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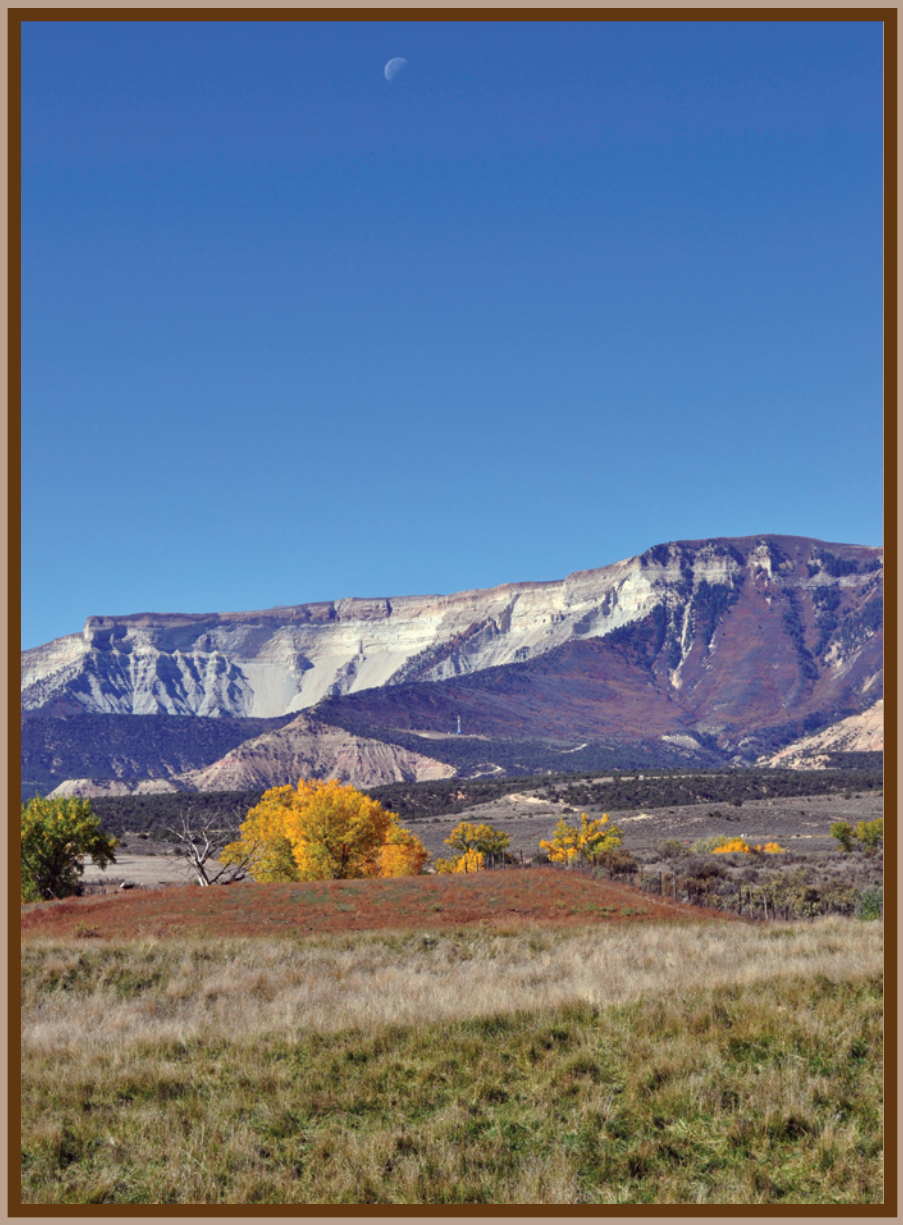
Overview of Groundwater Quality in the Piceance Basin, Western Colorado, 1946–2009



Scientific Investigations Report 2012–5198

U.S. Department of the Interior
U.S. Geological Survey

COVER. Drill rig at base of Roan Cliffs near Rifle, Colorado (photo taken by Judith Thomas, U.S. Geological Survey).

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By J.C. Thomas and P.B. McMahon

Prepared in cooperation with (in alphabetical order): Antero Resources, Bureau of Land Management, Bureau of Reclamation, Chevron Corporation, Cities of Grand Junction and Rifle, Colo., Colorado Department of Agriculture, Colorado Department of Natural Resources, Colorado Department of Public Health and Environment, Colorado Division of Wildlife—River Watch, Colorado Oil and Gas Conservation Commission, Colorado River Water Conservation District, Delta County, Colo., EnCana Oil & Gas (USA) Inc., Garfield County, Colo., Gunnison Energy Corp., National Park Service, Natural Soda, Inc., North Fork River Improvement Association, Oxy Petroleum Corporation, Petroleum Development Corp., Rio Blanco County, Shell Oil Company, Solvay Chemicals, Towns of Carbondale, De Beque, Palisade, Parachute, Rangely, and Silt, Colo., U.S. Forest Service, West Divide Water Conservancy District, and Williams Companies, Inc.

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U.S. Department of the Interior
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Conversion Factors

Inch/Pound to SI

Multiply	By	To obtain
	Length	
foot (ft)	0.3048	meter (m)
mile (mi)	1.609	kilometer (km)
	Area	
square mile (mi^2)	2.590	square kilometer (km^2)
	Flow	
cubic foot per second (ft^3/s)	28.32	cubic decimeter per second (dm^3/s)

Temperature in degrees Celsius (°C) may be converted to degrees Fahrenheit (°F) as follows:

°F=(1.8×°C)+32

Temperature in degrees Fahrenheit (°F) may be converted to degrees Celsius (°C) as follows:

°C=(°F–32)/1.8

Vertical coordinate information is referenced to the North American Vertical Datum of 1988 (NAVD 88).

Horizontal coordinate information is referenced to the North American Datum of 1983 (NAD 83).

Elevation, as used in this report, refers to distance above the vertical datum.

Specific conductance is given in microsiemens per centimeter at 25 degrees Celsius (µS/cm at 25 °C).

Concentrations of chemical constituents in water are given either in milligrams per liter (mg/L) or micrograms per liter (µg/L).

Abbreviations Used in This Report

<	less than
≥	greater than or equal to
µg/L	microgram per liter
ft	foot
ft^3/s	cubic foot per second
mg/L	milligram per liter
mi^2	square mile
BTEX	benzene, toluene, ethylbenzene, xylene
DO	dissolved oxygen

Overview of Groundwater Quality in the Piceance Basin, Western Colorado, 1946–2009

By J.C. Thomas and P.B. McMahon

Abstract

Groundwater-quality data from public and private sources for the period 1946 to 2009 were compiled and put into a common data repository for the Piceance Basin. The data repository is available on the web at *http://rmgsc.cr.usgs.gov/cwqdr/Piceance/index.shtml*. A subset of groundwater-quality data from the repository was compiled, reviewed, and checked for quality assurance for this report. The resulting dataset consists of the most recently collected sample from 1,545 wells, 1,007 (65 percent) of which were domestic wells. From those samples, the following constituents were selected for presentation in this report: dissolved oxygen, dissolved solids, pH, major ions (chloride, sulfate, fluoride), trace elements (arsenic, barium, iron, manganese, selenium), nitrate, benzene, toluene, ethylbenzene, xylene, methane, and the stable isotopic compositions of water and methane.

