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Los Alamos and Pueblo Canyons Supplemental Investigation Report

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This supplemental investigation report for Los Alamos and Pueblo Canyons provides additional information on the nature and extent of contamination and potential risks to human health and the environment in response to the New Mexico Environment Department (NMED) Notice of Disapproval on the Los Alamos and Pueblo Canyons Investigation Report. Four main topics are included in this supplemental report: (1) the evaluation of sediment samples collected for dioxin and furan analysis, (2) documentation of upper confidence limit (UCL) calculations for the human-health risk assessments, (3) revisions to the human-health risk assessments, and (4) presentation of storm-water monitoring data from gage stations in the watershed.

Fifteen sediment samples were collected for dioxin and furan analysis from three reaches in Pueblo Canyon to evaluate the extent of contamination from a potential source (solid waste management unit [SWMU] 73-002, the incinerator ash pile). Sampling was conducted in one reach upcanyon of SWMU 73-002 and in two downcanyon reaches. Dioxin and furan congeners were detected in all samples. The data show that the distribution of dioxin and furan congeners does not indicate a recognizable signature from SWMU 73-002 in Pueblo Canyon sediments.

Appendix C of this supplemental report documents the UCL calculations used in the human-health risk assessments. Some UCLs for chemicals of potential concern (COPCs) are changed from the original report because of the use of different significance levels in the calculations after considering the skew of the data, as required by NMED.

The human-health risk assessments were revised to include an expanded list of analytes as COPCs and the revised UCLs for some COPCs. Additional changes included the use of screening levels that NMED had revised since preparation of the original report. For the decision exposure scenarios used in the original report, trail-user and extended-backyard, none of the revisions resulted in exposure point concentration (EPC) to risk-based concentration (RBC) ratio multimedia sums for noncarcinogens or radionuclides that exceeded the criterion of 1.0. However, in reaches AC-1 and DP-1W, the addition of polycyclic aromatic hydrocarbon (PAH) COPCs resulted in carcinogenic EPC-to-RBC multimedia ratio sums above 1.0 for the trail-user or extended-backyard scenarios. These reaches receive runoff from extensive paved areas in the Los Alamos townsite. The spatial distribution of PAHs in the Los Alamos and Pueblo watershed, as well as studies conducted in other areas, support the primary source of PAHs being runoff from urban areas. The revisions to the human-health risk assessments do not alter the conclusions in the original report that for contaminants released from SWMUs, potential human-health risks are within acceptable risk ranges for present-day and foreseeable future land uses.

Stormwater data through 2004 from all gaging stations located in the Los Alamos and Pueblo watershed are included in this report. These data were screened against relevant New Mexico Water Quality Control Commission standards and Department of Energy-derived concentration guidelines. Time-series plots for various analytes that are greater than screening values at a station and box plots showing spatial variations in analyte concentrations are presented in Appendix E of this supplemental report. The data show that contaminant concentrations in stormwater are highest in the upper portions of the watershed (nearest to the initial SWMU sources) and decrease significantly in the lower portion of the watershed near the Rio Grande.

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1.0 INTRODUCTION

This supplemental investigation report for Los Alamos and Pueblo Canyons provides additional information on the nature and extent of contamination and potential risks to human health and the environment in response to New Mexico Environment Department (NMED) Notice of Disapproval (NOD) comments on the Los Alamos and Pueblo Canyons Investigation Report (LANL 2004, 87390). This supplemental report fulfills the commitments to provide additional and revised information as described in the Los Alamos National Laboratory (LANL, or the Laboratory) response (LANL 2005, 88786) to NMED's NOD (NMED 2005, 88463). The approval letter from NMED (NMED 2005, 88756) also provides some additional requirements that this document fulfills.

Four main areas of the response are incorporated in this report:

- The collection, analysis, and evaluation of additional samples for dioxins and furans are provided in response to general comment 3 in the NOD. As required by NMED (NMED 2005, 88756), two reaches of Pueblo Canyon were sampled for dioxins and furans downcanyon of solid waste management unit (SWMU) 73-002, and an additional reach was sampled upcanyon from SWMU 73-002, as proposed by the Laboratory (LANL 2005, 88786). This supplemental report includes the analytical results for those samples as well as the evaluation of the sample results for potential risk to human health and the environment. This report provides information on sample collection and analysis methods, sample results, and risk evaluations consistent with the requirements of the Compliance Order on Consent (hereafter, the Consent Order) signed by NMED, the Department of Energy (DOE), and the Regents of the University of California on March 1, 2005.
- Documentation of upper confidence limits (UCL) calculations is provided in response to general comment 1 and specific comment 14 in the NOD.
- This supplemental report contains revisions to the human-health risk assessment that address NMED comments about the assessment of infrequently detected chemicals of potential concern (COPCs) and the calculation of UCLs for COPCs. Both the screening assessment and the site-specific risk assessments have been revised to address specific comments 2, 4, 5, and 8 in the NOD as well as the comments in the approval letter regarding the application of the frequency-of-detection guideline. A comparison of the conclusions of the original risk assessment with those of the revised risk assessment is included.
- Stormwater monitoring data for gage stations in the watershed through 2004 are provided in response to specific comment 1 in the NOD.

The revised screening assessment presented in this supplemental report also incorporates updated human-health screening levels (NMED 2004, 85615) developed since preparation of the original report. The revisions to the human-health risk assessment require revision to a number of tables in the original investigation report. This introduction provides a crosswalk of modified materials (tables and figures) with elements in the original report. Table 1-1 lists the table number and page number in the original report, the subject of the table, the table number in this supplemental report, and whether the new table contains revisions to the old table or should be regarded as new information or analysis provided as part of this supplemental report.

2.0 DIOXIN AND FURAN DATA

2.1 Rationale for Dioxin and Furan Sampling

SWMU 73-002, as shown in Figure 2.2-1, is the ash pile from a former incinerator located at the current Los Alamos County airport on the north-facing slope of Pueblo Canyon. Drainage channels from this SWMU lead from the upper wall of Pueblo Canyon down the hillslope to the colluvial and alluvial deposits in the bottom of the canyon. The drainages from SWMU 73-002 discharge onto the canyon floor 2.4 km (1.5 miles) downcanyon of reach P-1E and 0.3 km (0.2 mile) upcanyon from reach P-2W. Previous samples collected at SWMU 73-002 (LANL 1997, 56606) detected congeners of dioxins and furans. The presence of dioxins and furans at SWMU 73-002 raised the concern that these COPCs may have migrated into the active channel and floodplains of Pueblo Canyon. As required by NMED (NMED 2005, 88756), two reaches in Pueblo Canyon were sampled for dioxins and furans downcanyon of SWMU 73-002 (reaches P-2W and P-2E). One additional reach was sampled upcanyon of SWMU 73-002 (reach P-1E), as proposed by the Laboratory (LANL 2005, 88786), to provide a means to evaluate possible contributions from this SWMU. These samples were collected to help determine the nature and extent of possible dioxin and furan congeners within Pueblo Canyon. These data are also assessed for the potential to impact human health and the environment.

2.2 Sample Collection Methods and Maps

Sediment samples were collected following Los Alamos National Laboratory Environmental Characterization and Remediation (ECR) Standard Operating Procedure (SOP) 6.09, "Collection of Soil Samples with Spade and Scoop." Figure 2.2-1 shows the location within the watershed of the three reaches sampled for dioxins and furans relative to the position of SWMU 73-002. The locations sampled for dioxins and furans within each reach are presented in Figure 2.2-2 for reach P-1E, in Figure 2.2-3 for reach P-2W, and in Figure 2.2-4 for reach P-2E. Five sediment samples were collected in each reach, and a field duplicate sample was collected in two reaches (P-1E and P-2W) for quality assurance purposes.

Sampling was biased toward fine-grained sediment deposits because fine-grained sediment generally contains higher concentrations of COPCs than coarse-grained sediment (e.g., LANL 2004, 87390, section 7.1, pp. 7-1 to 7-18). Four fine-grained deposits and one coarse-grained deposit were sampled in each reach. The sample collection effort was restricted to pre-Cerro Grande fire deposits to help distinguish potential contamination that may originate from Laboratory or other sources from dioxins and furans produced during the Cerro Grande fire. Sample locations in each reach were allocated using the volume of pre-Cerro Grande sediment in each geomorphic unit (e.g., a unit with 50% of the fine-grained sediment in a reach was allocated half of the fine-grained samples in that reach). At one location within each reach, samples for dioxin and furan analysis were collected from multiple depths to evaluate possible variations in dioxin and furan concentration associated with sediment deposits of different ages.

2.3 Analytical Results

Table 2.3-1 is the summary of samples collected and analyzed for dioxins and furans at the three reaches within Pueblo Canyon. A total of 159 of the 372 detected concentrations are J-qualified to indicate that the estimated concentration lies between the detection limit and the quantitation limit. The frequency with which individual congeners of dioxins and furans were detected is presented in Table 2.3-2. Congeners that were not detected in any sample are not included in this table. All detected concentrations of each congener in each of the samples are presented in Table 2.3-3. All analytical results for these samples are presented in Appendix B.

2.4 Nature and Extent of Dioxin and Furan Contamination

NMED required this additional sediment investigation to help evaluate the extent of dioxin and furan contamination from SWMU 73-002. Dioxins and furans are produced from incomplete combustion, which can occur at sources such as the incinerator or as part of nonpoint processes such as the Cerro Grande fire. This SWMU and its potential runoff paths lie upcanyon of reaches P-2W and P-2E and downcanyon of reach P-1E. Figure 2.4-1 shows the concentrations of individual dioxin and furan congeners. These plots show the concentrations on both linear and log y-axes to show the concentrations of individual congeners. As shown in Figure 2.4-1, there is no increase in concentrations of dioxins and furans downcanyon from SWMU 73-002 that would indicate recognizable contributions from this SWMU to the canyon-bottom sediments.

The concentrations of individual dioxin and furan congeners, as presented in Figure 2.4-1, are useful for evaluating the extent and downcanyon variations in contamination and also for determining whether similar proportions of dioxin and furan congeners are seen between the different reaches. These plots show that although there is some variability, the proportion of the dioxin and furan congeners detected and the total concentrations of dioxin and furan congeners are similar between the reaches. As can be seen in Figure 2.4-1, the dioxin congeners detected within the canyon sediments are dominated by the dioxins 1,2,3,4,6,7,8,9 -OCDD and 1,2,3,4,6,78-HpCDD. The furan congeners detected are dominated by the 1,2,3,4,6,7,8,9-OCDF and the 1,2,3,4,6,7,8-HpCDF congeners; the concentrations of furan congeners were lower than those of the predominant dioxin congeners. Although the same dioxin and furan congeners were found to have the highest concentration in the ash debris pile in the Phase I sampling conducted in 1997 at SWMU 73-002 (LANL 1997, 56606), the concentrations do not increase downcanyon from SWMU 73-002; therefore, this SWMU does not represent a significant additional source of dioxins and furans for canyon-bottom sediments. There are no known incinerators upcanyon of reach P-1E, and there is no evidence based on documented process knowledge that the Laboratory's SWMUs upcanyon contribute to the dioxin and furan congener concentrations detected in samples in these reaches.

2.5 Calculation of Hazard Quotients for Human Health Using the 2,3,7,8-TCDD Equivalent Method

Because dioxin and furan congeners are carcinogens and act through similar mechanisms of carcinogenicity, the U.S. Environmental Protection Agency (EPA) recommends that risk from these chemicals be assessed using a toxic equivalent method (EPA 2003, 87658). This method uses a toxic equivalency factor (TEF) to convert each dioxin-like compound into a toxic equivalent of 2,3,7,8-TCDD (the 2,3,7,8-TCDD toxic equivalency quotient [TEQ]). The TEF is a comparative toxicity value used to convert the concentration of each dioxin and furan congener into an equivalent concentration of 2,3,7,8-TCDD. The sum of these equivalent values is the TEQ. The TEQ value is then divided by the screening level for 2,3,7,8-TCDD to produce a hazard quotient (HQ) for human-health risk evaluations. The in-depth description of this method and the TEF values used to convert each dioxin-like compound appears in the National Academy of Sciences (NAS) review draft of "Exposure and Human-health Reassessment of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) and Related Compounds" (EPA 2003, 87658). The TEF values used for human health in the calculations for this supplemental report are provided in Table 2.5-1; these values are the 1998 World Health Organization (WHO) values from Table 1-2 of the NAS review draft. The TEQ total for each reach is divided by the human-health screening action level (SAL) for 2,3,7,8-TCDD to generate a carcinogen HQ, which is equivalent to the exposure point concentration (EPC) to risk-based concentration (RBC) ratio (EPC-to-RBC ratio) used in the human health risk assessment in section 3. This HQ is summed with the other HQs to calculate the carcinogenic hazard index (HI) for each of those reaches. Because there is no screening level for 2,3,78-TCDD equivalents

from NMED, the human-health SAL was the EPA Region 6 residential screening value multiplied by 10 to adjust the level of carcinogenic risk from 10^{-6} to 10^{-5} to be consistent with the NMED carcinogenic target risk level of 10^{-5}; this value is used as the RBC. The box plots in Figure 2.5-1 show the total concentrations of dioxins and furans detected in each sample grouped by reach. The concentrations in the box plots have been converted to the toxicity equivalent value (2,3,7,8-TCDD TEQ) for comparison with the applicable screening level. The 2,3,7,8-TCDD TEQ for each sample is provided in Table 2.5-2; the maximum TEQ from each reach, shown in the last column of the table, is the EPC used in the Tier 1 human-health table (see section 3.5 and Table 3.2-5). Table 2.5-3 provides the TEQ for each depth for the three locations sampled at multiple depths. TEQ values increased with depth for the locations in reaches P-1E and P-2W but decreased with depth in reach P-2E. The results of the Tier 1 human-health screening for dioxins and furans are included in the Tier 1 human-health screening evaluation in section 3.2 of this supplemental report. As shown in the section 3.2 tables, the HQs for human health from the 2,3,7,8-TCDD TEQ are all well below 1. In the reaches downcanyon of SWMU 73-002 (P-2W and P-2E), the HQs are both less than 0.1; in these reaches, dioxins and furans are not considered COPCs past the Tier 1 screen. In the upcanyon reach (P-1E) the HQ is 0.13, and dioxins and furans in this reach are considered in the site-specific risk assessments. The site-specific risk assessments in section 4.3 show that the HQs for the likely future uses (trail user and extended backyard) are both <0.004, indicating that the concentrations of dioxins and furans do not contribute substantially to risk.

2.6 Calculation of Hazard Quotients for Ecological Risk Using the 2,3,7,8-TCDD Equivalent Method

The 2,3,7,8-TCDD equivalency method described above for estimating human-health risk from dioxins and furans can also be applied to ecological receptors. However, the set of TEFs used to convert the dioxins and furans into equivalent concentrations of 2,3,7,8-TCDD was developed separately and is different between birds and mammals. The TEFs for mammals are identical to the TEFs for humans, but a different set of TEFs is used for birds. In addition, the sum of the values multiplied by the TEF for a bird or mammal is referred to as the 2,3,7,8-TCDD toxic equivalent concentration (TEC) (2,3,7,8-TCDD TEC). This 2,3,7,8-TCDD TEC is then divided by the ecological screening level (ESL) for 2,3,7,8-TCDD specific to the bird or mammal to produce an HQ, which is the same method used for other COPCs.

This method for evaluating the ecological effects of dioxins and furans and the TEFs for both birds and mammals are provided in the external draft review of EPA's "Framework for Application of the Toxicity Equivalence Methodology for Polychlorinated Dioxins, Furans, and Biphenyls in Ecological Risk Assessment" (EPA 2003, 90608). The ESLs for 2,3,7,8-TCDD for birds and mammals are from ECORISK version 2.2 (LANL 2005, 90032). The maximum detected concentrations and the TEFs for birds and mammals are presented in Table 2.6-1. Table 2.6-2 provides the 2,3,7,8-TCDD TEC for birds and for mammals. The table value for each reach shaded in gray is the maximum TEC for that reach and is the TEC used to calculate ecological HQs for dioxins and furans in section 2.7.

2.7 Results of the Ecological Risk Screening for Dioxins and Furans

Table 2.7-1 shows 2,3,7,8-TCDD TECs for each of the three reaches included in the dioxin and furan sampling, as well as the ESLs and HQs for birds and for mammals. The minimum ESLs for birds and mammals were used. Although the canyon floor media is considered sediment, bird and mammal receptors considered exposed through soil (robin and shrew) and sediment (bat and swallow) were used to screen the 2,3,7,8-TCDD TECs on the assumption that the sample concentrations represent the entire canyon floor. The HQs for birds indicate that dioxins and furans would not be study-design contaminants of potential ecological concern (COPECs) (criterion of HQ>3 [LANL 2004, 87390, p. 8–2]) for Los Alamos and Pueblo Canyons in the original investigation report. However, HQs for mammals for sediment and

soil exceed 3 for all three reaches and therefore dioxins and furans would have qualified as study-design COPECs for mammals. The maximum concentration of dioxins and furans were in reach P-1E, upstream of SWMU 73-002. The levels of dioxins and furans in all three reaches are consistent with levels measured in post-Cerro Grande fire deposits in the surrounding area. The summed 2,3,7,8-TCDD equivalent (expressed as 2,3,7,8-TCDD equivalents for human health) reported in Kraig et al. (2000, 85536, Table 5 and Table A-6) ranged from 4.7×10^{-7} mg/kg to 3.5×10^{-6} mg/kg. These values are similar to the 2,3,7,8-TCDD summed values for samples reported in Table 2.5-2 of this report. The range of concentrations (expressed as 2,3,7,8-TCDD equivalents for human health) seen in the samples collected for this supplemental report is 1.71×10^{-10} mg/kg to 4.96×10^{-08} mg/kg. Dioxins and furans appear to be present throughout the watershed at levels exceeding the screening levels for small mammals. The Los Alamos and Pueblo Canyons Investigation Report field studies included four locations where small-mammal populations were evaluated, and two of the four small-mammal study areas were in the Pueblo Canyon watershed (reaches AC-3 and P-3W). No difference in population density, sex ratio, or reproductive classes was noted between these small-mammal study areas (LANL 2004, 87390). Because adverse ecological effects to mammals were not identified in the original ecological assessment, the assessment implicitly demonstrated that there are no adverse ecological effects from dioxins and furans.

3.0 REVISED HUMAN-HEALTH SCREENING AND RISK ASSESSMENT

3.1 Introduction

The approach to the screening level human-health risk assessment and the site-specific human-health risk assessment have been modified to address NMED concerns about the elimination of COPCs in the Los Alamos and Pueblo Canyons Investigation Report (LANL 2004, 87390). The new approach modifies the assessment of infrequently detected COPCs in sediment and water, as well as streamlining the risk-assessment process by presenting a single-tier screening evaluation against maximum detected concentrations of COPCs followed by a site-specific risk assessment, including all COPCs generating an HQ >0.1 for reaches for which the HI is greater than 1.

3.2 Revised Human-Health Screen

3.2.1 Identification of Sediment COPCs

Section 6.2 of the Los Alamos and Pueblo Canyons Investigation Report (LANL 2004, 87390) presented an approach for the identification of sediment COPCs that included a comparison to background values (BVs) (for inorganic chemicals and radionuclides with BVs) and frequency-of-detection criteria (for organic chemicals). The original process was performed at the reach level for inorganic chemicals and radionuclides and the subwatershed level for organic chemicals. In this supplemental report, the comparison to BVs is retained, but the frequency-of-detection criterion is no longer used for organic chemicals. Therefore, all organic chemicals detected in sediment samples are analyzed on the scale of individual reaches.

This process in this supplemental report includes the same definitions for status classifications defined in the original investigation (fire-impacted and removed) (LANL 2004, 87390, p. 6-2). All status types are included in the COPC determination.

The criteria for retaining analytes as COPCs in this supplemental report are as follows:

An inorganic chemical is retained as a COPC in a reach if

- the analyte has a BV and at least one detected or nondetected result in the reach exceeds the BV, or
- the analyte does not have a BV, but there is at least one detected result in the reach/status combination.

A radionuclide is retained as a COPC in a reach if

- the analyte has a BV and at least one detected result in the reach exceeds the BV, or
- the analyte does not have a BV, but there is at least one detected result in the reach/status combination.

An organic chemical is retained as a COPC in a reach if there is at least one detected result in a reach/status combination. There are 32 organic chemicals included in the COPC identification step in this supplemental report that were not included in the original investigation report. Table 3.2-1 shows the maximum detected concentrations of all the organic chemicals included as COPCs; new COPCs included based on this revised approach have their analyte name shaded in gray. Tables 3.2-2 and 3.2-3 show the maximum detected concentrations of all radionuclide and inorganic COPCs for sediment in each reach. There are no revisions to the list of radionuclide and inorganic chemical COPCs from those included in the original report, but these tables of concentrations are provided to assist in following the revisions to the human-health screening for these analytes.

3.2.2 Identification of Tier 1 Sediment COPCs for Human-Health Risk Assessment

Section 6.2.3 of the original investigation report (LANL 2004, 87390) provided a tiered risk screen of the sediment COPCs to identify potential human-health risk based on HQs and HIs. An EPC-to-RBC ratio is the ratio of the sample result to the SAL for that analyte, and a risk-type sum is the sum of the ratios for a risk type; that is., carcinogens, noncarcinogens, and radionuclides. The criteria for retaining an analyte as a Tier 1 COPC have been modified for this report as presented in section 3.2.1. In this report, the HQ is generated for each COPC using the maximum detected concentration. HQs for all analytes within a reach are summed to calculate the HI for the risk class of those analytes (carcinogen, noncarcinogen, or radionuclide). For all reaches with an HI>1.0 for a risk class, all COPCs within that risk class with HQs greater than 0.1 are retained as Tier 1 COPCs. The Tier 2 screening using upper confidence limit (UCL) concentrations of COPCs from the original investigation report is not used in the supplemental investigation risk screening to simplify this report. All Tier 1 COPCs are evaluated in the site-specific risk assessment.

The human-health SALs for nonradionuclides used in this screening assessment are the NMED residential soil-screening levels (SSLs) from Revision 2 of the NMED SSLs (NMED 2004, 85615). For analytes for which NMED does not provide a value, the residential screening value from EPA Region 6 or EPA Region 9 (adjusted to a 10^{-5} risk level for carcinogens) was used as the SAL. NMED-approved surrogate compounds were used for some analytes that lacked established screening levels (NMED 2003, 81172). SALs related to residential land use for radionuclides are based on the soil guidelines for unrestricted release of property (DOE Order 5400.5, "Radiation Protection of the Public and the Environment"); these values are derived using RESRAD version 6.21 as described in "Derivation and Use of Radionuclide Screening Action Levels Revision 1" (LANL 2005, 88493). Changes to the SALs may result in different HQs for the same detected concentrations of analytes used in the original investigation

report. Table 3.2-4 contains the set of human-health residential SALs used to calculate HQs in the supplemental report screening assessment.

Table 3.2-5 contains the HQs and HIs for each reach for each risk class for all human-health COPCs in sediment. COPCs shaded in gray are those retained after the Tier 1 risk screening and carried forward to the site-specific risk assessments.

Based on this revised screening, six additional organic chemicals will be included in the site-specific risk assessments: dinitro-2-methylphenol[4,6-] (in reach DP-2), nitroso-di-n-propylamine[N-] (in reach ACS), trichlorophenol[2,4,6-] (in reach DP-3), dieldrin (in reach ACS), heptachlor epoxide (in reach DP-1W), and 2,3,7,8-TCDD TEQ (in reach P-1E). In addition, four additional inorganic COPCs (lead, manganese, mercury, and uranium) and five additional radionuclide COPCs (cobalt-60, europium-152, thorium-228, thorium-230, and thorium-232) will also be included in the site-specific risk assessments. COPCs already included in the site-specific risk assessments for sediment in some reaches were included for additional reaches. Table 3.2-6 presents these new COPCs and the additional reaches now included in the site-specific risk assessment for sediment for existing COPCs.

3.2.3 Identification of Surface Water and Alluvial Groundwater COPCs

The water data set includes alluvial groundwater, springs, and persistent surface water. There are no established Laboratory background concentrations for water data; therefore, the original investigation report considered frequency of detection as a criterion for retaining any analyte as a COPC, regardless of whether that analyte was an organic chemical, an inorganic chemical, or a radionuclide. In addition, methylene chloride detections were reevaluated without application of the ten times rule in response to NOD specific comment 8. In this supplemental report, all detected analytes in water from any location are retained as COPCs for the screening assessment, and the frequency of detection is not considered. Stormwater data are addressed through a separate standards-based screening presented in section 6 of this supplemental report. In this report, each water station is evaluated individually, and stations are not combined into hydrosegments as done in the original report. Tables 3.2-7 to 3.2-9 present the maximum detected concentration of each analyte in surface water and alluvial groundwater at each water-sampling location.

3.2.4 Identification of Surface Water and Alluvial Groundwater Tier 1 COPCs for Human-Health Risk Assessment

Screening levels for surface water and alluvial groundwater for organic and inorganic chemicals are the New Mexico Water Quality Control Commission (WQCC) standards and EPA maximum contaminant levels (MCLs) for drinking water. Any analyte for which there was no MCL or WQCC standard was screened against the EPA Region 6 risk-based screening level for tap water. Radionuclide screening levels are based on a dose of 4 mrem/yr and are from the DOE-derived concentration guidelines (DCGs) (DOE Order 5400.5, "Radiation Protection of the Public and the Environment"). The screening levels for human health for water are presented in Table 3.2-10. For both surface water and groundwater, these levels are based on the WQCC groundwater standards, EPA MCLs for drinking water, and the EPA risk-based tap water values if no drinking water value is available. The Tier 1 screen is performed for each water location, water type (surface water or alluvial groundwater), and field preparation (filtered or unfiltered).

As part of the Tier 2 assessment in the original report, a number of water COPCs were eliminated from the risk assessment because they were detected only once. Sections 6.3.3.3.1 (p. 6-11) and 6.3.3.3.2 (p. 6-12) of the original report (LANL 2004, 87390) detail the process for this refinement of the COPC list

for water. These COPCs are now retained for the risk assessment because the frequency of detection is no longer a criterion for elimination of COPCs in water. In addition, bromodichloromethane was also eliminated in the original report based on a comparison with a disinfectant and disinfectant byproduct rule standard for drinking water (see LANL 2004, 87390, section 6.3.3.3.2, p. 6-12) for this COPC. At this time, a EPA Region 6 tap water value for bromodichloromethane based on carcinogenic risk is available; therefore, this COPC is evaluated against that human-health SAL and not the disinfectant and disinfectant byproduct rule standard

HQs were generated using the maximum detected concentration for each detected analyte in surface water and groundwater at each sampling location. For each risk class (carcinogen, noncarcinogen, and radionuclide), HQs were summed to provide the HI for each risk class for each water location. For all water locations with an HI>1.0 for a risk class, all COPCs within that risk class with HQs greater than 0.1 are retained as Tier 1 COPCs. The Tier 2 screening using UCL concentrations of COPCs from the original investigation report is not used in the supplemental investigation risk screening. Instead, all Tier 1 COPCs are carried directly to the risk assessment. The results of the Tier 1 screening are presented in Table 3.2-11. Gray shaded values for HQs indicate a COPC/water station combination retained for the site-specific risk assessments. New COPCs and new water stations retained for existing COPCs are presented in Table 3.2-12.

3.3 Summary of Screening

Table 3.3-1 presents a summary of all the COPCs for human health in sediment and water samples from the Los Alamos and Pueblo watershed. This table indicates which COPCs were designated, based on a comparison with BVs or on detection status, and which COPCs were retained in the Tier 1 screening for consideration in the revised site-specific risk assessment for human health described in section 6 of this supplemental investigation report. New COPCs added to the list from the original investigation report have their name shaded in gray. COPCs used in the supplemental risk assessments that were eliminated in the original report have an "X" in the final COPCs column shaded in gray.

4.0 REVISED HUMAN-HEALTH SITE-SPECIFIC RISK ASSESSMENT

4.1 Introduction

The approach used for the risk assessment in this report is the same as the approach in the original investigation report (LANL 2004, 87390). For sediment COPCs, a value for the UCL of the mean for each COPC was developed, and the EPC for each scenario was weighted based on the concentration of the COPC in each geomorphic unit (or binned geomorphic units) and the surface area or volume of that geomorphic unit (or units) in the reach. The exposure scenarios and exposure parameters used in this supplemental report are identical to the original investigation report. As described in section 3, the COPCs retained for the risk assessment include additional analytes and additional reaches for the analytes considered in the original investigation report. The UCLs for COPCs have been recalculated, and Appendix C contains the documentation for the calculations as required by NMED. The same exposure scenarios and complete exposure pathways presented in Section 8.2 of the original report (LANL 2004, 87390, p. 8-84) are also used in this reevaluation. Risk assessments for extended-backyard and trail-user scenarios are included in this section, and assessments for supplemental scenarios (residential, resource user, and construction worker) are presented in Appendix D.

4.2 Revised UCLs and Documentation of UCL Calculations

The inclusion of additional COPCs and additional reaches for existing COPCs required recalculation of UCLs. In addition, some existing UCLs have been revised to respond to concerns about the appropriate confidence limits for the data set for particular COPCs as described in the NMED NOD comment 14 on Section E-2.1-1, Calculating UCLs (NMED 2005, 88463). A description of the statistical basis for the UCL calculations and the details of the UCL calculations for each sediment and water COPC are provided in Tables C-1 to C-3 of Appendix C of this report.

4.3 Additional Sediment COPCs Included in Revised Site-Specific Risk Assessment

New organic, inorganic, and radionuclide COPCs in sediment for the site-specific risk assessments were listed in Table 3.2-6. Additional reach/COPC combinations for COPCs retained in sediment for the site-specific risk assessment in the original investigation report were also presented in Table 3.2-6. The sum of the ratios of EPC-to-RBC for carcinogens, noncarcinogens, and radionuclides for all sediment COPCs carried through to the site-specific risk assessment is presented in Table 4.3-1 for the trail-user scenario and Table 4.3-2 for the extended-backyard scenario. Ratios in these tables for new COPCs and revised values for existing COPCs are shaded gray. The EPC-to-RBC ratio for each COPC for each reach for both the trail-user and extended-backyard scenarios are provided in Table 4.3-3. In this table, new COPCs in a given reach are also shaded gray.

4.3.1 Organic Chemicals

Six new organic chemicals are included in the site-specific risk assessment as a result of the revised method that does not consider frequency of detects: dinitro-2-methylphenol[4,6-] (in reach DP-2), nitroso-di-n-propylamine[N-] (in reach ACS), trichlorophenol[2,4,6-] (in reach DP-3), dieldrin (in reach ACS), heptachlor epoxide (in reach DP-1W), and 2,3,7,8-TCDD TEQ (in reach P-1E).

4.3.2 Radionuclides

The radionuclides cobalt-60, europium-152, thorium-228, thorium-230, and thorium-232 have been retained for the site-specific human-health risk assessment in reaches for which their HQ is >0.1 in response to the NMED comment that these radionuclides were previously eliminated without an appropriate basis. Europium-152 has been retained for three reaches (LA-2E, LA-3FE, and LA-4W); thorium-228 and -232 are now retained for reach LA-3E, and thorium-230 is now retained for two reaches (LA-2E and LA-3E). Uranium-234 was retained as a COPC in the original site-specific risk assessment, but it is now excluded because the SAL for this COPC has increased from 63 to 170 pCi/g.

4.3.3 Inorganic Chemicals

Although the process for evaluating inorganic COPCs in this supplemental report matches the original report, there have been changes to the inorganic COPCs carried through to the site-specific risk assessment. As a result of revised human-health SALs for some COPCs, manganese is now retained as a COPC for some reaches because its SAL was revised from 7800 to 1550 mg/kg (NMED 2004, 85615). Aluminum, iron, and thallium are still excluded from the site-specific risk assessment based on the reasoning presented in section 6.2.3.3 (p. 6-7) of the original investigation report (LANL 2004, 87390). Lead, mercury, and uranium are now included in the site-specific risk assessments because they were previously eliminated during Tier 2; the Tier 2 analysis was not used for this report.

4.4 Additional COPCs in Surface Water Included in Revised Site-Specific Risk Assessment

Because the frequency of detection was a criterion for COPC determination in the original report for organic chemicals, inorganic chemicals, and radionuclides in water (LANL 2004, 87390, section 6.3.3.1, p. 6-10), all three classes of COPCs have additional COPC/water-location combinations included in the revised site-specific risk assessment in this report. The new reach/water-location combinations included in the site-specific risk assessment were provided in Table 3.2-12. The sum of the ratios of EPC-to-RBC for carcinogens, noncarcinogens, and radionuclides for all surface water COPCs carried through to the site-specific risk assessment is presented in Table 4.4-1 for the trail-user scenario and Table 4.4-2 for the extended-backyard scenario. These tables present the surface water analysis by water-station location. Revised values for ratios in these tables are shaded gray. The EPC-to-RBC ratio for each COPC for each water location for both the trail-user and extended-backyard scenarios are provided in Table 4.4-3. In this table, the rows containing ratios for new COPCs at a water location are also shaded gray.

4.4.1 Organic Chemicals

Several organic chemicals were added to the revised site-specific risk assessment for surface water: methylene chloride, bromoethane, bromodichloromethane, and 1,2 dichloroethane. The EPC-to-RBC ratios associated with these COPCs were less than 0.01 for both the trail-user and the extended-backyard scenarios.

4.4.2 Radionuclides

No new radionuclide COPCs were added for surface water locations as part of the revised site-specific risk assessment.

4.4.3 Inorganic Chemicals

Lead and vanadium were the primary COPCs added for surface water, although uranium and manganese were also added for some surface-water stations. Most of the EPC-to-RBC ratios for these chemicals were less than 0.1, although lead ratios had HQs greater than 0.1 for several stations.

4.5 Multimedia Sums

Previous sections discussed potential risks associated with exposure to either sediment or surface water. However, as in the original investigation report, the exposure scenarios for the trail-user and for the extended-backyard scenario include concurrent exposure to both surface water and sediment. The sum of the ratios for carcinogens, noncarcinogens, and radionuclides for sediment was therefore summed with the ratios for carcinogens, noncarcinogens, and radionuclides for water, respectively, to produce a ratio sum for exposure through multiple media for each COPC. Water stations were assigned to the same reaches as in the original report based on the assumption that geographic proximity would allow for concurrent exposure to a given sediment reach and surface water location. These multimedia sums, as with the sums for sediment or water alone, are based on reasonable maximum exposure (RME) parameters as defined in the original report (LANL 2004, 87390, pp. E-33 to E-44). These multimedia sums are presented in Table 4.5-1 for the trail-user scenario and Table 4.5-2 for the extended-backyard scenario. As in previous tables, sums that are new or have values modified from the original report due to the addition of new COPCs to the site-specific risk assessment are shaded gray in the two tables. Reaches P-1W and LA-3FE were included in these tables in the original report, but the new screening of sediment at these reaches did not show any COPCs because COPCs were detected in only in fire-impacted samples from the reaches; fire-impacted samples are not included in the site-specific

assessments. Reaches P-1W and LA-3FE therefore do not appear in these multimedia tables in this supplemental report.

4.5.1 Trail-User Scenario

Many of the revisions to values from the original report do not alter the sums to above the criterion of one. However, in reach DP-1W, a new sediment COPC (dibenz[a,h]anthracene) increases the trail-user multimedia sum to 1.03, corresponding to a carcinogenic risk of 1.03×10^{-5}. The multimedia sums greater than 1 at reaches AC-3 and P-1E are the same as the values given in the original report and are discussed in that report (LANL 2004, 87390, p. 9-1). The multimedia sum greater than 1 for carcinogens for the trail user for P-2W, a new reach included for the supplemental report, comes entirely from the contribution of four carcinogenic polycyclic aromatic hydrocarbons (PAHs) (see Table 4.4-3) in water location PU-10231, which the new reach was paired with for the multimedia evaluation.

4.5.2 Extended-Backyard Scenario

The dibenz(a,h)anthracene concentration in reach DP-1W increases the extended backyard carcinogenic sum to 1.78 or 1.82 (depending on which water station the sediment values are combined with), corresponding to a carcinogenic risk of 1.8×10^{-5}. The multimedia sums greater than 1 in reaches AC-3 and P-1E are the same as the values given in the original report and are discussed in that report. The increase in the extended backyard multimedia carcinogenic sum to 1.02 in reach AC-1 is also due to the addition of dibenz(a,h)anthracene as a COPC in sediment.

4.6 Uncertainty in Human-Health Risk Assessment

Uncertainty related to data collection, toxicity data, and exposure scenarios were discussed in section 8.2.6 of the original report (LANL 2004, 87390, pp. 8-47 to 8-51). In addition to the issues already discussed, consideration of uncertainties in the effects of lead on human health is addressed in this report. Lead screening values are developed using EPA's Integrated Exposure Unit Biokinetic Uptake (IEUBK) model (EPA 1994, 59894). This model is designed primarily for continuous or frequent exposures to lead in sediment and water. The model was used to weight the estimated dose from sediment and water to account for exposure based on the extended-backyard scenario. This protocol uses an adjusted sediment and water concentration input to the model to account for the difference between the lead concentration in the site and exposure at home during the day. This protocol can also be used to weight the estimated dose of lead received across a number of days to account for less-frequent exposure. However, the IEUBK model incorporates the release of lead from the body as well as intake. Because it is uncertain how the rate of absorption and release in the model compares with the frequency of exposure in the trail-user and extended-backyard scenarios, the IEUBK model was weighted, assuming daily exposure of a child to site sediment and surface water to develop RBCs for lead in sediment and water. The IEUBK model is developed based on a child's exposure and cannot be used to model exposure of adults. However, lead RBCs developed for children in the model are considered protective of adults. Lead RBCs developed for the extended-backyard scenario are also therefore protective of the trail user; therefore, the same RBC was used for both cases. The lead RBC developed for sediment and surface water for this report is extremely protective of the recreational exposures because the assumption of daily exposure substantially overestimates the contribution from the canyon sediment and water and because exposure is actually 200 d/yr for sediment and 20 d/yr for surface water in the two scenarios. Used in this way, the model ensures that even on the days when the receptor is exposed to lead in the sediment and surface water in the canyon, the blood lead level would not rise above the target concentration of 10 µg/dL associated with no effects (EPA 1994, 59894).

A number of infrequently detected COPCs were also retained for the site-specific risk assessments in the supplemental report. For infrequently detected COPCs, EPC-to-RBC ratios may overestimate risk because inclusion of these ratios in the ratio sums assumes chronic exposure to these infrequently detected COPCs.

5.0 SUMMARY OF CHANGES TO THE RISK ASSESSMENT CONCLUSIONS

Many of the revisions to EPC-to-RBC ratios from the original report do not alter the sums to above the criterion of 1. The addition of a number of noncarcinogens to the site-specific risk assessment did not elevate any of the EPC-to-RBC ratios to greater than 1. Radionuclide COPCs were added for some reaches, but no ratios for radionuclides are greater than 0.5, even with these revisions. One reach included in the original report, reach P-1W, was dropped from the site-specific risk assessments after it was determined that all COPCs with HQs >0.1 in that reach were associated with the fire-impacted sediment samples.

However, in reach DP-1W, a new sediment COPC (dibenz[a,h]anthracene) increases the trail-user multimedia sum to 1.03, corresponding to a carcinogenic risk of 1.03×10^{-5}. The multimedia sums greater than 1 at reaches AC-3 and P-1E for the trail-user and extended-backyard scenarios are the same as the values given in the original report and are discussed in that report (LANL 2004, 87390, p. 9-1). The dibenz (a, h) anthracene concentration in reach DP-1W increases the extended-backyard carcinogenic sum to 1.78 or 1.82 (depending on which water station the sediment values are combined with), corresponding to a carcinogenic risk of 1.8×10^{-5}. The multimedia sums greater than 1 at reaches AC-3 and P-1E are the same as the values given in the original report and are discussed in that report (LANL 2004, 87390, p. 9-1). The increase in the extended-backyard multimedia carcinogenic sum to 1.02 in reach AC-1 is also due to the addition of dibenz(a,h)anthracene as a COPC in sediment. The multimedia sum greater than 1 for carcinogens for PW-2 for the trail user also comes entirely from the contribution of four carcinogenic PAHs in water location PU-10231 (Table 4.4-3), which the new reach was paired with for the multimedia evaluation. As discussed in the original report (LANL 2004, 87390, p. 7-16), the spatial distribution of PAHs such as dibenz(a,h)anthracene indicates a primary source in runoff from the Los Alamos townsite and not the Laboratory's SWMUs. This is consistent with studies in other regions that have documented PAHs as common contaminants below paved roads and urban areas, as discussed in the original report.

The site-specific human-health risk assessment in the original report used extended-backyard and trail-user exposure scenarios to represent the present-day and reasonably foreseeable future land use in canyons throughout the watershed. That report concluded that based on exposure to sediment or surface water alone, there were no risks above acceptable limits for these scenarios. Combined exposures to sediment and water (multimedia exposures) did have risks elevated above acceptable limits for reaches AC-3, P-1E, and P-2W. These same reaches were determined to have elevated risk in this supplemental report, as a result of PAHs in sediment and surface water. Although other organic, inorganic, and radionuclide COPCs were retained for the site-specific risk assessments in the supplemental report, their contribution did not significantly affect the overall risk estimates or the conclusions regarding the acceptability of the risks for the trail-user and extended-backyard scenarios for future use.

6.0 STORMWATER DATA

In accordance with the requirement of specific comment #1 in NMED's NOD (NMED 2005, 88463), stormwater data from gage stations located throughout the Los Alamos and Pueblo watershed are provided in this report. The list of stations and the period of record at each station is provided in

Table 6-1. Figure 6-1 shows the locations of the gage stations in the watershed. The complete data set for all stations for the full period of record for each station is provided on the data CD included in Appendix B of this report. The data from these stations were screened against relevant WQCC standards and DOE-DCGs, and a summary of the screening results is provided in Tables 6-2 and 6-3. The WQCC standards are specific to three designated uses applied to portions of the watershed (and across the Laboratory property). Details of the designated use for each gage station and applicable water-quality standards are provided in Appendix E, Table E-1.

Based on the results of the screening, data for various contaminants are plotted in time series for each station where a screening threshold is exceeded. These time-series plots are presented in Appendix E. To provide a spatial context, data for these same contaminants are presented in box plots in which all of the data from a station are presented in a series of boxes arranged in sequence from the upper watershed to the lower watershed. These plots and further explanation of the data are presented in Appendix E.

7.0 REFERENCES

The following list includes all documents cited in this report. Parenthetical information following each reference provides the author(s), publication date, and ER ID number. This information is also included in text citations. ER ID numbers are assigned by the ENV-ERS Program Records Processing Facility (RPF) and are used to locate the document at the RPF and, where applicable, in the ENV-ERS Program master reference set.

Copies of the master reference set are maintained at the NMED Hazardous Waste Bureau; the U.S. Department of Energy–Los Alamos Site Office; the U.S. Environmental Protection Agency, Region 6; and the ENV-ERS Program. The set was developed to ensure that the administrative authority has all material needed to review this document, and it is updated with every document submitted to the administrative authority. Documents previously submitted to the administrative authority are not included.

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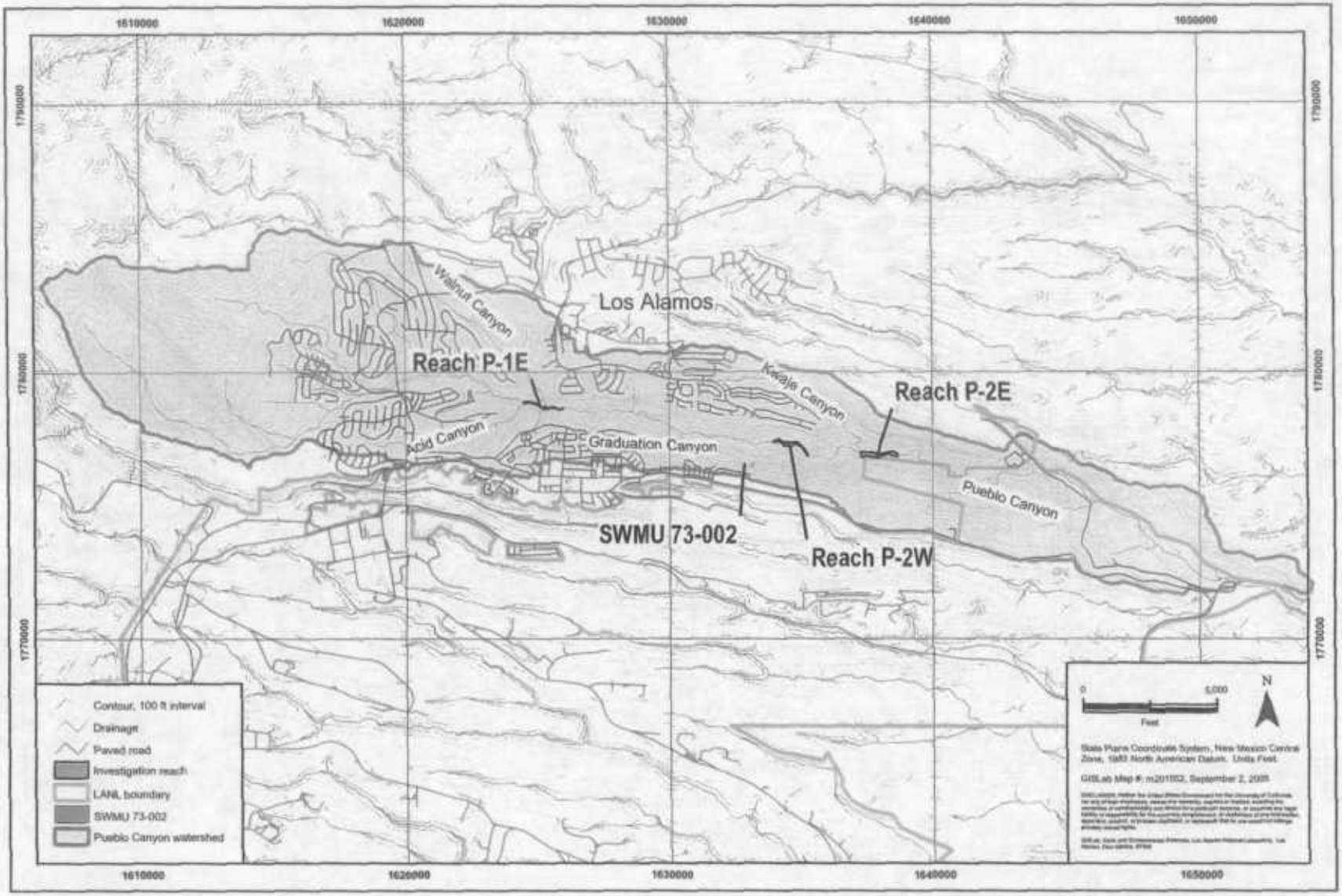

Figure 2.2-1. Reaches within watershed used for dioxin and furan sampling

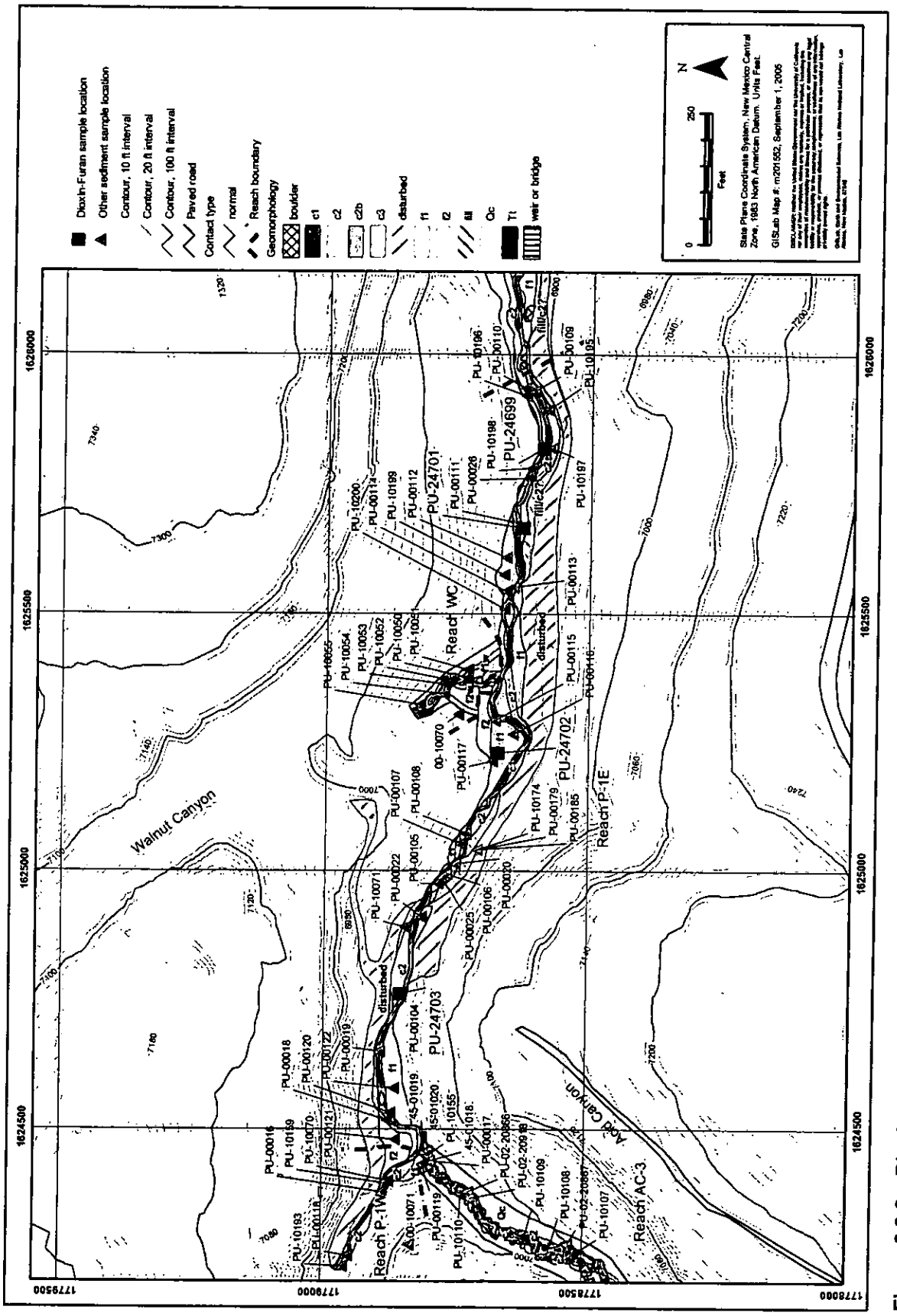

Figure 2.2-2. Dioxin and furan sampling locations in reach P-1E

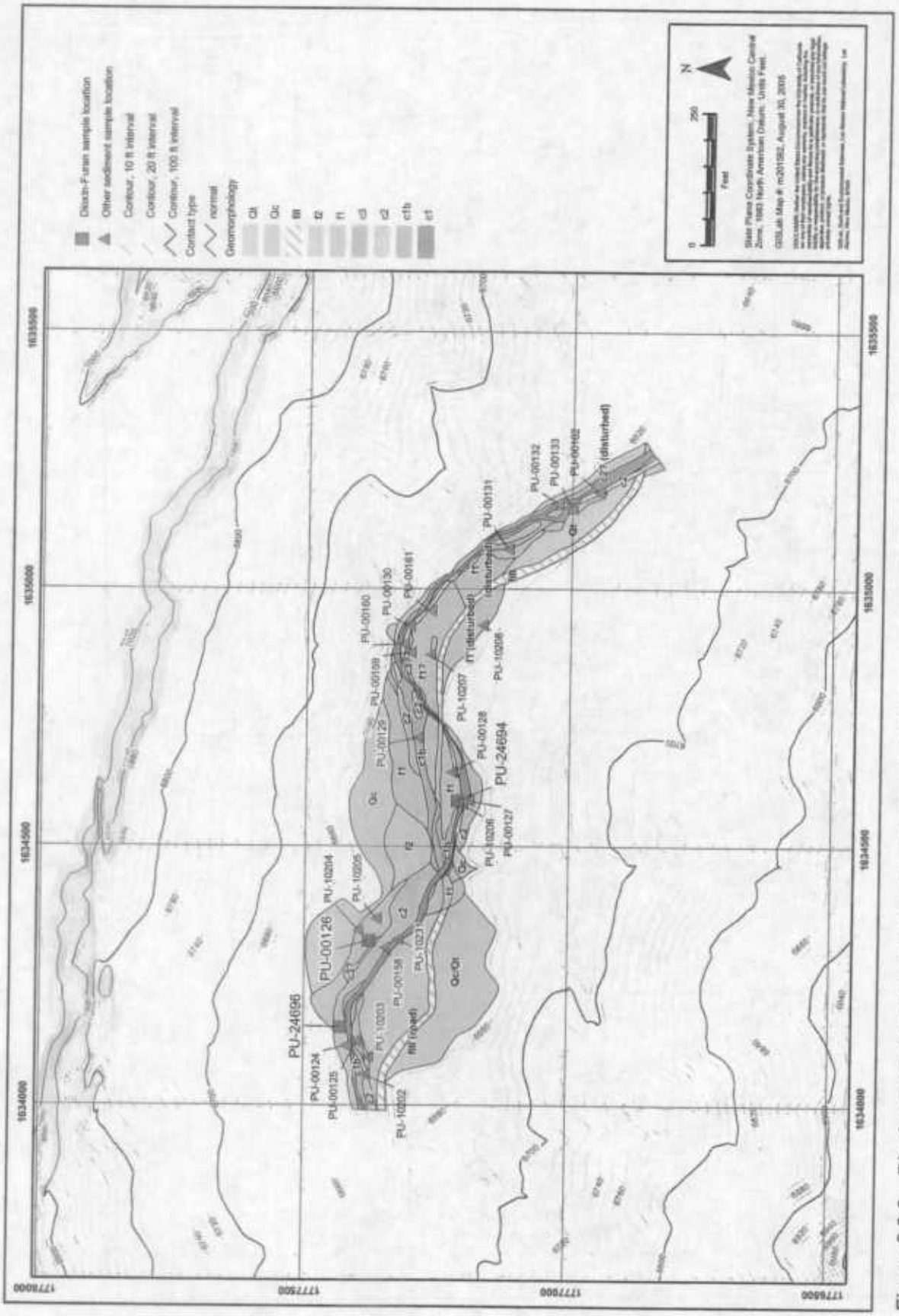

Figure 2.2-3. Dioxin and furan sampling locations in reach P-2W

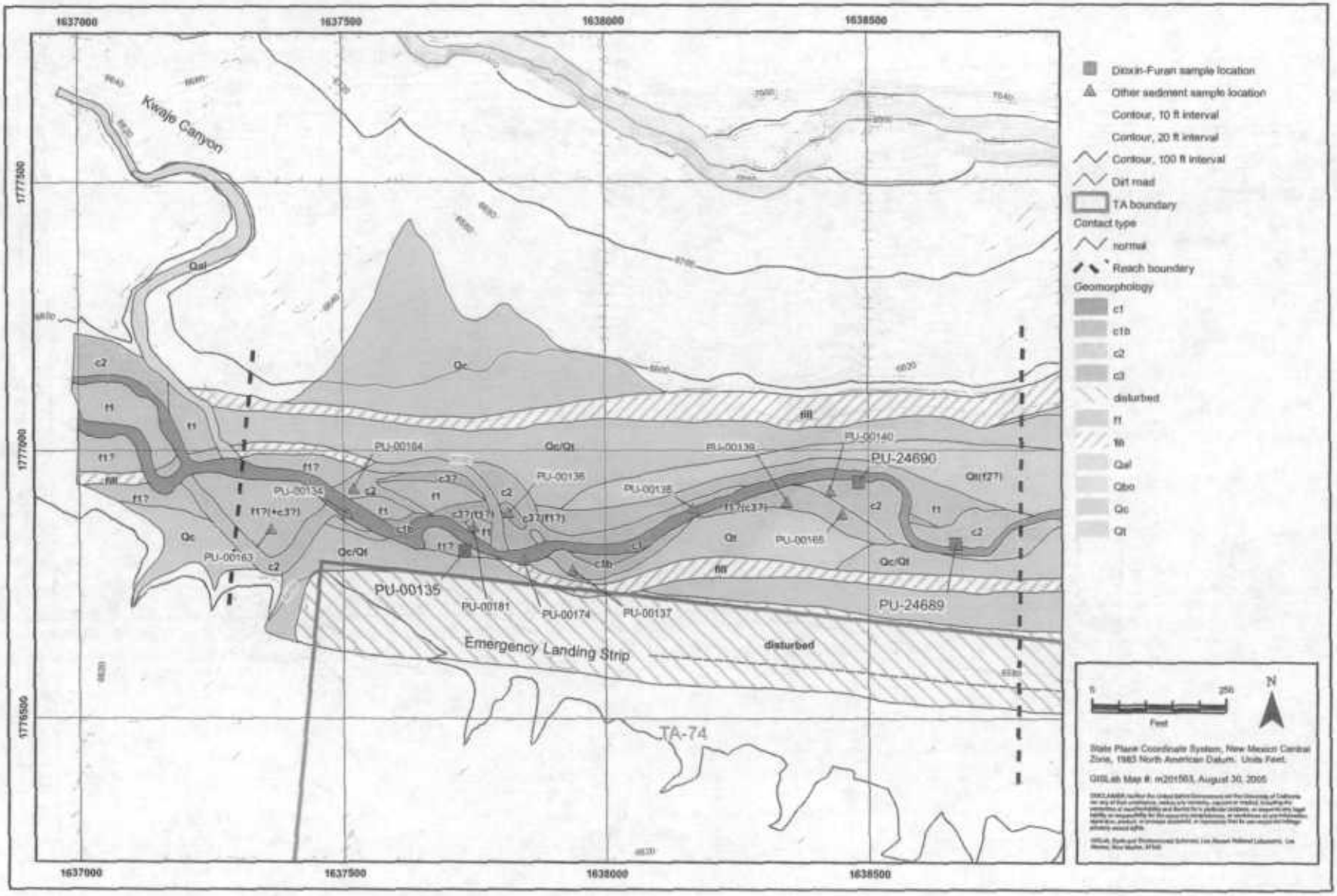

Figure 2.2-4. Dioxin and furan sampling locations in reach P-2E

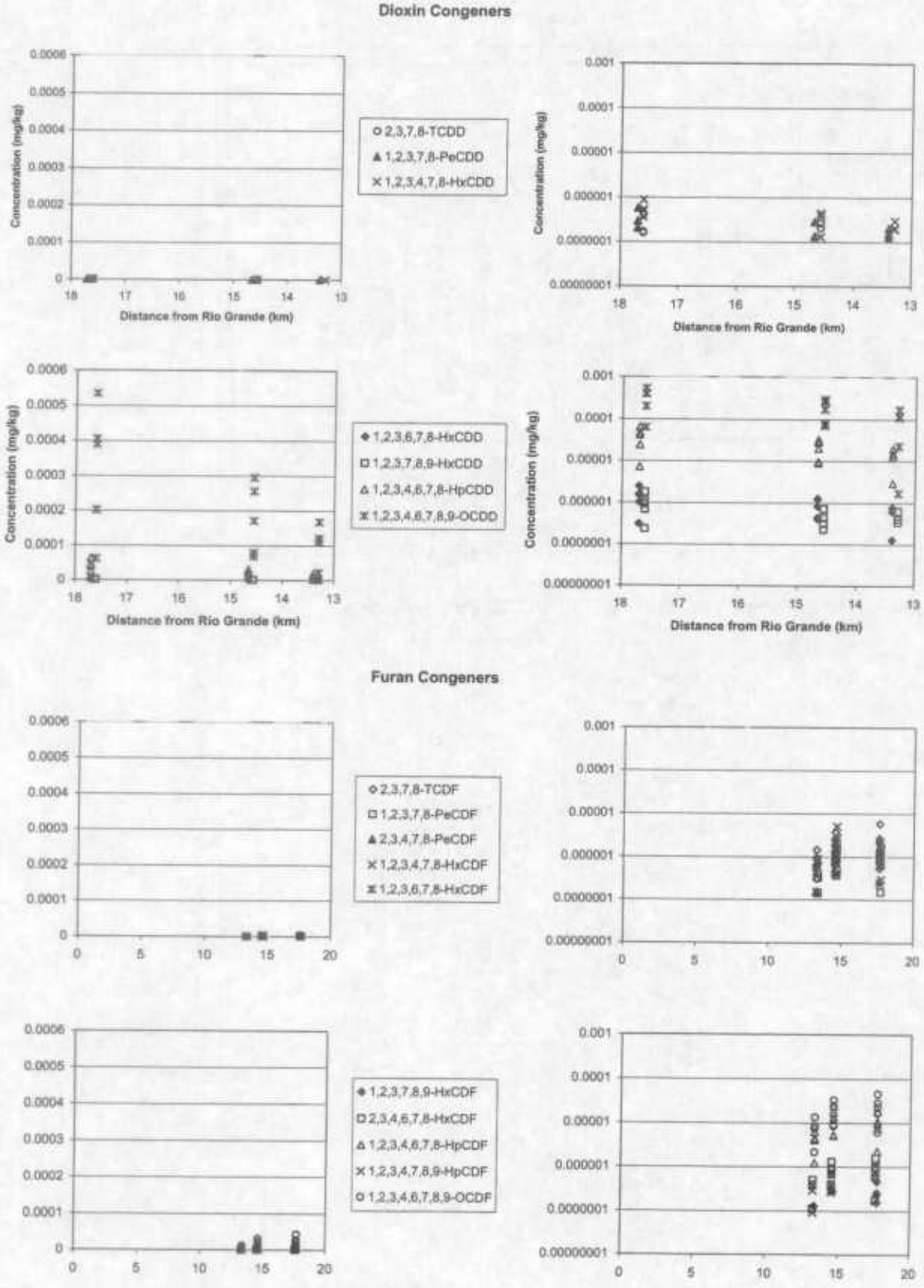

Figure 2.4-1. Box plots of individual dioxin and furan concentrations in all three reaches

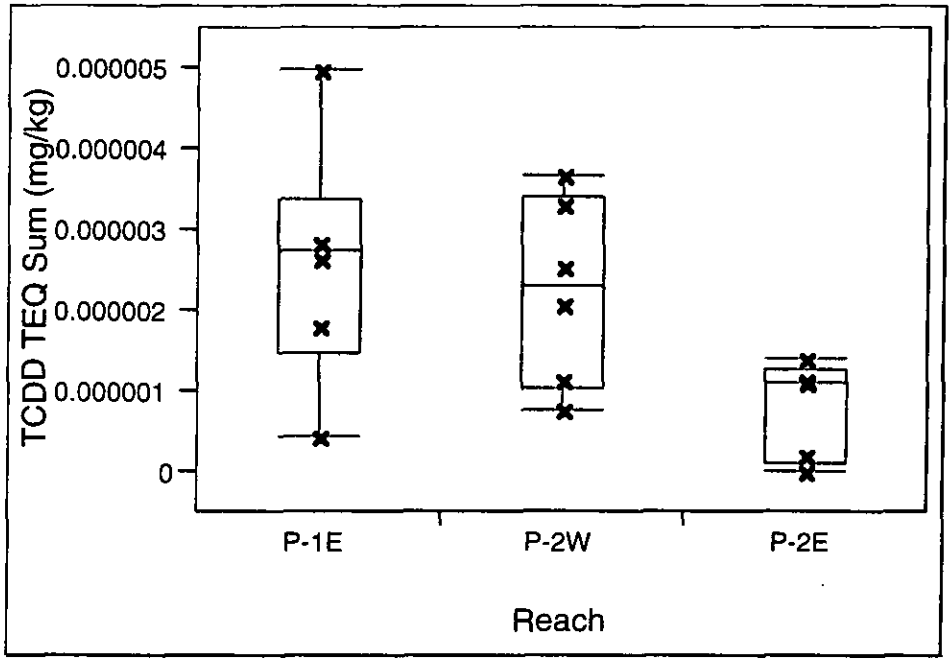

Figure 2.5-1. One-way analysis of TCDD TEQ sum by reach

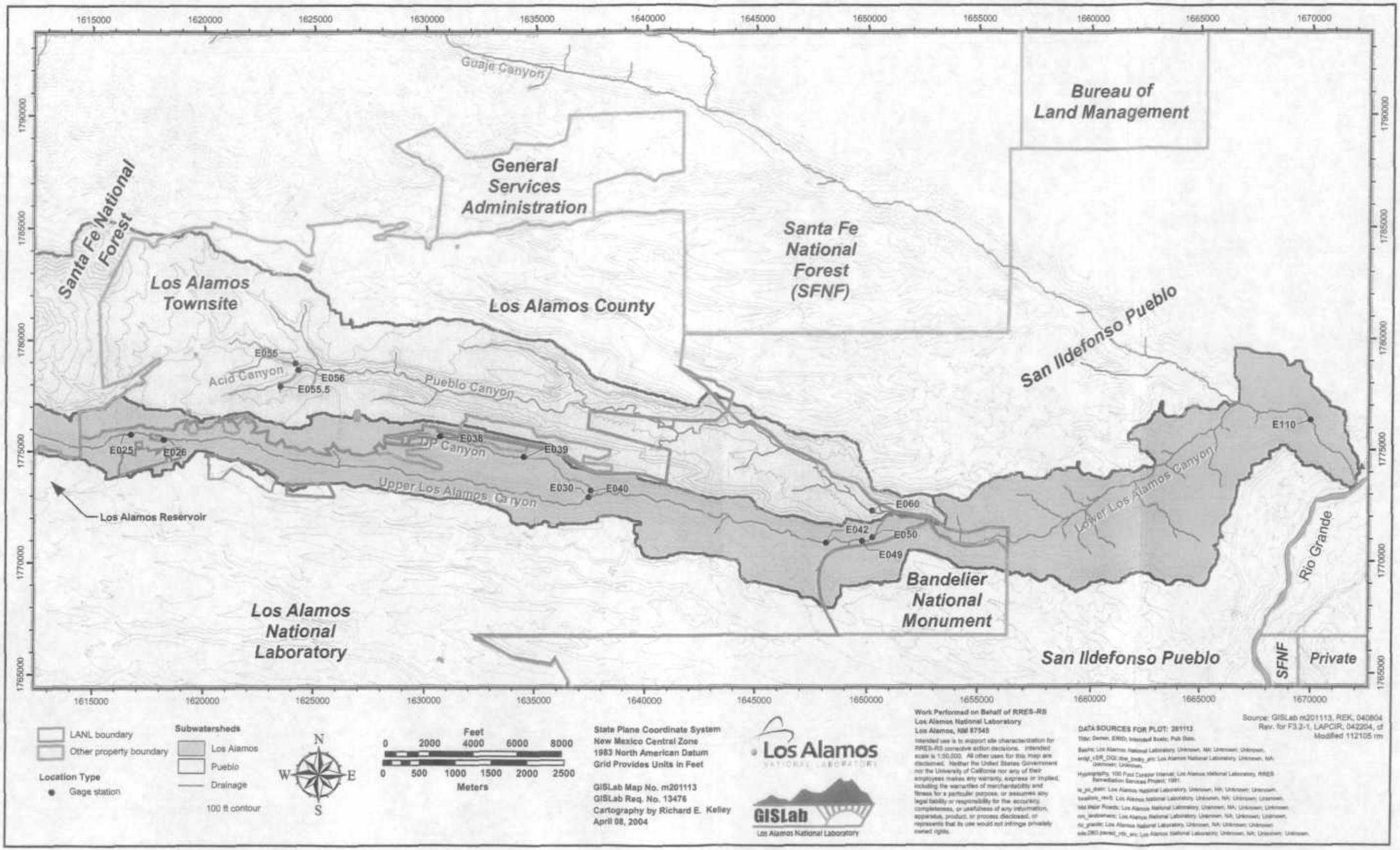

Figure 6-1. Location of gage stations within watershed

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Table 1-1
Crosswalk of Tables and Figures between New and Old Reports

Table or Figure Number in Supplemental Report	Table or Figure in Original Report	Page Number in Original Report	Subject of Table or Figure	Revised or New
Figure 2.2-1	n/a*	n/a	Reaches within watershed sampled for dioxins and furans	Figure 2.2-1
Figure 2.2-2	n/a	n/a	Locations in reach P-1E sampled for dioxins and furans	Figure 2.2-2
Figure 2.2-3	n/a	n/a	Locations in reach P-2W sampled for dioxins and furans	Figure 2.2-3
Figure 2.2-4	n/a	n/a	Locations in reach P-2E sampled for dioxins and furans	Figure 2.2-4
Table 2.3-1	n/a	n/a	Samples Collected and Analyzed for Dioxins and Furans	New
Table 2.3-2	n/a	n/a	Frequency of Dioxin and Furan Detections	New
Table 2.3-3	n/a	n/a	Detected Concentration Table for Dioxin and Furan Samples	New
Figure 2.4-1	n/a	n/a	Box plots of individual dioxin and furan concentrations in all three reaches	New
Table 2.5-1	n/a	n/a	Toxic Equivalency Factors (TEFs) for Human Health for Conversion of Dioxins and Furans	New
Figure 2.5-1	n/a	n/a	Box plot of toxic equivalency quotient (TEQ) for dioxins and furans for human health in all three reaches	New
Table 2.5-2	n/a	n/a	TEQ for Human Health Based on Maximum Detected Concentrations in Individual Samples	New
Table 2.5-3	n/a	n/a	TEQ for Human Health at Each Depth for Locations with Multiple Depths Sampled	New
Table 2.6-1	n/a	n/a	TEFs and Toxicity Equivalent Concentrations (TECs) for Ecological Screening of Dioxins and Furans	New
Table 2.6-2	n/a	n/a	TECs for Ecological Screening of Dioxins and Furans for Birds and Mammals	New
Table 2.7-1	n/a	n/a	Ecological Screening Levels (ESLs) and Hazard Quotients (HQs) for Ecological Screening of Dioxins and Furans	New
Table 3.2-1	E-1.0-1	E-97	Sediment: Organic COPCs	Revised
Table 3.2-2	E-1.0-2	E-109	Sediment: Radionuclide COPCs	Revised
Table 3.2-3	E-1.0-3	E-111	Sediment: Inorganic COPCs	Revised
Table 3.2-4	E-1.0-10	E-175	Sediment: Human Health Screening Action Levels (SALs)	Revised
Table 3.2-5	E-1.0-12	E-190	Sediment: Tier I Human Health COPCs	Revised
Table 3.2-6	n/a	n/a	New COPCs and Additional Reaches Carried through to Site-Specific Risk Assessment for Sediment	New

Table 1-1 (continued)

Table or Figure Number in Supplemental Report	Table or Figure in Original Report	Page Number in Original Report	Subject of Table or Figure	Revised or New
Table 3.2-7	E-1.0-15	E-214	Water: Organic	Revised
Table 3.2-8	E-1.0-16	E-218	Water: Radionuclide COPCs in pCi/L	Revised
Table 3.2-9	E-1.0-17	E-219	Water: Inorganic COPCs	Revised
Table 3.2-10	E-1.0-21	E-231	Water: Human Health SALs	Revised
Table 3.2-11	E-1.0-23	E-240	Water: Tier 1 Human Health COPCs	Revised
Table 3.2-12	n/a	n/a	New COPCs and Water Stations Carried through to Site-Specific Risk Assessment for Water	New
Table 3.3-1	6.4-1	6-22 to 26	Summary of Water and Sediment COPCs and Chemicals of Potential Ecological Concern (COPECs)	Revised
Table 4.3-1	8.2-2	8-84	Trail User Sediment Exposure Pathways Exposure Point Concentration (EPC)-to-Risk-Based Concentration (RBC) Ratio Sums, by Reach	Revised
Table 4.3-2	8.2-3	8-85	Extended Backyard Sediment Exposure Pathways EPC-to-RBC Ratio Sums, by Reach	Revised
Table 4.3-3	8.2-4	8-86	Surface Sediment Exposure Pathways EPC-to-RBC Ratios, by Reach	Revised
Table 4-4-1	8.2-5	8-89	Trail User Surface Water Exposure Pathways EPC-to-RBC Ratio Sums, by Sampling Location	Revised
Table 4.4-2	8.2-6	8-90	Extended Backyard Surface Water Exposure Pathway EPC-to-RBC Ratio Sums, by Sampling Location	Revised
Table 4.4-3	8.2-7	8-91	Surface Water Exposure Pathways EPC-to-RBC Ratio, by Sampling Location	Revised
Table 4.5-1	8.2-8	8-97	Trail User Reasonable Maximum Exposure (RME) Multimedia Sums, by Reach and Sampling Station	Revised
Table 4.5-2	8.2-9	8-98	Extended Backyard RME Multimedia Sums, by Reach and Sampling Station	Revised
Table 6-1	n/a	n/a	Los Alamos and Pueblo Canyon Gage Stations and Period of Record	New
Figure 6-1	n/a	n/a	Location of gage stations within watershed	New
Table 6-2	n/a	n/a	Screening Summary of Stormwater Data to WQCC Standards	New
Table 6-3	n/a	n/a	Screening Summary of Stormwater Data to DOE Derived-Concentration Guidelines	New
Table C-1	n/a	n/a	Water UCL Calculations	New
Table C-2	n/a	n/a	Calculation of Area Weighted UCLs for Sediment	New
Table C-3	n/a	n/a	Calculation of Volume Weighted UCLs for Sediment	New

Table 1-1 (continued)

Table or Figure Number in Supplemental Report	Table or Figure in Original Report	Page Number in Original Report	Subject of Table or Figure	Revised or New
Table D-1.0-1	E-5.3-3	E-312	Toxicity Values for Inorganic and Organic Chemicals	Revised
Table D-1.0-2	E-5.3-5	E-315	Analyte-Specific Parameter Values for Calculating Dermal Absorption and Biotic Uptake	Revised
Table D-1.0-3	E-5.3-6	E-316	Sediment Pathway RBCs for RMEs	Revised
Table D-1.0-4	E-5.3-7	E-317	Water Pathway RBCs for RMEs	Revised
Table D-2.0-1	E-5.3-8	E-318	Construction-Worker Sediment Exposure Pathways, COPC to RBC Ratio Sums	Revised
Table D-2.0-2	E-5.3-9	E-319	Resource-User Sediment Exposure Pathways, COPC to RBC Ratio Sums	Revised
Table D-2.0-3	E-5.3-10	E-320	Residential-Sediment Exposure Pathways, COPC to RBC Ratio Sums	Revised
Table D-2.0-4	E-5.3-11	E-321	Sediment Volume Weighted Averages and UCLs Exposure Pathway EPC to RBC Ratios	Revised
Table D-2.0-5	E-5.3-12	E-324	Resource-User Surface Water Exposure Pathways EPC-to-RBC Ratio Sums, by Sampling Location	Revised
Table D-2.0-6	E-5.3-13	E-325	Residential Groundwater Exposure Pathways, COPC to RBC Ratio Sums, Filtered and Unfiltered Samples	Revised
Table D-2.0-7	E-5.3-14	E-327	Residential Groundwater Exposure Pathways Without Arsenic, COPC to RBC Ratio Sums, Filtered and Unfiltered Samples	Revised
Table D-2.0-8	E-5.3-15	E-328	Surface Water Ratios of EPCs to RBCs	Revised
Table D-2.0-9	E-5.3-16	E-333	Groundwater Ratios of EPCs to RBCs	Revised
Table D-2.0-10	E-5.3-17	E-339	Groundwater Ratios of EPCs to RBCs, Arsenic Removed	Revised
Table D-2.0-11	E-5.3-18	E-343	Resource User RME Multimedia Sums, by Reach and Sampling Station	Revised
Table D-2.0-12	E-5.3-19	E-344	Residential RME Multimedia Sums for Filtered Water Data, by Reach and Sampling Station	Revised
Table D-2.0-13	E-5.3-20	E-344	Residential RME Multimedia Sums for Unfiltered Water Data, by Reach and Sampling Station	Revised
Table D-2.0-14	E-5.3-21	E-345	Residential RME Multimedia Sums with Filtered Water Data, Arsenic Removed, by Reach and Sampling Station	Revised
Table D-2.0-15	E-5.3-22	E-345	Residential RME Multimedia Sums for Unfiltered Water Data, Arsenic Removed, by Reach and Sampling Station	Revised
Table E-1	n/a	n/a	Standards Used to Screen the Storm Water Data at Gage Stations	New
Figure 6-1	n/a	n/a	Location of gage stations within watershed	New

Table 1-1 (continued)

Table or Figure Number in Supplemental Report	Table or Figure in Original Report	Page Number in Original Report	Subject of Table or Figure	Revised or New
Figure E-1	n/a	n/a	Time series plot for adjusted gross alpha in unfiltered stormwater samples at gage station E026.	New
Figure E-2	n/a	n/a	Time series plots for (A) mercury, (B) Aroclor-1254, and (C) Aroclor-1260 in unfiltered stormwater samples at gage station E030	New
Figure E-3	n/a	n/a	Time series plots for (A) adjusted gross alpha and (B) copper in unfiltered stormwater samples at gage station E038	New
Figure E-4	n/a	n/a	Time series plot for adjusted gross alpha in unfiltered stormwater samples at gage station E039	New
Figure E-5	n/a	n/a	Time series plots for adjusted gross alpha in unfiltered stormwater samples at gage station E040	New
Figure E-6	n/a	n/a	Time series plots for (A) adjusted gross alpha, (B) copper, and (C) mercury in unfiltered stormwater samples at gage station E042	New
Figure E-7	n/a	n/a	Time series plots for (A) Aroclor-1254 and (B) Aroclor-1260 in unfiltered stormwater samples at gage station E042	New
Figure E-8	n/a	n/a	Time series plot for adjusted gross alpha in unfiltered stormwater samples at gage station E049	New
Figure E-9	n/a	n/a	Time series plots for (A) adjusted gross alpha, (B) Aroclor-1254, and (C) Aroclor-1260 in unfiltered stormwater samples at gage station E050	New
Figure E-10	n/a	n/a	Time series plots for (A) adjusted gross alpha, (B) radium-228, and (C) mercury in unfiltered stormwater samples at gage station E055	New
Figure E-11	n/a	n/a	Time series plot for adjusted gross alpha in unfiltered stormwater samples at gage station E056	New
Figure E-12	n/a	n/a	Time series plots for (A) adjusted gross alpha, (B) radium-228, and (C) mercury in unfiltered stormwater samples at gage station E060	New
Figure E-13	n/a	n/a	Box plots showing the spatial distribution of adjusted gross alpha in stormwater at gage stations in Los Alamos Canyon. Gage stations are arranged sequentially from the top of the canyon to the Rio Grande.	New
Figure E-14	n/a	n/a	Box plots showing the spatial distribution of mercury in stormwater at gage stations in Los Alamos Canyon. Gage stations are arranged sequentially from the top of the canyon to the Rio Grande.	New
Figure E-15	n/a	n/a	Box plots showing the spatial distribution of Aroclor-1254 in stormwater at gage stations in Los Alamos Canyon. Gage stations are arranged sequentially from the top of the canyon to the Rio Grande.	New

Table 1-1 (continued)

Table or Figure Number in Supplemental Report	Table or Figure in Original Report	Page Number in Original Report	Subject of Table or Figure	Revised or New
Figure E-16	n/a	n/a	Box plots showing the spatial distribution of Aroclor-1260 in stormwater at gage stations in Los Alamos Canyon. Gage stations are arranged sequentially from the top of the canyon to the Rio Grande.	New
Figure E-17	n/a	n/a	Box plots showing the spatial distribution of adjusted gross alpha in stormwater at gage stations in DP Canyon. Gage stations are arranged sequentially from the top of the canyon to the Rio Grande.	New
Figure E-18	n/a	n/a	Box plots showing the spatial distribution of copper in stormwater at gage stations in DP Canyon. Gage stations are arranged sequentially from the top of the canyon to the Rio Grande.	New
Figure E-19	n/a	n/a	Box plots showing the spatial distribution of Aroclor-1254 in stormwater at gage stations in DP Canyon. Gage stations are arranged sequentially from the top of the canyon to the Rio Grande.	New
Figure E-20	n/a	n/a	Box plots showing the spatial distribution of Aroclor-1260 in stormwater at gage stations in DP Canyon. Gage stations are arranged sequentially from the top of the canyon to the Rio Grande.	New
Figure E-21	n/a	n/a	Box plots showing the spatial distribution of adjusted gross alpha in stormwater at gage stations in Acid Canyon. Gage stations are arranged sequentially from the top of the canyon to the Rio Grande.	New
Figure E-22	n/a	n/a	Box plots showing the spatial distribution of mercury in stormwater at gage stations in Acid Canyon. Gage stations are arranged sequentially from the top of the canyon to the Rio Grande.	New
Figure E-23	n/a	n/a	Box plots showing the spatial distribution of adjusted gross alpha in stormwater at gage stations in Pueblo Canyon. Gage stations are arranged sequentially from the top of the canyon to the Rio Grande.	New
Figure E-24	n/a	n/a	Box plots showing the spatial distribution of mercury in stormwater at gage stations in Pueblo Canyon. Gage stations are arranged sequentially from the top of the canyon to the Rio Grande.	New
Figure E-25	n/a	n/a	Box plots showing the spatial distribution of radium-228 in stormwater at gage stations in Pueblo Canyon. Gage stations are arranged sequentially from the top of the canyon to the Rio Grande.	New

*n/a = Not applicable.

Table 2.3-1
Samples Collected and Analyzed for Dioxins and Furans

Sample ID	Location ID	Depth (cm)	Media	Reach	Geomorphic Unit	Sediment Facies	Notes	EPA Method 8290
CAPU-05-60611	PU-24689	62–95	Sediment	P-2E	c2	fine	INV[a]	3344S
CAPU-05-60612	PU-24690	59–73	Sediment	P-2E	c2	fine	INV	3344S
CAPU-05-60613	PU-24690	82–113	Sediment	P-2E	c2	fine	INV	3344S
CAPU-05-60614	PU-24690	113–150	Sediment	P-2E	c2	coarse	INV	3344S
CAPU-05-60615	PU-00135	22–28	Sediment	P-2E	f1	fine	INV	3344S
CAPU-05-60616	PU-24694	17–24	Sediment	P-2W	f1	fine	INV	3344S
CAPU-05-60617	PU-00126	21–29	Sediment	P-2W	f1	fine	INV	3344S
CAPU-05-60618	PU-24696	23–52	Sediment	P-2W	c2	fine	INV	3344S
CAPU-05-60619	PU-24696	52–66	Sediment	P-2W	c2	coarse	INV	3344S
CAPU-05-60620	PU-24696	66–95	Sediment	P-2W	c2	fine	INV	3344S
CAPU-05-60621	PU-24699	27–33	Sediment	P-1E	c2	coarse	INV	3344S
CAPU-05-60622	PU-24699	33–51	Sediment	P-1E	c2	fine	INV	3344S
CAPU-05-60623	PU-24701	19–35	Sediment	P-1E	f1	fine	INV	3344S
CAPU-05-60624	PU-24702	8–37	Sediment	P-1E	f1	fine	INV	3344S
CAPU-05-60625	PU-24703	42–67	Sediment	P-1E	c2	fine	INV	3344S
CAPU-05-60626	PU-24696	66–95	Sediment	P-2W	c2	fine	FD[b]	3344S
CAPU-05-60627	PU-24703	42–67	Sediment	P-1E	c2	fine	FD	3344S

[a] INV = Investigation sample.

[b] FD = Field duplicate.

Table 2.3-2
Frequency of Dioxin and Furan Detections

Analyte	Number of Analyses	Number of Detects	Concentration Range[a] (mg/kg[b])	Frequency of Detects
Heptachlorodibenzodioxin[1,2,3,4,6,7,8-]	17	16	[3.03E-07] to 0.0000634	16/17
Heptachlorodibenzodioxins (Total)	17	16	[3.03E-07] to 0.000145	16/17
Heptachlorodibenzofuran[1,2,3,4,6,7,8-]	17	16	[8.89E-08] to 0.0000247	16/17
Heptachlorodibenzofuran[1,2,3,4,7,8,9-]	17	13	[6.05E-08] to 1.05E-06	13/17
Heptachlorodibenzofurans (Total)	17	17	8.89E-08 to 0.0000461	17/17
Hexachlorodibenzodioxin[1,2,3,4,7,8-]	17	12	[8.69E-08] to 8.78E-07	12/17
Hexachlorodibenzodioxin[1,2,3,6,7,8-]	17	16	[9.35E-08] to 2.45E-06	16/17
Hexachlorodibenzodioxin[1,2,3,7,8,9-]	17	15	[8.53E-08] to 1.77E-06	15/17
Hexachlorodibenzodioxins (Total)	17	16	[8.86E-08] to 0.0000226	16/17
Hexachlorodibenzofuran[1,2,3,4,7,8-]	17	15	[4.28E-08] to 5.06E-06	15/17
Hexachlorodibenzofuran[1,2,3,6,7,8-]	17	16	[3.89E-08] to 0.0000022	16/17
Hexachlorodibenzofuran[1,2,3,7,8,9-]	17	8	[5.13E-08] to 4.56E-07	8/17
Hexachlorodibenzofuran[2,3,4,6,7,8-]	17	16	[4.42E-08] to 1.59E-06	16/17
Hexachlorodibenzofurans (Total)	17	16	[7.49E-08] to 0.0000332	16/17
Octachlorodibenzodioxin[1,2,3,4,6,7,8,9-]	17	17	1.71E-06 to 0.000535	17/17
Octachlorodibenzofuran[1,2,3,4,6,7,8,9-]	17	16	[2.27E-07] to 0.0000444	16/17
Pentachlorodibenzodioxin[1,2,3,7,8-]	17	12	[6.69E-08] to 5.77E-07	12/17
Pentachlorodibenzodioxins (Total)	17	15	[6.69E-08] to 4.29E-06	15/17
Pentachlorodibenzofuran[1,2,3,7,8-]	17	16	1.41E-07 to 0.00000168	16/17
Pentachlorodibenzofuran[2,3,4,7,8-]	17	16	[1.28E-07] to 2.63E-06	16/17
Pentachlorodibenzofurans (Totals)	17	16	[1.62E-07] to 0.0000442	16/17
Tetrachlorodibenzodioxin[2,3,7,8-]	17	7	[5.31E-08] to 3.95E-07	7/17
Tetrachlorodibenzodioxins (Total)	17	17	1.55E-07 to 3.51E-06	17/17
Tetrachlorodibenzofuran[2,3,7,8-]	17	16	[1.01E-07] to 5.92E-06	16/17
Tetrachlorodibenzofurans (Totals)	17	16	[1.01E-07] to 0.000052	16/17

Note: This table includes the field duplicates.

[a] Brackets indicate the detection limit for a nondetect.

[b] 1 ppt= 10^{-6} mg/kg.

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Table 2.3-3
Detected Concentrations of Dioxins and Furans

Sample ID	Location ID	Depth (cm)	Media	Heptachlorodibenzodioxin[1,2,3,4,6,7,8-]	Heptachlorodibenzodioxins (Total)	Heptachlorodibenzofuran[1,2,3,4,6,7,8-]	Heptachlorodibenzofuran[1,2,3,4,7,8,9-]	Heptachlorodibenzofurans (Total)	Hexachlorodibenzodioxin[1,2,3,4,7,8-]	Hexachlorodibenzodioxin[1,2,3,6,7,8-]	Hexachlorodibenzodioxin[1,2,3,7,8,9-]	Hexachlorodibenzodioxins (Total)	Hexachlorodibenzofuran[1,2,3,4,7,8-]	Hexachlorodibenzofuran[1,2,3,6,7,8-]	Hexachlorodibenzofuran[1,2,3,7,8,9-]	Hexachlorodibenzofuran[2,3,4,6,7,8-]
CAPU-05-60611	PU-24689	62–95	Sediment	0.0000131	0.000027	4.17E-06	2.91E-07	8.57E-06	2.02E-07 (J)	5.61E-07 (J)	3.45E-07 (J)	0.0000052	8.36E-07 (J)	7.51E-07 (J)	—	3.85E-07 (J)
CAPU-05-60612	PU-24690	59–73	Sediment	0.0000201	0.0000459	6.38E-06	3.73E-07 (J)	0.0000152	2.98E-07 (J)	7.76E-07 (J)	6.29E-07 (J)	7.66E-06	9.02E-07 (J)	5.67E-07 (J)	1.29E-07 (J)	4.96E-07 (J)
CAPU-05-60613	PU-24690	82–113	Sediment	0.0000154	0.0000328	4.45E-06	—*	9.72E-06	1.91E-07 (J)	6.26E-07 (J)	4.17E-07 (J)	5.97E-06	8.7E-07 (J)	4.53E-07 (J)	—	3.84E-07 (J)
CAPU-05-60614	PU-24690	113–150	Sediment	2.98E-06	6.31E-06	1.23E-06 (J)	9.28E-08 (J)	2.35E-06	—	1.29E-07 (J)	—	1.07E-06	—	1.52E-07 (J)	—	1.11E-07 (J)
CAPU-05-60615	PU-00135	22–28	Sediment	—	—	—	—	8.89E-08	—	—	—	—	—	—	—	—
CAPU-05-60616	PU-24694	17–24	Sediment	0.0000286	0.000062	0.0000136	6.71E-07 (J)	0.0000264	3.87E-07 (J)	0.0000012 (J)	7.14E-07 (J)	0.000012	2.45E-06	0.0000016 (J)	2.75E-07 (J)	8.67E-07 (J)
CAPU-05-60617	PU-00126	21–29	Sediment	0.0000091	0.0000202	5.24E-06	2.95E-07 (J)	0.0000105	—	4.47E-07 (J)	3.17E-07 (J)	5.16E-06	7.94E-07	8.94E-07 (J)	—	3.96E-07 (J)
CAPU-05-60618	PU-24696	23–52	Sediment	9.61E-06	0.0000198	5.37E-06	2.64E-07 (J)	8.83E-06	1.3E-07 (J)	4.16E-07 (J)	2.29E-07 (J)	3.58E-06	1.06E-06 (J)	5.5E-07 (J)	—	3.46E-07 (J)
CAPU-05-60619	PU-24696	52–66	Sediment	0.0000203	0.0000449	0.0000134	3.75E-07 (J)	0.0000201	—	8.41E-07 (J)	4.35E-07 (J)	7.44E-06	2.84E-06	1.56E-06 (J)	—	6.82E-07 (J)
CAPU-05-60620	PU-24696	66–95	Sediment	0.0000327	0.0000686	0.0000247	7.85E-07 (J)	0.0000378	4.44E-07 (J)	1.28E-06 (J)	7.23E-07 (J)	0.0000142	5.06E-06	0.0000022 (J)	—	1.31E-06 (J)
CAPU-05-60621	PU-24699	27–33	Sediment	0.0000243	0.0000545	7.72E-06	—	0.000019	3.61E-07 (J)	1.01E-06 (J)	6.87E-07 (J)	9.04E-06	9.91E-07 (J)	6.4E-07 (J)	1.55E-07 (J)	5.9E-07 (J)
CAPU-05-60622	PU-24699	33–51	Sediment	0.0000634	0.000145	0.0000184	1.05E-06 (J)	0.0000461	8.78E-07 (J)	2.45E-06 (J)	1.77E-06 (J)	0.0000226	2.25E-06 (J)	1.73E-06 (J)	4.56E-07 (J)	1.59E-06 (J)
CAPU-05-60623	PU-24701	19–35	Sediment	0.0000461	0.000113	0.0000097	5.9E-07 (J)	0.000025	0.0000005 (J)	1.52E-06 (J)	9.25E-07 (J)	0.0000135	0.0000013 (J)	8.68E-07 (J)	2.26E-07 (J)	9.33E-07 (J)
CAPU-05-60624	PU-24702	8–37	Sediment	7.22E-06	0.0000178	2.29E-06 (J)	—	6.03E-06	—	3.08E-07 (J)	2.33E-07 (J)	2.34E-06	2.99E-07 (J)	2.41E-07 (J)	—	1.74E-07 (J)
CAPU-05-60625	PU-24703	42–67	Sediment	0.0000419	0.000097	0.000011	7.17E-07 (J)	0.0000296	5.3E-07 (J)	1.57E-06 (J)	1.08E-06 (J)	0.0000135	1.56E-06 (J)	9.72E-07 (J)	2.53E-07 (J)	9.8E-07 (J)
CAPU-05-60626	PU-24696	66–95	Sediment	0.000031	0.0000668	0.0000243	7.88E-07 (J)	0.0000373	4.28E-07 (J)	1.27E-06 (J)	6.63E-07 (J)	0.0000138	4.95E-06	1.94E-06 (J)	2.85E-07 (J)	1.21E-06 (J)
CAPU-05-60627	PU-24703	42–67	Sediment	0.0000422	0.0000954	0.0000113	6.33E-07 (J)	0.0000305	5.28E-07 (J)	1.65E-06 (J)	1.16E-06 (J)	0.0000138	1.54E-06 (J)	8.92E-07 (J)	2.61E-07 (J)	9.42E-07 (J)

Table 2.3-3 (continued)

Sample ID	Location ID	Depth (cm)	Media	Hexachlorodibenzofurans (Total)	Octachlorodibenzodioxin[1,2,3,4,6,7,8,9-]	Octachlorodibenzofuran[1,2,3,4,6,7,8,9-]	Pentachlorodibenzodioxin[1,2,3,7,8-]	Pentachlorodibenzodioxins (Total)	Pentachlorodibenzofuran[1,2,3,7,8-]	Pentachlorodibenzofuran[2,3,4,7,8-]	Pentachlorodibenzofurans (Totals)	Tetrachlorodibenzodioxin[2,3,7,8-]	Tetrachlorodibenzodioxins (Total)	Tetrachlorodibenzofuran[2,3,7,8-]	Tetrachlorodibenzofurans (Totals)
CAPU-05-60611	PU-24689	62–95	Sediment	8.99E-06	0.000111	7.53E-06 (J)	1.3E-07 (J)	9.829999E-07	4.06E-07 (J)	6.89E-07 (J)	0.0000142	—	8.01E-07	9.07E-07	0.0000179
CAPU-05-60612	PU-24690	59–73	Sediment	0.0000103	0.000169	0.0000135	2.03E-07 (J)	9.93E-07	4.04E-07 (J)	7.56E-07 (J)	0.0000104	—	6.65E-07	1.45E-06	0.0000161
CAPU-05-60613	PU-24690	82–113	Sediment	8.25E-06	0.000121	8.47E-06	1.55E-07 (J)	1.01E-06	3.25E-07 (J)	7.14E-07 (J)	0.0000108	—	6.96E-07	9.81E-07	0.0000117
CAPU-05-60614	PU-24690	113–150	Sediment	2.01E-06	0.0000226	2.16E-06	—	—	1.41E-07 (J)	1.59E-07 (J)	0.0000026	—	3.09E-07	3.06E-07 (J)	5.95E-06
CAPU-05-60615	PU-00135	22–28	Sediment	—	1.71E-06	—	—	—	—	—	—	—	1.55E-07	—	—
CAPU-05-60616	PU-24694	17–24	Sediment	0.0000203	0.000256	0.0000241	—	3.13E-06	9.16E-07 (J)	1.62E-06 (J)	0.0000303	2.03E-07 (J)	2.89E-06	2.55E-06	0.000052
CAPU-05-60617	PU-00126	21–29	Sediment	8.65E-06	0.0000694	8.94E-06	1.36E-07 (J)	0.0000014	5.04E-07 (J)	8.1E-07 (J)	0.0000175	—	7.67E-07	0.0000012	0.0000356
CAPU-05-60618	PU-24696	23–52	Sediment	6.94E-06	0.0000794	8.52E-06	—	4.79E-07	3.75E-07 (J)	4.41E-07 (J)	6.97E-06	—	8.41E-07	9.04E-07	8.97E-06
CAPU-05-60619	PU-24696	52–66	Sediment	0.0000171	0.000172	0.0000154	1.33E-07 (J)	1.53E-06	1.29E-06 (J)	1.03E-06 (J)	0.0000196	—	2.87E-06	3.68E-06	0.0000287
CAPU-05-60620	PU-24696	66–95	Sediment	0.00003	0.000295	0.000033	2.89E-07 (J)	3.82E-06	1.51E-06 (J)	2.14E-06 (J)	0.0000321	2.61E-07 (J)	3.51E-06	2.41E-06	0.0000445
CAPU-05-60621	PU-24699	27–33	Sediment	0.0000132	0.000202	0.0000166	2.04E-07 (J)	1.04E-06	7.89E-07 (J)	0.0000011 (J)	0.0000144	—	4.84E-07	2.29E-06	0.0000175
CAPU-05-60622	PU-24699	33–51	Sediment	0.0000332	0.000535	0.0000444	5.77E-07 (J)	4.29E-06	1.68E-06 (J)	2.63E-06	0.0000442	3.95E-07 (J)	2.84E-06	5.92E-06	0.0000483
CAPU-05-60623	PU-24701	19–35	Sediment	0.000018	0.000405	0.0000229	2.91E-07 (J)	2.39E-06	8.23E-07 (J)	1.31E-06 (J)	0.0000194	1.66E-07 (J)	1.22E-06	2.39E-06	0.0000192
CAPU-05-60624	PU-24702	8–37	Sediment	3.42E-06	0.0000623	6.08E-06	—	1.88E-07	1.5E-07 (J)	2.84E-07 (J)	0.0000034	—	4.64E-07	5.5E-07	4.02E-06
CAPU-05-60625	PU-24703	42–67	Sediment	0.0000212	0.00039	0.0000282	2.87E-07 (J)	2.03E-06	6.66E-07 (J)	1.61E-06 (J)	0.0000252	1.57E-07 (J)	8.4E-07	2.69E-06	0.0000289
CAPU-05-60626	PU-24696	66–95	Sediment	0.0000282	0.000274	0.0000335	2.32E-07 (J)	3.42E-06	3.81E-07 (J)	1.88E-06 (J)	0.0000301	2.48E-07 (J)	3.21E-06	2.04E-06	0.0000301
CAPU-05-60627	PU-24703	42–67	Sediment	0.0000201	0.000395	0.0000309	3.02E-07 (J)	2.63E-06	8.4E-07 (J)	1.59E-06 (J)	0.0000228	1.72E-07 (J)	8.5E-07	2.32E-06	0.0000221

Notes: Units in mg/kg. 1 ppt = 10–6 mg/kg.

*— = Analyte not detected in sample.

Table 2.5-1
TEF Values (Unitless) for Human Health for Conversion of Dioxins and Furans

Name	Congener	WHO 1998 TEF
Dioxins		
Tetrachlorodibenzodioxin[2,3,7,8-]	2,3,7,8-TCDD	1
Pentachlorodibenzodioxin[1,2,3,7,8-]	1,2,3,7,8-PeCDD	1
Hexachlorodibenzodioxin[1,2,3,4,7,8-]	1,2,3,4,7,8-HxCDD	0.1
Hexachlorodibenzodioxin[1,2,3,7,8,9-]	1,2,3,7,8,9-HxCDD	0.1
Hexachlorodibenzodioxin[1,2,3,6,7,8-]	1,2,3,6,7,8-HxCDD	0.1
Heptachlorodibenzodioxin[1,2,3,4,6,7,8-]	1,2,3,4,6,7,8-HpCDD	0.01
Octachlorodibenzodioxin[1,2,3,4,6,7,8,9-]	1,2,3,4,6,7,8,9-OCDD	0.0001
Furans		
Tetrachlorodibenzofuran[2,3,7,8-]	2,3,7,8-TCDF	0.1
Pentachlorodibenzofuran[1,2,3,7,8-]	1,2,3,7,8-PeCDF	0.05
Pentachlorodibenzofuran[2,3,4,7,8-]	2,3,4,7,8-PeCDF	0.5
Hexachlorodibenzofuran[1,2,3,4,7,8-]	1,2,3,4,7,8-HxCDF	0.1
Hexachlorodibenzofuran[1,2,3,7,8,9-]	1,2,3,7,8,9-HxCDF	0.1
Hexachlorodibenzofuran[1,2,3,6,7,8-]	1,2,3,6,7,8-HxCDF	0.1
Hexachlorodibenzofuran[2,3,4,6,7,8-]	2,3,4,6,7,8-HxCDF	0.1
Heptachlorodibenzofuran[1,2,3,4,6,7,8-]	1,2,3,4,6,7,8-HpCDF	0.01
Heptachlorodibenzofuran[1,2,3,4,7,8,9-]	1,2,3,4,7,8,9-HpCDF	0.01
Octachlorodibenzofuran[1,2,3,4,6,7,8,9-]	1,2,3,4,6,7,8,9-OCDF	0.0001

Table 2.5-2
TEQ for Human Health Based on Detected Concentrations in Individual Samples

Reach	Location ID	Sample ID	Rank (1 = most upstream)	2,3,7,8-TCDD TEQ Total*	EPC for Reach
P-1E	PU-24703	CAPU-05-60625	1	2.82E-06	4.96184E-06
	PU-24702	CAPU-05-60624	2	4.32E-07	
	PU-24701	CAPU-05-60623	3	2.63E-06	
	PU-24699	CAPU-05-60621	4	1.83E-06	
	PU-24699	CAPU-05-60622	4	4.96E-06	
P-2W	PU-24696	CAPU-05-60618	5	7.64E-07	3.65285E-06
	PU-24696	CAPU-05-60619	5	2.08E-06	
	PU-24696	CAPU-05-60620	5	3.65E-06	
	PU-00126	CAPU-05-60617	6	1.13E-06	
	PU-24694	CAPU-05-60616	7	2.52E-06	
P-2E	PU-00135	CAPU-05-60615	8	1.71E-10	1.41268E-06
	PU-24690	CAPU-05-60612	9	1.41E-06	
	PU-24690	CAPU-05-60613	9	1.13E-06	
	PU-24690	CAPU-05-60614	9	2.02E-07	
	PU-24689	CAPU-05-60611	10	1.08E-06	

*Units are in equivalent mg/kg of 2,3,7,8-TCDD. 1 ppt = 10^{-6} mg/kg.

Table 2.5-3
TEQs for Human Health at Each Depth for Locations with Multiple Depths Sampled

Reach	Location ID	Sample ID	Depth (cm)	2,3,7,8-TCDD TEQ Total*	Facies
P-1E	PU-24699	CAPU-05-60621	27–33	1.81E-06	coarse
P-1E	PU-24699	CAPU-05-60622	33–51	4.96E-06	fine
P-2E	PU-24690	CAPU-05-60612	59–73	1.41E-06	fine
P-2E	PU-24690	CAPU-05-60613	82–113	1.13E-06	fine
P-2E	PU-24690	CAPU-05-60614	113–150	2.019E-07	coarse
P-2W	PU-24696	CAPU-05-60618	23–52	7.64E-07	fine
P-2W	PU-24696	CAPU-05-60619	52–66	2.08E-06	coarse
P-2W	PU-24696	CAPU-05-60620	66–95	3.65E-06	fine

*Units are in equivalent mg/kg of 2,3,7,8-TCDD. 1 ppt= 10^{-6} mg/kg.

