U.S. Department of Energy

Oakland Operations Office, Oakland, California

1996 ANNUAL WATER MONITORING REPORT

for the

Laboratory for Energy-Related Health Research (LEHR)
University of California at Davis, California

Submitted to:

United States Department of Energy
Oakland Operations Office
1301 Clay Street
Oakland, California 95612

Prepared by:

Weiss Associates
5500 Shellmound Street
Emeryville, California 94608

June 18, 1997
Rev. 0

DOE Oakland Operations Office Contract DE-AC03-96SF20686

Approvals Page

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EXECUTIVE SUMMARY

This 1996 Annual Water Monitoring Report presents data collected between January and December 1996, at the Laboratory for Energy-Related Health Research (LEHR) located at the University of California in Davis, California. This report was prepared by Weiss Associates in compliance with the LEHR site Water Monitoring Plan (Dames and Moore, 1994b, revised through 1996).

Storm water runoff, surface water, and ground water at the LEHR site are monitored for volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), radionuclides, metals, anions and cations, and general chemical parameters. Storm water runoff is sampled bi-annually, surface water is sampled quarterly, and selected wells are sampled quarterly. These data were validated and reviewed following the procedures outlined in the Water Monitoring Plan.

Ground water elevations measured in 1996 were similar to those measured in 1995; the ground water elevation in both HSU-1 and HSU-2 dropped by 20 to 25 feet during the summer, then rose again in the fall. The horizontal gradient in both units was to the northeast, with some variability in the gradient in HSU-1. The vertical gradient between HSU-1 and HSU-2 was downward during the summer months, when ground water was being extracted from HSU-2, and upward in most wells during the rainy season.

Several constituents were detected in water samples for the first time, or exceeded the previous maximum during one sampling event in 1996, but were not detected, or did not exceed the maximum again in subsequent sampling events. These detections are probably anomalies, rather than a trend. Several constituents were detected for the first time, or at a new maximum in 1996, and were also detected in subsequent sampling events. These detections may represent a new trend and should be monitored carefully during future sampling events. Significant 1996 sampling results include:

- Bromoform was detected for the first time (at 1.2 ug/L) at surface water location PCD during the winter quarter, but was not detected again in 1996. Bromoform was also detected as new maximum values at the sewage treatment outfall water sampling location STPO at 3.5 ug/L and 7.5 ug/L in the winter and spring quarters, respectively. Sampling location PCD is downsteram of the LEHR site and STPO. If this trend were to continue in future sampling events, the presence of bromoform may reflect an increase in bromoform levels discharged by the UC Davis wastewater treatment plant upstream of location PCD.

- Trichloroethene was detected for the first time in well UCD1-13 at 0.24 ug/L in the spring, then at 0.2 ug/L and 0.3 ug/L in the summer and fall, respectively.

UCD1-13 is located east of the former landfill Unit No. 2 and the eastern dog pens, near well UCD2-14. Trichloroethene has not been detected in UCD2-14.

- Cobalt-60 was detected at a new maximum of 4.0 pCi/L in well UCD1-24 during the winter quarter. This well is sampled annually, and should be monitored during the winter 1997 sampling to determine whether this new maximum indicates an increasing trend. If cobalt-60 is detected again, the sampling plan should be reviewed to determine whether the well sampling frequency should be changed.

- Chloroform was detected for the first time in 1996 in off site downgradient well UCD1-25 at 1.7 ug/L and 1.5 ug/L during the summer and fall monitoring events, respectively.

- Carbon-14 was detected in well UCD1-13 at 7,180 pCi/L during the summer sampling event, exceeding the previous maximum of 2,464 pCi/L in 1992. The detected concentrations in this well decreased to 2,010 pCi/L in the fall sampling, but the well should be monitored carefully in the future to determine whether there is an increasing trend.

Review of the water analyses indicates that the approximate distribution of compounds of concern at the site is generally stable.

1. INTRODUCTION

This report presents analytical results for the 1996 quarterly ground water and surface water monitoring, and the bi-annual storm water monitoring at the former Laboratory for Energy-Related Health Research (LEHR) facility in Davis, California (Figure 2-1). This monitoring program was conducted as part of the ongoing U.S. Department of Energy (DOE)-sponsored Environmental Restoration program at the LEHR site. Water monitoring is conducted according to the site-specific Water Monitoring Plan (WMP, Dames and Moore, 1994b, revised through 1996). The water monitoring program provides data to evaluate impacts to ground water, surface water and storm water, and to supplement information collected during the ongoing CERCLA activities at the site.

This report presents the results of the fall 1996 monitoring and data validation, and summarizes the results of the winter, spring and summer quarters, which have been previously submitted (PNNL, 1996b; PNNL, 1996c, and WA, 1997a).

The data, findings, recommendations and/or professional opinions contained in this document were prepared solely for the use of the Department of Energy (DOE). Weiss Associates (WA) makes no other warranty, either expressed or implied, and is not responsible for the interpretation by others of the contents herein.

2. LEHR SITE DESCRIPTION AND SETTING

The LEHR site is located in Solano County, California. It is approximately 1.5 miles south of the town of Davis (Figure 2-1), and occupies the southeast portion of the UC Davis campus. The site is bounded by University research facilities, private farmland, and the South Fork of Putah Creek. The southern boundary of the LEHR site is the northern levee of the South Fork of Putah Creek.

The LEHR site covers approximately 15 acres and contains laboratory buildings and former animal-handling facilities that were used by DOE (Figure 2-2). Outdoor dog pens occupied approximately 20 percent, or 3 acres, of the LEHR site. The land is owned by the Regents of the University of California and was leased to the DOE through 1989. At present, DOE still owns the buildings on site.

The LEHR site also contains inactive landfills and other disposal areas (Figure 2-2). UC Davis Landfills were used on-site until 1967, including Landfill Disposal Unit 1, used from the 1940s through the late 1950s or early 1960s, and Landfill Disposal Unit 2, used from 1956 through 1967. A third UC Davis landfill, Disposal Unit 3, is located approximately 600 ft east of the LEHR site and was used from 1963 to 1967. The site contains numerous other inactive disposal trenches and holes formerly used by UC Davis and DOE.

2.1 Geology and Hydrogeology

The geology and hydrogeology of the LEHR site are briefly summarized below. A more detailed discussion is presented in the Final Site Characterization Report (WA, 1997b).

The LEHR site is situated on gently sloping land, with an average elevation of approximately 50 ft above mean sea level. The land surface slopes to the east/northeast at approximately 0.001 ft/linear ft (5 ft per mile). Relief across the site is about 2 ft.

The uppermost distinct aquifer beneath the LEHR site has been divided into two hydrostratigraphic units (HSUs), based on the stratigraphy of the sediments at the site, and the associated ground water flow and contaminant migration characteristics. HSU-1 consists predominantly of fine-grained sediments and extends from the water table to approximately 80 ft below ground surface (bgs). HSU-2 consists of cobbles and gravel and extends from 80 to 135 ft bgs. Well drillers' logs indicate that a 90-foot-thick clay unit separates HSU-2 from a second aquifer (or third HSU) below (Dames & Moore, 1994a). The ground water flow in both aquifers is generally to the northeast. Current data indicate that contaminants are present in both HSUs 1 and 2.

The east-flowing South Fork of the Putah Creek borders the southern portion of the LEHR site and is separated from the site by the north levee of the creek. In 1948, the U.S. Army Corps of Engineers modified the South Fork and dammed the North Fork, so that all water in Putah Creek now flows in the South Fork. Putah Creek is a "losing" stream in the LEHR vicinity (DWR, 1978). Therefore Putah Creek water may impact shallow ground water beneath the site, but not vice-versa.

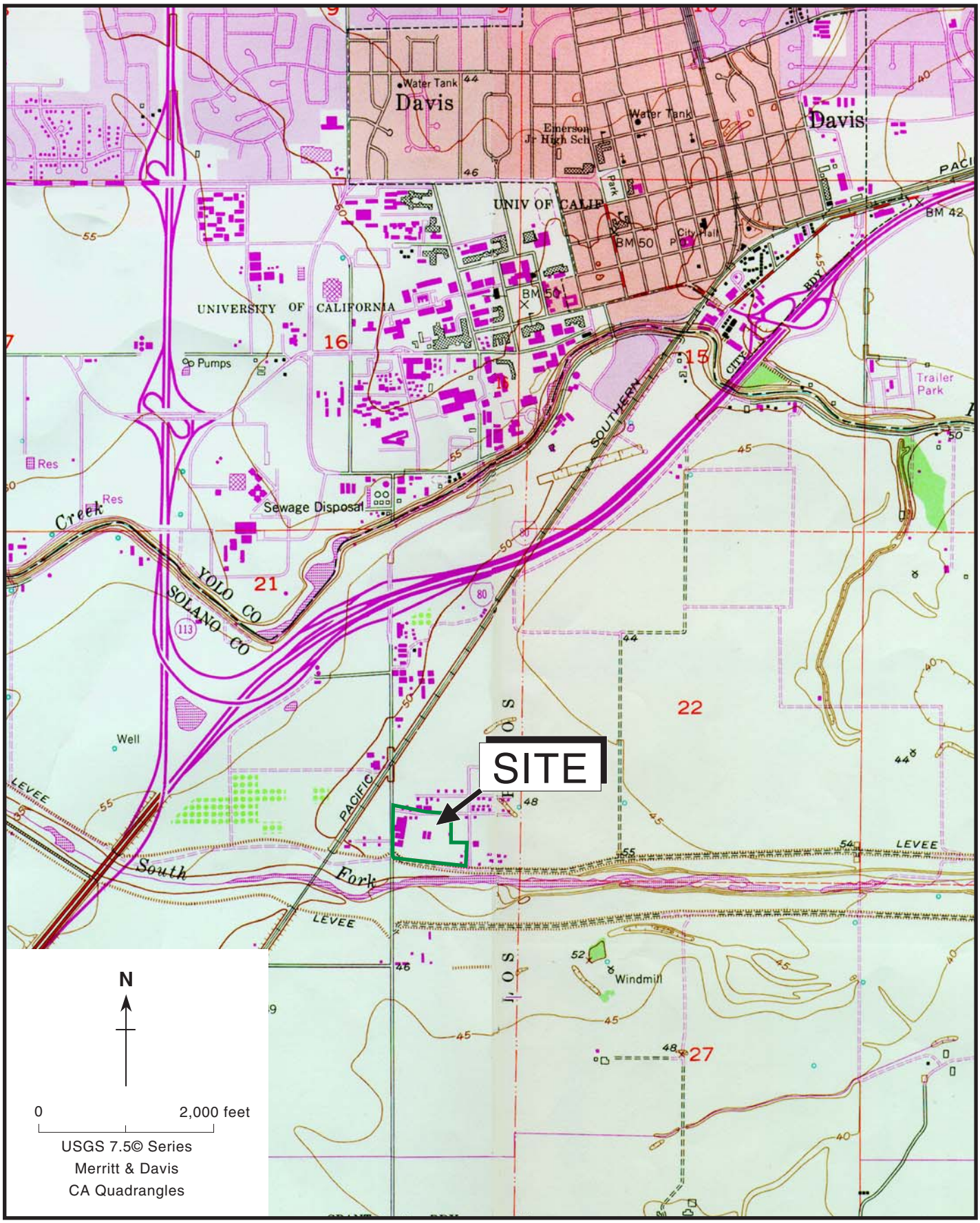


Figure 1. LEHR Site and UC Davis Location Map, LEHR Site, Davis, California

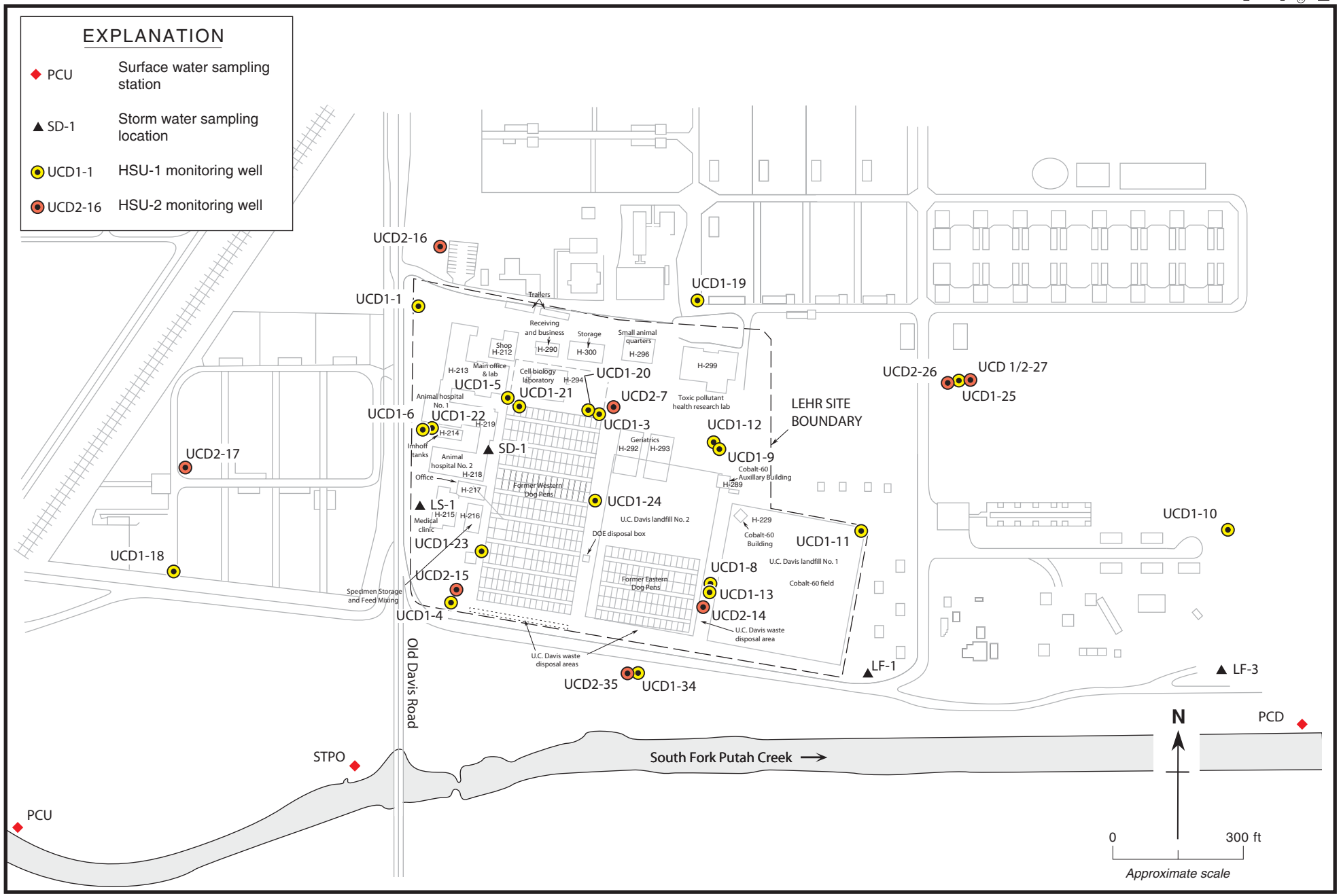


Figure 2-2. Site Structures and Features, LEHR Site, Davis, California

3. LEHR MONITORING PROGRAM

3.1 Purpose and Objectives

The purposes of the LEHR water monitoring program are to monitor specified constituents of concern in water at the site, including changes in concentration over time. The water monitoring program encompasses ground water, surface water, and storm water discharge. As discussed in the WMP the purpose of this annual monitoring report is to summarize the results and findings of the 1996 water sampling program, and to highlight any significant anomalies or deviation from previous results.

This report discusses the findings of the fall 1996 water sampling, summarizes the three previous sampling events, and discusses results, trends and conclusions based upon the 1996 sampling program. Detailed discussions of the findings of the 1996 winter, summer and fall sampling events are presented in the respective quarterly summary reports.

In 1997 DOE will perform water sampling of storm water runoff from the LEHR site only. All other water sampling will be conducted and reported by the University of California at Davis.

3.2 Report Organization and Structure

This report follows the guidelines specified in the WMP, and the scope agreed upon by WA and DOE. All water sampling was performed according to the WMP, and the LEHR Quality Assurance Project Plan (QAPjP) included as Appendix A in the WMP. Data validation was performed according to the guidelines in the LEHR QAPjP, and the U.S. EPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (EPA, 1994).

Table 1 identifies the wells sampled and summarizes the analyses requested for the water monitoring program. Analytical results are summarized, along with the previous three quarters of data in Tables 2 through 6. Tables 2 and 3 contain the relative percent differences for the duplicates for ground water and for surface water and storm water samples, respectively. Tables 4-1 through 4-7 and 5-1 through 5-7 report analytical detections and positive results for ground water and surface water and storm water samples, respectively.

Table 6 presents new maximum values and new detections for chemical water quality data collected for the summer quarter of 1996. Table 6 compares chemical water quality data for each quarter with data collected during all previous sampling events since fall 1990. Table 6A compares fall chemical water quality data for wells UCD1-25, UCD1-34, UCD2-26, UCD2-35 and UCD1/2-27Z. These wells were installed in 1995, and the fall 1996 data are compared to the previous four

quarters. For each parameter, the table summarizes the previously reported data, including the number of results, number of detections, the mean, and the historical maximum value. Compounds reported for the current quarter that have not been previously detected at these locations are denoted as "New Detections". New maximum values are denoted as "New Maximum Concentrations". New detections exceeding the Maximum Contaminant Level (MCL) and new maximum values which are more than twice the previous value, or which are of particular interest at the site, are discussed in the text.

Monitoring well construction information is presented in Table 7, and Table 8 summarizes the ground water elevation data from summer 1995 through fall 1996.

Figure 2-1 is a site location map. Ground water monitoring well, surface water sample locations and storm water sample locations are shown in Figure 3-1. Figures 4-1 through 4-8 present 1996 ground water elevation contour maps for hydrostratigraphic units (HSUs) 1 and 2. Figures 4-9 through 4-12 are water elevation hydrographs for eight wells. The eight wells selected represent four sets of adjacent HSU1/HSU2 wells pairs distributed across the site.

Analytical results for all 1996 ground water samples are summarized in Appendix A. Analytical results for all 1996 surface and storm water locations are summarized in Appendix B, and a summary of results for 1996 field and equipment blanks is presented in Appendix C. Appendix D discusses the fall quarter data validation.

3.3 Sampling and Shipping Procedures

Except for well UCD2-27, ground water samples were collected by purging and sampling monitoring wells with dedicated electric submersible pumps which do not require decontamination procedures. UCD2-27 is a multiple-port well constructed with separate sampling points set at seven depths. During the fall sampling five zones were sampled, using sampling equipment dedicated to the well. The sampling equipment was thoroughly cleaned according to the procedures outlined in the QAPjP prior to sampling each zone.

Each quarter surface water samples were collected at three locations along Putah Creek (Figure 3-1): the UC Davis Wastewater Treatment Plant outfall tributary (location STPO), upstream of the LEHR facility (location PCU), and downstream of the LEHR facility (location PCD). A duplicate sample was collected at one location each quarter.

Storm water samples are collected in the spring and fall; once at the beginning of the rainy season after the first storm of the season, and once near the end of the season. Grab samples were collected from four locations in 1996 (Figure 3-1).

All water samples were collected and handled according to procedures described in the WMP. Samples were shipped daily via overnight delivery to LAS laboratories in Las Vegas, Nevada. Upon receipt of the sample shipment, LAS immediately documented the condition of the sample containers on the chain-of-custody forms and faxed the forms to the PNNL or WA task

manager. If the condition of the samples was acceptable, LAS was given approval to begin the analyses.

3.4 Analytical Reporting

Analytical data are presented in Tables 2 through 6, and Appendices A through C. Radiochemical data are reported by the laboratory as "detected" if the results from the analyses were greater than the minimum detectable activity (MDA). Results below the MDA are not presented in this report. The MDA only describes quantitatively the sensitivity of the analytical procedures used and represents a minimum detectable radionuclide activity in a sample medium at the time of analysis. Variables, including decay time, sample counting rate, sample size and density, chemical recovery, background counting rate, and detector efficiency, can all affect the resulting MDA for a given sample. Negative values reported by the laboratory represent radionuclide sample counts below background level.

Non-radiochemical data are generally reported as detected if the analytic results were greater than the laboratory reporting limit. In some cases the laboratory may report a value which is less than the laboratory reporting limit, but greater than the instrument detection limit. These values are included in Tables 4 and 5 (summary of detected constituents), but are flagged as appropriate. Data which have failed to meet validation criteria are flagged 'R' and are not included in Tables 4 and 5.

3.5 Data Validation

Results of ground water, surface water, and storm water analyses for the summer and fall quarters were received by WA in both hard copy and electronic formats. Validation of these results followed the procedures described in the QAPjP. The winter and spring analytic results were received and validated by PNNL according to the same procedures.

Each data package from LAS was received in Contract Laboratory Program (CLP)-deliverable format, which consists of the raw data, calibration information, and quality control sample results necessary to recalculate values reported by the laboratory. After the data were received, approximately 10% of the data packages were validated in detail, according to CLP-type protocol. The remaining 90% were reviewed according to a limited checklist procedure. Methods and validation criteria used for the detailed and limited validations follow the guidelines in the QAPjP.

The results of the data validation indicate that some surrogate recoveries for pesticide results fell outside the acceptable ranges established in the QAPjP. However, the criteria for pesticide surrogates are advisory only, and the results did not impact the data quality. Appropriate data validation flags have been applied to those sample results (see Appendixes A, B, and C. An explanation of the data qualifiers is provided at the end of Appendix D). Field duplicate sample results are presented in Tables 2 and 3 for ground water and surface water, respectively. These results indicate that samples were representative of field conditions.

During the validation process, some data points were identified as unreliable due to instrument calibration failures or unacceptable laboratory duplicate control precision. The qualification is based on validation guidance documents, which differ from technical requirements. Data points identified as unreliable have been flagged 'R'. Although qualified as unreliable, these validation findings are not expected to impact the data significantly.

Data validation results show that requested analyses were completed. More than 95% of the data were judged to be valid according to QAPjP criteria, and the data were deemed reliable for their intended purpose.

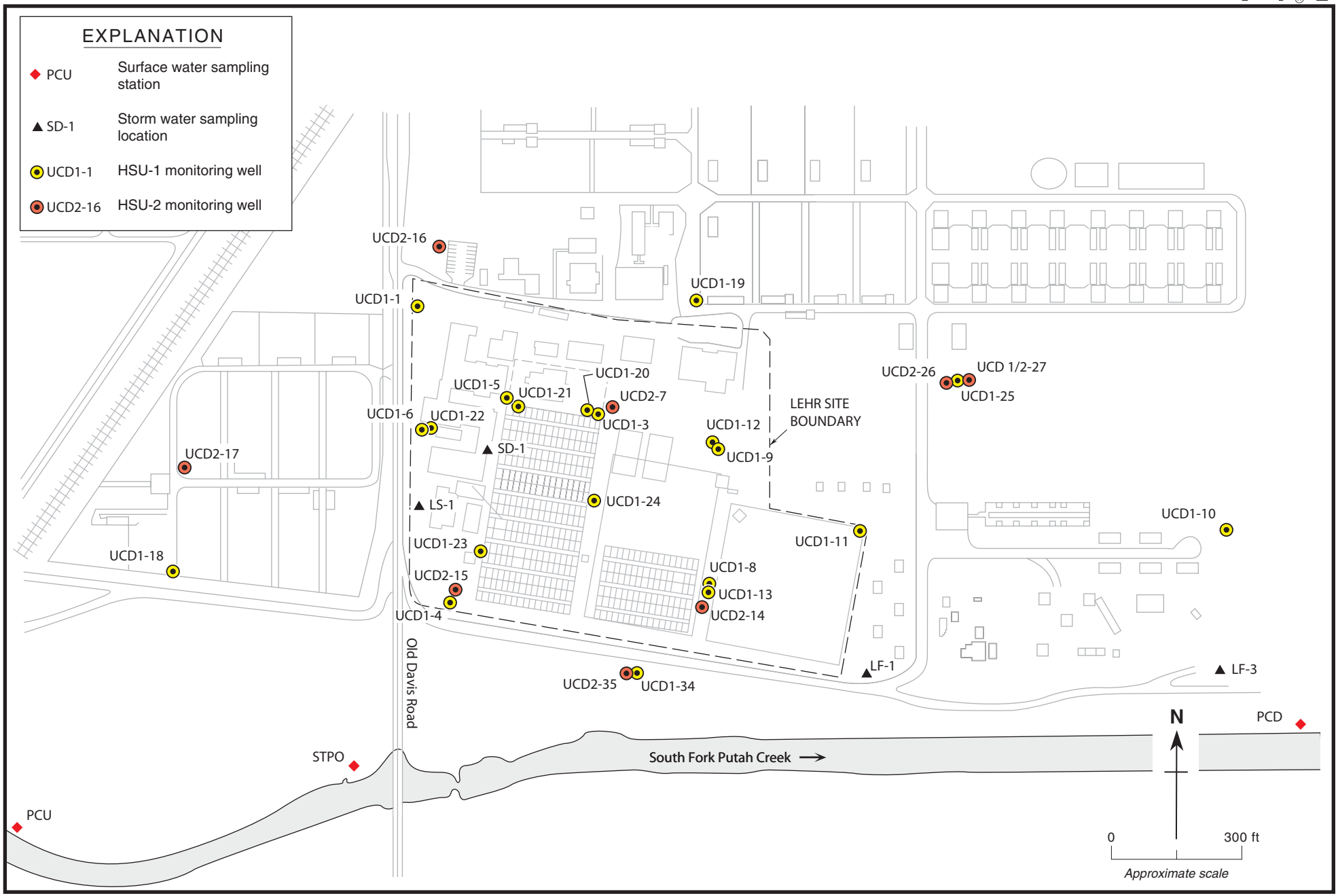


Figure 3-1. Monitoring Well, Storm Water and Surface Water Monitoring Locations, LEHR Site, Davis, California

4. SUMMARY OF 1996 WATER MONITORING

4.1 Storm Water Sampling

Storm water runoff monitoring at the LEHR site began in the fall of 1994. Storm water samples are collected twice a year; once at the beginning of the rainy season after the first storm of the season, and once near the end of the season. Grab samples were collected from four locations at the site in 1996. Storm water sample locations are shown on Figure 3-1.

Spring storm water samples were collected in March from location LS-1 (the lift station) located on the western side of the site. One grab water sample and one duplicate sample were collected.

Fall storm water samples were collected in October after the first storm of the season. Grab water samples were collected from LS-1, and storm drain SD-1. A duplicate sample was collected from SD-1. Eastern landfill runoff samples (at locations LF-1 and LF-3) could not be collected in October, due to insufficient rainfall. Storm water samples were collected from LF-1 and LF-3 in December when adequate water was present. The analytical results of these samples were not received in time to be included in this report, and will be discussed in the first quarter, 1997 water monitoring report.

4.1.1 Storm Water Data Validation Results

Validation of the March storm water sampling was performed by PNNL (PNNL, 1996c), and validation of the October storm water sampling was performed by WA in conjunction with the fall water sampling. All validation was performed according to the guidelines specified in the QAPjP, and the results are summarized below:

- Field duplicate sample results were within acceptable limits (100 percent) for all analyses in which both analytic results exceeded the detection limit or the MDA.

- Pesticide surrogate recoveries fell outside the validation criteria for SWL-1 in March. These data were flagged as appropriate.

- An error was made in the laboratory calculations of the VOC percent recovery in one October sample. The recalculated values are within the QC limits, and no flags have been attached to the sample results.

4.1.2 Storm Water Analytic Results

- Turbidity was reported at LS-1 at 19 nephelometric turbidity units (NTU) in March and at 66 NTU in October. The MCL for turbidity is 0.5 NTU.
- Turbidity was reported at SD-1 at 28.2 NTU in October.
- No other compounds were detected at concentrations exceeding the MCL.
- Alpha-chlordane and gamma-chlordane were detected in October at LS-1 at 0.0082 ug/L and 0.012 ug/L, respectively. No other pesticides were detected.

4.2 Winter Quarter Water Sampling

The results of the winter quarter 1996 water sampling are presented in the Winter Quarter Water Monitoring Report (PNNL, 1996b), and are summarized below. Winter quarter monitoring was conducted between February 13 and February 28, 1996. Twenty-eight ground water monitoring wells and three surface water locations were sampled. One duplicate well sample and one duplicate surface water sample were collected. The samples were analyzed for the constituents specified in the WMP (Table 1).

4.2.1 Winter Data Validation Results

Data validation performed according to the guidelines specified in the QAPjP indicated that:

- Field duplicate sample results were within 100 percent for all analyses in which both analytic results exceeded the detection limit or the MDA.
- Some pesticide surrogate recoveries fell outside the validation criteria. Refer to Appendix D for specific information.
- Instrument calibration failures for volatile compounds were noted for acetone, 2-hexanone and 2-butanone. Samples affected by calibration failures were appropriately flagged with 'Jc' for positive detections and 'Rc' for non-detections.
- More than 99 percent of the data met the validation criteria.

4.2.2 Winter Analytic Results

- Bromoform at 1.2 ug/L was detected for the first time at downstream surface water location PCD. Bromoform was also detected as new maximum values at the sewage treatment outfall water sampling location STPO at 3.5 ug/L and 7.5 ug/L in the winter and spring quarters, respectively. If this trend continues in future sampling events, these detections may represent an increase in bromoform levels released by the UC Davis wastewater treatment plant, which discharges upstream of location PCD at location STPO. Bromoform was detected again at PCD during the spring sampling at 6.6 ug/L, however this value did not meet validation criteria and was rejected. Bromoform was not detected at location PCD or STPO during the summer and fall sampling.

- Methylene chloride was detected at location PCD at a new maximum concentration of 3.3 ug/L, slightly above the previous maximum concentration of 3.0 ug/L. However, methylene chloride did not exceed 0.6 ug/L at this location during the next three sampling events.

- Chloroform was detected for the first time (at 3.8 ug/L) in well UCD2-35, but was not detected during the next three sampling events.

- Cobalt-60 was detected for the first time in well UCD1-24 at 4.0 pCi/L. This well is sampled annually, and should be monitored in 1997 to determine if Cobalt-60 is still present. If cobalt-60 is detected again, the sampling plan should be reviewed to determine whether the sampling frequency of this well should be increased.

- Radium-226 was detected at a new maximum of 0.7 pCi/L in well UCD1-4, but was not detected at concentrations exceeding 0.2 pCi/L during the next three quarters.

- Bis(2-ethylhexyl)phthalate was detected at 21 ug/L at both PCU and STPO, exceeding the 4 ug/L MCL for the first time at these locations. Both these locations are upstream of the LEHR site. This compound was not detected in concentrations exceeding 3.1 ug/L at STPO, and was not detected above the 10 ug/L detection limit in PCU during the next three quarters. Bis(2-ethylhexyl)phthalate was not detected above 1.2 ug/L in downstream location PCD in 1996.

- Tritium was detected at an anomalously low concentration of 270 pCi/L in well UCD2-14. Tritium concentrations in this well have generally exceeded 1,000 pCi/L with a mean of 4,600 pCi/L in past sampling events. Tritium in this well ranged from 2,950 pCi/L to 9,550 PCi/L during the next three sampling events, indicating that the low concentration detected in the winter was an anomaly, not a trend.

4.3 Spring Quarter Water Sampling

The results of the spring quarter 1996 water sampling are presented in the Spring Quarter Water Monitoring Report (PNNL, 1996c), and are summarized below. Spring quarter monitoring was conducted between May 14 and June 4, 1996. Seventeen ground water monitoring wells and three surface water locations were sampled. One duplicate well sample and one duplicate surface water sample were collected. The samples were analyzed for the constituents specified in the WMP (Table 1). Review of the analytic data indicated that the samples collected from PCD and STPO were probably mislabeled in the field.

4.3.1 Spring Data Validation Results

Data validation performed according to the guidelines specified in the QAPjP indicated that:

- Field duplicate sample results were within 100 percent for most analyses in which both sample results exceeded the detection limit or the MDA, with the exception of TDS in UCD2-35 (reported at 80 mg/L and 280 mg/L) and bis(2-Ethylhexyl)phthalate in UCD1-34 (detected at 0.94 mg/L and 19 ug/L). Poor duplication was also shown for several constituents detected in the duplicate samples collected from PCD, and is probably due to mislabeling of the field samples.

- Some pesticide surrogate recoveries fell outside the validation criteria.

- Instrument calibration failures for volatile compounds were noted for acetone, 2-hexanone and 2-butanone.

- More than 98 percent of the data met the validation criteria.

4.3.2 Spring Analytic Results

- Trichloroethene (TCE) was detected at 0.24 ug/L for the first time in well UCD1-13, and was detected at 0.2 and 0.3 ug/L in the summer and fall quarters, respectively. The MCL for TCE is 5 ug/L.

- Methylene chloride was detected for the first time at 0.35 ug/L in well UCD1-4. Methylene chloride was not detected in this well during the next two quarters, however the reported detection limit was 2 ug/L.

- Americium-241 exceeded the previous maximum by more than 100 percent in well UCD2-14 (0.046 pCi/L) and PCD (0.051 pCi/L). Americium-241 was detected at 0.028 pCi/L in UCD2-14 in the fall, and was not detected at PCD during the next two quarters.

- TDS exceeded the 500 mg/L secondary MCL for the first time in well UCD2-16 at 700 mg/L. TDS was detected at 430 mg/L and 570 mg/L during the summer and fall sampling events, respectively.

4.4 Summer Quarter Water Sampling

The results of the summer quarter 1996 water sampling are presented in the Summer Quarter Water Monitoring Report (WA, 1997a), and are summarized below. The summer 1996 water sampling was performed between August 23 and September 24, 1996. Twenty-eight ground water samples were collected from 26 wells, and four surface water samples were collected from three locations. Two duplicate well samples and one duplicate surface water sample were collected.

4.4.1 Summer Data Validation Results

Data validation performed according to the guidelines specified in the QAPjP indicated that:

- Field duplicate sample results were within 100 percent for all analyses in which both sample results exceeded the detection limit or the minimum detectable activity, with the exception of turbidity in UCD2-26 (reported at 0.05 NTU and 0.45 NTU).

- Pesticide surrogate recoveries fell outside the validation criteria for ten samples.

- Instrument calibration failures for volatile compounds were noted for 3,3'-dichlorobenzidine, acetone, 2-butanone and carbon disulfide.

- The required holding time was met for all samples with the exception of three TDS analyses.

- More than 95 percent of the data met the validation criteria.

4.4.2 Summer Analytic Results

- Iron was detected in well UCD2-35 at a new maximum of 0.26 mg/L; however this is significantly less than its 300 mg/L secondary MCL, and is not a cause for concern. Iron did not exceed 0.096 ug/L again in this well in 1996.

- Selenium was detected in well UCD2-14 at 0.0031 mg/L, just slightly above the detection limit of 0.003 mg/L. Selenium was not detected again in this well in 1996.

Twenty-eight ground water samples (including two duplicates) were collected from 26 wells. Four surface water samples (including one duplicate) were collected from the three surface water locations (Figure 3-1).

4.5.1 Fall Data Validation Results

The results of the fall 1996 quarterly water and bi-annual storm water sampling data validation are summarized below, and discussed in detail in Appendix D of this report.

- Field duplicate sample results were within 100 percent for all analyses in which both sample results exceeded the detection limit or the MDA, with the exception of bis(2-ethylhexyl)phthalate in UCD2-35 (detected at 33 ug/L and 1.3 ug/L).

- Pesticide surrogate recoveries fell outside the validation criteria in two samples.

- An error was made in the laboratory calculations of the VOC percent recovery in one method blank and one control sample. The recalculated values are within the QC limits, and no flags have been attached to the sample results.

- The laboratory instrument used for the strontium-89,90 analysis of sample GWGW0378 (UCD2-15) did not meet calibration criteria. The affected sample has been flagged 'J', indicating that the strontium-89,90 activity reported is approximate.

- The required holding time was met for all samples with the exception of three turbidity analyses for the storm water samples.

- More than 95 percent of the data met the validation criteria.

4.5.2 Fall Analytic Results

- Acetone was detected at a new maximum of 12 ug/L in well UCD1-12, exceeding the previous maximum of 2.4 ug/L detected in August, 1995.

