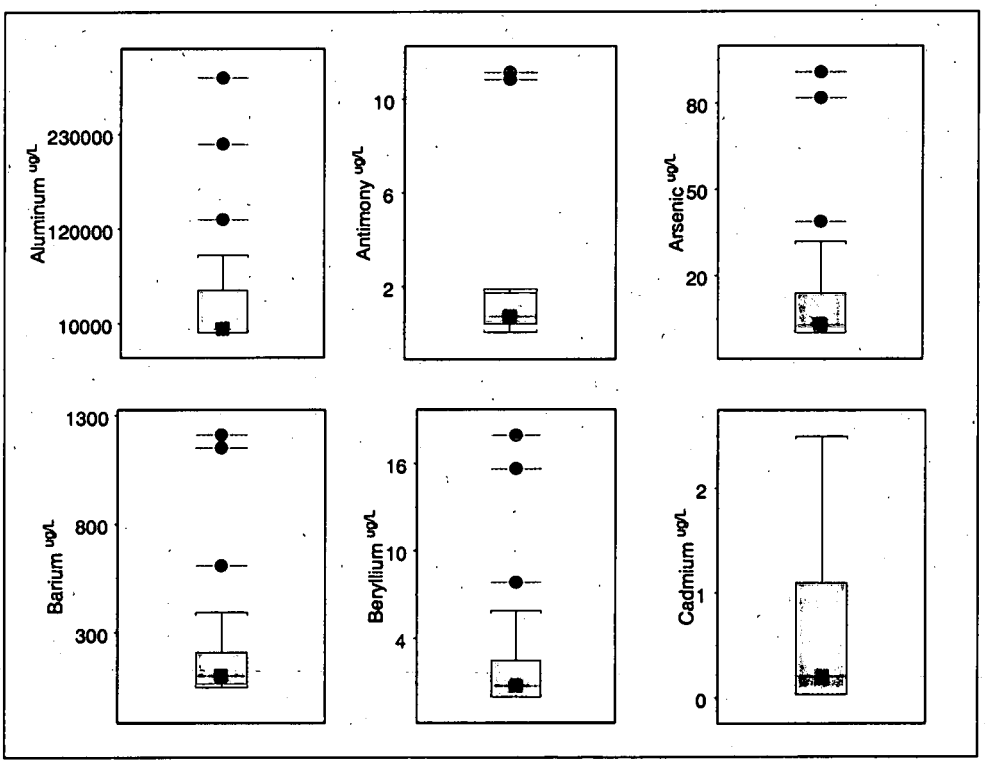

Figure 15-27. Total Metals Box Plots for Location GS05: Aluminum through Cadmium.

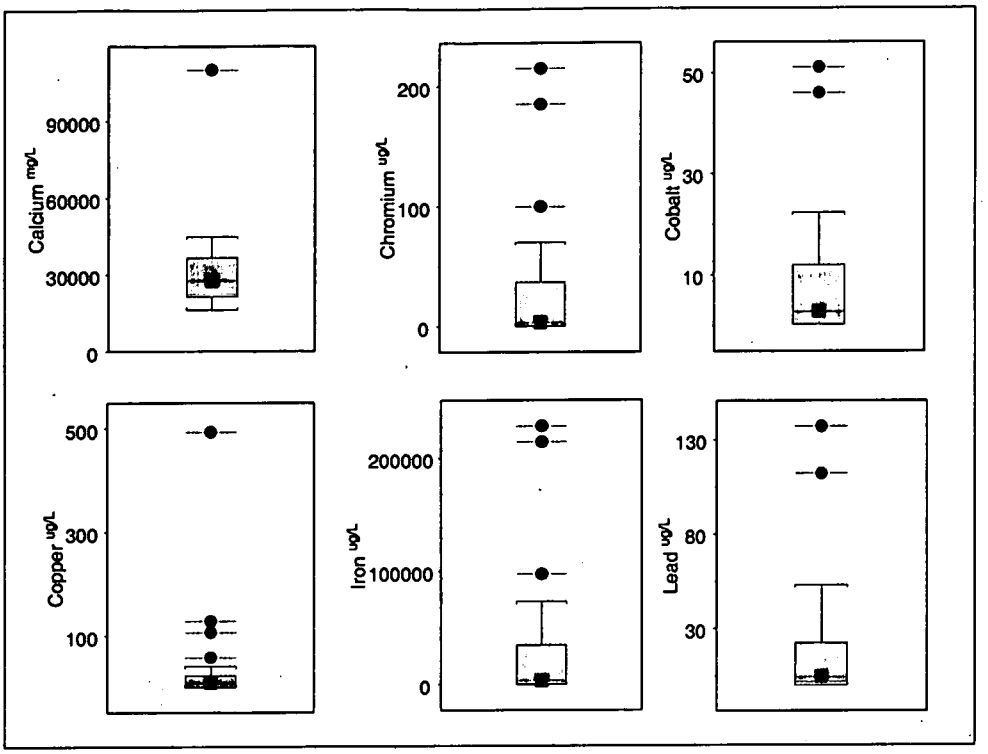

Figure 15-28. Total Metals Box Plots for Location GS05: Calcium through Lead.

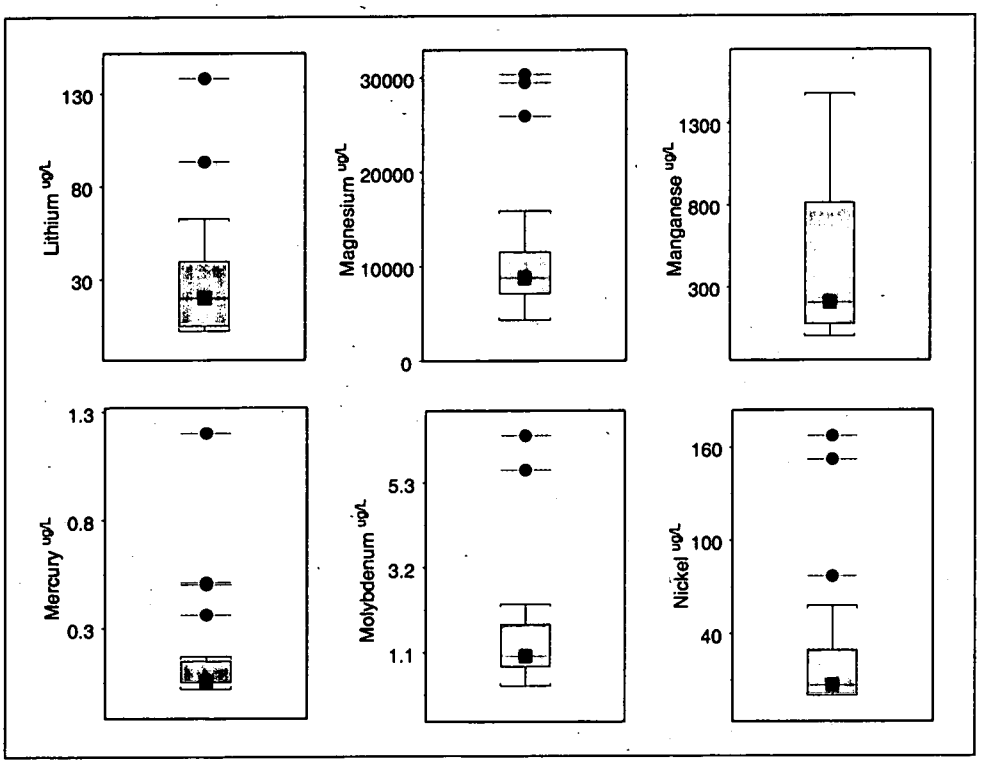

Figure 15-29. Total Metals Box Plots for Location GS05: Lithium through Nickel.

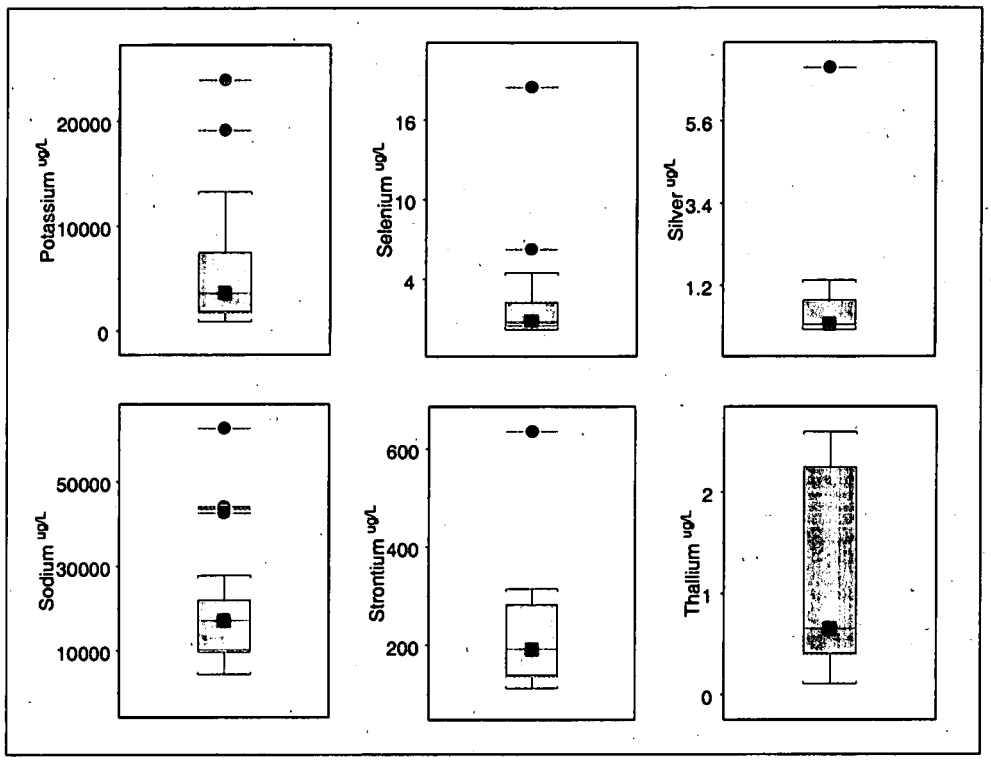

Figure 15-30. Total Metals Box Plots for Location GS05: Potassium through Thallium.

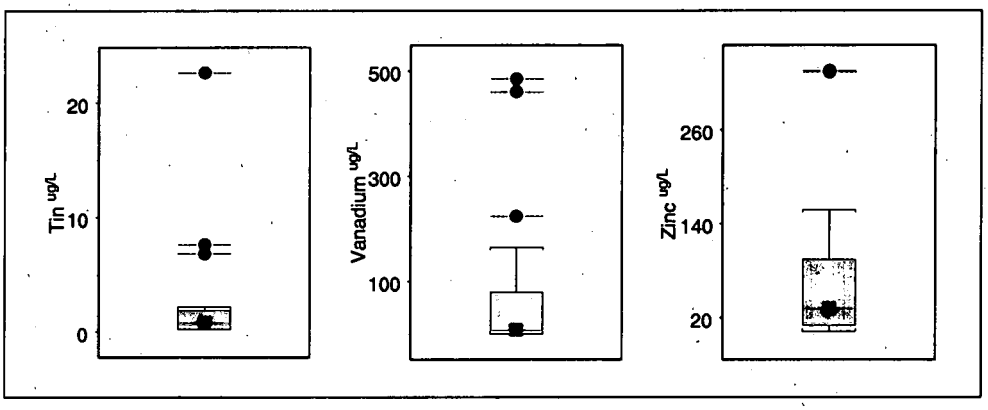

Figure 15-31. Total Metals Box Plots for Location GS05: Tin through Zinc.

15.3.6 Location GS06

Monitoring location GS06 is located on the Owl Branch to Woman Creek at the west Site fenceline. Table 15-11 presents the analyte-specific summary statistics for BZ samples collected at GS06. Figure 15-32 through Figure 15-37 show the analyte-specific box plots for BZ samples collected at GS06. **Figure 3-23** shows the drainage area for GS06.

Table 15-11. BZ Summary Statistics for Analytical Results from GS06 in WY97-02.

Analyte	Samples [N]	Percent Undetect	Median	85th Percentile	Maximum
TSS [mg/L]	17	0%	600	7620	11000
CHLORIDE [mg/L]	18	0%	9.45	20.9	34.3
FLUORIDE [mg/L]	18	11%	0.13	0.26	0.46
SULFATE [mg/L]	18	6%	7.15	9.90	15.7
TOTAL ALKALINITY [mg/L]	18	0%	52.5	70.5	74.0
TDS [mg/L]	17	0%	190	272	632
ALUMINUM [µg/L]	18	0%	52400	148900	415000
ANTIMONY [µg/L]	17	47%	0.93	2.90	11.2
ARSENIC [µg/L]	18	6%	16.2	58.9	147
BARIUM [µg/L]	18	0%	377	973	2560
BERYLLIUM [µg/L]	18	22%	3.50	10.7	25.5
CADMIUM [µg/L]	17	29%	0.27	2.40	4.90
CALCIUM [µg/L]	18	0%	23400	32215	63900
CHROMIUM [µg/L]	18	0%	44.3	131	348
COBALT [µg/L]	18	6%	13.3	45.9	112
COPPER [µg/L]	18	6%	32.6	84.4	259
IRON [µg/L]	18	0%	40050	158800	398000
LEAD [µg/L]	18	6%	33.2	95.8	262
LITHIUM [µg/L]	16	6%	48.3	92.8	277
MAGNESIUM [µg/L]	18	0%	8700	20830	51900
MANGANESE [µg/L]	18	0%	888	2957	7770
MERCURY [µg/L]	18	50%	0.10	0.48	1.60
MOLYBDENUM [µg/L]	16	31%	3.10	6.31	6.45
NICKEL [µg/L]	18	11%	34.8	103	272
POTASSIUM [µg/L]	18	0%	9475	20470	50000
SELENIUM [µg/L]	18	39%	2.38	4.63	10.1
SILVER [µg/L]	18	78%	0.16	0.93	30.9
SODIUM [µg/L]	18	0%	7560	10345	16100
STRONTIUM [µg/L]	16	0%	131	225	494
THALLIUM [µg/L]	18	78%	0.55	1.78	2.90
TIN [µg/L]	16	50%	1.55	7.20	7.60
VANADIUM [µg/L]	18	0%	92.9	306	747
ZINC [µg/L]	18	0%	123	323	684

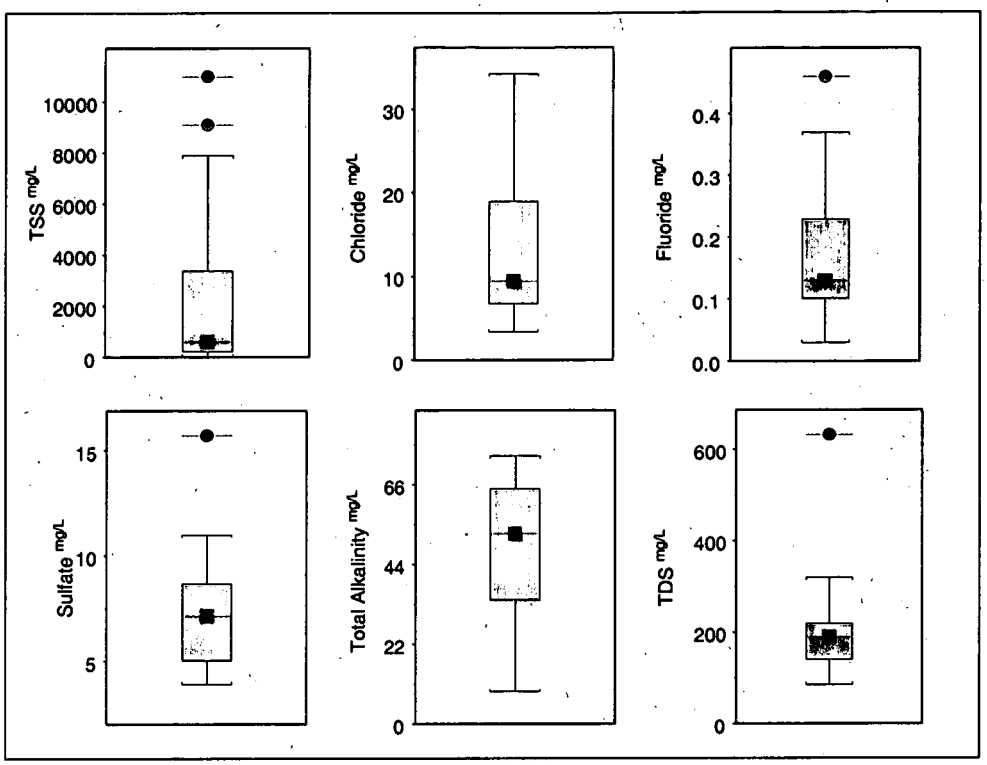

Figure 15-32. Water-Quality Parameter Box Plots for Location GS06.

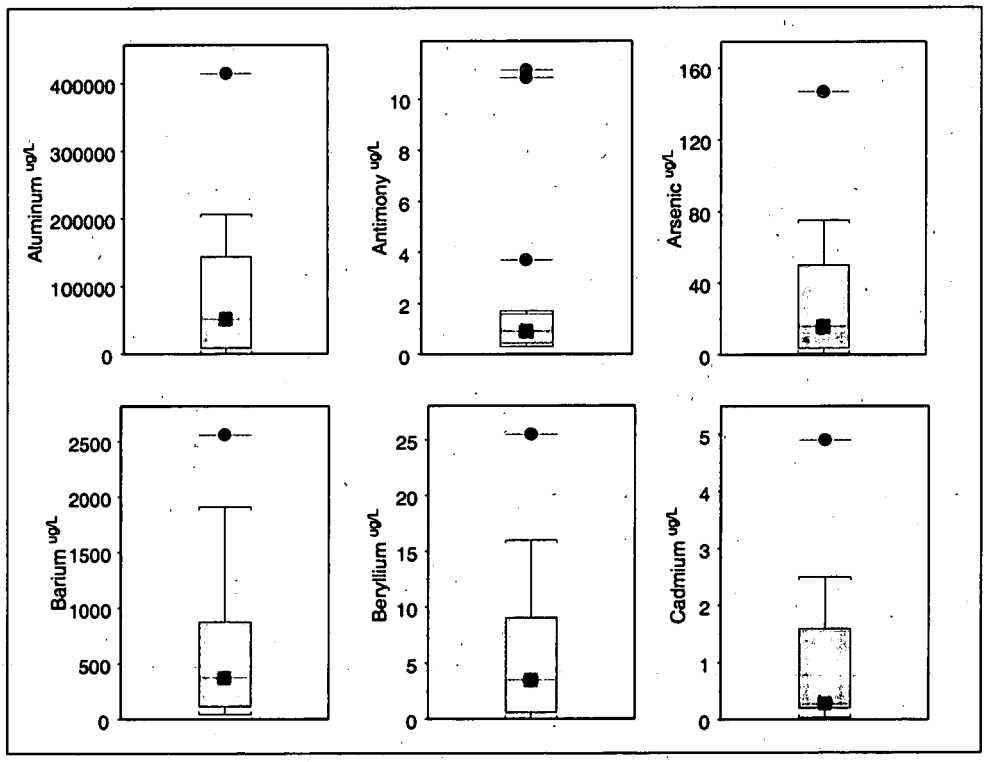

Figure 15-33. Total Metals Box Plots for Location GS06: Aluminum through Cadmium.

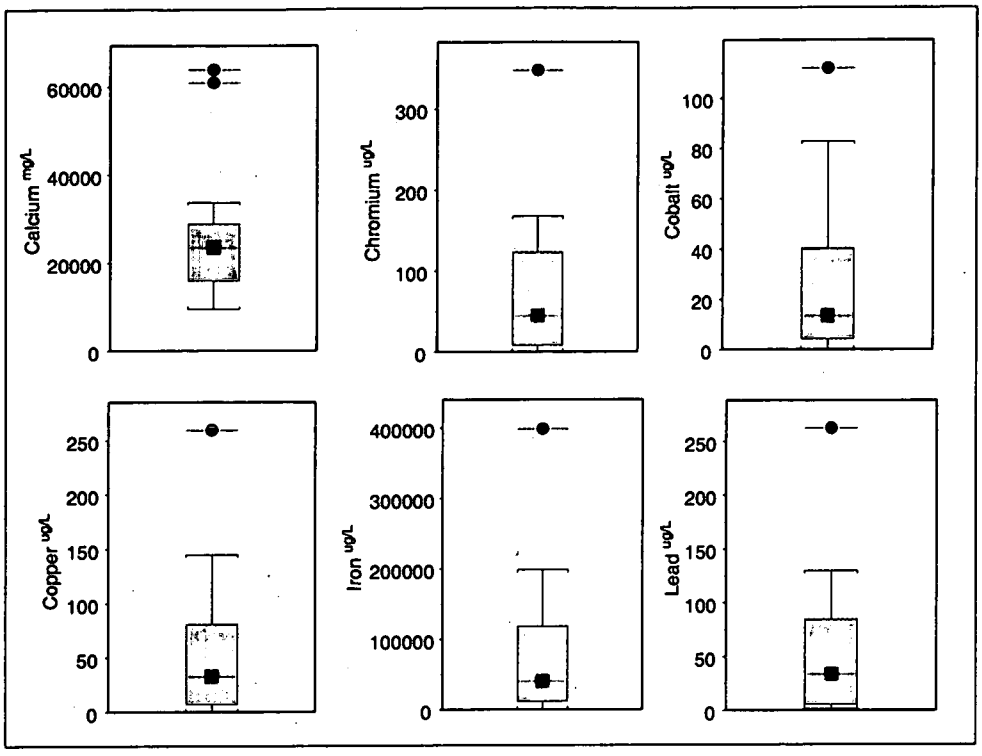

Figure 15-34. Total Metals Box Plots for Location GS06: Calcium through Lead.

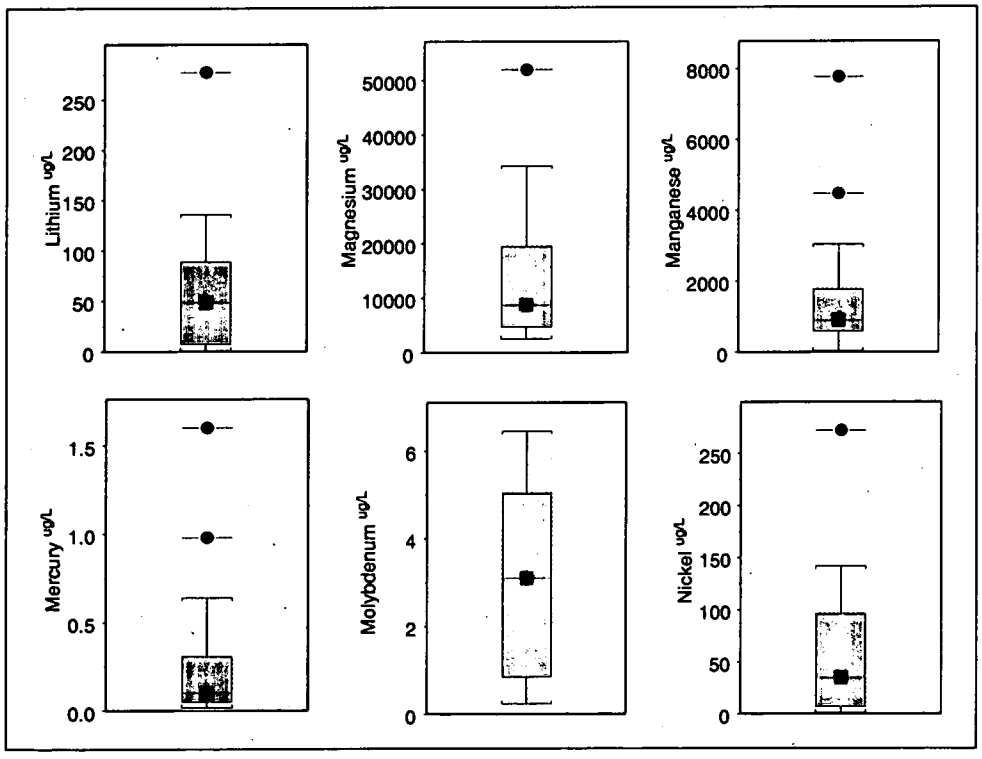

Figure 15-35. Total Metals Box Plots for Location GS06: Lithium through Nickel.

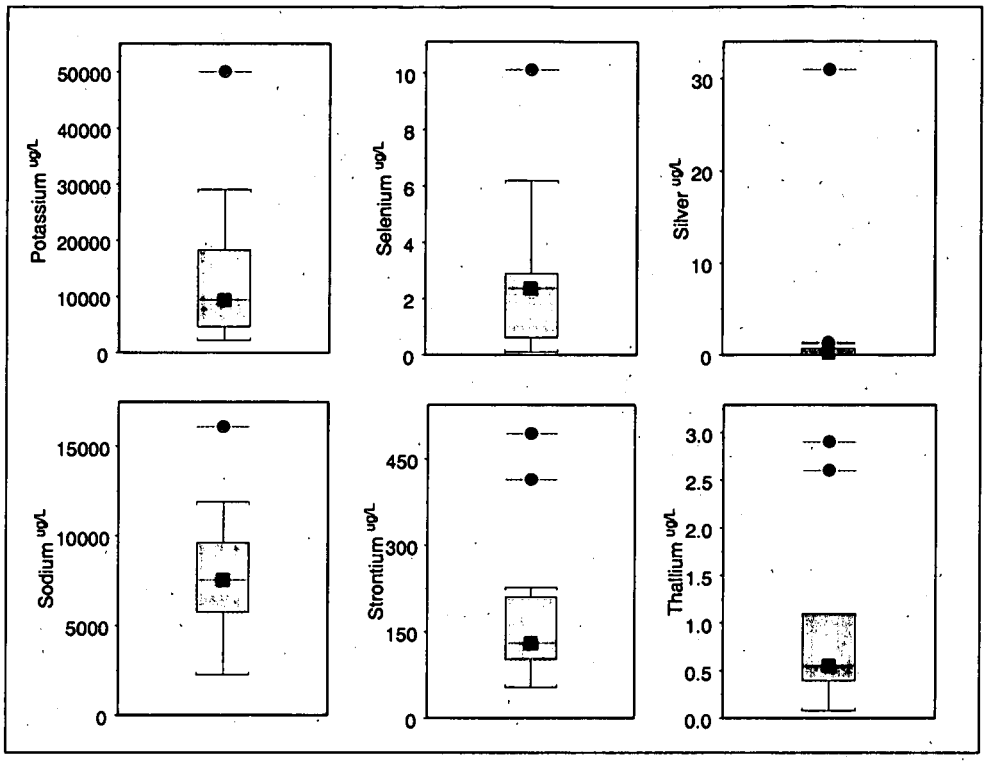

Figure 15-36. Total Metals Box Plots for Location GS06: Potassium through Thallium.

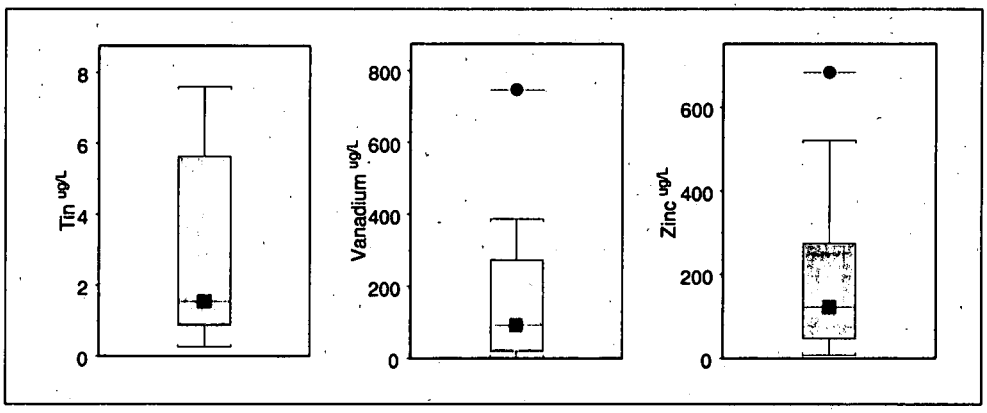

Figure 15-37. Total Metals Box Plots for Location GS06: Tin through Zinc.

15.3.7 Location SW134

Monitoring location SW134 is located north of the gravel pits north of the West Access Road. Table 15-12 presents the analyte-specific summary statistics for BZ samples collected at SW134. Figure 15-38 through Figure 15-43 show the analyte-specific box plots for BZ samples collected at SW134. **Figure 3-140** shows the location of SW134. SW134 receives water pumped from the pits; the drainage area is undetermined.

Table 15-12. BZ Summary Statistics for Analytical Results from SW134 in WY97-02.

Analyte	Samples [N]	Percent Undetect	Median	85th Percentile	Maximum
TSS [mg/L]	23	4%	37.0	100	1400
CHLORIDE [mg/L]	23	0%	10.0	11.9	17.0
FLUORIDE [mg/L]	23	0%	0.38	0.49	1.00
SULFATE [mg/L]	23	0%	37.0	42.1	48.2
TOTAL ALKALINITY [mg/L]	22	0%	80.0	90.5	230
TDS [mg/L]	20	0%	205	265	440
ALUMINUM [µg/L]	23	0%	1830	6046	26800
ANTIMONY [µg/L]	23	74%	0.45	1.30	11.2
ARSENIC [µg/L]	23	43%	1.10	2.14	9.30
BARIUM [µg/L]	23	0%	93.8	116	265
BERYLLIUM [µg/L]	23	39%	0.19	0.64	2.10
CADMIUM [µg/L]	23	91%	0.05	0.23	2.50
CALCIUM [µg/L]	23	0%	26900	30660	39050
CHROMIUM [µg/L]	23	17%	3.50	11.8	162
COBALT [µg/L]	23	30%	0.77	2.17	6.60
COPPER [µg/L]	23	13%	3.60	6.26	27.9
IRON [µg/L]	23	0%	1100	3705	16200
LEAD [µg/L]	23	22%	1.70	2.80	27.0
LITHIUM [µg/L]	20	0%	5.50	8.19	18.3
MAGNESIUM [µg/L]	23	0%	6170	6744	8510
MANGANESE [µg/L]	23	0%	28.4	54.1	181
MERCURY [µg/L]	19	84%	0.05	0.10	0.12
MOLYBDENUM [µg/L]	20	10%	1.30	2.06	6.45
NICKEL [µg/L]	23	17%	3.30	7.65	93.9
POTASSIUM [µg/L]	23	0%	1580	2007	5550
SELENIUM [µg/L]	23	70%	0.60	1.64	7.10
SILVER [µg/L]	23	91%	0.13	0.27	1.70
SODIUM [µg/L]	23	0%	14300	17570	20300
STRONTIUM [µg/L]	20	0%	162	181	218
THALLIUM [µg/L]	23	78%	0.48	1.10	6.80
TIN [µg/L]	20	80%	0.43	1.65	7.60
VANADIUM [µg/L]	23	4%	5.90	14.1	77.1
ZINC [µg/L]	22	0%	12.6	17.4	52.7

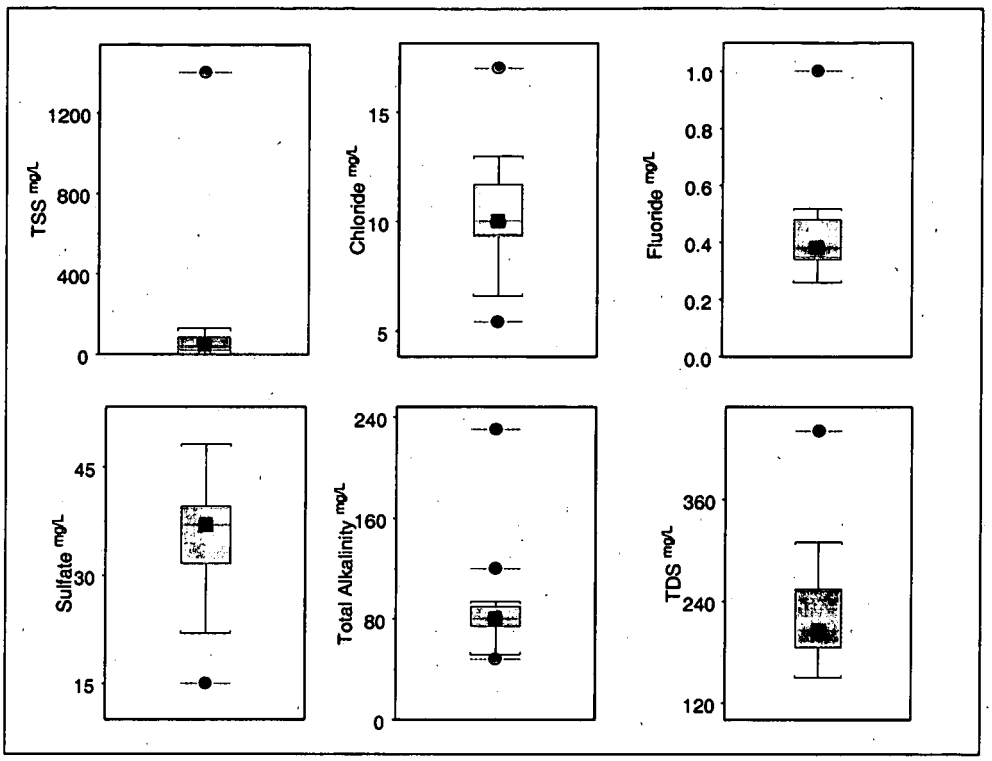

Figure 15-38. Water-Quality Parameter Box Plots for Location SW134.

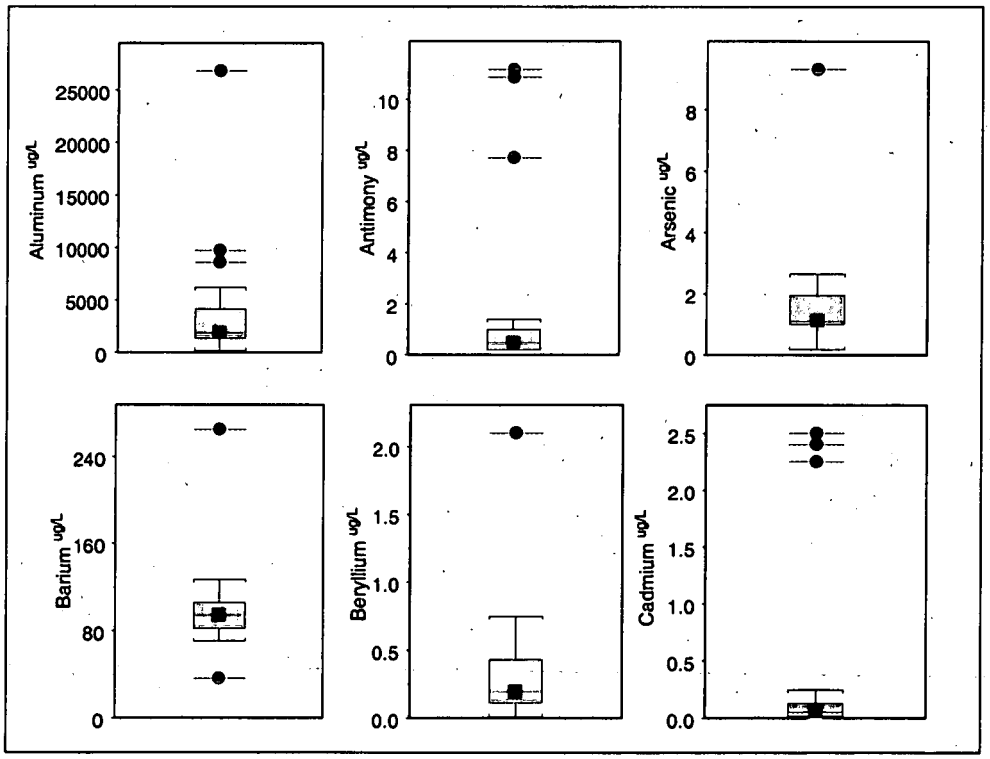

Figure 15-39. Total Metals Box Plots for Location SW134: Aluminum through Cadmium.

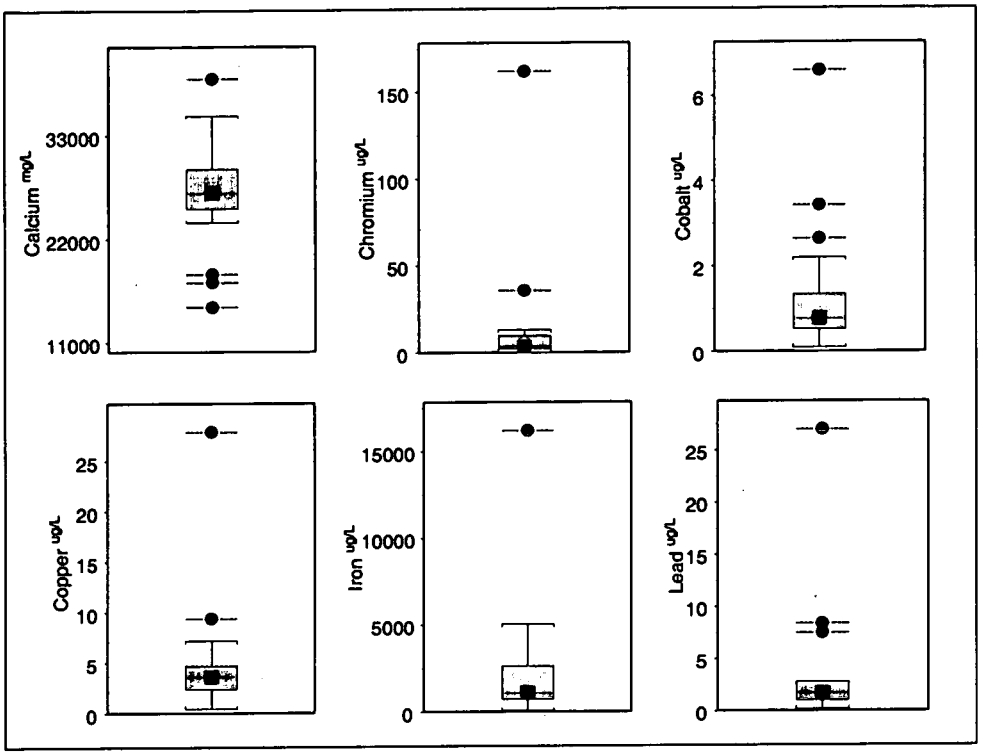

Figure 15-40. Total Metals Box Plots for Location SW134: Calcium through Lead.

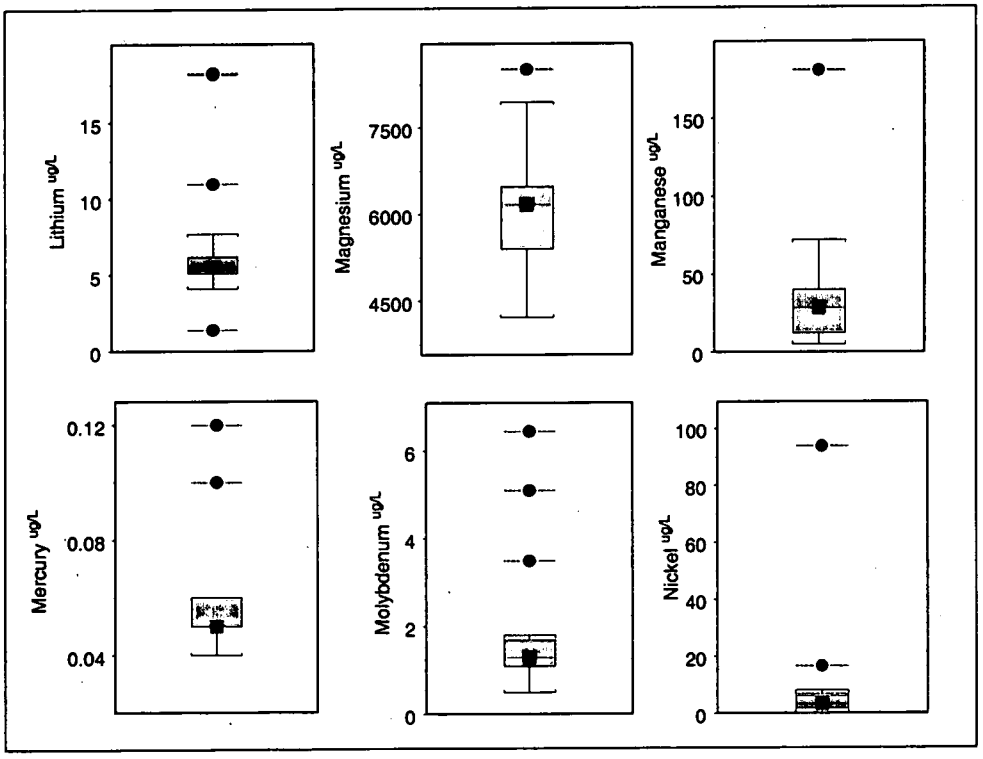

Figure 15-41. Total Metals Box Plots for Location SW134: Lithium through Nickel.

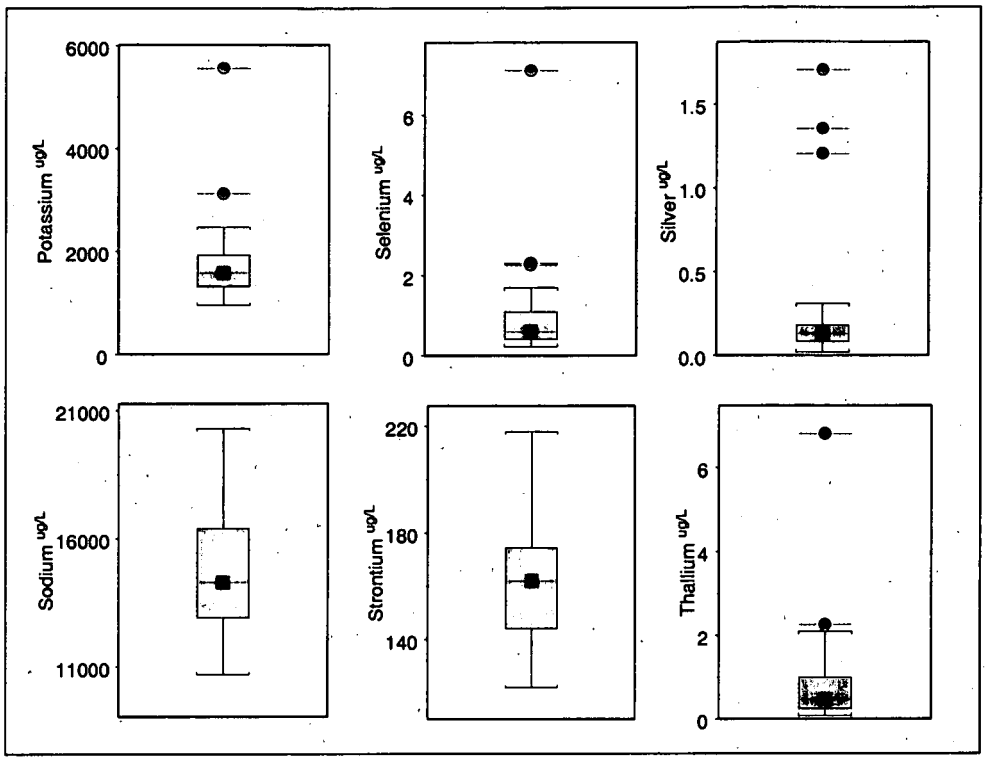

Figure 15-42. Total Metals Box Plots for Location SW134: Potassium through Thallium.

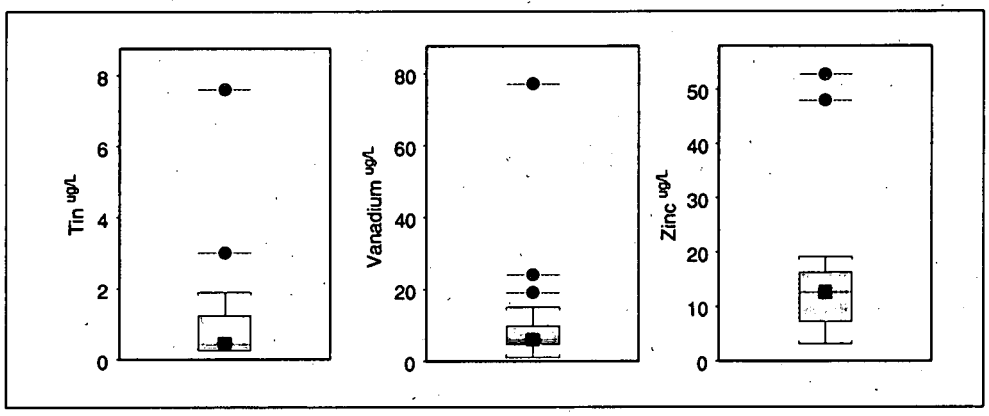

Figure 15-43. Total Metals Box Plots for Location SW134: Tin through Zinc.

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16. VALIDATION AND DATA QUALITY ASSESSMENT

It is important to distinguish between the "data validation" and "data verification" performed by the Analytical Services Division (ASD), and the "data quality assessment" (DQA) performed by Surface Water Program personnel at RFETS. The following section distinguishes DQA from data validation, and discusses the technical basis, equations, and criteria used for DQA of surface water.

16.1 GENERAL DISCUSSION

Data validation and verification (V&V) procedures are the principal means of assessing the usability of surface water analytical data. V&V also improves overall data quality by allowing ASD to closely monitor laboratory performance and to provide feedback to each laboratory regarding its ability to produce quality data that meets subcontract requirements. Information from V&V enables ASD to direct analytical work to laboratories that demonstrate superior performance by generating timely, high quality analytical data for RFETS.

Data validation is a rigorous data review performed by a K-H ASD subcontractor on approximately 25% of the surface water analytical data generated by RFETS. The remaining 75% of the data are verified under less extensive data reviews than through validation. V&V criteria are generally based on government-published standards and guidelines, primarily EPA Contract Laboratory Procedures (CLP) and SW-846 method guidelines for organic and inorganic data evaluation and review. Validation and verification are technically specialized data evaluations and are usually performed by analytical chemists. V&V work for RFETS is performed in accordance with a set of ASD procedures, some of which are listed below.

- K-H, 2002, General Guidelines for Data Verification and Validation, DA-GR01-v2, 10/1/02.
- K-H, 2002, Verification and Validation Guidelines for Volatile Organics, DA-SS01-v3, 10/1/02.
- K-H, 2002, Verification and Validation Guidelines for Inorganic Metals, DA-SS05-v3, 10/1/02.
- K-H, 2002, Verification and Validation Guidelines for Radionuclides by Gamma Spectrometry, DA-GAM-v1, 6/4/02.

All surface water analytical data collected by RFETS are considered valid (V or V1) unless the V&V process identifies analytical problems that require the data to be qualified. When it is necessary to qualify individual data records, standard qualifier codes (alphanumeric validation codes) are applied. Integer "reason codes" accompany these validation codes, enabling the data user to determine why the results were qualified.

Common data qualifiers are defined below. Please refer to ASD documents for a complete list and for formal definitions.

- V Valid data. Validation found no problems with the results.
- V1 Valid data. Verification found no problems with the results.
- 1 This is a common but erroneous code found in the SWD validation field. Further checking by ASD usually confirms that the corresponding data record has been validated and should be V1.
- J The analytical result is estimated.
- U The analytical result is considered un-detected (non-detect).
- JB Result is <RDL and estimated due to blank contamination.
- NJ The result is presumptively estimated.
- UJ The result is estimated at an elevated detection limit.
- R Unusable data, rejected by validation.

- R1 Unusable data, rejected by verification.

V&V work focuses on evaluation of laboratory quality control data such as method blanks, laboratory control samples (LCS), and spike recoveries. It also checks for adherence to sample and extract holding times, standard analytical methods, contractual requirements, and proper documentation.

Although DQA and V&V examine some of the same quality control data, they do so from different perspectives. DQA (in this report) looks at the overall quality of an entire water year of surface water data, in contrast to V&V, which looks at the analytical details of individual data packages. V&V focuses on laboratory methodology, while DQA focuses on interpretation of data describing QC samples that originated in the field, such as "field duplicate" samples and "equipment rinsate" samples.

In contrast to V&V, the data quality assessment performed by Surface Water Program personnel at RFETS, does not assign data qualifiers to individual analytical results or data packages. DQA is a second level of quality assurance intended to be a general assessment of how well the Surface Water data collection program is operating. The DQA is performed by evaluating water quality data in terms of the PARCC parameters.

16.2 PARCC PARAMETERS

Use of the PARCC parameters for DQA has been promoted by EPA guidance documents. These parameters include: precision, accuracy, representativeness, completeness, and comparability. Accuracy and precision are quantitative measures. Representativeness and comparability are qualitative measures. Completeness is a combination of both quantitative and qualitative measures.

Surface Water Program personnel evaluate the PARCC parameters by following guidelines published in the following QC documents.

- RMRS, 1998, Procedure for Evaluation of Data For Usability.
- RMRS, 2000, Quality Assurance Program Plan for the Automated Surface-Water Monitoring Program. RF/RMRS-2000-013, Revision 0, March 2000.
- RMRS, 2001, Quality Assurance Program Plan For The Groundwater Monitoring Program Rocky Flats Environmental Technology Site.

The following paragraphs discuss the PARCC parameters in detail and discuss the types of data available to assess them.

16.2.1 Criteria for Precision

The precision of a measurement is an expression of the mutual agreement between duplicate measurements of the same property taken under similar conditions. Precision can be expressed quantitatively by the relative percent difference (RPD) between real and field duplicate samples for metals, volatile organic compounds, polychlorinated biphenyls and water quality parameters as defined by the following equation:

$$RPD = \frac{|(S-D)|}{(S-D)/2} * 100$$

where: S = Concentration of analyte in Real Sample

D = Concentration of analyte in Duplicate Sample

The RFETS Surface Water Program uses the "Duplicate Error Ratio" (DER) to quantify the precision of radionuclide activity data:

$$DER = \frac{|(S - D)|}{\sqrt{[(TPU_S)^2 + (TPU_D)^2]}}$$

where: TPU_S = Total Propagated Uncertainty of the Sample

TPU_D = Total Propagated Uncertainty of the Duplicate

S = Sample Result

D = Duplicate (or Lab Replicate) Result

Because TPU is seldom reported with radionuclide activity data, the two-sigma error or random counting error has been substituted for TPU in the uranium, americium/plutonium and strontium calculations made for this report.

The RFETS QC criterion for surface water RPDs is that individual RPDs should be ≤30%. The analogous criterion for DERs is to be ≤1.96. The overall goal for the surface water dataset is to have 85% of the RPD and DER values comply with the QC criteria.

16.2.2 Criteria for Accuracy

Accuracy is the degree of agreement for a measurement with an accepted reference or true value, and is a measure of the bias in a system. The closer the measurement to the true value, the more accurate the measurement. The RFETS V&V process (described earlier) is the principal means for evaluating the accuracy of analytical results.

Accuracy assessment for PARCC evaluations, is based on the Procedure for Evaluation of Data For Usability (RMRS, 1998). Because the RFETS V&V process compares the actual analytical methods used by each laboratory to the contract-required analytical methods, the Surface Water Program does not repeat this evaluation. However, the DQA does use an Access query to compare the contract-required detection limits (CRDLs) for each analyte to the achieved detection limits.

Matrix spike (MS) and matrix spike duplicate (MSD) recoveries are reported by the analytical laboratories for most non-radionuclide analytical suites. Criteria for acceptable MS recoveries vary between laboratories, depending on the analyte, and the analytical method. The Surface Water Program criterion for acceptable MS results ranges from 75 to 125 % recovery.

Laboratory control sample (LCS) recoveries for radionuclides are often available for surface water quality data. According to KH-ASD, laboratories in practice will commonly accept LCS values in the range of 70-130 %. LCS percent recoveries between the 70-130 % laboratory range and the 75-125 % QC range required by the KH-ASD laboratory contracts are examined by data validators for acceptability on an analyte-by-analyte basis. The Surface Water Program criterion for acceptable LCS recoveries ranges from 75 to 125 % recovery.

Because some laboratories reported LCS results in pCi/L, while others calculated % recovery, the ASD-KH team implemented a new reporting criterion, "relative bias". The relative bias criterion is defined in the BOA by the following formula (see Page J-6 of the National BOA, section 2.3.2.5):

$$\text{Relative Bias} = \text{Observed} - \text{Known}$$

where: Observed = measured activity of LCS standard (pCi/L)

Known = known activity of LCS standard (pCi/L)

Acceptable values for relative bias results range from –0.25 to +0.25. ASD-KH requested that laboratories begin reporting relative bias calculations for LCS samples in November 2001, and actual reporting began during the first quarter of 2002. However, no relative bias data were available for the surface water quality results reviewed in this report.

16.2.3 Criteria for Representativeness

Representativeness in DQA is limited to an evaluation of whether analytical results for field samples are truly representative of environmental concentrations, or whether they may have been influenced by the introduction of contamination during collection and handling. The potential introduction of contamination is commonly evaluated by examination of the analytical results for equipment rinsates.

Equipment rinsates are used to assess the efficacy of the decontamination process used to clean surface water sampling equipment. Analytes detected in rinsate samples indicate possible cross-contamination between environmental samples. In many environmental sampling programs, rinsates are samples of volatile-free "distilled" water that have been poured over or through decontaminated sampling equipment and subsequently handled in the same manner as environmental samples. However, the surface water program samples surface water over time and collects the water in carboys. Therefore, a location-specific "rinse carboy" is prepared using distilled water. This carboy is treated the same as other surface water samples from that location, and analyzed for the same parameters. Analytical data from these rinse carboys is used to assess how well the carboys were cleaned between field deployments and to determine if contamination was introduced during sample preparation.

Although rinsates are used specifically as indicators of cross-contamination from improper decontamination of equipment, they are carried through the entire sampling, shipping, and laboratory process. Therefore, they are good indicators of potential contamination introduced during any of these steps. Because rinsate samples are judged adequate to assess introduced contamination, the Surface Water Program does not use "trip blanks" in its QA program.

16.2.4 Criteria for Completeness

A qualitative measure of completeness is the rate of successful sampling. The DQA verifies that all planned samples were collected, unless insufficient water was available for sampling. The completeness goal for successful sampling is the collection of at least 90% of the planned samples. However, the availability of surface water is outside the control of the Surface Water Program. If all required stations were visited, sampling completeness is considered acceptable.

Completeness as a quantitative measure of data quality may be expressed as the percentage of valid or acceptable data obtained from a measurement system. K-H ASD tracks analytical laboratory performance through both the shipment of samples to the laboratory and the receipt of data from the laboratory. Therefore the Surface Water Program does not track the timeliness of data receipt from the laboratories, but evaluates data completeness on the following formula:

$$Completeness = DP_u = \frac{DP_t - DP_n}{DP_t} * 100$$

where: DP_u = Percentage of usable data points

DP_t = Total number of data points

DP_n = Non-usable (rejected) data points

The completeness criterion is having ≥ 90% valid samples.

16.2.5 Criteria for Comparability

Comparability is a qualitative parameter. Consistency in the acquisition, handling, and analysis of samples is necessary for comparing results. Data developed under the Surface Water Program are collected in accordance with RFETS SOPs, transported per RFETS SOPs and US-DOT shipping regulations, and analyzed using standard

EPA, or nationally recognized analytical methods. This helps to ensure comparability of results with other analyses performed in a similar manner.

ASD verifies that laboratory analyses are performed according to the standard protocols specified by the RFETS subcontract to each laboratory. Therefore, the analytical results should be comparable to data produced by similar methods.

16.3 SURFACE WATER DQA RESULTS WATER YEAR 2002

During Water Year 2002, 32 surface water locations were sampled one or more times. This resulted in a total of 247 surface water samples collected, and 683 bottles of water being submitted to analytical laboratories for analysis. The following table breaks this data down by sample type.

Table 16-1. WY02 Sample Type Breakdown.

	Unique Water Samples	Unique Bottle Codes
Primary samples (REALs)	232	635
Field duplicates (DUPs)	5	15
Rinsates (RNSs)	10	33
Totals	247	683

Data used to evaluate the PARCC parameters are included in the Water Year 2002 analytical dataset generated by the laboratories. These include analyses of field duplicate and rinsate quality control samples submitted to the laboratory, and laboratory generated QA/QC samples such as Lab Control Samples (LCS). The DQA of these analyses is discussed below by each PARCC parameter.

16.3.1 Precision During Water Year 2002

Duplicate error ratios (DER) are indicators of precision for radionuclide analyses. The QC criterion for precision requires that individual DER values should be <=1.96, and overall the dataset should have >=85% compliance with the criterion. Table B-4 is a tabulation of the DER values for Water Year 2002 radionuclide analyses. The table has been sorted by the DER parameter so that the range of values is apparent. The DER range is from 0.000 to 1.431. Overall, 100% of the DER data are in compliance with the criterion, indicating excellent precision for radionuclide analyses.

Relative percent difference (RPD) between real and field duplicate sample results is an indicator of precision for non-radionuclide analyses. Individual RPD values should be <=30% and at least 85% of the RPDs should comply with the criterion. Table B-5 tabulates RPD values and is sorted first by analyte suite, then by RPD, in order to highlight the RPD range of each suite. RPD values for metals ranged from 0.00% to 9.52%; and RPDs for water quality parameters varied from 0.00% to 8.00%.

Table 16-2 summarizes the RPD findings of Table B-5 and indicates if the 85% goal has been met. During Water Year 2002, the RPD goal was met for both metals and water quality parameters. Overall, the non-radionuclide data had 100% acceptable RPDs, and therefore exceeded the 85% goal.

Table 16-2. Summary of Relative Percent Differences (RPD) Values.

Analyte Group	Total Number of RPD Results	Number of Unacceptable Results RPD>30%	Number of Acceptable Results	Percentage Acceptable	Goal Met
Metals	39	0	39	100.00	Yes
WQP	3	0	3	100.00	Yes
Totals	42	0	42	100.00	Yes (overall)

16.3.2 Accuracy During Water Year 2002

Detection limits achieved by the laboratories analyzing samples collected during Water Year 2002 were compared with the contract-required-detection limits (CRDLs) as an indicator of accuracy. An analytical reporting limit is raised by the dilution factor when sample dilution is necessary to bring an analyte within an analytical instrument's calibration range. Such dilution is required under laboratory subcontracts issued by ASD. Therefore, the DQA analysis normalized reporting limits (RDLs) by dividing each of them by the sample dilution factor prior to comparing them against the CRDLs.

During Water Year 2002 a total of 5216 RDLs were reported by laboratories for real, duplicate, and rinsate samples analyzed for all requested analytical suites. An Access query compared each normalized RDL to the corresponding CRDL and found that no RDLs had exceeded their CRDLs. Thus, by this measure the surface water data are of high accuracy.

Matrix spike recoveries provide another measure of accuracy. Table B-6 displays recoveries for 865 matrix spike (MS) and matrix spike duplicate (MSD) analytical records for metals, radionuclides, and water quality parameters (WQP). This large amount of data is summarized in Table 16-3. The metals suite met the QC goal by having 91.8% of its recoveries falling in the range 75% to 125%. Both radionuclides and WQP had 100% of their spike recoveries falling in the acceptable range. Overall, across all analytical suites, the percentage of acceptable MS/MSD results was 93.3%, exceeding the accuracy goal of 90%.

Table 16-3. Summary of MS and MSD Recovery Data.

Analyte Group	Total Number of MS & MSD Results	Number of Low Results Below 75%	Number of High Results Above 125%	Number Acceptable	Percentage Acceptable	Goal Met
Metals	704	14	44	646	91.76	Yes
Radionuclides	21	0	0	21	100.00	Yes
WQP	140	0	0	140	100.00	Yes
Totals	865	14	44	807	93.29	Yes (overall)

Relative bias values for Laboratory Control Samples (LCS) are also used by RFETS to evaluate the accuracy of radionuclide analyses. The QC criterion for the acceptable range of relative bias values is from –0.25 to +0.25. However, no relative bias values were reported by the analytical laboratories during the 2002 Water Year, so no bias comparisons were made.

Lab control sample (LCS) results for non-radionuclide suites were available for metals and water quality parameters (including anions). These LCS recoveries are tabulated in Table B-7, which is sorted by analyte group, then by percent recovery. All but one of the LCS recoveries for metals fell in the range 88% to 117.6% and were within the 75% to 125% acceptable QC range. LCS recoveries for WQPs fell between 86% and 114% and were all acceptable. In summary the LCS recoveries indicate that Water Year 2002 surface water analytical data for metals, and water quality parameters are all of high accuracy.

Another aspect of accuracy is "rejected data". Out of 5216 analytical records representing reals, duplicates, and rinsates during Water Year 2002, only 11 records were rejected (R or R1 qualified) during data verification, or validation. Another way to state this is that 99.79% of the analytical data collected during the year were considered to be valid and usable. Table B-8 lists the 11 rejected records, all of which were for mercury. All of the rejections were for reason codes 702 or 701, which mean that the sample holding times were grossly exceeded. Reason code 703 indicates that the samples for mercury analysis were not properly preserved in the field.

16.3.3 Representativeness During Water Year 2002

As written earlier, representativeness is an evaluation of the sampling procedure for its ability to reflect the true concentrations of contaminants in surface water. Equipment rinsate samples (rinse carboys) are used by the Surface Water Program to determine whether there is introduced contamination from improper or incomplete decontamination of the sampling equipment.

During Water Year 2002 a total of 205 rinsate analytical records were generated for metals, radionuclides and water quality parameters. The majority (159) of these records lack evidence of contamination. The remaining 46 records are tabulated in Table B-9, and 45 of these represent only weak evidence of contamination.

Only one record (at the top of Table B-9) for total hardness provides substantial evidence of inadequate decontamination of a sample carboy at location SW093 sampled 4/9/02. The validated total hardness result is 11000 µg/L, which is 5.5 times greater than the detection limit. This rinsate sample was not filtered and the hardness may be due to calcium carbonate scale from the carboy.

Table B-9 contains 45 other rinsate records, mostly for metals, which are "B" qualified, denoting that they are above the instrument detection limit, but below the method detection limit. Most of these appear to be low level detections of metals that tend to be relatively abundant in surface water and soil such as: Ca, Mg, Na, K, Mn, Fe, and Sr. However, there is some evidence of trace metals, such as: As, Sb, Cr, Cu, Pb, and Se.

Overall, there is very little evidence of introduced contamination during Water Year 2002 surface water sampling and/or shipping activities. Most of the rinsates appear to be clean, and all but one of the remaining records are "B" qualified. Therefore surface water quality data for the year are judged to be representative of the actual surface water concentrations.

Because all required sampling locations were visited, and the samples that could be collected were analyzed, analyses for the year are judged to be representative with respect to spatial coverage.

16.3.4 Completeness During Water Year 2002

If sufficient surface water is available for sampling, the goal is to have greater than or equal to 90% successful sampling of all required stations. However, the availability of surface water is beyond the control of the samplers. Surface water monitoring during Water Year 2002 required sampling at up to 32 gaging stations and surface water sampling locations. In actuality, samples were collected at each of the 32 sites and submitted to the laboratory for analysis. Therefore the sampling success rates for each requested analytical suite was 100%. Because all requested stations were sampled during Water Year 2002, sampling completeness exceeded the goal.

Validation/Verification completeness is summarized in Table 16-4. This table compiles by analytical suite (actually by SWD line item code, LIC), the total number of data points for reals, duplicates, and rinsate samples. It then subtracts rejected data points, and subtracts points that lack validation qualifiers. The result is the net number of usable validated or verified data points, and this is expressed as % usable data, or % V&V completeness. The QC goal for completeness is >=90%. Note that only analytical data are validated, so Table 16-4 excludes physical methods such as sieving.

Metals data for total recoverable Be and dissolved Cd generated by the LICs "SS05C038" and "SS05C037", failed to meet the completeness goal. Although Be was close at 87.5%. RAS-A-003 alpha spec for Pu-239/240 had a completeness of 88.9%, just missing the 90% goal. Validation completeness for all other metals, other radionuclides, and WQPs all exceeded the completeness goal. The overall validation completeness across all analytical suites was 96.0%, exceeding the completeness goal. Therefore from the perspective of V&V completeness, the Water Year 2002 surface water data are acceptable.

Another measure of completeness is that an adequate number of QC samples (field duplicates and equipment rinsates) must be collected to meet QC requirements. The recommended frequency for collecting duplicate samples is one duplicate (DUP) per 20 or fewer primary (REAL) water samples. In other words, duplicates should be collected at a 5% or greater frequency per REAL sample. Like duplicates, rinsate samples (RNS) are also to be collected at a 5% or greater rate.

The sample collection frequencies of REAL, DUP, and RNS samples are tabulated by analyte suite in Table 16-5. Physical parameters (such as sieve analysis) do not appear under "Analyte Group" because no duplicate or rinsate samples were collected for these analytes during Water Year 2002.

The ratios of REAL/DUP samples by location shown in Table 16-5 all meet Surface Water program QC goals with one DUP per 9 REALs for metals, one DUP per 7 REALs for radionuclides, and one DUP per 18 REALs for WQPs. Across all analyte suites and samples collected during the year, the overall frequency of duplicates was 10.4%, greatly exceeding program goals (>=5%). The ratios of REAL/DUP records did not meet Surface Water program goals with only one DUP per 103 REALS for metals, one DUP per 29 REALs for radionuclides, and one DUP per 53 REALS for WQPs. Across all analyte suites and samples collected during the year, the overall frequency of duplicate records was 1.56%, falling short of program goals (>=5%). Recent changes in sample preparation protocols have addressed this issue, and the appropriate number of DUPs is being collected for WY03.

The ratios of REAL/ RNS samples of Table 16-5 also meet program QC goals with one rinsate per 5.6 REALs for metals, one per 3.7 REALs for radionuclides, and one per 5.4 REALs for WQPs. Overall, across all suites and samples collected during the year, the rinsate collection frequency was 21.4%, exceeding program goals (>=5%). The ratios of REAL/RNS records nearly met Surface Water program goals with one RNS per 25 REALS for metals, one RNS per 21 REALs for radionuclides, and one RNS per 16 REALS for WQPs. Across all analyte suites and samples collected during the year, the overall frequency of rinsate records was 4.21%, nearly meeting program goals (>=5%).

In summary, both field duplicate and rinsate sampling frequencies were within surface water QC requirements on a per location basis, but not on a per sample basis. Recent changes in sample preparation protocols have addressed this issue.

Table 16-4. Summary of Validation and Verification Data Completeness.

Chemical Group	Analytical Method	Line Item Code	Number of Data Points	Number of Unvalidated Points	Number Rejected	Net Usable Points	Completeness	Goal Met
Metals	CLP-SOW	MET-A-001	2673	106	6	2561	95.81	Yes
Metals	EPA 600	MET-A-013	779	53	5	721	92.55	Yes
Metals	EPA 600	RME-A-001	129	12	0	117	90.70	Yes
Metals	EPA 600	RME-A-002	126	12	0	114	90.48	Yes
Metals	CLP-SOW-TOTAL	SS05C001	54	0	0	54	100.00	Yes
Metals	EPA-600-DISSOLVED	SS05C037	8	2	0	6	75.00	No
Metals	EPA-600-TOTAL RECOVERABLE	SS05C038	8	1	0	7	87.50	No
Radionuclides	LIQUID SCINTILLATION COUNTER	LSC-A-001	88	4	0	84	95.45	Yes
Radionuclides	ALPHA SPEC	RAS-A-001	745	0	0	745	100.00	Yes
Radionuclides	ALPHA SPEC	RAS-A-002	18	0	0	18	100.00	Yes
Radionuclides	ALPHA SPEC	RAS-A-003	18	2	0	16	88.89	No
Radionuclides	ALPHA SPEC	RC01B002	295	0	0	295	100.00	Yes
Radionuclides	ALPHA SPEC	RC01B008	20	0	0	20	100.00	Yes
Radionuclides	ALPHA SPEC	RC01B013	20	0	0	20	100.00	Yes
WQP	E310.1, 310.2, SM2320B	WCH-A-002	9	0	0	9	100.00	Yes
WQP	EPA 300.0	WCH-A-011	9	0	0	9	100.00	Yes
WQP	E300.0, E340.2, SM4500-F-B,C	WCH-A-018	9	0	0	9	100.00	Yes
WQP	E130.2, SM 2340C	WCH-A-019	66	1	0	65	98.48	Yes
WQP	E160.2, SM2540 D	WCH-A-034	70	1	0	69	98.57	Yes
WQP	E375.1,.2, E300.0,SW9035/9036	WCH-A-036	9	0	0	9	100.00	Yes
Totals			**5153**	**194**	**11**	**4948**	**96.02**	**Yes**

Table 16-5. Summary of Field Quality Control Samples and Data Records.

Analyte Group	Analytical Method	Line Item Code	Number of Locations Sampled for REALs	Number of Locations Sampled for DUPs	Number of Locations Sampled for RNSs	Ratio REALs/ DUPs (Goal <20)	Ratio REALs/ RNSs (Goal <20)	Number REAL Records	Number DUP Records	Number RNS Records	Total Records
Metals	CLP-SOW	MET-A-001	45	5	8	9	5.63	3599	35	143	3777
Radionuclides	LIQUID SCINTILLATION COUNTER	LSC-A-001	55	8	15	6.875	3.67	1114	38	52	1204
WQP	E310.1, 310.2, SM2320B	WCH-A-002	54	3	10	18	5.40	159	3	10	172
Totals			**154**	**16**	**33**	**9.625**	**4.67**	**4872**	**76**	**205**	**5153**
Percentages						**10.39%**	**21.43%**		**1.56%**	**4.21%**	

16.3.5 Comparability During Water Year 2002

No changes were made to surface water sampling or to analytical procedures during Water Year 2002. Therefore, the analytical data generated during the year should be comparable to corresponding analyses from previous years.

16.4 DQA SUMMARY

The above DQA evaluations of surface water quality data for Water Year 2002 lead to the following conclusions, listed by PARCC parameter.

Precision

- Overall, 100% of the DER values are in compliance with the criterion, indicating excellent precision for radionuclide analyses.
- Overall, the non-radionuclide data had 100% acceptable RPDs, and exceeded the 85% goal.

Accuracy

- A significant observation is that 100% of the data records achieved the contract-required CRDLs. By this measure the surface water data are of high accuracy.
- Out of 5216 analytical records representing reals, duplicates, and rinsates during Water Year 2002, only 11 records were rejected (R or R1 qualified) during data verification or validation. Another way to state this is that 99.79% of the analytical data collected during the year were considered valid and usable.
- Overall, across all analytical suites, the percentage of acceptable MS/MSD results was 93.3%, exceeding the accuracy goal of 90%.
- All LCS recoveries were in the acceptable range for metals and water quality parameters indicating that these surface water analytical data were all of high accuracy.

Representativeness

- Overall, little contamination was introduced during Water Year 2002 surface water sampling and/or shipping activities, because nearly all of the rinsate records appear to be clean. Only one validated data record for hardness was greatly above its detection limit, suggesting incomplete decontamination of the carboy. Therefore overall surface water quality data for the year is judged to be representative of the actual surface water concentrations.

Completeness

- The overall sampling success rate (for all analyte suites) was 100% during Water Year 2002. Although this exceeds the goal of 90%, the availability of surface water is beyond the control of the samplers. Because all requested sampling stations were visited, sampling completeness is considered adequate for Water Year 2002.

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- The overall validation completeness across all analytical suites was 96%, exceeding the completeness goal. Therefore from the perspective of V&V completeness the Water Year 2002 surface water data are acceptable.
- In summary, both field duplicate and rinsate sampling frequencies met QC requirements on a per location basis. The problems with frequencies on a per sample basis have been addressed through changes in sample preparation protocols.

Comparability

- No changes were made to surface water sampling or to analytical procedures during Water Year 2002. Therefore, the analytical data generated during the year should be comparable to previous years.

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ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE AUTOMATED SURFACE-WATER MONITORING REPORT Water Year 2002

U.S. DEPARTMENT OF ENERGY

Rocky Flats Environmental Technology Site

Golden, Colorado

FINAL

November 2003

Classification Exemption CEX-105-01

APPENDICES

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APPENDIX A: HYDROLOGIC DATA

A.1 DISCHARGE DATA

This section includes mean daily discharge tables and hydrographs by monitoring location and water year. Electronic copies of the discharge grids are included in the Appendix Tables directory on the CD-ROM disc. The grids are given in a single Microsoft Excel file. Each file contains separate worksheets for each monitoring location.

A.1.1 GS01: Woman Creek at Indiana Street

Table A-1. WY02 Discharge Summary for GS01: Woman Creek at Indiana Street.

Water Year 2002: Daily Mean Discharge Values in Cubic Feet per Second

Day	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02
1	0.000	0.000	0.000	*0.061*	*0.068*	*0.201*	0.069	0.000	0.031	0.000	0.000	0.000
2	0.000	0.000	0.000	*0.058*	*0.065*	*0.113*	0.057	0.000	0.025	0.000	0.000	0.000
3	0.000	0.000	0.000	*0.057*	*0.048*	*0.092*	0.059	0.000	0.021	0.000	0.000	0.000
4	0.000	0.000	*0.072*	*0.049*	*0.049*	*0.120*	0.054	0.000	0.025	0.000	0.000	0.000
5	0.000	0.000	0.105	*0.059*	*0.053*	*0.236*	0.051	0.000	0.022	0.000	0.000	0.000
6	0.000	0.000	0.101	*0.047*	*0.043*	0.406	0.052	0.000	0.017	0.000	0.000	0.000
7	0.000	0.000	0.083	0.053	*0.037*	0.490	0.049	0.000	0.012	0.000	0.000	0.000
8	0.000	0.000	0.077	*0.173*	*0.038*	0.454	0.045	0.000	0.009	0.000	0.000	0.000
9	0.000	0.000	0.078	0.201	*0.046*	0.303	0.042	0.000	0.000	0.000	0.000	0.000
10	0.000	0.000	0.085	0.212	*0.049*	0.267	0.041	0.000	0.000	0.000	0.000	0.000
11	0.000	0.000	0.103	0.176	*0.052*	0.332	0.038	0.000	0.000	0.000	0.000	0.000
12	0.000	0.000	0.089	0.172	*0.057*	0.284	0.034	0.000	0.000	0.000	0.000	0.000
13	0.000	0.000	*0.080*	0.150	*0.034*	0.305	0.030	0.000	0.000	0.000	0.000	0.000
14	0.000	0.000	0.083	*0.110*	*0.045*	0.317	0.028	0.000	0.000	0.000	0.000	0.000
15	0.000	0.000	0.089	*0.088*	*0.047*	0.239	0.028	0.000	0.000	0.000	0.000	0.000
16	0.000	0.000	0.103	*0.079*	0.043	0.253	0.025	0.000	0.000	0.000	0.000	0.000
17	0.000	0.000	0.142	*0.069*	0.091	0.292	0.025	0.000	0.000	0.000	0.000	0.000
18	0.000	0.000	0.155	*0.069*	0.160	0.234	0.020	0.000	0.000	0.000	0.000	0.000
19	0.000	0.000	0.122	*0.060*	0.152	0.223	0.016	0.000	0.000	0.000	0.000	0.000
20	0.000	0.000	0.111	*0.051*	0.130	0.251	0.016	0.005	0.000	0.000	0.000	0.000
21	0.000	0.000	0.119	*0.045*	0.098	0.184	0.015	0.018	0.000	0.000	0.000	0.000
22	0.000	0.000	0.113	*0.050*	0.086	0.173	0.013	0.017	0.000	0.000	0.000	0.000
23	0.000	0.000	*0.084*	*0.051*	0.135	0.192	0.009	0.023	0.000	0.000	0.000	0.000
24	0.000	0.000	*0.068*	*0.052*	0.154	0.171	0.007	1.656	0.000	0.000	0.000	0.000
25	0.000	0.000	*0.056*	*0.042*	*0.081*	0.148	0.006	1.854	0.000	0.000	0.000	0.000
26	0.000	0.000	0.050	*0.053*	*0.062*	0.126	0.004	0.734	0.000	0.000	0.000	0.000
27	0.000	0.000	0.049	*0.100*	*0.074*	0.129	0.000	0.325	0.000	0.000	0.000	0.000
28	0.000	0.000	0.045	*0.133*	*0.081*	0.101	0.000	0.184	0.000	0.000	0.000	0.000
29	0.000	0.000	0.051	*0.110*	NA	0.083	0.000	0.110	0.000	0.000	0.000	0.000
30	0.000	0.000	*0.061*	*0.095*	NA	0.079	0.000	0.065	0.000	0.000	0.000	0.000
31	0.000	NA	*0.058*	*0.062*	NA	0.076	NA	0.040	NA	0.000	0.000	NA

Flow Rate

Average	0.000	0.000	0.078	0.090	0.074	0.222	0.028	0.162	0.005	0.000	0.000	0.000
Maximum	0.000	0.000	0.155	0.212	0.160	0.490	0.069	1.854	0.031	0.000	0.000	0.000
Minimum	0.000	0.000	0.000	0.042	0.034	0.076	0.000	0.000	0.000	0.000	0.000	0.000

Discharge

Cubic Feet	0	0	209993	240629	179624	593832	71808	434645	13917	0	0	0
Gallons	0	0	1570854	1800029	1343683	4442168	537162	3251367	104107	0	0	0
Acre-Feet	0.00	0.00	4.82	5.52	4.12	13.63	1.65	9.98	0.32	0.00	0.00	0.00

Annual Summaries for WY02

Ft^3/Sec	0.055
GPM	24.8
Cubic Feet	1744447
Gallons	13049371
Acre-Feet	40.05

KEY: WR: No data or unacceptable data due to winter icing conditions
BD: Bad data due to equipment failures
ITALICS: Italic values contain data estimated from field observations and electronic record at adjacent or comparable gages

A.1.2 GS02: Mower Ditch at Indiana Street

Table A-2. WY02 Discharge Summary for GS02: Mower Ditch at Indiana Street.

Water Year 2002: Daily Mean Discharge Values in Cubic Feet per Second

Day	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02
1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
26	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29	0.000	0.000	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30	0.000	0.000	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
31	0.000	NA	0.000	0.000	NA	0.000	NA	0.000	NA	0.000	0.000	NA

Flow Rate

Average	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Maximum	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Minimum	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Discharge

Cubic Feet	0	0	0	0	0	0	0	0	0	0	0	0
Gallons	0	0	0	0	0	0	0	0	0	0	0	0
Acre-Feet	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Annual Summaries for WY02

Ft^3/Sec	0.000
GPM	0.0
Cubic Feet	0
Gallons	0
Acre-Feet	0.00

KEY: WR: No data or unacceptable data due to winter icing conditions
BD: Bad data due to equipment failures
ITALICS: Italic values contain data estimated from field observations and electronic record at adjacent or comparable gages

A.1.3 GS03: Walnut Creek at Indiana Street

Table A-3. WY02 Discharge Summary for GS03: Walnut Creek at Indiana Street.

Water Year 2002: Daily Mean Discharge Values in Cubic Feet per Second

Day	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02
1	0.000	0.001	1.562	0.000	1.199	0.006	0.741	0.000	0.966	0.000	0.000	0.000
2	0.000	0.001	1.515	*0.000*	0.569	0.007	0.242	0.000	0.714	0.000	0.000	0.000
3	0.392	0.001	1.233	*0.000*	0.299	0.011	0.004	0.000	0.310	0.000	0.000	0.000
4	1.492	0.002	1.174	*0.000*	0.145	0.013	0.001	0.000	0.008	0.000	0.000	0.000
5	1.554	0.002	0.993	*0.000*	0.006	0.002	0.002	0.000	0.002	0.000	0.000	0.000
6	0.941	0.001	0.852	0.000	0.003	0.001	0.002	0.000	0.001	0.000	0.000	0.254
7	0.402	0.002	0.788	0.001	0.002	0.001	0.003	0.000	0.001	0.000	0.000	0.500
8	1.018	0.005	0.755	0.001	0.002	0.000	0.003	0.000	0.000	0.000	0.000	0.535
9	1.394	0.001	0.588	0.001	0.002	0.000	0.003	0.000	0.000	0.000	0.000	0.857
10	1.269	0.000	0.613	0.003	0.006	0.000	0.002	0.000	0.000	0.000	0.000	1.405
11	1.235	0.000	0.211	0.001	0.009	0.000	0.002	0.000	0.000	0.184	0.000	1.493
12	1.197	0.000	0.006	0.001	0.001	0.000	0.003	0.000	0.000	1.202	0.000	1.472
13	1.072	0.000	0.004	0.001	0.003	0.000	0.002	0.000	0.000	1.453	0.000	1.426
14	1.011	0.000	0.004	0.001	0.003	0.001	0.001	0.000	0.000	1.369	0.000	1.517
15	1.191	0.000	0.005	0.001	0.003	0.000	0.001	0.000	0.000	0.977	0.000	1.183
16	0.581	0.000	0.004	0.002	0.003	0.000	0.000	1.410	0.000	0.777	0.000	1.062
17	*0.008*	0.000	0.003	0.001	0.002	0.000	0.001	3.179	0.000	0.725	0.000	0.014
18	0.002	0.000	0.001	0.000	0.002	0.000	0.000	3.467	0.000	0.688	0.000	0.004
19	0.004	0.000	0.001	*0.000*	0.002	0.000	0.001	2.928	0.000	0.589	0.000	0.005
20	0.012	0.000	0.001	*0.000*	0.002	0.000	0.003	2.562	0.000	0.459	0.000	0.005
21	0.015	0.000	0.001	0.000	0.002	0.679	0.001	2.105	0.000	0.276	0.000	0.005
22	0.014	0.000	0.001	0.000	0.001	1.541	0.000	1.728	0.000	0.140	0.000	0.004
23	0.014	0.000	0.001	0.000	0.000	1.526	0.000	1.378	0.000	0.002	0.000	0.005
24	0.013	0.000	0.000	0.459	0.001	1.608	0.000	1.779	0.000	0.001	0.000	0.005
25	0.012	0.000	0.000	1.203	0.002	1.356	0.000	0.451	0.000	0.000	0.000	0.005
26	0.011	0.000	0.000	1.281	0.003	1.131	0.000	0.747	0.000	0.000	0.000	0.006
27	0.009	0.000	0.000	1.224	0.004	1.203	0.000	1.318	0.000	0.000	0.000	0.005
28	0.004	0.000	0.000	1.190	0.005	1.118	0.000	1.210	0.000	0.000	0.000	0.005
29	0.001	0.000	0.000	0.991	NA	0.799	0.000	1.141	0.000	0.000	0.000	0.004
30	0.008	0.495	0.000	0.962	NA	0.866	0.000	1.112	0.000	0.000	0.000	0.002
31	0.002	NA	0.000	1.139	NA	0.877	NA	1.123	NA	0.000	0.000	NA

Flow Rate

Average	0.480	0.017	0.333	0.273	0.081	0.411	0.034	0.892	0.067	0.285	0.000	0.393
Maximum	1.554	0.495	1.562	1.281	1.199	1.608	0.741	3.467	0.966	1.453	0.000	1.517
Minimum	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Discharge

Cubic Feet	1285362	44400	891262	731175	197074	1101507	87985	2387864	173072	763974	0	1017431
Gallons	9615177	332135	6667101	5469566	1474213	8239842	658176	17862463	1294671	5714926	0	7610910
Acre-Feet	29.51	1.02	20.46	16.79	4.52	25.29	2.02	54.82	3.97	17.54	0.00	23.36

Annual Summaries for WY02

Ft^3/Sec	0.275
GPM	123.6
Cubic Feet	8681105
Gallons	64939180
Acre-Feet	199.29

KEY: WR: No data or unacceptable data due to winter icing conditions
BD: Bad data due to equipment failures
ITALICS: Italic values contain data estimated from field observations and electronic record at adjacent or comparable gages

A.1.4 GS04: Rock Creek at Highway 128

Table A-4. WY02 Discharge Summary for GS04: Rock Creek at Highway 128.

Water Year 2002: Daily Mean Discharge Values in Cubic Feet per Second

Day	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02
1	0.000	0.006	0.145	0.065	WR	WR	0.172	0.047	0.097	0.000	0.000	0.000
2	0.000	0.000	0.181	*0.046*	WR	WR	0.149	0.051	0.072	0.000	0.000	0.000
3	0.000	0.000	0.210	*0.063*	WR	WR	0.150	0.067	0.056	0.000	0.000	0.000
4	0.000	0.001	0.178	0.070	WR	WR	0.149	0.080	0.051	0.000	0.000	0.000
5	0.000	0.023	0.150	0.090	WR	WR	0.140	0.078	0.042	0.000	0.000	0.000
6	0.000	0.033	0.133	0.110	WR	0.624	0.145	0.067	0.047	0.000	0.000	0.000
7	0.000	0.036	0.122	0.155	WR	0.585	0.141	0.056	0.043	0.000	0.000	0.000
8	0.000	0.079	0.110	0.263	0.083	*0.353*	0.138	0.045	0.036	0.000	0.000	0.000
9	0.000	0.158	0.101	0.259	0.096	*0.303*	0.136	0.038	0.020	0.000	0.000	0.000
10	0.000	0.150	0.106	0.244	*0.082*	0.371	0.137	0.038	0.000	0.000	0.000	0.000
11	0.000	0.130	0.106	0.229	0.085	0.380	0.134	0.041	0.000	0.000	0.000	0.000
12	0.000	0.122	0.085	0.217	0.111	0.379	0.127	0.177	0.000	0.000	0.000	0.000
13	0.000	0.117	0.080	0.200	*0.108*	0.370	0.116	0.194	0.000	0.000	0.000	0.000
14	0.000	0.106	0.082	0.141	0.116	0.329	0.109	0.167	0.000	0.000	0.000	0.000
15	0.000	0.097	0.105	0.123	*0.122*	0.263	0.099	0.135	0.000	0.000	0.000	0.000
16	0.000	0.094	0.126	0.104	0.150	0.348	0.091	0.125	0.000	0.000	0.000	0.000
17	0.000	0.096	0.185	*0.073*	0.197	0.311	0.083	0.207	0.000	0.000	0.000	0.000
18	0.000	0.099	0.188	*0.063*	0.211	0.267	0.075	0.178	0.000	0.000	0.000	0.000
19	0.000	0.146	0.154	*0.053*	0.207	0.325	0.070	0.146	0.000	0.000	0.000	0.000
20	0.000	0.162	0.161	*0.033*	0.192	0.306	0.070	0.135	0.000	0.000	0.000	0.000
21	0.000	0.141	0.152	*0.017*	0.167	0.242	0.074	0.119	0.000	0.000	0.000	0.000
22	0.000	0.142	0.146	0.000	0.206	0.223	0.082	0.111	0.000	0.000	0.000	0.000
23	0.000	0.154	0.110	0.000	0.277	0.253	0.075	0.103	0.000	0.000	0.000	0.000
24	0.000	0.142	0.081	0.006	0.238	0.216	0.063	2.276	0.000	0.000	0.000	0.000
25	0.000	0.140	0.064	0.084	*0.156*	0.187	0.056	1.274	0.000	0.000	0.000	0.000
26	0.000	0.154	0.048	0.177	WR	0.195	0.054	0.566	0.000	0.000	0.000	0.000
27	0.000	0.140	0.042	0.172	WR	0.200	0.054	0.328	0.000	0.000	0.000	0.000
28	0.000	0.113	0.056	0.147	WR	0.190	0.056	0.229	0.000	0.000	0.000	0.000
29	0.000	0.102	0.077	0.126	NA	0.190	0.056	0.179	0.000	0.000	0.000	0.000
30	0.000	0.120	0.088	0.110	NA	0.183	0.048	0.145	0.000	0.000	0.000	0.000
31	0.000	NA	0.077	WR	NA	0.177	NA	0.121	NA	0.000	0.000	NA
				Partial Data	Partial Data	Partial Data						

Flow Rate

Average	0.000	0.100	0.118	0.115	0.156	0.299	0.102	0.243	0.015	0.000	0.000	0.000
Maximum	0.000	0.162	0.210	0.263	0.277	0.624	0.172	2.276	0.097	0.000	0.000	0.000
Minimum	0.000	0.000	0.042	0.000	0.082	0.177	0.048	0.038	0.000	0.000	0.000	0.000
				Partial Data	Partial Data	Partial Data						

Discharge

Cubic Feet	27	259096	315542	297155	242422	671266	263454	649912	39991	0	0	0
Gallons	199	1938174	2360420	2222875	1813445	5021419	1970771	4861681	299153	0	0	0
Acre-Feet	0.00	5.95	7.24	6.82	5.57	15.41	6.05	14.92	0.92	0.00	0.00	0.00
				Partial Data	Partial Data	Partial Data						

Annual Summaries for WY02

Ft^3/Sec	0.091
GPM	40.8
Cubic Feet	2738865
Gallons	20488138
Acre-Feet	62.88
	Partial Data

KEY: WR: No data or unacceptable data due to winter icing conditions
BD: Bad data due to equipment failures
ITALICS: Italic values contain data estimated from field observations and electronic record at adjacent or comparable gages

A.1.5 GS05: Woman Creek at West Fenceline

Table A-5. WY02 Discharge Summary for GS05: Woman Creek at West Fenceline.

Water Year 2002: Daily Mean Discharge Values in Cubic Feet per Second

Day	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02
1	0.001	0.036	0.071	WR	WR	WR	0.032	0.011	0.020	0.000	0.000	0.000
2	0.001	0.047	0.076	WR	WR	WR	0.030	0.011	0.016	0.000	0.000	0.000
3	0.001	0.047	0.070	WR	WR	WR	0.035	0.011	0.012	0.000	0.000	0.000
4	0.000	0.046	0.066	WR	WR	WR	0.033	0.010	0.046	0.000	0.000	0.000
5	0.025	0.048	0.057	WR	WR	WR	0.032	0.011	0.018	0.000	0.000	0.000
6	0.020	0.051	0.054	WR	WR	WR	0.032	0.010	0.016	0.000	0.000	0.000
7	0.020	0.055	0.049	WR	WR	WR	0.031	0.010	0.015	0.000	0.000	*0.000*
8	0.021	0.098	0.064	WR	WR	WR	0.030	0.010	0.013	0.000	0.000	*0.000*
9	0.021	0.071	0.069	WR	WR	WR	0.030	0.009	0.012	0.000	0.000	*0.000*
10	0.021	0.064	0.069	WR	WR	WR	0.029	0.007	0.010	0.000	0.000	*0.000*
11	0.020	0.067	0.068	WR	WR	WR	0.031	*0.011*	0.009	0.000	0.000	*0.000*
12	0.020	0.067	0.059	WR	WR	WR	0.030	*0.025*	0.007	0.000	0.000	*0.000*
13	0.019	0.069	WR	WR	WR	WR	0.029	*0.013*	0.006	0.000	0.000	*0.010*
14	0.018	0.070	WR	WR	WR	WR	0.027	*0.012*	0.005	0.000	0.000	*0.017*
15	0.035	0.073	WR	WR	WR	WR	0.025	*0.011*	0.004	0.000	0.000	0.015
16	0.035	0.074	WR	WR	WR	WR	0.024	*0.015*	0.004	0.000	0.000	0.013
17	0.037	0.064	0.071	WR	WR	WR	0.021	*0.019*	0.003	0.000	0.000	0.011
18	0.036	0.077	0.069	WR	WR	WR	0.018	*0.013*	0.002	0.000	0.000	0.008
19	0.034	0.089	0.094	WR	WR	WR	0.016	*0.012*	0.001	0.000	0.000	0.006
20	0.032	0.077	0.084	WR	WR	WR	0.016	*0.010*	0.001	0.000	0.000	0.006
21	0.031	0.074	0.105	WR	WR	WR	0.017	0.016	0.000	0.000	0.000	0.005
22	0.031	0.073	0.077	WR	WR	WR	0.015	0.012	0.000	0.000	0.000	0.005
23	0.030	0.080	0.119	WR	WR	WR	0.015	0.069	0.000	0.000	0.000	0.006
24	0.027	0.059	0.162	WR	WR	WR	0.013	0.850	0.000	0.000	0.000	0.007
25	0.024	0.068	WR	WR	WR	WR	0.012	0.361	0.000	0.000	0.000	0.007
26	0.023	0.078	WR	WR	WR	WR	0.012	0.085	0.000	0.000	0.000	0.008
27	0.022	0.070	0.139	WR	WR	0.047	0.013	0.043	0.000	0.000	0.000	0.007
28	0.021	0.078	0.077	WR	WR	0.041	0.012	0.037	0.000	0.000	0.000	0.006
29	0.033	0.076	0.041	WR	NA	0.039	0.012	0.035	0.000	0.000	0.000	0.006
30	0.042	0.065	0.042	WR	NA	0.038	0.011	0.030	0.000	0.000	0.000	0.005
31	0.044	NA	WR	WR	NA	0.036	NA	0.025	NA	0.000	0.000	NA
			Partial Data	No Data	No Data	Partial Data						

Flow Rate

Average	0.024	0.067	0.077	#DIV/0!	#DIV/0!	0.040	0.023	0.058	0.007	0.000	0.000	0.005
Maximum	0.044	0.098	0.162	0.000	0.000	0.047	0.035	0.850	0.046	0.000	0.000	0.017
Minimum	0.000	0.036	0.041	0.000	0.000	0.036	0.011	0.007	0.000	0.000	0.000	0.000
			Partial Data	No Data	No Data	Partial Data						

Discharge

Cubic Feet	64341	173410	159910	0	0	17394	58990	155776	19027	0	0	12852
Gallons	481301	1297195	1196207	0	0	130117	441276	1165285	142333	0	0	96139
Acre-Feet	1.48	3.98	3.67	0.00	0.00	0.40	1.35	3.58	0.44	0.00	0.00	0.30
			Partial Data	No Data	No Data	Partial Data						

Annual Summaries for WY02

Ft^3/Sec	0.028
GPM	12.6
Cubic Feet	661699
Gallons	4949853
Acre-Feet	15.19
	Partial Data

KEY: WR: No data or unacceptable data due to winter icing conditions
BD: Bad data due to equipment failures
ITALICS: Italic values contain data estimated from field observations and electronic record at adjacent or comparable gages

A.1.6 GS06: Owl Branch at West Fenceline

Table A-6. WY02 Discharge Summary for GS06: Owl Branch at West Fenceline.

Water Year 2002: Daily Mean Discharge Values in Cubic Feet per Second

Day	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02
1	0.0000	0.0000	*0.0000*	0.0000	WR	WR	0.0021	0.0003	0.0031	0.0000	0.0000	0.0000
2	0.0000	0.0000	*0.0000*	0.0000	WR	WR	0.0019	0.0010	0.0022	0.0000	0.0000	0.0000
3	0.0000	0.0000	*0.0000*	0.0000	WR	WR	0.0021	0.0000	0.0030	0.0000	0.0000	0.0000
4	0.0000	0.0000	0.0000	0.0000	WR	WR	0.0020	0.0000	0.0052	0.0000	0.0000	0.0000
5	0.0000	0.0000	0.0000	0.0000	WR	WR	0.0019	0.0000	0.0028	0.0000	0.0000	0.0000
6	0.0000	0.0000	0.0000	0.0000	WR	0.0045	0.0020	0.0000	0.0014	0.0000	0.0000	0.0000
7	0.0000	0.0000	0.0000	0.0006	WR	0.0048	0.0018	0.0000	0.0009	0.0000	0.0000	0.0000
8	0.0000	0.0000	0.0000	0.0010	WR	WR	0.0018	0.0000	0.0012	0.0000	0.0000	0.0000
9	0.0000	0.0000	0.0000	0.0007	WR	WR	0.0016	0.0000	0.0007	0.0000	0.0000	0.0000
10	0.0000	0.0000	0.0000	WR	WR	*0.0021*	0.0018	0.0000	0.0000	0.0000	0.0000	0.0000
11	0.0000	0.0000	0.0000	WR	WR	0.0011	0.0015	0.0011	0.0000	0.0000	0.0000	0.0000
12	0.0000	0.0000	0.0000	*0.0011*	WR	0.0014	0.0015	0.0039	0.0000	0.0000	0.0000	0.0000
13	0.0000	0.0000	0.0000	*0.0001*	WR	0.0021	0.0008	0.0010	0.0000	0.0000	0.0000	0.0000
14	0.0000	*0.0000*	0.0000	*0.0000*	WR	0.0019	0.0000	0.0006	0.0000	0.0000	0.0000	0.0000
15	0.0000	*0.0000*	0.0000	0.0000	WR	*0.0015*	0.0003	0.0005	0.0000	0.0000	0.0000	0.0000
16	0.0000	*0.0000*	0.0000	0.0000	WR	*0.0023*	0.0001	0.0016	0.0000	0.0000	0.0000	0.0000
17	0.0000	*0.0000*	0.0003	0.0000	WR	*0.0022*	0.0000	0.0022	0.0000	0.0000	0.0000	0.0000
18	0.0000	*0.0000*	0.0000	0.0000	0.0006	*0.0021*	0.0000	0.0013	0.0000	0.0000	0.0000	0.0000
19	0.0000	*0.0000*	0.0000	0.0000	*0.0002*	0.0031	0.0000	0.0009	0.0000	0.0000	0.0000	0.0000
20	0.0000	*0.0000*	0.0000	0.0000	*0.0002*	0.0035	0.0007	0.0015	0.0000	0.0000	0.0000	0.0000
21	0.0000	*0.0000*	0.0000	0.0000	*0.0001*	*0.0051*	0.0005	0.0011	0.0000	0.0000	0.0000	0.0000
22	0.0000	*0.0000*	0.0000	0.0001	*0.0002*	*0.0043*	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000
23	0.0000	*0.0000*	0.0000	*0.0000*	0.0004	0.0040	0.0000	0.0091	0.0000	0.0000	0.0000	0.0000
24	0.0000	*0.0000*	0.0000	*0.0000*	0.0000	0.0040	0.0000	0.0527	0.0000	0.0000	0.0000	0.0000
25	0.0000	*0.0000*	0.0000	*0.0006*	0.0000	*0.0036*	0.0000	0.0229	0.0000	0.0000	0.0000	0.0000
26	0.0000	*0.0000*	0.0000	*0.0016*	WR	*0.0037*	0.0000	0.0076	0.0000	0.0000	0.0000	0.0000
27	0.0000	*0.0000*	0.0000	*0.0011*	WR	0.0029	0.0000	0.0054	0.0000	0.0000	0.0000	0.0000
28	0.0000	*0.0000*	0.0000	WR	WR	0.0031	0.0000	0.0046	0.0000	0.0000	0.0000	0.0000
29	0.0000	*0.0000*	0.0000	WR	NA	0.0032	0.0000	0.0039	0.0000	0.0000	0.0000	0.0000
30	0.0000	*0.0000*	0.0000	WR	NA	0.0028	0.0000	0.0034	0.0000	0.0000	0.0000	0.0000
31	0.0000	NA	0.0000	WR	NA	0.0026	NA	0.0032	NA	0.0000	0.0000	NA
				Partial Data	Partial Data	Partial Data						

Flow Rate

Average	0.000	0.000	0.000	0.000	0.000	0.003	0.001	0.004	0.001	0.000	0.000	0.000
Maximum	0.000	0.000	0.000	0.002	0.001	0.005	0.002	0.053	0.005	0.000	0.000	0.000
Minimum	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000
				Partial Data	Partial Data	Partial Data						

Discharge

Cubic Feet	0	0	27	598	152	6203	2139	11207	1770	0	0	0
Gallons	0	0	200	4475	1133	46403	16003	83835	13240	0	0	0
Acre-Feet	0.00	0.00	0.00	0.01	0.00	0.14	0.05	0.26	0.04	0.00	0.00	0.00
				Partial Data	Partial Data	Partial Data						

Annual Summaries for WY02

Ft^3/Sec	0.001
GPM	0.3
Cubic Feet	22096
Gallons	165290
Acre-Feet	0.51
	Partial Data

KEY: WR: No data or unacceptable data due to winter icing conditions
BD: Bad data due to equipment failures
ITALICS: Italic values contain data estimated from field observations and electronic record at adjacent or comparable gages

A.1.7 GS08: South Walnut Creek at Pond B-5 Outlet

Table A-7. WY02 Discharge Summary for GS08: South Walnut Creek at Pond B-5 Outlet.

Water Year 2002: Daily Mean Discharge Values in Cubic Feet per Second

Day	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02
1	0.000	0.000	2.301	0.000	1.570	0.000	0.997	0.000	1.331	0.000	0.000	0.000
2	0.000	0.000	2.147	0.000	0.716	0.000	0.208	0.000	0.956	0.000	0.000	0.000
3	1.501	0.000	1.706	0.000	0.439	0.000	0.000	0.000	0.295	0.000	0.000	0.000
4	2.346	0.000	1.580	0.000	0.150	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5	2.142	0.000	1.307	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.726
6	1.210	0.000	1.123	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.053
7	0.629	0.000	1.060	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.898
8	1.566	0.000	0.975	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.877
9	1.852	0.000	0.751	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.318
10	1.672	0.000	0.834	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.973
11	1.629	0.000	0.171	0.000	0.000	0.000	0.000	0.000	0.000	1.275	0.000	2.049
12	1.575	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.963	0.000	2.001
13	1.382	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.152	0.000	1.960
14	1.244	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.947	0.000	2.144
15	1.507	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.313	0.000	1.618
16	0.509	0.000	0.000	0.000	0.000	0.000	0.000	1.246	0.000	1.109	0.000	1.299
17	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.953	0.000	1.091	0.000	0.000
18	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.411	0.000	1.013	0.000	0.000
19	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.242	0.000	0.861	0.000	0.000
20	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.716	0.000	0.704	0.000	0.000
21	0.000	0.000	0.000	0.000	0.000	1.548	0.000	1.535	0.000	0.455	0.000	0.000
22	0.000	0.000	0.000	0.000	0.000	2.234	0.000	1.563	0.000	0.179	0.000	0.000
23	0.000	0.000	0.000	0.000	0.000	2.193	0.000	1.667	0.000	0.000	0.000	0.000
24	0.000	0.000	0.000	1.131	0.000	2.275	0.000	1.031	0.000	0.000	0.000	0.000
25	0.000	0.000	0.000	1.830	0.000	1.840	0.000	0.000	0.000	0.000	0.000	0.000
26	0.000	0.000	0.000	1.795	0.000	1.588	0.000	1.187	0.000	0.000	0.000	0.000
27	0.000	0.000	0.000	1.685	0.000	1.699	0.000	1.776	0.000	0.000	0.000	0.000
28	0.000	0.000	0.000	1.627	0.000	1.519	0.000	1.623	0.000	0.000	0.000	0.000
29	0.000	0.000	0.000	1.313	NA	1.034	0.000	1.572	0.000	0.000	0.000	0.000
30	0.000	1.325	0.000	1.299	NA	1.257	0.000	1.578	0.000	0.000	0.000	0.000
31	0.000	NA	0.000	1.618	NA	1.177	NA	1.575	NA	0.000	0.000	NA

Flow Rate

Average	0.670	0.044	0.450	0.397	0.103	0.592	0.040	0.796	0.086	0.454	0.000	0.597
Maximum	2.346	1.325	2.301	1.830	1.570	2.275	0.997	2.411	1.331	2.152	0.000	2.144
Minimum	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Discharge

Cubic Feet	1793947	114446	1205492	1062517	248374	1586695	104143	2131799	223123	1215122	0	1548056
Gallons	13419657	856119	9017707	7948178	1857967	11869305	779043	15946963	1669078	9089748	0	11580267
Acre-Feet	41.18	2.63	27.67	24.39	5.70	36.43	2.39	48.94	5.12	27.90	0.00	35.54

Annual Summaries for WY02

Ft^3/Sec	0.356
GPM	159.9
Cubic Feet	11233715
Gallons	84034031
Acre-Feet	257.89

KEY: WR: No data or unacceptable data due to winter icing conditions
BD: Bad data due to equipment failures
ITALICS: Italic values contain data estimated from field observations and electronic record at adjacent or comparable gages

A.1.8 GS10: South Walnut Creek at B-1 Bypass

Table A-8. WY02 Discharge Summary for GS10: South Walnut Creek at B-1 Bypass.

Water Year 2002: Daily Mean Discharge Values in Cubic Feet per Second

Day	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02
1	0.061	0.048	0.043	0.047	*0.041*	0.042	0.044	0.065	0.061	0.024	0.062	0.028
2	0.061	0.048	0.047	0.054	*0.035*	0.067	0.042	0.054	0.060	0.030	0.061	0.027
3	0.065	0.049	0.044	0.062	*0.033*	*0.053*	0.042	0.028	0.157	0.032	0.061	0.026
4	0.072	0.048	0.039	0.052	*0.030*	0.119	0.044	0.026	0.407	0.036	0.085	0.028
5	0.135	0.049	0.038	0.052	0.028	0.135	0.046	0.027	0.057	0.043	*0.795*	0.029
6	0.054	0.052	0.037	0.049	0.029	0.107	0.047	0.026	0.065	0.050	0.250	0.030
7	0.051	0.075	0.037	0.056	0.032	0.086	0.046	0.028	0.056	0.044	0.027	0.031
8	0.049	0.272	0.034	0.057	0.040	0.050	0.044	0.028	0.050	0.045	0.021	0.035
9	0.068	0.076	0.037	0.055	0.037	0.079	0.043	0.027	0.045	0.052	0.019	0.296
10	0.045	0.048	0.036	0.112	*0.030*	0.054	0.042	0.030	0.041	0.057	0.017	*1.288*
11	0.044	0.045	0.036	0.066	0.032	0.050	0.050	0.312	0.037	0.059	0.015	0.057
12	0.041	0.047	0.036	0.050	0.030	0.049	0.047	0.520	0.035	0.075	0.016	0.407
13	0.046	0.047	0.033	0.050	0.030	0.048	0.046	0.038	0.035	0.077	0.014	*0.945*
14	0.049	0.048	0.038	*0.047*	0.031	0.142	0.045	0.060	0.035	0.075	0.013	0.029
15	0.100	0.047	0.038	*0.046*	0.066	0.056	0.044	0.035	0.032	0.067	0.012	0.025
16	0.038	0.047	0.074	*0.047*	0.033	0.066	0.041	0.433	0.032	0.047	0.011	0.025
17	0.039	0.045	0.087	*0.044*	0.033	0.045	0.039	0.086	0.031	0.047	0.010	0.025
18	0.040	0.089	0.046	*0.047*	0.035	0.048	0.036	0.042	0.027	0.049	0.009	0.037
19	0.039	0.068	0.039	*0.047*	0.035	0.061	0.033	0.042	0.153	0.048	0.008	0.025
20	0.040	0.039	0.039	*0.047*	0.035	0.048	0.046	0.067	0.056	0.054	0.008	0.025
21	0.041	0.036	0.041	*0.046*	0.034	0.045	0.035	0.043	0.023	0.060	0.008	0.026
22	0.042	0.037	0.039	0.047	0.039	0.048	0.034	0.039	0.026	0.068	0.008	0.026
23	*0.043*	0.102	0.038	0.060	0.039	0.051	0.030	*1.272*	0.024	0.060	0.010	0.025
24	0.040	0.034	0.037	0.050	0.038	0.048	0.029	*4.190*	0.024	0.059	0.010	0.025
25	0.044	0.036	0.038	0.066	0.051	0.050	0.027	0.314	0.024	0.058	0.010	0.070
26	0.042	0.129	0.044	0.055	*0.045*	0.047	0.030	0.097	0.030	0.061	0.100	0.061
27	0.043	0.047	0.045	0.052	0.037	0.048	0.030	0.064	0.030	0.067	0.032	0.023
28	0.043	0.033	0.049	0.047	0.044	0.046	0.029	0.062	0.028	0.057	0.027	0.023
29	0.043	0.036	0.045	0.045	NA	0.043	0.030	0.060	0.025	0.054	0.037	0.023
30	0.047	0.040	0.044	0.052	NA	0.042	0.029	0.059	0.023	0.055	0.029	0.024
31	0.049	NA	0.045	0.050	NA	0.042	NA	0.060	NA	0.058	0.028	NA

Flow Rate

Average	0.052	0.061	0.043	0.053	0.037	0.062	0.039	0.266	0.058	0.054	0.058	0.125
Maximum	0.135	0.272	0.087	0.112	0.066	0.142	0.050	4.190	0.407	0.077	0.795	1.288
Minimum	0.038	0.033	0.033	0.044	0.028	0.042	0.027	0.026	0.023	0.024	0.008	0.023

Discharge

Cubic Feet	139488	156971	114279	143027	88366	165633	101171	711247	149226	144116	156501	323213
Gallons	1043440	1174227	854866	1069918	661023	1239019	756814	5320496	1116286	1078066	1170712	2417798
Acre-Feet	3.20	3.60	2.62	3.28	2.03	3.80	2.32	16.33	3.43	3.31	3.59	7.42

Annual Summaries for WY02

Ft^3/Sec	0.076
GPM	34.1
Cubic Feet	2393238
Gallons	17902665
Acre-Feet	54.94

KEY: WR: No data or unacceptable data due to winter icing conditions
BD: Bad data due to equipment failures
• *ITALICS:* Italic values contain data estimated from field observations and electronic record at adjacent or comparable gages

A.1.9 GS11: North Walnut Creek at Pond A-4 Outlet

Table A-9. WY02 Discharge Summary for GS11: North Walnut Creek at Pond A-4 Outlet.

Water Year 2002: Daily Mean Discharge Values in Cubic Feet per Second

Day	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02
1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.226	0.000	0.000	0.000	0.000
17	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.851	0.000	0.000	0.000	0.000
18	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.629	0.000	0.000	0.000	0.000
19	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.222	0.000	0.000	0.000	0.000
20	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.372	0.000	0.000	0.000	0.000
21	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.019	0.000	0.000	0.000	0.000
22	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.617	0.000	0.000	0.000	0.000
23	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.067	0.000	0.000	0.000	0.000
24	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
26	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29	0.000	0.000	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30	0.000	0.000	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
31	0.000	NA	0.000	0.000	NA	0.000	NA	0.000	NA	0.000	0.000	NA

Flow Rate

Average	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.290	0.000	0.000	0.000	0.000
Maximum	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.851	0.000	0.000	0.000	0.000
Minimum	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Discharge

Cubic Feet	0	0	0	0	0	0	0	777847	0	0	0	0
Gallons	0	0	0	0	0	0	0	5818703	0	0	0	0
Acre-Feet	0.00	0.00	0.00	0.00	0.00	0.00	0.00	17.86	0.00	0.00	0.00	0.00

Annual Summaries for WY02

Ft^3/Sec	0.025
GPM	11.1
Cubic Feet	777847
Gallons	5818703
Acre-Feet	17.86

KEY: WR: No data or unacceptable data due to winter icing conditions
BD: Bad data due to equipment failures
ITALICS: Italic values contain data estimated from field observations and electronic record at adjacent or comparable gages

A.1.10 GS12: North Walnut Creek at Pond A-3 Outlet

Table A-10. WY02 Discharge Summary for GS12: North Walnut Creek at Pond A-3 Outlet.

Water Year 2002: Daily Mean Discharge Values in Cubic Feet per Second

Day	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02
1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.576	0.000	0.000	0.000
2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.347	0.000	0.000	0.000
3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.539	0.000	0.000	0.000
4	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8	1.085	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9	1.656	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10	1.628	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11	0.928	0.000	0.000	0.000	0.000	*0.994*	0.000	0.000	0.000	0.000	0.000	0.000
12	0.000	0.000	0.000	0.000	0.000	*1.561*	0.000	0.000	0.000	0.000	0.000	0.000
13	0.000	0.000	0.000	0.000	0.000	1.686	0.000	0.000	0.000	0.000	0.000	0.000
14	0.000	0.000	0.000	0.000	0.000	1.134	0.000	0.000	0.000	0.000	0.000	0.000
15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22	0.000	0.000	0.000	0.000	0.000	0.000	0.581	0.000	0.000	0.000	0.000	0.000
23	0.000	0.000	0.000	0.000	0.000	0.000	0.804	0.000	0.000	0.000	0.000	0.000
24	0.000	0.000	0.000	0.000	0.000	0.000	0.575	0.000	0.000	0.000	0.000	0.000
25	0.000	0.000	0.000	0.000	0.000	0.000	0.107	0.000	0.000	0.000	0.000	0.000
26	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.300	0.000	0.000	0.000	0.000
27	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.104	0.000	0.000	0.000	0.000
28	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.527	0.000	0.000	0.000	0.000
29	0.000	0.000	0.000	0.000	NA	0.000	0.000	1.183	0.000	0.000	0.000	0.000
30	0.000	0.000	0.000	0.000	NA	0.000	0.000	1.123	0.000	0.000	0.000	0.000
31	0.000	NA	0.000	0.000	NA	0.000	NA	0.968	NA	0.000	0.000	NA

Flow Rate

Average	0.171	0.000	0.000	0.000	0.000	0.173	0.069	0.265	0.049	0.000	0.000	0.000
Maximum	1.656	0.000	0.000	0.000	0.000	1.686	0.804	2.104	0.576	0.000	0.000	0.000
Minimum	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Discharge

Cubic Feet	457717	0	0	0	0	464372	178632	708852	126281	0	0	0
Gallons	3423963	0	0	0	0	3473743	1336261	5302583	944649	0	0	0
Acre-Feet	10.51	0.00	0.00	0.00	0.00	10.66	4.10	16.27	2.90	0.00	0.00	0.00

Annual Summaries for WY02

Ft^3/Sec	0.061
GPM	27.6
Cubic Feet	1935855
Gallons	14481200
Acre-Feet	44.44

KEY: WR: No data or unacceptable data due to winter icing conditions
BD: Bad data due to equipment failures
ITALICS: Italic values contain data estimated from field observations and electronic record at adjacent or comparable gages

A.1.11 GS16: Antelope Springs

Table A-11. WY02 Discharge Summary for GS16: Antelope Springs.

Water Year 2002: Daily Mean Discharge Values in Cubic Feet per Second

Day	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02
1	0.057	0.082	WR	WR	WR	WR	0.069	0.069	0.058	0.020	0.021	0.021
2	0.052	0.082	*0.131*	WR	WR	WR	*0.072*	0.092	0.055	0.020	0.024	0.021
3	0.054	0.079	0.104	WR	WR	WR	*0.080*	0.058	0.062	0.021	0.029	0.024
4	0.063	0.076	*0.088*	WR	WR	WR	*0.077*	0.053	0.146	0.020	0.029	0.023
5	0.109	0.072	*0.081*	WR	WR	WR	0.075	0.051	0.075	0.020	0.046	0.024
6	0.076	0.071	0.078	WR	WR	WR	0.076	0.048	0.057	0.024	0.034	0.025
7	0.071	0.077	*0.074*	WR	WR	WR	0.076	0.049	0.052	0.021	0.027	0.026
8	0.066	0.147	WR	WR	WR	WR	0.077	0.051	0.050	0.020	0.025	0.028
9	0.079	0.111	WR	WR	WR	WR	0.073	0.048	0.044	0.019	0.027	0.045
10	0.071	0.085	WR	WR	WR	WR	0.074	0.052	0.043	0.022	0.026	0.067
11	0.074	0.080	WR	WR	WR	WR	0.073	0.104	0.043	0.022	0.022	0.040
12	0.068	0.078	WR	WR	WR	WR	0.071	0.173	0.043	0.019	0.028	0.055
13	0.067	0.079	WR	WR	WR	WR	0.066	0.075	0.045	0.017	0.028	0.080
14	0.072	0.077	WR	WR	WR	WR	0.058	0.068	0.044	0.016	0.024	0.042
15	0.104	0.077	WR	WR	WR	WR	0.067	0.063	0.043	0.016	0.026	0.036
16	0.083	0.078	WR	WR	WR	WR	0.061	0.115	0.043	0.015	0.024	0.035
17	0.079	0.078	WR	WR	WR	WR	0.062	0.106	0.037	0.015	0.026	0.034
18	0.077	0.093	WR	WR	WR	WR	0.059	0.076	0.033	0.014	0.026	0.037
19	0.076	0.114	WR	WR	WR	WR	0.065	0.068	0.038	0.014	0.028	0.038
20	0.080	*0.090*	WR	WR	WR	*0.110*	0.081	0.082	0.047	0.015	0.028	0.035
21	0.083	*0.086*	WR	WR	WR	WR	0.068	0.074	0.038	0.017	0.028	0.035
22	0.083	0.085	WR	WR	WR	WR	0.059	0.053	0.040	0.023	0.027	0.036
23	0.079	0.106	WR	WR	WR	*0.101*	0.052	0.142	0.033	0.022	0.026	0.036
24	0.073	*0.083*	WR	WR	WR	WR	0.052	0.575	0.030	0.019	0.026	0.035
25	0.079	*0.087*	WR	WR	WR	WR	0.058	0.379	0.030	0.017	0.026	0.037
26	0.080	*0.093*	WR	WR	WR	WR	0.063	0.125	0.029	0.016	0.024	0.052
27	0.084	WR	WR	WR	WR	*0.089*	0.060	0.091	0.028	0.017	0.029	0.041
28	0.087	WR	WR	WR	WR	0.083	0.054	0.075	0.026	0.020	0.030	0.039
29	0.086	WR	WR	WR	NA	0.081	0.052	0.067	0.025	0.017	0.031	0.038
30	0.091	WR	WR	WR	NA	0.083	0.052	0.062	0.021	0.016	0.027	0.035
31	0.085	NA	WR	WR	NA	*0.082*	NA	0.056	NA	0.017	0.024	NA
		Partial Data	Partial Data	No Data	No Data	Partial Data						

Flow Rate

Average	0.077	0.087	0.093	#DIV/0!	#DIV/0!	0.090	0.066	0.103	0.045	0.018	0.027	0.037
Maximum	0.109	0.147	0.131	0.000	0.000	0.110	0.081	0.575	0.146	0.024	0.046	0.080
Minimum	0.052	0.071	0.074	0.000	0.000	0.081	0.052	0.048	0.021	0.014	0.021	0.021
		Partial Data	Partial Data	No Data	No Data	Partial Data						

Discharge

Cubic Feet	206546	195976	48071	0	0	54425	171297	276257	117393	49521	72969	96739
Gallons	1545070	1466000	359593	0	0	407126	1281392	2066547	878163	370443	545844	723655
Acre-Feet	4.74	4.50	1.10	0.00	0.00	1.25	3.93	6.34	2.69	1.14	1.68	2.22
		Partial Data	Partial Data	No Data	No Data	Partial Data						

Annual Summaries for WY02

Ft^3/Sec	0.059
GPM	26.5
Cubic Feet	1289193
Gallons	9643834
Acre-Feet	29.60
	Partial Data

KEY: WR: No data or unacceptable data due to winter icing conditions
BD: Bad data due to equipment failures
ITALICS: Italic values contain data estimated from field observations and electronic record at adjacent or comparable gages

A.1.12 GS22: 400 Area Outfall to SID

Table A-12. WY02 Discharge Summary for GS22: 400 Area Outfall.

Water Year 2002: Daily Mean Discharge Values in Cubic Feet per Second

Day	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02
1	0.010	0.006	0.021	0.016	0.011	0.020	0.017	0.054	0.014	0.014	0.009	0.005
2	0.008	0.005	0.016	0.020	0.010	*0.031*	0.020	0.043	0.014	0.014	0.009	0.004
3	0.009	0.005	0.014	0.011	0.010	*0.024*	0.018	0.011	*0.116*	0.014	0.018	0.004
4	0.036	0.006	0.012	0.014	0.011	0.069	0.017	0.010	0.100	0.014	0.033	0.007
5	0.090	0.006	0.011	0.022	0.011	0.038	0.017	0.009	0.015	0.014	*0.129*	0.004
6	0.052	0.005	0.010	0.010	0.016	0.040	0.017	0.008	0.015	0.023	0.087	0.016
7	0.013	0.039	0.010	0.010	0.012	0.032	0.015	0.008	0.015	0.013	0.013	0.009
8	0.012	0.123	0.010	0.014	0.012	0.017	0.015	0.008	0.015	0.012	0.012	0.008
9	0.025	0.055	0.010	0.011	0.011	0.046	0.015	0.010	0.014	0.010	0.019	0.198
10	0.011	0.012	0.009	0.072	0.011	0.025	0.017	0.008	0.014	0.009	0.014	*0.328*
11	0.011	0.011	0.009	0.041	0.012	0.033	0.017	0.162	0.014	0.009	0.013	0.061
12	0.010	0.010	0.015	0.013	0.012	0.019	0.015	0.151	0.013	0.017	0.022	0.112
13	0.009	0.010	0.010	0.013	0.013	0.017	0.015	0.009	0.013	0.010	0.015	*0.180*
14	0.009	*0.009*	0.012	0.027	0.013	0.058	0.015	0.015	0.021	0.009	0.016	0.009
15	0.075	*0.010*	0.012	0.013	0.058	0.038	0.015	0.009	0.014	0.008	0.027	0.008
16	0.011	0.011	0.047	0.012	0.009	0.070	0.015	0.147	0.015	0.008	0.014	0.008
17	0.010	0.012	0.068	0.012	0.009	0.022	0.015	0.012	0.014	0.008	0.023	0.007
18	0.009	0.055	0.014	0.012	0.011	0.027	0.014	0.009	0.014	0.007	0.021	0.027
19	0.008	0.047	0.012	0.012	0.014	0.048	0.015	0.009	0.100	0.007	0.013	0.009
20	0.008	0.013	0.011	0.012	0.012	0.020	0.031	0.039	0.020	0.006	0.023	0.013
21	0.008	0.013	0.012	0.011	0.011	0.019	0.018	0.011	0.013	0.007	0.019	0.010
22	0.008	0.013	0.011	0.010	0.010	0.018	0.022	0.009	0.020	0.008	0.018	0.010
23	0.007	0.058	0.010	0.026	0.010	0.018	0.016	*0.487*	0.014	0.007	0.015	0.009
24	0.007	0.012	0.011	0.026	0.010	0.018	0.015	0.560	0.013	0.006	0.011	0.008
25	0.006	0.013	0.010	0.023	*0.021*	0.023	0.016	0.143	0.013	0.007	0.009	0.062
26	0.006	0.061	0.010	0.011	*0.036*	0.017	0.016	0.015	0.013	0.011	0.008	0.033
27	0.006	0.030	0.010	0.010	0.022	0.018	0.016	0.015	0.013	0.018	0.020	0.008
28	0.006	0.017	0.010	0.011	0.017	0.017	0.016	0.015	0.018	0.010	0.010	0.007
29	0.006	0.020	0.010	0.011	NA	0.018	0.015	0.015	0.014	0.010	0.027	0.007
30	0.006	0.033	0.010	0.027	NA	0.018	0.014	0.015	0.014	0.009	0.007	0.006
31	0.006	NA	0.010	0.018	NA	0.017	NA	0.014	NA	0.009	0.005	NA

Flow Rate

Average	0.016	0.024	0.014	0.018	0.015	0.029	0.017	0.065	0.024	0.011	0.022	0.039
Maximum	0.090	0.123	0.068	0.072	0.058	0.070	0.031	0.560	0.116	0.023	0.129	0.328
Minimum	0.006	0.005	0.009	0.010	0.009	0.017	0.014	0.008	0.013	0.006	0.005	0.004

Discharge

Cubic Feet	42976	62186	38639	47643	35959	77454	43020	175365	61964	28435	58776	101749
Gallons	321484	465183	289040	356397	268993	579400	321813	1311821	463526	212705	439679	761138
Acre-Feet	0.99	1.43	0.89	1.09	0.83	1.78	0.99	4.03	1.42	0.65	1.35	2.34

Annual Summaries for WY02

Ft^3/Sec	0.025
GPM	11.0
Cubic Feet	774168
Gallons	5791178
Acre-Feet	17.77

KEY: WR: No data or unacceptable data due to winter icing conditions
BD: Bad data due to equipment failures
ITALICS: Italic values contain data estimated from field observations and electronic record at adjacent or comparable gages

A.1.13 GS27: Building 889/884 Sub-Drainage Area

Table A-13. WY02 Discharge Summary for GS27: Building 889/884 Sub-Drainage Area.

Water Year 2002: Daily Mean Discharge Values in Cubic Feet per Second

Day	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02
1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0007	0.0000	0.0000	0.0000	0.0000	0.0006	0.0000
6	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000
7	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
8	0.0000	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
9	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0010
11	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0000	0.0000	0.0000	0.0001
13	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0014
14	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	0.0000	0.0000	*0.0000*	0.0000	0.0000	0.0001	0.0000	0.0003	0.0000	0.0000	0.0000	0.0000
17	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
19	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
21	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
22	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
23	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0027	0.0000	0.0000	0.0000	0.0000
24	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0078	0.0000	0.0000	0.0000	0.0000
25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
26	0.0000	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
27	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
28	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
29	0.0000	0.0000	0.0000	0.0000	NA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
30	0.0000	0.0000	0.0000	0.0000	NA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
31	0.0000	NA	0.0000	0.0000	NA	0.0000	NA	0.0000	NA	0.0000	0.0000	NA

Flow Rate

Average	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0004	0.0000	0.0000	0.0000	0.0001
Maximum	0.0000	0.0003	0.0001	0.0000	0.0000	0.0007	0.0000	0.0078	0.0000	0.0000	0.0006	0.0014
Minimum	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Discharge

Cubic Feet	0	46	5	4	0	119	0	968	0	0	63	216
Gallons	0	346	41	30	0	887	0	7244	1	0	469	1616
Acre-Feet	0.000	0.001	0.000	0.000	0.000	0.003	0.000	0.022	0.000	0.000	0.001	0.005

Annual Summaries for WY02

Ft^3/Sec	0.0000
GPM	0.02
Cubic Feet	1421
Gallons	10633
Acre-Feet	0.033

KEY: WR: No data or unacceptable data due to winter icing conditions
BD: Bad data due to equipment failures
ITALICS: Italic values contain data estimated from field observations and electronic record at adjacent or comparable gages

A.1.14 GS28: Ditch NW of B865

Table A-14. WY02 Discharge Summary for GS28: Ditch NW of B865.

Water Year 2002: Daily Mean Discharge Values in Cubic Feet per Second

Day	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02
1	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.000
2	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.000
3	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.000
4	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.000
5	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000	0.0000	0.0000	0.0000	0.0049	0.000
6	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.000
7	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.000
8	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.000
9	No Data	No Data	No Data	No Data	No Data	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.000
10	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.009
11	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.000
12	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.000
13	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.014
14	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.000
15	No Data	No Data	No Data	No Data	No Data	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.000
16	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.000
17	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.000
18	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.000
19	No Data	No Data	No Data	No Data	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.000
20	No Data	No Data	No Data	No Data	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.000
21	No Data	No Data	No Data	No Data	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.000
22	No Data	No Data	No Data	No Data	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.000
23	No Data	No Data	No Data	No Data	0.0000	0.0000	0.0000	0.0205	0.0000	0.0000	0.0000	0.000
24	No Data	No Data	No Data	No Data	0.0000	0.0000	0.0000	0.0484	0.0000	0.0000	0.0000	0.000
25	No Data	No Data	No Data	No Data	0.0000	0.0000	0.0000	0.0148	0.0000	0.0000	0.0000	0.000
26	No Data	No Data	No Data	No Data	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.000
27	No Data	No Data	No Data	No Data	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.000
28	No Data	No Data	No Data	No Data	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.000
29	No Data	No Data	No Data	No Data	NA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.000
30	No Data	No Data	No Data	No Data	NA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.000
31	No Data	NA	No Data	No Data	NA	0.0000	NA	0.0000	NA	0.0000	0.0000	NA
	No Data	No Data	No Data	No Data	Partial Data							

Flow Rate

Average					0.0000	0.0000	0.0000	0.0027	0.0000	0.0000	0.0002	0.0008
Maximum					0.0000	0.0000	0.0000	0.0484	0.0000	0.0000	0.0049	0.0143
Minimum					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	No Data	No Data	No Data	No Data	Partial Data							

Discharge

Cubic Feet					0	0	0	7225	0	0	426	2012
Gallons					0	0	0	54049	0	0	3189	15050
Acre-Feet					0.000	0.000	0.000	0.166	0.000	0.000	0.010	0.046
	No Data	No Data	No Data	No Data	Partial Data							

Annual Summaries for WY02

Ft^3/Sec	0.0005
GPM	0.22
Cubic Feet	9663
Gallons	72288
Acre-Feet	0.222
	Partial Data

KEY: WR: No data or unacceptable data due to winter icing conditions
BD: Bad data due to equipment failures
ITALICS: Italic values contain data estimated from field observations and electronic record at adjacent or comparable gages

A.1.15 GS31: Woman Creek at Pond C-2 Outlet

Table A-15. WY02 Discharge Summary for GS31: Woman Creek at Pond C-2 Outlet.

Water Year 2002: Daily Mean Discharge Values in Cubic Feet per Second

Day	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02
1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.072
11	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
26	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29	0.000	0.000	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30	0.000	0.000	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
31	0.000	NA	0.000	0.000	NA	0.000	NA	0.000	NA	0.000	0.000	NA

Flow Rate

Average	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002
Maximum	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.072
Minimum	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Discharge

Cubic Feet	0	0	0	0	0	0	0	0	0	0	0	6242
Gallons	0	0	0	0	0	0	0	0	0	0	0	46692
Acre-Feet	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14

Annual Summaries for WY02

Ft^3/Sec	0.000
GPM	0.1
Cubic Feet	6242
Gallons	46692
Acre-Feet	0.14

KEY: WR: No data or unacceptable data due to winter icing conditions
BD: Bad data due to equipment failures
ITALICS: Italic values contain data estimated from field observations and electronic record at adjacent or comparable gages

A.1.16 GS33: No Name Gulch at Walnut Creek

Table A-16. WY02 Discharge Summary for GS33: No Name Gulch at Walnut Creek.

Water Year 2002: Daily Mean Discharge Values in Cubic Feet per Second

Day	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02
1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	*0.000*
2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	*0.000*
3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	*0.000*
4	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	*0.000*
5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	*0.000*
6	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	*0.000*
7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
26	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	*0.000*	0.000
28	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	*0.000*	0.000
29	0.000	0.000	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	*0.000*	0.000
30	0.000	0.000	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	*0.000*	0.000
31	0.000	NA	0.000	0.000	NA	0.000	NA	0.000	NA	0.000	*0.000*	NA

Flow Rate

Average	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Maximum	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Minimum	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Discharge

Cubic Feet	0	0	0	0	0	0	0	0	0	0	0	0
Gallons	0	0	0	0	0	0	0	0	0	0	0	0
Acre-Feet	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Annual Summaries for WY02

Ft^3/Sec	0.000
GPM	0.0
Cubic Feet	0
Gallons	0
Acre-Feet	0.00

KEY: WR: No data or unacceptable data due to winter icing conditions
BD: Bad data due to equipment failures
ITALICS: Italic values contain data estimated from field observations and electronic record at adjacent or comparable gages

A.1.17 GS35: McKay Ditch at Walnut Creek

Table A-17. WY02 Discharge Summary for GS35: McKay Ditch at Walnut Creek.

Water Year 2002: Daily Mean Discharge Values in Cubic Feet per Second

Day	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02
1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5	0.000	0.000	0.000	0.000	0.000	*0.000*	0.000	0.000	0.000	0.000	0.000	0.000
6	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8	0.000	*0.000*	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9	0.000	*0.000*	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10	0.000	*0.000*	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	*0.000*
13	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	*0.000*
14	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	*0.000*
15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	*0.000*
16	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19	0.000	*0.000*	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.030	0.000	0.000	0.000	0.000
25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.543	0.000	0.000	0.000	0.000
26	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.100	0.000	0.000	0.000	0.000
27	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29	0.000	0.000	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30	0.000	0.000	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
31	0.000	NA	0.000	0.000	NA	0.000	NA	0.000	NA	0.000	0.000	NA

Flow Rate

Average	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.054	0.000	0.000	0.000	0.000
Maximum	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.030	0.000	0.000	0.000	0.000
Minimum	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Discharge

Cubic Feet	0	0	0	0	0	0	0	144564	0	0	0	0
Gallons	0	0	0	0	0	0	0	1081417	0	0	0	0
Acre-Feet	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.32	0.00	0.00	0.00	0.00

Annual Summaries for WY02

Ft^3/Sec	0.005
GPM	2.1
Cubic Feet	144564
Gallons	1081417
Acre-Feet	3.32

KEY: WR: No data or unacceptable data due to winter icing conditions
BD: Bad data due to equipment failures
ITALICS: Italic values contain data estimated from field observations and electronic record at adjacent or comparable gages

A.1.18 GS38: Central Avenue Ditch at Eighth Street

Table A-18. WY02 Discharge Summary for GS38: Central Avenue Ditch at Eighth Street.

Water Year 2002: Daily Mean Discharge Values in Cubic Feet per Second

Day	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02
1	0.000	0.000	*0.001*	*0.000*	0.000	*0.004*	0.000	0.009	0.000	0.000	0.000	0.000
2	0.000	0.000	0.000	*0.001*	0.000	*0.008*	0.000	0.000	0.000	0.000	0.000	0.000
3	0.000	0.000	0.000	*0.001*	0.000	*0.008*	0.000	0.000	0.027	0.000	0.000	0.000
4	0.001	0.000	0.000	*0.001*	0.000	*0.030*	0.000	0.000	0.085	0.000	0.000	0.000
5	0.016	0.000	0.000	*0.001*	0.000	*0.030*	0.000	0.000	0.000	0.000	*0.212*	0.000
6	0.000	0.000	0.000	*0.002*	*0.000*	*0.024*	0.000	0.000	0.000	0.000	0.057	0.000
7	0.000	0.007	0.000	0.003	*0.000*	0.012	0.000	0.000	0.000	0.000	0.000	0.000
8	0.000	0.079	0.000	0.001	*0.000*	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9	0.001	0.000	0.000	0.000	*0.000*	0.019	0.000	0.000	0.000	0.000	0.000	0.082
10	0.000	0.000	0.000	0.028	0.000	*0.003*	0.000	0.000	0.000	0.000	0.000	*0.369*
11	0.000	0.000	0.000	0.006	0.000	0.001	0.000	0.086	0.000	0.000	0.000	0.013
12	0.000	0.000	*0.000*	*0.001*	0.000	0.001	0.000	0.146	0.000	0.000	0.000	0.106
13	0.000	0.000	*0.002*	0.000	*0.000*	0.000	0.000	0.000	0.000	0.000	0.000	0.295
14	0.000	0.000	0.000	0.000	*0.000*	0.052	0.000	0.001	0.000	0.000	0.000	0.000
15	0.014	0.000	0.001	0.000	0.008	*0.012*	0.000	0.000	0.000	0.000	0.000	0.000
16	0.000	0.000	0.015	0.000	*0.000*	0.008	0.000	0.122	0.000	0.000	0.000	0.000
17	0.000	0.000	0.020	*0.000*	0.000	*0.001*	0.000	0.007	0.000	0.000	0.000	0.000
18	0.000	0.015	*0.002*	*0.000*	0.000	0.003	0.000	0.000	0.000	0.000	0.000	0.000
19	0.000	0.006	*0.002*	*0.000*	0.000	0.005	0.000	0.000	0.027	0.000	0.000	0.000
20	0.000	0.000	*0.000*	*0.000*	0.000	0.001	0.001	0.004	0.001	0.000	0.000	0.000
21	0.000	0.000	*0.001*	*0.000*	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22	0.000	0.000	0.000	*0.003*	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23	0.000	0.026	*0.000*	*0.016*	0.000	0.000	0.000	*0.412*	0.000	0.000	0.000	0.000
24	0.000	0.000	*0.000*	*0.002*	0.000	0.000	0.000	*1.092*	0.000	0.000	0.000	0.000
25	0.000	0.000	*0.000*	*0.000*	*0.001*	0.000	0.000	*0.057*	0.000	0.000	0.000	0.012
26	0.000	0.049	*0.000*	0.001	*0.004*	0.000	0.000	*0.030*	0.000	0.000	0.000	0.006
27	0.000	*0.005*	*0.001*	*0.000*	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000
28	0.000	*0.000*	*0.000*	*0.000*	*0.000*	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29	0.000	0.005	*0.000*	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30	0.000	0.004	*0.000*	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
31	0.000	NA	*0.000*	*0.000*	NA	0.000	NA	0.000	NA	0.000	0.000	NA

Flow Rate

Average	0.001	0.007	0.001	0.002	0.001	0.007	0.000	0.063	0.005	0.000	0.009	0.029
Maximum	0.016	0.079	0.020	0.028	0.008	0.052	0.001	1.092	0.085	0.000	0.212	0.369
Minimum	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Discharge

Cubic Feet	2850	16956	3893	5806	1316	19156	43	169874	12023	0	23244	76291
Gallons	21322	126838	29119	43433	9847	143297	325	1270744	89936	0	173880	570693
Acre-Feet	0.07	0.39	0.09	0.13	0.03	0.44	0.00	3.90	0.28	0.00	0.53	1.75

Annual Summaries for WY02

Ft^3/Sec	0.011
GPM	4.7
Cubic Feet	331452
Gallons	2479433
Acre-Feet	7.61

KEY: WR: No data or unacceptable data due to winter icing conditions
BD: Bad data due to equipment failures
ITALICS: Italic values contain data estimated from field observations and electronic record at adjacent or comparable gages

A.1.19 GS39: 903/904 Pad Sub-Drainage Area

Table A-19. WY02 Discharge Summary for GS39: 903/904 Pad Sub-Drainage Area.

Water Year 2002: Daily Mean Discharge Values in Cubic Feet per Second

Day	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02
1	0.0000	0.0000	0.0000	0.000	*0.000*	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2	0.0000	0.0000	0.0000	0.000	*0.000*	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3	0.0000	0.0000	0.0000	0.000	*0.000*	0.000	0.000	0.000	0.002	0.000	0.000	*0.000*
4	0.0000	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	0.011	0.000	0.000	0.000
5	0.0001	0.0000	0.0000	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.048	*0.000*
6	0.0000	0.0000	0.0000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.015	*0.000*
7	0.0000	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	*0.000*	0.000
8	0.0000	0.0120	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9	0.0000	*0.0000*	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004
10	0.0000	0.0000	0.0000	0.000	0.000	*0.000*	0.000	0.000	0.000	0.000	*0.000*	*0.068*
11	0.0000	0.0000	0.0000	0.000	0.000	0.000	0.000	0.006	0.000	0.000	0.000	0.001
12	0.0000	0.0000	0.0000	0.000	0.000	0.000	0.000	0.019	0.000	0.000	0.000	0.021
13	0.0000	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	*0.000*	0.000	*0.058*
14	0.0000	0.0000	0.0000	0.000	0.000	0.001	0.000	0.000	0.000	*0.000*	*0.000*	0.000
15	0.0005	0.0000	0.0000	0.000	0.000	*0.000*	0.000	0.000	0.000	*0.000*	0.000	0.000
16	0.0000	0.0000	0.0000	0.000	0.000	*0.000*	0.000	0.017	0.000	*0.000*	*0.000*	0.000
17	0.0000	0.0000	0.0013	0.000	0.000	*0.000*	0.000	0.001	0.000	*0.000*	*0.000*	0.000
18	0.0000	0.0000	*0.0000*	0.000	0.000	*0.000*	0.000	0.000	0.000	*0.000*	0.000	0.000
19	0.0000	0.0020	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	*0.000*	0.000	0.000
20	0.0000	*0.0000*	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	*0.000*	0.000	0.000
21	0.0000	*0.0000*	0.0000	0.000	0.000	*0.000*	0.000	0.000	0.000	*0.000*	0.000	0.000
22	0.0000	0.0000	0.0000	0.000	0.000	*0.000*	0.000	0.000	0.000	*0.000*	0.000	0.000
23	0.0000	0.0031	0.0000	0.000	0.000	0.000	0.000	0.084	0.000	0.000	0.000	0.000
24	0.0000	*0.0000*	0.0000	0.000	0.000	0.000	0.000	0.164	0.000	0.000	0.000	0.000
25	0.0000	*0.0000*	0.0000	0.000	0.000	0.000	0.000	0.005	0.000	0.000	0.000	0.000
26	0.0000	0.0022	0.0000	0.000	0.000	*0.000*	0.000	0.000	0.000	0.000	*0.000*	0.001
27	0.0000	*0.0000*	0.0000	0.000	*0.000*	0.000	0.000	0.000	0.000	*0.000*	0.000	0.000
28	0.0000	0.0000	0.0000	0.000	*0.000*	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29	0.0000	*0.0013*	0.0000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30	0.0000	*0.0000*	0.0000	0.000	NA	0.000	0.000	0.000	0.000	*0.000*	0.000	0.000
31	0.0000	NA	0.0000	*0.000*	NA	0.000	NA	0.000	NA	0.000	0.000	NA

Flow Rate

Average	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.010	0.000	0.000	0.002	0.005
Maximum	0.000	0.012	0.001	0.000	0.000	0.003	0.000	0.164	0.011	0.000	0.048	0.068
Minimum	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Discharge

Cubic Feet	49	1779	108	0	0	413	0	25499	1108	0	5460	13087
Gallons	365	13305	811	0	0	3086	0	190746	8285	2	40841	97894
Acre-Feet	0.00	0.04	0.00	0.00	0.00	0.01	0.00	0.59	0.03	0.00	0.13	0.30

Annual Summaries for WY02

Ft^3/Sec	0.002
GPM	0.7
Cubic Feet	47501
Gallons	355336
Acre-Feet	1.09

KEY: WR: No data or unacceptable data due to winter icing conditions
BD: Bad data due to equipment failures
ITALICS: Italic values contain data estimated from field observations and electronic record at adjacent or comparable gages

A.1.20 GS40: South Walnut Creek East of 750 Pad

Table A-20. WY02 Discharge Summary for GS40: South Walnut Creek East of 750 Pad.

Water Year 2002: Daily Mean Discharge Values in Cubic Feet per Second

Day	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02
1	0.036	0.022	0.029	0.015	*0.019*	0.030	0.026	0.061	0.026	0.029	0.015	0.031
2	0.032	*0.020*	0.031	*0.025*	*0.017*	*0.054*	0.030	0.047	0.026	0.030	0.011	0.032
3	0.034	0.017	0.025	*0.017*	*0.016*	*0.037*	0.026	0.021	0.103	0.030	0.018	0.029
4	0.046	0.016	0.022	0.023	*0.016*	*0.083*	0.026	0.021	0.116	0.026	0.039	0.028
5	0.082	0.017	0.020	0.026	*0.019*	0.070	0.025	0.021	0.027	0.025	0.255	0.024
6	0.018	0.018	0.021	0.017	*0.018*	0.058	0.025	0.021	0.042	0.035	0.108	0.025
7	0.012	0.043	0.022	0.021	0.019	0.043	0.024	0.021	0.033	0.024	0.030	0.024
8	0.010	0.131	0.023	0.020	*0.021*	*0.029*	0.026	0.022	0.031	0.024	0.028	0.023
9	0.029	0.052	0.024	0.017	*0.021*	*0.054*	0.024	0.021	0.031	0.022	0.029	0.197
10	0.013	0.020	0.024	0.074	*0.019*	0.037	0.023	0.021	0.031	0.023	0.029	0.397
11	0.012	0.019	0.025	0.041	0.021	0.032	0.026	0.167	0.031	0.024	0.026	0.082
12	0.013	0.018	0.029	0.022	*0.021*	0.033	0.024	0.164	0.031	0.021	0.033	0.153
13	0.011	0.018	*0.023*	0.019	*0.018*	0.033	0.024	0.023	0.030	0.019	0.025	0.217
14	0.013	0.018	*0.020*	*0.020*	0.020	0.087	0.023	0.043	0.031	0.017	0.024	0.037
15	0.077	0.018	0.021	*0.022*	*0.053*	0.053	0.024	0.022	0.031	0.016	0.025	0.038
16	0.013	0.018	0.055	*0.024*	0.021	0.072	0.024	0.169	0.029	0.016	0.024	0.038
17	0.010	0.018	0.063	*0.025*	0.021	0.040	0.025	0.027	0.029	0.018	0.025	0.034
18	0.013	0.059	0.026	*0.025*	0.022	0.046	0.024	0.021	0.026	0.020	0.025	0.043
19	0.014	0.048	0.020	*0.024*	0.022	0.055	0.027	0.031	0.105	0.019	0.025	0.026
20	0.020	0.020	0.020	*0.023*	0.020	0.036	0.041	0.047	0.027	0.019	0.024	0.024
21	0.028	0.019	0.020	*0.022*	0.019	0.038	0.023	0.027	0.023	0.024	0.026	0.026
22	0.024	0.020	0.019	*0.024*	0.021	0.038	0.023	0.027	0.024	0.015	0.026	0.025
23	0.021	0.066	*0.020*	*0.040*	0.019	0.038	0.022	0.473	0.020	0.021	0.027	0.025
24	0.024	0.021	*0.021*	*0.025*	0.021	0.039	0.024	0.816	0.021	0.024	0.029	0.025
25	0.026	0.023	*0.023*	0.034	*0.044*	0.042	0.027	0.149	0.022	0.025	0.032	0.079
26	0.021	0.081	*0.020*	0.023	*0.031*	0.030	0.026	0.066	0.024	0.028	0.033	0.051
27	0.016	0.037	0.022	0.020	0.031	0.029	0.023	0.040	0.026	0.030	0.043	0.027
28	0.018	*0.024*	0.020	0.019	0.033	0.028	0.022	0.034	0.027	0.021	0.032	0.028
29	0.024	*0.024*	0.021	0.024	NA	0.029	0.022	0.030	0.027	0.020	0.046	0.028
30	0.025	*0.026*	*0.018*	0.029	NA	0.029	0.022	0.029	0.030	0.015	0.030	0.027
31	0.026	NA	*0.017*	*0.025*	NA	0.027	NA	0.027	NA	0.015	0.031	NA

Flow Rate

Average	0.025	0.032	0.025	0.025	0.023	0.044	0.025	0.087	0.036	0.022	0.038	0.061
Maximum	0.082	0.131	0.063	0.074	0.053	0.087	0.041	0.816	0.116	0.035	0.255	0.397
Minimum	0.010	0.016	0.017	0.015	0.016	0.027	0.022	0.021	0.020	0.015	0.011	0.023

Discharge

Cubic Feet	65873	82318	66022	67746	55442	116745	64892	234074	93263	59936	101324	159396
Gallons	492765	615785	493878	506775	414734	873311	485428	1750996	697655	448350	757955	1192368
Acre-Feet	1.51	1.89	1.52	1.56	1.27	2.68	1.49	5.37	2.14	1.38	2.33	3.66

Annual Summaries for WY02

Ft^3/Sec	0.037
GPM	16.6
Cubic Feet	1167031
Gallons	8730001
Acre-Feet	26.79

KEY: WR: No data or unacceptable data due to winter icing conditions
BD: Bad data due to equipment failures
ITALICS: Italic values contain data estimated from field observations and electronic record at adjacent or comparable gages

A.1.21 GS41: Unnamed Gulch Tributary to Walnut Creek Southwest of GS03

Table A-21. WY02 Discharge Summary for GS41: Unnamed Walnut Creek Tributary.

Water Year 2002: Daily Mean Discharge Values in Cubic Feet per Second

Day	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02
1	0.000	0.000	*0.000*	0.000	*0.000*	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2	0.000	0.000	*0.000*	0.000	*0.000*	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3	0.000	0.000	0.000	0.000	*0.000*	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4	0.000	0.000	0.000	0.000	*0.000*	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6	*0.000*	0.000	0.000	0.000	0.000	*0.000*	0.000	0.000	0.000	0.000	0.000	0.000
7	0.000	0.000	0.000	0.000	0.000	*0.000*	0.000	0.000	0.000	0.000	0.000	0.000
8	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9	0.000	*0.000*	0.000	0.000	0.000	*0.000*	0.000	0.000	0.000	0.000	0.000	0.000
10	0.000	*0.000*	0.000	0.000	0.000	*0.000*	0.000	0.000	0.000	0.000	0.000	0.000
11	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15	*0.000*	0.000	0.000	0.000	*0.000*	*0.000*	0.000	0.000	0.000	0.000	0.000	0.000
16	*0.000*	0.000	*0.000*	0.000	*0.000*	*0.000*	0.000	0.000	0.000	0.000	0.000	0.000
17	0.000	0.000	*0.000*	0.000	0.000	*0.000*	0.000	0.000	0.000	0.000	0.000	0.000
18	0.000	0.000	0.000	0.000	0.000	*0.000*	0.000	0.000	0.000	0.000	0.000	0.000
19	0.000	*0.000*	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21	0.000	0.000	0.000	0.000	0.000	0.000	*0.000*	0.000	0.000	0.000	0.000	0.000
22	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23	0.000	*0.000*	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24	0.000	*0.000*	0.000	*0.000*	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25	0.000	0.000	0.000	*0.000*	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
26	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27	0.000	0.000	0.000	0.000	*0.000*	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28	0.000	0.000	0.000	0.000	*0.000*	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29	0.000	*0.000*	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30	0.000	*0.000*	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
31	0.000	NA	0.000	0.000	NA	0.000	NA	0.000	NA	0.000	0.000	NA

Flow Rate

Average	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Maximum	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Minimum	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Discharge

Cubic Feet	0	0	0	0	0	0	0	0	0	0	0	0
Gallons	0	0	0	0	0	0	0	0	0	0	0	0
Acre-Feet	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Annual Summaries for WY02

Ft^3/Sec	0.000
GPM	0.0
Cubic Feet	0
Gallons	0
Acre-Feet	0.00

KEY: WR: No data or unacceptable data due to winter icing conditions
BD: Bad data due to equipment failures
ITALICS: Italic values contain data estimated from field observations and electronic record at adjacent or comparable gages

A.1.22 GS42: Unnamed Gulch Tributary to the SID North of SW027

Table A-22. WY02 Discharge Summary for GS42: Unnamed Gulch Tributary to SID.

Water Year 2002: Daily Mean Discharge Values in Cubic Feet per Second

Day	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02
1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	*0.000*	0.000
8	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15	0.000	0.000	0.000	0.000	0.000	*0.000*	0.000	0.000	0.000	0.000	0.000	0.000
16	0.000	0.000	0.000	0.000	0.000	*0.000*	0.000	0.000	0.000	0.000	0.000	0.000
17	0.000	0.000	0.000	0.000	0.000	*0.000*	0.000	0.000	0.000	0.000	0.000	0.000
18	0.000	0.000	0.000	0.000	0.000	*0.000*	0.000	0.000	0.000	0.000	0.000	0.000
19	0.000	0.000	0.000	0.000	0.000	*0.000*	0.000	0.000	0.000	0.000	0.000	0.000
20	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
26	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29	0.000	0.000	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30	0.000	0.000	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
31	0.000	NA	0.000	0.000	NA	0.000	NA	0.000	NA	0.000	0.000	NA

Flow Rate

Average	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Maximum	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Minimum	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Discharge

Cubic Feet	0	0	0	0	0	0	0	0	0	0	0	0
Gallons	0	0	0	0	0	0	0	0	0	0	0	0
Acre-Feet	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Annual Summaries for WY02

Ft^3/Sec	0.000
GPM	0.0
Cubic Feet	0
Gallons	0
Acre-Feet	0.00

KEY: WR: No data or unacceptable data due to winter icing conditions
BD: Bad data due to equipment failures
ITALICS: Italic values contain data estimated from field observations and electronic record at adjacent or comparable gages

A.1.23 GS43: Building 886 Sub-Drainage Area

Table A-23. WY02 Discharge Summary for GS43: B886 Sub-drainage.

Water Year 2002: Daily Mean Discharge Values in Cubic Feet per Second

Day	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02
1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000
3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000
4	0.0000	0.0000	0.0000	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
6	*0.0000*	0.0000	0.0000	0.0000	0.0000	*0.0001*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
7	0.0000	0.0000	0.0000	0.0000	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
8	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
9	0.0000	0.0000	0.0000	0.0000	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	0.0000	0.0000	0.0000	0.0000	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0033
14	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	0.0000	0.0000	0.0000	0.0000	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	0.0000	0.0000	0.0000	0.0000	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
19	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20	0.0000	0.0000	*0.0041*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
21	0.0000	0.0000	*0.0051*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
22	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
23	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0076	0.0000	0.0000	0.0000	0.0000
24	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0517	0.0000	0.0000	0.0000	0.0000
25	0.0000	0.0000	0.0000	0.0000	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
26	0.0000	0.0000	0.0000	0.0000	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
27	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
28	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
29	0.0000	0.0000	0.0000	0.0000	NA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
30	0.0000	0.0000	0.0000	0.0000	NA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
31	0.0000	NA	0.0000	0.0000	NA	0.0000	NA	0.0000	NA	0.0000	0.0000	NA

Flow Rate

Average	0.0000	0.0000	0.0003	0.0000	0.0000	0.0000	0.0000	0.0019	0.0000	0.0000	0.0000	0.0001
Maximum	0.0000	0.0000	0.0051	0.0002	0.0000	0.0001	0.0000	0.0517	0.0000	0.0000	0.0000	0.0033
Minimum	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Discharge

Cubic Feet	0	0	802	18	0	9	0	5130	0	0	0	286
Gallons	0	0	6002	131	0	71	0	38376	0	0	0	2136
Acre-Feet	0.000	0.000	0.018	0.000	0.000	0.000	0.000	0.118	0.000	0.000	0.000	0.007

Annual Summaries for WY02

Ft^3/Sec	0.000
GPM	0.1
Cubic Feet	6245
Gallons	46716
Acre-Feet	0.143

KEY: WR: No data or unacceptable data due to winter icing conditions
BD: Bad data due to equipment failures
ITALICS: Italic values contain data estimated from field observations and electronic record at adjacent or comparable gages

A.1.24 GS44: Ditch West of B771 North of T771L

Table A-24. WY02 Discharge Summary for GS44: Ditch West of B771 North of T771L.

Water Year 2002: Daily Mean Discharge Values in Cubic Feet per Second

Day	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02
1	0.0000	0.0004	*0.0011*	0.0000	*0.0000*	*0.0000*	0.0001	0.0011	0.0027	0.0002	0.0000	0.0000
2	0.0000	*0.0008*	0.0009	0.0000	*0.0000*	*0.0000*	*0.0012*	0.0001	0.0037	0.0002	0.0000	0.0000
3	0.0000	0.0006	*0.0009*	0.0000	*0.0000*	*0.0012*	*0.0007*	0.0000	0.0062	0.0002	0.0000	0.0000
4	0.0000	0.0003	*0.0007*	0.0000	*0.0000*	*0.0021*	*0.0002*	0.0000	0.0081	0.0002	0.0000	0.0000
5	0.0022	0.0000	*0.0007*	0.0000	*0.0000*	0.0028	*0.0000*	0.0000	0.0029	0.0002	0.0103	0.0000
6	0.0001	0.0000	*0.0006*	0.0000	*0.0001*	*0.0016*	0.0000	0.0000	0.0018	0.0003	0.0042	0.0000
7	0.0000	0.0009	*0.0006*	0.0000	*0.0001*	*0.0008*	0.0000	0.0000	0.0031	0.0003	0.0003	0.0000
8	0.0000	*0.0058*	*0.0007*	0.0000	*0.0000*	WR	0.0000	0.0000	0.0039	0.0002	0.0000	0.0000
9	0.0004	*0.0010*	*0.0008*	0.0003	WR	WR	0.0000	0.0000	0.0018	0.0002	0.0000	0.0032
10	0.0000	*0.0011*	*0.0008*	*0.0011*	*0.0000*	WR	0.0000	0.0000	0.0016	0.0002	0.0000	0.0311
11	0.0000	*0.0008*	*0.0008*	*0.0012*	*0.0001*	0.0000	0.0000	0.0076	0.0020	0.0002	0.0000	0.0010
12	0.0000	0.0007	*0.0008*	*0.0010*	*0.0000*	0.0000	0.0000	0.0148	0.0020	0.0002	0.0000	0.0094
13	0.0000	0.0009	*0.0008*	*0.0007*	*0.0000*	0.0000	0.0000	0.0009	0.0026	0.0001	0.0000	0.0116
14	0.0000	0.0007	*0.0008*	WR	*0.0000*	*0.0022*	0.0000	0.0010	0.0018	0.0001	0.0000	0.0000
15	*0.0034*	0.0008	*0.0009*	WR	WR	*0.0010*	0.0000	0.0003	0.0017	0.0002	0.0000	0.0000
16	*0.0008*	*0.0001*	*0.0009*	WR	WR	*0.0009*	0.0000	0.0116	0.0018	0.0001	0.0000	0.0000
17	0.0006	0.0000	*0.0024*	WR	*0.0006*	*0.0005*	0.0000	0.0014	0.0018	0.0001	0.0000	0.0000
18	0.0006	0.0020	*0.0009*	WR	*0.0007*	WR	0.0000	0.0013	0.0014	0.0000	0.0000	0.0000
19	0.0007	*0.0013*	*0.0010*	WR	*0.0007*	WR	0.0000	0.0008	0.0035	0.0000	0.0000	0.0000
20	0.0007	*0.0005*	*0.0009*	WR	*0.0007*	0.0001	0.0000	0.0010	0.0019	0.0000	0.0000	0.0000
21	0.0002	*0.0003*	*0.0010*	WR	*0.0006*	0.0000	0.0000	0.0003	0.0021	0.0000	0.0000	0.0000
22	0.0000	0.0002	*0.0009*	WR	*0.0004*	0.0000	0.0000	0.0000	0.0016	0.0002	0.0000	0.0000
23	0.0000	*0.0031*	*0.0008*	WR	0.0004	0.0000	0.0000	*0.0565*	0.0013	0.0002	0.0000	0.0000
24	0.0000	*0.0008*	WR	WR	WR	0.0000	0.0000	0.1016	0.0011	0.0001	0.0000	0.0000
25	0.0000	*0.0009*	WR	0.0007	WR	0.0000	0.0000	0.0186	0.0007	0.0000	0.0000	0.0006
26	0.0004	*0.0047*	WR	*0.0008*	WR	0.0000	0.0000	0.0046	0.0005	0.0000	0.0000	0.0002
27	0.0012	*0.0021*	WR	*0.0007*	WR	0.0000	0.0000	0.0033	0.0004	0.0000	0.0000	0.0000
28	0.0006	*0.0011*	WR	*0.0008*	WR	0.0000	0.0000	0.0028	0.0004	0.0000	0.0000	0.0000
29	0.0008	*0.0010*	WR	WR	NA	0.0000	0.0000	0.0024	0.0005	0.0000	0.0000	0.0000
30	0.0008	*0.0011*	WR	WR	NA	0.0000	0.0000	0.0022	0.0003	0.0000	0.0000	0.0000
31	0.0004	NA	WR	WR	NA	0.0001	NA	0.0022	NA	0.0000	0.0000	NA
			Partial Data	Partial Data	Partial Data	Partial Data						

Flow Rate

Average	0.0005	0.0011	0.0009	0.0004	0.0002	0.0005	0.0001	0.0076	0.0022	0.0001	0.0005	0.0019
Maximum	0.0034	0.0058	0.0024	0.0012	0.0007	0.0028	0.0012	0.1016	0.0081	0.0003	0.0103	0.0311
Minimum	0.0000	0.0000	0.0006	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0000	0.0000	0.0000
			Partial Data	Partial Data	Partial Data	Partial Data						

Discharge

Cubic Feet	1212	2934	1782	633	393	1150	195	20444	5642	347	1275	4940
Gallons	9065	21947	13331	4737	2938	8599	1462	152934	42206	2595	9539	36953
Acre-Feet	0.028	0.067	0.041	0.015	0.009	0.026	0.004	0.469	0.130	0.008	0.029	0.113
			Partial Data	Partial Data	Partial Data	Partial Data						

Annual Summaries for WY02

Ft^3/Sec	0.001
GPM	0.6
Cubic Feet	40947
Gallons	306305
Acre-Feet	0.940
	Partial Data

KEY: WR: No data or unacceptable data due to winter icing conditions
BD: Bad data due to equipment failures
ITALICS: Italic values contain data estimated from field observations and electronic record at adjacent or comparable gages

A.1.25 GS45: Upper Church Ditch at West Gravel Pits

Table A-25. WY02 Discharge Summary for GS45: Upper Church Ditch at West Gravel Pits.

Water Year 2002: Daily Mean Discharge Values in Cubic Feet per Second

Day	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02
1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5	0.000	0.000	0.000	0.000	0.000	0.000	*0.000*	0.000	0.000	0.000	0.000	0.000
6	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000
12	0.000	0.000	0.000	0.000	0.000	*0.000*	0.000	0.002	0.000	0.000	0.000	0.000
13	0.000	0.000	0.000	0.000	0.000	*0.000*	0.000	0.000	0.000	0.000	0.000	0.000
14	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23	0.000	0.000	0.000	0.000	0.000	0.000	0.000	*0.000*	0.000	0.000	0.000	0.000
24	0.000	0.000	0.000	0.000	0.000	0.000	0.000	*0.083*	0.000	0.000	0.000	0.000
25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.065	0.000	0.000	0.000	0.000
26	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.014	0.000	0.000	0.000	0.000
27	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.009	0.000	0.000	0.000	0.000
28	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.006	0.000	0.000	0.000	0.000
29	0.000	0.000	0.000	0.000	NA	0.000	0.000	0.002	0.000	0.000	0.000	0.000
30	0.000	0.000	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
31	0.000	NA	0.000	0.000	NA	0.000	NA	0.000	NA	0.000	0.000	NA

Flow Rate

Average	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.006	0.000	0.000	0.000	0.000
Maximum	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.083	0.000	0.000	0.000	0.000
Minimum	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Discharge

Cubic Feet	0	0	0	0	0	0	0	15726	0	0	0	0
Gallons	0	0	0	0	0	0	0	117637	0	0	0	0
Acre-Feet	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.36	0.00	0.00	0.00	0.00

Annual Summaries for WY02

Ft^3/Sec	0.000
GPM	0.2
Cubic Feet	15726
Gallons	117637
Acre-Feet	0.36

KEY: WR: No data or unacceptable data due to winter icing conditions
BD: Bad data due to equipment failures
ITALICS: Italic values contain data estimated from field observations and electronic record at adjacent or comparable gages

A.1.26 GS46: McKay Ditch at West Gravel Pits

Table A-26. WY02 Discharge Summary for GS46: Upper Church Ditch at West Gravel Pits.

Water Year 2002: Daily Mean Discharge Values in Cubic Feet per Second

Day	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02
1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8	0.000	0.000	0.000	0.000	0.000	*0.010*	0.000	0.000	0.000	0.000	0.000	0.000
9	0.000	0.000	0.000	0.000	0.000	*0.002*	0.000	0.000	0.000	0.000	0.000	0.000
10	0.000	0.000	0.000	0.000	0.000	0.012	0.000	0.000	0.000	0.000	0.000	0.000
11	0.000	0.000	0.000	0.000	0.000	0.045	0.000	0.000	0.000	0.000	0.000	0.000
12	0.000	0.000	0.000	0.000	0.000	*0.056*	0.000	0.000	0.000	0.000	0.000	0.000
13	0.000	0.000	0.000	0.000	0.000	0.067	0.000	0.000	0.000	0.000	0.000	0.000
14	0.000	0.000	0.000	0.000	0.000	*0.031*	0.000	0.000	0.000	0.000	0.000	0.000
15	0.000	0.000	0.000	0.000	0.000	*0.017*	0.000	0.000	0.000	0.000	0.000	0.000
16	0.000	0.000	0.000	0.000	0.000	*0.015*	0.000	0.000	0.000	0.000	0.000	0.000
17	0.000	0.000	0.000	0.000	0.000	*0.013*	0.000	0.000	0.000	0.000	0.000	0.000
18	0.000	0.000	0.000	0.000	0.000	*0.002*	0.000	0.000	0.000	0.000	0.000	0.000
19	0.000	0.000	0.000	0.000	0.000	0.005	0.000	0.000	0.000	0.000	0.000	0.000
20	0.000	0.000	0.000	0.000	0.000	0.018	0.000	0.000	0.000	0.000	0.000	0.000
21	0.000	0.000	0.000	0.000	0.000	*0.020*	0.000	0.000	0.000	0.000	0.000	0.000
22	0.000	0.000	0.000	0.000	0.000	*0.008*	0.000	0.000	0.000	0.000	0.000	0.000
23	0.000	0.000	0.000	0.000	0.000	0.018	0.000	0.001	0.000	0.000	0.000	0.000
24	0.000	0.000	0.000	0.000	0.000	*0.009*	0.000	0.206	0.000	0.000	0.000	0.000
25	0.000	0.000	0.000	0.000	0.000	*0.000*	0.000	0.123	0.000	0.000	0.000	0.000
26	0.000	0.000	0.000	0.000	0.000	0.023	0.000	0.028	0.000	0.000	0.000	0.000
27	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.012	0.000	0.000	0.000	0.000
28	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.006	0.000	0.000	0.000	0.000
29	0.000	0.000	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30	0.000	0.000	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
31	0.000	NA	0.000	0.000	NA	0.000	NA	0.000	NA	0.000	0.000	NA

Flow Rate

Average	0.000	0.000	0.000	0.000	0.000	0.012	0.000	0.012	0.000	0.000	0.000	0.000
Maximum	0.000	0.000	0.000	0.000	0.000	0.067	0.000	0.206	0.000	0.000	0.000	0.000
Minimum	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Discharge

Cubic Feet	0	0	0	0	0	31913	0	32361	0	0	0	0
Gallons	0	0	0	0	0	238726	0	242077	0	0	0	0
Acre-Feet	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.74	0.00	0.00	0.00	0.00

Annual Summaries for WY02

Ft^3/Sec	0.002
GPM	0.9
Cubic Feet	64274
Gallons	480803
Acre-Feet	1.48

KEY: WR: No data or unacceptable data due to winter icing conditions
BD: Bad data due to equipment failures
ITALICS: Italic values contain data estimated from field observations and electronic record at adjacent or comparable gages

A.1.27 GS49: Ditch Northwest of B566

Table A-27. WY02 Discharge Summary for GS49: Ditch Northwest of B566.

Water Year 2002: Daily Mean Discharge Values in Cubic Feet per Second

Day	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02
1	0.0000	0.0000	*0.0008*	0.0000	WR	0.0000	0.0000	0.0005	0.0000	0.0000	0.0000	0.0000
2	0.0000	0.0000	*0.0019*	WR	WR	0.0000	*0.0000*	0.0018	0.0000	0.0000	0.0000	0.0000
3	0.0000	0.0000	*0.0008*	WR	0.0000	WR	*0.0000*	0.0000	0.0030	0.0000	0.0000	0.0000
4	0.0006	0.0000	0.0001	WR	0.0002	WR	0.0000	0.0000	0.0032	0.0000	0.0000	0.0000
5	*0.0026*	0.0000	0.0000	0.0000	0.0000	0.0034	0.0000	0.0000	0.0000	0.0000	0.0105	0.0000
6	*0.0002*	0.0000	0.0000	0.0001	WR	*0.0027*	0.0000	0.0000	0.0000	0.0000	0.0019	0.0000
7	0.0000	0.0001	0.0000	0.0003	WR	*0.0001*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
8	0.0000	*0.0068*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
9	0.0007	*0.0037*	0.0000	0.0000	0.0000	*0.0007*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0044
10	0.0000	*0.0027*	0.0000	0.0000	0.0000	*0.0003*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0129
11	0.0000	0.0000	0.0000	*0.0019*	0.0000	0.0002	0.0000	0.0053	0.0000	0.0000	0.0000	0.0022
12	0.0000	0.0000	*0.0003*	*0.0011*	0.0000	0.0000	0.0000	0.0061	0.0000	0.0000	0.0000	0.0042
13	0.0000	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0056
14	0.0000	0.0000	0.0000	0.0000	0.0000	*0.0023*	0.0000	0.0004	0.0000	0.0000	0.0000	0.0000
15	*0.0020*	0.0000	0.0000	0.0000	*0.0026*	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	0.0000	0.0000	0.0000	0.0000	*0.0004*	*0.0027*	0.0000	0.0055	0.0000	0.0000	0.0000	0.0000
17	0.0000	0.0000	*0.0027*	0.0000	0.0000	*0.0035*	0.0000	0.0005	0.0000	0.0000	0.0000	0.0000
18	0.0000	0.0005	*0.0019*	0.0000	0.0000	*0.0008*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0009
19	0.0000	*0.0027*	*0.0006*	0.0000	0.0000	*0.0024*	0.0000	0.0003	0.0027	0.0000	0.0000	0.0001
20	0.0000	*0.0001*	*0.0000*	0.0000	0.0000	*0.0000*	0.0002	0.0011	0.0000	0.0000	0.0000	0.0000
21	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	*0.0000*	0.0001	0.0000	0.0000	0.0000	0.0000
22	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
23	0.0000	0.0021	0.0000	0.0000	0.0000	0.0000	0.0000	0.0211	0.0000	0.0000	0.0000	0.0000
24	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0296	0.0000	0.0000	0.0000	0.0000
25	0.0000	0.0000	0.0000	0.0027	0.0000	*0.0008*	0.0000	0.0089	0.0000	0.0000	0.0000	0.0017
26	0.0000	*0.0017*	0.0000	0.0007	0.0000	*0.0000*	0.0000	0.0002	0.0000	0.0000	0.0000	0.0012
27	0.0000	*0.0000*	0.0000	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
28	0.0000	*0.0000*	0.0000	0.0000	*0.0002*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
29	0.0000	*0.0000*	0.0000	0.0000	NA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0000
30	0.0000	*0.0000*	0.0000	0.0000	NA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
31	0.0000	NA	0.0000	*0.0047*	NA	0.0000	NA	0.0000	NA	0.0000	0.0000	NA
				Partial Data	Partial Data	Partial Data						

Flow Rate

	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02
Average	0.0002	0.0007	0.0003	0.0004	0.0001	0.0007	0.0000	0.0026	0.0003	0.0000	0.0004	0.0011
Maximum	0.0026	0.0068	0.0027	0.0047	0.0026	0.0035	0.0002	0.0296	0.0032	0.0000	0.0105	0.0129
Minimum	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
				Partial Data	Partial Data	Partial Data						

Discharge

	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02
Cubic Feet	531	1749	801	1017	293	1713	23	7009	759	0	1104	2875
Gallons	3974	13082	5995	7607	2191	12814	170	52434	5680	0	8259	21510
Acre-Feet	0.012	0.040	0.018	0.023	0.007	0.039	0.001	0.161	0.017	0.000	0.025	0.066
				Partial Data	Partial Data	Partial Data						

Annual Summaries for WY02

Ft^3/Sec	0.001
GPM	0.3
Cubic Feet	17875
Gallons	133717
Acre-Feet	0.410
	Partial Data

KEY: WR: No data or unacceptable data due to winter icing conditions
BD: Bad data due to equipment failures
ITALICS: Italic values contain data estimated from field observations and electronic record at adjacent or comparable gages

A.1.28 GS50: Ditch Northeast of B990

Table A-28. WY02 Discharge Summary for GS50: Ditch Northeast of B990.

Water Year 2002: Daily Mean Discharge Values in Cubic Feet per Second

Day	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02
1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
6	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
7	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
8	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
9	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
19	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
21	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
22	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
23	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0028	0.0000	0.0000	0.0000	0.0000
24	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0312	0.0000	0.0000	0.0000	0.0000
25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0007	0.0000	0.0000	0.0000	0.0000
26	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
27	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
28	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
29	0.0000	0.0000	0.0000	0.0000	NA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
30	0.0000	0.0000	0.0000	0.0000	NA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
31	0.0000	NA	0.0000	0.0000	NA	0.0000	NA	0.0000	NA	0.0000	0.0000	NA

Flow Rate

Average	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0011	0.0000	0.0000	0.0000	0.0000
Maximum	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0312	0.0000	0.0000	0.0000	0.0000
Minimum	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Discharge

Cubic Feet	0	0	0	0	0	0	0	2999	0	0	0	0
Gallons	0	0	0	0	0	0	0	22431	0	0	0	0
Acre-Feet	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.069	0.000	0.000	0.000	0.000

Annual Summaries for WY02

Ft^3/Sec	0.000
GPM	0.0
Cubic Feet	2999
Gallons	22431
Acre-Feet	0.069

KEY: WR: No data or unacceptable data due to winter icing conditions
BD: Bad data due to equipment failures
ITALICS: Italic values contain data estimated from field observations and electronic record at adjacent or comparable gages

A.1.29 GS51: Ditch South of 903 Pad

Table A-29. WY02 Discharge Summary for GS51: Ditch South of 903 Pad.

Water Year 2002: Daily Mean Discharge Values in Cubic Feet per Second

Day	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02
1	0.0000	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	0.0000	0.0000	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
6	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
7	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
8	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
9	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	0.0000	0.0000	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	0.0000	0.0000	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	0.0000	0.0000	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	0.0000	0.0000	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	0.0000	0.0000	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	0.0000	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
19	0.0000	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
21	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
22	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
23	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
24	*0.0000*	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0072	0.0000	0.0000	0.0000	0.0000
25	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
26	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
27	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
28	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
29	0.0000	0.0000	0.0000	0.0000	NA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
30	0.0000	0.0000	0.0000	0.0000	NA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
31	0.0000	NA	0.0000	0.0000	NA	0.0000	NA	0.0000	NA	0.0000	0.0000	NA

Flow Rate

Average	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0000	0.0000	0.0000	0.0000
Maximum	0.0000	0.0000	0.0002	0.0000	0.0000	0.0000	0.0000	0.0072	0.0000	0.0000	0.0000	0.0000
Minimum	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Discharge

Cubic Feet	0	0	19	2	0	0	0	620	0	0	0	0
Gallons	0	0	144	12	0	0	0	4638	0	0	0	0
Acre-Feet	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.014	0.000	0.000	0.000	0.000

Annual Summaries for WY02

Ft^3/Sec	0.000
GPM	0.0
Cubic Feet	641
Gallons	4795
Acre-Feet	0.015

KEY: WR: No data or unacceptable data due to winter icing conditions
BD: Bad data due to equipment failures
ITALICS: Italic values contain data estimated from field observations and electronic record at adjacent or comparable gages

A.1.30 GS52: Drainage Swale Southeast of 903 Pad

Table A-30. WY02 Discharge Summary for GS52: Drainage Swale Southeast of 903 Pad.

Water Year 2002: Daily Mean Discharge Values in Cubic Feet per Second

Day	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02
1	0.0000	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	0.0000	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
4	0.0000	0.0000	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	*0.0000*	0.0000	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
6	*0.0000*	0.0000	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
7	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
8	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
9	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	*0.0000*	0.0000	0.0000	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	*0.0000*	0.0000	0.0000	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
19	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
21	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000
22	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
23	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
24	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0004	0.0000	0.0000	0.0000	0.0000
25	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000
26	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
27	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
28	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
29	0.0000	0.0000	0.0000	0.0000	NA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
30	0.0000	*0.0000*	0.0000	0.0000	NA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
31	0.0000	NA	0.0000	0.0000	NA	0.0000	NA	0.0000	NA	0.0000	0.0000	NA

Flow Rate

Average	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0004	0.0000	0.0000	0.0000	0.0000
Minimum	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Discharge

Cubic Feet	0	0	0	0	0	0	0	46	0	0	0	2
Gallons	0	0	0	0	0	0	0	341	2	0	0	13
Acre-Feet	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000

Annual Summaries for WY02

Ft^3/Sec	0.000
GPM	0.0
Cubic Feet	48
Gallons	356
Acre-Feet	0.001

KEY: WR: No data or unacceptable data due to winter icing conditions
BD: Bad data due to equipment failures
ITALICS: Italic values contain data estimated from field observations and electronic record at adjacent or comparable gages

A.1.31 GS53: Drainage Swale Southeast of 903 Pad

Table A-31. WY02 Discharge Summary for GS53: Drainage Swale Southeast of 903 Pad.

Water Year 2002: Daily Mean Discharge Values in Cubic Feet per Second

Day	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02
1	0.0000	0.0000	*0.0000*	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	0.0000	0.0000	*0.0000*	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3	0.0000	0.0000	0.0000	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
6	*0.0000*	0.0000	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
7	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
8	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
9	0.0000	0.0000	0.0000	0.0000	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	0.0000	0.0000	0.0000	*0.0000*	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001
11	0.0000	0.0000	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	0.0000	0.0000	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	0.0000	0.0000	0.0000	0.0000	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	0.0000	0.0000	0.0000	0.0000	*0.0000*	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	*0.0000*	0.0000	*0.0000*	0.0000	*0.0000*	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	0.0000	0.0000	*0.0000*	0.0000	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	0.0000	*0.0000*	*0.0000*	0.0000	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
19	0.0000	*0.0000*	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
21	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000
22	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
23	0.0000	*0.0000*	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
24	0.0000	*0.0000*	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25	0.0000	*0.0000*	0.0000	*0.0000*	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
26	0.0000	*0.0000*	0.0000	*0.0000*	*0.0000*	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
27	0.0000	*0.0000*	0.0000	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
28	0.0000	*0.0000*	0.0000	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
29	0.0000	*0.0000*	0.0000	0.0000	NA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
30	0.0000	*0.0000*	0.0000	*0.0000*	NA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
31	0.0000	NA	0.0000	*0.0000*	NA	0.0000	NA	0.0000	NA	0.0000	0.0000	NA

Flow Rate

Average	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001
Minimum	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Discharge

Cubic Feet	0	0	0	0	0	0	0	0	0	0	0	8
Gallons	0	0	0	0	0	0	0	0	0	0	0	58
Acre-Feet	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Annual Summaries for WY02

Ft^3/Sec	0.000
GPM	0.0
Cubic Feet	8
Gallons	58
Acre-Feet	0.000

KEY: WR: No data or unacceptable data due to winter icing conditions
BD: Bad data due to equipment failures
ITALICS: Italic values contain data estimated from field observations and electronic record at adjacent or comparable gages

A.1.32 GS54: Drainage Swale East-Southeast of 903 Pad

Table A-32. WY02 Discharge Summary for GS54: Drainage Swale East-Southeast of 903 Pad.

Water Year 2002: Daily Mean Discharge Values in Cubic Feet per Second

Day	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02
1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	0.0000	0.0000	0.0000	0.0000	0.0000	*0.0000*	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000
3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
4	0.0000	0.0000	0.0000	0.0000	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	*0.0000*	0.0000	0.0000	0.0000	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
6	0.0000	0.0000	0.0000	0.0000	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
7	0.0000	0.0000	0.0000	0.0000	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
8	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
9	0.0000	0.0000	0.0000	0.0000	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	0.0000	0.0000	0.0000	*0.0000*	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	0.0000	0.0000	0.0000	*0.0000*	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	0.0000	0.0000	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	0.0000	0.0000	0.0000	0.0000	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	0.0000	0.0000	0.0000	0.0000	*0.0000*	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	0.0000	0.0000	0.0000	0.0000	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	0.0000	0.0000	0.0000	0.0000	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
19	0.0000	0.0000	0.0000	0.0000	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20	0.0000	0.0000	0.0000	0.0000	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
21	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
22	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
23	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
24	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
26	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
27	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
28	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
29	0.0000	0.0000	0.0000	0.0000	NA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
30	0.0000	0.0000	0.0000	0.0000	NA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
31	0.0000	0.0000	0.0000	0.0000	NA	0.0000	NA	0.0000	NA	0.0000	0.0000	NA

Flow Rate

Average	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Minimum	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Discharge

Cubic Feet	0	0	0	0	0	0	0	0	0	0	0	5
Gallons	0	0	0	0	0	0	0	0	0	0	0	37
Acre-Feet	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Annual Summaries for WY02

Ft^3/Sec	0.000
GPM	0.0
Cubic Feet	5
Gallons	37
Acre-Feet	0.000

KEY: WR: No data or unacceptable data due to winter icing conditions
BD: Bad data due to equipment failures
ITALICS: Italic values contain data estimated from field observations and electronic record at adjacent or comparable gages

A.1.33 GS55: Outfall to SID Draining B881 Area

Table A-33. WY02 Discharge Summary for GS55: Outfall to SID Draining B881 Area.

Water Year 2002: Daily Mean Discharge Values in Cubic Feet per Second

Day	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02
1	No Data.	No Data	No Data	No Data	No Data	No Data	No Data	0.004	0.009	0.002	0.000	0.008
2	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.011	0.009	0.002	0.000	0.007
3	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.005	0.018	0.002	0.000	0.010
4	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.005	0.052	0.003	0.000	0.008
5	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.006	0.010	0.002	0.024	0.006
6	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.006	0.008	0.003	0.016	0.004
7	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.006	0.008	0.003	0.002	0.004
8	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.007	0.007	0.003	0.000	0.004
9	No Data	No Data	No Data	No Data	No Data	No Data	*0.000*	0.005	0.006	0.001	0.000	0.023
10	No Data	No Data	No Data	No Data	No Data	No Data	*0.003*	0.008	0.006	0.002	0.000	0.106
11	No Data	No Data	No Data	No Data	No Data	No Data	*0.007*	0.035	0.007	0.002	0.000	0.010
12	No Data	No Data	No Data	No Data	No Data	No Data	*0.006*	0.056	0.006	0.002	0.000	0.043
13	No Data	No Data	No Data	No Data	No Data	No Data	*0.010*	0.008	0.007	0.001	0.000	0.084
14	No Data	No Data	No Data	No Data	No Data	No Data	*0.010*	0.007	0.007	0.001	0.000	0.010
15	No Data	No Data	No Data	No Data	No Data	No Data	*0.010*	0.006	0.008	0.001	0.000	0.008
16	No Data	No Data	No Data	No Data	No Data	No Data	*0.006*	0.038	0.008	0.001	0.000	0.008
17	No Data	No Data	No Data	No Data	No Data	No Data	*0.007*	0.013	0.008	0.000	0.000	0.008
18	No Data	No Data	No Data	No Data	No Data	No Data	0.003	0.005	0.004	0.000	0.000	0.009
19	No Data	No Data	No Data	No Data	No Data	No Data	0.004	0.004	0.010	0.000	0.000	0.009
20	No Data	No Data	No Data	No Data	No Data	No Data	0.004	0.007	0.012	0.000	0.000	0.007
21	No Data	No Data	No Data	No Data	No Data	No Data	0.004	0.006	0.005	0.000	0.000	0.007
22	No Data	No Data	No Data	No Data	No Data	No Data	0.003	0.004	0.005	0.002	0.000	0.007
23	No Data	No Data	No Data	No Data	No Data	No Data	0.003	0.096	0.004	0.005	0.000	0.007
24	No Data	No Data	No Data	No Data	No Data	No Data	0.003	0.236	0.003	0.004	0.000	0.007
25	No Data	No Data	No Data	No Data	No Data	No Data	0.005	0.052	0.004	0.003	0.000	0.008
26	No Data	No Data	No Data	No Data	No Data	No Data	0.006	0.014	0.004	0.003	0.000	0.017
27	No Data	No Data	No Data	No Data	No Data	No Data	0.004	0.012	0.003	0.001	0.000	0.007
28	No Data	No Data	No Data	No Data	No Data	No Data	0.003	0.011	0.003	0.002	0.001	0.006
29	No Data	No Data	No Data	No Data	NA	No Data	0.002	0.011	0.003	0.002	0.006	0.006
30	No Data	No Data	No Data	No Data	NA	No Data	0.002	0.010	0.003	0.001	0.007	0.005
31	No Data	NA	No Data	No Data	NA	No Data	NA	0.008	NA	0.000	0.008	NA
	No Data	No Data	No Data	No Data	No Data	No Data	Partial Data					

Flow Rate

Average							0.005	0.023	0.008	0.002	0.002	0.015
Maximum							0.010	0.236	0.052	0.005	0.024	0.106
Minimum							0.000	0.004	0.003	0.000	0.000	0.004
	No Data	No Data	No Data	No Data	No Data	No Data	Partial Data					

Discharge

Cubic Feet							9137	60646	21226	4793	5389	39119
Gallons							68346	453665	158785	35858	40311	292627
Acre-Feet							0.21	1.39	0.49	0.11	0.12	0.90
	No Data	No Data	No Data	No Data	No Data	No Data	Partial Data					

Annual Summaries for WY02

Ft^3/Sec	0.009
GPM	4.2
Cubic Feet	140310
Gallons	1049592
Acre-Feet	3.22
	Partial Data

KEY: WR: No data or unacceptable data due to winter icing conditions
BD: Bad data due to equipment failures
ITALICS: Italic values contain data estimated from field observations and electronic record at adjacent or comparable gages

A.1.34 GS56: No Name Gulch 1350 feet Downstream of Landfill Pond

Table A-34. WY02 Discharge Summary for GS56: No Name Gulch 1350 feet Downstream of Landfill Pond.

Water Year 2002: Daily Mean Discharge Values in Cubic Feet per Second

Day	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02
1	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data
2	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data
3	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data
4	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data
5	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data
6	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data
7	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data
8	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data
9	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data
10	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data
11	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data
12	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data
13	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data
14	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data
15	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data
16	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data
17	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data
18	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data
19	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data
20	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data
21	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data
22	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data
23	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data
24	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data
25	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data
26	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.000
27	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.000
28	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.000
29	No Data	No Data	No Data	No Data	NA	No Data	No Data	No Data	No Data	No Data	No Data	0.000
30	No Data	No Data	No Data	No Data	NA	No Data	No Data	No Data	No Data	No Data	No Data	0.000
31	No Data	NA	No Data	No Data	NA	No Data	NA	No Data	NA	No Data	No Data	NA
	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Partial Data

Flow Rate

Average												0.000
Maximum												0.000
Minimum												0.000
	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Partial Data

Discharge

Cubic Feet												0
Gallons												0
Acre-Feet												0.00
	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Partial Data

Annual Summaries for WY02

Ft^3/Sec	0.000
GPM	0.0
Cubic Feet	0
Gallons	0
Acre-Feet	0.00
	Partial Data

KEY: WR: No data or unacceptable data due to winter icing conditions
BD: Bad data due to equipment failures
ITALICS: Italic values contain data estimated from field observations and electronic record at adjacent or comparable gages

A.1.35 GS57: Northeast Corner 6th and Cottonwood

Table A-35. WY02 Discharge Summary for GS57: Northeast Corner 6th and Cottonwood.