Table 2.6-1
TEFs Used for Ecological Screening of Dioxins and Furans

Analyte Name	TEF-Mammals	TEF-Birds
Heptachlorodibenzodioxin[1,2,3,4,6,7,8-]	0.01	0.001
Heptachlorodibenzofuran[1,2,3,4,6,7,8-]	0.01	0.01
Heptachlorodibenzofuran[1,2,3,4,7,8,9-]	0.01	0.01
Hexachlorodibenzodioxin[1,2,3,4,7,8-]	0.1	0.05
Hexachlorodibenzodioxin[1,2,3,6,7,8-]	0.1	0.01
Hexachlorodibenzodioxin[1,2,3,7,8,9-]	0.1	0.1
Hexachlorodibenzofuran[1,2,3,4,7,8-]	0.1	0.1
Hexachlorodibenzofuran[1,2,3,6,7,8-]	0.1	0.1
Hexachlorodibenzofuran[1,2,3,7,8,9-]	0.1	0.1
Hexachlorodibenzofuran[2,3,4,6,7,8-]	0.1	0.1
Octachlorodibenzodioxin[1,2,3,4,6,7,8,9-]	0.0001	0.0001
Octachlorodibenzofuran[1,2,3,4,6,7,8,9-]	0.0001	0.0001
Pentachlorodibenzodioxin[1,2,3,7,8-]	1	1
Pentachlorodibenzofuran[1,2,3,7,8-]	0.05	0.1
Pentachlorodibenzofuran[2,3,4,7,8-]	0.5	1
Tetrachlorodibenzodioxin[2,3,7,8-]	1	1
Tetrachlorodibenzofuran[2,3,7,8-]	0.1	1

Table 2.6-2
2,3,78-TCDD TECs for Birds and Mammals

Reach	Location ID	Sample ID	Rank (1 = most upstream)	2,3,7,8-TCDD TEC Total (mg/kg) for Birds	2,3,7,8-TCDD TEC Total (mg/kg) for Mammals
P-1E	PU-24703	CAPU-05-60625	1	5.54E-06	2.82379E-06
P-1E	PU-24702	CAPU-05-60624	2	9.89E-07	4.31938E-07
P-1E	PU-24701	CAPU-05-60623	3	4.90E-06	2.62604E-06
P-1E	PU-24699	CAPU-05-60621	4	4.13E-06	1.80791E-06
P-1E	PU-24699	CAPU-05-60622	4	1.09E-05	4.96184E-06
P-2W	PU-24696	CAPU-05-60618	5	1.69E-06	7.63982E-07
P-2W	PU-24696	CAPU-05-60619	5	5.71E-06	2.07579E-06
P-2W	PU-24696	CAPU-05-60620	5	6.54E-06	3.65285E-06
P-2W	PU-00126	CAPU-05-60617	6	2.5E-06	1.12518E-06
P-2W	PU-24694	CAPU-05-60616	7	5.29E-06	2.51982E-06
P-2E	PU-00135	CAPU-05-60615	8	1.71E-10	1.71E-10
P-2E	PU-24690	CAPU-05-60612	9	2.85E-06	1.41268E-06
P-2E	PU-24690	CAPU-05-60613	9	2.18E-06	1.1319E-06
P-2E	PU-24690	CAPU-05-60614	9	5.25E-07	2.01854E-07
P-2E	PU-24689	CAPU-05-60611	10	2.08E-06	1.08096E-06

Note: Shaded cells with white font represent the maximum TEC for that reach. This value is used in the HQ calculations for that class of receptor (bird or mammal) in section 7.

Table 2.7-1
ESLs and HQs for Ecological Screening of Dioxins and Furans

Reach	2,3,7,8-TCDD TEC[a] Total	HQ Sediment	HQ Soil
Birds			
Bird ESLs:		**0.0000054**[b]	**0.0000041**[c]
P-1E	1.09E-05	2.0	2.6
P-2W	6.54E-06	1.2	1.6
P-2E	2.85E-06	0.53	0.7
Mammals			
Mammal ESLs:		**0.00000036**[d]	**0.00000029**[e]
P-1E	4.96E-06	13.8	17.1
P-2W	3.65E-06	10	13
P-2E	1.41E-06	3.9	4.9

Note: Sample results are considered to represent sediment in canyon bottom, but both sediment and soil receptors may be exposed, so results are screened against receptors for sediment and soil.

[a] Units are in equivalent mg/kg of 2,3,7,8-TCDD. 1 ppt= 10^{-6} mg/kg.

[b] ESL for violet-green swallow, based on the assumption that exposure is through sediment.

[c] ESL for robin, based on the assumption that exposure is through soil.

[d] ESL for occult little brown myotis bat, based on the assumption that exposure is through sediment.

[e] ESL for shrew, based on the assumption that exposure is through soil.

Table 3.2-1
Sediment Organic COPCs

Reach	Status[a]	Acenaphthene	Acenaphthylene	Acetone	Aldrin	Amino-2,6-dinitrotoluene[4-]	Amino-4,6-dinitrotoluene[2-]	Anthracene	Aroclor-1248	Aroclor-1254	Aroclor-1260	Benzene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Benzoic Acid	Benzyl Alcohol	BHC[alpha-]	BHC[beta-]	BHC[delta-]	BHC[gamma-]	Bis(2-chloroethoxy)methane	Bis(2-chloroethyl)ether	Bis(2-ethylhexyl)phthalate	Bromophenyl-phenylether[4-]
LA-0		—[b]	—	—	—	—	—	—	—	—	0.087	—	0.11	0.12	0.093	—	0.15	0.18	—	—	—	—	—	—	—	0.22	—
LA-1FW		—	—	—	—	—	—	0.27	—	—	0.14	—	0.32	0.32	0.24	—	0.42	0.19	—	—	—	—	—	—	—	0.16	—
LA-1W+		—	—	—	—	—	—	—	—	0.65	0.15	—	0.21	0.24	0.25	—	0.19	0.19	—	—	—	—	—	—	—	1.2	—
LA-1W		—	—	—	—	—	—	—	—	0.54	0.066	—	0.092	0.09	—	—	0.088	—	—	—	—	—	—	—	—	0.1	—
LA-1C		0.079	—	—	—	—	—	0.14	—	0.47	0.86	—	0.26	0.22	0.21	—	0.17	0.16	—	—	—	—	—	—	—	1.3	—
LA-1E		—	—	—	—	—	—	0.17	—	—	0.4	—	0.32	0.24	0.21	—	0.2	—	—	—	—	—	—	—	—	0.53	—
LA-2W		0.23	—	—	—	—	—	0.03	—	—	0.34	—	0.27	0.24	0.26	—	0.21	0.14	—	—	—	—	—	—	—	0.4	—
DP-1W		—	—	—	—	—	—	0.62	—	—	—	—	3	3.2	3.8	5	1.4	—	—	—	—	—	—	—	—	1.7	—
DPTF		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
DP-1C		0.24	—	0.017	—	—	—	1.8	—	—	1	—	1.2	0.75	1.7	—	0.25	0.14	—	—	—	—	—	—	—	1.1	—
DP-1E		0.087	—	—	—	—	—	0.11	—	—	0.077	—	0.96	0.83	1.2	0.27	0.39	—	—	—	—	—	—	—	—	0.46	—
DP-2		—	—	0.006	—	—	—	0.197	—	—	0.175	—	0.77	0.72	1	0.7	0.4	—	—	—	—	—	—	—	—	0.84	—
DP-3		—	—	—	—	—	—	—	—	—	0.091	—	0.66	0.72	1.3	—	—	0.38	—	—	—	—	—	—	—	0.95	—
DP-4		0.067	—	—	—	—	—	0.096	—	—	0.041	—	0.29	0.35	0.62	0.33	0.059	—	—	—	—	—	—	—	—	0.073	—
LA-2E		0.26	—	—	—	—	—	0.069	—	—	0.23	—	0.368	0.655	0.66	0.298	0.019	—	—	—	—	—	—	—	—	—	—
LA-2E	R[c]	—	—	—	—	—	—	0.044	—	—	0.42	—	0.136	0.15	0.253	—	—	—	—	—	—	—	—	—	—	—	—
LA-2FE		0.087	—	—	—	—	—	0.14	—	—	0.58	—	0.29	0.28	0.23	—	0.34	—	—	—	—	—	—	—	—	0.11	—
LA-3W		—	—	—	—	—	—	0.099	—	—	0.34	—	0.2	0.19	0.25	—	0.27	—	—	—	—	—	—	—	—	0.27	—
LA-3E		—	—	—	—	—	—	—	—	—	0.11	—	0.22	0.28	0.32	0.21	0.17	—	—	—	—	—	—	—	—	0.34	—
LA-3FE	F[d]	—	—	—	—	—	—	—	—	—	—	—	0.25	0.26	0.33	0.16	—	—	—	—	—	—	—	—	—	—	—
P-1FW		—	—	—	—	—	—	—	—	0.015	0.076	—	—	—	—	0.14	—	0.2	—	—	—	—	—	—	—	0.34	—
P-1W		0.055	—	—	—	—	—	0.23	—	—	0.11	—	0.42	0.43	0.6	0.076	0.24	0.26	—	—	—	—	—	—	—	0.35	—
AC-1		1.6	—	—	—	—	—	3	—	—	0.13	—	5.6	5.9	6.7	1.4	3.4	—	—	0.0023	—	—	—	—	—	2	—
AC-2		0.58	—	—	—	—	—	1.1	—	—	0.069	—	2.6	3	5.3	0.74	0.7	0.76	—	—	—	—	—	—	—	1.7	—
ACS		0.038	0.0128	0.265	—	—	—	0.054	—	0.726	0.152	0.0012	0.15	0.17	0.13	—	0.22	0.431	—	—	0.0042	—	—	0.0392	0.0431	0.24	0.0339
ACS	R	—	—	—	—	—	—	—	5.1	5.6	3.3	—	0.35	0.31	0.66	0.19	—	—	—	—	—	—	0.00069	—	—	—	—
AC-3		0.53	—	—	—	—	—	0.72	—	6.2	0.095	—	1.8	1.5	2.9	—	0.059	1.8	—	—	—	—	—	—	—	0.18	—
WC		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
P-1E		0.17	0.42	—	0.00211	—	—	0.3	—	0.238	0.117	—	1	1.8	2.5	0.69	1.1	0.24	—	0.00054	—	0.00197	0.00065	—	—	—	—
P-2W		—	—	—	—	—	—	—	—	—	0.055	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
P-2E		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
P-4W		0.219	—	—	—	—	—	0.369	—	—	—	—	0.609	0.675	0.91	0.473	0.114	—	—	—	—	—	—	—	—	—	—
P-4E		—	—	—	—	—	—	—	—	—	—	—	0.035	—	—	—	—	—	—	—	—	—	—	—	—	—	—
LA-4W		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
LA-4FE	F	—	—	—	—	—	—	0.0116	—	—	—	—	0.0458	—	—	—	—	—	—	—	—	—	—	—	—	—	—
LA-5		—	—	—	0.00117	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.14	—
Baseline	F	—	—	—	—	0.86	0.4	—	—	—	—	—	—	—	—	—	—	3.5	—	—	—	—	—	—	—	—	—
Rendija Cyn	F	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.4	0.13	—	—	—	—	—	—	—	—

Table 3.2-1 (continued)

Reach	Status[a]	Butanone[2-]	Butylbenzylphthalate	Carbazole	Chlordane[alpha-]	Chlordane[gamma-]	Chlorobenzene	Chloromethane	Chloronaphthalene[2-]	Chlorophenol[2-]	Chlorophenyl-phenyl[4-] Ether	Chrysene	DDD[4,4'-]	DDE[4,4'-]	DDT[4,4'-]	Decachlorobiphenyl	Dibenz[a,h]anthracene	Dibenzofuran	Dichlorobenzene[1,2-]	Dichlorobenzene[1,3-]	Dichlorobenzene[1,4-]	Dichlorobenzidine[3,3'-]	Dichlorophenol[2,4-]	Dieldrin	Dimethyl Phthalate	Dimethylphenol[2,4-]	Di-n-butylphthalate
LA-0		—	—	—	—	0.0015	—	—	—	—	—	0.13	0.0056	0.023	0.061	0.0000583	—	—	—	—	—	—	—	—	—	—	—
LA-1FW		—	0.095	—	0.0036	0.0047	—	—	—	—	—	2.3	—	0.0073	0.022	—	—	—	—	—	—	—	—	0.0018	—	—	—
LA-1W+		—	—	—	—	—	—	—	—	—	—	0.29	—	0.0055	0.026	0.000102	—	—	—	—	—	—	—	—	—	—	—
LA-1W		—	—	—	0.0072	0.0068	—	—	—	—	—	0.12	—	—	0.017	0.000094	—	—	—	—	—	—	—	—	—	—	—
LA-1C		—	—	—	—	0.021	—	—	—	—	—	0.26	0.092	0.0085	0.14	0.00015	—	—	—	—	—	—	—	0.03	—	—	—
LA-1E		—	—	—	—	0.0059	—	—	—	—	—	0.28	0.021	0.01	0.017	0.0000593	—	0.14	—	—	—	—	—	0.014	—	—	—
LA-2W		—	—	—	—	—	—	—	—	—	—	0.29	—	0.013	0.031	—	—	—	—	—	—	—	—	—	—	—	—
DP-1W		—	0.32	0.5	0.25	0.18	—	—	—	—	—	3.3	—	—	0.12	—	0.98	—	—	—	—	—	—	—	—	—	—
DPTF		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
DP-1C		—	0.5	0.27	—	—	—	—	—	—	—	0.99	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
DP-1E		—	0.45	0.045	0.00894	0.011	—	—	—	—	—	0.9	—	—	0.0207	—	—	—	—	—	—	—	—	—	—	—	—
DP-2		—	0.39	0.13	0.031	0.0338	—	—	—	—	—	0.83	—	—	0.119	—	0.4	0.0558	—	—	—	0.78	—	—	—	—	—
DP-3		—	—	—	0.011	0.00898	—	—	—	—	—	0.66	—	—	0.056	—	—	—	—	—	—	—	—	—	—	—	2.1
DP-4		—	0.17	—	0.024	0.017	—	—	—	—	—	0.37	—	0.0042	0.045	—	—	0.036	—	—	—	—	—	—	0.076	—	—
LA-2E		—	—	—	—	—	—	—	—	—	—	0.41	—	—	—	—	0.029	—	—	—	—	—	—	—	—	—	—
LA-2E	R	—	—	—	—	—	—	—	—	—	—	0.164	—	0.033	—	—	—	—	—	—	—	—	—	—	—	—	—
LA-2FE		—	—	—	0.023	0.02	—	—	—	—	—	0.32	—	0.027	0.087	—	—	—	—	—	—	—	—	0.023	—	—	—
LA-3W		—	—	—	—	—	—	—	—	—	—	0.29	—	—	0.075	—	—	—	—	—	—	—	—	0.014	—	—	—
LA-3E		—	—	—	0.0031	0.0031	—	—	—	—	—	0.27	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
LA-3FE	F	—	—	—	—	—	—	—	—	—	—	0.27	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
P-1FW		—	—	—	0.0033	0.0044	—	—	—	—	—	—	—	0.0039	0.026	—	—	—	—	—	—	—	—	0.0026	—	—	—
P-1W		—	—	0.052	0.012	0.012	—	—	—	—	—	0.39	0.0044	0.0037	0.016	—	—	—	—	—	—	—	—	—	—	—	—
AC-1		—	—	1.4	0.031	0.034	—	—	—	—	—	5.3	0.013	0.03	0.08	—	0.41	1.1	—	—	—	—	—	0.025	—	—	—
AC-2		—	—	0.47	0.012	0.026	—	—	—	—	—	3.1	0.0066	0.0093	0.039	—	—	—	—	—	—	—	—	—	—	—	—
ACS		0.021	0.0153	—	0.0091	0.0076	0.00057	0.0015	0.0162	0.0103	0.0239	0.18	0.02	0.028	0.28	—	—	0.0673	0.0013	0.00043	0.00098	—	0.0096	0.0505	—	—	0.94
ACS	R	—	—	—	0.0015	0.013	—	—	—	—	—	0.3	—	0.2	0.23	0.000214	—	—	—	—	—	—	—	—	—	—	—
AC-3		—	—	0.44	0.0033	0.0064	—	—	—	—	—	1.6	—	0.014	0.1	—	—	—	—	—	—	—	—	—	—	—	—
WC		—	—	—	—	0.00083	—	—	—	—	—	—	—	0.0026	0.0048	—	—	—	—	—	—	—	—	—	—	—	—
P-1E		—	—	0.17	0.00497	0.0033	—	—	—	—	—	1.2	—	0.0019	0.012	—	0.18	0.096	—	—	—	—	—	—	—	—	—
P-2W		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
P-2E		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
P-4W		—	—	—	—	—	—	—	—	—	—	0.6	—	—	—	—	—	0.18	—	—	—	—	—	—	—	—	—
P-4E		—	—	—	—	—	—	—	—	—	—	0.034	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
LA-4W		—	—	—	—	—	—	—	—	—	—	—	—	—	0.0051	—	—	—	—	—	—	—	—	—	—	—	—
LA-4FE	F	—	—	—	—	—	—	—	—	—	—	0.0465	—	—	—	—	—	0.0058	—	—	—	—	—	—	—	—	—
LA-5		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Baseline	F	—	—	—	—	—	—	—	—	—	—	—	—	0.0079	0.0092	—	—	—	—	—	—	—	—	—	—	0.46	—
Rendija Cyn	F	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Table 3.2-1 (continued)

Reach	Status[a]	Dinitro-2-methylphenol[4,6-]	Di-n-octylphthalate	Diphenylamine	Endosulfan II	Endosulfan Sulfate	Endrin	Endrin Aldehyde	Endrin Ketone	Ethylbenzene	Fluoranthene	Fluorene	Heptachlor	Heptachlor Epoxide	Hexachlorobutadiene	Hexachlorocyclopentadiene	Hexachloroethane	HMX	Indeno(1,2,3-cd)pyrene	Iodomethane	Isopropylbenzene	Isopropyltoluene[4-]	Methyl-2-pentanone[4-]	Methylene Chloride	Methylmercury(+1) Ion	Methylnaphthalene[2-]
LA-0		—	—	—	—	—	—	—	—	—	0.22	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
LA-1FW		—	—	—	—	—	—	—	—	—	0.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
LA-1W+		—	—	—	—	—	—	—	—	—	0.54	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
LA-1W		—	—	—	—	—	—	—	—	—	0.27	—	—	—	—	—	—	—	0.18	—	—	—	—	—	—	—
LA-1C		—	—	—	0.0068	0.0082	0.015	0.057	—	—	0.7	0.083	—	—	—	—	—	—	—	—	—	—	—	—	—	—
LA-1E		—	—	—	—	—	0.0043	0.01	—	—	1.9	0.23	—	—	—	—	—	—	0.17	—	—	—	—	—	—	—
LA-2W		—	—	—	—	—	—	0.013	—	—	0.73	0.01	—	—	—	—	—	—	0.13	—	—	—	—	—	—	0.086
DP-1W		—	—	—	—	—	—	—	—	—	4.4	—	—	0.11	—	—	—	—	0.19	—	—	—	—	—	—	—
DPTF		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.8	—	—	—	—	—	—	—
DP-1C		—	—	—	—	—	—	—	—	0.2	2.8	0.074	—	—	—	—	—	—	—	—	—	—	—	—	—	0.046
DP-1E		—	—	—	—	—	—	—	—	—	1.7	0.09	—	—	—	—	—	—	0.24	—	—	—	—	—	—	0.031
DP-2		1.9	0.16	—	—	—	—	—	—	—	1.4	0.066	—	—	—	—	—	—	0.62	—	—	—	—	0.003	—	—
DP-3		—	—	—	—	—	—	—	—	—	1.5	—	—	—	—	—	—	—	0.24	—	—	—	—	0.003	—	—
DP-4		—	—	—	—	—	—	—	—	—	0.51	0.066	—	—	—	—	—	—	0.28	—	—	—	—	—	—	—
LA-2E		—	—	—	—	—	—	—	—	—	0.725	0.011	—	—	—	—	—	—	0.341	—	—	—	—	—	—	—
LA-2E	R	—	—	—	—	—	—	—	—	—	0.296	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
LA-2FE		—	—	—	—	—	—	—	—	—	0.79	0.079	—	—	—	—	—	—	0.18	—	—	—	—	—	—	—
LA-3W		—	—	—	—	0.017	—	—	—	—	0.42	—	—	—	—	—	—	—	0.23	—	—	—	—	—	—	—
LA-3E		—	—	—	—	—	—	—	—	—	0.41	—	—	—	—	—	—	—	0.2	—	—	—	—	—	—	—
LA-3FE	F	—	—	—	—	—	—	—	—	—	0.52	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
P-1FW		—	—	—	—	—	—	—	—	—	0.22	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
P-1W		—	—	—	—	—	—	—	—	—	0.86	0.046	—	0.003	—	—	—	—	0.086	—	—	—	—	—	0.000226	—
AC-1		—	—	—	—	—	—	—	0.009	—	12	1.8	—	0.0071	—	—	—	—	2.1	—	—	—	—	—	—	0.73
AC-2		—	—	—	—	—	—	—	0.012	—	6.3	0.56	—	0.0045	—	—	—	—	1.2	—	—	—	—	—	—	—
ACS		—	0.197	0.0103	0.0029	—	0.0033	0.0037	—	—	0.28	0.0657	0.0032	0.0035	0.0527	0.23	0.0074	—	0.12	0.0046	0.0018	0.213	0.0124	—	0.002	0.0629
ACS	R	—	—	—	—	—	—	—	—	—	0.64	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00057	—
AC-3		—	—	—	—	—	—	—	—	—	3.7	0.49	—	0.0011	—	—	—	—	0.62	—	—	—	—	—	—	—
WC		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
P-1E		—	—	—	—	—	—	—	—	—	1.8	0.18	—	0.00097	—	—	—	—	0.66	—	—	—	—	—	0.000184	0.074
P-2W		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
P-2E		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
P-4W		—	0.094	—	—	—	—	—	—	—	1.277	0.294	—	—	—	—	—	—	0.455	—	—	—	—	—	—	0.167
P-4E		—	—	—	—	—	—	—	—	—	0.059	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
LA-4W		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
LA-4FE	F	—	—	—	—	—	—	—	—	—	0.0827	0.0063	—	—	—	—	—	—	—	—	—	—	—	—	—	0.0057
LA-5		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Baseline	F	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.81	—	—	—	—	—	—	—	—
Rendija Cyn	F	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Table 3.2-1 (continued)

Reach	Status[a]	Methylphenol[2-]	Methylphenol[4-]	Naphthalene	Nitroaniline[2-]	Nitrobenzene	Nitroso-di-n-propylamine[N-]	Nitrotoluene[2-]	Phenanthrene	Phenol	Propylbenzene[1-]	Pyrene	Pyridine	2,3,7,8-TCDD TEQ Total	Tetryl	Toluene	Total Petroleum Hydrocarbons Diesel Range Organics	Total Petroleum Hydrocarbons Gasoline Range Org.	Trichlorobenzene[1,2,4-]	Trichloroethene	Trichlorofluoromethane	Trichlorophenol[2,4,6-]	Trimethylbenzene[1,2,4-]	Xylene (Total)	Xylene[1,2-]	Xylene[1,3-]+Xylene[1,4-]
LA-0		—	—	—	—	—	—	—	0.12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
LA-1FW		—	—	—	—	—	—	—	0.62	—	—	0.75	—	—	—	—	—	—	—	—	—	—	—	—	—	—
LA-1W+		—	—	—	—	—	—	—	0.27	—	—	0.4	—	—	—	—	—	—	—	—	—	—	—	—	—	—
LA-1W		—	—	0.085	—	—	—	—	0.2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
LA-1C		—	—	—	—	—	—	—	0.57	—	—	0.47	—	—	—	—	—	—	—	—	—	—	—	—	—	—
LA-1E		—	—	0.19	—	—	—	—	1.2	—	—	0.69	—	—	—	—	—	—	—	—	—	—	—	—	—	—
LA-2W		—	—	0.2	—	—	—	—	0.44	—	—	0.58	—	—	—	—	—	—	—	—	—	—	—	—	—	—
DP-1W		—	—	0.62	—	—	—	—	3.2	—	—	12	—	—	—	—	680	—	—	—	—	—	—	—	—	—
DPTF		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	190	0.027	—	—	—	—	—	—	—	—
DP-1C		—	—	0.71	0.15	—	—	—	2.7	—	0.003	3.6	—	—	—	0.0047	18000	2000	—	—	—	—	1.1	0.002	—	—
DP-1E		—	—	0.083	—	—	—	—	0.83	—	—	2.9	—	—	—	—	330	—	—	—	—	—	—	—	—	—
DP-2		—	—	0.071	—	—	—	—	0.79	—	—	2.5	—	—	—	0.002	260	—	—	—	—	—	—	—	—	—
DP-3		—	—	—	—	—	—	—	0.8	—	—	1.6	—	—	—	—	87	—	—	—	—	9.3	—	—	—	—
DP-4		—	—	0.083	—	—	—	—	0.432	—	—	1.1	—	—	—	—	82	—	—	—	—	—	—	—	—	—
LA-2E		—	—	0.11	—	—	—	—	0.33	—	—	0.589	—	—	—	—	—	—	—	—	—	—	—	—	—	—
LA-2E	R	—	—	—	—	—	—	—	0.18	—	—	0.27	—	—	—	—	—	—	—	—	—	—	—	—	—	—
LA-2FE		—	—	—	—	—	—	—	0.59	—	—	0.65	—	—	—	—	—	—	—	—	—	—	—	—	—	—
LA-3W		—	—	—	—	—	—	—	0.18	—	—	0.44	—	—	—	—	—	—	—	—	—	—	—	—	—	—
LA-3E		—	—	—	—	—	—	—	0.21	—	—	0.37	—	—	—	—	—	—	—	—	—	—	—	—	—	—
LA-3FE	F	—	2	0.25	—	—	—	—	0.46	—	—	0.58	—	—	—	—	—	—	—	—	—	—	—	—	—	—
P-1FW		—	—	—	—	—	—	—	0.16	—	—	0.2	—	—	—	—	—	—	—	—	—	—	—	—	—	—
P-1W		—	—	0.14	—	—	—	—	0.8	—	—	1.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—
AC-1		—	—	2.4	—	—	—	—	11	—	—	11	—	—	—	—	—	—	—	—	—	—	—	—	—	—
AC-2		—	—	0.81	—	—	—	—	5.1	—	—	5.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACS		—	—	0.0306	—	—	0.2	—	0.31	—	—	0.36	0.0049	—	—	0.0233	—	—	0.036	0.0054	0.0019	—	0.00033	0.0049	0.00051	0.0013
ACS	R	—	—	0.32	—	—	—	—	0.55	—	—	0.72	—	—	—	—	—	—	—	—	—	—	—	—	—	—
AC-3		—	—	0.81	—	—	—	—	3.5	—	—	3.2	—	—	—	—	—	—	—	—	—	—	—	—	—	—
WC		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
P-1E		—	—	0.2	—	—	—	—	1.2	—	—	1.6	—	4.96E-06	—	—	—	—	—	—	—	—	—	—	—	—
P-2W		—	—	—	—	—	—	—	—	—	—	—	—	3.65E-06	—	—	—	—	—	—	—	—	—	—	—	—
P-2E		—	—	—	—	—	—	—	—	—	—	—	—	1.41E-06	—	—	—	—	—	—	—	—	—	—	—	—
P-4W		—	—	0.374	—	—	—	—	1.505	—	—	1.055	—	—	—	—	—	—	—	—	—	—	—	—	—	—
P-4E		—	—	—	—	—	—	—	—	—	—	0.053	—	—	—	—	—	—	—	—	—	—	—	—	—	—
LA-4W		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
LA-4FE	F	—	—	—	—	—	—	—	0.056	—	—	0.0872	—	—	—	—	—	—	—	—	—	—	—	—	—	—
LA-5		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Table 3.2-1 (continued)

Reach	Status[a]	Methylphenol[2-]	Methylphenol[4-]	Naphthalene	Nitroaniline[2-]	Nitrobenzene	Nitroso-di-n-propylamine[N-]	Nitrotoluene[2-]	Phenanthrene	Phenol	Propylbenzene[1-]	Pyrene	Pyridine	2,3,7,8-TCDD TEQ Total	Tetryl	Toluene	Total Petroleum Hydrocarbons Diesel Range Organics	Total Petroleum Hydrocarbons Gasoline Range Org.	Trichlorobenzene[1,2,4-]	Trichloroethene	Trichlorofluoromethane	Trichlorophenol[2,4,6-]	Trimethylbenzene[1,2,4-]	Xylene (Total)	Xylene[1,2-]	Xylene[1,3-]+Xylene[1,4-]
Baseline	F	0.96	2.2	0.7600001	—	0.15	—	0.44	—	5.4	—	—	4.8	—	0.76	—	—	—	—	—	—	—	—	—	—	—
Rendija Cyn	F	—	11	0.13	—	—	—	—	0.072	0.79	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Notes: Values are maximum detected values (mg/kg) per reach. Gray shading on analyte name indicates a new COPC not included in corresponding table in previous report.

[a] Status is blank when sample is neither fire-impacted not removed sediment.

[b] — = Not detected in this reach.

[c] R = Removed sediment.

[d] F = Fire-impacted sediment.

Table 3.2-2
Sediment Radionuclide COPCs

Reach	Status[a]	Americium-241	Cesium-134	Cesium-137	Cobalt-60	Europium-152	Plutonium-238	Plutonium-239	Strontium-90	Thorium-228	Thorium-230	Thorium-232	Tritium	Uranium-234	Uranium-235	Uranium-238
LA-1W+		—[b]	—	—	—	—	—	0.623	—	—	—	—	—	—	—	—
LA-1W		0.571	—	—	—	—	0.083	19.1	—	—	—	—	—	—	—	—
LA-1C		0.071	—	—	—	—	0.041	8.78	—	—	—	—	—	—	—	—
LA-1E		0.206	—	2.9	—	—	0.078	19.3	—	—	—	—	—	—	—	2.31
LA-2W		0.104	—	1.6	—	—	0.069	10.62	3.7	—	—	—	—	2.6	—	2.52
DP-1W		0.34	—	—	—	—	—	—	—	—	—	—	0.13	—	—	—
DP-1C		0.053	—	—	—	—	—	—	—	—	—	—	—	—	—	—
DP-1E		—	—	—	—	—	—	0.075	—	—	—	—	—	—	—	—
DP-2		18.4	—	182	—	—	1.286	11.11	32.8	—	—	—	0.48	—	—	—
DP-2	R[c]	29.8	—	442	—	—	0.989	4.15	7.4	—	—	—	—	—	—	—
DP-3		71	—	192	—	—	2.79	11.2	17.1	—	—	—	0.13	—	—	—
DP-4		32.7	—	149	—	—	1.34	48.3	31.1	—	—	—	0.1426755	2.8	—	2.3
LA-2E		28	0.18	38	0.116	0.474	2.01	6.39	6.9	—	2.442	—	0.1208657	—	—	—
LA-2E	R	2.28	—	192.31	—	—	0.126	5.407	39.56	—	—	—	0.1365957	—	—	2.4
LA-2FE		18.3	0.12	114	—	—	0.89	15.5	20.6	—	—	—	—	—	—	—
LA-3W		4.73	—	42.7	—	—	0.334	2.73	9.5	—	—	—	0.132	—	—	—
LA-3E		11.8	—	13.8	0.206	0.492	0.769	3.18	7.03	2.9	2.61	2.64	—	—	—	—
LA-3FE	F[d]	0.926	0.18	4.77	—	—	0.0538	1.28	1.24	—	—	—	—	—	—	—
P-1W		—	—	—	—	—	—	0.075	—	—	—	—	—	—	—	—
P-1W	F	—	—	5.66	—	—	—	0.421	1.16	—	—	—	—	—	—	—
AC-1		—	—	1.07	—	—	—	0.123	—	—	—	—	—	—	0.3	—
AC-2		1.63	—	—	—	—	—	1.25	—	—	—	—	—	—	—	—
ACS		9.97	—	6.44	—	—	2.51	348	1.43	—	—	—	0.1373053	9.3	0.632	3.71
ACS	R	101	—	148	—	—	37.3	7780	80	—	—	—	1.86	21.5	0.336	16.6
AC-3		88	—	32.5	—	—	3.7	477	30.5	—	—	—	1.117	2.63	—	—
P-1E		10.671	—	1.53	—	0.267	2.078	502.01	1.4	—	—	—	1.208367	—	—	—
P-1E	F	—	0.55	1.88	—	—	0.032	1.3	—	—	—	—	—	—	—	—
P-2W		1.199	—	—	—	—	0.231	73.4	—	—	—	—	—	—	—	—
P-2W	F	0.0841	0.0961	2.33	—	—	—	0.734	1.16	—	—	—	—	—	—	—
P-2E		—	—	—	—	—	0.072	8.07	—	—	—	—	—	—	—	—
P-3W		—	—	—	—	—	0.136	44.9	—	—	—	—	—	—	—	—
P-3W	F	0.138	0.103	1.98	—	—	—	0.86	—	—	—	—	—	—	—	—
P-3E		—	—	—	—	—	0.075	7.93	—	—	—	—	—	—	—	—
P-3E	F	—	—	1.85	—	—	—	0.92	—	—	—	—	—	—	—	—
P-4W		2.077	—	—	—	—	0.62	170.5	—	—	—	—	0.1165302	—	—	—
P-4E		—	—	—	—	—	—	18.65	—	—	—	—	—	—	—	—
P-4E	F	—	—	2.88	—	—	—	1.08	1.12	—	—	—	—	—	—	—
LA-4W		4.64	—	4.65	—	0.349	0.227	13.8	—	—	—	—	—	—	—	—
LA-4E		0.602	—	1.81	—	0.248	0.051	6.02	—	—	—	—	—	—	—	—
LA-4FE	F	0.22	0.11	2.27	—	—	0.037	1.51	—	—	—	—	—	—	—	—
LA-5		0.065	0.24	1.073	—	—	—	2.524	—	—	—	—	—	—	—	—
LA-5E	F	—	0.127	6.27	—	—	—	1.59	1.4	—	—	—	—	—	—	—
Baseline	F	0.13	—	8.26	—	—	0.0486	0.343	2	—	—	—	0.3627692	—	—	2.33
Garcia Cyn	F	—	—	4.36	—	—	—	0.186	1.47	—	—	—	—	—	—	—
Guaje Cyn	F	—	—	6.22	—	—	—	0.245	1.25	—	—	—	—	—	—	—
Rendija Cyn	F	—	—	4.69	—	—	—	0.34	1.08	—	—	—	—	—	—	—

Note: Values are maximum detected values (pCi/g) per reach.

[a] Status is blank when sample is neither fire-impacted not removed sediment.

[b] — = Not detected in this reach.

[c] R = Removed sediment.

[d] F = Fire-impacted sediment.

Table 3.2-3
Sediment Inorganic COPCs

Reach	Status[a]	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Bromide	Cadmium	Calcium	Chloride	Chromium	Cobalt	Copper	Cyanide (Total)	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Selenium	Silver	Sodium	Sulfate	Thallium	Titanium	Uranium	Vanadium	Zinc
LA-1FW		—[b]	—	—	—	—	—	—	—	—	—	—	—	13.5	—	—	39.3	—	—	—	—	—	ND>BV[c]	—	—	—	—	—	—	—	—
LA-1W+		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	41.2	—	—	—	—	—	ND>BV	—	—	—	—	—	—	—	—
LA-1W		—	ND>BV	—	—	1.4	—	—	ND>BV	—	—	—	—	13.1	—	—	43.7	—	—	0.16	—	—	ND>BV	1.7	—	—	—	—	—	—	—
LA-1C		—	ND>BV	—	128	—	—	—	ND>BV	—	—	—	—	16.8	—	—	38.8	—	—	0.11	—	—	ND>BV	—	—	—	—	—	—	—	—
LA-1E		—	ND>BV	—	—	—	—	—	0.04	—	—	10.6	—	23.8	—	—	30	—	—	—	—	—	ND>BV	1.4	—	—	—	—	—	—	—
LA-2W		—	ND>BV	—	—	—	—	—	0.06	—	—	19.5	—	12.5	—	—	46.9	—	—	0.31	—	—	0.23	15.8	—	—	—	—	7.537551774	—	81.7
DP-1W		—	ND>BV	—	135	—	—	—	—	12000	—	14.8	—	15	—	—	207	—	—	0.12	—	—	1.1	—	—	—	ND>BV	—	—	—	166
DPTF		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	23	—	—	—	—	—	0.43	—	—	—	—	—	—	—	—
DP-1C		—	0.83	—	—	1.6	—	—	0.67	8400	—	16.6	7.2	14.8	—	—	205	—	1100	0.25	—	—	0.75	2	—	—	0.57	—	—	—	106
DP-1E		—	ND>BV	—	—	—	—	—	—	5380	—	20.4	—	13.6	—	—	189	—	—	—	—	—	ND>BV	—	—	—	ND>BV	—	—	—	106
DP-2		—	ND>BV	—	—	—	—	—	0.453	5200	—	—	—	14.4	—	—	76.5	—	738	—	—	—	1.3	—	—	—	0.128	—	—	—	71.6
DP-3		—	ND>BV	—	—	—	—	—	0.402	—	—	18.3	4.8	—	—	—	80.1	—	—	—	—	—	0.71	—	—	—	ND>BV	—	—	—	—
DP-4		—	ND>BV	—	—	—	—	—	—	—	—	—	—	15.1	—	—	57.7	—	—	—	—	—	ND>BV	—	—	—	—	—	—	—	—
LA-2E		—	ND>BV	—	—	—	—	—	0.89	—	—	18.9	—	—	—	—	51	—	—	0.06	—	—	0.37	ND>BV	—	—	—	—	—	—	72.8
LA-2E	R[d]	—	ND>BV	4.7	132	—	—	—	—	5740	—	38.4	—	13.9	—	—	61.9	—	—	0.14	—	—	0.65	—	—	—	—	—	7.13326337	21.9	90.5
LA-2FE		—	—	—	—	—	—	—	—	—	—	15	—	12	—	—	49	—	—	0.15	—	—	0.5	—	—	—	—	—	—	—	—
LA-3W		—	—	—	—	—	—	—	—	—	—	11	—	—	—	—	33	—	—	—	—	—	0.42	—	—	—	—	—	—	—	—
LA-3E		—	ND>BV	—	—	—	—	—	ND>BV	—	—	10.6	—	15.4	—	—	36.9	—	—	0.14	—	—	—	ND>BV	—	—	—	—	—	—	—
LA-3FE	F[e]	—	—	5	370	1.7	—	—	0.59	15000	—	11	8.1	26	2.5	16000	53	2930	2100	—	14	—	1.7	—	—	—	0.35	—	—	22	140
P-1FW		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	68	—	700	—	—	—	0.65	—	—	—	1	—	—	—	71
P-1W		—	—	—	—	—	1.4	—	0.54	—	—	—	—	21	—	—	66	—	—	0.49	—	—	0.65	1.7	—	—	—	—	—	—	110
P-1W	F	—	—	4.3	280	—	—	—	—	12000	—	—	5.9	15	—	—	45	—	1500	—	—	—	1.4	—	—	—	—	—	—	—	—
AC-1		—	0.94	4.1	129	—	—	—	—	4590	—	19	6.2	14.9	—	—	130	—	—	—	—	—	0.91	—	—	—	—	—	—	21	190
AC-2		—	0.84	5.1	—	—	—	—	—	—	—	15	8.6	16	—	—	170	—	620	—	—	—	0.87	—	—	—	—	—	—	24	170
ACS		—	—	—	—	—	—	—	2.2	—	—	22.2	—	35.8	—	—	156	—	—	2.78	11.1	—	0.953	5.14	—	—	—	—	11.31987641	—	92.1
ACS	R1	—	1.7	7.1	240	2	—	—	11	24000	—	56	—	190	—	—	2300	—	—	7.2	17	—	0.75	29	—	—	—	—	49.3391885	—	110
AC-3		—	—	—	—	—	—	—	7.1	23000	—	15	6.2	40	—	—	200	—	560	2.6	17	—	1.1	5.8	—	—	—	—	—	—	180
WC		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	24	—	—	—	—	—	0.36	—	—	—	1.2	—	—	—	—
P-1E		—	ND>BV	—	—	—	6.2	—	0.92	4740	—	12.9	4.9	15.1	—	—	77.3	—	—	0.65	—	—	0.62	1.5	—	—	—	—	—	—	113
P-1E	F	—	—	—	130	—	—	—	—	5700	—	—	—	—	—	—	25	—	820	—	—	—	0.84	—	—	—	—	—	—	—	—
P-2W		—	—	—	—	—	—	—	ND>BV	—	—	—	—	31.5	—	—	27.7	—	—	0.15	—	—	0.98	ND>BV	—	—	ND>BV	—	—	—	—
P-2W	F	—	ND>BV	—	248	—	—	—	0.44	11400	—	—	6.4	14.2	—	—	33.9	—	1140	—	10.4	—	0.69	0.72	—	—	—	—	—	—	—
P-3W		—	—	—	—	—	—	—	ND>BV	—	—	—	—	20.5	—	—	—	—	—	ND>BV	—	—	0.69	ND>BV	—	—	ND>BV	—	—	—	—

Table 3.2-3 (continued)

Reach	Status[a]	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Bromide	Cadmium	Calcium	Chloride	Chromium	Cobalt	Copper	Cyanide (Total)	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Selenium	Silver	Sodium	Sulfate	Thallium	Titanium	Uranium	Vanadium	Zinc
P-3W	F	—	0.55	—	150	—	—	—	—	5970	—	—	5.8	—	—	—	24.7	—	681	—	9.5	—	0.84	0.73	—	—	1.3	—	—	—	—
P-3E	F	—	—	4.3	220	—	—	—	—	8500	—	—	5.9	13	—	—	27	—	1000	—	9.4	—	1.2	—	—	—	—	—	—	—	—
P-4W		18400	ND>BV	5.1	163	1.7	—	—	0.52	4610	—	14.5	5.6	12.8	1	15400	30.5	3050	—	0.11	11	3740	ND>BV	—	—	—	ND>BV	454	—	20.3	66.9
P-4E		—	—	—	—	—	—	—	0.41	—	—	—	—	—	—	36600	—	—	1030	—	—	—	—	—	—	—	6.7	1840	—	23.8	222
P-4E	F	—	1.2	5.4	270	1.6	—	—	—	8700	—	—	7.7	17	—	16000	36	—	1300	—	14	—	1.5	—	—	—	—	—	—	21	66
LA-4W		—	ND>BV	—	—	—	—	—	0.07	7410	—	—	—	—	—	—	31.6	—	—	—	—	—	ND>BV	—	—	—	—	—	—	—	—
LA-4E		—	ND>BV	—	—	—	—	—	ND>BV	6980	—	—	—	—	—	—	—	—	—	—	—	—	ND>BV	—	—	—	ND>BV	—	—	—	—
LA-4FE	F	—	—	—	230	—	—	—	—	14000	—	—	6.3	16	—	—	31	3100	1000	—	11	—	0.53	—	—	—	—	—	—	20	87
LA-5		—	—	—	—	—	6.8	—	—	4910	—	—	—	—	—	—	26.2	—	—	—	—	2880	0.4	—	1530	—	—	—	—	20.6	—
LA-5E	F	—	—	—	290	—	—	—	0.57	14000	—	—	5.6	15	2	—	30	—	1100	—	—	—	1.3	—	—	—	—	—	—	—	—
Baseline	F	33640	—	4.7	550	1.45	—	1.2	0.705	25000	32	18.9	7.84	24.6	2.5	15640	48	3760	2200	—	15.7	3670	0.78	—	—	380	0.702	—	—	32.2	104
Garcia Cyn	F	—	—	5.4	290	1.6	—	—	—	13000	—	—	8.2	17	1.6	—	34	2900	950	—	11	—	1.28	1.5	—	—	—	—	—	—	—
Guaje Cyn	F	—	0.92	4.2	360	—	—	—	0.46	18000	—	—	6.6	18	2	—	38	2500	1800	—	9.8	—	1.6	—	—	—	—	—	—	—	84
Rendija Cyn	F	—	1.2	6	210	2	—	—	—	9100	—	—	7	15	1.1	—	110	—	1200	—	10	—	1.3	—	—	—	—	—	—	—	69

Note: Values are maximum detected values (mg/kg) per reach.

[a] Status is blank when sample is neither fire-impacted not removed sediment.

[b] — = Not detected in this reach.

[c] ND > BV = No detected values, at least one nondetected value greater than background.

[d] R = Removed sediment.

[e] F = Fire-impacted sediment.

Table 3.2-4
Sediment: Human Health SALs

Chemical	Residential Soil (mg/kg)	Residential Endpoint[a]	VOC[b]	Comments[c]
1,1,1,2-Tetrachloroethane	3.93E+01	ca	X	
1,1,1-Trichloroethane	5.51E+02	sat	X	
1,1,2,2-Tetrachloroethane	5.20E+00	ca	X	
1,1,2-Trichloro-1,2,2-trifluoroethane	3.18E+03	max	X	
1,1,2-Trichloroethane	1.07E+01	ca	X	
1,1,2-Trichloropropane	2.27E+01	nc	X	
1,1-Biphenyl	8.90E+01	sat	X	
1,1-Dichloroethane	8.20E+02	nc	X	
1,2,3-Trichloropropane	3.20E+00	ca	X	
1,2,3-Trichloropropene	1.78E+01	nc	X	
1,2,4,5-Tetrachlorobenzene	1.80E+01	nc		
1,2,4-Trichlorobenzene	6.51E+02	nc	X	
1,2,4-Trimethylbenzene	5.22E+01	nc	X	
1,2-Dibromo-3-chloropropane	3.64E+00	nc	X	
1,2-Dibromoethane	7.14E-02	ca	X	
1,2-Dichlorobenzene	1.16E+02	sat	X	
1,2-Dichloroethane	5.07E+00	ca	X	
1,2-Dichloropropane	1.00E+01	nc	X	
1,2-Diphenylhydrazine	6.08E+00	ca		
1,3,5-Trimethylbenzene	2.23E+01	nc	X	
1,3,5-Trinitrobenzene	1.80E+03	nc		EPA reg 6
1,3-Butadiene	8.91E-01	ca	X	
1,3-Dichlorobenzene	7.04E+01	nc	X	
1,3-Dichloropropene	1.13E+01	ca	X	
1,3-Dinitrobenzene	6.10E+00	nc		EPA reg 6
1,4-Dichloro-2-butene	1.33E-01	ca	X	
1,4-Dichlorobenzene	3.60E+01	ca	X	
1-Chloro-1,1-difluoroethane	2.05E+02	sat	X	
1-Chlorobutane	2.91E+02	sat	X	
2,4,5-Trichlorophenol	6.00E+03	nc		
2,4,6-Trichlorophenol	6.00E+00	nc		
2,4,6-Trinitrotoluene	3.00E+01	nc		
2,4-Dichlorophenol	1.80E+02	nc		
2,4-Dimethylphenol	1.20E+03	nc		
2,4-Dinitrophenol	1.20E+02	nc		EPA reg 6
2,4-Dinitrotoluene	1.20E+02	nc		

Table 3.2-4 (continued)

Chemical	Residential Soil (mg/kg)	Residential Endpoint	VOC	Comments
2,6-Dinitrotoluene	6.10E+01	nc		EPA Region 6
2-Butanone (MEK)	5.73E+02	nc	X	
2-Chloro-1,3-butadiene	5.64E+00	nc	X	
2-Chloroacetophenone	4.07E-02	nc	X	
2-Chlorophenol	3.91E+02	nc	X	
2-Chloropropane	2.87E+02	nc	X	
2-Methylphenol	3.10E+03	nc		EPA Region 6
2-nitroaniline	1.80E+02	nc		EPA Region 6
2-nitroaniline	1.80E+02	nc		EPA Region 6
3,3-Dichlorobenzidine	1.08E+01	ca		
4-Cloroaniline	2.44E+02	nc		EPA Region 6
4-Methylphenol	3.10E+02	nc		EPA Region 6
4-Nitrophenol	4.90E+02	nc		EPA Region 6
Acenaphthene	4.69E+03	nc	X	
Acetaldehyde	9.43E+01	nc	X	
Acetone	7.04E+04	nc	X	
Acetophenone	1.31E+03	sat	X	
Acrolein	1.84E-01	nc	X	
Acrylonitrile	3.96E+00	ca	X	
Aldrin	2.84E-01	ca		
Aluminum	7.78E+04	nc		
Aniline	8.50E+02	ca		EPA Region 6
Anthracene	2.35E+04	nc	X	
Antimony	3.13E+01	nc		
Aroclor 1016	2.22E+00	ca		
Aroclor 1221	2.22E+00	ca		
Aroclor 1232	2.22E+00	ca		
Aroclor 1242	2.22E+00	ca		
Aroclor 1248	2.22E+00	ca		
Aroclor 1254	1.11E+00	nc		
Aroclor 1260	2.22E+00	ca		
Aroclors (mixed)	2.22E+00	ca		EPA Region 6
Arsenic	3.90E+00	ca		
Azobenzene	4.40E+01	ca		EPA Region 6
Barium	5.45E+03	nc		
Benzene	2.70E+01	ca	X	
Benzidine	2.11E-02	ca		
Benzo(a)anthracene	6.21E+00	ca		

Table 3.2-4 (continued)

Chemical	Residential Soil (mg/kg)	Residential Endpoint	VOC	Comments
Benzo(a)pyrene	6.21E-01	ca		
Benzo(b)fluoranthene	6.21E+00	ca		
Benzo(k)fluoranthene	6.21E+01	ca		
Benzoic Acid	1.00E+05	max		EPA Region 6
Benzyl Alcohol	1.80E+04	nc		EPA Region 6
Beryllium	1.56E+02	nc		
Bis(2-chloroethyl) ether	2.04E+00	ca	X	
Bis(2-chloroisopropyl) ether	3.13E+03	nc	X	
Bis(2-ethylhexyl) phthalate	3.47E+02	ca		
Bis(chloromethyl) ether	4.26E-03	ca	X	
Boron	5.50E+03	nc		
Bromobenzene	3.32E+01	nc	X	
Bromodichloromethane	1.03E+02	ca	X	
Bromomethane	7.62E+00	nc	X	
Butylbenzylphthalate	240	sat		EPA Region 6
Cadmium	7.41E+01	nc		
Carbazole	2.40E+02	ca		EPA Region 6
Carbon disulfide	3.76E+03	nc	X	
Carbon tetrachloride	3.13E+00	ca	X	
Chlordane	1.62E+01	ca		
Chlorobenzene	1.76E+02	nc	X	
Chlorodifluoromethane	2.05E+02	sat	X	
Chloroethane	1.38E+03	sat	X	
Chloroform	3.56E+00	ca	X	
Chloromethane	1.95E+01	ca	X	
Chromium III/VI in 6:1 ratio	2.10E+03	ca		
Chromium VI	2.34E+02	nc		
Chrysene	6.21E+02	ca	X	
cis-1,2-Dichloroethene	7.82E+02	nc	X	
Cobalt	1.52E+03	nc		
Copper	3.13E+03	nc		
Crotonaldehyde	3.37E+00	ca	X	
Cumene (isopropylbenzene)	7.00E+02	nc	X	
Cyanide	1.56E+03	nc		
Cyanogen	3.13E+03	nc	X	
Cyanogen bromide	7.04E+03	nc	X	
Cyanogen chloride	3.91E+03	nc	X	
DDD	2.44E+01	ca		

Table 3.2-4 (continued)

Chemical	Residential Soil (mg/kg)	Residential Endpoint	VOC	Comments
DDE	1.72E+01	ca		
DDT	1.72E+01	ca		
Dibenz(a,h)anthracene	6.21E-01	ca		
Dibenzofuran	3.13E+02	nc	X	
Dibromochloromethane	7.62E+01	ca	X	
Dichlorodifluoromethane	1.44E+02	nc	X	
Dicyclopentadiene	2.35E+03	nc	X	
Dieldrin	3.04E-01	ca		
Diethyl phthalate	4.80E+04	nc		
Dimethyl phthalate	1.00E+05	max		
Di-n-butyl phthalate	6.00E+03	nc		
Di-n-octylphthalate	2400	nc		EPA Region 6
Diphenylamine	1500	nc		EPA Region 6
Endosulfan	3.60E+02	nc		
Endrin	1.80E+01	nc		
Epichlorohydrin	1.51E+01	nc	X	
Ethyl acetate	7.04E+04	nc	X	
Ethyl acrylate	5.13E+01	sat	X	
Ethyl chloride	1.38E+03	sat	X	
Ethyl methacrylate	5.18E+01	sat	X	
Ethylbenzene	1.06E+04	ca	X	
Ethylene oxide	2.47E+00	ca	X	
Ethylether	1.89E+03	sat	X	
Fluoranthene	2.25E+03	nc		
Fluorene	3.13E+03	nc	X	
Fluoride	3700	nc		EPA Region 6
Furan	7.82E+01	nc	X	
Heptachlor	1.08E+00	ca		
Heptachlor Epoxide	0.53	ca		EPA Region 6
Hexachloro-1,3-butadiene	1.20E+01	nc		
Hexachlorobenzene	3.04E+00	ca		
Hexachlorocyclopentadiene	1.25E+02	nc		
Hexachloroethane	6.00E+01	nc		
HMX	3.00E+03	nc		
Hydrogen cyanide	1.99E+01	nc	X	
Indeno(1,2,3-c,d)pyrene	6.21E+00	ca		
Iron	2.35E+04	nc		
Isobutanol	2.22E+04	sat	X	

Table 3.2-4 (continued)

Chemical	Residential Soil (mg/kg)	Residential Endpoint	VOC	Comments
Isophorone	5.12E+03	ca		
Lead	4.00E+02	nc		
Lead (tetraethyl-)	6.11E-03	nc		
Lithium	1600	nc		EPA Region 6
Maleic hydrazide	1.57E+03	sat	X	
Manganese	1.55E+03	nc		
Mercury (inorganic)	2.30E+01	nc		
Mercury (methyl)	6.11E+00	nc		
Methacrylonitrile	3.61E+00	nc	X	
Methomyl	1.96E+03	nc	X	
Methoxychlor	3.06E+02	nc		EPA Region 6
Methyl acetate	7.82E+04	nc	X	
Methyl acrylate	2.35E+03	nc	X	
Methyl isobutyl ketone	5.43E+03	nc	X	
Methyl methacrylate	2.83E+03	sat	X	
Methyl styrene (alpha)	2.16E+02	sat	X	
Methyl styrene (mixture)	1.28E+02	nc	X	
Methylcyclohexane	2.10E+03	nc	X	
Methylene bromide	1.12E+02	nc	X	
Methylene chloride	1.65E+02	ca	X	
m-Nitrotoluene	4.10E+02	nc	X	
Molybdenum	3.91E+02	nc		
m-Xylene	8.00E+01	sat	X	
Naphthalene	7.19E+01	nc	X	
n-Butylbenzene	6.20E+01	sat	X	
n-Hexane	3.80E+01	sat	X	
Nickel	1.56E+03	nc		
Nitrate	1.00E+05	max		
Nitrite	7.82E+03	nc		
Nitrobenzene	2.18E+01	nc	X	
Nitroglycerin	3.47E+02	ca		
Nitroso-di-n-propylamine[N-]	0.69	ca		EPA Region 6
N-Nitrosodiethylamine	3.24E-02	ca		
N-Nitrosodimethylamine	9.54E-02	ca		
N-Nitrosodi-n-butylamine	2.48E-01	ca	X	
N-Nitrosodiphenylamine	9.93E+02	ca		
N-Nitrosopyrrolidine	2.32E+00	ca		
n-Propylbenzene	5.32E+01	sat	X	

Table 3.2-4 (continued)

Chemical	Residential Soil (mg/kg)	Residential Endpoint	VOC	Comments
o-Chloronitrobenzene	1.69E+00	nc	X	
o-Chlorotoluene	1.56E+03	nc	X	
o-Nitrotoluene	4.10E+02	nc	X	
o-Xylene	9.86E+01	sat	X	
p-Chloronitrobenzene	1.24E+01	nc	X	
Pentachlorobenzene	4.80E+01	nc		
Pentachlorophenol	2.98E+01	ca		
Perchlorate	7.8	nc		EPA Region 6
Phenanthrene	1.80E+03	nc		
Phenol	1.80E+04	nc		
p-Nitrotoluene	4.10E+02	nc	X	
Propylene oxide	2.17E+01	ca	X	
p-Xylene	1.24E+02	sat	X	
Pyrene	2.30E+03	nc	X	
Pyridine	61	nc		EPA Region 6
RDX	4.42E+01	ca		
sec-Butylbenzene	6.05E+01	sat	X	
Selenium	3.91E+02	nc		
Silver	3.91E+02	nc		
Strontium	4.69E+04	nc		
Styrene	4.19E+02	sat	X	
tert-Butyl methyl ether (MTBE)	9.80E+02	ca	X	
tert-Butylbenzene	1.06E+02	sat	X	
Tetrachloroethene	9.83E+00	ca	X	
Trinitrophenylmethylnitramine	2.40E+02	nc		EPA Region 6
Thallium	5.16E+00	nc		
Toluene	2.48E+02	sat	X	
Toxaphene	4.42E+00	ca		
trans-1,2-Dichloroethene	1.56E+03	nc	X	
Tribromomethane	8.11E+02	ca		
Trichloro-1,2,2-trifluoroethane[1,1,2-]	5600	sat		EPA Region 6
Trichloroethene	6.48E-01	ca	X	
Trichlorofluoromethane	5.28E+02	nc	X	
Triethylamine	6.36E+01	nc	X	
Uranium	1.60E+01	nc		EPA Region 9
Vanadium	5.48E+02	nc		
Vinyl acetate	9.53E+02	nc	X	
Vinyl bromide	5.67E+00	nc	X	

Table 3.2-4 (continued)

Chemical	Residential Soil (mg/kg)	Residential Endpoint	VOC	Comments
Vinyl chloride (Child)	3.49E-01	ca	X	
Xylenes	1.32E+02	sat	X	
Zinc	2.35E+04	nc		
α-BHC	9.02E-01	ca		
β-BHC	3.16E+00	ca		
β-Chloronaphthalene	6.26E+03	nc	X	
γ-BHC	4.37E+00	ca		
4,6-Dinitro-o-cresol	6.11E+00	nc		EPA Region 9
Dioxin (2,3,7,8-TCDD)	3.90E-05	ca		EPA Region 6

Radionuclide	Residential SAL (pCi/g)
Americium-241	30
Cobalt-60	1.3
Cesium-134	2.4
Cesium-137+D[d]	5.6
Europium-152	2.9
Europium-154	2.7
Europium-155	110
Tritium	750
Iodine-129	44
Manganese-54	5.5
Sodium-22	1.6
Nickel-63	8900
Neptunium-237+D	2.4
Plutonium-238	37
Plutonium-239	33
Radium-226+D	5
Radium-228+D	5
Ruthenium-106+D	20
Strontium-90+D	5.7
Technetium-99	36
Thorium-228+D	2.3
Thorium-230	5
Thorium-232	5
Uranium-234	170

Table 3.2-4 (continued)

Chemical	Residential Soil (mg/kg)	Residential Endpoint	VOC	Comments
Uranium-235+D	17			
Uranium-238+D	86			

Note: Source for radionuclide SALs: ERID 88493.1 Derivation and Use of Radionuclide Screening Action Levels (Revision 1) 5/01/2005 LA-UR-05-1849.

[a] ca = Based on carcinogenic endpoint. sat = Based on soil saturation endpoint. max = Based on maximum allowed concentration. nc = Based on noncarcinogenic endpoint.

[b] VOC is blank when not a VOC.

[c] Comment is blank when NMED SSL value.

[d] +D = Includes daughter products.

Table 3.2-5
Sediment: Tier I Human Health COPCs for Sediment

Reach	Status[a]	Acenaphthene	Acenaphthylene	Acetone	Aluminum	Amino-2,6-dinitrotoluene[4-]	Amino-4,6-dinitrotoluene[2-]	Anthracene	Antimony	Aroclor-1254	Barium	Benzo(g,h,i)perylene	Benzyl Alcohol	Beryllium	Boron	Butanone[2-]	Cadmium	Chlorobenzene	Chloronaphthalene[2-]	Chlorophenol[2-]	Cobalt	Copper
LA-0		—[b]	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
LA-1FW		—	—	—	—	—	—	1.15E-05	—	—	—	—	—	—	—	—	—	—	—	—	—	4.31E-03
LA-1W+		—	—	—	—	—	—	—	—	5.86E-01	—	—	—	—	—	—	—	—	—	—	—	—
LA-1W		—	—	—	—	—	—	—	—	4.86E-01	—	—	—	8.97E-03	—	—	—	—	—	—	—	4.19E-03
LA-1C		1.68E-05	—	—	—	—	—	5.96E-06	—	4.23E-01	2.35E-02	—	—	—	—	—	—	—	—	—	—	5.37E-03
LA-1E		—	—	—	—	—	—	7.23E-06	—	—	—	—	—	—	—	—	5.40E-04	—	—	—	—	7.60E-03
LA-2W		4.90E-05	—	—	—	—	—	1.28E-06	—	—	—	—	—	—	—	—	8.10E-04	—	—	—	—	3.99E-03
DP-1W		—	—	—	—	—	—	2.64E-05	—	—	2.48E-02	2.17E-03	—	—	—	—	—	—	—	—	—	4.79E-03
DPTF		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
DP-1C		5.12E-05	—	2.41E-07	—	—	—	7.66E-05	2.65E-02	—	—	—	—	1.03E-02	—	—	9.04E-03	—	—	—	4.74E-03	4.73E-03
DP-1E		1.86E-05	—	—	—	—	—	4.68E-06	—	—	—	1.17E-04	—	—	—	—	—	—	—	—	—	4.35E-03
DP-2		—	—	8.52E-08	—	—	—	8.38E-06	—	—	—	3.04E-04	—	—	—	—	6.11E-03	—	—	—	—	4.60E-03
DP-2	R[c]	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
DP-3		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.43E-03	—	—	—	3.16E-03	—
DP-4		1.43E-05	—	—	—	—	—	4.09E-06	—	—	—	1.43E-04	—	—	—	—	—	—	—	—	—	4.82E-03
LA-2E		5.54E-05	—	—	—	—	—	2.94E-06	—	—	—	1.30E-04	—	—	—	—	1.20E-02	—	—	—	—	—
LA-2E	R	—	—	—	—	—	—	1.87E-06	—	—	2.42E-02	—	—	—	—	—	—	—	—	—	—	4.44E-03
LA-2FE		1.86E-05	—	—	—	—	—	5.96E-06	—	—	—	—	—	—	—	—	—	—	—	—	—	3.83E-03
LA-3W		—	—	—	—	—	—	4.21E-06	—	—	—	—	—	—	—	—	—	—	—	—	—	—
LA-3E		—	—	—	—	—	—	—	—	—	—	9.13E-05	—	—	—	—	—	—	—	—	—	4.92E-03
LA-3FE	F[d]	—	—	—	—	—	—	—	—	—	6.79E-02	6.96E-05	—	1.09E-02	—	—	7.96E-03	—	—	—	5.33E-03	8.31E-03
P-1FW		—	—	—	—	—	—	—	—	1.35E-02	—	6.09E-05	—	—	—	—	—	—	—	—	—	—
P-1W		1.17E-05	—	—	—	—	—	9.79E-06	—	—	—	3.30E-05	—	—	2.55E-04	—	7.29E-03	—	—	—	—	6.71E-03
P-1W	F	—	—	—	—	—	—	—	—	—	5.14E-02	—	—	—	—	—	—	—	—	—	3.88E-03	4.79E-03
AC-1		3.41E-04	—	—	—	—	—	1.28E-04	3.00E-02	—	2.37E-02	6.09E-04	—	—	—	—	—	—	—	—	4.08E-03	4.76E-03
AC-2		1.24E-04	—	—	—	—	—	4.68E-05	2.68E-02	—	—	3.22E-04	—	—	—	—	—	—	—	—	5.66E-03	5.11E-03
ACS		8.10E-06	5.57E-06	3.76E-06	—	—	—	2.30E-06	—	6.54E-01	—	—	—	—	—	3.66E-05	2.97E-02	3.24E-06	2.59E-06	2.63E-05	—	1.14E-02
ACS	R	—	—	—	—	—	—	—	5.43E-02	5.05E+00	4.40E-02	8.26E-05	—	1.28E-02	—	—	1.48E-01	—	—	—	—	6.07E-02
AC-3		1.13E-04	—	—	—	—	—	3.06E-05	—	5.59E+00	—	—	—	—	—	—	9.58E-02	—	—	—	4.08E-03	1.28E-02
WC		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Table 3.2-5 (continued)

Reach	Status[a]	Acenaphthene	Acenaphthylene	Acetone	Aluminum	Amino-2,6-dinitrotoluene[4-]	Amino-4,6-dinitrotoluene[2-]	Anthracene	Antimony	Aroclor-1254	Barium	Benzo(g,h,i)perylene	Benzyl Alcohol	Beryllium	Boron	Butanone[2-]	Cadmium	Chlorobenzene	Chloronaphthalene[2-]	Chlorophenol[2-]	Cobalt	Copper
P-1E		3.62E-05	1.83E-04	—	—	—	—	1.28E-05	—	2.14E-01	—	3.00E-04	—	—	1.13E-03	—	1.24E-02	—	—	—	3.22E-03	4.82E-03
P-1E	F	—	—	—	—	—	—	—	—	—	2.39E-02	—	—	—	—	—	—	—	—	—	—	—
P-2W		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.01E-02
P-2W	F	—	—	—	—	—	—	—	—	—	4.55E-02	—	—	—	—	—	5.94E-03	—	—	—	4.21E-03	4.54E-03
P-2E		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
P-3W		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6.55E-03
P-3W	F	—	—	—	—	—	—	—	1.76E-02	—	2.75E-02	—	—	—	—	—	—	—	—	—	3.82E-03	—
P-3E		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
P-3E	F	—	—	—	—	—	—	—	—	—	4.04E-02	—	—	—	—	—	—	—	—	—	3.88E-03	4.15E-03
P-4W		4.67E-05	—	—	2.37E-01	—	—	1.57E-05	—	—	2.99E-02	2.06E-04	—	1.09E-02	—	—	7.02E-03	—	—	—	3.68E-03	4.09E-03
P-4E		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.53E-03	—	—	—	—	—
P-4E	F	—	—	—	—	—	—	—	3.83E-02	—	4.95E-02	—	—	1.03E-02	—	—	—	—	—	—	5.07E-03	5.43E-03
LA-4W		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	9.45E-04	—	—	—	—	—
LA-4E		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
LA-4FE	F	—	—	—	—	—	—	4.94E-07	—	—	4.22E-02	—	—	—	—	—	—	—	—	—	4.14E-03	5.11E-03
LA-5		—	—	—	—	—	—	—	—	—	—	—	—	—	1.24E-03	—	—	—	—	—	—	—
LA-5E	F	—	—	—	—	—	—	—	—	—	5.32E-02	—	—	—	—	—	7.69E-03	—	—	—	3.68E-03	4.79E-03
Baseline	F	—	—	—	4.32E-01	1.41E-02	6.56E-03	—	—	—	1.01E-01	—	—	9.29E-03	—	—	9.51E-03	—	—	—	5.16E-03	7.86E-03
Garcia Cyn	F	—	—	—	—	—	—	—	—	—	5.32E-02	—	—	1.03E-02	—	—	—	—	—	—	5.39E-03	5.43E-03
Guaje Cyn	F	—	—	—	—	—	—	—	2.94E-02	—	6.61E-02	—	—	—	—	—	6.21E-03	—	—	—	4.34E-03	5.75E-03
Rendija Cyn	F	—	—	—	—	—	—	—	3.83E-02	—	3.85E-02	—	7.22E-06	1.28E-02	—	—	—	—	—	—	4.61E-03	4.79E-03

Table 3.2-5 (continued)

Reach	Status[a]	Cyanide (Total)	Dibenzofuran	Dichlorobenzene[1,3-]	Dichlorophenol[2,4-]	Dimethylphenol[2,4-]	Di-n-butylphthalate	Dinitro-2-methylphenol[4,6-]	Di-n-octylphthalate	Diphenylamine	Endosulfan II	Endosulfan Sulfate	Endrin	Endrin Aldehyde	Endrin Ketone	Fluoranthene	Fluorene	Hexachlorobutadiene	Hexachlorocyclopentadiene	Hexachloroethane	HMX	Iron
LA-0		—	—	—	—	—	—	—	—	—	—	—	—	—	—	9.78E-05	—	—	—	—	—	—
LA-1FW		—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.00E-04	—	—	—	—	—	—
LA-1W+		—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.40E-04	—	—	—	—	—	—
LA-1W		—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.20E-04	—	—	—	—	—	—
LA-1C		—	—	—	—	—	—	—	—	—	1.89E-05	4.56E-04	8.33E-04	3.17E-03	—	3.11E-04	2.65E-05	—	—	—	—	—
LA-1E		—	4.47E-04	—	—	—	—	—	—	—	—	—	2.39E-04	5.56E-04	—	8.44E-04	7.35E-05	—	—	—	—	—
LA-2W		—	—	—	—	—	—	—	—	—	—	—	—	7.22E-04	—	3.24E-04	3.19E-06	—	—	—	—	—
DP-1W		—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.96E-03	—	—	—	—	—	—
DPTF		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
DP-1C		—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.24E-03	2.36E-05	—	—	—	—	—
DP-1E		—	—	—	—	—	—	—	—	—	—	—	—	—	—	7.56E-04	2.88E-05	—	—	—	—	—
DP-2		—	1.78E-04	—	—	—	—	3.11E-01	6.67E-05	—	—	—	—	—	—	6.22E-04	2.11E-05	—	—	—	—	—
DP-2	R	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
DP-3		—	—	—	—	—	3.50E-04	—	—	—	—	—	—	—	—	6.67E-04	—	—	—	—	—	—
DP-4		—	1.15E-04	—	—	—	—	—	—	—	—	—	—	—	—	2.27E-04	2.11E-05	—	—	—	—	—
LA-2E		—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.22E-04	3.51E-06	—	—	—	—	—
LA-2E	R	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.32E-04	—	—	—	—	—	—
LA-2FE		—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.51E-04	2.52E-05	—	—	—	—	—
LA-3W		—	—	—	—	—	—	—	—	—	—	9.44E-04	—	—	—	1.87E-04	—	—	—	—	—	—
LA-3E		—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.82E-04	—	—	—	—	—	—
LA-3FE	F	1.60E-03	—	—	—	—	—	—	—	—	—	—	—	—	—	2.31E-04	—	—	—	—	—	6.81E-01
P-1FW		—	—	—	—	—	—	—	—	—	—	—	—	—	—	9.78E-05	—	—	—	—	—	—
P-1W		—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.82E-04	1.47E-05	—	—	—	—	—
P-1W	F	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
AC-1		—	3.51E-03	—	—	—	—	—	—	—	—	—	—	—	5.00E-04	5.33E-03	5.75E-04	—	—	—	—	—
AC-2		—	—	—	—	—	—	—	—	—	—	—	—	—	6.67E-04	2.80E-03	1.79E-04	—	—	—	—	—
ACS		—	2.15E-04	6.11E-06	5.33E-05	—	1.57E-04	—	8.21E-05	6.87E-06	8.06E-06	—	1.83E-04	2.06E-04	—	1.24E-04	2.10E-05	4.39E-03	1.84E-03	1.23E-04	—	—
ACS	R	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.84E-04	—	—	—	—	—	—
AC-3		—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.64E-03	1.57E-04	—	—	—	—	—
WC		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
P-1E		—	3.07E-04	—	—	—	—	—	—	—	—	—	—	—	—	8.00E-04	5.75E-05	—	—	—	—	—

Table 3.2-5 (continued)

Reach	Status[a]	Cyanide (Total)	Dibenzofuran	Dichlorobenzene[1,3-]	Dichlorophenol[2,4-]	Dimethylphenol[2,4-]	Di-n-butylphthalate	Dinitro-2-methylphenol[4,6-]	Di-n-octylphthalate	Diphenylamine	Endosulfan II	Endosulfan Sulfate	Endrin	Endrin Aldehyde	Endrin Ketone	Fluoranthene	Fluorene	Hexachlorobutadiene	Hexachlorocyclopentadiene	Hexachloroethane	HMX	Iron
P-1E	F	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
P-2W		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
P-2W	F	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
P-2E		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
P-3W		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
P-3W	F	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
P-3E		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
P-3E	F	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
P-4W		6.41E-04	5.75E-04	—	—	—	—	—	3.92E-05	—	—	—	—	—	—	5.68E-04	9.39E-05	—	—	—	—	6.55E-01
P-4E		—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.62E-05	—	—	—	—	—	1.56E+00
P-4E	F	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6.81E-01
LA-4W		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
LA-4E		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
LA-4FE	F	—	1.85E-05	—	—	—	—	—	—	—	—	—	—	—	—	3.68E-05	2.01E-06	—	—	—	—	—
LA-5		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
LA-5E	F	1.28E-03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Baseline	F	1.60E-03	—	—	—	3.83E-04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.70E-04	6.66E-01
Garcia Cyn	F	1.03E-03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guaje Cyn	F	1.28E-03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Rendija Cyn	F	7.05E-04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Table 3.2-5 (continued)

Reach	Status[a]	Isopropylbenzene	Isopropyltoluene[4-]	Lead	Manganese	Mercury	Methyl-2-pentanone[4-]	Methylmercury(+1) Ion	Methylnaphthalene[2-]	Methylphenol[2-]	Methylphenol[4-]	Naphthalene	Nickel	Nitroaniline[2-]	Nitrobenzene	Nitrotoluene[2-]	Phenanthrene	Phenol	Pyrene	Pyridine	Selenium	Silver
LA-0		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6.67E-05	—	—	—	—	—
LA-1FW		—	—	9.83E-02	—	—	—	—	—	—	—	—	—	—	—	—	3.44E-04	—	3.26E-04	—	—	—
LA-1W+		—	—	1.03E-01	—	—	—	—	—	—	—	—	—	—	—	—	1.50E-04	—	1.74E-04	—	—	—
LA-1W		—	—	1.09E-01	—	6.96E-03	—	—	—	—	—	1.18E-03	—	—	—	—	1.11E-04	—	—	—	—	4.35E-03
LA-1C		—	—	9.70E-02	—	4.78E-03	—	—	—	—	—	—	—	—	—	—	3.17E-04	—	2.04E-04	—	—	—
LA-1E		—	—	7.50E-02	—	—	—	—	1.20E-03	—	—	2.64E-03	—	—	—	—	6.67E-04	—	3.00E-04	—	—	3.58E-03
LA-2W		—	—	1.17E-01	—	1.35E-02	—	—	—	—	—	2.78E-03	—	—	—	—	2.44E-04	—	2.52E-04	—	5.88E-04	4.04E-02
DP-1W		—	—	5.18E-01	—	5.22E-03	—	—	—	—	—	8.62E-03	—	—	—	—	1.78E-03	—	5.22E-03	—	2.81E-03	—
DPTF		—	—	5.75E-02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.10E-03	—
DP-1C		—	—	5.13E-01	7.10E-01	1.09E-02	—	—	6.40E-04	—	—	9.87E-03	—	8.33E-04	—	—	1.50E-03	—	1.57E-03	—	1.92E-03	5.12E-03
DP-1E		—	—	4.73E-01	—	—	—	—	4.31E-04	—	—	1.15E-03	—	—	—	—	4.61E-04	—	1.26E-03	—	—	—
DP-2		—	—	1.91E-01	4.76E-01	—	—	—	—	—	—	9.87E-04	—	—	—	—	4.39E-04	—	1.09E-03	—	3.32E-03	—
DP-2	R	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
DP-3		—	—	2.00E-01	—	—	—	—	—	—	—	—	—	—	—	—	4.44E-04	—	6.96E-04	—	1.82E-03	—
DP-4		—	—	1.44E-01	—	—	—	—	—	—	—	1.15E-03	—	—	—	—	2.40E-04	—	4.78E-04	—	—	—
LA-2E		—	—	1.28E-01	—	2.61E-03	—	—	—	—	—	1.53E-03	—	—	—	—	1.83E-04	—	2.56E-04	—	9.46E-04	—
LA-2E	R	—	—	1.55E-01	—	6.09E-03	—	—	—	—	—	—	—	—	—	—	1.00E-04	—	1.17E-04	—	1.66E-03	—
LA-2FE		—	—	1.23E-01	—	6.52E-03	—	—	—	—	—	—	—	—	—	—	3.28E-04	—	2.83E-04	—	1.28E-03	—
LA-3W		—	—	8.25E-02	—	—	—	—	—	—	—	—	—	—	—	—	1.00E-04	—	1.91E-04	—	1.07E-03	—
LA-3E		—	—	9.23E-02	—	6.09E-03	—	—	—	—	—	—	—	—	—	—	1.17E-04	—	1.61E-04	—	—	—
LA-3FE	F	—	—	1.33E-01	1.35E+00	—	—	—	—	—	6.45E-03	3.48E-03	8.97E-03	—	—	—	2.56E-04	—	2.52E-04	—	4.35E-03	—
P-1FW		—	—	1.70E-01	4.52E-01	—	—	—	—	—	—	—	—	—	—	—	8.89E-05	—	8.70E-05	—	1.66E-03	—
P-1W		—	—	1.65E-01	—	2.13E-02	—	3.70E-05	—	—	—	1.95E-03	—	—	—	—	4.44E-04	—	4.78E-04	—	1.66E-03	4.35E-03
P-1W	F	—	—	1.13E-01	9.68E-01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.58E-03	—
AC-1		—	—	3.25E-01	—	—	—	—	1.02E-02	—	—	3.34E-02	—	—	—	—	6.11E-03	—	4.78E-03	—	2.33E-03	—
AC-2		—	—	4.25E-01	4.00E-01	—	—	—	—	—	—	1.13E-02	—	—	—	—	2.83E-03	—	2.57E-03	—	2.23E-03	—
ACS		2.57E-06	3.04E-04	3.90E-01	—	1.21E-01	2.28E-06	3.27E-04	8.75E-04	—	—	4.26E-04	7.12E-03	—	—	—	1.72E-04	—	1.57E-04	8.03E-05	2.44E-03	1.31E-02
ACS	R	—	—	5.75E+00	—	3.13E-01	—	9.33E-05	—	—	—	4.45E-03	1.09E-02	—	—	—	3.06E-04	—	3.13E-04	—	1.92E-03	7.42E-02
AC-3		—	—	5.00E-01	3.61E-01	1.13E-01	—	—	—	—	—	1.13E-02	1.09E-02	—	—	—	1.94E-03	—	1.39E-03	—	2.81E-03	1.48E-02
WC		—	—	6.00E-02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	9.21E-04	—
P-1E		—	—	1.93E-01	—	2.83E-02	—	3.01E-05	1.03E-03	—	—	2.78E-03	—	—	—	—	6.67E-04	—	6.96E-04	—	1.59E-03	3.84E-03

Table 3.2-5 (continued)

Reach	Status[a]	Isopropylbenzene	Isopropyltoluene[4-]	Lead	Manganese	Mercury	Methyl-2-pentanone[4-]	Methylmercury(+1) Ion	Methylnaphthalene[2-]	Methylphenol[2-]	Methylphenol[4-]	Naphthalene	Nickel	Nitroaniline[2-]	Nitrobenzene	Nitrotoluene[2-]	Phenanthrene	Phenol	Pyrene	Pyridine	Selenium	Silver
P-1E	F	—	—	6.25E-02	5.29E-01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.15E-03	—
P-2W		—	—	6.93E-02	—	6.52E-03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.51E-03	—
P-2W	F	—	—	8.48E-02	7.35E-01	—	—	—	—	—	—	—	6.67E-03	—	—	—	—	—	—	—	1.76E-03	1.84E-03
P-2E		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
P-3W		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.76E-03	—
P-3W	F	—	—	6.18E-02	4.39E-01	—	—	—	—	—	—	—	6.09E-03	—	—	—	—	—	—	—	2.15E-03	1.87E-03
P-3E		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
P-3E	F	—	—	6.75E-02	6.45E-01	—	—	—	—	—	—	—	6.03E-03	—	—	—	—	—	—	—	3.07E-03	—
P-4W		—	—	7.63E-02	—	4.78E-03	—	—	2.32E-03	—	—	5.20E-03	7.05E-03	—	—	—	8.36E-04	—	4.59E-04	—	—	—
P-4E		—	—	—	6.65E-01	—	—	—	—	—	—	—	—	—	—	—	—	—	2.30E-05	—	—	—
P-4E	F	—	—	9.00E-02	8.39E-01	—	—	—	—	—	—	—	8.97E-03	—	—	—	—	—	—	—	3.84E-03	—
LA-4W		—	—	7.90E-02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
LA-4E		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
LA-4FE	F	—	—	7.75E-02	6.45E-01	—	—	—	7.93E-05	—	—	—	7.05E-03	—	—	—	3.11E-05	—	3.79E-05	—	1.36E-03	—
LA-5		—	—	6.55E-02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.02E-03	—
LA-5E	F	—	—	7.50E-02	7.10E-01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.32E-03	—
Baseline	F	—	—	1.20E-01	1.42E+00	—	—	—	—	3.10E-04	7.10E-03	1.06E-02	1.01E-02	—	6.88E-03	1.07E-03	—	3.00E-04	—	7.87E-02	1.99E-03	—
Garcia Cyn	F	—	—	8.50E-02	6.13E-01	—	—	—	—	—	—	—	7.05E-03	—	—	—	—	—	—	—	3.27E-03	3.84E-03
Guaje Cyn	F	—	—	9.50E-02	1.16E+00	—	—	—	—	—	—	—	6.28E-03	—	—	—	—	—	—	—	4.09E-03	—
Rendija Cyn	F	—	—	2.75E-01	7.74E-01	—	—	—	—	—	3.55E-02	1.81E-03	6.41E-03	—	—	—	4.00E-05	4.39E-05	—	—	3.32E-03	—

Table 3.2-5 (continued)

Reach	Status[a]	Tetryl	Thallium	Trichlorobenzene[1,2,4-]	Trichlorofluoromethane	Trichlorophenol[2,4,6-]	Trimethylbenzene[1,2,4-]	Uranium	Vanadium	Zinc	Hi Noncarcinogens	Aldrin	Aroclor-1248	Aroclor-1254	Aroclor-1260	Arsenic	Benzene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	BHC[alpha-]
LA-0		—	—	—	—	—	—	—	—	—	1.64E-04	—	—	—	3.92E-02	—	—	1.77E-02	1.93E-01	1.50E-02	2.42E-03	—
LA-1FW		—	—	—	—	—	—	—	—	—	1.04E-01	—	—	—	6.31E-02	—	—	5.15E-02	5.15E-01	3.86E-02	6.76E-03	—
LA-1W+		—	—	—	—	—	—	—	—	—	6.89E-01	—	—	2.93E-01	6.76E-02	—	—	3.38E-02	3.86E-01	4.03E-02	3.06E-03	—
LA-1W		—	—	—	—	—	—	—	—	—	6.22E-01	—	—	2.43E-01	2.97E-02	—	—	1.48E-02	1.45E-01	—	1.42E-03	—
LA-1C		—	—	—	—	—	—	—	—	—	5.59E-01	—	—	2.12E-01	3.87E-01	—	—	4.19E-02	3.54E-01	3.38E-02	2.74E-03	—
LA-1E		—	—	—	—	—	—	—	—	—	9.37E-02	—	—	—	1.80E-01	—	—	5.15E-02	3.86E-01	3.38E-02	3.22E-03	—
LA-2W		—	—	—	—	—	—	4.71E-01	—	3.48E-03	6.55E-01	—	—	—	1.53E-01	—	—	4.35E-02	3.86E-01	4.19E-02	3.38E-03	—
DP-1W		—	—	—	—	—	—	—	—	7.06E-03	5.82E-01	—	—	—	—	—	—	4.83E-01	5.15E+00	6.12E-01	2.25E-02	—
DPTF		—	—	—	—	—	—	—	—	—	5.86E-02	—	—	—	—	—	—	—	—	—	—	—
DP-1C		—	1.10E-01	—	—	—	2.11E-02	—	—	4.51E-03	**1.45E+00**	—	—	—	4.50E-01	—	—	1.93E-01	1.21E+00	2.74E-01	4.03E-03	—
DP-1E		—	—	—	—	—	—	—	—	4.51E-03	4.86E-01	—	—	—	3.47E-02	—	—	1.55E-01	1.34E+00	1.93E-01	6.28E-03	—
DP-2		—	2.48E-02	—	—	—	—	—	—	3.05E-03	**1.02E+00**	—	—	—	7.88E-02	—	—	1.24E-01	1.16E+00	1.61E-01	6.44E-03	—
DP-2	R	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
DP-3		—	—	—	—	1.55E+00	—	—	—	—	**1.76E+00**	—	—	—	4.10E-02	—	—	1.06E-01	1.16E+00	2.09E-01	—	—
DP-4		—	—	—	—	—	—	—	—	—	1.51E-01	—	—	—	1.85E-02	—	—	4.67E-02	5.64E-01	9.98E-02	9.50E-04	—
LA-2E		—	—	—	—	—	—	—	—	3.10E-03	1.49E-01	—	—	—	1.04E-01	—	—	5.93E-02	1.05E+00	1.06E-01	3.06E-04	—
LA-2E	R	—	—	—	—	—	—	4.46E-01	4.00E-02	3.85E-03	6.81E-01	—	—	—	1.89E-01	1.21E+00	—	2.19E-02	2.42E-01	4.07E-02	—	—
LA-2FE		—	—	—	—	—	—	—	—	—	1.35E-01	—	—	—	2.61E-01	—	—	4.67E-02	4.51E-01	3.70E-02	5.48E-03	—
LA-3W		—	—	—	—	—	—	—	—	—	8.50E-02	—	—	—	1.53E-01	—	—	3.22E-02	3.06E-01	4.03E-02	4.35E-03	—
LA-3E		—	—	—	—	—	—	—	—	—	1.04E-01	—	—	—	4.95E-02	—	—	3.54E-02	4.51E-01	5.15E-02	2.74E-03	—
LA-3FE	F	—	6.78E-02	—	—	—	—	—	4.01E-02	5.96E-03	**2.41E+00**	—	—	—	—	1.28E+00	—	4.03E-02	4.19E-01	5.31E-02	—	—
P-1FW		—	1.94E-01	—	—	—	—	—	—	3.02E-03	8.34E-01	—	—	6.76E-03	3.42E-02	—	—	—	—	—	—	—
P-1W		—	—	—	—	—	—	—	—	4.68E-03	2.15E-01	—	—	—	4.95E-02	—	—	6.76E-02	6.92E-01	9.66E-02	3.86E-03	—
P-1W	F	—	—	—	—	—	—	—	—	—	**1.14E+00**	—	—	—	—	1.10E+00	—	—	—	—	—	—
AC-1		—	—	—	—	—	—	—	3.83E-02	8.09E-03	5.02E-01	—	—	—	5.86E-02	1.05E+00	—	9.02E-01	9.50E+00	1.08E+00	5.48E-02	2.55E-03
AC-2		—	—	—	—	—	—	—	4.38E-02	7.23E-03	9.37E-01	—	—	—	3.11E-02	1.31E+00	—	4.19E-01	4.83E+00	8.53E-01	1.13E-02	—
ACS		—	—	5.53E-05	3.60E-06	—	6.32E-06	7.07E-01	—	3.92E-03	**1.95E+00**	—	—	3.27E-01	6.85E-02	—	4.44E-05	2.42E-02	2.74E-01	2.09E-02	3.54E-03	—
ACS	R	—	—	—	—	—	—	3.08E+00	—	4.68E-03	**1.46E+01**	—	2.30E+00	2.52E+00	1.49E+00	1.82E+00	—	5.64E-02	4.99E-01	1.06E-01	—	—
AC-3		—	—	—	—	—	—	—	—	7.66E-03	**6.73E+00**	—	—	2.79E+00	4.28E-02	—	—	2.90E-01	2.42E+00	4.67E-01	9.50E-04	—
WC		—	2.33E-01	—	—	—	—	—	—	—	2.93E-01	—	—	—	—	—	—	—	—	—	—	—
P-1E		—	—	—	—	—	—	—	—	4.81E-03	4.75E-01	7.43E-03	—	1.07E-01	5.27E-02	—	—	1.61E-01	2.90E+00	4.03E-01	1.77E-02	5.99E-04

Table 3.2-5 (continued)

Reach	Status[a]	Tetryl	Thallium	Trichlorobenzene[1,2,4-]	Trichlorofluoromethane	Trichlorophenol[2,4,6-]	Trimethylbenzene[1,2,4-]	Uranium	Vanadium	Zinc	HI/Noncarcinogens	Aldrin	Aroclor-1248	Aroclor-1254	Aroclor-1260	Arsenic	Benzene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	BHC[alpha-]
P-1E	F	—	—	—	—	—	—	—	—	—	6.18E-01	—	—	—	—	—	—	—	—	—	—	—
P-2W		—	—	—	—	—	—	—	—	—	8.83E-02	—	—	—	2.48E-02	—	—	—	—	—	—	—
P-2W	F	—	—	—	—	—	—	—	—	—	8.91E-01	—	—	—	—	—	—	—	—	—	—	—
P-2E		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
P-3W		—	—	—	—	—	—	—	—	—	8.31E-03	—	—	—	—	—	—	—	—	—	—	—
P-3W	F	—	2.52E-01	—	—	—	—	—	—	—	8.12E-01	—	—	—	—	—	—	—	—	—	—	—
P-3E		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
P-3E	F	—	—	—	—	—	—	—	—	—	7.70E-01	—	—	—	—	1.10E+00	—	—	—	—	—	—
P-4W		—	—	—	—	—	—	—	3.70E-02	2.85E-03	**1.09E+00**	—	—	—	—	1.31E+00	—	9.81E-02	1.09E+00	1.47E+01	1.84E-03	—
P-4E		—	1.30E+00	—	—	—	—	—	4.34E-02	9.45E-03	**3.58E+00**	—	—	—	—	—	—	5.64E-03	—	—	—	—
P-4E	F	—	—	—	—	—	—	—	3.83E-02	2.81E-03	**1.77E+00**	—	—	—	—	1.38E+00	—	—	—	—	—	—
LA-4W		—	—	—	—	—	—	—	—	—	7.99E-02	—	—	—	—	—	—	—	—	—	—	—
LA-4E		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
LA-4FE	F	—	—	—	—	—	—	—	3.65E-02	3.70E-03	8.23E-01	—	—	—	—	—	—	7.38E-03	—	—	—	—
LA-5		—	—	—	—	—	—	—	3.76E-02	—	1.05E-01	4.12E-03	—	—	—	—	—	—	—	—	—	—
LA-5E	F	—	—	—	—	—	—	—	—	—	8.59E-01	—	—	—	—	—	—	—	—	—	—	—
Baseline	F	3.17E-03	1.36E-01	—	—	—	—	—	5.88E-02	4.43E-03	**3.11E+00**	—	—	—	—	1.21E+00	—	—	—	—	—	—
Garcia Cyn	F	—	—	—	—	—	—	—	—	—	7.87E-01	—	—	—	—	1.38E+00	—	—	—	—	—	—
Guaje Cyn	F	—	—	—	—	—	—	—	—	3.57E-03	**1.38E+00**	—	—	—	—	1.08E+00	—	—	—	—	—	—
Rendija Cyn	F	—	—	—	—	—	—	—	—	2.94E-03	**1.20E+00**	—	—	—	—	1.54E+00	—	—	—	—	—	—

Table 3.2-5 (continued)

Reach	Status[a]	BHC[beta-]	BHC[gamma-]	Bis(2-chloroethyl)ether	Bis(2-ethylhexyl)phthalate	Carbazole	Chlordane[alpha-]	Chlordane[gamma-]	Chloromethane	Chromium	Chrysene	DDD[4,4'-]	DDE[4,4'-]	DDT[4,4'-]	Dibenz(a,h)anthracene	Dichlorobenzene[1,4-]	Dichlorobenzidine[3,3'-]	Dieldrin	Ethylbenzene	Heptachlor	Heptachlor Epoxide	Indeno(1,2,3-cd)pyrene
LA-0		—	—	—	6.34E-04	—	—	9.26E-05	—	—	2.09E-04	2.30E-04	1.34E-03	3.55E-03	—	—	—	—	—	—	—	—
LA-1FW		—	—	—	4.61E-04	—	2.22E-04	2.90E-04	—	—	3.70E-03	—	4.24E-04	1.28E-03	—	—	—	5.92E-03	—	—	—	—
LA-1W+		—	—	—	3.46E-03	—	—	—	—	—	4.67E-04	—	3.20E-04	1.51E-03	—	—	—	—	—	—	—	2.90E-02
LA-1W		—	—	—	2.88E-04	—	4.44E-04	4.20E-04	—	—	1.93E-04	—	—	9.88E-04	—	—	—	—	—	—	—	—
LA-1C		—	—	—	3.75E-03	—	—	1.30E-03	—	—	4.19E-04	3.77E-03	4.94E-04	8.14E-03	—	—	—	9.87E-02	—	—	—	2.74E-02
LA-1E		—	—	—	1.53E-03	—	—	3.64E-04	—	5.05E-03	4.51E-04	8.61E-04	5.81E-04	9.88E-04	—	—	—	4.61E-02	—	—	—	2.09E-02
LA-2W		—	—	—	1.15E-03	—	—	—	—	9.29E-03	4.67E-04	—	7.56E-04	1.80E-03	—	—	—	—	—	—	—	3.06E-02
DP-1W		—	—	—	4.90E-03	2.08E-03	1.54E-02	1.11E-02	—	7.05E-03	5.31E-03	—	—	6.98E-03	1.58E+00	—	—	—	—	—	2.08E-01	6.12E-01
DPTF		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
DP-1C		—	—	—	3.17E-03	1.13E-03	—	—	—	7.90E-03	1.59E-03	—	—	—	—	—	—	—	1.89E-05	—	—	—
DP-1E		—	—	—	1.33E-03	1.88E-04	5.52E-04	6.79E-04	—	9.71E-03	1.45E-03	—	—	1.20E-03	—	—	—	—	—	—	—	3.86E-02
DP-2		—	—	—	2.42E-03	5.42E-04	1.91E-03	2.09E-03	—	—	1.34E-03	—	—	6.92E-03	6.44E-01	—	7.22E-02	—	—	—	—	9.98E-02
DP-2	R	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
DP-3		—	—	—	2.74E-03	—	6.79E-04	5.54E-04	—	8.71E-03	1.06E-03	—	—	3.26E-03	—	—	—	—	—	—	—	3.86E-02
DP-4		—	—	—	2.10E-04	—	1.48E-03	1.05E-03	—	—	5.96E-04	—	2.44E-04	2.62E-03	—	—	—	—	—	—	—	4.51E-02
LA-2E		—	—	—	—	—	—	—	—	9.00E-03	6.60E-04	—	—	—	4.67E-02	—	—	—	—	—	—	5.49E-02
LA-2E	R	—	—	—	—	—	—	—	—	1.83E-02	2.64E-04	—	1.92E-03	—	—	—	—	—	—	—	—	—
LA-2FE		—	—	—	3.17E-04	—	1.42E-03	1.23E-03	—	7.14E-03	5.15E-04	—	1.57E-03	5.06E-03	—	—	—	7.57E-02	—	—	—	2.90E-02
LA-3W		—	—	—	7.78E-04	—	—	—	—	5.24E-03	4.67E-04	—	—	4.36E-03	—	—	—	4.61E-02	—	—	—	3.70E-02
LA-3E		—	—	—	9.80E-04	—	1.91E-04	1.91E-04	—	5.05E-03	4.35E-04	—	—	—	—	—	—	—	—	—	—	3.22E-02
LA-3FE	F	—	—	—	—	—	—	—	—	5.24E-03	4.35E-04	—	—	—	—	—	—	—	—	—	—	—
P-1FW		—	—	—	9.80E-04	—	2.04E-04	2.72E-04	—	—	—	—	2.27E-04	1.51E-03	—	—	—	8.55E-03	—	—	—	—
P-1W		—	—	—	1.01E-03	2.17E-04	7.41E-04	7.41E-04	—	—	6.28E-04	1.80E-04	2.15E-04	9.30E-04	—	—	—	—	—	—	5.66E-03	1.38E-02
P-1W	F	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
AC-1		—	—	—	5.76E-03	5.83E-03	1.91E-03	2.10E-03	—	9.05E-03	8.53E-03	5.33E-04	1.74E-03	4.65E-03	6.60E-01	—	—	8.22E-02	—	—	1.34E-02	3.38E-01
AC-2		—	—	—	4.90E-03	1.96E-03	7.41E-04	1.60E-03	—	7.14E-03	4.99E-03	2.70E-04	5.41E-04	2.27E-03	—	—	—	—	—	—	8.49E-03	1.93E-01
ACS		1.33E-03	—	2.11E-02	6.92E-04	—	5.62E-04	4.69E-04	7.69E-05	1.06E-02	2.90E-04	8.20E-04	1.63E-03	1.63E-02	—	2.72E-05	—	1.66E-01	—	2.96E-03	6.60E-03	1.93E-02
ACS	R	—	1.58E-04	—	—	—	9.26E-05	8.02E-04	—	2.67E-02	4.83E-04	—	1.16E-02	1.34E-02	—	—	—	—	—	—	—	—
AC-3		—	—	—	5.19E-04	1.83E-03	2.04E-04	3.95E-04	—	7.14E-03	2.58E-03	—	8.14E-04	5.81E-03	—	—	—	—	—	—	2.08E-03	9.98E-02
WC		—	—	—	—	—	—	5.12E-05	—	—	—	—	1.51E-04	2.79E-04	—	—	—	—	—	—	—	—
P-1E		—	1.49E-04	—	—	7.08E-04	3.07E-04	2.04E-04	—	6.14E-03	1.93E-03	—	1.10E-04	6.98E-04	2.90E-01	—	—	—	—	—	1.83E-03	1.06E-01

Table 3.2-5 (continued)

Reach	Status[a]	BHC[beta-]	BHC[gamma-]	Bis(2-chloroethyl)ether	Bis(2-ethylhexyl)phthalate	Carbazole	Chlordane[alpha-]	Chlordane[gamma-]	Chloromethane	Chromium	Chrysene	DDD[4,4'-]	DDE[4,4'-]	DDT[4,4'-]	Dibenz(a,h)anthracene	Dichlorobenzene[1,4-]	Dichlorobenzidine[3,3'-]	Dieldrin	Ethylbenzene	Heptachlor	Heptachlor Epoxide	Indeno(1,2,3-cd)pyrene
P-1E	F	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
P-2W		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
P-2W	F	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
P-2E		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
P-3W		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
P-3W	F	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
P-3E		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
P-3E	F	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
P-4W		—	—	—	—	—	—	—	—	6.90E-03	9.66E-04	—	—	—	—	—	—	—	—	—	—	7.33E-02
P-4E		—	—	—	—	—	—	—	—	—	5.48E-05	—	—	—	—	—	—	—	—	—	—	—
P-4E	F	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
LA-4W		—	—	—	—	—	—	—	—	—	—	—	—	2.97E-04	—	—	—	—	—	—	—	—
LA-4E		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
LA-4FE	F	—	—	—	4.03E-04	—	—	—	—	—	7.49E-05	—	—	—	—	—	—	—	—	—	—	—
LA-5		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
LA-5E	F	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Baseline	F	—	—	—	—	—	—	—	—	9.00E-03	—	—	4.59E-04	5.35E-04	—	—	—	—	—	—	—	—
Garcia Cyn	F	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guaje Cyn	F	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Rendija Cyn	F	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Table 3.2-5 (continued)

Reach	Status[a]	Methylene Chloride	Nitroso-di-n-propylamine[N-]	2,3,7,8-TCDD TEQ Total	Trichloroethene	HI Carcinogens	Americium-241	Cesium-134	Cesium-137	Cobalt-60	Europium-152	Plutonium-238	Plutonium-239	Strontium-90	Thorium-228	Thorium-230	Thorium-232	Tritium	Uranium-234	Uranium-235	Uranium-238	HI Radionuclides
LA-0		—	—	—	—	2.74E-01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
LA-1FW		—	—	—	—	6.88E-01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
LA-1W+		—	—	—	—	8.59E-01	—	—	—	—	—	—	1.89E-02	—	—	—	—	—	—	—	—	1.89E-02
LA-1W		—	—	—	—	4.36E-01	1.90E-02	—	—	—	—	2.24E-03	5.79E-01	—	—	—	—	—	—	—	—	6.00E-01
LA-1C		—	—	—	—	**1.18E+00**	2.37E-03	—	—	—	—	1.11E-03	2.66E-01	—	—	—	—	—	—	—	—	2.70E-01
LA-1E		—	—	—	—	7.32E-01	6.87E-03	—	5.18E-01	—	—	2.11E-03	5.85E-01	—	—	—	—	—	—	—	2.69E-02	**1.14E+00**
LA-2W		—	—	—	—	6.72E-01	3.47E-03	—	2.86E-01	—	—	1.86E-03	3.22E-01	6.49E-01	—	—	—	—	1.53E-02	—	2.93E-02	**1.31E+00**
DP-1W		—	—	—	—	**8.72E+00**	1.13E-02	—	—	—	—	—	—	—	—	—	—	1.73E-04	—	—	—	1.15E-02
DPTF		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
DP-1C		—	—	—	—	**2.14E+00**	1.77E-03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.77E-03
DP-1E		—	—	—	—	**1.78E+00**	—	—	—	—	—	—	2.27E-03	—	—	—	—	—	—	—	—	2.27E-03
DP-2		1.82E-05	—	—	—	**2.36E+00**	6.13E-01	—	3.25E+01	—	—	3.48E-02	3.37E-01	5.75E+00	—	—	—	6.40E-04	—	—	—	**3.92E+01**
DP-2	R	—	—	—	—	—	9.93E-01	—	7.89E+01	—	—	2.67E-02	1.26E-01	1.30E+00	—	—	—	—	—	—	—	**8.14E+01**
DP-3		1.82E-05	—	—	—	**1.57E+00**	2.37E+00	—	3.43E+01	—	—	7.54E-02	3.39E-01	3.00E+00	—	—	—	1.73E-04	—	—	—	**4.01E+01**
DP-4		—	—	—	—	7.81E-01	1.09E+00	—	2.66E+01	—	—	3.62E-02	1.46E+00	5.46E+00	—	—	—	1.90E-04	1.65E-02	—	2.67E-02	**3.47E+01**
LA-2E		—	—	—	—	**1.44E+00**	9.33E-01	7.50E-02	6.79E+00	8.92E-02	1.63E-01	5.43E-02	1.94E-01	1.21E+00	—	4.88E-01	—	1.61E-04	—	—	—	**9.99E+00**
LA-2E	R	—	—	—	—	**1.72E+00**	7.60E-02	—	3.43E+01	—	—	3.41E-03	1.64E-01	6.94E+00	—	—	—	1.82E-04	—	—	2.79E-02	**4.16E+01**
LA-2FE		—	—	—	—	9.23E-01	6.10E-01	5.00E-02	2.04E+01	—	—	2.41E-02	4.70E-01	3.61E+00	—	—	—	—	—	—	—	**2.51E+01**
LA-3W		—	—	—	—	6.30E-01	1.58E-01	—	7.63E+00	—	—	9.03E-03	8.27E-02	1.67E+00	—	—	—	1.76E-04	—	—	—	**9.54E+00**
LA-3E		—	—	—	—	6.29E-01	3.93E-01	—	2.46E+00	1.58E-01	1.70E-01	2.08E-02	9.64E-02	1.23E+00	1.26E+00	5.22E-01	5.28E-01	—	—	—	—	**6.85E+00**
LA-3FE	F	—	—	—	—	**1.80E+00**	3.09E-02	7.50E-02	8.52E-01	—	—	1.45E-03	3.88E-02	2.18E-01	—	—	—	—	—	—	—	**1.22E+00**
P-1FW		—	—	—	—	5.27E-02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
P-1W		—	—	—	—	9.34E-01	—	—	—	—	—	—	2.27E-03	—	—	—	—	—	—	—	—	2.27E-03
P-1W	F	—	—	—	—	**1.10E+00**	—	—	1.01E+00	—	—	—	1.28E-02	2.04E-01	—	—	—	—	—	—	—	**1.23E+00**
AC-1		—	—	—	—	**1.38E+01**	—	—	1.91E-01	—	—	—	3.73E-03	—	—	—	—	—	—	1.76E-02	—	2.12E-01
AC-2		—	—	—	—	**7.68E+00**	5.43E-02	—	—	—	—	—	3.79E-02	—	—	—	—	—	—	—	—	9.22E-02
ACS		—	2.90E-01	—	8.33E-03	**1.26E+00**	3.32E-01	—	1.15E+00	—	—	6.78E-02	1.05E+01	2.51E-01	—	—	—	1.83E-04	5.47E-02	3.72E-02	4.31E-02	**1.25E+01**
ACS	R	—	—	—	—	**8.84E+00**	3.37E+00	—	2.64E+01	—	—	1.01E+00	2.36E+02	1.40E+01	—	—	—	2.48E-03	1.26E-01	1.98E-02	1.93E-01	**2.81E+02**
AC-3		—	—	—	—	**6.13E+00**	2.93E+00	—	5.80E+00	—	—	1.00E-01	1.45E+01	5.35E+00	—	—	—	1.49E-03	1.55E-02	—	—	**2.87E+01**
WC		—	—	—	—	4.81E-04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Table 3.2-5 (continued)

Reach	Status[a]	Methylene Chloride	Nitroso-di-n-propylamine[N-]	2,3,7,8-TCDD TEQ Total	Trichloroethene	HI Carcinogens	Americium-241	Cesium-134	Cesium-137	Cobalt-60	Europium-152	Plutonium-238	Plutonium-239	Strontium-90	Thorium-228	Thorium-230	Thorium-232	Tritium	Uranium-234	Uranium-235	Uranium-238	HI Radionuclides
P-1E		—	—	1.27E-01	—	**4.18E+00**	3.56E-01	—	2.73E-01	—	9.21E-02	5.62E-02	1.52E+01	2.46E-01	—	—	—	1.61E-03	—	—	—	**1.62E+01**
P-1E	F	—	—	—	—	—	—	2.29E-01	3.36E-01	—	—	8.65E-04	3.94E-02	—	—	—	—	—	—	—	—	6.05E-01
P-2W		—	—	9.35E-02	—	1.22E-01	4.00E-02	—	—	—	—	6.24E-03	2.22E+00	—	—	—	—	—	—	—	—	**2.27E+00**
P-2W	F	—	—	—	—	—	2.80E-03	4.00E-02	4.16E-01	—	—	—	2.22E-02	2.04E-01	—	—	—	—	—	—	—	6.85E-01
P-2E		—	—	3.62E-02	—	3.67E-02	—	—	—	—	—	1.95E-03	2.45E-01	—	—	—	—	—	—	—	—	2.46E-01
P-3W		—	—	—	—	—	—	—	—	—	—	3.68E-03	1.36E+00	—	—	—	—	—	—	—	—	**1.36E+00**
P-3W	F	—	—	—	—	—	4.60E-03	4.29E-02	3.54E-01	—	—	—	2.61E-02	—	—	—	—	—	—	—	—	4.27E-01
P-3E		—	—	—	—	—	—	—	—	—	—	2.03E-03	2.40E-01	—	—	—	—	—	—	—	—	2.42E-01
P-3E	F	—	—	—	—	**1.10E+00**	—	—	3.30E-01	—	—	—	2.79E-02	—	—	—	—	—	—	—	—	3.58E-01
P-4W		—	—	—	—	**2.72E+00**	6.92E-02	—	—	—	—	1.68E-02	5.17E+00	—	—	—	—	1.55E-04	—	—	—	**5.25E+00**
P-4E		—	—	—	—	5.69E-03	—	—	—	—	—	—	5.65E-01	—	—	—	—	—	—	—	—	5.65E-01
P-4E	F	—	—	—	—	**1.38E+00**	—	—	5.14E-01	—	—	—	3.27E-02	1.96E-01	—	—	—	—	—	—	—	7.44E-01
LA-4W		—	—	—	—	2.97E-04	1.55E-01	—	8.30E-01	—	1.20E-01	6.14E-03	4.18E-01	—	—	—	—	—	—	—	—	**1.53E+00**
LA-4E		—	—	—	—	—	2.01E-02	—	3.23E-01	—	8.55E-02	1.38E-03	1.82E-01	—	—	—	—	—	—	—	—	6.13E-01
LA-4FE	F	—	—	—	—	7.85E-03	7.33E-03	4.58E-02	4.05E-01	—	—	1.00E-03	4.58E-02	—	—	—	—	—	—	—	—	5.05E-01
LA-5		—	—	—	—	4.12E-03	2.17E-03	1.00E-01	1.92E-01	—	—	—	7.65E-02	—	—	—	—	—	—	—	—	3.70E-01
LA-5E	F	—	—	—	—	—	—	5.29E-02	1.12E+00	—	—	—	4.82E-02	2.46E-01	—	—	—	—	—	—	—	**1.47E+00**
Baseline	F	—	—	—	—	**1.22E+00**	4.33E-03	—	1.48E+00	—	—	1.31E-03	1.04E-02	3.51E-01	—	—	—	4.84E-04	—	—	2.71E-02	**1.87E+00**
Garcia Cyn	F	—	—	—	—	**1.38E+00**	—	—	7.79E-01	—	—	—	5.64E-03	2.58E-01	—	—	—	—	—	—	—	**1.04E+00**
Guaje Cyn	F	—	—	—	—	**1.08E+00**	—	—	1.11E+00	—	—	—	7.42E-03	2.19E-01	—	—	—	—	—	—	—	**1.34E+00**
Rendija Cyn	F	—	—	—	—	**1.54E+00**	—	—	8.38E-01	—	—	—	1.03E-02	1.89E-01	—	—	—	—	—	—	—	**1.04E+00**

Notes: All values are HQs (max detect/SSL residential). Bold values indicate HI that exceeds 1. Gray shading of an HQ indicates a COPC retained after Tier 1 screen for this reach (HI column names shaded for convenience).

