Comparative Study of Ground-Water Quality, 1976 and 1996, and Initial Gain-and-Loss Assessment of Boulder Creek, Boulder County, Colorado

By Breton W. Bruce, U.S. Geological Survey
and Christopher O'Riley, City of Boulder, Colorado

U.S. GEOLOGICAL SURVEY

Water-Resources Investigations Report 97–4091

Prepared in cooperation with the

BOULDER COUNTY HEALTH DEPARTMENT, and the
CITY OF BOULDER, COLORADO

Denver, Colorado
1997

U.S. DEPARTMENT OF THE INTERIOR
BRUCE BABBITT, Secretary

U.S. GEOLOGICAL SURVEY
Gordon P. Eaton, Director

For additional information write to:

District Chief
U.S. Geological Survey
Box 25046, Mail Stop 415
Denver Federal Center
Denver, CO 80225-0046

Copies of this report can be purchased from:

U.S. Geological Survey
Branch of Information Services
Box 25286
Denver, CO 80225-0286

CONTENTS

FIGURES

TABLES

CONVERSION FACTORS AND ABBREVIATIONS

Multiply	By	To obtain
cubic foot per second (ft^3/s)	0.02832	cubic meter per second
foot (ft)	0.3048	meter
micrometer (μm)	3.937×10^{-5}	inch
mile (mi)	1.609	kilometer
picocurie per liter (pCi/L)	0.3125	tritium units (TU)

Degree Celsius (°C) may be converted to degree Fahrenheit (°F) by using the following equation:

$$°F = 9/5\ (°C)+32.$$

ACRONYMS AND ADDITIONAL ABBREVIATIONS:

maximum contaminant level (MCL)

microgram per liter (μg/L)

milligram per liter (mg/L)

milliliter (mL)

method reporting limit (MRL)

U.S. Geological Survey National Water-Quality Laboratory (NWQL)

secondary maximum contaminant level (SMCL)

Sea level: In this report "sea level" refers to the National Geodetic Vertical Datum of 1929 (NGVD of 1929)—a geodetic datum derived from a general adjustment of the first-order level nets of both the United States and Canada, formerly called Sea Level Datum of 1929.

Comparative Study of Ground-Water Quality, 1976 and1996, and Initial Gain-and-Loss Assessment of Boulder Creek, Boulder County, Colorado

By Breton W. Bruce *and* Christopher O'Riley

Abstract

From 1975 through 1977, the U.S. Geological Survey, in cooperation with the Boulder County Health Department and the Colorado Geological Survey, sampled numerous surface-water and ground-water sites throughout Boulder County, Colorado. In 1996, the U.S. Geological Survey, in cooperation with the Boulder County Health Department and the City of Boulder, identified and resampled 30 of the same wells sampled in the earlier study. Data from the two study periods are compared in this report.

The range and median concentrations of dissolved solids in the samples were very similar between the two study periods; however, the median concentration of sulfate decreased significantly in the 1996 study compared to the 1975–77 study, and the median concentration of chloride increased. Overall, nitrate concentrations were less in 1996, though, if considering only wells in the mountainous part of Boulder County, there was an apparent increase in nitrate concentrations in the 1996 study. Nitrate concentrations for wells in the plains part of the study area decreased significantly in the 1996 study.

Comparison of trace-element concentrations was problematic owing to the limited number of constituents measured in the 1975–77 study, changes in analytical method reporting limits, and possible differences in sampling techniques. Coliform bacteria were detected in 8 of 29 samples collected in 1996 compared to only one detection in the 1975–77 study. Pesticides and volatile organic compounds were analyzed during the 1996 study but not in the 1975–77 study. Several pesticides and volatile organic compounds were detected; all detections were in samples from the plains part of Boulder County.

A surface-water gain-and-loss study was done on October 24, 1996, to quantify the volume of water exchange between the surface-water and ground-water systems along the urban reach of Boulder Creek. Overall, the stream reach had a net gain in surface-water flow, with the majority of ground-water discharge to the stream occurring in downstream segments.

INTRODUCTION

Rapid growth along the eastern edge of the Rocky Mountains in Colorado has caused concern about the effect on water supply and water quality in the Front Range mountain communities and the Front Range urban corridor on the plains. It is generally accepted that the overlying land use can have direct effects on the quality of ground water and that ground water eventually discharges to surface-water streams and lakes. Consequently, surface-water quality is related to the quality of discharging ground water and overland runoff. Only recently have networks of wells been established to monitor trends in ground-water quality. Very little historical data are available that describe broad-scale ground-water quality in Colorado. Boulder County, Colo., is one exception. From July 1975 through July 1977, the U.S. Geological Survey (USGS), in cooperation with the Boulder County Health Department and the Colorado Geological Survey, performed a comprehensive

water-resources investigation of Boulder County, which included water-quality sampling of 102 wells, 9 springs, and 34 stream sites (Hall and others, 1979).

In 1996, the USGS, in cooperation with the Boulder County Health Department and the City of Boulder, located and resampled 30 of the same wells sampled in the 1975–77 water-quality study. This was done to compare water quality from the two study periods and to indicate differences between the two water-quality data sets collected about 20 years apart. Most of the wells are within the Boulder Creek drainage basin, which is the primary source of drinking water for the City of Boulder. The wells are a combination of private drinking-water wells and domestic wells primarily used for lawn irrigation.

It was recognized at the outset of the 1996 study that one water sample from a well does not necessarily describe the ambient water quality for that location. Only regular sampling over extended time periods (for example, 1 year or more) can begin to assess the overall trends in ground-water quality. Therefore, it would not be valid to identify trends in water quality on the basis of a comparison of analytical results from two sampling events in a single well. However, a statistically significant change in the median concentration of a single dissolved constituent for the entire population of 30 wells sampled in the two study periods is a more meaningful indication of a long-term trend in ground-water quality for the study area.

Purpose and Scope

This report presents the water-quality data collected during 1975–77 and 1996 and the statistically significant differences between the data sets where appropriate. This report also lists the results of analyses for anthropogenic constituents that were not measured during the 1975–77 study, hereinafter identified by the year 1976. Additionally, this report presents the measured data and calculated results of a streamflow gain-and-loss study in Boulder Creek through the urban corridor of the City of Boulder on October 24, 1996. This part of the study indicates stream segments that were gaining or losing flow volume through a hydrologic connection with the adjacent ground-water system. The gain-and-loss study was undertaken to demonstrate the value of this tool for quantifying ground-water/surface-water interactions.

Acknowledgments

The authors thank the numerous property owners who altered their schedules and made their wells available for sampling. The Boulder County Open Space Department was particularly helpful allowing access to wells on county property and acreage bordering Boulder Creek during the surface-water gain-and-loss study. Special thanks go to Ann Lukens of the Boulder County Health Department for her assistance in the field and with analysis and interpretation of the coliform bacteria samples, and to Brad Austin of the Colorado Department of Public Health and Environment for arranging the collection and analysis of pesticide samples in cooperation with the Colorado Department of Agriculture.

STUDY APPROACH

Initially, the wells targeted for resampling were chosen from Hall and others (1979) by a committee that included representatives from the USGS, Boulder County Health Department, and the City of Boulder. The wells selected were broadly distributed predominantly across the Boulder Creek drainage basin but focused on areas that were densely populated or had undergone substantial land-use changes during the last 20 years. Areas of substantial land-use change were identified by knowledgeable representatives from the cooperating agencies. Some wells initially selected no longer existed, or permission to sample could not be obtained. An iterative process led to the identification of 30 wells that had been sampled previously, and permission was obtained from the owners to resample them. The locations of the 30 wells sampled in 1996 are shown in figure 1. All wells had been sampled previously for a broad range of water-quality constituents including major ions, nutrients, trace elements, and coliform bacteria. In addition to these constituents, sampling during the 1996 study included pesticides, volatile organic compounds (VOC's, including some gasoline and fuel oil components, industrial solvents, and chlorination by-products), and several analyses for tritium, which can be used as a ground-water age-dating tool. All analyses were performed at the USGS National Water-Quality Laboratory (NWQL) in Arvada, Colo., with the exception of the bacteriological determinations performed by the Boulder County Health Department.

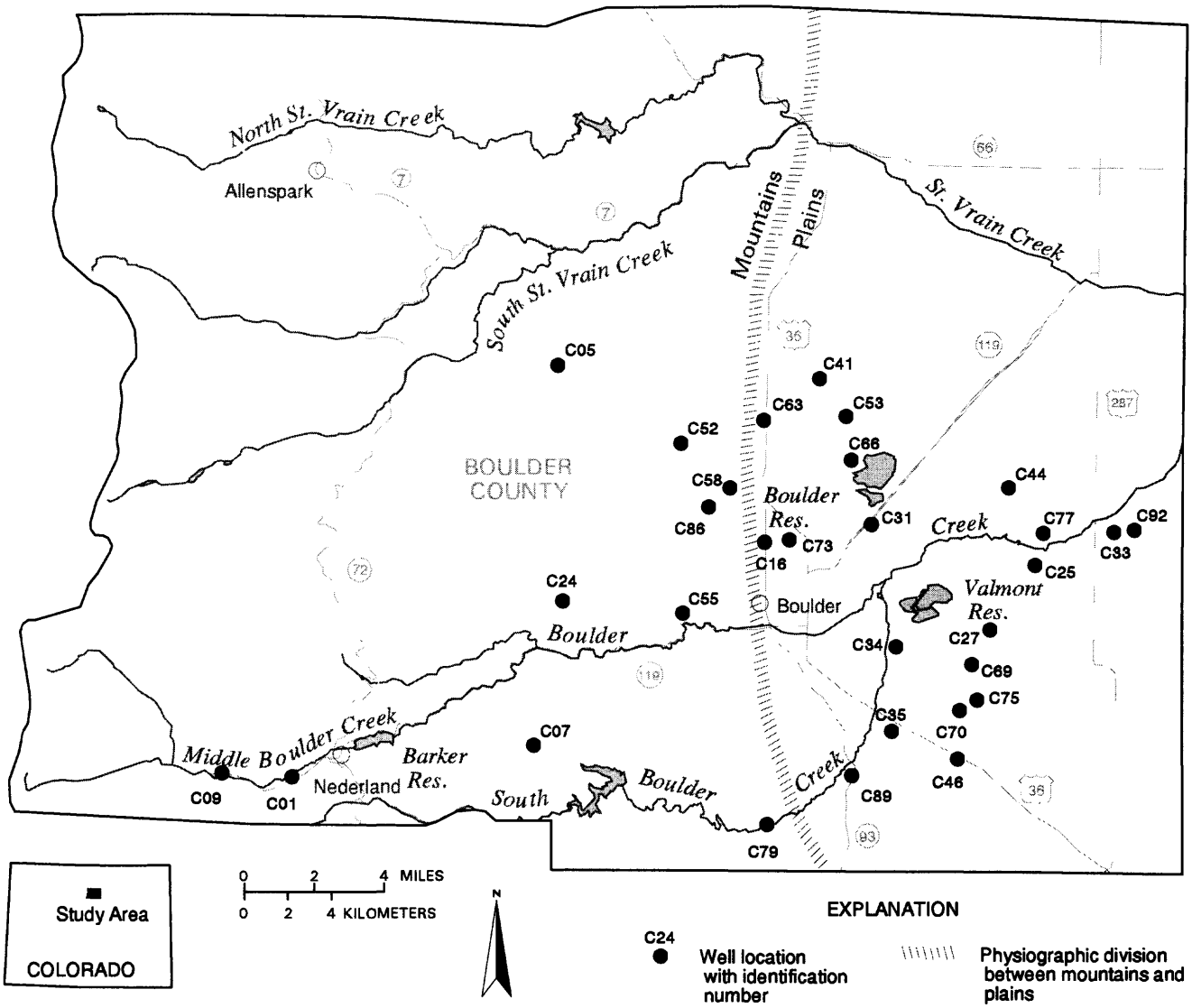

Figure 1. Location of study area and wells resampled in Boulder County in 1996.

Additionally, the Colorado Department of Public Health and Environment and the Colorado Department of Agriculture participated in the 1996 study by supplying pesticide analyses on all water samples. The pesticide analyses were done at the Colorado Department of Agriculture's laboratory in Denver, Colo.

A streamflow gain-and-loss study also was performed during the 1996 study period (October 24, 1996). This study focused on Boulder Creek from the mouth of Boulder Canyon (to the west) downstream through the City of Boulder to a point just upstream from the effluent discharge from the 75th Street wastewater-treatment plant (to the east). Discharge measurements were made on the main stem of Boulder Creek, and all major surface-water diversions and inflows to the creek were quantified. A mass balance of water volume in the stream was calculated, and any missing or excess water in the creek was attributed to a gain from or loss to ground water by the stream.

This report presents the results from the 1976 and the 1996 studies for all 30 wells sampled. Comparisons of the range and median concentrations for several constituents from both data sets are provided. VOC and pesticide detections are listed, and a summary of the tritium analyses is presented. Also presented are the results of the surface-water gain-and-loss study indicating the results of the mass balance calculations for each stream segment evaluated in Boulder Creek.

SAMPLING AND ANALYTICAL METHODS

Wells were sampled using the existing pumping systems, if possible, or by using a portable peristaltic pump. Where the existing pumping system was used, water was collected from an in-line access point as close to the well head as possible, usually at the drain valve at the base of the pressure tank. Wells initially were purged at the maximum rate possible through a standard garden hose. The flow then was split by diverting a small amount of water through a clean polyethylene tube to an enclosed flow-through chamber where pH, temperature, dissolved oxygen, and specific conductance were monitored. Once these measurements were stable (three similar readings at 5-minute intervals), water was collected for analysis. Filtered samples were passed through a 0.45-µm disposable capsule filter. Samples for nutrient, bacteria, pesticide, and VOC analyses were stored on ice until delivered to the laboratory. Samples for cation and trace-element analyses were preserved with 1 milliliter (mL) concentrated nitric acid (HNO_3). Samples for VOC analyses were preserved with 2–3 drops of concentrated hydrochloric acid (HCl). Samples for coliform bacteria analyses were delivered to the Boulder County Health Department at the end of each sampling day and were immediately processed.

Though most analyses compared in this report were performed at the USGS NWQL, analytical methodology has changed substantially between 1976 and 1996. Consequently, analytical sensitivity and method reporting limits (MRL's) also have changed. The MRL's for the analyzed inorganic constituents common to both studies are listed in table 1. For the purposes of data comparison in this report, nondetections have been set to a value of 0. No data comparisons have been made where results have large differences in MRL's or where a data set has numerous nondetections.

No records exist that detail the sampling technique used in the 1976 study. It was anticipated that different approaches to sample collection might affect analytical results. A listing of the analytical results for inorganic constituents from both studies is provided in Appendix A at the back of this report. The results for analyses of coliform bacteria, pesticides, and VOC's are listed in separate tables within the body of the report.

Table 1. Analytical method reporting limits, by year, for determinations of inorganic water-quality constituents

[Analyses performed at USGS National Water-Quality Laboratory, Arvada, Colorado; --, not measured; ?, could not ascertain]

Constituent	1976	1996	Constituent	1976	1996	Constituent	1976	1996
Major ions (in milligrams per liter)								
Calcium	0.1*	0.02	Magnesium	0.1*	0.01	Sodium	0.1*	0.2
Potassium	0.1*	0.1	Chloride	0.1*	0.1	Sulfate	0.5*	0.1
Fluoride	0.1*	0.1	Silica	0.1*	0.01			
Nutrients (in milligrams per liter) [nitrogen species as N; phosphate as PO_4]								
Ammonium	--	0.01	Nitrite	0.01	0.01	Ammonia plus organic nitrogen	--	0.2
Nitrite plus nitrate	0.1*	0.1	Phosphorus	--	0.01	Orthophosphate	0.03	0.03
Trace elements (in micrograms per liter)								
Arsenic	1	1	Barium	100	1	Beryllium	--	1
Cadmium	2	1	Chromium	--	1	Cobalt	--	1
Copper	2	1	Iron	10	3	Lead	2	1
Manganese	10	1	Molybdenum	1	1	Nickel	--	1
Silver	--	1	Zinc	20	1	Antimony	--	1
Aluminum	--	1	Selenium	1	1	Uranium	?	1

*Method reporting limits from Skougstad and others, 1979.

COMPARISON OF GROUND-WATER QUALITY BETWEEN THE 1976 AND 1996 STUDIES

Major Ions

Major ions in water samples are constituents that generally make up the bulk of the total dissolved species in water and include calcium (Ca), magnesium (Mg), sodium (Na), potassium (K), chloride (Cl), sulfate (SO_4), fluoride (F), and bicarbonate (HCO_3), which generally is the primary component of alkalinity. Alkalinity is reported as calcium carbonate ($CaCO_3$). Concentrations of major ions dissolved in ground water often result from natural processes such as rock/water interactions; however, human activities also can affect the concentrations of these constituents. An example would be the application of road salt producing increased chloride concentrations in nearby ground water. The minimum, maximum, and median concentrations for the major ions measured in ground water during the 1976 and 1996 studies are listed in table 2.

The concentration of the sum of dissolved solids in a water sample is a general indicator of water quality. Dissolved-solids concentrations are calculated from the total concentrations of measured major ions. The U.S. Environmental Protection Agency (USEPA) has set a national secondary maximum contaminant level (SMCL) for dissolved solids in drinking water of 500 mg/L (U.S. Environmental Protection Agency, 1996). Median concentrations for dissolved solids during the 1976 and 1996 studies were 486 and 523 mg/L, respectively (fig. 2). When compared statistically using the Wilcoxon signed-rank test (Helsel and Hirsch, 1995, p. 142–147) at the 95-percent

Table 2. Minimum, maximum, and median concentrations of selected constituents for wells sampled in 1976 and 1996 in Boulder County

[Concentrations in milligrams per liter, except as noted; Min, minimum concentration; Max, maximum concentration; Med, median concentration; <, less than; NA, not available; n/a, not applicable; *SMCL, secondary maximum contaminant level; *MCL, maximum contaminant level]

Constituent	Sampled 1975–77[1]			Sampled 1996			SMCL
	Min	Max	Med	Min	Max	Med	
Major Ions							
pH-laboratory (standard units)	NA	NA	NA	6.6	8.4	7.2	6.5-8.5
Hardness	15.2	1,952	270	11	220	245	n/a
Calcium	4.1	560	65.5	2.7	580	66	n/a
Magnesium	1.2	280	23.5	0.91	360	19.5	n/a
Sodium	2.5	480	39.5	1.5	350	33.5	n/a
Potassium	0.7	15	2.4	0.5	15	2.2	n/a
Chloride	0.8	42	10.3	0.4	150	15.5	250
Sulfate	7.1	1,700	92	2.6	2,000	49	250
Fluoride	0.2	43	0.55	0.1	4	0.65	2.0
Silica	9	31	15	7.3	37	15	n/a
Sum of dissolved solids	80	2,907	486	33	3,140	523	500
Bromide	NA	NA	NA	<0.01	4.4	0.12	n/a
Specific conductance	120	3,500	795	52	3,400	870	n/a
Alkalinity	32	1,030	248	21	762	242	n/a
Nutrients [nitrogen species as N; orthophosphate as PO_4]							
Nitrite	<0.01	0.05	<0.01	<0.01	0.05	<0.01	1 (MCL)
Nitrite plus nitrate	0.06	14	0.92	0.05	11	0.37	10 (MCL)
Orthophosphate	<0.03	2.27	0.03	<0.03	0.58	0.05	n/a
Phosphorus	NA	NA	NA	<0.01	0.49	<0.01	n/a

*From U.S. Environmental Protection Agency (1996).
[1] From Hall and others (1979).