Some portion of recharge to most of the wells for which data were available was derived from precipitation (most likely snowmelt), as indicated by δ^2H [H_2O] and $\delta^{18}O$[H_2O] values that plot along the Global Meteoric Water Line and near the values for snow samples collected in the study area. Ninety-three percent of the samples were oxic, on the basis of concentrations of dissolved oxygen that were greater than or equal to 0.5 milligrams per liter.

Concentration data were compared with primary and secondary drinking-water standards established by the U.S. Environmental Protection Agency. Constituents that exceeded the primary standards were arsenic (13 percent), selenium (9.2 percent), fluoride (8.4 percent), barium (4.1 percent), nitrate (1.6 percent), and benzene (0.6 percent). Concentrations of toluene, xylenes, and ethylbenzene did not exceed standards in any samples. Constituents that exceeded the secondary standard were dissolved solids (72 percent), sulfate (37 percent), manganese (21 percent), iron (16 percent), and chloride (10 percent). Drinking-water standards have not been established for methane, which was detected in 24 percent of samples. Methane concentrations were greater than or equal to 1 milligram per liter in 8.5 percent of samples. Methane isotopic data for samples collected primarily from domestic wells in Garfield County indicate that methane in samples with relative high methane concentrations were derived from both biogenic and thermogenic sources. Many of the constituents that exceeded standards, such as arsenic, fluoride, iron, and manganese, were derived from rock and sediment in aquifers. Elevated nitrate concentrations were most likely derived from human sources such as fertilizer and human or animal waste.

Information about the geologic unit or aquifer in which a well was completed generally was not provided by data sources. However, limited data indicate that Quaternary deposits in Garfield and Mesa Counties, the Wasatch Formation in Garfield County, and the Green River Formation in Rio Blanco County had some of the highest median concentrations of selected constituents. Variations in concentration with depth could not be evaluated because of the general lack of well-depth and water-level data.

Concentrations of several important constituents, such as arsenic, manganese, methane, and nitrate, were related to concentrations of dissolved oxygen. Concentrations of arsenic, manganese, and methane were significantly higher in groundwater with low dissolved-oxygen concentrations than in groundwater with high dissolved-oxygen concentrations. In contrast, concentrations of nitrate were significantly higher in groundwater with high dissolved-oxygen concentrations than in groundwater with low dissolved-oxygen concentrations. These results indicate that measurements of dissolved oxygen may be a useful indicator of groundwater vulnerability to some human-derived contaminants and enrichment from some natural constituents.

Assessing such a large and diverse dataset as the one available through the repository poses unique challenges for reporting on groundwater quality in the study area. The repository contains data from several studies that differed widely in purpose and scope. In addition to this variability in available data, gaps exist spatially, temporally, and analytically in the repository. For example, groundwater-quality data in the repository were not evenly distributed throughout the study area. Several key water-quality constituents or indicators, such as dissolved oxygen, were underrepresented in the repository. Ancillary information, such as well depth, depth to water, and the geologic unit or aquifer in which a well was completed, was missing for more than 50 percent of samples.

Future monitoring could avoid several limitations of the repository by making relatively minor changes to sample-collection and data-reporting protocols. Field measurements for dissolved oxygen could be added to sampling protocols,

for example. Information on well construction and the geologic unit or aquifer in which a well was completed should be part of the water-quality dataset. Such changes would increase the comparability of data from different monitoring programs and also add value to each program individually and to that of the regional dataset as a whole. Other changes to monitoring programs could require greater resources, such as sampling for a basic set of constituents that is relevant to major water-quality issues in the regional study area. Creation of such a dataset for the regional study area would help to provide the kinds of information needed to characterize background conditions and the spatial and temporal variability in constituent concentrations associated with those conditions. Without such information, it is difficult to identify departures from background that might be associated with human activities.

Introduction

Western Colorado is undergoing large-scale energy development especially in the Piceance Basin. As this development proceeds, potential short and long-term changes in groundwater quality will require ongoing monitoring and assessment. A substantial number of water-resource datasets, publications, and other materials have been developed and are potentially available for use in assessing existing groundwater quality. However, these data have been stored in disparate formats among numerous agencies, energy companies, private consulting firms, universities, and stakeholder groups. In order to take advantage of existing data and to integrate them with data from ongoing studies, the U.S. Geological Survey, in cooperation with public and industry partners, developed a web-accessible common data repository to provide energy operators, researchers, consultants, agencies, and interested stakeholders equal access to existing water-quality information. The following is an alphabetical list of cooperators involved in this study: Antero Resources, Bureau of Land Management, Bureau of Reclamation, Chevron Corporation, Cities of Grand Junction and Rifle, Colo., Colorado Department of Agriculture, Colorado Department of Natural Resources, Colorado Department of Public Health and Environment, Colorado Division of Wildlife—River Watch, Colorado Oil and Gas Conservation Commission, Colorado River Water Conservation District, Delta County, Colo., EnCana Oil & Gas (USA) Inc., Garfield County, Colo., Gunnison Energy Corp., National Park Service, Natural Soda, Inc., North Fork River Improvement Association, Oxy Petroleum Corporation, Petroleum Development Corp., Rio Blanco County, Shell Oil Company, Solvay Chemicals, Towns of Carbondale, De Beque, Palisade, Parachute, Rangely, and Silt, Colo., U.S. Forest Service, West Divide Water Conservancy District, and Williams Companies, Inc.

Purpose and Scope

This report provides an overview of groundwater-quality data that have been compiled and put into a common data repository for the Piceance Basin from public and industry sources for the period 1946 to 2009. This overview describes the availability of groundwater-quality data in the Piceance Basin in terms of three characteristics: spatial (where sample sites were located), temporal (what is the period of record), and analytical (what constituents were sampled). Spatial variability in constituent concentrations are described and, where possible, examined relative to human and natural factors. This overview provides a basis for developing regional groundwater monitoring strategies to fill data gaps, to improve the understanding of groundwater quality in the basin, and to increase the comparability of data derived from existing monitoring programs.

Description of the Study Area

In this report, the Piceance Basin refers to an area of approximately 9,500 square miles in western Colorado extending from north of Rangley to south of Delta and from Glenwood Springs to the Colorado-Utah state border (fig. 1). The study area combines structural basins, hydrologic basins, and political boundaries whose selection has been based in part on mineral-resource extraction, water resources, and cooperator interest.

Geology

The Piceance structural basin is a downwarped region surrounded by uplifted regions including the Axial Basin arch to the north, the Grand Hogback to the east, the Gunnison uplift to the southeast, the Uncompahgre uplift to the southwest, and the Douglas Creek arch to the west (fig. 2). Quaternary alluvial, terrace and valley-fill deposits constitute the unconsolidated materials in the valleys. Tertiary sedimentary bedrock units crop out in the center of the downwarped region, and uplifted regions are underlain primarily by Cretaceous sedimentary rocks (fig. 3).