[a] Status is blank when sample is neither fire-impacted not removed sediment.

[b] — = Not a COPC or not analyzed.

[c] R = Removed sediment.

[d] F = Fire-impacted sediment.

Table 3.2-6
New COPCs and Additional Reaches
Carried through to Site-Specific Risk Assessment for Sediment

Sediment COPCs	Reaches
Carcinogenic COPCs	
Aroclor-1254	LA-1C
Aroclor-1260	LA-1C
Benzo(a)anthracene	DP-1C, DP-2
Benzo(a)pyrene	DP-2, LA-1C
Benzo(b)fluoranthene	DP-1C, DP-2, LA-2E
Dibenz(a,h)anthracene	AC-1, DP-1W, DP-2
Dieldrin	ACS
Heptachlor Epoxide	DP-1W
Indeno(1,2,3-cd)pyrene	P-1E
Nitroso-di-n-propylamine[N-]	ACS
2,3,7,8-TCDD TEQ Total	P-1E
Noncarcinogenic COPCs	
Dinitro-2-methylphenol[4,6-]	DP-2
Lead	AC-3, ACS, DP-1C, DP-2, DP-3
Manganese	AC-3, DP-1C, DP-2, P-4E
Mercury	AC-3, ACS
Trichlorophenol[2,4,6-]	DP-3
Uranium	ACS
Radionuclide COPCs	
Americium-241	LA-2FE, LA-3E, LA-3W, LA-4W
Cesium-137	LA-1E, LA-4W
Cobalt-60	LA-3E
Europium-152	LA-2E, LA-3E, LA-4W
Plutonium-239	LA-1E, LA-2E, LA-2FE, LA-2W, LA-4W, P-2W, P-3W, P-4W
Thorium-228	LA-3E
Thorium-230	LA-2E, LA-3E
Thorium-232	LA-3E

Note: Gray shading indicates COPC not previously included in the site-specific risk assessment for any reaches.

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Table 3.2-7
Water: Organic COPCs in µg/L

Station Name	Media Code[a]	Field Preparation	Acenaphthene	Acenaphthylene	Acetone	Anthracene	Benzene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Benzoic Acid	Benzyl Alcohol	BHC[beta-]	BHC[gamma-]	Bis(2-ethylhexyl)phthalate	Bromodichloromethane	Bromomethane	Butanone[2-]	Butylbenzylphthalate	Carbon Disulfide	Chloroform	Chloronaphthalene[2-]	Chrysene	DDD[4,4'-]	DDE[4,4'-]	DDT[4,4'-]
Los Alamos Creek upstream of LA Reservoir	WS	Unfiltered	—[b]	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.0099
Los Alamos Reservoir	WS	Unfiltered	—	—	14	—	—	—	—	—	—	—	—	—	—	—	0.2	—	—	—	—	—	—	—	—	—	—	—
LAO-B	WGA	Unfiltered	—	—	6.3	—	0.45	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.0065
LAO-C	WGA	Unfiltered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.011
LA-1W SW	WS	Unfiltered	—	—	6.7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.0088	—	0.098
LAO-0.3	WGA	Unfiltered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.0075	0.0073	0.024
LAO-0.7	WGA	Unfiltered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.17	—	—	—	—	—	—	—	—	0.019	0.0099	0.02
LA-1C SW	WS	Unfiltered	—	—	6.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.031
LAO-1	WGA	Unfiltered	0.08	—	—	—	—	—	—	—	—	—	—	—	—	—	3.4	—	—	—	7	—	—	—	—	—	—	0.012
LAO-1.6g	WGA	Unfiltered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3	—	—	—	—	—	—	—	—	—	—	—
DP-1W SW	WS	Unfiltered	—	—	28	—	—	—	—	—	—	—	24.8	3.5	0.1	—	3.4	0.21	—	1.9	—	—	2.8	—	—	—	—	—
DP-1C SW	WS	Unfiltered	—	—	15	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
LAUZ-1	WGA	Filtered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	22	—	—	—	—	—	—	—	—	—	—	—
LAUZ-1	WGA	Unfiltered	—	—	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.0096
LAUZ-2	WGA	Filtered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	36	—	—	—	—	—	—	—	—	—	—	—
DP Spring	WS	Unfiltered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.7	—	—	—	—	—	—	—	—	—
LAO-2	WGA	Unfiltered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.5	—	—	—	—	—	—	—	—	—	—	—
LAO-3a	WGA	Unfiltered	—	—	8.5	—	—	—	—	—	—	0.031	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—
LAO-4	WGA	Unfiltered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.3	—	—	—	7	—	—	—	—	—	—	—
LAO-4.5c	WGA	Unfiltered	—	—	6.6	—	—	—	—	—	—	—	—	—	—	—	3.1	—	—	—	—	—	—	—	—	—	—	0.0081
PAO-1	WGA	Unfiltered	—	—	—	—	—	—	—	—	—	0.0436	—	—	—	—	0.2	—	—	—	—	—	—	—	—	—	—	—
Lower Reach ACS SW	WS	Unfiltered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.2	—	—	—	—	—	—	—	—	—	—	—
Lower AC-3 SW	WS	Unfiltered	0.53	0.46	12	0.57	—	0.65	0.63	0.49	0.54	0.77	—	—	—	—	1.1	—	—	—	—	—	—	0.42	0.63	—	—	—
Pueblo 2	WS	Unfiltered	0.63	0.63	—	0.61	—	0.79	0.56	0.58	0.58	0.73	—	—	—	—	—	—	—	—	—	—	—	0.6	0.69	—	—	—
PAO-4	WGA	Unfiltered	—	—	2.2	—	—	—	—	—	—	—	—	—	—	—	0.28	—	—	—	—	—	—	—	—	—	—	0.012
Pueblo 3	WS	Unfiltered	—	—	7.3	—	—	—	—	—	—	—	—	—	0.014	0.024	6.8	—	—	—	—	—	0.24	—	—	0.008	—	0.01
APCO-1	WGA	Unfiltered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
PAO-5N	WGA	Unfiltered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.7	—	—	—	—	—	—	—	—	0.0078	0.0068	0.013
Pueblo at 502	WS	Unfiltered	—	—	30.4	—	—	—	—	—	—	—	—	—	—	—	1.5	—	—	—	—	—	—	—	—	—	—	—
LLAO-1b	WGA	Unfiltered	—	—	—	—	3.4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.2	—	—	—	—	—	0.011
LA-4E SW	WS	Unfiltered	—	—	7.1	—	—	—	—	—	—	0.0191	—	—	—	0.0057	—	—	—	—	—	—	—	—	—	—	—	0.0096
LLAO-5	WGA	Unfiltered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.0084
Otowi Spring	WS	Unfiltered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.09

Table 3.2-7 (continued)

Station Name	Media Code[a]	Field Preparation	Dibenz(a,h)anthracene	Dichlorobenzene[1,4-]	Dichloroethane[1,2-]	Dieldrin	Diethylphthalate	Di-n-butylphthalate	Endrin Aldehyde	Ethylbenzene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Isopropyltoluene[4-]	Methylene Chloride	Methylnaphthalene[2-]	Naphthalene	Phenanthrene	Phenol	Pyrene	Toluene	Total Petroleum Hydrocarbons Diesel Range Organics	Trichloroethene	Trimethylbenzene[1,2,4-]	Xylene (Total)	Xylene[1,2-]	Xylene[1,3-]+Xylene[1,4-]
Los Alamos Creek upstream of LA Reservoir	WS	Unfiltered	—	—	—	—	—	—	—	—	—	—	—	—	0.96	—	—	—	—	—	—	—	—	—	—	—	—
Los Alamos Reservoir	WS	Unfiltered	—	—	—	—	—	—	—	—	—	—	—	—	37	—	—	—	—	—	0.98	—	—	—	—	—	—
LAO-B	WGA	Unfiltered	—	—	—	—	—	—	—	0.19	—	—	—	—	15	—	—	—	—	—	1.2	—	—	0.3	1	0.32	0.72
LAO-C	WGA	Unfiltered	—	—	—	—	—	—	—	—	—	—	—	—	1.6	—	—	—	—	—	—	—	—	—	—	—	—
LA-1W SW	WS	Unfiltered	—	—	—	—	—	—	—	—	—	—	—	0.21	40	—	—	—	—	—	1	—	—	—	—	—	—
LAO-0.3	WGA	Unfiltered	—	—	—	—	—	—	—	—	—	—	—	—	16	—	—	—	—	—	—	—	—	—	—	—	—
LAO-0.7	WGA	Unfiltered	—	—	—	—	—	—	—	—	—	—	—	—	0.86	—	—	—	—	—	—	—	—	—	—	—	—
LA-1C SW	WS	Unfiltered	—	—	—	—	—	—	—	—	—	—	—	—	1.5	—	—	—	—	—	0.32	—	—	—	—	—	—
LAO-1	WGA	Unfiltered	—	—	—	—	—	1.8	—	—	—	—	—	—	2.4	—	—	—	—	—	0.38	—	—	—	—	—	—
LAO-1.6g	WGA	Unfiltered	—	—	—	—	—	—	—	—	—	—	—	—	25	—	—	—	—	—	—	—	—	—	—	—	—
DP-1W SW	WS	Unfiltered	—	0.41	—	—	5.5	—	—	—	—	—	—	—	1.4	—	—	—	3	—	0.18	1400	—	—	—	—	—
DP-1C SW	WS	Unfiltered	—	—	—	—	—	—	—	—	—	1.5	—	—	1.4	—	—	—	—	—	0.22	700	—	—	—	—	—
LAUZ-1	WGA	Filtered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
LAUZ-1	WGA	Unfiltered	—	0.41	—	—	—	—	—	—	—	—	—	—	38	—	—	—	—	—	—	82	—	—	—	—	—
LAUZ-2	WGA	Filtered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
DP Spring	WS	Unfiltered	—	—	7.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
LAO-2	WGA	Unfiltered	—	—	—	—	—	—	—	—	—	—	—	—	2.3	—	—	—	—	—	—	—	—	—	—	—	—
LAO-3a	WGA	Unfiltered	—	—	—	—	—	3.7	—	—	—	—	—	—	2.3	—	—	—	—	—	—	—	—	—	—	—	—
LAO-4	WGA	Unfiltered	—	—	—	—	—	2.4	—	—	—	—	—	—	3	—	—	—	—	—	0.63	—	—	—	—	—	—
LAO-4.5c	WGA	Unfiltered	—	—	—	—	—	—	—	—	—	—	—	—	1.4	—	—	—	—	—	—	—	—	—	—	—	—
PAO-1	WGA	Unfiltered	0.0235	—	—	0.0054	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Lower Reach ACS SW	WS	Unfiltered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Lower AC-3 SW	WS	Unfiltered	0.43	—	—	—	—	—	—	—	0.51	0.47	0.47	—	—	0.36	0.38	0.68	—	0.55	—	—	—	—	—	—	—
Pueblo 2	WS	Unfiltered	—	—	—	—	—	—	—	—	0.63	0.58	0.57	—	—	0.58	0.56	0.68	—	0.68	—	—	—	—	—	—	—
PAO-4	WGA	Unfiltered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.85	—	—	—	—	—	—
Pueblo 3	WS	Unfiltered	—	0.17	—	—	1.5	—	0.028	—	—	—	—	—	—	—	—	—	—	—	0.38	—	—	—	—	—	—
APCO-1	WGA	Unfiltered	—	—	—	—	—	—	—	—	—	—	—	—	0.97	—	—	—	—	—	—	—	—	—	—	—	—
PAO-5N	WGA	Unfiltered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pueblo at 502	WS	Unfiltered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
LLAO-1b	WGA	Unfiltered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.7	—	—	—	—
LA-4E SW	WS	Unfiltered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
LLAO-5	WGA	Unfiltered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Otowi Spring	WS	Unfiltered	—	—	—	—	—	—	—	—	—	—	—	—	1.4	—	—	—	—	—	—	—	—	—	—	—	—

Note: Values are maximum detected concentrations in each reach.

[a] WS = Surface water (includes springs), WGA is alluvial groundwater.

[b] — = Not a COPC.

Table 3.2-8
Radionuclide COPCs: Water in pCi/L

Station Name	Media Code[a]	Field Preparation	Americium-241	Cesium-137	Europium-152	Plutonium-238	Plutonium-239	Strontium-90	Technetium-99	Tritium	Uranium-234	Uranium-235	Uranium-238
Los Alamos Creek upstream of LA Reservoir	WS	Filtered	U[b]	—	—	—	—	0.734	—	—	0.0741	—	—
Los Alamos Creek upstream of LA Reservoir	WS	Unfiltered	—	—	—	—	—	0.596	—	—	0.0754	—	0.0312
Los Alamos Reservoir	WS	Filtered	—	—	—	0.0198	—	4.02	—	—	0.226	0.0246	0.14
Los Alamos Reservoir	WS	Unfiltered	0.0158	—	—	0.00861	—	4.05	—	—	0.229	0.0149	0.236
Los Alamos Creek below LA Reservoir	WS	Filtered	—	—	—	—	—	1.97	—	—	0.0535	—	—
Los Alamos Creek below LA Reservoir	WS	Unfiltered	—	—	—	—	—	1.83	—	—	0.069	—	—
LAO-B	WGA	Filtered	0.0312	—	—	—	—	—	—	—	0.078	—	0.0511
LAO-B	WGA	Unfiltered	—	—	—	—	—	—	—	54.6003	0.0762	—	0.0393
LA-Bkgd SW	WS	Filtered	—	—	—	—	—	1	—	—	—	—	—
LA-Bkgd SW	WS	Unfiltered	—	—	—	—	—	0.85	—	—	—	—	—
SW @ E026	WS	Filtered	—	—	—	—	—	1.86	—	—	—	—	—
SW @ E026	WS	Unfiltered	—	—	—	—	0.0973	2.53	—	—	—	—	—
LAO-C	WGA	Filtered	—	—	—	—	—	—	—	—	0.187	0.04	0.191
LAO-C	WGA	Unfiltered	0.02	—	—	0.01	—	0.374	—	—	0.223	—	0.179
LA-1W SW	WS	Filtered	—	—	—	—	—	1.3	—	—	0.881	0.0372	0.704
LA-1W SW	WS	Unfiltered	0.0499	—	—	—	—	1.57	—	—	1.5	0.0878	1.39
LAO-0.3	WGA	Filtered	—	—	—	—	—	0.119	—	—	0.08	0.0361	0.0529
LAO-0.3	WGA	Unfiltered	—	—	—	—	0.201	0.135	—	63.2214	0.0492	—	0.0421
LAO-0.6	WGA	Unfiltered	—	—	—	—	0.062	—	—	549.196	—	—	0.138
SW @ LAO-0.6	WS	Filtered	—	—	—	—	—	0.83	—	—	—	—	—
SW @ LAO-0.6	WS	Unfiltered	—	—	—	—	—	0.7	—	61.6249	0.07	—	—
LAO-0.7	WGA	Filtered	0.27	—	—	—	0.0338	1.49	—	—	0.197	—	0.142
LAO-0.7	WGA	Unfiltered	0.0389	—	—	—	0.1	—	—	194	0.151	0.04	0.143
LAO-0.91	WGA	Filtered	—	—	—	—	—	1.74	—	—	0.245	—	0.126
LAO-0.91	WGA	Unfiltered	—	—	—	—	—	1.94	—	222.5521	0.193	—	0.13
LA-1C SW	WS	Filtered	—	—	—	—	—	1.2	—	—	0.71	0.0928	0.665
LA-1C SW	WS	Unfiltered	0.0522	—	—	—	0.0732	1.15	—	—	1.22	0.0508	1.15
LAO-1	WGA	Filtered	0.02	—	—	—	—	17.4	—	—	0.136	—	0.0444
LAO-1	WGA	Unfiltered	—	—	—	—	0.02	17.6	—	225	0.108	—	0.0797
LAO-1.2	WGA	Filtered	—	—	—	—	—	0.6	—	—	—	—	—
LAO-1.2	WGA	Unfiltered	—	—	—	—	—	0.79	—	—	—	—	—
LAO-1.6g	WGA	Filtered	—	—	—	—	—	0.399	—	—	0.0646	—	0.0478
LAO-1.6g	WGA	Unfiltered	—	—	—	—	—	0.387	—	120	0.084	—	0.073
SW @ E030	WS	Filtered	—	—	—	—	—	0.828	—	—	0.056	—	0.048
SW @ E030	WS	Unfiltered	0.0405	—	—	0.0245	0.319	0.833	—	—	0.206	—	0.123
DP-1W SW	WS	Filtered	0.0447	—	—	—	—	—	—	—	0.712	—	0.544
DP-1W SW	WS	Unfiltered	—	—	—	—	—	0.121	—	—	0.506	0.036	0.421
DP-1C SW	WS	Filtered	—	—	—	—	—	—	—	—	0.385	—	0.363
DP-1C SW	WS	Unfiltered	—	—	—	—	—	—	—	392	0.511	0.0411	0.439
DP-2 SW	WS	Filtered	0.0512	—	—	—	—	76.6	—	—	1.21	0.0504	0.218
DP-2 SW	WS	Unfiltered	0.0557	—	—	—	—	95.2	—	197	1.13	—	0.204
LAUZ-1	WGA	Filtered	0.0373	—	—	—	—	233	—	—	1.73	0.0424	0.226
LAUZ-1	WGA	Unfiltered	1.43	—	—	0.095	1.24	176.47	37.9	490	1.51	0.089	0.239
LAUZ-2	WGA	Filtered	—	—	—	—	—	204.78	—	—	0.84	—	0.15
LAUZ-2	WGA	Unfiltered	—	—	—	—	0.16	100	—	280	0.93	—	0.166
DP Spring	WS	Filtered	0.03	—	—	—	—	119	—	—	0.636	0.02	0.123
DP Spring	WS	Unfiltered	—	—	—	0.01	0.071	113	—	455	0.561	0.01	0.098
LAO-2	WGA	Filtered	—	—	—	—	—	26.3	—	—	0.234	—	—
LAO-2	WGA	Unfiltered	0.02	—	—	0.02	—	29.1	—	197	0.212	—	0.097
LAO-3a	WGA	Filtered	0.02	—	—	—	—	40.9	—	—	0.257	—	0.151
LAO-3a	WGA	Unfiltered	0.02	—	—	—	—	47.2	5.29	—	0.269	0.0441	0.146
LAO-4	WGA	Filtered	0.05	—	—	0.02	—	5.46	—	—	0.147	—	0.081
LAO-4	WGA	Unfiltered	0.03	—	—	—	0.01	6.08	—	—	0.11	—	0.126
LAO-4.5c	WGA	Filtered	0.0652	—	—	—	—	3	—	—	0.27	—	0.957
LAO-4.5c	WGA	Unfiltered	—	—	—	—	—	2.43	—	—	0.09	0.01	0.04
LAO-6a	WGA	Filtered	—	—	—	—	—	1.37	—	—	0.07	—	—
LAO-6a	WGA	Unfiltered	0.06	—	—	0.02	—	1.71	—	—	0.13	—	0.05

Table 3.2-8 (continued)

Station Name	Media Code[a]	Field Preparation	Americium-241	Cesium-137	Europium-152	Plutonium-238	Plutonium-239	Strontium-90	Technetium-99	Tritium	Uranium-234	Uranium-235	Uranium-238
SW @ E042	WS	Filtered	—	—	—	—	—	0.927	—	—	0.0912	—	0.0672
SW @ E042	WS	Unfiltered	0.0937	15.6	—	—	0.407	1.02	—	—	0.495	0.0414	0.443
P-1FW SW	WS	Filtered	—	—	—	—	—	3.65	—	—	0.143	—	0.136
P-1FW SW	WS	Unfiltered	—	—	—	—	—	3.69	—	68.6495	0.089	—	0.061
Upper P-1W SW	WS	Filtered	—	—	—	—	—	2.51	—	—	—	—	0.104
Upper P-1W SW	WS	Unfiltered	—	—	—	—	—	1.9	—	75.9934	0.117	—	0.113
PAO-1	WGA	Filtered	—	—	—	—	—	1.26	—	—	0.298	—	0.212
PAO-1	WGA	Unfiltered	—	—	—	—	—	1.14	—	71.2039	0.304	—	0.239
Lower P-1W SW	WS	Filtered	0.0215	—	—	—	—	2.9	—	—	0.23	—	0.3
Lower P-1W SW	WS	Unfiltered	0.0408	—	—	—	0.057	7.6	—	71.2039	0.34	0.0237	0.297
AC-2 SW	WS	Filtered	—	—	—	—	—	—	—	—	0.102	—	0.102
Upper Reach ACS SW	WS	Filtered	—	—	—	—	3.51	—	—	—	7.5	0.263	3.8
Upper Reach ACS SW	WS	Unfiltered	—	—	—	—	7.11	—	—	—	7.3	0.346	3.4
Lower Reach ACS SW	WS	Filtered	0.149	—	—	—	1.82	2.85	—	—	0.57	0.027	—
Lower Reach ACS SW	WS	Unfiltered	—	—	—	—	5.17	3.09	—	—	0.68	—	0.269
Lower AC-3 SW	WS	Filtered	—	—	—	—	0.067	19.6	—	—	0.205	—	0.0972
Lower AC-3 SW	WS	Unfiltered	0.134	—	—	—	2.58	19.2	—	—	0.37	0.0272	0.224
P-1E SW	WS	Filtered	—	—	—	—	—	8.3	—	—	0.337	—	0.214
P-1E SW	WS	Unfiltered	—	—	—	—	0.17	8.2	—	85.25311	—	—	0.078
PAO-2	WGA	Unfiltered	—	—	—	—	—	10.4	—	—	1.22	0.0576	0.61
Pueblo 2	WS	Filtered	0.0224	—	—	—	—	2.4	—	—	0.119	—	0.0819
Pueblo 2	WS	Unfiltered	0.0519	—	—	0.171	0.131	2.74	—	—	0.113	—	0.0626
PAO-3	WGA	Unfiltered	0.055	—	—	—	0.301	1.56	—	—	0.181	—	0.167
PAO-4	WGA	Filtered	0.039	—	—	—	0.302	0.99	—	—	0.121	—	0.0678
PAO-4	WGA	Unfiltered	0.06	—	—	—	0.268	1.07	—	15.23061	0.128	0.064	0.067
Pueblo 3	WS	Filtered	0.0509	—	—	—	—	0.361	—	—	0.328	—	0.188
Pueblo 3	WS	Unfiltered	0.0458	—	—	—	0.56	—	—	—	0.38	—	0.284
APCO-1	WGA	Filtered	0.04	—	—	—	0.09	1.27	—	—	0.367	—	0.2
APCO-1	WGA	Unfiltered	—	—	—	0.01	0.16	1.31	—	—	0.466	—	0.28
PAO-5N	WGA	Filtered	—	—	—	—	0.218	0.92	—	—	0.349	—	0.233
PAO-5N	WGA	Unfiltered	—	—	—	—	0.134	2.27	—	17.21027	0.348	—	0.21
Pueblo at 502	WS	Filtered	0.0428	—	—	—	—	2.8	—	—	0.85	—	0.65
Pueblo at 502	WS	Unfiltered	0.052	—	—	0.0108	0.89	0.442	—	—	1.3	0.0177	0.88
Basalt Spring	WS	Filtered	—	—	—	—	0.0374	0.62	—	—	0.6	0.0405	0.412
Basalt Spring	WS	Unfiltered	0.0462	—	—	—	0.11	—	—	55.2389	0.543	—	0.352
LA Spring	WS	Filtered	—	—	—	—	—	—	—	—	1.17	0.0338	0.698
LA Spring	WS	Unfiltered	—	—	—	—	—	—	—	—	3.97	—	3.97
LLAO-1b	WGA	Filtered	—	—	—	—	—	—	—	—	0.448	—	0.34
LLAO-1b	WGA	Unfiltered	—	—	—	—	0.085	—	—	41.1897	0.428	—	0.394
LA-4E SW	WS	Filtered	0.022	—	—	—	—	0.6	—	—	0.419	0.0293	0.245
LA-4E SW	WS	Unfiltered	—	—	—	—	0.0605	0.65	—	62.5828	0.427	—	0.296
LLAO-2	WGA	Filtered	—	—	—	—	—	—	—	—	1.64	—	0.86
LLAO-2	WGA	Unfiltered	—	—	—	—	—	—	—	36.4002	1.88	—	1.19
LA SW @ Guaje Confluence	WS	Filtered	—	—	—	—	—	1.37	—	—	—	—	—
LA SW @ Guaje Confluence	WS	Unfiltered	—	—	—	—	0.0213	1.72	—	—	—	—	—
LLAO-4	WGA	Filtered	—	—	—	—	—	1.52	—	—	0.8	0.054	0.4
LLAO-4	WGA	Unfiltered	—	—	—	—	—	—	—	43.7441	0.68	—	0.365
Lower Reach LA-5 SW	WS	Filtered	—	—	—	0.0218	—	0.755	—	—	0.255	—	0.201
Lower Reach LA-5 SW	WS	Unfiltered	0.0771	—	—	—	0.246	0.95	—	—	0.126	—	0.0972
LLAO-5	WGA	Filtered	—	—	—	—	—	—	—	—	5.25	0.199	3.64
LLAO-5	WGA	Unfiltered	—	—	21.64	—	—	—	—	43.1055	5.3	0.225	3.44
Otowi Spring	WS	Filtered	—	—	—	—	—	—	—	—	1.02	0.0417	0.634
Otowi Spring	WS	Unfiltered	0.0828	—	—	—	—	—	—	—	0.981	0.0418	0.631

Note: Values are maximum detected concentrations in each reach.

[a] WS = Surface water (includes springs), WGA is alluvial groundwater.

[b] — = Not a COPC.

Table 3.2-9
Water: Inorganic COPCs in µg/L

Station Name	Media Code[a]	Field Preparation	Aluminum	Ammonia	Ammonium	Antimony	Arsenic	Barium	Beryllium	Boron	Bromide	Cadmium	Calcium	Chloride	Chromium	Cobalt	Copper	Cyanide (Total)	Cyanide, Amenable to Chlorination	Fluoride	Iron	Lead	Lithium	Magnesium	Manganese
Los Alamos Creek upstream of LA Reservoir	WS	Filtered	—[b]	—	—	—	—	27.2	0.01	—	59	—	15100	3240	—	—	—	—	—	—	—	2.85	—	4560	26.1
Los Alamos Creek upstream of LA Reservoir	WS	Unfiltered	17.7	—	—	—	—	28.8	0.02	—	—	—	14900	—	—	—	—	—	—	—	36	—	—	4490	30.9
Los Alamos Reservoir	WS	Filtered	1140	230	—	—	2.8	100	0.104	25.3	—	—	39000	7360	—	2.7	—	—	—	190	434	0.266	—	7500	4800
Los Alamos Reservoir	WS	Unfiltered	1820	240	—	—	1.5	100	0.162	29.9	—	—	37000	6400	1.14	2.7	—	—	—	130	732	0.711	—	7100	4600
Los Alamos Creek below LA Reservoir	WS	Filtered	19.4	—	—	—	—	28.2	—	—	—	—	13400	2800	—	—	—	—	—	—	24.5	0.075	—	3630	22.6
Los Alamos Creek below LA Reservoir	WS	Unfiltered	173	—	—	—	—	30.2	—	—	—	—	13400	—	—	—	—	—	—	—	119	0.603	—	3630	39.5
LAO-B	WGA	Filtered	500	—	—	—	1.36	54.2	0.069	14.4	—	0.07	23000	8800	—	0.68	—	—	—	213	290	0.114	—	7300	13
LAO-B	WGA	Unfiltered	190	130	—	—	0.44	55.3	0.1	6.4	—	0.07	23000	—	—	1.3	—	—	—	—	120	0.054	—	7200	2.3
LA-Bkgd SW	WS	Filtered	—	—	—	—	—	100	—	—	—	—	34000	6100	—	2.1	—	—	—	—	440	—	—	9400	1400
LA-Bkgd SW	WS	Unfiltered	33	—	—	—	—	120	—	—	—	—	35000	—	—	2.3	0.71	—	—	—	1500	—	—	9500	1500
SW @ E026	WS	Filtered	—	—	—	—	—	76.8	—	—	—	—	32200	—	—	—	—	—	—	—	—	—	—	7700	857
SW @ E026	WS	Unfiltered	42800	—	—	—	4.1	467	—	—	—	0.83	43100	—	18.8	11	40.8	—	—	—	24200	43.5	—	12300	2130
LAO-C	WGA	Filtered	2440	—	—	—	2.29	95.7	—	—	222	—	29800	84700	0.94	1.47	3.07	—	—	192	1290	1.9	—	6660	147
LAO-C	WGA	Unfiltered	1190	—	—	—	2.41	95.8	0.05	—	—	—	29900	—	0.62	0.34	2.34	—	—	—	699	2.64	—	6730	335
LA-1W SW	WS	Filtered	180	330	—	—	4.02	68.6	—	—	—	—	23800	41000	—	0.17	1.03	—	—	260	82	—	—	5480	426
LA-1W SW	WS	Unfiltered	27800	—	—	—	7.75	381	1.63	—	—	0.66	33300	—	18.1	5.35	24.1	—	—	—	14300	39	—	8690	1590
LAO-0.3	WGA	Filtered	52.1	240	—	0.334	2.18	77.6	0.02	8.39	—	—	29600	89000	—	0.41	0.5	—	—	270	136	0.459	—	7410	23
LAO-0.3	WGA	Unfiltered	1060	—	—	—	1.16	77.8	0.03	5.67	—	—	30100	—	0.63	0.71	1.4	—	—	—	780	1.36	—	7520	58.7
LAO-0.6	WGA	Filtered	300	—	—	—	0.71	83	0.12	—	—	—	39000	110000	2.7	0.4	5	—	—	270	200	0.196	—	7100	89.3
LAO-0.6	WGA	Unfiltered	1900	—	—	0.84	1.12	120	0.121	—	—	—	39000	—	22.3	2.22	0.72	—	—	—	1400	1.36	—	7000	920
SW @ LAO-0.6	WS	Filtered	—	—	—	—	2.1	170	—	—	—	—	44000	93000	1.8	4.2	—	—	—	140	220	—	—	8100	2500
SW @ LAO-0.6	WS	Unfiltered	320	—	—	—	3.5	180	0.07	—	—	0.152	43000	—	3	4.7	—	—	—	—	1400	0.496	—	8000	2600
LAO-0.7	WGA	Filtered	203	—	—	—	3.36	75.4	—	13.6	—	—	24700	61300	—	—	1.43	—	—	175	126	—	—	5030	570
LAO-0.7	WGA	Unfiltered	1240	—	—	—	3.77	78.6	—	12.7	—	—	24600	—	1.2	0.03	1.2	—	—	—	671	2.65	—	5020	654
LAO-0.91	WGA	Filtered	33.4	—	—	—	1.8	60	—	—	—	—	18100	50000	12.2	—	—	—	—	130	8.2	—	—	4240	—
LAO-0.91	WGA	Unfiltered	116	—	—	—	1.7	56.5	—	—	—	—	19100	—	11.8	—	—	—	—	—	84.9	0.125	—	4170	2.2
LA-1C SW	WS	Filtered	300	—	—	—	—	71.6	0.13	—	—	—	24900	51000	0.7	0.4	1.77	—	—	250	3900	—	—	5280	225
LA-1C SW	WS	Unfiltered	15000	—	—	—	—	197	0.75	—	—	0.36	54000	—	7.6	2.39	13.8	—	—	—	7290	21.5	—	6940	728
LAO-1	WGA	Filtered	984	—	—	—	3.73	58.1	0.07	15.1	—	—	26000	77700	14.3	—	1.94	—	—	200	396	—	—	5500	2.67

Table 3.2-9 (continued)

Station Name	Media Code[a]	Field Preparation	Aluminum	Ammonia	Ammonium	Antimony	Arsenic	Barium	Beryllium	Boron	Bromide	Cadmium	Calcium	Chloride	Chromium	Cobalt	Copper	Cyanide (Total)	Cyanide, Amenable to Chlorination	Fluoride	Iron	Lead	Lithium	Magnesium	Manganese
LAO-1	WGA	Unfiltered	2390	—	—	—	3.85	60.8	0.16	6.34	—	0.31	21000	—	15.4	0.18	4.05	—	—	—	1200	—	—	4570	17.3
LAO-1.2	WGA	Filtered	—	—	—	3.3	—	31	—	—	—	—	11000	35000	16	1.3	1.5	—	—	—	—	—	—	2900	—
LAO-1.2	WGA	Unfiltered	8500	—	—	—	—	58	—	—	—	—	12000	—	35	1.9	3.4	—	—	—	3700	1.7	—	3700	28
LAO-1.6g	WGA	Filtered	263	—	—	—	1.29	68.7	0.09	57.6	561	—	22000	51000	2.9	0.41	1.3	—	—	613	110	0.155	—	6190	3.2
LAO-1.6g	WGA	Unfiltered	979	—	—	—	2.87	72.8	0.15	55.8	563	—	22100	—	3.6	0.64	0.86	—	—	611	449	0.23	—	6270	9.09
SW @ E030	WS	Filtered	37.2	—	—	—	—	42	0.038	24.9	—	—	19200	27800	—	—	—	—	—	87.2	13.8	—	—	4750	5.67
DP-1W SW	WS	Filtered	54	17000	—	—	10.9	66.6	—	242	157	0.155	52100	48500	3.76	1.9	14.4	12	—	731	750	2.54	—	7080	400
DP-1W SW	WS	Unfiltered	891	—	—	—	12.2	96.2	0.01	252	—	0.38	54200	—	4.34	1.5	19.8	—	29.1	—	1500	4.62	—	7370	420
DP-1C SW	WS	Filtered	288	1600	—	2.21	7.16	89.1	0.03	41.3	—	—	41700	150000	1.64	0.61	7.58	—	—	539	2300	0.961	—	4220	280
DP-1C SW	WS	Unfiltered	6610	—	—	2.15	9.55	94.3	0.308	42.5	—	0.27	41800	—	5.11	0.89	68.7	—	—	—	4650	8.3	—	4210	280
DP-2 SW	WS	Filtered	18.7	—	—	0.624	—	215	0.041	27.7	—	—	65900	246000	0.913	0.699	2.54	—	—	291	37	0.2	—	4540	119
LAUZ-1	WGA	Filtered	300	—	—	—	3.18	232	0.09	53.6	—	—	110000	270000	0.692	0.79	2.97	—	—	820	190	5	9	6240	40
LAUZ-1	WGA	Unfiltered	4710	—	—	—	3.23	234	0.34	59	—	—	95000	27000	2.54	0.59	4.86	—	—	770	2910	6	8.5	6280	99.5
LAUZ-2	WGA	Filtered	—	—	—	—	3.3	130	—	67	—	—	58000	63000	—	0.8	—	—	—	1300	1050	—	10	4400	830
LAUZ-2	WGA	Unfiltered	1100	—	—	—	8	190	—	64.6	—	—	59000	63000	—	0.81	—	—	—	1300	6700	3	9	4500	870
DP Spring	WS	Filtered	2100	—	—	—	1.8	83	—	46.6	—	—	30700	106000	—	—	2.67	—	—	1100	940	3	12.1	3200	1.2
DP Spring	WS	Unfiltered	2600	—	—	—	2.8	83.4	0.3	41.1	—	—	30000	35000	—	—	2.75	—	—	1100	1300	4	13.5	3200	17.6
LAO-2	WGA	Filtered	19.7	—	—	0.24	—	77.6	—	27.2	358	—	28000	69600	1.7	—	1.36	—	—	600	—	2.45	—	6480	—
LAO-2	WGA	Unfiltered	33.8	—	—	0.17	—	78.7	—	23.4	—	—	21000	—	1.9	—	—	—	—	—	—	1.62	—	6100	3.91
LAO-3a	WGA	Filtered	128	—	—	0.18	4.61	68	—	23.8	477	—	30000	66200	4.22	—	2.07	—	—	675	63.6	2.2	—	7240	7.96
LAO-3a	WGA	Unfiltered	237	—	—	—	4.95	65.4	—	15.9	—	—	24000	—	3.93	—	—	—	—	—	115	0.077	—	6000	2.5
LAO-4	WGA	Filtered	31.6	—	—	—	2.7	77.4	0.03	20.7	1480	—	25200	42600	1.5	—	2.26	—	—	1600	—	2.89	—	6800	0.46
LAO-4	WGA	Unfiltered	76.9	—	—	—	3.16	78.1	0.05	19.6	—	—	25300	—	0.63	—	1.62	—	—	—	45.9	—	—	6860	0.39
LAO-4.5c	WGA	Filtered	91.8	—	—	—	1.38	60.3	0.03	19	496	—	18300	46900	—	—	2.04	—	—	1600	40.1	1.93	—	5540	40.6
LAO-4.5c	WGA	Unfiltered	455	—	—	—	1.32	59.2	0.06	18.3	—	0.04	17900	—	1.03	—	1.33	—	—	—	206	1.63	—	5480	2.72
LAO-6a	WGA	Filtered	49.6	—	—	—	—	37	—	15.7	—	0.32	15400	46400	—	—	1.28	—	—	460	—	—	—	4910	—
LAO-6a	WGA	Unfiltered	64.3	—	—	—	—	36.5	—	17.9	—	—	—	—	—	—	—	—	—	—	—	1.9	—	—	—
SW @ E042	WS	Filtered	188	—	—	—	—	43.2	0.042	22.8	—	—	19400	27800	1.09	—	0.967	—	—	108	90.9	0.168	—	4900	10.3
P-1FW SW	WS	Filtered	210	—	—	—	0.52	130	—	—	—	—	49000	39000	0.76	0.37	2.6	—	—	120	—	0.511	—	8300	1500
P-1FW SW	WS	Unfiltered	2600	120	—	—	3.4	170	0.028	—	—	—	48000	—	1.5	0.69	4.6	1.2	—	—	2800	9.5	—	8100	1800
Upper P-1W SW	WS	Filtered	—	180	—	3.7	3.5	100	—	—	—	—	48000	39000	8.1	1	1.8	—	—	150	—	—	—	7700	2900
Upper P-1W SW	WS	Unfiltered	680	190	—	3	4.3	120	0.012	—	—	—	48000	—	1.2	1.3	1.9	1.4	—	—	690	2.3	—	7700	3000
PAO-1	WGA	Filtered	—	4300	—	4	1.6	67	0.01	44.9	294	—	58600	59000	2.9	2.4	2	—	—	150	20.5	—	—	10500	2210
PAO-1	WGA	Unfiltered	48.6	170	—	0.325	1.3	67.5	0.01	44.2	—	—	58700	—	0.63	0.48	2.1	—	—	—	52.3	0.051	—	10500	2220

Table 3.2-9 (continued)

Station Name	Media Code[a]	Field Preparation	Aluminum	Ammonia	Ammonium	Antimony	Arsenic	Barium	Beryllium	Boron	Bromide	Cadmium	Calcium	Chloride	Chromium	Cobalt	Copper	Cyanide (Total)	Cyanide, Amenable to Chlorination	Fluoride	Iron	Lead	Lithium	Magnesium	Manganese
Lower P-1W SW	WS	Filtered	—	—	170	3.4	3	120	0.01	29.9	—	—	50000	44500	1.2	2.6	1.8	—	—	265	530	—	—	8600	1300
Lower P-1W SW	WS	Unfiltered	1200	170	—	0.233	4.45	140	0.12	24.8	—	—	50000	—	2.1	2.4	2.9	1	—	—	2100	2.9	—	8500	1400
AC-2 SW	WS	Filtered	110	—	—	—	—	130	—	—	—	—	39000	220000	0.27	0.81	2.9	—	—	190	—	—	—	4500	140
AC-2 SW	WS	Unfiltered	2000	—	—	—	3	130	—	—	—	—	38000	—	1.7	0.9	4.8	—	—	—	1200	3.5	—	4300	110
Upper Reach ACS SW	WS	Filtered	590	—	—	—	3.6	44	—	—	—	—	21000	100000	2	0.46	3.3	—	—	460	110	—	—	2600	2.8
Upper Reach ACS SW	WS	Unfiltered	840	—	—	—	3.2	48	—	—	—	—	21000	—	2.3	0.7600001	3.9	—	—	—	580	2.4	—	2600	9.3
Lower Reach ACS SW	WS	Filtered	450	—	—	—	1.7	74	—	—	—	—	55000	100000	1.1	0.47	4	—	—	230	—	—	—	3700	3.6
Lower Reach ACS SW	WS	Unfiltered	850	—	—	—	1.8	77	—	—	—	—	55000	—	1.4	0.66	4.3	—	—	—	520	1.7	—	3800	8.8
Lower AC-3 SW	WS	Filtered	—	—	—	0.243	2.2	78	—	21.2	—	0.27	45000	174000	1.4	0.41	2.7	—	—	232	18	—	—	4400	81
Lower AC-3 SW	WS	Unfiltered	720	—	—	0.292	—	99	—	21	—	0.35	45000	—	1.1	1.2	4.8	—	—	—	440	4.7	—	4400	160
P-1E SW	WS	Filtered	—	150	—	—	1.8	120	—	—	—	0.136	50000	65000	0.78	2.8	1.4	—	—	220	71.2	0.011	—	6700	5600
P-1E SW	WS	Unfiltered	3200	220	—	—	6.1	230	—	—	—	0.171	53000	—	1.8	6.2	4.7	2.7	—	—	5200	11	—	7200	6200
PAO-2	WGA	Unfiltered	26.5	—	—	—	—	60.1	0.02	32	—	—	49800	—	—	—	2.75	—	—	—	—	—	—	7300	4.91
Pueblo 2	WS	Filtered	77.4	—	—	0.233	—	53.6	0.034	31.5	—	—	28800	42800	—	—	—	—	—	224	34.4	—	—	4810	5.98
Pueblo 2	WS	Unfiltered	534	—	—	0.398	—	58.2	0.127	38.1	—	—	—	—	—	—	1.51	—	—	—	305	0.951	—	—	15.9
PAO-3	WGA	Filtered	—	—	—	—	2.9	51	—	—	—	—	25000	46000	—	—	2.1	—	—	360	—	—	—	4500	0.18
PAO-3	WGA	Unfiltered	1500	—	—	—	2.4	73.4	0.13	90.6	—	—	32600	—	1.59	0.68	3.08	—	—	—	769	—	—	5640	355
PAO-4	WGA	Filtered	—	21100	—	—	8.3	164	0.043	383	146	0.04	31700	44000	1.64	2.03	1.61	—	—	710	5850	0.332	—	7070	2210
PAO-4	WGA	Unfiltered	663	19000	—	—	8.6	200	0.033	395	—	—	30000	41000	4	2.19	16.2	—	—	530	5600	0.395	—	6480	2380
Pueblo 3	WS	Filtered	126	15400	—	0.242	13	53.6	0.021	347	—	—	31900	43400	1.23	2.57	36.2	—	—	640	400	0.804	—	7300	1300
Pueblo 3	WS	Unfiltered	3210	—	—	0.347	11.6	73.2	0.21	347	—	0.174	31300	—	4.77	2.53	43.5	3.23	—	—	2810	7.76	—	7300	1400
APCO-1	WGA	Filtered	—	1000	1110	—	6.51	52.4	—	375	252	0.38	39200	52300	—	4.7	4.67	—	—	450	1580	—	—	8450	2540
APCO-1	WGA	Unfiltered	39.7	—	—	—	7.14	58.2	0.02	376	—	—	38700	—	—	4.47	5.19	—	—	—	1800	2.77	—	8340	2510
PAO-5N	WGA	Filtered	72.3	11000	—	—	11	64.7	0.019	379	—	—	30600	44000	1	11	5.8	—	—	560	1650	0.387	—	7330	4000
PAO-5N	WGA	Unfiltered	72.8	9500	—	—	10	67.4	0.028	396	—	0.102	30400	43000	1.8	11	6.1	—	—	390	1360	0.426	—	7330	4100
Pueblo at 502	WS	Filtered	149	3500	—	0.53	6.8	85	0.02	387	138	0.25	35000	45800	1.76	3.35	11.1	—	—	390	524	1.35	—	6910	1950
Pueblo at 502	WS	Unfiltered	4000	—	—	0.153	8.4	230	0.033	384	—	0.045	40000	—	2.9	5.4	9.14	25	—	—	6270	18	—	7000	1810
Basalt Spring	WS	Filtered	180	—	—	3	6.1	140	0.01	216	185	—	42600	51000	0.784	3.6	11	—	—	420	46	0.095	—	10500	10.8
Basalt Spring	WS	Unfiltered	640	—	—	3	6.9	139	0.046	214	—	—	42200	—	1.3	3.6	14	—	—	—	360	0.145	—	10500	14
LA Spring	WS	Filtered	—	—	—	—	—	42.9	—	—	357	—	35800	16100	—	—	—	—	—	198	—	—	—	8830	—
LA Spring	WS	Unfiltered	3.97	—	—	—	—	3.97	—	—	—	—	3.97	—	—	—	—	—	—	—	3.97	—	—	3.97	3.97
LLAO-1b	WGA	Filtered	21.3	—	—	—	9.7	130	0.02	234	—	—	34900	44200	1.3	2.6	8	—	—	610	40.7	0.052	—	8160	65.7
LLAO-1b	WGA	Unfiltered	2400	—	—	—	8.51	176	0.289	237	—	0.098	34600	42000	7.9	5.2	146	—	—	450	3750	2.58	—	8390	235
LA-4E SW	WS	Filtered	160	1260	—	0.296	6	77	0.01	263	127	—	32000	48000	2.4	3.1	9.43	—	—	500	29.5	0.192	—	8020	28

Table 3.2-9 (continued)

Station Name	Media Code[a]	Field Preparation	Aluminum	Ammonia	Ammonium	Antimony	Arsenic	Barium	Beryllium	Boron	Bromide	Cadmium	Calcium	Chloride	Chromium	Cobalt	Copper	Cyanide (Total)	Cyanide, Amenable to Chlorination	Fluoride	Iron	Lead	Lithium	Magnesium	Manganese
LA-4E SW	WS	Unfiltered	1200	—	—	—	8.5	79.5	0.11	262	—	—	32300	—	4.7	6.1	12	—	—	—	810	1.9	—	8130	91
LLAO-2	WGA	Filtered	—	—	—	—	3.9	372	—	224	—	—	56800	—	—	—	—	—	—	—	18.8	—	—	3280	20.9
LLAO-2	WGA	Unfiltered	1520	—	—	—	3.5	395	—	215	—	—	58000	—	—	—	—	—	—	—	799	—	—	3860	80.5
Guaje SW @ LA Confluence	WS	Filtered	—	—	—	—	5.5	130	—	—	—	—	52600	38000	1.5	0.52	0.52	—	—	—	103	—	—	5600	30.8
Guaje SW @ LA Confluence	WS	Unfiltered	59.1	—	—	—	6.3	130	—	—	—	0.068	52100	—	0.7600001	0.53	1.1	—	—	—	48.4	—	—	5580	34.9
LA SW @ Guaje Confluence	WS	Filtered	—	—	—	—	7.8	108	—	—	—	—	41300	45000	0.73	1.1	4.5	—	—	—	—	—	—	6600	303
LA SW @ Guaje Confluence	WS	Unfiltered	850	—	—	1.2	7.8	112	0.19	—	—	—	41900	—	1.5	1.1	6.2	—	—	—	710	1.5	—	6800	326
LLAO-4	WGA	Filtered	—	—	—	—	1.6	150	0.13	85.9	—	—	54100	31000	0.47	—	2.3	—	—	430	—	0.058	—	5400	—
LLAO-4	WGA	Unfiltered	—	—	—	—	1.8	150	0.04	86.9	—	—	53800	—	0.64	0.41	—	—	—	—	—	0.052	—	5340	—
Lower Reach LA-5 SW	WS	Filtered	670	—	—	—	4.5	98	0.19	88.4	—	—	37000	38000	1.7	0.93	3.4	—	—	233	570	0.039	—	5700	76
Lower Reach LA-5 SW	WS	Unfiltered	2200	—	—	—	2.2	140	0.35	—	—	—	39000	—	2	1.4	5.2	—	—	—	1700	4.1	—	6100	330
LLAO-5	WGA	Filtered	—	—	—	—	2.3	320	0.07	120	291	—	110000	130000	1.6	—	—	—	—	470	33.8	0.085	—	8900	2.6
LLAO-5	WGA	Unfiltered	235	—	—	3.5	2.58	320	0.09	103	—	—	110000	—	1.8	0.37	0.9899999	1.2	—	—	166	0.147	—	8900	29
Otowi Spring	WS	Filtered	—	—	—	—	4.5	187	—	66.5	69	—	57400	30000	—	0.09	—	—	—	179	—	3.78	—	5430	0.37
Otowi Spring	WS	Unfiltered	252	—	—	—	4.61	182	0.01	63.9	—	—	57300	—	0.776	0.18	1.71	—	—	—	298	—	—	5500	9.8

Table 3.2-9 (continued)

Station Name	Media Code[a]	Field Preparation	Mercury	Molybdenum	Nickel	Nitrate	Nitrate+Nitrite (as N)	Nitrite	Perchlorate	Phosphorus	Phosphorus, Orthophosphate (Expressed as PO4)	Potassium	Selenium	Silicon	Silicon Dioxide	Silver	Sodium	Strontium	Sulfate	Thallium	Titanium	Total Kjeldahl Nitrogen	Uranium	Vanadium	Zinc
Los Alamos Creek upstream of LA Reservoir	WS	Filtered	—	—	—	—	100	—	11.5	50	—	3990	—	—	—	—	7270	—	2250	—	—	—	1.18488E-05	1.88	1.52
Los Alamos Creek upstream of LA Reservoir	WS	Unfiltered	—	—	—	—	—	—	—	—	—	3910	—	—	—	—	7130	—	—	—	—	—	0.092739492	1.88	1.42
Los Alamos Reservoir	WS	Filtered	—	—	1.67	—	710	—	—	40	—	5700	—	—	30600	0.89	6920	78.8	8870	—	—	—	0.416120782	1.47	3.3
Los Alamos Reservoir	WS	Unfiltered	—	—	—	—	—	—	—	—	—	5500	2.1	—	32700	—	6400	79.9	4200	0.482	—	—	0.701436445	1.88	3.22
Los Alamos Creek below LA Reservoir	WS	Filtered	—	1.22	—	—	80	—	—	120	—	3820	—	—	20700	—	7390	—	2240	—	—	—	8.5548E-06	2.55	—
Los Alamos Creek below LA Reservoir	WS	Unfiltered	—	1.19	—	—	—	—	—	—	—	3790	—	—	19800	—	7360	—	—	—	—	—	1.10333E-05	2.74	—
LAO-B	WGA	Filtered	—	0.742	0.82	—	260	—	15.3	70	—	4150	0.71	14000	13400	0.55	9900	—	17700	0.588	—	460	0.151879194	0.95	21
LAO-B	WGA	Unfiltered	—	0.722	0.74	—	—	—	—	—	—	4080	0.34	—	13700	0.8	10000	—	—	0.427	—	—	0.116813088	0.96	3.4
LA-Bkgd SW	WS	Filtered	—	—	2.1	—	—	—	—	—	—	5100	—	—	—	—	11000	—	25000	—	—	—	—	—	5.3
LA-Bkgd SW	WS	Unfiltered	—	—	3.5	—	—	—	—	—	—	5200	—	—	—	—	11000	—	—	—	—	—	—	2.2	7.9
SW @ E026	WS	Filtered	0.12	—	—	—	—	—	—	—	—	6930	—	—	—	—	8240	—	—	—	—	—	—	—	—
SW @ E026	WS	Unfiltered	—	—	40.5	—	—	—	—	—	—	11400	0.79	—	—	—	10100	—	—	2.6	—	—	—	—	138
LAO-C	WGA	Filtered	0.049	6.16	1.74	—	320	—	—	—	—	5400	—	—	37700	—	70800	105	17600	0.214	—	—	0.567688237	2.43	7.76
LAO-C	WGA	Unfiltered	—	1.98	3.04	—	—	—	—	—	—	5420	—	—	17200	0.31	71000	104	—	0.07	—	—	0.532029595	1.87	5.81
LA-1W SW	WS	Filtered	—	—	—	—	590	—	—	—	—	5910	—	—	—	—	30000	—	18000	0.07	—	—	2.109648175	5.83	—
LA-1W SW	WS	Unfiltered	—	—	15.1	—	—	—	—	—	—	10300	1.59	—	—	0.74	29000	—	—	0.42	—	—	4.171952099	25.8	96.6
LAO-0.3	WGA	Filtered	—	2.36	1	—	90	—	—	50	—	5100	3.8	—	13700	0.49	51000	—	18000	—	—	—	0.17391952	1.4	5.1
LAO-0.3	WGA	Unfiltered	—	2.74	0.94	—	—	—	—	—	—	5100	2.3	—	15600	0.32	51600	—	—	—	—	—	0.125130464	2.6	5.4
LAO-0.6	WGA	Filtered	—	—	1.1	—	150	—	—	—	—	6900	2.08	—	—	0.45	51000	—	14000	—	—	—	—	2.2	3.2
LAO-0.6	WGA	Unfiltered	—	—	48.1	—	150	—	—	—	—	6800	2.2	—	—	0.06	51000	—	—	0.033	—	—	0.410140577	4.3	4.2
SW @ LAO-0.6	WS	Filtered	—	—	2.5	—	53	—	—	—	—	7700	—	—	—	—	47000	—	16000	—	—	—	—	9.9	14
SW @ LAO-0.6	WS	Unfiltered	—	—	2.1	—	—	—	—	—	—	7700	3.6	—	—	0.03	47000	—	—	—	—	—	1.11932E-05	9.6	14
LAO-0.7	WGA	Filtered	—	1.07	1.68	—	660	—	—	70	—	4720	—	—	28700	—	53500	136	17700	0.167	—	—	0.422060211	2.92	10.1
LAO-0.7	WGA	Unfiltered	0.444	0.815	2.58	—	—	—	—	—	—	4740	—	—	16900	—	52900	131	—	0.137	—	—	0.425024888	2.66	12.1
LAO-0.91	WGA	Filtered	—	—	—	—	820	—	—	—	—	3030	2.1	—	—	—	28100	—	13000	—	—	—	0.374515355	4.4	—
LAO-0.91	WGA	Unfiltered	—	—	—	—	850	—	—	130	—	3190	2.4	—	—	—	30000	—	—	—	—	—	0.386395173	4.3	—
LA-1C SW	WS	Filtered	—	—	0.88	—	530	—	—	—	—	5890	—	—	—	0.7	33000	—	18000	0.03	—	—	2.019413013	5.88	—
LA-1C SW	WS	Unfiltered	—	—	7.91	—	—	—	—	—	—	12000	0.53	—	—	0.66	87000	—	—	0.21	—	—	3.441515867	16.3	52.9
LAO-1	WGA	Filtered	—	19	—	—	490	—	—	—	—	4310	—	—	30300	—	45200	174	13600	0.09	—	—	0.131980019	3.3	6.6

Table 3.2-9 (continued)

Station Name	Media Code[a]	Field Preparation	Mercury	Molybdenum	Nickel	Nitrate	Nitrate+Nitrite (as N)	Nitrite	Perchlorate	Phosphorus	Phosphorus, Orthophosphate (Expressed as PO4)	Potassium	Selenium	Silicon	Silicon Dioxide	Silver	Sodium	Strontium	Sulfate	Thallium	Titanium	Total Kjeldahl Nitrogen	Uranium	Vanadium	Zinc
LAO-1	WGA	Unfiltered	—	19.1	1.3	—	—	—	—	—	—	4490	—	—	—	—	39300	174	—	—	—	—	0.236888313	4.17	12.7
LAO-1.2	WGA	Filtered	—	—	2	—	—	—	—	—	—	3700	—	—	—	0.87	26000	—	6500	4.4	—	—	—	2.1	—
LAO-1.2	WGA	Unfiltered	—	—	4.1	—	—	—	—	—	—	4800	—	—	—	—	28000	—	—	—	—	—	—	7.5	—
LAO-1.6g	WGA	Filtered	—	140	1.1	—	610	—	—	188	—	5700	1.5	39870	—	0.47	34300	—	15100	0.636	—	—	0.142073515	2.1	12.1
LAO-1.6g	WGA	Unfiltered	—	140	2.7	—	640	—	—	192	—	5800	1.7	39130	—	0.81	32900	—	15200	2.1	—	—	0.216958421	2.6	13.8
SW @ E030	WS	Filtered	—	—	—	—	1110	—	—	50	—	4170	—	—	27500	—	15200	117	16800	0.446	—	—	—	1.15	1.83
DP-1W SW	WS	Filtered	—	6.1	2.9	—	1080	—	—	960	—	17000	3.8	—	38300	—	69100	—	50100	3.2	—	—	1.616899894	19.7	580
DP-1W SW	WS	Unfiltered	—	4.6	5.1	—	—	—	—	—	—	17400	3.43	—	39300	—	71600	—	—	0.037	—	—	1.251306875	21.5	940
DP-1C SW	WS	Filtered	—	9.14	2.7	—	220	—	—	140	—	9200	—	—	24600	—	120000	—	51300	3	—	—	1.078909603	12.8	52.9
DP-1C SW	WS	Unfiltered	—	8.52	2.6	—	—	—	—	—	—	9400	3.28	—	35700	—	120000	—	—	2.9	—	—	1.323803023	21.2	97
DP-2 SW	WS	Filtered	0.177	3.41	2.67	—	710	—	—	—	—	8360	—	—	14200	—	160000	283	18000	0.505	—	—	—	2.24	18.1
LAUZ-1	WGA	Filtered	—	5.4	2.8	—	30000	—	—	40	—	12400	—	—	9640	0.61	140000	169	21400	—	—	—	0.671922548	2.65	20
LAUZ-1	WGA	Unfiltered	—	2.24	2.9	—	230	—	—	—	—	12700	—	—	10600	0.7600001	140000	171	7900	—	—	—	0.710512608	6.86	130
LAUZ-2	WGA	Filtered	—	—	2.2	—	—	—	—	140	—	17700	—	—	—	—	84000	249	1500	—	—	—	0.445914828	0.53	20
LAUZ-2	WGA	Unfiltered	—	—	2.3	—	50	—	—	110	—	17700	—	—	—	—	84000	251	1500	—	—	—	0.493506216	0.6	30
DP Spring	WS	Filtered	—	3.2	1.4	—	490	—	—	120	—	14000	—	—	12400	—	56100	197	11400	3.7	—	—	0.365636833	3.6	70
DP Spring	WS	Unfiltered	—	3.8	2.7	—	310	—	—	120	—	15000	—	—	—	—	54000	197	6600	3.8	—	—	0.291348956	4.1	50
LAO-2	WGA	Filtered	0.33	2000	0.98	—	580	—	—	60	—	8330	—	—	37400	—	36500	186	19800	—	—	—	3.74173E-05	1.02	2.9
LAO-2	WGA	Unfiltered	—	2000	0.8	—	—	—	—	—	—	6500	3	—	—	—	32000	187	—	—	—	—	0.288321117	1.25	2.9
LAO-3a	WGA	Filtered	—	1970	—	—	850	—	—	150	—	6800	—	—	49600	—	36200	187	20000	3.3	—	—	0.448811387	4.93	6.2
LAO-3a	WGA	Unfiltered	0.217	1970	0.46	—	—	—	1.17	—	—	6800	2.3	—	25300	—	32400	178	—	—	—	—	0.454345379	4.76	8.8
LAO-4	WGA	Filtered	—	582	—	—	1000	—	—	—	—	6550	—	—	35200	—	33900	135	250000	—	—	—	0.240734687	2.18	9.700001
LAO-4	WGA	Unfiltered	—	586	1.3	—	—	—	—	—	—	6640	—	—	—	—	34200	136	—	2.4	—	—	0.374476179	1.78	6.3
LAO-4.5c	WGA	Filtered	—	32.8	0.88	—	40	—	—	—	—	5830	—	—	34400	—	36600	113	250000	—	—	—	2.844278915	1.28	5.6
LAO-4.5c	WGA	Unfiltered	—	31.6	1.28	—	—	—	—	—	—	5750	—	—	—	2.35	35500	117	—	—	—	—	9.96194E-06	1.19	0.83
LAO-6a	WGA	Filtered	—	8.57	—	—	130	—	—	—	—	3600	—	—	38000	—	35000	112	13400	—	—	—	—	0.93	—
LAO-6a	WGA	Unfiltered	—	8.61	—	—	—	—	—	—	—	—	—	—	—	—	—	110	—	—	—	—	—	0.93	—
SW @ E042	WS	Filtered	—	11.2	—	—	1060	—	—	30	—	4280	3.41	—	28400	—	15400	116	16700	0.125	—	—	—	1.31	3.6
P-1FW SW	WS	Filtered	0.011	—	2.1	—	510	—	—	—	—	11000	1.4	—	—	0.57	36000	—	18000	0.687	—	—	0.404219377	1.9	7.6
P-1FW SW	WS	Unfiltered	0.02	—	2.5	—	510	—	—	780	—	12000	1.1	—	—	—	36000	—	—	—	—	—	0.181308255	4.9	25
Upper P-1W SW	WS	Filtered	0.021	—	2.9	—	55	—	—	130	—	8100	1.4	—	—	—	34100	—	18000	0.772	—	—	0.30909145	4.2	7.1
Upper P-1W SW	WS	Unfiltered	0.021	—	2.2	—	85	—	—	320	—	8200	1.4	—	—	—	35200	—	—	—	—	—	0.335858457	3.9	7.8

Table 3.2-9 (continued)

Station Name	Media Code[a]	Field Preparation	Mercury	Molybdenum	Nickel	Nitrate	Nitrate+Nitrite (as N)	Nitrite	Perchlorate	Phosphorus	Phosphorus, Orthophosphate (Expressed as PO4)	Potassium	Selenium	Silicon	Silicon Dioxide	Silver	Sodium	Strontium	Sulfate	Thallium	Titanium	Total Kjeldahl Nitrogen	Uranium	Vanadium	Zinc
PAO-1	WGA	Filtered	—	4.79	2.81	—	130	—	—	240	—	10000	1.5	—	14900	0.06	56600	—	142000	3	—	—	0.630118683	4.1	12
PAO-1	WGA	Unfiltered	—	3.63	2.26	—	—	—	—	170	—	10200	1.7	—	15100	0.06	56700	—	—	2.3	—	300	0.710364538	3.44	2.76
Lower P-1W SW	WS	Filtered	0.019	4.3	1.9	—	740	—	—	130	—	9500	1.2	—	23000	0.04	37000	173	26300	0.32	—	—	0.891646728	3.8	4.3
Lower P-1W SW	WS	Unfiltered	0.016	—	2.3	—	—	—	—	440	—	9700	1.5	—	—	0.47	37000	173	—	—	—	—	0.882748218	3.9	19
AC-2 SW	WS	Filtered	—	—	0.72	—	—	—	—	—	—	8300	—	—	—	—	130000	—	26000	—	—	—	0.303163693	2.3	52
AC-2 SW	WS	Unfiltered	—	—	2	—	—	—	—	—	—	8400	—	—	—	—	120000	—	—	2.9	—	—	—	4.5	35
Upper Reach ACS SW	WS	Filtered	0.022	4.5	1.3	—	—	—	—	—	—	7500	—	—	—	—	79000	—	9200	—	—	—	11.41649883	2.8	12
Upper Reach ACS SW	WS	Unfiltered	—	—	0.54	—	—	—	—	—	—	7600	—	—	—	0.64	81000	—	—	—	—	—	10.26602089	3.2	19
Lower Reach ACS SW	WS	Filtered	—	—	1.7	—	—	—	—	—	—	4300	—	—	—	—	42000	—	8500	—	—	—	0.012572077	2.6	14
Lower Reach ACS SW	WS	Unfiltered	—	4.1	1.1	—	—	—	—	—	—	4400	—	—	—	—	42000	—	—	—	—	—	0.799585656	3.1	12
Lower AC-3 SW	WS	Filtered	0.11	—	1.8	—	510	—	—	—	—	6200	0.487	—	17100	—	88400	173	9760	3.4	—	—	1.82289E-05	2.6	22
Lower AC-3 SW	WS	Unfiltered	—	—	3.2	—	—	—	—	—	—	6260	0.317	—	—	—	92700	177	—	0.141	1.13	—	0.665794594	4.4	44
P-1E SW	WS	Filtered	0.027	—	3	—	88	—	4.61	—	—	8300	2.2	—	—	0.06	32800	—	13000	0.169	—	—	0.636068985	1.5	4.3
P-1E SW	WS	Unfiltered	0.021	—	3.5	—	76	—	—	190	—	9000	2.1	—	—	0.61	32500	—	—	—	—	—	0.231818587	6.1	20
PAO-2	WGA	Unfiltered	—	2.02	—	—	—	—	—	—	—	8610	0.93	—	—	—	44500	—	—	—	—	—	1.839761302	2.92	11.4
Pueblo 2	WS	Filtered	—	—	—	—	720	—	—	240	—	6840	—	—	25800	—	30900	146	24700	—	—	—	—	3.08	8.72
Pueblo 2	WS	Unfiltered	—	1.59	—	—	—	—	—	—	—	—	—	—	—	—	—	149	—	—	—	—	—	3.55	—
PAO-3	WGA	Filtered	—	—	—	—	—	—	—	—	—	6900	—	—	—	—	29000	—	25000	—	—	—	—	2.3	—
PAO-3	WGA	Unfiltered	—	3.04	2.26	—	—	—	—	—	—	13400	0.6	—	—	—	37000	—	—	—	—	—	0.496354804	4.87	12.8
PAO-4	WGA	Filtered	—	2.38	4.4	—	1620	—	8.91	7400	5300	17000	3.4	—	34400	0.07	74100	127	53500	3.3	0.2	—	0.201523197	4.1	2.69
PAO-4	WGA	Unfiltered	—	2.27	7.3	240	72	—	—	7300	5200	17000	3.6	—	39500	1.62	70100	126	1400	—	0.2	—	0.19914669	22.7	35.9
Pueblo 3	WS	Filtered	—	7.89	7.1	—	2910	—	—	4350	—	20500	0.99	—	72700	0.86	73400	95.1	39400	2.4	—	—	0.558785409	18.2	43.3
Pueblo 3	WS	Unfiltered	—	7.65	6.58	—	—	—	—	—	—	20100	3.86	—	38800	2.34	73000	114	—	3	—	—	0.448812347	19.2	74
APCO-1	WGA	Filtered	—	2.64	6.51	—	1940	—	—	4750	—	14500	—	—	61900	—	74500	169	87400	—	—	—	0.588521252	8.32	15.6
APCO-1	WGA	Unfiltered	0.11	2.78	8.25	—	—	—	—	—	—	13500	—	—	61100	—	74000	171	—	—	—	—	0.787663304	8.09	25.6
PAO-5N	WGA	Filtered	—	2.18	13	3100	730	—	6.18	4350	4000	16000	3.1	—	33500	0.05	76600	—	44000	0.12	—	—	0.692539534	6.4	9.4
PAO-5N	WGA	Unfiltered	—	2.06	12	2900	1300	—	—	3500	3900	16000	2	—	33600	1.07	76200	—	23000	0.116	—	—	0.624182611	6.5	19
Pueblo at 502	WS	Filtered	—	9.700001	6.2	—	15500	—	—	4250	—	16600	—	—	74900	1.26	68000	110	45800	2.7	—	—	1.931957477	21.8	28.3
Pueblo at 502	WS	Unfiltered	—	9.36	9.5	—	—	—	—	—	—	17000	3.24	—	34000	—	73300	113	—	0.04	—	—	2.615597061	16	38
Basalt Spring	WS	Filtered	—	7.85	9.9	—	7500	—	—	2200	—	13300	2	—	23500	0.02	51000	—	36000	3.8	—	—	1.224554578	8.1	4.9
Basalt Spring	WS	Unfiltered	—	7.97	10.4	—	7400	—	—	2200	—	13100	1.8	—	24400	0.03	50400	—	—	3.4	—	—	1.046241863	8.4	35.6
LA Spring	WS	Filtered	—	—	—	—	2570	—	—	—	—	3920	3.16	—	—	—	17600	—	30400	—	—	—	2.090290515	9.62	—

Table 3.2-9 (continued)

Station Name	Media Code[a]	Field Preparation	Mercury	Molybdenum	Nickel	Nitrate	Nitrate+Nitrite (as N)	Nitrite	Perchlorate	Phosphorus	Phosphorus, Orthophosphate (Expressed as PO4)	Potassium	Selenium	Silicon	Silicon Dioxide	Silver	Sodium	Strontium	Sulfate	Thallium	Titanium	Total Kjeldahl Nitrogen	Uranium	Vanadium	Zinc
LA Spring	WS	Unfiltered	—	3.97	—	—	—	—	—	—	—	3.97	3.97	—	—	—	3.97	—	—	—	—	—	3.97	3.97	—
LLAO-1b	WGA	Filtered	—	6	6.9	7400	6300	—	—	2300	2400	9000	4.22	—	25500	0.03	56100	—	32000	3.4	—	—	1.010562914	9.5	18
LLAO-1b	WGA	Unfiltered	—	8	11.8	7300	6300	—	—	2400	2100	9000	2.1	—	28400	0.49	55200	—	27000	3	—	—	1.171033676	30.7	6.3
LA-4E SW	WS	Filtered	—	12.6	8.8	—	7100	—	—	2750	—	13200	2.5	—	23300	0.07	55700	—	33000	0.93	—	—	0.728212087	12	16.2
LA-4E SW	WS	Unfiltered	—	12.6	10.8	—	4400	—	—	1700	—	13200	5.1	—	23600	2.9	55500	—	—	0.739	—	—	0.879786418	14.2	19.6
LLAO-2	WGA	Filtered	—	—	—	—	7100	—	—	941	—	4240	—	44740	—	—	47900	—	26800	—	—	—	2.556210765	—	—
LLAO-2	WGA	Unfiltered	—	—	—	—	6880	—	—	959	—	4390	—	45690	—	—	47700	—	26500	—	52.1	—	3.537020087	—	—
Guaje SW @ LA Confluence	WS	Filtered	—	—	2.8	—	—	—	—	—	—	4000	1.4	—	—	—	35900	—	24000	—	—	—	—	11	—
Guaje SW @ LA Confluence	WS	Unfiltered	—	—	3	—	—	—	—	—	—	4000	1.7	—	—	—	36100	—	—	—	—	—	—	10	—
LA SW @ Guaje Confluence	WS	Filtered	—	—	4.9	—	—	—	—	—	—	9200	2.5	—	—	—	43700	—	18000	—	—	—	—	6	—
LA SW @ Guaje Confluence	WS	Unfiltered	—	—	4.9	—	—	—	—	—	—	9400	1	—	—	—	44300	—	—	—	—	—	—	6.2	—
LLAO-4	WGA	Filtered	—	—	2	—	370	83	—	52	—	3500	2	43970	—	—	34800	—	22000	—	—	—	1.204982157	7.6	—
LLAO-4	WGA	Unfiltered	—	—	2	—	350	92	—	38	—	3500	2.3	43630	—	0.02	34700	—	20700	0.05	—	—	1.08490084	7.5	—
Lower Reach LA-5 SW	WS	Filtered	—	7.22	2.9	—	2750	—	—	960	—	7400	—	—	39500	—	35000	157	19000	—	—	—	—	7.5	38
Lower Reach LA-5 SW	WS	Unfiltered	—	—	4.2	—	—	—	4	—	—	7900	3.73	—	—	—	35000	—	—	—	—	—	—	9.700001	17
LLAO-5	WGA	Filtered	—	0.758	2.8	—	3990	3990	—	53	—	6000	4.3	42850	27600	—	74000	—	49000	2.1	—	—	10.89716161	6.8	6.9
LLAO-5	WGA	Unfiltered	—	0.742	2.8	—	3070	3070	—	11.4	—	6000	3.7	43200	28100	0.02	74000	—	45000	2.8	—	—	10.32541355	6.8	8.9
Otowi Spring	WS	Filtered	—	—	—	—	590	—	—	—	—	3500	0.59	—	—	—	37300	—	18600	—	—	—	1.903708235	8.6	1.96
Otowi Spring	WS	Unfiltered	—	—	—	—	—	—	—	—	—	3590	0.58	—	—	—	37100	—	—	—	—	—	1.894832125	9.37	4.26

Note: Values are maximum detected concentrations in each reach.

[a] WS = Surface water (includes springs), WGA is alluvial groundwater.

[b] — = Not a COPC.

Table 3.2-10
Water: Human Health SALs

Analyte Name	Risk Type	Tap Water Screening Level	Reporting Units	Source for Screening Level[a]	Surrogate[b]
Acenaphthene	nc[c]	365	µg/L	EPA Region 6	
Acenaphthylene	nc	183	µg/L	EPA Region 6	pyrene
Acetone	nc	32850	µg/L	EPA Region 6	
Aluminum	nc	36500	µg/L	EPA Region 6	
Americium-241	rad[d]	1.2	pCi/L	DOE-DCG	
Ammonia	n/a[e]	no screening level	µg/L	n/a	
Ammonium	n/a	no screening level	µg/L	n/a	
Anthracene	nc	1825	µg/L	EPA Region 6	
Antimony	nc	15	µg/L	EPA Region 9	
Arsenic	ca[f]	0.45	µg/L	EPA Region 6	
Barium	nc	2555	µg/L	EPA Region 6	
Benzene	ca	3.54	µg/L	EPA Region 6	
Benzo(a)anthracene	ca	0.921	µg/L	EPA Region 6	
Benzo(a)pyrene	ca	0.0921	µg/L	EPA Region 6	
Benzo(b)fluoranthene	ca	0.9210	µg/L	EPA Region 6	
Benzo(g,h,i)perylene	nc	183	µg/L	EPA Region 6	pyrene
Benzo(k)fluoranthene	ca	9.2	µg/L	EPA Region 6	
Benzoic Acid	nc	146000	µg/L	EPA Region 6	
Benzyl Alcohol	nc	10950	µg/L	EPA Region 6	
Beryllium	nc	73	µg/L	EPA Region 6	
BHC[beta-]	ca	0.374	µg/L	EPA Region 6	
BHC[gamma-]	ca	0.517	µg/L	EPA Region 6	
Bis(2-ethylhexyl)phthalate	ca	48	µg/L	EPA Region 6	
Boron	nc	7300	µg/L	EPA Region 6	
Bromide	n/a	no screening level	µg/L	n/a	
Bromodichloromethane	ca	1.82	µg/L	EPA Region 6	
Bromomethane	nc	8.66	µg/L	EPA Region 6	
Butanone[2-]	nc	7064	µg/L	EPA Region 6	
Butylbenzylphthalate	nc	7300	µg/L	EPA Region 6	
Cadmium	nc	18.3	µg/L	EPA Region 6	
Calcium	n/a	no screening level	µg/L	n/a	
Carbon Disulfide	nc	1043	µg/L	EPA Region 6	
Cesium-137	rad	120	pCi/L	DOE-DCG	
Chloride	n/a	no screening level	µg/L	n/a	
Chloroform	nc	74.7	µg/L	EPA Region 6	
Chloronaphthalene[2-]	nc	487	µg/L	EPA Region 6	
Chromium	nc	110	µg/L	EPA Region 6	Cr VI used b/c more protective than Cr III
Chrysene	ca	92.1	µg/L	EPA Region 6	
Cobalt	nc	730	µg/L	EPA Region 6	
Copper	nc	1356	µg/L	EPA Region 6	
Cyanide (Total)	n/a	no screening level	µg/L	n/a	
Cyanide, Amenable to Chlorination	nc	730	µg/L	EPA Region 6	Free cyanide
DDD[4,4'-]	ca	2.80	µg/L	EPA Region 6	
DDE[4,4'-]	ca	1.978	µg/L	EPA Region 6	
DDT[4,4'-]	ca	1.978	µg/L	EPA Region 6	
Dibenz(a,h)anthracene	ca	0.0921	µg/L	EPA Region 6	
Dichlorobenzene[1,4-]	ca	4.7	µg/L	EPA Region 6	
Dichloroethane[1,2-]	ca	1.23	µg/L	EPA Region 6	
Dieldrin	ca	0.0420	µg/L	EPA Region 6	
Diethylphthalate	nc	29200	µg/L	EPA Region 6	
Di-n-butylphthalate	nc	3650	µg/L	EPA Region 6	
Endrin Aldehyde	nc	10.95	µg/L	EPA Region 6	endrin
Ethylbenzene	nc	1340	µg/L	EPA Region 6	
Europium-152	rad	800	pCi/L	DOE-DCG	
Fluoranthene	nc	1460	µg/L	EPA Region 6	
Fluorene	nc	243	µg/L	EPA Region 6	
Fluoride	nc	2190	µg/L	EPA Region 6	
Indeno(1,2,3-cd)pyrene	ca	0.9210	µg/L	EPA Region 6	
Iron	nc	10950	µg/L	EPA Region 6	
Isopropyltoluene[4-]	nc	658	µg/L	EPA Region 6	Cumene (isopropylbenzene)
Lead	nc	15	µg/L	EPA Region 6	
Lithium	nc	730	µg/L	EPA Region 6	
Magnesium	n/a	no screening level	µg/L	n/a	

Table 3.2-10 (continued)

Analyte Name	Risk Type	Tap Water Screening Level	Reporting Units	Source for Screening Level	Surrogate*
Manganese	nc	1703	µg/L	EPA Region 6	
Mercury	nc	10.95	µg/L	EPA Region 6	
Methylene Chloride	ca	42.8	µg/L	EPA Region 6	
Methylnaphthalene[2-]	nc	6.20	µg/L	EPA Region 6	naphthalene
Molybdenum	nc	183	µg/L	EPA Region 6	
Naphthalene	nc	6.20	µg/L	EPA Region 6	
Nickel	nc	730	µg/L	EPA Region 6	
Nitrate	nc	10000	µg/L	EPA Region 6	
Nitrate+Nitrite (as N)	n/a	no screening level	µg/L	n/a	
Nitrite	nc	1000	µg/L	EPA Region 6	
Perchlorate	nc	3.65	µg/L	EPA Region 6	
Phenanthrene	nc	183	µg/L	EPA Region 6	pyrene
Phenol	nc	10950	µg/L	EPA Region 6	
Phosphorus	n/a	no screening level	µg/L	n/a	
Phosphorus, Orthophosphate (Expressed as PO4)	n/a	no screening level	µg/L	n/a	
Plutonium-238	rad	1.60	pCi/L	DOE-DCG	
Plutonium-239	rad	1.20	pCi/L	DOE-DCG	
Potassium	n/a	no screening level	µg/L	n/a	
Pyrene	nc	183	µg/L	EPA Region 6	
Selenium	nc	183	µg/L	EPA Region 6	
Silicon	n/a	no screening level	µg/L	n/a	
Silicon Dioxide	n/a	no screening level	µg/L	n/a	
Silver	nc	182.5000	µg/L	EPA Region 6	
Sodium	n/a	no screening level	µg/L		
Strontium	nc	21900	µg/L	EPA Region 6	
Strontium-90	rad	40.0	pCi/L	DOE-DCG	
Sulfate	n/a	no screening level	µg/L		
Technetium-99	rad	4000	pCi/L	DOE-DCG	
Thallium	nc	2.41	µg/L	EPA Region 9	
Titanium	nc	146000	µg/L	EPA Region 9	
Toluene	nc	723	µg/L	EPA Region 6	
Total Kjeldahl Nitrogen	n/a	no screening level	µg/L	n/a	
Total Petroleum Hydrocarbons Diesel Range Organics	n/a	no screening level	µg/L	n/a	
Trichloroethene	ca	0.280	µg/L	EPA Region 6	
Trimethylbenzene[1,2,4-]	nc	12.4	µg/L	EPA Region 6	
Tritium	rad	80000	pCi/L	DOE-DCG	
Uranium	nc	7.30	µg/L	EPA Region 9	
Uranium-234	rad	20.0	pCi/L	DOE-DCG	
Uranium-235	rad	24.0	pCi/L	DOE-DCG	
Uranium-238	rad	24.0	pCi/L	DOE-DCG	
Vanadium	nc	36.5	µg/L	EPA Region 6	
Xylene (Total)	nc	203	µg/L	EPA Region 6	
Xylene[1,2-]	nc	1431	µg/L	EPA Region 6	
Xylene[1,3-]+Xylene[1,4-]	nc	203	µg/L	EPA Region 6	xylene (total)
Zinc	nc	10950	µg/L	EPA Region 6	

[a] EPA Region 6 = EPA Region 6 risk-based tap water screening level. DOE-DCG = DOE-Derived Concentration Guideline. EPA reg 9 = EPA Region 9 risk-based tap-water screening level.

[b] Blank cell indicates that no surrogate was needed.

[c] nc = Noncarcinogen.

[d] rad = Radionuclide.

[e] n/a = Not applicable.

[f] ca = Carcinogen.

Table 3.2-11
Water: Tier 1 Human Health COPCs

Water Location	Media Code[a]	Field Preparation	Acenaphthene	Acenaphthylene	Acetone	Aluminum	Anthracene	Antimony	Barium	Benzo(g,h,i)perylene	Benzoic Acid	Benzyl Alcohol	Beryllium	Boron	Bromomethane	Butanone[2-]	Butylbenzylphthalate	Cadmium	Carbon Disulfide	Chloroform	Chloronaphthalene[2-]	Chromium	Cobalt	Copper	Cyanide, Amenable to Chlorination	Diethylphthalate
Los Alamos Creek upstream of LA Reservoir	WS	Filtered	—[b]	—	—	—	—	—	0.011	—	—	—	0.00014	—	—	—	—	—	—	—	—	—	—	—	—	—
Los Alamos Creek upstream of LA Reservoir	WS	Unfiltered	—	—	—	0.00048	—	—	0.011	—	—	—	0.00027	—	—	—	—	—	—	—	—	—	—	—	—	—
Los Alamos Reservoir	WS	Filtered	—	—	—	0.031	—	—	0.039	—	—	—	0.0014	0.0035	—	—	—	—	—	—	—	—	0.0037	—	—	—
Los Alamos Reservoir	WS	Unfiltered	—	—	0.00043	0.050	—	—	0.039	—	—	—	0.0022	0.0041	—	—	—	—	—	—	—	0.010	0.0037	—	—	—
Los Alamos Creek below LA Reservoir	WS	Filtered	—	—	—	0.00053	—	—	0.011	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Los Alamos Creek below LA Reservoir	WS	Unfiltered	—	—	—	0.0047	—	—	0.012	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
LAO-B	WGA	Filtered	—	—	—	0.014	—	—	0.021	—	—	—	0.00095	0.0020	—	—	—	0.0038	—	—	—	—	0.00093	—	—	—
LAO-B	WGA	Unfiltered	—	—	0.00019	0.0052	—	—	0.022	—	—	—	0.0014	0.00088	—	—	—	0.0038	—	—	—	—	0.0018	—	—	—
LA-Bkgd SW	WS	Filtered	—	—	—	—	—	—	0.039	—	—	—	—	—	—	—	—	—	—	—	—	—	0.0029	—	—	—
LA-Bkgd SW	WS	Unfiltered	—	—	—	0.00090	—	—	0.047	—	—	—	—	—	—	—	—	—	—	—	—	—	0.0032	0.00052	—	—
SW @ E026	WS	Filtered	—	—	—	—	—	—	0.030	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
SW @ E026	WS	Unfiltered	—	—	—	1.2	—	—	0.18	—	—	—	—	—	—	—	—	0.045	—	—	—	0.17	0.015	0.030	—	—
LAO-C	WGA	Filtered	—	—	—	0.067	—	—	0.037	—	—	—	—	—	—	—	—	—	—	—	—	0.0086	0.0020	0.0023	—	—
LAO-C	WGA	Unfiltered	—	—	—	0.033	—	—	0.037	—	—	—	0.00068	—	—	—	—	—	—	—	—	0.0057	0.00047	0.0017	—	—
LA-1W SW	WS	Filtered	—	—	—	0.0049	—	—	0.027	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00023	0.00076	—	—
LA-1W SW	WS	Unfiltered	—	—	0.00020	0.76	—	—	0.15	—	—	—	0.022	—	—	—	—	0.036	—	—	—	0.17	0.0073	0.018	—	—
LAO-0.3	WGA	Filtered	—	—	—	0.0014	—	0.022	0.030	—	—	—	0.00027	0.0011	—	—	—	—	—	—	—	—	0.00056	0.00037	—	—
LAO-0.3	WGA	Unfiltered	—	—	—	0.029	—	—	0.030	—	—	—	0.00041	0.00078	—	—	—	—	—	—	—	0.0058	0.0010	0.0010	—	—
LAO-0.6	WGA	Filtered	—	—	—	0.0082	—	—	0.032	—	—	—	0.0016	—	—	—	—	—	—	—	—	0.025	0.00055	0.0037	—	—
LAO-0.6	WGA	Unfiltered	—	—	—	0.052	—	0.056	0.047	—	—	—	0.0017	—	—	—	—	—	—	—	—	0.20	0.0030	0.00053	—	—
SW @ LAO-0.6	WS	Filtered	—	—	—	—	—	—	0.067	—	—	—	—	—	—	—	—	—	—	—	—	0.016	0.0058	—	—	—
SW @ LAO-0.6	WS	Unfiltered	—	—	—	0.0088	—	—	0.070	—	—	—	0.0010	—	—	—	—	0.0083	—	—	—	0.027	0.0064	—	—	—
LAO-0.7	WGA	Filtered	—	—	—	0.0056	—	—	0.030	—	—	—	—	0.0019	—	—	—	—	—	—	—	—	—	0.0011	—	—
LAO-0.7	WGA	Unfiltered	—	—	—	0.034	—	—	0.031	—	—	—	—	0.0017	—	—	—	—	—	—	—	0.011	0.000041	0.00089	—	—
LAO-0.91	WGA	Filtered	—	—	—	0.0009	—	—	0.023	—	—	—	—	—	—	—	—	—	—	—	—	0.11	—	—	—	—
LAO-0.91	WGA	Unfiltered	—	—	—	0.0032	—	—	0.022	—	—	—	—	—	—	—	—	—	—	—	—	0.11	—	—	—	—

Table 3.2-11 (continued)

Water Location	Media Code[a]	Field Preparation	Acenaphthene	Acenaphthylene	Acetone	Aluminum	Anthracene	Antimony	Barium	Benzo(g,h,i)perylene	Benzoic Acid	Benzyl Alcohol	Beryllium	Boron	Bromomethane	Butanone[2-]	Butylbenzylphthalate	Cadmium	Carbon Disulfide	Chloroform	Chloronaphthalene[2-]	Chromium	Cobalt	Copper	Cyanide, Amenable to Chlorination	Diethylphthalate
LA-1C SW	WS	Filtered	—	—	—	0.0082	—	—	0.028	—	—	—	0.0018	—	—	—	—	—	—	—	—	0.0064	0.00055	0.0013	—	—
LA-1C SW	WS	Unfiltered	—	—	0.00019	0.41	—	—	0.077	—	—	—	0.010	—	—	—	—	0.020	—	—	—	0.069	0.0033	0.010	—	—
LAO-1	WGA	Filtered	—	—	—	0.027	—	—	0.023	—	—	—	0.0010	0.0021	—	—	—	—	—	—	—	0.13	—	0.0014	—	—
LAO-1	WGA	Unfiltered	0.00022	—	—	0.065	—	—	0.024	—	—	—	0.0022	0.00087	—	—	0.0010	0.017	—	—	—	0.14	0.00025	0.0030	—	—
LAO-1.2	WGA	Filtered	—	—	—	—	—	0.22	0.012	—	—	—	—	—	—	—	—	—	—	—	—	0.15	0.0018	0.0011	—	—
LAO-1.2	WGA	Unfiltered	—	—	—	0.23	—	—	0.023	—	—	—	—	—	—	—	—	—	—	—	—	0.32	0.0026	0.0025	—	—
LAO-1.6g	WGA	Filtered	—	—	—	0.0072	—	—	0.027	—	—	—	0.0012	0.0079	—	—	—	—	—	—	—	0.026	0.00056	0.0010	—	—
LAO-1.6g	WGA	Unfiltered	—	—	—	0.027	—	—	0.028	—	—	—	0.0021	0.0076	—	—	—	—	—	—	—	0.033	0.00088	0.00063	—	—
SW @ E030	WS	Filtered	—	—	—	0.0010	—	—	0.016	—	—	—	0.00052	0.0034	—	—	—	—	—	—	—	—	—	—	—	—
SW @ E030	WS	Unfiltered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
DP-1W SW	WS	Filtered	—	—	—	0.0015	—	—	0.026	—	—	—	—	0.033	—	—	—	0.0085	—	—	—	0.034	0.0026	0.011	—	—
DP-1W SW	WS	Unfiltered	—	—	0.00085	0.024	—	—	0.038	—	0.00017	0.00032	0.00014	0.035	—	0.00027	—	0.021	—	0.038	—	0.040	0.0021	0.015	0.040	0.00019
DP-1C SW	WS	Filtered	—	—	—	0.0079	—	0.15	0.035	—	—	—	0.00041	0.0057	—	—	—	—	—	—	—	0.015	0.00084	0.0056	—	—
DP-1C SW	WS	Unfiltered	—	—	0.00046	0.181	—	0.14	0.037	—	—	—	0.0042	0.0058	—	—	—	0.015	—	—	—	0.047	0.0012	0.051	—	—
DP-2 SW	WS	Filtered	—	—	—	0.00051	—	0.042	0.084	—	—	—	0.00056	0.0038	—	—	—	—	—	—	—	0.0083	0.0010	0.0019	—	—
DP-2 SW	WS	Unfiltered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
LAUZ-1	WGA	Filtered	—	—	—	0.0082	—	—	0.091	—	—	—	0.0012	0.0073	—	—	—	—	—	—	—	0.0063	0.0011	0.0022	—	—
LAUZ-1	WGA	Unfiltered	—	—	0.00091	0.13	—	—	0.092	—	—	—	0.0047	0.0081	—	—	—	—	—	—	—	0.023	0.00081	0.0036	—	—
LAUZ-2	WGA	Filtered	—	—	—	—	—	—	0.051	—	—	—	—	0.0092	—	—	—	—	—	—	—	—	0.0011	—	—	—
LAUZ-2	WGA	Unfiltered	—	—	—	0.030	—	—	0.074	—	—	—	—	0.0088	—	—	—	—	—	—	—	—	0.0011	—	—	—
DP Spring	WS	Filtered	—	—	—	0.058	—	—	0.032	—	—	—	—	0.0064	—	—	—	—	—	—	—	—	—	0.0020	—	—
DP Spring	WS	Unfiltered	—	—	—	0.071	—	—	0.033	—	—	—	0.0041	0.0056	0.31	—	—	—	—	—	—	—	—	0.0020	—	—
LAO-2	WGA	Filtered	—	—	—	0.00054	—	0.016	0.030	—	—	—	—	0.0037	—	—	—	—	—	—	—	0.016	—	0.0010	—	—
LAO-2	WGA	Unfiltered	—	—	—	0.00093	—	0.011	0.031	—	—	—	—	0.0032	—	—	—	—	—	—	—	0.017	—	—	—	—
LAO-3a	WGA	Filtered	—	—	—	0.0035	—	0.012	0.027	—	—	—	—	0.0033	—	—	—	—	—	—	—	0.039	—	0.0015	—	—
LAO-3a	WGA	Unfiltered	—	—	0.00026	0.0065	—	—	0.026	—	—	—	—	0.0022	—	—	—	—	—	—	—	0.036	—	—	—	—
LAO-4	WGA	Filtered	—	—	—	0.00087	—	—	0.030	—	—	—	0.00041	0.0028	—	—	—	—	—	—	—	0.014	—	0.0017	—	—
LAO-4	WGA	Unfiltered	—	—	—	0.0021	—	—	0.031	—	—	—	0.00068	0.0027	—	—	0.0010	—	—	—	—	0.0058	—	0.0012	—	—
LAO-4.5c	WGA	Filtered	—	—	—	0.0025	—	—	0.024	—	—	—	0.00041	0.0026	—	—	—	—	—	—	—	—	—	0.0015	—	—
LAO-4.5c	WGA	Unfiltered	—	—	0.00020	0.012	—	—	0.023	—	—	—	0.00082	0.0025	—	—	—	0.0022	—	—	—	0.0094	—	0.0010	—	—
LAO-6a	WGA	Filtered	—	—	—	0.0014	—	—	0.014	—	—	—	—	0.0022	—	—	—	0.018	—	—	—	—	—	0.00094	—	—
LAO-6a	WGA	Unfiltered	—	—	—	0.0018	—	—	0.014	—	—	—	—	0.0025	—	—	—	—	—	—	—	—	—	—	—	—
SW @ E042	WS	Filtered	—	—	—	0.0052	—	—	0.017	—	—	—	0.00058	0.0031	—	—	—	—	—	—	—	0.010	—	0.00071	—	—
SW @ E042	WS	Unfiltered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Table 3.2-11 (continued)

Water Location	Media Code[a]	Field Preparation	Acenaphthene	Acenaphthylene	Acetone	Aluminum	Anthracene	Antimony	Barium	Benzo(g,h,i)perylene	Benzoic Acid	Benzyl Alcohol	Beryllium	Boron	Bromomethane	Butanone[2-]	Butylbenzylphthalate	Cadmium	Carbon Disulfide	Chloroform	Chloronaphthalene[2-]	Chromium	Cobalt	Copper	Cyanide, Amenable to Chlorination	Diethylphthalate
P-1FW SW	WS	Filtered	—	—	—	0.0058	—	—	0.051	—	—	—	—	—	—	—	—	—	—	—	—	0.0069	0.00051	0.0019	—	—
P-1FW SW	WS	Unfiltered	—	—	—	0.071	—	—	0.067	—	—	—	0.00038	—	—	—	—	—	—	—	—	0.014	0.00095	0.0034	—	—
Upper P-1W SW	WS	Filtered	—	—	—	—	—	0.25	0.039	—	—	—	—	—	—	—	—	—	—	—	—	0.074	0.0014	0.0013	—	—
Upper P-1W SW	WS	Unfiltered	—	—	—	0.019	—	0.20	0.047	—	—	—	0.00016	—	—	—	—	—	—	—	—	0.011	0.0018	0.0014	—	—
PAO-1	WGA	Filtered	—	—	—	—	—	0.27	0.026	—	—	—	0.00014	0.0062	—	—	—	—	—	—	—	0.026	0.0033	0.0015	—	—
PAO-1	WGA	Unfiltered	—	—	—	0.0013	—	0.022	0.026	—	—	—	0.00014	0.0061	—	—	—	—	—	—	—	0.0058	0.00066	0.0015	—	—
Lower P-1W SW	WS	Filtered	—	—	—	—	—	0.23	0.047	—	—	—	0.00014	0.0041	—	—	—	—	—	—	—	0.011	0.0036	0.0013	—	—
Lower P-1W SW	WS	Unfiltered	—	—	—	0.033	—	0.016	0.055	—	—	—	0.0016	0.0034	—	—	—	—	—	—	—	0.019	0.0033	0.0021	—	—
AC-2 SW	WS	Filtered	—	—	—	0.0030	—	—	0.051	—	—	—	—	—	—	—	—	—	—	—	—	0.0025	0.0011	0.0021	—	—
AC-2 SW	WS	Unfiltered	—	—	—	0.055	—	—	0.051	—	—	—	—	—	—	—	—	—	—	—	—	0.016	0.0012	0.0035	—	—
Upper Reach ACS SW	WS	Filtered	—	—	—	0.016	—	—	0.017	—	—	—	—	—	—	—	—	—	—	—	—	0.018	0.00063	0.0024	—	—
Upper Reach ACS SW	WS	Unfiltered	—	—	—	0.023	—	—	0.019	—	—	—	—	—	—	—	—	—	—	—	—	0.021	0.0010	0.0029	—	—
Lower Reach ACS SW	WS	Filtered	—	—	—	0.012	—	—	0.029	—	—	—	—	—	—	—	—	—	—	—	—	0.010	0.00064	0.0030	—	—
Lower Reach ACS SW	WS	Unfiltered	—	—	—	0.023	—	—	0.030	—	—	—	—	—	—	—	—	—	—	—	—	0.013	0.00090	0.0032	—	—
Lower AC-3 SW	WS	Filtered	—	—	—	—	—	0.016	0.031	—	—	—	—	0.0029	—	—	—	0.015	—	—	—	0.013	0.00056	0.0020	—	—
Lower AC-3 SW	WS	Unfiltered	0.0015	0.0025	0.00037	0.020	0.00031	0.019	0.039	0.0030	—	—	—	0.0029	—	—	—	0.019	—	—	0.00086	0.010	0.0016	0.0035	—	—
P-1E SW	WS	Filtered	—	—	—	—	—	—	0.047	—	—	—	—	—	—	—	—	0.0075	—	—	—	0.0071	0.0038	0.0010	—	—
P-1E SW	WS	Unfiltered	—	—	—	0.088	—	—	0.090	—	—	—	—	—	—	—	—	0.0094	—	—	—	0.016	0.0085	0.0035	—	—
PAO-2	WGA	Unfiltered	—	—	—	0.00073	—	—	0.024	—	—	—	0.00027	0.0044	—	—	—	—	—	—	—	—	—	0.0020	—	—
Pueblo 2	WS	Filtered	—	—	—	0.0021	—	0.016	0.021	—	—	—	0.00047	0.0043	—	—	—	—	—	—	—	—	—	—	—	—
Pueblo 2	WS	Unfiltered	0.0017	0.0035	—	0.015	0.00033	0.027	0.023	0.0032	—	—	0.0017	0.0052	—	—	—	—	—	—	0.0012	—	—	0.0011	—	—
PAO-3	WGA	Filtered	—	—	—	—	—	—	0.020	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.0015	—	—
PAO-3	WGA	Unfiltered	—	—	—	0.041	—	—	0.029	—	—	—	0.0018	0.012	—	—	—	—	—	—	—	0.015	0.00093	0.0023	—	—
PAO-4	WGA	Filtered	—	—	—	—	—	—	0.064	—	—	—	0.00059	0.052	—	—	—	0.0022	—	—	—	0.015	0.0028	0.0012	—	—
PAO-4	WGA	Unfiltered	—	—	0.000067	0.018	—	—	0.078	—	—	—	0.00045	0.054	—	—	—	—	—	—	—	0.037	0.0030	0.012	—	—
Pueblo 3	WS	Filtered	—	—	—	0.0035	—	0.016	0.021	—	—	—	0.00029	0.048	—	—	—	—	—	—	—	0.011	0.0035	0.027	—	—
Pueblo 3	WS	Unfiltered	—	—	0.00022	0.088	—	0.023	0.029	—	—	—	0.0029	0.048	—	—	—	0.010	—	0.0032	—	0.044	0.0035	0.032	—	0.000051
APCO-1	WGA	Filtered	—	—	—	—	—	—	0.021	—	—	—	—	0.051	—	—	—	0.021	—	—	—	—	0.0064	0.0034	—	—
APCO-1	WGA	Unfiltered	—	—	—	0.0011	—	—	0.023	—	—	—	0.00027	0.052	—	—	—	—	—	—	—	—	0.0061	0.0038	—	—
PAO-5N	WGA	Filtered	—	—	—	0.0020	—	—	0.025	—	—	—	0.00026	0.052	—	—	—	—	—	—	—	0.0091	0.015	0.0043	—	—
PAO-5N	WGA	Unfiltered	—	—	—	0.0020	—	—	0.026	—	—	—	0.00038	0.054	—	—	—	0.0056	—	—	—	0.016	0.015	0.0045	—	—