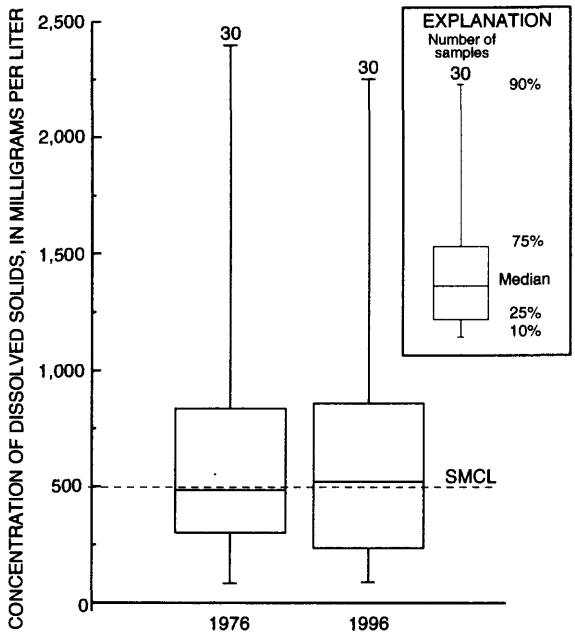

Figure 2. Dissolved-solids concentrations in ground-water samples collected during the 1976 and 1996 studies in Boulder County.

confidence interval, there was no significant difference ($p>0.05$) in the median concentrations for dissolved solids between the 1976 and 1996 studies. The median dissolved-solids concentrations calculated for wells in the mountainous part of Boulder County (1976 = 236 mg/L; 1996 = 244 mg/L) were lower than those for wells in the plains (1976 = 623 mg/L; 1996 = 578 mg/L); but, the median concentrations were very similar between the two study periods within each geographic setting.

There were, however, some substantial differences between 1976 and 1996 in median concentrations for individual major ions that comprise the calculated dissolved-solids concentrations. Whereas there was less than a 10-percent difference in median concentrations of most major ions between the two studies, the median concentration of sulfate decreased 47 percent between the 1976 and 1996 study periods (fig. 3). Sulfate concentration decreased in 20 of 30 paired samples from 1976 to 1996, and the Wilcoxon signed-rank test indicated a significant difference ($p<0.05$) in median concentration between the two sulfate data sets. This significant difference in median sulfate concentration could not be assigned to the mountain or to the plains wells and was only significant when all paired data were considered together.

Chloride also showed a large difference in median concentration, increasing about 50 percent

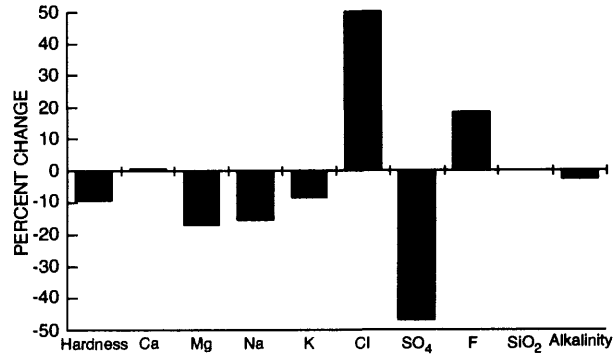

Figure 3. Percent change in median concentration of selected dissolved ions in Boulder County ground water between 1976 and 1996.

from 1976 to 1996. Chloride concentrations for the two study periods, plotted as x-y pairs (x = 1976, y = 1996), are shown on figure 4. Any pair with identical 1976/1996 concentrations would plot on a 1:1 ratio line. Figure 4 shows many points above the 1:1 ratio line, indicating that the chloride concentration measured in 1996 often was greater than that measured in 1976. This difference in chloride concentration could not be assigned to a statistically significant change in either the mountain or plains wells. Individual wells in both these settings had large increases in chloride concentration.

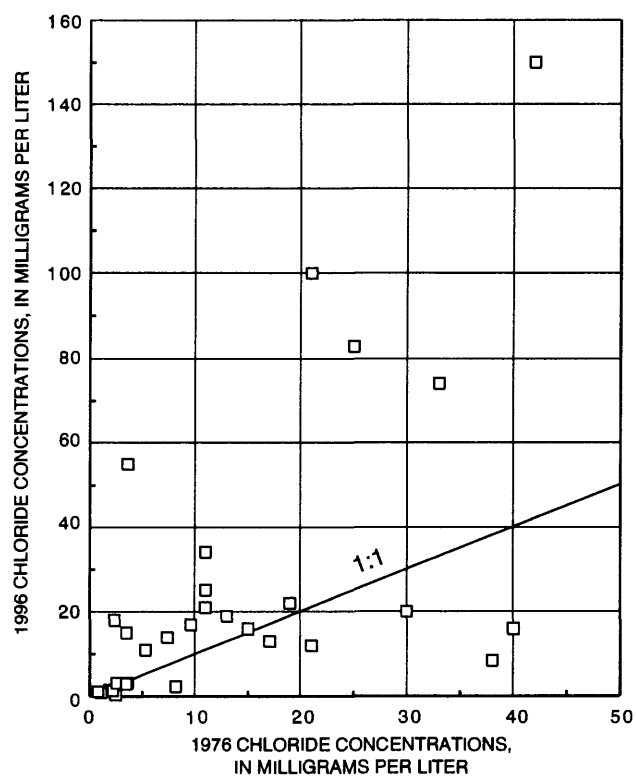

Figure 4. Paired chloride concentrations for wells sampled in 1976 and 1996 in Boulder County.

Nutrients

Nutrients include compounds of nitrogen and phosphorus that are important to biological metabolism. Of primary interest as pollutants are the compounds nitrate (associated with sewage and animal waste) and phosphate (associated with detergents and similar products). Each of these compounds can have a significant human source and can affect biomass growth in surface water. High concentrations of nitrate (NO_3) in drinking water also can result in detrimental human-health effects (U.S. Environmental Protection Agency, 1994). The USEPA has set a national drinking-water maximum contaminant level (MCL) for nitrate at 10 mg/L as nitrogen (U.S. Environmental Protection Agency, 1996).

Nitrite plus nitrate (NO_2+NO_3), as nitrogen, was measured in ground water during the 1976 and the 1996 studies. In both sets of data, the concentration of nitrite (NO_2) was so small (table 2) that the results for this analysis will hereinafter be referred to in this text as a nitrate (NO_3) concentration. Box plots of nitrate concentrations for the 1976 and the 1996 studies are shown in figure 5. The median concentration of nitrate decreased significantly ($p<0.05$) from 0.915 mg/L in 1976 to 0.365 mg/L in 1996. Four samples during the 1976 study had nitrate concentrations exceeding the 1996 MCL of 10 mg/L nitrate as nitrogen (maximum concentration was 14 mg/L). One sample collected during the 1996 study had a nitrate concentration (11 mg/L) larger than the 10-mg/L MCL.

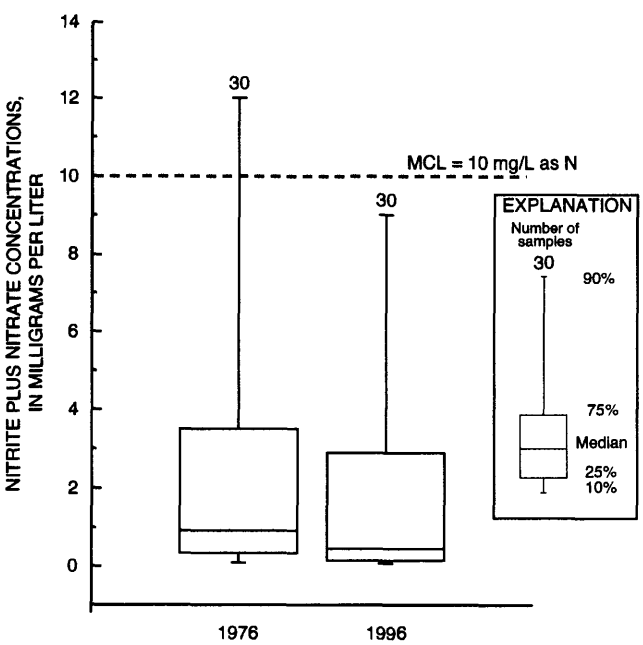

Figure 5. Nitrite plus nitrate, as nitrogen, concentrations for wells sampled in 1976 and 1996 in Boulder County.

Box plots showing nitrate concentrations for the 1976 and 1996 studies, divided into mountain (10 wells) and plains (20 wells) samples, are shown in figure 6. Though differences in median nitrate concentrations between the two study periods for the mountain wells (fig. 6*A*) were not statistically significant ($p>0.05$), a slight increase in concentration is suggested by the difference in the 75th-percentile values. The lack of a significant difference in nitrate concentrations for the mountain wells may be an artifact of the small sample size, which limits the statistical discrimination. There was a significant decrease ($p<0.05$) in nitrate concentrations from 1976 to 1996 for wells sampled in the plains setting.

Concentrations of dissolved phosphorus and orthophosphate generally are low in ground water that is not contaminated. This low concentration mainly is due to the low solubility of most inorganic phosphorus compounds and their use by biota as a nutrient (Hem, 1989, p. 126). Median concentrations for nutrient species common to the 1976 and the 1996 study periods are listed in table 2. These data indicate that the concentrations of phosphorus species were low as expected. There was no statistical difference ($p>0.05$) between median concentrations of dissolved orthophosphate (PO_4) between the two studies.

Trace Elements

Trace elements are a class of constituents, including metals and other inorganics, that generally occur in natural water at trace concentrations less than 1 mg/L. In 1976, 10 trace elements were analyzed in each water sample. Eighteen trace elements were analyzed in the 1996 samples. Comparison of trace-element results between the two study periods was further limited by differences in analytical MRL's. One example of this difference was for barium. The MRL for barium in 1976 was 100 µg/L; in 1996 the MRL was 1 µg/L. In 1996, 23 of 30 water samples had barium concentrations that were less than 100 µg/L. It is not meaningful to compare the median concentration for 1976 (<100 µg/L) to the median concentration for 1996 (44.5 µg/L). The MRL's for all trace elements are listed in table 1.

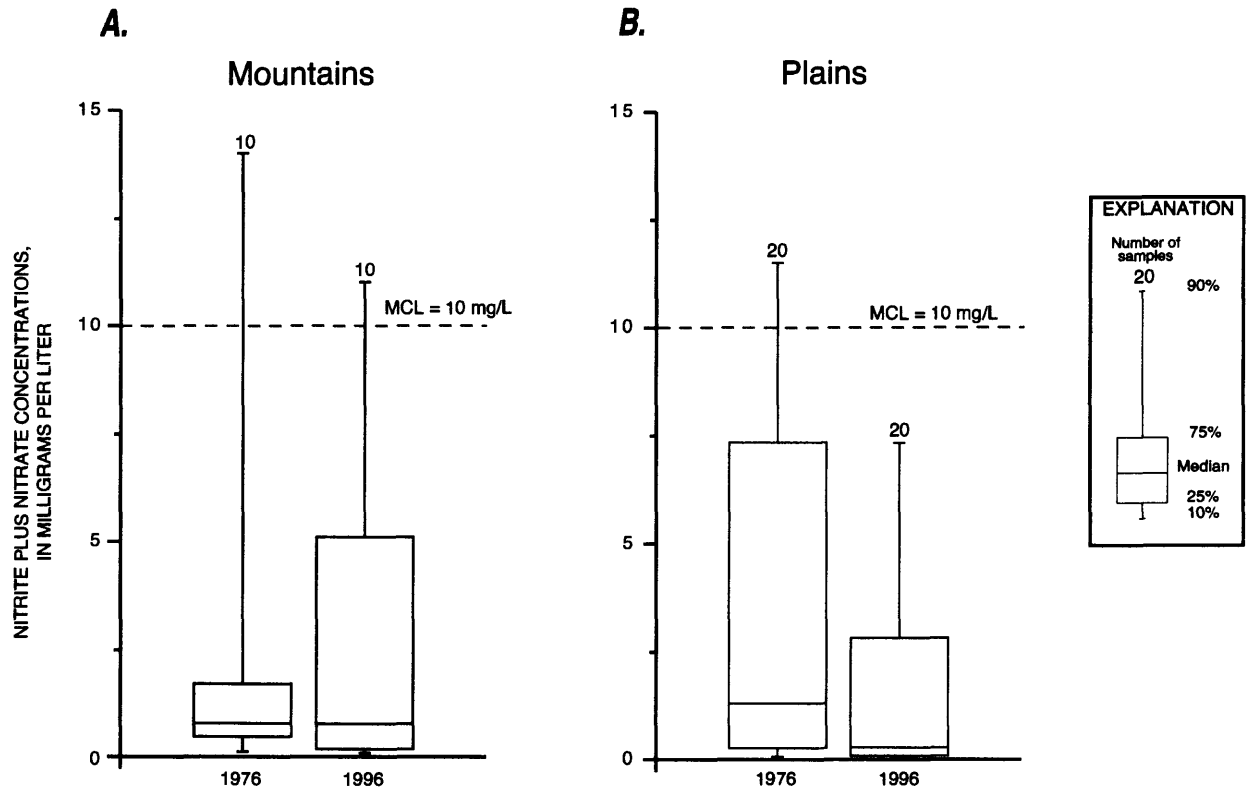

Figure 6. Nitrite plus nitrate, as nitrogen, concentrations for wells sampled in 1976 and 1996 in the *A.* mountain and *B.* plains settings in Boulder County.

Values reported for other trace-element concentrations may have been affected by sampling technique. No historical description detailing the sampling approach in 1976 is available; however, the few landowners that remembered the 1976 sampling indicated that samples were collected from the inside faucet or outside tap with the easiest access. In 1996, samples were collected as close as possible to the wellhead. Sampling close to the wellhead minimizes the amount of plumbing in contact with the water sample. An example of how the sampling technique might have affected the analytical results of selected constituents is illustrated in figure 7. The median concentrations from the two study periods for several metals commonly used in well and plumbing materials are shown in figure 7. These metals all exhibited a decrease in median concentration from 1976 to 1996. The decrease in plumbing-related metal concentrations shown in figure 7 was larger than 70 percent with the exception of lead. However, in 1976, 23 of 30 samples had detectable lead (MRL = 2 µg/L); in 1996 only 3 of 30 samples had measurable lead concentrations (MRL = 1 µg/L). The change in sampling technique may explain the decrease in plumbing-related metal concentrations.

By contrast, trace elements that had similar MRL's and that were expected to be derived solely from natural sources (for example, arsenic, molybdenum, selenium, and uranium) exhibited very similar concentrations in 1976 and 1996. Of these constituents, only uranium exhibited elevated concentrations and may be a potential water-quality concern. The USEPA has proposed a drinking-water MCL for uranium of 20 µg/L (U.S. Environmental Protection Agency, 1996). In 1976, 8 of 30 wells had reported uranium analyses. Six of 30 wells in the 1996 sampling exceeded the proposed 20-µg/L MCL for uranium. Three of these wells were in the mountain setting, and three were in the plains setting. Uranium concentrations in excess of the proposed drinking-water standard have been measured throughout the South Platte River Basin (Qi and Dennehy, 1997). Should the proposed MCL for uranium be finalized, the use of water with elevated concentrations will be affected.

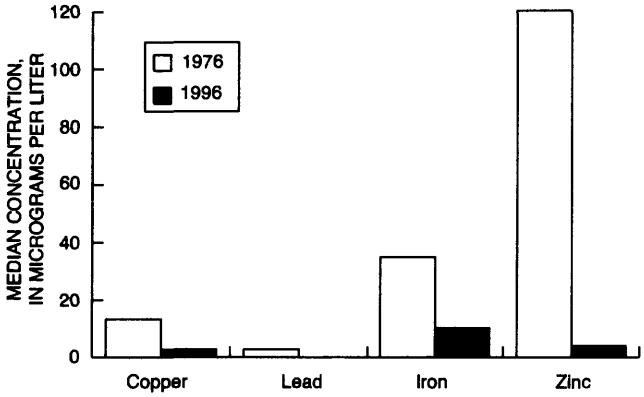

Figure 7. Comparison of median concentrations for plumbing-related metals from wells sampled in 1976 and 1996 in Boulder County.

Bacteriological Analyses

Measurements of bacteria in water samples collected in 1996 and analyzed by the Boulder County Health Department indicated the presence or absence of coliform, fecal coliform, and noncoliform bacteria. Coliform bacteria, the common species being *Escherichia coli (E. coli)*, occur in large numbers in the intestines of warmblooded animals, and their presence in water supplies is considered an indication of fecal pollution. Though coliform bacteria are not directly harmful to humans, the presence of coliform bacteria in water suggests the possibility of pathogenic bacteria also being present.

Of 30 wells sampled in Boulder County in the 1976 study, only one sample had detectable coliform bacteria (table 3). In the 1996 study, 8 of 29 wells had detectable coliform bacteria (1 of the 30 wells sampled had an invalid sample with no culture growth). Of these eight wells, five had fecal coliform identified. Again, as with some of the other constituents compared after a 20-year time period, it is difficult to make a confident comparison regarding the presence or absence of bacteria in the water samples. The bacteriological analyses for the two study periods were performed by separate laboratories, and it is possible that the methods for collecting and culturing bacteriological samples have changed over the last 2 decades.

Pesticides

Pesticides were analyzed in ground-water samples collected only in 1996. The presence of pesticides in these water samples is evidence of anthropogenic effects on ground-water quality. All pesticides (46 compounds) analyzed in each sample and the MRL for each compound are listed in table 4. Four of the 30 wells sampled had detectable pesticides. These four wells and the pesticide compounds detected are listed in table 5. Atrazine is a herbicide used to control broad-leaved weeds and grasses. Atrazine most commonly is applied to corn in agricultural settings but may have limited use by licensed applicators in urban settings to control weeds along roadways and around parking lots and other commercial or industrial facilities. Deethylatrazine is a breakdown product of atrazine. Prometon is a nonselective herbicide generally used as a soil sterilant. If properly applied, prometon is advertised to allow no vegetation growth in the application area for more than a year (Ciba-Geigy, 1991). Consequently, prometon is almost exclusively used in urban environments. Ciba-Geigy (1991) also indicates that prometon can be incorporated into asphalt pavement to increase the life expectancy of paved surfaces. All water samples with detectable pesticides were collected in the plains part of Boulder County. No pesticide compounds were detected in the wells sampled in the mountainous part of Boulder County.