Water Year 2002: Daily Mean Discharge Values in Cubic Feet per Second

Day	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02
1	No Data	No Data	No Data	No Data	No Data	No Data	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000
2	No Data	No Data	No Data	No Data	No Data	No Data	*0.0000*	0.0038	0.0000	0.0000	0.0000	0.0000
3	No Data	No Data	No Data	No Data	No Data	No Data	*0.0010*	0.0000	0.0049	0.0000	0.0000	0.0000
4	No Data	No Data	No Data	No Data	No Data	No Data	*0.0008*	0.0000	0.0360	0.0000	0.0000	0.0000
5	No Data	No Data	No Data	No Data	No Data	No Data	0.0004	0.0000	0.0000	0.0000	0.0606	0.0000
6	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000	0.0000	0.0000	0.0157	0.0000
7	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
8	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
9	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000	0.0000	0.0000	0.0000	0.0177
10	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000	0.0000	0.0000	0.0000	0.1329
11	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0305	0.0000	0.0000	0.0000	0.0020
12	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0567	0.0000	0.0000	0.0000	0.0395
13	No Data	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000	0.0000	0.0000	0.0000	0.1039
14	No Data	No Data	No Data	No Data	No Data	WR	0.0000	0.0000	0.0000	0.0000	0.0000	0.0008
15	No Data	No Data	No Data	No Data	No Data	WR	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	No Data	No Data	No Data	No Data	No Data	*0.0114*	0.0000	0.0408	0.0000	0.0000	0.0000	0.0000
17	No Data	No Data	No Data	No Data	No Data	*0.0030*	0.0000	0.0071	0.0000	0.0000	0.0000	0.0000
18	No Data	No Data	No Data	No Data	No Data	*0.0013*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
19	No Data	No Data	No Data	No Data	No Data	*0.0046*	0.0000	0.0000	0.0003	0.0000	0.0000	0.0000
20	No Data	No Data	No Data	No Data	No Data	0.0017	0.0000	0.0004	0.0010	0.0000	0.0000	0.0000
21	No Data	No Data	No Data	No Data	No Data	*0.0004*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
22	No Data	No Data	No Data	No Data	No Data	*0.0023*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
23	No Data	No Data	No Data	No Data	No Data	0.0024	0.0000	0.1364	0.0000	0.0000	0.0000	0.0000
24	No Data	No Data	No Data	No Data	No Data	*0.0001*	0.0000	0.2918	0.0000	0.0000	0.0000	0.0000
25	No Data	No Data	No Data	No Data	No Data	*0.0010*	0.0000	0.0454	0.0000	0.0000	0.0000	0.0000
26	No Data	No Data	No Data	No Data	No Data	*0.0005*	0.0000	0.0067	0.0000	0.0000	0.0000	0.0042
27	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000	0.0014	0.0000	0.0000	0.0000	0.0000
28	No Data	No Data	No Data	No Data	No Data	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
29	No Data	No Data	No Data	No Data	NA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
30	No Data	No Data	No Data	No Data	NA	0.0005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
31	No Data	NA	No Data	No Data	NA	0.0005	NA	0.0000	NA	0.0000	0.0000	NA
	No Data	No Data	No Data	No Data	No Data	Partial Data						

Flow Rate

Average						0.0019	0.0001	0.0200	0.0014	0.0000	0.0025	0.0100
Maximum						0.0114	0.0010	0.2918	0.0360	0.0000	0.0606	0.1329
Minimum						0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	No Data	No Data	No Data	No Data	No Data	Partial Data						

Discharge

Cubic Feet						2571	185	53661	3649	0	6593	25999
Gallons						19234	1381	401409	27299	0	49317	194489
Acre-Feet						0.059	0.004	1.232	0.084	0.000	0.151	0.597
	No Data	No Data	No Data	No Data	No Data	Partial Data						

Annual Summaries for WY02

Ft^3/Sec	0.005
GPM	2.4
Cubic Feet	92658
Gallons	693129
Acre-Feet	2.127

Partial Data

KEY: WR: No data or unacceptable data due to winter icing conditions
BD: Bad data due to equipment failures
ITALICS: Italic values contain data estimated from field observations and electronic record at adjacent or comparable gages

A.1.36 SW009: McKay Bypass Upstream of West Diversion

Table A-36. WY02 Discharge Summary for SW009: McKay Bypass Canal Upstream of West Diversion.

Water Year 2002: Daily Mean Discharge Values in Cubic Feet per Second

Day	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02
1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8	0.000	0.000	0.000	0.000	0.000	0.006	0.000	0.000	0.000	0.000	0.000	0.000
9	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000
10	0.000	0.000	0.000	0.000	0.000	0.007	0.000	0.000	0.000	0.000	0.000	0.000
11	0.000	0.000	0.000	0.000	0.000	0.027	0.000	0.000	0.000	0.000	0.000	0.000
12	0.000	0.000	0.000	0.000	0.000	0.034	0.000	0.000	0.000	0.000	0.000	0.000
13	0.000	0.000	0.000	0.000	0.000	0.040	0.000	0.000	0.000	0.000	0.000	0.000
14	0.000	0.000	0.000	0.000	0.000	0.018	0.000	0.000	0.000	0.000	0.000	0.000
15	0.000	0.000	0.000	0.000	0.000	0.010	0.000	0.000	0.000	0.000	0.000	0.000
16	0.000	0.000	0.000	0.000	0.000	0.009	0.000	0.000	0.000	0.000	0.000	0.000
17	0.000	0.000	0.000	0.000	0.000	0.008	0.000	0.000	0.000	0.000	0.000	0.000
18	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000
19	0.000	0.000	0.000	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.000	0.000
20	0.000	0.000	0.000	0.000	0.000	0.011	0.000	0.000	0.000	0.000	0.000	0.000
21	0.000	0.000	0.000	0.000	0.000	0.012	0.000	0.000	0.000	0.000	0.000	0.000
22	0.000	0.000	0.000	0.000	0.000	0.005	0.000	0.000	0.000	0.000	0.000	0.000
23	0.000	0.000	0.000	0.000	0.000	0.011	0.000	0.000	0.000	0.000	0.000	0.000
24	0.000	0.000	0.000	0.000	0.000	0.005	0.000	0.053	0.000	0.000	0.000	0.000
25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.193	0.000	0.000	0.000	0.000
26	0.000	0.000	0.000	0.000	0.000	0.014	0.000	0.059	0.000	0.000	0.000	0.000
27	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.021	0.000	0.000	0.000	0.000
28	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.007	0.000	0.000	0.000	0.000
29	0.000	0.000	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30	0.000	0.000	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
31	0.000	NA	0.000	0.000	NA	0.000	NA	0.000	NA	0.000	0.000	NA

Flow Rate

Average	0.000	0.000	0.000	0.000	0.000	0.007	0.000	0.011	0.000	0.000	0.000	0.000
Maximum	0.000	0.000	0.000	0.000	0.000	0.040	0.000	0.193	0.000	0.000	0.000	0.000
Minimum	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Discharge

Cubic Feet	0	0	0	0	0	19059	0	28719	0	0	0	0
Gallons	0	0	0	0	0	142574	0	214836	0	0	0	0
Acre-Feet	0.00	0.00	0.00	0.00	0.00	0.44	0.00	0.66	0.00	0.00	0.00	0.00

Annual Summaries for WY02

Ft^3/Sec	0.002
GPM	0.7
Cubic Feet	47779
Gallons	357411
Acre-Feet	1.10

KEY: WR: No data or unacceptable data due to winter icing conditions
BD: Bad data due to equipment failures
ITALICS: Italic values contain data estimated from field observations and electronic record at adjacent or comparable gages

A.1.37 SW022: East End of Central Avenue Ditch

Table A-37. WY02 Discharge Summary for SW022: East End of Central Avenue Ditch.

Water Year 2002: Daily Mean Discharge Values in Cubic Feet per Second

Day	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02
1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000
3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.028	0.000	0.000	0.000
4	0.000	0.000	0.000	0.000	0.000	0.051	0.000	0.000	0.183	0.000	0.000	0.000
5	0.013	0.000	0.000	0.001	0.000	0.088	0.000	0.000	0.004	0.000	*0.353*	0.000
6	0.000	0.000	0.000	0.000	0.000	0.065	0.000	0.000	0.000	0.000	0.114	0.000
7	0.000	0.001	0.000	0.000	0.000	*0.033*	0.000	0.000	0.000	0.000	0.002	0.000
8	0.000	0.142	0.000	0.000	0.000	*0.006*	0.000	0.000	0.000	0.000	0.000	0.000
9	0.000	*0.002*	0.000	0.000	0.000	*0.038*	0.000	0.000	0.000	0.000	0.000	0.088
10	0.000	0.000	0.000	0.032	0.000	*0.017*	0.000	0.000	0.000	0.000	0.000	*0.536*
11	0.000	0.000	0.000	*0.001*	0.000	0.005	0.000	0.112	0.000	0.000	0.000	0.010
12	0.000	0.000	0.000	*0.000*	0.000	0.002	0.000	0.252	0.000	0.000	0.000	0.201
13	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	*0.341*
14	0.000	0.000	0.000	0.000	0.000	*0.093*	0.000	0.005	0.000	0.000	0.000	0.004
15	0.014	0.000	0.000	0.000	0.002	*0.032*	0.000	0.000	0.000	0.000	0.000	0.000
16	0.000	0.000	*0.006*	0.000	0.000	*0.019*	0.000	0.192	0.000	0.000	0.000	0.000
17	0.000	0.000	*0.022*	0.000	0.000	*0.004*	0.000	0.033	0.000	0.000	0.000	0.000
18	0.000	0.018	*0.003*	0.000	0.000	*0.001*	0.000	0.000	0.000	0.000	0.000	0.000
19	0.000	*0.013*	0.000	0.000	0.000	*0.018*	0.000	0.000	0.036	0.000	0.000	0.000
20	0.000	*0.001*	0.000	0.000	0.000	0.001	0.000	0.009	0.014	0.000	0.000	0.000
21	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000
22	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23	0.000	0.043	0.000	0.000	0.000	0.000	0.000	*0.547*	0.000	0.000	0.000	0.000
24	0.000	0.000	0.000	0.000	0.000	0.000	0.000	*2.059*	0.000	0.000	0.000	0.000
25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.143	0.000	0.000	0.000	0.000
26	0.000	*0.071*	0.000	0.000	0.000	0.000	0.000	0.021	0.000	0.000	0.086	0.020
27	0.000	*0.013*	0.000	0.000	0.000	0.000	0.000	0.012	0.000	0.000	0.000	0.000
28	0.000	*0.000*	0.000	0.000	0.000	0.000	0.000	0.007	0.000	0.000	0.000	0.000
29	0.000	0.000	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30	0.000	0.000	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
31	0.000	NA	0.000	0.000	NA	0.000	NA	0.000	NA	0.000	0.000	NA

Flow Rate

Average	0.001	0.010	0.001	0.001	0.000	0.015	0.000	0.110	0.009	0.000	0.018	0.040
Maximum	0.014	0.142	0.022	0.032	0.002	0.093	0.000	2.059	0.183	0.000	0.353	0.536
Minimum	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Discharge

Cubic Feet	2356	26265	2724	3051	165	40833	0	293309	22930	0	47907	103631
Gallons	17623	196475	20381	22823	1238	305456	0	2194101	171528	0	358366	775213
Acre-Feet	0.05	0.60	0.06	0.07	0.00	0.94	0.00	6.73	0.53	0.00	1.10	2.38

Annual Summaries for WY02

Ft^3/Sec	0.017
GPM	7.7
Cubic Feet	543171
Gallons	4063201
Acre-Feet	12.47

KEY: WR: No data or unacceptable data due to winter icing conditions
BD: Bad data due to equipment failures
ITALICS: Italic values contain data estimated from field observations and electronic record at adjacent or comparable gages

A.1.38 SW027: South Interceptor Ditch at Pond C-2

Table A-38. WY02 Discharge Summary for SW027: South Interceptor Ditch at Pond C-2.

Water Year 2002: Daily Mean Discharge Values in Cubic Feet per Second

Day	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02
1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.019	0.000	0.000	0.000
5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.008	0.000	0.000	0.000
6	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000
7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.042
11	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004
12	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.036	0.000	0.000	0.000	0.016
13	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.018	0.000	0.000	0.000	0.269
14	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.000	0.000	0.000	0.038
15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005	0.000	0.000	0.000	0.004
16	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.023	0.000	0.000	0.000	0.001
17	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.119	0.000	0.000	0.000	0.001
18	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.010	0.000	0.000	0.000	0.000
19	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.000	0.000	0.000	0.000
20	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.000	0.000	0.000	0.000
21	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000
22	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.799	0.000	0.000	0.000	0.000
25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.448	0.000	0.000	0.000	0.000
26	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.046	0.000	0.000	0.000	0.000
27	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.013	0.000	0.000	0.000	0.000
28	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.009	0.000	0.000	0.000	0.000
29	0.000	0.000	0.000	0.000	NA	0.000	0.000	0.008	0.000	0.000	0.000	0.000
30	0.000	0.000	0.000	0.000	NA	0.000	0.000	0.004	0.000	0.000	0.000	0.000
31	0.000	NA	0.000	0.000	NA	0.000	NA	0.001	NA	0.000	0.000	NA

Flow Rate

Average	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.082	0.001	0.000	0.000	0.012
Maximum	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.799	0.019	0.000	0.000	0.269
Minimum	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Discharge

Cubic Feet	0	0	0	0	0	0	0	220515	2473	0	0	32313
Gallons	0	0	0	0	0	0	0	1649566	18497	0	0	241716
Acre-Feet	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.06	0.06	0.00	0.00	0.74

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Ft^3/Sec	0.008
GPM	3.6
Cubic Feet	255300
Gallons	1909779
Acre-Feet	5.86

KEY: WR: No data or unacceptable data due to winter icing conditions
BD: Bad data due to equipment failures
ITALICS: Italic values contain data estimated from field observations and electronic record at adjacent or comparable gages

A.1.39 SW036: SID South of B664 Upstream of 400 Area Outfall

Table A-39. WY02 Discharge Summary for SW036: SID South of B664 Upstream of 400 Area Outfall.

Water Year 2002: Daily Mean Discharge Values in Cubic Feet per Second

Day	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02
1	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.00000	0.00000	0.00000
2	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.00000	0.00000	0.00000
3	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.00000	0.00000	0.00000
4	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.00000	0.00000	0.00000
5	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.00000	0.00000	0.00000
6	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.00000	0.00000	0.00000
7	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.00000	0.00000	0.00000
8	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.00000	0.00000	0.00000
9	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.00000	0.00000	0.00000
10	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.00000	0.00000	0.00000
11	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.00000	0.00000	0.00000
12	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.00000	0.00000	0.00000
13	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.00000	0.00000	0.00000
14	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.00000	0.00000	0.00000	0.00000
15	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.00000	0.00000	0.00000	0.00000
16	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.00000	0.00000	0.00000	0.00000
17	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.00000	0.00000	0.00000	0.00000
18	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.00000	0.00000	0.00000	0.00000
19	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.00000	0.00000	0.00000	0.00000
20	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.00000	0.00000	0.00000	0.00000
21	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.00000	0.00000	0.00000	0.00000
22	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.00000	0.00000	0.00000	0.00000
23	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.00000	0.00000	0.00000	0.00000
24	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.00000	0.00000	0.00000	0.00000
25	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.00000	0.00000	0.00000	0.00000
26	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.00000	0.00000	0.00000	0.00000
27	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.00000	0.00000	0.00000	0.00000
28	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	0.00000	0.00000	0.00000	0.00000
29	No Data	No Data	No Data	No Data	NA	No Data	No Data	No Data	0.00000	0.00000	0.00000	0.00000
30	No Data	No Data	No Data	No Data	NA	No Data	No Data	No Data	0.00000	0.00000	0.00000	0.00000
31	No Data	NA	No Data	No Data	NA	No Data	NA	No Data	NA	0.00000	0.00000	NA
	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Partial Data			

Flow Rate

Average									0.0000	0.0000	0.0000	0.0000
Maximum									0.0000	0.0000	0.0000	0.0000
Minimum									0.0000	0.0000	0.0000	0.0000
	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Partial Data			

Discharge

Cubic Feet									0	0	0	0
Gallons									0	0	0	0
Acre-Feet									0.000	0.000	0.000	0.000
	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	Partial Data			

Annual Summaries for WY02

Ft^3/Sec	0.000
GPM	*0.0*
Cubic Feet	0
Gallons	0
Acre-Feet	0.000
	Partial Data

KEY: WR: No data or unacceptable data due to winter icing conditions
BD: Bad data due to equipment failures
ITALICS: Italic values contain data estimated from field observations and electronic record at adjacent or comparable gages

A.1.40 SW055: Ditch South of 903 Pad at Inner Fence

Table A-40. WY02 Discharge Summary for SW055: Ditch South of 903 Pad at Inner Fence.

Water Year 2002: Daily Mean Discharge Values in Cubic Feet per Second

Day	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02
1	0.0000	0.0000	*0.0000*	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	0.0000	0.0000	0.0000	0.0000	*0.0000*	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000
3	0.0000	0.0000	0.0000	0.0000	*0.0000*	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000
4	0.0000	0.0000	0.0000	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
6	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
7	0.0000	0.0000	0.0000	0.0000	0.0000	*0.0002*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
8	0.0000	0.0000	0.0000	0.0000	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
9	0.0000	*0.0000*	0.0000	0.0000	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	0.0000	0.0000	0.0000	*0.0000*	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	0.0000	0.0000	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	0.0000	0.0000	0.0000	0.0000	*0.0000*	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	0.0000	0.0000	0.0000	0.0000	*0.0000*	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	0.0000	0.0000	0.0000	0.0000	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	0.0000	0.0000	0.0000	0.0000	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
19	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
21	0.0000	0.0000	0.0000	0.0000	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
22	0.0000	0.0000	0.0000	0.0000	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
23	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
24	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0134	0.0000	0.0000	0.0000	0.0000
25	0.0000	*0.0000*	0.0000	0.0000	0.0000	*0.0000*	0.0000	0.0009	0.0000	0.0000	0.0000	0.0000
26	0.0000	0.0000	0.0000	*0.0000*	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
27	0.0000	0.0000	0.0000	*0.0000*	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
28	0.0000	0.0000	0.0000	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
29	0.0000	*0.0000*	0.0000	0.0000	NA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
30	0.0000	*0.0000*	0.0000	0.0000	NA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
31	0.0000	NA	0.0000	0.0000	NA	0.0000	NA	0.0000	NA	0.0000	0.0000	NA

Flow Rate

Average	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0005	0.0000	0.0000	0.0000	0.0000
Maximum	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0000	0.0134	0.0000	0.0000	0.0000	0.0000
Minimum	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Discharge

Cubic Feet	0	0	0	0	0	16	0	1238	0	0	0	0
Gallons	0	0	0	0	0	119	0	9264	0	0	0	0
Acre-Feet	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.028	0.000	0.000	0.000	0.000

Annual Summaries for WY02

Ft^3/Sec	0.000
GPM	0.0
Cubic Feet	1254
Gallons	9383
Acre-Feet	0.029

KEY: WR: No data or unacceptable data due to winter icing conditions
BD: Bad data due to equipment failures
ITALICS: Italic values contain data estimated from field observations and electronic record at adjacent or comparable gages

A.1.41 SW091: North Walnut Creek Tributary Northeast of Solar Ponds

Table A-41. WY02 Discharge Summary for SW091: North Walnut Creek Tributary Northeast of Solar Ponds.

Water Year 2002: Daily Mean Discharge Values in Cubic Feet per Second

Day	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02
1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
6	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
7	0.0000	0.0000	0.0000	0.0000	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
8	0.0000	0.0000	0.0000	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
9	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000
12	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	0.0000	0.0000	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
19	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
21	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	*0.0000*	0.0000	0.0000	0.0000	0.0000	0.0000
22	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
23	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
24	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
26	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
27	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
28	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
29	0.0000	0.0000	0.0000	0.0000	NA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
30	0.0000	0.0000	0.0000	0.0000	NA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
31	0.0000	NA	0.0000	0.0000	NA	0.0000	NA	0.0000	NA	0.0000	0.0000	NA

Flow Rate

Average	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Minimum	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Discharge

Cubic Feet	0	0	0	0	0	6	0	0	0	0	0	0
Gallons	0	0	0	0	0	43	0	0	0	0	0	0
Acre-Feet	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Annual Summaries for WY02

Ft^3/Sec	0.000
GPM	0.0
Cubic Feet	6
Gallons	43
Acre-Feet	0.000

KEY: WR: No data or unacceptable data due to winter icing conditions
BD: Bad data due to equipment failures
ITALICS: Italic values contain data estimated from field observations and electronic record at adjacent or comparable gages

A.1.42 SW093: North Walnut Creek 1300' Upstream of A-1 Bypass

Table A-42. WY02 Discharge Summary for SW093: North Walnut Creek Upstream of A-1 Bypass.

Water Year 2002: Daily Mean Discharge Values in Cubic Feet per Second

Day	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02
1	*0.093*	0.088	0.074	0.047	0.072	0.063	0.081	0.074	0.107	0.051	0.025	0.039
2	*0.082*	0.084	0.089	0.044	0.080	0.105	0.084	0.073	0.101	0.060	0.035	0.039
3	*0.086*	0.086	0.096	0.055	0.074	0.218	0.086	0.043	0.152	0.056	0.036	0.047
4	*0.088*	0.089	0.090	0.055	0.074	0.182	0.086	0.043	0.417	0.061	0.038	0.048
5	*0.162*	0.096	0.085	0.055	0.082	0.188	0.088	0.049	0.123	0.057	*1.047*	0.041
6	*0.089*	0.099	0.088	0.059	0.077	0.203	0.090	0.053	0.096	0.054	0.149	0.038
7	*0.087*	0.108	0.087	0.080	0.084	0.201	0.092	0.052	0.088	0.048	0.045	0.033
8	*0.085*	0.323	0.081	0.088	0.087	0.120	0.096	0.057	0.087	0.054	0.034	0.030
9	*0.087*	0.132	0.087	0.080	0.077	0.128	0.084	0.050	0.083	0.058	0.037	*0.246*
10	*0.091*	0.104	0.085	0.135	0.069	0.126	0.075	0.047	0.080	0.055	0.033	*1.419*
11	*0.101*	0.098	0.083	0.093	0.071	0.134	0.073	0.252	0.080	0.050	0.028	*0.106*
12	*0.103*	0.097	0.080	0.084	0.062	0.125	0.069	0.594	0.080	0.043	0.047	*0.643*
13	*0.109*	0.100	0.074	0.076	0.060	0.111	0.064	0.080	0.079	0.044	0.046	*1.073*
14	*0.105*	0.095	0.089	0.070	0.061	0.195	0.063	0.079	0.065	0.044	0.032	*0.116*
15	*0.168*	0.094	0.089	0.064	0.069	0.161	0.065	0.065	0.066	0.043	0.032	*0.060*
16	*0.091*	0.093	0.109	0.067	0.060	0.160	0.061	0.354	0.074	0.048	0.026	*0.060*
17	*0.092*	0.094	0.135	0.061	0.078	0.125	0.059	0.198	0.074	0.051	0.030	0.055
18	*0.092*	0.153	0.112	0.061	0.083	0.110	0.056	0.100	0.076	0.045	0.033	0.060
19	*0.083*	0.128	0.093	0.068	0.082	0.144	0.057	0.092	0.144	0.040	0.035	0.055
20	*0.086*	0.106	0.088	0.070	0.079	0.116	0.065	0.112	0.121	0.035	0.032	0.050
21	*0.074*	0.100	0.078	0.077	0.077	0.092	0.057	0.096	0.091	0.037	0.030	0.050
22	*0.078*	0.100	0.069	0.078	0.082	0.096	0.051	0.092	0.099	0.047	0.029	0.049
23	*0.080*	0.168	0.056	0.076	0.094	0.102	0.045	*1.548*	0.074	0.043	0.028	0.047
24	0.081	0.100	0.050	0.073	0.083	0.091	0.046	*5.141*	0.053	0.041	0.028	0.051
25	0.085	0.099	0.052	0.102	0.073	0.089	0.048	0.692	0.052	0.050	0.030	0.079
26	0.083	0.160	0.053	0.127	0.074	0.090	0.049	0.310	0.054	0.053	0.029	0.118
27	0.082	0.072	0.058	0.089	0.068	0.083	0.049	0.206	0.050	0.046	0.041	0.060
28	0.086	0.048	0.057	0.079	0.069	0.085	0.040	0.166	0.051	0.041	0.038	0.056
29	0.089	0.070	0.053	0.074	NA	0.083	0.036	0.144	0.054	0.028	0.044	0.055
30	0.095	0.074	0.051	0.070	NA	0.086	0.034	0.133	0.050	0.022	0.040	0.058
31	0.087	NA	0.059	0.065	NA	0.090	NA	0.117	NA	0.020	0.041	NA

Flow Rate

Average	0.094	0.109	0.079	0.075	0.075	0.126	0.065	0.358	0.094	0.046	0.071	0.163
Maximum	0.168	0.323	0.135	0.135	0.094	0.218	0.096	5.141	0.417	0.061	1.047	1.419
Minimum	0.074	0.048	0.050	0.044	0.060	0.063	0.034	0.043	0.050	0.020	0.025	0.030

Discharge

Cubic Feet	250655	281510	211885	200651	181352	337345	168369	960195	243403	123128	189894	421730
Gallons	1875028	2105840	1585010	1500973	1356604	2523519	1259488	7182755	1820782	921060	1420508	3154763
Acre-Feet	5.75	6.46	4.86	4.61	4.16	7.74	3.87	22.04	5.59	2.83	4.36	9.68

Annual Summaries for WY02

Ft^3/Sec	0.113
GPM	50.8
Cubic Feet	3570116
Gallons	26706328
Acre-Feet	81.96

KEY: WR: No data or unacceptable data due to winter icing conditions
BD: Bad data due to equipment failures
ITALICS: Italic values contain data estimated from field observations and electronic record at adjacent or comparable gages

A.1.43 SW118: North Walnut Creek 560' Upstream of Portal 3

Table A-43. WY02 Discharge Summary for SW118: North Walnut Creek Upstream of Portal 3.

Water Year 2002: Daily Mean Discharge Values in Cubic Feet per Second

Day	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02
1	0.000	0.000	WR	WR	WR	WR	0.006	0.003	0.001	0.000	0.000	0.000
2	0.000	0.003	WR	WR	WR	WR	0.008	0.006	0.001	0.000	0.000	0.000
3	0.000	0.003	WR	WR	WR	WR	0.008	0.002	0.001	0.000	0.000	0.000
4	0.000	0.003	WR	WR	WR	WR	0.006	0.000	0.030	0.000	0.000	0.000
5	0.021	0.003	WR	WR	WR	WR	0.006	0.001	0.011	0.000	*0.000*	0.000
6	0.009	0.003	WR	WR	WR	WR	0.005	0.000	0.002	0.000	0.000	0.000
7	0.003	0.003	WR	WR	WR	WR	0.005	0.000	0.001	0.000	0.000	0.000
8	0.001	0.018	WR	WR	WR	WR	0.007	0.000	0.001	0.000	0.000	0.000
9	0.003	0.011	WR	WR	WR	WR	0.007	0.000	0.000	0.000	0.000	0.000
10	0.003	*0.010*	WR	0.028	WR	WR	0.007	0.000	0.000	0.000	0.000	0.058
11	0.007	0.009	WR	0.014	WR	WR	0.005	0.011	0.000	0.000	0.000	0.000
12	0.003	0.006	WR	WR	WR	WR	0.004	0.073	0.000	0.000	0.000	0.018
13	0.003	0.006	WR	WR	WR	WR	0.003	0.013	0.000	0.000	0.000	0.062
14	0.005	0.005	WR	WR	WR	*0.031*	0.001	0.007	0.000	0.000	0.000	0.031
15	0.017	0.006	WR	WR	WR	*0.048*	0.001	0.003	0.000	0.000	0.000	0.005
16	0.010	0.006	WR	WR	WR	*0.036*	0.001	0.022	0.000	0.000	0.000	0.000
17	0.005	0.007	WR	WR	WR	*0.022*	0.001	0.031	0.000	0.000	0.000	0.000
18	0.003	0.010	WR	WR	WR	*0.018*	0.000	0.013	0.000	0.000	0.000	0.000
19	0.002	0.014	WR	WR	*0.007*	0.020	0.002	0.004	0.000	0.000	0.000	0.000
20	0.001	WR	WR	WR	*0.005*	0.017	0.006	0.005	0.000	0.000	0.000	0.000
21	0.008	WR	WR	WR	WR	*0.020*	0.005	0.004	0.000	0.000	0.000	0.000
22	0.007	WR	WR	WR	*0.001*	*0.014*	0.002	0.004	0.000	0.000	0.000	0.000
23	*0.003*	WR	WR	WR	WR	0.011	0.000	0.083	0.000	0.000	0.000	0.000
24	0.000	WR	WR	WR	WR	0.009	0.000	0.795	0.000	0.000	0.000	0.000
25	0.004	WR	WR	WR	WR	*0.007*	0.001	0.165	0.000	0.000	0.000	0.000
26	0.010	WR	WR	WR	WR	*0.009*	0.002	0.064	0.000	0.000	0.000	0.000
27	0.007	WR	WR	WR	WR	0.008	0.001	0.027	0.000	0.000	0.000	0.000
28	0.003	WR	WR	WR	WR	0.006	0.000	0.016	0.000	0.000	0.000	0.000
29	0.004	WR	WR	WR	NA	0.007	0.000	0.008	0.000	0.000	0.000	0.000
30	0.004	WR	WR	WR	NA	0.008	0.000	0.004	0.000	0.000	0.000	0.000
31	0.002	NA	WR	WR	NA	0.008	NA	0.001	NA	0.000	0.000	NA
		Partial Data	No Data	Partial Data	Partial Data	Partial Data						

Flow Rate

Average	0.005	0.007		0.021	0.005	0.017	0.003	0.044	0.002	0.000	0.000	0.006
Maximum	0.021	0.018		0.028	0.007	0.048	0.008	0.795	0.030	0.000	0.000	0.062
Minimum	0.000	0.000		0.014	0.001	0.006	0.000	0.000	0.000	0.000	0.000	0.000
		Partial Data	No Data	Partial Data	Partial Data	Partial Data						

Discharge

Cubic Feet	12811	10843		3646	1167	26027	8809	117608	4119	0	0	15008
Gallons	95834	81108		27276	8732	194694	65893	879769	30811	0	0	112268
Acre-Feet	0.29	0.25		0.08	0.03	0.60	0.20	2.70	0.09	0.00	0.00	0.34
		Partial Data	No Data	Partial Data	Partial Data	Partial Data						

Annual Summaries for WY02

Ft^3/Sec	0.009
GPM	4.1
Cubic Feet	200038
Gallons	1496386
Acre-Feet	4.59
	Partial Data

KEY: WR: No data or unacceptable data due to winter icing conditions
BD: Bad data due to equipment failures
ITALICS: Italic values contain data estimated from field observations and electronic record at adjacent or comparable gages

A.1.44 SW119: Ditch Along PA Perimeter Road North of Solar Pond 207B

Table A-44. WY02 Discharge Summary for SW119: Ditch Along PA Perimeter Road North of Solar Pond 207B.

Water Year 2002: Daily Mean Discharge Values in Cubic Feet per Second

Day	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02
1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
6	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
7	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
8	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
9	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0005
14	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
19	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
21	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
22	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
23	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0028	0.0000	0.0000	0.0000	0.0000
24	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0355	0.0000	0.0000	0.0000	0.0000
25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000
26	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
27	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
28	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
29	0.0000	0.0000	0.0000	0.0000	NA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
30	0.0000	0.0000	0.0000	0.0000	NA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
31	0.0000	NA	0.0000	0.0000	NA	0.0000	NA	0.0000	NA	0.0000	0.0000	NA

Flow Rate

Average	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0012	0.0000	0.0000	0.0000	0.0000
Maximum	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0355	0.0000	0.0000	0.0000	0.0005
Minimum	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Discharge

Cubic Feet	0	0	0	0	0	0	0	3318	0	0	0	40
Gallons	0	0	0	0	0	0	0	24819	0	0	0	299
Acre-Feet	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.076	0.000	0.000	0.000	0.001

Annual Summaries for WY02

Ft^3/Sec	0.000
GPM	0.0
Cubic Feet	3358
Gallons	25118
Acre-Feet	0.077

KEY: WR: No data or unacceptable data due to winter icing conditions
BD: Bad data due to equipment failures
ITALICS: Italic values contain data estimated from field observations and electronic record at adjacent or comparable gages

A.1.45 SW120: Ditch Along PA Perimeter Road North of Solar Pond 207A

Table A-45. WY02 Discharge Summary for SW120: PA Perimeter Road Ditch North of Solar Pond 207A.

Water Year 2002: Daily Mean Discharge Values in Cubic Feet per Second

Day	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02
1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0063	0.0000	0.0000	0.0000
5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0020	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
6	0.0000	0.0000	0.0000	0.0000	0.0000	*0.0176*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
7	0.0000	0.0000	0.0000	0.0000	0.0000	*0.0240*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
8	0.0000	0.0010	0.0000	0.0000	0.0002	*0.0070*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
9	0.0000	0.0000	0.0000	0.0000	0.0000	*0.0027*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	0.0000	0.0000	0.0000	0.0000	0.0000	*0.0046*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0141
11	0.0000	0.0000	0.0000	0.0000	0.0000	0.0045	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0172	0.0000	0.0000	0.0000	0.0049
13	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0088
14	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002
15	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	0.0000	0.0000	0.0000	0.0000	0.0000	*0.0010*	0.0000	0.0063	0.0000	0.0000	0.0000	0.0000
17	0.0000	0.0000	0.0000	0.0000	0.0000	*0.0000*	0.0000	0.0057	0.0000	0.0000	0.0000	0.0000
18	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
19	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
21	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
22	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
23	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0362	0.0000	0.0000	0.0000	0.0000
24	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.1865	0.0000	0.0000	0.0000	0.0000
25	0.0000	0.0000	0.0000	0.0212	0.0000	0.0000	0.0000	0.0203	0.0000	0.0000	0.0000	0.0000
26	0.0000	0.0000	0.0000	*0.0505*	0.0000	0.0000	0.0000	0.0024	0.0000	0.0000	0.0000	0.0000
27	0.0000	0.0000	0.0000	*0.0010*	0.0000	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
28	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
29	0.0000	0.0000	0.0000	0.0000	NA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
30	0.0000	0.0000	0.0000	0.0000	NA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
31	0.0000	NA	0.0000	0.0000	NA	0.0000	NA	0.0000	NA	0.0000	0.0000	NA

Flow Rate

Average	0.0000	0.0000	0.0000	0.0023	0.0000	0.0021	0.0000	0.0089	0.0002	0.0000	0.0000	0.0009
Maximum	0.0000	0.0010	0.0000	0.0505	0.0002	0.0240	0.0000	0.1865	0.0063	0.0000	0.0000	0.0141
Minimum	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Discharge

Cubic Feet	3	92	7	6292	26	5505	0	23737	547	0	0	2416
Gallons	25	685	55	47068	197	41179	0	177565	4089	0	0	18073
Acre-Feet	0.000	0.002	0.000	0.144	0.001	0.126	0.000	0.545	0.013	0.000	0.000	0.055

Annual Summaries for WY02

Ft^3/Sec	0.001
GPM	0.5
Cubic Feet	38625
Gallons	288937
Acre-Feet	0.887

KEY: WR: No data or unacceptable data due to winter icing conditions
BD: Bad data due to equipment failures
ITALICS: Italic values contain data estimated from field observations and electronic record at adjacent or comparable gages

A.1.46 SW134: Rock Creek Tributary at Gravel Pits Northeast of West Gate

Table A-46. WY02 Discharge Summary for SW134: Rock Creek Tributary at Gravel Pits Northeast of West Gate.

Water Year 2002: Daily Mean Discharge Values in Cubic Feet per Second

Day	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02
1	0.0000	0.0000	0.0000	WR	WR	WR	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	0.0000	0.0000	0.0000	WR	WR	WR	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3	0.0000	0.0000	0.0000	WR	WR	WR	0.4456	0.0000	0.0162	0.0000	0.0000	0.0000
4	0.0000	0.0000	0.0000	WR	WR	WR	0.0542	0.0265	0.0010	0.0000	0.0000	0.0000
5	0.0000	0.0000	0.0000	WR	WR	WR	0.0000	0.0000	0.0120	0.0000	0.0000	0.0000
6	0.0000	0.0000	0.0000	0.0000	WR	WR	0.0000	0.0077	0.0000	0.0000	0.0000	0.0000
7	0.0000	0.0000	0.0000	0.0000	WR	WR	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
8	0.0000	0.0000	0.0000	0.0000	WR	0.0000	0.0385	0.0083	0.0076	0.0000	0.0000	0.0000
9	0.0000	0.0000	0.0000	0.0000	WR	*0.0000*	0.0442	0.0000	0.0000	0.0000	0.0000	0.0000
10	0.0000	0.0000	0.0734	0.0000	WR	0.0000	0.0000	0.0000	0.0023	0.0000	0.0000	0.0000
11	0.0000	0.0000	0.0000	0.0000	WR	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	0.0000	0.0000	0.0000	0.0000	WR	0.1018	0.0000	0.0039	0.0022	0.0000	0.0000	0.0000
13	0.0000	0.0000	0.0000	0.0000	WR	0.0890	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	0.0000	0.0000	0.0000	0.0600	WR	0.0000	0.0000	0.0354	0.0019	0.0000	0.0000	0.0000
15	0.0000	0.0000	0.0000	0.0000	WR	0.0000	0.0280	0.0000	0.0000	0.0000	0.0000	0.0000
16	0.1700	0.0505	0.0000	WR	WR	0.0000	0.0258	0.0000	0.0000	0.0000	0.0000	0.0000
17	0.0000	0.0474	0.0000	WR	0.0000	0.0000	0.0171	0.0000	0.0000	0.0000	0.0000	0.0000
18	0.0000	0.0000	0.0000	WR	0.0000	0.0000	0.0000	0.0000	0.0025	0.0000	0.0000	0.0000
19	0.0000	0.0000	0.0000	WR	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20	0.0000	0.0000	0.0000	WR	0.0000	0.0780	0.0000	0.0312	0.0000	0.0000	0.0000	0.0000
21	0.0000	0.0000	0.0000	WR	0.0000	0.0000	0.0000	0.0078	0.0000	0.0000	0.0000	0.0000
22	0.0000	0.0000	0.0000	WR	0.0000	0.0000	0.0277	0.0000	0.0000	0.0000	0.0000	0.0000
23	0.0000	0.0000	0.0000	WR	0.0000	0.0000	0.0000	0.0110	0.0000	0.0000	0.0000	0.0000
24	0.0000	0.0000	0.0000	WR	0.0000	0.0000	0.0000	0.0738	0.0000	0.0000	0.0000	0.0000
25	0.0000	0.0000	0.0000	WR	0.0000	0.0000	0.0000	0.0033	0.0029	0.0000	0.0000	0.0000
26	0.0000	0.0000	0.0000	WR	WR	0.0449	0.0175	0.0000	0.0000	0.0000	0.0000	0.0000
27	0.0000	0.0000	0.0000	0.0000	WR	0.0746	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
28	0.0000	0.0000	0.0000	0.1135	WR	0.0000	0.0000	0.2593	0.0000	0.0000	0.0000	0.0000
29	0.0000	0.0000	0.0000	0.0000	NA	0.0409	0.0132	0.0177	0.0000	0.0000	0.0000	0.0000
30	0.0000	0.0000	0.0000	WR	NA	0.0146	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
31	0.1272	NA	0.0000	WR	NA	0.0000	NA	0.0182	NA	0.0000	0.0000	NA
				Partial Data	Partial Data	Partial Data						

Flow Rate

Average	0.0096	0.0033	0.0024	0.0133	0.0000	0.0185	0.0237	0.0163	0.0016	0.0000	0.0000	0.0000
Maximum	0.1700	0.0505	0.0734	0.1135	0.0000	0.1018	0.4456	0.2593	0.0162	0.0000	0.0000	0.0000
Minimum	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
				Partial Data	Partial Data	Partial Data						

Discharge

Cubic Feet	25684	8461	6340	14989	0	38352	61495	43560	4206	0	0	0
Gallons	192132	63293	47426	112128	0	286893	460014	325855	31466	0	0	0
Acre-Feet	0.590	0.194	0.146	0.344	0.000	0.880	1.412	1.000	0.097	0.000	0.000	0.000
				Partial Data	Partial Data	Partial Data						

Annual Summaries for WY02

Ft^3/Sec	0.007
GPM	3.3
Cubic Feet	203088
Gallons	1519207
Acre-Feet	4.662

Partial Data

KEY: WR: No data or unacceptable data due to winter icing conditions
BD: Bad data due to equipment failures
ITALICS: Italic values contain data estimated from field observations and electronic record at adjacent or comparable gages

A.1.47 995POE: WWTP Effluent

Table A-47. WY02 Discharge Summary for 995POE: WWTP Effluent.

Water Year 2002: Daily Mean Discharge Values in Cubic Feet per Second

Day	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02
1	0.224	0.236	0.153	0.179	0.142	0.128	0.289	0.238	0.326	0.168	0.151	0.315
2	0.201	0.182	0.190	0.192	0.209	0.169	0.282	0.227	0.243	0.142	0.233	0.281
3	0.189	0.184	0.183	0.164	0.188	0.162	0.249	0.136	0.352	0.191	0.100	0.277
4	0.171	0.179	0.165	0.155	0.132	0.235	0.266	0.234	0.338	0.254	0.233	0.265
5	0.154	0.205	0.274	0.229	0.194	0.242	0.311	0.243	0.289	0.268	0.232	0.264
6	0.187	0.161	0.202	0.158	0.218	0.210	0.352	0.195	0.172	0.188	0.191	0.229
7	0.311	0.167	0.134	0.176	0.230	0.232	0.260	0.225	0.279	0.228	0.160	0.274
8	0.270	0.197	0.147	0.242	0.146	0.209	0.314	0.253	0.336	0.255	0.216	0.293
9	0.173	0.133	0.172	0.200	0.171	0.226	0.273	0.203	0.281	0.239	0.206	0.286
10	0.201	0.179	0.188	0.261	0.148	0.184	0.304	0.198	0.351	0.131	0.196	0.326
11	0.216	0.177	0.177	0.142	0.187	0.244	0.274	0.212	0.321	0.188	0.149	0.315
12	0.135	0.174	0.200	0.144	0.238	0.217	0.173	0.276	0.306	0.111	0.267	0.281
13	0.139	0.141	0.131	0.178	0.184	0.252	0.219	0.279	0.303	0.147	0.184	0.294
14	0.231	0.079	0.140	0.174	0.143	0.250	0.219	0.270	0.242	0.151	0.224	0.243
15	0.217	0.181	0.169	0.134	0.138	0.279	0.231	0.268	0.179	0.289	0.212	0.304
16	0.116	0.095	0.233	0.175	0.238	0.364	0.274	0.193	0.208	0.161	0.214	0.310
17	0.190	0.113	0.138	0.182	0.217	0.286	0.212	0.174	0.298	0.145	0.212	0.298
18	0.199	0.348	0.200	0.193	0.158	0.234	0.189	0.215	0.283	0.147	0.228	0.289
19	0.115	0.139	0.174	0.256	0.114	0.340	0.237	0.265	0.299	0.129	0.197	0.293
20	0.283	0.094	0.142	0.226	0.149	0.312	0.203	0.230	0.186	0.142	0.243	0.225
21	0.298	0.149	0.141	0.234	0.161	0.316	0.181	0.238	0.324	0.165	0.216	0.308
22	0.159	0.213	0.180	0.225	0.184	0.248	0.276	0.270	0.325	0.150	0.204	0.290
23	0.184	0.178	0.175	0.235	0.267	0.279	0.289	0.200	0.316	0.180	0.225	0.343
24	0.195	0.158	0.127	0.148	0.162	0.217	0.298	0.388	0.224	0.216	0.232	0.401
25	0.180	0.197	0.218	0.122	0.209	0.238	0.219	0.395	0.260	0.216	0.247	0.256
26	0.139	0.200	0.129	0.167	0.261	0.272	0.194	0.513	0.215	0.156	0.285	0.159
27	0.168	0.200	0.234	0.198	0.259	0.278	0.197	0.301	0.189	0.308	0.179	0.140
28	0.222	0.207	0.306	0.205	0.112	0.237	0.233	0.232	0.301	0.297	0.309	0.194
29	0.171	0.245	0.110	0.159	NA	0.243	0.272	0.320	0.272	0.188	0.256	0.371
30	0.254	0.186	0.136	0.183	NA	0.316	0.222	0.250	0.231	0.163	0.197	0.177
31	0.174	NA	0.172	0.147	NA	0.268	NA	0.203	NA	0.136	0.242	NA

Flow Rate

Average	0.196	0.177	0.176	0.187	0.184	0.248	0.250	0.253	0.275	0.189	0.214	0.277
Maximum	0.311	0.348	0.306	0.261	0.267	0.364	0.352	0.513	0.352	0.308	0.309	0.401
Minimum	0.115	0.079	0.110	0.122	0.112	0.128	0.173	0.136	0.172	0.111	0.100	0.140

Discharge

Cubic Feet	524282	457736	470088	499591	445744	664312	649126	677747	712892	505219	573730	717490
Gallons	3921900	3424100	3516500	3737200	3334400	4969400	4855800	5069900	5332800	3779300	4291800	5367200
Acre-Feet	12.04	10.51	10.79	11.47	10.23	15.25	14.90	15.56	16.37	11.60	13.17	16.47

Annual Summaries for WY02

Ft^3/Sec	0.219
GPM	98.2
Cubic Feet	6897956
Gallons	51600300
Acre-Feet	158.36

KEY: WR: No data or unacceptable data due to winter icing conditions
BD: Bad data due to equipment failures
ITALICS: Italic values contain data estimated from field observations and electronic record at adjacent or comparable gages

A.2 PRECIPITATION DATA

This section includes total daily precipitation tables and hyetographs by precipitation gage and water year. Electronic copies of the precipitation grids are included in the Appendix Tables directory on the CD-ROM disc. The grids are given in a single Microsoft Excel. Each file contains separate worksheets for each precipitation gage.

A.2.1 PG51: Site Meteorology Tower

Precipitation data collected by the Automated Surface-Water Monitoring Program are from a secondary rain gage at the base of the tower. The official Met Tower data are collected by the Air Programs Group.

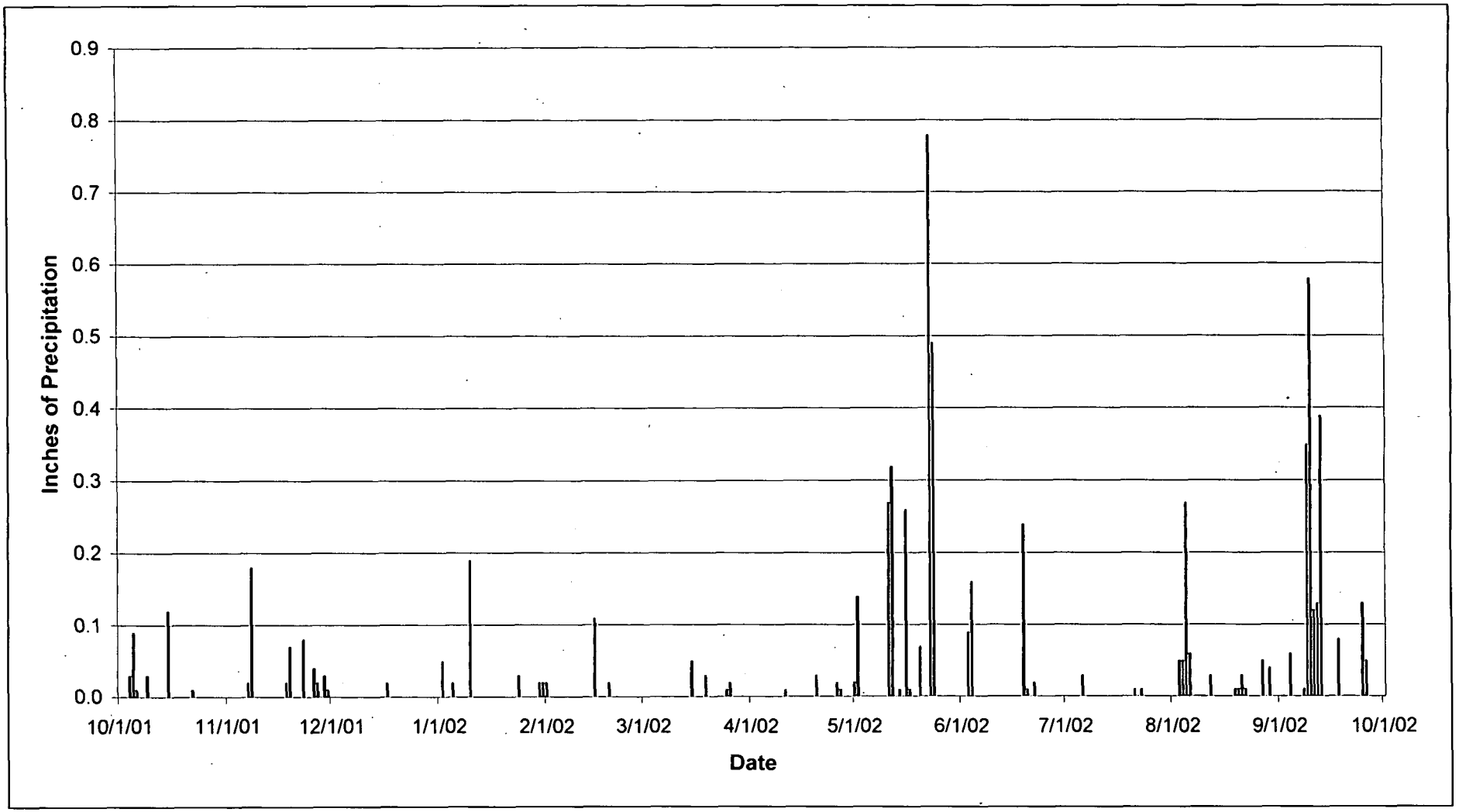

Figure A-1. WY02 Annual Hyetograph at PG51: Site Meteorology Tower.

Table A-48. WY02 Precipitation Summary for PG51: Site Meteorology Tower.

Water Year 2002: Daily Total Precipitation Values in Inches

Day	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02
1	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.02	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.05	0.00
4	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.00	0.05	0.06
5	0.09	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.27	0.00
6	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.06	0.00
7	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
9	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.35
10	0.00	0.00	0.00	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.58
11	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.27	0.00	0.00	0.00	0.12
12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.32	0.00	0.00	0.03	0.13
13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.39
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00
15	0.12	0.00	0.00	0.00	0.11	0.05	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.26	0.00	0.00	0.00	0.00
17	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00
18	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08
19	0.00	0.07	0.00	0.00	0.02	0.03	0.00	0.00	0.24	0.00	0.01	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.07	0.01	0.00	0.01	0.00
21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.03	0.00
22	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.01	0.00
23	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.78	0.00	0.01	0.00	0.00
24	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.00
25	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.13
26	0.00	0.04	0.00	0.00	0.00	0.02	0.02	0.00	0.00	0.00	0.00	0.05
27	0.00	0.02	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.05	0.00
28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	0.03	0.00	0.00	NA	0.00	0.00	0.00	0.00	0.00	0.04	0.00
30	0.00	0.01	0.00	0.02	NA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31	0.00	NA	0.00	0.02	NA	0.00	NA	0.00	NA	0.00	0.00	NA

Precipitation

Monthly Total	0.29	0.47	0.02	0.33	0.15	0.11	0.07	2.37	0.52	0.05	0.61	1.90
Daily Maximum	0.12	0.18	0.02	0.19	0.11	0.05	0.03	0.78	0.24	0.03	0.27	0.58

Annual Summaries for WY02

Total Inches 6.89

KEY: No Data: Bad or missing data due to equipment failures

A.2.2 PG52: Gaging Station SW022

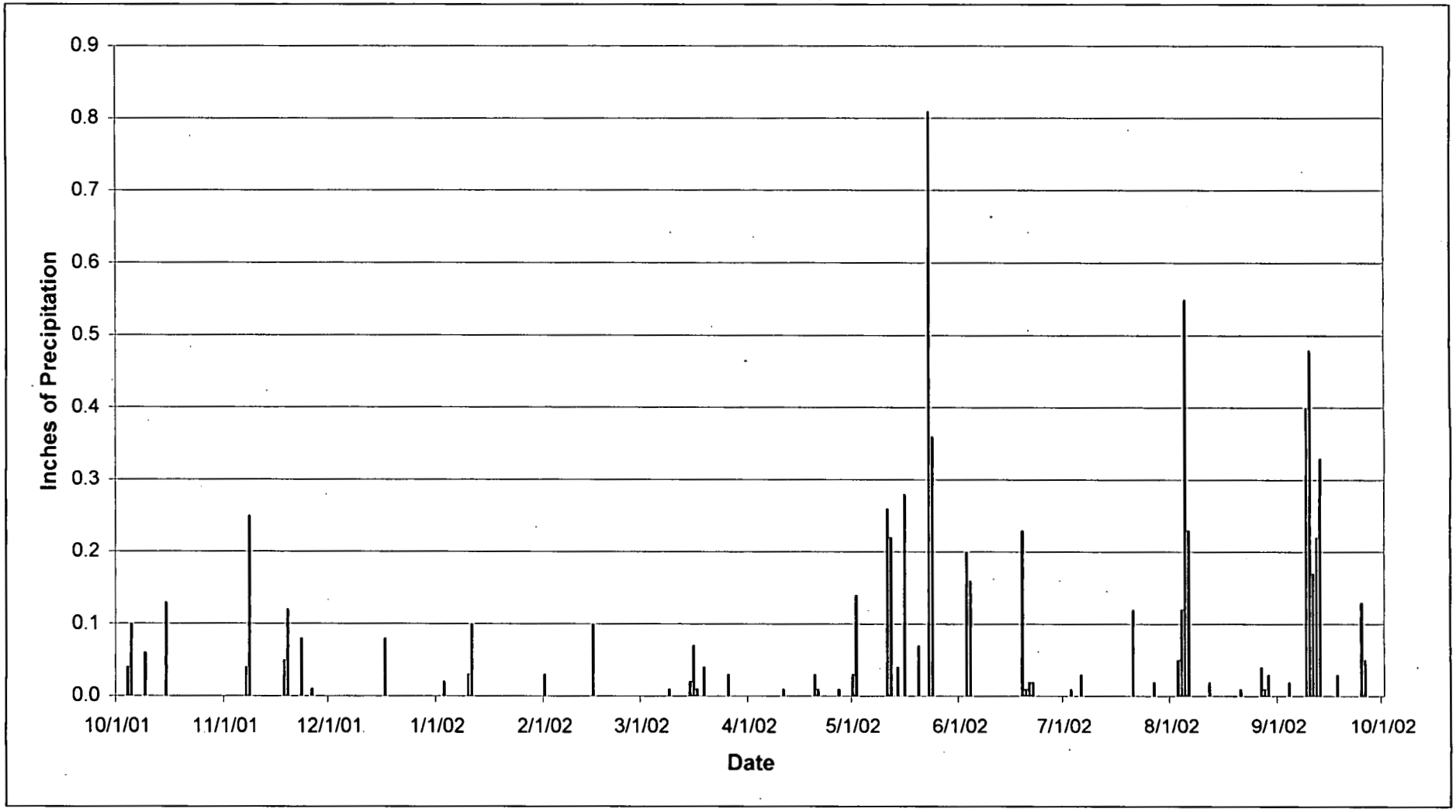

Figure A-2. WY02 Annual Hyetograph at PG52: Gaging Station SW022.

Table A-49. WY02 Precipitation Summary for PG52: Gaging Station SW022.

Water Year 2002: Daily Total Precipitation Values in Inches

Day	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02
1	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.03	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.20	0.01	0.05	0.00
4	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.00	0.12	0.02
5	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.55	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.23	0.00
7	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.06	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.40
10	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.48
11	0.00	0.00	0.00	0.10	0.00	0.00	0.01	0.26	0.00	0.00	0.00	0.17
12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.22	0.00	0.00	0.02	0.22
13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.33
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00
15	0.13	0.00	0.00	0.00	0.10	0.02	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	0.07	0.00	0.28	0.00	0.00	0.00	0.00
17	0.00	0.00	0.08	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03
19	0.00	0.12	0.00	0.00	0.00	0.04	0.00	0.00	0.23	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.07	0.01	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.02	0.12	0.01	0.00
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00
23	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.81	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.36	0.00	0.00	0.00	0.00
25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13
26	0.00	0.01	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.05
27	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.02	0.04	0.00
28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00
29	0.00	0.00	0.00	0.00	NA	0.00	0.00	0.00	0.00	0.00	0.03	0.00
30	0.00	0.00	0.00	0.00	NA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31	0.00	NA	0.00	0.00	NA	0.00	NA	0.00	NA	0.00	0.00	NA

Precipitation

Monthly Total	0.33	0.55	0.08	0.15	0.13	0.18	0.06	2.21	0.64	0.18	1.06	1.83
Daily Maximum	0.13	0.25	0.08	0.10	0.10	0.07	0.03	0.81	0.23	0.12	0.55	0.48

Annual Summaries for WY02

Total Inches 7.40

KEY: No Data: Bad or missing data due to equipment failures

A.2.3 PG55: Telemetry Repeater Node RPT2

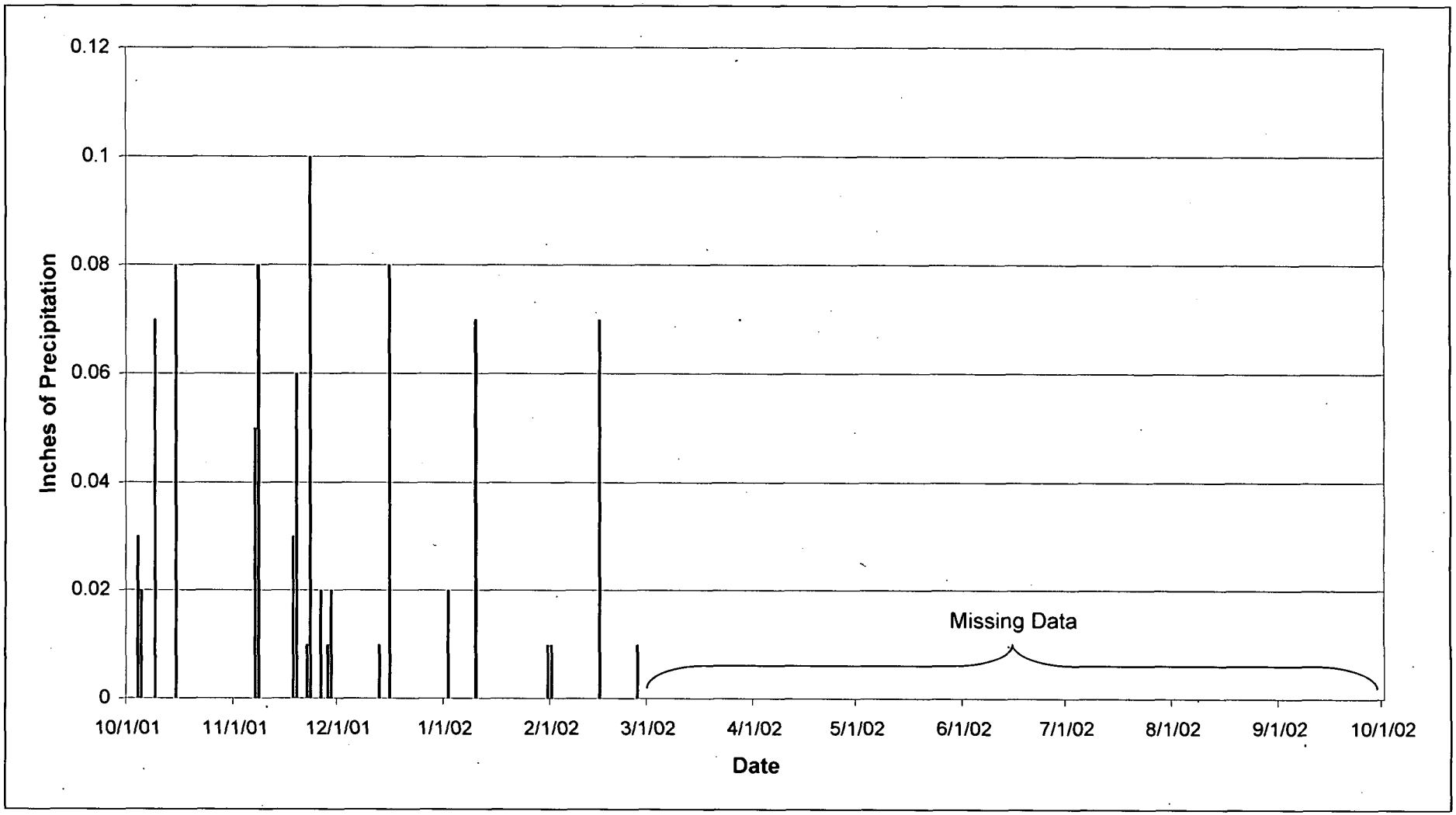

Figure A-3. WY02 Annual Hyetograph at PG55: Telemetry Repeater Node RPT2.

Table A-50. WY02 Precipitation Summary for PG55: Telemetry Repeater Node RPT2.

Water Year 2002: Daily Total Precipitation Values in Inches

Day	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02
1	0.00	0.00	0.00	0.00	0.01	No Data	No Data	No Data	No Data	No Data	No Data	No Data
2	0.00	0.00	0.00	0.02	0.00	No Data	No Data	No Data	No Data	No Data	No Data	No Data
3	0.00	0.00	0.00	0.00	0.00	No Data	No Data	No Data	No Data	No Data	No Data	No Data
4	0.03	0.00	0.00	0.00	0.00	No Data	No Data	No Data	No Data	No Data	No Data	No Data
5	0.02	0.00	0.00	0.00	0.00	No Data	No Data	No Data	No Data	No Data	No Data	No Data
6	0.00	0.00	0.00	0.00	0.00	No Data	No Data	No Data	No Data	No Data	No Data	No Data
7	0.00	0.05	0.00	0.00	0.00	No Data	No Data	No Data	No Data	No Data	No Data	No Data
8	0.00	0.08	0.00	0.00	0.00	No Data	No Data	No Data	No Data	No Data	No Data	No Data
9	0.07	0.00	0.00	0.00	0.00	No Data	No Data	No Data	No Data	No Data	No Data	No Data
10	0.00	0.00	0.00	0.07	0.00	No Data	No Data	No Data	No Data	No Data	No Data	No Data
11	0.00	0.00	0.00	0.00	0.00	No Data	No Data	No Data	No Data	No Data	No Data	No Data
12	0.00	0.00	0.00	0.00	0.00	No Data	No Data	No Data	No Data	No Data	No Data	No Data
13	0.00	0.00	0.01	0.00	0.00	No Data	No Data	No Data	No Data	No Data	No Data	No Data
14	0.00	0.00	0.00	0.00	0.00	No Data	No Data	No Data	No Data	No Data	No Data	No Data
15	0.08	0.00	0.00	0.00	0.07	No Data	No Data	No Data	No Data	No Data	No Data	No Data
16	0.00	0.00	0.08	0.00	0.00	No Data	No Data	No Data	No Data	No Data	No Data	No Data
17	0.00	0.00	0.00	0.00	0.00	No Data	No Data	No Data	No Data	No Data	No Data	No Data
18	0.00	0.03	0.00	0.00	0.00	No Data	No Data	No Data	No Data	No Data	No Data	No Data
19	0.00	0.06	0.00	0.00	0.00	No Data	No Data	No Data	No Data	No Data	No Data	No Data
20	0.00	0.00	0.00	0.00	0.00	No Data	No Data	No Data	No Data	No Data	No Data	No Data
21	0.00	0.00	0.00	0.00	0.00	No Data	No Data	No Data	No Data	No Data	No Data	No Data
22	0.00	0.01	0.00	0.00	0.00	No Data	No Data	No Data	No Data	No Data	No Data	No Data
23	0.00	0.10	0.00	0.00	0.00	No Data	No Data	No Data	No Data	No Data	No Data	No Data
24	0.00	0.00	0.00	0.00	0.00	No Data	No Data	No Data	No Data	No Data	No Data	No Data
25	0.00	0.00	0.00	0.00	0.00	No Data	No Data	No Data	No Data	No Data	No Data	No Data
26	0.00	0.02	0.00	0.00	0.01	No Data	No Data	No Data	No Data	No Data	No Data	No Data
27	0.00	0.00	0.00	0.00	0.00	No Data	No Data	No Data	No Data	No Data	No Data	No Data
28	0.00	0.01	0.00	0.00	0.00	No Data	No Data	No Data	No Data	No Data	No Data	No Data
29	0.00	0.02	0.00	0.00	NA	No Data	No Data	No Data	No Data	No Data	No Data	No Data
30	0.00	0.00	0.00	0.00	NA	No Data	No Data	No Data	No Data	No Data	No Data	No Data
31	0.00	NA	0.00	0.01	NA	No Data	NA	No Data	NA	No Data	No Data	NA
						No Data	No Data	No Data	No Data	No Data	No Data	No Data

Precipitation

Monthly Total	0.20	0.38	0.09	0.10	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily Maximum	0.08	0.10	0.08	0.07	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00
						No Data	No Data	No Data	No Data	No Data	No Data	No Data

Annual Summaries for WY02

Total Inches 0.86

Partial Data

KEY: No Data: Bad or missing data due to equipment failures

A.2.4 PG56: Telemetry Repeater Node RPT3

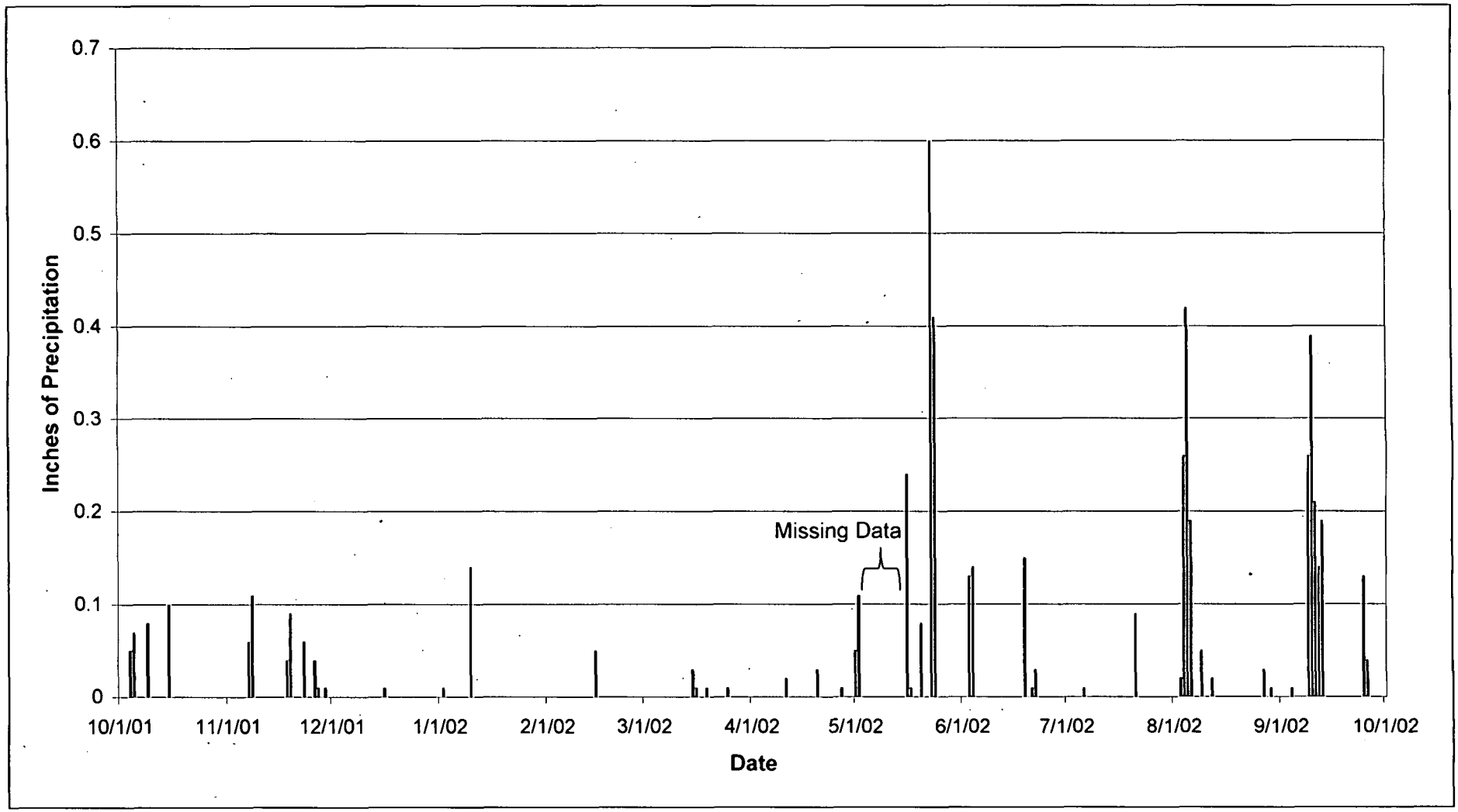

Figure A-4. WY02 Annual Hyetograph at PG56: Telemetry Repeater Node RPT3.

Table A-51. WY02 Precipitation Summary for PG56: Telemetry Repeater Node RPT3.

Water Year 2002: Daily Total Precipitation Values in Inches

Day	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.11	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.00	0.02	0.00
4	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.26	0.01
5	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.42	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.19	0.00
7	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.26
10	0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.39
11	0.00	0.00	0.00	0.00	0.00	0.00	0.02	No Data	0.00	0.00	0.00	0.21
12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No Data	0.00	0.00	0.02	0.14
13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No Data	0.00	0.00	0.00	0.19
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15	0.10	0.00	0.00	0.00	0.05	0.03	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.01	0.00	0.00	0.01	0.00	0.24	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00
18	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	0.00	0.09	0.00	0.00	0.00	0.01	0.00	0.00	0.15	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.08	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.09	0.00	0.00
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00
23	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.60	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.41	0.00	0.00	0.00	0.00
25	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.13
26	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04
27	0.00	0.01	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.03	0.00
28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	0.01	0.00	0.00	NA	0.00	0.00	0.00	0.00	0.00	0.01	0.00
30	0.00	0.00	0.00	0.00	NA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31	0.00	NA	0.00	0.00	NA	0.00	NA	0.00	NA	0.00	0.00	NA
								Partial Data				

Precipitation

Monthly Total	0.30	0.42	0.01	0.15	0.05	0.06	0.06	1.50	0.46	0.10	1.00	1.37
Daily Maximum	0.10	0.11	0.01	0.14	0.05	0.03	0.03	0.60	0.15	0.09	0.42	0.39
								Partial Data				

Annual Summaries for WY02

Total Inches 5.48

Partial Data

KEY: No Data: Bad or missing data due to equipment failures

A.2.5 PG58: Gaging Station GS01

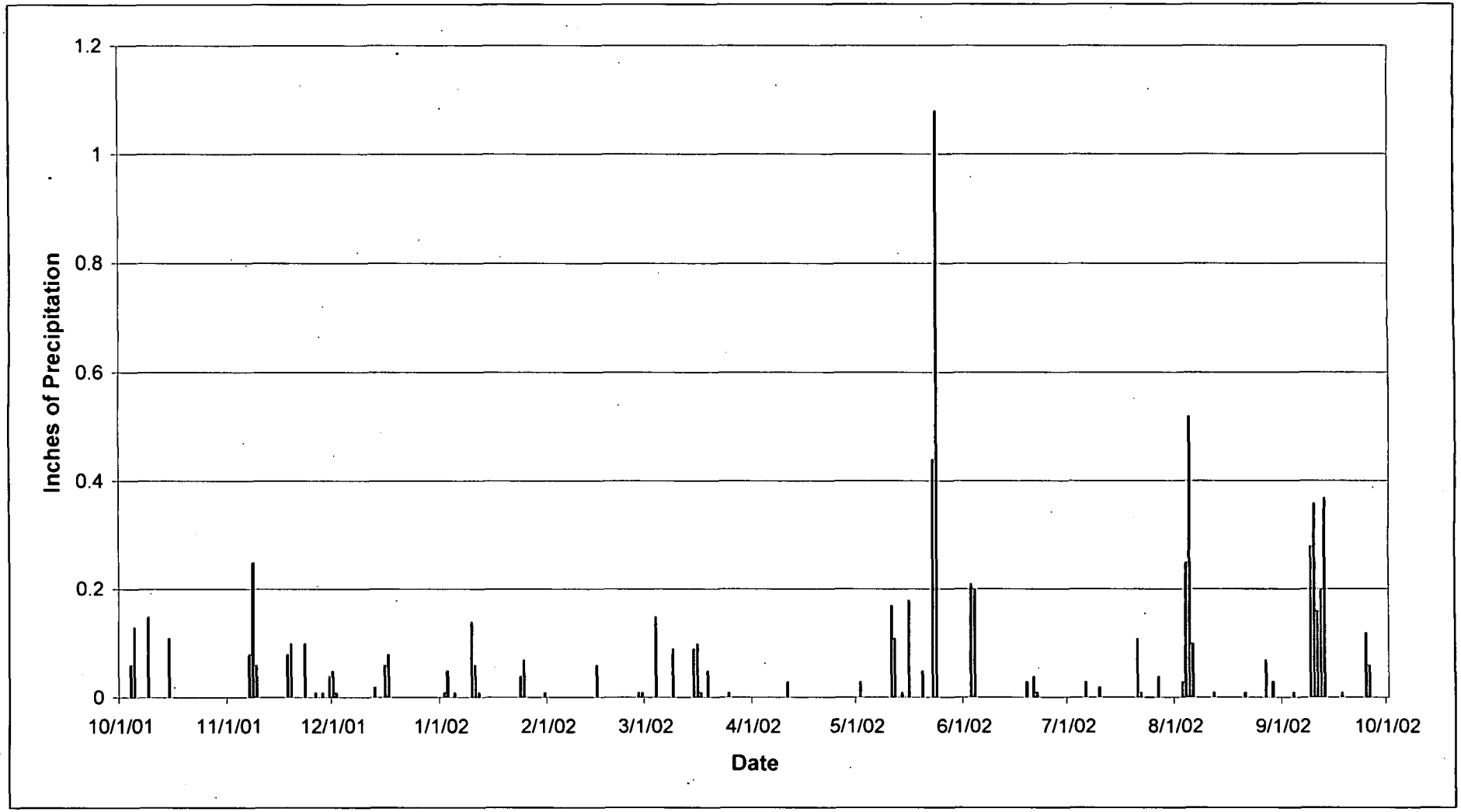

Figure A-5. WY02 Annual Hyetograph at PG58: Gaging Station GS01.

Table A-52. WY02 Precipitation Summary for PG58: Gaging Station GS01.

Water Year 2002: Daily Total Precipitation Values in Inches

Day	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02
1	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.21	0.00	0.03	0.00
4	0.06	0.00	0.00	0.00	0.00	0.15	0.00	0.00	0.20	0.00	0.25	0.01
5	0.13	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.10	0.00
7	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.15	0.06	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.28
10	0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.36
11	0.00	0.00	0.00	0.06	0.00	0.00	0.03	0.17	0.00	0.00	0.00	0.16
12	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.11	0.00	0.00	0.01	0.20
13	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.37
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00
15	0.11	0.00	0.00	0.00	0.06	0.09	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.06	0.00	0.00	0.10	0.00	0.18	0.00	0.00	0.00	0.00
17	0.00	0.00	0.08	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
19	0.00	0.10	0.00	0.00	0.00	0.05	0.00	0.00	0.03	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.11	0.01	0.00
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00
23	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.44	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.04	0.00	0.00	0.00	1.08	0.00	0.00	0.00	0.00
25	0.00	0.00	0.00	0.07	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.12
26	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06
27	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.04	0.07	0.00
28	0.00	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	0.00	NA	0.00	0.00	0.00	0.00	0.00	0.03	0.00
30	0.00	0.04	0.00	0.00	NA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31	0.00	NA	0.00	0.01	NA	0.00	NA	0.00	NA	0.00	0.00	NA

Precipitation

Monthly Total	0.45	0.73	0.22	0.40	0.08	0.50	0.03	2.07	0.49	0.21	1.02	1.57
Daily Maximum	0.15	0.25	0.08	0.14	0.06	0.15	0.03	1.08	0.21	0.11	0.52	0.37

Annual Summaries for WY02

Total Inches 7.77

KEY: No Data: Bad or missing data due to equipment failures

A.2.6 PG59: Gaging Station GS03

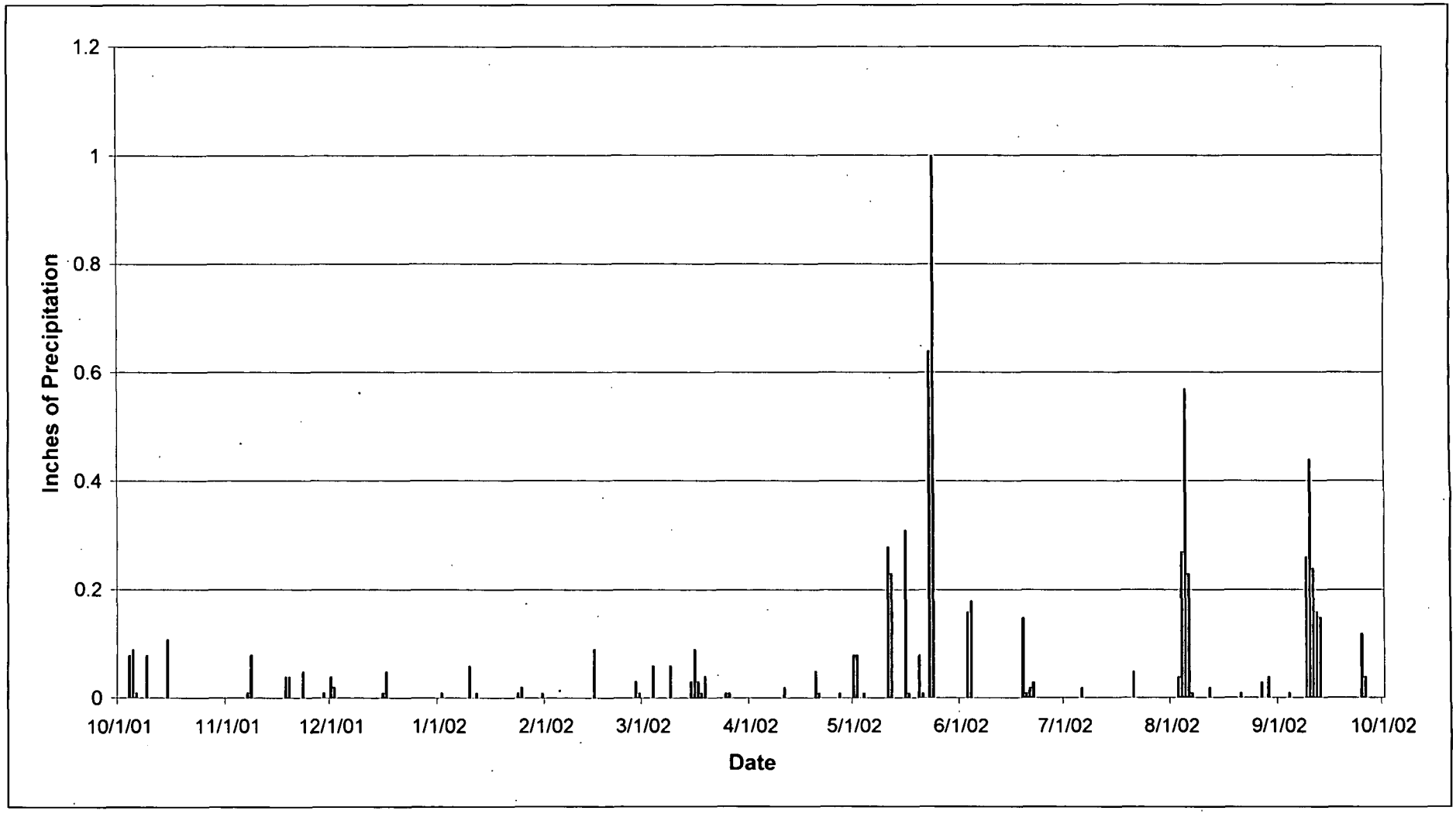

Figure A-6. WY02 Annual Hyetograph at PG59: Gaging Station GS03.

Table A-53. WY02 Precipitation Summary for PG59: Gaging Station GS03.

Water Year 2002: Daily Total Precipitation Values in Inches

Day	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02
1	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.08	0.00	0.00	0.00	0.00
2	0.00	0.00	0.02	0.01	0.00	0.00	0.00	0.08	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.00	0.04	0.00
4	0.08	0.00	0.00	0.00	0.00	0.06	0.00	0.01	0.18	0.00	0.27	0.01
5	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.57	0.00
6	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.23	0.00
7	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00
8	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.08	0.00	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.26
10	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.44
11	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.28	0.00	0.00	0.00	0.24
12	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.23	0.00	0.00	0.02	0.16
13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.15
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15	0.11	0.00	0.00	0.00	0.09	0.03	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.01	0.00	0.00	0.09	0.00	0.31	0.00	0.00	0.00	0.00
17	0.00	0.00	0.05	0.00	0.00	0.03	0.00	0.01	0.00	0.00	0.00	0.00
18	0.00	0.04	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
19	0.00	0.04	0.00	0.00	0.00	0.04	0.00	0.00	0.15	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.08	0.01	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.02	0.05	0.01	0.00
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00
23	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.64	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.01	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.12
26	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.04
27	0.00	0.00	0.00	0.00	0.03	0.00	0.01	0.00	0.00	0.00	0.03	0.00
28	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	0.01	0.00	0.00	NA	0.00	0.00	0.00	0.00	0.00	0.04	0.00
30	0.00	0.00	0.00	0.00	NA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31	0.00	NA	0.00	0.01	NA	0.00	NA	0.00	NA	0.00	0.00	NA

Precipitation

Monthly Total	0.37	0.23	0.12	0.12	0.13	0.34	0.09	2.73	0.55	0.07	1.22	1.42
Daily Maximum	0.11	0.08	0.05	0.06	0.09	0.09	0.05	1.00	0.18	0.05	0.57	0.44

Annual Summaries for WY02

Total Inches: 7.39

KEY: No Data: Bad or missing data due to equipment failures

A.2.7 PG60: Gaging Station GS04

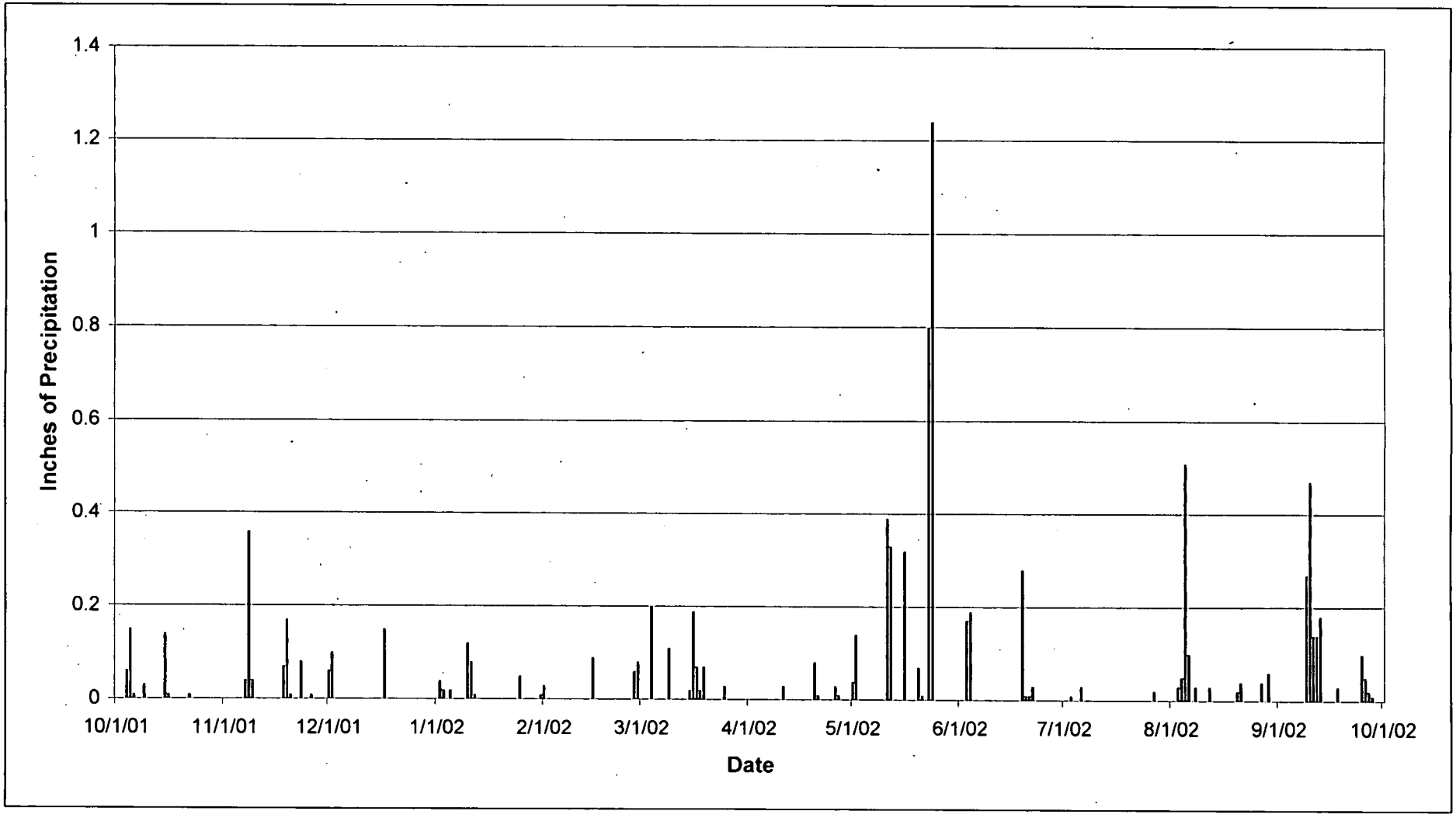

Figure A-7. WY02 Annual Hyetograph at PG60: Gaging Station GS04.

Table A-54. WY02 Precipitation Summary for PG60: Gaging Station GS04.

Water Year 2002: Daily Total Precipitation Values in Inches

Day	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02
1	0.00	0.00	0.06	0.00	0.03	0.00	0.00	0.04	0.00	0.00	0.00	0.00
2	0.00	0.00	0.10	0.04	0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.17	0.01	0.03	0.00
4	0.06	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.19	0.00	0.05	0.00
5	0.15	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.51	0.00
6	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.10	0.00
7	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00
9	0.03	0.04	0.00	0.00	0.00	0.11	0.00	0.00	0.00	0.00	0.00	0.27
10	0.00	0.00	0.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.47
11	0.00	0.00	0.00	0.08	0.00	0.00	0.03	0.39	0.00	0.00	0.00	0.14
12	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.33	0.00	0.00	0.03	0.14
13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.18
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15	0.14	0.00	0.00	0.00	0.09	0.02	0.00	0.00	0.00	0.00	0.00	0.00
16	0.01	0.00	0.00	0.00	0.00	0.19	0.00	0.32	0.00	0.00	0.00	0.00
17	0.00	0.00	0.15	0.00	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.07	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.03
19	0.00	0.17	0.00	0.00	0.00	0.07	0.00	0.00	0.28	0.00	0.00	0.00
20	0.00	0.01	0.00	0.00	0.00	0.00	0.08	0.07	0.01	0.00	0.02	0.00
21	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.00	0.04	0.00
22	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00
23	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.80	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.24	0.00	0.00	0.00	0.00
25	0.00	0.00	0.00	0.05	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.10
26	0.00	0.01	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.05
27	0.00	0.00	0.00	0.00	0.06	0.00	0.01	0.00	0.00	0.02	0.04	0.02
28	0.00	0.00	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.01
29	0.00	0.00	0.00	0.00	NA	0.00	0.00	0.00	0.00	0.00	0.06	0.00
30	0.00	0.00	0.00	0.00	NA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31	0.00	NA	0.00	0.01	NA	0.00	NA	0.00	NA	0.00	0.00	NA

Precipitation

Monthly Total	0.41	0.78	0.31	0.35	0.26	0.71	0.16	3.34	0.69	0.06	0.91	1.41
Daily Maximum	0.15	0.36	0.15	0.12	0.09	0.20	0.08	1.24	0.28	0.03	0.51	0.47

Annual Summaries for WY02

Total Inches: 9.39

KEY: No Data: Bad or missing data due to equipment failures

A.2.8 PG61: Gaging Station GS05

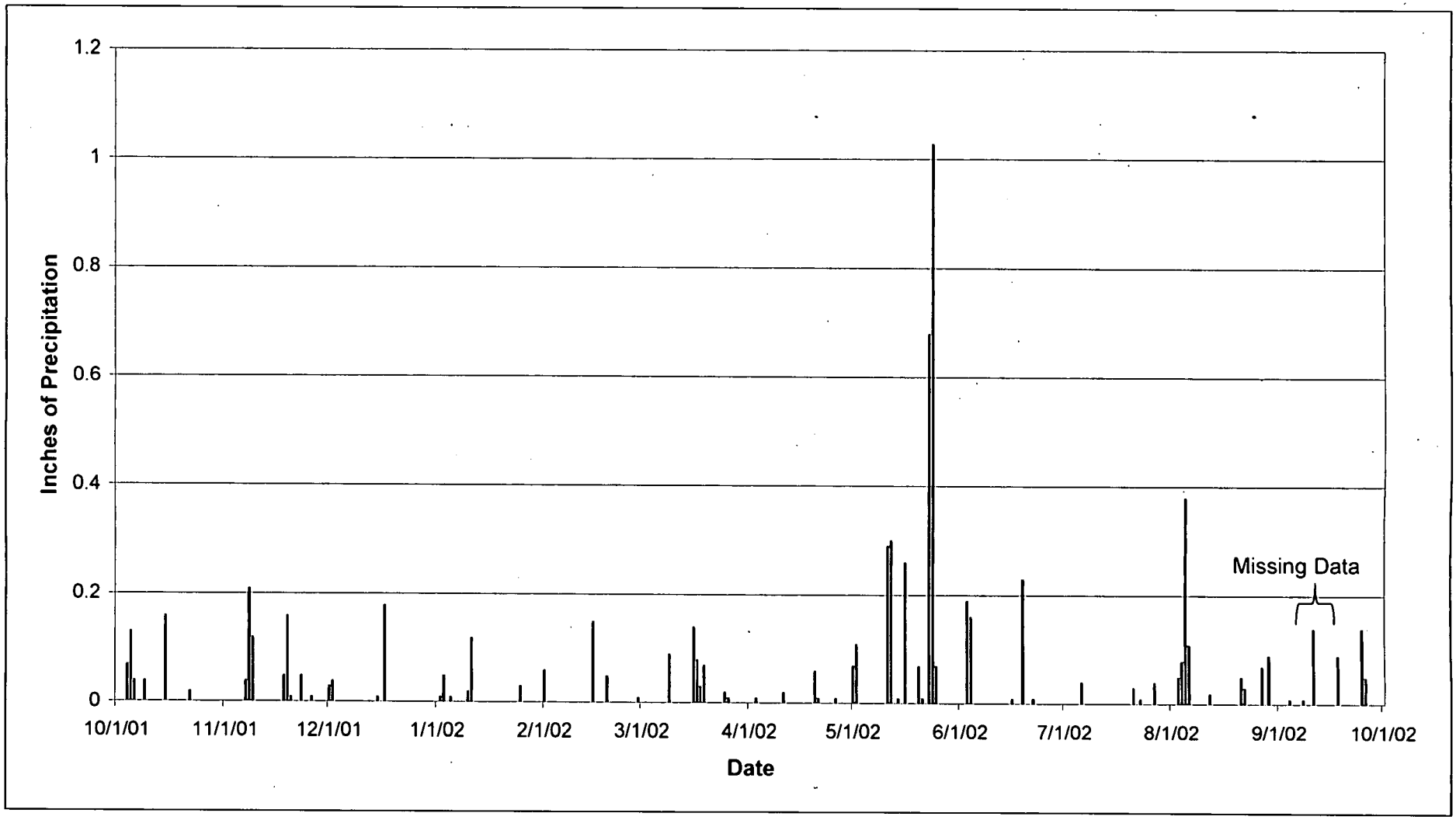

Figure A-8. WY02 Annual Hyetograph at PG61: Gaging Station GS05.

Table A-55. WY02 Precipitation Summary for PG61: Gaging Station GS05.

Water Year 2002: Daily Total Precipitation Values in Inches

Day	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02
1	0.00	0.00	0.03	0.00	0.06	0.00	0.00	0.07	0.00	0.00	0.00	0.00
2	0.00	0.00	0.04	0.01	0.00	0.00	0.00	0.11	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.05	0.00	0.00	0.01	0.00	0.19	0.00	0.05	0.00
4	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.00	0.08	0.01
5	0.13	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.38	0.00
6	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.11	0.00
7	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
9	0.04	0.12	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.00	0.00	No Data
10	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No Data
11	0.00	0.00	0.00	0.12	0.00	0.00	0.02	0.29	0.00	0.00	0.00	0.14
12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.30	0.00	0.00	0.02	No Data
13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No Data
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00
15	0.16	0.00	0.01	0.00	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.26	0.01	0.00	0.00	0.00
17	0.00	0.00	0.18	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.05	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.09
19	0.00	0.16	0.00	0.00	0.05	0.07	0.00	0.00	0.23	0.00	0.00	0.00
20	0.00	0.01	0.00	0.00	0.00	0.00	0.06	0.07	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.03	0.05	0.00
22	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.03	0.00
23	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.68	0.00	0.01	0.00	0.00
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.03	0.00	0.00	0.00	0.00
25	0.00	0.00	0.00	0.03	0.00	0.02	0.00	0.07	0.00	0.00	0.00	0.14
26	0.00	0.01	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.05
27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.07	0.00
28	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	0.00	NA	0.00	0.00	0.00	0.00	0.00	0.09	0.00
30	0.00	0.00	0.00	0.00	NA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31	0.00	NA	0.00	0.00	NA	0.00	NA	0.00	NA	0.00	0.00	NA

Partial Data

Precipitation

Monthly Total	0.46	0.65	0.26	0.24	0.27	0.44	0.11	2.90	0.60	0.12	0.88	0.44
Daily Maximum	0.16	0.21	0.18	0.12	0.15	0.14	0.06	1.03	0.23	0.04	0.38	0.14

Partial Data

KEY: No Data: Bad or missing data due to equipment failures

Annual Summaries for WY02

Total Inches 7.37

Partial Data

A.2.9 PG62: Gaging Station SW118

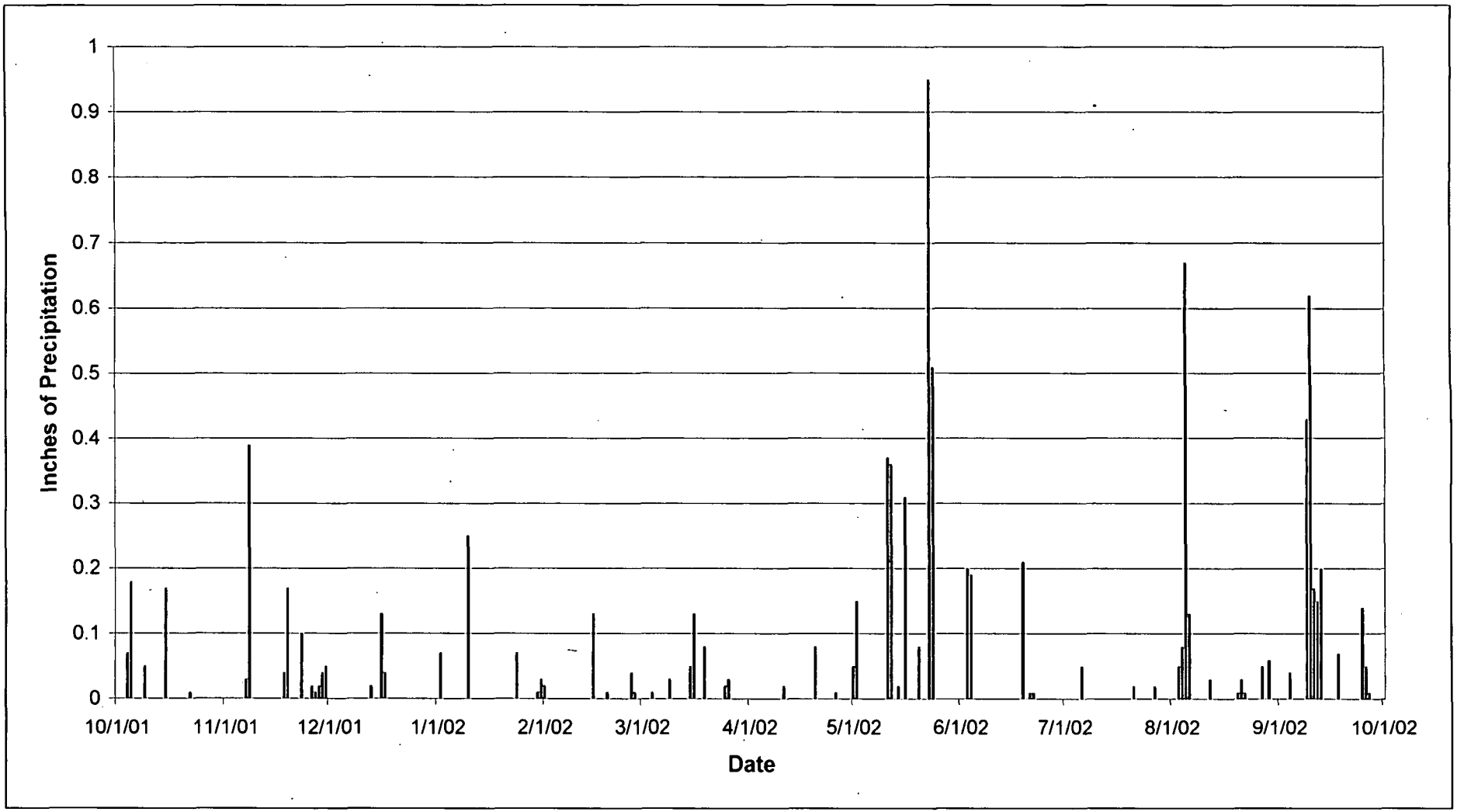

Figure A-9. WY02 Annual Hyetograph at PG62: Gaging Station SW118.

Table A-56. WY02 Precipitation Summary for PG62: Gaging Station SW118.

Water Year 2002: Daily Total Precipitation Values in Inches

Day	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02
1	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.05	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.07	0.00	0.00	0.00	0.15	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.05	0.00
4	0.07	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.19	0.00	0.08	0.04
5	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.67	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.13	0.00
7	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.05	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.43
10	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.62
11	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.37	0.00	0.00	0.00	0.17
12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.36	0.00	0.00	0.03	0.15
13	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00
15	0.17	0.00	0.00	0.00	0.13	0.05	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.13	0.00	0.00	0.13	0.00	0.31	0.00	0.00	0.00	0.00
17	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07
19	0.00	0.17	0.00	0.00	0.01	0.08	0.00	0.00	0.21	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.08	0.00	0.00	0.01	0.00
21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.03	0.00
22	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00
23	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.95	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.07	0.00	0.00	0.00	0.51	0.00	0.00	0.00	0.00
25	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.14
26	0.00	0.02	0.00	0.00	0.04	0.03	0.01	0.00	0.00	0.00	0.00	0.05
27	0.00	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.02	0.05	0.01
28	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	0.04	0.00	0.00	NA	0.00	0.00	0.00	0.00	0.00	0.06	0.00
30	0.00	0.05	0.00	0.01	NA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31	0.00	NA	0.00	0.03	NA	0.00	NA	0.00	NA	0.00	0.00	NA
Precipitation												
Monthly Total	0.48	0.87	0.19	0.43	0.21	0.35	0.11	2.80	0.62	0.09	1.12	1.88
Daily Maximum	0.18	0.39	0.13	0.25	0.13	0.13	0.08	0.95	0.21	0.05	0.67	0.62

KEY: No Data: Bad or missing data due to equipment failures

Annual Summaries for WY02

Total Inches 9.15

A.2.10 PG64: Gaging Station GS27

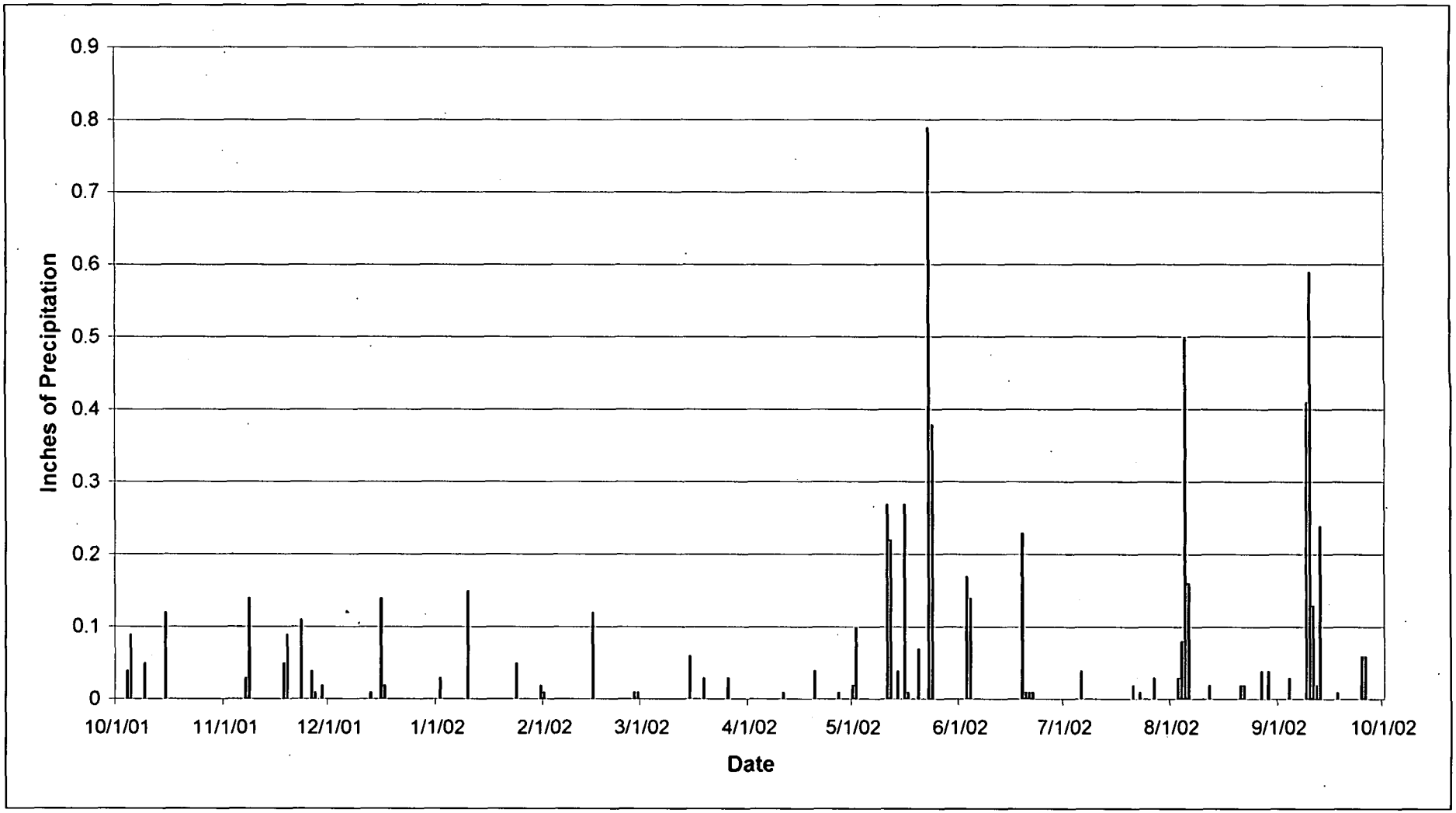

Figure A-10. WY02 Annual Hyetograph at PG64: Gaging Station GS27.

Table A-57. WY02 Precipitation Summary for PG64: Gaging Station GS27.

Water Year 2002: Daily Total Precipitation Values in Inches

Day	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02
1	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.02	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.00	0.03	0.00
4	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.08	0.03
5	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.50	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.16	0.00
7	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.41
10	0.00	0.00	0.00	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.59
11	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.27	0.00	0.00	0.00	0.13
12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.22	0.00	0.00	0.02	0.02
13	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.24
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00
15	0.12	0.00	0.00	0.00	0.12	0.06	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.14	0.00	0.00	0.00	0.00	0.27	0.00	0.00	0.00	0.00
17	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00
18	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
19	0.00	0.09	0.00	0.00	0.00	0.03	0.00	0.00	0.23	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.07	0.01	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.02	0.00
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.02	0.00
23	0.00	0.11	0.00	0.00	0.00	0.00	0.00	0.79	0.00	0.01	0.00	0.00
24	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.38	0.00	0.00	0.00	0.00
25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06
26	0.00	0.04	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.06
27	0.00	0.01	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.03	0.04	0.00
28	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	0.02	0.00	0.00	NA	0.00	0.00	0.00	0.00	0.00	0.04	0.00
30	0.00	0.00	0.00	0.00	NA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31	0.00	NA	0.00	0.02	NA	0.00	NA	0.00	NA	0.00	0.00	NA

Precipitation

Monthly Total	0.30	0.49	0.17	0.25	0.15	0.12	0.06	2.17	0.57	0.10	0.91	1.55
Daily Maximum	0.12	0.14	0.14	0.15	0.12	0.06	0.04	0.79	0.23	0.04	0.50	0.59

Annual Summaries for WY02

Total Inches 6.84

KEY: No Data: Bad or missing data due to equipment failures

A.2.11 PG69: Gaging Station GS16

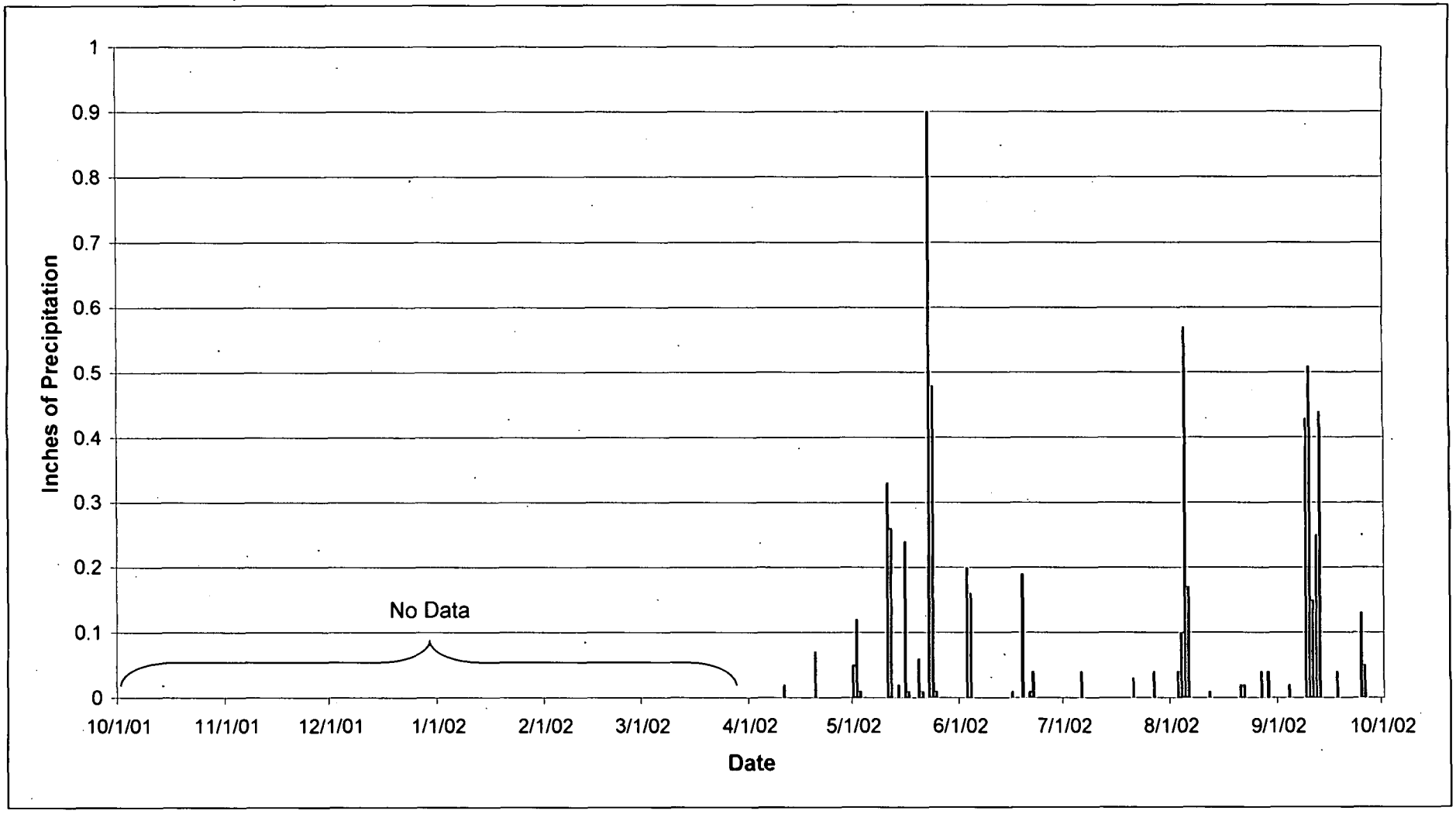

Figure A-11. WY02 Annual Hyetograph at PG69: Gaging Station GS16.

Table A-58. WY02 Precipitation Summary for PG69: Gaging Station GS16.

Water Year 2002: Daily Total Precipitation Values in Inches

Day	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02
1	No Data	No Data	No Data	No Data	No Data	No Data	0.00	0.05	0.00	0.00	0.00	0.00
2	No Data	No Data	No Data	No Data	No Data	No Data	0.00	0.12	0.00	0.00	0.00	0.00
3	No Data	No Data	No Data	No Data	No Data	No Data	0.00	0.01	0.20	0.00	0.04	0.00
4	No Data	No Data	No Data	No Data	No Data	No Data	0.00	0.00	0.16	0.00	0.10	0.02
5	No Data	No Data	No Data	No Data	No Data	No Data	0.00	0.00	0.00	0.00	0.57	0.00
6	No Data	No Data	No Data	No Data	No Data	No Data	0.00	0.00	0.00	0.04	0.17	0.00
7	No Data	No Data	No Data	No Data	No Data	No Data	0.00	0.00	0.00	0.00	0.00	0.00
8	No Data	No Data	No Data	No Data	No Data	No Data	0.00	0.00	0.00	0.00	0.00	0.00
9	No Data	No Data	No Data	No Data	No Data	No Data	0.00	0.00	0.00	0.00	0.00	0.43
10	No Data	No Data	No Data	No Data	No Data	No Data	0.00	0.00	0.00	0.00	0.00	0.51
11	No Data	No Data	No Data	No Data	No Data	No Data	0.02	0.33	0.00	0.00	0.00	0.15
12	No Data	No Data	No Data	No Data	No Data	No Data	0.00	0.26	0.00	0.00	0.01	0.25
13	No Data	No Data	No Data	No Data	No Data	No Data	0.00	0.00	0.00	0.00	0.00	0.44
14	No Data	No Data	No Data	No Data	No Data	No Data	0.00	0.02	0.00	0.00	0.00	0.00
15	No Data	No Data	No Data	No Data	No Data	No Data	0.00	0.00	0.00	0.00	0.00	0.00
16	No Data	No Data	No Data	No Data	No Data	No Data	0.00	0.24	0.01	0.00	0.00	0.00
17	No Data	No Data	No Data	No Data	No Data	No Data	0.00	0.01	0.00	0.00	0.00	0.00
18	No Data	No Data	No Data	No Data	No Data	No Data	0.00	0.00	0.00	0.00	0.00	0.04
19	No Data	No Data	No Data	No Data	No Data	No Data	0.00	0.00	0.19	0.00	0.00	0.00
20	No Data	No Data	No Data	No Data	No Data	No Data	0.07	0.06	0.00	0.00	0.00	0.00
21	No Data	No Data	No Data	No Data	No Data	No Data	0.00	0.01	0.01	0.03	0.02	0.00
22	No Data	No Data	No Data	No Data	No Data	No Data	0.00	0.00	0.04	0.00	0.02	0.00
23	No Data	No Data	No Data	No Data	No Data	No Data	0.00	0.90	0.00	0.00	0.00	0.00
24	No Data	No Data	No Data	No Data	No Data	No Data	0.00	0.48	0.00	0.00	0.00	0.00
25	No Data	No Data	No Data	No Data	No Data	No Data	0.00	0.01	0.00	0.00	0.00	0.13
26	No Data	No Data	No Data	No Data	No Data	No Data	0.00	0.00	0.00	0.00	0.00	0.05
27	No Data	No Data	No Data	No Data	No Data	0.00	0.00	0.00	0.00	0.04	0.04	0.00
28	No Data	No Data	No Data	No Data	No Data	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	No Data	No Data	No Data	No Data	NA	0.00	0.00	0.00	0.00	0.00	0.04	0.00
30	No Data	No Data	No Data	No Data	NA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31	No Data	NA	No Data	No Data	NA	0.00	NA	0.00	NA	0.00	0.00	NA
	No Data	No Data	No Data	No Data	No Data	Partial Data						

Precipitation

Monthly Total	0.00	0.00	0.00	0.00	0.00	0.00	0.09	2.50	0.61	0.11	1.01	2.02
Daily Maximum	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.90	0.20	0.04	0.57	0.51
	No Data	No Data	No Data	No Data	No Data	Partial Data						

Annual Summaries for WY02

Total Inches: 6.34
Partial Data

KEY: No Data: Bad or missing data due to equipment failures

A.2.12 PG70: Gaging Station SW091

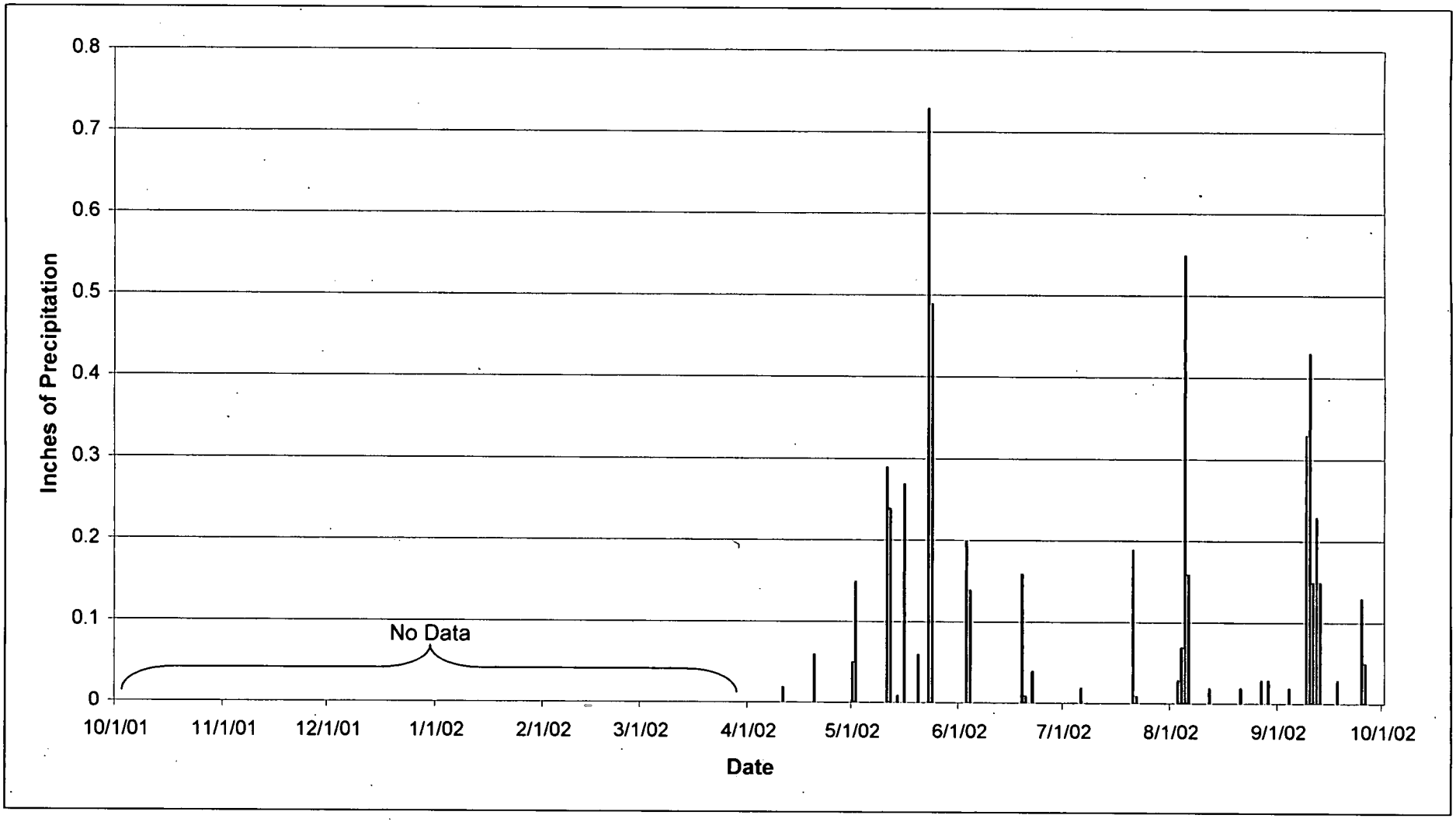

Figure A-12. WY02 Annual Hyetograph at PG70: Gaging Station SW091.

Table A-59. WY02 Precipitation Summary for PG70: Gaging Station SW091.

Water Year 2002: Daily Total Precipitation Values in Inches

Day	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02
1	No Data	No Data	No Data	No Data	No Data	No Data	0.00	0.05	0.00	0.00	0.00	0.00
2	No Data	No Data	No Data	No Data	No Data	No Data	0.00	0.15	0.00	0.00	0.00	0.00
3	No Data	No Data	No Data	No Data	No Data	No Data	0.00	0.00	0.20	0.00	0.03	0.00
4	No Data	No Data	No Data	No Data	No Data	No Data	0.00	0.00	0.14	0.00	0.07	0.02
5	No Data	No Data	No Data	No Data	No Data	No Data	0.00	0.00	0.00	0.00	0.55	0.00
6	No Data	No Data	No Data	No Data	No Data	No Data	0.00	0.00	0.00	0.02	0.16	0.00
7	No Data	No Data	No Data	No Data	No Data	No Data	0.00	0.00	0.00	0.00	0.00	0.00
8	No Data	No Data	No Data	No Data	No Data	No Data	0.00	0.00	0.00	0.00	0.00	0.00
9	No Data	No Data	No Data	No Data	No Data	No Data	0.00	0.00	0.00	0.00	0.00	0.33
10	No Data	No Data	No Data	No Data	No Data	No Data	0.00	0.00	0.00	0.00	0.00	0.43
11	No Data	No Data	No Data	No Data	No Data	No Data	0.02	0.29	0.00	0.00	0.00	0.15
12	No Data	No Data	No Data	No Data	No Data	No Data	0.00	0.24	0.00	0.00	0.02	0.23
13	No Data	No Data	No Data	No Data	No Data	No Data	0.00	0.00	0.00	0.00	0.00	0.15
14	No Data	No Data	No Data	No Data	No Data	No Data	0.00	0.01	0.00	0.00	0.00	0.00
15	No Data	No Data	No Data	No Data	No Data	No Data	0.00	0.00	0.00	0.00	0.00	0.00
16	No Data	No Data	No Data	No Data	No Data	No Data	0.00	0.27	0.00	0.00	0.00	0.00
17	No Data	No Data	No Data	No Data	No Data	No Data	0.00	0.00	0.00	0.00	0.00	0.00
18	No Data	No Data	No Data	No Data	No Data	No Data	0.00	0.00	0.00	0.00	0.00	0.03
19	No Data	No Data	No Data	No Data	No Data	No Data	0.00	0.00	0.16	0.00	0.00	0.00
20	No Data	No Data	No Data	No Data	No Data	No Data	0.06	0.06	0.01	0.00	0.00	0.00
21	No Data	No Data	No Data	No Data	No Data	No Data	0.00	0.00	0.00	0.19	0.02	0.00
22	No Data	No Data	No Data	No Data	No Data	No Data	0.00	0.00	0.04	0.01	0.00	0.00
23	No Data	No Data	No Data	No Data	No Data	No Data	0.00	0.73	0.00	0.00	0.00	0.00
24	No Data	No Data	No Data	No Data	No Data	No Data	0.00	0.49	0.00	0.00	0.00	0.00
25	No Data	No Data	No Data	No Data	No Data	No Data	0.00	0.00	0.00	0.00	0.00	0.13
26	No Data	No Data	No Data	No Data	No Data	No Data	0.00	0.00	0.00	0.00	0.00	0.05
27	No Data	No Data	No Data	No Data	No Data	No Data	0.00	0.00	0.00	0.00	0.03	0.00
28	No Data	No Data	No Data	No Data	No Data	No Data	0.00	0.00	0.00	0.00	0.00	0.00
29	No Data	No Data	No Data	No Data	NA	0.00	0.00	0.00	0.00	0.00	0.03	0.00
30	No Data	No Data	No Data	No Data	NA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31	No Data	NA	No Data	No Data	NA	0.00	NA	0.00	NA	0.00	0.00	NA
	No Data	No Data	No Data	No Data	No Data	Partial Data						

Precipitation

Monthly Total	0.00	0.00	0.00	0.00	0.00	0.00	0.08	2.29	0.55	0.22	0.91	1.52
Daily Maximum	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.73	0.20	0.19	0.55	0.43
	No Data	No Data	No Data	No Data	No Data	Partial Data						

Annual Summaries for WY02

Total Inches 5.57
Partial Data

KEY: No Data: Bad or missing data due to equipment failures

APPENDIX B: WATER-QUALITY DATA

B.1 ANALYTICAL DATA EVALUATION METHODS

95% UTLs / LTLs

Evaluation of analytical water-quality data using UTLs/LTLs is currently performed for the Performance and NSD monitoring objectives. The method is as follows:

- Tolerance limits are calculated semi-monthly for each monitoring location.
- Data sets are generally selected to cover a moving 3-year window of time.[1] The intent is to evaluate for statistically significant changes in water-quality while attempting to minimize seasonal and hydrologic fluctuations.[2]
- When a negative radionuclide result (e.g. -0.002 pCi/l) is returned from the lab due to blank correction, then a value of ½ the MDA is used for calculation purposes. When an undetect is returned from the lab for metals analyses, then half the detection limit is used for calculation purposes. When a sample has a corresponding field duplicate, the value used in calculations is the arithmetic average of the 'real' value and the 'duplicate'. When a sample has multiple 'real' analyses ('re-runs'), the value used in calculations is the arithmetic average of the multiple 'real' analyses.
- The distribution of the data (assumed normal or log-normal) is established using probability plotting (histogram), skewness, D'Agostino's Test ($n \geq 50$), and the W test ($n \leq 50$).
- Based on the distribution(s), 95% tolerance limits with 95% confidence are calculated.
- Individual data are then compared to these tolerance limits, and decision are made based on that comparison tempered by professional judgment.[3]

30-Day Volume-Weighted Moving Averages

Evaluation of analytical data using 30-day volume-weighted moving averages is currently performed for the POE and POC monitoring objectives. The method is as follows:

- 30-day averages are calculated semi-monthly for each POC and POE (within one week of the 15th and last day of each month).
- Calculations are performed using daily time steps. The 30-day average for a particular day is calculated using a 'window' of time which includes the previous 30 days that had both flow and analytical measurements. Therefore, for a location with continuous flow and complete analytical results, 365 (366 in a leap year) 30-day average values are calculated annually. For a location that flows intermittently, the 30-day window includes the previous 30 days with greater than zero flow. Therefore, the 30-day average at an intermittently flowing location will include more than 30 *calendar* days.

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[1] A 3-year moving window is chosen where possible. For many Performance locations, monitoring only lasts a year or two. Under those circumstances, all data is used, and particular qualitative/quantitative attention is given to the effects of hydrology and seasonality on the results.

[2] Closure activities are expected to result in modifications to contaminant source areas, drainage pathways, and runoff distribution. Such changes in water quality would not necessarily be indicative of a release. Consequently, tolerance limits are being used here to help identify acute releases of contaminants as opposed to long-term changes in water quality. The shortcoming of this approach is that chronic releases may not be indicated by comparison with tolerance limits; however, significant chronic trends should be measured through the POE and POC monitoring objectives.

[3] Evaluation will address persistence, trends, and risk of Action Level and/or Standard exceedances at POEs and POCs.

- When no analytical result or measured flow value is available for a particular day, then no 30-day average is calculated for that day (per IMP guidelines). No analytical result may be available either due to a non-sufficient quantity for analysis (referred to as an NSQ condition in the IMP) or a failed lab analysis. Flow measurement may be missing due to equipment failures or adverse weather conditions (winter freezing).
- Each calendar day is assigned the activity or concentration (analytical result in pCi/l or µg/L) of the composite sample that was filling at the end of that day (specifically, at 23:59:59). When a negative radionuclide result (e.g. -0.002 pCi/l) is returned from the lab due to blank correction, then a value of 0.0 pCi/l is used for calculation purposes. When an undetect is returned from the lab for metals analyses, then half the detection limit is used for calculation purposes. When a sample has a corresponding field duplicate, the value used in calculations is the arithmetic average of the 'real' value and the 'duplicate'. When a sample has multiple 'real' analyses ('re-runs'), the value used in calculations is the arithmetic average of the multiple 'real' analyses.
- Each calendar day has an associated surface-water volume (liters) that was measured by the flow meter. Flow record may contain estimated values for certain conditions.[4]
- The daily surface-water volume is then multiplied by the corresponding activity/concentration to calculate a load (in pCi or µg) for each day.
- The sum of the daily loads (pCi or µg) for the preceding 30-days (with both flow and an analytical result) is divided by the sum of the daily surface-water volumes (liters) for the preceding 30-days to calculate the volume-weighted 30-day average (pCi/L or µg/L). The equation can be given as follows:

$$\frac{\sum_{day=0}^{day=-29}[picocuries]}{\sum_{day=0}^{day=-29}[liters]} = 30day\ Average_{day=0}[pCi/L]$$

- The 30-day volume-weighted average values are then rounded to 2 significant figures. No rounding occurs with the measured input numbers prior to calculation of the 30-day averages. Only the final calculated value is rounded. For example, a calculated value of 0.124 pCi/L would be rounded to 0.12 pCi/L. Similarly, a value of 0.246 pCi/L would be rounded to 0.25 pCi/L.
- These 30-day averages are then compared to the appropriate Action Levels and Standards and reported according to the requirements of the IMP and RFCA.

365 Calendar-Day Volume-Weighted Moving Averages

Evaluation of analytical data using 365 calendar-day volume-weighted moving averages is being proposed for post-Closure monitoring objectives. The method is as follows:

- 365 calendar-day averages are calculated monthly for each location (on last day of each month).
- Calculations are performed using daily time steps. The 365 calendar-day average for a particular day is calculated using a 'window' of time which includes the previous 365 calendar days. Therefore, for a location with continuous flow and complete analytical results, 365 (366 in a leap year) daily values are included in each 'window'. For a location that flows intermittently, the 365 calendar-day window will include fewer than 365 daily values, since days of zero flow have no applicable analytical result.
- When no analytical result or measured flow value is available for a particular day, then the day is not included in the 365 calendar-day 'window'. No analytical result may be available either due to a non-

[4] Estimation is required when flow rates exceed the capacity of the flow-control structure (e.g., a flume), winter ice conditions result in an inaccurate measurement, or there is an equipment failure.

sufficient quantity for analysis (referred to as an NSQ condition in the IMP) or a failed lab analysis. Flow measurement may be missing due to equipment failures or adverse weather conditions (winter freezing).

- Each calendar day is assigned the activity (analytical result in pCi/l) of the composite sample that was filling at the end of that day (specifically, at 23:59:59). When a negative radionuclide result (e.g. -0.002 pCi/l) is returned from the lab due to blank correction, then a value of 0.0 pCi/l is used for calculation purposes. When a sample has a corresponding field duplicate, the value used in calculations is the arithmetic average of the 'real' value and the 'duplicate'. When a sample has multiple 'real' analyses ('re-runs'), the value used in calculations is the arithmetic average of the multiple 'real' analyses.
- Each calendar day has an associated surface-water volume (liters) that was measured by the flow meter. Flow record may contain estimated values for certain conditions.[5]
- The daily surface-water volume is then multiplied by the corresponding activity to calculate a load (in pCi) for each day.
- The sum of the daily loads (pCi) for the preceding 365 calendar-days (with both flow and an analytical result) is divided by the sum of the daily surface-water volumes (liters) for the preceding 365 calendar-days to calculate the volume-weighted 365 calendar-day average (pCi/L). The equation can be given as follows:

$$\frac{\sum_{day=0}^{day=-364}[picocuries]}{\sum_{day=0}^{day=-364}[liters]} = 365\ calendar-day\ Average_{day=0}[pCi/L]$$

- The 365 calendar-day volume-weighted average values are then rounded to 2 significant figures. No rounding occurs with the measured input numbers prior to calculation of the 365 calendar-day averages. Only the final calculated value is rounded. For example, a calculated value of 0.124 pCi/L would be rounded to 0.12 pCi/L. Similarly, a value of 0.246 pCi/L would be rounded to 0.25 pCi/L.

Volume-Weighted Averages for Various Time Periods (Periodic Averages)

The method is as follows:

- The time-period for the volume-weighted average is selected (e.g., monthly, seasonal, annual, period of sampling, etc.).
- When a negative radionuclide result (e.g. -0.002 pCi/l) is returned from the lab due to blank correction, then a value of 0.0 pCi/l is used for calculation purposes. When an undetect is returned from the lab for metals analyses, then half the detection limit is used for calculation purposes. When a sample has a corresponding field duplicate, the value used in calculations is the arithmetic average of the 'real' value and the 'duplicate'. When a sample has multiple 'real' analyses ('re-runs'), the value used in calculations is the arithmetic average of the multiple 'real' analyses.
- The analytical result (pCi/L or µg/L) for a particular composite sample period[6] is multiplied by the associated flow volume (streamflow in liters) to obtain a load for each composite sample period (pCi or µg).[7]

[5] Estimation is required when flow rates exceed the capacity of the flow-control structure (e.g., a flume), winter ice conditions result in an inaccurate measurement, or there is an equipment failure.

[6] When no analytical result is available due to a failed lab analysis or a sample of non-sufficient quantity, the activity for the period of the missing analytical result is estimated. The activity is estimated using the annual or seasonal volume-weighted average or based on the location-specific Pu/Am ratio when only one analyte result is available. The estimation technique is chosen using professional judgment based on location.

- The sum of the individual composite-sampling period loads (for the selected time-period) is calculated in pCi or µg.
- The sum of the sample-period loads (pCi or µg) for the selected time-period is divided by the sum of the sample-period surface-water volumes (liters) to calculate the volume-weighted average (pCi/L or µg/L). The equation can be given as follows: $\frac{\sum_{start}^{end}[picocuries]}{\sum_{start}^{end}[liters]} = Volume-Weighted\ Average\ [pCi/L]$

Loading Analysis

Storm-Event Sampling Analytical Results

Load estimation for storm-event sampling is generally used to evaluate the relative radionuclide loads at monitoring locations that are tributary to POEs and POCs. The method is as follows:

- The time-period for loading comparison is selected (e.g., monthly, seasonal, annual, etc.).
- When a negative radionuclide result (e.g. -0.002 pCi/l) is returned from the lab due to blank correction, then a value of 0.0 pCi/l is used for calculation purposes. When a sample has a corresponding field duplicate, the value used in calculations is the arithmetic average of the 'real' value and the 'duplicate'. When a sample has multiple 'real' analyses ('re-runs'), the value used in calculations is the arithmetic average of the multiple 'real' analyses.
- The arithmetic average[8] of the analytical results (pCi/L) for the selected time-period is calculated.[9]
- The average activity is multiplied by the associated flow volume (liters) to obtain a load in pCi.

Continuous Flow-Paced Sampling Analytical Results

Load estimation for continuous flow-paced sampling is generally used to evaluate the relative radionuclide loads of tributary monitoring locations and as an estimation of actual loads at specific monitoring locations. The nature of the continuous sampling during all flow conditions allows for more accurate load calculations compared to storm-event sampling. The method is as follows:

- The time-period for loading comparison is selected (e.g., monthly, seasonal, annual, etc.).
- When a negative radionuclide result (e.g. -0.002 pCi/l) is returned from the lab due to blank correction, then a value of 0.0 pCi/l is used for calculation purposes. When a sample has a corresponding field duplicate, the value used in calculations is the arithmetic average of the 'real' value and the 'duplicate'. When a sample has multiple 'real' analyses ('re-runs'), the value used in calculations is the arithmetic average of the multiple 'real' analyses.

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[7] When a composite-sample period overlaps the selected time-period for loading, then a proportion of the load for the entire sampling period is calculated based on relative streamflow volume.

[8] In addition to arithmetic average activity, median activity, monthly and or seasonal average activity, the minimum variance unbiased (MVU) estimator of the mean activity, and/or other location-specific activity estimation method may be used. The intent is to establish a range of activity estimations (and corresponding load) in order to estimate a range of possible relative load contributions.

[9] It is unknown if the activity of storm-event runoff is representative of the overall activity of the surface-water discharge for a particular location. If it is assumed that actinide transport increases during high runoff periods (as TSS transport increases), then the average storm-event activity may be an overestimation of the overall activity. For example, at a location with a significant relative proportion of baseflow (assuming baseflow to be of lower activity), a higher load may be estimated than was actually transported. On the other hand, for a location with no flow other than direct runoff, the estimation may be more accurate. Regardless, for most loading estimations the intent is to examine relative loads for multiple tributary monitoring locations. When a relationship between flow rate and activity can be determined (or other relationship), this relationship may be used to estimate load and/or activity.

- The analytical result (pCi/L) for a particular composite sample period[6] is multiplied by the associated flow volume (streamflow in liters) to obtain a load for each composite sample period (pCi).[10]
- The sum of the individual composite-sampling period loads (for the selected time-period) is calculated in pCi.

Box-Whisker Plots

Box-whisker plots are generated using S-Plus statistical evaluation software. The following components are noted (Figure B-1):

- The median is displayed as a blue square point with a horizontal blue line.
- The inner quartile range (IQR) is displayed as a light blue box. The 75th percentile (upper hinge) defines the top of the box. The 25th percentile (lower hinge) defines the bottom of the box.
- The upper 'whisker' is plotted as the largest data value that is less than the upper inner fence (UIF). The UIF is not plotted but can be defined as $UIF = Upper\ Hinge + 1.5(IQR)$.
- The lower 'whisker' is plotted as the smallest data value that is greater than the lower inner fence (LIF). The LIF is not plotted but can be defined as $LIF = Lower\ Hinge - 1.5(IQR)$.
- Data points greater than the UIF or less than the LIF are plotted as red circles with a horizontal red line. These points are statistically classified as 'suspect' in relation to the dataset. These data points may be a result of laboratory error, unusually high of detection limits, and/or unexpected environmental variability. Further data analysis would be required to determine the cause of the 'suspect' values.

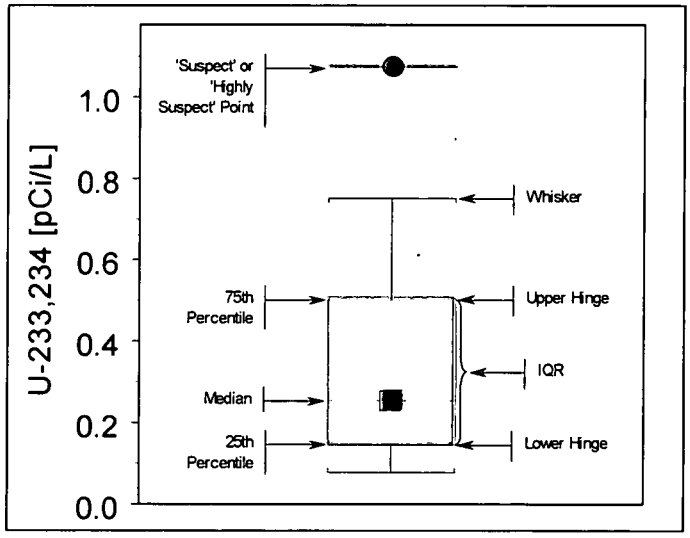

Figure B-1. Sample Box-Whisker Plot.

[10] When a composite-sample period overlaps the selected time-period for loading, then a proportion of the load for the entire sampling period is calculated based on relative streamflow volume.

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B.2 ANALYTICAL DATA

This section includes three tables of analytical data for Water Year 2002. Analytical results are given separately for (1) radionuclides, (2) metals and water-quality parameters, and (3) rinsate samples. Electronic copies of the tables are included in the Appendix Tables directory on the CD-ROM disc. The tables are given in a single Microsoft Excel file containing separate worksheets for each table.

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B.2.1 Radionuclides

Table B-1. Radionuclide Analytical Data: WY02.

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	2 Sigma Error	Validation
995POE	02D0361-003	10/25/2001	REAL	AMERICIUM-241	-0.003	PCI/L	TR1	U	0.019	0.002	V1
995POE	02D0361-003	10/25/2001	REAL	PLUTONIUM-239/240	0.003	PCI/L	TR1	U	0.020	0.014	V1
995POE	02D0361-003	10/25/2001	REAL	TRITIUM	0	PCI/L	TR1	U	201	112	V1
995POE	02D0361-003	10/25/2001	REAL	URANIUM-233,-234	0.201	PCI/L	TR1	J	0.022	0.078	V1
995POE	02D0361-003	10/25/2001	REAL	URANIUM-235	0.006	PCI/L	TR1	U	0.021	0.018	V1
995POE	02D0361-003	10/25/2001	REAL	URANIUM-238	0.264	PCI/L	TR1	J	0.021	0.093	V1
995POE	02D0602-002	11/28/2001	REAL	AMERICIUM-241	0.015	PCI/L	TR1	U	0.019	0.020	V
995POE	02D0602-002	11/28/2001	REAL	PLUTONIUM-239/240	0.007	PCI/L	TR1	U	0.024	0.016	V
995POE	02D0602-002	11/28/2001	REAL	TRITIUM	25	PCI/L	TR1	U	293	164	V
995POE	02D0602-002	11/28/2001	REAL	URANIUM-233,-234	0.135	PCI/L	TR1	J	0.023	0.064	V
995POE	02D0602-002	11/28/2001	REAL	URANIUM-235	-0.003	PCI/L	TR1	U	0.022	0.003	V
995POE	02D0602-002	11/28/2001	REAL	URANIUM-238	0.128	PCI/L	TR1	J	0.022	0.061	V
995POE	02D0815-001	12/31/2001	REAL	AMERICIUM-241	-0.007	PCI/L	TR1	U	0.019	0.007	V
995POE	02D0815-001	12/31/2001	REAL	PLUTONIUM-239/240	-0.004	PCI/L	TR1	U	0.025	0.007	V
995POE	02D0815-001	12/31/2001	REAL	TRITIUM	-57	PCI/L	TR1	U	177	99	V
995POE	02D0815-001	12/31/2001	REAL	URANIUM-233,-234	0.091	PCI/L	TR1	J	0.024	0.055	V
995POE	02D0815-001	12/31/2001	REAL	URANIUM-235	0.004	PCI/L	TR1	U	0.023	0.014	V
995POE	02D0815-001	12/31/2001	REAL	URANIUM-238	0.117	PCI/L	TR1	J	0.023	0.061	V
995POE	02D0965-001	02/07/2002	REAL	AMERICIUM-241	0.004	PCI/L	TR1	U	0.017	0.015	V1
995POE	02D0965-001	02/07/2002	REAL	PLUTONIUM-239/240	0.011	PCI/L	TR1	U	0.012	0.019	V1
995POE	02D0965-001	02/07/2002	REAL	TRITIUM	53	PCI/L	TR1	U	215	125	V1
995POE	02D0965-001	02/07/2002	REAL	URANIUM-233,-234	0.102	PCI/L	TR1	J	0.023	0.058	V1
995POE	02D0965-001	02/07/2002	REAL	URANIUM-235	0.000	PCI/L	TR1	U	0.021	0.017	V1
995POE	02D0965-001	02/07/2002	REAL	URANIUM-238	0.165	PCI/L	TR1	J	0.024	0.074	V1
995POE	02D1159-001	03/12/2002	REAL	AMERICIUM-241	0.015	PCI/L	TR1	U	0.022	0.024	V1
995POE	02D1159-001	03/12/2002	REAL	PLUTONIUM-239/240	-0.008	PCI/L	TR1	U	0.021	0.017	V1
995POE	02D1159-001	03/12/2002	REAL	TRITIUM	-132	PCI/L	TR1	U	314	177	V1
995POE	02D1159-001	03/12/2002	REAL	URANIUM-233,-234	0.098	PCI/L	TR1	J	0.021	0.053	V1
995POE	02D1159-001	03/12/2002	REAL	URANIUM-235	0.000	PCI/L	TR1	U	0.019	0.015	V1
995POE	02D1159-001	03/12/2002	REAL	URANIUM-238	0.149	PCI/L	TR1	J	0.022	0.066	V1
995POE	02D1221-010	04/09/2002	REAL	AMERICIUM-241	-0.001	PCI/L	TR1	U	0.015	0.006	V

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	2 Sigma Error	Validation
995POE	02D1221-010	04/09/2002	REAL	PLUTONIUM-239/240	-0.001	PCI/L	TR1	U	0.018	0.005	V
995POE	02D1221-010	04/09/2002	REAL	TRITIUM	132	PCI/L	TR1	U	233	141	V1
995POE	02D1221-010	04/09/2002	REAL	URANIUM-233,-234	0.111	PCI/L	TR1		0.058	0.046	V
995POE	02D1221-010	04/09/2002	REAL	URANIUM-235	-0.003	PCI/L	TR1	U	0.042	0.018	V
995POE	02D1221-010	04/09/2002	REAL	URANIUM-238	0.074	PCI/L	TR1		0.043	0.034	V
995POE	02D1303-004	05/13/2002	REAL	AMERICIUM-241	0.009	PCI/L	TR1	U	0.015	0.010	V1
995POE	02D1303-004	05/13/2002	REAL	PLUTONIUM-239/240	-0.001	PCI/L	TR1	U	0.021	0.005	V1
995POE	02D1303-004	05/13/2002	REAL	TRITIUM	28	PCI/L	TR1	U	303	169	V1
995POE	02D1303-004	05/13/2002	REAL	URANIUM-233,-234	0.098	PCI/L	TR1		0.060	0.044	V1
995POE	02D1303-004	05/13/2002	REAL	URANIUM-235	-0.002	PCI/L	TR1	U	0.045	0.020	V1
995POE	02D1303-004	05/13/2002	REAL	URANIUM-238	0.094	PCI/L	TR1		0.046	0.039	V1
995POE	02D1377-001	06/10/2002	REAL	AMERICIUM-241	-0.002	PCI/L	TR1	U	0.017	0.004	V1
995POE	02D1377-001	06/10/2002	REAL	PLUTONIUM-239/240	0.006	PCI/L	TR1	U	0.019	0.012	V1
995POE	02D1377-001	06/10/2002	REAL	TRITIUM	50	PCI/L	TR1	U	292	171	V1
995POE	02D1377-001	06/10/2002	REAL	URANIUM-233,-234	0.077	PCI/L	TR1		0.059	0.039	V1
995POE	02D1377-001	06/10/2002	REAL	URANIUM-235	-0.005	PCI/L	TR1	U	0.045	0.018	V1
995POE	02D1377-001	06/10/2002	REAL	URANIUM-238	0.080	PCI/L	TR1		0.045	0.036	V1
995POE	02D1469-001	07/08/2002	REAL	AMERICIUM-241	0.000	PCI/L	TR1	U	0.017	0.006	V1
995POE	02D1469-001	07/08/2002	REAL	PLUTONIUM-239/240	0.003	PCI/L	TR1	U	0.034	0.010	V1
995POE	02D1469-001	07/08/2002	REAL	TRITIUM	28	PCI/L	TR1	U	350	196	V
995POE	02D1469-001	07/08/2002	REAL	URANIUM-233,-234	0.081	PCI/L	TR1		0.069	0.043	V1
995POE	02D1469-001	07/08/2002	REAL	URANIUM-235	-0.005	PCI/L	TR1	U	0.044	0.018	V1
995POE	02D1469-001	07/08/2002	REAL	URANIUM-238	0.058	PCI/L	TR1		0.051	0.032	V1
995POE	02D1542-004	08/19/2002	REAL	AMERICIUM-241	-0.002	PCI/L	TR1	U	0.016	0.007	V
995POE	02D1542-004	08/19/2002	REAL	PLUTONIUM-239/240	-0.002	PCI/L	TR1	U	0.022	0.005	V
995POE	02D1542-004	08/19/2002	REAL	TRITIUM	132	PCI/L	TR1	U	336	199	
995POE	02D1542-004	08/19/2002	REAL	URANIUM-233,-234	0.047	PCI/L	TR1	U	0.072	0.037	V
995POE	02D1542-004	08/19/2002	REAL	URANIUM-235	0.005	PCI/L	TR1	U	0.047	0.021	V
995POE	02D1542-004	08/19/2002	REAL	URANIUM-238	0.082	PCI/L	TR1		0.053	0.039	V
995POE	03D0101-001	09/18/2002	COMP	AMERICIUM-241	-0.002	PCI/L	TR1	U	0.013	0.003	V1
995POE	03D0101-002	09/18/2002	DUP	AMERICIUM-241	0.000	PCI/L	TR1	U	0.014	0.005	V1
995POE	03D0101-001	09/18/2002	COMP	PLUTONIUM-239/240	0.000	PCI/L	TR1	U	0.016	0.006	V1
995POE	03D0101-002	09/18/2002	DUP	PLUTONIUM-239/240	0.003	PCI/L	TR1	U	0.015	0.008	V1
995POE	03D0101-001	09/18/2002	COMP	TRITIUM	-48	PCI/L	TR1	U	288	165	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	2 Sigma Error	Validation
995POE	03D0101-002	09/18/2002	DUP	TRITIUM	9	PCI/L	TR1	U	286	166	V1
995POE	03D0101-001	09/18/2002	COMP	URANIUM-233,-234	0.112	PCI/L	TR1		0.053	0.044	V1
995POE	03D0101-002	09/18/2002	DUP	URANIUM-233,-234	0.117	PCI/L	TR1		0.057	0.046	V1
995POE	03D0101-001	09/18/2002	COMP	URANIUM-235	0.001	PCI/L	TR1	U	0.041	0.018	V1
995POE	03D0101-002	09/18/2002	DUP	URANIUM-235	0.001	PCI/L	TR1	U	0.044	0.019	V1
995POE	03D0101-001	09/18/2002	COMP	URANIUM-238	0.114	PCI/L	TR1		0.042	0.041	V1
995POE	03D0101-002	09/18/2002	DUP	URANIUM-238	0.127	PCI/L	TR1		0.044	0.045	V1
GS01	02D0575-001	12/05/2001	REAL	AMERICIUM-241	0.006	PCI/L	TR1	U	0.022	0.020	V
GS01	02D0575-001	12/05/2001	REAL	PLUTONIUM-239/240	-0.001	PCI/L	TR1	U	0.019	0.001	V
GS01	02D0575-001	12/05/2001	REAL	TRITIUM	0	PCI/L	TR1	U	317	174	V
GS01	02D0602-001	12/18/2001	REAL	AMERICIUM-241	0.007	PCI/L	TR1	U	0.019	0.017	V
GS01	02D0602-001	12/18/2001	REAL	PLUTONIUM-239/240	0.004	PCI/L	TR1	U	0.018	0.011	V
GS01	02D0602-001	12/18/2001	REAL	TRITIUM	0	PCI/L	TR1	U	306	168	V
GS01	02D0680-004	01/02/2002	REAL	AMERICIUM-241	0.005	PCI/L	TR1	U	0.022	0.014	V
GS01	02D0680-004	01/02/2002	REAL	PLUTONIUM-239/240	-0.001	PCI/L	TR1	U	0.017	0.001	V
GS01	02D0680-004	01/02/2002	REAL	TRITIUM	54	PCI/L	TR1	U	204	118	V1
GS01	02D0687-001	01/17/2002	REAL	AMERICIUM-241	-0.002	PCI/L	TR1	U	0.023	0.002	V
GS01	02D0687-001	01/17/2002	REAL	PLUTONIUM-239/240	-0.001	PCI/L	TR1	U	0.016	0.001	V
GS01	02D0725-002	01/21/2002	REAL	AMERICIUM-241	0.004	PCI/L	TR1	U	0.020	0.012	V1
GS01	02D0725-002	01/21/2002	REAL	PLUTONIUM-239/240	-0.002	PCI/L	TR1	U	0.014	0.011	V1
GS01	02D0725-002	01/21/2002	REAL	TRITIUM	25	PCI/L	TR1	U	202	115	V1
GS01	02D0825-002	02/04/2002	REAL	AMERICIUM-241	-0.002	PCI/L	TR1	U	0.019	0.002	V
GS01	02D0825-002	02/04/2002	REAL	PLUTONIUM-239/240	-0.001	PCI/L	TR1	U	0.018	0.001	V
GS01	02D0825-002	02/04/2002	REAL	TRITIUM	-26	PCI/L	TR1	U	298	161	V1
GS01	02D0925-002	02/18/2002	REAL	AMERICIUM-241	0.010	PCI/L	TR1	U	0.021	0.018	V
GS01	02D0925-002	02/18/2002	REAL	PLUTONIUM-239/240	-0.003	PCI/L	TR1	U	0.015	0.004	V
GS01	02D0925-002	02/18/2002	REAL	TRITIUM	82	PCI/L	TR1	U	326	187	V1
GS01	02D0965-005	03/04/2002	REAL	AMERICIUM-241	-0.004	PCI/L	TR1	U	0.019	0.005	V1
GS01	02D0965-005	03/04/2002	REAL	PLUTONIUM-239/240	0.005	PCI/L	TR1	U	0.015	0.015	V1
GS01	02D0965-005	03/04/2002	REAL	TRITIUM	53	PCI/L	TR1	U	215	125	V1
GS01	02D1034-005	03/14/2002	REAL	AMERICIUM-241	-0.002	PCI/L	TR1	U	0.024	0.002	V1
GS01	02D1034-005	03/14/2002	REAL	PLUTONIUM-239/240	-0.003	PCI/L	TR1	U	0.016	0.004	V1
GS01	02D1034-005	03/14/2002	REAL	TRITIUM	202	PCI/L	TR1	U	277	173	V1
GS01	02D1148-001	03/22/2002	REAL	AMERICIUM-241	-0.007	PCI/L	TR1	U	0.021	0.007	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	2 Sigma Error	Validation
GS01	02D1148-001	03/22/2002	REAL	PLUTONIUM-239/240	-0.001	PCI/L	TR1	U	0.015	0.010	V1
GS01	02D1148-001	03/22/2002	REAL	TRITIUM	-6	PCI/L	TR1	U	315	182	V1
GS01	02D1261-006	04/08/2002	REAL	AMERICIUM-241	-0.002	PCI/L	TR1	U	0.017	0.007	V
GS01	02D1261-006	04/08/2002	REAL	PLUTONIUM-239/240	0.001	PCI/L	TR1	U	0.019	0.007	V
GS01	02D1261-006	04/08/2002	REAL	TRITIUM	110	PCI/L	TR1	U	330	192	V1
GS01	03D0506-004	05/28/2002	REAL	AMERICIUM-241	.017	PCI/L	TR1		.016	.015	
GS01	03D0506-004	05/28/2002	REAL	PLUTONIUM-239/240	-.001	PCI/L	TR1	U	.015	.003	
GS01	03D0506-004	05/28/2002	REAL	TRITIUM	353	PCI/L	TR1	J	290	183	V1
GS03	02D0112-001	10/03/2001	REAL	AMERICIUM-241	-0.003	PCI/L	TR1	U	0.020	0.002	V1
GS03	02D0112-001	10/03/2001	REAL	PLUTONIUM-239/240	0.004	PCI/L	TR1	U	0.018	0.011	V1
GS03	02D0112-001	10/03/2001	REAL	TRITIUM	-123	PCI/L	TR1	U	356	187	V1
GS03	02D0142-001	10/09/2001	REAL	AMERICIUM-241	-0.005	PCI/L	TR1	U	0.019	0.005	V
GS03	02D0142-001	10/09/2001	REAL	PLUTONIUM-239/240	0.015	PCI/L	TR1	U	0.017	0.021	V
GS03	02D0142-001	10/09/2001	REAL	TRITIUM	-182	PCI/L	TR1	U	295	155	V1
GS03	02D0205-001	10/17/2001	REAL	AMERICIUM-241	-0.005	PCI/L	TR1	U	0.019	0.005	V1
GS03	02D0205-001	10/17/2001	REAL	PLUTONIUM-239/240	0.000	PCI/L	TR1	U	0.017	0.001	V1
GS03	02D0205-001	10/17/2001	REAL	TRITIUM	55	PCI/L	TR1	U	208	121	V
GS03	02D0413-001	11/30/2001	REAL	AMERICIUM-241	0.003	PCI/L	TR1	U	0.020	0.012	V
GS03	02D0413-001	11/30/2001	REAL	PLUTONIUM-239/240	0.011	PCI/L	TR1	U	0.018	0.016	V
GS03	02D0413-001	11/30/2001	REAL	TRITIUM	-26	PCI/L	TR1	U	200	110	V
GS03	02D0426-001	12/04/2001	REAL	AMERICIUM-241	-0.003	PCI/L	TR1	U	0.019	0.002	V1
GS03	02D0426-001	12/04/2001	REAL	PLUTONIUM-239/240	-0.001	PCI/L	TR1	U	0.017	0.001	V1
GS03	02D0426-001	12/04/2001	REAL	TRITIUM	277	PCI/L	TR1	J	265	165	V1
GS03	02D0603-001	01/24/2002	REAL	AMERICIUM-241	-0.004	PCI/L	TR1	U	0.017	0.004	V
GS03	02D0603-001	01/24/2002	REAL	PLUTONIUM-239/240	0.016	PCI/L	TR1	U	0.018	0.020	V
GS03	02D0603-001	01/24/2002	REAL	TRITIUM	-27	PCI/L	TR1	U	203	112	V1
GS03	02D0767-001	01/28/2002	REAL	AMERICIUM-241	0.004	PCI/L	TR1	U	0.017	0.015	V1
GS03	02D0767-001	01/28/2002	REAL	PLUTONIUM-239/240	0.006	PCI/L	TR1	U	0.015	0.019	V1
GS03	02D0767-001	01/28/2002	REAL	TRITIUM	50	PCI/L	TR1	U	202	117	V1
GS03	02D0926-001	02/05/2002	REAL	AMERICIUM-241	-0.005	PCI/L	TR1	U	0.021	0.005	V1
GS03	02D0926-001	02/05/2002	REAL	PLUTONIUM-239/240	-0.001	PCI/L	TR1	U	0.017	0.001	V1
GS03	02D0926-001	02/05/2002	REAL	TRITIUM	-28	PCI/L	TR1	U	330	179	V1
GS03	02D1058-001	03/21/2002	REAL	AMERICIUM-241	-0.002	PCI/L	TR1	U	0.020	0.002	V1
GS03	02D1058-001	03/21/2002	REAL	PLUTONIUM-239/240	0.046	PCI/L	TR1		0.016	0.032	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	2 Sigma Error	Validation
GS03	02D1058-001	03/21/2002	REAL	TRITIUM	50	PCI/L	TR1	U	276	156	V1
GS03	02D1106-001	03/25/2002	REAL	AMERICIUM-241	-0.002	PCI/L	TR1	U	0.021	0.002	V1
GS03	02D1106-001	03/25/2002	REAL	PLUTONIUM-239/240	0.004	PCI/L	TR1	U	0.017	0.010	V1
GS03	02D1106-001	03/25/2002	REAL	TRITIUM	25	PCI/L	TR1	U	248	137	V1
GS03	02D1222-001	05/16/2002	REAL	AMERICIUM-241	0.016	PCI/L	TR1	U	0.017	0.015	V
GS03	02D1222-001	05/16/2002	REAL	PLUTONIUM-239/240	0.005	PCI/L	TR1	U	0.018	0.010	V
GS03	02D1222-001	05/16/2002	REAL	TRITIUM	-50	PCI/L	TR1	U	323	185	V
GS03	02D1241-001	05/17/2002	REAL	AMERICIUM-241	0.006	PCI/L	TR1	U	0.016	0.009	V1
GS03	02D1241-001	05/17/2002	REAL	PLUTONIUM-239/240	0.028	PCI/L	TR1		0.020	0.018	V1
GS03	02D1241-001	05/17/2002	REAL	TRITIUM	205	PCI/L	TR1	U	342	206	V
GS03	02D1251-001	05/20/2002	REAL	AMERICIUM-241	0.007	PCI/L	TR1	U	0.015	0.010	V1
GS03	02D1251-001	05/20/2002	REAL	PLUTONIUM-239/240	0.009	PCI/L	TR1	U	0.019	0.011	V1
GS03	02D1251-001	05/20/2002	REAL	TRITIUM	55	PCI/L	TR1	U	240	138	V1
GS03	02D1283-001	05/22/2002	REAL	AMERICIUM-241	0.009	PCI/L	TR1	U	0.015	0.011	V1
GS03	02D1283-001	05/22/2002	REAL	PLUTONIUM-239/240	0.001	PCI/L	TR1	U	0.019	0.007	V1
GS03	02D1283-001	05/22/2002	REAL	TRITIUM	80	PCI/L	TR1	U	320	184	V1
GS03	02D1291-001	05/28/2002	REAL	AMERICIUM-241	0.008	PCI/L	TR1	U	0.016	0.011	V1
GS03	02D1291-001	05/28/2002	REAL	PLUTONIUM-239/240	0.010	PCI/L	TR1	U	0.020	0.012	V1
GS03	02D1291-001	05/28/2002	REAL	TRITIUM	0	PCI/L	TR1	U	319	176	V1
GS03	02D1375-001	07/11/2002	REAL	AMERICIUM-241	0.002	PCI/L	TR1	U	0.016	0.007	V1
GS03	02D1375-001	07/11/2002	REAL	PLUTONIUM-239/240	-0.001	PCI/L	TR1	U	0.018	0.005	V1
GS03	02D1375-001	07/11/2002	REAL	TRITIUM	-40	PCI/L	TR1	U	271	155	J
GS03	02D1408-002	07/16/2002	REAL	AMERICIUM-241	0.000	PCI/L	TR1	U	0.016	0.006	V
GS03	02D1408-002	07/16/2002	REAL	PLUTONIUM-239/240	0.000	PCI/L	TR1	U	0.016	0.006	V
GS03	02D1408-002	07/16/2002	REAL	TRITIUM	-28	PCI/L	TR1	U	320	173	V1
GS03	02D1507-001	09/06/2002	REAL	AMERICIUM-241	0.014	PCI/L	TR1	U	0.015	0.013	V
GS03	02D1507-002	09/06/2002	DUP	AMERICIUM-241	0.028	PCI/L	TR1		0.014	0.018	V
GS03	02D1507-001	09/06/2002	REAL	AMERICIUM-241	0.004	PCI/L	TR1	U	0.015	0.009	V
GS03	02D1507-002	09/06/2002	DUP	AMERICIUM-241	0.006	PCI/L	TR1	U	0.014	0.009	V
GS03	02D1507-001	09/06/2002	REAL	PLUTONIUM-239/240	0.003	PCI/L	TR1	U	0.016	0.012	
GS03	02D1507-002	09/06/2002	DUP	PLUTONIUM-239/240	0.163	PCI/L	TR1		0.017	0.052	
GS03	02D1507-001	09/06/2002	REAL	PLUTONIUM-239/240	0.011	PCI/L	TR1	U	0.017	0.015	V
GS03	02D1507-002	09/06/2002	DUP	PLUTONIUM-239/240	0.007	PCI/L	TR1	U	0.017	0.013	V
GS03	02D1507-001	09/06/2002	REAL	TRITIUM	56	PCI/L	TR1	U	196	114	

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	2 Sigma Error	Validation
GS03	02D1507-002	09/06/2002	DUP	TRITIUM	193	PCI/L	TR1	U	194	124	
GS03	02D1518-001	09/11/2002	REAL	AMERICIUM-241	0.012	PCI/L	TR1	U	0.018	0.013	V1
GS03	02D1518-001	09/11/2002	REAL	PLUTONIUM-239/240	0.005	PCI/L	TR1	U	0.032	0.013	V1
GS03	02D1518-001	09/11/2002	REAL	TRITIUM	-7	PCI/L	TR1	U	286	166	V1
GS03	03D0098-001	09/17/2002	REAL	AMERICIUM-241	0.005	PCI/L	TR1	U	0.014	0.009	V1
GS03	03D0098-001	09/17/2002	REAL	PLUTONIUM-239/240	0.001	PCI/L	TR1	U	0.019	0.009	V1
GS08	02D0111-001	10/03/2001	REAL	AMERICIUM-241	-0.003	PCI/L	TR1	U	0.021	0.002	V1
GS08	02D0111-001	10/03/2001	REAL	PLUTONIUM-239/240	0.011	PCI/L	TR1	U	0.021	0.019	V1
GS08	02D0111-001	10/03/2001	REAL	URANIUM-233,-234	0.366	PCI/L	TR1	J	0.023	0.124	V1
GS08	02D0111-001	10/03/2001	REAL	URANIUM-235	0.005	PCI/L	TR1	U	0.021	0.014	V1
GS08	02D0111-001	10/03/2001	REAL	URANIUM-238	0.417	PCI/L	TR1	J	0.021	0.135	V1
GS08	02D0116-002	10/09/2001	REAL	AMERICIUM-241	0.006	PCI/L	TR1	U	0.019	0.016	V1
GS08	02D0116-002	10/09/2001	REAL	PLUTONIUM-239/240	-0.001	PCI/L	TR1	U	0.016	0.011	V1
GS08	02D0116-002	10/09/2001	REAL	URANIUM-233,-234	0.427	PCI/L	TR1	J	0.023	0.138	V1
GS08	02D0116-002	10/09/2001	REAL	URANIUM-235	0.016	PCI/L	TR1	U	0.021	0.025	V1
GS08	02D0116-002	10/09/2001	REAL	URANIUM-238	0.453	PCI/L	TR1	J	0.021	0.142	V1
GS08	02D0362-001	11/30/2001	REAL	AMERICIUM-241	0.003	PCI/L	TR1	U	0.020	0.012	V
GS08	02D0362-001	11/30/2001	REAL	PLUTONIUM-239/240	-0.003	PCI/L	TR1	U	0.016	0.013	V
GS08	02D0362-001	11/30/2001	REAL	URANIUM-233,-234	0.422	PCI/L	TR1	J	0.023	0.134	V
GS08	02D0362-001	11/30/2001	REAL	URANIUM-235	0.001	PCI/L	TR1	U	0.022	0.014	V
GS08	02D0362-001	11/30/2001	REAL	URANIUM-238	0.568	PCI/L	TR1	J	0.022	0.167	V
GS08	02D0512-001	12/04/2001	REAL	AMERICIUM-241	0.000	PCI/L	TR1	U	0.017	0.010	V
GS08	02D0512-001	12/04/2001	REAL	PLUTONIUM-239/240	0.005	PCI/L	TR1	U	0.018	0.012	V
GS08	02D0512-001	12/04/2001	REAL	URANIUM-233,-234	0.571	PCI/L	TR1	J	0.021	0.166	V
GS08	02D0512-001	12/04/2001	REAL	URANIUM-235	0.038	PCI/L	TR1	J	0.020	0.034	V
GS08	02D0512-001	12/04/2001	REAL	URANIUM-238	0.423	PCI/L	TR1	J	0.021	0.130	V
GS08	02D0708-001	01/24/2002	REAL	AMERICIUM-241	0.008	PCI/L	TR1	U	0.027	0.026	V
GS08	02D0708-001	01/24/2002	REAL	PLUTONIUM-239/240	-0.001	PCI/L	TR1	U	0.020	0.001	V
GS08	02D0708-001	01/24/2002	REAL	URANIUM-233,-234	0.464	PCI/L	TR1	J	0.025	0.154	V
GS08	02D0708-001	01/24/2002	REAL	URANIUM-235	0.005	PCI/L	TR1	U	0.025	0.016	V
GS08	02D0708-001	01/24/2002	REAL	URANIUM-238	0.346	PCI/L	TR1	J	0.024	0.124	V
GS08	02D0725-003	01/28/2002	REAL	AMERICIUM-241	0.003	PCI/L	TR1	U	0.017	0.010	V1
GS08	02D0725-003	01/28/2002	REAL	PLUTONIUM-239/240	0.007	PCI/L	TR1	U	0.016	0.015	V1
GS08	02D0725-003	01/28/2002	REAL	URANIUM-233,-234	0.501	PCI/L	TR1	J	0.024	0.156	V1

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GS08	02D0725-003	01/28/2002	REAL	URANIUM-235	0.010	PCI/L	TR1	U	0.023	0.020	V1
GS08	02D0725-003	01/28/2002	REAL	URANIUM-238	0.486	PCI/L	TR1	J	0.023	0.150	V1
GS08	02D1034-006	03/21/2002	REAL	AMERICIUM-241	0.003	PCI/L	TR1	U	0.019	0.011	V1
GS08	02D1034-006	03/21/2002	REAL	PLUTONIUM-239/240	-0.002	PCI/L	TR1	U	0.019	0.001	V1
GS08	02D1034-006	03/21/2002	REAL	URANIUM-233,-234	0.477	PCI/L	TR1	J	0.022	0.148	V1
GS08	02D1034-006	03/21/2002	REAL	URANIUM-235	0.030	PCI/L	TR1	J	0.019	0.030	V1
GS08	02D1034-006	03/21/2002	REAL	URANIUM-238	0.429	PCI/L	TR1	J	0.022	0.135	V1
GS08	02D1107-003	03/25/2002	REAL	AMERICIUM-241	-0.002	PCI/L	TR1	U	0.019	0.002	V
GS08	02D1107-003	03/25/2002	REAL	PLUTONIUM-239/240	0.004	PCI/L	TR1	U	0.017	0.011	V
GS08	02D1107-003	03/25/2002	REAL	URANIUM-233,-234	0.386	PCI/L	TR1	J	0.022	0.126	V
GS08	02D1107-003	03/25/2002	REAL	URANIUM-235	0.012	PCI/L	TR1	U	0.020	0.024	V
GS08	02D1107-003	03/25/2002	REAL	URANIUM-238	0.376	PCI/L	TR1	J	0.022	0.122	V
GS08	02D1243-002	05/16/2002	REAL	AMERICIUM-241	0.005	PCI/L	TR1	U	0.015	0.009	V1
GS08	02D1243-002	05/16/2002	REAL	PLUTONIUM-239/240	-0.001	PCI/L	TR1	U	0.021	0.008	V1
GS08	02D1243-002	05/16/2002	REAL	URANIUM-233,-234	0.297	PCI/L	TR1		0.063	0.085	V1
GS08	02D1243-002	05/16/2002	REAL	URANIUM-235	0.007	PCI/L	TR1	U	0.045	0.021	V1
GS08	02D1243-002	05/16/2002	REAL	URANIUM-238	0.269	PCI/L	TR1		0.047	0.076	V1
GS08	02D1264-005	05/21/2002	REAL	AMERICIUM-241	0.002	PCI/L	TR1	U	0.016	0.007	V1
GS08	02D1264-005	05/21/2002	REAL	PLUTONIUM-239/240	0.003	PCI/L	TR1	U	0.018	0.009	V1
GS08	02D1264-005	05/21/2002	REAL	URANIUM-233,-234	0.462	PCI/L	TR1		0.062	0.120	V1
GS08	02D1264-005	05/21/2002	REAL	URANIUM-235	0.010	PCI/L	TR1	U	0.046	0.022	V1
GS08	02D1264-005	05/21/2002	REAL	URANIUM-238	0.427	PCI/L	TR1		0.048	0.110	V1
GS08	02D1264-006	05/28/2002	REAL	AMERICIUM-241	0.001	PCI/L	TR1	U	0.015	0.007	V1
GS08	02D1264-006	05/28/2002	REAL	PLUTONIUM-239/240	0.001	PCI/L	TR1	U	0.017	0.006	V1
GS08	02D1264-006	05/28/2002	REAL	URANIUM-233,-234	0.361	PCI/L	TR1		0.060	0.098	V1
GS08	02D1264-006	05/28/2002	REAL	URANIUM-235	0.005	PCI/L	TR1	U	0.045	0.022	V1
GS08	02D1264-006	05/28/2002	REAL	URANIUM-238	0.288	PCI/L	TR1		0.046	0.080	V1
GS08	02D1377-003	07/11/2002	REAL	AMERICIUM-241	0.002	PCI/L	TR1	U	0.016	0.007	V1
GS08	02D1377-003	07/11/2002	REAL	PLUTONIUM-239/240	0.001	PCI/L	TR1	U	0.018	0.010	V1
GS08	02D1377-003	07/11/2002	REAL	URANIUM-233,-234	0.193	PCI/L	TR1		0.062	0.064	V1
GS08	02D1377-003	07/11/2002	REAL	URANIUM-235	0.008	PCI/L	TR1	U	0.047	0.023	V1
GS08	02D1377-003	07/11/2002	REAL	URANIUM-238	0.160	PCI/L	TR1		0.048	0.054	V1
GS08	02D1393-001	07/16/2002	REAL	AMERICIUM-241	0.006	PCI/L	TR1	U	0.016	0.009	V1
GS08	02D1393-001	07/16/2002	REAL	PLUTONIUM-239/240	0.005	PCI/L	TR1	U	0.017	0.011	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	2 Sigma Error	Validation
GS08	02D1393-001	07/16/2002	REAL	URANIUM-233,-234	0.248	PCI/L	TR1		0.060	0.075	V1
GS08	02D1393-001	07/16/2002	REAL	URANIUM-235	0.002	PCI/L	TR1	U	0.046	0.020	V1
GS08	02D1393-001	07/16/2002	REAL	URANIUM-238	0.229	PCI/L	TR1		0.046	0.068	V1
GS08	02D1508-001	09/05/2002	REAL	AMERICIUM-241	0.007	PCI/L	TR1	U	0.015	0.010	V1
GS08	02D1508-001	09/05/2002	REAL	PLUTONIUM-239/240	0.008	PCI/L	TR1	U	0.019	0.012	V1
GS08	02D1508-001	09/05/2002	REAL	URANIUM-233,-234	0.169	PCI/L	TR1		0.069	0.059	V1
GS08	02D1508-001	09/05/2002	REAL	URANIUM-235	0.008	PCI/L	TR1	U	0.044	0.021	V1
GS08	02D1508-001	09/05/2002	REAL	URANIUM-238	0.174	PCI/L	TR1		0.052	0.056	V1
GS08	02D1516-008	09/11/2002	REAL	AMERICIUM-241	0.000	PCI/L	TR1	U	0.015	0.006	V1
GS08	02D1516-008	09/11/2002	REAL	PLUTONIUM-239/240	-0.002	PCI/L	TR1	U	0.017	0.010	V1
GS08	02D1516-008	09/11/2002	REAL	URANIUM-233,-234	0.321	PCI/L	TR1		0.069	0.090	V1
GS08	02D1516-008	09/11/2002	REAL	URANIUM-235	0.002	PCI/L	TR1	U	0.044	0.021	V1
GS08	02D1516-008	09/11/2002	REAL	URANIUM-238	0.328	PCI/L	TR1		0.051	0.088	V1
GS10	02D0116-001	10/01/2001	REAL	AMERICIUM-241	0.032	PCI/L	TR1		0.018	0.029	V1
GS10	02D0116-001	10/01/2001	REAL	PLUTONIUM-239/240	0.001	PCI/L	TR1	U	0.015	0.017	V1
GS10	02D0116-001	10/01/2001	REAL	URANIUM-233,-234	2.100	PCI/L	TR1		0.021	0.507	V1
GS10	02D0116-001	10/01/2001	REAL	URANIUM-235	0.072	PCI/L	TR1	J	0.019	0.049	V1
GS10	02D0116-001	10/01/2001	REAL	URANIUM-238	2.020	PCI/L	TR1		0.020	0.487	V1
GS10	02D0177-002	10/11/2001	REAL	AMERICIUM-241	0.020	PCI/L	TR1	J	0.019	0.023	V1
GS10	02D0177-002	10/11/2001	REAL	PLUTONIUM-239/240	0.010	PCI/L	TR1	U	0.013	0.013	V1
GS10	02D0177-002	10/11/2001	REAL	URANIUM-233,-234	2.610	PCI/L	TR1		0.022	0.619	V1
GS10	02D0177-002	10/11/2001	REAL	URANIUM-235	0.078	PCI/L	TR1	J	0.020	0.052	V1
GS10	02D0177-002	10/11/2001	REAL	URANIUM-238	2.150	PCI/L	TR1		0.021	0.516	V1
GS10	02D0265-004	10/23/2001	REAL	AMERICIUM-241	0.026	PCI/L	TR1	J	0.020	0.027	V1
GS10	02D0265-004	10/23/2001	REAL	PLUTONIUM-239/240	0.013	PCI/L	TR1	U	0.016	0.017	V1
GS10	02D0265-004	10/23/2001	REAL	URANIUM-233,-234	2.850	PCI/L	TR1		0.022	0.669	V1
GS10	02D0265-004	10/23/2001	REAL	URANIUM-235	0.088	PCI/L	TR1	J	0.020	0.055	V1
GS10	02D0265-004	10/23/2001	REAL	URANIUM-238	2.700	PCI/L	TR1		0.020	0.635	V1
GS10	02D0345-001	11/06/2001	REAL	AMERICIUM-241	0.057	PCI/L	TR1		0.018	0.039	V1
GS10	02D0345-001	11/06/2001	REAL	PLUTONIUM-239/240	0.039	PCI/L	TR1		0.016	0.029	V1
GS10	02D0345-001	11/06/2001	REAL	URANIUM-233,-234	1.670	PCI/L	TR1		0.023	0.415	V1
GS10	02D0345-001	11/06/2001	REAL	URANIUM-235	0.051	PCI/L	TR1	J	0.022	0.042	V1
GS10	02D0345-001	11/06/2001	REAL	URANIUM-238	1.820	PCI/L	TR1		0.022	0.446	V1
GS10	02D0363-005	11/20/2001	REAL	AMERICIUM-241	0.006	PCI/L	TR1	U	0.019	0.017	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	2 Sigma Error	Validation
GS10	02D0363-005	11/20/2001	REAL	PLUTONIUM-239/240	0.011	PCI/L	TR1	U	0.018	0.016	V1
GS10	02D0363-005	11/20/2001	REAL	URANIUM-233,-234	2.520	PCI/L	TR1		0.022	0.601	V1
GS10	02D0363-005	11/20/2001	REAL	URANIUM-235	0.052	PCI/L	TR1	J	0.021	0.041	V1
GS10	02D0363-005	11/20/2001	REAL	URANIUM-238	2.070	PCI/L	TR1		0.022	0.501	V1
GS10	02D0645-002	12/10/2001	REAL	AMERICIUM-241	0.038	PCI/L	TR1		0.018	0.032	V
GS10	02D0645-002	12/10/2001	REAL	PLUTONIUM-239/240	0.025	PCI/L	TR1	J	0.017	0.025	V
GS10	02D0645-002	12/10/2001	REAL	URANIUM-233,-234	2.490	PCI/L	TR1		0.021	0.590	V
GS10	02D0645-002	12/10/2001	REAL	URANIUM-235	0.106	PCI/L	TR1	J	0.021	0.060	V
GS10	02D0645-002	12/10/2001	REAL	URANIUM-238	2.290	PCI/L	TR1		0.021	0.544	V
GS10	02D0725-004	01/09/2002	REAL	AMERICIUM-241	0.029	PCI/L	TR1	J	0.019	0.029	V1
GS10	02D0725-004	01/09/2002	REAL	PLUTONIUM-239/240	0.019	PCI/L	TR1	J	0.015	0.022	V1
GS10	02D0725-004	01/09/2002	REAL	URANIUM-233,-234	2.970	PCI/L	TR1		0.021	0.688	V1
GS10	02D0725-004	01/09/2002	REAL	URANIUM-235	0.082	PCI/L	TR1	J	0.020	0.051	V1
GS10	02D0725-004	01/09/2002	REAL	URANIUM-238	2.620	PCI/L	TR1		0.020	0.610	V1
GS10	02D0925-001	02/04/2002	REAL	AMERICIUM-241	0.004	PCI/L	TR1	U	0.021	0.012	V
GS10	02D0925-001	02/04/2002	REAL	PLUTONIUM-239/240	0.022	PCI/L	TR1	J	0.015	0.021	V
GS10	02D0925-001	02/04/2002	REAL	URANIUM-233,-234	3.250	PCI/L	TR1		0.022	0.757	V
GS10	02D0925-001	02/04/2002	REAL	URANIUM-235	0.167	PCI/L	TR1	J	0.019	0.083	V
GS10	02D0925-001	02/04/2002	REAL	URANIUM-238	2.710	PCI/L	TR1		0.021	0.638	V
GS10	02D0965-006	02/28/2002	REAL	AMERICIUM-241	0.054	PCI/L	TR1		0.019	0.040	V1
GS10	02D0965-006	02/28/2002	REAL	PLUTONIUM-239/240	0.070	PCI/L	TR1		0.015	0.041	V1
GS10	02D0965-006	02/28/2002	REAL	URANIUM-233,-234	1.840	PCI/L	TR1		0.021	0.449	V1
GS10	02D0965-006	02/28/2002	REAL	URANIUM-235	0.073	PCI/L	TR1	J	0.019	0.049	V1
GS10	02D0965-006	02/28/2002	REAL	URANIUM-238	1.480	PCI/L	TR1		0.021	0.368	V1
GS10	02D1107-002	03/14/2002	REAL	AMERICIUM-241	0.028	PCI/L	TR1	J	0.024	0.031	V
GS10	02D1107-002	03/14/2002	REAL	PLUTONIUM-239/240	0.042	PCI/L	TR1		0.020	0.037	V
GS10	02D1107-002	03/14/2002	REAL	URANIUM-233,-234	3.260	PCI/L	TR1		0.024	0.782	V
GS10	02D1107-002	03/14/2002	REAL	URANIUM-235	0.129	PCI/L	TR1	J	0.022	0.074	V
GS10	02D1107-002	03/14/2002	REAL	URANIUM-238	2.760	PCI/L	TR1		0.024	0.666	V
GS10	02D1214-001	04/03/2002	REAL	AMERICIUM-241	0.176	PCI/L	TR1		0.016	0.055	V
GS10	02D1214-001	04/03/2002	REAL	PLUTONIUM-239/240	0.081	PCI/L	TR1		0.017	0.031	V
GS10	02D1214-001	04/03/2002	REAL	URANIUM-233,-234	3.070	PCI/L	TR1		0.059	0.668	V
GS10	02D1214-001	04/03/2002	REAL	URANIUM-235	0.079	PCI/L	TR1		0.041	0.041	V
GS10	02D1214-001	04/03/2002	REAL	URANIUM-238	2.710	PCI/L	TR1		0.045	0.590	V

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	2 Sigma Error	Validation
GS10	02D1233-005	05/03/2002	REAL	AMERICIUM-241	0.113	PCI/L	TR1		0.016	0.041	V
GS10	02D1233-005	05/03/2002	REAL	PLUTONIUM-239/240	0.020	PCI/L	TR1		0.017	0.015	V
GS10	02D1233-005	05/03/2002	REAL	URANIUM-233,-234	1.020	PCI/L	TR1		0.059	0.235	V
GS10	02D1233-005	05/03/2002	REAL	URANIUM-235	0.025	PCI/L	TR1	U	0.042	0.026	V
GS10	02D1233-005	05/03/2002	REAL	URANIUM-238	0.897	PCI/L	TR1		0.044	0.207	V
GS10	02D1254-016	05/17/2002	REAL	AMERICIUM-241	0.139	PCI/L	TR1		0.015	0.045	V
GS10	02D1254-016	05/17/2002	REAL	PLUTONIUM-239/240	0.014	PCI/L	TR1	U	0.017	0.015	V
GS10	02D1254-016	05/17/2002	REAL	URANIUM-233,-234	0.446	PCI/L	TR1		0.059	0.114	V
GS10	02D1254-016	05/17/2002	REAL	URANIUM-235	0.010	PCI/L	TR1	U	0.042	0.022	V
GS10	02D1254-016	05/17/2002	REAL	URANIUM-238	0.402	PCI/L	TR1		0.044	0.102	V
GS10	02D1261-001	05/24/2002	REAL	AMERICIUM-241	0.034	PCI/L	TR1		0.014	0.018	V
GS10	02D1261-001	05/24/2002	REAL	PLUTONIUM-239/240	0.123	PCI/L	TR1		0.017	0.041	V
GS10	02D1261-001	05/24/2002	REAL	URANIUM-233,-234	0.566	PCI/L	TR1		0.062	0.141	V
GS10	02D1261-001	05/24/2002	REAL	URANIUM-235	0.024	PCI/L	TR1	U	0.044	0.027	V
GS10	02D1261-001	05/24/2002	REAL	URANIUM-238	0.667	PCI/L	TR1		0.047	0.161	V
GS10	02D1303-002	05/28/2002	REAL	AMERICIUM-241	0.069	PCI/L	TR1		0.016	0.029	V1
GS10	02D1303-002	05/28/2002	REAL	PLUTONIUM-239/240	0.082	PCI/L	TR1		0.016	0.031	V1
GS10	02D1303-002	05/28/2002	REAL	URANIUM-233,-234	2.080	PCI/L	TR1		0.059	0.461	V1
GS10	02D1303-002	05/28/2002	REAL	URANIUM-235	0.069	PCI/L	TR1		0.044	0.040	V1
GS10	02D1303-002	05/28/2002	REAL	URANIUM-238	2.040	PCI/L	TR1		0.045	0.451	V1
GS10	02D1377-002	06/10/2002	REAL	AMERICIUM-241	0.046	PCI/L	TR1		0.016	0.023	V1
GS10	02D1377-002	06/10/2002	REAL	PLUTONIUM-239/240	0.024	PCI/L	TR1		0.017	0.016	V1
GS10	02D1377-002	06/10/2002	REAL	URANIUM-233,-234	2.150	PCI/L	TR1		0.059	0.476	V1
GS10	02D1377-002	06/10/2002	REAL	URANIUM-235	0.093	PCI/L	TR1		0.045	0.046	V1
GS10	02D1377-002	06/10/2002	REAL	URANIUM-238	1.980	PCI/L	TR1		0.045	0.438	V1
GS10	02D1393-004	07/08/2002	REAL	AMERICIUM-241	0.072	PCI/L	TR1		0.018	0.032	V1
GS10	02D1393-004	07/08/2002	REAL	PLUTONIUM-239/240	0.050	PCI/L	TR1		0.018	0.024	V1
GS10	02D1393-004	07/08/2002	REAL	URANIUM-233,-234	1.730	PCI/L	TR1		0.059	0.387	V1
GS10	02D1393-004	07/08/2002	REAL	URANIUM-235	0.064	PCI/L	TR1		0.045	0.039	V1
GS10	02D1393-004	07/08/2002	REAL	URANIUM-238	1.410	PCI/L	TR1		0.046	0.318	V1
GS10	02D1431-003	07/17/2002	REAL	AMERICIUM-241	0.046	PCI/L	TR1		0.018	0.024	V
GS10	02D1431-003	07/17/2002	REAL	PLUTONIUM-239/240	0.011	PCI/L	TR1	U	0.018	0.016	V
GS10	02D1431-003	07/17/2002	REAL	URANIUM-233,-234	1.560	PCI/L	TR1		0.068	0.350	V
GS10	02D1431-003	07/17/2002	REAL	URANIUM-235	0.040	PCI/L	TR1	U	0.045	0.030	V