Quaternary sedimentary deposits and Tertiary and Cretaceous sedimentary rocks were the primary host materials for aquifers represented in the common data repository (table 1). Quaternary deposits included alluvium, terrace deposits, and valley fill deposits (fig. 4). The Green River and Wasatch Formations were the primary Tertiary units in which wells in the study area were screened. The Green River Formation, of early Tertiary age, rests conformably on the Wasatch Formation (older Tertiary rock). The Green River Formation has been divided into four members (from youngest to oldest): Evacuation Creek, Parachute Creek, Garden Gulch, and Douglas Creek (Bradley, 1931). The name “Evacuation Creek Member” was abandoned and its associated rocks are assigned to the lower part of the Uinta Formation in the

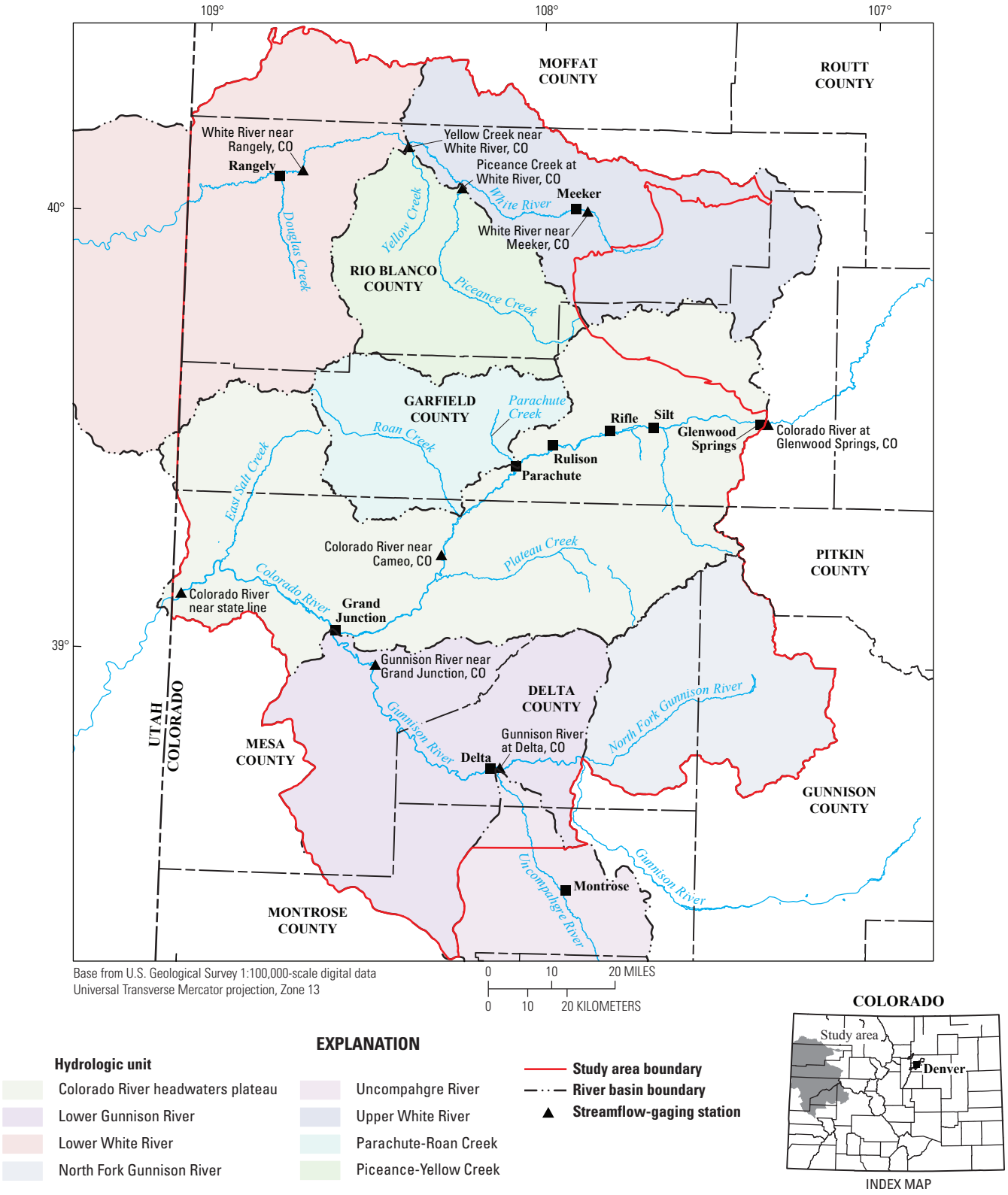

Figure 1. Piceance Basin study area, western Colorado.