Volatile Organic Compounds

As with the pesticides, volatile organic compounds (VOC's) were analyzed in water samples collected only in 1996, and the presence of these compounds is evidence of anthropogenic effects on water quality. The common name and MRL's for each VOC analyzed are listed in table 6. Of the 29 VOC's measured, 6 compounds were detected at least once, and 8 of 30 water samples had detectable concentrations of one or more of these compounds. These eight wells and the VOC's detected are listed in table 7. The drinking-water MCL's for applicable compounds also are listed.

The most frequently detected VOC in samples collected in 1996 was chloroform, which was detected in four wells. Chloroform in water can be the result of the use of chlorine as a drinking-water disinfectant.

Table 3. Results of coliform bacteria analyses for wells sampled in 1976 and 1996 in Boulder County

[mL, milliliter; <, less than; >, greater than; **, no analysis; est., estimated]

Well number	1976		1996	
	Total coliform (per 100 mL)	Fecal coliform (per 100 mL)	Total coliform	Fecal coliform
C01	<1	<1	Absent	Absent
C05	<1	<1	Present	Absent
C07	<1	<1	Absent	Absent
C09	<1	<1	**	**
C16	<1	<1	Absent	Absent
C24	<1	<1	Absent	Absent
C25	<1	<1	Absent	Absent
C27	<1	<1	Present	Absent
C31	<1	<1	Absent	Absent
C33	**	**	Present	Absent
C34	<1	<1	Absent	Absent
C35	<1	<1	Absent	Absent
C41	<1	<1	Present	Present
C44	<1	<1	Present	Present
C46	<1	<1	Absent	Absent
C52	<1	<1	Absent	Absent
C53	>320	>60	Absent	Absent
C55	<1	<1	Present	Present
C58	<1	<1	Absent	Absent
C63	<1	<1	Present	Present
C66	<1	<1	Absent	Absent
C69	<1	<1	Absent	Absent
C70	<1	<1	Absent	Absent
C73	<1	<1	Absent	Absent
C75	<1	<1	Absent	Absent
C77	<1	<1	Present	Present
C79	1.0 (est.)	<1	Absent	Absent
C86	<1	<1	Absent	Absent
C89	<1	<1	Absent	Absent
C92	<1	<1	Absent	Absent

Table 4. Pesticide compounds analyzed for wells sampled in 1996 in Boulder County

[n/a, not applicable; µg/L, micrograms per liter; MRL, method reporting limit; MCL, maximum contaminant level]

Pesticide common name	Pesticide use	MRL (µg/L)	MCL (µg/L)
2,4-D	Herbicide	0.2	n/a
Acetachlor	Herbicide	0.1	n/a
Alachlor	Herbicide	0.1	2.0
Aldicarb	Insecticide	1.0	7.0
Aldicarb sulfone	n/a	1.0	7.0
Aldicarb sulfoxide	n/a	1.0	7.0
Atrazine	Herbicide	0.1	3.0
Deethylatrazine	n/a	0.2	n/a
Deisopropylatrazine	n/a	0.2	n/a
Benfluralin	Herbicide	0.2	n/a
Bromacil	Herbicide	0.4	n/a
Captan	Fungicide	1.4	n/a
Carbaryl	Insecticide	1.0	n/a
Carbofuran	Insecticide	1.0	40.0
3-Hydroxy-carbofuran	n/a	1.0	n/a
Chlorothalonil	Fungicide	0.1	n/a
Chlorpyrifos	Insecticide	0.1	n/a
Cyanazine	Herbicide	0.2	n/a
DCPA	Herbicide	0.1	n/a
Diazinon	Insecticide	0.2	n/a
Dicamba	Herbicide	0.1	n/a
Dichlobenil	Herbicide	0.1	n/a
Dimethoate	Insecticide	0.5	n/a
p,p-DDT	Insecticide	0.4	n/a
Endrin	Insecticide	0.3	2.0
Heptachlor	Insecticide	0.6	0.4
Heptachlor epoxide	Insecticide	0.8	0.2
Hexazinone	Herbicide	0.1	n/a
Lindane	Insecticide	0.1	0.2
Malathion	Insecticide	0.1	n/a
MCPA	Herbicide	2.0	n/a
MCPP	Herbicide	2.0	n/a
Metalaxyl	Fungicide	0.2	n/a
Methiocarb	Insecticide	1.0	n/a
Methomyl	Insecticide	1.0	n/a
Methoxychlor	Insecticide	0.9	40.0
Metolachlor	Herbicide	0.1	n/a
Metribuzin	Herbicide	0.5	n/a
1-Naphthol	Insecticide	1.0	n/a
Oxamyl	Insecticide	1.0	200.0
Pendimethalin	Herbicide	1.2	n/a
Picloram	Herbicide	0.35	500.0
Prometon	Herbicide	0.1	n/a
Propoxur	Insecticide	1.0	n/a
Simazine	Herbicide	0.2	4.0
Trifluralin	Herbicide	0.3	n/a

Table 5. Concentrations and maximum contaminant levels for pesticide compounds detected in wells sampled in 1996 in Boulder County

[Concentrations in micrograms per liter; MCL, maximum contaminant level; n/a, not applicable]

Compound name	Well number	Concentration	MCL
Atrazine	C25	0.88	3
Deethylatrazine*	C25	0.5	n/a
Prometon	C27	0.3	(listed for regulation)
	C73	0.28	
	C92	0.25	

*Deethylatrazine is a breakdown product of the pesticide atrazine.

Table 6. Volatile organic compounds (VOC's) analyzed for wells sampled in 1996 in Boulder County

[MRL, method reporting limit; MCL, maximum contaminant level; µg/L, micrograms per liter; n/a, not applicable]

Common name	MRL (µg/L)	MCL (µg/L)
Benzene	0.2	5.0
Bromoform	0.2	80.*
Carbontetrachloride	0.2	5.0
Chlorobenzene	0.2	n/a
Chlorodibromomethane	0.2	80.*
Chloroform	0.2	80.*
1,2-Dichlorobenzene	0.2	600.
1,3-Dichlorobenzene	0.2	n/a
1,4-Dichlorobenzene	0.2	75.
Dichlorobromomethane	0.2	80.*
Dichlorodifluoromethane	0.2	n/a
1,1-Dichloroethane	0.2	n/a
1,2-Dichloroethane	0.2	5.
cis-1,2-Dichloroethene	0.2	70.
trans-1,2-Dichloroethene	0.2	100.
1,1-Dichloroethene	0.2	7.
1,1-Dichloropropane	0.2	n/a
Ethylbenzene	0.2	700.
Freon 113	0.2	n/a
Methylenechloride	0.2	n/a
Methyl-tert-butyl-ether	0.2	n/a
Styrene	0.2	100.
Tetrachloroethene	0.2	5.
Toluene	0.2	1,000.
1,1,1-Trichloroethane	0.2	200.
Trichloroethene	0.2	5.
Trichlorofluoromethane	0.2	n/a
Vinylchloride	0.2	2.
Xylene	0.2	10,000.

MCL from U.S. Environmental Protection Agency (1996).

*1994 proposed rule for Disinfectants and Disinfection By-products: Total for all trihalomethanes combined cannot exceed the 80-µg/L level.

Table 7. Concentrations and maximum contaminant levels of volatile organic compounds detected in wells sampled in 1996 in Boulder County

[µg/L, micrograms per liter; n/a, not applicable; MCL, maximum contaminant level]

Compound	Well number	Concentration (µg/L)	MCL (µg/L)
Chloroform	C16	0.5	Total trihalomethanes: 80.0
	C33	0.05	
	C75	1.1	
	C89	0.6	
1,1,1-Trichloroethane	C69	9.5	200
	C73	0.3	
Benzene	C53	4.8	5.0
1,1-Dichloroethane	C73	0.2	n/a
1,1-Dichloroethene	C69	3.8	7.0
Methyl-tert-butyl-ether	C92	0.9	n/a

Widespread use of chlorine for direct disinfection of wells or the application of chlorinated municipal water for lawn irrigation creates multiple pathways for chlorine to enter the ground-water system. The USEPA's 1994 proposed rule for disinfectants and disinfectant by-products in drinking water states that the total concentration for all trihalomethanes (THM's) combined cannot exceed the 80-µg/L level.

The VOC's 1,1,1-trichloroethane, 1,1-dichloroethane, and 1,1-dichloroethene are all organic solvents or the degradation products of organic solvents. Two of the 30 wells sampled contained these solvents or degradation products. The concentration of 1,1-dichloroethene in well C69 was more than one-half of the MCL.

The compound methyl-tert-butyl-ether (MTBE) is used as a gasoline additive in several cities along the Front Range urban corridor in Colorado. MTBE was detected in one well sampled. This compound is added to oxygenate motor fuels and to reduce the carbon monoxide emissions. It also is used in some premium grade gasolines as an octane enhancer. The use of this compound in the area began in the mid-to-late 1970's; however, its use as a fuel oxygenate has greatly decreased in recent years. Bruce and McMahon (1996) reported widespread occurrence of MTBE in ground water of the Denver, Colo., metropolitan area.

Benzene also was detected in one well in Boulder County. Though the concentration of benzene in this sample was close to the drinking-water MCL, it is not believed to be the result of anthropogenic contamination. The well where benzene was detected (C53) was a deep, flowing well originally drilled for oil and gas exploration. The discharge from the well had a strong hydrocarbon smell, and the water sample was dark in tint. It is believed that the water from this well comes from a deep source (greater than 2,000 ft) and that the water in this part of the aquifer was recharged many years ago. The benzene detected in well C53 is thought to be associated with naturally occurring hydrocarbons.

Tritium

Tritium is an isotope of hydrogen. Tritium atoms are unstable and undergo radioactive decay with a half-life of approximately 12.3 years. Consequently, the occurrence of tritium in ground water has been adapted as an age-dating tool to determine the approximate time that ground water was recharged to the aquifer and isolated from the atmospheric source of tritium. During the 1950's and early 1960's a substantial amount of anthropogenic tritium was released to the Earth's atmosphere during above-ground testing of nuclear bombs. This atmospheric "spike" of tritium left its signature on ground water recharged during and after this time. Tritium concentrations in precipitation have varied considerably from place to place during different years and seasons, making the use of tritium as a short-term dating tool problematic. Tritium can, however, be used as a semiquantitative dating tool in the following ways: (1) ground water with little or no tritium [less than 1.5 pCi/L or 0.5 tritium units (TU)] generally is considered to have been recharged to the aquifer prior to 1952 (pre-bomb water); (2) ground

water with elevated tritium concentrations (greater than 30 pCi/L or 10 TU) is thought to have been recharged after 1952 (post-bomb water); and (3) ground water with tritium between these concentrations is considered to be a mixture of pre- and post-bomb water. However, it is impossible to determine the percentage of water contributed from each period on the basis of tritium data alone (Mazor, 1991). The value of tritium age dating of ground water in Boulder County is to indicate the validity of nondetections of anthropogenic compounds. If a water sample does not contain anthropogenic constituents, it is important to document that these nondetections are not simply the result of sampling "old" water.

Twenty of 30 wells in the Boulder County study were sampled for tritium in 1996. The results are listed in Appendix A at the back of this report. In general, all but 3 of the 20 wells sampled for tritium indicate recent (post-bomb) recharge dates for the water samples. Wells C44 and C70 have tritium concentrations that suggest recharge occurred prior to 1952. Well C79 (tritium concentration, 5.4 pCi/L) is slightly above the pre-bomb concentration; however, the sampling point for this water was immediately downgradient from a fairly large holding reservoir. Though water only remained in this holding reservoir for a matter of minutes due to large flow-through volume, it is reasonable to assume that some atmospheric exchange of tritium might take place during residence in this reservoir.

BOULDER CREEK GAIN-AND-LOSS STUDY

On October 24, 1996, streamflow measurements were made to determine the amount of water entering or leaving Boulder Creek through interactions with the adjacent ground-water system. The study method used a water mass balance where surface-water flow was measured at various points along Boulder Creek, and all outflows from and inflows to the stream were quantified. The measured discharge and the rates of inflows and outflows for each stream segment are listed in table 8. The accuracy of a discharge measurement using standard USGS methods is estimated at plus or minus 5 percent. Based on these measurements, gain or loss of flow in the stream not accounted for in the mass balance is assumed to be the result of interaction with the ground-water system. The reach of Boulder Creek where the gain-and-loss study was done and the 11 sites where surface-water discharge measurements were made on the main stem of Boulder Creek are shown in figure 8. Discharge measurements were taken in a timed downstream sequence. This allows for changes in discharge to be calculated relative to similar flow conditions as measured at the previous upstream site. Site 1 near the mouth of Boulder Canyon was the first site measured during the October 24, 1996, gain-and-loss study (fig. 8). The study ended at site 11, just upstream from the effluent discharge from the 75th Street wastewater-treatment facility.

The result of the mass-balance calculations of surface-water discharge are presented graphically as a residual discharge in figure 9. The residual discharge is calculated in feet cubed per second by using the measured streamflow entering the upstream end of a given stream segment, subtracting the volume of all outflows and adding the volume of all inflows within the stream segment, and comparing the resulting water volume to the amount of streamflow measured leaving the downstream end of the stream segment. A negative value for a stream segment indicates a loss of streamflow to the ground water. A positive value indicates a gain in streamflow from discharging ground water. Overall, after accounting for the major outflows by irrigation diversions, surface-water flow had a net gain in this reach of Boulder Creek. Most of the gain in flow from ground-water discharge occurred in the downstream segments of the stream reach.

Gain-and-loss studies are highly dependent on the existing hydrologic conditions. The results only represent the ground-water/surface-water relation for hydrologic conditions similar to those at the time of the study. This study was done in late summer when flow in the stream was small, irrigation and agricultural diversions were greatly reduced, and there had been little precipitation in the preceding week. Other gain-and-loss studies performed under different hydrologic conditions may well indicate different responses for each stream segment. Other similar studies under varied flow regimes would be required to document the complex interactions of ground water and surface water for this stream reach.

Table 8. Data used to calculate a surface-water flow mass balance for gain-and-loss study performed on October 24, 1996, for Boulder Creek

[Discharge, outflow, and inflow, in cubic feet per second (ft^3/s)]

Stream reach	Site location (on Boulder Creek)	Time of measurement (upstream-downstream)	Stream discharge at upstream site	Cumulative outflow (subtract)	Cumulative inflow (add)	Stream discharge at downstream site	Residual discharge
From: Site 1 To: Site 2	Site 1, below Anderson Ditch Site 2, at 6th Street	0949–1042	41.1	2.42	none	34.3	-4.38
From: Site 2 To: Site 3	Site 2, at 6th Street Site 3, at 12th Street	1042–1130	34.3	none	0.01	37.3	2.99
From: Site 3 To: Site 4	Site 3, at 12th Street Site 4, at 19th Street	1130–1238	37.3	0.63	none	36.2	-0.47
From: Site 4 To: Site 5	Site 4, at 19th Street Site 5, at 28th Street	1238–1307	36.2	none	0.17	33.6	-2.77
From: Site 5 To: Site 6	Site 5, at 28th Street Site 6, above Arapahoe Road	1307–1415	33.6	4.74	0.10	30.8	1.84
From: Site 6 To: Site 7	Site 6, above Arapahoe Road Site 7, above Cottonwood Grove	1415–1510	30.8	none	0.93	29.3	-2.43
From: Site 7 To: Site 8	Site 7, above Cottonwood Grove Site 8, at 55th Street	1510–1640	29.3	none	1.36	32.3	1.64
From: Site 8 To: Site 9	Site 8, at 55th Street Site 9, above South Boulder Creek	1640–1750	32.3	none	none	32.8	0.5
From: Site 9 To: Site 10	Site 9, above South Boulder Creek Site 10, near 65th Street	1750–1730	32.8	7.14	2.81	33.4	4.93
From: Site 10 To: Site 11	Site 10, near 65th Street Site 11, above 75th Street	1730–1850	33.4	none	1.30	40.2	5.5

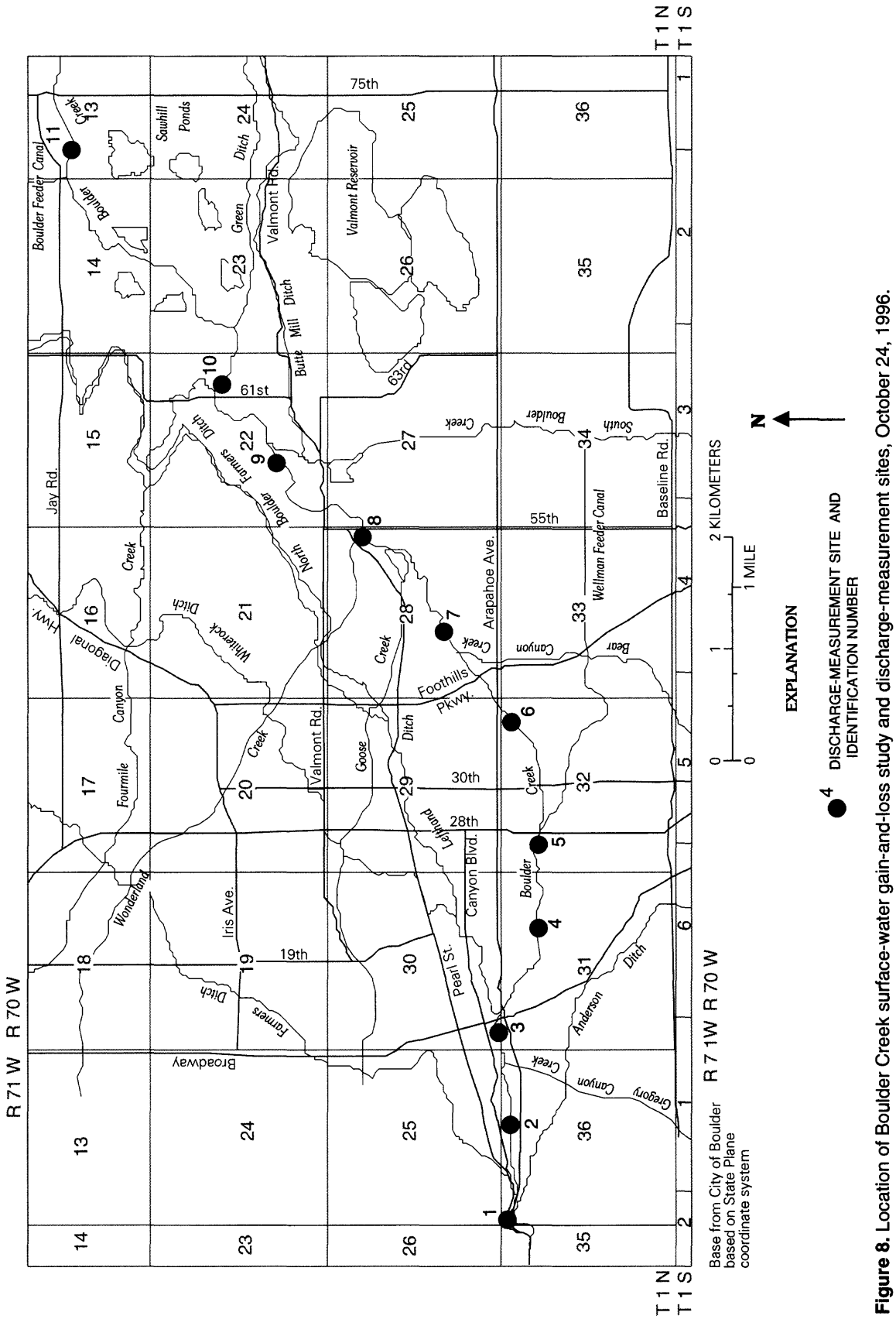

Figure 8. Location of Boulder Creek surface-water gain-and-loss study and discharge-measurement sites, October 24, 1996.