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	2 Sigma Error	Validation
GS10	02D1431-003	07/17/2002	REAL	URANIUM-238	1.330	PCI/L	TR1		0.051	0.301	V
GS10	02D1433-001	07/29/2002	REAL	AMERICIUM-241	0.196	PCI/L	TR1		0.018	0.063	V1
GS10	02D1433-001	07/29/2002	REAL	PLUTONIUM-239/240	0.030	PCI/L	TR1		0.019	0.020	V1
GS10	02D1433-001	07/29/2002	REAL	URANIUM-233,-234	0.992	PCI/L	TR1		0.074	0.235	V1
GS10	02D1433-001	07/29/2002	REAL	URANIUM-235	0.014	PCI/L	TR1	U	0.049	0.024	V1
GS10	02D1433-001	07/29/2002	REAL	URANIUM-238	0.823	PCI/L	TR1		0.055	0.197	V1
GS10	02D1498-001	08/06/2002	REAL	AMERICIUM-241	0.085	PCI/L	TR1		0.015	0.035	V
GS10	02D1498-001	08/06/2002	REAL	PLUTONIUM-239/240	0.145	PCI/L	TR1		0.019	0.048	V
GS10	02D1498-001	08/06/2002	REAL	URANIUM-233,-234	1.160	PCI/L	TR1		0.069	0.265	V
GS10	02D1498-001	08/06/2002	REAL	URANIUM-235	0.038	PCI/L	TR1	U	0.044	0.030	V
GS10	02D1498-001	08/06/2002	REAL	URANIUM-238	1.090	PCI/L	TR1		0.052	0.248	V
GS10	02D1503-002	09/03/2002	REAL	AMERICIUM-241	0.126	PCI/L	TR1		0.015	0.044	V
GS10	02D1503-005	09/03/2002	DUP	AMERICIUM-241	0.186	PCI/L	TR1		0.015	0.058	V
GS10	02D1503-002	09/03/2002	REAL	AMERICIUM-241	0.290	PCI/L	TR1		0.016	0.083	V
GS10	02D1503-005	09/03/2002	DUP	AMERICIUM-241	0.211	PCI/L	TR1		0.014	0.063	V
GS10	02D1503-002	09/03/2002	REAL	PLUTONIUM-239/240	0.076	PCI/L	TR1		0.018	0.031	V
GS10	02D1503-005	09/03/2002	DUP	PLUTONIUM-239/240	0.324	PCI/L	TR1		0.018	0.088	V
GS10	02D1503-002	09/03/2002	REAL	PLUTONIUM-239/240	0.257	PCI/L	TR1		0.018	0.072	V
GS10	02D1503-005	09/03/2002	DUP	PLUTONIUM-239/240	0.271	PCI/L	TR1		0.018	0.077	V
GS10	02D1503-002	09/03/2002	REAL	URANIUM-233,-234	0.314	PCI/L	TR1		0.067	0.088	V
GS10	02D1503-005	09/03/2002	DUP	URANIUM-233,-234	0.370	PCI/L	TR1		0.071	0.101	V
GS10	02D1503-002	09/03/2002	REAL	URANIUM-233,-234	0.796	PCI/L	TR1		0.078	0.193	V
GS10	02D1503-005	09/03/2002	DUP	URANIUM-233,-234	0.656	PCI/L	TR1		0.073	0.162	V
GS10	02D1503-002	09/03/2002	REAL	URANIUM-235	0.002	PCI/L	TR1	U	0.043	0.020	V
GS10	02D1503-005	09/03/2002	DUP	URANIUM-235	0.002	PCI/L	TR1	U	0.045	0.020	V
GS10	02D1503-002	09/03/2002	REAL	URANIUM-235	0.047	PCI/L	TR1	U	0.053	0.034	V
GS10	02D1503-005	09/03/2002	DUP	URANIUM-235	0.019	PCI/L	TR1	U	0.050	0.025	V
GS10	02D1503-002	09/03/2002	REAL	URANIUM-238	0.315	PCI/L	TR1		0.050	0.085	V
GS10	02D1503-005	09/03/2002	DUP	URANIUM-238	0.356	PCI/L	TR1		0.052	0.095	V
GS10	02D1503-002	09/03/2002	REAL	URANIUM-238	0.791	PCI/L	TR1		0.058	0.190	V
GS10	02D1503-005	09/03/2002	DUP	URANIUM-238	0.678	PCI/L	TR1		0.055	0.165	V
GS10	02D1516-001	09/10/2002	REAL	AMERICIUM-241	0.050	PCI/L	TR1		0.014	0.024	V1
GS10	02D1516-001	09/10/2002	REAL	PLUTONIUM-239/240	0.039	PCI/L	TR1		0.018	0.021	V1
GS10	02D1516-001	09/10/2002	REAL	URANIUM-233,-234	0.604	PCI/L	TR1		0.068	0.149	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	2 Sigma Error	Validation
GS10	02D1516-001	09/10/2002	REAL	URANIUM-235	0.010	PCI/L	TR1	U	0.043	0.022	V1
GS10	02D1516-001	09/10/2002	REAL	URANIUM-238	0.622	PCI/L	TR1		0.051	0.150	V1
GS10	03D0020-007	09/16/2002	REAL	AMERICIUM-241	0.041	PCI/L	TR1		0.014	0.022	V1
GS10	03D0020-007	09/16/2002	REAL	PLUTONIUM-239/240	0.018	PCI/L	TR1		0.017	0.014	V1
GS10	03D0020-007	09/16/2002	REAL	URANIUM-233,-234	0.526	PCI/L	TR1		0.067	0.131	V1
GS10	03D0020-007	09/16/2002	REAL	URANIUM-235	0.020	PCI/L	TR1	U	0.046	0.026	V1
GS10	03D0020-007	09/16/2002	REAL	URANIUM-238	0.483	PCI/L	TR1		0.050	0.120	V1
GS11	02D1240-002	05/16/2002	REAL	AMERICIUM-241	0.004	PCI/L	TR1	U	0.017	0.009	V1
GS11	02D1240-002	05/16/2002	REAL	PLUTONIUM-239/240	-0.001	PCI/L	TR1	U	0.018	0.005	V1
GS11	02D1240-002	05/16/2002	REAL	URANIUM-233,-234	1.520	PCI/L	TR1		0.061	0.341	V1
GS11	02D1240-002	05/16/2002	REAL	URANIUM-235	0.069	PCI/L	TR1		0.043	0.039	V1
GS11	02D1240-002	05/16/2002	REAL	URANIUM-238	1.470	PCI/L	TR1		0.045	0.329	V1
GS11	02D1252-001	05/20/2002	REAL	AMERICIUM-241	-0.001	PCI/L	TR1	U	0.016	0.006	V1
GS11	02D1252-001	05/20/2002	REAL	PLUTONIUM-239/240	0.001	PCI/L	TR1	U	0.019	0.007	V1
GS11	02D1252-001	05/20/2002	REAL	URANIUM-233,-234	1.390	PCI/L	TR1		0.059	0.314	V1
GS11	02D1252-001	05/20/2002	REAL	URANIUM-235	0.032	PCI/L	TR1	U	0.043	0.029	V1
GS11	02D1252-001	05/20/2002	REAL	URANIUM-238	1.240	PCI/L	TR1		0.044	0.281	V1
GS22	02D0680-002	11/15/2001	REAL	AMERICIUM-241	0.005	PCI/L	TR1	U	0.025	0.015	V
GS22	02D0680-002	11/15/2001	REAL	PLUTONIUM-239/240	-0.005	PCI/L	TR1	U	0.024	0.008	V
GS22	02D0680-002	11/15/2001	REAL	URANIUM-233,-234	0.448	PCI/L	TR1	J	0.024	0.147	V
GS22	02D0680-002	11/15/2001	REAL	URANIUM-235	0.012	PCI/L	TR1	U	0.024	0.021	V
GS22	02D0680-002	11/15/2001	REAL	URANIUM-238	0.378	PCI/L	TR1	J	0.023	0.129	V
GS22	02D1148-003	01/17/2002	REAL	AMERICIUM-241	-0.001	PCI/L	TR1	U	0.017	0.013	V1
GS22	02D1148-003	01/17/2002	REAL	PLUTONIUM-239/240	0.002	PCI/L	TR1	U	0.018	0.012	V1
GS22	02D1148-003	01/17/2002	REAL	URANIUM-233,-234	0.631	PCI/L	TR1	J	0.023	0.188	V1
GS22	02D1148-003	01/17/2002	REAL	URANIUM-235	0.020	PCI/L	TR1	U	0.021	0.025	V1
GS22	02D1148-003	01/17/2002	REAL	URANIUM-238	0.563	PCI/L	TR1	J	0.024	0.170	V1
GS22	02D1221-002	04/05/2002	REAL	AMERICIUM-241	-0.001	PCI/L	TR1	U	0.016	0.006	V
GS22	02D1221-002	04/05/2002	REAL	PLUTONIUM-239/240	-0.001	PCI/L	TR1	U	0.018	0.005	V
GS22	02D1221-002	04/05/2002	REAL	URANIUM-233,-234	0.405	PCI/L	TR1		0.063	0.108	V
GS22	02D1221-002	04/05/2002	REAL	URANIUM-235	0.005	PCI/L	TR1	U	0.045	0.020	V
GS22	02D1221-002	04/05/2002	REAL	URANIUM-238	0.304	PCI/L	TR1		0.047	0.084	V
GS22	02D1262-003	05/13/2002	REAL	AMERICIUM-241	0.003	PCI/L	TR1	U	0.015	0.008	V1
GS22	02D1262-003	05/13/2002	REAL	PLUTONIUM-239/240	-0.003	PCI/L	TR1	U	0.018	0.006	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	2 Sigma Error	Validation
GS22	02D1262-003	05/13/2002	REAL	URANIUM-233,-234	0.228	PCI/L	TR1		0.064	0.073	V1
GS22	02D1262-003	05/13/2002	REAL	URANIUM-235	0.001	PCI/L	TR1	U	0.049	0.021	V1
GS22	02D1262-003	05/13/2002	REAL	URANIUM-238	0.194	PCI/L	TR1		0.050	0.062	V1
GS22	02D1362-002	05/29/2002	REAL	AMERICIUM-241	0.008	PCI/L	TR1	U	0.016	0.011	V1
GS22	02D1362-002	05/29/2002	REAL	PLUTONIUM-239/240	0.003	PCI/L	TR1	U	0.016	0.009	V1
GS22	02D1362-002	05/29/2002	REAL	URANIUM-233,-234	0.515	PCI/L	TR1		0.109	0.153	V1
GS22	02D1362-002	05/29/2002	REAL	URANIUM-235	0.035	PCI/L	TR1	U	0.083	0.037	V1
GS22	02D1362-002	05/29/2002	REAL	URANIUM-238	0.456	PCI/L	TR1		0.085	0.137	V1
GS22	02D1435-007	06/24/2002	REAL	AMERICIUM-241	0.000	PCI/L	TR1	U	0.017	0.006	V
GS22	02D1435-007	06/24/2002	REAL	PLUTONIUM-239/240	0.011	PCI/L	TR1	U	0.021	0.012	V
GS22	02D1435-007	06/24/2002	REAL	URANIUM-233,-234	0.544	PCI/L	TR1		0.090	0.147	V
GS22	02D1435-007	06/24/2002	REAL	URANIUM-235	0.005	PCI/L	TR1	U	0.059	0.025	V
GS22	02D1435-007	06/24/2002	REAL	URANIUM-238	0.363	PCI/L	TR1		0.068	0.105	V
GS22	02D1506-007	08/06/2002	REAL	AMERICIUM-241	0.002	PCI/L	TR1	U	0.015	0.007	V1
GS22	02D1506-007	08/06/2002	REAL	PLUTONIUM-239/240	0.009	PCI/L	TR1	U	0.015	0.010	V1
GS22	02D1506-007	08/06/2002	REAL	URANIUM-233,-234	0.404	PCI/L	TR1		0.073	0.109	V1
GS22	02D1506-007	08/06/2002	REAL	URANIUM-235	0.027	PCI/L	TR1	U	0.047	0.027	V1
GS22	02D1506-007	08/06/2002	REAL	URANIUM-238	0.395	PCI/L	TR1		0.054	0.104	V1
GS22	03D0020-011	09/10/2002	REAL	AMERICIUM-241	0.005	PCI/L	TR1	U	0.016	0.009	V1
GS22	03D0020-011	09/10/2002	REAL	PLUTONIUM-239/240	0.001	PCI/L	TR1	U	0.019	0.010	V1
GS22	03D0020-011	09/10/2002	REAL	URANIUM-233,-234	0.175	PCI/L	TR1		0.067	0.060	V1
GS22	03D0020-011	09/10/2002	REAL	URANIUM-235	0.001	PCI/L	TR1	U	0.046	0.021	V1
GS22	03D0020-011	09/10/2002	REAL	URANIUM-238	0.166	PCI/L	TR1		0.050	0.053	V1
GS27	02D1233-006	05/16/2002	REAL	AMERICIUM-241	0.987	PCI/L	TR1		0.016	0.240	V
GS27	02D1233-006	05/16/2002	REAL	PLUTONIUM-239/240	0.920	PCI/L	TR1		0.018	0.221	V
GS27	02D1233-006	05/16/2002	REAL	URANIUM-233,-234	0.998	PCI/L	TR1		0.062	0.233	V
GS27	02D1233-006	05/16/2002	REAL	URANIUM-235	0.043	PCI/L	TR1	U	0.045	0.032	V
GS27	02D1233-006	05/16/2002	REAL	URANIUM-238	0.613	PCI/L	TR1		0.047	0.150	V
GS27	02D1254-003	05/23/2002	REAL	AMERICIUM-241	3.460	PCI/L	TR1		0.016	0.789	V
GS27	02D1254-003	05/23/2002	REAL	PLUTONIUM-239/240	10.500	PCI/L	TR1		0.016	2.320	V
GS27	02D1254-003	05/23/2002	REAL	URANIUM-233,-234	0.559	PCI/L	TR1		0.065	0.141	V
GS27	02D1254-003	05/23/2002	REAL	URANIUM-235	0.014	PCI/L	TR1	U	0.047	0.025	V
GS27	02D1254-003	05/23/2002	REAL	URANIUM-238	0.439	PCI/L	TR1		0.049	0.114	V
GS27	02D1435-004	08/05/2002	REAL	AMERICIUM-241	15.000	PCI/L	TR1		0.062	3.450	V

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	2 Sigma Error	Validation
GS27	02D1435-004	08/05/2002	REAL	PLUTONIUM-239/240	84.800	PCI/L	TR1		0.026	19.600	V
GS27	02D1435-004	08/05/2002	REAL	URANIUM-233,-234	1.980	PCI/L	TR1		0.128	0.482	V
GS27	02D1435-004	08/05/2002	REAL	URANIUM-235	0.078	PCI/L	TR1	U	0.084	0.053	V
GS27	02D1435-004	08/05/2002	REAL	URANIUM-238	1.500	PCI/L	TR1		0.097	0.373	V
GS27	02D1440-002	08/06/2002	REAL	AMERICIUM-241	5.450	PCI/L	TR1		0.019	1.260	1
GS27	02D1440-002	08/06/2002	REAL	PLUTONIUM-239/240	21.900	PCI/L	TR1		0.018	4.860	1
GS27	02D1440-002	08/06/2002	REAL	URANIUM-233,-234	0.323	PCI/L	TR1		0.069	0.091	1
GS27	02D1440-002	08/06/2002	REAL	URANIUM-235	0.000	PCI/L	TR1	U	0.045	0.020	1
GS27	02D1440-002	08/06/2002	REAL	URANIUM-238	0.201	PCI/L	TR1		0.051	0.062	1
GS27	02D1506-005	09/10/2002	REAL	AMERICIUM-241	5.950	PCI/L	TR1		0.020	1.370	V1
GS27	02D1506-005	09/10/2002	REAL	PLUTONIUM-239/240	18.100	PCI/L	TR1		0.017	3.990	V1
GS27	02D1506-005	09/10/2002	REAL	URANIUM-233,-234	1.110	PCI/L	TR1		0.075	0.260	V1
GS27	02D1506-005	09/10/2002	REAL	URANIUM-235	0.058	PCI/L	TR1		0.048	0.037	V1
GS27	02D1506-005	09/10/2002	REAL	URANIUM-238	0.910	PCI/L	TR1		0.056	0.214	V1
GS27	02D1516-004	09/12/2002	REAL	AMERICIUM-241	1.310	PCI/L	TR1		0.015	0.315	V1
GS27	02D1516-004	09/12/2002	REAL	PLUTONIUM-239/240	3.580	PCI/L	TR1		0.017	0.801	V1
GS27	02D1516-004	09/12/2002	REAL	URANIUM-233,-234	0.677	PCI/L	TR1		0.071	0.165	V1
GS27	02D1516-004	09/12/2002	REAL	URANIUM-235	0.004	PCI/L	TR1	U	0.045	0.023	V1
GS27	02D1516-004	09/12/2002	REAL	URANIUM-238	0.531	PCI/L	TR1		0.053	0.132	V1
GS28	02D1254-010	05/23/2002	REAL	AMERICIUM-241	0.028	PCI/L	TR1		0.015	0.018	V
GS28	02D1254-010	05/23/2002	REAL	PLUTONIUM-239/240	0.124	PCI/L	TR1		0.016	0.041	V
GS28	02D1254-010	05/23/2002	REAL	URANIUM-233,-234	0.247	PCI/L	TR1		0.060	0.074	V
GS28	02D1254-010	05/23/2002	REAL	URANIUM-235	-0.007	PCI/L	TR1	U	0.043	0.019	V
GS28	02D1254-010	05/23/2002	REAL	URANIUM-238	0.315	PCI/L	TR1		0.045	0.085	V
GS28	02D1262-009	05/24/2002	REAL	AMERICIUM-241	0.013	PCI/L	TR1	U	0.015	0.012	V1
GS28	02D1262-009	05/24/2002	REAL	PLUTONIUM-239/240	0.013	PCI/L	TR1	U	0.018	0.012	V1
GS28	02D1262-009	05/24/2002	REAL	URANIUM-233,-234	0.182	PCI/L	TR1		0.063	0.062	V1
GS28	02D1262-009	05/24/2002	REAL	URANIUM-235	0.008	PCI/L	TR1	U	0.047	0.022	V1
GS28	02D1262-009	05/24/2002	REAL	URANIUM-238	0.267	PCI/L	TR1		0.048	0.076	V1
GS28	02D1521-003	08/05/2002	REAL	AMERICIUM-241	0.068	PCI/L	TR1		0.013	0.027	V1
GS28	02D1521-003	08/05/2002	REAL	PLUTONIUM-239/240	0.134	PCI/L	TR1		0.017	0.044	V1
GS28	02D1521-003	08/05/2002	REAL	URANIUM-233,-234	0.168	PCI/L	TR1		0.069	0.059	V1
GS28	02D1521-003	08/05/2002	REAL	URANIUM-235	0.007	PCI/L	TR1	U	0.045	0.022	V1
GS28	02D1521-003	08/05/2002	REAL	URANIUM-238	0.284	PCI/L	TR1		0.051	0.079	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	2 Sigma Error	Validation
GS31	02D1506-003	09/10/2002	REAL	AMERICIUM-241	0.015	PCI/L	TR1	U	0.016	0.014	V1
GS31	02D1506-003	09/10/2002	REAL	PLUTONIUM-239/240	0.089	PCI/L	TR1		0.018	0.034	V1
GS31	02D1506-003	09/10/2002	REAL	URANIUM-233,-234	1.200	PCI/L	TR1		0.073	0.277	V1
GS31	02D1506-003	09/10/2002	REAL	URANIUM-235	0.051	PCI/L	TR1		0.047	0.035	V1
GS31	02D1506-003	09/10/2002	REAL	URANIUM-238	1.180	PCI/L	TR1		0.055	0.270	V1
GS32	02D0645-003	01/10/2002	REAL	AMERICIUM-241	0.262	PCI/L	TR1		0.032	0.126	V
GS32	02D0645-003	01/10/2002	REAL	PLUTONIUM-239/240	0.259	PCI/L	TR1		0.026	0.117	V
GS32	02D0645-003	01/10/2002	REAL	TRITIUM	52	PCI/L	TR1	U	189	110	V
GS32	02D0645-003	01/10/2002	REAL	URANIUM-233,-234	1.750	PCI/L	TR1		0.043	0.525	V
GS32	02D0645-003	01/10/2002	REAL	URANIUM-235	0.100	PCI/L	TR1	J	0.042	0.090	V
GS32	02D0645-003	01/10/2002	REAL	URANIUM-238	1.320	PCI/L	TR1		0.042	0.417	V
GS32	02D0935-002	03/05/2002	REAL	AMERICIUM-241	0.266	PCI/L	TR1		0.024	0.111	V
GS32	02D0935-002	03/05/2002	REAL	PLUTONIUM-239/240	0.081	PCI/L	TR1		0.017	0.047	V
GS32	02D0935-002	03/05/2002	REAL	TRITIUM	152	PCI/L	TR1	U	278	168	V
GS32	02D0935-002	03/05/2002	REAL	URANIUM-233,-234	1.290	PCI/L	TR1		0.029	0.356	V
GS32	02D0935-002	03/05/2002	REAL	URANIUM-235	0.016	PCI/L	TR1	U	0.026	0.027	V
GS32	02D0935-002	03/05/2002	REAL	URANIUM-238	0.789	PCI/L	TR1	J	0.028	0.236	V
GS32	02D1214-002	05/01/2002	REAL	AMERICIUM-241	0.207	PCI/L	TR1		0.019	0.067	V
GS32	02D1214-002	05/01/2002	REAL	PLUTONIUM-239/240	0.206	PCI/L	TR1		0.022	0.067	V
GS32	02D1214-002	05/01/2002	REAL	TRITIUM	-116	PCI/L	TR1	U	306	173	V
GS32	02D1214-002	05/01/2002	REAL	URANIUM-233,-234	2.240	PCI/L	TR1		0.097	0.525	V
GS32	02D1214-002	05/01/2002	REAL	URANIUM-235	0.071	PCI/L	TR1		0.069	0.052	V
GS32	02D1214-002	05/01/2002	REAL	URANIUM-238	1.370	PCI/L	TR1		0.076	0.332	V
GS32	02D1221-003	05/11/2002	REAL	AMERICIUM-241	0.400	PCI/L	TR1		0.017	0.111	V
GS32	02D1221-003	05/11/2002	REAL	PLUTONIUM-239/240	0.304	PCI/L	TR1		0.022	0.090	V
GS32	02D1221-003	05/11/2002	REAL	TRITIUM	51	PCI/L	TR1	U	343	200	V1
GS32	02D1221-003	05/11/2002	REAL	URANIUM-233,-234	1.320	PCI/L	TR1		0.091	0.321	V
GS32	02D1221-003	05/11/2002	REAL	URANIUM-235	0.013	PCI/L	TR1	U	0.066	0.026	V
GS32	02D1221-003	05/11/2002	REAL	URANIUM-238	0.842	PCI/L	TR1		0.069	0.215	V
GS32	02D1233-007	05/16/2002	REAL	AMERICIUM-241	0.595	PCI/L	TR1		0.016	0.152	V
GS32	02D1233-007	05/16/2002	REAL	PLUTONIUM-239/240	0.144	PCI/L	TR1		0.018	0.047	V
GS32	02D1233-007	05/16/2002	REAL	TRITIUM	65	PCI/L	TR1	U	300	176	V1
GS32	02D1233-007	05/16/2002	REAL	URANIUM-233,-234	0.805	PCI/L	TR1		0.071	0.198	V
GS32	02D1233-007	05/16/2002	REAL	URANIUM-235	0.016	PCI/L	TR1	U	0.051	0.026	V

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	2 Sigma Error	Validation
GS32	02D1233-007	05/16/2002	REAL	URANIUM-238	0.549	PCI/L	TR1		0.053	0.140	V
GS32	02D1262-010	05/24/2002	REAL	AMERICIUM-241	0.078	PCI/L	TR1		0.015	0.032	V1
GS32	02D1262-010	05/24/2002	REAL	PLUTONIUM-239/240	0.046	PCI/L	TR1		0.018	0.023	V1
GS32	02D1262-010	05/24/2002	REAL	TRITIUM	112	PCI/L	TR1	U	336	196	V
GS32	02D1262-010	05/24/2002	REAL	URANIUM-233,-234	0.526	PCI/L	TR1		0.061	0.133	V1
GS32	02D1262-010	05/24/2002	REAL	URANIUM-235	0.013	PCI/L	TR1	U	0.046	0.024	V1
GS32	02D1262-010	05/24/2002	REAL	URANIUM-238	0.380	PCI/L	TR1		0.047	0.100	V1
GS32	02D1292-001	06/03/2002	REAL	AMERICIUM-241	0.378	PCI/L	TR1		0.015	0.100	V1
GS32	02D1292-001	06/03/2002	REAL	PLUTONIUM-239/240	0.148	PCI/L	TR1		0.019	0.049	V1
GS32	02D1292-001	06/03/2002	REAL	TRITIUM	-53	PCI/L	TR1	U	315	168	V1
GS32	02D1292-001	06/03/2002	REAL	URANIUM-233,-234	1.040	PCI/L	TR1		0.076	0.249	V1
GS32	02D1292-001	06/03/2002	REAL	URANIUM-235	0.055	PCI/L	TR1	U	0.055	0.038	V1
GS32	02D1292-001	06/03/2002	REAL	URANIUM-238	0.526	PCI/L	TR1		0.058	0.138	V1
GS32	02D1333-001	06/19/2002	REAL	AMERICIUM-241	1.360	PCI/L	TR1		0.015	0.320	V1
GS32	02D1333-001	06/19/2002	REAL	PLUTONIUM-239/240	0.737	PCI/L	TR1		0.016	0.177	V1
GS32	02D1333-001	06/19/2002	REAL	TRITIUM	-54	PCI/L	TR1	U	358	194	V1
GS32	02D1333-001	06/19/2002	REAL	URANIUM-233,-234	0.870	PCI/L	TR1		0.105	0.232	V1
GS32	02D1333-001	06/19/2002	REAL	URANIUM-235	0.057	PCI/L	TR1	U	0.080	0.050	V1
GS32	02D1333-001	06/19/2002	REAL	URANIUM-238	0.907	PCI/L	TR1		0.083	0.238	V1
GS32	02D1440-001	08/06/2002	REAL	AMERICIUM-241	0.668	PCI/L	TR1		0.018	0.171	1
GS32	02D1440-001	08/06/2002	REAL	PLUTONIUM-239/240	0.791	PCI/L	TR1		0.018	0.193	1
GS32	02D1440-001	08/06/2002	REAL	TRITIUM	47	PCI/L	TR1	U	337	196	V1
GS32	02D1440-001	08/06/2002	REAL	URANIUM-233,-234	0.625	PCI/L	TR1		0.084	0.161	1
GS32	02D1440-001	08/06/2002	REAL	URANIUM-235	0.034	PCI/L	TR1	U	0.055	0.031	1
GS32	02D1440-001	08/06/2002	REAL	URANIUM-238	0.507	PCI/L	TR1		0.063	0.133	1
GS32	02D1506-008	09/09/2002	REAL	AMERICIUM-241	0.066	PCI/L	TR1		0.015	0.029	V1
GS32	02D1506-008	09/09/2002	REAL	PLUTONIUM-239/240	0.119	PCI/L	TR1		0.019	0.043	V1
GS32	02D1506-008	09/09/2002	REAL	TRITIUM	28	PCI/L	TR1	U	195	111	V1
GS32	02D1506-008	09/09/2002	REAL	URANIUM-233,-234	2.350	PCI/L	TR1		0.146	0.574	V1
GS32	02D1506-008	09/09/2002	REAL	URANIUM-235	0.083	PCI/L	TR1	U	0.093	0.057	V1
GS32	02D1506-008	09/09/2002	REAL	URANIUM-238	1.330	PCI/L	TR1		0.110	0.341	V1
GS32	02D1516-005	09/11/2002	REAL	AMERICIUM-241	0.091	PCI/L	TR1		0.013	0.034	V1
GS32	02D1516-005	09/11/2002	REAL	PLUTONIUM-239/240	0.103	PCI/L	TR1		0.016	0.036	V1
GS32	02D1516-005	09/11/2002	REAL	TRITIUM	-53	PCI/L	TR1	U	275	158	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	2 Sigma Error	Validation
GS32	02D1516-005	09/11/2002	REAL	URANIUM-233,-234	0.916	PCI/L	TR1		0.075	0.218	V1
GS32	02D1516-005	09/11/2002	REAL	URANIUM-235	0.036	PCI/L	TR1	U	0.047	0.030	V1
GS32	02D1516-005	09/11/2002	REAL	URANIUM-238	0.556	PCI/L	TR1		0.056	0.139	V1
GS38	02D0680-001	11/29/2001	REAL	AMERICIUM-241	0.003	PCI/L	TR1	U	0.019	0.012	V
GS38	02D0680-001	11/29/2001	REAL	PLUTONIUM-239/240	0.025	PCI/L	TR1	J	0.016	0.024	V
GS38	02D0680-001	11/29/2001	REAL	URANIUM-233,-234	0.123	PCI/L	TR1	J	0.024	0.065	V
GS38	02D0680-001	11/29/2001	REAL	URANIUM-235	-0.002	PCI/L	TR1	U	0.024	0.017	V
GS38	02D0680-001	11/29/2001	REAL	URANIUM-238	0.146	PCI/L	TR1	J	0.023	0.069	V
GS38	02D0825-001	01/17/2002	REAL	AMERICIUM-241	0.015	PCI/L	TR1	U	0.020	0.021	V
GS38	02D0825-001	01/17/2002	REAL	PLUTONIUM-239/240	0.119	PCI/L	TR1		0.024	0.069	V
GS38	02D0825-001	01/17/2002	REAL	URANIUM-233,-234	0.119	PCI/L	TR1	J	0.020	0.058	V
GS38	02D0825-001	01/17/2002	REAL	URANIUM-235	-0.002	PCI/L	TR1	U	0.019	0.003	V
GS38	02D0825-001	01/17/2002	REAL	URANIUM-238	0.066	PCI/L	TR1	J	0.021	0.040	V
GS38	02D1221-004	02/15/2002	REAL	AMERICIUM-241	0.007	PCI/L	TR1	U	0.021	0.012	V
GS38	02D1221-004	02/15/2002	REAL	PLUTONIUM-239/240	0.042	PCI/L	TR1		0.022	0.024	V
GS38	02D1221-004	02/15/2002	REAL	URANIUM-233,-234	0.180	PCI/L	TR1		0.082	0.068	V
GS38	02D1221-004	02/15/2002	REAL	URANIUM-235	-0.014	PCI/L	TR1	U	0.059	0.019	V
GS38	02D1221-004	02/15/2002	REAL	URANIUM-238	0.186	PCI/L	TR1		0.062	0.066	V
GS38	02D1254-005	05/14/2002	REAL	AMERICIUM-241	0.039	PCI/L	TR1		0.015	0.021	V
GS38	02D1254-005	05/14/2002	REAL	PLUTONIUM-239/240	0.131	PCI/L	TR1		0.017	0.044	V
GS38	02D1254-005	05/14/2002	REAL	URANIUM-233,-234	0.260	PCI/L	TR1		0.067	0.080	V
GS38	02D1254-005	05/14/2002	REAL	URANIUM-235	0.004	PCI/L	TR1	U	0.049	0.021	V
GS38	02D1254-005	05/14/2002	REAL	URANIUM-238	0.255	PCI/L	TR1		0.051	0.075	V
GS38	02D1262-004	05/24/2002	REAL	AMERICIUM-241	0.017	PCI/L	TR1		0.015	0.013	V1
GS38	02D1262-004	05/24/2002	REAL	PLUTONIUM-239/240	0.042	PCI/L	TR1		0.017	0.021	V1
GS38	02D1262-004	05/24/2002	REAL	URANIUM-233,-234	0.269	PCI/L	TR1		0.064	0.081	V1
GS38	02D1262-004	05/24/2002	REAL	URANIUM-235	0.011	PCI/L	TR1	U	0.048	0.023	V1
GS38	02D1262-004	05/24/2002	REAL	URANIUM-238	0.238	PCI/L	TR1		0.050	0.071	V1
GS38	02D1435-002	06/03/2002	REAL	AMERICIUM-241	0.054	PCI/L	TR1		0.016	0.026	V
GS38	02D1435-002	06/03/2002	REAL	PLUTONIUM-239/240	0.270	PCI/L	TR1		0.017	0.075	V
GS38	02D1435-002	06/03/2002	REAL	URANIUM-233,-234	0.436	PCI/L	TR1		0.083	0.121	V
GS38	02D1435-002	06/03/2002	REAL	URANIUM-235	0.021	PCI/L	TR1	U	0.055	0.027	V
GS38	02D1435-002	06/03/2002	REAL	URANIUM-238	0.404	PCI/L	TR1		0.063	0.111	V
GS38	02D1506-006	08/06/2002	REAL	AMERICIUM-241	0.033	PCI/L	TR1		0.014	0.019	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	2 Sigma Error	Validation
GS38	02D1506-006	08/06/2002	REAL	PLUTONIUM-239/240	0.174	PCI/L	TR1		0.016	0.053	V1
GS38	02D1506-006	08/06/2002	REAL	URANIUM-233,-234	0.241	PCI/L	TR1		0.075	0.075	V1
GS38	02D1506-006	08/06/2002	REAL	URANIUM-235	0.001	PCI/L	TR1	U	0.048	0.021	V1
GS38	02D1506-006	08/06/2002	REAL	URANIUM-238	0.286	PCI/L	TR1		0.056	0.082	V1
GS38	02D1521-002	09/10/2002	REAL	AMERICIUM-241	0.030	PCI/L	TR1		0.014	0.018	V1
GS38	02D1521-002	09/10/2002	REAL	PLUTONIUM-239/240	0.030	PCI/L	TR1		0.017	0.018	V1
GS38	02D1521-002	09/10/2002	REAL	URANIUM-233,-234	0.154	PCI/L	TR1		0.073	0.058	V1
GS38	02D1521-002	09/10/2002	REAL	URANIUM-235	0.001	PCI/L	TR1	U	0.047	0.020	V1
GS38	02D1521-002	09/10/2002	REAL	URANIUM-238	0.178	PCI/L	TR1		0.054	0.058	V1
GS38	03D0024-002	09/18/2002	REAL	AMERICIUM-241	0.030	PCI/L	TR1		0.016	0.019	V1
GS38	03D0024-002	09/18/2002	REAL	PLUTONIUM-239/240	0.105	PCI/L	TR1		0.018	0.038	V1
GS38	03D0024-002	09/18/2002	REAL	URANIUM-233,-234	0.246	PCI/L	TR1		0.073	0.076	V1
GS38	03D0024-002	09/18/2002	REAL	URANIUM-235	0.018	PCI/L	TR1	U	0.050	0.025	V1
GS38	03D0024-002	09/18/2002	REAL	URANIUM-238	0.306	PCI/L	TR1		0.055	0.085	V1
GS39	02D1254-002	05/16/2002	REAL	AMERICIUM-241	0.013	PCI/L	TR1	U	0.015	0.012	V
GS39	02D1254-002	05/16/2002	REAL	PLUTONIUM-239/240	0.045	PCI/L	TR1		0.017	0.022	V
GS39	02D1254-002	05/16/2002	REAL	URANIUM-233,-234	0.085	PCI/L	TR1		0.064	0.042	V
GS39	02D1254-002	05/16/2002	REAL	URANIUM-235	-0.007	PCI/L	TR1	U	0.046	0.017	V
GS39	02D1254-002	05/16/2002	REAL	URANIUM-238	0.062	PCI/L	TR1		0.048	0.032	V
GS39	02D1262-006	05/24/2002	REAL	AMERICIUM-241	0.012	PCI/L	TR1	U	0.014	0.011	V1
GS39	02D1262-006	05/24/2002	REAL	PLUTONIUM-239/240	0.049	PCI/L	TR1		0.016	0.023	V1
GS39	02D1262-006	05/24/2002	REAL	URANIUM-233,-234	0.058	PCI/L	TR1	U	0.062	0.037	V1
GS39	02D1262-006	05/24/2002	REAL	URANIUM-235	0.008	PCI/L	TR1	U	0.047	0.021	V1
GS39	02D1262-006	05/24/2002	REAL	URANIUM-238	0.076	PCI/L	TR1		0.048	0.035	V1
GS39	02D1435-003	06/03/2002	REAL	AMERICIUM-241	0.037	PCI/L	TR1		0.016	0.020	V
GS39	02D1435-003	06/03/2002	REAL	PLUTONIUM-239/240	0.056	PCI/L	TR1		0.017	0.025	V
GS39	02D1435-003	06/03/2002	REAL	URANIUM-233,-234	0.094	PCI/L	TR1		0.090	0.051	V
GS39	02D1435-003	06/03/2002	REAL	URANIUM-235	-0.008	PCI/L	TR1	U	0.059	0.024	V
GS39	02D1435-003	06/03/2002	REAL	URANIUM-238	0.104	PCI/L	TR1		0.068	0.047	V
GS39	02D1521-001	08/06/2002	REAL	AMERICIUM-241	0.022	PCI/L	TR1		0.014	0.015	V1
GS39	02D1521-001	08/06/2002	REAL	PLUTONIUM-239/240	0.014	PCI/L	TR1	U	0.017	0.012	V1
GS39	02D1521-001	08/06/2002	REAL	URANIUM-233,-234	0.064	PCI/L	TR1	U	0.070	0.040	V1
GS39	02D1521-001	08/06/2002	REAL	URANIUM-235	0.000	PCI/L	TR1	U	0.045	0.019	V1
GS39	02D1521-001	08/06/2002	REAL	URANIUM-238	0.063	PCI/L	TR1		0.052	0.033	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	2 Sigma Error	Validation
GS39	03D0020-005	09/25/2002	REAL	AMERICIUM-241	0.007	PCI/L	TR1	U	0.015	0.010	V1
GS39	03D0020-005	09/25/2002	REAL	PLUTONIUM-239/240	0.014	PCI/L	TR1	U	0.018	0.013	V1
GS39	03D0020-005	09/25/2002	REAL	URANIUM-233,-234	0.055	PCI/L	TR1	U	0.074	0.039	V1
GS39	03D0020-005	09/25/2002	REAL	URANIUM-235	-0.001	PCI/L	TR1	U	0.050	0.020	V1
GS39	03D0020-005	09/25/2002	REAL	URANIUM-238	0.038	PCI/L	TR1	U	0.056	0.030	V1
GS40	02D0265-003	10/01/2001	REAL	AMERICIUM-241	0.006	PCI/L	TR1	U	0.018	0.016	V1
GS40	02D0265-003	10/01/2001	REAL	PLUTONIUM-239/240	-0.003	PCI/L	TR1	U	0.017	0.004	V1
GS40	02D0265-003	10/01/2001	REAL	TRITIUM	28	PCI/L	TR1	U	208	119	V1
GS40	02D0265-003	10/01/2001	REAL	URANIUM-233,-234	1.970	PCI/L	TR1		0.024	0.490	V1
GS40	02D0265-003	10/01/2001	REAL	URANIUM-235	0.068	PCI/L	TR1	J	0.023	0.050	V1
GS40	02D0265-003	10/01/2001	REAL	URANIUM-238	2.420	PCI/L	TR1		0.023	0.587	V1
GS40	02D0575-002	11/01/2001	REAL	AMERICIUM-241	0.021	PCI/L	TR1	J	0.020	0.024	V
GS40	02D0575-002	11/01/2001	REAL	PLUTONIUM-239/240	0.007	PCI/L	TR1	U	0.024	0.016	V
GS40	02D0575-002	11/01/2001	REAL	TRITIUM	51	PCI/L	TR1	U	298	169	V
GS40	02D0575-002	11/01/2001	REAL	URANIUM-233,-234	1.610	PCI/L	TR1		0.024	0.410	V
GS40	02D0575-002	11/01/2001	REAL	URANIUM-235	0.045	PCI/L	TR1	J	0.023	0.039	V
GS40	02D0575-002	11/01/2001	REAL	URANIUM-238	1.990	PCI/L	TR1		0.023	0.491	V
GS40	02D0687-002	12/24/2001	REAL	AMERICIUM-241	0.011	PCI/L	TR1	U	0.022	0.019	V
GS40	02D0687-002	12/24/2001	REAL	PLUTONIUM-239/240	0.004	PCI/L	TR1	U	0.020	0.020	V
GS40	02D0687-002	12/24/2001	REAL	TRITIUM	55	PCI/L	TR1	U	206	120	V
GS40	02D0687-002	12/24/2001	REAL	URANIUM-233,-234	5.660	PCI/L	TR1		0.026	1.340	V
GS40	02D0687-002	12/24/2001	REAL	URANIUM-235	0.214	PCI/L	TR1	J	0.026	0.108	V
GS40	02D0687-002	12/24/2001	REAL	URANIUM-238	5.390	PCI/L	TR1		0.025	1.280	V
GS40	02D0815-002	01/21/2002	REAL	AMERICIUM-241	0.004	PCI/L	TR1	U	0.022	0.013	V
GS40	02D0815-002	01/21/2002	REAL	PLUTONIUM-239/240	0.019	PCI/L	TR1	J	0.016	0.025	V
GS40	02D0815-002	01/21/2002	REAL	TRITIUM	-99	PCI/L	TR1	U	155	85	V
GS40	02D0815-002	01/21/2002	REAL	URANIUM-233,-234	2.480	PCI/L	TR1		0.025	0.607	V
GS40	02D0815-002	01/21/2002	REAL	URANIUM-235	0.057	PCI/L	TR1	J	0.024	0.049	V
GS40	02D0815-002	01/21/2002	REAL	URANIUM-238	2.340	PCI/L	TR1		0.024	0.575	V
GS40	02D0965-002	02/06/2002	REAL	AMERICIUM-241	-0.002	PCI/L	TR1	U	0.019	0.002	V1
GS40	02D0965-002	02/06/2002	REAL	PLUTONIUM-239/240	0.011	PCI/L	TR1	U	0.015	0.017	V1
GS40	02D0965-002	02/06/2002	REAL	TRITIUM	53	PCI/L	TR1	U	214	124	V1
GS40	02D0965-002	02/06/2002	REAL	URANIUM-233,-234	1.440	PCI/L	TR1		0.022	0.365	V1
GS40	02D0965-002	02/06/2002	REAL	URANIUM-235	0.068	PCI/L	TR1	J	0.020	0.047	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	2 Sigma Error	Validation
GS40	02D0965-002	02/06/2002	REAL	URANIUM-238	1.680	PCI/L	TR1		0.022	0.417	V1
GS40	02D1214-003	03/13/2002	REAL	AMERICIUM-241	0.024	PCI/L	TR1		0.021	0.021	V
GS40	02D1214-003	03/13/2002	REAL	PLUTONIUM-239/240	0.005	PCI/L	TR1	U	0.024	0.010	V
GS40	02D1214-003	03/13/2002	REAL	TRITIUM	-48	PCI/L	TR1	U	336	193	V
GS40	02D1214-003	03/13/2002	REAL	URANIUM-233,-234	3.190	PCI/L	TR1		0.071	0.708	V
GS40	02D1214-003	03/13/2002	REAL	URANIUM-235	0.135	PCI/L	TR1		0.050	0.063	V
GS40	02D1214-003	03/13/2002	REAL	URANIUM-238	3.200	PCI/L	TR1		0.055	0.709	V
GS40	02D1262-007	05/03/2002	REAL	AMERICIUM-241	0.016	PCI/L	TR1		0.015	0.013	V1
GS40	02D1262-007	05/03/2002	REAL	PLUTONIUM-239/240	0.025	PCI/L	TR1		0.016	0.016	V1
GS40	02D1262-007	05/03/2002	REAL	TRITIUM	164	PCI/L	TR1	U	328	197	V
GS40	02D1262-007	05/03/2002	REAL	URANIUM-233,-234	1.200	PCI/L	TR1		0.062	0.277	V1
GS40	02D1262-007	05/03/2002	REAL	URANIUM-235	0.016	PCI/L	TR1	U	0.047	0.025	V1
GS40	02D1262-007	05/03/2002	REAL	URANIUM-238	1.360	PCI/L	TR1		0.048	0.309	V1
GS40	02D1333-003	05/29/2002	REAL	AMERICIUM-241	0.011	PCI/L	TR1	U	0.015	0.011	V1
GS40	02D1333-003	05/29/2002	REAL	PLUTONIUM-239/240	0.026	PCI/L	TR1		0.017	0.016	V1
GS40	02D1333-003	05/29/2002	REAL	TRITIUM	-27	PCI/L	TR1	U	355	195	V1
GS40	02D1333-003	05/29/2002	REAL	URANIUM-233,-234	2.000	PCI/L	TR1		0.058	0.440	V1
GS40	02D1333-003	05/29/2002	REAL	URANIUM-235	0.078	PCI/L	TR1		0.043	0.041	V1
GS40	02D1333-003	05/29/2002	REAL	URANIUM-238	2.550	PCI/L	TR1		0.044	0.555	V1
GS40	02D1435-005	06/20/2002	REAL	AMERICIUM-241	0.087	PCI/L	TR1		0.021	0.038	V
GS40	02D1435-005	06/20/2002	REAL	PLUTONIUM-239/240	0.049	PCI/L	TR1		0.019	0.024	V
GS40	02D1435-005	06/20/2002	REAL	TRITIUM	189	PCI/L	TR1	U	336	202	V1
GS40	02D1435-005	06/20/2002	REAL	URANIUM-233,-234	1.850	PCI/L	TR1		0.069	0.412	V
GS40	02D1435-005	06/20/2002	REAL	URANIUM-235	0.082	PCI/L	TR1		0.046	0.044	V
GS40	02D1435-005	06/20/2002	REAL	URANIUM-238	2.170	PCI/L	TR1		0.052	0.477	V
GS40	02D1498-003	08/06/2002	REAL	AMERICIUM-241	0.011	PCI/L	TR1	U	0.015	0.012	V
GS40	02D1498-003	08/06/2002	REAL	PLUTONIUM-239/240	0.007	PCI/L	TR1	U	0.016	0.009	V
GS40	02D1498-003	08/06/2002	REAL	TRITIUM	84	PCI/L	TR1	U	196	116	V1
GS40	02D1498-003	08/06/2002	REAL	URANIUM-233,-234	1.470	PCI/L	TR1		0.068	0.331	V
GS40	02D1498-003	08/06/2002	REAL	URANIUM-235	0.035	PCI/L	TR1	U	0.043	0.030	V
GS40	02D1498-003	08/06/2002	REAL	URANIUM-238	1.740	PCI/L	TR1		0.051	0.385	V
GS40	02D1516-006	09/03/2002	REAL	AMERICIUM-241	0.035	PCI/L	TR1		0.015	0.021	V1
GS40	02D1516-006	09/03/2002	REAL	PLUTONIUM-239/240	0.019	PCI/L	TR1		0.017	0.014	V1
GS40	02D1516-006	09/03/2002	REAL	TRITIUM	27	PCI/L	TR1	U	277	162	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	2 Sigma Error	Validation
GS40	02D1516-006	09/03/2002	REAL	URANIUM-233,-234	0.574	PCI/L	TR1		0.071	0.143	V1
GS40	02D1516-006	09/03/2002	REAL	URANIUM-235	0.023	PCI/L	TR1	U	0.045	0.026	V1
GS40	02D1516-006	09/03/2002	REAL	URANIUM-238	0.579	PCI/L	TR1		0.053	0.142	V1
GS40	02D1542-001	09/16/2002	REAL	AMERICIUM-241	0.000	PCI/L	TR1	U	0.015	0.006	V
GS40	02D1542-001	09/16/2002	REAL	PLUTONIUM-239/240	0.003	PCI/L	TR1	U	0.019	0.008	V
GS40	02D1542-001	09/16/2002	REAL	TRITIUM	155	PCI/L	TR1	U	332	198	
GS40	02D1542-001	09/16/2002	REAL	URANIUM-233,-234	1.980	PCI/L	TR1		0.071	0.440	V
GS40	02D1542-001	09/16/2002	REAL	URANIUM-235	0.068	PCI/L	TR1		0.046	0.039	V
GS40	02D1542-001	09/16/2002	REAL	URANIUM-238	2.610	PCI/L	TR1		0.053	0.572	V
GS40	03D0063-001	09/23/2002	REAL	AMERICIUM-241	0.023	PCI/L	TR1		0.014	0.016	V1
GS40	03D0063-001	09/23/2002	REAL	PLUTONIUM-239/240	0.009	PCI/L	TR1	U	0.018	0.012	V1
GS40	03D0063-001	09/23/2002	REAL	TRITIUM	29	PCI/L	TR1	U	334	187	V1
GS40	03D0063-001	09/23/2002	REAL	URANIUM-233,-234	0.962	PCI/L	TR1		0.057	0.222	V1
GS40	03D0063-001	09/23/2002	REAL	URANIUM-235	0.028	PCI/L	TR1	U	0.044	0.027	V1
GS40	03D0063-001	09/23/2002	REAL	URANIUM-238	1.400	PCI/L	TR1		0.044	0.312	V1
GS43	03D0109-004	05/24/2002	REAL	AMERICIUM-241	0.001	PCI/L	TR1	U	0.014	0.008	V
GS43	03D0109-004	05/24/2002	REAL	PLUTONIUM-239/240	0.006	PCI/L	TR1	U	0.017	0.011	V
GS43	03D0109-004	05/24/2002	REAL	URANIUM-233,-234	1.660	PCI/L	TR1		0.058	0.371	V
GS43	03D0109-004	05/24/2002	REAL	URANIUM-235	0.044	PCI/L	TR1	U	0.045	0.032	V
GS43	03D0109-004	05/24/2002	REAL	URANIUM-238	0.783	PCI/L	TR1		0.046	0.184	V
GS44	02D0299-002	10/04/2001	REAL	AMERICIUM-241	0.018	PCI/L	TR1	U	0.022	0.024	V1
GS44	02D0299-002	10/04/2001	REAL	PLUTONIUM-239/240	-0.003	PCI/L	TR1	U	0.018	0.005	V1
GS44	02D0299-002	10/04/2001	REAL	TRITIUM	26	PCI/L	TR1	U	206	118	V1
GS44	02D0299-002	10/04/2001	REAL	URANIUM-233,-234	1.960	PCI/L	TR1		0.020	0.470	V1
GS44	02D0299-002	10/04/2001	REAL	URANIUM-235	0.075	PCI/L	TR1	J	0.020	0.049	V1
GS44	02D0299-002	10/04/2001	REAL	URANIUM-238	1.650	PCI/L	TR1		0.019	0.402	V1
GS44	02D1254-011	05/01/2002	REAL	AMERICIUM-241	0.018	PCI/L	TR1		0.015	0.014	V
GS44	02D1254-011	05/01/2002	REAL	PLUTONIUM-239/240	0.006	PCI/L	TR1	U	0.016	0.009	V
GS44	02D1254-011	05/01/2002	REAL	TRITIUM	26	PCI/L	TR1	U	311	174	V1
GS44	02D1254-011	05/01/2002	REAL	URANIUM-233,-234	0.261	PCI/L	TR1		0.063	0.078	V
GS44	02D1254-011	05/01/2002	REAL	URANIUM-235	-0.003	PCI/L	TR1	U	0.046	0.018	V
GS44	02D1254-011	05/01/2002	REAL	URANIUM-238	0.204	PCI/L	TR1		0.048	0.063	V
GS44	02D1292-002	05/24/2002	REAL	AMERICIUM-241	0.010	PCI/L	TR1	U	0.016	0.012	V1
GS44	02D1292-002	05/24/2002	REAL	PLUTONIUM-239/240	0.004	PCI/L	TR1	U	0.017	0.008	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	2 Sigma Error	Validation
GS44	02D1292-002	05/24/2002	REAL	TRITIUM	54	PCI/L	TR1	U	324	184	V1
GS44	02D1292-002	05/24/2002	REAL	URANIUM-233,-234	1.270	PCI/L	TR1		0.064	0.292	V1
GS44	02D1292-002	05/24/2002	REAL	URANIUM-235	0.043	PCI/L	TR1	U	0.047	0.032	V1
GS44	02D1292-002	05/24/2002	REAL	URANIUM-238	1.030	PCI/L	TR1		0.048	0.239	V1
GS44	02D1506-001	06/04/2002	REAL	AMERICIUM-241	0.013	PCI/L	TR1	U	0.016	0.013	V1
GS44	02D1506-001	06/04/2002	REAL	PLUTONIUM-239/240	0.036	PCI/L	TR1		0.017	0.021	V1
GS44	02D1506-001	06/04/2002	REAL	TRITIUM	29	PCI/L	TR1	U	201	114	V1
GS44	02D1506-001	06/04/2002	REAL	URANIUM-233,-234	1.700	PCI/L	TR1		0.072	0.381	V1
GS44	02D1506-001	06/04/2002	REAL	URANIUM-235	0.043	PCI/L	TR1	U	0.046	0.032	V1
GS44	02D1506-001	06/04/2002	REAL	URANIUM-238	1.240	PCI/L	TR1		0.053	0.281	V1
GS44	03D0020-001	09/10/2002	REAL	AMERICIUM-241	0.008	PCI/L	TR1	U	0.014	0.010	V1
GS44	03D0020-001	09/10/2002	REAL	PLUTONIUM-239/240	0.002	PCI/L	TR1	U	0.017	0.007	V1
GS44	03D0020-001	09/10/2002	REAL	TRITIUM	70	PCI/L	TR1	U	231	136	V1
GS44	03D0020-001	09/10/2002	REAL	URANIUM-233,-234	0.086	PCI/L	TR1		0.071	0.044	V1
GS44	03D0020-001	09/10/2002	REAL	URANIUM-235	0.001	PCI/L	TR1	U	0.048	0.021	V1
GS44	03D0020-001	09/10/2002	REAL	URANIUM-238	0.067	PCI/L	TR1		0.053	0.034	V1
GS49	02D0680-003	11/18/2001	REAL	AMERICIUM-241	-0.002	PCI/L	TR1	U	0.018	0.002	V
GS49	02D0680-003	11/18/2001	REAL	PLUTONIUM-239/240	0.004	PCI/L	TR1	U	0.015	0.010	V
GS49	02D0680-003	11/18/2001	REAL	TRITIUM	0	PCI/L	TR1	U	201	113	V1
GS49	02D0680-003	11/18/2001	REAL	URANIUM-233,-234	0.098	PCI/L	TR1	J	0.021	0.052	V
GS49	02D0680-003	11/18/2001	REAL	URANIUM-235	-0.003	PCI/L	TR1	U	0.021	0.003	V
GS49	02D0680-003	11/18/2001	REAL	URANIUM-238	0.042	PCI/L	TR1	J	0.020	0.032	V
GS49	02D1107-001	01/25/2002	REAL	AMERICIUM-241	0.003	PCI/L	TR1	U	0.017	0.010	V
GS49	02D1107-001	01/25/2002	REAL	PLUTONIUM-239/240	0.003	PCI/L	TR1	U	0.016	0.009	V
GS49	02D1107-001	01/25/2002	REAL	TRITIUM	102	PCI/L	TR1	U	251	148	V1
GS49	02D1107-001	01/25/2002	REAL	URANIUM-233,-234	0.366	PCI/L	TR1	J	0.023	0.125	V
GS49	02D1107-001	01/25/2002	REAL	URANIUM-235	0.005	PCI/L	TR1	U	0.021	0.014	V
GS49	02D1107-001	01/25/2002	REAL	URANIUM-238	0.274	PCI/L	TR1	J	0.023	0.100	V
GS49	02D1243-004	04/21/2002	REAL	AMERICIUM-241	0.001	PCI/L	TR1	U	0.014	0.007	J1
GS49	02D1243-004	04/21/2002	REAL	PLUTONIUM-239/240	0.004	PCI/L	TR1	U	0.017	0.008	V1
GS49	02D1243-004	04/21/2002	REAL	TRITIUM	-27	PCI/L	TR1	U	241	132	V1
GS49	02D1243-004	04/21/2002	REAL	URANIUM-233,-234	1.490	PCI/L	TR1		0.063	0.336	V1
GS49	02D1243-004	04/21/2002	REAL	URANIUM-235	0.043	PCI/L	TR1	U	0.045	0.032	V1
GS49	02D1243-004	04/21/2002	REAL	URANIUM-238	1.190	PCI/L	TR1		0.047	0.272	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	2 Sigma Error	Validation
GS49	02D1254-013	05/23/2002	REAL	AMERICIUM-241	0.025	PCI/L	TR1		0.016	0.019	V
GS49	02D1254-013	05/23/2002	REAL	PLUTONIUM-239/240	0.002	PCI/L	TR1	U	0.015	0.013	V
GS49	02D1254-013	05/23/2002	REAL	TRITIUM	-84	PCI/L	TR1	U	334	176	V1
GS49	02D1254-013	05/23/2002	REAL	URANIUM-233,-234	0.217	PCI/L	TR1		0.060	0.068	V
GS49	02D1254-013	05/23/2002	REAL	URANIUM-235	0.001	PCI/L	TR1	U	0.043	0.019	V
GS49	02D1254-013	05/23/2002	REAL	URANIUM-238	0.218	PCI/L	TR1		0.045	0.064	V
GS49	02D1333-002	05/24/2002	REAL	AMERICIUM-241	0.004	PCI/L	TR1	U	0.016	0.008	V1
GS49	02D1333-002	05/24/2002	REAL	PLUTONIUM-239/240	0.006	PCI/L	TR1	U	0.016	0.010	V1
GS49	02D1333-002	05/24/2002	REAL	TRITIUM	-161	PCI/L	TR1	U	356	183	V1
GS49	02D1333-002	05/24/2002	REAL	URANIUM-233,-234	0.039	PCI/L	TR1	U	0.060	0.033	V1
GS49	02D1333-002	05/24/2002	REAL	URANIUM-235	-0.002	PCI/L	TR1	U	0.045	0.019	V1
GS49	02D1333-002	05/24/2002	REAL	URANIUM-238	0.049	PCI/L	TR1		0.046	0.029	V1
GS49	02D1506-002	08/04/2002	REAL	AMERICIUM-241	0.021	PCI/L	TR1		0.015	0.016	V1
GS49	02D1506-002	08/04/2002	REAL	PLUTONIUM-239/240	0.101	PCI/L	TR1		0.018	0.039	V1
GS49	02D1506-002	08/04/2002	REAL	TRITIUM	111	PCI/L	TR1	U	195	118	V1
GS49	02D1506-002	08/04/2002	REAL	URANIUM-233,-234	1.390	PCI/L	TR1		0.071	0.315	V1
GS49	02D1506-002	08/04/2002	REAL	URANIUM-235	0.103	PCI/L	TR1		0.045	0.050	V1
GS49	02D1506-002	08/04/2002	REAL	URANIUM-238	1.440	PCI/L	TR1		0.053	0.324	V1
GS49	03D0020-003	09/11/2002	REAL	AMERICIUM-241	0.004	PCI/L	TR1	U	0.014	0.008	V1
GS49	03D0020-003	09/11/2002	REAL	PLUTONIUM-239/240	0.003	PCI/L	TR1	U	0.016	0.009	V1
GS49	03D0020-003	09/11/2002	REAL	TRITIUM	41	PCI/L	TR1	U	239	140	V1
GS49	03D0020-003	09/11/2002	REAL	URANIUM-233,-234	0.161	PCI/L	TR1		0.068	0.058	V1
GS49	03D0020-003	09/11/2002	REAL	URANIUM-235	0.002	PCI/L	TR1	U	0.047	0.020	V1
GS49	03D0020-003	09/11/2002	REAL	URANIUM-238	0.153	PCI/L	TR1		0.051	0.052	V1
GS50	03D0683-008	05/24/2002	REAL	AMERICIUM-241	0.055	PCI/L	TR1		.017	.025	V1
GS50	03D0683-008	05/24/2002	REAL	PLUTONIUM-239/240	0.016	PCI/L	TR1	U	.02	.015	V1
GS50	03D0683-008	05/24/2002	REAL	URANIUM-233,-234	0.177	PCI/L	TR1		.048	.058	V1
GS50	03D0683-008	05/24/2002	REAL	URANIUM-235	-0.034	PCI/L	TR1	U	.017	.024	V1
GS50	03D0683-008	05/24/2002	REAL	URANIUM-238	0.115	PCI/L	TR1		.036	.042	V1
GS51	03D0154-004	05/24/2002	REAL	AMERICIUM-241	0.389	PCI/L	TR1		0.018	0.113	V1
GS51	03D0154-004	05/24/2002	REAL	PLUTONIUM-239/240	2.410	PCI/L	TR1		0.019	0.559	V1
GS51	03D0154-004	05/24/2002	REAL	URANIUM-233,-234	1.420	PCI/L	TR1		0.059	0.322	V1
GS51	03D0154-004	05/24/2002	REAL	URANIUM-235	0.027	PCI/L	TR1	U	0.041	0.026	V1
GS51	03D0154-004	05/24/2002	REAL	URANIUM-238	1.190	PCI/L	TR1		0.045	0.270	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	2 Sigma Error	Validation
GS52	02D1261-003	05/24/2002	REAL	AMERICIUM-241	0.065	PCI/L	TR1		0.014	0.027	V
GS52	02D1261-003	05/24/2002	REAL	PLUTONIUM-239/240	0.370	PCI/L	TR1		0.016	0.095	V
GS52	02D1261-003	05/24/2002	REAL	URANIUM-233,-234	1.570	PCI/L	TR1		0.074	0.363	V
GS52	02D1261-003	05/24/2002	REAL	URANIUM-235	0.040	PCI/L	TR1	U	0.053	0.033	V
GS52	02D1261-003	05/24/2002	REAL	URANIUM-238	1.250	PCI/L	TR1		0.057	0.293	V
GS55	02D1214-004	04/10/2002	REAL	AMERICIUM-241	-0.003	PCI/L	TR1	U	0.016	0.004	V
GS55	02D1214-004	04/10/2002	REAL	PLUTONIUM-239/240	-0.001	PCI/L	TR1	U	0.019	0.005	V
GS55	02D1214-004	04/10/2002	REAL	URANIUM-233,-234	3.960	PCI/L	TR1		0.061	0.860	V
GS55	02D1214-004	04/10/2002	REAL	URANIUM-235	0.128	PCI/L	TR1		0.043	0.057	V
GS55	02D1214-004	04/10/2002	REAL	URANIUM-238	2.720	PCI/L	TR1		0.047	0.595	V
GS55	02D1221-006	05/03/2002	REAL	AMERICIUM-241	-0.006	PCI/L	TR1	U	0.015	0.008	V
GS55	02D1221-006	05/03/2002	REAL	PLUTONIUM-239/240	0.005	PCI/L	TR1	U	0.017	0.010	V
GS55	02D1221-006	05/03/2002	REAL	URANIUM-233,-234	1.680	PCI/L	TR1		0.061	0.377	V
GS55	02D1221-006	05/03/2002	REAL	URANIUM-235	0.074	PCI/L	TR1		0.044	0.041	V
GS55	02D1221-006	05/03/2002	REAL	URANIUM-238	1.100	PCI/L	TR1		0.046	0.252	V
GS55	02D1243-003	05/13/2002	REAL	AMERICIUM-241	0.000	PCI/L	TR1	U	0.016	0.006	V1
GS55	02D1243-003	05/13/2002	REAL	PLUTONIUM-239/240	0.014	PCI/L	TR1	U	0.017	0.012	V1
GS55	02D1243-003	05/13/2002	REAL	URANIUM-233,-234	1.950	PCI/L	TR1		0.060	0.431	V1
GS55	02D1243-003	05/13/2002	REAL	URANIUM-235	0.046	PCI/L	TR1		0.043	0.032	V1
GS55	02D1243-003	05/13/2002	REAL	URANIUM-238	1.240	PCI/L	TR1		0.045	0.280	V1
GS55	02D1254-009	05/21/2002	REAL	AMERICIUM-241	0.013	PCI/L	TR1	U	0.016	0.013	V
GS55	02D1254-009	05/21/2002	REAL	PLUTONIUM-239/240	0.048	PCI/L	TR1		0.017	0.023	V
GS55	02D1254-009	05/21/2002	REAL	URANIUM-233,-234	0.470	PCI/L	TR1		0.065	0.123	V
GS55	02D1254-009	05/21/2002	REAL	URANIUM-235	0.014	PCI/L	TR1	U	0.047	0.025	V
GS55	02D1254-009	05/21/2002	REAL	URANIUM-238	0.277	PCI/L	TR1		0.049	0.079	V
GS55	02D1264-001	05/24/2002	REAL	AMERICIUM-241	-0.007	PCI/L	TR1	U	0.015	0.007	V1
GS55	02D1264-001	05/24/2002	REAL	PLUTONIUM-239/240	-0.003	PCI/L	TR1	U	0.016	0.012	V1
GS55	02D1264-001	05/24/2002	REAL	URANIUM-233,-234	1.260	PCI/L	TR1		0.059	0.287	V1
GS55	02D1264-001	05/24/2002	REAL	URANIUM-235	0.033	PCI/L	TR1	U	0.044	0.028	V1
GS55	02D1264-001	05/24/2002	REAL	URANIUM-238	0.830	PCI/L	TR1		0.045	0.194	V1
GS55	02D1303-003	05/30/2002	REAL	AMERICIUM-241	0.002	PCI/L	TR1	U	0.016	0.007	V1
GS55	02D1303-003	05/30/2002	REAL	PLUTONIUM-239/240	-0.001	PCI/L	TR1	U	0.017	0.005	V1
GS55	02D1303-003	05/30/2002	REAL	URANIUM-233,-234	1.490	PCI/L	TR1		0.059	0.335	V1
GS55	02D1303-003	05/30/2002	REAL	URANIUM-235	0.012	PCI/L	TR1	U	0.044	0.023	V1

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GS55	02D1303-003	05/30/2002	REAL	URANIUM-238	1.040	PCI/L	TR1		0.045	0.238	V1
GS55	02D1333-004	06/05/2002	REAL	AMERICIUM-241	-0.001	PCI/L	TR1	U	0.014	0.005	V1
GS55	02D1333-004	06/05/2002	REAL	PLUTONIUM-239/240	0.006	PCI/L	TR1	U	0.016	0.009	V1
GS55	02D1333-004	06/05/2002	REAL	URANIUM-233,-234	2.630	PCI/L	TR1		0.060	0.578	V1
GS55	02D1333-004	06/05/2002	REAL	URANIUM-235	0.078	PCI/L	TR1		0.045	0.043	V1
GS55	02D1333-004	06/05/2002	REAL	URANIUM-238	1.760	PCI/L	TR1		0.046	0.391	V1
GS55	02D1431-002	06/20/2002	REAL	AMERICIUM-241	0.008	PCI/L	TR1	U	0.020	0.012	V
GS55	02D1431-002	06/20/2002	REAL	PLUTONIUM-239/240	0.005	PCI/L	TR1	U	0.018	0.010	V
GS55	02D1431-002	06/20/2002	REAL	URANIUM-233,-234	2.640	PCI/L	TR1		0.065	0.574	V
GS55	02D1431-002	06/20/2002	REAL	URANIUM-235	0.092	PCI/L	TR1		0.043	0.045	V
GS55	02D1431-002	06/20/2002	REAL	URANIUM-238	1.840	PCI/L	TR1		0.048	0.405	V
GS55	02D1498-002	08/01/2002	REAL	AMERICIUM-241	-0.003	PCI/L	TR1	U	0.015	0.010	V
GS55	02D1498-002	08/01/2002	REAL	PLUTONIUM-239/240	-0.001	PCI/L	TR1	U	0.018	0.009	V
GS55	02D1498-002	08/01/2002	REAL	URANIUM-233,-234	5.430	PCI/L	TR1		0.070	1.170	V
GS55	02D1498-002	08/01/2002	REAL	URANIUM-235	0.158	PCI/L	TR1		0.045	0.066	V
GS55	02D1498-002	08/01/2002	REAL	URANIUM-238	3.860	PCI/L	TR1		0.052	0.834	V
GS55	02D1506-004	09/09/2002	REAL	AMERICIUM-241	0.007	PCI/L	TR1	U	0.017	0.015	V1
GS55	02D1506-004	09/09/2002	REAL	PLUTONIUM-239/240	0.050	PCI/L	TR1		0.017	0.024	V1
GS55	02D1506-004	09/09/2002	REAL	URANIUM-233,-234	0.755	PCI/L	TR1		0.076	0.184	V1
GS55	02D1506-004	09/09/2002	REAL	URANIUM-235	0.020	PCI/L	TR1	U	0.049	0.029	V1
GS55	02D1506-004	09/09/2002	REAL	URANIUM-238	0.589	PCI/L	TR1		0.056	0.146	V1
GS55	02D1516-007	09/10/2002	REAL	AMERICIUM-241	0.013	PCI/L	TR1	U	0.015	0.013	V1
GS55	02D1516-007	09/10/2002	REAL	PLUTONIUM-239/240	0.052	PCI/L	TR1		0.016	0.023	V1
GS55	02D1516-007	09/10/2002	REAL	URANIUM-233,-234	1.690	PCI/L	TR1		0.067	0.375	V1
GS55	02D1516-007	09/10/2002	REAL	URANIUM-235	0.066	PCI/L	TR1		0.043	0.038	V1
GS55	02D1516-007	09/10/2002	REAL	URANIUM-238	1.190	PCI/L	TR1		0.050	0.269	V1
GS55	03D0020-009	09/16/2002	REAL	AMERICIUM-241	0.002	PCI/L	TR1	U	0.015	0.009	V1
GS55	03D0020-009	09/16/2002	REAL	PLUTONIUM-239/240	0.001	PCI/L	TR1	U	0.018	0.008	V1
GS55	03D0020-009	09/16/2002	REAL	URANIUM-233,-234	1.510	PCI/L	TR1		0.070	0.339	V1
GS55	03D0020-009	09/16/2002	REAL	URANIUM-235	0.025	PCI/L	TR1	U	0.048	0.027	V1
GS55	03D0020-009	09/16/2002	REAL	URANIUM-238	1.030	PCI/L	TR1		0.052	0.237	V1
GS57	02D1221-007	04/05/2002	REAL	AMERICIUM-241	0.001	PCI/L	TR1	U	0.016	0.007	V
GS57	02D1221-007	04/05/2002	REAL	PLUTONIUM-239/240	0.005	PCI/L	TR1	U	0.016	0.011	V
GS57	02D1221-007	04/05/2002	REAL	URANIUM-233,-234	0.094	PCI/L	TR1		0.068	0.046	V

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	2 Sigma Error	Validation
GS57	02D1221-007	04/05/2002	REAL	URANIUM-235	0.001	PCI/L	TR1	U	0.049	0.021	V
GS57	02D1221-007	04/05/2002	REAL	URANIUM-238	0.181	PCI/L	TR1		0.051	0.060	V
GS57	02D1254-008	05/16/2002	REAL	AMERICIUM-241	0.001	PCI/L	TR1	U	0.016	0.011	V
GS57	02D1254-008	05/16/2002	REAL	PLUTONIUM-239/240	0.015	PCI/L	TR1	U	0.017	0.013	V
GS57	02D1254-008	05/16/2002	REAL	URANIUM-233,-234	0.232	PCI/L	TR1		0.070	0.075	V
GS57	02D1254-008	05/16/2002	REAL	URANIUM-235	0.013	PCI/L	TR1	U	0.051	0.025	V
GS57	02D1254-008	05/16/2002	REAL	URANIUM-238	0.353	PCI/L	TR1		0.053	0.097	V
GS57	02D1264-002	05/24/2002	REAL	AMERICIUM-241	0.001	PCI/L	TR1	U	0.014	0.007	V1
GS57	02D1264-002	05/24/2002	REAL	PLUTONIUM-239/240	-0.005	PCI/L	TR1	U	0.016	0.009	V1
GS57	02D1264-002	05/24/2002	REAL	URANIUM-233,-234	0.073	PCI/L	TR1		0.066	0.041	V1
GS57	02D1264-002	05/24/2002	REAL	URANIUM-235	-0.001	PCI/L	TR1	U	0.050	0.020	V1
GS57	02D1264-002	05/24/2002	REAL	URANIUM-238	0.167	PCI/L	TR1		0.051	0.056	V1
GS57	02D1435-001	06/03/2002	REAL	AMERICIUM-241	0.002	PCI/L	TR1	U	0.018	0.008	V
GS57	02D1435-001	06/03/2002	REAL	PLUTONIUM-239/240	0.022	PCI/L	TR1		0.017	0.017	V
GS57	02D1435-001	06/03/2002	REAL	URANIUM-233,-234	0.237	PCI/L	TR1		0.072	0.074	V
GS57	02D1435-001	06/03/2002	REAL	URANIUM-235	0.016	PCI/L	TR1	U	0.047	0.025	V
GS57	02D1435-001	06/03/2002	REAL	URANIUM-238	0.426	PCI/L	TR1		0.054	0.111	V
GS57	02D1503-006	08/06/2002	DUP	AMERICIUM-241	0.004	PCI/L	TR1	U	0.014	0.008	V
GS57	02D1503-003	08/06/2002	REAL	AMERICIUM-241	0.000	PCI/L	TR1	U	0.016	0.006	V
GS57	02D1503-006	08/06/2002	DUP	PLUTONIUM-239/240	0.014	PCI/L	TR1	U	0.018	0.013	V
GS57	02D1503-003	08/06/2002	REAL	PLUTONIUM-239/240	0.018	PCI/L	TR1	U	0.019	0.015	V
GS57	02D1503-006	08/06/2002	DUP	URANIUM-233,-234	0.100	PCI/L	TR1		0.069	0.046	V
GS57	02D1503-003	08/06/2002	REAL	URANIUM-233,-234	0.286	PCI/L	TR1		0.067	0.083	V
GS57	02D1503-006	08/06/2002	DUP	URANIUM-235	-0.007	PCI/L	TR1	U	0.044	0.018	V
GS57	02D1503-003	08/06/2002	REAL	URANIUM-235	0.008	PCI/L	TR1	U	0.043	0.021	V
GS57	02D1503-006	08/06/2002	DUP	URANIUM-238	0.232	PCI/L	TR1		0.051	0.068	V
GS57	02D1503-003	08/06/2002	REAL	URANIUM-238	0.373	PCI/L	TR1		0.050	0.097	V
GS57	02D1516-003	09/10/2002	REAL	AMERICIUM-241	0.015	PCI/L	TR1		0.015	0.013	V1
GS57	02D1516-003	09/10/2002	REAL	PLUTONIUM-239/240	0.026	PCI/L	TR1		0.017	0.016	V1
GS57	02D1516-003	09/10/2002	REAL	URANIUM-233,-234	0.253	PCI/L	TR1		0.068	0.076	V1
GS57	02D1516-003	09/10/2002	REAL	URANIUM-235	0.006	PCI/L	TR1	U	0.043	0.020	V1
GS57	02D1516-003	09/10/2002	REAL	URANIUM-238	0.391	PCI/L	TR1		0.051	0.101	V1
GS57	03D0020-008	09/26/2002	REAL	AMERICIUM-241	0.009	PCI/L	TR1	U	0.015	0.011	V1
GS57	03D0020-008	09/26/2002	REAL	PLUTONIUM-239/240	0.002	PCI/L	TR1	U	0.017	0.007	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	2 Sigma Error	Validation
GS57	03D0020-008	09/26/2002	REAL	URANIUM-233,-234	0.042	PCI/L	TR1	U	0.069	0.036	V1
GS57	03D0020-008	09/26/2002	REAL	URANIUM-235	0.000	PCI/L	TR1	U	0.047	0.020	V1
GS57	03D0020-008	09/26/2002	REAL	URANIUM-238	0.090	PCI/L	TR1		0.052	0.039	V1
GS58	02D1030-001	03/19/2002	REAL	AMERICIUM-241	-0.005	PCI/L	TR1	U	0.019	0.005	V1
GS58	02D1030-001	03/19/2002	REAL	PLUTONIUM-239/240	0.003	PCI/L	TR1	U	0.017	0.010	V1
GS58	02D1030-001	03/19/2002	REAL	URANIUM-233,-234	2.660	PCI/L	TR1		0.022	0.636	V1
GS58	02D1030-001	03/19/2002	REAL	URANIUM-235	0.108	PCI/L	TR1	J	0.019	0.064	V1
GS58	02D1030-001	03/19/2002	REAL	URANIUM-238	2.130	PCI/L	TR1		0.022	0.515	V1
GS58	02D1068-001	03/21/2002	REAL	AMERICIUM-241	-0.004	PCI/L	TR1	U	0.018	0.005	V1
GS58	02D1068-001	03/21/2002	REAL	PLUTONIUM-239/240	-0.002	PCI/L	TR1	U	0.020	0.001	V1
GS58	02D1068-001	03/21/2002	REAL	URANIUM-233,-234	3.340	PCI/L	TR1		0.020	0.775	V1
GS58	02D1068-001	03/21/2002	REAL	URANIUM-235	0.104	PCI/L	TR1	J	0.018	0.060	V1
GS58	02D1068-001	03/21/2002	REAL	URANIUM-238	2.680	PCI/L	TR1		0.020	0.628	V1
GS58	02D1148-004	04/06/2002	REAL	AMERICIUM-241	0.013	PCI/L	TR1	U	0.025	0.022	V1
GS58	02D1148-004	04/06/2002	REAL	PLUTONIUM-239/240	0.007	PCI/L	TR1	U	0.015	0.017	V1
GS58	02D1148-004	04/06/2002	REAL	URANIUM-233,-234	4.710	PCI/L	TR1		0.020	1.080	V1
GS58	02D1148-004	04/06/2002	REAL	URANIUM-235	0.104	PCI/L	TR1	J	0.019	0.059	V1
GS58	02D1148-004	04/06/2002	REAL	URANIUM-238	3.820	PCI/L	TR1		0.021	0.880	V1
GS58	02D1197-001	04/24/2002	REAL	AMERICIUM-241	-0.003	PCI/L	TR1	U	0.017	0.004	V
GS58	02D1197-001	04/24/2002	REAL	PLUTONIUM-239/240	0.001	PCI/L	TR1	U	0.020	0.007	V
GS58	02D1197-001	04/24/2002	REAL	URANIUM-233,-234	4.220	PCI/L	TR1		0.065	0.920	V
GS58	02D1197-001	04/24/2002	REAL	URANIUM-235	0.181	PCI/L	TR1		0.045	0.075	V
GS58	02D1197-001	04/24/2002	REAL	URANIUM-238	3.340	PCI/L	TR1		0.049	0.732	V
GS58	02D1221-008	05/04/2002	REAL	AMERICIUM-241	-0.002	PCI/L	TR1	U	0.018	0.008	V
GS58	02D1221-008	05/04/2002	REAL	PLUTONIUM-239/240	0.001	PCI/L	TR1	U	0.017	0.009	V
GS58	02D1221-008	05/04/2002	REAL	URANIUM-233,-234	2.590	PCI/L	TR1		0.065	0.574	V
GS58	02D1221-008	05/04/2002	REAL	URANIUM-235	0.052	PCI/L	TR1		0.047	0.035	V
GS58	02D1221-008	05/04/2002	REAL	URANIUM-238	1.920	PCI/L	TR1		0.049	0.429	V
GS58	02D1240-003	05/16/2002	REAL	AMERICIUM-241	-0.002	PCI/L	TR1	U	0.015	0.006	V1
GS58	02D1240-003	05/16/2002	REAL	PLUTONIUM-239/240	-0.001	PCI/L	TR1	U	0.020	0.005	V1
GS58	02D1240-003	05/16/2002	REAL	URANIUM-233,-234	3.050	PCI/L	TR1		0.058	0.661	V1
GS58	02D1240-003	05/16/2002	REAL	URANIUM-235	0.085	PCI/L	TR1		0.041	0.044	V1
GS58	02D1240-003	05/16/2002	REAL	URANIUM-238	2.320	PCI/L	TR1		0.044	0.507	V1
GS58	02D1262-005	05/23/2002	REAL	AMERICIUM-241	0.199	PCI/L	TR1		0.016	0.061	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	2 Sigma Error	Validation
GS58	02D1262-005	05/23/2002	REAL	PLUTONIUM-239/240	0.338	PCI/L	TR1		0.017	0.090	V1
GS58	02D1262-005	05/23/2002	REAL	URANIUM-233,-234	0.397	PCI/L	TR1		0.061	0.105	V1
GS58	02D1262-005	05/23/2002	REAL	URANIUM-235	0.017	PCI/L	TR1	U	0.046	0.024	V1
GS58	02D1262-005	05/23/2002	REAL	URANIUM-238	0.391	PCI/L	TR1		0.047	0.102	V1
SW022	02D0965-004	12/17/2001	REAL	AMERICIUM-241	0.004	PCI/L	TR1	U	0.019	0.012	V1
SW022	02D0965-004	12/17/2001	REAL	PLUTONIUM-239/240	-0.001	PCI/L	TR1	U	0.020	0.001	V1
SW022	02D0965-004	12/17/2001	REAL	URANIUM-233,-234	0.843	PCI/L	TR1	J	0.023	0.236	V1
SW022	02D0965-004	12/17/2001	REAL	URANIUM-235	0.039	PCI/L	TR1	J	0.021	0.036	V1
SW022	02D0965-004	12/17/2001	REAL	URANIUM-238	0.843	PCI/L	TR1	J	0.023	0.233	V1
SW022	02D1221-009	03/11/2002	REAL	AMERICIUM-241	0.026	PCI/L	TR1		0.017	0.018	V
SW022	02D1221-009	03/11/2002	REAL	PLUTONIUM-239/240	0.040	PCI/L	TR1		0.018	0.021	V
SW022	02D1221-009	03/11/2002	REAL	URANIUM-233,-234	0.686	PCI/L	TR1		0.067	0.169	V
SW022	02D1221-009	03/11/2002	REAL	URANIUM-235	0.025	PCI/L	TR1	U	0.048	0.027	V
SW022	02D1221-009	03/11/2002	REAL	URANIUM-238	0.759	PCI/L	TR1		0.050	0.183	V
SW022	02D1254-001	05/14/2002	REAL	AMERICIUM-241	0.073	PCI/L	TR1		0.017	0.032	V
SW022	02D1254-001	05/14/2002	REAL	PLUTONIUM-239/240	0.244	PCI/L	TR1		0.018	0.071	V
SW022	02D1254-001	05/14/2002	REAL	URANIUM-233,-234	0.402	PCI/L	TR1		0.069	0.110	V
SW022	02D1254-001	05/14/2002	REAL	URANIUM-235	0.004	PCI/L	TR1	U	0.050	0.020	V
SW022	02D1254-001	05/14/2002	REAL	URANIUM-238	0.404	PCI/L	TR1		0.052	0.108	V
SW022	02D1262-008	05/24/2002	REAL	AMERICIUM-241	0.007	PCI/L	TR1	U	0.015	0.010	V1
SW022	02D1262-008	05/24/2002	REAL	PLUTONIUM-239/240	0.024	PCI/L	TR1		0.017	0.016	V1
SW022	02D1262-008	05/24/2002	REAL	URANIUM-233,-234	0.304	PCI/L	TR1		0.062	0.087	V1
SW022	02D1262-008	05/24/2002	REAL	URANIUM-235	0.015	PCI/L	TR1	U	0.047	0.024	V1
SW022	02D1262-008	05/24/2002	REAL	URANIUM-238	0.345	PCI/L	TR1		0.048	0.093	V1
SW022	02D1435-006	06/03/2002	REAL	AMERICIUM-241	0.122	PCI/L	TR1		0.021	0.048	V
SW022	02D1435-006	06/03/2002	REAL	PLUTONIUM-239/240	0.327	PCI/L	TR1		0.020	0.092	V
SW022	02D1435-006	06/03/2002	REAL	URANIUM-233,-234	0.580	PCI/L	TR1		0.074	0.148	V
SW022	02D1435-006	06/03/2002	REAL	URANIUM-235	0.024	PCI/L	TR1	U	0.049	0.027	V
SW022	02D1435-006	06/03/2002	REAL	URANIUM-238	0.472	PCI/L	TR1		0.056	0.122	V
SW022	02D1508-002	08/06/2002	REAL	AMERICIUM-241	0.009	PCI/L	TR1	U	0.018	0.012	V1
SW022	02D1508-002	08/06/2002	REAL	PLUTONIUM-239/240	0.011	PCI/L	TR1	U	0.018	0.013	V1
SW022	02D1508-002	08/06/2002	REAL	URANIUM-233,-234	0.213	PCI/L	TR1		0.073	0.069	V1
SW022	02D1508-002	08/06/2002	REAL	URANIUM-235	-0.002	PCI/L	TR1	U	0.046	0.019	V1
SW022	02D1508-002	08/06/2002	REAL	URANIUM-238	0.225	PCI/L	TR1		0.054	0.067	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	2 Sigma Error	Validation
SW022	03D0020-010	09/11/2002	REAL	AMERICIUM-241	0.034	PCI/L	TR1		0.014	0.019	V1
SW022	03D0020-010	09/11/2002	REAL	PLUTONIUM-239/240	0.051	PCI/L	TR1		0.018	0.024	V1
SW022	03D0020-010	09/11/2002	REAL	URANIUM-233,-234	0.161	PCI/L	TR1		0.067	0.057	V1
SW022	03D0020-010	09/11/2002	REAL	URANIUM-235	0.000	PCI/L	TR1	U	0.046	0.021	V1
SW022	03D0020-010	09/11/2002	REAL	URANIUM-238	0.213	PCI/L	TR1		0.050	0.063	V1
SW027	02D1254-015	05/12/2002	REAL	AMERICIUM-241	0.002	PCI/L	TR1	U	0.016	0.009	V
SW027	02D1254-015	05/12/2002	REAL	PLUTONIUM-239/240	0.001	PCI/L	TR1	U	0.016	0.011	V
SW027	02D1254-015	05/12/2002	REAL	URANIUM-233,-234	0.178	PCI/L	TR1		0.062	0.060	V
SW027	02D1254-015	05/12/2002	REAL	URANIUM-235	0.002	PCI/L	TR1	U	0.045	0.019	V
SW027	02D1254-015	05/12/2002	REAL	URANIUM-238	0.248	PCI/L	TR1		0.046	0.071	V
SW027	02D1261-005	05/24/2002	REAL	AMERICIUM-241	-0.001	PCI/L	TR1	U	0.014	0.005	V
SW027	02D1261-005	05/24/2002	REAL	PLUTONIUM-239/240	0.001	PCI/L	TR1	U	0.016	0.008	V
SW027	02D1261-005	05/24/2002	REAL	URANIUM-233,-234	0.210	PCI/L	TR1		0.068	0.069	V
SW027	02D1261-005	05/24/2002	REAL	URANIUM-235	0.000	PCI/L	TR1	U	0.048	0.019	V
SW027	02D1261-005	05/24/2002	REAL	URANIUM-238	0.249	PCI/L	TR1		0.052	0.074	V
SW027	03D0024-004	05/28/2002	REAL	AMERICIUM-241	0.000	PCI/L	TR1	U	0.014	0.005	V1
SW027	03D0024-004	05/28/2002	REAL	PLUTONIUM-239/240	0.008	PCI/L	TR1	U	0.017	0.010	V1
SW027	03D0024-004	05/28/2002	REAL	URANIUM-233,-234	0.385	PCI/L	TR1		0.072	0.104	V1
SW027	03D0024-004	05/28/2002	REAL	URANIUM-235	0.020	PCI/L	TR1	U	0.049	0.025	V1
SW027	03D0024-004	05/28/2002	REAL	URANIUM-238	0.439	PCI/L	TR1		0.054	0.112	V1
SW055	02D1254-004	05/24/2002	REAL	AMERICIUM-241	0.084	PCI/L	TR1		0.015	0.033	V
SW055	02D1261-004	05/24/2002	REAL	AMERICIUM-241	0.033	PCI/L	TR1		0.015	0.021	V
SW055	02D1254-004	05/24/2002	REAL	PLUTONIUM-239/240	0.432	PCI/L	TR1		0.017	0.112	V
SW055	02D1261-004	05/24/2002	REAL	PLUTONIUM-239/240	0.180	PCI/L	TR1		0.016	0.053	V
SW055	02D1254-004	05/24/2002	REAL	URANIUM-233,-234	0.054	PCI/L	TR1	U	0.069	0.037	V
SW055	02D1261-004	05/24/2002	REAL	URANIUM-233,-234	0.045	PCI/L	TR1	U	0.079	0.039	V
SW055	02D1254-004	05/24/2002	REAL	URANIUM-235	-0.005	PCI/L	TR1	U	0.050	0.018	V
SW055	02D1261-004	05/24/2002	REAL	URANIUM-235	-0.007	PCI/L	TR1	U	0.057	0.019	V
SW055	02D1254-004	05/24/2002	REAL	URANIUM-238	0.063	PCI/L	TR1		0.052	0.034	V
SW055	02D1261-004	05/24/2002	REAL	URANIUM-238	0.051	PCI/L	TR1	U	0.060	0.033	V
SW093	02D0177-001	10/01/2001	REAL	AMERICIUM-241	0.001	PCI/L	TR1	U	0.019	0.012	V1
SW093	02D0177-001	10/01/2001	REAL	PLUTONIUM-239/240	-0.002	PCI/L	TR1	U	0.015	0.011	V1
SW093	02D0177-001	10/01/2001	REAL	URANIUM-233,-234	1.670	PCI/L	TR1		0.023	0.415	V1
SW093	02D0177-001	10/01/2001	REAL	URANIUM-235	0.079	PCI/L	TR1	J	0.021	0.053	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	2 Sigma Error	Validation
SW093	02D0177-001	10/01/2001	REAL	URANIUM-238	1.620	PCI/L	TR1		0.021	0.402	V1
SW093	02D0265-002	10/19/2001	REAL	AMERICIUM-241	0.002	PCI/L	TR1	U	0.017	0.010	V1
SW093	02D0265-002	10/19/2001	REAL	PLUTONIUM-239/240	0.009	PCI/L	TR1	U	0.017	0.014	V1
SW093	02D0265-002	10/19/2001	REAL	URANIUM-233,-234	1.990	PCI/L	TR1		0.023	0.486	V1
SW093	02D0265-002	10/19/2001	REAL	URANIUM-235	0.084	PCI/L	TR1	J	0.021	0.054	V1
SW093	02D0265-002	10/19/2001	REAL	URANIUM-238	1.630	PCI/L	TR1		0.021	0.404	V1
SW093	02D0299-001	11/02/2001	REAL	AMERICIUM-241	0.003	PCI/L	TR1	U	0.019	0.011	V1
SW093	02D0299-001	11/02/2001	REAL	PLUTONIUM-239/240	0.010	PCI/L	TR1	U	0.017	0.015	V1
SW093	02D0299-001	11/02/2001	REAL	URANIUM-233,-234	1.320	PCI/L	TR1		0.022	0.338	V1
SW093	02D0299-001	11/02/2001	REAL	URANIUM-235	0.023	PCI/L	TR1	J	0.022	0.027	V1
SW093	02D0299-001	11/02/2001	REAL	URANIUM-238	1.220	PCI/L	TR1		0.021	0.315	V1
SW093	02D0345-002	11/12/2001	REAL	AMERICIUM-241	-0.003	PCI/L	TR1	U	0.020	0.002	V1
SW093	02D0345-002	11/12/2001	REAL	PLUTONIUM-239/240	-0.001	PCI/L	TR1	U	0.015	0.011	V1
SW093	02D0345-002	11/12/2001	REAL	URANIUM-233,-234	1.520	PCI/L	TR1		0.021	0.374	V1
SW093	02D0345-002	11/12/2001	REAL	URANIUM-235	0.057	PCI/L	TR1	J	0.020	0.042	V1
SW093	02D0345-002	11/12/2001	REAL	URANIUM-238	1.490	PCI/L	TR1		0.021	0.367	V1
SW093	02D0512-002	11/26/2001	REAL	AMERICIUM-241	0.012	PCI/L	TR1	U	0.017	0.018	V
SW093	02D0512-002	11/26/2001	REAL	PLUTONIUM-239/240	-0.001	PCI/L	TR1	U	0.016	0.001	V
SW093	02D0512-002	11/26/2001	REAL	URANIUM-233,-234	1.410	PCI/L	TR1		0.021	0.354	V
SW093	02D0512-002	11/26/2001	REAL	URANIUM-235	0.063	PCI/L	TR1	J	0.020	0.048	V
SW093	02D0512-002	11/26/2001	REAL	URANIUM-238	1.930	PCI/L	TR1		0.021	0.468	V
SW093	02D0645-001	12/17/2001	REAL	AMERICIUM-241	0.008	PCI/L	TR1	U	0.021	0.019	V
SW093	02D0645-001	12/17/2001	REAL	PLUTONIUM-239/240	0.008	PCI/L	TR1	U	0.016	0.014	V
SW093	02D0645-001	12/17/2001	REAL	URANIUM-233,-234	1.810	PCI/L	TR1		0.024	0.453	V
SW093	02D0645-001	12/17/2001	REAL	URANIUM-235	0.039	PCI/L	TR1	J	0.023	0.039	V
SW093	02D0645-001	12/17/2001	REAL	URANIUM-238	2.310	PCI/L	TR1		0.023	0.563	V
SW093	02D0724-001	01/09/2002	REAL	AMERICIUM-241	0.017	PCI/L	TR1	U	0.021	0.022	V
SW093	02D0724-001	01/09/2002	REAL	PLUTONIUM-239/240	0.006	PCI/L	TR1	U	0.020	0.013	V
SW093	02D0724-001	01/09/2002	REAL	URANIUM-233,-234	1.460	PCI/L	TR1		0.022	0.372	V
SW093	02D0724-001	01/09/2002	REAL	URANIUM-235	0.075	PCI/L	TR1	J	0.022	0.051	V
SW093	02D0724-001	01/09/2002	REAL	URANIUM-238	1.820	PCI/L	TR1		0.021	0.450	V
SW093	02D0815-003	01/25/2002	REAL	AMERICIUM-241	0.021	PCI/L	TR1	J	0.020	0.024	V
SW093	02D0815-003	01/25/2002	REAL	PLUTONIUM-239/240	0.014	PCI/L	TR1	J	0.014	0.017	V
SW093	02D0815-003	01/25/2002	REAL	URANIUM-233,-234	1.590	PCI/L	TR1		0.023	0.396	V

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	2 Sigma Error	Validation
SW093	02D0815-003	01/25/2002	REAL	URANIUM-235	0.022	PCI/L	TR1	J	0.022	0.027	V
SW093	02D0815-003	01/25/2002	REAL	URANIUM-238	1.570	PCI/L	TR1		0.022	0.391	V
SW093	02D0918-001	02/11/2002	REAL	AMERICIUM-241	0.069	PCI/L	TR1		0.022	0.046	V1
SW093	02D0918-001	02/11/2002	REAL	PLUTONIUM-239/240	0.014	PCI/L	TR1	U	0.016	0.018	V1
SW093	02D0918-001	02/11/2002	REAL	URANIUM-233,-234	1.960	PCI/L	TR1		0.024	0.483	V1
SW093	02D0918-001	02/11/2002	REAL	URANIUM-235	0.125	PCI/L	TR1	J	0.021	0.071	V1
SW093	02D0918-001	02/11/2002	REAL	URANIUM-238	1.960	PCI/L	TR1		0.023	0.483	V1
SW093	02D0935-001	02/22/2002	REAL	AMERICIUM-241	0.020	PCI/L	TR1	J	0.019	0.023	V
SW093	02D0935-001	02/22/2002	REAL	PLUTONIUM-239/240	0.004	PCI/L	TR1	U	0.016	0.010	V
SW093	02D0935-001	02/22/2002	REAL	URANIUM-233,-234	1.530	PCI/L	TR1		0.023	0.387	V
SW093	02D0935-001	02/22/2002	REAL	URANIUM-235	0.054	PCI/L	TR1	J	0.020	0.043	V
SW093	02D0935-001	02/22/2002	REAL	URANIUM-238	1.740	PCI/L	TR1		0.023	0.430	V
SW093	02D0965-007	03/06/2002	REAL	AMERICIUM-241	0.009	PCI/L	TR1	U	0.019	0.015	V1
SW093	02D0965-007	03/06/2002	REAL	PLUTONIUM-239/240	0.018	PCI/L	TR1	J	0.015	0.022	V1
SW093	02D0965-007	03/06/2002	REAL	URANIUM-233,-234	0.776	PCI/L	TR1	J	0.080	0.340	V1
SW093	02D0965-007	03/06/2002	REAL	URANIUM-235	0.064	PCI/L	TR1	U	0.078	0.095	V1
SW093	02D0965-007	03/06/2002	REAL	URANIUM-238	1.390	PCI/L	TR1		0.080	0.493	V1
SW093	02D1060-003	03/14/2002	REAL	AMERICIUM-241	-0.002	PCI/L	TR1	U	0.019	0.002	V1
SW093	02D1060-003	03/14/2002	REAL	PLUTONIUM-239/240	-0.004	PCI/L	TR1	U	0.018	0.005	V1
SW093	02D1060-003	03/14/2002	REAL	URANIUM-233,-234	1.360	PCI/L	TR1		0.021	0.342	V1
SW093	02D1060-003	03/14/2002	REAL	URANIUM-235	0.045	PCI/L	TR1	J	0.018	0.036	V1
SW093	02D1060-003	03/14/2002	REAL	URANIUM-238	1.910	PCI/L	TR1		0.020	0.462	V1
SW093	02D1148-002	03/27/2002	REAL	AMERICIUM-241	0.004	PCI/L	TR1	U	0.021	0.013	V1
SW093	02D1148-002	03/27/2002	REAL	PLUTONIUM-239/240	0.014	PCI/L	TR1	U	0.015	0.018	V1
SW093	02D1148-002	03/27/2002	REAL	URANIUM-233,-234	1.680	PCI/L	TR1		0.021	0.416	V1
SW093	02D1148-002	03/27/2002	REAL	URANIUM-235	0.077	PCI/L	TR1	J	0.019	0.050	V1
SW093	02D1148-002	03/27/2002	REAL	URANIUM-238	1.850	PCI/L	TR1		0.021	0.451	V1
SW093	02D1221-001	04/08/2002	REAL	AMERICIUM-241	0.010	PCI/L	TR1	U	0.016	0.012	V
SW093	02D1221-001	04/08/2002	REAL	PLUTONIUM-239/240	0.009	PCI/L	TR1	U	0.018	0.012	V
SW093	02D1221-001	04/08/2002	REAL	URANIUM-233,-234	2.360	PCI/L	TR1		0.061	0.521	V
SW093	02D1221-001	04/08/2002	REAL	URANIUM-235	0.067	PCI/L	TR1		0.044	0.039	V
SW093	02D1221-001	04/08/2002	REAL	URANIUM-238	2.550	PCI/L	TR1		0.046	0.560	V
SW093	02D1233-004	05/06/2002	REAL	AMERICIUM-241	0.015	PCI/L	TR1	U	0.016	0.014	V
SW093	02D1233-004	05/06/2002	REAL	PLUTONIUM-239/240	0.002	PCI/L	TR1	U	0.016	0.007	V

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	2 Sigma Error	Validation
SW093	02D1233-004	05/06/2002	REAL	URANIUM-233,-234	1.090	PCI/L	TR1		0.062	0.253	V
SW093	02D1233-004	05/06/2002	REAL	URANIUM-235	0.034	PCI/L	TR1	U	0.045	0.030	V
SW093	02D1233-004	05/06/2002	REAL	URANIUM-238	1.250	PCI/L	TR1		0.047	0.285	V
SW093	02D1254-014	05/17/2002	REAL	AMERICIUM-241	0.034	PCI/L	TR1		0.015	0.019	V
SW093	02D1254-014	05/17/2002	REAL	PLUTONIUM-239/240	-0.002	PCI/L	TR1	U	0.016	0.010	V
SW093	02D1254-014	05/17/2002	REAL	URANIUM-233,-234	0.468	PCI/L	TR1		0.059	0.119	V
SW093	02D1254-014	05/17/2002	REAL	URANIUM-235	0.000	PCI/L	TR1	U	0.042	0.020	V
SW093	02D1254-014	05/17/2002	REAL	URANIUM-238	0.590	PCI/L	TR1		0.044	0.142	V
SW093	02D1261-002	05/24/2002	REAL	AMERICIUM-241	0.003	PCI/L	TR1	U	0.016	0.008	V
SW093	02D1261-002	05/24/2002	REAL	PLUTONIUM-239/240	-0.006	PCI/L	TR1	U	0.016	0.010	V
SW093	02D1261-002	05/24/2002	REAL	URANIUM-233,-234	0.875	PCI/L	TR1		0.062	0.206	V
SW093	02D1261-002	05/24/2002	REAL	URANIUM-235	0.039	PCI/L	TR1	U	0.044	0.030	V
SW093	02D1261-002	05/24/2002	REAL	URANIUM-238	0.951	PCI/L	TR1		0.047	0.220	V
SW093	02D1303-001	05/28/2002	REAL	AMERICIUM-241	0.000	PCI/L	TR1	U	0.018	0.006	V1
SW093	02D1303-001	05/28/2002	REAL	PLUTONIUM-239/240	0.002	PCI/L	TR1	U	0.017	0.007	V1
SW093	02D1303-001	05/28/2002	REAL	URANIUM-233,-234	1.030	PCI/L	TR1		0.059	0.237	V1
SW093	02D1303-001	05/28/2002	REAL	URANIUM-235	0.038	PCI/L	TR1	U	0.044	0.030	V1
SW093	02D1303-001	05/28/2002	REAL	URANIUM-238	1.630	PCI/L	TR1		0.045	0.364	V1
SW093	02D1362-001	06/05/2002	REAL	AMERICIUM-241	0.012	PCI/L	TR1	U	0.016	0.012	V1
SW093	02D1362-001	06/05/2002	REAL	PLUTONIUM-239/240	0.020	PCI/L	TR1		0.017	0.016	V1
SW093	02D1362-001	06/05/2002	REAL	URANIUM-233,-234	1.820	PCI/L	TR1		0.060	0.405	V1
SW093	02D1362-001	06/05/2002	REAL	URANIUM-235	0.089	PCI/L	TR1		0.045	0.045	V1
SW093	02D1362-001	06/05/2002	REAL	URANIUM-238	2.580	PCI/L	TR1		0.046	0.565	V1
SW093	02D1393-003	06/24/2002	REAL	AMERICIUM-241	-0.002	PCI/L	TR1	U	0.021	0.004	V1
SW093	02D1393-003	06/24/2002	REAL	PLUTONIUM-239/240	0.003	PCI/L	TR1	U	0.018	0.008	V1
SW093	02D1393-003	06/24/2002	REAL	URANIUM-233,-234	2.340	PCI/L	TR1		0.057	0.511	V1
SW093	02D1393-003	06/24/2002	REAL	URANIUM-235	0.098	PCI/L	TR1		0.043	0.047	V1
SW093	02D1393-003	06/24/2002	REAL	URANIUM-238	2.600	PCI/L	TR1		0.043	0.566	V1
SW093	02D1431-001	07/17/2002	REAL	AMERICIUM-241	-0.002	PCI/L	TR1	U	0.019	0.004	V
SW093	02D1431-001	07/17/2002	REAL	PLUTONIUM-239/240	-0.001	PCI/L	TR1	U	0.023	0.005	V
SW093	02D1431-001	07/17/2002	REAL	URANIUM-233,-234	2.700	PCI/L	TR1		0.069	0.593	V
SW093	02D1431-001	07/17/2002	REAL	URANIUM-235	0.094	PCI/L	TR1		0.045	0.047	V
SW093	02D1431-001	07/17/2002	REAL	URANIUM-238	2.440	PCI/L	TR1		0.051	0.536	V
SW093	02D1433-002	08/01/2002	REAL	AMERICIUM-241	0.088	PCI/L	TR1		0.017	0.035	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	2 Sigma Error	Validation
SW093	02D1433-002	08/01/2002	REAL	PLUTONIUM-239/240	0.025	PCI/L	TR1		0.018	0.017	V1
SW093	02D1433-002	08/01/2002	REAL	URANIUM-233,-234	0.821	PCI/L	TR1		0.067	0.195	V1
SW093	02D1433-002	08/01/2002	REAL	URANIUM-235	0.020	PCI/L	TR1	U	0.044	0.025	V1
SW093	02D1433-002	08/01/2002	REAL	URANIUM-238	0.737	PCI/L	TR1		0.050	0.175	V1
SW093	02D1469-002	08/06/2002	REAL	AMERICIUM-241	0.018	PCI/L	TR1		0.017	0.015	V1
SW093	02D1469-002	08/06/2002	REAL	PLUTONIUM-239/240	0.003	PCI/L	TR1	U	0.021	0.009	V1
SW093	02D1469-002	08/06/2002	REAL	URANIUM-233,-234	1.930	PCI/L	TR1		0.068	0.429	V1
SW093	02D1469-002	08/06/2002	REAL	URANIUM-235	0.046	PCI/L	TR1		0.044	0.032	V1
SW093	02D1469-002	08/06/2002	REAL	URANIUM-238	1.860	PCI/L	TR1		0.051	0.412	V1
SW093	02D1503-001	08/23/2002	REAL	AMERICIUM-241	0.038	PCI/L	TR1		0.015	0.021	V
SW093	02D1503-004	08/23/2002	DUP	AMERICIUM-241	0.027	PCI/L	TR1		0.016	0.018	V
SW093	02D1503-001	08/23/2002	REAL	PLUTONIUM-239/240	0.042	PCI/L	TR1		0.018	0.022	V
SW093	02D1503-004	08/23/2002	DUP	PLUTONIUM-239/240	0.024	PCI/L	TR1		0.018	0.016	V
SW093	02D1503-001	08/23/2002	REAL	URANIUM-233,-234	0.860	PCI/L	TR1		0.074	0.206	V
SW093	02D1503-004	08/23/2002	DUP	URANIUM-233,-234	0.868	PCI/L	TR1		0.068	0.204	V
SW093	02D1503-001	08/23/2002	REAL	URANIUM-235	0.019	PCI/L	TR1	U	0.048	0.025	V
SW093	02D1503-004	08/23/2002	DUP	URANIUM-235	0.027	PCI/L	TR1	U	0.043	0.027	V
SW093	02D1503-001	08/23/2002	REAL	URANIUM-238	0.857	PCI/L	TR1		0.055	0.203	V
SW093	02D1503-004	08/23/2002	DUP	URANIUM-238	0.877	PCI/L	TR1		0.050	0.203	V
SW093	02D1516-002	09/10/2002	REAL	AMERICIUM-241	0.012	PCI/L	TR1	U	0.017	0.013	V1
SW093	02D1516-002	09/10/2002	REAL	PLUTONIUM-239/240	0.004	PCI/L	TR1	U	0.022	0.009	V1
SW093	02D1516-002	09/10/2002	REAL	URANIUM-233,-234	0.568	PCI/L	TR1		0.072	0.143	V1
SW093	02D1516-002	09/10/2002	REAL	URANIUM-235	0.022	PCI/L	TR1	U	0.046	0.025	V1
SW093	02D1516-002	09/10/2002	REAL	URANIUM-238	0.698	PCI/L	TR1		0.054	0.168	V1
SW093	03D0020-006	09/16/2002	REAL	AMERICIUM-241	0.015	PCI/L	TR1	U	0.016	0.014	V1
SW093	03D0020-006	09/16/2002	REAL	PLUTONIUM-239/240	0.004	PCI/L	TR1	U	0.017	0.008	V1
SW093	03D0020-006	09/16/2002	REAL	URANIUM-233,-234	0.740	PCI/L	TR1		0.073	0.180	V1
SW093	03D0020-006	09/16/2002	REAL	URANIUM-235	0.011	PCI/L	TR1	U	0.050	0.023	V1
SW093	03D0020-006	09/16/2002	REAL	URANIUM-238	0.986	PCI/L	TR1		0.055	0.230	V1
SW119	03D0024-003	09/13/2002	REAL	AMERICIUM-241	0.066	PCI/L	TR1		0.015	0.030	V1
SW119	03D0024-003	09/13/2002	REAL	PLUTONIUM-239/240	0.041	PCI/L	TR1		0.018	0.021	V1
SW119	03D0024-003	09/13/2002	REAL	URANIUM-233,-234	0.486	PCI/L	TR1		0.077	0.128	V1
SW119	03D0024-003	09/13/2002	REAL	URANIUM-235	0.023	PCI/L	TR1	U	0.052	0.027	V1
SW119	03D0024-003	09/13/2002	REAL	URANIUM-238	0.403	PCI/L	TR1		0.058	0.108	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	2 Sigma Error	Validation
SW120	02D0965-003	03/05/2002	REAL	AMERICIUM-241	0.001	PCI/L	TR1	U	0.019	0.012	V1
SW120	02D0965-003	03/05/2002	REAL	PLUTONIUM-239/240	0.006	PCI/L	TR1	U	0.015	0.014	V1
SW120	02D0965-003	03/05/2002	REAL	TRITIUM	80	PCI/L	TR1	U	214	126	V1
SW120	02D0965-003	03/05/2002	REAL	URANIUM-233,-234	1.890	PCI/L	TR1		0.022	0.465	V1
SW120	02D0965-003	03/05/2002	REAL	URANIUM-235	0.075	PCI/L	TR1	J	0.020	0.050	V1
SW120	02D0965-003	03/05/2002	REAL	URANIUM-238	1.430	PCI/L	TR1		0.022	0.360	V1
SW120	02D1254-012	04/21/2002	REAL	AMERICIUM-241	0.104	PCI/L	TR1		0.015	0.038	V
SW120	02D1254-012	04/21/2002	REAL	PLUTONIUM-239/240	0.050	PCI/L	TR1		0.016	0.022	V
SW120	02D1254-012	04/21/2002	REAL	TRITIUM	79	PCI/L	TR1	U	316	182	V1
SW120	02D1254-012	04/21/2002	REAL	URANIUM-233,-234	0.649	PCI/L	TR1		0.061	0.158	V
SW120	02D1254-012	04/21/2002	REAL	URANIUM-235	0.028	PCI/L	TR1	U	0.045	0.027	V
SW120	02D1254-012	04/21/2002	REAL	URANIUM-238	0.526	PCI/L	TR1		0.046	0.130	V
SW120	02D1264-003	05/24/2002	REAL	AMERICIUM-241	0.040	PCI/L	TR1		0.015	0.022	V1
SW120	02D1264-003	05/24/2002	REAL	PLUTONIUM-239/240	0.032	PCI/L	TR1		0.017	0.018	V1
SW120	02D1264-003	05/24/2002	REAL	TRITIUM	27	PCI/L	TR1	U	321	180	V1
SW120	02D1264-003	05/24/2002	REAL	URANIUM-233,-234	0.731	PCI/L	TR1		0.064	0.178	V1
SW120	02D1264-003	05/24/2002	REAL	URANIUM-235	0.027	PCI/L	TR1	U	0.048	0.028	V1
SW120	02D1264-003	05/24/2002	REAL	URANIUM-238	0.567	PCI/L	TR1		0.050	0.142	V1
SW120	03D0020-002	06/04/2002	REAL	AMERICIUM-241	0.057	PCI/L	TR1		0.014	0.026	V1
SW120	03D0020-002	06/04/2002	REAL	PLUTONIUM-239/240	0.070	PCI/L	TR1		0.017	0.028	V1
SW120	03D0020-002	06/04/2002	REAL	TRITIUM	84	PCI/L	TR1	U	253	150	V1
SW120	03D0020-002	06/04/2002	REAL	URANIUM-233,-234	0.799	PCI/L	TR1		0.072	0.191	V1
SW120	03D0020-002	06/04/2002	REAL	URANIUM-235	0.019	PCI/L	TR1	U	0.049	0.027	V1
SW120	03D0020-002	06/04/2002	REAL	URANIUM-238	0.619	PCI/L	TR1		0.054	0.151	V1

Abbreviations
PCI/L = Picocuries per liter
TR1 = First analytical run

Lab Qualifiers (note analyte group)
J = Estimated quantification (inorganics & radionuclides)
U = Target analyte not detected (all analytes)

Validation/Verification Qualifiers*
(list in order from highest confidence to lowest)
V/V1 = Valid
1 = Unvalidated/Unverified member of TR1-TR2 pair.
Other pair member should be Validated/Verified.
J/J1 = Estimated

*Validation is a more thorough review of laboratory package than verification.

B.2.2 Metals and Water-Quality Parameters

Table B-2. Metals and Water-Quality Parameter Analytical Data: WY02.

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS01	02D0687-001	01/17/2002	REAL	TOTAL SUSPENDED SOLIDS	4.0	MG/L	TR1	U	1.90	V1
GS01	02D1264-008	05/24/2002	REAL	ALKALINITY, TOTAL AS CACO3	167.0	MG/L	TR1		1.50	V1
GS01	02D1264-008	05/24/2002	REAL	ALUMINUM	69.7	UG/L	TR1		2.00	V1
GS01	02D1264-008	05/24/2002	REAL	ANTIMONY	0.68	UG/L	TR1	B	0.55	UJ1
GS01	02D1264-008	05/24/2002	REAL	ARSENIC	0.62	UG/L	TR1	U	0.62	V1
GS01	02D1264-008	05/24/2002	REAL	BARIUM	107	UG/L	TR1		0.02	V1
GS01	02D1264-008	05/24/2002	REAL	BERYLLIUM	0.12	UG/L	TR1	B	0.02	UJ1
GS01	02D1264-008	05/24/2002	REAL	CADMIUM	0.08	UG/L	TR1	U	0.08	UJ1
GS01	02D1264-008	05/24/2002	REAL	CALCIUM	69700	UG/L	TR1		9.20	V1
GS01	02D1264-008	05/24/2002	REAL	CHLORIDE	103.0	MG/L	DL1		0.60	V1
GS01	02D1264-008	05/24/2002	REAL	CHROMIUM	0.37	UG/L	TR1	B	0.12	UJ1
GS01	02D1264-008	05/24/2002	REAL	COBALT	0.18	UG/L	TR1	U	0.18	V1
GS01	02D1264-008	05/24/2002	REAL	COPPER	1.20	UG/L	TR1	B	0.08	J1
GS01	02D1264-008	05/24/2002	REAL	FLUORIDE	0.50	MG/L	TR1		0.04	V1
GS01	02D1264-008	05/24/2002	REAL	HARDNESS, TOTAL	270	MG/L	TR1		2.00	V1
GS01	02D1264-008	05/24/2002	REAL	IRON	49.2	UG/L	TR1	B	3.60	V1
GS01	02D1264-008	05/24/2002	REAL	LEAD	0.42	UG/L	TR1	U	0.42	V1
GS01	02D1264-008	05/24/2002	REAL	LITHIUM	15.0	UG/L	TR1	B	0.02	V1
GS01	02D1264-008	05/24/2002	REAL	MAGNESIUM	18000	UG/L	TR1		1.40	V1
GS01	02D1264-008	05/24/2002	REAL	MANGANESE	2.60	UG/L	TR1	B	0.02	V1
GS01	02D1264-008	05/24/2002	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V1
GS01	02D1264-008	05/24/2002	REAL	MOLYBDENUM	1.20	UG/L	TR1	B	0.28	V1
GS01	02D1264-008	05/24/2002	REAL	NICKEL	0.81	UG/L	TR1	B	0.22	V1
GS01	02D1264-008	05/24/2002	REAL	POTASSIUM	3400	UG/L	TR1	B	5.10	J1
GS01	02D1264-008	05/24/2002	REAL	Remainder	37	%	TR1		1.0	
GS01	02D1264-008	05/24/2002	REAL	SELENIUM	0.88	UG/L	TR1	U	0.88	V1
GS01	02D1264-008	05/24/2002	REAL	Sieve 1	1	%	TR1	U	1.0	
GS01	02D1264-008	05/24/2002	REAL	Sieve 2	1	%	TR1	U	1.0	
GS01	02D1264-008	05/24/2002	REAL	Sieve 3	1	%	TR1	U	1.0	
GS01	02D1264-008	05/24/2002	REAL	Sieve 4	1	%	TR1	U	1.0	
GS01	02D1264-008	05/24/2002	REAL	Sieve 5	1	%	TR1	U	1.0	
GS01	02D1264-008	05/24/2002	REAL	Sieve 6	63	%	TR1		1.0	
GS01	02D1264-008	05/24/2002	REAL	SILVER	0.12	UG/L	TR1	U	0.12	J1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS01	02D1264-008	05/24/2002	REAL	SODIUM	47200	UG/L	TR1		25.50	V1
GS01	02D1264-008	05/24/2002	REAL	STRONTIUM	478	UG/L	TR1		0.02	V1
GS01	02D1264-008	05/24/2002	REAL	SULFATE	38.3	MG/L	TR1		0.20	V1
GS01	02D1264-008	05/24/2002	REAL	THALLIUM	0.78	UG/L	TR1	U	0.78	J1
GS01	02D1264-008	05/24/2002	REAL	TIN	0.78	UG/L	TR1	U	0.78	V1
GS01	02D1264-008	05/24/2002	REAL	URANIUM, TOTAL	2.80	UG/L	TR1	U	2.80	V1
GS01	02D1264-008	05/24/2002	REAL	VANADIUM	0.39	UG/L	TR1	B	0.18	V1
GS01	02D1264-008	05/24/2002	REAL	ZINC	11.1	UG/L	TR1	B	0.10	V1
GS03	02D0413-001	11/30/2001	REAL	TOTAL SUSPENDED SOLIDS	29.4	MG/L	TR1		1.90	V1
GS03	02D0603-001	01/24/2002	REAL	TOTAL SUSPENDED SOLIDS	40.6	MG/L	TR1		1.90	V1
GS03	02D1058-001	03/21/2002	REAL	TOTAL SUSPENDED SOLIDS	54.4	MG/L	TR1		1.90	V1
GS03	02D1222-001	05/16/2002	REAL	TOTAL SUSPENDED SOLIDS	26.4	MG/L	TR1		1.80	V1
GS03	02D1241-001	05/17/2002	REAL	TOTAL SUSPENDED SOLIDS	27.2	MG/L	TR1		1.80	V
GS03	02D1251-001	05/20/2002	REAL	TOTAL SUSPENDED SOLIDS	22.8	MG/L	TR1		1.80	V1
GS03	02D1264-009	05/24/2002	REAL	ALKALINITY, TOTAL AS CACO3	88.4	MG/L	TR1		1.50	V1
GS03	02D1264-009	05/24/2002	REAL	ALUMINUM	1510	UG/L	TR1		2.00	V1
GS03	02D1264-009	05/24/2002	REAL	ANTIMONY	2.30	UG/L	TR1	B	0.55	UJ1
GS03	02D1264-009	05/24/2002	REAL	ARSENIC	1.20	UG/L	TR1	B	0.62	V1
GS03	02D1264-009	05/24/2002	REAL	BARIUM	63.5	UG/L	TR1	B	0.02	V1
GS03	02D1264-009	05/24/2002	REAL	BERYLLIUM	0.18	UG/L	TR1	B	0.02	UJ1
GS03	02D1264-009	05/24/2002	REAL	CADMIUM	0.08	UG/L	TR1	U	0.08	UJ1
GS03	02D1264-009	05/24/2002	REAL	CALCIUM	51400	UG/L	TR1		9.20	V1
GS03	02D1264-009	05/24/2002	REAL	CHROMIUM	2.10	UG/L	TR1		0.12	V1
GS03	02D1264-009	05/24/2002	REAL	COBALT	0.87	UG/L	TR1	B	0.18	V1
GS03	02D1264-009	05/24/2002	REAL	COPPER	3.40	UG/L	TR1		0.08	J1
GS03	02D1264-009	05/24/2002	REAL	FLUORIDE	0.38	MG/L	TR1	B	0.04	V1
GS03	02D1264-009	05/24/2002	REAL	HARDNESS, TOTAL	184	MG/L	TR1		2.00	V1
GS03	02D1264-009	05/24/2002	REAL	IRON	1000	UG/L	TR1		3.60	V1
GS03	02D1264-009	05/24/2002	REAL	LEAD	1.30	UG/L	TR1	B	0.42	V1
GS03	02D1264-009	05/24/2002	REAL	LITHIUM	13.8	UG/L	TR1	B	0.02	V1
GS03	02D1264-009	05/24/2002	REAL	MAGNESIUM	10300	UG/L	TR1		1.40	V1
GS03	02D1264-009	05/24/2002	REAL	MANGANESE	65.7	UG/L	TR1		0.02	V1
GS03	02D1264-009	05/24/2002	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V1
GS03	02D1264-009	05/24/2002	REAL	MOLYBDENUM	4.20	UG/L	TR1	B	0.28	V1
GS03	02D1264-009	05/24/2002	REAL	NICKEL	3.10	UG/L	TR1	B	0.22	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS03	02D1264-009	05/24/2002	REAL	POTASSIUM	8890	UG/L	TR1		5.10	J1
GS03	02D1264-009	05/24/2002	REAL	Remainder	91	%	TR1		1.0	
GS03	02D1264-009	05/24/2002	REAL	SELENIUM	0.88	UG/L	TR1	U	0.88	V1
GS03	02D1264-009	05/24/2002	REAL	Sieve 1	1	%	TR1	U	1.0	
GS03	02D1264-009	05/24/2002	REAL	Sieve 2	1	%	TR1	U	1.0	
GS03	02D1264-009	05/24/2002	REAL	Sieve 3	1	%	TR1	U	1.0	
GS03	02D1264-009	05/24/2002	REAL	Sieve 4	1	%	TR1	U	1.0	
GS03	02D1264-009	05/24/2002	REAL	Sieve 5	1	%	TR1	U	1.0	
GS03	02D1264-009	05/24/2002	REAL	Sieve 6	9	%	TR1		1.0	
GS03	02D1264-009	05/24/2002	REAL	SILVER	0.12	UG/L	TR1	U	0.12	J1
GS03	02D1264-009	05/24/2002	REAL	SODIUM	79700	UG/L	TR1		25.50	V1
GS03	02D1264-009	05/24/2002	REAL	STRONTIUM	287	UG/L	TR1		0.02	V1
GS03	02D1264-009	05/24/2002	REAL	SULFATE	20.0	MG/L	TR1		0.20	V1
GS03	02D1264-009	05/24/2002	REAL	THALLIUM	0.78	UG/L	TR1	U	0.78	J1
GS03	02D1264-009	05/24/2002	REAL	TIN	0.78	UG/L	TR1	U	0.78	V1
GS03	02D1264-009	05/24/2002	REAL	URANIUM, TOTAL	2.80	UG/L	TR1	U	2.80	V1
GS03	02D1264-009	05/24/2002	REAL	VANADIUM	5.80	UG/L	TR1	B	0.18	V1
GS03	02D1264-009	05/24/2002	REAL	ZINC	35.4	UG/L	TR1		0.10	V1
GS03	02D1375-001	07/11/2002	REAL	TOTAL SUSPENDED SOLIDS	3.6	MG/L	TR1	B	1.80	
GS03	02D1507-001	09/06/2002	REAL	TOTAL SUSPENDED SOLIDS	15.0	MG/L	TR1		1.80	V
GS03	02D1507-002	09/06/2002	DUP	TOTAL SUSPENDED SOLIDS	15.0	MG/L	TR1		1.80	V
GS03	02D1518-001	09/11/2002	REAL	TOTAL SUSPENDED SOLIDS	12.0	MG/L	TR1		1.80	V1
GS04	02D1264-007	05/24/2002	REAL	ALKALINITY, TOTAL AS CACO3	112.0	MG/L	TR1		1.50	V1
GS04	02D1264-007	05/24/2002	REAL	ALUMINUM	3220	UG/L	TR1		2.00	V1
GS04	02D1264-007	05/24/2002	REAL	ANTIMONY	0.80	UG/L	TR1	B	0.55	UJ1
GS04	02D1264-007	05/24/2002	REAL	ARSENIC	0.99	UG/L	TR1	B	0.62	V1
GS04	02D1264-007	05/24/2002	REAL	BARIUM	87.9	UG/L	TR1	B	0.02	V1
GS04	02D1264-007	05/24/2002	REAL	BERYLLIUM	0.22	UG/L	TR1	B	0.02	UJ1
GS04	02D1264-007	05/24/2002	REAL	CADMIUM	0.08	UG/L	TR1	U	0.08	UJ1
GS04	02D1264-007	05/24/2002	REAL	CALCIUM	35200	UG/L	TR1		9.20	V1
GS04	02D1264-007	05/24/2002	REAL	CHLORIDE	26.50	MG/L	TR1		0.12	V1
GS04	02D1264-007	05/24/2002	REAL	CHROMIUM	3.50	UG/L	TR1		0.12	V1
GS04	02D1264-007	05/24/2002	REAL	COBALT	0.86	UG/L	TR1	B	0.18	V1
GS04	02D1264-007	05/24/2002	REAL	COPPER	3.50	UG/L	TR1		0.08	J1
GS04	02D1264-007	05/24/2002	REAL	FLUORIDE	0.47	MG/L	TR1	B	0.04	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS04	02D1264-007	05/24/2002	REAL	HARDNESS, TOTAL	135	MG/L	TR1		2.00	V1
GS04	02D1264-007	05/24/2002	REAL	IRON	2260	UG/L	TR1		3.60	V1
GS04	02D1264-007	05/24/2002	REAL	LEAD	1.80	UG/L	TR1	B	0.42	V1
GS04	02D1264-007	05/24/2002	REAL	LITHIUM	20.3	UG/L	TR1	B	0.02	V1
GS04	02D1264-007	05/24/2002	REAL	MAGNESIUM	8500	UG/L	TR1		1.40	V1
GS04	02D1264-007	05/24/2002	REAL	MANGANESE	49.0	UG/L	TR1		0.02	V1
GS04	02D1264-007	05/24/2002	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V1
GS04	02D1264-007	05/24/2002	REAL	MOLYBDENUM	1.10	UG/L	TR1	B	0.28	V1
GS04	02D1264-007	05/24/2002	REAL	NICKEL	3.50	UG/L	TR1	B	0.22	V1
GS04	02D1264-007	05/24/2002	REAL	POTASSIUM	5150	UG/L	TR1		5.10	J1
GS04	02D1264-007	05/24/2002	REAL	Remainder	90	%	TR1		1.0	
GS04	02D1264-007	05/24/2002	REAL	SELENIUM	0.88	UG/L	TR1	U	0.88	V1
GS04	02D1264-007	05/24/2002	REAL	Sieve 1	1	%	TR1	U	1.0	
GS04	02D1264-007	05/24/2002	REAL	Sieve 2	1	%	TR1	U	1.0	
GS04	02D1264-007	05/24/2002	REAL	Sieve 3	1	%	TR1	U	1.0	
GS04	02D1264-007	05/24/2002	REAL	Sieve 4	1	%	TR1	U	1.0	
GS04	02D1264-007	05/24/2002	REAL	Sieve 5	1	%	TR1	U	1.0	
GS04	02D1264-007	05/24/2002	REAL	Sieve 6	10	%	TR1		1.0	
GS04	02D1264-007	05/24/2002	REAL	SILVER	0.12	UG/L	TR1	U	0.12	J1
GS04	02D1264-007	05/24/2002	REAL	SODIUM	23900	UG/L	TR1		5.10	V1
GS04	02D1264-007	05/24/2002	REAL	STRONTIUM	210	UG/L	TR1		0.02	V1
GS04	02D1264-007	05/24/2002	REAL	SULFATE	24.7	MG/L	TR1		0.20	V1
GS04	02D1264-007	05/24/2002	REAL	THALLIUM	0.78	UG/L	TR1	U	0.78	J1
GS04	02D1264-007	05/24/2002	REAL	TIN	0.78	UG/L	TR1	U	0.78	V1
GS04	02D1264-007	05/24/2002	REAL	URANIUM, TOTAL	2.80	UG/L	TR1	U	2.80	V1
GS04	02D1264-007	05/24/2002	REAL	VANADIUM	7.20	UG/L	TR1	B	0.18	V1
GS04	02D1264-007	05/24/2002	REAL	ZINC	16.5	UG/L	TR1	B	0.10	V1
GS05	02D1262-001	05/23/2002	REAL	ALKALINITY, TOTAL AS CACO3	59.9	MG/L	TR1		1.50	V
GS05	02D1262-001	05/23/2002	REAL	ALUMINUM	49500	UG/L	TR1		2.00	V1
GS05	02D1262-001	05/23/2002	REAL	ANTIMONY	1.60	UG/L	TR1	B	0.55	UJ1
GS05	02D1262-001	05/23/2002	REAL	ARSENIC	13.9	UG/L	TR1		0.62	V1
GS05	02D1262-001	05/23/2002	REAL	BARIUM	279	UG/L	TR1		0.02	V1
GS05	02D1262-001	05/23/2002	REAL	BERYLLIUM	2.50	UG/L	TR1		0.02	V1
GS05	02D1262-001	05/23/2002	REAL	CADMIUM	0.08	UG/L	TR1	U	0.08	J1
GS05	02D1262-001	05/23/2002	REAL	CALCIUM	27600	UG/L	TR1		9.20	J1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS05	02D1262-001	05/23/2002	REAL	CHLORIDE	67.4	MG/L	DL1		0.60	V
GS05	02D1262-001	05/23/2002	REAL	CHROMIUM	37.5	UG/L	TR1		0.12	V1
GS05	02D1262-001	05/23/2002	REAL	COBALT	12.0	UG/L	TR1	B	0.18	V1
GS05	02D1262-001	05/23/2002	REAL	COPPER	23.4	UG/L	TR1		0.08	J1
GS05	02D1262-001	05/23/2002	REAL	FLUORIDE	0.32	MG/L	TR1	B	0.04	V
GS05	02D1262-001	05/23/2002	REAL	HARDNESS, TOTAL	125	MG/L	TR1		2.00	V
GS05	02D1262-001	05/23/2002	REAL	IRON	38800	UG/L	TR1		3.60	V1
GS05	02D1262-001	05/23/2002	REAL	LEAD	22.8	UG/L	TR1		0.42	V1
GS05	02D1262-001	05/23/2002	REAL	LITHIUM	30.7	UG/L	TR1	B	0.02	V1
GS05	02D1262-001	05/23/2002	REAL	MAGNESIUM	11200	UG/L	TR1		1.40	J1
GS05	02D1262-001	05/23/2002	REAL	MANGANESE	1010	UG/L	TR1		0.02	V1
GS05	02D1262-001	05/23/2002	REAL	MERCURY	0.17	UG/L	TR1		0.10	V1
GS05	02D1262-001	05/23/2002	REAL	MOLYBDENUM	1.80	UG/L	TR1	B	0.28	V1
GS05	02D1262-001	05/23/2002	REAL	NICKEL	29.7	UG/L	TR1		0.22	V1
GS05	02D1262-001	05/23/2002	REAL	POTASSIUM	9560	UG/L	TR1		5.10	J1
GS05	02D1262-001	05/23/2002	REAL	Remainder	90	%	TR1		1.0	
GS05	02D1262-001	05/23/2002	REAL	SELENIUM	1.50	UG/L	TR1	B	0.88	V1
GS05	02D1262-001	05/23/2002	REAL	Sieve 1	1	%	TR1	U	1.0	
GS05	02D1262-001	05/23/2002	REAL	Sieve 2	1	%	TR1	U	1.0	
GS05	02D1262-001	05/23/2002	REAL	Sieve 3	1	%	TR1	U	1.0	
GS05	02D1262-001	05/23/2002	REAL	Sieve 4	1	%	TR1	U	1.0	
GS05	02D1262-001	05/23/2002	REAL	Sieve 5	3	%	TR1		1.0	
GS05	02D1262-001	05/23/2002	REAL	Sieve 6	10	%	TR1		1.0	
GS05	02D1262-001	05/23/2002	REAL	SILVER	0.12	UG/L	TR1	U	0.12	J1
GS05	02D1262-001	05/23/2002	REAL	SODIUM	44000	UG/L	TR1		25.50	V1
GS05	02D1262-001	05/23/2002	REAL	STRONTIUM	192	UG/L	TR1	B	0.02	V1
GS05	02D1262-001	05/23/2002	REAL	SULFATE	12.9	MG/L	TR1		0.20	V
GS05	02D1262-001	05/23/2002	REAL	THALLIUM	0.78	UG/L	TR1	U	0.78	J1
GS05	02D1262-001	05/23/2002	REAL	TIN	0.78	UG/L	TR1	U	0.78	V1
GS05	02D1262-001	05/23/2002	REAL	URANIUM, TOTAL	2.80	UG/L	TR1	U	2.80	V1
GS05	02D1262-001	05/23/2002	REAL	VANADIUM	80.1	UG/L	TR1		0.18	V1
GS05	02D1262-001	05/23/2002	REAL	ZINC	102	UG/L	TR1		0.10	V1
GS05	02D1517-001	09/13/2002	REAL	ALKALINITY, TOTAL AS CACO3	37.0	MG/L	TR1		1.50	V1
GS05	02D1517-001	09/13/2002	REAL	ALUMINUM	4530	UG/L	TR1		3.00	V1
GS05	02D1517-001	09/13/2002	REAL	ANTIMONY	0.88	UG/L	TR1	U	0.88	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS05	02D1517-001	09/13/2002	REAL	ARSENIC	1.00	UG/L	TR1	B	0.82	V1
GS05	02D1517-001	09/13/2002	REAL	BARIUM	95.6	UG/L	TR1	B	0.05	V1
GS05	02D1517-001	09/13/2002	REAL	BERYLLIUM	0.46	UG/L	TR1	B	0.02	V1
GS05	02D1517-001	09/13/2002	REAL	CADMIUM	0.87	UG/L	TR1	B	0.08	V1
GS05	02D1517-001	09/13/2002	REAL	CALCIUM	110000	UG/L	TR1		3.80	V1
GS05	02D1517-001	09/13/2002	REAL	CHLORIDE	81.0	MG/L	DL1		0.60	V1
GS05	02D1517-001	09/13/2002	REAL	CHROMIUM	3.90	UG/L	TR1		0.25	V1
GS05	02D1517-001	09/13/2002	REAL	COBALT	21.4	UG/L	TR1	B	0.35	V1
GS05	02D1517-001	09/13/2002	REAL	COPPER	4.10	UG/L	TR1		0.25	V1
GS05	02D1517-001	09/13/2002	REAL	FLUORIDE	0.33	MG/L	TR1	B	0.04	V1
GS05	02D1517-001	09/13/2002	REAL	HARDNESS, TOTAL	450	MG/L	TR1		2.00	V1
GS05	02D1517-001	09/13/2002	REAL	IRON	3000	UG/L	TR1		4.50	V1
GS05	02D1517-001	09/13/2002	REAL	LEAD	2.70	UG/L	TR1		0.60	J1
GS05	02D1517-001	09/13/2002	REAL	LITHIUM	19.7	UG/L	TR1	B	0.05	V1
GS05	02D1517-001	09/13/2002	REAL	MAGNESIUM	30300	UG/L	TR1		1.90	V1
GS05	02D1517-001	09/13/2002	REAL	MANGANESE	665	UG/L	TR1		0.05	V1
GS05	02D1517-001	09/13/2002	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V1
GS05	02D1517-001	09/13/2002	REAL	MOLYBDENUM	0.55	UG/L	TR1	U	0.55	V1
GS05	02D1517-001	09/13/2002	REAL	NICKEL	19.3	UG/L	TR1	B	0.40	V1
GS05	02D1517-001	09/13/2002	REAL	POTASSIUM	7480	UG/L	TR1		7.00	V1
GS05	02D1517-001	09/13/2002	REAL	REMAINDER	95	%	TR1		1.0	
GS05	02D1517-001	09/13/2002	REAL	SELENIUM	1.00	UG/L	TR1	U	1.00	V1
GS05	02D1517-001	09/13/2002	REAL	SIEVE 1	1	%	TR1	U	1.0	
GS05	02D1517-001	09/13/2002	REAL	SIEVE 2	1	%	TR1	U	1.0	
GS05	02D1517-001	09/13/2002	REAL	SIEVE 3	1	%	TR1	U	1.0	
GS05	02D1517-001	09/13/2002	REAL	SIEVE 4	1	%	TR1	U	1.0	
GS05	02D1517-001	09/13/2002	REAL	SIEVE 5	1	%	TR1	U	1.0	
GS05	02D1517-001	09/13/2002	REAL	SIEVE 6	5	%	TR1		1.0	
GS05	02D1517-001	09/13/2002	REAL	SILVER	0.28	UG/L	TR1	U	0.28	V1
GS05	02D1517-001	09/13/2002	REAL	SODIUM	43500	UG/L	TR1		28.60	V1
GS05	02D1517-001	09/13/2002	REAL	STRONTIUM	634	UG/L	TR1		0.02	V1
GS05	02D1517-001	09/13/2002	REAL	SULFATE	350	MG/L	DL1		4.00	V1
GS05	02D1517-001	09/13/2002	REAL	THALLIUM	1.60	UG/L	TR1	U	1.60	V1
GS05	02D1517-001	09/13/2002	REAL	TIN	1.20	UG/L	TR1	U	1.20	V1
GS05	02D1517-001	09/13/2002	REAL	TOTAL SUSPENDED SOLIDS	62.0	MG/L	DL1		4.50	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS05	02D1517-001	09/13/2002	REAL	URANIUM, TOTAL	3.20	UG/L	TR1	U	3.20	J1
GS05	02D1517-001	09/13/2002	REAL	VANADIUM	7.20	UG/L	TR1	B	0.28	V1
GS05	02D1517-001	09/13/2002	REAL	ZINC	94.6	UG/L	TR1		0.12	V1
GS06	02D1262-002	05/23/2002	REAL	ALKALINITY, TOTAL AS CACO3	16.6	MG/L	TR1		1.50	V
GS06	02D1262-002	05/23/2002	REAL	ALUMINUM	100000	UG/L	TR1		2.00	V1
GS06	02D1262-002	05/23/2002	REAL	ANTIMONY	1.70	UG/L	TR1	B	0.55	UJ1
GS06	02D1262-002	05/23/2002	REAL	ARSENIC	31.2	UG/L	TR1		0.62	V1
GS06	02D1262-002	05/23/2002	REAL	BARIUM	463	UG/L	TR1		0.02	V1
GS06	02D1262-002	05/23/2002	REAL	BERYLLIUM	5.10	UG/L	TR1		0.02	V1
GS06	02D1262-002	05/23/2002	REAL	CADMIUM	0.27	UG/L	TR1	B	0.08	J1
GS06	02D1262-002	05/23/2002	REAL	CALCIUM	17600	UG/L	TR1		9.20	J1
GS06	02D1262-002	05/23/2002	REAL	CHLORIDE	9.50	MG/L	TR1		0.12	V
GS06	02D1262-002	05/23/2002	REAL	CHROMIUM	82.2	UG/L	TR1		0.12	V1
GS06	02D1262-002	05/23/2002	REAL	COBALT	21.3	UG/L	TR1	B	0.18	V1
GS06	02D1262-002	05/23/2002	REAL	COPPER	47.0	UG/L	TR1		0.08	J1
GS06	02D1262-002	05/23/2002	REAL	FLUORIDE	0.23	MG/L	TR1	B	0.04	V
GS06	02D1262-002	05/23/2002	REAL	HARDNESS, TOTAL	46.3	MG/L	DL1		5.00	V
GS06	02D1262-002	05/23/2002	REAL	IRON	75900	UG/L	TR1		3.60	V1
GS06	02D1262-002	05/23/2002	REAL	LEAD	49.3	UG/L	TR1		0.42	V1
GS06	02D1262-002	05/23/2002	REAL	LITHIUM	58.5	UG/L	TR1	B	0.02	V1
GS06	02D1262-002	05/23/2002	REAL	MAGNESIUM	12400	UG/L	TR1		1.40	J1
GS06	02D1262-002	05/23/2002	REAL	MANGANESE	796	UG/L	TR1		0.02	V1
GS06	02D1262-002	05/23/2002	REAL	MERCURY	0.29	UG/L	TR1		0.10	V1
GS06	02D1262-002	05/23/2002	REAL	MOLYBDENUM	3.40	UG/L	TR1	B	0.28	V1
GS06	02D1262-002	05/23/2002	REAL	NICKEL	63.0	UG/L	TR1		0.22	V1
GS06	02D1262-002	05/23/2002	REAL	POTASSIUM	13900	UG/L	TR1		5.10	J1
GS06	02D1262-002	05/23/2002	REAL	Remainder	99	%	TR1		1.0	
GS06	02D1262-002	05/23/2002	REAL	SELENIUM	1.80	UG/L	TR1	B	0.88	V1
GS06	02D1262-002	05/23/2002	REAL	Sieve 1	1	%	TR1	U	1.0	
GS06	02D1262-002	05/23/2002	REAL	Sieve 2	1	%	TR1	U	1.0	
GS06	02D1262-002	05/23/2002	REAL	Sieve 3	1	%	TR1	U	1.0	
GS06	02D1262-002	05/23/2002	REAL	Sieve 4	1	%	TR1	U	1.0	
GS06	02D1262-002	05/23/2002	REAL	Sieve 5	1	%	TR1	U	1.0	
GS06	02D1262-002	05/23/2002	REAL	Sieve 6	1	%	TR1	B	1.0	
GS06	02D1262-002	05/23/2002	REAL	SILVER	0.12	UG/L	TR1	U	0.12	J1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS06	02D1262-002	05/23/2002	REAL	SODIUM	5740	UG/L	TR1		5.10	V1
GS06	02D1262-002	05/23/2002	REAL	STRONTIUM	130	UG/L	TR1	B	0.02	V1
GS06	02D1262-002	05/23/2002	REAL	SULFATE	7.3	MG/L	TR1		0.20	V
GS06	02D1262-002	05/23/2002	REAL	THALLIUM	0.78	UG/L	TR1	U	0.78	J1
GS06	02D1262-002	05/23/2002	REAL	TIN	1.60	UG/L	TR1	B	0.78	V1
GS06	02D1262-002	05/23/2002	REAL	URANIUM, TOTAL	2.80	UG/L	TR1	U	2.80	V1
GS06	02D1262-002	05/23/2002	REAL	VANADIUM	172	UG/L	TR1		0.18	V1
GS06	02D1262-002	05/23/2002	REAL	ZINC	158	UG/L	TR1		0.10	V1
GS08	02D0362-001	11/30/2001	REAL	TOTAL SUSPENDED SOLIDS	10.4	MG/L	TR1		1.90	V
GS08	02D0708-001	01/24/2002	REAL	TOTAL SUSPENDED SOLIDS	8.4	MG/L	TR1		1.90	V
GS08	02D1034-006	03/21/2002	REAL	TOTAL SUSPENDED SOLIDS	21.6	MG/L	TR1		1.90	V1
GS08	02D1243-002	05/16/2002	REAL	TOTAL SUSPENDED SOLIDS	6.8	MG/L	TR1		1.80	V1
GS08	02D1377-003	07/11/2002	REAL	TOTAL SUSPENDED SOLIDS	6.8	MG/L	TR1		1.80	V1
GS08	02D1393-001	07/16/2002	REAL	TOTAL SUSPENDED SOLIDS	11.6	MG/L	TR1		1.80	V1
GS08	02D1508-001	09/05/2002	REAL	TOTAL SUSPENDED SOLIDS	28.0	MG/L	TR1		1.80	1
GS08	02D1516-008	09/11/2002	REAL	TOTAL SUSPENDED SOLIDS	21.0	MG/L	TR1		1.80	V1
GS10	02D0116-001	10/01/2001	REAL	BERYLLIUM	0.05	UG/L	TR1	U	0.05	J1
GS10	02D0116-001	10/01/2001	REAL	CADMIUM_D	0.08	UG/L	TR1	U	0.08	V1
GS10	02D0116-001	10/01/2001	REAL	CHROMIUM	0.95	UG/L	TR1	B	0.35	UJ1
GS10	02D0116-001	10/01/2001	REAL	HARDNESS, TOTAL	347	MG/L	TR1		2.00	V1
GS10	02D0116-001	10/01/2001	REAL	SILVER_D	0.12	UG/L	TR1	U	0.12	V1
GS10	02D0177-002	10/11/2001	REAL	BERYLLIUM	0.07	UG/L	TR1	B	0.02	V
GS10	02D0177-002	10/11/2001	REAL	CADMIUM_D	0.08	UG/L	TR1	U	0.08	V
GS10	02D0177-002	10/11/2001	REAL	CHROMIUM	0.24	UG/L	TR1	B	0.15	V
GS10	02D0177-002	10/11/2001	REAL	HARDNESS, TOTAL	377	MG/L	TR1		2.00	V1
GS10	02D0177-002	10/11/2001	REAL	SILVER_D	0.15	UG/L	TR1	U	0.15	V
GS10	02D0265-004	10/23/2001	REAL	BERYLLIUM	0.07	UG/L	TR1	B	0.02	V1
GS10	02D0265-004	10/23/2001	REAL	CADMIUM_D	0.08	UG/L	TR1	U	0.08	V1
GS10	02D0265-004	10/23/2001	REAL	CHROMIUM	0.44	UG/L	TR1	B	0.15	V1
GS10	02D0265-004	10/23/2001	REAL	HARDNESS, TOTAL	417	MG/L	TR1		2.00	V1
GS10	02D0265-004	10/23/2001	REAL	SILVER_D	0.15	UG/L	TR1	U	0.15	V1
GS10	02D0345-001	11/06/2001	REAL	BERYLLIUM	0.11	UG/L	TR1	B	0.02	UJ
GS10	02D0345-001	11/06/2001	REAL	CADMIUM_D	0.08	UG/L	TR1	U	0.08	V
GS10	02D0345-001	11/06/2001	REAL	CHROMIUM	1.30	UG/L	TR1	B	0.15	V
GS10	02D0345-001	11/06/2001	REAL	HARDNESS, TOTAL	280	MG/L	TR1		2.00	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS10	02D0345-001	11/06/2001	REAL	SILVER_D	0.15	UG/L	TR1	U	0.15	J
GS10	02D0363-005	11/20/2001	REAL	BERYLLIUM	0.06	UG/L	TR1	B	0.02	UJ1
GS10	02D0363-005	11/20/2001	REAL	CADMIUM_D	0.26	UG/L	TR1	B	0.08	V1
GS10	02D0363-005	11/20/2001	REAL	CHROMIUM	1.30	UG/L	TR1	B	0.15	UJ1
GS10	02D0363-005	11/20/2001	REAL	HARDNESS, TOTAL	502	MG/L	TR1		2.00	V1
GS10	02D0363-005	11/20/2001	REAL	SILVER_D	0.15	UG/L	TR1	U	0.15	V1
GS10	02D0645-002	12/10/2001	REAL	BERYLLIUM	0.08	UG/L	TR1	B	0.02	J1
GS10	02D0645-002	12/10/2001	REAL	CADMIUM_D	0.11	UG/L	TR1	B	0.08	V1
GS10	02D0645-002	12/10/2001	REAL	CHROMIUM	0.69	UG/L	TR1	B	0.20	V1
GS10	02D0645-002	12/10/2001	REAL	HARDNESS, TOTAL	488	MG/L	TR1		2.00	V1
GS10	02D0645-002	12/10/2001	REAL	SILVER_D	0.18	UG/L	TR1	U	0.18	V1
GS10	02D0725-004	01/09/2002	REAL	BERYLLIUM	0.06	UG/L	TR1	B	0.02	V
GS10	02D0725-004	01/09/2002	REAL	CADMIUM_D	0.09	UG/L	TR1	B	0.08	J
GS10	02D0725-004	01/09/2002	REAL	CHROMIUM	0.87	UG/L	TR1	B	0.20	U
GS10	02D0725-004	01/09/2002	REAL	HARDNESS, TOTAL	469	MG/L	TR1		2.00	V1
GS10	02D0725-004	01/09/2002	REAL	SILVER_D	0.18	UG/L	TR1	U	0.18	V
GS10	02D0925-001	02/04/2002	REAL	BERYLLIUM	0.19	UG/L	TR1	B	0.02	UJ1
GS10	02D0925-001	02/04/2002	REAL	CADMIUM_D	0.08	UG/L	TR1	B	0.08	V1
GS10	02D0925-001	02/04/2002	REAL	CHROMIUM	0.64	UG/L	TR1	B	0.20	UJ1
GS10	02D0925-001	02/04/2002	REAL	HARDNESS, TOTAL	437	MG/L	TR1		2.00	V1
GS10	02D0925-001	02/04/2002	REAL	SILVER_D	0.18	UG/L	TR1	U	0.18	V1
GS10	02D0965-006	02/28/2002	REAL	BERYLLIUM	0.19	UG/L	TR1	B	0.02	UJ1
GS10	02D0965-006	02/28/2002	REAL	CADMIUM_D	0.40	UG/L	TR1	B	0.08	J1
GS10	02D0965-006	02/28/2002	REAL	CHROMIUM	2.00	UG/L	TR1	B	0.20	V1
GS10	02D0965-006	02/28/2002	REAL	HARDNESS, TOTAL	361	MG/L	TR1		2.00	V1
GS10	02D0965-006	02/28/2002	REAL	SILVER_D	0.18	UG/L	TR1	U	0.18	V1
GS10	02D1107-002	03/14/2002	REAL	BERYLLIUM	0.16	UG/L	TR1	B	0.02	UJ
GS10	02D1107-002	03/14/2002	REAL	CADMIUM_D	0.15	UG/L	TR1	B	0.08	J
GS10	02D1107-002	03/14/2002	REAL	CHROMIUM	1.10	UG/L	TR1	B	0.20	J
GS10	02D1107-002	03/14/2002	REAL	HARDNESS, TOTAL	493	MG/L	TR1		2.00	V1
GS10	02D1107-002	03/14/2002	REAL	SILVER_D	0.18	UG/L	TR1	U	0.18	V
GS10	02D1214-001	04/03/2002	REAL	BERYLLIUM	0.05	UG/L	TR1	B	0.02	J1
GS10	02D1214-001	04/03/2002	REAL	CADMIUM_D	0.08	UG/L	TR1	U	0.08	V1
GS10	02D1214-001	04/03/2002	REAL	CHROMIUM	0.71	UG/L	TR1	B	0.12	UJ1
GS10	02D1214-001	04/03/2002	REAL	HARDNESS, TOTAL	520	MG/L	TR1		2.00	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS10	02D1214-001	04/03/2002	REAL	SILVER_D	0.12	UG/L	TR1	U	0.12	V1
GS10	02D1233-005	05/03/2002	REAL	BERYLLIUM	0.31	UG/L	TR1	B	0.02	UJ1
GS10	02D1233-005	05/03/2002	REAL	CADMIUM_D	0.09	UG/L	TR1	B	0.08	V1
GS10	02D1233-005	05/03/2002	REAL	CHROMIUM	6.70	UG/L	TR1		0.12	V1
GS10	02D1233-005	05/03/2002	REAL	HARDNESS, TOTAL	191	MG/L	TR1		2.00	V1
GS10	02D1233-005	05/03/2002	REAL	SILVER_D	0.12	UG/L	TR1	U	0.12	V1
GS10	02D1254-016	05/17/2002	REAL	BERYLLIUM	0.54	UG/L	TR1	B	0.02	V1
GS10	02D1254-016	05/17/2002	REAL	CADMIUM_D	0.08	UG/L	TR1	U	0.08	V1
GS10	02D1254-016	05/17/2002	REAL	CHROMIUM	12.4	UG/L	TR1		0.12	V1
GS10	02D1254-016	05/17/2002	REAL	HARDNESS, TOTAL	96.9	MG/L	TR1		2.00	V1
GS10	02D1254-016	05/17/2002	REAL	SILVER_D	0.12	UG/L	TR1	U	0.12	V1
GS10	02D1261-001	05/24/2002	REAL	BERYLLIUM	0.10	UG/L	TR1	U	0.10	V1
GS10	02D1261-001	05/24/2002	REAL	CADMIUM_D	0.08	UG/L	TR1	U	0.08	V1
GS10	02D1261-001	05/24/2002	REAL	CHROMIUM	5.30	UG/L	TR1		0.12	V1
GS10	02D1261-001	05/24/2002	REAL	HARDNESS, TOTAL	117	MG/L	TR1		2.00	V1
GS10	02D1261-001	05/24/2002	REAL	SILVER_D	0.12	UG/L	TR1	U	0.12	J1
GS10	02D1261-001	05/24/2002	REAL	TOTAL SUSPENDED SOLIDS	34.0	MG/L	TR1		1.80	V1
GS10	02D1303-002	05/28/2002	REAL	BERYLLIUM	0.11	UG/L	TR1	B	0.02	UJ1
GS10	02D1303-002	05/28/2002	REAL	CADMIUM_D	0.08	UG/L	TR1	B	0.08	V1
GS10	02D1303-002	05/28/2002	REAL	CHROMIUM	2.20	UG/L	TR1		0.12	V1
GS10	02D1303-002	05/28/2002	REAL	HARDNESS, TOTAL	380	MG/L	TR1		2.00	V1
GS10	02D1303-002	05/28/2002	REAL	SILVER_D	0.12	UG/L	TR1	U	0.12	V1
GS10	02D1377-002	06/10/2002	REAL	BERYLLIUM	0.09	UG/L	TR1	B	0.02	UJ
GS10	02D1377-002	06/10/2002	REAL	CADMIUM_D	0.08	UG/L	TR1	U	0.08	J
GS10	02D1377-002	06/10/2002	REAL	CHROMIUM	2.20	UG/L	TR1		0.12	V
GS10	02D1377-002	06/10/2002	REAL	HARDNESS, TOTAL	417	MG/L	TR1		2.00	V1
GS10	02D1377-002	06/10/2002	REAL	SILVER_D	0.12	UG/L	TR1	U	0.12	V
GS10	02D1393-004	07/08/2002	REAL	BERYLLIUM	0.20	UG/L	TR1	B	0.02	UJ
GS10	02D1393-004	07/08/2002	REAL	CADMIUM_D	0.08	UG/L	TR1	U	0.08	V
GS10	02D1393-004	07/08/2002	REAL	CHROMIUM	1.40	UG/L	TR1	B	0.12	UJ
GS10	02D1393-004	07/08/2002	REAL	HARDNESS, TOTAL	373	MG/L	TR1		2.00	V1
GS10	02D1393-004	07/08/2002	REAL	SILVER_D	0.12	UG/L	TR1	U	0.12	J
GS10	02D1431-003	07/17/2002	REAL	BERYLLIUM	0.21	UG/L	TR1	B	0.02	UJ1
GS10	02D1431-003	07/17/2002	REAL	CADMIUM_D	0.08	UG/L	TR1	U	0.08	J1
GS10	02D1431-003	07/17/2002	REAL	CHROMIUM	0.97	UG/L	TR1	B	0.12	UJ1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS10	02D1431-003	07/17/2002	REAL	HARDNESS, TOTAL	380	MG/L	TR1		2.00	V1
GS10	02D1431-003	07/17/2002	REAL	SILVER_D	0.12	UG/L	TR1	U	0.12	J1
GS10	02D1433-001	07/29/2002	REAL	BERYLLIUM	0.90	UG/L	TR1	B	0.02	V1
GS10	02D1433-001	07/29/2002	REAL	CADMIUM_D	0.08	UG/L	TR1	U	0.08	V1
GS10	02D1433-001	07/29/2002	REAL	CHROMIUM	14.0	UG/L	TR1		0.25	V1
GS10	02D1433-001	07/29/2002	REAL	HARDNESS, TOTAL	190	MG/L	TR1		2.00	V1
GS10	02D1433-001	07/29/2002	REAL	SILVER_D	0.28	UG/L	TR1	U	0.28	V1
GS10	02D1498-001	08/06/2002	REAL	BERYLLIUM	0.20	UG/L	TR1	B	0.02	V1
GS10	02D1498-001	08/06/2002	REAL	CADMIUM_D	0.08	UG/L	TR1	U	0.08	V1
GS10	02D1498-001	08/06/2002	REAL	CHROMIUM	5.60	UG/L	TR1		0.25	V1
GS10	02D1498-001	08/06/2002	REAL	HARDNESS, TOTAL	250	MG/L	TR1		2.00	V
GS10	02D1498-001	08/06/2002	REAL	SILVER_D	0.28	UG/L	TR1	U	0.28	V1
GS10	02D1503-002	09/03/2002	REAL	BERYLLIUM	0.24	UG/L	TR1	B	0.02	V
GS10	02D1503-005	09/03/2002	DUP	BERYLLIUM	0.24	UG/L	TR1	B	0.02	V
GS10	02D1503-002	09/03/2002	REAL	CADMIUM_D	0.08	UG/L	TR1	U	0.08	V
GS10	02D1503-005	09/03/2002	DUP	CADMIUM_D	0.08	UG/L	TR1	U	0.08	V
GS10	02D1503-002	09/03/2002	REAL	CHROMIUM	6.80	UG/L	TR1		0.25	V
GS10	02D1503-005	09/03/2002	DUP	CHROMIUM	6.70	UG/L	TR1		0.25	V
GS10	02D1503-002	09/03/2002	REAL	HARDNESS, TOTAL	130	MG/L	TR1		2.00	V1
GS10	02D1503-005	09/03/2002	DUP	HARDNESS, TOTAL	120	MG/L	TR1		2.00	V1
GS10	02D1503-002	09/03/2002	REAL	SILVER_D	0.28	UG/L	TR1	U	0.28	V
GS10	02D1503-005	09/03/2002	DUP	SILVER_D	0.28	UG/L	TR1	U	0.28	V
GS10	02D1516-001	09/10/2002	REAL	BERYLLIUM	0.36	UG/L	TR1	B	0.02	
GS10	02D1516-001	09/10/2002	REAL	CADMIUM_D	0.10	UG/L	TR1	B	0.08	
GS10	02D1516-001	09/10/2002	REAL	CHROMIUM	10.6	UG/L	TR1		0.25	
GS10	02D1516-001	09/10/2002	REAL	HARDNESS, TOTAL	120	MG/L	TR1		2.00	V1
GS10	02D1516-001	09/10/2002	REAL	SILVER_D	0.28	UG/L	TR1	U	0.28	
GS10	03D0020-007	09/16/2002	REAL	BERYLLIUM	0.02	UG/L	TR1	U	0.02	J1
GS10	03D0020-007	09/16/2002	REAL	CADMIUM_D	0.14	UG/L	TR1	B	0.08	V1
GS10	03D0020-007	09/16/2002	REAL	CHROMIUM	3.00	UG/L	TR1		0.25	V1
GS10	03D0020-007	09/16/2002	REAL	HARDNESS, TOTAL	140	MG/L	TR1		2.00	V1
GS10	03D0020-007	09/16/2002	REAL	SILVER_D	0.28	UG/L	TR1	U	0.28	J1
GS11	02D1240-002	05/16/2002	REAL	TOTAL SUSPENDED SOLIDS	16.0	MG/L	TR1		1.80	V1
GS11	02D1252-001	05/20/2002	REAL	TOTAL SUSPENDED SOLIDS	25.2	MG/L	TR1		1.80	V1
GS22	02D0680-002	11/15/2001	REAL	ALUMINUM	1670	UG/L	TR1		5.00	J1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS22	02D0680-002	11/15/2001	REAL	ANTIMONY	0.48	UG/L	TR1	U	0.48	V1
GS22	02D0680-002	11/15/2001	REAL	ARSENIC	0.77	UG/L	TR1	B	0.75	V1
GS22	02D0680-002	11/15/2001	REAL	BARIUM	159	UG/L	TR1		0.05	V1
GS22	02D0680-002	11/15/2001	REAL	BERYLLIUM	0.03	UG/L	TR1	B	0.02	J1
GS22	02D0680-002	11/15/2001	REAL	CADMIUM	0.64	UG/L	TR1	B	0.08	V1
GS22	02D0680-002	11/15/2001	REAL	CALCIUM	83800	UG/L	TR1		2.60	V1
GS22	02D0680-002	11/15/2001	REAL	CHROMIUM	4.00	UG/L	TR1		0.20	V1
GS22	02D0680-002	11/15/2001	REAL	COBALT	0.71	UG/L	TR1	B	0.15	V1
GS22	02D0680-002	11/15/2001	REAL	COPPER	11.8	UG/L	TR1		0.18	V1
GS22	02D0680-002	11/15/2001	REAL	IRON	1490	UG/L	TR1		3.80	V1
GS22	02D0680-002	11/15/2001	REAL	LEAD	4.90	UG/L	TR1		0.55	V1
GS22	02D0680-002	11/15/2001	REAL	LITHIUM	66.2	UG/L	TR1	B	0.05	J1
GS22	02D0680-002	11/15/2001	REAL	MAGNESIUM	13800	UG/L	TR1		2.30	J1
GS22	02D0680-002	11/15/2001	REAL	MANGANESE	59.6	UG/L	TR1		0.08	V1
GS22	02D0680-002	11/15/2001	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	UJ1
GS22	02D0680-002	11/15/2001	REAL	MOLYBDENUM	0.67	UG/L	TR1	B	0.28	V1
GS22	02D0680-002	11/15/2001.	REAL	NICKEL	2.30	UG/L	TR1	B	0.30	V1
GS22	02D0680-002	11/15/2001	REAL	POTASSIUM	7810	UG/L	TR1		4.70	J1
GS22	02D0680-002	11/15/2001	REAL	SELENIUM	0.90	UG/L	TR1	U	0.90	V1
GS22	02D0680-002	11/15/2001	REAL	SILVER	0.18	UG/L	TR1	B	0.18	V1
GS22	02D0680-002	11/15/2001	REAL	SODIUM	1120000	UG/L	TR1		116.00	J1
GS22	02D0680-002	11/15/2001	REAL	STRONTIUM	452	UG/L	TR1		0.02	V1
GS22	02D0680-002	11/15/2001	REAL	THALLIUM	1.40	UG/L	TR1	U	1.40	V1
GS22	02D0680-002	11/15/2001	REAL	TIN	0.94	UG/L	TR1	B	0.82	V1
GS22	02D0680-002	11/15/2001	REAL	URANIUM, TOTAL	3.30	UG/L	TR1	U	3.30	V1
GS22	02D0680-002	11/15/2001	REAL	VANADIUM	3.70	UG/L	TR1	B	0.18	V1
GS22	02D0680-002	11/15/2001	REAL	ZINC	395	UG/L	TR1		0.10	V1
GS22	02D1148-003	01/17/2002	REAL	ALUMINUM	918	UG/L	TR1		5.00	V1
GS22	02D1148-003	01/17/2002	REAL	ANTIMONY	0.48	UG/L	TR1	U	0.48	V1
GS22	02D1148-003	01/17/2002	REAL	ARSENIC	0.75	UG/L	TR1	U	0.75	V1
GS22	02D1148-003	01/17/2002	REAL	BARIUM	158	UG/L	TR1		0.05	V1
GS22	02D1148-003	01/17/2002	REAL	BERYLLIUM	0.15	UG/L	TR1	B	0.02	V1
GS22	02D1148-003	01/17/2002	REAL	CADMIUM	0.27	UG/L	TR1	B	0.08	V1
GS22	02D1148-003	01/17/2002	REAL	CALCIUM	86900	UG/L	TR1		2.60	V1
GS22	02D1148-003	01/17/2002	REAL	CHROMIUM	3.10	UG/L	TR1		0.20	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS22	02D1148-003	01/17/2002	REAL	COBALT	2.00	UG/L	TR1	B	0.15	V1
GS22	02D1148-003	01/17/2002	REAL	COPPER	6.40	UG/L	TR1		0.18	V1
GS22	02D1148-003	01/17/2002	REAL	IRON	1080	UG/L	TR1		3.80	V1
GS22	02D1148-003	01/17/2002	REAL	LEAD	2.90	UG/L	TR1		0.55	V1
GS22	02D1148-003	01/17/2002	REAL	LITHIUM	32.3	UG/L	TR1	B	0.05	V1
GS22	02D1148-003	01/17/2002	REAL	MAGNESIUM	13700	UG/L	TR1		2.30	V1
GS22	02D1148-003	01/17/2002	REAL	MANGANESE	64.6	UG/L	TR1		0.08	V1
GS22	02D1148-003	01/17/2002	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V1
GS22	02D1148-003	01/17/2002	REAL	MOLYBDENUM	0.99	UG/L	TR1	B	0.28	V1
GS22	02D1148-003	01/17/2002	REAL	NICKEL	1.60	UG/L	TR1	B	0.30	J1
GS22	02D1148-003	01/17/2002	REAL	POTASSIUM	5840	UG/L	TR1		4.70	J1
GS22	02D1148-003	01/17/2002	REAL	SELENIUM	0.90	UG/L	TR1	U	0.90	V1
GS22	02D1148-003	01/17/2002	REAL	SILVER	0.18	UG/L	TR1	U	0.18	V1
GS22	02D1148-003	01/17/2002	REAL	SODIUM	717000	UG/L	TR1		88.20	V1
GS22	02D1148-003	01/17/2002	REAL	STRONTIUM	489	UG/L	TR1	B	0.02	V1
GS22	02D1148-003	01/17/2002	REAL	THALLIUM	1.40	UG/L	TR1	U	1.40	V1
GS22	02D1148-003	01/17/2002	REAL	TIN	0.82	UG/L	TR1	B	0.82	V1
GS22	02D1148-003	01/17/2002	REAL	URANIUM, TOTAL	3.30	UG/L	TR1	U	3.30	V1
GS22	02D1148-003	01/17/2002	REAL	VANADIUM	2.80	UG/L	TR1	B	0.18	V1
GS22	02D1148-003	01/17/2002	REAL	ZINC	240	UG/L	TR1		0.10	V1
GS22	02D1221-002	04/05/2002	REAL	ALUMINUM	2200	UG/L	TR1		2.00	V
GS22	02D1221-002	04/05/2002	REAL	ANTIMONY	0.55	UG/L	TR1	U	0.55	J
GS22	02D1221-002	04/05/2002	REAL	ARSENIC	2.30	UG/L	TR1	B	0.62	V
GS22	02D1221-002	04/05/2002	REAL	BARIUM	135	UG/L	TR1		0.02	V
GS22	02D1221-002	04/05/2002	REAL	BERYLLIUM	0.11	UG/L	TR1	B	0.02	V
GS22	02D1221-002	04/05/2002	REAL	CADMIUM	0.11	UG/L	TR1	B	0.08	J
GS22	02D1221-002	04/05/2002	REAL	CALCIUM	70300	UG/L	TR1		9.20	J
GS22	02D1221-002	04/05/2002	REAL	CHROMIUM	4.30	UG/L	TR1		0.12	V
GS22	02D1221-002	04/05/2002	REAL	COBALT	0.67	UG/L	TR1	B	0.18	V
GS22	02D1221-002	04/05/2002	REAL	COPPER	15.4	UG/L	TR1		0.08	V
GS22	02D1221-002	04/05/2002	REAL	IRON	2190	UG/L	TR1		3.60	V
GS22	02D1221-002	04/05/2002	REAL	LEAD	6.40	UG/L	TR1		0.42	V
GS22	02D1221-002	04/05/2002	REAL	LITHIUM	13.3	UG/L	TR1	B	0.02	J
GS22	02D1221-002	04/05/2002	REAL	MAGNESIUM	11500	UG/L	TR1		1.40	J
GS22	02D1221-002	04/05/2002	REAL	MANGANESE	58.0	UG/L	TR1		0.02	V

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GS22	02D1221-002	04/05/2002	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	UJ
GS22	02D1221-002	04/05/2002	REAL	MOLYBDENUM	1.20	UG/L	TR1	B	0.28	UJ
GS22	02D1221-002	04/05/2002	REAL	NICKEL	2.90	UG/L	TR1	B	0.22	V
GS22	02D1221-002	04/05/2002	REAL	POTASSIUM	3360	UG/L	TR1	B	391.00	J
GS22	02D1221-002	04/05/2002	REAL	SELENIUM	0.88	UG/L	TR1	U	0.88	V
GS22	02D1221-002	04/05/2002	REAL	SILVER	0.12	UG/L	TR1	U	0.12	V
GS22	02D1221-002	04/05/2002	REAL	SODIUM	105000	UG/L	TR1		25.50	V
GS22	02D1221-002	04/05/2002	REAL	STRONTIUM	345	UG/L	TR1		0.02	V
GS22	02D1221-002	04/05/2002	REAL	THALLIUM	0.78	UG/L	TR1	U	0.78	J
GS22	02D1221-002	04/05/2002	REAL	TIN	0.78	UG/L	TR1	U	0.78	J
GS22	02D1221-002	04/05/2002	REAL	URANIUM, TOTAL	2.80	UG/L	TR1	U	2.80	V
GS22	02D1221-002	04/05/2002	REAL	VANADIUM	5.50	UG/L	TR1	B	0.18	V
GS22	02D1221-002	04/05/2002	REAL	ZINC	304	UG/L	TR1		1.70	V
GS22	02D1262-003	05/13/2002	REAL	ALUMINUM	2600	UG/L	TR1		2.00	V1
GS22	02D1262-003	05/13/2002	REAL	ANTIMONY	0.91	UG/L	TR1	B	0.55	UJ1
GS22	02D1262-003	05/13/2002	REAL	ARSENIC	1.90	UG/L	TR1	B	0.62	V1
GS22	02D1262-003	05/13/2002	REAL	BARIUM	53.7	UG/L	TR1	B	0.02	V1
GS22	02D1262-003	05/13/2002	REAL	BERYLLIUM	0.17	UG/L	TR1	B	0.02	UJ1
GS22	02D1262-003	05/13/2002	REAL	CADMIUM	0.10	UG/L	TR1	B	0.08	J1
GS22	02D1262-003	05/13/2002	REAL	CALCIUM	20700	UG/L	TR1		9.20	J1
GS22	02D1262-003	05/13/2002	REAL	CHROMIUM	5.30	UG/L	TR1		0.12	V1
GS22	02D1262-003	05/13/2002	REAL	COBALT	0.82	UG/L	TR1	B	0.18	V1
GS22	02D1262-003	05/13/2002	REAL	COPPER	11.5	UG/L	TR1		0.08	J1
GS22	02D1262-003	05/13/2002	REAL	IRON	2570	UG/L	TR1		3.60	V1
GS22	02D1262-003	05/13/2002	REAL	LEAD	7.10	UG/L	TR1		0.42	V1
GS22	02D1262-003	05/13/2002	REAL	LITHIUM	5.70	UG/L	TR1	B	0.02	V1
GS22	02D1262-003	05/13/2002	REAL	MAGNESIUM	3480	UG/L	TR1	B	1.40	J1
GS22	02D1262-003	05/13/2002	REAL	MANGANESE	47.8	UG/L	TR1		0.02	V1
GS22	02D1262-003	05/13/2002	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V1
GS22	02D1262-003	05/13/2002	REAL	MOLYBDENUM	1.10	UG/L	TR1	B	0.28	V1
GS22	02D1262-003	05/13/2002	REAL	NICKEL	2.80	UG/L	TR1	B	0.22	V1
GS22	02D1262-003	05/13/2002	REAL	POTASSIUM	2110	UG/L	TR1	B	5.10	J1
GS22	02D1262-003	05/13/2002	REAL	SELENIUM	0.88	UG/L	TR1	U	0.88	V1
GS22	02D1262-003	05/13/2002	REAL	SILVER	0.12	UG/L	TR1	U	0.12	J1
GS22	02D1262-003	05/13/2002	REAL	SODIUM	18300	UG/L	TR1		5.10	V1

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GS22	02D1262-003	05/13/2002	REAL	STRONTIUM	99.1	UG/L	TR1	B	0.02	V1
GS22	02D1262-003	05/13/2002	REAL	THALLIUM	0.78	UG/L	TR1	U	0.78	J1
GS22	02D1262-003	05/13/2002	REAL	TIN	0.78	UG/L	TR1	U	0.78	V1
GS22	02D1262-003	05/13/2002	REAL	URANIUM, TOTAL	2.80	UG/L	TR1	U	2.80	V1
GS22	02D1262-003	05/13/2002	REAL	VANADIUM	6.30	UG/L	TR1	B	0.18	V1
GS22	02D1262-003	05/13/2002	REAL	ZINC	227	UG/L	TR1		0.10	V1
GS22	02D1362-002	05/29/2002	REAL	ALUMINUM	2810	UG/L	TR1		2.00	V1
GS22	02D1362-002	05/29/2002	REAL	ANTIMONY	1.20	UG/L	TR1	B	0.55	V1
GS22	02D1362-002	05/29/2002	REAL	ARSENIC	1.90	UG/L	TR1	B	0.62	V1
GS22	02D1362-002	05/29/2002	REAL	BARIUM	162	UG/L	TR1		0.02	V1
GS22	02D1362-002	05/29/2002	REAL	BERYLLIUM	0.10	UG/L	TR1	B	0.02	V1
GS22	02D1362-002	05/29/2002	REAL	CADMIUM	0.13	UG/L	TR1	B	0.08	J1
GS22	02D1362-002	05/29/2002	REAL	CALCIUM	76500	UG/L	TR1		9.20	V1
GS22	02D1362-002	05/29/2002	REAL	CHROMIUM	6.00	UG/L	TR1		0.12	V1
GS22	02D1362-002	05/29/2002	REAL	COBALT	0.88	UG/L	TR1	B	0.18	V1
GS22	02D1362-002	05/29/2002	REAL	COPPER	11.4	UG/L	TR1		0.08	V1
GS22	02D1362-002	05/29/2002	REAL	IRON	2800	UG/L	TR1		3.60	V1
GS22	02D1362-002	05/29/2002	REAL	LEAD	8.80	UG/L	TR1		0.42	V1
GS22	02D1362-002	05/29/2002	REAL	LITHIUM	11.2	UG/L	TR1	B	0.02	J1
GS22	02D1362-002	05/29/2002	REAL	MAGNESIUM	12100	UG/L	TR1		1.40	V1
GS22	02D1362-002	05/29/2002	REAL	MANGANESE	55.8	UG/L	TR1		0.02	V1
GS22	02D1362-002	05/29/2002	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	J1
GS22	02D1362-002	05/29/2002	REAL	MOLYBDENUM	0.91	UG/L	TR1	B	0.28	J1
GS22	02D1362-002	05/29/2002	REAL	NICKEL	3.50	UG/L	TR1	B	0.22	V1
GS22	02D1362-002	05/29/2002	REAL	POTASSIUM	3640	UG/L	TR1	B	5.10	J1
GS22	02D1362-002	05/29/2002	REAL	SELENIUM	0.88	UG/L	TR1	U	0.88	V1
GS22	02D1362-002	05/29/2002	REAL	SILVER	0.12	UG/L	TR1	U	0.12	V1
GS22	02D1362-002	05/29/2002	REAL	SODIUM	44800	UG/L	TR1		4.00	V1
GS22	02D1362-002	05/29/2002	REAL	STRONTIUM	364	UG/L	TR1		0.02	V1
GS22	02D1362-002	05/29/2002	REAL	THALLIUM	0.78	UG/L	TR1	U	0.78	J1
GS22	02D1362-002	05/29/2002	REAL	TIN	0.78	UG/L	TR1	U	0.78	V1
GS22	02D1362-002	05/29/2002	REAL	URANIUM, TOTAL	2.80	UG/L	TR1	U	2.80	J1
GS22	02D1362-002	05/29/2002	REAL	VANADIUM	7.40	UG/L	TR1	B	0.18	V1
GS22	02D1362-002	05/29/2002	REAL	ZINC	208	UG/L	TR1		0.10	V1
GS22	02D1435-007	06/24/2002	REAL	ALUMINUM	4620	UG/L	TR1		4.00	V1

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GS22	02D1435-007	06/24/2002	REAL	ANTIMONY	0.88	UG/L	TR1	U	0.88	V1
GS22	02D1435-007	06/24/2002	REAL	ARSENIC	3.10	UG/L	TR1	B	0.82	V1
GS22	02D1435-007	06/24/2002	REAL	BARIUM	239	UG/L	TR1		0.05	V1
GS22	02D1435-007	06/24/2002	REAL	BERYLLIUM	0.37	UG/L	TR1	B	0.02	J1
GS22	02D1435-007	06/24/2002	REAL	CADMIUM	0.70	UG/L	TR1	B	0.08	V1
GS22	02D1435-007	06/24/2002	REAL	CALCIUM	87900	UG/L	TR1		3.80	V1
GS22	02D1435-007	06/24/2002	REAL	CHROMIUM	14.1	UG/L	TR1		0.25	V1
GS22	02D1435-007	06/24/2002	REAL	COBALT	2.00	UG/L	TR1	B	0.35	V1
GS22	02D1435-007	06/24/2002	REAL	COPPER	90.2	UG/L	TR1		0.25	V1
GS22	02D1435-007	06/24/2002	REAL	IRON	6150	UG/L	TR1		4.50	V1
GS22	02D1435-007	06/24/2002	REAL	LEAD	29.6	UG/L	TR1		0.60	V1
GS22	02D1435-007	06/24/2002	REAL	LITHIUM	13.4	UG/L	TR1	B	0.05	J1
GS22	02D1435-007	06/24/2002	REAL	MAGNESIUM	13000	UG/L	TR1		1.90	V1
GS22	02D1435-007	06/24/2002	REAL	MANGANESE	108	UG/L	TR1		0.05	V1
GS22	02D1435-007	06/24/2002	REAL	MERCURY	0.16	UG/L	TR1		0.10	J1
GS22	02D1435-007	06/24/2002	REAL	MOLYBDENUM	2.10	UG/L	TR1	B	0.55	V1
GS22	02D1435-007	06/24/2002	REAL	NICKEL	6.10	UG/L	TR1	B	0.40	V1
GS22	02D1435-007	06/24/2002	REAL	POTASSIUM	5130	UG/L	TR1		7.00	J1
GS22	02D1435-007	06/24/2002	REAL	SELENIUM	1.00	UG/L	TR1	U	1.00	J1
GS22	02D1435-007	06/24/2002	REAL	SILVER	2.40	UG/L	TR1		0.28	V1
GS22	02D1435-007	06/24/2002	REAL	SODIUM	36100	UG/L	TR1		4.80	V1
GS22	02D1435-007	06/24/2002	REAL	STRONTIUM	393	UG/L	TR1		0.02	V1
GS22	02D1435-007	06/24/2002	REAL	THALLIUM	1.60	UG/L	TR1	U	1.60	V1
GS22	02D1435-007	06/24/2002	REAL	TIN	2.50	UG/L	TR1	B	1.20	V1
GS22	02D1435-007	06/24/2002	REAL	URANIUM, TOTAL	3.20	UG/L	TR1	U	3.20	V1
GS22	02D1435-007	06/24/2002	REAL	VANADIUM	11.4	UG/L	TR1	B	0.28	V1
GS22	02D1435-007	06/24/2002	REAL	ZINC	730	UG/L	TR1		0.12	J1
GS22	02D1506-007	08/06/2002	REAL	ALUMINUM	1140	UG/L	TR1		3.00	V1
GS22	02D1506-007	08/06/2002	REAL	ANTIMONY	0.88	UG/L	TR1	U	0.88	V1
GS22	02D1506-007	08/06/2002	REAL	ARSENIC	2.50	UG/L	TR1	B	0.82	V1
GS22	02D1506-007	08/06/2002	REAL	BARIUM	94.9	UG/L	TR1	B	0.05	V1
GS22	02D1506-007	08/06/2002	REAL	BERYLLIUM	0.09	UG/L	TR1	B	0.02	J1
GS22	02D1506-007	08/06/2002	REAL	CADMIUM	0.24	UG/L	TR1	B	0.08	V1
GS22	02D1506-007	08/06/2002	REAL	CALCIUM	49300	UG/L	TR1		2.90	V1
GS22	02D1506-007	08/06/2002	REAL	CHROMIUM	3.70	UG/L	TR1		0.25	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS22	02D1506-007	08/06/2002	REAL	COBALT	0.60	UG/L	TR1	B	0.35	V1
GS22	02D1506-007	08/06/2002	REAL	COPPER	12.9	UG/L	TR1		0.25	V1
GS22	02D1506-007	08/06/2002	REAL	IRON	1190	UG/L	TR1		4.50	V1
GS22	02D1506-007	08/06/2002	REAL	LEAD	6.00	UG/L	TR1		0.60	V1
GS22	02D1506-007	08/06/2002	REAL	LITHIUM	5.90	UG/L	TR1	B	0.05	J1
GS22	02D1506-007	08/06/2002	REAL	MAGNESIUM	7680	UG/L	TR1		1.90	V1
GS22	02D1506-007	08/06/2002	REAL	MANGANESE	37.5	UG/L	TR1		0.05	V1
GS22	02D1506-007	08/06/2002	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	J1
GS22	02D1506-007	08/06/2002	REAL	MOLYBDENUM	1.20	UG/L	TR1	B	0.55	V1
GS22	02D1506-007	08/06/2002	REAL	NICKEL	2.00	UG/L	TR1	B	0.40	V1
GS22	02D1506-007	08/06/2002	REAL	POTASSIUM	2140	UG/L	TR1	B	7.00	V1
GS22	02D1506-007	08/06/2002	REAL	SELENIUM	1.10	UG/L	TR1	B	1.00	V1
GS22	02D1506-007	08/06/2002	REAL	SILVER	0.28	UG/L	TR1	U	0.28	V1
GS22	02D1506-007	08/06/2002	REAL	SODIUM	21600	UG/L	TR1		4.80	V1
GS22	02D1506-007	08/06/2002	REAL	STRONTIUM	240	UG/L	TR1		0.02	V1
GS22	02D1506-007	08/06/2002	REAL	THALLIUM	1.60	UG/L	TR1	U	1.60	V1
GS22	02D1506-007	08/06/2002	REAL	TIN	1.20	UG/L	TR1	U	1.20	V1
GS22	02D1506-007	08/06/2002	REAL	URANIUM, TOTAL	3.20	UG/L	TR1	U	3.20	V1
GS22	02D1506-007	08/06/2002	REAL	VANADIUM	4.10	UG/L	TR1	B	0.28	V1
GS22	02D1506-007	08/06/2002	REAL	ZINC	274	UG/L	TR1		0.12	V1
GS22	03D0020-011	09/10/2002	REAL	ALUMINUM	906	UG/L	TR1		4.00	J1
GS22	03D0020-011	09/10/2002	REAL	ANTIMONY	0.88	UG/L	TR1	U	0.88	V1
GS22	03D0020-011	09/10/2002	REAL	ARSENIC	1.20	UG/L	TR1	B	0.82	V1
GS22	03D0020-011	09/10/2002	REAL	BARIUM	51.2	UG/L	TR1	B	0.05	V1
GS22	03D0020-011	09/10/2002	REAL	BERYLLIUM	0.02	UG/L	TR1	U	0.02	J1
GS22	03D0020-011	09/10/2002	REAL	CADMIUM	0.21	UG/L	TR1	B	0.08	V1
GS22	03D0020-011	09/10/2002	REAL	CALCIUM	26700	UG/L	TR1		2.90	V1
GS22	03D0020-011	09/10/2002	REAL	CHROMIUM	3.00	UG/L	TR1		0.25	V1
GS22	03D0020-011	09/10/2002	REAL	COBALT	0.35	UG/L	TR1	U	0.35	V1
GS22	03D0020-011	09/10/2002	REAL	COPPER	7.30	UG/L	TR1		0.25	V1
GS22	03D0020-011	09/10/2002	REAL	IRON	959	UG/L	TR1		4.50	V1
GS22	03D0020-011	09/10/2002	REAL	LEAD	2.30	UG/L	TR1		0.60	V1
GS22	03D0020-011	09/10/2002	REAL	LITHIUM	3.60	UG/L	TR1	B	0.05	J1
GS22	03D0020-011	09/10/2002	REAL	MAGNESIUM	4160	UG/L	TR1	B	1.90	V1
GS22	03D0020-011	09/10/2002	REAL	MANGANESE	20.4	UG/L	TR1		0.05	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS22	03D0020-011	09/10/2002	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V1
GS22	03D0020-011	09/10/2002	REAL	MOLYBDENUM	0.88	UG/L	TR1	B	0.55	V1
GS22	03D0020-011	09/10/2002	REAL	NICKEL	1.60	UG/L	TR1	B	0.40	V1
GS22	03D0020-011	09/10/2002	REAL	POTASSIUM	1380	UG/L	TR1	B	7.00	J1
GS22	03D0020-011	09/10/2002	REAL	SELENIUM	1.00	UG/L	TR1	U	1.00	V1
GS22	03D0020-011	09/10/2002	REAL	SILVER	0.28	UG/L	TR1	U	0.28	J1
GS22	03D0020-011	09/10/2002	REAL	SODIUM	17800	UG/L	TR1		4.80	V1
GS22	03D0020-011	09/10/2002	REAL	STRONTIUM	123	UG/L	TR1	B	0.02	V1
GS22	03D0020-011	09/10/2002	REAL	THALLIUM	1.60	UG/L	TR1	U	1.60	V1
GS22	03D0020-011	09/10/2002	REAL	TIN	1.20	UG/L	TR1	U	1.20	V1
GS22	03D0020-011	09/10/2002	REAL	URANIUM, TOTAL	3.20	UG/L	TR1	U	3.20	V1
GS22	03D0020-011	09/10/2002	REAL	VANADIUM	3.10	UG/L	TR1	B	0.28	V1
GS22	03D0020-011	09/10/2002	REAL	ZINC	154	UG/L	TR1		0.12	V1
GS27	02D1254-003	05/23/2002	REAL	TOTAL SUSPENDED SOLIDS	146.0	MG/L	TR1		1.80	V1
GS27	02D1516-004	09/12/2002	REAL	TOTAL SUSPENDED SOLIDS	98.0	MG/L	TR1		1.80	V1
GS28	02D1254-010	05/23/2002	REAL	ALUMINUM	3920	UG/L	TR1		2.00	V1
GS28	02D1254-010	05/23/2002	REAL	ANTIMONY	0.55	UG/L	TR1	U	0.55	V1
GS28	02D1254-010	05/23/2002	REAL	ARSENIC	2.80	UG/L	TR1	B	0.62	V1
GS28	02D1254-010	05/23/2002	REAL	BARIUM	40.2	UG/L	TR1	B	0.02	V1
GS28	02D1254-010	05/23/2002	REAL	BERYLLIUM	0.16	UG/L	TR1	B	0.02	V1
GS28	02D1254-010	05/23/2002	REAL	CADMIUM	0.22	UG/L	TR1	B	0.08	V1
GS28	02D1254-010	05/23/2002	REAL	CALCIUM	11300	UG/L	TR1		9.20	V1
GS28	02D1254-010	05/23/2002	REAL	CHROMIUM	4.60	UG/L	TR1		0.12	V1
GS28	02D1254-010	05/23/2002	REAL	COBALT	1.40	UG/L	TR1	B	0.18	V1
GS28	02D1254-010	05/23/2002	REAL	COPPER	12.1	UG/L	TR1		0.08	V1
GS28	02D1254-010	05/23/2002	REAL	IRON	3370	UG/L	TR1		3.60	V1
GS28	02D1254-010	05/23/2002	REAL	LEAD	5.50	UG/L	TR1		0.42	V1
GS28	02D1254-010	05/23/2002	REAL	LITHIUM	4.30	UG/L	TR1	B	0.02	J1
GS28	02D1254-010	05/23/2002	REAL	MAGNESIUM	1650	UG/L	TR1	B	1.40	V1
GS28	02D1254-010	05/23/2002	REAL	MANGANESE	52.1	UG/L	TR1		0.02	V1
GS28	02D1254-010	05/23/2002	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V1
GS28	02D1254-010	05/23/2002	REAL	MOLYBDENUM	1.30	UG/L	TR1	B	0.28	UJ1
GS28	02D1254-010	05/23/2002	REAL	NICKEL	4.10	UG/L	TR1	B	0.22	V1
GS28	02D1254-010	05/23/2002	REAL	POTASSIUM	2140	UG/L	TR1	B	78.20	V1
GS28	02D1254-010	05/23/2002	REAL	SELENIUM	0.88	UG/L	TR1	U	0.88	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS28	02D1254-010	05/23/2002	REAL	SILVER	0.12	UG/L	TR1	U	0.12	V1
GS28	02D1254-010	05/23/2002	REAL	SODIUM	13300	UG/L	TR1		5.10	V1
GS28	02D1254-010	05/23/2002	REAL	STRONTIUM	48.5	UG/L	TR1	B	0.02	V1
GS28	02D1254-010	05/23/2002	REAL	THALLIUM	0.78	UG/L	TR1	U	0.78	J1
GS28	02D1254-010	05/23/2002	REAL	TIN	0.78	UG/L	TR1	U	0.78	J1
GS28	02D1254-010	05/23/2002	REAL	TOTAL SUSPENDED SOLIDS	63.2	MG/L	TR1		1.80	V1
GS28	02D1254-010	05/23/2002	REAL	URANIUM, TOTAL	2.80	UG/L	TR1	U	2.80	V1
GS28	02D1254-010	05/23/2002	REAL	VANADIUM	9.00	UG/L	TR1	B	0.18	V1
GS28	02D1254-010	05/23/2002	REAL	ZINC	159	UG/L	TR1		0.10	V1
GS28	02D1262-009	05/24/2002	REAL	ALUMINUM	416	UG/L	TR1		2.00	J1
GS28	02D1262-009	05/24/2002	REAL	ANTIMONY	0.89	UG/L	TR1	B	0.55	UJ1
GS28	02D1262-009	05/24/2002	REAL	ARSENIC	0.62	UG/L	TR1	U	0.62	V1
GS28	02D1262-009	05/24/2002	REAL	BARIUM	25.2	UG/L	TR1	B	0.02	V1
GS28	02D1262-009	05/24/2002	REAL	BERYLLIUM	0.11	UG/L	TR1	B	0.02	UJ1
GS28	02D1262-009	05/24/2002	REAL	CADMIUM	0.08	UG/L	TR1	U	0.08	J1
GS28	02D1262-009	05/24/2002	REAL	CALCIUM	11300	UG/L	TR1		9.20	J1
GS28	02D1262-009	05/24/2002	REAL	CHROMIUM	1.10	UG/L	TR1	B	0.12	UJ1
GS28	02D1262-009	05/24/2002	REAL	COBALT	0.18	UG/L	TR1	U	0.18	V1
GS28	02D1262-009	05/24/2002	REAL	COPPER	5.30	UG/L	TR1		0.08	J1
GS28	02D1262-009	05/24/2002	REAL	IRON	280	UG/L	TR1		3.60	V1
GS28	02D1262-009	05/24/2002	REAL	LEAD	0.54	UG/L	TR1	B	0.42	V1
GS28	02D1262-009	05/24/2002	REAL	LITHIUM	1.90	UG/L	TR1	B	0.02	V1
GS28	02D1262-009	05/24/2002	REAL	MAGNESIUM	1260	UG/L	TR1	B	1.40	J1
GS28	02D1262-009	05/24/2002	REAL	MANGANESE	3.50	UG/L	TR1	B	0.02	V1
GS28	02D1262-009	05/24/2002	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V1
GS28	02D1262-009	05/24/2002	REAL	MOLYBDENUM	0.53	UG/L	TR1	B	0.28	V1
GS28	02D1262-009	05/24/2002	REAL	NICKEL	0.79	UG/L	TR1	B	0.22	V1
GS28	02D1262-009	05/24/2002	REAL	POTASSIUM	1610	UG/L	TR1	B	5.10	J1
GS28	02D1262-009	05/24/2002	REAL	SELENIUM	0.88	UG/L	TR1	U	0.88	V1
GS28	02D1262-009	05/24/2002	REAL	SILVER	0.12	UG/L	TR1	U	0.12	J1
GS28	02D1262-009	05/24/2002	REAL	SODIUM	13400	UG/L	TR1		5.10	V1
GS28	02D1262-009	05/24/2002	REAL	STRONTIUM	61.2	UG/L	TR1	B	0.02	V1
GS28	02D1262-009	05/24/2002	REAL	THALLIUM	0.78	UG/L	TR1	U	0.78	J1
GS28	02D1262-009	05/24/2002	REAL	TIN	0.78	UG/L	TR1	U	0.78	V1
GS28	02D1262-009	05/24/2002	REAL	TOTAL SUSPENDED SOLIDS	4.0	MG/L	TR1	U	1.80	V