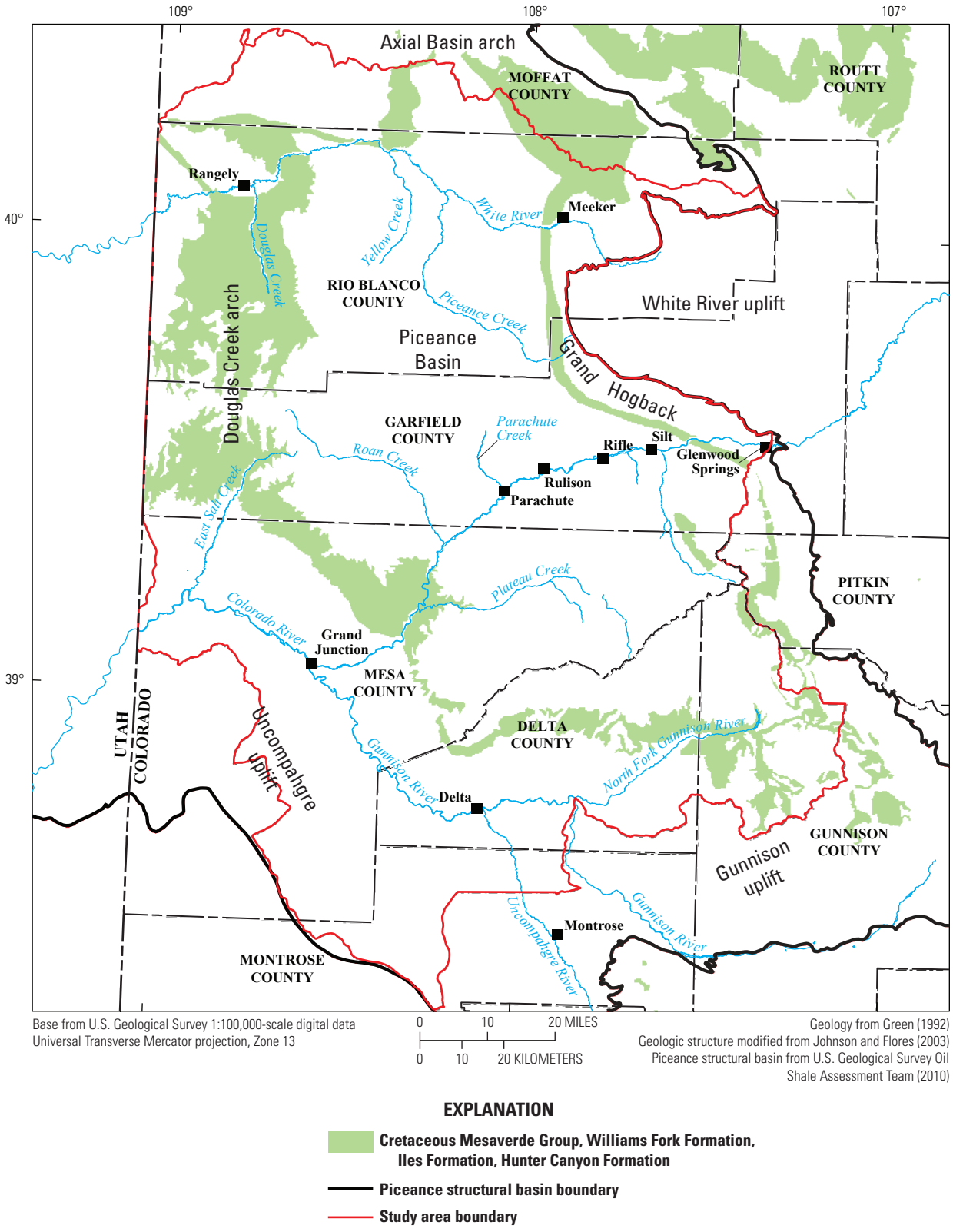

Figure 2. Generalized geologic structures, Piceance Basin, western Colorado.

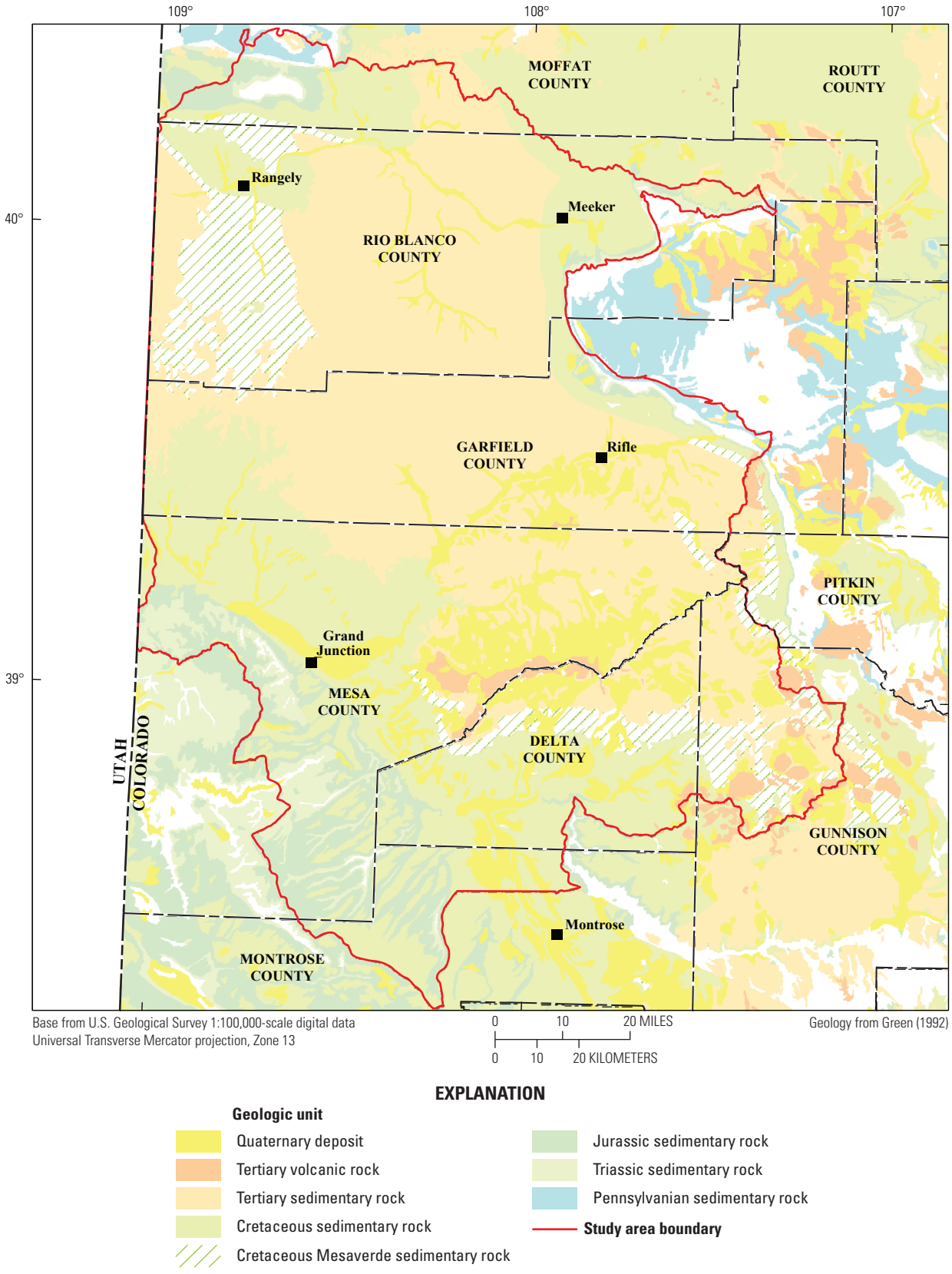

Figure 3. Generalized geologic units in which water wells were completed, Piceance Basin, western Colorado.

Table 1. Geologic units and U.S. Geological Survey National Water Information System descriptions of aquifers represented in the Piceance Basin common data repository.

Geologic unit	NWIS aquifer code	NWIS aquifer description	Sites	Count sample	Count individual result	Range of years	
Quaternary	110QRNR	Quaternary System	68	68	1,626	1981	2003
	111ALFP	Alluvium, flood plain	61	61	1,812	1973	1983
	111ALVM	Alluvium	17	17	224	1958	2006
	111AVMT	Alluvium, terrace	63	63	829	1974	2000
	111VLFL	Valley-fill deposits	82	82	658	1969	1997
	112GLCL	Glacial colluvium	21	21	118	1978	1982
	112TERC	Terrace deposits	1	1	53	1977	1977
		Quaternary totals	**313**	**313**	**5,320**	**1958**	**2006**
Tertiary	120TRTR	Tertiary System	1	1	55	1974	1974
	124EOCN	Eocene Series	9	10	681	1982	2000
	124GRRV	Green River Formation	128	128	2,532	1969	1988
	124WSTC	Wasatch Formation	35	37	815	1975	2007
		Tertiary totals	**173**	**176**	**4,083**	**1969**	**2007**
Cretaceous	210DKOT	Dakota Sandstone or Formation or Group	11	12	361	1974	1991
	211FXHL	Fox Hills Formation	1	2	53	2003	2003
	211MNCS	Mancos Shale	24	24	1,104	1974	2001
	211MVRD	Mesaverde Group	82	82	1,374	1951	2006
	217BRCN	Burro Canyon Formation	3	3	6	1981	1985
		Cretaceous totals	**121**	**123**	**2,898**	**1951**	**2006**
Jurassic	220NVJO	Navajo Sandstone	5	5	177	1958	1971
	221BRSB	Brushy Basin Shale Member of Morrison Formation	1	1	75	991	1991
	221ENRD	Entrada Sandstone	4	4	87	1958	1988
	221MRSN	Morrison Formation	2	2	4	1981	1985
Pennsylvanian	310PMPV	Permian-Pennsylvanian Systems	2	2	8	1982	1982
	310WBER	Weber Sandstone	5	5	204	1967	1973
	321PSLVU	Upper Pennsylvanian Series	1	1	6	1982	1982
	331LDVL	Leadville Limestone	3	3	6	1982	1984
Unknown	NA	Not available	1,464	1,507	59,399	1966	2009