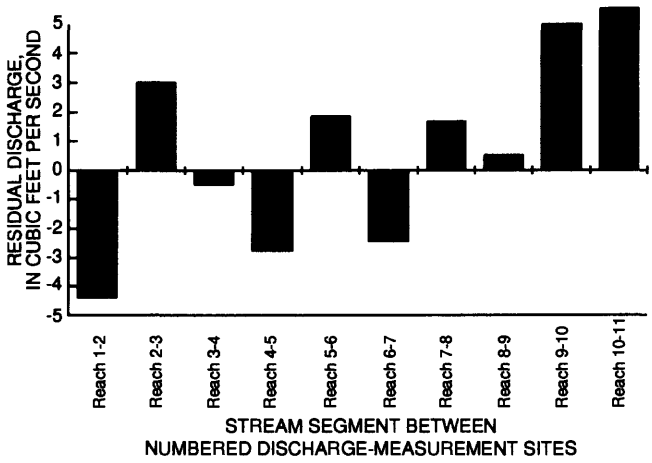

Figure 9. Residual discharge from a water mass balance on Boulder Creek.

SUMMARY

From 1975 to 1977 (referred to herein as 1976), the U.S. Geological Survey, in cooperation with the Boulder County Health Department and the Colorado Geological Survey, sampled numerous surface-water and ground-water sites throughout Boulder County. In 1996, the U.S. Geological Survey, in cooperation with the Boulder County Health Department and the City of Boulder, resampled 30 of the same wells from the 1976 study in order to compare water-quality data from the two study periods.

Though the summed concentrations of dissolved solids were nearly identical between the two study periods, the median concentrations of sulfate and chloride exhibited large differences. The median concentration of sulfate was 47 percent less in 1996 than in 1976. The median concentration of chloride was 50 percent greater in 1996. Nitrite plus nitrate concentrations for the two study periods showed a statistically significant decline in concentration over 20 years; however, when comparing mountain wells only, there was an apparent increase in nitrite plus nitrate concentrations; when comparing plains wells only, a significant decrease was observed.

Comparison of trace-element concentrations between the two study periods was problematic. Differences in the elements reported, analytical techniques, and method reporting limits reduced the number of valid comparisons. Sampling technique also may have affected the trace-element results, as represented by large decreases in median concentrations of plumbing-related metals from 1976 to 1996. Uranium concentrations in 6 of 30 wells exceeded the proposed 20-µg/L MCL.

Eight of 29 wells had detectable coliform bacteria in samples collected in 1996, an increase from 1 of 30 in 1976. Of these eight wells with coliform bacteria in 1996, five wells had fecal coliform bacteria identified.

Forty-six pesticides and 29 volatile organic compounds were analyzed in samples collected in 1996. These compounds were not analyzed in 1976. Four pesticide compounds (4 of 30 wells) and six volatile organic compounds (8 of 30 wells) were detected in sampled wells. All wells with detections of these anthropogenic compounds were in the plains part of the study area. The compounds detected generally were associated with urban land-use activities.

A surface-water gain-and-loss study was performed on October 24, 1996, to quantify the volume of water exchange between the surface-water and adjacent ground-water systems along Boulder Creek through the urban reach of the stream. Though gains and losses generally were small, residual discharge has been calculated for each stream segment. Overall, the stream reach had a net gain in surface-water flow, with the majority of ground-water discharge to the stream occurring in downstream segments. Other gain-and-loss studies are needed to improve understanding of the ground-water/surface-water interactions in this stream reach.

REFERENCES CITED

Bruce, B.W., and McMahon, P.B., 1996, Shallow ground-water quality beneath a major urban center—Denver, Colorado, USA: Journal of Hydrology, no. 186, p. 129–151.

Ciba-Geigy, 1991, Label for the herbicide Pramitol 25E (active ingredient: prometon), Product I.D. 06550, Label No. CGA 8L5X, EPA Reg. No. 100–443: *in* Crop Protection Chemicals Reference, 1993, Chemical and Pharmaceutical Publishing Corp., Paris, France, p. 397.

Hall, D.C., Boyd, E.L., and Cain, D.L., 1979, Hydrologic data for wells, springs, and streams in Boulder County, Colorado: U.S. Geological Survey Open-File Report 79–979, 106 p., 1 plate.

Helsel, D.R., and Hirsch, R.M., 1995, Studies in environmental science 49—Statistical methods in water resources: Amsterdam, The Netherlands, Elsevier Science Publishers, 529 p.

Hem, J.D., 1989, Study and interpretation of the chemical characteristics of natural water: U.S. Geological Survey Water-Supply Paper 2254, 263 p.

Mazor, Emanuel, 1991, Applied chemical and isotopic groundwater hydrology: New York, N.Y., Halsted Press, 274 p.

Qi, S.L., and Dennehy, K.F., 1997, World Wide Web home page for the South Platte NAWQA: U.S. Geological Survey Fact Sheet FS–242–96.

Skougstad, M.W., Fishman, M.J., Friedman, L.C., Erdmann, D.E., and Duncan, S.S., 1979, Methods for determination of inorganic substances in water and fluvial sediments: U.S. Geological Survey Techniques of Water-Resources Investigations, book 5, chap. A1, 2d edition, 160 p.

U.S. Environmental Protection Agency, 1994, National primary drinking water standards; February 1994: U.S. Environmental Protection Agency, Office of Water, Washington, D.C., EPA 810–F–94–001A, 5 p.

———1996, Drinking water regulations and health advisories; October 1996: U.S. Environmental Protection Agency, Office of Water, EPA 822–B–96–002, 11 p.

APPENDIX A: Water-Quality Data

Appendix A includes paired water-quality data for all inorganic constituents measured in Boulder County ground-water samples collected in 1975–77 (Hall and others, 1979) and in samples collected in 1996 specifically for this study. The analytical results were retrieved directly form the U.S. Geological Survey's National Water Information System (NWIS) data base. The data tables have been reformatted in a manner that minimizes the number of pages generated.

The following abbreviations are applicable to the appendix tables:

US/CM,	microsiemens per centimeter at 25 degrees Celsius
PH,	pH
DEG C,	degrees Celsius
MG/L,	milligrams per liter
UG/L	micrograms per liter
PCI/L,	picocuries per liter
WH FET,	whole field endpoint titration
NONCARB WH WAT TOT FLD,	noncarbonate whole water total - field
AC-FT	acre-feet
U-NAT	uranium natural
SR/Y-90,	strontium/yttrium-90
CS-137,	cesium-137

Boulder County Water-Quality

395658105321300 - SC00107323BCBC SITE C01

WATER-QUALITY DATA

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	SPECIFIC CONDUCTANCE LAB (US/CM)	PH WATER WHOLE LAB (STANDARD UNITS)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	HYDROGEN SULFIDE TOTAL (MG/L AS H2S)	ALKALINITY WAT WH TOT FET FIELD MG/L AS CACO3	ALKALINITY LAB (MG/L AS CACO3)	BICARBONATE WATER WH FET FIELD MG/L AS HCO3
JUL 1975											
29...	1200	120	--	--	--	--	--	--	46	--	56
AUG 1996											
13...	1430	55	52	6.6	7.92	10.6	0.71	--	20	21	--

DATE	HARDNESS TOTAL (MG/L AS CACO3)	HARDNESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	SODIUM PERCENT	POTASSIUM, DISSOLVED (MG/L AS K)	CHLORIDE, DISSOLVED (MG/L AS CL)	SULFATE DISSOLVED (MG/L AS SO4)
JUL 1975										
29...	58	12	17	3.8	2.5	0.1	8	1.2	2.5	8.3
AUG 1996										
13...	20	--	6.1	1.1	1.5	0.1	14	0.50	0.40	2.6

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS NO2)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)
JUL 1975										
29...	0.20	14	--	0.010	0.03	--	0.550	0.0	--	<0.010
AUG 1996										
13...	0.10	7.3	0.020	0.010	0.03	<0.20	0.080	0.03	<0.010	0.010

DATE	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	ALUMINUM, DISSOLVED (UG/L AS AL)	ANTIMONY, DISSOLVED (UG/L AS SB)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	BROMIDE DISSOLVED (MG/L AS BR)	CADMIUM DISSOLVED (UG/L AS CD)
JUL 1975										
29...	--	80	0.11	--	--	<1	<100	--	--	ND
AUG 1996										
13...	44	33	0.06	30	<1	<1	17	<1	<0.010	<1.0

DATE	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SILVER, DISSOLVED (UG/L AS AG)
JUL 1975										
29...	--	--	7	20	<2	<10	1.3	<1	--	--
AUG 1996										
13...	<1	<1	29	61	1	7	--	<1	<1	<1.0

DATE	SELENIUM, DISSOLVED (UG/L AS SE)	ZINC, DISSOLVED (UG/L AS ZN)	URANIUM NATURAL DISSOLVED (UG/L AS U)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L)	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT)	GROSS BETA, DISSOLVED (PCI/L AS SR/Y-90)	GROSS BETA, DISSOLVED (PCI/L AS CS-137)	POTASSIUM 40 TOTAL (PCI/L)	TRITIUM TOTAL (PCI/L)	TRITIUM 2 SIGMA WATER, WHOLE, TOTAL (PCI/L)
JUL 1975										
29...	<1	890	--	--	2.6	1.9	2.4	0.84	--	--
AUG 1996										
13...	<1	2	<1.0	--	--	--	--	--	38	3.2

Boulder County Water-Quality

400712105234500 - SB00207224DACA1 SITE C05

WATER-QUALITY DATA

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	SPECIFIC CONDUCTANCE LAB (US/CM)	PH WATER WHOLE LAB (STANDARD UNITS)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	HYDROGEN SULFIDE TOTAL (MG/L AS H2S)	ALKALINITY WAT WH TOT FET FIELD MG/L AS CACO3	ALKALINITY LAB (MG/L AS CACO3)	BICARBONATE WATER WH FET FIELD MG/L AS HCO3
AUG 1975 01...	1100	1190	--	--	--	--	--	--	32	--	39
AUG 1996 12...	1330	741	768	6.7	7.24	12.3	3.55	--	138	117	--

DATE	HARDNESS TOTAL (MG/L AS CACO3)	HARDNESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	SODIUM PERCENT	POTASSIUM, DISSOLVED (MG/L AS K)	CHLORIDE, DISSOLVED (MG/L AS CL)	SULFATE DISSOLVED (MG/L AS SO4)
AUG 1975 01...	530	500	150	37	35	0.7	12	6.0	3.5	410
AUG 1996 12...	310	--	96	17	35	0.9	20	2.6	15	210

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS NO2)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)
AUG 1975 01...	43	31	--	0.010	0.03	--	0.110	0.03	--	0.010
AUG 1996 12...	2.9	29	0.020	0.010	0.03	<0.20	11.0	0.03	0.020	0.010

DATE	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	ALUMINUM, DISSOLVED (UG/L AS AL)	ANTIMONY, DISSOLVED (UG/L AS SB)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	BROMIDE DISSOLVED (MG/L AS BR)	CADMIUM DISSOLVED (UG/L AS CD)
AUG 1975 01...	--	740	1.01	--	--	<1	<100	--	--	7.0
AUG 1996 12...	555	527	0.75	7	<1	<1	36	<1	0.33	<1.0

DATE	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SILVER, DISSOLVED (UG/L AS AG)
AUG 1975 01...	--	--	29	260	<2	2700	1.7	2	--	--
AUG 1996 12...	<1	<1	26	13	<1	1	--	28	3	<1.0

DATE	SELENIUM, DISSOLVED (UG/L AS SE)	ZINC, DISSOLVED (UG/L AS ZN)	URANIUM NATURAL DISSOLVED (UG/L AS U)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L)	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT)	GROSS BETA, DISSOLVED (PCI/L AS SR/Y-90)	GROSS BETA, DISSOLVED (PCI/L AS CS-137)	POTASSIUM 40 TOTAL (PCI/L)	TRITIUM TOTAL (PCI/L)	TRITIUM 2 SIGMA WATER, WHOLE, TOTAL (PCI/L)
AUG 1975 01...	<1	1500	--	4.6	120	27	32	4.2	--	--
AUG 1996 12...	2	30	26	--	--	--	--	--	72	5.1

Boulder County Water-Quality

395750105242200 - SC00107213CBBA SITE C07

WATER-QUALITY DATA

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	SPECIFIC CONDUCTANCE LAB (US/CM)	PH WATER WHOLE LAB (STANDARD UNITS)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	HYDROGEN SULFIDE TOTAL (MG/L AS H2S)	ALKALINITY WAT WH TOT FET FIELD MG/L AS CACO3	ALKALINITY LAB (MG/L AS CACO3)	BICARBONATE WATER WH FET FIELD MG/L AS HCO3
AUG 1975											
04...	1300	280	--	--	--	--	--	--	129	--	160
AUG 1996											
13...	0945	269	265	7.4	8.17	10.0	2.54	--	130	127	--

DATE	HARDNESS TOTAL (MG/L AS CACO3)	HARDNESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	SODIUM PERCENT	POTASSIUM, DISSOLVED (MG/L AS K)	CHLORIDE, DISSOLVED (MG/L AS CL)	SULFATE DISSOLVED (MG/L AS SO4)
AUG 1975										
04...	120	0	31	11	8.1	0.3	12	2.8	1.9	11
AUG 1996										
13...	120	--	30	11	6.9	0.3	11	1.9	1.5	6.0

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS NO2)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)
AUG 1975										
04...	0.90	17	--	<0.010	0.0	--	0.710	0.06	--	0.020
AUG 1996										
13...	0.90	17	0.020	0.010	0.03	<0.20	0.750	0.06	<0.010	0.020

DATE	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	ALUMINUM, DISSOLVED (UG/L AS AL)	ANTIMONY, DISSOLVED (UG/L AS SB)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	BROMIDE DISSOLVED (MG/L AS BR)	CADMIUM DISSOLVED (UG/L AS CD)
AUG 1975										
04...	--	164	0.22	--	--	<1	<100	--	--	<2.0
AUG 1996										
13...	149	155	0.20	3	<1	<1	73	<1	0.040	<1.0

DATE	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SILVER, DISSOLVED (UG/L AS AG)
AUG 1975										
04...	--	--	8	60	21	<10	<0.5	<1	--	--
AUG 1996										
13...	1	<1	<1	<3	<1	<1	--	<1	1	<1.0

DATE	SELENIUM, DISSOLVED (UG/L AS SE)	ZINC, DISSOLVED (UG/L AS ZN)	URANIUM NATURAL DISSOLVED (UG/L AS U)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L)	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT)	GROSS BETA, DISSOLVED (PCI/L AS SR/Y-90)	GROSS BETA, DISSOLVED (PCI/L AS CS-137)	POTASSIUM 40 TOTAL (PCI/L)	TRITIUM TOTAL (PCI/L)	TRITIUM 2 SIGMA WATER, WHOLE, TOTAL (PCI/L)
AUG 1975										
04...	<1	70	--	0.30	17	7.0	7.7	2.0	--	--
AUG 1996										
13...	<1	5	3.0	--	--	--	--	--	37	3.2

Boulder County Water-Quality

395702105343000 - SC00107320ADBB SITE C09

WATER-QUALITY DATA

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	SPECIFIC CONDUCTANCE LAB (US/CM)	PH WATER WHOLE LAB (STANDARD UNITS)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	HYDROGEN SULFIDE TOTAL (MG/L AS H2S)	ALKALINITY WAT WH TOT FET FIELD MG/L AS CACO3	ALKALINITY LAB (MG/L AS CACO3)	BICARBONATE WATER WH FET FIELD MG/L AS HCO3
AUG 1975 08...	1300	230	--	--	--	21.5	--	--	92	--	110
AUG 1996 13...	1230	276	250	7.1	8.38	10.4	3.55	--	84	102	--

DATE	HARDNESS TOTAL (MG/L AS CACO3)	HARDNESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	SODIUM PERCENT	POTASSIUM, DISSOLVED (MG/L AS K)	CHLORIDE, DISSOLVED (MG/L AS CL)	SULFATE DISSOLVED (MG/L AS SO4)
AUG 1975 08...	98	6	29	6.1	3.9	0.2	8	2.2	1.1	19
AUG 1996 13...	110	--	36	5.6	4.9	0.2	8	1.9	1.0	23

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS NO2)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)
AUG 1975 08...	0.30	12	--	<0.010	0.0	--	0.330	0.06	--	0.020
AUG 1996 13...	0.30	12	0.020	0.010	0.03	<0.20	0.100	0.03	<0.010	0.010

DATE	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	ALUMINUM, DISSOLVED (UG/L AS AL)	ANTIMONY, DISSOLVED (UG/L AS SB)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	BROMIDE DISSOLVED (MG/L AS BR)	CADMIUM DISSOLVED (UG/L AS CD)
AUG 1975 08...	--	132	0.18	--	--	<1	<100	--	--	ND
AUG 1996 13...	150	147	0.20	7	<1	<1	29	<1	0.020	<1.0

DATE	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SILVER, DISSOLVED (UG/L AS AG)
AUG 1975 08...	--	--	2	20	2	<10	<0.5	<1	--	--
AUG 1996 13...	1	<1	160	16	2	14	--	<1	3	<1.0

DATE	SELENIUM, DISSOLVED (UG/L AS SE)	ZINC, DISSOLVED (UG/L AS ZN)	URANIUM NATURAL DISSOLVED (UG/L AS U)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L)	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT)	GROSS BETA, DISSOLVED (PCI/L AS SR/Y-90)	GROSS BETA, DISSOLVED (PCI/L AS CS-137)	POTASSIUM 40 TOTAL (PCI/L)	TRITIUM TOTAL (PCI/L)	TRITIUM 2 SIGMA WATER, WHOLE, TOTAL (PCI/L)
AUG 1975 08...	<1	1500	--	--	6.9	4.3	5.2	1.5	--	--
AUG 1996 13...	<1	110	<1.0	--	--	--	--	--	53	3.8