New detections and new maximum values were compiled for new wells UCD1-25, UCD1-34, UCD2-26, UCD2-35, and UCD1/2-27 for the first time this quarter. The previous four quarters of data were used as a baseline, and the results are summarized in Table 6A. Because these wells have only been sampled five times, new detections and new maximums are frequent, and only detections which exceed the MCL are discussed here.

- Turbidity was detected at 0.51 NTU in UCD2-26 and 0.95 NTU in UCD2-27Z7, exceeding the MCL of 0.5 NTU.

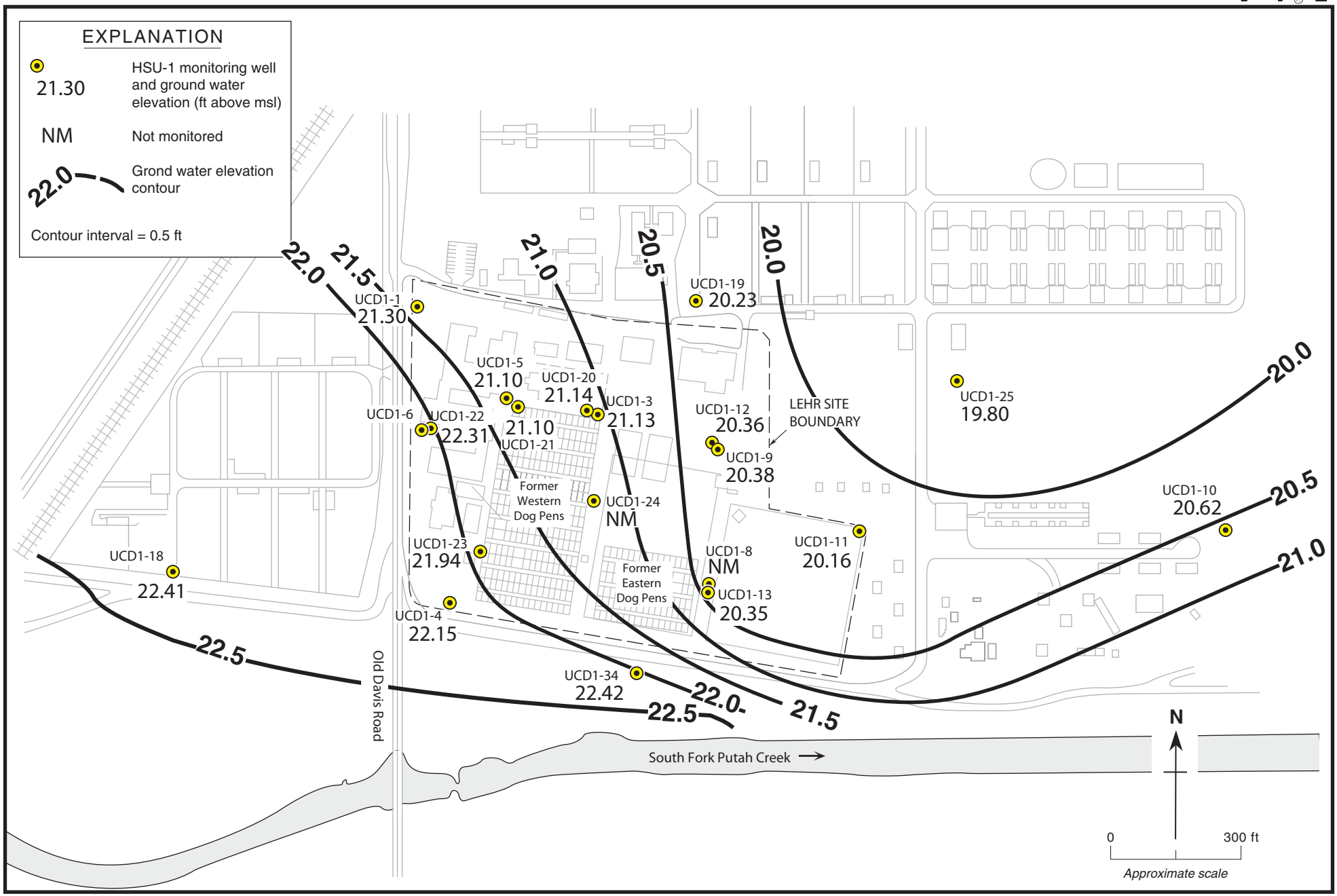
- TDS was detected at 540 mg/L to 680 mg/L in UCD1-27Z3, UCD2-26, UCD2-27Z5, UCD2-27Z6, and UCD2-27Z7, which exceeds the secondary MCL of 500 mg/L. Well UCD1/2-27 is a zoned well with sampling ports at different depths.

4.6 Ground Water Flow

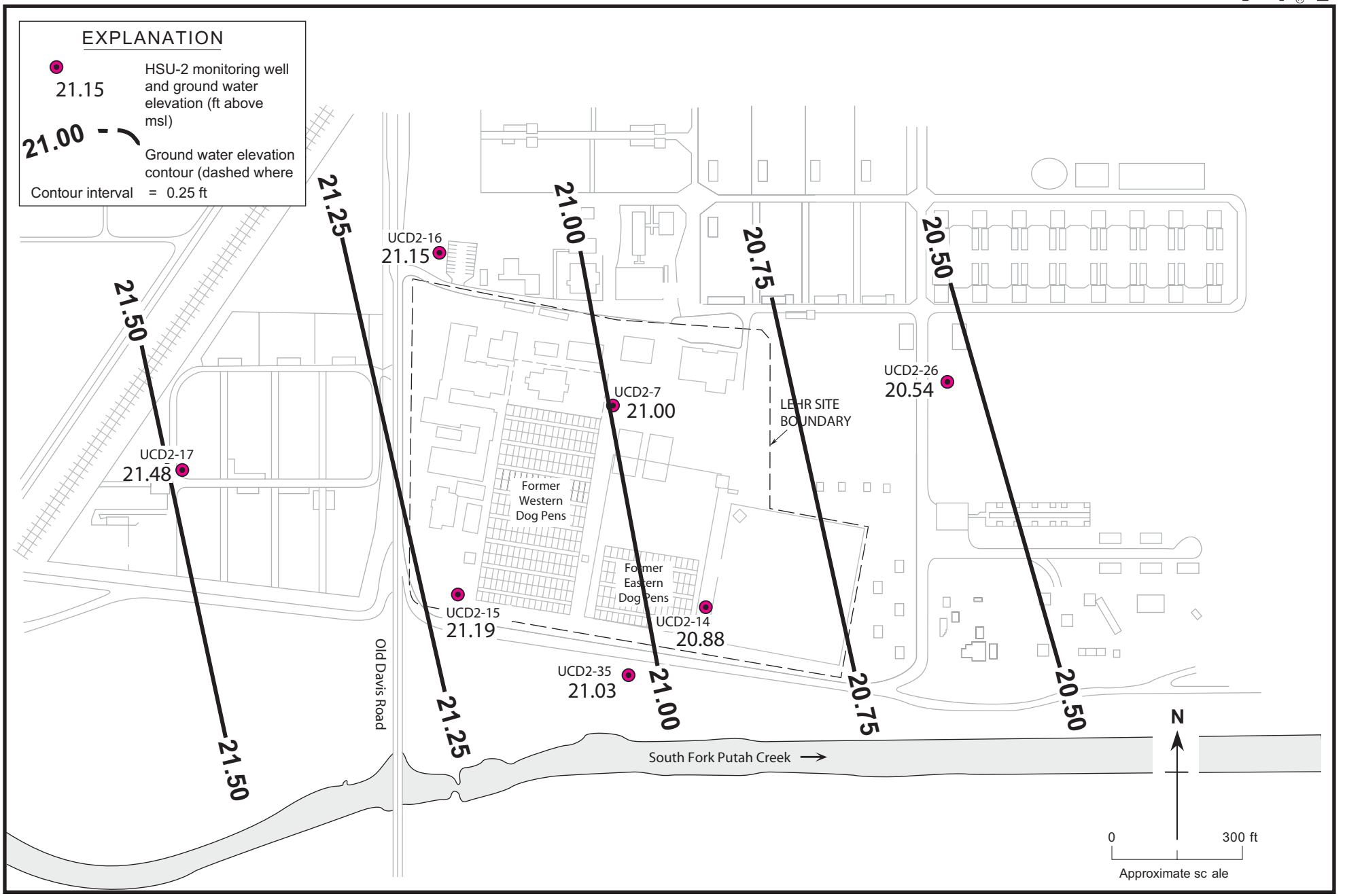
Figures 4-1 through 4-8 show ground water elevations and contours for HSU-1 and HSU-2 during each of the four 1996 monitoring events. The hydraulic gradient in HSU-1 is generally to the northeast throughout the year with a gradient of 0.01 to 0.04 ft per ft. Local variations in the ground water gradient occur near the western boundary of the site and in the vicinity of UCD-5, in the northeast part of the site. Ground water variations in these areas have been noted in previous years and may be due to uneven aquifer response to natural and human stresses, such as rainfall or pumping (PNNL, 1996a). The hydraulic gradient in HSU-2 is generally to the northeast, with a gradient of 0.005 to 0.015 ft per ft.

Figures 4-9 through 4-12 illustrate seasonal ground water fluctuations in four selected monitoring well pairs. Each figure shows the change in water elevation in two adjacent wells; one screened in HSU-1 and one in HSU-2. The water elevation in both HSU-1 and HSU-2 shows a seasonal variation of approximately 20 to 25 feet. The water level rises through March, then as the rainy season ends, decreases until fall, when the rains begin again, and ground water recharges. The magnitude and timing of this seasonal variability is very similar to trends seen in previous years (PNNL, 1996a).

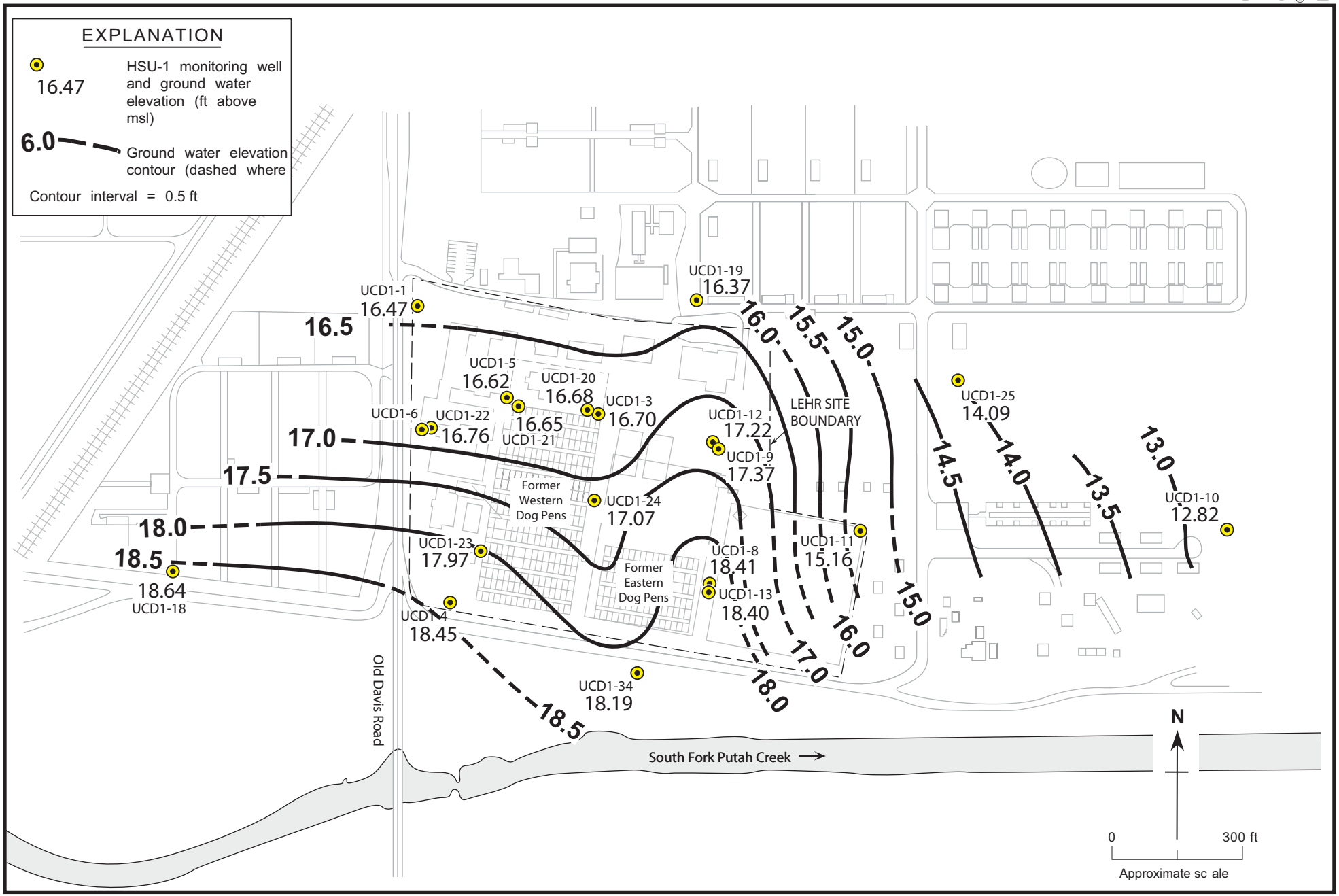
The vertical hydraulic gradient between the HSU1 and HSU2 appears to shift seasonally; a downward gradient is observed during the summer months in each well pair, changing to upwards in several wells during the rainy season. HSU-2 is pumped for agricultural supply during the summer months. During this period, while little or no natural surface recharge is occurring, the vertical gradient appears to be downward, from HSU-1 to HSU-2. During the rainy season, when pumping ceases and the aquifers recharge, the vertical gradient appears to be upwards or neutral across most of the site. Wells UCD1-34 and UCD2-35, located near Putah Creek, do not show an upward gradient during the rainy season, possibly due to hydraulic connection to the creek.



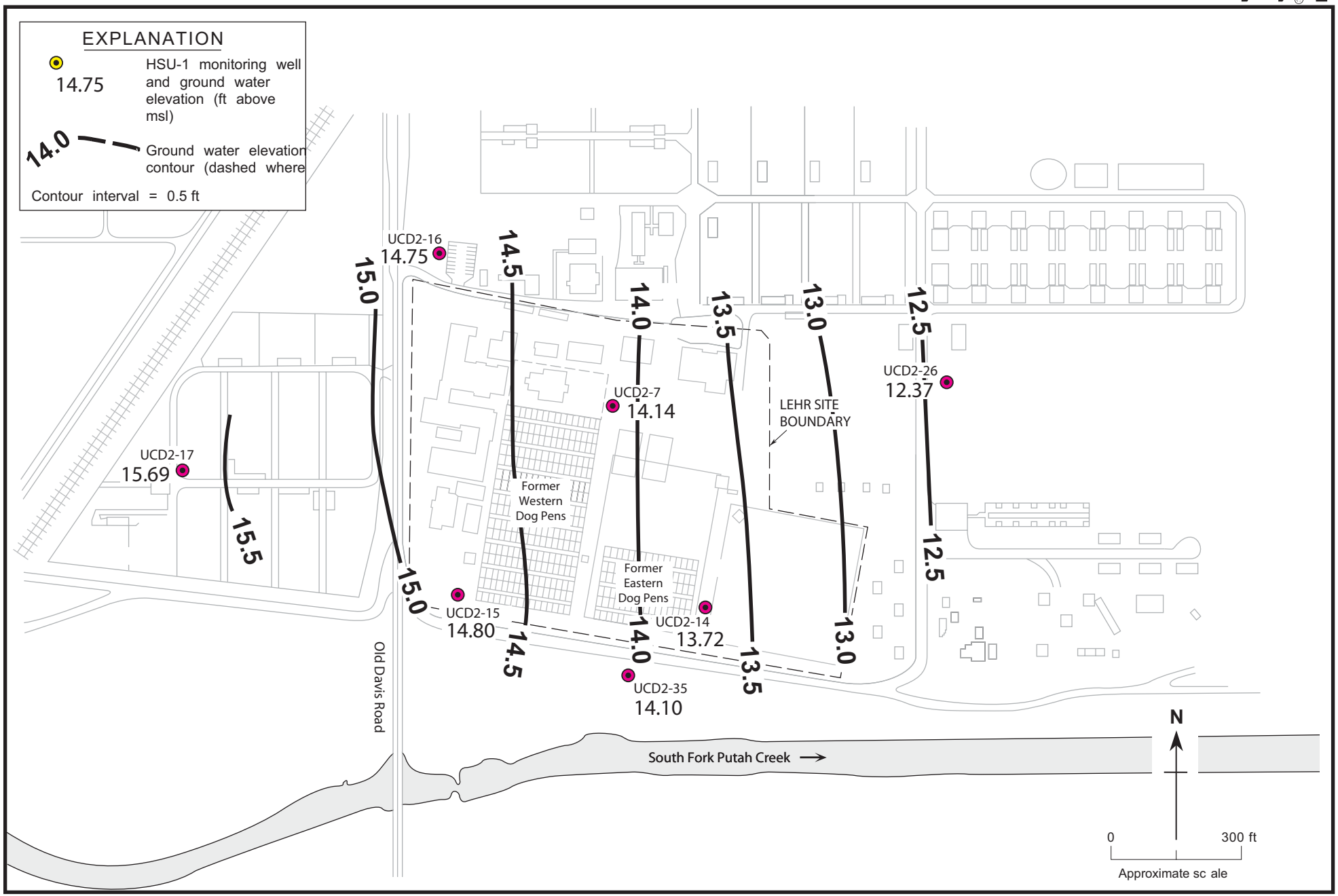
Ground Water Elevation Contours for HSU-1, February 12, 1996. (Data and contours from Pacific Northwest National Laboratory, May 1996).



Ground Water Elevation Contours for HSU-2, February 12, 1996. (Data and contours from Pacific Northwest National Laboratory, May 1996).



Ground Water Elevation Contours for HSU-1, May 13, 1996. (Data and contours from Pacific Northwest National Laboratory, August 1996).



Ground Water Elevation Contours for HSU-2, May 13, 1996. (Data and contours from Pacific Northwest National Laboratory, August 1996).

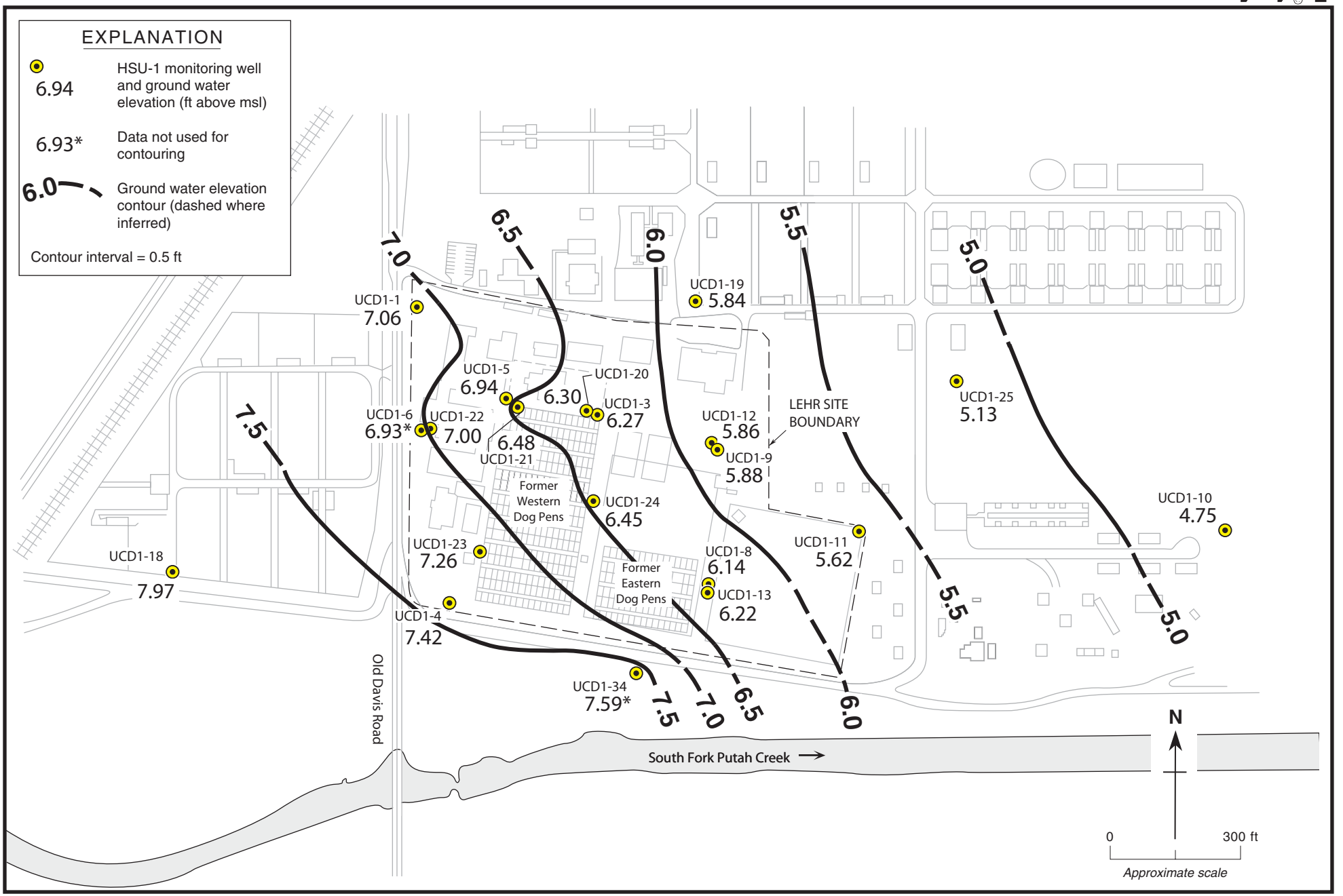


Figure 4-5. Ground Water Elevation Contours for HSU-1, August 27, 1996.

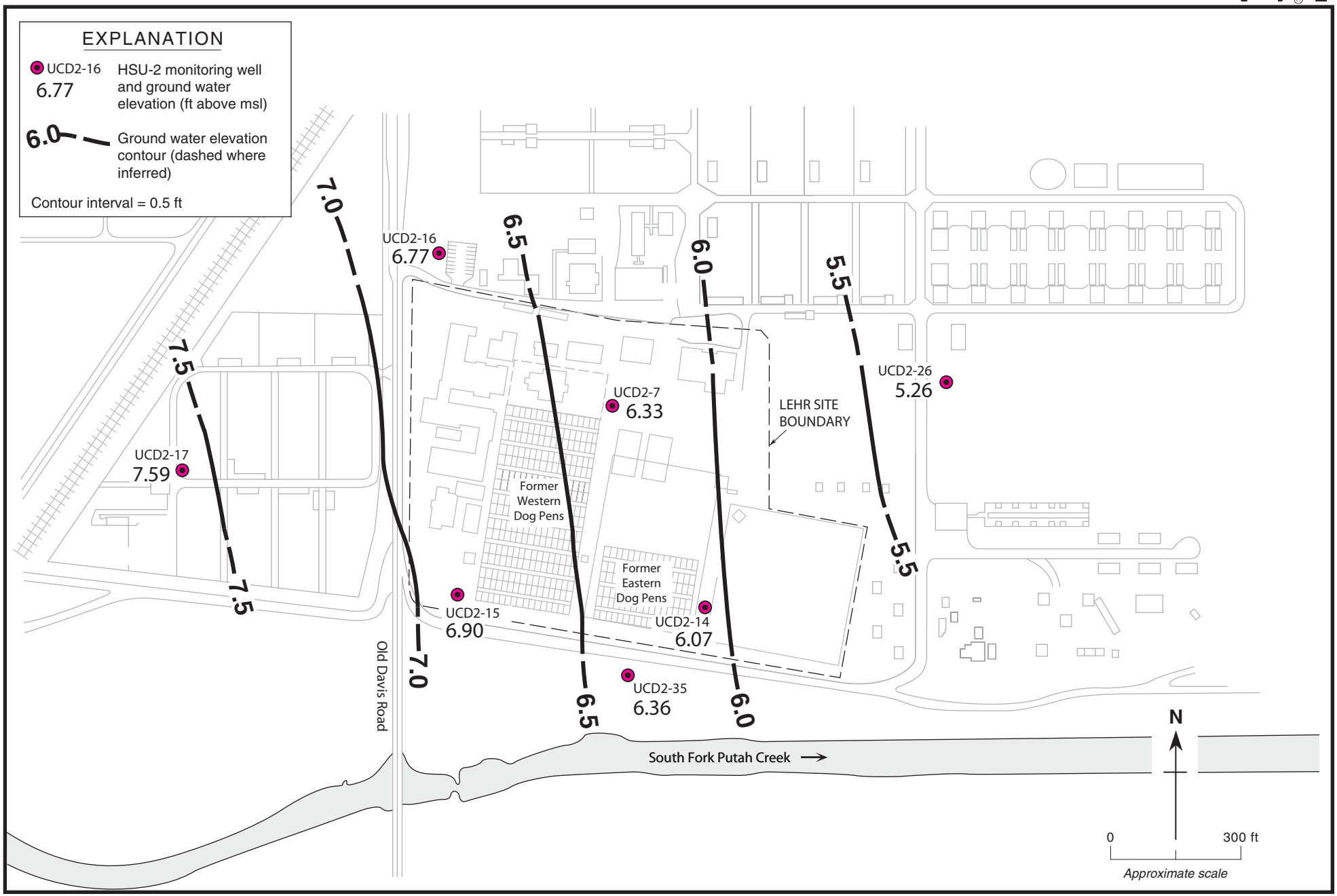
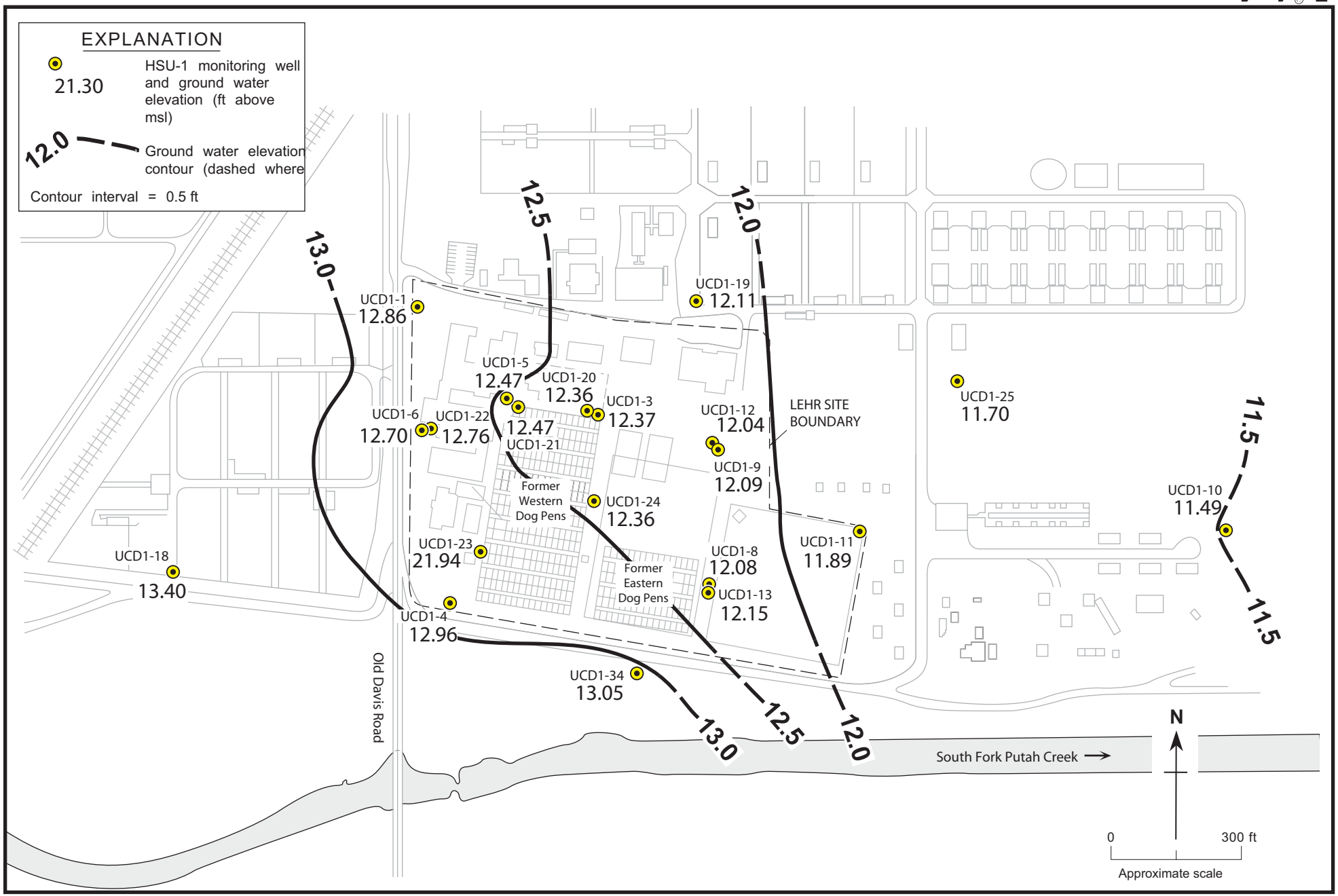
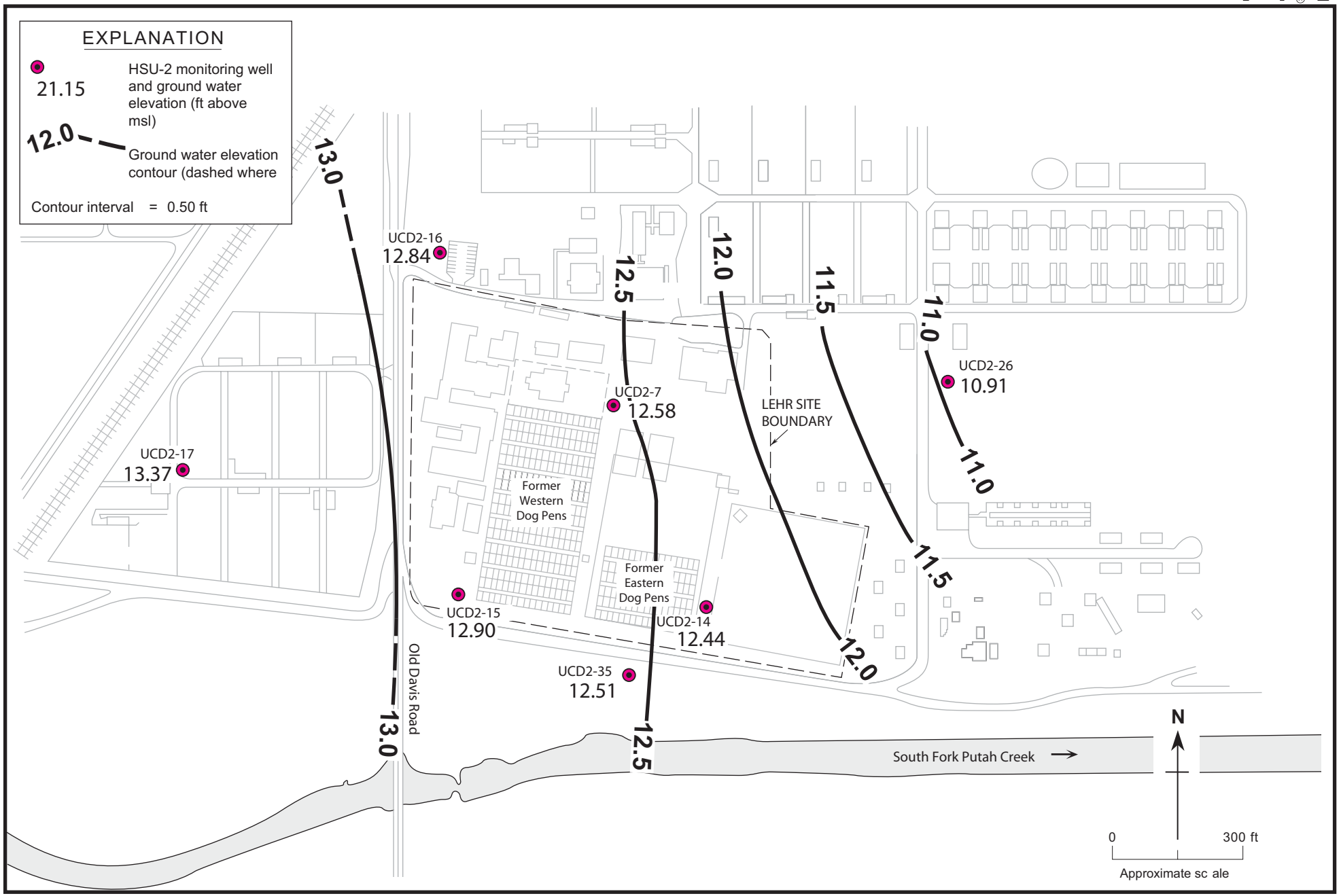


Figure 4-6. Ground Water Elevation Contours for HSU-2, August 27, 1996.



Groundwater Elevation Contours for HSU-1, November 12, 1996.



Groundwater Elevation Contours for HSU-2, November 12, 1996.