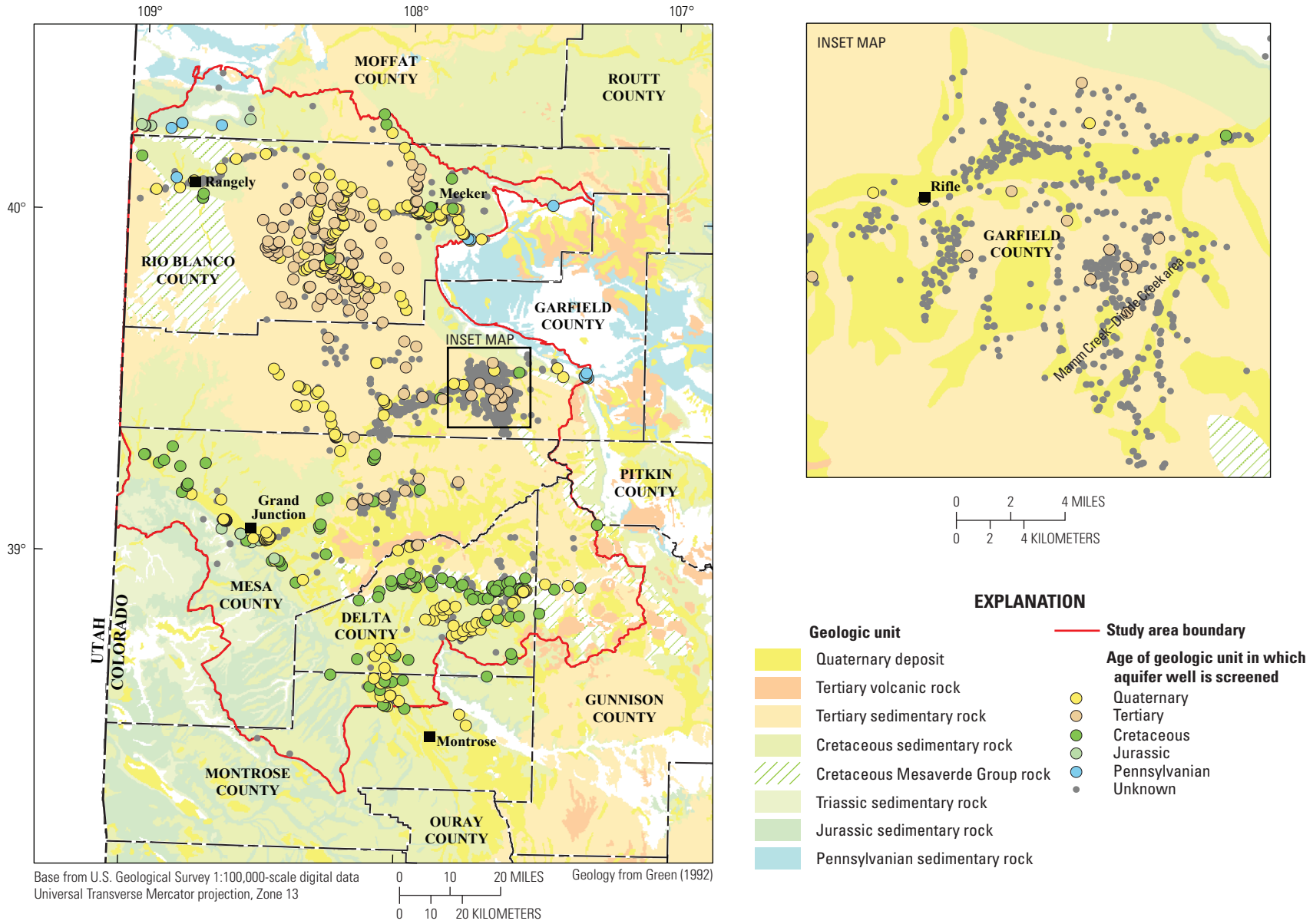

Figure 4. Distribution of sites by geologic unit for wells in the Piceance Basin, western Colorado. Geologic unit designation was based on aquifer descriptions from original data source and was not reclassified for this study.

Piceance Basin, a revision in nomenclature based on stratigraphy (Cashion and Donnell, 1974). The Parachute Creek Member is a dolomitic marlstone containing soluble minerals (such as halite and nahcolite). The Garden Gulch Member is a shaley, dolomitic marlstone, and the Douglas Creek Member is primarily sandstone. The Green River Formation is well known for rich oil shale deposits (for example, the informally named Mahogany oil shale zone). The Wasatch Formation consists of varicolored mudstone with sandstone lenses (Johnson and Flores, 2003). Some of the sandstone lenses, such as the Wasatch "G" interval of the Wasatch Formation, are notable reservoirs of natural gas near the towns of Parachute and Rulison (Nelson and Santus, 2010) (fig. 1). The Wasatch Formation is a source of potable water and also contains rich natural gas deposits (URS Corporation, 2006).

Cretaceous sedimentary rocks of primary interest in the study area were the Mesaverde Group, the Mancos Shale, and the Dakota Sandstone. The Mesaverde Group consists of the Iles Formation and the Williams Fork Formation. The Williams Fork Formation is an important natural-gas-producing unit within the study area. The Iles Formation contains several members, such as the Corcoran Sandstone, Cozzette Sandstone, and Rollins Sandstone Members (Reinecke and others, 1991). The Mesaverde Group was formed by a series of marine transgressions and regressions followed by periods of fluvial deposition (Johnson, 1989) which produced a sequence of marine shales, siltstones, and sandstones capped by a thick sequence of terrestrial fluvial deposits. The fluvial deposits of the Mesaverde consist almost entirely of lenticular channel sandstones and fine-grained flood-plain deposits. Recovering natural gas from channel sandstones, the primary reservoirs, requires a dense drilling pattern (Nelson and Santus, 2010). The Mancos Shale is composed of massive, fossiliferous marine shale with interbedded sandstone, siltstone, and devitrified volcanic ash layers. The Mancos is wholly or partly the lateral equivalent of the Niobrara Formation, Cody Shale, and lower Pierre Shale in Colorado, Montana, Nebraska, South Dakota, and Wyoming (Green, 1992; Wright and Butler, 1993). The Dakota Sandstone is composed of interbedded well-consolidated sandstone, conglomerates, shale, and coal (Brooks and Ackerman, 1985).