Boulder County Water-Quality

400255105165500 - SB00107113DADA SITE C16

WATER-QUALITY DATA

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	SPECIFIC CONDUCTANCE LAB (US/CM)	PH WATER WHOLE LAB (STANDARD UNITS)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	HYDROGEN SULFIDE TOTAL (MG/L AS H2S)	ALKALINITY WAT WH TOT FET FIELD MG/L AS CACO3	ALKALINITY LAB (MG/L AS CACO3)	BICARBONATE WATER WH FET FIELD MG/L AS HCO3
JUL 1976											
29...	0830	600	--	--	--	--	--	--	--	--	340
AUG 1996											
14...	1105	1001	965	7.1	7.83	13.4	3.41	--	412	416	--

DATE	HARDNESS TOTAL (MG/L AS CACO3)	HARDNESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	SODIUM PERCENT	POTASSIUM, DISSOLVED (MG/L AS K)	CHLORIDE, DISSOLVED (MG/L AS CL)	SULFATE DISSOLVED (MG/L AS SO4)
JUL 1976										
29...	290	--	86	18	21	0.5	14	1.5	11	21
AUG 1996										
14...	480	--	140	31	30	0.6	12	1.0	34	42

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS NO2)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)
JUL 1976										
29...	0.40	14	--	0.010	0.03	--	3.50	0.0	--	<0.010
AUG 1996										
14...	0.30	16	0.020	0.010	0.03	<0.20	8.90	0.03	<0.010	0.010

DATE	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	ALUMINUM, DISSOLVED (UG/L AS AL)	ANTIMONY, DISSOLVED (UG/L AS SB)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	BROMIDE DISSOLVED (MG/L AS BR)	CADMIUM DISSOLVED (UG/L AS CD)
JUL 1976										
29...	--	356	0.48	--	--	1	<100	--	--	<2.0
AUG 1996										
14...	586	584	0.80	3	<1	<1	340	<1	0.25	<1.0

DATE	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SILVER, DISSOLVED (UG/L AS AG)
JUL 1976										
29...	--	--	4	40	3	<10	<0.5	2	--	--
AUG 1996										
14...	6	<1	3	<3	<1	<1	--	<1	4	<1.0

DATE	SELENIUM, DISSOLVED (UG/L AS SE)	ZINC, DISSOLVED (UG/L AS ZN)	URANIUM NATURAL DISSOLVED (UG/L AS U)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L)	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT)	GROSS BETA, DISSOLVED (PCI/L AS SR/Y-90)	GROSS BETA, DISSOLVED (PCI/L AS CS-137)	POTASSIUM 40 TOTAL (PCI/L)	TRITIUM TOTAL (PCI/L)	TRITIUM 2 SIGMA WATER, WHOLE, TOTAL (PCI/L)
JUL 1976										
29...	1	40	--	--	<5.9	3.3	3.9	1.1	--	--
AUG 1996										
14...	<1	1	3.0	--	--	--	--	--	92	6.4

Boulder County Water-Quality

400124105232900 - SB00107130BCBC SITE C24

WATER-QUALITY DATA

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	SPECIFIC CONDUCTANCE LAB (US/CM)	PH WATER WHOLE LAB (STANDARD UNITS)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	HYDROGEN SULFIDE TOTAL (MG/L AS H2S)	ALKALINITY WAT WH TOT FET FIELD MG/L AS CACO3	ALKALINITY LAB (MG/L AS CACO3)	BICARBONATE WATER WH FET FIELD MG/L AS HCO3
NOV 1975											
12...	1300	800	--	--	--	--	--	--	251	--	310
AUG 1996											
05...	0930	915	912	7.3	7.8	11.2	2.54	--	--	272	--

DATE	HARDNESS TOTAL (MG/L AS CACO3)	HARDNESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	SODIUM PERCENT	POTASSIUM, DISSOLVED (MG/L AS K)	CHLORIDE, DISSOLVED (MG/L AS CL)	SULFATE DISSOLVED (MG/L AS SO4)
NOV 1975										
12...	240	0	69	16	100	3	47	4.4	15	170
AUG 1996										
05...	230	--	67	16	110	3	50	4.5	16	180

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS NO2)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)
NOV 1975										
12...	1.5	21	--	<0.010	0.0	--	0.470	0.03	--	0.010
AUG 1996										
05...	1.9	20	0.020	<0.010	--	<0.20	0.170	0.03	<0.010	0.010

DATE	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	ALUMINUM, DISSOLVED (UG/L AS AL)	ANTIMONY, DISSOLVED (UG/L AS SB)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	BROMIDE DISSOLVED (MG/L AS BR)	CADMIUM DISSOLVED (UG/L AS CD)
NOV 1975										
12...	--	550	0.75	--	--	2	<100	--	--	ND
AUG 1996										
05...	569	580	0.77	4	<1	3	27	<1	0.12	<1.0

DATE	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SILVER, DISSOLVED (UG/L AS AG)
NOV 1975										
12...	--	--	65	60	ND	30	<0.5	<1	--	--
AUG 1996										
05...	3	<1	7	24	<1	7	--	5	2	<1.0

DATE	SELENIUM, DISSOLVED (UG/L AS SE)	ZINC, DISSOLVED (UG/L AS ZN)	URANIUM NATURAL DISSOLVED (UG/L AS U)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L)	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT)	GROSS BETA, DISSOLVED (PCI/L AS SR/Y-90)	GROSS BETA, DISSOLVED (PCI/L AS CS-137)	POTASSIUM 40 TOTAL (PCI/L)	TRITIUM TOTAL (PCI/L)	TRITIUM 2 SIGMA WATER, WHOLE, TOTAL (PCI/L)
NOV 1975										
12...	<1	590	--	--	10	6.8	8.2	3.3	--	--
AUG 1996										
05...	<1	47	25	--	--	--	--	--	--	--

Boulder County Water-Quality

400226105080500 - SB00106920AACC SITE C25

WATER-QUALITY DATA

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	SPECIFIC CONDUCTANCE LAB (US/CM)	PH WATER WHOLE LAB (STANDARD UNITS)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	HYDROGEN SULFIDE TOTAL (MG/L AS H2S)	ALKALINITY WAT WH TOT FET FIELD MG/L AS CACO3	ALKALINITY LAB (MG/L AS CACO3)	BICARBONATE WATER WH FET FIELD MG/L AS HCO3
NOV 1975											
24...	1200	1400	--	--	--	--	--	--	294	--	360
AUG 1996											
07...	1315	1288	1250	7.5	7.93	14.0	1.55	--	272	283	--

DATE	HARDNESS TOTAL (MG/L AS CACO3)	HARDNESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	SODIUM PERCENT	POTASSIUM, DISSOLVED (MG/L AS K)	CHLORIDE, DISSOLVED (MG/L AS CL)	SULFATE DISSOLVED (MG/L AS SO4)
NOV 1975										
24...	640	340	190	39	100	2	25	1.9	21	450
AUG 1996										
07...	460	--	130	33	100	2	32	1.5	100	220

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS NO2)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)
NOV 1975										
24...	0.30	15	--	--	--	--	12.0	0.03	--	0.010
AUG 1996										
07...	0.30	16	0.020	0.030	0.10	0.30	4.60	0.06	<0.010	0.020

DATE	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	ALUMINUM, DISSOLVED (UG/L AS AL)	ANTIMONY, DISSOLVED (UG/L AS SB)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	BROMIDE DISSOLVED (MG/L AS BR)	CADMIUM DISSOLVED (UG/L AS CD)
NOV 1975										
24...	--	1050	1.43	--	--	<1	<100	--	--	ND
AUG 1996										
07...	856	791	1.16	4	<1	<1	23	<1	0.090	<1.0

DATE	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SILVER, DISSOLVED (UG/L AS AG)
NOV 1975										
24...	--	--	6	30	2	<10	<0.5	<1	--	--
AUG 1996										
07...	5	<1	2	8	<1	1	--	<1	4	<1.0

DATE	SELENIUM, DISSOLVED (UG/L AS SE)	ZINC, DISSOLVED (UG/L AS ZN)	URANIUM NATURAL DISSOLVED (UG/L AS U)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L)	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT)	GROSS BETA, DISSOLVED (PCI/L AS SR/Y-90)	GROSS BETA, DISSOLVED (PCI/L AS CS-137)	POTASSIUM 40 TOTAL (PCI/L)	TRITIUM TOTAL (PCI/L)	TRITIUM 2 SIGMA WATER, WHOLE, TOTAL (PCI/L)
NOV 1975										
24...	2	120	--	--	11	6.9	7.9	1.7	--	--
AUG 1996										
07...	<1	4	6.0	--	--	--	--	--	--	--

Boulder County Water-Quality

400050105093100 - SB00106931ABBB SITE C27

WATER-QUALITY DATA

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	SPECIFIC CONDUCTANCE LAB (US/CM)	PH WATER WHOLE LAB (STANDARD UNITS)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	HYDROGEN SULFIDE TOTAL (MG/L AS H2S)	ALKALINITY WAT WH TOT FET FIELD MG/L AS CACO3	ALKALINITY LAB (MG/L AS CACO3)	BICARBONATE WATER WH FET FIELD MG/L AS HCO3
DEC 1975											
02...	0900	3500	--	--	--	--	--	--	527	--	640
AUG 1996											
06...	1330	3440	3400	7.1	7.33	15.2	3.47	--	--	517	--

DATE	HARDNESS TOTAL (MG/L AS CACO3)	HARDNESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	SODIUM PERCENT	POTASSIUM, DISSOLVED (MG/L AS K)	CHLORIDE, DISSOLVED (MG/L AS CL)	SULFATE DISSOLVED (MG/L AS SO4)
DEC 1975										
02...	2000	1400	320	280	230	2	20	3.2	40	1700
AUG 1996										
06...	2200	--	270	360	160	1	14	3.7	16	2000

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS NO2)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)
DEC 1975										
02...	2.0	14	--	--	--	--	0.220	0.06	--	0.020
AUG 1996										
06...	1.8	14	0.110	<0.010	--	0.30	0.150	0.06	<0.010	0.020

DATE	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	ALUMINUM, DISSOLVED (UG/L AS AL)	ANTIMONY, DISSOLVED (UG/L AS SB)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	BROMIDE DISSOLVED (MG/L AS BR)	CADMIUM DISSOLVED (UG/L AS CD)
DEC 1975										
02...	--	2910	3.95	--	--	<1	<100	--	--	<2.0
AUG 1996										
06...	3530	3140	4.80	6	<3	<1	25	<3	0.19	<3.0

DATE	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SILVER, DISSOLVED (UG/L AS AG)
DEC 1975										
02...	--	--	4	550	6	150	<0.5	8	--	--
AUG 1996										
06...	5	<3	10	2100	<3	1300	--	7	14	<3.0

DATE	SELENIUM, DISSOLVED (UG/L AS SE)	ZINC, DISSOLVED (UG/L AS ZN)	URANIUM NATURAL DISSOLVED (UG/L AS U)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L)	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT)	GROSS BETA, DISSOLVED (PCI/L AS SR/Y-90)	GROSS BETA, DISSOLVED (PCI/L AS CS-137)	POTASSIUM 40 TOTAL (PCI/L)	TRITIUM TOTAL (PCI/L)	TRITIUM 2 SIGMA WATER, WHOLE, TOTAL (PCI/L)
DEC 1975										
02...	18	380	--	0.13	65	32	41	2.6	--	--
AUG 1996										
06...	20	100	69	--	--	--	--	--	--	--

Boulder County Water-Quality

400323105132600 - SB00107015BBCB SITE C31

WATER-QUALITY DATA

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	SPECIFIC CONDUCTANCE LAB (US/CM)	PH WATER WHOLE LAB (STANDARD UNITS)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	HYDROGEN SULFIDE TOTAL (MG/L AS H2S)	ALKALINITY WAT WH TOT FET FIELD MG/L AS CACO3	ALKALINITY LAB (MG/L AS CACO3)	BICARBONATE WATER WH FET FIELD MG/L AS HCO3
DEC 1975											
06...	1000	800	--	--	--	--	--	--	--	--	330
AUG 1996											
21...	0915	698	668	7.1	7.82	14.7	0.23	0.039	244	258	--

DATE	HARDNESS TOTAL (MG/L AS CACO3)	HARDNESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	SODIUM PERCENT	POTASSIUM, DISSOLVED (MG/L AS K)	CHLORIDE, DISSOLVED (MG/L AS CL)	SULFATE DISSOLVED (MG/L AS SO4)
DEC 1975										
06...	330	--	89	27	38	0.9	20	1.4	19	84
AUG 1996										
21...	260	--	70	21	32	0.9	21	1.1	22	67

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS NO2)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)
DEC 1975										
06...	0.50	12	--	--	--	--	8.40	0.0	--	<0.010
AUG 1996										
21...	0.60	10	0.030	0.030	0.10	<0.20	0.080	--	<0.010	<0.010

DATE	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	ALUMINUM, DISSOLVED (UG/L AS AL)	ANTIMONY, DISSOLVED (UG/L AS SB)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	BROMIDE DISSOLVED (MG/L AS BR)	CADMIUM DISSOLVED (UG/L AS CD)
DEC 1975										
06...	--	470	0.64	--	--	1	50	--	--	<2.0
AUG 1996										
21...	391	379	0.53	4	<1	<1	100	<1	0.11	<1.0

DATE	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SILVER, DISSOLVED (UG/L AS AG)
DEC 1975										
06...	--	--	50	<10	3	<10	<0.5	2	--	--
AUG 1996										
21...	6	<1	1	110	<1	21	--	<1	3	<1.0

DATE	SELENIUM, DISSOLVED (UG/L AS SE)	ZINC, DISSOLVED (UG/L AS ZN)	URANIUM NATURAL DISSOLVED (UG/L AS U)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L)	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT)	GROSS BETA, DISSOLVED (PCI/L AS SR/Y-90)	GROSS BETA, DISSOLVED (PCI/L AS CS-137)	POTASSIUM 40 TOTAL (PCI/L)	TRITIUM TOTAL (PCI/L)	TRITIUM 2 SIGMA WATER, WHOLE, TOTAL (PCI/L)
DEC 1975										
06...	<1	30	--	--	10	5.9	7.2	1.3	--	--
AUG 1996										
21...	<1	<1	2.0	--	--	--	--	--	48	3.8

Boulder County Water-Quality

400316105053100 - SB00106914BCBB SITE C33

WATER-QUALITY DATA

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	SPECIFIC CONDUCTANCE LAB (US/CM)	PH WATER WHOLE LAB (STANDARD UNITS)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	HYDROGEN SULFIDE TOTAL (MG/L AS H2S)	ALKALINITY WAT WH TOT FET FIELD MG/L AS CACO3	ALKALINITY LAB (MG/L AS CACO3)	BICARBONATE WATER WH FET FIELD MG/L AS HCO3
DEC 1975											
06...	1150	1550	--	--	--	--	--	--	--	--	500
SEP 1996											
03...	1000	1347	1330	7.5	7.52	14.6	0.34	<0.002	466	418	--

DATE	HARDNESS TOTAL (MG/L AS CACO3)	HARDNESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	SODIUM PERCENT	POTASSIUM, DISSOLVED (MG/L AS K)	CHLORIDE, DISSOLVED (MG/L AS CL)	SULFATE DISSOLVED (MG/L AS SO4)
DEC 1975										
06...	610	--	120	75	150	3	35	3.9	11	450
SEP 1996										
03...	470	--	77	67	120	2	36	2.9	21	290

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS NO2)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)
DEC 1975										
06...	1.5	17	--	0.020	0.07	--	3.10	0.12	--	0.040
SEP 1996										
03...	1.5	15	0.060	0.050	0.16	<0.20	2.50	0.15	0.030	0.050

DATE	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	ALUMINUM, DISSOLVED (UG/L AS AL)	ANTIMONY, DISSOLVED (UG/L AS SB)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	BROMIDE DISSOLVED (MG/L AS BR)	CADMIUM DISSOLVED (UG/L AS CD)
DEC 1975										
06...	--	1090	1.48	--	--	<1	<100	--	--	3.0
SEP 1996										
03...	861	858	1.17	3	<1	<1	32	<1	0.95	<1.0

DATE	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SILVER, DISSOLVED (UG/L AS AG)
DEC 1975										
06...	--	--	19	90	10	30	<0.5	8	--	--
SEP 1996										
03...	6	<1	1	180	<1	69	--	9	3	<1.0

DATE	SELENIUM, DISSOLVED (UG/L AS SE)	ZINC, DISSOLVED (UG/L AS ZN)	URANIUM NATURAL DISSOLVED (UG/L AS U)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L)	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT)	GROSS BETA, DISSOLVED (PCI/L AS SR/Y-90)	GROSS BETA, DISSOLVED (PCI/L AS CS-137)	POTASSIUM 40 TOTAL (PCI/L)	TRITIUM TOTAL (PCI/L)	TRITIUM 2 SIGMA WATER, WHOLE, TOTAL (PCI/L)
DEC 1975										
06...	4	150	--	--	--	--	--	2.7	--	--
SEP 1996										
03...	1	27	21	--	--	--	--	--	87	5.8

Boulder County Water-Quality

400024105123500 - SB00107034DABC SITE C34

WATER-QUALITY DATA

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	SPECIFIC CONDUCTANCE LAB (US/CM)	PH WATER WHOLE LAB (STANDARD UNITS)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	HYDROGEN SULFIDE TOTAL (MG/L AS H2S)	ALKALINITY WAT WH TOT FET FIELD MG/L AS CACO3	ALKALINITY LAB (MG/L AS CACO3)	BICARBONATE WATER WH FET FIELD MG/L AS HCO3
DEC 1975											
06...	1200	1000	--	--	--	--	--	--	239	--	290
AUG 1996											
06...	0920	912	886	7.4	7.39	13.7	3.83	--	200	213	--

DATE	HARDNESS TOTAL (MG/L AS CACO3)	HARDNESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	SODIUM PERCENT	POTASSIUM, DISSOLVED (MG/L AS K)	CHLORIDE, DISSOLVED (MG/L AS CL)	SULFATE DISSOLVED (MG/L AS SO4)
DEC 1975										
06...	410	170	94	43	64	1	25	2.1	13	250
AUG 1996										
06...	290	--	67	30	83	2	38	1.9	19	220

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS NO2)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)
DEC 1975										
06...	0.60	14	--	<0.010	0.0	--	6.30	0.15	--	0.050
AUG 1996										
06...	0.60	12	0.050	<0.010	--	<0.20	2.60	0.06	<0.010	0.020