Table 3.2-11 (continued)

Water Location	Media Code[a]	Field Preparation	Acenaphthene	Acenaphthylene	Acetone	Aluminum	Anthracene	Antimony	Barium	Benzo(g,h,i)perylene	Benzoic Acid	Benzyl Alcohol	Beryllium	Boron	Bromomethane	Butanone[2-]	Butylbenzylphthalate	Cadmium	Carbon Disulfide	Chloroform	Chloronaphthalene[2-]	Chromium	Cobalt	Copper	Cyanide, Amenable to Chlorination	Diethylphthalate
Pueblo at 502	WS	Filtered	—	—	—	0.0041	—	0.035	0.033	—	—	—	0.00027	0.053	—	—	—	0.014	—	—	—	0.016	0.0046	0.0082	—	—
Pueblo at 502	WS	Unfiltered	—	—	0.00093	0.11	—	0.010	0.090	—	—	—	0.00045	0.053	—	—	—	0.0025	—	—	—	0.026	0.0074	0.0067	—	—
Basalt Spring	WS	Filtered	—	—	—	0.0049	—	0.20	0.055	—	—	—	0.00014	0.030	—	—	—	—	—	—	—	0.0072	0.0049	0.0081	—	—
Basalt Spring	WS	Unfiltered	—	—	—	0.018	—	0.20	0.054	—	—	—	0.00063	0.029	—	—	—	—	—	—	—	0.012	0.0049	0.010	—	—
LA Spring	WS	Filtered	—	—	—	—	—	—	0.017	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
LA Spring	WS	Unfiltered	—	—	—	0.00011	—	—	0.0016	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
LLAO-1b	WGA	Filtered	—	—	—	0.00058	—	—	0.051	—	—	—	0.00027	0.032	—	—	—	—	—	—	—	0.012	0.0036	0.0059	—	—
LLAO-1b	WGA	Unfiltered	—	—	—	0.066	—	—	0.069	—	—	—	0.0040	0.032	—	—	—	0.0054	0.0012	—	—	0.072	0.0071	0.11	—	—
LA-4E SW	WS	Filtered	—	—	—	0.0044	—	0.020	0.030	—	—	—	0.00014	0.036	—	—	—	—	—	—	—	0.022	0.0042	0.0070	—	—
LA-4E SW	WS	Unfiltered	—	—	0.00022	0.033	—	—	0.031	—	—	—	0.0015	0.036	—	—	—	—	—	—	—	0.043	0.0084	0.0089	—	—
LLAO-2	WGA	Filtered	—	—	—	—	—	—	0.15	—	—	—	—	0.031	—	—	—	—	—	—	—	—	—	—	—	—
LLAO-2	WGA	Unfiltered	—	—	—	0.042	—	—	0.15	—	—	—	—	0.029	—	—	—	—	—	—	—	—	—	—	—	—
Guaje SW @ LA Confluence	WS	Filtered	—	—	—	—	—	—	0.051	—	—	—	—	—	—	—	—	—	—	—	—	0.014	0.00071	0.00038	—	—
Guaje SW @ LA Confluence	WS	Unfiltered	—	—	—	0.0016	—	—	0.051	—	—	—	—	—	—	—	—	0.0037	—	—	—	0.0069	0.00073	0.00081	—	—
LA SW @ Guaje Confluence	WS	Filtered	—	—	—	—	—	—	0.042	—	—	—	—	—	—	—	—	—	—	—	—	0.0067	0.0015	0.0033	—	—
LA SW @ Guaje Confluence	WS	Unfiltered	—	—	—	0.023	—	0.080	0.044	—	—	—	0.0026	—	—	—	—	—	—	—	—	0.014	0.0015	0.0046	—	—
LLAO-4	WGA	Filtered	—	—	—	—	—	—	0.059	—	—	—	0.0018	0.012	—	—	—	—	—	—	—	0.0043	—	0.0017	—	—
LLAO-4	WGA	Unfiltered	—	—	—	—	—	—	0.059	—	—	—	0.00055	0.012	—	—	—	—	—	—	—	0.0058	0.00056	—	—	—
Lower Reach LA-5 SW	WS	Filtered	—	—	—	0.018	—	—	0.038	—	—	—	0.0026	0.012	—	—	—	—	—	—	—	0.016	0.0013	0.0025	—	—
Lower Reach LA-5 SW	WS	Unfiltered	—	—	—	0.060	—	—	0.055	—	—	—	0.0048	—	—	—	—	—	—	—	—	0.018	0.0019	0.0038	—	—
LLAO-5	WGA	Filtered	—	—	—	—	—	—	0.13	—	—	—	0.0010	0.016	—	—	—	—	—	—	—	0.015	—	—	—	—
LLAO-5	WGA	Unfiltered	—	—	—	0.0064	—	0.23	0.13	—	—	—	0.0012	0.014	—	—	—	—	—	—	—	0.016	0.00051	0.00073	—	—
Otowi Spring	WS	Filtered	—	—	—	—	—	—	0.073	—	—	—	—	0.0091	—	—	—	—	—	—	—	—	0.00012	—	—	—
Otowi Spring	WS	Unfiltered	—	—	—	0.0069	—	—	0.071	—	—	—	0.00014	0.0088	—	—	—	—	—	—	—	0.0071	0.00025	0.0013	—	—

Table 3.2-11 (continued)

Water Location	Media Code[a]	Field Preparation	Di-n-butylphthalate	Endrin Aldehyde	Ethylbenzene	Fluoranthene	Fluorene	Fluoride	Iron	Isopropyltoluene[4-]	Lead	Lithium	Manganese	Mercury	Methylnaphthalene[2-]	Molybdenum	Naphthalene	Nickel	Nitrate	Nitrite	Perchlorate	Phenanthrene	Phenol	Pyrene	Selenium	Silver
Los Alamos Creek upstream of LA Reservoir	WS	Filtered	—	—	—	—	—	—	—	—	0.19	—	0.015	—	—	—	—	—	—	—	3.2	—	—	—	—	—
Los Alamos Creek upstream of LA Reservoir	WS	Unfiltered	—	—	—	—	—	—	0.0033	—	—	—	0.018	—	—	—	—	—	—	—	—	—	—	—	—	—
Los Alamos Reservoir	WS	Filtered	—	—	—	—	—	0.087	0.040	—	0.018	—	2.8	—	—	—	—	0.0023	—	—	—	—	—	—	—	0.0049
Los Alamos Reservoir	WS	Unfiltered	—	—	—	—	—	0.059	0.067	—	0.047	—	2.7	—	—	—	—	—	—	—	—	—	—	—	0.012	—
Los Alamos Creek below LA Reservoir	WS	Filtered	—	—	—	—	—	—	0.0022	—	0.0050	—	0.013	—	—	0.0067	—	—	—	—	—	—	—	—	—	—
Los Alamos Creek below LA Reservoir	WS	Unfiltered	—	—	—	—	—	—	0.011	—	0.040	—	0.023	—	—	0.0065	—	—	—	—	—	—	—	—	—	—
LAO-B	WGA	Filtered	—	—	—	—	—	0.097	0.026	—	0.0076	—	0.0076	—	—	0.0041	—	0.0011	—	—	4.2	—	—	—	0.0039	0.0030
LAO-B	WGA	Unfiltered	—	—	0.00014	—	—	—	0.011	—	0.0036	—	0.0014	—	—	0.0040	—	0.0010	—	—	—	—	—	—	0.0019	0.0044
LA-Bkgd SW	WS	Filtered	—	—	—	—	—	—	0.040	—	—	—	0.82	—	—	—	—	0.0029	—	—	—	—	—	—	—	—
LA-Bkgd SW	WS	Unfiltered	—	—	—	—	—	—	0.14	—	—	—	0.88	—	—	—	—	0.0048	—	—	—	—	—	—	—	—
SW @ E026	WS	Filtered	—	—	—	—	—	—	—	—	—	—	0.50	0.011	—	—	—	—	—	—	—	—	—	—	—	—
SW @ E026	WS	Unfiltered	—	—	—	—	—	—	2.2	—	2.9	—	1.3	—	—	—	—	0.055	—	—	—	—	—	—	0.0043	—
LAO-C	WGA	Filtered	—	—	—	—	—	0.088	0.12	—	0.13	—	0.086	0.0045	—	0.034	—	0.0024	—	—	—	—	—	—	—	—
LAO-C	WGA	Unfiltered	—	—	—	—	—	—	0.064	—	0.18	—	0.20	—	—	0.011	—	0.0042	—	—	—	—	—	—	—	0.0017
LA-1W SW	WS	Filtered	—	—	—	—	—	0.12	0.0075	—	—	—	0.25	—	—	—	—	—	—	—	—	—	—	—	—	—
LA-1W SW	WS	Unfiltered	—	—	—	—	—	—	1.3	0.00032	2.6	—	0.93	—	—	—	—	0.021	—	—	—	—	—	—	0.0087	0.0041
LAO-0.3	WGA	Filtered	—	—	—	—	—	0.12	0.012	—	0.031	—	0.014	—	—	0.013	—	0.0014	—	—	—	—	—	—	0.021	0.0027
LAO-0.3	WGA	Unfiltered	—	—	—	—	—	—	0.071	—	0.091	—	0.034	—	—	0.015	—	0.0013	—	—	—	—	—	—	0.013	0.0018
LAO-0.6	WGA	Filtered	—	—	—	—	—	0.12	0.018	—	0.013	—	0.052	—	—	—	—	0.0015	—	—	—	—	—	—	0.011	0.0025
LAO-0.6	WGA	Unfiltered	—	—	—	—	—	—	0.13	—	0.091	—	0.54	—	—	—	—	0.066	—	—	—	—	—	—	0.012	0.00033
SW @ LAO-0.6	WS	Filtered	—	—	—	—	—	0.064	0.020	—	—	—	1.5	—	—	—	—	0.0034	—	—	—	—	—	—	—	—
SW @ LAO-0.6	WS	Unfiltered	—	—	—	—	—	—	0.13	—	0.033	—	1.5	—	—	—	—	0.0029	—	—	—	—	—	—	0.020	0.00016
LAO-0.7	WGA	Filtered	—	—	—	—	—	0.080	0.012	—	—	—	0.33	—	—	0.0059	—	0.0023	—	—	—	—	—	—	—	—
LAO-0.7	WGA	Unfiltered	—	—	—	—	—	—	0.061	—	0.18	—	0.38	0.041	—	0.0045	—	0.0035	—	—	—	—	—	—	—	—
LAO-0.91	WGA	Filtered	—	—	—	—	—	0.059	0.00075	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.012	—
LAO-0.91	WGA	Unfiltered	—	—	—	—	—	—	0.0078	—	0.0083	—	0.0013	—	—	—	—	—	—	—	—	—	—	—	0.013	—
LA-1C SW	WS	Filtered	—	—	—	—	—	0.11	0.36	—	—	—	0.13	—	—	—	—	0.0012	—	—	—	—	—	—	—	0.0038

Table 3.2-11 (continued)

Water Location	Media Code[a]	Field Preparation	Di-n-butylphthalate	Endrin Aldehyde	Ethylbenzene	Fluoranthene	Fluorene	Fluoride	Iron	Isopropyltoluene[4-]	Lead	Lithium	Manganese	Mercury	Methylnaphthalene[2-]	Molybdenum	Naphthalene	Nickel	Nitrate	Nitrite	Perchlorate	Phenanthrene	Phenol	Pyrene	Selenium	Silver
LA-1C SW	WS	Unfiltered	—	—	—	—	—	—	0.67	—	1.4	—	0.43	—	—	—	—	0.011	—	—	—	—	—	—	0.0029	0.0036
LAO-1	WGA	Filtered	—	—	—	—	—	0.091	0.036	—	—	—	0.0016	—	—	0.10	—	—	—	—	—	—	—	—	—	—
LAO-1	WGA	Unfiltered	0.00049	—	—	—	—	—	0.11	—	—	—	0.010	—	—	0.10	—	0.0018	—	—	—	—	—	—	—	—
LAO-1.2	WGA	Filtered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.0027	—	—	—	—	—	—	—	0.0048
LAO-1.2	WGA	Unfiltered	—	—	—	—	—	—	0.34	—	0.11	—	0.016	—	—	—	—	0.0056	—	—	—	—	—	—	—	—
LAO-1.6g	WGA	Filtered	—	—	—	—	—	0.28	0.010	—	0.010	—	0.0019	—	—	0.77	—	0.0015	—	—	—	—	—	—	0.0082	0.0026
LAO-1.6g	WGA	Unfiltered	—	—	—	—	—	0.28	0.041	—	0.015	—	0.0053	—	—	0.77	—	0.0037	—	—	—	—	—	—	0.0093	0.0044
SW @ E030	WS	Filtered	—	—	—	—	—	0.040	0.0013	—	—	—	0.0033	—	—	—	—	—	—	—	—	—	—	—	—	—
SW @ E030	WS	Unfiltered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
DP-1W SW	WS	Filtered	—	—	—	—	—	0.33	0.068	—	0.17	—	0.23	—	—	0.033	—	0.0040	—	—	—	—	—	—	0.021	—
DP-1W SW	WS	Unfiltered	—	—	—	—	—	—	0.14	—	0.31	—	0.25	—	—	0.025	—	0.0070	—	—	—	—	0.00027	—	0.019	—
DP-1C SW	WS	Filtered	—	—	—	—	—	0.25	0.21	—	0.064	—	0.16	—	—	0.050	—	0.0037	—	—	—	—	—	—	—	—
DP-1C SW	WS	Unfiltered	—	—	—	—	0.0062	—	0.42	—	0.55	—	0.16	—	—	0.047	—	0.0036	—	—	—	—	—	—	0.018	—
DP-2 SW	WS	Filtered	—	—	—	—	—	0.13	0.0034	—	0.013	—	0.070	0.016	—	0.019	—	0.0037	—	—	—	—	—	—	—	—
DP-2 SW	WS	Unfiltered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
LAUZ-1	WGA	Filtered	—	—	—	—	—	0.37	0.017	—	0.33	0.012	0.023	—	—	0.030	—	0.0038	—	—	—	—	—	—	—	0.0033
LAUZ-1	WGA	Unfiltered	—	—	—	—	—	0.35	0.27	—	0.40	0.012	0.058	—	—	0.012	—	0.0040	—	—	—	—	—	—	—	0.0042
LAUZ-2	WGA	Filtered	—	—	—	—	—	0.59	0.096	—	—	0.014	0.49	—	—	—	—	0.0030	—	—	—	—	—	—	—	—
LAUZ-2	WGA	Unfiltered	—	—	—	—	—	0.59	0.61	—	0.20	0.012	0.51	—	—	—	—	0.0032	—	—	—	—	—	—	—	—
DP Spring	WS	Filtered	—	—	—	—	—	0.50	0.086	—	0.20	0.017	0.00070	—	—	0.018	—	0.0019	—	—	—	—	—	—	—	—
DP Spring	WS	Unfiltered	—	—	—	—	—	0.50	0.12	—	0.27	0.018	0.010	—	—	0.021	—	0.0037	—	—	—	—	—	—	—	—
LAO-2	WGA	Filtered	—	—	—	—	—	0.27	—	—	0.16	—	—	0.030	—	11	—	0.0013	—	—	—	—	—	—	—	—
LAO-2	WGA	Unfiltered	—	—	—	—	—	—	—	—	0.11	—	0.0023	—	—	11	—	0.0011	—	—	—	—	—	—	0.016	—
LAO-3a	WGA	Filtered	—	—	—	—	—	0.31	0.0058	—	0.15	—	0.0047	—	—	11	—	—	—	—	—	—	—	—	—	—
LAO-3a	WGA	Unfiltered	0.0010	—	—	—	—	—	0.011	—	0.0051	—	0.0015	0.020	—	11	—	0.00063	—	—	0.32	—	—	—	0.013	—
LAO-4	WGA	Filtered	—	—	—	—	—	0.73	—	—	0.19	—	0.00027	—	—	3.2	—	—	—	—	—	—	—	—	—	—
LAO-4	WGA	Unfiltered	0.00066	—	—	—	—	—	0.0042	—	—	—	0.00023	—	—	3.2	—	0.0018	—	—	—	—	—	—	—	—
LAO-4.5c	WGA	Filtered	—	—	—	—	—	0.73	0.0037	—	0.13	—	0.024	—	—	0.18	—	0.0012	—	—	—	—	—	—	—	—
LAO-4.5c	WGA	Unfiltered	—	—	—	—	—	—	0.019	—	0.11	—	0.0016	—	—	0.17	—	0.0018	—	—	—	—	—	—	—	0.013
LAO-6a	WGA	Filtered	—	—	—	—	—	0.21	—	—	—	—	—	—	—	0.047	—	—	—	—	—	—	—	—	—	—
LAO-6a	WGA	Unfiltered	—	—	—	—	—	—	—	—	0.13	—	—	—	—	0.047	—	—	—	—	—	—	—	—	—	—
SW @ E042	WS	Filtered	—	—	—	—	—	0.049	0.0083	—	0.011	—	0.0060	—	—	0.061	—	—	—	—	—	—	—	—	0.019	—
SW @ E042	WS	Unfiltered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Table 3.2-11 (continued)

Water Location	Media Code*	Field Preparation	Di-n-butylphthalate	Endrin Aldehyde	Ethylbenzene	Fluoranthene	Fluorene	Fluoride	Iron	Isopropyltoluene[4-]	Lead	Lithium	Manganese	Mercury	Methylnaphthalene[2-]	Molybdenum	Naphthalene	Nickel	Nitrate	Nitrite	Perchlorate	Phenanthrene	Phenol	Pyrene	Selenium	Silver
P-1FW SW	WS	Filtered	—	—	—	—	—	0.055	—	—	0.034	—	0.88	0.0010	—	—	—	0.0029	—	—	—	—	—	—	0.0077	0.0031
P-1FW SW	WS	Unfiltered	—	—	—	—	—	—	0.26	—	0.63	—	1.1	0.0018	—	—	—	0.0034	—	—	—	—	—	—	0.0060	—
Upper P-1W SW	WS	Filtered	—	—	—	—	—	0.068	—	—	—	—	1.7	0.0019	—	—	—	0.0040	—	—	—	—	—	—	0.0077	—
Upper P-1W SW	WS	Unfiltered	—	—	—	—	—	—	0.063	—	0.15	—	1.8	0.0019	—	—	—	0.0030	—	—	—	—	—	—	0.0077	—
PAO-1	WGA	Filtered	—	—	—	—	—	0.068	0.0019	—	—	—	1.3	—	—	0.026	—	0.0038	—	—	—	—	—	—	0.0082	0.00033
PAO-1	WGA	Unfiltered	—	—	—	—	—	—	0.0048	—	0.0034	—	1.3	—	—	0.020	—	0.0031	—	—	—	—	—	—	0.0093	0.00033
Lower P-1W SW	WS	Filtered	—	—	—	—	—	0.12	0.048	—	—	—	0.76	0.0017	—	0.024	—	0.0026	—	—	—	—	—	—	0.0066	0.00022
Lower P-1W SW	WS	Unfiltered	—	—	—	—	—	—	0.19	—	0.19	—	0.82	0.0015	—	—	—	0.0032	—	—	—	—	—	—	0.0082	0.0026
AC-2 SW	WS	Filtered	—	—	—	—	—	0.087	—	—	—	—	0.082	—	—	—	—	0.0010	—	—	—	—	—	—	—	—
AC-2 SW	WS	Unfiltered	—	—	—	—	—	—	0.11	—	0.23	—	0.065	—	—	—	—	0.0027	—	—	—	—	—	—	—	—
Upper Reach ACS SW	WS	Filtered	—	—	—	—	—	0.21	0.010	—	—	—	0.0016	0.0020	—	0.025	—	0.0018	—	—	—	—	—	—	—	—
Upper Reach ACS SW	WS	Unfiltered	—	—	—	—	—	—	0.053	—	0.16	—	0.0055	—	—	—	—	0.00074	—	—	—	—	—	—	—	0.0035
Lower Reach ACS SW	WS	Filtered	—	—	—	—	—	0.11	—	—	—	—	0.0021	—	—	—	—	0.0023	—	—	—	—	—	—	—	—
Lower Reach ACS SW	WS	Unfiltered	—	—	—	—	—	—	0.047	—	0.11	—	0.0052	—	—	0.022	—	0.0015	—	—	—	—	—	—	—	—
Lower AC-3 SW	WS	Filtered	—	—	—	—	—	0.11	0.0016	—	—	—	0.048	0.010	—	—	—	0.0025	—	—	—	—	—	—	0.0027	—
Lower AC-3 SW	WS	Unfiltered	—	—	—	0.00035	0.0019	—	0.040	—	0.31	—	0.094	—	0.058	—	0.061	0.0044	—	—	—	0.0037	—	0.0030	0.0017	—
P-1E SW	WS	Filtered	—	—	—	—	—	0.10	0.0065	—	0.00073	—	3.3	0.0025	—	—	—	0.0041	—	—	1.3	—	—	—	0.012	0.00033
P-1E SW	WS	Unfiltered	—	—	—	—	—	—	0.47	—	0.73	—	3.6	0.0019	—	—	—	0.0048	—	—	—	—	—	—	0.012	0.0033
PAO-2	WGA	Unfiltered	—	—	—	—	—	—	—	—	—	—	0.0029	—	—	0.011	—	—	—	—	—	—	—	—	0.0051	—
Pueblo 2	WS	Filtered	—	—	—	—	—	0.10	0.0031	—	—	—	0.0035	—	—	—	—	—	—	—	—	—	—	—	—	—
Pueblo 2	WS	Unfiltered	—	—	—	0.00043	0.0024	—	0.028	—	0.063	—	0.0093	—	0.094	0.0087	0.090	—	—	—	—	0.0037	—	0.0037	—	—
PAO-3	WGA	Filtered	—	—	—	—	—	0.16	—	—	—	—	0.00011	—	—	—	—	—	—	—	—	—	—	—	—	—
PAO-3	WGA	Unfiltered	—	—	—	—	—	—	0.070	—	—	—	0.21	—	—	0.017	—	0.0031	—	—	—	—	—	—	0.0033	—
PAO-4	WGA	Filtered	—	—	—	—	—	0.32	0.53	—	0.022	—	1.3	—	—	0.013	—	0.0060	—	—	2.4	—	—	—	0.019	0.00038
PAO-4	WGA	Unfiltered	—	—	—	—	—	0.24	0.51	—	0.026	—	1.4	—	—	0.012	—	0.010	0.024	—	—	—	—	—	0.020	0.0089
Pueblo 3	WS	Filtered	—	—	—	—	—	0.29	0.037	—	0.054	—	0.76	—	—	0.043	—	0.010	—	—	—	—	—	—	0.0054	0.0047
Pueblo 3	WS	Unfiltered	—	0.0026	—	—	—	—	0.26	—	0.52	—	0.82	—	—	0.042	—	0.0090	—	—	—	—	—	—	0.021	0.013
APCO-1	WGA	Filtered	—	—	—	—	—	0.21	0.14	—	—	—	1.5	—	—	0.014	—	0.0089	—	—	—	—	—	—	—	—
APCO-1	WGA	Unfiltered	—	—	—	—	—	—	0.16	—	0.18	—	1.5	0.010	—	0.015	—	0.011	—	—	—	—	—	—	—	—
PAO-5N	WGA	Filtered	—	—	—	—	—	0.26	0.15	—	0.026	—	2.3	—	—	0.012	—	0.018	0.31	—	1.7	—	—	—	0.017	0.00027

Table 3.2-11 (continued)

Water Location	Media Code[a]	Field Preparation	Di-n-butylphthalate	Endrin Aldehyde	Ethylbenzene	Fluoranthene	Fluorene	Fluoride	Iron	Isopropyltoluene[4-]	Lead	Lithium	Manganese	Mercury	Methylnaphthalene[2-]	Molybdenum	Naphthalene	Nickel	Nitrate	Nitrite	Perchlorate	Phenanthrene	Phenol	Pyrene	Selenium	Silver
PAO-5N	WGA	Unfiltered	—	—	—	—	—	0.18	0.12	—	0.028	—	2.4	—	—	0.011	—	0.016	0.29	—	—	—	—	—	0.011	0.0059
Pueblo at 502	WS	Filtered	—	—	—	—	—	0.18	0.048	—	0.090	—	1.1	—	—	0.053	—	0.0085	—	—	—	—	—	—	—	0.0069
Pueblo at 502	WS	Unfiltered	—	—	—	—	—	—	0.57	—	1.2	—	1.1	—	—	0.051	—	0.013	—	—	—	—	—	—	0.018	—
Basalt Spring	WS	Filtered	—	—	—	—	—	0.19	0.0042	—	0.0063	—	0.0063	—	—	0.043	—	0.014	—	—	—	—	—	—	0.011	0.00011
Basalt Spring	WS	Unfiltered	—	—	—	—	—	—	0.033	—	0.010	—	0.0082	—	—	0.044	—	0.014	—	—	—	—	—	—	0.010	0.00016
LA Spring	WS	Filtered	—	—	—	—	—	0.090	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.017	—
LA Spring	WS	Unfiltered	—	—	—	—	—	—	0.00036	—	—	—	0.0023	—	—	0.022	—	—	—	—	—	—	—	—	0.022	—
LLAO-1b	WGA	Filtered	—	—	—	—	—	0.28	0.0037	—	0.0035	—	0.039	—	—	0.033	—	0.0095	0.74	—	—	—	—	—	0.023	0.00016
LLAO-1b	WGA	Unfiltered	—	—	—	—	—	0.21	0.34	—	0.17	—	0.14	—	—	0.044	—	0.016	0.73	—	—	—	—	—	0.012	0.0027
LA-4E SW	WS	Filtered	—	—	—	—	—	0.23	0.0027	—	0.013	—	0.016	—	—	0.069	—	0.012	—	—	—	—	—	—	0.014	0.00038
LA-4E SW	WS	Unfiltered	—	—	—	—	—	—	0.074	—	0.13	—	0.053	—	—	0.069	—	0.015	—	—	—	—	—	—	0.028	0.016
LLAO-2	WGA	Filtered	—	—	—	—	—	—	0.0017	—	—	—	0.012	—	—	—	—	—	—	—	—	—	—	—	—	—
LLAO-2	WGA	Unfiltered	—	—	—	—	—	—	0.073	—	—	—	0.047	—	—	—	—	—	—	—	—	—	—	—	—	—
Guaje SW @ LA Confluence	WS	Filtered	—	—	—	—	—	—	0.0094	—	—	—	0.018	—	—	—	—	0.0038	—	—	—	—	—	—	0.0077	—
Guaje SW @ LA Confluence	WS	Unfiltered	—	—	—	—	—	—	0.0044	—	—	—	0.020	—	—	—	—	0.0041	—	—	—	—	—	—	0.0093	—
LA SW @ Guaje Confluence	WS	Filtered	—	—	—	—	—	—	—	—	—	—	0.18	—	—	—	—	0.0067	—	—	—	—	—	—	0.014	—
LA SW @ Guaje Confluence	WS	Unfiltered	—	—	—	—	—	—	0.065	—	0.10	—	0.19	—	—	—	—	0.0067	—	—	—	—	—	—	0.0055	—
LLAO-4	WGA	Filtered	—	—	—	—	—	0.20	—	—	0.0039	—	—	—	—	—	—	0.0027	—	0.083	—	—	—	—	0.011	—
LLAO-4	WGA	Unfiltered	—	—	—	—	—	—	—	—	0.0035	—	—	—	—	—	—	0.0027	—	0.092	—	—	—	—	0.013	0.00011
Lower Reach LA-5 SW	WS	Filtered	—	—	—	—	—	0.11	0.052	—	0.0026	—	0.045	—	—	0.040	—	0.0040	—	—	—	—	—	—	—	—
Lower Reach LA-5 SW	WS	Unfiltered	—	—	—	—	—	—	0.16	—	0.27	—	0.19	—	—	—	—	0.0058	—	—	1.1	—	—	—	0.020	—
LLAO-5	WGA	Filtered	—	—	—	—	—	0.21	0.0031	—	0.0057	—	0.0015	—	—	0.0042	—	0.0038	—	4.0	—	—	—	—	0.024	—
LLAO-5	WGA	Unfiltered	—	—	—	—	—	—	0.015	—	0.010	—	0.017	—	—	0.0041	—	0.0038	—	3.1	—	—	—	—	0.020	0.00011
Otowi Spring	WS	Filtered	—	—	—	—	—	0.082	—	—	0.25	—	0.00022	—	—	—	—	—	—	—	—	—	—	—	0.0032	—
Otowi Spring	WS	Unfiltered	—	—	—	—	—	—	0.027	—	—	—	0.0058	—	—	—	—	—	—	—	—	—	—	—	0.0032	—

Table 3.2-11 (continued)

Water Location	Media Code[a]	Field Preparation	Strontium	Thallium	Titanium	Toluene	Trimethylbenzene[1,2,4-]	Uranium	Vanadium	Xylene (Total)	Xylene[1,2-]	Xylene[1,3-]+Xylene[1,4-]	Zinc	HI noncarcinogens	Arsenic	Benzene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	BHC[beta-]	BHC[gamma-]	Bis(2-ethylhexyl)phthalate	Bromodichloromethane	Chrysene
Los Alamos Creek upstream of LA Reservoir	WS	Filtered	—	—	—	—	—	0.0000016	0.052	—	—	—	0.00014	**3.4**	—	—	—	—	—	—	—	—	—	—	—
Los Alamos Creek upstream of LA Reservoir	WS	Unfiltered	—	—	—	—	—	0.013	0.052	—	—	—	0.00013	0.098	—	—	—	—	—	—	—	—	—	—	—
Los Alamos Reservoir	WS	Filtered	0.0036	—	—	—	—	0.057	0.040	—	—	—	0.00030	**3.1**	6.2	—	—	—	—	—	—	—	—	—	—
Los Alamos Reservoir	WS	Unfiltered	0.0036	0.20	—	0.0014	—	0.096	0.052	—	—	—	0.00029	**3.3**	3.3	—	—	—	—	—	—	—	0.0042	—	—
Los Alamos Creek below LA Reservoir	WS	Filtered	—	—	—	—	—	0.0000012	0.070	—	—	—	—	0.11	—	—	—	—	—	—	—	—	—	—	—
Los Alamos Creek below LA Reservoir	WS	Unfiltered	—	—	—	—	—	0.0000015	0.075	—	—	—	—	0.17	—	—	—	—	—	—	—	—	—	—	—
LAO-B	WGA	Filtered	—	0.24	—	—	—	0.021	0.026	—	—	—	0.0019	**4.7**	3.0	—	—	—	—	—	—	—	—	—	—
LAO-B	WGA	Unfiltered	—	0.18	—	0.0017	0.024	0.016	0.026	0.0049	0.00022	0.0036	0.00031	0.32	0.98	0.13	—	—	—	—	—	—	—	—	—
LA-Bkgd SW	WS	Filtered	—	—	—	—	—	—	—	—	—	—	0.00048	0.91	—	—	—	—	—	—	—	—	—	—	—
LA-Bkgd SW	WS	Unfiltered	—	—	—	—	—	—	0.060	—	—	—	0.00072	**1.1**	—	—	—	—	—	—	—	—	—	—	—
SW @ E026	WS	Filtered	—	—	—	—	—	—	—	—	—	—	—	0.54	—	—	—	—	—	—	—	—	—	—	—
SW @ E026	WS	Unfiltered	—	1.1	—	—	—	—	—	—	—	—	0.013	**9.1**	9.1	—	—	—	—	—	—	—	—	—	—
LAO-C	WGA	Filtered	0.0048	0.089	—	—	—	0.078	0.067	—	—	—	0.00071	0.81	5.1	—	—	—	—	—	—	—	—	—	—
LAO-C	WGA	Unfiltered	0.0047	0.029	—	—	—	0.073	0.051	—	—	—	0.00053	0.69	5.4	—	—	—	—	—	—	—	—	—	—
LA-1W SW	WS	Filtered	—	0.029	—	—	—	0.29	0.16	—	—	—	—	0.89	9.0	—	—	—	—	—	—	—	—	—	—
LA-1W SW	WS	Unfiltered	—	0.17	—	0.0014	—	0.57	0.71	—	—	—	0.0088	**7.5**	17	—	—	—	—	—	—	—	—	—	—
LAO-0.3	WGA	Filtered	—	—	—	—	—	0.024	0.038	—	—	—	0.00047	0.34	4.9	—	—	—	—	—	—	—	—	—	—
LAO-0.3	WGA	Unfiltered	—	—	—	—	—	0.017	0.071	—	—	—	0.00049	0.38	2.6	—	—	—	—	—	—	—	—	—	—
LAO-0.6	WGA	Filtered	—	—	—	—	—	—	0.060	—	—	—	0.00029	0.35	1.6	—	—	—	—	—	—	—	—	—	—
LAO-0.6	WGA	Unfiltered	—	0.014	—	—	—	0.056	0.12	—	—	—	0.00038	**1.4**	2.5	—	—	—	—	—	—	—	—	—	—
SW @ LAO-0.6	WS	Filtered	—	—	—	—	—	—	0.27	—	—	—	0.0013	**1.9**	4.7	—	—	—	—	—	—	—	—	—	—
SW @ LAO-0.6	WS	Unfiltered	—	—	—	—	—	0.0000015	0.26	—	—	—	0.0013	**2.1**	7.8	—	—	—	—	—	—	—	—	—	—
LAO-0.7	WGA	Filtered	0.0062	0.069	—	—	—	0.058	0.080	—	—	—	0.00092	0.69	7.5	—	—	—	—	—	—	—	—	—	—
LAO-0.7	WGA	Unfiltered	0.0060	0.057	—	—	—	0.058	0.073	—	—	—	0.0011	0.94	8.4	—	—	—	—	—	—	—	0.0035	—	—
LAO-0.91	WGA	Filtered	—	—	—	—	—	0.051	0.12	—	—	—	—	0.38	4.0	—	—	—	—	—	—	—	—	—	—
LAO-0.91	WGA	Unfiltered	—	—	—	—	—	0.053	0.12	—	—	—	—	0.33	3.8	—	—	—	—	—	—	—	—	—	—
LA-1C SW	WS	Filtered	—	0.012	—	—	—	0.28	0.16	—	—	—	—	**1.1**	—	—	—	—	—	—	—	—	—	—	—

Table 3.2-11 (continued)

Water Location	Media Code[a]	Field Preparation	Strontium	Thallium	Titanium	Toluene	Trimethylbenzene[1,2,4-]	Uranium	Vanadium	Xylene (Total)	Xylene[1,2-]	Xylene[1,3-]+Xylene[1,4-]	Zinc	HI noncarcinogens	Arsenic	Benzene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	BHC[beta-]	BHC[gamma-]	Bis(2-ethylhexyl)phthalate	Bromodichloromethane	Chrysene
LA-1C SW	WS	Unfiltered	—	0.087	—	0.00044	—	0.47	0.45	—	—	—	0.0048	**4.2**	—	—	—	—	—	—	—	—	—	—	—
LAO-1	WGA	Filtered	0.0079	0.037	—	—	—	0.018	0.090	—	—	—	0.00060	0.57	8.3	—	—	—	—	—	—	—	—	—	—
LAO-1	WGA	Unfiltered	0.0079	—	—	0.00053	—	0.032	0.11	—	—	—	0.0012	0.64	8.6	—	—	—	—	—	—	—	0.071	—	—
LAO-1.2	WGA	Filtered	—	1.8	—	—	—	—	0.058	—	—	—	—	**2.3**	—	—	—	—	—	—	—	—	—	—	—
LAO-1.2	WGA	Unfiltered	—	—	—	—	—	—	0.21	—	—	—	—	**1.3**	—	—	—	—	—	—	—	—	—	—	—
LAO-1.6g	WGA	Filtered	—	0.26	—	—	—	0.019	0.058	—	—	—	0.0011	**1.5**	2.9	—	—	—	—	—	—	—	—	—	—
LAO-1.6g	WGA	Unfiltered	—	0.87	—	—	—	0.030	0.071	—	—	—	0.0013	**2.2**	6.4	—	—	—	—	—	—	—	0.062	—	—
SW @ E030	WS	Filtered	0.0053	0.19	—	—	—	—	0.032	—	—	—	0.00017	0.29	—	—	—	—	—	—	—	—	—	—	—
SW @ E030	WS	Unfiltered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
DP-1W SW	WS	Filtered	—	1.3	—	—	—	0.22	0.54	—	—	—	0.053	**3.1**	24	—	—	—	—	—	—	—	—	—	—
DP-1W SW	WS	Unfiltered	—	0.015	—	0.00025	—	0.17	0.59	—	—	—	0.086	**1.9**	27	—	—	—	—	—	[$]0.27	—	0.071	0.12	—
DP-1C SW	WS	Filtered	—	1.2	—	—	—	0.15	0.35	—	—	—	0.0048	**2.7**	16	—	—	—	—	—	—	—	—	—	—
DP-1C SW	WS	Unfiltered	—	1.2	—	0.00030	—	0.18	0.58	—	—	—	0.0089	**3.7**	21	—	—	—	—	—	—	—	—	—	—
DP-2 SW	WS	Filtered	0.013	0.21	—	—	—	—	0.061	—	—	—	0.0017	0.69	—	—	—	—	—	—	—	—	—	—	—
DP-2 SW	WS	Unfiltered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
LAUZ-1	WGA	Filtered	0.0077	—	—	—	—	0.092	0.073	—	—	—	0.0018	**1.1**	7.1	—	—	—	—	—	—	—	0.46	—	—
LAUZ-1	WGA	Unfiltered	0.0078	—	—	—	—	0.097	0.19	—	—	—	0.012	**1.7**	7.2	—	—	—	—	—	—	—	—	—	—
LAUZ-2	WGA	Filtered	0.011	—	—	—	—	0.061	0.015	—	—	—	0.0018	**1.3**	7.4	—	—	—	—	—	—	—	0.75	—	—
LAUZ-2	WGA	Unfiltered	0.011	—	—	—	—	0.068	0.016	—	—	—	0.0027	**2.1**	18	—	—	—	—	—	—	—	—	—	—
DP Spring	WS	Filtered	0.0090	1.5	—	—	—	0.050	0.099	—	—	—	0.0064	**2.6**	4.0	—	—	—	—	—	—	—	—	—	—
DP Spring	WS	Unfiltered	0.0090	1.6	—	—	—	0.040	0.11	—	—	—	0.0046	**3.1**	6.2	—	—	—	—	—	—	—	—	—	—
LAO-2	WGA	Filtered	0.0085	—	—	—	—	0.0000051	0.028	—	—	—	0.00026	**12**	—	—	—	—	—	—	—	—	—	—	—
LAO-2	WGA	Unfiltered	0.0085	—	—	—	—	0.039	0.034	—	—	—	0.00026	**11**	—	—	—	—	—	—	—	—	0.073	—	—
LAO-3a	WGA	Filtered	0.0085	1.4	—	—	—	0.061	0.14	—	—	—	0.00057	**13**	10	—	—	—	—	—	—	—	—	—	—
LAO-3a	WGA	Unfiltered	0.0081	—	—	—	—	0.062	0.13	—	—	—	0.00080	**11**	11	—	—	—	—	0.0034	—	—	0.021	—	—
LAO-4	WGA	Filtered	0.0062	—	—	—	—	0.033	0.060	—	—	—	0.00089	**4.3**	6.0	—	—	—	—	—	—	—	—	—	—
LAO-4	WGA	Unfiltered	0.0062	1.00	—	0.00087	—	0.051	0.049	—	—	—	0.00058	**4.4**	7.1	—	—	—	—	—	—	—	0.069	—	—
LAO-4.5c	WGA	Filtered	0.0052	—	—	—	—	0.39	0.035	—	—	—	0.00051	**1.5**	3.1	—	—	—	—	—	—	—	—	—	—
LAO-4.5c	WGA	Unfiltered	0.0053	—	—	—	—	0.0000014	0.033	—	—	—	0.000076	0.41	2.9	—	—	—	—	—	—	—	0.065	—	—
LAO-6a	WGA	Filtered	0.0051	—	—	—	—	—	0.025	—	—	—	—	0.32	—	—	—	—	—	—	—	—	—	—	—
LAO-6a	WGA	Unfiltered	0.0050	—	—	—	—	—	0.025	—	—	—	—	0.22	—	—	—	—	—	—	—	—	—	—	—
SW @ E042	WS	Filtered	0.0053	0.052	—	—	—	—	0.036	—	—	—	0.00033	0.28	—	—	—	—	—	—	—	—	—	—	—
SW @ E042	WS	Unfiltered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Table 3.2-11 (continued)

Water Location	Media Code[a]	Field Preparation	Strontium	Thallium	Titanium	Toluene	Trimethylbenzene[1,2,4-]	Uranium	Vanadium	Xylene (Total)	Xylene[1,2-]	Xylene[1,3-]+Xylene[1,4-]	Zinc	HI noncarcinogens	Arsenic	Benzene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	BHC[beta-]	BHC[gamma-]	Bis(2-ethylhexyl)phthalate	Bromodichloromethane	Chrysene
P-1FW SW	WS	Filtered	—	0.29	—	—	—	0.055	0.052	—	—	—	0.00069	1.4	1.2	—	—	—	—	—	—	—	—	—	—
P-1FW SW	WS	Unfiltered	—	—	—	—	—	0.025	0.13	—	—	—	0.0023	2.3	7.6	—	—	—	—	—	—	—	—	—	—
Upper P-1W SW	WS	Filtered	—	0.32	—	—	—	0.042	0.12	—	—	—	0.00065	2.6	7.8	—	—	—	—	—	—	—	—	—	—
Upper P-1W SW	WS	Unfiltered	—	—	—	—	—	0.046	0.11	—	—	—	0.00071	2.4	9.6	—	—	—	—	—	—	—	—	—	—
PAO-1	WGA	Filtered	—	1.2	—	—	—	0.086	0.11	—	—	—	0.0011	3.2	3.6	—	—	—	—	—	—	—	—	—	—
PAO-1	WGA	Unfiltered	—	0.95	—	—	—	0.097	0.094	—	—	—	0.00025	2.6	2.9	—	—	—	—	0.0047	—	—	0.0042	—	—
Lower P-1W SW	WS	Filtered	0.0079	0.13	—	—	—	0.12	0.10	—	—	—	0.00039	1.6	6.7	—	—	—	—	—	—	—	—	—	—
Lower P-1W SW	WS	Unfiltered	0.0079	—	—	—	—	0.12	0.11	—	—	—	0.0017	1.6	9.9	—	—	—	—	—	—	—	—	—	—
AC-2 SW	WS	Filtered	—	—	—	—	—	0.042	0.063	—	—	—	0.0047	0.34	—	—	—	—	—	—	—	—	—	—	—
AC-2 SW	WS	Unfiltered	—	1.2	—	—	—	—	0.12	—	—	—	0.0032	1.9	6.7	—	—	—	—	—	—	—	—	—	—
Upper Reach ACS SW	WS	Filtered	—	—	—	—	—	1.6	0.077	—	—	—	0.0011	1.9	8.0	—	—	—	—	—	—	—	—	—	—
Upper Reach ACS SW	WS	Unfiltered	—	—	—	—	—	1.4	0.088	—	—	—	0.0017	1.8	7.1	—	—	—	—	—	—	—	—	—	—
Lower Reach ACS SW	WS	Filtered	—	—	—	—	—	0.0017	0.071	—	—	—	0.0013	0.24	3.8	—	—	—	—	—	—	—	—	—	—
Lower Reach ACS SW	WS	Unfiltered	—	—	—	—	—	0.11	0.085	—	—	—	0.0011	0.46	4.0	—	—	—	—	—	—	—	0.067	—	—
Lower AC-3 SW	WS	Filtered	0.0079	1.4	—	—	—	0.0000025	0.071	—	—	—	0.0020	1.7	4.9	—	—	—	—	—	—	—	—	—	—
Lower AC-3 SW	WS	Unfiltered	0.0081	0.059	0.0000077	—	—	0.091	0.12	—	—	—	0.0040	0.99	—	—	0.71	6.8	0.53	0.084	—	—	0.023	—	0.0068
P-1E SW	WS	Filtered	—	0.070	—	—	—	0.087	0.041	—	—	—	0.00039	4.9	4.0	—	—	—	—	—	—	—	—	—	—
P-1E SW	WS	Unfiltered	—	—	—	—	—	0.032	0.17	—	—	—	0.0018	5.3	14	—	—	—	—	—	—	—	—	—	—
PAO-2	WGA	Unfiltered	—	—	—	—	—	0.25	0.080	—	—	—	0.0010	0.38	—	—	—	—	—	—	—	—	—	—	—
Pueblo 2	WS	Filtered	0.0067	—	—	—	—	—	0.084	—	—	—	0.0008	0.24	—	—	—	—	—	—	—	—	—	—	—
Pueblo 2	WS	Unfiltered	0.0068	—	—	—	—	—	0.097	—	—	—	—	0.49	—	—	0.86	6.1	0.63	0.079	—	—	—	—	0.0075
PAO-3	WGA	Filtered	—	—	—	—	—	—	0.063	—	—	—	—	0.25	6.5	—	—	—	—	—	—	—	—	—	—
PAO-3	WGA	Unfiltered	—	—	—	—	—	0.068	0.13	—	—	—	0.0012	0.61	5.4	—	—	—	—	—	—	—	—	—	—
PAO-4	WGA	Filtered	0.0058	1.4	0.0000014	—	—	0.028	0.11	—	—	—	0.00025	6.3	19	—	—	—	—	—	—	—	—	—	—
PAO-4	WGA	Unfiltered	0.0058	—	0.0000014	0.0012	—	0.027	0.62	—	—	—	0.0033	3.1	19	—	—	—	—	—	—	—	0.0058	—	—
Pueblo 3	WS	Filtered	0.0043	1.0	—	—	—	0.077	0.50	—	—	—	0.0040	2.9	29	—	—	—	—	—	—	—	—	—	—
Pueblo 3	WS	Unfiltered	0.0052	1.2	—	0.00053	—	0.061	0.53	—	—	—	0.0068	3.8	26	—	—	—	—	—	0.037	0.046	0.14	—	—
APCO-1	WGA	Filtered	0.0077	—	—	—	—	0.081	0.23	—	—	—	0.0014	2.3	15	—	—	—	—	—	—	—	—	—	—
APCO-1	WGA	Unfiltered	0.0078	—	—	—	—	0.11	0.22	—	—	—	0.0023	2.3	16	—	—	—	—	—	—	—	—	—	—
PAO-5N	WGA	Filtered	—	0.050	—	—	—	0.095	0.18	—	—	—	0.00086	5.3	25	—	—	—	—	—	—	—	—	—	—

Table 3.2-11 (continued)

Water Location	Media Code[a]	Field Preparation	Strontium	Thallium	Titanium	Toluene	Trimethylbenzene[1,2,4-]	Uranium	Vanadium	Xylene (Total)	Xylene[1,2-]	Xylene[1,3-]+Xylene[1,4-]	Zinc	Hi noncarcinogens	Arsenic	Benzene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	BHC[beta-]	BHC[gamma-]	Bis(2-ethylhexyl)phthalate	Bromodichloromethane	Chrysene
PAO-5N	WGA	Unfiltered	—	0.048	—	—	—	0.086	0.18	—	—	—	0.0017	3.5	22	—	—	—	—	—	—	—	0.056	—	—
Pueblo at 502	WS	Filtered	0.0050	1.1	—	—	—	0.26	0.60	—	—	—	0.0026	3.7	15	—	—	—	—	—	—	—	—	—	—
Pueblo at 502	WS	Unfiltered	0.0052	0.017	—	—	—	0.36	0.44	—	—	—	0.0035	4.0	19	—	—	—	—	—	—	—	0.031	—	—
Basalt Spring	WS	Filtered	—	1.6	—	—	—	0.17	0.22	—	—	—	0.00045	2.6	14	—	—	—	—	—	—	—	—	—	—
Basalt Spring	WS	Unfiltered	—	1.4	—	—	—	0.14	0.23	—	—	—	0.0033	2.2	15	—	—	—	—	—	—	—	—	—	—
LA Spring	WS	Filtered	—	—	—	—	—	0.29	0.26	—	—	—	—	0.67	—	—	—	—	—	—	—	—	—	—	—
LA Spring	WS	Unfiltered	—	—	—	—	—	0.54	0.11	—	—	—	—	0.70	—	—	—	—	—	—	—	—	—	—	—
LLAO-1b	WGA	Filtered	—	1.4	—	—	—	0.14	0.26	—	—	—	0.0016	3.0	22	—	—	—	—	—	—	—	—	—	—
LLAO-1b	WGA	Unfiltered	—	1.2	—	—	—	0.16	0.84	—	—	—	0.0006	4.3	19	0.96	—	—	—	—	—	—	—	—	—
LA-4E SW	WS	Filtered	—	0.39	—	—	—	0.10	0.33	—	—	—	0.0015	1.3	13	—	—	—	—	—	—	—	—	—	—
LA-4E SW	WS	Unfiltered	—	0.31	—	—	—	0.12	0.39	—	—	—	0.0018	1.4	19	—	—	—	—	0.0021	—	0.011	—	—	—
LLAO-2	WGA	Filtered	—	—	—	—	—	0.35	—	—	—	—	—	0.54	8.7	—	—	—	—	—	—	—	—	—	—
LLAO-2	WGA	Unfiltered	—	—	0.00036	—	—	0.48	—	—	—	—	—	0.83	7.8	—	—	—	—	—	—	—	—	—	—
Guaje SW @ LA Confluence	WS	Filtered	—	—	—	—	—	—	0.30	—	—	—	—	0.41	12	—	—	—	—	—	—	—	—	—	—
Guaje SW @ LA Confluence	WS	Unfiltered	—	—	—	—	—	—	0.27	—	—	—	—	0.38	14	—	—	—	—	—	—	—	—	—	—
LA SW @ Guaje Confluence	WS	Filtered	—	—	—	—	—	—	0.16	—	—	—	—	0.42	17	—	—	—	—	—	—	—	—	—	—
LA SW @ Guaje Confluence	WS	Unfiltered	—	—	—	—	—	—	0.17	—	—	—	—	0.71	17	—	—	—	—	—	—	—	—	—	—
LLAO-4	WGA	Filtered	—	—	—	—	—	0.17	0.21	—	—	—	—	0.75	3.6	—	—	—	—	—	—	—	—	—	—
LLAO-4	WGA	Unfiltered	—	0.021	—	—	—	0.15	0.21	—	—	—	—	0.56	4.0	—	—	—	—	—	—	—	—	—	—
Lower Reach LA-5 SW	WS	Filtered	0.0072	—	—	—	—	—	0.21	—	—	—	0.0035	0.56	10	—	—	—	—	—	—	—	—	—	—
Lower Reach LA-5 SW	WS	Unfiltered	—	—	—	—	—	—	0.27	—	—	—	0.0016	2.2	4.9	—	—	—	—	—	—	—	—	—	—
LLAO-5	WGA	Filtered	—	0.87	—	—	—	1.5	0.19	—	—	—	0.00063	7.0	5.1	—	—	—	—	—	—	—	—	—	—
LLAO-5	WGA	Unfiltered	—	1.2	—	—	—	1.4	0.19	—	—	—	0.00081	6.3	6.8	—	—	—	—	—	—	—	—	—	—
Otowi Spring	WS	Filtered	—	—	—	—	—	0.26	0.24	—	—	—	0.00018	0.92	10	—	—	—	—	—	—	—	—	—	—
Otowi Spring	WS	Unfiltered	—	—	—	—	—	0.26	0.26	—	—	—	0.00039	0.65	10	—	—	—	—	—	—	—	—	—	—

Table 3.2-11 (continued)

Water Location	Media Code[a]	Field Preparation	DDD[4,4'-]	DDE[4,4'-]	DDT[4,4'-]	Dibenz(a,h)anthracene	Dichlorobenzene[1,4-]	Dichloroethane[1,2-]	Dieldrin	Indeno(1,2,3-cd)pyrene	Methylene Chloride	Trichloroethene	HI carcinogens	Americium-241	Cesium-137	Europium-152	Plutonium-238	Plutonium-239	Strontium-90	Technetium-99	Tritium	Uranium-234	Uranium-235	Uranium-238	HI radionuclides
Los Alamos Creek upstream of LA Reservoir	WS	Filtered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.018	—	—	0.0037	—	—	0.022
Los Alamos Creek upstream of LA Reservoir	WS	Unfiltered	—	—	0.0050	—	—	—	—	—	0.022	—	0.027	—	—	—	—	—	0.015	—	—	0.0038	—	0.0013	0.020
Los Alamos Reservoir	WS	Filtered	—	—	—	—	—	—	—	—	—	—	**6.2**	—	—	—	0.012	—	0.10	—	—	0.011	0.0010	0.0058	0.13
Los Alamos Reservoir	WS	Unfiltered	—	—	—	—	—	—	—	—	0.87	—	**4.2**	0.013	—	—	0.0054	—	0.10	—	—	0.011	0.00062	0.010	0.14
Los Alamos Creek below LA Reservoir	WS	Filtered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.049	—	—	0.0027	—	—	0.052
Los Alamos Creek below LA Reservoir	WS	Unfiltered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.046	—	—	0.0035	—	—	0.049
LAO-B	WGA	Filtered	—	—	—	—	—	—	—	—	—	—	**3.0**	0.026	—	—	—	—	—	—	—	0.0039	—	0.0021	0.032
LAO-B	WGA	Unfiltered	—	—	0.0033	—	—	—	—	—	0.35	—	**1.5**	—	—	—	—	—	—	—	0.00068	0.0038	—	0.0016	0.0061
LA-Bkgd SW	WS	Filtered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.025	—	—	—	—	—	0.025
LA-Bkgd SW	WS	Unfiltered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.021	—	—	—	—	—	0.021
SW @ E026	WS	Filtered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.047	—	—	—	—	—	0.047
SW @ E026	WS	Unfiltered	—	—	—	—	—	—	—	—	—	—	**9.1**	—	—	—	—	0.081	0.063	—	—	—	—	—	0.14
LAO-C	WGA	Filtered	—	—	—	—	—	—	—	—	—	—	**5.1**	—	—	—	—	—	—	—	—	0.0094	0.0017	0.0080	0.019
LAO-C	WGA	Unfiltered	—	—	0.0056	—	—	—	—	—	0.037	—	**5.4**	0.017	—	—	0.0063	—	0.0094	—	—	0.011	—	0.0075	0.051
LA-1W SW	WS	Filtered	—	—	—	—	—	—	—	—	—	—	**9.0**	—	—	—	—	—	0.033	—	—	0.044	0.0016	0.029	0.11
LA-1W SW	WS	Unfiltered	0.0031	—	0.050	—	—	—	—	—	0.94	—	**18**	0.042	—	—	—	—	0.039	—	—	0.075	0.0037	0.058	0.22
LAO-0.3	WGA	Filtered	—	—	—	—	—	—	—	—	—	—	**4.9**	—	—	—	—	—	0.0030	—	—	0.0040	0.0015	0.0022	0.011
LAO-0.3	WGA	Unfiltered	0.0027	0.0037	0.012	—	—	—	—	—	0.37	—	**3.0**	—	—	—	—	0.17	0.0034	—	0.00079	0.0025	—	0.0018	0.18
LAO-0.6	WGA	Filtered	—	—	—	—	—	—	—	—	—	—	**1.6**	—	—	—	—	—	—	—	—	—	—	—	—
LAO-0.6	WGA	Unfiltered	—	—	—	—	—	—	—	—	—	—	**2.5**	—	—	—	—	0.052	—	—	0.0069	—	—	0.0058	0.064
SW @ LAO-0.6	WS	Filtered	—	—	—	—	—	—	—	—	—	—	**4.7**	—	—	—	—	—	0.021	—	—	—	—	—	0.021
SW @ LAO-0.6	WS	Unfiltered	—	—	—	—	—	—	—	—	—	—	**7.8**	—	—	—	—	—	0.018	—	0.00077	0.0035	—	—	0.022
LAO-0.7	WGA	Filtered	—	—	—	—	—	—	—	—	—	—	**7.5**	0.23	—	—	—	0.028	0.037	—	—	0.010	—	0.0059	0.31
LAO-0.7	WGA	Unfiltered	0.0068	0.0050	0.010	—	—	—	—	—	0.020	—	**8.5**	0.032	—	—	—	0.083	—	—	0.0024	0.0076	0.0017	0.0060	0.13
LAO-0.91	WGA	Filtered	—	—	—	—	—	—	—	—	—	—	**4.0**	—	—	—	—	—	0.044	—	—	0.012	—	0.0053	0.061
LAO-0.91	WGA	Unfiltered	—	—	—	—	—	—	—	—	—	—	**3.8**	—	—	—	—	—	0.049	—	0.0028	0.010	—	0.0054	0.066
LA-1C SW	WS	Filtered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.030	—	—	0.036	0.0039	0.028	0.097

Table 3.2-11 (continued)

Water Location	Media Code[a]	Field Preparation	DDD[4,4'-]	DDE[4,4'-]	DDT[4,4'-]	Dibenz(a,h)anthracene	Dichlorobenzene[1,4-]	Dichloroethane[1,2-]	Dieldrin	Indeno(1,2,3-cd)pyrene	Methylene Chloride	Trichloroethene	HI carcinogens	Americium-241	Cesium-137	Europium-152	Plutonium-238	Plutonium-239	Strontium-90	Technetium-99	Tritium	Uranium-234	Uranium-235	Uranium-238	HI radionuclides
LA-1C SW	WS	Unfiltered	—	—	0.016	—	—	—	—	—	0.035	—	0.051	0.044	—	—	—	0.061	0.029	—	—	0.061	0.0021	0.048	0.24
LAO-1	WGA	Filtered	—	—	—	—	—	—	—	—	—	—	**8.3**	0.017	—	—	—	—	0.44	—	—	0.0068	—	0.0019	0.46
LAO-1	WGA	Unfiltered	—	—	0.0061	—	—	—	—	—	0.056	—	**8.7**	—	—	—	—	0.017	0.44	—	0.0028	0.0054	—	0.0033	0.47
LAO-1.2	WGA	Filtered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.015	—	—	—	—	—	0.015
LAO-1.2	WGA	Unfiltered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.020	—	—	—	—	—	0.020
LAO-1.6g	WGA	Filtered	—	—	—	—	—	—	—	—	—	—	**2.9**	—	—	—	—	—	0.010	—	—	0.0032	—	0.0020	0.015
LAO-1.6g	WGA	Unfiltered	—	—	—	—	—	—	—	—	0.58	—	**7.1**	—	—	—	—	—	0.010	—	0.0015	0.0042	—	0.0030	0.018
SW @ E030	WS	Filtered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.021	—	—	0.0028	—	0.0020	0.026
SW @ E030	WS	Unfiltered	—	—	—	—	—	—	—	—	—	—	—	0.034	—	—	0.015	0.27	0.021	—	—	0.010	—	0.0051	0.35
DP-1W SW	WS	Filtered	—	—	—	—	—	—	—	—	—	—	**24**	0.037	—	—	—	—	—	—	—	0.036	—	0.023	0.096
DP-1W SW	WS	Unfiltered	—	—	—	—	0.088	—	—	—	0.033	—	**28**	—	—	—	—	—	0.0030	—	—	0.025	0.0015	0.018	0.047
DP-1C SW	WS	Filtered	—	—	—	—	—	—	—	—	—	—	**16**	—	—	—	—	—	—	—	—	0.019	—	0.015	0.034
DP-1C SW	WS	Unfiltered	—	—	—	—	—	—	—	—	0.033	—	**21**	—	—	—	—	—	—	—	0.0049	0.026	0.0017	0.018	0.050
DP-2 SW	WS	Filtered	—	—	—	—	—	—	—	—	—	—	—	0.043	—	—	—	—	1.9	—	—	0.061	0.0021	0.0091	**2.0**
DP-2 SW	WS	Unfiltered	—	—	—	—	—	—	—	—	—	—	—	0.046	—	—	—	—	2.4	—	0.0025	0.057	—	0.0085	**2.5**
LAUZ-1	WGA	Filtered	—	—	—	—	—	—	—	—	—	—	**7.6**	0.031	—	—	—	—	5.8	—	—	0.087	0.0018	0.0094	**6.0**
LAUZ-1	WGA	Unfiltered	—	—	0.0049	—	0.088	—	—	—	0.89	—	**8.2**	1.2	—	—	0.059	1.0	4.4	0.0095	0.0061	0.076	0.0037	0.010	**6.8**
LAUZ-2	WGA	Filtered	—	—	—	—	—	—	—	—	—	—	**8.1**	—	—	—	—	—	5.1	—	—	0.042	—	0.0063	**5.2**
LAUZ-2	WGA	Unfiltered	—	—	—	—	—	—	—	—	—	—	**18**	—	—	—	—	0.13	2.5	—	0.0035	0.047	—	0.0069	**2.7**
DP Spring	WS	Filtered	—	—	—	—	—	—	—	—	—	—	**4.0**	0.025	—	—	—	—	3.0	—	—	0.032	0.00083	0.0051	**3.0**
DP Spring	WS	Unfiltered	—	—	—	—	—	6.2	—	—	—	—	**12**	—	—	—	0.0063	0.059	2.8	—	0.0057	0.028	0.00042	0.0041	**2.9**
LAO-2	WGA	Filtered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.66	—	—	0.012	—	—	0.67
LAO-2	WGA	Unfiltered	—	—	—	—	—	—	—	—	0.054	—	0.13	0.017	—	—	0.013	—	0.73	—	0.0025	0.011	—	0.0040	0.77
LAO-3a	WGA	Filtered	—	—	—	—	—	—	—	—	—	—	**10**	0.017	—	—	—	—	1.0	—	—	0.013	—	0.0063	**1.1**
LAO-3a	WGA	Unfiltered	—	—	—	—	—	—	—	—	0.054	—	**11**	0.017	—	—	—	—	1.2	0.0013	—	0.013	0.0018	0.0061	**1.2**
LAO-4	WGA	Filtered	—	—	—	—	—	—	—	—	—	—	**6.0**	0.042	—	—	0.013	—	0.14	—	—	0.0074	—	0.0034	0.20
LAO-4	WGA	Unfiltered	—	—	—	—	—	—	—	—	0.070	—	**7.2**	0.025	—	—	—	0.0083	0.15	—	—	0.0055	—	0.0053	0.20
LAO-4.5c	WGA	Filtered	—	—	—	—	—	—	—	—	—	—	**3.1**	0.054	—	—	—	—	0.075	—	—	0.014	—	0.040	0.18
LAO-4.5c	WGA	Unfiltered	—	—	0.0041	—	—	—	—	—	0.033	—	**3.0**	—	—	—	—	—	0.061	—	—	0.0045	0.00042	0.0017	0.067
LAO-6a	WGA	Filtered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.034	—	—	0.0035	—	—	0.038
LAO-6a	WGA	Unfiltered	—	—	—	—	—	—	—	—	—	—	—	0.050	—	—	0.013	—	0.043	—	—	0.0065	—	0.0021	0.11
SW @ E042	WS	Filtered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.023	—	—	0.0046	—	0.0028	0.031
SW @ E042	WS	Unfiltered	—	—	—	—	—	—	—	—	—	—	—	0.078	0.13	—	—	0.34	0.026	—	—	0.025	0.0017	0.018	0.62

Table 3.2-11 (continued)

Water Location	Media Code[a]	Field Preparation	DDD[4,4'-]	DDE[4,4'-]	DDT[4,4'-]	Dibenz[a,h]anthracene	Dichlorobenzene[1,4-]	Dichloroethane[1,2-]	Dieldrin	Indeno[1,2,3-cd]pyrene	Methylene Chloride	Trichloroethene	HI carcinogens	Americium-241	Cesium-137	Europium-152	Plutonium-238	Plutonium-239	Strontium-90	Technetium-99	Tritium	Uranium-234	Uranium-235	Uranium-238	HI radionuclides
P-1FW SW	WS	Filtered	—	—	—	—	—	—	—	—	—	—	1.2	—	—	—	—	—	0.091	—	—	0.0072	—	0.0057	0.10
P-1FW SW	WS	Unfiltered	—	—	—	—	—	—	—	—	—	—	7.6	—	—	—	—	—	0.092	—	0.00086	0.0045	—	0.0025	0.10
Upper P-1W SW	WS	Filtered	—	—	—	—	—	—	—	—	—	—	7.8	—	—	—	—	—	0.063	—	—	—	—	0.0043	0.067
Upper P-1W SW	WS	Unfiltered	—	—	—	—	—	—	—	—	—	—	9.6	—	—	—	—	—	0.048	—	0.00095	0.0059	—	0.0047	0.059
PAO-1	WGA	Filtered	—	—	—	—	—	—	—	—	—	—	3.6	—	—	—	—	—	0.032	—	—	0.015	—	0.0088	0.055
PAO-1	WGA	Unfiltered	—	—	—	0.26	—	—	0.13	—	—	—	3.3	—	—	—	—	—	0.029	—	0.00089	0.015	—	0.010	0.055
Lower P-1W SW	WS	Filtered	—	—	—	—	—	—	—	—	—	—	6.7	0.018	—	—	—	—	0.073	—	—	0.012	—	0.013	0.11
Lower P-1W SW	WS	Unfiltered	—	—	—	—	—	—	—	—	—	—	9.9	0.034	—	—	—	0.048	0.19	—	0.00089	0.017	0.0010	0.012	0.30
AC-2 SW	WS	Filtered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.0051	—	0.0043	0.0094
AC-2 SW	WS	Unfiltered	—	—	—	—	—	—	—	—	—	—	6.7	—	—	—	—	—	—	—	—	—	—	—	—
Upper Reach ACS SW	WS	Filtered	—	—	—	—	—	—	—	—	—	—	8.0	—	—	—	—	2.9	—	—	—	0.38	0.011	0.16	3.5
Upper Reach ACS SW	WS	Unfiltered	—	—	—	—	—	—	—	—	—	—	7.1	—	—	—	—	5.9	—	—	—	0.37	0.014	0.14	6.4
Lower Reach ACS SW	WS	Filtered	—	—	—	—	—	—	—	—	—	—	3.8	0.12	—	—	—	1.5	0.071	—	—	0.029	0.0011	—	1.7
Lower Reach ACS SW	WS	Unfiltered	—	—	—	—	—	—	—	—	—	—	4.1	—	—	—	—	4.3	0.077	—	—	0.034	—	0.011	4.4
Lower AC-3 SW	WS	Filtered	—	—	—	—	—	—	—	—	—	—	4.9	—	—	—	—	0.056	0.49	—	—	0.010	—	0.0041	0.56
Lower AC-3 SW	WS	Unfiltered	—	—	—	4.7	—	—	—	0.51	—	—	13	0.11	—	—	—	2.2	0.48	—	—	0.019	0.0011	0.0093	2.8
P-1E SW	WS	Filtered	—	—	—	—	—	—	—	—	—	—	4.0	—	—	—	—	—	0.21	—	—	0.017	—	0.0089	0.23
P-1E SW	WS	Unfiltered	—	—	—	—	—	—	—	—	—	—	14	—	—	—	—	0.14	0.21	—	0.0011	—	—	0.0033	0.35
PAO-2	WGA	Unfiltered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.26	—	—	0.061	0.0024	0.025	0.35
Pueblo 2	WS	Filtered	—	—	—	—	—	—	—	—	—	—	—	0.019	—	—	—	—	0.060	—	—	0.0060	—	0.0034	0.088
Pueblo 2	WS	Unfiltered	—	—	—	—	—	—	—	0.62	—	—	8.3	0.043	—	—	0.11	0.11	0.069	—	—	0.0057	—	0.0026	0.34
PAO-3	WGA	Filtered	—	—	—	—	—	—	—	—	—	—	6.5	—	—	—	—	—	—	—	—	—	—	—	—
PAO-3	WGA	Unfiltered	—	—	—	—	—	—	—	—	—	—	5.4	0.046	—	—	—	0.25	0.039	—	—	0.0091	—	0.0070	0.35
PAO-4	WGA	Filtered	—	—	—	—	—	—	—	—	—	—	19	0.033	—	—	—	0.25	0.025	—	—	0.0061	—	0.0028	0.32
PAO-4	WGA	Unfiltered	—	—	0.0061	—	—	—	—	—	—	—	19	0.050	—	—	—	0.22	0.027	—	0.00019	0.0064	0.0027	0.0028	0.31
Pueblo 3	WS	Filtered	—	—	—	—	—	—	—	—	—	—	29	0.042	—	—	—	—	0.0090	—	—	0.016	—	0.0078	0.076
Pueblo 3	WS	Unfiltered	0.0029	—	0.0051	—	0.036	—	—	—	—	—	26	0.038	—	—	—	0.47	—	—	—	0.019	—	0.012	0.54
APCO-1	WGA	Filtered	—	—	—	—	—	—	—	—	—	—	15	0.033	—	—	—	0.075	0.032	—	—	0.018	—	0.0083	0.17
APCO-1	WGA	Unfiltered	—	—	—	—	—	—	—	—	0.023	—	16	—	—	—	0.0063	0.13	0.033	—	—	0.023	—	0.012	0.21
PAO-5N	WGA	Filtered	—	—	—	—	—	—	—	—	—	—	25	—	—	—	—	0.18	0.023	—	—	0.017	—	0.010	0.23

Table 3.2-11 (continued)

Water Location	Media Code[a]	Field Preparation	DDD[4,4'-]	DDE[4,4'-]	DDT[4,4'-]	Dibenz(a,h)anthracene	Dichlorobenzene[1,4-]	Dichloroethane[1,2-]	Dieldrin	Indeno(1,2,3-cd)pyrene	Methylene Chloride	Trichloroethene	HI carcinogens	Americium-241	Cesium-137	Europium-152	Plutonium-238	Plutonium-239	Strontium-90	Technetium-99	Tritium	Uranium-234	Uranium-235	Uranium-238	HI radionuclides
PAO-5N	WGA	Unfiltered	0.0028	0.0034	0.0066	—	—	—	—	—	—	—	**22**	—	—	—	—	0.11	0.057	—	0.00022	0.017	—	0.0088	0.19
Pueblo at 502	WS	Filtered	—	—	—	—	—	—	—	—	—	—	**15**	0.036	—	—	—	—	0.070	—	—	0.043	—	0.027	0.18
Pueblo at 502	WS	Unfiltered	—	—	—	—	—	—	—	—	—	—	**19**	0.043	—	—	0.0068	0.74	0.011	—	—	0.065	0.00074	0.037	0.91
Basalt Spring	WS	Filtered	—	—	—	—	—	—	—	—	—	—	**14**	—	—	—	—	0.031	0.016	—	—	0.030	0.0017	0.017	0.096
Basalt Spring	WS	Unfiltered	—	—	—	—	—	—	—	—	—	—	**15**	0.039	—	—	—	0.092	—	—	0.00069	0.027	—	0.015	0.17
LA Spring	WS	Filtered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.059	0.0014	0.029	0.089
LA Spring	WS	Unfiltered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.20	—	0.17	0.36
LLAO-1b	WGA	Filtered	—	—	—	—	—	—	—	—	—	—	**22**	—	—	—	—	—	—	—	—	0.022	—	0.014	0.037
LLAO-1b	WGA	Unfiltered	—	—	0.0056	—	—	—	—	—	—	6.1	**26**	—	—	—	—	0.071	—	—	0.00051	0.021	—	0.016	0.11
LA-4E SW	WS	Filtered	—	—	—	—	—	—	—	—	—	—	**13**	0.018	—	—	—	—	0.015	—	—	0.021	0.0012	0.010	0.066
LA-4E SW	WS	Unfiltered	—	—	0.0049	—	—	—	—	—	—	—	**19**	—	—	—	—	0.050	0.016	—	0.00078	0.021	—	0.012	0.10
LLAO-2	WGA	Filtered	—	—	—	—	—	—	—	—	—	—	**8.7**	—	—	—	—	—	—	—	—	0.082	—	0.036	0.12
LLAO-2	WGA	Unfiltered	—	—	—	—	—	—	—	—	—	—	**7.8**	—	—	—	—	—	—	—	0.00046	0.094	—	0.050	0.14
Guaje SW @ LA Confluence	WS	Filtered	—	—	—	—	—	—	—	—	—	—	**12**	—	—	—	—	—	—	—	—	—	—	—	—
Guaje SW @ LA Confluence	WS	Unfiltered	—	—	—	—	—	—	—	—	—	—	**14**	—	—	—	—	—	—	—	—	—	—	—	—
LA SW @ Guaje Confluence	WS	Filtered	—	—	—	—	—	—	—	—	—	—	**17**	—	—	—	—	—	0.034	—	—	—	—	—	0.034
LA SW @ Guaje Confluence	WS	Unfiltered	—	—	—	—	—	—	—	—	—	—	**17**	—	—	—	—	0.018	0.043	—	—	—	—	—	0.061
LLAO-4	WGA	Filtered	—	—	—	—	—	—	—	—	—	—	**3.6**	—	—	—	—	—	0.038	—	—	0.040	0.0023	0.017	0.097
LLAO-4	WGA	Unfiltered	—	—	—	—	—	—	—	—	—	—	**4.0**	—	—	—	—	—	—	—	0.00055	0.034	—	0.015	0.050
Lower Reach LA-5 SW	WS	Filtered	—	—	—	—	—	—	—	—	—	—	**10**	—	—	—	0.014	—	0.019	—	—	0.013	—	0.0084	0.054
Lower Reach LA-5 SW	WS	Unfiltered	—	—	—	—	—	—	—	—	—	—	**4.9**	0.064	—	—	—	0.21	0.024	—	—	0.0063	—	0.0041	0.30
LLAO-5	WGA	Filtered	—	—	—	—	—	—	—	—	—	—	**5.1**	—	—	—	—	—	—	—	—	0.26	0.0083	0.15	0.42
LLAO-5	WGA	Unfiltered	—	—	0.0042	—	—	—	—	—	—	—	**5.8**	—	—	0.027	—	—	—	—	0.00054	0.27	0.0094	0.14	0.45
Otowi Spring	WS	Filtered	—	—	—	—	—	—	—	—	—	—	**10**	—	—	—	—	—	—	—	—	0.051	0.0017	0.026	0.079
Otowi Spring	WS	Unfiltered	—	—	0.046	—	—	—	—	—	0.033	—	**10**	0.069	—	—	—	—	—	—	—	0.049	0.0017	0.026	0.15

Notes: Unless otherwise noted, all values are HQs (max detect/tap water screening value). Bold values indicate HI that exceeds 1. Gray shading of an HQ indicates a COPC retained after Tier 1 screen for this water location (gray shading of the header of HI columns provided for convenience).

[a] WS = Surface water (includes springs); WGA is alluvial groundwater.

[b] — = Not detected or not analyzed.

Table 3.2-12
New COPCs and Water Stations Carried Through to the Site-Specific Risk Assessment for Water

Media	Filtration	COPC	Station Names
WGA	Filtered	Antimony	LAO-1.2
WGA	Filtered	Lead	LAO-2, LAO-3a, LAO-4, LAO-4.5c, LAUZ-1
WGA	Filtered	Vanadium	LAO-3a, LLAO-5, PAO-4, PAO-5N, APCO-1, LLAO-1, PAO-1
WGA	Unfiltered	Benzene	LAO-B, LLAO-1
WGA	Unfiltered	Dieldrin	PAO-1
WGA	Unfiltered	Methylene Chloride	LAO-0.3, LAO-1.6g, LAO-B, LAUZ-1
WGA	Unfiltered	Trichloroethene	LLAO-1
WGA	Unfiltered	dibenz(a,h) anthracene	PAO-1
WGA	Unfiltered	Aluminum	LAUZ-1, LAO-1.2
WGA	Unfiltered	Chromium	LAO-0.6, LAO-1.2
WGA	Unfiltered	Copper	LLAO-1
WGA	Unfiltered	Fluoride	LAUZ-1
WGA	Unfiltered	Iron	PAO-5N, LAO-0.6, LAO-1.2, LAUZ-1
WGA	Unfiltered	Lead	APCO-1, LAUZ-1, LAUZ-2, LLAO-1, LAO-1.2, LAO-2
WGA	Unfiltered	Manganese	LAO-0.6
WGA	Unfiltered	Vanadium	APCO-1, LAUZ-1, LLAO-1, LLAO-5, PAO-5N, LAO-0.6, LAO-1.2, LAO-3a, PAO-4
WS	Unfiltered	Methylene Chloride	LA-1W SW, Los Alamos Reservoir
WS	Unfiltered	Iron	Lower P-1W SW, DP-1W SW
WS	Unfiltered	Lead	AC-2 SW, DP Spring, DP-1C SW, LA-1C SW, LA-1W SW, LA-4E SW, Lower P-1W SW, Lower Reach LA-5 SW, P-1E SW, Pueblo 3, Pueblo at 502, SW @ E026, Upper P-1W SW, Upper Reach ACS SW, DP-1W SW, P-1FW SW
WS	Unfiltered	Manganese	DP-1W SW, Lower P-1W SW
WS	Unfiltered	Thallium	LA-4E SW
WS	Unfiltered	Vanadium	AC-2 SW, Basalt Spring, DP Spring, DP-1C SW, LA-1C SW, LA-1W SW, LA-4E SW, Lower P-1W SW, Lower Reach LA-5 SW, DP-1W SW, P-1E SW, Pueblo 3, Pueblo at 502, SW @ LAO-0.6, Upper P-1W SW, P-1FW SW
WS	Unfiltered	Uranium	DP-1W SW, LA-4E SW, Lower P-1W SW
WS	Unfiltered	Dichloroethane[1,2-]	DP Spring
WS	Unfiltered	Bromomethane	DP Spring
WS	Unfiltered	Bromodichloromethane	DP-1W SW
WS	Unfiltered	Methylene Chloride	LA-1W SW, Los Alamos Reservoir

Note: Gray shading indicates a COPC not previously included in the site-specific assessment for any water location.

Table 3.3-1
Summary of Sediment and Water COPCs and COPECs

	Sediment					Water			
Analyte Name	COPCs	Tier 1 Human Health COPCs	Final COPCs for Human Health Risk Assessment	Ecological Assessment – Terrestrial COPECs	Ecological Assessment – Aquatic COPECs	COPCs	Tier 1 Human Health COPCs	Final COPCs for Human Health Risk Assessment	Ecological Assessment – COPECs
Alkalinity-CO_3	nc[a]	nc	nc	nc	nc	X[b]	nv[c]	nv	ne[d]
Alkalinity-CO_3+HCO_3	na[e]	na	na	na	na	X	nv	nv	ne
Alkalinity-HCO_3	X	nv	nv	ne	ne	X	nv	nv	ne
Aluminum	X	X	ef[f]	X[g]	no[h]	X	X	X	X
Antimony	X	nh[i]	nh	X	no	X	X	X	no
Arsenic	X	X	X	X	X	X	X	X	no
Barium	X	X	X	X	X	X	X	X	X
Beryllium	X	nh	nh	X	X	X	nh	nh	X
Boron	X	nh	nh	X	no	X	X	X	X
Bromide	X	nv	nv	ne	ne	X	nv	nv	ne
Cadmium	X	X	nh	X	X	X	nh	nh	X
Calcium	X	nv	nv	ne	ne	X	nv	nv	ne
Chloride	X	nh	nh	ne	ne	X	X	ef	X
Chromium	X	nh	nh	X	X	X	X	X	no
Cobalt	X	nh	nh	X	X	X	nh	nh	X
Copper	X	nh	nh	X	X	X	X	X	X
Cyanide (Total)	X	nh	nv	X	X	X	nv	nv	X
Cyanide, Amenable to Chlorination	nc	nc	nc	nc	nc	X	nh	nh	ne
Fluoride	nc	nc	nc	nc	nc	X	X	X	X
Iron	X	X	ef	ne	ne	X	X	X	ne
Lead	X	X	X	X	X	X	nv	X	X
Lithium	nc	nc	nc	nc	nc	X	nh	nh	ne
Magnesium	X	nv	nv	ne	ne	X	nv	nv	ne
Manganese	X	X	ef	X	X	X	X	X	X
Mercury	X	X	X	X	no	X	nh	nh	no
Molybdenum	nc	nc	nc	nc	nc	X	X	X	ne
Nickel	X	nh	nh	X	X	X	nh	nh	X
Perchlorate	nc	nc	nc	nc	nc	X	X	X	ne
Potassium	X	nv	nv	ne	ne	X	nv	nv	ne

Table 3.3-1 (continued)

	Sediment					Water			
Analyte Name	COPCs	Tier 1 Human Health COPCs	Final COPCs for Human Health Risk Assessment	Ecological Assessment - Terrestrial COPECs	Ecological Assessment - Aquatic COPECs	COPCs	Tier 1 Human Health COPCs	Final COPCs for Human Health Risk Assessment	Ecological Assessment - COPECs
Selenium	X	nh	nh	X	X	X	nh	nh	X
Silicon	nc	nc	nc	nc	nc	X	nv	nv	ne
Silver	X	nh	nh	X	no	X	nh	nh	X
Sodium	X	nv	nv	ne	ne	X	nv	nv	ne
Strontium	nc	nc	nc	nc	nc	X	nh	nh	X
Sulfate	X	nv	nv	ne	ne	X	nv	nv	ne
Thallium	X	X	ef	X	X	X	X	X	no
Titanium	X	nv	nv	X	no	X	nv	nv	no
Uranium	X	X	X	X	no	X	X	X	X
Vanadium	X	nh	nh	X	X	X	X	X	X
Zinc	X	nh	nh	X	X	X	nh	nh	X
Ammonia	na	na	na	na	na	X	nv	nv	ne
Ammonium	na	na	na	na	na	X	nv	nv	ne
Nitrate	na	na	na	na	na	X	X	X	ne
Nitrate+Nitrite (as N)	na	na	na	na	na	X	nv	nv	ne
Nitrite	na	na	na	na	na	X	X	X	ne
Phosphorus	na	na	na	na	na	X	nv	nv	ne
Phosphorus, Orthophosphate (Expressed as PO_4)	na	na	na	na	na	X	nv	nv	ne
Silicon Dioxide	na	na	na	na	na	X	nv	nv	ne
Total Kjeldahl Nitrogen	na	na	na	na	na	X	nv	nv	ne
Acenaphthene	X	nh	nh	X	no	X	nh	nh	no
Acenaphthylene	X	nc	nc	nc	nc	X	nh	nh	no
Acetone	X	nh	nh	no	no	X	nh	nh	no
Aldrin	X	nh	nh	ne	ne	nc	nc	nc	nc
Amino-2,6-dinitrotoluene[4-]	X	nh	nh	no	no	na	na	na	na
Amino-4,6-dinitrotoluene[2-]	X	nh	nh	no	no	na	na	na	na
Anthracene	X	nh	nh	no	X	X	nh	nh	X
Aroclor-1248	X	X	nh	X	no	nc	nc	nc	nc
Aroclor-1254	X	X	X	X	X	nc	nc	nc	nc
Aroclor-1260	X	X	X	X	X	nc	nc	nc	nc
Benzene	X	nh	nh	no	no	X	X	X	no

Table 3.3-1 (continued)

	Sediment					Water			
Analyte Name	COPCs	Tier 1 Human Health COPCs	Final COPCs for Human Health Risk Assessment	Ecological Assessment – Terrestrial COPECs	Ecological Assessment – Aquatic COPECs	COPCs	Tier 1 Human Health COPCs	Final COPCs for Human Health Risk Assessment	Ecological Assessment – COPECs
Benz(a)anthracene	X	X	X	X	X	X	X	X	X
Benzo(a)pyrene	X	X	X	X	X	X	X	X	X
Benzo(b)fluoranthene	X	X	X	X	X	X	X	X	no
Benzo(g,h,i)perylene	X	nh	nh	X	X	X	nh	nh	no
Benzo(k)fluoranthene	X	nh	nh	no	X	X	nh	nh	no
Benzoic Acid	X	nh	nh	X	X	X	nh	nh	X
Benzyl Alcohol	X	nh	nh	ne	ne	X	nh	nh	ne
BHC[alpha-]	X	nh	nh	no	no	nc	nc	nc	nc
BHC[beta-]	X	nc	nc	nc	nc	X	X	X	no
BHC [delta-]	X	nv	nv	ne	ne	nc	nc	nc	nc
BHC[gamma-]	X	nc	nc	nc	nc	X	nh	nh	no
Bis(2-chloroethoxy)methane	X	nv	nv	ne	ne	nc	nc	nc	nc
Bis(2-chloroethyl)ether	X	nh	nh	ne	ne	nc	nc	nc	nc
Bis(2-ethylhexyl)phthalate	X	nh	nh	X	X	X	X	X	no
Bromodichloromethane	nc	nc	nc	nc	nc	X	X	ef	ne
Bromomethane	nc	nc	nc	nc	nc	X	X	ef	ne
Bromophenyl-phenylether[4-]	X	nv	nv	ne	ne	nc	nc	nc	nc
Butanone[2-]	X	nh	nh	no	no	X	nh	nh	no
Butylbenzylphthalate	X	nh	nh	no	no	X	nh	nh	no
Carbazole	X	nh	nh	ne	ne	nc	nc	nc	nc
Carbon Disulfide	nc	nc	nc	nc	nc	X	nh	nh	ne
Chlordane[alpha-]	X	nh	nh	no	X	nc	nc	nc	nc
Chlordane[gamma-]	X	nh	nh	no	X	nc	nc	nc	nc
Chlorobenzene	X	nh	nh	no	no	nc	nc	nc	nc
Chloroform	nc	nc	nc	nc	nc	X	X	ef	no
Chloromethane	X	nh	nh	ne	ne	nc	nc	nc	nc
Chloronaphthalene[2-]	X	nc	nc	nc	nc	X	nh	nh	ne
Chlorophenol[2-]	X	nh	nh	no	no	nc	nc	nc	nc
Chlorophenyl-phenyl[4-] Ether	X	nv	nv	ne	ne	nc	nc	nc	nc
Chrysene	X	nh	nh	X	X	X	nh	nh	no
DDD[4,4'-]	X	nh	nh	ne	ne	X	nh	nh	ne
DDE[4,4'-]	X	nh	nh	X	X	X	X	ef	no

Table 3.3-1 (continued)

	Sediment					Water			
Analyte Name	COPCs	Tier 1 Human Health COPCs	Final COPCs for Human Health Risk Assessment	Ecological Assessment – Terrestrial COPECs	Ecological Assessment – Aquatic COPECs	COPCs	Tier 1 Human Health COPCs	Final COPCs for Human Health Risk Assessment	Ecological Assessment – COPECs
DDT[4,4'-]	X	nh	nh	X	X	X	X	X	X
Decachlorobiphenyl	X	nv	nv	ne	ne	nc	nc	nc	nc
Dibenz(a,h)anthracene	X	X	X	no	no	X	X	X	no
Dibenzofuran	X	nh	nh	no	no	nc	nc	nc	nc
Dichlorobenzene[1,2-]	X	nhsat[j]	nhsat	ne	ne	nc	nc	nc	nc
Dichlorobenzene[1,3-]	X	nh	nh	ne	ne	nc	nc	nc	nc
Dichlorobenzene[1,4-]	X	nh	nh	no	no	X	nh	nh	no
Dichlorobenzidine[3,3'-]	X	nh	nh	ne	ne	nc	nc	nc	nc
Dichloroethane[1,2-]	nc	nc	nc	nc	nc	X	X	ef	no
Dichlorophenol[2,4-]	X	nh	nh	ne	ne	nc	nc	nc	nc
Dieldrin	X	X	X	X	no	X	X	ef	no
Diethylphthalate	nc	nc	nc	nc	nc	X	nh	nh	ne
Dimethyl Phthalate	X	nhmax[k]	nhmax	ne	ne	nc	nc	nc	nc
Dimethylphenol[2,4-]	X	nh	nh	ne	ne	nc	nc	nc	nc
Di-n-butylphthalate	X	nc	nc	nc	nc	X	nh	nh	no
Dinitro-2-methylphenol[4,6-]	X	X	X	ne	ne	nc	nc	nc	nc
Di-n-octylphthalate	X	nh	nh	no	no	nc	nc	nc	nc
Diphenylamine	X	nh	nh	ne	ne	nc	nc	nc	nc
Endosulfan II	X	nh	nh	ne	ne	nc	nc	nc	nc
Endosulfan Sulfate	X	nh	nh	ne	ne	nc	nc	nc	nc
Endrin	X	nh	nh	X	no	nc	nc	nc	nc
Endrin Aldehyde	X	nh	nh	X	no	X	nh	nh	X
Endrin Ketone	X	nh	nh	ne	ne	nc	nc	nc	nc
Ethylbenzene	X	nc	nc	nc	nc	X	nh	nh	ne
Fluoranthene	X	nh	nh	X	X	X	nh	nh	no
Fluorene	X	nh	nh	X	no	X	nh	nh	X
Heptachlor	X	nh	nh	no	no	nc	nc	nc	nc
Heptachlor Epoxide	X	X	nh	ne	ne	nc	nc	nc	nc
Hexachlorobutadiene	X	nh	nh	ne	ne	nc	nc	nc	nc
Hexachlorocyclopentadiene	X	nh	nh	ne	ne	nc	nc	nc	nc
Hexachloroethane	X	nh	nh	ne	ne	nc	nc	nc	nc

Table 3.3-1 (continued)

	Sediment					Water			
Analyte Name	COPCs	Tier 1 Human Health COPCs	Final COPCs for Human Health Risk Assessment	Ecological Assessment – Terrestrial COPECs	Ecological Assessment – Aquatic COPECs	COPCs	Tier 1 Human Health COPCs	Final COPCs for Human Health Risk Assessment	Ecological Assessment – COPECs
HMX	X	nh	nh	no	no	na	na	na	na
Indeno(1,2,3-cd)pyrene	X	X	X	no	X	X	X	X	no
Iodomethane	X	nv	nv	ne	ne	nc	nc	nc	nc
Isopropylbenzene	X	nh	nh	ne	ne	nc	nc	nc	nc
Isopropyltoluene[4-]	X	nh	nh	ne	ne	X	nh	nh	ne
Methyl-2-pentanone[4-]	X	nh	nh	ne	ne	nc	nc	nc	nc
Methylene Chloride	X	nh	nh	no	no	X	X	X	no
Methylmercury(+1) Ion	X	nh	nv	X	no	na	na	na	na
Methylnaphthalene[2-]	X	nh	nh	no	no	X	nh	nh	no
Methylphenol[2-]	X	nh	nh	ne	ne	nc	nc	nc	nc
Methylphenol[4-]	X	nh	nh	ne	ne	nc	nc	nc	nc
Naphthalene	X	nh	nh	X	X	X	nh	nh	no
Nitroaniline[2-]	X	nh	nh	ne	ne	nc	nc	nc	nc
Nitrobenzene	X	nh	nh	no	no	nc	nc	nc	nc
Nitroso-di-n-propylamine[N-]	X	X	X	ne	ne	nc	nc	nc	nc
Nitrotoluene[2-]	X	nh	nh	no	no	na	na	na	na
Phenanthrene	X	nh	nh	X	X	X	nh	nh	no
Phenol	X	nh	nh	X	no	X	nh	nh	no
Propylbenzene[1-]	X	nhsat	nhsat	ne	ne	nc	nc	nc	nc
Pyrene	X	nh	nh	X	X	X	nh	nh	no
Pyridine	X	nh	nh	ne	ne	nc	nc	nc	nc
2,3,7,8-TCDD TEQ Total	X	X	X	X	na	na	na	na	na
Tetryl	X	nh	nh	X	no	na	na	na	na
Toluene	X	nhsat	nhsat	no	no	X	nh	nh	no
TPH, Diesel Range	X	nv	nv	ne	ne	X	nv	nv	ne
TPH, Gasoline Range	X	nv	nv	ne	ne	na	na	na	na
Trichlorobenzene[1,2,4-]	X	nh	nh	no	no	nc	nc	nc	nc
Trichloroethene	X	nh	nh	no	no	X	X	X	no
Trichlorofluoromethane	X	nh	nh	ne	ne	nc	nc	nc	nc
Trichlorophenol[2,4,6-]	X	X	X	ne	ne	nc	nc	nc	nc
Trimethylbenzene[1,2,4-]	X	nh	nh	ne	ne	X	nh	nh	ne
Xylene (Total)	X	nhsat	nhsat	no	no	X	nh	nh	no

Table 3.3-1 (continued)

	Sediment					Water			
Analyte Name	COPCs	Tier 1 Human Health COPCs	Final COPCs for Human Health Risk Assessment	Ecological Assessment - Terrestrial COPECs	Ecological Assessment - Aquatic COPECs	COPCs	Tier 1 Human Health COPCs	Final COPCs for Human Health Risk Assessment	Ecological Assessment - COPECs
Xylene[1,2-]	X	nhsat	nhsat	ne	ne	X	nh	nh	ne
Xylene[1,3-]+Xylene[1,4-]	X	nhsat	nhsat	ne	ne	X	nh	nh	no
Americium-241	X	X	X	X	X	X	X	X	no
Cesium-134	X	nh	nh	no	X	nc	nc	nc	nc
Cesium-137	X	X	X	X	X	X	nh	nh	no
Cobalt-60	X	X	X	no	no	nc	nc	nc	nc
Europium-152	X	X	X	no	X	X	nh	nh	no
Plutonium-238	X	X	nh	X	X	X	nh	nh	no
Plutonium-239,240	X	X	X	X	X	X	X	X	X
Strontium-90	X	X	X	no	X	X	X	X	no
Technetium-99	na	na	na	na	na	X	nh	nh	ne
Thorium-228	X	X	X	no	no	nc	nc	nc	nc
Thorium-230	X	X	X	no	no	nc	nc	nc	nc
Thorium-232	X	X	X	X	no	nc	nc	nc	nc
Tritium	X	nh	nh	no	no	X	nh	nh	no
Uranium-234	X	X	nh	X	no	X	X	X	X
Uranium-235	X	nh	nh	no	no	X	nh	nh	no
Uranium-238	X	X	nh	X	no	X	X	X	no

Note: Gray shading indicates a cell value was revised or added to this table from the original report.

[a] nc= Not a COPC.

[b] X = A COPC or COPEC.

[c] nv = No human health screening value.

[d] ne = No ecological screening value.

[e] na = Not measured in this medium.

[f] ef = Eliminated as human health COPC during final evaluation.

[g] X = A final COPC or COPEC.

[h] no = Not a COPEC.

[i] nh = Not a human health COPC.

[j] nhsat= Eliminated as human health COPC because screening level is based on soil saturation concentration.

[k] nhmax = Eliminated as human health COPC because screening level is based on maximum allowed concentration in soil.

Table 4.3-1
Trail User Sediment Exposure Pathways EPC-to-RBC Ratio Sums, by Reach

Reach	Carcinogen Sum[a]	Noncarcinogen Sum	Radionuclide Sum[b]
AC-1	0.5517	0.00191	—[c]
AC-2	0.321	0.00188	—
AC-3	0.161	0.175	0.0877
ACS	0.0248	0.182	0.0907
DP-1C	0.2829	—	—
DP-1E	0.0816	—	—
DP-1W	0.9447	—	—
DP-2	0.5207	0.1079	0.137
DP-3	0.0153	0.04	0.102
DP-4	—	—	0.0801
LA-1C	0.0369	0.0057	—
LA-1E	—	—	0.0084
LA-2E	0.066	0.000828	0.0711
LA-2W	—	—	0.014
LA-2FE	—	—	0.112
LA-3E	—	—	0.0584
LA-3W	—	—	0.0630
LA-4W	—	—	0.0103
P-1E	0.0305	0.0000464	0.0113
P-2W	—	—	0.007
P-3W	—	—	0.003
P-4E	—	0.001	—
P-4W	0.0413	0.00212	0.007

Note: Gray shading indicates a value changed from or added to Table 8.2-2 of the original report.

[a] Convert to risk: Value × (1×10^{-6}).

[b] Convert to dose: Value × 15 mrem.

[c] — = Value below screening criteria.

Table 4.3-2
Extended Backyard Sediment Exposure Pathways EPC-to-RBC Ratio Sums, by Reach

Reach	Carcinogen Sum[a]	Noncarcinogen Sum	Radionuclide Sum[b]
AC-1	0.969	0.0205	—[c]
AC-2	0.571	0.0202	—
AC-3	0.277	0.572	0.387
ACS	0.043	0.232	0.502
DP-1C	0.486	—	—
DP-1E	0.141	—	—
DP-1W	1.64	—	—
DP-2	0.895	0.198	0.165
DP-3	0.0264	0.023	0.135
DP-4	—	—	0.101
LA-1C	0.063	0.049	—
LA-1E	—	—	0.026
LA-2E	0.121	0.0089	0.104
LA-2W	—	—	0.014
LA-2FE	—	—	0.130
LA-3E	—	—	0.084
LA-3W	—	—	0.07
LA-4W	—	—	0.021
P-1E	0.0539	0.000395	0.0523
P-2W	—	—	0.043
P-3W	—	—	0.018
P-4E	—	0.097	—
P-4W	0.091	0.0228	0.04

Notes: Gray shading indicates a value changed from or added to Table 8.2-3 of the original report. Bold = sum > 1.0.

[a] Convert to risk: Value × (1×10^{-5}).

[b] Convert to dose: Value × 15 mrem.

[c] — = Value below screening criteria.

Table 4.3-3
Surface Sediment Exposure Pathways EPC-to-RBC Ratios, by Reach

Reach and Contaminant	Risk Class	Average	Upper Confidence Limit, EPC*	Trail User RBC Ratio	Extended Backyard RBC Ratio
AC-1					
Arsenic	ca	3.47	3.8	0.037	0.081
Benzo(a)anthracene	ca	1.82	3.51	0.036	0.062
Benzo(a)pyrene	ca	1.96	3.75	0.382	0.659
Benzo(b)fluoranthene	ca	2.65	4.75	0.048	0.084
Dibenz(a,h)anthracene	ca	0.339	—	0.035	0.060
Indeno(1,2,3-cd)pyrene	ca	0.751	1.38	0.014	0.024
Arsenic	nc	3.47	3.8	0.002	0.021
AC-2					
Arsenic	ca	3.28	3.74	0.036	0.080
Benzo(a)anthracene	ca	1.26	1.92	0.020	0.034
Benzo(a)pyrene	ca	1.35	2.15	0.219	0.378
Benzo(b)fluoranthene	ca	2.29	3.73	0.038	0.066
Indeno(1,2,3-cd)pyrene	ca	0.582	0.816	0.008	0.014
Arsenic	nc	3.28	3.74	0.002	0.020
AC-3					
Aroclor-1254	ca	0.668	2.24	0.066	0.112
Benzo(a)anthracene	ca	0.831	—	0.008	0.015
Benzo(a)pyrene	ca	0.718	—	0.073	0.126
Benzo(b)fluoranthene	ca	1.35	—	0.014	0.024
Aroclor-1254	nc	0.668	2.24	0.039	0.328
Lead	nc	61.3	76.1	0.136	0.136
Manganese	nc	315	341	0.001	0.107
Mercury	nc	0.229	0.424	0.000138	0.002
Americium-241	rad	9.67	27.2	0.018	0.101
Cesium-137	rad	2.18	5.59	0.027	0.027
Plutonium-239	rad	45.7	72.5	0.043	0.259
Strontium-90	rad	2.38	5.67	0.000334	0.001
ACS					
Aroclor-1254	ca	0.185	0.278	0.008	0.014
Benzo(a)pyrene	ca	0.158	—	0.016	0.028
Dieldrin	ca	0.00502	0.00791	0.001	0.001
Nitroso-di-n-propylamine[N-]	ca	0	—	0.000	0.000
Aroclor-1254	nc	0.185	0.278	0.005	0.041
Lead	nc	77.9	98.2	0.175	0.175
Mercury	nc	0.439	0.639	0.00021	0.003

Table 4.3-3 (continued)

Reach and Contaminant	Risk Class	Average	Upper Confidence Limit, EPC[a]	Trail User RBC Ratio	Extended Backyard RBC Ratio
Uranium	nc	5.43	6.43	0.00214	0.003
Americium-241	rad	3.26	4.34	0.003	0.016
Cesium-137	rad	1.26	1.92	0.009	0.009
Plutonium-239	rad	103	133	0.078	0.475
Strontium-90	rad	0.485	0.667	0.000039	0.000119
Uranium-234	rad	3.84	4.87	0.000375	0.002
DP-1C					
Aroclor-1260	ca	0.359	—	0.011	0.018
Benzo(a)anthracene	ca	0.888	1.03	0.105	0.181
Benzo(a)pyrene	ca	0.269	—	0.027	0.047
Benzo(b)fluoranthene	ca	1.37	—	0.140	0.240
DP-1E					
Benzo(a)anthracene	ca	0.44	0.643	0.007	0.011
Benzo(a)pyrene	ca	0.661	—	0.067	0.116
Benzo(b)fluoranthene	ca	0.487	0.752	0.008	0.013
DP-1W					
Benzo(a)anthracene	ca	1.07	2	0.020	0.035
Benzo(a)pyrene	ca	1.23	2.14	0.218	0.376
Benzo(b)fluoranthene	ca	1.47	2.61	0.027	0.046
Dibenz(a,h)anthracene	ca	0.638	—	0.651	1.119
Heptachlor Epoxide	ca	0.0716	—	0.001	0.014
Indeno(1,2,3-cd)pyrene	ca	2.67	—	0.027	0.047
DP-2					
Benzo(a)anthracene	ca	0.292	0.33	0.034	0.058
Benzo(a)pyrene	ca	0.304	0.374	0.382	0.656
Benzo(b)fluoranthene	ca	0.43	0.473	0.048	0.083
Dibenz(a,h)anthracene	ca	0.056	—	0.057	0.098
Dinitro-2-methylphenol[4,6-]	nc	0.266	—	0.000266	0.003
Lead	nc	48.9	60	0.107	0.107
Manganese	nc	265	281	0.000468	0.088
Americium-241	rad	3.98	5.7	0.004	0.021
Cesium-137	rad	18.5	27.5	0.131	0.131
Plutonium-239	rad	2.51	3.18	0.002	0.011
Strontium-90	rad	4.64	6.78	0.000399	0.001
DP-3					
Benzo(a)anthracene	ca	0.12	—	0.001	0.002
Benzo(a)pyrene	ca	0.116	—	0.012	0.020

Table 4.3-3 (continued)

Reach and Contaminant	Risk Class	Average	Upper Confidence Limit, EPC[a]	Trail User RBC Ratio	Extended Backyard RBC Ratio
Benzo(b)fluoranthene	ca	0.22	—	0.002	0.004
Trichlorophenol[2,4,6-]	ca	0.878	—	0.001	0.002
Lead	nc	18	21.1	0.038	0.002
Trichlorophenol[2,4,6-]	nc	0.878	—	0.002	0.021
Americium-241	rad	6.11	9.32	0.006	0.035
Cesium-137	rad	14.7	20	0.095	0.095
Plutonium-239	rad	1.03	1.33	0.001	0.005
Strontium-90	rad	1.28	2.11	0.000124	0.000377
DP-4					
Americium-241	rad	2.44	4.36	0.003	0.016
Cesium-137	rad	12.4	15.9	0.076	0.076
Plutonium-239	rad	1.32	2.28	0.001	0.008
Strontium-90	rad	2.16	3.02	0.000178	0.001
LA-1C					
Aroclor-1254	ca	0.333	—	0.010	0.017
Aroclor-1260	ca	0.18	0.262	0.008	0.013
Benzo(a)pyrene	ca	0.183	0.19	0.019	0.033
Aroclor-1254	nc	0.333	—	0.006	0.049
LA-1E					
Cesium-137	rad	1.02	—	0.005	0.005
Plutonium-239	rad	3.63	5.98	0.004	0.021
LA-2E					
Aroclor-1260	ca	0.0522	0.0722	0.002	0.004
Arsenic	ca	1.65	—	0.016	0.035
Benzo(a)pyrene	ca	0.204	0.405	0.041	0.071
Benzo(b)fluoranthene	ca	0.29	0.624	0.006	0.011
Arsenic	nc	1.65	—	0.001	0.009
Americium-241	rad	4.67	6.9	0.005	0.026
Cesium-137	rad	9.95	12.5	0.060	0.060
Europium-152	rad	0.334	0.459	0.005	0.005
Plutonium-239	rad	1.68	2.95	0.002	0.011
Strontium-90	rad	2.91	3.79	0.000223	0.001
Thorium-230	rad	1.56	—	0.000156	0.002
LA-2FE					
Americium-241	rad	2.07	3.86	0.003	0.014
Cesium-137	rad	18.2	22.6	0.108	0.108
Plutonium-239	rad	1.5	1.95	0.001	0.007

Table 4.3-3 (continued)

Reach and Contaminant	Risk Class	Average	Upper Confidence Limit, EPC[a]	Trail User RBC Ratio	Extended Backyard RBC Ratio
Strontium-90	rad	3.6	4.47	0.00026	0.001
LA-2W					
Cesium-137	rad	1.24	1.28	0.006	0.006
Plutonium-239	rad	1.67	2.19	0.001	0.008
Strontium-90	rad	0.469	0.855	0.000050	0.000153
LA-3E					
Americium-241	rad	1.39	2.19	0.001	0.008
Cesium-137	rad	3.76	4.47	0.021	0.021
Cobalt-60	rad	0.0428	0.0586	0.001	0.001
Europium-152	rad	0.192	0.262	0.003	0.003
Strontium-90	rad	1.15	2.02	0.000119	0.000361
Thorium-228	rad	1.9	1.94	0.030	0.033
Thorium-230	rad	1.63	1.68	0.000168	0.003
Thorium-232	rad	1.76	1.81	0.001	0.014
LA-3W					
Americium-241	rad	1.5	2.2	0.001	0.008
Cesium-137	rad	8.55	12.9	0.061	0.061
Strontium-90	rad	1.99	2.99	0.000176	0.001
LA-4W					
Americium-241	rad	0.274	0.433	0.000289	0.002
Cesium-137	rad	0.815	0.999	0.005	0.005
Europium-152	rad	0.247	0.313	0.003	0.003
Plutonium-239	rad	2.44	3.21	0.002	0.011
P-1E					
2,3,7,8-TCDD TEQ Total	ca	2.08E-06	—	0.001	0.003
Aroclor-1254	ca	0.0027	—	0.000080	0.000136
Benzo(a)anthracene	ca	0.132	—	0.001	0.002
Benzo(a)pyrene	ca	0.179	—	0.018	0.032
Benzo(b)fluoranthene	ca	0.233	—	0.002	0.004
Dibenz(a,h)anthracene	ca	0.00204	—	0.000208	0.000358
Indeno(1,2,3-cd)pyrene	ca	0.0688	—	0.007	0.012
Aroclor-1254	nc	0.0027	—	0.000046	0.000395
Americium-241	rad	0.27	0.316	0.000211	0.001
Cesium-137	rad	0.656	0.659	0.003	0.003
Plutonium-239	rad	9.76	13.4	0.008	0.048
Strontium-90	rad	0.776	—	0.000046	0.000139

Table 4.3-3 (continued)

Reach and Contaminant	Risk Class	Average	Upper Confidence Limit, EPC[a]	Trail User RBC Ratio	Extended Backyard RBC Ratio
P-2W					
Plutonium-239	rad	9.14	12	0.007	0.043
P-3W					
Plutonium-239	rad	3.45	4.99	0.003	0.018
P-4E					
Manganese	nc	309	—	0.001	0.097
P-4W					
Arsenic	ca	4.23	—	0.041	0.090
Benzo(a)pyrene	ca	0	—	0.000	0.000
Benzo(b)fluoranthene	ca	0.0393	—	0.000401	0.001
Arsenic	nc	4.23	—	0.002	0.023
Plutonium-239	rad	7.91	11.2	0.007	0.040

Notes: EPCs are in mg/kg for nonradionuclides and pCi/g for radionuclides. Gray shading indicates a new COPC for this reach.