Hydrology

The Colorado River flows through the middle of the study area from Glenwood Springs to the Colorado-Utah state line and has annual mean streamflows of 3,340 cubic feet per second (ft^3/s) at Colorado River below Glenwood Springs, 3,830 ft^3/s at Colorado River near Cameo, and 6,140 ft^3/s at the state line (fig. 1) (U.S. Geological Survey, 2011). In the northern portion of the study area, Piceance and Yellow Creeks flow into the White River; annual mean streamflows at their mouths are 35 ft^3/s and 2.8 ft^3/s, respectively. The White River flows east to west in the northern portion of the study area with average annual streamflows of 620 ft^3/s at White River near Meeker and 727 ft^3/s at White River below Boise Creek near Rangely. In the southern portion of the study area, the Gunnison River has annual mean streamflows of 1,960 ft^3/s at Gunnison River at Delta and 2,560 ft^3/s at Gunnison River near Grand Junction (fig. 1).

Sources of recharge to aquifers in the study area include snowmelt from upland areas, irrigation in valleys, and upwelling of groundwater from deeper aquifers. Surface-water basin boundaries roughly serve as groundwater basin boundaries, where groundwater elevations in the study area generally follow the topography. Thus, groundwater flows from recharge areas in uplands to discharge areas in valleys. Major surface-water drainages such as the Colorado, White, and Gunnison Rivers were interpreted as regional discharge areas for groundwater. In the Piceance and Yellow Creek drainage area, recharge occurs from higher elevations and groundwater flows toward Piceance Creek and then to the north. Owing to geologic structural controls, groundwater moves upward along fractures from deeper aquifers to shallower aquifers in the north-central part of the drainage area (Weeks and others, 1975; Taylor, 1987). In Mesa County near Grand Junction, artesian aquifers have existed within the Entrada Sandstone, the Wingate Sandstone, the Salt Wash Member of the Morrison Formation, and the Dakota Sandstone (Lohman, 1965). The Williams Fork Formation is a semiconfined aquifer under artesian pressure specifically in the Garfield County area, where upwelling can occur along conduits such as well bores or natural fractures (Tyler and others, 1995).

Land Cover and Land Use

Land cover in the study area includes forest, rangeland, agricultural land, and urban areas (fig. 5). Of the 9,500 square miles (mi^2) in the study area, about half the total area (4,700 mi^2) is forest; about 40 percent (3,400 mi^2) of the total area is rangeland. Located predominately in valleys and adjacent to rivers, about 6 percent (633 mi^2) is agricultural land, and less than 1 percent of the total area (69 mi^2) is urban land. Grand Junction (population 54,694), Delta (8,708), Rifle (8,675), and Meeker (2,409) are the largest population centers in the study area (U.S. Census Bureau, 2011).

Oil shale has historically been an energy resource of great interest in the northern part of the Piceance Basin. Oil shale is a leaseable mineral according to the Mineral Leasing Act of 1920 and Executive Order 5327. In the early 1900s an executive order from the President established the Naval Petroleum and Oil Shale Reserves within which the oil shale resources of Colorado were managed (U.S. Department of Energy, 2011a). In 1974, oil shale prototype leasing was initiated in the Piceance Basin; two leases (Tracts C-a and C-b) were awarded in order to determine methods of extracting oil shale while maintaining the environmental integrity of the area affected (Weeks and others, 1975). The prototype leasing program for Tracts C-a and C-b ended owing to various political and economic reasons and little was done with oil shale on Federal

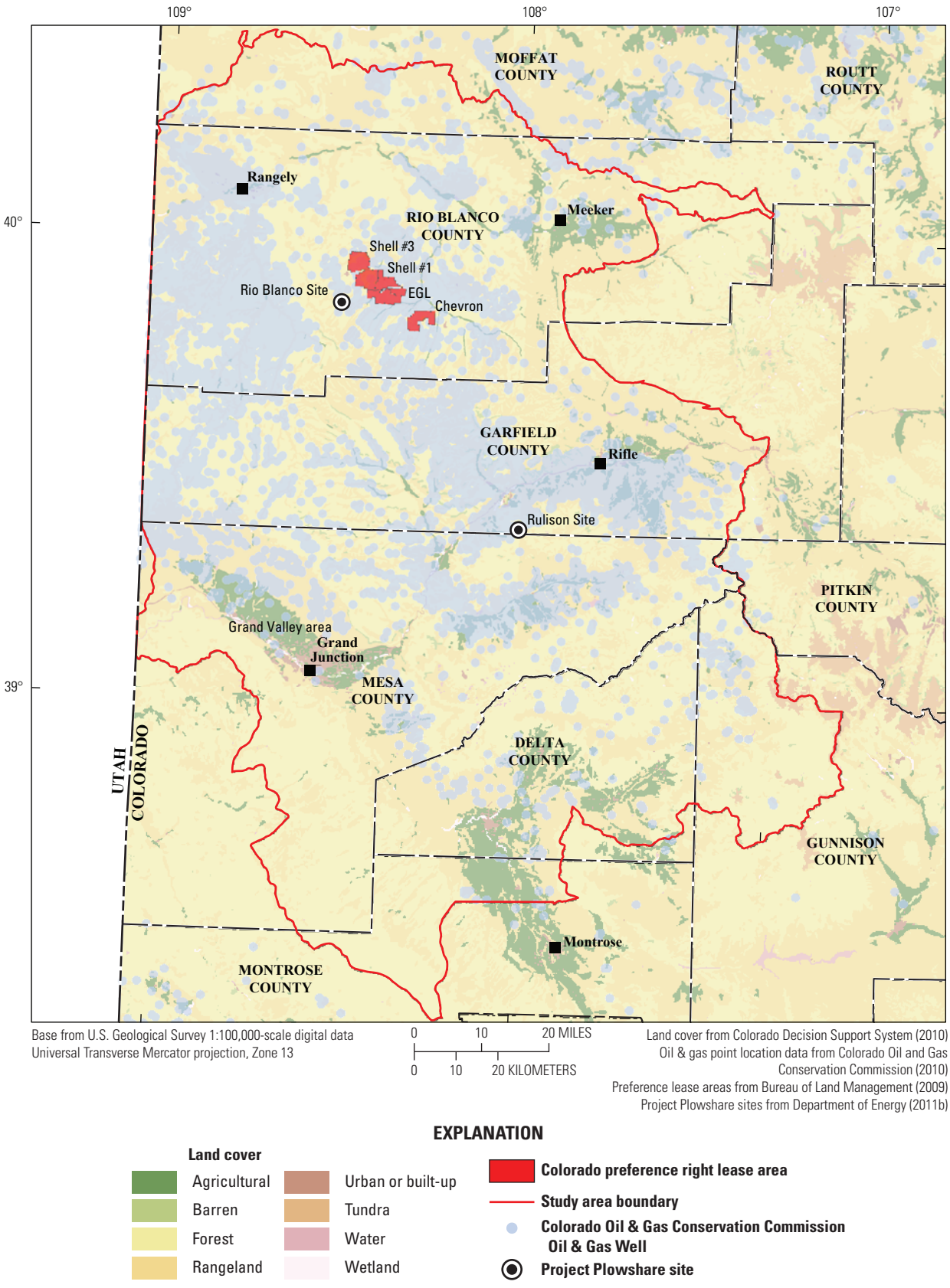

Figure 5. Land cover and land use, Piceance Basin, western Colorado. Preference right lease areas are research, development, and demonstration sites. Grand Mesa snow data from George Ingersoll (U.S. Geological Survey, written commun., 2006).

lands in the Piceance Basin until 2005 when the Energy Policy Act was enacted. Beginning in 2005, the Bureau of Land Management began nominating entities for research, development, and demonstration (RD&D) projects targeted at developing oil shale in an economically sustainable and environmentally responsible fashion. In 2007 in Colorado, three RD&D leases of 160 acres each were awarded—one to Shell Frontier Oil and Gas, Inc., one to E.G.L Resources, Inc., and one to Chevron USA, Inc. (Bureau of Land Management, 2011a). Ten thousand acres were identified as preference right lease areas for commercial development within a 10-year term, and with the potential for 5-year extensions (Bureau of Land Management, 2011a).