DATE	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	ALUMINUM, DISSOLVED (UG/L AS AL)	ANTIMONY, DISSOLVED (UG/L AS SB)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	BROMIDE DISSOLVED (MG/L AS BR)	CADMIUM DISSOLVED (UG/L AS CD)
DEC 1975										
06...	--	652	0.89	--	--	<1	<100	--	--	<2.0
AUG 1996										
06...	575	573	0.78	5	<1	<1	42	<1	0.12	<1.0

DATE	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SILVER, DISSOLVED (UG/L AS AG)
DEC 1975										
06...	--	--	60	<10	4	<10	<0.5	4	--	--
AUG 1996										
06...	2	<1	4	6	<1	2	--	2	1	<1.0

DATE	SELENIUM, DISSOLVED (UG/L AS SE)	ZINC, DISSOLVED (UG/L AS ZN)	URANIUM NATURAL DISSOLVED (UG/L AS U)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L)	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT)	GROSS BETA, DISSOLVED (PCI/L AS SR/Y-90)	GROSS BETA, DISSOLVED (PCI/L AS CS-137)	POTASSIUM 40 TOTAL (PCI/L)	TRITIUM TOTAL (PCI/L)	TRITIUM 2 SIGMA WATER, WHOLE, TOTAL (PCI/L)
DEC 1975										
06...	9	80	--	0.21	15	10	12	1.9	--	--
AUG 1996										
06...	3	2	8.0	--	--	--	--	--	--	--

395818105124200 - SC00107010DCCC1 SITE C35

WATER-QUALITY DATA

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	SPECIFIC CONDUCTANCE LAB (US/CM)	PH WATER WHOLE LAB (STANDARD UNITS)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	HYDROGEN SULFIDE TOTAL (MG/L AS H2S)	ALKALINITY WAT WH TOT FET FIELD MG/L AS CACO3	ALKALINITY LAB (MG/L AS CACO3)	BICARBONATE WATER WH FET FIELD MG/L AS HCO3
DEC 1975 06...	1250	1400	--	--	--	--	--	--	221	--	270
AUG 1996 19...	0910	1573	1580	7.2	7.51	12.9	0.64	<0.002	216	216	--

DATE	HARDNESS TOTAL (MG/L AS CACO3)	HARDNESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	SODIUM PERCENT	POTASSIUM, DISSOLVED (MG/L AS K)	CHLORIDE, DISSOLVED (MG/L AS CL)	SULFATE DISSOLVED (MG/L AS SO4)
DEC 1975 06...	880	660	220	81	34	0.5	8	2.3	5.3	620
AUG 1996 19...	800	--	180	86	37	0.6	9	2.5	11	690

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS NO2)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)
DEC 1975 06...	1.4	22	--	<0.010	0.0	--	0.320	0.0	--	<0.010
AUG 1996 19...	1.5	19	0.060	<0.010	--	<0.20	0.190	0.06	<0.010	0.020

DATE	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	ALUMINUM, DISSOLVED (UG/L AS AL)	ANTIMONY, DISSOLVED (UG/L AS SB)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	BROMIDE DISSOLVED (MG/L AS BR)	CADMIUM DISSOLVED (UG/L AS CD)
DEC 1975 06...	--	1120	1.52	--	--	<1	50	--	--	<2.0
AUG 1996 19...	1250	1160	1.70	3	<1	<1	21	<1	0.13	<1.0

DATE	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SILVER, DISSOLVED (UG/L AS AG)
DEC 1975 06...	--	--	42	<10	3	90	<0.5	3	--	--
AUG 1996 19...	5	<1	7	77	<1	65	--	2	8	<1.0

DATE	SELENIUM, DISSOLVED (UG/L AS SE)	ZINC, DISSOLVED (UG/L AS ZN)	URANIUM NATURAL DISSOLVED (UG/L AS U)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L)	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT)	GROSS BETA, DISSOLVED (PCI/L AS SR/Y-90)	GROSS BETA, DISSOLVED (PCI/L AS CS-137)	POTASSIUM 40 TOTAL (PCI/L)	TRITIUM TOTAL (PCI/L)	TRITIUM 2 SIGMA WATER, WHOLE, TOTAL (PCI/L)
DEC 1975 06...	<1	130	--	0.14	21	8.9	11	2.0	--	--
AUG 1996 19...	<1	5	11	--	--	--	--	--	53	3.8

Boulder County Water-Quality

400658105151200 - SB00207020DCCC SITE C41

WATER-QUALITY DATA

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	SPECIFIC CONDUCTANCE LAB (US/CM)	PH WATER WHOLE LAB (STANDARD UNITS)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	HYDROGEN SULFIDE TOTAL (MG/L AS H2S)	ALKALINITY WAT WH TOT FET FIELD MG/L AS CACO3	ALKALINITY LAB (MG/L AS CACO3)	BICARBONATE WATER WH FET FIELD MG/L AS HCO3
JAN 1976											
21...	1030	600	--	--	--	6.0	--	--	--	--	350
AUG 1996											
08...	1400	638	627	7.3	7.71	15.2	3.43	--	344	298	--

DATE	HARDNESS TOTAL (MG/L AS CACO3)	HARDNESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	SODIUM PERCENT	POTASSIUM, DISSOLVED (MG/L AS K)	CHLORIDE, DISSOLVED (MG/L AS CL)	SULFATE DISSOLVED (MG/L AS SO4)
JAN 1976										
21...	280	--	62	30	24	0.6	16	1.8	2.2	52
AUG 1996										
08...	300	--	66	32	17	0.4	11	1.5	1.4	50

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS NO2)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)
JAN 1976										
21...	0.90	9.6	--	--	--	--	0.700	0.03	--	0.010
AUG 1996										
08...	0.90	12	0.030	<0.010	--	<0.20	0.240	0.03	<0.010	0.010

DATE	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	ALUMINUM, DISSOLVED (UG/L AS AL)	ANTIMONY, DISSOLVED (UG/L AS SB)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	BROMIDE DISSOLVED (MG/L AS BR)	CADMIUM DISSOLVED (UG/L AS CD)
JAN 1976										
21...	--	356	0.48	--	--	<1	<100	--	--	2.0
AUG 1996										
08...	367	361	0.50	4	<1	<1	55	<1	0.040	<1.0

DATE	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SILVER, DISSOLVED (UG/L AS AG)
JAN 1976										
21...	--	--	14	60	9	<10	<0.5	2	--	--
AUG 1996										
08...	5	<1	2	<3	<1	<1	--	2	2	<1.0

DATE	SELENIUM, DISSOLVED (UG/L AS SE)	ZINC, DISSOLVED (UG/L AS ZN)	URANIUM NATURAL DISSOLVED (UG/L AS U)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L)	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT)	GROSS BETA, DISSOLVED (PCI/L AS SR/Y-90)	GROSS BETA, DISSOLVED (PCI/L AS CS-137)	POTASSIUM 40 TOTAL (PCI/L)	TRITIUM TOTAL (PCI/L)	TRITIUM 2 SIGMA WATER, WHOLE, TOTAL (PCI/L)
JAN 1976										
21...	1	90	--	--	12	3.7	4.5	1.3	--	--
AUG 1996										
08...	<1	1	4.0	--	--	--	--	--	50	3.8

Boulder County Water-Quality

400419105085900 - SB00106907AAAA SITE C44

WATER-QUALITY DATA

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	SPECIFIC CONDUCTANCE LAB (US/CM)	PH WATER WHOLE LAB (STANDARD UNITS)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	HYDROGEN SULFIDE TOTAL (MG/L AS H2S)	ALKALINITY WAT WH TOT FET FIELD MG/L AS CACO3	ALKALINITY LAB (MG/L AS CACO3)	BICARBONATE WATER WH FET FIELD MG/L AS HCO3
FEB 1976											
05...	1350	1300	--	--	--	--	--	--	383	--	440
AUG 1996											
21...	1335	1342	1270	7.2	7.29	16.7	0.89	0.002	468	404	--

DATE	HARDNESS TOTAL (MG/L AS CACO3) (00900)	HARDNESS NONCARB WH WAT TOT FLD MG/L AS CACO3 (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	SODIUM PERCENT (00932)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	SULFATE DISSOLVED (MG/L AS SO4) (00945)
FEB 1976										
05...	630	250	100	93	47	0.8	14	3.3	8.2	330
AUG 1996										
21...	640	--	100	94	45	0.8	13	2.5	2.3	350

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS NO2)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)
FEB 1976										
05...	2.4	19	--	<0.010	0.0	--	0.150	0.03	--	0.010
AUG 1996										
21...	2.3	21	0.120	<0.010	--	<0.20	0.050	0.03	<0.010	0.010

DATE	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	ALUMINUM, DISSOLVED (UG/L AS AL)	ANTIMONY, DISSOLVED (UG/L AS SB)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	BROMIDE DISSOLVED (MG/L AS BR)	CADMIUM DISSOLVED (UG/L AS CD)
FEB 1976										
05...	--	836	1.14	--	--	<1	<100	--	--	<2.0
AUG 1996										
21...	910	860	1.24	3	<1	<1	45	<1	0.14	<1.0

DATE	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SILVER, DISSOLVED (UG/L AS AG)
FEB 1976										
05...	--	--	3	<10	2	50	<0.5	5	--	--
AUG 1996										
21...	8	<1	1	230	<1	45	--	5	4	<1.0

DATE	SELENIUM, DISSOLVED (UG/L AS SE)	ZINC, DISSOLVED (UG/L AS ZN)	URANIUM NATURAL DISSOLVED (UG/L AS U)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L)	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT)	GROSS BETA, DISSOLVED (PCI/L AS SR/Y-90)	GROSS BETA, DISSOLVED (PCI/L AS CS-137)	POTASSIUM 40 TOTAL (PCI/L)	TRITIUM TOTAL (PCI/L)	TRITIUM 2 SIGMA WATER, WHOLE, TOTAL (PCI/L)
FEB 1976										
05...	<1	2700	--	--	36	14	18	2.3	--	--
AUG 1996										
21...	<1	6	5.0	--	--	--	--	--	<2.5	1.9

Boulder County Water-Quality

395738105103200 - SC00107013CDAA SITE C46

WATER-QUALITY DATA

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	SPECIFIC CONDUCTANCE LAB (US/CM)	PH WATER WHOLE LAB (STANDARD UNITS)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	HYDROGEN SULFIDE TOTAL (MG/L AS H2S)	ALKALINITY WAT WH TOT FET FIELD MG/L AS CACO3	ALKALINITY LAB (MG/L AS CACO3)	BICARBONATE WATER WH FET FIELD MG/L AS HCO3
FEB 1976											
04...	0900	270	--	--	--	--	--	--	117	--	140
AUG 1996											
05...	1300	305	305	7.3	7.18	15.1	7.02	--	--	134	--

DATE	HARDNESS TOTAL (MG/L AS CACO3)	HARDNESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	SODIUM PERCENT	POTASSIUM, DISSOLVED (MG/L AS K)	CHLORIDE, DISSOLVED (MG/L AS CL)	SULFATE DISSOLVED (MG/L AS SO4)
FEB 1976										
04...	140	24	45	7.0	7.7	0.3	11	0.70	3.6	20
AUG 1996										
05...	130	--	39	7.5	12	0.5	17	0.60	3.2	16

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS NO2)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)
FEB 1976										
04...	0.40	13	--	<0.010	0.0	--	0.740	0.0	--	<0.010
AUG 1996										
05...	0.50	15	0.020	<0.010	--	<0.20	0.450	0.12	<0.010	0.040

DATE	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	ALUMINUM, DISSOLVED (UG/L AS AL)	ANTIMONY, DISSOLVED (UG/L AS SB)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	BROMIDE DISSOLVED (MG/L AS BR)	CADMIUM DISSOLVED (UG/L AS CD)
FEB 1976										
04...	--	171	0.23	--	--	<1	<100	--	--	<2.0
AUG 1996										
05...	175	176	0.24	4	<1	<1	73	<1	0.050	<1.0

DATE	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SILVER, DISSOLVED (UG/L AS AG)
FEB 1976										
04...	--	--	33	<10	2	<10	<0.5	1	--	--
AUG 1996										
05...	2	<1	10	<3	2	<1	--	<1	1	<1.0

DATE	SELENIUM, DISSOLVED (UG/L AS SE)	ZINC, DISSOLVED (UG/L AS ZN)	URANIUM NATURAL DISSOLVED (UG/L AS U)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L)	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT)	GROSS BETA, DISSOLVED (PCI/L AS SR/Y-90)	GROSS BETA, DISSOLVED (PCI/L AS CS-137)	POTASSIUM 40 TOTAL (PCI/L)	TRITIUM TOTAL (PCI/L)	TRITIUM 2 SIGMA WATER, WHOLE, TOTAL (PCI/L)
FEB 1976										
04...	<1	210	--	--	<3.1	1.6	1.8	0.49	--	--
AUG 1996										
05...	<1	11	2.0	--	--	--	--	--	--	--

Boulder County Water-Quality

400519105194200 - SB00207134DCCC SITE C52

WATER-QUALITY DATA

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	SPECIFIC CONDUCTANCE LAB (US/CM)	PH WATER WHOLE LAB (STANDARD UNITS)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	HYDROGEN SULFIDE TOTAL (MG/L AS H2S)	ALKALINITY WAT WH TOT FET FIELD MG/L AS CACO3	ALKALINITY LAB (MG/L AS CACO3)	BICARBONATE WATER WH FET FIELD MG/L AS HCO3
FEB 1976 11...	1250	375	--	--	--	13.0	--	--	--	--	170
AUG 1996 14...	1320	499	493	7.3	7.66	12.1	1.64	--	--	135	--

DATE	HARDNESS TOTAL (MG/L AS CACO3)	HARDNESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	SODIUM PERCENT	POTASSIUM, DISSOLVED (MG/L AS K)	CHLORIDE, DISSOLVED (MG/L AS CL)	SULFATE DISSOLVED (MG/L AS SO4)
FEB 1976 11...	170	--	50	11	8.9	0.3	10	5.8	3.6	45
AUG 1996 14...	210	--	61	14	8.0	0.2	7	5.5	55	18

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS NO2)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)
FEB 1976 11...	1.3	9.3	--	<0.010	0.0	--	2.10	0.03	--	0.010
AUG 1996 14...	0.90	11	0.020	0.010	0.03	<0.20	2.20	0.03	<0.010	0.010

DATE	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	ALUMINUM, DISSOLVED (UG/L AS AL)	ANTIMONY, DISSOLVED (UG/L AS SB)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	BROMIDE DISSOLVED (MG/L AS BR)	CADMIUM DISSOLVED (UG/L AS CD)
FEB 1976 11...	--	229	0.31	--	--	1	<100	--	--	<2.0
AUG 1996 14...	302	264	0.41	3	<1	<1	4	<1	0.080	<1.0

DATE	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SILVER, DISSOLVED (UG/L AS AG)
FEB 1976 11...	--	--	25	<10	5	<10	<0.5	1	--	--
AUG 1996 14...	2	<1	9	<3	<1	<1	--	<1	2	<1.0

DATE	SELENIUM, DISSOLVED (UG/L AS SE)	ZINC, DISSOLVED (UG/L AS ZN)	URANIUM NATURAL DISSOLVED (UG/L AS U)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L)	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT)	GROSS BETA, DISSOLVED (PCI/L AS SR/Y-90)	GROSS BETA, DISSOLVED (PCI/L AS CS-137)	POTASSIUM 40 TOTAL (PCI/L)	TRITIUM TOTAL (PCI/L)	TRITIUM 2 SIGMA WATER, WHOLE, TOTAL (PCI/L)
FEB 1976 11...	<1	240	--	--	71	36	43	4.1	--	--
AUG 1996 14...	<1	9	62	--	--	--	--	--	78	5.1

Boulder County Water-Quality

400603105141900 - SB00207033BABB SITE C53

WATER-QUALITY DATA

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	SPECIFIC CONDUCTANCE LAB (US/CM)	PH WATER WHOLE LAB (STANDARD UNITS)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	HYDROGEN SULFIDE TOTAL (MG/L AS H2S)	ALKALINITY WAT WH TOT FET FIELD MG/L AS CACO3	ALKALINITY LAB (MG/L AS CACO3)	BICARBONATE WATER WH FET FIELD MG/L AS HCO3
FEB 1976											
11...	1300	1800	--	--	--	26.0	--	--	1030	--	1260
AUG 1996											
08...	1120	1436	1450	8.4	8.72	20.5	0.1	0.026	800	762	--

DATE	HARDNESS TOTAL (MG/L AS CACO3)	HARDNESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	SODIUM PERCENT	POTASSIUM, DISSOLVED (MG/L AS K)	CHLORIDE, DISSOLVED (MG/L AS CL)	SULFATE DISSOLVED (MG/L AS SO4)
FEB 1976										
11...	15	0	4.1	1.2	480	54	98	1.7	30	7.1
AUG 1996										
08...	11	--	2.7	0.91	350	47	98	1.5	20	18

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS NO2)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)
FEB 1976										
11...	4.7	28	--	<0.010	0.0	--	0.060	0.03	--	0.010
AUG 1996										
08...	2.8	37	0.440	<0.010	--	0.50	0.070	0.06	<0.010	0.020

DATE	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	ALUMINUM, DISSOLVED (UG/L AS AL)	ANTIMONY, DISSOLVED (UG/L AS SB)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	BROMIDE DISSOLVED (MG/L AS BR)	CADMIUM DISSOLVED (UG/L AS CD)
FEB 1976										
11...	--	1180	1.60	--	--	2	<100	--	--	<2.0
AUG 1996										
08...	932	891	1.27	3	<1	1	330	<1	0.17	<1.0

DATE	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SILVER, DISSOLVED (UG/L AS AG)
FEB 1976										
11...	--	--	<2	720	3	20	<0.5	<1	--	--
AUG 1996										
08...	10	<1	<1	140	<1	28	--	<1	<1	<1.0

DATE	SELENIUM, DISSOLVED (UG/L AS SE)	ZINC, DISSOLVED (UG/L AS ZN)	URANIUM NATURAL DISSOLVED (UG/L AS U)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L)	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT)	GROSS BETA, DISSOLVED (PCI/L AS SR/Y-90)	GROSS BETA, DISSOLVED (PCI/L AS CS-137)	POTASSIUM 40 TOTAL (PCI/L)	TRITIUM TOTAL (PCI/L)	TRITIUM 2 SIGMA WATER, WHOLE, TOTAL (PCI/L)
FEB 1976										
11...	<1	ND	--	--	<26	13	16	1.2	--	--
AUG 1996										
08...	<1	<1	<1.0	--	--	--	--	--	--	--

Boulder County Water-Quality

400109105193400 - SB00107127DBCD SITE C55

WATER-QUALITY DATA

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	SPECIFIC CONDUCTANCE LAB (US/CM)	PH WATER WHOLE LAB (STANDARD UNITS)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	HYDROGEN SULFIDE TOTAL (MG/L AS H2S)	ALKALINITY WAT WH TOT FET FIELD MG/L AS CACO3	ALKALINITY LAB (MG/L AS CACO3)	BICARBONATE WATER WH FET FIELD MG/L AS HCO3
FEB 1976 12...	1250	569	--	--	--	9.0	--	--	--	--	110
AUG 1996 21...	1115	401	395	6.8	6.78	12.8	4.44	--	100	115	--