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS28	02D1262-009	05/24/2002	REAL	URANIUM, TOTAL	2.80	UG/L	TR1	U	2.80	V1
GS28	02D1262-009	05/24/2002	REAL	VANADIUM	1.70	UG/L	TR1	B	0.18	V1
GS28	02D1262-009	05/24/2002	REAL	ZINC	69.3	UG/L	TR1		0.10	V1
GS28	02D1521-003	08/05/2002	REAL	ALUMINUM	7200	UG/L	TR1		3.00	V
GS28	02D1521-003	08/05/2002	REAL	ANTIMONY	0.88	UG/L	TR1	U	0.88	V
GS28	02D1521-003	08/05/2002	REAL	ARSENIC	2.70	UG/L	TR1	B	0.82	V
GS28	02D1521-003	08/05/2002	REAL	BARIUM	68.2	UG/L	TR1	B	0.05	V
GS28	02D1521-003	08/05/2002	REAL	BERYLLIUM	0.25	UG/L	TR1	B	0.02	V
GS28	02D1521-003	08/05/2002	REAL	CADMIUM	0.44	UG/L	TR1	B	0.08	V
GS28	02D1521-003	08/05/2002	REAL	CALCIUM	17700	UG/L	TR1		3.80	V
GS28	02D1521-003	08/05/2002	REAL	CHROMIUM	7.90	UG/L	TR1		0.25	V
GS28	02D1521-003	08/05/2002	REAL	COBALT	2.40	UG/L	TR1	B	0.35	V
GS28	02D1521-003	08/05/2002	REAL	COPPER	24.2	UG/L	TR1		0.25	V
GS28	02D1521-003	08/05/2002	REAL	IRON	5920	UG/L	TR1		4.50	V
GS28	02D1521-003	08/05/2002	REAL	LEAD	10.0	UG/L	TR1		0.60	V
GS28	02D1521-003	08/05/2002	REAL	LITHIUM	7.30	UG/L	TR1	B	0.05	V
GS28	02D1521-003	08/05/2002	REAL	MAGNESIUM	2520	UG/L	TR1	B	1.90	V
GS28	02D1521-003	08/05/2002	REAL	MANGANESE	99.1	UG/L	TR1		0.05	V
GS28	02D1521-003	08/05/2002	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	R
GS28	02D1521-003	08/05/2002	REAL	MOLYBDENUM	0.80	UG/L	TR1	B	0.55	V
GS28	02D1521-003	08/05/2002	REAL	NICKEL	6.10	UG/L	TR1	B	0.40	V
GS28	02D1521-003	08/05/2002	REAL	POTASSIUM	4680	UG/L	TR1	B	7.00	V
GS28	02D1521-003	08/05/2002	REAL	SELENIUM	1.00	UG/L	TR1	U	1.00	V
GS28	02D1521-003	08/05/2002	REAL	SILVER	0.28	UG/L	TR1	U	0.28	V
GS28	02D1521-003	08/05/2002	REAL	SODIUM	9220	UG/L	TR1		4.80	V
GS28	02D1521-003	08/05/2002	REAL	STRONTIUM	65.0	UG/L	TR1	B	0.02	V
GS28	02D1521-003	08/05/2002	REAL	THALLIUM	1.60	UG/L	TR1	U	1.60	V
GS28	02D1521-003	08/05/2002	REAL	TIN	1.20	UG/L	TR1	U	1.20	V
GS28	02D1521-003	08/05/2002	REAL	URANIUM, TOTAL	3.20	UG/L	TR1	U	3.20	J
GS28	02D1521-003	08/05/2002	REAL	VANADIUM	15.9	UG/L	TR1	B	0.28	V
GS28	02D1521-003	08/05/2002	REAL	ZINC	211	UG/L	TR1		0.12	V
GS31	02D1506-003	09/10/2002	REAL	TOTAL SUSPENDED SOLIDS	34.0	MG/L	DL1		2.20	V1
GS32	02D0645-003	01/10/2002	REAL	ALUMINUM	5440	UG/L	TR1		5.00	V1
GS32	02D0645-003	01/10/2002	REAL	ANTIMONY	10.5	UG/L	TR1		0.48	V1
GS32	02D0645-003	01/10/2002	REAL	ARSENIC	2.80	UG/L	TR1	B	0.75	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS32	02D0645-003	01/10/2002	REAL	BARIUM	361	UG/L	TR1		0.05	V1
GS32	02D0645-003	01/10/2002	REAL	BERYLLIUM	0.19	UG/L	TR1	B	0.02	J1
GS32	02D0645-003	01/10/2002	REAL	CADMIUM	2.10	UG/L	TR1		0.08	V1
GS32	02D0645-003	01/10/2002	REAL	CALCIUM	133000	UG/L	TR1		22.10	J1
GS32	02D0645-003	01/10/2002	REAL	CHROMIUM	11.7	UG/L	TR1		0.20	V1
GS32	02D0645-003	01/10/2002	REAL	COBALT	3.10	UG/L	TR1	B	0.15	V1
GS32	02D0645-003	01/10/2002	REAL	COPPER	38.5	UG/L	TR1		0.18	V1
GS32	02D0645-003	01/10/2002	REAL	IRON	7070	UG/L	TR1		3.80	V1
GS32	02D0645-003	01/10/2002	REAL	LEAD	13.4	UG/L	TR1		0.55	V1
GS32	02D0645-003	01/10/2002	REAL	LITHIUM	131	UG/L	TR1		0.05	J1
GS32	02D0645-003	01/10/2002	REAL	MAGNESIUM	15500	UG/L	TR1		2.30	J1
GS32	02D0645-003	01/10/2002	REAL	MANGANESE	448	UG/L	TR1		0.08	V1
GS32	02D0645-003	01/10/2002	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V1
GS32	02D0645-003	01/10/2002	REAL	MOLYBDENUM	3.40	UG/L	TR1	B	0.28	V1
GS32	02D0645-003	01/10/2002	REAL	NICKEL	11.2	UG/L	TR1	B	0.30	V1
GS32	02D0645-003	01/10/2002	REAL	POTASSIUM	25700	UG/L	TR1		413.00	V1
GS32	02D0645-003	01/10/2002	REAL	SELENIUM	0.90	UG/L	TR1	U	0.90	J1
GS32	02D0645-003	01/10/2002	REAL	SILVER	0.30	UG/L	TR1	B	0.18	V1
GS32	02D0645-003	01/10/2002	REAL	SODIUM	3360000	UG/L	TR1		353.00	V1
GS32	02D0645-003	01/10/2002	REAL	STRONTIUM	1070	UG/L	TR1		0.02	V1
GS32	02D0645-003	01/10/2002	REAL	THALLIUM	1.80	UG/L	TR1	B	1.40	V1
GS32	02D0645-003	01/10/2002	REAL	TIN	0.82	UG/L	TR1	U	0.82	J1
GS32	02D0645-003	01/10/2002	REAL	VANADIUM	11.3	UG/L	TR1	B	0.18	V1
GS32	02D0645-003	01/10/2002	REAL	ZINC	6780	UG/L	TR1		4.10	J1
GS32	02D0935-002	03/05/2002	REAL	ALUMINUM	5270	UG/L	TR1		6.30	V1
GS32	02D0935-002	03/05/2002	REAL	ANTIMONY	9.10	UG/L	TR1		0.48	V1
GS32	02D0935-002	03/05/2002	REAL	ARSENIC	2.80	UG/L	TR1	B	0.75	V1
GS32	02D0935-002	03/05/2002	REAL	BARIUM	159	UG/L	TR1		0.05	V1
GS32	02D0935-002	03/05/2002	REAL	BERYLLIUM	0.40	UG/L	TR1	B	0.12	V1
GS32	02D0935-002	03/05/2002	REAL	CADMIUM	0.75	UG/L	TR1	B	0.08	V1
GS32	02D0935-002	03/05/2002	REAL	CALCIUM	143000	UG/L	TR1		44.20	V1
GS32	02D0935-002	03/05/2002	REAL	CHROMIUM	11.8	UG/L	TR1		0.20	V1
GS32	02D0935-002	03/05/2002	REAL	COBALT	2.20	UG/L	TR1	B	0.15	V1
GS32	02D0935-002	03/05/2002	REAL	COPPER	26.2	UG/L	TR1		0.18	V1
GS32	02D0935-002	03/05/2002	REAL	IRON	5600	UG/L	TR1		3.80	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS32	02D0935-002	03/05/2002	REAL	LEAD	13.7	UG/L	TR1		0.55	V1
GS32	02D0935-002	03/05/2002	REAL	LITHIUM	177	UG/L	TR1		0.05	J1
GS32	02D0935-002	03/05/2002	REAL	MAGNESIUM	7570	UG/L	TR1		2.30	J1
GS32	02D0935-002	03/05/2002	REAL	MANGANESE	173	UG/L	TR1		0.08	V1
GS32	02D0935-002	03/05/2002	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V1
GS32	02D0935-002	03/05/2002	REAL	MOLYBDENUM	4.00	UG/L	TR1	B	0.28	V1
GS32	02D0935-002	03/05/2002	REAL	NICKEL	8.90	UG/L	TR1	B	0.30	V1
GS32	02D0935-002	03/05/2002	REAL	POTASSIUM	16700	UG/L	TR1		82.60	V1
GS32	02D0935-002	03/05/2002	REAL	SELENIUM	0.90	UG/L	TR1	U	0.90	V1
GS32	02D0935-002	03/05/2002	REAL	SILVER	0.18	UG/L	TR1	U	0.18	V1
GS32	02D0935-002	03/05/2002	REAL	SODIUM	882000	UG/L	TR1		88.20	V1
GS32	02D0935-002	03/05/2002	REAL	STRONTIUM	1820	UG/L	TR1		0.02	V1
GS32	02D0935-002	03/05/2002	REAL	THALLIUM	1.40	UG/L	TR1	U	1.40	J1
GS32	02D0935-002	03/05/2002	REAL	TIN	2.30	UG/L	TR1	B	0.82	UJ1
GS32	02D0935-002	03/05/2002	REAL	URANIUM, TOTAL	3.30	UG/L	TR1	U	3.30	V1
GS32	02D0935-002	03/05/2002	REAL	VANADIUM	16.0	UG/L	TR1	B	0.18	V1
GS32	02D0935-002	03/05/2002	REAL	ZINC	1980	UG/L	TR1		0.10	V1
GS32	02D1214-002	05/01/2002	REAL	ALUMINUM	2230	UG/L	TR1		2.00	V1
GS32	02D1214-002	05/01/2002	REAL	ANTIMONY	7.80	UG/L	TR1		0.55	V1
GS32	02D1214-002	05/01/2002	REAL	ARSENIC	2.00	UG/L	TR1	B	0.62	V1
GS32	02D1214-002	05/01/2002	REAL	BARIUM	184	UG/L	TR1		0.02	V1
GS32	02D1214-002	05/01/2002	REAL	BERYLLIUM	0.16	UG/L	TR1	B	0.02	V1
GS32	02D1214-002	05/01/2002	REAL	CADMIUM	1.50	UG/L	TR1		0.08	V1
GS32	02D1214-002	05/01/2002	REAL	CALCIUM	82900	UG/L	TR1		25.50	V1
GS32	02D1214-002	05/01/2002	REAL	CHROMIUM	19.6	UG/L	TR1		0.12	V1
GS32	02D1214-002	05/01/2002	REAL	COBALT	2.40	UG/L	TR1	B	0.18	V1
GS32	02D1214-002	05/01/2002	REAL	COPPER	35.4	UG/L	TR1		0.08	V1
GS32	02D1214-002	05/01/2002	REAL	IRON	2970	UG/L	TR1		3.60	V1
GS32	02D1214-002	05/01/2002	REAL	LEAD	7.40	UG/L	TR1		0.42	J1
GS32	02D1214-002	05/01/2002	REAL	LITHIUM	46.7	UG/L	TR1	B	0.02	J1
GS32	02D1214-002	05/01/2002	REAL	MAGNESIUM	7620	UG/L	TR1		1.40	J1
GS32	02D1214-002	05/01/2002	REAL	MANGANESE	222	UG/L	TR1		0.02	V1
GS32	02D1214-002	05/01/2002	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V1
GS32	02D1214-002	05/01/2002	REAL	MOLYBDENUM	3.80	UG/L	TR1	B	0.28	V1
GS32	02D1214-002	05/01/2002	REAL	NICKEL	16.1	UG/L	TR1	B	0.22	J1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS32	02D1214-002	05/01/2002	REAL	POTASSIUM	41600	UG/L	TR1		391.00	V1
GS32	02D1214-002	05/01/2002	REAL	SELENIUM	1.50	UG/L	TR1	B	0.88	V1
GS32	02D1214-002	05/01/2002	REAL	SILVER	0.12	UG/L	TR1	U	0.12	V1
GS32	02D1214-002	05/01/2002	REAL	SODIUM	1030000	UG/L	TR1		51.00	V1
GS32	02D1214-002	05/01/2002	REAL	STRONTIUM	711	UG/L	TR1		0.02	V1
GS32	02D1214-002	05/01/2002	REAL	THALLIUM	0.78	UG/L	TR1	B	0.78	UJ1
GS32	02D1214-002	05/01/2002	REAL	TIN	1.50	UG/L	TR1	B	0.78	UJ1
GS32	02D1214-002	05/01/2002	REAL	URANIUM, TOTAL	2.80	UG/L	TR1	U	2.80	V1
GS32	02D1214-002	05/01/2002	REAL	VANADIUM	7.20	UG/L	TR1	B	0.18	V1
GS32	02D1214-002	05/01/2002	REAL	ZINC	8150	UG/L	TR1		8.50	V1
GS32	02D1221-003	05/11/2002	REAL	ALUMINUM	6620	UG/L	TR1		4.00	V
GS32	02D1221-003	05/11/2002	REAL	ANTIMONY	10.6	UG/L	TR1		1.10	V
GS32	02D1221-003	05/11/2002	REAL	ARSENIC	3.70	UG/L	TR1	B	1.20	V
GS32	02D1221-003	05/11/2002	REAL	BARIUM	173	UG/L	TR1	B	0.05	V
GS32	02D1221-003	05/11/2002	REAL	BERYLLIUM	0.39	UG/L	TR1	B	0.05	V
GS32	02D1221-003	05/11/2002	REAL	CADMIUM	1.40	UG/L	TR1	B	0.15	V
GS32	02D1221-003	05/11/2002	REAL	CALCIUM	76200	UG/L	TR1		18.50	J
GS32	02D1221-003	05/11/2002	REAL	CHROMIUM	10.3	UG/L	TR1		0.25	V
GS32	02D1221-003	05/11/2002	REAL	COBALT	3.60	UG/L	TR1	B	0.15	V
GS32	02D1221-003	05/11/2002	REAL	COPPER	38.6	UG/L	TR1		0.15	V
GS32	02D1221-003	05/11/2002	REAL	IRON	7510	UG/L	TR1		7.20	V
GS32	02D1221-003	05/11/2002	REAL	LEAD	17.7	UG/L	TR1		0.85	V
GS32	02D1221-003	05/11/2002	REAL	LITHIUM	48.5	UG/L	TR1	B	0.05	J
GS32	02D1221-003	05/11/2002	REAL	MAGNESIUM	9980	UG/L	TR1	B	2.80	J
GS32	02D1221-003	05/11/2002	REAL	MANGANESE	288	UG/L	TR1		0.05	V
GS32	02D1221-003	05/11/2002	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V
GS32	02D1221-003	05/11/2002	REAL	MOLYBDENUM	5.10	UG/L	TR1	B	0.55	V
GS32	02D1221-003	05/11/2002	REAL	NICKEL	10.1	UG/L	TR1	B	0.45	V
GS32	02D1221-003	05/11/2002	REAL	POTASSIUM	26700	UG/L	TR1	B	782.00	J
GS32	02D1221-003	05/11/2002	REAL	SELENIUM	1.80	UG/L	TR1	U	1.80	V
GS32	02D1221-003	05/11/2002	REAL	SILVER	0.25	UG/L	TR1	U	0.25	V
GS32	02D1221-003	05/11/2002	REAL	SODIUM	754000	UG/L	TR1		51.00	V
GS32	02D1221-003	05/11/2002	REAL	STRONTIUM	632	UG/L	TR1		0.05	V
GS32	02D1221-003	05/11/2002	REAL	THALLIUM	1.60	UG/L	TR1	U	1.60	J
GS32	02D1221-003	05/11/2002	REAL	TIN	1.60	UG/L	TR1	U	1.60	J

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS32	02D1221-003	05/11/2002	REAL	URANIUM, TOTAL	5.60	UG/L	TR1	U	5.60	V
GS32	02D1221-003	05/11/2002	REAL	VANADIUM	17.0	UG/L	TR1	B	0.35	V
GS32	02D1221-003	05/11/2002	REAL	ZINC	6730	UG/L	TR1		17.00	V
GS32	02D1233-007	05/16/2002	REAL	ALUMINUM	19000	UG/L	TR1		4.00	V1
GS32	02D1233-007	05/16/2002	REAL	ANTIMONY	15.8	UG/L	TR1		1.10	V1
GS32	02D1233-007	05/16/2002	REAL	ARSENIC	8.00	UG/L	TR1	B	1.20	V1
GS32	02D1233-007	05/16/2002	REAL	BARIUM	174	UG/L	TR1	B	0.05	V1
GS32	02D1233-007	05/16/2002	REAL	BERYLLIUM	0.89	UG/L	TR1	B	0.05	V1
GS32	02D1233-007	05/16/2002	REAL	CADMIUM	1.30	UG/L	TR1	B	0.15	J1
GS32	02D1233-007	05/16/2002	REAL	CALCIUM	44500	UG/L	TR1		18.50	V1
GS32	02D1233-007	05/16/2002	REAL	CHROMIUM	24.7	UG/L	TR1		0.25	V1
GS32	02D1233-007	05/16/2002	REAL	COBALT	6.80	UG/L	TR1	B	0.15	V1
GS32	02D1233-007	05/16/2002	REAL	COPPER	55.9	UG/L	TR1		0.15	V1
GS32	02D1233-007	05/16/2002	REAL	IRON	18500	UG/L	TR1		7.20	V1
GS32	02D1233-007	05/16/2002	REAL	LEAD	44.0	UG/L	TR1		0.85	V1
GS32	02D1233-007	05/16/2002	REAL	LITHIUM	40.7	UG/L	TR1	B	0.05	J1
GS32	02D1233-007	05/16/2002	REAL	MAGNESIUM	8960	UG/L	TR1	B	2.80	V1
GS32	02D1233-007	05/16/2002	REAL	MANGANESE	381	UG/L	TR1		0.05	V1
GS32	02D1233-007	05/16/2002	REAL	MERCURY	0.10	UG/L	TR1		0.10	V1
GS32	02D1233-007	05/16/2002	REAL	MOLYBDENUM	5.10	UG/L	TR1	B	0.55	V1
GS32	02D1233-007	05/16/2002	REAL	NICKEL	19.1	UG/L	TR1	B	0.45	V1
GS32	02D1233-007	05/16/2002	REAL	POTASSIUM	14000	UG/L	TR1	B	782.00	V1
GS32	02D1233-007	05/16/2002	REAL	SELENIUM	2.00	UG/L	TR1	B	1.80	V1
GS32	02D1233-007	05/16/2002	REAL	SILVER	0.25	UG/L	TR1	U	0.25	V1
GS32	02D1233-007	05/16/2002	REAL	SODIUM	212000	UG/L	TR1		51.00	V1
GS32	02D1233-007	05/16/2002	REAL	STRONTIUM	278	UG/L	TR1	B	0.05	V1
GS32	02D1233-007	05/16/2002	REAL	THALLIUM	1.60	UG/L	TR1	U	1.60	J1
GS32	02D1233-007	05/16/2002	REAL	TIN	1.60	UG/L	TR1	U	1.60	J1
GS32	02D1233-007	05/16/2002	REAL	URANIUM, TOTAL	5.60	UG/L	TR1	U	5.60	V1
GS32	02D1233-007	05/16/2002	REAL	VANADIUM	45.5	UG/L	TR1	B	0.35	V1
GS32	02D1233-007	05/16/2002	REAL	ZINC	2240	UG/L	TR1		17.00	V1
GS32	02D1262-010	05/24/2002	REAL	ALUMINUM	906	UG/L	TR1		2.00	V1
GS32	02D1262-010	05/24/2002	REAL	ANTIMONY	3.60	UG/L	TR1		0.55	V1
GS32	02D1262-010	05/24/2002	REAL	ARSENIC	1.30	UG/L	TR1	B	0.62	V1
GS32	02D1262-010	05/24/2002	REAL	BARIUM	18.8	UG/L	TR1	B	0.02	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS32	02D1262-010	05/24/2002	REAL	BERYLLIUM	0.14	UG/L	TR1	B	0.02	UJ1
GS32	02D1262-010	05/24/2002	REAL	CADMIUM	0.08	UG/L	TR1	U	0.08	J1
GS32	02D1262-010	05/24/2002	REAL	CALCIUM	12600	UG/L	TR1		9.20	J1
GS32	02D1262-010	05/24/2002	REAL	CHROMIUM	2.40	UG/L	TR1		0.12	V1
GS32	02D1262-010	05/24/2002	REAL	COBALT	0.28	UG/L	TR1	B	0.18	V1
GS32	02D1262-010	05/24/2002	REAL	COPPER	7.40	UG/L	TR1		0.08	J1
GS32	02D1262-010	05/24/2002	REAL	IRON	707	UG/L	TR1		3.60	V1
GS32	02D1262-010	05/24/2002	REAL	LEAD	1.90	UG/L	TR1	B	0.42	V1
GS32	02D1262-010	05/24/2002	REAL	LITHIUM	5.80	UG/L	TR1	B	0.02	V1
GS32	02D1262-010	05/24/2002	REAL	MAGNESIUM	1560	UG/L	TR1	B	1.40	J1
GS32	02D1262-010	05/24/2002	REAL	MANGANESE	12.9	UG/L	TR1	B	0.02	V1
GS32	02D1262-010	05/24/2002	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V1
GS32	02D1262-010	05/24/2002	REAL	MOLYBDENUM	1.50	UG/L	TR1	B	0.28	V1
GS32	02D1262-010	05/24/2002	REAL	NICKEL	1.20	UG/L	TR1	B	0.22	V1
GS32	02D1262-010	05/24/2002	REAL	POTASSIUM	5230	UG/L	TR1		5.10	J1
GS32	02D1262-010	05/24/2002	REAL	SELENIUM	0.88	UG/L	TR1	U	0.88	V1
GS32	02D1262-010	05/24/2002	REAL	SILVER	0.12	UG/L	TR1	U	0.12	J1
GS32	02D1262-010	05/24/2002	REAL	SODIUM	29700	UG/L	TR1		25.50	V1
GS32	02D1262-010	05/24/2002	REAL	STRONTIUM	73.5	UG/L	TR1	B	0.02	V1
GS32	02D1262-010	05/24/2002	REAL	THALLIUM	0.78	UG/L	TR1	U	0.78	J1
GS32	02D1262-010	05/24/2002	REAL	TIN	0.78	UG/L	TR1	U	0.78	V1
GS32	02D1262-010	05/24/2002	REAL	TOTAL SUSPENDED SOLIDS	5.6	MG/L	TR1		1.80	V
GS32	02D1262-010	05/24/2002	REAL	URANIUM, TOTAL	2.80	UG/L	TR1	U	2.80	V1
GS32	02D1262-010	05/24/2002	REAL	VANADIUM	4.50	UG/L	TR1	B	0.18	V1
GS32	02D1262-010	05/24/2002	REAL	ZINC	143	UG/L	TR1		0.10	V1
GS32	02D1292-001	06/03/2002	REAL	ALUMINUM	9260	UG/L	TR1		2.00	V1
GS32	02D1292-001	06/03/2002	REAL	ANTIMONY	9.40	UG/L	TR1		0.55	V1
GS32	02D1292-001	06/03/2002	REAL	ARSENIC	3.00	UG/L	TR1	B	0.62	V1
GS32	02D1292-001	06/03/2002	REAL	BARIUM	100	UG/L	TR1		0.02	V1
GS32	02D1292-001	06/03/2002	REAL	BERYLLIUM	0.60	UG/L	TR1	B	0.02	V1
GS32	02D1292-001	06/03/2002	REAL	CADMIUM	0.52	UG/L	TR1	B	0.08	V1
GS32	02D1292-001	06/03/2002	REAL	CALCIUM	28000	UG/L	TR1		9.20	V1
GS32	02D1292-001	06/03/2002	REAL	CHROMIUM	13.4	UG/L	TR1		0.12	V1
GS32	02D1292-001	06/03/2002	REAL	COBALT	3.40	UG/L	TR1	B	0.18	V1
GS32	02D1292-001	06/03/2002	REAL	COPPER	29.7	UG/L	TR1		0.08	J1

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GS32	02D1292-001	06/03/2002	REAL	IRON	8580	UG/L	TR1		3.60	V1
GS32	02D1292-001	06/03/2002	REAL	LEAD	20.0	UG/L	TR1		0.42	V1
GS32	02D1292-001	06/03/2002	REAL	LITHIUM	17.9	UG/L	TR1	B	0.02	V1
GS32	02D1292-001	06/03/2002	REAL	MAGNESIUM	4530	UG/L	TR1	B	1.40	V1
GS32	02D1292-001	06/03/2002	REAL	MANGANESE	186	UG/L	TR1		0.02	V1
GS32	02D1292-001	06/03/2002	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V1
GS32	02D1292-001	06/03/2002	REAL	MOLYBDENUM	2.30	UG/L	TR1	B	0.28	V1
GS32	02D1292-001	06/03/2002	REAL	NICKEL	10.2	UG/L	TR1	B	0.22	V1
GS32	02D1292-001	06/03/2002	REAL	POTASSIUM	10500	UG/L	TR1		5.10	J1
GS32	02D1292-001	06/03/2002	REAL	SELENIUM	0.89	UG/L	TR1	B	0.88	V1
GS32	02D1292-001	06/03/2002	REAL	SILVER	0.12	UG/L	TR1	U	0.12	J1
GS32	02D1292-001	06/03/2002	REAL	SODIUM	79500	UG/L	TR1		25.50	V1
GS32	02D1292-001	06/03/2002	REAL	STRONTIUM	157	UG/L	TR1	B	0.02	V1
GS32	02D1292-001	06/03/2002	REAL	THALLIUM	0.78	UG/L	TR1	U	0.78	J1
GS32	02D1292-001	06/03/2002	REAL	TIN	0.87	UG/L	TR1	B	0.78	V1
GS32	02D1292-001	06/03/2002	REAL	URANIUM, TOTAL	2.80	UG/L	TR1	U	2.80	V1
GS32	02D1292-001	06/03/2002	REAL	VANADIUM	23.0	UG/L	TR1	B	0.18	V1
GS32	02D1292-001	06/03/2002	REAL	ZINC	669	UG/L	TR1		0.10	V1
GS32	02D1333-001	06/19/2002	REAL	ALUMINUM	23300	UG/L	TR1		2.00	V
GS32	02D1333-001	06/19/2002	REAL	ANTIMONY	21.3	UG/L	TR1		0.55	V
GS32	02D1333-001	06/19/2002	REAL	ARSENIC	9.20	UG/L	TR1		0.62	V
GS32	02D1333-001	06/19/2002	REAL	BARIUM	259	UG/L	TR1		0.02	V
GS32	02D1333-001	06/19/2002	REAL	BERYLLIUM	0.97	UG/L	TR1	B	0.02	V
GS32	02D1333-001	06/19/2002	REAL	CADMIUM	2.20	UG/L	TR1		0.08	V
GS32	02D1333-001	06/19/2002	REAL	CALCIUM	63100	UG/L	TR1		9.20	V
GS32	02D1333-001	06/19/2002	REAL	CHROMIUM	49.6	UG/L	TR1		0.12	V
GS32	02D1333-001	06/19/2002	REAL	COBALT	9.60	UG/L	TR1	B	0.18	V
GS32	02D1333-001	06/19/2002	REAL	COPPER	77.7	UG/L	TR1		0.08	V
GS32	02D1333-001	06/19/2002	REAL	IRON	25600	UG/L	TR1		3.60	V
GS32	02D1333-001	06/19/2002	REAL	LEAD	60.3	UG/L	TR1		0.42	V
GS32	02D1333-001	06/19/2002	REAL	LITHIUM	37.4	UG/L	TR1	B	0.02	J
GS32	02D1333-001	06/19/2002	REAL	MAGNESIUM	9440	UG/L	TR1		1.40	V
GS32	02D1333-001	06/19/2002	REAL	MANGANESE	573	UG/L	TR1		0.02	V
GS32	02D1333-001	06/19/2002	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V
GS32	02D1333-001	06/19/2002	REAL	MOLYBDENUM	4.30	UG/L	TR1	B	0.28	V

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GS32	02D1333-001	06/19/2002	REAL	NICKEL	33.1	UG/L	TR1		0.22	V
GS32	02D1333-001	06/19/2002	REAL	POTASSIUM	19500	UG/L	TR1		5.10	J
GS32	02D1333-001	06/19/2002	REAL	SELENIUM	1.10	UG/L	TR1	B	0.88	V
GS32	02D1333-001	06/19/2002	REAL	SILVER	0.22	UG/L	TR1	B	0.12	UJ
GS32	02D1333-001	06/19/2002	REAL	SODIUM	93800	UG/L	TR1		30.60	V
GS32	02D1333-001	06/19/2002	REAL	STRONTIUM	261	UG/L	TR1		0.02	V
GS32	02D1333-001	06/19/2002	REAL	THALLIUM	0.78	UG/L	TR1	U	0.78	J
GS32	02D1333-001	06/19/2002	REAL	TIN	1.50	UG/L	TR1	B	0.78	V
GS32	02D1333-001	06/19/2002	REAL	URANIUM, TOTAL	2.80	UG/L	TR1	U	2.80	J
GS32	02D1333-001	06/19/2002	REAL	VANADIUM	59.9	UG/L	TR1		0.18	V
GS32	02D1333-001	06/19/2002	REAL	ZINC	1980	UG/L	TR1		0.10	V
GS32	02D1440-001	08/06/2002	REAL	ALUMINUM	12800	UG/L	TR1		4.00	V1
GS32	02D1440-001	08/06/2002	REAL	ANTIMONY	16.5	UG/L	TR1		0.88	V1
GS32	02D1440-001	08/06/2002	REAL	ARSENIC	5.50	UG/L	TR1		0.82	V1
GS32	02D1440-001	08/06/2002	REAL	BARIUM	135	UG/L	TR1		0.05	V1
GS32	02D1440-001	08/06/2002	REAL	BERYLLIUM	1.10	UG/L	TR1		0.02	V1
GS32	02D1440-001	08/06/2002	REAL	CADMIUM	1.00	UG/L	TR1		0.08	V1
GS32	02D1440-001	08/06/2002	REAL	CALCIUM	34100	UG/L	TR1		3.80	V1
GS32	02D1440-001	08/06/2002	REAL	CHROMIUM	33.5	UG/L	TR1		0.25	V1
GS32	02D1440-001	08/06/2002	REAL	COBALT	5.40	UG/L	TR1	B	0.35	V1
GS32	02D1440-001	08/06/2002	REAL	COPPER	47.8	UG/L	TR1		0.25	V1
GS32	02D1440-001	08/06/2002	REAL	IRON	13700	UG/L	TR1		4.50	V1
GS32	02D1440-001	08/06/2002	REAL	LEAD	31.8	UG/L	TR1		0.60	V1
GS32	02D1440-001	08/06/2002	REAL	LITHIUM	36.2	UG/L	TR1	B	0.05	J1
GS32	02D1440-001	08/06/2002	REAL	MAGNESIUM	4870	UG/L	TR1	B	1.90	V1
GS32	02D1440-001	08/06/2002	REAL	MANGANESE	272	UG/L	TR1		0.05	V1
GS32	02D1440-001	08/06/2002	REAL	MERCURY	0.12	UG/L	TR1		0.10	V1
GS32	02D1440-001	08/06/2002	REAL	MOLYBDENUM	2.70	UG/L	TR1	B	0.55	V1
GS32	02D1440-001	08/06/2002	REAL	NICKEL	26.0	UG/L	TR1		0.40	V1
GS32	02D1440-001	08/06/2002	REAL	POTASSIUM	12600	UG/L	TR1		7.00	J1
GS32	02D1440-001	08/06/2002	REAL	SELENIUM	1.10	UG/L	TR1	B	1.00	UJ1
GS32	02D1440-001	08/06/2002	REAL	SILVER	0.28	UG/L	TR1	U	0.28	V1
GS32	02D1440-001	08/06/2002	REAL	SODIUM	52700	UG/L	TR1		4.80	V1
GS32	02D1440-001	08/06/2002	REAL	STRONTIUM	157	UG/L	TR1	B	0.02	V1
GS32	02D1440-001	08/06/2002	REAL	THALLIUM	1.60	UG/L	TR1	U	1.60	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS32	02D1440-001	08/06/2002	REAL	TIN	1.20	UG/L	TR1	U	1.20	V1
GS32	02D1440-001	08/06/2002	REAL	URANIUM, TOTAL	3.20	UG/L	TR1	U	3.20	V1
GS32	02D1440-001	08/06/2002	REAL	VANADIUM	35.3	UG/L	TR1	B	0.28	V1
GS32	02D1440-001	08/06/2002	REAL	ZINC	709	UG/L	TR1		0.12	J1
GS32	02D1506-008	09/09/2002	REAL	ALUMINUM	1100	UG/L	TR1		3.00	V1
GS32	02D1506-008	09/09/2002	REAL	ANTIMONY	8.10	UG/L	TR1		0.88	V1
GS32	02D1506-008	09/09/2002	REAL	ARSENIC	3.50	UG/L	TR1	B	0.82	V1
GS32	02D1506-008	09/09/2002	REAL	BARIUM	57.6	UG/L	TR1	B	0.05	V1
GS32	02D1506-008	09/09/2002	REAL	BERYLLIUM	0.12	UG/L	TR1	B	0.02	J1
GS32	02D1506-008	09/09/2002	REAL	CADMIUM	0.72	UG/L	TR1	B	0.08	V1
GS32	02D1506-008	09/09/2002	REAL	CALCIUM	45700	UG/L	TR1		2.90	V1
GS32	02D1506-008	09/09/2002	REAL	CHROMIUM	28.0	UG/L	TR1		0.25	V1
GS32	02D1506-008	09/09/2002	REAL	COBALT	1.60	UG/L	TR1	B	0.35	V1
GS32	02D1506-008	09/09/2002	REAL	COPPER	33.1	UG/L	TR1		0.25	V1
GS32	02D1506-008	09/09/2002	REAL	IRON	2950	UG/L	TR1		4.50	V1
GS32	02D1506-008	09/09/2002	REAL	LEAD	4.50	UG/L	TR1		0.60	V1
GS32	02D1506-008	09/09/2002	REAL	LITHIUM	28.5	UG/L	TR1	B	0.05	J1
GS32	02D1506-008	09/09/2002	REAL	MAGNESIUM	4640	UG/L	TR1	B	1.90	V1
GS32	02D1506-008	09/09/2002	REAL	MANGANESE	114	UG/L	TR1		0.05	V1
GS32	02D1506-008	09/09/2002	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V1
GS32	02D1506-008	09/09/2002	REAL	MOLYBDENUM	5.70	UG/L	TR1	B	0.55	V1
GS32	02D1506-008	09/09/2002	REAL	NICKEL	18.6	UG/L	TR1	B	0.40	V1
GS32	02D1506-008	09/09/2002	REAL	POTASSIUM	27800	UG/L	TR1	B	140.00	V1
GS32	02D1506-008	09/09/2002	REAL	SELENIUM	1.40	UG/L	TR1	B	1.00	V1
GS32	02D1506-008	09/09/2002	REAL	SILVER	0.28	UG/L	TR1	U	0.28	V1
GS32	02D1506-008	09/09/2002	REAL	SODIUM	236000	UG/L	TR1		95.50	V1
GS32	02D1506-008	09/09/2002	REAL	STRONTIUM	292	UG/L	TR1		0.02	V1
GS32	02D1506-008	09/09/2002	REAL	THALLIUM	1.60	UG/L	TR1	U	1.60	V1
GS32	02D1506-008	09/09/2002	REAL	TIN	1.20	UG/L	TR1	U	1.20	V1
GS32	02D1506-008	09/09/2002	REAL	TOTAL SUSPENDED SOLIDS	55.0	MG/L	TR1		1.80	V1
GS32	02D1506-008	09/09/2002	REAL	URANIUM, TOTAL	3.20	UG/L	TR1	U	3.20	V1
GS32	02D1506-008	09/09/2002	REAL	VANADIUM	6.80	UG/L	TR1	B	0.28	V1
GS32	02D1506-008	09/09/2002	REAL	ZINC	3600	UG/L	TR1		2.50	V1
GS32	02D1516-005	09/11/2002	REAL	ALUMINUM	1900	UG/L	TR1		3.00	V
GS32	02D1516-005	09/11/2002	REAL	ANTIMONY	10.2	UG/L	TR1		0.88	V

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS32	02D1516-005	09/11/2002	REAL	ARSENIC	1.70	UG/L	TR1	B	0.82	V
GS32	02D1516-005	09/11/2002	REAL	BARIUM	50.3	UG/L	TR1	B	0.05	V
GS32	02D1516-005	09/11/2002	REAL	BERYLLIUM	0.04	UG/L	TR1	B	0.02	V
GS32	02D1516-005	09/11/2002	REAL	CADMIUM	0.27	UG/L	TR1	B	0.08	V
GS32	02D1516-005	09/11/2002	REAL	CALCIUM	30700	UG/L	TR1		2.90	V
GS32	02D1516-005	09/11/2002	REAL	CHROMIUM	3.70	UG/L	TR1		0.25	V
GS32	02D1516-005	09/11/2002	REAL	COBALT	0.76	UG/L	TR1	B	0.35	V
GS32	02D1516-005	09/11/2002	REAL	COPPER	15.1	UG/L	TR1		0.25	V
GS32	02D1516-005	09/11/2002	REAL	IRON	2000	UG/L	TR1		4.50	V
GS32	02D1516-005	09/11/2002	REAL	LEAD	3.60	UG/L	TR1		0.60	J
GS32	02D1516-005	09/11/2002	REAL	LITHIUM	21.8	UG/L	TR1	B	0.05	V
GS32	02D1516-005	09/11/2002	REAL	MAGNESIUM	3020	UG/L	TR1	B	1.90	V
GS32	02D1516-005	09/11/2002	REAL	MANGANESE	64.8	UG/L	TR1		0.05	V
GS32	02D1516-005	09/11/2002	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V
GS32	02D1516-005	09/11/2002	REAL	MOLYBDENUM	3.20	UG/L	TR1	B	0.55	V
GS32	02D1516-005	09/11/2002	REAL	NICKEL	3.50	UG/L	TR1	B	0.40	V
GS32	02D1516-005	09/11/2002	REAL	POTASSIUM	13400	UG/L	TR1		7.00	V
GS32	02D1516-005	09/11/2002	REAL	SELENIUM	1.00	UG/L	TR1	U	1.00	V
GS32	02D1516-005	09/11/2002	REAL	SILVER	0.28	UG/L	TR1	U	0.28	V
GS32	02D1516-005	09/11/2002	REAL	SODIUM	98600	UG/L	TR1		28.60	V
GS32	02D1516-005	09/11/2002	REAL	STRONTIUM	185	UG/L	TR1	B	0.02	V
GS32	02D1516-005	09/11/2002	REAL	THALLIUM	1.60	UG/L	TR1	U	1.60	V
GS32	02D1516-005	09/11/2002	REAL	TIN	1.20	UG/L	TR1	U	1.20	V
GS32	02D1516-005	09/11/2002	REAL	TOTAL SUSPENDED SOLIDS	32.0	MG/L	TR1		1.80	V1
GS32	02D1516-005	09/11/2002	REAL	URANIUM, TOTAL	3.20	UG/L	TR1	U	3.20	J
GS32	02D1516-005	09/11/2002	REAL	VANADIUM	7.70	UG/L	TR1	B	0.28	V
GS32	02D1516-005	09/11/2002	REAL	ZINC	517	UG/L	TR1		0.12	V
GS38	02D0680-001	11/29/2001	REAL	ALUMINUM	4450	UG/L	TR1		5.00	J1
GS38	02D0680-001	11/29/2001	REAL	ANTIMONY	1.10	UG/L	TR1	B	0.48	V1
GS38	02D0680-001	11/29/2001	REAL	ARSENIC	1.60	UG/L	TR1	B	0.75	V1
GS38	02D0680-001	11/29/2001	REAL	BARIUM	107	UG/L	TR1		0.05	V1
GS38	02D0680-001	11/29/2001	REAL	BERYLLIUM	0.13	UG/L	TR1	B	0.02	J1
GS38	02D0680-001	11/29/2001	REAL	CADMIUM	0.80	UG/L	TR1	B	0.08	V1
GS38	02D0680-001	11/29/2001	REAL	CALCIUM	32600	UG/L	TR1		2.60	V1
GS38	02D0680-001	11/29/2001	REAL	CHROMIUM	4.60	UG/L	TR1		0.20	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS38	02D0680-001	11/29/2001	REAL	COBALT	0.76	UG/L	TR1	B	0.15	V1
GS38	02D0680-001	11/29/2001	REAL	COPPER	14.4	UG/L	TR1		0.18	V1
GS38	02D0680-001	11/29/2001	REAL	IRON	3200	UG/L	TR1		3.80	V1
GS38	02D0680-001	11/29/2001	REAL	LEAD	5.60	UG/L	TR1		0.55	V1
GS38	02D0680-001	11/29/2001	REAL	LITHIUM	20.4	UG/L	TR1	B	0.05	J1
GS38	02D0680-001	11/29/2001	REAL	MAGNESIUM	4630	UG/L	TR1	B	2.30	J1
GS38	02D0680-001	11/29/2001	REAL	MANGANESE	55.2	UG/L	TR1		0.08	V1
GS38	02D0680-001	11/29/2001	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	UJ1
GS38	02D0680-001	11/29/2001	REAL	MOLYBDENUM	1.00	UG/L	TR1	B	0.28	V1
GS38	02D0680-001	11/29/2001	REAL	NICKEL	4.40	UG/L	TR1	B	0.30	V1
GS38	02D0680-001	11/29/2001	REAL	POTASSIUM	7560	UG/L	TR1		4.70	J1
GS38	02D0680-001	11/29/2001	REAL	SELENIUM	0.90	UG/L	TR1	U	0.90	V1
GS38	02D0680-001	11/29/2001	REAL	SILVER	0.56	UG/L	TR1	B	0.18	V1
GS38	02D0680-001	11/29/2001	REAL	SODIUM	446000	UG/L	TR1		58.00	J1
GS38	02D0680-001	11/29/2001	REAL	STRONTIUM	168	UG/L	TR1	B	0.02	V1
GS38	02D0680-001	11/29/2001	REAL	THALLIUM	1.40	UG/L	TR1	U	1.40	V1
GS38	02D0680-001	11/29/2001	REAL	TIN	0.82	UG/L	TR1	U	0.82	V1
GS38	02D0680-001	11/29/2001	REAL	URANIUM, TOTAL	3.30	UG/L	TR1	U	3.30	V1
GS38	02D0680-001	11/29/2001	REAL	VANADIUM	8.50	UG/L	TR1	B	0.18	V1
GS38	02D0680-001	11/29/2001	REAL	ZINC	385	UG/L	TR1		0.10	V1
GS38	02D0825-001	01/17/2002	REAL	ALUMINUM	11100	UG/L	TR1		5.00	V1
GS38	02D0825-001	01/17/2002	REAL	ANTIMONY	0.64	UG/L	TR1	B	0.48	J1
GS38	02D0825-001	01/17/2002	REAL	ARSENIC	3.20	UG/L	TR1	B	0.75	V1
GS38	02D0825-001	01/17/2002	REAL	BARIUM	54.7	UG/L	TR1	B	0.05	V1
GS38	02D0825-001	01/17/2002	REAL	BERYLLIUM	0.44	UG/L	TR1	B	0.02	UJ1
GS38	02D0825-001	01/17/2002	REAL	CADMIUM	0.22	UG/L	TR1	B	0.08	V1
GS38	02D0825-001	01/17/2002	REAL	CALCIUM	10900	UG/L	TR1		2.60	V1
GS38	02D0825-001	01/17/2002	REAL	CHROMIUM	9.40	UG/L	TR1		0.20	V1
GS38	02D0825-001	01/17/2002	REAL	COBALT	1.40	UG/L	TR1	B	0.15	V1
GS38	02D0825-001	01/17/2002	REAL	COPPER	18.3	UG/L	TR1		0.18	V1
GS38	02D0825-001	01/17/2002	REAL	IRON	6390	UG/L	TR1		3.80	V1
GS38	02D0825-001	01/17/2002	REAL	LEAD	9.50	UG/L	TR1		0.55	V1
GS38	02D0825-001	01/17/2002	REAL	LITHIUM	23.4	UG/L	TR1	B	0.05	J1
GS38	02D0825-001	01/17/2002	REAL	MAGNESIUM	3600	UG/L	TR1	B	2.30	V1
GS38	02D0825-001	01/17/2002	REAL	MANGANESE	52.0	UG/L	TR1		0.08	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS38	02D0825-001	01/17/2002	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V1
GS38	02D0825-001	01/17/2002	REAL	MOLYBDENUM	1.40	UG/L	TR1	B	0.28	UJ1
GS38	02D0825-001	01/17/2002	REAL	NICKEL	7.20	UG/L	TR1	B	0.30	V1
GS38	02D0825-001	01/17/2002	REAL	POTASSIUM	6770	UG/L	TR1		4.70	J1
GS38	02D0825-001	01/17/2002	REAL	SELENIUM	0.90	UG/L	TR1	U	0.90	V1
GS38	02D0825-001	01/17/2002	REAL	SILVER	0.23	UG/L	TR1	B	0.18	V1
GS38	02D0825-001	01/17/2002	REAL	SODIUM	291000	UG/L	TR1		44.10	V1
GS38	02D0825-001	01/17/2002	REAL	STRONTIUM	62.8	UG/L	TR1	B	0.02	V1
GS38	02D0825-001	01/17/2002	REAL	THALLIUM	1.40	UG/L	TR1	U	1.40	J1
GS38	02D0825-001	01/17/2002	REAL	TIN	1.50	UG/L	TR1	B	0.82	V1
GS38	02D0825-001	01/17/2002	REAL	URANIUM, TOTAL	3.30	UG/L	TR1	U	3.30	V1
GS38	02D0825-001	01/17/2002	REAL	VANADIUM	16.6	UG/L	TR1	B	0.18	V1
GS38	02D0825-001	01/17/2002	REAL	ZINC	399	UG/L	TR1		0.10	V1
GS38	02D1221-004	02/15/2002	REAL	ALUMINUM	5510	UG/L	TR1		4.00	V
GS38	02D1221-004	02/15/2002	REAL	ANTIMONY	1.10	UG/L	TR1	U	1.10	J
GS38	02D1221-004	02/15/2002	REAL	ARSENIC	2.70	UG/L	TR1	B	1.20	V
GS38	02D1221-004	02/15/2002	REAL	BARIUM	205	UG/L	TR1		0.05	V
GS38	02D1221-004	02/15/2002	REAL	BERYLLIUM	0.32	UG/L	TR1	B	0.05	V
GS38	02D1221-004	02/15/2002	REAL	CADMIUM	1.80	UG/L	TR1	B	0.15	V
GS38	02D1221-004	02/15/2002	REAL	CALCIUM	51100	UG/L	TR1		18.50	J
GS38	02D1221-004	02/15/2002	REAL	CHROMIUM	6.90	UG/L	TR1		0.25	V
GS38	02D1221-004	02/15/2002	REAL	COBALT	1.50	UG/L	TR1	B	0.15	V
GS38	02D1221-004	02/15/2002	REAL	COPPER	15.8	UG/L	TR1		0.15	V
GS38	02D1221-004	02/15/2002	REAL	IRON	4100	UG/L	TR1		7.20	V
GS38	02D1221-004	02/15/2002	REAL	LEAD	8.40	UG/L	TR1		0.85	V
GS38	02D1221-004	02/15/2002	REAL	LITHIUM	52.8	UG/L	TR1	B	0.05	J
GS38	02D1221-004	02/15/2002	REAL	MAGNESIUM	9800	UG/L	TR1	B	2.80	J
GS38	02D1221-004	02/15/2002	REAL	MANGANESE	107	UG/L	TR1		0.05	V
GS38	02D1221-004	02/15/2002	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	R
GS38	02D1221-004	02/15/2002	REAL	MOLYBDENUM	1.70	UG/L	TR1	B	0.55	UJ
GS38	02D1221-004	02/15/2002	REAL	NICKEL	6.50	UG/L	TR1	B	0.45	V
GS38	02D1221-004	02/15/2002	REAL	POTASSIUM	5510	UG/L	TR1	B	782.00	J
GS38	02D1221-004	02/15/2002	REAL	SELENIUM	1.80	UG/L	TR1	U	1.80	V
GS38	02D1221-004	02/15/2002	REAL	SILVER	0.25	UG/L	TR1	U	0.25	V
GS38	02D1221-004	02/15/2002	REAL	SODIUM	1160000	UG/L	TR1		51.00	V

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS38	02D1221-004	02/15/2002	REAL	STRONTIUM	307	UG/L	TR1	B	0.05	V
GS38	02D1221-004	02/15/2002	REAL	THALLIUM	1.60	UG/L	TR1	U	1.60	J
GS38	02D1221-004	02/15/2002	REAL	TIN	1.60	UG/L	TR1	U	1.60	J
GS38	02D1221-004	02/15/2002	REAL	URANIUM, TOTAL	5.60	UG/L	TR1	U	5.60	V
GS38	02D1221-004	02/15/2002	REAL	VANADIUM	10.8	UG/L	TR1	B	0.35	V
GS38	02D1221-004	02/15/2002	REAL	ZINC	688	UG/L	TR1		3.40	V
GS38	02D1254-005	05/14/2002	REAL	ALUMINUM	7020	UG/L	TR1		2.00	V1
GS38	02D1254-005	05/14/2002	REAL	ANTIMONY	0.66	UG/L	TR1	B	0.55	UJ1
GS38	02D1254-005	05/14/2002	REAL	ARSENIC	2.80	UG/L	TR1	B	0.62	V1
GS38	02D1254-005	05/14/2002	REAL	BARIUM	45.6	UG/L	TR1	B	0.02	V1
GS38	02D1254-005	05/14/2002	REAL	BERYLLIUM	0.26	UG/L	TR1	B	0.02	V1
GS38	02D1254-005	05/14/2002	REAL	CADMIUM	0.13	UG/L	TR1	B	0.08	V1
GS38	02D1254-005	05/14/2002	REAL	CALCIUM	7880	UG/L	TR1		9.20	V1
GS38	02D1254-005	05/14/2002	REAL	CHROMIUM	8.60	UG/L	TR1		0.12	V1
GS38	02D1254-005	05/14/2002	REAL	COBALT	1.70	UG/L	TR1	B	0.18	V1
GS38	02D1254-005	05/14/2002	REAL	COPPER	13.4	UG/L	TR1		0.08	V1
GS38	02D1254-005	05/14/2002	REAL	IRON	5620	UG/L	TR1		3.60	V1
GS38	02D1254-005	05/14/2002	REAL	LEAD	12.2	UG/L	TR1		0.42	V1
GS38	02D1254-005	05/14/2002	REAL	LITHIUM	9.90	UG/L	TR1	B	0.02	J1
GS38	02D1254-005	05/14/2002	REAL	MAGNESIUM	2470	UG/L	TR1	B	1.40	V1
GS38	02D1254-005	05/14/2002	REAL	MANGANESE	80.2	UG/L	TR1		0.02	V1
GS38	02D1254-005	05/14/2002	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V1
GS38	02D1254-005	05/14/2002	REAL	MOLYBDENUM	2.20	UG/L	TR1	B	0.28	UJ1
GS38	02D1254-005	05/14/2002	REAL	NICKEL	6.20	UG/L	TR1	B	0.22	V1
GS38	02D1254-005	05/14/2002	REAL	POTASSIUM	3270	UG/L	TR1	B	782.00	V1
GS38	02D1254-005	05/14/2002	REAL	SELENIUM	0.88	UG/L	TR1	U	0.88	V1
GS38	02D1254-005	05/14/2002	REAL	SILVER	0.14	UG/L	TR1	B	0.12	V1
GS38	02D1254-005	05/14/2002	REAL	SODIUM	47800	UG/L	TR1	B	51.00	V1
GS38	02D1254-005	05/14/2002	REAL	STRONTIUM	42.5	UG/L	TR1	B	0.02	V1
GS38	02D1254-005	05/14/2002	REAL	THALLIUM	0.78	UG/L	TR1	U	0.78	J1
GS38	02D1254-005	05/14/2002	REAL	TIN	0.78	UG/L	TR1	U	0.78	J1
GS38	02D1254-005	05/14/2002	REAL	URANIUM, TOTAL	2.80	UG/L	TR1	U	2.80	V1
GS38	02D1254-005	05/14/2002	REAL	VANADIUM	14.1	UG/L	TR1	B	0.18	V1
GS38	02D1254-005	05/14/2002	REAL	ZINC	161	UG/L	TR1		0.10	V1
GS38	02D1262-004	05/24/2002	REAL	ALUMINUM	2250	UG/L	TR1		2.00	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS38	02D1262-004	05/24/2002	REAL	ANTIMONY	1.10	UG/L	TR1	B	0.55	UJ1
GS38	02D1262-004	05/24/2002	REAL	ARSENIC	1.40	UG/L	TR1	B	0.62	V1
GS38	02D1262-004	05/24/2002	REAL	BARIUM	55.4	UG/L	TR1	B	0.02	V1
GS38	02D1262-004	05/24/2002	REAL	BERYLLIUM	0.16	UG/L	TR1	B	0.02	UJ1
GS38	02D1262-004	05/24/2002	REAL	CADMIUM	0.14	UG/L	TR1	B	0.08	J1
GS38	02D1262-004	05/24/2002	REAL	CALCIUM	25000	UG/L	TR1		9.20	J1
GS38	02D1262-004	05/24/2002	REAL	CHROMIUM	3.40	UG/L	TR1		0.12	V1
GS38	02D1262-004	05/24/2002	REAL	COBALT	0.43	UG/L	TR1	B	0.18	V1
GS38	02D1262-004	05/24/2002	REAL	COPPER	6.70	UG/L	TR1		0.08	J1
GS38	02D1262-004	05/24/2002	REAL	IRON	1470	UG/L	TR1		3.60	V1
GS38	02D1262-004	05/24/2002	REAL	LEAD	3.50	UG/L	TR1		0.42	V1
GS38	02D1262-004	05/24/2002	REAL	LITHIUM	5.00	UG/L	TR1	B	0.02	V1
GS38	02D1262-004	05/24/2002	REAL	MAGNESIUM	3370	UG/L	TR1	B	1.40	J1
GS38	02D1262-004	05/24/2002	REAL	MANGANESE	18.0	UG/L	TR1		0.02	V1
GS38	02D1262-004	05/24/2002	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V1
GS38	02D1262-004	05/24/2002	REAL	MOLYBDENUM	1.90	UG/L	TR1	B	0.28	V1
GS38	02D1262-004	05/24/2002	REAL	NICKEL	2.30	UG/L	TR1	B	0.22	V1
GS38	02D1262-004	05/24/2002	REAL	POTASSIUM	5590	UG/L	TR1		5.10	J1
GS38	02D1262-004	05/24/2002	REAL	SELENIUM	0.88	UG/L	TR1	U	0.88	V1
GS38	02D1262-004	05/24/2002	REAL	SILVER	0.12	UG/L	TR1	U	0.12	J1
GS38	02D1262-004	05/24/2002	REAL	SODIUM	77100	UG/L	TR1		25.50	V1
GS38	02D1262-004	05/24/2002	REAL	STRONTIUM	130	UG/L	TR1	B	0.02	V1
GS38	02D1262-004	05/24/2002	REAL	THALLIUM	0.78	UG/L	TR1	U	0.78	J1
GS38	02D1262-004	05/24/2002	REAL	TIN	0.78	UG/L	TR1	U	0.78	V1
GS38	02D1262-004	05/24/2002	REAL	TOTAL SUSPENDED SOLIDS	16.4	MG/L	TR1		1.80	V
GS38	02D1262-004	05/24/2002	REAL	URANIUM, TOTAL	2.80	UG/L	TR1	U	2.80	V1
GS38	02D1262-004	05/24/2002	REAL	VANADIUM	4.50	UG/L	TR1	B	0.18	V1
GS38	02D1262-004	05/24/2002	REAL	ZINC	150	UG/L	TR1		0.10	V1
GS38	02D1435-002	06/03/2002	REAL	ALUMINUM	16100	UG/L	TR1		4.00	V1
GS38	02D1435-002	06/03/2002	REAL	ANTIMONY	2.70	UG/L	TR1	B	0.88	V1
GS38	02D1435-002	06/03/2002	REAL	ARSENIC	5.50	UG/L	TR1		0.82	V1
GS38	02D1435-002	06/03/2002	REAL	BARIUM	148	UG/L	TR1		0.05	V1
GS38	02D1435-002	06/03/2002	REAL	BERYLLIUM	1.20	UG/L	TR1		0.02	V1
GS38	02D1435-002	06/03/2002	REAL	CADMIUM	0.78	UG/L	TR1	B	0.08	V1
GS38	02D1435-002	06/03/2002	REAL	CALCIUM	21400	UG/L	TR1		3.80	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS38	02D1435-002	06/03/2002	REAL	CHROMIUM	22.3	UG/L	TR1		0.25	V1
GS38	02D1435-002	06/03/2002	REAL	COBALT	5.60	UG/L	TR1	B	0.35	V1
GS38	02D1435-002	06/03/2002	REAL	COPPER	39.9	UG/L	TR1		0.25	V1
GS38	02D1435-002	06/03/2002	REAL	IRON	16700	UG/L	TR1		4.50	V1
GS38	02D1435-002	06/03/2002	REAL	LEAD	35.6	UG/L	TR1		0.60	V1
GS38	02D1435-002	06/03/2002	REAL	LITHIUM	22.7	UG/L	TR1	B	0.05	J1
GS38	02D1435-002	06/03/2002	REAL	MAGNESIUM	6570	UG/L	TR1		1.90	V1
GS38	02D1435-002	06/03/2002	REAL	MANGANESE	304	UG/L	TR1		0.05	V1
GS38	02D1435-002	06/03/2002	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	R1
GS38	02D1435-002	06/03/2002	REAL	MOLYBDENUM	2.40	UG/L	TR1	B	0.55	V1
GS38	02D1435-002	06/03/2002	REAL	NICKEL	17.3	UG/L	TR1	B	0.40	V1
GS38	02D1435-002	06/03/2002	REAL	POTASSIUM	8750	UG/L	TR1		7.00	J1
GS38	02D1435-002	06/03/2002	REAL	SELENIUM	1.00	UG/L	TR1	U	1.00	J1
GS38	02D1435-002	06/03/2002	REAL	SILVER	0.31	UG/L	TR1	B	0.28	V1
GS38	02D1435-002	06/03/2002	REAL	SODIUM	59600	UG/L	TR1		4.80	V1
GS38	02D1435-002	06/03/2002	REAL	STRONTIUM	105	UG/L	TR1	B	0.02	V1
GS38	02D1435-002	06/03/2002	REAL	THALLIUM	1.60	UG/L	TR1	U	1.60	V1
GS38	02D1435-002	06/03/2002	REAL	TIN	1.20	UG/L	TR1	U	1.20	V1
GS38	02D1435-002	06/03/2002	REAL	URANIUM, TOTAL	3.20	UG/L	TR1	U	3.20	V1
GS38	02D1435-002	06/03/2002	REAL	VANADIUM	36.6	UG/L	TR1	B	0.28	V1
GS38	02D1435-002	06/03/2002	REAL	ZINC	326	UG/L	TR1		0.12	J1
GS38	02D1506-006	08/06/2002	REAL	ALUMINUM	8320	UG/L	TR1		3.00	V1
GS38	02D1506-006	08/06/2002	REAL	ANTIMONY	2.70	UG/L	TR1	B	0.88	V1
GS38	02D1506-006	08/06/2002	REAL	ARSENIC	4.40	UG/L	TR1	B	0.82	V1
GS38	02D1506-006	08/06/2002	REAL	BARIUM	64.6	UG/L	TR1	B	0.05	V1
GS38	02D1506-006	08/06/2002	REAL	BERYLLIUM	0.42	UG/L	TR1	B	0.02	V1
GS38	02D1506-006	08/06/2002	REAL	CADMIUM	0.37	UG/L	TR1	B	0.08	V1
GS38	02D1506-006	08/06/2002	REAL	CALCIUM	10900	UG/L	TR1		2.90	V1
GS38	02D1506-006	08/06/2002	REAL	CHROMIUM	11.3	UG/L	TR1		0.25	V1
GS38	02D1506-006	08/06/2002	REAL	COBALT	2.50	UG/L	TR1	B	0.35	V1
GS38	02D1506-006	08/06/2002	REAL	COPPER	19.8	UG/L	TR1		0.25	V1
GS38	02D1506-006	08/06/2002	REAL	IRON	7060	UG/L	TR1		4.50	V1
GS38	02D1506-006	08/06/2002	REAL	LEAD	16.2	UG/L	TR1		0.60	V1
GS38	02D1506-006	08/06/2002	REAL	LITHIUM	9.90	UG/L	TR1	B	0.05	J1
GS38	02D1506-006	08/06/2002	REAL	MAGNESIUM	2910	UG/L	TR1	B	1.90	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS38	02D1506-006	08/06/2002	REAL	MANGANESE	135	UG/L	TR1		0.05	V1
GS38	02D1506-006	08/06/2002	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	J1
GS38	02D1506-006	08/06/2002	REAL	MOLYBDENUM	2.10	UG/L	TR1	B	0.55	V1
GS38	02D1506-006	08/06/2002	REAL	NICKEL	8.20	UG/L	TR1	B	0.40	V1
GS38	02D1506-006	08/06/2002	REAL	POTASSIUM	4980	UG/L	TR1	B	7.00	V1
GS38	02D1506-006	08/06/2002	REAL	SELENIUM	1.00	UG/L	TR1	U	1.00	V1
GS38	02D1506-006	08/06/2002	REAL	SILVER	0.28	UG/L	TR1	U	0.28	V1
GS38	02D1506-006	08/06/2002	REAL	SODIUM	29600	UG/L	TR1	B	28.60	V1
GS38	02D1506-006	08/06/2002	REAL	STRONTIUM	52.2	UG/L	TR1	B	0.02	V1
GS38	02D1506-006	08/06/2002	REAL	THALLIUM	1.60	UG/L	TR1	U	1.60	V1
GS38	02D1506-006	08/06/2002	REAL	TIN	1.20	UG/L	TR1	U	1.20	V1
GS38	02D1506-006	08/06/2002	REAL	URANIUM, TOTAL	3.20	UG/L	TR1	U	3.20	V1
GS38	02D1506-006	08/06/2002	REAL	VANADIUM	17.9	UG/L	TR1	B	0.28	V1
GS38	02D1506-006	08/06/2002	REAL	ZINC	186	UG/L	TR1		0.12	V1
GS38	02D1521-002	09/10/2002	REAL	ALUMINUM	16400	UG/L	TR1		3.00	V
GS38	02D1521-002	09/10/2002	REAL	ANTIMONY	2.20	UG/L	TR1	B	0.88	V
GS38	02D1521-002	09/10/2002	REAL	ARSENIC	6.10	UG/L	TR1		0.82	V
GS38	02D1521-002	09/10/2002	REAL	BARIUM	108	UG/L	TR1		0.05	V
GS38	02D1521-002	09/10/2002	REAL	BERYLLIUM	0.71	UG/L	TR1	B	0.02	V
GS38	02D1521-002	09/10/2002	REAL	CADMIUM	0.49	UG/L	TR1	B	0.08	V
GS38	02D1521-002	09/10/2002	REAL	CALCIUM	14300	UG/L	TR1		3.80	V
GS38	02D1521-002	09/10/2002	REAL	CHROMIUM	19.4	UG/L	TR1		0.25	V
GS38	02D1521-002	09/10/2002	REAL	COBALT	7.80	UG/L	TR1	B	0.35	V
GS38	02D1521-002	09/10/2002	REAL	COPPER	31.9	UG/L	TR1		0.25	V
GS38	02D1521-002	09/10/2002	REAL	IRON	14700	UG/L	TR1		4.50	V
GS38	02D1521-002	09/10/2002	REAL	LEAD	25.4	UG/L	TR1		0.60	V
GS38	02D1521-002	09/10/2002	REAL	LITHIUM	16.7	UG/L	TR1	B	0.05	V
GS38	02D1521-002	09/10/2002	REAL	MAGNESIUM	4720	UG/L	TR1	B	1.90	V
GS38	02D1521-002	09/10/2002	REAL	MANGANESE	257	UG/L	TR1		0.05	V
GS38	02D1521-002	09/10/2002	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	R
GS38	02D1521-002	09/10/2002	REAL	MOLYBDENUM	2.10	UG/L	TR1	B	0.55	V
GS38	02D1521-002	09/10/2002	REAL	NICKEL	13.4	UG/L	TR1	B	0.40	V
GS38	02D1521-002	09/10/2002	REAL	POTASSIUM	5840	UG/L	TR1		7.00	V
GS38	02D1521-002	09/10/2002	REAL	SELENIUM	1.10	UG/L	TR1	B	1.00	V
GS38	02D1521-002	09/10/2002	REAL	SILVER	0.47	UG/L	TR1	B	0.28	V

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS38	02D1521-002	09/10/2002	REAL	SODIUM	30000	UG/L	TR1	B	28.60	V
GS38	02D1521-002	09/10/2002	REAL	STRONTIUM	66.8	UG/L	TR1	B	0.02	V
GS38	02D1521-002	09/10/2002	REAL	THALLIUM	1.60	UG/L	TR1	U	1.60	V
GS38	02D1521-002	09/10/2002	REAL	TIN	1.20	UG/L	TR1	U	1.20	V
GS38	02D1521-002	09/10/2002	REAL	URANIUM, TOTAL	3.20	UG/L	TR1	U	3.20	J
GS38	02D1521-002	09/10/2002	REAL	VANADIUM	33.4	UG/L	TR1	B	0.28	V
GS38	02D1521-002	09/10/2002	REAL	ZINC	279	UG/L	TR1		0.12	V
GS38	03D0024-002	09/18/2002	REAL	ALUMINUM	2070	UG/L	TR1		4.00	V
GS38	03D0024-002	09/18/2002	REAL	ANTIMONY	1.30	UG/L	TR1	B	0.88	V
GS38	03D0024-002	09/18/2002	REAL	ARSENIC	2.40	UG/L	TR1	B	0.82	V
GS38	03D0024-002	09/18/2002	REAL	BARIUM	31.8	UG/L	TR1	B	0.05	V
GS38	03D0024-002	09/18/2002	REAL	BERYLLIUM	0.12	UG/L	TR1	B	0.02	J
GS38	03D0024-002	09/18/2002	REAL	CADMIUM	0.16	UG/L	TR1	B	0.08	UJ
GS38	03D0024-002	09/18/2002	REAL	CALCIUM	7810	UG/L	TR1		3.80	V
GS38	03D0024-002	09/18/2002	REAL	CHROMIUM	5.40	UG/L	TR1		0.25	V
GS38	03D0024-002	09/18/2002	REAL	COBALT	0.99	UG/L	TR1	B	0.35	V
GS38	03D0024-002	09/18/2002	REAL	COPPER	10.3	UG/L	TR1		0.25	J
GS38	03D0024-002	09/18/2002	REAL	IRON	2840	UG/L	TR1		4.50	V
GS38	03D0024-002	09/18/2002	REAL	LEAD	5.40	UG/L	TR1		0.60	V
GS38	03D0024-002	09/18/2002	REAL	LITHIUM	5.00	UG/L	TR1	B	0.05	J
GS38	03D0024-002	09/18/2002	REAL	MAGNESIUM	1460	UG/L	TR1	B	1.90	V
GS38	03D0024-002	09/18/2002	REAL	MANGANESE	46.0	UG/L	TR1		0.05	V
GS38	03D0024-002	09/18/2002	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V
GS38	03D0024-002	09/18/2002	REAL	MOLYBDENUM	1.40	UG/L	TR1	B	0.55	V
GS38	03D0024-002	09/18/2002	REAL	NICKEL	3.50	UG/L	TR1	B	0.40	V
GS38	03D0024-002	09/18/2002	REAL	POTASSIUM	2410	UG/L	TR1	B	7.00	J
GS38	03D0024-002	09/18/2002	REAL	SELENIUM	1.00	UG/L	TR1	U	1.00	J
GS38	03D0024-002	09/18/2002	REAL	SILVER	0.28	UG/L	TR1	B	0.28	V
GS38	03D0024-002	09/18/2002	REAL	SODIUM	21000	UG/L	TR1		4.80	V
GS38	03D0024-002	09/18/2002	REAL	STRONTIUM	35.0	UG/L	TR1	B	0.02	V
GS38	03D0024-002	09/18/2002	REAL	THALLIUM	1.60	UG/L	TR1	U	1.60	V
GS38	03D0024-002	09/18/2002	REAL	TIN	1.20	UG/L	TR1	U	1.20	V
GS38	03D0024-002	09/18/2002	REAL	URANIUM, TOTAL	3.20	UG/L	TR1	U	3.20	V
GS38	03D0024-002	09/18/2002	REAL	VANADIUM	7.70	UG/L	TR1	B	0.28	V
GS38	03D0024-002	09/18/2002	REAL	ZINC	105	UG/L	TR1		0.12	V

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS39	02D1262-006	05/24/2002	REAL	TOTAL SUSPENDED SOLIDS	4.0	MG/L	TR1	U	1.80	V
GS40	02D0265-003	10/01/2001	REAL	ALUMINUM	585	UG/L	TR1		5.50	J1
GS40	02D0265-003	10/01/2001	REAL	ANTIMONY	6.70	UG/L	TR1		0.42	V1
GS40	02D0265-003	10/01/2001	REAL	ARSENIC	3.40	UG/L	TR1	B	0.80	V1
GS40	02D0265-003	10/01/2001	REAL	BARIUM	433	UG/L	TR1		0.02	V1
GS40	02D0265-003	10/01/2001	REAL	BERYLLIUM	0.13	UG/L	TR1	B	0.02	V1
GS40	02D0265-003	10/01/2001	REAL	CADMIUM	0.93	UG/L	TR1	B	0.08	V1
GS40	02D0265-003	10/01/2001	REAL	CALCIUM	143000	UG/L	TR1		11.10	V1
GS40	02D0265-003	10/01/2001	REAL	CHROMIUM	1.10	UG/L	TR1	B	0.15	V1
GS40	02D0265-003	10/01/2001	REAL	COBALT	0.71	UG/L	TR1	B	0.20	V1
GS40	02D0265-003	10/01/2001	REAL	COPPER	7.20	UG/L	TR1		0.12	V1
GS40	02D0265-003	10/01/2001	REAL	IRON	17200	UG/L	TR1		4.30	V1
GS40	02D0265-003	10/01/2001	REAL	LEAD	3.10	UG/L	TR1		0.48	V1
GS40	02D0265-003	10/01/2001	REAL	LITHIUM	13.3	UG/L	TR1	B	0.02	J1
GS40	02D0265-003	10/01/2001	REAL	MAGNESIUM	41300	UG/L	TR1		1.00	V1
GS40	02D0265-003	10/01/2001	REAL	MANGANESE	1290	UG/L	TR1		0.02	V1
GS40	02D0265-003	10/01/2001	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V1
GS40	02D0265-003	10/01/2001	REAL	MOLYBDENUM	0.49	UG/L	TR1	B	0.28	J1
GS40	02D0265-003	10/01/2001	REAL	NICKEL	2.40	UG/L	TR1	B	0.25	V1
GS40	02D0265-003	10/01/2001	REAL	POTASSIUM	5870	UG/L	TR1	B	472.00	V1
GS40	02D0265-003	10/01/2001	REAL	SELENIUM	0.55	UG/L	TR1	U	0.55	J1
GS40	02D0265-003	10/01/2001	REAL	SILVER	0.15	UG/L	TR1	U	0.15	V1
GS40	02D0265-003	10/01/2001	REAL	SODIUM	205000	UG/L	TR1		8.80	V1
GS40	02D0265-003	10/01/2001	REAL	STRONTIUM	1170	UG/L	TR1		0.02	V1
GS40	02D0265-003	10/01/2001	REAL	THALLIUM	0.70	UG/L	TR1	U	0.70	V1
GS40	02D0265-003	10/01/2001	REAL	TIN	0.60	UG/L	TR1	U	0.60	J1
GS40	02D0265-003	10/01/2001	REAL	VANADIUM	4.90	UG/L	TR1	B	0.12	V1
GS40	02D0265-003	10/01/2001	REAL	ZINC	402	UG/L	TR1		0.08	V1
GS40	02D0575-002	11/01/2001	REAL	ALUMINUM	1750	UG/L	TR1		3.50	J
GS40	02D0575-002	11/01/2001	REAL	ANTIMONY	24.2	UG/L	TR1		0.42	J
GS40	02D0575-002	11/01/2001	REAL	ARSENIC	3.50	UG/L	TR1	B	0.80	V
GS40	02D0575-002	11/01/2001	REAL	BARIUM	449	UG/L	TR1		0.02	V
GS40	02D0575-002	11/01/2001	REAL	BERYLLIUM	0.06	UG/L	TR1	B	0.02	V
GS40	02D0575-002	11/01/2001	REAL	CADMIUM	2.30	UG/L	TR1		0.08	J
GS40	02D0575-002	11/01/2001	REAL	CALCIUM	137000	UG/L	TR1		22.10	V

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS40	02D0575-002	11/01/2001	REAL	CHROMIUM	2.70	UG/L	TR1		0.15	J
GS40	02D0575-002	11/01/2001	REAL	COBALT	0.95	UG/L	TR1	B	0.20	V
GS40	02D0575-002	11/01/2001	REAL	COPPER	7.60	UG/L	TR1		0.12	J
GS40	02D0575-002	11/01/2001	REAL	IRON	6220	UG/L	TR1		4.30	V
GS40	02D0575-002	11/01/2001	REAL	LEAD	2.90	UG/L	TR2		0.48	V
GS40	02D0575-002	11/01/2001	REAL	LITHIUM	47.7	UG/L	TR1	B	0.02	J
GS40	02D0575-002	11/01/2001	REAL	MAGNESIUM	28900	UG/L	TR1		1.00	V
GS40	02D0575-002	11/01/2001	REAL	MANGANESE	706	UG/L	TR1		0.02	V
GS40	02D0575-002	11/01/2001	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	J
GS40	02D0575-002	11/01/2001	REAL	MOLYBDENUM	1.30	UG/L	TR1	B	0.28	V
GS40	02D0575-002	11/01/2001	REAL	NICKEL	3.10	UG/L	TR1	B	0.25	J
GS40	02D0575-002	11/01/2001	REAL	POTASSIUM	12000	UG/L	TR1	B	413.00	V
GS40	02D0575-002	11/01/2001	REAL	SELENIUM	0.55	UG/L	TR2	U	0.55	J
GS40	02D0575-002	11/01/2001	REAL	SILVER	0.15	UG/L	TR2	U	0.15	V
GS40	02D0575-002	11/01/2001	REAL	SODIUM	1110000	UG/L	TR1		88.20	V
GS40	02D0575-002	11/01/2001	REAL	STRONTIUM	1050	UG/L	TR1		0.02	V
GS40	02D0575-002	11/01/2001	REAL	THALLIUM	0.92	UG/L	TR1	B	0.70	UJ
GS40	02D0575-002	11/01/2001	REAL	TIN	0.60	UG/L	TR2	U	0.60	J
GS40	02D0575-002	11/01/2001	REAL	VANADIUM	4.70	UG/L	TR1	B	0.12	V
GS40	02D0575-002	11/01/2001	REAL	ZINC	362	UG/L	TR1		0.08	V
GS40	02D0687-002	12/24/2001	REAL	ALUMINUM	642	UG/L	TR1		5.00	J1
GS40	02D0687-002	12/24/2001	REAL	ANTIMONY	8.10	UG/L	TR1		0.48	V1
GS40	02D0687-002	12/24/2001	REAL	ARSENIC	1.80	UG/L	TR1	B	0.75	V1
GS40	02D0687-002	12/24/2001	REAL	BARIUM	674	UG/L	TR1		0.05	V1
GS40	02D0687-002	12/24/2001	REAL	BERYLLIUM	0.05	UG/L	TR1	B	0.02	J1
GS40	02D0687-002	12/24/2001	REAL	CADMIUM	0.93	UG/L	TR1	B	0.08	V1
GS40	02D0687-002	12/24/2001	REAL	CALCIUM	224000	UG/L	TR1		51.50	V1
GS40	02D0687-002	12/24/2001	REAL	CHROMIUM	1.10	UG/L	TR1	B	0.20	V1
GS40	02D0687-002	12/24/2001	REAL	COBALT	1.20	UG/L	TR1	B	0.15	V1
GS40	02D0687-002	12/24/2001	REAL	COPPER	5.60	UG/L	TR1		0.18	J1
GS40	02D0687-002	12/24/2001	REAL	IRON	3830	UG/L	TR1		3.80	V1
GS40	02D0687-002	12/24/2001	REAL	LEAD	1.30	UG/L	TR1	B	0.55	UJ1
GS40	02D0687-002	12/24/2001	REAL	LITHIUM	39.1	UG/L	TR1	B	1.00	J1
GS40	02D0687-002	12/24/2001	REAL	MAGNESIUM	46200	UG/L	TR1		2.30	J1
GS40	02D0687-002	12/24/2001	REAL	MANGANESE	891	UG/L	TR1		0.08	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS40	02D0687-002	12/24/2001	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	UJ1
GS40	02D0687-002	12/24/2001	REAL	MOLYBDENUM	2.30	UG/L	TR1	B	0.28	V1
GS40	02D0687-002	12/24/2001	REAL	NICKEL	2.70	UG/L	TR1	B	0.30	V1
GS40	02D0687-002	12/24/2001	REAL	POTASSIUM	19900	UG/L	TR1	B	94.00	J1
GS40	02D0687-002	12/24/2001	REAL	SELENIUM	0.90	UG/L	TR1	U	0.90	V1
GS40	02D0687-002	12/24/2001	REAL	SILVER	0.18	UG/L	TR1	U	0.18	V1
GS40	02D0687-002	12/24/2001	REAL	SODIUM	1080000	UG/L	TR1		116.00	J1
GS40	02D0687-002	12/24/2001	REAL	STRONTIUM	1710	UG/L	TR1		0.02	V1
GS40	02D0687-002	12/24/2001	REAL	THALLIUM	1.40	UG/L	TR1	U	1.40	V1
GS40	02D0687-002	12/24/2001	REAL	TIN	0.82	UG/L	TR1	U	0.82	V1
GS40	02D0687-002	12/24/2001	REAL	URANIUM, TOTAL	8.00	UG/L	TR1	B	3.30	V1
GS40	02D0687-002	12/24/2001	REAL	VANADIUM	1.60	UG/L	TR1	B	0.18	V1
GS40	02D0687-002	12/24/2001	REAL	ZINC	259	UG/L	TR1		0.10	V1
GS40	02D0815-002	01/21/2002	REAL	ALUMINUM	638	UG/L	TR1		5.00	J1
GS40	02D0815-002	01/21/2002	REAL	ANTIMONY	15.7	UG/L	TR1		0.48	V1
GS40	02D0815-002	01/21/2002	REAL	ARSENIC	1.20	UG/L	TR1	B	0.75	V1
GS40	02D0815-002	01/21/2002	REAL	BARIUM	893	UG/L	TR1		0.05	V1
GS40	02D0815-002	01/21/2002	REAL	BERYLLIUM	0.19	UG/L	TR1	B	0.02	J1
GS40	02D0815-002	01/21/2002	REAL	CADMIUM	2.50	UG/L	TR1		0.08	V1
GS40	02D0815-002	01/21/2002	REAL	CALCIUM	32600	UG/L	TR1		44.20	V1
GS40	02D0815-002	01/21/2002	REAL	CHROMIUM	0.90	UG/L	TR1	B	0.20	V1
GS40	02D0815-002	01/21/2002	REAL	COBALT	1.40	UG/L	TR1	B	0.15	V1
GS40	02D0815-002	01/21/2002	REAL	COPPER	5.80	UG/L	TR1		0.18	V1
GS40	02D0815-002	01/21/2002	REAL	IRON	2120	UG/L	TR1		3.80	V1
GS40	02D0815-002	01/21/2002	REAL	LEAD	1.20	UG/L	TR1	B	0.55	UJ1
GS40	02D0815-002	01/21/2002	REAL	LITHIUM	76.6	UG/L	TR1	B	0.05	J1
GS40	02D0815-002	01/21/2002	REAL	MAGNESIUM	78700	UG/L	TR1		60.80	V1
GS40	02D0815-002	01/21/2002	REAL	MANGANESE	1010	UG/L	TR1		0.08	V1
GS40	02D0815-002	01/21/2002	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	J1
GS40	02D0815-002	01/21/2002	REAL	MOLYBDENUM	1.30	UG/L	TR1	B	0.28	V1
GS40	02D0815-002	01/21/2002	REAL	NICKEL	4.20	UG/L	TR1	B	0.30	V1
GS40	02D0815-002	01/21/2002	REAL	POTASSIUM	40500	UG/L	TR1	B	826.00	V1
GS40	02D0815-002	01/21/2002	REAL	SELENIUM	0.90	UG/L	TR1	U	0.90	V1
GS40	02D0815-002	01/21/2002	REAL	SILVER	0.18	UG/L	TR1	U	0.18	V1
GS40	02D0815-002	01/21/2002	REAL	SODIUM	1610000	UG/L	TR1		176.00	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS40	02D0815-002	01/21/2002	REAL	STRONTIUM	2700	UG/L	TR1		0.02	V1
GS40	02D0815-002	01/21/2002	REAL	THALLIUM	1.90	UG/L	TR1	B	1.40	V1
GS40	02D0815-002	01/21/2002	REAL	TIN	0.82	UG/L	TR1	U	0.82	V1
GS40	02D0815-002	01/21/2002	REAL	URANIUM, TOTAL	3.30	UG/L	TR1	U	3.30	V1
GS40	02D0815-002	01/21/2002	REAL	VANADIUM	0.88	UG/L	TR1	B	0.18	V1
GS40	02D0815-002	01/21/2002	REAL	ZINC	866	UG/L	TR1		0.10	V1
GS40	02D0965-002	02/06/2002	REAL	ALUMINUM	403	UG/L	TR1		6.30	V1
GS40	02D0965-002	02/06/2002	REAL	ANTIMONY	9.90	UG/L	TR1		0.48	V1
GS40	02D0965-002	02/06/2002	REAL	ARSENIC	1.50	UG/L	TR1	B	0.75	V1
GS40	02D0965-002	02/06/2002	REAL	BARIUM	553	UG/L	TR1		0.05	V1
GS40	02D0965-002	02/06/2002	REAL	BERYLLIUM	0.12	UG/L	TR1	U	0.12	V1
GS40	02D0965-002	02/06/2002	REAL	CADMIUM	0.74	UG/L	TR1	B	0.08	V1
GS40	02D0965-002	02/06/2002	REAL	CALCIUM	176000	UG/L	TR1		44.20	V1
GS40	02D0965-002	02/06/2002	REAL	CHROMIUM	4.00	UG/L	TR1		0.20	V1
GS40	02D0965-002	02/06/2002	REAL	COBALT	1.20	UG/L	TR1	B	0.15	V1
GS40	02D0965-002	02/06/2002	REAL	COPPER	4.60	UG/L	TR1		0.18	J1
GS40	02D0965-002	02/06/2002	REAL	IRON	2580	UG/L	TR1		3.80	V1
GS40	02D0965-002	02/06/2002	REAL	LEAD	0.55	UG/L	TR1	U	0.55	V1
GS40	02D0965-002	02/06/2002	REAL	LITHIUM	33.7	UG/L	TR1	B	0.05	J1
GS40	02D0965-002	02/06/2002	REAL	MAGNESIUM	49700	UG/L	TR1		2.30	J1
GS40	02D0965-002	02/06/2002	REAL	MANGANESE	2450	UG/L	TR1		0.08	V1
GS40	02D0965-002	02/06/2002	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V1
GS40	02D0965-002	02/06/2002	REAL	MOLYBDENUM	1.20	UG/L	TR1	B	0.28	UJ1
GS40	02D0965-002	02/06/2002	REAL	NICKEL	6.50	UG/L	TR1	B	0.30	V1
GS40	02D0965-002	02/06/2002	REAL	POTASSIUM	16400	UG/L	TR1		82.60	V1
GS40	02D0965-002	02/06/2002	REAL	SELENIUM	0.90	UG/L	TR1	U	0.90	V1
GS40	02D0965-002	02/06/2002	REAL	SILVER	0.18	UG/L	TR1	U	0.18	V1
GS40	02D0965-002	02/06/2002	REAL	SODIUM	682000	UG/L	TR1		88.20	V1
GS40	02D0965-002	02/06/2002	REAL	STRONTIUM	1510	UG/L	TR1		0.02	V1
GS40	02D0965-002	02/06/2002	REAL	THALLIUM	1.40	UG/L	TR1	U	1.40	J1
GS40	02D0965-002	02/06/2002	REAL	TIN	1.90	UG/L	TR1	B	0.82	UJ1
GS40	02D0965-002	02/06/2002	REAL	URANIUM, TOTAL	3.30	UG/L	TR1	U	3.30	V1
GS40	02D0965-002	02/06/2002	REAL	VANADIUM	0.96	UG/L	TR1	B	0.18	V1
GS40	02D0965-002	02/06/2002	REAL	ZINC	367	UG/L	TR1		0.10	V1
GS40	02D1214-003	03/13/2002	REAL	ALUMINUM	1830	UG/L	TR1		2.00	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS40	02D1214-003	03/13/2002	REAL	ANTIMONY	17.9	UG/L	TR1		0.55	V1
GS40	02D1214-003	03/13/2002	REAL	ARSENIC	3.90	UG/L	TR1	B	0.62	V1
GS40	02D1214-003	03/13/2002	REAL	BARIUM	705	UG/L	TR1		0.02	V1
GS40	02D1214-003	03/13/2002	REAL	BERYLLIUM	0.12	UG/L	TR1	B	0.02	V1
GS40	02D1214-003	03/13/2002	REAL	CADMIUM	1.70	UG/L	TR1		0.08	V1
GS40	02D1214-003	03/13/2002	REAL	CALCIUM	214000	UG/L	TR1		25.50	V1
GS40	02D1214-003	03/13/2002	REAL	CHROMIUM	3.30	UG/L	TR1		0.12	V1
GS40	02D1214-003	03/13/2002	REAL	COBALT	1.50	UG/L	TR1	B	0.18	V1
GS40	02D1214-003	03/13/2002	REAL	COPPER	9.60	UG/L	TR1		0.08	V1
GS40	02D1214-003	03/13/2002	REAL	IRON	14100	UG/L	TR1		3.60	V1
GS40	02D1214-003	03/13/2002	REAL	LEAD	3.80	UG/L	TR1		0.42	J1
GS40	02D1214-003	03/13/2002	REAL	LITHIUM	50.1	UG/L	TR1	B	0.02	J1
GS40	02D1214-003	03/13/2002	REAL	MAGNESIUM	48100	UG/L	TR1		1.40	J1
GS40	02D1214-003	03/13/2002	REAL	MANGANESE	1050	UG/L	TR1		0.02	V1
GS40	02D1214-003	03/13/2002	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	UJ1
GS40	02D1214-003	03/13/2002	REAL	MOLYBDENUM	1.70	UG/L	TR1	B	0.28	V1
GS40	02D1214-003	03/13/2002	REAL	NICKEL	4.00	UG/L	TR1	B	0.22	J1
GS40	02D1214-003	03/13/2002	REAL	POTASSIUM	9730	UG/L	TR1	B	391.00	V1
GS40	02D1214-003	03/13/2002	REAL	SELENIUM	0.88	UG/L	TR1	U	0.88	V1
GS40	02D1214-003	03/13/2002	REAL	SILVER	0.12	UG/L	TR1	U	0.12	V1
GS40	02D1214-003	03/13/2002	REAL	SODIUM	1080000	UG/L	TR1		51.00	V1
GS40	02D1214-003	03/13/2002	REAL	STRONTIUM	1650	UG/L	TR1		0.02	V1
GS40	02D1214-003	03/13/2002	REAL	THALLIUM	0.78	UG/L	TR1	U	0.78	V1
GS40	02D1214-003	03/13/2002	REAL	TIN	0.78	UG/L	TR1	U	0.78	V1
GS40	02D1214-003	03/13/2002	REAL	URANIUM, TOTAL	3.70	UG/L	TR1	B	2.80	V1
GS40	02D1214-003	03/13/2002	REAL	VANADIUM	5.40	UG/L	TR1	B	0.18	V1
GS40	02D1214-003	03/13/2002	REAL	ZINC	568	UG/L	TR1		8.50	V1
GS40	02D1262-007	05/03/2002	REAL	ALUMINUM	3670	UG/L	TR1		2.00	V1
GS40	02D1262-007	05/03/2002	REAL	ANTIMONY	20.5	UG/L	TR1		0.55	V1
GS40	02D1262-007	05/03/2002	REAL	ARSENIC	2.80	UG/L	TR1	B	0.62	V1
GS40	02D1262-007	05/03/2002	REAL	BARIUM	398	UG/L	TR1		0.02	V1
GS40	02D1262-007	05/03/2002	REAL	BERYLLIUM	0.28	UG/L	TR1	B	0.02	UJ1
GS40	02D1262-007	05/03/2002	REAL	CADMIUM	0.98	UG/L	TR1	B	0.08	V1
GS40	02D1262-007	05/03/2002	REAL	CALCIUM	107000	UG/L	TR1		9.20	J1
GS40	02D1262-007	05/03/2002	REAL	CHROMIUM	4.70	UG/L	TR1		0.12	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS40	02D1262-007	05/03/2002	REAL	COBALT	1.60	UG/L	TR1	B	0.18	V1
GS40	02D1262-007	05/03/2002	REAL	COPPER	11.4	UG/L	TR1		0.08	J1
GS40	02D1262-007	05/03/2002	REAL	IRON	10300	UG/L	TR1		3.60	V1
GS40	02D1262-007	05/03/2002	REAL	LEAD	6.10	UG/L	TR1		0.42	V1
GS40	02D1262-007	05/03/2002	REAL	LITHIUM	21.7	UG/L	TR1	B	0.02	V1
GS40	02D1262-007	05/03/2002	REAL	MAGNESIUM	28000	UG/L	TR1		1.40	J1
GS40	02D1262-007	05/03/2002	REAL	MANGANESE	599	UG/L	TR1		0.02	V1
GS40	02D1262-007	05/03/2002	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	UJ1
GS40	02D1262-007	05/03/2002	REAL	MOLYBDENUM	2.10	UG/L	TR1	B	0.28	V1
GS40	02D1262-007	05/03/2002	REAL	NICKEL	4.00	UG/L	TR1	B	0.22	V1
GS40	02D1262-007	05/03/2002	REAL	POTASSIUM	10400	UG/L	TR1		5.10	J1
GS40	02D1262-007	05/03/2002	REAL	SELENIUM	0.88	UG/L	TR1	U	0.88	V1
GS40	02D1262-007	05/03/2002	REAL	SILVER	0.12	UG/L	TR1	U	0.12	J1
GS40	02D1262-007	05/03/2002	REAL	SODIUM	362000	UG/L	TR1		25.50	V1
GS40	02D1262-007	05/03/2002	REAL	STRONTIUM	893	UG/L	TR1		0.02	V1
GS40	02D1262-007	05/03/2002	REAL	THALLIUM	0.78	UG/L	TR1	U	0.78	J1
GS40	02D1262-007	05/03/2002	REAL	TIN	1.10	UG/L	TR1	B	0.78	V1
GS40	02D1262-007	05/03/2002	REAL	URANIUM, TOTAL	2.80	UG/L	TR1	U	2.80	V1
GS40	02D1262-007	05/03/2002	REAL	VANADIUM	8.40	UG/L	TR1	B	0.18	V1
GS40	02D1262-007	05/03/2002	REAL	ZINC	454	UG/L	TR1		0.10	V1
GS40	02D1333-003	05/29/2002	REAL	ALUMINUM	2710	UG/L	TR1		2.00	V
GS40	02D1333-003	05/29/2002	REAL	ANTIMONY	12.1	UG/L	TR1		0.55	V
GS40	02D1333-003	05/29/2002	REAL	ARSENIC	3.30	UG/L	TR1	B	0.62	V
GS40	02D1333-003	05/29/2002	REAL	BARIUM	533	UG/L	TR1		0.02	V
GS40	02D1333-003	05/29/2002	REAL	BERYLLIUM	0.11	UG/L	TR1	B	0.02	V
GS40	02D1333-003	05/29/2002	REAL	CADMIUM	0.83	UG/L	TR1	B	0.08	V
GS40	02D1333-003	05/29/2002	REAL	CALCIUM	170000	UG/L	TR1		9.20	V
GS40	02D1333-003	05/29/2002	REAL	CHROMIUM	3.70	UG/L	TR1		0.12	V
GS40	02D1333-003	05/29/2002	REAL	COBALT	1.40	UG/L	TR1	B	0.18	V
GS40	02D1333-003	05/29/2002	REAL	COPPER	9.00	UG/L	TR1		0.08	V
GS40	02D1333-003	05/29/2002	REAL	IRON	6470	UG/L	TR1		3.60	V
GS40	02D1333-003	05/29/2002	REAL	LEAD	4.60	UG/L	TR1		0.42	V
GS40	02D1333-003	05/29/2002	REAL	LITHIUM	19.1	UG/L	TR1	B	0.02	J
GS40	02D1333-003	05/29/2002	REAL	MAGNESIUM	48300	UG/L	TR1		1.40	V
GS40	02D1333-003	05/29/2002	REAL	MANGANESE	1240	UG/L	TR1		0.02	V

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GS40	02D1333-003	05/29/2002	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V
GS40	02D1333-003	05/29/2002	REAL	MOLYBDENUM	2.10	UG/L	TR1	B	0.28	V
GS40	02D1333-003	05/29/2002	REAL	NICKEL	3.30	UG/L	TR1	B	0.22	V
GS40	02D1333-003	05/29/2002	REAL	POTASSIUM	11600	UG/L	TR1		5.10	J
GS40	02D1333-003	05/29/2002	REAL	SELENIUM	0.88	UG/L	TR1	U	0.88	V
GS40	02D1333-003	05/29/2002	REAL	SILVER	0.12	UG/L	TR1	U	0.12	V
GS40	02D1333-003	05/29/2002	REAL	SODIUM	253000	UG/L	TR1		30.60	V
GS40	02D1333-003	05/29/2002	REAL	STRONTIUM	1450	UG/L	TR1		0.02	V
GS40	02D1333-003	05/29/2002	REAL	THALLIUM	0.78	UG/L	TR1	U	0.78	J
GS40	02D1333-003	05/29/2002	REAL	TIN	0.78	UG/L	TR1	U	0.78	V
GS40	02D1333-003	05/29/2002	REAL	URANIUM, TOTAL	2.80	UG/L	TR1	U	2.80	J
GS40	02D1333-003	05/29/2002	REAL	VANADIUM	6.50	UG/L	TR1	B	0.18	V
GS40	02D1333-003	05/29/2002	REAL	ZINC	416	UG/L	TR1		0.10	V
GS40	02D1435-005	06/20/2002	REAL	ALUMINUM	5420	UG/L	TR1		4.00	V1
GS40	02D1435-005	06/20/2002	REAL	ANTIMONY	50.3	UG/L	TR1		0.88	V1
GS40	02D1435-005	06/20/2002	REAL	ARSENIC	14.1	UG/L	TR1		0.82	V1
GS40	02D1435-005	06/20/2002	REAL	BARIUM	728	UG/L	TR1		0.05	V1
GS40	02D1435-005	06/20/2002	REAL	BERYLLIUM	0.46	UG/L	TR1	B	0.02	V1
GS40	02D1435-005	06/20/2002	REAL	CADMIUM	4.20	UG/L	TR1		0.08	V1
GS40	02D1435-005	06/20/2002	REAL	CALCIUM	184000	UG/L	TR1		37.50	V1
GS40	02D1435-005	06/20/2002	REAL	CHROMIUM	9.70	UG/L	TR1		0.25	V1
GS40	02D1435-005	06/20/2002	REAL	COBALT	5.30	UG/L	TR1	B	0.35	V1
GS40	02D1435-005	06/20/2002	REAL	COPPER	31.3	UG/L	TR1		0.25	V1
GS40	02D1435-005	06/20/2002	REAL	IRON	43000	UG/L	TR1		4.50	V1
GS40	02D1435-005	06/20/2002	REAL	LEAD	16.9	UG/L	TR1		0.60	V1
GS40	02D1435-005	06/20/2002	REAL	LITHIUM	27.6	UG/L	TR1	B	0.05	J1
GS40	02D1435-005	06/20/2002	REAL	MAGNESIUM	52000	UG/L	TR1		1.90	V1
GS40	02D1435-005	06/20/2002	REAL	MANGANESE	1610	UG/L	TR1		0.05	V1
GS40	02D1435-005	06/20/2002	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	R1
GS40	02D1435-005	06/20/2002	REAL	MOLYBDENUM	2.20	UG/L	TR1	B	0.55	V1
GS40	02D1435-005	06/20/2002	REAL	NICKEL	7.20	UG/L	TR1	B	0.40	V1
GS40	02D1435-005	06/20/2002	REAL	POTASSIUM	12900	UG/L	TR1		7.00	J1
GS40	02D1435-005	06/20/2002	REAL	SELENIUM	1.00	UG/L	TR1	U	1.00	J1
GS40	02D1435-005	06/20/2002	REAL	SILVER	0.28	UG/L	TR1	U	0.28	V1
GS40	02D1435-005	06/20/2002	REAL	SODIUM	329000	UG/L	TR1		47.80	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS40	02D1435-005	06/20/2002	REAL	STRONTIUM	1540	UG/L	TR1		0.02	V1
GS40	02D1435-005	06/20/2002	REAL	THALLIUM	1.60	UG/L	TR1	U	1.60	V1
GS40	02D1435-005	06/20/2002	REAL	TIN	1.20	UG/L	TR1	U	1.20	V1
GS40	02D1435-005	06/20/2002	REAL	URANIUM, TOTAL	3.20	UG/L	TR1	U	3.20	V1
GS40	02D1435-005	06/20/2002	REAL	VANADIUM	18.2	UG/L	TR1	B	0.28	V1
GS40	02D1435-005	06/20/2002	REAL	ZINC	1190	UG/L	TR1		0.12	J1
GS40	02D1498-003	08/06/2002	REAL	ALUMINUM	1380	UG/L	TR1		3.00	V1
GS40	02D1498-003	08/06/2002	REAL	ANTIMONY	33.4	UG/L	TR1		0.88	V1
GS40	02D1498-003	08/06/2002	REAL	ARSENIC	3.30	UG/L	TR1	B	0.82	V1
GS40	02D1498-003	08/06/2002	REAL	BARIUM	517	UG/L	TR1		0.05	V1
GS40	02D1498-003	08/06/2002	REAL	BERYLLIUM	0.08	UG/L	TR1	B	0.02	UJ1
GS40	02D1498-003	08/06/2002	REAL	CADMIUM	0.68	UG/L	TR1	B	0.08	V1
GS40	02D1498-003	08/06/2002	REAL	CALCIUM	181000	UG/L	TR1		3.80	V1
GS40	02D1498-003	08/06/2002	REAL	CHROMIUM	2.00	UG/L	TR1	B	0.25	V1
GS40	02D1498-003	08/06/2002	REAL	COBALT	1.00	UG/L	TR1	B	0.35	V1
GS40	02D1498-003	08/06/2002	REAL	COPPER	7.60	UG/L	TR1		0.25	V1
GS40	02D1498-003	08/06/2002	REAL	IRON	4700	UG/L	TR1		4.50	V1
GS40	02D1498-003	08/06/2002	REAL	LEAD	3.10	UG/L	TR1		0.60	J1
GS40	02D1498-003	08/06/2002	REAL	LITHIUM	16.1	UG/L	TR1	B	0.05	J1
GS40	02D1498-003	08/06/2002	REAL	MAGNESIUM	49500	UG/L	TR1		1.90	V1
GS40	02D1498-003	08/06/2002	REAL	MANGANESE	1140	UG/L	TR1		0.05	V1
GS40	02D1498-003	08/06/2002	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V1
GS40	02D1498-003	08/06/2002	REAL	MOLYBDENUM	1.70	UG/L	TR1	B	0.55	V1
GS40	02D1498-003	08/06/2002	REAL	NICKEL	2.30	UG/L	TR1	B	0.40	V1
GS40	02D1498-003	08/06/2002	REAL	POTASSIUM	10600	UG/L	TR1		7.00	V1
GS40	02D1498-003	08/06/2002	REAL	SELENIUM	1.00	UG/L	TR1	U	1.00	V1
GS40	02D1498-003	08/06/2002	REAL	SILVER	0.28	UG/L	TR1	U	0.28	V1
GS40	02D1498-003	08/06/2002	REAL	SODIUM	324000	UG/L	TR1		28.60	V1
GS40	02D1498-003	08/06/2002	REAL	STRONTIUM	1430	UG/L	TR1		0.02	V1
GS40	02D1498-003	08/06/2002	REAL	THALLIUM	1.60	UG/L	TR1	U	1.60	V1
GS40	02D1498-003	08/06/2002	REAL	TIN	1.20	UG/L	TR1	U	1.20	V1
GS40	02D1498-003	08/06/2002	REAL	URANIUM, TOTAL	3.20	UG/L	TR1	U	3.20	V1
GS40	02D1498-003	08/06/2002	REAL	VANADIUM	3.60	UG/L	TR1	B	0.28	V1
GS40	02D1498-003	08/06/2002	REAL	ZINC	228	UG/L	TR1		0.12	V1
GS40	02D1516-006	09/03/2002	REAL	ALUMINUM	8270	UG/L	TR1		3.00	V

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS40	02D1516-006	09/03/2002	REAL	ANTIMONY	44.3	UG/L	TR1		0.88	V
GS40	02D1516-006	09/03/2002	REAL	ARSENIC	5.60	UG/L	TR1		0.82	V
GS40	02D1516-006	09/03/2002	REAL	BARIUM	216	UG/L	TR1		0.05	V
GS40	02D1516-006	09/03/2002	REAL	BERYLLIUM	0.25	UG/L	TR1	B	0.02	V
GS40	02D1516-006	09/03/2002	REAL	CADMIUM	2.00	UG/L	TR1		0.08	V
GS40	02D1516-006	09/03/2002	REAL	CALCIUM	45000	UG/L	TR1		2.90	V
GS40	02D1516-006	09/03/2002	REAL	CHROMIUM	13.3	UG/L	TR1		0.25	V
GS40	02D1516-006	09/03/2002	REAL	COBALT	3.00	UG/L	TR1	B	0.35	V
GS40	02D1516-006	09/03/2002	REAL	COPPER	25.7	UG/L	TR1		0.25	V
GS40	02D1516-006	09/03/2002	REAL	IRON	13200	UG/L	TR1		4.50	V
GS40	02D1516-006	09/03/2002	REAL	LEAD	15.7	UG/L	TR1		0.60	V
GS40	02D1516-006	09/03/2002	REAL	LITHIUM	10.5	UG/L	TR1	B	0.05	V
GS40	02D1516-006	09/03/2002	REAL	MAGNESIUM	11000	UG/L	TR1		1.90	V
GS40	02D1516-006	09/03/2002	REAL	MANGANESE	579	UG/L	TR1		0.05	V
GS40	02D1516-006	09/03/2002	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V
GS40	02D1516-006	09/03/2002	REAL	MOLYBDENUM	1.50	UG/L	TR1	B	0.55	V
GS40	02D1516-006	09/03/2002	REAL	NICKEL	8.40	UG/L	TR1	B	0.40	V
GS40	02D1516-006	09/03/2002	REAL	POTASSIUM	5560	UG/L	TR1		7.00	V
GS40	02D1516-006	09/03/2002	REAL	SELENIUM	1.20	UG/L	TR1	B	1.00	V
GS40	02D1516-006	09/03/2002	REAL	SILVER	0.28	UG/L	TR1	U	0.28	V
GS40	02D1516-006	09/03/2002	REAL	SODIUM	70000	UG/L	TR1		28.60	V
GS40	02D1516-006	09/03/2002	REAL	STRONTIUM	318	UG/L	TR1		0.02	V
GS40	02D1516-006	09/03/2002	REAL	THALLIUM	1.60	UG/L	TR1	U	1.60	V
GS40	02D1516-006	09/03/2002	REAL	TIN	1.20	UG/L	TR1	U	1.20	V
GS40	02D1516-006	09/03/2002	REAL	URANIUM, TOTAL	3.20	UG/L	TR1	U	3.20	J
GS40	02D1516-006	09/03/2002	REAL	VANADIUM	20.5	UG/L	TR1	B	0.28	V
GS40	02D1516-006	09/03/2002	REAL	ZINC	577	UG/L	TR1		0.12	V
GS40	02D1542-001	09/16/2002	REAL	ALUMINUM	48.9	UG/L	TR1		4.00	UJ1
GS40	02D1542-001	09/16/2002	REAL	ANTIMONY	4.10	UG/L	TR1		0.88	V1
GS40	02D1542-001	09/16/2002	REAL	ARSENIC	1.50	UG/L	TR1	B	0.82	V1
GS40	02D1542-001	09/16/2002	REAL	BARIUM	551	UG/L	TR1		0.05	V1
GS40	02D1542-001	09/16/2002	REAL	BERYLLIUM	0.04	UG/L	TR1	B	0.02	UJ1
GS40	02D1542-001	09/16/2002	REAL	CADMIUM	0.46	UG/L	TR1	B	0.08	UJ1
GS40	02D1542-001	09/16/2002	REAL	CALCIUM	196000	UG/L	TR1		75.00	V1
GS40	02D1542-001	09/16/2002	REAL	CHROMIUM	0.78	UG/L	TR1	B	0.25	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS40	02D1542-001	09/16/2002	REAL	COBALT	0.35	UG/L	TR1	B	0.35	V1
GS40	02D1542-001	09/16/2002	REAL	COPPER	2.20	UG/L	TR1	B	0.25	V1
GS40	02D1542-001	09/16/2002	REAL	IRON	1830	UG/L	TR1		4.50	V1
GS40	02D1542-001	09/16/2002	REAL	LEAD	0.60	UG/L	TR1	U	0.60	V1
GS40	02D1542-001	09/16/2002	REAL	LITHIUM	16.0	UG/L	TR1	B	0.05	V1
GS40	02D1542-001	09/16/2002	REAL	MAGNESIUM	54800	UG/L	TR1		1.90	V1
GS40	02D1542-001	09/16/2002	REAL	MANGANESE	1330	UG/L	TR1		0.05	V1
GS40	02D1542-001	09/16/2002	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V1
GS40	02D1542-001	09/16/2002	REAL	MOLYBDENUM	2.00	UG/L	TR1	B	0.55	V1
GS40	02D1542-001	09/16/2002	REAL	NICKEL	1.30	UG/L	TR1	B	0.40	V1
GS40	02D1542-001	09/16/2002	REAL	POTASSIUM	11600	UG/L	TR1		7.00	V1
GS40	02D1542-001	09/16/2002	REAL	SELENIUM	1.00	UG/L	TR1	U	1.00	V1
GS40	02D1542-001	09/16/2002	REAL	SILVER	0.28	UG/L	TR1	U	0.28	V1
GS40	02D1542-001	09/16/2002	REAL	SODIUM	334000	UG/L	TR1		95.50	V1
GS40	02D1542-001	09/16/2002	REAL	STRONTIUM	1580	UG/L	TR1		0.02	V1
GS40	02D1542-001	09/16/2002	REAL	THALLIUM	1.60	UG/L	TR1	U	1.60	V1
GS40	02D1542-001	09/16/2002	REAL	TIN	1.20	UG/L	TR1	U	1.20	V1
GS40	02D1542-001	09/16/2002	REAL	URANIUM, TOTAL	3.20	UG/L	TR1	U	3.20	UJ1
GS40	02D1542-001	09/16/2002	REAL	VANADIUM	0.28	UG/L	TR1	U	0.28	V1
GS40	02D1542-001	09/16/2002	REAL	ZINC	85.6	UG/L	TR1		0.12	J1
GS40	03D0063-001	09/23/2002	REAL	ALUMINUM	519	UG/L	TR1		4.00	V1
GS40	03D0063-001	09/23/2002	REAL	ANTIMONY	14.2	UG/L	TR1		0.88	V1
GS40	03D0063-001	09/23/2002	REAL	ARSENIC	1.70	UG/L	TR1	B	0.82	V1
GS40	03D0063-001	09/23/2002	REAL	BARIUM	237	UG/L	TR1		0.05	V1
GS40	03D0063-001	09/23/2002	REAL	BERYLLIUM	0.03	UG/L	TR1	B	0.02	J1
GS40	03D0063-001	09/23/2002	REAL	CADMIUM	0.41	UG/L	TR1	B	0.08	V1
GS40	03D0063-001	09/23/2002	REAL	CALCIUM	77400	UG/L	TR1		3.80	V1
GS40	03D0063-001	09/23/2002	REAL	CHROMIUM	1.30	UG/L	TR1	B	0.25	V1
GS40	03D0063-001	09/23/2002	REAL	COBALT	0.41	UG/L	TR1	B	0.35	V1
GS40	03D0063-001	09/23/2002	REAL	COPPER	4.60	UG/L	TR1		0.25	V1
GS40	03D0063-001	09/23/2002	REAL	IRON	1560	UG/L	TR1		4.50	V1
GS40	03D0063-001	09/23/2002	REAL	LEAD	1.10	UG/L	TR1	B	0.60	J1
GS40	03D0063-001	09/23/2002	REAL	LITHIUM	8.00	UG/L	TR1	B	0.05	V1
GS40	03D0063-001	09/23/2002	REAL	MAGNESIUM	21300	UG/L	TR1		4.60	V1
GS40	03D0063-001	09/23/2002	REAL	MANGANESE	381	UG/L	TR1		0.05	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS40	03D0063-001	09/23/2002	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V1
GS40	03D0063-001	09/23/2002	REAL	MOLYBDENUM	1.10	UG/L	TR1	B	0.55	V1
GS40	03D0063-001	09/23/2002	REAL	NICKEL	1.40	UG/L	TR1	B	0.40	V1
GS40	03D0063-001	09/23/2002	REAL	POTASSIUM	5390	UG/L	TR1		7.00	J1
GS40	03D0063-001	09/23/2002	REAL	SELENIUM	1.00	UG/L	TR1	U	1.00	V1
GS40	03D0063-001	09/23/2002	REAL	SILVER	0.28	UG/L	TR1	U	0.28	J1
GS40	03D0063-001	09/23/2002	REAL	SODIUM	154000	UG/L	TR1		28.60	V1
GS40	03D0063-001	09/23/2002	REAL	STRONTIUM	673	UG/L	TR1		0.02	V1
GS40	03D0063-001	09/23/2002	REAL	THALLIUM	1.60	UG/L	TR1	U	1.60	J1
GS40	03D0063-001	09/23/2002	REAL	TIN	1.20	UG/L	TR1	U	1.20	V1
GS40	03D0063-001	09/23/2002	REAL	URANIUM, TOTAL	3.20	UG/L	TR1	U	3.20	V1
GS40	03D0063-001	09/23/2002	REAL	VANADIUM	1.70	UG/L	TR1	B	0.28	V1
GS40	03D0063-001	09/23/2002	REAL	ZINC	155	UG/L	TR1		0.12	V1
GS43	03D0109-004	05/24/2002	REAL	ALUMINUM	11000	UG/L	TR1		8.80	V1
GS43	03D0109-004	05/24/2002	REAL	ANTIMONY	0.43	UG/L	TR1	B	0.42	V1
GS43	03D0109-004	05/24/2002	REAL	ARSENIC	4.40	UG/L	TR1	B	0.95	V1
GS43	03D0109-004	05/24/2002	REAL	BARIUM	94.0	UG/L	TR1	B	0.08	V1
GS43	03D0109-004	05/24/2002	REAL	BERYLLIUM	0.40	UG/L	TR1	B	0.05	V1
GS43	03D0109-004	05/24/2002	REAL	CADMIUM	0.10	UG/L	TR1	U	0.10	V1
GS43	03D0109-004	05/24/2002	REAL	CALCIUM	25800	UG/L	TR1		4.90	V1
GS43	03D0109-004	05/24/2002	REAL	CHROMIUM	13.4	UG/L	TR1		0.25	V1
GS43	03D0109-004	05/24/2002	REAL	COBALT	2.60	UG/L	TR1	B	0.40	V1
GS43	03D0109-004	05/24/2002	REAL	COPPER	10.9	UG/L	TR1		0.32	V1
GS43	03D0109-004	05/24/2002	REAL	IRON	7160	UG/L	TR1		5.10	V1
GS43	03D0109-004	05/24/2002	REAL	LEAD	5.70	UG/L	TR1		0.60	J1
GS43	03D0109-004	05/24/2002	REAL	LITHIUM	8.90	UG/L	TR1	B	0.08	V1
GS43	03D0109-004	05/24/2002	REAL	MAGNESIUM	4110	UG/L	TR1	B	2.50	V1
GS43	03D0109-004	05/24/2002	REAL	MANGANESE	96.4	UG/L	TR1		0.05	V1
GS43	03D0109-004	05/24/2002	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	R1
GS43	03D0109-004	05/24/2002	REAL	MOLYBDENUM	5.10	UG/L	TR1	B	0.42	V1
GS43	03D0109-004	05/24/2002	REAL	NICKEL	8.60	UG/L	TR1	B	0.32	V1
GS43	03D0109-004	05/24/2002	REAL	POTASSIUM	5530	UG/L	TR1		9.20	V1
GS43	03D0109-004	05/24/2002	REAL	SELENIUM	1.30	UG/L	TR1	B	0.95	J1
GS43	03D0109-004	05/24/2002	REAL	SILVER	0.35	UG/L	TR1	U	0.35	V1
GS43	03D0109-004	05/24/2002	REAL	SODIUM	18100	UG/L	TR1		4.50	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS43	03D0109-004	05/24/2002	REAL	STRONTIUM	161	UG/L	TR1	B	0.02	V1
GS43	03D0109-004	05/24/2002	REAL	THALLIUM	1.40	UG/L	TR1	U	1.40	V1
GS43	03D0109-004	05/24/2002	REAL	TIN	0.82	UG/L	TR1	U	0.82	V1
GS43	03D0109-004	05/24/2002	REAL	URANIUM, TOTAL	6.40	UG/L	TR1	U	6.40	V1
GS43	03D0109-004	05/24/2002	REAL	VANADIUM	22.6	UG/L	TR1	B	0.25	V1
GS43	03D0109-004	05/24/2002	REAL	ZINC	49.6	UG/L	TR1		0.20	V1
GS44	02D0299-002	10/04/2001	REAL	ALUMINUM	198	UG/L	TR1		5.50	J
GS44	02D0299-002	10/04/2001	REAL	ANTIMONY	0.42	UG/L	TR1	U	0.42	V
GS44	02D0299-002	10/04/2001	REAL	ARSENIC	0.80	UG/L	TR1	U	0.80	V
GS44	02D0299-002	10/04/2001	REAL	BARIUM	2.00	UG/L	TR1	B	0.02	V
GS44	02D0299-002	10/04/2001	REAL	BERYLLIUM	0.02	UG/L	TR1	B	0.02	V
GS44	02D0299-002	10/04/2001	REAL	CADMIUM	0.08	UG/L	TR1	B	0.08	J
GS44	02D0299-002	10/04/2001	REAL	CALCIUM	1100	UG/L	TR1	B	11.10	J
GS44	02D0299-002	10/04/2001	REAL	CHROMIUM	0.26	UG/L	TR1	B	0.15	V
GS44	02D0299-002	10/04/2001	REAL	COBALT	0.20	UG/L	TR1	U	0.20	V
GS44	02D0299-002	10/04/2001	REAL	COPPER	1.40	UG/L	TR1	B	0.12	UJ
GS44	02D0299-002	10/04/2001	REAL	IRON	199	UG/L	TR1		4.30	V
GS44	02D0299-002	10/04/2001	REAL	LEAD	0.85	UG/L	TR1	B	0.48	V
GS44	02D0299-002	10/04/2001	REAL	LITHIUM	0.24	UG/L	TR1	B	0.02	J
GS44	02D0299-002	10/04/2001	REAL	MAGNESIUM	236	UG/L	TR1	B	1.00	J
GS44	02D0299-002	10/04/2001	REAL	MANGANESE	13.9	UG/L	TR1	B	0.02	V
GS44	02D0299-002	10/04/2001	REAL	MERCURY	0.10	UG/L	TR2	U	0.10	V
GS44	02D0299-002	10/04/2001	REAL	MOLYBDENUM	0.32	UG/L	TR1	B	0.28	J
GS44	02D0299-002	10/04/2001	REAL	NICKEL	0.76	UG/L	TR1	B	0.25	V
GS44	02D0299-002	10/04/2001	REAL	POTASSIUM	78.8	UG/L	TR1	B	94.40	UJ
GS44	02D0299-002	10/04/2001	REAL	SELENIUM	0.55	UG/L	TR1	U	0.55	J
GS44	02D0299-002	10/04/2001	REAL	SILVER	0.15	UG/L	TR1	U	0.15	V
GS44	02D0299-002	10/04/2001	REAL	SODIUM	950	UG/L	TR1	B	8.80	J
GS44	02D0299-002	10/04/2001	REAL	STRONTIUM	2.00	UG/L	TR1	B	0.02	V
GS44	02D0299-002	10/04/2001	REAL	THALLIUM	0.70	UG/L	TR1	U	0.70	V
GS44	02D0299-002	10/04/2001	REAL	TIN	0.60	UG/L	TR1	U	0.60	J
GS44	02D0299-002	10/04/2001	REAL	VANADIUM	0.13	UG/L	TR1	B	0.12	V
GS44	02D0299-002	10/04/2001	REAL	ZINC	3.00	UG/L	TR1	B	0.08	UJ
GS44	02D1254-011	05/01/2002	REAL	ALUMINUM	9520	UG/L	TR1		2.00	V1
GS44	02D1254-011	05/01/2002	REAL	ANTIMONY	0.57	UG/L	TR1	B	0.55	UJ1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS44	02D1254-011	05/01/2002	REAL	ARSENIC	3.80	UG/L	TR1	B	0.62	V1
GS44	02D1254-011	05/01/2002	REAL	BARIUM	77.8	UG/L	TR1	B	0.02	V1
GS44	02D1254-011	05/01/2002	REAL	BERYLLIUM	0.39	UG/L	TR1	B	0.02	V1
GS44	02D1254-011	05/01/2002	REAL	CADMIUM	0.08	UG/L	TR1	U	0.08	V1
GS44	02D1254-011	05/01/2002	REAL	CALCIUM	15700	UG/L	TR1		9.20	V1
GS44	02D1254-011	05/01/2002	REAL	CHROMIUM	10.3	UG/L	TR1		0.12	V1
GS44	02D1254-011	05/01/2002	REAL	COBALT	2.30	UG/L	TR1	B	0.18	V1
GS44	02D1254-011	05/01/2002	REAL	COPPER	15.0	UG/L	TR1		0.08	V1
GS44	02D1254-011	05/01/2002	REAL	IRON	7740	UG/L	TR1		3.60	V1
GS44	02D1254-011	05/01/2002	REAL	LEAD	8.30	UG/L	TR1		0.42	V1
GS44	02D1254-011	05/01/2002	REAL	LITHIUM	18.9	UG/L	TR1	B	0.02	J1
GS44	02D1254-011	05/01/2002	REAL	MAGNESIUM	4030	UG/L	TR1	B	1.40	V1
GS44	02D1254-011	05/01/2002	REAL	MANGANESE	98.4	UG/L	TR1		0.02	V1
GS44	02D1254-011	05/01/2002	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	UJ1
GS44	02D1254-011	05/01/2002	REAL	MOLYBDENUM	1.90	UG/L	TR1	B	0.28	UJ1
GS44	02D1254-011	05/01/2002	REAL	NICKEL	7.90	UG/L	TR1	B	0.22	V1
GS44	02D1254-011	05/01/2002	REAL	POTASSIUM	6390	UG/L	TR1		78.20	V1
GS44	02D1254-011	05/01/2002	REAL	SELENIUM	1.20	UG/L	TR1	B	0.88	V1
GS44	02D1254-011	05/01/2002	REAL	SILVER	1.10	UG/L	TR1		0.12	V1
GS44	02D1254-011	05/01/2002	REAL	SODIUM	67400	UG/L	TR1		5.10	V1
GS44	02D1254-011	05/01/2002	REAL	STRONTIUM	87.5	UG/L	TR1	B	0.02	V1
GS44	02D1254-011	05/01/2002	REAL	THALLIUM	0.78	UG/L	TR1	U	0.78	J1
GS44	02D1254-011	05/01/2002	REAL	TIN	0.78	UG/L	TR1	U	0.78	J1
GS44	02D1254-011	05/01/2002	REAL	URANIUM, TOTAL	2.80	UG/L	TR1	U	2.80	V1
GS44	02D1254-011	05/01/2002	REAL	VANADIUM	20.5	UG/L	TR1	B	0.18	V1
GS44	02D1254-011	05/01/2002	REAL	ZINC	159	UG/L	TR1		0.10	V1
GS44	02D1292-002	05/24/2002	REAL	ALUMINUM	3600	UG/L	TR1		2.00	V1
GS44	02D1292-002	05/24/2002	REAL	ANTIMONY	0.99	UG/L	TR1	B	0.55	UJ1
GS44	02D1292-002	05/24/2002	REAL	ARSENIC	1.20	UG/L	TR1	B	0.62	V1
GS44	02D1292-002	05/24/2002	REAL	BARIUM	104	UG/L	TR1		0.02	V1
GS44	02D1292-002	05/24/2002	REAL	BERYLLIUM	0.26	UG/L	TR1	B	0.02	UJ1
GS44	02D1292-002	05/24/2002	REAL	CADMIUM	0.08	UG/L	TR1	U	0.08	V1
GS44	02D1292-002	05/24/2002	REAL	CALCIUM	50800	UG/L	TR1		9.20	V1
GS44	02D1292-002	05/24/2002	REAL	CHROMIUM	4.30	UG/L	TR1		0.12	V1
GS44	02D1292-002	05/24/2002	REAL	COBALT	0.62	UG/L	TR1	B	0.18	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS44	02D1292-002	05/24/2002	REAL	COPPER	7.60	UG/L	TR1		0.08	J1
GS44	02D1292-002	05/24/2002	REAL	IRON	2350	UG/L	TR1		3.60	V1
GS44	02D1292-002	05/24/2002	REAL	LEAD	2.80	UG/L	TR1		0.42	V1
GS44	02D1292-002	05/24/2002	REAL	LITHIUM	34.5	UG/L	TR1	B	0.02	V1
GS44	02D1292-002	05/24/2002	REAL	MAGNESIUM	8820	UG/L	TR1		1.40	V1
GS44	02D1292-002	05/24/2002	REAL	MANGANESE	21.7	UG/L	TR1		0.02	V1
GS44	02D1292-002	05/24/2002	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V1
GS44	02D1292-002	05/24/2002	REAL	MOLYBDENUM	2.60	UG/L	TR1	B	0.28	V1
GS44	02D1292-002	05/24/2002	REAL	NICKEL	3.80	UG/L	TR1	B	0.22	V1
GS44	02D1292-002	05/24/2002	REAL	POTASSIUM	9050	UG/L	TR1		5.10	J1
GS44	02D1292-002	05/24/2002	REAL	SELENIUM	1.60	UG/L	TR1	B	0.88	V1
GS44	02D1292-002	05/24/2002	REAL	SILVER	0.12	UG/L	TR1	U	0.12	J1
GS44	02D1292-002	05/24/2002	REAL	SODIUM	56500	UG/L	TR1		30.60	V1
GS44	02D1292-002	05/24/2002	REAL	STRONTIUM	282	UG/L	TR1		0.02	V1
GS44	02D1292-002	05/24/2002	REAL	THALLIUM	0.78	UG/L	TR1	U	0.78	J1
GS44	02D1292-002	05/24/2002	REAL	TIN	0.78	UG/L	TR1	U	0.78	V1
GS44	02D1292-002	05/24/2002	REAL	URANIUM, TOTAL	2.80	UG/L	TR1	U	2.80	V1
GS44	02D1292-002	05/24/2002	REAL	VANADIUM	7.50	UG/L	TR1	B	0.18	V1
GS44	02D1292-002	05/24/2002	REAL	ZINC	113	UG/L	TR1		0.10	V1
GS44	02D1506-001	06/04/2002	REAL	ALUMINUM	10300	UG/L	TR1		3.00	V1
GS44	02D1506-001	06/04/2002	REAL	ANTIMONY	1.40	UG/L	TR1	B	0.88	V1
GS44	02D1506-001	06/04/2002	REAL	ARSENIC	4.30	UG/L	TR1	B	0.82	V1
GS44	02D1506-001	06/04/2002	REAL	BARIUM	163	UG/L	TR1		0.05	V1
GS44	02D1506-001	06/04/2002	REAL	BERYLLIUM	0.45	UG/L	TR1	B	0.02	V1
GS44	02D1506-001	06/04/2002	REAL	CADMIUM	0.20	UG/L	TR1	B	0.08	V1
GS44	02D1506-001	06/04/2002	REAL	CALCIUM	59500	UG/L	TR1		2.90	V1
GS44	02D1506-001	06/04/2002	REAL	CHROMIUM	13.0	UG/L	TR1		0.25	V1
GS44	02D1506-001	06/04/2002	REAL	COBALT	2.80	UG/L	TR1	B	0.35	V1
GS44	02D1506-001	06/04/2002	REAL	COPPER	18.2	UG/L	TR1		0.25	V1
GS44	02D1506-001	06/04/2002	REAL	IRON	8470	UG/L	TR1		4.50	V1
GS44	02D1506-001	06/04/2002	REAL	LEAD	8.50	UG/L	TR1		0.60	V1
GS44	02D1506-001	06/04/2002	REAL	LITHIUM	53.7	UG/L	TR1	B	0.05	J1
GS44	02D1506-001	06/04/2002	REAL	MAGNESIUM	11700	UG/L	TR1		1.90	V1
GS44	02D1506-001	06/04/2002	REAL	MANGANESE	139	UG/L	TR1		0.05	V1
GS44	02D1506-001	06/04/2002	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	R1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS44	02D1506-001	06/04/2002	REAL	MOLYBDENUM	2.30	UG/L	TR1	B	0.55	V1
GS44	02D1506-001	06/04/2002	REAL	NICKEL	8.80	UG/L	TR1	B	0.40	V1
GS44	02D1506-001	06/04/2002	REAL	POTASSIUM	12200	UG/L	TR1		7.00	V1
GS44	02D1506-001	06/04/2002	REAL	SELENIUM	1.60	UG/L	TR1	B	1.00	V1
GS44	02D1506-001	06/04/2002	REAL	SILVER	0.28	UG/L	TR1	U	0.28	V1
GS44	02D1506-001	06/04/2002	REAL	SODIUM	49700	UG/L	TR1		28.60	V1
GS44	02D1506-001	06/04/2002	REAL	STRONTIUM	340	UG/L	TR1		0.02	V1
GS44	02D1506-001	06/04/2002	REAL	THALLIUM	1.60	UG/L	TR1	U	1.60	V1
GS44	02D1506-001	06/04/2002	REAL	TIN	1.20	UG/L	TR1	U	1.20	V1
GS44	02D1506-001	06/04/2002	REAL	URANIUM, TOTAL	3.20	UG/L	TR1	U	3.20	V1
GS44	02D1506-001	06/04/2002	REAL	VANADIUM	23.8	UG/L	TR1	B	0.28	V1
GS44	02D1506-001	06/04/2002	REAL	ZINC	215	UG/L	TR1		0.12	V1
GS44	03D0020-001	09/10/2002	REAL	ALUMINUM	6290	UG/L	TR1		4.00	J1
GS44	03D0020-001	09/10/2002	REAL	ANTIMONY	0.88	UG/L	TR1	U	0.88	V1
GS44	03D0020-001	09/10/2002	REAL	ARSENIC	2.10	UG/L	TR1	B	0.82	V1
GS44	03D0020-001	09/10/2002	REAL	BARIUM	39.8	UG/L	TR1	B	0.05	V1
GS44	03D0020-001	09/10/2002	REAL	BERYLLIUM	0.24	UG/L	TR1	B	0.02	J1
GS44	03D0020-001	09/10/2002	REAL	CADMIUM	0.14	UG/L	TR1	B	0.08	V1
GS44	03D0020-001	09/10/2002	REAL	CALCIUM	7020	UG/L	TR1		2.90	V1
GS44	03D0020-001	09/10/2002	REAL	CHROMIUM	6.70	UG/L	TR1		0.25	V1
GS44	03D0020-001	09/10/2002	REAL	COBALT	1.20	UG/L	TR1	B	0.35	V1
GS44	03D0020-001	09/10/2002	REAL	COPPER	11.2	UG/L	TR1		0.25	V1
GS44	03D0020-001	09/10/2002	REAL	IRON	4380	UG/L	TR1		4.50	V1
GS44	03D0020-001	09/10/2002	REAL	LEAD	4.00	UG/L	TR1		0.60	V1
GS44	03D0020-001	09/10/2002	REAL	LITHIUM	7.10	UG/L	TR1	B	0.05	J1
GS44	03D0020-001	09/10/2002	REAL	MAGNESIUM	1640	UG/L	TR1	B	1.90	V1
GS44	03D0020-001	09/10/2002	REAL	MANGANESE	46.1	UG/L	TR1		0.05	V1
GS44	03D0020-001	09/10/2002	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V1
GS44	03D0020-001	09/10/2002	REAL	MOLYBDENUM	1.20	UG/L	TR1	B	0.55	V1
GS44	03D0020-001	09/10/2002	REAL	NICKEL	5.00	UG/L	TR1	B	0.40	V1
GS44	03D0020-001	09/10/2002	REAL	POTASSIUM	4560	UG/L	TR1	B	7.00	J1
GS44	03D0020-001	09/10/2002	REAL	SELENIUM	1.00	UG/L	TR1	U	1.00	V1
GS44	03D0020-001	09/10/2002	REAL	SILVER	0.28	UG/L	TR1	U	0.28	J1
GS44	03D0020-001	09/10/2002	REAL	SODIUM	29000	UG/L	TR1		4.80	V1
GS44	03D0020-001	09/10/2002	REAL	STRONTIUM	35.2	UG/L	TR1	B	0.02	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS44	03D0020-001	09/10/2002	REAL	THALLIUM	1.60	UG/L	TR1	U	1.60	V1
GS44	03D0020-001	09/10/2002	REAL	TIN	1.20	UG/L	TR1	U	1.20	V1
GS44	03D0020-001	09/10/2002	REAL	URANIUM, TOTAL	3.20	UG/L	TR1	U	3.20	V1
GS44	03D0020-001	09/10/2002	REAL	VANADIUM	12.8	UG/L	TR1	B	0.28	V1
GS44	03D0020-001	09/10/2002	REAL	ZINC	84.9	UG/L	TR1		0.12	V1
GS49	02D0680-003	11/18/2001	REAL	ALUMINUM	484	UG/L	TR1		5.00	J1
GS49	02D0680-003	11/18/2001	REAL	ANTIMONY	0.48	UG/L	TR1	U	0.48	V1
GS49	02D0680-003	11/18/2001	REAL	ARSENIC	0.75	UG/L	TR1	U	0.75	V1
GS49	02D0680-003	11/18/2001	REAL	BARIUM	283	UG/L	TR1		0.05	V1
GS49	02D0680-003	11/18/2001	REAL	BERYLLIUM	0.02	UG/L	TR1	U	0.02	J1
GS49	02D0680-003	11/18/2001	REAL	CADMIUM	2.00	UG/L	TR1		0.08	V1
GS49	02D0680-003	11/18/2001	REAL	CALCIUM	70900	UG/L	TR1		2.60	V1
GS49	02D0680-003	11/18/2001	REAL	CHROMIUM	2.00	UG/L	TR1	B	0.20	V1
GS49	02D0680-003	11/18/2001	REAL	COBALT	0.52	UG/L	TR1	B	0.15	V1
GS49	02D0680-003	11/18/2001	REAL	COPPER	23.5	UG/L	TR1		0.18	V1
GS49	02D0680-003	11/18/2001	REAL	IRON	326	UG/L	TR1		3.80	V1
GS49	02D0680-003	11/18/2001	REAL	LEAD	0.70	UG/L	TR1	B	0.55	V1
GS49	02D0680-003	11/18/2001	REAL	LITHIUM	9.10	UG/L	TR1	B	0.05	J1
GS49	02D0680-003	11/18/2001	REAL	MAGNESIUM	8180	UG/L	TR1		2.30	J1
GS49	02D0680-003	11/18/2001	REAL	MANGANESE	73.6	UG/L	TR1		0.08	V1
GS49	02D0680-003	11/18/2001	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	UJ1
GS49	02D0680-003	11/18/2001	REAL	MOLYBDENUM	0.28	UG/L	TR1	U	0.28	V1
GS49	02D0680-003	11/18/2001	REAL	NICKEL	3.70	UG/L	TR1	B	0.30	V1
GS49	02D0680-003	11/18/2001	REAL	POTASSIUM	6660	UG/L	TR1		4.70	J1
GS49	02D0680-003	11/18/2001	REAL	SELENIUM	0.90	UG/L	TR1	U	0.90	V1
GS49	02D0680-003	11/18/2001	REAL	SILVER	0.18	UG/L	TR1	U	0.18	V1
GS49	02D0680-003	11/18/2001	REAL	SODIUM	319000	UG/L	TR1		58.00	J1
GS49	02D0680-003	11/18/2001	REAL	STRONTIUM	347	UG/L	TR1		0.02	V1
GS49	02D0680-003	11/18/2001	REAL	THALLIUM	1.40	UG/L	TR1	U	1.40	V1
GS49	02D0680-003	11/18/2001	REAL	TIN	0.82	UG/L	TR1	U	0.82	V1
GS49	02D0680-003	11/18/2001	REAL	URANIUM, TOTAL	3.30	UG/L	TR1	U	3.30	V1
GS49	02D0680-003	11/18/2001	REAL	VANADIUM	0.83	UG/L	TR1	B	0.18	V1
GS49	02D0680-003	11/18/2001	REAL	ZINC	928	UG/L	TR1		0.10	V1
GS49	02D1107-001	01/25/2002	REAL	ALUMINUM	2620	UG/L	TR1		5.00	V
GS49	02D1107-001	01/25/2002	REAL	ANTIMONY	0.76	UG/L	TR1	B	0.48	V

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS49	02D1107-001	01/25/2002	REAL	ARSENIC	1.40	UG/L	TR1	B	0.75	V
GS49	02D1107-001	01/25/2002	REAL	BARIUM	49.7	UG/L	TR1	B	0.05	V
GS49	02D1107-001	01/25/2002	REAL	BERYLLIUM	0.14	UG/L	TR1	B	0.02	J
GS49	02D1107-001	01/25/2002	REAL	CADMIUM	0.28	UG/L	TR1	B	0.08	UJ
GS49	02D1107-001	01/25/2002	REAL	CALCIUM	11900	UG/L	TR1		2.60	V
GS49	02D1107-001	01/25/2002	REAL	CHROMIUM	5.80	UG/L	TR1		0.20	V
GS49	02D1107-001	01/25/2002	REAL	COBALT	0.59	UG/L	TR1	B	0.15	J
GS49	02D1107-001	01/25/2002	REAL	COPPER	34.8	UG/L	TR1		0.18	V
GS49	02D1107-001	01/25/2002	REAL	IRON	1910	UG/L	TR1		3.80	V
GS49	02D1107-001	01/25/2002	REAL	LEAD	2.40	UG/L	TR1		0.55	J
GS49	02D1107-001	01/25/2002	REAL	LITHIUM	3.40	UG/L	TR1	B	0.05	J
GS49	02D1107-001	01/25/2002	REAL	MAGNESIUM	1740	UG/L	TR1	B	2.30	V
GS49	02D1107-001	01/25/2002	REAL	MANGANESE	57.1	UG/L	TR1		0.08	V
GS49	02D1107-001	01/25/2002	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	R
GS49	02D1107-001	01/25/2002	REAL	MOLYBDENUM	1.00	UG/L	TR1	B	0.28	UJ
GS49	02D1107-001	01/25/2002	REAL	NICKEL	3.00	UG/L	TR1	B	0.30	V
GS49	02D1107-001	01/25/2002	REAL	POTASSIUM	2250	UG/L	TR1	B	4.70	J
GS49	02D1107-001	01/25/2002	REAL	SELENIUM	1.10	UG/L	TR1	B	0.90	UJ
GS49	02D1107-001	01/25/2002	REAL	SILVER	0.18	UG/L	TR1	U	0.18	V
GS49	02D1107-001	01/25/2002	REAL	SODIUM	91500	UG/L	TR1		44.10	V
GS49	02D1107-001	01/25/2002	REAL	STRONTIUM	55.5	UG/L	TR1	B	0.02	V
GS49	02D1107-001	01/25/2002	REAL	THALLIUM	1.40	UG/L	TR1	U	1.40	V
GS49	02D1107-001	01/25/2002	REAL	TIN	0.82	UG/L	TR1	U	0.82	V
GS49	02D1107-001	01/25/2002	REAL	URANIUM, TOTAL	3.30	UG/L	TR1	U	3.30	V
GS49	02D1107-001	01/25/2002	REAL	VANADIUM	4.60	UG/L	TR1	B	0.18	V
GS49	02D1107-001	01/25/2002	REAL	ZINC	250	UG/L	TR1		0.10	V
GS49	02D1243-004	04/21/2002	REAL	ALUMINUM	6170	UG/L	TR1		2.00	V1
GS49	02D1243-004	04/21/2002	REAL	ANTIMONY	0.87	UG/L	TR1	B	0.55	J1
GS49	02D1243-004	04/21/2002	REAL	ARSENIC	2.60	UG/L	TR1	B	0.62	V1
GS49	02D1243-004	04/21/2002	REAL	BARIUM	51.1	UG/L	TR1	B	0.02	V1
GS49	02D1243-004	04/21/2002	REAL	BERYLLIUM	0.28	UG/L	TR1	B	0.02	V1
GS49	02D1243-004	04/21/2002	REAL	CADMIUM	0.09	UG/L	TR1	B	0.08	J1
GS49	02D1243-004	04/21/2002	REAL	CALCIUM	6640	UG/L	TR1		9.20	V1
GS49	02D1243-004	04/21/2002	REAL	CHROMIUM	13.0	UG/L	TR1		0.12	V1
GS49	02D1243-004	04/21/2002	REAL	COBALT	1.50	UG/L	TR1	B	0.18	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS49	02D1243-004	04/21/2002	REAL	COPPER	50.7	UG/L	TR1		0.08	V1
GS49	02D1243-004	04/21/2002	REAL	IRON	4620	UG/L	TR1		3.60	V1
GS49	02D1243-004	04/21/2002	REAL	LEAD	6.30	UG/L	TR1		0.42	V1
GS49	02D1243-004	04/21/2002	REAL	LITHIUM	5.70	UG/L	TR1	B	0.02	J1
GS49	02D1243-004	04/21/2002	REAL	MAGNESIUM	1600	UG/L	TR1	B	1.40	V1
GS49	02D1243-004	04/21/2002	REAL	MANGANESE	90.8	UG/L	TR1		0.02	V1
GS49	02D1243-004	04/21/2002	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	UJ1
GS49	02D1243-004	04/21/2002	REAL	MOLYBDENUM	1.10	UG/L	TR1	B	0.28	UJ1
GS49	02D1243-004	04/21/2002	REAL	NICKEL	5.30	UG/L	TR1	B	0.22	V1
GS49	02D1243-004	04/21/2002	REAL	POTASSIUM	1540	UG/L	TR1	B	782.00	V1
GS49	02D1243-004	04/21/2002	REAL	SELENIUM	0.97	UG/L	TR1	B	0.88	V1
GS49	02D1243-004	04/21/2002	REAL	SILVER	0.12	UG/L	TR1	U	0.12	V1
GS49	02D1243-004	04/21/2002	REAL	SODIUM	36400	UG/L	TR1	B	51.00	V1
GS49	02D1243-004	04/21/2002	REAL	STRONTIUM	33.2	UG/L	TR1	B	0.02	V1
GS49	02D1243-004	04/21/2002	REAL	THALLIUM	0.78	UG/L	TR1	U	0.78	J1
GS49	02D1243-004	04/21/2002	REAL	TIN	0.78	UG/L	TR1	U	0.78	J1
GS49	02D1243-004	04/21/2002	REAL	URANIUM, TOTAL	2.80	UG/L	TR1	U	2.80	V1
GS49	02D1243-004	04/21/2002	REAL	VANADIUM	11.3	UG/L	TR1	B	0.18	V1
GS49	02D1243-004	04/21/2002	REAL	ZINC	171	UG/L	TR1		1.70	V1
GS49	02D1254-013	05/23/2002	REAL	ALUMINUM	16400	UG/L	TR1		2.00	V1
GS49	02D1254-013	05/23/2002	REAL	ANTIMONY	1.40	UG/L	TR1	B	0.55	UJ1
GS49	02D1254-013	05/23/2002	REAL	ARSENIC	7.00	UG/L	TR1		0.62	V1
GS49	02D1254-013	05/23/2002	REAL	BARIUM	80.7	UG/L	TR1	B	0.02	V1
GS49	02D1254-013	05/23/2002	REAL	BERYLLIUM	0.74	UG/L	TR1	B	0.02	V1
GS49	02D1254-013	05/23/2002	REAL	CADMIUM	0.08	UG/L	TR1	U	0.08	V1
GS49	02D1254-013	05/23/2002	REAL	CALCIUM	9610	UG/L	TR1		9.20	V1
GS49	02D1254-013	05/23/2002	REAL	CHROMIUM	16.0	UG/L	TR1		0.12	V1
GS49	02D1254-013	05/23/2002	REAL	COBALT	4.30	UG/L	TR1	B	0.18	V1
GS49	02D1254-013	05/23/2002	REAL	COPPER	23.1	UG/L	TR1		0.08	V1
GS49	02D1254-013	05/23/2002	REAL	IRON	13700	UG/L	TR1		3.60	V1
GS49	02D1254-013	05/23/2002	REAL	LEAD	11.6	UG/L	TR1		0.42	V1
GS49	02D1254-013	05/23/2002	REAL	LITHIUM	12.8	UG/L	TR1	B	0.02	J1
GS49	02D1254-013	05/23/2002	REAL	MAGNESIUM	3360	UG/L	TR1	B	1.40	V1
GS49	02D1254-013	05/23/2002	REAL	MANGANESE	168	UG/L	TR1		0.02	V1
GS49	02D1254-013	05/23/2002	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS49	02D1254-013	05/23/2002	REAL	MOLYBDENUM	1.70	UG/L	TR1	B	0.28	UJ1
GS49	02D1254-013	05/23/2002	REAL	NICKEL	13.3	UG/L	TR1	B	0.22	V1
GS49	02D1254-013	05/23/2002	REAL	POTASSIUM	3370	UG/L	TR1	B	78.20	V1
GS49	02D1254-013	05/23/2002	REAL	SELENIUM	1.80	UG/L	TR1	B	0.88	V1
GS49	02D1254-013	05/23/2002	REAL	SILVER	0.12	UG/L	TR1	U	0.12	V1
GS49	02D1254-013	05/23/2002	REAL	SODIUM	16300	UG/L	TR1		5.10	V1
GS49	02D1254-013	05/23/2002	REAL	STRONTIUM	49.6	UG/L	TR1	B	0.02	V1
GS49	02D1254-013	05/23/2002	REAL	THALLIUM	0.78	UG/L	TR1	U	0.78	J1
GS49	02D1254-013	05/23/2002	REAL	TIN	0.78	UG/L	TR1	U	0.78	J1
GS49	02D1254-013	05/23/2002	REAL	TOTAL SUSPENDED SOLIDS	271	MG/L	DL1		4.50	V1
GS49	02D1254-013	05/23/2002	REAL	URANIUM, TOTAL	2.80	UG/L	TR1	U	2.80	V1
GS49	02D1254-013	05/23/2002	REAL	VANADIUM	32.4	UG/L	TR1	B	0.18	V1
GS49	02D1254-013	05/23/2002	REAL	ZINC	152	UG/L	TR1		0.10	V1
GS49	02D1333-002	05/24/2002	REAL	ALUMINUM	2350	UG/L	TR1		2.00	V
GS49	02D1333-002	05/24/2002	REAL	ANTIMONY	1.60	UG/L	TR1	B	0.55	V
GS49	02D1333-002	05/24/2002	REAL	ARSENIC	1.40	UG/L	TR1	B	0.62	V
GS49	02D1333-002	05/24/2002	REAL	BARIUM	21.9	UG/L	TR1	B	0.02	V
GS49	02D1333-002	05/24/2002	REAL	BERYLLIUM	0.09	UG/L	TR1	B	0.02	V
GS49	02D1333-002	05/24/2002	REAL	CADMIUM	1.00	UG/L	TR1		0.08	V
GS49	02D1333-002	05/24/2002	REAL	CALCIUM	3970	UG/L	TR1	B	9.20	V
GS49	02D1333-002	05/24/2002	REAL	CHROMIUM	4.50	UG/L	TR1		0.12	V
GS49	02D1333-002	05/24/2002	REAL	COBALT	0.44	UG/L	TR1	B	0.18	V
GS49	02D1333-002	05/24/2002	REAL	COPPER	19.8	UG/L	TR1		0.08	V
GS49	02D1333-002	05/24/2002	REAL	IRON	1610	UG/L	TR1		3.60	V
GS49	02D1333-002	05/24/2002	REAL	LEAD	3.10	UG/L	TR1		0.42	V
GS49	02D1333-002	05/24/2002	REAL	LITHIUM	2.10	UG/L	TR1	B	0.02	J
GS49	02D1333-002	05/24/2002	REAL	MAGNESIUM	758	UG/L	TR1	B	1.40	V
GS49	02D1333-002	05/24/2002	REAL	MANGANESE	18.6	UG/L	TR1		0.02	V
GS49	02D1333-002	05/24/2002	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	UJ
GS49	02D1333-002	05/24/2002	REAL	MOLYBDENUM	12.6	UG/L	TR1	B	0.28	V
GS49	02D1333-002	05/24/2002	REAL	NICKEL	2.20	UG/L	TR1	B	0.22	V
GS49	02D1333-002	05/24/2002	REAL	POTASSIUM	1480	UG/L	TR1	B	5.10	J
GS49	02D1333-002	05/24/2002	REAL	SELENIUM	0.88	UG/L	TR1	U	0.88	V
GS49	02D1333-002	05/24/2002	REAL	SILVER	0.12	UG/L	TR1	U	0.12	V
GS49	02D1333-002	05/24/2002	REAL	SODIUM	9370	UG/L	TR1		5.10	V

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS49	02D1333-002	05/24/2002	REAL	STRONTIUM	19.1	UG/L	TR1	B	0.02	V
GS49	02D1333-002	05/24/2002	REAL	THALLIUM	0.78	UG/L	TR1	U	0.78	J
GS49	02D1333-002	05/24/2002	REAL	TIN	0.78	UG/L	TR1	U	0.78	V
GS49	02D1333-002	05/24/2002	REAL	URANIUM, TOTAL	2.80	UG/L	TR1	U	2.80	J
GS49	02D1333-002	05/24/2002	REAL	VANADIUM	4.60	UG/L	TR1	B	0.18	V
GS49	02D1333-002	05/24/2002	REAL	ZINC	96.4	UG/L	TR1		0.10	V
GS49	02D1506-002	08/04/2002	REAL	ALUMINUM	41400	UG/L	TR1		3.00	V1
GS49	02D1506-002	08/04/2002	REAL	ANTIMONY	2.80	UG/L	TR1	B	0.88	V1
GS49	02D1506-002	08/04/2002	REAL	ARSENIC	14.4	UG/L	TR1		0.82	V1
GS49	02D1506-002	08/04/2002	REAL	BARIUM	289	UG/L	TR1		0.05	V1
GS49	02D1506-002	08/04/2002	REAL	BERYLLIUM	2.20	UG/L	TR1		0.02	V1
GS49	02D1506-002	08/04/2002	REAL	CADMIUM	0.70	UG/L	TR1	B	0.08	V1
GS49	02D1506-002	08/04/2002	REAL	CALCIUM	23300	UG/L	TR1		2.90	V1
GS49	02D1506-002	08/04/2002	REAL	CHROMIUM	48.6	UG/L	TR1		0.25	V1
GS49	02D1506-002	08/04/2002	REAL	COBALT	13.8	UG/L	TR1	B	0.35	V1
GS49	02D1506-002	08/04/2002	REAL	COPPER	84.6	UG/L	TR1		0.25	V1
GS49	02D1506-002	08/04/2002	REAL	IRON	37300	UG/L	TR1		4.50	V1
GS49	02D1506-002	08/04/2002	REAL	LEAD	31.2	UG/L	TR1		0.60	V1
GS49	02D1506-002	08/04/2002	REAL	LITHIUM	33.5	UG/L	TR1	B	0.05	J1
GS49	02D1506-002	08/04/2002	REAL	MAGNESIUM	8080	UG/L	TR1		1.90	V1
GS49	02D1506-002	08/04/2002	REAL	MANGANESE	672	UG/L	TR1		0.05	V1
GS49	02D1506-002	08/04/2002	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	J1
GS49	02D1506-002	08/04/2002	REAL	MOLYBDENUM	2.40	UG/L	TR1	B	0.55	V1
GS49	02D1506-002	08/04/2002	REAL	NICKEL	34.0	UG/L	TR1		0.40	V1
GS49	02D1506-002	08/04/2002	REAL	POTASSIUM	10600	UG/L	TR1		7.00	V1
GS49	02D1506-002	08/04/2002	REAL	SELENIUM	1.60	UG/L	TR1	B	1.00	V1
GS49	02D1506-002	08/04/2002	REAL	SILVER	0.28	UG/L	TR1	U	0.28	V1
GS49	02D1506-002	08/04/2002	REAL	SODIUM	16300	UG/L	TR1		4.80	V1
GS49	02D1506-002	08/04/2002	REAL	STRONTIUM	104	UG/L	TR1	B	0.02	V1
GS49	02D1506-002	08/04/2002	REAL	THALLIUM	1.60	UG/L	TR1	U	1.60	V1
GS49	02D1506-002	08/04/2002	REAL	TIN	1.20	UG/L	TR1	U	1.20	V1
GS49	02D1506-002	08/04/2002	REAL	URANIUM, TOTAL	3.20	UG/L	TR1	U	3.20	V1
GS49	02D1506-002	08/04/2002	REAL	VANADIUM	83.7	UG/L	TR1		0.28	V1
GS49	02D1506-002	08/04/2002	REAL	ZINC	362	UG/L	TR1		0.12	V1
GS49	03D0020-003	09/11/2002	REAL	ALUMINUM	6380	UG/L	TR1		4.00	J1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS49	03D0020-003	09/11/2002	REAL	ANTIMONY	0.88	UG/L	TR1	U	0.88	V1
GS49	03D0020-003	09/11/2002	REAL	ARSENIC	2.50	UG/L	TR1	B	0.82	V1
GS49	03D0020-003	09/11/2002	REAL	BARIUM	50.1	UG/L	TR1	B	0.05	V1
GS49	03D0020-003	09/11/2002	REAL	BERYLLIUM	0.23	UG/L	TR1	B	0.02	J1
GS49	03D0020-003	09/11/2002	REAL	CADMIUM	0.15	UG/L	TR1	B	0.08	V1
GS49	03D0020-003	09/11/2002	REAL	CALCIUM	6730	UG/L	TR1		2.90	V1
GS49	03D0020-003	09/11/2002	REAL	CHROMIUM	7.70	UG/L	TR1		0.25	V1
GS49	03D0020-003	09/11/2002	REAL	COBALT	1.50	UG/L	TR1	B	0.35	V1
GS49	03D0020-003	09/11/2002	REAL	COPPER	23.5	UG/L	TR1		0.25	V1
GS49	03D0020-003	09/11/2002	REAL	IRON	5010	UG/L	TR1		4.50	V1
GS49	03D0020-003	09/11/2002	REAL	LEAD	4.40	UG/L	TR1		0.60	V1
GS49	03D0020-003	09/11/2002	REAL	LITHIUM	4.80	UG/L	TR1	B	0.05	J1
GS49	03D0020-003	09/11/2002	REAL	MAGNESIUM	1520	UG/L	TR1	B	1.90	V1
GS49	03D0020-003	09/11/2002	REAL	MANGANESE	71.3	UG/L	TR1		0.05	V1
GS49	03D0020-003	09/11/2002	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V1
GS49	03D0020-003	09/11/2002	REAL	MOLYBDENUM	1.10	UG/L	TR1	B	0.55	V1
GS49	03D0020-003	09/11/2002	REAL	NICKEL	5.10	UG/L	TR1	B	0.40	V1
GS49	03D0020-003	09/11/2002	REAL	POTASSIUM	2740	UG/L	TR1	B	7.00	J1
GS49	03D0020-003	09/11/2002	REAL	SELENIUM	1.00	UG/L	TR1	U	1.00	V1
GS49	03D0020-003	09/11/2002	REAL	SILVER	0.28	UG/L	TR1	U	0.28	J1
GS49	03D0020-003	09/11/2002	REAL	SODIUM	13000	UG/L	TR1		4.80	V1
GS49	03D0020-003	09/11/2002	REAL	STRONTIUM	33.5	UG/L	TR1	B	0.02	V1
GS49	03D0020-003	09/11/2002	REAL	THALLIUM	1.60	UG/L	TR1	U	1.60	V1
GS49	03D0020-003	09/11/2002	REAL	TIN	1.20	UG/L	TR1	U	1.20	V1
GS49	03D0020-003	09/11/2002	REAL	URANIUM, TOTAL	3.20	UG/L	TR1	U	3.20	V1
GS49	03D0020-003	09/11/2002	REAL	VANADIUM	12.3	UG/L	TR1	B	0.28	V1
GS49	03D0020-003	09/11/2002	REAL	ZINC	100	UG/L	TR1		0.12	V1
GS50	03D0683-008	05/24/2002	REAL	ALUMINUM	1960	UG/L	TR1		4.7	V1
GS50	03D0683-008	05/24/2002	REAL	ANTIMONY	0.97	UG/L	TR1	B	.62	V1
GS50	03D0683-008	05/24/2002	REAL	ARSENIC	1.60	UG/L	TR1	B	.88	J1
GS50	03D0683-008	05/24/2002	REAL	BARIUM	30.0	UG/L	TR1	B	.02	V1
GS50	03D0683-008	05/24/2002	REAL	BERYLLIUM	0.23	UG/L	TR1	B	.02	UJ1
GS50	03D0683-008	05/24/2002	REAL	CADMIUM	0.20	UG/L	TR1	B	.1	V1
GS50	03D0683-008	05/24/2002	REAL	CALCIUM	15600	UG/L	TR1		1.6	V1
GS50	03D0683-008	05/24/2002	REAL	CHROMIUM	8.70	UG/L	TR1		.15	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS50	03D0683-008	05/24/2002	REAL	COBALT	0.45	UG/L	TR1	B	.18	J1
GS50	03D0683-008	05/24/2002	REAL	COPPER	5.30	UG/L	TR1		.15	V1
GS50	03D0683-008	05/24/2002	REAL	IRON	1440	UG/L	TR1		4.9	V1
GS50	03D0683-008	05/24/2002	REAL	LEAD	2.60	UG/L	TR1		.65	J1
GS50	03D0683-008	05/24/2002	REAL	LITHIUM	3.70	UG/L	TR1	B	.05	V1
GS50	03D0683-008	05/24/2002	REAL	MAGNESIUM	1750	UG/L	TR1	B	1.2	V1
GS50	03D0683-008	05/24/2002	REAL	MANGANESE	20.8	UG/L	TR1		.05	V1
GS50	03D0683-008	05/24/2002	REAL	MERCURY	0.10	UG/L	TR1	U	.1	R1
GS50	03D0683-008	05/24/2002	REAL	MOLYBDENUM	1.30	UG/L	TR1	B	.4	V1
GS50	03D0683-008	05/24/2002	REAL	NICKEL	6.20	UG/L	TR1	B	.45	V1
GS50	03D0683-008	05/24/2002	REAL	POTASSIUM	4570	UG/L	TR1	B	106	V1
GS50	03D0683-008	05/24/2002	REAL	SELENIUM	1.10	UG/L	TR1	B	.9	UJ1
GS50	03D0683-008	05/24/2002	REAL	SILVER	0.20	UG/L	TR1	U	.2	J1
GS50	03D0683-008	05/24/2002	REAL	SODIUM	15000	UG/L	TR1		4.4	V1
GS50	03D0683-008	05/24/2002	REAL	STRONTIUM	55.1	UG/L	TR1	B	.02	V1
GS50	03D0683-008	05/24/2002	REAL	THALLIUM	0.90	UG/L	TR1	U	.9	V1
GS50	03D0683-008	05/24/2002	REAL	TIN	0.90	UG/L	TR1	U	.9	V1
GS50	03D0683-008	05/24/2002	REAL	URANIUM, TOTAL	3.60	UG/L	TR1	U	3.6	V1
GS50	03D0683-008	05/24/2002	REAL	VANADIUM	4.70	UG/L	TR1	B	.02	V1
GS50	03D0683-008	05/24/2002	REAL	ZINC	25.4	UG/L	TR1		.35	UJ1
GS52	02D1261-003	05/24/2002	REAL	TOTAL SUSPENDED SOLIDS	137	MG/L	DL1		4.50	V1
GS55	02D1214-004	04/10/2002	REAL	ALUMINUM	405	UG/L	TR1		2.00	V1
GS55	02D1214-004	04/10/2002	REAL	ANTIMONY	0.55	UG/L	TR1	U	0.55	V1
GS55	02D1214-004	04/10/2002	REAL	ARSENIC	1.60	UG/L	TR1	B	0.62	V1
GS55	02D1214-004	04/10/2002	REAL	BARIUM	246	UG/L	TR1		0.02	V1
GS55	02D1214-004	04/10/2002	REAL	BERYLLIUM	0.03	UG/L	TR1	B	0.02	V1
GS55	02D1214-004	04/10/2002	REAL	CADMIUM	0.70	UG/L	TR1	B	0.08	V1
GS55	02D1214-004	04/10/2002	REAL	CALCIUM	121000	UG/L	TR1		25.50	V1
GS55	02D1214-004	04/10/2002	REAL	CHROMIUM	0.80	UG/L	TR1	B	0.12	V1
GS55	02D1214-004	04/10/2002	REAL	COBALT	0.34	UG/L	TR1	B	0.18	V1
GS55	02D1214-004	04/10/2002	REAL	COPPER	2.30	UG/L	TR1	B	0.08	V1
GS55	02D1214-004	04/10/2002	REAL	IRON	715	UG/L	TR1		3.60	V1
GS55	02D1214-004	04/10/2002	REAL	LEAD	0.93	UG/L	TR1	B	0.42	J1
GS55	02D1214-004	04/10/2002	REAL	LITHIUM	25.5	UG/L	TR1	B	0.02	J1
GS55	02D1214-004	04/10/2002	REAL	MAGNESIUM	36900	UG/L	TR1		1.40	J1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS55	02D1214-004	04/10/2002	REAL	MANGANESE	171	UG/L	TR1		0.02	V1
GS55	02D1214-004	04/10/2002	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	UJ1
GS55	02D1214-004	04/10/2002	REAL	MOLYBDENUM	2.10	UG/L	TR1	B	0.28	V1
GS55	02D1214-004	04/10/2002	REAL	NICKEL	1.90	UG/L	TR1	B	0.22	J1
GS55	02D1214-004	04/10/2002	REAL	POTASSIUM	3940	UG/L	TR1	B	391.00	V1
GS55	02D1214-004	04/10/2002	REAL	SELENIUM	0.88	UG/L	TR1	U	0.88	V1
GS55	02D1214-004	04/10/2002	REAL	SILVER	0.12	UG/L	TR1	U	0.12	V1
GS55	02D1214-004	04/10/2002	REAL	SODIUM	91800	UG/L	TR1		25.50	V1
GS55	02D1214-004	04/10/2002	REAL	STRONTIUM	991	UG/L	TR1		0.02	V1
GS55	02D1214-004	04/10/2002	REAL	THALLIUM	0.78	UG/L	TR1	U	0.78	V1
GS55	02D1214-004	04/10/2002	REAL	TIN	1.10	UG/L	TR1	B	0.78	UJ1
GS55	02D1214-004	04/10/2002	REAL	URANIUM, TOTAL	3.40	UG/L	TR1	B	2.80	V1
GS55	02D1214-004	04/10/2002	REAL	VANADIUM	1.10	UG/L	TR1	B	0.18	UJ1
GS55	02D1214-004	04/10/2002	REAL	ZINC	13.1	UG/L	TR1	B	8.50	UJ1
GS55	02D1221-006	05/03/2002	REAL	ALUMINUM	1940	UG/L	TR1		2.00	V
GS55	02D1221-006	05/03/2002	REAL	ANTIMONY	0.55	UG/L	TR1	U	0.55	J
GS55	02D1221-006	05/03/2002	REAL	ARSENIC	1.90	UG/L	TR1	B	0.62	V
GS55	02D1221-006	05/03/2002	REAL	BARIUM	136	UG/L	TR1		0.02	V
GS55	02D1221-006	05/03/2002	REAL	BERYLLIUM	0.11	UG/L	TR1	B	0.02	V
GS55	02D1221-006	05/03/2002	REAL	CADMIUM	0.16	UG/L	TR1	B	0.08	J
GS55	02D1221-006	05/03/2002	REAL	CALCIUM	58600	UG/L	TR1		9.20	J
GS55	02D1221-006	05/03/2002	REAL	CHROMIUM	2.20	UG/L	TR1		0.12	V
GS55	02D1221-006	05/03/2002	REAL	COBALT	0.62	UG/L	TR1	B	0.18	V
GS55	02D1221-006	05/03/2002	REAL	COPPER	8.30	UG/L	TR1		0.08	V
GS55	02D1221-006	05/03/2002	REAL	IRON	1520	UG/L	TR1		3.60	V
GS55	02D1221-006	05/03/2002	REAL	LEAD	1.70	UG/L	TR1	B	0.42	UJ
GS55	02D1221-006	05/03/2002	REAL	LITHIUM	15.2	UG/L	TR1	B	0.02	J
GS55	02D1221-006	05/03/2002	REAL	MAGNESIUM	18000	UG/L	TR1		1.40	J
GS55	02D1221-006	05/03/2002	REAL	MANGANESE	106	UG/L	TR1		0.02	V
GS55	02D1221-006	05/03/2002	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V
GS55	02D1221-006	05/03/2002	REAL	MOLYBDENUM	1.60	UG/L	TR1	B	0.28	UJ
GS55	02D1221-006	05/03/2002	REAL	NICKEL	2.40	UG/L	TR1	B	0.22	V
GS55	02D1221-006	05/03/2002	REAL	POTASSIUM	3060	UG/L	TR1	B	782.00	J
GS55	02D1221-006	05/03/2002	REAL	SELENIUM	0.88	UG/L	TR1	U	0.88	V
GS55	02D1221-006	05/03/2002	REAL	SILVER	0.12	UG/L	TR1	U	0.12	V

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS55	02D1221-006	05/03/2002	REAL	SODIUM	87800	UG/L	TR1		51.00	V
GS55	02D1221-006	05/03/2002	REAL	STRONTIUM	481	UG/L	TR1		0.02	V
GS55	02D1221-006	05/03/2002	REAL	THALLIUM	1.20	UG/L	TR1	B	0.78	J
GS55	02D1221-006	05/03/2002	REAL	TIN	0.78	UG/L	TR1	U	0.78	J
GS55	02D1221-006	05/03/2002	REAL	URANIUM, TOTAL	2.80	UG/L	TR1	U	2.80	V
GS55	02D1221-006	05/03/2002	REAL	VANADIUM	4.00	UG/L	TR1	B	0.18	V
GS55	02D1221-006	05/03/2002	REAL	ZINC	80.6	UG/L	TR1		1.70	V
GS55	02D1243-003	05/13/2002	REAL	ALUMINUM	3680	UG/L	TR1		2.00	V1
GS55	02D1243-003	05/13/2002	REAL	ANTIMONY	1.10	UG/L	TR1	B	0.55	J1
GS55	02D1243-003	05/13/2002	REAL	ARSENIC	2.20	UG/L	TR1	B	0.62	V1
GS55	02D1243-003	05/13/2002	REAL	BARIUM	161	UG/L	TR1		0.02	V1
GS55	02D1243-003	05/13/2002	REAL	BERYLLIUM	0.16	UG/L	TR1	B	0.02	V1
GS55	02D1243-003	05/13/2002	REAL	CADMIUM	0.10	UG/L	TR1	B	0.08	J1
GS55	02D1243-003	05/13/2002	REAL	CALCIUM	71900	UG/L	TR1		9.20	V1
GS55	02D1243-003	05/13/2002	REAL	CHROMIUM	3.80	UG/L	TR1		0.12	V1
GS55	02D1243-003	05/13/2002	REAL	COBALT	0.92	UG/L	TR1	B	0.18	V1
GS55	02D1243-003	05/13/2002	REAL	COPPER	9.00	UG/L	TR1		0.08	V1
GS55	02D1243-003	05/13/2002	REAL	IRON	2900	UG/L	TR1		3.60	V1
GS55	02D1243-003	05/13/2002	REAL	LEAD	3.30	UG/L	TR1		0.42	V1
GS55	02D1243-003	05/13/2002	REAL	LITHIUM	19.2	UG/L	TR1	B	0.02	J1
GS55	02D1243-003	05/13/2002	REAL	MAGNESIUM	21200	UG/L	TR1		1.40	V1
GS55	02D1243-003	05/13/2002	REAL	MANGANESE	153	UG/L	TR1		0.02	V1
GS55	02D1243-003	05/13/2002	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V1
GS55	02D1243-003	05/13/2002	REAL	MOLYBDENUM	2.00	UG/L	TR1	B	0.28	UJ1
GS55	02D1243-003	05/13/2002	REAL	NICKEL	3.40	UG/L	TR1	B	0.22	V1
GS55	02D1243-003	05/13/2002	REAL	POTASSIUM	3120	UG/L	TR1	B	782.00	V1
GS55	02D1243-003	05/13/2002	REAL	SELENIUM	1.30	UG/L	TR1	B	0.88	V1
GS55	02D1243-003	05/13/2002	REAL	SILVER	0.12	UG/L	TR1	U	0.12	V1
GS55	02D1243-003	05/13/2002	REAL	SODIUM	78000	UG/L	TR1		51.00	V1
GS55	02D1243-003	05/13/2002	REAL	STRONTIUM	578	UG/L	TR1		0.02	V1
GS55	02D1243-003	05/13/2002	REAL	THALLIUM	0.78	UG/L	TR1	U	0.78	J1
GS55	02D1243-003	05/13/2002	REAL	TIN	0.78	UG/L	TR1	U	0.78	J1
GS55	02D1243-003	05/13/2002	REAL	URANIUM, TOTAL	2.80	UG/L	TR1	U	2.80	V1
GS55	02D1243-003	05/13/2002	REAL	VANADIUM	7.40	UG/L	TR1	B	0.18	V1
GS55	02D1243-003	05/13/2002	REAL	ZINC	79.4	UG/L	TR1		1.70	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS55	02D1254-009	05/21/2002	REAL	ALUMINUM	7920	UG/L	TR1		2.00	V1
GS55	02D1254-009	05/21/2002	REAL	ANTIMONY	0.59	UG/L	TR1	B	0.55	UJ1
GS55	02D1254-009	05/21/2002	REAL	ARSENIC	2.90	UG/L	TR1	B	0.62	V1
GS55	02D1254-009	05/21/2002	REAL	BARIUM	73.2	UG/L	TR1	B	0.02	V1
GS55	02D1254-009	05/21/2002	REAL	BERYLLIUM	0.32	UG/L	TR1	B	0.02	V1
GS55	02D1254-009	05/21/2002	REAL	CADMIUM	0.21	UG/L	TR1	B	0.08	V1
GS55	02D1254-009	05/21/2002	REAL	CALCIUM	17100	UG/L	TR1		9.20	V1
GS55	02D1254-009	05/21/2002	REAL	CHROMIUM	8.30	UG/L	TR1		0.12	V1
GS55	02D1254-009	05/21/2002	REAL	COBALT	1.80	UG/L	TR1	B	0.18	V1
GS55	02D1254-009	05/21/2002	REAL	COPPER	13.5	UG/L	TR1		0.08	V1
GS55	02D1254-009	05/21/2002	REAL	IRON	5870	UG/L	TR1		3.60	V1
GS55	02D1254-009	05/21/2002	REAL	LEAD	9.50	UG/L	TR1		0.42	V1
GS55	02D1254-009	05/21/2002	REAL	LITHIUM	8.70	UG/L	TR1	B	0.02	J1
GS55	02D1254-009	05/21/2002	REAL	MAGNESIUM	4830	UG/L	TR1	B	1.40	V1
GS55	02D1254-009	05/21/2002	REAL	MANGANESE	86.4	UG/L	TR1		0.02	V1
GS55	02D1254-009	05/21/2002	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V1
GS55	02D1254-009	05/21/2002	REAL	MOLYBDENUM	1.50	UG/L	TR1	B	0.28	UJ1
GS55	02D1254-009	05/21/2002	REAL	NICKEL	6.30	UG/L	TR1	B	0.22	V1
GS55	02D1254-009	05/21/2002	REAL	POTASSIUM	2740	UG/L	TR1		78.20	V1
GS55	02D1254-009	05/21/2002	REAL	SELENIUM	0.88	UG/L	TR1	U	0.88	V1
GS55	02D1254-009	05/21/2002	REAL	SILVER	0.12	UG/L	TR1	U	0.12	V1
GS55	02D1254-009	05/21/2002	REAL	SODIUM	38000	UG/L	TR1		5.10	V1
GS55	02D1254-009	05/21/2002	REAL	STRONTIUM	119	UG/L	TR1	B	0.02	V1
GS55	02D1254-009	05/21/2002	REAL	THALLIUM	0.78	UG/L	TR1	U	0.78	J1
GS55	02D1254-009	05/21/2002	REAL	TIN	0.78	UG/L	TR1	U	0.78	J1
GS55	02D1254-009	05/21/2002	REAL	URANIUM, TOTAL	2.80	UG/L	TR1	U	2.80	V1
GS55	02D1254-009	05/21/2002	REAL	VANADIUM	17.6	UG/L	TR1	B	0.18	V1
GS55	02D1254-009	05/21/2002	REAL	ZINC	146	UG/L	TR1		0.10	V1
GS55	02D1264-001	05/24/2002	REAL	ALUMINUM	818	UG/L	TR1		2.00	V1
GS55	02D1264-001	05/24/2002	REAL	ANTIMONY	1.10	UG/L	TR1	B	0.55	UJ1
GS55	02D1264-001	05/24/2002	REAL	ARSENIC	0.62	UG/L	TR1	U	0.62	V1
GS55	02D1264-001	05/24/2002	REAL	BARIUM	78.5	UG/L	TR1	B	0.02	V1
GS55	02D1264-001	05/24/2002	REAL	BERYLLIUM	0.14	UG/L	TR1	B	0.02	UJ1
GS55	02D1264-001	05/24/2002	REAL	CADMIUM	0.42	UG/L	TR1	B	0.08	V1
GS55	02D1264-001	05/24/2002	REAL	CALCIUM	42400	UG/L	TR1		9.20	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS55	02D1264-001	05/24/2002	REAL	CHROMIUM	1.50	UG/L	TR1	B	0.12	UJ1
GS55	02D1264-001	05/24/2002	REAL	COBALT	0.32	UG/L	TR1	B	0.18	V1
GS55	02D1264-001	05/24/2002	REAL	COPPER	4.40	UG/L	TR1		0.08	J1
GS55	02D1264-001	05/24/2002	REAL	IRON	636	UG/L	TR1		3.60	V1
GS55	02D1264-001	05/24/2002	REAL	LEAD	1.30	UG/L	TR1	B	0.42	V1
GS55	02D1264-001	05/24/2002	REAL	LITHIUM	8.00	UG/L	TR1	B	0.02	V1
GS55	02D1264-001	05/24/2002	REAL	MAGNESIUM	10600	UG/L	TR1		1.40	V1
GS55	02D1264-001	05/24/2002	REAL	MANGANESE	36.1	UG/L	TR1		0.02	V1
GS55	02D1264-001	05/24/2002	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V1
GS55	02D1264-001	05/24/2002	REAL	MOLYBDENUM	1.50	UG/L	TR1	B	0.28	V1
GS55	02D1264-001	05/24/2002	REAL	NICKEL	1.30	UG/L	TR1	B	0.22	V1
GS55	02D1264-001	05/24/2002	REAL	POTASSIUM	2540	UG/L	TR1	B	5.10	J1
GS55	02D1264-001	05/24/2002	REAL	SELENIUM	0.88	UG/L	TR1	U	0.88	V1
GS55	02D1264-001	05/24/2002	REAL	SILVER	0.12	UG/L	TR1	U	0.12	J1
GS55	02D1264-001	05/24/2002	REAL	SODIUM	45300	UG/L	TR1		25.50	V1
GS55	02D1264-001	05/24/2002	REAL	STRONTIUM	320	UG/L	TR1		0.02	V1
GS55	02D1264-001	05/24/2002	REAL	THALLIUM	0.78	UG/L	TR1	U	0.78	J1
GS55	02D1264-001	05/24/2002	REAL	TIN	0.78	UG/L	TR1	U	0.78	V1
GS55	02D1264-001	05/24/2002	REAL	URANIUM, TOTAL	2.80	UG/L	TR1	U	2.80	V1
GS55	02D1264-001	05/24/2002	REAL	VANADIUM	2.30	UG/L	TR1	B	0.18	V1°
GS55	02D1264-001	05/24/2002	REAL	ZINC	55.2	UG/L	TR1		0.10	V1
GS55	02D1303-003	05/30/2002	REAL	ALUMINUM	655	UG/L	TR1		5.20	J1
GS55	02D1303-003	05/30/2002	REAL	ANTIMONY	0.79	UG/L	TR1	B	0.55	V1
GS55	02D1303-003	05/30/2002	REAL	ARSENIC	0.62	UG/L	TR1	U	0.62	J1
GS55	02D1303-003	05/30/2002	REAL	BARIUM	124	UG/L	TR1		0.02	V1
GS55	02D1303-003	05/30/2002	REAL	BERYLLIUM	0.16	UG/L	TR1	B	0.02	UJ1
GS55	02D1303-003	05/30/2002	REAL	CADMIUM	0.08	UG/L	TR1	U	0.08	V1
GS55	02D1303-003	05/30/2002	REAL	CALCIUM	66200	UG/L	TR1		9.20	V1
GS55	02D1303-003	05/30/2002	REAL	CHROMIUM	1.20	UG/L	TR1	B	0.12	V1
GS55	02D1303-003	05/30/2002	REAL	COBALT	0.24	UG/L	TR1	B	0.18	V1
GS55	02D1303-003	05/30/2002	REAL	COPPER	6.00	UG/L	TR1		0.08	J1
GS55	02D1303-003	05/30/2002	REAL	IRON	774	UG/L	TR1		3.60	V1
GS55	02D1303-003	05/30/2002	REAL	LEAD	0.91	UG/L	TR1	B	0.42	V1
GS55	02D1303-003	05/30/2002	REAL	LITHIUM	12.8	UG/L	TR1	B	0.02	J1
GS55	02D1303-003	05/30/2002	REAL	MAGNESIUM	17300	UG/L	TR1		1.40	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS55	02D1303-003	05/30/2002	REAL	MANGANESE	107	UG/L	TR1		0.28	V1
GS55	02D1303-003	05/30/2002	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V1
GS55	02D1303-003	05/30/2002	REAL	MOLYBDENUM	1.90	UG/L	TR1	B	0.28	UJ1
GS55	02D1303-003	05/30/2002	REAL	NICKEL	1.50	UG/L	TR1	B	0.22	J1
GS55	02D1303-003	05/30/2002	REAL	POTASSIUM	3860	UG/L	TR1	B	5.10	J1
GS55	02D1303-003	05/30/2002	REAL	SELENIUM	1.10	UG/L	TR1	B	0.88	V1
GS55	02D1303-003	05/30/2002	REAL	SILVER	0.12	UG/L	TR1	U	0.12	V1
GS55	02D1303-003	05/30/2002	REAL	SODIUM	62600	UG/L	TR1		5.10	V1
GS55	02D1303-003	05/30/2002	REAL	STRONTIUM	521	UG/L	TR1		0.02	V1
GS55	02D1303-003	05/30/2002	REAL	THALLIUM	0.78	UG/L	TR1	U	0.78	V1
GS55	02D1303-003	05/30/2002	REAL	TIN	0.78	UG/L	TR1	U	0.78	V1
GS55	02D1303-003	05/30/2002	REAL	URANIUM, TOTAL	2.80	UG/L	TR1	U	2.80	V1
GS55	02D1303-003	05/30/2002	REAL	VANADIUM	2.00	UG/L	TR1	B	0.18	V1
GS55	02D1303-003	05/30/2002	REAL	ZINC	43.1	UG/L	TR1		0.10	V1
GS55	02D1333-004	06/05/2002	REAL	ALUMINUM	577	UG/L	TR1		2.00	V
GS55	02D1333-004	06/05/2002	REAL	ANTIMONY	1.50	UG/L	TR1	B	0.55	V
GS55	02D1333-004	06/05/2002	REAL	ARSENIC	1.10	UG/L	TR1	B	0.62	V
GS55	02D1333-004	06/05/2002	REAL	BARIUM	225	UG/L	TR1		0.02	V
GS55	02D1333-004	06/05/2002	REAL	BERYLLIUM	0.04	UG/L	TR1	B	0.02	V
GS55	02D1333-004	06/05/2002	REAL	CADMIUM	0.23	UG/L	TR1	B	0.08	V
GS55	02D1333-004	06/05/2002	REAL	CALCIUM	120000	UG/L	TR1		9.20	V
GS55	02D1333-004	06/05/2002	REAL	CHROMIUM	0.91	UG/L	TR1	B	0.12	V
GS55	02D1333-004	06/05/2002	REAL	COBALT	0.52	UG/L	TR1	B	0.18	V
GS55	02D1333-004	06/05/2002	REAL	COPPER	4.10	UG/L	TR1		0.08	V
GS55	02D1333-004	06/05/2002	REAL	IRON	863	UG/L	TR1		3.60	V
GS55	02D1333-004	06/05/2002	REAL	LEAD	0.96	UG/L	TR1	B	0.42	V
GS55	02D1333-004	06/05/2002	REAL	LITHIUM	21.1	UG/L	TR1	B	0.02	J
GS55	02D1333-004	06/05/2002	REAL	MAGNESIUM	33200	UG/L	TR1		1.40	V
GS55	02D1333-004	06/05/2002	REAL	MANGANESE	204	UG/L	TR1		0.02	V
GS55	02D1333-004	06/05/2002	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V
GS55	02D1333-004	06/05/2002	REAL	MOLYBDENUM	1.70	UG/L	TR1	B	0.28	V
GS55	02D1333-004	06/05/2002	REAL	NICKEL	1.70	UG/L	TR1	B	0.22	V
GS55	02D1333-004	06/05/2002	REAL	POTASSIUM	5000	UG/L	TR1	B	5.10	J
GS55	02D1333-004	06/05/2002	REAL	SELENIUM	1.10	UG/L	TR1	B	0.88	V
GS55	02D1333-004	06/05/2002	REAL	SILVER	0.12	UG/L	TR1	U	0.12	V

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS55	02D1333-004	06/05/2002	REAL	SODIUM	61900	UG/L	TR1		30.60	V
GS55	02D1333-004	06/05/2002	REAL	STRONTIUM	954	UG/L	TR1		0.02	V
GS55	02D1333-004	06/05/2002	REAL	THALLIUM	0.78	UG/L	TR1	U	0.78	J
GS55	02D1333-004	06/05/2002	REAL	TIN	0.78	UG/L	TR1	U	0.78	V
GS55	02D1333-004	06/05/2002	REAL	URANIUM, TOTAL	2.80	UG/L	TR1	U	2.80	J
GS55	02D1333-004	06/05/2002	REAL	VANADIUM	1.40	UG/L	TR1	B	0.18	V
GS55	02D1333-004	06/05/2002	REAL	ZINC	25.3	UG/L	TR1		0.10	V
GS55	02D1431-002	06/20/2002	REAL	ALUMINUM	189	UG/L	TR1		4.00	V1
GS55	02D1431-002	06/20/2002	REAL	ANTIMONY	0.88	UG/L	TR1	U	0.88	V1
GS55	02D1431-002	06/20/2002	REAL	ARSENIC	1.00	UG/L	TR1	B	0.82	V1
GS55	02D1431-002	06/20/2002	REAL	BARIUM	311	UG/L	TR1		0.05	V1
GS55	02D1431-002	06/20/2002	REAL	BERYLLIUM	0.02	UG/L	TR1	U	0.02	J1
GS55	02D1431-002	06/20/2002	REAL	CADMIUM	0.08	UG/L	TR1	B	0.08	J1
GS55	02D1431-002	06/20/2002	REAL	CALCIUM	121000	UG/L	TR1		3.80	V1
GS55	02D1431-002	06/20/2002	REAL	CHROMIUM	0.73	UG/L	TR1	B	0.25	V1
GS55	02D1431-002	06/20/2002	REAL	COBALT	0.52	UG/L	TR1	B	0.35	V1
GS55	02D1431-002	06/20/2002	REAL	COPPER	1.60	UG/L	TR1	B	0.25	UJ1
GS55	02D1431-002	06/20/2002	REAL	IRON	600	UG/L	TR1		4.50	V1
GS55	02D1431-002	06/20/2002	REAL	LEAD	0.60	UG/L	TR1	U	0.60	V1
GS55	02D1431-002	06/20/2002	REAL	LITHIUM	24.6	UG/L	TR1	B	0.05	J1
GS55	02D1431-002	06/20/2002	REAL	MAGNESIUM	35600	UG/L	TR1		1.90	V1
GS55	02D1431-002	06/20/2002	REAL	MANGANESE	212	UG/L	TR1		0.05	V1
GS55	02D1431-002	06/20/2002	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	J1
GS55	02D1431-002	06/20/2002	REAL	MOLYBDENUM	1.50	UG/L	TR1	B	0.55	V1
GS55	02D1431-002	06/20/2002	REAL	NICKEL	1.30	UG/L	TR1	B	0.40	V1
GS55	02D1431-002	06/20/2002	REAL	POTASSIUM	6660	UG/L	TR1		7.00	J1
GS55	02D1431-002	06/20/2002	REAL	SELENIUM	1.10	UG/L	TR1	B	1.00	J1
GS55	02D1431-002	06/20/2002	REAL	SILVER	0.28	UG/L	TR1	U	0.28	V1
GS55	02D1431-002	06/20/2002	REAL	SODIUM	75200	UG/L	TR1		4.80	V1
GS55	02D1431-002	06/20/2002	REAL	STRONTIUM	1030	UG/L	TR1		0.02	V1
GS55	02D1431-002	06/20/2002	REAL	THALLIUM	1.60	UG/L	TR1	U	1.60	V1
GS55	02D1431-002	06/20/2002	REAL	TIN	1.20	UG/L	TR1	U	1.20	V1
GS55	02D1431-002	06/20/2002	REAL	URANIUM, TOTAL	3.20	UG/L	TR1	U	3.20	V1
GS55	02D1431-002	06/20/2002	REAL	VANADIUM	0.49	UG/L	TR1	B	0.28	V1
GS55	02D1431-002	06/20/2002	REAL	ZINC	42.8	UG/L	TR1		0.12	J1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS55	02D1498-002	08/01/2002	REAL	ALUMINUM	1020	UG/L	TR1		3.00	V1
GS55	02D1498-002	08/01/2002	REAL	ANTIMONY	0.88	UG/L	TR1	U	0.88	V1
GS55	02D1498-002	08/01/2002	REAL	ARSENIC	1.90	UG/L	TR1	B	0.82	V1
GS55	02D1498-002	08/01/2002	REAL	BARIUM	159	UG/L	TR1		0.05	V1
GS55	02D1498-002	08/01/2002	REAL	BERYLLIUM	0.06	UG/L	TR1	B	0.02	UJ1
GS55	02D1498-002	08/01/2002	REAL	CADMIUM	0.19	UG/L	TR1	B	0.08	V1
GS55	02D1498-002	08/01/2002	REAL	CALCIUM	79000	UG/L	TR1		3.80	V1
GS55	02D1498-002	08/01/2002	REAL	CHROMIUM	1.60	UG/L	TR1	B	0.25	UJ1
GS55	02D1498-002	08/01/2002	REAL	COBALT	0.56	UG/L	TR1	B	0.35	V1
GS55	02D1498-002	08/01/2002	REAL	COPPER	7.00	UG/L	TR1		0.25	V1
GS55	02D1498-002	08/01/2002	REAL	IRON	1180	UG/L	TR1		4.50	V1
GS55	02D1498-002	08/01/2002	REAL	LEAD	1.60	UG/L	TR1	B	0.60	UJ1
GS55	02D1498-002	08/01/2002	REAL	LITHIUM	15.4	UG/L	TR1	B	0.05	J1
GS55	02D1498-002	08/01/2002	REAL	MAGNESIUM	21300	UG/L	TR1		1.90	V1
GS55	02D1498-002	08/01/2002	REAL	MANGANESE	204	UG/L	TR1		0.05	V1
GS55	02D1498-002	08/01/2002	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V1
GS55	02D1498-002	08/01/2002	REAL	MOLYBDENUM	2.80	UG/L	TR1	B	0.55	V1
GS55	02D1498-002	08/01/2002	REAL	NICKEL	2.00	UG/L	TR1	B	0.40	V1
GS55	02D1498-002	08/01/2002	REAL	POTASSIUM	6490	UG/L	TR1		7.00	V1
GS55	02D1498-002	08/01/2002	REAL	SELENIUM	1.00	UG/L	TR1	U	1.00	V1
GS55	02D1498-002	08/01/2002	REAL	SILVER	0.28	UG/L	TR1	U	0.28	V1
GS55	02D1498-002	08/01/2002	REAL	SODIUM	50100	UG/L	TR1		28.60	V1
GS55	02D1498-002	08/01/2002	REAL	STRONTIUM	620	UG/L	TR1		0.02	V1
GS55	02D1498-002	08/01/2002	REAL	THALLIUM	1.60	UG/L	TR1	U	1.60	V1
GS55	02D1498-002	08/01/2002	REAL	TIN	1.20	UG/L	TR1	U	1.20	V1
GS55	02D1498-002	08/01/2002	REAL	URANIUM, TOTAL	7.40	UG/L	TR1	B	3.20	V1
GS55	02D1498-002	08/01/2002	REAL	VANADIUM	2.50	UG/L	TR1	B	0.28	V1
GS55	02D1498-002	08/01/2002	REAL	ZINC	32.6	UG/L	TR1		0.12	V1
GS55	02D1506-004	09/09/2002	REAL	ALUMINUM	4640	UG/L	TR1		3.00	V1
GS55	02D1506-004	09/09/2002	REAL	ANTIMONY	1.60	UG/L	TR1	B	0.88	V1
GS55	02D1506-004	09/09/2002	REAL	ARSENIC	2.90	UG/L	TR1	B	0.82	V1
GS55	02D1506-004	09/09/2002	REAL	BARIUM	78.4	UG/L	TR1	B	0.05	V1
GS55	02D1506-004	09/09/2002	REAL	BERYLLIUM	0.23	UG/L	TR1	B	0.02	V1
GS55	02D1506-004	09/09/2002	REAL	CADMIUM	0.25	UG/L	TR1	B	0.08	V1
GS55	02D1506-004	09/09/2002	REAL	CALCIUM	20000	UG/L	TR1		2.90	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS55	02D1506-004	09/09/2002	REAL	CHROMIUM	5.30	UG/L	TR1		0.25	V1
GS55	02D1506-004	09/09/2002	REAL	COBALT	1.40	UG/L	TR1	B	0.35	V1
GS55	02D1506-004	09/09/2002	REAL	COPPER	13.6	UG/L	TR1		0.25	V1
GS55	02D1506-004	09/09/2002	REAL	IRON	3440	UG/L	TR1		4.50	V1
GS55	02D1506-004	09/09/2002	REAL	LEAD	5.40	UG/L	TR1		0.60	V1
GS55	02D1506-004	09/09/2002	REAL	LITHIUM	7.20	UG/L	TR1	B	0.05	J1
GS55	02D1506-004	09/09/2002	REAL	MAGNESIUM	4940	UG/L	TR1	B	1.90	V1
GS55	02D1506-004	09/09/2002	REAL	MANGANESE	210	UG/L	TR1		0.05	V1
GS55	02D1506-004	09/09/2002	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V1
GS55	02D1506-004	09/09/2002	REAL	MOLYBDENUM	1.20	UG/L	TR1	B	0.55	V1
GS55	02D1506-004	09/09/2002	REAL	NICKEL	3.90	UG/L	TR1	B	0.40	V1
GS55	02D1506-004	09/09/2002	REAL	POTASSIUM	4100	UG/L	TR1	B	7.00	V1
GS55	02D1506-004	09/09/2002	REAL	SELENIUM	1.00	UG/L	TR1	U	1.00	V1
GS55	02D1506-004	09/09/2002	REAL	SILVER	0.28	UG/L	TR1	U	0.28	V1
GS55	02D1506-004	09/09/2002	REAL	SODIUM	23000	UG/L	TR1		4.80	V1
GS55	02D1506-004	09/09/2002	REAL	STRONTIUM	140	UG/L	TR1	B	0.02	V1
GS55	02D1506-004	09/09/2002	REAL	THALLIUM	1.60	UG/L	TR1	U	1.60	V1
GS55	02D1506-004	09/09/2002	REAL	TIN	1.20	UG/L	TR1	U	1.20	V1
GS55	02D1506-004	09/09/2002	REAL	TOTAL SUSPENDED SOLIDS	80.0	MG/L	DL1		2.20	V1
GS55	02D1506-004	09/09/2002	REAL	URANIUM, TOTAL	3.20	UG/L	TR1	U	3.20	V1
GS55	02D1506-004	09/09/2002	REAL	VANADIUM	11.5	UG/L	TR1	B	0.28	V1
GS55	02D1506-004	09/09/2002	REAL	ZINC	101	UG/L	TR1		0.12	V1
GS55	02D1516-007	09/10/2002	REAL	ALUMINUM	5270	UG/L	TR1		3.00	V
GS55	02D1516-007	09/10/2002	REAL	ANTIMONY	1.50	UG/L	TR1	B	0.88	V
GS55	02D1516-007	09/10/2002	REAL	ARSENIC	1.80	UG/L	TR1	B	0.82	V
GS55	02D1516-007	09/10/2002	REAL	BARIUM	114	UG/L	TR1		0.05	V
GS55	02D1516-007	09/10/2002	REAL	BERYLLIUM	0.12	UG/L	TR1	B	0.02	V
GS55	02D1516-007	09/10/2002	REAL	CADMIUM	0.21	UG/L	TR1	B	0.08	V
GS55	02D1516-007	09/10/2002	REAL	CALCIUM	40600	UG/L	TR1		2.90	V
GS55	02D1516-007	09/10/2002	REAL	CHROMIUM	5.70	UG/L	TR1		0.25	V
GS55	02D1516-007	09/10/2002	REAL	COBALT	1.40	UG/L	TR1	B	0.35	V
GS55	02D1516-007	09/10/2002	REAL	COPPER	11.2	UG/L	TR1		0.25	V
GS55	02D1516-007	09/10/2002	REAL	IRON	3950	UG/L	TR1		4.50	V
GS55	02D1516-007	09/10/2002	REAL	LEAD	4.80	UG/L	TR1		0.60	V
GS55	02D1516-007	09/10/2002	REAL	LITHIUM	10.3	UG/L	TR1	B	0.05	V