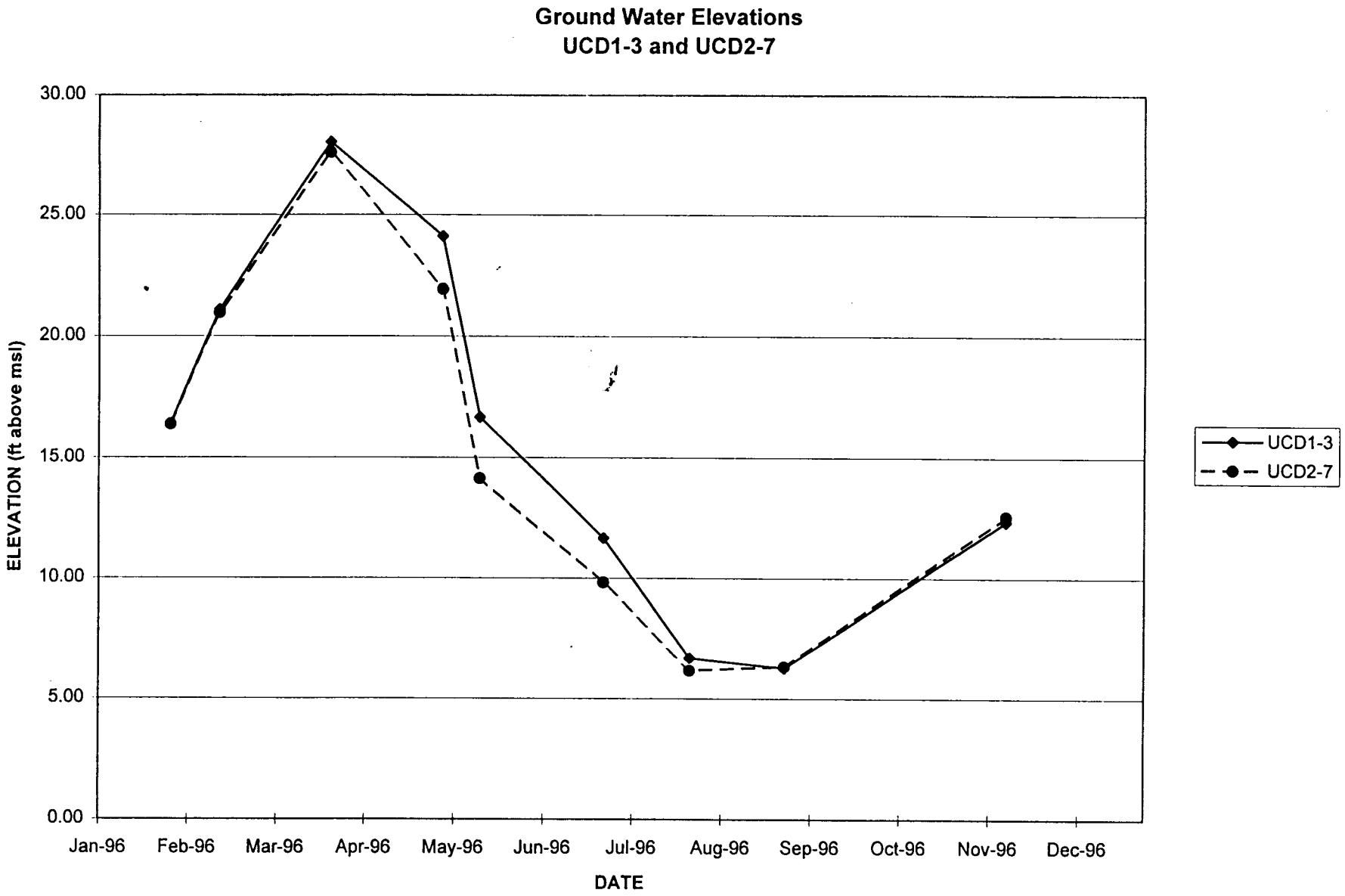


Figure 4-9. 1996 Ground Water Elevations, Wells UCD1-3 and UCD2-7, LEHR Facility, Davis, California

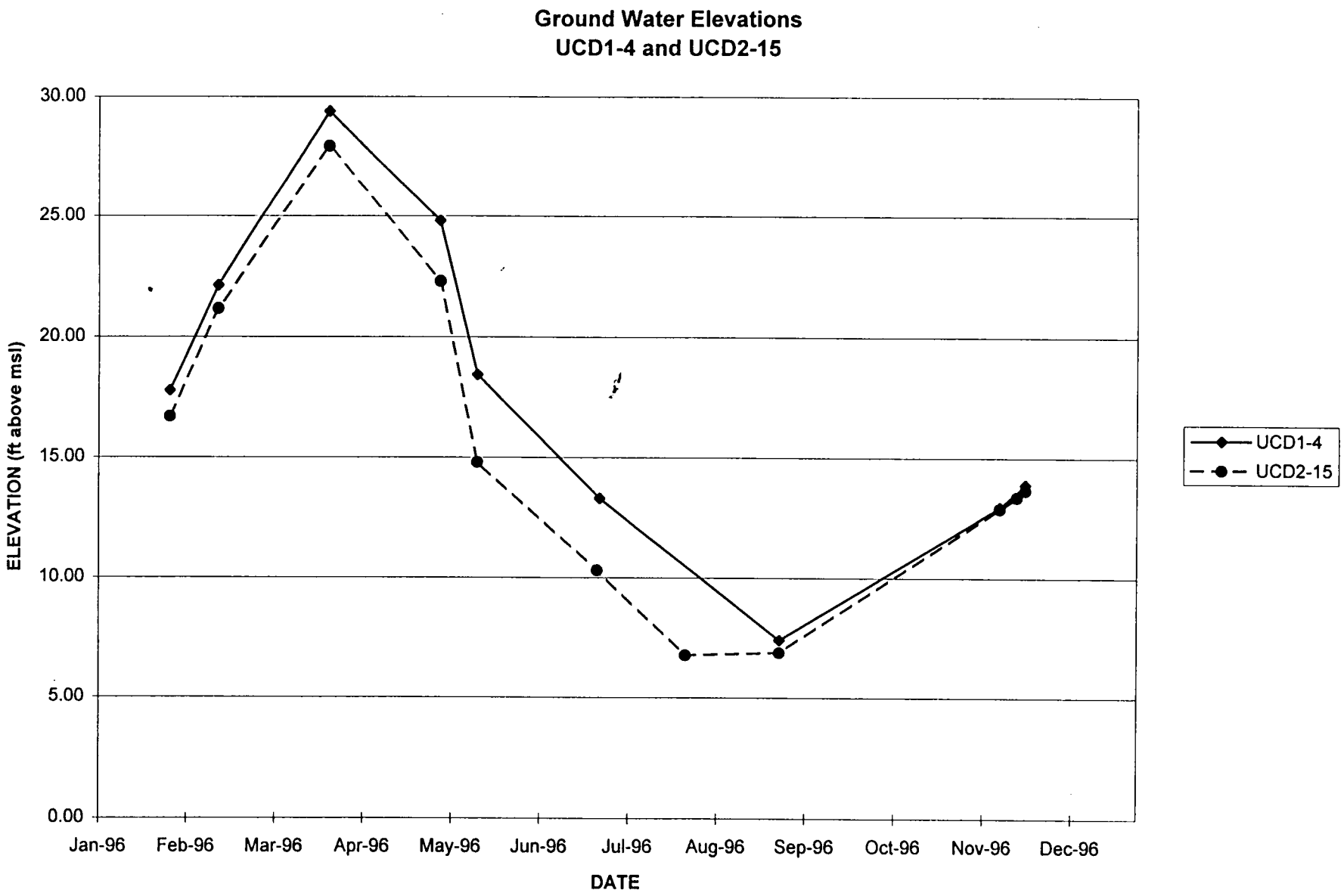


Figure 4-10. 1996 Ground Water Elevations, Wells UCD1-4 and UCD2-15, LEHR Facility, Davis, California

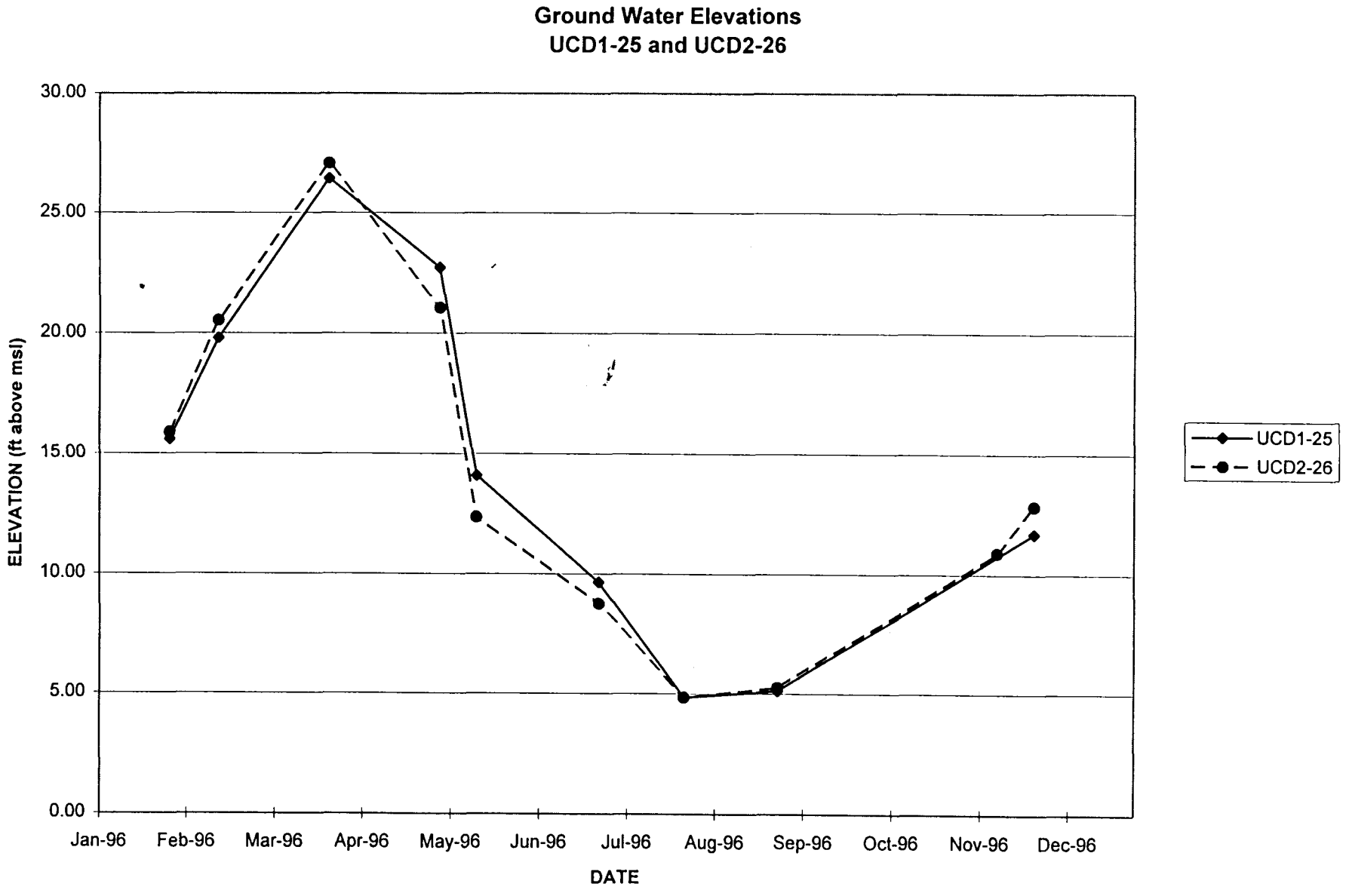


Figure 4-11. 1996 Ground Water Elevations, Wells UCD1-25 and UCD2-26, LEHR Facility, Davis, California

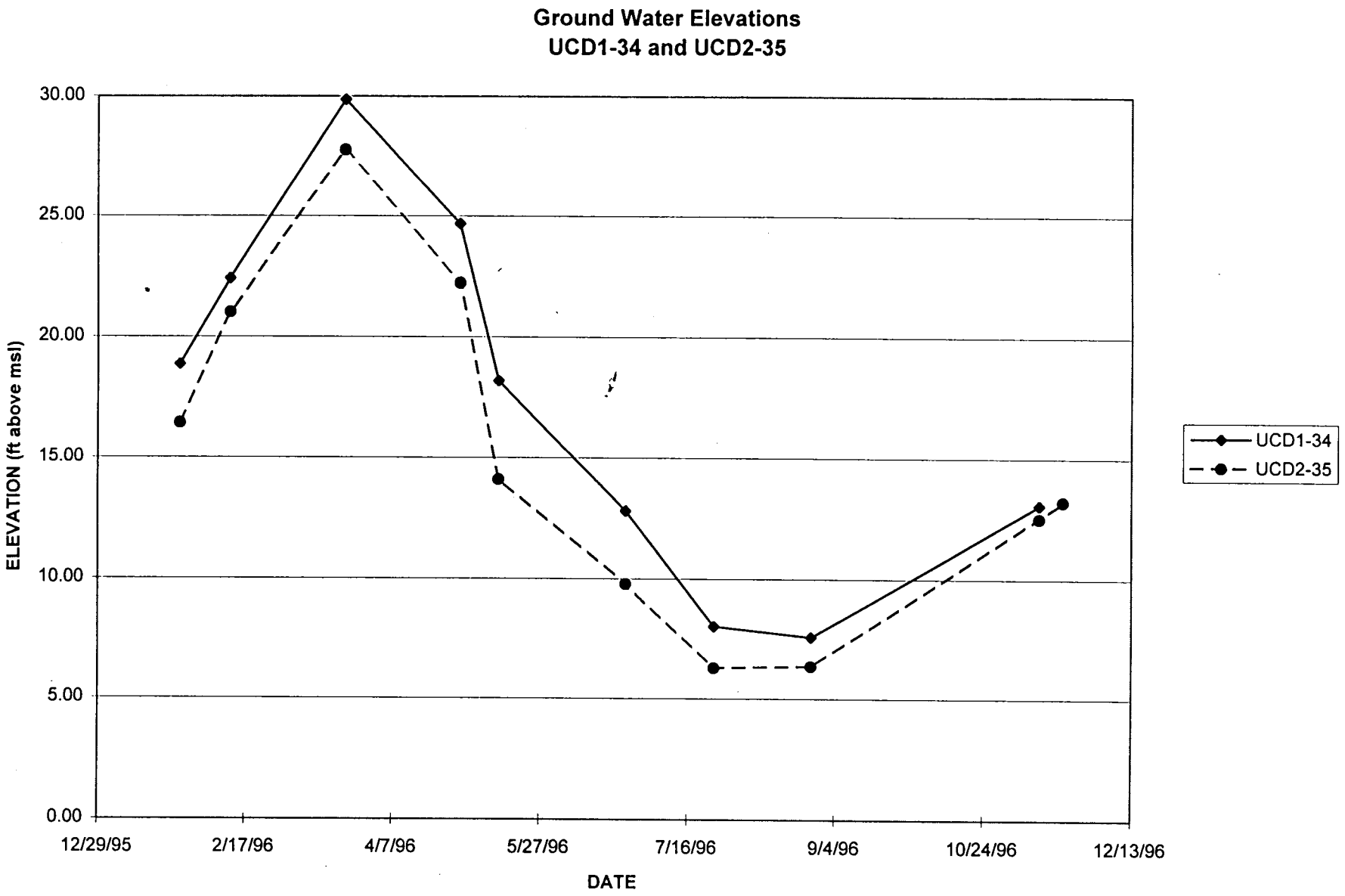


Figure 4-12. 1996 Ground Water Elevations, Wells UCD1-34 and UCD2-35, LEHR Facility, Davis, California

5. SUMMARY AND CONCLUSIONS

Ground water and surface water samples were collected in February, May, August, and November in 1996. Storm water samples were collected in March, October and December. All water monitoring was conducted using procedures outlined in the WMP; samples were collected from monitoring wells using dedicated submersible pumps or sampling ports, and duplicate field samples were collected from two wells and one surface water location during each sampling event. Duplicate samples were analyzed for all constituents. All water samples were sent to LAS in Las Vegas, Nevada, for analysis.

All requested analyses for all samples were completed. The required holding times for each analytical method were met for all samples except for three TDS analyses in the summer sampling. More than 95% of the data evaluated were accepted as valid results, according to the criteria established in the QAPjP.

Storm water runoff samples were collected in March, October and December. Analytic results for the March and October sampling indicated that only turbidity was reported above the MCL of 0.5 NTU. Alpha-chlordane and gamma-chlordane were detected in October at LS-1 at 0.0082 ug/L and 0.012 ug/L, respectively. These compounds were also detected at LS-1 in 1995 at similar concentrations.

Ground water elevations measured in 1996 were similar to those measured in 1995; ground water elevations in both HSU-1 and HSU-2 dropped by 20 to 25 feet during the summer, then rose again in the fall. The horizontal gradient in both units was to the northeast, with some variability in the gradient in HSU-1. The vertical gradient between HSU-1 and HSU-2 was downward during the summer months, when ground water is being extracted from HSU-2, and upward in most wells during the rainy season.

Overall, analytical results reported for 1996 samples were consistent with those from previous monitoring events, except for those discussed below.

5.1 1996 New Detections and New Maximums

Several constituents were detected in water samples for the first time, or exceeded the previous maximum during one sampling event in 1996, but were not detected, or were below the new maximum, in subsequent sampling events. These detections probably represent normal variability in the site conditions and laboratory analyses, and do not signify a trend:

- The following compounds were detected for the first time during one sampling event in 1996, but were not detected in subsequent sampling events: Chloroform

in UCD2-35 (3.8 ug/L, winter); bromoform at PCD (1.2 ug/L, winter); methylene chloride in well UCD1-4 (0.35 ug/L, spring); selenium in well UCD2-14 (0.0031 mg/L, summer); and americium-241 in well UCD1-22 (0.036 pCi/L, summer)

- The following compounds were detected at a new maximum during one sampling event in 1996, but were not detected at or above the new maximum in subsequent sampling events: Methylene chloride at PCD (0.6 ug/L, winter); radium-226 in UCD1-4 (0.7 pCi/L, winter); bis(2-ethylhexyl)phthalate at PCU and STPO (21 ug/L, winter); americium-241 in UCD2-14 (0.046 pCi/L, spring) and PCD (0.051 pCi/L, spring); bismuth-214 in well UCD2-15 (44 pCi/L, summer); radium-226 in well UCD1-34 (0.58 pCi/L, summer); iron in well UCD2-35 (0.26 mg/L, summer); and TDS in well UCD2-35 (710 mg/L, summer).

- Tritium, which has been detected at an average concentration of about 4,600 pCi/L in well UCD2-14, was detected at 270 pCi/L in the winter, but returned to higher concentrations (2,950 pCi/L to 9,550 pCi/L) during the next three quarters.

Several constituents were detected for the first time, or at a new maximum in 1996, and were also detected in subsequent sampling events. These detections may represent a new trend and should be monitored carefully during future sampling events.

- TCE was detected for the first time in well UCD1-13 at 0.24 ug/L in the spring, then at 0.2 ug/L and 0.3 ug/L in the summer and fall, respectively. UCD1-13 is located to the east of the former Landfill Unit No. 2 and the eastern dog pens, near well UCD2-14. TCE has not been detected in adjacent HSU-2 well UCD2-14.

- Cobalt-60 was detected at a new maximum of 4.0 pCi/L in well UCD1-24 during the winter quarter. This well is sampled annually, and should be monitored during the winter 1997 sampling to determine whether this new maximum indicates an increasing trend, and whether the sampling frequency should change.

- Chloroform was detected in off-site, downgradient well UCD1-25 at 1.7 ug/L and 1.5 ug/L during the summer and fall monitoring events, respectively. Chloroform has been detected in wells UCD1-19 and UCD1-11 at concentrations less than 1.6 ug/L.

- Carbon-14 was detected in well UCD1-13 at 7,180 pCi/L during the summer monitoring event, exceeding the previous maximum of 2,464 pCi/L in 1992. The concentrations in this well decreased to 2,010 pCi/L in the fall sampling,

but the well should be monitored carefully in the future to determine whether there is an increasing trend.

- TDS was detected at 540 mg/L to 680 mg/L in UCD1-27Z3, UCD2-26, UCD2-27Z5, UCD2-27Z6, and UCD2-27Z7, which exceeds the secondary MCL of 500 mg/L.

The following compounds exceeded the MCL for the first time in 1996:

- Bis(2-ethyhexyl)phthalate was detected in both PCU and STPO at 21 ug/L, exceeding the 4 ug/L MCL for the first time.

- TDS was detected at 700 mg/L in well UCD2-16, and 710 mg/L in well UCD2-35, exceeding the 500 mg/L MCL.

6. REFERENCES

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7. LIST OF ACRONYMS

Acronym	Definition
AAS	Atomic Absorption Spectrophotometry
CLP	Contract Laboratory Program
CRDL	Contract Required Detection Limit
CRQL	Contract Required Quantitation Limit
DOE	U.S. Department of Energy
DQO	Data Quality Objective
EC	Electrical Conductivity
EDT	Electronic Data Transmittal
EPA	Environmental Protection Agency
GC/MS	Gas Chromatography/Mass Spectrometry
GSA	Gamma Spectral Analysis
HSU	Hydrostratigraphic Unit
LAS	LAS Laboratory
LCS	Laboratory Control Sample
LEHR	Laboratory for Energy-Related Health Research
MCL	Maximum Contaminant Level
MDA	Minimum Detectable Activity
MS	Matrix Spike
MSA	Method of Standard Additions
MSD	Matrix Spike Duplicate
NIOSH	National Institute for Occupational Safety and Health
NTU	Nephelometric Turbidity Unit
PARCC	Precision, Accuracy, Representativeness, Comparability and Completeness
PCB	Polychlorinated Biphenyl
PNNL	Pacific Northwest National Laboratory
QA/QC	Quality Assurance/Quality Control
QAPjP	Quality Assurance Project Plan
RI/FS	Remedial Investigation/Feasibility Study
RPD	Relative Percent Difference

Acronym	Definition
RRF	Relative Response Factor
SOP	Standard Operating Procedure
SVOC	Semi-volatile Organic Compound
TDS	Total Dissolved Solids
TIC	Tentatively Identified Compound
TKN	Total Kjeldahl Nitrogen
TOC	Total Organic Carbon
VOA	Volatile Organic Analysis
VOC	Volatile Organic Compound
WA	Weiss Associates
WMP	Water Monitoring Plan

ACKNOWLEDGMENTS

The following LEHR Project personnel worked on the 1996 Annual Water Monitoring Report:

Name and Position	Responsibility
Michael Dresen LEHR Program Manager, WA	Senior guidance and review, and quality assurance
Robert Devany LEHR Project Manager, WA	Project management and guidance
Salem Attiga Principal, EMS	Senior review
Mary Stallard LEHR Quality Assurance, WA	Project management, technical guidance and review, and quality assurance
Alison Watts Senior Staff Geologist, WA	Project management, report writing
John Pekala Senior Staff Geologist, WA	Data validation and report writing
Malieka Bundy Database Technician, WA	Database management
Keith Commiskey Graphics, WA	Graphics
Elizabeth Carrier Administrative Assistant, WA	Word processing and report compilation
Craig Adams Production Personnel, WA	Graphics and report production

TABLES

LEHR 1996 ANNUAL WATER MONITORING REPORT

Table 1.
LEHR Water Monitoring Plan

Well	Radiological Analytes									Analyte/Analysis															
	Gamma	Tritium	C-14	Sr-90	Ra-226	Pu-241	Am-241	Gross beta	Gross alpha	VOCs	SVOCs	Metals	Nitrate	Cr 6+	TDS	Turbidity	Pest/PCB	TKN	Ammonia	TOC	Formaldehyde	Alkalinity	Cations	Anions	COD
PCD	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	•	•	•	•	•	•	•	•
PCU	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	•	•	•	•	•	•	•	•
STPO	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	•	•	•	•	•	•	•	•
UCD1- 1	•	•	•	•	•	•	•	•	•	•	•	•	S	S	•	•	•	•	•	•	•	•	•	•	•
UCD1- 4	Q	Q	•	Q	Q	•	•	Q	Q	Q	A	A	Q	Q	Q	Q	Q	•	•	•	•	•	•	•	•
UCD1-10	A	A	•	•	•	•	•	A	A	Q	A	A	Q	Q	Q	Q	A	•	•	•	•	•	•	•	•
UCD1-11	A	A	•	•	•	•	•	A	A	A	•	A	S	S	A	•	A	•	•	•	•	•	•	•	•
UCD1-12	Q	Q	Q	Q	Q	•	•	Q	Q	Q	A	A	Q	Q	Q	Q	Q	•	•	•	•	•	•	•	•
UCD1-13	Q	Q	Q	Q	Q	•	•	Q	Q	Q	A	A	A	Q	Q	Q	Q	•	•	•	•	•	•	•	•
UCD1-18	A	A	A	•	•	•	•	A	A	A	A	A	S	S	A	•	A	•	•	•	•	•	•	•	•
UCD1-19	A	A	•	•	•	•	•	A	A	A	•	A	A	Q	A	Q	A	•	•	•	•	•	•	•	•
UCD1-20	S	S	S	S	S	•	•	S	S	A	A	A	A	S	A	•	A	•	•	•	•	•	•	•	•
UCD1-21	A	A	A	A	A	A	A	A	A	A	•	A	A	A	A	•	•	•	•	•	•	•	•	•	•
UCD1-22	S	S	•	S	S	S	S	S	S	•	•	•	•	•	S	•	•	•	•	•	•	•	•	•	•
UCD1-23	S	S	S	S	S	•	•	S	S	A	•	A	•	A	A	•	•	•	•	•	•	•	•	•	•
UCD1-24	A	A	A	A	A	•	•	A	A	A	•	A	A	A	A	•	A	•	•	•	•	•	•	•	•
UCD1-25	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
UCD1-27Z3	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
UCD1-34	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
UCD2-14	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	A	Q	Q	Q	Q	Q	Q	•	•	•	•	•	•	•	•
UCD2-15	Q	Q	•	Q	Q	•	•	Q	Q	Q	A	A	Q	Q	Q	Q	Q	•	•	•	•	•	•	•	•
UCD2-16	S	S	•	S	S	•	•	S	S	S	•	Q	S	Q	Q	Q	•	•	•	•	•	•	•	•	•
UCD2-17	A	A	A	•	•	•	•	A	A	A	A	A	S	S	A	•	A	•	•	•	•	•	•	•	•
UCD2-26	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
UCD2-27	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
UCD2-35	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q

Notes:

1. A = Annual Sampling (February); S = Semi-annual Sampling (February and August); Q = Quarterly Sampling (February, May, August, and November.)
2. • = Sample not analyzed for constituent
3. Water levels are measured before each sampling event.
4. During each sampling event, samples are analyzed for pH, electrical conductivity, temperature, and turbidity in the field.
5. At well UCD2-27, between two to seven intervals may be sampled based on previous sampling results. For these totals, 2 intervals were sampled in the Winter Sampling, and 5 for Spring, Summer and Fall.

Table 2
Relative Percent Difference For Duplicates, Ground Water
Winter Quarter 1996
LEHR Environmental Restoration

Location
UCD1-25

Parameter	Units	Result		Duplicate		RPD% (1)
Alkalinity, Total (as CaCO3)	mg/L	790		770		2.56
Barium	ug/L	261		261		0.00
Calcium	ug/L	51,800		50,800		1.95
Chloride	mg/L	27		28		3.64
Chromium	ug/L	392		362		7.96
Chromium, Hexavalent (+6)	mg/L	0.41	|D	0.41	|D	0.00
Cobalt	ug/L	1.1	|B	1.1	|B	0.00
Copper	ug/L	4	Up|B	4.4	Up|B	9.52
Iron	ug/L	47	Up|B	51.9	Up|B	9.91
Magnesium	ug/L	159,000		156,000		1.90
Manganese	ug/L	8.2	Up|B	8.2	Up|B	0.00
Molybdenum	ug/L	1.2	|B	1.2	|B	0.00
Nickel	ug/L	6.1	|B	5.7	|B	6.78
Nitrogen, Nitrate (as N)	mg/L	16		16		0.00
pH-F	std	7.5		7.5		0.00
Phosphate, Total (as P)	mg/L	0.12		0.12		0.00
Potassium	ug/L	1,000	|B	1,330	|B	28.33
Selenium	ug/L	5.9		5.9		0.00
Sodium	ug/L	86,800		85,100		1.98
Specific Conductance (EC)	umhos	1,182		1,182		0.00
Sulfate	mg/L	41		41		0.00
Temperature	deg C	18.6		18.6		0.00
Total Dissolved Solids	mg/L	890		910		2.22
Total Organic Carbon	mg/L	1.1		0.92	|B	17.82
Turbidity	NTU	1.5		2		28.57
Turbidity	NTU	0.33		0.33		0.00
Zinc	ug/L	16.2	|B	16.7	|B	3.04

See tables in Appendix D for data qualifier explanations.

(1)Relative Percent Difference (RPD) = Absolute value of 100*(Result - Duplicate)/((Result + Duplicate)/2)).

The reporting limit was used for RPD calculations if the results in one sample were below the limit.

F = Field data.

Table 2
Relative Percent Difference For Duplicates, Ground Water
Summer Quarter 1996
LEHR Environmental Restoration

Location
UCD1-25

Parameter	Units	Result		Duplicate		RPD% (1)
Alkalinity, Total (as CaCO3)	mg/L	640		660		3.08
Barium	mg/L	0.26		0.26		0.00
Calcium	mg/L	43.3		40.7		6.19
Chloride	mg/L	24		25		4.08
Chloroform	ug/L	1.6		1.7		6.06
Chromium	mg/L	0.35		0.34		2.90
Chromium, Hexavalent (+6)	mg/L	0.31		0.31		0.00
Copper	mg/L	0.0018	|B	0.0015	|B	18.18
Iron	mg/L	0.34	Uo|	0.33	Uo|	2.99
Magnesium	mg/L	133		125		6.20
Manganese	mg/L	0.0025	|B	0.0019	|B	27.27
Nickel	mg/L	0.0047	Up|B	0.0046	Up|B	2.15
Nitrogen, Nitrate (as N)	mg/L	11		11		0.00
Phosphate, Total (as P)	mg/L	0.15		0.14		6.90
Selenium	mg/L	0.0059		0.0066		11.20
Sodium	mg/L	78.4		73.8		6.04
Sulfate	mg/L	37		38		2.67
Total Dissolved Solids	mg/L	860		390		75.20
Total Kjeldahl Nitrogen	mg/L	0.23	|*	0.61		90.48
Turbidity	NTU	13		15		14.29
Zinc	mg/L	0.016	Up|	0.014	Up|B	13.33

See tables in Appendix D for data qualifier explanations.

(1)Relative Percent Difference (RPD) = Absolute value of 100*(Result - Duplicate)/((Result + Duplicate)/2)).

The reporting limit was used for RPD calculations if the results in one sample were below the limit.

F = Field data.

Table 2
Relative Percent Difference For Duplicates, Ground Water
Spring Quarter 1996
LEHR Environmental Restoration

Location
UCD1-34

Parameter	Units	Result		Duplicate		RPD% (1)
Alkalinity, Total (as CaCO3)	mg/L	350		340		2.90
Ammonia Nitrogen	mg/L	0.15	*	0.11	Je*	30.77
Arsenic	ug/L	2.8		3.7		27.69
Barium	ug/L	72.7		74		1.77
Bis(2-Ethylhexyl)phthalate	ug/L	0.94	J	19		181.14
Calcium	ug/L	36,700		35,800		2.48
Chloride	mg/L	38		38		0.00
Chromium	ug/L	2.1	EB	2.1	EB	0.00
Cobalt	ug/L	1.2	B	1.2	B	0.00
Di-n-Butylphthalate	ug/L	0.82	Jq|J	1.2	Jq|J	37.62
Iron	ug/L	107	Je*	94.5	Je*B	12.41
Magnesium	ug/L	59,100		58,000		1.88
Manganese	ug/L	86.3		84.4		2.23
Molybdenum	ug/L	1.2	B	1.3	B	8.00
Nickel	ug/L	6.2	B	6.2	B	0.00
Nitrogen, Nitrate (as N)	mg/L	0.061	B	0.057	B	6.78
pH-F	std	7.9		7.9		0.00
Phosphate, Total (as P)	mg/L	0.2		0.18		10.53
Sodium	ug/L	52,600		51,600		1.92
Specific Conductance (EC)	umhos	390		390		0.00
Sulfate	mg/L	25		25		0.00
Temperature	deg C	18.1		18.1		0.00
Total Dissolved Solids	mg/L	500		380		27.27
Total Organic Carbon	mg/L	0.76	B	0.78	B	2.60
Turbidity	NTU	28		16		54.55
Turbidity	NTU	6.56		6.56		0.00
Vanadium	ug/L	3.1	B	3.4	B	9.23
Zinc	ug/L	7	B	7.2	B	2.82

See tables in Appendix D for data qualifier explanations.

(1)Relative Percent Difference (RPD) = Absolute value of 100*(Result - Duplicate)/((Result + Duplicate)/2)).

The reporting limit was used for RPD calculations if the results in one sample were below the limit.

F = Field data.

Table 2
Relative Percent Difference For Duplicates, Ground Water
Fall Quarter 1996
LEHR Environmental Restoration

Location
UCD1-34

Parameter	Units	Result		Duplicate		RPD% (1)
Alkalinity, Total (as CaCO3)	mg/L	350		340		2.90
Ammonia Nitrogen	mg/L	0.048	|B	0.055		13.59
Barium	mg/L	0.117		0.123		5.00
Calcium	mg/L	32.9		32.8		0.30
Chloride	mg/L	31		31		0.00
Chromium	mg/L	0.0029	|B	0.0033	|B	12.90
Cobalt	mg/L	0.0011	|B	0.0011	|B	0.00
Copper	mg/L	0.0014	|B	0.0012	|B	15.38
Iron	mg/L	0.0786	|B	0.0996	|B	23.57
Magnesium	mg/L	52		51.8		0.39
Manganese	mg/L	0.0544		0.0546		0.37
Molybdenum	mg/L	0.0012	|B	0.0012	|B	0.00
Nickel	mg/L	0.0052	|B	0.0053	|B	1.90
Nitrogen, Nitrate (as N)	mg/L	0.09	Jh|	0.093	Jh|	3.28
Phosphate, Total (as P)	mg/L	0.17		0.16		6.06
Sodium	mg/L	56.5		56.2		0.53
Sulfate	mg/L	22		22		0.00
Total Dissolved Solids	mg/L	350		640		58.59
Total Organic Carbon	mg/L	1.4		1.3		7.41
Turbidity	NTU	0.69		0.46		40.00
Vanadium	mg/L	0.0057	|B	0.0047	|B	19.23
Zinc	mg/L	0.0097	Up|B	0.0088	Up|B	9.73

See tables in Appendix D for data qualifier explanations.
(1)Relative Percent Difference (RPD) = Absolute value of 100*(Result - Duplicate)/((Result + Duplicate)/2)).
The reporting limit was used for RPD calculations if the results in one sample were below the limit.
F = Field data.

Table 2
Relative Percent Difference For Duplicates, Ground Water
Summer Quarter 1996
LEHR Environmental Restoration

Location
UCD2-26

Parameter	Units	Result		Duplicate		RPD% (1)
Alkalinity, Total (as CaCO3)	mg/L	340		340		0.00
Barium	mg/L	0.11		0.11		0.00
Bis(2-Ethylhexyl)phthalate	ug/L	1.7	Uz|JB	1.8	Uz|JB	5.71
Calcium	mg/L	37.7		35.2		6.86
Chloride	mg/L	21		21		0.00
Chloroform	ug/L	8.8		11		22.22
Chromium	mg/L	0.025		0.025		0.00
Chromium, Hexavalent (+6)	mg/L	0.021		0.022		4.65
Iron	mg/L	0.24	Uo|	0.24	Uo|	0.00
Magnesium	mg/L	67.1		63.6		5.36
Manganese	mg/L	0.0019	|B	0.0031	|B	48.00
Molybdenum	mg/L	0.002	Uo|B	0.0021	Uo|B	4.88
Nickel	mg/L	0.0075		0.0086	|B	13.66
Nitrogen, Nitrate (as N)	mg/L	4.9		4.8		2.06
Phosphate, Total (as P)	mg/L	0.21		0.23		9.09
Sodium	mg/L	37.5		35.6		5.20
Sulfate	mg/L	36		36		0.00
Total Dissolved Solids	mg/L	360		440		20.00
Total Kjeldahl Nitrogen	mg/L	0.61		0.99		47.50
Turbidity	NTU	0.05		0.45		160.00
Vanadium	mg/L	0.0085		0.01		16.22
Zinc	mg/L	0.013	Up|	0.021	Up|	47.06

See tables in Appendix D for data qualifier explanations.

(1)Relative Percent Difference (RPD) = Absolute value of 100*(Result - Duplicate)/((Result + Duplicate)/2)).

The reporting limit was used for RPD calculations if the results in one sample were below the limit.

F = Field data.

Table 2
Relative Percent Difference For Duplicates, Ground Water
Spring Quarter 1996
LEHR Environmental Restoration

Location
UCD2-27Z7

Parameter	Units	Result		Duplicate		RPD% (1)
Chloroform	ug/L	0.96	|J	0.8	|J	18.18
Methylene Chloride	ug/L	0.38	Jz|BJ	0.3	Jz|BJ	23.53
pH-F	std	7.98		7.98		0.00
Specific Conductance (EC)	umhos	373		373		0.00
Temperature	deg C	19.7		19.7		0.00
Turbidity	NTU	0.24		0.24		0.00

See tables in Appendix D for data qualifier explanations.
(1)Relative Percent Difference (RPD) = Absolute value of 100*(Result - Duplicate)/((Result + Duplicate)/2)).
The reporting limit was used for RPD calculations if the results in one sample were below the limit.
F = Field data.