[a]The upper confidence limit has an em dash when there were insufficient data to calculate a variance. In these cases, the weighted mean is used as the EPC.

Table 4.4-1
Trail User Surface Water Exposure Pathways EPC-to-RBC Ratio Sums, by Sampling Location

Location	Carcinogen Sum[a]	Noncarcinogen Sum	Radionuclide Sum[b]
00-10241	0.0306	0.0620	—[c]
21-01854	0.0333	0.0746	0.0169
21-10929	0.114	0.0753	—
21-11226	0.0887	0.144	—
21-11269	—	—	0.0146
GU-10004	0.0641	0.00332	—
LA-00218	0.0652	0.0232	—
LA-00219	0.0523	0.011	—
LA-02-20908	0.0541	0.00281	—
LA-02-20909	0.0374	0.002	—
LA-02-20913	0.0357	0.00185	—
LA-02-20914	0.0239	0.00561	—
LA-02-20915	0.0295	0.00644	—
LA-10005	0.0356	0.0066	—
LA-10006	—	0.00292	—
LA-10033	0.017	0.00826	—
LA-10040	0.0417	0.701	—
LA-10057	0.0793	0.00411	—
LA-10058	0.0224	0.0722	—
LA-10064	0.081	0.621	—
LA-10065	—	0.339	—
LA-10126	—	—	—
LA-10179	0.0469	0.00243	—
PU-02-20920	0.152	0.022	—
PU-10068	0.0346	0.133	—
PU-10069	0.0437	0.0427	—
PU-10070	0.0369	0.0392	—
PU-10071	0.062	0.184	—
PU-10155	**2.43**[d]	—	0.0126
PU-10175	0.0325	0.0391	0.0281
PU-10176	0.0183	0.000949	0.0183
PU-10229	0.0854	0.288	—
PU-10230	0.187	0.134	—
PU-10231	**1.23**	—	—

Note: Gray shading indicates a new or revised value from the original report.

[a] Convert to risk: Value × (1×10^{-5}).

[b] Convert to dose: Value × 4 mrem.

[c] — = Value below screening criteria.

[d] Bold text indicates sum that exceeds 1.

Table 4.4-2
Extended Backyard Surface Water
Exposure Pathway EPC-to-RBC Ratio Sums, by Sampling Location

Location	Carcinogen Sum[a]	Noncarcinogen Sum	Radionuclide Sum[b]
00-10241	0.0495	0.0857	—[c]
21-01854	0.0535	0.113	0.0295
21-10929	0.184	0.0985	—
21-11226	0.144	0.190	—
21-11269	—	—	0.0255
GU-10004	0.104	0.0131	—
LA-00218	0.106	0.0386	—
LA-00219	0.0849	0.0433	—
LA-02-20908	0.0878	0.0111	—
LA-02-20909	0.0608	0.00791	—
LA-02-20913	0.0579	0.0073	—
LA-02-20914	0.0387	0.0218	—
LA-02-20915	0.0479	0.0252	—
LA-10005	0.0578	0.0253	—
LA-10006	—	0.0112	—
LA-10033	0.0277	0.0318	—
LA-10040	0.0677	0.788	—
LA-10057	0.129	0.0162	—
LA-10058	0.0363	0.0991	—
LA-10064	0.130	0.680	—
LA-10065	—	0.362	—
LA-10126	—	—	—
LA-10179	0.0761	0.00959	—
PU-02-20920	0.246	0.0859	—
PU-10068	0.0561	0.150	—
PU-10069	0.071	0.0637	—
PU-10070	0.0599	0.0510	—
PU-10071	0.101	0.227	—
PU-10155	**1.67**[d]	—	0.022
PU-10175	0.0528	0.0457	0.0493
PU-10176	0.0297	0.00375	0.032
PU-10229	0.139	0.321	—
PU-10230	0.227	0.194	—
PU-10231	0.857	—	—

Note: Gray shading indicates a new or revised value from the original report.
[a] Convert to risk: Value × (1×10^{-6}).
[b] Convert to dose: Value × 4 mrem.
[c] — = Value below screening criteria.
[d] Bold text indicates sum that exceeds 1.Gray

Table 4.4-3
Surface Water Exposure Pathways EPC-to-RBC Ratio, by Sampling Location

Location	Name	Canyon	Class[a]	COPC	Units	Number of Samples	EPC[b]	Trail User RBC Ratio	Extended Backyard RBC Ratio
00-10241	Reach AC-2 SW	Acid	ca	Arsenic	µg/L	2	3	0.0305	0.0495
00-10241	Reach AC-2 SW	Acid	nc	Arsenic	µg/L	2	3	0.00158	0.00624
00-10241	Reach AC-2 SW	Acid	nc	Iron	µg/L	2	1200	0.000633	0.0025
00-10241	Reach AC-2 SW	Acid	nc	Lead	µg/L	2	3.5	0.0538	0.0538
00-10241	Reach AC-2 SW	Acid	nc	Thallium	µg/L	2	2.9	0.00574	0.0226
00-10241	Reach AC-2 SW	Acid	nc	Vanadium	µg/L	2	4.5	0.00014	0.0005
21-01854	DP Spring	DP	ca	Arsenic	µg/L	5	2.8	0.0285	0.0462
21-01854	DP Spring	DP	ca	Dichloroethane[1,2-]	µg/L	5	7.6	0.0047	0.0076
21-01854	DP Spring	DP	nc	Arsenic	µg/L	5	2.8	0.00148	0.00583
21-01854	DP Spring	DP	nc	Fluoride	µg/L	1	1100	0.0029	0.0114
21-01854	DP Spring	DP	nc	Iron	µg/L	5	1300	0.000686	0.0027
21-01854	DP Spring	DP	nc	Lead	µg/L	5	4	0.0615	0.0615
21-01854	DP Spring	DP	nc	Thallium	µg/L	5	3.8	0.00752	0.0296
21-01854	DP Spring	DP	nc	Vanadium	µg/L	5	3.87	0.00012	0.00046
21-01854	DP Spring	DP	nc	Bromomethane	µg/L	5	2.7	0.0003	0.0012
21-01854	DP Spring	DP	rad	Strontium-90	pCi/L	5	110	0.0168	0.0295
21-10929	Reach DP-1W SW	DP	ca	Arsenic	µg/L	4	11	0.112	0.182
21-10929	Reach DP-1W SW	DP	ca	BHC[beta-]	µg/L	4	0.1	0.00208	0.00256
21-10929	Reach DP-1W SW	DP	ca	Bromodichloromethane	µg/L	4	0.21	0.00009	0.00014
21-10929	Reach DP-1W SW	DP	nc	Arsenic	µg/L	4	11	0.0058	0.0229
21-10929	Reach DP-1W SW	DP	nc	Iron	µg/L	4	1500	0.00079	0.0031
21-10929	Reach DP-1W SW	DP	nc	Lead	µg/L	4	4.38	0.0674	0.0674
21-10929	Reach DP-1W SW	DP	nc	Manganese	µg/L	4	420	0.00059	0.00227
21-10929	Reach DP-1W SW	DP	nc	Uranium	µg/L	4	1.2	0.000063	0.00025
21-10929	Reach DP-1W SW	DP	nc	Vanadium	µg/L	4	21.5	0.00067	0.0026

Table 4.4-3 (continued)

Location	Name	Canyon	Class[a]	COPC	Units	Number of Samples	EPC[b]	Trail User RBC Ratio	Extended Backyard RBC Ratio
21-11226	Reach DP-1C SW	DP	ca	Arsenic	µg/L	4	8.7	0.0885	0.144
21-11226	Reach DP-1C SW	DP	nc	Aluminum	µg/L	4	6610	0.00105	0.00413
21-11226	Reach DP-1C SW	DP	nc	Antimony	µg/L	4	2.15	0.000901	0.00352
21-11226	Reach DP-1C SW	DP	nc	Arsenic	µg/L	4	8.7	0.00459	0.0181
21-11226	Reach DP-1C SW	DP	nc	Iron	µg/L	4	4480	0.00236	0.00932
21-11226	Reach DP-1C SW	DP	nc	Lead	µg/L	4	8.3	0.128	0.128
21-11226	Reach DP-1C SW	DP	nc	Manganese	µg/L	4	280	0.000396	0.00151
21-11226	Reach DP-1C SW	DP	nc	Thallium	µg/L	4	2.9	0.00574	0.0226
21-11226	Reach DP-1C SW	DP	nc	Uranium	µg/L	4	1.15	0.0000607	0.000239
21-11226	Reach DP-1C SW	DP	nc	Vanadium	µg/L	4	21.2	0.00066	0.0025
21-11269	Reach DP-2 SW	DP	rad	Strontium-90	pCi/L	1	95.2	0.0146	0.0255
GU-10004	Guaje at LA Confluence	Guaje	ca	Arsenic	µg/L	2	6.3	0.0641	0.104
GU-10004	Guaje at LA Confluence	Guaje	nc	Arsenic	µg/L	2	6.3	0.00332	0.0131
LA-00218	Reach LA-4 SW	Los Alamos	ca	Arsenic	µg/L	8	6.41	0.0652	0.106
LA-00218	Reach LA-4 SW	Los Alamos	nc	Arsenic	µg/L	8	6.41	0.00338	0.0133
LA-00218	Reach LA-4 SW	Los Alamos	nc	Lead	µg/L	8	1.17	0.0180	0.0180
LA-00218	Reach LA-4 SW	Los Alamos	nc	Uranium	µg/L	8	0.88	0.000046	0.00018
LA-00218	Reach LA-4 SW	Los Alamos	nc	Vanadium	µg/L	8	11.3	0.00035	0.0013
LA-00218	Reach LA-4 SW	Los Alamos	nc	Thallium	µg/L	8	0.74	0.0015	0.0058
LA-00219	Basalt Spring	Los Alamos	ca	Arsenic	µg/L	8	5.14	0.0523	0.0849
LA-00219	Basalt Spring	Los Alamos	nc	Antimony	µg/L	8	3	0.00126	0.00492
LA-00219	Basalt Spring	Los Alamos	nc	Arsenic	µg/L	8	5.14	0.00271	0.0107
LA-00219	Basalt Spring	Los Alamos	nc	Thallium	µg/L	8	3.4	0.00672	0.0265
LA-00219	Basalt Spring	Los Alamos	nc	Uranium	µg/L	3	1.05	0.0000552	0.000218
LA-00219	Basalt Spring	Los Alamos	nc	Vanadium	µg/L	3	7.85	0.0002	0.0009
LA-02-20908	Eco	Los Alamos	ca	Arsenic	µg/L	1	5.32	0.0541	0.0878

Table 4.4-3 (continued)

Location	Name	Canyon	Class[a]	COPC	Units	Number of Samples	EPC[b]	Trail User RBC Ratio	Extended Backyard RBC Ratio
LA-02-20908	Eco	Los Alamos	nc	Arsenic	µg/L	1	5.32	0.00281	0.0111
LA-02-20909	Eco	Los Alamos	ca	Arsenic	µg/L	1	3.61	0.0367	0.0596
LA-02-20909	Eco	Los Alamos	ca	DDT[4,4'-]	µg/L	1	0.32	0.00073	0.00119
LA-02-20909	Eco	Los Alamos	nc	Arsenic	µg/L	1	3.61	0.0019	0.00751
LA-02-20909	Eco	Los Alamos	nc	DDT[4,4'-]	µg/L	1	0.32	0.0001	0.000396
LA-02-20913	Eco	DP	ca	Arsenic	µg/L	1	3.51	0.0357	0.0579
LA-02-20913	Eco	DP	nc	Arsenic	µg/L	1	3.51	0.00185	0.0073
LA-02-20914	Eco	Los Alamos	ca	Arsenic	µg/L	1	2.27	0.0231	0.0375
LA-02-20914	Eco	Los Alamos	ca	DDT[4,4'-]	µg/L	1	0.34	0.000776	0.00127
LA-02-20914	Eco	Los Alamos	nc	Arsenic	µg/L	1	2.27	0.0012	0.00472
LA-02-20914	Eco	Los Alamos	nc	DDT[4,4'-]	µg/L	1	0.34	0.000106	0.000421
LA-02-20914	Eco	Los Alamos	nc	Iron	µg/L	1	2170	0.00114	0.00452
LA-02-20914	Eco	Los Alamos	nc	Manganese	µg/L	1	1640	0.00232	0.00887
LA-02-20914	Eco	Los Alamos	nc	Thallium	µg/L	1	0.422	0.000835	0.00329
LA-02-20915	Eco	Los Alamos	ca	Arsenic	µg/L	1	2.9	0.0295	0.0479
LA-02-20915	Eco	Los Alamos	nc	Aluminum	µg/L	1	4910	0.000777	0.00306
LA-02-20915	Eco	Los Alamos	nc	Arsenic	µg/L	1	2.9	0.00153	0.00603
LA-02-20915	Eco	Los Alamos	nc	Iron	µg/L	1	3300	0.00174	0.00687
LA-02-20915	Eco	Los Alamos	nc	Manganese	µg/L	1	1270	0.0018	0.00687
LA-02-20915	Eco	Los Alamos	nc	Thallium	µg/L	1	0.302	0.000597	0.00236
LA-10005	SW at LAO-0.6	Los Alamos	ca	Arsenic	µg/L	3	3.5	0.0356	0.0578
LA-10005	SW at LAO-0.6	Los Alamos	nc	Arsenic	µg/L	3	3.5	0.00185	0.00728
LA-10005	SW at LAO-0.6	Los Alamos	nc	Iron	µg/L	3	1400	0.000738	0.00291
LA-10005	SW at LAO-0.6	Los Alamos	nc	Manganese	µg/L	3	2600	0.00368	0.0141
LA-10005	SW at LAO-0.6	Los Alamos	nc	Vanadium	µg/L	3	9.6	0.0003	0.0011
LA-10006	Upper Reach LA-0 SW	Los Alamos	nc	Iron	µg/L	2	1500	0.000791	0.00312

Table 4.4-3 (continued)

Location	Name	Canyon	Class[a]	COPC	Units	Number of Samples	EPC[b]	Trail User RBC Ratio	Extended Backyard RBC Ratio
LA-10006	Upper Reach LA-0 SW	Los Alamos	nc	Manganese	µg/L	2	1500	0.00212	0.00812
LA-10033	LA Reservoir	Los Alamos	ca	Arsenic	µg/L	2	1.5	0.0153	0.0248
LA-10033	LA Reservoir	Los Alamos	ca	Methylene chloride	µg/L	2	37	0.0018	0.0031
LA-10033	LA Reservoir	Los Alamos	nc	Arsenic	µg/L	2	1.5	0.000791	0.00312
LA-10033	LA Reservoir	Los Alamos	nc	Manganese	µg/L	2	4600	0.00651	0.0249
LA-10033	LA Reservoir	Los Alamos	nc	Thallium	µg/L	2	0.482	0.000953	0.00376
LA-10040	At E026	Los Alamos	ca	Arsenic	µg/L	1	4.1	0.0417	0.0677
LA-10040	At E026	Los Alamos	nc	Aluminum	µg/L	1	42800	0.00677	0.0267
LA-10040	At E026	Los Alamos	nc	Arsenic	µg/L	1	4.1	0.00216	0.00853
LA-10040	At E026	Los Alamos	nc	Barium	µg/L	1	467	0.0012	0.00466
LA-10040	At E026	Los Alamos	nc	Chromium	µg/L	1	18.8	0.00028	0.00103
LA-10040	At E026	Los Alamos	nc	Iron	µg/L	1	24200	0.0128	0.0504
LA-10040	At E026	Los Alamos	nc	Lead	µg/L	1	43.5	0.669	0.669
LA-10040	At E026	Los Alamos	nc	Manganese	µg/L	1	2130	0.00302	0.0115
LA-10040	At E026	Los Alamos	nc	Thallium	µg/L	1	2.6	0.00514	0.0203
LA-10057	Upper Reach LA-5 SW	Los Alamos	ca	Arsenic	µg/L	2	7.8	0.0793	0.129
LA-10057	Upper Reach LA-5 SW	Los Alamos	nc	Arsenic	µg/L	2	7.8	0.00411	0.0162
LA-10058	Lower Reach LA-5 SW (at delta)	Los Alamos	ca	Arsenic	µg/L	1	2.2	0.0224	0.0363
LA-10058	Lower Reach LA-5 SW (at delta)	Los Alamos	nc	Arsenic	µg/L	1	2.2	0.00116	0.00458
LA-10058	Lower Reach LA-5 SW (at delta)	Los Alamos	nc	Iron	µg/L	1	1700	0.000897	0.00354
LA-10058	Lower Reach LA-5 SW (at delta)	Los Alamos	nc	Lead	µg/L	1	4.1	0.0631	0.0631
LA-10058	Lower Reach LA-5 SW (at delta)	Los Alamos	nc	Manganese	µg/L	1	330	0.000467	0.00179
LA-10058	Lower Reach LA-5 SW (at delta)	Los Alamos	nc	Perchlorate	µg/L	1	4	0.00633	0.025
LA-10058	Lower Reach LA-5 SW (at delta)	Los Alamos	nc	Vanadium	µg/L	1	9.7	0.0003	0.0011
LA-10064	Reach LA-1W SW	Los Alamos	ca	Arsenic	µg/L	3	7.75	0.0788	0.128
LA-10064	Reach LA-1W SW	Los Alamos	ca	Methylene chloride	µg/L		40	0.002	0.0033

Table 4.4-3 (continued)

Location	Name	Canyon	Class[a]	COPC	Units	Number of Samples	EPC[b]	Trail User RBC Ratio	Extended Backyard RBC Ratio
LA-10064	Reach LA-1W SW	Los Alamos	nc	Aluminum	µg/L	3	27800	0.0044	0.0174
LA-10064	Reach LA-1W SW	Los Alamos	nc	Arsenic	µg/L	3	7.75	0.00409	0.0161
LA-10064	Reach LA-1W SW	Los Alamos	nc	Barium	µg/L	3	381	0.000982	0.0038
LA-10064	Reach LA-1W SW	Los Alamos	nc	Chromium	µg/L	3	18.1	0.000269	0.000994
LA-10064	Reach LA-1W SW	Los Alamos	nc	Iron	µg/L	3	14300	0.00754	0.0298
LA-10064	Reach LA-1W SW	Los Alamos	nc	Lead	µg/L	3	36	0.600	0.600
LA-10064	Reach LA-1W SW	Los Alamos	nc	Manganese	µg/L	3	1590	0.00225	0.0086
LA-10064	Reach LA-1W SW	Los Alamos	nc	Thallium	µg/L	3	0.42	0.000831	0.00328
LA-10064	Reach LA-1W SW	Los Alamos	nc	Uranium	µg/L	3	4.17	0.00022	0.000868
LA-10064	Reach LA-1W SW	Los Alamos	nc	Vanadium	µg/L	3	25.8	0.0008	0.0031
LA-10065	Reach LA-1C SW	Los Alamos	nc	Aluminum	µg/L	3	15000	0.00237	0.00936
LA-10065	Reach LA-1C SW	Los Alamos	nc	Iron	µg/L	3	7290	0.00384	0.0152
LA-10065	Reach LA-1C SW	Los Alamos	nc	Lead	µg/L	3	21.5	0.31	0.31
LA-10065	Reach LA-1C SW	Los Alamos	nc	Manganese	µg/L	3	728	0.00103	0.00394
LA-10065	Reach LA-1C SW	Los Alamos	nc	Uranium	µg/L	3	3.44	0.000182	0.000716
LA-10065	Reach LA-1C SW	Los Alamos	nc	Vanadium	µg/L		16.3	0.00051	0.0019
LA-10179	Otowi Spring	Los Alamos	ca	Arsenic	µg/L	1	4.61	0.0469	0.0761
LA-10179	Otowi Spring	Los Alamos	nc	Arsenic	µg/L	1	4.61	0.00243	0.00959
PU-02-20920	Eco	Pueblo	ca	Arsenic	µg/L	1	14.9	0.152	0.246
PU-02-20920	Eco	Pueblo	nc	Arsenic	µg/L	1	14.9	0.00786	0.031
PU-02-20920	Eco	Pueblo	nc	Barium	µg/L	1	391	0.00101	0.0039
PU-02-20920	Eco	Pueblo	nc	Iron	µg/L	1	14100	0.00744	0.0293
PU-02-20920	Eco	Pueblo	nc	Manganese	µg/L	1	4010	0.00568	0.0217
PU-10068	Reach P-1 Far West SW	Pueblo	ca	Arsenic	µg/L	4	3.4	0.0346	0.0561
PU-10068	Reach P-1 Far West SW	Pueblo	nc	Arsenic	µg/L	4	3.4	0.00179	0.00707
PU-10068	Reach P-1 Far West SW	Pueblo	nc	Iron	µg/L	4	2800	0.00148	0.00583

Table 4.4-3 (continued)

Location	Name	Canyon	Class[a]	COPC	Units	Number of Samples	EPC[b]	Trail User RBC Ratio	Extended Backyard RBC Ratio
PU-10068	Reach P-1 Far West SW	Pueblo	nc	Lead	µg/L	4	8.3	0.128	0.128
PU-10068	Reach P-1 Far West SW	Pueblo	nc	Manganese	µg/L	4	1580	0.00224	0.00855
PU-10068	Reach P-1 Far West SW	Pueblo	nc	Vanadium	µg/L		4.9	0.00015	0.00058
PU-10069	Upper Reach P-1W SW	Pueblo	ca	Arsenic	µg/L	4	4.3	0.0437	0.071
PU-10069	Upper Reach P-1W SW	Pueblo	nc	Antimony	µg/L	4	3	0.00126	0.00492
PU-10069	Upper Reach P-1W SW	Pueblo	nc	Arsenic	µg/L	4	4.3	0.00227	0.00895
PU-10069	Upper Reach P-1W SW	Pueblo	nc	Lead	µg/L	4	2.3	0.0354	0.0354
PU-10069	Upper Reach P-1W SW	Pueblo	nc	Manganese	µg/L	4	2590	0.00367	0.014
PU-10069	Upper Reach P-1W SW	Pueblo	nc	Vanadium	µg/L	4	3.66	0.00011	0.00043
PU-10070	Lower Reach P-1W SW	Pueblo	ca	Arsenic	µg/L	6	3.63	0.0369	0.0599
PU-10070	Lower Reach P-1W SW	Pueblo	nc	Arsenic	µg/L	6	3.63	0.00191	0.00755
PU-10070	Lower Reach P-1W SW	Pueblo	nc	Iron	µg/L	6	2040	0.0011	0.0042
PU-10070	Lower Reach P-1W SW	Pueblo	nc	Lead	µg/L	6	2.12	0.0326	0.0326
PU-10070	Lower Reach P-1W SW	Pueblo	nc	Manganese	µg/L	6	1120	0.0016	0.0060
PU-10070	Lower Reach P-1W SW	Pueblo	nc	Vanadium	µg/L	6	3.28	0.0001	0.00039
PU-10070	Lower Reach P-1W SW	Pueblo	nc	Uranium	µg/L	6	0.88	0.00005	0.00018
PU-10071	Upper Reach P-1E SW	Pueblo	ca	Arsenic	µg/L	4	6.1	0.062	0.101
PU-10071	Upper Reach P-1E SW	Pueblo	nc	Arsenic	µg/L	4	6.1	0.00322	0.0127
PU-10071	Upper Reach P-1E SW	Pueblo	nc	Iron	µg/L	4	5200	0.00274	0.0108
PU-10071	Upper Reach P-1E SW	Pueblo	nc	Lead	µg/L	4	11	0.169	0.169
PU-10071	Upper Reach P-1E SW	Pueblo	nc	Manganese	µg/L	4	6200	0.00878	0.0335
PU-10071	Upper Reach P-1E SW	Pueblo	nc	Vanadium	µg/L	4	6.1	0.00019	0.00072
PU-10155	Lower Reach AC-3 SW (near Acid Weir)	Acid	ca	Benz(a)anthracene	µg/L	4	0.65	0.0659	0.047
PU-10155	Lower Reach AC-3 SW (near Acid Weir)	Acid	ca	Benzo(a)pyrene	µg/L	4	0.63	1.07	0.745

Table 4.4-3 (continued)

Location	Name	Canyon	Class[a]	COPC	Units	Number of Samples	EPC[b]	Trail User RBC Ratio	Extended Backyard RBC Ratio
PU-10155	Lower Reach AC-3 SW (near Acid Weir)	Acid	ca	Benzo(b)fluoranthene	µg/L	4	0.49	0.0847	0.0587
PU-10155	Lower Reach AC-3 SW (near Acid Weir)	Acid	ca	Dibenz(a,h)anthracene	µg/L	4	0.43	1.12	0.766
PU-10155	Lower Reach AC-3 SW (near Acid Weir)	Acid	ca	Indeno(1,2,3-cd)pyrene	µg/L	4	0.47	0.0813	0.0564
PU-10155	Lower Reach AC-3 SW (near Acid Weir)	Acid	rad	Americium-241	pCi/L	4	0.134	0.000488	0.000854
PU-10155	Lower Reach AC-3 SW (near Acid Weir)	Acid	rad	Plutonium-239	pCi/L	4	2.58	0.00913	0.016
PU-10155	Lower Reach AC-3 SW (near Acid Weir)	Acid	rad	Strontium-90	pCi/L	4	19.2	0.00294	0.00514
PU-10175	Upper S. Fork Acid Canyon SW	Acid	ca	Arsenic	µg/L	2	3.2	0.0325	0.0528
PU-10175	Upper S. Fork Acid Canyon SW	Acid	nc	Arsenic	µg/L	2	3.2	0.00169	0.00666
PU-10175	Upper S. Fork Acid Canyon SW	Acid	nc	Lead	µg/L	2	2.4	0.0369	0.0369
PU-10175	Upper S. Fork Acid Canyon SW	Acid	nc	Uranium	µg/L	2	10.3	0.000541	0.00214
PU-10175	Upper S. Fork Acid Canyon SW	Acid	rad	Plutonium-239	pCi/L	2	7.11	0.0252	0.044
PU-10175	Upper S. Fork Acid Canyon SW	Acid	rad	Uranium-234	pCi/L	2	7.3	0.00207	0.00362
PU-10175	Upper S. Fork Acid Canyon SW	Acid	rad	Uranium-238	pCi/L	2	3.4	0.000915	0.0016
PU-10176	Lower S. Fork Acid Canyon SW	Acid	ca	Arsenic	µg/L	2	1.8	0.0183	0.0297
PU-10176	Lower S. Fork Acid Canyon SW	Acid	nc	Arsenic	µg/L	2	1.8	0.000949	0.00375
PU-10176	Lower S. Fork Acid Canyon SW	Acid	rad	Plutonium-239	pCi/L	2	5.17	0.0183	0.032
PU-10229	Pueblo at SR-502	Pueblo	ca	Arsenic	µg/L	4	8.4	0.0854	0.139
PU-10229	Pueblo at SR-502	Pueblo	nc	Aluminum	µg/L	4	4000	0.000633	0.0025
PU-10229	Pueblo at SR-502	Pueblo	nc	Arsenic	µg/L	4	8.4	0.00443	0.0175
PU-10229	Pueblo at SR-502	Pueblo	nc	Boron	µg/L	2	384	0.000675	0.00266
PU-10229	Pueblo at SR-502	Pueblo	nc	Iron	µg/L	4	5990	0.00316	0.0125

Table 4.4-3 (continued)

Location	Name	Canyon	Class[a]	COPC	Units	Number of Samples	EPC[b]	Trail User RBC Ratio	Extended Backyard RBC Ratio
PU-10229	Pueblo at SR-502	Pueblo	nc	Lead	µg/L	4	18	0.277	0.277
PU-10229	Pueblo at SR-502	Pueblo	nc	Manganese	µg/L	4	1760	0.00249	0.00952
PU-10229	Pueblo at SR-502	Pueblo	nc	Uranium	µg/L	3	2.62	0.000138	0.000544
PU-10229	Pueblo at SR-502	Pueblo	nc	Vanadium	µg/L		14.6	0.00046	0.0017
PU-10230	Pueblo 3	Pueblo	ca	Arsenic	µg/L	4	10.4	0.106	0.172
PU-10230	Pueblo 3	Pueblo	ca	Bis(2-ethylhexyl)phthalate	µg/L	4	6.8	0.0814	0.0548
PU-10230	Pueblo 3	Pueblo	nc	Arsenic	µg/L	4	10.4	0.00549	0.0216
PU-10230	Pueblo 3	Pueblo	nc	Bis(2-ethylhexyl)phthalate	µg/L	4	6.8	0.00678	0.0226
PU-10230	Pueblo 3	Pueblo	nc	Boron	µg/L	2	347	0.00061	0.00241
PU-10230	Pueblo 3	Pueblo	nc	Iron	µg/L	4	2550	0.00134	0.00531
PU-10230	Pueblo 3	Pueblo	nc	Lead	µg/L	4	7.26	0.112	0.112
PU-10230	Pueblo 3	Pueblo	nc	Manganese	µg/L	4	1240	0.00176	0.00671
PU-10230	Pueblo 3	Pueblo	nc	Thallium	µg/L	4	3	0.00593	0.0234
PU-10230	Pueblo 3	Pueblo	nc	Vanadium	µg/L	4	19.2	0.0006	0.0023
PU-10231	Pueblo 2	Pueblo	ca	Benz(a)anthracene	µg/L	1	0.79	0.0801	0.0571
PU-10231	Pueblo 2	Pueblo	ca	Benzo(a)pyrene	µg/L	1	0.56	0.954	0.662
PU-10231	Pueblo 2	Pueblo	ca	Benzo(b)fluoranthene	µg/L	1	0.58	0.1	0.0695
PU-10231	Pueblo 2	Pueblo	ca	Indeno(1,2,3-cd)pyrene	µg/L	1	0.57	0.0987	0.0684

Note: Gray shading indicates a new or revised value from the original report.

[a] ca = Carcinogen, nc = noncarcinogen, rad = radionuclide.

[b] The maximum detected value is used as the EPC when insufficient data are available to calculate a UCL.

Table 4.5-1
Trail User RME Multimedia Sums, by Reach and Sampling Station

Sediment Reach	Water Station Name	Water Location	Carcinogen Sum[a]	Noncarcinogen Sum	Radionuclide Sum[b]
DP-1W	DP-1W SW	21-10929	1.06	0.0753	—[c]
DP-1C	DP-1W SW	21-10929	0.397	0.0753	—
DP-1E	DP-1W SW	21-10929	0.196	0.0753	—
DP-1W	DP-1C SW	21-11226	**1.03**[d]	0.144	—
DP-1C	DP-1C SW	21-11226	0.372	0.144	—
DP-1E	DP-1C SW	21-11226	0.170	0.144	—
LA-2E	DP Spring	21-01854	0.0991	0.075428	0.0880
LA-2FE	DP Spring	21-01854	0.0333	0.0746	0.129
LA-2W	DP Spring	21-01854	0.0333	0.0746	0.0309
LA-3E	DP Spring	21-01854	0.0333	0.0746	0.0753
LA-3W	DP Spring	21-01854	0.0333	0.0746	0.0799
DP-2	DP Spring	21-01854	0.554	0.182477	0.154
DP-3	DP Spring	21-01854	0.0486	0.113	0.119
DP-4	DP Spring	21-01854	0.0333	0.0746	0.0970
AC-1	AC-2 SW	00-10241	0.582	0.0639	—
AC-2	AC-2 SW	00-10241	0.352	0.0639	—
AC-1	Upper S. Fork Acid SW	PU-10175	0.584	0.0410	0.0281
AC-2	Upper S. Fork Acid SW	PU-10175	0.354	0.0410	0.0281
ACS	Upper S. Fork Acid SW	PU-10175	0.0573	0.219	0.119
AC-1	Lower S. Fork Acid SW	PU-10176	0.570	0.00286	0.0183
AC-2	Lower S. Fork Acid SW	PU-10176	0.339	0.00283	0.0183
ACS	Lower S. Fork Acid SW	PU-10176	0.0431	0.181	0.109
AC-3	lower AC-3 SW	PU-10155	**2.59**	0.1751	0.100
P-1E	lower AC-3 SW	PU-10155	**2.46**	0.000464	0.0239
P-1E	P-1E SW	PU-10071	0.0925	0.1841	0.0113
AC-3	P-1E SW	PU-10071	0.223	0.359	0.087634
P-2W	Pueblo 2	PU-10231	**1.23**	—	0.007
P-3W	Pueblo 3	PU-10230	0.187	0.134	0.00294
P-4W	Pueblo 3	PU-10230	0.228	0.136	0.00659
P-4E	Pueblo 3	PU-10230	0.187	0.134	—
P-3W	Pueblo at 502	PU-10229	0.0854	0.2882	0.002935
P-4W	Pueblo at 502	PU-10229	0.127	0.290	0.00659
P-4E	Pueblo at 502	PU-10229	0.0854	0.289	—

Note: Gray shading indicates a new or revised value from the original report.

[a] Convert to risk: Value × (1×10^{-5}).

[b] Convert to dose: Value from sediment component (value from Table 8.2-2 × 15 mrem) + water component (value from Table 8.2-5 × 4 mrem).

[c] — = Value below screening criteria.

[d] Bold text indicates sum that exceeds 1.

Table 4.5-2
Extended Backyard RME Multimedia Sums, by Reach and Sampling Station

Sediment Reach	Water Station Name	Water Location	Carcinogen Sum[a]	Noncarcinogen Sum	Radionuclide Sum[b]
DP-1W	DP-1W SW	21-10929	**1.82**	0.0985	—[c]
DP-1C	DP-1W SW	21-10929	0.670	0.0985	—
DP-1E	DP-1W SW	21-10929	0.324	0.0985	—
DP-1W	DP-1C SW	21-11226	**1.78**	0.1897	—
DP-1C	DP-1C SW	21-11226	0.630	0.1897	—
DP-1E	DP-1C SW	21-11226	0.284	0.1897	—
LA-2E	DP Spring	21-01854	0.174	0.1217	0.133
LA-2FE	DP Spring	21-01854	0.0535	0.113	0.160
LA-2W	DP Spring	21-01854	0.0535	0.113	0.0436
LA-3E	DP Spring	21-01854	0.0535	0.113	0.114
LA-3W	DP Spring	21-01854	0.0535	0.113	0.0996
DP-2	DP Spring	21-01854	0.949	0.311	0.194
DP-3	DP Spring	21-01854	0.0799	0.116	0.164
DP-4	DP Spring	21-01854	0.0535	0.113	0.130
AC-1	AC-2 SW	00-10241	**1.02**	0.106	—
AC-2	AC-2 SW	00-10241	0.621	0.106	—
AC-1	Upper S. Fork Acid SW	PU-10175	**1.02**	0.0662	0.0493
AC-2	Upper S. Fork Acid SW	PU-10175	0.624	0.0659	0.0493
ACS	Upper S. Fork Acid SW	PU-10175	0.0960	0.265	0.551
AC-1	Lower S. Fork Acid SW	PU-10176	0.999	0.02425	0.032
AC-2	Lower S. Fork Acid SW	PU-10176	0.601	0.02395	0.032
ACS	Lower S. Fork Acid SW	PU-10176	0.0730	0.223	0.534
AC-3	Lower AC-3 SW	PU-10155	**1.95**	0.572	0.410
P-1E	Lower AC-3 SW	PU-10155	**1.72**	0.000395	0.0743
P-1E	P-1E SW	PU-10071	0.155	0.227	0.052349
AC-3	P-1E SW	PU-10071	0.377	0.799	0.38761
P-2W	Pueblo 2	PU-10231	0.857	—	0.043
P-3W	Pueblo 3	PU-10230	0.227	0.194	0.0178
P-4W	Pueblo 3	PU-10230	0.318	0.217	0.04
P-4E	Pueblo 3	PU-10230	0.227	0.290	—
P-3W	Pueblo at 502	PU-10229	0.139	0.321	0.0178
P-4W	Pueblo at 502	PU-10229	0.230	0.344	0.04
P-4E	Pueblo at 502	PU-10229	0.139	0.412	—

Note: Gray shading indicates a new or revised value from the original report.

[a] Convert to risk: Value × (1×10^{-5}).

[b] Convert to dose: Value from sediment component (value from Table 8.2-3 × 15 mrem) + water component (value from Table 8.2-6 × 4 mrem).

[c] — = Value below screening criteria.

[d] Bold text indicates sum that exceeds 1.

Table 6-1
Los Alamos and Pueblo Canyon Gage Stations and Period of Record

Gage	Synonym	Canyon	Period of Record
E025	LA above Ice Rink	Los Alamos	October 1993 to present
E026	LA below Ice Rink	Los Alamos	February 26, 2001 to present
E030	LA above DP	Los Alamos	July 1994 to present
E038	DP above TA-21	DP	April 26, 2000 to present
E039	DP below TA-21	DP	April 10, 2000 to present
E040	DP above LA Canyon	DP	May 1999 to present
E042	LA above SR-4	Los Alamos	October 1991 to present
E049	LA Canyon Weir above SR-4	Los Alamos	July 2001 to present
E050	LA below Weir	Los Alamos	May 2001 to present
E055	Pueblo above Acid	Pueblo	October 2002 to present
E055.5	S. Fork of Acid Canyon	Pueblo	August 2004 to present
E056	Acid above Pueblo	Acid	July 2001 to present
E060	Pueblo above SR-502	Pueblo	Jan 1992 to present
E110	LA Canyon near Otowi Bridge	Los Alamos	December 2000 to present

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Table 6-2
Screening Summary of Storm-Water Data to WQCC Standards

Station ID	Station Name	F/UF[a]	Analytical Suite	Analyte	Number of Analyses	Number of Detects	Number > WQS[b]	Summary of Detected Results			New Mexico Water Quality Standard		
								Average	Minimum	Maximum	WQS	Value	Units
E025	Los Alamos above Ice Rink	F	METALS	Aluminum	10	10	1	258	74.9	1090	NM Aqu Acute 100 mg[c]	750	ug/L
E025	Los Alamos above Ice Rink	F	METALS	Silver	10	1	1	10	10	10	NM Aqu Acute 100 mg	3.2	ug/L
E025	Los Alamos above Ice Rink	UF	METALS	Selenium	10	2	1	6.99	4.67	9.3	NM Wldlf Hab 05[d]	5	ug/L
E025	Los Alamos above Ice Rink	UF	SVOA	Benzo(a)pyrene	9	1	1	0.74	0.74	0.74	NM HH Persistent 05[e]	0.18	ug/L
E026	Los Alamos below Ice Rink	F	METALS	Aluminum	13	10	2	414	98.6	1230	NM Aqu Acute 100 mg	750	ug/L
E026	Los Alamos below Ice Rink	UF	METALS	Selenium	14	2	1	3.58	0.79	6.36	NM Wldlf Hab 05	5	ug/L
E026	Los Alamos below Ice Rink	UF	RAD	Gross alpha	10	7	4	219	2.32	767	NM Lvstk Wtr 05[f]	15	pCi/L
E026	Los Alamos below Ice Rink	UF	RAD	Gross alpha, adjusted	10	7	3	179	2.32	719	NM Lvstk Wtr 05	15	pCi/L
E030	Los Alamos above DP Canyon	F	METALS	Aluminum	13	11	7	965	180	2820	NM Aqu Acute 100 mg	750	ug/L
E030	Los Alamos above DP Canyon	UF	METALS	Mercury	17	6	4	1.06	0.272	2.1	NM Wldlf Hab 05	0.77	ug/L
E030	Los Alamos above DP Canyon	UF	METALS	Selenium	20	9	1	11.8	3.3	60	NM Aqu Acute 100 mg	20	ug/L
E030	Los Alamos above DP Canyon	UF	METALS	Selenium	20	9	6	11.8	3.3	60	NM Wldlf Hab 05	5	ug/L
E030	Los Alamos above DP Canyon	UF	PEST/PCB	Aroclor-1254	9	1	1	0.36	0.36	0.36	NM HH Persistent 05	0.00064	ug/L
E030	Los Alamos above DP Canyon	UF	PEST/PCB	Aroclor-1254	9	1	1	0.36	0.36	0.36	NM Wldlf Hab 05	0.014	ug/L
E030	Los Alamos above DP Canyon	UF	PEST/PCB	Aroclor-1260	9	2	2	0.32	0.12	0.52	NM HH Persistent 05	0.00064	ug/L
E030	Los Alamos above DP Canyon	UF	PEST/PCB	Aroclor-1260	9	2	2	0.32	0.12	0.52	NM Wldlf Hab 05	0.014	ug/L
E030	Los Alamos above DP Canyon	UF	RAD	Gross alpha	14	13	13	245	42.2	756	NM Lvstk Wtr 05	15	pCi/L
E030	Los Alamos above DP Canyon	UF	RAD	Gross alpha, adjusted	14	13	13	163	41.3	434	NM Lvstk Wtr 05	15	pCi/L
E038	DP above TA-21	F	METALS	Aluminum	18	17	3	1772	27	21700	NM Aqu Acute 100 mg	750	ug/L
E038	DP above TA-21	F	METALS	Aluminum	18	17	1	1772	27	21700	NM Lvstk Wtr 05	5000	ug/L
E038	DP above TA-21	F	METALS	Copper	18	17	1	8.56	2.55	60.9	NM Aqu Acute 100 mg	13.4	ug/L
E038	DP above TA-21	F	METALS	Lead	18	18	1	4.84	0.161	75.7	NM Aqu Acute 100 mg	64.6	ug/L
E038	DP above TA-21	F	METALS	Zinc	18	17	1	58.7	11.8	587	NM Aqu Acute 100 mg	117.2	ug/L
E038	DP above TA-21	UF	RAD	Gross alpha	11	10	6	46.5	2.08	234	NM Lvstk Wtr 05	15	pCi/L
E038	DP above TA-21	UF	RAD	Gross alpha, adjusted	11	10	5	38.5	1.00	231	NM Lvstk Wtr 05	15	pCi/L
E038	DP above TA-21	UF	SVOA	Benzo(a)pyrene	3	1	1	2.9	2.9	2.9	NM HH Persistent 05	0.18	ug/L
E038	DP above TA-21	UF	SVOA	Hexachlorobenzene	3	1	1	0.7	0.7	0.7	NM HH Persistent 05	0.0029	ug/L
E039	DP below Meadow at TA-21	F	METALS	Aluminum	13	13	5	752	85.9	1670	NM Aqu Acute 100 mg	750	ug/L
E039	DP below Meadow at TA-21	UF	METALS	Selenium	14	3	1	4.10	2.58	5.76	NM Wldlf Hab 05	5	ug/L
E039	DP below Meadow at TA-21	UF	RAD	Gross alpha	7	7	5	40.7	3.37	79.3	NM Lvstk Wtr 05	15	pCi/L
E039	DP below Meadow at TA-21	UF	RAD	Gross alpha, adjusted	7	7	5	34.3	2.63	72.9	NM Lvstk Wtr 05	15	pCi/L
E040	DP above Los Alamos Canyon	F	METALS	Aluminum	12	12	9	973	250	2200	NM Aqu Acute 100 mg	750	ug/L
E040	DP above Los Alamos Canyon	F	METALS	Copper	12	12	1	6.16	2.07	28	NM Aqu Acute 100 mg	13.4	ug/L
E040	DP above Los Alamos Canyon	UF	METALS	Selenium	20	5	2	24	2.5	60	NM Aqu Acute 100 mg	20	ug/L
E040	DP above Los Alamos Canyon	UF	METALS	Selenium	20	5	2	24	2.5	60	NM Wldlf Hab 05	5	ug/L

Table 6-2 (continued)

Station ID	Station Name	F/UF[a]	Analytical Suite	Analyte	Number of Analyses	Number of Detects	Number > WQS[b]	Summary of Detected Results			New Mexico Water Quality Standard		
E040	DP above Los Alamos Canyon	UF	RAD	Gross alpha	17	14	13	161	14.4	521	NM Lvstk Wtr 05	15	pCi/L
E040	DP above Los Alamos Canyon	UF	RAD	Gross alpha, adjusted	17	14	13	139	14.4	429	NM Lvstk Wtr 05	15	pCi/L
E042	Los Alamos above SR-4	F	METALS	Aluminum	37	33	15	2362	59	37529	NM Aqu Acute 100 mg	750	ug/L
E042	Los Alamos above SR-4	F	METALS	Aluminum	37	33	2	2362	59	37529	NM Lvstk Wtr 05	5000	ug/L
E042	Los Alamos above SR-4	F	METALS	Copper	37	18	2	6.02	1.43	28	NM Aqu Acute 100 mg	13.4	ug/L
E042	Los Alamos above SR-4	F	METALS	Lead	37	23	1	9.37	0.077	115	NM Aqu Acute 100 mg	64.6	ug/L
E042	Los Alamos above SR-4	F	METALS	Lead	37	23	1	9.37	0.077	115	NM Lvstk Wtr 05	100	ug/L
E042	Los Alamos above SR-4	F	METALS	Silver	37	1	1	14	14	14	NM Aqu Acute 100 mg	3.2	ug/L
E042	Los Alamos above SR-4	F	METALS	Zinc	37	27	3	31	3.7	299	NM Aqu Acute 100 mg	117.2	ug/L
E042	Los Alamos above SR-4	UF	METALS	Mercury	41	17	4	0.50	0.11	1.69	NM Wldlf Hab 05	0.77	ug/L
E042	Los Alamos above SR-4	UF	METALS	Selenium	42	15	6	6.2	2	18.8	NM Wldlf Hab 05	5	ug/L
E042	Los Alamos above SR-4	UF	PEST/PCB	Aroclor-1254	20	1	1	0.39	0.39	0.39	NM HH Persistent 05	0.00064	ug/L
E042	Los Alamos above SR-4	UF	PEST/PCB	Aroclor-1254	20	1	1	0.39	0.39	0.39	NM Wldlf Hab 05	0.014	ug/L
E042	Los Alamos above SR-4	UF	PEST/PCB	Aroclor-1260	20	1	1	0.57	0.57	0.57	NM HH Persistent 05	0.00064	ug/L
E042	Los Alamos above SR-4	UF	PEST/PCB	Aroclor-1260	20	1	1	0.57	0.57	0.57	NM Wldlf Hab 05	0.014	ug/L
E042	Los Alamos above SR-4	UF	RAD	Gross alpha	34	29	25	181	7.4	848	NM Lvstk Wtr 05	15	pCi/L
E042	Los Alamos above SR-4	UF	RAD	Gross alpha, adjusted	34	29	24	144	4.2	803	NM Lvstk Wtr 05	15	pCi/L
E049	Los Alamos Canyon Weir above SR-4	UF	GENINORG	Cyanide, Amenable	1	1	1	0.00522	0.00522	0.00522	NM Wldlf Hab 05	0.0052	mg/L
E049	Los Alamos Canyon Weir above SR-4	UF	RAD	Gross alpha	1	1	1	59.3	59.3	59.3	NM Lvstk Wtr 05	15	pCi/L
E049	Los Alamos Canyon Weir above SR-4	UF	RAD	Gross alpha, adjusted	1	1	1	47.8	47.8	47.8	NM Lvstk Wtr 05	15	pCi/L
E050	Los Alamos below LA Weir	F	METALS	Aluminum	14	13	5	1015	68.5	7810	NM Aqu Acute 100 mg	750	ug/L
E050	Los Alamos below LA Weir	F	METALS	Aluminum	14	13	1	1015	68.5	7810	NM Lvstk Wtr 05	5000	ug/L
E050	Los Alamos below LA Weir	UF	PEST/PCB	Aroclor-1254	11	1	1	0.21	0.21	0.21	NM HH Persistent 05	0.00064	ug/L
E050	Los Alamos below LA Weir	UF	PEST/PCB	Aroclor-1254	11	1	1	0.21	0.21	0.21	NM Wldlf Hab 05	0.014	ug/L
E050	Los Alamos below LA Weir	UF	PEST/PCB	Aroclor-1260	11	3	3	0.14	0.057	0.23	NM HH Persistent 05	0.00064	ug/L
E050	Los Alamos below LA Weir	UF	PEST/PCB	Aroclor-1260	11	3	3	0.14	0.057	0.23	NM Wldlf Hab 05	0.014	ug/L
E050	Los Alamos below LA Weir	UF	RAD	Gross alpha	11	6	4	21.2	1.87	49.2	NM Lvstk Wtr 05	15	pCi/L
E050	Los Alamos below LA Weir	UF	RAD	Gross alpha, adjusted	11	6	2	12.8	1.48	25.2	NM Lvstk Wtr 05	15	pCi/L
E055	Pueblo above Acid	F	METALS	Aluminum	14	14	4	717	73	2010	NM Aqu Acute 100 mg	750	ug/L
E055	Pueblo above Acid	UF	METALS	Mercury	14	11	2	0.37	0.12	0.947	NM Wldlf Hab 05	0.77	ug/L
E055	Pueblo above Acid	UF	METALS	Selenium	15	3	1	6.75	4.16	11.8	NM Wldlf Hab 05	5	ug/L
E055	Pueblo above Acid	UF	RAD	Gross alpha	13	12	12	133	22.6	470	NM Lvstk Wtr 05	15	pCi/L
E055	Pueblo above Acid	UF	RAD	Gross alpha, adjusted	13	12	12	98	18.0	270	NM Lvstk Wtr 05	15	pCi/L
E055	Pueblo above Acid	UF	RAD	Radium-228	4	4	1	11.5	2.12	34.7	NM Lvstk Wtr 05	30	pCi/L
E055.5	South Fork of Acid Canyon	F	METALS	Aluminum	5	5	2	868	89.8	2790	NM Aqu Acute 100 mg	750	ug/L
E055.5	South Fork of Acid Canyon	UF	RAD	Gross alpha	1	1	1	43.1	43.1	43.1	NM Lvstk Wtr 05	15	pCi/L
E055.5	South Fork of Acid Canyon	UF	RAD	Gross alpha, adjusted	1	1	1	43.1	43.1	43.1	NM Lvstk Wtr 05	15	pCi/L
E056	Acid above Pueblo	F	METALS	Aluminum	7	6	4	973	421	1420	NM Aqu Acute 100 mg	750	ug/L

Table 6-2 (continued)

Station ID	Station Name	F/UF[a]	Analytical Suite	Analyte	Number of Analyses	Number of Detects	Number > WQS[b]	Summary of Detected Results			New Mexico Water Quality Standard		
E056	Acid above Pueblo	UF	RAD	Gross alpha	5	5	5	104	54.1	153	NM Lvstk Wtr 05	15	pCi/L
E056	Acid above Pueblo	UF	RAD	Gross alpha, adjusted	5	5	5	42.7	22.4	61.0	NM Lvstk Wtr 05	15	pCi/L
E060	Pueblo above SR-502	F	METALS	Aluminum	17	17	8	1030	56.2	2700	NM Aqu Acute 100 mg	750	ug/L
E060	Pueblo above SR-502	F	METALS	Aluminum	17	17	16	1030	56.2	2700	NM Aqu Chronic 100 mg[g]	87	ug/L
E060	Pueblo above SR-502	F	METALS	Cadmium	17	7	4	0.23	0.076	0.63	NM Aqu Chronic 100 mg	0.2	ug/L
E060	Pueblo above SR-502	F	METALS	Copper	17	15	3	5.58	2.36	11.5	NM Aqu Chronic 100 mg	9	ug/L
E060	Pueblo above SR-502	F	METALS	Lead	17	16	1	1.21	0.337	4.05	NM Aqu Chronic 100 mg	2.5	ug/L
E060	Pueblo above SR-502	F	METALS	Zinc	17	14	1	26.0	7.2	164	NM Aqu Acute 100 mg	117.2	ug/L
E060	Pueblo above SR-502	F	METALS	Zinc	17	14	1	26.0	7.2	164	NM Aqu Chronic 100 mg	118	ug/L
E060	Pueblo above SR-502	UF	METALS	Mercury	18	11	2	0.37	0.053	1.3	NM Wldlf Hab 05	0.77	ug/L
E060	Pueblo above SR-502	UF	METALS	Selenium	18	6	1	10.5	1.45	26.8	NM Aqu Acute 100 mg	20	ug/L
E060	Pueblo above SR-502	UF	METALS	Selenium	18	6	3	10.5	1.45	26.8	NM Aqu Chronic 100 mg	5	ug/L
E060	Pueblo above SR-502	UF	METALS	Selenium	18	6	3	10.5	1.45	26.8	NM Wldlf Hab 05	5	ug/L
E060	Pueblo above SR-502	UF	RAD	Gross alpha	20	19	16	462	2.24	3070	NM Lvstk Wtr 05	15	pCi/L
E060	Pueblo above SR-502	UF	RAD	Gross alpha, adjusted	20	19	12	315	1.49	2290	NM Lvstk Wtr 05	15	pCi/L
E060	Pueblo above SR-502	UF	RAD	Radium-228	11	10	1	15.0	7.5	34.3	NM Lvstk Wtr 05	30	pCi/L
E110	Los Alamos Canyon near Otowi Bridge	UF	METALS	Selenium	3	1	1	7.2	7.2	7.2	NM Wldlf Hab 05	5	ug/L
E110	Los Alamos Canyon near Otowi Bridge	UF	RAD	Gross alpha	1	1	1	47.7	47.7	47.7	NM Lvstk Wtr 05	15	pCi/L
E110	Los Alamos Canyon near Otowi Bridge	UF	RAD	Gross alpha, adjusted	1	1	1	40.04	40.04	40.04	NM Lvstk Wtr 05	15	pCi/L

[a] F/UF = Filtered (F) or unfiltered (UF).

[b] WQS = New Mexico Water Quality Standard.

[c] NM Aqu Acute 100 mg = NM Acute Aquatic Life 2005 100 mg/L Hardness [New Mexico WQCC Acute Aquatic Life criteria, NMAC 20.6.4.900 (H), (I) & (J), eff. July 2005. Hardness-dependent criteria calculated using 100 mg/L $CaCO_3$.]

[d] NM Wldlf Hab 05 = NM Wildlife Habitat 2005 [New Mexico WQCC Wildlife Habitat criteria, NMAC 20.6.4.900 (G) & (J), eff. July 2005.]

[e] NM HH Persistent 05 = NM Human Health Persistent 2005 [New Mexico WQCC Human Health criteria for persistent toxic pollutants, NMAC 20.6.4.900 (J), eff. July 2005. Human health criteria for persistent pollutants only.]

[f] NM Lvstk Wtr 05 = NM Livestock Watering 2005 [New Mexico WQCC Livestock Watering criteria, NMAC 20.6.4.900 (F) &(J), eff. July 2005.]

[g] NM Aqu Chronic 100 mg = NM Chronic Aquatic Life 2005 100 mg/L Hardness [New Mexico WQCC Chronic Aquatic Life criteria, NMAC 20.6.4.900 (H), (I) , eff. July 2005. Hardness-dependent criteria calculated using 100 mg/L $CaCO_3$.]

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Table 6-3
Screening Summary of Stormwater Data to DOE-Derived Concentration Guidelines

Station ID	Station Name	F/UF*	Analytical Suite	Analyte	Number of Analyses	Number of Detects	Number > DCG	Summary of Detected Results				
								Average	Minimum	Maximum	DCG	Units
E026	Los Alamos below Ice Rink	UF	RAD	Gross alpha	10	7	4	219	2.32	767	30	pCi/L
E026	Los Alamos below Ice Rink	UF	RAD	Lead-210	7	5	2	28.6	1.42	80.8	30	pCi/L
E026	Los Alamos below Ice Rink	UF	RAD	Polonium-210	7	5	1	28.8	3.98	90.4	80	pCi/L
E030	Los Alamos above DP Canyon	UF	RAD	Gross alpha	14	13	13	245	42.2	756	30	pCi/L
E030	Los Alamos above DP Canyon	UF	RAD	Lead-210	7	7	6	48	2.42	79	30	pCi/L
E030	Los Alamos above DP Canyon	UF	RAD	Polonium-210	7	7	1	55.9	10.8	129	80	pCi/L
E038	DP above TA-21	UF	RAD	Gross alpha	11	10	5	46.5	2.08	234	30	pCi/L
E038	DP above TA-21	UF	RAD	Lead-210	3	3	1	37.8	22.8	65.9	30	pCi/L
E039	DP below Meadow at TA-21	UF	RAD	Gross alpha	6	6	4	40.7	3.37	79.3	30	pCi/L
E040	DP above Los Alamos Canyon	UF	RAD	Gross alpha	15	14	12	161	14.4	521	30	pCi/L
E040	DP above Los Alamos Canyon	UF	RAD	Lead-210	3	3	1	24.0	16.7	31.4	30	pCi/L
E042	Los Alamos above SR-4	F	RAD	Gross alpha	27	4	1	11.8	0.799	31.9	30	pCi/L
E042	Los Alamos above SR-4	UF	RAD	Gross alpha	34	29	19	181	7.4	848	30	pCi/L
E042	Los Alamos above SR-4	UF	RAD	Gross beta	34	34	1	202	4.91	1140	1000	pCi/L
E042	Los Alamos above SR-4	UF	RAD	Lead-210	13	13	3	19.2	0.899	67.9	30	pCi/L
E049	Los Alamos Canyon Weir above SR-4	UF	RAD	Gross alpha	1	1	1	59.3	59.3	59.3	30	pCi/L
E050	Los Alamos below LA Weir	UF	RAD	Gross alpha	11	6	1	21.2	1.87	49.2	30	pCi/L
E055	Pueblo above Acid	UF	RAD	Gross alpha	11	10	8	133	22.6	470	30	pCi/L
E055	Pueblo above Acid	UF	RAD	Lead-210	4	4	1	24.2	8.01	54.7	30	pCi/L
E055.5	South Fork of Acid Canyon	UF	RAD	Gross alpha	1	1	1	43.1	43.1	43.1	30	pCi/L
E055.5	South Fork of Acid Canyon	UF	RAD	Plutonium-239/240	1	1	1	235	235	235	30	pCi/L
E056	Acid above Pueblo	UF	RAD	Gross alpha	5	5	5	104	54.1	153	30	pCi/L

Table 6-3 (continued)

Station ID	Station Name	F/UF*	Analytical Suite	Analyte	Number of Analyses	Number of Detects	Number > DCG	Summary of Detected Results				
								Average	Minimum	Maximum	DCG	Units
E056	Acid above Pueblo	UF	RAD	Plutonium-239/240	5	5	1	31.4	0.304	106	30	pCi/L
E060	Pueblo above SR-502	UF	RAD	Gross alpha	16	15	11	462	2.24	3070	30	pCi/L
E060	Pueblo above SR-502	UF	RAD	Gross beta	16	16	4	751	13	5510	1000	pCi/L
E060	Pueblo above SR-502	UF	RAD	Lead-210	11	10	3	36.0	2.91	112	30	pCi/L
E060	Pueblo above SR-502	UF	RAD	Plutonium-239/240	17	16	5	21.5	0.0642	88.7	30	pCi/L
E060	Pueblo above SR-502	UF	RAD	Polonium-210	11	11	6	126	3.82	372	80	pCi/L
E060	Pueblo above SR-502	UF	RAD	Thorium-232	12	12	3	35.9	0.0676	127	50	pCi/L
E110	Los Alamos Canyon near Otowi Bridge	UF	RAD	Gross alpha	1	1	1	47.7	47.7	47.7	30	pCi/L

*F= filtered, UF = Unfiltered

Appendix A

Acronyms and Metric Conversion Table

A-1.0 ACRONYMS

ABS	absorption factor
AF	adherence factor
BV	background value
COPC	chemicals of potential concern
COPEC	chemical of potential ecological concern
DCG	U.S. Department of Energy-derived concentration guidelines
DCF	dose conversion factor
DOE	U.S. Department of Energy
ENV-ECR	Environmental Stewardship, Environmental Characterization and Remediation (Group)
EPA	U.S. Environmental Protection Agency
EPC	exposure point concentration
ER	Environmental Restoration (Project)
ERDB	Environmental Restoration Database
ESL	ecological screening level
HEAST	Health Effects Assessment Summary Tables
HI	hazard index
HQ	hazard quotient
IEUBK	Integrated Exposure Unit Biokinetic Uptake
IRIS	Integrated Risk Information System
Laboratory	Los Alamos National Laboratory
LANL	Los Alamos National Laboratory
MCL	maximum contaminant level
MDA	minimum detectable activity
NAS	National Academy of Sciences
NCEA	National Center for Environmental Assessment
NMED	New Mexico Environment Department
NMWQCC	New Mexico Water Quality Control Commission
NOAEL	no observed adverse effect level
NOD	Notice of Disapproval
PAH	polycyclic aromatic hydrocarbon
PPRTV	Provisional Peer-Reviewed Toxicity Value
RBC	risk-based concentration
RfC	reference concentration
RfD	reference dose
RME	reasonable maximum exposure

SAL	screening action level
SF	slope factor
SOP	standard operating procedure
SSL	soil screening level
SWMU	solid waste management unit
TCCD	2,3,7,8-tetrachlorodibenzo-p-dioxin
TEC	toxic equivalent concentration
TEF	toxic equivalency factor
TEQ	toxic equivalency quotient
UCL	upper confidence limit
VOC	volatile organic compound
WHO	World health Organization
WQCC	Water Quality Control Commission

A-2.0 METRIC TO US CUSTOMARY UNIT CONVERSION TABLE

Multiply SI (Metric) Unit	by	To Obtain US Customary Unit
kilometers (km)	0.622	miles (mi)
kilometers (km)	3281	feet (ft)
meters (m)	3.281	feet (ft)
meters (m)	39.37	inches (in.)
centimeters (cm)	0.03281	feet (ft)
centimeters (cm)	0.394	inches (in.)
millimeters (mm)	0.0394	inches (in.)
micrometers or microns (µm)	0.0000394	inches (in.)
square kilometers (km^2)	0.3861	square miles (mi^2)
hectares (ha)	2.5	acres
square meters (m^2)	10.764	square feet (ft^2)
cubic meters (m^3)	35.31	cubic feet (ft^3)
kilograms (kg)	2.2046	pounds (lb)
grams (g)	0.0353	ounces (oz)
grams per cubic centimeter (g/cm^3)	62.422	pounds per cubic foot (lb/ft^3)
milligrams per kilogram (mg/kg)	1	parts per million (ppm)
micrograms per gram (µg/g)	1	parts per million (ppm)
liters (L)	0.26	gallons (gal.)
milligrams per liter (mg/L)	1	parts per million (ppm)
degrees Celsius (°C)	9/5 + 32	degrees Fahrenheit (°F)

Appendix B

Analytical Data, Including New Dioxin and Furan Data
(on CD included with this document)

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Appendix C

Documentation of Upper Confidence Limit Calculations

The specifics of the statistical analyses used to support data evaluation for the human health risk assessment were presented in Section E-2.0 of the Los Alamos and Pueblo Canyons Investigation Report (LANL 2004, 87390, pp. E-2 to E-9). Tables of details and assumptions are presented below for the water and sediment calculations to supplement that report section as required in general comment 1 of the New Mexico Environment Department (NMED) Notice of Disapproval (NOD) (NMED 2005, 88463). The upper confidence limit (UCL) values used as exposure point concentrations (EPCs) are presented in Tables 4.3-3 and D-2.0-1 for sediment. The UCL values used as EPCs for water are shown in Table 4.4-3 for surface water and Table D-2.0-9 for alluvial groundwater.

Water Data

Table C-1 presents the details for calculating EPCs for the water data. Each EPC is uniquely associated with a location, analyte, and field preparation method. These three fields are provided. Included in the table are the number of samples (n); the number of detects; the data distribution used, if appropriate, for estimating the mean and variance; the significance level of the UCL of the mean; and the data source for the UCL calculations.

There are four choices for the data distribution. The first three choices are that the data are normal, lognormal, or neither, in which case, the Chebyshev method is used for estimating the UCL. The fourth choice is that the data fit both a normal and lognormal distribution, in which case, the normal distribution was used. The methods for estimating UCLs based upon data distributions and for testing for normality and log normality are described in Section E-2.1 (pp. E-2 to E-6) of the original report. In the case of the Chebyshev method, the significance level of the UCL depends upon an estimate of the skew of the data, and consideration of the skew of the data is included in this supplemental report as requested in specific comment 14 of the NOD. Depending upon the amount of skew, the significance level for the Chebyshev method may be 0.05, 0.025, or 0.01 (EPA 2003, 84461). The significance level for all distribution-related UCLs is documented in Table C-1. The UCLs from normal and lognormal data are estimated at a 0.05 significance level.

Some of the analytical results are qualified as nondetects. These values are handled in one of three ways, depending upon the type of analyte and the number of detects available for estimating the UCL for a particular location-analyte-field preparation combination. For radionuclide data, the actual analytical measurement is reported by the analytic laboratory for nondetects. In accordance with standard practice, these data are used at face value for calculating means and UCLs. Table C-1 lists n, and detects for radionuclide data as they are reported from the Environmental Restoration Database (ERDB). The "Data Source for UCL Calculation" column is populated with "All data" for radionuclide data to indicate that all radionuclide data are used for estimating the EPC regardless of detect status. When all the data for a radionuclide are qualified as nondetects, the analyte is not present at the sampling location based upon those data and an EPC is not provided.

Nonradionuclide data with results below the detection limit are censored because the detection limit is reported instead of the measurement value. When there are at least three detected values, the nondetect values are replaced with estimates using the method described by Helsel and Cohn (1988, 82912) as discussed in Section E.2-2.1 (p. E-4) of the original report. The "Data Source for UCL Calculation" field in the table is populated with "Helsel." When there are fewer than three detected values for nonradionuclide data, the maximum detected value is used as the EPC, the "Data Distribution" is populated with "n/a" ("not applicable"), and the "Data Source for UCL Calculation" column is populated with "Max Detect."

Sediment Data

Table C-2 presents the details for calculating the area-weighted EPCs for the sediment data for all reaches. Table C-3 presents the details for calculating the volume-weighted EPCs for the sediment data for all reaches. Each EPC is uniquely associated with a reach and an analyte, and whether the EPC is to be used for surface exposures (sediment area weighted) or for depth-integrated exposures (sediment volume weighted). As described in Section E.2-1 (pp. E-2 to E-5) of the original report, the sediment EPCs are estimated using stratified sampling methods.

The sediment tables (Tables C-2 and C-3) also include a geomorphic unit bin designation (or bin), and the fractional weight and total weight for each bin. The bins are presented in Tables D-1.3.1 through D-1.3.4 (pp. D-89 to D-101) in the original report. These bins are assemblages of the geomorphic units that were characterized by the field investigations. The area and volume associated with each geomorphic unit were determined as part of the investigations, and this information was used to calculate the fractional bin weight relative to the total sediment area or volume for the reach. The fractional weights are used for the calculations of weighted means and variances. Each bin also has a total area and total volume. These values are used for estimating the pooled degrees of freedom used in calculating the UCL. Further details on the approach to estimating weighted means and UCLs are presented in the original report.

A fundamental assumption in estimating the sediment EPCs is that exposure is equally likely across all locations in a reach. For example, where two surface bins in a reach make up 17% and 83% of the total surface area, the conceptual exposure model for a trail user assumes that after many visits, the time-integrated exposure of the trail user population will average 17% from the first bin and 83% from the second bin. Other scenarios (e.g., construction worker) assume that exposure occurs equally across the bins making up the contaminated sediment volume. Consequently, both area-weighted and volume-weighted sediment EPCs are calculated.

The data distributions and the treatment of nondetect analytical results for sediments are consistent with the approach for water data discussed above, with two exceptions. The first exception is that when the data fail to fit a normal or lognormal distribution, a bootstrap method with 1000 resamples is used to estimate the mean and variance instead of using the Chebyshev method. The reason is that the calculation of weighted means and weighted UCLs for sediments relies on individual means and variances for each of the strata in a reach. The Chebyshev method produces a UCL but not intermediate results of a mean and variance. Thus, weighted means and UCLs cannot be calculated with the results from the Chebyshev method for each bin. The second exception is that data for radionuclides with more than two samples in a bin are used at face value to calculate means and variances as inputs to weighted means and UCLs, even when all the data for a bin are nondetects. This approach was taken because adjacent bins in a reach very often had detected concentrations. The impact is to elevate the weighted mean and UCL for the reach.

Tables C-2 and C-3 show replicated analyte names for the number of bins that go into the weighted statistics calculations. The degrees of freedom often change among analytes in a reach because of the variances of the data that are being combined into weighted values. Additionally, there are instances where the data for one bin are sufficient to calculate a mean and a variance, but another bin only has sufficient data to provide a maximum detected value and no estimate of a variance. In these cases, the weighted mean uses the combination of calculated bin means and maximum detected values to estimate a reach-weighted mean. The weighted variance is based upon the available bin variances only. When the data are too sparse to estimate variances for any of the bins, the weighted mean is used as the EPC and the UCL is reported as "n/a." Details of these calculations are presented in Section E.2-2 (pp. E-6 to E-9) of the original report.

REFERENCES

EPA (U.S. Environmental Protection Agency), June 2003. "ProUCL User's Guide, " NERL-LV 02-049. U.S. Environmental Protection Agency, Environmental Sciences Division, Las Vegas, Nevada (EPA 2003, 84461)

Helsel, D.R., and T.A. Cohn, 1988. "Estimation of Descriptive Statistics for Multiply Censored Water Quality Data, " Water Resources Research, Vol. 24, No. 12, pp 1997–.2004. (Helsel and Cohn, 1998, 82912)

LANL (Los Alamos National Laboratory), April 2004, "Los Alamos and Pueblo Canyons Investigation Report," Los Alamos National Laboratory document LA-UR-04-2714, Los Alamos, New Mexico. (LANL 2004, 87390)

NMED (New Mexico Environment Department), March 14, 2005. "Notice of Disapproval, Los Alamos and Pueblo Canyons Investigation Report, Los Alamos National Laboratory (LANL), EPA ID#NM0890010515, HWB-LANL-04-006," New Mexico Environment Department letter to David Gregory (Federal Project Director, DOE/OLASO) and G. Pete Nanos (Director, LANL) from James Bearzi (Chief, NMED-HWB), Santa Fe, New Mexico. (NMED 2005, 88463)

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Table C-1
Water UCL Calculations

Location ID	Name	Canyon	Media Code[a]	Analyte Name	Field Prep	n	Detects	Data Distribution	Significance Level for the UCL[b]	Data Source for UCL Calculation
00-10241	AC-2 SW	Acid	WS	Arsenic	Unfiltered	2	1	n/a[c]		Max Detect
00-10241	AC-2 SW	Acid	WS	Iron	Unfiltered	2	1	n/a		Max Detect
00-10241	AC-2 SW	Acid	WS	Lead	Unfiltered	2	1	n/a		Max Detect
00-10241	AC-2 SW	Acid	WS	Thallium	Unfiltered	2	1	n/a		Max Detect
00-10241	AC-2 SW	Acid	WS	Vanadium	Unfiltered	2	2	n/a		Max Detect
02-01022	LAO-0.91	Los Alamos	WGA	Arsenic	Filtered	1	1	n/a		Max Detect
02-01022	LAO-0.91	Los Alamos	WGA	Arsenic	Unfiltered	1	1	n/a		Max Detect
02-01076	LAO-1	Los Alamos	WGA	Arsenic	Filtered	3	1	n/a		Max Detect
02-01076	LAO-1	Los Alamos	WGA	Arsenic	Unfiltered	3	1	n/a		Max Detect
21-01811	LAUZ-1	DP	WGA	Fluoride	Filtered	6	5	Normal	0.05	Helsel
21-01811	LAUZ-1	DP	WGA	Lead	Filtered	8	4	LogNormal	0.05	Helsel
21-01811	LAUZ-1	DP	WGA	Strontium-90	Filtered	9	9	Normal	0.05	All Data
21-01811	LAUZ-1	DP	WGA	Arsenic	Filtered	8	2	n/a		Max Detect
21-01811	LAUZ-1	DP	WGA	Bis(2-ethylhexyl)phthalate	Filtered	1	1	n/a		Max Detect
21-01811	LAUZ-1	DP	WGA	Aluminum	Unfiltered	8	6	LogNormal	0.05	Helsel
21-01811	LAUZ-1	DP	WGA	Americium-241	Unfiltered	8	4	Normal	0.05	All Data
21-01811	LAUZ-1	DP	WGA	Iron	Unfiltered	8	5	LogNormal	0.05	Helsel
21-01811	LAUZ-1	DP	WGA	Lead	Unfiltered	8	5	LogNormal	0.05	Helsel
21-01811	LAUZ-1	DP	WGA	Methylene Chloride	Unfiltered	8	3	LogNormal	0.05	Helsel
21-01811	LAUZ-1	DP	WGA	Plutonium-239	Unfiltered	9	4	LogNormal	0.05	All Data
21-01811	LAUZ-1	DP	WGA	Strontium-90	Unfiltered	9	8	Normal	0.05	All Data
21-01811	LAUZ-1	DP	WGA	Vanadium	Unfiltered	8	4	LogNormal	0.05	Helsel
21-01811	LAUZ-1	DP	WGA	Arsenic	Unfiltered	8	2	n/a		Max Detect
21-01811	LAUZ-1	DP	WGA	Fluoride	Unfiltered	1	1	n/a		Max Detect
21-01812	LAUZ-2	DP	WGA	Manganese	Filtered	4	4	Normal	0.05	All Data
21-01812	LAUZ-2	DP	WGA	Strontium-90	Filtered	4	4	Normal	0.05	All Data
21-01812	LAUZ-2	DP	WGA	Arsenic	Filtered	4	1	n/a		Max Detect

Table C-1 (continued)

Location ID	Name	Canyon	Media Code[a]	Analyte Name	Field Prep	n	Detects	Data Distribution	Significance Level for the UCL[b]	Data Source for UCL Calculation
21-01812	LAUZ-2	DP	WGA	Bis(2-ethylhexyl)phthalate	Filtered	1	1	n/a		Max Detect
21-01812	LAUZ-2	DP	WGA	Fluoride	Filtered	1	1	n/a		Max Detect
21-01812	LAUZ-2	DP	WGA	Iron	Unfiltered	4	4	Normal	0.05	All Data
21-01812	LAUZ-2	DP	WGA	Manganese	Unfiltered	4	4	Normal	0.05	All Data
21-01812	LAUZ-2	DP	WGA	Plutonium-239	Unfiltered	4	1	Normal	0.05	All Data
21-01812	LAUZ-2	DP	WGA	Strontium-90	Unfiltered	4	4	Normal	0.05	All Data
21-01812	LAUZ-2	DP	WGA	Arsenic	Unfiltered	4	2	n/a		Max Detect
21-01812	LAUZ-2	DP	WGA	Fluoride	Unfiltered	1	1	n/a		Max Detect
21-01812	LAUZ-2	DP	WGA	Lead	Unfiltered	4	1	n/a		Max Detect
21-01854	DP Spring	DP	WS	Fluoride	Filtered	3	3	Normal	0.05	All Data
21-01854	DP Spring	DP	WS	Strontium-90	Filtered	6	6	Normal	0.05	All Data
21-01854	DP Spring	DP	WS	Arsenic	Filtered	5	1	n/a		Max Detect
21-01854	DP Spring	DP	WS	Lead	Filtered	5	2	n/a		Max Detect
21-01854	DP Spring	DP	WS	Thallium	Filtered	5	1	n/a		Max Detect
21-01854	DP Spring	DP	WS	Iron	Unfiltered	5	3	LogNormal	0.05	Helsel
21-01854	DP Spring	DP	WS	Strontium-90	Unfiltered	5	5	Normal	0.05	All Data
21-01854	DP Spring	DP	WS	Vanadium	Unfiltered	5	3	Normal	0.05	Helsel
21-01854	DP Spring	DP	WS	Arsenic	Unfiltered	5	1	n/a		Max Detect
21-01854	DP Spring	DP	WS	Bromomethane	Unfiltered	6	1	n/a		Max Detect
21-01854	DP Spring	DP	WS	Dichloroethane[1,2-]	Unfiltered	6	1	n/a		Max Detect
21-01854	DP Spring	DP	WS	Fluoride	Unfiltered	1	1	n/a		Max Detect
21-01854	DP Spring	DP	WS	Lead	Unfiltered	5	2	n/a		Max Detect
21-01854	DP Spring	DP	WS	Thallium	Unfiltered	5	1	n/a		Max Detect
21-10929	DP-1W SW	DP	WS	Arsenic	Filtered	4	4	Normal	0.05	All Data
21-10929	DP-1W SW	DP	WS	Fluoride	Filtered	4	3	Normal	0.05	Helsel
21-10929	DP-1W SW	DP	WS	Manganese	Filtered	4	4	LogNormal	0.05	All Data
21-10929	DP-1W SW	DP	WS	Uranium	Filtered	4	4	Chebyshev	0.05	All Data
21-10929	DP-1W SW	DP	WS	Vanadium	Filtered	4	4	Normal	0.05	All Data
21-10929	DP-1W SW	DP	WS	Lead	Filtered	4	2	n/a		Max Detect

Table C-1 (continued)

Location ID	Name	Canyon	Media Code[a]	Analyte Name	Field Prep	n	Detects	Data Distribution	Significance Level for the UCL[b]	Data Source for UCL Calculation
21-10929	DP-1W SW	DP	WS	Thallium	Filtered	4	2	n/a		Max Detect
21-10929	DP-1W SW	DP	WS	Arsenic	Unfiltered	4	3	Normal	0.05	Helsel
21-10929	DP-1W SW	DP	WS	Iron	Unfiltered	4	4	Normal	0.05	All Data
21-10929	DP-1W SW	DP	WS	Lead	Unfiltered	4	3	Normal	0.05	Helsel
21-10929	DP-1W SW	DP	WS	Manganese	Unfiltered	4	4	LogNormal	0.05	All Data
21-10929	DP-1W SW	DP	WS	Uranium	Unfiltered	4	4	Normal	0.05	All Data
21-10929	DP-1W SW	DP	WS	Vanadium	Unfiltered	4	4	Normal	0.05	All Data
21-10929	DP-1W SW	DP	WS	BHC[beta-]	Unfiltered	4	1	n/a		Max Detect
21-10929	DP-1W SW	DP	WS	Bromodichloromethane	Unfiltered	3	1	n/a		Max Detect
21-11226	DP-1C SW	DP	WS	Arsenic	Filtered	4	3	Normal	0.05	Helsel
21-11226	DP-1C SW	DP	WS	Fluoride	Filtered	4	3	Normal	0.05	Helsel
21-11226	DP-1C SW	DP	WS	Iron	Filtered	4	4	Normal	0.05	All Data
21-11226	DP-1C SW	DP	WS	Manganese	Filtered	4	4	Normal	0.05	All Data
21-11226	DP-1C SW	DP	WS	Uranium	Filtered	4	3	Normal	0.05	Helsel
21-11226	DP-1C SW	DP	WS	Vanadium	Filtered	4	4	LogNormal	0.05	All Data
21-11226	DP-1C SW	DP	WS	Antimony	Filtered	4	2	n/a		Max Detect
21-11226	DP-1C SW	DP	WS	Thallium	Filtered	4	2	n/a		Max Detect
21-11226	DP-1C SW	DP	WS	Aluminum	Unfiltered	4	4	Chebyshev	0.01	All Data
21-11226	DP-1C SW	DP	WS	Arsenic	Unfiltered	4	3	Normal	0.05	Helsel
21-11226	DP-1C SW	DP	WS	Iron	Unfiltered	4	4	Normal	0.05	All Data
21-11226	DP-1C SW	DP	WS	Lead	Unfiltered	4	3	Normal	0.05	Helsel
21-11226	DP-1C SW	DP	WS	Manganese	Unfiltered	4	4	Normal	0.05	All Data
21-11226	DP-1C SW	DP	WS	Uranium	Unfiltered	4	3	Normal	0.05	Helsel
21-11226	DP-1C SW	DP	WS	Vanadium	Unfiltered	4	4	LogNormal	0.05	All Data
21-11226	DP-1C SW	DP	WS	Antimony	Unfiltered	4	2	n/a		Max Detect
21-11226	DP-1C SW	DP	WS	Thallium	Unfiltered	4	2	n/a		Max Detect
21-11269	DP-2 SW	DP	WS	Strontium-90	Filtered	1	1	n/a		Max Detect
21-11269	DP-2 SW	DP	WS	Strontium-90	Unfiltered	1	1	n/a		Max Detect
41-01002	LAO-0.6	Los Alamos	WGA	Arsenic	Filtered	4	1	n/a		Max Detect

Table C-1 (continued)

Location ID	Name	Canyon	Media Code[a]	Analyte Name	Field Prep	n	Detects	Data Distribution	Significance Level for the UCL[b]	Data Source for UCL Calculation
41-01002	LAO-0.6	Los Alamos	WGA	Manganese	Unfiltered	4	4	Normal	0.05	All Data
41-01002	LAO-0.6	Los Alamos	WGA	Vanadium	Unfiltered	4	4	Normal	0.05	All Data
41-01002	LAO-0.6	Los Alamos	WGA	Arsenic	Unfiltered	4	1	n/a		Max Detect
41-01002	LAO-0.6	Los Alamos	WGA	Chromium	Unfiltered	4	2	n/a		Max Detect
41-01002	LAO-0.6	Los Alamos	WGA	Iron	Unfiltered	4	2	n/a		Max Detect
41-01003	LAO-0.3	Los Alamos	WGA	Arsenic	Filtered	8	2	n/a		Max Detect
41-01003	LAO-0.3	Los Alamos	WGA	Arsenic	Unfiltered	8	2	n/a		Max Detect
41-01003	LAO-0.3	Los Alamos	WGA	Methylene Chloride	Unfiltered	3	1	n/a		Max Detect
41-01004	LAO-C	Los Alamos	WGA	Arsenic	Filtered	4	1	n/a		Max Detect
41-01004	LAO-C	Los Alamos	WGA	Arsenic	Unfiltered	4	1	n/a		Max Detect
41-01045	LAO-B	Los Alamos	WGA	Thallium	Filtered	11	3	Normal	0.05	Helsel
41-01045	LAO-B	Los Alamos	WGA	Arsenic	Filtered	11	2	n/a		Max Detect
41-01045	LAO-B	Los Alamos	WGA	Perchlorate	Filtered	8	1	n/a		Max Detect
41-01045	LAO-B	Los Alamos	WGA	Arsenic	Unfiltered	9	2	n/a		Max Detect
41-01045	LAO-B	Los Alamos	WGA	Benzene	Unfiltered	4	1	n/a		Max Detect
41-01045	LAO-B	Los Alamos	WGA	Methylene Chloride	Unfiltered	4	2	n/a		Max Detect
GU-10004	Guaje SW @ LA Confluence	Guaje	WS	Arsenic	Filtered	2	2	n/a		Max Detect
GU-10004	Guaje SW @ LA Confluence	Guaje	WS	Arsenic	Unfiltered	2	2	n/a		Max Detect
LA-00001	LAO-1.6g	Los Alamos	WGA	Fluoride	Filtered	5	5	Normal	0.05	All Data
LA-00001	LAO-1.6g	Los Alamos	WGA	Molybdenum	Filtered	3	3	Normal	0.05	All Data
LA-00001	LAO-1.6g	Los Alamos	WGA	Arsenic	Filtered	8	2	n/a		Max Detect
LA-00001	LAO-1.6g	Los Alamos	WGA	Thallium	Filtered	8	1	n/a		Max Detect
LA-00001	LAO-1.6g	Los Alamos	WGA	Molybdenum	Unfiltered	3	3	Normal	0.05	All Data
LA-00001	LAO-1.6g	Los Alamos	WGA	Arsenic	Unfiltered	8	2	n/a		Max Detect
LA-00001	LAO-1.6g	Los Alamos	WGA	Fluoride	Unfiltered	1	1	n/a		Max Detect
LA-00001	LAO-1.6g	Los Alamos	WGA	Methylene Chloride	Unfiltered	2	2	n/a		Max Detect
LA-00001	LAO-1.6g	Los Alamos	WGA	Thallium	Unfiltered	8	2	n/a		Max Detect

Table C-1 (continued)

Location ID	Name	Canyon	Media Code[a]	Analyte Name	Field Prep	n	Detects	Data Distribution	Significance Level for the UCL[b]	Data Source for UCL Calculation
LA-00002	LLAO-5	Los Alamos	WGA	Arsenic	Filtered	9	3	Normal	0.05	Helsel
LA-00002	LLAO-5	Los Alamos	WGA	Barium	Filtered	9	9	Normal	0.05	All Data
LA-00002	LLAO-5	Los Alamos	WGA	Fluoride	Filtered	7	5	Normal	0.05	Helsel
LA-00002	LLAO-5	Los Alamos	WGA	Uranium	Filtered	6	6	Normal	0.05	All Data
LA-00002	LLAO-5	Los Alamos	WGA	Vanadium	Filtered	9	8	Normal	0.05	Helsel
LA-00002	LLAO-5	Los Alamos	WGA	Nitrite	Filtered	1	1	n/a		Max Detect
LA-00002	LLAO-5	Los Alamos	WGA	Thallium	Filtered	9	2	n/a		Max Detect
LA-00002	LLAO-5	Los Alamos	WGA	Arsenic	Unfiltered	9	3	Normal	0.05	Helsel
LA-00002	LLAO-5	Los Alamos	WGA	Barium	Unfiltered	9	9	Normal	0.05	All Data
LA-00002	LLAO-5	Los Alamos	WGA	Uranium	Unfiltered	6	6	Normal	0.05	All Data
LA-00002	LLAO-5	Los Alamos	WGA	Vanadium	Unfiltered	9	8	Normal	0.05	Helsel
LA-00002	LLAO-5	Los Alamos	WGA	Antimony	Unfiltered	9	1	n/a		Max Detect
LA-00002	LLAO-5	Los Alamos	WGA	Nitrite	Unfiltered	1	1	n/a		Max Detect
LA-00002	LLAO-5	Los Alamos	WGA	Thallium	Unfiltered	9	1	n/a		Max Detect
LA-00045	LLAO-2	Los Alamos	WGA	Arsenic	Filtered	1	1	n/a		Max Detect
LA-00045	LLAO-2	Los Alamos	WGA	Arsenic	Unfiltered	1	1	n/a		Max Detect
LA-00046	LLAO-4	Los Alamos	WGA	Arsenic	Filtered	5	1	n/a		Max Detect
LA-00046	LLAO-4	Los Alamos	WGA	Arsenic	Unfiltered	5	2	n/a		Max Detect
LA-00215	LLAO-1b	Los Alamos	WGA	Arsenic	Filtered	9	8	Chebyshev	0.05	Helsel
LA-00215	LLAO-1b	Los Alamos	WGA	Fluoride	Filtered	7	7	Chebyshev	0.05	All Data
LA-00215	LLAO-1b	Los Alamos	WGA	Thallium	Filtered	9	4	Chebyshev	0.025	Helsel
LA-00215	LLAO-1b	Los Alamos	WGA	Uranium	Filtered	6	6	Normal	0.05	All Data
LA-00215	LLAO-1b	Los Alamos	WGA	Vanadium	Filtered	9	9	Normal	0.05	All Data
LA-00215	LLAO-1b	Los Alamos	WGA	Nitrate	Filtered	1	1	n/a		Max Detect
LA-00215	LLAO-1b	Los Alamos	WGA	Arsenic	Unfiltered	9	9	Normal	0.05	All Data
LA-00215	LLAO-1b	Los Alamos	WGA	Copper	Unfiltered	9	9	Chebyshev	0.025	All Data
LA-00215	LLAO-1b	Los Alamos	WGA	Iron	Unfiltered	9	5	LogNormal	0.05	Helsel
LA-00215	LLAO-1b	Los Alamos	WGA	Manganese	Unfiltered	9	8	LogNormal	0.05	Helsel
LA-00215	LLAO-1b	Los Alamos	WGA	Uranium	Unfiltered	6	6	Normal	0.05	All Data

Table C-1 (continued)

Location ID	Name	Canyon	Media Code[a]	Analyte Name	Field Prep	n	Detects	Data Distribution	Significance Level for the UCL[b]	Data Source for UCL Calculation
LA-00215	LLAO-1b	Los Alamos	WGA	Vanadium	Unfiltered	9	9	Chebyshev	0.05	All Data
LA-00215	LLAO-1b	Los Alamos	WGA	Benzene	Unfiltered	5	1	n/a		Max Detect
LA-00215	LLAO-1b	Los Alamos	WGA	Fluoride	Unfiltered	1	1	n/a		Max Detect
LA-00215	LLAO-1b	Los Alamos	WGA	Lead	Unfiltered	9	2	n/a		Max Detect
LA-00215	LLAO-1b	Los Alamos	WGA	Nitrate	Unfiltered	1	1	n/a		Max Detect
LA-00215	LLAO-1b	Los Alamos	WGA	Thallium	Unfiltered	9	2	n/a		Max Detect
LA-00215	LLAO-1b	Los Alamos	WGA	Trichloroethene	Unfiltered	5	1	n/a		Max Detect
LA-00218	LA-4E SW	Los Alamos	WS	Arsenic	Filtered	8	6	Normal	0.05	Helsel
LA-00218	LA-4E SW	Los Alamos	WS	Fluoride	Filtered	4	4	Normal	0.05	All Data
LA-00218	LA-4E SW	Los Alamos	WS	Vanadium	Filtered	8	8	Normal	0.05	All Data
LA-00218	LA-4E SW	Los Alamos	WS	Thallium	Filtered	8	1	n/a		Max Detect
LA-00218	LA-4E SW	Los Alamos	WS	Arsenic	Unfiltered	8	7	Normal	0.05	Helsel
LA-00218	LA-4E SW	Los Alamos	WS	Lead	Unfiltered	8	6	Normal	0.05	Helsel
LA-00218	LA-4E SW	Los Alamos	WS	Uranium	Unfiltered	4	4	Normal	0.05	All Data
LA-00218	LA-4E SW	Los Alamos	WS	Vanadium	Unfiltered	8	8	Normal	0.05	All Data
LA-00218	LA-4E SW	Los Alamos	WS	Thallium	Unfiltered	8	1	n/a		Max Detect
LA-00219	Basalt Spring	Los Alamos	WS	Arsenic	Filtered	8	6	Normal	0.05	Helsel
LA-00219	Basalt Spring	Los Alamos	WS	Fluoride	Filtered	4	3	Normal	0.05	Helsel
LA-00219	Basalt Spring	Los Alamos	WS	Thallium	Filtered	8	3	LogNormal	0.05	Helsel
LA-00219	Basalt Spring	Los Alamos	WS	Uranium	Filtered	4	4	Normal	0.05	All Data
LA-00219	Basalt Spring	Los Alamos	WS	Vanadium	Filtered	8	8	Normal	0.05	All Data
LA-00219	Basalt Spring	Los Alamos	WS	Antimony	Filtered	8	1	n/a		Max Detect
LA-00219	Basalt Spring	Los Alamos	WS	Arsenic	Unfiltered	8	6	Normal	0.05	Helsel
LA-00219	Basalt Spring	Los Alamos	WS	Uranium	Unfiltered	3	3	Normal	0.05	All Data
LA-00219	Basalt Spring	Los Alamos	WS	Vanadium	Unfiltered	8	8	Normal	0.05	All Data
LA-00219	Basalt Spring	Los Alamos	WS	Antimony	Unfiltered	8	1	n/a		Max Detect
LA-00219	Basalt Spring	Los Alamos	WS	Thallium	Unfiltered	8	2	n/a		Max Detect
LA-10005	SW @ LAO-0.6	Los Alamos	WS	Manganese	Filtered	3	3	Normal	0.05	All Data
LA-10005	SW @ LAO-0.6	Los Alamos	WS	Arsenic	Filtered	3	2	n/a		Max Detect

Table C-1 (continued)

Location ID	Name	Canyon	Media Code[a]	Analyte Name	Field Prep	n	Detects	Data Distribution	Significance Level for the UCL[b]	Data Source for UCL Calculation
LA-10005	SW @ LAO-0.6	Los Alamos	WS	Vanadium	Filtered	3	2	n/a		Max Detect
LA-10005	SW @ LAO-0.6	Los Alamos	WS	Iron	Unfiltered	3	3	Normal	0.05	All Data
LA-10005	SW @ LAO-0.6	Los Alamos	WS	Manganese	Unfiltered	3	3	Normal	0.05	All Data
LA-10005	SW @ LAO-0.6	Los Alamos	WS	Vanadium	Unfiltered	3	3	LogNormal	0.05	All Data
LA-10005	SW @ LAO-0.6	Los Alamos	WS	Arsenic	Unfiltered	3	2	n/a		Max Detect
LA-10006	LA-Bkgd SW	Los Alamos	WS	Iron	Unfiltered	2	1	n/a		Max Detect
LA-10006	LA-Bkgd SW	Los Alamos	WS	Manganese	Unfiltered	2	2	n/a		Max Detect
LA-10008	LAO-1.2	Los Alamos	WGA	Antimony	Filtered	1	1	n/a		Max Detect
LA-10008	LAO-1.2	Los Alamos	WGA	Chromium	Filtered	1	1	n/a		Max Detect
LA-10008	LAO-1.2	Los Alamos	WGA	Thallium	Filtered	1	1	n/a		Max Detect
LA-10008	LAO-1.2	Los Alamos	WGA	Aluminum	Unfiltered	1	1	n/a		Max Detect
LA-10008	LAO-1.2	Los Alamos	WGA	Chromium	Unfiltered	1	1	n/a		Max Detect
LA-10008	LAO-1.2	Los Alamos	WGA	Iron	Unfiltered	1	1	n/a		Max Detect
LA-10008	LAO-1.2	Los Alamos	WGA	Lead	Unfiltered	1	1	n/a		Max Detect
LA-10008	LAO-1.2	Los Alamos	WGA	Vanadium	Unfiltered	1	1	n/a		Max Detect
LA-10033	Los Alamos Reservoir	Los Alamos	WS	Arsenic	Filtered	2	1	n/a		Max Detect
LA-10033	Los Alamos Reservoir	Los Alamos	WS	Manganese	Filtered	2	2	n/a		Max Detect
LA-10033	Los Alamos Reservoir	Los Alamos	WS	Arsenic	Unfiltered	2	1	n/a		Max Detect
LA-10033	Los Alamos Reservoir	Los Alamos	WS	Manganese	Unfiltered	2	2	n/a		Max Detect
LA-10033	Los Alamos Reservoir	Los Alamos	WS	Methylene Chloride	Unfiltered	2	1	n/a		Max Detect
LA-10033	Los Alamos Reservoir	Los Alamos	WS	Thallium	Unfiltered	2	1	n/a		Max Detect
LA-10035	LAO-3a	Los Alamos	WGA	Fluoride	Filtered	4	4	Normal	0.05	All Data
LA-10035	LAO-3a	Los Alamos	WGA	Molybdenum	Filtered	3	3	Normal	0.05	All Data
LA-10035	LAO-3a	Los Alamos	WGA	Strontium-90	Filtered	4	4	Normal	0.05	All Data
LA-10035	LAO-3a	Los Alamos	WGA	Thallium	Filtered	4	3	Normal	0.05	Helsel
LA-10035	LAO-3a	Los Alamos	WGA	Vanadium	Filtered	4	4	Normal	0.05	All Data
LA-10035	LAO-3a	Los Alamos	WGA	Arsenic	Filtered	4	1	n/a		Max Detect
LA-10035	LAO-3a	Los Alamos	WGA	Lead	Filtered	4	2	n/a		Max Detect
LA-10035	LAO-3a	Los Alamos	WGA	Molybdenum	Unfiltered	3	3	Normal	0.05	All Data

Table C-1 (continued)

Location ID	Name	Canyon	Media Code[a]	Analyte Name	Field Prep	n	Detects	Data Distribution	Significance Level for the UCL[b]	Data Source for UCL Calculation
LA-10035	LAO-3a	Los Alamos	WGA	Strontium-90	Unfiltered	4	4	Normal	0.05	All Data
LA-10035	LAO-3a	Los Alamos	WGA	Vanadium	Unfiltered	4	4	Normal	0.05	All Data
LA-10035	LAO-3a	Los Alamos	WGA	Arsenic	Unfiltered	4	1	n/a		Max Detect
LA-10035	LAO-3a	Los Alamos	WGA	Perchlorate	Unfiltered	1	1	n/a		Max Detect
LA-10040	SW @ E026	Los Alamos	WS	Aluminum	Unfiltered	1	1	n/a		Max Detect
LA-10040	SW @ E026	Los Alamos	WS	Arsenic	Unfiltered	1	1	n/a		Max Detect
LA-10040	SW @ E026	Los Alamos	WS	Barium	Unfiltered	1	1	n/a		Max Detect
LA-10040	SW @ E026	Los Alamos	WS	Chromium	Unfiltered	1	1	n/a		Max Detect
LA-10040	SW @ E026	Los Alamos	WS	Iron	Unfiltered	1	1	n/a		Max Detect
LA-10040	SW @ E026	Los Alamos	WS	Lead	Unfiltered	1	1	n/a		Max Detect
LA-10040	SW @ E026	Los Alamos	WS	Manganese	Unfiltered	1	1	n/a		Max Detect
LA-10040	SW @ E026	Los Alamos	WS	Thallium	Unfiltered	1	1	n/a		Max Detect
LA-10057	LA SW @ Guaje Confluence	Los Alamos	WS	Arsenic	Filtered	2	1	n/a		Max Detect
LA-10057	LA SW @ Guaje Confluence	Los Alamos	WS	Arsenic	Unfiltered	2	2	n/a		Max Detect
LA-10058	Lower Reach LA-5 SW	Los Alamos	WS	Arsenic	Filtered	2	1	n/a		Max Detect
LA-10058	Lower Reach LA-5 SW	Los Alamos	WS	Arsenic	Unfiltered	1	1	n/a		Max Detect
LA-10058	Lower Reach LA-5 SW	Los Alamos	WS	Iron	Unfiltered	1	1	n/a		Max Detect
LA-10058	Lower Reach LA-5 SW	Los Alamos	WS	Lead	Unfiltered	1	1	n/a		Max Detect
LA-10058	Lower Reach LA-5 SW	Los Alamos	WS	Manganese	Unfiltered	1	1	n/a		Max Detect
LA-10058	Lower Reach LA-5 SW	Los Alamos	WS	Perchlorate	Unfiltered	1	1	n/a		Max Detect
LA-10058	Lower Reach LA-5 SW	Los Alamos	WS	Vanadium	Unfiltered	1	1	n/a		Max Detect
LA-10064	LA-1W SW	Los Alamos	WS	Arsenic	Filtered	3	1	n/a		Max Detect
LA-10064	LA-1W SW	Los Alamos	WS	Aluminum	Unfiltered	3	3	Normal	0.05	All Data
LA-10064	LA-1W SW	Los Alamos	WS	Barium	Unfiltered	3	3	Normal	0.05	All Data
LA-10064	LA-1W SW	Los Alamos	WS	Iron	Unfiltered	3	3	Normal	0.05	All Data
LA-10064	LA-1W SW	Los Alamos	WS	Manganese	Unfiltered	3	3	Normal	0.05	All Data
LA-10064	LA-1W SW	Los Alamos	WS	Vanadium	Unfiltered	3	3	Normal	0.05	All Data

Table C-1 (continued)