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS55	02D1516-007	09/10/2002	REAL	MAGNESIUM	10400	UG/L	TR1		1.90	V
GS55	02D1516-007	09/10/2002	REAL	MANGANESE	94.0	UG/L	TR1		0.05	V
GS55	02D1516-007	09/10/2002	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V
GS55	02D1516-007	09/10/2002	REAL	MOLYBDENUM	1.30	UG/L	TR1	B	0.55	V
GS55	02D1516-007	09/10/2002	REAL	NICKEL	4.10	UG/L	TR1	B	0.40	V
GS55	02D1516-007	09/10/2002	REAL	POTASSIUM	4450	UG/L	TR1	B	7.00	V
GS55	02D1516-007	09/10/2002	REAL	SELENIUM	1.00	UG/L	TR1	U	1.00	V
GS55	02D1516-007	09/10/2002	REAL	SILVER	0.31	UG/L	TR1	B	0.28	V
GS55	02D1516-007	09/10/2002	REAL	SODIUM	36100	UG/L	TR1		28.60	V
GS55	02D1516-007	09/10/2002	REAL	STRONTIUM	300	UG/L	TR1		0.02	V
GS55	02D1516-007	09/10/2002	REAL	THALLIUM	1.60	UG/L	TR1	U	1.60	V
GS55	02D1516-007	09/10/2002	REAL	TIN	1.20	UG/L	TR1	U	1.20	V
GS55	02D1516-007	09/10/2002	REAL	URANIUM, TOTAL	3.20	UG/L	TR1	U	3.20	J
GS55	02D1516-007	09/10/2002	REAL	VANADIUM	12.0	UG/L	TR1	B	0.28	V
GS55	02D1516-007	09/10/2002	REAL	ZINC	77.5	UG/L	TR1		0.12	V
GS55	03D0020-009	09/16/2002	REAL	ALUMINUM	1230	UG/L	TR1	B	4.00	J1
GS55	03D0020-009	09/16/2002	REAL	ANTIMONY	0.88	UG/L	TR1	U	0.88	V1
GS55	03D0020-009	09/16/2002	REAL	ARSENIC	0.82	UG/L	TR1	U	0.82	V1
GS55	03D0020-009	09/16/2002	REAL	BARIUM	110	UG/L	TR1		0.05	V1
GS55	03D0020-009	09/16/2002	REAL	BERYLLIUM	0.02	UG/L	TR1	U	0.02	J1
GS55	03D0020-009	09/16/2002	REAL	CADMIUM	0.17	UG/L	TR1	B	0.08	V1
GS55	03D0020-009	09/16/2002	REAL	CALCIUM	47600	UG/L	TR1		2.90	V1
GS55	03D0020-009	09/16/2002	REAL	CHROMIUM	1.80	UG/L	TR1	B	0.25	V1
GS55	03D0020-009	09/16/2002	REAL	COBALT	0.52	UG/L	TR1	B	0.35	V1
GS55	03D0020-009	09/16/2002	REAL	COPPER	6.00	UG/L	TR1		0.25	V1
GS55	03D0020-009	09/16/2002	REAL	IRON	1100	UG/L	TR1		4.50	V1
GS55	03D0020-009	09/16/2002	REAL	LEAD	1.30	UG/L	TR1	B	0.60	V1
GS55	03D0020-009	09/16/2002	REAL	LITHIUM	8.90	UG/L	TR1	B	0.05	J1
GS55	03D0020-009	09/16/2002	REAL	MAGNESIUM	12200	UG/L	TR1		1.90	V1
GS55	03D0020-009	09/16/2002	REAL	MANGANESE	66.8	UG/L	TR1		0.05	V1
GS55	03D0020-009	09/16/2002	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V1
GS55	03D0020-009	09/16/2002	REAL	MOLYBDENUM	1.40	UG/L	TR1	B	0.55	V1
GS55	03D0020-009	09/16/2002	REAL	NICKEL	2.00	UG/L	TR1	B	0.40	V1
GS55	03D0020-009	09/16/2002	REAL	POTASSIUM	3210	UG/L	TR1	B	7.00	J1
GS55	03D0020-009	09/16/2002	REAL	SELENIUM	1.00	UG/L	TR1	U	1.00	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS55	03D0020-009	09/16/2002	REAL	SILVER	0.28	UG/L	TR1	U	0.28	J1
GS55	03D0020-009	09/16/2002	REAL	SODIUM	34200	UG/L	TR1		4.80	V1
GS55	03D0020-009	09/16/2002	REAL	STRONTIUM	357	UG/L	TR1		0.02	V1
GS55	03D0020-009	09/16/2002	REAL	THALLIUM	1.60	UG/L	TR1	U	1.60	V1
GS55	03D0020-009	09/16/2002	REAL	TIN	1.20	UG/L	TR1	U	1.20	V1
GS55	03D0020-009	09/16/2002	REAL	URANIUM, TOTAL	3.20	UG/L	TR1	U	3.20	V1
GS55	03D0020-009	09/16/2002	REAL	VANADIUM	3.20	UG/L	TR1	B	0.28	V1
GS55	03D0020-009	09/16/2002	REAL	ZINC	45.9	UG/L	TR1		0.12	V1
GS57	02D1221-007	04/05/2002	REAL	ALUMINUM	3690	UG/L	TR1		4.00	V
GS57	02D1221-007	04/05/2002	REAL	ANTIMONY	1.10	UG/L	TR1	U	1.10	J
GS57	02D1221-007	04/05/2002	REAL	ARSENIC	2.60	UG/L	TR1	B	1.20	V
GS57	02D1221-007	04/05/2002	REAL	BARIUM	34.7	UG/L	TR1	B	0.05	V
GS57	02D1221-007	04/05/2002	REAL	BERYLLIUM	0.18	UG/L	TR1	B	0.05	UJ
GS57	02D1221-007	04/05/2002	REAL	CADMIUM	0.35	UG/L	TR1	B	0.15	J
GS57	02D1221-007	04/05/2002	REAL	CALCIUM	11200	UG/L	TR1		18.50	J
GS57	02D1221-007	04/05/2002	REAL	CHROMIUM	4.50	UG/L	TR1		0.25	V
GS57	02D1221-007	04/05/2002	REAL	COBALT	0.78	UG/L	TR1	B	0.15	V
GS57	02D1221-007	04/05/2002	REAL	COPPER	14.2	UG/L	TR1		0.15	V
GS57	02D1221-007	04/05/2002	REAL	IRON	2450	UG/L	TR1		7.20	V
GS57	02D1221-007	04/05/2002	REAL	LEAD	3.30	UG/L	TR1	B	0.85	UJ
GS57	02D1221-007	04/05/2002	REAL	LITHIUM	8.00	UG/L	TR1	B	0.05	J
GS57	02D1221-007	04/05/2002	REAL	MAGNESIUM	2310	UG/L	TR1	B	2.80	J
GS57	02D1221-007	04/05/2002	REAL	MANGANESE	44.8	UG/L	TR1		0.05	V
GS57	02D1221-007	04/05/2002	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	UJ
GS57	02D1221-007	04/05/2002	REAL	MOLYBDENUM	3.60	UG/L	TR1	B	0.55	UJ
GS57	02D1221-007	04/05/2002	REAL	NICKEL	4.40	UG/L	TR1	B	0.45	V
GS57	02D1221-007	04/05/2002	REAL	POTASSIUM	3620	UG/L	TR1	B	782.00	J
GS57	02D1221-007	04/05/2002	REAL	SELENIUM	1.80	UG/L	TR1	U	1.80	V
GS57	02D1221-007	04/05/2002	REAL	SILVER	0.25	UG/L	TR1	U	0.25	V
GS57	02D1221-007	04/05/2002	REAL	SODIUM	138000	UG/L	TR1		51.00	V
GS57	02D1221-007	04/05/2002	REAL	STRONTIUM	53.2	UG/L	TR1	B	0.05	V
GS57	02D1221-007	04/05/2002	REAL	THALLIUM	1.60	UG/L	TR1	U	1.60	J
GS57	02D1221-007	04/05/2002	REAL	TIN	1.60	UG/L	TR1	U	1.60	J
GS57	02D1221-007	04/05/2002	REAL	URANIUM, TOTAL	5.60	UG/L	TR1	U	5.60	V
GS57	02D1221-007	04/05/2002	REAL	VANADIUM	6.80	UG/L	TR1	B	0.35	V

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS57	02D1221-007	04/05/2002	REAL	ZINC	441	UG/L	TR1		3.40	V
GS57	02D1254-008	05/16/2002	REAL	ALUMINUM	7360	UG/L	TR1		2.00	V1
GS57	02D1254-008	05/16/2002	REAL	ANTIMONY	1.50	UG/L	TR1	B	0.55	UJ1
GS57	02D1254-008	05/16/2002	REAL	ARSENIC	4.10	UG/L	TR1	B	0.62	V1
GS57	02D1254-008	05/16/2002	REAL	BARIUM	54.2	UG/L	TR1	B	0.02	V1
GS57	02D1254-008	05/16/2002	REAL	BERYLLIUM	0.32	UG/L	TR1	B	0.02	V1
GS57	02D1254-008	05/16/2002	REAL	CADMIUM	0.25	UG/L	TR1	B	0.08	V1
GS57	02D1254-008	05/16/2002	REAL	CALCIUM	8190	UG/L	TR1		9.20	V1
GS57	02D1254-008	05/16/2002	REAL	CHROMIUM	9.60	UG/L	TR1		0.12	V1
GS57	02D1254-008	05/16/2002	REAL	COBALT	2.40	UG/L	TR1	B	0.18	V1
GS57	02D1254-008	05/16/2002	REAL	COPPER	19.4	UG/L	TR1		0.08	V1
GS57	02D1254-008	05/16/2002	REAL	IRON	6790	UG/L	TR1		3.60	V1
GS57	02D1254-008	05/16/2002	REAL	LEAD	9.30	UG/L	TR1		0.42	V1
GS57	02D1254-008	05/16/2002	REAL	LITHIUM	10.5	UG/L	TR1	B	0.02	J1
GS57	02D1254-008	05/16/2002	REAL	MAGNESIUM	3040	UG/L	TR1	B	1.40	V1
GS57	02D1254-008	05/16/2002	REAL	MANGANESE	105	UG/L	TR1		0.02	V1
GS57	02D1254-008	05/16/2002	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V1
GS57	02D1254-008	05/16/2002	REAL	MOLYBDENUM	8.00	UG/L	TR1	B	0.28	V1
GS57	02D1254-008	05/16/2002	REAL	NICKEL	7.40	UG/L	TR1	B	0.22	V1
GS57	02D1254-008	05/16/2002	REAL	POTASSIUM	4060	UG/L	TR1	B	78.20	V1
GS57	02D1254-008	05/16/2002	REAL	SELENIUM	0.92	UG/L	TR1	B	0.88	V1
GS57	02D1254-008	05/16/2002	REAL	SILVER	0.40	UG/L	TR1	B	0.12	V1
GS57	02D1254-008	05/16/2002	REAL	SODIUM	44400	UG/L	TR1		5.10	V1
GS57	02D1254-008	05/16/2002	REAL	STRONTIUM	39.9	UG/L	TR1	B	0.02	V1
GS57	02D1254-008	05/16/2002	REAL	THALLIUM	0.78	UG/L	TR1	U	0.78	J1
GS57	02D1254-008	05/16/2002	REAL	TIN	0.78	UG/L	TR1	U	0.78	J1
GS57	02D1254-008	05/16/2002	REAL	URANIUM, TOTAL	2.80	UG/L	TR1	U	2.80	V1
GS57	02D1254-008	05/16/2002	REAL	VANADIUM	15.6	UG/L	TR1	B	0.18	V1
GS57	02D1254-008	05/16/2002	REAL	ZINC	335	UG/L	TR1		0.10	V1
GS57	02D1264-002	05/24/2002	REAL	ALUMINUM	1310	UG/L	TR1		2.00	V1
GS57	02D1264-002	05/24/2002	REAL	ANTIMONY	1.20	UG/L	TR1	B	0.55	UJ1
GS57	02D1264-002	05/24/2002	REAL	ARSENIC	3.30	UG/L	TR1	B	0.62	V1
GS57	02D1264-002	05/24/2002	REAL	BARIUM	46.5	UG/L	TR1	B	0.02	V1
GS57	02D1264-002	05/24/2002	REAL	BERYLLIUM	0.16	UG/L	TR1	B	0.02	UJ1
GS57	02D1264-002	05/24/2002	REAL	CADMIUM	0.40	UG/L	TR1	B	0.08	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS57	02D1264-002	05/24/2002	REAL	CALCIUM	23500	UG/L	TR1		9.20	V1
GS57	02D1264-002	05/24/2002	REAL	CHROMIUM	3.20	UG/L	TR1		0.12	V1
GS57	02D1264-002	05/24/2002	REAL	COBALT	0.28	UG/L	TR1	B	0.18	V1
GS57	02D1264-002	05/24/2002	REAL	COPPER	6.00	UG/L	TR1		0.08	J1
GS57	02D1264-002	05/24/2002	REAL	IRON	821	UG/L	TR1		3.60	V1
GS57	02D1264-002	05/24/2002	REAL	LEAD	1.50	UG/L	TR1	B	0.42	V1
GS57	02D1264-002	05/24/2002	REAL	LITHIUM	3.40	UG/L	TR1	B	0.02	V1
GS57	02D1264-002	05/24/2002	REAL	MAGNESIUM	2890	UG/L	TR1	B	1.40	V1
GS57	02D1264-002	05/24/2002	REAL	MANGANESE	12.0	UG/L	TR1	B	0.02	V1
GS57	02D1264-002	05/24/2002	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V1
GS57	02D1264-002	05/24/2002	REAL	MOLYBDENUM	3.20	UG/L	TR1	B	0.28	V1
GS57	02D1264-002	05/24/2002	REAL	NICKEL	2.40	UG/L	TR1	B	0.22	V1
GS57	02D1264-002	05/24/2002	REAL	POTASSIUM	2570	UG/L	TR1	B	5.10	J1
GS57	02D1264-002	05/24/2002	REAL	SELENIUM	0.88	UG/L	TR1	U	0.88	V1
GS57	02D1264-002	05/24/2002	REAL	SILVER	0.12	UG/L	TR1	U	0.12	J1
GS57	02D1264-002	05/24/2002	REAL	SODIUM	62000	UG/L	TR1		25.50	V1
GS57	02D1264-002	05/24/2002	REAL	STRONTIUM	97.3	UG/L	TR1	B	0.02	V1
GS57	02D1264-002	05/24/2002	REAL	THALLIUM	0.78	UG/L	TR1	U	0.78	J1
GS57	02D1264-002	05/24/2002	REAL	TIN	0.78	UG/L	TR1	U	0.78	V1
GS57	02D1264-002	05/24/2002	REAL	URANIUM, TOTAL	2.80	UG/L	TR1	U	2.80	V1
GS57	02D1264-002	05/24/2002	REAL	VANADIUM	3.10	UG/L	TR1	B	0.18	V1
GS57	02D1264-002	05/24/2002	REAL	ZINC	400	UG/L	TR1		0.10	V1
GS57	02D1435-001	06/03/2002	REAL	ALUMINUM	8410	UG/L	TR1		4.00	V1
GS57	02D1435-001	06/03/2002	REAL	ANTIMONY	2.30	UG/L	TR1	B	0.88	V1
GS57	02D1435-001	06/03/2002	REAL	ARSENIC	4.60	UG/L	TR1	B	0.82	V1
GS57	02D1435-001	06/03/2002	REAL	BARIUM	72.0	UG/L	TR1	B	0.05	V1
GS57	02D1435-001	06/03/2002	REAL	BERYLLIUM	0.65	UG/L	TR1	B	0.02	V1
GS57	02D1435-001	06/03/2002	REAL	CADMIUM	0.53	UG/L	TR1	B	0.08	V1
GS57	02D1435-001	06/03/2002	REAL	CALCIUM	13200	UG/L	TR1		3.80	V1
GS57	02D1435-001	06/03/2002	REAL	CHROMIUM	11.7	UG/L	TR1		0.25	V1
GS57	02D1435-001	06/03/2002	REAL	COBALT	3.10	UG/L	TR1	B	0.35	V1
GS57	02D1435-001	06/03/2002	REAL	COPPER	33.0	UG/L	TR1		0.25	V1
GS57	02D1435-001	06/03/2002	REAL	IRON	8130	UG/L	TR1		4.50	V1
GS57	02D1435-001	06/03/2002	REAL	LEAD	12.3	UG/L	TR1		0.60	V1
GS57	02D1435-001	06/03/2002	REAL	LITHIUM	11.7	UG/L	TR1	B	0.05	J1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS57	02D1435-001	06/03/2002	REAL	MAGNESIUM	3730	UG/L	TR1	B	1.90	V1
GS57	02D1435-001	06/03/2002	REAL	MANGANESE	163	UG/L	TR1		0.05	V1
GS57	02D1435-001	06/03/2002	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	R1
GS57	02D1435-001	06/03/2002	REAL	MOLYBDENUM	2.50	UG/L	TR1	B	0.55	V1
GS57	02D1435-001	06/03/2002	REAL	NICKEL	9.10	UG/L	TR1	B	0.40	V1
GS57	02D1435-001	06/03/2002	REAL	POTASSIUM	9380	UG/L	TR1		7.00	J1
GS57	02D1435-001	06/03/2002	REAL	SELENIUM	1.00	UG/L	TR1	U	1.00	J1
GS57	02D1435-001	06/03/2002	REAL	SILVER	0.40	UG/L	TR1	B	0.28	V1
GS57	02D1435-001	06/03/2002	REAL	SODIUM	58400	UG/L	TR1		4.80	V1
GS57	02D1435-001	06/03/2002	REAL	STRONTIUM	65.7	UG/L	TR1	B	0.02	V1
GS57	02D1435-001	06/03/2002	REAL	THALLIUM	1.60	UG/L	TR1	U	1.60	V1
GS57	02D1435-001	06/03/2002	REAL	TIN	1.20	UG/L	TR1	U	1.20	V1
GS57	02D1435-001	06/03/2002	REAL	URANIUM, TOTAL	3.20	UG/L	TR1	U	3.20	V1
GS57	02D1435-001	06/03/2002	REAL	VANADIUM	19.2	UG/L	TR1	B	0.28	V1
GS57	02D1435-001	06/03/2002	REAL	ZINC	481	UG/L	TR1		0.12	J1
GS57	02D1503-006	08/06/2002	DUP	ALUMINUM	7960	UG/L	TR1		3.00	V
GS57	02D1503-003	08/06/2002	REAL	ALUMINUM	7880	UG/L	TR1		3.00	V
GS57	02D1503-006	08/06/2002	DUP	ANTIMONY	2.60	UG/L	TR1	B	0.88	V
GS57	02D1503-003	08/06/2002	REAL	ANTIMONY	2.50	UG/L	TR1	B	0.88	V
GS57	02D1503-006	08/06/2002	DUP	ARSENIC	5.90	UG/L	TR1		0.82	V
GS57	02D1503-003	08/06/2002	REAL	ARSENIC	5.90	UG/L	TR1		0.82	V
GS57	02D1503-006	08/06/2002	DUP	BARIUM	62.6	UG/L	TR1	B	0.05	V
GS57	02D1503-003	08/06/2002	REAL	BARIUM	61.8	UG/L	TR1	B	0.05	V
GS57	02D1503-006	08/06/2002	DUP	BERYLLIUM	0.41	UG/L	TR1	B	0.02	V
GS57	02D1503-003	08/06/2002	REAL	BERYLLIUM	0.41	UG/L	TR1	B	0.02	V
GS57	02D1503-006	08/06/2002	DUP	CADMIUM	0.40	UG/L	TR1	B	0.08	V
GS57	02D1503-003	08/06/2002	REAL	CADMIUM	0.40	UG/L	TR1	B	0.08	V
GS57	02D1503-006	08/06/2002	DUP	CALCIUM	10500	UG/L	TR1		2.90	V
GS57	02D1503-003	08/06/2002	REAL	CALCIUM	10400	UG/L	TR1		2.90	V
GS57	02D1503-006	08/06/2002	DUP	CHROMIUM	11.4	UG/L	TR1		0.25	V
GS57	02D1503-003	08/06/2002	REAL	CHROMIUM	11.0	UG/L	TR1		0.25	V
GS57	02D1503-006	08/06/2002	DUP	COBALT	2.60	UG/L	TR1	B	0.35	V
GS57	02D1503-003	08/06/2002	REAL	COBALT	2.60	UG/L	TR1	B	0.35	V
GS57	02D1503-006	08/06/2002	DUP	COPPER	23.0	UG/L	TR1		0.25	V
GS57	02D1503-003	08/06/2002	REAL	COPPER	22.8	UG/L	TR1		0.25	V

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS57	02D1503-006	08/06/2002	DUP	IRON	7410	UG/L	TR1		4.50	V
GS57	02D1503-003	08/06/2002	REAL	IRON	7370	UG/L	TR1		4.50	V
GS57	02D1503-006	08/06/2002	DUP	LEAD	9.30	UG/L	TR1		0.60	J
GS57	02D1503-003	08/06/2002	REAL	LEAD	9.10	UG/L	TR1		0.60	J
GS57	02D1503-006	08/06/2002	DUP	LITHIUM	8.30	UG/L	TR1	B	0.05	J
GS57	02D1503-003	08/06/2002	REAL	LITHIUM	8.20	UG/L	TR1	B	0.05	J
GS57	02D1503-006	08/06/2002	DUP	MAGNESIUM	2960	UG/L	TR1	B	1.90	V
GS57	02D1503-003	08/06/2002	REAL	MAGNESIUM	2950	UG/L	TR1	B	1.90	V
GS57	02D1503-006	08/06/2002	DUP	MANGANESE	145	UG/L	TR1		0.05	V
GS57	02D1503-003	08/06/2002	REAL	MANGANESE	144	UG/L	TR1		0.05	V
GS57	02D1503-006	08/06/2002	DUP	MERCURY	0.10	UG/L	TR1	U	0.10	UJ
GS57	02D1503-003	08/06/2002	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	UJ
GS57	02D1503-006	08/06/2002	DUP	MOLYBDENUM	3.30	UG/L	TR1	B	0.55	V
GS57	02D1503-003	08/06/2002	REAL	MOLYBDENUM	3.20	UG/L	TR1	B	0.55	V
GS57	02D1503-006	08/06/2002	DUP	NICKEL	7.70	UG/L	TR1	B	0.40	V
GS57	02D1503-003	08/06/2002	REAL	NICKEL	7.90	UG/L	TR1	B	0.40	V
GS57	02D1503-006	08/06/2002	DUP	POTASSIUM	7240	UG/L	TR1		7.00	V
GS57	02D1503-003	08/06/2002	REAL	POTASSIUM	7320	UG/L	TR1		7.00	V
GS57	02D1503-006	08/06/2002	DUP	SELENIUM	1.00	UG/L	TR1	U	1.00	V
GS57	02D1503-003	08/06/2002	REAL	SELENIUM	1.10	UG/L	TR1	B	1.00	V
GS57	02D1503-006	08/06/2002	DUP	SILVER	0.28	UG/L	TR1	U	0.28	V
GS57	02D1503-003	08/06/2002	REAL	SILVER	0.28	UG/L	TR1	U	0.28	V
GS57	02D1503-006	08/06/2002	DUP	SODIUM	34300	UG/L	TR1		28.60	V
GS57	02D1503-003	08/06/2002	REAL	SODIUM	34500	UG/L	TR1		28.60	V
GS57	02D1503-006	08/06/2002	DUP	STRONTIUM	54.6	UG/L	TR1	B	0.02	V
GS57	02D1503-003	08/06/2002	REAL	STRONTIUM	54.1	UG/L	TR1	B	0.02	V
GS57	02D1503-006	08/06/2002	DUP	THALLIUM	1.60	UG/L	TR1	U	1.60	V
GS57	02D1503-003	08/06/2002	REAL	THALLIUM	1.60	UG/L	TR1	U	1.60	V
GS57	02D1503-006	08/06/2002	DUP	TIN	1.20	UG/L	TR1	U	1.20	V
GS57	02D1503-003	08/06/2002	REAL	TIN	1.20	UG/L	TR1	U	1.20	V
GS57	02D1503-006	08/06/2002	DUP	URANIUM, TOTAL	3.20	UG/L	TR1	U	3.20	V
GS57	02D1503-003	08/06/2002	REAL	URANIUM, TOTAL	3.20	UG/L	TR1	U	3.20	V
GS57	02D1503-006	08/06/2002	DUP	VANADIUM	17.9	UG/L	TR1	B	0.28	V
GS57	02D1503-003	08/06/2002	REAL	VANADIUM	17.7	UG/L	TR1	B	0.28	V
GS57	02D1503-006	08/06/2002	DUP	ZINC	270	UG/L	TR1		0.12	V

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS57	02D1503-003	08/06/2002	REAL	ZINC	270	UG/L	TR1		0.12	V
GS57	02D1516-003	09/10/2002	REAL	ALUMINUM	9580	UG/L	TR1		3.00	V
GS57	02D1516-003	09/10/2002	REAL	ANTIMONY	1.50	UG/L	TR1	B	0.88	V
GS57	02D1516-003	09/10/2002	REAL	ARSENIC	5.00	UG/L	TR1	B	0.82	V
GS57	02D1516-003	09/10/2002	REAL	BARIUM	61.4	UG/L	TR1	B	0.05	V
GS57	02D1516-003	09/10/2002	REAL	BERYLLIUM	0.36	UG/L	TR1	B	0.02	V
GS57	02D1516-003	09/10/2002	REAL	CADMIUM	0.38	UG/L	TR1	B	0.08	V
GS57	02D1516-003	09/10/2002	REAL	CALCIUM	11400	UG/L	TR1		2.90	V
GS57	02D1516-003	09/10/2002	REAL	CHROMIUM	12.6	UG/L	TR1		0.25	V
GS57	02D1516-003	09/10/2002	REAL	COBALT	2.40	UG/L	TR1	B	0.35	V
GS57	02D1516-003	09/10/2002	REAL	COPPER	21.5	UG/L	TR1		0.25	V
GS57	02D1516-003	09/10/2002	REAL	IRON	7970	UG/L	TR1		4.50	V
GS57	02D1516-003	09/10/2002	REAL	LEAD	9.10	UG/L	TR1		0.60	V
GS57	02D1516-003	09/10/2002	REAL	LITHIUM	9.20	UG/L	TR1	B	0.05	V
GS57	02D1516-003	09/10/2002	REAL	MAGNESIUM	3010	UG/L	TR1	B	1.90	V
GS57	02D1516-003	09/10/2002	REAL	MANGANESE	120	UG/L	TR1		0.05	V
GS57	02D1516-003	09/10/2002	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V
GS57	02D1516-003	09/10/2002	REAL	MOLYBDENUM	3.00	UG/L	TR1	B	0.55	V
GS57	02D1516-003	09/10/2002	REAL	NICKEL	8.20	UG/L	TR1	B	0.40	V
GS57	02D1516-003	09/10/2002	REAL	POTASSIUM	5240	UG/L	TR1		7.00	V
GS57	02D1516-003	09/10/2002	REAL	SELENIUM	1.00	UG/L	TR1	U	1.00	V
GS57	02D1516-003	09/10/2002	REAL	SILVER	0.53	UG/L	TR1	B	0.28	V
GS57	02D1516-003	09/10/2002	REAL	SODIUM	34900	UG/L	TR1		28.60	V
GS57	02D1516-003	09/10/2002	REAL	STRONTIUM	55.9	UG/L	TR1	B	0.02	V
GS57	02D1516-003	09/10/2002	REAL	THALLIUM	1.60	UG/L	TR1	U	1.60	V
GS57	02D1516-003	09/10/2002	REAL	TIN	1.20	UG/L	TR1	U	1.20	V
GS57	02D1516-003	09/10/2002	REAL	URANIUM, TOTAL	3.20	UG/L	TR1	U	3.20	J
GS57	02D1516-003	09/10/2002	REAL	VANADIUM	19.3	UG/L	TR1	B	0.28	V
GS57	02D1516-003	09/10/2002	REAL	ZINC	280	UG/L	TR1		0.12	V
GS57	03D0020-008	09/26/2002	REAL	ALUMINUM	3120	UG/L	TR1		4.00	J1
GS57	03D0020-008	09/26/2002	REAL	ANTIMONY	1.20	UG/L	TR1	B	0.88	V1
GS57	03D0020-008	09/26/2002	REAL	ARSENIC	2.40	UG/L	TR1	B	0.82	V1
GS57	03D0020-008	09/26/2002	REAL	BARIUM	28.3	UG/L	TR1	B	0.05	V1
GS57	03D0020-008	09/26/2002	REAL	BERYLLIUM	0.07	UG/L	TR1	B	0.02	J1
GS57	03D0020-008	09/26/2002	REAL	CADMIUM	0.29	UG/L	TR1	B	0.08	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS57	03D0020-008	09/26/2002	REAL	CALCIUM	6990	UG/L	TR1		2.90	V1
GS57	03D0020-008	09/26/2002	REAL	CHROMIUM	4.90	UG/L	TR1		0.25	V1
GS57	03D0020-008	09/26/2002	REAL	COBALT	0.81	UG/L	TR1	B	0.35	V1
GS57	03D0020-008	09/26/2002	REAL	COPPER	10.3	UG/L	TR1		0.25	V1
GS57	03D0020-008	09/26/2002	REAL	IRON	2500	UG/L	TR1		4.50	V1
GS57	03D0020-008	09/26/2002	REAL	LEAD	2.90	UG/L	TR1		0.60	V1
GS57	03D0020-008	09/26/2002	REAL	LITHIUM	3.80	UG/L	TR1	B	0.05	J1
GS57	03D0020-008	09/26/2002	REAL	MAGNESIUM	1400	UG/L	TR1	B	1.90	V1
GS57	03D0020-008	09/26/2002	REAL	MANGANESE	40.6	UG/L	TR1		0.05	V1
GS57	03D0020-008	09/26/2002	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V1
GS57	03D0020-008	09/26/2002	REAL	MOLYBDENUM	1.90	UG/L	TR1	B	0.55	V1
GS57	03D0020-008	09/26/2002	REAL	NICKEL	3.30	UG/L	TR1	B	0.40	V1
GS57	03D0020-008	09/26/2002	REAL	POTASSIUM	2510	UG/L	TR1	B	7.00	J1
GS57	03D0020-008	09/26/2002	REAL	SELENIUM	1.00	UG/L	TR1	U	1.00	V1
GS57	03D0020-008	09/26/2002	REAL	SILVER	0.28	UG/L	TR1	U	0.28	J1
GS57	03D0020-008	09/26/2002	REAL	SODIUM	21200	UG/L	TR1		4.80	V1
GS57	03D0020-008	09/26/2002	REAL	STRONTIUM	32.0	UG/L	TR1	B	0.02	V1
GS57	03D0020-008	09/26/2002	REAL	THALLIUM	1.60	UG/L	TR1	U	1.60	V1
GS57	03D0020-008	09/26/2002	REAL	TIN	1.20	UG/L	TR1	U	1.20	V1
GS57	03D0020-008	09/26/2002	REAL	URANIUM, TOTAL	3.20	UG/L	TR1	U	3.20	V1
GS57	03D0020-008	09/26/2002	REAL	VANADIUM	7.40	UG/L	TR1	B	0.28	V1
GS57	03D0020-008	09/26/2002	REAL	ZINC	140	UG/L	TR1		0.12	V1
GS58	02D1030-001	03/19/2002	REAL	ALUMINUM	188	UG/L	TR1		5.00	V1
GS58	02D1030-001	03/19/2002	REAL	ANTIMONY	0.85	UG/L	TR1	B	0.48	V1
GS58	02D1030-001	03/19/2002	REAL	ARSENIC	0.75	UG/L	TR1	U	0.75	V1
GS58	02D1030-001	03/19/2002	REAL	BARIUM	82.0	UG/L	TR1	B	0.05	V1
GS58	02D1030-001	03/19/2002	REAL	BERYLLIUM	0.02	UG/L	TR1	U	0.02	J1
GS58	02D1030-001	03/19/2002	REAL	CADMIUM	0.13	UG/L	TR1	B	0.08	V1
GS58	02D1030-001	03/19/2002	REAL	CALCIUM	44000	UG/L	TR1		2.60	V1
GS58	02D1030-001	03/19/2002	REAL	CHROMIUM	6.80	UG/L	TR1		0.20	V1
GS58	02D1030-001	03/19/2002	REAL	COBALT	0.25	UG/L	TR1	B	0.15	V1
GS58	02D1030-001	03/19/2002	REAL	COPPER	4.80	UG/L	TR1		0.18	UJ1
GS58	02D1030-001	03/19/2002	REAL	IRON	183	UG/L	TR1		3.80	V1
GS58	02D1030-001	03/19/2002	REAL	LEAD	2.70	UG/L	TR1		0.55	V1
GS58	02D1030-001	03/19/2002	REAL	LITHIUM	12.5	UG/L	TR1	B	0.05	J1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS58	02D1030-001	03/19/2002	REAL	MAGNESIUM	16500	UG/L	TR1		2.30	V1
GS58	02D1030-001	03/19/2002	REAL	MANGANESE	17.2	UG/L	TR1		0.08	V1
GS58	02D1030-001	03/19/2002	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	J1
GS58	02D1030-001	03/19/2002	REAL	MOLYBDENUM	2.80	UG/L	TR1	B	0.28	V1
GS58	02D1030-001	03/19/2002	REAL	NICKEL	15.6	UG/L	TR1	B	0.30	V1
GS58	02D1030-001	03/19/2002	REAL	POTASSIUM	3430	UG/L	TR1	B	4.70	J1
GS58	02D1030-001	03/19/2002	REAL	SELENIUM	0.90	UG/L	TR1	U	0.90	V1
GS58	02D1030-001	03/19/2002	REAL	SILVER	0.18	UG/L	TR1	U	0.18	V1
GS58	02D1030-001	03/19/2002	REAL	SODIUM	52400	UG/L	TR1		8.80	V1
GS58	02D1030-001	03/19/2002	REAL	STRONTIUM	502	UG/L	TR1		0.02	V1
GS58	02D1030-001	03/19/2002	REAL	THALLIUM	1.40	UG/L	TR1	U	1.40	V1
GS58	02D1030-001	03/19/2002	REAL	TIN	0.82	UG/L	TR1	U	0.82	V1
GS58	02D1030-001	03/19/2002	REAL	TOTAL SUSPENDED SOLIDS	4.2	MG/L	TR1		1.90	V
GS58	02D1030-001	03/19/2002	REAL	URANIUM, TOTAL	3.30	UG/L	TR1	U	3.30	V1
GS58	02D1030-001	03/19/2002	REAL	VANADIUM	2.40	UG/L	TR1	B	0.18	V1
GS58	02D1030-001	03/19/2002	REAL	ZINC	76.7	UG/L	TR1		0.10	V1
GS58	02D1068-001	03/21/2002	REAL	ALUMINUM	69.1	UG/L	TR1		5.00	V
GS58	02D1068-001	03/21/2002	REAL	ANTIMONY	0.66	UG/L	TR1	B	0.48	V
GS58	02D1068-001	03/21/2002	REAL	ARSENIC	0.75	UG/L	TR1	U	0.75	V
GS58	02D1068-001	03/21/2002	REAL	BARIUM	99.5	UG/L	TR1	B	0.05	V
GS58	02D1068-001	03/21/2002	REAL	BERYLLIUM	0.07	UG/L	TR1	B	0.02	UJ
GS58	02D1068-001	03/21/2002	REAL	CADMIUM	0.08	UG/L	TR1	U	0.08	V
GS58	02D1068-001	03/21/2002	REAL	CALCIUM	53000	UG/L	TR1		2.60	V
GS58	02D1068-001	03/21/2002	REAL	CHROMIUM	2.90	UG/L	TR1		0.20	V
GS58	02D1068-001	03/21/2002	REAL	COBALT	0.15	UG/L	TR1	U	0.15	V
GS58	02D1068-001	03/21/2002	REAL	COPPER	2.60	UG/L	TR1	B	0.18	UJ
GS58	02D1068-001	03/21/2002	REAL	IRON	61.9	UG/L	TR1	B	3.80	V
GS58	02D1068-001	03/21/2002	REAL	LEAD	0.93	UG/L	TR1	B	0.55	V
GS58	02D1068-001	03/21/2002	REAL	LITHIUM	16.2	UG/L	TR1	B	0.05	J
GS58	02D1068-001	03/21/2002	REAL	MAGNESIUM	21400	UG/L	TR1		2.30	V
GS58	02D1068-001	03/21/2002	REAL	MANGANESE	5.60	UG/L	TR1	B	0.08	V
GS58	02D1068-001	03/21/2002	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V
GS58	02D1068-001	03/21/2002	REAL	MOLYBDENUM	3.30	UG/L	TR1	B	0.28	V
GS58	02D1068-001	03/21/2002	REAL	NICKEL	1.10	UG/L	TR1	B	0.30	V
GS58	02D1068-001	03/21/2002	REAL	POTASSIUM	4050	UG/L	TR1	B	4.70	J

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS58	02D1068-001	03/21/2002	REAL	SELENIUM	1.30	UG/L	TR1	B	0.90	V
GS58	02D1068-001	03/21/2002	REAL	SILVER	0.18	UG/L	TR1	U	0.18	V
GS58	02D1068-001	03/21/2002	REAL	SODIUM	62500	UG/L	TR1		8.80	V
GS58	02D1068-001	03/21/2002	REAL	STRONTIUM	623	UG/L	TR1		0.02	V
GS58	02D1068-001	03/21/2002	REAL	THALLIUM	1.40	UG/L	TR1	U	1.40	V
GS58	02D1068-001	03/21/2002	REAL	TIN	0.82	UG/L	TR1	U	0.82	V
GS58	02D1068-001	03/21/2002	REAL	TOTAL SUSPENDED SOLIDS	4.0	MG/L	TR1	U	1.90	J1
GS58	02D1068-001	03/21/2002	REAL	URANIUM, TOTAL	4.00	UG/L	TR1	B	3.30	V
GS58	02D1068-001	03/21/2002	REAL	VANADIUM	2.40	UG/L	TR1	B	0.18	V
GS58	02D1068-001	03/21/2002	REAL	ZINC	57.1	UG/L	TR1		0.10	V
GS58	02D1148-004	04/06/2002	REAL	ALUMINUM	47.4	UG/L	TR1		5.00	V1
GS58	02D1148-004	04/06/2002	REAL	ANTIMONY	0.99	UG/L	TR1	B	0.48	V1
GS58	02D1148-004	04/06/2002	REAL	ARSENIC	0.75	UG/L	TR1	U	0.75	V1
GS58	02D1148-004	04/06/2002	REAL	BARIUM	161	UG/L	TR1		0.05	V1
GS58	02D1148-004	04/06/2002	REAL	BERYLLIUM	0.08	UG/L	TR1	B	0.02	V1
GS58	02D1148-004	04/06/2002	REAL	CADMIUM	0.17	UG/L	TR1	B	0.08	V1
GS58	02D1148-004	04/06/2002	REAL	CALCIUM	69000	UG/L	TR1		2.60	V1
GS58	02D1148-004	04/06/2002	REAL	CHROMIUM	4.00	UG/L	TR1		0.20	V1
GS58	02D1148-004	04/06/2002	REAL	COBALT	0.17	UG/L	TR1	B	0.15	V1
GS58	02D1148-004	04/06/2002	REAL	COPPER	2.70	UG/L	TR1	B	0.18	V1
GS58	02D1148-004	04/06/2002	REAL	IRON	79.7	UG/L	TR1	B	3.80	J1
GS58	02D1148-004	04/06/2002	REAL	LEAD	1.30	UG/L	TR1	B	0.55	V1
GS58	02D1148-004	04/06/2002	REAL	LITHIUM	24.8	UG/L	TR1	B	0.05	V1
GS58	02D1148-004	04/06/2002	REAL	MAGNESIUM	39100	UG/L	TR1		2.30	V1
GS58	02D1148-004	04/06/2002	REAL	MANGANESE	5.30	UG/L	TR1	B	0.08	V1
GS58	02D1148-004	04/06/2002	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V1
GS58	02D1148-004	04/06/2002	REAL	MOLYBDENUM	3.90	UG/L	TR1	B	0.28	V1
GS58	02D1148-004	04/06/2002	REAL	NICKEL	1.20	UG/L	TR1	B	0.30	J1
GS58	02D1148-004	04/06/2002	REAL	POTASSIUM	2980	UG/L	TR1	B	4.70	J1
GS58	02D1148-004	04/06/2002	REAL	SELENIUM	1.60	UG/L	TR1	B	0.90	V1
GS58	02D1148-004	04/06/2002	REAL	SILVER	0.18	UG/L	TR1	U	0.18	V1
GS58	02D1148-004	04/06/2002	REAL	SODIUM	84800	UG/L	TR1		88.20	V1
GS58	02D1148-004	04/06/2002	REAL	STRONTIUM	960	UG/L	TR1		0.02	V1
GS58	02D1148-004	04/06/2002	REAL	THALLIUM	1.40	UG/L	TR1	U	1.40	V1
GS58	02D1148-004	04/06/2002	REAL	TIN	0.82	UG/L	TR1	U	0.82	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS58	02D1148-004	04/06/2002	REAL	TOTAL SUSPENDED SOLIDS	4.0	MG/L	TR1	U	1.90	V1
GS58	02D1148-004	04/06/2002	REAL	URANIUM, TOTAL	5.60	UG/L	TR1	B	3.30	V1
GS58	02D1148-004	04/06/2002	REAL	VANADIUM	3.20	UG/L	TR1	B	0.18	V1
GS58	02D1148-004	04/06/2002	REAL	ZINC	130	UG/L	TR1		0.10	V1
GS58	02D1197-001	04/24/2002	REAL	ALUMINUM	36.7	UG/L	TR1		2.00	V
GS58	02D1197-001	04/24/2002	REAL	ANTIMONY	0.81	UG/L	TR1	B	0.55	V
GS58	02D1197-001	04/24/2002	REAL	ARSENIC	0.74	UG/L	TR1	B	0.62	V
GS58	02D1197-001	04/24/2002	REAL	BARIUM	169	UG/L	TR1		0.02	V
GS58	02D1197-001	04/24/2002	REAL	BERYLLIUM	0.02	UG/L	TR1	U	0.02	V
GS58	02D1197-001	04/24/2002	REAL	CADMIUM	0.22	UG/L	TR1	B	0.08	V
GS58	02D1197-001	04/24/2002	REAL	CALCIUM	80900	UG/L	TR1		25.50	V
GS58	02D1197-001	04/24/2002	REAL	CHROMIUM	0.33	UG/L	TR1	B	0.12	J
GS58	02D1197-001	04/24/2002	REAL	COBALT	0.18	UG/L	TR1	U	0.18	V
GS58	02D1197-001	04/24/2002	REAL	COPPER	4.90	UG/L	TR1		0.08	V
GS58	02D1197-001	04/24/2002	REAL	IRON	30.4	UG/L	TR1	B	3.60	V
GS58	02D1197-001	04/24/2002	REAL	LEAD	1.20	UG/L	TR1	B	0.42	UJ
GS58	02D1197-001	04/24/2002	REAL	LITHIUM	27.5	UG/L	TR1	B	0.02	J
GS58	02D1197-001	04/24/2002	REAL	MAGNESIUM	38500	UG/L	TR1		1.40	J
GS58	02D1197-001	04/24/2002	REAL	MANGANESE	5.60	UG/L	TR1	B	0.02	V
GS58	02D1197-001	04/24/2002	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V
GS58	02D1197-001	04/24/2002	REAL	MOLYBDENUM	3.60	UG/L	TR1	B	0.28	V
GS58	02D1197-001	04/24/2002	REAL	NICKEL	1.20	UG/L	TR1	B	0.22	UJ
GS58	02D1197-001	04/24/2002	REAL	POTASSIUM	2720	UG/L	TR1	B	391.00	V
GS58	02D1197-001	04/24/2002	REAL	SELENIUM	2.10	UG/L	TR1	B	0.88	V
GS58	02D1197-001	04/24/2002	REAL	SILVER	0.12	UG/L	TR1	U	0.12	V
GS58	02D1197-001	04/24/2002	REAL	SODIUM	88400	UG/L	TR1		25.50	V
GS58	02D1197-001	04/24/2002	REAL	STRONTIUM	979	UG/L	TR1		0.02	V
GS58	02D1197-001	04/24/2002	REAL	THALLIUM	0.78	UG/L	TR1	U	0.78	V
GS58	02D1197-001	04/24/2002	REAL	TIN	0.78	UG/L	TR1	U	0.78	V
GS58	02D1197-001	04/24/2002	REAL	TOTAL SUSPENDED SOLIDS	4.0	MG/L	TR1	U	1.90	V1
GS58	02D1197-001	04/24/2002	REAL	URANIUM, TOTAL	5.90	UG/L	TR1	B	2.80	V
GS58	02D1197-001	04/24/2002	REAL	VANADIUM	3.00	UG/L	TR1	B	0.18	V
GS58	02D1197-001	04/24/2002	REAL	ZINC	163	UG/L	TR1		0.10	V
GS58	02D1221-008	05/04/2002	REAL	ALUMINUM	54.4	UG/L	TR1		2.00	V
GS58	02D1221-008	05/04/2002	REAL	ANTIMONY	0.55	UG/L	TR1	U	0.55	J

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS58	02D1221-008	05/04/2002	REAL	ARSENIC	0.93	UG/L	TR1	B	0.62	V
GS58	02D1221-008	05/04/2002	REAL	BARIUM	127	UG/L	TR1		0.02	V
GS58	02D1221-008	05/04/2002	REAL	BERYLLIUM	0.03	UG/L	TR1	B	0.02	UJ
GS58	02D1221-008	05/04/2002	REAL	CADMIUM	0.16	UG/L	TR1	B	0.08	J
GS58	02D1221-008	05/04/2002	REAL	CALCIUM	50300	UG/L	TR1		9.20	J
GS58	02D1221-008	05/04/2002	REAL	CHROMIUM	0.57	UG/L	TR1	B	0.12	V
GS58	02D1221-008	05/04/2002	REAL	COBALT	0.18	UG/L	TR1	U	0.18	V
GS58	02D1221-008	05/04/2002	REAL	COPPER	5.20	UG/L	TR1		0.08	V
GS58	02D1221-008	05/04/2002	REAL	IRON	37.8	UG/L	TR1	B	3.60	V
GS58	02D1221-008	05/04/2002	REAL	LEAD	1.70	UG/L	TR1	B	0.42	UJ
GS58	02D1221-008	05/04/2002	REAL	LITHIUM	17.1	UG/L	TR1	B	0.02	J
GS58	02D1221-008	05/04/2002	REAL	MAGNESIUM	24400	UG/L	TR1		1.40	J
GS58	02D1221-008	05/04/2002	REAL	MANGANESE	2.90	UG/L	TR1	B	0.02	V
GS58	02D1221-008	05/04/2002	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V
GS58	02D1221-008	05/04/2002	REAL	MOLYBDENUM	2.70	UG/L	TR1	B	0.28	V
GS58	02D1221-008	05/04/2002	REAL	NICKEL	0.62	UG/L	TR1	B	0.22	UJ
GS58	02D1221-008	05/04/2002	REAL	POTASSIUM	1140	UG/L	TR1	B	782.00	J
GS58	02D1221-008	05/04/2002	REAL	SELENIUM	1.70	UG/L	TR1	B	0.88	V
GS58	02D1221-008	05/04/2002	REAL	SILVER	0.12	UG/L	TR1	U	0.12	V
GS58	02D1221-008	05/04/2002	REAL	SODIUM	56200	UG/L	TR1		51.00	V
GS58	02D1221-008	05/04/2002	REAL	STRONTIUM	614	UG/L	TR1		0.02	V
GS58	02D1221-008	05/04/2002	REAL	THALLIUM	0.78	UG/L	TR1	U	0.78	J
GS58	02D1221-008	05/04/2002	REAL	TIN	0.78	UG/L	TR1	U	0.78	J
GS58	02D1221-008	05/04/2002	REAL	URANIUM, TOTAL	3.30	UG/L	TR1	B	2.80	V
GS58	02D1221-008	05/04/2002	REAL	VANADIUM	2.30	UG/L	TR1	B	0.18	V
GS58	02D1221-008	05/04/2002	REAL	ZINC	110	UG/L	TR1		1.70	V
GS58	02D1240-003	05/16/2002	REAL	ALUMINUM	45.8	UG/L	TR1		2.00	V
GS58	02D1240-003	05/16/2002	REAL	ANTIMONY	0.55	UG/L	TR1	U	0.55	J
GS58	02D1240-003	05/16/2002	REAL	ARSENIC	1.10	UG/L	TR1	B	0.62	V
GS58	02D1240-003	05/16/2002	REAL	BARIUM	132	UG/L	TR1		0.02	V
GS58	02D1240-003	05/16/2002	REAL	BERYLLIUM	0.04	UG/L	TR1	B	0.02	UJ
GS58	02D1240-003	05/16/2002	REAL	CADMIUM	0.08	UG/L	TR1	U	0.08	J
GS58	02D1240-003	05/16/2002	REAL	CALCIUM	62800	UG/L	TR1		9.20	V
GS58	02D1240-003	05/16/2002	REAL	CHROMIUM	0.56	UG/L	TR1	B	0.12	UJ
GS58	02D1240-003	05/16/2002	REAL	COBALT	0.18	UG/L	TR1	U	0.18	V

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS58	02D1240-003	05/16/2002	REAL	COPPER	3.30	UG/L	TR1		0.08	V
GS58	02D1240-003	05/16/2002	REAL	IRON	33.3	UG/L	TR1	B	3.60	V
GS58	02D1240-003	05/16/2002	REAL	LEAD	0.65	UG/L	TR1	B	0.42	UJ
GS58	02D1240-003	05/16/2002	REAL	LITHIUM	18.1	UG/L	TR1	B	0.02	J
GS58	02D1240-003	05/16/2002	REAL	MAGNESIUM	22500	UG/L	TR1		1.40	V
GS58	02D1240-003	05/16/2002	REAL	MANGANESE	4.10	UG/L	TR1	B	0.02	V
GS58	02D1240-003	05/16/2002	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V
GS58	02D1240-003	05/16/2002	REAL	MOLYBDENUM	3.90	UG/L	TR1	B	0.28	V
GS58	02D1240-003	05/16/2002	REAL	NICKEL	0.71	UG/L	TR1	B	0.22	UJ
GS58	02D1240-003	05/16/2002	REAL	POTASSIUM	3260	UG/L	TR1	B	782.00	V
GS58	02D1240-003	05/16/2002	REAL	SELENIUM	2.00	UG/L	TR1	B	0.88	V
GS58	02D1240-003	05/16/2002	REAL	SILVER	0.12	UG/L	TR1	U	0.12	V
GS58	02D1240-003	05/16/2002	REAL	SODIUM	79900	UG/L	TR1		51.00	V
GS58	02D1240-003	05/16/2002	REAL	STRONTIUM	672	UG/L	TR1		0.02	V
GS58	02D1240-003	05/16/2002	REAL	THALLIUM	0.78	UG/L	TR1	U	0.78	J
GS58	02D1240-003	05/16/2002	REAL	TIN	0.78	UG/L	TR1	U	0.78	J
GS58	02D1240-003	05/16/2002	REAL	TOTAL SUSPENDED SOLIDS	4.0	MG/L	TR1	U	1.80	V1
GS58	02D1240-003	05/16/2002	REAL	URANIUM, TOTAL	5.30	UG/L	TR1	B	2.80	V
GS58	02D1240-003	05/16/2002	REAL	VANADIUM	2.50	UG/L	TR1	B	0.18	V
GS58	02D1240-003	05/16/2002	REAL	ZINC	73.4	UG/L	TR1		0.10	V
GS58	02D1262-005	05/23/2002	REAL	ALUMINUM	14900	UG/L	TR1		2.00	V1
GS58	02D1262-005	05/23/2002	REAL	ANTIMONY	1.70	UG/L	TR1	B	0.55	UJ1
GS58	02D1262-005	05/23/2002	REAL	ARSENIC	3.40	UG/L	TR1	B	0.62	V1
GS58	02D1262-005	05/23/2002	REAL	BARIUM	144	UG/L	TR1	B	0.02	V1
GS58	02D1262-005	05/23/2002	REAL	BERYLLIUM	0.72	UG/L	TR1	B	0.02	V1
GS58	02D1262-005	05/23/2002	REAL	CADMIUM	0.08	UG/L	TR1	U	0.08	J1
GS58	02D1262-005	05/23/2002	REAL	CALCIUM	20700	UG/L	TR1		9.20	J1
GS58	02D1262-005	05/23/2002	REAL	CHROMIUM	15.3	UG/L	TR1		0.12	V1
GS58	02D1262-005	05/23/2002	REAL	COBALT	6.00	UG/L	TR1	B	0.18	V1
GS58	02D1262-005	05/23/2002	REAL	COPPER	17.3	UG/L	TR1		0.08	J1
GS58	02D1262-005	05/23/2002	REAL	IRON	11000	UG/L	TR1		3.60	V1
GS58	02D1262-005	05/23/2002	REAL	LEAD	13.9	UG/L	TR1		0.42	V1
GS58	02D1262-005	05/23/2002	REAL	LITHIUM	11.8	UG/L	TR1	B	0.02	V1
GS58	02D1262-005	05/23/2002	REAL	MAGNESIUM	3690	UG/L	TR1	B	1.40	J1
GS58	02D1262-005	05/23/2002	REAL	MANGANESE	158	UG/L	TR1		0.02	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
GS58	02D1262-005	05/23/2002	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V1
GS58	02D1262-005	05/23/2002	REAL	MOLYBDENUM	1.20	UG/L	TR1	B	0.28	V1
GS58	02D1262-005	05/23/2002	REAL	NICKEL	10.3	UG/L	TR1	B	0.22	V1
GS58	02D1262-005	05/23/2002	REAL	POTASSIUM	3620	UG/L	TR1	B	5.10	J1
GS58	02D1262-005	05/23/2002	REAL	SELENIUM	1.10	UG/L	TR1	B	0.88	V1
GS58	02D1262-005	05/23/2002	REAL	SILVER	0.12	UG/L	TR1	U	0.12	J1
GS58	02D1262-005	05/23/2002	REAL	SODIUM	6020	UG/L	TR1		5.10	V1
GS58	02D1262-005	05/23/2002	REAL	STRONTIUM	81.8	UG/L	TR1	B	0.02	V1
GS58	02D1262-005	05/23/2002	REAL	THALLIUM	0.78	UG/L	TR1	U	0.78	J1
GS58	02D1262-005	05/23/2002	REAL	TIN	0.78	UG/L	TR1	U	0.78	V1
GS58	02D1262-005	05/23/2002	REAL	URANIUM, TOTAL	2.80	UG/L	TR1	U	2.80	V1
GS58	02D1262-005	05/23/2002	REAL	VANADIUM	34.3	UG/L	TR1	B	0.18	V1
GS58	02D1262-005	05/23/2002	REAL	ZINC	147	UG/L	TR1		0.10	V1
SW022	02D1262-008	05/24/2002	REAL	ALUMINUM	3670	UG/L	TR1		2.00	V1
SW022	02D1262-008	05/24/2002	REAL	ANTIMONY	20.5	UG/L	TR1		0.55	V1
SW022	02D1262-008	05/24/2002	REAL	ARSENIC	2.80	UG/L	TR1	B	0.62	V1
SW022	02D1262-008	05/24/2002	REAL	BARIUM	398	UG/L	TR1		0.02	V1
SW022	02D1262-008	05/24/2002	REAL	BERYLLIUM	0.28	UG/L	TR1	B	0.02	UJ1
SW022	02D1262-008	05/24/2002	REAL	CADMIUM	0.98	UG/L	TR1	B	0.08	V1
SW022	02D1262-008	05/24/2002	REAL	CALCIUM	107000	UG/L	TR1		9.20	J1
SW022	02D1262-008	05/24/2002	REAL	CHROMIUM	4.70	UG/L	TR1		0.12	V1
SW022	02D1262-008	05/24/2002	REAL	COBALT	1.60	UG/L	TR1	B	0.18	V1
SW022	02D1262-008	05/24/2002	REAL	COPPER	11.4	UG/L	TR1		0.08	J1
SW022	02D1262-008	05/24/2002	REAL	IRON	10300	UG/L	TR1		3.60	V1
SW022	02D1262-008	05/24/2002	REAL	LEAD	6.10	UG/L	TR1		0.42	V1
SW022	02D1262-008	05/24/2002	REAL	LITHIUM	21.7	UG/L	TR1	B	0.02	V1
SW022	02D1262-008	05/24/2002	REAL	MAGNESIUM	28000	UG/L	TR1		1.40	J1
SW022	02D1262-008	05/24/2002	REAL	MANGANESE	599	UG/L	TR1		0.02	V1
SW022	02D1262-008	05/24/2002	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	J1
SW022	02D1262-008	05/24/2002	REAL	MOLYBDENUM	2.10	UG/L	TR1	B	0.28	V1
SW022	02D1262-008	05/24/2002	REAL	NICKEL	4.00	UG/L	TR1	B	0.22	V1
SW022	02D1262-008	05/24/2002	REAL	POTASSIUM	10400	UG/L	TR1		5.10	J1
SW022	02D1262-008	05/24/2002	REAL	SELENIUM	0.88	UG/L	TR1	U	0.88	V1
SW022	02D1262-008	05/24/2002	REAL	SILVER	0.12	UG/L	TR1	U	0.12	J1
SW022	02D1262-008	05/24/2002	REAL	SODIUM	362000	UG/L	TR1		25.50	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
SW022	02D1262-008	05/24/2002	REAL	STRONTIUM	893	UG/L	TR1		0.02	V1
SW022	02D1262-008	05/24/2002	REAL	THALLIUM	0.78	UG/L	TR1	U	0.78	J1
SW022	02D1262-008	05/24/2002	REAL	TIN	1.10	UG/L	TR1	B	0.78	V1
SW022	02D1262-008	05/24/2002	REAL	TOTAL SUSPENDED SOLIDS	12.0	MG/L	TR1		1.80	V
SW022	02D1262-008	05/24/2002	REAL	URANIUM, TOTAL	2.80	UG/L	TR1	U	2.80	V1
SW022	02D1262-008	05/24/2002	REAL	VANADIUM	8.40	UG/L	TR1	B	0.18	V1
SW022	02D1262-008	05/24/2002	REAL	ZINC	454	UG/L	TR1		0.10	V1
SW022	03D0020-010	09/11/2002	REAL	ALUMINUM	7490	UG/L	TR1		4.00	J1
SW022	03D0020-010	09/11/2002	REAL	ANTIMONY	9.10	UG/L	TR1		0.88	V1
SW022	03D0020-010	09/11/2002	REAL	ARSENIC	3.00	UG/L	TR1	B	0.82	V1
SW022	03D0020-010	09/11/2002	REAL	BARIUM	61.9	UG/L	TR1	B	0.05	V1
SW022	03D0020-010	09/11/2002	REAL	BERYLLIUM	0.23	UG/L	TR1	B	0.02	J1
SW022	03D0020-010	09/11/2002	REAL	CADMIUM	0.27	UG/L	TR1	B	0.08	V1
SW022	03D0020-010	09/11/2002	REAL	CALCIUM	19600	UG/L	TR1		2.90	V1
SW022	03D0020-010	09/11/2002	REAL	CHROMIUM	9.30	UG/L	TR1		0.25	V1
SW022	03D0020-010	09/11/2002	REAL	COBALT	2.50	UG/L	TR1	B	0.35	V1
SW022	03D0020-010	09/11/2002	REAL	COPPER	14.4	UG/L	TR1		0.25	V1
SW022	03D0020-010	09/11/2002	REAL	IRON	6130	UG/L	TR1		4.50	V1
SW022	03D0020-010	09/11/2002	REAL	LEAD	8.00	UG/L	TR1		0.60	V1
SW022	03D0020-010	09/11/2002	REAL	LITHIUM	8.30	UG/L	TR1	B	0.05	J1
SW022	03D0020-010	09/11/2002	REAL	MAGNESIUM	3210	UG/L	TR1	B	1.90	V1
SW022	03D0020-010	09/11/2002	REAL	MANGANESE	95.2	UG/L	TR1		0.05	V1
SW022	03D0020-010	09/11/2002	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V1
SW022	03D0020-010	09/11/2002	REAL	MOLYBDENUM	1.50	UG/L	TR1	B	0.55	V1
SW022	03D0020-010	09/11/2002	REAL	NICKEL	6.20	UG/L	TR1	B	0.40	V1
SW022	03D0020-010	09/11/2002	REAL	POTASSIUM	3730	UG/L	TR1	B	7.00	J1
SW022	03D0020-010	09/11/2002	REAL	SELENIUM	1.00	UG/L	TR1	U	1.00	V1
SW022	03D0020-010	09/11/2002	REAL	SILVER	0.28	UG/L	TR1	U	0.28	J1
SW022	03D0020-010	09/11/2002	REAL	SODIUM	24600	UG/L	TR1		4.80	V1
SW022	03D0020-010	09/11/2002	REAL	STRONTIUM	90.5	UG/L	TR1	B	0.02	V1
SW022	03D0020-010	09/11/2002	REAL	THALLIUM	1.60	UG/L	TR1	U	1.60	V1
SW022	03D0020-010	09/11/2002	REAL	TIN	1.20	UG/L	TR1	U	1.20	V1
SW022	03D0020-010	09/11/2002	REAL	URANIUM, TOTAL	3.90	UG/L	TR1	B	3.20	J1
SW022	03D0020-010	09/11/2002	REAL	VANADIUM	16.0	UG/L	TR1	B	0.28	V1
SW022	03D0020-010	09/11/2002	REAL	ZINC	109	UG/L	TR1		0.12	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
SW027	02D1254-015	05/12/2002	REAL	BERYLLIUM	0.22	UG/L	TR1	B	0.02	UJ1
SW027	02D1254-015	05/12/2002	REAL	CADMIUM_D	0.08	UG/L	TR1	U	0.08	V1
SW027	02D1254-015	05/12/2002	REAL	CHROMIUM	4.30	UG/L	TR1		0.12	V1
SW027	02D1254-015	05/12/2002	REAL	HARDNESS, TOTAL	121	MG/L	TR1		2.00	V1
SW027	02D1254-015	05/12/2002	REAL	SILVER_D	0.12	UG/L	TR1	U	0.12	V1
SW027	02D1261-005	05/24/2002	REAL	BERYLLIUM	0.10	UG/L	TR1	U	0.10	V1
SW027	02D1261-005	05/24/2002	REAL	CADMIUM_D	0.08	UG/L	TR1	U	0.08	V1
SW027	02D1261-005	05/24/2002	REAL	CHROMIUM	1.70	UG/L	TR1	B	0.12	V1
SW027	02D1261-005	05/24/2002	REAL	HARDNESS, TOTAL	93.7	MG/L	TR1		2.00	V1
SW027	02D1261-005	05/24/2002	REAL	SILVER_D	0.12	UG/L	TR1	U	0.12	J1
SW027	02D1261-005	05/24/2002	REAL	TOTAL SUSPENDED SOLIDS	2.8	MG/L	TR1	B	1.80	V1
SW027	03D0024-004	05/28/2002	REAL	BERYLLIUM	0.02	UG/L	TR1	U	0.02	J
SW027	03D0024-004	05/28/2002	REAL	CADMIUM_D	0.10	UG/L	TR1	B	0.08	UJ
SW027	03D0024-004	05/28/2002	REAL	CHROMIUM	1.40	UG/L	TR1	B	0.25	V
SW027	03D0024-004	05/28/2002	REAL	HARDNESS, TOTAL	120	MG/L	TR1		2.00	V
SW027	03D0024-004	05/28/2002	REAL	SILVER_D	0.28	UG/L	TR1	B	0.28	V
SW055	02D1261-004	05/24/2002	REAL	ALUMINUM	2770	UG/L	TR1		2.00	V1
SW055	02D1261-004	05/24/2002	REAL	ANTIMONY	1.60	UG/L	TR1	B	0.55	UJ1
SW055	02D1261-004	05/24/2002	REAL	ARSENIC	1.30	UG/L	TR1	B	0.62	V1
SW055	02D1261-004	05/24/2002	REAL	BARIUM	43.5	UG/L	TR1	B	0.02	V1
SW055	02D1261-004	05/24/2002	REAL	BERYLLIUM	0.19	UG/L	TR1	B	0.02	UJ1
SW055	02D1261-004	05/24/2002	REAL	CADMIUM	0.08	UG/L	TR1	U	0.08	J1
SW055	02D1261-004	05/24/2002	REAL	CALCIUM	11400	UG/L	TR1		9.20	V1
SW055	02D1261-004	05/24/2002	REAL	CHROMIUM	3.00	UG/L	TR1		0.12	V1
SW055	02D1261-004	05/24/2002	REAL	COBALT	0.62	UG/L	TR1	B	0.18	V1
SW055	02D1261-004	05/24/2002	REAL	COPPER	5.80	UG/L	TR1		0.08	J1
SW055	02D1261-004	05/24/2002	REAL	IRON	1810	UG/L	TR1		3.60	V1
SW055	02D1261-004	05/24/2002	REAL	LEAD	1.60	UG/L	TR1	B	0.42	V1
SW055	02D1261-004	05/24/2002	REAL	LITHIUM	3.40	UG/L	TR1	B	0.02	V1
SW055	02D1261-004	05/24/2002	REAL	MAGNESIUM	2210	UG/L	TR1	B	1.40	V1
SW055	02D1261-004	05/24/2002	REAL	MANGANESE	15.4	UG/L	TR1		0.02	V1
SW055	02D1261-004	05/24/2002	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V1
SW055	02D1261-004	05/24/2002	REAL	MERCURY	0.10	UG/L	TR2	U	0.10	1
SW055	02D1261-004	05/24/2002	REAL	MOLYBDENUM	1.50	UG/L	TR1	B	0.28	V1
SW055	02D1261-004	05/24/2002	REAL	NICKEL	2.80	UG/L	TR1	B	0.22	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
SW055	02D1261-004	05/24/2002	REAL	POTASSIUM	6260	UG/L	TR1		5.10	J1
SW055	02D1261-004	05/24/2002	REAL	SELENIUM	0.88	UG/L	TR1	U	0.88	V1
SW055	02D1261-004	05/24/2002	REAL	SILVER	0.12	UG/L	TR1	U	0.12	J1
SW055	02D1261-004	05/24/2002	REAL	SODIUM	12200	UG/L	TR1		0.68	V1
SW055	02D1261-004	05/24/2002	REAL	STRONTIUM	53.8	UG/L	TR1	B	0.02	V1
SW055	02D1261-004	05/24/2002	REAL	THALLIUM	0.78	UG/L	TR1	U	0.78	J1
SW055	02D1261-004	05/24/2002	REAL	TIN	0.78	UG/L	TR1	U	0.78	V1
SW055	02D1254-004	05/24/2002	REAL	TOTAL SUSPENDED SOLIDS	11.2	MG/L	TR1		1.80	V1
SW055	02D1261-004	05/24/2002	REAL	TOTAL SUSPENDED SOLIDS	7.2	MG/L	TR1		1.80	V1
SW055	02D1261-004	05/24/2002	REAL	URANIUM, TOTAL	2.80	UG/L	TR1	U	2.80	V1
SW055	02D1261-004	05/24/2002	REAL	VANADIUM	7.20	UG/L	TR1	B	0.18	V1
SW055	02D1261-004	05/24/2002	REAL	ZINC	36.7	UG/L	TR1		0.10	V1
SW093	02D0177-001	10/01/2001	REAL	BERYLLIUM	0.09	UG/L	TR1	B	0.02	V
SW093	02D0177-001	10/01/2001	REAL	CADMIUM_D	0.08	UG/L	TR1	U	0.08	V
SW093	02D0177-001	10/01/2001	REAL	CHROMIUM	1.50	UG/L	TR1	B	0.15	V
SW093	02D0177-001	10/01/2001	REAL	HARDNESS, TOTAL	335	MG/L	TR1		2.00	V1
SW093	02D0177-001	10/01/2001	REAL	SILVER_D	0.15	UG/L	TR1	U	0.15	V
SW093	02D0265-002	10/19/2001	REAL	BERYLLIUM	0.07	UG/L	TR1	B	0.02	V1
SW093	02D0265-002	10/19/2001	REAL	CADMIUM_D	0.08	UG/L	TR1	U	0.08	V1
SW093	02D0265-002	10/19/2001	REAL	CHROMIUM	0.66	UG/L	TR1	B	0.15	V1
SW093	02D0265-002	10/19/2001	REAL	HARDNESS, TOTAL	401	MG/L	TR1		2.00	V1
SW093	02D0265-002	10/19/2001	REAL	SILVER_D	0.15	UG/L	TR1	U	0.15	V1
SW093	02D0299-001	11/02/2001	REAL	BERYLLIUM	0.06	UG/L	TR1	B	0.02	UJ
SW093	02D0299-001	11/02/2001	REAL	CADMIUM_D	0.09	UG/L	TR1	B	0.08	UJ
SW093	02D0299-001	11/02/2001	REAL	CHROMIUM	0.78	UG/L	TR1	B	0.15	J
SW093	02D0299-001	11/02/2001	REAL	HARDNESS, TOTAL	340	MG/L	TR1		2.00	J
SW093	02D0299-001	11/02/2001	REAL	SILVER_D	0.15	UG/L	TR1	U	0.15	J
SW093	02D0345-002	11/12/2001	REAL	BERYLLIUM	0.07	UG/L	TR1	B	0.02	UJ
SW093	02D0345-002	11/12/2001	REAL	CADMIUM_D	0.08	UG/L	TR1	U	0.08	V
SW093	02D0345-002	11/12/2001	REAL	CHROMIUM	0.78	UG/L	TR1	B	0.15	V
SW093	02D0345-002	11/12/2001	REAL	HARDNESS, TOTAL	367	MG/L	TR1		2.00	V1
SW093	02D0345-002	11/12/2001	REAL	SILVER_D	0.15	UG/L	TR1	U	0.15	J
SW093	02D0512-002	11/26/2001	REAL	BERYLLIUM	0.06	UG/L	TR1	B	0.02	UJ1
SW093	02D0512-002	11/26/2001	REAL	CADMIUM_D	0.09	UG/L	TR1	B	0.08	V1
SW093	02D0512-002	11/26/2001	REAL	CHROMIUM	1.00	UG/L	TR1	B	0.15	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
SW093	02D0512-002	11/26/2001	REAL	HARDNESS, TOTAL	671	MG/L	DL1		5.00	V1
SW093	02D0512-002	11/26/2001	REAL	SILVER_D	0.15	UG/L	TR1	U	0.15	V1
SW093	02D0645-001	12/17/2001	REAL	BERYLLIUM	0.10	UG/L	TR1	B	0.02	J1
SW093	02D0645-001	12/17/2001	REAL	CADMIUM_D	0.08	UG/L	TR1	U	0.08	V1
SW093	02D0645-001	12/17/2001	REAL	CHROMIUM	1.10	UG/L	TR1	B	0.20	V1
SW093	02D0645-001	12/17/2001	REAL	HARDNESS, TOTAL	376	MG/L	TR1		2.00	V1
SW093	02D0645-001	12/17/2001	REAL	SILVER_D	0.18	UG/L	TR1	U	0.18	V1
SW093	02D0724-001	01/09/2002	REAL	BERYLLIUM	0.09	UG/L	TR1	B	0.02	J
SW093	02D0724-001	01/09/2002	REAL	CADMIUM_D	0.08	UG/L	TR1	U	0.08	J
SW093	02D0724-001	01/09/2002	REAL	CHROMIUM	0.86	UG/L	TR1	B	0.20	UJ
SW093	02D0724-001	01/09/2002	REAL	HARDNESS, TOTAL	380	MG/L	TR1		2.00	V
SW093	02D0724-001	01/09/2002	REAL	SILVER_D	0.18	UG/L	TR1	U	0.18	V
SW093	02D0815-003	01/25/2002	REAL	BERYLLIUM	0.02	UG/L	TR1	U	0.02	J1
SW093	02D0815-003	01/25/2002	REAL	CADMIUM_D	0.11	UG/L	TR1	B	0.08	V1
SW093	02D0815-003	01/25/2002	REAL	CHROMIUM	0.20	UG/L	TR1	U	0.20	J1
SW093	02D0815-003	01/25/2002	REAL	HARDNESS, TOTAL	325	MG/L	TR1		2.00	V
SW093	02D0815-003	01/25/2002	REAL	SILVER_D	0.18	UG/L	TR1	U	0.18	V1
SW093	02D0918-001	02/11/2002	REAL	BERYLLIUM	0.19	UG/L	TR1	B	0.02	UJ1
SW093	02D0918-001	02/11/2002	REAL	CADMIUM_D	0.08	UG/L	TR1	U	0.08	V1
SW093	02D0918-001	02/11/2002	REAL	CHROMIUM	0.53	UG/L	TR1	B	0.20	UJ1
SW093	02D0918-001	02/11/2002	REAL	HARDNESS, TOTAL	371	MG/L	TR1		2.00	V1
SW093	02D0918-001	02/11/2002	REAL	SILVER_D	0.18	UG/L	TR1	U	0.18	V1
SW093	02D0935-001	02/22/2002	REAL	BERYLLIUM	0.23	UG/L	TR1	B	0.02	UJ1
SW093	02D0935-001	02/22/2002	REAL	CADMIUM_D	0.23	UG/L	TR1	B	0.08	V1
SW093	02D0935-001	02/22/2002	REAL	CHROMIUM	1.40	UG/L	TR1	B	0.20	UJ1
SW093	02D0935-001	02/22/2002	REAL	HARDNESS, TOTAL	394	MG/L	TR1		2.00	V1
SW093	02D0935-001	02/22/2002	REAL	SILVER_D	0.18	UG/L	TR1	U	0.18	V1
SW093	02D0965-007	03/06/2002	REAL	BERYLLIUM	0.14	UG/L	TR1	B	0.02	UJ1
SW093	02D0965-007	03/06/2002	REAL	CADMIUM_D	0.18	UG/L	TR1	B	0.08	J1
SW093	02D0965-007	03/06/2002	REAL	CHROMIUM	0.42	UG/L	TR1	B	0.20	UJ1
SW093	02D0965-007	03/06/2002	REAL	HARDNESS, TOTAL	455	MG/L	DL1		5.00	V1
SW093	02D0965-007	03/06/2002	REAL	SILVER_D	0.18	UG/L	TR1	U	0.18	V1
SW093	02D1060-003	03/14/2002	REAL	BERYLLIUM	0.15	UG/L	TR1	B	0.02	UJ1
SW093	02D1060-003	03/14/2002	REAL	CADMIUM_D	0.14	UG/L	TR1	B	0.08	V1
SW093	02D1060-003	03/14/2002	REAL	CHROMIUM	2.30	UG/L	TR1		0.20	UJ1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
SW093	02D1060-003	03/14/2002	REAL	HARDNESS, TOTAL	499	MG/L	TR1		2.00	V1
SW093	02D1060-003	03/14/2002	REAL	SILVER_D	0.18	UG/L	TR1	U	0.18	V1
SW093	02D1148-002	03/27/2002	REAL	BERYLLIUM	0.06	UG/L	TR1	B	0.02	UJ1
SW093	02D1148-002	03/27/2002	REAL	CADMIUM_D	0.08	UG/L	TR1	U	0.08	V1
SW093	02D1148-002	03/27/2002	REAL	CHROMIUM	0.67	UG/L	TR1	B	0.20	UJ1
SW093	02D1148-002	03/27/2002	REAL	HARDNESS, TOTAL	417	MG/L	TR1		2.00	V1
SW093	02D1148-002	03/27/2002	REAL	SILVER_D	0.18	UG/L	TR1	U	0.18	V1
SW093	02D1221-001	04/08/2002	REAL	BERYLLIUM	0.07	UG/L	TR1	B	0.02	UJ
SW093	02D1221-001	04/08/2002	REAL	CADMIUM_D	0.08	UG/L	TR1	U	0.08	V
SW093	02D1221-001	04/08/2002	REAL	CHROMIUM	1.30	UG/L	TR1	B	0.12	V
SW093	02D1221-001	04/08/2002	REAL	HARDNESS, TOTAL	508	MG/L	TR1		2.00	V1
SW093	02D1221-001	04/08/2002	REAL	SILVER_D	0.12	UG/L	TR1	U	0.12	V
SW093	02D1233-004	05/06/2002	REAL	BERYLLIUM	0.37	UG/L	TR1	B	0.02	UJ1
SW093	02D1233-004	05/06/2002	REAL	CADMIUM_D	0.10	UG/L	TR1	B	0.08	V1
SW093	02D1233-004	05/06/2002	REAL	CHROMIUM	7.70	UG/L	TR1	B	0.12	V1
SW093	02D1233-004	05/06/2002	REAL	HARDNESS, TOTAL	350	MG/L	TR1		2.00	V1
SW093	02D1233-004	05/06/2002	REAL	SILVER_D	0.12	UG/L	TR1	U	0.12	V1
SW093	02D1254-014	05/17/2002	REAL	BERYLLIUM	0.78	UG/L	TR1	B	0.02	V1
SW093	02D1254-014	05/17/2002	REAL	CADMIUM_D	0.08	UG/L	TR1	U	0.08	V1
SW093	02D1254-014	05/17/2002	REAL	CHROMIUM	16.8	UG/L	TR1		0.12	V1
SW093	02D1254-014	05/17/2002	REAL	HARDNESS, TOTAL	179	MG/L	TR1		2.00	V1
SW093	02D1254-014	05/17/2002	REAL	SILVER_D	0.12	UG/L	TR1	U	0.12	V1
SW093	02D1261-002	05/24/2002	REAL	BERYLLIUM	0.10	UG/L	TR1	U	0.10	V1
SW093	02D1261-002	05/24/2002	REAL	CADMIUM_D	0.11	UG/L	TR1	B	0.08	V1
SW093	02D1261-002	05/24/2002	REAL	CHROMIUM	2.00	UG/L	TR1		0.12	V1
SW093	02D1261-002	05/24/2002	REAL	HARDNESS, TOTAL	260	MG/L	TR1		2.00	V1
SW093	02D1261-002	05/24/2002	REAL	SILVER_D	0.12	UG/L	TR1	U	0.12	J1
SW093	02D1261-002	05/24/2002	REAL	TOTAL SUSPENDED SOLIDS	15.6	MG/L	TR1		1.80	V1
SW093	02D1303-001	05/28/2002	REAL	BERYLLIUM	0.08	UG/L	TR1	B	0.02	UJ1
SW093	02D1303-001	05/28/2002	REAL	CADMIUM_D	0.08	UG/L	TR1	U	0.08	V1
SW093	02D1303-001	05/28/2002	REAL	CHROMIUM	1.90	UG/L	TR1	B	0.12	V1
SW093	02D1303-001	05/28/2002	REAL	HARDNESS, TOTAL	404	MG/L	TR1		2.00	V1
SW093	02D1303-001	05/28/2002	REAL	SILVER_D	0.12	UG/L	TR1	U	0.12	V1
SW093	02D1362-001	06/05/2002	REAL	BERYLLIUM	0.14	UG/L	TR1	B	0.02	UJ1
SW093	02D1362-001	06/05/2002	REAL	CADMIUM_D	0.08	UG/L	TR1	U	0.08	J1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
SW093	02D1362-001	06/05/2002	REAL	CHROMIUM	3.30	UG/L	TR1		0.12	V1
SW093	02D1362-001	06/05/2002	REAL	HARDNESS, TOTAL	465	MG/L	TR1		2.00	V1
SW093	02D1362-001	06/05/2002	REAL	SILVER_D	0.12	UG/L	TR1	U	0.12	V1
SW093	02D1393-003	06/24/2002	REAL	BERYLLIUM	0.14	UG/L	TR1	B	0.02	UJ
SW093	02D1393-003	06/24/2002	REAL	CADMIUM_D	0.08	UG/L	TR1	U	0.08	V
SW093	02D1393-003	06/24/2002	REAL	CHROMIUM	0.48	UG/L	TR1	B	0.12	UJ
SW093	02D1393-003	06/24/2002	REAL	HARDNESS, TOTAL	520	MG/L	TR1		2.00	V1
SW093	02D1393-003	06/24/2002	REAL	SILVER_D	0.12	UG/L	TR1	U	0.12	J
SW093	02D1431-001	07/17/2002	REAL	BERYLLIUM	0.16	UG/L	TR1	B	0.02	UJ1
SW093	02D1431-001	07/17/2002	REAL	CADMIUM_D	0.08	UG/L	TR1	U	0.08	J1
SW093	02D1431-001	07/17/2002	REAL	CHROMIUM	0.45	UG/L	TR1	B	0.12	UJ1
SW093	02D1431-001	07/17/2002	REAL	HARDNESS, TOTAL	530	MG/L	TR1		2.00	V1
SW093	02D1431-001	07/17/2002	REAL	SILVER_D	0.12	UG/L	TR1	U	0.12	J1
SW093	02D1433-002	08/01/2002	REAL	BERYLLIUM	2.10	UG/L	TR1		0.02	V1
SW093	02D1433-002	08/01/2002	REAL	CADMIUM_D	0.08	UG/L	TR1	U	0.08	V1
SW093	02D1433-002	08/01/2002	REAL	CHROMIUM	34.9	UG/L	TR1		0.25	V1
SW093	02D1433-002	08/01/2002	REAL	HARDNESS, TOTAL	200	MG/L	TR1		2.00	V1
SW093	02D1433-002	08/01/2002	REAL	SILVER_D	0.28	UG/L	TR1	U	0.28	V1
SW093	02D1433-002	08/01/2002	REAL	TOTAL SUSPENDED SOLIDS	1000	MG/L	DL1		9.00	V1
SW093	02D1469-002	08/06/2002	REAL	BERYLLIUM	0.17	UG/L	TR1	B	0.02	V1
SW093	02D1469-002	08/06/2002	REAL	CADMIUM_D	0.08	UG/L	TR1	U	0.08	V1
SW093	02D1469-002	08/06/2002	REAL	CHROMIUM	4.80	UG/L	TR1		0.25	V1
SW093	02D1469-002	08/06/2002	REAL	HARDNESS, TOTAL	500	MG/L	TR1		2.00	V1
SW093	02D1469-002	08/06/2002	REAL	SILVER_D	0.28	UG/L	TR1	U	0.28	V1
SW093	02D1503-001	08/23/2002	REAL	BERYLLIUM	0.39	UG/L	TR1	B	0.02	V
SW093	02D1503-004	08/23/2002	DUP	BERYLLIUM	0.41	UG/L	TR1	B	0.02	V
SW093	02D1503-001	08/23/2002	REAL	CADMIUM_D	0.08	UG/L	TR1	U	0.08	V
SW093	02D1503-004	08/23/2002	DUP	CADMIUM_D	0.08	UG/L	TR1	U	0.08	V
SW093	02D1503-001	08/23/2002	REAL	CHROMIUM	11.1	UG/L	TR1		0.25	V
SW093	02D1503-004	08/23/2002	DUP	CHROMIUM	10.9	UG/L	TR1		0.25	V
SW093	02D1503-001	08/23/2002	REAL	HARDNESS, TOTAL	220	MG/L	TR1		2.00	V1
SW093	02D1503-004	08/23/2002	DUP	HARDNESS, TOTAL	210	MG/L	TR1		2.00	V1
SW093	02D1503-001	08/23/2002	REAL	SILVER_D	0.28	UG/L	TR1	U	0.28	V
SW093	02D1503-004	08/23/2002	DUP	SILVER_D	0.28	UG/L	TR1	U	0.28	V
SW093	02D1516-002	09/10/2002	REAL	BERYLLIUM	0.26	UG/L	TR1	B	0.02	

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
SW093	02D1516-002	09/10/2002	REAL	CADMIUM_D	0.08	UG/L	TR1	U	0.08	
SW093	02D1516-002	09/10/2002	REAL	CHROMIUM	7.40	UG/L	TR1		0.25	
SW093	02D1516-002	09/10/2002	REAL	HARDNESS, TOTAL	240	MG/L	TR1		2.00	V1
SW093	02D1516-002	09/10/2002	REAL	SILVER_D	0.28	UG/L	TR1	U	0.28	
SW093	03D0020-006	09/16/2002	REAL	BERYLLIUM	0.11	UG/L	TR1	B	0.02	J1
SW093	03D0020-006	09/16/2002	REAL	CADMIUM_D	0.08	UG/L	TR1	B	0.08	V1
SW093	03D0020-006	09/16/2002	REAL	CHROMIUM	4.80	UG/L	TR1		0.25	V1
SW093	03D0020-006	09/16/2002	REAL	HARDNESS, TOTAL	270	MG/L	TR1		2.00	V1
SW093	03D0020-006	09/16/2002	REAL	SILVER_D	0.28	UG/L	TR1	U	0.28	J1
SW119	03D0024-003	09/13/2002	REAL	ALUMINUM	2070	UG/L	TR1		4	V
SW119	03D0024-003	09/13/2002	REAL	ANTIMONY	0.98	UG/L	TR1	B	0.88	V
SW119	03D0024-003	09/13/2002	REAL	ARSENIC	1.6	UG/L	TR1	B	.82	V
SW119	03D0024-003	09/13/2002	REAL	BARIUM	65.1	UG/L	TR1	B	0.05	V
SW119	03D0024-003	09/13/2002	REAL	BERYLLIUM	0.06	UG/L	TR1	B	0.02	J
SW119	03D0024-003	09/13/2002	REAL	CADMIUM	0.19	UG/L	TR1	B	0.08	UJ
SW119	03D0024-003	09/13/2002	REAL	CALCIUM	21100	UG/L	TR1		3.80	V
SW119	03D0024-003	09/13/2002	REAL	CHROMIUM	2.50	UG/L	TR1		0.25	V
SW119	03D0024-003	09/13/2002	REAL	COBALT	0.94	UG/L	TR1	B	0.35	V
SW119	03D0024-003	09/13/2002	REAL	COPPER	7.10	UG/L	TR1		0.25	J
SW119	03D0024-003	09/13/2002	REAL	IRON	1590	UG/L	TR1		4.50	V
SW119	03D0024-003	09/13/2002	REAL	LEAD	1.60	UG/L	TR1	B	0.60	V
SW119	03D0024-003	09/13/2002	REAL	LITHIUM	21.4	UG/L	TR1	B	0.05	J
SW119	03D0024-003	09/13/2002	REAL	MAGNESIUM	4620	UG/L	TR1	B	1.90	V
SW119	03D0024-003	09/13/2002	REAL	MANGANESE	27.6	UG/L	TR1		0.05	V
SW119	03D0024-003	09/13/2002	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	UJ
SW119	03D0024-003	09/13/2002	REAL	MOLYBDENUM	1.40	UG/L	TR1	B	0.55	V
SW119	03D0024-003	09/13/2002	REAL	NICKEL	2.80	UG/L	TR1	B	0.40	V
SW119	03D0024-003	09/13/2002	REAL	POTASSIUM	7110	UG/L	TR1		7.00	J
SW119	03D0024-003	09/13/2002	REAL	SELENIUM	1.00	UG/L	TR1	U	1.00	J
SW119	03D0024-003	09/13/2002	REAL	SILVER	0.28	UG/L	TR1	U	0.28	V
SW119	03D0024-003	09/13/2002	REAL	SODIUM	77400	UG/L	TR1		4.80	V
SW119	03D0024-003	09/13/2002	REAL	STRONTIUM	145	UG/L	TR1	B	0.02	V
SW119	03D0024-003	09/13/2002	REAL	THALLIUM	1.60	UG/L	TR1	U	1.60	V
SW119	03D0024-003	09/13/2002	REAL	TIN	1.20	UG/L	TR1	U	1.20	V
SW119	03D0024-003	09/13/2002	REAL	URANIUM, TOTAL	3.20	UG/L	TR1	U	3.20	V

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
SW119	03D0024-003	09/13/2002	REAL	VANADIUM	5.80	UG/L	TR1	B	0.28	V
SW119	03D0024-003	09/13/2002	REAL	ZINC	91.2	UG/L	TR1		0.12	V
SW120	02D0965-003	03/05/2002	REAL	ALUMINUM	114	UG/L	TR1		6.30	V1
SW120	02D0965-003	03/05/2002	REAL	ANTIMONY	0.97	UG/L	TR1	B	0.48	UJ1
SW120	02D0965-003	03/05/2002	REAL	ARSENIC	0.75	UG/L	TR1	U	0.75	V1
SW120	02D0965-003	03/05/2002	REAL	BARIUM	275	UG/L	TR1		0.05	V1
SW120	02D0965-003	03/05/2002	REAL	BERYLLIUM	0.12	UG/L	TR1	U	0.12	V1
SW120	02D0965-003	03/05/2002	REAL	CADMIUM	0.15	UG/L	TR1	B	0.08	J1
SW120	02D0965-003	03/05/2002	REAL	CALCIUM	125000	UG/L	TR1		44.20	V1
SW120	02D0965-003	03/05/2002	REAL	CHROMIUM	0.81	UG/L	TR1	B	0.20	V1
SW120	02D0965-003	03/05/2002	REAL	COBALT	0.26	UG/L	TR1	B	0.15	V1
SW120	02D0965-003	03/05/2002	REAL	COPPER	4.10	UG/L	TR1		0.18	J1
SW120	02D0965-003	03/05/2002	REAL	IRON	163	UG/L	TR1		3.80	V1
SW120	02D0965-003	03/05/2002	REAL	LEAD	0.55	UG/L	TR1	U	0.55	V1
SW120	02D0965-003	03/05/2002	REAL	LITHIUM	49.0	UG/L	TR1	B	0.05	J1
SW120	02D0965-003	03/05/2002	REAL	MAGNESIUM	22400	UG/L	TR1		2.30	J1
SW120	02D0965-003	03/05/2002	REAL	MANGANESE	179	UG/L	TR1		0.08	V1
SW120	02D0965-003	03/05/2002	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V1
SW120	02D0965-003	03/05/2002	REAL	MOLYBDENUM	1.20	UG/L	TR1	B	0.28	UJ1
SW120	02D0965-003	03/05/2002	REAL	NICKEL	1.50	UG/L	TR1	B	0.30	J1
SW120	02D0965-003	03/05/2002	REAL	POTASSIUM	18500	UG/L	TR1		82.60	V1
SW120	02D0965-003	03/05/2002	REAL	SELENIUM	0.90	UG/L	TR1	U	0.90	V1
SW120	02D0965-003	03/05/2002	REAL	SILVER	0.18	UG/L	TR1	U	0.18	V1
SW120	02D0965-003	03/05/2002	REAL	SODIUM	620000	UG/L	TR1		88.20	V1
SW120	02D0965-003	03/05/2002	REAL	STRONTIUM	711	UG/L	TR1		0.02	V1
SW120	02D0965-003	03/05/2002	REAL	THALLIUM	1.40	UG/L	TR1	U	1.40	J1
SW120	02D0965-003	03/05/2002	REAL	TIN	1.30	UG/L	TR1	B	0.82	UJ1
SW120	02D0965-003	03/05/2002	REAL	URANIUM, TOTAL	3.30	UG/L	TR1	U	3.30	V1
SW120	02D0965-003	03/05/2002	REAL	VANADIUM	0.62	UG/L	TR1	B	0.18	J1
SW120	02D0965-003	03/05/2002	REAL	ZINC	34.0	UG/L	TR1		0.10	V1
SW120	02D1254-012	04/21/2002	REAL	ALUMINUM	6090	UG/L	TR1		2.00	V1
SW120	02D1254-012	04/21/2002	REAL	ANTIMONY	1.10	UG/L	TR1	B	0.55	UJ1
SW120	02D1254-012	04/21/2002	REAL	ARSENIC	4.40	UG/L	TR1	B	0.62	V1
SW120	02D1254-012	04/21/2002	REAL	BARIUM	98.9	UG/L	TR1	B	0.02	V1
SW120	02D1254-012	04/21/2002	REAL	BERYLLIUM	0.30	UG/L	TR1	B	0.02	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
SW120	02D1254-012	04/21/2002	REAL	CADMIUM	0.15	UG/L	TR1	B	0.08	V1
SW120	02D1254-012	04/21/2002	REAL	CALCIUM	32800	UG/L	TR1		9.20	V1
SW120	02D1254-012	04/21/2002	REAL	CHROMIUM	8.10	UG/L	TR1		0.12	V1
SW120	02D1254-012	04/21/2002	REAL	COBALT	1.90	UG/L	TR1	B	0.18	V1
SW120	02D1254-012	04/21/2002	REAL	COPPER	13.1	UG/L	TR1		0.08	V1
SW120	02D1254-012	04/21/2002	REAL	IRON	5470	UG/L	TR1		3.60	V1
SW120	02D1254-012	04/21/2002	REAL	LEAD	6.30	UG/L	TR1		0.42	V1
SW120	02D1254-012	04/21/2002	REAL	LITHIUM	17.7	UG/L	TR1	B	0.02	J1
SW120	02D1254-012	04/21/2002	REAL	MAGNESIUM	7990	UG/L	TR1	B	1.40	V1
SW120	02D1254-012	04/21/2002	REAL	MANGANESE	96.3	UG/L	TR1		0.02	V1
SW120	02D1254-012	04/21/2002	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	UJ1
SW120	02D1254-012	04/21/2002	REAL	MOLYBDENUM	1.20	UG/L	TR1	B	0.28	UJ1
SW120	02D1254-012	04/21/2002	REAL	NICKEL	6.20	UG/L	TR1	B	0.22	V1
SW120	02D1254-012	04/21/2002	REAL	POTASSIUM	8310	UG/L	TR1	B	782.00	V1
SW120	02D1254-012	04/21/2002	REAL	SELENIUM	1.90	UG/L	TR1	B	0.88	V1
SW120	02D1254-012	04/21/2002	REAL	SILVER	0.25	UG/L	TR1	U	0.12	V1
SW120	02D1254-012	04/21/2002	REAL	SODIUM	135000	UG/L	TR1		51.00	V1
SW120	02D1254-012	04/21/2002	REAL	STRONTIUM	204	UG/L	TR1	B	0.02	V1
SW120	02D1254-012	04/21/2002	REAL	THALLIUM	1.60	UG/L	TR1	U	0.78	J1
SW120	02D1254-012	04/21/2002	REAL	TIN	1.60	UG/L	TR1	U	0.78	J1
SW120	02D1254-012	04/21/2002	REAL	URANIUM, TOTAL	5.60	UG/L	TR1	U	2.80	V1
SW120	02D1254-012	04/21/2002	REAL	VANADIUM	13.8	UG/L	TR1	B	0.18	V1
SW120	02D1254-012	04/21/2002	REAL	ZINC	135	UG/L	TR1		0.10	V1
SW120	02D1264-003	05/24/2002	REAL	ALUMINUM	2320	UG/L	TR1		2.00	V1
SW120	02D1264-003	05/24/2002	REAL	ANTIMONY	2.20	UG/L	TR1	B	0.55	UJ1
SW120	02D1264-003	05/24/2002	REAL	ARSENIC	2.10	UG/L	TR1	B	0.62	V1
SW120	02D1264-003	05/24/2002	REAL	BARIUM	82.8	UG/L	TR1	B	0.02	V1
SW120	02D1264-003	05/24/2002	REAL	BERYLLIUM	0.21	UG/L	TR1	B	0.02	UJ1
SW120	02D1264-003	05/24/2002	REAL	CADMIUM	0.08	UG/L	TR1	U	0.08	UJ1
SW120	02D1264-003	05/24/2002	REAL	CALCIUM	35500	UG/L	TR1		9.20	V1
SW120	02D1264-003	05/24/2002	REAL	CHROMIUM	3.60	UG/L	TR1		0.12	V1
SW120	02D1264-003	05/24/2002	REAL	COBALT	0.51	UG/L	TR1	B	0.18	V1
SW120	02D1264-003	05/24/2002	REAL	COPPER	7.00	UG/L	TR1		0.08	J1
SW120	02D1264-003	05/24/2002	REAL	IRON	1580	UG/L	TR1		3.60	V1
SW120	02D1264-003	05/24/2002	REAL	LEAD	1.80	UG/L	TR1	B	0.42	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
SW120	02D1264-003	05/24/2002	REAL	LITHIUM	14.0	UG/L	TR1	B	0.02	V1
SW120	02D1264-003	05/24/2002	REAL	MAGNESIUM	7050	UG/L	TR1		1.40	V1
SW120	02D1264-003	05/24/2002	REAL	MANGANESE	19.1	UG/L	TR1		0.02	V1
SW120	02D1264-003	05/24/2002	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V1
SW120	02D1264-003	05/24/2002	REAL	MOLYBDENUM	1.40	UG/L	TR1	B	0.28	V1
SW120	02D1264-003	05/24/2002	REAL	NICKEL	3.00	UG/L	TR1	B	0.22	V1
SW120	02D1264-003	05/24/2002	REAL	POTASSIUM	8650	UG/L	TR1		5.10	J1
SW120	02D1264-003	05/24/2002	REAL	SELENIUM	0.88	UG/L	TR1	U	0.88	V1
SW120	02D1264-003	05/24/2002	REAL	SILVER	0.12	UG/L	TR1	U	0.12	J1
SW120	02D1264-003	05/24/2002	REAL	SODIUM	111000	UG/L	TR1		25.50	V1
SW120	02D1264-003	05/24/2002	REAL	STRONTIUM	212	UG/L	TR1		0.02	V1
SW120	02D1264-003	05/24/2002	REAL	THALLIUM	0.78	UG/L	TR1	U	0.78	J1
SW120	02D1264-003	05/24/2002	REAL	TIN	0.78	UG/L	TR1	U	0.78	V1
SW120	02D1264-003	05/24/2002	REAL	URANIUM, TOTAL	2.80	UG/L	TR1	U	2.80	V1
SW120	02D1264-003	05/24/2002	REAL	VANADIUM	5.00	UG/L	TR1	B	0.18	V1
SW120	02D1264-003	05/24/2002	REAL	ZINC	133	UG/L	TR1		0.10	V1
SW120	03D0020-002	06/04/2002	REAL	ALUMINUM	4310	UG/L	TR1		4.00	J1
SW120	03D0020-002	06/04/2002	REAL	ANTIMONY	2.00	UG/L	TR1	B	0.88	V1
SW120	03D0020-002	06/04/2002	REAL	ARSENIC	4.20	UG/L	TR1	B	0.82	V1
SW120	03D0020-002	06/04/2002	REAL	BARIUM	82.1	UG/L	TR1	B	0.05	V1
SW120	03D0020-002	06/04/2002	REAL	BERYLLIUM	0.16	UG/L	TR1	B	0.02	J1
SW120	03D0020-002	06/04/2002	REAL	CADMIUM	0.23	UG/L	TR1	B	0.08	V1
SW120	03D0020-002	06/04/2002	REAL	CALCIUM	36400	UG/L	TR1		2.90	V1
SW120	03D0020-002	06/04/2002	REAL	CHROMIUM	7.70	UG/L	TR1		0.25	V1
SW120	03D0020-002	06/04/2002	REAL	COBALT	1.20	UG/L	TR1	B	0.35	V1
SW120	03D0020-002	06/04/2002	REAL	COPPER	13.1	UG/L	TR1		0.25	V1
SW120	03D0020-002	06/04/2002	REAL	IRON	3460	UG/L	TR1		4.50	V1
SW120	03D0020-002	06/04/2002	REAL	LEAD	3.10	UG/L	TR1		0.60	V1
SW120	03D0020-002	06/04/2002	REAL	LITHIUM	18.4	UG/L	TR1	B	0.05	J1
SW120	03D0020-002	06/04/2002	REAL	MAGNESIUM	7910	UG/L	TR1		1.90	V1
SW120	03D0020-002	06/04/2002	REAL	MANGANESE	52.7	UG/L	TR1		0.05	V1
SW120	03D0020-002	06/04/2002	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	R1
SW120	03D0020-002	06/04/2002	REAL	MOLYBDENUM	2.50	UG/L	TR1	B	0.55	V1
SW120	03D0020-002	06/04/2002	REAL	NICKEL	7.50	UG/L	TR1	B	0.40	V1
SW120	03D0020-002	06/04/2002	REAL	POTASSIUM	12800	UG/L	TR1		7.00	J1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
SW120	03D0020-002	06/04/2002	REAL	SELENIUM	1.00	UG/L	TR1	U	1.00	V1
SW120	03D0020-002	06/04/2002	REAL	SILVER	0.28	UG/L	TR1	U	0.28	J1
SW120	03D0020-002	06/04/2002	REAL	SODIUM	98400	UG/L	TR1		4.80	V1
SW120	03D0020-002	06/04/2002	REAL	STRONTIUM	215	UG/L	TR1		0.02	V1
SW120	03D0020-002	06/04/2002	REAL	THALLIUM	1.60	UG/L	TR1	U	1.60	V1
SW120	03D0020-002	06/04/2002	REAL	TIN	1.20	UG/L	TR1	U	1.20	V1
SW120	03D0020-002	06/04/2002	REAL	URANIUM, TOTAL	3.20	UG/L	TR1	U	3.20	V1
SW120	03D0020-002	06/04/2002	REAL	VANADIUM	10.4	UG/L	TR1	B	0.28	V1
SW120	03D0020-002	06/04/2002	REAL	ZINC	65.0	UG/L	TR1		0.12	V1
SW134	02D0265-001	10/31/2001	REAL	ALKALINITY, TOTAL AS CACO3	74.4	MG/L	TR1		0.50	J1
SW134	02D0265-001	10/31/2001	REAL	ALUMINUM	178	UG/L	TR1		5.50	J1
SW134	02D0265-001	10/31/2001	REAL	ANTIMONY	0.42	UG/L	TR1	U	0.42	V1
SW134	02D0265-001	10/31/2001	REAL	ARSENIC	0.80	UG/L	TR1	U	0.80	V1
SW134	02D0265-001	10/31/2001	REAL	BARIUM	70.6	UG/L	TR1	B	0.02	V1
SW134	02D0265-001	10/31/2001	REAL	BERYLLIUM	0.05	UG/L	TR1	B	0.02	V1
SW134	02D0265-001	10/31/2001	REAL	CADMIUM	0.08	UG/L	TR1	U	0.08	V1
SW134	02D0265-001	10/31/2001	REAL	CALCIUM	25200	UG/L	TR1		11.10	V1
SW134	02D0265-001	10/31/2001	REAL	CHLORIDE	11.8	MG/L	TR1		0.10	V1
SW134	02D0265-001	10/31/2001	REAL	CHROMIUM	2.60	UG/L	TR1		0.15	V1
SW134	02D0265-001	10/31/2001	REAL	COBALT	0.20	UG/L	TR1	U	0.20	V1
SW134	02D0265-001	10/31/2001	REAL	COPPER	2.40	UG/L	TR1	B	0.12	UJ1
SW134	02D0265-001	10/31/2001	REAL	FLUORIDE	0.52	MG/L	TR1		0.03	V1
SW134	02D0265-001	10/31/2001	REAL	HARDNESS, TOTAL	114	MG/L	TR1		2.00	V1
SW134	02D0265-001	10/31/2001	REAL	IRON	88.5	UG/L	TR1	B	4.30	V1
SW134	02D0265-001	10/31/2001	REAL	LEAD	1.20	UG/L	TR1	B	0.48	V1
SW134	02D0265-001	10/31/2001	REAL	LITHIUM	5.20	UG/L	TR1	B	0.02	J1
SW134	02D0265-001	10/31/2001	REAL	MAGNESIUM	6280	UG/L	TR1		1.00	V1
SW134	02D0265-001	10/31/2001	REAL	MANGANESE	5.20	UG/L	TR1	B	0.02	V1
SW134	02D0265-001	10/31/2001	REAL	MERCURY	0.10	UG/L	TR1		0.10	V1
SW134	02D0265-001	10/31/2001	REAL	MOLYBDENUM	1.10	UG/L	TR1	B	0.28	J1
SW134	02D0265-001	10/31/2001	REAL	NICKEL	5.50	UG/L	TR1	B	0.25	V1
SW134	02D0265-001	10/31/2001	REAL	POTASSIUM	1740	UG/L	TR1	B	94.40	V1
SW134	02D0265-001	10/31/2001	REAL	Remainder	100	%	TR1		1.0	V
SW134	02D0265-001	10/31/2001	REAL	SELENIUM	0.55	UG/L	TR1	U	0.55	J1
SW134	02D0265-001	10/31/2001	REAL	Sieve 1	1	%	TR1	U	1.0	V

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
SW134	02D0265-001	10/31/2001	REAL	Sieve 2	1	%	TR1	U	1.0	V
SW134	02D0265-001	10/31/2001	REAL	Sieve 3	1	%	TR1	U	1.0	V
SW134	02D0265-001	10/31/2001	REAL	Sieve 4	1	%	TR1	U	1.0	V
SW134	02D0265-001	10/31/2001	REAL	Sieve 5	1	%	TR1	U	1.0	V
SW134	02D0265-001	10/31/2001	REAL	Sieve 6	1	%	TR1	U	1.0	V
SW134	02D0265-001	10/31/2001	REAL	SILVER	0.15	UG/L	TR1	U	0.15	V1
SW134	02D0265-001	10/31/2001	REAL	SODIUM	15100	UG/L	TR1		8.80	V1
SW134	02D0265-001	10/31/2001	REAL	STRONTIUM	163	UG/L	TR1	B	0.02	V1
SW134	02D0265-001	10/31/2001	REAL	SULFATE	36.1	MG/L	TR1		0.10	V1
SW134	02D0265-001	10/31/2001	REAL	THALLIUM	0.70	UG/L	TR1	U	0.70	V1
SW134	02D0265-001	10/31/2001	REAL	TIN	0.60	UG/L	TR1	U	0.60	J1
SW134	02D0265-001	10/31/2001	REAL	TOTAL SUSPENDED SOLIDS	4.0	MG/L	TR1	U	1.90	V1
SW134	02D0265-001	10/31/2001	REAL	VANADIUM	1.60	UG/L	TR1	B	0.12	V1
SW134	02D0265-001	10/31/2001	REAL	ZINC	5.10	UG/L	TR1	B	0.08	V1
SW134	02D0664-001	01/14/2002	REAL	ALKALINITY, TOTAL AS CACO3	90.6	MG/L	TR1		0.50	V1
SW134	02D0664-001	01/14/2002	REAL	ALUMINUM	1170	UG/L	TR1		5.00	V
SW134	02D0664-001	01/14/2002	REAL	ANTIMONY	0.48	UG/L	TR1	U	0.48	V
SW134	02D0664-001	01/14/2002	REAL	ARSENIC	0.75	UG/L	TR1	U	0.75	V
SW134	02D0664-001	01/14/2002	REAL	BARIUM	79.1	UG/L	TR1	B	0.05	V
SW134	02D0664-001	01/14/2002	REAL	BERYLLIUM	0.02	UG/L	TR1	U	0.02	J
SW134	02D0664-001	01/14/2002	REAL	CADMIUM	0.08	UG/L	TR1	U	0.08	V
SW134	02D0664-001	01/14/2002	REAL	CALCIUM	29100	UG/L	TR1		22.10	J
SW134	02D0664-001	01/14/2002	REAL	CHLORIDE	11.9	MG/L	TR1		0.10	V1
SW134	02D0664-001	01/14/2002	REAL	CHROMIUM	6.50	UG/L	TR1		0.20	V
SW134	02D0664-001	01/14/2002	REAL	COBALT	0.29	UG/L	TR1	B	0.15	V
SW134	02D0664-001	01/14/2002	REAL	COPPER	2.60	UG/L	TR1	B	0.18	J
SW134	02D0664-001	01/14/2002	REAL	FLUORIDE	0.48	MG/L	TR1	B	0.03	V1
SW134	02D0664-001	01/14/2002	REAL	HARDNESS, TOTAL	122	MG/L	TR1		2.00	V1
SW134	02D0664-001	01/14/2002	REAL	IRON	729	UG/L	TR1		3.80	V
SW134	02D0664-001	01/14/2002	REAL	LEAD	0.81	UG/L	TR1	B	0.55	UJ
SW134	02D0664-001	01/14/2002	REAL	LITHIUM	5.60	UG/L	TR1	B	0.05	J
SW134	02D0664-001	01/14/2002	REAL	MAGNESIUM	6780	UG/L	TR1		2.30	J
SW134	02D0664-001	01/14/2002	REAL	MANGANESE	15.1	UG/L	TR1		0.08	V
SW134	02D0664-001	01/14/2002	REAL	MERCURY	0.10	UG/L	TR1	U	0.10	V
SW134	02D0664-001	01/14/2002	REAL	MOLYBDENUM	1.40	UG/L	TR1	B	0.28	V

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
SW134	02D0664-001	01/14/2002	REAL	NICKEL	3.70	UG/L	TR1	B	0.30	V
SW134	02D0664-001	01/14/2002	REAL	POTASSIUM	1610	UG/L	TR1	B	82.60	V
SW134	02D0664-001	01/14/2002	REAL	Remainder	100	%	TR1		1.0	V1
SW134	02D0664-001	01/14/2002	REAL	SELENIUM	0.90	UG/L	TR1	U	0.90	J
SW134	02D0664-001	01/14/2002	REAL	Sieve 1	1	%	TR1	U	1.0	V1
SW134	02D0664-001	01/14/2002	REAL	Sieve 2	1	%	TR1	U	1.0	V1
SW134	02D0664-001	01/14/2002	REAL	Sieve 3	1	%	TR1	U	1.0	V1
SW134	02D0664-001	01/14/2002	REAL	Sieve 4	1	%	TR1	U	1.0	V1
SW134	02D0664-001	01/14/2002	REAL	Sieve 5	1	%	TR1	U	1.0	V1
SW134	02D0664-001	01/14/2002	REAL	Sieve 6	1	%	TR1	U	1.0	V1
SW134	02D0664-001	01/14/2002	REAL	SILVER	0.18	UG/L	TR1	U	0.18	V
SW134	02D0664-001	01/14/2002	REAL	SODIUM	16400	UG/L	TR1	B	44.10	V
SW134	02D0664-001	01/14/2002	REAL	STRONTIUM	176	UG/L	TR1	B	0.02	V
SW134	02D0664-001	01/14/2002	REAL	SULFATE	38.2	MG/L	TR1		0.10	V1
SW134	02D0664-001	01/14/2002	REAL	THALLIUM	2.10	UG/L	TR1	B	1.40	V
SW134	02D0664-001	01/14/2002	REAL	TIN	0.82	UG/L	TR1	U	0.82	J
SW134	02D0664-001	01/14/2002	REAL	TOTAL SUSPENDED SOLIDS	18.0	MG/L	TR1		1.90	V1
SW134	02D0664-001	01/14/2002	REAL	VANADIUM	3.50	UG/L	TR1	B	0.18	V
SW134	02D0664-001	01/14/2002	REAL	ZINC	6.50	UG/L	TR1	B	0.82	J
SW134	02D1187-001	04/22/2002	REAL	ALKALINITY, TOTAL AS CACO3	84.1	MG/L	TR1		1.50	V1
SW134	02D1187-001	04/22/2002	REAL	ALUMINUM	1600	UG/L	TR1		8.90	V1
SW134	02D1187-001	04/22/2002	REAL	ANTIMONY	2.10	UG/L	TR1	U	2.10	V1
SW134	02D1187-001	04/22/2002	REAL	ARSENIC	2.00	UG/L	TR1	U	2.00	V1
SW134	02D1187-001	04/22/2002	REAL	BARIUM	106	UG/L	TR1		0.26	V1
SW134	02D1187-001	04/22/2002	REAL	BERYLLIUM	0.25	UG/L	TR1	U	0.25	V1
SW134	02D1187-001	04/22/2002	REAL	CADMIUM	0.18	UG/L	TR1	U	0.18	V1
SW134	02D1187-001	04/22/2002	REAL	CALCIUM	31100	UG/L	TR1		45.00	V1
SW134	02D1187-001	04/22/2002	REAL	CHLORIDE	11.3	MG/L	TR1		0.20	V1
SW134	02D1187-001	04/22/2002	REAL	CHROMIUM	2.90	UG/L	TR1		0.26	V1
SW134	02D1187-001	04/22/2002	REAL	COBALT	1.70	UG/L	TR1	U	1.70	V1
SW134	02D1187-001	04/22/2002	REAL	COPPER	3.40	UG/L	TR1		0.88	V1
SW134	02D1187-001	04/22/2002	REAL	FLUORIDE	0.47	MG/L	TR1	B	0.12	V1
SW134	02D1187-001	04/22/2002	REAL	HARDNESS, TOTAL	111	MG/L	TR1		2.00	V1
SW134	02D1187-001	04/22/2002	REAL	IRON	869	UG/L	TR1		16.00	V1
SW134	02D1187-001	04/22/2002	REAL	LEAD	1.70	UG/L	TR1	B	0.98	J1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation
SW134	02D1187-001	04/22/2002	REAL	LITHIUM	4.50	UG/L	TR1	B	4.10	V1
SW134	02D1187-001	04/22/2002	REAL	MAGNESIUM	6660	UG/L	TR1		36.00	V1
SW134	02D1187-001	04/22/2002	REAL	MANGANESE	40.6	UG/L	TR1		0.20	V1
SW134	02D1187-001	04/22/2002	REAL	MERCURY	0.04	UG/L	TR1	B	0.01	V1
SW134	02D1187-001	04/22/2002	REAL	MOLYBDENUM	1.80	UG/L	TR1	B	0.66	V1
SW134	02D1187-001	04/22/2002	REAL	NICKEL	2.50	UG/L	TR1	B	2.20	V1
SW134	02D1187-001	04/22/2002	REAL	POTASSIUM	1570	UG/L	TR1	B	700.00	V1
SW134	02D1187-001	04/22/2002	REAL	Remainder	88	%	TR1		1.0	
SW134	02D1187-001	04/22/2002	REAL	SELENIUM	2.00	UG/L	TR1	U	2.00	J1
SW134	02D1187-001	04/22/2002	REAL	Sieve 1	1	%	TR1	U	1.0	
SW134	02D1187-001	04/22/2002	REAL	Sieve 2	1	%	TR1	U	1.0	
SW134	02D1187-001	04/22/2002	REAL	Sieve 3	1	%	TR1	U	1.0	
SW134	02D1187-001	04/22/2002	REAL	Sieve 4	1	%	TR1	U	1.0	
SW134	02D1187-001	04/22/2002	REAL	Sieve 5	1	%	TR1	U	1.0	
SW134	02D1187-001	04/22/2002	REAL	Sieve 6	12	%	TR1		1.0	
SW134	02D1187-001	04/22/2002	REAL	SILVER	0.33	UG/L	TR1	U	0.33	V1
SW134	02D1187-001	04/22/2002	REAL	SODIUM	17500	UG/L	TR1		3500.00	V1
SW134	02D1187-001	04/22/2002	REAL	STRONTIUM	189	UG/L	TR1	B	0.08	V1
SW134	02D1187-001	04/22/2002	REAL	SULFATE	34.0	MG/L	TR1		0.60	V1
SW134	02D1187-001	04/22/2002	REAL	THALLIUM	2.20	UG/L	TR1	U	2.20	J1
SW134	02D1187-001	04/22/2002	REAL	TIN	1.40	UG/L	TR1	U	1.40	J1
SW134	02D1187-001	04/22/2002	REAL	TOTAL SUSPENDED SOLIDS	35.4	MG/L	TR1		1.90	V1
SW134	02D1187-001	04/22/2002	REAL	URANIUM, TOTAL	28.0	UG/L	TR1	U	28.00	V1
SW134	02D1187-001	04/22/2002	REAL	VANADIUM	6.20	UG/L	TR1	B	1.50	V1
SW134	02D1187-001	04/22/2002	REAL	ZINC	13.1	UG/L	TR1	B	0.55	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation

Abbreviations
DL1 = Dilution
TR1 = First analytical run
TR2 = Second analytical run, implies dilution (also DL1, DIL)
MG/L = Milligrams per liter
UG/L = Micrograms per liter (or µg/L)
[*analyte*]_D = dissolved fraction
% = percent retained

Lab Qualifiers (note analyte group)
B = Detected concentration less than contract required detection limit (CRDL) but above instrument detection limit (IDL) (metals & other inorganics)
B = Analyte present in both sample and method blank (MB) (organics)
U = Target analyte not detected (all analytes)

Validation/Verification Qualifiers*
(list in order from highest confidence to lowest)
V/V1 = Valid
J/J1 = Estimated
U = Not detected at/above method detect limit
UJ/UJ1 = Estimated at an elevated level of detection
R/R1 = Rejected
1 = Unvalidated/Unverified member of TR1-TR2 pair. Other pair member should be Validated/Verified.

*Validation is a more thorough review of laboratory package than verification.

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	Validation

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B.2.3 Equipment Rinsate Blanks

Table B-3. Rinsate Blank Analytical Data: WY02.

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	2 Sigma Error	Validation
995POE	02D0825-003	02/18/2002	RNS	AMERICIUM-241	0.001	PCI/L	TR1	U	0.018	0.011	V
995POE	02D0825-003	02/18/2002	RNS	PLUTONIUM-239/240	-0.001	PCI/L	TR1	U	0.046	0.001	V
995POE	02D0825-003	02/18/2002	RNS	TRITIUM	-101	PCI/L	TR1	U	294	152	V1
995POE	02D0825-003	02/18/2002	RNS	URANIUM-233,-234	0.003	PCI/L	TR1	U	0.020	0.017	V
995POE	02D0825-003	02/18/2002	RNS	URANIUM-235	-0.004	PCI/L	TR1	U	0.018	0.005	V
995POE	02D0825-003	02/18/2002	RNS	URANIUM-238	-0.003	PCI/L	TR1	U	0.021	0.011	V
995POE	03D0020-012	09/26/2002	RNS	AMERICIUM-241	-0.002	PCI/L	TR1	U	0.014	0.006	V1
995POE	03D0020-012	09/26/2002	RNS	PLUTONIUM-239/240	0.001	PCI/L	TR1	U	0.019	0.007	V1
995POE	03D0020-012	09/26/2002	RNS	TRITIUM	17	PCI/L	TR1	U	272	158	V1
995POE	03D0020-012	09/26/2002	RNS	URANIUM-233,-234	-0.006	PCI/L	TR1	U	0.066	0.028	V1
995POE	03D0020-012	09/26/2002	RNS	URANIUM-235	-0.006	PCI/L	TR1	U	0.045	0.018	V1
995POE	03D0020-012	09/26/2002	RNS	URANIUM-238	0.004	PCI/L	TR1	U	0.050	0.022	V1
GS03	02D1408-001	07/24/2002	RNS	AMERICIUM-241	-0.002	PCI/L	TR1	U	0.016	0.004	V
GS03	02D1408-001	07/24/2002	RNS	PLUTONIUM-239/240	-0.002	PCI/L	TR1	U	0.016	0.009	V
GS03	02D1408-001	07/24/2002	RNS	TOTAL SUSPENDED SOLIDS	4.0	MG/L	TR1	U	1.8		V1
GS03	02D1408-001	07/24/2002	RNS	TRITIUM	-165	PCI/L	TR1	U	321	160	V1
GS10	02D1440-003	08/07/2002	RNS	AMERICIUM-241	0.002	PCI/L	TR1	U	0.017	0.007	1
GS10	02D1440-003	08/07/2002	RNS	BERYLLIUM	0.02	UG/L	TR1	U	0.02		V1
GS10	02D1440-003	08/07/2002	RNS	CADMIUM	0.08	UG/L	TR1	U	0.08		V1
GS10	02D1440-003	08/07/2002	RNS	CHROMIUM	0.49	UG/L	TR1	B	0.25		UJ1
GS10	02D1440-003	08/07/2002	RNS	HARDNESS, TOTAL	3.9	MG/L	TR1	B	2.0		V1
GS10	02D1440-003	08/07/2002	RNS	PLUTONIUM-239/240	0.007	PCI/L	TR1	U	0.017	0.012	1
GS10	02D1440-003	08/07/2002	RNS	SILVER	0.28	UG/L	TR1	U	0.28		V1
GS10	02D1440-003	08/07/2002	RNS	TOTAL SUSPENDED SOLIDS	4.0	MG/L	TR1	U	1.8		V1
GS10	02D1440-003	08/07/2002	RNS	URANIUM-233,-234	-0.009	PCI/L	TR1	U	0.071	0.027	1
GS10	02D1440-003	08/07/2002	RNS	URANIUM-235	-0.007	PCI/L	TR1	U	0.047	0.017	1
GS10	02D1440-003	08/07/2002	RNS	URANIUM-238	-0.005	PCI/L	TR1	U	0.053	0.019	1
GS44	02D0111-002	10/09/2001	RNS	ALUMINUM	16.2	UG/L	TR1	B	4.0		J1
GS44	02D0111-002	10/09/2001	RNS	AMERICIUM-241	0.001	PCI/L	TR1	U	0.018	0.011	V1
GS44	02D0111-002	10/09/2001	RNS	ANTIMONY	0.58	UG/L	TR1	U	0.58		V1
GS44	02D0111-002	10/09/2001	RNS	ARSENIC	0.98	UG/L	TR1	U	0.98		V1
GS44	02D0111-002	10/09/2001	RNS	BARIUM	0.25	UG/L	TR1	B	0.02		UJ1
GS44	02D0111-002	10/09/2001	RNS	BERYLLIUM	0.05	UG/L	TR1	U	0.05		V1
GS44	02D0111-002	10/09/2001	RNS	CADMIUM	0.08	UG/L	TR1	U	0.08		V1
GS44	02D0111-002	10/09/2001	RNS	CALCIUM	86.8	UG/L	TR1	B	2.0		V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	2 Sigma Error	Validation
GS44	02D0111-002	10/09/2001	RNS	CHROMIUM	0.35	UG/L	TR1	U	0.35		V1
GS44	02D0111-002	10/09/2001	RNS	COBALT	0.22	UG/L	TR1	U	0.22		V1
GS44	02D0111-002	10/09/2001	RNS	COPPER	2.00	UG/L	TR1	B	0.12		UJ1
GS44	02D0111-002	10/09/2001	RNS	IRON	6.00	UG/L	TR1	B	3.9		V1
GS44	02D0111-002	10/09/2001	RNS	LEAD	1.50	UG/L	TR1	B	0.60		V1
GS44	02D0111-002	10/09/2001	RNS	LITHIUM	0.07	UG/L	TR1	B	0.02		UJ1
GS44	02D0111-002	10/09/2001	RNS	MAGNESIUM	13.9	UG/L	TR1	B	2.0		UJ1
GS44	02D0111-002	10/09/2001	RNS	MANGANESE	0.19	UG/L	TR1	B	0.02		UJ1
GS44	02D0111-002	10/09/2001	RNS	MERCURY	0.10	UG/L	TR1	U	0.10		J1
GS44	02D0111-002	10/09/2001	RNS	MOLYBDENUM	0.25	UG/L	TR1	U	0.25		V1
GS44	02D0111-002	10/09/2001	RNS	NICKEL	0.42	UG/L	TR1	U	0.42		V1
GS44	02D0111-002	10/09/2001	RNS	PLUTONIUM-239/240	-0.001	PCI/L	TR1	U	0.017	0.001	V1
GS44	02D0111-002	10/09/2001	RNS	POTASSIUM	32.8	UG/L	TR1	B	2.7		V1
GS44	02D0111-002	10/09/2001	RNS	SELENIUM	0.80	UG/L	TR1	U	0.80		V1
GS44	02D0111-002	10/09/2001	RNS	SILVER	0.12	UG/L	TR1	U	0.12		V1
GS44	02D0111-002	10/09/2001	RNS	SODIUM	99.7	UG/L	TR1	B	0.40		UJ1
GS44	02D0111-002	10/09/2001	RNS	STRONTIUM	0.38	UG/L	TR1	B	0.02		V1
GS44	02D0111-002	10/09/2001	RNS	THALLIUM	0.85	UG/L	TR1	U	0.85		V1
GS44	02D0111-002	10/09/2001	RNS	TIN	0.98	UG/L	TR1	U	0.98		V1
GS44	02D0111-002	10/09/2001	RNS	TOTAL SUSPENDED SOLIDS	4.0	MG/L	TR1	U	1.9		V1
GS44	02D0111-002	10/09/2001	RNS	TRITIUM	-94	PCI/L	TR1	U	352	187	V1
GS44	02D0111-002	10/09/2001	RNS	URANIUM-233,-234	0.001	PCI/L	TR1	U	0.021	0.014	V1
GS44	02D0111-002	10/09/2001	RNS	URANIUM-235	0.002	PCI/L	TR1	U	0.019	0.013	V1
GS44	02D0111-002	10/09/2001	RNS	URANIUM-238	-0.001	PCI/L	TR1	U	0.019	0.010	V1
GS44	02D0111-002	10/09/2001	RNS	VANADIUM	0.12	UG/L	TR1	U	0.12		V1
GS44	02D0111-002	10/09/2001	RNS	ZINC	2.70	UG/L	TR1	B	0.10		UJ1
GS49	02D1159-002	04/09/2002	RNS	ALUMINUM	12.8	UG/L	TR1	B	5.0		V1
GS49	02D1159-002	04/09/2002	RNS	AMERICIUM-241	0.006	PCI/L	TR1	U	0.018	0.016	V1
GS49	02D1159-002	04/09/2002	RNS	ANTIMONY	0.91	UG/L	TR1	B	0.48		V1
GS49	02D1159-002	04/09/2002	RNS	ARSENIC	2.30	UG/L	TR1	B	0.75		V1
GS49	02D1159-002	04/09/2002	RNS	BARIUM	1.70	UG/L	TR1	B	0.05		UJ1
GS49	02D1159-002	04/09/2002	RNS	BERYLLIUM	0.05	UG/L	TR1	B	0.02		V1
GS49	02D1159-002	04/09/2002	RNS	CADMIUM	0.08	UG/L	TR1	U	0.08		V1
GS49	02D1159-002	04/09/2002	RNS	CALCIUM	106	UG/L	TR1	B	2.6		V1
GS49	02D1159-002	04/09/2002	RNS	CHROMIUM	0.20	UG/L	TR1	U	0.20		V1
GS49	02D1159-002	04/09/2002	RNS	COBALT	0.15	UG/L	TR1	U	0.15		V1
GS49	02D1159-002	04/09/2002	RNS	COPPER	0.46	UG/L	TR1	B	0.18		J1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	2 Sigma Error	Validation
GS49	02D1159-002	04/09/2002	RNS	IRON	8.20	UG/L	TR1	B	3.8		UJ1
GS49	02D1159-002	04/09/2002	RNS	LEAD	1.10	UG/L	TR1	B	0.55		V1
GS49	02D1159-002	04/09/2002	RNS	LITHIUM	0.18	UG/L	TR1	B	0.05		UJ1
GS49	02D1159-002	04/09/2002	RNS	MAGNESIUM	21.4	UG/L	TR1	B	2.3		UJ1
GS49	02D1159-002	04/09/2002	RNS	MANGANESE	0.64	UG/L	TR1	B	0.08		V1
GS49	02D1159-002	04/09/2002	RNS	MERCURY	0.10	UG/L	TR1	U	0.10		V1
GS49	02D1159-002	04/09/2002	RNS	MOLYBDENUM	0.82	UG/L	TR1	B	0.28		V1
GS49	02D1159-002	04/09/2002	RNS	NICKEL	0.30	UG/L	TR1	U	0.30		J1
GS49	02D1159-002	04/09/2002	RNS	PLUTONIUM-239/240	0.005	PCI/L	TR1	U	0.014	0.012	V1
GS49	02D1159-002	04/09/2002	RNS	POTASSIUM	16.8	UG/L	TR1	B	4.7		J1
GS49	02D1159-002	04/09/2002	RNS	SELENIUM	1.80	UG/L	TR1	B	0.90		J1
GS49	02D1159-002	04/09/2002	RNS	SILVER	0.18	UG/L	TR1	U	0.18		V1
GS49	02D1159-002	04/09/2002	RNS	SODIUM	122	UG/L	TR1	B	8.8		V1
GS49	02D1159-002	04/09/2002	RNS	STRONTIUM	0.75	UG/L	TR1	B	0.02		V1
GS49	02D1159-002	04/09/2002	RNS	THALLIUM	1.40	UG/L	TR1	U	1.4		V1
GS49	02D1159-002	04/09/2002	RNS	TIN	2.10	UG/L	TR1	B	0.82		V1
GS49	02D1159-002	04/09/2002	RNS	TOTAL SUSPENDED SOLIDS	4.0	MG/L	TR1	U	1.9		V1
GS49	02D1159-002	04/09/2002	RNS	TRITIUM	-15	PCI/L	TR1	U	314	181	V1
GS49	02D1159-002	04/09/2002	RNS	URANIUM, TOTAL	3.30	UG/L	TR1	U	3.3		V1
GS49	02D1159-002	04/09/2002	RNS	URANIUM-233,-234	0.001	PCI/L	TR1	U	0.020	0.019	V1
GS49	02D1159-002	04/09/2002	RNS	URANIUM-235	-0.001	PCI/L	TR1	U	0.018	0.002	V1
GS49	02D1159-002	04/09/2002	RNS	URANIUM-238	-0.005	PCI/L	TR1	U	0.020	0.003	V1
GS49	02D1159-002	04/09/2002	RNS	VANADIUM	0.22	UG/L	TR1	B	0.18		V1
GS49	02D1159-002	04/09/2002	RNS	ZINC	5.90	UG/L	TR1	B	0.10		UJ1
GS52	02D1292-003	06/03/2002	RNS	AMERICIUM-241	-0.001	PCI/L	TR1	U	0.014	0.007	V1
GS52	02D1292-003	06/03/2002	RNS	PLUTONIUM-239/240	-0.003	PCI/L	TR1	U	0.017	0.006	V1
GS52	02D1292-003	06/03/2002	RNS	TOTAL SUSPENDED SOLIDS	2.0	MG/L	DL1	U	0.9		V1
GS52	02D1292-003	06/03/2002	RNS	URANIUM-233,-234	0.002	PCI/L	TR1	U	0.058	0.026	V1
GS52	02D1292-003	06/03/2002	RNS	URANIUM-235	-0.007	PCI/L	TR1	U	0.042	0.018	V1
GS52	02D1292-003	06/03/2002	RNS	URANIUM-238	-0.002	PCI/L	TR1	U	0.044	0.018	V1
GS57	02D1542-002	09/18/2002	RNS	ALUMINUM	11.9	UG/L	TR1	B	4.0		UJ1
GS57	02D1542-002	09/18/2002	RNS	AMERICIUM-241	0.000	PCI/L	TR1	U	0.013	0.005	V
GS57	02D1542-002	09/18/2002	RNS	ANTIMONY	0.88	UG/L	TR1	U	0.88		V1
GS57	02D1542-002	09/18/2002	RNS	ARSENIC	0.82	UG/L	TR1	U	0.82		V1
GS57	02D1542-002	09/18/2002	RNS	BARIUM	0.65	UG/L	TR1	B	0.05		V1
GS57	02D1542-002	09/18/2002	RNS	BERYLLIUM	0.02	UG/L	TR1	U	0.02		V1
GS57	02D1542-002	09/18/2002	RNS	CADMIUM	0.08	UG/L	TR1	U	0.08		V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	2 Sigma Error	Validation
GS57	02D1542-002	09/18/2002	RNS	CALCIUM	99.6	UG/L	TR1	B	3.8		UJ1
GS57	02D1542-002	09/18/2002	RNS	CHROMIUM	0.69	UG/L	TR1	B	0.25		V1
GS57	02D1542-002	09/18/2002	RNS	COBALT	0.35	UG/L	TR1	U	0.35		V1
GS57	02D1542-002	09/18/2002	RNS	COPPER	0.25	UG/L	TR1	U	0.25		UJ1
GS57	02D1542-002	09/18/2002	RNS	IRON	15.3	UG/L	TR1	B	4.5		V1
GS57	02D1542-002	09/18/2002	RNS	LEAD	0.60	UG/L	TR1	U	0.60		V1
GS57	02D1542-002	09/18/2002	RNS	LITHIUM	0.30	UG/L	TR1	B	0.05		UJ1
GS57	02D1542-002	09/18/2002	RNS	MAGNESIUM	23.4	UG/L	TR1	B	1.9		UJ1
GS57	02D1542-002	09/18/2002	RNS	MANGANESE	0.47	UG/L	TR1	B	0.05		UJ1
GS57	02D1542-002	09/18/2002	RNS	MERCURY	0.10	UG/L	TR1	U	0.10		V1
GS57	02D1542-002	09/18/2002	RNS	MOLYBDENUM	0.55	UG/L	TR1	U	0.55		V1
GS57	02D1542-002	09/18/2002	RNS	NICKEL	0.40	UG/L	TR1	U	0.40		V1
GS57	02D1542-002	09/18/2002	RNS	PLUTONIUM-239/240	-0.005	PCI/L	TR1	U	0.019	0.007	V
GS57	02D1542-002	09/18/2002	RNS	POTASSIUM	35.1	UG/L	TR1	B	7.0		UJ1
GS57	02D1542-002	09/18/2002	RNS	SELENIUM	1.00	UG/L	TR1	U	1.0		V1
GS57	02D1542-002	09/18/2002	RNS	SILVER	0.28	UG/L	TR1	U	0.28		V1
GS57	02D1542-002	09/18/2002	RNS	SODIUM	136	UG/L	TR1	B	4.8		V1
GS57	02D1542-002	09/18/2002	RNS	STRONTIUM	0.59	UG/L	TR1	B	0.02		V1
GS57	02D1542-002	09/18/2002	RNS	THALLIUM	1.60	UG/L	TR1	U	1.6		V1
GS57	02D1542-002	09/18/2002	RNS	TIN	1.20	UG/L	TR1	U	1.2		V1
GS57	02D1542-002	09/18/2002	RNS	TOTAL SUSPENDED SOLIDS	4.0	MG/L	TR1	U	1.8		V
GS57	02D1542-002	09/18/2002	RNS	URANIUM-233,-234	0.013	PCI/L	TR1	U	0.067	0.031	V
GS57	02D1542-002	09/18/2002	RNS	URANIUM-235	-0.007	PCI/L	TR1	U	0.043	0.017	V
GS57	02D1542-002	09/18/2002	RNS	URANIUM-238	0.008	PCI/L	TR1	U	0.049	0.022	V
GS57	02D1542-002	09/18/2002	RNS	VANADIUM	0.28	UG/L	TR1	U	0.28		V1
GS57	02D1542-002	09/18/2002	RNS	ZINC	7.00	UG/L	TR1	B	0.12		UJ1
SW055	02D1542-003	09/18/2002	RNS	ALUMINUM	15.2	UG/L	TR1	B	4.0		UJ1
SW055	02D1542-003	09/18/2002	RNS	AMERICIUM-241	0.002	PCI/L	TR1	U	0.014	0.007	V
SW055	02D1542-003	09/18/2002	RNS	ANTIMONY	0.88	UG/L	TR1	U	0.88		V1
SW055	02D1542-003	09/18/2002	RNS	ARSENIC	0.82	UG/L	TR1	U	0.82		V1
SW055	02D1542-003	09/18/2002	RNS	BARIUM	0.31	UG/L	TR1	B	0.05		UJ1
SW055	02D1542-003	09/18/2002	RNS	BERYLLIUM	0.02	UG/L	TR1	U	0.02		V1
SW055	02D1542-003	09/18/2002	RNS	CADMIUM	0.08	UG/L	TR1	U	0.08		V1
SW055	02D1542-003	09/18/2002	RNS	CALCIUM	84.8	UG/L	TR1	B	3.8		UJ1
SW055	02D1542-003	09/18/2002	RNS	CHROMIUM	0.30	UG/L	TR1	B	0.25		V1
SW055	02D1542-003	09/18/2002	RNS	COBALT	0.35	UG/L	TR1	U	0.35		V1
SW055	02D1542-003	09/18/2002	RNS	COPPER	0.25	UG/L	TR1	U	0.25		UJ1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	2 Sigma Error	Validation
SW055	02D1542-003	09/18/2002	RNS	IRON	8.00	UG/L	TR1	B	4.5		V1
SW055	02D1542-003	09/18/2002	RNS	LEAD	0.60	UG/L	TR1	U	0.60		V1
SW055	02D1542-003	09/18/2002	RNS	LITHIUM	0.18	UG/L	TR1	B	0.05		UJ1
SW055	02D1542-003	09/18/2002	RNS	MAGNESIUM	22.4	UG/L	TR1	B	1.9		UJ1
SW055	02D1542-003	09/18/2002	RNS	MANGANESE	0.09	UG/L	TR1	B	0.05		UJ1
SW055	02D1542-003	09/18/2002	RNS	MERCURY	0.10	UG/L	TR1	U	0.10		V1
SW055	02D1542-003	09/18/2002	RNS	MOLYBDENUM	0.55	UG/L	TR1	U	0.55		V1
SW055	02D1542-003	09/18/2002	RNS	NICKEL	0.40	UG/L	TR1	U	0.40		V1
SW055	02D1542-003	09/18/2002	RNS	PLUTONIUM-239/240	0.015	PCI/L	TR1	U	0.017	0.013	V
SW055	02D1542-003	09/18/2002	RNS	POTASSIUM	34.8	UG/L	TR1	B	7.0		UJ1
SW055	02D1542-003	09/18/2002	RNS	SELENIUM	1.00	UG/L	TR1	U	1.0		V1
SW055	02D1542-003	09/18/2002	RNS	SILVER	0.28	UG/L	TR1	U	0.28		V1
SW055	02D1542-003	09/18/2002	RNS	SODIUM	124	UG/L	TR1	B	4.8		V1
SW055	02D1542-003	09/18/2002	RNS	STRONTIUM	0.46	UG/L	TR1	B	0.02		V1
SW055	02D1542-003	09/18/2002	RNS	THALLIUM	1.60	UG/L	TR1	U	1.6		V1
SW055	02D1542-003	09/18/2002	RNS	TIN	1.20	UG/L	TR1	U	1.2		V1
SW055	02D1542-003	09/18/2002	RNS	TOTAL SUSPENDED SOLIDS	4.0	MG/L	TR1	U	1.8		V
SW055	02D1542-003	09/18/2002	RNS	URANIUM, TOTAL	3.20	UG/L	TR1	U	3.2		UJ1
SW055	02D1542-003	09/18/2002	RNS	URANIUM-233,-234	-0.002	PCI/L	TR1	U	0.066	0.029	V
SW055	02D1542-003	09/18/2002	RNS	URANIUM-235	-0.003	PCI/L	TR1	U	0.043	0.018	V
SW055	02D1542-003	09/18/2002	RNS	URANIUM-238	0.004	PCI/L	TR1	U	0.049	0.021	V
SW055	02D1542-003	09/18/2002	RNS	VANADIUM	0.28	UG/L	TR1	U	0.28		V1
SW055	02D1542-003	09/18/2002	RNS	ZINC	5.30	UG/L	TR1	B	0.12		UJ1
SW093	02D1159-003	04/09/2002	RNS	AMERICIUM-241	-0.002	PCI/L	TR1	U	0.019	0.002	V1
SW093	02D1159-003	04/09/2002	RNS	BERYLLIUM	0.02	UG/L	TR1	U	0.02		V1
SW093	02D1159-003	04/09/2002	RNS	CADMIUM	0.08	UG/L	TR1	U	0.08		V1
SW093	02D1159-003	04/09/2002	RNS	CHROMIUM	0.20	UG/L	TR1	U	0.20		V1
SW093	02D1159-003	04/09/2002	RNS	HARDNESS, TOTAL	11.0	MG/L	TR1		2.0		V1
SW093	02D1159-003	04/09/2002	RNS	PLUTONIUM-239/240	0.003	PCI/L	TR1	U	0.016	0.009	V1
SW093	02D1159-003	04/09/2002	RNS	SILVER	0.18	UG/L	TR1	U	0.18		V1
SW093	02D1159-003	04/09/2002	RNS	TOTAL SUSPENDED SOLIDS	4.0	MG/L	TR1	U	1.9		V1
SW093	02D1159-003	04/09/2002	RNS	URANIUM-233,-234	-0.010	PCI/L	TR1	U	0.020	0.010	V1
SW093	02D1159-003	04/09/2002	RNS	URANIUM-235	-0.001	PCI/L	TR1	U	0.018	0.002	V1
SW093	02D1159-003	04/09/2002	RNS	URANIUM-238	0.011	PCI/L	TR1	U	0.020	0.019	V1

Location	Sample #	Sample Date	QC Type	Analyte	Result	Units	Result Type	Lab Qual	Detect Limit	2 Sigma Error	Validation

Abbreviations

MG/L = Milligrams per liter
PCI/L = Picocuries per liter
TR1 = First analytical run
DL1 = Dilution
UG/L = Micrograms per liter (or µg/L)
[*analyte*]_D = dissolved fraction

Lab Qualifiers (note analyte group)

B = Detected concentration less than contract required detection limit (CRDL) but above instrument detection limit (IDL) (metals & other inorganics)
B = Analyte present in both sample and method blank (MB) (organics)
B = Activity in the method blank exceeds minimum detectable activity (MDA) (radionuclides)
U = Target analyte not detected (all analytes)

Validation/Verification Qualifiers*

(list in order from highest confidence to lowest)
V/V1 = Valid
J/J1 = Estimated
UJ/UJ1 = Estimated at an elevated level of detection
1 = Unvalidated/Unverified member of TR1-TR2 pair. Other pair member should be Validated/Verified.

*Validation is a more thorough review of laboratory package than verification.

B.3 PARCC EVALUATION

This section includes the PARCC tables referenced in Section 16 of the Report. Electronic copies of the tables are also given in the Appendix Tables directory on the CD-ROM disc. The tables are given in one Microsoft Excel file containing separate worksheets for each table.

Table B-4. Duplicate Error Ratios (DERs) for Radionuclides.

Location	Sample Date	Analyte	Real Result	Real 2σ Error	Real Lab Qual	Real Validation	Dup Result	Dup 2σ Error	Dup Lab Qual	Dup Validation	Units	DER
995POE	9/18/02	URANIUM-235	0.001	.018	U	V1	0.001	.019	U	V1	PCI/L	0.000
GS10	9/3/02	URANIUM-235	0.002	.02	U	V	0.002	.02	U	V	PCI/L	0.000
SW093	8/23/02	URANIUM-233,-234	0.86	.206		V	0.868	.204		V	PCI/L	0.009
SW093	8/23/02	URANIUM-238	0.857	.203		V	0.877	.203		V	PCI/L	0.022
995POE	9/18/02	URANIUM-233,-234	0.112	.044		V1	0.117	.046		V1	PCI/L	0.040
GS10	9/3/02	PLUTONIUM-239/240	0.257	.072		V	0.271	.077		V	PCI/L	0.050
GS10	9/3/02	PLUTONIUM-239/240	0.257	.072		V	0.271	.077		V	PCI/L	0.050
GS10	9/3/02	PLUTONIUM-239/240	0.257	.072		V	0.271	.077		V	PCI/L	0.050
GS10	9/3/02	PLUTONIUM-239/240	0.257	.072		V	0.271	.077		V	PCI/L	0.050
995POE	9/18/02	URANIUM-238	0.114	.041		V1	0.127	.045		V1	PCI/L	0.097
GS10	9/3/02	URANIUM-238	0.315	.085		V	0.356	.095		V	PCI/L	0.112
GS10	9/3/02	URANIUM-233,-234	0.314	.088		V	0.37	.101		V	PCI/L	0.147
GS10	9/3/02	URANIUM-238	0.791	.19		V	0.678	.165		V	PCI/L	0.160
GS10	9/3/02	URANIUM-238	0.791	.19		V	0.678	.165		V	PCI/L	0.160
GS10	9/3/02	URANIUM-238	0.791	.19		V	0.678	.165		V	PCI/L	0.160
GS10	9/3/02	URANIUM-238	0.791	.19		V	0.678	.165		V	PCI/L	0.160
GS03	9/6/02	AMERICIUM-241	0.004	.009	U	V	0.006	.009	U	V	PCI/L	0.185
GS03	9/6/02	AMERICIUM-241	0.004	.009	U	V	0.006	.009	U	V	PCI/L	0.185
GS03	9/6/02	AMERICIUM-241	0.004	.009	U	V	0.006	.009	U	V	PCI/L	0.185
GS03	9/6/02	AMERICIUM-241	0.004	.009	U	V	0.006	.009	U	V	PCI/L	0.185
GS57	8/6/02	PLUTONIUM-239/240	0.018	.015	U	V	0.014	.013	U	V	PCI/L	0.195
GS10	9/3/02	PLUTONIUM-239/240	0.257	.072		V	0.324	.088		V	PCI/L	0.202
GS10	9/3/02	PLUTONIUM-239/240	0.257	.072		V	0.324	.088		V	PCI/L	0.202
GS10	9/3/02	URANIUM-233,-234	0.796	.193		V	0.656	.162		V	PCI/L	0.205
GS10	9/3/02	URANIUM-233,-234	0.796	.193		V	0.656	.162		V	PCI/L	0.205

Location	Sample Date	Analyte	Real Result	Real 2σ Error	Real Lab Qual	Real Valida-tion	Dup Result	Dup 2σ Error	Dup Lab Qual	Dup Valida-tion	Units	DER
GS10	9/3/02	URANIUM-233,-234	0.796	.193		V	0.656	.162		V	PCI/L	0.205
GS10	9/3/02	URANIUM-233,-234	0.796	.193		V	0.656	.162		V	PCI/L	0.205
SW093	8/23/02	URANIUM-235	0.019	.025	U	V	0.027	.027	U	V	PCI/L	0.217
GS03	9/6/02	PLUTONIUM-239/240	0.011	.015	U	V	0.007	.013	U	V	PCI/L	0.242
GS03	9/6/02	PLUTONIUM-239/240	0.011	.015	U	V	0.007	.013	U	V	PCI/L	0.242
GS03	9/6/02	PLUTONIUM-239/240	0.011	.015	U	V	0.007	.013	U	V	PCI/L	0.242
GS03	9/6/02	PLUTONIUM-239/240	0.011	.015	U	V	0.007	.013	U	V	PCI/L	0.242
GS03	9/6/02	PLUTONIUM-239/240	0.003	.012	U		0.007	.013	U	V	PCI/L	0.288
GS03	9/6/02	PLUTONIUM-239/240	0.003	.012	U		0.007	.013	U	V	PCI/L	0.288
GS10	9/3/02	AMERICIUM-241	0.126	.044		V	0.186	.058		V	PCI/L	0.314
SW093	8/23/02	AMERICIUM-241	0.038	.021		V	0.027	.018		V	PCI/L	0.322
995POE	9/18/02	TRITIUM	-48	165	U	V1	8.5	166	U	V1	PCI/L	0.342
GS10	9/3/02	AMERICIUM-241	0.29	.083		V	0.211	.063		V	PCI/L	0.348
GS10	9/3/02	AMERICIUM-241	0.29	.083		V	0.211	.063		V	PCI/L	0.348
GS10	9/3/02	AMERICIUM-241	0.29	.083		V	0.211	.063		V	PCI/L	0.348
GS10	9/3/02	AMERICIUM-241	0.29	.083		V	0.211	.063		V	PCI/L	0.348
GS10	9/3/02	AMERICIUM-241	0.126	.044		V	0.211	.063		V	PCI/L	0.394
GS10	9/3/02	AMERICIUM-241	0.126	.044		V	0.211	.063		V	PCI/L	0.394
995POE	9/18/02	PLUTONIUM-239/240	0	.006	U	V1	0.003	.008	U	V1	PCI/L	0.447
GS03	9/6/02	AMERICIUM-241	0.014	.013	U	V	0.028	.018		V	PCI/L	0.454
GS10	9/3/02	AMERICIUM-241	0.29	.083		V	0.186	.058		V	PCI/L	0.511
GS10	9/3/02	AMERICIUM-241	0.29	.083		V	0.186	.058		V	PCI/L	0.511
GS10	9/3/02	URANIUM-233,-234	0.314	.088		V	0.656	.162		V	PCI/L	0.517
GS10	9/3/02	URANIUM-233,-234	0.314	.088		V	0.656	.162		V	PCI/L	0.517
GS10	9/3/02	URANIUM-238	0.315	.085		V	0.678	.165		V	PCI/L	0.531
GS10	9/3/02	URANIUM-238	0.315	.085		V	0.678	.165		V	PCI/L	0.531
SW093	8/23/02	PLUTONIUM-239/240	0.042	.022		V	0.024	.016		V	PCI/L	0.553
GS57	8/6/02	AMERICIUM-241	0	.006	U	V	0.004	.008	U	V	PCI/L	0.555
GS03	9/6/02	AMERICIUM-241	0.014	.013	U	V	0.006	.009	U	V	PCI/L	0.559
GS03	9/6/02	AMERICIUM-241	0.014	.013	U	V	0.006	.009	U	V	PCI/L	0.559
GS57	8/6/02	URANIUM-238	0.373	.097		V	0.232	.068		V	PCI/L	0.561

Location	Sample Date	Analyte	Real Result	Real 2σ Error	Real Lab Qual	Real Validation	Dup Result	Dup 2σ Error	Dup Lab Qual	Dup Validation	Units	DER
GS03	9/6/02	TRITIUM	55.8	114	U		193	124	U		PCI/L	0.612
GS10	9/3/02	URANIUM-235	0.002	.02	U	V	0.019	.025	U	V	PCI/L	0.616
GS10	9/3/02	URANIUM-235	0.002	.02	U	V	0.019	.025	U	V	PCI/L	0.616
995POE	9/18/02	AMERICIUM-241	-0.002	.003	U	V1	0	.005	U	V1	PCI/L	0.667
GS57	8/6/02	URANIUM-235	0.008	.021	U	V	-0.007	.018	U	V	PCI/L	0.678
GS10	9/3/02	PLUTONIUM-239/240	0.076	.031		V	0.271	.077		V	PCI/L	0.715
GS10	9/3/02	PLUTONIUM-239/240	0.076	.031		V	0.271	.077		V	PCI/L	0.715
GS10	9/3/02	URANIUM-235	0.047	.034	U	V	0.019	.025	U	V	PCI/L	0.719
GS10	9/3/02	URANIUM-235	0.047	.034	U	V	0.019	.025	U	V	PCI/L	0.719
GS10	9/3/02	URANIUM-235	0.047	.034	U	V	0.019	.025	U	V	PCI/L	0.719
GS10	9/3/02	URANIUM-235	0.047	.034	U	V	0.019	.025	U	V	PCI/L	0.719
GS10	9/3/02	PLUTONIUM-239/240	0.076	.031		V	0.324	.088		V	PCI/L	0.762
GS03	9/6/02	AMERICIUM-241	0.004	.009	U	V	0.028	.018		V	PCI/L	0.816
GS03	9/6/02	AMERICIUM-241	0.004	.009	U	V	0.028	.018		V	PCI/L	0.816
GS03	9/6/02	PLUTONIUM-239/240	0.011	.015	U	V	0.163	.052			PCI/L	0.929
GS03	9/6/02	PLUTONIUM-239/240	0.011	.015	U	V	0.163	.052			PCI/L	0.929
GS03	9/6/02	PLUTONIUM-239/240	0.003	.012	U		0.163	.052			PCI/L	0.979
GS10	9/3/02	URANIUM-233,-234	0.796	.193		V	0.37	.101		V	PCI/L	1.021
GS10	9/3/02	URANIUM-233,-234	0.796	.193		V	0.37	.101		V	PCI/L	1.021
GS10	9/3/02	URANIUM-238	0.791	.19		V	0.356	.095		V	PCI/L	1.078
GS10	9/3/02	URANIUM-238	0.791	.19		V	0.356	.095		V	PCI/L	1.078
GS10	9/3/02	URANIUM-235	0.047	.034	U	V	0.002	.02	U	V	PCI/L	1.321
GS10	9/3/02	URANIUM-235	0.047	.034	U	V	0.002	.02	U	V	PCI/L	1.321
GS57	8/6/02	URANIUM-233,-234	0.286	.083		V	0.1	.046		V	PCI/L	1.431

Table B-5. Relative Percent Differences (RPDs) for Metals and Water-Quality Analytes.

Location	Sample Date	Analyte	Real Result	Real Lab Qual	Real Validation	Dup Result	Dup Lab Qual	Dup Validation	Units	RPD%
GS57	8/6/02	ARSENIC	5.9		V	5.9		V	UG/L	0.00
GS57	8/6/02	BERYLLIUM	0.41	B	V	0.41	B	V	UG/L	0.00
GS10	9/3/02	BERYLLIUM	0.24	B	V	0.24	B	V	UG/L	0.00
SW093	8/23/02	CADMIUM	0.08	U		0.08	U	V	UG/L	0.00
GS10	9/3/02	CADMIUM	0.08	U	V	0.08	U	V	UG/L	0.00
GS57	8/6/02	CADMIUM	0.4	B	V	0.4	B	V	UG/L	0.00
SW093	8/23/02	CADMIUM	0.08	U	V	0.08	U	V	UG/L	0.00
GS57	8/6/02	COBALT	2.6	B	V	2.6	B	V	UG/L	0.00
GS57	8/6/02	MERCURY	0.1	U	UJ	0.1	U	UJ	UG/L	0.00
GS10	9/3/02	SILVER	0.28	U	V	0.28	U	V	UG/L	0.00
GS57	8/6/02	SILVER	0.28	U	V	0.28	U	V	UG/L	0.00
SW093	8/23/02	SILVER	0.28	U	V	0.28	U	V	UG/L	0.00
SW093	8/23/02	SILVER	0.28	U		0.28	U	V	UG/L	0.00
GS57	8/6/02	THALLIUM	1.6	U	V	1.6	U	V	UG/L	0.00
GS57	8/6/02	TIN	1.2	U	V	1.2	U	V	UG/L	0.00
GS57	8/6/02	ZINC	270		V	270		V	UG/L	0.00
GS57	8/6/02	MAGNESIUM	2950	B	V	2960	B	V	UG/L	0.34
GS57	8/6/02	IRON	7370		V	7410		V	UG/L	0.54
GS57	8/6/02	SODIUM	34500		V	34300		V	UG/L	0.58
GS57	8/6/02	MANGANESE	144		V	145		V	UG/L	0.69
SW093	8/23/02	CHROMIUM	10.98			10.9		V	UG/L	0.73
GS57	8/6/02	COPPER	22.8		V	23		V	UG/L	0.87
GS57	8/6/02	STRONTIUM	54.1	B	V	54.6	B	V	UG/L	0.92
GS57	8/6/02	CALCIUM	10400		V	10500		V	UG/L	0.96
GS57	8/6/02	ALUMINUM	7880		V	7960		V	UG/L	1.01
GS57	8/6/02	POTASSIUM	7320		V	7240		V	UG/L	1.10
GS57	8/6/02	VANADIUM	17.7	B	V	17.9	B	V	UG/L	1.12
GS57	8/6/02	LITHIUM	8.2	B	J	8.3	B	J	UG/L	1.21
GS57	8/6/02	BARIUM	61.8	B	V	62.6	B	V	UG/L	1.29
GS10	9/3/02	CHROMIUM	6.8		V	6.7		V	UG/L	1.48

Location	Sample Date	Analyte	Real Result	Real Lab Qual	Real Validation	Dup Result	Dup Lab Qual	Dup Validation	Units	RPD%
SW093	8/23/02	CHROMIUM	11.1		V	10.9		V	UG/L	1.82
GS57	8/6/02	LEAD	9.1		J	9.3		J	UG/L	2.17
GS57	8/6/02	NICKEL	7.9	B	V	7.7	B	V	UG/L	2.56
GS57	8/6/02	MOLYBDENUM	3.2	B	V	3.3	B	V	UG/L	3.08
GS57	8/6/02	CHROMIUM	11		V	11.4		V	UG/L	3.57
GS57	8/6/02	ANTIMONY	2.5	B	V	2.6	B	V	UG/L	3.92
SW093	8/23/02	BERYLLIUM	0.39	B		0.41	B	V	UG/L	5.00
SW093	8/23/02	BERYLLIUM	0.39	B	V	0.41	B	V	UG/L	5.00
GS57	8/6/02	SELENIUM	1.1	B	V	1	U	V	UG/L	9.52
GS03	9/6/02	TOTAL SUSPENDED SOLIDS	15000		V	15000		V	UG/L	0.00
SW093	8/23/02	HARDNESS, TOTAL	220000		V1	210000		V1	UG/L	4.65
GS10	9/3/02	HARDNESS, TOTAL	130000		V1	120000		V1	UG/L	8.00

Table B-6. Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Recoveries.