Table 2
Relative Percent Difference For Duplicates, Ground Water
Spring Quarter 1996
LEHR Environmental Restoration

Location
UCD2-35

Parameter	Units	Result		Duplicate		RPD% (1)
Alkalinity, Total (as CaCO3)	mg/L	300		290		3.39
Ammonia Nitrogen	mg/L	0.081	Je|*	0.097	Je|*	17.98
Arsenic	ug/L	3.1		3.5		12.12
Barium	ug/L	121		118		2.51
Calcium	ug/L	35,100		35,000		0.29
Chloride	mg/L	33		33		0.00
Chromium	ug/L	6.7	|EB	6.5	|EB	3.03
Iron	ug/L	96	Je|*B	80.3	Je|*B	17.81
Magnesium	ug/L	59,200		59,100		0.17
Manganese	ug/L	41.2		45.7		10.36
Molybdenum	ug/L	2.5	|B	2.6	|B	3.92
Nickel	ug/L	4.2	|B	4	|B	4.88
Nitrogen, Nitrate (as N)	mg/L	1.4		1.4		0.00
pH-F	std	8.39		8.39		0.00
Phosphate, Total (as P)	mg/L	0.12		0.12		0.00
Sodium	ug/L	33,200		33,300		0.30
Specific Conductance (EC)	umhos	417		417		0.00
Sulfate	mg/L	43		43		0.00
Temperature	deg C	19.3		19.3		0.00
Total Dissolved Solids	mg/L	80		280		111.11
Total Organic Carbon	mg/L	0.67	|B	0.77	|B	13.89
Turbidity	NTU	3.3	Jh|H	2.3	Jh|H	35.71
Turbidity	NTU	9.49		9.49		0.00
Vanadium	ug/L	6.5	|B	6.7	|B	3.03
Zinc	ug/L	14.2	|B	6.1	|B	79.80

See tables in Appendix D for data qualifier explanations.
(1)Relative Percent Difference (RPD) = Absolute value of 100*(Result - Duplicate)/((Result + Duplicate)/2)).
The reporting limit was used for RPD calculations if the results in one sample were below the limit.
F = Field data.

Table 2
Relative Percent Difference For Duplicates, Ground Water
Fall Quarter 1996
LEHR Environmental Restoration

Location
UCD2-35

Parameter	Units	Result		Duplicate		RPD% (1)
Alkalinity, Total (as CaCO3)	mg/L	320		320		0.00
Barium	mg/L	0.137		0.135		1.47
Bis(2-Ethylhexyl)phthalate	ug/L	33	|B	1.3	Uz|JB	184.84
Calcium	mg/L	36.3		37.2		2.45
Chloride	mg/L	25		24		4.08
Chromium	mg/L	0.0072	|B	0.0072	|B	0.00
Iron	mg/L	0.066	|B	0.0567	|B	15.16
Magnesium	mg/L	60.3		61.8		2.46
Manganese	mg/L	0.0119	|B	0.0124	|B	4.12
Molybdenum	mg/L	0.0022	|B	0.0023	|B	4.44
Nickel	mg/L	0.0155	|B	0.0203		26.82
Nitrogen, Nitrate (as N)	mg/L	1	Jh|	1	Jh|	0.00
Phosphate, Total (as P)	mg/L	0.1		0.1		0.00
Sodium	mg/L	32.2		32.9		2.15
Sulfate	mg/L	38		38		0.00
Total Dissolved Solids	mg/L	200		450		76.92
Total Organic Carbon	mg/L	0.86	|B	1		15.05
Turbidity	NTU	0.46		0.41	Jh|	11.49
Vanadium	mg/L	0.007	|B	0.008	|B	13.33
Zinc	mg/L	0.0073	Up|B	0.008	Up|B	9.15

See tables in Appendix D for data qualifier explanations.
(1)Relative Percent Difference (RPD) = Absolute value of 100*(Result - Duplicate)/((Result + Duplicate)/2)).
The reporting limit was used for RPD calculations if the results in one sample were below the limit.
F = Field data.

Table 3
Relative Percent Difference For Duplicates, Surface Water and Stormwater
Spring Quarter 1996
LEHR Environmental Restoration

Location
PCD

Parameter	Units	Result		Duplicate		RPD% (1)
Barium	ug/L	92.6		93.3		0.75
Calcium	ug/L	31,800		31,200		1.90
Chromium	ug/L	6.1	|EB	5.8	|EB	5.04
Iron	ug/L	118	Je|*	70.4	Je|*B	50.53
Magnesium	ug/L	39,800		38,900		2.29
Manganese	ug/L	13.2	|B	13	|B	1.53
Nickel	ug/L	5.1	|B	3.1	|B	48.78
Nitrogen, Nitrate (as N)	mg/L	2.7		2.7		0.00
pH-F	std	8.33		8.33		0.00
Sodium	ug/L	27,300		26,500		2.97
Specific Conductance (EC)	umhos	298		298		0.00
Temperature	deg C	21.8		21.8		0.00
Turbidity	NTU	19		17		11.11
Turbidity	NTU	18.13		18.13		0.00
Vanadium	ug/L	2.7	|B	2.6	|B	3.77
Zinc	ug/L	2	|B	2.8	|B	33.33

See tables in Appendix D for data qualifier explanations.
(1)Relative Percent Difference (RPD) = Absolute value of 100*(Result - Duplicate)/((Result + Duplicate)/2)).
The reporting limit was used for RPD calculations if the results in one sample were below the limit.
F = Field data.

Table 3
Relative Percent Difference For Duplicates, Surface Water and Stormwater
Summer Quarter 1996
LEHR Environmental Restoration

Location
PCU

Parameter	Units	Result		Duplicate		RPD% (1)
Barium	mg/L	0.097		0.1		3.05
Calcium	mg/L	29.3		29.3		0.00
Chromium	mg/L	0.0062	Up|B	0.0062	Up|B	0.00
Copper	mg/L	0.0014	|B	0.0013	|B	7.41
Iron	mg/L	0.061	Uo|B	0.025	Uo|B	83.72
Magnesium	mg/L	35.8		35.7		0.28
Manganese	mg/L	0.0034	|B	0.0033	|B	2.99
Nickel	mg/L	0.0031	Up|B	0.003	Up|B	3.28
Nitrogen, Nitrate (as N)	mg/L	2.1		2		4.88
pH-F	std	8.43		8.43		0.00
Sodium	mg/L	23.2		23.2		0.00
Specific Conductance (EC)-F	umhos	453		453		0.00
Temperature-F	deg C	19		19		0.00
Turbidity	NTU	19		17		11.11
Turbidity-F	NTU	19.7		19.7		0.00
Vanadium	mg/L	0.0057	|B	0.0058	|B	1.74
Zinc	mg/L	0.0072	Up|B	0.0054	Up|B	28.57

See tables in Appendix D for data qualifier explanations.
(1)Relative Percent Difference (RPD) = Absolute value of 100*(Result - Duplicate)/((Result + Duplicate)/2)).
The reporting limit was used for RPD calculations if the results in one sample were below the limit.
F = Field data.

Table 3
Relative Percent Difference For Duplicates, Surface Water and Stormwater
Winter Quarter 1996
LEHR Environmental Restoration

Location
STPO

Parameter	Units	Result		Duplicate		RPD% (1)
Acetone	ug/L	5.2	Jc|	6.2	Jc|	17.54
Arsenic	ug/L	5.3		4.2		23.16
Barium	ug/L	41.3		40.2		2.70
Bis(2-Ethylhexyl)phthalate	ug/L	18		21		15.38
Bromodichloromethane	ug/L	3.5		3.6		2.82
Bromoform	ug/L	3.5		3.3		5.88
Calcium	ug/L	23,700		23,400		1.27
Chloroform	ug/L	2.2		2.3		4.44
Chromium	ug/L	3.6	Up|B	3.7	Up|B	2.74
Copper	ug/L	6.9	|B	7	|B	1.44
Dibromochloromethane	ug/L	4.4		4.1		7.06
Iron	ug/L	112	Up|	116	Up|	3.51
Lead	ug/L	1.1	|B	1.3	|B	16.67
Magnesium	ug/L	29,900		29,600		1.01
Manganese	ug/L	4.5	|B	4.4	|B	2.25
Methylene Chloride	ug/L	3.5		3.3		5.88
Molybdenum	ug/L	5.9	|B	5.8	|B	1.71
Nickel	ug/L	4.5	|B	5.8	|B	25.24
Nitrogen, Nitrate (as N)	mg/L	9.6		9.6		0.00
pH-F	std	7.31		7.31		0.00
Potassium	ug/L	13,400		12,900		3.80
Selenium	ug/L	5		5.4		7.69
Sodium	ug/L	156,000		154,000		1.29
Specific Conductance (EC)	umhos	787		787		0.00
Temperature	deg C	15.8		15.8		0.00
Total Dissolved Solids	mg/L	610		570		6.78
Turbidity	NTU	7.4		6.3		16.06
Turbidity	NTU	2.2		2.2		0.00
Vanadium	ug/L	10.8	Up|	8.9	Up|B	19.29
Zinc	ug/L	42.2		41.4		1.91

See tables in Appendix D for data qualifier explanations.

(1)Relative Percent Difference (RPD) = Absolute value of 100*(Result - Duplicate)/((Result + Duplicate)/2)).

The reporting limit was used for RPD calculations if the results in one sample were below the limit.

F = Field data.

Table 3
Relative Percent Difference For Duplicates, Surface Water and Stormwater
Fall Quarter 1996
LEHR Environmental Restoration

Location
STPO

Parameter	Units	Result		Duplicate		RPD% (1)
Arsenic	mg/L	0.0038		0.0044		14.63
Barium	mg/L	0.0477		0.0516		7.85
Bromodichloromethane	ug/L	0.8	|J	0.8	|J	0.00
Chloroform	ug/L	2.7		2.8		3.64
Chromium	mg/L	0.0053	|B	0.0068	|B	24.79
Chromium, Hexavalent (+6)	mg/L	0.003	|B	0.003	|B	0.00
Copper	mg/L	0.0059	Up|B	0.0063	Up|B	6.56
Iron	mg/L	0.096	|B	0.109		12.68
Manganese	mg/L	0.0071	|B	0.0071	|B	0.00
Methylene Chloride	ug/L	1.4	|J	1.4	|J	0.00
Molybdenum	mg/L	0.0049	Up|B	0.0051	Up|B	4.00
Nickel	mg/L	0.003	Up|B	0.0033	Up|B	9.52
Nitrogen, Nitrate (as N)	mg/L	6.7		6.6		1.50
Total Dissolved Solids	mg/L	610		400		41.58
Turbidity	NTU	6.6		6.2		6.25
Vanadium	mg/L	0.0112		0.0108		3.64
Zinc	mg/L	0.0331		0.0333		0.60

See tables in Appendix D for data qualifier explanations.
(1)Relative Percent Difference (RPD) = Absolute value of 100*(Result - Duplicate)/((Result + Duplicate)/2)).
The reporting limit was used for RPD calculations if the results in one sample were below the limit.
F = Field data.

Table 3
Relative Percent Difference For Duplicates, Surface Water and Stormwater
Winter Quarter 1996
LEHR Environmental Restoration

Parameter	Units	Location LS-1 Result		Duplicate		RPD% (1)
Antimony	ug/L	2.3	|B	5.8		86.42
Barium	ug/L	9.7	|B	8.6	|B	12.02
Bis(2-Ethylhexyl)phthalate	ug/L	0.82	|J	0.83	|J	1.21
Calcium	ug/L	1,060	|B	1,050	|B	0.95
Chromium	ug/L	5.8	|B	7.2	|B	21.54
Chromium, Hexavalent (+6)	mg/L	0.01		0.01		0.00
Copper	ug/L	9.8	|B	9.6	|B	2.06
Ethylbenzene	ug/L	0.7		0.4		54.55
Iron	ug/L	909		780		15.28
Lead	ug/L	7.1		7		1.42
Magnesium	ug/L	453	|B	425	|B	6.38
Manganese	ug/L	19.2		17.7		8.13
Nickel	ug/L	6	|B	5.5	|B	8.70
Nitrogen, Nitrate (as N)	mg/L	0.091	|B	0.26		96.30
pH-F	std	6.9		6.9		0.00
Potassium	ug/L	596	|B	854	|B	35.59
Sodium	ug/L	952	|B	943	|B	0.95
Specific Conductance (EC)	umhos	1,480		1,480		0.00
Temperature	deg C	16.5		16.5		0.00
Toluene	ug/L	0.2		0.2		0.00
Turbidity	NTU	19		19		0.00
Turbidity	NTU	13		13		0.00
Xylenes (total)	ug/L	0.8		0.6		28.57
Zinc	ug/L	69		65.5		5.20

See tables in Appendix D for data qualifier explanations.

(1)Relative Percent Difference (RPD) = Absolute value of 100*(Result - Duplicate)/((Result + Duplicate)/2)).

The reporting limit was used for RPD calculations if the results in one sample were below the limit.

F = Field data.

Table 3
Relative Percent Difference For Duplicates, Surface Water and Stormwater
Fall Quarter 1996
LEHR Environmental Restoration

Location
SD-1

Parameter	Units	Result		Duplicate		RPD% (1)
Acetone	ug/L	16	Jc|	15	Jc|	6.45
Antimony	mg/L	0.0078		0.0065		18.18
Barium	mg/L	0.031		0.0266		15.28
Bis(2-Ethylhexyl)phthalate	ug/L	3.7	|J	9.8	|J	90.37
Calcium	mg/L	4.22	|B	5.19		20.62
Chromium	mg/L	0.0158	|B	0.0182		14.12
Cobalt	mg/L	0.0101		0.0088	|B	13.76
Copper	mg/L	0.021		0.0158		28.26
Diethyl Phthalate	ug/L	0.85	|J	0.59	|J	36.11
Iron	mg/L	2.76		2.35	|N	16.05
Lead	mg/L	0.0418		0.035		17.71
Magnesium	mg/L	2.09	|B	1.83	|B	13.27
Manganese	mg/L	0.0849		0.0734		14.53
Nickel	mg/L	0.0196	|B	0.0161	|B	19.61
Sodium	mg/L	3.73	|B	3.55		4.95
Total Dissolved Solids	mg/L	140		50		94.74
Vanadium	mg/L	0.0054	|B	0.0069	|B	24.39
Zinc	mg/L	0.257		0.246		4.37

See tables in Appendix D for data qualifier explanations.
(1)Relative Percent Difference (RPD) = Absolute value of 100*(Result - Duplicate)/((Result + Duplicate)/2)).
The reporting limit was used for RPD calculations if the results in one sample were below the limit.
F = Field data.

Table 4-1
LEHR Environmental Restoration
Summary of Detected Constituents in Ground Water Samples - 1996
Volatile Organics by CLP

Location	UNITS	DL	MCL	UCD1- 1	UCD1- 4	UCD1-10	UCD1-11	UCD1-12	UCD1-13
1,1,2-Trichloroethane									
Winter	ug/L	1	5	-	-	-	-	1.1	-
Spring	ug/L	1	5	-	-	-	-	1.4	-
Summer	ug/L	1	5	-	-	-	-	2.8	-
Fall	ug/L	1	5	-	-	-	-	2.3	-
1,1-Dichloroethane									
Winter	ug/L	1	5	-	-	-	-	5.3	-
Spring	ug/L	1	5	-	-	-	-	6.1	-
Summer	ug/L	1	5	-	-	-	-	7	-
Fall	ug/L	1	5	-	-	-	-	5.6	-
1,1-Dichloroethene									
Winter	ug/L	1	6	-	-	-	-	13	-
Spring	ug/L	1	6	-	-	-	-	11	-
Summer	ug/L	1	6	-	-	-	-	12	-
Fall	ug/L	1	6	-	-	-	-	11	-
1,2-Dichloroethane									
Winter	ug/L	1	0.5	-	-	-	-	2.9	-
Spring	ug/L	1	0.5	-	-	-	-	3.1	-
Summer	ug/L	1	0.5	-	-	-	-	4.9	-
Fall	ug/L	1	0.5	-	-	-	-	3.6	-

See tables in Appendix D for explanation of data qualifiers.
- = Parameter not analyzed or not detected.
--- = No MCL.
DL= Detection Limit; Contract Required Quantitation Detection Limit.
F = Field data.
s = Secondary Drinking Water Standard.
MCL = California Maximum Contaminant Level (primary), Title 22, Division 4, Chapter 15.
a = Total Trihalomethanes MCL is the sum of bromoform, chloroform, bromodichloromethane, and dibromochloromethane.
# = USEPA MCL (no CA MCL)
p = Proposed USEPA MCL.

Table 4-1
LEHR Environmental Restoration
Summary of Detected Constituents in Ground Water Samples - 1996
Volatile Organics by CLP

Location	UNITS	DL	MCL	UCD1- 1	UCD1- 4	UCD1-10	UCD1-11	UCD1-12	UCD1-13
1,2-Dichloropropane									
Spring	ug/L	1	5	-	-	-	-	0.43 IJ	-
Summer	ug/L	1	5	-	-	-	-	0.5 IJ	-
Fall	ug/L	1	5	-	-	-	-	0.4 UxIJ	-
Acetone									
Spring	ug/L	5	---	-	-	4.2 JclJ	-	-	-
Bromodichloromethane									
Winter	ug/L	1	100a,#	-	-	-	-	0.6 IJ	-
Spring	ug/L	1	100a,#	-	-	-	-	0.64 IJ	-
Summer	ug/L	1	100a,#	-	-	-	-	0.8 IJ	-
Fall	ug/L	1	100a,#	-	-	-	-	1.2	-
Chloroform									
Winter	ug/L	1	100a,#	-	-	-	1	5200	1.4
Spring	ug/L	1	100a,#	-	-	-	-	-	1.5
Summer	ug/L	1	100a,#	-	-	-	-	6700 ID	1.8
Fall	ug/L	1	100a,#	-	-	-	-	6200	1.3 UzIB
Methylene Chloride									
Spring	ug/L	1	5	-	0.35 JylJ	-	-	0.25 IJ	-
Summer	ug/L	1	5	-	-	-	-	0.3 IJ	-

See tables in Appendix D for explanation of data qualifiers.
- = Parameter not analyzed or not detected.
--- = No MCL.
DL= Detection Limit; Contract Required Quantitation Detection Limit.
F = Field data.
s = Secondary Drinking Water Standard.
MCL = California Maximum Contaminant Level (primary), Title 22, Division 4, Chapter 15.
a = Total Trihalomethanes MCL is the sum of bromoform, chloroform, bromodichloromethane, and dibromochloromethane.
# = USEPA MCL (no CA MCL)
p = Proposed USEPA MCL.

Table 4-1
LEHR Environmental Restoration
Summary of Detected Constituents in Ground Water Samples - 1996
Volatile Organics by CLP

Location	UNITS	DL	MCL	UCD1- 1	UCD1- 4	UCD1-10	UCD1-11	UCD1-12	UCD1-13
trans-1,2-Dichloroethene									
Fall	ug/L	1	10	-	-	-	-	0.2 IJ	-
Trichloroethene									
Spring	ug/L	1	5	-	-	-	-	-	0.24 IJ
Summer	ug/L	1	5	-	-	-	-	-	0.2 IJ
Fall	ug/L	1	5	-	-	-	-	-	0.3 IJ

See tables in Appendix D for explanation of data qualifiers.
- = Parameter not analyzed or not detected.
--- = No MCL.
DL= Detection Limit; Contract Required Quantitation Detection Limit.
F = Field data.
s = Secondary Drinking Water Standard.
MCL = California Maximum Contaminant Level (primary), Title 22, Division 4, Chapter 15.
a = Total Trihalomethanes MCL is the sum of bromoform, chloroform, bromodichloromethane, and dibromochloromethane.
# = USEPA MCL (no CA MCL)
p = Proposed USEPA MCL.

Table 4-1
LEHR Environmental Restoration
Summary of Detected Constituents in Ground Water Samples - 1996
Volatile Organics by CLP

Location	UNITS	DL	MCL	UCD1-18	UCD1-19	UCD1-20	UCD1-21	UCD1-22	UCD1-23
Chloroform									
Winter	ug/L	1	100a,#	-	-	-	-	-	0.64 IJ

See tables in Appendix D for explanation of data qualifiers.
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--- = No MCL.
DL= Detection Limit; Contract Required Quantitation Detection Limit.
F = Field data.
s = Secondary Drinking Water Standard.
MCL = California Maximum Contaminant Level (primary), Title 22, Division 4, Chapter 15.
a = Total Trihalomethanes MCL is the sum of bromoform, chloroform, bromodichloromethane, and dibromochloromethane.
# = USEPA MCL (no CA MCL)
p = Proposed USEPA MCL.

Table 4-1
LEHR Environmental Restoration
Summary of Detected Constituents in Ground Water Samples - 1996
Volatile Organics by CLP

Location	UNITS	DL	MCL	UCD1-24	UCD1-25	UCD1-25 Duplicate	UCD1-27Z3	UCD1-34	UCD1-34 Duplicate
Carbon Disulfide									
Winter	ug/L	1	---	-	-	-	0.64 IJ	-	-
Chloroform									
Winter	ug/L	1	100a,#	0.83 IJ	-	0.58 IJ	-	-	-
Spring	ug/L	1	100a,#	-	1 J	-	-	-	-
Summer	ug/L	1	100a,#	-	1.6	1.7	-	-	-
Fall	ug/L	1	100a,#	-	1.5	-	-	-	-
Methylene Chloride									
Spring	ug/L	1	5	-	-	-	0.4 IJ	-	-
Toluene									
Spring	ug/L	1	150	-	-	-	0.22 IJ	-	-

See tables in Appendix D for explanation of data qualifiers.
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DL= Detection Limit; Contract Required Quantitation Detection Limit.
F = Field data.
s = Secondary Drinking Water Standard.
MCL = California Maximum Contaminant Level (primary), Title 22, Division 4, Chapter 15.
a = Total Trihalomethanes MCL is the sum of bromoform, chloroform, bromodichloromethane, and dibromochloromethane.
# = USEPA MCL (no CA MCL)
p = Proposed USEPA MCL.

Table 4-1
LEHR Environmental Restoration
Summary of Detected Constituents in Ground Water Samples - 1996
Volatile Organics by CLP

Location	UNITS	DL	MCL	UCD2- 7	UCD2-14	UCD2-15	UCD2-16	UCD2-17	UCD2-26
Acetone									
Spring	ug/L	5	---	-	-	4.7 JclJ	-	-	-
Chloroform									
Winter	ug/L	1	100a,#	-	1.8	-	-	-	12
Spring	ug/L	1	100a,#	-	1.8	-	-	-	26 ID
Summer	ug/L	1	100a,#	-	2	-	-	-	8.8
Fall	ug/L	1	100a,#	-	1.9 UzlB	-	-	-	6
Methylene Chloride									
Winter	ug/L	1	5	-	-	-	1 lJ	-	-
Spring	ug/L	1	5	-	-	0.36 JylJ	-	-	-

See tables in Appendix D for explanation of data qualifiers.
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DL= Detection Limit; Contract Required Quantitation Detection Limit.
F = Field data.
s = Secondary Drinking Water Standard.
MCL = California Maximum Contaminant Level (primary), Title 22, Division 4, Chapter 15.
a = Total Trihalomethanes MCL is the sum of bromoform, chloroform, bromodichloromethane, and dibromochloromethane.
# = USEPA MCL (no CA MCL)
p = Proposed USEPA MCL.

Table 4-1
LEHR Environmental Restoration
Summary of Detected Constituents in Ground Water Samples - 1996
Volatile Organics by CLP

Location	UNITS	DL	MCL	UCD2-26 Duplicate	UCD2-27Z4		UCD2-27Z5		UCD2-27Z6		UCD2-27Z7		UCD2-27Z7 Duplicate	
1,1-Dichloroethene														
Spring	ug/L	1	6	-	0.3	IJ	-		-		-		-	
Fall	ug/L	1	6	-	-		0.3	IJ	-		-		-	
Acetone														
Spring	ug/L	5	---	-	4	JzlBJ	-		3.8	JzlBJ	-		-	
Summer	ug/L	5	---	-	-		6.5	UzlJB	-		-		-	
Chloroform														
Winter	ug/L	1	100a,#	-	-		67		-		-		-	
Spring	ug/L	1	100a,#	-	22	ID	25		3.6		0.96	IJ	0.8	IJ
Summer	ug/L	1	100a,#	11	11		27	IE	1.6		1.1	Uxl	-	
Fall	ug/L	1	100a,#	-	11	Uxl	72	Uxl	1.7	Uxl	0.7	UxlJ	-	
Methylene Chloride														
Spring	ug/L	1	5	-	0.61	IJ	0.47	IJ	0.46	IJ	0.38	JzlBJ	0.3	JzlBJ
Summer	ug/L	1	5	-	-		0.4	UzlJB	0.3	UzlJB	0.2	UzlJB	-	

See tables in Appendix D for explanation of data qualifiers.
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DL= Detection Limit; Contract Required Quantitation Detection Limit.
F = Field data.
s = Secondary Drinking Water Standard.
MCL = California Maximum Contaminant Level (primary), Title 22, Division 4, Chapter 15.
a = Total Trihalomethanes MCL is the sum of bromoform, chloroform, bromodichloromethane, and dibromochloromethane.
# = USEPA MCL (no CA MCL)
p = Proposed USEPA MCL.

Table 4-1
LEHR Environmental Restoration
Summary of Detected Constituents in Ground Water Samples - 1996
Volatile Organics by CLP

Location	UNITS	DL	MCL	UCD2-35		UCD2-35 Duplicate	
Acetone							
Winter	ug/L	5	---	4	JclJ	-	
Spring	ug/L	5	---	-		4.3	JzlBJ
Chloroform							
Winter	ug/L	1	100a,#	3.8		-	

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DL= Detection Limit; Contract Required Quantitation Detection Limit.
F = Field data.
s = Secondary Drinking Water Standard.
MCL = California Maximum Contaminant Level (primary), Title 22, Division 4, Chapter 15.
a = Total Trihalomethanes MCL is the sum of bromoform, chloroform, bromodichloromethane, and dibromochloromethane.
# = USEPA MCL (no CA MCL)
p = Proposed USEPA MCL.

Table 4-2
LEHR Environmental Restoration
Summary of Detected Constituents in Ground Water Samples - 1996
Semivolatile Organics by CLP

Location	UNITS	DL	MCL	UCD1- 1	UCD1- 4	UCD1-10	UCD1-11	UCD1-12	UCD1-13
Bis(2-Ethylhexyl)phthalate									
Winter	ug/L	10	---	-	-	-	-	6.3 IJ	5 IJ

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--- = No MCL.
DL= Detection Limit; Contract Required Quantitation Detection Limit.
F = Field data.
s = Secondary Drinking Water Standard.
MCL = California Maximum Contaminant Level (primary), Title 22, Division 4, Chapter 15.
a = Total Trihalomethanes MCL is the sum of bromoform, chloroform, bromodichloromethane, and dibromochloromethane.
# = USEPA MCL (no CA MCL)
p = Proposed USEPA MCL.

Table 4-2
LEHR Environmental Restoration
Summary of Detected Constituents in Ground Water Samples - 1996
Semivolatile Organics by CLP

Location	UNITS	DL	MCL	UCD1-24	UCD1-25	UCD1-25 Duplicate	UCD1-27Z3	UCD1-34	UCD1-34 Duplicate
4-Methylphenol									
Winter	ug/L	10	---	-	-	-	7 IJ	-	-
Bis(2-Ethylhexyl)phthalate									
Winter	ug/L	10	---	-	-	-	3 IJ	-	-
Spring	ug/L	10	---	-	2.4 IJ	-	6.7 JzIJB	0.94 IJ	19
Summer	ug/L	10	---	-	-	-	1.2 IJ	-	-
Fall	ug/L	10	---	-	-	-	4.3 IJ	3.5 UzIJB	-
Di-n-Butylphthalate									
Spring	ug/L	10	---	-	-	-	45 JqI	0.82 JqIJ	1.2 JqIJ
Summer	ug/L	10	---	-	-	-	0.91 IJB	-	-
Phenol									
Winter	ug/L	10	---	-	-	-	9 IJ	-	-
Spring	ug/L	10	---	-	-	-	2.9 JqIJ	-	-

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DL= Detection Limit; Contract Required Quantitation Detection Limit.
F = Field data.
s = Secondary Drinking Water Standard.
MCL = California Maximum Contaminant Level (primary), Title 22, Division 4, Chapter 15.
a = Total Trihalomethanes MCL is the sum of bromoform, chloroform, bromodichloromethane, and dibromochloromethane.
# = USEPA MCL (no CA MCL)
p = Proposed USEPA MCL.

Table 4-2
LEHR Environmental Restoration
Summary of Detected Constituents in Ground Water Samples - 1996
Semivolatile Organics by CLP

Location	UNITS	DL	MCL	UCD2- 7	UCD2-14	UCD2-15	UCD2-16	UCD2-17	UCD2-26
Bis(2-Ethylhexyl)phthalate									
Winter	ug/L	10	---	-	1.5 IJ	-	-	-	-
Spring	ug/L	10	---	-	-	-	-	-	0.68 IJ
Summer	ug/L	10	---	-	-	-	-	-	1.7 UzIJB

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F = Field data.
s = Secondary Drinking Water Standard.
MCL = California Maximum Contaminant Level (primary), Title 22, Division 4, Chapter 15.
a = Total Trihalomethanes MCL is the sum of bromoform, chloroform, bromodichloromethane, and dibromochloromethane.
# = USEPA MCL (no CA MCL)
p = Proposed USEPA MCL.

Table 4-2
LEHR Environmental Restoration
Summary of Detected Constituents in Ground Water Samples - 1996
Semivolatile Organics by CLP

Location	UNITS	DL	MCL	UCD2-26 Duplicate		UCD2-27Z4		UCD2-27Z5		UCD2-27Z6		UCD2-27Z7		UCD2-27Z7 Duplicate
Bis(2-Ethylhexyl)phthalate														
Winter	ug/L	10	---	-		-		28		-		-		-
Spring	ug/L	10	---	-		8.2	JzlJB	35	JzlB	3.6	JzlJB	6.8	JzlJB	-
Summer	ug/L	10	---	1.8	UzlJB	0.78	lJ	0.96	lJ	0.73	lJ	48	Jsl	-
Fall	ug/L	10	---	-		0.7	UzlJB	-		-		-		-
Di-n-Butylphthalate														
Spring	ug/L	10	---	-		0.71	JqlJ	2.5	lJ	0.6	JqlJ	-		-
Summer	ug/L	10	---	-		-		-		0.57	lJB	5.2	JslJB	-
Diethyl Phthalate														
Summer	ug/L	10	---	-		-		-		-		2.2	JslJ	-
Phenol														
Spring	ug/L	10	---	-		-		0.73	lJ	-		-		-

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F = Field data.
s = Secondary Drinking Water Standard.
MCL = California Maximum Contaminant Level (primary), Title 22, Division 4, Chapter 15.
a = Total Trihalomethanes MCL is the sum of bromoform, chloroform, bromodichloromethane, and dibromochloromethane.
# = USEPA MCL (no CA MCL)
p = Proposed USEPA MCL.

Table 4-2
LEHR Environmental Restoration
Summary of Detected Constituents in Ground Water Samples - 1996
Semivolatile Organics by CLP

Location	UNITS	DL	MCL	UCD2-35		UCD2-35 Duplicate	
Bis(2-Ethylhexyl)phthalate							
Spring	ug/L	10	---	-		2.4	JxlJ
Fall	ug/L	10	---	33	IB	1.3	UzlJB

See tables in Appendix D for explanation of data qualifiers.
- = Parameter not analyzed or not detected.
--- = No MCL.
DL= Detection Limit; Contract Required Quantitation Detection Limit.
F = Field data.
s = Secondary Drinking Water Standard.
MCL = California Maximum Contaminant Level (primary), Title 22, Division 4, Chapter 15.
a = Total Trihalomethanes MCL is the sum of bromoform, chloroform, bromodichloromethane, and dibromochloromethane.
# = USEPA MCL (no CA MCL)
p = Proposed USEPA MCL.

Table 4-3
LEHR Environmental Restoration
Summary of Detected Constituents in Ground Water Samples - 1996
Pesticides and PCBs by CLP

Location	UNITS	DL	MCL	UCD1- 1	UCD1- 4	UCD1-10	UCD1-11	UCD1-12	UCD1-13	
Dieldrin										
Spring	ug/L	-	---	-	-	-	-	-	0.027	Jcl
Fall	ug/L	-	---	-	-	-	-	-	0.019	IJJ
Endrin										
Spring	ug/L	-	2	-	-	-	-	-	0.009	IJ

See tables in Appendix D for explanation of data qualifiers.
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--- = No MCL.
DL= Detection Limit; Contract Required Quantitation Detection Limit.
F = Field data.
s = Secondary Drinking Water Standard.
MCL = California Maximum Contaminant Level (primary), Title 22, Division 4, Chapter 15.
a = Total Trihalomethanes MCL is the sum of bromoform, chloroform, bromodichloromethane, and dibromochloromethane.
# = USEPA MCL (no CA MCL)
p = Proposed USEPA MCL.

Table 4-4
LEHR Environmental Restoration
Summary of Detected Constituents in Ground Water Samples - 1996
Metals by CLP

Location	UNITS	DL	MCL	UCD1- 1	UCD1- 4	UCD1-10	UCD1-11	UCD1-12	UCD1-13
Antimony									
Winter	mg/L	0.005	0.006	-	0.0015 IB	-	-	0.0014 IB	0.0021 IB
Arsenic									
Winter	mg/L	0.002	0.05	-	-	0.0022 Jdl*	-	-	0.0025 Jdl*
Barium									
Winter	mg/L	0.02	1	-	0.249	0.0259	0.32	0.392	0.334
Chromium									
Winter	mg/L	0.01	0.05	-	0.0184	0.0826	0.273	0.189	0.0993
Chromium, Hexavalent (+6)									
Winter	mg/L	0.02	---	0.026	0.017	0.081	0.29 ID	0.19	0.094
Spring	mg/L	0.02	---	-	0.015	0.067	-	0.17	0.09
Summer	mg/L	0.02	---	0.021	-	0.077	0.27	0.17	0.094
Fall	mg/L	0.02	---	-	0.019 IB	0.079	-	0.18	0.092
Cobalt									
Winter	mg/L	0.01	---	-	-	0.0012 IB	-	0.0022 IB	0.0012 IB
Copper									
Winter	mg/L	0.01	1.0s	-	0.003 UpIB	0.0037 UpIB	0.0027 UpIB	0.0044 UpIB	0.006 UpIB

See tables in Appendix D for explanation of data qualifiers.
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DL= Detection Limit; Contract Required Quantitation Detection Limit.
F = Field data.
s = Secondary Drinking Water Standard.
MCL = California Maximum Contaminant Level (primary), Title 22, Division 4, Chapter 15.
a = Total Trihalomethanes MCL is the sum of bromoform, chloroform, bromodichloromethane, and dibromochloromethane.
# = USEPA MCL (no CA MCL)
p = Proposed USEPA MCL.

Table 4-4
LEHR Environmental Restoration
Summary of Detected Constituents in Ground Water Samples - 1996
Metals by CLP

Location	UNITS	DL	MCL	UCD1- 1	UCD1- 4		UCD1-10		UCD1-11		UCD1-12		UCD1-13	
Iron														
Winter	mg/L	0.001	0.3s	-	0.0669	UpIB	0.0656	UpIB	0.0677	UpIB	0.0667	UpIB	0.138	
Lead														
Winter	mg/L	0.002	0.05	-	-		-		-		-		0.0011	IB
Manganese														
Winter	mg/L	-	0.05s	-	0.0033	UpIB	0.0023	UpIB	0.0018	UpIB	0.0057	UpIB	0.0032	UpIB
Molybdenum														
Winter	mg/L	0.01	---	-	-		0.0012	IB	0.0014	IB	0.0011	IB	-	
Nickel														
Winter	mg/L	0.02	0.1	-	0.0045	IB	0.0041	IB	0.0032	IB	0.0092	IB	0.0103	IB
Selenium														
Winter	mg/L	0.003	0.05	-	-		0.026		0.0103		0.0135		0.0036	
Vanadium														
Winter	mg/L	0.01	---	-	0.0078	IB	0.0148	IB	0.0037	IB	0.0068	IB	0.0048	IB

See tables in Appendix D for explanation of data qualifiers.
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--- = No MCL.
DL= Detection Limit; Contract Required Quantitation Detection Limit.
F = Field data.
s = Secondary Drinking Water Standard.
MCL = California Maximum Contaminant Level (primary), Title 22, Division 4, Chapter 15.
a = Total Trihalomethanes MCL is the sum of bromoform, chloroform, bromodichloromethane, and dibromochloromethane.
# = USEPA MCL (no CA MCL)
p = Proposed USEPA MCL.