DATE	HARDNESS TOTAL (MG/L AS CACO3)	HARDNESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	SODIUM PERCENT	POTASSIUM, DISSOLVED (MG/L AS K)	CHLORIDE, DISSOLVED (MG/L AS CL)	SULFATE DISSOLVED (MG/L AS SO4)
FEB 1976 12...	200	--	51	17	28	0.9	23	4.2	21	110
AUG 1996 21...	140	--	35	13	18	0.7	21	3.5	12	40

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS NO2)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)
FEB 1976 12...	0.40	16	--	0.010	0.03	--	14.0	2.3	--	0.740
AUG 1996 21...	0.30	17	0.020	<0.010	--	<0.20	6.20	1.8	0.490	0.580

DATE	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	ALUMINUM, DISSOLVED (UG/L AS AL)	ANTIMONY, DISSOLVED (UG/L AS SB)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	BROMIDE DISSOLVED (MG/L AS BR)	CADMIUM DISSOLVED (UG/L AS CD)
FEB 1976 12...	--	366	0.50	--	--	2	<100	--	--	<2.0
AUG 1996 21...	238	237	0.32	4	<1	<1	98	<1	0.090	<1.0

DATE	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SILVER, DISSOLVED (UG/L AS AG)
FEB 1976 12...	--	--	70	<10	3	<10	<0.5	1	--	--
AUG 1996 21...	3	<1	1	<3	<1	<1	--	<1	2	<1.0

DATE	SELENIUM, DISSOLVED (UG/L AS SE)	ZINC, DISSOLVED (UG/L AS ZN)	URANIUM NATURAL DISSOLVED (UG/L AS U)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L)	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT)	GROSS BETA, DISSOLVED (PCI/L AS SR/Y-90)	GROSS BETA, DISSOLVED (PCI/L AS CS-137)	POTASSIUM 40 TOTAL (PCI/L)	TRITIUM TOTAL (PCI/L)	TRITIUM 2 SIGMA WATER, WHOLE, TOTAL (PCI/L)
FEB 1976 12...	<1	180	--	--	<6.7	9.8	12	2.9	--	--
AUG 1996 21...	<1	<1	1.0	--	--	--	--	--	--	--

Boulder County Water-Quality

400414105180500 - SB00107111AADA SITE C58

WATER-QUALITY DATA

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	SPECIFIC CONDUCTANCE LAB (US/CM)	PH WATER WHOLE LAB (STANDARD UNITS)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	HYDROGEN SULFIDE TOTAL (MG/L AS H2S)	ALKALINITY WAT WH TOT FET FIELD MG/L AS CACO3	ALKALINITY LAB (MG/L AS CACO3)	BICARBONATE WATER WH FET FIELD MG/L AS HCO3
MAR 1976											
02...	1300	440	--	--	--	--	--	--	226	--	280
SEP 1996											
03...	1130	336	415	6.7	7.15	14.0	0.52	0.029	154	103	--

DATE	HARDNESS TOTAL (MG/L AS CACO3)	HARDNESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	SODIUM PERCENT	POTASSIUM, DISSOLVED (MG/L AS K)	CHLORIDE, DISSOLVED (MG/L AS CL)	SULFATE DISSOLVED (MG/L AS SO4)
MAR 1976										
02...	230	2	50	25	2.7	0.1	2	1.2	2.4	8.9
SEP 1996										
03...	140	--	41	10	23	0.8	26	1.1	18	46

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS NO2)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)
MAR 1976										
02...	0.20	9.6	--	<0.010	0.0	--	1.70	0.0	--	<0.010
SEP 1996										
03...	0.20	28	<0.015	<0.010	--	<0.20	5.10	0.09	0.030	0.030

DATE	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	ALUMINUM, DISSOLVED (UG/L AS AL)	ANTIMONY, DISSOLVED (UG/L AS SB)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	BROMIDE DISSOLVED (MG/L AS BR)	CADMIUM DISSOLVED (UG/L AS CD)
MAR 1976										
02...	--	244	0.33	--	--	<1	200	--	--	2.0
SEP 1996										
03...	275	252	0.37	3	<1	<1	40	<1	0.090	<1.0

DATE	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SILVER, DISSOLVED (UG/L AS AG)
MAR 1976										
02...	--	--	39	90	6	<10	<0.5	<1	--	--
SEP 1996										
03...	1	<1	<1	5	<1	2	--	<1	2	<1.0

DATE	SELENIUM, DISSOLVED (UG/L AS SE)	ZINC, DISSOLVED (UG/L AS ZN)	URANIUM NATURAL DISSOLVED (UG/L AS U)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L)	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT)	GROSS BETA, DISSOLVED (PCI/L AS SR/Y-90)	GROSS BETA, DISSOLVED (PCI/L AS CS-137)	POTASSIUM 40 TOTAL (PCI/L)	TRITIUM TOTAL (PCI/L)	TRITIUM 2 SIGMA WATER, WHOLE, TOTAL (PCI/L)
MAR 1976										
02...	1	120	--	--	<4.0	<1.5	<1.9	1.3	--	--
SEP 1996										
03...	2	34	<1.0	--	--	--	--	--	69	4.5

Boulder County Water-Quality

400555105170000 - SB00207136AADC SITE C63

WATER-QUALITY DATA

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	SPECIFIC CONDUCTANCE LAB (US/CM)	PH WATER WHOLE LAB (STANDARD UNITS)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	HYDROGEN SULFIDE TOTAL (MG/L AS H2S)	ALKALINITY WAT WH TOT FET FIELD MG/L AS CACO3	ALKALINITY LAB (MG/L AS CACO3)	BICARBONATE WATER WH FET FIELD MG/L AS HCO3
MAR 1976											
10...	1100	1530	--	--	--	--	--	--	697	--	850
AUG 1996											
12...	0935	1411	1410	8.1	8.41	14.6	0.31	5.38	706	755	--

DATE	HARDNESS TOTAL (MG/L AS CACO3)	HARDNESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	SODIUM PERCENT	POTASSIUM, DISSOLVED (MG/L AS K)	CHLORIDE, DISSOLVED (MG/L AS CL)	SULFATE DISSOLVED (MG/L AS SO4)
MAR 1976										
10...	57	0	15	4.7	360	21	93	2.1	17	100
AUG 1996										
12...	11	--	2.9	0.93	340	44	98	1.1	13	21

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS NO2)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)
MAR 1976										
10...	2.4	18	--	0.030	0.10	--	0.180	0.03	--	0.010
AUG 1996										
12...	2.7	8.9	0.650	0.010	0.03	0.60	<0.050	0.09	0.010	0.030

DATE	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	ALUMINUM, DISSOLVED (UG/L AS AL)	ANTIMONY, DISSOLVED (UG/L AS SB)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	BROMIDE DISSOLVED (MG/L AS BR)	CADMIUM DISSOLVED (UG/L AS CD)
MAR 1976										
10...	--	939	1.28	--	--	<1	200	--	--	<2.0
AUG 1996										
12...	860	845	1.17	6	<1	<1	150	<1	0.15	<1.0

DATE	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SILVER, DISSOLVED (UG/L AS AG)
MAR 1976										
10...	--	--	12	110	4	<10	<0.5	27	--	--
AUG 1996										
12...	3	<1	<1	<3	<1	<1	--	<1	<1	--

DATE	SELENIUM, DISSOLVED (UG/L AS SE)	ZINC, DISSOLVED (UG/L AS ZN)	URANIUM NATURAL DISSOLVED (UG/L AS U)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L)	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT)	GROSS BETA, DISSOLVED (PCI/L AS SR/Y-90)	GROSS BETA, DISSOLVED (PCI/L AS CS-137)	POTASSIUM 40 TOTAL (PCI/L)	TRITIUM TOTAL (PCI/L)	TRITIUM 2 SIGMA WATER, WHOLE, TOTAL (PCI/L)
MAR 1976										
10...	1	<20	--	--	<12	<3.0	<3.7	15	--	--
AUG 1996										
12...	<1	<1	<1.0	--	--	--	--	--	45	3.2

Boulder County Water-Quality

400458105140700 - SB00107004BDAD SITE C66

WATER-QUALITY DATA

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	SPECIFIC CONDUCTANCE LAB (US/CM)	PH WATER WHOLE LAB (STANDARD UNITS)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	HYDROGEN SULFIDE TOTAL (MG/L AS H2S)	ALKALINITY WAT WH TOT FET FIELD MG/L AS CACO3	ALKALINITY LAB (MG/L AS CACO3)	BICARBONATE WATER WH FET FIELD MG/L AS HCO3
MAR 1976											
20...	1100	2800	--	--	--	--	--	--	--	--	340
AUG 1996											
08...	0940	1814	2380	7.1	7.05	13.1	0.51	<0.002	240	239	--

DATE	HARDNESS TOTAL (MG/L AS CACO3)	HARDNESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	SODIUM PERCENT	POTASSIUM, DISSOLVED (MG/L AS K)	CHLORIDE, DISSOLVED (MG/L AS CL)	SULFATE DISSOLVED (MG/L AS SO4)
MAR 1976										
20...	1800	--	560	100	47	0.5	5	6.0	2.6	1500
AUG 1996										
08...	1700	--	550	80	32	0.3	4	4.3	3.3	1400

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS NO2)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)
MAR 1976										
20...	0.40	9.4	--	0.010	0.03	--	0.390	0.0	--	<0.010
AUG 1996										
08...	0.50	11	0.190	0.010	0.03	<0.20	0.240	--	<0.010	<0.010

DATE	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	ALUMINUM, DISSOLVED (UG/L AS AL)	ANTIMONY, DISSOLVED (UG/L AS SB)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	BROMIDE DISSOLVED (MG/L AS BR)	CADMIUM DISSOLVED (UG/L AS CD)
MAR 1976										
20...	--	2400	3.26	--	--	<1	<100	--	--	2.0
AUG 1996										
08...	2400	2230	3.26	3	<1	<1	7	<1	0.050	<1.0

DATE	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SILVER, DISSOLVED (UG/L AS AG)
MAR 1976										
20...	--	--	4	2200	7	40	<0.5	2	--	--
AUG 1996										
08...	3	2	6	1200	<1	42	--	2	18	<1.0

DATE	SELENIUM, DISSOLVED (UG/L AS SE)	ZINC, DISSOLVED (UG/L AS ZN)	URANIUM NATURAL DISSOLVED (UG/L AS U)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L)	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT)	GROSS BETA, DISSOLVED (PCI/L AS SR/Y-90)	GROSS BETA, DISSOLVED (PCI/L AS CS-137)	POTASSIUM 40 TOTAL (PCI/L)	TRITIUM TOTAL (PCI/L)	TRITIUM 2 SIGMA WATER, WHOLE, TOTAL (PCI/L)
MAR 1976										
20...	<1	410	--	0.12	<35	10	12	5.0	--	--
AUG 1996										
08...	8	4	12	--	--	--	--	--	55	3.8

Boulder County Water-Quality

395959105100700 - SC00107001AABD SITE C69

WATER-QUALITY DATA

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	SPECIFIC CONDUCTANCE LAB (US/CM)	PH WATER WHOLE LAB (STANDARD UNITS)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	HYDROGEN SULFIDE TOTAL (MG/L AS H2S)	ALKALINITY WAT WH TOT FET FIELD MG/L AS CACO3	ALKALINITY LAB (MG/L AS CACO3)	BICARBONATE WATER WH FET FIELD MG/L AS HCO3
MAR 1976											
23...	1600	1050	--	--	--	14.0	--	--	284	--	350
AUG 1996											
06...	1130	1630	1500	7.2	7.51	14.1	2.43	--	276	298	--

DATE	HARDNESS TOTAL (MG/L AS CACO3)	HARDNESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	SODIUM PERCENT	POTASSIUM, DISSOLVED (MG/L AS K)	CHLORIDE, DISSOLVED (MG/L AS CL)	SULFATE DISSOLVED (MG/L AS SO4)
MAR 1976										
23...	460	180	98	52	49	1	19	2.7	33	200
AUG 1996										
06...	680	--	140	79	72	1	19	2.5	74	430

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS NO2)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)
MAR 1976										
23...	0.50	15	--	0.050	0.16	--	9.50	0.0	--	<0.010
AUG 1996										
06...	0.60	15	0.030	0.020	0.07	<0.20	3.60	0.18	0.030	0.060

DATE	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	ALUMINUM, DISSOLVED (UG/L AS AL)	ANTIMONY, DISSOLVED (UG/L AS SB)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	BROMIDE DISSOLVED (MG/L AS BR)	CADMIUM DISSOLVED (UG/L AS CD)
MAR 1976										
23...	--	663	0.90	--	--	1	<100	--	--	3.0
AUG 1996										
06...	1070	1010	1.46	10	<1	<1	59	<1	0.13	<1.0

DATE	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SILVER, DISSOLVED (UG/L AS AG)
MAR 1976										
23...	--	--	120	20	14	40	<0.5	2	--	--
AUG 1996										
06...	3	<1	7	<3	<1	87	--	1	4	<1.0

DATE	SELENIUM, DISSOLVED (UG/L AS SE)	ZINC, DISSOLVED (UG/L AS ZN)	URANIUM NATURAL DISSOLVED (UG/L AS U)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L)	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT)	GROSS BETA, DISSOLVED (PCI/L AS SR/Y-90)	GROSS BETA, DISSOLVED (PCI/L AS CS-137)	POTASSIUM 40 TOTAL (PCI/L)	TRITIUM TOTAL (PCI/L)	TRITIUM 2 SIGMA WATER, WHOLE, TOTAL (PCI/L)
MAR 1976										
23...	15	90	--	<0.01	16	2.9	3.4	2.4	--	--
AUG 1996										
06...	16	4	25	--	--	--	--	--	--	--

Boulder County Water-Quality

395850105102900 - SC00107012ACCC SITE C70

WATER-QUALITY DATA

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	SPECIFIC CONDUCTANCE LAB (US/CM)	PH WATER WHOLE LAB (STANDARD UNITS)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	HYDROGEN SULFIDE TOTAL (MG/L AS H2S)	ALKALINITY WAT WH TOT FET FIELD MG/L AS CACO3	ALKALINITY LAB (MG/L AS CACO3)	BICARBONATE WATER WH FET FIELD MG/L AS HCO3
MAR 1976											
26...	1200	500	--	--	--	--	--	--	224	--	270
AUG 1996											
19...	1050	463	460	7.6	7.71	16.9	0.36	<0.002	252	209	--

DATE	HARDNESS TOTAL (MG/L AS CACO3)	HARDNESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	SODIUM PERCENT	POTASSIUM, DISSOLVED (MG/L AS K)	CHLORIDE, DISSOLVED (MG/L AS CL)	SULFATE DISSOLVED (MG/L AS SO4)
MAR 1976										
26...	220	0	54	20	21	0.6	17	1.6	3.5	45
AUG 1996										
19...	190	--	48	18	18	0.6	17	1.3	3.0	34

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS NO2)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)
MAR 1976										
26...	0.50	21	--	0.010	0.03	--	0.090	0.0	--	<0.010
AUG 1996										
19...	0.60	20	0.080	<0.010	--	<0.20	0.070	0.03	0.010	0.010

DATE	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	ALUMINUM, DISSOLVED (UG/L AS AL)	ANTIMONY, DISSOLVED (UG/L AS SB)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	BROMIDE DISSOLVED (MG/L AS BR)	CADMIUM DISSOLVED (UG/L AS CD)
MAR 1976										
26...	--	302	0.41	--	--	<1	200	--	--	<2.0
AUG 1996										
19...	273	269	0.37	4	<1	<1	85	<1	0.070	<1.0

DATE	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SILVER, DISSOLVED (UG/L AS AG)
MAR 1976										
26...	--	--	2	30	2	110	<0.5	3	--	--
AUG 1996										
19...	4	<1	3	75	<1	91	--	1	2	<1.0

DATE	SELENIUM, DISSOLVED (UG/L AS SE)	ZINC, DISSOLVED (UG/L AS ZN)	URANIUM NATURAL DISSOLVED (UG/L AS U)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L)	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT)	GROSS BETA, DISSOLVED (PCI/L AS SR/Y-90)	GROSS BETA, DISSOLVED (PCI/L AS CS-137)	POTASSIUM 40 TOTAL (PCI/L)	TRITIUM TOTAL (PCI/L)	TRITIUM 2 SIGMA WATER, WHOLE, TOTAL (PCI/L)
MAR 1976										
26...	<1	20	--	--	12	2.8	3.1	1.1	--	--
AUG 1996										
19...	<1	4	<1.0	--	--	--	--	--	<2.5	1.9

Boulder County Water-Quality

400259105160700 - SB00107018DBAD SITE C73

WATER-QUALITY DATA

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM) (00095)	SPECIFIC CONDUCTANCE LAB (US/CM) (90095)	PH WATER WHOLE LAB (STANDARD UNITS) (00403)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	OXYGEN, DISSOLVED (MG/L) (00300)	HYDROGEN SULFIDE TOTAL (MG/L AS H2S) (71875)	ALKALINITY WAT WH TOT FET FIELD MG/L AS CACO3 (00410)	ALKALINITY LAB (MG/L AS CACO3) (90410)	BICARBONATE WATER WH FET FIELD MG/L AS HCO3 (00440)
MAR 1976											
26...	1400	779	--	--	--	--	--	--	--	--	270
AUG 1996											
14...	0920	872	868	7.0	7.65	13.0	1.53	--	232	243	--

DATE	HARDNESS TOTAL (MG/L AS CACO3) (00900)	HARDNESS NONCARB WH WAT TOT FLD MG/L AS CACO3 (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	SODIUM PERCENT (00932)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	SULFATE DISSOLVED (MG/L AS SO4) (00945)
MAR 1976										
26...	360	--	99	28	23	0.5	12	4.6	25	140
AUG 1996										
14...	300	--	75	27	68	2	33	3.2	83	93

DATE	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	NITROGEN, NITRITE DISSOLVED (MG/L AS NO2) (71856)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4) (00660)	PHOSPHORUS DISSOLVED (MG/L AS P) (00666)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P) (00671)
MAR 1976										
26...	0.30	15	--	0.010	0.03	--	1.60	0.03	--	0.010
AUG 1996										
14...	0.40	14	0.070	0.040	0.13	<0.20	0.280	0.03	<0.010	0.010

DATE	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	SOLIDS, DISSOLVED (TONS PER AC-FT) (70303)	ALUMINUM, DISSOLVED (UG/L AS AL) (01106)	ANTIMONY, DISSOLVED (UG/L AS SB) (01095)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	BERYLLIUM, DISSOLVED (UG/L AS BE) (01010)	BROMIDE DISSOLVED (MG/L AS BR) (71870)	CADMIUM DISSOLVED (UG/L AS CD) (01025)
MAR 1976										
26...	--	476	0.65	--	--	<1	300	--	--	<2.0
AUG 1996										
14...	523	512	0.71	4	<1	<1	95	<1	0.29	<1.0