Location	Sample Date	RFETS Sample Number	Lab	Lab Batch	Lab Sample Number	RIN	Analyte	Result Type	Std Result	Std Unit
GS44	10/9/01	02D0111-002	LVLI	01C0332		02D0111	MERCURY	MS1	64	%REC
SW134	10/31/01	02D0265-001	LVLI	01C0360		02D0265	MERCURY	MS1	95	%REC
GS44	10/4/01	02D0299-002	LVLI	01C0374		02D0299	MERCURY	MS1	49	%REC
GS44	10/9/01	02D0111-002	LVLI	01L0683		02D0111	ALUMINUM	MS1	96.5	%REC
GS44	10/9/01	02D0111-002	LVLI	01L0683		02D0111	ANTIMONY	MS1	98.1	%REC
GS44	10/9/01	02D0111-002	LVLI	01L0683		02D0111	ARSENIC	MS1	97.3	%REC
GS44	10/9/01	02D0111-002	LVLI	01L0683		02D0111	BARIUM	MS1	93.5	%REC
GS44	10/9/01	02D0111-002	LVLI	01L0683		02D0111	BERYLLIUM	MS1	99.4	%REC
GS44	10/9/01	02D0111-002	LVLI	01L0683		02D0111	CADMIUM	MS1	96.7	%REC
GS44	10/9/01	02D0111-002	LVLI	01L0683		02D0111	CHROMIUM	MS1	97.4	%REC
GS44	10/9/01	02D0111-002	LVLI	01L0683		02D0111	COBALT	MS1	96.8	%REC
GS44	10/9/01	02D0111-002	LVLI	01L0683		02D0111	COPPER	MS1	95.8	%REC

Location	Sample Date	RFETS Sample Number	Lab	Lab Batch	Lab Sample Number	RIN	Analyte	Result Type	Std Result	Std Unit
GS44	10/9/01	02D0111-002	LVLI	01L0683		02D0111	IRON	MS1	96.7	%REC
GS44	10/9/01	02D0111-002	LVLI	01L0683		02D0111	LEAD	MS1	96.6	%REC
GS44	10/9/01	02D0111-002	LVLI	01L0683		02D0111	LITHIUM	MS1	120.8	%REC
GS44	10/9/01	02D0111-002	LVLI	01L0683		02D0111	MANGANESE	MS1	99.7	%REC
GS44	10/9/01	02D0111-002	LVLI	01L0683		02D0111	MOLYBDENUM	MS1	98	%REC
GS44	10/9/01	02D0111-002	LVLI	01L0683		02D0111	NICKEL	MS1	96.6	%REC
GS44	10/9/01	02D0111-002	LVLI	01L0683		02D0111	SELENIUM	MS1	97.8	%REC
GS44	10/9/01	02D0111-002	LVLI	01L0683		02D0111	SILVER	MS1	95.2	%REC
GS44	10/9/01	02D0111-002	LVLI	01L0683		02D0111	STRONTIUM	MS1	96.3	%REC
GS44	10/9/01	02D0111-002	LVLI	01L0683		02D0111	THALLIUM	MS1	98.1	%REC
GS44	10/9/01	02D0111-002	LVLI	01L0683		02D0111	TIN	MS1	99.2	%REC
GS44	10/9/01	02D0111-002	LVLI	01L0683		02D0111	VANADIUM	MS1	96.2	%REC
GS44	10/9/01	02D0111-002	LVLI	01L0683		02D0111	ZINC	MS1	97.6	%REC
GS10	10/11/01	02D0177-002	LVLI	01L0739		02D0177	BERYLLIUM	MS1	92	%REC
GS10	10/11/01	02D0177-002	LVLI	01L0739		02D0177	CADMIUM	MS1	96.4	%REC
GS10	10/11/01	02D0177-002	LVLI	01L0739		02D0177	CHROMIUM	MS1	88.8	%REC
GS10	10/11/01	02D0177-002	LVLI	01L0739		02D0177	SILVER	MS1	106.3	%REC
SW093	10/19/01	02D0265-002	LVLI	01L0752		02D0265	SILVER	MS1	103.5	%REC
GS40	10/1/01	02D0265-003	LVLI	01L0760		02D0265	ALUMINUM	MS1	165.5	%REC
GS40	10/1/01	02D0265-003	LVLI	01L0760		02D0265	ANTIMONY	MS1	80.1	%REC
GS40	10/1/01	02D0265-003	LVLI	01L0760		02D0265	ARSENIC	MS1	88.6	%REC
GS40	10/1/01	02D0265-003	LVLI	01L0760		02D0265	BARIUM	MS1	88.8	%REC
GS40	10/1/01	02D0265-003	LVLI	01L0760		02D0265	BERYLLIUM	MS1	90.1	%REC
GS40	10/1/01	02D0265-003	LVLI	01L0760		02D0265	CADMIUM	MS1	88.8	%REC
GS40	10/1/01	02D0265-003	LVLI	01L0760		02D0265	CHROMIUM	MS1	89	%REC
GS40	10/1/01	02D0265-003	LVLI	01L0760		02D0265	COBALT	MS1	86.8	%REC
GS40	10/1/01	02D0265-003	LVLI	01L0760		02D0265	COPPER	MS1	98.2	%REC
GS40	10/1/01	02D0265-003	LVLI	01L0760		02D0265	IRON	MS1	316.7	%REC
GS40	10/1/01	02D0265-003	LVLI	01L0760		02D0265	LEAD	MS1	88.3	%REC
GS40	10/1/01	02D0265-003	LVLI	01L0760		02D0265	LITHIUM	MS1	143.5	%REC
GS40	10/1/01	02D0265-003	LVLI	01L0760		02D0265	MANGANESE	MS1	69.5	%REC
GS40	10/1/01	02D0265-003	LVLI	01L0760		02D0265	MOLYBDENUM	MS1	72.5	%REC
GS40	10/1/01	02D0265-003	LVLI	01L0760		02D0265	NICKEL	MS1	86.3	%REC
GS40	10/1/01	02D0265-003	LVLI	01L0760		02D0265	SELENIUM	MS1	86.1	%REC

Location	Sample Date	RFETS Sample Number	Lab	Lab Batch	Lab Sample Number	RIN	Analyte	Result Type	Std Result	Std Unit
GS40	10/1/01	02D0265-003	LVLI	01L0760		02D0265	SILVER	MS1	99.8	%REC
GS40	10/1/01	02D0265-003	LVLI	01L0760		02D0265	STRONTIUM	MS1	81.7	%REC
GS40	10/1/01	02D0265-003	LVLI	01L0760		02D0265	THALLIUM	MS1	84	%REC
GS40	10/1/01	02D0265-003	LVLI	01L0760		02D0265	TIN	MS1	65.1	%REC
GS40	10/1/01	02D0265-003	LVLI	01L0760		02D0265	VANADIUM	MS1	89.1	%REC
GS40	10/1/01	02D0265-003	LVLI	01L0760		02D0265	ZINC	MS1	89	%REC
GS40	11/1/01	02D0575-002	LVLI	01L0771		02D0575	ALUMINUM	MS1	181	%REC
GS10	11/20/01	02D0363-005	LVLI	01L0852		02D0363	BERYLLIUM	MS1	93.2	%REC
GS10	11/20/01	02D0363-005	LVLI	01L0852		02D0363	CADMIUM	MS1	91	%REC
GS10	11/20/01	02D0363-005	LVLI	01L0852		02D0363	CHROMIUM	MS1	90.4	%REC
GS10	11/20/01	02D0363-005	LVLI	01L0852		02D0363	SILVER	MS1	107.2	%REC
GS32	1/10/02	02D0645-003	LVLI	02C0029		02D0645	MERCURY	MS1	104	%REC
GS22	11/15/01	02D0680-002	LVLI	02C0042		02D0680	MERCURY	MS1	97	%REC
GS40	1/21/02	02D0815-002	LVLI	02C0056		02D0815	MERCURY	MS1	74	%REC
GS38	1/17/02	02D0825-001	LVLI	02C0069		02D0825	MERCURY	MS1	105	%REC
GS32	3/5/02	02D0935-002	LVLI	02C0081		02D0935	MERCURY	MS1	103	%REC
GS58	3/19/02	02D1030-001	LVLI	02C0085		02D1030	MERCURY	MS1	94	%REC
GS58	3/21/02	02D1068-001	LVLI	02C0090		02D1068	MERCURY	MS1	98	%REC
GS49	1/25/02	02D1107-001	LVLI	02C0094		02D1107	MERCURY	MS1	95	%REC
GS22	1/17/02	02D1148-003	LVLI	02C0101		02D1148	MERCURY	MS1	88	%REC
GS40	3/13/02	02D1214-003	LVLI	02C0128		02D1214	MERCURY	MS1	96	%REC
GS05	5/23/02	02D1262-001	LVLI	02C0160		02D1262	MERCURY	MS1	102	%REC
SW055	5/24/02	02D1261-004	LVLI	02C0174		02D1261	MERCURY	MS1	110	%REC
GS22	5/29/02	02D1362-002	LVLI	02C0212		02D1362	MERCURY	MS1	73	%REC
GS32	8/6/02	02D1440-001	LVLI	02C0265		02D1440	MERCURY	MS1	100	%REC
GS49	8/4/02	02D1506-002	LVLI	02C0290		02D1506	MERCURY	MS1	105	%REC
GS28	8/5/02	02D1521-003	LVLI	02C0303		02D1521	MERCURY	MS1	103	%REC
SW120	6/4/02	03D0020-002	LVLI	02C0306		03D0020	MERCURY	MS1	98	%REC
GS40	9/23/02	03D0063-001	LVLI	02C0319		03D0063	MERCURY	MS1	93	%REC
GS40	11/1/01	02D0575-002	LVLI	02L0005		02D0575	ANTIMONY	MS1	95.2	%REC
GS40	11/1/01	02D0575-002	LVLI	02L0005		02D0575	ARSENIC	MS1	95.7	%REC
GS40	11/1/01	02D0575-002	LVLI	02L0005		02D0575	BARIUM	MS1	85.3	%REC
GS40	11/1/01	02D0575-002	LVLI	02L0005		02D0575	BERYLLIUM	MS1	91	%REC
GS40	11/1/01	02D0575-002	LVLI	02L0005		02D0575	CADMIUM	MS1	86.2	%REC

Location	Sample Date	RFETS Sample Number	Lab	Lab Batch	Lab Sample Number	RIN	Analyte	Result Type	Std Result	Std Unit
GS40	11/1/01	02D0575-002	LVLI	02L0005		02D0575	CHROMIUM	MS1	88.4	%REC
GS40	11/1/01	02D0575-002	LVLI	02L0005		02D0575	COBALT	MS1	87.8	%REC
GS40	11/1/01	02D0575-002	LVLI	02L0005		02D0575	COPPER	MS1	95.2	%REC
GS40	11/1/01	02D0575-002	LVLI	02L0005		02D0575	IRON	MS1	122.4	%REC
GS40	11/1/01	02D0575-002	LVLI	02L0005		02D0575	LEAD	MS1	90.2	%REC
GS40	11/1/01	02D0575-002	LVLI	02L0005		02D0575	LITHIUM	MS1	156.3	%REC
GS40	11/1/01	02D0575-002	LVLI	02L0005		02D0575	MANGANESE	MS1	90	%REC
GS40	11/1/01	02D0575-002	LVLI	02L0005		02D0575	MOLYBDENUM	MS1	88.9	%REC
GS40	11/1/01	02D0575-002	LVLI	02L0005		02D0575	NICKEL	MS1	94.6	%REC
GS40	11/1/01	02D0575-002	LVLI	02L0005		02D0575	SELENIUM	MS1	97.9	%REC
GS40	11/1/01	02D0575-002	LVLI	02L0005		02D0575	SILVER	MS1	99.1	%REC
GS40	11/1/01	02D0575-002	LVLI	02L0005		02D0575	STRONTIUM	MS1	90.1	%REC
GS40	11/1/01	02D0575-002	LVLI	02L0005		02D0575	THALLIUM	MS1	88.4	%REC
GS40	11/1/01	02D0575-002	LVLI	02L0005		02D0575	TIN	MS1	93.2	%REC
GS40	11/1/01	02D0575-002	LVLI	02L0005		02D0575	VANADIUM	MS1	90	%REC
GS40	11/1/01	02D0575-002	LVLI	02L0005		02D0575	ZINC	MS1	91.2	%REC
GS32	1/10/02	02D0645-003	LVLI	02L0021		02D0645	ALUMINUM	MS1	206.6	%REC
GS32	1/10/02	02D0645-003	LVLI	02L0021		02D0645	ANTIMONY	MS1	102.9	%REC
GS32	1/10/02	02D0645-003	LVLI	02L0021		02D0645	ARSENIC	MS1	103.2	%REC
GS32	1/10/02	02D0645-003	LVLI	02L0021		02D0645	BARIUM	MS1	84.7	%REC
GS32	1/10/02	02D0645-003	LVLI	02L0021		02D0645	BERYLLIUM	MS1	88.9	%REC
GS32	1/10/02	02D0645-003	LVLI	02L0021		02D0645	CADMIUM	MS1	84.6	%REC
GS32	1/10/02	02D0645-003	LVLI	02L0021		02D0645	CHROMIUM	MS1	89.1	%REC
GS32	1/10/02	02D0645-003	LVLI	02L0021		02D0645	COBALT	MS1	88.3	%REC
GS32	1/10/02	02D0645-003	LVLI	02L0021		02D0645	COPPER	MS1	109.2	%REC
GS32	1/10/02	02D0645-003	LVLI	02L0021		02D0645	IRON	MS1	145	%REC
GS32	1/10/02	02D0645-003	LVLI	02L0021		02D0645	LEAD	MS1	93.5	%REC
GS32	1/10/02	02D0645-003	LVLI	02L0021		02D0645	LITHIUM	MS1	191.6	%REC
GS32	1/10/02	02D0645-003	LVLI	02L0021		02D0645	MANGANESE	MS1	92	%REC
GS32	1/10/02	02D0645-003	LVLI	02L0021		02D0645	MOLYBDENUM	MS1	91.1	%REC
GS32	1/10/02	02D0645-003	LVLI	02L0021		02D0645	NICKEL	MS1	92.5	%REC
GS32	1/10/02	02D0645-003	LVLI	02L0021		02D0645	SELENIUM	MS1	99.7	%REC
GS32	1/10/02	02D0645-003	LVLI	02L0021		02D0645	SILVER	MS1	118.4	%REC
GS32	1/10/02	02D0645-003	LVLI	02L0021		02D0645	STRONTIUM	MS1	88.1	%REC

Location	Sample Date	RFETS Sample Number	Lab	Lab Batch	Lab Sample Number	RIN	Analyte	Result Type	Std Result	Std Unit
GS32	1/10/02	02D0645-003	LVLI	02L0021		02D0645	THALLIUM	MS1	84.8	%REC
GS32	1/10/02	02D0645-003	LVLI	02L0021		02D0645	TIN	MS1	98.8	%REC
GS32	1/10/02	02D0645-003	LVLI	02L0021		02D0645	VANADIUM	MS1	90.4	%REC
GS32	1/10/02	02D0645-003	LVLI	02L0021		02D0645	ZINC	MS1	153.8	%REC
GS10	12/10/01	02D0645-002	LVLI	02L0026		02D0645	BERYLLIUM	MS1	92.6	%REC
SW093	12/17/01	02D0645-001	LVLI	02L0026		02D0645	CADMIUM	MS1	93.2	%REC
GS10	12/10/01	02D0645-002	LVLI	02L0026		02D0645	CHROMIUM	MS1	90.7	%REC
SW093	12/17/01	02D0645-001	LVLI	02L0026		02D0645	SILVER	MS1	106.5	%REC
GS22	11/15/01	02D0680-002	LVLI	02L0030		02D0680	ALUMINUM	MS1	167.7	%REC
GS22	11/15/01	02D0680-002	LVLI	02L0030		02D0680	ANTIMONY	MS1	96.8	%REC
GS22	11/15/01	02D0680-002	LVLI	02L0030		02D0680	ARSENIC	MS1	96.4	%REC
GS22	11/15/01	02D0680-002	LVLI	02L0030		02D0680	BARIUM	MS1	86.8	%REC
GS22	11/15/01	02D0680-002	LVLI	02L0030		02D0680	BERYLLIUM	MS1	90.1	%REC
GS22	11/15/01	02D0680-002	LVLI	02L0030		02D0680	CADMIUM	MS1	85.5	%REC
GS22	11/15/01	02D0680-002	LVLI	02L0030		02D0680	CHROMIUM	MS1	89.9	%REC
GS22	11/15/01	02D0680-002	LVLI	02L0030		02D0680	COBALT	MS1	88	%REC
GS22	11/15/01	02D0680-002	LVLI	02L0030		02D0680	COPPER	MS1	99.7	%REC
GS22	11/15/01	02D0680-002	LVLI	02L0030		02D0680	IRON	MS1	113.5	%REC
GS22	11/15/01	02D0680-002	LVLI	02L0030		02D0680	LEAD	MS1	91	%REC
GS22	11/15/01	02D0680-002	LVLI	02L0030		02D0680	LITHIUM	MS1	178.2	%REC
GS22	11/15/01	02D0680-002	LVLI	02L0030		02D0680	MANGANESE	MS1	92.7	%REC
GS22	11/15/01	02D0680-002	LVLI	02L0030		02D0680	MOLYBDENUM	MS1	88.7	%REC
GS22	11/15/01	02D0680-002	LVLI	02L0030		02D0680	NICKEL	MS1	91.9	%REC
GS22	11/15/01	02D0680-002	LVLI	02L0030		02D0680	SELENIUM	MS1	95.7	%REC
GS22	11/15/01	02D0680-002	LVLI	02L0030		02D0680	SILVER	MS1	103	%REC
GS22	11/15/01	02D0680-002	LVLI	02L0030		02D0680	STRONTIUM	MS1	93.5	%REC
GS22	11/15/01	02D0680-002	LVLI	02L0030		02D0680	THALLIUM	MS1	88	%REC
GS22	11/15/01	02D0680-002	LVLI	02L0030		02D0680	TIN	MS1	95.3	%REC
GS22	11/15/01	02D0680-002	LVLI	02L0030		02D0680	VANADIUM	MS1	89.9	%REC
GS22	11/15/01	02D0680-002	LVLI	02L0030		02D0680	ZINC	MS1	96.4	%REC
SW093	1/9/02	02D0724-001	LVLI	02L0061		02D0724	BERYLLIUM	MS1	92.6	%REC
SW093	1/9/02	02D0724-001	LVLI	02L0061		02D0724	CADMIUM	MS1	94.6	%REC
SW093	1/9/02	02D0724-001	LVLI	02L0061		02D0724	CHROMIUM	MS1	91	%REC
SW093	1/9/02	02D0724-001	LVLI	02L0061		02D0724	SILVER	MS1	108.2	%REC

Location	Sample Date	RFETS Sample Number	Lab	Lab Batch	Lab Sample Number	RIN	Analyte	Result Type	Std Result	Std Unit
GS40	1/21/02	02D0815-002	LVLI	02L0072		02D0815	ALUMINUM	MS1	148.1	%REC
GS40	1/21/02	02D0815-002	LVLI	02L0072		02D0815	ANTIMONY	MS1	102.7	%REC
GS40	1/21/02	02D0815-002	LVLI	02L0072		02D0815	ARSENIC	MS1	104	%REC
GS40	1/21/02	02D0815-002	LVLI	02L0072		02D0815	BARIUM	MS1	83.9	%REC
GS40	1/21/02	02D0815-002	LVLI	02L0072		02D0815	BERYLLIUM	MS1	88.5	%REC
GS40	1/21/02	02D0815-002	LVLI	02L0072		02D0815	CADMIUM	MS1	88.1	%REC
GS40	1/21/02	02D0815-002	LVLI	02L0072		02D0815	CHROMIUM	MS1	88	%REC
GS40	1/21/02	02D0815-002	LVLI	02L0072		02D0815	COBALT	MS1	88.2	%REC
GS40	1/21/02	02D0815-002	LVLI	02L0072		02D0815	COPPER	MS1	108.7	%REC
GS40	1/21/02	02D0815-002	LVLI	02L0072		02D0815	IRON	MS1	88	%REC
GS40	1/21/02	02D0815-002	LVLI	02L0072		02D0815	LEAD	MS1	95.7	%REC
GS40	1/21/02	02D0815-002	LVLI	02L0072		02D0815	LITHIUM	MS1	201.6	%REC
GS40	1/21/02	02D0815-002	LVLI	02L0072		02D0815	MANGANESE	MS1	70.1	%REC
GS40	1/21/02	02D0815-002	LVLI	02L0072		02D0815	MOLYBDENUM	MS1	92.3	%REC
GS40	1/21/02	02D0815-002	LVLI	02L0072		02D0815	NICKEL	MS1	90.6	%REC
GS40	1/21/02	02D0815-002	LVLI	02L0072		02D0815	SELENIUM	MS1	103.5	%REC
GS40	1/21/02	02D0815-002	LVLI	02L0072		02D0815	SILVER	MS1	116.7	%REC
GS40	1/21/02	02D0815-002	LVLI	02L0072		02D0815	STRONTIUM	MS1	63.7	%REC
GS40	1/21/02	02D0815-002	LVLI	02L0072		02D0815	THALLIUM	MS1	99	%REC
GS40	1/21/02	02D0815-002	LVLI	02L0072		02D0815	TIN	MS1	103.1	%REC
GS40	1/21/02	02D0815-002	LVLI	02L0072		02D0815	VANADIUM	MS1	88.6	%REC
GS40	1/21/02	02D0815-002	LVLI	02L0072		02D0815	ZINC	MS1	80.2	%REC
SW093	1/25/02	02D0815-003	LVLI	02L0102		02D0815	BERYLLIUM	MS1	94.6	%REC
SW093	1/25/02	02D0815-003	LVLI	02L0102		02D0815	CADMIUM	MS1	90.2	%REC
SW093	1/25/02	02D0815-003	LVLI	02L0102		02D0815	CHROMIUM	MS1	97	%REC
SW093	1/25/02	02D0815-003	LVLI	02L0102		02D0815	SILVER	MS1	97.6	%REC
GS38	1/17/02	02D0825-001	LVLI	02L0108		02D0825	ALUMINUM	MS1	492.6	%REC
GS38	1/17/02	02D0825-001	LVLI	02L0108		02D0825	ANTIMONY	MS1	91.5	%REC
GS38	1/17/02	02D0825-001	LVLI	02L0108		02D0825	ARSENIC	MS1	93.5	%REC
GS38	1/17/02	02D0825-001	LVLI	02L0108		02D0825	BARIUM	MS1	88.3	%REC
GS38	1/17/02	02D0825-001	LVLI	02L0108		02D0825	BERYLLIUM	MS1	89.5	%REC
GS38	1/17/02	02D0825-001	LVLI	02L0108		02D0825	CADMIUM	MS1	89.4	%REC
GS38	1/17/02	02D0825-001	LVLI	02L0108		02D0825	CHROMIUM	MS1	90.4	%REC
GS38	1/17/02	02D0825-001	LVLI	02L0108		02D0825	COBALT	MS1	89.2	%REC

Location	Sample Date	RFETS Sample Number	Lab	Lab Batch	Lab Sample Number	RIN	Analyte	Result Type	Std Result	Std Unit
GS38	1/17/02	02D0825-001	LVLI	02L0108		02D0825	COPPER	MS1	96.9	%REC
GS38	1/17/02	02D0825-001	LVLI	02L0108		02D0825	IRON	MS1	183.7	%REC
GS38	1/17/02	02D0825-001	LVLI	02L0108		02D0825	LEAD	MS1	91.4	%REC
GS38	1/17/02	02D0825-001	LVLI	02L0108		02D0825	LITHIUM	MS1	153.9	%REC
GS38	1/17/02	02D0825-001	LVLI	02L0108		02D0825	MANGANESE	MS1	91.1	%REC
GS38	1/17/02	02D0825-001	LVLI	02L0108		02D0825	MOLYBDENUM	MS1	88.9	%REC
GS38	1/17/02	02D0825-001	LVLI	02L0108		02D0825	NICKEL	MS1	90.7	%REC
GS38	1/17/02	02D0825-001	LVLI	02L0108		02D0825	SELENIUM	MS1	94.1	%REC
GS38	1/17/02	02D0825-001	LVLI	02L0108		02D0825	SILVER	MS1	98.2	%REC
GS38	1/17/02	02D0825-001	LVLI	02L0108		02D0825	STRONTIUM	MS1	90	%REC
GS38	1/17/02	02D0825-001	LVLI	02L0108		02D0825	THALLIUM	MS1	97.3	%REC
GS38	1/17/02	02D0825-001	LVLI	02L0108		02D0825	TIN	MS1	93.5	%REC
GS38	1/17/02	02D0825-001	LVLI	02L0108		02D0825	VANADIUM	MS1	88.6	%REC
GS38	1/17/02	02D0825-001	LVLI	02L0108		02D0825	ZINC	MS1	89.8	%REC
SW093	2/22/02	02D0935-001	LVLI	02L0126		02D0935	BERYLLIUM	MS1	89.3	%REC
SW093	2/22/02	02D0935-001	LVLI	02L0126		02D0935	CADMIUM	MS1	96.5	%REC
SW093	2/22/02	02D0935-001	LVLI	02L0126		02D0935	CHROMIUM	MS1	88.2	%REC
SW093	2/22/02	02D0935-001	LVLI	02L0126		02D0935	SILVER	MS1	115.6	%REC
GS32	3/5/02	02D0935-002	LVLI	02L0135		02D0935	ALUMINUM	MS1	201.9	%REC
GS32	3/5/02	02D0935-002	LVLI	02L0135		02D0935	ANTIMONY	MS1	95.8	%REC
GS32	3/5/02	02D0935-002	LVLI	02L0135		02D0935	ARSENIC	MS1	97.6	%REC
GS32	3/5/02	02D0935-002	LVLI	02L0135		02D0935	BARIUM	MS1	87.1	%REC
GS32	3/5/02	02D0935-002	LVLI	02L0135		02D0935	BERYLLIUM	MS1	78.8	%REC
GS32	3/5/02	02D0935-002	LVLI	02L0135		02D0935	CADMIUM	MS1	89.3	%REC
GS32	3/5/02	02D0935-002	LVLI	02L0135		02D0935	CHROMIUM	MS1	87	%REC
GS32	3/5/02	02D0935-002	LVLI	02L0135		02D0935	COBALT	MS1	88.8	%REC
GS32	3/5/02	02D0935-002	LVLI	02L0135		02D0935	COPPER	MS1	103.2	%REC
GS32	3/5/02	02D0935-002	LVLI	02L0135		02D0935	IRON	MS1	46.8	%REC
GS32	3/5/02	02D0935-002	LVLI	02L0135		02D0935	LEAD	MS1	95.5	%REC
GS32	3/5/02	02D0935-002	LVLI	02L0135		02D0935	LITHIUM	MS1	203.4	%REC
GS32	3/5/02	02D0935-002	LVLI	02L0135		02D0935	MANGANESE	MS1	85	%REC
GS32	3/5/02	02D0935-002	LVLI	02L0135		02D0935	MOLYBDENUM	MS1	90.3	%REC
GS32	3/5/02	02D0935-002	LVLI	02L0135		02D0935	NICKEL	MS1	89	%REC
GS32	3/5/02	02D0935-002	LVLI	02L0135		02D0935	SELENIUM	MS1	98.6	%REC

Location	Sample Date	RFETS Sample Number	Lab	Lab Batch	Lab Sample Number	RIN	Analyte	Result Type	Std Result	Std Unit
GS32	3/5/02	02D0935-002	LVLI	02L0135		02D0935	SILVER	MS1	108.6	%REC
GS32	3/5/02	02D0935-002	LVLI	02L0135		02D0935	STRONTIUM	MS1	70.9	%REC
GS32	3/5/02	02D0935-002	LVLI	02L0135		02D0935	THALLIUM	MS1	102.2	%REC
GS32	3/5/02	02D0935-002	LVLI	02L0135		02D0935	TIN	MS1	99.3	%REC
GS32	3/5/02	02D0935-002	LVLI	02L0135		02D0935	VANADIUM	MS1	85.6	%REC
GS32	3/5/02	02D0935-002	LVLI	02L0135		02D0935	ZINC	MS1	40.1	%REC
SW093	3/6/02	02D0965-007	LVLI	02L0140		02D0965	BERYLLIUM	MS1	93.2	%REC
SW093	3/6/02	02D0965-007	LVLI	02L0140		02D0965	CADMIUM	MS1	97.9	%REC
SW093	3/6/02	02D0965-007	LVLI	02L0140		02D0965	CHROMIUM	MS1	90.7	%REC
SW093	3/6/02	02D0965-007	LVLI	02L0140		02D0965	SILVER	MS1	112.8	%REC
GS58	3/19/02	02D1030-001	LVLI	02L0159		02D1030	ALUMINUM	MS1	98	%REC
GS58	3/19/02	02D1030-001	LVLI	02L0159		02D1030	ANTIMONY	MS1	96	%REC
GS58	3/19/02	02D1030-001	LVLI	02L0159		02D1030	ARSENIC	MS1	96.3	%REC
GS58	3/19/02	02D1030-001	LVLI	02L0159		02D1030	BARIUM	MS1	91.7	%REC
GS58	3/19/02	02D1030-001	LVLI	02L0159		02D1030	BERYLLIUM	MS1	95.7	%REC
GS58	3/19/02	02D1030-001	LVLI	02L0159		02D1030	CADMIUM	MS1	92	%REC
GS58	3/19/02	02D1030-001	LVLI	02L0159		02D1030	CHROMIUM	MS1	91.7	%REC
GS58	3/19/02	02D1030-001	LVLI	02L0159		02D1030	COBALT	MS1	91.9	%REC
GS58	3/19/02	02D1030-001	LVLI	02L0159		02D1030	COPPER	MS1	94.5	%REC
GS58	3/19/02	02D1030-001	LVLI	02L0159		02D1030	IRON	MS1	87.8	%REC
GS58	3/19/02	02D1030-001	LVLI	02L0159		02D1030	LEAD	MS1	94.3	%REC
GS58	3/19/02	02D1030-001	LVLI	02L0159		02D1030	LITHIUM	MS1	124.3	%REC
GS58	3/19/02	02D1030-001	LVLI	02L0159		02D1030	MANGANESE	MS1	94.7	%REC
GS58	3/19/02	02D1030-001	LVLI	02L0159		02D1030	MOLYBDENUM	MS1	94.2	%REC
GS58	3/19/02	02D1030-001	LVLI	02L0159		02D1030	NICKEL	MS1	92.2	%REC
GS58	3/19/02	02D1030-001	LVLI	02L0159		02D1030	SELENIUM	MS1	97	%REC
GS58	3/19/02	02D1030-001	LVLI	02L0159		02D1030	SILVER	MS1	94.5	%REC
GS58	3/19/02	02D1030-001	LVLI	02L0159		02D1030	STRONTIUM	MS1	101.8	%REC
GS58	3/19/02	02D1030-001	LVLI	02L0159		02D1030	THALLIUM	MS1	95.4	%REC
GS58	3/19/02	02D1030-001	LVLI	02L0159		02D1030	TIN	MS1	96.8	%REC
GS58	3/19/02	02D1030-001	LVLI	02L0159		02D1030	VANADIUM	MS1	91.6	%REC
GS58	3/19/02	02D1030-001	LVLI	02L0159		02D1030	ZINC	MS1	94.4	%REC
SW093	3/14/02	02D1060-003	LVLI	02L0160		02D1060	BERYLLIUM	MS1	92.1	%REC
SW093	3/14/02	02D1060-003	LVLI	02L0160		02D1060	CADMIUM	MS1	96.1	%REC

Location	Sample Date	RFETS Sample Number	Lab	Lab Batch	Lab Sample Number	RIN	Analyte	Result Type	Std Result	Std Unit
SW093	3/14/02	02D1060-003	LVLI	02L0160		02D1060	CHROMIUM	MS1	86.2	%REC
SW093	3/14/02	02D1060-003	LVLI	02L0160		02D1060	SILVER	MS1	110.2	%REC
GS10	3/14/02	02D1107-002	LVLI	02L0175		02D1107	BERYLLIUM	MS1	94.5	%REC
GS10	3/14/02	02D1107-002	LVLI	02L0175		02D1107	CADMIUM	MS1	94.1	%REC
GS10	3/14/02	02D1107-002	LVLI	02L0175		02D1107	CHROMIUM	MS1	90.9	%REC
GS10	3/14/02	02D1107-002	LVLI	02L0175		02D1107	SILVER	MS1	107.9	%REC
GS49	1/25/02	02D1107-001	LVLI	02L0176		02D1107	ALUMINUM	MS1	222.4	%REC
GS49	1/25/02	02D1107-001	LVLI	02L0176		02D1107	ANTIMONY	MS1	94.5	%REC
GS49	1/25/02	02D1107-001	LVLI	02L0176		02D1107	ARSENIC	MS1	96.4	%REC
GS49	1/25/02	02D1107-001	LVLI	02L0176		02D1107	BARIUM	MS1	91.5	%REC
GS49	1/25/02	02D1107-001	LVLI	02L0176		02D1107	BERYLLIUM	MS1	97.4	%REC
GS49	1/25/02	02D1107-001	LVLI	02L0176		02D1107	CADMIUM	MS1	94.1	%REC
GS49	1/25/02	02D1107-001	LVLI	02L0176		02D1107	CHROMIUM	MS1	95.1	%REC
GS49	1/25/02	02D1107-001	LVLI	02L0176		02D1107	COBALT	MS1	94.2	%REC
GS49	1/25/02	02D1107-001	LVLI	02L0176		02D1107	COPPER	MS1	96.8	%REC
GS49	1/25/02	02D1107-001	LVLI	02L0176		02D1107	IRON	MS1	144.9	%REC
GS49	1/25/02	02D1107-001	LVLI	02L0176		02D1107	LEAD	MS1	93.8	%REC
GS49	1/25/02	02D1107-001	LVLI	02L0176		02D1107	LITHIUM	MS1	113.6	%REC
GS49	1/25/02	02D1107-001	LVLI	02L0176		02D1107	MANGANESE	MS1	97.5	%REC
GS49	1/25/02	02D1107-001	LVLI	02L0176		02D1107	MOLYBDENUM	MS1	93.8	%REC
GS49	1/25/02	02D1107-001	LVLI	02L0176		02D1107	NICKEL	MS1	94	%REC
GS49	1/25/02	02D1107-001	LVLI	02L0176		02D1107	SELENIUM	MS1	96.7	%REC
GS49	1/25/02	02D1107-001	LVLI	02L0176		02D1107	SILVER	MS1	98	%REC
GS49	1/25/02	02D1107-001	LVLI	02L0176		02D1107	STRONTIUM	MS1	95.2	%REC
GS49	1/25/02	02D1107-001	LVLI	02L0176		02D1107	THALLIUM	MS1	96.7	%REC
GS49	1/25/02	02D1107-001	LVLI	02L0176		02D1107	TIN	MS1	96.4	%REC
GS49	1/25/02	02D1107-001	LVLI	02L0176		02D1107	VANADIUM	MS1	94.2	%REC
GS49	1/25/02	02D1107-001	LVLI	02L0176		02D1107	ZINC	MS1	96.9	%REC
GS58	4/6/02	02D1148-004	LVLI	02L0187		02D1148	ALUMINUM	MS1	95.4	%REC
GS58	4/6/02	02D1148-004	LVLI	02L0187		02D1148	ANTIMONY	MS1	92.9	%REC
GS58	4/6/02	02D1148-004	LVLI	02L0187		02D1148	ARSENIC	MS1	95.5	%REC
GS58	4/6/02	02D1148-004	LVLI	02L0187		02D1148	BARIUM	MS1	87.5	%REC
GS58	4/6/02	02D1148-004	LVLI	02L0187		02D1148	BERYLLIUM	MS1	93.5	%REC
GS58	4/6/02	02D1148-004	LVLI	02L0187		02D1148	CADMIUM	MS1	89.2	%REC

Location	Sample Date	RFETS Sample Number	Lab	Lab Batch	Lab Sample Number	RIN	Analyte	Result Type	Std Result	Std Unit
GS58	4/6/02	02D1148-004	LVLI	02L0187		02D1148	CHROMIUM	MS1	89.2	%REC
GS58	4/6/02	02D1148-004	LVLI	02L0187		02D1148	COBALT	MS1	89.2	%REC
GS58	4/6/02	02D1148-004	LVLI	02L0187		02D1148	COPPER	MS1	90.4	%REC
GS58	4/6/02	02D1148-004	LVLI	02L0187		02D1148	IRON	MS1	86.5	%REC
GS58	4/6/02	02D1148-004	LVLI	02L0187		02D1148	LEAD	MS1	89.1	%REC
GS58	4/6/02	02D1148-004	LVLI	02L0187		02D1148	LITHIUM	MS1	110.5	%REC
GS58	4/6/02	02D1148-004	LVLI	02L0187		02D1148	MANGANESE	MS1	92.1	%REC
GS58	4/6/02	02D1148-004	LVLI	02L0187		02D1148	MOLYBDENUM	MS1	91.7	%REC
GS58	4/6/02	02D1148-004	LVLI	02L0187		02D1148	NICKEL	MS1	88.8	%REC
GS58	4/6/02	02D1148-004	LVLI	02L0187		02D1148	SELENIUM	MS1	93.6	%REC
GS58	4/6/02	02D1148-004	LVLI	02L0187		02D1148	SILVER	MS1	94.2	%REC
GS58	4/6/02	02D1148-004	LVLI	02L0187		02D1148	STRONTIUM	MS1	87.2	%REC
GS58	4/6/02	02D1148-004	LVLI	02L0187		02D1148	THALLIUM	MS1	92.6	%REC
GS58	4/6/02	02D1148-004	LVLI	02L0187		02D1148	TIN	MS1	92.9	%REC
GS58	4/6/02	02D1148-004	LVLI	02L0187		02D1148	VANADIUM	MS1	88.5	%REC
GS58	4/6/02	02D1148-004	LVLI	02L0187		02D1148	ZINC	MS1	85.5	%REC
GS10	4/3/02	02D1214-001	LVLI	02L0246		02D1214	BERYLLIUM	MS1	91.2	%REC
GS10	4/3/02	02D1214-001	LVLI	02L0246		02D1214	CHROMIUM	MS1	88.7	%REC
GS40	3/13/02	02D1214-003	LVLI	02L0257		02D1214	ALUMINUM	MS1	180.1	%REC
GS40	3/13/02	02D1214-003	LVLI	02L0257		02D1214	ANTIMONY	MS1	101.1	%REC
GS40	3/13/02	02D1214-003	LVLI	02L0257		02D1214	ARSENIC	MS1	105	%REC
GS40	3/13/02	02D1214-003	LVLI	02L0257		02D1214	BARIUM	MS1	89.8	%REC
GS40	3/13/02	02D1214-003	LVLI	02L0257		02D1214	BERYLLIUM	MS1	94.9	%REC
GS40	3/13/02	02D1214-003	LVLI	02L0257		02D1214	CADMIUM	MS1	92.8	%REC
GS40	3/13/02	02D1214-003	LVLI	02L0257		02D1214	CHROMIUM	MS1	93	%REC
GS40	3/13/02	02D1214-003	LVLI	02L0257		02D1214	COBALT	MS1	93.6	%REC
GS40	3/13/02	02D1214-003	LVLI	02L0257		02D1214	COPPER	MS1	103.7	%REC
GS40	3/13/02	02D1214-003	LVLI	02L0257		02D1214	IRON	MS1	122.5	%REC
GS40	3/13/02	02D1214-003	LVLI	02L0257		02D1214	LEAD	MS1	95.6	%REC
GS40	3/13/02	02D1214-003	LVLI	02L0257		02D1214	LITHIUM	MS1	144.4	%REC
GS40	3/13/02	02D1214-003	LVLI	02L0257		02D1214	MANGANESE	MS1	99.3	%REC
GS40	3/13/02	02D1214-003	LVLI	02L0257		02D1214	MOLYBDENUM	MS1	99.1	%REC
GS40	3/13/02	02D1214-003	LVLI	02L0257		02D1214	NICKEL	MS1	88.5	%REC
GS40	3/13/02	02D1214-003	LVLI	02L0257		02D1214	SELENIUM	MS1	101.2	%REC

Location	Sample Date	RFETS Sample Number	Lab	Lab Batch	Lab Sample Number	RIN	Analyte	Result Type	Std Result	Std Unit
GS40	3/13/02	02D1214-003	LVLI	02L0257		02D1214	SILVER	MS1	107.9	%REC
GS40	3/13/02	02D1214-003	LVLI	02L0257		02D1214	STRONTIUM	MS1	98.7	%REC
GS40	3/13/02	02D1214-003	LVLI	02L0257		02D1214	THALLIUM	MS1	100.7	%REC
GS40	3/13/02	02D1214-003	LVLI	02L0257		02D1214	TIN	MS1	102	%REC
GS40	3/13/02	02D1214-003	LVLI	02L0257		02D1214	VANADIUM	MS1	93.7	%REC
GS40	3/13/02	02D1214-003	LVLI	02L0257		02D1214	ZINC	MS1	198.2	%REC
GS22	4/5/02	02D1221-002	LVLI	02L0313		02D1221	ALUMINUM	MS1	170.7	%REC
GS22	4/5/02	02D1221-002	LVLI	02L0313		02D1221	ANTIMONY	MS1	93.6	%REC
GS22	4/5/02	02D1221-002	LVLI	02L0313		02D1221	ARSENIC	MS1	96.1	%REC
GS22	4/5/02	02D1221-002	LVLI	02L0313		02D1221	BARIUM	MS1	90	%REC
GS22	4/5/02	02D1221-002	LVLI	02L0313		02D1221	BERYLLIUM	MS1	92.3	%REC
GS22	4/5/02	02D1221-002	LVLI	02L0313		02D1221	CADMIUM	MS1	101.1	%REC
GS22	4/5/02	02D1221-002	LVLI	02L0313		02D1221	CHROMIUM	MS1	92.9	%REC
GS22	4/5/02	02D1221-002	LVLI	02L0313		02D1221	COBALT	MS1	93.2	%REC
GS22	4/5/02	02D1221-002	LVLI	02L0313		02D1221	COPPER	MS1	96.6	%REC
GS22	4/5/02	02D1221-002	LVLI	02L0313		02D1221	IRON	MS1	135.8	%REC
GS22	4/5/02	02D1221-002	LVLI	02L0313		02D1221	LEAD	MS1	99.1	%REC
GS22	4/5/02	02D1221-002	LVLI	02L0313		02D1221	LITHIUM	MS1	128.6	%REC
GS22	4/5/02	02D1221-002	LVLI	02L0313		02D1221	MANGANESE	MS1	93.7	%REC
GS22	4/5/02	02D1221-002	LVLI	02L0313		02D1221	MOLYBDENUM	MS1	93	%REC
GS22	4/5/02	02D1221-002	LVLI	02L0313		02D1221	NICKEL	MS1	91.9	%REC
GS22	4/5/02	02D1221-002	LVLI	02L0313		02D1221	SELENIUM	MS1	95.1	%REC
GS22	4/5/02	02D1221-002	LVLI	02L0313		02D1221	SILVER	MS1	97.5	%REC
GS22	4/5/02	02D1221-002	LVLI	02L0313		02D1221	STRONTIUM	MS1	85.6	%REC
GS22	4/5/02	02D1221-002	LVLI	02L0313		02D1221	THALLIUM	MS1	99.1	%REC
GS22	4/5/02	02D1221-002	LVLI	02L0313		02D1221	TIN	MS1	96.6	%REC
GS22	4/5/02	02D1221-002	LVLI	02L0313		02D1221	VANADIUM	MS1	92.6	%REC
GS22	4/5/02	02D1221-002	LVLI	02L0313		02D1221	ZINC	MS1	86.5	%REC
SW093	4/8/02	02D1221-001	LVLI	02L0314		02D1221	BERYLLIUM	MS1	100.1	%REC
SW093	4/8/02	02D1221-001	LVLI	02L0314		02D1221	CADMIUM	MS1	111.4	%REC
SW093	4/8/02	02D1221-001	LVLI	02L0314		02D1221	CHROMIUM	MS1	99.4	%REC
SW093	4/8/02	02D1221-001	LVLI	02L0314		02D1221	SILVER	MS1	119	%REC
GS38	5/24/02	02D1262-004	LVLI	02L0335		02D1262	ALUMINUM	MS1	165.8	%REC
GS38	5/24/02	02D1262-004	LVLI	02L0335		02D1262	ANTIMONY	MS1	99.4	%REC

Location	Sample Date	RFETS Sample Number	Lab	Lab Batch	Lab Sample Number	RIN	Analyte	Result Type	Std Result	Std Unit
GS38	5/24/02	02D1262-004	LVLI	02L0335		02D1262	ARSENIC	MS1	102.5	%REC
GS38	5/24/02	02D1262-004	LVLI	02L0335		02D1262	BARIUM	MS1	97.6	%REC
GS38	5/24/02	02D1262-004	LVLI	02L0335		02D1262	BERYLLIUM	MS1	100.5	%REC
GS38	5/24/02	02D1262-004	LVLI	02L0335		02D1262	CADMIUM	MS1	100.1	%REC
GS38	5/24/02	02D1262-004	LVLI	02L0335		02D1262	CHROMIUM	MS1	100.1	%REC
GS38	5/24/02	02D1262-004	LVLI	02L0335		02D1262	COBALT	MS1	99.4	%REC
GS38	5/24/02	02D1262-004	LVLI	02L0335		02D1262	COPPER	MS1	100.2	%REC
GS38	5/24/02	02D1262-004	LVLI	02L0335		02D1262	IRON	MS1	113.2	%REC
GS38	5/24/02	02D1262-004	LVLI	02L0335		02D1262	LEAD	MS1	100.9	%REC
GS38	5/24/02	02D1262-004	LVLI	02L0335		02D1262	LITHIUM	MS1	124.4	%REC
GS38	5/24/02	02D1262-004	LVLI	02L0335		02D1262	MANGANESE	MS1	101.8	%REC
GS38	5/24/02	02D1262-004	LVLI	02L0335		02D1262	MOLYBDENUM	MS1	99.6	%REC
GS38	5/24/02	02D1262-004	LVLI	02L0335		02D1262	NICKEL	MS1	99.9	%REC
GS38	5/24/02	02D1262-004	LVLI	02L0335		02D1262	SELENIUM	MS1	101	%REC
GS38	5/24/02	02D1262-004	LVLI	02L0335		02D1262	SILVER	MS1	97.3	%REC
GS38	5/24/02	02D1262-004	LVLI	02L0335		02D1262	STRONTIUM	MS1	98.4	%REC
GS38	5/24/02	02D1262-004	LVLI	02L0335		02D1262	THALLIUM	MS1	99.5	%REC
GS38	5/24/02	02D1262-004	LVLI	02L0335		02D1262	TIN	MS1	101.7	%REC
GS38	5/24/02	02D1262-004	LVLI	02L0335		02D1262	VANADIUM	MS1	97.9	%REC
GS38	5/24/02	02D1262-004	LVLI	02L0335		02D1262	ZINC	MS1	99.8	%REC
GS55	5/30/02	02D1303-003	LVLI	02L0353		02D1303	ALUMINUM	MS1	129.9	%REC
GS55	5/30/02	02D1303-003	LVLI	02L0353		02D1303	ANTIMONY	MS1	100.7	%REC
GS55	5/30/02	02D1303-003	LVLI	02L0353		02D1303	ARSENIC	MS1	102.9	%REC
GS55	5/30/02	02D1303-003	LVLI	02L0353		02D1303	BARIUM	MS1	98.7	%REC
GS55	5/30/02	02D1303-003	LVLI	02L0353		02D1303	BERYLLIUM	MS1	99.8	%REC
GS55	5/30/02	02D1303-003	LVLI	02L0353		02D1303	CADMIUM	MS1	99	%REC
GS55	5/30/02	02D1303-003	LVLI	02L0353		02D1303	CHROMIUM	MS1	98.2	%REC
GS55	5/30/02	02D1303-003	LVLI	02L0353		02D1303	COBALT	MS1	97.4	%REC
GS55	5/30/02	02D1303-003	LVLI	02L0353		02D1303	COPPER	MS1	100.8	%REC
GS55	5/30/02	02D1303-003	LVLI	02L0353		02D1303	IRON	MS1	119.8	%REC
GS55	5/30/02	02D1303-003	LVLI	02L0353		02D1303	LEAD	MS1	100.6	%REC
GS55	5/30/02	02D1303-003	LVLI	02L0353		02D1303	LITHIUM	MS1	128	%REC
GS55	5/30/02	02D1303-003	LVLI	02L0353		02D1303	MANGANESE	MS1	99.9	%REC
GS55	5/30/02	02D1303-003	LVLI	02L0353		02D1303	MOLYBDENUM	MS1	99.1	%REC

Location	Sample Date	RFETS Sample Number	Lab	Lab Batch	Lab Sample Number	RIN	Analyte	Result Type	Std Result	Std Unit
GS55	5/30/02	02D1303-003	LVLI	02L0353		02D1303	NICKEL	MS1	99.9	%REC
GS55	5/30/02	02D1303-003	LVLI	02L0353		02D1303	SELENIUM	MS1	101.5	%REC
GS55	5/30/02	02D1303-003	LVLI	02L0353		02D1303	SILVER	MS1	96.7	%REC
GS55	5/30/02	02D1303-003	LVLI	02L0353		02D1303	STRONTIUM	MS1	100.6	%REC
GS55	5/30/02	02D1303-003	LVLI	02L0353		02D1303	THALLIUM	MS1	98	%REC
GS55	5/30/02	02D1303-003	LVLI	02L0353		02D1303	TIN	MS1	99.3	%REC
GS55	5/30/02	02D1303-003	LVLI	02L0353		02D1303	VANADIUM	MS1	95.9	%REC
GS55	5/30/02	02D1303-003	LVLI	02L0353		02D1303	ZINC	MS1	100.6	%REC
GS40	5/29/02	02D1333-003	LVLI	02L0401		02D1333	ALUMINUM	MS1	221.5	%REC
GS40	5/29/02	02D1333-003	LVLI	02L0401		02D1333	ANTIMONY	MS1	103.8	%REC
GS40	5/29/02	02D1333-003	LVLI	02L0401		02D1333	ARSENIC	MS1	107.1	%REC
GS40	5/29/02	02D1333-003	LVLI	02L0401		02D1333	BARIUM	MS1	95.5	%REC
GS40	5/29/02	02D1333-003	LVLI	02L0401		02D1333	BERYLLIUM	MS1	100.5	%REC
GS40	5/29/02	02D1333-003	LVLI	02L0401		02D1333	CADMIUM	MS1	100.3	%REC
GS40	5/29/02	02D1333-003	LVLI	02L0401		02D1333	CHROMIUM	MS1	101.5	%REC
GS40	5/29/02	02D1333-003	LVLI	02L0401		02D1333	COBALT	MS1	100.9	%REC
GS40	5/29/02	02D1333-003	LVLI	02L0401		02D1333	COPPER	MS1	105.1	%REC
GS40	5/29/02	02D1333-003	LVLI	02L0401		02D1333	IRON	MS1	140.8	%REC
GS40	5/29/02	02D1333-003	LVLI	02L0401		02D1333	LEAD	MS1	102.9	%REC
GS40	5/29/02	02D1333-003	LVLI	02L0401		02D1333	LITHIUM	MS1	141.4	%REC
GS40	5/29/02	02D1333-003	LVLI	02L0401		02D1333	MANGANESE	MS1	96.9	%REC
GS40	5/29/02	02D1333-003	LVLI	02L0401		02D1333	MOLYBDENUM	MS1	102.5	%REC
GS40	5/29/02	02D1333-003	LVLI	02L0401		02D1333	NICKEL	MS1	98.3	%REC
GS40	5/29/02	02D1333-003	LVLI	02L0401		02D1333	SELENIUM	MS1	105.5	%REC
GS40	5/29/02	02D1333-003	LVLI	02L0401		02D1333	SILVER	MS1	107.8	%REC
GS40	5/29/02	02D1333-003	LVLI	02L0401		02D1333	STRONTIUM	MS1	91	%REC
GS40	5/29/02	02D1333-003	LVLI	02L0401		02D1333	THALLIUM	MS1	103.5	%REC
GS40	5/29/02	02D1333-003	LVLI	02L0401		02D1333	TIN	MS1	105.7	%REC
GS40	5/29/02	02D1333-003	LVLI	02L0401		02D1333	VANADIUM	MS1	100.6	%REC
GS40	5/29/02	02D1333-003	LVLI	02L0401		02D1333	ZINC	MS1	97.2	%REC
GS55	6/20/02	02D1431-002	LVLI	02L0497		02D1431	ALUMINUM	MS1	95.1	%REC
GS55	6/20/02	02D1431-002	LVLI	02L0497		02D1431	ANTIMONY	MS1	99	%REC
GS55	6/20/02	02D1431-002	LVLI	02L0497		02D1431	ARSENIC	MS1	100.5	%REC
GS55	6/20/02	02D1431-002	LVLI	02L0497		02D1431	BARIUM	MS1	96.1	%REC

Location	Sample Date	RFETS Sample Number	Lab	Lab Batch	Lab Sample Number	RIN	Analyte	Result Type	Std Result	Std Unit
GS55	6/20/02	02D1431-002	LVLI	02L0497		02D1431	BERYLLIUM	MS1	96.6	%REC
GS55	6/20/02	02D1431-002	LVLI	02L0497		02D1431	CADMIUM	MS1	93	%REC
GS55	6/20/02	02D1431-002	LVLI	02L0497		02D1431	CHROMIUM	MS1	93.9	%REC
GS55	6/20/02	02D1431-002	LVLI	02L0497		02D1431	COBALT	MS1	94.1	%REC
GS55	6/20/02	02D1431-002	LVLI	02L0497		02D1431	COPPER	MS1	100.1	%REC
GS55	6/20/02	02D1431-002	LVLI	02L0497		02D1431	IRON	MS1	101	%REC
GS55	6/20/02	02D1431-002	LVLI	02L0497		02D1431	LEAD	MS1	98.2	%REC
GS55	6/20/02	02D1431-002	LVLI	02L0497		02D1431	LITHIUM	MS1	129.6	%REC
GS55	6/20/02	02D1431-002	LVLI	02L0497		02D1431	MANGANESE	MS1	100.3	%REC
GS55	6/20/02	02D1431-002	LVLI	02L0497		02D1431	MOLYBDENUM	MS1	96.1	%REC
GS55	6/20/02	02D1431-002	LVLI	02L0497		02D1431	NICKEL	MS1	90.9	%REC
GS55	6/20/02	02D1431-002	LVLI	02L0497		02D1431	SELENIUM	MS1	101	%REC
GS55	6/20/02	02D1431-002	LVLI	02L0497		02D1431	SILVER	MS1	99.9	%REC
GS55	6/20/02	02D1431-002	LVLI	02L0497		02D1431	STRONTIUM	MS1	100.4	%REC
GS55	6/20/02	02D1431-002	LVLI	02L0497		02D1431	THALLIUM	MS1	101.4	%REC
GS55	6/20/02	02D1431-002	LVLI	02L0497		02D1431	TIN	MS1	98.6	%REC
GS55	6/20/02	02D1431-002	LVLI	02L0497		02D1431	VANADIUM	MS1	95	%REC
GS55	6/20/02	02D1431-002	LVLI	02L0497		02D1431	ZINC	MS1	77.9	%REC
GS49	8/4/02	02D1506-002	LVLI	02L0554		02D1506	ALUMINUM	MS1	1266.8	%REC
GS49	8/4/02	02D1506-002	LVLI	02L0554		02D1506	ANTIMONY	MS1	77.1	%REC
GS49	8/4/02	02D1506-002	LVLI	02L0554		02D1506	ARSENIC	MS1	96.6	%REC
GS49	8/4/02	02D1506-002	LVLI	02L0554		02D1506	BARIUM	MS1	96.1	%REC
GS49	8/4/02	02D1506-002	LVLI	02L0554		02D1506	BERYLLIUM	MS1	94.1	%REC
GS49	8/4/02	02D1506-002	LVLI	02L0554		02D1506	CADMIUM	MS1	94.6	%REC
GS49	8/4/02	02D1506-002	LVLI	02L0554		02D1506	CHROMIUM	MS1	99.7	%REC
GS49	8/4/02	02D1506-002	LVLI	02L0554		02D1506	COBALT	MS1	94.1	%REC
GS49	8/4/02	02D1506-002	LVLI	02L0554		02D1506	COPPER	MS1	98.9	%REC
GS49	8/4/02	02D1506-002	LVLI	02L0554		02D1506	IRON	MS1	668.1	%REC
GS49	8/4/02	02D1506-002	LVLI	02L0554		02D1506	LEAD	MS1	94.2	%REC
GS49	8/4/02	02D1506-002	LVLI	02L0554		02D1506	LITHIUM	MS1	111	%REC
GS49	8/4/02	02D1506-002	LVLI	02L0554		02D1506	MANGANESE	MS1	101	%REC
GS49	8/4/02	02D1506-002	LVLI	02L0554		02D1506	MOLYBDENUM	MS1	92.2	%REC
GS49	8/4/02	02D1506-002	LVLI	02L0554		02D1506	NICKEL	MS1	94.6	%REC
GS49	8/4/02	02D1506-002	LVLI	02L0554		02D1506	SELENIUM	MS1	96.2	%REC

Location	Sample Date	RFETS Sample Number	Lab	Lab Batch	Lab Sample Number	RIN	Analyte	Result Type	Std Result	Std Unit
GS49	8/4/02	02D1506-002	LVLI	02L0554		02D1506	SILVER	MS1	93.9	%REC
GS49	8/4/02	02D1506-002	LVLI	02L0554		02D1506	STRONTIUM	MS1	95.6	%REC
GS49	8/4/02	02D1506-002	LVLI	02L0554		02D1506	THALLIUM	MS1	96.4	%REC
GS49	8/4/02	02D1506-002	LVLI	02L0554		02D1506	TIN	MS1	93.7	%REC
GS49	8/4/02	02D1506-002	LVLI	02L0554		02D1506	VANADIUM	MS1	98	%REC
GS49	8/4/02	02D1506-002	LVLI	02L0554		02D1506	ZINC	MS1	103.6	%REC
SW093	8/23/02	02D1503-001	LVLI	02L0568		02D1503	BERYLLIUM	MS1	94.5	%REC
SW093	8/23/02	02D1503-001	LVLI	02L0568		02D1503	CADMIUM	MS1	104.1	%REC
SW093	8/23/02	02D1503-001	LVLI	02L0568		02D1503	CHROMIUM	MS1	95.3	%REC
SW093	8/23/02	02D1503-001	LVLI	02L0568		02D1503	SILVER	MS1	107.3	%REC
GS28	8/5/02	02D1521-003	LVLI	02L0577		02D1521	ALUMINUM	MS1	312	%REC
GS28	8/5/02	02D1521-003	LVLI	02L0577		02D1521	ANTIMONY	MS1	94.5	%REC
GS28	8/5/02	02D1521-003	LVLI	02L0577		02D1521	ARSENIC	MS1	97.3	%REC
GS28	8/5/02	02D1521-003	LVLI	02L0577		02D1521	BARIUM	MS1	95.7	%REC
GS28	8/5/02	02D1521-003	LVLI	02L0577		02D1521	BERYLLIUM	MS1	95.7	%REC
GS28	8/5/02	02D1521-003	LVLI	02L0577		02D1521	CADMIUM	MS1	95.2	%REC
GS28	8/5/02	02D1521-003	LVLI	02L0577		02D1521	CHROMIUM	MS1	98.6	%REC
GS28	8/5/02	02D1521-003	LVLI	02L0577		02D1521	COBALT	MS1	95.8	%REC
GS28	8/5/02	02D1521-003	LVLI	02L0577		02D1521	COPPER	MS1	98.7	%REC
GS28	8/5/02	02D1521-003	LVLI	02L0577		02D1521	IRON	MS1	228.6	%REC
GS28	8/5/02	02D1521-003	LVLI	02L0577		02D1521	LEAD	MS1	97	%REC
GS28	8/5/02	02D1521-003	LVLI	02L0577		02D1521	LITHIUM	MS1	108.9	%REC
GS28	8/5/02	02D1521-003	LVLI	02L0577		02D1521	MANGANESE	MS1	101.1	%REC
GS28	8/5/02	02D1521-003	LVLI	02L0577		02D1521	MOLYBDENUM	MS1	95.3	%REC
GS28	8/5/02	02D1521-003	LVLI	02L0577		02D1521	NICKEL	MS1	95.4	%REC
GS28	8/5/02	02D1521-003	LVLI	02L0577		02D1521	SELENIUM	MS1	97.6	%REC
GS28	8/5/02	02D1521-003	LVLI	02L0577		02D1521	SILVER	MS1	97.9	%REC
GS28	8/5/02	02D1521-003	LVLI	02L0577		02D1521	STRONTIUM	MS1	94.9	%REC
GS28	8/5/02	02D1521-003	LVLI	02L0577		02D1521	THALLIUM	MS1	96.1	%REC
GS28	8/5/02	02D1521-003	LVLI	02L0577		02D1521	TIN	MS1	96.8	%REC
GS28	8/5/02	02D1521-003	LVLI	02L0577		02D1521	VANADIUM	MS1	97.8	%REC
GS28	8/5/02	02D1521-003	LVLI	02L0577		02D1521	ZINC	MS1	105.8	%REC
GS57	9/18/02	02D1542-002	LVLI	02L0586		02D1542	ALUMINUM	MS1	88.8	%REC
GS57	9/18/02	02D1542-002	LVLI	02L0586		02D1542	ANTIMONY	MS1	94.9	%REC

Location	Sample Date	RFETS Sample Number	Lab	Lab Batch	Lab Sample Number	RIN	Analyte	Result Type	Std Result	Std Unit
GS57	9/18/02	02D1542-002	LVLI	02L0586		02D1542	ARSENIC	MS1	97.5	%REC
GS57	9/18/02	02D1542-002	LVLI	02L0586		02D1542	BARIUM	MS1	92.3	%REC
GS57	9/18/02	02D1542-002	LVLI	02L0586		02D1542	BERYLLIUM	MS1	95.9	%REC
GS57	9/18/02	02D1542-002	LVLI	02L0586		02D1542	CADMIUM	MS1	98.6	%REC
GS57	9/18/02	02D1542-002	LVLI	02L0586		02D1542	CHROMIUM	MS1	96.7	%REC
GS57	9/18/02	02D1542-002	LVLI	02L0586		02D1542	COBALT	MS1	96.6	%REC
GS57	9/18/02	02D1542-002	LVLI	02L0586		02D1542	COPPER	MS1	94.3	%REC
GS57	9/18/02	02D1542-002	LVLI	02L0586		02D1542	IRON	MS1	95.8	%REC
GS57	9/18/02	02D1542-002	LVLI	02L0586		02D1542	LEAD	MS1	97.8	%REC
GS57	9/18/02	02D1542-002	LVLI	02L0586		02D1542	LITHIUM	MS1	99.6	%REC
GS57	9/18/02	02D1542-002	LVLI	02L0586		02D1542	MANGANESE	MS1	98.4	%REC
GS57	9/18/02	02D1542-002	LVLI	02L0586		02D1542	MOLYBDENUM	MS1	96.4	%REC
GS57	9/18/02	02D1542-002	LVLI	02L0586		02D1542	NICKEL	MS1	97.6	%REC
GS57	9/18/02	02D1542-002	LVLI	02L0586		02D1542	SELENIUM	MS1	97.4	%REC
GS57	9/18/02	02D1542-002	LVLI	02L0586		02D1542	SILVER	MS1	94.2	%REC
GS57	9/18/02	02D1542-002	LVLI	02L0586		02D1542	STRONTIUM	MS1	91.7	%REC
GS57	9/18/02	02D1542-002	LVLI	02L0586		02D1542	THALLIUM	MS1	97.5	%REC
GS57	9/18/02	02D1542-002	LVLI	02L0586		02D1542	TIN	MS1	97.5	%REC
GS57	9/18/02	02D1542-002	LVLI	02L0586		02D1542	VANADIUM	MS1	95.2	%REC
GS57	9/18/02	02D1542-002	LVLI	02L0586		02D1542	ZINC	MS1	94.1	%REC
SW120	6/4/02	03D0020-002	LVLI	02L0595		03D0020	ALUMINUM	MS1	205.7	%REC
SW120	6/4/02	03D0020-002	LVLI	02L0595		03D0020	ANTIMONY	MS1	93.9	%REC
SW120	6/4/02	03D0020-002	LVLI	02L0595		03D0020	ARSENIC	MS1	98.3	%REC
SW120	6/4/02	03D0020-002	LVLI	02L0595		03D0020	BARIUM	MS1	93	%REC
SW120	6/4/02	03D0020-002	LVLI	02L0595		03D0020	BERYLLIUM	MS1	95.6	%REC
SW120	6/4/02	03D0020-002	LVLI	02L0595		03D0020	CADMIUM	MS1	92.6	%REC
SW120	6/4/02	03D0020-002	LVLI	02L0595		03D0020	CHROMIUM	MS1	96	%REC
SW120	6/4/02	03D0020-002	LVLI	02L0595		03D0020	COBALT	MS1	95.7	%REC
SW120	6/4/02	03D0020-002	LVLI	02L0595		03D0020	COPPER	MS1	98.5	%REC
SW120	6/4/02	03D0020-002	LVLI	02L0595		03D0020	IRON	MS1	95.5	%REC
SW120	6/4/02	03D0020-002	LVLI	02L0595		03D0020	LEAD	MS1	94.7	%REC
SW120	6/4/02	03D0020-002	LVLI	02L0595		03D0020	LITHIUM	MS1	118.5	%REC
SW120	6/4/02	03D0020-002	LVLI	02L0595		03D0020	MANGANESE	MS1	97	%REC
SW120	6/4/02	03D0020-002	LVLI	02L0595		03D0020	MOLYBDENUM	MS1	94.4	%REC

Location	Sample Date	RFETS Sample Number	Lab	Lab Batch	Lab Sample Number	RIN	Analyte	Result Type	Std Result	Std Unit
SW120	6/4/02	03D0020-002	LVLI	02L0595		03D0020	NICKEL	MS1	92.7	%REC
SW120	6/4/02	03D0020-002	LVLI	02L0595		03D0020	SELENIUM	MS1	97.4	%REC
SW120	6/4/02	03D0020-002	LVLI	02L0595		03D0020	SILVER	MS1	97.7	%REC
SW120	6/4/02	03D0020-002	LVLI	02L0595		03D0020	STRONTIUM	MS1	91.8	%REC
SW120	6/4/02	03D0020-002	LVLI	02L0595		03D0020	THALLIUM	MS1	100.9	%REC
SW120	6/4/02	03D0020-002	LVLI	02L0595		03D0020	TIN	MS1	97.4	%REC
SW120	6/4/02	03D0020-002	LVLI	02L0595		03D0020	VANADIUM	MS1	97.1	%REC
SW120	6/4/02	03D0020-002	LVLI	02L0595		03D0020	ZINC	MS1	91.5	%REC
SW119	9/13/02	03D0024-003	LVLI	02L0612		03D0024	ALUMINUM	MS1	220.8	%REC
SW119	9/13/02	03D0024-003	LVLI	02L0612		03D0024	ANTIMONY	MS1	95.2	%REC
SW119	9/13/02	03D0024-003	LVLI	02L0612		03D0024	ARSENIC	MS1	97	%REC
SW119	9/13/02	03D0024-003	LVLI	02L0612		03D0024	BARIUM	MS1	94	%REC
SW119	9/13/02	03D0024-003	LVLI	02L0612		03D0024	BERYLLIUM	MS1	95.5	%REC
SW119	9/13/02	03D0024-003	LVLI	02L0612		03D0024	CADMIUM	MS1	93.6	%REC
SW119	9/13/02	03D0024-003	LVLI	02L0612		03D0024	CHROMIUM	MS1	96.8	%REC
SW119	9/13/02	03D0024-003	LVLI	02L0612		03D0024	COBALT	MS1	95.2	%REC
SW119	9/13/02	03D0024-003	LVLI	02L0612		03D0024	COPPER	MS1	98.6	%REC
SW119	9/13/02	03D0024-003	LVLI	02L0612		03D0024	IRON	MS1	155.6	%REC
SW119	9/13/02	03D0024-003	LVLI	02L0612		03D0024	LEAD	MS1	94.8	%REC
SW119	9/13/02	03D0024-003	LVLI	02L0612		03D0024	LITHIUM	MS1	118.7	%REC
SW119	9/13/02	03D0024-003	LVLI	02L0612		03D0024	MANGANESE	MS1	98	%REC
SW119	9/13/02	03D0024-003	LVLI	02L0612		03D0024	MOLYBDENUM	MS1	94.8	%REC
SW119	9/13/02	03D0024-003	LVLI	02L0612		03D0024	NICKEL	MS1	94	%REC
SW119	9/13/02	03D0024-003	LVLI	02L0612		03D0024	SELENIUM	MS1	96.7	%REC
SW119	9/13/02	03D0024-003	LVLI	02L0612		03D0024	SILVER	MS1	99.4	%REC
SW119	9/13/02	03D0024-003	LVLI	02L0612		03D0024	STRONTIUM	MS1	91.5	%REC
SW119	9/13/02	03D0024-003	LVLI	02L0612		03D0024	THALLIUM	MS1	96.2	%REC
SW119	9/13/02	03D0024-003	LVLI	02L0612		03D0024	TIN	MS1	97.4	%REC
SW119	9/13/02	03D0024-003	LVLI	02L0612		03D0024	VANADIUM	MS1	97.2	%REC
SW119	9/13/02	03D0024-003	LVLI	02L0612		03D0024	ZINC	MS1	93.9	%REC
GS40	9/23/02	03D0063-001	LVLI	02L0619		03D0063	ALUMINUM	MS1	126.4	%REC
GS40	9/23/02	03D0063-001	LVLI	02L0619		03D0063	ANTIMONY	MS1	98.9	%REC
GS40	9/23/02	03D0063-001	LVLI	02L0619		03D0063	ARSENIC	MS1	100.6	%REC
GS40	9/23/02	03D0063-001	LVLI	02L0619		03D0063	BARIUM	MS1	96	%REC

Location	Sample Date	RFETS Sample Number	Lab	Lab Batch	Lab Sample Number	RIN	Analyte	Result Type	Std Result	Std Unit
GS40	9/23/02	03D0063-001	LVLI	02L0619		03D0063	BERYLLIUM	MS1	96.5	%REC
GS40	9/23/02	03D0063-001	LVLI	02L0619		03D0063	CADMIUM	MS1	94.8	%REC
GS40	9/23/02	03D0063-001	LVLI	02L0619		03D0063	CHROMIUM	MS1	97.1	%REC
GS40	9/23/02	03D0063-001	LVLI	02L0619		03D0063	COBALT	MS1	95.8	%REC
GS40	9/23/02	03D0063-001	LVLI	02L0619		03D0063	COPPER	MS1	101.1	%REC
GS40	9/23/02	03D0063-001	LVLI	02L0619		03D0063	IRON	MS1	136.3	%REC
GS40	9/23/02	03D0063-001	LVLI	02L0619		03D0063	LEAD	MS1	97	%REC
GS40	9/23/02	03D0063-001	LVLI	02L0619		03D0063	LITHIUM	MS1	123.2	%REC
GS40	9/23/02	03D0063-001	LVLI	02L0619		03D0063	MANGANESE	MS1	103.6	%REC
GS40	9/23/02	03D0063-001	LVLI	02L0619		03D0063	MOLYBDENUM	MS1	97.3	%REC
GS40	9/23/02	03D0063-001	LVLI	02L0619		03D0063	NICKEL	MS1	95.6	%REC
GS40	9/23/02	03D0063-001	LVLI	02L0619		03D0063	SELENIUM	MS1	100.8	%REC
GS40	9/23/02	03D0063-001	LVLI	02L0619		03D0063	SILVER	MS1	100.4	%REC
GS40	9/23/02	03D0063-001	LVLI	02L0619		03D0063	STRONTIUM	MS1	96.9	%REC
GS40	9/23/02	03D0063-001	LVLI	02L0619		03D0063	THALLIUM	MS1	99.1	%REC
GS40	9/23/02	03D0063-001	LVLI	02L0619		03D0063	TIN	MS1	98.9	%REC
GS40	9/23/02	03D0063-001	LVLI	02L0619		03D0063	VANADIUM	MS1	97.9	%REC
GS40	9/23/02	03D0063-001	LVLI	02L0619		03D0063	ZINC	MS1	80.1	%REC
GS43	5/24/02	03D0109-004	LVLI	02L0655		03D0109	ALUMINUM	MS1	272.7	%REC
GS43	5/24/02	03D0109-004	LVLI	02L0655		03D0109	ANTIMONY	MS1	88	%REC
GS43	5/24/02	03D0109-004	LVLI	02L0655		03D0109	ARSENIC	MS1	90.2	%REC
GS43	5/24/02	03D0109-004	LVLI	02L0655		03D0109	BARIUM	MS1	91.7	%REC
GS43	5/24/02	03D0109-004	LVLI	02L0655		03D0109	BERYLLIUM	MS1	89.6	%REC
GS43	5/24/02	03D0109-004	LVLI	02L0655		03D0109	CADMIUM	MS1	88.8	%REC
GS43	5/24/02	03D0109-004	LVLI	02L0655		03D0109	CHROMIUM	MS1	90	%REC
GS43	5/24/02	03D0109-004	LVLI	02L0655		03D0109	COBALT	MS1	89.3	%REC
GS43	5/24/02	03D0109-004	LVLI	02L0655		03D0109	COPPER	MS1	92.1	%REC
GS43	5/24/02	03D0109-004	LVLI	02L0655		03D0109	IRON	MS1	113.3	%REC
GS43	5/24/02	03D0109-004	LVLI	02L0655		03D0109	LEAD	MS1	88.5	%REC
GS43	5/24/02	03D0109-004	LVLI	02L0655		03D0109	LITHIUM	MS1	104.1	%REC
GS43	5/24/02	03D0109-004	LVLI	02L0655		03D0109	MANGANESE	MS1	92.5	%REC
GS43	5/24/02	03D0109-004	LVLI	02L0655		03D0109	MOLYBDENUM	MS1	88.5	%REC
GS43	5/24/02	03D0109-004	LVLI	02L0655		03D0109	NICKEL	MS1	88.9	%REC
GS43	5/24/02	03D0109-004	LVLI	02L0655		03D0109	SELENIUM	MS1	89.2	%REC

Location	Sample Date	RFETS Sample Number	Lab	Lab Batch	Lab Sample Number	RIN	Analyte	Result Type	Std Result	Std Unit
GS43	5/24/02	03D0109-004	LVLI	02L0655		03D0109	SILVER	MS1	90.1	%REC
GS43	5/24/02	03D0109-004	LVLI	02L0655		03D0109	STRONTIUM	MS1	88.9	%REC
GS43	5/24/02	03D0109-004	LVLI	02L0655		03D0109	THALLIUM	MS1	90.9	%REC
GS43	5/24/02	03D0109-004	LVLI	02L0655		03D0109	TIN	MS1	87.8	%REC
GS43	5/24/02	03D0109-004	LVLI	02L0655		03D0109	VANADIUM	MS1	90.9	%REC
GS43	5/24/02	03D0109-004	LVLI	02L0655		03D0109	ZINC	MS1	81.7	%REC
			STLDEN	1305286	D1J210104-001S	02D0174	MERCURY	MS1	97	%REC
			STLDEN	1305286	D1J210104-001S	02D0216	MERCURY	MS1	97	%REC
			STLDEN	1305286	D1J210104-001D	02D0216	MERCURY	MD1	98	%REC
			STLDEN	1305286	D1J210104-001D	02D0174	MERCURY	MD1	98	%REC
			STLDEN	1316429	D1K010326-001S	02D0264	MERCURY	MS1	95	%REC
			STLDEN	1316429	D1K010326-001D	02D0264	MERCURY	MD1	95	%REC
			STLDEN	2078494	D2C050209-001D	02D0965	MERCURY	MD1	92	%REC
			STLDEN	2078494	D2C050209-001S	02D0965	MERCURY	MS1	94	%REC
			STLDEN	2108280	D2D110302-001S	02D1153	ALUMINUM	MS1	104	%REC
			STLDEN	2108280	D2D110302-001D	02D1153	ALUMINUM	MD1	105	%REC
			STLDEN	2108280	D2D110302-001S	02D1153	ANTIMONY	MS1	103	%REC
			STLDEN	2108280	D2D110302-001D	02D1153	ANTIMONY	MD1	104	%REC
			STLDEN	2108280	D2D110302-001S	02D1153	ARSENIC	MS1	104	%REC
			STLDEN	2108280	D2D110302-001D	02D1153	ARSENIC	MD1	105	%REC
			STLDEN	2108280	D2D110302-001S	02D1153	BARIUM	MS1	98	%REC
			STLDEN	2108280	D2D110302-001D	02D1153	BARIUM	MD1	99	%REC
			STLDEN	2108280	D2D110302-001S	02D1153	BERYLLIUM	MS1	84	%REC
			STLDEN	2108280	D2D110302-001D	02D1153	BERYLLIUM	MD1	85	%REC
			STLDEN	2108280	D2D110302-001S	02D1153	CADMIUM	MS1	93	%REC
			STLDEN	2108280	D2D110302-001D	02D1153	CADMIUM	MD1	94	%REC
			STLDEN	2108280	D2D110302-001S	02D1153	CHROMIUM	MS1	92	%REC
			STLDEN	2108280	D2D110302-001D	02D1153	CHROMIUM	MD1	94	%REC
			STLDEN	2108280	D2D110302-001S	02D1153	COBALT	MS1	93	%REC
			STLDEN	2108280	D2D110302-001D	02D1153	COBALT	MD1	94	%REC
			STLDEN	2108280	D2D110302-001S	02D1153	COPPER	MS1	100	%REC
			STLDEN	2108280	D2D110302-001D	02D1153	COPPER	MD1	101	%REC
			STLDEN	2108280	D2D110302-001S	02D1153	LEAD	MS1	100	%REC
			STLDEN	2108280	D2D110302-001D	02D1153	LEAD	MD1	102	%REC

Location	Sample Date	RFETS Sample Number	Lab	Lab Batch	Lab Sample Number	RIN	Analyte	Result Type	Std Result	Std Unit
			STLDEN	2108280	D2D110302-001S	02D1153	MANGANESE	MS1	93	%REC
			STLDEN	2108280	D2D110302-001D	02D1153	MANGANESE	MD1	94	%REC
			STLDEN	2108280	D2D110302-001S	02D1153	MOLYBDENUM	MS1	95	%REC
			STLDEN	2108280	D2D110302-001D	02D1153	MOLYBDENUM	MD1	96	%REC
			STLDEN	2108280	D2D110302-001S	02D1153	NICKEL	MS1	93	%REC
			STLDEN	2108280	D2D110302-001D	02D1153	NICKEL	MD1	95	%REC
			STLDEN	2108280	D2D110302-001S	02D1153	SELENIUM	MS1	113	%REC
			STLDEN	2108280	D2D110302-001D	02D1153	SELENIUM	MD1	114	%REC
			STLDEN	2108280	D2D110302-001S	02D1153	SILVER	MS1	106	%REC
			STLDEN	2108280	D2D110302-001D	02D1153	SILVER	MD1	108	%REC
			STLDEN	2108280	D2D110302-001S	02D1153	STRONTIUM	MS1	90	%REC
			STLDEN	2108280	D2D110302-001D	02D1153	STRONTIUM	MD1	94	%REC
			STLDEN	2108280	D2D110302-001S	02D1153	THALLIUM	MS1	100	%REC
			STLDEN	2108280	D2D110302-001D	02D1153	THALLIUM	MD1	102	%REC
			STLDEN	2108280	D2D110302-001S	02D1153	TIN	MS1	100	%REC
			STLDEN	2108280	D2D110302-001D	02D1153	TIN	MD1	102	%REC
			STLDEN	2108280	D2D110302-001S	02D1153	VANADIUM	MS1	94	%REC
			STLDEN	2108280	D2D110302-001D	02D1153	VANADIUM	MD1	95	%REC
			STLDEN	2108280	D2D110302-001S	02D1153	ZINC	MS1	90	%REC
			STLDEN	2108280	D2D110302-001D	02D1153	ZINC	MD1	92	%REC
SW134	4/22/02	02D1187-001	STLDEN	2120365		02D1187	CALCIUM	MS1	95	%REC
SW134	4/22/02	02D1187-001	STLDEN	2120365		02D1187	CALCIUM	MD1	101	%REC
SW134	4/22/02	02D1187-001	STLDEN	2120365		02D1187	IRON	MS1	120	%REC
SW134	4/22/02	02D1187-001	STLDEN	2120365		02D1187	IRON	MD1	136	%REC
SW134	4/22/02	02D1187-001	STLDEN	2120365		02D1187	LITHIUM	MS1	100	%REC
SW134	4/22/02	02D1187-001	STLDEN	2120365		02D1187	LITHIUM	MD1	103	%REC
SW134	4/22/02	02D1187-001	STLDEN	2120365		02D1187	MAGNESIUM	MS1	99	%REC
SW134	4/22/02	02D1187-001	STLDEN	2120365		02D1187	MAGNESIUM	MD1	103	%REC
SW134	4/22/02	02D1187-001	STLDEN	2120365		02D1187	POTASSIUM	MS1	98	%REC
SW134	4/22/02	02D1187-001	STLDEN	2120365		02D1187	POTASSIUM	MD1	101	%REC
SW134	4/22/02	02D1187-001	STLDEN	2120365		02D1187	SODIUM	MS1	100	%REC
SW134	4/22/02	02D1187-001	STLDEN	2120365		02D1187	SODIUM	MD1	104	%REC
			STLDEN	2120368	D2D290202-001D	02D1187	ALUMINUM	MD1	106	%REC
			STLDEN	2120368	D2D290202-001S	02D1187	ALUMINUM	MS1	111	%REC

Location	Sample Date	RFETS Sample Number	Lab	Lab Batch	Lab Sample Number	RIN	Analyte	Result Type	Std Result	Std Unit
			STLDEN	2120368	D2D290202-001D	02D1187	ANTIMONY	MD1	100	%REC
			STLDEN	2120368	D2D290202-001S	02D1187	ANTIMONY	MS1	101	%REC
			STLDEN	2120368	D2D290202-001S	02D1187	ARSENIC	MS1	102	%REC
			STLDEN	2120368	D2D290202-001D	02D1187	ARSENIC	MD1	103	%REC
			STLDEN	2120368	D2D290202-001D	02D1187	BARIUM	MD1	102	%REC
			STLDEN	2120368	D2D290202-001S	02D1187	BARIUM	MS1	103	%REC
			STLDEN	2120368	D2D290202-001S	02D1187	BERYLLIUM	MS1	95	%REC
			STLDEN	2120368	D2D290202-001D	02D1187	BERYLLIUM	MD1	97	%REC
			STLDEN	2120368	D2D290202-001S	02D1187	CADMIUM	MS1	96	%REC
			STLDEN	2120368	D2D290202-001D	02D1187	CADMIUM	MD1	98	%REC
			STLDEN	2120368	D2D290202-001S	02D1187	CHROMIUM	MS1	99	%REC
			STLDEN	2120368	D2D290202-001D	02D1187	CHROMIUM	MD1	100	%REC
			STLDEN	2120368	D2D290202-001D	02D1187	COBALT	MD1	98	%REC
			STLDEN	2120368	D2D290202-001S	02D1187	COBALT	MS1	98	%REC
			STLDEN	2120368	D2D290202-001D	02D1187	COPPER	MD1	98	%REC
			STLDEN	2120368	D2D290202-001S	02D1187	COPPER	MS1	99	%REC
			STLDEN	2120368	D2D290202-001D	02D1187	LEAD	MD1	102	%REC
			STLDEN	2120368	D2D290202-001S	02D1187	LEAD	MS1	102	%REC
			STLDEN	2120368	D2D290202-001D	02D1187	MANGANESE	MD1	90	%REC
			STLDEN	2120368	D2D290202-001S	02D1187	MANGANESE	MS1	94	%REC
			STLDEN	2120368	D2D290202-001S	02D1187	MOLYBDENUM	MS1	97	%REC
			STLDEN	2120368	D2D290202-001D	02D1187	MOLYBDENUM	MD1	97	%REC
			STLDEN	2120368	D2D290202-001S	02D1187	NICKEL	MS1	99	%REC
			STLDEN	2120368	D2D290202-001D	02D1187	NICKEL	MD1	100	%REC
			STLDEN	2120368	D2D290202-001D	02D1187	SELENIUM	MD1	105	%REC
			STLDEN	2120368	D2D290202-001S	02D1187	SELENIUM	MS1	106	%REC
			STLDEN	2120368	D2D290202-001D	02D1187	SILVER	MD1	102	%REC
			STLDEN	2120368	D2D290202-001S	02D1187	SILVER	MS1	103	%REC
			STLDEN	2120368	D2D290202-001D	02D1187	STRONTIUM	MD1	100	%REC
			STLDEN	2120368	D2D290202-001S	02D1187	STRONTIUM	MS1	101	%REC
			STLDEN	2120368	D2D290202-001D	02D1187	THALLIUM	MD1	98	%REC
			STLDEN	2120368	D2D290202-001S	02D1187	THALLIUM	MS1	98	%REC
			STLDEN	2120368	D2D290202-001S	02D1187	TIN	MS1	98	%REC
			STLDEN	2120368	D2D290202-001D	02D1187	TIN	MD1	98	%REC

Location	Sample Date	RFETS Sample Number	Lab	Lab Batch	Lab Sample Number	RIN	Analyte	Result Type	Std Result	Std Unit
			STLDEN	2120368	D2D290202-001D	02D1187	VANADIUM	MD1	101	%REC
			STLDEN	2120368	D2D290202-001S	02D1187	VANADIUM	MS1	101	%REC
			STLDEN	2120368	D2D290202-001S	02D1187	ZINC	MS1	95	%REC
			STLDEN	2120368	D2D290202-001D	02D1187	ZINC	MD1	104	%REC
SW134	4/22/02	02D1187-001	STLDEN	2128258		02D1187	MERCURY	MD1	92	%REC
SW134	4/22/02	02D1187-001	STLDEN	2128258		02D1187	MERCURY	MS1	92	%REC
			STLDEN	2183277	D2F190325-001S	02D1336	MERCURY	MS1	98	%REC
			STLDEN	2183277	D2F190325-001D	02D1336	MERCURY	MD1	98	%REC
			STLDEN	2196216	D2G030333-001D	02D1383	MERCURY	MD1	98	%REC
			STLDEN	2196216	D2G030333-001S	02D1383	MERCURY	MS1	98	%REC
			STLDEN	2281592	D2J020287-008D	03D0018	SILVER	MD1	28	%REC
			STLDEN	2281592	D2J020287-008S	03D0018	SILVER	MS1	28	%REC
GS03	10/3/01	02D0112-001	GEL	114891		02D0111	TRITIUM	MS1	92	%REC
GS03	10/3/01	02D0112-001	GEL	114891		02D0112	TRITIUM	MS1	92	%REC
GS03	10/9/01	02D0142-001	GEL	116132		02D0142	TRITIUM	MS1	101	%REC
GS03	10/9/01	02D0142-001	GEL	116132		02D0089	TRITIUM	MS1	101	%REC
GS40	10/1/01	02D0265-003	GEL	120070		02D0216	TRITIUM	MS1	100	%REC
GS40	10/1/01	02D0265-003	GEL	120070		02D0205	TRITIUM	MS1	100	%REC
GS40	10/1/01	02D0265-003	GEL	120070		02D0174	TRITIUM	MS1	100	%REC
GS40	10/1/01	02D0265-003	GEL	120070		02D0265	TRITIUM	MS1	100	%REC
GS44	10/4/01	02D0299-002	GEL	122198		02D0299	TRITIUM	MS1	94	%REC
GS44	10/4/01	02D0299-002	GEL	122198		02D0264	TRITIUM	MS1	94	%REC
GS03	11/30/01	02D0413-001	GEL	125112		02D0413	TRITIUM	MS1	99	%REC
GS03	11/30/01	02D0413-001	GEL	125112		02D0361	TRITIUM	MS1	99	%REC
GS03	11/30/01	02D0413-001	GEL	125112		02D0292	TRITIUM	MS1	99	%REC
GS03	12/4/01	02D0426-001	GEL	127547		02D0426	TRITIUM	MS1	85	%REC
GS01	12/5/01	02D0575-001	GEL	129365		02D0575	TRITIUM	MS1	83	%REC
GS01	12/5/01	02D0575-001	GEL	129365		02D0602	TRITIUM	MS1	83	%REC
GS03	1/28/02	02D0767-001	GEL	137215		02D0767	TRITIUM	MS1	95	%REC
GS03	1/28/02	02D0767-001	GEL	137215		02D0725	TRITIUM	MS1	95	%REC
GS01	2/4/02	02D0825-002	GEL	145948		02D0825	TRITIUM	MS1	100	%REC
GS03	2/5/02	02D0926-001	GEL	149784		02D0926	TRITIUM	MS1	102	%REC
GS03	2/5/02	02D0926-001	GEL	149784		02D0925	TRITIUM	MS1	102	%REC
			STLDEN	1304435	D1J250333-002D	02D0116	HARDNESS, TOTAL	MD1	101	%REC

Location	Sample Date	RFETS Sample Number	Lab	Lab Batch	Lab Sample Number	RIN	Analyte	Result Type	Std Result	Std Unit
			STLDEN	1304435	D1J250333-002S	02D0116	HARDNESS, TOTAL	MS1	101	%REC
GS10	10/11/01	02D0177-002	STLDEN	1304435		02D0177	HARDNESS, TOTAL	MD1	101	%REC
GS10	10/11/01	02D0177-002	STLDEN	1304435		02D0177	HARDNESS, TOTAL	MS1	101	%REC
			STLDEN	1306282	D1J150194-008D	02D0216	SULFATE	MD1	96	%REC
			STLDEN	1306282	D1J150194-008S	02D0216	SULFATE	MS1	98	%REC
			STLDEN	1306283	D1K010329-003S	02D0216	CHLORIDE	MS1	97	%REC
			STLDEN	1306283	D1K010329-003D	02D0216	CHLORIDE	MD1	98	%REC
			STLDEN	1315095	D1J210105-010D	02D0174	FLUORIDE	MD1	95	%REC
			STLDEN	1315095	D1J210105-010S	02D0174	FLUORIDE	MS1	97	%REC
			STLDEN	1315101	D1J210105-010S	02D0174	SULFATE	MS1	98	%REC
			STLDEN	1315101	D1J210105-010D	02D0174	SULFATE	MD1	98	%REC
			STLDEN	1321220	D1K070189-001D	02D0265	CHLORIDE	MD1	97	%REC
			STLDEN	1321220	D1K070189-001S	02D0265	CHLORIDE	MS1	99	%REC
			STLDEN	1323481	D1K070189-001S	02D0265	HARDNESS, TOTAL	MS1	100	%REC
			STLDEN	1323481	D1K070189-001D	02D0265	HARDNESS, TOTAL	MD1	100	%REC
			STLDEN	1330274	D1K070189-001S	02D0265	FLUORIDE	MS1	90	%REC
			STLDEN	1330274	D1K070189-001D	02D0265	FLUORIDE	MD1	93	%REC
SW134	10/31/01	02D0265-001	STLDEN	1330274		02D0265	FLUORIDE	MS1	90	%REC
SW134	10/31/01	02D0265-001	STLDEN	1330274		02D0265	FLUORIDE	MD1	93	%REC
			STLDEN	1330275	D1K070189-001S	02D0265	SULFATE	MS1	96	%REC
			STLDEN	1330275	D1K070189-001D	02D0265	SULFATE	MD1	99	%REC
SW134	10/31/01	02D0265-001	STLDEN	1330275		02D0265	SULFATE	MS1	96	%REC
SW134	10/31/01	02D0265-001	STLDEN	1330275		02D0265	SULFATE	MD1	99	%REC
GS10	11/6/01	02D0345-001	STLDEN	1337535		02D0345	HARDNESS, TOTAL	MS1	100	%REC
GS10	11/6/01	02D0345-001	STLDEN	1337535		02D0345	HARDNESS, TOTAL	MD1	100	%REC
			STLDEN	1355437	D1L180278-001S	02D0363	HARDNESS, TOTAL	MS1	99	%REC
			STLDEN	1355437	D1L180278-001D	02D0363	HARDNESS, TOTAL	MD1	100	%REC
SW093	11/26/01	02D0512-002	STLDEN	1355437		02D0512	HARDNESS, TOTAL	MS1	99	%REC
SW093	11/26/01	02D0512-002	STLDEN	1355437		02D0512	HARDNESS, TOTAL	MD1	100	%REC
SW134	1/14/02	02D0664-001	STLDEN	2022218		02D0664	FLUORIDE	MS1	98	%REC
SW134	1/14/02	02D0664-001	STLDEN	2022218		02D0664	FLUORIDE	MD1	99	%REC
SW134	1/14/02	02D0664-001	STLDEN	2022219		02D0664	SULFATE	MS1	95	%REC
SW134	1/14/02	02D0664-001	STLDEN	2022219		02D0664	SULFATE	MD1	98	%REC
SW134	1/14/02	02D0664-001	STLDEN	2022220		02D0664	CHLORIDE	MD1	96	%REC

Location	Sample Date	RFETS Sample Number	Lab	Lab Batch	Lab Sample Number	RIN	Analyte	Result Type	Std Result	Std Unit
SW134	1/14/02	02D0664-001	STLDEN	2022220		02D0664	CHLORIDE	MS1	96	%REC
			STLDEN	2035376	D2A170292-001D	02D0645	HARDNESS, TOTAL	MD1	101	%REC
			STLDEN	2035376	D2A170292-001S	02D0645	HARDNESS, TOTAL	MS1	102	%REC
SW134	1/14/02	02D0664-001	STLDEN	2035376		02D0664	HARDNESS, TOTAL	MD1	101	%REC
SW134	1/14/02	02D0664-001	STLDEN	2035376		02D0664	HARDNESS, TOTAL	MS1	102	%REC
SW093	1/9/02	02D0724-001	STLDEN	2037351		02D0724	HARDNESS, TOTAL	MD1	103	%REC
SW093	1/9/02	02D0724-001	STLDEN	2037351		02D0724	HARDNESS, TOTAL	MS1	104	%REC
			STLDEN	2049315	D2B120216-001S	02D0725	HARDNESS, TOTAL	MS1	99	%REC
			STLDEN	2049315	D2B120216-001D	02D0725	HARDNESS, TOTAL	MD1	99	%REC
SW093	1/25/02	02D0815-003	STLDEN	2049315		02D0815	HARDNESS, TOTAL	MD1	99	%REC
SW093	1/25/02	02D0815-003	STLDEN	2049315		02D0815	HARDNESS, TOTAL	MS1	99	%REC
			STLDEN	2070367	D2C060320-001S	02D0918	HARDNESS, TOTAL	MS1	98	%REC
			STLDEN	2070367	D2C060320-001S	02D0935	HARDNESS, TOTAL	MS1	98	%REC
			STLDEN	2070367	D2C060320-001D	02D0918	HARDNESS, TOTAL	MD1	99	%REC
			STLDEN	2070367	D2C060320-001D	02D0935	HARDNESS, TOTAL	MD1	99	%REC
GS10	2/4/02	02D0925-001	STLDEN	2070367		02D0925	HARDNESS, TOTAL	MS1	98	%REC
GS10	2/4/02	02D0925-001	STLDEN	2070367		02D0925	HARDNESS, TOTAL	MD1	99	%REC
SW093	3/6/02	02D0965-007	STLDEN	2092344		02D0965	HARDNESS, TOTAL	MS1	96	%REC
SW093	3/6/02	02D0965-007	STLDEN	2092344		02D0965	HARDNESS, TOTAL	MD1	96	%REC
			STLDEN	2098501	D2C280238-003D	02D1107	HARDNESS, TOTAL	MD1	103	%REC
			STLDEN	2098501	D2C280238-003S	02D1107	HARDNESS, TOTAL	MS1	104	%REC
SW093	3/14/02	02D1060-003	STLDEN	2098501		02D1060	HARDNESS, TOTAL	MD1	103	%REC
SW093	3/14/02	02D1060-003	STLDEN	2098501		02D1060	HARDNESS, TOTAL	MS1	104	%REC
			STLDEN	2113324	D2D090240-001S	02D1159	HARDNESS, TOTAL	MS1	102	%REC
			STLDEN	2113324	D2D090240-001D	02D1159	HARDNESS, TOTAL	MD1	102	%REC
SW093	3/27/02	02D1148-002	STLDEN	2113324		02D1148	HARDNESS, TOTAL	MS1	102	%REC
SW093	3/27/02	02D1148-002	STLDEN	2113324		02D1148	HARDNESS, TOTAL	MD1	102	%REC
SW134	4/22/02	02D1187-001	STLDEN	2119531		02D1187	FLUORIDE	MS1	87	%REC
SW134	4/22/02	02D1187-001	STLDEN	2119531		02D1187	FLUORIDE	MD1	90	%REC
SW134	4/22/02	02D1187-001	STLDEN	2119532		02D1187	SULFATE	MS1	92	%REC
SW134	4/22/02	02D1187-001	STLDEN	2119532		02D1187	SULFATE	MD1	97	%REC
SW134	4/22/02	02D1187-001	STLDEN	2127336		02D1187	CHLORIDE	MD1	93	%REC
SW134	4/22/02	02D1187-001	STLDEN	2127336		02D1187	CHLORIDE	MS1	95	%REC
SW134	4/22/02	02D1187-001	STLDEN	2134345		02D1187	HARDNESS, TOTAL	MD1	100	%REC

Location	Sample Date	RFETS Sample Number	Lab	Lab Batch	Lab Sample Number	RIN	Analyte	Result Type	Std Result	Std Unit
SW134	4/22/02	02D1187-001	STLDEN	2134345		02D1187	HARDNESS, TOTAL	MS1	100	%REC
			STLDEN	2143437	D2E210256-008S	02D1221	HARDNESS, TOTAL	MS1	100	%REC
			STLDEN	2143437	D2E210256-008D	02D1214	HARDNESS, TOTAL	MD1	100	%REC
			STLDEN	2143437	D2E210256-008D	02D1221	HARDNESS, TOTAL	MD1	100	%REC
			STLDEN	2143437	D2E210256-008S	02D1214	HARDNESS, TOTAL	MS1	100	%REC
GS10	5/3/02	02D1233-005	STLDEN	2143437		02D1233	HARDNESS, TOTAL	MD1	100	%REC
GS10	5/3/02	02D1233-005	STLDEN	2143437		02D1233	HARDNESS, TOTAL	MS1	100	%REC
			STLDEN	2158383	D2E280160-005D	02D1264	HARDNESS, TOTAL	MD1	100	%REC
			STLDEN	2158383	D2E280160-005S	02D1262	HARDNESS, TOTAL	MS1	100	%REC
			STLDEN	2158383	D2E280160-005D	02D1262	HARDNESS, TOTAL	MD1	100	%REC
			STLDEN	2158383	D2E280160-005D	02D1261	HARDNESS, TOTAL	MD1	100	%REC
			STLDEN	2158383	D2E280160-005S	02D1261	HARDNESS, TOTAL	MS1	100	%REC
			STLDEN	2158383	D2E280160-005S	02D1264	HARDNESS, TOTAL	MS1	100	%REC
SW093	5/17/02	02D1254-014	STLDEN	2158383		02D1254	HARDNESS, TOTAL	MD1	100	%REC
SW093	5/17/02	02D1254-014	STLDEN	2158383		02D1254	HARDNESS, TOTAL	MS1	100	%REC
			STLDEN	2169195	D2E300298-002S	02D1264	CHLORIDE	MS1	93	%REC
			STLDEN	2169195	D2E300298-002D	02D1264	CHLORIDE	MD1	94	%REC
GS06	5/23/02	02D1262-002	STLDEN	2169195		02D1262	CHLORIDE	MS1	93	%REC
GS06	5/23/02	02D1262-002	STLDEN	2169195		02D1262	CHLORIDE	MD1	94	%REC
			STLDEN	2169196	D2E300298-002S	02D1264	FLUORIDE	MS1	88	%REC
			STLDEN	2169196	D2E300298-002D	02D1264	FLUORIDE	MD1	90	%REC
GS06	5/23/02	02D1262-002	STLDEN	2169196		02D1262	FLUORIDE	MS1	88	%REC
GS06	5/23/02	02D1262-002	STLDEN	2169196		02D1262	FLUORIDE	MD1	90	%REC
			STLDEN	2169197	D2E300298-002S	02D1264	SULFATE	MS1	92	%REC
			STLDEN	2169197	D2E300298-002D	02D1264	SULFATE	MD1	94	%REC
GS06	5/23/02	02D1262-002	STLDEN	2169197		02D1262	SULFATE	MS1	92	%REC
GS06	5/23/02	02D1262-002	STLDEN	2169197		02D1262	SULFATE	MD1	94	%REC
			STLDEN	2189348	D2F130282-001D	02D1362	HARDNESS, TOTAL	MD1	100	%REC
			STLDEN	2189348	D2F130282-001S	02D1362	HARDNESS, TOTAL	MS1	102	%REC
SW093	5/28/02	02D1303-001	STLDEN	2189348		02D1303	HARDNESS, TOTAL	MD1	100	%REC
SW093	5/28/02	02D1303-001	STLDEN	2189348		02D1303	HARDNESS, TOTAL	MS1	102	%REC
			STLDEN	2218330	D2G170359-001D	02D1393	HARDNESS, TOTAL	MD1	94	%REC
			STLDEN	2218330	D2G170359-001S	02D1393	HARDNESS, TOTAL	MS1	95	%REC
GS10	6/10/02	02D1377-002	STLDEN	2218330		02D1377	HARDNESS, TOTAL	MD1	94	%REC

Location	Sample Date	RFETS Sample Number	Lab	Lab Batch	Lab Sample Number	RIN	Analyte	Result Type	Std Result	Std Unit
GS10	6/10/02	02D1377-002	STLDEN	2218330		02D1377	HARDNESS, TOTAL	MS1	95	%REC
			STLDEN	2226519	D2H140289-001D	02D1429	CHLORIDE	MD1	92	%REC
			STLDEN	2226519	D2H140289-001S	02D1429	CHLORIDE	MS1	97	%REC
			STLDEN	2226523	D2H140289-001S	02D1429	SULFATE	MS1	101	%REC
			STLDEN	2226523	D2H140289-001D	02D1429	SULFATE	MD1	106	%REC
			STLDEN	2231245	D2H060260-001S	02D1431	HARDNESS, TOTAL	MS1	99	%REC
			STLDEN	2231245	D2H060260-001S	02D1440	HARDNESS, TOTAL	MS1	99	%REC
			STLDEN	2231245	D2H060260-001D	02D1431	HARDNESS, TOTAL	MD1	100	%REC
			STLDEN	2231245	D2H060260-001D	02D1440	HARDNESS, TOTAL	MD1	100	%REC
GS10	7/29/02	02D1433-001	STLDEN	2231245		02D1433	HARDNESS, TOTAL	MS1	99	%REC
GS10	7/29/02	02D1433-001	STLDEN	2231245		02D1433	HARDNESS, TOTAL	MD1	100	%REC
SW093	8/6/02	02D1469-002	STLDEN	2242393		02D1469	HARDNESS, TOTAL	MS1	91	%REC
SW093	8/6/02	02D1469-002	STLDEN	2242393		02D1469	HARDNESS, TOTAL	MD1	92	%REC
			STLDEN	2259516	D2I120307-001S	02D1503	HARDNESS, TOTAL	MS1	98	%REC
			STLDEN	2259516	D2I120307-001D	02D1503	HARDNESS, TOTAL	MD1	98	%REC
GS10	8/6/02	02D1498-001	STLDEN	2259516		02D1498	HARDNESS, TOTAL	MD1	98	%REC
GS10	8/6/02	02D1498-001	STLDEN	2259516		02D1498	HARDNESS, TOTAL	MS1	98	%REC
			STLDEN	2276262	D2I170305-001D	02D1516	HARDNESS, TOTAL	MD1	95	%REC
			STLDEN	2276262	D2I170305-001S	02D1516	HARDNESS, TOTAL	MS1	96	%REC
GS05	9/13/02	02D1517-001	STLDEN	2276262		02D1517	HARDNESS, TOTAL	MD1	95	%REC
GS05	9/13/02	02D1517-001	STLDEN	2276262		02D1517	HARDNESS, TOTAL	MS1	96	%REC
GS05	9/13/02	02D1517-001	STLDEN	2277512		02D1517	CHLORIDE	MD1	107	%REC
GS05	9/13/02	02D1517-001	STLDEN	2277512		02D1517	CHLORIDE	MS1	108	%REC
GS05	9/13/02	02D1517-001	STLDEN	2277515		02D1517	FLUORIDE	MS1	100	%REC
GS05	9/13/02	02D1517-001	STLDEN	2277515		02D1517	FLUORIDE	MD1	102	%REC
GS05	9/13/02	02D1517-001	STLDEN	2277519		02D1517	SULFATE	MS1	109	%REC
GS05	9/13/02	02D1517-001	STLDEN	2277519		02D1517	SULFATE	MD1	109	%REC
SW093	9/16/02	03D0020-006	STLDEN	2289505		03D0020	HARDNESS, TOTAL	MS1	94	%REC
SW093	9/16/02	03D0020-006	STLDEN	2289505		03D0020	HARDNESS, TOTAL	MD1	95	%REC
SW027	5/28/02	03D0024-004	STLDEN	2296576		03D0024	HARDNESS, TOTAL	MS1	98	%REC
SW027	5/28/02	03D0024-004	STLDEN	2296576		03D0024	HARDNESS, TOTAL	MD1	98	%REC
			STLDEN	2296677	D2J160320-005S	03D0064	SULFATE	MS1	104	%REC
			STLDEN	2296677	D2J160320-005D	03D0064	SULFATE	MD1	104	%REC
			STLDEN	3050335	D3B180212-003S	03D0506	HARDNESS, TOTAL	MS1	97	%REC

Location	Sample Date	RFETS Sample Number	Lab	Lab Batch	Lab Sample Number	RIN	Analyte	Result Type	Std Result	Std Unit
			STLDEN	3050335	D3B180212-003D	03D0506	HARDNESS, TOTAL	MD1	97	%REC
			STLDEN	3106468	D3C260322-010S	03D0683	HARDNESS, TOTAL	MS1	100	%REC
			STLDEN	3106468	D3C260322-010D	03D0683	HARDNESS, TOTAL	MD1	100	%REC

Table B-7. Lab Control Sample (LCS) Data for Metals and Water-Quality Parameters.

Result Type	Group	LIC	RIN	Lab	Lab Sample Number	Analyte	Result	Units
LC1	Metals	SS05C037	02D0177	LVLI	01L0739-LC1	SILVER	26.6	%REC
LC1	Metals	MET-A-013	02D0965	STLDEN	D2C210000-382C	THALLIUM	88	%REC
LC1	Metals	SS05C001	02D0111	LVLI	01L0683-LC1	SILVER	88.5	%REC
LC1	Metals	RME-A-001	02D0265	LVLI	01L0752-LC1	SILVER	88.5	%REC
LC1	Metals	MET-A-013	02D1397	EMXT	IPH028WL	POTASSIUM	89	%REC
LC1	Metals	MET-A-013	02D1153	STLDEN	D2D180000-280C	BERYLLIUM	89	%REC
LC1	Metals	MET-A-013	02D1383	STLDEN	D2G190000-319C	BERYLLIUM	89	%REC
LC1	Metals	MET-A-001	02D0687	LVLI	02L0030-LC1	SILVER	89.3	%REC
LC1	Metals	MET-A-001	02D0680	LVLI	02L0030-LC1	SILVER	89.3	%REC
LC1	Metals	MET-A-001	02D0815	LVLI	02L0072-LC1	SILVER	90	%REC
LC1	Metals	RME-A-001	02D0815	LVLI	02L0102-LC1	SILVER	90	%REC
LC1	Metals	MET-A-001	02D0724	LVLI	02L0072-LC1	SILVER	90	%REC
LC1	Metals	MET-A-013	02D1383	STLDEN	D2G190000-319C	ZINC	90	%REC
LC1	Metals	MET-A-013	02D1153	STLDEN	D2D180000-280C	MOLYBDENUM	90	%REC
LC1	Metals	MET-A-013	02D1153	STLDEN	D2D180000-280C	TIN	90	%REC
LC2	Metals	MET-A-013	02D1497	STLDEN	D2I160000-275C	POTASSIUM	90	%REC
LC1	Metals	MET-A-001	02D0299	LVLI	01L0760-LC1	SILVER	90.3	%REC
LC1	Metals	MET-A-001	02D0575	LVLI	02L0005-LC1	SILVER	90.3	%REC
LC1	Metals	SS05C037	02D0116	LVLI	01L0691-LC1	SILVER	90.3	%REC
LC1	Metals	MET-A-001	02D0265	LVLI	01L0760-LC1	SILVER	90.3	%REC
LC1	Metals	SS05C001	02D0111	LVLI	01C0332-LC1	MERCURY	90.4	%REC
LC1	Metals	RME-A-001	02D0299	LVLI	01L0775-LC1	SILVER	90.5	%REC
LC1	Metals	MET-A-013	02D1153	STLDEN	D2D180000-280C	COPPER	91	%REC

Result Type	Group	LIC	RIN	Lab	Lab Sample Number	Analyte	Result	Units
LC1	Metals	MET-A-013	02D1383	STLDEN	D2G190000-319C	COBALT	91	%REC
LC1	Metals	MET-A-013	02D1383	STLDEN	D2G190000-319C	MOLYBDENUM	91	%REC
LC1	Metals	MET-A-013	02D1383	STLDEN	D2G190000-319C	TIN	91	%REC
LC1	Metals	MET-A-013	02D0965	STLDEN	D2C210000-382C	STRONTIUM	91	%REC
LC1	Metals	MET-A-013	02D0965	STLDEN	D2C210000-382C	MOLYBDENUM	91	%REC
LC1	Metals	MET-A-013	02D1153	STLDEN	D2D180000-280C	COBALT	91	%REC
LC2	Metals	MET-A-013	02D0264	STLDEN	D1K150000-512C	BERYLLIUM	91	%REC
LC1	Metals	MET-A-013	03D0064	STLDEN	D2J210000-554C	MOLYBDENUM	91	%REC
LC1	Metals	RME-A-001	02D0724	LVLI	02L0061-LC1	SILVER	91.1	%REC
LC1	Metals	RME-A-001	02D0725	LVLI	02L0061-LC1	SILVER	91.1	%REC
LC1	Metals	RME-A-001	02D0645	LVLI	02L0026-LC1	SILVER	91.5	%REC
LC1	Metals	RME-A-001	02D0512	LVLI	01L0852-LC1	SILVER	91.6	%REC
LC1	Metals	RME-A-001	02D0363	LVLI	01L0852-LC1	SILVER	91.6	%REC
LC1	Metals	MET-A-013	02D0965	STLDEN	D2C210000-382C	ANTIMONY	92	%REC
LC1	Metals	MET-A-013	02D1153	STLDEN	D2D180000-280C	CADMIUM	92	%REC
LC1	Metals	MET-A-013	02D0264	STLDEN	D1K130000-294C	ALUMINUM	92	%REC
LC1	Metals	MET-A-013	02D1497	STLDEN	D2I120000-330C	BERYLLIUM	92	%REC
LC1	Metals	MET-A-013	02D0965	STLDEN	D2C210000-382C	COPPER	92	%REC
LC1	Metals	MET-A-013	02D1153	STLDEN	D2D180000-280C	ZINC	92	%REC
LC1	Metals	MET-A-013	02D0089	STLDEN	D1J110000-275C	ALUMINUM	92	%REC
LC2	Metals	MET-A-013	02D0089	STLDEN	D1J300000-125C	THALLIUM	92	%REC
LC1	Metals	MET-A-013	02D1153	STLDEN	D2D180000-280C	THALLIUM	92	%REC
LC2	Metals	MET-A-013	02D0264	STLDEN	D1K150000-512C	ZINC	92	%REC
LC1	Metals	MET-A-013	02D1336	STLDEN	D2G020000-393C	COPPER	92	%REC
LC1	Metals	MET-A-001	02D0664	LVLI	02L0021-LC1	SILVER	92.1	%REC
LC1	Metals	MET-A-001	02D0645	LVLI	02L0021-LC1	SILVER	92.1	%REC
LC1	Metals	MET-A-001	02D0825	LVLI	02L0108-LC1	SILVER	92.9	%REC
LC1	Metals	MET-A-013	02D0174	STLDEN	D1J250000-322C	LITHIUM	93	%REC
LC2	Metals	MET-A-013	02D0089	STLDEN	D1J300000-125C	CADMIUM	93	%REC
LC1	Metals	MET-A-013	02D1383	STLDEN	D2G190000-319C	VANADIUM	93	%REC
LC1	Metals	MET-A-013	03D0064	STLDEN	D2J210000-554C	BERYLLIUM	93	%REC
LC1	Metals	MET-A-013	03D0064	STLDEN	D2J210000-554C	THALLIUM	93	%REC

Result Type	Group	LIC	RIN	Lab	Lab Sample Number	Analyte	Result	Units
LC1	Metals	MET-A-013	02D1397	EMXT	IPH028WL	LITHIUM	93	%REC
LC1	Metals	MET-A-013	02D1383	STLDEN	D2G190000-319C	CADMIUM	93	%REC
LC1	Metals	MET-A-013	02D0264	STLDEN	D1K130000-294C	THALLIUM	93	%REC
LC1	Metals	MET-A-013	02D1383	STLDEN	D2G190000-319C	THALLIUM	93	%REC
LC1	Metals	MET-A-013	02D1336	STLDEN	D2G020000-393C	TIN	93	%REC
LC1	Metals	MET-A-013	02D1336	STLDEN	D2G020000-393C	COBALT	93	%REC
LC1	Metals	MET-A-013	02D1336	STLDEN	D2G020000-393C	MOLYBDENUM	93	%REC
LC1	Metals	MET-A-013	02D0965	STLDEN	D2C210000-382C	TIN	93	%REC
LC2	Metals	MET-A-013	02D0264	STLDEN	D1K150000-512C	MOLYBDENUM	93	%REC
LC1	Metals	MET-A-013	02D0264	STLDEN	D1K130000-294C	BERYLLIUM	93	%REC
LC1	Metals	MET-A-013	02D1153	STLDEN	D2D180000-280C	ALUMINUM	93	%REC
LC1	Metals	MET-A-013	02D0292	STLDEN	D1K150000-500C	ALUMINUM	93	%REC
LC1	Metals	MET-A-013	02D1153	STLDEN	D2D180000-280C	NICKEL	93	%REC
LC1	Metals	MET-A-013	02D1153	STLDEN	D2D180000-280C	VANADIUM	93	%REC
LC1	Metals	MET-A-013	02D0965	STLDEN	D2C210000-382C	BARIUM	93	%REC
LC2	Metals	MET-A-013	02D0089	STLDEN	D1J300000-125C	TIN	93	%REC
LC1	Metals	MET-A-013	02D1336	STLDEN	D2G020000-393C	BERYLLIUM	93	%REC
LC1	Metals	MET-A-013	02D1497	STLDEN	D2I120000-330C	MOLYBDENUM	93	%REC
LC1	Metals	MET-A-013	02D0216	STLDEN	D1K010000-326C	STRONTIUM	93	%REC
LC2	Metals	MET-A-013	02D1497	STLDEN	D2I160000-275C	SODIUM	93	%REC
LC1	Metals	RME-A-001	02D0345	LVLI	01L0804-LC1	SILVER	93	%REC
LC1	Metals	MET-A-013	02D0216	STLDEN	D1K010000-326C	THALLIUM	93	%REC
LC1	Metals	MET-A-013	02D0371	LVLI	01L0804-LC1	SILVER	93	%REC
LC1	Metals	MET-A-013	02D0089	STLDEN	D1J110000-275C	THALLIUM	93	%REC
LC2	Metals	MET-A-013	02D0174	STLDEN	D1K010000-336C	ALUMINUM	93	%REC
LC2	Metals	MET-A-013	02D1497	STLDEN	D2I160000-275C	LITHIUM	93	%REC
LC1	Metals	MET-A-013	02D1497	STLDEN	D2I120000-330C	TIN	93	%REC
LC2	Metals	MET-A-013	02D1497	STLDEN	D2I160000-278C	BERYLLIUM	93	%REC
LC2	Metals	MET-A-013	02D1497	STLDEN	D2I160000-278C	COBALT	93	%REC
LC2	Metals	MET-A-013	02D1497	STLDEN	D2I160000-278C	COPPER	93	%REC
LC2	Metals	MET-A-013	02D1497	STLDEN	D2I160000-278C	MOLYBDENUM	93	%REC
LC1	Metals	MET-A-013	02D1497	STLDEN	D2I120000-330C	COBALT	93	%REC

Result Type	Group	LIC	RIN	Lab	Lab Sample Number	Analyte	Result	Units
LC1	Metals	RME-A-002	02D0265	LVLI	01L0739-LC1	CHROMIUM	93.7	%REC
LC1	Metals	SS05C038	02D0177	LVLI	01L0739-LC1	CHROMIUM	93.7	%REC
LC1	Metals	MET-A-001	02D1243	LVLI	02L0313-LC1	POTASSIUM	93.8	%REC
LC1	Metals	MET-A-001	02D1254	LVLI	02L0313-LC1	POTASSIUM	93.8	%REC
LC1	Metals	MET-A-001	02D1240	LVLI	02L0313-LC1	POTASSIUM	93.8	%REC
LC1	Metals	MET-A-001	02D1233	LVLI	02L0313-LC1	POTASSIUM	93.8	%REC
LC1	Metals	MET-A-001	02D1221	LVLI	02L0313-LC1	POTASSIUM	93.8	%REC
LC1	Metals	MET-A-013	02D1153	STLDEN	D2D180000-280C	MANGANESE	94	%REC
LC2	Metals	MET-A-013	02D0216	STLDEN	D1K060000-307C	COPPER	94	%REC
LC1	Metals	MET-A-013	02D1153	STLDEN	D2D180000-280C	CHROMIUM	94	%REC
LC2	Metals	MET-A-013	02D1497	STLDEN	D2I160000-275C	IRON	94	%REC
LC1	Metals	MET-A-013	02D0292	STLDEN	D1K150000-500C	COPPER	94	%REC
LC1	Metals	MET-A-013	02D1153	STLDEN	D2D180000-280C	ANTIMONY	94	%REC
LC1	Metals	MET-A-013	02D1497	STLDEN	D2I120000-330C	THALLIUM	94	%REC
LC1	Metals	MET-A-013	02D0965	STLDEN	D2C210000-382C	COBALT	94	%REC
LC2	Metals	MET-A-013	02D0264	STLDEN	D1K150000-512C	THALLIUM	94	%REC
LC1	Metals	MET-A-013	03D0064	STLDEN	D2J210000-554C	TIN	94	%REC
LC1	Metals	MET-A-013	02D0264	STLDEN	D1K130000-294C	ZINC	94	%REC
LC1	Metals	MET-A-013	02D0264	STLDEN	D1K130000-294C	TIN	94	%REC
LC2	Metals	MET-A-013	02D1497	STLDEN	D2I160000-278C	THALLIUM	94	%REC
LC1	Metals	MET-A-013	02D0264	STLDEN	D1K130000-294C	MOLYBDENUM	94	%REC
LC2	Metals	MET-A-013	02D1497	STLDEN	D2I160000-278C	TIN	94	%REC
LC2	Metals	MET-A-013	02D0264	STLDEN	D1K150000-512C	COBALT	94	%REC
LC2	Metals	MET-A-013	02D0264	STLDEN	D1K150000-512C	TIN	94	%REC
LC2	Metals	MET-A-013	02D0089	STLDEN	D1J300000-125C	STRONTIUM	94	%REC
LC1	Metals	MET-A-013	02D1153	STLDEN	D2D180000-280C	STRONTIUM	94	%REC
LC2	Metals	MET-A-013	02D0264	STLDEN	D1K150000-512C	COPPER	94	%REC
LC1	Metals	MET-A-013	02D0965	STLDEN	D2C210000-382C	NICKEL	94	%REC
LC2	Metals	MET-A-013	02D0264	STLDEN	D1K150000-512C	CADMIUM	94	%REC
LC2	Metals	MET-A-013	02D0089	STLDEN	D1J300000-125C	ZINC	94	%REC
LC2	Metals	MET-A-013	02D1497	STLDEN	D2I160000-275C	MAGNESIUM	94	%REC
LC2	Metals	MET-A-013	02D1497	STLDEN	D2I160000-278C	ALUMINUM	94	%REC

Result Type	Group	LIC	RIN	Lab	Lab Sample Number	Analyte	Result	Units
LC1	Metals	MET-A-013	02D1383	STLDEN	D2G190000-319C	COPPER	94	%REC
LC1	Metals	MET-A-013	02D0089	STLDEN	D1J110000-278C	LITHIUM	94	%REC
LC1	Metals	MET-A-013	02D0089	STLDEN	D1J110000-278C	POTASSIUM	94	%REC
LC2	Metals	MET-A-013	02D0089	STLDEN	D1J300000-125C	ANTIMONY	94	%REC
LC1	Metals	MET-A-013	02D0089	STLDEN	D1J110000-275C	NICKEL	94	%REC
LC1	Metals	MET-A-013	02D1383	STLDEN	D2G190000-319C	LEAD	94	%REC
LC1	Metals	MET-A-013	02D0089	STLDEN	D1J110000-275C	STRONTIUM	94	%REC
LC1	Metals	MET-A-013	02D0216	STLDEN	D1K010000-326C	COPPER	94	%REC
LC1	Metals	MET-A-013	02D0089	STLDEN	D1J110000-275C	COPPER	94	%REC
LC2	Metals	MET-A-013	02D0089	STLDEN	D1J300000-125C	BARIUM	94	%REC
LC1	Metals	MET-A-013	02D1383	STLDEN	D2G190000-319C	NICKEL	94	%REC
LC1	Metals	MET-A-013	02D1383	STLDEN	D2G190000-319C	MANGANESE	94	%REC
LC1	Metals	MET-A-013	02D1153	STLDEN	D2D160000-410C	MERCURY	94	%REC
LC1	Metals	MET-A-013	02D1383	STLDEN	D2G190000-319C	CHROMIUM	94	%REC
LC1	Metals	MET-A-013	02D1497	STLDEN	D2I120000-330C	ALUMINUM	94	%REC
LC1	Metals	MET-A-013	02D1497	STLDEN	D2I120000-330C	COPPER	94	%REC
LC1	Metals	MET-A-013	02D0216	STLDEN	D1K010000-326C	TIN	94	%REC
LC2	Metals	MET-A-013	02D0089	STLDEN	D1J300000-125C	MOLYBDENUM	94	%REC
LC1	Metals	MET-A-001	02D1197	LVLI	02L0257-LC1	SELENIUM	94.1	%REC
LC1	Metals	MET-A-001	02D1214	LVLI	02L0257-LC1	SELENIUM	94.1	%REC
LC1	Metals	SS05C001	02D0111	LVLI	01L0683-LC1	BARIUM	94.3	%REC
LC1	Metals	MET-A-001	02D1214	LVLI	02L0257-LC1	ARSENIC	94.4	%REC
LC1	Metals	MET-A-013	02D1153	LVLI	02L0198-LC1	ARSENIC	94.4	%REC
LC1	Metals	MET-A-001	02D1197	LVLI	02L0257-LC1	ARSENIC	94.4	%REC
LC1	Metals	MET-A-013	02D1153	LVLI	02L0198-LC1	CALCIUM	94.5	%REC
LC1	Metals	MET-A-013	02D1542	LVLI	02L0586-LC1	ALUMINUM	94.5	%REC
LC1	Metals	MET-A-013	02D1153	LVLI	02L0198-LC1	BARIUM	94.6	%REC
LC1	Metals	MET-A-013	02D1153	LVLI	02L0198-LC1	SELENIUM	94.7	%REC
LC1	Metals	MET-A-013	03D0024	LVLI	02L0612-LC1	SODIUM	94.7	%REC
LC1	Metals	MET-A-001	02D1214	LVLI	02L0257-LC1	POTASSIUM	94.8	%REC
LC1	Metals	MET-A-001	02D1197	LVLI	02L0257-LC1	POTASSIUM	94.8	%REC
LC1	Metals	MET-A-001	02D1214	LVLI	02C0128-LC1	MERCURY	94.8	%REC

Result Type	Group	LIC	RIN	Lab	Lab Sample Number	Analyte	Result	Units
LC1	Metals	MET-A-013	03D0064	STLDEN	D2J220000-488C	IRON	95	%REC
LC1	Metals	MET-A-013	02D0174	STLDEN	D1J250000-322C	CALCIUM	95	%REC
LC1	Metals	MET-A-013	02D1497	STLDEN	D2I120000-330C	VANADIUM	95	%REC
LC2	Metals	MET-A-013	02D0292	STLDEN	D1K200000-590C	STRONTIUM	95	%REC
LC2	Metals	MET-A-013	02D1497	STLDEN	D2I160000-278C	VANADIUM	95	%REC
LC1	Metals	MET-A-013	02D0292	STLDEN	D1K150000-500C	BERYLLIUM	95	%REC
LC1	Metals	MET-A-013	02D1497	STLDEN	D2I120000-330C	ZINC	95	%REC
LC1	Metals	MET-A-013	02D1397	EMXT	IPH029WL	ANTIMONY	95	%REC
LC1	Metals	MET-A-013	02D0292	STLDEN	D1K150000-500C	THALLIUM	95	%REC
LC1	Metals	MET-A-013	02D0965	STLDEN	D2C210000-382C	ZINC	95	%REC
LC1	Metals	MET-A-013	03D0064	STLDEN	D2J210000-554C	ALUMINUM	95	%REC
LC1	Metals	MET-A-013	03D0064	STLDEN	D2J210000-554C	COBALT	95	%REC
LC1	Metals	MET-A-013	02D0965	STLDEN	D2C210000-382C	SILVER	95	%REC
LC2	Metals	MET-A-013	02D0174	STLDEN	D1K010000-336C	ANTIMONY	95	%REC
LC1	Metals	MET-A-013	02D0965	STLDEN	D2C210000-382C	SELENIUM	95	%REC
LC1	Metals	MET-A-013	03D0064	STLDEN	D2J210000-554C	ZINC	95	%REC
LC2	Metals	MET-A-013	02D0089	STLDEN	D1J300000-125C	COPPER	95	%REC
LC1	Metals	MET-A-013	02D1383	STLDEN	D2G190000-319C	ARSENIC	95	%REC
LC1	Metals	MET-A-013	02D1497	STLDEN	D2I120000-331C	POTASSIUM	95	%REC
LC1	Metals	MET-A-013	02D1336	STLDEN	D2G020000-393C	ALUMINUM	95	%REC
LC1	Metals	MET-A-013	02D0965	STLDEN	D2C210000-382C	CADMIUM	95	%REC
LC1	Metals	MET-A-013	02D1336	STLDEN	D2G020000-393C	VANADIUM	95	%REC
LC2	Metals	MET-A-013	02D0089	STLDEN	D1J300000-125C	NICKEL	95	%REC
LC1	Metals	MET-A-013	02D1336	STLDEN	D2G020000-393C	THALLIUM	95	%REC
LC2	Metals	MET-A-013	02D0089	STLDEN	D1J300000-125C	BERYLLIUM	95	%REC
LC2	Metals	MET-A-013	02D0264	STLDEN	D1K150000-512C	ALUMINUM	95	%REC
LC2	Metals	MET-A-013	02D1497	STLDEN	D2I160000-278C	ZINC	95	%REC
LC1	Metals	MET-A-013	02D0965	STLDEN	D2C210000-382C	LEAD	95	%REC
LC2	Metals	MET-A-013	02D0264	STLDEN	D1K150000-512C	CHROMIUM	95	%REC
LC1	Metals	MET-A-013	02D1383	STLDEN	D2G190000-319C	STRONTIUM	95	%REC
LC2	Metals	MET-A-013	02D0264	STLDEN	D1K150000-512C	LEAD	95	%REC
LC1	Metals	MET-A-013	02D1336	STLDEN	D2G020000-393C	CADMIUM	95	%REC

Result Type	Group	LIC	RIN	Lab	Lab Sample Number	Analyte	Result	Units
LC2	Metals	MET-A-013	02D0089	STLDEN	D1J300000-125C	COBALT	95	%REC
LC1	Metals	MET-A-013	02D1497	STLDEN	D2I120000-330C	ANTIMONY	95	%REC
LC2	Metals	MET-A-013	02D0264	STLDEN	D1K150000-512C	NICKEL	95	%REC
LC1	Metals	MET-A-013	02D0089	STLDEN	D1J110000-275C	ANTIMONY	95	%REC
LC1	Metals	MET-A-013	02D1497	STLDEN	D2I120000-330C	CADMIUM	95	%REC
LC2	Metals	MET-A-013	02D0264	STLDEN	D1K150000-512C	VANADIUM	95	%REC
LC2	Metals	MET-A-013	02D0264	STLDEN	D1K150000-512C	MANGANESE	95	%REC
LC1	Metals	MET-A-013	02D1383	STLDEN	D2G190000-319C	ANTIMONY	95	%REC
LC1	Metals	MET-A-013	02D1187	STLDEN	D2D300000-368C	ZINC	95	%REC
LC1	Metals	MET-A-013	02D1153	STLDEN	D2D180000-280C	LEAD	95	%REC
LC2	Metals	MET-A-013	02D0216	STLDEN	D1K060000-307C	BERYLLIUM	95	%REC
LC1	Metals	MET-A-013	02D0216	STLDEN	D1K010000-326C	ALUMINUM	95	%REC
LC1	Metals	MET-A-013	02D0216	STLDEN	D1K010000-326C	BERYLLIUM	95	%REC
LC1	Metals	MET-A-013	02D0174	STLDEN	D1J250000-322C	POTASSIUM	95	%REC
LC1	Metals	MET-A-013	02D0216	STLDEN	D1K010000-326C	ANTIMONY	95	%REC
LC1	Metals	MET-A-013	02D0216	STLDEN	D1K010000-326C	MOLYBDENUM	95	%REC
LC1	Metals	MET-A-013	02D0174	STLDEN	D1J250000-325C	THALLIUM	95	%REC
LC1	Metals	MET-A-013	02D1187	STLDEN	D2D300000-368C	BERYLLIUM	95	%REC
LC2	Metals	MET-A-013	02D0216	STLDEN	D1K060000-307C	THALLIUM	95	%REC
LC1	Metals	MET-A-001	02D1197	LVLI	02L0257-LC1	SODIUM	95.5	%REC
LC1	Metals	MET-A-013	03D0024	LVLI	02L0612-LC1	ALUMINUM	95.5	%REC
LC1	Metals	MET-A-001	02D1214	LVLI	02L0257-LC1	SODIUM	95.5	%REC
LC1	Metals	MET-A-001	02D1197	LVLI	02L0257-LC1	BARIUM	95.6	%REC
LC1	Metals	MET-A-013	02D1542	LVLI	02L0586-LC1	SODIUM	95.6	%REC
LC1	Metals	MET-A-013	03D0683	LVLI	03L0178-LC1	POTASSIUM	95.6	%REC
LC1	Metals	MET-A-001	02D1214	LVLI	02L0257-LC1	BARIUM	95.6	%REC
LC1	Metals	MET-A-001	02D0687	LVLI	02L0030-LC1	TIN	95.9	%REC
LC1	Metals	MET-A-001	02D1197	LVLI	02L0257-LC1	CALCIUM	95.9	%REC
LC1	Metals	MET-A-001	02D1214	LVLI	02L0257-LC1	CALCIUM	95.9	%REC
LC1	Metals	MET-A-001	02D0680	LVLI	02L0030-LC1	TIN	95.9	%REC
LC1	Metals	MET-A-013	02D1153	STLDEN	D2D180000-280C	ARSENIC	96	%REC
LC1	Metals	MET-A-001	02D0680	LVLI	02L0030-LC1	BARIUM	96	%REC

Result Type	Group	LIC	RIN	Lab	Lab Sample Number	Analyte	Result	Units
LC2	Metals	MET-A-013	02D1497	STLDEN	D2I160000-278C	STRONTIUM	96	%REC
LC1	Metals	MET-A-013	02D1497	STLDEN	D2I120000-331C	IRON	96	%REC
LC2	Metals	MET-A-013	02D0264	STLDEN	D1K150000-512C	ANTIMONY	96	%REC
LC1	Metals	MET-A-013	02D1153	STLDEN	D2D180000-280C	BARIUM	96	%REC
LC1	Metals	MET-A-013	02D0965	STLDEN	D2C210000-382C	BERYLLIUM	96	%REC
LC2	Metals	MET-A-013	02D0264	STLDEN	D1K150000-512C	BARIUM	96	%REC
LC1	Metals	MET-A-013	02D1497	STLDEN	D2I120000-330C	MANGANESE	96	%REC
LC1	Metals	MET-A-013	02D0264	STLDEN	D1K130000-294C	MANGANESE	96	%REC
LC1	Metals	MET-A-013	02D0264	STLDEN	D1K130000-294C	COBALT	96	%REC
LC2	Metals	MET-A-013	02D0089	STLDEN	D1J300000-125C	LEAD	96	%REC
LC2	Metals	MET-A-013	02D0216	STLDEN	D1K060000-307C	COBALT	96	%REC
LC1	Metals	MET-A-013	02D0264	STLDEN	D1K130000-294C	CHROMIUM	96	%REC
LC1	Metals	MET-A-013	02D0216	STLDEN	D1K010000-326C	ZINC	96	%REC
LC1	Metals	MET-A-013	02D0216	STLDEN	D1K010000-326C	CHROMIUM	96	%REC
LC2	Metals	MET-A-013	02D0264	STLDEN	D1K150000-512C	STRONTIUM	96	%REC
LC2	Metals	MET-A-013	02D0216	STLDEN	D1K060000-307C	MOLYBDENUM	96	%REC
LC1	Metals	MET-A-013	02D0216	STLDEN	D1K010000-326C	COBALT	96	%REC
LC1	Metals	MET-A-013	02D0174	STLDEN	D1J250000-325C	TIN	96	%REC
LC1	Metals	MET-A-013	02D1497	STLDEN	D2I120000-330C	CHROMIUM	96	%REC
LC1	Metals	MET-A-013	02D1497	STLDEN	D2I120000-330C	NICKEL	96	%REC
LC2	Metals	MET-A-013	02D0292	STLDEN	D1K200000-590C	BARIUM	96	%REC
LC1	Metals	MET-A-001	02D0687	LVLI	02L0030-LC1	BARIUM	96	%REC
LC1	Metals	MET-A-013	02D0216	STLDEN	D1K010000-326C	CADMIUM	96	%REC
LC1	Metals	MET-A-013	02D0216	STLDEN	D1K010000-326C	BARIUM	96	%REC
LC1	Metals	MET-A-013	02D0089	STLDEN	D1J110000-275C	BARIUM	96	%REC
LC1	Metals	MET-A-013	02D0292	STLDEN	D1K150000-500C	COBALT	96	%REC
LC2	Metals	MET-A-013	02D0292	STLDEN	D1K200000-590C	COPPER	96	%REC
LC1	Metals	MET-A-013	02D0216	STLDEN	D1K010000-326C	NICKEL	96	%REC
LC1	Metals	MET-A-013	02D0089	STLDEN	D1J110000-275C	CADMIUM	96	%REC
LC2	Metals	MET-A-013	02D0292	STLDEN	D1K200000-590C	MOLYBDENUM	96	%REC
LC2	Metals	MET-A-013	02D0292	STLDEN	D1K200000-590C	ANTIMONY	96	%REC
LC2	Metals	MET-A-013	02D0292	STLDEN	D1K200000-589C	CALCIUM	96	%REC

Result Type	Group	LIC	RIN	Lab	Lab Sample Number	Analyte	Result	Units
LC1	Metals	MET-A-013	02D0292	STLDEN	D1K150000-500C	MOLYBDENUM	96	%REC
LC1	Metals	MET-A-013	02D0292	STLDEN	D1K150000-500C	ZINC	96	%REC
LC1	Metals	MET-A-013	02D0292	STLDEN	D1K150000-500C	CADMIUM	96	%REC
LC1	Metals	MET-A-013	02D0292	STLDEN	D1K150000-507C	SODIUM	96	%REC
LC1	Metals	MET-A-013	02D0292	STLDEN	D1K150000-500C	STRONTIUM	96	%REC
LC1	Metals	MET-A-013	02D1336	STLDEN	D2G020000-393C	ZINC	96	%REC
LC2	Metals	MET-A-013	02D0174	STLDEN	D1K010000-367C	LITHIUM	96	%REC
LC2	Metals	MET-A-013	02D0089	STLDEN	D1J300000-125C	MANGANESE	96	%REC
LC1	Metals	MET-A-013	02D1336	STLDEN	D2G020000-393C	CHROMIUM	96	%REC
LC2	Metals	MET-A-013	02D0216	STLDEN	D1K060000-307C	ALUMINUM	96	%REC
LC1	Metals	MET-A-013	02D1336	STLDEN	D2G020000-393C	ANTIMONY	96	%REC
LC1	Metals	MET-A-013	02D1336	STLDEN	D2G020000-393C	NICKEL	96	%REC
LC2	Metals	MET-A-013	02D0292	STLDEN	D1K200000-590C	THALLIUM	96	%REC
LC1	Metals	MET-A-013	02D1336	STLDEN	D2G020000-393C	MANGANESE	96	%REC
LC2	Metals	MET-A-013	02D0174	STLDEN	D1K010000-336C	THALLIUM	96	%REC
LC1	Metals	MET-A-013	02D1383	STLDEN	D2G190000-319C	ALUMINUM	96	%REC
LC1	Metals	MET-A-013	02D0174	STLDEN	D1J250000-325C	BERYLLIUM	96	%REC
LC1	Metals	MET-A-013	02D0089	STLDEN	D1J110000-275C	TIN	96	%REC
LC1	Metals	MET-A-013	02D1383	STLDEN	D2G190000-319C	BARIUM	96	%REC
LC2	Metals	MET-A-013	02D0292	STLDEN	D1K200000-590C	CADMIUM	96	%REC
LC1	Metals	MET-A-013	02D1397	EMXT	IPH028WL	THALLIUM	96	%REC
LC2	Metals	MET-A-013	02D0089	STLDEN	D1J300000-125C	CHROMIUM	96	%REC
LC1	Metals	MET-A-013	02D0174	STLDEN	D1J250000-325C	MOLYBDENUM	96	%REC
LC2	Metals	MET-A-013	02D0174	STLDEN	D1K010000-336C	COPPER	96	%REC
LC2	Metals	MET-A-013	02D1497	STLDEN	D2I160000-278C	MANGANESE	96	%REC
LC1	Metals	MET-A-013	02D1187	STLDEN	D2D300000-368C	THALLIUM	96	%REC
LC1	Metals	MET-A-013	02D1187	STLDEN	D2D300000-368C	TIN	96	%REC
LC1	Metals	MET-A-013	02D0174	STLDEN	D1J250000-325C	COPPER	96	%REC
LC2	Metals	MET-A-013	02D1497	STLDEN	D2I160000-278C	CADMIUM	96	%REC
LC2	Metals	MET-A-013	02D1497	STLDEN	D2I160000-278C	NICKEL	96	%REC
LC1	Metals	MET-A-013	02D0264	STLDEN	D1K130000-294C	BARIUM	96	%REC
LC1	Metals	MET-A-013	02D1187	STLDEN	D2D300000-368C	COBALT	96	%REC

Result Type	Group	LIC	RIN	Lab	Lab Sample Number	Analyte	Result	Units
LC2	Metals	MET-A-013	02D1497	STLDEN	D2I160000-278C	CHROMIUM	96	%REC
LC1	Metals	MET-A-013	03D0064	STLDEN	D2J210000-554C	COPPER	96	%REC
LC2	Metals	MET-A-013	02D0216	STLDEN	D1K060000-307C	TIN	96	%REC
LC1	Metals	MET-A-013	02D0174	STLDEN	D1J250000-325C	ZINC	96	%REC
LC2	Metals	MET-A-013	02D1497	STLDEN	D2I160000-275C	CALCIUM	96	%REC
LC1	Metals	MET-A-013	02D0264	STLDEN	D1K130000-294C	ANTIMONY	96	%REC
LC1	Metals	MET-A-013	02D0174	STLDEN	D1J250000-322C	IRON	96	%REC
LC1	Metals	MET-A-013	03D0064	STLDEN	D2J210000-554C	VANADIUM	96	%REC
LC2	Metals	MET-A-013	02D1497	STLDEN	D2I160000-278C	ANTIMONY	96	%REC
LC1	Metals	MET-A-013	03D0064	STLDEN	D2J210000-554C	ANTIMONY	96	%REC
LC1	Metals	MET-A-001	02D0687	LVLI	02L0030-LC1	ARSENIC	96.1	%REC
LC1	Metals	MET-A-013	02D1153	LVLI	02L0198-LC1	NICKEL	96.1	%REC
LC1	Metals	MET-A-001	02D0680	LVLI	02L0030-LC1	ARSENIC	96.1	%REC
LC1	Metals	MET-A-013	02D1153	LVLI	02L0198-LC1	ANTIMONY	96.2	%REC
LC1	Metals	MET-A-001	02D0724	LVLI	02L0072-LC1	BARIUM	96.3	%REC
LC1	Metals	MET-A-001	02D0815	LVLI	02L0072-LC1	BARIUM	96.3	%REC
LC1	Metals	MET-A-013	02D1153	LVLI	02L0198-LC1	LEAD	96.3	%REC
LC1	Metals	MET-A-001	02D1148	LVLI	02L0187-LC1	ARSENIC	96.4	%REC
LC1	Metals	MET-A-001	02D1148	LVLI	02L0187-LC1	SELENIUM	96.4	%REC
LC1	Metals	MET-A-001	02D1159	LVLI	02L0187-LC1	ARSENIC	96.4	%REC
LC1	Metals	MET-A-001	02D1159	LVLI	02L0187-LC1	SELENIUM	96.4	%REC
LC1	Metals	MET-A-013	02D1153	LVLI	02L0198-LC1	CADMIUM	96.5	%REC
LC1	Metals	MET-A-013	03D0064	LVLI	02L0619-LC1	MAGNESIUM	96.5	%REC
LC1	Metals	RME-A-001	02D1148	LVLI	02L0198-LC1	CADMIUM	96.5	%REC
LC1	Metals	MET-A-001	02D1148	LVLI	02L0187-LC1	BARIUM	96.5	%REC
LC1	Metals	MET-A-001	02D1159	LVLI	02L0187-LC1	BARIUM	96.5	%REC
LC1	Metals	RME-A-001	02D1159	LVLI	02L0198-LC1	CADMIUM	96.5	%REC
LC1	Metals	MET-A-013	03D0063	LVLI	02L0619-LC1	MAGNESIUM	96.5	%REC
LC1	Metals	MET-A-001	02D1431	LVLI	02L0497-LC1	ALUMINUM	96.6	%REC
LC1	Metals	MET-A-001	02D0680	LVLI	02L0030-LC1	CADMIUM	96.6	%REC
LC1	Metals	MET-A-001	02D1435	LVLI	02L0497-LC1	ALUMINUM	96.6	%REC
LC1	Metals	MET-A-001	02D1214	LVLI	02L0257-LC1	NICKEL	96.6	%REC

Result Type	Group	LIC	RIN	Lab	Lab Sample Number	Analyte	Result	Units
LC1	Metals	MET-A-001	02D1440	LVLI	02L0497-LC1	ALUMINUM	96.6	%REC
LC1	Metals	MET-A-001	02D1197	LVLI	02L0257-LC1	NICKEL	96.6	%REC
LC1	Metals	MET-A-001	02D0687	LVLI	02L0030-LC1	CADMIUM	96.6	%REC
LC1	Metals	MET-A-001	02D0724	LVLI	02L0072-LC1	CALCIUM	96.7	%REC
LC1	Metals	MET-A-013	02D1153	LVLI	02L0198-LC1	ZINC	96.7	%REC
LC1	Metals	MET-A-001	02D0815	LVLI	02L0072-LC1	CALCIUM	96.7	%REC
LC1	Metals	MET-A-001	02D0265	LVLI	01L0760-LC1	BARIUM	96.8	%REC
LC1	Metals	MET-A-001	02D1197	LVLI	02L0257-LC1	ANTIMONY	96.8	%REC
LC1	Metals	MET-A-001	02D1214	LVLI	02L0257-LC1	TIN	96.8	%REC
LC1	Metals	MET-A-001	02D0575	LVLI	02L0005-LC1	BARIUM	96.8	%REC
LC1	Metals	MET-A-013	02D1281	LVLI	02L0340-LC1	BERYLLIUM	96.8	%REC
LC1	Metals	RME-A-002	02D1261	LVLI	02L0340-LC1	BERYLLIUM	96.8	%REC
LC1	Metals	MET-A-001	02D1214	LVLI	02L0257-LC1	ANTIMONY	96.8	%REC
LC1	Metals	MET-A-001	02D0299	LVLI	01L0760-LC1	BARIUM	96.8	%REC
LC1	Metals	MET-A-001	02D0645	LVLI	02L0021-LC1	CALCIUM	96.9	%REC
LC1	Metals	MET-A-013	03D0064	LVLI	02L0619-LC1	ALUMINUM	96.9	%REC
LC1	Metals	MET-A-013	03D0063	LVLI	02L0619-LC1	ALUMINUM	96.9	%REC
LC1	Metals	MET-A-013	02D1215	LVLI	02L0262-LC1	MAGNESIUM	96.9	%REC
LC1	Metals	MET-A-001	02D0664	LVLI	02L0021-LC1	CALCIUM	96.9	%REC
LC1	Metals	MET-A-013	02D1336	STLDEN	D2G020000-393C	STRONTIUM	97	%REC
LC1	Metals	MET-A-013	02D1336	STLDEN	D2G020000-393C	LEAD	97	%REC
LC1	Metals	MET-A-013	03D0064	STLDEN	D2J210000-554C	MANGANESE	97	%REC
LC1	Metals	MET-A-013	02D1497	STLDEN	D2I120000-331C	LITHIUM	97	%REC
LC2	Metals	MET-A-013	02D0174	STLDEN	D1K010000-336C	BERYLLIUM	97	%REC
LC1	Metals	MET-A-013	02D1383	STLDEN	D2G190000-320C	CALCIUM	97	%REC
LC1	Metals	MET-A-013	03D0064	STLDEN	D2J210000-554C	STRONTIUM	97	%REC
LC1	Metals	MET-A-013	03D0683	LVLI	03L0178-LC1	SODIUM	97	%REC
LC1	Metals	MET-A-013	02D1187	STLDEN	D2D300000-368C	MOLYBDENUM	97	%REC
LC1	Metals	MET-A-013	02D0089	STLDEN	D1J110000-275C	MOLYBDENUM	97	%REC
LC1	Metals	MET-A-013	02D0292	STLDEN	D1K150000-507C	POTASSIUM	97	%REC
LC1	Metals	MET-A-013	02D0292	STLDEN	D1K150000-507C	CALCIUM	97	%REC
LC1	Metals	MET-A-013	02D0089	STLDEN	D1J110000-275C	ZINC	97	%REC

Result Type	Group	LIC	RIN	Lab	Lab Sample Number	Analyte	Result	Units
LC1	Metals	MET-A-013	02D0292	STLDEN	D1K150000-507C	LITHIUM	97	%REC
LC1	Metals	MET-A-013	02D0292	STLDEN	D1K150000-500C	BARIUM	97	%REC
LC1	Metals	MET-A-001	02D1435	LVLI	02L0497-LC1	ARSENIC	97	%REC
LC1	Metals	MET-A-013	02D0216	STLDEN	D1K010000-326C	MANGANESE	97	%REC
LC2	Metals	MET-A-013	02D0292	STLDEN	D1K200000-589C	SODIUM	97	%REC
LC1	Metals	MET-A-013	02D0292	STLDEN	D1K150000-500C	VANADIUM	97	%REC
LC2	Metals	MET-A-013	02D0292	STLDEN	D1K200000-589C	POTASSIUM	97	%REC
LC1	Metals	MET-A-013	02D0292	STLDEN	D1K150000-500C	NICKEL	97	%REC
LC1	Metals	MET-A-013	02D0089	STLDEN	D1J110000-275C	LEAD	97	%REC
LC2	Metals	MET-A-013	02D1497	STLDEN	D2I160000-278C	LEAD	97	%REC
LC2	Metals	MET-A-013	02D0174	STLDEN	D1K010000-367C	POTASSIUM	97	%REC
LC1	Metals	MET-A-013	03D0064	STLDEN	D2J210000-554C	CHROMIUM	97	%REC
LC1	Metals	MET-A-013	02D1187	STLDEN	D2D300000-368C	CADMIUM	97	%REC
LC2	Metals	MET-A-013	02D0174	STLDEN	D1K010000-336C	STRONTIUM	97	%REC
LC1	Metals	MET-A-013	02D0089	STLDEN	D1J110000-275C	BERYLLIUM	97	%REC
LC1	Metals	MET-A-013	02D0089	STLDEN	D1J110000-275C	COBALT	97	%REC
LC1	Metals	MET-A-013	02D1383	STLDEN	D2G190000-320C	POTASSIUM	97	%REC
LC1	Metals	MET-A-001	02D1431	LVLI	02L0497-LC1	ARSENIC	97	%REC
LC1	Metals	MET-A-013	02D0174	STLDEN	D1J250000-325C	BARIUM	97	%REC
LC2	Metals	MET-A-013	02D0292	STLDEN	D1K200000-590C	NICKEL	97	%REC
LC2	Metals	MET-A-013	02D0292	STLDEN	D1K200000-590C	LEAD	97	%REC
LC1	Metals	MET-A-013	02D1397	EMXT	IPH028WL	LEAD	97	%REC
LC1	Metals	MET-A-013	03D0064	STLDEN	D2J220000-488C	POTASSIUM	97	%REC
LC1	Metals	MET-A-013	03D0064	STLDEN	D2J220000-488C	CALCIUM	97	%REC
LC1	Metals	MET-A-013	03D0506	LVLI	03L0097-LC1	TIN	97	%REC
LC2	Metals	MET-A-013	02D1497	STLDEN	D2I160000-278C	BARIUM	97	%REC
LC1	Metals	MET-A-013	02D0174	STLDEN	D1J250000-325C	ANTIMONY	97	%REC
LC1	Metals	MET-A-013	02D0264	STLDEN	D1K130000-294C	VANADIUM	97	%REC
LC1	Metals	MET-A-013	02D1336	STLDEN	D2G020000-393C	ARSENIC	97	%REC
LC1	Metals	SS05C001	02D0111	LVLI	01L0683-LC1	ARSENIC	97	%REC
LC1	Metals	MET-A-013	02D0216	STLDEN	D1K010000-326C	LEAD	97	%REC
LC2	Metals	MET-A-013	02D0216	STLDEN	D1K060000-307C	VANADIUM	97	%REC

Result Type	Group	LIC	RIN	Lab	Lab Sample Number	Analyte	Result	Units
LC1	Metals	MET-A-013	02D1497	STLDEN	D2I120000-330C	ARSENIC	97	%REC
LC1	Metals	MET-A-013	02D0174	STLDEN	D1J250000-325C	ALUMINUM	97	%REC
LC1	Metals	MET-A-013	02D0264	STLDEN	D1K130000-294C	COPPER	97	%REC
LC2	Metals	MET-A-013	02D0264	STLDEN	D1K150000-509C	LITHIUM	97	%REC
LC2	Metals	MET-A-013	02D0216	STLDEN	D1K060000-307C	ZINC	97	%REC
LC2	Metals	MET-A-013	02D0216	STLDEN	D1K060000-307C	BARIUM	97	%REC
LC1	Metals	MET-A-013	02D0264	STLDEN	D1K130000-294C	STRONTIUM	97	%REC
LC1	Metals	MET-A-001	02D1440	LVLI	02L0497-LC1	ARSENIC	97	%REC
LC2	Metals	MET-A-013	02D0216	STLDEN	D1K060000-307C	ANTIMONY	97	%REC
LC1	Metals	MET-A-013	02D0264	STLDEN	D1K130000-294C	CADMIUM	97	%REC
LC1	Metals	MET-A-013	02D1153	STLDEN	D2D180000-275C	CALCIUM	97	%REC
LC1	Metals	MET-A-013	02D0264	STLDEN	D1K130000-294C	LEAD	97	%REC
LC1	Metals	MET-A-013	02D1497	STLDEN	D2I120000-331C	MAGNESIUM	97	%REC
LC1	Metals	MET-A-013	02D1187	STLDEN	D2D300000-368C	COPPER	97	%REC
LC1	Metals	MET-A-013	02D1497	STLDEN	D2I120000-330C	LEAD	97	%REC
LC1	Metals	MET-A-001	02D0687	LVLI	02L0030-LC1	CHROMIUM	97.1	%REC
LC1	Metals	MET-A-001	02D1214	LVLI	02L0257-LC1	ZINC	97.1	%REC
LC1	Metals	MET-A-013	02D1516	LVLI	02L0577-LC1	SODIUM	97.1	%REC
LC1	Metals	MET-A-013	02D1521	LVLI	02L0577-LC1	SODIUM	97.1	%REC
LC1	Metals	MET-A-001	02D0687	LVLI	02L0030-LC1	LEAD	97.1	%REC
LC1	Metals	MET-A-013	03D0063	LVLI	02L0619-LC1	SODIUM	97.1	%REC
LC1	Metals	MET-A-001	02D0680	LVLI	02L0030-LC1	LEAD	97.1	%REC
LC1	Metals	MET-A-013	03D0064	LVLI	02L0619-LC1	SODIUM	97.1	%REC
LC1	Metals	MET-A-001	02D1197	LVLI	02L0257-LC1	ZINC	97.1	%REC
LC1	Metals	MET-A-013	02D1517	LVLI	02L0577-LC1	SODIUM	97.1	%REC
LC1	Metals	SS05C001	02D0111	LVLI	01L0683-LC1	IRON	97.1	%REC
LC1	Metals	MET-A-001	02D0680	LVLI	02L0030-LC1	CHROMIUM	97.1	%REC
LC1	Metals	MET-A-001	02D0687	LVLI	02L0030-LC1	NICKEL	97.2	%REC
LC1	Metals	MET-A-001	02D0680	LVLI	02L0030-LC1	NICKEL	97.2	%REC
LC1	Metals	SS05C001	02D0111	LVLI	01L0683-LC1	STRONTIUM	97.2	%REC
LC1	Metals	MET-A-001	02D1214	LVLI	02L0257-LC1	CADMIUM	97.2	%REC
LC1	Metals	SS05C001	02D0111	LVLI	01L0683-LC1	CHROMIUM	97.2	%REC

Result Type	Group	LIC	RIN	Lab	Lab Sample Number	Analyte	Result	Units
LC1	Metals	MET-A-001	02D1197	LVLI	02L0257-LC1	CADMIUM	97.2	%REC
LC1	Metals	SS05C001	02D0111	LVLI	01L0683-LC1	TIN	97.3	%REC
LC1	Metals	SS05C001	02D0111	LVLI	01L0683-LC1	COPPER	97.4	%REC
LC1	Metals	MET-A-013	03D0506	LVLI	03L0097-LC1	ARSENIC	97.4	%REC
LC1	Metals	SS05C001	02D0111	LVLI	01L0683-LC1	BERYLLIUM	97.4	%REC
LC1	Metals	MET-A-013	02D1542	LVLI	02L0586-LC1	CALCIUM	97.4	%REC
LC1	Metals	MET-A-013	03D0683	LVLI	03L0178-LC1	TIN	97.4	%REC
LC1	Metals	MET-A-013	03D0683	LVLI	03L0176-LC1	POTASSIUM	97.5	%REC
LC1	Metals	MET-A-001	02D1240	LVLI	02L0313-LC1	SODIUM	97.5	%REC
LC1	Metals	MET-A-013	03D0683	LVLI	03L0178-LC1	ANTIMONY	97.5	%REC
LC1	Metals	MET-A-001	02D1148	LVLI	02L0187-LC1	LEAD	97.5	%REC
LC1	Metals	MET-A-001	02D1159	LVLI	02L0187-LC1	ANTIMONY	97.5	%REC
LC1	Metals	MET-A-001	02D1243	LVLI	02L0313-LC1	SODIUM	97.5	%REC
LC1	Metals	MET-A-001	02D0680	LVLI	02L0030-LC1	BERYLLIUM	97.5	%REC
LC1	Metals	MET-A-001	02D1254	LVLI	02L0313-LC1	SODIUM	97.5	%REC
LC1	Metals	MET-A-001	02D1233	LVLI	02L0313-LC1	SODIUM	97.5	%REC
LC1	Metals	SS05C001	02D0111	LVLI	01L0683-LC1	LEAD	97.5	%REC
LC1	Metals	MET-A-001	02D1221	LVLI	02L0313-LC1	SODIUM	97.5	%REC
LC1	Metals	MET-A-013	03D0506	LVLI	03L0097-LC1	POTASSIUM	97.5	%REC
LC1	Metals	MET-A-001	02D1159	LVLI	02L0187-LC1	LEAD	97.5	%REC
LC1	Metals	MET-A-013	03D0506	LVLI	03L0097-LC1	MAGNESIUM	97.5	%REC
LC1	Metals	MET-A-001	02D1148	LVLI	02L0187-LC1	ANTIMONY	97.5	%REC
LC1	Metals	MET-A-013	02D1153	LVLI	02L0198-LC1	MAGNESIUM	97.5	%REC
LC1	Metals	MET-A-001	02D1197	LVLI	02L0257-LC1	TIN	97.5	%REC
LC1	Metals	MET-A-001	02D1431	LVLI	02L0497-LC1	SELENIUM	97.6	%REC
LC1	Metals	MET-A-013	02D1215	LVLI	02L0262-LC1	BARIUM	97.6	%REC
LC1	Metals	MET-A-001	02D1440	LVLI	02L0497-LC1	SELENIUM	97.6	%REC
LC1	Metals	SS05C001	02D0111	LVLI	01L0683-LC1	CALCIUM	97.6	%REC
LC1	Metals	MET-A-001	02D1435	LVLI	02L0497-LC1	SELENIUM	97.6	%REC
LC1	Metals	MET-A-001	02D0687	LVLI	02L0030-LC1	CALCIUM	97.6	%REC
LC1	Metals	MET-A-001	02D0680	LVLI	02L0030-LC1	CALCIUM	97.6	%REC
LC1	Metals	MET-A-013	03D0683	LVLI	03L0178-LC1	ALUMINUM	97.6	%REC

Result Type	Group	LIC	RIN	Lab	Lab Sample Number	Analyte	Result	Units
LC1	Metals	MET-A-013	02D1215	LVLI	02L0262-LC1	POTASSIUM	97.6	%REC
LC1	Metals	MET-A-001	02D0680	LVLI	02L0030-LC1	SODIUM	97.7	%REC
LC1	Metals	MET-A-013	03D0683	LVLI	03L0176-LC1	STRONTIUM	97.7	%REC
LC1	Metals	MET-A-001	02D1197	LVLI	02L0257-LC1	BERYLLIUM	97.7	%REC
LC1	Metals	RME-A-002	02D0725	LVLI	02L0061-LC1	CHROMIUM	97.7	%REC
LC1	Metals	RME-A-002	02D0724	LVLI	02L0061-LC1	CHROMIUM	97.7	%REC
LC1	Metals	RME-A-002	02D1159	LVLI	02L0198-LC1	CHROMIUM	97.7	%REC
LC1	Metals	RME-A-001	02D0918	LVLI	02L0126-LC1	SILVER	97.7	%REC
LC1	Metals	MET-A-013	02D1153	LVLI	02L0198-LC1	CHROMIUM	97.7	%REC
LC1	Metals	MET-A-001	02D0687	LVLI	02L0030-LC1	SODIUM	97.7	%REC
LC1	Metals	RME-A-001	02D0925	LVLI	02L0126-LC1	SILVER	97.7	%REC
LC1	Metals	MET-A-001	02D0687	LVLI	02L0030-LC1	COBALT	97.7	%REC
LC1	Metals	RME-A-001	02D0935	LVLI	02L0126-LC1	SILVER	97.7	%REC
LC1	Metals	MET-A-001	02D0680	LVLI	02L0030-LC1	COBALT	97.7	%REC
LC1	Metals	RME-A-002	02D1148	LVLI	02L0198-LC1	CHROMIUM	97.7	%REC
LC1	Metals	SS05C001	02D0111	LVLI	01L0683-LC1	CADMIUM	97.7	%REC
LC1	Metals	MET-A-001	02D1214	LVLI	02L0257-LC1	LEAD	97.8	%REC
LC1	Metals	RME-A-001	02D0724	LVLI	02L0061-LC1	CADMIUM	97.8	%REC
LC1	Metals	MET-A-001	02D1197	LVLI	02L0257-LC1	LEAD	97.8	%REC
LC1	Metals	MET-A-001	02D1197	LVLI	02L0257-LC1	MAGNESIUM	97.8	%REC
LC1	Metals	MET-A-001	02D1214	LVLI	02L0257-LC1	MAGNESIUM	97.8	%REC
LC1	Metals	RME-A-001	02D0725	LVLI	02L0061-LC1	CADMIUM	97.8	%REC
LC1	Metals	SS05C001	02D0111	LVLI	01L0683-LC1	NICKEL	97.8	%REC
LC1	Metals	MET-A-001	02D1159	LVLI	02L0187-LC1	POTASSIUM	97.8	%REC
LC1	Metals	MET-A-001	02D1148	LVLI	02L0187-LC1	POTASSIUM	97.8	%REC
LC1	Metals	MET-A-001	02D0687	LVLI	02L0030-LC1	ANTIMONY	97.9	%REC
LC1	Metals	MET-A-013	02D0371	LVLI	01L0804-LC1	CALCIUM	97.9	%REC
LC1	Metals	MET-A-001	02D0680	LVLI	02L0030-LC1	IRON	97.9	%REC
LC1	Metals	MET-A-001	02D0680	LVLI	02L0030-LC1	SELENIUM	97.9	%REC
LC1	Metals	SS05C001	02D0111	LVLI	01L0683-LC1	VANADIUM	97.9	%REC
LC1	Metals	MET-A-001	02D1214	LVLI	02L0257-LC1	CHROMIUM	97.9	%REC
LC1	Metals	MET-A-001	02D0680	LVLI	02L0030-LC1	ANTIMONY	97.9	%REC

Result Type	Group	LIC	RIN	Lab	Lab Sample Number	Analyte	Result	Units
LC1	Metals	MET-A-001	02D0687	LVLI	02L0030-LC1	SELENIUM	97.9	%REC
LC1	Metals	MET-A-001	02D0687	LVLI	02L0030-LC1	IRON	97.9	%REC
LC1	Metals	SS05C001	02D0111	LVLI	01L0683-LC1	THALLIUM	97.9	%REC
LC1	Metals	MET-A-001	02D1197	LVLI	02L0257-LC1	CHROMIUM	97.9	%REC
LC2	Metals	MET-A-013	02D0292	STLDEN	D1K200000-590C	BERYLLIUM	98	%REC
LC2	Metals	MET-A-013	02D0174	STLDEN	D1K010000-336C	MOLYBDENUM	98	%REC
LC1	Metals	MET-A-001	02D0724	LVLI	02L0072-LC1	ARSENIC	98	%REC
LC1	Metals	MET-A-013	02D0089	STLDEN	D1J110000-275C	CHROMIUM	98	%REC
LC1	Metals	MET-A-013	02D0174	STLDEN	D1J250000-325C	STRONTIUM	98	%REC
LC1	Metals	MET-A-013	02D1497	STLDEN	D2I120000-331C	SODIUM	98	%REC
LC1	Metals	MET-A-001	02D0664	LVLI	02L0021-LC1	SODIUM	98	%REC
LC1	Metals	MET-A-013	02D1497	STLDEN	D2I120000-330C	STRONTIUM	98	%REC
LC2	Metals	MET-A-013	02D0089	STLDEN	D1J150000-396C	POTASSIUM	98	%REC
LC1	Metals	MET-A-001	02D0645	LVLI	02L0021-LC1	SODIUM	98	%REC
LC1	Metals	MET-A-001	02D0645	LVLI	02L0021-LC1	ARSENIC	98	%REC
LC2	Metals	MET-A-013	02D0292	STLDEN	D1K200000-590C	ALUMINUM	98	%REC
LC2	Metals	MET-A-013	02D0174	STLDEN	D1K010000-336C	CADMIUM	98	%REC
LC1	Metals	MET-A-013	03D0683	LVLI	03L0176-LC1	SODIUM	98	%REC
LC1	Metals	MET-A-013	02D0216	STLDEN	D1K010000-326C	VANADIUM	98	%REC
LC1	Metals	MET-A-001	02D0664	LVLI	02L0021-LC1	ARSENIC	98	%REC
LC2	Metals	MET-A-013	02D0292	STLDEN	D1K200000-589C	LITHIUM	98	%REC
LC2	Metals	MET-A-013	02D0292	STLDEN	D1K200000-590C	CHROMIUM	98	%REC
LC2	Metals	MET-A-013	02D0292	STLDEN	D1K200000-590C	VANADIUM	98	%REC
LC1	Metals	MET-A-013	02D0174	STLDEN	D1J250000-325C	LEAD	98	%REC
LC1	Metals	MET-A-013	02D0965	STLDEN	D2C210000-377C	CALCIUM	98	%REC
LC2	Metals	MET-A-013	02D0089	STLDEN	D1J150000-396C	CALCIUM	98	%REC
LC2	Metals	MET-A-013	02D0174	STLDEN	D1K010000-336C	ZINC	98	%REC
LC1	Metals	MET-A-013	02D0965	STLDEN	D2C210000-382C	CHROMIUM	98	%REC
LC1	Metals	MET-A-013	02D1397	EMXT	IPH028WL	MOLYBDENUM	98	%REC
LC1	Metals	MET-A-013	02D1153	STLDEN	D2D180000-280C	SILVER	98	%REC
LC1	Metals	MET-A-001	02D0815	LVLI	02L0072-LC1	ARSENIC	98	%REC
LC1	Metals	MET-A-013	02D0174	STLDEN	D1J250000-325C	COBALT	98	%REC

Result Type	Group	LIC	RIN	Lab	Lab Sample Number	Analyte	Result	Units
LC1	Metals	MET-A-013	02D0965	STLDEN	D2C210000-382C	VANADIUM	98	%REC
LC2	Metals	MET-A-013	02D0089	STLDEN	D1J300000-125C	VANADIUM	98	%REC
LC1	Metals	MET-A-013	02D1336	STLDEN	D2G020000-393C	BARIUM	98	%REC
LC1	Metals	MET-A-013	02D0174	STLDEN	D1J250000-325C	CADMIUM	98	%REC
LC1	Metals	MET-A-013	02D1383	STLDEN	D2G190000-320C	IRON	98	%REC
LC1	Metals	MET-A-013	02D1397	EMXT	IPH028WL	ALUMINUM	98	%REC
LC2	Metals	MET-A-013	02D0174	STLDEN	D1K010000-336C	NICKEL	98	%REC
LC1	Metals	MET-A-013	02D0965	STLDEN	D2C210000-382C	ARSENIC	98	%REC
LC2	Metals	MET-A-013	02D0174	STLDEN	D1K010000-336C	TIN	98	%REC
LC2	Metals	MET-A-013	02D0216	STLDEN	D1K060000-307C	STRONTIUM	98	%REC
LC1	Metals	MET-A-001	02D1197	LVLI	02L0257-LC1	COBALT	98	%REC
LC2	Metals	MET-A-013	02D0174	STLDEN	D1K010000-367C	CALCIUM	98	%REC
LC1	Metals	MET-A-013	02D0174	STLDEN	D1J250000-322C	MAGNESIUM	98	%REC
LC1	Metals	MET-A-013	03D0064	STLDEN	D2J220000-488C	MAGNESIUM	98	%REC
LC1	Metals	MET-A-013	03D0064	STLDEN	D2J210000-554C	NICKEL	98	%REC
LC1	Metals	MET-A-013	02D1187	STLDEN	D2D300000-368C	NICKEL	98	%REC
LC1	Metals	MET-A-016	03D0018	STLDEN	D2J080000-592C	SILVER	98	%REC
LC1	Metals	MET-A-013	02D0264	STLDEN	D1K130000-294C	NICKEL	98	%REC
LC1	Metals	MET-A-013	02D0965	STLDEN	D2C210000-382C	MANGANESE	98	%REC
LC2	Metals	MET-A-013	02D0264	STLDEN	D1K150000-509C	POTASSIUM	98	%REC
LC2	Metals	MET-A-013	02D0264	STLDEN	D1K150000-509C	IRON	98	%REC
LC2	Metals	MET-A-013	02D0216	STLDEN	D1K060000-307C	MANGANESE	98	%REC
LC2	Metals	MET-A-013	02D0216	STLDEN	D1K060000-307C	LEAD	98	%REC
LC1	Metals	SS05C001	02D0111	LVLI	01L0683-LC1	COBALT	98	%REC
LC2	Metals	MET-A-013	02D0174	STLDEN	D1K010000-367C	IRON	98	%REC
LC1	Metals	MET-A-001	02D1214	LVLI	02L0257-LC1	COBALT	98	%REC
LC1	Metals	MET-A-013	02D0292	STLDEN	D1K150000-500C	TIN	98	%REC
LC1	Metals	MET-A-013	02D0292	STLDEN	D1K150000-500C	ANTIMONY	98	%REC
LC1	Metals	MET-A-013	02D0292	STLDEN	D1K150000-500C	LEAD	98	%REC
LC1	Metals	MET-A-013	02D0292	STLDEN	D1K150000-500C	MANGANESE	98	%REC
LC1	Metals	MET-A-013	02D0292	STLDEN	D1K150000-500C	CHROMIUM	98	%REC
LC1	Metals	MET-A-001	02D1068	LVLI	02L0159-LC1	BARIUM	98.1	%REC

Result Type	Group	LIC	RIN	Lab	Lab Sample Number	Analyte	Result	Units
LC1	Metals	MET-A-001	02D0645	LVLI	02L0021-LC1	ZINC	98.1	%REC
LC1	Metals	MET-A-001	02D1030	LVLI	02L0159-LC1	BARIUM	98.1	%REC
LC1	Metals	MET-A-001	02D0664	LVLI	02L0021-LC1	ZINC	98.1	%REC
LC1	Metals	MET-A-001	02D1435	LVLI	02L0497-LC1	NICKEL	98.1	%REC
LC1	Metals	MET-A-013	02D1281	LVLI	02L0340-LC1	ARSENIC	98.1	%REC
LC1	Metals	MET-A-001	02D1431	LVLI	02L0497-LC1	NICKEL	98.1	%REC
LC1	Metals	MET-A-001	02D1440	LVLI	02L0497-LC1	NICKEL	98.1	%REC
LC1	Metals	MET-A-013	02D1153	LVLI	02L0198-LC1	COPPER	98.1	%REC
LC1	Metals	MET-A-013	03D0506	LVLI	03L0097-LC1	STRONTIUM	98.1	%REC
LC1	Metals	MET-A-013	02D1516	LVLI	02L0577-LC1	POTASSIUM	98.2	%REC
LC1	Metals	MET-A-013	02D1517	LVLI	02L0577-LC1	POTASSIUM	98.2	%REC
LC1	Metals	MET-A-001	02D1148	LVLI	02L0187-LC1	NICKEL	98.2	%REC
LC1	Metals	RME-A-002	02D0918	LVLI	02L0126-LC1	CHROMIUM	98.2	%REC
LC1	Metals	RME-A-002	02D0925	LVLI	02L0126-LC1	CHROMIUM	98.2	%REC
LC1	Metals	MET-A-013	03D0683	LVLI	03L0176-LC1	ALUMINUM	98.2	%REC
LC1	Metals	MET-A-001	02D0575	LVLI	02L0005-LC1	ARSENIC	98.2	%REC
LC1	Metals	MET-A-001	02D1159	LVLI	02L0187-LC1	NICKEL	98.2	%REC
LC1	Metals	MET-A-001	02D0687	LVLI	02L0030-LC1	ZINC	98.2	%REC
LC1	Metals	MET-A-001	02D0265	LVLI	01L0760-LC1	ARSENIC	98.2	%REC
LC1	Metals	MET-A-013	02D1429	LVLI	02L0509-LC1	THALLIUM	98.2	%REC
LC1	Metals	MET-A-001	02D0680	LVLI	02L0030-LC1	ZINC	98.2	%REC
LC1	Metals	RME-A-002	02D0935	LVLI	02L0126-LC1	CHROMIUM	98.2	%REC
LC1	Metals	MET-A-013	02D1521	LVLI	02L0577-LC1	POTASSIUM	98.2	%REC
LC1	Metals	MET-A-001	02D0299	LVLI	01L0760-LC1	ARSENIC	98.2	%REC
LC1	Metals	MET-A-013	02D1153	LVLI	02L0198-LC1	POTASSIUM	98.3	%REC
LC1	Metals	MET-A-013	03D0506	LVLI	03L0097-LC1	SELENIUM	98.3	%REC
LC1	Metals	MET-A-013	02D1153	LVLI	02L0198-LC1	IRON	98.3	%REC
LC1	Metals	MET-A-001	02D1197	LVLI	02L0257-LC1	IRON	98.3	%REC
LC1	Metals	MET-A-013	03D0506	LVLI	03L0097-LC1	ANTIMONY	98.3	%REC
LC1	Metals	MET-A-001	02D1214	LVLI	02L0257-LC1	IRON	98.3	%REC
LC1	Metals	MET-A-001	02D1197	LVLI	02L0257-LC1	VANADIUM	98.3	%REC
LC1	Metals	MET-A-001	02D1214	LVLI	02L0257-LC1	VANADIUM	98.3	%REC

Result Type	Group	LIC	RIN	Lab	Lab Sample Number	Analyte	Result	Units
LC1	Metals	MET-A-013	02D1153	LVLI	02L0198-LC1	VANADIUM	98.3	%REC
LC1	Metals	MET-A-013	02D1542	LVLI	02L0586-LC1	SELENIUM	98.3	%REC
LC1	Metals	MET-A-001	02D0664	LVLI	02L0021-LC1	BARIUM	98.4	%REC
LC1	Metals	RME-A-001	02D0918	LVLI	02L0126-LC1	CADMIUM	98.4	%REC
LC1	Metals	MET-A-001	02D1148	LVLI	02L0187-LC1	COPPER	98.4	%REC
LC1	Metals	MET-A-013	03D0683	LVLI	03L0176-LC1	BARIUM	98.4	%REC
LC1	Metals	MET-A-013	02D1153	LVLI	02L0198-LC1	TIN	98.4	%REC
LC1	Metals	MET-A-001	02D1214	LVLI	02L0257-LC1	COPPER	98.4	%REC
LC1	Metals	MET-A-013	02D1153	LVLI	02L0198-LC1	STRONTIUM	98.4	%REC
LC1	Metals	MET-A-001	02D1197	LVLI	02L0257-LC1	COPPER	98.4	%REC
LC1	Metals	RME-A-001	02D0935	LVLI	02L0126-LC1	CADMIUM	98.4	%REC
LC1	Metals	MET-A-001	02D1159	LVLI	02L0187-LC1	COPPER	98.4	%REC
LC1	Metals	MET-A-001	02D0645	LVLI	02L0021-LC1	BARIUM	98.4	%REC
LC1	Metals	RME-A-001	02D0925	LVLI	02L0126-LC1	CADMIUM	98.4	%REC
LC1	Metals	MET-A-013	02D1215	LVLI	02L0262-LC1	CALCIUM	98.4	%REC
LC1	Metals	MET-A-001	02D1435	LVLI	02L0497-LC1	ANTIMONY	98.5	%REC
LC1	Metals	MET-A-001	02D1440	LVLI	02L0497-LC1	ANTIMONY	98.5	%REC
LC1	Metals	SS05C001	02D0111	LVLI	01L0683-LC1	ANTIMONY	98.5	%REC
LC1	Metals	MET-A-013	03D0024	LVLI	02L0612-LC1	ARSENIC	98.5	%REC
LC1	Metals	MET-A-001	02D1431	LVLI	02L0497-LC1	ANTIMONY	98.5	%REC
LC1	Metals	MET-A-001	02D1435	LVLI	02L0497-LC1	BARIUM	98.5	%REC
LC1	Metals	MET-A-013	03D0683	LVLI	03L0178-LC1	BERYLLIUM	98.5	%REC
LC1	Metals	MET-A-001	02D1440	LVLI	02L0497-LC1	BARIUM	98.5	%REC
LC1	Metals	MET-A-001	02D1431	LVLI	02L0497-LC1	BARIUM	98.5	%REC
LC1	Metals	MET-A-013	02D1153	LVLI	02L0198-LC1	ALUMINUM	98.5	%REC
LC1	Metals	MET-A-001	02D1159	LVLI	02L0187-LC1	VANADIUM	98.6	%REC
LC1	Metals	MET-A-001	02D1435	LVLI	02L0497-LC1	SODIUM	98.6	%REC
LC1	Metals	MET-A-001	02D0575	LVLI	02L0005-LC1	CALCIUM	98.6	%REC
LC1	Metals	MET-A-013	02D1153	LVLI	02L0198-LC1	COBALT	98.6	%REC
LC1	Metals	MET-A-001	02D1431	LVLI	02L0497-LC1	CALCIUM	98.6	%REC
LC1	Metals	MET-A-001	02D0299	LVLI	01L0760-LC1	CALCIUM	98.6	%REC
LC1	Metals	MET-A-001	02D1148	LVLI	02L0187-LC1	TIN	98.6	%REC

Result Type	Group	LIC	RIN	Lab	Lab Sample Number	Analyte	Result	Units
LC1	Metals	MET-A-001	02D1440	LVLI	02L0497-LC1	SODIUM	98.6	%REC
LC1	Metals	MET-A-001	02D1431	LVLI	02L0497-LC1	SODIUM	98.6	%REC
LC1	Metals	MET-A-001	02D1303	LVLI	02C0181-LC1	MERCURY	98.6	%REC
LC1	Metals	MET-A-001	02D1435	LVLI	02L0497-LC1	CALCIUM	98.6	%REC
LC1	Metals	RME-A-002	03D0506	LVLI	03L0097-LC1	BERYLLIUM	98.6	%REC
LC1	Metals	MET-A-001	02D1148	LVLI	02L0187-LC1	VANADIUM	98.6	%REC
LC1	Metals	MET-A-013	03D0683	LVLI	03C0071-LC1	MERCURY	98.6	%REC
LC1	Metals	RME-A-001	02D0815	LVLI	02L0102-LC1	CADMIUM	98.6	%REC
LC1	Metals	SS05C001	02D0111	LVLI	01L0683-LC1	ZINC	98.6	%REC
LC1	Metals	MET-A-001	02D1197	LVLI	02L0257-LC1	SILVER	98.6	%REC
LC1	Metals	MET-A-001	02D1214	LVLI	02L0257-LC1	SILVER	98.6	%REC
LC1	Metals	MET-A-001	02D1333	LVLI	02C0181-LC1	MERCURY	98.6	%REC
LC1	Metals	MET-A-013	02D1215	LVLI	02L0262-LC1	SODIUM	98.6	%REC
LC1	Metals	MET-A-001	02D0265	LVLI	01L0760-LC1	CALCIUM	98.6	%REC
LC1	Metals	MET-A-013	02D1153	LVLI	02L0198-LC1	SODIUM	98.6	%REC
LC1	Metals	MET-A-013	03D0683	LVLI	03L0176-LC1	COPPER	98.6	%REC
LC1	Metals	MET-A-001	02D0680	LVLI	02L0030-LC1	THALLIUM	98.6	%REC
LC1	Metals	MET-A-001	02D1159	LVLI	02L0187-LC1	TIN	98.6	%REC
LC1	Metals	MET-A-001	02D1440	LVLI	02L0497-LC1	CALCIUM	98.6	%REC
LC1	Metals	MET-A-001	02D0687	LVLI	02L0030-LC1	THALLIUM	98.6	%REC
LC1	Metals	MET-A-001	02D1503	LVLI	02L0554-LC1	ARSENIC	98.7	%REC
LC1	Metals	MET-A-001	02D1214	LVLI	02L0257-LC1	THALLIUM	98.7	%REC
LC1	Metals	MET-A-001	02D1197	LVLI	02L0257-LC1	THALLIUM	98.7	%REC
LC1	Metals	RME-A-001	02D1159	LVLI	02L0198-LC1	SILVER	98.7	%REC
LC1	Metals	MET-A-001	02D1498	LVLI	02L0554-LC1	ARSENIC	98.7	%REC
LC1	Metals	MET-A-001	02D1159	LVLI	02L0187-LC1	CADMIUM	98.7	%REC
LC1	Metals	RME-A-001	02D1431	LVLI	02L0472-LC1	CADMIUM	98.7	%REC
LC1	Metals	MET-A-001	02D1506	LVLI	02L0554-LC1	ARSENIC	98.7	%REC
LC1	Metals	MET-A-013	02D1153	LVLI	02L0198-LC1	SILVER	98.7	%REC
LC1	Metals	MET-A-013	03D0506	LVLI	03L0097-LC1	SODIUM	98.7	%REC
LC1	Metals	MET-A-001	02D1148	LVLI	02L0187-LC1	CADMIUM	98.7	%REC
LC1	Metals	RME-A-001	02D1393	LVLI	02L0472-LC1	CADMIUM	98.7	%REC

Result Type	Group	LIC	RIN	Lab	Lab Sample Number	Analyte	Result	Units
LC1	Metals	RME-A-001	02D1148	LVLI	02L0198-LC1	SILVER	98.7	%REC
LC1	Metals	MET-A-013	03D0506	LVLI	03L0097-LC1	THALLIUM	98.8	%REC
LC1	Metals	MET-A-001	02D1068	LVLI	02L0159-LC1	LEAD	98.8	%REC
LC1	Metals	MET-A-001	02D0825	LVLI	02L0108-LC1	BARIUM	98.8	%REC
LC1	Metals	MET-A-013	02D1215	LVLI	02L0262-LC1	VANADIUM	98.8	%REC
LC1	Metals	MET-A-001	02D1030	LVLI	02L0159-LC1	LEAD	98.8	%REC
LC1	Metals	MET-A-001	02D1159	LVLI	02L0187-LC1	MAGNESIUM	98.8	%REC
LC1	Metals	MET-A-013	02D1227	LVLI	02L0317-LC1	ARSENIC	98.8	%REC
LC1	Metals	MET-A-001	02D1148	LVLI	02L0187-LC1	MAGNESIUM	98.8	%REC
LC1	Metals	MET-A-013	03D0506	LVLI	03L0097-LC1	LEAD	98.9	%REC
LC1	Metals	MET-A-001	02D0687	LVLI	02L0030-LC1	VANADIUM	98.9	%REC
LC1	Metals	MET-A-001	02D1440	LVLI	02L0497-LC1	MAGNESIUM	98.9	%REC
LC1	Metals	MET-A-001	02D1068	LVLI	02L0159-LC1	CADMIUM	98.9	%REC
LC1	Metals	MET-A-001	02D1435	LVLI	02L0497-LC1	MAGNESIUM	98.9	%REC
LC1	Metals	MET-A-001	02D1030	LVLI	02L0159-LC1	CADMIUM	98.9	%REC
LC1	Metals	MET-A-001	02D0680	LVLI	02L0030-LC1	VANADIUM	98.9	%REC
LC1	Metals	MET-A-001	02D1431	LVLI	02L0497-LC1	MAGNESIUM	98.9	%REC
LC1	Metals	MET-A-013	03D0683	LVLI	03L0178-LC1	ARSENIC	98.9	%REC
LC1	Metals	MET-A-013	02D1429	LVLI	02L0509-LC1	SODIUM	98.9	%REC
LC1	Metals	MET-A-001	02D0299	LVLI	01L0760-LC1	CADMIUM	99	%REC
LC1	Metals	MET-A-013	02D0174	STLDEN	D1J250000-325C	CHROMIUM	99	%REC
LC1	Metals	MET-A-013	02D0264	STLDEN	D1K130000-294C	ARSENIC	99	%REC
LC2	Metals	MET-A-013	02D0174	STLDEN	D1K010000-336C	COBALT	99	%REC
LC1	Metals	MET-A-013	02D0174	STLDEN	D1J250000-325C	VANADIUM	99	%REC
LC1	Metals	MET-A-013	02D0216	STLDEN	D1K010000-371C	LITHIUM	99	%REC
LC1	Metals	MET-A-013	02D0174	STLDEN	D1J250000-325C	MANGANESE	99	%REC
LC1	Metals	MET-A-013	02D1542	LVLI	02L0586-LC1	ARSENIC	99	%REC
LC1	Metals	MET-A-013	02D0292	STLDEN	D1K150000-507C	MAGNESIUM	99	%REC
LC1	Metals	MET-A-001	02D0265	LVLI	01L0760-LC1	CADMIUM	99	%REC
LC1	Metals	MET-A-013	02D0216	STLDEN	D1K010000-371C	CALCIUM	99	%REC
LC1	Metals	MET-A-013	02D0089	STLDEN	D1J110000-275C	MANGANESE	99	%REC
LC2	Metals	MET-A-013	02D0292	STLDEN	D1K200000-589C	MAGNESIUM	99	%REC

Result Type	Group	LIC	RIN	Lab	Lab Sample Number	Analyte	Result	Units
LC1	Metals	MET-A-001	02D0575	LVLI	02L0005-LC1	CADMIUM	99	%REC
LC1	Metals	MET-A-013	02D0089	STLDEN	D1J180000-240C	MERCURY	99	%REC
LC2	Metals	MET-A-013	02D0264	STLDEN	D1K150000-512C	SILVER	99	%REC
LC2	Metals	MET-A-013	02D0216	STLDEN	D1K060000-307C	CHROMIUM	99	%REC
LC2	Metals	MET-A-013	02D0216	STLDEN	D1K060000-307C	CADMIUM	99	%REC
LC2	Metals	MET-A-013	02D0216	STLDEN	D1K060000-307C	NICKEL	99	%REC
LC2	Metals	MET-A-013	02D0264	STLDEN	D1K150000-509C	CALCIUM	99	%REC
LC1	Metals	MET-A-013	02D1517	LVLI	02L0577-LC1	BARIUM	99	%REC
LC1	Metals	MET-A-013	02D0264	STLDEN	D1K130000-306C	IRON	99	%REC
LC1	Metals	MET-A-013	02D0174	STLDEN	D1J250000-325C	NICKEL	99	%REC
LC1	Metals	MET-A-013	02D0089	STLDEN	D1J110000-278C	SODIUM	99	%REC
LC1	Metals	MET-A-013	02D1521	LVLI	02L0577-LC1	BARIUM	99	%REC
LC1	Metals	MET-A-013	02D0216	STLDEN	D1K010000-326C	ARSENIC	99	%REC
LC2	Metals	MET-A-013	02D0292	STLDEN	D1K200000-590C	TIN	99	%REC
LC1	Metals	MET-A-013	02D0264	STLDEN	D1K130000-294C	SILVER	99	%REC
LC2	Metals	MET-A-013	02D0174	STLDEN	D1K010000-336C	BARIUM	99	%REC
LC1	Metals	MET-A-013	02D1516	LVLI	02L0577-LC1	BARIUM	99	%REC
LC2	Metals	MET-A-013	02D0292	STLDEN	D1K200000-590C	ZINC	99	%REC
LC2	Metals	MET-A-013	02D0264	STLDEN	D1K150000-512C	ARSENIC	99	%REC
LC2	Metals	MET-A-013	02D0089	STLDEN	D1J300000-125C	ARSENIC	99	%REC
LC1	Metals	MET-A-013	02D0264	STLDEN	D1K130000-306C	CALCIUM	99	%REC
LC1	Metals	MET-A-013	02D1281	LVLI	02L0340-LC1	ANTIMONY	99	%REC
LC1	Metals	MET-A-001	02D0724	LVLI	02L0072-LC1	TIN	99	%REC
LC1	Metals	MET-A-001	02D1435	LVLI	02L0497-LC1	CADMIUM	99	%REC
LC1	Metals	MET-A-001	02D0815	LVLI	02L0072-LC1	TIN	99	%REC
LC1	Metals	MET-A-001	02D0687	LVLI	02L0030-LC1	BERYLLIUM	99	%REC
LC1	Metals	MET-A-001	02D0687	LVLI	02L0030-LC1	STRONTIUM	99	%REC
LC1	Metals	MET-A-001	02D1431	LVLI	02L0497-LC1	CADMIUM	99	%REC
LC1	Metals	MET-A-013	02D1497	STLDEN	D2I120000-330C	BARIUM	99	%REC
LC1	Metals	MET-A-013	02D1383	STLDEN	D2G190000-320C	MAGNESIUM	99	%REC
LC1	Metals	MET-A-001	02D0680	LVLI	02L0030-LC1	STRONTIUM	99	%REC
LC1	Metals	MET-A-013	02D0965	STLDEN	D2C190000-494C	MERCURY	99	%REC

Result Type	Group	LIC	RIN	Lab	Lab Sample Number	Analyte	Result	Units
LC1	Metals	MET-A-001	02D1440	LVLI	02L0497-LC1	CADMIUM	99	%REC
LC1	Metals	MET-A-013	02D1336	STLDEN	D2G020000-277C	MERCURY	99	%REC
LC2	Metals	MET-A-013	02D1497	STLDEN	D2I160000-278C	ARSENIC	99	%REC
LC1	Metals	MET-A-013	02D1187	STLDEN	D2D300000-368C	STRONTIUM	99	%REC
LC1	Metals	MET-A-013	03D0064	STLDEN	D2J210000-554C	SILVER	99	%REC
LC1	Metals	MET-A-013	03D0064	STLDEN	D2J210000-554C	LEAD	99	%REC
LC1	Metals	MET-A-013	03D0064	STLDEN	D2J210000-554C	CADMIUM	99	%REC
LC1	Metals	MET-A-013	03D0064	STLDEN	D2J210000-554C	BARIUM	99	%REC
LC1	Metals	MET-A-013	03D0064	STLDEN	D2J220000-488C	LITHIUM	99	%REC
LC1	Metals	MET-A-001	02D1148	LVLI	02L0187-LC1	ZINC	99	%REC
LC1	Metals	MET-A-013	03D0064	STLDEN	D2K010000-231C	MERCURY	99	%REC
LC1	Metals	MET-A-013	02D1497	STLDEN	D2I120000-330C	SILVER	99	%REC
LC1	Metals	MET-A-013	03D0506	LVLI	03L0097-LC1	BERYLLIUM	99	%REC
LC1	Metals	MET-A-013	02D1336	STLDEN	D2G020000-389C	POTASSIUM	99	%REC
LC1	Metals	MET-A-013	02D1187	STLDEN	D2D300000-368C	CHROMIUM	99	%REC
LC1	Metals	MET-A-013	02D1187	STLDEN	D2D300000-368C	ANTIMONY	99	%REC
LC1	Metals	MET-A-001	02D1159	LVLI	02L0187-LC1	ZINC	99	%REC
LC1	Metals	MET-A-013	03D0109	LVLI	02C0330-LC1	MERCURY	99	%REC
LC1	Metals	MET-A-001	02D0299	LVLI	01L0760-LC1	STRONTIUM	99.1	%REC
LC1	Metals	MET-A-001	02D0299	LVLI	01L0760-LC1	CHROMIUM	99.1	%REC
LC1	Metals	MET-A-001	02D1440	LVLI	02L0497-LC1	ZINC	99.1	%REC
LC1	Metals	MET-A-001	02D0299	LVLI	01L0760-LC1	LEAD	99.1	%REC
LC1	Metals	MET-A-001	02D1440	LVLI	02L0497-LC1	STRONTIUM	99.1	%REC
LC1	Metals	MET-A-001	02D0724	LVLI	02L0072-LC1	BERYLLIUM	99.1	%REC
LC1	Metals	MET-A-001	02D1435	LVLI	02L0497-LC1	ZINC	99.1	%REC
LC1	Metals	MET-A-001	02D1435	LVLI	02L0497-LC1	STRONTIUM	99.1	%REC
LC1	Metals	RME-A-001	02D1431	LVLI	02L0472-LC1	SILVER	99.1	%REC
LC1	Metals	MET-A-001	02D1431	LVLI	02L0497-LC1	ZINC	99.1	%REC
LC1	Metals	MET-A-001	02D0265	LVLI	01L0760-LC1	STRONTIUM	99.1	%REC
LC1	Metals	RME-A-001	02D1393	LVLI	02L0472-LC1	SILVER	99.1	%REC
LC1	Metals	MET-A-001	02D0265	LVLI	01L0760-LC1	CHROMIUM	99.1	%REC
LC1	Metals	RME-A-001	02D1214	LVLI	02L0246-LC1	CADMIUM	99.1	%REC

Result Type	Group	LIC	RIN	Lab	Lab Sample Number	Analyte	Result	Units
LC1	Metals	MET-A-001	02D1431	LVLI	02L0497-LC1	STRONTIUM	99.1	%REC
LC1	Metals	RME-A-001	02D0645	LVLI	02L0026-LC1	CADMIUM	99.1	%REC
LC1	Metals	MET-A-001	02D1503	LVLI	02L0554-LC1	NICKEL	99.1	%REC
LC1	Metals	MET-A-001	02D0575	LVLI	02L0005-LC1	CHROMIUM	99.1	%REC
LC1	Metals	MET-A-001	02D1498	LVLI	02L0554-LC1	NICKEL	99.1	%REC
LC1	Metals	MET-A-001	02D0575	LVLI	02L0005-LC1	LEAD	99.1	%REC
LC1	Metals	MET-A-001	02D0265	LVLI	01L0760-LC1	LEAD	99.1	%REC
LC1	Metals	MET-A-001	02D1506	LVLI	02L0554-LC1	NICKEL	99.1	%REC
LC1	Metals	MET-A-001	02D0575	LVLI	02L0005-LC1	STRONTIUM	99.1	%REC
LC1	Metals	MET-A-001	02D1440	LVLI	02L0497-LC1	COBALT	99.2	%REC
LC1	Metals	MET-A-001	02D0724	LVLI	02L0072-LC1	VANADIUM	99.2	%REC
LC1	Metals	MET-A-013	02D1521	LVLI	02L0577-LC1	ARSENIC	99.2	%REC
LC1	Metals	MET-A-013	03D0063	LVLI	02L0619-LC1	ARSENIC	99.2	%REC
LC1	Metals	MET-A-001	02D1159	LVLI	02L0187-LC1	CHROMIUM	99.2	%REC
LC1	Metals	MET-A-001	02D0815	LVLI	02L0072-LC1	VANADIUM	99.2	%REC
LC1	Metals	MET-A-013	03D0064	LVLI	02L0619-LC1	ARSENIC	99.2	%REC
LC1	Metals	MET-A-013	03D0063	LVLI	02L0619-LC1	CALCIUM	99.2	%REC
LC1	Metals	MET-A-001	02D1148	LVLI	02L0187-LC1	CHROMIUM	99.2	%REC
LC1	Metals	MET-A-001	02D1435	LVLI	02L0497-LC1	COBALT	99.2	%REC
LC1	Metals	MET-A-013	03D0064	LVLI	02L0619-LC1	CALCIUM	99.2	%REC
LC1	Metals	MET-A-013	02D1281	LVLI	02L0340-LC1	BARIUM	99.2	%REC
LC1	Metals	MET-A-001	02D1068	LVLI	02L0159-LC1	NICKEL	99.2	%REC
LC1	Metals	RME-A-002	02D0645	LVLI	02L0026-LC1	CHROMIUM	99.2	%REC
LC1	Metals	MET-A-013	02D1516	LVLI	02L0577-LC1	ARSENIC	99.2	%REC
LC1	Metals	MET-A-001	02D1030	LVLI	02L0159-LC1	NICKEL	99.2	%REC
LC1	Metals	MET-A-013	02D1281	LVLI	02L0340-LC1	SELENIUM	99.2	%REC
LC1	Metals	MET-A-001	02D1431	LVLI	02L0497-LC1	COBALT	99.2	%REC
LC1	Metals	MET-A-013	03D0024	LVLI	02L0612-LC1	ANTIMONY	99.2	%REC
LC1	Metals	MET-A-013	03D0024	LVLI	02L0612-LC1	BARIUM	99.2	%REC
LC1	Metals	MET-A-013	02D1517	LVLI	02L0577-LC1	ARSENIC	99.2	%REC
LC1	Metals	MET-A-001	02D0575	LVLI	02L0005-LC1	BERYLLIUM	99.3	%REC
LC1	Metals	MET-A-001	02D0265	LVLI	01L0760-LC1	NICKEL	99.3	%REC

Result Type	Group	LIC	RIN	Lab	Lab Sample Number	Analyte	Result	Units
LC1	Metals	MET-A-001	02D0815	LVLI	02L0072-LC1	CADMIUM	99.3	%REC
LC1	Metals	MET-A-001	02D0299	LVLI	01L0760-LC1	TIN	99.3	%REC
LC1	Metals	RME-A-002	02D1159	LVLI	02L0198-LC1	BERYLLIUM	99.3	%REC
LC1	Metals	MET-A-001	02D0575	LVLI	02L0005-LC1	TIN	99.3	%REC
LC1	Metals	MET-A-001	02D0265	LVLI	01L0760-LC1	TIN	99.3	%REC
LC1	Metals	MET-A-013	02D1281	LVLI	02L0340-LC1	SILVER	99.3	%REC
LC1	Metals	SS05C001	02D0111	LVLI	01L0683-LC1	SODIUM	99.3	%REC
LC1	Metals	RME-A-002	02D0815	LVLI	02L0102-LC1	CHROMIUM	99.3	%REC
LC1	Metals	MET-A-013	02D1215	LVLI	02L0262-LC1	IRON	99.3	%REC
LC1	Metals	MET-A-001	02D0299	LVLI	01L0760-LC1	NICKEL	99.3	%REC
LC1	Metals	MET-A-001	02D0815	LVLI	02L0072-LC1	CHROMIUM	99.3	%REC
LC1	Metals	SS05C001	02D0111	LVLI	01L0683-LC1	SELENIUM	99.3	%REC
LC1	Metals	RME-A-001	02D1261	LVLI	02L0340-LC1	SILVER	99.3	%REC
LC1	Metals	MET-A-001	02D0724	LVLI	02L0072-LC1	CADMIUM	99.3	%REC
LC1	Metals	RME-A-001	02D1433	LVLI	02L0484-LC1	CADMIUM	99.3	%REC
LC1	Metals	MET-A-001	02D0575	LVLI	02L0005-LC1	NICKEL	99.3	%REC
LC1	Metals	MET-A-001	02D0724	LVLI	02L0072-LC1	CHROMIUM	99.3	%REC
LC1	Metals	MET-A-013	03D0506	LVLI	03L0097-LC1	CADMIUM	99.3	%REC
LC1	Metals	MET-A-013	02D1153	LVLI	02L0198-LC1	BERYLLIUM	99.3	%REC
LC1	Metals	RME-A-001	03D0506	LVLI	03L0097-LC1	CADMIUM	99.3	%REC
LC1	Metals	RME-A-002	03D0683	LVLI	03L0176-LC1	BERYLLIUM	99.3	%REC
LC1	Metals	RME-A-002	02D1148	LVLI	02L0198-LC1	BERYLLIUM	99.3	%REC
LC1	Metals	MET-A-001	02D1148	LVLI	02L0187-LC1	IRON	99.3	%REC
LC1	Metals	MET-A-001	02D1159	LVLI	02L0187-LC1	IRON	99.3	%REC
LC1	Metals	MET-A-013	02D1477	LVLI	02L0541-LC1	SELENIUM	99.3	%REC
LC1	Metals	MET-A-013	02D1483	LVLI	02L0541-LC1	SELENIUM	99.3	%REC
LC1	Metals	MET-A-013	02D1215	LVLI	02L0262-LC1	CADMIUM	99.4	%REC
LC1	Metals	MET-A-013	02D1215	LVLI	02L0262-LC1	CHROMIUM	99.4	%REC
LC1	Metals	MET-A-001	02D1264	LVLI	02L0335-LC1	SELENIUM	99.4	%REC
LC1	Metals	MET-A-001	02D0815	LVLI	02L0072-LC1	STRONTIUM	99.4	%REC
LC1	Metals	MET-A-013	02D0371	LVLI	01L0804-LC1	BARIUM	99.4	%REC
LC1	Metals	MET-A-001	02D1262	LVLI	02L0335-LC1	SELENIUM	99.4	%REC

Result Type	Group	LIC	RIN	Lab	Lab Sample Number	Analyte	Result	Units
LC1	Metals	MET-A-013	03D0683	LVLI	03L0178-LC1	STRONTIUM	99.4	%REC
LC1	Metals	MET-A-001	02D0935	LVLI	02L0135-LC1	BARIUM	99.4	%REC
LC1	Metals	MET-A-001	02D0724	LVLI	02L0072-LC1	STRONTIUM	99.4	%REC
LC1	Metals	MET-A-001	02D0965	LVLI	02L0135-LC1	BARIUM	99.4	%REC
LC1	Metals	MET-A-001	02D1292	LVLI	02L0335-LC1	SELENIUM	99.4	%REC
LC1	Metals	MET-A-013	03D0683	LVLI	03L0178-LC1	MAGNESIUM	99.4	%REC
LC1	Metals	MET-A-001	02D1261	LVLI	02L0335-LC1	SELENIUM	99.4	%REC
LC1	Metals	MET-A-001	02D1030	LVLI	02L0159-LC1	MAGNESIUM	99.5	%REC
LC1	Metals	RME-A-002	02D1393	LVLI	02L0472-LC1	CHROMIUM	99.5	%REC
LC1	Metals	MET-A-013	03D0683	LVLI	03L0176-LC1	THALLIUM	99.5	%REC
LC1	Metals	MET-A-013	02D1281	LVLI	02L0340-LC1	LEAD	99.5	%REC
LC1	Metals	MET-A-001	02D0815	LVLI	02L0072-LC1	IRON	99.5	%REC
LC1	Metals	MET-A-001	02D1435	LVLI	02L0497-LC1	TIN	99.5	%REC
LC1	Metals	SS05C001	02D0111	LVLI	01L0683-LC1	ALUMINUM	99.5	%REC
LC1	Metals	RME-A-002	02D1431	LVLI	02L0472-LC1	CHROMIUM	99.5	%REC
LC1	Metals	MET-A-001	02D1431	LVLI	02L0497-LC1	CHROMIUM	99.5	%REC
LC1	Metals	MET-A-013	02D1483	LVLI	02L0541-LC1	ARSENIC	99.5	%REC
LC1	Metals	MET-A-001	02D1068	LVLI	02L0159-LC1	MAGNESIUM	99.5	%REC
LC1	Metals	MET-A-013	02D1477	LVLI	02L0541-LC1	ARSENIC	99.5	%REC
LC1	Metals	MET-A-001	02D1431	LVLI	02L0497-LC1	TIN	99.5	%REC
LC1	Metals	MET-A-013	03D0024	LVLI	02L0612-LC1	SELENIUM	99.5	%REC
LC1	Metals	MET-A-001	02D1431	LVLI	02L0497-LC1	BERYLLIUM	99.5	%REC
LC1	Metals	MET-A-001	02D1435	LVLI	02L0497-LC1	BERYLLIUM	99.5	%REC
LC1	Metals	MET-A-001	02D1214	LVLI	02L0257-LC1	STRONTIUM	99.5	%REC
LC1	Metals	MET-A-001	02D0724	LVLI	02L0072-LC1	IRON	99.5	%REC
LC1	Metals	MET-A-001	02D1440	LVLI	02L0497-LC1	CHROMIUM	99.5	%REC
LC1	Metals	RME-A-002	02D0724	LVLI	02L0061-LC1	BERYLLIUM	99.5	%REC
LC1	Metals	RME-A-002	02D0725	LVLI	02L0061-LC1	BERYLLIUM	99.5	%REC
LC1	Metals	RME-A-002	02D1469	LVLI	02L0541-LC1	BERYLLIUM	99.5	%REC
LC1	Metals	MET-A-001	02D1440	LVLI	02L0497-LC1	TIN	99.5	%REC
LC1	Metals	MET-A-001	02D1197	LVLI	02L0257-LC1	STRONTIUM	99.5	%REC
LC1	Metals	MET-A-001	02D1440	LVLI	02L0497-LC1	BERYLLIUM	99.5	%REC

Result Type	Group	LIC	RIN	Lab	Lab Sample Number	Analyte	Result	Units
LC1	Metals	MET-A-001	02D1435	LVLI	02L0497-LC1	CHROMIUM	99.5	%REC
LC1	Metals	MET-A-001	02D0815	LVLI	02L0072-LC1	SODIUM	99.5	%REC
LC1	Metals	MET-A-013	03D0083	LVLI	02L0639-LC1	ARSENIC	99.5	%REC
LC1	Metals	MET-A-001	02D0724	LVLI	02L0072-LC1	SODIUM	99.5	%REC
LC1	Metals	MET-A-001	02D1498	LVLI	02L0554-LC1	SELENIUM	99.6	%REC
LC1	Metals	MET-A-013	02D1281	LVLI	02L0340-LC1	ZINC	99.6	%REC
LC1	Metals	MET-A-013	03D0506	LVLI	03L0097-LC1	NICKEL	99.6	%REC
LC1	Metals	MET-A-001	02D1498	LVLI	02L0554-LC1	BERYLLIUM	99.6	%REC
LC1	Metals	RME-A-002	02D1516	LVLI	02L0577-LC1	BERYLLIUM	99.6	%REC
LC1	Metals	MET-A-013	03D0506	LVLI	03L0097-LC1	BARIUM	99.6	%REC
LC1	Metals	MET-A-013	03D0020	LVLI	02L0595-LC1	ALUMINUM	99.6	%REC
LC1	Metals	MET-A-001	02D1503	LVLI	02L0554-LC1	BERYLLIUM	99.6	%REC
LC1	Metals	MET-A-001	02D1503	LVLI	02L0554-LC1	SELENIUM	99.6	%REC
LC1	Metals	MET-A-013	03D0683	LVLI	03L0176-LC1	LEAD	99.6	%REC
LC1	Metals	MET-A-013	02D1542	LVLI	02L0586-LC1	POTASSIUM	99.6	%REC
LC1	Metals	MET-A-013	02D1542	LVLI	02L0586-LC1	BARIUM	99.6	%REC
LC1	Metals	MET-A-001	02D1506	LVLI	02L0554-LC1	SELENIUM	99.6	%REC
LC1	Metals	MET-A-013	02D1516	LVLI	02L0577-LC1	BERYLLIUM	99.6	%REC
LC1	Metals	MET-A-001	02D1506	LVLI	02L0554-LC1	BERYLLIUM	99.6	%REC
LC1	Metals	MET-A-013	02D1517	LVLI	02L0577-LC1	BERYLLIUM	99.6	%REC
LC1	Metals	MET-A-013	02D1153	LVLI	02L0198-LC1	THALLIUM	99.6	%REC
LC1	Metals	MET-A-001	02D1159	LVLI	02L0187-LC1	SILVER	99.6	%REC
LC1	Metals	MET-A-001	02D1148	LVLI	02L0187-LC1	SILVER	99.6	%REC
LC1	Metals	MET-A-013	02D0371	LVLI	01L0804-LC1	SODIUM	99.7	%REC
LC1	Metals	MET-A-001	02D0645	LVLI	02L0021-LC1	TIN	99.7	%REC
LC1	Metals	MET-A-001	02D0645	LVLI	02L0021-LC1	CADMIUM	99.7	%REC
LC1	Metals	RME-A-001	03D0683	LVLI	03L0176-LC1	SILVER	99.7	%REC
LC1	Metals	MET-A-001	02D0664	LVLI	02L0021-LC1	CADMIUM	99.7	%REC
LC1	Metals	MET-A-001	02D1254	LVLI	02L0313-LC1	ARSENIC	99.7	%REC
LC1	Metals	MET-A-013	02D1281	LVLI	02L0340-LC1	COPPER	99.7	%REC
LC1	Metals	MET-A-001	02D1159	LVLI	02L0187-LC1	CALCIUM	99.7	%REC
LC1	Metals	RME-A-001	02D1107	LVLI	02L0175-LC1	CADMIUM	99.7	%REC

Result Type	Group	LIC	RIN	Lab	Lab Sample Number	Analyte	Result	Units
LC1	Metals	MET-A-013	02D1215	LVLI	02L0262-LC1	COPPER	99.7	%REC
LC1	Metals	MET-A-001	02D1214	LVLI	02L0257-LC1	MANGANESE	99.7	%REC
LC1	Metals	MET-A-001	02D1148	LVLI	02L0187-LC1	CALCIUM	99.7	%REC
LC1	Metals	RME-A-001	03D0506	LVLI	03L0097-LC1	SILVER	99.7	%REC
LC1	Metals	MET-A-013	03D0024	LVLI	02L0612-LC1	THALLIUM	99.7	%REC
LC1	Metals	MET-A-001	02D1221	LVLI	02L0313-LC1	ARSENIC	99.7	%REC
LC1	Metals	MET-A-001	02D1107	LVLI	02L0176-LC1	BARIUM	99.7	%REC
LC1	Metals	MET-A-001	02D1197	LVLI	02L0257-LC1	MANGANESE	99.7	%REC
LC1	Metals	MET-A-013	02D1281	LVLI	02L0340-LC1	NICKEL	99.7	%REC
LC1	Metals	MET-A-001	02D1240	LVLI	02L0313-LC1	ARSENIC	99.7	%REC
LC1	Metals	MET-A-001	02D1243	LVLI	02L0313-LC1	ARSENIC	99.7	%REC
LC1	Metals	MET-A-013	03D0506	LVLI	03L0097-LC1	SILVER	99.7	%REC
LC1	Metals	RME-A-002	02D1214	LVLI	02L0246-LC1	CHROMIUM	99.7	%REC
LC1	Metals	MET-A-013	03D0506	LVLI	03L0097-LC1	CALCIUM	99.7	%REC
LC1	Metals	MET-A-013	03D0683	LVLI	03L0176-LC1	SILVER	99.7	%REC
LC1	Metals	MET-A-001	02D1233	LVLI	02L0313-LC1	ARSENIC	99.7	%REC
LC1	Metals	MET-A-001	02D1431	LVLI	02L0497-LC1	COPPER	99.7	%REC
LC1	Metals	MET-A-001	02D1440	LVLI	02L0497-LC1	SILVER	99.7	%REC
LC1	Metals	MET-A-001	02D1435	LVLI	02L0497-LC1	COPPER	99.7	%REC
LC1	Metals	MET-A-001	02D0664	LVLI	02L0021-LC1	TIN	99.7	%REC
LC1	Metals	MET-A-001	02D1435	LVLI	02L0497-LC1	SILVER	99.7	%REC
LC1	Metals	MET-A-001	02D1431	LVLI	02L0497-LC1	SILVER	99.7	%REC
LC1	Metals	MET-A-001	02D1440	LVLI	02L0497-LC1	COPPER	99.7	%REC
LC1	Metals	MET-A-001	02D1261	LVLI	02L0335-LC1	SODIUM	99.8	%REC
LC1	Metals	MET-A-001	02D1159	LVLI	02L0187-LC1	MANGANESE	99.8	%REC
LC1	Metals	MET-A-013	02D1521	LVLI	02C0303-LC1	MERCURY	99.8	%REC
LC1	Metals	MET-A-001	02D1148	LVLI	02L0187-LC1	MANGANESE	99.8	%REC
LC1	Metals	MET-A-001	02D1262	LVLI	02L0335-LC1	SODIUM	99.8	%REC
LC1	Metals	MET-A-013	03D0024	LVLI	02C0313-LC1	MERCURY	99.8	%REC
LC1	Metals	MET-A-001	02D0680	LVLI	02L0030-LC1	COPPER	99.8	%REC
LC1	Metals	MET-A-013	02D1516	LVLI	02C0303-LC1	MERCURY	99.8	%REC
LC1	Metals	MET-A-001	02D0815	LVLI	02L0072-LC1	LEAD	99.8	%REC