Table 4-4
LEHR Environmental Restoration
Summary of Detected Constituents in Ground Water Samples - 1996
Metals by CLP

Location	UNITS	DL	MCL	UCD1- 1	UCD1- 4		UCD1-10		UCD1-11		UCD1-12		UCD1-13	
Zinc														
Winter	mg/L	0.020	5s	-	0.0082	UplB	0.0101	UplB	0.0077	UplB	0.011	UplB	0.0109	UplB

See tables in Appendix D for explanation of data qualifiers.
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DL= Detection Limit; Contract Required Quantitation Detection Limit.
F = Field data.
s = Secondary Drinking Water Standard.
MCL = California Maximum Contaminant Level (primary), Title 22, Division 4, Chapter 15.
a = Total Trihalomethanes MCL is the sum of bromoform, chloroform, bromodichloromethane, and dibromochloromethane.
# = USEPA MCL (no CA MCL)
p = Proposed USEPA MCL.

Table 4-4
LEHR Environmental Restoration
Summary of Detected Constituents in Ground Water Samples - 1996
Metals by CLP

Location	UNITS	DL	MCL	UCD1-18	UCD1-19	UCD1-20	UCD1-21	UCD1-22	UCD1-23
Arsenic									
Winter	mg/L	0.002	0.05	0.0029 Jdl*	-	-	-	-	0.0042 Jdl*
Barium									
Winter	mg/L	0.02	1	0.226	0.0812	0.0925	0.131	-	0.152
Chromium									
Winter	mg/L	0.01	0.05	0.032	0.163	0.0307	0.0578	-	0.0293
Chromium, Hexavalent (+6)									
Winter	mg/L	0.02	---	0.032	0.17	0.027	0.041	-	0.02
Spring	mg/L	0.02	---	-	0.17	-	-	-	-
Summer	mg/L	0.02	---	0.031	0.19	0.03	-	-	-
Fall	mg/L	0.02	---	-	0.19	-	-	-	-
Cobalt									
Winter	mg/L	0.01	---	-	-	-	-	-	0.0015 IB
Copper									
Winter	mg/L	0.01	1.0s	0.0042 UpIB	0.0027 UpIB	0.0041 UpIB	0.003 UpIB	-	0.0051 UpIB
Iron									
Winter	mg/L	0.001	0.3s	0.107	0.0474 UpIB	0.0573 UpIB	0.0588 UpIB	-	0.113

See tables in Appendix D for explanation of data qualifiers.
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F = Field data.
s = Secondary Drinking Water Standard.
MCL = California Maximum Contaminant Level (primary), Title 22, Division 4, Chapter 15.
a = Total Trihalomethanes MCL is the sum of bromoform, chloroform, bromodichloromethane, and dibromochloromethane.
# = USEPA MCL (no CA MCL)
p = Proposed USEPA MCL.

Table 4-4
LEHR Environmental Restoration
Summary of Detected Constituents in Ground Water Samples - 1996
Metals by CLP

Location	UNITS	DL	MCL	UCD1-18		UCD1-19		UCD1-20		UCD1-21		UCD1-22	UCD1-23	
Lead														
Winter	mg/L	0.002	0.05	0.0013	IB	0.0012	IB	-		-		-	-	
Manganese														
Winter	mg/L	-	0.05s	0.0061	UpIB	0.0089	UpIB	0.0019	UpIB	0.0065	UpIB	-	0.0156	UpI
Molybdenum														
Winter	mg/L	0.01	---	0.0015	IB	0.0018	IB	0.0023	IB	0.0015	IB	-	0.0018	IB
Nickel														
Winter	mg/L	0.02	0.1	0.0172	IB	0.0032	IB	0.0018	IB	0.0038	IB	-	0.0569	
Selenium														
Winter	mg/L	0.003	0.05	0.0036		0.0087		-		0.0042		-	-	
Vanadium														
Winter	mg/L	0.01	---	0.01	IB	0.0097	IB	0.0134	IB	0.0085	IB	-	0.0086	IB
Zinc														
Winter	mg/L	0.020	5s	0.0099	UpIB	0.0076	UpIB	0.009	UpIB	0.0089	UpIB	-	0.0108	UpIB

See tables in Appendix D for explanation of data qualifiers.
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DL= Detection Limit; Contract Required Quantitation Detection Limit.
F = Field data.
s = Secondary Drinking Water Standard.
MCL = California Maximum Contaminant Level (primary), Title 22, Division 4, Chapter 15.
a = Total Trihalomethanes MCL is the sum of bromoform, chloroform, bromodichloromethane, and dibromochloromethane.
# = USEPA MCL (no CA MCL)
p = Proposed USEPA MCL.

Table 4-1
LEHR Environmental Restoration
Summary of Detected Constituents in Ground Water Samples - 1996
Volatile Organics by CLP

Location	UNITS	DL	MCL	UCD1-18	UCD1-19	UCD1-20	UCD1-21	UCD1-22	UCD1-23
Chloroform									
Winter	ug/L	1	100a,#	-	-	-	-	-	0.64 IJ

See tables in Appendix D for explanation of data qualifiers.
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--- = No MCL.
DL= Detection Limit; Contract Required Quantitation Detection Limit.
F = Field data.
s = Secondary Drinking Water Standard.
MCL = California Maximum Contaminant Level (primary), Title 22, Division 4, Chapter 15.
a = Total Trihalomethanes MCL is the sum of bromoform, chloroform, bromodichloromethane, and dibromochloromethane.
# = USEPA MCL (no CA MCL)
p = Proposed USEPA MCL.

Table 4-4
LEHR Environmental Restoration
Summary of Detected Constituents in Ground Water Samples - 1996
Metals by CLP

Location	UNITS	DL	MCL	UCD1-24	UCD1-25	UCD1-25 Duplicate	UCD1-27Z3	UCD1-34	UCD1-34 Duplicate
Antimony									
Winter	mg/L	0.005	0.006	-	-	-	-	0.0024 IB	-
Arsenic									
Spring	mg/L	0.002	0.05	-	0.0025	-	0.005 Jel	0.0028	0.0037
Fall	mg/L	0.002	0.05	-	-	-	-	-	0.0032
Barium									
Winter	mg/L	0.02	1	0.229	0.261	0.261	0.156	0.0265	-
Spring	mg/L	0.02	1	-	0.253	-	0.159	0.0727	0.074
Summer	mg/L	0.02	1	-	0.26	0.26	0.19	0.1	-
Fall	mg/L	0.02	1	-	0.275	-	0.177	0.117	0.123
Chromium									
Winter	mg/L	0.01	0.05	0.0331	0.392	0.362	0.0026 UpIB	0.0021 UpIB	-
Spring	mg/L	0.01	0.05	-	0.363 IE	-	-	0.0021 IEB	0.0021 IEB
Summer	mg/L	0.01	0.05	-	0.35	0.34	0.0035 UoIB	0.0048 UoIB	-
Fall	mg/L	0.01	0.05	-	0.345	-	0.0049 IB	0.0029 IB	0.0033 IB

See tables in Appendix D for explanation of data qualifiers.
- = Parameter not analyzed or not detected.
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DL= Detection Limit; Contract Required Quantitation Detection Limit.
F = Field data.
s = Secondary Drinking Water Standard.
MCL = California Maximum Contaminant Level (primary), Title 22, Division 4, Chapter 15.
a = Total Trihalomethanes MCL is the sum of bromoform, chloroform, bromodichloromethane, and dibromochloromethane.
# = USEPA MCL (no CA MCL)
p = Proposed USEPA MCL.

Table 4-4
LEHR Environmental Restoration
Summary of Detected Constituents in Ground Water Samples - 1996
Metals by CLP

Location	UNITS	DL	MCL	UCD1-24		UCD1-25		UCD1-25 Duplicate		UCD1-27Z3		UCD1-34		UCD1-34 Duplicate	
Chromium, Hexavalent (+6)															
Winter	mg/L	0.02	---	0.026		0.41	ID	0.41	ID	-		-		-	
Spring	mg/L	0.02	---	-		0.35		-		0.004	IB	-		-	
Summer	mg/L	0.02	---	-		0.31		0.31		-		-		-	
Fall	mg/L	0.02	---	-		0.35		-		0.005	IB	-		-	
Cobalt															
Winter	mg/L	0.01	---	-		0.0011	IB	0.0011	IB	0.0032	IB	0.0012	IB	-	
Spring	mg/L	0.01	---	-		-		-		0.0021	IB	0.0012	IB	0.0012	IB
Summer	mg/L	0.01	---	-		-		-		0.0022	IB	0.0013	IB	-	
Fall	mg/L	0.01	---	-		-		-		-		0.0011	IB	0.0011	IB
Copper															
Winter	mg/L	0.01	1.0s	0.0047	UpIB	0.004	UpIB	0.0044	UpIB	0.0119		0.0024	UpIB	-	
Spring	mg/L	0.01	1.0s	-		0.0029	IB	-		-		-		-	
Summer	mg/L	0.01	1.0s	-		0.0018	IB	0.0015	IB	-		-		-	
Fall	mg/L	0.01	1.0s	-		0.002	UpIB	-		0.0013	UpIB	0.0014	IB	0.0012	IB
Iron															
Winter	mg/L	0.001	0.3s	0.062	UpIB	0.047	UpIB	0.0519	UpIB	4.9		0.324		-	
Spring	mg/L	0.001	0.3s	-		0.198	Jel*	-		5.14		0.107	Jel*	0.0945	Jel*B
Summer	mg/L	0.001	0.3s	-		0.34	Uol	0.33	Uol	3.2		0.36	Uol	-	
Fall	mg/L	0.001	0.3s	-		0.0405	IB	-		1.54		0.0786	IB	0.0996	IB

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s = Secondary Drinking Water Standard.
MCL = California Maximum Contaminant Level (primary), Title 22, Division 4, Chapter 15.
a = Total Trihalomethanes MCL is the sum of bromoform, chloroform, bromodichloromethane, and dibromochloromethane.
# = USEPA MCL (no CA MCL)
p = Proposed USEPA MCL.

Table 4-4
LEHR Environmental Restoration
Summary of Detected Constituents in Ground Water Samples - 1996
Metals by CLP

Location	UNITS	DL	MCL	UCD1-24		UCD1-25		UCD1-25 Duplicate		UCD1-27Z3		UCD1-34		UCD1-34 Duplicate	
Lead															
Winter	mg/L	0.002	0.05	-		-		0.0011	IB	-		-		-	
Manganese															
Winter	mg/L	-	0.05s	0.0081	UpIB	0.0082	UpIB	0.0082	UpIB	1.6		0.137		-	
Spring	mg/L	-	0.05s	-		0.0019	IB	-		1.59		0.0863		0.0844	
Summer	mg/L	-	0.05s	-		0.0025	IB	0.0019	IB	1.6		0.077		-	
Fall	mg/L	-	0.05s	-		0.0038	IB	-		1.71		0.0544		0.0546	
Molybdenum															
Winter	mg/L	0.01	---	0.0015	IB	0.0012	IB	0.0012	IB	0.0024	IB	0.0014	IB	-	
Spring	mg/L	0.01	---	-		0.0013	IB	-		0.005	IB	0.0012	IB	0.0013	IB
Summer	mg/L	0.01	---	-		-		-		0.0058	UoI	0.0013	UoIB	-	
Fall	mg/L	0.01	---	-		-		-		0.0068	IB	0.0012	IB	0.0012	IB
Nickel															
Winter	mg/L	0.02	0.1	0.0035	IB	0.0061	IB	0.0057	IB	0.0082	IB	0.0053	IB	-	
Spring	mg/L	0.02	0.1	-		0.0055	IB	-		0.011	IB	0.0062	IB	0.0062	IB
Summer	mg/L	0.02	0.1	-		0.0047	UpIB	0.0046	UpIB	0.018		0.0065	UpI	-	
Fall	mg/L	0.02	0.1	-		0.0039	UpIB	-		-		0.0052	IB	0.0053	IB

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s = Secondary Drinking Water Standard.
MCL = California Maximum Contaminant Level (primary), Title 22, Division 4, Chapter 15.
a = Total Trihalomethanes MCL is the sum of bromoform, chloroform, bromodichloromethane, and dibromochloromethane.
# = USEPA MCL (no CA MCL)
p = Proposed USEPA MCL.

Table 4-4
LEHR Environmental Restoration
Summary of Detected Constituents in Ground Water Samples - 1996
Metals by CLP

Location	UNITS	DL	MCL	UCD1-24		UCD1-25		UCD1-25 Duplicate		UCD1-27Z3		UCD1-34		UCD1-34 Duplicate	
Selenium															
Winter	mg/L	0.003	0.05	0.0034		0.0059		0.0059		-		-		-	
Spring	mg/L	0.003	0.05	-		0.0081		-		-		-		-	
Summer	mg/L	0.003	0.05	-		0.0059		0.0066		-		-		-	
Fall	mg/L	0.003	0.05	-		0.0068		-		-		-		-	
Vanadium															
Winter	mg/L	0.01	---	0.01	IB	-		-		0.0035	UpIB	-		-	
Spring	mg/L	0.01	---	-		-		-		-		0.0031	IB	0.0034	IB
Summer	mg/L	0.01	---	-		-		0.003	IB	0.0033	IB	0.0054		-	
Fall	mg/L	0.01	---	-		0.0056	IB	-		-		0.0057	IB	0.0047	IB
Zinc															
Winter	mg/L	0.020	5s	0.0095	UpIB	0.0162	IB	0.0167	IB	0.0088	IB	0.0099	UpIB	-	
Spring	mg/L	0.020	5s	-		0.0205		-		0.0054	IB	0.007	IB	0.0072	IB
Summer	mg/L	0.020	5s	-		0.016	Upl	0.014	UpIB	0.012	Upl	0.012	Upl	-	
Fall	mg/L	0.020	5s	-		0.0117	UpIB	-		0.0223	Upl	0.0097	UpIB	0.0088	UpIB

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s = Secondary Drinking Water Standard.
MCL = California Maximum Contaminant Level (primary), Title 22, Division 4, Chapter 15.
a = Total Trihalomethanes MCL is the sum of bromoform, chloroform, bromodichloromethane, and dibromochloromethane.
# = USEPA MCL (no CA MCL)
p = Proposed USEPA MCL.

Table 4-4
LEHR Environmental Restoration
Summary of Detected Constituents in Ground Water Samples - 1996
Metals by CLP

Location	UNITS	DL	MCL	UCD2- 7	UCD2-14	UCD2-15	UCD2-16	UCD2-17	UCD2-26
Antimony									
Winter	mg/L	0.005	0.006	-	-	-	0.0016 IB	-	-
Arsenic									
Winter	mg/L	0.002	0.05	0.0044 Jdl*	-	-	-	0.0037 Jdl*	-
Spring	mg/L	0.002	0.05	-	0.0022 Jel	-	0.004 Jel	-	0.0031
Summer	mg/L	0.002	0.05	-	-	-	0.0041	-	-
Barium									
Winter	mg/L	0.02	1	0.155	0.132	0.126	0.142	0.123	0.0312
Spring	mg/L	0.02	1	-	0.213	-	0.155	-	0.0538
Summer	mg/L	0.02	1	-	0.26	-	0.17	-	0.11
Fall	mg/L	0.02	1	-	0.189	-	0.151	-	0.108
Chromium									
Winter	mg/L	0.01	0.05	0.0298	0.0139	0.0209	0.0316	0.0127	0.0104
Spring	mg/L	0.01	0.05	-	0.0405	-	0.0389	-	0.0185 IE
Summer	mg/L	0.01	0.05	-	0.05	-	0.039	-	0.025
Fall	mg/L	0.01	0.05	-	0.03	-	0.0316	-	0.0249

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s = Secondary Drinking Water Standard.
MCL = California Maximum Contaminant Level (primary), Title 22, Division 4, Chapter 15.
a = Total Trihalomethanes MCL is the sum of bromoform, chloroform, bromodichloromethane, and dibromochloromethane.
# = USEPA MCL (no CA MCL)
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Table 4-4
LEHR Environmental Restoration
Summary of Detected Constituents in Ground Water Samples - 1996
Metals by CLP

Location	UNITS	DL	MCL	UCD2- 7		UCD2-14		UCD2-15		UCD2-16		UCD2-17		UCD2-26	
Chromium, Hexavalent (+6)															
Winter	mg/L	0.02	---	0.036		0.009	IB	0.012		0.029		0.016		0.007	IB
Spring	mg/L	0.02	---	-		0.031		-		0.027		-		0.015	
Summer	mg/L	0.02	---	0.026		0.046		-		0.034		-		0.021	
Fall	mg/L	0.02	---	-		0.025		0.006	IB	0.029		-		0.027	
Cobalt															
Spring	mg/L	0.01	---	-		0.0016	IB	-		-		-		-	
Summer	mg/L	0.01	---	-		0.0013	IB	-		0.0013	IB	-		-	
Fall	mg/L	0.01	---	-		-		-		0.0017	IB	-		-	
Copper															
Winter	mg/L	0.01	1.0s	0.0025	UpIB	0.0025	UpIB	0.0017	UpIB	0.0049	UpIB	0.0021	UpIB	0.002	IB
Summer	mg/L	0.01	1.0s	-		-		-		0.001	IB	-		-	
Fall	mg/L	0.01	1.0s	-		0.0014	IB	-		0.0013	IB	-		0.0011	UpIB
Iron															
Winter	mg/L	0.001	0.3s	0.0292	UpIB	0.0298	UpIB	0.154		0.0489	UpIB	0.0398	UpIB	0.0636	UpIB
Spring	mg/L	0.001	0.3s	-		0.163		-		0.134		-		0.079	Jel*B
Summer	mg/L	0.001	0.3s	-		0.13	Uol	-		0.054	UolB	-		0.24	Uol
Fall	mg/L	0.001	0.3s	-		0.0503	IB	-		0.0846	IB	-		-	

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a = Total Trihalomethanes MCL is the sum of bromoform, chloroform, bromodichloromethane, and dibromochloromethane.
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Table 4-4
LEHR Environmental Restoration
Summary of Detected Constituents in Ground Water Samples - 1996
Metals by CLP

Location	UNITS	DL	MCL	UCD2- 7		UCD2-14		UCD2-15		UCD2-16		UCD2-17		UCD2-26	
Lead															
Winter	mg/L	0.002	0.05	0.0014	IB	-		-		-		-		-	
Manganese															
Winter	mg/L	-	0.05s	0.0057	UpIB	0.0072	UpIB	0.0109	UpIB	0.0046	UpIB	0.0062	UpIB	0.0174	
Spring	mg/L	-	0.05s	-		0.0011	IB	-		-		-		0.0023	IB
Summer	mg/L	-	0.05s	-		-		-		-		-		0.0019	IB
Fall	mg/L	-	0.05s	-		0.0013	IB	-		-		-		-	
Molybdenum															
Winter	mg/L	0.01	---	0.0019	IB	0.002	IB	0.0035	IB	0.0018	IB	0.002	IB	0.0022	IB
Spring	mg/L	0.01	---	-		0.0019	IB	-		0.0014	IB	-		0.0019	IB
Summer	mg/L	0.01	---	-		0.0017	UoIB	-		0.0019	UpIB	-		0.002	UoIB
Fall	mg/L	0.01	---	-		0.0015	IB	-		0.0015	IB	-		0.0021	UpIB
Nickel															
Winter	mg/L	0.02	0.1	0.0021	IB	0.003	IB	0.0072	IB	0.003	IB	0.0022	IB	0.0051	IB
Spring	mg/L	0.02	0.1	-		0.0062	IB	-		0.0022	IB	-		0.0034	IB
Summer	mg/L	0.02	0.1	-		0.0063	IB	-		0.0031	UpIB	-		0.0075	
Fall	mg/L	0.02	0.1	-		0.0037	IB	-		0.0022	IB	-		0.0073	IB

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s = Secondary Drinking Water Standard.
MCL = California Maximum Contaminant Level (primary), Title 22, Division 4, Chapter 15.
a = Total Trihalomethanes MCL is the sum of bromoform, chloroform, bromodichloromethane, and dibromochloromethane.
# = USEPA MCL (no CA MCL)
p = Proposed USEPA MCL.

Table 4-4
LEHR Environmental Restoration
Summary of Detected Constituents in Ground Water Samples - 1996
Metals by CLP

Location	UNITS	DL	MCL	UCD2- 7		UCD2-14		UCD2-15		UCD2-16		UCD2-17		UCD2-26	
Selenium															
Winter	mg/L	0.003	0.05	-		-		-		0.0031		-		-	
Spring	mg/L	0.003	0.05	-		-		-		0.0032		-		0.0036	
Summer	mg/L	0.003	0.05	-		0.0031	JII	-		0.0048	JII	-		-	
Fall	mg/L	0.003	0.05	-		-		-		0.0034		-		-	
Vanadium															
Winter	mg/L	0.01	---	0.0076	IB	0.0069	IB	-		0.0079	IB	0.0079	IB	0.0075	UpIB
Spring	mg/L	0.01	---	-		0.0115		-		0.0087	IB	-		0.0068	IB
Summer	mg/L	0.01	---	-		0.0032	IB	-		0.011		-		0.0085	
Fall	mg/L	0.01	---	-		0.0091	IB	-		0.009	IB	-		0.0099	IB
Zinc															
Winter	mg/L	0.020	5s	0.0066	UpIB	0.0072	UpIB	0.0026	UpIB	0.0072	UpIB	0.0098	UpIB	0.0623	
Spring	mg/L	0.020	5s	-		-		-		-		-		0.0231	
Summer	mg/L	0.020	5s	-		0.0075	UpIB	-		0.011	UpIB	-		0.013	Upl
Fall	mg/L	0.020	5s	-		0.0056	UpIB	-		0.0044	UpIB	-		0.0122	UpIB

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MCL = California Maximum Contaminant Level (primary), Title 22, Division 4, Chapter 15.
a = Total Trihalomethanes MCL is the sum of bromoform, chloroform, bromodichloromethane, and dibromochloromethane.
# = USEPA MCL (no CA MCL)
p = Proposed USEPA MCL.

Table 4-4
LEHR Environmental Restoration
Summary of Detected Constituents in Ground Water Samples - 1996
Metals by CLP

Location	UNITS	DL	MCL	UCD2-26 Duplicate	UCD2-27Z4	UCD2-27Z5	UCD2-27Z6	UCD2-27Z7	UCD2-27Z7 Duplicate
Antimony									
Fall	mg/L	0.005	0.006	-	-	-	0.0039 IB	-	-
Arsenic									
Spring	mg/L	0.002	0.05	-	0.0038 Jel	0.0042 Jel	0.0029 Jel	0.0024 Jel	-
Summer	mg/L	0.002	0.05	-	-	-	-	0.0035 IB	-
Barium									
Winter	mg/L	0.02	1	-	-	0.124	-	-	-
Spring	mg/L	0.02	1	-	0.108	0.133	0.144	0.158	-
Summer	mg/L	0.02	1	0.11	0.14	0.16	0.16	0.18	-
Fall	mg/L	0.02	1	-	0.142	0.161	0.15	0.145	-
Chromium									
Winter	mg/L	0.01	0.05	-	-	0.0079 IB	-	-	-
Spring	mg/L	0.01	0.05	-	0.0015 IB	0.0095 IB	0.0112	0.0054 IB	-
Summer	mg/L	0.01	0.05	0.025	0.017	0.021 Uol	0.015 Uol	0.0064 UolB	-
Fall	mg/L	0.01	0.05	-	0.0173 Uxl	0.0208	0.0159 Uxl	0.0107 Uxl	-

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s = Secondary Drinking Water Standard.
MCL = California Maximum Contaminant Level (primary), Title 22, Division 4, Chapter 15.
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Table 4-4
LEHR Environmental Restoration
Summary of Detected Constituents in Ground Water Samples - 1996
Metals by CLP

Location	UNITS	DL	MCL	UCD2-26 Duplicate		UCD2-27Z4		UCD2-27Z5		UCD2-27Z6		UCD2-27Z7		UCD2-27Z7 Duplicate
Chromium, Hexavalent (+6)														
Winter	mg/L	0.02	---	-		-		0.006	IB	-		-		-
Spring	mg/L	0.02	---	-		-		0.009	IB	0.009	IB	-		-
Summer	mg/L	0.02	---	0.022		-		-		-		-		-
Fall	mg/L	0.02	---	-		0.014	IB	0.016	IB	0.013	IB	0.008	IB	-
Cobalt														
Summer	mg/L	0.01	---	-		-		-		-		0.0011	IB	-
Copper														
Winter	mg/L	0.01	1.0s	-		-		0.002	IB	-		-		-
Fall	mg/L	0.01	1.0s	-		0.0018	IB	0.0013	IB	0.0034	IB	-		-
Iron														
Winter	mg/L	0.001	0.3s	-		-		0.0756	UpIB	-		-		-
Spring	mg/L	0.001	0.3s	-		0.225		0.0864	IB	0.0984	IB	0.187		-
Summer	mg/L	0.001	0.3s	0.24	UoI	0.26		0.36	UoI	0.28	UoI	0.27	UoI	-
Fall	mg/L	0.001	0.3s	-		0.0418	UxIB	0.0453	UxIB	0.103	UxI	-		-
Lead														
Fall	mg/L	0.002	0.05	-		-		0.0033		-		-		-

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Table 4-4
LEHR Environmental Restoration
Summary of Detected Constituents in Ground Water Samples - 1996
Metals by CLP

Location	UNITS	DL	MCL	UCD2-26 Duplicate		UCD2-27Z4		UCD2-27Z5		UCD2-27Z6		UCD2-27Z7		UCD2-27Z7 Duplicate
Manganese														
Winter	mg/L	-	0.05s	-		-		0.0132	IB	-		-		-
Spring	mg/L	-	0.05s	-		0.306		0.0026	IB	0.0656		0.271		-
Summer	mg/L	-	0.05s	0.0031	IB	0.083		0.0016	IB	0.0092	IB	0.081		-
Fall	mg/L	-	0.05s	-		0.0855		-		0.0076	IB	0.025		-
Molybdenum														
Winter	mg/L	0.01	---	-		-		0.0017	IB	-		-		-
Spring	mg/L	0.01	---	-		0.0028	IB	0.0015	IB	0.0014	IB	0.002	IB	-
Summer	mg/L	0.01	---	0.0021	UoIB	0.0022	UoIB	0.0019	UoIB	0.0018	UoIB	0.0024	UoIB	-
Fall	mg/L	0.01	---	-		0.002	IB	0.0018	IB	0.0016	IB	0.0015	IB	-
Nickel														
Winter	mg/L	0.02	0.1	-		-		0.005	IB	-		-		-
Spring	mg/L	0.02	0.1	-		0.0184	IB	0.0047	IB	0.0033	IB	0.0059	IB	-
Summer	mg/L	0.02	0.1	0.0086	IB	0.016		0.0045	UpIB	0.0032	UpIB	0.01		-
Fall	mg/L	0.02	0.1	-		0.0148	IB	0.0046	IB	0.0034	IB	0.0041	UxIB	-
Selenium														
Summer	mg/L	0.003	0.05	0.0034		-		-		-		-		-

See tables in Appendix D for explanation of data qualifiers.
- = Parameter not analyzed or not detected.
--- = No MCL.
DL= Detection Limit; Contract Required Quantitation Detection Limit.
F = Field data.
s = Secondary Drinking Water Standard.
MCL = California Maximum Contaminant Level (primary), Title 22, Division 4, Chapter 15.
a = Total Trihalomethanes MCL is the sum of bromoform, chloroform, bromodichloromethane, and dibromochloromethane.
# = USEPA MCL (no CA MCL)
p = Proposed USEPA MCL.

Table 4-4
LEHR Environmental Restoration
Summary of Detected Constituents in Ground Water Samples - 1996
Metals by CLP

Location	UNITS	DL	MCL	UCD2-26 Duplicate		UCD2-27Z4		UCD2-27Z5		UCD2-27Z6		UCD2-27Z7		UCD2-27Z7 Duplicate
Vanadium														
Winter	mg/L	0.01	---	-		-		0.0098	UpIB	-		-		-
Spring	mg/L	0.01	---	-		0.0044	IB	0.008	IB	0.0084	IB	0.0056	IB	-
Summer	mg/L	0.01	---	0.01		0.0072		0.0087		0.0095		0.0072	IB	-
Fall	mg/L	0.01	---	-		0.0053	IB	0.009	IB	0.0096	IB	0.0092	IB	-
Zinc														
Winter	mg/L	0.020	5s	-		-		0.0164	IB	-		-		-
Spring	mg/L	0.020	5s	-		0.0026	IB	0.0092	IB	0.0041	IB	0.0028	IB	-
Summer	mg/L	0.020	5s	0.021	UpI	0.041		0.019	UpI	0.016	UpI	0.04	UpI	-
Fall	mg/L	0.020	5s	-		0.0307	UpI	0.0149	UpIB	0.0146	UpIB	0.0219	UpIC	-

See tables in Appendix D for explanation of data qualifiers.
- = Parameter not analyzed or not detected.
--- = No MCL.
DL= Detection Limit; Contract Required Quantitation Detection Limit.
F = Field data.
s = Secondary Drinking Water Standard.
MCL = California Maximum Contaminant Level (primary), Title 22, Division 4, Chapter 15.
a = Total Trihalomethanes MCL is the sum of bromoform, chloroform, bromodichloromethane, and dibromochloromethane.
# = USEPA MCL (no CA MCL)
p = Proposed USEPA MCL.

Table 4-4
LEHR Environmental Restoration
Summary of Detected Constituents in Ground Water Samples - 1996
Metals by CLP

Location	UNITS	DL	MCL	UCD2-35		UCD2-35 Duplicate	
Antimony							
Winter	mg/L	0.005	0.006	0.002	IB	-	
Fall	mg/L	0.005	0.006	-		0.0034	IB
Arsenic							
Winter	mg/L	0.002	0.05	0.0026	JdI*	-	
Spring	mg/L	0.002	0.05	0.0031		0.0035	
Barium							
Winter	mg/L	0.02	1	0.102		-	
Spring	mg/L	0.02	1	0.121		0.118	
Summer	mg/L	0.02	1	0.14		-	
Fall	mg/L	0.02	1	0.137		0.135	
Chromium							
Winter	mg/L	0.01	0.05	0.0052	UpIB	-	
Spring	mg/L	0.01	0.05	0.0067	IEB	0.0065	IEB
Summer	mg/L	0.01	0.05	0.0077	UoIB	-	
Fall	mg/L	0.01	0.05	0.0072	IB	0.0072	IB
Chromium, Hexavalent (+6)							
Spring	mg/L	0.02	---	-		0.004	IB

See tables in Appendix D for explanation of data qualifiers.
- = Parameter not analyzed or not detected.
--- = No MCL.
DL= Detection Limit; Contract Required Quantitation Detection Limit.
F = Field data.
s = Secondary Drinking Water Standard.
MCL = California Maximum Contaminant Level (primary), Title 22, Division 4, Chapter 15.
a = Total Trihalomethanes MCL is the sum of bromoform, chloroform, bromodichloromethane, and dibromochloromethane.
# = USEPA MCL (no CA MCL)
p = Proposed USEPA MCL.

Table 4-4
LEHR Environmental Restoration
Summary of Detected Constituents in Ground Water Samples - 1996
Metals by CLP

Location	UNITS	DL	MCL	UCD2-35		UCD2-35 Duplicate	
Cobalt							
Winter	mg/L	0.01	---	0.0064	IB	-	
Copper							
Winter	mg/L	0.01	1.0s	0.0022	UpIB	-	
Fall	mg/L	0.01	1.0s	-		0.0012	IB
Iron							
Winter	mg/L	0.001	0.3s	0.0626	UpIB	-	
Spring	mg/L	0.001	0.3s	0.096	Jel*B	0.0803	Jel*B
Summer	mg/L	0.001	0.3s	0.26	Uol	-	
Fall	mg/L	0.001	0.3s	0.066	IB	0.0567	IB
Lead							
Winter	mg/L	0.002	0.05	0.0018	IB	-	
Manganese							
Winter	mg/L	-	0.05s	0.101		-	
Spring	mg/L	-	0.05s	0.0412		0.0457	
Summer	mg/L	-	0.05s	0.023		-	
Fall	mg/L	-	0.05s	0.0119	IB	0.0124	IB

See tables in Appendix D for explanation of data qualifiers.
- = Parameter not analyzed or not detected.
--- = No MCL.
DL= Detection Limit; Contract Required Quantitation Detection Limit.
F = Field data.
s = Secondary Drinking Water Standard.
MCL = California Maximum Contaminant Level (primary), Title 22, Division 4, Chapter 15.
a = Total Trihalomethanes MCL is the sum of bromoform, chloroform, bromodichloromethane, and dibromochloromethane.
# = USEPA MCL (no CA MCL)
p = Proposed USEPA MCL.

Table 4-4
LEHR Environmental Restoration
Summary of Detected Constituents in Ground Water Samples - 1996
Metals by CLP

Location	UNITS	DL	MCL	UCD2-35		UCD2-35 Duplicate	
Molybdenum							
Winter	mg/L	0.01	---	0.003	IB	-	
Spring	mg/L	0.01	---	0.0025	IB	0.0026	IB
Summer	mg/L	0.01	---	0.0026	UoIB	-	
Fall	mg/L	0.01	---	0.0022	IB	0.0023	IB
Nickel							
Winter	mg/L	0.02	0.1	0.0071	IB	-	
Spring	mg/L	0.02	0.1	0.0042	IB	0.004	IB
Summer	mg/L	0.02	0.1	0.0049	UpIB	-	
Fall	mg/L	0.02	0.1	0.0155	IB	0.0203	
Selenium							
Spring	mg/L	0.003	0.05	-		0.0034	
Vanadium							
Winter	mg/L	0.01	---	0.007	IB	-	
Spring	mg/L	0.01	---	0.0065	IB	0.0067	IB
Summer	mg/L	0.01	---	0.0081	IB	-	
Fall	mg/L	0.01	---	0.007	IB	0.008	IB

See tables in Appendix D for explanation of data qualifiers.
- = Parameter not analyzed or not detected.
--- = No MCL.
DL= Detection Limit; Contract Required Quantitation Detection Limit.
F = Field data.
s = Secondary Drinking Water Standard.
MCL = California Maximum Contaminant Level (primary), Title 22, Division 4, Chapter 15.
a = Total Trihalomethanes MCL is the sum of bromoform, chloroform, bromodichloromethane, and dibromochloromethane.
# = USEPA MCL (no CA MCL)
p = Proposed USEPA MCL.

Table 4-4
LEHR Environmental Restoration
Summary of Detected Constituents in Ground Water Samples - 1996
Metals by CLP

Location	UNITS	DL	MCL	UCD2-35		UCD2-35 Duplicate	
Zinc							
Winter	mg/L	0.020	5s	0.012	UpIB	-	
Spring	mg/L	0.020	5s	0.0142	IB	0.0061	IB
Summer	mg/L	0.020	5s	0.0083	UpIB	-	
Fall	mg/L	0.020	5s	0.0073	UpIB	0.008	UpIB

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--- = No MCL.
DL= Detection Limit; Contract Required Quantitation Detection Limit.
F = Field data.
s = Secondary Drinking Water Standard.
MCL = California Maximum Contaminant Level (primary), Title 22, Division 4, Chapter 15.
a = Total Trihalomethanes MCL is the sum of bromoform, chloroform, bromodichloromethane, and dibromochloromethane.
# = USEPA MCL (no CA MCL)
p = Proposed USEPA MCL.

Table 4-5
LEHR Environmental Restoration
Summary of Detected Constituents in Ground Water Samples - 1996
Radionuclide Results

Location	Units	MCL	UCD1- 4			UCD1-10			UCD1-11			UCD1-12		
			Value		Uncertainty MDA	Value	Uncertainty	MDA	Value	Uncertainty	MDA	Value	Uncertainty	MDA
Bismuth-214*														
Winter	pCi/L	---	-		- -	-	-	-	17.4	6.4	7.7	-	-	-
Summer	pCi/L	---	-		- -	-	-	-	-	-	-	43	18	19
Fall	pCi/L	---	18.4	Jzl	8.4 11	-	-	-	-	-	-	24 Jzl	17	22
Carbon-14														
Winter	pCi/L	---	-		- -		-	-	-	-	-	169	95	110
Spring	pCi/L	---	-		- -	-	-	-	-	-	-	240	100	110
Summer	pCi/L	---	-		- -	-	-	-	-	-	-	235	71	89
Fall	pCi/L	---	-		- -	-	-	-	-	-	-	215	68	86
Lead-214*														
Winter	pCi/L	---	-		- -	21	12	16	10.4	5.5	7.9	-	-	-
Summer	pCi/L	---	-		- -	-	-	-	-	-	-	25	14	20
Fall	pCi/L	---	16.6		6.8 9.3	-	-	-	-	-	-	-	-	-
Radium-226														
Winter	pCi/L	5	0.7		0.26 0.23	-	-	-	-	-	-	-	-	-
Spring	pCi/L	5	0.2		0.13 0.17	-	-	-	-	-	-	-	-	-
Summer	pCi/L	5	-		- -	-	-	-	-	-	-	0.18	0.11	0.13
Strontium-89,90														
Fall	pCi/L	8	0.7	Jxl	0.18 0.25	-	-	-	-	-	-	0.49 Jxl	0.16	0.23
Tritium														
Fall	pCi/L	20,000	-		- -	-	-	-	-	-	-	380 Jml	160	210

See tables in Appendix D for explanation of data qualifiers.
All units = pCi/L
MDA = Minimal Detectable Activity.
* = Gamma scan.
** = Proposed MCL for tritium is 60,000 pCi/L
- = Parameter not analyzed or not above the MDA.
--- = No MCL.