Location ID	Name	Canyon	Media Code[a]	Analyte Name	Field Prep	n	Detects	Data Distribution	Significance Level for the UCL[b]	Data Source for UCL Calculation
LA-10064	LA-1W SW	Los Alamos	WS	Arsenic	Unfiltered	3	1	n/a		Max Detect
LA-10064	LA-1W SW	Los Alamos	WS	Chromium	Unfiltered	3	1	n/a		Max Detect
LA-10064	LA-1W SW	Los Alamos	WS	Lead	Unfiltered	3	2	n/a		Max Detect
LA-10064	LA-1W SW	Los Alamos	WS	Methylene Chloride	Unfiltered	3	2	n/a		Max Detect
LA-10064	LA-1W SW	Los Alamos	WS	Thallium	Unfiltered	3	1	n/a		Max Detect
LA-10064	LA-1W SW	Los Alamos	WS	Uranium	Unfiltered	3	2	n/a		Max Detect
LA-10065	LA-1C SW	Los Alamos	WS	Manganese	Filtered	3	3	Normal	0.05	All Data
LA-10065	LA-1C SW	Los Alamos	WS	Vanadium	Filtered	3	3	Normal	0.05	All Data
LA-10065	LA-1C SW	Los Alamos	WS	Fluoride	Filtered	3	2	n/a		Max Detect
LA-10065	LA-1C SW	Los Alamos	WS	Iron	Filtered	3	2	n/a		Max Detect
LA-10065	LA-1C SW	Los Alamos	WS	Uranium	Filtered	3	2	n/a		Max Detect
LA-10065	LA-1C SW	Los Alamos	WS	Aluminum	Unfiltered	3	3	Normal	0.05	All Data
LA-10065	LA-1C SW	Los Alamos	WS	Iron	Unfiltered	3	3	Normal	0.05	All Data
LA-10065	LA-1C SW	Los Alamos	WS	Manganese	Unfiltered	3	3	Normal	0.05	All Data
LA-10065	LA-1C SW	Los Alamos	WS	Vanadium	Unfiltered	3	3	Normal	0.05	All Data
LA-10065	LA-1C SW	Los Alamos	WS	Lead	Unfiltered	3	2	n/a		Max Detect
LA-10065	LA-1C SW	Los Alamos	WS	Uranium	Unfiltered	3	2	n/a		Max Detect
LA-10066	LAO-0.7	Los Alamos	WGA	Arsenic	Filtered	4	1	n/a		Max Detect
LA-10066	LAO-0.7	Los Alamos	WGA	Arsenic	Unfiltered	4	1	n/a		Max Detect
LA-10067	LAO-2	Los Alamos	WGA	Fluoride	Filtered	3	3	Normal	0.05	All Data
LA-10067	LAO-2	Los Alamos	WGA	Lead	Filtered	2	1	n/a		Max Detect
LA-10067	LAO-2	Los Alamos	WGA	Molybdenum	Filtered	2	2	n/a		Max Detect
LA-10067	LAO-2	Los Alamos	WGA	Lead	Unfiltered	2	1	n/a		Max Detect
LA-10067	LAO-2	Los Alamos	WGA	Molybdenum	Unfiltered	2	2	n/a		Max Detect
LA-10068	LAO-4	Los Alamos	WGA	Fluoride	Filtered	3	3	Normal	0.05	All Data
LA-10068	LAO-4	Los Alamos	WGA	Molybdenum	Filtered	3	3	Normal	0.05	All Data
LA-10068	LAO-4	Los Alamos	WGA	Arsenic	Filtered	3	1	n/a		Max Detect
LA-10068	LAO-4	Los Alamos	WGA	Lead	Filtered	3	1	n/a		Max Detect
LA-10068	LAO-4	Los Alamos	WGA	Molybdenum	Unfiltered	3	3	Normal	0.05	All Data

Table C-1 (continued)

Location ID	Name	Canyon	Media Code[a]	Analyte Name	Field Prep	n	Detects	Data Distribution	Significance Level for the UCL[b]	Data Source for UCL Calculation
LA-10068	LAO-4	Los Alamos	WGA	Arsenic	Unfiltered	3	1	n/a		Max Detect
LA-10068	LAO-4	Los Alamos	WGA	Thallium	Unfiltered	3	1	n/a		Max Detect
LA-10069	LAO-4.5c	Los Alamos	WGA	Fluoride	Filtered	4	4	Chebyshev	0.05	All Data
LA-10069	LAO-4.5c	Los Alamos	WGA	Arsenic	Filtered	3	1	n/a		Max Detect
LA-10069	LAO-4.5c	Los Alamos	WGA	Lead	Filtered	3	1	n/a		Max Detect
LA-10069	LAO-4.5c	Los Alamos	WGA	Molybdenum	Filtered	3	2	n/a		Max Detect
LA-10069	LAO-4.5c	Los Alamos	WGA	Uranium	Filtered	2	1	n/a		Max Detect
LA-10069	LAO-4.5c	Los Alamos	WGA	Arsenic	Unfiltered	3	1	n/a		Max Detect
LA-10126	Los Alamos Creek upstream of LA Reservoir	Los Alamos	WS	Lead	Filtered	1	1	n/a		Max Detect
LA-10126	Los Alamos Creek upstream of LA Reservoir	Los Alamos	WS	Perchlorate	Filtered	1	1	n/a		Max Detect
LA-10179	Otowi Spring	Los Alamos	WS	Arsenic	Filtered	1	1	n/a		Max Detect
LA-10179	Otowi Spring	Los Alamos	WS	Arsenic	Unfiltered	1	1	n/a		Max Detect
PU-00177	PAO-5N	Pueblo	WGA	Arsenic	Filtered	6	6	Normal	0.05	All Data
PU-00177	PAO-5N	Pueblo	WGA	Fluoride	Filtered	3	3	Chebyshev	0.05	All Data
PU-00177	PAO-5N	Pueblo	WGA	Iron	Filtered	6	4	LogNormal	0.05	Helsel
PU-00177	PAO-5N	Pueblo	WGA	Manganese	Filtered	6	6	Normal	0.05	All Data
PU-00177	PAO-5N	Pueblo	WGA	Vanadium	Filtered	6	6	Normal	0.05	All Data
PU-00177	PAO-5N	Pueblo	WGA	Nitrate	Filtered	1	1	n/a		Max Detect
PU-00177	PAO-5N	Pueblo	WGA	Perchlorate	Filtered	4	1	n/a		Max Detect
PU-00177	PAO-5N	Pueblo	WGA	Arsenic	Unfiltered	6	6	Normal	0.05	All Data
PU-00177	PAO-5N	Pueblo	WGA	Iron	Unfiltered	6	5	Normal	0.05	Helsel
PU-00177	PAO-5N	Pueblo	WGA	Manganese	Unfiltered	6	6	Normal	0.05	All Data
PU-00177	PAO-5N	Pueblo	WGA	Vanadium	Unfiltered	6	6	Normal	0.05	All Data
PU-00177	PAO-5N	Pueblo	WGA	Fluoride	Unfiltered	1	1	n/a		Max Detect
PU-00177	PAO-5N	Pueblo	WGA	Nitrate	Unfiltered	1	1	n/a		Max Detect
PU-00178	PAO-1	Pueblo	WGA	Manganese	Filtered	8	8	Normal	0.05	All Data

Table C-1 (continued)

Location ID	Name	Canyon	Media Code[a]	Analyte Name	Field Prep	n	Detects	Data Distribution	Significance Level for the UCL[b]	Data Source for UCL Calculation
PU-00178	PAO-1	Pueblo	WGA	Vanadium	Filtered	8	7	Normal	0.05	Helsel
PU-00178	PAO-1	Pueblo	WGA	Antimony	Filtered	8	2	n/a		Max Detect
PU-00178	PAO-1	Pueblo	WGA	Arsenic	Filtered	8	2	n/a		Max Detect
PU-00178	PAO-1	Pueblo	WGA	Thallium	Filtered	8	2	n/a		Max Detect
PU-00178	PAO-1	Pueblo	WGA	Manganese	Unfiltered	8	8	LogNormal	0.05	All Data
PU-00178	PAO-1	Pueblo	WGA	Arsenic	Unfiltered	8	1	n/a		Max Detect
PU-00178	PAO-1	Pueblo	WGA	Dibenz(a,h)anthracene	Unfiltered	4	1	n/a		Max Detect
PU-00178	PAO-1	Pueblo	WGA	Dieldrin	Unfiltered	5	1	n/a		Max Detect
PU-00178	PAO-1	Pueblo	WGA	Thallium	Unfiltered	8	2	n/a		Max Detect
PU-00181	PAO-3	Pueblo	WGA	Arsenic	Filtered	1	1	n/a		Max Detect
PU-00181	PAO-3	Pueblo	WGA	Arsenic	Unfiltered	2	2	n/a		Max Detect
PU-00182	PAO-4	Pueblo	WGA	Arsenic	Filtered	9	9	Normal	0.05	All Data
PU-00182	PAO-4	Pueblo	WGA	Fluoride	Filtered	6	6	Normal	0.05	All Data
PU-00182	PAO-4	Pueblo	WGA	Iron	Filtered	9	9	Normal	0.05	All Data
PU-00182	PAO-4	Pueblo	WGA	Manganese	Filtered	9	9	Normal	0.05	All Data
PU-00182	PAO-4	Pueblo	WGA	Perchlorate	Filtered	7	3	Normal	0.05	Helsel
PU-00182	PAO-4	Pueblo	WGA	Vanadium	Filtered	9	7	Normal	0.05	Helsel
PU-00182	PAO-4	Pueblo	WGA	Thallium	Filtered	9	2	n/a		Max Detect
PU-00182	PAO-4	Pueblo	WGA	Arsenic	Unfiltered	9	9	Normal	0.05	All Data
PU-00182	PAO-4	Pueblo	WGA	Iron	Unfiltered	9	9	Chebyshev	0.05	All Data
PU-00182	PAO-4	Pueblo	WGA	Manganese	Unfiltered	9	9	Normal	0.05	All Data
PU-00182	PAO-4	Pueblo	WGA	Vanadium	Unfiltered	9	9	Chebyshev	0.05	All Data
PU-00182	PAO-4	Pueblo	WGA	Fluoride	Unfiltered	1	1	n/a		Max Detect
PU-10068	P-1FW SW	Pueblo	WS	Manganese	Filtered	4	4	Normal	0.05	All Data
PU-10068	P-1FW SW	Pueblo	WS	Arsenic	Filtered	4	1	n/a		Max Detect
PU-10068	P-1FW SW	Pueblo	WS	Thallium	Filtered	4	1	n/a		Max Detect
PU-10068	P-1FW SW	Pueblo	WS	Iron	Unfiltered	4	3	LogNormal	0.05	Helsel
PU-10068	P-1FW SW	Pueblo	WS	Lead	Unfiltered	4	3	Normal	0.05	Helsel
PU-10068	P-1FW SW	Pueblo	WS	Manganese	Unfiltered	4	4	Normal	0.05	All Data

Table C-1 (continued)

Location ID	Name	Canyon	Media Code[a]	Analyte Name	Field Prep	n	Detects	Data Distribution	Significance Level for the UCL[b]	Data Source for UCL Calculation
PU-10068	P-1FW SW	Pueblo	WS	Vanadium	Unfiltered	4	4	Normal	0.05	All Data
PU-10068	P-1FW SW	Pueblo	WS	Arsenic	Unfiltered	4	2	n/a		Max Detect
PU-10069	Upper P-1W SW	Pueblo	WS	Manganese	Filtered	4	4	Normal	0.05	All Data
PU-10069	Upper P-1W SW	Pueblo	WS	Vanadium	Filtered	4	4	Normal	0.05	All Data
PU-10069	Upper P-1W SW	Pueblo	WS	Antimony	Filtered	4	1	n/a		Max Detect
PU-10069	Upper P-1W SW	Pueblo	WS	Arsenic	Filtered	4	2	n/a		Max Detect
PU-10069	Upper P-1W SW	Pueblo	WS	Thallium	Filtered	4	1	n/a		Max Detect
PU-10069	Upper P-1W SW	Pueblo	WS	Manganese	Unfiltered	4	4	Normal	0.05	All Data
PU-10069	Upper P-1W SW	Pueblo	WS	Vanadium	Unfiltered	4	4	Normal	0.05	All Data
PU-10069	Upper P-1W SW	Pueblo	WS	Antimony	Unfiltered	4	1	n/a		Max Detect
PU-10069	Upper P-1W SW	Pueblo	WS	Arsenic	Unfiltered	4	2	n/a		Max Detect
PU-10069	Upper P-1W SW	Pueblo	WS	Lead	Unfiltered	4	2	n/a		Max Detect
PU-10070	Lower P-1W SW	Pueblo	WS	Antimony	Filtered	6	3	Normal	0.05	Helsel
PU-10070	Lower P-1W SW	Pueblo	WS	Fluoride	Filtered	3	3	Normal	0.05	All Data
PU-10070	Lower P-1W SW	Pueblo	WS	Manganese	Filtered	6	6	Normal	0.05	All Data
PU-10070	Lower P-1W SW	Pueblo	WS	Vanadium	Filtered	6	6	Normal	0.05	All Data
PU-10070	Lower P-1W SW	Pueblo	WS	Arsenic	Filtered	6	2	n/a		Max Detect
PU-10070	Lower P-1W SW	Pueblo	WS	Thallium	Filtered	6	1	n/a		Max Detect
PU-10070	Lower P-1W SW	Pueblo	WS	Uranium	Filtered	2	2	n/a		Max Detect
PU-10070	Lower P-1W SW	Pueblo	WS	Arsenic	Unfiltered	6	3	Normal	0.05	Helsel
PU-10070	Lower P-1W SW	Pueblo	WS	Iron	Unfiltered	6	6	LogNormal	0.05	All Data
PU-10070	Lower P-1W SW	Pueblo	WS	Lead	Unfiltered	6	3	Normal	0.05	Helsel
PU-10070	Lower P-1W SW	Pueblo	WS	Manganese	Unfiltered	6	6	Normal	0.05	All Data
PU-10070	Lower P-1W SW	Pueblo	WS	Vanadium	Unfiltered	6	6	Normal	0.05	All Data
PU-10070	Lower P-1W SW	Pueblo	WS	Uranium	Unfiltered	2	2	n/a		Max Detect
PU-10071	P-1E SW	Pueblo	WS	Manganese	Filtered	4	4	LogNormal	0.05	All Data
PU-10071	P-1E SW	Pueblo	WS	Arsenic	Filtered	4	1	n/a		Max Detect
PU-10071	P-1E SW	Pueblo	WS	Fluoride	Filtered	1	1	n/a		Max Detect
PU-10071	P-1E SW	Pueblo	WS	Perchlorate	Filtered	3	1	n/a		Max Detect

Table C-1 (continued)

Location ID	Name	Canyon	Media Code[a]	Analyte Name	Field Prep	n	Detects	Data Distribution	Significance Level for the UCL[b]	Data Source for UCL Calculation
PU-10071	P-1E SW	Pueblo	WS	Iron	Unfiltered	4	4	LogNormal	0.05	All Data
PU-10071	P-1E SW	Pueblo	WS	Manganese	Unfiltered	4	4	LogNormal	0.05	All Data
PU-10071	P-1E SW	Pueblo	WS	Vanadium	Unfiltered	4	3	LogNormal	0.05	Helsel
PU-10071	P-1E SW	Pueblo	WS	Arsenic	Unfiltered	4	2	n/a		Max Detect
PU-10071	P-1E SW	Pueblo	WS	Lead	Unfiltered	4	2	n/a		Max Detect
PU-10155	lower AC-3 SW	Acid	WS	Arsenic	Filtered	4	2	n/a		Max Detect
PU-10155	lower AC-3 SW	Acid	WS	Fluoride	Filtered	2	2	n/a		Max Detect
PU-10155	lower AC-3 SW	Acid	WS	Thallium	Filtered	4	2	n/a		Max Detect
PU-10155	lower AC-3 SW	Acid	WS	Americium-241	Unfiltered	4	1	Chebyshev	0.01	All Data
PU-10155	lower AC-3 SW	Acid	WS	Plutonium-239	Unfiltered	4	3	LogNormal	0.05	All Data
PU-10155	lower AC-3 SW	Acid	WS	Strontium-90	Unfiltered	4	4	Normal	0.05	All Data
PU-10155	lower AC-3 SW	Acid	WS	Benzo(a)anthracene	Unfiltered	4	1	n/a		Max Detect
PU-10155	lower AC-3 SW	Acid	WS	Benzo(a)pyrene	Unfiltered	4	1	n/a		Max Detect
PU-10155	lower AC-3 SW	Acid	WS	Benzo(b)fluoranthene	Unfiltered	4	1	n/a		Max Detect
PU-10155	lower AC-3 SW	Acid	WS	Dibenz(a,h)anthracene	Unfiltered	4	1	n/a		Max Detect
PU-10155	lower AC-3 SW	Acid	WS	Indeno(1,2,3-cd)pyrene	Unfiltered	4	1	n/a		Max Detect
PU-10175	Upper Reach ACS SW	Acid	WS	Arsenic	Filtered	2	2	n/a		Max Detect
PU-10175	Upper Reach ACS SW	Acid	WS	Fluoride	Filtered	2	2	n/a		Max Detect
PU-10175	Upper Reach ACS SW	Acid	WS	Plutonium-239	Filtered	2	2	n/a		Max Detect
PU-10175	Upper Reach ACS SW	Acid	WS	Uranium	Filtered	2	2	n/a		Max Detect
PU-10175	Upper Reach ACS SW	Acid	WS	Uranium-234	Filtered	2	2	n/a		Max Detect
PU-10175	Upper Reach ACS SW	Acid	WS	Uranium-238	Filtered	2	2	n/a		Max Detect
PU-10175	Upper Reach ACS SW	Acid	WS	Arsenic	Unfiltered	2	2	n/a		Max Detect
PU-10175	Upper Reach ACS SW	Acid	WS	Lead	Unfiltered	2	1	n/a		Max Detect
PU-10175	Upper Reach ACS SW	Acid	WS	Plutonium-239	Unfiltered	2	2	n/a		Max Detect
PU-10175	Upper Reach ACS SW	Acid	WS	Uranium	Unfiltered	2	2	n/a		Max Detect
PU-10175	Upper Reach ACS SW	Acid	WS	Uranium-234	Unfiltered	2	2	n/a		Max Detect
PU-10175	Upper Reach ACS SW	Acid	WS	Uranium-238	Unfiltered	2	2	n/a		Max Detect
PU-10176	Lower Reach ACS SW	Acid	WS	Americium-241	Filtered	2	1	n/a		Max Detect

Table C-1 (continued)

Location ID	Name	Canyon	Media Code[a]	Analyte Name	Field Prep	n	Detects	Data Distribution	Significance Level for the UCL[b]	Data Source for UCL Calculation
PU-10176	Lower Reach ACS SW	Acid	WS	Arsenic	Filtered	2	2	n/a		Max Detect
PU-10176	Lower Reach ACS SW	Acid	WS	Plutonium-239	Filtered	2	2	n/a		Max Detect
PU-10176	Lower Reach ACS SW	Acid	WS	Arsenic	Unfiltered	2	2	n/a		Max Detect
PU-10176	Lower Reach ACS SW	Acid	WS	Plutonium-239	Unfiltered	2	2	n/a		Max Detect
PU-10228	APCO-1	Pueblo	WGA	Fluoride	Filtered	3	3	Normal	0.05	All Data
PU-10228	APCO-1	Pueblo	WGA	Iron	Filtered	3	3	Normal	0.05	All Data
PU-10228	APCO-1	Pueblo	WGA	Manganese	Filtered	3	3	Normal	0.05	All Data
PU-10228	APCO-1	Pueblo	WGA	Vanadium	Filtered	3	3	Normal	0.05	All Data
PU-10228	APCO-1	Pueblo	WGA	Arsenic	Filtered	3	1	n/a		Max Detect
PU-10228	APCO-1	Pueblo	WGA	Iron	Unfiltered	3	3	Normal	0.05	All Data
PU-10228	APCO-1	Pueblo	WGA	Manganese	Unfiltered	3	3	Normal	0.05	All Data
PU-10228	APCO-1	Pueblo	WGA	Vanadium	Unfiltered	3	3	Normal	0.05	All Data
PU-10228	APCO-1	Pueblo	WGA	Arsenic	Unfiltered	3	2	n/a		Max Detect
PU-10228	APCO-1	Pueblo	WGA	Lead	Unfiltered	3	1	n/a		Max Detect
PU-10228	APCO-1	Pueblo	WGA	Uranium	Unfiltered	2	2	n/a		Max Detect
PU-10229	Pueblo at 502	Pueblo	WS	Arsenic	Filtered	4	3	Normal	0.05	Helsel
PU-10229	Pueblo at 502	Pueblo	WS	Fluoride	Filtered	4	4	Normal	0.05	All Data
PU-10229	Pueblo at 502	Pueblo	WS	Manganese	Filtered	4	4	Normal	0.05	All Data
PU-10229	Pueblo at 502	Pueblo	WS	Uranium	Filtered	3	3	Normal	0.05	All Data
PU-10229	Pueblo at 502	Pueblo	WS	Vanadium	Filtered	4	4	Normal	0.05	All Data
PU-10229	Pueblo at 502	Pueblo	WS	Thallium	Filtered	4	2	n/a		Max Detect
PU-10229	Pueblo at 502	Pueblo	WS	Aluminum	Unfiltered	4	3	LogNormal	0.05	Helsel
PU-10229	Pueblo at 502	Pueblo	WS	Arsenic	Unfiltered	4	3	Normal	0.05	Helsel
PU-10229	Pueblo at 502	Pueblo	WS	Iron	Unfiltered	4	4	Normal	0.05	All Data
PU-10229	Pueblo at 502	Pueblo	WS	Lead	Unfiltered	4	3	Chebyshev	0.025	Helsel
PU-10229	Pueblo at 502	Pueblo	WS	Manganese	Unfiltered	4	4	Normal	0.05	All Data
PU-10229	Pueblo at 502	Pueblo	WS	Uranium	Unfiltered	3	3	Normal	0.05	All Data
PU-10229	Pueblo at 502	Pueblo	WS	Vanadium	Unfiltered	4	3	Normal	0.05	Helsel
PU-10230	Pueblo 3	Pueblo	WS	Arsenic	Filtered	4	3	Normal	0.05	Helsel

Table C-1 (continued)

Location ID	Name	Canyon	Media Code[a]	Analyte Name	Field Prep	n	Detects	Data Distribution	Significance Level for the UCL[b]	Data Source for UCL Calculation
PU-10230	Pueblo 3	Pueblo	WS	Fluoride	Filtered	4	4	Normal	0.05	All Data
PU-10230	Pueblo 3	Pueblo	WS	Manganese	Filtered	4	4	Normal	0.05	All Data
PU-10230	Pueblo 3	Pueblo	WS	Vanadium	Filtered	4	4	Normal	0.05	All Data
PU-10230	Pueblo 3	Pueblo	WS	Thallium	Filtered	4	1	n/a		Max Detect
PU-10230	Pueblo 3	Pueblo	WS	Arsenic	Unfiltered	4	3	Normal	0.05	Helsel
PU-10230	Pueblo 3	Pueblo	WS	Bis(2-ethylhexyl)phthalate	Unfiltered	4	3	Normal	0.05	Helsel
PU-10230	Pueblo 3	Pueblo	WS	Iron	Unfiltered	4	4	Normal	0.05	All Data
PU-10230	Pueblo 3	Pueblo	WS	Lead	Unfiltered	4	3	Normal	0.05	Helsel
PU-10230	Pueblo 3	Pueblo	WS	Manganese	Unfiltered	4	4	Normal	0.05	All Data
PU-10230	Pueblo 3	Pueblo	WS	Vanadium	Unfiltered	4	4	Normal	0.05	All Data
PU-10230	Pueblo 3	Pueblo	WS	Thallium	Unfiltered	4	1	n/a		Max Detect
PU-10231	Pueblo 2	Pueblo	WS	Benzo(a)anthracene	Unfiltered	1	1	n/a		Max Detect
PU-10231	Pueblo 2	Pueblo	WS	Benzo(a)pyrene	Unfiltered	1	1	n/a		Max Detect
PU-10231	Pueblo 2	Pueblo	WS	Benzo(b)fluoranthene	Unfiltered	1	1	n/a		Max Detect
PU-10231	Pueblo 2	Pueblo	WS	Indeno(1,2,3-cd)pyrene	Unfiltered	1	1	n/a		Max Detect

[a] WS = Surface water. WGA = Groundwater.

[b] Blank cells are not applicable.

[c] n/a = Not applicable.

Table C-2
Calculation of Area Weighted UCLs for Sediment

Analyte Name	Bin	n	Detects[a]	Mean[a]	Variance[a]	Maximum Value[a]	Data Distribution[a]	Data Source for Calculations[a]	Pooled Degrees of Freedom[a]	Fractional Weights[a]	Total Weights[a]
Reach LA-1C											
Aroclor-1254	2	3	0					No Detects		0.155	806
Aroclor-1254	4	6	1			0.47	n/a[b]	Max Value		0.709	3690
Aroclor-1260	2	3	3	0.657	0.0582		Normal	All Data	7	0.155	806
Aroclor-1260	4	6	4	0.111	0.0167		LogNormal	Helsel	7	0.709	3690
Benzo(a)pyrene	2	3	3	0.177	0.000633		Normal	All Data	2	0.155	806
Benzo(a)pyrene	4	3	1			0.22	n/a	Max Value	2	0.709	3690
Reach LA-1E											
Cesium-137	1	1	0					No Detects		0.0971	596
Cesium-137	2	2	1			2.9	n/a	Max Value		0.353	2170
Cesium-137	5	1	0					No Detects		0.55	3370
Plutonium-239	1	1	1			0.09	n/a	Max Value	5	0.0971	596
Plutonium-239	2	13	13	1.86	0.956		LogNormal	All Data	5	0.353	2170
Plutonium-239	5	6	6	5.4	26.7		LogNormal	All Data	5	0.55	3370
Reach LA-2W											
Cesium-137	1	1	0					No Detects	2	0.11	349
Cesium-137	2	3	1	0.448	0.0266		Normal	All Data	2	0.161	510
Cesium-137	4	1	1			1.6	n/a	Max Value	2	0.728	2300
Plutonium-239	1	1	1			0.211	n/a	Max Value	11	0.11	349
Plutonium-239	2	7	7	3.43	8.95		LogNormal	All Data	11	0.161	510
Plutonium-239	4	7	7	1.5	0.666		Normal	All Data	11	0.728	2300
Strontium-90	1	1	0					No Detects	4	0.11	349
Strontium-90	2	5	2	1.18	2.43		Normal	All Data	4	0.161	510
Strontium-90	4	3	0					No Detects	4	0.728	2300
Reach DP-1W											

Table C-2 (continued)

Analyte Name	Bin	n	Detects[a]	Mean[a]	Variance[a]	Maximum Value[a]	Data Distribution[a]	Data Source for Calculations[a]	Pooled Degrees of Freedom[a]	Fractional Weights[a]	Total Weights[a]
Benzo(a)anthracene	1	3	2			0.8	n/a	Max Value	3	0.349	154
Benzo(a)anthracene	2	4	4	1.21	1.49		Normal	All Data	3	0.651	287
Benzo(a)pyrene	1	3	1			0.74	n/a	Max Value	3	0.349	154
Benzo(a)pyrene	2	4	3	1.5	1.39		Normal	Helsel	3	0.651	287
Benzo(b)fluoranthene	1	3	2			1.2	n/a	Max Value	3	0.349	154
Benzo(b)fluoranthene	2	4	4	1.62	2.22		Normal	All Data	3	0.651	287
Dibenz(a,h)anthracene	1	3	0					No Detects		0.349	154
Dibenz(a,h)anthracene	2	4	1			0.98	n/a	Max Value		0.651	287
Heptachlor Epoxide	1	1	0					No Detects		0.349	154
Heptachlor Epoxide	2	3	1			0.11	n/a	Max Value		0.651	287
Indeno(1,2,3-cd)pyrene	1	3	1			0.55	n/a	Max Value		0.349	154
Indeno(1,2,3-cd)pyrene	2	4	2			3.8	n/a	Max Value		0.651	287
Reach DP-1C											
Aroclor-1260	1	5	0					No Detects		0.641	220
Aroclor-1260	2	3	1			1	n/a	Max Value		0.359	123
Benzo(a)anthracene	1	9	1			1.2	n/a	Max Value	3	0.641	220
Benzo(a)anthracene	2	4	3	0.329	0.119		Normal	Helsel	3	0.359	123
Benzo(a)pyrene	1	9	0					No Detects		0.641	220
Benzo(a)pyrene	2	4	1			0.75	n/a	Max Value		0.359	123
Benzo(b)fluoranthene	1	9	1			1.7	n/a	Max Value		0.641	220
Benzo(b)fluoranthene	2	4	1			0.77	n/a	Max Value		0.359	123
Lead	1	8	8	17.5	138		Bootstrap	All Data	2	0.641	220
Lead	2	3	3	143	7030		Bootstrap	All Data	2	0.359	123
Manganese	1	9	9	180	8660		Normal	All Data	8	0.641	220
Manganese	2	3	3	255	169		Normal	All Data	8	0.359	123
Reach DP-1E											

Table C-2 (continued)

Analyte Name	Bin	n	Detects[a]	Mean[a]	Variance[a]	Maximum Value[a]	Data Distribution[a]	Data Source for Calculations[a]	Pooled Degrees of Freedom[a]	Fractional Weights[a]	Total Weights[a]
Benzo(a)anthracene	1	1	1			0.29	n/a	Max Value	4	0.297	220
Benzo(a)anthracene	2	5	3	0.503	0.0925		Normal	Helsel	4	0.703	520
Benzo(a)pyrene	1	1	1			0.26	n/a	Max Value		0.297	220
Benzo(a)pyrene	2	5	2			0.83	n/a	Max Value		0.703	520
Benzo(b)fluoranthene	1	1	1			0.28	n/a	Max Value	4	0.297	220
Benzo(b)fluoranthene	2	5	3	0.574	0.157		Normal	Helsel	4	0.703	520
Reach DP-2											
Americium-241	1	1	0					No Detects	9	0.16	598
Americium-241	2	4	4	2.34	1.68		Normal	All Data	9	0.193	720
Americium-241	4	12	10	4.74	37.4		LogNormal	All Data	9	0.14	513
Americium-241	6	9	5	5.66	28.1		Normal	All Data	9	0.507	1890
Benzo(a)anthracene	1	1	0					No Detects	6	0.16	598
Benzo(a)anthracene	2	1	1			0.77	n/a	Max Value	6	0.193	720
Benzo(a)anthracene	4	5	5	0.291	0.0582		Normal	All Data	6	0.14	513
Benzo(a)anthracene	6	3	3	0.203	0.00173		Normal	All Data	6	0.507	1890
Benzo(a)pyrene	1	1	0					No Detects	3	0.16	598
Benzo(a)pyrene	2	1	1			0.72	n/a	Max Value	3	0.193	720
Benzo(a)pyrene	4	5	5	0.312	0.0571		Normal	All Data	3	0.14	513
Benzo(a)pyrene	6	3	3	0.24	0.0076		Normal	All Data	3	0.507	1890
Benzo(b)fluoranthene	1	1	0					No Detects	4	0.16	598
Benzo(b)fluoranthene	2	1	1			0.86	n/a	Max Value	4	0.193	720
Benzo(b)fluoranthene	4	5	3	0.363	0.106		LogNormal	Helsel	4	0.14	513
Benzo(b)fluoranthene	6	2	2			0.42	n/a	Max Value	4	0.507	1890
Cesium-137	1	1	1			0.27	n/a	Max Value	15	0.16	598
Cesium-137	2	4	4	4.69	2.38		Normal	All Data	15	0.193	720
Cesium-137	4	12	12	33.5	5720		LogNormal	All Data	15	0.14	513

Table C-2 (continued)

Analyte Name	Bin	n	Detects[a]	Mean[a]	Variance[a]	Maximum Value[a]	Data Distribution[a]	Data Source for Calculations[a]	Pooled Degrees of Freedom[a]	Fractional Weights[a]	Total Weights[a]
Cesium-137	6	9	9	25.3	607		Normal	All Data	15	0.507	1890
Dibenz(a,h)anthracene	1	1	0					No Detects		0.16	598
Dibenz(a,h)anthracene	2	1	0					No Detects		0.193	720
Dibenz(a,h)anthracene	4	5	1			0.4	n/a	Max Value		0.14	513
Dibenz(a,h)anthracene	6	2	0					No Detects		0.507	1890
Dinitro-2-methylphenol[4,6-]	1	1	0					No Detects		0.16	598
Dinitro-2-methylphenol[4,6-]	2	1	0					No Detects		0.193	720
Dinitro-2-methylphenol[4,6-]	4	5	1			1.9	n/a	Max Value		0.14	513
Dinitro-2-methylphenol[4,6-]	6	3	0					No Detects		0.507	1890
Lead	1	1	1			6.8	n/a	Max Value	2	0.16	598
Lead	2	1	1			33.1	n/a	Max Value	2	0.193	720
Lead	4	5	5	57.2	245	n/a	Normal	All Data	2	0.14	513
Lead	6	3	3	66	156	n/a	Normal	All Data	2	0.507	1890
Manganese	1	1	1			161	n/a	Max Value	3	0.16	598
Manganese	2	1	1			222	n/a	Max Value	3	0.193	720
Manganese	4	5	5	287	1700	n/a	Normal	All Data	3	0.14	513
Manganese	6	3	3	308	485	n/a	Normal	All Data	3	0.507	1890
Plutonium-239	1	1	1			0.0272	n/a	Max Value	4	0.16	598
Plutonium-239	2	4	4	0.506	0.0807	n/a	Normal	All Data	4	0.193	720
Plutonium-239	4	9	7	2.9	3.87	n/a	Normal	All Data	4	0.14	513
Plutonium-239	6	4	2	3.95	1.43	n/a	Normal	All Data	4	0.507	1890
Strontium-90	1	1	0					No Detects	9	0.16	598
Strontium-90	2	4	2	1.04	0.497	n/a	LogNormal	All Data	9	0.193	720
Strontium-90	4	12	9	10.2	98.7	n/a	Normal	All Data	9	0.14	513
Strontium-90	6	8	8	5.95	37.1	n/a	LogNormal	All Data	9	0.507	1890
Reach DP-3											

Table C-2 (continued)

Analyte Name	Bin	n	Detects[a]	Mean[a]	Variance[a]	Maximum Value[a]	Data Distribution[a]	Data Source for Calculations[a]	Pooled Degrees of Freedom[a]	Fractional Weights[a]	Total Weights[a]
Americium-241	1	1	0					No Detects	9	0.59	511
Americium-241	2	1	1			13	n/a	Max Value	9	0.12	104
Americium-241	4	7	6	23.1	1960		LogNormal	All Data	9	0.0944	81.8
Americium-241	5	7	5	12.1	103		Normal	All Data	9	0.196	170
Benzo(a)anthracene	1	1	1			0.026	n/a	Max Value		0.59	511
Benzo(a)anthracene	2	1	1			0.35	n/a	Max Value		0.12	104
Benzo(a)anthracene	4	3	1			0.66	n/a	Max Value		0.0944	81.8
Benzo(a)anthracene	5	1	0					No Detects		0.196	170
Benzo(a)pyrene	1	1	0					No Detects		0.59	511
Benzo(a)pyrene	2	1	1			0.4	n/a	Max Value		0.12	104
Benzo(a)pyrene	4	2	1			0.72	n/a	Max Value		0.0944	81.8
Benzo(a)pyrene	5	1	0					No Detects		0.196	170
Benzo(b)fluoranthene	1	1	1			0.037	n/a	Max Value		0.59	511
Benzo(b)fluoranthene	2	1	1			0.63	n/a	Max Value		0.12	104
Benzo(b)fluoranthene	4	2	2			1.3	n/a	Max Value		0.0944	81.8
Benzo(b)fluoranthene	5	1	0					No Detects		0.196	170
Cesium-137	1	1	1			1.03	n/a	Max Value	12	0.59	511
Cesium-137	2	1	1			10.3	n/a	Max Value	12	0.12	104
Cesium-137	4	7	7	83.4	4100		Normal	All Data	12	0.0944	81.8
Cesium-137	5	7	5	25.5	662		Normal	All Data	12	0.196	170
Lead	1	1	1			9.8	n/a	Max Value	2	0.59	511
Lead	2	1	1			37.2	n/a	Max Value	2	0.12	104
Lead	4	3	3	58.4	367		Normal	All Data	2	0.0944	81.8
Lead	5	1	1			11.6	n/a	Max Value	2	0.196	170
Plutonium-239	1	1	1			0.084	n/a	Max Value	6	0.59	511
Plutonium-239	2	1	1			2.47	n/a	Max Value	6	0.12	104

Table C-2 (continued)

Analyte Name	Bin	n	Detects[a]	Mean[a]	Variance[a]	Maximum Value[a]	Data Distribution[a]	Data Source for Calculations[a]	Pooled Degrees of Freedom[a]	Fractional Weights[a]	Total Weights[a]
Plutonium-239	4	7	7	7.02	18.6		Normal	All Data	6	0.0944	81.8
Plutonium-239	5	1	1			0.102	n/a	Max Value	6	0.196	170
Strontium-90	1	1	0					No Detects	3	0.59	511
Strontium-90	2	1	1			2.38	n/a	Max Value	3	0.12	104
Strontium-90	4	4	4	8.38	55.7		Normal	All Data	3	0.0944	81.8
Strontium-90	5	1	1			1.06	n/a	Max Value	3	0.196	170
Trichlorophenol[2,4,6-]	1	1	0					No Detects		0.59	511
Trichlorophenol[2,4,6-]	2	1	0					No Detects		0.12	104
Trichlorophenol[2,4,6-]	4	3	1			9.3	n/a	Max Value		0.0944	81.8
Trichlorophenol[2,4,6-]	5	1	0					No Detects		0.196	170
Reach DP-4											
Americium-241	1	1	0					No Detects	4	0.649	1670
Americium-241	2	4	4	6.48	43.2		Normal	All Data	4	0.254	655
Americium-241	4	8	7	8.24	96.5		LogNormal	All Data	4	0.0968	250
Cesium-137	1	1	1			1.11	n/a	Max Value	10	0.649	1670
Cesium-137	2	4	4	13	84.1		Normal	All Data	10	0.254	655
Cesium-137	4	8	8	87	1890		Normal	All Data	10	0.0968	250
Plutonium-239	1	1	1			0.054	n/a	Max Value	8	0.649	1670
Plutonium-239	2	4	4	1.19	0.884		Normal	All Data	8	0.254	655
Plutonium-239	4	8	8	10.5	199		Bootstrap	All Data	8	0.0968	250
Strontium-90	1	1	0					No Detects	10	0.649	1670
Strontium-90	2	4	4	2.72	3.79		Normal	All Data	10	0.254	655
Strontium-90	4	8	8	15.2	138		Normal	All Data	10	0.0968	250
Reach LA-2E											
Americium-241	1	2	1			0.278	n/a	Max Value	19	0.186	1320
Americium-241	2	20	16	6.41	67.4		Bootstrap	All Data	19	0.716	5070

Table C-2 (continued)

Analyte Name	Bin	n	Detects[a]	Mean[a]	Variance[a]	Maximum Value[a]	Data Distribution[a]	Data Source for Calculations[a]	Pooled Degrees of Freedom[a]	Fractional Weights[a]	Total Weights[a]
Americium-241	4	7	7	5.41	17.5		Normal	All Data	19	0.021	149
Aroclor-1260	1	1	1			0.016	n/a	Max Value	2	0.186	1320
Aroclor-1260	2	3	3	0.062	0.000277		Normal	All Data	2	0.716	5070
Aroclor-1260	4	2	2			0.23	n/a	Max Value	2	0.021	149
Benzo(a)pyrene	1	1	1			0.128	n/a	Max Value	2	0.186	1320
Benzo(a)pyrene	2	3	3	0.232	0.028		Normal	All Data	2	0.716	5070
Benzo(a)pyrene	4	2	2			0.655	n/a	Max Value	2	0.021	149
Benzo(b)fluoranthene	1	1	1			0.174	n/a	Max Value	2	0.186	1320
Benzo(b)fluoranthene	2	3	3	0.34	0.0771		Normal	All Data	2	0.716	5070
Benzo(b)fluoranthene	4	2	2			0.66	n/a	Max Value	2	0.021	149
Cesium-137	1	2	2			2.88	n/a	Max Value	19	0.186	1320
Cesium-137	2	20	20	12.5	85.1		Normal	All Data	19	0.716	5070
Cesium-137	4	7	6	22.4	187		Normal	All Data	19	0.021	149
Europium-152	1	2	0					No Detects	19	0.186	1320
Europium-152	2	20	1	0.447	0.201		Bootstrap	All Data	19	0.716	5070
Europium-152	4	7	0					No Detects	19	0.021	149
Plutonium-239	1	2	1			0.221	n/a	Max Value	11	0.186	1320
Plutonium-239	2	12	12	2.23	11.6		LogNormal	All Data	11	0.716	5070
Plutonium-239	4	5	5	2.2	0.879		Normal	All Data	11	0.021	149
Strontium-90	1	2	2			1.22	n/a	Max Value	9	0.186	1320
Strontium-90	2	10	10	3.7	4.46		Normal	All Data	9	0.716	5070
Strontium-90	4	5	5	1.87	0.346		Normal	All Data	9	0.021	149
Thorium-230	1	1	1			1.16	n/a	Max Value		0.186	1320
Thorium-230	2	2	2			1.8	n/a	Max Value		0.716	5070
Thorium-230	4	2	2			2.44	n/a	Max Value		0.021	149
Reach LA-2FE											

Table C-2 (continued)

Analyte Name	Bin	n	Detects[a]	Mean[a]	Variance[a]	Maximum Value[a]	Data Distribution[a]	Data Source for Calculations[a]	Pooled Degrees of Freedom[a]	Fractional Weights[a]	Total Weights[a]
Americium-241	1	1	1			0.8	n/a	Max Value	3	0.136	2160
Americium-241	3	4	4	7.22	59.3		Normal	All Data	3	0.194	3070
Americium-241	5	7	4	1.08	1.1		Normal	All Data	3	0.25	3970
Americium-241	7	13	7	1.27	0.529		Normal	All Data	3	0.0329	522
Americium-241	9	11	3	0.639	1.15		LogNormal	All Data	3	0.387	6150
Cesium-137	1	1	1			2.36	n/a	Max Value	16	0.136	2160
Cesium-137	3	4	4	9.19	23.6		Normal	All Data	16	0.194	3070
Cesium-137	5	7	7	25.5	141		Normal	All Data	16	0.25	3970
Cesium-137	7	13	13	64.9	1080		Normal	All Data	16	0.0329	522
Cesium-137	9	11	11	19.5	352		Normal	All Data	16	0.387	6150
Plutonium-239	1	1	1			0.365	n/a	Max Value	7	0.136	2160
Plutonium-239	3	4	4	2.08	3.92		Normal	All Data	7	0.194	3070
Plutonium-239	5	7	7	1.69	1.04		Normal	All Data	7	0.25	3970
Plutonium-239	7	13	13	4.07	12.6		Bootstrap	All Data	7	0.0329	522
Plutonium-239	9	11	11	1.27	0.761		Normal	All Data	7	0.387	6150
Strontium-90	1	1	0					No Detects	17	0.136	2160
Strontium-90	3	4	3	1.45	0.657		Normal	All Data	17	0.194	3070
Strontium-90	5	7	7	5.09	8.11		Normal	All Data	17	0.25	3970
Strontium-90	7	13	13	10.3	36.2		Normal	All Data	17	0.0329	522
Strontium-90	9	11	11	4.41	12.2		LogNormal	All Data	17	0.387	6150
Reach LA-3W											
Americium-241	2	4	3	2.78	4.86		Normal	All Data	5	0.265	1350
Americium-241	4	5	5	2.19	1.67		Normal	All Data	5	0.29	1470
Americium-241	6	3	1	0.477	0.206		Normal	All Data	5	0.276	1400
Cesium-137	2	4	4	5.83	6.33		Normal	All Data	6	0.265	1350
Cesium-137	4	5	5	17.8	234		Normal	All Data	6	0.29	1470

Table C-2 (continued)

Analyte Name	Bin	n	Detects[a]	Mean[a]	Variance[a]	Maximum Value[a]	Data Distribution[a]	Data Source for Calculations[a]	Pooled Degrees of Freedom[a]	Fractional Weights[a]	Total Weights[a]
Cesium-137	6	3	3	6.71	39.9		Normal	All Data	6	0.276	1400
Strontium-90	2	4	2	0.728	0.0885		Normal	All Data	4	0.265	1350
Strontium-90	4	5	5	4.12	12.9		Normal	All Data	4	0.29	1470
Strontium-90	6	2	2			2.19	n/a	Max Value	4	0.276	1400
Reach LA-3E											
Americium-241	1	3	2	0.198	0.0108		Normal	All Data	13	0.312	897
Americium-241	2	14	10	0.769	0.496		Bootstrap	All Data	13	0.377	1080
Americium-241	4	13	9	3.56	31.3		LogNormal	All Data	13	0.29	834
Cesium-137	1	3	3	1.03	0.232		LogNormal	All Data	24	0.312	897
Cesium-137	2	14	13	3.23	5.84		Normal	All Data	24	0.377	1080
Cesium-137	4	13	13	7.67	16.5		Normal	All Data	24	0.29	834
Cobalt-60	1	3	0					No Detects	26	0.312	897
Cobalt-60	2	14	1	0.0512	0.00452		Normal	All Data	26	0.377	1080
Cobalt-60	4	13	2	0.0506	0.00572		Normal	All Data	26	0.29	834
Europium-152	1	3	0					No Detects	5	0.312	897
Europium-152	2	14	1	0.197	0.0338		Normal	All Data	5	0.377	1080
Europium-152	4	13	0					No Detects	5	0.29	834
Strontium-90	1	1	0					No Detects	5	0.312	897
Strontium-90	2	5	2	1.8	5.99		LogNormal	All Data	5	0.377	1080
Strontium-90	4	7	5	1.64	1.19		Normal	All Data	5	0.29	834
Thorium-228	1	1	1			0.728	n/a	Max Value	2	0.312	897
Thorium-228	2	2	2			2.9	n/a	Max Value	2	0.377	1080
Thorium-228	4	3	3	2.01	0.00583		Normal	All Data	2	0.29	834
Thorium-230	1	1	1			0.574	n/a	Max Value	2	0.312	897
Thorium-230	2	2	2			2.61	n/a	Max Value	2	0.377	1080
Thorium-230	4	3	3	1.61	0.0114		Normal	All Data	2	0.29	834

Table C-2 (continued)

Analyte Name	Bin	n	Detects[a]	Mean[a]	Variance[a]	Maximum Value[a]	Data Distribution[a]	Data Source for Calculations[a]	Pooled Degrees of Freedom[a]	Fractional Weights[a]	Total Weights[a]
Thorium-232	1	1	1			0.703	n/a	Max Value	2	0.312	897
Thorium-232	2	2	2			2.64	n/a	Max Value	2	0.377	1080
Thorium-232	4	3	3	1.88	0.01		Normal	All Data	2	0.29	834
Reach AC-1											
Arsenic	1	1	1			2	n/a	Max Value	4	0.173	58.3
Arsenic	2	5	5	3.78	0.167		Normal	All Data	4	0.827	279
Benzo(a)anthracene	1	1	1			0.46	n/a	Max Value	4	0.173	58.3
Benzo(a)anthracene	2	5	5	2.1	4.63		Normal	All Data	4	0.827	279
Benzo(a)pyrene	1	1	1			0.45	n/a	Max Value	4	0.173	58.3
Benzo(a)pyrene	2	5	5	2.28	5.12		Normal	All Data	4	0.827	279
Benzo(b)fluoranthene	1	1	1			0.71	n/a	Max Value	4	0.173	58.3
Benzo(b)fluoranthene	2	5	5	3.05	7.08		Normal	All Data	4	0.827	279
Dibenz(a,h)anthracene	1	1	0					No Detects		0.173	58.3
Dibenz(a,h)anthracene	2	5	1			0.41	n/a	Max Value		0.827	279
Indeno(1,2,3-cd)pyrene	1	1	0					No Detects	4	0.173	58.3
Indeno(1,2,3-cd)pyrene	2	5	4	0.908	0.629		Normal	Helsel	4	0.827	279
Reach AC-2											
Arsenic	1	1	1			1.6	n/a	Max Value	4	0.313	169
Arsenic	2	5	5	4.04	0.493		Normal	All Data	4	0.687	370
Benzo(a)anthracene	1	1	1			0.27	n/a	Max Value	4	0.313	169
Benzo(a)anthracene	2	5	5	1.71	1.01		Normal	All Data	4	0.687	370
Benzo(a)pyrene	1	1	1			0.26	n/a	Max Value	4	0.313	169
Benzo(a)pyrene	2	5	5	1.84	1.5		Normal	All Data	4	0.687	370
Benzo(b)fluoranthene	1	1	1			0.37	n/a	Max Value	4	0.313	169
Benzo(b)fluoranthene	2	5	5	3.17	4.82		Normal	All Data	4	0.687	370
Indeno(1,2,3-cd)pyrene	1	1	0					No Detects	4	0.313	169

Table C-2 (continued)

Analyte Name	Bin	n	Detects[a]	Mean[a]	Variance[a]	Maximum Value[a]	Data Distribution[a]	Data Source for Calculations[a]	Pooled Degrees of Freedom[a]	Fractional Weights[a]	Total Weights[a]
Indeno(1,2,3-cd)pyrene	2	5	4	0.847	0.128		Normal	Helsel	4	0.687	370
Reach ACS											
Americium-241	1	2	0					No Detects	11	0.217	242
Americium-241	3	12	12	4.25	7.5		Normal	All Data	11	0.766	854
Aroclor-1254	1	2	1			0.018	n/a	Max Value	13	0.217	242
Aroclor-1254	3	14	14	0.236	0.067		LogNormal	All Data	13	0.766	854
Benzo(a)pyrene	1	3	2			0.13	n/a	Max Value		0.217	242
Benzo(a)pyrene	3	15	2			0.17	n/a	Max Value		0.766	854
Cesium-137	1	3	1	0.105	0.0171		Normal	All Data	11	0.217	242
Cesium-137	3	12	12	1.61	2.8		LogNormal	All Data	11	0.766	854
Dieldrin	1	2	0					No Detects	13	0.217	242
Dieldrin	3	14	6	0.00656	6.35E-05		LogNormal	Helsel	13	0.766	854
Lead	1	2	2			59	n/a	Max Value	11	0.217	242
Lead	3	12	12	85	2610		Normal	All Data	11	0.766	854
Mercury	1	2	2			0.015	n/a	Max Value	12	0.217	242
Mercury	3	13	13	0.569	0.279		LogNormal	All Data	12	0.766	854
Nitroso-di-n-propylamine[N-]	1	3	0					No Detects		0.217	242
Nitroso-di-n-propylamine[N-]	3	15	0					No Detects		0.766	854
Plutonium-239	1	2	2			14.7	n/a	Max Value	33	0.217	242
Plutonium-239	3	34	33	130	19100		LogNormal	All Data	33	0.766	854
Strontium-90	1	1	0					No Detects	11	0.217	242
Strontium-90	3	12	10	0.633	0.21		Normal	All Data	11	0.766	854
Uranium	1	3	3	1.56	0.000714		Bootstrap	All Data	11	0.217	242
Uranium	3	12	12	6.65	6.26		Normal	All Data	11	0.766	854
Reach AC-3											

Table C-2 (continued)

Analyte Name	Bin	n	Detects[a]	Mean[a]	Variance[a]	Maximum Value[a]	Data Distribution[a]	Data Source for Calculations[a]	Pooled Degrees of Freedom[a]	Fractional Weights[a]	Total Weights[a]
Americium-241	1	1	1			0.64	n/a	Max Value	9	0.568	1350
Americium-241	2	10	9	21.3	4770		LogNormal	All Data	9	0.437	1040
Aroclor-1254	1	1	0					No Detects	7	0.568	1350
Aroclor-1254	2	8	6	1.53	28.8		LogNormal	Helsel	7	0.437	1040
Benzo(a)anthracene	1	1	1			0.079	n/a	Max Value		0.568	1350
Benzo(a)anthracene	2	5	2			1.8	n/a	Max Value		0.437	1040
Benzo(a)pyrene	1	1	1			0.11	n/a	Max Value		0.568	1350
Benzo(a)pyrene	2	5	2			1.5	n/a	Max Value		0.437	1040
Benzo(b)fluoranthene	1	1	1			0.15	n/a	Max Value		0.568	1350
Benzo(b)fluoranthene	2	5	2			2.9	n/a	Max Value		0.437	1040
Cesium-137	1	1	0					No Detects	9	0.568	1350
Cesium-137	2	10	8	5	181		LogNormal	All Data	9	0.437	1040
Lead	1	1	1			54.9	n/a	Max Value	9	0.568	1350
Lead	2	10	10	69	3420		Normal	All Data	9	0.437	1040
Manganese	1	1	1			267	n/a	Max Value	9	0.568	1350
Manganese	2	10	10	375	10400		Normal	All Data	9	0.437	1040
Mercury	1	1	1			0.07	n/a	Max Value	9	0.568	1350
Mercury	2	10	9	0.434	0.593		LogNormal	Helsel	9	0.437	1040
Plutonium-239	1	2	2			12.6	n/a	Max Value	14	0.568	1350
Plutonium-239	2	15	15	88.2	18200		LogNormal	All Data	14	0.437	1040
Strontium-90	1	1	0					No Detects	7	0.568	1350
Strontium-90	2	8	5	5.46	126		LogNormal	All Data	7	0.437	1040
Reach P-1E											
2,3,7,8-TCDD TEQ Total	1	1	0					No Detects		0.229	1430
2,3,7,8-TCDD TEQ Total	2	2	2			4.96E-06	n/a	Max Value		0.219	1360
2,3,7,8-TCDD TEQ Total	4	1	0					No Detects		0.0113	70.6

Table C-2 (continued)

Analyte Name	Bin	n	Detects[a]	Mean[a]	Variance[a]	Maximum Value[a]	Data Distribution[a]	Data Source for Calculations[a]	Pooled Degrees of Freedom[a]	Fractional Weights[a]	Total Weights[a]
2,3,7,8-TCDD TEQ Total	6	2	2			2.63E-06	n/a	Max Value		0.378	2350
Americium-241	1	1	1			0.209	n/a	Max Value	4	0.229	1430
Americium-241	2	1	1			0.828	n/a	Max Value	4	0.219	1360
Americium-241	4	5	5	3.61	18.2		Normal	All Data	4	0.0113	70.6
Americium-241	6	1	0					No Detects	4	0.378	2350
Aroclor-1254	1	1	0					No Detects		0.229	1430
Aroclor-1254	2	1	0					No Detects		0.219	1360
Aroclor-1254	4	3	2			0.238	n/a	Max Value		0.0113	70.6
Aroclor-1254	6	1	0					No Detects		0.378	2350
Benzo(a)anthracene	1	1	0					No Detects		0.229	1430
Benzo(a)anthracene	2	1	1			0.55	n/a	Max Value		0.219	1360
Benzo(a)anthracene	4	3	2			1	n/a	Max Value		0.0113	70.6
Benzo(a)anthracene	6	1	0					No Detects		0.378	2350
Benzo(a)pyrene	1	1	1			0.052	n/a	Max Value		0.229	1430
Benzo(a)pyrene	2	1	1			0.67	n/a	Max Value		0.219	1360
Benzo(a)pyrene	4	3	2			1.8	n/a	Max Value		0.0113	70.6
Benzo(a)pyrene	6	1	0					No Detects		0.378	2350
Benzo(b)fluoranthene	1	1	1			0.07	n/a	Max Value		0.229	1430
Benzo(b)fluoranthene	2	1	1			0.86	n/a	Max Value		0.219	1360
Benzo(b)fluoranthene	4	3	2			2.5	n/a	Max Value		0.0113	70.6
Benzo(b)fluoranthene	6	1	0					No Detects		0.378	2350
Cesium-137	1	1	0					No Detects	4	0.229	1430
Cesium-137	2	1	1			0.34	n/a	Max Value	4	0.219	1360
Cesium-137	4	5	3	0.332	0.0597		Normal	All Data	4	0.0113	70.6
Cesium-137	6	1	1			1.53	n/a	Max Value	4	0.378	2350
Dibenz(a,h)anthracene	1	1	0					No Detects		0.229	1430

Table C-2 (continued)

Analyte Name	Bin	n	Detects[a]	Mean[a]	Variance[a]	Maximum Value[a]	Data Distribution[a]	Data Source for Calculations[a]	Pooled Degrees of Freedom[a]	Fractional Weights[a]	Total Weights[a]
Dibenz(a,h)anthracene	2	1	0					No Detects		0.219	1360
Dibenz(a,h)anthracene	4	3	2			0.18	n/a	Max Value		0.0113	70.6
Dibenz(a,h)anthracene	6	1	0					No Detects		0.378	2350
Indeno(1,2,3-cd)pyrene	1	1	0					No Detects		0.229	1430
Indeno(1,2,3-cd)pyrene	2	1	1			0.28	n/a	Max Value		0.219	1360
Indeno(1,2,3-cd)pyrene	4	3	2			0.66	n/a	Max Value		0.0113	70.6
Indeno(1,2,3-cd)pyrene	6	1	0					No Detects		0.378	2350
Plutonium-239	1	4	4	4.72	2.83		Normal	All Data	7	0.229	1430
Plutonium-239	2	20	20	16.6	54.8		LogNormal	All Data	7	0.219	1360
Plutonium-239	4	15	15	98.4	14800		LogNormal	All Data	7	0.0113	70.6
Plutonium-239	6	7	7	10.4	165		Normal	All Data	7	0.378	2350
Strontium-90	1	1	1			1.03	n/a	Max Value		0.229	1430
Strontium-90	2	1	0					No Detects		0.219	1360
Strontium-90	4	2	1			0.95	n/a	Max Value		0.0113	70.6
Strontium-90	6	1	1			1.4	n/a	Max Value		0.378	2350
Reach P-2W											
Plutonium-239	1	1	1			1.56	n/a	Max Value	32	0.122	1370
Plutonium-239	2	33	33	10.2	124		LogNormal	All Data	32	0.878	9850
Reach P-3W											
Plutonium-239	1	5	5	0.622	0.0578		Normal	All Data	9	0.232	2890
Plutonium-239	2	12	12	1.79	2.21		LogNormal	All Data	9	0.82	10200
Plutonium-239	3	7	7	10.2	125		LogNormal	All Data	9	0.18	2250
Reach P-4W											
Arsenic	1	1	0					No Detects		0.0374	1850
Arsenic	2	2	1			5.1	n/a	Max Value		0.785	38900
Arsenic	5	3	2			2.3	n/a	Max Value		0.0988	4900

Table C-2 (continued)

Analyte Name	Bin	n	Detects[a]	Mean[a]	Variance[a]	Maximum Value[a]	Data Distribution[a]	Data Source for Calculations[a]	Pooled Degrees of Freedom[a]	Fractional Weights[a]	Total Weights[a]
Arsenic	6	1	0					No Detects		0.116	5740
Benzo(a)pyrene	1	1	0					No Detects		0.0374	1850
Benzo(a)pyrene	2	2	0					No Detects		0.785	38900
Benzo(a)pyrene	5	1	0					No Detects		0.0988	4900
Benzo(a)pyrene	6	1	0					No Detects		0.116	5740
Benzo(b)fluoranthene	1	1	0					No Detects		0.0374	1850
Benzo(b)fluoranthene	2	2	1			0.05	n/a	Max Value		0.785	38900
Benzo(b)fluoranthene	5	1	0					No Detects		0.0988	4900
Benzo(b)fluoranthene	6	1	0					No Detects		0.116	5740
Plutonium-239	1	1	0					No Detects	6	0.0374	1850
Plutonium-239	2	11	11	5.45	3.19		Normal	All Data	6	0.785	38900
Plutonium-239	5	6	6	36.3	1670		LogNormal	All Data	6	0.0988	4900
Plutonium-239	6	3	2	0.383	0.0608		Normal	All Data	6	0.116	5740
Reach P-4E											
Manganese	2	2	2			309	n/a	Max Value		1	60400
Reach LA-4W											
Americium-241	1	4	1	0.228	0.131		Normal	All Data	16	0.268	2440
Americium-241	4	13	9	0.898	1.47		LogNormal	All Data	16	0.215	1960
Americium-241	6	11	2	0.0795	0.0792		Normal	All Data	16	0.235	2150
Americium-241	8	8	0					No Detects	16	0.178	1620
Cesium-137	1	4	2	0.842	0.0965		Normal	All Data	28	0.268	2440
Cesium-137	4	13	13	1.53	1.46		LogNormal	All Data	28	0.215	1960
Cesium-137	6	11	5	0.813	0.755		Normal	All Data	28	0.235	2150
Cesium-137	8	8	3	0.387	0.237		Normal	All Data	28	0.178	1620
Europium-152	1	4	0					No Detects	8	0.268	2440
Europium-152	4	13	0					No Detects	8	0.215	1960

Table C-2 (continued)

Analyte Name	Bin	n	Detects[a]	Mean[a]	Variance[a]	Maximum Value[a]	Data Distribution[a]	Data Source for Calculations[a]	Pooled Degrees of Freedom[a]	Fractional Weights[a]	Total Weights[a]
Europium-152	6	11	1	0.108	0.0462		Normal	All Data	8	0.235	2150
Europium-152	8	8	0					No Detects	8	0.178	1620
Plutonium-239	1	4	4	0.686	0.0342		Normal	All Data	9	0.268	2440
Plutonium-239	4	13	13	1.56	1.08		LogNormal	All Data	9	0.215	1960
Plutonium-239	6	11	10	2.58	4.19		Normal	All Data	9	0.235	2150
Plutonium-239	8	8	8	7.39	37.4		Normal	All Data	9	0.178	1620

[a] Blank cells are not applicable.

[b] n/a = Not applicable.

Table C-3
Calculation of Volume Weighted UCLs for Sediment

Analyte Name	Bin	n	Detects[a]	Mean[a]	Variance[a]	Maximum Value[a]	Data Distribution[a]	Data Source for Calculations[a]	Pooled Degrees of Freedom[a]	Fractional Weights[a]	Total Weights[a]
Reach LA-1C											
Aroclor-1254	2	3	0					No Detects		0.134	250
Aroclor-1254	4	6	1			0.47	n/a[b]	Max Value		0.261	488
Aroclor-1260	2	3	3	0.657	0.0582		Normal	All Data	4	0.134	250
Aroclor-1260	4	6	4	0.111	0.0167		LogNormal	Helsel	4	0.261	488
Benzo(a)pyrene	2	3	3	0.177	0.000633		Normal	All Data	2	0.134	250
Benzo(a)pyrene	4	3	1			0.22	n/a	Max Value	2	0.261	488
Reach LA-1E											
Cesium-137	1	1	0					No Detects		0.111	298
Cesium-137	2	2	1			2.9	n/a	Max Value		0.224	602
Cesium-137	3	1	0					No Detects		0.223	601
Cesium-137	4	1	0					No Detects		0.18	484
Cesium-137	5	1	0					No Detects		0.263	708
Plutonium-239	1	1	1			0.09	n/a	Max Value	5	0.111	298
Plutonium-239	2	13	13	1.86	0.956		LogNormal	All Data	5	0.224	602
Plutonium-239	3	2	2			0.235	n/a	Max Value	5	0.223	601
Plutonium-239	4	2	2			2.19	n/a	Max Value	5	0.18	484
Plutonium-239	5	6	6	5.4	26.7		LogNormal	All Data	5	0.263	708
Reach LA-2W											
Cesium-137	1	1	0					No Detects	2	0.134	175
Cesium-137	2	3	1	0.448	0.0266		Normal	All Data	2	0.0941	122
Cesium-137	3	2	0					No Detects	2	0.584	759
Cesium-137	4	1	1			1.6	n/a	Max Value	2	0.188	245
Plutonium-239	1	1	1			0.211	n/a	Max Value	12	0.134	175
Plutonium-239	2	7	7	3.43	8.95		LogNormal	All Data	12	0.0941	122

Table C-3 (continued)

Analyte Name	Bin	n	Detects[a]	Mean[a]	Variance[a]	Maximum Value[a]	Data Distribution[a]	Data Source for Calculations[a]	Pooled Degrees of Freedom[a]	Fractional Weights[a]	Total Weights[a]
Plutonium-239	3	4	3	0.724	0.0606		Normal	All Data	12	0.584	759
Plutonium-239	4	7	7	1.5	0.666		Normal	All Data	12	0.188	245
Strontium-90	1	1	0					No Detects	2	0.134	175
Strontium-90	2	5	2	1.18	2.43		Normal	All Data	2	0.0941	122
Strontium-90	3	3	2	2.35	3.42		Normal	All Data	2	0.584	759
Strontium-90	4	3	0					No Detects	2	0.188	245
Reach DP-1W											
Benzo(a)anthracene	1	3	2			0.8	n/a	Max Value	3	0.344	72.1
Benzo(a)anthracene	2	4	4	1.21	1.49		Normal	All Data	3	0.656	138
Benzo(a)pyrene	1	3	1			0.74	n/a	Max Value	3	0.344	72.1
Benzo(a)pyrene	2	4	3	1.5	1.39		Normal	Helsel	3	0.656	138
Benzo(b)fluoranthene	1	3	2			1.2	n/a	Max Value	3	0.344	72.1
Benzo(b)fluoranthene	2	4	4	1.62	2.22		Normal	All Data	3	0.656	138
Dibenz(a,h)anthracene	1	3	0					No Detects		0.344	72.1
Dibenz(a,h)anthracene	2	4	1			0.98	n/a	Max Value		0.656	138
Heptachlor Epoxide	1	1	0					No Detects		0.344	72.1
Heptachlor Epoxide	2	3	1			0.11	n/a	Max Value		0.656	138
Indeno(1,2,3-cd)pyrene	1	3	1			0.55	n/a	Max Value		0.344	72.1
Indeno(1,2,3-cd)pyrene	2	4	2			3.8	n/a	Max Value		0.656	138
Reach DP-1C											
Aroclor-1260	1	5	0					No Detects		0.611	75.8
Aroclor-1260	2	3	1			1	n/a	Max Value		0.389	48.2
Benzo(a)anthracene	1	18	3	1.73	2.46		Bootstrap	Helsel	20	0.611	75.8
Benzo(a)anthracene	2	4	3	0.329	0.119		Normal	Helsel	20	0.389	48.2
Benzo(a)pyrene	1	18	1			0.062	n/a	Max Value		0.611	75.8
Benzo(a)pyrene	2	4	1			0.75	n/a	Max Value		0.389	48.2
Benzo(b)fluoranthene	1	18	2			1.7	n/a	Max Value		0.611	75.8

Table C-3 (continued)

Analyte Name	Bin	n	Detects[a]	Mean[a]	Variance[a]	Maximum Value[a]	Data Distribution[a]	Data Source for Calculations[a]	Pooled Degrees of Freedom[a]	Fractional Weights[a]	Total Weights[a]
Benzo(b)fluoranthene	2	4	1			0.77	n/a	Max Value		0.389	48.2
Lead	1	17	17	40.9	2560		Bootstrap	All Data	3	0.611	75.8
Lead	2	3	3	144	7140		Bootstrap	All Data	3	0.389	48.2
Manganese	1	18	18	221	53700		Bootstrap	All Data	17	0.611	75.8
Manganese	2	3	3	255	169		Normal	All Data	17	0.389	48.2
Reach DP-1E											
Benzo(a)anthracene	1	2	1			0.29	n/a	Max Value	4	0.268	86.5
Benzo(a)anthracene	2	5	3	0.503	0.0925		Normal	Helsel	4	0.732	236
Benzo(a)pyrene	1	2	1			0.26	n/a	Max Value		0.268	86.5
Benzo(a)pyrene	2	5	2			0.83	n/a	Max Value		0.732	236
Benzo(b)fluoranthene	1	2	1			0.28	n/a	Max Value	4	0.268	86.5
Benzo(b)fluoranthene	2	5	3	0.574	0.157		Normal	Helsel	4	0.732	236
Reach DP-2											
Americium-241	1	1	0					No Detects	12	0.126	299
Americium-241	2	4	4	2.34	1.68		Normal	All Data	12	0.153	365
Americium-241	3	2	2			1.23	n/a	Max Value	12	0.151	360
Americium-241	4	12	10	4.74	37.4		LogNormal	All Data	12	0.112	267
Americium-241	5	4	2	3.34	13.7		Normal	All Data	12	0.109	259
Americium-241	6	9	5	5.66	28.1		Normal	All Data	12	0.342	814
Americium-241	7	2	1			0.65	n/a	Max Value	12	0.00794	18.9
Benzo(a)anthracene	1	1	0					No Detects	6	0.126	299
Benzo(a)anthracene	2	1	1			0.77	n/a	Max Value	6	0.153	365
Benzo(a)anthracene	3	1	0					No Detects	6	0.151	360
Benzo(a)anthracene	4	5	5	0.291	0.0582		Normal	All Data	6	0.112	267
Benzo(a)anthracene	5	3	2			0.26	n/a	Max Value	6	0.109	259
Benzo(a)anthracene	6	3	3	0.203	0.00173		Normal	All Data	6	0.342	814
Benzo(a)anthracene	7	1	0					No Detects	6	0.00794	18.9

Table C-3 (continued)

Analyte Name	Bin	n	Detects[a]	Mean[a]	Variance[a]	Maximum Value[a]	Data Distribution[a]	Data Source for Calculations[a]	Pooled Degrees of Freedom[a]	Fractional Weights[a]	Total Weights[a]
Benzo(a)pyrene	1	1	0					No Detects	4	0.126	299
Benzo(a)pyrene	2	1	1			0.72	n/a	Max Value	4	0.153	365
Benzo(a)pyrene	3	1	0					No Detects	4	0.151	360
Benzo(a)pyrene	4	5	5	0.312	0.0571		Normal	All Data	4	0.112	267
Benzo(a)pyrene	5	3	2			0.251	n/a	Max Value	4	0.109	259
Benzo(a)pyrene	6	3	3	0.24	0.0076		Normal	All Data	4	0.342	814
Benzo(a)pyrene	7	1	0					No Detects	4	0.00794	18.9
Benzo(b)fluoranthene	1	1	0					No Detects	4	0.126	299
Benzo(b)fluoranthene	2	1	1			0.86	n/a	Max Value	4	0.153	365
Benzo(b)fluoranthene	3	1	0					No Detects	4	0.151	360
Benzo(b)fluoranthene	4	5	3	0.363	0.106		LogNormal	Helsel	4	0.112	267
Benzo(b)fluoranthene	5	3	2			0.36	n/a	Max Value	4	0.109	259
Benzo(b)fluoranthene	6	2	2			0.42	n/a	Max Value	4	0.342	814
Benzo(b)fluoranthene	7	1	0					No Detects	4	0.00794	18.9
Cesium-137	1	1	1			0.27	n/a	Max Value	7	0.126	299
Cesium-137	2	4	4	4.69	2.38		Normal	All Data	7	0.153	365
Cesium-137	3	2	2			36.3	n/a	Max Value	7	0.151	360
Cesium-137	4	12	12	33.5	5720		LogNormal	All Data	7	0.112	267
Cesium-137	5	4	4	82.9	7940		Normal	All Data	7	0.109	259
Cesium-137	6	9	9	25.3	607		Normal	All Data	7	0.342	814
Cesium-137	7	2	2			4.13	n/a	Max Value	7	0.00794	18.9
Dibenz(a,h)anthracene	1	1	0					No Detects		0.126	299
Dibenz(a,h)anthracene	2	1	0					No Detects		0.153	365
Dibenz(a,h)anthracene	3	1	0					No Detects		0.151	360
Dibenz(a,h)anthracene	4	5	1			0.4	n/a	Max Value		0.112	267
Dibenz(a,h)anthracene	5	3	0					No Detects		0.109	259
Dibenz(a,h)anthracene	6	2	0					No Detects		0.342	814

Table C-3 (continued)

Analyte Name	Bin	n	Detects[a]	Mean[a]	Variance[a]	Maximum Value[a]	Data Distribution[a]	Data Source for Calculations[a]	Pooled Degrees of Freedom[a]	Fractional Weights[a]	Total Weights[a]
Dibenz(a,h)anthracene	7	1	0					No Detects		0.00794	18.9
Dinitro-2-methylphenol[4,6-]	1	1	0					No Detects		0.126	299
Dinitro-2-methylphenol[4,6-]	2	1	0					No Detects		0.153	365
Dinitro-2-methylphenol[4,6-]	3	1	0					No Detects		0.151	360
Dinitro-2-methylphenol[4,6-]	4	5	1			1.9	n/a	Max Value		0.112	267
Dinitro-2-methylphenol[4,6-]	5	3	0					No Detects		0.109	259
Dinitro-2-methylphenol[4,6-]	6	3	0					No Detects		0.342	814
Dinitro-2-methylphenol[4,6-]	7	1	0					No Detects		0.00794	18.9
Lead	1	1	1			6.8	n/a	Max Value	3	0.126	299
Lead	2	1	1			33.1	n/a	Max Value	3	0.153	365
Lead	3	1	1			19.4	n/a	Max Value	3	0.151	360
Lead	4	5	5	57.2	245		Normal	All Data	3	0.112	267
Lead	5	3	3	33.9	194		Normal	All Data	3	0.109	259
Lead	6	3	3	66	156		Normal	All Data	3	0.342	814
Lead	7	1	0					No Detects	3	0.00794	18.9
Manganese	1	1	1			161	n/a	Max Value	5	0.126	299
Manganese	2	1	1			222	n/a	Max Value	5	0.153	365
Manganese	3	1	1			738	n/a	Max Value	5	0.151	360
Manganese	4	5	5	287	1700		Normal	All Data	5	0.112	267
Manganese	5	3	3	270	4220		Normal	All Data	5	0.109	259
Manganese	6	3	3	308	485		Normal	All Data	5	0.342	814
Manganese	7	1	0					No Detects	5	0.00794	18.9
Plutonium-239	1	1	1			0.0272	n/a	Max Value	4	0.126	299
Plutonium-239	2	4	4	0.506	0.0807		Normal	All Data	4	0.153	365
Plutonium-239	3	2	2			2.45	n/a	Max Value	4	0.151	360
Plutonium-239	4	9	7	2.9	3.87		Normal	All Data	4	0.112	267
Plutonium-239	5	2	2			11.1	n/a	Max Value	4	0.109	259

Table C-3 (continued)

Analyte Name	Bin	n	Detects[a]	Mean[a]	Variance[a]	Maximum Value[a]	Data Distribution[a]	Data Source for Calculations[a]	Pooled Degrees of Freedom[a]	Fractional Weights[a]	Total Weights[a]
Plutonium-239	6	4	2	3.95	1.43		Normal	All Data	4	0.342	814
Plutonium-239	7	1	0					No Detects	4	0.00794	18.9
Strontium-90	1	1	0					No Detects	12	0.126	299
Strontium-90	2	4	2	1.04	0.497		LogNormal	All Data	12	0.153	365
Strontium-90	3	2	2			3.88	n/a	Max Value	12	0.151	360
Strontium-90	4	12	9	10.2	98.7		Normal	All Data	12	0.112	267
Strontium-90	5	4	4	5.13	48.3		LogNormal	All Data	12	0.109	259
Strontium-90	6	8	8	5.95	37.1		LogNormal	All Data	12	0.342	814
Strontium-90	7	2	1			3.29	n/a	Max Value	12	0.00794	18.9
Reach DP-3											
Americium-241	1	1	0					No Detects	9	0.329	128
Americium-241	2	1	1			13	n/a	Max Value	9	0.105	40.7
Americium-241	3	4	3	1.48	4.08		LogNormal	All Data	9	0.124	48.1
Americium-241	4	7	6	23.1	1960		LogNormal	All Data	9	0.137	53.2
Americium-241	5	7	5	12.1	103		Normal	All Data	9	0.306	119
Benzo(a)anthracene	1	1	1			0.026	n/a	Max Value		0.329	128
Benzo(a)anthracene	2	1	1			0.35	n/a	Max Value		0.105	40.7
Benzo(a)anthracene	3	1	0					No Detects		0.124	48.1
Benzo(a)anthracene	4	3	1			0.66	n/a	Max Value		0.137	53.2
Benzo(a)anthracene	5	1	0					No Detects		0.306	119
Benzo(a)pyrene	1	1	0					No Detects		0.329	128
Benzo(a)pyrene	2	1	1			0.4	n/a	Max Value		0.105	40.7
Benzo(a)pyrene	3	1	0					No Detects		0.124	48.1
Benzo(a)pyrene	4	2	1			0.72	n/a	Max Value		0.137	53.2
Benzo(a)pyrene	5	1	0					No Detects		0.306	119
Benzo(b)fluoranthene	1	1	1			0.037	n/a	Max Value		0.329	128
Benzo(b)fluoranthene	2	1	1			0.63	n/a	Max Value		0.105	40.7

Table C-3 (continued)

Analyte Name	Bin	n	Detects[a]	Mean[a]	Variance[a]	Maximum Value[a]	Data Distribution[a]	Data Source for Calculations[a]	Pooled Degrees of Freedom[a]	Fractional Weights[a]	Total Weights[a]
Benzo(b)fluoranthene	3	1	0					No Detects		0.124	48.1
Benzo(b)fluoranthene	4	2	2			1.3	n/a	Max Value		0.137	53.2
Benzo(b)fluoranthene	5	1	0					No Detects		0.306	119
Cesium-137	1	1	1			1.03	n/a	Max Value	12	0.329	128
Cesium-137	2	1	1			10.3	n/a	Max Value	12	0.105	40.7
Cesium-137	3	4	4	8.12	22.3		Normal	All Data	12	0.124	48.1
Cesium-137	4	7	7	83.4	4100		Normal	All Data	12	0.137	53.2
Cesium-137	5	7	5	25.5	662		Normal	All Data	12	0.306	119
Lead	1	1	1			9.8	n/a	Max Value	2	0.329	128
Lead	2	1	1			37.2	n/a	Max Value	2	0.105	40.7
Lead	3	1	1			4.9	n/a	Max Value	2	0.124	48.1
Lead	4	3	3	58.4	367		Normal	All Data	2	0.137	53.2
Lead	5	1	1			11.6	n/a	Max Value	2	0.306	119
Plutonium-239	1	1	1			0.084	n/a	Max Value	6	0.329	128
Plutonium-239	2	1	1			2.47	n/a	Max Value	6	0.105	40.7
Plutonium-239	3	3	3	0.907	0.257		Normal	All Data	6	0.124	48.1
Plutonium-239	4	7	7	7.02	18.6		Normal	All Data	6	0.137	53.2
Plutonium-239	5	1	1			0.102	n/a	Max Value	6	0.306	119
Strontium-90	1	1	0					No Detects	3	0.329	128
Strontium-90	2	1	1			2.38	n/a	Max Value	3	0.105	40.7
Strontium-90	3	3	3	2.18	2.72		Normal	All Data	3	0.124	48.1
Strontium-90	4	4	4	8.38	55.7		Normal	All Data	3	0.137	53.2
Strontium-90	5	1	1			1.06	n/a	Max Value	3	0.306	119
Trichlorophenol[2,4,6-]	1	1	0					No Detects		0.329	128
Trichlorophenol[2,4,6-]	2	1	0					No Detects		0.105	40.7
Trichlorophenol[2,4,6-]	3	1	0					No Detects		0.124	48.1
Trichlorophenol[2,4,6-]	4	3	1			9.3	n/a	Max Value		0.137	53.2

Table C-3 (continued)

Analyte Name	Bin	n	Detects[a]	Mean[a]	Variance[a]	Maximum Value[a]	Data Distribution[a]	Data Source for Calculations[a]	Pooled Degrees of Freedom[a]	Fractional Weights[a]	Total Weights[a]
Trichlorophenol[2,4,6-]	5	1	0					No Detects		0.306	119
Reach DP-4											
Americium-241	1	1	0					No Detects	4	0.693	837
Americium-241	2	4	4	6.48	43.2		Normal	All Data	4	0.126	153
Americium-241	3	5	1	0.601	0.407		Normal	All Data	4	0.135	163
Americium-241	4	8	7	8.24	96.5		LogNormal	All Data	4	0.0455	54.9
Cesium-137	1	1	1			1.11	n/a	Max Value	7	0.693	837
Cesium-137	2	4	4	13	84.1		Normal	All Data	7	0.126	153
Cesium-137	3	5	5	20.8	511		LogNormal	All Data	7	0.135	163
Cesium-137	4	8	8	87	1890		Normal	All Data	7	0.0455	54.9
Plutonium-239	1	1	1			0.054	n/a	Max Value	10	0.693	837
Plutonium-239	2	4	4	1.19	0.884		Normal	All Data	10	0.126	153
Plutonium-239	3	5	5	1.76	2.69		Normal	All Data	10	0.135	163
Plutonium-239	4	8	8	10.3	217		Bootstrap	All Data	10	0.0455	54.9
Strontium-90	1	1	0					No Detects	14	0.693	837
Strontium-90	2	4	4	2.72	3.79		Normal	All Data	14	0.126	153
Strontium-90	3	5	5	4.04	6.88		Normal	All Data	14	0.135	163
Strontium-90	4	8	8	15.2	138		Normal	All Data	14	0.0455	54.9
Reach LA-2FE											
Americium-241	1	1	1			0.8	n/a	Max Value	3	0.00241	21.6
Americium-241	2	1	0					No Detects	3	0.12	1080
Americium-241	3	4	4	7.22	59.3		Normal	All Data	3	0.12	1080
Americium-241	4	1	1			2.05	n/a	Max Value	3	0.171	1540
Americium-241	5	7	4	1.08	1.1		Normal	All Data	3	0.0708	636
Americium-241	6	4	0					No Detects	3	0.249	2230
Americium-241	7	13	7	1.27	0.529		Normal	All Data	3	0.0384	345
Americium-241	8	3	2	0.51	0.128		Normal	All Data	3	0.0291	261

Table C-3 (continued)

Analyte Name	Bin	n	Detects[a]	Mean[a]	Variance[a]	Maximum Value[a]	Data Distribution[a]	Data Source for Calculations[a]	Pooled Degrees of Freedom[a]	Fractional Weights[a]	Total Weights[a]
Americium-241	9	11	3	0.639	1.15		LogNormal	All Data	3	0.199	1780
Cesium-137	1	1	1			2.36	n/a	Max Value	14	0.00241	21.6
Cesium-137	2	1	1			0.47	n/a	Max Value	14	0.12	1080
Cesium-137	3	4	4	9.19	23.6		Normal	All Data	14	0.12	1080
Cesium-137	4	1	1			8.9	n/a	Max Value	14	0.171	1540
Cesium-137	5	7	7	25.5	141		Normal	All Data	14	0.0708	636
Cesium-137	6	4	4	15.5	64.4		Normal	All Data	14	0.249	2230
Cesium-137	7	13	13	64.9	1080		Normal	All Data	14	0.0384	345
Cesium-137	8	3	3	17.2	130		Normal	All Data	14	0.0291	261
Cesium-137	9	11	11	19.5	352		Normal	All Data	14	0.199	1780
Plutonium-239	1	1	1			0.365	n/a	Max Value	6	0.00241	21.6
Plutonium-239	2	1	1			0.097	n/a	Max Value	6	0.12	1080
Plutonium-239	3	4	4	2.08	3.92		Normal	All Data	6	0.12	1080
Plutonium-239	4	1	1			1.21	n/a	Max Value	6	0.171	1540
Plutonium-239	5	7	7	1.69	1.04		Normal	All Data	6	0.0708	636
Plutonium-239	6	4	4	0.818	0.0992		Normal	All Data	6	0.249	2230
Plutonium-239	7	13	13	4.05	12.4		Bootstrap	All Data	6	0.0384	345
Plutonium-239	8	3	3	1.69	1.6		Normal	All Data	6	0.0291	261
Plutonium-239	9	11	11	1.27	0.761		Normal	All Data	6	0.199	1780
Strontium-90	1	1	0					No Detects	19	0.00241	21.6
Strontium-90	2	1	0					No Detects	19	0.12	1080
Strontium-90	3	4	3	1.45	0.657		Normal	All Data	19	0.12	1080
Strontium-90	4	1	1			0.56	n/a	Max Value	19	0.171	1540
Strontium-90	5	7	7	5.09	8.11		Normal	All Data	19	0.0708	636
Strontium-90	6	4	4	1.5	0.78		LogNormal	All Data	19	0.249	2230
Strontium-90	7	13	13	10.3	36.2		Normal	All Data	19	0.0384	345
Strontium-90	8	3	2	2.63	5.89		Normal	All Data	19	0.0291	261

Table C-3 (continued)

Analyte Name	Bin	n	Detects[a]	Mean[a]	Variance[a]	Maximum Value[a]	Data Distribution[a]	Data Source for Calculations[a]	Pooled Degrees of Freedom[a]	Fractional Weights[a]	Total Weights[a]
Strontium-90	9	11	11	4.41	12.2		LogNormal	All Data	19	0.199	1780
Reach LA-3W											
Americium-241	2	4	3	2.78	4.86		Normal	All Data	5	0.149	472
Americium-241	4	5	5	2.19	1.67		Normal	All Data	5	0.182	575
Americium-241	5	1	1			0.46	n/a	Max Value	5	0.251	794
Americium-241	6	3	1	0.477	0.206		Normal	All Data	5	0.0666	210
Cesium-137	2	4	4	5.83	6.33		Normal	All Data	4	0.149	472
Cesium-137	4	5	5	17.8	234		Normal	All Data	4	0.182	575
Cesium-137	5	1	1			5.7	n/a	Max Value	4	0.251	794
Cesium-137	6	3	3	6.71	39.9		Normal	All Data	4	0.0666	210
Strontium-90	2	4	2	0.728	0.0885		Normal	All Data	4	0.149	472
Strontium-90	4	5	5	4.12	12.9		Normal	All Data	4	0.182	575
Strontium-90	5	1	1			1.72	n/a	Max Value	4	0.251	794
Strontium-90	6	2	2			2.19	n/a	Max Value	4	0.0666	210
Reach LA-3E											
Americium-241	1	3	2	0.198	0.0108		Normal	All Data	13	0.225	480
Americium-241	2	14	10	0.769	0.5		Bootstrap	All Data	13	0.21	449
Americium-241	3	5	4	0.405	0.0978		Normal	All Data	13	0.155	330
Americium-241	4	13	9	3.56	31.3		LogNormal	All Data	13	0.215	459
Americium-241	5	5	3	0.498	0.158		Normal	All Data	13	0.195	417
Cesium-137	1	3	3	1.03	0.232		LogNormal	All Data	18	0.225	480
Cesium-137	2	14	13	3.23	5.84		Normal	All Data	18	0.21	449
Cesium-137	3	5	4	1.79	1.34		Normal	All Data	18	0.155	330
Cesium-137	4	13	13	7.67	16.5		Normal	All Data	18	0.215	459
Cesium-137	5	5	5	3.26	7.69		Normal	All Data	18	0.195	417
Cobalt-60	1	3	0					No Detects	31	0.225	480
Cobalt-60	2	14	1	0.0512	0.00452		Normal	All Data	31	0.21	449

Table C-3 (continued)

Analyte Name	Bin	n	Detects[a]	Mean[a]	Variance[a]	Maximum Value[a]	Data Distribution[a]	Data Source for Calculations[a]	Pooled Degrees of Freedom[a]	Fractional Weights[a]	Total Weights[a]
Cobalt-60	3	5	0					No Detects	31	0.155	330
Cobalt-60	4	13	2	0.0506	0.00572		Normal	All Data	31	0.215	459
Cobalt-60	5	5	0					No Detects	31	0.195	417
Europium-152	1	3	0					No Detects	8	0.225	480
Europium-152	2	14	1	0.197	0.0338		Normal	All Data	8	0.21	449
Europium-152	3	5	0					No Detects	8	0.155	330
Europium-152	4	13	0					No Detects	8	0.215	459
Europium-152	5	5	1	0.209	0.036		Normal	All Data	8	0.195	417
Strontium-90	1	1	0					No Detects	5	0.225	480
Strontium-90	2	5	2	1.8	5.99		LogNormal	All Data	5	0.21	449
Strontium-90	3	1	0					No Detects	5	0.155	330
Strontium-90	4	7	5	1.64	1.19		Normal	All Data	5	0.215	459
Strontium-90	5	3	0					No Detects	5	0.195	417
Thorium-228	1	1	1			0.728	n/a	Max Value	2	0.225	480
Thorium-228	2	2	2			2.9	n/a	Max Value	2	0.21	449
Thorium-228	3	1	0					No Detects	2	0.155	330
Thorium-228	4	3	3	2.01	0.00583		Normal	All Data	2	0.215	459
Thorium-228	5	1	0					No Detects	2	0.195	417
Thorium-230	1	1	1			0.574	n/a	Max Value	2	0.225	480
Thorium-230	2	2	2			2.61	n/a	Max Value	2	0.21	449
Thorium-230	3	1	0					No Detects	2	0.155	330
Thorium-230	4	3	3	1.61	0.0114		Normal	All Data	2	0.215	459
Thorium-230	5	1	0					No Detects	2	0.195	417
Thorium-232	1	1	1			0.703	n/a	Max Value	2	0.225	480
Thorium-232	2	2	2			2.64	n/a	Max Value	2	0.21	449
Thorium-232	3	1	0					No Detects	2	0.155	330
Thorium-232	4	3	3	1.88	0.01		Normal	All Data	2	0.215	459

Table C-3 (continued)

Analyte Name	Bin	n	Detects[a]	Mean[a]	Variance[a]	Maximum Value[a]	Data Distribution[a]	Data Source for Calculations[a]	Pooled Degrees of Freedom[a]	Fractional Weights[a]	Total Weights[a]
Thorium-232	5	1	0					No Detects	2	0.195	417
Reach AC-1											
Arsenic	1	1	1			2	n/a	Max Value	4	0.264	62.6
Arsenic	2	5	5	3.78	0.167		Normal	All Data	4	0.737	176
Benzo(a)anthracene	1	1	1			0.46	n/a	Max Value	4	0.264	62.6
Benzo(a)anthracene	2	5	5	2.1	4.63		Normal	All Data	4	0.737	176
Benzo(a)pyrene	1	1	1			0.45	n/a	Max Value	4	0.264	62.6
Benzo(a)pyrene	2	5	5	2.28	5.12		Normal	All Data	4	0.737	176
Benzo(b)fluoranthene	1	1	1			0.71	n/a	Max Value	4	0.264	62.6
Benzo(b)fluoranthene	2	5	5	3.05	7.08		Normal	All Data	4	0.737	176
Dibenz(a,h)anthracene	1	1	0					No Detects		0.264	62.6
Dibenz(a,h)anthracene	2	5	1			0.41	n/a	Max Value		0.737	176
Indeno(1,2,3-cd)pyrene	1	1	0					No Detects	4	0.264	62.6
Indeno(1,2,3-cd)pyrene	2	5	4	0.908	0.629		Normal	Helsel	4	0.737	176
Reach AC-2											
Arsenic	1	1	1			1.6	n/a	Max Value	4	0.406	120
Arsenic	2	5	5	4.04	0.493		Normal	All Data	4	0.619	172
Benzo(a)anthracene	1	1	1			0.27	n/a	Max Value	4	0.406	120
Benzo(a)anthracene	2	5	5	1.71	1.01		Normal	All Data	4	0.619	172
Benzo(a)pyrene	1	1	1			0.26	n/a	Max Value	4	0.406	120
Benzo(a)pyrene	2	5	5	1.84	1.5		Normal	All Data	4	0.619	172
Benzo(b)fluoranthene	1	1	1			0.37	n/a	Max Value	4	0.406	120
Benzo(b)fluoranthene	2	5	5	3.17	4.82		Normal	All Data	4	0.619	172
Indeno(1,2,3-cd)pyrene	1	1	0					No Detects	4	0.406	120
Indeno(1,2,3-cd)pyrene	2	5	4	0.847	0.128		Normal	Helsel	4	0.619	172
Reach ACS											
Americium-241	1	2	0					No Detects	12	0.302	130

Table C-3 (continued)

Analyte Name	Bin	n	Detects[a]	Mean[a]	Variance[a]	Maximum Value[a]	Data Distribution[a]	Data Source for Calculations[a]	Pooled Degrees of Freedom[a]	Fractional Weights[a]	Total Weights[a]
Americium-241	3	12	12	4.25	7.5		Normal	All Data	12	0.544	234
Americium-241	4	3	1	0.563	0.596		Normal	All Data	12	0.15	64.7
Aroclor-1254	1	2	1			0.018	n/a	Max Value	13	0.302	130
Aroclor-1254	3	14	14	0.236	0.067		LogNormal	All Data	13	0.544	234
Aroclor-1254	4	3	0					No Detects	13	0.15	64.7
Benzo(a)pyrene	1	3	2			0.13	n/a	Max Value		0.302	130
Benzo(a)pyrene	3	15	2			0.17	n/a	Max Value		0.544	234
Benzo(a)pyrene	4	2	0					No Detects		0.15	64.7
Cesium-137	1	3	1	0.105	0.0171		Normal	All Data	11	0.302	130
Cesium-137	3	12	12	1.61	2.8		LogNormal	All Data	11	0.544	234
Cesium-137	4	3	3	0.273	0.0612		LogNormal	All Data	11	0.15	64.7
Dieldrin	1	2	0					No Detects	13	0.302	130
Dieldrin	3	14	6	0.00656	6.35E-05		LogNormal	Helsel	13	0.544	234
Dieldrin	4	3	0					No Detects	13	0.15	64.7
Lead	1	2	2			59	n/a	Max Value	12	0.302	130
Lead	3	12	12	85	2610		Normal	All Data	12	0.544	234
Lead	4	3	3	70.7	2640		Normal	All Data	12	0.15	64.7
Mercury	1	2	2			0.015	n/a	Max Value	12	0.302	130
Mercury	3	13	13	0.569	0.279		LogNormal	All Data	12	0.544	234
Mercury	4	3	3	0.141	0.0169		Normal	All Data	12	0.15	64.7
Nitroso-di-n-propylamine[N-]	1	3	0					No Detects		0.302	130
Nitroso-di-n-propylamine[N-]	3	15	0					No Detects		0.544	234
Nitroso-di-n-propylamine[N-]	4	2	1			0.2	n/a	Max Value		0.15	64.7
Plutonium-239	1	2	2			14.7	n/a	Max Value	36	0.302	130
Plutonium-239	3	34	33	130	19100		LogNormal	All Data	36	0.544	234
Plutonium-239	4	4	4	40.8	2210		LogNormal	All Data	36	0.15	64.7
Strontium-90	1	1	0					No Detects	11	0.302	130

Table C-3 (continued)

Analyte Name	Bin	n	Detects[a]	Mean[a]	Variance[a]	Maximum Value[a]	Data Distribution[a]	Data Source for Calculations[a]	Pooled Degrees of Freedom[a]	Fractional Weights[a]	Total Weights[a]
Strontium-90	3	12	10	0.633	0.21		Normal	All Data	11	0.544	234
Strontium-90	4	3	0					No Detects	11	0.15	64.7
Uranium	1	3	3	1.56	0.000708		Bootstrap	All Data	11	0.302	130
Uranium	3	12	12	6.65	6.26		Normal	All Data	11	0.544	234
Uranium	4	3	3	2.85	0.377		Normal	All Data	11	0.15	64.7
Reach AC-3											
Americium-241	1	1	1			0.64	n/a	Max Value	9	0.784	1020
Americium-241	2	10	9	21.3	4770		LogNormal	All Data	9	0.216	281
Aroclor-1254	1	1	0					No Detects	7	0.784	1020
Aroclor-1254	2	8	6	1.53	28.8		LogNormal	Helsel	7	0.216	281
Benzo(a)anthracene	1	1	1			0.079	n/a	Max Value		0.784	1020
Benzo(a)anthracene	2	5	2			1.8	n/a	Max Value		0.216	281
Benzo(a)pyrene	1	1	1			0.11	n/a	Max Value		0.784	1020
Benzo(a)pyrene	2	5	2			1.5	n/a	Max Value		0.216	281
Benzo(b)fluoranthene	1	1	1			0.15	n/a	Max Value		0.784	1020
Benzo(b)fluoranthene	2	5	2			2.9	n/a	Max Value		0.216	281
Cesium-137	1	1	0					No Detects	9	0.784	1020
Cesium-137	2	10	8	5	181		LogNormal	All Data	9	0.216	281
Lead	1	1	1			54.9	n/a	Max Value	9	0.784	1020
Lead	2	10	10	69	3420		Normal	All Data	9	0.216	281
Manganese	1	1	1			267	n/a	Max Value	9	0.784	1020
Manganese	2	10	10	375	10400		Normal	All Data	9	0.216	281
Mercury	1	1	1			0.07	n/a	Max Value	9	0.784	1020
Mercury	2	10	9	0.434	0.593		LogNormal	Helsel	9	0.216	281
Plutonium-239	1	5	5	13.3	43.6		Normal	All Data	16	0.784	1020
Plutonium-239	2	15	15	88.2	18200		LogNormal	All Data	16	0.216	281
Strontium-90	1	1	0					No Detects	7	0.784	1020

Table C-3 (continued)

Analyte Name	Bin	n	Detects[a]	Mean[a]	Variance[a]	Maximum Value[a]	Data Distribution[a]	Data Source for Calculations[a]	Pooled Degrees of Freedom[a]	Fractional Weights[a]	Total Weights[a]
Strontium-90	2	8	5	5.46	126		LogNormal	All Data	7	0.216	281
Reach P-1E											
2,3,7,8-TCDD TEQ Total	1	1	1			1.81E-06	n/a	Max Value		0.492	1430
2,3,7,8-TCDD TEQ Total	2	2	2			4.96E-06	n/a	Max Value		0.267	777
2,3,7,8-TCDD TEQ Total	4	1	0					No Detects		0.0219	63.6
2,3,7,8-TCDD TEQ Total	6	2	2			2.63E-06	n/a	Max Value		0.219	635
Americium-241	1	1	1			0.209	n/a	Max Value	4	0.492	1430
Americium-241	2	1	1			0.828	n/a	Max Value	4	0.267	777
Americium-241	4	5	5	3.61	18.2		Normal	All Data	4	0.0219	63.6
Americium-241	6	1	0					No Detects	4	0.219	635
Aroclor-1254	1	1	0					No Detects		0.492	1430
Aroclor-1254	2	1	0					No Detects		0.267	777
Aroclor-1254	4	3	2			0.238	n/a	Max Value		0.0219	63.6
Aroclor-1254	6	1	0					No Detects		0.219	635
Benzo(a)anthracene	1	1	0					No Detects		0.492	1430
Benzo(a)anthracene	2	1	1			0.55	n/a	Max Value		0.267	777
Benzo(a)anthracene	4	3	2			1	n/a	Max Value		0.0219	63.6
Benzo(a)anthracene	6	1	0					No Detects		0.219	635
Benzo(a)pyrene	1	1	1			0.052	n/a	Max Value		0.492	1430
Benzo(a)pyrene	2	1	1			0.67	n/a	Max Value		0.267	777
Benzo(a)pyrene	4	3	2			1.8	n/a	Max Value		0.0219	63.6
Benzo(a)pyrene	6	1	0					No Detects		0.219	635
Benzo(b)fluoranthene	1	1	1			0.07	n/a	Max Value		0.492	1430
Benzo(b)fluoranthene	2	1	1			0.86	n/a	Max Value		0.267	777
Benzo(b)fluoranthene	4	3	2			2.5	n/a	Max Value		0.0219	63.6
Benzo(b)fluoranthene	6	1	0					No Detects		0.219	635
Cesium-137	1	1	0					No Detects	4	0.492	1430

Table C-3 (continued)

Analyte Name	Bin	n	Detects[a]	Mean[a]	Variance[a]	Maximum Value[a]	Data Distribution[a]	Data Source for Calculations[a]	Pooled Degrees of Freedom[a]	Fractional Weights[a]	Total Weights[a]
Cesium-137	2	1	1			0.34	n/a	Max Value	4	0.267	777
Cesium-137	4	5	3	0.332	0.0597		Normal	All Data	4	0.0219	63.6
Cesium-137	6	1	1			1.53	n/a	Max Value	4	0.219	635
Dibenz(a,h)anthracene	1	1	0					No Detects		0.492	1430
Dibenz(a,h)anthracene	2	1	0					No Detects		0.267	777
Dibenz(a,h)anthracene	4	3	2			0.18	n/a	Max Value		0.0219	63.6
Dibenz(a,h)anthracene	6	1	0					No Detects		0.219	635
Indeno(1,2,3-cd)pyrene	1	1	0					No Detects		0.492	1430
Indeno(1,2,3-cd)pyrene	2	1	1			0.28	n/a	Max Value		0.267	777
Indeno(1,2,3-cd)pyrene	4	3	2			0.66	n/a	Max Value		0.0219	63.6
Indeno(1,2,3-cd)pyrene	6	1	0					No Detects		0.219	635
Plutonium-239	1	11	11	9.68	123		Bootstrap	All Data	20	0.492	1430
Plutonium-239	2	20	20	16.6	54.8		LogNormal	All Data	20	0.267	777
Plutonium-239	4	15	15	98.4	14800		LogNormal	All Data	20	0.0219	63.6
Plutonium-239	6	7	7	10.4	165		Normal	All Data	20	0.219	635
Strontium-90	1	1	1			1.03	n/a	Max Value		0.492	1430
Strontium-90	2	1	0					No Detects		0.267	777
Strontium-90	4	2	1			0.95	n/a	Max Value		0.0219	63.6
Strontium-90	6	1	1			1.4	n/a	Max Value		0.219	635
Reach P-2W											
Plutonium-239	1	3	3	1.22	0.428		Normal	All Data	21	0.344	3100
Plutonium-239	2	33	33	10.2	124		LogNormal	All Data	21	0.315	2840
Plutonium-239	3	4	4	3.8	6.27		Normal	All Data	21	0.341	3080
Reach P-3W											
Plutonium-239	1	9	9	0.888	0.35		LogNormal	All Data	17	0.723	12400
Plutonium-239	2	12	12	1.79	2.21		LogNormal	All Data	17	0.111	1890
Plutonium-239	3	7	7	10.2	125		LogNormal	All Data	17	0.0356	609

Table C-3 (continued)

Analyte Name	Bin	n	Detects[a]	Mean[a]	Variance[a]	Maximum Value[a]	Data Distribution[a]	Data Source for Calculations[a]	Pooled Degrees of Freedom[a]	Fractional Weights[a]	Total Weights[a]
Plutonium-239	4	3	3	2.63	1.35		Normal	All Data	17	0.111	1910
Plutonium-239	5	1	1			0.224	n/a	Max Value	17	0.0199	340
Reach P-4W											
Arsenic	1	1	0					No Detects		0.464	23800
Arsenic	2	2	1			5.1	n/a	Max Value		0.0458	2350
Arsenic	3	1	0					No Detects		0.378	19400
Arsenic	4	1	0					No Detects		0.0763	3920
Arsenic	5	3	2			2.3	n/a	Max Value		0.0191	979
Arsenic	6	1	0					No Detects		0.0168	862
Benzo(a)pyrene	1	1	0					No Detects		0.464	23800
Benzo(a)pyrene	2	2	0					No Detects		0.0458	2350
Benzo(a)pyrene	3	1	1			0.675	n/a	Max Value		0.378	19400
Benzo(a)pyrene	4	1	0					No Detects		0.0763	3920
Benzo(a)pyrene	5	1	0					No Detects		0.0191	979
Benzo(a)pyrene	6	1	0					No Detects		0.0168	862
Benzo(b)fluoranthene	1	1	0					No Detects		0.464	23800
Benzo(b)fluoranthene	2	2	1			0.05	n/a	Max Value		0.0458	2350
Benzo(b)fluoranthene	3	1	1			0.91	n/a	Max Value		0.378	19400
Benzo(b)fluoranthene	4	1	0					No Detects		0.0763	3920
Benzo(b)fluoranthene	5	1	0					No Detects		0.0191	979
Benzo(b)fluoranthene	6	1	0					No Detects		0.0168	862
Plutonium-239	1	7	6	1.34	0.417		Normal	All Data	19	0.464	23800
Plutonium-239	2	11	11	5.45	3.19		Normal	All Data	19	0.0458	2350
Plutonium-239	3	15	15	5.81	51		LogNormal	All Data	19	0.378	19400
Plutonium-239	4	7	7	0.584	0.487		LogNormal	All Data	19	0.0763	3920
Plutonium-239	5	6	6	36.3	1670		LogNormal	All Data	19	0.0191	979
Plutonium-239	6	3	2	0.383	0.0608		Normal	All Data	19	0.0168	862

Table C-3 (continued)

Analyte Name	Bin	n	Detects[a]	Mean[a]	Variance[a]	Maximum Value[a]	Data Distribution[a]	Data Source for Calculations[a]	Pooled Degrees of Freedom[a]	Fractional Weights[a]	Total Weights[a]
Reach P-4E											
Manganese	1	3	3	476	232000		Normal	All Data	2	0.891	37500
Manganese	2	2	2			309	n/a	Max Value	2	0.109	4610
Reach LA-4W											
Americium-241	1	4	1	0.228	0.131		Normal	All Data	16	0.0898	470
Americium-241	3	1	0					No Detects	16	0.0902	472
Americium-241	4	13	9	0.898	1.47		LogNormal	All Data	16	0.191	1000
Americium-241	5	4	0					No Detects	16	0.187	981
Americium-241	6	11	2	0.0795	0.0792		Normal	All Data	16	0.119	622
Americium-241	7	2	0					No Detects	16	0.0205	107
Americium-241	8	8	0					No Detects	16	0.0528	276
Americium-241	9	1	0					No Detects	16	0.0155	81.2
Cesium-137	1	4	2	0.842	0.0965		Normal	All Data	22	0.0898	470
Cesium-137	3	1	0					No Detects	22	0.0902	472
Cesium-137	4	13	13	1.53	1.46		LogNormal	All Data	22	0.191	1000
Cesium-137	5	4	3	0.349	0.112		Normal	All Data	22	0.187	981
Cesium-137	6	11	5	0.813	0.755		Normal	All Data	22	0.119	622
Cesium-137	7	2	0					No Detects	22	0.0205	107
Cesium-137	8	8	3	0.387	0.237		Normal	All Data	22	0.0528	276
Cesium-137	9	1	0					No Detects	22	0.0155	81.2
Europium-152	1	4	0					No Detects	23	0.0898	470
Europium-152	3	1	0					No Detects	23	0.0902	472
Europium-152	4	13	0					No Detects	23	0.191	1000
Europium-152	5	4	0					No Detects	23	0.187	981
Europium-152	6	11	1	0.108	0.0462		Normal	All Data	23	0.119	622
Europium-152	7	2	0					No Detects	23	0.0205	107
Europium-152	8	8	0					No Detects	23	0.0528	276

Table C-3 (continued)

Analyte Name	Bin	n	Detects[a]	Mean[a]	Variance[a]	Maximum Value[a]	Data Distribution[a]	Data Source for Calculations[a]	Pooled Degrees of Freedom[a]	Fractional Weights[a]	Total Weights[a]
Europium-152	9	1	0					No Detects	23	0.0155	81.2
Plutonium-239	1	4	4	0.686	0.0342		Normal	All Data	5	0.0898	470
Plutonium-239	3	1	1			0.275	n/a	Max Value	5	0.0902	472
Plutonium-239	4	13	13	1.56	1.08		LogNormal	All Data	5	0.191	1000
Plutonium-239	5	4	4	3.16	8.35		LogNormal	All Data	5	0.187	981
Plutonium-239	6	11	10	2.58	4.19		Normal	All Data	5	0.119	622
Plutonium-239	7	2	1			0.135	n/a	Max Value	5	0.0205	107
Plutonium-239	8	8	8	7.39	37.4		Normal	All Data	5	0.0528	276
Plutonium-239	9	1	1			2.07	n/a	Max Value	5	0.0155	81.2

[a] Blank cells are not applicable.