Nahcolite is also a leasable mineral and is associated with oil shale in the Green River Formation in the Piceance Basin. As such, it cannot be disposed of during oil shale production, and thus it becomes an integral factor in determining the ease of mining oil shale in the Piceance Basin. The U.S. Bureau of Mines characterized nahcolite resources in the Piceance Basin in the late 1970s by use of samples obtained from a 10-foot-diameter shaft drilled to the nahcolite (saline) zone in the northern part of the basin near Piceance Creek (U.S. Geological Survey Oil Shale Assessment Team, 2010). On the basis of this information, White River Nahcolite Minerals LLC began solution mining nahcolite on a Federal lease tract in the Piceance Basin. In 2003, AmerAlia Inc. (Natural Soda Inc.) purchased the operation and produced about 103,000 tons of sodium bicarbonate in 2007. This facility is the only one currently (2009) producing sodium bicarbonate from nahcolite in the Piceance Basin. The method of mining involves drilling to the target bed, injecting hot water to dissolve the nahcolite, and then pumping the nahcolite-bearing brine to the surface through a production hole adjacent to the injection well. The brine is placed in holding ponds where excess water is removed, which allows the sodium bicarbonate to recrystallize (U.S. Geological Survey Oil Shale Assessment Team, 2010).

Natural gas development has increased in the study area since 2000, in part due to advancements in the application of hydraulic fracturing of tight gas resources (Wasatch Formation and Mesaverde Group) which has allowed successful extraction of natural gas from previously inaccessible sources (Nelson and Santus, 2010). In Garfield County alone between 2004 and 2010, the Colorado Oil and Gas Conservation Commission issued 13,775 application permits to develop (fig. 5) (Colorado Oil and Gas Conservation Commission, 2010). Natural gas development on public lands in Rio Blanco County increased from 58 permits in 2001 to 200 permits in 2006; a total of 2,556 multiple well pads is projected during the next 20 years (Bureau of Land Management, 2011b).

Previous Work

The Piceance Basin in western Colorado contains energy, mineral, and other natural resources that have been the subject of numerous studies and publications. Selected publications were summarized as they relate to water resources within the study area. In 1874, the Green River Formation was identified in the Piceance Basin, and subsequent studies have focused on the energy resources of this formation (for example, oil shale) (Donnell, 1961). In 1964, the first investigations of water resources were conducted that document the geohydrology of the Piceance Basin (Coffin and others, 1968; Coffin and others, 1971). Several reports discussed simulated effects of oil-shale development and assessed oil shale resources by using information learned during earlier prototype leasing in the 1970s (for example, Weeks and others, 1975; Taylor, 1987). These studies were conducted primarily in Rio Blanco County in the Piceance Creek and Yellow Creek drainages and were focused on oil shale resources. Around the time of oil shale prototype leasing, the U.S. Department of Energy conducted nuclear gas-stimulation experiments under Project Plowshare at several locations including Rio Blanco site and Rulison site, both of which lie within the Piceance Basin (National Nuclear Security Administration, 2010; U.S. Department of Energy, 2011b) (fig. 5). During this time, groundwater-resource studies focused on planned energy development and small-scale prototype investigations.

More recently, URS Corporation completed a hydrogeologic study of the Mamm Creek–Divide Creek area in Garfield County (fig. 4), located 8 miles southeast of Rifle, that described regional hydrology, geology, and groundwater chemistry (URS Corporation, 2006). In a second phase of investigation in 2007, S.S. Papadopulos & Associates, Inc., resampled domestic wells (identified in the phase I investigation) for water quality, composition of hydrocarbon gas, and stable isotopic composition of methane. It then sampled produced water and collected natural gas samples from gas wells to characterize potential sources of hydrocarbon contamination (S.S. Papadopulos & Associates, Inc., 2008). These studies provided information on groundwater resources, groundwater quality, and activities related to natural gas production. As a follow up to these studies (URS Corporation, 2006; S.S. Papadopulos & Associates, Inc., 2008), McMahon and others (2010) examined sources and sinks of nitrate and methane in groundwater from the Wasatch Formation in Garfield County.

Groundwater quality in the Colorado headwaters drainage, including the Grand Valley area (fig. 5), is discussed as part of surface-water investigations focused on salinity and selenium (Butler and others, 1996; Butler and Osmundson, 2000; Hamilton and others, 2003). Other studies of salinity and selenium in surface water and the effects of irrigation practices in the lower Gunnison River Basin (Butler and others, 1996; Butler and Osmundson, 2000; Thomas, 2009) discuss groundwater but not comprehensive groundwater investigations.

Methods

Groundwater-quality data were compiled into the common data repository and a subset of these data was used in this report. These data were summarized to provide information about the period of record for each constituent, number of values, number of censored values, and exceedances of drinking-water standards. The data were evaluated spatially within the study area and statistically to compare concentrations of selected constituents at different sites.

Compilation of Data

A repository of available groundwater-quality data was compiled from local, State, and Federal agencies and private entities (consulting, energy, and mining companies) to assist in the analysis of water resources in the study area (table 2). The data repository is available on the web at *http://rmgsc.cr.usgs.gov/cwqdr/Piceance/index.shtml*. The goal was for the repository to contain the most comprehensive set of groundwater-quality data in the study area to date. For a variety of reasons, however, not all results from known data sources were loaded into the repository: data sources that did not participate, data not received in electronic format, metadata insufficient, and data submitted late. For these reasons, this report represents the most comprehensive set of groundwater-quality data available for the Piceance Basin as of August 2009.

As of August 2009, the data repository contained 8,635 samples and more than 480 constituents, but only a subset of these samples (1,545) was analyzed in this report (tables 3 and 4). The following constituents were selected for analysis: stable isotopes of water, dissolved oxygen, major ions (dissolved solids, pH, chloride, sulfate, fluoride), trace elements (arsenic, barium, iron, manganese, selenium), nitrate, benzene, toluene, ethylbenzene, and xylene, methane, and isotopic composition of methane. Duplicate results (the same sample submitted to the repository by two or more source agencies) were removed prior to analysis. For sites with more than one sample, only the most recent, comprehensive groundwater sample was used for analysis. Where major-ion data were available, a charge balance was computed as part of the water-quality review, gross errors were flagged in the database, and those results were removed from data analysis. In using these datasets to describe water quality in the Piceance Basin, it is important to remember that the repository as a whole is a collection of multiple studies with multiple objectives. Thus, it is not surprising that the samples were not all analyzed for the same set of chemical constituents. Many samples, however, also lacked important ancillary information that was needed to place them in proper hydrologic context. Such ancillary information included well depth, depth to water, well type, and geologic unit or aquifer. Only 33 percent of the samples had well-depth information, 19 percent had geologic-unit or aquifer designations, and 5 percent had depth-to-water information, but all did have well-type information (tables 5 and 6).