Table 4-5
LEHR Environmental Restoration
Summary of Detected Constituents in Ground Water Samples - 1996
Radionuclide Results

Location	Units	MCL	UCD1-13			UCD1-20			UCD1-21			UCD1-22		
			Value	Uncertainty	MDA	Value	Uncertainty	MDA	Value	Uncertainty	MDA	Value	Uncertainty	MDA
Americium-241														
Winter	pCi/L	---	-	-	-	-	-	-	0.036	0.041	0.033	-	-	-
Summer	pCi/L	---	-	-	-	-	-	-	-	-	-	0.036	0.031	0.028
Bismuth-214*														
Fall	pCi/L	---	16.3 Jzl	7.9	10	-	-	-	-	-	-	-	-	-
Carbon-14														
Winter	pCi/L	---	1,342	75	21	-	-	-	-	-	-	-	-	-
Spring	pCi/L	---	1,870	190	110	-	-	-	-	-	-	-	-	-
Summer	pCi/L	---	7,180	560	210	-	-	-	-	-	-	-	-	-
Fall	pCi/L	---	2,010	180	86	-	-	-	-	-	-	-	-	-
Lead-214*														
Fall	pCi/L	---	15.6	6.8	9.5	-	-	-	-	-	-	-	-	-
Radium-226														
Summer	pCi/L	5	0.24	0.12	0.13	0.97	0.22	0.14	-	-	-	0.21	0.11	0.13
Strontium-89,90														
Fall	pCi/L	8	0.57	0.19	0.28	-	-	-	-	-	-	-	-	-
Tritium														
Winter	pCi/L	20,000	17,100	1,100	270	-	-	-	-	-	-	-	-	-
Spring	pCi/L	20,000	17,300	1,000	240	-	-	-	-	-	-	-	-	-
Summer	pCi/L	20,000	16,500	1,200	220	-	-	-	-	-	-	-	-	-
Fall	pCi/L	20,000	16,500 Jml	1,100	200	-	-	-	-	-	-	-	-	-

See tables in Appendix D for explanation of data qualifiers.
All units = pCi/L
MDA = Minimal Detectable Activity.
* = Gamma scan.
** = Proposed MCL for tritium is 60,000 pCi/L
- = Parameter not analyzed or not above the MDA.
--- = No MCL.

Table 4-5
LEHR Environmental Restoration
Summary of Detected Constituents in Ground Water Samples - 1996
Radionuclide Results

Location	Units	MCL	UCD1-23			UCD1-24			UCD1-25			UCD1-25 Duplicate		
			Value	Uncertainty	MDA	Value	Uncertainty	MDA	Value	Uncertainty	MDA	Value	Uncertainty	MDA
Americium-241														
Spring	pCi/L	---	-	-	-	-	-	-	0.032	0.028	0.018	-	-	-
Bismuth-212*														
Summer	pCi/L	---	-	-	-	-	-	-	-	-	-	60	54	53
Bismuth-214*														
Spring	pCi/L	---	-	-	-	-	-	-	11.5	6.2	8	-	-	-
Summer	pCi/L	---	-	-	-	-	-	-	-	-	-	21	17	20
Carbon-14														
Winter	pCi/L	---	270	100	110	-	-	-	-	-	-	-	-	-
Summer	pCi/L	---	209	69	89	-	-	-	-	-	-	-	-	-
Cobalt-60*														
Winter	pCi/L	---	-	-	-	4	3.8	3.1	-	-	-	-	-	-
Gross Alpha														
Spring	pCi/L	15	-	-	-	-	-	-	13.8 IC	8	9.6	-	-	-
Gross Beta														
Spring	pCi/L	50	-	-	-	-	-	-	11.6 IC	6.1	9.3	-	-	-
Lead-214*														
Spring	pCi/L	---	-	-	-	-	-	-	10	5.5	7.9	-	-	-
Radium-226														
Winter	pCi/L	5	-	-	-	-	-	-	0.57	0.23	0.23	-	-	-
Summer	pCi/L	5	-	-	-	-	-	-	0.23	0.15	0.19	0.19	0.13	0.15

See tables in Appendix D for explanation of data qualifiers.
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- = Parameter not analyzed or not above the MDA.
--- = No MCL.

Table 4-5
LEHR Environmental Restoration
Summary of Detected Constituents in Ground Water Samples - 1996
Radionuclide Results

Location	Units	MCL	UCD1-27Z3			UCD1-34			UCD1-34 Duplicate			UCD2- 7		
			Value	Uncertainty	MDA	Value	Uncertainty	MDA	Value	Uncertainty	MDA	Value	Uncertainty	MDA
Americium-241														
Winter	pCi/L	---	0.035	0.028	0.016	-	-	-	-	-	-	-	-	-
Spring	pCi/L	---	-	-	-	0.038	0.031	0.027	0.057	0.039	0.031	-	-	-
Fall	pCi/L	---	0.027	0.027	0.019	0.033	0.031	0.028	-	-	-	-	-	-
Bismuth-214*														
Spring	pCi/L	---	11.2	7.7	11	-	-	-	-	-	-	-	-	-
Summer	pCi/L	---	103	27	25	-	-	-	-	-	-	-	-	-
Gross Alpha														
Spring	pCi/L	15	1.26	0.81	1.1	-	-	-	-	-	-	-	-	-
Gross Beta														
Spring	pCi/L	50	-	-	-	4.6 IC	2.8	4.3	-	-	-	-	-	-
Summer	pCi/L	50	35.4 IC	5.6	6.1	-	-	-	-	-	-	-	-	-
Lead-214*														
Spring	pCi/L	---	10.5	6.7	10	-	-	-	-	-	-	-	-	-
Summer	pCi/L	---	90	21	25	-	-	-	-	-	-	-	-	-
Plutonium-241														
Fall	pCi/L	---	-	-	-	-	-	-	4.4	3	3.4	-	-	-
Radium-226														
Winter	pCi/L	5	0.39	0.22	0.28	-	-	-	-	-	-	-	-	-
Spring	pCi/L	5	0.22	0.13	0.17	0.19	0.13	0.16	-	-	-	-	-	-
Summer	pCi/L	5	0.21	0.13	0.13	0.58	0.21	0.19	-	-	-	0.25	0.14	0.17

Table 4-5
LEHR Environmental Restoration
Summary of Detected Constituents in Ground Water Samples - 1996
Radionuclide Results

Location	Units	MCL	UCD1-27Z3			UCD1-34			UCD1-34 Duplicate				UCD2- 7		
			Value	Uncertainty	MDA	Value	Uncertainty	MDA	Value		Uncertainty	MDA	Value	Uncertainty	MDA
Tritium															
Fall	pCi/L	20,000	-	-	-	-	-	-	460	Jml	170	210	-	-	-

See tables in Appendix D for explanation of data qualifiers.
All units = pCi/L
MDA = Minimal Detectable Activity.
* = Gamma scan.
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- = Parameter not analyzed or not above the MDA.
--- = No MCL.

Table 4-5
LEHR Environmental Restoration
Summary of Detected Constituents in Ground Water Samples - 1996
Radionuclide Results

Location	Units	MCL	UCD2-14			UCD2-15			UCD2-26			UCD2-26 Duplicate		
			Value	Uncertainty	MDA	Value	Uncertainty	MDA	Value	Uncertainty	MDA	Value	Uncertainty	MDA
Americium-241														
Spring	pCi/L	---	0.046	0.036	0.021	-	-	-	-	-	-	-	-	-
Summer	pCi/L	---	-	-	-	-	-	-	0.035	0.03	0.028	-	-	-
Fall	pCi/L	---	0.028	0.028	0.019	-	-	-	0.026	0.029	0.023	-	-	-
Bismuth-214*														
Summer	pCi/L	---	-	-	-	44	10	9.9	-	-	-	-	-	-
Carbon-14														
Spring	pCi/L	---	500	120	110	-	-	-	-	-	-	-	-	-
Summer	pCi/L	---	2,030	270	220	-	-	-	-	-	-	-	-	-
Fall	pCi/L	---	375	81	86	-	-	-	-	-	-	-	-	-
Gross Beta														
Fall	pCi/L	50	-	-	-	8.2 IC	3.4	5.1	-	-	-	-	-	-
Lead-214*														
Spring	pCi/L	---	-	-	-	8.5	5.2	7.6	-	-	-	-	-	-
Summer	pCi/L	---	-	-	-	31.2	8.1	9.8	-	-	-	-	-	-
Radium-226														
Winter	pCi/L	5	-	-	-	2.4	0.49	0.29	-	-	-	-	-	-
Spring	pCi/L	5	0.34	0.17	0.2	0.17	0.12	0.15	0.32	0.17	0.2	-	-	-
Summer	pCi/L	5	0.22	0.13	0.16	-	-	-	-	-	-	0.6	0.21	0.19
Radium-226*														
Winter	pCi/L	5	-	-	-	0.51	0.27	0.3	-	-	-	-	-	-
Strontium-89,90														
Fall	pCi/L	8	0.47	0.18	0.27	0.39 Jxl	0.18	0.29	-	-	-	-	-	-

See tables in Appendix D for explanation of data qualifiers.
All units = pCi/L
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- = Parameter not analyzed or not above the MDA.
--- = No MCL.

Table 4-5
LEHR Environmental Restoration
Summary of Detected Constituents in Ground Water Samples - 1996
Radionuclide Results

Location	Units	MCL	UCD2-14			UCD2-15			UCD2-26			UCD2-26 Duplicate		
			Value	Uncertainty	MDA	Value	Uncertainty	MDA	Value	Uncertainty	MDA	Value	Uncertainty	MDA
Strontium-90														
Spring	pCi/L	8	-	-	-	-	-	-	0.57	0.34	0.54	-	-	-
Tritium														
Winter	pCi/L	20,000	270	210	240	-	-	-	-	-	-	-	-	-
Spring	pCi/L	20,000	4,690	480	240	-	-	-	-	-	-	-	-	-
Summer	pCi/L	20,000	9,550	780	230	-	-	-	-	-	-	-	-	-
Fall	pCi/L	20,000	2,950 Jml	370	210	290 Jml	150	210	-	-	-	-	-	-

See tables in Appendix D for explanation of data qualifiers.
All units = pCi/L
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- = Parameter not analyzed or not above the MDA.
--- = No MCL.

Table 4-5
LEHR Environmental Restoration
Summary of Detected Constituents in Ground Water Samples - 1996
Radionuclide Results

Location	Units	MCL	UCD2-27Z4			UCD2-27Z5			UCD2-27Z6			UCD2-27Z7		
			Value	Uncertainty	MDA	Value	Uncertainty	MDA	Value	Uncertainty	MDA	Value	Uncertainty	MDA
Americium-241														
Spring	pCi/L	---	-	-	-	-	-	-	0.052	0.039	0.032	-	-	-
Summer	pCi/L	---	0.028	0.027	0.019	0.032	0.026	0.023	0.014	0.016	0.013	0.029	0.026	0.024
Bismuth-214*														
Winter	pCi/L	---	-	-	-	9 J	5.9	7.9	-	-	-	-	-	-
Spring	pCi/L	---	-	-	-	10 J	7.2	9.5	-	-	-	-	-	-
Fall	pCi/L	---	12.1 JzI	7.3	10	-	-	-	-	-	-	-	-	-
Carbon-14														
Fall	pCi/L	---	-	-	-	-	-	-	-	-	-	78	48	72
Gross Alpha														
Summer	pCi/L	15	-	-	-	-	-	-	-	-	-	31.2 IC	8.1	6
Gross Beta														
Summer	pCi/L	50	6.2 IC	2.9	4.4	-	-	-	-	-	-	7 IC	3.7	5.6
Lead-214*														
Winter	pCi/L	---	-	-	-	10.1	5.6	8	-	-	-	-	-	-
Summer	pCi/L	---	23	15	21	-	-	-	-	-	-	-	-	-
Radium-226														
Winter	pCi/L	5	-	-	-	0.39	0.21	0.24	-	-	-	-	-	-
Spring	pCi/L	5	-	-	-	0.22	0.12	0.15	0.32	0.14	0.15	-	-	-
Summer	pCi/L	5	-	-	-	0.37	0.17	0.14	0.44	0.21	0.19	-	-	-
Fall	pCi/L	5	-	-	-	-	-	-	-	-	-	0.85	0.24	0.17
Strontium-89,90														
Fall	pCi/L	8	0.48	0.2	0.3	-	-	-	-	-	-	-	-	-

See tables in Appendix D for explanation of data qualifiers.
All units = pCi/L
MDA = Minimal Detectable Activity.
* = Gamma scan.
** = Proposed MCL for tritium is 60,000 pCi/L
- = Parameter not analyzed or not above the MDA.
--- = No MCL.

Table 4-5
LEHR Environmental Restoration
Summary of Detected Constituents in Ground Water Samples - 1996
Radionuclide Results

Location	Units	MCL	UCD2-27Z4			UCD2-27Z5			UCD2-27Z6			UCD2-27Z7		
			Value	Uncertainty	MDA	Value	Uncertainty	MDA	Value	Uncertainty	MDA	Value	Uncertainty	MDA
Strontium-90														
Spring	pCi/L	8	-	-	-	1.15	0.33	0.46	-	-	-	-	-	-
Tritium														
Fall	pCi/L	20,000	230 Jml	140	210	-	-	-	-	-	-	-	-	-

See tables in Appendix D for explanation of data qualifiers.
All units = pCi/L
MDA = Minimal Detectable Activity.
* = Gamma scan.
** = Proposed MCL for tritium is 60,000 pCi/L
- = Parameter not analyzed or not above the MDA.
--- = No MCL.

Table 4-5
LEHR Environmental Restoration
Summary of Detected Constituents in Ground Water Samples - 1996
Radionuclide Results

Location	Units	MCL	UCD2-35			UCD2-35 Duplicate		
			Value	Uncertainty	MDA	Value	Uncertainty	MDA
Americium-241								
Spring	pCi/L	---	-	-	-	0.065	0.047	0.038
Fall	pCi/L	---	0.041	0.033	0.019	-	-	-
Bismuth-214*								
Spring	pCi/L	---	72	12	8.7	35	16	17
Gross Beta								
Fall	pCi/L	50	11.4 IC	3.4	4.7	-	-	-
Lead-214*								
Spring	pCi/L	---	65.1	9.2	8.2	29	13	17
Radium-226								
Fall	pCi/L	5	0.25	0.15	0.18	0.27	0.14	0.15
Strontium-89,90								
Fall	pCi/L	8	0.9	0.2	0.26	0.9	0.21	0.28
Tritium								
Fall	pCi/L	20,000	-	-	-	1,620 Jml	270	190

See tables in Appendix D for explanation of data qualifiers.
All units = pCi/L
MDA = Minimal Detectable Activity.
* = Gamma scan.
** = Proposed MCL for tritium is 60,000 pCi/L
- = Parameter not analyzed or not above the MDA.
--- = No MCL.

Table 4-6
LEHR Environmental Restoration
Summary of Detected Constituents in Ground Water Samples - 1996
Cations/Anions by CLP

Location	UNITS	DL	MCL	UCD1- 1	UCD1- 4	UCD1-10	UCD1-11	UCD1-12	UCD1-13
Calcium									
Winter	mg/L	2	---	-	37.6	47.6	47.6	74.4	74.4
Magnesium									
Winter	mg/L	2	---	-	70.6	189	128	236	194
Nitrogen, Nitrate (as N)									
Winter	mg/L	0.1	10	17	2.7	36	29	56 |D	18 |D
Spring	mg/L	0.1	10	-	4.8	37	-	49	-
Summer	mg/L	0.1	10	16	3.4	39 |H	27	63	-
Fall	mg/L	0.1	10	-	3	41	-	55	-
Potassium									
Winter	mg/L	2	---	-	-	-	-	1.94 |B	0.851 |B
Sodium									
Winter	mg/L	2	---	-	28.7	187	80	100	60.7

See tables in Appendix D for explanation of data qualifiers.
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DL= Detection Limit; Contract Required Quantitation Detection Limit.
F = Field data.
s = Secondary Drinking Water Standard.
MCL = California Maximum Contaminant Level (primary), Title 22, Division 4, Chapter 15.
a = Total Trihalomethanes MCL is the sum of bromoform, chloroform, bromodichloromethane, and dibromochloromethane.
# = USEPA MCL (no CA MCL)
p = Proposed USEPA MCL.

Table 4-6
LEHR Environmental Restoration
Summary of Detected Constituents in Ground Water Samples - 1996
Cations/Anions by CLP

Location	UNITS	DL	MCL	UCD1-18	UCD1-19	UCD1-20	UCD1-21	UCD1-22	UCD1-23
Calcium									
Winter	mg/L	2	---	53.5	59	25	52.2	-	48
Magnesium									
Winter	mg/L	2	---	140	175	59.8	132	-	112
Nitrogen, Nitrate (as N)									
Winter	mg/L	0.1	10	27	18	6	62 |D	-	-
Summer	mg/L	0.1	10	26	-	-	-	-	-
Potassium									
Winter	mg/L	2	---	-	0.837 |B	-	-	-	1.39 |B
Sodium									
Winter	mg/L	2	---	50.8	72.4	41.2	102	-	44.9

See tables in Appendix D for explanation of data qualifiers.
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MCL = California Maximum Contaminant Level (primary), Title 22, Division 4, Chapter 15.
a = Total Trihalomethanes MCL is the sum of bromoform, chloroform, bromodichloromethane, and dibromochloromethane.
# = USEPA MCL (no CA MCL)
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Table 4-6
LEHR Environmental Restoration
Summary of Detected Constituents in Ground Water Samples - 1996
Cations/Anions by CLP

Location	UNITS	DL	MCL	UCD1-24	UCD1-25	UCD1-25 Duplicate	UCD1-27Z3	UCD1-34	UCD1-34 Duplicate
Alkalinity, Total (as CaCO3)									
Winter	mg/L	10	—	-	790	770	430	320	-
Spring	mg/L	10	—	-	700	-	430	350	340
Summer	mg/L	10	—	-	640	660	500	360	-
Fall	mg/L	10	—	-	700	-	580	350	340
Ammonia Nitrogen									
Winter	mg/L	-	—	-	-	0.049 |B	0.36	0.064	-
Spring	mg/L	-	—	-	0.089 Je|*	-	0.57	0.15 |*	0.11 Je|*
Summer	mg/L	-	—	-	-	-	0.53	-	-
Fall	mg/L	-	—	-	0.049 Jd|NB	-	0.63 Jd|N	0.048 |B	0.055
Calcium									
Winter	mg/L	2	—	54.8	51.8	50.8	36	34.9	-
Spring	mg/L	2	—	-	47.9	-	36 Jc|	36.7	35.8
Summer	mg/L	2	—	-	43.3	40.7	41.9	36.7	-
Fall	mg/L	2	—	-	42.2	-	42.8	32.9	32.8
Chloride									
Winter	mg/L	1	0.25-0.	-	27	28	28	40	-
Spring	mg/L	1	0.25-0.	-	27	-	32	38	38
Summer	mg/L	1	0.25-0.	-	24	25	29	33	-
Fall	mg/L	1	0.25-0.	-	26 Jh|	-	30 Jh|	31	31

See tables in Appendix D for explanation of data qualifiers.
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DL= Detection Limit; Contract Required Quantitation Detection Limit.
F = Field data.
s = Secondary Drinking Water Standard.
MCL = California Maximum Contaminant Level (primary), Title 22, Division 4, Chapter 15.
a = Total Trihalomethanes MCL is the sum of bromoform, chloroform, bromodichloromethane, and dibromochloromethane.
# = USEPA MCL (no CA MCL)
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Table 4-6
LEHR Environmental Restoration
Summary of Detected Constituents in Ground Water Samples - 1996
Cations/Anions by CLP

Location	UNITS	DL	MCL	UCD1-24	UCD1-25	UCD1-25 Duplicate	UCD1-27Z3	UCD1-34	UCD1-34 Duplicate
Magnesium									
Winter	mg/L	2	---	144	159	156	63.4	53.9	-
Spring	mg/L	2	---	-	145	-	63.5 Jc|	59.1	58
Summer	mg/L	2	---	-	133	125	77.5	57.5	-
Fall	mg/L	2	---	-	128	-	83.3	52	51.8
Nitrogen, Nitrate (as N)									
Winter	mg/L	0.1	10	80 |D	16	16	0.92	0.24	-
Spring	mg/L	0.1	10	-	14	-	0.27	0.061 |B	0.057 |B
Summer	mg/L	0.1	10	-	11	11	0.1	-	-
Fall	mg/L	0.1	10	-	13 Jh|	-	0.58 Jh|	0.09 Jh|	0.093 Jh|
Phosphate, Total (as P)									
Winter	mg/L	1	---	-	0.12	0.12	0.14	0.19	-
Spring	mg/L	1	---	-	0.12	-	0.14	0.2	0.18
Summer	mg/L	1	---	-	0.15	0.14	0.06	0.21	-
Fall	mg/L	1	---	-	0.098	-	0.047	0.17	0.16
Potassium									
Winter	mg/L	2	---	0.628 |B	1 |B	1.33 |B	2.09	0.865 |B	-
Spring	mg/L	2	---	-	-	-	2.1 Jc|B	-	-

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MCL = California Maximum Contaminant Level (primary), Title 22, Division 4, Chapter 15.
a = Total Trihalomethanes MCL is the sum of bromoform, chloroform, bromodichloromethane, and dibromochloromethane.
# = USEPA MCL (no CA MCL)
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Table 4-6
LEHR Environmental Restoration
Summary of Detected Constituents in Ground Water Samples - 1996
Cations/Anions by CLP

Location	UNITS	DL	MCL	UCD1-24	UCD1-25	UCD1-25 Duplicate	UCD1-27Z3	UCD1-34	UCD1-34 Duplicate
Sodium									
Winter	mg/L	2	---	79.1	86.8	85.1	72.8	56.8	-
Spring	mg/L	2	---	-	82.1	-	73.5	52.6	51.6
Summer	mg/L	2	---	-	78.4	73.8	92.6	63.4	-
Fall	mg/L	2	---	-	74.5	-	95	56.5	56.2
Sulfate									
Winter	mg/L	1	0.25-0.	-	41	41	19	33	-
Spring	mg/L	1	0.25-0.	-	39	-	30	25	25
Summer	mg/L	1	0.25-0.	-	37	38	35	18	-
Fall	mg/L	1	0.25-0.	-	40 Jh|	-	39 Jh|	22	22
Total Kjeldahl Nitrogen									
Spring	mg/L	0.5	---	-	-	-	3	-	9.7
Summer	mg/L	0.5	---	-	0.23 |*	0.61	1.6 |*	0.9	-
Fall	mg/L	0.5	---	-	2	-	2.6 Ux|	-	-

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s = Secondary Drinking Water Standard.
MCL = California Maximum Contaminant Level (primary), Title 22, Division 4, Chapter 15.
a = Total Trihalomethanes MCL is the sum of bromoform, chloroform, bromodichloromethane, and dibromochloromethane.
# = USEPA MCL (no CA MCL)
p = Proposed USEPA MCL.

Table 4-6
LEHR Environmental Restoration
Summary of Detected Constituents in Ground Water Samples - 1996
Cations/Anions by CLP

Location	UNITS	DL	MCL	UCD2- 7	UCD2-14	UCD2-15	UCD2-16	UCD2-17	UCD2-26
Alkalinity, Total (as CaCO3)									
Winter	mg/L	10	—	-	-	-	-	-	320
Spring	mg/L	10	—	-	-	-	-	-	320
Summer	mg/L	10	—	-	-	-	-	-	340
Fall	mg/L	10	—	-	-	-	-	-	340
Ammonia Nitrogen									
Winter	mg/L	-	—	-	-	-	-	-	0.26
Spring	mg/L	-	—	-	-	-	-	-	0.11 Je|*
Fall	mg/L	-	—	-	-	-	-	-	0.14 Jd|N
Calcium									
Winter	mg/L	2	—	35.1	35	32.2	35.3	34.6	35.1
Spring	mg/L	2	—	-	47.7 Jc|	-	40.9 Jc|	-	34
Summer	mg/L	2	—	-	59.5	-	38.8	-	37.7
Fall	mg/L	2	—	-	42.1	-	38.9	-	35.9
Chloride									
Winter	mg/L	1	0.25-0.	-	-	-	-	-	20
Spring	mg/L	1	0.25-0.	-	-	-	-	-	21
Summer	mg/L	1	0.25-0.	-	-	-	-	-	21
Fall	mg/L	1	0.25-0.	-	-	-	-	-	21 Jh|

See tables in Appendix D for explanation of data qualifiers.
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s = Secondary Drinking Water Standard.
MCL = California Maximum Contaminant Level (primary), Title 22, Division 4, Chapter 15.
a = Total Trihalomethanes MCL is the sum of bromoform, chloroform, bromodichloromethane, and dibromochloromethane.
# = USEPA MCL (no CA MCL)
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Table 4-6
LEHR Environmental Restoration
Summary of Detected Constituents in Ground Water Samples - 1996
Cations/Anions by CLP

Location	UNITS	DL	MCL	UCD2- 7	UCD2-14	UCD2-15	UCD2-16	UCD2-17	UCD2-26
Magnesium									
Winter	mg/L	2	---	69.6	77.8	56.1	65.2	59.7	61.3
Spring	mg/L	2	---	-	118 Jc|	-	70.1 Jc|	-	61.1
Summer	mg/L	2	---	-	152	-	69.1	-	67.1
Fall	mg/L	2	---	-	101	-	66.8	-	63.1
Nitrogen, Nitrate (as N)									
Winter	mg/L	0.1	10	10	2.5	1.7	4.4	1.8	2.5
Spring	mg/L	0.1	10	-	7.4	1.7	-	-	3.4
Summer	mg/L	0.1	10	10	11	1.6	5.4	2	4.9
Fall	mg/L	0.1	10	-	5.2 Jh|	1.5	-	-	4.5 Jh|
Phosphate, Total (as P)									
Winter	mg/L	1	---	-	-	-	-	-	0.18
Spring	mg/L	1	---	-	-	-	-	-	0.2
Summer	mg/L	1	---	-	-	-	-	-	0.21
Fall	mg/L	1	---	-	-	-	-	-	0.16
Potassium									
Winter	mg/L	2	---	-	0.809 |B	0.697 |B	-	0.502 |B	1.2 |B
Fall	mg/L	2	---	-	-	-	-	-	1.53 |B

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F = Field data.
s = Secondary Drinking Water Standard.
MCL = California Maximum Contaminant Level (primary), Title 22, Division 4, Chapter 15.
a = Total Trihalomethanes MCL is the sum of bromoform, chloroform, bromodichloromethane, and dibromochloromethane.
# = USEPA MCL (no CA MCL)
p = Proposed USEPA MCL.

Table 4-6
LEHR Environmental Restoration
Summary of Detected Constituents in Ground Water Samples - 1996
Cations/Anions by CLP

Location	UNITS	DL	MCL	UCD2- 7	UCD2-14	UCD2-15	UCD2-16	UCD2-17	UCD2-26
Sodium									
Winter	mg/L	2	---	48.3	39	27.1	45.8	30.2	34.4
Spring	mg/L	2	---	-	44	-	47.2	-	39.4
Summer	mg/L	2	---	-	49.4	-	58.5	-	37.5
Fall	mg/L	2	---	-	42.7	-	47.2	-	35
Sulfate									
Winter	mg/L	1	0.25-0.	-	-	-	-	-	37
Spring	mg/L	1	0.25-0.	-	-	-	-	-	37
Summer	mg/L	1	0.25-0.	-	-	-	-	-	36
Fall	mg/L	1	0.25-0.	-	-	-	-	-	37 Jh|
Total Kjeldahl Nitrogen									
Spring	mg/L	0.5	---	-	-	-	-	-	3
Summer	mg/L	0.5	---	-	-	-	-	-	0.61
Fall	mg/L	0.5	---	-	-	-	-	-	2.1

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DL= Detection Limit; Contract Required Quantitation Detection Limit.
F = Field data.
s = Secondary Drinking Water Standard.
MCL = California Maximum Contaminant Level (primary), Title 22, Division 4, Chapter 15.
a = Total Trihalomethanes MCL is the sum of bromoform, chloroform, bromodichloromethane, and dibromochloromethane.
# = USEPA MCL (no CA MCL)
p = Proposed USEPA MCL.

Table 4-6
LEHR Environmental Restoration
Summary of Detected Constituents in Ground Water Samples - 1996
Cations/Anions by CLP

Location	UNITS	DL	MCL	UCD2-26 Duplicate	UCD2-27Z4	UCD2-27Z5	UCD2-27Z6	UCD2-27Z7	UCD2-27Z7 Duplicate
Alkalinity, Total (as CaCO3)									
Winter	mg/L	10	---	-	-	320	-	-	-
Spring	mg/L	10	---	-	330	320	330	300	-
Summer	mg/L	10	---	340	350	340	320	330	-
Fall	mg/L	10	---	-	360	310	320	310	-
Ammonia Nitrogen									
Winter	mg/L	-	---	-	-	0.17	-	-	-
Spring	mg/L	-	---	-	0.13	0.13	0.1	0.083	-
Fall	mg/L	-	---	-	-	0.059 Ux|	-	0.044 |B	-
Calcium									
Winter	mg/L	2	---	-	-	31.7	-	-	-
Spring	mg/L	2	---	-	31.5 Jc|	33.7 Jc|	36.2 Jc|	36.3 Jc|	-
Summer	mg/L	2	---	35.2	35.6	40.7	36.4	35.9	-
Fall	mg/L	2	---	-	36.8	39.7	37.4	36.3 |C	-
Chloride									
Winter	mg/L	1	0.25-0.	-	-	22	-	-	-
Spring	mg/L	1	0.25-0.	-	26	21	20	20	-
Summer	mg/L	1	0.25-0.	21	20	21	19	21	-
Fall	mg/L	1	0.25-0.	-	22	22 Jh|	18 Jc|	18 Jc|	-

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F = Field data.
s = Secondary Drinking Water Standard.
MCL = California Maximum Contaminant Level (primary), Title 22, Division 4, Chapter 15.
a = Total Trihalomethanes MCL is the sum of bromoform, chloroform, bromodichloromethane, and dibromochloromethane.
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Table 4-6
LEHR Environmental Restoration
Summary of Detected Constituents in Ground Water Samples - 1996
Cations/Anions by CLP

Location	UNITS	DL	MCL	UCD2-26 Duplicate	UCD2-27Z4	UCD2-27Z5	UCD2-27Z6	UCD2-27Z7	UCD2-27Z7 Duplicate
Magnesium									
Winter	mg/L	2	---	-	-	66.7	-	-	-
Spring	mg/L	2	---	-	63.8 Jc|	56 Jc|	57.6 Jc|	57.9 Jc|	-
Summer	mg/L	2	---	63.6	68.9	68.7	59.6	57.8	-
Fall	mg/L	2	---	-	69.3	66.6	60.6	57.7	-
Nitrogen, Nitrate (as N)									
Winter	mg/L	0.1	10	-	-	2.3	-	-	-
Spring	mg/L	0.1	10	-	1.7	2.5	2.3	1.9	-
Summer	mg/L	0.1	10	4.8	3.9	4.2	2.6	2	-
Fall	mg/L	0.1	10	-	4.5	3.7	2.8	2.2	-
Phosphate, Total (as P)									
Winter	mg/L	1	---	-	-	0.071	-	-	-
Spring	mg/L	1	---	-	0.079	0.093	0.097	0.058	-
Summer	mg/L	1	---	0.23	0.093	0.099	0.11	0.088	-
Fall	mg/L	1	---	-	0.082	0.099	0.095	0.091	-
Potassium									
Winter	mg/L	2	---	-	-	0.769 |B	-	-	-
Spring	mg/L	2	---	-	-	1.68 Jc|B	-	1.84 Jc|B	-
Fall	mg/L	2	---	-	-	1.31 |B	-	-	-

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MCL = California Maximum Contaminant Level (primary), Title 22, Division 4, Chapter 15.
a = Total Trihalomethanes MCL is the sum of bromoform, chloroform, bromodichloromethane, and dibromochloromethane.
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Table 4-6
LEHR Environmental Restoration
Summary of Detected Constituents in Ground Water Samples - 1996
Cations/Anions by CLP

Location	UNITS	DL	MCL	UCD2-26 Duplicate	UCD2-27Z4	UCD2-27Z5	UCD2-27Z6	UCD2-27Z7	UCD2-27Z7 Duplicate
Sodium									
Winter	mg/L	2	---	-	-	34.8	-	-	-
Spring	mg/L	2	---	-	41.4	30.9	36.4	40.5	-
Summer	mg/L	2	---	35.6	40	36.5	35.4	40.7	-
Fall	mg/L	2	---	-	38.6	35.2	35	37.9 |C	-
Sulfate									
Winter	mg/L	1	0.25-0.	-	-	39	-	-	-
Spring	mg/L	1	0.25-0.	-	37	37	36	38	-
Summer	mg/L	1	0.25-0.	36	36	35	35	39	-
Fall	mg/L	1	0.25-0.	-	38	35 Jh|	35	35	-
Total Kjeldahl Nitrogen									
Spring	mg/L	0.5	---	-	-	-	28	-	-
Summer	mg/L	0.5	---	0.99	0.8 |*	0.99 |*	1.1	0.99	-

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MCL = California Maximum Contaminant Level (primary), Title 22, Division 4, Chapter 15.
a = Total Trihalomethanes MCL is the sum of bromoform, chloroform, bromodichloromethane, and dibromochloromethane.
# = USEPA MCL (no CA MCL)
p = Proposed USEPA MCL.