Result Type	Group	LIC	RIN	Lab	Lab Sample Number	Analyte	Result	Units
LC1	Metals	MET-A-001	02D1148	LVLI	02L0187-LC1	SODIUM	99.8	%REC
LC1	Metals	MET-A-013	02D1542	LVLI	02C0303-LC1	MERCURY	99.8	%REC
LC1	Metals	MET-A-001	02D1264	LVLI	02L0335-LC1	SODIUM	99.8	%REC
LC1	Metals	MET-A-013	02D1215	LVLI	02L0262-LC1	COBALT	99.8	%REC
LC1	Metals	MET-A-013	02D1542	LVLI	02L0586-LC1	BERYLLIUM	99.8	%REC
LC1	Metals	MET-A-013	02D1542	LVLI	02L0586-LC1	SILVER	99.8	%REC
LC1	Metals	MET-A-013	02D1215	LVLI	02L0262-LC1	THALLIUM	99.8	%REC
LC1	Metals	MET-A-001	02D0687	LVLI	02L0030-LC1	COPPER	99.8	%REC
LC1	Metals	MET-A-001	02D1159	LVLI	02L0187-LC1	SODIUM	99.8	%REC
LC1	Metals	MET-A-001	02D1214	LVLI	02L0257-LC1	BERYLLIUM	99.8	%REC
LC1	Metals	MET-A-001	02D1214	LVLI	02L0257-LC1	ALUMINUM	99.8	%REC
LC1	Metals	MET-A-001	02D0724	LVLI	02L0072-LC1	LEAD	99.8	%REC
LC1	Metals	MET-A-001	02D0645	LVLI	02L0021-LC1	LEAD	99.8	%REC
LC1	Metals	MET-A-001	02D1197	LVLI	02L0257-LC1	ALUMINUM	99.8	%REC
LC1	Metals	MET-A-013	03D0024	LVLI	02L0612-LC1	STRONTIUM	99.8	%REC
LC1	Metals	MET-A-001	02D0965	LVLI	02L0135-LC1	ARSENIC	99.8	%REC
LC1	Metals	MET-A-001	02D0664	LVLI	02L0021-LC1	LEAD	99.8	%REC
LC1	Metals	MET-A-013	03D0506	LVLI	03L0097-LC1	IRON	99.8	%REC
LC1	Metals	MET-A-013	03D0683	LVLI	03L0178-LC1	VANADIUM	99.8	%REC
LC1	Metals	MET-A-001	02D0965	LVLI	02L0135-LC1	CALCIUM	99.8	%REC
LC1	Metals	MET-A-001	02D1292	LVLI	02L0335-LC1	SODIUM	99.8	%REC
LC1	Metals	MET-A-001	02D0935	LVLI	02L0135-LC1	CALCIUM	99.8	%REC
LC1	Metals	MET-A-001	02D0935	LVLI	02L0135-LC1	ARSENIC	99.8	%REC
LC1	Metals	MET-A-013	02D1517	LVLI	02C0303-LC1	MERCURY	99.8	%REC
LC1	Metals	MET-A-001	02D0815	LVLI	02L0072-LC1	COBALT	99.9	%REC
LC1	Metals	MET-A-001	02D0815	LVLI	02L0072-LC1	COPPER	99.9	%REC
LC1	Metals	RME-A-002	02D0918	LVLI	02L0126-LC1	BERYLLIUM	99.9	%REC
LC1	Metals	MET-A-001	02D1440	LVLI	02L0497-LC1	IRON	99.9	%REC
LC1	Metals	MET-A-001	02D0299	LVLI	01L0760-LC1	COBALT	99.9	%REC
LC1	Metals	MET-A-001	02D1503	LVLI	02L0554-LC1	TIN	99.9	%REC
LC1	Metals	MET-A-001	02D1435	LVLI	02L0497-LC1	IRON	99.9	%REC
LC1	Metals	MET-A-001	02D1159	LVLI	02L0187-LC1	COBALT	99.9	%REC

Result Type	Group	LIC	RIN	Lab	Lab Sample Number	Analyte	Result	Units
LC1	Metals	MET-A-001	02D0575	LVLI	02L0005-LC1	COBALT	99.9	%REC
LC1	Metals	MET-A-001	02D1030	LVLI	02L0159-LC1	ARSENIC	99.9	%REC
LC1	Metals	MET-A-001	02D1506	LVLI	02L0554-LC1	TIN	99.9	%REC
LC1	Metals	MET-A-013	02D1153	LVLI	02L0198-LC1	MANGANESE	99.9	%REC
LC1	Metals	MET-A-013	02D1281	LVLI	02L0340-LC1	CADMIUM	99.9	%REC
LC1	Metals	MET-A-001	02D0724	LVLI	02L0072-LC1	ANTIMONY	99.9	%REC
LC1	Metals	MET-A-001	02D0724	LVLI	02L0072-LC1	COBALT	99.9	%REC
LC1	Metals	MET-A-001	02D0724	LVLI	02L0072-LC1	COPPER	99.9	%REC
LC1	Metals	MET-A-001	02D0299	LVLI	01L0760-LC1	THALLIUM	99.9	%REC
LC1	Metals	RME-A-002	02D0935	LVLI	02L0126-LC1	BERYLLIUM	99.9	%REC
LC1	Metals	MET-A-001	02D0265	LVLI	01L0760-LC1	COBALT	99.9	%REC
LC1	Metals	MET-A-001	02D1498	LVLI	02L0554-LC1	TIN	99.9	%REC
LC1	Metals	MET-A-001	02D0265	LVLI	01L0760-LC1	THALLIUM	99.9	%REC
LC1	Metals	RME-A-002	02D0925	LVLI	02L0126-LC1	BERYLLIUM	99.9	%REC
LC1	Metals	MET-A-001	02D0815	LVLI	02L0072-LC1	ANTIMONY	99.9	%REC
LC1	Metals	MET-A-001	02D1030	LVLI	02L0159-LC1	CHROMIUM	99.9	%REC
LC1	Metals	MET-A-001	02D1148	LVLI	02L0187-LC1	COBALT	99.9	%REC
LC1	Metals	MET-A-013	02D1521	LVLI	02L0577-LC1	ANTIMONY	99.9	%REC
LC1	Metals	MET-A-013	02D1517	LVLI	02L0577-LC1	ANTIMONY	99.9	%REC
LC1	Metals	MET-A-001	02D1068	LVLI	02L0159-LC1	ARSENIC	99.9	%REC
LC1	Metals	MET-A-001	02D1068	LVLI	02L0159-LC1	CHROMIUM	99.9	%REC
LC1	Metals	MET-A-001	02D1431	LVLI	02L0497-LC1	IRON	99.9	%REC
LC1	Metals	MET-A-013	02D1516	LVLI	02L0577-LC1	ANTIMONY	99.9	%REC
LC1	Metals	RME-A-001	02D1261	LVLI	02L0340-LC1	CADMIUM	99.9	%REC
LC1	Metals	MET-A-001	02D0575	LVLI	02L0005-LC1	THALLIUM	99.9	%REC
LC2	Metals	MET-A-013	02D0174	STLDEN	D1K010000-336C	MANGANESE	100	%REC
LC1	Metals	MET-A-013	03D0083	LVLI	02L0639-LC1	MAGNESIUM	100	%REC
LC1	Metals	MET-A-013	02D1187	STLDEN	D2D300000-368C	MANGANESE	100	%REC
LC1	Metals	MET-A-013	02D1187	STLDEN	D2D300000-368C	SILVER	100	%REC
LC1	Metals	MET-A-013	02D1187	STLDEN	D2D300000-368C	VANADIUM	100	%REC
LC1	Metals	MET-A-013	02D1517	LVLI	02L0577-LC1	ZINC	100	%REC
LC2	Metals	MET-A-013	02D0216	STLDEN	D1K060000-309C	POTASSIUM	100	%REC

Result Type	Group	LIC	RIN	Lab	Lab Sample Number	Analyte	Result	Units
LC1	Metals	MET-A-013	02D1187	STLDEN	D2D300000-368C	LEAD	100	%REC
LC1	Metals	MET-A-013	03D0683	LVLI	03L0176-LC1	VANADIUM	100	%REC
LC2	Metals	MET-A-013	02D0216	STLDEN	D1K060000-309C	LITHIUM	100	%REC
LC1	Metals	MET-A-013	02D1153	STLDEN	D2D180000-275C	POTASSIUM	100	%REC
LC1	Metals	MET-A-013	03D0109	LVLI	02L0655-LC1	ARSENIC	100	%REC
LC1	Metals	MET-A-001	02D1506	LVLI	02L0554-LC1	LEAD	100	%REC
LC1	Metals	MET-A-013	02D0216	STLDEN	D1K010000-371C	IRON	100	%REC
LC1	Metals	MET-A-001	02D0645	LVLI	02L0021-LC1	CHROMIUM	100	%REC
LC2	Metals	MET-A-013	02D0174	STLDEN	D1K010000-336C	CHROMIUM	100	%REC
LC1	Metals	MET-A-001	02D1068	LVLI	02L0159-LC1	CALCIUM	100	%REC
LC1	Metals	MET-A-013	02D1516	LVLI	02L0577-LC1	ZINC	100	%REC
LC1	Metals	MET-A-013	02D1521	LVLI	02L0577-LC1	ZINC	100	%REC
LC1	Metals	MET-A-001	02D0724	LVLI	02L0072-LC1	SELENIUM	100	%REC
LC1	Metals	MET-A-001	02D1506	LVLI	02L0554-LC1	SODIUM	100	%REC
LC1	Metals	MET-A-001	02D1030	LVLI	02L0159-LC1	CALCIUM	100	%REC
LC1	Metals	MET-A-013	03D0683	LVLI	03L0178-LC1	SELENIUM	100	%REC
LC1	Metals	MET-A-013	02D1542	LVLI	02L0586-LC1	ANTIMONY	100	%REC
LC2	Metals	MET-A-013	02D0174	STLDEN	D1K010000-336C	LEAD	100	%REC
LC1	Metals	MET-A-013	02D1497	STLDEN	D2I120000-330C	SELENIUM	100	%REC
LC1	Metals	MET-A-001	02D0664	LVLI	02L0021-LC1	CHROMIUM	100	%REC
LC2	Metals	MET-A-013	02D0089	STLDEN	D1J150000-396C	LITHIUM	100	%REC
LC2	Metals	MET-A-013	02D0089	STLDEN	D1J300000-125C	ALUMINUM	100	%REC
LC2	Metals	MET-A-013	02D0089	STLDEN	D1J150000-396C	IRON	100	%REC
LC1	Metals	MET-A-013	02D1281	LVLI	02L0340-LC1	TIN	100	%REC
LC1	Metals	MET-A-013	02D0965	STLDEN	D2C210000-377C	IRON	100	%REC
LC1	Metals	MET-A-013	02D0264	STLDEN	D1K130000-306C	POTASSIUM	100	%REC
LC1	Metals	MET-A-013	02D1497	STLDEN	D2I120000-331C	CALCIUM	100	%REC
LC1	Metals	MET-A-001	02D0815	LVLI	02L0072-LC1	SELENIUM	100	%REC
LC2	Metals	MET-A-013	02D0292	STLDEN	D1K200000-589C	IRON	100	%REC
LC1	Metals	MET-A-013	02D0089	STLDEN	D1J110000-278C	IRON	100	%REC
LC2	Metals	MET-A-013	02D0264	STLDEN	D1K150000-509C	MAGNESIUM	100	%REC
LC1	Metals	MET-A-001	02D1498	LVLI	02L0554-LC1	SODIUM	100	%REC

Result Type	Group	LIC	RIN	Lab	Lab Sample Number	Analyte	Result	Units
LC1	Metals	MET-A-001	02D0664	LVLI	02L0021-LC1	SELENIUM	100	%REC
LC1	Metals	MET-A-013	02D1397	EMXT	IPH028WL	STRONTIUM	100	%REC
LC2	Metals	MET-A-013	02D0216	STLDEN	D1K060000-309C	IRON	100	%REC
LC1	Metals	MET-A-013	02D0264	STLDEN	D1K130000-306C	LITHIUM	100	%REC
LC1	Metals	MET-A-013	02D0089	STLDEN	D1J110000-278C	CALCIUM	100	%REC
LC1	Metals	MET-A-013	02D1187	STLDEN	D2E080000-258C	MERCURY	100	%REC
LC1	Metals	MET-A-001	02D1503	LVLI	02L0554-LC1	LEAD	100	%REC
LC1	Metals	MET-A-013	02D1187	STLDEN	D2D300000-368C	ALUMINUM	100	%REC
LC1	Metals	MET-A-013	02D1187	STLDEN	D2D300000-368C	ARSENIC	100	%REC
LC1	Metals	MET-A-013	02D0174	STLDEN	D1J250000-322C	SODIUM	100	%REC
LC1	Metals	MET-A-013	02D1383	STLDEN	D2G150000-216C	MERCURY	100	%REC
LC1	Metals	MET-A-001	02D0645	LVLI	02L0021-LC1	SELENIUM	100	%REC
LC1	Metals	MET-A-013	02D0089	STLDEN	D1J110000-275C	ARSENIC	100	%REC
LC1	Metals	MET-A-001	02D1503	LVLI	02L0554-LC1	SODIUM	100	%REC
LC2	Metals	MET-A-013	02D0292	STLDEN	D1K200000-590C	MANGANESE	100	%REC
LC1	Metals	MET-A-001	02D1498	LVLI	02L0554-LC1	LEAD	100	%REC
LC2	Metals	MET-A-013	02D0216	STLDEN	D1K060000-309C	CALCIUM	100	%REC
LC1	Metals	MET-A-013	02D1215	LVLI	02L0262-LC1	ARSENIC	100	%REC
LC1	Metals	MET-A-013	03D0064	STLDEN	D2J220000-488C	SODIUM	100	%REC
LC1	Metals	MET-A-001	02D0724	LVLI	02L0072-LC1	ZINC	100.1	%REC
LC1	Metals	MET-A-001	02D1148	LVLI	02L0187-LC1	STRONTIUM	100.1	%REC
LC1	Metals	MET-A-013	02D1281	LVLI	02L0340-LC1	MAGNESIUM	100.1	%REC
LC1	Metals	RME-A-002	02D1107	LVLI	02L0175-LC1	CHROMIUM	100.1	%REC
LC1	Metals	MET-A-013	02D1517	LVLI	02L0577-LC1	NICKEL	100.1	%REC
LC1	Metals	MET-A-013	03D0024	LVLI	02L0612-LC1	COPPER	100.1	%REC
LC1	Metals	MET-A-013	02D1516	LVLI	02L0577-LC1	NICKEL	100.1	%REC
LC1	Metals	MET-A-001	02D1068	LVLI	02L0159-LC1	BERYLLIUM	100.1	%REC
LC1	Metals	MET-A-001	02D0724	LVLI	02L0072-LC1	NICKEL	100.1	%REC
LC1	Metals	MET-A-013	02D1215	LVLI	02L0262-LC1	SILVER	100.1	%REC
LC1	Metals	MET-A-001	02D0815	LVLI	02L0072-LC1	ZINC	100.1	%REC
LC1	Metals	MET-A-001	02D1159	LVLI	02L0187-LC1	STRONTIUM	100.1	%REC
LC1	Metals	MET-A-013	03D0024	LVLI	02L0612-LC1	LEAD	100.1	%REC

Result Type	Group	LIC	RIN	Lab	Lab Sample Number	Analyte	Result	Units
LC1	Metals	MET-A-001	02D0815	LVLI	02L0072-LC1	NICKEL	100.1	%REC
LC1	Metals	RME-A-002	02D0299	LVLI	01L0775-LC1	CHROMIUM	100.1	%REC
LC1	Metals	MET-A-013	02D1521	LVLI	02L0577-LC1	NICKEL	100.1	%REC
LC1	Metals	MET-A-013	02D1516	LVLI	02L0577-LC1	SELENIUM	100.2	%REC
LC1	Metals	MET-A-001	02D1030	LVLI	02L0159-LC1	COBALT	100.2	%REC
LC1	Metals	MET-A-013	02D1397	LVLI	02L0418-LC1	SODIUM	100.2	%REC
LC1	Metals	MET-A-001	02D1030	LVLI	02L0159-LC1	VANADIUM	100.2	%REC
LC1	Metals	MET-A-001	02D1292	LVLI	02L0335-LC1	ARSENIC	100.2	%REC
LC1	Metals	MET-A-001	02D1068	LVLI	02L0159-LC1	COBALT	100.2	%REC
LC1	Metals	MET-A-013	02D1429	LVLI	02L0509-LC1	COPPER	100.2	%REC
LC1	Metals	MET-A-013	02D1368	LVLI	02L0418-LC1	SODIUM	100.2	%REC
LC1	Metals	MET-A-013	02D1429	LVLI	02L0509-LC1	ARSENIC	100.2	%REC
LC1	Metals	MET-A-001	02D1243	LVLI	02L0313-LC1	SELENIUM	100.2	%REC
LC1	Metals	MET-A-013	02D1521	LVLI	02L0577-LC1	SELENIUM	100.2	%REC
LC1	Metals	MET-A-001	02D1498	LVLI	02L0554-LC1	ANTIMONY	100.2	%REC
LC1	Metals	MET-A-001	02D1435	LVLI	02L0497-LC1	VANADIUM	100.2	%REC
LC1	Metals	MET-A-013	02D1215	LVLI	02L0262-LC1	LEAD	100.2	%REC
LC1	Metals	MET-A-001	02D1506	LVLI	02L0554-LC1	ANTIMONY	100.2	%REC
LC1	Metals	SS05C001	02D0111	LVLI	01L0683-LC1	MANGANESE	100.2	%REC
LC1	Metals	MET-A-001	02D1221	LVLI	02L0313-LC1	SELENIUM	100.2	%REC
LC1	Metals	MET-A-001	02D1440	LVLI	02L0497-LC1	VANADIUM	100.2	%REC
LC1	Metals	MET-A-001	02D1233	LVLI	02L0313-LC1	SELENIUM	100.2	%REC
LC1	Metals	MET-A-001	02D1254	LVLI	02L0313-LC1	SELENIUM	100.2	%REC
LC1	Metals	MET-A-001	02D1503	LVLI	02L0554-LC1	ANTIMONY	100.2	%REC
LC1	Metals	MET-A-001	02D1068	LVLI	02L0159-LC1	VANADIUM	100.2	%REC
LC1	Metals	MET-A-001	02D1261	LVLI	02L0335-LC1	ARSENIC	100.2	%REC
LC1	Metals	MET-A-013	02D1521	LVLI	02L0577-LC1	STRONTIUM	100.2	%REC
LC1	Metals	MET-A-001	02D1262	LVLI	02L0335-LC1	ARSENIC	100.2	%REC
LC1	Metals	MET-A-001	02D1431	LVLI	02L0497-LC1	VANADIUM	100.2	%REC
LC1	Metals	MET-A-013	02D1517	LVLI	02L0577-LC1	SELENIUM	100.2	%REC
LC1	Metals	MET-A-001	02D1264	LVLI	02L0335-LC1	ARSENIC	100.2	%REC
LC1	Metals	MET-A-013	02D1517	LVLI	02L0577-LC1	STRONTIUM	100.2	%REC

Result Type	Group	LIC	RIN	Lab	Lab Sample Number	Analyte	Result	Units
LC1	Metals	MET-A-013	02D1281	LVLI	02L0340-LC1	STRONTIUM	100.2	%REC
LC1	Metals	MET-A-013	02D1516	LVLI	02L0577-LC1	STRONTIUM	100.2	%REC
LC1	Metals	MET-A-001	02D1240	LVLI	02L0313-LC1	SELENIUM	100.2	%REC
LC1	Metals	MET-A-013	03D0024	LVLI	02L0612-LC1	SILVER	100.2	%REC
LC1	Metals	RME-A-001	03D0683	LVLI	03L0176-LC1	CADMIUM	100.2	%REC
LC1	Metals	MET-A-013	03D0506	LVLI	03L0097-LC1	COBALT	100.2	%REC
LC1	Metals	MET-A-013	03D0683	LVLI	03L0176-LC1	ARSENIC	100.2	%REC
LC1	Metals	MET-A-013	03D0683	LVLI	03L0176-LC1	CADMIUM	100.2	%REC
LC1	Metals	MET-A-001	02D1030	LVLI	02L0159-LC1	SODIUM	100.3	%REC
LC1	Metals	MET-A-001	02D1068	LVLI	02L0159-LC1	SODIUM	100.3	%REC
LC1	Metals	MET-A-013	02D1521	LVLI	02L0577-LC1	MAGNESIUM	100.3	%REC
LC1	Metals	MET-A-013	02D1483	LVLI	02L0541-LC1	ANTIMONY	100.3	%REC
LC1	Metals	MET-A-013	02D1281	LVLI	02L0340-LC1	IRON	100.3	%REC
LC1	Metals	MET-A-013	02D1477	LVLI	02L0541-LC1	ANTIMONY	100.3	%REC
LC1	Metals	RME-A-001	02D1433	LVLI	02L0484-LC1	SILVER	100.3	%REC
LC1	Metals	MET-A-001	02D0575	LVLI	02L0005-LC1	COPPER	100.3	%REC
LC1	Metals	MET-A-013	02D1517	LVLI	02L0577-LC1	MAGNESIUM	100.3	%REC
LC1	Metals	MET-A-013	02D1517	LVLI	02L0577-LC1	COPPER	100.3	%REC
LC1	Metals	MET-A-013	02D1542	LVLI	02L0586-LC1	COPPER	100.3	%REC
LC1	Metals	MET-A-013	02D0371	LVLI	01L0804-LC1	ARSENIC	100.3	%REC
LC1	Metals	MET-A-013	03D0024	LVLI	02L0612-LC1	ZINC	100.3	%REC
LC1	Metals	MET-A-001	02D0299	LVLI	01L0760-LC1	COPPER	100.3	%REC
LC1	Metals	MET-A-013	02D1521	LVLI	02L0577-LC1	COPPER	100.3	%REC
LC1	Metals	MET-A-001	02D0265	LVLI	01L0760-LC1	COPPER	100.3	%REC
LC1	Metals	MET-A-013	02D1516	LVLI	02L0577-LC1	COPPER	100.3	%REC
LC1	Metals	MET-A-013	02D1516	LVLI	02L0577-LC1	MAGNESIUM	100.3	%REC
LC1	Metals	MET-A-013	03D0024	LVLI	02L0612-LC1	POTASSIUM	100.3	%REC
LC1	Metals	MET-A-013	03D0024	LVLI	02L0612-LC1	NICKEL	100.3	%REC
LC1	Metals	MET-A-013	03D0506	LVLI	03L0097-LC1	COPPER	100.3	%REC
LC1	Metals	MET-A-013	02D1429	LVLI	02L0509-LC1	CALCIUM	100.4	%REC
LC1	Metals	RME-A-002	02D0965	LVLI	02L0140-LC1	CHROMIUM	100.4	%REC
LC1	Metals	MET-A-013	02D1517	LVLI	02L0577-LC1	LEAD	100.4	%REC

Result Type	Group	LIC	RIN	Lab	Lab Sample Number	Analyte	Result	Units
LC1	Metals	MET-A-013	03D0020	LVLI	02L0595-LC1	SODIUM	100.4	%REC
LC1	Metals	MET-A-013	02D1521	LVLI	02L0577-LC1	LEAD	100.4	%REC
LC1	Metals	MET-A-001	02D1435	LVLI	02L0497-LC1	LEAD	100.4	%REC
LC1	Metals	MET-A-013	02D1521	LVLI	02L0577-LC1	ALUMINUM	100.4	%REC
LC1	Metals	MET-A-001	02D0265	LVLI	01L0760-LC1	ZINC	100.4	%REC
LC1	Metals	MET-A-013	03D0683	LVLI	03L0178-LC1	COPPER	100.4	%REC
LC1	Metals	MET-A-013	02D1517	LVLI	02L0577-LC1	ALUMINUM	100.4	%REC
LC1	Metals	MET-A-001	02D1107	LVLI	02L0176-LC1	LEAD	100.4	%REC
LC1	Metals	MET-A-001	02D0825	LVLI	02L0108-LC1	ARSENIC	100.4	%REC
LC1	Metals	MET-A-001	02D0265	LVLI	01L0760-LC1	ANTIMONY	100.4	%REC
LC1	Metals	MET-A-001	02D1431	LVLI	02L0497-LC1	LEAD	100.4	%REC
LC1	Metals	MET-A-001	02D0299	LVLI	01L0760-LC1	ANTIMONY	100.4	%REC
LC1	Metals	MET-A-001	02D0299	LVLI	01L0760-LC1	ZINC	100.4	%REC
LC1	Metals	MET-A-013	03D0020	LVLI	02L0595-LC1	BARIUM	100.4	%REC
LC1	Metals	MET-A-013	03D0683	LVLI	03L0178-LC1	BARIUM	100.4	%REC
LC1	Metals	MET-A-013	02D1516	LVLI	02L0577-LC1	ALUMINUM	100.4	%REC
LC1	Metals	MET-A-013	02D1281	LVLI	02L0340-LC1	THALLIUM	100.4	%REC
LC1	Metals	MET-A-013	02D1516	LVLI	02L0577-LC1	LEAD	100.4	%REC
LC1	Metals	MET-A-001	02D0575	LVLI	02L0005-LC1	ANTIMONY	100.4	%REC
LC1	Metals	MET-A-001	02D0575	LVLI	02L0005-LC1	ZINC	100.4	%REC
LC1	Metals	MET-A-001	02D0825	LVLI	02L0108-LC1	CALCIUM	100.4	%REC
LC1	Metals	MET-A-013	03D0683	LVLI	03L0176-LC1	COBALT	100.4	%REC
LC1	Metals	MET-A-001	02D1440	LVLI	02L0497-LC1	LEAD	100.4	%REC
LC1	Metals	RME-A-002	02D0815	LVLI	02L0102-LC1	BERYLLIUM	100.4	%REC
LC1	Metals	MET-A-013	02D1521	LVLI	02L0577-LC1	CADMIUM	100.5	%REC
LC1	Metals	MET-A-013	03D0063	LVLI	02L0619-LC1	BARIUM	100.5	%REC
LC1	Metals	MET-A-001	02D0687	LVLI	02L0030-LC1	MAGNESIUM	100.5	%REC
LC1	Metals	MET-A-013	02D1517	LVLI	02L0577-LC1	CADMIUM	100.5	%REC
LC1	Metals	MET-A-013	02D1542	LVLI	02L0586-LC1	ZINC	100.5	%REC
LC1	Metals	MET-A-013	02D1429	LVLI	02L0509-LC1	BARIUM	100.5	%REC
LC1	Metals	MET-A-013	03D0064	LVLI	02L0619-LC1	BARIUM	100.5	%REC
LC1	Metals	MET-A-001	02D0680	LVLI	02L0030-LC1	MAGNESIUM	100.5	%REC

Result Type	Group	LIC	RIN	Lab	Lab Sample Number	Analyte	Result	Units
LC1	Metals	MET-A-001	02D1503	LVLI	02L0554-LC1	BARIUM	100.5	%REC
LC1	Metals	MET-A-013	02D1516	LVLI	02L0577-LC1	CADMIUM	100.5	%REC
LC1	Metals	MET-A-013	02D1281	LVLI	02L0340-LC1	COBALT	100.5	%REC
LC1	Metals	MET-A-001	02D1068	LVLI	02L0159-LC1	IRON	100.5	%REC
LC1	Metals	MET-A-001	02D1030	LVLI	02L0159-LC1	IRON	100.5	%REC
LC1	Metals	RME-A-001	02D1516	LVLI	02L0577-LC1	CADMIUM	100.5	%REC
LC1	Metals	MET-A-001	02D1503	LVLI	02L0554-LC1	ZINC	100.5	%REC
LC1	Metals	MET-A-001	02D1506	LVLI	02L0554-LC1	ZINC	100.5	%REC
LC1	Metals	MET-A-001	02D1303	LVLI	02L0353-LC1	ALUMINUM	100.5	%REC
LC1	Metals	MET-A-001	02D1498	LVLI	02L0554-LC1	ZINC	100.5	%REC
LC1	Metals	MET-A-001	02D1506	LVLI	02L0554-LC1	BARIUM	100.5	%REC
LC1	Metals	MET-A-001	02D1498	LVLI	02L0554-LC1	BARIUM	100.5	%REC
LC1	Metals	MET-A-013	03D0024	LVLI	02L0612-LC1	CADMIUM	100.5	%REC
LC1	Metals	MET-A-001	02D1503	LVLI	02L0554-LC1	SILVER	100.6	%REC
LC1	Metals	MET-A-001	02D1506	LVLI	02L0554-LC1	MAGNESIUM	100.6	%REC
LC1	Metals	MET-A-001	02D1506	LVLI	02L0554-LC1	COPPER	100.6	%REC
LC1	Metals	MET-A-001	02D1506	LVLI	02L0554-LC1	CHROMIUM	100.6	%REC
LC1	Metals	MET-A-013	03D0064	LVLI	02L0619-LC1	SILVER	100.6	%REC
LC1	Metals	MET-A-001	02D1506	LVLI	02L0554-LC1	SILVER	100.6	%REC
LC1	Metals	MET-A-001	02D1148	LVLI	02L0187-LC1	ALUMINUM	100.6	%REC
LC1	Metals	MET-A-013	02D0371	LVLI	01L0804-LC1	POTASSIUM	100.6	%REC
LC1	Metals	MET-A-001	02D1503	LVLI	02L0554-LC1	COPPER	100.6	%REC
LC1	Metals	MET-A-001	02D1503	LVLI	02L0554-LC1	MAGNESIUM	100.6	%REC
LC1	Metals	MET-A-001	02D1498	LVLI	02L0554-LC1	COPPER	100.6	%REC
LC1	Metals	MET-A-001	02D0724	LVLI	02L0072-LC1	POTASSIUM	100.6	%REC
LC1	Metals	MET-A-001	02D1159	LVLI	02L0187-LC1	ALUMINUM	100.6	%REC
LC1	Metals	MET-A-013	02D1542	LVLI	02L0586-LC1	MAGNESIUM	100.6	%REC
LC1	Metals	MET-A-001	02D1503	LVLI	02L0554-LC1	CHROMIUM	100.6	%REC
LC1	Metals	MET-A-001	02D1498	LVLI	02L0554-LC1	SILVER	100.6	%REC
LC1	Metals	MET-A-001	02D1498	LVLI	02L0554-LC1	CHROMIUM	100.6	%REC
LC1	Metals	MET-A-001	02D1498	LVLI	02L0554-LC1	MAGNESIUM	100.6	%REC
LC1	Metals	MET-A-013	03D0109	LVLI	02L0655-LC1	SILVER	100.6	%REC

Result Type	Group	LIC	RIN	Lab	Lab Sample Number	Analyte	Result	Units
LC1	Metals	MET-A-001	02D0815	LVLI	02L0072-LC1	POTASSIUM	100.6	%REC
LC1	Metals	MET-A-001	02D0965	LVLI	02L0135-LC1	STRONTIUM	100.6	%REC
LC1	Metals	MET-A-001	02D0935	LVLI	02L0135-LC1	TIN	100.6	%REC
LC1	Metals	MET-A-013	02D1215	LVLI	02L0262-LC1	BERYLLIUM	100.6	%REC
LC1	Metals	MET-A-001	02D0935	LVLI	02L0135-LC1	STRONTIUM	100.6	%REC
LC1	Metals	MET-A-013	03D0024	LVLI	02L0612-LC1	TIN	100.6	%REC
LC1	Metals	MET-A-001	02D0965	LVLI	02L0135-LC1	TIN	100.6	%REC
LC1	Metals	MET-A-013	03D0063	LVLI	02L0619-LC1	SILVER	100.6	%REC
LC1	Metals	MET-A-013	02D1227	LVLI	02L0317-LC1	SELENIUM	100.6	%REC
LC1	Metals	MET-A-013	03D0024	LVLI	02L0612-LC1	MAGNESIUM	100.6	%REC
LC1	Metals	MET-A-001	02D1030	LVLI	02C0085-LC1	MERCURY	100.6	%REC
LC1	Metals	SS05C037	02D0116	LVLI	01L0691-LC1	CADMIUM	100.7	%REC
LC1	Metals	MET-A-013	03D0109	LVLI	02L0652-LC1	POTASSIUM	100.7	%REC
LC1	Metals	MET-A-001	02D0645	LVLI	02L0021-LC1	ANTIMONY	100.7	%REC
LC1	Metals	MET-A-013	02D1215	LVLI	02L0262-LC1	NICKEL	100.7	%REC
LC1	Metals	MET-A-013	03D0683	LVLI	03L0178-LC1	CADMIUM	100.7	%REC
LC1	Metals	MET-A-001	02D0664	LVLI	02L0021-LC1	ANTIMONY	100.7	%REC
LC1	Metals	RME-A-001	02D0965	LVLI	02L0140-LC1	SILVER	100.7	%REC
LC1	Metals	MET-A-013	02D1517	LVLI	02L0577-LC1	SILVER	100.7	%REC
LC1	Metals	MET-A-013	02D1516	LVLI	02L0577-LC1	SILVER	100.7	%REC
LC1	Metals	RME-A-001	02D1303	LVLI	02L0344-LC1	CADMIUM	100.7	%REC
LC1	Metals	RME-A-001	02D1516	LVLI	02L0577-LC1	SILVER	100.7	%REC
LC1	Metals	MET-A-001	02D1107	LVLI	02L0176-LC1	CADMIUM	100.7	%REC
LC1	Metals	MET-A-013	02D1521	LVLI	02L0577-LC1	SILVER	100.7	%REC
LC1	Metals	RME-A-002	03D0506	LVLI	03L0097-LC1	CHROMIUM	100.8	%REC
LC1	Metals	RME-A-001	02D1440	LVLI	02L0509-LC1	SILVER	100.8	%REC
LC1	Metals	MET-A-001	02D0965	LVLI	02L0135-LC1	IRON	100.8	%REC
LC1	Metals	MET-A-001	02D1068	LVLI	02L0159-LC1	ZINC	100.8	%REC
LC1	Metals	MET-A-013	03D0683	LVLI	03L0178-LC1	LEAD	100.8	%REC
LC1	Metals	MET-A-013	03D0506	LVLI	03L0097-LC1	CHROMIUM	100.8	%REC
LC1	Metals	MET-A-001	02D0664	LVLI	02L0021-LC1	NICKEL	100.8	%REC
LC1	Metals	MET-A-001	02D0645	LVLI	02L0021-LC1	NICKEL	100.8	%REC

Result Type	Group	LIC	RIN	Lab	Lab Sample Number	Analyte	Result	Units
LC1	Metals	RME-A-001	02D1060	LVLI	02L0160-LC1	CADMIUM	100.8	%REC
LC1	Metals	MET-A-013	03D0024	LVLI	02L0612-LC1	BERYLLIUM	100.8	%REC
LC1	Metals	MET-A-001	02D0575	LVLI	02L0005-LC1	SELENIUM	100.8	%REC
LC1	Metals	MET-A-001	02D0299	LVLI	01L0760-LC1	SELENIUM	100.8	%REC
LC1	Metals	MET-A-013	02D1281	LVLI	02C0184-LC1	MERCURY	100.8	%REC
LC1	Metals	MET-A-013	02D1281	LVLI	02L0340-LC1	SODIUM	100.8	%REC
LC1	Metals	MET-A-001	02D1030	LVLI	02L0159-LC1	ZINC	100.8	%REC
LC1	Metals	MET-A-013	02D1227	LVLI	02L0317-LC1	STRONTIUM	100.8	%REC
LC1	Metals	MET-A-013	03D0109	LVLI	02L0655-LC1	ANTIMONY	100.8	%REC
LC1	Metals	MET-A-013	03D0683	LVLI	03L0176-LC1	SELENIUM	100.8	%REC
LC1	Metals	MET-A-001	02D0825	LVLI	02L0108-LC1	TIN	100.8	%REC
LC1	Metals	MET-A-001	02D0935	LVLI	02L0135-LC1	IRON	100.8	%REC
LC1	Metals	MET-A-001	02D0265	LVLI	01L0760-LC1	SELENIUM	100.8	%REC
LC1	Metals	MET-A-013	02D1429	LVLI	02L0509-LC1	SILVER	100.8	%REC
LC1	Metals	MET-A-013	03D0083	LVLI	02L0639-LC1	SODIUM	100.8	%REC
LC1	Metals	MET-A-013	03D0683	LVLI	03L0178-LC1	THALLIUM	100.9	%REC
LC1	Metals	MET-A-001	02D1292	LVLI	02L0335-LC1	ANTIMONY	100.9	%REC
LC1	Metals	MET-A-013	02D0371	LVLI	01L0804-LC1	LEAD	100.9	%REC
LC1	Metals	MET-A-013	03D0024	LVLI	02L0612-LC1	COBALT	100.9	%REC
LC1	Metals	MET-A-013	03D0024	LVLI	02L0612-LC1	CALCIUM	100.9	%REC
LC1	Metals	MET-A-013	03D0683	LVLI	03L0178-LC1	MANGANESE	100.9	%REC
LC1	Metals	MET-A-013	03D0064	LVLI	02L0619-LC1	TIN	100.9	%REC
LC1	Metals	MET-A-013	03D0683	LVLI	03L0176-LC1	CHROMIUM	100.9	%REC
LC1	Metals	MET-A-013	03D0064	LVLI	02L0619-LC1	ANTIMONY	100.9	%REC
LC1	Metals	SS05C038	02D0116	LVLI	01L0691-LC1	CHROMIUM	100.9	%REC
LC1	Metals	MET-A-013	03D0109	LVLI	02L0655-LC1	TIN	100.9	%REC
LC1	Metals	MET-A-001	02D0575	LVLI	02L0005-LC1	VANADIUM	100.9	%REC
LC1	Metals	MET-A-013	02D1215	LVLI	02L0262-LC1	MANGANESE	100.9	%REC
LC1	Metals	MET-A-001	02D0687	LVLI	02L0030-LC1	MANGANESE	100.9	%REC
LC1	Metals	MET-A-001	02D0299	LVLI	01L0760-LC1	VANADIUM	100.9	%REC
LC1	Metals	MET-A-001	02D0265	LVLI	01L0760-LC1	VANADIUM	100.9	%REC
LC1	Metals	MET-A-013	02D1542	LVLI	02L0586-LC1	STRONTIUM	100.9	%REC

Result Type	Group	LIC	RIN	Lab	Lab Sample Number	Analyte	Result	Units
LC1	Metals	MET-A-013	03D0063	LVLI	02L0619-LC1	ANTIMONY	100.9	%REC
LC1	Metals	MET-A-001	02D1261	LVLI	02L0335-LC1	ANTIMONY	100.9	%REC
LC1	Metals	MET-A-001	02D0680	LVLI	02L0030-LC1	MANGANESE	100.9	%REC
LC1	Metals	RME-A-002	03D0683	LVLI	03L0176-LC1	CHROMIUM	100.9	%REC
LC1	Metals	MET-A-001	02D1262	LVLI	02L0335-LC1	ANTIMONY	100.9	%REC
LC1	Metals	MET-A-013	03D0063	LVLI	02L0619-LC1	TIN	100.9	%REC
LC1	Metals	MET-A-001	02D1264	LVLI	02L0335-LC1	ANTIMONY	100.9	%REC
LC1	Metals	MET-A-013	03D0064	LVLI	02L0619-LC1	STRONTIUM	101	%REC
LC2	Metals	MET-A-013	02D0292	STLDEN	D1K200000-590C	SILVER	101	%REC
LC1	Metals	MET-A-001	02D1148	LVLI	02L0187-LC1	THALLIUM	101	%REC
LC1	Metals	MET-A-013	02D1517	LVLI	02L0577-LC1	COBALT	101	%REC
LC1	Metals	MET-A-013	02D1517	LVLI	02L0577-LC1	CALCIUM	101	%REC
LC1	Metals	MET-A-001	02D1498	LVLI	02L0554-LC1	COBALT	101	%REC
LC1	Metals	MET-A-013	03D0063	LVLI	02L0619-LC1	STRONTIUM	101	%REC
LC2	Metals	MET-A-013	02D0174	STLDEN	D1K010000-367C	SODIUM	101	%REC
LC1	Metals	MET-A-013	03D0683	LVLI	03L0176-LC1	MAGNESIUM	101	%REC
LC2	Metals	MET-A-013	02D0292	STLDEN	D1K200000-590C	ARSENIC	101	%REC
LC1	Metals	MET-A-013	02D0216	STLDEN	D1K010000-326C	SILVER	101	%REC
LC1	Metals	MET-A-013	02D1516	LVLI	02L0577-LC1	COBALT	101	%REC
LC2	Metals	MET-A-013	02D0292	STLDEN	D1K200000-590C	COBALT	101	%REC
LC2	Metals	MET-A-013	02D0089	STLDEN	D1J300000-125C	SILVER	101	%REC
LC1	Metals	MET-A-001	02D0825	LVLI	02L0108-LC1	BERYLLIUM	101	%REC
LC2	Metals	MET-A-013	02D0174	STLDEN	D1K010000-367C	MAGNESIUM	101	%REC
LC1	Metals	MET-A-013	03D0063	LVLI	02L0619-LC1	POTASSIUM	101	%REC
LC1	Metals	MET-A-013	02D0264	STLDEN	D1K120000-429C	MERCURY	101	%REC
LC1	Metals	MET-A-013	02D0965	STLDEN	D2C210000-377C	MAGNESIUM	101	%REC
LC1	Metals	RME-A-002	02D0512	LVLI	01L0852-LC1	CHROMIUM	101	%REC
LC1	Metals	MET-A-001	02D1503	LVLI	02L0554-LC1	COBALT	101	%REC
LC1	Metals	MET-A-001	02D1030	LVLI	02L0159-LC1	SELENIUM	101	%REC
LC1	Metals	MET-A-001	02D1030	LVLI	02L0159-LC1	TIN	101	%REC
LC1	Metals	MET-A-013	02D1336	STLDEN	D2G020000-389C	LITHIUM	101	%REC
LC1	Metals	MET-A-013	03D0064	LVLI	02L0619-LC1	POTASSIUM	101	%REC

Result Type	Group	LIC	RIN	Lab	Lab Sample Number	Analyte	Result	Units
LC1	Metals	MET-A-013	02D1281	LVLI	02L0340-LC1	CALCIUM	101	%REC
LC2	Metals	MET-A-013	02D0216	STLDEN	D1K060000-307C	ARSENIC	101	%REC
LC1	Metals	MET-A-001	02D1506	LVLI	02L0554-LC1	COBALT	101	%REC
LC1	Metals	MET-A-013	02D1397	EMXT	IPH028WL	BARIUM	101	%REC
LC1	Metals	MET-A-013	02D1516	LVLI	02L0577-LC1	CALCIUM	101	%REC
LC1	Metals	MET-A-013	02D0292	STLDEN	D1K150000-500C	SILVER	101	%REC
LC1	Metals	MET-A-013	02D1383	STLDEN	D2G190000-320C	SODIUM	101	%REC
LC1	Metals	MET-A-013	02D1521	LVLI	02L0577-LC1	CALCIUM	101	%REC
LC1	Metals	MET-A-013	02D1521	LVLI	02L0577-LC1	COBALT	101	%REC
LC1	Metals	MET-A-013	02D1483	LVLI	02L0541-LC1	BARIUM	101	%REC
LC1	Metals	MET-A-001	02D1068	LVLI	02L0159-LC1	TIN	101	%REC
LC1	Metals	MET-A-001	02D1159	LVLI	02L0187-LC1	THALLIUM	101	%REC
LC2	Metals	MET-A-013	02D0264	STLDEN	D1K150000-509C	SODIUM	101	%REC
LC1	Metals	RME-A-001	02D0299	LVLI	01L0775-LC1	CADMIUM	101	%REC
LC1	Metals	MET-A-001	02D0664	LVLI	02L0021-LC1	IRON	101	%REC
LC1	Metals	MET-A-001	02D0825	LVLI	02C0069-LC1	MERCURY	101	%REC
LC1	Metals	MET-A-013	02D1477	LVLI	02L0541-LC1	BARIUM	101	%REC
LC1	Metals	MET-A-013	02D1497	STLDEN	D2I130000-239C	MERCURY	101	%REC
LC1	Metals	MET-A-001	02D0645	LVLI	02L0021-LC1	IRON	101	%REC
LC1	Metals	RME-A-002	02D0363	LVLI	01L0852-LC1	CHROMIUM	101	%REC
LC1	Metals	MET-A-013	02D1153	STLDEN	D2D180000-275C	IRON	101	%REC
LC1	Metals	MET-A-001	02D1068	LVLI	02L0159-LC1	SELENIUM	101	%REC
LC1	Metals	MET-A-001	02D0687	LVLI	02L0030-LC1	POTASSIUM	101	%REC
LC1	Metals	MET-A-001	02D0680	LVLI	02L0030-LC1	POTASSIUM	101	%REC
LC1	Metals	MET-A-013	02D1483	LVLI	02L0541-LC1	SILVER	101.1	%REC
LC1	Metals	MET-A-001	02D1506	LVLI	02L0554-LC1	CALCIUM	101.1	%REC
LC1	Metals	RME-A-001	03D0083	LVLI	02L0639-LC1	SILVER	101.1	%REC
LC1	Metals	MET-A-013	03D0064	LVLI	02L0619-LC1	COPPER	101.1	%REC
LC1	Metals	MET-A-001	02D1068	LVLI	02L0159-LC1	SILVER	101.1	%REC
LC1	Metals	RME-A-001	02D1469	LVLI	02L0541-LC1	SILVER	101.1	%REC
LC1	Metals	MET-A-013	02D1542	LVLI	02L0586-LC1	LEAD	101.1	%REC
LC1	Metals	MET-A-013	02D1477	LVLI	02L0541-LC1	SILVER	101.1	%REC

Result Type	Group	LIC	RIN	Lab	Lab Sample Number	Analyte	Result	Units
LC1	Metals	MET-A-013	03D0109	LVLI	02L0652-LC1	ARSENIC	101.1	%REC
LC1	Metals	MET-A-013	02D1429	LVLI	02L0509-LC1	ZINC	101.1	%REC
LC1	Metals	MET-A-001	02D1030	LVLI	02L0159-LC1	BERYLLIUM	101.1	%REC
LC1	Metals	MET-A-013	03D0083	LVLI	02L0639-LC1	SILVER	101.1	%REC
LC1	Metals	MET-A-001	02D1030	LVLI	02L0159-LC1	ANTIMONY	101.1	%REC
LC1	Metals	MET-A-013	03D0506	LVLI	03L0097-LC1	VANADIUM	101.1	%REC
LC1	Metals	MET-A-013	02D1215	LVLI	02L0262-LC1	TIN	101.1	%REC
LC1	Metals	MET-A-001	02D1498	LVLI	02L0554-LC1	CALCIUM	101.1	%REC
LC1	Metals	SS05C001	02D0111	LVLI	01L0683-LC1	MAGNESIUM	101.1	%REC
LC1	Metals	MET-A-001	02D0664	LVLI	02L0021-LC1	VANADIUM	101.1	%REC
LC1	Metals	MET-A-013	03D0063	LVLI	02L0619-LC1	COPPER	101.1	%REC
LC1	Metals	RME-A-002	02D1431	LVLI	02L0472-LC1	BERYLLIUM	101.1	%REC
LC1	Metals	RME-A-002	02D1393	LVLI	02L0472-LC1	BERYLLIUM	101.1	%REC
LC1	Metals	MET-A-001	02D0645	LVLI	02L0021-LC1	COBALT	101.1	%REC
LC1	Metals	MET-A-001	02D0645	LVLI	02L0021-LC1	STRONTIUM	101.1	%REC
LC1	Metals	MET-A-013	03D0683	LVLI	03L0178-LC1	IRON	101.1	%REC
LC1	Metals	MET-A-001	02D0645	LVLI	02L0021-LC1	VANADIUM	101.1	%REC
LC1	Metals	MET-A-001	02D0664	LVLI	02L0021-LC1	STRONTIUM	101.1	%REC
LC1	Metals	MET-A-001	02D1030	LVLI	02L0159-LC1	SILVER	101.1	%REC
LC1	Metals	MET-A-001	02D1068	LVLI	02L0159-LC1	ANTIMONY	101.1	%REC
LC1	Metals	MET-A-001	02D0664	LVLI	02L0021-LC1	COBALT	101.1	%REC
LC1	Metals	MET-A-001	02D1503	LVLI	02L0554-LC1	CALCIUM	101.1	%REC
LC1	Metals	MET-A-001	02D0935	LVLI	02L0135-LC1	SELENIUM	101.2	%REC
LC1	Metals	MET-A-013	03D0109	LVLI	02L0655-LC1	LEAD	101.2	%REC
LC1	Metals	RME-A-002	02D1433	LVLI	02L0484-LC1	CHROMIUM	101.2	%REC
LC1	Metals	MET-A-001	02D1503	LVLI	02L0554-LC1	CADMIUM	101.2	%REC
LC1	Metals	RME-A-002	03D0083	LVLI	02L0639-LC1	BERYLLIUM	101.2	%REC
LC1	Metals	MET-A-013	03D0083	LVLI	02L0639-LC1	BERYLLIUM	101.2	%REC
LC1	Metals	MET-A-001	02D0825	LVLI	02L0108-LC1	CHROMIUM	101.2	%REC
LC1	Metals	MET-A-013	03D0083	LVLI	02L0639-LC1	TIN	101.2	%REC
LC1	Metals	MET-A-001	02D0825	LVLI	02L0108-LC1	SODIUM	101.2	%REC
LC1	Metals	MET-A-001	02D0724	LVLI	02L0072-LC1	THALLIUM	101.2	%REC

Result Type	Group	LIC	RIN	Lab	Lab Sample Number	Analyte	Result	Units
LC1	Metals	MET-A-001	02D0815	LVLI	02L0072-LC1	THALLIUM	101.2	%REC
LC1	Metals	MET-A-001	02D1506	LVLI	02L0554-LC1	CADMIUM	101.2	%REC
LC1	Metals	MET-A-013	02D0371	LVLI	01L0804-LC1	TIN	101.2	%REC
LC1	Metals	MET-A-001	02D0965	LVLI	02L0135-LC1	SELENIUM	101.2	%REC
LC1	Metals	MET-A-001	02D0825	LVLI	02L0108-LC1	STRONTIUM	101.2	%REC
LC1	Metals	MET-A-013	03D0109	LVLI	02L0652-LC1	BARIUM	101.2	%REC
LC1	Metals	MET-A-001	02D1498	LVLI	02L0554-LC1	CADMIUM	101.2	%REC
LC1	Metals	MET-A-013	02D1477	LVLI	02L0556-LC1	IRON	101.2	%REC
LC1	Metals	MET-A-001	02D1068	LVLI	02L0159-LC1	MANGANESE	101.2	%REC
LC1	Metals	RME-A-002	02D0345	LVLI	01L0804-LC1	CHROMIUM	101.2	%REC
LC1	Metals	MET-A-013	02D0371	LVLI	01L0804-LC1	CHROMIUM	101.2	%REC
LC1	Metals	MET-A-013	02D1542	LVLI	02L0586-LC1	IRON	101.2	%REC
LC1	Metals	MET-A-013	02D0371	LVLI	01L0804-LC1	IRON	101.2	%REC
LC1	Metals	MET-A-013	03D0683	LVLI	03L0178-LC1	COBALT	101.2	%REC
LC1	Metals	MET-A-001	02D1030	LVLI	02L0159-LC1	MANGANESE	101.2	%REC
LC1	Metals	MET-A-001	02D1030	LVLI	02L0159-LC1	POTASSIUM	101.2	%REC
LC1	Metals	MET-A-001	02D1068	LVLI	02L0159-LC1	POTASSIUM	101.2	%REC
LC1	Metals	MET-A-013	02D1227	LVLI	02L0317-LC1	BARIUM	101.3	%REC
LC1	Metals	MET-A-001	02D0825	LVLI	02L0108-LC1	IRON	101.3	%REC
LC1	Metals	RME-A-001	02D0345	LVLI	01L0804-LC1	CADMIUM	101.3	%REC
LC1	Metals	MET-A-001	02D0825	LVLI	02L0108-LC1	LEAD	101.3	%REC
LC1	Metals	MET-A-013	02D0371	LVLI	01L0804-LC1	CADMIUM	101.3	%REC
LC1	Metals	MET-A-013	02D1429	LVLI	02L0509-LC1	LEAD	101.3	%REC
LC1	Metals	MET-A-001	02D1503	LVLI	02L0554-LC1	IRON	101.3	%REC
LC1	Metals	RME-A-001	02D0965	LVLI	02L0140-LC1	CADMIUM	101.3	%REC
LC1	Metals	MET-A-013	03D0109	LVLI	02L0655-LC1	BARIUM	101.3	%REC
LC1	Metals	MET-A-013	02D1521	LVLI	02L0577-LC1	BERYLLIUM	101.3	%REC
LC1	Metals	RME-A-001	02D0512	LVLI	01L0852-LC1	CADMIUM	101.3	%REC
LC1	Metals	RME-A-001	02D0363	LVLI	01L0852-LC1	CADMIUM	101.3	%REC
LC1	Metals	MET-A-013	03D0683	LVLI	03L0176-LC1	NICKEL	101.3	%REC
LC1	Metals	MET-A-013	02D0371	LVLI	01L0804-LC1	ALUMINUM	101.3	%REC
LC1	Metals	MET-A-013	02D1227	LVLI	02L0317-LC1	NICKEL	101.3	%REC

Result Type	Group	LIC	RIN	Lab	Lab Sample Number	Analyte	Result	Units
LC1	Metals	MET-A-001	02D1498	LVLI	02L0554-LC1	IRON	101.3	%REC
LC1	Metals	MET-A-013	03D0063	LVLI	02L0619-LC1	BERYLLIUM	101.3	%REC
LC1	Metals	MET-A-013	02D1281	LVLI	02L0340-LC1	VANADIUM	101.3	%REC
LC1	Metals	MET-A-013	03D0683	LVLI	03L0178-LC1	NICKEL	101.3	%REC
LC1	Metals	MET-A-001	02D1506	LVLI	02L0554-LC1	IRON	101.3	%REC
LC1	Metals	MET-A-001	02D1107	LVLI	02L0176-LC1	NICKEL	101.3	%REC
LC1	Metals	MET-A-001	02D1107	LVLI	02L0176-LC1	SODIUM	101.3	%REC
LC1	Metals	RME-A-002	02D1060	LVLI	02L0160-LC1	CHROMIUM	101.3	%REC
LC1	Metals	MET-A-013	02D1521	LVLI	02L0577-LC1	TIN	101.4	%REC
LC1	Metals	MET-A-013	03D0083	LVLI	02L0639-LC1	LEAD	101.4	%REC
LC1	Metals	MET-A-001	02D0965	LVLI	02L0135-LC1	POTASSIUM	101.4	%REC
LC1	Metals	MET-A-013	03D0083	LVLI	02L0639-LC1	CALCIUM	101.4	%REC
LC1	Metals	RME-A-002	02D1516	LVLI	02L0577-LC1	CHROMIUM	101.4	%REC
LC1	Metals	MET-A-001	02D1068	LVLI	02L0159-LC1	THALLIUM	101.4	%REC
LC1	Metals	RME-A-002	03D0020	LVLI	02L0595-LC1	BERYLLIUM	101.4	%REC
LC1	Metals	MET-A-013	02D1477	LVLI	02C0285-LC1	MERCURY	101.4	%REC
LC1	Metals	MET-A-001	02D0935	LVLI	02L0135-LC1	POTASSIUM	101.4	%REC
LC1	Metals	MET-A-001	02D1440	LVLI	02L0497-LC1	MANGANESE	101.4	%REC
LC1	Metals	MET-A-013	02D1517	LVLI	02L0577-LC1	THALLIUM	101.4	%REC
LC1	Metals	MET-A-013	03D0109	LVLI	02L0655-LC1	SODIUM	101.4	%REC
LC1	Metals	MET-A-013	02D1517	LVLI	02L0577-LC1	TIN	101.4	%REC
LC1	Metals	RME-A-002	02D1303	LVLI	02L0344-LC1	BERYLLIUM	101.4	%REC
LC1	Metals	MET-A-013	02D1516	LVLI	02L0577-LC1	TIN	101.4	%REC
LC1	Metals	MET-A-001	02D0965	LVLI	02C0081-LC1	MERCURY	101.4	%REC
LC1	Metals	MET-A-013	02D1516	LVLI	02L0577-LC1	THALLIUM	101.4	%REC
LC1	Metals	MET-A-013	02D1483	LVLI	02L0541-LC1	LEAD	101.4	%REC
LC1	Metals	MET-A-013	02D1517	LVLI	02L0577-LC1	CHROMIUM	101.4	%REC
LC1	Metals	MET-A-001	02D1030	LVLI	02L0159-LC1	THALLIUM	101.4	%REC
LC1	Metals	MET-A-013	02D1521	LVLI	02L0577-LC1	CHROMIUM	101.4	%REC
LC1	Metals	MET-A-013	03D0063	LVLI	02L0619-LC1	ZINC	101.4	%REC
LC1	Metals	MET-A-001	02D1431	LVLI	02L0497-LC1	MANGANESE	101.4	%REC
LC1	Metals	MET-A-013	02D1483	LVLI	02C0285-LC1	MERCURY	101.4	%REC

Result Type	Group	LIC	RIN	Lab	Lab Sample Number	Analyte	Result	Units
LC1	Metals	SS05C001	02D0111	LVLI	01L0683-LC1	POTASSIUM	101.4	%REC
LC1	Metals	RME-A-001	02D1214	LVLI	02L0246-LC1	SILVER	101.4	%REC
LC1	Metals	MET-A-013	02D1477	LVLI	02L0541-LC1	LEAD	101.4	%REC
LC1	Metals	MET-A-013	02D1516	LVLI	02L0577-LC1	CHROMIUM	101.4	%REC
LC1	Metals	MET-A-013	03D0064	LVLI	02L0619-LC1	ZINC	101.4	%REC
LC1	Metals	MET-A-013	02D1521	LVLI	02L0577-LC1	THALLIUM	101.4	%REC
LC1	Metals	MET-A-013	02D1227	LVLI	02L0317-LC1	MAGNESIUM	101.4	%REC
LC1	Metals	MET-A-001	02D1435	LVLI	02L0497-LC1	MANGANESE	101.4	%REC
LC1	Metals	MET-A-013	02D1429	LVLI	02L0509-LC1	POTASSIUM	101.4	%REC
LC1	Metals	MET-A-001	02D0935	LVLI	02C0081-LC1	MERCURY	101.4	%REC
LC1	Metals	MET-A-001	02D1264	LVLI	02L0335-LC1	POTASSIUM	101.5	%REC
LC1	Metals	MET-A-013	02D1542	LVLI	02L0586-LC1	NICKEL	101.5	%REC
LC1	Metals	MET-A-013	02D1227	LVLI	02L0317-LC1	THALLIUM	101.5	%REC
LC1	Metals	MET-A-001	02D1292	LVLI	02L0335-LC1	POTASSIUM	101.5	%REC
LC1	Metals	MET-A-001	02D0935	LVLI	02L0135-LC1	SILVER	101.5	%REC
LC1	Metals	RME-A-001	02D1107	LVLI	02L0175-LC1	SILVER	101.5	%REC
LC1	Metals	MET-A-013	02D1477	LVLI	02L0541-LC1	NICKEL	101.5	%REC
LC1	Metals	MET-A-001	02D1262	LVLI	02L0335-LC1	POTASSIUM	101.5	%REC
LC1	Metals	MET-A-013	03D0083	LVLI	02L0639-LC1	ANTIMONY	101.5	%REC
LC1	Metals	MET-A-001	02D1030	LVLI	02L0159-LC1	COPPER	101.5	%REC
LC1	Metals	MET-A-013	02D1483	LVLI	02L0541-LC1	NICKEL	101.5	%REC
LC1	Metals	MET-A-001	02D1261	LVLI	02L0335-LC1	POTASSIUM	101.5	%REC
LC1	Metals	MET-A-001	02D0965	LVLI	02L0135-LC1	SILVER	101.5	%REC
LC1	Metals	MET-A-013	02D0371	LVLI	01L0804-LC1	VANADIUM	101.5	%REC
LC1	Metals	MET-A-001	02D0935	LVLI	02L0135-LC1	SODIUM	101.5	%REC
LC1	Metals	MET-A-001	02D0965	LVLI	02L0135-LC1	SODIUM	101.5	%REC
LC1	Metals	MET-A-013	02D0371	LVLI	01L0804-LC1	THALLIUM	101.5	%REC
LC1	Metals	MET-A-001	02D1068	LVLI	02L0159-LC1	COPPER	101.5	%REC
LC1	Metals	MET-A-013	02D1215	LVLI	02L0262-LC1	ZINC	101.5	%REC
LC1	Metals	MET-A-013	02D1227	LVLI	02L0317-LC1	CADMIUM	101.5	%REC
LC1	Metals	MET-A-013	03D0024	LVLI	02L0612-LC1	CHROMIUM	101.5	%REC
LC1	Metals	MET-A-013	03D0083	LVLI	02L0639-LC1	BARIUM	101.6	%REC

Result Type	Group	LIC	RIN	Lab	Lab Sample Number	Analyte	Result	Units
LC1	Metals	MET-A-013	03D0020	LVLI	02L0595-LC1	POTASSIUM	101.6	%REC
LC1	Metals	MET-A-001	02D1068	LVLI	02L0159-LC1	STRONTIUM	101.6	%REC
LC1	Metals	MET-A-001	02D1503	LVLI	02L0554-LC1	POTASSIUM	101.6	%REC
LC1	Metals	MET-A-013	02D1153	LVLI	02C0101-LC1	MERCURY	101.6	%REC
LC1	Metals	MET-A-001	02D0664	LVLI	02L0021-LC1	THALLIUM	101.6	%REC
LC1	Metals	MET-A-001	02D0935	LVLI	02L0135-LC1	THALLIUM	101.6	%REC
LC1	Metals	SS05C038	02D0177	LVLI	01L0739-LC1	BERYLLIUM	101.6	%REC
LC1	Metals	MET-A-001	02D1159	LVLI	02C0069-LC1	MERCURY	101.6	%REC
LC1	Metals	MET-A-001	02D0965	LVLI	02L0135-LC1	THALLIUM	101.6	%REC
LC1	Metals	MET-A-001	02D0645	LVLI	02L0021-LC1	THALLIUM	101.6	%REC
LC1	Metals	MET-A-001	02D0724	LVLI	02L0072-LC1	MANGANESE	101.6	%REC
LC1	Metals	RME-A-002	02D0265	LVLI	01L0739-LC1	BERYLLIUM	101.6	%REC
LC1	Metals	MET-A-001	02D0299	LVLI	01L0771-LC1	ALUMINUM	101.6	%REC
LC1	Metals	MET-A-001	02D1503	LVLI	02L0554-LC1	STRONTIUM	101.6	%REC
LC1	Metals	MET-A-001	02D0265	LVLI	01L0771-LC1	ALUMINUM	101.6	%REC
LC1	Metals	MET-A-001	02D1506	LVLI	02L0554-LC1	STRONTIUM	101.6	%REC
LC1	Metals	MET-A-013	03D0020	LVLI	02L0595-LC1	STRONTIUM	101.6	%REC
LC1	Metals	MET-A-001	02D1506	LVLI	02L0554-LC1	POTASSIUM	101.6	%REC
LC1	Metals	MET-A-001	02D1498	LVLI	02L0554-LC1	STRONTIUM	101.6	%REC
LC1	Metals	MET-A-001	02D0815	LVLI	02L0072-LC1	BERYLLIUM	101.6	%REC
LC1	Metals	MET-A-001	02D1498	LVLI	02L0554-LC1	POTASSIUM	101.6	%REC
LC1	Metals	MET-A-013	02D1542	LVLI	02L0586-LC1	TIN	101.6	%REC
LC1	Metals	MET-A-013	02D1227	LVLI	02L0317-LC1	SILVER	101.6	%REC
LC1	Metals	MET-A-013	03D0064	LVLI	02L0619-LC1	BERYLLIUM	101.6	%REC
LC1	Metals	MET-A-001	02D1148	LVLI	02C0101-LC1	MERCURY	101.6	%REC
LC1	Metals	MET-A-001	02D0815	LVLI	02L0072-LC1	MANGANESE	101.6	%REC
LC1	Metals	MET-A-013	02D1477	LVLI	02L0541-LC1	ZINC	101.6	%REC
LC1	Metals	MET-A-013	02D1483	LVLI	02L0541-LC1	ZINC	101.6	%REC
LC1	Metals	MET-A-013	02D1542	LVLI	02L0586-LC1	THALLIUM	101.6	%REC
LC1	Metals	MET-A-013	03D0109	LVLI	02L0652-LC1	SODIUM	101.6	%REC
LC1	Metals	MET-A-001	02D1030	LVLI	02L0159-LC1	STRONTIUM	101.6	%REC
LC1	Metals	MET-A-001	02D1262	LVLI	02L0335-LC1	BARIUM	101.7	%REC

Result Type	Group	LIC	RIN	Lab	Lab Sample Number	Analyte	Result	Units
LC1	Metals	MET-A-013	02D1477	LVLI	02L0541-LC1	TIN	101.7	%REC
LC1	Metals	MET-A-001	02D1261	LVLI	02L0335-LC1	BARIUM	101.7	%REC
LC1	Metals	MET-A-013	03D0020	LVLI	02L0595-LC1	SILVER	101.7	%REC
LC1	Metals	MET-A-013	03D0506	LVLI	03L0097-LC1	ALUMINUM	101.7	%REC
LC1	Metals	MET-A-013	02D1477	LVLI	02L0541-LC1	MAGNESIUM	101.7	%REC
LC1	Metals	MET-A-013	03D0020	LVLI	02L0595-LC1	ZINC	101.7	%REC
LC1	Metals	MET-A-013	02D1483	LVLI	02L0541-LC1	CADMIUM	101.7	%REC
LC1	Metals	MET-A-013	02D1483	LVLI	02L0541-LC1	MAGNESIUM	101.7	%REC
LC1	Metals	MET-A-001	02D1264	LVLI	02L0335-LC1	BARIUM	101.7	%REC
LC1	Metals	MET-A-013	03D0020	LVLI	02L0595-LC1	COPPER	101.7	%REC
LC1	Metals	MET-A-001	02D0825	LVLI	02L0108-LC1	VANADIUM	101.7	%REC
LC1	Metals	MET-A-013	02D1483	LVLI	02L0541-LC1	TIN	101.7	%REC
LC1	Metals	MET-A-001	02D0815	LVLI	02L0072-LC1	MAGNESIUM	101.7	%REC
LC1	Metals	MET-A-013	03D0683	LVLI	03L0178-LC1	CALCIUM	101.7	%REC
LC1	Metals	MET-A-013	02D1477	LVLI	02L0541-LC1	CADMIUM	101.7	%REC
LC1	Metals	RME-A-001	03D0020	LVLI	02L0595-LC1	SILVER	101.7	%REC
LC1	Metals	RME-A-001	02D1469	LVLI	02L0541-LC1	CADMIUM	101.7	%REC
LC1	Metals	MET-A-013	03D0109	LVLI	02L0655-LC1	BERYLLIUM	101.7	%REC
LC1	Metals	MET-A-001	02D1292	LVLI	02L0335-LC1	BARIUM	101.7	%REC
LC1	Metals	MET-A-001	02D1107	LVLI	02L0176-LC1	CHROMIUM	101.7	%REC
LC1	Metals	MET-A-001	02D0724	LVLI	02L0072-LC1	MAGNESIUM	101.7	%REC
LC1	Metals	MET-A-013	02D1227	LVLI	02L0317-LC1	ZINC	101.7	%REC
LC1	Metals	MET-A-001	02D0299	LVLI	01L0760-LC1	IRON	101.8	%REC
LC1	Metals	MET-A-001	02D1262	LVLI	02L0335-LC1	THALLIUM	101.8	%REC
LC1	Metals	MET-A-013	02D1542	LVLI	02L0586-LC1	CADMIUM	101.8	%REC
LC1	Metals	MET-A-001	02D1264	LVLI	02L0335-LC1	THALLIUM	101.8	%REC
LC1	Metals	MET-A-013	02D1397	LVLI	02C0233-LC1	MERCURY	101.8	%REC
LC1	Metals	MET-A-013	02D1429	LVLI	02L0509-LC1	ANTIMONY	101.8	%REC
LC1	Metals	MET-A-013	03D0064	LVLI	02L0619-LC1	NICKEL	101.8	%REC
LC1	Metals	MET-A-013	03D0683	LVLI	03L0176-LC1	ANTIMONY	101.8	%REC
LC1	Metals	MET-A-001	02D1292	LVLI	02L0335-LC1	THALLIUM	101.8	%REC
LC1	Metals	MET-A-001	02D1261	LVLI	02L0335-LC1	THALLIUM	101.8	%REC

Result Type	Group	LIC	RIN	Lab	Lab Sample Number	Analyte	Result	Units
LC1	Metals	MET-A-013	03D0683	LVLI	03L0178-LC1	SILVER	101.8	%REC
LC1	Metals	MET-A-013	03D0683	LVLI	03L0178-LC1	CHROMIUM	101.8	%REC
LC1	Metals	MET-A-013	02D1516	LVLI	02L0577-LC1	VANADIUM	101.8	%REC
LC1	Metals	MET-A-013	02D1517	LVLI	02L0577-LC1	VANADIUM	101.8	%REC
LC1	Metals	MET-A-013	02D1483	LVLI	02L0541-LC1	STRONTIUM	101.8	%REC
LC1	Metals	MET-A-013	02D1483	LVLI	02L0541-LC1	COPPER	101.8	%REC
LC1	Metals	MET-A-013	02D1542	LVLI	02L0586-LC1	COBALT	101.8	%REC
LC1	Metals	MET-A-013	02D1521	LVLI	02L0577-LC1	VANADIUM	101.8	%REC
LC1	Metals	MET-A-013	02D1227	LVLI	02L0317-LC1	ANTIMONY	101.8	%REC
LC1	Metals	MET-A-001	02D0825	LVLI	02L0108-LC1	CADMIUM	101.8	%REC
LC1	Metals	MET-A-013	02D1477	LVLI	02L0541-LC1	STRONTIUM	101.8	%REC
LC1	Metals	MET-A-001	02D1107	LVLI	02L0176-LC1	COPPER	101.8	%REC
LC1	Metals	MET-A-013	03D0063	LVLI	02L0619-LC1	NICKEL	101.8	%REC
LC1	Metals	MET-A-013	02D1521	LVLI	02L0577-LC1	IRON	101.8	%REC
LC1	Metals	MET-A-013	02D1477	LVLI	02L0541-LC1	COPPER	101.8	%REC
LC1	Metals	MET-A-013	03D0109	LVLI	02L0655-LC1	SELENIUM	101.8	%REC
LC1	Metals	MET-A-013	03D0506	LVLI	03L0097-LC1	MANGANESE	101.8	%REC
LC1	Metals	MET-A-013	02D1516	LVLI	02L0577-LC1	IRON	101.8	%REC
LC1	Metals	MET-A-001	02D0575	LVLI	02L0005-LC1	IRON	101.8	%REC
LC1	Metals	MET-A-013	02D1227	LVLI	02C0148-LC1	MERCURY	101.8	%REC
LC1	Metals	MET-A-001	02D0265	LVLI	01L0760-LC1	IRON	101.8	%REC
LC1	Metals	MET-A-013	02D0371	LVLI	01L0804-LC1	NICKEL	101.8	%REC
LC1	Metals	MET-A-013	03D0083	LVLI	02L0639-LC1	STRONTIUM	101.8	%REC
LC1	Metals	MET-A-013	03D0083	LVLI	02L0639-LC1	SELENIUM	101.8	%REC
LC1	Metals	MET-A-013	02D1517	LVLI	02L0577-LC1	IRON	101.8	%REC
LC1	Metals	MET-A-013	03D0063	LVLI	02L0619-LC1	LEAD	101.9	%REC
LC1	Metals	MET-A-013	03D0109	LVLI	02L0655-LC1	NICKEL	101.9	%REC
LC1	Metals	MET-A-013	03D0020	LVLI	02L0595-LC1	ANTIMONY	101.9	%REC
LC1	Metals	MET-A-013	03D0083	LVLI	02L0639-LC1	CADMIUM	101.9	%REC
LC1	Metals	MET-A-001	02D0965	LVLI	02L0135-LC1	VANADIUM	101.9	%REC
LC1	Metals	MET-A-013	03D0064	LVLI	02L0619-LC1	IRON	101.9	%REC
LC1	Metals	MET-A-013	03D0064	LVLI	02L0619-LC1	LEAD	101.9	%REC

Result Type	Group	LIC	RIN	Lab	Lab Sample Number	Analyte	Result	Units
LC1	Metals	MET-A-013	03D0063	LVLI	02L0619-LC1	IRON	101.9	%REC
LC1	Metals	MET-A-013	03D0506	LVLI	03L0097-LC1	ZINC	101.9	%REC
LC1	Metals	MET-A-001	02D1148	LVLI	02L0187-LC1	LITHIUM	101.9	%REC
LC1	Metals	MET-A-001	02D1159	LVLI	02L0187-LC1	LITHIUM	101.9	%REC
LC1	Metals	RME-A-001	03D0083	LVLI	02L0639-LC1	CADMIUM	101.9	%REC
LC1	Metals	MET-A-001	02D0935	LVLI	02L0135-LC1	VANADIUM	101.9	%REC
LC1	Metals	MET-A-001	02D0825	LVLI	02L0108-LC1	NICKEL	101.9	%REC
LC1	Metals	MET-A-013	03D0683	LVLI	03L0178-LC1	ZINC	101.9	%REC
LC1	Metals	MET-A-013	02D1187	STLDEN	D2D300000-368C	BARIUM	102	%REC
LC1	Metals	MET-A-013	02D0264	STLDEN	D1K130000-294C	SELENIUM	102	%REC
LC1	Metals	MET-A-001	02D1440	LVLI	02L0497-LC1	POTASSIUM	102	%REC
LC1	Metals	MET-A-013	02D0264	STLDEN	D1K130000-306C	MAGNESIUM	102	%REC
LC1	Metals	MET-A-013	02D1187	STLDEN	D2D300000-365C	POTASSIUM	102	%REC
LC1	Metals	MET-A-001	02D1435	LVLI	02L0497-LC1	POTASSIUM	102	%REC
LC1	Metals	MET-A-013	02D1397	EMXT	IPH028WL	VANADIUM	102	%REC
LC1	Metals	MET-A-013	02D0292	STLDEN	D1K150000-507C	IRON	102	%REC
LC1	Metals	MET-A-013	02D1227	LVLI	02L0317-LC1	BERYLLIUM	102	%REC
LC1	Metals	MET-A-013	02D0089	STLDEN	D1J110000-278C	MAGNESIUM	102	%REC
LC1	Metals	MET-A-013	02D1383	STLDEN	D2G190000-319C	SELENIUM	102	%REC
LC1	Metals	MET-A-013	02D1227	LVLI	02L0317-LC1	CALCIUM	102	%REC
LC1	Metals	MET-A-013	03D0064	STLDEN	D2J210000-554C	SELENIUM	102	%REC
LC1	Metals	MET-A-001	02D0935	LVLI	02L0135-LC1	ANTIMONY	102	%REC
LC1	Metals	MET-A-013	02D1429	LVLI	02L0509-LC1	SELENIUM	102	%REC
LC1	Metals	MET-A-013	02D0216	STLDEN	D1K010000-371C	POTASSIUM	102	%REC
LC1	Metals	MET-A-013	02D1397	EMXT	HGH008WL	MERCURY	102	%REC
LC2	Metals	MET-A-013	02D0216	STLDEN	D1K060000-307C	SILVER	102	%REC
LC1	Metals	MET-A-013	02D1383	STLDEN	D2G190000-320C	LITHIUM	102	%REC
LC2	Metals	MET-A-013	02D0216	STLDEN	D1K060000-309C	SODIUM	102	%REC
LC2	Metals	MET-A-013	02D0089	STLDEN	D1J300000-125C	SELENIUM	102	%REC
LC1	Metals	MET-A-013	02D1397	EMXT	IPH028WL	MANGANESE	102	%REC
LC1	Metals	MET-A-001	02D0825	LVLI	02L0108-LC1	ANTIMONY	102	%REC
LC1	Metals	MET-A-013	02D0174	STLDEN	D1J250000-325C	SELENIUM	102	%REC

Result Type	Group	LIC	RIN	Lab	Lab Sample Number	Analyte	Result	Units
LC1	Metals	MET-A-013	02D0292	STLDEN	D1K260000-241C	MERCURY	102	%REC
LC1	Metals	MET-A-001	02D0965	LVLI	02L0135-LC1	ANTIMONY	102	%REC
LC1	Metals	MET-A-013	02D0264	STLDEN	D1K130000-306C	SODIUM	102	%REC
LC2	Metals	MET-A-013	02D0264	STLDEN	D1K150000-512C	SELENIUM	102	%REC
LC1	Metals	MET-A-013	03D0064	STLDEN	D2J210000-554C	ARSENIC	102	%REC
LC1	Metals	MET-A-013	02D0292	STLDEN	D1K150000-500C	ARSENIC	102	%REC
LC1	Metals	MET-A-001	02D1107	LVLI	02L0176-LC1	ZINC	102	%REC
LC1	Metals	MET-A-013	02D0089	STLDEN	D1J110000-275C	VANADIUM	102	%REC
LC1	Metals	MET-A-013	02D0216	STLDEN	D1K010000-286C	MERCURY	102	%REC
LC1	Metals	MET-A-013	02D1336	STLDEN	D2G020000-389C	CALCIUM	102	%REC
LC1	Metals	MET-A-013	02D0174	STLDEN	D1J250000-325C	ARSENIC	102	%REC
LC1	Metals	MET-A-013	02D0965	STLDEN	D2C210000-377C	POTASSIUM	102	%REC
LC1	Metals	MET-A-013	02D0216	STLDEN	D1K010000-326C	SELENIUM	102	%REC
LC1	Metals	MET-A-001	02D1431	LVLI	02L0497-LC1	POTASSIUM	102	%REC
LC1	Metals	MET-A-016	02D0460	STLDEN	D2A140000-381C	SILVER	102	%REC
LC1	Metals	MET-A-013	02D0371	LVLI	01L0804-LC1	COPPER	102	%REC
LC1	Metals	RME-A-002	02D1503	LVLI	02L0568-LC1	BERYLLIUM	102	%REC
LC1	Metals	RME-A-002	02D1498	LVLI	02L0568-LC1	BERYLLIUM	102	%REC
LC2	Metals	MET-A-013	02D0174	STLDEN	D1K010000-336C	ARSENIC	102	%REC
LC2	Metals	MET-A-013	02D1497	STLDEN	D2I160000-278C	SILVER	102	%REC
LC1	Metals	MET-A-013	03D0109	LVLI	02L0652-LC1	ANTIMONY	102	%REC
LC1	Metals	MET-A-013	02D1153	STLDEN	D2D180000-275C	MAGNESIUM	102	%REC
LC1	Metals	MET-A-013	02D1153	STLDEN	D2D180000-275C	LITHIUM	102	%REC
LC1	Metals	MET-A-013	02D0371	LVLI	01L0804-LC1	COBALT	102	%REC
LC1	Metals	RME-A-002	02D0645	LVLI	02L0026-LC1	BERYLLIUM	102	%REC
LC1	Metals	MET-A-013	02D0174	STLDEN	D1K010000-286C	MERCURY	102	%REC
LC2	Metals	MET-A-013	02D0174	STLDEN	D1K010000-336C	VANADIUM	102	%REC
LC1	Metals	MET-A-013	02D1483	LVLI	02L0541-LC1	THALLIUM	102.1	%REC
LC1	Metals	MET-A-013	02D1477	LVLI	02L0541-LC1	THALLIUM	102.1	%REC
LC1	Metals	MET-A-001	02D1107	LVLI	02L0176-LC1	ARSENIC	102.1	%REC
LC1	Metals	MET-A-013	03D0683	LVLI	03L0176-LC1	IRON	102.1	%REC
LC1	Metals	MET-A-001	02D0265	LVLI	01L0760-LC1	BERYLLIUM	102.1	%REC

Result Type	Group	LIC	RIN	Lab	Lab Sample Number	Analyte	Result	Units
LC1	Metals	MET-A-013	03D0683	LVLI	03L0176-LC1	MANGANESE	102.1	%REC
LC1	Metals	MET-A-013	02D1477	LVLI	02L0556-LC1	ZINC	102.1	%REC
LC1	Metals	MET-A-001	02D0265	LVLI	01L0760-LC1	SODIUM	102.1	%REC
LC1	Metals	MET-A-001	02D0815	LVLI	02L0072-LC1	ALUMINUM	102.1	%REC
LC1	Metals	MET-A-001	02D0935	LVLI	02L0135-LC1	CADMIUM	102.1	%REC
LC1	Metals	MET-A-001	02D0724	LVLI	02L0072-LC1	ALUMINUM	102.1	%REC
LC1	Metals	MET-A-001	02D0299	LVLI	01L0760-LC1	SODIUM	102.1	%REC
LC1	Metals	MET-A-001	02D0965	LVLI	02L0135-LC1	CADMIUM	102.1	%REC
LC1	Metals	MET-A-013	02D1227	LVLI	02L0317-LC1	LEAD	102.1	%REC
LC1	Metals	MET-A-013	02D1281	LVLI	02L0340-LC1	ALUMINUM	102.1	%REC
LC1	Metals	MET-A-013	03D0020	LVLI	02L0595-LC1	ARSENIC	102.1	%REC
LC1	Metals	MET-A-001	02D0575	LVLI	02L0005-LC1	SODIUM	102.1	%REC
LC1	Metals	MET-A-001	02D0299	LVLI	01L0760-LC1	BERYLLIUM	102.1	%REC
LC1	Metals	RME-A-001	02D1060	LVLI	02L0160-LC1	SILVER	102.1	%REC
LC1	Metals	MET-A-013	03D0683	LVLI	03L0176-LC1	TIN	102.1	%REC
LC1	Metals	MET-A-013	02D1429	LVLI	02L0509-LC1	NICKEL	102.1	%REC
LC1	Metals	MET-A-001	02D0825	LVLI	02L0108-LC1	COPPER	102.2	%REC
LC1	Metals	MET-A-013	02D1281	LVLI	02L0340-LC1	CHROMIUM	102.2	%REC
LC1	Metals	MET-A-001	02D1159	LVLI	02L0187-LC1	BERYLLIUM	102.2	%REC
LC1	Metals	RME-A-002	02D1303	LVLI	02L0344-LC1	CHROMIUM	102.2	%REC
LC1	Metals	MET-A-013	02D1215	LVLI	02L0262-LC1	ANTIMONY	102.2	%REC
LC1	Metals	MET-A-013	02D1227	LVLI	02L0317-LC1	SODIUM	102.2	%REC
LC1	Metals	MET-A-013	03D0109	LVLI	02L0652-LC1	SILVER	102.2	%REC
LC1	Metals	MET-A-013	03D0024	LVLI	02L0612-LC1	IRON	102.2	%REC
LC1	Metals	MET-A-001	02D1333	LVLI	02L0401-LC1	ARSENIC	102.2	%REC
LC1	Metals	MET-A-013	02D1483	LVLI	02L0541-LC1	COBALT	102.2	%REC
LC1	Metals	MET-A-013	03D0020	LVLI	02L0595-LC1	NICKEL	102.2	%REC
LC1	Metals	RME-A-002	02D1261	LVLI	02L0340-LC1	CHROMIUM	102.2	%REC
LC1	Metals	MET-A-001	02D1240	LVLI	02L0313-LC1	STRONTIUM	102.2	%REC
LC1	Metals	MET-A-001	02D1431	LVLI	02L0497-LC1	THALLIUM	102.2	%REC
LC1	Metals	MET-A-001	02D0825	LVLI	02L0108-LC1	SELENIUM	102.2	%REC
LC1	Metals	RME-A-001	02D1303	LVLI	02L0344-LC1	SILVER	102.2	%REC

Result Type	Group	LIC	RIN	Lab	Lab Sample Number	Analyte	Result	Units
LC1	Metals	MET-A-001	02D0965	LVLI	02L0135-LC1	CHROMIUM	102.2	%REC
LC1	Metals	MET-A-001	02D1221	LVLI	02L0313-LC1	STRONTIUM	102.2	%REC
LC1	Metals	MET-A-001	02D1362	LVLI	02L0401-LC1	ARSENIC	102.2	%REC
LC1	Metals	MET-A-001	02D1107	LVLI	02L0176-LC1	COBALT	102.2	%REC
LC1	Metals	MET-A-001	02D1243	LVLI	02L0313-LC1	STRONTIUM	102.2	%REC
LC1	Metals	MET-A-001	02D1261	LVLI	02L0335-LC1	MAGNESIUM	102.2	%REC
LC1	Metals	MET-A-001	02D1440	LVLI	02L0497-LC1	THALLIUM	102.2	%REC
LC1	Metals	MET-A-013	03D0683	LVLI	03L0176-LC1	ZINC	102.2	%REC
LC1	Metals	MET-A-001	02D1264	LVLI	02L0335-LC1	MAGNESIUM	102.2	%REC
LC1	Metals	RME-A-001	03D0109	LVLI	02L0652-LC1	SILVER	102.2	%REC
LC1	Metals	MET-A-001	02D1233	LVLI	02L0313-LC1	STRONTIUM	102.2	%REC
LC1	Metals	MET-A-001	02D0645	LVLI	02L0021-LC1	MAGNESIUM	102.2	%REC
LC1	Metals	MET-A-001	02D0664	LVLI	02L0021-LC1	MAGNESIUM	102.2	%REC
LC1	Metals	MET-A-013	03D0063	LVLI	02L0619-LC1	CADMIUM	102.2	%REC
LC1	Metals	MET-A-001	02D0935	LVLI	02L0135-LC1	COPPER	102.2	%REC
LC1	Metals	MET-A-001	02D1262	LVLI	02L0335-LC1	MAGNESIUM	102.2	%REC
LC1	Metals	MET-A-001	02D0935	LVLI	02L0135-LC1	CHROMIUM	102.2	%REC
LC1	Metals	RME-A-001	02D0265	LVLI	01L0739-LC1	CADMIUM	102.2	%REC
LC1	Metals	MET-A-001	02D1148	LVLI	02L0187-LC1	BERYLLIUM	102.2	%REC
LC1	Metals	MET-A-001	02D1435	LVLI	02L0497-LC1	THALLIUM	102.2	%REC
LC1	Metals	SS05C037	02D0177	LVLI	01L0739-LC1	CADMIUM	102.2	%REC
LC1	Metals	MET-A-001	02D0965	LVLI	02L0135-LC1	COPPER	102.2	%REC
LC1	Metals	MET-A-013	03D0064	LVLI	02L0619-LC1	CADMIUM	102.2	%REC
LC1	Metals	MET-A-001	02D1254	LVLI	02L0313-LC1	STRONTIUM	102.2	%REC
LC1	Metals	MET-A-001	02D1292	LVLI	02L0335-LC1	MAGNESIUM	102.2	%REC
LC1	Metals	MET-A-013	02D1477	LVLI	02L0541-LC1	COBALT	102.2	%REC
LC1	Metals	MET-A-013	03D0083	LVLI	02L0639-LC1	COBALT	102.2	%REC
LC1	Metals	MET-A-001	02D1233	LVLI	02L0313-LC1	SILVER	102.3	%REC
LC1	Metals	MET-A-013	02D1429	LVLI	02L0509-LC1	STRONTIUM	102.3	%REC
LC1	Metals	MET-A-013	03D0064	LVLI	02L0619-LC1	COBALT	102.3	%REC
LC1	Metals	MET-A-013	03D0064	LVLI	02L0619-LC1	CHROMIUM	102.3	%REC
LC1	Metals	MET-A-013	03D0109	LVLI	02L0652-LC1	LEAD	102.3	%REC

Result Type	Group	LIC	RIN	Lab	Lab Sample Number	Analyte	Result	Units
LC1	Metals	MET-A-001	02D1240	LVLI	02L0313-LC1	SILVER	102.3	%REC
LC1	Metals	MET-A-013	02D1477	LVLI	02L0541-LC1	CHROMIUM	102.3	%REC
LC1	Metals	MET-A-001	02D1221	LVLI	02L0313-LC1	SILVER	102.3	%REC
LC1	Metals	MET-A-013	03D0024	LVLI	02L0612-LC1	VANADIUM	102.3	%REC
LC1	Metals	MET-A-013	02D0371	LVLI	01L0804-LC1	STRONTIUM	102.3	%REC
LC1	Metals	MET-A-001	02D1243	LVLI	02L0313-LC1	SILVER	102.3	%REC
LC1	Metals	MET-A-001	02D1506	LVLI	02L0554-LC1	VANADIUM	102.3	%REC
LC1	Metals	MET-A-013	02D1153	LVLI	02L0198-LC1	LITHIUM	102.3	%REC
LC1	Metals	MET-A-013	02D1542	LVLI	02L0586-LC1	VANADIUM	102.3	%REC
LC1	Metals	MET-A-013	03D0063	LVLI	02L0619-LC1	COBALT	102.3	%REC
LC1	Metals	RME-A-002	02D1469	LVLI	02L0541-LC1	CHROMIUM	102.3	%REC
LC1	Metals	MET-A-013	03D0063	LVLI	02L0619-LC1	CHROMIUM	102.3	%REC
LC1	Metals	MET-A-013	02D1542	LVLI	02L0586-LC1	CHROMIUM	102.3	%REC
LC1	Metals	MET-A-013	02D1477	LVLI	02L0541-LC1	CALCIUM	102.3	%REC
LC1	Metals	MET-A-001	02D1503	LVLI	02L0554-LC1	VANADIUM	102.3	%REC
LC1	Metals	MET-A-001	02D1254	LVLI	02L0313-LC1	SILVER	102.3	%REC
LC1	Metals	MET-A-013	02D1483	LVLI	02L0541-LC1	CALCIUM	102.3	%REC
LC1	Metals	MET-A-013	02D1483	LVLI	02L0541-LC1	CHROMIUM	102.3	%REC
LC1	Metals	MET-A-013	03D0020	LVLI	02L0595-LC1	MAGNESIUM	102.3	%REC
LC1	Metals	MET-A-001	02D1498	LVLI	02L0554-LC1	VANADIUM	102.3	%REC
LC1	Metals	MET-A-001	02D0265	LVLI	01L0760-LC1	ALUMINUM	102.4	%REC
LC1	Metals	MET-A-001	02D1498	LVLI	02L0554-LC1	ALUMINUM	102.4	%REC
LC1	Metals	MET-A-001	02D1506	LVLI	02L0554-LC1	ALUMINUM	102.4	%REC
LC1	Metals	RME-A-002	02D1433	LVLI	02L0484-LC1	BERYLLIUM	102.4	%REC
LC1	Metals	MET-A-013	02D1227	LVLI	02L0317-LC1	TIN	102.4	%REC
LC1	Metals	MET-A-001	02D0965	LVLI	02L0135-LC1	LEAD	102.4	%REC
LC1	Metals	MET-A-001	02D0935	LVLI	02L0135-LC1	LEAD	102.4	%REC
LC1	Metals	MET-A-001	02D1503	LVLI	02L0554-LC1	ALUMINUM	102.4	%REC
LC1	Metals	RME-A-001	03D0020	LVLI	02L0595-LC1	CADMIUM	102.4	%REC
LC1	Metals	MET-A-013	02D1227	LVLI	02L0317-LC1	COBALT	102.4	%REC
LC1	Metals	MET-A-001	02D0575	LVLI	02L0005-LC1	ALUMINUM	102.4	%REC
LC1	Metals	RME-A-002	02D1214	LVLI	02L0246-LC1	BERYLLIUM	102.4	%REC

Result Type	Group	LIC	RIN	Lab	Lab Sample Number	Analyte	Result	Units
LC1	Metals	MET-A-013	02D1227	LVLI	02L0317-LC1	VANADIUM	102.4	%REC
LC1	Metals	MET-A-001	02D0645	LVLI	02L0021-LC1	COPPER	102.4	%REC
LC1	Metals	MET-A-001	02D0825	LVLI	02L0108-LC1	COBALT	102.4	%REC
LC1	Metals	MET-A-013	03D0020	LVLI	02L0595-LC1	CADMIUM	102.4	%REC
LC1	Metals	MET-A-001	02D0299	LVLI	01L0760-LC1	ALUMINUM	102.4	%REC
LC1	Metals	MET-A-013	03D0083	LVLI	02L0639-LC1	IRON	102.4	%REC
LC1	Metals	MET-A-013	02D1281	LVLI	02L0340-LC1	MANGANESE	102.4	%REC
LC1	Metals	MET-A-013	03D0109	LVLI	02L0655-LC1	STRONTIUM	102.4	%REC
LC1	Metals	MET-A-001	02D0664	LVLI	02L0021-LC1	COPPER	102.4	%REC
LC1	Metals	MET-A-013	02D1429	LVLI	02L0509-LC1	TIN	102.4	%REC
LC1	Metals	MET-A-013	03D0020	LVLI	02L0595-LC1	SELENIUM	102.4	%REC
LC1	Metals	MET-A-001	02D1261	LVLI	02L0335-LC1	STRONTIUM	102.5	%REC
LC1	Metals	MET-A-001	02D1107	LVLI	02L0176-LC1	SILVER	102.5	%REC
LC1	Metals	MET-A-013	03D0064	LVLI	02L0619-LC1	THALLIUM	102.5	%REC
LC1	Metals	MET-A-013	03D0064	LVLI	02L0619-LC1	SELENIUM	102.5	%REC
LC1	Metals	MET-A-013	03D0020	LVLI	02L0595-LC1	COBALT	102.5	%REC
LC1	Metals	MET-A-013	03D0109	LVLI	02L0655-LC1	MAGNESIUM	102.5	%REC
LC1	Metals	MET-A-013	02D1215	LVLI	02L0262-LC1	ALUMINUM	102.5	%REC
LC1	Metals	MET-A-013	03D0063	LVLI	02L0619-LC1	THALLIUM	102.5	%REC
LC1	Metals	MET-A-013	03D0063	LVLI	02L0619-LC1	SELENIUM	102.5	%REC
LC1	Metals	MET-A-001	02D1262	LVLI	02L0335-LC1	STRONTIUM	102.5	%REC
LC1	Metals	MET-A-001	02D1264	LVLI	02L0335-LC1	STRONTIUM	102.5	%REC
LC1	Metals	MET-A-001	02D1107	LVLI	02L0176-LC1	VANADIUM	102.5	%REC
LC1	Metals	MET-A-001	02D1292	LVLI	02L0335-LC1	STRONTIUM	102.5	%REC
LC1	Metals	MET-A-013	03D0064	LVLI	02C0319-LC1	MERCURY	102.6	%REC
LC1	Metals	MET-A-001	02D1254	LVLI	02L0313-LC1	CADMIUM	102.6	%REC
LC1	Metals	MET-A-001	02D1240	LVLI	02L0313-LC1	CADMIUM	102.6	%REC
LC1	Metals	MET-A-013	02D1477	LVLI	02L0541-LC1	BERYLLIUM	102.6	%REC
LC1	Metals	MET-A-013	02D1483	LVLI	02L0541-LC1	BERYLLIUM	102.6	%REC
LC1	Metals	MET-A-013	02D1227	LVLI	02L0317-LC1	CHROMIUM	102.6	%REC
LC1	Metals	MET-A-001	02D0935	LVLI	02L0135-LC1	COBALT	102.6	%REC
LC1	Metals	MET-A-013	03D0083	LVLI	02L0639-LC1	VANADIUM	102.6	%REC

Result Type	Group	LIC	RIN	Lab	Lab Sample Number	Analyte	Result	Units
LC1	Metals	MET-A-013	03D0109	LVLI	02L0655-LC1	COPPER	102.6	%REC
LC1	Metals	MET-A-013	02D1429	LVLI	02L0509-LC1	CHROMIUM	102.6	%REC
LC1	Metals	RME-A-002	02D1440	LVLI	02L0509-LC1	CHROMIUM	102.6	%REC
LC1	Metals	MET-A-013	02D1429	LVLI	02L0509-LC1	MAGNESIUM	102.6	%REC
LC1	Metals	MET-A-013	03D0063	LVLI	02C0319-LC1	MERCURY	102.6	%REC
LC1	Metals	MET-A-013	02D0371	LVLI	01L0804-LC1	ZINC	102.6	%REC
LC1	Metals	MET-A-013	02D0371	LVLI	01L0804-LC1	SELENIUM	102.6	%REC
LC1	Metals	MET-A-001	02D1221	LVLI	02L0313-LC1	CADMIUM	102.6	%REC
LC1	Metals	MET-A-001	02D1243	LVLI	02L0313-LC1	CADMIUM	102.6	%REC
LC1	Metals	MET-A-001	02D1233	LVLI	02L0313-LC1	CADMIUM	102.6	%REC
LC1	Metals	MET-A-001	02D0965	LVLI	02L0135-LC1	COBALT	102.6	%REC
LC1	Metals	MET-A-001	02D1262	LVLI	02L0335-LC1	COPPER	102.7	%REC
LC1	Metals	MET-A-013	02D1397	LVLI	02L0418-LC1	MAGNESIUM	102.7	%REC
LC1	Metals	MET-A-001	02D1264	LVLI	02L0335-LC1	SILVER	102.7	%REC
LC1	Metals	MET-A-001	02D1262	LVLI	02L0335-LC1	SILVER	102.7	%REC
LC1	Metals	MET-A-013	03D0109	LVLI	02L0652-LC1	NICKEL	102.7	%REC
LC1	Metals	MET-A-001	02D1261	LVLI	02L0335-LC1	COPPER	102.7	%REC
LC1	Metals	MET-A-001	02D1221	LVLI	02L0313-LC1	BARIUM	102.7	%REC
LC1	Metals	MET-A-001	02D0825	LVLI	02L0108-LC1	ZINC	102.7	%REC
LC1	Metals	MET-A-001	02D1243	LVLI	02L0313-LC1	ANTIMONY	102.7	%REC
LC1	Metals	MET-A-001	02D1254	LVLI	02L0313-LC1	BARIUM	102.7	%REC
LC1	Metals	MET-A-001	02D0645	LVLI	02L0021-LC1	MANGANESE	102.7	%REC
LC1	Metals	MET-A-001	02D1254	LVLI	02L0313-LC1	ANTIMONY	102.7	%REC
LC1	Metals	MET-A-001	02D1233	LVLI	02L0313-LC1	BARIUM	102.7	%REC
LC1	Metals	MET-A-013	03D0083	LVLI	02L0639-LC1	ZINC	102.7	%REC
LC1	Metals	MET-A-001	02D1221	LVLI	02L0313-LC1	ANTIMONY	102.7	%REC
LC1	Metals	MET-A-013	03D0083	LVLI	02L0639-LC1	THALLIUM	102.7	%REC
LC1	Metals	MET-A-013	03D0020	LVLI	02L0595-LC1	CALCIUM	102.7	%REC
LC1	Metals	MET-A-013	03D0083	LVLI	02L0639-LC1	CHROMIUM	102.7	%REC
LC1	Metals	MET-A-001	02D1240	LVLI	02L0313-LC1	BARIUM	102.7	%REC
LC1	Metals	MET-A-001	02D1261	LVLI	02L0335-LC1	SILVER	102.7	%REC
LC1	Metals	MET-A-013	03D0109	LVLI	02L0652-LC1	STRONTIUM	102.7	%REC

Result Type	Group	LIC	RIN	Lab	Lab Sample Number	Analyte	Result	Units
LC1	Metals	MET-A-001	02D1243	LVLI	02L0313-LC1	BARIUM	102.7	%REC
LC1	Metals	RME-A-002	03D0083	LVLI	02L0639-LC1	CHROMIUM	102.7	%REC
LC1	Metals	MET-A-001	02D1292	LVLI	02L0335-LC1	COPPER	102.7	%REC
LC1	Metals	MET-A-001	02D1292	LVLI	02L0335-LC1	SILVER	102.7	%REC
LC1	Metals	MET-A-013	02D1368	LVLI	02L0418-LC1	MAGNESIUM	102.7	%REC
LC1	Metals	MET-A-013	03D0109	LVLI	02L0655-LC1	CADMIUM	102.7	%REC
LC1	Metals	MET-A-001	02D1233	LVLI	02L0313-LC1	ANTIMONY	102.7	%REC
LC1	Metals	MET-A-001	02D1264	LVLI	02L0335-LC1	COPPER	102.7	%REC
LC1	Metals	MET-A-001	02D1240	LVLI	02L0313-LC1	ANTIMONY	102.7	%REC
LC1	Metals	MET-A-013	03D0109	LVLI	02L0652-LC1	MAGNESIUM	102.7	%REC
LC1	Metals	MET-A-013	03D0683	LVLI	03L0176-LC1	CALCIUM	102.7	%REC
LC1	Metals	MET-A-001	02D0664	LVLI	02L0021-LC1	MANGANESE	102.7	%REC
LC1	Metals	MET-A-013	02D1227	LVLI	02L0317-LC1	IRON	102.8	%REC
LC1	Metals	MET-A-001	02D1243	LVLI	02L0313-LC1	MAGNESIUM	102.8	%REC
LC1	Metals	RME-A-002	03D0020	LVLI	02L0595-LC1	CHROMIUM	102.8	%REC
LC1	Metals	MET-A-001	02D1221	LVLI	02L0313-LC1	MAGNESIUM	102.8	%REC
LC1	Metals	MET-A-013	02D1477	LVLI	02L0541-LC1	ALUMINUM	102.8	%REC
LC1	Metals	MET-A-013	02D1215	LVLI	02L0262-LC1	STRONTIUM	102.8	%REC
LC1	Metals	MET-A-001	02D1254	LVLI	02L0313-LC1	MAGNESIUM	102.8	%REC
LC1	Metals	MET-A-013	02D1516	LVLI	02L0577-LC1	MANGANESE	102.8	%REC
LC1	Metals	MET-A-013	03D0109	LVLI	02L0655-LC1	COBALT	102.8	%REC
LC1	Metals	MET-A-013	03D0083	LVLI	02L0639-LC1	NICKEL	102.8	%REC
LC1	Metals	MET-A-013	03D0020	LVLI	02L0595-LC1	CHROMIUM	102.8	%REC
LC1	Metals	MET-A-013	02D1477	LVLI	02L0556-LC1	LEAD	102.8	%REC
LC1	Metals	MET-A-001	02D0299	LVLI	01L0760-LC1	MANGANESE	102.8	%REC
LC1	Metals	MET-A-001	02D1233	LVLI	02L0313-LC1	MAGNESIUM	102.8	%REC
LC1	Metals	MET-A-001	02D0664	LVLI	02L0021-LC1	BERYLLIUM	102.8	%REC
LC1	Metals	MET-A-013	02D1521	LVLI	02L0577-LC1	MANGANESE	102.8	%REC
LC1	Metals	MET-A-001	02D0575	LVLI	02L0005-LC1	MANGANESE	102.8	%REC
LC1	Metals	MET-A-013	02D1483	LVLI	02L0541-LC1	ALUMINUM	102.8	%REC
LC1	Metals	MET-A-001	02D0645	LVLI	02L0021-LC1	BERYLLIUM	102.8	%REC
LC1	Metals	MET-A-013	02D1429	LVLI	02L0509-LC1	IRON	102.8	%REC

Result Type	Group	LIC	RIN	Lab	Lab Sample Number	Analyte	Result	Units
LC1	Metals	MET-A-001	02D0265	LVLI	01L0760-LC1	MANGANESE	102.8	%REC
LC1	Metals	MET-A-001	02D1240	LVLI	02L0313-LC1	MAGNESIUM	102.8	%REC
LC1	Metals	RME-A-001	02D1440	LVLI	02L0509-LC1	CADMIUM	102.8	%REC
LC1	Metals	MET-A-001	02D1107	LVLI	02L0176-LC1	MAGNESIUM	102.8	%REC
LC1	Metals	MET-A-013	02D0371	LVLI	01L0804-LC1	BERYLLIUM	102.8	%REC
LC1	Metals	MET-A-013	02D1517	LVLI	02L0577-LC1	MANGANESE	102.8	%REC
LC1	Metals	MET-A-013	02D1429	LVLI	02L0509-LC1	CADMIUM	102.8	%REC
LC1	Metals	MET-A-013	02D1429	LVLI	02L0509-LC1	BERYLLIUM	102.8	%REC
LC1	Metals	MET-A-001	02D1503	LVLI	02L0554-LC1	MANGANESE	102.9	%REC
LC1	Metals	MET-A-013	02D1368	LVLI	02L0418-LC1	BARIUM	102.9	%REC
LC1	Metals	MET-A-001	02D0664	LVLI	02L0021-LC1	POTASSIUM	102.9	%REC
LC1	Metals	MET-A-013	02D0371	LVLI	01L0804-LC1	MANGANESE	102.9	%REC
LC1	Metals	MET-A-013	02D1281	LVLI	02L0340-LC1	POTASSIUM	102.9	%REC
LC1	Metals	MET-A-001	02D1107	LVLI	02L0176-LC1	SELENIUM	102.9	%REC
LC1	Metals	MET-A-001	02D0965	LVLI	02L0135-LC1	ZINC	102.9	%REC
LC1	Metals	MET-A-001	02D1107	LVLI	02L0176-LC1	IRON	102.9	%REC
LC1	Metals	MET-A-013	02D1429	LVLI	02L0509-LC1	COBALT	102.9	%REC
LC1	Metals	MET-A-013	03D0109	LVLI	02L0655-LC1	IRON	102.9	%REC
LC1	Metals	MET-A-001	02D1498	LVLI	02L0554-LC1	MANGANESE	102.9	%REC
LC1	Metals	MET-A-001	02D1506	LVLI	02L0554-LC1	MANGANESE	102.9	%REC
LC1	Metals	MET-A-001	02D0935	LVLI	02L0135-LC1	ZINC	102.9	%REC
LC1	Metals	MET-A-001	02D0645	LVLI	02L0021-LC1	POTASSIUM	102.9	%REC
LC1	Metals	MET-A-013	02D1397	LVLI	02L0418-LC1	BARIUM	102.9	%REC
LC1	Metals	MET-A-013	02D0371	LVLI	01L0804-LC1	ANTIMONY	102.9	%REC
LC1	Metals	MET-A-013	03D0506	LVLI	03L0097-LC1	LITHIUM	102.9	%REC
LC1	Metals	MET-A-001	02D1292	LVLI	02L0335-LC1	BERYLLIUM	103	%REC
LC1	Metals	MET-A-001	02D1292	LVLI	02L0335-LC1	LEAD	103	%REC
LC1	Metals	MET-A-001	02D1261	LVLI	02L0335-LC1	BERYLLIUM	103	%REC
LC1	Metals	MET-A-013	02D1336	STLDEN	D2G020000-389C	MAGNESIUM	103	%REC
LC1	Metals	RME-A-002	02D0965	LVLI	02L0140-LC1	BERYLLIUM	103	%REC
LC1	Metals	MET-A-013	02D1368	LVLI	02L0418-LC1	ARSENIC	103	%REC
LC1	Metals	MET-A-013	02D1397	EMXT	IPH028WL	ARSENIC	103	%REC

Result Type	Group	LIC	RIN	Lab	Lab Sample Number	Analyte	Result	Units
LC1	Metals	MET-A-013	02D1397	EMXT	IPH028WL	COPPER	103	%REC
LC2	Metals	MET-A-013	02D0089	STLDEN	D1J150000-396C	SODIUM	103	%REC
LC1	Metals	MET-A-013	02D1429	LVLI	02L0509-LC1	VANADIUM	103	%REC
LC1	Metals	MET-A-001	02D1261	LVLI	02L0335-LC1	LEAD	103	%REC
LC1	Metals	MET-A-013	02D0216	STLDEN	D1K010000-371C	SODIUM	103	%REC
LC1	Metals	MET-A-013	02D1368	LVLI	02L0418-LC1	BERYLLIUM	103	%REC
LC1	Metals	MET-A-001	02D1264	LVLI	02L0335-LC1	LEAD	103	%REC
LC1	Metals	MET-A-013	02D1336	STLDEN	D2G020000-393C	SELENIUM	103	%REC
LC1	Metals	MET-A-001	02D0825	LVLI	02L0108-LC1	MAGNESIUM	103	%REC
LC1	Metals	MET-A-013	02D1336	STLDEN	D2G020000-389C	SODIUM	103	%REC
LC2	Metals	MET-A-013	02D0216	STLDEN	D1K060000-309C	MAGNESIUM	103	%REC
LC1	Metals	MET-A-001	02D1262	LVLI	02L0335-LC1	LEAD	103	%REC
LC1	Metals	MET-A-013	03D0020	LVLI	02L0595-LC1	LEAD	103	%REC
LC1	Metals	MET-A-013	02D0089	STLDEN	D1J110000-275C	SELENIUM	103	%REC
LC1	Metals	MET-A-001	02D1264	LVLI	02L0335-LC1	BERYLLIUM	103	%REC
LC1	Metals	MET-A-013	03D0109	LVLI	02L0655-LC1	CHROMIUM	103	%REC
LC2	Metals	MET-A-013	02D0216	STLDEN	D1K060000-307C	SELENIUM	103	%REC
LC1	Metals	MET-A-013	02D0371	LVLI	01C0397-LC1	MERCURY	103	%REC
LC1	Metals	MET-A-013	02D1397	LVLI	02L0418-LC1	BERYLLIUM	103	%REC
LC1	Metals	MET-A-013	02D1187	STLDEN	D2D300000-365C	CALCIUM	103	%REC
LC1	Metals	MET-A-013	02D1397	LVLI	02L0418-LC1	ARSENIC	103	%REC
LC1	Metals	MET-A-013	02D1153	STLDEN	D2D180000-275C	SODIUM	103	%REC
LC1	Metals	MET-A-013	02D1187	STLDEN	D2D300000-368C	SELENIUM	103	%REC
LC1	Metals	MET-A-013	02D1397	EMXT	IPH028WL	CHROMIUM	103	%REC
LC1	Metals	MET-A-013	02D1397	EMXT	IPH028WL	NICKEL	103	%REC
LC1	Metals	MET-A-013	02D0216	STLDEN	D1K010000-371C	MAGNESIUM	103	%REC
LC1	Metals	RME-A-001	02D1498	LVLI	02L0568-LC1	SILVER	103.1	%REC
LC1	Metals	MET-A-001	02D0299	LVLI	01L0760-LC1	MAGNESIUM	103.1	%REC
LC1	Metals	MET-A-001	02D0265	LVLI	01L0760-LC1	MAGNESIUM	103.1	%REC
LC1	Metals	MET-A-013	03D0109	LVLI	02L0655-LC1	ZINC	103.1	%REC
LC1	Metals	MET-A-013	03D0109	LVLI	02L0652-LC1	SELENIUM	103.1	%REC
LC1	Metals	MET-A-013	02D1542	LVLI	02L0586-LC1	MANGANESE	103.1	%REC

Result Type	Group	LIC	RIN	Lab	Lab Sample Number	Analyte	Result	Units
LC1	Metals	RME-A-001	02D1503	LVLI	02L0568-LC1	SILVER	103.1	%REC
LC1	Metals	MET-A-001	02D1292	LVLI	02L0335-LC1	NICKEL	103.1	%REC
LC1	Metals	MET-A-013	02D1368	LVLI	02L0418-LC1	TIN	103.1	%REC
LC1	Metals	MET-A-001	02D1262	LVLI	02L0335-LC1	NICKEL	103.1	%REC
LC1	Metals	MET-A-001	02D1264	LVLI	02L0335-LC1	NICKEL	103.1	%REC
LC1	Metals	MET-A-001	02D1261	LVLI	02L0335-LC1	NICKEL	103.1	%REC
LC1	Metals	MET-A-001	02D0575	LVLI	02L0005-LC1	MAGNESIUM	103.1	%REC
LC1	Metals	MET-A-013	02D1397	LVLI	02L0418-LC1	TIN	103.1	%REC
LC1	Metals	MET-A-001	02D1240	LVLI	02C0162-LC1	MERCURY	103.2	%REC
LC1	Metals	MET-A-001	02D1292	LVLI	02L0335-LC1	TIN	103.2	%REC
LC1	Metals	MET-A-013	03D0024	LVLI	02L0612-LC1	MANGANESE	103.2	%REC
LC1	Metals	MET-A-001	02D1303	LVLI	02L0353-LC1	SILVER	103.2	%REC
LC1	Metals	MET-A-001	02D1264	LVLI	02L0335-LC1	TIN	103.2	%REC
LC1	Metals	MET-A-001	02D1262	LVLI	02L0335-LC1	TIN	103.2	%REC
LC1	Metals	MET-A-001	02D1261	LVLI	02L0335-LC1	TIN	103.2	%REC
LC1	Metals	SS05C001	02D0111	LVLI	01L0683-LC1	LITHIUM	103.2	%REC
LC1	Metals	MET-A-001	02D1197	LVLI	02L0257-LC1	LITHIUM	103.2	%REC
LC1	Metals	MET-A-001	02D0687	LVLI	02L0030-LC1	ALUMINUM	103.2	%REC
LC1	Metals	MET-A-013	02D1368	LVLI	02L0418-LC1	ANTIMONY	103.2	%REC
LC1	Metals	MET-A-001	02D1214	LVLI	02L0257-LC1	LITHIUM	103.2	%REC
LC1	Metals	MET-A-001	02D0680	LVLI	02L0030-LC1	ALUMINUM	103.2	%REC
LC1	Metals	MET-A-013	02D1397	LVLI	02L0418-LC1	ANTIMONY	103.2	%REC
LC1	Metals	RME-A-002	02D1107	LVLI	02L0175-LC1	BERYLLIUM	103.2	%REC
LC1	Metals	MET-A-001	02D0825	LVLI	02L0108-LC1	THALLIUM	103.3	%REC
LC1	Metals	MET-A-013	03D0109	LVLI	02L0652-LC1	BERYLLIUM	103.3	%REC
LC1	Metals	MET-A-013	03D0683	LVLI	03L0176-LC1	BERYLLIUM	103.3	%REC
LC1	Metals	MET-A-013	02D1429	LVLI	02L0509-LC1	ALUMINUM	103.3	%REC
LC1	Metals	MET-A-001	02D1333	LVLI	02L0401-LC1	SELENIUM	103.3	%REC
LC1	Metals	MET-A-013	03D0020	LVLI	02L0595-LC1	VANADIUM	103.3	%REC
LC1	Metals	RME-A-002	02D1377	LVLI	02L0418-LC1	BERYLLIUM	103.3	%REC
LC1	Metals	MET-A-013	03D0064	LVLI	02L0619-LC1	VANADIUM	103.3	%REC
LC1	Metals	MET-A-001	02D1333	LVLI	02L0401-LC1	SODIUM	103.3	%REC

Result Type	Group	LIC	RIN	Lab	Lab Sample Number	Analyte	Result	Units
LC1	Metals	MET-A-013	03D0020	LVLI	02L0595-LC1	IRON	103.3	%REC
LC1	Metals	MET-A-001	02D1107	LVLI	02L0176-LC1	CALCIUM	103.3	%REC
LC1	Metals	RME-A-002	02D1362	LVLI	02L0418-LC1	BERYLLIUM	103.3	%REC
LC1	Metals	MET-A-001	02D1362	LVLI	02L0401-LC1	SELENIUM	103.3	%REC
LC1	Metals	MET-A-013	03D0063	LVLI	02L0619-LC1	VANADIUM	103.3	%REC
LC1	Metals	MET-A-001	02D1362	LVLI	02L0401-LC1	SODIUM	103.3	%REC
LC1	Metals	MET-A-001	02D0935	LVLI	02L0135-LC1	BERYLLIUM	103.4	%REC
LC1	Metals	MET-A-001	02D0265	LVLI	01C0360-LC1	MERCURY	103.4	%REC
LC1	Metals	MET-A-001	02D1261	LVLI	02L0335-LC1	CADMIUM	103.4	%REC
LC1	Metals	MET-A-013	03D0109	LVLI	02L0655-LC1	POTASSIUM	103.4	%REC
LC1	Metals	MET-A-001	02D0575	LVLI	02C0029-LC1	MERCURY	103.4	%REC
LC1	Metals	MET-A-001	02D1498	LVLI	02C0290-LC1	MERCURY	103.4	%REC
LC1	Metals	MET-A-001	02D1264	LVLI	02L0335-LC1	CADMIUM	103.4	%REC
LC1	Metals	MET-A-001	02D1262	LVLI	02L0335-LC1	CADMIUM	103.4	%REC
LC1	Metals	MET-A-001	02D1292	LVLI	02L0335-LC1	CADMIUM	103.4	%REC
LC1	Metals	RME-A-002	03D0109	LVLI	02L0652-LC1	BERYLLIUM	103.4	%REC
LC1	Metals	MET-A-001	02D0965	LVLI	02L0135-LC1	BERYLLIUM	103.4	%REC
LC1	Metals	MET-A-013	03D0020	LVLI	02L0595-LC1	BERYLLIUM	103.4	%REC
LC1	Metals	MET-A-001	02D1503	LVLI	02C0290-LC1	MERCURY	103.4	%REC
LC1	Metals	MET-A-001	02D1506	LVLI	02C0290-LC1	MERCURY	103.4	%REC
LC1	Metals	MET-A-001	02D0299	LVLI	01C0374-LC1	MERCURY	103.4	%REC
LC1	Metals	MET-A-013	02D0371	LVLI	01L0804-LC1	MAGNESIUM	103.4	%REC
LC1	Metals	RME-A-001	02D1503	LVLI	02L0568-LC1	CADMIUM	103.5	%REC
LC1	Metals	RME-A-002	02D1498	LVLI	02L0568-LC1	CHROMIUM	103.5	%REC
LC1	Metals	RME-A-002	02D1503	LVLI	02L0568-LC1	CHROMIUM	103.5	%REC
LC1	Metals	MET-A-001	02D1303	LVLI	02L0353-LC1	THALLIUM	103.5	%REC
LC1	Metals	RME-A-001	02D1498	LVLI	02L0568-LC1	CADMIUM	103.5	%REC
LC1	Metals	MET-A-013	02D1227	LVLI	02L0317-LC1	COPPER	103.5	%REC
LC1	Metals	MET-A-001	02D1292	LVLI	02L0335-LC1	IRON	103.6	%REC
LC1	Metals	MET-A-001	02D0965	LVLI	02L0135-LC1	NICKEL	103.6	%REC
LC1	Metals	MET-A-013	03D0109	LVLI	02L0652-LC1	ZINC	103.6	%REC
LC1	Metals	MET-A-001	02D0815	LVLI	02C0056-LC1	MERCURY	103.6	%REC

Result Type	Group	LIC	RIN	Lab	Lab Sample Number	Analyte	Result	Units
LC1	Metals	MET-A-013	03D0083	LVLI	02C0323-LC1	MERCURY	103.6	%REC
LC1	Metals	MET-A-013	02D1477	LVLI	02L0541-LC1	VANADIUM	103.6	%REC
LC1	Metals	MET-A-013	03D0109	LVLI	02L0652-LC1	CADMIUM	103.6	%REC
LC1	Metals	MET-A-001	02D1107	LVLI	02L0176-LC1	POTASSIUM	103.6	%REC
LC1	Metals	MET-A-013	02D1397	LVLI	02L0418-LC1	COPPER	103.6	%REC
LC1	Metals	MET-A-001	02D1264	LVLI	02L0335-LC1	IRON	103.6	%REC
LC1	Metals	MET-A-013	02D1483	LVLI	02L0541-LC1	VANADIUM	103.6	%REC
LC1	Metals	MET-A-001	02D0935	LVLI	02L0135-LC1	NICKEL	103.6	%REC
LC1	Metals	MET-A-013	02D1368	LVLI	02L0418-LC1	COPPER	103.6	%REC
LC1	Metals	RME-A-002	02D0299	LVLI	01L0775-LC1	BERYLLIUM	103.6	%REC
LC1	Metals	MET-A-013	03D0020	LVLI	02L0595-LC1	TIN	103.6	%REC
LC1	Metals	RME-A-001	03D0109	LVLI	02L0652-LC1	CADMIUM	103.6	%REC
LC1	Metals	MET-A-001	02D1261	LVLI	02L0335-LC1	IRON	103.6	%REC
LC1	Metals	MET-A-013	03D0109	LVLI	02L0652-LC1	COPPER	103.6	%REC
LC1	Metals	MET-A-001	02D1262	LVLI	02L0335-LC1	BERYLLIUM	103.6	%REC
LC1	Metals	MET-A-001	02D1262	LVLI	02L0335-LC1	IRON	103.6	%REC
LC1	Metals	MET-A-013	02D1397	LVLI	02L0418-LC1	POTASSIUM	103.7	%REC
LC1	Metals	MET-A-001	02D0935	LVLI	02L0135-LC1	MAGNESIUM	103.7	%REC
LC1	Metals	MET-A-013	02D1215	LVLI	02L0262-LC1	SELENIUM	103.7	%REC
LC1	Metals	MET-A-013	02D1368	LVLI	02L0418-LC1	POTASSIUM	103.7	%REC
LC1	Metals	MET-A-001	02D1233	LVLI	02L0313-LC1	BERYLLIUM	103.7	%REC
LC1	Metals	MET-A-001	02D1221	LVLI	02L0313-LC1	BERYLLIUM	103.7	%REC
LC1	Metals	MET-A-001	02D0965	LVLI	02L0135-LC1	MAGNESIUM	103.7	%REC
LC1	Metals	MET-A-013	02D1368	LVLI	02L0418-LC1	CALCIUM	103.8	%REC
LC1	Metals	MET-A-001	02D1233	LVLI	02L0313-LC1	THALLIUM	103.8	%REC
LC1	Metals	MET-A-001	02D1254	LVLI	02L0313-LC1	THALLIUM	103.8	%REC
LC1	Metals	MET-A-013	02D1397	LVLI	02L0418-LC1	SILVER	103.8	%REC
LC1	Metals	RME-A-001	02D1362	LVLI	02L0418-LC1	SILVER	103.8	%REC
LC1	Metals	MET-A-013	03D0109	LVLI	02L0655-LC1	CALCIUM	103.8	%REC
LC1	Metals	MET-A-001	02D1221	LVLI	02L0313-LC1	THALLIUM	103.8	%REC
LC1	Metals	MET-A-013	02D1368	LVLI	02L0418-LC1	SILVER	103.8	%REC
LC1	Metals	RME-A-001	02D1377	LVLI	02L0418-LC1	SILVER	103.8	%REC

Result Type	Group	LIC	RIN	Lab	Lab Sample Number	Analyte	Result	Units
LC1	Metals	MET-A-001	02D1262	LVLI	02L0335-LC1	VANADIUM	103.8	%REC
LC1	Metals	MET-A-001	02D1240	LVLI	02L0313-LC1	THALLIUM	103.8	%REC
LC1	Metals	MET-A-001	02D1243	LVLI	02L0313-LC1	THALLIUM	103.8	%REC
LC1	Metals	MET-A-001	02D1107	LVLI	02C0094-LC1	MERCURY	103.8	%REC
LC1	Metals	MET-A-013	03D0109	LVLI	02L0652-LC1	TIN	103.8	%REC
LC1	Metals	MET-A-001	02D1261	LVLI	02L0335-LC1	VANADIUM	103.8	%REC
LC1	Metals	MET-A-013	03D0109	LVLI	02L0655-LC1	VANADIUM	103.8	%REC
LC1	Metals	MET-A-001	02D1264	LVLI	02L0335-LC1	VANADIUM	103.8	%REC
LC1	Metals	MET-A-013	02D1397	LVLI	02L0418-LC1	CALCIUM	103.8	%REC
LC1	Metals	MET-A-001	02D1292	LVLI	02L0335-LC1	VANADIUM	103.8	%REC
LC1	Metals	MET-A-001	02D1292	LVLI	02L0335-LC1	ZINC	103.9	%REC
LC1	Metals	MET-A-001	02D1506	LVLI	02L0554-LC1	THALLIUM	103.9	%REC
LC1	Metals	MET-A-001	02D1503	LVLI	02L0554-LC1	THALLIUM	103.9	%REC
LC1	Metals	MET-A-001	02D1303	LVLI	02L0353-LC1	ARSENIC	103.9	%REC
LC1	Metals	MET-A-001	02D1243	LVLI	02L0313-LC1	CALCIUM	103.9	%REC
LC1	Metals	MET-A-001	02D1254	LVLI	02L0313-LC1	CALCIUM	103.9	%REC
LC1	Metals	MET-A-001	02D1221	LVLI	02L0313-LC1	CALCIUM	103.9	%REC
LC1	Metals	MET-A-013	03D0083	LVLI	02L0639-LC1	COPPER	103.9	%REC
LC1	Metals	MET-A-001	02D1107	LVLI	02L0176-LC1	MANGANESE	103.9	%REC
LC1	Metals	MET-A-001	02D1233	LVLI	02L0313-LC1	CALCIUM	103.9	%REC
LC1	Metals	MET-A-001	02D1261	LVLI	02L0335-LC1	ZINC	103.9	%REC
LC1	Metals	MET-A-001	02D1240	LVLI	02L0313-LC1	CALCIUM	103.9	%REC
LC1	Metals	MET-A-001	02D1264	LVLI	02L0335-LC1	ZINC	103.9	%REC
LC1	Metals	MET-A-001	02D1262	LVLI	02L0335-LC1	ZINC	103.9	%REC
LC1	Metals	MET-A-013	03D0083	LVLI	02L0639-LC1	POTASSIUM	103.9	%REC
LC1	Metals	MET-A-013	03D0083	LVLI	02L0639-LC1	MANGANESE	103.9	%REC
LC1	Metals	MET-A-001	02D1498	LVLI	02L0554-LC1	THALLIUM	103.9	%REC
LC1	Metals	MET-A-013	02D0965	STLDEN	D2C210000-382C	ALUMINUM	104	%REC
LC2	Metals	MET-A-013	02D0089	STLDEN	D1J150000-396C	MAGNESIUM	104	%REC
LC1	Metals	MET-A-013	02D1153	STLDEN	D2D180000-280C	SELENIUM	104	%REC
LC1	Metals	MET-A-001	02D1240	LVLI	02L0313-LC1	BERYLLIUM	104	%REC
LC1	Metals	MET-A-001	02D1107	LVLI	02L0176-LC1	STRONTIUM	104	%REC

Result Type	Group	LIC	RIN	Lab	Lab Sample Number	Analyte	Result	Units
LC1	Metals	MET-A-001	02D0687	LVLI	02C0042-LC1	MERCURY	104	%REC
LC1	Metals	MET-A-001	02D0680	LVLI	02C0042-LC1	MERCURY	104	%REC
LC1	Metals	MET-A-013	02D0292	STLDEN	D1K150000-500C	SELENIUM	104	%REC
LC1	Metals	MET-A-001	02D0724	LVLI	02C0042-LC1	MERCURY	104	%REC
LC1	Metals	MET-A-001	02D1243	LVLI	02L0313-LC1	BERYLLIUM	104	%REC
LC1	Metals	MET-A-013	02D1187	STLDEN	D2D300000-365C	IRON	104	%REC
LC1	Metals	MET-A-001	02D1254	LVLI	02L0313-LC1	BERYLLIUM	104	%REC
LC1	Metals	MET-A-013	03D0109	LVLI	02L0655-LC1	THALLIUM	104	%REC
LC1	Metals	MET-A-013	02D1383	STLDEN	D2G190000-319C	SILVER	104	%REC
LC1	Metals	MET-A-013	02D1397	EMXT	IPH028WL	CADMIUM	104	%REC
LC1	Metals	MET-A-001	02D1303	LVLI	02L0353-LC1	VANADIUM	104	%REC
LC1	Metals	MET-A-013	02D1397	EMXT	IPH028WL	COBALT	104	%REC
LC1	Metals	MET-A-001	02D1303	LVLI	02L0353-LC1	MAGNESIUM	104	%REC
LC1	Metals	MET-A-013	02D1397	LVLI	02L0418-LC1	ZINC	104	%REC
LC1	Metals	MET-A-013	02D1368	LVLI	02L0418-LC1	ZINC	104	%REC
LC1	Metals	MET-A-001	02D1254	LVLI	02L0313-LC1	NICKEL	104.1	%REC
LC1	Metals	RME-A-002	02D1060	LVLI	02L0160-LC1	BERYLLIUM	104.1	%REC
LC1	Metals	MET-A-001	02D1221	LVLI	02L0313-LC1	NICKEL	104.1	%REC
LC1	Metals	MET-A-001	02D1262	LVLI	02L0335-LC1	COBALT	104.1	%REC
LC1	Metals	MET-A-001	02D1240	LVLI	02L0313-LC1	COBALT	104.1	%REC
LC1	Metals	MET-A-001	02D1233	LVLI	02L0313-LC1	COBALT	104.1	%REC
LC1	Metals	MET-A-001	02D1233	LVLI	02L0313-LC1	NICKEL	104.1	%REC
LC1	Metals	MET-A-001	02D1243	LVLI	02L0313-LC1	NICKEL	104.1	%REC
LC1	Metals	MET-A-001	02D1240	LVLI	02L0313-LC1	NICKEL	104.1	%REC
LC1	Metals	RME-A-001	02D1254	LVLI	02L0314-LC1	CADMIUM	104.1	%REC
LC1	Metals	MET-A-001	02D1254	LVLI	02L0313-LC1	COBALT	104.1	%REC
LC1	Metals	MET-A-001	02D1264	LVLI	02L0335-LC1	COBALT	104.1	%REC
LC1	Metals	MET-A-013	02D1227	LVLI	02L0317-LC1	MANGANESE	104.1	%REC
LC1	Metals	MET-A-001	02D1292	LVLI	02L0335-LC1	COBALT	104.1	%REC
LC1	Metals	MET-A-001	02D1261	LVLI	02L0335-LC1	COBALT	104.1	%REC
LC1	Metals	MET-A-013	03D0064	LVLI	02L0619-LC1	MANGANESE	104.1	%REC
LC1	Metals	MET-A-013	02D1368	LVLI	02L0418-LC1	NICKEL	104.1	%REC

Result Type	Group	LIC	RIN	Lab	Lab Sample Number	Analyte	Result	Units
LC1	Metals	MET-A-013	03D0063	LVLI	02L0619-LC1	MANGANESE	104.1	%REC
LC1	Metals	MET-A-001	02D1221	LVLI	02L0313-LC1	COBALT	104.1	%REC
LC1	Metals	MET-A-001	02D1243	LVLI	02L0313-LC1	COBALT	104.1	%REC
LC1	Metals	MET-A-013	02D1397	LVLI	02L0418-LC1	NICKEL	104.1	%REC
LC1	Metals	MET-A-013	02D1429	LVLI	02L0509-LC1	MANGANESE	104.1	%REC
LC1	Metals	RME-A-001	02D1233	LVLI	02L0314-LC1	CADMIUM	104.1	%REC
LC1	Metals	RME-A-001	02D1221	LVLI	02L0314-LC1	CADMIUM	104.1	%REC
LC1	Metals	MET-A-001	02D1240	LVLI	02L0313-LC1	IRON	104.2	%REC
LC1	Metals	MET-A-013	03D0109	LVLI	02L0652-LC1	CALCIUM	104.2	%REC
LC1	Metals	MET-A-001	02D1240	LVLI	02L0313-LC1	TIN	104.2	%REC
LC1	Metals	MET-A-013	02D1368	LVLI	02L0418-LC1	LEAD	104.2	%REC
LC1	Metals	MET-A-013	03D0109	LVLI	02L0652-LC1	COBALT	104.2	%REC
LC1	Metals	MET-A-001	02D1262	LVLI	02L0335-LC1	CALCIUM	104.2	%REC
LC1	Metals	MET-A-001	02D1030	LVLI	02L0159-LC1	ALUMINUM	104.2	%REC
LC1	Metals	MET-A-001	02D1261	LVLI	02L0335-LC1	CALCIUM	104.2	%REC
LC1	Metals	MET-A-013	02D1397	LVLI	02L0418-LC1	LEAD	104.2	%REC
LC1	Metals	MET-A-001	02D0825	LVLI	02L0108-LC1	MANGANESE	104.2	%REC
LC1	Metals	MET-A-001	02D1233	LVLI	02L0313-LC1	IRON	104.2	%REC
LC1	Metals	MET-A-001	02D1243	LVLI	02L0313-LC1	LEAD	104.2	%REC
LC1	Metals	MET-A-001	02D1243	LVLI	02L0313-LC1	IRON	104.2	%REC
LC1	Metals	MET-A-001	02D1254	LVLI	02L0313-LC1	TIN	104.2	%REC
LC1	Metals	MET-A-001	02D1292	LVLI	02L0335-LC1	CALCIUM	104.2	%REC
LC1	Metals	MET-A-001	02D1107	LVLI	02L0176-LC1	THALLIUM	104.2	%REC
LC1	Metals	MET-A-001	02D1221	LVLI	02L0313-LC1	LEAD	104.2	%REC
LC1	Metals	MET-A-001	02D1233	LVLI	02L0313-LC1	LEAD	104.2	%REC
LC1	Metals	MET-A-001	02D1221	LVLI	02L0313-LC1	IRON	104.2	%REC
LC1	Metals	MET-A-001	02D1264	LVLI	02L0335-LC1	CALCIUM	104.2	%REC
LC1	Metals	MET-A-001	02D1243	LVLI	02L0313-LC1	TIN	104.2	%REC
LC1	Metals	MET-A-001	02D1254	LVLI	02L0313-LC1	LEAD	104.2	%REC
LC1	Metals	MET-A-001	02D1240	LVLI	02L0313-LC1	LEAD	104.2	%REC
LC1	Metals	MET-A-001	02D1233	LVLI	02L0313-LC1	TIN	104.2	%REC
LC1	Metals	MET-A-001	02D1254	LVLI	02L0313-LC1	IRON	104.2	%REC

Result Type	Group	LIC	RIN	Lab	Lab Sample Number	Analyte	Result	Units
LC1	Metals	MET-A-001	02D1068	LVLI	02L0159-LC1	ALUMINUM	104.2	%REC
LC1	Metals	MET-A-001	02D1221	LVLI	02L0313-LC1	TIN	104.2	%REC
LC1	Metals	MET-A-001	02D1243	LVLI	02L0313-LC1	CHROMIUM	104.3	%REC
LC1	Metals	MET-A-013	02D1368	LVLI	02L0418-LC1	VANADIUM	104.3	%REC
LC1	Metals	MET-A-001	02D1303	LVLI	02L0353-LC1	SELENIUM	104.3	%REC
LC1	Metals	MET-A-001	02D1233	LVLI	02L0313-LC1	CHROMIUM	104.3	%REC
LC1	Metals	MET-A-013	02D1397	LVLI	02L0418-LC1	VANADIUM	104.3	%REC
LC1	Metals	MET-A-001	02D1221	LVLI	02L0313-LC1	CHROMIUM	104.3	%REC
LC1	Metals	MET-A-001	02D1240	LVLI	02L0313-LC1	CHROMIUM	104.3	%REC
LC1	Metals	MET-A-013	02D1477	LVLI	02L0541-LC1	POTASSIUM	104.3	%REC
LC1	Metals	MET-A-001	02D1254	LVLI	02L0313-LC1	CHROMIUM	104.3	%REC
LC1	Metals	MET-A-013	02D1483	LVLI	02L0541-LC1	POTASSIUM	104.3	%REC
LC1	Metals	MET-A-013	02D1477	LVLI	02L0541-LC1	SODIUM	104.4	%REC
LC1	Metals	MET-A-013	02D1227	LVLI	02L0317-LC1	POTASSIUM	104.4	%REC
LC1	Metals	MET-A-001	02D1240	LVLI	02L0313-LC1	VANADIUM	104.4	%REC
LC1	Metals	MET-A-013	03D0020	LVLI	02L0595-LC1	MANGANESE	104.4	%REC
LC1	Metals	MET-A-001	02D1243	LVLI	02L0313-LC1	VANADIUM	104.4	%REC
LC1	Metals	MET-A-001	02D1221	LVLI	02L0313-LC1	VANADIUM	104.4	%REC
LC1	Metals	RME-A-002	03D0109	LVLI	02L0652-LC1	CHROMIUM	104.4	%REC
LC1	Metals	MET-A-001	02D1233	LVLI	02L0313-LC1	VANADIUM	104.4	%REC
LC1	Metals	MET-A-001	02D1254	LVLI	02L0313-LC1	VANADIUM	104.4	%REC
LC1	Metals	MET-A-013	03D0109	LVLI	02L0652-LC1	CHROMIUM	104.4	%REC
LC1	Metals	MET-A-001	02D1303	LVLI	02L0353-LC1	IRON	104.4	%REC
LC1	Metals	MET-A-013	02D1483	LVLI	02L0541-LC1	SODIUM	104.4	%REC
LC1	Metals	MET-A-013	02D1368	LVLI	02L0418-LC1	COBALT	104.4	%REC
LC1	Metals	MET-A-013	02D1368	LVLI	02L0418-LC1	IRON	104.4	%REC
LC1	Metals	MET-A-013	02D1397	LVLI	02L0418-LC1	IRON	104.4	%REC
LC1	Metals	MET-A-013	02D1397	LVLI	02L0418-LC1	COBALT	104.4	%REC
LC1	Metals	MET-A-013	02D1368	LVLI	02L0418-LC1	CHROMIUM	104.5	%REC
LC1	Metals	RME-A-001	02D1254	LVLI	02L0314-LC1	SILVER	104.5	%REC
LC1	Metals	RME-A-002	02D1362	LVLI	02L0418-LC1	CHROMIUM	104.5	%REC
LC1	Metals	MET-A-001	02D1262	LVLI	02L0335-LC1	CHROMIUM	104.5	%REC

Result Type	Group	LIC	RIN	Lab	Lab Sample Number	Analyte	Result	Units
LC1	Metals	RME-A-001	02D1221	LVLI	02L0314-LC1	SILVER	104.5	%REC
LC1	Metals	MET-A-013	02D1227	LVLI	02L0317-LC1	ALUMINUM	104.5	%REC
LC1	Metals	MET-A-001	02D1362	LVLI	02L0401-LC1	ANTIMONY	104.5	%REC
LC1	Metals	MET-A-001	02D1261	LVLI	02L0335-LC1	CHROMIUM	104.5	%REC
LC1	Metals	RME-A-002	02D1377	LVLI	02L0418-LC1	CHROMIUM	104.5	%REC
LC1	Metals	RME-A-002	02D1440	LVLI	02L0509-LC1	BERYLLIUM	104.5	%REC
LC1	Metals	MET-A-001	02D1264	LVLI	02L0335-LC1	CHROMIUM	104.5	%REC
LC1	Metals	MET-A-013	02D1281	LVLI	02L0340-LC1	LITHIUM	104.5	%REC
LC1	Metals	MET-A-013	02D1397	LVLI	02L0418-LC1	CHROMIUM	104.5	%REC
LC1	Metals	RME-A-001	02D1233	LVLI	02L0314-LC1	SILVER	104.5	%REC
LC1	Metals	MET-A-001	02D1333	LVLI	02L0401-LC1	ANTIMONY	104.5	%REC
LC1	Metals	MET-A-001	02D1292	LVLI	02L0335-LC1	CHROMIUM	104.5	%REC
LC1	Metals	MET-A-013	03D0109	LVLI	02L0652-LC1	THALLIUM	104.5	%REC
LC1	Metals	MET-A-001	02D1221	LVLI	02L0313-LC1	COPPER	104.6	%REC
LC1	Metals	MET-A-001	02D1303	LVLI	02L0353-LC1	TIN	104.6	%REC
LC1	Metals	MET-A-013	02D1542	LVLI	02L0586-LC1	LITHIUM	104.6	%REC
LC1	Metals	RME-A-002	02D1221	LVLI	02L0314-LC1	BERYLLIUM	104.6	%REC
LC1	Metals	MET-A-001	02D1254	LVLI	02L0313-LC1	COPPER	104.6	%REC
LC1	Metals	MET-A-001	02D1431	LVLI	02C0255-LC1	MERCURY	104.6	%REC
LC1	Metals	RME-A-002	02D1254	LVLI	02L0314-LC1	BERYLLIUM	104.6	%REC
LC1	Metals	MET-A-001	02D1197	LVLI	02C0119-LC1	MERCURY	104.6	%REC
LC1	Metals	RME-A-002	02D1233	LVLI	02L0314-LC1	BERYLLIUM	104.6	%REC
LC1	Metals	MET-A-001	02D1233	LVLI	02L0313-LC1	COPPER	104.6	%REC
LC1	Metals	MET-A-001	02D1243	LVLI	02L0313-LC1	COPPER	104.6	%REC
LC1	Metals	MET-A-001	02D1240	LVLI	02L0313-LC1	COPPER	104.6	%REC
LC1	Metals	MET-A-013	02D1368	LVLI	02L0418-LC1	CADMIUM	104.7	%REC
LC1	Metals	MET-A-001	02D1303	LVLI	02L0353-LC1	SODIUM	104.7	%REC
LC1	Metals	RME-A-001	02D1377	LVLI	02L0418-LC1	CADMIUM	104.7	%REC
LC1	Metals	MET-A-013	03D0109	LVLI	02L0652-LC1	VANADIUM	104.7	%REC
LC1	Metals	MET-A-001	02D1303	LVLI	02L0353-LC1	COPPER	104.7	%REC
LC1	Metals	RME-A-001	02D1362	LVLI	02L0418-LC1	CADMIUM	104.7	%REC
LC1	Metals	MET-A-013	02D1477	LVLI	02L0541-LC1	LITHIUM	104.7	%REC

Result Type	Group	LIC	RIN	Lab	Lab Sample Number	Analyte	Result	Units
LC1	Metals	MET-A-013	02D1397	LVLI	02L0418-LC1	CADMIUM	104.7	%REC
LC1	Metals	MET-A-013	02D1483	LVLI	02L0541-LC1	LITHIUM	104.7	%REC
LC1	Metals	MET-A-001	02D1333	LVLI	02L0401-LC1	BARIUM	104.8	%REC
LC1	Metals	MET-A-001	02D1221	LVLI	02C0143-LC1	MERCURY	104.8	%REC
LC1	Metals	MET-A-001	02D0645	LVLI	02C0029-LC1	MERCURY	104.8	%REC
LC1	Metals	MET-A-001	02D0664	LVLI	02C0029-LC1	MERCURY	104.8	%REC
LC1	Metals	MET-A-001	02D1362	LVLI	02L0401-LC1	BARIUM	104.8	%REC
LC1	Metals	RME-A-002	02D1254	LVLI	02L0314-LC1	CHROMIUM	104.8	%REC
LC1	Metals	MET-A-013	02D1215	LVLI	02C0143-LC1	MERCURY	104.8	%REC
LC1	Metals	RME-A-002	02D1233	LVLI	02L0314-LC1	CHROMIUM	104.8	%REC
LC1	Metals	MET-A-013	03D0109	LVLI	02L0655-LC1	MANGANESE	104.8	%REC
LC1	Metals	MET-A-001	02D1107	LVLI	02L0176-LC1	ANTIMONY	104.8	%REC
LC1	Metals	RME-A-002	02D1221	LVLI	02L0314-LC1	CHROMIUM	104.8	%REC
LC1	Metals	MET-A-001	02D0687	LVLI	02L0030-LC1	LITHIUM	104.9	%REC
LC1	Metals	MET-A-001	02D0680	LVLI	02L0030-LC1	LITHIUM	104.9	%REC
LC1	Metals	MET-A-001	02D1333	LVLI	02L0401-LC1	POTASSIUM	104.9	%REC
LC1	Metals	MET-A-013	03D0109	LVLI	02L0652-LC1	ALUMINUM	104.9	%REC
LC1	Metals	MET-A-001	02D1362	LVLI	02L0401-LC1	POTASSIUM	104.9	%REC
LC1	Metals	MET-A-013	02D1397	EMXT	IPH028WL	MAGNESIUM	105	%REC
LC1	Metals	MET-A-013	02D0089	STLDEN	D1J110000-275C	SILVER	105	%REC
LC1	Metals	MET-A-013	02D1397	EMXT	GFH001WL	SILVER	105	%REC
LC1	Metals	MET-A-001	02D1233	LVLI	02C0160-LC1	MERCURY	105	%REC
LC2	Metals	MET-A-013	02D0174	STLDEN	D1K010000-336C	SELENIUM	105	%REC
LC1	Metals	MET-A-001	02D1254	LVLI	02C0160-LC1	MERCURY	105	%REC
LC1	Metals	MET-A-001	02D1243	LVLI	02C0160-LC1	MERCURY	105	%REC
LC1	Metals	MET-A-013	02D1397	EMXT	IPH028WL	IRON	105	%REC
LC1	Metals	MET-A-013	02D1397	EMXT	IPH028WL	TIN	105	%REC
LC2	Metals	MET-A-013	02D0292	STLDEN	D1K200000-590C	SELENIUM	105	%REC
LC1	Metals	MET-A-013	02D1397	LVLI	02L0418-LC1	SELENIUM	105	%REC
LC1	Metals	MET-A-013	02D1187	STLDEN	D2D300000-365C	MAGNESIUM	105	%REC
LC1	Metals	MET-A-013	02D1368	LVLI	02L0418-LC1	SELENIUM	105	%REC
LC1	Metals	RME-A-002	02D0345	LVLI	01L0804-LC1	BERYLLIUM	105	%REC

Result Type	Group	LIC	RIN	Lab	Lab Sample Number	Analyte	Result	Units
LC1	Metals	MET-A-013	02D1336	STLDEN	D2G020000-389C	IRON	105	%REC
LC1	Metals	MET-A-013	02D0965	STLDEN	D2C210000-377C	SODIUM	105	%REC
LC2	Metals	MET-A-013	02D1497	STLDEN	D2I160000-278C	SELENIUM	105	%REC
LC1	Metals	MET-A-001	02D1262	LVLI	02C0160-LC1	MERCURY	105	%REC
LC1	Metals	MET-A-013	03D0020	LVLI	02L0595-LC1	THALLIUM	105	%REC
LC1	Metals	MET-A-013	02D1187	STLDEN	D2D300000-365C	LITHIUM	105	%REC
LC1	Metals	MET-A-001	02D1333	LVLI	02L0401-LC1	SILVER	105.1	%REC
LC1	Metals	MET-A-001	02D0935	LVLI	02L0135-LC1	MANGANESE	105.1	%REC
LC1	Metals	MET-A-001	02D0965	LVLI	02L0135-LC1	MANGANESE	105.1	%REC
LC1	Metals	MET-A-001	02D1362	LVLI	02L0401-LC1	SILVER	105.1	%REC
LC1	Metals	MET-A-001	02D1107	LVLI	02L0176-LC1	ALUMINUM	105.2	%REC
LC1	Metals	MET-A-013	02D1368	LVLI	02L0418-LC1	STRONTIUM	105.2	%REC
LC1	Metals	MET-A-013	03D0109	LVLI	02L0655-LC1	ALUMINUM	105.2	%REC
LC1	Metals	MET-A-001	02D1107	LVLI	02L0176-LC1	TIN	105.2	%REC
LC1	Metals	MET-A-013	02D1397	LVLI	02L0418-LC1	STRONTIUM	105.2	%REC
LC1	Metals	MET-A-001	02D1233	LVLI	02L0313-LC1	ALUMINUM	105.3	%REC
LC1	Metals	MET-A-001	02D1254	LVLI	02L0313-LC1	ALUMINUM	105.3	%REC
LC1	Metals	RME-A-002	02D0363	LVLI	01L0852-LC1	BERYLLIUM	105.3	%REC
LC1	Metals	MET-A-001	02D1243	LVLI	02L0313-LC1	ALUMINUM	105.3	%REC
LC1	Metals	MET-A-001	02D1333	LVLI	02L0401-LC1	STRONTIUM	105.3	%REC
LC1	Metals	MET-A-001	02D1221	LVLI	02L0313-LC1	ALUMINUM	105.3	%REC
LC1	Metals	MET-A-001	02D1240	LVLI	02L0313-LC1	ALUMINUM	105.3	%REC
LC1	Metals	RME-A-002	02D0512	LVLI	01L0852-LC1	BERYLLIUM	105.3	%REC
LC1	Metals	MET-A-001	02D1362	LVLI	02L0401-LC1	STRONTIUM	105.3	%REC
LC1	Metals	MET-A-001	02D1107	LVLI	02L0176-LC1	LITHIUM	105.3	%REC
LC1	Metals	MET-A-001	02D1440	LVLI	02L0497-LC1	LITHIUM	105.4	%REC
LC1	Metals	MET-A-001	02D1262	LVLI	02L0335-LC1	MANGANESE	105.4	%REC
LC1	Metals	MET-A-013	03D0109	LVLI	02L0652-LC1	IRON	105.4	%REC
LC1	Metals	MET-A-001	02D1107	LVLI	02L0176-LC1	BERYLLIUM	105.4	%REC
LC1	Metals	MET-A-001	02D1264	LVLI	02L0335-LC1	MANGANESE	105.4	%REC
LC1	Metals	MET-A-013	02D1397	LVLI	02L0418-LC1	ALUMINUM	105.4	%REC
LC1	Metals	MET-A-001	02D0664	LVLI	02L0021-LC1	ALUMINUM	105.4	%REC

Result Type	Group	LIC	RIN	Lab	Lab Sample Number	Analyte	Result	Units
LC1	Metals	MET-A-013	02D1368	LVLI	02L0418-LC1	ALUMINUM	105.4	%REC
LC1	Metals	MET-A-001	02D1431	LVLI	02L0497-LC1	LITHIUM	105.4	%REC
LC1	Metals	MET-A-001	02D1435	LVLI	02L0497-LC1	LITHIUM	105.4	%REC
LC1	Metals	MET-A-001	02D1261	LVLI	02L0335-LC1	MANGANESE	105.4	%REC
LC1	Metals	MET-A-001	02D0645	LVLI	02L0021-LC1	ALUMINUM	105.4	%REC
LC1	Metals	MET-A-001	02D1292	LVLI	02L0335-LC1	MANGANESE	105.4	%REC
LC1	Metals	MET-A-001	02D1303	LVLI	02L0353-LC1	BARIUM	105.5	%REC
LC1	Metals	MET-A-001	02D1303	LVLI	02L0353-LC1	ANTIMONY	105.5	%REC
LC1	Metals	MET-A-013	03D0109	LVLI	02L0652-LC1	MANGANESE	105.5	%REC
LC1	Metals	MET-A-013	03D0683	LVLI	03L0178-LC1	LITHIUM	105.5	%REC
LC1	Metals	MET-A-013	02D1397	LVLI	02L0418-LC1	THALLIUM	105.5	%REC
LC1	Metals	MET-A-013	02D1368	LVLI	02L0418-LC1	THALLIUM	105.5	%REC
LC1	Metals	MET-A-001	02D1240	LVLI	02L0313-LC1	ZINC	105.6	%REC
LC1	Metals	MET-A-001	02D1221	LVLI	02L0313-LC1	ZINC	105.6	%REC
LC1	Metals	MET-A-001	02D1233	LVLI	02L0313-LC1	ZINC	105.6	%REC
LC1	Metals	MET-A-013	02D1516	LVLI	02L0577-LC1	LITHIUM	105.6	%REC
LC1	Metals	MET-A-001	02D1303	LVLI	02L0353-LC1	COBALT	105.6	%REC
LC1	Metals	MET-A-001	02D1333	LVLI	02L0401-LC1	TIN	105.6	%REC
LC1	Metals	MET-A-001	02D1362	LVLI	02L0401-LC1	TIN	105.6	%REC
LC1	Metals	MET-A-013	02D1521	LVLI	02L0577-LC1	LITHIUM	105.6	%REC
LC1	Metals	MET-A-013	02D1517	LVLI	02L0577-LC1	LITHIUM	105.6	%REC
LC1	Metals	MET-A-001	02D1254	LVLI	02L0313-LC1	ZINC	105.6	%REC
LC1	Metals	MET-A-001	02D1243	LVLI	02L0313-LC1	ZINC	105.6	%REC
LC1	Metals	MET-A-001	02D0825	LVLI	02L0108-LC1	ALUMINUM	105.6	%REC
LC1	Metals	MET-A-001	02D1362	LVLI	02L0401-LC1	BERYLLIUM	105.7	%REC
LC1	Metals	MET-A-001	02D1333	LVLI	02L0401-LC1	BERYLLIUM	105.7	%REC
LC1	Metals	MET-A-001	02D1030	LVLI	02L0159-LC1	LITHIUM	105.7	%REC
LC1	Metals	MET-A-001	02D1068	LVLI	02L0159-LC1	LITHIUM	105.7	%REC
LC1	Metals	MET-A-001	02D1506	LVLI	02L0554-LC1	LITHIUM	105.7	%REC
LC1	Metals	MET-A-001	02D1503	LVLI	02L0554-LC1	LITHIUM	105.7	%REC
LC1	Metals	MET-A-001	02D1498	LVLI	02L0554-LC1	LITHIUM	105.7	%REC
LC1	Metals	MET-A-001	02D1440	LVLI	02C0265-LC1	MERCURY	105.8	%REC

Result Type	Group	LIC	RIN	Lab	Lab Sample Number	Analyte	Result	Units
LC1	Metals	MET-A-001	02D1435	LVLI	02C0265-LC1	MERCURY	105.8	%REC
LC1	Metals	MET-A-001	02D0265	LVLI	01L0760-LC1	LITHIUM	105.8	%REC
LC1	Metals	MET-A-013	02D1368	LVLI	02L0418-LC1	MANGANESE	105.8	%REC
LC1	Metals	MET-A-001	02D0299	LVLI	01L0760-LC1	LITHIUM	105.8	%REC
LC1	Metals	MET-A-013	02D1397	LVLI	02L0418-LC1	MANGANESE	105.8	%REC
LC1	Metals	MET-A-001	02D0575	LVLI	02L0005-LC1	LITHIUM	105.8	%REC
LC1	Metals	MET-A-013	02D1429	LVLI	02C0265-LC1	MERCURY	105.8	%REC
LC1	Metals	MET-A-001	02D1264	LVLI	02L0335-LC1	ALUMINUM	105.9	%REC
LC1	Metals	MET-A-001	02D1292	LVLI	02L0335-LC1	ALUMINUM	105.9	%REC
LC1	Metals	MET-A-001	02D1261	LVLI	02L0335-LC1	ALUMINUM	105.9	%REC
LC1	Metals	MET-A-001	02D1262	LVLI	02L0335-LC1	ALUMINUM	105.9	%REC
LC1	Metals	MET-A-001	02D0299	LVLI	01L0760-LC1	POTASSIUM	106	%REC
LC1	Metals	MET-A-001	02D0265	LVLI	01L0760-LC1	POTASSIUM	106	%REC
LC1	Metals	MET-A-001	02D0575	LVLI	02L0005-LC1	POTASSIUM	106	%REC
LC1	Metals	MET-A-001	02D1333	LVLI	02L0401-LC1	NICKEL	106	%REC
LC1	Metals	MET-A-001	02D1362	LVLI	02L0401-LC1	NICKEL	106	%REC
LC1	Metals	MET-A-013	02D0174	STLDEN	D1J250000-325C	SILVER	106	%REC
LC1	Metals	MET-A-013	02D1187	STLDEN	D2D300000-365C	SODIUM	106	%REC
LC1	Metals	MET-A-013	02D1429	LVLI	02L0509-LC1	LITHIUM	106	%REC
LC2	Metals	MET-A-013	02D0174	STLDEN	D1K010000-336C	SILVER	106	%REC
LC1	Metals	MET-A-013	02D1397	EMXT	IPH028WL	SODIUM	106	%REC
LC1	Metals	MET-A-001	02D0825	LVLI	02L0108-LC1	POTASSIUM	106	%REC
LC1	Metals	MET-A-013	02D1397	EMXT	IPH028WL	CALCIUM	106	%REC
LC1	Metals	MET-A-013	03D0064	LVLI	02L0619-LC1	LITHIUM	106.2	%REC
LC1	Metals	MET-A-001	02D1362	LVLI	02L0401-LC1	MAGNESIUM	106.2	%REC
LC1	Metals	MET-A-013	03D0063	LVLI	02L0619-LC1	LITHIUM	106.2	%REC
LC1	Metals	MET-A-001	02D1333	LVLI	02L0401-LC1	MAGNESIUM	106.2	%REC
LC1	Metals	MET-A-001	02D1333	LVLI	02L0401-LC1	THALLIUM	106.3	%REC
LC1	Metals	MET-A-001	02D1240	LVLI	02L0313-LC1	MANGANESE	106.3	%REC
LC1	Metals	MET-A-001	02D1254	LVLI	02L0313-LC1	MANGANESE	106.3	%REC
LC1	Metals	MET-A-001	02D1233	LVLI	02L0313-LC1	MANGANESE	106.3	%REC
LC1	Metals	MET-A-001	02D1243	LVLI	02L0313-LC1	MANGANESE	106.3	%REC

Result Type	Group	LIC	RIN	Lab	Lab Sample Number	Analyte	Result	Units
LC1	Metals	MET-A-001	02D1362	LVLI	02L0401-LC1	THALLIUM	106.3	%REC
LC1	Metals	MET-A-001	02D1221	LVLI	02L0313-LC1	MANGANESE	106.3	%REC
LC1	Metals	MET-A-001	02D1303	LVLI	02L0353-LC1	CALCIUM	106.4	%REC
LC1	Metals	MET-A-001	02D1333	LVLI	02L0401-LC1	CHROMIUM	106.5	%REC
LC1	Metals	MET-A-001	02D1333	LVLI	02L0401-LC1	COPPER	106.5	%REC
LC1	Metals	MET-A-013	03D0109	LVLI	02L0655-LC1	LITHIUM	106.5	%REC
LC1	Metals	MET-A-001	02D1362	LVLI	02L0401-LC1	COPPER	106.5	%REC
LC1	Metals	MET-A-001	02D1303	LVLI	02L0353-LC1	CHROMIUM	106.5	%REC
LC1	Metals	MET-A-013	02D0371	LVLI	01L0804-LC1	LITHIUM	106.5	%REC
LC1	Metals	MET-A-001	02D1303	LVLI	02L0353-LC1	BERYLLIUM	106.5	%REC
LC1	Metals	MET-A-001	02D1303	LVLI	02L0353-LC1	STRONTIUM	106.5	%REC
LC1	Metals	MET-A-013	03D0083	LVLI	02L0639-LC1	ALUMINUM	106.6	%REC
LC1	Metals	MET-A-001	02D1333	LVLI	02L0401-LC1	LEAD	106.7	%REC
LC1	Metals	MET-A-001	02D1362	LVLI	02L0401-LC1	LEAD	106.7	%REC
LC1	Metals	MET-A-013	03D0024	LVLI	02L0612-LC1	LITHIUM	106.8	%REC
LC1	Metals	MET-A-013	02D1483	LVLI	02L0541-LC1	MANGANESE	107	%REC
LC1	Metals	MET-A-013	02D1477	LVLI	02L0541-LC1	MANGANESE	107	%REC
LC1	Metals	MET-A-013	02D1397	EMXT	IPH028WL	SELENIUM	107	%REC
LC1	Metals	MET-A-013	02D1397	EMXT	IPH028WL	ZINC	107	%REC
LC1	Metals	MET-A-001	02D1303	LVLI	02L0353-LC1	MANGANESE	107	%REC
LC1	Metals	MET-A-001	02D1303	LVLI	02L0353-LC1	CADMIUM	107.1	%REC
LC1	Metals	MET-A-013	03D0020	LVLI	02C0306-LC1	MERCURY	107.2	%REC
LC1	Metals	MET-A-001	02D1333	LVLI	02L0401-LC1	ZINC	107.2	%REC
LC1	Metals	MET-A-013	02D1368	LVLI	02C0226-LC1	MERCURY	107.2	%REC
LC1	Metals	MET-A-001	02D1362	LVLI	02L0401-LC1	ZINC	107.2	%REC
LC1	Metals	MET-A-013	03D0109	LVLI	02L0652-LC1	LITHIUM	107.3	%REC
LC1	Metals	MET-A-001	02D1303	LVLI	02L0353-LC1	POTASSIUM	107.3	%REC
LC1	Metals	MET-A-001	02D1362	LVLI	02L0401-LC1	CALCIUM	107.4	%REC
LC1	Metals	MET-A-001	02D0724	LVLI	02L0072-LC1	LITHIUM	107.4	%REC
LC1	Metals	MET-A-001	02D0815	LVLI	02L0072-LC1	LITHIUM	107.4	%REC
LC1	Metals	MET-A-001	02D1264	LVLI	02L0335-LC1	LITHIUM	107.4	%REC
LC1	Metals	MET-A-001	02D1261	LVLI	02L0335-LC1	LITHIUM	107.4	%REC

Result Type	Group	LIC	RIN	Lab	Lab Sample Number	Analyte	Result	Units
LC1	Metals	MET-A-001	02D1292	LVLI	02L0335-LC1	LITHIUM	107.4	%REC
LC1	Metals	MET-A-001	02D1262	LVLI	02L0335-LC1	LITHIUM	107.4	%REC
LC1	Metals	MET-A-013	02D1215	LVLI	02L0262-LC1	LITHIUM	107.5	%REC
LC1	Metals	MET-A-001	02D1303	LVLI	02L0353-LC1	LEAD	107.6	%REC
LC1	Metals	MET-A-001	02D1333	LVLI	02L0401-LC1	VANADIUM	107.8	%REC
LC1	Metals	MET-A-001	02D1333	LVLI	02L0401-LC1	COBALT	107.8	%REC
LC1	Metals	MET-A-001	02D1362	LVLI	02L0401-LC1	COBALT	107.8	%REC
LC1	Metals	MET-A-001	02D1333	LVLI	02L0401-LC1	CALCIUM	107.8	%REC
LC1	Metals	MET-A-001	02D1362	LVLI	02L0401-LC1	VANADIUM	107.8	%REC
LC1	Metals	MET-A-001	02D1333	LVLI	02L0401-LC1	IRON	107.9	%REC
LC1	Metals	MET-A-001	02D1362	LVLI	02L0401-LC1	IRON	107.9	%REC
LC1	Metals	MET-A-013	02D1336	STLDEN	D2G020000-393C	SILVER	108	%REC
LC1	Metals	MET-A-001	02D0965	LVLI	02L0135-LC1	ALUMINUM	108	%REC
LC1	Metals	MET-A-013	03D0683	LVLI	03L0176-LC1	LITHIUM	108	%REC
LC1	Metals	MET-A-001	02D0935	LVLI	02L0135-LC1	ALUMINUM	108	%REC
LC1	Metals	MET-A-013	02D0965	STLDEN	D2C210000-377C	LITHIUM	108	%REC
LC1	Metals	MET-A-001	02D1303	LVLI	02L0353-LC1	ZINC	108	%REC
LC1	Metals	MET-A-001	02D1362	LVLI	02L0401-LC1	CHROMIUM	108.1	%REC
LC1	Metals	MET-A-001	02D1333	LVLI	02L0401-LC1	CADMIUM	108.1	%REC
LC1	Metals	MET-A-001	02D1362	LVLI	02L0401-LC1	CADMIUM	108.1	%REC
LC1	Metals	MET-A-001	02D0825	LVLI	02L0108-LC1	LITHIUM	108.1	%REC
LC1	Metals	MET-A-013	03D0020	LVLI	02L0595-LC1	LITHIUM	108.3	%REC
LC1	Metals	MET-A-001	02D1303	LVLI	02L0353-LC1	NICKEL	108.3	%REC
LC1	Metals	MET-A-001	02D0664	LVLI	02L0021-LC1	LITHIUM	108.5	%REC
LC1	Metals	MET-A-001	02D0645	LVLI	02L0021-LC1	LITHIUM	108.5	%REC
LC1	Metals	MET-A-001	02D1362	LVLI	02L0401-LC1	ALUMINUM	108.6	%REC
LC1	Metals	MET-A-001	02D1333	LVLI	02L0401-LC1	ALUMINUM	108.6	%REC
LC1	Metals	MET-A-001	02D1333	LVLI	02L0401-LC1	MANGANESE	108.7	%REC
LC1	Metals	MET-A-001	02D1362	LVLI	02L0401-LC1	MANGANESE	108.7	%REC
LC1	Metals	MET-A-013	03D0083	LVLI	02L0639-LC1	LITHIUM	108.9	%REC
LC1	Metals	MET-A-013	02D1397	EMXT	IPH028WL	BERYLLIUM	109	%REC
LC1	Metals	MET-A-001	02D1221	LVLI	02L0313-LC1	LITHIUM	109.1	%REC

Result Type	Group	LIC	RIN	Lab	Lab Sample Number	Analyte	Result	Units
LC1	Metals	MET-A-001	02D1233	LVLI	02L0313-LC1	LITHIUM	109.1	%REC
LC1	Metals	MET-A-001	02D1254	LVLI	02L0313-LC1	LITHIUM	109.1	%REC
LC1	Metals	MET-A-001	02D1240	LVLI	02L0313-LC1	LITHIUM	109.1	%REC
LC1	Metals	MET-A-001	02D1243	LVLI	02L0313-LC1	LITHIUM	109.1	%REC
LC1	Metals	MET-A-013	02D1227	LVLI	02L0317-LC1	LITHIUM	109.2	%REC
LC1	Metals	MET-A-001	02D0935	LVLI	02L0135-LC1	LITHIUM	109.6	%REC
LC1	Metals	MET-A-001	02D0965	LVLI	02L0135-LC1	LITHIUM	109.6	%REC
LC1	Metals	MET-A-001	02D1261	LVLI	02C0174-LC1	MERCURY	109.8	%REC
LC1	Metals	MET-A-001	02D1292	LVLI	02C0174-LC1	MERCURY	109.8	%REC
LC1	Metals	MET-A-001	02D1264	LVLI	02C0174-LC1	MERCURY	109.8	%REC
LC1	Metals	SS05C038	02D0116	LVLI	01L0691-LC1	BERYLLIUM	110	%REC
LC1	Metals	MET-A-001	02D1333	LVLI	02L0401-LC1	LITHIUM	110.2	%REC
LC1	Metals	MET-A-001	02D1362	LVLI	02L0401-LC1	LITHIUM	110.2	%REC
LC1	Metals	MET-A-001	02D1068	LVLI	02C0090-LC1	MERCURY	110.4	%REC
LC1	Metals	MET-A-013	02D1368	LVLI	02L0418-LC1	LITHIUM	111.3	%REC
LC1	Metals	MET-A-013	02D1397	LVLI	02L0418-LC1	LITHIUM	111.3	%REC
LC1	Metals	MET-A-013	03D0506	LVLI	03C0030-LC1	MERCURY	111.6	%REC
LC1	Metals	MET-A-013	02D1483	LVLI	02L0541-LC1	IRON	111.9	%REC
LC1	Metals	MET-A-013	02D1477	LVLI	02L0541-LC1	IRON	111.9	%REC
LC1	Metals	MET-A-001	02D1303	LVLI	02L0353-LC1	LITHIUM	112.5	%REC
LC1	Metals	MET-A-001	02D1362	LVLI	02C0212-LC1	MERCURY	117.6	%REC
LC1	WQP	WCH-A-033	03D0064	LVLI	02LSS144-LC1	TOTAL DISSOLVED SOLIDS	86	%REC
LC1	WQP	WCH-A-034	02D1518	STLDEN	D2I180000-492C	TOTAL SUSPENDED SOLIDS	88	%REC
LC2	WQP	WCH-A-033	02D0174	STLDEN	D1J290000-602C	TOTAL DISSOLVED SOLIDS	88	%REC
LC1	WQP	WCH-A-033	02D1383	STLDEN	D2G160000-509C	TOTAL DISSOLVED SOLIDS	88	%REC
LC1	WQP	WCH-A-034	02D1516	STLDEN	D2I180000-492C	TOTAL SUSPENDED SOLIDS	88	%REC
LC1	WQP	WCH-A-034	02D0265	STLDEN	D1K120000-655C	TOTAL SUSPENDED SOLIDS	88	%REC
LC2	WQP	WCH-A-034	02D0111	STLDEN	D1J160000-496L	TOTAL SUSPENDED SOLIDS	88	%REC
LC1	WQP	WCH-A-033	02D0174	STLDEN	D1J250000-511C	TOTAL DISSOLVED SOLIDS	89	%REC
LC2	WQP	WCH-A-033	03D0064	STLDEN	D2J210000-577C	TOTAL DISSOLVED SOLIDS	89	%REC
LC4	WQP	WCH-A-033	02D0174	STLDEN	D1J290000-602L	TOTAL DISSOLVED SOLIDS	89	%REC
LC1	WQP	WCH-A-034	03D0683	STLDEN	D3C310000-300C	TOTAL SUSPENDED SOLIDS	89	%REC

Result Type	Group	LIC	RIN	Lab	Lab Sample Number	Analyte	Result	Units
LC1	WQP	WCH-A-018	02D1397	LVLI	02LICC49-LC1	FLUORIDE	89.8	%REC
LC1	WQP	WCH-A-034	02D1333	STLDEN	D2F250000-447C	TOTAL SUSPENDED SOLIDS	90	%REC
LC1	WQP	WCH-A-034	02D0645	STLDEN	D2A170000-419C	TOTAL SUSPENDED SOLIDS	90	%REC
LC1	WQP	WCH-A-034	02D1148	STLDEN	D2D100000-361C	TOTAL SUSPENDED SOLIDS	90	%REC
LC1	WQP	WCH-A-034	02D1214	STLDEN	D2E070000-524C	TOTAL SUSPENDED SOLIDS	90	%REC
LC2	WQP	WCH-A-033	02D0216	STLDEN	D1K020000-488L	TOTAL DISSOLVED SOLIDS	90	%REC
LC4	WQP	WCH-A-033	02D0089	STLDEN	D1J120000-368L	TOTAL DISSOLVED SOLIDS	91	%REC
LC2	WQP	WCH-A-034	02D1222	STLDEN	D2E220000-623L	TOTAL SUSPENDED SOLIDS	91	%REC
LC2	WQP	WCH-A-034	02D1233	STLDEN	D2E220000-623L	TOTAL SUSPENDED SOLIDS	91	%REC
LC1	WQP	WCH-A-034	02D0111	STLDEN	D1J160000-496C	TOTAL SUSPENDED SOLIDS	91	%REC
LC3	WQP	WCH-A-034	02D0460	STLDEN	D2A110000-328C	TOTAL SUSPENDED SOLIDS	91	%REC
LC2	WQP	WCH-A-034	03D0100	STLDEN	D2J310000-523L	TOTAL SUSPENDED SOLIDS	91	%REC
LC3	WQP	WCH-A-033	03D0064	STLDEN	D2J220000-498C	TOTAL DISSOLVED SOLIDS	91	%REC
LC2	WQP	WCH-A-034	03D0109	STLDEN	D2J310000-523L	TOTAL SUSPENDED SOLIDS	91	%REC
LC2	WQP	WCH-A-034	02D1241	STLDEN	D2E220000-623L	TOTAL SUSPENDED SOLIDS	91	%REC
LC2	WQP	WCH-A-034	02D1240	STLDEN	D2E220000-623L	TOTAL SUSPENDED SOLIDS	91	%REC
LC3	WQP	WCH-A-033	02D0292	STLDEN	D1K200000-633C	TOTAL DISSOLVED SOLIDS	91	%REC
LC2	WQP	WCH-A-034	02D1333	STLDEN	D2F250000-447L	TOTAL SUSPENDED SOLIDS	92	%REC
LC4	WQP	WCH-A-034	02D0460	STLDEN	D2A110000-328L	TOTAL SUSPENDED SOLIDS	92	%REC
LC1	WQP	WCH-A-033	02D1397	STLDEN	D2G180000-560C	TOTAL DISSOLVED SOLIDS	92	%REC
LC1	WQP	WCH-A-034	02D1187	STLDEN	D2D260000-429C	TOTAL SUSPENDED SOLIDS	92	%REC
LC1	WQP	WCH-A-034	02D1159	STLDEN	D2D150000-482C	TOTAL SUSPENDED SOLIDS	92	%REC
LC1	WQP	WCH-A-034	02D1221	STLDEN	D2E180000-135C	TOTAL SUSPENDED SOLIDS	92	%REC
LC1	WQP	WCH-A-033	03D0064	STLDEN	D2J170000-544C	TOTAL DISSOLVED SOLIDS	92	%REC
LC2	WQP	WCH-A-034	02D0645	STLDEN	D2A170000-419L	TOTAL SUSPENDED SOLIDS	92	%REC
LC1	WQP	WCH-A-034	02D0664	STLDEN	D2A210000-277C	TOTAL SUSPENDED SOLIDS	92	%REC
LC2	WQP	WCH-A-033	03D0064	LVLI	02LSS144-LC2	TOTAL DISSOLVED SOLIDS	92	%REC
LC2	WQP	WCH-A-011	02D1187	STLDEN	D2E070000-336L	CHLORIDE	93	%REC
LC2	WQP	WCH-A-034	02D1375	STLDEN	D2G180000-562L	TOTAL SUSPENDED SOLIDS	93	%REC
LC2	WQP	WCH-A-036	02D1368	STLDEN	D2G240000-245L	SULFATE	93	%REC
LC1	WQP	WCH-A-036	02D1368	STLDEN	D2G240000-245C	SULFATE	93	%REC
LC6	WQP	WCH-A-033	02D1497	STLDEN	D2I180000-489L	TOTAL DISSOLVED SOLIDS	93	%REC

Result Type	Group	LIC	RIN	Lab	Lab Sample Number	Analyte	Result	Units
LC2	WQP	WCH-A-034	02D1377	STLDEN	D2G180000-562L	TOTAL SUSPENDED SOLIDS	93	%REC
LC2	WQP	WCH-A-033	02D0089	STLDEN	D1J150000-559C	TOTAL DISSOLVED SOLIDS	93	%REC
LC1	WQP	WCH-A-036	02D1483	LVLI	00LICB62-LC1	SULFATE	93.6	%REC
LC2	WQP	WCH-A-018	02D1264	STLDEN	D2F180000-196L	FLUORIDE	94	%REC
LC2	WQP	WCH-A-034	02D0664	STLDEN	D2A210000-277L	TOTAL SUSPENDED SOLIDS	94	%REC
LC4	WQP	WCH-A-033	03D0064	STLDEN	D2J230000-641C	TOTAL DISSOLVED SOLIDS	94	%REC
LC1	WQP	WCH-A-036	02D1187	STLDEN	D2D290000-532C	SULFATE	94	%REC
LC1	WQP	WCH-A-033	02D1483	LVLI	02LSS116-LC1	TOTAL DISSOLVED SOLIDS	94	%REC
LC2	WQP	WCH-A-036	02D1187	STLDEN	D2D290000-532L	SULFATE	94	%REC
LC2	WQP	WCH-A-033	02D1227	LVLI	02LSS055-LC2	TOTAL DISSOLVED SOLIDS	94	%REC
LC8	WQP	WCH-A-033	03D0064	STLDEN	D2J230000-641L	TOTAL DISSOLVED SOLIDS	94	%REC
LC1	WQP	WCH-A-018	02D0174	STLDEN	D1K110000-095C	FLUORIDE	94	%REC
LC1	WQP	WCH-A-011	02D1262	STLDEN	D2F180000-195C	CHLORIDE	94	%REC
LC1	WQP	WCH-A-011	02D1187	STLDEN	D2E070000-336C	CHLORIDE	94	%REC
LC1	WQP	WCH-A-036	02D1517	STLDEN	D2J040000-519C	SULFATE	94	%REC
LC1	WQP	WCH-A-034	03D0111	STLDEN	D2K010000-538C	TOTAL SUSPENDED SOLIDS	94	%REC
LC1	WQP	WCH-A-034	02D1377	STLDEN	D2G180000-562C	TOTAL SUSPENDED SOLIDS	94	%REC
LC2	WQP	WCH-A-018	02D1262	STLDEN	D2F180000-196L	FLUORIDE	94	%REC
LC1	WQP	WCH-A-011	02D1264	STLDEN	D2F180000-195C	CHLORIDE	94	%REC
LC1	WQP	WCH-A-034	02D1375	STLDEN	D2G180000-562C	TOTAL SUSPENDED SOLIDS	94	%REC
LC1	WQP	WCH-A-034	02D1292	STLDEN	D2F070000-481C	TOTAL SUSPENDED SOLIDS	94	%REC
LC2	WQP	WCH-A-018	02D0174	STLDEN	D1K110000-095L	FLUORIDE	94	%REC
LC2	WQP	WCH-A-011	02D1264	STLDEN	D2F180000-195L	CHLORIDE	94	%REC
LC1	WQP	WCH-A-033	02D0089	STLDEN	D1J120000-368C	TOTAL DISSOLVED SOLIDS	94	%REC
LC6	WQP	WCH-A-033	03D0064	STLDEN	D2J210000-577L	TOTAL DISSOLVED SOLIDS	94	%REC
LC2	WQP	WCH-A-011	02D1262	STLDEN	D2F180000-195L	CHLORIDE	94	%REC
LC1	WQP	WCH-A-034	02D1517	STLDEN	D2I190000-521C	TOTAL SUSPENDED SOLIDS	95	%REC
LC2	WQP	WCH-A-034	02D1517	STLDEN	D2I190000-521L	TOTAL SUSPENDED SOLIDS	95	%REC
LC1	WQP	WCH-A-018	02D0264	STLDEN	D1K210000-447C	FLUORIDE	95	%REC
LC2	WQP	WCH-A-034	02D1542	STLDEN	D2I250000-587L	TOTAL SUSPENDED SOLIDS	95	%REC
LC5	WQP	WCH-A-033	03D0064	STLDEN	D2J170000-544L	TOTAL DISSOLVED SOLIDS	95	%REC
LC1	WQP	WCH-A-018	02D1262	STLDEN	D2F180000-196C	FLUORIDE	95	%REC

Result Type	Group	LIC	RIN	Lab	Lab Sample Number	Analyte	Result	Units
LC1	WQP	WCH-A-018	02D0265	STLDEN	D1K260000-274C	FLUORIDE	95	%REC
LC1	WQP	WCH-A-018	02D1187	STLDEN	D2D290000-531C	FLUORIDE	95	%REC
LC2	WQP	WCH-A-018	02D1187	STLDEN	D2D290000-531L	FLUORIDE	95	%REC
LC2	WQP	WCH-A-011	02D1429	STLDEN	D2H140000-519C	CHLORIDE	95	%REC
LC2	WQP	WCH-A-018	02D0265	STLDEN	D1K260000-274L	FLUORIDE	95	%REC
LC1	WQP	WCH-A-018	02D1497	STLDEN	D2I230000-289C	FLUORIDE	95	%REC
LC2	WQP	WCH-A-034	02D1148	STLDEN	D2D100000-361L	TOTAL SUSPENDED SOLIDS	95	%REC
LC2	WQP	WCH-A-018	02D1497	STLDEN	D2I230000-289L	FLUORIDE	95	%REC
LC2	WQP	WCH-A-018	02D0264	STLDEN	D1K210000-447L	FLUORIDE	95	%REC
LC4	WQP	WCH-A-011	02D1429	STLDEN	D2H140000-519L	CHLORIDE	95	%REC
LC1	WQP	WCH-A-018	02D1264	STLDEN	D2F180000-196C	FLUORIDE	95	%REC
LC2	WQP	WCH-A-036	02D1497	STLDEN	D2I230000-291L	SULFATE	95	%REC
LC1	WQP	WCH-A-034	02D0687	STLDEN	D2A250000-211C	TOTAL SUSPENDED SOLIDS	96	%REC
LC1	WQP	WCH-A-019	02D0177	STLDEN	D1J310000-435C	HARDNESS, TOTAL	96	%REC
LC2	WQP	WCH-A-036	02D0174	STLDEN	D1K110000-101L	SULFATE	96	%REC
LC1	WQP	WCH-A-034	02D0708	STLDEN	D2A310000-434C	TOTAL SUSPENDED SOLIDS	96	%REC
LC2	WQP	WCH-A-034	03D0018	STLDEN	D2J140000-509L	TOTAL SUSPENDED SOLIDS	96	%REC
LC2	WQP	WCH-A-034	03D0111	STLDEN	D2K010000-538L	TOTAL SUSPENDED SOLIDS	96	%REC
LC1	WQP	WCH-A-036	02D1262	STLDEN	D2F180000-197C	SULFATE	96	%REC
LC1	WQP	WCH-A-011	02D1517	STLDEN	D2J040000-512C	CHLORIDE	96	%REC
LC2	WQP	WCH-A-036	02D1262	STLDEN	D2F180000-197L	SULFATE	96	%REC
LC6	WQP	WCH-A-033	02D0292	STLDEN	D1K200000-633L	TOTAL DISSOLVED SOLIDS	96	%REC
LC2	WQP	WCH-A-036	02D0216	STLDEN	D1K010000-270C	SULFATE	96	%REC
LC1	WQP	WCH-A-002	02D1215	STLDEN	D2E160000-225C	ALKALINITY, TOTAL AS CACO3	96	%REC
LC1	WQP	WCH-A-034	02D1393	STLDEN	D2G230000-458C	TOTAL SUSPENDED SOLIDS	96	%REC
LC2	WQP	WCH-A-033	02D1397	LVLI	02LSS044-LC2	TOTAL DISSOLVED SOLIDS	96	%REC
LC2	WQP	WCH-A-011	02D0664	STLDEN	D2A220000-220L	CHLORIDE	96	%REC
LC1	WQP	WCH-A-036	02D0264	STLDEN	D1K210000-448C	SULFATE	96	%REC
LC2	WQP	WCH-A-036	02D0264	STLDEN	D1K210000-448L	SULFATE	96	%REC
LC1	WQP	WCH-A-036	02D1264	STLDEN	D2F180000-197C	SULFATE	96	%REC
LC2	WQP	WCH-A-036	02D1264	STLDEN	D2F180000-197L	SULFATE	96	%REC
LC2	WQP	WCH-A-011	02D0216	STLDEN	D1K010000-267C	CHLORIDE	96	%REC

Result Type	Group	LIC	RIN	Lab	Lab Sample Number	Analyte	Result	Units
LC1	WQP	WCH-A-036	02D1497	STLDEN	D2I230000-291C	SULFATE	96	%REC
LC3	WQP	WCH-A-033	02D1497	STLDEN	D2I180000-489C	TOTAL DISSOLVED SOLIDS	96	%REC
LC1	WQP	WCH-A-019	02D0116	STLDEN	D1J310000-435C	HARDNESS, TOTAL	96	%REC
LC2	WQP	WCH-A-036	02D0265	STLDEN	D1K260000-275L	SULFATE	96	%REC
LC1	WQP	WCH-A-034	02D0603	STLDEN	D2A310000-434C	TOTAL SUSPENDED SOLIDS	96	%REC
LC4	WQP	WCH-A-036	02D1429	STLDEN	D2H140000-523L	SULFATE	96	%REC
LC1	WQP	WCH-A-011	02D0664	STLDEN	D2A220000-220C	CHLORIDE	96	%REC
LC1	WQP	WCH-A-036	02D1477	LVLI	02LIC060-LC1	SULFATE	96.2	%REC
LC1	WQP	WCH-A-036	02D0265	STLDEN	D1K260000-275C	SULFATE	97	%REC
LC1	WQP	WCH-A-018	02D0664	STLDEN	D2A220000-218C	FLUORIDE	97	%REC
LC1	WQP	WCH-A-034	02D1542	STLDEN	D2I250000-587C	TOTAL SUSPENDED SOLIDS	97	%REC
LC2	WQP	WCH-A-018	02D0664	STLDEN	D2A220000-218L	FLUORIDE	97	%REC
LC1	WQP	WCH-A-018	02D0089	STLDEN	D1J300000-190C	FLUORIDE	97	%REC
LC2	WQP	WCH-A-036	02D0664	STLDEN	D2A220000-219L	SULFATE	97	%REC
LC2	WQP	WCH-A-018	02D0089	STLDEN	D1J300000-190L	FLUORIDE	97	%REC
LC5	WQP	WCH-A-036	02D0216	STLDEN	D1K010000-270L	SULFATE	97	%REC
LC1	WQP	WCH-A-034	02D1508	STLDEN	D2I120000-564C	TOTAL SUSPENDED SOLIDS	97	%REC
LC1	WQP	WCH-A-034	02D1507	STLDEN	D2I120000-564C	TOTAL SUSPENDED SOLIDS	97	%REC
LC1	WQP	WCH-A-033	02D0216	STLDEN	D1K020000-488C	TOTAL DISSOLVED SOLIDS	97	%REC
LC2	WQP	WCH-A-033	02D1483	LVLI	02LSS116-LC2	TOTAL DISSOLVED SOLIDS	97	%REC
LC1	WQP	WCH-A-036	02D0664	STLDEN	D2A220000-219C	SULFATE	97	%REC
LC1	WQP	WCH-A-002	02D0265	STLDEN	D1K160000-236C	ALKALINITY, TOTAL AS CACO3	97	%REC
LC1	WQP	WCH-A-036	02D0174	STLDEN	D1K110000-101C	SULFATE	97	%REC
LC5	WQP	WCH-A-033	02D1497	STLDEN	D2I180000-313L	TOTAL DISSOLVED SOLIDS	97	%REC
LC5	WQP	WCH-A-011	02D0216	STLDEN	D1K010000-267L	CHLORIDE	97	%REC
LC5	WQP	WCH-A-033	02D0292	STLDEN	D1K190000-574L	TOTAL DISSOLVED SOLIDS	97	%REC
LC2	WQP	WCH-A-034	02D1214	STLDEN	D2E070000-524L	TOTAL SUSPENDED SOLIDS	97	%REC
LC1	WQP	WCH-A-034	03D0020	STLDEN	D2J080000-520C	TOTAL SUSPENDED SOLIDS	97	%REC
LC1	WQP	WCH-A-002	02D1187	STLDEN	D2D300000-183C	ALKALINITY, TOTAL AS CACO3	97	%REC
LC1	WQP	WCH-A-034	03D0024	STLDEN	D2J080000-520C	TOTAL SUSPENDED SOLIDS	97	%REC
LC2	WQP	WCH-A-036	02D1429	STLDEN	D2H140000-523C	SULFATE	97	%REC
LC1	WQP	WCH-A-033	02D1227	LVLI	02LSS057-LC1	TOTAL DISSOLVED SOLIDS	98	%REC