[b] n/a = Not applicable.

Appendix D

Supplementary Risk Scenarios

This appendix updates the information contained in section E-5.3 of the Los Alamos and Pueblo Canyons Investigation Report (LANL 2004, 87390). Section 1 of this appendix presents the exposure parameters, toxicity values, and risk-based concentrations (RBCs) used for all five scenarios evaluated. Section 2 provides the risk assessments for the three supplementary exposure scenarios (construction worker, resource user, and resident). As in the original report, these exposure scenarios are ancillary to those scenarios based on expected future use that are presented in section 4 of this supplemental report. These supplemental exposure scenarios are not feasible for many of these locations because of topographic constraints or present-day land-use restrictions. The residential scenario results can be used for standardized comparisons to other sites, and the construction worker and resource user results can be used for comparisons to areas where those scenarios may be applicable. As in the main text of this supplemental report, all new or modified values presented in the tables in this appendix are shaded in gray.

D-1.0 EXPOSURE PARAMETERS, TOXICITY VALUES, AND THE RISK-BASED CONCENTRATIONS

The exposure parameters for all five scenarios (trail user, extended backyard, construction worker, resource user, and resident) as well as the equations for calculating RBCs are described in section E-5.1 of the original report (LANL 2004, 87390, pp. E-33 to E-44). The same exposure parameters and equations were used to calculate the additional RBCs in this supplemental report. Table D-1.0-1 presents the toxicity values used to calculate RBCs. Toxicity values for new chemicals of potential concern (COPCs) were obtained from the same sources used for the original report. Table D-1.0-2 contains the additional factors used in the equations to calculate dermal absorption and uptake through ingestion of plants and meat for the resource user and residential scenarios. The RBCs for all five scenarios for reasonable maximum exposures (RMEs) to sediment appear in Table D-1.0-3. Table D-1.0-4 presents the RBCs for RMEs to water for all five scenarios. The equations from section E-5.1 of the original report were used to generate most of the new RBCs, except those described below.

The RBCs for lead in sediment and water were developed using the U.S. Environmental Protection Agency (EPA) Integrated Exposure Unit Biokinetic Uptake (IEUBK) model (EPA 1994, 59894); this is the same model EPA used to develop its residential screening values for lead. The model is designed to develop RBCs based on exposures of children in the 0–6 year age range; these RBCs are protective of older children and adults because those groups are less sensitive to the toxic effects of lead. Equations used for other COPCs are based on total dose to the receptor, but the IEUBK model is a quasi-steady-state model that includes inputs from exposure outside the site and incorporates depuration of lead from the body. Therefore, infrequent exposures such as those included in the trail user, extended backyard, and resource user scenarios require adjustment of the model. A soil screening level (SSL) for the recreational exposures based on the extended backyard and trail-user scenarios was developed in LANL (2004, 88732); that screening level is used in this supplemental report as the RBC for the trail-user, extended-backyard, and resource-user scenarios. The recreational SSL was based on the assumption of daily exposure (instead of the 200 events/yr described in the scenario) and therefore provides a very protective RBC for these scenarios. RBCs for lead in soil for the residential and construction worker scenarios came from the New Mexico Environment Department (NMED) SSLs. For exposures to lead in surface water, the water component of the IEUBK model was adjusted for recreational exposure following the protocol described in the recreational SSLs document (LANL 2004, 88732). The development of this water RBC assumed daily exposure; it therefore provides a very protective RBC for exposure to lead in surface water during the 20 events/yr estimated for the trail-user, extended-backyard, and resource-user scenarios.

There were no volatile organic compounds (VOCs) included as COPCs in water in the original report, but several VOCs in water are included in this supplemental report. The equations from the original report are appropriate for generating RBCs for surface water exposures to these VOCs, but do not include terms for the inhalation of VOCs from water that occurs in a residential setting (showering and dishwasher use). For VOC COPCs in groundwater, residential screening values from EPA Region 6, which explicitly include terms for inhalation of VOCs in the home, were used as RBCs (EPA 2004, 87478). The RBCs from Tables D-1.0-3 and D-1.0-4 were used to generate exposure point concentration (EPC)-to-RBC ratios for the supplementary scenarios as described in section 2.0.

D-2.0 RISK RATIOS FOR THE SUPPLEMENTARY SCENARIOS

This section presents the EPC-to-RBC ratios for each supplementary scenario for exposure to sediment and exposure to water. The ratios were calculated for exposure to individual media as well as multimedia sums for those scenarios that include both water and sediment exposure. Reach P-1W appeared in the original report for these supplementary scenarios, but this reach is not included in the tables for this supplementary report because all COPCs were in samples of fire-impacted sediment; results from fire-impacted samples were excluded in the site-specific risk assessment for the original report (LANL 2004, 87390, p. 8-32) and for this supplemental report.

The construction worker scenario is based on exposure only to sediment; the sums of the EPC-to-RBC ratios for sediment for each risk endpoint (carcinogen, noncarcinogen, radionuclide) for this scenario are reported in Table D-2.0-1. A number of the values have changed from the original report because of the additional COPCs included in this supplemental report, but none of the changes resulted in a new ratio that exceeded the criterion of 1. No exposure to water is included in the construction worker scenario; therefore, no water sum or multimedia sum table is presented for the construction worker. The EPC-to-RBC ratios for exposure to sediment only for the resource user appear in Table D-2.0-2. A number of the values changed from the original report because of the additional COPCs included in this supplemental report, but none of the changes resulted in a new ratio that exceeded the criterion of 1. The highest ratios (carcinogens in AC-1 and DP-1W) are due to detections of polycyclic aromatic hydrocarbons (PAHs), which have very low RBCs (see Table D-1.0-3) because of the inclusion of meat ingestion in the resource user scenario. Table D-2.0-3 provides the EPC-to-RBC ratios for the residential scenario. The addition of new sediment COPCs (manganese and dinitro-2-methylphenol [4,6]) elevated noncarcinogen sums in DP-1C and DP-2, as well as the radionuclide sum for reach LA-3E to greater than 1. A noncarcinogen ratio greater than 1 for the resident was also seen in reach P-4E, a reach not included in the original report but added to this supplemental report as a result of the revisions to the COPCs included in the risk assessment.

As in the original report, the three supplementary scenarios use different sediment EPCs than those used in the main text for the trail user and extended-backyard scenarios. Those two scenarios are nonintrusive and therefore use a surface area-weighted EPC. The three supplementary scenarios may involve subsurface intrusion through digging and are therefore based on volume-weighted EPCs that include contributions from subsurface samples. The volume-weighted EPCs for these three scenarios, the EPC-to-RBC ratios, and associated upper confidence limits (UCLs) for individual COPCs for each scenario are presented in Table D-2.0-4. New COPC/reach combinations not included in the evaluation in the original report are shaded.

The resource-user scenario includes exposure to unfiltered surface water. Table D-2.0-5 gives the EPC-to-RBC ratio sums for surface water exposure only for the resource user scenario. The residential scenario includes exposure to alluvial groundwater; the EPC-to-RBC ratio sums for alluvial groundwater are given in Table D-2.0-6. Most changes to ratio sums were for noncarcinogens, based primarily on the

addition of lead and vanadium as COPCs for a number of water locations. Some organic COPCs were added as well. The groundwater evaluation was conducted for both the filtered and unfiltered groundwater samples. Arsenic is a significant contributor to the carcinogenic sums for groundwater, and the groundwater sums are presented in Table D-2.0-7 without the contribution from arsenic included. Table D-2.0-8 presents the surface water EPC-to-RBC ratios for individual COPCs for the trail user and extended-backyard scenarios; these are the values that were added up in section 4 of this supplementary report to give the total water ratios shown in Tables 4.4-1 and 4.4-2 of the main text and the multimedia ratios shown in Tables 4.5-1 and 4.5-2 in the main text for these scenarios. Table D-2.0-9 provides the water EPC-to-RBC ratios for individual COPCs for the residential scenario. Table D-2.0-10 provides the same comparison of individual COPCs, but with the arsenic results removed. The values from Tables D-2.0-9 and D-2.0-10 were used to generate the sums presented in Tables D-2.0-6 and D-2.0-7. Multimedia sums for combined exposures to sediment and surface water for the resource user are provided in Table D-2.0-11.

Multimedia sums for combined exposures to sediment and water for the resident are shown in the remaining four tables in this appendix. Table D-2.0-12 shows the combined ratio sums for sediment and filtered groundwater. Table D-2.0-13 shows the combined ratio sums for sediment and unfiltered groundwater. Naturally occurring arsenic (see section 7.2 of the Los Alamos and Pueblo Canyons Investigation Report, [LANL 2004, 87390]) is the largest contributor to overall risk to the resident from drinking water. Therefore, these multimedia sums are reproduced without the contribution of arsenic in water in Tables D-2.0-14 and D-2.0-15. Arsenic in sediment is included in the sediment component of these multimedia sums. Overall, the addition of infrequently detected COPCs to the ratio sums for multimedia analyses did not appreciably change the results of the site-specific risk assessment for the supplementary residential scenario, for which many ratio sums already exceeded 1.

D-3.0 REFERENCES

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EPA (U.S. Environmental Protection Agency), 1997. "Health Effects Assessment Summary Tables," FY1997 update, EPA 540-R-97-036, U.S. Environmental Protection Agency, Office of Solid Waste and Emergency Response, Washington, DC. (EPA 1997, 58968)

EPA (U.S. Environmental Protection Agency), July 2004. "Risk Assessment Guidance for Superfund (RAGS), Volume I: Human Health Evaluation Manual (Part E, Supplemental Guidance for Dermal Risk Assessment) Interim," EPA/540/R/99/005 OSWER 9285.7-02EP, U.S. Environmental Protection Agency, Office of Superfund Remediation and Technology Innovation, Washington, D.C. (EPA 2004, 90800)

EPA (U.S. Environmental Protection Agency), September 2003. "Integrated Risk Information System (IRIS)" (online database). Available at http://www.epa.gov/iris (EPA 2003, 76870)

EPA (U.S. Environmental Protection Agency), November 2004. "EPA Region 6 Human Health Medium-specific Screening Levels," US Environmental Protection Agency, Dallas, Texas (EPA 2004, 87478)

LANL (Los Alamos National Laboratory), April 2004. "Los Alamos and Pueblo Canyons Investigation Report," Los Alamos National Laboratory document LA-UR-04-2714, Los Alamos, New Mexico (LANL 2004, 87390)

LANL (Los Alamos National Laboratory), December 2004. "Draft Technical Approach for Calculating Recreational Soil Screening Levels for Chemicals," Los Alamos National Laboratory document LA-UR-04-7743, Los Alamos, New Mexico. (LANL 2004, 88732)

Table D-1.0-1
Toxicity Values for Inorganic and Organic Chemicals

Contaminant	Analyte Code	CAS-ID	Oral RfD (mg/kg-d)	Source	Inhal RfD (mg/kg-d)	Source	Oral SF (mg/kg-d)$^{-1}$	Source	Inhal SF (mg/kg-d)$^{-1}$	Source	Cancer Class	Dermal RfD (mg/kg-d)	Dermal SF (mg/kg-d)$^{-1}$	GI ABS Frac
Aluminum	AL	7429-90-5	1.0E+00	PPRTV	1.4E-03	PPRTV	—	—	—	—	—	1.0E+00	—	1
Antimony	SB	7440-36-0	4.0E-04	IRIS	—	—	—	—	—	—	—	6.0E-05	—	0.15
Arsenic	AS	7440-38-2	3.0E-04	IRIS	—	—	1.5E+00	IRIS	1.5E+01	IRIS	A	3.0E-04	1.50E+00	1
Barium	BA	7440-39-3	7.0E-02	IRIS	7.0E-02	R-R ext.	—	—	—	—	—	4.9E-03	—	0.07
Boron	B	7440-42-8	9.0E-02	IRIS	5.7E-03	HEAST	—	—	—	—	—	9.0E-02	—	1
Chromium	CR	7440-47-3	1.8E-02	IRIS	—	—	—	—	4.2E+01	IRIS	A (Cr VI)	2.7E-04	—	0.015
Copper	Cu	7440-50-8	3.7E-02	HEAST	—	—	—	—	—	—	—	3.7E-02	—	1
Iron	FE	7439-89-6	3.0E-01	NCEA	—	—	—	—	—	—	—	3.0E-01	—	1
Manganese	MN	7439-96-5	1.4E-01	IRIS	1.4E-05	IRIS	—	—	—	—	—	5.6E-03	—	0.04
Mercury	HG	7439-97-6	3.0E-04	IRIS	8.6E-05	IRIS	—	—	—	—	—	2.1E-05	—	0.07
Molybdenum	MO	7439-98-7	5.0E-03	IRIS	—	—	—	—	—	—	—	5.0E-03	—	1
Thallium	TL	7440-28-0	8.0E-05	IRIS	—	—	—	—	—	—	—	8.0E-05	—	1
Uranium	U	—	3.0E-03	IRIS	—	—	—	—	—	—	—	3.0E-03	—	1
Fluoride	F	7782-41-4	6.0E-02	IRIS	—	—	—	—	—	—	—	6.0E-02	—	1
Nitrate (as N)	NO3	14797-55-8	1.6E+00	IRIS	—	—	—	—	—	—	—	1.6E+00	—	1
Nitrite	NO2	14797-65-0	1.0E-01	IRIS	—	—	—	—	—	—	—	1.0E-01	—	1
Perchlorate	CLO4(-1)	14797-73-0	1.0E-04	NCEA	—	—	—	—	—	—	—	1.0E-04	—	1
Vanadium	V	7440-62-2	7.0E-03	HEAST	—	—	—	—	—	—	—	1.8E-04	—	0.026
2,3,7,8-TCDD TEQ Total	1746-01-6	1746-01-6	—	—	—	—	1.5E+05	HEAST	1.5E+05	HEAST	—	0.0E+00	—	1
BHC[beta-]	319-85-7	319-85-7	—	—	—	—	1.8E+00	IRIS	1.8E+00	IRIS	C	—	1.80E+00	1
DDT[4,4]	50-29-3	50-29-3	5.0E-04	IRIS	—	—	3.4E-01	IRIS	3.4E-01	IRIS	B2	5.0E-04	3.40E-01	1
Aroclor-1254	11097-69-1	11097-69-1	2.0E-05	IRIS	2.0E-05	R-R ext.	—	—	—	—	—	2.0E-05		1
Aroclor-1260	11096-82-5	11096-82-5	—	—	—	—	2.0E+00	IRIS	2.0E+00	IRIS	B2	—	2.00E+00	1
Benzene	71-43-2	71-43-2	4.0E-03	IRIS	8.6E-03	IRIS	5.5E-02	IRIS	2.7E-02	IRIS	—	—	—	1

Table D-1.0-1 (continued)

Contaminant	Analyte Code	CAS-ID	Oral RfD (mg/kg-d)	Source	Inhal RfD (mg/kg-d)	Source	Oral SF $(mg/kg\text{-}d)^{-1}$	Source	Inhal SF $(mg/kg\text{-}d)^{-1}$	Source	Cancer Class	Dermal RfD (mg/kg-d)	Dermal SF $(mg/kg\text{-}d)^{-1}$	GI ABS Frac
Benz(a)anthracene	56-55-3	56-55-3	—	—	—	—	7.3E-01	NCEA	3.1E-01	NCEA	B2	—	7.30E-01	1
Benzo(a)pyrene	50-32-8	50-32-8	—	—	—	—	7.3E+00	IRIS	3.1E+00	NCEA	B2	—	7.30E+00	1
Benzo(b)fluoranthene	205-99-2	205-99-2	—	—	—	—	7.3E-01	NCEA	3.1E-01	NCEA	B2	—	7.30E-01	1
Bis(2-ethylhexyl)phthalate	117-81-7	117-81-7	2.0E-02	IRIS	—	—	1.4E-02	IRIS	1.4E-02	R-R ext.	B2	2.0E-02	1.40E-02	1
Bromodichloromethane	75-27-4	75-27-4	2.0E-02	IRIS	2.0E-02	R-R ext	6.2E-02	IRIS	6.2E-02	R-R ext	—	0.0E+00	—	1
Bromomethane	74-83-9	74-83-9	1.4E-03	IRIS	1.4E-03	IRIS	—	—	—	—	—	0.0E+00	—	1
Dibenz(a,h)anthracene	53-70-3	53-70-3	—	—	—	—	7.3E+00	NCEA	3.1E+00	NCEA	B2	—	7.30E+00	1
Dichloroethane (1,2)	75-34-3	75-34-3	2.0E-02	NCEA	1.4E-03	NCEA	9.1E-02	IRIS	9.1E-02	IRIS	—	0.0E+00	—	1
Dieldrin	60-57-1	60-57-1	5.0E-05	IRIS	5.0E-05	R-R ext.	1.6E+01	IRIS	1.6E+01	IRIS	—	0.0E+00	—	1
Dinitro-2-methylphenol[4,6-]	534-52-1	534-52-1	1.0E-04	PPRTV	1.0E-04	R-R ext.	—	—	—	—	—	0.0E+00	—	1
Heptachlor Epoxide	1024-57-3	1024-57-3	1.3E-05	IRIS	—	—	9.1E+00	IRIS	9.1E+00	IRIS	B2	1.3E-05	9.10E+00	1
Indeno(1,2,3-cd)pyrene	193-39-5	193-39-5	—	—	—	—	7.3E-01	NCEA	3.1E-01	NCEA	B2	—	7.30E-01	1
Methylene chloride	75-09-2	75-09-2	6.0E-02	IRIS	8.6E-01	HEAST	7.5E-03	IRIS	1.6E-03	IRIS	—	0.0E+00	—	1
Nitroso-di-n-propylamine[N-]	621-64-7	621-64-7	—	—	—	—	7.0E+00	IRIS	7.0E+00	R-R ext.	—	0.0E+00	—	1
Trichloroethene	79-01-6	79-01-6	3.0E-04	NCEA	1.1E-02	NCEA	4.0E-01	NCEA	4.0E-01	NCEA	—	0.0E+00	—	1
Trichlorophenol[2,4,6-]	88-06-2	88-06-2	1.0E-04	NCEA	—	—	1.1E-02	IRIS	1.1E-02	IRIS	B2	1.0E-04	1.10E-02	1

Note: Gray shading indicates new values added for the supplemental report.

Sources: IRIS: Integrated Risk Information System (EPA 2003, 76870); HEAST: Health Effects Assessment Summary Tables (EPA 1997, 58968); NCEA: National Center for Environmental Assessment.

PPRTV: Provisional Peer-Reviewed Toxicity Value.

R-R ext.: Value based on route-to-route extrapolation from oral to inhalation.

Toxicity values:

Gastrointestinal absorption factors from Exhibit 4-1 (EPA 2004, 90800).

Inhalation slope factor (SF) for chromium as 6:1 ratio of CrIII to CrVI; SF of 42 published in IRIS.

Oral reference dose (RfD) for chromium also assumes a 6:1 ratio of chromium III (CrIII) to chromium VI (CrVI) (RfD for Cr III is 1.5; RfD for Cr VI is 0.003). Calculation: [1 / ((1/6 * 1/0.003) + (5/6 * 1/1.5))].

Manganese oral RfD uses a modifying factor of 3, as recommended in IRIS.

Perchlorate referenced to NCEA from within EPA Region 6 screening tables.

Thallium as thallium sulfate, chloride, or carbonate.

Aroclor-1260 SF based on upper-bound value for "high risk and persistence." Inhalation SF based on oral SF, per recommendations in IRIS..

Chromium dermal RfD absorbance (ABS) fraction assumes 1:6 ratio of VI:III forms; GI ABS fraction is 1/6(0.035) + (5/6)(0.013) = 0.015.

Uranium as soluble salts.

Oral RfD is for fluorine (soluble fluoride).

Table D-1.0-2
Analyte-Specific Parameter Values for Calculating Dermal Absorption and Biotic Uptake

Contaminant	Analyte Code	CAS-ID	ABS (unitless)	K_p (cm/hr)	F_abs (unitless)	T_event (hr/event)	K_p-s (unitless)	K_f-s (unitless)	TF_meat (mg/kg per mg/day)
Aluminum	AL	7429-90-5	0	0.001	n/a*	n/a	5.0E-04	7.3E-04	1.5E-03
Antimony	SB	7440-36-0	0	0.001	n/a	n/a	1.0E-02	1.8E-02	1.0E-03
Arsenic	AS	7440-38-2	0.03	0.001	n/a	n/a	8.0E-02	3.6E-02	1.5E-03
Barium	BA	7440-39-3	0	0.001	n/a	n/a	5.0E-03	1.8E-02	2.0E-04
Boron	B	7440-42-8	0	0.001	n/a	n/a	5.0E-01	7.3E-01	8.0E-04
Chromium	CR	7440-47-3	0	0.001	n/a	n/a	2.5E-04	1.8E-02	9.0E-03
Copper	CU	7440-50-8	0	0.001	n/a	n/a	1.3E-01	1.5E-01	1.0E-02
Iron	FE	7439-89-6	0	0.001	n/a	n/a	1.0E-03	5.5E-04	2.0E-02
Manganese	MN	7439-96-5	0	0.001	n/a	n/a	3.0E-01	1.7E-01	5.0E-04
Mercury	HG	7439-97-6	0	0.001	n/a	n/a	3.8E-01	1.8E-01	1.0E-01
Molybdenum	MO	7439-98-7	0	0.001	n/a	n/a	1.3E-01	7.4E-02	1.0E-03
Thallium	TL	7440-28-0	0	0.001	n/a	n/a	5.0E-04	7.3E-04	4.0E-02
Uranium	U	—	0	0.001	n/a	n/a	2.5E-03	1.8E-02	3.4E-04
Vanadium	V	7440-62-2	0	0.001	n/a	n/a	6.9E-04	1.0E-03	2.5E-03
Fluoride	F	7782-41-4	0	0.001	n/a	n/a	2.0E-02	1.8E-02	2.0E-02
Nitrate (as N)	NO3	14797-55-8	0	0.001	n/a	n/a	0.0E+00	0.0E+00	0.0E+00
Nitrite	NO2	14797-65-0	0	0.001	n/a	n/a	0.0E+00	0.0E+00	0.0E+00
Perchlorate	CLO4(-1)	14797-73-0	0	0.001	n/a	n/a	0.0E+00	0.0E+00	0.0E+00
2,3,7,8-TCDD TEQ Total	n/a	n/a	0.03	0.8100	0.5	6.82	5.73E-04	8.27E-04	1.56E+00
BHC[all isomers]	319-85-7	319-85-7	0.1	0.0116	1.0	4.465	3.06E-02	4.42E-02	1.27E-03
DDT[4,4]	50-29-3	50-29-3	0.03	0.27	0.7	0.0	8.20E-04	1.19E-03	8.19E-01
Aroclor-1254	11097-69-1	11097-69-1	0.14	0.43	0.5	0.0	1.11E-03	1.61E-03	4.74E-01
Aroclor-1260	11096-82-5	11096-82-5	0.14	0.43	0.5	0.0	5.73E-04	8.27E-04	1.56E+00
Benz(a)anthracene	56-55-3	56-55-3	0.13	0.47	1.0	2.03	2.48E-03	3.58E-03	1.14E-01
Benzo(a)pyrene	50-32-8	50-32-8	0.13	0.70	1.0	2.69	1.43E-03	2.07E-03	3.02E-01
Benzo(b)fluoranthene	205-99-2	205-99-2	0.13	0.70	1.0	2.77	1.27E-03	1.84E-03	3.74E-01
Benzene	71-43-2	71-43-2	0	0.0115	1.0	0.29	2.87E-01	4.14E-01	2.34E-05
Bis(2-ethylhexyl)phthalate	117-81-7	117-81-7	0.1	1.07	1.0	16.16	2.94E-04	4.25E-04	5.12E+00
Bromodichloroethane	74-83-9	74-83-9	0	0.0046	1.0	0.88	3.02E-01	4.37E-01	2.12E-05
Bromomethane	75-27-4	75-27-4	0	0.0028	1.0	0.36	1.00E+00	1.45E+00	2.50E-06
Dibenz(a,h)anthracene	53-70-3	53-70-3	0.13	1.5	0.6	3.88	6.63E-04	9.58E-04	1.20E+00
Dichloroethane (1,2)	75-34-3	75-34-3	0	0.0042	1.0	0.38	6.81E-01	9.83E-01	4.98E-06
Dieldrin	60-57-1	60-57-1	0.1	0.012	1.0	0.57	1.13E-02	1.63E-02	7.56E-03
Dinitro-2-methylphenol[4,6-]	534-52-1	534-52-1	0.1	0.0015	1.0	1.15	6.28E-01	9.08E-01	5.74E-06
Heptachlor Epoxide	1024-57-3	1024-57-3	0.1	0.0086	0.8	13.27	6.29E-03	9.08E-03	2.15E-02
Indeno(1,2,3-cd)pyrene	193-39-5	193-39-5	0.13	1.0	0.6	3.78	6.99E-04	1.01E-03	1.09E+00

Table D-1.0-2 (continued)

Contaminant	Analyte Code	CAS-ID	ABS (unitless)	K_p (cm/hr)	F_abs (unitless)	T_event (hr/event)	K_p-s (unitless)	K_f-s (unitless)	TF_meat (mg/kg per mg/day)
Methylene chloride	75-09-2	75-09-2	0	0.0035	1.0	0.76	9.24E-01	1.34E+00	2.88E-06
Nitroso-di-n-propylamine[N-]	621-64-7	621-64-7	0.1	0.015	1.0	0.57	7.99E-01	1.15E+00	3.74E-06
Trichloroethene	79-01-6	79-01-6	0	0.0120	1.0	0.58	1.95E-01	2.81E-01	4.65E-05
Trichlorophenol[2,4,6-]	88-06-2	88-06-2	0.1	0.035	1.0	1.36	3.55E-02	5.12E-02	9.77E-04
Americium-241	AM-241	86954-36-1	n/a	n/a	n/a	n/a	1.0E-03	7.3E-04	5.0E-05
Cesium-137+D	CS-137	10045-97-3	n/a	n/a	n/a	n/a	4.0E-02	3.6E-02	3.0E-02
Cobalt-60	C0-60	10198-40-0	n/a	n/a	n/a	n/a	8.0E-02	7.3E-02	2.0E-02
Europium-152	EU-152	14683-23-9	n/a	n/a	n/a	n/a	2.5E-03	1.8E-02	2.0E-03
Plutonium-239,240	PU-239	15117-48-3	n/a	n/a	n/a	n/a	1.0E-03	4.9E-05	1.0E-04
Strontium-90+D	SR-90	10098-97-2	n/a	n/a	n/a	n/a	3.0E-01	3.6E-01	8.0E-03
Thorium-228	Th-228	14274-82-9	n/a	n/a	n/a	n/a	1.0E-03	n/a	1.0E-04
Thorium-230	Th-230	14269-63-7	n/a	n/a	n/a	n/a	1.0E-03	n/a	1.0E-04
Thorium-232	Th-232	7440-29-1	n/a	n/a	n/a	n/a	1.0E-03	n/a	1.0E-04
Uranium-234	U-234	13966-29-5	n/a	n/a	n/a	n/a	2.5E-03	1.8E-02	3.4E-04
Uranium-238+D	U-238	7440-61-1	n/a	n/a	n/a	n/a	2.5E-03	1.8E-02	3.4E-04

Note: Gray shading indicates new values added for the supplemental report.
*n/a = Not applicable.

Table D-1.0-3
Sediment Pathway RBCs for RMEs

COPC	Trail User	Extended Backyard	Resource User	Construction Worker	Residential
Carcinogens, 10^{-5} risk, mg/kg					
2,3,7,8-TCDD TEQ Total	0.0016	0.00061	0.00000027	0.0014	0.00003
Aroclor-1254	34	19.9	0.164	76.2	0.908
Aroclor-1260	34	19.9	0.164	76.2	0.908
Arsenic	103	46.8	0.473	130	0.0733
Benz(a)anthracene	98.1	56.9	0.376	214	2.75
Benzo(a)pyrene	9.81	5.69	0.0196	21.4	0.359
Benzo(b)fluoranthene	98.1	56.9	0.168	214	3.77
Dibenz(a,h)anthracene	9.81	5.69	0.00682	21.4	0.464
Dieldrin	15	5.8	0.066	14	0.044
Heptachlor Epoxide	48	5.3	0.076	18	0.12
Indeno(1,2,3-cd)pyrene	98.1	56.9	0.0737	214	4.58
Nitroso-di-n-propylamine[N-]	34	13	0.013	31	0.0016
Trichlorophenol[2,4,6-]	7800	4300	120	1500	22
Noncarcinogens, HQ = 1, mg/kg					
Aroclor-1254	58.3	6.83	0.106	4.36	0.964
Arsenic	1990	185	10.9	85.2	1.35
Dinitro-2-methylphenol[4,6-]	1000	79	0.61	31	0.061
Lead	560[b]	560[b]	560[b]	750[c]	400[c]
Manganese	600000	3200	1500	2100	130
Mercury	3062	230	0.14	92	0.30
Trichlorophenol[2,4,6-][a]	370	41	6.5	24	6.0
Uranium (metal)	30000	2400	1800	930	380
Radionuclides, 15 mrem/yr, pCi/g					
Americium-241	1500	270	330	53	29
Cesium-137	210	210	56	21	6.1
Cobalt-60	41	41	61	4.1	1.2
Europium-152	94	94	250	9.4	2.9
Plutonium-239	1700	280	310	56	32
Strontium-90	17000	5600	10	950	5.7
Thorium-228	64	58	0.35	6.1	0.066
Thorium-230	10000	640	600	150	43
Thorium-232	2100	130	120	30	8.7
Uranium-234	13000	2700	1400	480	160

Note: Gray shading indicates a new or revised value from original report.

[a] For this COPC, the EPA Region 9 Oral RfD from NCEA was used to generate the noncarcinogen RBC to be consistent with NMED (EPA Region 6 considers this COPC only as a carcinogen).

[b] Lead values for these scenarios based on the application of the IEUBK model described in the text.

[c] Lead values for these scenarios from NMED SSLs.

Table D-1.0-4
Water Pathway RBCs for RMEs

COPC	Trail User	Extended Backyard	Resource User	Residential
Carcinogens, 10^{-5} risk, µg/L				
Arsenic	98.3	60.6	98.3	0.377
Bis(2-ethylhexyl)phthalate	83.5	124	83.5	0.59
Dibenz(a,h)anthracene	0.384	0.561	0.384	0.00268
BHC[beta-]	48	39.1	48	0.227
Benz(a)anthracene	9.86	13.8	9.86	0.0672
Benzene	—[a]	—[a]	—[a]	3.5[b]
Benzo(a)pyrene	0.587	0.846	0.587	0.00407
Benzo(b)fluoranthene	5.78	8.35	5.78	0.0401
Bromodichloromethane	2.4	1.5	2.4	—[c]
DDT[4,4'-]	438	268	438	1.67
Dichloroethane (1,2)	1.6	1.0	1.6	—[c]
Dieldrin	—[a]	—[a]	—[a]	0.035
Indeno(1,2,3-cd)pyrene	5.78	8.34	5.78	0.0401
Methylene chloride	20000	12000	20000	43[b]
Trichloroethene	—[a]	—[a]	—[a]	0.28[b]
Noncarcinogens, HQ = 1, µg/L				
Antimony	2390	610	2390	4.05
Arsenic	1900	481	1900	3.11
Barium	388000	100000	388000	687
Bis(2-ethylhexyl)phthalate	1000	301	1000	3.92
Boron	569000	144000	569000	934
Bromomethane	8.9	2.3	8.9	—[c]
Chromium	67200	18200	67200	145
Copper	—[a]	—[a]	—[a]	380
Fluoride	379000	96100	379000	623
Iron	1900000	481000	1900000	3110
Lead	65[d]	65[d]	65[d]	15[e]
Manganese	706000	185000	706000	1320
Molybdenum	31600	8010	31600	51.9
Nitrate	10100000	2560000	10100000	16600
Nitrite	632000	160000	632000	1040
Perchlorate	632	160	632	1.04
Thallium	506	128	506	0.831
Uranium	19000	4810	19000	31.1
Vanadium	32000	8400	32000	62
Aluminum	6320000	1600000	6320000	10400
DDT[4,4'-]	3190	808	3190	5.21

Table D-1.0-4 (continued)

COPC	Trail User	Extended Backyard	Resource User	Residential
Radionuclides, 4 mrem/yr, pCi/L				
Americium-241	275	157	275	1.57
Plutonium-239	282	161	282	1.61
Strontium-90	6540	3730	6540	37.3
Uranium-234	3530	2020	3530	20.2
Uranium-238	3720	2120	3720	21.2

Note: Gray shading indicates a new or revised value from original report.

[a] COPC detected in groundwater, which applies only to the residential scenario.

[b] Residential water screening levels for VOCs are EPA Region 6 values (adjusted to 10^{-e5} risk for carcinogens) that explicitly include VOC inhalation from groundwater.

[c] COPC only in surface water, which does not apply to the residential scenario

[d] Lead values for these scenarios based on the application of the IEUBK model described in the text.

[e] EPA Region 6 value based on tap water screening level.

Table D-2.0-1
Construction-Worker Sediment Exposure Pathways, COPC to RBC Ratio Sums

Reach	Carcinogen Sum[a]	Noncarcinogen Sum	Radionuclide Sum[b]
AC-1	0.241	0.0422	—[c]
AC-2	0.147	0.0419	—
AC-3	0.039	0.489	**1.17**
ACS	0.0102	0.178	**1.99**
DP-1C	0.0341	0.311	—
DP-1E	0.0384	—	—
DP-1W	0.169	—	—
DP-2	0.0192	0.235	**2.03**
DP-3	0.0092	0.0845	**1.69**
DP-4	—	—	0.654
LA-1C	0.0079	0.0282	—
LA-1E	—	—	0.0920
LA-2E	0.0168	—	0.703
LA-2FE	—	—	0.942
LA-2W	—	—	0.0445
LA-3E	—	—	0.514
LA-3W	—	—	0.444
LA-4W	—	—	0.107
P-1E	0.0163	0.0012	0.34
P-2W	—	—	0.111
P-3W	—	—	0.0338
P-4E	—	0.562	—
P-4W	0.0157	0.00325	0.0920

Notes: Gray shading indicates a new or revised value from original report. Bold text indicates sum that exceeds 1.

[a] Convert to risk: Value × (1×10^{-5}).

[b] Convert to dose: Value × 15 mrem.

[c] — = COPC class not carried forward for this reach for this report.

Table D-2.0-2
Resource-User Sediment Exposure Pathways, COPC to RBC Ratio Sums

Reach	Carcinogen Sum[a]	Noncarcinogen Sum	Radionuclide Sum[b]
AC-1	**276**	0.33	—[c]
AC-2	**143**	0.327	—
AC-3	**33.4**	**12.5**	0.512
ACS	**10.3**	**5.48**	0.421
DP-1C	**31.3**	0.425	—
DP-1E	**40.9**	—	—
DP-1W	**262**	—	—
DP-2	**24.9**	0.665	**1.34**
DP-3	**9.03**	0.238	0.896
DP-4	—	—	0.438
LA-1C	**6.20**	**1.16**	—
LA-1E	—	—	0.0226
LA-2E	**18.3**	—	0.571
LA-2FE	—	—	0.617
LA-2W	—	—	0.349
LA-3E	—	—	**3.73**
LA-3W	—	—	0.366
LA-4W	—	—	0.0219
P-1E	**26.9**	0.0492	0.149
P-2W	—	—	0.0201
P-3W	—	—	0.0061
P-4E	—	0.787	—
P-4W	**15.7**	0.0254	0.0166

Notes: Gray shading indicates a new or revised value from original report. Bold text indicates sum that exceeds 1.

[a] Convert to risk: Value × (1×10^{-5}).

[b] Convert to dose: Value × 15 mrem.

[c] — = COPC class not carried forward for this reach for this report.

Table D-2.0-3
Residential-Sediment Exposure Pathways, COPC to RBC Ratio Sums

Reach	Carcinogen Sum[a]	Noncarcinogen Sum	Radionuclide Sum[b]
AC-1	**61.1**	**2.66**	—[c]
AC-2	**55.9**	**2.64**	—
AC-3	**2.73**	**4.46**	**2.78**
ACS	**19.5**	**2.05**	**3.7**
DP-1C	**2.27**	**2.59**	—
DP-1E	**2.33**	—	—
DP-1W	**10**	—	—
DP-2	0.966	**6.26**	**7.77**
DP-3	0.565	0.271	**5.93**
DP-4	—	—	**2.5**
LA-1C	0.5603	0.128	—
LA-1E	—	—	0.213
LA-2E	**1.01**	—	**2.80**
LA-2FE	—	—	**3.59**
LA-2W	—	—	0.696
LA-3E	—	—	**19.9**
LA-3W	—	—	**1.84**
LA-4W	—	—	0.281
P-1E	0.952	0.0054	0.776
P-2W	—	—	0.195
P-3W	—	—	0.0591
P-4E	—	**9.08**	—
P-4W	**4.58**	0.205	0.161

Notes: Gray shading indicates a new or revised value from original report. Bold text indicates sum that exceeds 1.

[a] Convert to risk: Value × (1×10^{-6}).

[b] Convert to dose: Value × 15 mrem.

[c] — = COPC class not carried forward for this reach for this report.

Table D-2.0-4
Sediment Volume-Weighted Averages, UCLs, and Exposure Pathway EPC-to-RBC Ratios

Reach	Analyte	Risk Class[a]	Average[b]	UCL	Construction Worker Ratio	Residential Ratio	Resource-User Ratio
AC-1	Arsenic	ca	3.31	3.6	0.0277	49.1	7.61
AC-1	Benz(a)anthracene	ca	1.67	3.18	0.0149	1.15	8.45
AC-1	Benzo(a)pyrene	ca	1.8	3.39	0.159	9.44	173
AC-1	Benzo(b)fluoranthene	ca	2.43	4.3	0.0201	1.14	25.6
AC-1	Dibenz(a,h)anthracene	ca	0.302	—[c]	0.0141	0.651	44.3
AC-1	Indeno(1,2,3-cd)pyrene	ca	0.669	1.23	0.00576	0.269	16.7
AC-1	Arsenic	nc	3.31	3.6	0.0422	2.66	0.33
AC-2	Arsenic	ca	3.15	3.57	0.0274	48.7	7.55
AC-2	Benz(a)anthracene	ca	1.17	1.76	0.00824	0.639	4.68
AC-2	Benzo(a)pyrene	ca	1.24	1.97	0.0923	5.48	101
AC-2	Benzo(b)fluoranthene	ca	2.11	3.41	0.016	0.904	20.3
AC-2	Indeno(1,2,3-cd)pyrene	ca	0.524	0.735	0.00344	0.161	9.97
AC-2	Arsenic	nc	3.15	3.57	0.0419	2.64	0.327
AC-3	Aroclor-1254	ca	0.331	1.11	0.0146	1.22	6.79
AC-3	Benz(a)anthracene	ca	0.451	—	0.00211	0.164	1.2
AC-3	Benzo(a)pyrene	ca	0.411	—	0.0192	1.14	21
AC-3	Benzo(b)fluoranthene	ca	0.745	—	0.00349	0.198	4.43
AC-3	Aroclor-1254	nc	0.331	1.11	0.255	1.15	10.5
AC-3	Americium-241	rad	5.11	13.8	0.26	0.476	0.0418
AC-3	Lead	nc	58	65.3	0.0871	0.163	0.116
AC-3	Manganese	nc	290	303	0.0144	2.33	0.202
AC-3	Mercury	nc	0.149	0.245	0.0027	0.817	1.75
AC-3	Cesium-137	rad	1.08	2.77	0.132	0.454	0.0495
AC-3	Plutonium-239	rad	29.5	43.3	0.773	1.35	0.14
AC-3	Strontium-90	rad	1.18	2.81	0.00296	0.493	0.281
ACS	Aroclor-1254	ca	0.134	0.201	0.00264	0.221	1.23
ACS	Benzo(a)pyrene	ca	0.132	—	0.00618	0.367	6.74
ACS	Dieldrin	ca	0.00357	0.00562	0.0004	0.128	0.0852
ACS	Nitroso-di-n-propylamine[N-]	ca	0.03	—	0.0010	18.8	0.001
ACS	Aroclor-1254	nc	0.134	0.201	0.0461	0.209	1.9
ACS	Lead	nc	74.7	91	0.121	0.228	0.163
ACS	Mercury	nc	0.335	0.479	0.0052	1.60	3.42
ACS	Uranium	nc	4.52	5.23	0.0056	0.0138	0.0029
ACS	Americium-241	rad	2.4	3.17	0.0598	0.109	0.00961
ACS	Cesium-137	rad	0.949	1.42	0.0676	0.233	0.0254
ACS	Plutonium-239	rad	81.3	104	1.86	3.25	0.335
ACS	Strontium-90	rad	0.354	0.483	0.000508	0.0847	0.0483
DP-1C	Aroclor-1260	ca	0.389	—	0.0051	0.429	2.38
DP-1C	Benzo(a)pyrene	ca	0.329	—	0.0154	0.916	16.8

Table D-2.0-4 (continued)

Reach	Analyte	Risk Class[a]	Average[b]	UCL	Construction-Worker Ratio	Residential Ratio	Resource User Ratio
DP-1C	Benzo(a)anthracene	ca	1.17	1.58	0.0074	0.575	4.20
DP-1C	Benzo(b)fluoranthene	ca	1.34	—	0.0063	0.355	7.98
DP-1C	Lead	nc	79.8	128	0.171	0.320	0.229
DP-1C	Manganese	nc	237	295	0.141	2.27	0.197
DP-1E	Benz(a)anthracene	ca	0.446	0.658	0.00308	0.239	1.75
DP-1E	Benzo(a)pyrene	ca	0.677	—	0.0317	1.88	34.5
DP-1E	Benzo(b)fluoranthene	ca	0.495	0.772	0.00362	0.205	4.59
DP-1W	Benz(a)anthracene	ca	1.07	2.01	0.00941	0.73	5.34
DP-1W	Benzo(a)pyrene	ca	1.24	2.15	0.101	5.98	110
DP-1W	Benzo(b)fluoranthene	ca	1.48	2.63	0.0123	0.697	15.7
DP-1W	Dibenz(a,h)anthracene	ca	0.643	—	0.030	1.39	94.3
DP-1W	Heptachlor Epoxide	ca	0.0722	—	0.004	0.602	0.95
DP-1W	Indeno(1,2,3-cd)pyrene	ca	2.68	—	0.0126	0.586	36.4
DP-2	Benzo(a)anthracene	ca	0.248	0.277	0.0013	0.101	0.737
DP-2	Benzo(a)pyrene	ca	0.255	0.299	0.0140	0.833	15.3
DP-2	Benzo(b)fluoranthene	ca	0.355	0.39	0.0018	0.103	2.32
DP-2	Dibenz(a,h)anthracene	ca	0.0448	—	0.0021	0.0966	6.57
DP-2	Dinitro-2-methylphenol[4,6-]	nc	0.213	—	0.0069	3.49	0.349
DP-2	Lead	nc	41.5	47.9	0.0639	0.120	0.0855
DP-2	Manganese	nc	332	345	0.164	2.65	0.23
DP-2	Americium-241	rad	3.38	4.58	0.0864	0.158	0.0139
DP-2	Cesium-137	rad	27.7	39.2	1.87	6.43	0.7
DP-2	Plutonium-239	rad	3.33	3.79	0.0677	0.118	0.0122
DP-2	Strontium-90	rad	4.5	6.09	0.00641	1.07	0.609
DP-3	Benz(a)anthracene	ca	0.136	—	0.000637	0.0494	0.362
DP-3	Benzo(a)pyrene	ca	0.14	—	0.00656	0.39	7.14
DP-3	Benzo(b)fluoranthene	ca	0.256	—	0.0012	0.0679	1.52
DP-3	Trichlorophenol[2,4,6-]	ca	1.27	—	0.0008	0.0577	0.0106
DP-3	Lead	nc	19.3	23.7	0.0316	0.0593	0.0423
DP-3	Trichlorophenol[2,4,6-]	nc	1.27	—	0.0529	0.212	0.195
DP-3	Americium-241	rad	8.41	13.1	0.247	0.452	0.0397
DP-3	Cesium-137	rad	21.6	29.6	1.41	4.85	0.529
DP-3	Plutonium-239	rad	1.39	1.83	0.0327	0.0572	0.0059
DP-3	Strontium-90	rad	1.99	3.22	0.00339	0.565	0.322
DP-4	Americium-241	rad	1.27	2.22	0.0419	0.0766	0.00673
DP-4	Cesium-137	rad	9.18	12.3	0.586	2.02	0.22
DP-4	Plutonium-239	rad	0.897	1.36	0.0243	0.0425	0.00439
DP-4	Strontium-90	rad	1.58	2.07	0.00218	0.363	0.207
LA-1C	Aroclor-1254	ca	0.123	—	0.0016	0.135	0.75
LA-1C	Aroclor-1260	ca	0.117	0.166	0.0022	0.183	1.01

Table D-2.0-4 (continued)

Reach	Analyte	Risk Class[a]	Average[b]	UCL	Construction-Worker Ratio	Residential Ratio	Resource User Ratio
LA-1C	Benzo(a)pyrene	ca	0.0812	0.0869	0.0041	0.242	4.43
LA-1C	Aroclor-1254	nc	0.123	—	0.0282	0.128	1.16
LA-1E	Cesium-137	rad	0.649	—	0.0309	0.106	0.0116
LA-1E	Plutonium-239	rad	2.29	3.42	0.0611	0.107	0.011
LA-2E	Aroclor-1260	ca	0.0392	0.051	0.000669	0.0562	0.312
LA-2E	Benzo(a)pyrene	ca	0.181	0.3	0.0141	0.835	15.3
LA-2E	Benzo(b)fluoranthene	ca	0.253	0.449	0.0021	0.119	2.67
LA-2E	Americium-241	rad	3.32	4.67	0.0881	0.161	0.0142
LA-2E	Cesium-137	rad	8.9	11	0.524	1.8	0.196
LA-2E	Europium-152	rad	0.291	0.382	0.0406	0.1317	0.0015
LA-2E	Plutonium-239	rad	1.32	2.09	0.0373	0.0653	0.0067
LA-2E	Strontium-90	rad	2.59	3.5	0.00368	0.614	0.35
LA-2E	Thorium-230	rad	1.45	—	0.0097	0.0337	0.0024
LA-2FE	Americium-241	rad	1.53	2.63	0.0496	0.0907	0.008
LA-2FE	Cesium-137	rad	15.2	18.1	0.862	2.97	0.323
LA-2FE	Plutonium-239	rad	1.25	1.53	0.0273	0.0478	0.0049
LA-2FE	Strontium-90	rad	2.35	2.81	0.00296	0.493	0.281
LA-2W	Cesium-137	rad	0.343	0.369	0.0176	0.0605	0.00659
LA-2W	Plutoniu-239	rad	1.06	1.31	0.0042	0.0234	0.0409
LA-2W	Strontium-90	rad	1.55	3.39	0.00357	0.595	0.339
LA-3E	Americium-241	rad	1.13	1.73	0.0326	0.0597	0.0052
LA-3E	Cesium-137	rad	3.47	4.14	0.197	0.679	0.0739
LA-3E	Cobalt-60	rad	0.0325	0.0446	0.0109	0.0372	0.0007
LA-3E	Europium-152	rad	0.185	0.239	0.0254	0.0824	0.001
LA-3E	Strontium-90	rad	0.749	1.25	0.00132	0.219	0.125
LA-3W	Americium-241	rad	0.962	1.36	0.0257	0.0469	0.0041
LA-3W	Cesium-137	rad	5.99	8.73	0.416	1.43	0.156
LA-3W	Strontium-90	rad	1.44	2.06	0.00217	0.361	0.206
LA-4W	Americium-241	rad	0.27	0.392	0.0074	0.0135	0.0012
LA-4W	Cesium-137	rad	0.551	0.687	0.0327	0.113	0.0123
LA-4W	Europium-152	rad	0.203	0.237	0.0252	0.0817	0.0009
LA-4W	Plutonium-239	rad	1.71	2.33	0.0416	0.0728	0.0075
P-1E	2,3,7,8-TCDD TEQ Total	ca	2.79E-06	—	0.002	0.0930	10.3
P-1E	Aroclor-1254	ca	0.00521	—	0.0000683	0.00574	0.0318
P-1E	Benz(a)anthracene	ca	0.169	—	0.000792	0.0614	0.449
P-1E	Benzo(a)pyrene	ca	0.244	—	0.0114	0.679	12.5
P-1E	Benzo(b)fluoranthene	ca	0.319	—	0.00149	0.0846	1.9
P-1E	Dibenz(a,h)anthracene	ca	0.00394	—	0.000185	0.00849	0.578
P-1E	Indeno(1,2,3-cd)pyrene	ca	0.0893	—	0.004	0.0195	1.21
P-1E	Aroclor-1254	nc	0.00521	—	0.0012	0.0054	0.0492

Table D-2.0-4 (continued)

Reach	Analyte	Risk Class[a]	Average[b]	UCL	Construction-Worker Ratio	Residential Ratio	Resource User Ratio
P-1E	Americium-241	rad	0.403	0.492	0.00928	0.017	0.00149
P-1E	Cesium-137	rad	0.433	0.438	0.0209	0.0718	0.00782
P-1E	Plutonium-239	rad	13.6	17.3	0.309	0.541	0.0558
P-1E	Strontium-90	rad	0.834	—	0.000878	0.146	0.0834
P-2W	Plutonium-239	rad	4.93	6.23	0.111	0.195	0.0201
P-3W	Plutonium-239	rad	1.5	1.89	0.0338	0.0591	0.0061
P-4E	Manganese	nc	458	1180	0.562	9.08	0.787
P-4W	Arsenic	ca	0.277	—	0.00213	3.78	0.586
P-4W	Benzo(a)pyrene	ca	0.255	—	0.0119	0.71	13
P-4W	Benzo(b)fluoranthene	ca	0.346	—	0.00162	0.0917	2.06
P-4W	Arsenic	nc	0.277	—	0.00325	0.205	0.0254
P-4W	Plutonium-239	rad	3.81	5.15	0.092	0.161	0.0166

Note: Gray shading indicates a new COPC/reach combination not included in the original report.

[a] rad = Radionuclide; ca = carcinogen; nc = noncarcinogen.

[b] Units: Organic and Inorganic chemicals, mg/kg; radionuclides, pCi/g.

[c] — = UCL is not calculated because of limited data.

Table D-2.0-5

Resource-User Surface Water Exposure Pathways EPC-to-RBC Ratio Sums, by Sampling Location

Location	Carcinogen Sum[a]	Noncarcinogen Sum	Radionuclide Sum[b]
00-10241	0.0306	0.0620	—[c]
21-01854	0.0333	0.0746	0.0169
21-10929	0.114	0.0753	—
21-11226	0.0887	0.144	0.0169
21-11269	—	—	0.0146
GU-10004	0.0641	0.00332	—
LA-00218	0.0652	0.0232	—
LA-00219	0.0523	0.0110	—
LA-02-20908	0.0541	0.00281	—
LA-02-20909	0.0374	0.002	—
LA-02-20913	0.0357	0.00185	—
LA-02-20914	0.0239	0.00561	—
LA-02-20915	0.0295	0.00644	—
LA-10005	0.0356	0.0066	—
LA-10006	—	0.00292	—
LA-10033	0.017	0.00826	—
LA-10040	0.0417	0.701	—
LA-10057	0.0793	0.00411	—
LA-10058	0.0224	0.0722	—
LA-10064	0.081	0.621	—
LA-10065	—	0.339	—
LA-10126	—	—	—
LA-10179	0.0469	0.00243	—
PU-02-20920	0.152	0.022	—
PU-10068	0.0346	0.133	—
PU-10069	0.0437	0.0427	—
PU-10070	0.0369	0.0392	—
PU-10071	0.062	0.184	—
PU-10155	**2.43**	—	0.0126
PU-10175	0.0325	0.0391	0.0281
PU-10176	0.0183	0.000949	0.0183
PU-10229	0.0854	0.288	—
PU-10230	0.187	0.134	—
PU-10231	**1.23**	—	—

Notes: Gray shading indicates a new or revised value from original report. Bold text indicates sum that exceeds 1.

[a] Convert to risk: Value $\times(1 \times 10^{-5})$.

[b] Convert to dose: Value × 4 mrem.

[c] — = Value below screening criteria.

Table D-2.0-6
Residential Groundwater Exposure Pathways,
COPC to RBC Ratio Sums, Filtered and Unfiltered Samples

Field Preparation	Location	Carcinogen Sum[a]	Noncarcinogen Sum	Radionuclide Sum[b]
Filtered	02-01022	4.78	0.578	—[c]
Filtered	02-01076	9.9	1.2	—
Filtered	21-01811	45.8	8.06	4.52
Filtered	21-01812	69.8	13	5.06
Filtered	41-01002	1.88	0.228	—
Filtered	41-01003	5.79	0.7	—
Filtered	41-01004	6.08	0.735	—
Filtered	41-01045	3.61	15.6	—
Filtered	LA-00001	3.42	4.74	—
Filtered	LA-00002	5.5	8.48	—
Filtered	LA-00045	10.4	1.25	—
Filtered	LA-00046	4.25	0.514	—
Filtered	LA-00215	23.4	7.41	—
Filtered	LA-10008	—	6.22	—
Filtered	LA-10035	12.2	44.4	1.1
Filtered	LA-10066	8.92	1.08	—
Filtered	LA-10067	—	39.6	—
Filtered	LA-10068	7.17	14.8	—
Filtered	LA-10069	3.66	3.73	—
Filtered	PU-00177	25.5	13.9	—
Filtered	PU-00178	4.25	6.1	—
Filtered	PU-00181	7.7	0.931	—
Filtered	PU-00182	18.6	15.7	—
Filtered	PU-10228	17.3	5.78	—
Unfiltered	02-01022	4.51	0.546	—
Unfiltered	02-01076	10.2	1.24	—
Unfiltered	21-01811	9.45	4.16	5.33
Unfiltered	21-01812	21.2	7.45	2.75
Unfiltered	41-01002	2.97	1.68	—
Unfiltered	41-01003	3.08	0.372	—
Unfiltered	41-01004	6.4	0.774	—
Unfiltered	41-01045	1.65	0.141	—
Unfiltered	LA-00001	8.2	7.13	—
Unfiltered	LA-00002	5.47	8.66	—
Unfiltered	LA-00045	9.29	1.12	—
Unfiltered	LA-00046	4.78	0.578	—

Table D-2.0-6 (continued)

Field Preparation	Location	Carcinogen Sum[a]	Noncarcinogen Sum	Radionuclide Sum[b]
Unfiltered	LA-00215	**26.6**	**9.4**	—
Unfiltered	LA-10008	—	—	—
Unfiltered	LA-10035	**13.1**	**40.7**	**1.26**
Unfiltered	LA-10066	**10**	**1.21**	—
Unfiltered	LA-10067	—	**38.6**	—
Unfiltered	LA-10068	**8.39**	**15.2**	—
Unfiltered	LA-10069	**3.5**	0.424	—
Unfiltered	PU-00177	**25.6**	**7.47**	—
Unfiltered	PU-00178	**12.35**	**4.87**	—
Unfiltered	PU-00181	**6.37**	0.77	—
Unfiltered	PU-00182	**19.7**	**7.14**	—
Unfiltered	PU-10228	**19**	**5.52**	—

Note: Gray shading indicates a value revised from the original report.

[a] Convert to risk: Value × (1×10^{-5}).

[b] Convert to dose: Value × 4 mrem.

[c] — = COPC class is not carried forward for this location for this report.

Table D-2.0-7
Residential Groundwater Exposure Pathways
without Arsenic, COPC to RBC Ratio Sums, Filtered and Unfiltered Samples

Field Preparation	Location	Carcinogen Sum	Noncarcinogen Sum	Radionuclide Sum[a]
Filtered	21-01811	**37.3**	**7.04**	**4.52**
Filtered	21-01812	**61.1**	**11.9**	**5.06**
Filtered	41-01045	—[b]	**15.2**	—
Filtered	LA-00001	—	**4.33**	—
Filtered	LA-00002	—	**7.82**	—
Filtered	LA-00215	—	**4.58**	—
Filtered	LA-10008	—	**6.22**	—
Filtered	LA-10035	—	**43.1**	**1.1**
Filtered	LA-10067	—	**39.6**	—
Filtered	LA-10068	—	**14.0**	—
Filtered	LA-10069	—	**3.42**	—
Filtered	PU-00177	—	**10.8**	—
Filtered	PU-00178	—	**5.58**	—
Filtered	PU-00182	—	**13.5**	—
Filtered	PU-10228	—	**3.69**	—
Unfiltered	21-01811	0.884	**3.12**	**5.33**
Unfiltered	21-01812	—	**4.88**	**2.75**
Unfiltered	41-01045	0.477	—	—
Unfiltered	LA-00001	0.58	**6.21**	—
Unfiltered	LA-00002	—	**8.0**	—
Unfiltered	LA-00215	**7.04**	**7.03**	—
Unfiltered	LA-10008	—	—	—
Unfiltered	LA-10035	—	**39.1**	**1.26**
Unfiltered	LA-10067	—	**38.6**	—
Unfiltered	LA-10068	—	**14.2**	—
Unfiltered	LA-10069	—	—	—
Unfiltered	PU-00177	—	**4.37**	—
Unfiltered	PU-00178	**8.90**	**4.46**	—
Unfiltered	PU-00182	—	**4.76**	—
Unfiltered	PU-10228	—	**3.23**	—

Notes: Gray shading indicates a value revised from the original report. Bold indicates a ratio >1.0.

[a] Convert to dose: Value × 4 mrem.

[b] — = COPC class is not carried forward for this location for this report.

Table D-2.0-8
Surface Water Exposure Pathways EPC-to-RBC Ratio, by Sampling Location

Location	Name	Canyon	Class[a]	COPC	Units	Number of Samples	EPC[b]	Trail User RBC Ratio	Extended Backyard RBC Ratio
00-10241	Reach AC-2 SW	Acid	ca	Arsenic	µg/L	2	3	0.0305	0.0495
00-10241	Reach AC-2 SW	Acid	nc	Arsenic	µg/L	2	3	0.00158	0.00624
00-10241	Reach AC-2 SW	Acid	nc	Iron	µg/L	2	1200	0.000633	0.0025
00-10241	Reach AC-2 SW	Acid	nc	Lead	µg/L	2	3.5	0.0538	0.0538
00-10241	Reach AC-2 SW	Acid	nc	Thallium	µg/L	2	2.9	0.00574	0.0226
00-10241	Reach AC-2 SW	Acid	nc	Vanadium	µg/L	2	4.5	0.00014	0.0005
21-01854	DP Spring	DP	ca	Arsenic	µg/L	5	2.8	0.0285	0.0462
21-01854	DP Spring	DP	ca	Dichloroethane[1,2-]	µg/L	5	7.6	0.0047	0.0076
21-01854	DP Spring	DP	nc	Arsenic	µg/L	5	2.8	0.00148	0.00583
21-01854	DP Spring	DP	nc	Fluoride	µg/L	1	1100	0.0029	0.0114
21-01854	DP Spring	DP	nc	Iron	µg/L	5	1300	0.000686	0.0027
21-01854	DP Spring	DP	nc	Lead	µg/L	5	4	0.0615	0.0615
21-01854	DP Spring	DP	nc	Thallium	µg/L	5	3.8	0.00752	0.0296
21-01854	DP Spring	DP	nc	Vanadium	µg/L	5	3.87	0.00012	0.00046
21-01854	DP Spring	DP	nc	Bromomethane	µg/L	5	2.7	0.0003	0.0012
21-01854	DP Spring	DP	rad	Strontium-90	pCi/L	5	110	0.0168	0.0295
21-10929	Reach DP-1W SW	DP	ca	Arsenic	µg/L	4	11	0.112	0.182
21-10929	Reach DP-1W SW	DP	ca	BHC[beta-]	µg/L	4	0.1	0.00208	0.00256
21-10929	Reach DP-1W SW	DP	ca	Bromodichloromethane	µg/L	4	0.21	0.00009	0.00014
21-10929	Reach DP-1W SW	DP	nc	Arsenic	µg/L	4	11	0.0058	0.0229
21-10929	Reach DP-1W SW	DP	nc	Iron	µg/L	4	1500	0.00079	0.0031
21-10929	Reach DP-1W SW	DP	nc	Lead	µg/L	4	4.38	0.0674	0.0674
21-10929	Reach DP-1W SW	DP	nc	Manganese	µg/L	4	420	0.00059	0.00227
21-10929	Reach DP-1W SW	DP	nc	Uranium	µg/L	4	1.2	0.000063	0.00025
21-10929	Reach DP-1W SW	DP	nc	Vanadium	µg/L	4	21.5	0.00067	0.0026

Table D-2.0-8 (continued)

Location	Name	Canyon	Class[a]	COPC	Units	Number of Samples	EPC[b]	Trail User RBC Ratio	Extended Backyard RBC Ratio
21-11226	Reach DP-1C SW	DP	ca	Arsenic	µg/L	4	8.7	0.0885	0.144
21-11226	Reach DP-1C SW	DP	nc	Aluminum	µg/L	4	6610	0.00105	0.00413
21-11226	Reach DP-1C SW	DP	nc	Antimony	µg/L	4	2.15	0.000901	0.00352
21-11226	Reach DP-1C SW	DP	nc	Arsenic	µg/L	4	8.7	0.00459	0.0181
21-11226	Reach DP-1C SW	DP	nc	Iron	µg/L	4	4480	0.00236	0.00932
21-11226	Reach DP-1C SW	DP	nc	Lead	µg/L	4	8.3	0.128	0.128
21-11226	Reach DP-1C SW	DP	nc	Manganese	µg/L	4	280	0.000396	0.00151
21-11226	Reach DP-1C SW	DP	nc	Thallium	µg/L	4	2.9	0.00574	0.0226
21-11226	Reach DP-1C SW	DP	nc	Uranium	µg/L	4	1.15	0.0000607	0.000239
21-11226	Reach DP-1C SW	DP	nc	Vanadium	µg/L	4	21.2	0.00066	0.0025
21-11269	Reach DP-2 SW	DP	rad	Strontium-90	pCi/L	1	95.2	0.0146	0.0255
GU-10004	Guaje at LA Confluence	Guaje	ca	Arsenic	µg/L	2	6.3	0.0641	0.104
GU-10004	Guaje at LA Confluence	Guaje	nc	Arsenic	µg/L	2	6.3	0.00332	0.0131
LA-00218	Reach LA-4 SW	Los Alamos	ca	Arsenic	µg/L	8	6.41	0.0652	0.106
LA-00218	Reach LA-4 SW	Los Alamos	nc	Arsenic	µg/L	8	6.41	0.00338	0.0133
LA-00218	Reach LA-4 SW	Los Alamos	nc	Lead	µg/L	8	1.17	0.0180	0.0180
LA-00218	Reach LA-4 SW	Los Alamos	nc	Uranium	µg/L	8	0.88	0.000046	0.00018
LA-00218	Reach LA-4 SW	Los Alamos	nc	Vanadium	µg/L	8	11.3	0.00035	0.0013
LA-00218	Reach LA-4 SW	Los Alamos	nc	Thallium	µg/L	8	0.74	0.0015	0.0058
LA-00219	Basalt Spring	Los Alamos	ca	Arsenic	µg/L	8	5.14	0.0523	0.0849
LA-00219	Basalt Spring	Los Alamos	nc	Antimony	µg/L	8	3	0.00126	0.00492
LA-00219	Basalt Spring	Los Alamos	nc	Arsenic	µg/L	8	5.14	0.00271	0.0107
LA-00219	Basalt Spring	Los Alamos	nc	Thallium	µg/L	8	3.4	0.00672	0.0265
LA-00219	Basalt Spring	Los Alamos	nc	Uranium	µg/L	3	1.05	0.0000552	0.000218
LA-00219	Basalt Spring	Los Alamos	nc	Vanadium	µg/L	3	7.85	0.0002	0.0009
LA-02-20908	Eco	Los Alamos	ca	Arsenic	µg/L	1	5.32	0.0541	0.0878

Table D-2.0-8 (continued)

Location	Name	Canyon	Class[a]	COPC	Units	Number of Samples	EPC[b]	Trail User RBC Ratio	Extended Backyard RBC Ratio
LA-02-20908	Eco	Los Alamos	nc	Arsenic	µg/L	1	5.32	0.00281	0.0111
LA-02-20909	Eco	Los Alamos	ca	Arsenic	µg/L	1	3.61	0.0367	0.0596
LA-02-20909	Eco	Los Alamos	ca	DDT[4,4'-]	µg/L	1	0.32	0.00073	0.00119
LA-02-20909	Eco	Los Alamos	nc	Arsenic	µg/L	1	3.61	0.0019	0.00751
LA-02-20909	Eco	Los Alamos	nc	DDT[4,4'-]	µg/L	1	0.32	0.0001	0.000396
LA-02-20913	Eco	DP	ca	Arsenic	µg/L	1	3.51	0.0357	0.0579
LA-02-20913	Eco	DP	nc	Arsenic	µg/L	1	3.51	0.00185	0.0073
LA-02-20914	Eco	Los Alamos	ca	Arsenic	µg/L	1	2.27	0.0231	0.0375
LA-02-20914	Eco	Los Alamos	ca	DDT[4,4'-]	µg/L	1	0.34	0.000776	0.00127
LA-02-20914	Eco	Los Alamos	nc	Arsenic	µg/L	1	2.27	0.0012	0.00472
LA-02-20914	Eco	Los Alamos	nc	DDT[4,4'-]	µg/L	1	0.34	0.000106	0.000421
LA-02-20914	Eco	Los Alamos	nc	Iron	µg/L	1	2170	0.00114	0.00452
LA-02-20914	Eco	Los Alamos	nc	Manganese	µg/L	1	1640	0.00232	0.00887
LA-02-20914	Eco	Los Alamos	nc	Thallium	µg/L	1	0.422	0.000835	0.00329
LA-02-20915	Eco	Los Alamos	ca	Arsenic	µg/L	1	2.9	0.0295	0.0479
LA-02-20915	Eco	Los Alamos	nc	Aluminum	µg/L	1	4910	0.000777	0.00306
LA-02-20915	Eco	Los Alamos	nc	Arsenic	µg/L	1	2.9	0.00153	0.00603
LA-02-20915	Eco	Los Alamos	nc	Iron	µg/L	1	3300	0.00174	0.00687
LA-02-20915	Eco	Los Alamos	nc	Manganese	µg/L	1	1270	0.0018	0.00687
LA-02-20915	Eco	Los Alamos	nc	Thallium	µg/L	1	0.302	0.000597	0.00236
LA-10005	SW at LAO-0.6	Los Alamos	ca	Arsenic	µg/L	3	3.5	0.0356	0.0578
LA-10005	SW at LAO-0.6	Los Alamos	nc	Arsenic	µg/L	3	3.5	0.00185	0.00728
LA-10005	SW at LAO-0.6	Los Alamos	nc	Iron	µg/L	3	1400	0.000738	0.00291
LA-10005	SW at LAO-0.6	Los Alamos	nc	Manganese	µg/L	3	2600	0.00368	0.0141
LA-10005	SW at LAO-0.6	Los Alamos	nc	Vanadium	µg/L	3	9.6	0.0003	0.0011
LA-10006	Upper Reach LA-0 SW	Los Alamos	nc	Iron	µg/L	2	1500	0.000791	0.00312

Table D-2.0-8 (continued)

Location	Name	Canyon	Class[a]	COPC	Units	Number of Samples	EPC[b]	Trail User RBC Ratio	Extended Backyard RBC Ratio
LA-10006	Upper Reach LA-0 SW	Los Alamos	nc	Manganese	µg/L	2	1500	0.00212	0.00812
LA-10033	LA Reservoir	Los Alamos	ca	Arsenic	µg/L	2	1.5	0.0153	0.0248
LA-10033	LA Reservoir	Los Alamos	ca	Methylene chloride	µg/L	2	37	0.0018	0.0031
LA-10033	LA Reservoir	Los Alamos	nc	Arsenic	µg/L	2	1.5	0.000791	0.00312
LA-10033	LA Reservoir	Los Alamos	nc	Manganese	µg/L	2	4600	0.00651	0.0249
LA-10033	LA Reservoir	Los Alamos	nc	Thallium	µg/L	2	0.482	0.000953	0.00376
LA-10040	At E026	Los Alamos	ca	Arsenic	µg/L	1	4.1	0.0417	0.0677
LA-10040	At E026	Los Alamos	nc	Aluminum	µg/L	1	42800	0.00677	0.0267
LA-10040	At E026	Los Alamos	nc	Arsenic	µg/L	1	4.1	0.00216	0.00853
LA-10040	At E026	Los Alamos	nc	Barium	µg/L	1	467	0.0012	0.00466
LA-10040	At E026	Los Alamos	nc	Chromium	µg/L	1	18.8	0.00028	0.00103
LA-10040	At E026	Los Alamos	nc	Iron	µg/L	1	24200	0.0128	0.0504
LA-10040	At E026	Los Alamos	nc	Lead	µg/L	1	43.5	0.669	0.669
LA-10040	At E026	Los Alamos	nc	Manganese	µg/L	1	2130	0.00302	0.0115
LA-10040	At E026	Los Alamos	nc	Thallium	µg/L	1	2.6	0.00514	0.0203
LA-10057	Upper Reach LA-5 SW	Los Alamos	ca	Arsenic	µg/L	2	7.8	0.0793	0.129
LA-10057	Upper Reach LA-5 SW	Los Alamos	nc	Arsenic	µg/L	2	7.8	0.00411	0.0162
LA-10058	Lower Reach LA-5 SW (at delta)	Los Alamos	ca	Arsenic	µg/L	1	2.2	0.0224	0.0363
LA-10058	Lower Reach LA-5 SW (at delta)	Los Alamos	nc	Arsenic	µg/L	1	2.2	0.00116	0.00458
LA-10058	Lower Reach LA-5 SW (at delta)	Los Alamos	nc	Iron	µg/L	1	1700	0.000897	0.00354
LA-10058	Lower Reach LA-5 SW (at delta)	Los Alamos	nc	Lead	µg/L	1	4.1	0.0631	0.0631
LA-10058	Lower Reach LA-5 SW (at delta)	Los Alamos	nc	Manganese	µg/L	1	330	0.000467	0.00179
LA-10058	Lower Reach LA-5 SW (at delta)	Los Alamos	nc	Perchlorate	µg/L	1	4	0.00633	0.025
LA-10058	Lower Reach LA-5 SW (at delta)	Los Alamos	nc	Vanadium	µg/L	1	9.7	0.0003	0.0011
LA-10064	Reach LA-1W SW	Los Alamos	ca	Arsenic	µg/L	3	7.75	0.0788	0.128
LA-10064	Reach LA-1W SW	Los Alamos	ca	Methylene chloride	µg/L	3	40	0.002	0.0033

Table D-2.0-8 (continued)

Location	Name	Canyon	Class[a]	COPC	Units	Number of Samples	EPC[b]	Trail User RBC Ratio	Extended Backyard RBC Ratio
LA-10064	Reach LA-1W SW	Los Alamos	nc	Aluminum	µg/L	3	27800	0.0044	0.0174
LA-10064	Reach LA-1W SW	Los Alamos	nc	Arsenic	µg/L	3	7.75	0.00409	0.0161
LA-10064	Reach LA-1W SW	Los Alamos	nc	Barium	µg/L	3	381	0.000982	0.0038
LA-10064	Reach LA-1W SW	Los Alamos	nc	Chromium	µg/L	3	18.1	0.000269	0.000994
LA-10064	Reach LA-1W SW	Los Alamos	nc	Iron	µg/L	3	14300	0.00754	0.0298
LA-10064	Reach LA-1W SW	Los Alamos	nc	Lead	µg/L	3	36	0.600	0.600
LA-10064	Reach LA-1W SW	Los Alamos	nc	Manganese	µg/L	3	1590	0.00225	0.0086
LA-10064	Reach LA-1W SW	Los Alamos	nc	Thallium	µg/L	3	0.42	0.000831	0.00328
LA-10064	Reach LA-1W SW	Los Alamos	nc	Uranium	µg/L	3	4.17	0.00022	0.000868
LA-10064	Reach LA-1W SW	Los Alamos	nc	Vanadium	µg/L	3	25.8	0.0008	0.0031
LA-10065	Reach LA-1C SW	Los Alamos	nc	Aluminum	µg/L	3	15000	0.00237	0.00936
LA-10065	Reach LA-1C SW	Los Alamos	nc	Iron	µg/L	3	7290	0.00384	0.0152
LA-10065	Reach LA-1C SW	Los Alamos	nc	Lead	µg/L	3	21.5	0.331	0.331
LA-10065	Reach LA-1C SW	Los Alamos	nc	Manganese	µg/L	3	728	0.00103	0.00394
LA-10065	Reach LA-1C SW	Los Alamos	nc	Uranium	µg/L	3	3.44	0.000182	0.000716
LA-10065	Reach LA-1C SW	Los Alamos	nc	Vanadium	µg/L	3	16.3	0.000515	0.0019
LA-10179	Otowi Spring	Los Alamos	ca	Arsenic	µg/L	1	4.61	0.0469	0.0761
LA-10179	Otowi Spring	Los Alamos	nc	Arsenic	µg/L	1	4.61	0.00243	0.00959
PU-02-20920	Eco	Pueblo	ca	Arsenic	µg/L	1	14.9	0.152	0.246
PU-02-20920	Eco	Pueblo	nc	Arsenic	µg/L	1	14.9	0.00786	0.031
PU-02-20920	Eco	Pueblo	nc	Barium	µg/L	1	391	0.00101	0.0039
PU-02-20920	Eco	Pueblo	nc	Iron	µg/L	1	14100	0.00744	0.0293
PU-02-20920	Eco	Pueblo	nc	Manganese	µg/L	1	4010	0.00568	0.0217
PU-10068	Reach P-1 Far West SW	Pueblo	ca	Arsenic	µg/L	4	3.4	0.0346	0.0561
PU-10068	Reach P-1 Far West SW	Pueblo	nc	Arsenic	µg/L	4	3.4	0.00179	0.00707
PU-10068	Reach P-1 Far West SW	Pueblo	nc	Iron	µg/L	4	2800	0.00148	0.00583

Table D-2.0-8 (continued)

Location	Name	Canyon	Class[a]	COPC	Units	Number of Samples	EPC[b]	Trail User RBC Ratio	Extended Backyard RBC Ratio
PU-10068	Reach P-1 Far West SW	Pueblo	nc	Lead	µg/L	4	8.3	0.128	0.128
PU-10068	Reach P-1 Far West SW	Pueblo	nc	Manganese	µg/L	4	1580	0.00224	0.00855
PU-10068	Reach P-1 Far West SW	Pueblo	nc	Vanadium	µg/L	4	4.9	0.00015	0.00058
PU-10069	Upper Reach P-1W SW	Pueblo	ca	Arsenic	µg/L	4	4.3	0.0437	0.071
PU-10069	Upper Reach P-1W SW	Pueblo	nc	Antimony	µg/L	4	3	0.00126	0.00492
PU-10069	Upper Reach P-1W SW	Pueblo	nc	Arsenic	µg/L	4	4.3	0.00227	0.00895
PU-10069	Upper Reach P-1W SW	Pueblo	nc	Lead	µg/L	4	2.3	0.0354	0.0354
PU-10069	Upper Reach P-1W SW	Pueblo	nc	Manganese	µg/L	4	2590	0.00367	0.014
PU-10069	Upper Reach P-1W SW	Pueblo	nc	Vanadium	µg/L	4	3.66	0.00011	0.00043
PU-10070	Lower Reach P-1W SW	Pueblo	ca	Arsenic	µg/L	6	3.63	0.0369	0.0599
PU-10070	Lower Reach P-1W SW	Pueblo	nc	Arsenic	µg/L	6	3.63	0.00191	0.00755
PU-10070	Lower Reach P-1W SW	Pueblo	nc	Iron	µg/L	6	2040	0.0011	0.0042
PU-10070	Lower Reach P-1W SW	Pueblo	nc	Lead	µg/L	6	2.12	0.0326	0.0326
PU-10070	Lower Reach P-1W SW	Pueblo	nc	Manganese	µg/L	6	1120	0.0016	0.0060
PU-10070	Lower Reach P-1W SW	Pueblo	nc	Vanadium	µg/L	6	3.28	0.0001	0.00039
PU-10070	Lower Reach P-1W SW	Pueblo	nc	Uranium	µg/L	6	0.88	0.00005	0.00018
PU-10071	Upper Reach P-1E SW	Pueblo	ca	Arsenic	µg/L	4	6.1	0.062	0.101
PU-10071	Upper Reach P-1E SW	Pueblo	nc	Arsenic	µg/L	4	6.1	0.00322	0.0127
PU-10071	Upper Reach P-1E SW	Pueblo	nc	Iron	µg/L	4	5200	0.00274	0.0108
PU-10071	Upper Reach P-1E SW	Pueblo	nc	Lead	µg/L	4	11	0.169	0.169
PU-10071	Upper Reach P-1E SW	Pueblo	nc	Manganese	µg/L	4	6200	0.00878	0.0335
PU-10071	Upper Reach P-1E SW	Pueblo	nc	Vanadium	µg/L	4	6.1	0.00019	0.00072
PU-10155	Lower Reach AC-3 SW (near Acid Weir)	Acid	ca	Benz(a)anthracene	µg/L	4	0.65	0.0659	0.047
PU-10155	Lower Reach AC-3 SW (near Acid Weir)	Acid	ca	Benzo(a)pyrene	µg/L	4	0.63	1.07	0.745

Table D-2.0-8 (continued)

Location	Name	Canyon	Class[a]	COPC	Units	Number of Samples	EPC[b]	Trail User RBC Ratio	Extended Backyard RBC Ratio
PU-10155	Lower Reach AC-3 SW (near Acid Weir)	Acid	ca	Benzo(b)fluoranthene	µg/L	4	0.49	0.0847	0.0587
PU-10155	Lower Reach AC-3 SW (near Acid Weir)	Acid	ca	Dibenz(a,h)anthracene	µg/L	4	0.43	1.12	0.766
PU-10155	Lower Reach AC-3 SW (near Acid Weir)	Acid	ca	Indeno(1,2,3-cd)pyrene	µg/L	4	0.47	0.0813	0.0564
PU-10155	Lower Reach AC-3 SW (near Acid Weir)	Acid	rad	Americium-241	pCi/L	4	0.134	0.000488	0.000854
PU-10155	Lower Reach AC-3 SW (near Acid Weir)	Acid	rad	Plutonium-239	pCi/L	4	2.58	0.00913	0.016
PU-10155	Lower Reach AC-3 SW (near Acid Weir)	Acid	rad	Strontium-90	pCi/L	4	19.2	0.00294	0.00514
PU-10175	Upper S. Fork Acid Canyon SW	Acid	ca	Arsenic	µg/L	2	3.2	0.0325	0.0528
PU-10175	Upper S. Fork Acid Canyon SW	Acid	nc	Arsenic	µg/L	2	3.2	0.00169	0.00666
PU-10175	Upper S. Fork Acid Canyon SW	Acid	nc	Lead	µg/L	2	2.4	0.0369	0.0369
PU-10175	Upper S. Fork Acid Canyon SW	Acid	nc	Uranium	µg/L	2	10.3	0.000541	0.00214
PU-10175	Upper S. Fork Acid Canyon SW	Acid	rad	Plutonium-239	pCi/L	2	7.11	0.0252	0.044
PU-10175	Upper S. Fork Acid Canyon SW	Acid	rad	Uranium-234	pCi/L	2	7.3	0.00207	0.00362
PU-10175	Upper S. Fork Acid Canyon SW	Acid	rad	Uranium-238	pCi/L	2	3.4	0.000915	0.0016
PU-10176	Lower S. Fork Acid Canyon SW	Acid	ca	Arsenic	µg/L	2	1.8	0.0183	0.0297
PU-10176	Lower S. Fork Acid Canyon SW	Acid	nc	Arsenic	µg/L	2	1.8	0.000949	0.00375
PU-10176	Lower S. Fork Acid Canyon SW	Acid	rad	Plutonium-239	pCi/L	2	5.17	0.0183	0.032
PU-10229	Pueblo at SR-502	Pueblo	ca	Arsenic	µg/L	4	8.4	0.0854	0.139
PU-10229	Pueblo at SR-502	Pueblo	nc	Aluminum	µg/L	4	4000	0.000633	0.0025
PU-10229	Pueblo at SR-502	Pueblo	nc	Arsenic	µg/L	4	8.4	0.00443	0.0175
PU-10229	Pueblo at SR-502	Pueblo	nc	Boron	µg/L	2	384	0.000675	0.00266
PU-10229	Pueblo at SR-502	Pueblo	nc	Iron	µg/L	4	5990	0.00316	0.0125

Table D-2.0-8 (continued)

Location	Name	Canyon	Class[a]	COPC	Units	Number of Samples	EPC[b]	Trail User RBC Ratio	Extended Backyard RBC Ratio
PU-10229	Pueblo at SR-502	Pueblo	nc	Lead	µg/L	4	18	0.277	0.277
PU-10229	Pueblo at SR-502	Pueblo	nc	Manganese	µg/L	4	1760	0.00249	0.00952
PU-10229	Pueblo at SR-502	Pueblo	nc	Uranium	µg/L	3	2.62	0.000138	0.000544
PU-10229	Pueblo at SR-502	Pueblo	nc	Vanadium	µg/L	4	14.6	0.00046	0.0017
PU-10230	Pueblo 3	Pueblo	ca	Arsenic	µg/L	4	10.4	0.106	0.172
PU-10230	Pueblo 3	Pueblo	ca	Bis(2-ethylhexyl)phthalate	µg/L	4	6.8	0.0814	0.0548
PU-10230	Pueblo 3	Pueblo	nc	Arsenic	µg/L	4	10.4	0.00549	0.0216
PU-10230	Pueblo 3	Pueblo	nc	Bis(2-ethylhexyl)phthalate	µg/L	4	6.8	0.00678	0.0226
PU-10230	Pueblo 3	Pueblo	nc	Boron	µg/L	2	347	0.00061	0.00241
PU-10230	Pueblo 3	Pueblo	nc	Iron	µg/L	4	2550	0.00134	0.00531
PU-10230	Pueblo 3	Pueblo	nc	Lead	µg/L	4	7.26	0.112	0.112
PU-10230	Pueblo 3	Pueblo	nc	Manganese	µg/L	4	1240	0.00176	0.00671
PU-10230	Pueblo 3	Pueblo	nc	Thallium	µg/L	4	3	0.00593	0.0234
PU-10230	Pueblo 3	Pueblo	nc	Vanadium	µg/L	4	19.2	0.0006	0.0023
PU-10231	Pueblo 2	Pueblo	ca	Benz(a)anthracene	µg/L	1	0.79	0.0801	0.0571
PU-10231	Pueblo 2	Pueblo	ca	Benzo(a)pyrene	µg/L	1	0.56	0.954	0.662
PU-10231	Pueblo 2	Pueblo	ca	Benzo(b)fluoranthene	µg/L	1	0.58	0.1	0.0695
PU-10231	Pueblo 2	Pueblo	ca	Indeno(1,2,3-cd)pyrene	µg/L	1	0.57	0.0987	0.0684

Note: Gray shading indicates a new COPC/reach combination not included in the original report.

[a] ca = Carcinogen, nc = noncarcinogen, rad = radionuclide.

[b] The maximum detected value is used as the EPC when insufficient data are available to calculate a UCL.

Table D-2.0-9
Groundwater EPC-to-RBC Ratios

Field Preparation	Location	Name	Canyon	Risk Class[a]	Analyte	Units	Number of Samples	EPC[b]	Residential RBC Ratio
Filtered	02-01022	LAO-0.91	Los Alamos	ca	Arsenic	µg/L	1	1.8	4.78
Filtered	02-01022	LAO-0.91	Los Alamos	nc	Arsenic	µg/L	1	1.8	0.578
Filtered	02-01076	LAO-1	Los Alamos	ca	Arsenic	µg/L	3	3.73	9.9
Filtered	02-01076	LAO-1	Los Alamos	nc	Arsenic	µg/L	3	3.73	1.2
Filtered	21-01811	LAUZ-1	DP	ca	Arsenic	µg/L	8	3.18	8.44
Filtered	21-01811	LAUZ-1	DP	ca	Bis(2-ethylhexyl)phthalate	µg/L	1	22	37.3
Filtered	21-01811	LAUZ-1	DP	nc	Arsenic	µg/L	8	3.18	1.02
Filtered	21-01811	LAUZ-1	DP	nc	Bis(2-ethylhexyl)phthalate	µg/L	1	22	5.62
Filtered	21-01811	LAUZ-1	DP	nc	Fluoride	µg/L	6	696	1.12
Filtered	21-01811	LAUZ-1	DP	nc	Lead	µg/L	6	5	0.3
Filtered	21-01811	LAUZ-1	DP	rad	Strontium-90	pCi/L	9	169	4.52
Filtered	21-01812	LAUZ-2	DP	ca	Arsenic	µg/L	4	3.3	8.76
Filtered	21-01812	LAUZ-2	DP	ca	Bis(2-ethylhexyl)phthalate	µg/L	1	36	61.1
Filtered	21-01812	LAUZ-2	DP	nc	Arsenic	µg/L	4	3.3	1.06
Filtered	21-01812	LAUZ-2	DP	nc	Bis(2-ethylhexyl)phthalate	µg/L	1	36	9.19
Filtered	21-01812	LAUZ-2	DP	nc	Fluoride	µg/L	1	1300	2.09
Filtered	21-01812	LAUZ-2	DP	nc	Manganese	µg/L	4	818	0.622
Filtered	21-01812	LAUZ-2	DP	rad	Strontium-90	pCi/L	4	189	5.06
Filtered	41-01002	LAO-0.6	Los Alamos	ca	Arsenic	µg/L	4	0.71	1.88
Filtered	41-01002	LAO-0.6	Los Alamos	nc	Arsenic	µg/L	4	0.71	0.228
Filtered	41-01003	LAO-0.3	Los Alamos	ca	Arsenic	µg/L	8	2.18	5.79
Filtered	41-01003	LAO-0.3	Los Alamos	nc	Arsenic	µg/L	8	2.18	0.7
Filtered	41-01004	LAO-C	Los Alamos	ca	Arsenic	µg/L	4	2.29	6.08
Filtered	41-01004	LAO-C	Los Alamos	nc	Arsenic	µg/L	4	2.29	0.735
Filtered	41-01045	LAO-B	Los Alamos	ca	Arsenic	µg/L	11	1.36	3.61
Filtered	41-01045	LAO-B	Los Alamos	nc	Arsenic	µg/L	11	1.36	0.437
Filtered	41-01045	LAO-B	Los Alamos	nc	Perchlorate	µg/L	8	15.3	14.7
Filtered	41-01045	LAO-B	Los Alamos	nc	Thallium	µg/L	11	0.373	0.449
Filtered	LA-00001	LAO-1.6g	Los Alamos	ca	Arsenic	µg/L	8	1.29	3.42
Filtered	LA-00001	LAO-1.6g	Los Alamos	nc	Arsenic	µg/L	8	1.29	0.414
Filtered	LA-00001	LAO-1.6g	Los Alamos	nc	Fluoride	µg/L	5	541	0.868

Table D-2.0-9 (continued)

Field Preparation	Location	Name	Canyon	Risk Class[a]	Analyte	Units	Number of Samples	EPC[b]	Residential RBC Ratio
Filtered	LA-00001	LAO-1.6g	Los Alamos	nc	Molybdenum	µg/L	3	140	2.7
Filtered	LA-00001	LAO-1.6g	Los Alamos	nc	Thallium	µg/L	8	0.636	0.766
Filtered	LA-00002	LLAO-5	Los Alamos	ca	Arsenic	µg/L	9	2.07	5.5
Filtered	LA-00002	LLAO-5	Los Alamos	nc	Arsenic	µg/L	9	2.07	0.665
Filtered	LA-00002	LLAO-5	Los Alamos	nc	Barium	µg/L	9	287	0.418
Filtered	LA-00002	LLAO-5	Los Alamos	nc	Fluoride	µg/L	7	393	0.631
Filtered	LA-00002	LLAO-5	Los Alamos	nc	Nitrite	µg/L	1	3990	3.84
Filtered	LA-00002	LLAO-5	Los Alamos	nc	Thallium	µg/L	9	2.1	2.53
Filtered	LA-00002	LLAO-5	Los Alamos	nc	Uranium	µg/L	6	9.4	0.302
Filtered	LA-00002	LLAO-5	Los Alamos	nc	Vanadium	µg/L	5	6.23	0.10
Filtered	LA-00045	LLAO-2	Los Alamos	ca	Arsenic	µg/L	1	3.9	10.4
Filtered	LA-00045	LLAO-2	Los Alamos	nc	Arsenic	µg/L	1	3.9	1.25
Filtered	LA-00046	LLAO-4	Los Alamos	ca	Arsenic	µg/L	5	1.6	4.25
Filtered	LA-00046	LLAO-4	Los Alamos	nc	Arsenic	µg/L	5	1.6	0.514
Filtered	LA-00215	LLAO-1	Los Alamos	ca	Arsenic	µg/L	9	8.81	23.4
Filtered	LA-00215	LLAO-1	Los Alamos	nc	Arsenic	µg/L	9	8.81	2.83
Filtered	LA-00215	LLAO-1	Los Alamos	nc	Fluoride	µg/L	7	610	0.979
Filtered	LA-00215	LLAO-1	Los Alamos	nc	Nitrate	µg/L	1	7400	0.445
Filtered	LA-00215	LLAO-1	Los Alamos	nc	Thallium	µg/L	9	2.59	3.12
Filtered	LA-00215	LLAO-1	Los Alamos	nc	Uranium	µg/L	6	0.907	0.0291
Filtered	LA-00215	LLAO-1	Los Alamos	nc	Vanadium	µg/L	9	8.74	0.141
Filtered	LA-10008	LAO-1.2	Los Alamos	nc	Antimony	µg/L	1	3.3	0.815
Filtered	LA-10008	LAO-1.2	Los Alamos	nc	Chromium	µg/L	1	16	0.11
Filtered	LA-10008	LAO-1.2	Los Alamos	nc	Thallium	µg/L	1	4.4	5.3
Filtered	LA-10035	LAO-3a	Los Alamos	ca	Arsenic	µg/L	4	4.61	12.2
Filtered	LA-10035	LAO-3a	Los Alamos	nc	Arsenic	µg/L	4	4.61	1.48
Filtered	LA-10035	LAO-3a	Los Alamos	nc	Fluoride	µg/L	4	653	1.05
Filtered	LA-10035	LAO-3a	Los Alamos	nc	Lead	µg/L	4	2.2	0.147
Filtered	LA-10035	LAO-3a	Los Alamos	nc	Molybdenum	µg/L	3	1970	37.9
Filtered	LA-10035	LAO-3a	Los Alamos	nc	Thallium	µg/L	4	3.3	3.97
Filtered	LA-10035	LAO-3a	Los Alamos	nc	Vanadium	µg/L	4	4.59	0.074
Filtered	LA-10035	LAO-3a	Los Alamos	rad	Strontium-90	pCi/L	4	40.9	1.1

Table D-2.0-9 (continued)

Field Preparation	Location	Name	Canyon	Risk Class[a]	Analyte	Units	Number of Samples	EPC[b]	Residential RBC Ratio
Filtered	LA-10066	LAO-0.7	Los Alamos	ca	Arsenic	µg/L	4	3.36	8.92
Filtered	LA-10066	LAO-0.7	Los Alamos	nc	Arsenic	µg/L	4	3.36	1.08
Filtered	LA-10067	LAO-2	Los Alamos	nc	Fluoride	µg/L	3	600	0.963
Filtered	LA-10067	LAO-2	Los Alamos	nc	Lead	µg/L	3	2.45	0.163
Filtered	LA-10067	LAO-2	Los Alamos	nc	Molybdenum	µg/L	2	2000	38.5
Filtered	LA-10068	LAO-4	Los Alamos	ca	Arsenic	µg/L	3	2.7	7.17
Filtered	LA-10068	LAO-4	Los Alamos	nc	Arsenic	µg/L	3	2.7	0.867
Filtered	LA-10068	LAO-4	Los Alamos	nc	Fluoride	µg/L	3	1600	2.57
Filtered	LA-10068	LAO-4	Los Alamos	nc	Lead	µg/L	3	2.89	0.193
Filtered	LA-10068	LAO-4	Los Alamos	nc	Molybdenum	µg/L	3	582	11.2
Filtered	LA-10069	LAO-4.5c	Los Alamos	ca	Arsenic	µg/L	3	1.38	3.66
Filtered	LA-10069	LAO-4.5c	Los Alamos	nc	Arsenic	µg/L	3	1.38	0.443
Filtered	LA-10069	LAO-4.5c	Los Alamos	nc	Fluoride	µg/L	4	1600	2.57
Filtered	LA-10069	LAO-4.5c	Los Alamos	nc	Lead	µg/L	4	1.93	0.129
Filtered	LA-10069	LAO-4.5c	Los Alamos	nc	Molybdenum	µg/L	3	32.8	0.632
Filtered	LA-10069	LAO-4.5c	Los Alamos	nc	Uranium	µg/L	2	2.84	0.0913
Filtered	PU-00177	PAO-5N	Pueblo	ca	Arsenic	µg/L	6	9.6	25.5
Filtered	PU-00177	PAO-5N	Pueblo	nc	Arsenic	µg/L	6	9.6	3.08
Filtered	PU-00177	PAO-5N	Pueblo	nc	Boron	µg/L	1	379	0.406
Filtered	PU-00177	PAO-5N	Pueblo	nc	Fluoride	µg/L	3	560	0.899
Filtered	PU-00177	PAO-5N	Pueblo	nc	Iron	µg/L	6	1650	0.53
Filtered	PU-00177	PAO-5N	Pueblo	nc	Manganese	µg/L	6	3620	2.75
Filtered	PU-00177	PAO-5N	Pueblo	nc	Nitrate	µg/L	1	3100	0.187
Filtered	PU-00177	PAO-5N	Pueblo	nc	Perchlorate	µg/L	4	6.18	5.95
Filtered	PU-00177	PAO-5N	Pueblo	nc	Vanadium	µg/L	4	5	0.081
Filtered	PU-00178	PAO-1	Pueblo	ca	Arsenic	µg/L	8	1.6	4.25
Filtered	PU-00178	PAO-1	Pueblo	nc	Antimony	µg/L	8	4	0.987
Filtered	PU-00178	PAO-1	Pueblo	nc	Arsenic	µg/L	8	1.6	0.514
Filtered	PU-00178	PAO-1	Pueblo	nc	Manganese	µg/L	8	1230	0.935
Filtered	PU-00178	PAO-1	Pueblo	nc	Vanadium	µg/L	8	3.25	0.052
Filtered	PU-00178	PAO-1	Pueblo	nc	Thallium	µg/L	8	3	3.61
Filtered	PU-00181	PAO-3	Pueblo	ca	Arsenic	µg/L	1	2.9	7.7

Table D-2.0-9 (continued)

Field Preparation	Location	Name	Canyon	Risk Class[a]	Analyte	Units	Number of Samples	EPC[b]	Residential RBC Ratio
Filtered	PU-00181	PAO-3	Pueblo	nc	Arsenic	µg/L	1	2.9	0.931
Filtered	PU-00182	PAO-4	Pueblo	ca	Arsenic	µg/L	9	6.99	18.6
Filtered	PU-00182	PAO-4	Pueblo	nc	Arsenic	µg/L	9	6.99	2.24
Filtered	PU-00182	PAO-4	Pueblo	nc	Boron	µg/L	3	383	0.41
Filtered	PU-00182	PAO-4	Pueblo	nc	Fluoride	µg/L	6	664	1.07
Filtered	PU-00182	PAO-4	Pueblo	nc	Iron	µg/L	9	3370	1.08
Filtered	PU-00182	PAO-4	Pueblo	nc	Manganese	µg/L	9	1780	1.35
Filtered	PU-00182	PAO-4	Pueblo	nc	Perchlorate	µg/L	7	5.74	5.53
Filtered	PU-00182	PAO-4	Pueblo	nc	Thallium	µg/L	9	3.3	3.97
Filtered	PU-00182	PAO-4	Pueblo	nc	Vanadium	µg/L	9	2.65	0.043
Filtered	PU-10228	APCO-1	Pueblo	ca	Arsenic	µg/L	3	6.51	17.3
Filtered	PU-10228	APCO-1	Pueblo	nc	Arsenic	µg/L	3	6.51	2.09
Filtered	PU-10228	APCO-1	Pueblo	nc	Boron	µg/L	2	375	0.401
Filtered	PU-10228	APCO-1	Pueblo	nc	Fluoride	µg/L	3	450	0.722
Filtered	PU-10228	APCO-1	Pueblo	nc	Iron	µg/L	3	1580	0.507
Filtered	PU-10228	APCO-1	Pueblo	nc	Manganese	µg/L	3	2540	1.93
Filtered	PU-10228	APCO-1	Pueblo	nc	Vanadium	µg/L	3	8.32	0.134
Unfiltered	02-01022	LAO-0.91	Los Alamos	ca	Arsenic	µg/L	1	1.7	4.51
Unfiltered	02-01022	LAO-0.91	Los Alamos	nc	Arsenic	µg/L	1	1.7	0.546
Unfiltered	02-01076	LAO-1	Los Alamos	ca	Arsenic	µg/L	3	3.85	10.2
Unfiltered	02-01076	LAO-1	Los Alamos	nc	Arsenic	µg/L	3	3.85	1.24
Unfiltered	21-01811	LAUZ-1	DP	ca	Arsenic	µg/L	8	3.23	8.57
Unfiltered	21-01811	LAUZ-1	DP	ca	Methylene Chloride	µg/L	8	38	0.884
Unfiltered	21-01811	LAUZ-1	DP	nc	Arsenic	µg/L	8	3.23	1.04
Unfiltered	21-01811	LAUZ-1	DP	nc	Aluminum	µg/L	8	4710	0.471
Unfiltered	21-01811	LAUZ-1	DP	nc	Fluoride	µg/L	8	770	1.24
Unfiltered	21-01811	LAUZ-1	DP	nc	Lead	µg/L	8	6	0.4
Unfiltered	21-01811	LAUZ-1	DP	nc	Iron	µg/L	8	2910	0.936
Unfiltered	21-01811	LAUZ-1	DP	nc	Vanadium	µg/L	8	4.61	0.074
Unfiltered	21-01811	LAUZ-1	DP	rad	Americium-241	pCi/L	8	1.43	0.911
Unfiltered	21-01811	LAUZ-1	DP	rad	Plutonium-239	pCi/L	9	0.817	0.506
Unfiltered	21-01811	LAUZ-1	DP	rad	Strontium-90	pCi/L	9	146	3.91

Table D-2.0-9 (continued)

Field Preparation	Location	Name	Canyon	Risk Class[a]	Analyte	Units	Number of Samples	EPC[b]	Residential RBC Ratio
Unfiltered	21-01812	LAUZ-2	DP	ca	Arsenic	µg/L	4	8	21.2
Unfiltered	21-01812	LAUZ-2	DP	nc	Arsenic	µg/L	4	8	2.57
Unfiltered	21-01812	LAUZ-2	DP	nc	Fluoride	µg/L	1	1300	2.09
Unfiltered	21-01812	LAUZ-2	DP	nc	Iron	µg/L	4	6000	1.93
Unfiltered	21-01812	LAUZ-2	DP	nc	Lead	µg/L	4	3	0.2
Unfiltered	21-01812	LAUZ-2	DP	nc	Manganese	µg/L	4	870	0.661
Unfiltered	21-01812	LAUZ-2	DP	rad	Plutonium-239	pCi/L	4	0.16	0.0991
Unfiltered	21-01812	LAUZ-2	DP	rad	Strontium-90	pCi/L	4	98.9	2.65
Unfiltered	41-01002	LAO-0.6	Los Alamos	ca	Arsenic	µg/L	4	1.12	2.97
Unfiltered	41-01002	LAO-0.6	Los Alamos	nc	Arsenic	µg/L	4	1.12	0.36
Unfiltered	41-01002	LAO-0.6	Los Alamos	nc	Chromium	µg/L	4	22.3	0.154
Unfiltered	41-01002	LAO-0.6	Los Alamos	nc	Iron	µg/L	4	1400	0.45
Unfiltered	41-01002	LAO-0.6	Los Alamos	nc	Manganese	µg/L	4	857	0.649
Unfiltered	41-01002	LAO-0.6	Los Alamos	nc	Vanadium	µg/L	4	4.06	0.065
Unfiltered	41-01003	LAO-0.3	Los Alamos	ca	Arsenic	µg/L	8	1.16	3.08
Unfiltered	41-01003	LAO-0.3	Los Alamos	nc	Arsenic	µg/L	8	1.16	0.372
Unfiltered	41-01004	LAO-C	Los Alamos	ca	Arsenic	µg/L	4	2.41	6.4
Unfiltered	41-01004	LAO-C	Los Alamos	nc	Arsenic	µg/L	4	2.41	0.774
Unfiltered	41-01045	LAO-B	Los Alamos	ca	Arsenic	µg/L	9	0.44	1.17
Unfiltered	41-01045	LAO-B	Los Alamos	ca	Benzene	µg/L	9	0.45	0.128
Unfiltered	41-01045	LAO-B	Los Alamos	ca	Methylene Chloride	µg/L	9	15	0.349
Unfiltered	41-01045	LAO-B	Los Alamos	nc	Arsenic	µg/L	9	0.44	0.141
Unfiltered	LA-00001	LAO-1.6g	Los Alamos	ca	Arsenic	µg/L	8	2.87	7.62
Unfiltered	LA-00001	LAO-1.6g	Los Alamos	ca	Methylene Chloride	µg/L	8	25	0.58
Unfiltered	LA-00001	LAO-1.6g	Los Alamos	nc	Arsenic	µg/L	8	2.87	0.921
Unfiltered	LA-00001	LAO-1.6g	Los Alamos	nc	Fluoride	µg/L	1	611	0.981
Unfiltered	LA-00001	LAO-1.6g	Los Alamos	nc	Molybdenum	µg/L	3	140	2.7
Unfiltered	LA-00001	LAO-1.6g	Los Alamos	nc	Thallium	µg/L	8	2.1	2.53
Unfiltered	LA-00002	LLAO-5	Los Alamos	ca	Arsenic	µg/L	9	2.06	5.47
Unfiltered	LA-00002	LLAO-5	Los Alamos	nc	Antimony	µg/L	9	3.5	0.864
Unfiltered	LA-00002	LLAO-5	Los Alamos	nc	Arsenic	µg/L	9	2.06	0.661
Unfiltered	LA-00002	LLAO-5	Los Alamos	nc	Barium	µg/L	9	286	0.416

Table D-2.0-9 (continued)

Field Preparation	Location	Name	Canyon	Risk Class[a]	Analyte	Units	Number of Samples	EPC[b]	Residential RBC Ratio
Unfiltered	LA-00002	LLAO-5	Los Alamos	nc	Nitrite	µg/L	1	3070	2.96
Unfiltered	LA-00002	LLAO-5	Los Alamos	nc	Thallium	µg/L	9	2.8	3.37
Unfiltered	LA-00002	LLAO-5	Los Alamos	nc	Uranium	µg/L	6	8.82	0.283
Unfiltered	LA-00002	LLAO-5	Los Alamos	nc	Vanadium	µg/L	6	6.34	0.102
Unfiltered	LA-00045	LLAO-2	Los Alamos	ca	Arsenic	µg/L	1	3.5	9.29
Unfiltered	LA-00045	LLAO-2	Los Alamos	nc	Arsenic	µg/L	1	3.5	1.12
Unfiltered	LA-00046	LLAO-4	Los Alamos	ca	Arsenic	µg/L	5	1.8	4.78
Unfiltered	LA-00046	LLAO-4	Los Alamos	nc	Arsenic	µg/L	5	1.8	0.578
Unfiltered	LA-00215	LLAO-1	Los Alamos	ca	Arsenic	µg/L	9	7.38	19.6
Unfiltered	LA-00215	LLAO-1	Los Alamos	ca	Benzene	µg/L	9	3.4	0.971
Unfiltered	LA-00215	LLAO-1	Los Alamos	ca	Trichloroethene	µg/L	9	1.7	6.07
Unfiltered	LA-00215	LLAO-1	Los Alamos	nc	Arsenic	µg/L	9	7.38	2.37
Unfiltered	LA-00215	LLAO-1	Los Alamos	nc	Copper	µg/L	9	118.5	0.312
Unfiltered	LA-00215	LLAO-1	Los Alamos	nc	Fluoride	µg/L	1	450	0.722
Unfiltered	LA-00215	LLAO-1	Los Alamos	nc	Iron	µg/L	9	3750	1.2
Unfiltered	LA-00215	LLAO-1	Los Alamos	nc	Lead	µg/L	9	2.58	0.172
Unfiltered	LA-00215	LLAO-1	Los Alamos	nc	Manganese	µg/L	9	235	0.179
Unfiltered	LA-00215	LLAO-1	Los Alamos	nc	Nitrate	µg/L	1	7300	0.439
Unfiltered	LA-00215	LLAO-1	Los Alamos	nc	Thallium	µg/L	9	3	3.61
Unfiltered	LA-00215	LLAO-1	Los Alamos	nc	Uranium	µg/L	6	1.04	0.0334
Unfiltered	LA-00215	LLAO-1	Los Alamos	nc	Vanadium	µg/L	9	22.4	0.361
Unfiltered	LA-10035	LAO-3a	Los Alamos	ca	Arsenic	µg/L	4	4.95	13.1
Unfiltered	LA-10035	LAO-3a	Los Alamos	nc	Arsenic	µg/L	4	4.95	1.59
Unfiltered	LA-10035	LAO-3a	Los Alamos	nc	Molybdenum	µg/L	3	1970	37.9
Unfiltered	LA-10035	LAO-3a	Los Alamos	nc	Perchlorate	µg/L	1	1.17	1.13
Unfiltered	LA-10035	LAO-3a	Los Alamos	nc	Vanadium	µg/L	3	4.37	0.07
Unfiltered	LA-10035	LAO-3a	Los Alamos	rad	Strontium-90	pCi/L	4	47.2	1.26
Unfiltered	LA-10066	LAO-0.7	Los Alamos	ca	Arsenic	µg/L	4	3.77	10
Unfiltered	LA-10066	LAO-0.7	Los Alamos	nc	Arsenic	µg/L	4	3.77	1.21
Unfiltered	LA-10067	LAO-2	Los Alamos	nc	Lead	µg/L	2	1.62	0.108
Unfiltered	LA-10067	LAO-2	Los Alamos	nc	Molybdenum	µg/L	2	2000	38.5
Unfiltered	LA-10068	LAO-4	Los Alamos	ca	Arsenic	µg/L	3	3.16	8.39

Table D-2.0-9 (continued)

Field Preparation	Location	Name	Canyon	Risk Class[a]	Analyte	Units	Number of Samples	EPC[b]	Residential RBC Ratio
Unfiltered	LA-10068	LAO-4	Los Alamos	nc	Arsenic	µg/L	3	3.16	1.01
Unfiltered	LA-10068	LAO-4	Los Alamos	nc	Molybdenum	µg/L	3	586	11.3
Unfiltered	LA-10068	LAO-4	Los Alamos	nc	Thallium	µg/L	3	2.4	2.89
Unfiltered	LA-10069	LAO-4.5c	Los Alamos	ca	Arsenic	µg/L	3	1.32	3.5
Unfiltered	LA-10069	LAO-4.5c	Los Alamos	nc	Arsenic	µg/L	3	1.32	0.424
Unfiltered	PU-00177	PAO-5N	Pueblo	ca	Arsenic	µg/L	6	9.65	25.6
Unfiltered	PU-00177	PAO-5N	Pueblo	nc	Arsenic	µg/L	6	9.65	3.1
Unfiltered	PU-00177	PAO-5N	Pueblo	nc	Boron	µg/L	1	396	0.424
Unfiltered	PU-00177	PAO-5N	Pueblo	nc	Fluoride	µg/L	1	390	0.626
Unfiltered	PU-00177	PAO-5N	Pueblo	nc	Iron	µg/L	1	994	0.32
Unfiltered	PU-00177	PAO-5N	Pueblo	nc	Manganese	µg/L	6	3600	2.74
Unfiltered	PU-00177	PAO-5N	Pueblo	nc	Nitrate	µg/L	1	2900	0.175
Unfiltered	PU-00177	PAO-5N	Pueblo	nc	Vanadium	µg/L	1	5.28	0.085
Unfiltered	PU-00178	PAO-1	Pueblo	ca	Arsenic	µg/L	8	1.3	3.45
Unfiltered	PU-00178	PAO-1	Pueblo	ca	Dibenz(a,h)anthracene	µg/L	4	0.0235	8.75
Unfiltered	PU-00178	PAO-1	Pueblo	ca	Dieldrin	µg/L	4	0.0054	0.154
Unfiltered	PU-00178	PAO-1	Pueblo	nc	Arsenic	µg/L	8	1.3	0.417
Unfiltered	PU-00178	PAO-1	Pueblo	nc	Manganese	µg/L	8	2220	1.69
Unfiltered	PU-00178	PAO-1	Pueblo	nc	Thallium	µg/L	8	2.3	2.77
Unfiltered	PU-00181	PAO-3	Pueblo	ca	Arsenic	µg/L	2	2.4	6.37
Unfiltered	PU-00181	PAO-3	Pueblo	nc	Arsenic	µg/L	2	2.4	0.77
Unfiltered	PU-00182	PAO-4	Pueblo	ca	Arsenic	µg/L	9	7.41	19.7
Unfiltered	PU-00182	PAO-4	Pueblo	nc	Arsenic	µg/L	9	7.41	2.38
Unfiltered	PU-00182	PAO-4	Pueblo	nc	Boron	µg/L	3	395	0.423
Unfiltered	PU-00182	PAO-4	Pueblo	nc	Fluoride	µg/L	1	530	0.851
Unfiltered	PU-00182	PAO-4	Pueblo	nc	Iron	µg/L	9	5600	1.8
Unfiltered	PU-00182	PAO-4	Pueblo	nc	Manganese	µg/L	9	1890	1.44
Unfiltered	PU-00182	PAO-4	Pueblo	nc	Vanadium	µg/L	9	15.03	0.242
Unfiltered	PU-10228	APCO-1	Pueblo	ca	Arsenic	µg/L	3	7.14	19
Unfiltered	PU-10228	APCO-1	Pueblo	nc	Arsenic	µg/L	3	7.14	2.29
Unfiltered	PU-10228	APCO-1	Pueblo	nc	Boron	µg/L	2	376	0.402
Unfiltered	PU-10228	APCO-1	Pueblo	nc	Iron	µg/L	3	1800	0.578

Table D-2.0-9 (continued)

Field Preparation	Location	Name	Canyon	Risk Class[a]	Analyte	Units	Number of Samples	EPC[b]	Residential RBC Ratio
Unfiltered	PU-10228	APCO-1	Pueblo	nc	Lead	µg/L	3	2.77	0.185
Unfiltered	PU-10228	APCO-1	Pueblo	nc	Manganese	µg/L	3	2510	1.91
Unfiltered	PU-10228	APCO-1	Pueblo	nc	Uranium	µg/L	2	0.788	0.0253
Unfiltered	PU-10228	APCO-1	Pueblo	nc	Vanadium	µg/L	2	8.09	0.130

Note: Gray shading indicates a new COPC/reach combination not included in the original report.