DATE	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COBALT, DISSOLVED (UG/L AS CO) (01035)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, DISSOLVED (UG/L AS PB) (01049)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MERCURY DISSOLVED (UG/L AS HG) (71890)	MOLYBDENUM, DISSOLVED (UG/L AS MO) (01060)	NICKEL, DISSOLVED (UG/L AS NI) (01065)	SILVER, DISSOLVED (UG/L AS AG) (01075)
MAR 1976										
26...	--	--	29	30	2	20	<0.5	<1	--	--
AUG 1996										
14...	2	<1	<1	890	<1	44	--	<1	3	<1.0

DATE	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	ZINC, DISSOLVED (UG/L AS ZN) (01090)	URANIUM NATURAL DISSOLVED (UG/L AS U) (22703)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L) (09511)	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT) (80030)	GROSS BETA, DISSOLVED (PCI/L AS SR/Y-90) (80050)	GROSS BETA, DISSOLVED (PCI/L AS CS-137) (03515)	POTASSIUM 40 TOTAL (PCI/L) (75038)	TRITIUM TOTAL (PCI/L) (07000)	TRITIUM 2 SIGMA WATER, WHOLE, TOTAL (PCI/L) (75985)
MAR 1976										
26...	<1	50	--	0.22	21	86	100	3.5	--	--
AUG 1996										
14...	<1	2	5.0	--	--	--	--	--	46	3.2

Boulder County Water-Quality

395906105095600 - SC00107012AADA SITE C75

WATER-QUALITY DATA

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	SPECIFIC CONDUCTANCE LAB (US/CM)	PH WATER WHOLE LAB (STANDARD UNITS)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	HYDROGEN SULFIDE TOTAL (MG/L AS H2S)	ALKALINITY WAT WH TOT FET FIELD MG/L AS CACO3	ALKALINITY LAB (MG/L AS CACO3)	BICARBONATE WATER WH FET FIELD MG/L AS HCO3
MAR 1976											
30...	1000	790	--	--	--	--	--	--	316	--	390
SEP 1996											
10...	1100	897	886	7.4	7.45	15.7	4.11	--	368	387	--

DATE	HARDNESS TOTAL (MG/L AS CACO3)	HARDNESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	SODIUM PERCENT	POTASSIUM, DISSOLVED (MG/L AS K)	CHLORIDE, DISSOLVED (MG/L AS CL)	SULFATE DISSOLVED (MG/L AS SO4)
MAR 1976										
30...	260	0	57	29	76	2	38	2.9	11	63
SEP 1996										
10...	310	--	66	34	70	2	33	2.6	25	48

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS NO2)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)
MAR 1976										
30...	0.90	15	--	0.010	0.03	--	11.0	0.0	--	<0.010
SEP 1996										
10...	0.90	16	0.020	<0.010	--	<0.20	5.40	0.03	<0.010	0.010

DATE	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	ALUMINUM, DISSOLVED (UG/L AS AL)	ANTIMONY, DISSOLVED (UG/L AS SB)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	BROMIDE DISSOLVED (MG/L AS BR)	CADMIUM DISSOLVED (UG/L AS CD)
MAR 1976										
30...	--	496	0.67	--	--	<1	200	--	--	<2.0
SEP 1996										
10...	510	519	0.69	3	<1	<1	190	<1	0.29	<1.0

DATE	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SILVER, DISSOLVED (UG/L AS AG)
MAR 1976										
30...	--	--	100	<10	2	<10	<0.5	2	--	--
SEP 1996										
10...	4	<1	3	<3	<1	2	--	1	2	<1.0

DATE	SELENIUM, DISSOLVED (UG/L AS SE)	ZINC, DISSOLVED (UG/L AS ZN)	URANIUM NATURAL DISSOLVED (UG/L AS U)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L)	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT)	GROSS BETA, DISSOLVED (PCI/L AS SR/Y-90)	GROSS BETA, DISSOLVED (PCI/L AS CS-137)	POTASSIUM 40 TOTAL (PCI/L)	TRITIUM TOTAL (PCI/L)	TRITIUM 2 SIGMA WATER, WHOLE, TOTAL (PCI/L)
MAR 1976										
30...	2	2400	--	--	<13	4.1	4.8	1.1	--	--
SEP 1996										
10...	2	15	10	--	--	--	--	--	57	3.8

Boulder County Water-Quality

400313105075000 - SB00106916BCBC SITE C77

WATER-QUALITY DATA

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	SPECIFIC CONDUCTANCE LAB (US/CM)	PH WATER WHOLE LAB (STANDARD UNITS)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	HYDROGEN SULFIDE TOTAL (MG/L AS H2S)	ALKALINITY WAT WH TOT FET FIELD MG/L AS CACO3	ALKALINITY LAB (MG/L AS CACO3)	BICARBONATE WATER WH FET FIELD MG/L AS HCO3
APR 1976											
26...	0830	460	--	--	--	--	--	--	--	--	230
AUG 1996											
07...	1115	380	381	7.3	7.64	17.5	1.47	--	94	108	--

DATE	HARDNESS TOTAL (MG/L AS CACO3)	HARDNESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	SODIUM PERCENT	POTASSIUM, DISSOLVED (MG/L AS K)	CHLORIDE, DISSOLVED (MG/L AS CL)	SULFATE DISSOLVED (MG/L AS SO4)
APR 1976										
26...	36	--	5.1	5.6	120	9	87	2.1	9.6	79
AUG 1996										
07...	130	--	36	8.6	15	0.6	19	8.3	17	39

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS NO2)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)
APR 1976										
26...	0.50	10	--	<0.010	0.0	--	1.00	0.09	--	0.030
AUG 1996										
07...	0.70	9.2	0.040	<0.010	--	<0.20	1.20	0.31	0.090	0.100

DATE	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	ALUMINUM, DISSOLVED (UG/L AS AL)	ANTIMONY, DISSOLVED (UG/L AS SB)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	BROMIDE DISSOLVED (MG/L AS BR)	CADMIUM DISSOLVED (UG/L AS CD)
APR 1976										
26...	--	348	0.47	--	--	<1	<100	--	--	2.0
AUG 1996										
07...	220	209	0.30	4	<1	<1	44	<1	4.4	<1.0

DATE	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SILVER, DISSOLVED (UG/L AS AG)
APR 1976										
26...	--	--	7	<10	4	<10	<0.5	2	--	--
AUG 1996										
07...	2	<1	3	<3	<1	<1	--	6	1	<1.0

DATE	SELENIUM, DISSOLVED (UG/L AS SE)	ZINC, DISSOLVED (UG/L AS ZN)	URANIUM NATURAL DISSOLVED (UG/L AS U)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L)	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT)	GROSS BETA, DISSOLVED (PCI/L AS SR/Y-90)	GROSS BETA, DISSOLVED (PCI/L AS CS-137)	POTASSIUM 40 TOTAL (PCI/L)	TRITIUM TOTAL (PCI/L)	TRITIUM 2 SIGMA WATER, WHOLE, TOTAL (PCI/L)
APR 1976										
26...	<1	ND	--	0.03	32	8.5	10	1.9	--	--
AUG 1996										
07...	<1	2	1.0	--	--	--	--	--	--	--

Boulder County Water-Quality

395559105164300 - SC00107125DACAU SITE C79

WATER-QUALITY DATA

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	SPECIFIC CONDUCTANCE LAB (US/CM)	PH WATER WHOLE LAB (STANDARD UNITS)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	HYDROGEN SULFIDE TOTAL (MG/L AS H2S)	ALKALINITY WAT WH TOT FET FIELD MG/L AS CACO3	ALKALINITY LAB (MG/L AS CACO3)	BICARBONATE WATER WH FET FIELD MG/L AS HCO3
APR 1976											
26...	1300	130	--	--	--	25.0	--	--	34	--	41
AUG 1996											
15...	1330	137	136	6.9	7.2	23.4	6.01	--	37	36	--

DATE	HARDNESS TOTAL (MG/L AS CACO3)	HARDNESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	SODIUM PERCENT	POTASSIUM, DISSOLVED (MG/L AS K)	CHLORIDE, DISSOLVED (MG/L AS CL)	SULFATE DISSOLVED (MG/L AS SO4)
APR 1976										
26...	40	6	11	2.9	7.1	0.5	26	3.1	0.80	19
AUG 1996										
15...	36	--	10	2.7	9.5	0.7	34	2.9	1.1	21

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS NO2)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)
APR 1976										
26...	0.30	15	--	<0.010	0.0	--	0.830	0.18	--	0.060
AUG 1996										
15...	0.30	16	0.020	0.010	0.03	<0.20	0.760	0.28	0.060	0.090

DATE	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	ALUMINUM, DISSOLVED (UG/L AS AL)	ANTIMONY, DISSOLVED (UG/L AS SB)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	BROMIDE DISSOLVED (MG/L AS BR)	CADMIUM DISSOLVED (UG/L AS CD)
APR 1976										
26...	--	83	0.11	--	--	6	200	--	--	2.0
AUG 1996										
15...	90	89	0.12	5	<1	5	170	<1	0.020	<1.0

DATE	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SILVER, DISSOLVED (UG/L AS AG)
APR 1976										
26...	--	--	5	40	9	<10	<0.5	<1	--	--
AUG 1996										
15...	<1	<1	1	<3	<1	<1	--	2	<1	<1.0

DATE	SELENIUM, DISSOLVED (UG/L AS SE)	ZINC, DISSOLVED (UG/L AS ZN)	URANIUM NATURAL DISSOLVED (UG/L AS U)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L)	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT)	GROSS BETA, DISSOLVED (PCI/L AS SR/Y-90)	GROSS BETA, DISSOLVED (PCI/L AS CS-137)	POTASSIUM 40 TOTAL (PCI/L)	TRITIUM TOTAL (PCI/L)	TRITIUM 2 SIGMA WATER, WHOLE, TOTAL (PCI/L)
APR 1976										
26...	1	<20	--	--	4.7	3.6	4.3	1.2	--	--
AUG 1996										
15...	1	2	<1.0	--	--	--	--	--	5.4	1.9

Boulder County Water-Quality

400345105184500 - SB00107111CADB SITE C86

WATER-QUALITY DATA

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	SPECIFIC CONDUCTANCE LAB (US/CM)	PH WATER WHOLE LAB (STANDARD UNITS)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	HYDROGEN SULFIDE TOTAL (MG/L AS H2S)	ALKALINITY WAT WH TOT FET FIELD MG/L AS CACO3	ALKALINITY LAB (MG/L AS CACO3)	BICARBONATE WATER WH FET FIELD MG/L AS HCO3
NOV 1976											
20...	1000	1290	--	--	--	12.0	--	--	--	--	480
AUG 1996											
22...	1020	1497	1460	7.1	6.95	12.7	4.71	--	394	406	--

DATE	HARDNESS TOTAL (MG/L AS CACO3)	HARDNESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	SODIUM PERCENT	POTASSIUM, DISSOLVED (MG/L AS K)	CHLORIDE, DISSOLVED (MG/L AS CL)	SULFATE DISSOLVED (MG/L AS SO4)
NOV 1976										
20...	190	--	50	17	210	7	68	15	42	190
AUG 1996										
22...	230	--	52	25	210	6	64	15	150	140

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS NO2)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)
NOV 1976										
20...	3.5	19	--	0.010	0.03	--	1.70	0.06	--	0.020
AUG 1996										
22...	4.0	19	0.020	<0.010	--	<0.20	0.230	--	<0.010	<0.010

DATE	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	ALUMINUM, DISSOLVED (UG/L AS AL)	ANTIMONY, DISSOLVED (UG/L AS SB)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	BROMIDE DISSOLVED (MG/L AS BR)	CADMIUM DISSOLVED (UG/L AS CD)
NOV 1976										
20...	--	789	1.07	--	--	32	<100	--	--	<2.0
AUG 1996										
22...	904	860	1.23	5	<1	30	23	<1	0.24	<1.0

DATE	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SILVER, DISSOLVED (UG/L AS AG)
NOV 1976										
20...	--	--	28	500	6	160	<0.5	--	--	--
AUG 1996										
22...	10	<1	8	430	<1	170	--	7	3	<1.0

DATE	SELENIUM, DISSOLVED (UG/L AS SE)	ZINC, DISSOLVED (UG/L AS ZN)	URANIUM NATURAL DISSOLVED (UG/L AS U)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L)	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT)	GROSS BETA, DISSOLVED (PCI/L AS SR/Y-90)	GROSS BETA, DISSOLVED (PCI/L AS CS-137)	POTASSIUM 40 TOTAL (PCI/L)	TRITIUM TOTAL (PCI/L)	TRITIUM 2 SIGMA WATER, WHOLE, TOTAL (PCI/L)
NOV 1976										
20...	<1	80	--	--	--	--	--	10	--	--
AUG 1996										
22...	<1	8	11	--	--	--	--	--	66	4.5

Boulder County Water-Quality

395712105135800 - SC00107021BDAB SITE C89

WATER-QUALITY DATA

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	SPECIFIC CONDUCTANCE LAB (US/CM)	PH WATER WHOLE LAB (STANDARD UNITS)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	HYDROGEN SULFIDE TOTAL (MG/L AS H2S)	ALKALINITY WAT WH TOT FET FIELD MG/L AS CACO3	ALKALINITY LAB (MG/L AS CACO3)	BICARBONATE WATER WH FET FIELD MG/L AS HCO3
JUL 1976											
21...	0900	690	--	--	--	--	--	--	246	--	300
SEP 1996											
03...	1330	387	316	6.9	6.54	17.1	6.13	--	148	139	--

DATE	HARDNESS TOTAL (MG/L AS CACO3)	HARDNESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	SODIUM PERCENT	POTASSIUM, DISSOLVED (MG/L AS K)	CHLORIDE, DISSOLVED (MG/L AS CL)	SULFATE DISSOLVED (MG/L AS SO4)
JUL 1976										
21...	300	57	85	22	41	1	23	2.2	38	46
SEP 1996										
03...	150	--	35	15	4.2	0.1	6	0.70	8.4	12

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS NO2)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)
JUL 1976										
21...	0.30	26	--	<0.010	0.0	--	11.0	0.12	--	0.040
SEP 1996										
03...	0.20	14	0.060	0.010	0.03	<0.20	0.080	0.03	<0.010	0.010

DATE	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	ALUMINUM, DISSOLVED (UG/L AS AL)	ANTIMONY, DISSOLVED (UG/L AS SB)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	BROMIDE DISSOLVED (MG/L AS BR)	CADMIUM DISSOLVED (UG/L AS CD)
JUL 1976										
21...	--	457	0.62	--	--	1	<100	--	--	2.0
SEP 1996										
03...	178	179	0.24	3	<1	2	280	<1	0.060	<1.0

DATE	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SILVER, DISSOLVED (UG/L AS AG)
JUL 1976										
21...	--	--	13	40	2	<10	<0.5	1	--	--
SEP 1996										
03...	2	<1	<1	5400	<1	250	--	<1	1	<1.0

DATE	SELENIUM, DISSOLVED (UG/L AS SE)	ZINC, DISSOLVED (UG/L AS ZN)	URANIUM NATURAL DISSOLVED (UG/L AS U)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L)	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT)	GROSS BETA, DISSOLVED (PCI/L AS SR/Y-90)	GROSS BETA, DISSOLVED (PCI/L AS CS-137)	POTASSIUM 40 TOTAL (PCI/L)	TRITIUM TOTAL (PCI/L)	TRITIUM 2 SIGMA WATER, WHOLE, TOTAL (PCI/L)
JUL 1976										
21...	4	30	--	--	3.6	<12	4.3	1.6	--	--
SEP 1996										
03...	<1	32	<1.0	--	--	--	--	--	86	5.8

Boulder County Water-Quality

400319105045100 - SB00106914ABDC SITE C92

WATER-QUALITY DATA

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	SPECIFIC CONDUCTANCE LAB (US/CM)	PH WATER WHOLE LAB (STANDARD UNITS)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	HYDROGEN SULFIDE TOTAL (MG/L AS H2S)	ALKALINITY WAT WH TOT FET FIELD MG/L AS CACO3	ALKALINITY LAB (MG/L AS CACO3)	BICARBONATE WATER WH FET FIELD MG/L AS HCO3
JUL 1976											
22...	0930	860	--	--	--	19.0	--	--	--	--	410
AUG 1996											
07...	0900	892	871	7.4	7.85	12.1	1.85	--	272	302	--

DATE	HARDNESS TOTAL (MG/L AS CACO3)	HARDNESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	SODIUM PERCENT	POTASSIUM, DISSOLVED (MG/L AS K)	CHLORIDE, DISSOLVED (MG/L AS CL)	SULFATE DISSOLVED (MG/L AS SO4)
JUL 1976										
22...	370	--	72	47	65	1	27	2.5	7.4	170
AUG 1996										
07...	350	--	71	42	53	1	25	1.9	14	150

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS NO2)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)
JUL 1976										
22...	1.2	14	--	<0.010	0.0	--	2.60	0.12	--	0.040
AUG 1996										
07...	1.1	15	0.020	<0.010	--	<0.20	2.90	0.09	0.020	0.030

DATE	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	ALUMINUM, DISSOLVED (UG/L AS AL)	ANTIMONY, DISSOLVED (UG/L AS SB)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	BROMIDE DISSOLVED (MG/L AS BR)	CADMIUM DISSOLVED (UG/L AS CD)
JUL 1976										
22...	--	596	0.81	--	--	1	<100	--	--	7.0
AUG 1996										
07...	550	544	0.75	3	<1	<1	43	<1	1.7	<1.0

DATE	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SILVER, DISSOLVED (UG/L AS AG)
JUL 1976										
22...	--	--	9	70	7	<10	<0.5	6	--	--
AUG 1996										
07...	4	<1	2	<3	<1	<1	--	5	2	<1.0

DATE	SELENIUM, DISSOLVED (UG/L AS SE)	ZINC, DISSOLVED (UG/L AS ZN)	URANIUM NATURAL DISSOLVED (UG/L AS U)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L)	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT)	GROSS BETA, DISSOLVED (PCI/L AS SR/Y-90)	GROSS BETA, DISSOLVED (PCI/L AS CS-137)	POTASSIUM 40 TOTAL (PCI/L)	TRITIUM TOTAL (PCI/L)	TRITIUM 2 SIGMA WATER, WHOLE, TOTAL (PCI/L)
JUL 1976										
22...	2	1700	--	0.23	34	8.3	9.3	1.7	--	--
AUG 1996										
07...	<1	<1	14	--	--	--	--	--	--	--

*U.S. GOVERNMENT PRINTING OFFICE 1997-0-573-422/49008