Table 4-6
LEHR Environmental Restoration
Summary of Detected Constituents in Ground Water Samples - 1996
Cations/Anions by CLP

Location	UNITS	DL	MCL	UCD2-35		UCD2-35 Duplicate	
Alkalinity, Total (as CaCO3)							
Winter	mg/L	10	---	330		-	
Spring	mg/L	10	---	300		290	
Summer	mg/L	10	---	300		-	
Fall	mg/L	10	---	320		320	
Ammonia Nitrogen							
Winter	mg/L	-	---	0.051		-	
Spring	mg/L	-	---	0.081	Je|*	0.097	Je|*
Calcium							
Winter	mg/L	2	---	36.3		-	
Spring	mg/L	2	---	35.1		35	
Summer	mg/L	2	---	37.9		-	
Fall	mg/L	2	---	36.3		37.2	
Chloride							
Winter	mg/L	1	0.25-0.	29		-	
Spring	mg/L	1	0.25-0.	33		33	
Summer	mg/L	1	0.25-0.	27		-	
Fall	mg/L	1	0.25-0.	25		24	

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MCL = California Maximum Contaminant Level (primary), Title 22, Division 4, Chapter 15.
a = Total Trihalomethanes MCL is the sum of bromoform, chloroform, bromodichloromethane, and dibromochloromethane.
# = USEPA MCL (no CA MCL)
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Table 4-6
LEHR Environmental Restoration
Summary of Detected Constituents in Ground Water Samples - 1996
Cations/Anions by CLP

Location	UNITS	DL	MCL	UCD2-35	UCD2-35 Duplicate
Magnesium					
Winter	mg/L	2	---	62.5	-
Spring	mg/L	2	---	59.2	59.1
Summer	mg/L	2	---	63.7	-
Fall	mg/L	2	---	60.3	61.8
Nitrogen, Nitrate (as N)					
Winter	mg/L	0.1	10	1	-
Spring	mg/L	0.1	10	1.4	1.4
Summer	mg/L	0.1	10	0.97	-
Fall	mg/L	0.1	10	1 Jh|	1 Jh|
Phosphate, Total (as P)					
Winter	mg/L	1	---	0.13	-
Spring	mg/L	1	---	0.12	0.12
Summer	mg/L	1	---	0.12	-
Fall	mg/L	1	---	0.1	0.1
Potassium					
Winter	mg/L	2	---	0.6 |B	-

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MCL = California Maximum Contaminant Level (primary), Title 22, Division 4, Chapter 15.
a = Total Trihalomethanes MCL is the sum of bromoform, chloroform, bromodichloromethane, and dibromochloromethane.
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Table 4-6
LEHR Environmental Restoration
Summary of Detected Constituents in Ground Water Samples - 1996
Cations/Anions by CLP

Location	UNITS	DL	MCL	UCD2-35	UCD2-35 Duplicate
Sodium					
Winter	mg/L	2	---	36.2	-
Spring	mg/L	2	---	33.2	33.3
Summer	mg/L	2	---	34.5	-
Fall	mg/L	2	---	32.2	32.9
Sulfate					
Winter	mg/L	1	0.25-0.	37	-
Spring	mg/L	1	0.25-0.	43	43
Summer	mg/L	1	0.25-0.	37	-
Fall	mg/L	1	0.25-0.	38	38
Total Kjeldahl Nitrogen					
Summer	mg/L	0.5	---	1.3	-

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DL= Detection Limit; Contract Required Quantitation Detection Limit.
F = Field data.
s = Secondary Drinking Water Standard.
MCL = California Maximum Contaminant Level (primary), Title 22, Division 4, Chapter 15.
a = Total Trihalomethanes MCL is the sum of bromoform, chloroform, bromodichloromethane, and dibromochloromethane.
# = USEPA MCL (no CA MCL)
p = Proposed USEPA MCL.

Table 4-7
LEHR Environmental Restoration
Summary of Detected Constituents in Ground Water Samples - 1996
General

Location	UNITS	DL	MCL	UCD1- 1	UCD1- 4	UCD1-10	UCD1-11	UCD1-12	UCD1-13
Specific Conductance (EC)									
Winter	umhos	-	---	963	870	1500	1087	1890	1278
Spring	umhos	-	---	-	477	1005	-	1011	831
Total Dissolved Solids									
Winter	mg/L	20	500s,#	-	550	1300	780	1500	1100
Spring	mg/L	20	500s,#	-	790	1200	-	1600	1100
Summer	mg/L	20	500s,#	-	550	1300	-	1200	730
Fall	mg/L	20	500s,#	-	500	1300	-	1300	930
Turbidity									
Winter	NTU	0.1	0.5,#	2.7	1.45	1.5	2.2 JhlH	1.7	2.8 JhlH
Spring	NTU	0.1	0.5,#	-	4.2	3.21	-	1.4	7.58
Summer	NTU	0.1	0.5,#	-	2.1	2.1	-	1.6	0.73
Fall	NTU	0.1	0.5,#	-	0.89 Uxl	0.53	-	0.62 Uxl	0.1

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--- = No MCL.
DL= Detection Limit; Contract Required Quantitation Detection Limit.
F = Field data.
s = Secondary Drinking Water Standard.
MCL = California Maximum Contaminant Level (primary), Title 22, Division 4, Chapter 15.
a = Total Trihalomethanes MCL is the sum of bromoform, chloroform, bromodichloromethane, and dibromochloromethane.
# = USEPA MCL (no CA MCL)
p = Proposed USEPA MCL.

Table 4-7
LEHR Environmental Restoration
Summary of Detected Constituents in Ground Water Samples - 1996
General

Location	UNITS	DL	MCL	UCD1-18	UCD1-19	UCD1-20	UCD1-21	UCD1-22	UCD1-23
Specific Conductance (EC)									
Winter	umhos	-	---	1219	1260	626	1320	899	990
Spring	umhos	-	---	-	645	-	-	-	-
Total Dissolved Solids									
Winter	mg/L	20	500s,#	780	1000	380	980	650	650
Summer	mg/L	20	500s,#	-	-	-	-	350	-
Turbidity									
Winter	NTU	0.1	0.5,#	0.74	0.5	0.65	1.3	1.17	1.05
Spring	NTU	0.1	0.5,#	-	1.1	-	-	-	-
Summer	NTU	0.1	0.5,#	-	0.62	-	-	-	-
Fall	NTU	0.1	0.5,#	-	0.2	-	-	-	-

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DL= Detection Limit; Contract Required Quantitation Detection Limit.
F = Field data.
s = Secondary Drinking Water Standard.
MCL = California Maximum Contaminant Level (primary), Title 22, Division 4, Chapter 15.
a = Total Trihalomethanes MCL is the sum of bromoform, chloroform, bromodichloromethane, and dibromochloromethane.
# = USEPA MCL (no CA MCL)
p = Proposed USEPA MCL.

Table 4-7
LEHR Environmental Restoration
Summary of Detected Constituents in Ground Water Samples - 1996
General

Location	UNITS	DL	MCL	UCD1-24	UCD1-25	UCD1-25 Duplicate	UCD1-27Z3	UCD1-34	UCD1-34 Duplicate
Specific Conductance (EC)									
Winter	umhos	-	---	1316	1182	1182	671	611	-
Spring	umhos	-	---	-	724	-	466	390	390
Total Dissolved Solids									
Winter	mg/L	20	500s,#	1000	890	910	500	430	-
Spring	mg/L	20	500s,#	-	830	-	60	500	380
Summer	mg/L	20	500s,#	-	860	390	580	370	-
Fall	mg/L	20	500s,#	-	800	-	680	350	640
Total Organic Carbon									
Winter	mg/L	1	---	-	1.1	0.92 IB	9.3	1.2	-
Spring	mg/L	1	---	-	0.7 IB	-	7	0.76 IB	0.78 IB
Summer	mg/L	1	---	-	-	-	10	1.2	-
Fall	mg/L	1	---	-	0.85 IB	-	9.6	1.4	1.3
Turbidity									
Winter	NTU	0.1	0.5,#	1.9	1.5	2	57 ID	3.53	-
Spring	NTU	0.1	0.5,#	-	3.3	-	73	6.56	6.56
Summer	NTU	0.1	0.5,#	-	13	15	24	8.7	-
Fall	NTU	0.1	0.5,#	-	0.29	-	34	0.69	0.46

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s = Secondary Drinking Water Standard.
MCL = California Maximum Contaminant Level (primary), Title 22, Division 4, Chapter 15.
a = Total Trihalomethanes MCL is the sum of bromoform, chloroform, bromodichloromethane, and dibromochloromethane.
# = USEPA MCL (no CA MCL)
p = Proposed USEPA MCL.

Table 4-7
LEHR Environmental Restoration
Summary of Detected Constituents in Ground Water Samples - 1996
General

Location	UNITS	DL	MCL	UCD2- 7	UCD2-14	UCD2-15	UCD2-16	UCD2-17	UCD2-26
Specific Conductance (EC)									
Winter	umhos	-	---	713	665	626	591	635	600
Spring	umhos	-	---	-	626	397	480	-	500
Total Dissolved Solids									
Winter	mg/L	20	500s,#	480	480	410	460	390	350
Spring	mg/L	20	500s,#	-	730	590	700	-	250
Summer	mg/L	20	500s,#	-	650	550	430	-	360
Fall	mg/L	20	500s,#	-	540	470	570	-	590
Total Organic Carbon									
Winter	mg/L	1	---	-	-	-	-	-	0.68 IB
Spring	mg/L	1	---	-	-	-	-	-	0.57 IB
Fall	mg/L	1	---	-	-	-	-	-	0.74 IB
Turbidity									
Winter	NTU	0.1	0.5,#	1	0.24 JhlH	1.6	0.57	1.2	0.93
Spring	NTU	0.1	0.5,#	-	24.8	7.62	1.36	-	1.3
Summer	NTU	0.1	0.5,#	-	3.3	0.66	0.59	-	0.05
Fall	NTU	0.1	0.5,#	-	1.1	0.89 Uxl	0.46	-	0.51

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MCL = California Maximum Contaminant Level (primary), Title 22, Division 4, Chapter 15.
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Table 4-7
LEHR Environmental Restoration
Summary of Detected Constituents in Ground Water Samples - 1996
General

Location	UNITS	DL	MCL	UCD2-26 Duplicate	UCD2-27Z4		UCD2-27Z5		UCD2-27Z6		UCD2-27Z7		UCD2-27Z7 Duplicate
Specific Conductance (EC)													
Winter	umhos	-	---	-	-		578		-		-		-
Spring	umhos	-	---	-	352		328		390		373		373
Total Dissolved Solids													
Winter	mg/L	20	500s,#	-	-		400		-		-		-
Spring	mg/L	20	500s,#	-	80		430		400		450		-
Summer	mg/L	20	500s,#	440	440		390	JhlH	380		460		-
Fall	mg/L	20	500s,#	-	560	Uxl	570	Uxl	540	Uxl	640	Uxl	-
Total Organic Carbon													
Winter	mg/L	1	---	-	-		1.8		-		-		-
Spring	mg/L	1	---	-	1.4		-		0.49	IB	0.43	IB	-
Summer	mg/L	1	---	-	1.1		-		-		-		-
Fall	mg/L	1	---	-	1.1		0.98		1		0.96		-
Turbidity													
Winter	NTU	0.1	0.5,#	-	-		3.2		-		-		-
Spring	NTU	0.1	0.5,#	-	9.06		0.76	Jol	0.56	Jol	0.76	Jol	0.24
Summer	NTU	0.1	0.5,#	0.45	0.39		0.59		0.39		0		-
Fall	NTU	0.1	0.5,#	-	0.59	Uxl	0.72	Uxl	-		0.95	Uxl	-

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Table 4-7
LEHR Environmental Restoration
Summary of Detected Constituents in Ground Water Samples - 1996
General

Location	UNITS	DL	MCL	UCD2-35		UCD2-35 Duplicate	
Specific Conductance (EC)							
Winter	umhos	-	---	608		-	
Spring	umhos	-	---	417		417	
Total Dissolved Solids							
Winter	mg/L	20	500s,#	410		-	
Spring	mg/L	20	500s,#	80		280	
Summer	mg/L	20	500s,#	710		-	
Fall	mg/L	20	500s,#	200		450	
Total Organic Carbon							
Winter	mg/L	1	---	2.2		-	
Spring	mg/L	1	---	0.67	IB	0.77	IB
Fall	mg/L	1	---	0.86	IB	1	
Turbidity							
Winter	NTU	0.1	0.5,#	6.56		-	
Spring	NTU	0.1	0.5,#	9.49		9.49	
Summer	NTU	0.1	0.5,#	4.8		-	
Fall	NTU	0.1	0.5,#	0.46		0.41	Jhl

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Table 5-1
LEHR Environmental Restoration
Summary of Detected Constituents in Surface Water and Stormwater Samples - 1996
Volatile Organics by CLP

Location	UNITS	DL	MCL	LS-1	LS-1 Duplicate	PCD	PCD Duplicate	PCU	PCU Duplicate
Acetone									
Fall	ug/L	5	---	16 Jcl	-	-	-	-	-
Benzene									
Winter	ug/L	1	1	0.1	-	-	-	-	-
Bromodichloromethane									
Winter	ug/L	1	100a,#	-	-	1.3	-	-	-
Spring	ug/L	1	100a,#	-	-	-	0.22 JylJ	-	-
Bromoform									
Winter	ug/L	1	100a,#	0.3	-	1.2	-	-	-
Spring	ug/L	1	100a,#	-	-	-	0.21 lJ	-	-
Chloroform									
Winter	ug/L	1	100a,#	-	-	1.2	-	-	-
Spring	ug/L	1	100a,#	-	-	-	0.26 JylJ	-	-
Fall	ug/L	1	100a,#	-	-	0.5 lJ	-	-	-
Dibromochloromethane									
Winter	ug/L	1	100a,#	-	-	1.4	-	-	-
Spring	ug/L	1	100a,#	-	-	-	0.31 lJ	-	-

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F = Field data.
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MCL = California Maximum Contaminant Level (primary), Title 22, Division 4, Chapter 15.
a = Total Trihalomethanes MCL is the sum of bromoform, chloroform, bromodichloromethane, and dibromochloromethane.
# = USEPA MCL (no CA MCL)
p = Proposed USEPA MCL.

Table 5-1
LEHR Environmental Restoration
Summary of Detected Constituents in Surface Water and Stormwater Samples - 1996
Volatile Organics by CLP

Location	UNITS	DL	MCL	LS-1	LS-1 Duplicate	PCD	PCD Duplicate	PCU	PCU Duplicate
Ethylbenzene									
Winter	ug/L	1	---	0.7	0.4	-	-	-	-
Methylene Chloride									
Winter	ug/L	1	5	-	-	3.3	-	-	-
Fall	ug/L	1	5	-	-	0.6 IJ	-	-	-
Toluene									
Winter	ug/L	1	150	0.2	0.2	-	-	-	-
Xylenes (total)									
Winter	ug/L	1	1750	0.8	0.6	-	-	-	-

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F = Field data.
s = Secondary Drinking Water Standard.
MCL = California Maximum Contaminant Level (primary), Title 22, Division 4, Chapter 15.
a = Total Trihalomethanes MCL is the sum of bromoform, chloroform, bromodichloromethane, and dibromochloromethane.
# = USEPA MCL (no CA MCL)
p = Proposed USEPA MCL.

Table 5-1
LEHR Environmental Restoration
Summary of Detected Constituents in Surface Water and Stormwater Samples - 1996
Volatile Organics by CLP

Location	UNITS	DL	MCL	SD-1		SD-1 Duplicate		STPO		STPO Duplicate	
Acetone											
Winter	ug/L	5	---	-		-		5.2	Jcl	6.2	Jcl
Spring	ug/L	5	---	-		-		24	Jxl	-	
Fall	ug/L	5	---	16	Jcl	15	Jcl	-		-	
Bromodichloromethane											
Winter	ug/L	1	100a,#	-		-		3.5		3.6	
Spring	ug/L	1	100a,#	-		-		4.9		-	
Fall	ug/L	1	100a,#	-		-		0.8	lJ	0.8	lJ
Bromoform											
Winter	ug/L	1	100a,#	-		-		3.5		3.3	
Spring	ug/L	1	100a,#	-		-		7.5		-	
Chloroform											
Winter	ug/L	1	100a,#	-		-		2.2		2.3	
Spring	ug/L	1	100a,#	-		-		2.3		-	
Fall	ug/L	1	100a,#	-		-		2.7		2.8	
Dibromochloromethane											
Winter	ug/L	1	100a,#	-		-		4.4		4.1	
Spring	ug/L	1	100a,#	-		-		9.1		-	

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MCL = California Maximum Contaminant Level (primary), Title 22, Division 4, Chapter 15.
a = Total Trihalomethanes MCL is the sum of bromoform, chloroform, bromodichloromethane, and dibromochloromethane.
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p = Proposed USEPA MCL.

Table 5-1
LEHR Environmental Restoration
Summary of Detected Constituents in Surface Water and Stormwater Samples - 1996
Volatile Organics by CLP

Location	UNITS	DL	MCL	SD-1	SD-1 Duplicate	STPO		STPO Duplicate	
Methylene Chloride									
Winter	ug/L	1	5	-	-	3.5		3.3	
Spring	ug/L	1	5	-	-	0.56	IJ	-	
Fall	ug/L	1	5	-	-	1.4	IJ	1.4	IJ

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DL= Detection Limit; Contract Required Quantitation Detection Limit.
F = Field data.
s = Secondary Drinking Water Standard.
MCL = California Maximum Contaminant Level (primary), Title 22, Division 4, Chapter 15.
a = Total Trihalomethanes MCL is the sum of bromoform, chloroform, bromodichloromethane, and dibromochloromethane.
# = USEPA MCL (no CA MCL)
p = Proposed USEPA MCL.

Table 5-2
LEHR Environmental Restoration
Summary of Detected Constituents in Surface Water and Stormwater Samples - 1996
Semivolatile Organics by CLP

Location	UNITS	DL	MCL	LS-1		LS-1 Duplicate		PCD		PCD Duplicate		PCU	PCU Duplicate
Benzyl Butyl Phthalate													
Fall	ug/L	10	100p	0.74	IJ	-		-		-		-	-
Bis(2-Ethylhexyl)phthalate													
Winter	ug/L	10	---	0.82	IJ	0.83	IJ	-		-		-	21
Spring	ug/L	10	---	-		-		-		0.98	JxIJ	-	-
Summer	ug/L	10	---	-		-		1.2	UzIJ	-		-	-
Fall	ug/L	10	---	6.4	IJ	-		0.6	IJ	-		-	-

See tables in Appendix D for explanation of data qualifiers.
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--- = No MCL.
DL= Detection Limit; Contract Required Quantitation Detection Limit.
F = Field data.
s = Secondary Drinking Water Standard.
MCL = California Maximum Contaminant Level (primary), Title 22, Division 4, Chapter 15.
a = Total Trihalomethanes MCL is the sum of bromoform, chloroform, bromodichloromethane, and dibromochloromethane.
# = USEPA MCL (no CA MCL)
p = Proposed USEPA MCL.

Table 5-2
LEHR Environmental Restoration
Summary of Detected Constituents in Surface Water and Stormwater Samples - 1996
Semivolatile Organics by CLP

Location	UNITS	DL	MCL	SD-1		SD-1 Duplicate		STPO		STPO Duplicate
Benzyl Butyl Phthalate										
Fall	ug/L	10	100p	0.98	lJ	-		-		-
Bis(2-Ethylhexyl)phthalate										
Winter	ug/L	10	---	-		-		18		21
Spring	ug/L	10	---	-		-		1	JxlJ	-
Summer	ug/L	10	---	-		-		3.1	UzlJ	-
Fall	ug/L	10	---	3.7	lJ	9.8	lJ	0.62	UzlJB	-
Diethyl Phthalate										
Fall	ug/L	10	---	0.85	lJ	0.59	lJ	-		-

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DL= Detection Limit; Contract Required Quantitation Detection Limit.
F = Field data.
s = Secondary Drinking Water Standard.
MCL = California Maximum Contaminant Level (primary), Title 22, Division 4, Chapter 15.
a = Total Trihalomethanes MCL is the sum of bromoform, chloroform, bromodichloromethane, and dibromochloromethane.
# = USEPA MCL (no CA MCL)
p = Proposed USEPA MCL.

Table 5-3
LEHR Environmental Restoration
Summary of Detected Constituents in Surface Water and Stormwater Samples - 1996
Pesticides and PCBs by CLP

Location	UNITS	DL	MCL	LS-1		LS-1 Duplicate	PCD	PCD Duplicate	PCU	PCU Duplicate
Alpha-Chlordane										
Fall	ug/L	-	---	0.0082	JslJ	-	-	-	-	-
Gamma-Chlordane										
Fall	ug/L	-	---	0.012	Jsl	-	-	-	-	-

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F = Field data.
s = Secondary Drinking Water Standard.
MCL = California Maximum Contaminant Level (primary), Title 22, Division 4, Chapter 15.
a = Total Trihalomethanes MCL is the sum of bromoform, chloroform, bromodichloromethane, and dibromochloromethane.
# = USEPA MCL (no CA MCL)
p = Proposed USEPA MCL.

Table 5-3
LEHR Environmental Restoration
Summary of Detected Constituents in Surface Water and Stormwater Samples - 1996
Pesticides and PCBs by CLP

Location	UNITS	DL	MCL	SD-1	SD-1 Duplicate	STPO	STPO Duplicate
Alpha-Chlordane							
Fall	ug/L	-	---	-	0.0014 JslJP	-	-
Gamma-Chlordane							
Fall	ug/L	-	---	-	0.0031 JslJP	-	-

See tables in Appendix D for explanation of data qualifiers.
- = Parameter not analyzed or not detected.
--- = No MCL.
DL= Detection Limit; Contract Required Quantitation Detection Limit.
F = Field data.
s = Secondary Drinking Water Standard.
MCL = California Maximum Contaminant Level (primary), Title 22, Division 4, Chapter 15.
a = Total Trihalomethanes MCL is the sum of bromoform, chloroform, bromodichloromethane, and dibromochloromethane.
# = USEPA MCL (no CA MCL)
p = Proposed USEPA MCL.

Table 5-4
LEHR Environmental Restoration
Summary of Detected Constituents in Surface Water and Stormwater Samples - 1996
Metals by CLP

Location	UNITS	DL	MCL	LS-1		LS-1 Duplicate		PCD		PCD Duplicate		PCU		PCU Duplicate	
Antimony															
Winter	mg/L	0.005	0.006	0.0023	IB	0.0058		-		-		-		-	
Fall	mg/L	0.005	0.006	0.0047	IB	-		-		-		-		-	
Arsenic															
Spring	mg/L	0.002	0.05	-		-		0.0023		-		0.0022		-	
Barium															
Winter	mg/L	0.02	1	0.0097	IB	0.0086	IB	0.0468		-		0.048		-	
Spring	mg/L	0.02	1	-		-		0.0926		0.0933		0.096		-	
Summer	mg/L	0.02	1	-		-		0.1		-		0.097		0.1	
Fall	mg/L	0.02	1	0.0342		-		0.0013		-		0.109		-	
Chromium															
Winter	mg/L	0.01	0.05	0.0058	IB	0.0072	IB	0.0029	UpIB	-		0.0028	UpIB	-	
Spring	mg/L	0.01	0.05	-		-		0.0061	IEB	0.0058	IEB	0.0061	IEB	-	
Summer	mg/L	0.01	0.05	-		-		0.0055	UoIB	-		0.0062	UpIB	0.0062	UpIB
Fall	mg/L	0.01	0.05	0.0192		-		0.0076	IB	-		0.0074	IB	-	
Chromium, Hexavalent (+6)															
Winter	mg/L	0.02	---	0.01		0.01		-		-		-		-	
Spring	mg/L	0.02	---	-		-		0.004	IB	-		0.004	IB	-	
Fall	mg/L	0.02	---	-		-		-		-		0.003	IB	-	

See tables in Appendix D for explanation of data qualifiers.
- = Parameter not analyzed or not detected.
--- = No MCL.
DL= Detection Limit; Contract Required Quantitation Detection Limit.
F = Field data.
s = Secondary Drinking Water Standard.
MCL = California Maximum Contaminant Level (primary), Title 22, Division 4, Chapter 15.
a = Total Trihalomethanes MCL is the sum of bromoform, chloroform, bromodichloromethane, and dibromochloromethane.
# = USEPA MCL (no CA MCL)
p = Proposed USEPA MCL.

Table 5-4
LEHR Environmental Restoration
Summary of Detected Constituents in Surface Water and Stormwater Samples - 1996
Metals by CLP

Location	UNITS	DL	MCL	LS-1		LS-1 Duplicate		PCD		PCD Duplicate		PCU		PCU Duplicate	
Cobalt															
Spring	mg/L	0.01	---	-		-		0.0011	IB	-		-		-	
Fall	mg/L	0.01	---	0.0067	IB	-		-		-		-		-	
Copper															
Winter	mg/L	0.01	1.0s	0.0098	IB	0.0096	IB	0.0032	IB	-		0.0029	IB	-	
Spring	mg/L	0.01	1.0s	-		-		-		-		0.0021	IB	-	
Summer	mg/L	0.01	1.0s	-		-		0.0015	IB	-		0.0014	IB	0.0013	IB
Fall	mg/L	0.01	1.0s	0.0364		-		0.0031	UpIB	-		0.0087	IB	-	
Iron															
Winter	mg/L	0.001	0.3s	0.909		0.78		0.0764	UpIB	-		0.0575	UpIB	-	
Spring	mg/L	0.001	0.3s	-		-		0.118	Jel*	0.0704	Jel*B	0.108	Jel*	-	
Summer	mg/L	0.001	0.3s	-		-		0.073	UolB	-		0.061	UolB	0.025	UolB
Fall	mg/L	0.001	0.3s	3.96	IN	-		0.0787	IB	-		0.0578	IB	-	
Lead															
Winter	mg/L	0.002	0.05	0.0071		0.007		-		-		-		-	
Fall	mg/L	0.002	0.05	0.0225		-		-		-		-		-	

See tables in Appendix D for explanation of data qualifiers.
- = Parameter not analyzed or not detected.
--- = No MCL.
DL= Detection Limit; Contract Required Quantitation Detection Limit.
F = Field data.
s = Secondary Drinking Water Standard.
MCL = California Maximum Contaminant Level (primary), Title 22, Division 4, Chapter 15.
a = Total Trihalomethanes MCL is the sum of bromoform, chloroform, bromodichloromethane, and dibromochloromethane.
# = USEPA MCL (no CA MCL)
p = Proposed USEPA MCL.

Table 5-4
LEHR Environmental Restoration
Summary of Detected Constituents in Surface Water and Stormwater Samples - 1996
Metals by CLP

Location	UNITS	DL	MCL	LS-1	LS-1 Duplicate	PCD	PCD Duplicate	PCU	PCU Duplicate
Manganese									
Winter	mg/L	-	0.05s	0.0192	0.0177	0.0074 IB	-	0.0059 IB	-
Spring	mg/L	-	0.05s	-	-	0.0132 IB	0.013 IB	0.0124 IB	-
Summer	mg/L	-	0.05s	-	-	0.0036 IB	-	0.0034 IB	0.0033 IB
Fall	mg/L	-	0.05s	0.106	-	0.009 IB	-	0.0094 IB	-
Molybdenum									
Winter	mg/L	0.01	---	-	-	0.0021 IB	-	-	-
Spring	mg/L	0.01	---	-	-	0.0012 IB	-	-	-
Summer	mg/L	0.01	---	-	-	0.0013 UoIB	-	0.0013 UoIB	-
Fall	mg/L	0.01	---	-	-	0.001 IB	-	-	-
Nickel									
Winter	mg/L	0.02	0.1	0.006 IB	0.0055 IB	0.0047 IB	-	0.0049 IB	-
Spring	mg/L	0.02	0.1	-	-	0.0051 IB	0.0031 IB	0.0031 IB	-
Summer	mg/L	0.02	0.1	-	-	0.0029 UpIB	-	0.0031 UpIB	0.003 UpIB
Fall	mg/L	0.02	0.1	0.0256	-	0.0041 IB	-	0.0035 IB	-
Silver									
Fall	mg/L	0.01	0.1s	0.0012 IB	-	-	-	-	-

See tables in Appendix D for explanation of data qualifiers.
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--- = No MCL.
DL= Detection Limit; Contract Required Quantitation Detection Limit.
F = Field data.
s = Secondary Drinking Water Standard.
MCL = California Maximum Contaminant Level (primary), Title 22, Division 4, Chapter 15.
a = Total Trihalomethanes MCL is the sum of bromoform, chloroform, bromodichloromethane, and dibromochloromethane.
# = USEPA MCL (no CA MCL)
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Table 5-4
LEHR Environmental Restoration
Summary of Detected Constituents in Surface Water and Stormwater Samples - 1996
Metals by CLP

Location	UNITS	DL	MCL	LS-1		LS-1 Duplicate	PCD		PCD Duplicate		PCU		PCU Duplicate	
Vanadium														
Winter	mg/L	0.01	---	0.0029	IB	-	0.0072	UpIB	-		0.0064	UpIB	-	
Spring	mg/L	0.01	---	-		-	0.0027	IB	0.0026	IB	-		-	
Summer	mg/L	0.01	---	-		-	0.0068	IB	-		0.0057	IB	0.0058	IB
Fall	mg/L	0.01	---	0.0092	IB	-	-		-		-		-	
Zinc														
Winter	mg/L	0.020	5s	0.069		0.0655	0.0131	IB	-		0.004	IB	-	
Spring	mg/L	0.020	5s	-		-	0.002	IB	0.0028	IB	0.002	IB	-	
Summer	mg/L	0.020	5s	-		-	0.0086	UpIB	-		0.0072	UpIB	0.0054	UpIB
Fall	mg/L	0.020	5s	0.185		-	0.0076	UpIB	-		0.0086	UpIB	-	

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DL= Detection Limit; Contract Required Quantitation Detection Limit.
F = Field data.
s = Secondary Drinking Water Standard.
MCL = California Maximum Contaminant Level (primary), Title 22, Division 4, Chapter 15.
a = Total Trihalomethanes MCL is the sum of bromoform, chloroform, bromodichloromethane, and dibromochloromethane.
# = USEPA MCL (no CA MCL)
p = Proposed USEPA MCL.

Table 5-4
LEHR Environmental Restoration
Summary of Detected Constituents in Surface Water and Stormwater Samples - 1996
Metals by CLP

Location	UNITS	DL	MCL	SD-1	SD-1 Duplicate	STPO	STPO Duplicate
Antimony							
Fall	mg/L	0.005	0.006	0.0078	0.0065	-	-
Arsenic							
Winter	mg/L	0.002	0.05	-	-	0.0053	0.0042
Spring	mg/L	0.002	0.05	-	-	0.0057	-
Summer	mg/L	0.002	0.05	-	-	0.004	-
Fall	mg/L	0.002	0.05	-	-	0.0038	0.0044
Barium							
Winter	mg/L	0.02	1	-	-	0.0413	0.0402
Spring	mg/L	0.02	1	-	-	0.0474	-
Summer	mg/L	0.02	1	-	-	0.06	-
Fall	mg/L	0.02	1	0.031	0.0266	0.0477	0.0516
Chromium							
Winter	mg/L	0.01	0.05	-	-	0.0036 UplB	0.0037 UplB
Spring	mg/L	0.01	0.05	-	-	0.0062 IEB	-
Summer	mg/L	0.01	0.05	-	-	0.0062 UplB	-
Fall	mg/L	0.01	0.05	0.0158 IB	0.0182	0.0053 IB	0.0068 IB

See tables in Appendix D for explanation of data qualifiers.
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--- = No MCL.
DL= Detection Limit; Contract Required Quantitation Detection Limit.
F = Field data.
s = Secondary Drinking Water Standard.
MCL = California Maximum Contaminant Level (primary), Title 22, Division 4, Chapter 15.
a = Total Trihalomethanes MCL is the sum of bromoform, chloroform, bromodichloromethane, and dibromochloromethane.
# = USEPA MCL (no CA MCL)
p = Proposed USEPA MCL.

Table 5-4
LEHR Environmental Restoration
Summary of Detected Constituents in Surface Water and Stormwater Samples - 1996
Metals by CLP

Location	UNITS	DL	MCL	SD-1	SD-1 Duplicate		STPO		STPO Duplicate	
Chromium, Hexavalent (+6)										
Fall	mg/L	0.02	---	-	-		0.003	IB	0.003	IB
Cobalt										
Fall	mg/L	0.01	---	0.0101	0.0088	IB	-		-	
Copper										
Winter	mg/L	0.01	1.0s	-	-		0.0069	IB	0.007	IB
Spring	mg/L	0.01	1.0s	-	-		0.0075	IB	-	
Summer	mg/L	0.01	1.0s	-	-		0.0025	IB	-	
Fall	mg/L	0.01	1.0s	0.021	0.0158		0.0059	UpIB	0.0063	UpIB
Iron										
Winter	mg/L	0.001	0.3s	-	-		0.112	Upl	0.116	Upl
Spring	mg/L	0.001	0.3s	-	-		0.106	Jel*	-	
Summer	mg/L	0.001	0.3s	-	-		0.12	Uol	-	
Fall	mg/L	0.001	0.3s	2.76	2.35	IN	0.096	IB	0.109	
Lead										
Winter	mg/L	0.002	0.05	-	-		0.0011	IB	0.0013	IB
Fall	mg/L	0.002	0.05	0.0418	0.035		-		-	

See tables in Appendix D for explanation of data qualifiers.
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--- = No MCL.
DL= Detection Limit; Contract Required Quantitation Detection Limit.
F = Field data.
s = Secondary Drinking Water Standard.
MCL = California Maximum Contaminant Level (primary), Title 22, Division 4, Chapter 15.
a = Total Trihalomethanes MCL is the sum of bromoform, chloroform, bromodichloromethane, and dibromochloromethane.
# = USEPA MCL (no CA MCL)
p = Proposed USEPA MCL.

Table 5-4
LEHR Environmental Restoration
Summary of Detected Constituents in Surface Water and Stormwater Samples - 1996
Metals by CLP

Location	UNITS	DL	MCL	SD-1		SD-1 Duplicate		STPO		STPO Duplicate	
Manganese											
Winter	mg/L	-	0.05s	-		-		0.0045	IB	0.0044	IB
Spring	mg/L	-	0.05s	-		-		0.0062	IB	-	
Summer	mg/L	-	0.05s	-		-		0.012	IB	-	
Fall	mg/L	-	0.05s	0.0849		0.0734		0.0071	IB	0.0071	IB
Molybdenum											
Winter	mg/L	0.01	---	-		-		0.0059	IB	0.0058	IB
Spring	mg/L	0.01	---	-		-		0.0058	IB	-	
Summer	mg/L	0.01	---	-		-		0.0084	IB	-	
Fall	mg/L	0.01	---	-		-		0.0049	UpIB	0.0051	UpIB
Nickel											
Winter	mg/L	0.02	0.1	-		-		0.0045	IB	0.0058	IB
Spring	mg/L	0.02	0.1	-		-		0.0022	IB	-	
Summer	mg/L	0.02	0.1	-		-		0.003	UpIB	-	
Fall	mg/L	0.02	0.1	0.0196	IB	0.0161	IB	0.003	UpIB	0.0033	UpIB
Selenium											
Winter	mg/L	0.003	0.05	-		-		0.005		0.0054	
Spring	mg/L	0.003	0.05	-		-		0.0054		-	
Summer	mg/L	0.003	0.05	-		-		0.0054	JII	-	

See tables in Appendix D for explanation of data qualifiers.
- = Parameter not analyzed or not detected.
--- = No MCL.
DL= Detection Limit; Contract Required Quantitation Detection Limit.
F = Field data.
s = Secondary Drinking Water Standard.
MCL = California Maximum Contaminant Level (primary), Title 22, Division 4, Chapter 15.
a = Total Trihalomethanes MCL is the sum of bromoform, chloroform, bromodichloromethane, and dibromochloromethane.
# = USEPA MCL (no CA MCL)
p = Proposed USEPA MCL.

Table 5-4
LEHR Environmental Restoration
Summary of Detected Constituents in Surface Water and Stormwater Samples - 1996
Metals by CLP

Location	UNITS	DL	MCL	SD-1		SD-1 Duplicate		STPO		STPO Duplicate	
Vanadium											
Winter	mg/L	0.01	---	-		-		0.0108	UpI	0.0089	UpIB
Spring	mg/L	0.01	---	-		-		0.0094	IB	-	
Summer	mg/L	0.01	---	-		-		0.017		-	
Fall	mg/L	0.01	---	0.0054	IB	0.0069	IB	0.0112		0.0108	
Zinc											
Winter	mg/L	0.020	5s	-		-		0.0422		0.0414	
Spring	mg/L	0.020	5s	-		-		0.0296		-	
Summer	mg/L	0.020	5s	-		-		0.03	UpI	-	
Fall	mg/L	0.020	5s	0.257		0.246		0.0331		0.0333	

See tables in Appendix D for explanation of data qualifiers.
- = Parameter not analyzed or not detected.
--- = No MCL.
DL= Detection Limit; Contract Required Quantitation Detection Limit.
F = Field data.
s = Secondary Drinking Water Standard.
MCL = California Maximum Contaminant Level (primary), Title 22, Division 4, Chapter 15.
a = Total Trihalomethanes MCL is the sum of bromoform, chloroform, bromodichloromethane, and dibromochloromethane.
# = USEPA MCL (no CA MCL)
p = Proposed USEPA MCL.