[a] rad = Radionuclide; ca = carcinogen; nc = noncarcinogen.

[b] The maximum detected value is used as the EPC when the data are insufficient to calculate UCLs.

Table D-2.0-10
Groundwater EPC-to-RBC Ratios, Arsenic Removed

Field Preparation	Location	Name	Canyon	Risk Class[a]	Analyte	Units	Number of Samples	EPC[b]	Residential RBC Ratio
Filtered	21-01811	LAUZ-1	DP	ca	Bis(2-ethylhexyl)phthalate	µg/L	1	22	37.3
Filtered	21-01811	LAUZ-1	DP	nc	Bis(2-ethylhexyl)phthalate	µg/L	1	22	5.62
Filtered	21-01811	LAUZ-1	DP	nc	Fluoride	µg/L	6	696	1.12
Filtered	21-01811	LAUZ-1	DP	nc	Lead	µg/L	6	5	0.3
Filtered	21-01811	LAUZ-1	DP	rad	Strontium-90	pCi/L	9	169	4.52
Filtered	21-01812	LAUZ-2	DP	ca	Bis(2-ethylhexyl)phthalate	µg/L	1	36	61.1
Filtered	21-01812	LAUZ-2	DP	nc	Bis(2-ethylhexyl)phthalate	µg/L	1	36	9.19
Filtered	21-01812	LAUZ-2	DP	nc	Fluoride	µg/L	1	1300	2.09
Filtered	21-01812	LAUZ-2	DP	nc	Manganese	µg/L	4	818	0.622
Filtered	21-01812	LAUZ-2	DP	rad	Strontium-90	pCi/L	4	189	5.06
Filtered	41-01045	LAO-B	Los Alamos	nc	Perchlorate	µg/L	8	15.3	14.7
Filtered	41-01045	LAO-B	Los Alamos	nc	Thallium	µg/L	11	0.373	0.449
Filtered	LA-00001	LAO-1.6g	Los Alamos	nc	Fluoride	µg/L	5	541	0.868
Filtered	LA-00001	LAO-1.6g	Los Alamos	nc	Molybdenum	µg/L	3	140	2.7
Filtered	LA-00001	LAO-1.6g	Los Alamos	nc	Thallium	µg/L	8	0.636	0.766
Filtered	LA-00002	LLAO-5	Los Alamos	nc	Barium	µg/L	9	287	0.418
Filtered	LA-00002	LLAO-5	Los Alamos	nc	Fluoride	µg/L	7	393	0.631
Filtered	LA-00002	LLAO-5	Los Alamos	nc	Nitrite	µg/L	1	3990	3.84
Filtered	LA-00002	LLAO-5	Los Alamos	nc	Thallium	µg/L	9	2.1	2.53
Filtered	LA-00002	LLAO-5	Los Alamos	nc	Uranium	µg/L	6	9.4	0.302
Filtered	LA-00002	LLAO-5	Los Alamos	nc	Vanadium	µg/L	6	6.23	0.10
Filtered	LA-00215	LLAO-1	Los Alamos	nc	Fluoride	µg/L	7	610	0.979
Filtered	LA-00215	LLAO-1	Los Alamos	nc	Nitrate	µg/L	1	7400	0.445
Filtered	LA-00215	LLAO-1	Los Alamos	nc	Thallium	µg/L	9	2.59	3.12
Filtered	LA-00215	LLAO-1	Los Alamos	nc	Uranium	µg/L	6	0.907	0.0291
Filtered	LA-00215	LLAO-1	Los Alamos	nc	Vanadium	µg/L	9	8.74	0.141
Filtered	LA-10008	LAO-1.2	Los Alamos	nc	Antimony	µg/L	1	3.3	0.815
Filtered	LA-10008	LAO-1.2	Los Alamos	nc	Chromium	µg/L	1	16	0.11
Filtered	LA-10008	LAO-1.2	Los Alamos	nc	Thallium	µg/L	1	4.4	5.3
Filtered	LA-10035	LAO-3a	Los Alamos	nc	Fluoride	µg/L	4	653	1.05

Table D-2.0-10 (continued)

Field Preparation	Location	Name	Canyon	Risk Class[a]	Analyte	Units	Number of Samples	EPC[b]	Residential RBC Ratio
Filtered	LA-10035	LAO-3a	Los Alamos	nc	Lead	µg/L	4	2.2	0.147
Filtered	LA-10035	LAO-3a	Los Alamos	nc	Molybdenum	µg/L	3	1970	37.9
Filtered	LA-10035	LAO-3a	Los Alamos	nc	Thallium	µg/L	4	3.3	3.97
Filtered	LA-10035	LAO-3a	Los Alamos	nc	Vanadium	µg/L	4	4.59	0.074
Filtered	LA-10035	LAO-3a	Los Alamos	rad	Strontium-90	pCi/L	4	40.9	1.1
Filtered	LA-10067	LAO-2	Los Alamos	nc	Fluoride	µg/L	3	600	0.963
Filtered	LA-10067	LAO-2	Los Alamos	nc	Lead	µg/L	3	2.45	0.163
Filtered	LA-10067	LAO-2	Los Alamos	nc	Molybdenum	µg/L	2	2000	38.5
Filtered	LA-10068	LAO-4	Los Alamos	nc	Fluoride	µg/L	3	1600	2.57
Filtered	LA-10068	LAO-4	Los Alamos	nc	Lead	µg/L	3	2.89	0.193
Filtered	LA-10068	LAO-4	Los Alamos	nc	Molybdenum	µg/L	3	582	11.2
Filtered	LA-10069	LAO-4.5c	Los Alamos	nc	Fluoride	µg/L	4	1600	2.57
Filtered	LA-10069	LAO-4.5c	Los Alamos	nc	Lead	µg/L	4	1.93	0.129
Filtered	LA-10069	LAO-4.5c	Los Alamos	nc	Molybdenum	µg/L	3	32.8	0.632
Filtered	LA-10069	LAO-4.5c	Los Alamos	nc	Uranium	µg/L	2	2.84	0.0913
Filtered	PU-00177	PAO-5N	Pueblo	nc	Boron	µg/L	1	379	0.406
Filtered	PU-00177	PAO-5N	Pueblo	nc	Fluoride	µg/L	3	560	0.899
Filtered	PU-00177	PAO-5N	Pueblo	nc	Iron	µg/L	6	1650	0.53
Filtered	PU-00177	PAO-5N	Pueblo	nc	Manganese	µg/L	6	3620	2.75
Filtered	PU-00177	PAO-5N	Pueblo	nc	Nitrate	µg/L	1	3100	0.187
Filtered	PU-00177	PAO-5N	Pueblo	nc	Perchlorate	µg/L	4	6.18	5.95
Filtered	PU-00177	PAO-5N	Pueblo	nc	Vanadium	µg/L	4	5	0.081
Filtered	PU-00178	PAO-1	Pueblo	nc	Antimony	µg/L	8	4	0.987
Filtered	PU-00178	PAO-1	Pueblo	nc	Manganese	µg/L	8	1230	0.935
Filtered	PU-00178	PAO-1	Pueblo	nc	Vanadium	µg/L	8	3.25	0.052
Filtered	PU-00178	PAO-1	Pueblo	nc	Thallium	µg/L	8	3	3.61
Filtered	PU-00182	PAO-4	Pueblo	nc	Boron	µg/L	3	383	0.41
Filtered	PU-00182	PAO-4	Pueblo	nc	Fluoride	µg/L	6	664	1.07
Filtered	PU-00182	PAO-4	Pueblo	nc	Iron	µg/L	9	3370	1.06
Filtered	PU-00182	PAO-4	Pueblo	nc	Manganese	µg/L	9	1780	1.35
Filtered	PU-00182	PAO-4	Pueblo	nc	Perchlorate	µg/L	7	5.74	5.53
Filtered	PU-00182	PAO-4	Pueblo	nc	Thallium	µg/L	9	3.3	3.97

Table D-2.0-10 (continued)

Field Preparation	Location	Name	Canyon	Risk Class[a]	Analyte	Units	Number of Samples	EPC[b]	Residential RBC Ratio
Filtered	PU-00182	PAO-4	Pueblo	nc	Vanadium	µg/L	9	2.65	0.043
Filtered	PU-10228	APCO-1	Pueblo	nc	Boron	µg/L	2	375	0.401
Filtered	PU-10228	APCO-1	Pueblo	nc	Fluoride	µg/L	3	450	0.722
Filtered	PU-10228	APCO-1	Pueblo	nc	Iron	µg/L	3	1580	0.507
Filtered	PU-10228	APCO-1	Pueblo	nc	Manganese	µg/L	3	2540	1.93
Filtered	PU-10228	APCO-1	Pueblo	nc	Vanadium	µg/L	3	8.32	0.134
Unfiltered	21-01811	LAUZ-1	DP	ca	Methylene Chloride	µg/L	8	38	0.884
Unfiltered	21-01811	LAUZ-1	DP	nc	Aluminum	µg/L	8	4710	0.471
Unfiltered	21-01811	LAUZ-1	DP	nc	Fluoride	µg/L	8	770	1.24
Unfiltered	21-01811	LAUZ-1	DP	nc	Lead	µg/L	8	6	0.4
Unfiltered	21-01811	LAUZ-1	DP	nc	Iron	µg/L	8	2910	0.936
Unfiltered	21-01811	LAUZ-1	DP	nc	Vanadium	µg/L	8	4.61	0.074
Unfiltered	21-01811	LAUZ-1	DP	rad	Americium-241	pCi/L	8	1.43	0.911
Unfiltered	21-01811	LAUZ-1	DP	rad	Plutonium-239	pCi/L	9	0.817	0.506
Unfiltered	21-01811	LAUZ-1	DP	rad	Strontium-90	pCi/L	9	146	3.91
Unfiltered	21-01812	LAUZ-2	DP	nc	Fluoride	µg/L	1	1300	2.09
Unfiltered	21-01812	LAUZ-2	DP	nc	Iron	µg/L	4	6000	1.93
Unfiltered	21-01812	LAUZ-2	DP	nc	Lead	µg/L	4	3	0.2
Unfiltered	21-01812	LAUZ-2	DP	nc	Manganese	µg/L	4	870	0.661
Unfiltered	21-01812	LAUZ-2	DP	rad	Plutonium-239	pCi/L	4	0.16	0.0991
Unfiltered	21-01812	LAUZ-2	DP	rad	Strontium-90	pCi/L	4	98.9	2.65
Unfiltered	41-01002	LAO-0.6	Los Alamos	nc	Chromium	µg/L	4	22.3	0.154
Unfiltered	41-01002	LAO-0.6	Los Alamos	nc	Iron	µg/L	4	1400	0.45
Unfiltered	41-01002	LAO-0.6	Los Alamos	nc	Manganese	µg/L	4	857	0.649
Unfiltered	41-01002	LAO-0.6	Los Alamos	nc	Vanadium	µg/L	4	4.06	0.065
Unfiltered	41-01045	LAO-B	Los Alamos	ca	Benzene	µg/L	9	0.45	0.128
Unfiltered	41-01045	LAO-B	Los Alamos	ca	Methylene Chloride	µg/L	9	15	0.349
Unfiltered	LA-00001	LAO-1.6g	Los Alamos	ca	Methylene Chloride	µg/L	8	25	0.58
Unfiltered	LA-00001	LAO-1.6g	Los Alamos	nc	Fluoride	µg/L	1	611	0.981
Unfiltered	LA-00001	LAO-1.6g	Los Alamos	nc	Molybdenum	µg/L	3	140	2.7
Unfiltered	LA-00001	LAO-1.6g	Los Alamos	nc	Thallium	µg/L	8	2.1	2.53
Unfiltered	LA-00002	LLAO-5	Los Alamos	nc	Antimony	µg/L	9	3.5	0.864

Table D-2.0-10 (continued)

Field Preparation	Location	Name	Canyon	Risk Class[a]	Analyte	Units	Number of Samples	EPC[b]	Residential RBC Ratio
Unfiltered	LA-00002	LLAO-5	Los Alamos	nc	Barium	µg/L	9	286	0.416
Unfiltered	LA-00002	LLAO-5	Los Alamos	nc	Nitrite	µg/L	1	3070	2.96
Unfiltered	LA-00002	LLAO-5	Los Alamos	nc	Thallium	µg/L	9	2.8	3.37
Unfiltered	LA-00002	LLAO-5	Los Alamos	nc	Uranium	µg/L	6	8.82	0.283
Unfiltered	LA-00002	LLAO-5	Los Alamos	nc	Vanadium	µg/L	6	6.34	0.102
Unfiltered	LA-00215	LLAO-1	Los Alamos	ca	Benzene	µg/L	9	3.4	0.971
Unfiltered	LA-00215	LLAO-1	Los Alamos	ca	Trichloroethene	µg/L	9	1.7	6.07
Unfiltered	LA-00215	LLAO-1	Los Alamos	nc	Copper	µg/L	9	118.5	0.312
Unfiltered	LA-00215	LLAO-1	Los Alamos	nc	Fluoride	µg/L	1	450	0.722
Unfiltered	LA-00215	LLAO-1	Los Alamos	nc	Iron	µg/L	9	3750	1.2
Unfiltered	LA-00215	LLAO-1	Los Alamos	nc	Lead	µg/L	9	2.58	0.172
Unfiltered	LA-00215	LLAO-1	Los Alamos	nc	Manganese	µg/L	9	235	0.179
Unfiltered	LA-00215	LLAO-1	Los Alamos	nc	Nitrate	µg/L	1	7300	0.439
Unfiltered	LA-00215	LLAO-1	Los Alamos	nc	Thallium	µg/L	9	3	3.61
Unfiltered	LA-00215	LLAO-1	Los Alamos	nc	Uranium	µg/L	6	1.04	0.0334
Unfiltered	LA-00215	LLAO-1	Los Alamos	nc	Vanadium	µg/L	9	22.4	0.361
Unfiltered	LA-10035	LAO-3a	Los Alamos	nc	Molybdenum	µg/L	3	1970	37.9
Unfiltered	LA-10035	LAO-3a	Los Alamos	nc	Perchlorate	µg/L	1	1.17	1.13
Unfiltered	LA-10035	LAO-3a	Los Alamos	nc	Vanadium	µg/L	3	4.37	0.07
Unfiltered	LA-10035	LAO-3a	Los Alamos	rad	Strontium-90	pCi/L	4	47.2	1.26
Unfiltered	LA-10067	LAO-2	Los Alamos	nc	Lead	µg/L	2	1.62	0.108
Unfiltered	LA-10067	LAO-2	Los Alamos	nc	Molybdenum	µg/L	2	2000	38.5
Unfiltered	LA-10068	LAO-4	Los Alamos	nc	Molybdenum	µg/L	3	586	11.3
Unfiltered	LA-10068	LAO-4	Los Alamos	nc	Thallium	µg/L	3	2.4	2.89
Unfiltered	PU-00177	PAO-5N	Pueblo	nc	Boron	µg/L	1	396	0.424
Unfiltered	PU-00177	PAO-5N	Pueblo	nc	Fluoride	µg/L	1	390	0.626
Unfiltered	PU-00177	PAO-5N	Pueblo	nc	Iron	µg/L	1	994	0.32
Unfiltered	PU-00177	PAO-5N	Pueblo	nc	Manganese	µg/L	6	3600	2.74
Unfiltered	PU-00177	PAO-5N	Pueblo	nc	Nitrate	µg/L	1	2900	0.175
Unfiltered	PU-00177	PAO-5N	Pueblo	nc	Vanadium	µg/L	1	5.28	0.085
Unfiltered	PU-00178	PAO-1	Pueblo	ca	Dibenz(a,h)anthracene	µg/L	4	0.0235	8.75
Unfiltered	PU-00178	PAO-1	Pueblo	ca	Dieldrin	µg/L	4	0.0054	0.154

Table D-2.0-10 (continued)

Field Preparation	Location	Name	Canyon	Risk Class[a]	Analyte	Units	Number of Samples	EPC[b]	Residential RBC Ratio
Unfiltered	PU-00178	PAO-1	Pueblo	nc	Manganese	µg/L	8	2220	1.69
Unfiltered	PU-00178	PAO-1	Pueblo	nc	Thallium	µg/L	8	2.3	2.77
Unfiltered	PU-00182	PAO-4	Pueblo	nc	Boron	µg/L	3	395	0.423
Unfiltered	PU-00182	PAO-4	Pueblo	nc	Fluoride	µg/L	1	530	0.851
Unfiltered	PU-00182	PAO-4	Pueblo	nc	Iron	µg/L	9	5600	1.8
Unfiltered	PU-00182	PAO-4	Pueblo	nc	Manganese	µg/L	9	1890	1.44
Unfiltered	PU-00182	PAO-4	Pueblo	nc	Vanadium	µg/L	9	15.03	0.242
Unfiltered	PU-10228	APCO-1	Pueblo	nc	Boron	µg/L	2	376	0.402
Unfiltered	PU-10228	APCO-1	Pueblo	nc	Iron	µg/L	3	1800	0.578
Unfiltered	PU-10228	APCO-1	Pueblo	nc	Lead	µg/L	3	2.77	0.185
Unfiltered	PU-10228	APCO-1	Pueblo	nc	Manganese	µg/L	3	2510	1.91
Unfiltered	PU-10228	APCO-1	Pueblo	nc	Uranium	µg/L	2	0.788	0.0253
Unfiltered	PU-10228	APCO-1	Pueblo	nc	Vanadium	µg/L	2	8.09	0.130

Note: Gray shading indicates a new COPC/water location combination not included in the original report.

[a] rad = Radionuclide; ca = carcinogen; nc = noncarcinogen.

[b] The maximum detected value is used as the EPC when the data are insufficient to calculate UCLs.

Table D-2.0-11
Resource User RME Multimedia Sums, by Reach and Sampling Station

Sediment Reach	Water Station Name	Water Location	Carcinogen Sum[a]	Noncarcinogen Sum	Radionuclide Sum[b]
DP-1W	DP-1W SW	21-10929	262	0.08	—[c]
DP-1C	DP-1W SW	21-10929	31.4	0.50	—
DP-1E	DP-1W SW	21-10929	41.0	0.08	—
DP-1W	DP-1C SW	21-11226	262	0.14	—
DP-1C	DP-1C SW	21-11226	31.4	0.57	—
DP-1E	DP-1C SW	21-11226	41.0	0.14	—
LA-2E	DP Spring	21-01854	18.3	0.07	0.59
LA-2FE	DP Spring	21-01854	0.033	0.07	0.63
LA-2W	DP Spring	21-01854	0.033	0.07	0.37
LA-3	DP Spring	21-01854	0.033	0.07	3.75
DP-2	DP Spring	21-01854	24.9	0.74	1.35
DP-3	DP Spring	21-01854	9.1	0.31	0.91
DP-4	DP Spring	21-01854	0.033	0.07	0.45
AC-1	AC-2 SW	00-10241	276	0.39	—
AC-2	AC-2 SW	00-10241	143	0.39	—
AC-1	Upper S. Fork Acid SW	PU-10175	276	0.37	0.03
AC-2	Upper S. Fork Acid SW	PU-10175	143	0.37	0.03
ACS	Upper S. Fork Acid SW	PU-10175	10.4	5.5	0.45
AC-1	Lower S. Fork Acid SW	PU-10176	276	0.33	0.02
AC-2	Lower S. Fork Acid SW	PU-10176	143	0.33	0.02
ACS	Lower S. Fork Acid SW	PU-10176	10.4	5.5	0.44
AC-3	lower AC-3 SW	PU-10155	35.8	13	0.52
P-1W	lower AC-3 SW	PU-10155	2.4	0.00	0.01
P-1E	lower AC-3 SW	PU-10155	29.4	0.05	0.16
P-1E	P-1E SW	PU-10071	27.0	0.23	0.15
AC-3	P-1E SW	PU-10071	33.4	13	0.51
P-3W	Pueblo 3	PU-10230	0.19	0.13	0.01
P-4W	Pueblo 3	PU-10230	15.8	0.16	0.02
P-4E	Pueblo 3	PU-10230	0.19	0.92	—
P-3W	Pueblo at 502	PU-10229	0.09	0.29	0.01
P-4W	Pueblo at 502	PU-10229	15.7	0.31	0.02
P-4E	Pueblo at 502	PU-10229	0.09	1.1	0.00

Note: Gray shading indicates a value revised from the original report.

[a] Convert to risk: Value $\times(1 \times 10^{-5})$.

[b] Convert to dose: Value from sediment component (value from Table D-2.0-4 15 mrem) + water component (value from Table D-2.0-5 x 4 mrem).

[c] — = COPC class is not carried forward for this report for this reach and water location combination.

Table D-2.0-12
Residential RME Multimedia Sums for Filtered Water Data, by Reach and Sampling Station

Sediment Reach	Water Station Name	Water Location	Carcinogen Sum[a]	Noncarcinogen Sum	Radionuclide Sum[b]
DP-2	LAUZ-1	21-01811	46.8	14.3	12.3
DP-4	LAO-2	LA-10067	—[c]	39.5	2.5
LA-2W	LAO-2	LA-10067	—	39.5	0.69
LA-2E	LAO-3a	LA-10035	13.2	44.4	3.90
LA-2FE	LAO-4	LA-10068	7.17	14.8	3.6
LA-3W	LAO-4.5c	LA-1069	3.66	3.73	1.84
LA-4W	LLAO-1b	LA-00215	26.6	9.54	0.28
P-1E	PAO-2	PU-10174	0.839	0.0054	0.776
AC-3	PAO-2	PU-10174	2.73	1.15	2.78
P-4W	PAO-5n/APCO-1	PU-00177	30.2	7.67	0.161

Note: Gray shading indicates a value revised from the original report.

[a] Convert to risk: Value x (1×10^{-5}).

[b] Convert to dose: Value from sediment component (value from Table D-2.0-4 x 15 mrem) + water component (value from Table D-2.0-6 4 mrem).

[c] — = COPC class is not carried forward for this report for this reach and water location combination.

Table D-2.0-13
Residential RME Multimedia Sums for Unfiltered Water Data, by Reach and Sampling Station

Sediment Reach	Water Station Name	Water Location	Carcinogen Sum[a]	Noncarcinogen Sum	Radionuclide Sum[b]
DP-2	LAUZ-1	21-01811	10.4	10.4	13.1
DP-4	LAO-2	LA-10067	—[c]	38.5	2.5
LA-2W	LAO-2	LA-10067	—	38.5	0.7
LA-2E	LAO-3a	LA-10035	14.1	40.7	4.07
LA-2FE	LAO-4	LA-10068	8.39	15.2	3.60
LA-3W	LAO-4.5c	LA-1069	3.5	0.42	1.84
LA-4W	LLAO-1b	LA-00215	26.6	9.4	0.28
P-1E	PAO-2	PU-10174	0.839	0.0054	0.776
AC-3	PAO-2	PU-10174	2.73	1.15	2.78
P-4W	PAO-5n/APCO-1	PU-00177	30.2	7.67	0.161

Note: Gray shading indicates a value revised from the original report.

[a] Convert to risk: Value x (1×10^{-5}).

[b] Convert to dose: Value from sediment component (value from Table D-2.0-4 x 15 mrem) + water component (value from Table D-2.0-6 x 4 mrem).

[c] — = COPC class is not carried forward for this report for this reach and water location combination.

Table D-2.0-14
Residential RME Multimedia Sums with
Filtered Water Data, Arsenic Removed, by Reach and Sampling Station

Sediment Reach	Water Station Name	Water Location	Carcinogen Sum[a]	Noncarcinogen Sum	Radionuclide Sum[b]
DP-2	LAUZ-1	21-01811	38.3	13.3	12.3
DP-4	LAO-2	LA-10067	—[c]	39.5	2.5
LA-2W	LAO-2	LA-10067	—	39.5	0.7
LA-2E	LAO-3a	LA-10035	1.01	43.1	3.91
LA-2FE	LAO-4	LA-10068	—	14.0	3.6
LA-3W	LAO-4.5c	LA-1069	—	3.42	1.84
LA-4W	LLAO-1b	LA-00215	—	4.72	0.281
P-1E	PAO-2	PU-10174	0.839	0.0054	0.776
AC-3	PAO-2	PU-10174	2.73	1.15	2.78
P-4W	PAO-5n/APCO-1	PU-00177	4.58	11.0	0.16

Note: Gray shading indicates a value revised from the original report.

[a] Convert to risk: Value × (1×10^{-5}).

[b] Convert to dose: Value from sediment component (value from Table D-2.0-4 × 15 mrem) + water component (value from Table D-2.0-7 × 4 mrem).

[c] — = COPC class is not carried forward for this report for this reach and water location combination.

Table D-2.0-15
Residential RME Multimedia Sums for
Unfiltered Water Data, Arsenic Removed, by Reach and Sampling Station

Sediment Reach	Water Station Name	Water Location	Carcinogen Sum[a]	Noncarcinogen Sum	Radionuclide Sum[b]
DP-2	LAUZ-1	21-01811	1.85	9.38	13.1
DP-4	LAO-2	LA-10067	—[c]	38.5	2.5
LA-2W	LAO-2	LA-10067	—	38.5	0.69
LA-2E	LAO-3a	LA-10035	1.01	39.1	2.81
LA-2FE	LAO-4	LA-10068	—	14.2	3.6
LA-3W	LAO-4.5c	LA-1069	—	—	1.84
LA-4W	LLAO-1b	LA-00215	—	4.58	0.28
P-1E	PAO-2	PU-10174	0.839	0.0054	0.776
AC-3	PAO-2	PU-10174	2.73	1.15	2.78
P-4W	PAO-5n/APCO-1	PU-00177	4.58	4.57	0.16

Note: Gray shading indicates a value revised from the original report.

[a] Convert to risk: Value × (1×10^{-5}).

[b] Convert to dose: Value from sediment component (value from Table D-2.0-4 ×15 mrem) + water component (value from Table D-2.0-7 × 4 mrem).

[c] — = COPC class is not carried forward for this report for this reach and water location combination.

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Appendix E

Stormwater Data

Table E-1 shows the gage stations by ID and name, the stream type, and provides the standards against which sample results for each station were screened. The applicable standards are based on the current New Mexico Water Quality Control Commission (WQCC) surface water regulations (20.6.4 NMAC). Figures E-1 to E-12 present time-series plots for analytes where one or more values at a gage station are greater than the standards associated with the designated use for the reach containing each gage. Analytes thought to be naturally occurring (e.g., aluminum) were not plotted. Box plots shown in Figures E-13 to E-25 provide a spatial context for the data shown in the time-series plots. Each box plot shows all data from a series of stations arranged in sequence from the upper watershed to the lower watershed with gage station E110 shown in all plots to represent lower Los Alamos Canyon near the Rio Grande. The data that comprise each box are represented with symbols for detect and nondetect status and the total number of each is shown at the bottom of each box. Four different box plot series are provided to show spatial variability associated with different tributaries in the upper portions of the watershed. One captures upper Los Alamos Canyon above the DP Canyon confluence; another captures DP Canyon instead of upper Los Alamos Canyon; another captures Pueblo Canyon above the Acid Canyon confluence; and the last captures Acid Canyon instead of upper Pueblo Canyon. All analytical results for stormwater are on the data CD accompanying this report (Appendix B).

In Los Alamos and DP Canyons, the highest values are generally associated with gage stations E030, E040, and E042. Those same contaminants are all low at E110 in lower Los Alamos Canyon. In Acid and Pueblo Canyons, the highest concentrations are generally limited to gage stations E060, and the concentrations of those same contaminants are also low at E110. All the results shown in the box plots are for unfiltered samples and likely reflect varying concentrations of suspended sediment in the samples. These spatial trends indicate that much of the suspended sediment is dropping out of floodwaters before reaching the Rio Grande and/or that analyte concentrations are being diluted from mixing during downstream transport.

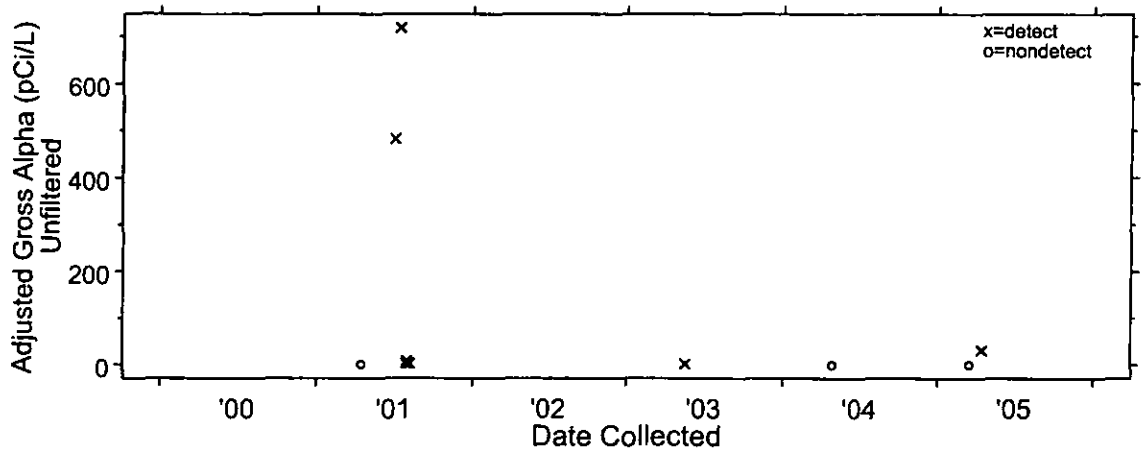

Figure E-1. Time series plot for adjusted gross alpha in unfiltered stormwater samples at gage station E026

Note: The State of New Mexico *Standards for Interstate and Intrastate Surface Water* (NMAC 20.6.4, effective July 17, 2005) contain numeric criteria for the protection of surface waters that have a designated use of livestock watering, including a standard for "adjusted gross alpha" (NMAC 20.6.4.900.J), where

> ***"Adjusted gross alpha"*** *means the total radioactivity due to alpha particle emission as inferred from measurements on a dry sample, including radium-226, but excluding radon-222 and uranium. Also excluded are source, special nuclear and by-product material as defined by the Atomic Energy Act of 1954. (NMAC 20.6.4.7.B)*

The Laboratory calculates an adjusted gross alpha value by subtracting from the reported gross alpha value the measured concentrations for uranium isotopes and the following Atomic Energy Act exempt radionuclides: Am-241, Np-237, Po-210, Pu-238, Pu-239,240, Th-228, Th-230, Th-232. (Note: Typically, the Laboratory does not measure Rn-222 in surface water samples.)

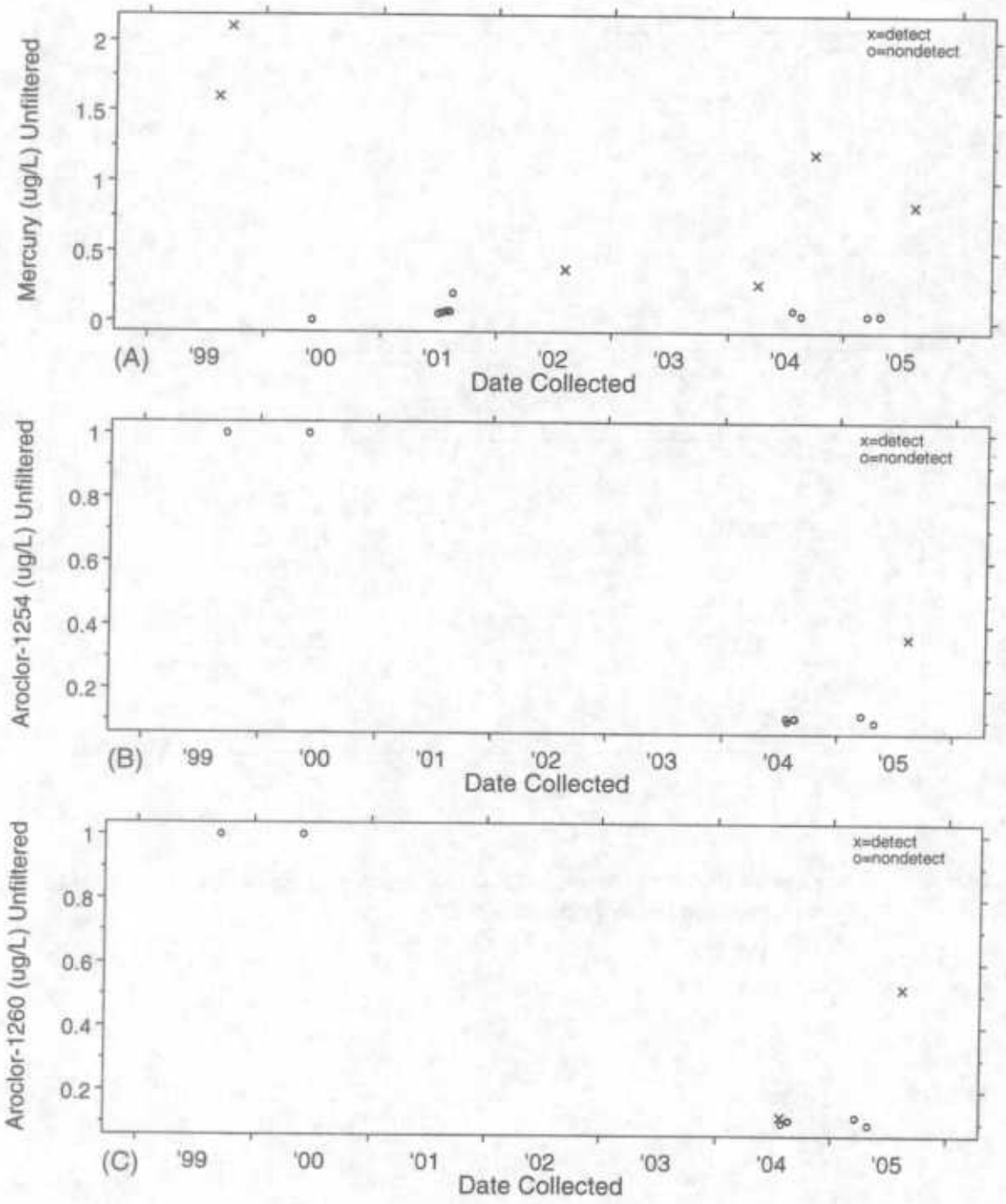

Figure E-2. **Time series plots for (A) mercury, (B) Aroclor-1254, and (C) Aroclor-1260 in unfiltered stormwater samples at gage station E030**

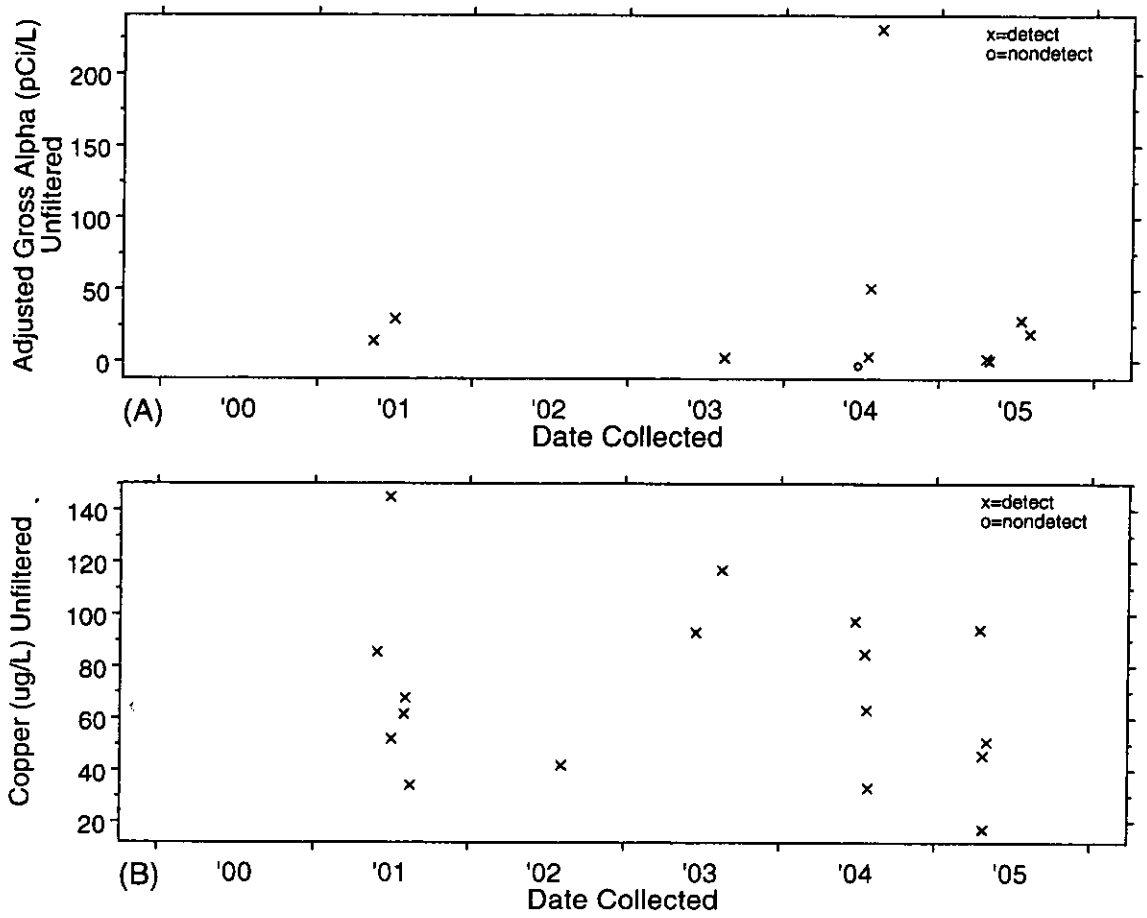

Figure E-3. Time series plots for (A) adjusted gross alpha and (B) copper in unfiltered stormwater samples at gage station E038

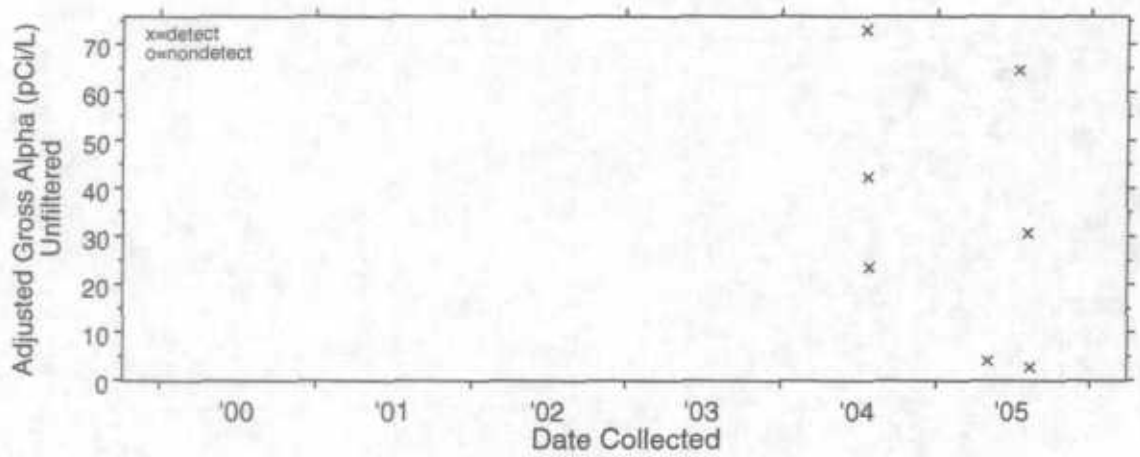

Figure E-4. **Time series plot for adjusted gross alpha in unfiltered stormwater samples at gage station E039**

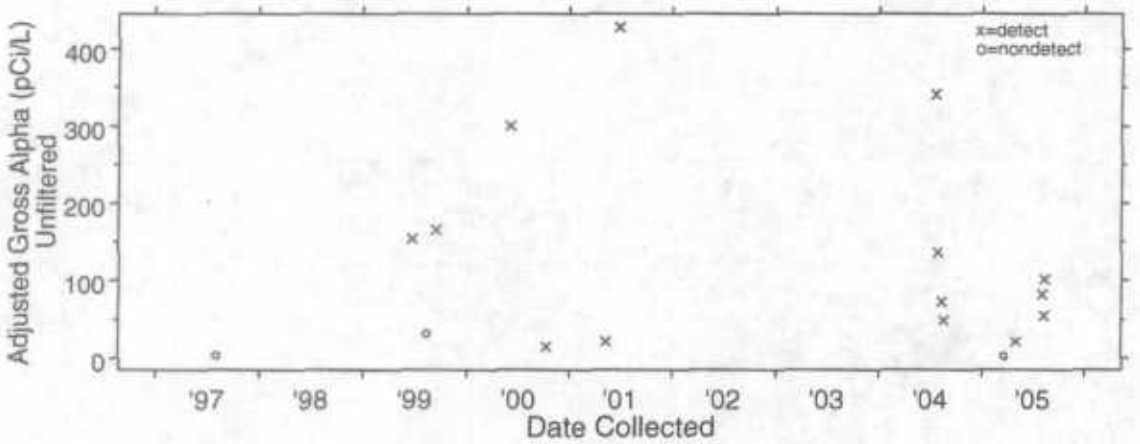

Figure E-5. **Time series plots for adjusted gross alpha in unfiltered stormwater samples at gage station E040**

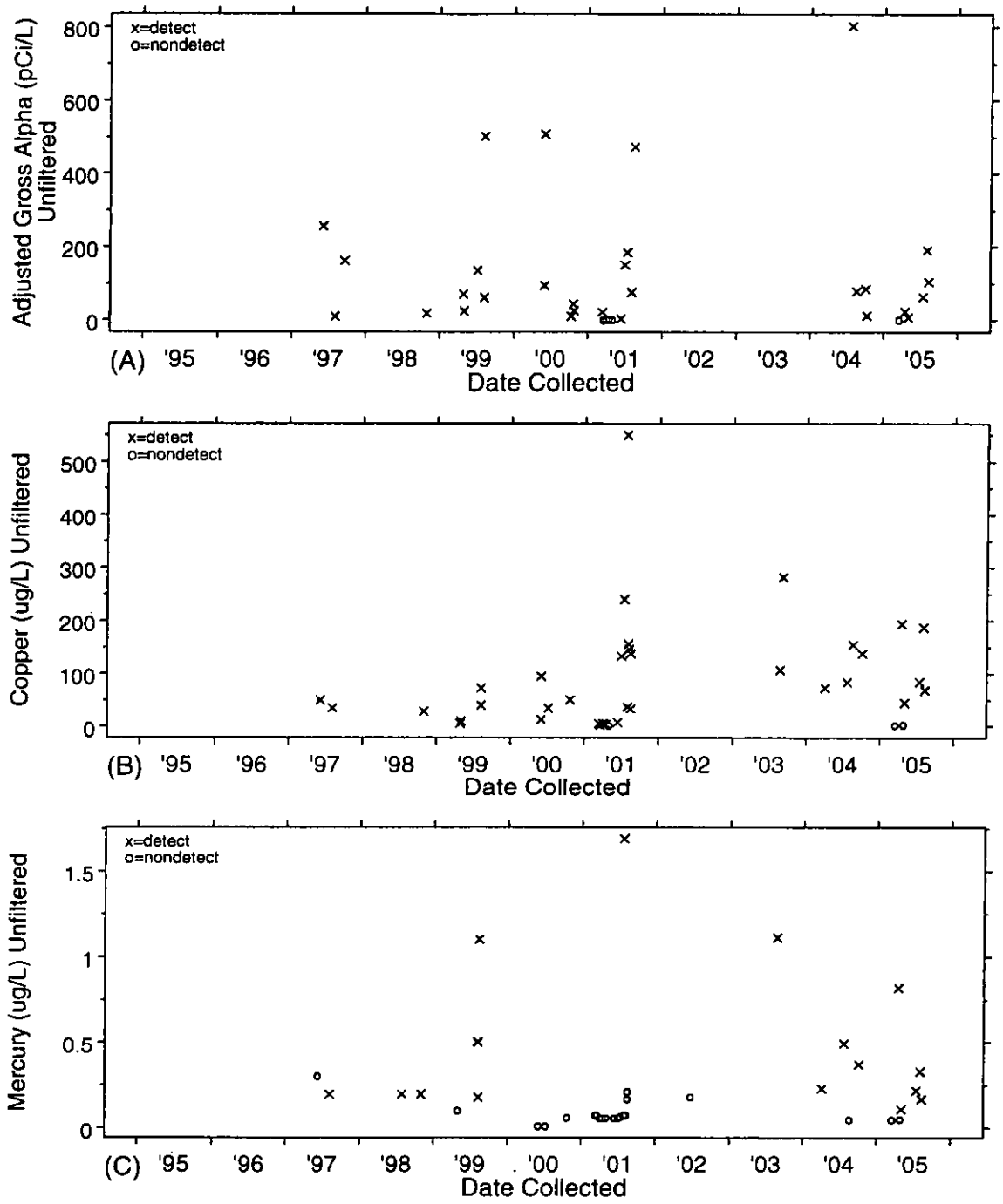

Figure E-6. Time series plots for (A) adjusted gross alpha, (B) copper, and (C) mercury in unfiltered stormwater samples at gage station E042

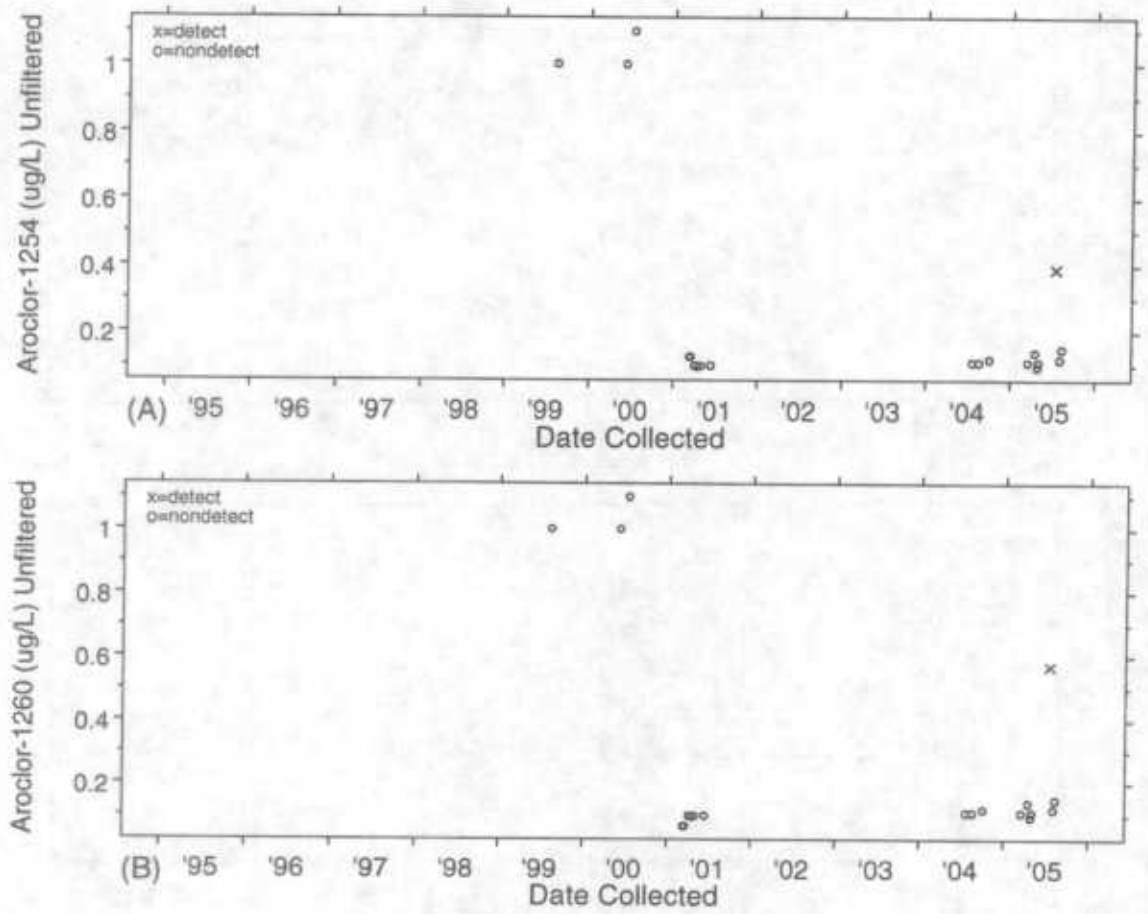

Figure E-7. Time series plots for (A) Aroclor-1254 and (B) Aroclor-1260 in unfiltered stormwater samples at gage station E042

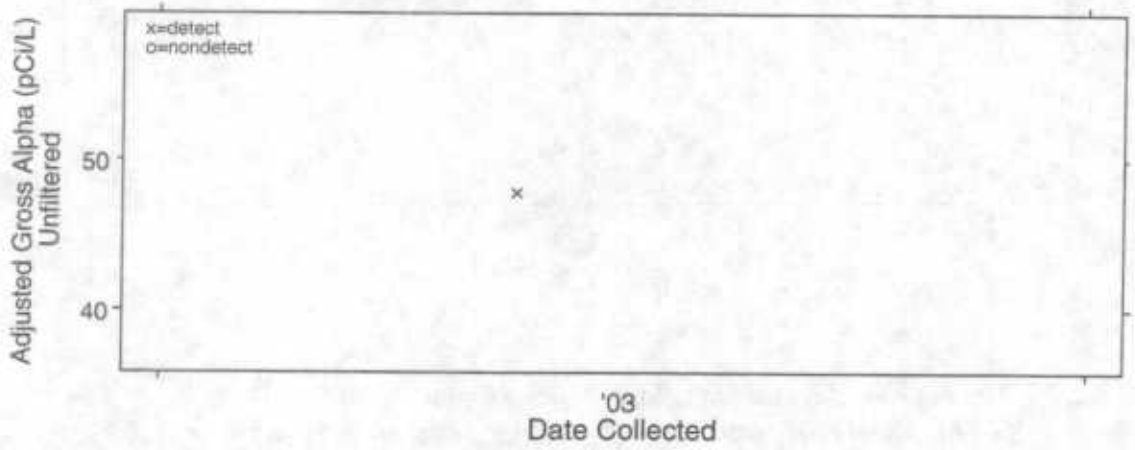

Figure E-8. Time series plot for adjusted gross alpha in unfiltered stormwater samples at gage station E049

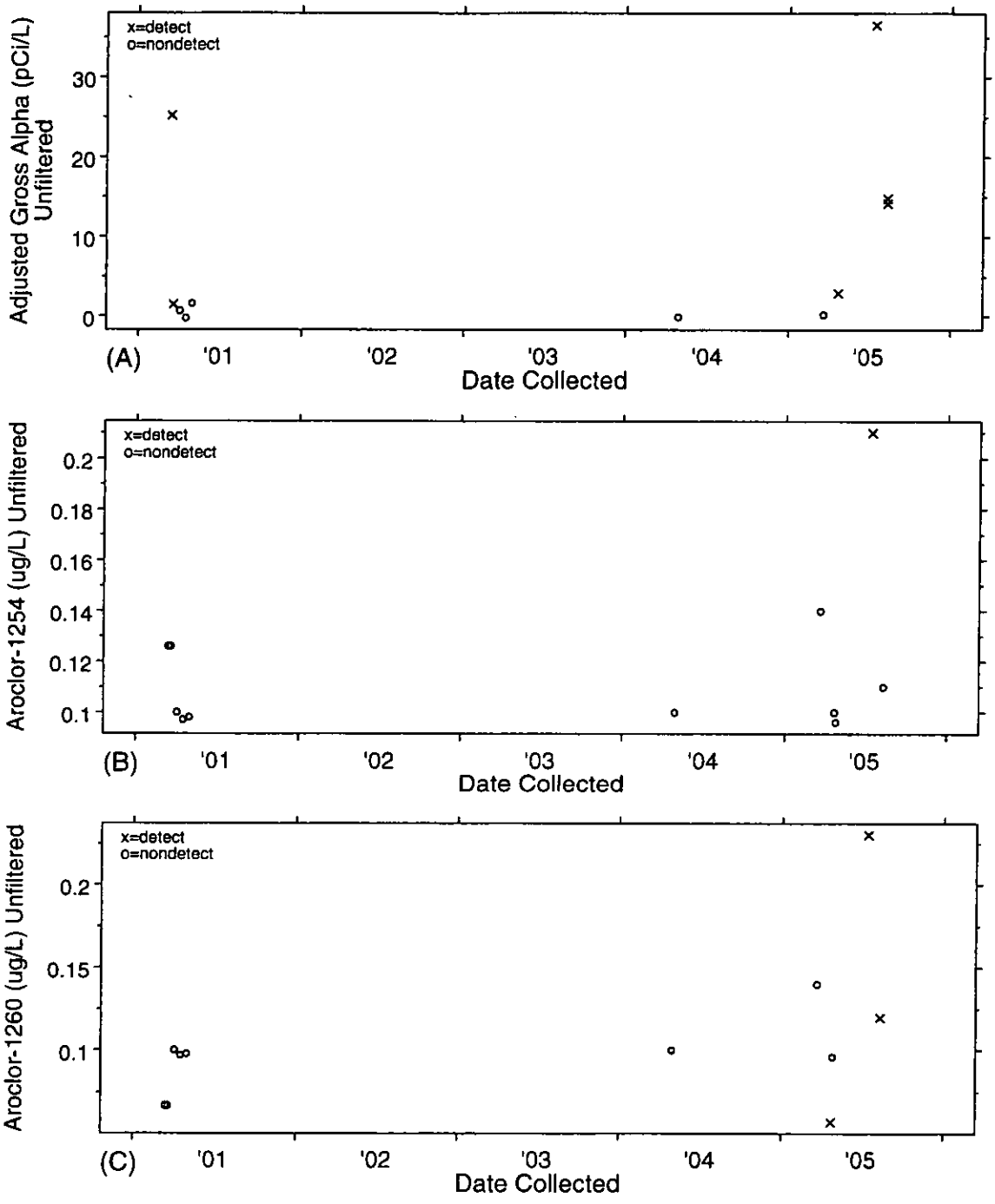

Figure E-9. Time series plots for (A) adjusted gross alpha, (B) Aroclor-1254, and (C) Aroclor-1260 in unfiltered stormwater samples at gage station E050

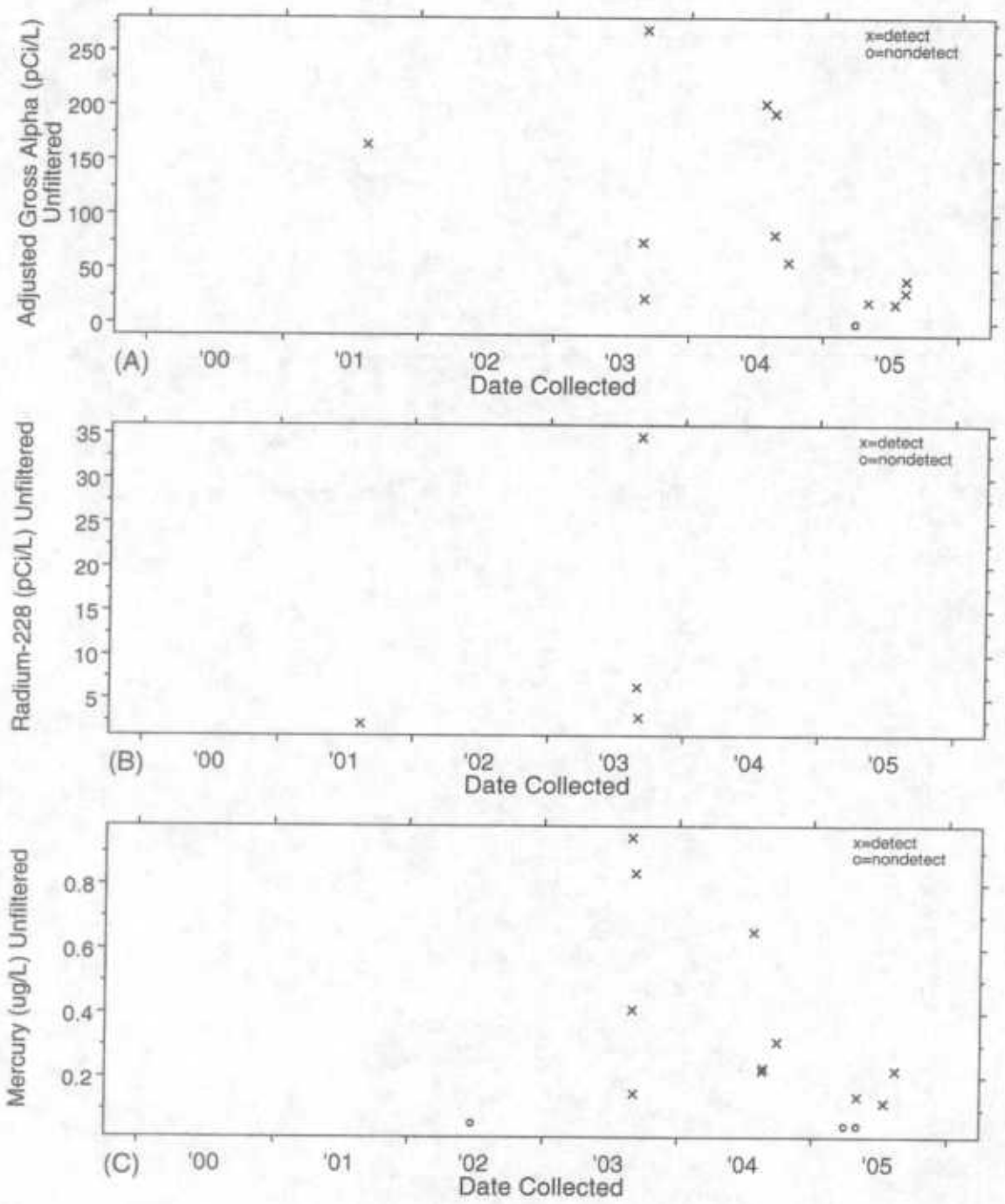

Figure E-10. Time series plots for (A) adjusted gross alpha, (B) radium-228, and (C) mercury in unfiltered stormwater samples at gage station E055

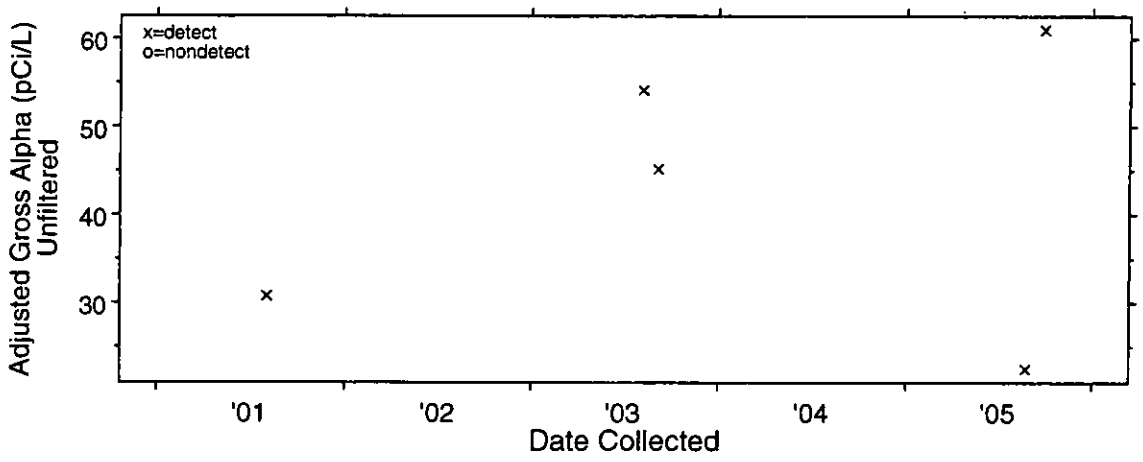

Figure E-11. Time series plot for adjusted gross alpha in unfiltered stormwater samples at gage station E056

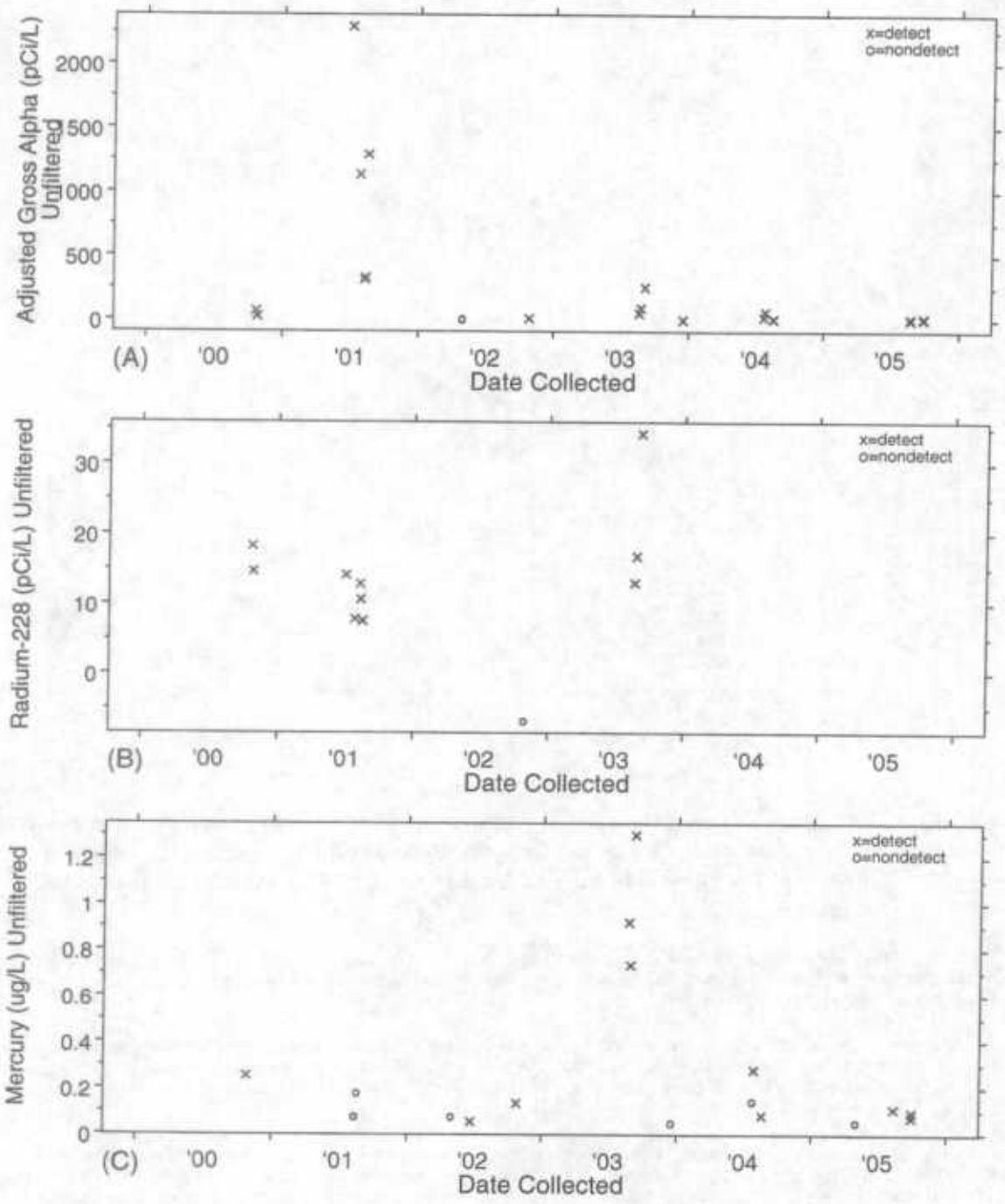

Figure E-12. Time series plots for (A) adjusted gross alpha, (B) radium-228, and (C) mercury in unfiltered stormwater samples at gage station E060

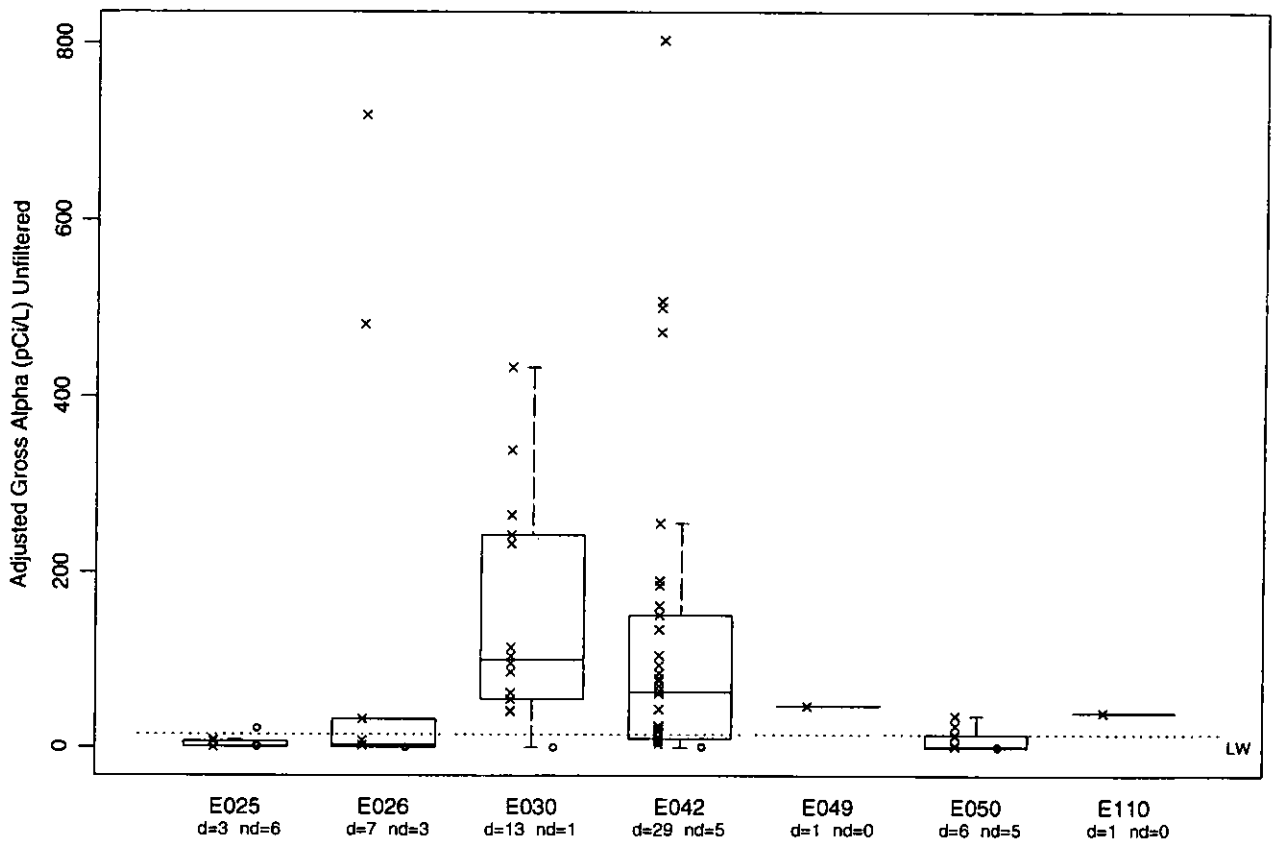

Figure E-13. Box plots showing the spatial distribution of adjusted gross alpha in stormwater at gage stations in Los Alamos Canyon. Gage stations are arranged sequentially from the top of the canyon to the Rio Grande. LW = NM Livestock watering 2005 standard.

Note: The State of New Mexico *Standards for Interstate and Intrastate Surface Water* (NMAC 20.6.4, effective July 17, 2005) contain numeric criteria for the protection of surface waters that have a designated use of Livestock Watering, including a standard for "Adjusted Gross Alpha" (NMAC 20.6.4.900.J), where

> ***"Adjusted gross alpha"*** *means the total radioactivity due to alpha particle emission as inferred from measurements on a dry sample, including radium-226, but excluding radon-222 and uranium. Also excluded are source, special nuclear and by-product material as defined by the Atomic Energy Act of 1954. (NMAC 20.6.4.7.B)*

The Laboratory calculates an adjusted gross alpha value by subtracting from the reported gross alpha value the measured concentrations for uranium isotopes and the following Atomic Energy Act exempt radionuclides: Am-241, Np-237, Po-210, Pu-238, Pu-239,240, Th-228, Th-230, Th-232. (Note: Typically, the Laboratory does not measure Rn-222 in surface water samples.)

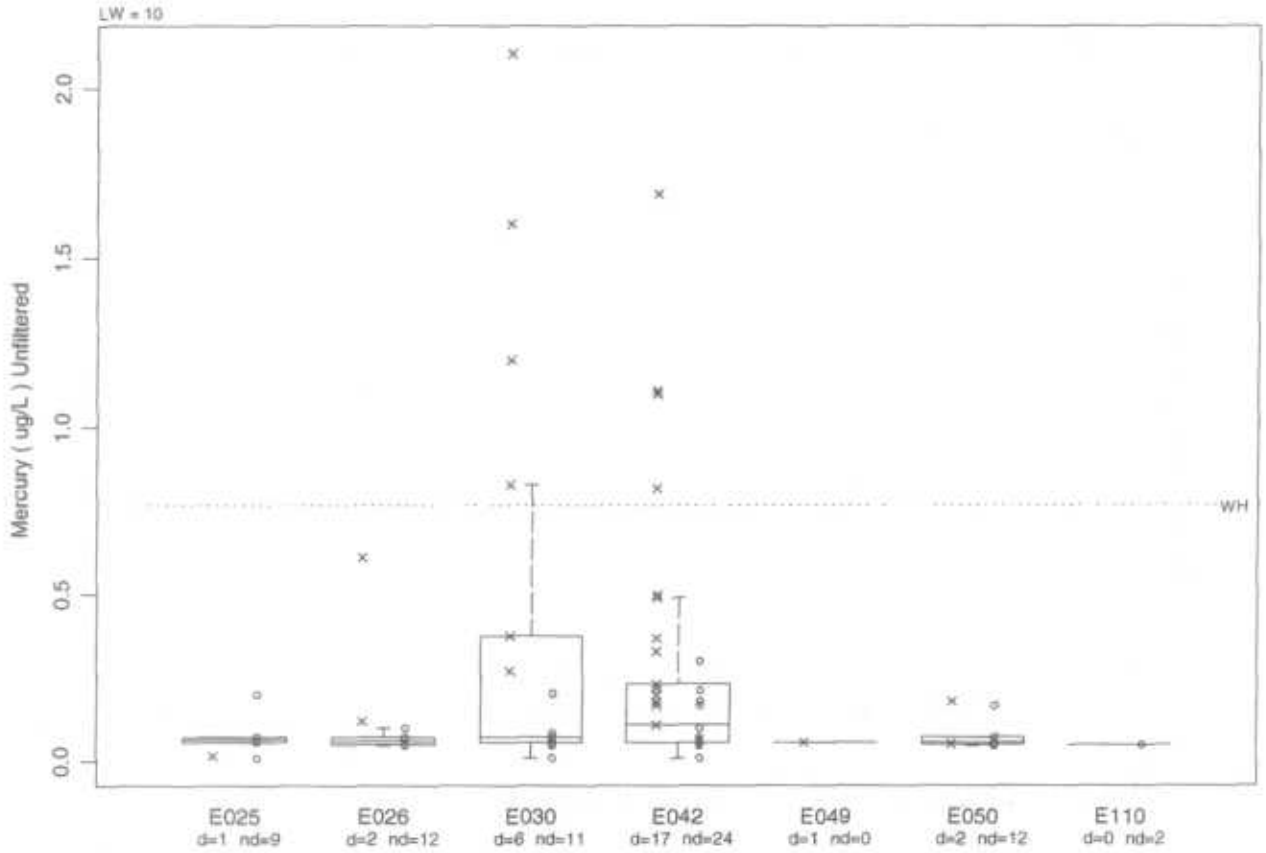

Figure E-14. Box plots showing the spatial distribution of mercury in stormwater at gage stations in Los Alamos Canyon. Gage stations are arranged sequentially from the top of the canyon to the Rio Grande. WH = NM Wildlife Habitat 2005 Standard.

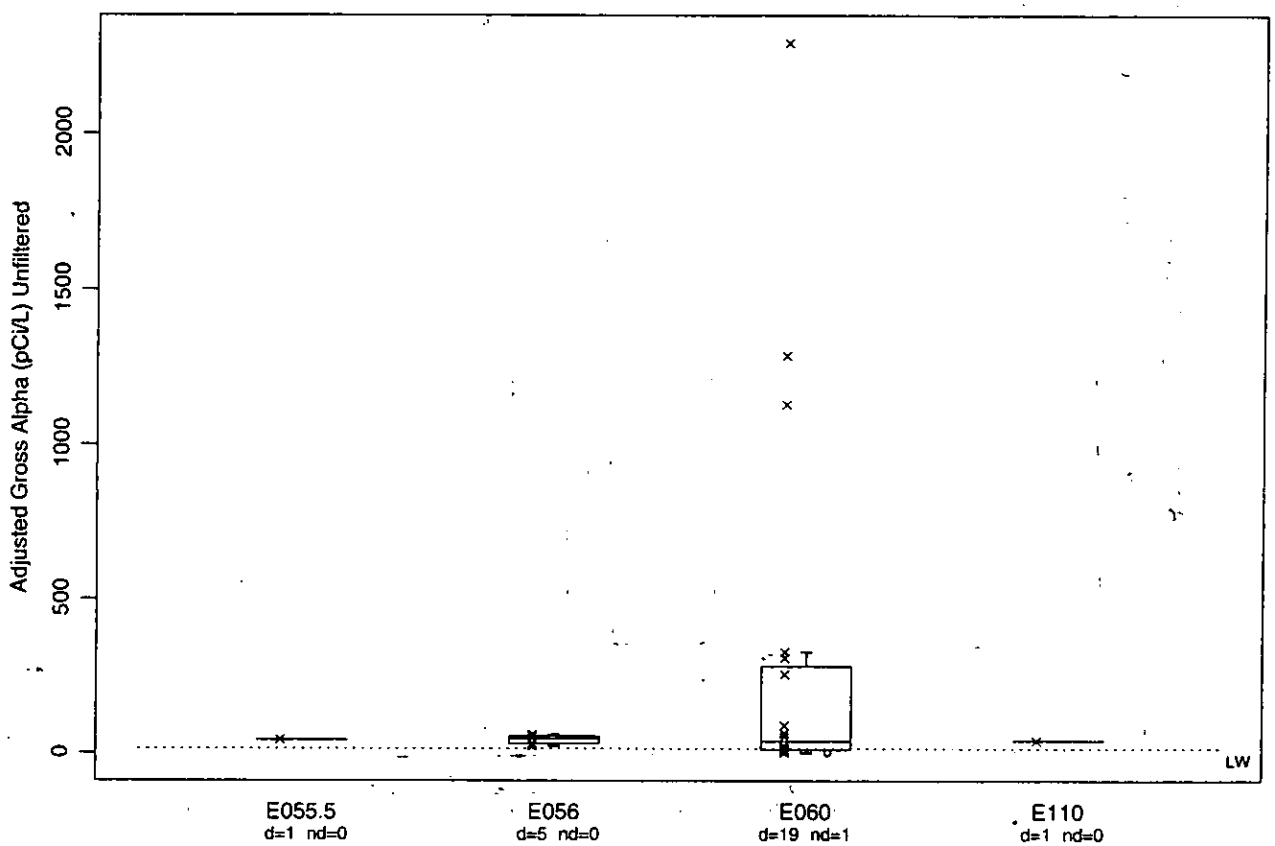

Figure E-21. Box plots showing the spatial distribution of adjusted gross alpha in stormwater at gage stations in Acid Canyon. Gage stations are arranged sequentially from the top of the canyon to the Rio Grande. LW= NM Livestock watering 2005 standard.

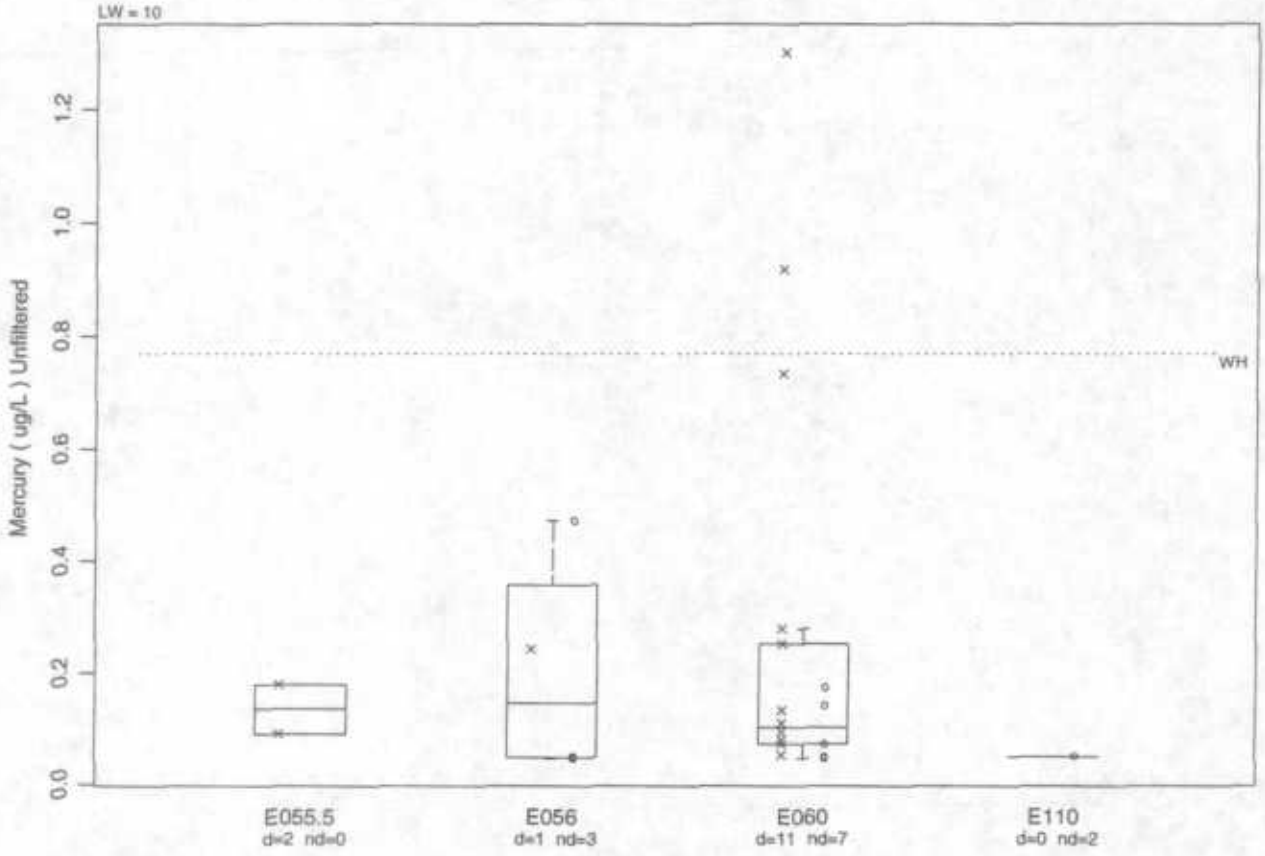

Figure E-22. **Box plots showing the spatial distribution of mercury in stormwater at gage stations in Acid Canyon. Gage stations are arranged sequentially from the top of the canyon to the Rio Grande. WH = NM Wildlife Habitat 2005 Standard.**

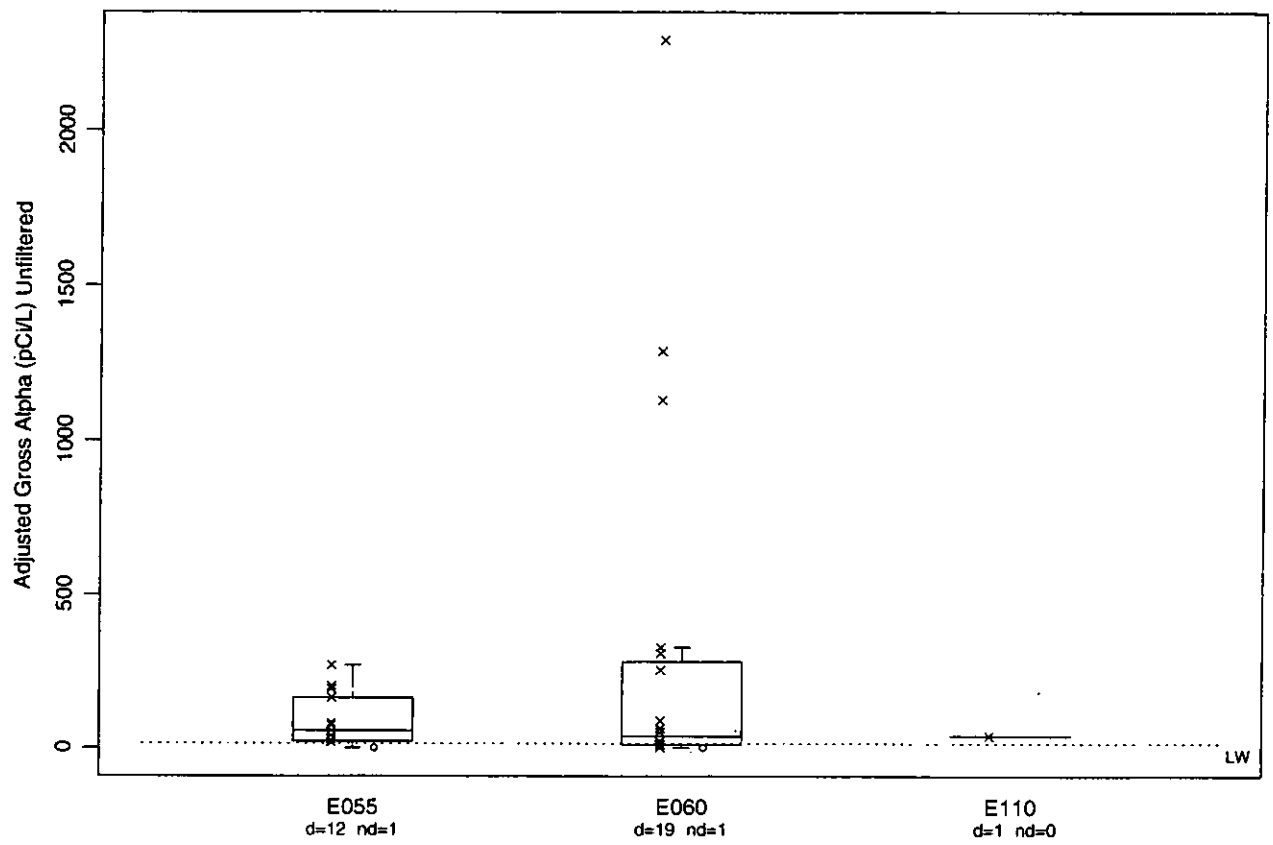

Figure E-23. **Box plots showing the spatial distribution of adjusted gross alpha in stormwater at gage stations in Pueblo Canyon. Gage stations are arranged sequentially from the top of the canyon to the Rio Grande. LW= NM Livestock watering 2005 standard.**

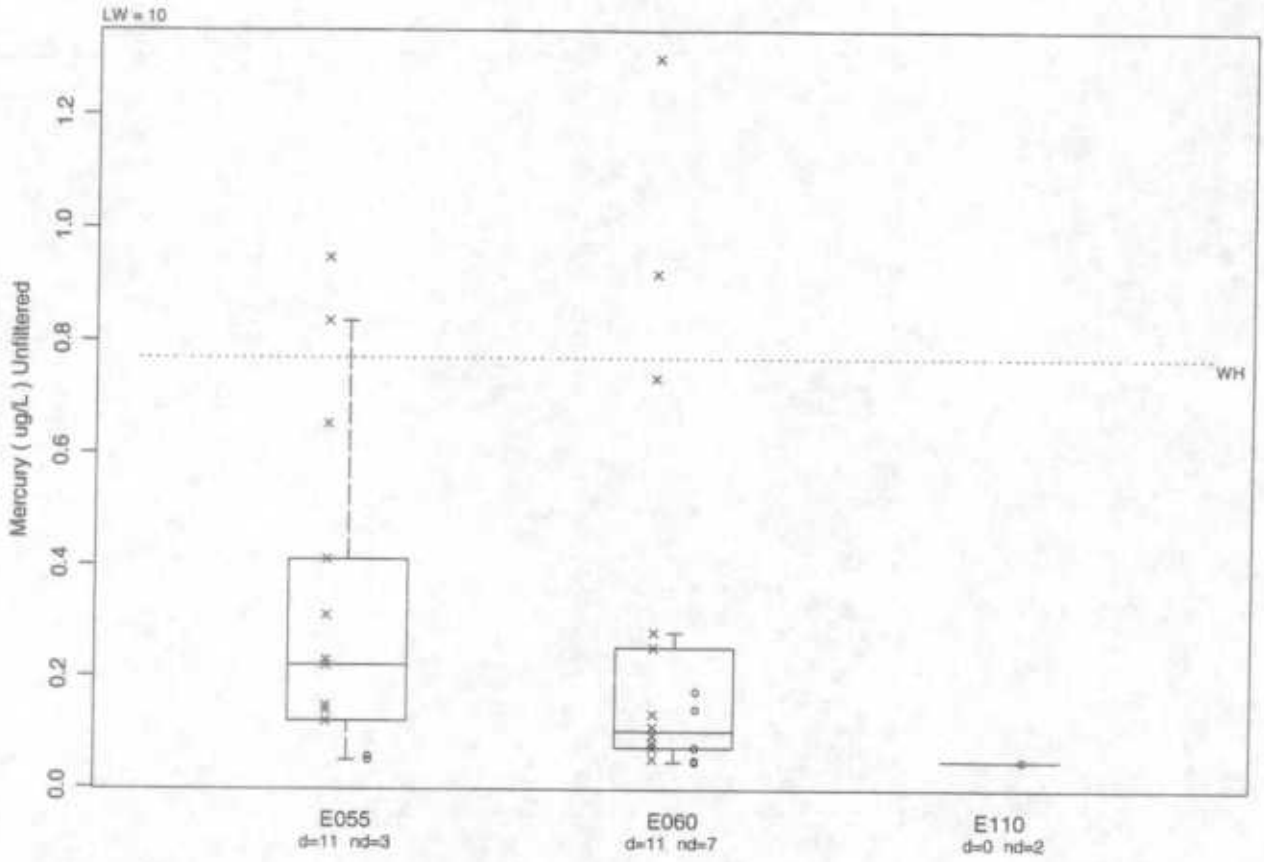

Figure E-24. **Box plots showing the spatial distribution of mercury in stormwater at gage stations in Pueblo Canyon. Gage stations are arranged sequentially from the top of the canyon to the Rio Grande. WH = NM Wildlife Habitat 2005 Standard.**

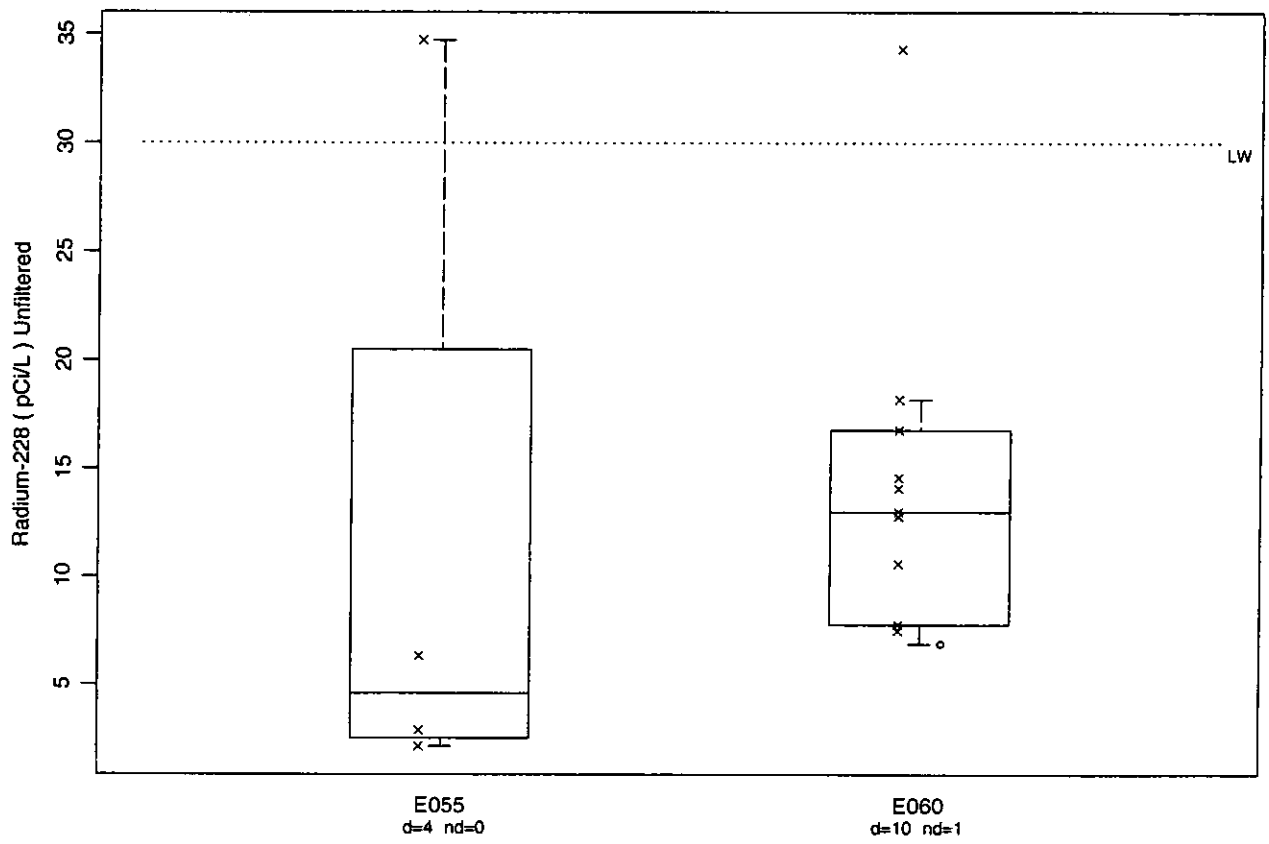

Figure E-25. **Box plots showing the spatial distribution of radium-228 in stormwater at gage stations in Pueblo Canyon. Gage stations are arranged sequentially from the top of the canyon to the Rio Grande. LW= NM Livestock watering 2005 standard.**

Table E-1
Standards Used to Screen the Stormwater Data at Gage Stations

Station ID	Station Name	Canyon	Stream Type	Designated Uses	Applicable WQS[a]
E025	Los Alamos above Ice Rink	Los Alamos	Intermittent	LW[b], WH[c], LimAQ[d]	LW[e], WH[f], Aquatic Acute[g], HH Persistent[h]
E026	Los Alamos below Ice Rink	Los Alamos	Intermittent	LW, WH, LimAQ	LW, WH, Aquatic Acute, HH Persistent
E030	Los Alamos above DP Canyon	Los Alamos	Ephemeral	LW, WH, LimAQ	LW, WH, Aquatic Acute, HH Persistent
E038	DP above TA-21	DP	Ephemeral	LW, WH, LimAQ	LW, WH, Aquatic Acute, HH Persistent
E039	DP below Meadow at TA-21	DP	Ephemeral	LW, WH, LimAQ	LW, WH, Aquatic Acute, HH Persistent
E040	DP above Los Alamos Canyon	DP	Ephemeral	LW, WH, LimAQ	LW, WH, Aquatic Acute, HH Persistent
E042	Los Alamos above SR-4	Los Alamos	Ephemeral	LW, WH, LimAQ	LW, WH, Aquatic Acute, HH Persistent
E049	Los Alamos at LA Weir	Los Alamos	Ephemeral	LW, WH, LimAQ	LW, WH, Aquatic Acute, HH Persistent
E050	Los Alamos below LA Weir	Los Alamos	Ephemeral	LW, WH, LimAQ	LW, WH, Aquatic Acute, HH Persistent
E055	Pueblo above Acid	Pueblo	Ephemeral	LW, WH, LimAQ	LW, WH, Aquatic Acute, HH Persistent
E055.5	South Fork of Acid Canyon	Acid	Ephemeral	LW, WH, LimAQ	LW, WH, Aquatic Acute, HH Persistent
E056	Acid above Pueblo	Acid	Ephemeral	LW, WH, LimAQ	LW, WH, Aquatic Acute, HH Persistent
E060	Pueblo above SR-502	Pueblo	Intermittent	LW, WH, AQ[i]	LW, WH, Aquatic Acute, Aquatic Chronic[j], HH Persistent, HH[k]
E110	Los Alamos at Rio Grande	Los Alamos	Ephemeral	LW, WH, LimAQ	LW, WH, Aquatic Acute, HH Persistent

[a] WQS = Water quality standards.

[b] LW = Livestock watering.

[c] WH = Wildlife habitat.

[d] LimAQ = Limited aquatic life.

[e] LW = NM Livestock Watering 2005 [New Mexico WQCC Livestock Watering criteria, NMAC 20.6.4.900 (F) &(J), eff. July 2005.]

[f] WH = NM Wildlife Habitat 2005 [New Mexico WQCC Wildlife Habitat criteria, NMAC 20.6.4.900 (G) &(J), eff. July 2005.]

[g] Aquatic Acute = NM Acute Aquatic Life 2005 100 mg/L Hardness [New Mexico WQCC Acute Aquatic Life criteria, NMAC 20.6.4.900 (H), (I), & (J), eff. July 2005. Hardness-dependent criteria calculated using 100 mg/L CaCO3.]

[h] HH Persistent = NM Human Health Persistent 2005 [New Mexico WQCC Human Health criteria for persistent toxic pollutants, NMAC 20.6.4.900 (J), eff. July 2005. Human health criteria for persistent pollutants only.]

[i] AQ = Aquatic life.

[j] Aquatic Chronic = NM Chronic Aquatic Life 2005 100 mg/L Hardness [New Mexico WQCC Chronic Aquatic Life criteria, NMAC 20.6.4.900 (H), (I) , eff. July 2005. Hardness-dependent criteria calculated using 100 mg/L CaCO3.]

[k] HH = NM Human Health 2005 [New Mexico WQCC Human Health criteria, NMAC 20.6.4.900 (J), eff. July 2005. Human health criteria include toxic, carcinogenic, and persistent pollutants.]

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