Result Type	Group	LIC	RIN	Lab	Lab Sample Number	Analyte	Result	Units
LC1	WQP	WCH-A-002	02D1153	STLDEN	D2D180000-516C	ALKALINITY, TOTAL AS CACO3	98	%REC
LC1	WQP	WCH-A-033	02D1368	LVLI	02LSS084-LC1	TOTAL DISSOLVED SOLIDS	98	%REC
LC2	WQP	WCH-A-033	02D1397	STLDEN	D2G220000-602C	TOTAL DISSOLVED SOLIDS	98	%REC
LC7	WQP	WCH-A-033	03D0064	STLDEN	D2J220000-498L	TOTAL DISSOLVED SOLIDS	98	%REC
LC2	WQP	WCH-A-036	02D0089	STLDEN	D1J300000-191L	SULFATE	98	%REC
LC2	WQP	WCH-A-033	02D1383	STLDEN	D2G160000-509L	TOTAL DISSOLVED SOLIDS	98	%REC
LC1	WQP	WCH-A-036	02D1397	LVLI	02LICC49-LC1	SULFATE	98	%REC
LC1	WQP	WCH-A-034	02D1233	STLDEN	D2E220000-623C	TOTAL SUSPENDED SOLIDS	98	%REC
LC1	WQP	WCH-A-034	02D1240	STLDEN	D2E220000-623C	TOTAL SUSPENDED SOLIDS	98	%REC
LC1	WQP	WCH-A-036	02D0216	STLDEN	D1J310000-242C	SULFATE	98	%REC
LC1	WQP	WCH-A-033	02D0264	STLDEN	D1K050000-547C	TOTAL DISSOLVED SOLIDS	98	%REC
LC6	WQP	WCH-A-036	02D0216	STLDEN	D1K020000-282L	SULFATE	98	%REC
LC1	WQP	WCH-A-034	02D1241	STLDEN	D2E220000-623C	TOTAL SUSPENDED SOLIDS	98	%REC
LC1	WQP	WCH-A-034	02D1222	STLDEN	D2E220000-623C	TOTAL SUSPENDED SOLIDS	98	%REC
LC4	WQP	WCH-A-036	02D0216	STLDEN	D1J310000-242L	SULFATE	98	%REC
LC1	WQP	WCH-A-034	02D1433	STLDEN	D2H070000-412C	TOTAL SUSPENDED SOLIDS	98	%REC
LC3	WQP	WCH-A-011	02D0216	STLDEN	D1K020000-283C	CHLORIDE	98	%REC
LC3	WQP	WCH-A-033	02D0174	STLDEN	D1J250000-511L	TOTAL DISSOLVED SOLIDS	98	%REC
LC6	WQP	WCH-A-011	02D0216	STLDEN	D1K020000-283L	CHLORIDE	98	%REC
LC1	WQP	WCH-A-036	02D1429	LVLI	02LICC53-LC1	SULFATE	98.7	%REC
LC2	WQP	WCH-A-019	02D1148	STLDEN	D2D230000-324L	HARDNESS, TOTAL	99	%REC
LC1	WQP	WCH-A-034	03D0139	STLDEN	D2K080000-290C	TOTAL SUSPENDED SOLIDS	99	%REC
LC3	WQP	WCH-A-011	02D1429	STLDEN	D2H140000-102L	CHLORIDE	99	%REC
LC2	WQP	WCH-A-019	03D0506	STLDEN	D3B190000-335L	HARDNESS, TOTAL	99	%REC
LC1	WQP	WCH-A-034	02D0413	STLDEN	D1L050000-476C	TOTAL SUSPENDED SOLIDS	99	%REC
LC1	WQP	WCH-A-019	03D0506	STLDEN	D3B190000-335C	HARDNESS, TOTAL	99	%REC
LC2	WQP	WCH-A-019	02D1393	STLDEN	D2H060000-330L	HARDNESS, TOTAL	99	%REC
LC2	WQP	WCH-A-019	03D0063	STLDEN	D2K050000-496L	HARDNESS, TOTAL	99	%REC
LC2	WQP	WCH-A-019	03D0109	STLDEN	D2K140000-410L	HARDNESS, TOTAL	99	%REC
LC1	WQP	WCH-A-019	02D1498	STLDEN	D2I160000-516C	HARDNESS, TOTAL	99	%REC
LC1	WQP	WCH-A-019	03D0109	STLDEN	D2K140000-410C	HARDNESS, TOTAL	99	%REC
LC2	WQP	WCH-A-019	02D1503	STLDEN	D2I160000-516L	HARDNESS, TOTAL	99	%REC

Result Type	Group	LIC	RIN	Lab	Lab Sample Number	Analyte	Result	Units
LC1	WQP	WCH-A-019	02D1503	STLDEN	D2I160000-516C	HARDNESS, TOTAL	99	%REC
LC2	WQP	WCH-A-019	02D1498	STLDEN	D2I160000-516L	HARDNESS, TOTAL	99	%REC
LC1	WQP	WCH-A-019	03D0063	STLDEN	D2K050000-496C	HARDNESS, TOTAL	99	%REC
LC4	WQP	WCH-A-033	02D1397	STLDEN	D2G220000-602L	TOTAL DISSOLVED SOLIDS	99	%REC
LC1	WQP	WCH-A-011	02D1368	STLDEN	D2G120000-093C	CHLORIDE	99	%REC
LC1	WQP	WCH-A-034	02D1030	STLDEN	D2C250000-513C	TOTAL SUSPENDED SOLIDS	99	%REC
LC2	WQP	WCH-A-019	03D0020	STLDEN	D2J160000-505L	HARDNESS, TOTAL	99	%REC
LC4	WQP	WCH-A-011	02D0216	STLDEN	D1J310000-240L	CHLORIDE	99	%REC
LC3	WQP	WCH-A-036	02D0216	STLDEN	D1K020000-282C	SULFATE	99	%REC
LC2	WQP	WCH-A-033	02D0264	STLDEN	D1K140000-574C	TOTAL DISSOLVED SOLIDS	99	%REC
LC4	WQP	WCH-A-033	02D0264	STLDEN	D1K140000-574L	TOTAL DISSOLVED SOLIDS	99	%REC
LC2	WQP	WCH-A-011	02D0265	STLDEN	D1K170000-220L	CHLORIDE	99	%REC
LC1	WQP	WCH-A-033	02D1227	LVLI	02LSS055-LC1	TOTAL DISSOLVED SOLIDS	99	%REC
LC1	WQP	WCH-A-033	02D0292	STLDEN	D1K140000-574C	TOTAL DISSOLVED SOLIDS	99	%REC
LC2	WQP	WCH-A-036	02D1517	STLDEN	D2J040000-519L	SULFATE	99	%REC
LC1	WQP	WCH-A-036	02D0089	STLDEN	D1J300000-191C	SULFATE	99	%REC
LC2	WQP	WCH-A-034	02D1507	STLDEN	D2I120000-564L	TOTAL SUSPENDED SOLIDS	99	%REC
LC2	WQP	WCH-A-011	02D1368	STLDEN	D2G120000-093L	CHLORIDE	99	%REC
LC1	WQP	WCH-A-034	02D0362	STLDEN	D1L050000-476C	TOTAL SUSPENDED SOLIDS	99	%REC
LC2	WQP	WCH-A-034	02D1508	STLDEN	D2I120000-564L	TOTAL SUSPENDED SOLIDS	99	%REC
LC1	WQP	WCH-A-019	03D0024	STLDEN	D2J230000-576C	HARDNESS, TOTAL	99	%REC
LC2	WQP	WCH-A-019	02D1517	STLDEN	D2J030000-262L	HARDNESS, TOTAL	99	%REC
LC1	WQP	WCH-A-018	02D1517	STLDEN	D2J040000-515C	FLUORIDE	99	%REC
LC2	WQP	WCH-A-011	02D1517	STLDEN	D2J040000-512L	CHLORIDE	99	%REC
LC2	WQP	WCH-A-019	02D1377	STLDEN	D2H060000-330L	HARDNESS, TOTAL	99	%REC
LC2	WQP	WCH-A-019	02D1516	STLDEN	D2J030000-262L	HARDNESS, TOTAL	99	%REC
LC4	WQP	WCH-A-033	02D0292	STLDEN	D1K140000-574L	TOTAL DISSOLVED SOLIDS	99	%REC
LC2	WQP	WCH-A-019	02D0725	STLDEN	D2B180000-315L	HARDNESS, TOTAL	99	%REC
LC2	WQP	WCH-A-036	03D0064	STLDEN	D2J230000-677L	SULFATE	99	%REC
LC2	WQP	WCH-A-019	02D0815	STLDEN	D2B180000-315L	HARDNESS, TOTAL	99	%REC
LC2	WQP	WCH-A-019	02D1159	STLDEN	D2D230000-324L	HARDNESS, TOTAL	99	%REC
LC2	WQP	WCH-A-002	02D0664	STLDEN	D2A280000-266L	ALKALINITY, TOTAL AS CACO3	99	%REC

Result Type	Group	LIC	RIN	Lab	Lab Sample Number	Analyte	Result	Units
LC1	WQP	WCH-A-036	03D0064	STLDEN	D2J230000-677C	SULFATE	99	%REC
LC2	WQP	WCH-A-019	03D0083	STLDEN	D2K080000-311L	HARDNESS, TOTAL	99	%REC
LC2	WQP	WCH-A-018	02D1477	LVLI	02LFL021-LC1	FLUORIDE	99.4	%REC
LC1	WQP	WCH-A-019	02D1303	STLDEN	D2G080000-348C	HARDNESS, TOTAL	100	%REC
LC2	WQP	WCH-A-019	02D1362	STLDEN	D2G080000-348L	HARDNESS, TOTAL	100	%REC
LC1	WQP	WCH-A-019	02D1362	STLDEN	D2G080000-348C	HARDNESS, TOTAL	100	%REC
LC1	WQP	WCH-A-019	02D0965	STLDEN	D2D020000-344C	HARDNESS, TOTAL	100	%REC
LC2	WQP	WCH-A-033	02D0292	STLDEN	D1K190000-574C	TOTAL DISSOLVED SOLIDS	100	%REC
LC2	WQP	WCH-A-019	02D0965	STLDEN	D2D020000-344L	HARDNESS, TOTAL	100	%REC
LC2	WQP	WCH-A-019	02D1303	STLDEN	D2G080000-348L	HARDNESS, TOTAL	100	%REC
LC1	WQP	WCH-A-019	02D1469	STLDEN	D2H300000-393C	HARDNESS, TOTAL	100	%REC
LC2	WQP	WCH-A-019	02D0918	STLDEN	D2C110000-367L	HARDNESS, TOTAL	100	%REC
LC2	WQP	WCH-A-019	02D0265	STLDEN	D1K190000-481L	HARDNESS, TOTAL	100	%REC
LC1	WQP	WCH-A-019	03D0083	STLDEN	D2K080000-311C	HARDNESS, TOTAL	100	%REC
LC1	WQP	WCH-A-019	02D0345	STLDEN	D1L030000-535C	HARDNESS, TOTAL	100	%REC
LC2	WQP	WCH-A-019	02D1107	STLDEN	D2D080000-501L	HARDNESS, TOTAL	100	%REC
LC1	WQP	WCH-A-019	02D1107	STLDEN	D2D080000-501C	HARDNESS, TOTAL	100	%REC
LC1	WQP	WCH-A-019	02D0363	STLDEN	D1L210000-437C	HARDNESS, TOTAL	100	%REC
LC2	WQP	WCH-A-019	03D0024	STLDEN	D2J230000-576L	HARDNESS, TOTAL	100	%REC
LC2	WQP	WCH-A-034	02D0362	STLDEN	D1L050000-476L	TOTAL SUSPENDED SOLIDS	100	%REC
LC2	WQP	WCH-A-019	02D1469	STLDEN	D2H300000-393L	HARDNESS, TOTAL	100	%REC
LC2	WQP	WCH-A-019	02D0345	STLDEN	D1L030000-535L	HARDNESS, TOTAL	100	%REC
LC2	WQP	WCH-A-019	02D1431	STLDEN	D2H190000-245L	HARDNESS, TOTAL	100	%REC
LC2	WQP	WCH-A-019	02D0299	LVLI	01LHD012-LC1	HARDNESS, TOTAL	100	%REC
LC1	WQP	WCH-A-019	02D1214	STLDEN	D2E230000-437C	HARDNESS, TOTAL	100	%REC
LC2	WQP	WCH-A-019	02D1221	STLDEN	D2E230000-437L	HARDNESS, TOTAL	100	%REC
LC1	WQP	WCH-A-019	02D1516	STLDEN	D2J030000-262C	HARDNESS, TOTAL	100	%REC
LC1	WQP	WCH-A-011	02D0265	STLDEN	D1K170000-220C	CHLORIDE	100	%REC
LC1	WQP	WCH-A-019	02D1431	STLDEN	D2H190000-245C	HARDNESS, TOTAL	100	%REC
LC1	WQP	WCH-A-019	02D1187	STLDEN	D2E140000-345C	HARDNESS, TOTAL	100	%REC
LC2	WQP	WCH-A-019	02D1060	STLDEN	D2D080000-501L	HARDNESS, TOTAL	100	%REC
LC1	WQP	WCH-A-019	02D0725	STLDEN	D2B180000-315C	HARDNESS, TOTAL	100	%REC

Result Type	Group	LIC	RIN	Lab	Lab Sample Number	Analyte	Result	Units
LC4	WQP	WCH-A-019	03D0683	STLDEN	D3D160000-468L	HARDNESS, TOTAL	100	%REC
LC2	WQP	WCH-A-019	03D0683	STLDEN	D3D160000-468C	HARDNESS, TOTAL	100	%REC
LC3	WQP	WCH-A-019	03D0683	STLDEN	D3D020000-297L	HARDNESS, TOTAL	100	%REC
LC1	WQP	WCH-A-019	02D1440	STLDEN	D2H190000-245C	HARDNESS, TOTAL	100	%REC
LC1	WQP	WCH-A-019	03D0683	STLDEN	D3D020000-297C	HARDNESS, TOTAL	100	%REC
LC1	WQP	WCH-A-019	02D1254	STLDEN	D2F070000-383C	HARDNESS, TOTAL	100	%REC
LC2	WQP	WCH-A-019	02D1254	STLDEN	D2F070000-383L	HARDNESS, TOTAL	100	%REC
LC1	WQP	WCH-A-011	02D0216	STLDEN	D1J310000-240C	CHLORIDE	100	%REC
LC2	WQP	WCH-A-019	02D1440	STLDEN	D2H190000-245L	HARDNESS, TOTAL	100	%REC
LC1	WQP	WCH-A-019	03D0020	STLDEN	D2J160000-505C	HARDNESS, TOTAL	100	%REC
LC1	WQP	WCH-A-019	02D1261	STLDEN	D2F070000-383C	HARDNESS, TOTAL	100	%REC
LC2	WQP	WCH-A-019	02D1261	STLDEN	D2F070000-383L	HARDNESS, TOTAL	100	%REC
LC1	WQP	WCH-A-019	02D0265	STLDEN	D1K190000-481C	HARDNESS, TOTAL	100	%REC
LC1	WQP	WCH-A-019	02D1433	STLDEN	D2H190000-245C	HARDNESS, TOTAL	100	%REC
LC1	WQP	WCH-A-019	02D1233	STLDEN	D2E230000-437C	HARDNESS, TOTAL	100	%REC
LC1	WQP	WCH-A-019	02D1221	STLDEN	D2E230000-437C	HARDNESS, TOTAL	100	%REC
LC2	WQP	WCH-A-019	02D1233	STLDEN	D2E230000-437L	HARDNESS, TOTAL	100	%REC
LC1	WQP	WCH-A-019	02D0918	STLDEN	D2C110000-367C	HARDNESS, TOTAL	100	%REC
LC1	WQP	WCH-A-034	03D0018	STLDEN	D2J140000-509C	TOTAL SUSPENDED SOLIDS	100	%REC
LC1	WQP	WCH-A-019	02D1262	STLDEN	D2F070000-383C	HARDNESS, TOTAL	100	%REC
LC1	WQP	WCH-A-019	02D1264	STLDEN	D2F070000-383C	HARDNESS, TOTAL	100	%REC
LC1	WQP	WCH-A-019	02D1060	STLDEN	D2D080000-501C	HARDNESS, TOTAL	100	%REC
LC1	WQP	WCH-A-019	02D0724	STLDEN	D2B060000-351C	HARDNESS, TOTAL	100	%REC
LC2	WQP	WCH-A-019	02D0724	STLDEN	D2B060000-351L	HARDNESS, TOTAL	100	%REC
LC2	WQP	WCH-A-019	02D1433	STLDEN	D2H190000-245L	HARDNESS, TOTAL	100	%REC
LC1	WQP	WCH-A-019	02D1159	STLDEN	D2D230000-324C	HARDNESS, TOTAL	100	%REC
LC2	WQP	WCH-A-019	02D1262	STLDEN	D2F070000-383L	HARDNESS, TOTAL	100	%REC
LC2	WQP	WCH-A-019	02D1187	STLDEN	D2E140000-345L	HARDNESS, TOTAL	100	%REC
LC2	WQP	WCH-A-019	02D1264	STLDEN	D2F070000-383L	HARDNESS, TOTAL	100	%REC
LC1	WQP	WCH-A-002	02D1517	STLDEN	D2I250000-268C	ALKALINITY, TOTAL AS CACO3	100	%REC
LC1	WQP	WCH-A-019	02D1393	STLDEN	D2H060000-330C	HARDNESS, TOTAL	100	%REC
LC1	WQP	WCH-A-033	02D1153	GEL	1200200590	TOTAL DISSOLVED SOLIDS	100	%REC

Result Type	Group	LIC	RIN	Lab	Lab Sample Number	Analyte	Result	Units
LC2	WQP	WCH-A-019	02D0664	STLDEN	D2B040000-376L	HARDNESS, TOTAL	100	%REC
LC1	WQP	WCH-A-019	02D1148	STLDEN	D2D230000-324C	HARDNESS, TOTAL	100	%REC
LC2	WQP	WCH-A-018	03D0064	STLDEN	D2J230000-676L	FLUORIDE	100	%REC
LC1	WQP	WCH-A-019	02D0815	STLDEN	D2B180000-315C	HARDNESS, TOTAL	100	%REC
LC2	WQP	WCH-A-034	02D0413	STLDEN	D1L050000-476L	TOTAL SUSPENDED SOLIDS	100	%REC
LC3	WQP	WCH-A-033	02D1397	STLDEN	D2G180000-560L	TOTAL DISSOLVED SOLIDS	100	%REC
LC1	WQP	WCH-A-019	02D0664	STLDEN	D2B040000-376C	HARDNESS, TOTAL	100	%REC
LC2	WQP	WCH-A-019	02D0363	STLDEN	D1L210000-437L	HARDNESS, TOTAL	100	%REC
LC1	WQP	WCH-A-019	02D0925	STLDEN	D2C110000-367C	HARDNESS, TOTAL	100	%REC
LC2	WQP	WCH-A-019	02D0925	STLDEN	D2C110000-367L	HARDNESS, TOTAL	100	%REC
LC1	WQP	WCH-A-019	02D0935	STLDEN	D2C110000-367C	HARDNESS, TOTAL	100	%REC
LC1	WQP	WCH-A-018	03D0064	STLDEN	D2J230000-676C	FLUORIDE	100	%REC
LC2	WQP	WCH-A-019	02D0645	STLDEN	D2B040000-376L	HARDNESS, TOTAL	100	%REC
LC2	WQP	WCH-A-019	02D1214	STLDEN	D2E230000-437L	HARDNESS, TOTAL	100	%REC
LC2	WQP	WCH-A-033	02D1497	STLDEN	D2I180000-313C	TOTAL DISSOLVED SOLIDS	100	%REC
LC1	WQP	WCH-A-011	02D1429	STLDEN	D2H140000-102C	CHLORIDE	100	%REC
LC1	WQP	WCH-A-019	02D1517	STLDEN	D2J030000-262C	HARDNESS, TOTAL	100	%REC
LC1	WQP	WCH-A-019	02D0645	STLDEN	D2B040000-376C	HARDNESS, TOTAL	100	%REC
LC1	WQP	WCH-A-019	02D1377	STLDEN	D2H060000-330C	HARDNESS, TOTAL	100	%REC
LC2	WQP	WCH-A-019	02D0512	STLDEN	D1L210000-437L	HARDNESS, TOTAL	100	%REC
LC2	WQP	WCH-A-019	02D0935	STLDEN	D2C110000-367L	HARDNESS, TOTAL	100	%REC
LC1	WQP	WCH-A-019	02D0512	STLDEN	D1L210000-437C	HARDNESS, TOTAL	100	%REC
LC2	WQP	WCH-A-034	02D1440	STLDEN	D2H140000-628C	TOTAL SUSPENDED SOLIDS	101	%REC
LC2	WQP	WCH-A-036	02D1397	STLDEN	D2G310000-105L	SULFATE	101	%REC
LC1	WQP	WCH-A-034	03D0109	STLDEN	D2J310000-523C	TOTAL SUSPENDED SOLIDS	101	%REC
LC1	WQP	WCH-A-002	02D0664	STLDEN	D2A280000-266C	ALKALINITY, TOTAL AS CACO3	101	%REC
LC2	WQP	WCH-A-034	02D1068	STLDEN	D2C280000-474L	TOTAL SUSPENDED SOLIDS	101	%REC
LC4	WQP	WCH-A-033	02D1497	STLDEN	D2I110000-439L	TOTAL DISSOLVED SOLIDS	101	%REC
LC1	WQP	WCH-A-034	02D1068	STLDEN	D2C280000-474C	TOTAL SUSPENDED SOLIDS	101	%REC
LC2	WQP	WCH-A-034	03D0020	STLDEN	D2J080000-520L	TOTAL SUSPENDED SOLIDS	101	%REC
LC2	WQP	WCH-A-036	02D1383	STLDEN	D2G240000-536L	SULFATE	101	%REC
LC1	WQP	WCH-A-034	03D0100	STLDEN	D2J310000-523C	TOTAL SUSPENDED SOLIDS	101	%REC

Result Type	Group	LIC	RIN	Lab	Lab Sample Number	Analyte	Result	Units
LC1	WQP	WCH-A-036	02D1383	STLDEN	D2G240000-536C	SULFATE	101	%REC
LC1	WQP	WCH-A-018	02D1477	LVLI	02LFL021-LC1	FLUORIDE	101	%REC
LC2	WQP	WCH-A-034	03D0024	STLDEN	D2J080000-520L	TOTAL SUSPENDED SOLIDS	101	%REC
LC1	WQP	WCH-A-036	02D1215	LVLI	00LICC79-LC1	SULFATE	101.3	%REC
LC3	WQP	WCH-A-033	02D0264	STLDEN	D1K050000-547L	TOTAL DISSOLVED SOLIDS	102	%REC
LC2	WQP	WCH-A-034	02D1058	STLDEN	D2C280000-177L	TOTAL SUSPENDED SOLIDS	102	%REC
LC1	WQP	WCH-A-002	02D1264	STLDEN	D2F060000-274C	ALKALINITY, TOTAL AS CACO3	102	%REC
LC1	WQP	WCH-A-011	02D1383	STLDEN	D2G240000-509C	CHLORIDE	102	%REC
LC2	WQP	WCH-A-033	02D1368	LVLI	02LSS084-LC2	TOTAL DISSOLVED SOLIDS	102	%REC
LC1	WQP	WCH-A-036	02D1397	STLDEN	D2G310000-105C	SULFATE	102	%REC
LC1	WQP	WCH-A-002	02D1262	STLDEN	D2F060000-274C	ALKALINITY, TOTAL AS CACO3	102	%REC
LC1	WQP	WCH-A-034	02D1408	STLDEN	D2G300000-522C	TOTAL SUSPENDED SOLIDS	102	%REC
LC3	WQP	WCH-A-036	02D1429	STLDEN	D2H140000-109L	SULFATE	102	%REC
LC1	WQP	WCH-A-033	02D1477	LVLI	02LSS121-LC1	TOTAL DISSOLVED SOLIDS	102	%REC
LC2	WQP	WCH-A-018	02D1517	STLDEN	D2J040000-515L	FLUORIDE	102	%REC
LC1	WQP	WCH-A-036	02D1429	STLDEN	D2H140000-109C	SULFATE	102	%REC
LC2	WQP	WCH-A-033	02D1227	LVLI	02LSS057-LC2	TOTAL DISSOLVED SOLIDS	102	%REC
LC2	WQP	WCH-A-034	02D1034	STLDEN	D2C280000-177L	TOTAL SUSPENDED SOLIDS	102	%REC
LC2	WQP	WCH-A-034	02D1197	STLDEN	D2E010000-343L	TOTAL SUSPENDED SOLIDS	102	%REC
LC2	WQP	WCH-A-011	02D1383	STLDEN	D2G240000-509L	CHLORIDE	102	%REC
LC2	WQP	WCH-A-034	02D0708	STLDEN	D2A310000-434L	TOTAL SUSPENDED SOLIDS	102	%REC
LC1	WQP	WCH-A-033	02D1397	LVLI	02LSS044-LC1	TOTAL DISSOLVED SOLIDS	102	%REC
LC2	WQP	WCH-A-034	02D0687	STLDEN	D2A250000-211L	TOTAL SUSPENDED SOLIDS	102	%REC
LC2	WQP	WCH-A-034	02D1187	STLDEN	D2D260000-429L	TOTAL SUSPENDED SOLIDS	102	%REC
LC2	WQP	WCH-A-034	02D1030	STLDEN	D2C250000-513L	TOTAL SUSPENDED SOLIDS	102	%REC
LC2	WQP	WCH-A-034	02D0603	STLDEN	D2A310000-434L	TOTAL SUSPENDED SOLIDS	102	%REC
LC5	WQP	WCH-A-033	02D0089	STLDEN	D1J150000-559L	TOTAL DISSOLVED SOLIDS	102	%REC
LC1	WQP	WCH-A-033	02D1497	STLDEN	D2I110000-439C	TOTAL DISSOLVED SOLIDS	102	%REC
LC1	WQP	WCH-A-019	02D0299	LVLI	01LHD012-LC1	HARDNESS, TOTAL	102.5	%REC
LC2	WQP	WCH-A-034	02D1221	STLDEN	D2E180000-135L	TOTAL SUSPENDED SOLIDS	103	%REC
LC2	WQP	WCH-A-033	02D1477	LVLI	02LSS121-LC2	TOTAL DISSOLVED SOLIDS	103	%REC
LC1	WQP	WCH-A-034	02D1506	STLDEN	D2I160000-481C	TOTAL SUSPENDED SOLIDS	103	%REC

Result Type	Group	LIC	RIN	Lab	Lab Sample Number	Analyte	Result	Units
LC1	WQP	WCH-A-033	02D1397	EMXT	DSG010WL	TOTAL DISSOLVED SOLIDS	103	%REC
LC1	WQP	WCH-A-034	02D1243	STLDEN	D2E230000-524C	TOTAL SUSPENDED SOLIDS	103	%REC
LC2	WQP	WCH-A-034	02D1254	STLDEN	D2E300000-262C	TOTAL SUSPENDED SOLIDS	104	%REC
LC1	WQP	WCH-A-034	02D1034	STLDEN	D2C280000-177C	TOTAL SUSPENDED SOLIDS	104	%REC
LC1	WQP	WCH-A-033	02D1477	LVLI	02LSS110-LC1	TOTAL DISSOLVED SOLIDS	104	%REC
LC1	WQP	WCH-A-034	02D1058	STLDEN	D2C280000-177C	TOTAL SUSPENDED SOLIDS	104	%REC
LC1	WQP	WCH-A-034	02D0460	STLDEN	D2A090000-315C	TOTAL SUSPENDED SOLIDS	104	%REC
LC1	WQP	WCH-A-033	02D1429	LVLI	02LSSB99-LC1	TOTAL DISSOLVED SOLIDS	104	%REC
LC1	WQP	WCH-A-034	02D1261	STLDEN	D2E300000-413C	TOTAL SUSPENDED SOLIDS	104	%REC
LC2	WQP	WCH-A-033	02D1429	LVLI	02LSSB99-LC2	TOTAL DISSOLVED SOLIDS	105	%REC
LC1	WQP	WCH-A-033	02D1429	LVLI	02LSS097-LC1	TOTAL DISSOLVED SOLIDS	105	%REC
LC2	WQP	WCH-A-033	02D1477	LVLI	02LSS110-LC2	TOTAL DISSOLVED SOLIDS	105	%REC
LC1	WQP	WCH-A-034	02D1435	STLDEN	D2H090000-459C	TOTAL SUSPENDED SOLIDS	106	%REC
LC1	WQP	WCH-A-034	02D1440	STLDEN	D2H090000-459C	TOTAL SUSPENDED SOLIDS	106	%REC
LC6	WQP	WCH-A-033	02D0089	STLDEN	D1J160000-539L	TOTAL DISSOLVED SOLIDS	106	%REC
LC3	WQP	WCH-A-033	02D0089	STLDEN	D1J160000-539C	TOTAL DISSOLVED SOLIDS	106	%REC
LC1	WQP	WCH-A-033	02D1215	LVLI	02LSS050-LC1	TOTAL DISSOLVED SOLIDS	106	%REC
LC2	WQP	WCH-A-034	02D1159	STLDEN	D2D150000-482L	TOTAL SUSPENDED SOLIDS	106	%REC
LC1	WQP	WCH-A-034	02D0935	STLDEN	D2C110000-519C	TOTAL SUSPENDED SOLIDS	107	%REC
LC2	WQP	WCH-A-033	02D1429	LVLI	02LSS097-LC2	TOTAL DISSOLVED SOLIDS	107	%REC
LC1	WQP	WCH-A-018	02D1215	LVLI	02LICC34-LC1	FLUORIDE	107.6	%REC
LC1	WQP	WCH-A-034	02D1252	STLDEN	D2E240000-479C	TOTAL SUSPENDED SOLIDS	108	%REC
LC1	WQP	WCH-A-034	03D0506	STLDEN	D3B070000-478C	TOTAL SUSPENDED SOLIDS	108	%REC
LC2	WQP	WCH-A-034	02D0460	STLDEN	D2A090000-315L	TOTAL SUSPENDED SOLIDS	108	%REC
LC1	WQP	WCH-A-034	02D1251	STLDEN	D2E240000-479C	TOTAL SUSPENDED SOLIDS	108	%REC
LC2	WQP	WCH-A-034	02D1243	STLDEN	D2E230000-524L	TOTAL SUSPENDED SOLIDS	108	%REC
LC2	WQP	WCH-A-033	02D1215	LVLI	02LSS050-LC2	TOTAL DISSOLVED SOLIDS	108	%REC
LC1	WQP	WCH-A-034	02D1197	STLDEN	D2E010000-343C	TOTAL SUSPENDED SOLIDS	109	%REC
LC1	WQP	WCH-A-034	02D1262	STLDEN	D2E310000-419C	TOTAL SUSPENDED SOLIDS	110	%REC
LC2	WQP	WCH-A-034	02D0935	STLDEN	D2C110000-519L	TOTAL SUSPENDED SOLIDS	110	%REC
LC3	WQP	WCH-A-034	02D1254	STLDEN	D2E300000-262L	TOTAL SUSPENDED SOLIDS	111	%REC
LC1	WQP	WCH-A-034	02D1254	STLDEN	D2E300000-259C	TOTAL SUSPENDED SOLIDS	114	%REC

Table B-8. Data Rejected During Verification and Validation.

Location	Sample Date	Sample Number	Analyte	QC Type	Result Type	Result	Units	Lab Qual	Valid-ation	Reason Codes	Detect Limit	Dilu-tion	Filtered
GS49	1/25/02	02D1107-001	MERCURY	REAL	TR1	0.1	UG/L	U	R	702	.1	1	NO
GS38	2/15/02	02D1221-004	MERCURY	REAL	TR1	0.1	UG/L	U	R	702	.1	1	NO
GS43	5/24/02	03D0109-004	MERCURY	REAL	TR1	0.1	UG/L	U	R1	701	.1	1	NO
GS50	5/24/02	03D0683-008	MERCURY	REAL	TR1	0.1	UG/L	U	R1	702	.1	1	NO
GS38	6/3/02	02D1435-002	MERCURY	REAL	TR1	0.1	UG/L	U	R1	702	.1	1	NO
GS57	6/3/02	02D1435-001	MERCURY	REAL	TR1	0.1	UG/L	U	R1	702	.1	1	NO
GS44	6/4/02	02D1506-001	MERCURY	REAL	TR1	0.1	UG/L	U	R1	701	.1	1	NO
SW120	6/4/02	03D0020-002	MERCURY	REAL	TR1	0.1	UG/L	U	R1	702	.1	1	NO
GS40	6/20/02	02D1435-005	MERCURY	REAL	TR1	0.1	UG/L	U	R1	702	.1	1	NO
GS28	8/5/02	02D1521-003	MERCURY	REAL	TR1	0.1	UG/L	U	R	702/703	.1	1	NO
GS38	9/10/02	02D1521-002	MERCURY	REAL	TR1	0.1	UG/L	U	R	702/703	.1	1	NO

Table B-9. Equipment Rinsate Results.

QC Type	Location	Sample Date	Analyte	Result Type	Result	Lab Qual	Error 2 Sigma	Units	Valid-ation	Detect Limit	Result/ DetLim	Dilu-tion	Filter-ed	Sample Number	RIN
RNS	SW093	4/9/02	HARDNESS, TOTAL	TR1	11000			UG/L	V1	2000	5.5	1	NO	02D1159-003	02D1159
RNS	GS44	10/9/01	ALUMINUM	TR1	16.2	B		UG/L	J1	4	4.0	1	NO	02D0111-002	02D0111
RNS	GS44	10/9/01	ALUMINUM	TR2	14.48	B		UG/L	1	4	3.6	1	NO	02D0111-002	02D0111
RNS	GS49	4/9/02	ALUMINUM	TR1	12.8	B		UG/L	V1	5	2.6	1	NO	02D1159-002	02D1159
RNS	GS49	4/9/02	ANTIMONY	TR1	0.91	B		UG/L	V1	.48	1.9	1	NO	02D1159-002	02D1159
RNS	GS49	4/9/02	ARSENIC	TR1	2.3	B		UG/L	V1	.75	3.1	1	NO	02D1159-002	02D1159
RNS	GS57	9/18/02	BARIUM	TR1	0.65	B		UG/L	V1	.05	13.0	1	NO	02D1542-002	02D1542
RNS	GS44	10/9/01	BARIUM	TR2	0.212	B		UG/L	1	.02	10.6	1	NO	02D0111-002	02D0111
RNS	GS49	4/9/02	BERYLLIUM	TR1	0.05	B		UG/L	V1	.02	2.5	1	NO	02D1159-002	02D1159
RNS	GS49	4/9/02	CALCIUM	TR1	106	B		UG/L	V1	2.6	40.8	1	NO	02D1159-002	02D1159
RNS	GS44	10/9/01	CALCIUM	TR1	86.8	B		UG/L	V1	2	43.4	1	NO	02D0111-002	02D0111
RNS	GS44	10/9/01	CALCIUM	TR2	84.49	B		UG/L	1	2	42.2	1	NO	02D0111-002	02D0111

QC Type	Location	Sample Date	Analyte	Result Type	Result	Lab Qual	Error 2 Sigma	Units	Valid-ation	Detect Limit	Result/ DetLim	Dilu-tion	Filter-ed	Sample Number	RIN
RNS	GS57	9/18/02	CHROMIUM	TR1	0.69	B		UG/L	V1	.25	2.8	1	NO	02D1542-002	02D1542
RNS	SW055	9/18/02	CHROMIUM	TR1	0.3	B		UG/L	V1	.25	1.2	1	NO	02D1542-003	02D1542
RNS	GS44	10/9/01	COPPER	TR2	1.8	B		UG/L	1	.12	15.0	1	NO	02D0111-002	02D0111
RNS	GS49	4/9/02	COPPER	TR1	0.46	B		UG/L	J1	.18	2.6	1	NO	02D1159-002	02D1159
RNS	GS10	8/7/02	HARDNESS, TOTAL	TR1	3900	B		UG/L	V1	2000	2.0	1	NO	02D1440-003	02D1440
RNS	GS57	9/18/02	IRON	TR1	15.3	B		UG/L	V1	4.5	3.4	1	NO	02D1542-002	02D1542
RNS	SW055	9/18/02	IRON	TR1	8	B		UG/L	V1	4.5	1.8	1	NO	02D1542-003	02D1542
RNS	GS44	10/9/01	IRON	TR2	6.26	B		UG/L	1	3.9	1.6	1	NO	02D0111-002	02D0111
RNS	GS44	10/9/01	IRON	TR1	6	B		UG/L	V1	3.9	1.5	1	NO	02D0111-002	02D0111
RNS	GS44	10/9/01	LEAD	TR1	1.5	B		UG/L	V1	.6	2.5	1	NO	02D0111-002	02D0111
RNS	GS44	10/9/01	LEAD	TR2	1.49	B		UG/L	1	.6	2.5	1	NO	02D0111-002	02D0111
RNS	GS49	4/9/02	LEAD	TR1	1.1	B		UG/L	V1	.55	2.0	1	NO	02D1159-002	02D1159
RNS	GS44	10/9/01	LITHIUM	TR2	0.11	B		UG/L	1	.02	5.5	1	NO	02D0111-002	02D0111
RNS	GS44	10/9/01	MAGNESIUM	TR2	15.47	B		UG/L	1	2	7.7	1	NO	02D0111-002	02D0111
RNS	GS49	4/9/02	MANGANESE	TR1	0.64	B		UG/L	V1	.08	8.0	1	NO	02D1159-002	02D1159
RNS	GS44	10/9/01	MANGANESE	TR2	0.17	B		UG/L	1	.02	8.5	1	NO	02D0111-002	02D0111
RNS	GS49	4/9/02	MOLYBDENUM	TR1	0.82	B		UG/L	V1	.28	2.9	1	NO	02D1159-002	02D1159
RNS	GS44	10/9/01	NICKEL	TR2	0.42	B		UG/L	1	.42	1.0	1	NO	02D0111-002	02D0111
RNS	GS44	10/9/01	POTASSIUM	TR2	74.22	B		UG/L	1	2.7	27.5	1	NO	02D0111-002	02D0111
RNS	GS44	10/9/01	POTASSIUM	TR1	32.8	B		UG/L	V1	2.7	12.1	1	NO	02D0111-002	02D0111
RNS	GS49	4/9/02	POTASSIUM	TR1	16.8	B		UG/L	J1	4.7	3.6	1	NO	02D1159-002	02D1159
RNS	GS49	4/9/02	SELENIUM	TR1	1.8	B		UG/L	J1	.9	2.0	1	NO	02D1159-002	02D1159
RNS	GS44	10/9/01	SODIUM	TR2	143.74	B		UG/L	1	.4	359.4	1	NO	02D0111-002	02D0111
RNS	GS57	9/18/02	SODIUM	TR1	136	B		UG/L	V1	4.8	28.3	1	NO	02D1542-002	02D1542
RNS	SW055	9/18/02	SODIUM	TR1	124	B		UG/L	V1	4.8	25.8	1	NO	02D1542-003	02D1542
RNS	GS49	4/9/02	SODIUM	TR1	122	B		UG/L	V1	8.8	13.9	1	NO	02D1159-002	02D1159
RNS	GS49	4/9/02	STRONTIUM	TR1	0.75	B		UG/L	V1	.02	37.5	1	NO	02D1159-002	02D1159
RNS	GS57	9/18/02	STRONTIUM	TR1	0.59	B		UG/L	V1	.02	29.5	1	NO	02D1542-002	02D1542
RNS	SW055	9/18/02	STRONTIUM	TR1	0.46	B		UG/L	V1	.02	23.0	1	NO	02D1542-003	02D1542
RNS	GS44	10/9/01	STRONTIUM	TR1	0.38	B		UG/L	V1	.02	19.0	1	NO	02D0111-002	02D0111
RNS	GS44	10/9/01	STRONTIUM	TR2	0.36	B		UG/L	1	.02	18.0	1	NO	02D0111-002	02D0111

QC Type	Location	Sample Date	Analyte	Result Type	Result	Lab Qual	Error 2 Sigma	Units	Valid-ation	Detect Limit	Result/ DetLim	Dilu-tion	Filter-ed	Sample Number	RIN
RNS	GS49	4/9/02	TIN	TR1	2.1	B		UG/L	V1	.82	2.6	1	NO	02D1159-002	02D1159
RNS	GS49	4/9/02	VANADIUM	TR1	0.22	B		UG/L	V1	.18	1.2	1	NO	02D1159-002	02D1159
RNS	GS44	10/9/01	ZINC	TR2	2.68	B		UG/L	1	.1	26.8	1	NO	02D0111-002	02D0111

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B.4 SAMPLE COLLECTION FIELD INFORMATION

The following tables present the sample collection information by monitoring location for all automated surface-water samples collected during Water Year 2002. Electronic copies of the sample collection information tables are included in the Appendix Tables directory on the CD-ROM disc. The tables are given in one Microsoft Excel file containing separate worksheets for each monitoring location. The fields in each table are defined as follows:

- SAMPLE#: The sample number assigned to the specific sampling event. This number corresponds to the sample number stored in SWD.
- START DATE-TIME: The date and time of the first grab sample of the composite (all automated surface-water samples are composite samples).
- END DATE-TIME: The end of the composite sampling period. It is generally the date-time of the first grab sample of the next composite sampling period. For storm-event samples the end time is not given.
- EVENT TYPE: The type of composite sample collected. The types are described in detail in the Automated Surface-Water Monitoring Work Plan.
- NUMBER OF GRABS: The total number of individual grab samples comprising the composite sample. For continuous flow-paced samples the grab size is uniformly 200 ml. The grab size for the other sample types varies, but is sized such that an adequate amount of water is collected to complete all required analyses.
- AVERAGE FLOW: The average flow rate (in cfs; for locations with flow measurement) during the sample period. It is calculated by arithmetically averaging the instantaneous flow rates at each grab sample time for the entire composite sample period.
- FLOW VOLUME: The total measured surface-water flow volume (in cf; for continuous flow-paced samples only) during the entire composite sampling period.

B.4.1.1 Location GS01

Table B-10. Sample Collection Information for RFCA Samples Collected at GS01: Water Year 2002.

GS01 Sample#	Start Date-Time	End Date-Time	Event Type	Number of Grabs [200ml]	Average Flow [cfs]	Flow Volume [cf]
02D0575-001	12/5/01 8:29	12/18/01 12:13	continuous flow-paced	36	0.100	109616
02D0602-001	12/18/01 12:13	1/2/02 10:59	continuous flow-paced	34	0.086	98777
02D0680-004	1/2/02 10:59	1/17/02 10:14	continuous flow-paced	97	0.093	145867
02D0687-001	1/17/02 10:14	1/21/02 11:38	continuous flow-paced	105	0.061	20727
02D0725-002	1/21/02 11:38	2/4/02 9:31	continuous flow-paced	86	0.068	83873
02D0825-002	2/4/02 9:31	2/18/02 9:21	continuous flow-paced	28	0.055	62375
02D0925-002	2/18/02 9:21	3/4/02 10:20	continuous flow-paced	86	0.099	137917
02D0965-005	3/4/02 10:20	3/14/02 13:11	continuous flow-paced	47	0.371	289391
02D1034-005	3/14/02 13:11	3/22/02 8:17	continuous flow-paced	26	0.248	161334
02D1148-001	3/22/02 8:17	4/8/02 9:28	continuous flow-paced	23	0.120	140342
02D1261-006	4/8/02 9:28	5/28/02 14:14	continuous flow-paced	27	1.588	447712
03D0506-004	5/28/02 14:14	2/3/03 13:15	continuous flow-paced	24	0.041	110608

Table B-11. Sample Collection Information for Buffer Zone Hydrologic Samples Collected at GS01: Water Year 2002.

GS01 BZ Sample#	Start Date-Time	Event Type	Number of Grabs [1L]	Average Flow [cfs]
02D1264-008	5/24/02 7:17	flow-paced storm-event rising-limb	15	1.531

B.4.1.2 Location GS02

No samples collected at GS02 in WY02.

B.4.1.3 Location GS03

Table B-12. Sample Collection Information for RFCA Samples Collected at GS03: Water Year 2002.

GS03 Sample#	Start Date-Time	End Date-Time	Event Type	Number of Grabs [200ml]	Average Flow [cfs]	Flow Volume [cf]
02D0112-001	10/3/01 13:59	10/9/01 8:17	continuous flow-paced	38	1.299	549569
02D0142-001	10/9/01 8:17	10/17/01 8:35	continuous flow-paced	55	1.177	725271
02D0205-001	10/17/01 8:35	11/1/01 14:33	continuous flow-paced	45	0.009	10682
NSQ	11/1/01 14:33	11/30/01 12:30	continuous flow-paced	3		1536
02D0413-001	11/30/01 12:30	12/4/01 8:45	continuous flow-paced	44	1.389	451711
02D0426-001	12/4/01 8:45	12/12/01 9:30	continuous flow-paced	49	0.836	479723
NSQ	12/12/01 9:30	1/24/02 12:07	continuous flow-paced	13		3831
02D0603-001	1/24/02 12:07	1/28/02 10:05	continuous flow-paced	39	1.191	404754
02D0767-001	1/28/02 10:05	2/5/02 9:09	continuous flow-paced	51	0.998	516524
02D0926-001	2/5/02 9:09	2/22/02 9:45	continuous flow-paced	22	0.004	4400
NSQ	2/22/02 9:45	3/21/02 11:45	continuous flow-paced	11		5176
02D1058-001	3/21/02 11:45	3/25/02 12:47	continuous flow-paced	46	1.517	531184
02D1106-001	3/25/02 12:47	4/3/02 8:45	continuous flow-paced	54	1.017	651585
NSQ	4/3/02 8:45	5/16/02 10:47	continuous flow-paced	1		2873
02D1222-001	5/16/02 10:47	5/17/02 13:49	continuous flow-paced	37	2.885	273227
02D1241-001	5/17/02 13:49	5/20/02 15:55	continuous flow-paced	56	3.122	823629
02D1251-001	5/20/02 15:55	5/22/02 16:02	continuous flow-paced	42	2.139	360010
02D1283-001	5/22/02 16:02	5/28/02 11:33	continuous flow-paced	53	1.474	587453
02D1291-001	5/28/02 11:33	6/4/02 12:58	continuous flow-paced	72	0.996	516060
NSQ	6/4/02 12:58	7/11/02 22:48	continuous flow-paced	1		557
02D1375-001	7/11/02 22:48	7/16/02 14:53	continuous flow-paced	36	1.254	491859
02D1408-002	7/16/02 14:53	7/23/02 10:52	continuous flow-paced	25	0.629	271952

GS03 Sample#	Start Date-Time	End Date-Time	Event Type	Number of Grabs [200ml]	Average Flow [cfs]	Flow Volume [cf]
NSQ	7/23/02 10:52	9/5/02 16:37	continuous flow-paced	2		163
02D1507-001	9/5/02 16:37	9/11/02 11:02	continuous flow-paced	65	1.046	367104
02D1518-001	9/11/02 11:02	9/17/02 10:24	continuous flow-paced	73	1.448	644926
03D0098-001	9/17/02 10:24	10/24/02 13:05	continuous flow-paced	20	0.026	7397

Table B-13. Sample Collection Information for Buffer Zone Hydrologic Samples Collected at GS03: Water Year 2002.

GS03 BZ Sample#	Start Date-Time	Event Type	Number of Grabs [1L]	Average Flow [cfs]
02D1264-009	5/24/02 9:42	flow-paced storm-event rising-limb	15	2.965

B.4.1.4 Location GS04

Table B-14. Sample Collection Information for Samples Collected at GS04: Water Year 2002.

GS04 Sample#	Start Date-Time	Event Type	Number of Grabs [1L]	Average Flow [cfs]
02D1264-007	5/24/02 0:48	flow-paced storm-event rising-limb	15	2.542

B.4.1.5 Location GS05

Table B-15. Sample Collection Information for Samples Collected at GS05: Water Year 2002.

GS05 Sample#	Start Date-Time	Event Type	Number of Grabs [1L]	Average Flow [cfs]
02D1262-001	5/23/02 22:37	flow-paced storm-event rising-limb	15	0.960
02D1517-001	9/13/02 13:49	flow-paced storm-event rising-limb	15	0.038

B.4.1.6 Location GS06

Table B-16. Sample Collection Information for Samples Collected at GS06: Water Year 2002.

GS06 Sample#	Start Date-Time	Event Type	Number of Grabs [1L]	Average Flow [cfs]
02D1262-002	5/23/02 22:33	flow-paced storm-event rising-limb	15	0.208

B.4.1.7 Location GS08

Table B-17. Sample Collection Information for Samples Collected at GS08: Water Year 2002.

GS08 Sample#	Start Date-Time	End Date-Time	Event Type	Number of Grabs [200ml]	Average Flow [cfs]	Flow Volume [cf]
02D0111-001	10/3/01 7:54	10/9/01 7:52	continuous flow-paced	52	1.952	871568
02D0116-002	10/9/01 7:52	10/16/01 14:00	continuous flow-paced	59	1.527	922379
02D0362-001	11/30/01 8:03	12/4/01 8:26	continuous flow-paced	57	2.020	694881
02D0512-001	12/4/01 8:26	12/11/01 10:00	continuous flow-paced	51	1.126	625058
02D0708-001	1/24/02 7:57	1/28/02 9:33	continuous flow-paced	50	1.737	616101
02D0725-003	1/28/02 9:33	2/4/02 11:00	continuous flow-paced	56	1.381	694790
02D1034-006	3/21/02 7:54	3/25/02 12:27	continuous flow-paced	58	2.209	803592
02D1107-003	3/25/02 12:27	4/2/02 9:45	continuous flow-paced	61	1.414	887247
02D1243-002	5/16/02 7:50	5/21/02 9:35	continuous flow-paced	54	2.030	878360
02D1264-005	5/21/02 9:35	5/28/02 11:06	continuous flow-paced	54	1.709	772153
02D1264-006	5/28/02 11:06	6/3/02 10:15	continuous flow-paced	48	1.454	704408
02D1377-003	7/11/02 8:15	7/16/02 14:19	continuous flow-paced	50	1.859	805756
02D1393-001	7/16/02 14:19	7/22/02 10:15	continuous flow-paced	31	0.923	409367
02D1508-001	9/5/02 7:58	9/11/02 10:12	continuous flow-paced	59	1.408	668435
02D1516-008	9/11/02 10:12	9/16/02 16:15	continuous flow-paced	65	2.042	879621

B.4.1.8 Location GS10

Table B-18. Sample Collection Information for Samples Collected at GS10: Water Year 2002.

GS10 Sample#	Start Date-Time	End Date-Time	Event Type	Number of Grabs [200ml]	Average Flow [cfs]	Flow Volume [cf]
02D0116-001	10/1/01 10:15	10/11/01 11:03	continuous flow-paced	46	0.095	56455
02D0177-002	10/11/01 11:03	10/23/01 10:49	continuous flow-paced	38	0.064	48288
02D0265-004	10/23/01 10:49	11/6/01 8:47	continuous flow-paced	37	0.046	55041
02D0345-001	11/6/01 8:47	11/20/01 9:48	continuous flow-paced	51	0.231	86577
02D0363-005	11/20/01 9:48	12/10/01 8:59	continuous flow-paced	38	0.120	79844
02D0645-002	12/10/01 8:59	1/9/02 12:52	continuous flow-paced	35	0.062	121927
02D0725-004	1/9/02 12:52	2/4/02 12:11	continuous flow-paced	52	0.059	114266
02D0925-001	2/4/02 12:11	2/28/02 10:32	continuous flow-paced	40	0.049	75064
02D0965-006	2/28/02 10:32	3/14/02 12:27	continuous flow-paced	37	0.173	90544
02D1107-002	3/14/02 12:27	4/3/02 16:40	continuous flow-paced	36	0.076	87544
02D1214-001	4/3/02 16:40	5/3/02 15:14	continuous flow-paced	36	0.048	103031
02D1233-005	5/3/02 15:14	5/17/02 13:33	continuous flow-paced	48	1.188	144146
02D1254-016	5/17/02 13:33	5/24/02 11:46	continuous flow-paced	110	11.699	361314

GS10 Sample#	Start Date-Time	End Date-Time	Event Type	Number of Grabs [200ml]	Average Flow [cfs]	Flow Volume [cf]
02D1261-001	5/24/02 11:46	5/28/02 10:41	continuous flow-paced	51	3.554	175549
02D1303-002	5/28/02 10:41	6/10/02 10:07	continuous flow-paced	40	0.564	102635
02D1377-002	6/10/02 10:07	7/8/02 13:14	continuous flow-paced	43	0.250	89558
02D1393-004	7/8/02 13:14	7/17/02 10:21	continuous flow-paced	39	0.065	47600
02D1431-003	7/17/02 10:21	7/29/02 9:37	continuous flow-paced	39	0.059	59480
02D1433-001	7/29/02 9:37	8/6/02 8:38	continuous flow-paced	56	6.102	105941
02D1498-001	8/6/02 8:38	9/3/02 9:08	continuous flow-paced	39	0.953	68731
02D1503-002	9/3/02 9:08	9/10/02 8:29	continuous flow-paced	92	4.853	146061
02D1516-001	9/10/02 8:29	9/16/02 12:14	continuous flow-paced	77	5.329	132725
03D0020-007	9/16/02 12:14	10/2/02 9:51	continuous flow-paced	110	4.378	183718

B.4.1.9 Location GS11

Table B-19. Sample Collection Information for Samples Collected at GS11: Water Year 2002.

GS11 Sample#	Start Date-Time	End Date-Time	Event Type	Number of Grabs [200ml]	Average Flow [cfs]	Flow Volume [cf]
02D1240-002	5/16/02 8:06	5/20/02 16:23	continuous flow-paced	45	1.606	590967
02D1252-001	5/20/02 16:23	5/23/02 9:30	continuous flow-paced	29	1.016	186881

B.4.1.10 Location GS22

Table B-20. Sample Collection Information for Samples Collected at GS22: Water Year 2002.

GS22 Sample#	Start Date-Time	End Date-Time	Event Type	Number of Grabs [200ml]	Average Flow [cfs]	Flow Volume [cf]
02D0680-002	11/15/01 14:02	1/17/02 11:28	continuous flow-paced	45	0.100	102368
02D1148-003	1/17/02 11:28	4/5/02 10:12	continuous flow-paced	45	0.053	139754
02D1221-002	4/5/02 10:12	5/13/02 9:54	continuous flow-paced	38	0.236	78175
02D1262-003	5/13/02 9:54	5/29/02 9:43	continuous flow-paced	62	1.754	130110
02D1362-002	5/29/02 9:43	6/24/02 10:13	continuous flow-paced	28	0.650	57181
02D1435-007	6/24/02 10:13	8/6/02 15:19	continuous flow-paced	26	0.523	54342
02D1506-007	8/6/02 15:19	9/10/02 12:49	continuous flow-paced	48	0.960	90842
03D0020-011	9/10/02 12:49	10/2/02 15:05	continuous flow-paced	48	1.292	92072

B.4.1.11 Location GS27

Table B-21. Sample Collection Information for Samples Collected at GS27: Water Year 2002.

GS27 Sample#	Start Date-Time	Event Type	Number of Grabs	Average Flow [cfs]
02D1233-006	5/16/02 17:15	flow-paced storm-event rising-limb	15	0.005
02D1254-003	5/23/02 20:24	flow-paced storm-event rising-limb	15	0.006
02D1435-004	8/5/02 16:50	flow-paced storm-event rising-limb	15	0.050
02D1440-002	8/6/02 16:11	flow-paced storm-event rising-limb	15	0.003
02D1506-005	9/10/02 0:40	flow-paced storm-event rising-limb	15	0.026
02D1516-004	9/12/02 0:33	flow-paced storm-event rising-limb	15	0.003

B.4.1.12 Location GS28

Table B-22. Sample Collection Information for Samples Collected at GS28: Water Year 2002.

GS28 Sample#	Start Date-Time	End Date-Time	Event Type	Number of Grabs [200ml]	Average Flow [cfs]	Flow Volume [cf]
02D1254-010	5/23/02 22:46	5/24/02 13:25	continuous flow-paced	66	0.290	4346
02D1262-009	5/24/02 13:25	8/5/02 17:13	continuous flow-paced	30	0.052	2879
02D1521-003	8/5/02 17:13	10/1/02 22:37	continuous flow-paced	30	0.137	2438

B.4.1.13 Location GS31

Table B-23. Sample Collection Information for Samples Collected at GS31: Water Year 2002.

GS31 Sample#	Start Date-Time	End Date-Time	Event Type	Number of Grabs [200ml]	Average Flow [cfs]	Flow Volume [cf]
02D1506-003	9/10/02 10:06	9/10/02 12:30	continuous flow-paced	16	3.984	6242

B.4.1.14 Location GS32

Table B-24. Sample Collection Information for Samples Collected at GS32: Water Year 2002.

GS32 Sample#	Start Date-Time	Event Type	Number of Grabs
02D0645-003	1/10/02 10:42	time-paced storm-event rising-limb	15
02D0935-002	3/5/02 13:17	time-paced storm-event rising-limb	15
02D1214-002	5/1/02 20:32	time-paced storm-event rising-limb	15
02D1221-003	5/11/02 18:08	time-paced storm-event rising-limb	15
02D1233-007	5/16/02 16:59	time-paced storm-event rising-limb	15
02D1262-010	5/24/02 15:03	time-paced storm-event rising-limb	15

GS32 Sample#	Start Date-Time	Event Type	Number of Grabs
02D1292-001	6/3/02 22:42	time-paced storm-event rising-limb	15
02D1333-001	6/19/02 22:02	time-paced storm-event rising-limb	15
02D1440-001	8/6/02 16:14	time-paced storm-event rising-limb	15
02D1506-008	9/9/02 18:03	time-paced storm-event rising-limb	15
02D1516-005	9/11/02 19:08	time-paced storm-event rising-limb	15

B.4.1.15 Location GS38

Table B-25. Sample Collection Information for Samples Collected at GS38: Water Year 2002.

GS38 Sample#	Start Date-Time	End Date-Time	Event Type	Number of Grabs [200ml]	Average Flow [cfs]	Flow Volume [cf]
02D0680-001	11/29/01 12:48	1/17/02 16:35	continuous flow-paced	33	0.009	8560
02D0825-001	1/17/02 16:35	2/15/02 10:28	continuous flow-paced	59	Missing flow data	1936
02D1221-004	2/15/02 10:28	5/14/02 16:31	continuous flow-paced	43	0.263	41242
02D1254-005	5/14/02 16:31	5/24/02 13:19	continuous flow-paced	75	2.902	119212
02D1262-004	5/24/02 13:19	6/3/02 22:25	continuous flow-paced	30	0.566	29862
02D1435-002	6/3/02 22:25	8/6/02 15:40	continuous flow-paced	28	1.880	30423
02D1506-006	8/6/02 15:40	9/10/02 13:36	continuous flow-paced	38	1.819	43746
02D1521-002	9/10/02 13:36	9/18/02 16:52	continuous flow-paced	32	2.269	35842
03D0024-002	9/18/02 16:52	10/3/02 11:10	continuous flow-paced	39	1.538	44263

B.4.1.16 Location GS39

Table B-26. Sample Collection Information for Samples Collected at GS39: Water Year 2002.

GS39 Sample#	Start Date-Time	End Date-Time	Event Type	Number of Grabs [200ml]	Average Flow [cfs]	Flow Volume [cf]
02D1254-002	5/16/02 17:14	5/24/02 12:20	continuous flow-paced	75	0.637	17768
02D1262-006	5/24/02 12:20	6/3/02 23:10	continuous flow-paced	27	0.191	5604
02D1435-003	6/3/02 23:10	8/6/02 16:09	continuous flow-paced	28	0.843	5264
02D1521-001	8/6/02 16:09	9/25/02 23:28	continuous flow-paced	46	0.582	14336
03D0020-005	9/25/02 23:28	10/2/02 13:46	continuous flow-paced	40	0.339	7298

B.4.1.17 Location GS40

Table B-27. Sample Collection Information for Samples Collected at GS40: Water Year 2002.

GS40 Sample#	Start Date-Time	End Date-Time	Event Type	Number of Grabs [200ml]	Average Flow [cfs]	Flow Volume [cf]
02D0265-003	10/1/01 10:48	11/1/01 9:02	continuous flow-paced	72	0.047	65232
02D0575-002	11/1/01 9:02	12/24/01 11:29	continuous flow-paced	49	0.090	134353
02D0687-002	12/24/01 11:29	1/21/02 13:33	continuous flow-paced	39	0.028	57436
02D0815-002	1/21/02 13:33	2/6/02 10:07	continuous flow-paced	22	0.023	31738
02D0965-002	2/6/02 10:07	3/13/02 10:02	continuous flow-paced	46	0.036	96785
02D1214-003	3/13/02 10:02	5/3/02 14:28	continuous flow-paced	47	0.043	142647
02D1262-007	5/3/02 14:28	5/29/02 15:54	continuous flow-paced	46	0.378	217940
02D1333-003	5/29/02 15:54	6/20/02 12:16	continuous flow-paced	32	0.341	76884
02D1435-005	6/20/02 12:16	8/6/02 13:51	continuous flow-paced	50	0.853	112567
02D1498-003	8/6/02 13:51	9/3/02 10:51	continuous flow-paced	32	0.150	77453
02D1516-006	9/3/02 10:51	9/16/02 15:48	continuous flow-paced	29	1.648	111072
02D1542-001	9/16/02 15:48	9/23/02 8:54	continuous flow-paced	75	0.029	17376
03D0063-001	9/23/02 8:54	10/10/02 9:48	continuous flow-paced	37	0.796	94883

B.4.1.18 Location GS42

No samples collected at GS42 in WY2002.

B.4.1.19 Location GS43

Table B-28. Sample Collection Information for Samples Collected at GS43: Water Year 2002.

GS43 Sample#	Start Date-Time	End Date-Time	Event Type	Number of Grabs [200ml]	Average Flow [cfs]	Flow Volume [cf]
03D0109-004	5/24/02 12:30	10/29/02 7:47	continuous flow-paced	23	0.067	1360

B.4.1.20 Location GS44

Table B-29. Sample Collection Information for Samples Collected at GS44: Water Year 2002.

GS44 Sample#	Start Date-Time	End Date-Time	Event Type	Number of Grabs [200ml]	Average Flow [cfs]	Flow Volume [cf]
02D0299-002	10/4/01 23:48	11/12/01 15:35	continuous flow-paced	70	0.001	2261
NSQ	11/12/01 15:35	5/1/02 20:03	continuous flow-paced			6035 (some missing flow data)
02D1254-011	5/1/02 20:03	5/24/02 15:25	continuous flow-paced	56	0.301	14779
02D1292-002	5/24/02 15:25	6/4/02 10:02	continuous flow-paced	33	0.043	7332
02D1506-001	6/4/02 10:02	9/10/02 14:22	continuous flow-paced	36	0.097	8557
03D0020-001	9/10/02 14:22	10/28/02 23:58	continuous flow-paced	30	0.124	5623

B.4.1.21 Location GS49

Table B-30. Sample Collection Information for Samples Collected at GS49: Water Year 2002.

GS49 Sample#	Start Date-Time	End Date-Time	Event Type	Number of Grabs [200ml]	Average Flow [cfs]	Flow Volume [cf]
02D0680-003	11/18/01 14:26	1/25/02 10:42	continuous flow-paced	26	Missing grab times	1767
02D1107-001	1/25/02 10:42	4/21/02 4:15	continuous flow-paced	24	0.004	2690
02D1243-004	4/21/02 4:15	5/23/02 18:22	continuous flow-paced	26	0.024	1851
02D1254-013	5/23/02 18:22	5/24/02 15:14	continuous flow-paced	44	0.119	3527
02D1333-002	5/24/02 15:14	8/4/02 16:58	continuous flow-paced	28	0.033	2392
02D1506-002	8/4/02 16:58	9/11/02 18:20	continuous flow-paced	38	0.214	2615
03D0020-003	9/11/02 18:20	10/2/02 19:01	continuous flow-paced	48	0.053	3064

B.4.1.22 Location GS50

Table B-31. Sample Collection Information for Samples Collected at GS50: Water Year 2002.

GS50 Sample#	Start Date-Time	End Date-Time	Event Type	Number of Grabs [200ml]	Average Flow [cfs]	Flow Volume [cf]
03D0683-008	5/24/02 14:45	3/25/03 13:27	continuous flow-paced	54	0.055	9829

B.4.1.23 Location GS51

Table B-32. Sample Collection Information for Samples Collected at GS51: Water Year 2002.

GS51 Sample#	Start Date-Time	End Date-Time	Event Type	Number of Grabs [200ml]	Average Flow [cfs]	Flow Volume [cf]
03D0154-004	5/24/02 16:49	3/21/03 16:10	continuous flow-paced	18	0.007	620

B.4.1.24 Location GS52

Table B-33. Sample Collection Information for Samples Collected at GS52: Water Year 2002.

GS51 Sample#	Start Date-Time	End Date-Time	Event Type	Number of Grabs [200ml]	Average Flow [cfs]	Flow Volume [cf]
02D1261-003	5/24/02 15:22	3/24/03 16:14	continuous flow-paced	36	0.001	39

B.4.1.25 Location GS53

No samples collected at GS53 in WY2002.

B.4.1.26 Location GS54

No samples collected at GS54 in WY2002.

B.4.1.27 Location GS55

Table B-34. Sample Collection Information for Samples Collected at GS55: Water Year 2002.

GS55 Sample#	Start Date-Time	End Date-Time	Event Type	Number of Grabs	Average Flow [cfs]	Flow Volume [cf]
02D1214-004	4/10/02 9:30	5/3/02 14:46	continuous flow-paced	38	0.007	10684
02D1221-006	5/3/02 14:46	5/13/02 14:35	continuous flow-paced	44	0.090	12199
02D1243-003	5/13/02 14:35	5/21/02 10:05	continuous flow-paced	33	0.054	7437
02D1254-009	5/21/02 10:05	5/24/02 13:50	continuous flow-paced	71	0.532	20756
02D1264-001	5/24/02 13:50	5/30/02 10:20	continuous flow-paced	54	0.152	17614
02D1303-003	5/30/02 10:20	6/5/02 10:08	continuous flow-paced	32	0.088	9166
02D1333-004	6/5/02 10:08	6/20/02 11:48	continuous flow-paced	33	0.013	9731
02D1431-002	6/20/02 11:48	8/1/02 10:46	continuous flow-paced	28	0.004	8215
02D1498-002	8/1/02 10:46	9/9/02 9:33	continuous flow-paced	32	0.064	10064
02D1506-004	9/9/02 9:33	9/10/02 15:11	continuous flow-paced	36	0.368	10607
02D1516-007	9/10/02 15:11	9/16/02 14:09	continuous flow-paced	45	0.343	14157
03D0020-009	9/16/02 14:09	10/2/02 11:16	continuous flow-paced	75	0.244	22048

B.4.1.28 Location GS56

No samples collected at GS56 in WY2002.

B.4.1.29 Location GS57

Table B-35. Sample Collection Information for Samples Collected at GS57: Water Year 2002.

GS57 Sample#	Start Date-Time	End Date-Time	Event Type	Number of Grabs	Average Flow [cfs]	Flow Volume [cf]
02D1221-007	4/5/02 9:32	5/16/02 17:18	continuous flow-paced	36	0.198	7878
02D1254-008	5/16/02 17:18	5/24/02 16:00	continuous flow-paced	75	1.224	35359
02D1264-002	5/24/02 16:00	6/3/02 23:00	continuous flow-paced	42	0.161	10443
02D1435-001	6/3/02 23:00	8/6/02 16:17	continuous flow-paced	38	0.678	8881
02D1503-003	8/6/02 16:17	9/10/02 8:11	continuous flow-paced	75	0.839	13864
02D1516-003	9/10/02 8:11	9/26/02 0:52	continuous flow-paced	75	0.879	13136
03D0020-008	9/26/02 0:52	10/2/02 11:02	continuous flow-paced	75	0.657	14306

B.4.1.30 Location GS58

Table B-36. Sample Collection Information for Samples Collected at GS58: Water Year 2002.

GS58 Sample#	Start Date-Time	Event Type	Number of Grabs
02D1030-001	3/19/02 15:06	time-paced storm-event rising-limb	15
02D1068-001	3/21/02 18:43	time-paced storm-event rising-limb	15
02D1148-004	4/6/02 19:08	time-paced storm-event rising-limb	10
02D1197-001	4/24/02 19:36	time-paced storm-event rising-limb	10
02D1221-008	5/4/02 19:33	time-paced storm-event rising-limb	9
02D1240-003	5/16/02 10:07	time-paced storm-event rising-limb	15
02D1262-005	5/23/02 22:39	time-paced storm-event rising-limb	15

B.4.1.31 Location SW022

Table B-37. Sample Collection Information for Samples Collected at SW022: Water Year 2002.

SW022 Sample#	Start Date-Time	End Date-Time	Event Type	Number of Grabs	Average Flow [cfs]	Flow Volume [cf]
02D0965-004	12/17/01 15:36	3/11/02 16:30	continuous flow-paced	37	0.060	31294
02D1221-009	3/11/02 16:30	5/14/02 17:35	continuous flow-paced	32	0.511	46479
02D1254-001	5/14/02 17:35	5/24/02 12:12	continuous flow-paced	75	7.267	188558
02D1262-008	5/24/02 12:12	6/3/02 23:04	continuous flow-paced	39	1.656	73200
02D1435-006	6/3/02 23:04	8/6/02 16:26	continuous flow-paced	31	3.188	53436
02D1508-002	8/6/02 16:26	9/11/02 19:50	continuous flow-paced	42	1.931	71313
03D0020-010	9/11/02 19:50	10/2/02 13:32	continuous flow-paced	62	2.299	116638

B.4.1.32 Location SW027

Table B-38. Sample Collection Information for Samples Collected at SW027: Water Year 2002.

SW027 Sample#	Start Date-Time	End Date-Time	Event Type	Number of Grabs [200ml]	Average Flow [cfs]	Flow Volume [cf]
02D1254-015	5/12/02 14:02	5/24/02 17:13	continuous flow-paced	88	2.592	135793
02D1261-005	5/24/02 17:13	5/28/02 14:49	continuous flow-paced	51	1.052	83354
03D0024-004	5/28/02 14:49	10/4/02 10:13	continuous flow-paced	43	0.844	65521

B.4.1.33 Location SW036

No samples collected at SW036 in WY2002.

B.4.1.34 Location SW055

Table B-39. Sample Collection Information for Samples Collected at SW055: Water Year 2002.

SW055 Sample#	Start Date-Time	End Date-Time	Event Type	Number of Grabs [200ml]	Average Flow [cfs]	Flow Volume [cf]
02D1254-004	5/24/02 6:20	5/24/02 13:43	continuous flow-paced	61	0.031	528
02D1261-004	5/24/02 13:43	3/21/03 15:53	continuous flow-paced	75	0.034	1325

B.4.1.35 Location SW091

No samples collected at SW091 in WY2002.

B.4.1.36 Location SW093

Table B-40. Sample Collection Information for Samples Collected at SW093: Water Year 2002.

SW093 Sample#	Start Date-Time	End Date-Time	Event Type	Number of Grabs [200ml]	Average Flow [cfs]	Flow Volume [cf]
02D0177-001	10/1/01 10:26	10/19/01 7:48	continuous flow-paced	52	0.114	155223
02D0265-002	10/19/01 7:48	11/2/01 8:09	continuous flow-paced	36	0.084	101769
02D0299-001	11/2/01 8:09	11/12/01 9:58	continuous flow-paced	46	0.222	106407
02D0345-002	11/12/01 9:58	11/26/01 9:55	continuous flow-paced	51	0.139	132563
02D0512-002	11/26/01 9:55	12/17/01 9:30	continuous flow-paced	40	0.100	155851
02D0645-001	12/17/01 9:30	1/9/02 8:56	continuous flow-paced	37	0.087	132846
02D0724-001	1/9/02 8:56	1/25/02 12:08	continuous flow-paced	37	0.106	107475

SW093 Sample#	Start Date-Time	End Date-Time	Event Type	Number of Grabs [200ml]	Average Flow [cfs]	Flow Volume [cf]
02D0815-003	1/25/02 12:08	2/11/02 8:56	continuous flow-paced	40	0.096	118377
02D0918-001	2/11/02 8:56	2/22/02 9:11	continuous flow-paced	35	0.077	67329
02D0935-001	2/22/02 9:11	3/6/02 8:17	continuous flow-paced	38	0.207	113353
02D0965-007	3/6/02 8:17	3/14/02 12:09	continuous flow-paced	42	0.195	102771
02D1060-003	3/14/02 12:09	3/27/02 8:21	continuous flow-paced	35	0.124	131319
02D1148-002	3/27/02 8:21	4/8/02 8:53	continuous flow-paced	38	0.088	89721
02D1221-001	4/8/02 8:53	5/6/02 14:55	continuous flow-paced	40	0.064	140379
02D1233-004	5/6/02 14:55	5/17/02 14:11	continuous flow-paced	39	0.896	155176
02D1254-014	5/17/02 14:11	5/24/02 15:40	continuous flow-paced	110	13.470	540433
02D1261-002	5/24/02 15:40	5/28/02 10:13	continuous flow-paced	48	1.774	195432
02D1303-001	5/28/02 10:13	6/5/02 10:45	continuous flow-paced	33	0.385	114286
02D1362-001	6/5/02 10:45	6/24/02 10:46	continuous flow-paced	37	0.134	141609
02D1393-003	6/24/02 10:46	7/17/02 9:57	continuous flow-paced	41	0.052	102431
02D1431-001	7/17/02 9:57	8/1/02 9:56	continuous flow-paced	41	0.055	50596
02D1433-002	8/1/02 9:56	8/6/02 9:21	continuous flow-paced	74	9.498	104022
02D1469-002	8/6/02 9:21	8/23/02 9:25	continuous flow-paced	39	0.131	58544
02D1503-001	8/23/02 9:25	9/10/02 9:09	continuous flow-paced	110	4.259	193976
02D1516-002	9/10/02 9:09	9/16/02 11:50	continuous flow-paced	87	3.308	178994
03D0020-006	9/16/02 11:50	10/2/02 10:42	continuous flow-paced	88	2.685	213319

B.4.1.37 Location SW119

Table B-41. Sample Collection Information for Samples Collected at SW119: Water Year 2002.

SW119 Sample#	Start Date-Time	End Date-Time	Event Type	Number of Grabs [200ml]	Average Flow [cfs]	Flow Volume [cf]
03D0024-003	9/13/02 13:22	10/29/02 11:11	continuous flow-paced	24	0.012	736

B.4.1.38 Location SW120

Table B-42. Sample Collection Information for Samples Collected at SW120: Water Year 2002.

SW120 Sample#	Start Date-Time	End Date-Time	Event Type	Number of Grabs [200ml]	Average Flow [cfs]	Flow Volume [cf]
02D0965-003	3/5/02 18:19	4/21/02 6:17	continuous flow-paced	75	0.022	5501
02D1254-012	4/21/02 6:17	5/24/02 14:52	continuous flow-paced	74	0.441	16991
02D1264-003	5/24/02 14:52	6/4/02 3:20	continuous flow-paced	36	0.124	6746
03D0020-002	6/4/02 3:20	10/2/02 15:54	continuous flow-paced	39	0.103	6972

B.4.1.39 Location SW134

Table B-43. Sample Collection Information for Samples Collected at SW134: Water Year 2002.

SW134 Sample#	Start Date-Time	Event Type	Number of Grabs	Average Flow [cfs]
02D0265-001	10/31/01 10:15	flow-paced storm-event rising-limb	15	1.398
02D0664-001	1/14/02 13:59	flow-paced storm-event rising-limb	13	0.475
02D1187-001	4/22/02 9:36	flow-paced storm-event rising-limb	7	1.043

B.4.1.40 Location 995POE

Table B-44. Sample Collection Information for Samples Collected at 995POE: Water Year 2002.

995POE Sample#	Start Date-Time	End Date-Time	Event Type	Number of Grabs [200ml]	Average Flow [cfs]	Flow Volume [cf]
02D0361-003	10/25/01 9:12	11/6/01 8:22	continuous flow-paced	50	0.203	543711
	11/6/01 8:22	11/16/01 8:04	continuous flow-paced	36		
	11/16/01 8:04	11/28/01 12:27	continuous flow-paced	42		
02D0602-002	11/28/01 12:27	12/10/01 8:46	continuous flow-paced	46	0.204	526875
	12/10/01 8:46	12/18/01 11:58	continuous flow-paced	28		
	12/18/01 11:58	12/31/01 12:08	continuous flow-paced	48		
02D0815-001	12/31/01 12:08	1/14/02 14:34	continuous flow-paced	57	0.203	630599
	1/14/02 14:34	1/28/02 12:30	continuous flow-paced	56		
	1/28/02 12:30	2/7/02 10:30	continuous flow-paced	36		
02D0965-001	2/7/02 10:30	2/19/02 12:58	continuous flow-paced	58	0.228	610625
	2/19/02 12:58	3/4/02 13:10	continuous flow-paced	55		
	3/4/02 13:10	3/12/02 14:14	continuous flow-paced	39		
02D1159-001	3/12/02 14:14	3/22/02 8:04	continuous flow-paced	60	0.296	680714
	3/22/02 8:04	4/1/02 10:21	continuous flow-paced	51		
	4/1/02 10:21	4/9/02 10:18	continuous flow-paced	48		
02D1221-010	4/9/02 10:18	4/18/02 9:46	continuous flow-paced	45	0.249	668908
	4/18/02 9:46	4/30/02 15:37	continuous flow-paced	57		
	4/30/02 15:37	5/13/02 11:41	continuous flow-paced	56		
02D1303-004	5/13/02 11:41	5/23/02 16:04	continuous flow-paced	51	0.301	670773
	5/23/02 16:04	5/31/02 9:26	continuous flow-paced	50		
	5/31/02 9:26	6/10/02 10:31	continuous flow-paced	56		
02D1377-001	6/10/02 10:31	6/20/02 13:02	continuous flow-paced	55	0.261	598665
	6/20/02 13:02	6/28/02 9:48	continuous flow-paced	40		

995POE Sample#	Start Date-Time	End Date-Time	Event Type	Number of Grabs [200ml]	Average Flow [cfs]	Flow Volume [cf]
	6/28/02 9:48	7/8/02 13:40	continuous flow-paced	47		
02D1469-001	7/8/02 13:40	7/23/02 9:45	continuous flow-paced	49	0.212	699466
	7/23/02 9:45	8/5/02 9:37	continuous flow-paced	54		
	8/5/02 9:33	8/19/02 9:25	continuous flow-paced	60		
02D1542-004	8/19/02 9:25	8/29/02 14:29	continuous flow-paced	48	0.277	686521
	8/29/02 14:29	9/9/02 9:52	continuous flow-paced	59		
	9/9/02 9:52	9/18/02 11:10	continuous flow-paced	53		
03D0101-001	9/18/02 11:10	9/26/02 10:20	continuous flow-paced	50	0.230	606167
	9/26/02 10:20	10/9/02 10:23	continuous flow-paced	46		
	10/9/02 10:23	10/24/02 9:46	continuous flow-paced	46		

Note: 995POE composite samples are analyzed in groups of three. A composite for the group is created in the sample preparation facility based on the volumes for each composite comprising the group. In the above table, the sample number, average flow rate, and flow volume is given with the first composite of the group of three

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B.5 REAL-TIME WATER QUALITY PARAMETERS

B.5.1 Data Description

B.5.1.1 Real-Time Water-Quality Data Collection and Computation

The real-time water-quality data obtained at a continuous surface-water gaging station on a stream or conveyance, such as an irrigation ditch, consist of continuous 15-minute interval parameter readings collected using multi-parameter probes. These parameters (depending on location) include temperature, pH, specific conductivity, nitrate[11], and turbidity. These data, together with supplemental flow records, are used to compute daily mean values.

Daily mean values are computed by averaging the volume-weighted individual measurements.[12] Missing data points due to equipment malfunction or temporary removal for calibration are interpolated using professional judgement when appropriate. Professional judgement is also used to remove errant or ambiguous data points as appropriate. Replacement data points are then interpolated, as appropriate. Estimated values are labeled as such, and the daily mean including those points is also labeled as estimated. Only 15-minute values measured during non-zero flow are included in the daily average. Since the probes are normally situated in a pool at the monitoring location, 15-minute parameter readings will be collected during periods of zero flow. Therefore, for days when there is no flow, no mean daily parameter values are calculated. Similarly, for a location that had non-zero flow for part of a day, the calculated mean daily value includes only a portion of the collected 15-minute parameter values.

B.5.1.2 Data Presentation

The daily mean water-quality parameter tables published for each continuous-record surface-water gaging station consist of three parts: plots of the daily mean parameter values for the water year; a table of daily mean values for the water year; a tabular statistical summary of monthly mean values for the water year; and a tabular statistical summary of annual mean values for the water year.

B.5.1.3 Daily Mean Water-Quality Values

For a day of zero flow, the daily value is given as 'No Flow' in the table. For a day of non-zero flow with missing 15-minute values that could not be estimated, the daily value is given as 'Missing Data'. Daily values containing estimated readings are *italicized.*

B.5.1.4 Summary Statistics

For a month of complete record, the monthly values are the volume-weighted average of all the individual 15-minute interval readings for the given time period. For a month of zero flow, the monthly value is given as 'No Flow' in the table. For a month of non-zero flow with missing parameter values that could not be estimated, the

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[11] Nitrate ion-specific electrodes (ISEs) are subject to a variety of interferences caused by common surface-water constituents including chloride and natural organic matter. For this reason, use of nitrate ISEs has typically been limited to the laboratory, where sample composition can be controlled. Both short-term and cumulative errors have been observed in the data collected by field-deployed nitrate ISEs at the Site. Although, modifications to calibration procedures have successfully expedited and improved the calibration process, short-term drift and interferences in field-deployed ISEs cannot be prevented or corrected.

Given the Site's current nitrate action level/standard of 10 mg/L-N, nitrate data collected by field-deployed nitrate ISEs is not accurate enough to be used for compliance. However, considering that nitrate is an important indicator parameter at the Site, and that real-time monitoring of nitrate is a fundamental part of the quality control plan for progression toward Site closure, real-time measurement of nitrate continues. Nitrate ISE data is considered in conjunction with other water quality parameters as an indicator of acute or chronic contaminant releases to surface water.

[12] Each 15-minute value is multiplied by the corresponding 15-minute measured flow volume. The sum of the resulting values is then divided by the total measured daily volume to calculate the volume-weighted mean-daily parameter value. The formula can be given as $\left(\sum_{i=1}^{i=96}[\textit{parameter value} \times \textit{flow volume}]\right) \div (\textit{daily flow volume})$. For pH, the log of the individual pH readings are used in the calculation. This average is then converted back to standard pH units.

monthly value is calculated using the available 15-minute readings and labeled as 'Partial Data'. Monthly values containing estimated readings are **not** *italicized.*

For a year of complete record, the annual values are the volume-weighted average of all the individual 15-minute interval readings for the given time period. For a year with missing parameter values that could not be estimated, the annual value is calculated using the available 15-minute readings and labeled as 'Partial Data'. Annual values containing estimated readings are **not** *italicized.*

B.5.1.5 Other Records Available

Information used in the preparation of the records in this report, such as calibration notes and field notes, are on file at the Site. Information on the availability of the unpublished information or on the published statistical analyses is available from RFETS personnel involved with data collection at the Site.

B.5.2 Real-Time Water Quality Data

This section includes mean daily real-time water-quality parameter tables and plots by monitoring location and water year. Electronic copies of the tables are included in the Appendix Tables directory on the CD-ROM disc. The tables are given in a single Microsoft Excel. Each file contains separate worksheets for each monitoring location with tables for all applicable parameters.

B.5.2.1 GS01: Woman Creek at Indiana Street

No real-time water-quality data were collected at GS01 during WY02.

B.5.2.2 GS03: Walnut Creek at Indiana Street

Table B-45. WY02 Mean Daily Water Temperature at GS03: Walnut Creek at Indiana Street.

Water Year 2002: Daily Mean Temperature Values in Degrees Celsius

Day	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02
1	No Flow	Missing Data	2.8	No Flow	Missing Data	Missing Data	9.5	No Flow	18.3	No Flow	No Flow	No Flow
2	No Flow	Missing Data	3.3	Missing Data	Missing Data	Missing Data	7.6	No Flow	17.3	No Flow	No Flow	No Flow
3	Missing Data	Missing Data	3.5	Missing Data	Missing Data	Missing Data	5.8	No Flow	15.9	No Flow	No Flow	No Flow
4	Missing Data	Missing Data	3.2	Missing Data	Missing Data	Missing Data	8.8	No Flow	15.7	No Flow	No Flow	No Flow
5	Missing Data	Missing Data	2.6	Missing Data	Missing Data	Missing Data	10.3	No Flow	16.5	No Flow	No Flow	No Flow
6	Missing Data	Missing Data	2.7	Missing Data	Missing Data	Missing Data	11.2	No Flow	19.4	No Flow	No Flow	20.0
7	Missing Data	Missing Data	2.5	Missing Data	Missing Data	Missing Data	11.9	No Flow	20.1	No Flow	No Flow	18.7
8	Missing Data	Missing Data	2.2	Missing Data	Missing Data	Missing Data	11.3	No Flow	19.0	No Flow	No Flow	18.7
9	Missing Data	Missing Data	2.4	Missing Data	Missing Data	Missing Data	*11.0*	No Flow	20.7	No Flow	No Flow	18.2
10	Missing Data	Missing Data	2.6	Missing Data	Missing Data	Missing Data	12.4	No Flow	19.0	No Flow	No Flow	17.7
11	Missing Data	Missing Data	1.9	Missing Data	Missing Data	Missing Data	12.1	No Flow	18.9	Missing Data	No Flow	17.6
12	Missing Data	Missing Data	1.8	Missing Data	Missing Data	Missing Data	13.4	No Flow	20.2	Missing Data	No Flow	17.7
13	Missing Data	Missing Data	1.6	Missing Data	Missing Data	Missing Data	13.6	No Flow	No Flow	21.6	No Flow	16.9
14	Missing Data	Missing Data	2.3	Missing Data	Missing Data	Missing Data	14.4	No Flow	No Flow	22.1	No Flow	17.1
15	Missing Data	Missing Data	3.1	Missing Data	Missing Data	Missing Data	14.5	No Flow	No Flow	22.2	No Flow	17.1
16	Missing Data	Missing Data	1.9	Missing Data	Missing Data	Missing Data	12.5	11.9	No Flow	22.7	No Flow	17.1
17	Missing Data	Missing Data	1.7	Missing Data	Missing Data	Missing Data	13.0	12.2	No Flow	22.5	No Flow	16.5
18	Missing Data	Missing Data	2.1	Missing Data	Missing Data	Missing Data	14.3	13.3	No Flow	22.6	No Flow	15.3
19	Missing Data	Missing Data	3.2	No Flow	Missing Data	Missing Data	11.6	14.0	No Flow	22.6	No Flow	15.3
20	Missing Data	Missing Data	2.8	No Flow	Missing Data	No Flow	9.7	13.4	No Flow	22.9	No Flow	16.0
21	Missing Data	Missing Data	2.7	No Flow	Missing Data	Missing Data	7.7	14.2	No Flow	22.5	No Flow	15.9
22	Missing Data	No Flow	2.2	No Flow	Missing Data	5.2	9.2	12.8	No Flow	21.7	No Flow	16.4
23	Missing Data	No Flow	2.8	No Flow	Missing Data	5.6	10.7	12.2	No Flow	20.9	No Flow	15.9
24	Missing Data	No Flow	Missing Data	Missing Data	Missing Data	4.8	No Flow	9.4	No Flow	20.8	No Flow	15.7
25	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	4.1	14.2	9.8	No Flow	21.6	No Flow	14.9
26	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	5.4	No Flow	13.3	No Flow	20.5	No Flow	14.4
27	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	6.4	No Flow	11.7	No Flow	No Flow	No Flow	13.5
28	Missing Data	No Flow	Missing Data	Missing Data	Missing Data	7.6	No Flow	13.2	No Flow	No Flow	No Flow	13.7
29	Missing Data	No Flow	Missing Data	Missing Data	NA	7.3	No Flow	14.8	No Flow	No Flow	No Flow	14.0
30	Missing Data	3.3	Missing Data	Missing Data	NA	7.8	No Flow	16.9	No Flow	No Flow	No Flow	13.0
31	Missing Data	NA	Missing Data	Missing Data	NA	8.2	NA	18.4	NA	No Flow	No Flow	NA
	Missing Data	Partial Data	Partial Data	Missing Data	Missing Data	Partial Data				Partial Data		
Monthly *Average*	NA	3.3	2.9	NA	NA	6.0	9.1	13.2	17.6	22.3	No Flow	17.6
	Missing Data	Partial Data	Partial Data	Missing Data	Missing Data	Partial Data				Partial Data		

KEY: Missing Data: Missing data due to equipment failures, calibration removal, winter conditions, etc.
ITALICS: Italic values include estimated data
No Flow: No streamflow was measured at the gage for the day

Annual Summaries for WY02
Degrees Celsius 12.2
Partial Data

Table B-46. WY02 Mean Daily pH at GS03: Walnut Creek at Indiana Street.

Water Year 2002: Daily Mean pH Values in Standard Units

Day	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02
1	No Flow	Missing Data	7.2	No Flow	Missing Data	Missing Data	8.0	No Flow	9.2	No Flow	No Flow	No Flow
2	No Flow	Missing Data	7.4	Missing Data	Missing Data	Missing Data	Missing Data	No Flow	8.8	No Flow	No Flow	No Flow
3	Missing Data	Missing Data	7.4	Missing Data	Missing Data	Missing Data	Missing Data	No Flow	8.6	No Flow	No Flow	No Flow
4	Missing Data	Missing Data	7.4	Missing Data	Missing Data	Missing Data	Missing Data	No Flow	8.9	No Flow	No Flow	No Flow
5	Missing Data	Missing Data	7.2	Missing Data	Missing Data	Missing Data	Missing Data	No Flow	8.8	No Flow	No Flow	No Flow
6	Missing Data	Missing Data	7.2	Missing Data	Missing Data	Missing Data	Missing Data	No Flow	9.5	No Flow	No Flow	8.8
7	Missing Data	Missing Data	7.1	Missing Data	Missing Data	Missing Data	Missing Data	No Flow	9.5	No Flow	No Flow	8.5
8	Missing Data	Missing Data	7.0	Missing Data	Missing Data	Missing Data	Missing Data	No Flow	9.5	No Flow	No Flow	8.4
9	Missing Data	Missing Data	7.0	Missing Data	Missing Data	Missing Data	*8.8*	No Flow	9.6	No Flow	No Flow	8.4
10	Missing Data	Missing Data	7.1	Missing Data	Missing Data	Missing Data	9.0	No Flow	9.5	No Flow	No Flow	8.4
11	Missing Data	Missing Data	6.9	Missing Data	Missing Data	Missing Data	8.8	No Flow	9.4	Missing Data	No Flow	8.4
12	Missing Data	Missing Data	7.2	Missing Data	Missing Data	Missing Data	8.8	No Flow	9.8	Missing Data	No Flow	8.4
13	Missing Data	Missing Data	7.1	Missing Data	Missing Data	Missing Data	8.8	No Flow	No Flow	9.3	No Flow	8.3
14	Missing Data	Missing Data	7.0	Missing Data	Missing Data	Missing Data	8.7	No Flow	No Flow	9.6	No Flow	7.9
15	Missing Data	Missing Data	7.2	Missing Data	Missing Data	Missing Data	8.8	No Flow	No Flow	9.6	No Flow	7.6
16	Missing Data	Missing Data	7.2	Missing Data	Missing Data	Missing Data	8.4	8.1	No Flow	9.4	No Flow	7.8
17	Missing Data	Missing Data	7.0	Missing Data	Missing Data	Missing Data	8.6	8.1	No Flow	9.4	No Flow	8.1
18	Missing Data	Missing Data	7.3	Missing Data	Missing Data	Missing Data	8.4	8.3	No Flow	9.4	No Flow	7.9
19	Missing Data	Missing Data	7.4	No Flow	Missing Data	Missing Data	8.7	8.4	No Flow	9.4	No Flow	7.9
20	Missing Data	Missing Data	7.5	No Flow	Missing Data	No Flow	8.5	8.4	No Flow	9.2	No Flow	7.9
21	Missing Data	Missing Data	7.3	No Flow	Missing Data	Missing Data	8.3	8.6	No Flow	8.8	No Flow	8.0
22	Missing Data	No Flow	7.4	No Flow	Missing Data	7.9	8.2	8.4	No Flow	8.8	No Flow	8.1
23	Missing Data	No Flow	7.6	No Flow	Missing Data	7.9	8.1	8.3	No Flow	8.4	No Flow	8.1
24	Missing Data	No Flow	Missing Data	Missing Data	Missing Data	8.0	No Flow	7.6	No Flow	8.8	No Flow	8.1
25	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	8.0	8.6	7.0	No Flow	9.0	No Flow	8.1
26	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	7.9	No Flow	7.8	No Flow	8.7	No Flow	8.0
27	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	7.9	No Flow	7.6	No Flow	No Flow	No Flow	7.9
28	Missing Data	No Flow	Missing Data	Missing Data	Missing Data	7.9	No Flow	7.8	No Flow	No Flow	No Flow	7.8
29	Missing Data	No Flow	Missing Data	Missing Data	NA	7.9	No Flow	8.3	No Flow	No Flow	No Flow	8.0
30	Missing Data	7.3	Missing Data	Missing Data	NA	8.0	No Flow	8.7	No Flow	No Flow	No Flow	7.8
31	Missing Data	NA	Missing Data	Missing Data	NA	8.0	NA	9.1	NA	No Flow	No Flow	NA
	Missing Data	Partial Data	Partial Data	Missing Data	Missing Data	Partial Data	Partial Data			Partial Data		
Monthly *Average*	NA	7.3	7.2	NA	NA	7.9	8.0	8.0	8.9	9.3	No Flow	8.1
	Missing Data	Partial Data	Partial Data	Missing Data	Missing Data	Partial Data	Partial Data			Partial Data		

KEY: Missing Data: Missing data due to equipment failures, calibration removal, winter conditions, etc.
ITALICS: Italic values include estimated data
No Flow: No streamflow was measured at the gage for the day

Annual Summaries for WY02
Standard pH Units: 7.8
Partial Data

Table B-47. WY02 Mean Daily Specific Conductivity at GS03: Walnut Creek at Indiana Street.

Water Year 2002: Daily Mean Specific Conductivity Values in µS/cm

Day	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02
1	No Flow	Missing Data	703	No Flow	Missing Data	Missing Data	1059	No Flow	733	No Flow	No Flow	No Flow
2	No Flow	Missing Data	697	Missing Data	Missing Data	Missing Data	Missing Data	No Flow	722	No Flow	No Flow	No Flow
3	Missing Data	Missing Data	704	Missing Data	Missing Data	Missing Data	Missing Data	No Flow	713	No Flow	No Flow	No Flow
4	Missing Data	Missing Data	745	Missing Data	Missing Data	Missing Data	Missing Data	No Flow	691	No Flow	No Flow	No Flow
5	Missing Data	Missing Data	786	Missing Data	Missing Data	Missing Data	Missing Data	No Flow	725	No Flow	No Flow	No Flow
6	Missing Data	Missing Data	917	Missing Data	Missing Data	Missing Data	Missing Data	No Flow	731	No Flow	No Flow	998
7	Missing Data	Missing Data	954	Missing Data	Missing Data	Missing Data	Missing Data	No Flow	702	No Flow	No Flow	973
8	Missing Data	Missing Data	963	Missing Data	Missing Data	Missing Data	Missing Data	No Flow	699	No Flow	No Flow	945
9	Missing Data	Missing Data	962	Missing Data	Missing Data	Missing Data	687	No Flow	692	No Flow	No Flow	933
10	Missing Data	Missing Data	957	Missing Data	Missing Data	Missing Data	991	No Flow	751	No Flow	No Flow	902
11	Missing Data	Missing Data	963	Missing Data	Missing Data	Missing Data	942	No Flow	770	Missing Data	No Flow	862
12	Missing Data	Missing Data	968	Missing Data	Missing Data	Missing Data	944	No Flow	789	Missing Data	No Flow	847
13	Missing Data	Missing Data	980	Missing Data	Missing Data	Missing Data	946	No Flow	No Flow	647	No Flow	818
14	Missing Data	Missing Data	967	Missing Data	Missing Data	Missing Data	949	No Flow	No Flow	644	No Flow	788
15	Missing Data	Missing Data	965	Missing Data	Missing Data	Missing Data	945	No Flow	No Flow	653	No Flow	775
16	Missing Data	Missing Data	977	Missing Data	Missing Data	Missing Data	906	1368	No Flow	673	No Flow	772
17	Missing Data	Missing Data	977	Missing Data	Missing Data	Missing Data	917	1391	No Flow	692	No Flow	784
18	Missing Data	Missing Data	966	Missing Data	Missing Data	Missing Data	969	1275	No Flow	718	No Flow	811
19	Missing Data	Missing Data	956	No Flow	Missing Data	Missing Data	986	1196	No Flow	742	No Flow	825
20	Missing Data	Missing Data	960	No Flow	Missing Data	No Flow	997	1270	No Flow	760	No Flow	838
21	Missing Data	Missing Data	958	No Flow	Missing Data	Missing Data	1006	1302	No Flow	777	No Flow	845
22	Missing Data	No Flow	953	No Flow	Missing Data	1147	1005	1168	No Flow	799	No Flow	853
23	Missing Data	No Flow	946	No Flow	Missing Data	1153	1000	905	No Flow	795	No Flow	859
24	Missing Data	No Flow	Missing Data	Missing Data	Missing Data	1153	No Flow	897	No Flow	804	No Flow	864
25	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	1151	1007	972	No Flow	807	No Flow	868
26	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	1134	No Flow	710	No Flow	830	No Flow	876
27	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	1128	No Flow	626	No Flow	No Flow	No Flow	883
28	Missing Data	No Flow	Missing Data	Missing Data	Missing Data	1119	No Flow	643	No Flow	No Flow	No Flow	887
29	Missing Data	No Flow	Missing Data	Missing Data	NA	1119	No Flow	663	No Flow	No Flow	No Flow	892
30	Missing Data	741	Missing Data	Missing Data	NA	1096	No Flow	693	No Flow	No Flow	No Flow	895
31	Missing Data	NA	Missing Data	Missing Data	NA	1067	NA	711	NA	No Flow	No Flow	NA
	Missing Data	Partial Data	Partial Data	Missing Data	Missing Data	Partial Data	Partial Data			Partial Data		
Monthly *Average*	NA	741	807	NA	NA	1132	1056	1086	726	683	No Flow	850
	Missing Data	Partial Data	Partial Data	Missing Data	Missing Data	Partial Data	Partial Data			Partial Data		

KEY: Missing Data: Missing data due to equipment failures, calibration removal, winter conditions, etc.
ITALICS: Italic values include estimated data
No Flow: No streamflow was measured at the gage for the day

Annual Summaries for WY02
µS/cm: 962
Partial Data

B.5.2.3 GS08: South Walnut Creek at Pond B-5 Outlet

Table B-48. WY02 Mean Daily Water Temperature at GS08: South Walnut Creek at Pond B-5.

Water Year 2002: Daily Mean Temperature Values in Degrees Celsius

Day	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02
1	No Flow	No Flow	3.5	No Flow	*4.1*	No Flow	9.4	No Flow	18.8	No Flow	No Flow	No Flow
2	No Flow	No Flow	3.6	No Flow	3.8	No Flow	*8.9*	No Flow	16.9	No Flow	No Flow	No Flow
3	16.2	No Flow	3.9	No Flow	3.1	No Flow	No Flow	No Flow	*15.8*	No Flow	No Flow	No Flow
4	15.9	No Flow	3.8	No Flow	*1.3*	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
5	14.5	No Flow	3.5	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	18.6
6	13.4	No Flow	3.3	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	18.7
7	13.4	No Flow	2.9	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	18.8
8	13.4	No Flow	Missing Data	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	18.9
9	13.7	No Flow	Missing Data	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	19.3
10	12.8	No Flow	Missing Data	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	18.5
11	12.2	No Flow	Missing Data	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	21.4	No Flow	18.1
12	11.0	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	21.8	No Flow	18.4
13	9.9	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	22.5	No Flow	17.9
14	10.1	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	22.9	No Flow	17.7
15	9.9	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	23.6	No Flow	18.4
16	*8.9*	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	11.9	No Flow	24.1	No Flow	*17.4*
17	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	12.0	No Flow	24.2	No Flow	No Flow
18	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	12.4	No Flow	24.2	No Flow	No Flow
19	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	12.8	No Flow	24.1	No Flow	No Flow
20	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	13.9	No Flow	23.4	No Flow	No Flow
21	No Flow	No Flow	No Flow	No Flow	No Flow	5.8	No Flow	15.0	No Flow	22.2	No Flow	No Flow
22	No Flow	No Flow	No Flow	No Flow	No Flow	5.4	No Flow	13.9	No Flow	*21.7*	No Flow	No Flow
23	No Flow	No Flow	No Flow	No Flow	No Flow	6.2	No Flow	13.5	No Flow	No Flow	No Flow	No Flow
24	No Flow	No Flow	No Flow	4.9	No Flow	6.2	No Flow	*11.1*	No Flow	No Flow	No Flow	No Flow
25	No Flow	No Flow	No Flow	4.7	No Flow	5.6	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
26	No Flow	No Flow	No Flow	4.5	No Flow	5.7	No Flow	9.9	No Flow	No Flow	No Flow	No Flow
27	No Flow	No Flow	No Flow	4.4	No Flow	6.5	No Flow	10.9	No Flow	No Flow	No Flow	No Flow
28	No Flow	No Flow	No Flow	4.4	No Flow	7.4	No Flow	12.9	No Flow	No Flow	No Flow	No Flow
29	No Flow	No Flow	No Flow	*4.4*	NA	8.3	No Flow	15.0	No Flow	No Flow	No Flow	No Flow
30	No Flow	3.7	No Flow	4.1	NA	9.2	No Flow	17.1	No Flow	No Flow	No Flow	No Flow
31	No Flow	NA	No Flow	*3.7*	NA	9.5	NA	20.1	NA	No Flow	No Flow	NA
			Partial Data									
Monthly *Average*	12.9	3.7	3.5	4.4	3.7	6.6	9.3	13.5	17.8	23.0	No Flow	18.3
			Partial Data									

KEY: Missing Data: Missing data due to equipment failures, calibration removal, winter conditions, etc.
ITALICS: Italic values include estimated data
No Flow: No streamflow was measured at the gage for the day

Annual Summaries for WY02
Degrees Celsius 12.1
Partial Data

Table B-49. WY02 Mean Daily pH at GS08: South Walnut Creek at Pond B-5.

Water Year 2002: Daily Mean pH Values in Standard Units

Day	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02
1	No Flow	No Flow	9.4	No Flow	*8.0*	No Flow	9.2	No Flow	10.3	No Flow	No Flow	No Flow
2	No Flow	No Flow	9.4	No Flow	7.8	No Flow.	*9.0*	No Flow	9.9	No Flow	No Flow	No Flow
3	9.5	No Flow	9.4	No Flow	7.9	No Flow	No Flow	No Flow	*9.7*	No Flow	No Flow	No Flow
4	9.6	No Flow	9.3	No Flow	*7.8*	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
5	9.4	No Flow	9.2	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	9.7
6	9.3	No Flow	8.9	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	9.8
7	9.3	No Flow	8.8	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	9.8
8	9.3	No Flow	Missing Data	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	9.8
9	9.4	No Flow	Missing Data	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	10.0
10	9.4	No Flow	Missing Data	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	9.8
11	9.4	No Flow	Missing Data	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	9.6	No Flow	9.8
12	9.4	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	9.9	No Flow	9.8
13	9.4	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	10.2	No Flow	9.7
14	9.4	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	10.5	No Flow	9.0
15	9.4	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	10.5	No Flow	9.2
16	*9.4*	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	9.5	No Flow	10.5	No Flow	*9.0*
17	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	9.5	No Flow	10.4	No Flow	No Flow
18	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	9.7	No Flow	10.4	No Flow	No Flow
19	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	9.8	No Flow	10.1	No Flow	No Flow
20	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	9.9	No Flow	9.9	No Flow	No Flow
21	No Flow	No Flow	No Flow	No Flow	No Flow	9.4	No Flow	10.3	No Flow	9.5	No Flow	No Flow
22	No Flow	No Flow	No Flow	No Flow	No Flow	9.4	No Flow	10.0	No Flow	*9.5*	No Flow	No Flow
23	No Flow	No Flow	No Flow	No Flow	No Flow	9.4	No Flow	10.0	No Flow	No Flow	No Flow	No Flow
24	No Flow	No Flow	No Flow	7.9	No Flow	9.4	No Flow	*9.6*	No Flow	No Flow	No Flow	No Flow
25	No Flow	No Flow	No Flow	8.4	No Flow	9.4	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
26	No Flow	No Flow	No Flow	9.0	No Flow	9.4	No Flow	9.5	No Flow	No Flow	No Flow	No Flow
27	No Flow	No Flow	No Flow	9.2	No Flow	9.4	No Flow	9.4	No Flow	No Flow	No Flow	No Flow
28	No Flow	No Flow	No Flow	9.4	No Flow	9.3	No Flow	9.7	No Flow	No Flow	No Flow	No Flow
29	No Flow	No Flow	No Flow	*9.5*	NA	9.4	No Flow	10.0	No Flow	No Flow	No Flow	No Flow
30	No Flow	9.4	No Flow	9.4	NA	9.5	No Flow	10.4	No Flow	No Flow	No Flow	No Flow
31	No Flow	NA	No Flow	*9.0*	NA	9.4	NA	10.4	NA	No Flow	No Flow	NA
			Partial Data									
Monthly *Average*	9.4	9.4	9.2	8.6	7.9	9.4	9.1	9.8	10.0	10.1	No Flow	9.4
			Partial Data									

KEY: Missing Data: Missing data due to equipment failures, calibration removal, winter conditions, etc.
ITALICS: Italic values include estimated data
No Flow: No streamflow was measured at the gage for the day

Annual Summaries for WY02
Standard pH Units 9.1
Partial Data

Table B-50. WY02 Mean Daily Specific Conductivity at GS08: South Walnut Creek at Pond B-5.

Water Year 2002: Daily Mean Specific Conductivity Values in µS/cm

Day	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02
1	No Flow	No Flow	696	No Flow	Missing Data	No Flow	1096	No Flow	751	No Flow	No Flow	No Flow
2	No Flow	No Flow	699	No Flow	Missing Data	No Flow	*1085*	No Flow	705	No Flow	No Flow	No Flow
3	554	No Flow	714	No Flow	Missing Data	No Flow	No Flow	No Flow	*690*	No Flow	No Flow	No Flow
4	549	No Flow	759	No Flow	Missing Data	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
5	560	No Flow	852	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	877
6	560	No Flow	984	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	875
7	564	No Flow	988	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	866
8	562	No Flow	Missing Data	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	863
9	555	No Flow	Missing Data	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	860
10	552	No Flow	Missing Data	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	801
11	549	No Flow	Missing Data	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	648	No Flow	783
12	553	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	642	No Flow	764
13	554	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	651	No Flow	729
14	554	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	681	No Flow	708
15	559	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	706	No Flow	697
16	*565*	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	760	No Flow	724	No Flow	*702*
17	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	758	No Flow	749	No Flow	No Flow
18	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	747	No Flow	777	No Flow	No Flow
19	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	739	No Flow	784	No Flow	No Flow
20	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	739	No Flow	766	No Flow	No Flow
21	No Flow	No Flow	No Flow	No Flow	No Flow	1212	No Flow	742	No Flow	753	No Flow	No Flow
22	No Flow	No Flow	No Flow	No Flow	No Flow	1210	No Flow	721	No Flow	*739*	No Flow	No Flow
23	No Flow	No Flow	No Flow	No Flow	No Flow	1203	No Flow	682	No Flow	No Flow	No Flow	No Flow
24	No Flow	No Flow	No Flow	947	No Flow	1203	No Flow	*585*	No Flow	No Flow	No Flow	No Flow
25	No Flow	No Flow	No Flow	917	No Flow	1200	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
26	No Flow	No Flow	No Flow	889	No Flow	1191	No Flow	566	No Flow	No Flow	No Flow	No Flow
27	No Flow	No Flow	No Flow	868	No Flow	1182	No Flow	593	No Flow	No Flow	No Flow	No Flow
28	No Flow	No Flow	No Flow	840	No Flow	1168	No Flow	639	No Flow	No Flow	No Flow	No Flow
29	No Flow	No Flow	No Flow	*808*	NA	1155	No Flow	672	No Flow	No Flow	No Flow	No Flow
30	No Flow	680	No Flow	789	NA	1123	No Flow	716	No Flow	No Flow	No Flow	No Flow
31	No Flow	NA	No Flow	*827*	NA	1103	NA	757	NA	No Flow	No Flow	NA
			Partial Data		Missing Data							
Monthly												
Average	555	680	783	862	NA	1184	1094	701	727	700	No Flow	777
			Partial Data		Missing Data							

KEY: Missing Data: Missing data due to equipment failures, calibration removal, winter conditions, etc.
ITALICS: Italic values include estimated data
No Flow: No streamflow was measured at the gage for the day

Annual Summaries for WY02
µS/cm 786
Partial Data

Table B-51. WY02 Mean Daily Turbidity at GS08: South Walnut Creek at Pond B-5.

Water Year 2002: Daily Mean Turbidity Values in NTU

Day	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02
1	No Flow	No Flow	8	No Flow	*8*	No Flow	33	No Flow	64	No Flow	No Flow	No Flow
2	No Flow	No Flow	7	No Flow	7	No Flow	*32*	No Flow	72	No Flow	No Flow	No Flow
3	13	No Flow	6	No Flow	9	No Flow	No Flow	No Flow	*84*	No Flow	No Flow	No Flow
4	15	No Flow	6	No Flow	*11*	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
5	14	No Flow	8	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	8
6	13	No Flow	11	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	8
7	14	No Flow	12	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	9
8	16	No Flow	Missing Data	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	10
9	19	No Flow	Missing Data	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	14
10	18	No Flow	Missing Data	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	23
11	18	No Flow	Missing Data	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	11	No Flow	20
12	19	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	11	No Flow	18
13	21	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	12	No Flow	28
14	21	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	11	No Flow	38
15	26	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	7	No Flow	36
16	*23*	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	9	No Flow	8	No Flow	27
17	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	10	No Flow	12	No Flow	No Flow
18	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	17	No Flow	19	No Flow	No Flow
19	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	16	No Flow	24	No Flow	No Flow
20	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	16	No Flow	29	No Flow	No Flow
21	No Flow	No Flow	No Flow	No Flow	No Flow	16	No Flow	22	No Flow	30	No Flow	No Flow
22	No Flow	No Flow	No Flow	No Flow	No Flow	15	No Flow	26	No Flow	*31*	No Flow	No Flow
23	No Flow	No Flow	No Flow	No Flow	No Flow	16	No Flow	26	No Flow	No Flow	No Flow	No Flow
24	No Flow	No Flow	No Flow	6	No Flow	16	No Flow	*150*	No Flow	No Flow	No Flow	No Flow
25	No Flow	No Flow	No Flow	9	No Flow	15	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
26	No Flow	No Flow	No Flow	12	No Flow	15	No Flow	59	No Flow	No Flow	No Flow	No Flow
27	No Flow	No Flow	No Flow	16	No Flow	24	No Flow	48	No Flow	No Flow	No Flow	No Flow
28	No Flow	No Flow	No Flow	21	No Flow	26	No Flow	38	No Flow	No Flow	No Flow	No Flow
29	No Flow	No Flow	No Flow	*23*	NA	25	No Flow	35	No Flow	No Flow	No Flow	No Flow
30	No Flow	7	No Flow	21	NA	28	No Flow	38	No Flow	No Flow	No Flow	No Flow
31	No Flow	NA	No Flow	*16*	NA	26	NA	46	NA	No Flow	No Flow	NA
			Partial Data									
Monthly												
Average	18	7	8	15	8	19	33	33	69	14	No Flow	22
			Partial Data									

KEY: Missing Data: Missing data due to equipment failures, calibration removal, winter conditions, etc.
ITALICS: Italic values include estimated data
No Flow: No streamflow was measured at the gage for the day

Annual Summaries for WY02
NTU 21
Partial Data

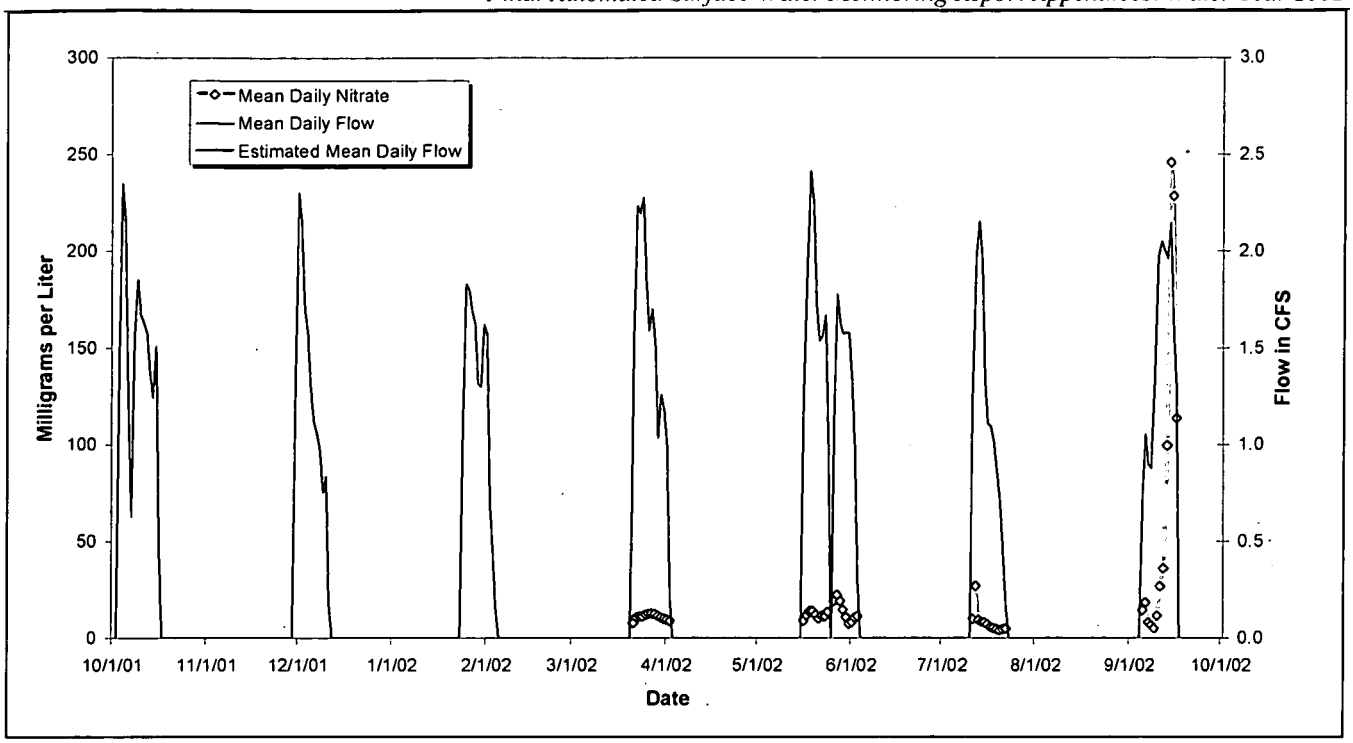

Figure B-2. WY02 Mean Daily Nitrate at GS08: South Walnut Creek at Pond B-5.

Table B-52. WY02 Mean Daily Nitrate at GS08: South Walnut Creek at Pond B-5.

Water Year 2002: Daily Mean Nitrate Values in mg/L

Day	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02
1	No Flow	No Flow	Missing Data	No Flow	Missing Data	No Flow	9	No Flow	8	No Flow	No Flow	No Flow
2	No Flow	No Flow	Missing Data	No Flow	Missing Data	No Flow	*9*	No Flow	11	No Flow	No Flow	No Flow
3	Missing Data	No Flow	Missing Data	No Flow	Missing Data	No Flow	No Flow	No Flow	*11*	No Flow	No Flow	No Flow
4	Missing Data	No Flow	Missing Data	No Flow	Missing Data	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
5	Missing Data	No Flow	Missing Data	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	14
6	Missing Data	No Flow	Missing Data	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	18
7	Missing Data	No Flow	Missing Data	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	8
8	Missing Data	No Flow	Missing Data	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	7
9	Missing Data	No Flow	Missing Data	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	5
10	Missing Data	No Flow	Missing Data	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	12
11	Missing Data	No Flow	Missing Data	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	10	No Flow	27
12	Missing Data	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	27	No Flow	36
13	Missing Data	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	9	No Flow	100
14	Missing Data	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	8	No Flow	246
15	Missing Data	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	8	No Flow	228
16	Missing Data	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	9	No Flow	7	No Flow	*114*
17	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	12	No Flow	6	No Flow	No Flow
18	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	14	No Flow	5	No Flow	No Flow
19	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	14	No Flow	5	No Flow	No Flow
20	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	12	No Flow	4	No Flow	No Flow
21	No Flow	No Flow	No Flow	No Flow	No Flow	8	No Flow	10	No Flow	5	No Flow	No Flow
22	No Flow	No Flow	No Flow	No Flow	No Flow	11	No Flow	11	No Flow	*5*	No Flow	No Flow
23	No Flow	No Flow	No Flow	No Flow	No Flow	11	No Flow	11	No Flow	No Flow	No Flow	No Flow
24	No Flow	No Flow	No Flow	Missing Data	No Flow	11	No Flow	*14*	No Flow	No Flow	No Flow	No Flow
25	No Flow	No Flow	No Flow	Missing Data	No Flow	12	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
26	No Flow	No Flow	No Flow	Missing Data	No Flow	13	No Flow	19	No Flow	No Flow	No Flow	No Flow
27	No Flow	No Flow	No Flow	Missing Data	No Flow	13	No Flow	22	No Flow	No Flow	No Flow	No Flow
28	No Flow	No Flow	No Flow	Missing Data	No Flow	12	No Flow	19	No Flow	No Flow	No Flow	No Flow
29	No Flow	No Flow	No Flow	Missing Data	NA	12	No Flow	15	No Flow	No Flow	No Flow	No Flow
30	No Flow	Missing Data	No Flow	Missing Data	NA	11	No Flow	11	No Flow	No Flow	No Flow	No Flow
31	No Flow	NA	No Flow	Missing Data	NA	10	NA	7	NA	No Flow	No Flow	NA
	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data							
Monthly												
Average	NA	NA	NA	NA	NA	11	9	13	9	10	No Flow	80
	Missing Data	Missing Data	Missing Data	Missing Data	Missing Data							

KEY: Missing Data: Missing data due to equipment failures, calibration removal, winter conditions, etc.
ITALICS: Italic values include estimated data
No Flow: No streamflow was measured at the gage for the day

Annual Summaries for WY02
mg/L 27
Partial Data

B.5.2.4 GS11: North Walnut Creek at Pond A-4 Outlet

Table B-53. WY02 Mean Daily Water Temperature at GS11: North Walnut Creek at Pond A-4.

Water Year 2002: Daily Mean Temperature Values in Degrees Celsius

Day	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02
1	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
2	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
3	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
4	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
5	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
6	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
7	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
8	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
9	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
10	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
11	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
12	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
13	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
14	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
15	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
16	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	12.9	No Flow	No Flow	No Flow	No Flow
17	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	12.7	No Flow	No Flow	No Flow	No Flow
18	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	13.8	No Flow	No Flow	No Flow	No Flow
19	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	15.8	No Flow	No Flow	No Flow	No Flow
20	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	14.6	No Flow	No Flow	No Flow	No Flow
21	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	13.7	No Flow	No Flow	No Flow	No Flow
22	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	12.7	No Flow	No Flow	No Flow	No Flow
23	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	*12.1*	No Flow	No Flow	No Flow	No Flow
24	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
25	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
26	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
27	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
28	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
29	No Flow	No Flow	No Flow	No Flow	NA	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
30	No Flow	No Flow	No Flow	No Flow	NA	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
31	No Flow	NA	No Flow	No Flow	NA	No Flow	NA	No Flow	NA	No Flow	No Flow	NA
Monthly *Average*	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	13.7	No Flow	No Flow	No Flow	No Flow

KEY: Missing Data: Missing data due to equipment failures, calibration removal, winter conditions, etc.
ITALICS: Italic values include estimated data
No Flow: No streamflow was measured at the gage for the day

Annual Summaries for WY02
Degrees Celsius: 13.7

Table B-54. WY02 Mean Daily pH at GS11: North Walnut Creek at Pond A-4.

Water Year 2002: Daily Mean pH Values in Standard Units

Day	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02
1	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
2	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
3	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
4	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
5	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
6	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
7	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
8	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
9	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
10	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
11	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
12	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
13	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
14	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
15	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
16	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	9.1	No Flow	No Flow	No Flow	No Flow
17	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	9.1	No Flow	No Flow	No Flow	No Flow
18	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	9.2	No Flow	No Flow	No Flow	No Flow
19	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	9.2	No Flow	No Flow	No Flow	No Flow
20	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	9.2	No Flow	No Flow	No Flow	No Flow
21	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	8.9	No Flow	No Flow	No Flow	No Flow
22	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	8.5	No Flow	No Flow	No Flow	No Flow
23	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	*8.4*	No Flow	No Flow	No Flow	No Flow
24	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
25	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
26	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
27	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
28	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
29	No Flow	No Flow	No Flow	No Flow	NA	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
30	No Flow	No Flow	No Flow	No Flow	NA	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
31	No Flow	NA	No Flow	No Flow	NA	No Flow	NA	No Flow	NA	No Flow	No Flow	NA
Monthly *Average*	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	9.0	No Flow	No Flow	No Flow	No Flow

KEY: Missing Data: Missing data due to equipment failures, calibration removal, winter conditions, etc.
ITALICS: Italic values include estimated data
No Flow: No streamflow was measured at the gage for the day

Annual Summaries for WY02
Standard pH Units: 9.0

Table B-55. WY02 Mean Daily Specific Conductivity at GS11: North Walnut Creek at Pond A-4.

Water Year 2002: Daily Mean Specific Conductivity Values in µS/cm

Day	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02
1	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
2	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
3	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
4	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
5	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
6	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
7	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
8	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
9	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
10	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
11	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
12	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
13	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
14	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
15	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
16	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	1963	No Flow	No Flow	No Flow	No Flow
17	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	1957	No Flow	No Flow	No Flow	No Flow
18	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	1955	No Flow	No Flow	No Flow	No Flow
19	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	1953	No Flow	No Flow	No Flow	No Flow
20	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	1949	No Flow	No Flow	No Flow	No Flow
21	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	1958	No Flow	No Flow	No Flow	No Flow
22	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	1970	No Flow	No Flow	No Flow	No Flow
23	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	*1972*	No Flow	No Flow	No Flow	No Flow
24	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
25	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
26	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
27	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
28	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
29	No Flow	No Flow	No Flow	No Flow	NA	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
30	No Flow	No Flow	No Flow	No Flow	NA	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
31	No Flow	NA	No Flow	No Flow	NA	No Flow	NA	No Flow	NA	No Flow	No Flow	NA
Monthly *Average*	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	1957	No Flow	No Flow	No Flow	No Flow

KEY: Missing Data: Missing data due to equipment failures, calibration removal, winter conditions, etc.
ITALICS: Italic values include estimated data
No Flow: No streamflow was measured at the gage for the day

Annual Summaries for WY02
µS/cm 1957

Table B-56. WY02 Mean Daily Turbidity at GS11: North Walnut Creek at Pond A-4.

Water Year 2002: Daily Mean Turbidity Values in NTU

Day	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02
1	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
2	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
3	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
4	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
5	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
6	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
7	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
8	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
9	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
10	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
11	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
12	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
13	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
14	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
15	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
16	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	23	No Flow	No Flow	No Flow	No Flow
17	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	22	No Flow	No Flow	No Flow	No Flow
18	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	26	No Flow	No Flow	No Flow	No Flow
19	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	30	No Flow	No Flow	No Flow	No Flow
20	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	36	No Flow	No Flow	No Flow	No Flow
21	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	40	No Flow	No Flow	No Flow	No Flow
22	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	41	No Flow	No Flow	No Flow	No Flow
23	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	*39*	No Flow	No Flow	No Flow	No Flow
24	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
25	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
26	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
27	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
28	No Flow	*No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
29	No Flow	No Flow	No Flow	No Flow	NA	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
30	No Flow	No Flow	No Flow	No Flow	NA	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
31	No Flow	NA	No Flow	No Flow	NA	No Flow	NA	No Flow	NA	No Flow	No Flow	NA
Monthly *Average*	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	30	No Flow	No Flow	No Flow	No Flow

KEY: Missing Data: Missing data due to equipment failures, calibration removal, winter conditions, etc.
ITALICS: Italic values include estimated data
No Flow: No streamflow was measured at the gage for the day

Annual Summaries for WY02
NTU 30

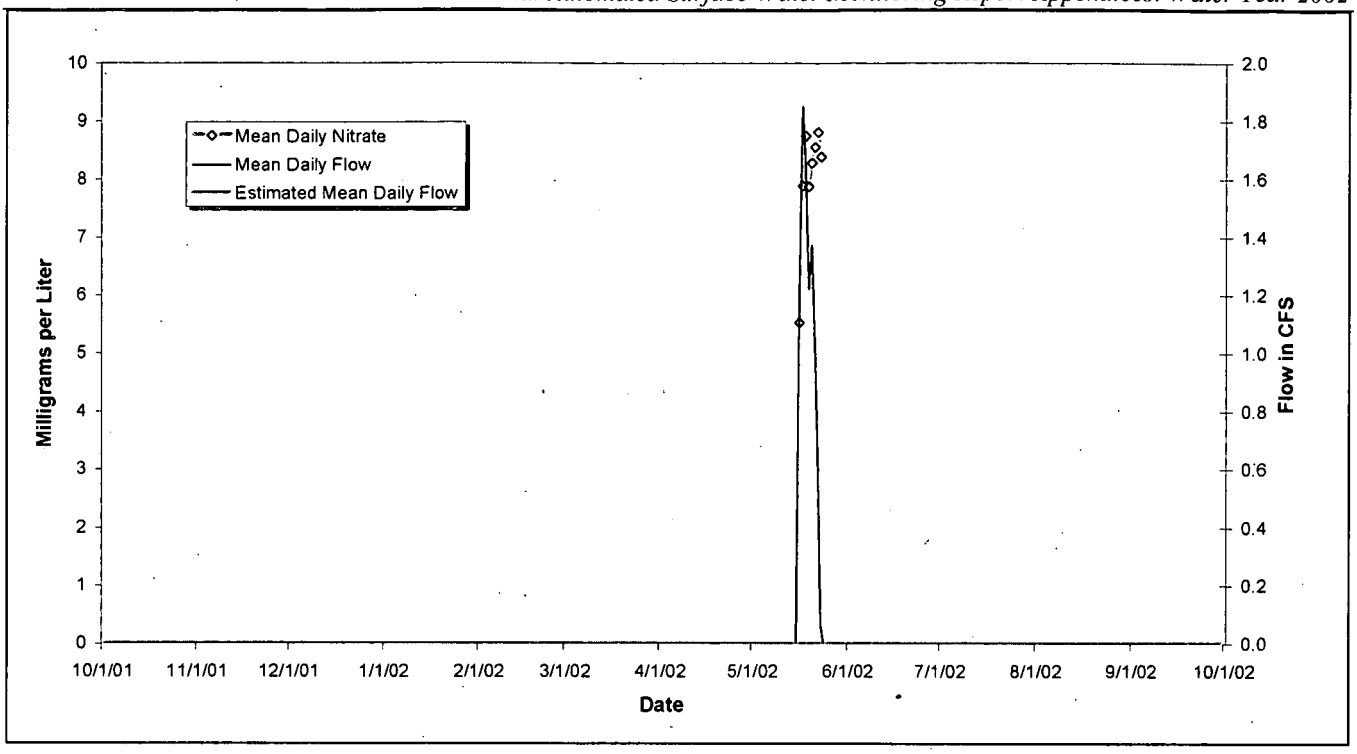

Figure B-3. WY02 Mean Daily Nitrate at GS11: North Walnut Creek at Pond A-4.

Table B-57. WY02 Mean Daily Nitrate at GS11: North Walnut Creek at Pond A-4.

Water Year 2002: Daily Mean Nitrate Values in mg/L

Day	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02
1	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
2	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
3	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
4	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
5	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
6	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
7	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
8	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
9	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
10	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
11	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
12	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
13	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
14	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
15	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
16	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	6	No Flow	No Flow	No Flow	No Flow
17	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	8	No Flow	No Flow	No Flow	No Flow
18	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	9	No Flow	No Flow	No Flow	No Flow
19	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	8	No Flow	No Flow	No Flow	No Flow
20	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	8	No Flow	No Flow	No Flow	No Flow
21	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	9	No Flow	No Flow	No Flow	No Flow
22	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	9	No Flow	No Flow	No Flow	No Flow
23	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	*8*	No Flow	No Flow	No Flow	No Flow
24	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
25	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
26	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
27	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
28	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
29	No Flow	No Flow	No Flow	No Flow	NA	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
30	No Flow	No Flow	No Flow	No Flow	NA	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
31	No Flow	NA	No Flow	No Flow	NA	No Flow	NA	No Flow	NA	No Flow	No Flow	NA
Monthly *Average*	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	8	No Flow	No Flow	No Flow	No Flow

KEY: Missing Data: Missing data due to equipment failures, calibration removal, winter conditions, etc.
ITALICS: Italic values include estimated data
No Flow: No streamflow was measured at the gage for the day

Annual Summaries for WY02
mg/L 8

B.5.2.5 GS31: Woman Creek at Pond C-2 Outlet

No real-time water-quality data were collected at GS31 during WY02.

B.5.2.6 GS10: South Walnut Creek at B-1 Bypass

Table B-58. WY02 Mean Daily Water Temperature at GS10: South Walnut Creek at B-1 Bypass.

Water Year 2002: Daily Mean Temperature Values in Degrees Celsius

Day	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02
1	14.1	9.1	4.0	1.6	2.4	0.6	7.4	7.8	13.8	16.9	16.7	16.8
2	14.4	8.2	4.9	1.4	2.5	0.5	3.9	8.0	14.4	17.1	16.7	17.1
3	13.7	8.3	5.1	1.5	2.7	0.7	4.8	10.2	13.8	16.7	17.7	16.4
4	12.5	7.8	4.5	2.6	2.8	1.7	5.5	10.0	13.1	17.2	16.9	17.0
5	11.0	8.2	3.9	2.4	3.0	2.6	6.4	10.4	13.9	17.8	18.7	16.6
6	10.6	8.9	3.8	2.6	3.0	4.3	7.0	10.5	14.0	17.1	19.7	16.7
7	11.9	9.4	3.8	3.6	3.1	4.2	Missing Data	11.4	14.5	17.8	17.9	16.9
8	12.6	6.3	3.2	4.7	3.5	2.5	7.2	10.3	15.0	18.4	17.4	17.1
9	12.5	7.8	3.4	4.7	2.2	2.6	*8.1*	9.5	15.6	18.8	17.1	17.1
10	9.9	6.1	3.1	4.2	2.2	3.6	8.4	8.9	14.8	18.2	17.1	16.0
11	Missing Data	6.4	Missing Data	4.2	3.1	4.5	9.1	8.9	*14.7*	18.4	17.2	16.8
12	9.2	7.5	3.0	3.5	3.2	Missing Data	8.9	7.3	15.0	18.5	16.1	16.4
13	9.3	7.7	2.0	2.4	3.0	5.3	9.5	10.4	14.4	17.9	Missing Data	16.8
14	9.4	7.8	3.3	2.2	2.7	3.1	9.8	*10.7*	14.8	18.3	Missing Data	15.6
15	9.6	Missing Data	3.2	2.0	3.0	2.9	9.7	11.3	14.3	18.3	17.1	15.4
16	8.5	6.9	4.1	1.8	3.3	4.4	9.5	9.5	15.2	*18.4*	17.1	15.4
17	9.8	6.7	5.2	1.1	4.2	3.4	9.2	9.6	15.7	18.1	16.4	Missing Data
18	10.0	7.2	3.3	0.6	4.8	3.4	9.1	11.7	16.1	18.1	15.9	Missing Data
19	10.1	7.0	3.0	0.6	Missing Data	4.6	7.1	11.9	17.0	18.0	15.8	13.9
20	10.3	5.0	3.1	0.5	3.3	5.2	6.2	11.1	16.5	18.6	16.9	14.5
21	9.8	4.8	2.9	Missing Data	3.1	2.6	7.6	12.0	16.2	19.0	16.8	14.3
22	10.4	6.1	2.5	2.2	3.7	3.8	8.4	11.3	16.5	17.4	16.4	14.0
23	10.2	7.2	2.1	2.3	5.2	5.0	9.9	8.8	16.8	17.8	16.3	13.4
24	7.5	4.6	1.8	2.0	3.7	3.4	9.3	5.6	16.9	18.2	16.8	13.3
25	7.2	4.3	1.9	2.9	2.1	2.9	7.8	10.1	16.3	17.8	17.3	12.9
26	7.0	4.8	2.4	3.7	1.2	4.5	8.3	11.6	16.7	17.8	22.9	12.6
27	8.2	3.5	2.4	4.0	1.8	5.9	9.7	11.7	16.5	17.5	17.5	12.1
28	9.9	3.4	2.9	3.8	2.4	6.5	9.8	12.2	16.6	17.0	16.8	12.8
29	9.2	3.6	2.4	3.2	NA	5.4	9.9	12.6	16.4	17.0	16.6	12.4
30	9.5	3.9	1.7	2.7	NA	5.4	10.4	13.7	16.3	17.9	16.4	12.4
31	9.5	NA	1.4	2.4	NA	5.9	NA	14.1	NA	17.6	16.7	NA
	Partial Data	Partial Data	Partial Data	Partial Data	Partial Data	Partial Data	Partial Data				Partial Data	Partial Data
Monthly												
Average	10.5	6.6	3.2	2.7	3.0	3.5	8.1	7.5	14.7	17.9	18.4	16.1
	Partial Data	Partial Data	Partial Data	Partial Data	Partial Data	Partial Data	Partial Data				Partial Data	Partial Data

KEY: Missing Data: Missing data due to equipment failures, calibration removal, winter conditions, etc.
ITALICS: Italic values include estimated data
No Flow: No streamflow was measured at the gage for the day

Annual Summaries for WY02
Degrees Celsius: 9.7
Partial Data

Table B-59. WY02 Mean Daily pH at GS10: South Walnut Creek at B-1 Bypass.

Water Year 2002: Daily Mean pH Values in Standard Units

Day	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02
1	8.0	7.8	7.7	8.0	7.7	7.9	7.3	7.2	7.6	7.7	7.3	7.6
2	8.0	7.8	7.7	7.8	7.8	7.8	7.3	7.2	7.6	7.7	7.2	7.5
3	8.0	7.8	7.5	7.5	7.9	7.8	7.3	7.2	7.6	7.6	7.3	7.5
4	7.9	7.8	7.5	7.5	8.0	7.8	7.2	7.2	7.5	7.6	7.2	7.6
5	7.8	7.9	7.5	7.7	8.0	7.8	7.2	7.2	7.5	7.7	7.6	7.5
6	7.9	7.8	7.8	7.5	8.1	7.8	7.2	7.2	7.5	7.5	7.3	7.4
7	8.0	7.8	7.8	7.6	8.1	7.9	Missing Data	7.2	7.6	7.6	7.2	7.4
8	8.0	7.7	7.7	7.8	8.1	7.8	7.2	7.3	7.6	7.6	7.3	7.4
9	7.9	7.7	7.7	7.8	7.7	7.9	7.3	7.3	7.6	7.4	7.4	7.5
10	7.8	7.7	7.7	7.8	7.5	7.8	7.2	7.3	7.6	7.3	7.4	7.6
11	*8.0*	7.8	*Missing Data*	7.7	7.5	7.8	7.3	7.2	7.6	7.3	7.5	7.6
12	8.0	7.9	8.0	7.8	7.4	Missing Data	7.3	7.1	7.7	7.3	7.5	7.6
13	8.0	7.9	7.9	7.9	7.4	7.3	7.2	7.3	7.6	7.3	Missing Data	7.8
14	8.0	7.9	7.8	7.9	7.4	7.4	7.1	7.3	7.6	7.4	Missing Data	7.6
15	7.9	7.9	7.9	8.0	7.6	7.4	7.1	7.4	7.6	7.5	7.6	7.7
16	7.8	7.8	7.9	8.0	7.4	7.3	7.1	7.5	7.7	7.4	7.7	7.7
17	7.9	7.8	7.8	8.0	7.4	7.5	7.3	7.4	7.7	7.2	7.7	Missing Data
18	8.0	7.7	7.8	7.9	7.4	7.5	7.1	7.5	7.6	7.2	7.8	Missing Data
19	8.0	7.7	7.8	7.9	Missing Data	7.3	7.3	7.5	7.6	7.2	7.7	7.5
20	7.9	7.7	7.8	7.9	7.9	7.3	7.3	7.5	7.5	7.2	7.7	7.5
21	8.0	7.9	7.9	*7.8*	7.9	7.6	7.3	7.5	7.5	7.2	7.7	7.5
22	8.0	7.9	7.9	7.8	8.0	7.3	7.3	7.5	7.5	7.1	7.6	7.5
23	8.0	7.7	7.8	7.6	8.0	7.3	7.1	7.6	7.6	7.2	7.6	7.6
24	8.0	7.6	7.8	7.4	7.9	7.4	7.1	7.4	7.6	7.2	7.6	7.6
25	8.0	7.6	7.9	7.5	7.9	7.4	7.2	7.5	7.5	7.1	7.6	7.6
26	8.0	7.7	7.9	7.6	7.7	7.2	7.2	7.5	7.5	7.2	7.8	7.5
27	7.9	7.7	8.0	7.6	7.7	7.4	7.3	7.5	7.6	7.2	7.5	7.4
28	7.9	7.5	7.9	7.6	7.8	7.3	7.3	7.5	7.6	7.2	7.5	7.6
29	7.9	7.4	7.9	7.6	NA	7.3	7.2	7.5	7.4	7.2	7.5	7.6
30	7.9	7.5	8.0	7.7	NA	7.3	7.1	7.6	7.6	7.2	7.4	7.7
31	7.9	NA	8.0	7.8	NA	7.3	NA	7.5	NA	7.2	7.5	NA
			Partial Data		Partial Data	Partial Data	Partial Data				Partial Data	Partial Data
Monthly												
Average	7.9	7.7	7.8	7.7	7.7	7.5	7.2	7.4	7.5	7.3	7.5	7.6
			Partial Data		Partial Data	Partial Data	Partial Data				Partial Data	Partial Data

KEY: Missing Data: Missing data due to equipment failures, calibration removal, winter conditions, etc.
ITALICS: Italic values include estimated data
No Flow: No streamflow was measured at the gage for the day

Annual Summaries for WY02
Standard pH Units 7.5
Partial Data

Table B-60. WY02 Mean Daily Specific Conductivity at GS10: South Walnut Creek at B-1 Bypass.

Water Year 2002: Daily Mean Specific Conductivity Values in µS/cm

Day	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02
1	1135	1255	6410	1787	5737	3637	2727	1960	1958	1606	1319	1174
2	1139	1222	3864	4222	5363	4823	2760	1650	1984	1479	1497	1312
3	1144	1219	2994	5769	4831	7033	2739	1761	1152	1493	1559	1334
4	1117	1209	2871	4387	4261	4928	2575	1936	662	1539	1506	1207
5	626	1202	2771	6700	3718	4717	2530	2002	1695	1491	461	1186
6	941	1221	2768	6547	3310	3503	2492	2064	1751	1447	560	1252
7	1092	1103	2610	4486	3042	3077	Missing Data	2037	1710	1331	1249	1317
8	1160	1303	2496	3446	2727	3187	2556	2050	1769	1309	1592	1199
9	1050	1121	2379	3151	2226	7179	*2561*	2046	1803	1190	1643	600
10	1064	1180	2282	6137	2278	5295	2426	1979	1840	1207	1660	294
11	*1144*	1287	Missing Data	3913	2149	3772	2484	1113	*1863*	1409	1695	912
12	1213	1271	2295	3112	2033	*3397*	2459	933	1843	1545	1720	451
13	1247	1285	2996	3005	2045	3109	2403	1725	1753	1527	Missing Data	271
14	1246	1292	2598	*2827*	2034	5193	2352	*1756*	1718	1506	Missing Data	1002
15	800	*1311*	2286	2950	Missing Data	5744	2362	1688	1722	1558	1673	1237
16	937	1283	6462	2985	Missing Data	3547	2369	765	1680	*1530*	1758	1306
17	1144	1262	4743	2724	Missing Data	3373	2340	1057	1595	1392	1734	*1444*
18	1192	1930	3462	2569	Missing Data	3532	2308	1588	1601	1340	1786	*1466*
19	1208	1322	2965	2432	Missing Data	3825	2301	1955	787	1427	1622	1207
20	1215	1314	2650	2375	2355	3740	2476	1528	943	1237	1552	1270
21	1199	1331	2496	*2242*	2251	3844	2327	1482	1469	1211	1592	1270
22	1213	1352	2408	2140	2182	3686	2032	1813	1627	1376	1616	1220
23	1217	2443	2293	4634	2064	3420	2112	361	1499	1285	1552	1307
24	1240	2071	2159	8221	2040	3318	2161	316	1432	1295	1506	1413
25	1224	1703	2064	6006	8559	3830	2132	826	1506	1288	1480	930
26	1230	12374	2011	4532	10294	3802	2118	1524	1535	1320	458	745
27	1212	10795	1940	4102	7042	3218	2072	1895	1504	1304	1484	1234
28	1234	13675	1819	3782	4369	3040	2063	2078	1500	1455	1419	1353
29	1241	10273	1881	3596	NA	2936	2029	2101	1571	1283	1300	1504
30	1222	8573	1954	4342	NA	2840	2061	2095	1663	1247	1247	1560
31	1239	NA	1872	6223	NA	2825	NA	2053	NA	1322	1270	NA
			Partial Data		Partial Data		Partial Data				Partial Data	
Monthly												
Average	1095	2983	2995	4189	3990	4161	2387	648	1309	1381	841	523
			Partial Data		Partial Data		Partial Data				Partial Data	

KEY: Missing Data: Missing data due to equipment failures, calibration removal, winter conditions, etc.
ITALICS: Italic values include estimated data
No Flow: No streamflow was measured at the gage for the day

Annual Summaries for WY02
µS/cm 1653
Partial Data

Table B-61. WY02 Mean Daily Turbidity at GS10: South Walnut Creek at B-1 Bypass.

Water Year 2002: Daily Mean Turbidity Values in NTU

Day	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02
1	0	1	Missing Data	3	2	2	3	86	2	1	5	3
2	0	1	Missing Data	3	2	6	2	41	2	1	4	2
3	1	2	Missing Data	4	2	3	2	5	174	1	3	1
4	2	1	Missing Data	3	2	93	2	5	85	1	12	2
5	26	1	Missing Data	2	2	95	2	6	4	1	593	2
6	1	19	Missing Data	2	2	37	3	3	11	5	184	3
7	0	13	Missing Data	3	2	17	Missing Data	3	4	2	11	3
8	0	37	Missing Data	3	3	4	4	6	4	1	5	2
9	19	4	Missing Data	3	3	22	4	3	3	2	3	61
10	1	4	Missing Data	77	2	3	4	7	3	2	3	163
11	Missing Data	2	Missing Data	15	2	2	5	216	2	2	3	19
12	1	3	3	3	2	2	3	98	1	6	3	83
13	1	2	4	4	2	2	3	4	0	4	Missing Data	411
14	1	2	4	3	1	197	3	127	1	3	Missing Data	7
15	13	2	3	3	54	11	3	11	0	2	2	2
16	2	2	15	3	29	23	4	401	0	4	2	2
17	1	2	35	3	12	2	3	88	0	4	2	Missing Data
18	1	23	Missing Data	3	7	3	3	7	0	4	2	Missing Data
19	2	Missing Data	Missing Data	3	3	17	3	15	321	3	2	0
20	1	Missing Data	3	4	1	3	15	42	77	3	2	0
21	1	Missing Data	Missing Data	Missing Data	1	5	12	7	1	3	2	0
22	1	Missing Data	Missing Data	Missing Data	2	3	4	4	1	15	3	0
23	1	Missing Data	Missing Data	Missing Data	1	3	3	602	0	6	5	0
24	1	Missing Data	3	5	1	3	3	157	0	5	3	0
25	2	Missing Data	3	2	7	2	2	14	1	5	3	63
26	2	Missing Data	3	2	3	6	11	38	1	6	211	24
27	2	Missing Data	3	4	1	3	2	4	1	5	7	0
28	1	Missing Data	3	4	2	3	3	2	1	5	3	0
29	1	Missing Data	3	3	NA	2	2	4	1	6	11	0
30	1	Missing Data	2	2	NA	2	3	2	1	5	4	0
31	1	NA	2	1	NA	3	NA	2	NA	3	3	NA
	Partial Data	Partial Data	Partial Data	Partial Data			Partial Data				Partial Data	Partial Data
Monthly *Average*	5	13	8	9	7	34	4	213	68	4	304	179
	Partial Data	Partial Data	Partial Data	Partial Data			Partial Data				Partial Data	Partial Data

KEY: Missing Data: Missing data due to equipment failures, calibration removal, winter conditions, etc.
ITALICS: Italic values include estimated data
No Flow: No streamflow was measured at the gage for the day

Annual Summaries for WY02
NTU 123
Partial Data

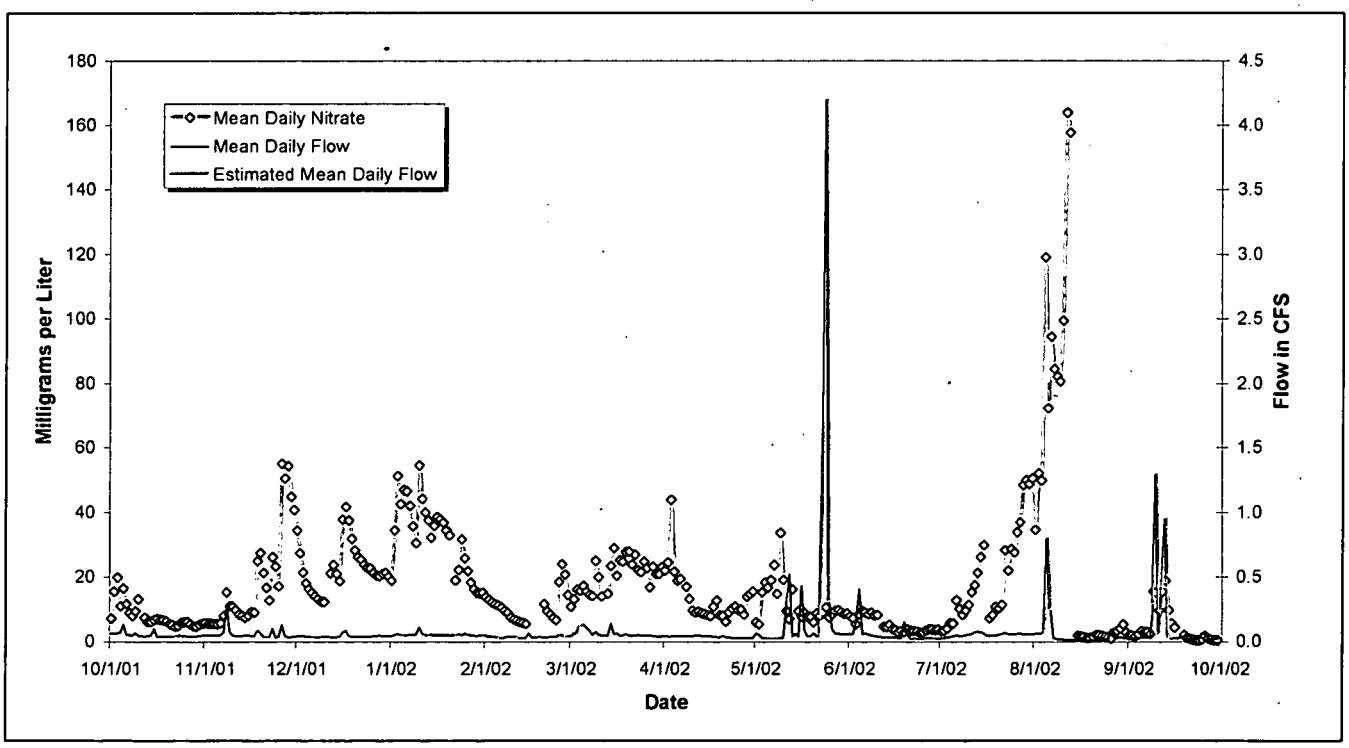

Figure B-4. WY02 Mean Daily Nitrate at GS10: South Walnut Creek at B-1 Bypass.

Table B-62. WY02 Mean Daily Nitrate at GS10: South Walnut Creek at B-1 Bypass.

Water Year 2002: Daily Mean Nitrate Values in mg/L

Day	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02
1	7	6	34	19	14	11	22	6	8	3	35	2
2	15	6	27	35	13	13	25	5	7	3	52	2
3	20	6	21	51	12	16	44	15	5	4	50	2
4	11	6	18	43	12	16	22	18	9	6	119	2
5	17	5	16	47	11	17	19	17	10	6	72	3
6	12	6	15	47	11	16	19	19	9	13	94	3
7	9	8	14	42	10	14	Missing Data	24	9	10	85	3
8	8	15	13	36	9	14	17	15	9	8	82	2
9	9	11	12	31	8	25	13	34	8	10	81	16
10	13	11	12	55	7	20	10	19	8	11	100	15
11	Missing Data	10	Missing Data	44	6	14	9	10	Missing Data	15	164	10
12	7	8	21	40	6	Missing Data	9	7	5	17	158	15
13	6	8	24	38	6	15	9	16	5	21	Missing Data	19
14	6	7	21	32	6	23	9	Missing Data	5	26	Missing Data	10
15	7	8	19	36	Missing Data	29	8	9	4	30	2	6
16	7	9	38	39	Missing Data	20	8	8	4	Missing Data	2	4
17	7	9	42	38	Missing Data	25	11	9	3	7	1	Missing Data
18	7	25	38	37	Missing Data	25	13	8	3	8	1	Missing Data
19	6	27	32	34	Missing Data	28	8	8	3	11	1	2
20	6	21	28	33	12	28	8	6	4	10	2	1
21	5	17	26	Missing Data	9	24	6	9	3	11	2	1
22	5	13	25	19	8	27	9	8	3	28	2	1
23	5	26	24	22	7	22	10	9	3	22	2	0
24	6	23	23	32	7	22	11	11	3	29	1	0
25	6	17	23	26	19	25	10	8	3	28	1	1
26	6	55	21	22	24	23	10	9	4	34	1	2
27	6	51	21	18	21	17	8	10	4	37	3	1
28	5	54	20	16	15	23	14	10	4	49	3	1
29	5	45	21	15	NA	21	15	9	4	50	4	1
30	5	41	21	15	NA	21	16	9	4	49	5	0
31	6	NA	20	15	NA	23	NA	9	NA	51	3	NA
	Partial Data		Partial Data	Partial Data	Partial Data	Partial Data	Partial Data	Partial Data	Partial Data	Partial Data	Partial Data	Partial Data
Monthly *Average*	9	19	24	34	11	20	14	10	6	22	63	14
	Partial Data		Partial Data	Partial Data	Partial Data	Partial Data	Partial Data	Partial Data	Partial Data	Partial Data	Partial Data	Partial Data

KEY: Missing Data: Missing data due to equipment failures, calibration removal, winter conditions, etc.
ITALICS: Italic values include estimated data
No Flow: No streamflow was measured at the gage for the day

Annual Summaries for WY02
mg/L 18
Partial Data

B.5.2.7 SW027: South Interceptor Ditch at Pond C-2

Table B-63. WY02 Mean Daily Water Temperature at SW027: SID at Pond C-2.

Water Year 2002: Daily Mean Temperature Values in Degrees Celsius

Day	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02
1	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
2	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
3	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
4	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	10.3	No Flow	No Flow	No Flow
5	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	10.8	No Flow	No Flow	No Flow
6	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	10.7	No Flow	No Flow	No Flow
7	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	10.8	No Flow	No Flow	No Flow
8	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
9	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
10	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	14.2
11	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	15.5
12	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	7.6	No Flow	No Flow	No Flow	15.2
13	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	7.7	No Flow	No Flow	No Flow	15.7
14	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	Missing Data	No Flow	No Flow	No Flow	15.0
15	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	Missing Data	No Flow	No Flow	No Flow	14.6
16	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	8.3	No Flow	No Flow	No Flow	14.4
17	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	8.8	No Flow	No Flow	No Flow	14.1
18	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	9.2	No Flow	No Flow	No Flow	13.7
19	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	9.4	No Flow	No Flow	No Flow	No Flow
20	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	9.5	No Flow	No Flow	No Flow	No Flow
21	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	9.2	No Flow	No Flow	No Flow	No Flow
22	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
23	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	8.1	No Flow	No Flow	No Flow	No Flow
24	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	6.3	No Flow	No Flow	No Flow	No Flow
25	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	8.4	No Flow	No Flow	No Flow	No Flow
26	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	11.7	No Flow	No Flow	No Flow	No Flow
27	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	10.9	No Flow	No Flow	No Flow	No Flow
28	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	10.7	No Flow	No Flow	No Flow	No Flow
29	No Flow	No Flow	No Flow	No Flow	NA	No Flow	No Flow	10.6	No Flow	No Flow	No Flow	No Flow
30	No Flow	No Flow	No Flow	No Flow	NA	No Flow	No Flow	10.6	No Flow	No Flow	No Flow	No Flow
31	No Flow	NA	No Flow	No Flow	NA	No Flow	NA	10.7	NA	No Flow	No Flow	NA
								Partial Data				
Monthly *Average*	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	7.0	10.4	No Flow	No Flow	15.5
								Partial Data				

KEY: Missing Data: Missing data due to equipment failures, calibration removal, winter conditions, etc.
ITALICS: Italic values include estimated data
No Flow: No streamflow was measured at the gage for the day

Annual Summaries for WY02
Degrees Celsius 8.1
Partial Data

Table B-64. WY02 Mean Daily pH at SW027: SID at Pond C-2.

Water Year 2002: Daily Mean pH Values in Standard Units

Day	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02
1	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
2	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
3	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
4	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	7.8	No Flow	No Flow	No Flow
5	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	7.7	No Flow	No Flow	No Flow
6	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	7.7	No Flow	No Flow	No Flow
7	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	7.8	No Flow	No Flow	No Flow
8	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
9	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
10	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	7.7
11	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	7.6
12	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	7.6	No Flow	No Flow	No Flow	7.6
13	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	7.7	No Flow	No Flow	No Flow	7.7
14	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	Missing Data	No Flow	No Flow	No Flow	7.7
15	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	Missing Data	No Flow	No Flow	No Flow	7.7
16	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	7.7	No Flow	No Flow	No Flow	7.7
17	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	7.7	No Flow	No Flow	No Flow	7.7
18	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	7.7	No Flow	No Flow	No Flow	7.7
19	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	7.7	No Flow	No Flow	No Flow	No Flow
20	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	7.8	No Flow	No Flow	No Flow	No Flow
21	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	7.8	No Flow	No Flow	No Flow	No Flow
22	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
23	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	7.8	No Flow	No Flow	No Flow	No Flow
24	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	7.7	No Flow	No Flow	No Flow	No Flow
25	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	7.8	No Flow	No Flow	No Flow	No Flow
26	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	7.8	No Flow	No Flow	No Flow	No Flow
27	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	7.8	No Flow	No Flow	No Flow	No Flow
28	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	7.8	No Flow	No Flow	No Flow	No Flow
29	No Flow	No Flow	No Flow	No Flow	NA	No Flow	No Flow	7.8	No Flow	No Flow	No Flow	No Flow
30	No Flow	No Flow	No Flow	No Flow	NA	No Flow	No Flow	7.8	No Flow	No Flow	No Flow	No Flow
31	No Flow	NA	No Flow	No Flow	NA	No Flow	NA	7.9	NA	No Flow	No Flow	NA
								Partial Data				
Monthly												
Average	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	7.7	7.8	No Flow	No Flow	7.7
								Partial Data				

KEY: Missing Data: Missing data due to equipment failures, calibration removal, winter conditions, etc.
ITALICS: Italic values include estimated data
No Flow: No streamflow was measured at the gage for the day

Annual Summaries for WY02
Standard pH Units: 7.7
Partial Data

Table B-65. WY02 Mean Daily Specific Conductivity at SW027: SID at Pond C-2.

Water Year 2002: Daily Mean Specific Conductivity Values in µS/cm

Day	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02
1	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
2	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
3	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
4	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	646	No Flow	No Flow	No Flow
5	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	689	No Flow	No Flow	No Flow
6	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	701	No Flow	No Flow	No Flow
7	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	737	No Flow	No Flow	No Flow
8	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
9	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
10	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	694
11	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	601
12	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	1093	No Flow	No Flow	No Flow	609
13	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	1080	No Flow	No Flow	No Flow	481
14	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	Missing Data	No Flow	No Flow	No Flow	387
15	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	Missing Data	No Flow	No Flow	No Flow	444
16	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	1042	No Flow	No Flow	No Flow	456
17	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	790	No Flow	No Flow	No Flow	464
18	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	776	No Flow	No Flow	No Flow	451
19	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	796	No Flow	No Flow	No Flow	No Flow
20	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	833	No Flow	No Flow	No Flow	No Flow
21	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	824	No Flow	No Flow	No Flow	No Flow
22	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
23	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	793	No Flow	No Flow	No Flow	No Flow
24	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	396	No Flow	No Flow	No Flow	No Flow
25	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	480	No Flow	No Flow	No Flow	No Flow
26	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	552	No Flow	No Flow	No Flow	No Flow
27	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	578	No Flow	No Flow	No Flow	No Flow
28	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	595	No Flow	No Flow	No Flow	No Flow
29	No Flow	No Flow	No Flow	No Flow	NA	No Flow	No Flow	618	No Flow	No Flow	No Flow	No Flow
30	No Flow	No Flow	No Flow	No Flow	NA	No Flow	No Flow	634	No Flow	No Flow	No Flow	No Flow
31	No Flow	NA	No Flow	No Flow	NA	No Flow	NA	668	NA	No Flow	No Flow	NA
								Partial Data				
Monthly												
Average	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	458	661	No Flow	No Flow	501
								Partial Data				

KEY: Missing Data: Missing data due to equipment failures, calibration removal, winter conditions, etc.
ITALICS: Italic values include estimated data
No Flow: No streamflow was measured at the gage for the day

Annual Summaries for WY02
µS/cm: 466
Partial Data

Table B-66. WY02 Mean Daily Turbidity at SW027: SID at Pond C-2.

Water Year 2002: Daily Mean Turbidity Values in NTU

Day	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02
1	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
2	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
3	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
4	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	3	No Flow	No Flow	No Flow
5	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	3	No Flow	No Flow	No Flow
6	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	3	No Flow	No Flow	No Flow
7	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	3	No Flow	No Flow	No Flow
8	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
9	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
10	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	12
11	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	6
12	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	4	No Flow	No Flow	No Flow	5
13	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	2	No Flow	No Flow	No Flow	48
14	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	Missing Data	No Flow	No Flow	No Flow	18
15	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	Missing Data	No Flow	No Flow	No Flow	7
16	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	6	No Flow	No Flow	No Flow	7
17	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	11	No Flow	No Flow	No Flow	6
18	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	8	No Flow	No Flow	No Flow	6
19	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	6	No Flow	No Flow	No Flow	No Flow
20	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	4	No Flow	No Flow	No Flow	No Flow
21	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	4	No Flow	No Flow	No Flow	No Flow
22	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
23	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	6	No Flow	No Flow	No Flow	No Flow
24	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	142	No Flow	No Flow	No Flow	No Flow
25	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	18	No Flow	No Flow	No Flow	No Flow
26	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	6	No Flow	No Flow	No Flow	No Flow
27	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	4	No Flow	No Flow	No Flow	No Flow
28	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	3	No Flow	No Flow	No Flow	No Flow
29	No Flow	No Flow	No Flow	No Flow	NA	No Flow	No Flow	3	No Flow	No Flow	No Flow	No Flow
30	No Flow	No Flow	No Flow	No Flow	NA	No Flow	No Flow	3	No Flow	No Flow	No Flow	No Flow
31	No Flow	NA	No Flow	No Flow	NA	No Flow	NA	2	NA	No Flow	No Flow	NA
								Partial Data				
Monthly *Average*	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	104	3	No Flow	No Flow	38
								Partial Data				

KEY: Missing Data: Missing data due to equipment failures, calibration removal, winter conditions, etc.
ITALICS: Italic values include estimated data
No Flow: No streamflow was measured at the gage for the day

Annual Summaries for WY02
NTU 95
Partial Data

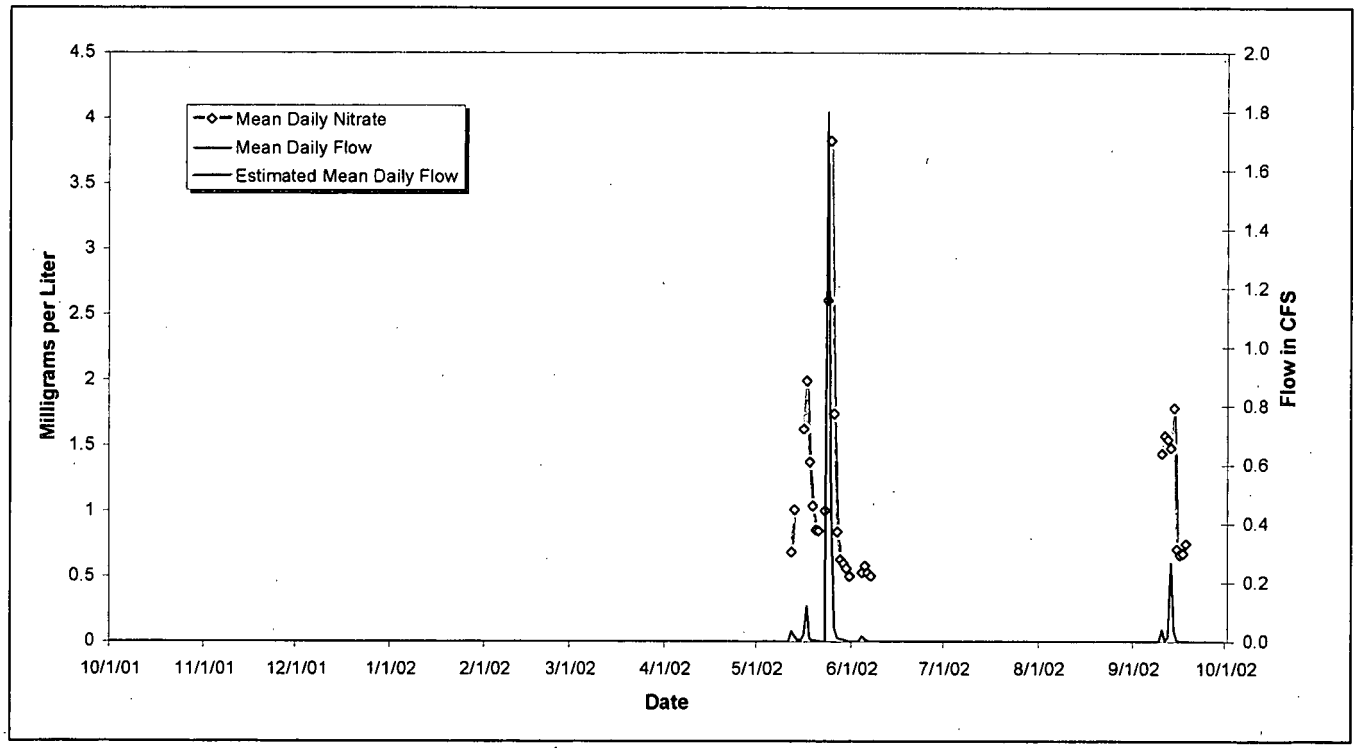

Figure B-5. WY02 Mean Daily Nitrate at SW027: SID at Pond C-2.

Table B-67. WY02 Mean Daily Nitrate at SW027: SID at Pond C-2.

Water Year 2002: Daily Mean Nitrate Values in mg/L

Day	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02
1	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
2	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
3	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
4	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	1	No Flow	No Flow	No Flow
5	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	1	No Flow	No Flow	No Flow
6	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	1	No Flow	No Flow	No Flow
7	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	1	No Flow	No Flow	No Flow
8	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
9	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
10	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	1
11	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	2
12	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	1	No Flow	No Flow	No Flow	2
13	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	1	No Flow	No Flow	No Flow	1
14	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	Missing Data	No Flow	No Flow	No Flow	2
15	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	Missing Data	No Flow	No Flow	No Flow	1
16	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	2	No Flow	No Flow	No Flow	1
17	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	2	No Flow	No Flow	No Flow	1
18	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	1	No Flow	No Flow	No Flow	1
19	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	1	No Flow	No Flow	No Flow	No Flow
20	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	1	No Flow	No Flow	No Flow	No Flow
21	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	1	No Flow	No Flow	No Flow	No Flow
22	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow
23	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	1	No Flow	No Flow	No Flow	No Flow
24	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	3	No Flow	No Flow	No Flow	No Flow
25	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	4	No Flow	No Flow	No Flow	No Flow
26	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	2	No Flow	No Flow	No Flow	No Flow
27	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	1	No Flow	No Flow	No Flow	No Flow
28	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	1	No Flow	No Flow	No Flow	No Flow
29	No Flow	No Flow	No Flow	No Flow	NA	No Flow	No Flow	1	No Flow	No Flow	No Flow	No Flow
30	No Flow	No Flow	No Flow	No Flow	NA	No Flow	No Flow	1	No Flow	No Flow	No Flow	No Flow
31	No Flow	NA	No Flow	No Flow	NA	No Flow	NA	1	NA	No Flow	No Flow	NA
								Partial Data				
Monthly												
Average	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	No Flow	3	1	No Flow	No Flow	1
								Partial Data				

KEY: Missing Data: Missing data due to equipment failures, calibration removal, winter conditions, etc.
ITALICS: Italic values include estimated data
No Flow: No streamflow was measured at the gage for the day

Annual Summaries for WY02
mg/L 3
Partial Data

B.5.2.8 SW093: North Walnut Creek 1300' Upstream of A-1 Bypass

Table B-68. WY02 Mean Daily Water Temperature at SW093: North Walnut Creek at A-1 Bypass.

Water Year 2002: Daily Mean Temperature Values in Degrees Celsius

Day	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02
1	12.9	9.9	4.6	2.1	1.4	0.5	5.4	6.7	12.0	11.5	12.0	12.8
2	12.6	9.4	5.7	1.5	2.1	0.1	3.4	6.6	11.8	11.4	12.6	13.1
3	12.3	9.8	5.9	3.4	2.2	0.2	3.4	7.2	12.6	11.8	12.8	12.7
4	10.9	9.5	5.5	3.9	2.4	1.1	4.3	7.3	12.9	12.4	13.4	13.0
5	9.8	9.7	5.5	3.2	1.9	2.0	5.2	7.4	11.8	12.4	17.7	13.1
6	9.7	10.0	5.8	3.9	2.9	2.6	5.6	7.2	11.7	12.5	17.3	12.8
7	11.2	9.4	5.6	4.8	3.3	2.6	6.1	7.7	11.8	12.6	14.9	13.1
8	11.7	6.7	4.5	4.8	3.7	1.7	6.4	7.7	12.0	13.2	14.0	13.3
9	11.5	8.0	5.7	5.1	2.5	1.8	Missing Data	6.1	11.8	12.8	13.5	16.5
10	9.6	8.0	4.8	4.1	2.2	2.6	6.3	6.8	11.5	12.3	13.4	16.0
11	Missing Data	8.3	*4.3*	4.2	3.5	2.7	6.7	8.6	Missing Data	13.0	13.3	14.9
12	9.2	9.0	3.4	3.9	2.1	*3.3*	6.8	7.0	11.5	12.9	12.5	16.1
13	9.8	9.1	3.6	4.2	2.3	3.7	6.7	8.0	11.3	12.2	Missing Data	16.5
14	9.3	9.4	5.2	2.9	3.1	2.4	6.7	Missing Data	11.1	12.2	12.9	14.3
15	8.7	Missing Data	4.6	2.2	2.7	1.7	6.8	8.6	10.8	12.5	12.8	13.6
16	8.9	9.0	4.2	1.9	3.4	2.2	6.9	9.3	11.2	Missing Data	13.1	13.2
17	10.1	8.8	5.2	1.6	3.8	2.2	6.9	9.1	10.7	Missing Data	12.2	12.9
18	9.9	7.7	4.3	1.5	4.0	2.2	6.8	9.4	10.5	12.5	12.4	12.7
19	*9.8*	6.6	4.4	2.0	Missing Data	3.1	4.8	9.8	13.6	13.0	12.4	11.9
20	10.1	7.3	4.4	2.4	Missing Data	3.6	5.1	9.9	14.2	12.8	12.9	12.3
21	9.9	7.1	4.6	3.2	3.3	1.7	5.6	9.6	12.1	13.0	13.0	11.3
22	10.5	7.8	4.3	3.6	3.7	2.7	5.9	8.5	12.4	12.9	13.1	10.8
23	10.4	7.5	3.1	2.0	4.0	3.7	6.3	8.3	12.1	12.9	13.0	11.2
24	8.7	6.3	2.9	2.0	3.6	3.1	6.0	5.9	11.5	13.5	13.4	11.4
25	7.6	5.3	3.1	3.2	1.0	2.2	5.5	9.5	11.5	12.4	13.7	11.7
26	7.8	4.9	4.1	2.8	0.5	3.3	6.6	10.5	11.8	13.3	13.2	12.1
27	9.1	3.1	4.0	4.1	1.3	4.1	7.0	10.8	11.5	12.9	13.2	11.6
28	10.3	2.4	4.6	3.0	1.6	4.9	6.8	10.9	11.7	12.8	13.3	11.7
29	9.6	4.0	2.9	1.8	NA	4.5	7.4	11.1	11.3	13.0	13.4	11.7
30	9.9	4.8	2.2	1.4	NA	4.8	7.6	11.6	11.3	12.7	13.3	11.7
31	10.0	NA	2.4	0.8	NA	4.9	NA	12.0	NA	12.4	13.2	NA
	Partial Data	Partial Data			Partial Data		Partial Data	Partial Data	Partial Data	Partial Data	Partial Data	
Monthly												
Average	10.0	7.6	4.5	3.1	2.7	2.5	5.9	7.5	12.1	12.6	15.6	15.1
	Partial Data	Partial Data			Partial Data		Partial Data	Partial Data	Partial Data	Partial Data	Partial Data	

KEY: Missing Data: Missing data due to equipment failures, calibration removal, winter conditions, etc.
ITALICS: Italic values include estimated data
No Flow: No streamflow was measured at the gage for the day

Annual Summaries for WY02
Degrees Celsius 8.3
Partial Data

Table B-69. WY02 Mean Daily pH at SW093: North Walnut Creek at A-1 Bypass.

Water Year 2002: Daily Mean pH Values in Standard Units

Day	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02
1	7.7	7.7	7.8	7.5	7.7	7.8	7.8	7.8	8.0	7.5	7.4	7.7
2	7.6	7.6	7.8	7.3	7.7	7.8	7.8	7.8	8.0	7.5	7.6	7.6
3	7.6	7.7	7.8	7.7	7.7	7.8	7.8	7.9	8.0	7.5	7.5	7.6
4	7.7	7.7	7.8	7.6	7.7	7.6	7.7	7.8	7.8	7.4	7.6	7.7
5	7.7	7.7	7.8	7.6	7.7	7.8	8.0	7.8	8.0	7.4	8.1	7.7
6	7.7	7.7	7.8	7.7	7.6	7.7	7.9	7.8	8.0	7.5	7.9	7.7
7	7.7	7.7	7.8	7.9	7.7	7.7	7.9	7.7	8.0	7.5	7.8	7.6
8	7.6	7.7	7.7	7.9	7.7	7.8	7.9	7.8	8.0	7.5	7.7	7.5
9	7.6	7.7	7.7	7.9	7.7	7.7	7.8	7.8	7.9	7.4	7.7	7.9
10	7.7	7.7	7.7	7.8	7.7	7.7	7.8	7.7	7.9	7.5	7.6	7.9
11	7.7	7.7	7.7	7.8	7.7	7.6	7.8	7.9	7.8	7.5	7.7	7.9
12	7.7	7.7	7.8	7.9	7.7	7.8	7.8	7.9	7.8	7.5	7.7	7.9
13	7.6	7.8	7.7	7.9	7.7	7.7	7.7	7.9	7.7	7.5	7.7	7.9
14	7.7	7.8	7.7	7.8	7.7	7.8	7.6	8.0	7.8	7.5	7.6	7.9
15	7.6	7.7	7.8	7.8	7.6	7.8	7.8	7.8	7.8	7.5	7.6	8.0
16	7.6	7.7	7.7	7.8	7.7	7.8	7.6	7.9	7.8	Missing Data	7.6	8.0
17	7.6	7.7	7.8	7.7	7.8	7.7	7.7	7.9	7.8	Missing Data	7.6	7.9
18	7.5	7.6	7.8	7.7	7.8	7.8	7.5	7.9	7.7	7.6	7.6	8.0
19	7.6	7.7	7.8	7.7	Missing Data	7.6	7.6	7.9	7.7	7.6	7.6	8.0
20	7.6	7.8	7.8	7.7	Missing Data	7.8	7.8	8.0	7.7	7.6	7.7	8.0
21	7.6	7.8	7.8	7.7	7.9	7.8	7.9	7.9	7.7	7.5	7.7	7.9
22	7.6	7.8	7.8	7.7	7.9	7.9	7.7	7.9	7.7	7.5	7.6	7.9
23	7.6	7.7	7.8	7.6	7.8	7.9	7.8	7.9	7.6	7.6	7.6	7.9
24	7.6	7.8	7.7	7.7	7.8	7.9	7.8	7.6	7.5	7.6	7.6	8.0
25	7.6	7.8	7.7	7.8	7.8	7.9	7.7	7.9	7.5	7.5	7.5	8.0
26	7.6	7.7	7.7	7.8	7.7	7.8	7.7	7.8	7.5	7.6	7.6	7.9
27	7.6	7.6	7.8	7.8	7.7	7.9	7.7	7.9	7.6	7.6	7.6	8.0
28	7.6	7.7	7.7	7.8	7.7	7.7	7.7	8.0	7.5	7.5	7.6	8.0
29	7.6	7.7	7.8	7.8	NA	7.9	7.7	8.0	7.6	7.5	7.7	7.9
30	7.7	7.8	7.9	7.6	NA	8.0	7.7	8.0	7.5	7.6	7.6	8.0
31	7.7	NA	7.8	7.7	NA	7.9	NA	8.1	NA	7.5	7.5	NA
					Partial Data					Partial Data		
Monthly												
Average	7.6	7.7	7.8	7.7	7.7	7.8	7.8	7.7	7.8	7.5	7.8	7.9
					Partial Data					Partial Data		

KEY: Missing Data: Missing data due to equipment failures, calibration removal, winter conditions, etc.
ITALICS: Italic values include estimated data
No Flow: No streamflow was measured at the gage for the day

Annual Summaries for WY02
Standard pH Units: 7.7
Partial Data

Table B-70. WY02 Mean Daily Specific Conductivity at SW093: North Walnut Creek at A-1 Bypass.

Water Year 2002: Daily Mean Specific Conductivity Values in µS/cm

Day	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02
1	1018	1064	2964	2385	1586	2726	2137	3025	1817	1668	1699	1678
2	1019	1077	2637	1651	1411	3852	1997	2741	1790	1684	1599	1677
3	1024	1085	2639	1431	1342	5072	1963	2245	1533	1614	1654	1700
4	1015	1088	2622	2157	1303	8565	1917	2139	1868	1633	1587	1567
5	817	1094	2243	3079	1289	7876	1876	2049	2463	1635	632	1499
6	1094	1096	2037	2962	1420	4966	1868	2046	2000	1658	1130	1624
7	1124	1044	2047	1877	1315	3594	1864	2006	1852	1663	1661	1617
8	1084	3094	1869	2128	1384	3190	1781	1907	1780	1604	1771	1633
9	1026	1529	1745	1922	1645	6288	Missing Data	1994	1717	1623	1756	715
10	1081	1396	1696	7360	1355	3970	1925	1962	1610	1662	1697	492
11	1118	1329	1673	3625	1278	2971	1983	2017	1566	1641	1682	1214
12	1097	1299	1682	2684	1253	2598	1947	2484	1544	1593	1667	886
13	1084	1253	1523	2236	1230	2529	1984	3601	1510	1618	1694	997
14	1092	1222	1526	1990	1197	6735	1992	2906	1607	1659	1683	2951
15	832	1187	1622	1793	6167	8829	2004	2556	1618	1636	1720	1920
16	1154	1171	5005	1651	4139	5462	1956	1610	1646	Missing Data	1720	1589
17	1145	1158	6747	1591	2028	4137	1988	3481	1667	Missing Data	1630	1587
18	1144	1809	3781	1534	1668	3607	1975	3209	1712	1670	1690	1552
19	1123	1710	2893	1470	Missing Data	5848	2013	2264	1392	1640	1653	1754
20	1099	1417	2478	1401	Missing Data	3718	2192	2239	1436	1696	1641	1620
21	1122	1406	2249	1323	1483	3143	2133	2349	1690	1690	1640	1652
22	1113	1325	2035	1306	1366	2845	2074	2583	1695	1638	1666	1614
23	1085	2548	1843	1668	1247	2660	2035	719	1705	1668	1667	1642
24	1057	1520	1672	1927	1475	2534	1985	1111	1668	1666	1663	1693
25	1061	1352	1564	2118	3129	3038	1946	1765	1643	1697	1595	1393
26	1104	8298	1491	1440	8036	2381	1964	1950	1645	1693	1664	1110
27	1122	13079	1464	2091	6475	2258	1964	1959	1651	1598	1600	1534
28	1114	9600	1819	1836	2913	2154	1953	1919	1684	1642	1649	1599
29	1105	4318	1631	1619	NA	2139	1935	1913	1622	1693	1548	1578
30	1114	3437	1466	2858	NA	2052	1853	1879	1652	1648	1682	1638
31	1112	NA	1366	1918	NA	2317	NA	1828	NA	1697	1653	NA
					Partial Data		Partial Data			Partial Data		
Monthly												
Average	1061	2393	2476	2300	2217	4463	1967	1486	1719	1651	1135	1023
					Partial Data		Partial Data			Partial Data		

KEY: Missing Data: Missing data due to equipment failures, calibration removal, winter conditions, etc.
ITALICS: Italic values include estimated data
No Flow: No streamflow was measured at the gage for the day

Annual Summaries for WY02
µS/cm: 1921
Partial Data

Table B-71. WY02 Mean Daily Turbidity at SW093: North Walnut Creek at A-1 Bypass.

Water Year 2002: Daily Mean Turbidity Values in NTU

Day	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02
1	3	1	0	5	0	0	3	238	2	0	6	3
2	3	1	0	1	0	7	4	52	4	1	7	3
3	3	0	0	1	0	1	3	1	155	1	4	5
4	4	0	0	8	0	105	3	1	59	0	22	3
5	30	1	0	5	7	17	3	1	1	1	972	3
6	2	1	0	2	0	11	3	1	2	0	320	4
7	2	22	0	3	0	7	4	1	2	0	4	3
8	2	30	0	2	1	0	6	2	2	0	4	3
9	7	0	0	2	0	14	Missing Data	1	2	0	3	148
10	2	1	0	145	0	2	1	2	2	0	3	286
11	Missing Data	0	Missing Data	3	0	2	0	355	1	1	4	107
12	Missing Data	1	2	2	0	4	1	153	0	1	3	147
13	Missing Data	0	2	2	0	3	1	0	0	2	2	312
14	Missing Data	0	2	1	0	57	1	8	0	1	4	4
15	Missing Data	0	2	1	32	9	0	10	0	1	4	3
16	Missing Data	0	16	1	0	5	2	464	0	Missing Data	6	2
17	Missing Data	0	15	1	0	2	1	33	0	Missing Data	6	2
18	Missing Data	53	2	1	0	18	2	1	0	Missing Data	4	15
19	Missing Data	2	1	1	Missing Data	12	1	7	269	Missing Data	4	3
20	0	0	2	1	Missing Data	5	16	41	35	Missing Data	4	2
21	1	0	1	Missing Data	0	3	5	10	0	Missing Data	3	2
22	0	0	1	0	0	3	1	2	0	Missing Data	3	3
23	0	58	1	1	0	2	1	771	0	Missing Data	2	5
24	0	0	2	0	0	2	0	214	1	Missing Data	3	2
25	0	0	2	225	8	6	3	9	1	Missing Data	6	157
26	0	18	2	94	3	3	0	2	0	Missing Data	2	45
27	0	6	3	0	0	2	0	1	0	4	3	3
28	0	0	2	0	0	2	1	1	0	6	3	2
29	1	0	2	0	NA	3	1	1	0	5	10	2
30	1	0	1	0	NA	3	2	2	0	5	5	3
31	1	NA	3	0	NA	5	NA	2	NA	5	4	NA
	Partial Data		Partial Data	Partial Data	Partial Data		Partial Data			Partial Data		
Monthly *Average*	4	10	3	25	2	13	3	241	33	1	487	185
	Partial Data		Partial Data	Partial Data	Partial Data		Partial Data			Partial Data		

KEY: Missing Data: Missing data due to equipment failures, calibration removal, winter conditions, etc.
ITALICS: Italic values include estimated data
No Flow: No streamflow was measured at the gage for the day

Annual Summaries for WY02
NTU 124
Partial Data

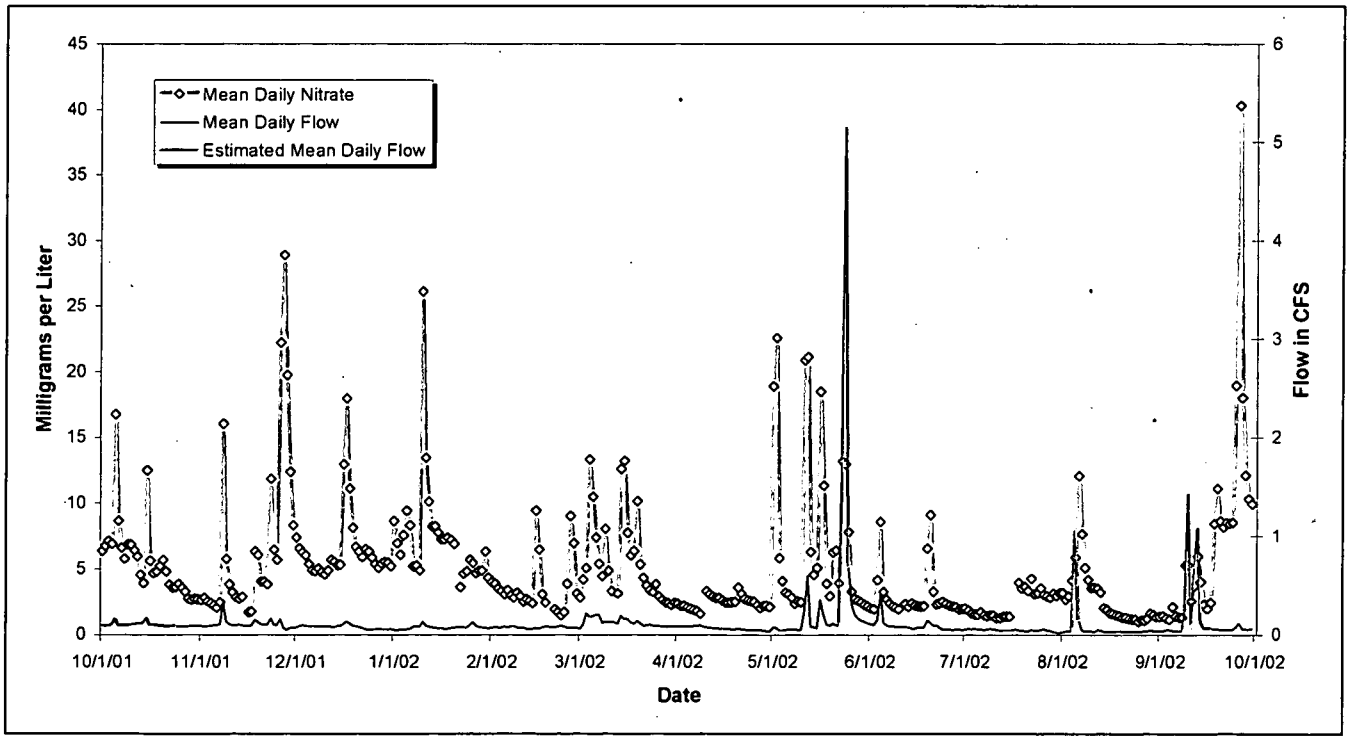

Figure B-6. WY02 Mean Daily Nitrate at SW093: North Walnut Creek at A-1 Bypass.

Table B-72. WY02 Mean Daily Nitrate at SW093: North Walnut Creek at A-1 Bypass.

Water Year 2002: Daily Mean Nitrate Values in mg/L

Day	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02
1	6	3	7	9	4	3	2	19	2	2	3	1
2	7	3	7	7	4	4	2	23	2	2	3	1
3	7	3	6	6	4	5	2	6	4	2	3	1
4	7	2	6	8	3	13	2	4	9	2	4	1
5	17	2	5	9	3	11	2	3	3	2	6	2
6	9	2	5	8	3	7	2	3	3	2	12	1
7	7	2	5	5	3	5	2	3	2	1	8	1
8	6	16	5	5	3	4	2	2	2	1	5	1
9	7	6	5	5	3	8	Missing Data	3	2	1	4	5
10	7	4	5	26	3	5	3	2	2	1	4	5
11	6	3	5	13	3	3	3	21	Missing Data	1	4	3
12	6	3	6	10	3	Missing Data	3	21	2	1	4	4
13	5	3	6	8	3	3	3	6	2	1	3	6
14	4	3	5	8	2	13	3	5	2	1	2	4
15	13	Missing Data	5	8	9	13	3	5	2	1	2	2
16	6	2	13	7	6	8	2	19	2	Missing Data	2	2
17	5	2	18	7	3	6	2	11	2	Missing Data	2	2
18	5	6	11	7	2	6	2	4	2	4	1	8
19	5	6	8	7	Missing Data	10	3	3	7	4	1	11
20	6	4	7	7	Missing Data	5	4	6	9	4	1	9
21	5	4	6	Missing Data	2	4	3	6	3	3	1	8
22	4	4	6	4	2	4	3	4	2	4	1	9
23	4	12	6	5	1	3	3	13	2	3	1	8
24	4	6	6	5	2	3	3	13	3	3	1	9
25	4	6	6	6	4	4	3	8	2	4	1	19
26	4	22	5	5	9	3	2	3	2	3	1	40
27	3	29	5	5	7	3	2	3	2	3	1	18
28	3	20	5	5	3	2	2	3	2	3	1	12
29	3	12	6	5	NA	2	2	2	2	3	2	10
30	3	8	5	6	NA	2	2	2	2	3	2	10
31	3	NA	5	4	NA	2	NA	2	NA	3	1	NA
		Partial Data		Partial Data	Partial Data	Partial Data	Partial Data		Partial Data	Partial Data		
Monthly *Average*	6	7	7	8	4	6	2	12	4	2	5	6
		Partial Data		Partial Data	Partial Data	Partial Data	Partial Data		Partial Data	Partial Data		

KEY: Missing Data: Missing data due to equipment failures, calibration removal, winter conditions, etc.
ITALICS: Italic values include estimated data
No Flow: No streamflow was measured at the gage for the day

Annual Summaries for WY02
mg/L 7
Partial Data