Table 5-5
LEHR Environmental Restoration
Summary of Detected Constituents in Surface Water and Stormwater Samples - 1996
Radionuclide Results

Location	Units	MCL	PCD			PCD Duplicate			PCU			PCU Duplicate		
			Value	Uncertainty	MDA	Value	Uncertainty	MDA	Value	Uncertainty	MDA	Value	Uncertainty	MDA
Americium-241														
Spring	pCi/L	---	0.051	0.038	0.02	-	-	-	0.039 I F	0.035	0.035	-	-	-
Fall	pCi/L	---	-	-	-	-	-	-	0.032	0.029	0.018	-	-	-
Carbon-14														
Fall	pCi/L	---	80	48	70	-	-	-	-	-	-	-	-	-
Gross Beta														
Winter	pCi/L	50	6.1 IC	3	4.6	-	-	-	-	-	-	-	-	-
Plutonium-241														
Spring	pCi/L	---	-	-	-	-	-	-	7.2	3.3	3.6	-	-	-
Radium-226														
Spring	pCi/L	5	0.142	0.098	0.13	0.15	0.11	0.14	-	-	-	-	-	-
Summer	pCi/L	5	-	-	-	-	-	-	-	-	-	0.42	0.28	0.31
Strontium-90														
Spring	pCi/L	8	-	-	-	-	-	-	1.18	0.38	0.55	-	-	-

See tables in Appendix D for explanation of data qualifiers.
All units = pCi/L
MDA = Minimal Detectable Activity.
* = Gamma scan.
** = Proposed MCL for tritium is 60,000 pCi/L
- = Parameter not analyzed or not above the MDA.
--- = No MCL.

Table 5-5
LEHR Environmental Restoration
Summary of Detected Constituents in Surface Water and Stormwater Samples - 1996
Radionuclide Results

Location	Units	MCL	STPO			STPO Duplicate		
			Value	Uncertainty	MDA	Value	Uncertainty	MDA
Americium-241								
Winter	pCi/L	---	0.037	0.042	0.034	0.046	0.034	0.018
Fall	pCi/L	---	0.052	0.043	0.041	0.022	0.024	0.019
Gross Alpha								
Winter	pCi/L	15	7.7 IC	5.1	6.9	-	-	-
Gross Beta								
Winter	pCi/L	50	21.7 IC	4.6	5.6	15.3 IC	4.2	5.7
Spring	pCi/L	50	11.5 IC	3.6	4.9	-	-	-
Summer	pCi/L	50	10.6 IC	4.5	6.7	-	-	-
Fall	pCi/L	50	19.8 IC	4.6	6	20.5 IC	4.6	5.9
Plutonium-241								
Spring	pCi/L	---	6.7	2.9	2.8	-	-	-
Radium-226								
Winter	pCi/L	5	-	-	-	0.29	0.21	0.24
Fall	pCi/L	5	0.14	0.12	0.073	0.27	0.15	0.13
Strontium-89,90								
Fall	pCi/L	8	-	-	-	0.35	0.15	0.23
Strontium-90								
Spring	pCi/L	8	0.88	0.4	0.61	-	-	-

See tables in Appendix D for explanation of data qualifiers.
All units = pCi/L
MDA = Minimal Detectable Activity.
* = Gamma scan.
** = Proposed MCL for tritium is 60,000 pCi/L
- = Parameter not analyzed or not above the MDA.
--- = No MCL.

Table 5-6
LEHR Environmental Restoration
Summary of Detected Constituents in Surface Water and Stormwater Samples - 1996
Cations/Anions by CLP

Location	UNITS	DL	MCL	LS-1		LS-1 Duplicate		PCD	PCD Duplicate	PCU		PCU Duplicate
Calcium												
Winter	mg/L	2	---	1.06	|B	1.05	|B	21.6	-	23.6		-
Spring	mg/L	2	---	-		-		31.8	31.2	31.2		-
Summer	mg/L	2	---	-		-		28.8	-	29.3		29.3
Fall	mg/L	2	---	4.92		-		31.5	-	31.2		-
Magnesium												
Winter	mg/L	2	---	0.453	|B	0.425	|B	25.9	-	25.2		-
Spring	mg/L	2	---	-		-		39.8	38.9	38.9		-
Summer	mg/L	2	---	-		-		35.2	-	35.8		35.7
Fall	mg/L	2	---	3.02	|B	-		40.5	-	40.3		-
Nitrogen, Nitrate (as N)												
Winter	mg/L	0.1	10	0.091	|B	0.26		2	-	0.25		-
Spring	mg/L	0.1	10	-		-		2.7	2.7	2.4		-
Summer	mg/L	0.1	10	-		-		2	-	2.1		2
Fall	mg/L	0.1	10	-		-		3.2	-	2.8	|W	-
Potassium												
Winter	mg/L	2	---	0.596	|B	0.854	|B	4.82	-	1.46	|B	-
Fall	mg/L	2	---	3.08		-		2.75	-	1.38	|B	-

See tables in Appendix D for explanation of data qualifiers.
- = Parameter not analyzed or not detected.
--- = No MCL.
DL= Detection Limit; Contract Required Quantitation Detection Limit.
F = Field data.
s = Secondary Drinking Water Standard.
MCL = California Maximum Contaminant Level (primary), Title 22, Division 4, Chapter 15.
a = Total Trihalomethanes MCL is the sum of bromoform, chloroform, bromodichloromethane, and dibromochloromethane.
# = USEPA MCL (no CA MCL)
p = Proposed USEPA MCL.

Table 5-6
LEHR Environmental Restoration
Summary of Detected Constituents in Surface Water and Stormwater Samples - 1996
Cations/Anions by CLP

Location	UNITS	DL	MCL	LS-1		LS-1 Duplicate		PCD	PCD Duplicate	PCU	PCU Duplicate
Sodium											
Winter	mg/L	2	---	0.952	|B	0.943	|B	53.4	-	15.1	-
Spring	mg/L	2	---	-		-		27.3	26.5	21.8	-
Summer	mg/L	2	---	-		-		33.8	-	23.2	23.2
Fall	mg/L	2	---	5	|B	-		32	-	22.4	-

See tables in Appendix D for explanation of data qualifiers.
- = Parameter not analyzed or not detected.
--- = No MCL.
DL= Detection Limit; Contract Required Quantitation Detection Limit.
F = Field data.
s = Secondary Drinking Water Standard.
MCL = California Maximum Contaminant Level (primary), Title 22, Division 4, Chapter 15.
a = Total Trihalomethanes MCL is the sum of bromoform, chloroform, bromodichloromethane, and dibromochloromethane.
# = USEPA MCL (no CA MCL)
p = Proposed USEPA MCL.

Table 5-6
LEHR Environmental Restoration
Summary of Detected Constituents in Surface Water and Stormwater Samples - 1996
Cations/Anions by CLP

Location	UNITS	DL	MCL	SD-1	SD-1 Duplicate	STPO	STPO Duplicate
Calcium							
Winter	mg/L	2	---	-	-	23.7	23.4
Spring	mg/L	2	---	-	-	24.9	-
Summer	mg/L	2	---	-	-	27.3	-
Fall	mg/L	2	---	4.22 |B	5.19	-	-
Magnesium							
Winter	mg/L	2	---	-	-	29.9	29.6
Spring	mg/L	2	---	-	-	29.1	-
Summer	mg/L	2	---	-	-	35	-
Fall	mg/L	2	---	2.09 |B	1.83 |B	-	-
Nitrogen, Nitrate (as N)							
Winter	mg/L	0.1	10	-	-	9.6	9.6
Spring	mg/L	0.1	10	-	-	9.7	-
Summer	mg/L	0.1	10	-	-	3.6	-
Fall	mg/L	0.1	10	-	-	6.7	6.6
Potassium							
Winter	mg/L	2	---	-	-	13.4	12.9
Spring	mg/L	2	---	-	-	9.02	-
Summer	mg/L	2	---	-	-	7.8	-

See tables in Appendix D for explanation of data qualifiers.
- = Parameter not analyzed or not detected.
--- = No MCL.
DL= Detection Limit; Contract Required Quantitation Detection Limit.
F = Field data.
s = Secondary Drinking Water Standard.
MCL = California Maximum Contaminant Level (primary), Title 22, Division 4, Chapter 15.
a = Total Trihalomethanes MCL is the sum of bromoform, chloroform, bromodichloromethane, and dibromochloromethane.
# = USEPA MCL (no CA MCL)
p = Proposed USEPA MCL.

Table 5-6
LEHR Environmental Restoration
Summary of Detected Constituents in Surface Water and Stormwater Samples - 1996
Cations/Anions by CLP

Location	UNITS	DL	MCL	SD-1		SD-1 Duplicate	STPO	STPO Duplicate
Sodium								
Winter	mg/L	2	---	-		-	156	154
Spring	mg/L	2	---	-		-	154	-
Summer	mg/L	2	---	-		-	172	-
Fall	mg/L	2	---	3.73	B	3.55	-	-

See tables in Appendix D for explanation of data qualifiers.
- = Parameter not analyzed or not detected.
--- = No MCL.
DL= Detection Limit; Contract Required Quantitation Detection Limit.
F = Field data.
s = Secondary Drinking Water Standard.
MCL = California Maximum Contaminant Level (primary), Title 22, Division 4, Chapter 15.
a = Total Trihalomethanes MCL is the sum of bromoform, chloroform, bromodichloromethane, and dibromochloromethane.
# = USEPA MCL (no CA MCL)
p = Proposed USEPA MCL.

Table 5-7
LEHR Environmental Restoration
Summary of Detected Constituents in Surface Water and Stormwater Samples - 1996
General

Location	UNITS	DL	MCL	LS-1	LS-1 Duplicate	PCD	PCD Duplicate	PCU	PCU Duplicate
Specific Conductance (EC)									
Winter	umhos	-	---	1480	1480	453	-	296	-
Spring	umhos	-	---	-	-	298	298	218	-
Total Dissolved Solids									
Winter	mg/L	20	500s,#	-	-	310	-	200	-
Spring	mg/L	20	500s,#	-	-	-	-	130	-
Summer	mg/L	20	500s,#	-	-	260	-	-	230
Fall	mg/L	20	500s,#	100	-	450	-	390	-
Total Oil and Grease									
Fall	mg/L	-	---	0.21 IJ	-	-	-	-	-
Turbidity									
Winter	NTU	0.1	0.5,#	19	19	33	-	29	-
Spring	NTU	0.1	0.5,#	-	-	19	18.13	29	-
Summer	NTU	0.1	0.5,#	-	-	14	-	19	17
Fall	NTU	0.1	0.5,#	66 JhI	-	15	-	16	-

See tables in Appendix D for explanation of data qualifiers.
- = Parameter not analyzed or not detected.
--- = No MCL.
DL= Detection Limit; Contract Required Quantitation Detection Limit.
F = Field data.
s = Secondary Drinking Water Standard.
MCL = California Maximum Contaminant Level (primary), Title 22, Division 4, Chapter 15.
a = Total Trihalomethanes MCL is the sum of bromoform, chloroform, bromodichloromethane, and dibromochloromethane.
# = USEPA MCL (no CA MCL)
p = Proposed USEPA MCL.

Table 5-7
LEHR Environmental Restoration
Summary of Detected Constituents in Surface Water and Stormwater Samples - 1996
General

Location	UNITS	DL	MCL	SD-1		SD-1 Duplicate		STPO	STPO Duplicate
Specific Conductance (EC)									
Winter	umhos	-	---	-		-		787	787
Spring	umhos	-	---	-		-		592	-
Total Dissolved Solids									
Winter	mg/L	20	500s,#	-		-		610	570
Spring	mg/L	20	500s,#	-		-		180	-
Summer	mg/L	20	500s,#	-		-		320	-
Fall	mg/L	20	500s,#	140		50		610	400
Total Oil and Grease									
Fall	mg/L	-	---	0.27	IJ	-		-	-
Turbidity									
Winter	NTU	0.1	0.5,#	-		-		7.4	6.3
Spring	NTU	0.1	0.5,#	-		-		9.07	-
Summer	NTU	0.1	0.5,#	-		-		3.4	-
Fall	NTU	0.1	0.5,#	28.2	Jhl	27	Jhl	6.6	6.2

See tables in Appendix D for explanation of data qualifiers.
- = Parameter not analyzed or not detected.
--- = No MCL.
DL= Detection Limit; Contract Required Quantitation Detection Limit.
F = Field data.
s = Secondary Drinking Water Standard.
MCL = California Maximum Contaminant Level (primary), Title 22, Division 4, Chapter 15.
a = Total Trihalomethanes MCL is the sum of bromoform, chloroform, bromodichloromethane, and dibromochloromethane.
# = USEPA MCL (no CA MCL)
p = Proposed USEPA MCL.

TABLE 6
Summary of New Detections and New Maximum Values
Winter Quarter 1996 Compared with Data from Previous 21 Quarters
LEHR Environmental Restoration

				Historical Data								
Parameter Class	Parameter	MCL	Location	Number of Results	Detects	Mean	Previous Maximum	Date of Previous Max	Units	New Maximum Concentration		New Detection
Cations and Anions	Calcium		STPO	33	33	17.93	22.10	31-Aug-95	mg/L	23.7		
	Calcium		UCD1-18	20	20	36.08	46.10	23-May-95	mg/L	53.5		
	Magnesium		STPO	33	33	21.08	23.70	19-Nov-92	mg/L	29.9		
	Magnesium		UCD1-10	18	18	160.97	188.00	18-May-94	mg/L	189		
	Magnesium		UCD1-11	17	17	109.75	127.00	17-May-95	mg/L	128		
	Magnesium		UCD1-18	20	20	89.53	112.00	23-May-95	mg/L	140		
	Nitrogen, Nitrate (as N)	10#	UCD1-18	21	21	11.70	23.00	30-Aug-95	mg/L	27		
	Nitrogen, Nitrate (as N)	10#	UCD1-21	22	22	46.11	57.00	28-Nov-94	mg/L	62	ID	
	Nitrogen, Nitrate (as N)	10#	UCD1-24	23	23	49.04	65.00	19-May-94	mg/L	80	ID	
	Sodium		UCD1-18	20	20	38.11	43.90	13-May-91	mg/L	50.8		
General Chemical	Total Dissolved Solids	500S,#	UCD1-22	24	24	555.25	630.00	30-Nov-93	mg/L	650		
Metals	Arsenic	50	UCD1-23	20	5	3.92	3.50	15-Feb-95	ug/L	4.2	Jd I*	
	Arsenic	50	UCD2-7	19	5	3.61	3.50	2-Dec-93	ug/L	4.4	Jd I*	
	Barium	1000	UCD1-18	20	18	124.45	188.00	23-May-95	ug/L	226		
	Chromium, Hexavalent (+6)		UCD1-10	20	20	58.50	80.00	24-May-93	ug/L	81		
	Cobalt		UCD1-10	18	-	-	-	-	ug/L	1.2	IB	Y
	Cobalt		UCD1-12	16	1	8.56	1.90	23-Feb-95	ug/L	2.2	IB	
	Cobalt		UCD1-23	20	-	-	-	-	ug/L	1.5	IB	Y
	Copper	1000S	UCD1-20	19	5	7.45	3.70	30-Nov-93	ug/L	4.1	Up IB	
	Copper	1000S	UCD1-21	22	6	7.39	2.60	25-Aug-93	ug/L	3	Up IB	
	Copper	1000S	UCD1-23	20	6	7.65	3.10	30-Nov-93	ug/L	5.1	Up IB	
	Lead	50	UCD1-18	20	1	1.05	1.00	31-Oct-90	ug/L	1.3	IB	
Radionuclides	Cobalt-60		UCD1-24	6	-	-	-	-	pCi/L	4		Y
	Radium-226	5	UCD1-4	7	1	0.16	0.56	17-May-94	pCi/L	0.7		
Semivolatile Organics	Bis(2-Ethylhexyl)phthalate	4	PCU	25	11	3.17	13.00	24-Aug-93	ug/L	21		
	Bis(2-Ethylhexyl)phthalate	4	STPO	30	17	3.80	13.30	19-Nov-92	ug/L	21		
Volatile Organics	Bromoform	a	PCD	25	-	-	-	-	ug/L	1.2		Y
	Bromoform	a	STPO	32	2	1.66	2.90	12-Dec-95	ug/L	3.5		
	Methylene Chloride	5	PCD	25	5	1.30	3.00	26-Feb-92	ug/L	3.3		

Note: Results for new wells and manganese have not been included in this table due to limited number of data points.
See tables in Appendix D for explanation of data qualifiers.
MCL = Maximum Contaminant Level (primary), Title 22, Division 4, Chapter 15.
--- = MCL not established
- = Not applicable
a = MCL for total trihalomethanes is 100 ug/L. Chloroform is the predominant trihalomethane detected at LEHR.
# = USEPA MCL
S = Secondary Drinking Water Standard

TABLE 6
Summary of New Detections and New Maximum Values
Spring Quarter 1996 Compared with Data from Previous 22 Quarters
LEHR Environmental Restoration

				Historical Data							
Parameter Class	Parameter	MCL	Location	Number of Results	Detects	Mean	Previous Maximum	Date of Previous Max	Units	New Maximum Concentration	New Detection
Cations and Anions	Calcium	-	STPO	35	35	18.25	23.70	28-Feb-96	mg/L	24.9	
	Calcium	-	UCD2-16	25	25	33.89	38.80	23-Aug-95	mg/L	40.9 Jc |	
General Chemical	Total Dissolved Solids	500S,#	UCD2-16	25	25	465.28	603.00	14-May-91	mg/L	700	
Metals	Arsenic	50	UCD2-16	25	7	3.42	3.40	14-Feb-95	ug/L	4 Je |	
Radionuclides	Americium-241	-	PCD	9	2	0.02	0.04	12-Dec-95	pCi/L	0.051	
	Americium-241	-	PCU	8	2	0.02	0.04	29-Aug-94	pCi/L	0.039 | F	
	Americium-241	-	UCD2-14	8	1	0.01	0.04	29-Nov-95	pCi/L	0.046	
Volatile Organics	Acetone	-	UCD2-15	12	2	2.63	3.80	23-Nov-93	ug/L	4.7 Jc | J	
	Bromoform	a	STPO	34	4	1.76	3.50	28-Feb-96	ug/L	7.5	
	Dibromochloromethane	a	STPO	34	5	1.60	5.40	12-Dec-95	ug/L	9.1	
	Methylene Chloride	5	UCD1-4	15	-	-	-	-	ug/L	0.35 Jy | J	Y
	Trichloroethene	5	UCD1-13	21	-	-	-	-	ug/L	0.24 | J	Y

Note: Results for new wells, storm water, and manganese have not been included in this table due to limited number of data points.
See tables in Appendix D for explanation of data qualifiers.
MCL = Maximum Contaminant Level (primary), Title 22, Division 4, Chapter 15.
--- = MCL not established
- = Not applicable
a = MCL for total trihalomethanes is 100 ug/L. Chloroform is the predominant trihalomethane detected at LEHR.
S = Secondary Drinking Water Standard
# = USEPA MCL

TABLE 6

Summary of New Detections and New Maximum Values

Summer Quarter 1996 Compared with Data from Previous 23 Quarters

LEHR Environmental Restoration

Parameter Class	Parameter	MCL	Location	Historical Data						New Maximum Concentration		New Detection
				Number of Results	Detects	Mean	Previous Maximum	Date of Previous Maximum	Units			
Cations and Anions	Calcium	---	STPO	36	36	1.4458	24.9	5/29/96	mg/L	27.3		
	Calcium	---	UCD2-35	4	4	0.1075	37.2	11/30/95	mg/L	37.9		
	Nitrogen, Nitrate (as N)	10	UCD1-10	22	22	0.5946	37	5/20/96	mg/L	39	IH	
General Chemical	Total Dissolved Solids	500s,#	UCD2-35	4	4	0.0087	460	11/30/95	mg/L	710		
Metals	Iron	0.3s	UCD2-35	4	-	-	-	-	mg/L	0.26	Uol	Y
	Selenium	0.05	UCD2-14	26	-	-	-	-	mg/L	0.0031	JII	Y
Radionuclides	Americium-241	---	UCD1-22	6	-	-	-	-	pCi/L	0.036		Y
	Bismuth-214	---	UCD1-25	4	2	0.1042	19.2	11/29/95	pCi/L	21		
	Bismuth-214	---	UCD2-15	11	1	0.0794	12.6	5/23/94	pCi/L	44		
	Carbon-14	---	UCD1-13	22	22	0.0089	2464	2/25/92	pCi/L	7180		
	Carbon-14	---	UCD2-14	25	16	0.0100	1598	8/4/92	pCi/L	2030		
	Lead-214	---	UCD2-15	11	4	0.1429	28	5/18/95	pCi/L	31.2		
	Radium-226	5	PCU	17	2	7.6923	0.26	12/12/95	pCi/L	0.42		
	Radium-226	5	UCD1-20	12	2	6.4516	0.31	11/28/94	pCi/L	0.97		
	Radium-226	5	UCD1-34	5	1	5.2632	0.19	5/22/96	pCi/L	0.58		
	Tritium	20,000	UCD2-14	28	23	0.0028	8320	5/17/94	pCi/L	9550		
Volatile Organics	Chloroform	100a,#	UCD1-25	4	-	-	-	-	ug/L	1.7		Y

Note: Results for new wells and storm water have not been included in this table due to limited number of data points.

See tables in Appendix D for explanation of data qualifiers. Table includes results for field duplicate samples.

Proposed MCL for tritium is 60,000 pCi/L.

MCL = Maximum Contaminant Level (primary), Title 22, Division 4, Chapter 15.

--- = California MCL not established.

- = not applicable.

= USEPA MCL.

s = Secondary Drinking Water Standard

a = MCL for total trihalomethanes is 100 ug/L. Chloroform is the predominant trihalomethane detected at LEHR.

TABLE 6
Summary of New Detections and New Maximum Values
Fall Quarter 1996 Compared with Data from Previous 23 Quarters
LEHR Environmental Restoration

Parameter Class	Parameter	MCL	Location	Historical Data						New Maximum Concentration		New Detection
				Number of Results	Number of Detects	Mean	Previous Maximum	Date of Previous Maximum	Units			
Cations and Anions	Nitrogen, Nitrate (as N)	10	UCD1-10	23	23	29.722	39	9/19/96	mg/L	41		
Metals	Cobalt	---	UCD2-16	27	15	0.0002	0.0013	9/17/96	mg/L	0.0017	IB	
Radionuclides	Americium-241	---	STPO	12	3	0.0363	0.037	2/28/96	pCi/L	0.052		
	Bismuth-214	---	UCD1- 4	9	4	12.85	12.9	8/24/95	pCi/L	18.4	Jzl	
	Carbon-14	---	PCD	15	2	47.5	15	8/31/95	pCi/L	80		
Volatile Organics	Acetone	---	UCD1-12	14	2	1.75	2.4	8/28/95	ug/L	12	Jcl	
	Trichloroethene	5	UCD1-13	23	13	0.0338	0.24	5/21/96	ug/L	0.3	IJ	

Note: Results for new wells and storm water have not been included in this table due to limited number of data points.
See tables in Appendix D for explanation of data qualifiers. Table includes results for field duplicate samples.
MCL = Maximum Contaminant Level (primary), Title 22, Division 4, Chapter 15.
--- = California MCL not established.
- = not applicable.
** = proposed MCL for tritium is 60,000 pCi/L.

TABLE 6A
Summary of New Detections and New Maximum Values for New Wells
UCD1-25, UCD1-34, UCD2-26, UCD2-35, and UCD1/2-27Z
Fall Quarter 1996 Compared with Data from Previous 23 Quarters
LEHR Environmental Restoration

Parameter Class	Parameter	MCL	Location	Historical Data						New Maximum Concentration		New Detection
				Number of Results	Number of Detects	Mean	Previous Maximum	Date of Previous Maximum	Units			
Cations and Anions	Alkalinity, Total (as CaCO3)	---	UCD1-27Z3	4	4	342.75	500	9/10/96	mg/L	580		
	Alkalinity, Total (as CaCO3)	---	UCD2-27Z4	3	3	230.33	350	9/10/96	mg/L	360		
	Ammonia Nitrogen	---	UCD1-27Z3	4	4	0.41	0.57	5/16/96	mg/L	0.63	JdlN	
	Nitrogen, Nitrate (as N)	10	UCD2-27Z4	4	4	1.553	3.9	9/10/96	mg/L	4.5		
	Nitrogen, Nitrate (as N)	10	UCD2-27Z6	4	4	1.5783	2.6	9/5/96	mg/L	2.8		
	Nitrogen, Nitrate (as N)	10	UCD2-27Z7	3	3	1.7	2	9/4/96	mg/L	2.2		
	Phosphate, Total (as P)	---	UCD2-27Z7	2	2	0.073	0.088	9/4/96	mg/L	0.091		
	Sulfate	0.25-0.6s	UCD1-27Z3	4	3	28	35	9/10/96	mg/L	39	Jhl	
	Sulfate	0.25-0.6s	UCD2-27Z4	3	2	36.5	37	5/16/96	mg/L	38		
	Total Kjeldahl Nitrogen	---	UCD1-25	3	1	0.23	0.23	9/11/96	mg/L	2		
General Chemical	Total Dissolved Solids	500s,#	UCD1-27Z3	5	5	400	580	9/10/96	mg/L	680		
	Total Dissolved Solids	500s,#	UCD2-26	4	4	345	420	12/4/95	mg/L	590		
	Total Dissolved Solids	500s,#	UCD2-27Z5	5	5	408	450	12/8/95	mg/L	570	Uxl	
	Total Dissolved Solids	500s,#	UCD2-27Z6	4	4	310	440	12/8/95	mg/L	540	Uxl	
	Total Dissolved Solids	500s,#	UCD2-27Z7	3	3	450	460	9/4/96	mg/L	640	Uxl	
	Total Organic Carbon	---	UCD1-34	3	3	1.0533	1.2	9/11/96	mg/L	1.4		
	Total Organic Carbon	---	UCD2-26	2	2	0.625	0.68	2/26/96	mg/L	0.74	IB	
	Total Organic Carbon	---	UCD2-27Z6	2	1	0.49	0.49	5/15/96	mg/L	1		
	Total Organic Carbon	---	UCD2-27Z7	1	1	0.43	0.43	5/14/96	mg/L	0.96		
	Turbidity	0.5,#	UCD1-27Z3	1	1	24	24	9/10/96	NTU	34		
	Turbidity	0.5,#	UCD2-26	1	1	0.05	0.05	9/11/96	NTU	0.51		
	Turbidity	0.5,#	UCD2-27Z4	1	1	0.39	0.39	9/10/96	NTU	0.59	Uxl	
	Turbidity	0.5,#	UCD2-27Z5	1	1	0.59	0.59	9/9/96	NTU	0.72	Uxl	
	Turbidity	0.5,#	UCD2-27Z7	1	1	0	0	9/4/96	NTU	0.95	Uxl	

See tables in Appendix D for explanation of data qualifiers. Table includes results for field duplicate samples.
MCL = Maximum Contaminant Level (primary), Title 22, Division 4, Chapter 15.
--- = California MCL not established.
- = not applicable.
** = proposed MCL for tritium is 60,000 pCi/L.

TABLE 6A
Summary of New Detections and New Maximum Values for New Wells
UCD1-25, UCD1-34, UCD2-26, UCD2-35, and UCD1/2-27Z
Fall Quarter 1996 Compared with Data from Previous 23 Quarters
LEHR Environmental Restoration

Parameter Class	Parameter	MCL	Location	Historical Data						New Maximum Concentration		New Detection
				Number of Results	Detects	Mean	Previous Maximum	Date of Previous Maximum	Units			
Metals	Barium	1	UCD1-25	4	4	0.2245	0.261	2/22/96	mg/L	0.275		
	Barium	1	UCD1-34	4	4	0.0722	0.1	9/11/96	mg/L	0.117		
	Barium	1	UCD2-27Z4	4	3	0.1177	0.14	9/10/96	mg/L	0.142		
	Barium	1	UCD2-27Z5	5	4	0.1428	0.16	9/9/96	mg/L	0.161		
	Calcium	---	UCD1-27Z3	5	5	30.712	41.9	9/10/96	mg/L	42.8		
	Calcium	---	UCD2-27Z4	4	4	24.34	35.6	9/10/96	mg/L	36.8		
	Calcium	---	UCD2-27Z6	4	4	27.137	36.4	9/5/96	mg/L	37.4		
	Chromium	0.05	UCD1-27Z3	5	3	0.0031	0.0035	9/10/96	mg/L	0.0049	IB	
	Chromium	0.05	UCD2-27Z4	4	3	0.0075	0.017	9/10/96	mg/L	0.0173	Uxl	
	Chromium	0.05	UCD2-27Z6	4	3	0.0098	0.015	9/5/96	mg/L	0.0159	Uxl	
	Chromium	0.05	UCD2-27Z7	3	3	0.0049	0.0064	9/5/96	mg/L	0.0107	Uxl	
	Chromium, Hexavalent (+6)	---	UCD2-26	4	4	0.0135	0.021	9/11/96	mg/L	0.027		
	Chromium, Hexavalent (+6)	---	UCD2-27Z4	3	1	0	0	5/16/96	mg/L	0.014	IB	
	Chromium, Hexavalent (+6)	---	UCD2-27Z5	4	3	0.005	0.009	5/15/96	mg/L	0.016	IB	
	Chromium, Hexavalent (+6)	---	UCD2-27Z6	3	2	0.0045	0.009	5/15/96	mg/L	0.013	IB	
	Chromium, Hexavalent (+6)	---	UCD2-27Z7	2	1	0	0	5/14/96	mg/L	0.008	IB	
	Magnesium	---	UCD1-27Z3	5	4	66.825	77.5	9/10/96	mg/L	83.3		
	Magnesium	---	UCD2-27Z4	4	3	65.633	68.9	9/10/96	mg/L	69.3		
	Manganese	0.05s	UCD1-27Z3	4	4	1.1978	1.6	9/10/96	mg/L	1.71		
	Molybdenum	---	UCD1-27Z3	5	4	0.0038	0.0058	9/10/96	mg/L	0.0068	IB	
	Nickel	0.1	UCD2-35	4	4	0.0064	0.0092	11/30/95	mg/L	0.0155	IB	
	Sodium	---	UCD1-27Z3	5	5	62.378	92.6	9/10/96	mg/L	95		
	Vanadium	---	UCD2-26	4	3	0.0076	0.0085	9/11/96	mg/L	0.0099	IB	
	Vanadium	---	UCD2-27Z6	4	3	0.0079	0.0095	9/5/96	mg/L	0.0096	IB	
	Vanadium	---	UCD2-27Z7	3	3	0.0059	0.0072	9/5/96	mg/L	0.0092	IB	
	Zinc	5s	UCD1-27Z3	5	4	0.0087	0.012	9/10/96	mg/L	0.0223	Upl	

See tables in Appendix D for explanation of data qualifiers. Table includes results for field duplicate samples.
MCL = Maximum Contaminant Level (primary), Title 22, Division 4, Chapter 15.
--- = California MCL not established.
- = not applicable.
** = proposed MCL for tritium is 60,000 pCi/L.

TABLE 6A
Summary of New Detections and New Maximum Values for New Wells
UCD1-25, UCD1-34, UCD2-26, UCD2-35, and UCD1/2-27Z
Fall Quarter 1996 Compared with Data from Previous 23 Quarters
LEHR Environmental Restoration

				Historical Data								
Parameter Class	Parameter	MCL	Location	Number of Results	Number of Detects	Mean	Previous Maximum	Date of Previous Maximum	Units	New Maximum Concentration		New Detection
Semivolatile Organics	Bis(2-Ethylhexyl)phthalate	---	UCD1-34	3	2	0.725	0.94	5/22/96	ug/L	3.5	UzlJB	
	Bis(2-Ethylhexyl)phthalate	---	UCD2-35	3	1	12	12	11/30/95	ug/L	33	IB	
Volatile Organics	Chloroform	100a,#	UCD2-27Z5	7	6	35.167	67	2/28/96	ug/L	72	Uxl	
	Methylene Chloride	5	UCD2-27Z4	3	3	0.65	1	12/7/95	ug/L	1.1	UxlJ	

See tables in Appendix D for explanation of data qualifiers. Table includes results for field duplicate samples.
MCL = Maximum Contaminant Level (primary), Title 22, Division 4, Chapter 15.
--- = California MCL not established.
- = not applicable.
** = proposed MCL for tritium is 60,000 pCi/L.

Table 7
Summary of Monitoring Wells Included in the Ground Water Monitoring Program

Well Number	Total Depth (feet bgs)	Screened Interval (feet bgs)	HSU	Date Completed
UCD1-1	56.5	46.5 - 56.5	First	10/09/87
UCD1-2		Abandoned		
UCD1-3	51.5	39-49	First	10/23/87
UCD1-4	57.2	45 - 55	First	10/14/87
UCD1-5	48.5	38-48	First	10/22/87
UCD1-6	52.5	40-50	First	10/21/87
UCD2-7	90	80 - 90	Second	11/05/87
UCD1-8	56	43.5-53.5	First	11/04/87
UCD1-9	551.5	40-50	First	11/03/87
UCD1-10	70	54 - 69	First	10/11/89
UCD1-11	66.5	50 - 65	First	10/17/89
UCD1-12	65	49.5 - 64.5	First	10/19/89
UCD1-13	65	50 - 65	First	10/26/89
UCD2-14	85	75 - 85	Second	11/15/89
UCD2-15	120.5	91 - 116	Second	03/28/90
UCD2-16	122	82 - 117	Second	04/04/90
UCD2-17	143	88 - 113	Second	04/10/90
UCD1-18	70	54 - 69	First	10/04/90
UCD1-19	74.5	56.5 - 71.5	First	10/01/90
UCD1-20	73	57 - 72	First	10/09/90
UCD1-21	73	57 - 72	First	10/11/90
UCD1-22	73	57 - 72	First	10/25/90
UCD1-23	73	56.5 - 71.5	First	10/17/90
UCD1-24	73	56 - 72	First	10/22/90
UCD1-25	775	60-75	First	10/06/95
UCD2-26	102	87-102	Second	10/06/95
UCD2-27	136	Westbay	Zoned	10/06/95
UCD1-34	80	61-76	First	10/06/95
UCD2-35	130	107-122	First	10/06/95

HSU = Hydrostratigraphic Unit
bgs = below ground surface

Table 8

Ground Water Elevation Data, Spring 1995 Through Fall 1996

Well Number	Spring 1995	Summer 1995	Fall 1995	Winter 1996	Spring 1996	Summer 1996	Fall 1996
UCD1-1	17.13	3.78	11.65	21.30	16.47	7.06	
UCD1-3	17.90	3.06	11.23	21.13	16.70	6.27	
UCD1-4	19.10	4.37	12.07	22.15	18.45	7.42	13.9
UCD1-5	17.74	3.33	10.52	21.10	16.62	6.94	
UCD1-6	17.88	3.80	11.62	22.31	16.76	6.93	
UCD2-7	15.70	3.41	11.41	21.00	14.14	6.33	
UCD1-8	18.46	2.84	10.97	-	18.41	6.14	
UCD1-9	18.00	dry	10.96	20.38	17.37	5.88	
UCD1-10	15.59	1.45	9.46	20.62	12.82	4.75	12.52
UCD1-11	16.66	2.37	10.81	20.16	15.16	5.62	
UCD1-12	17.89	2.31	10.94	20.36	17.22	5.86	12.84
UCD1-13	18.49	2.91	11.01	20.35	18.40	6.22	12.71
UCD2-14	15.03	3.23	11.24	20.88	13.72	6.07	13.05
UCD2-15	16.28	4.07	11.77	21.19	14.80	6.90	13.66
UCD2-16	16.01	3.85	11.63	21.15	14.75	6.77	13.3
UCD2-17	16.90	4.83	12.19	21.48	15.69	7.59	
UCD1-18	19.39	5.08	12.28	22.41	18.64	7.97	
UCD1-19	17.13	2.52	10.99	20.23	16.37	5.84	12.65
UCD1-20	17.87	3.11	11.23	21.14	16.68	6.30	
UCD1-21	17.79	3.40	10.41	21.10	16.65	6.48	
UCD1-22	17.72	3.79	11.78	21.31	16.73	7.00	
UCD1-23	18.72	4.05	11.93	21.94	17.97	7.26	
UCD1-24	17.93	3.34	11.33	-	17.07	6.45	
UCD1-25			10.50	19.80	14.09	5.13	12.73
UCD2-26			10.79	20.54	12.37	5.26	12.85
UCD1-34			11.98	22.42	18.19	7.59	13.76
UCD2-35			11.35	21.03	14.10	6.36	13.2