Types of Analysis Used

Various types of analysis were used to evaluate groundwater-quality data for this report. Concentration data were evaluated spatially by plotting them on a map of the study area with either geology layer or land use layer. Stable-isotope results use the standard delta (δ) notation, in per mil ($^0/_{00}$, parts per thousand). Stable oxygen-iostopic composition of water samples ($\delta^{18}O[H_2O]_{sample}$) are equal to

$$\delta^{18}O[H_2O]_{sample} = (({}^{18}O/{}^{16}O)_{sample}/({}^{18}O/{}^{16}O)_{ref} - 1) * 1000$$

where

$^{18}O/^{16}O$ is the ratio of the oxygen-18 to oxygen-16 isotopes in the sample and the reference (ref) material.

Values of δ^2H $[H_2O]$ and $\delta^{18}O[H_2O]$ were referenced to the Vienna Mean Ocean Water scale (Coplen, 1988).

Groundwater composition was represented by using trilinear plots of major anions and cations. Of the 1,545 sites, 1,007 were classified as domestic wells on the basis of information provided by the data source (table 4). Because more than half of the wells were being used for domestic water supply, data were compared with drinking-water standards even though none of these standards are required or enforced for domestic water supplies. Where applicable, constituents were compared to constituents listed in primary and secondary drinking-water standards established by the U.S. Environmental Protection Agency (USEPA). The USEPA National Primary Drinking Water Regulations (herein referred to as "primary standards") are legally enforceable standards that apply to public water systems. Primary standards are intended to protect public health by limiting the concentrations of contaminants in drinking water and were used in this report to provide a context for evaluating groundwater quality in the Piceance Basin (U.S. Environmental Protection Agency, 2010). Data also were compared with National Secondary Drinking Water Regulations (herein referred to as "secondary standards"), which are nonenforceable guidelines for constituents that may cause cosmetic effects (such as skin or tooth discoloration) or have poor aesthetic qualities (such as poor taste, odor, or color) in drinking water (U.S. Environmental Protection Agency, 2010). The geologic unit and aquifer in which a well was completed were important information for evaluating water-quality data and were used to group concentration data by constituent. Water-quality samples were stratified by county, geologic unit, and aquifer, and results for sample counts greater than or equal to 10 were considered sufficient and retained for further analysis and presentation in this report.

The determination of chemical properties of waters can result in nondetects (zero and negative values, "left-censored data") because of analytical limits of the laboratory analysis. In a dataset of this breadth, nondetect data can reflect several forms of bias, such as antiquated methods for storing nondetects and changes in the meaning of "less than" values. Therefore,

Table 2. Data sources that contribute to the Piceance Basin common data repository of groundwater data, 1946–2009. Duplicate data and all but the most recent sample and results were removed.

Agency Name	Sites	Samples	Date range		Results
Antero Resources	159	223	7/12/2005	7/16/2009	9,749
City of Grand Junction	3	67	6/22/1988	10/28/2008	813
Colorado Department of Agriculture	43	43	3/31/1998	10/26/2000	354
Colorado Oil and Gas Conservation Commission	1,048	2,861	4/2/1956	10/14/2008	63,234
EnCana Oil & Gas (USA) Inc.	496	2,991	5/4/2001	4/13/2009	119,233
Mine Consultant	24	24	8/10/1995	12/6/2006	139
Oxbow Mining	1	1	8/10/2006	8/10/2006	5
U.S. Forest Service	1	3	9/27/2006	6/27/2007	71
U.S. Geological Survey	1,228	2,391	7/16/1946	4/27/2009	35,433
Willams	12	16	8/30/2006	10/6/2008	699
Wright Water Engineeres, Inc, CO	15	15	4/26/2002	7/17/2002	75

Agency Name	Constituent catergories[1]											
	Information	Inorganic compounds, major ions, metals	Inorganic compounds, major ions, nonmetals	Inorganic compounds, minor ions, metals	Inorganic compounds, minor ions, nonmetals	Micro-biological constitu-ents	Nutrient	Organic and other com-pounds	Organic com-pounds and pesticide	Physical character-istics	Radio-chemical com-pounds	Stable Isotopes
Antero Resources	892	892	1,465	1,081	573	442	669	1,338		1,507		
City of Grand Junction		70	73	278	76	73	99	16		116	8	
Colorado Department of Agriculture		84	82		21		41			126		
Colorado Oil and Gas Conservation Commission		6,611	14,223	3,838	1,924	2,018	3,852	12,835	101	10,014	272	1,392
EnCana Oil & Gas (USA) Inc.	5,807	8,401	20,101	5,396	3,174	3,945	6,857	23,415		24,995	25	2,427
Mine Consultant			20		34		15			70		
Oxbow Mining			1				1			3		
U.S. Forest Service	27		20							21		
U.S. Geological Survey	2,459	4,024	6,740	5,261	1,541	3	2,881	1,952	486	9,175	384	196
Willams	38	64	140	128	48	28	60	81		95		
Wright Water Engineeres, Inc, CO			15		2		13			45		

[1] Examples of constiuents for “Information” would be sampling purpose, methods, analyzing agency. Examples for “Inorganics, Major, Metals” would include calcium, magnesium, and sodium. Examples of constiuents for “Inorganics, Major, Non-metals” would include chloride and sulfate. Examples of constiuents for “Inorganics, Minor, Metals” would be manganese and iron. Examples of constiuents for “Inorganics, Minor, Non-Metals” would be arsenic and selenium. Examples of constiuents for “Microbiological” would be fecal coliform and iron reducing bacteria. Examples of constiuents for “Nutrient” would be nitrate as N and total phosphorus. Examples of constiuents for “Organics, Other” would be benzene, toluene, and methane. Examples of constiuents for “Organics, Pesticide” would be alachlor and chlorpyrifos. Examples of constiuents for “Physical” would be field parameters and depth to water. Examples of constiuents for “Radiochemical” would be uranium and tritium. Examples of constiuents for “Stable Isotopes” would be carbon-13/carbon-12 ratio in methane and deuterium/protium ratio in methane.

Table 3. Summary of groundwater-quality-data reduction from site, sample and qw_result tables for data analysis for Piceance retrospective water-quality data base. Duplicate data and all but the most recent sample and results were reviewed.

Table name	All groundwater data[1]	Groundwater data summarized here[2]
Site	3,058	1,587
Sample	8,635	1,587
QW_RESULT	229,805	53,924

[1]In Piceanc Basin common data repository; see table 3.

[2]See table 4.

these results should be considered with this limitation in mind (Helsel, 2005a). Where multiple censoring levels exist for a single constituent, data were not edited to a common censoring level for summary statistics in this report (Helsel, 2005b). Summary statistics were computed by using Kaplan-Meier methods when no more than 50 percent of the observations were censored (Helsel, 2005b). Maximum likelihood estimations were computed for greater than 50 observations and where 50 to 80 percent of the observations were censored. The data range, censoring levels, and maximum observation were reported where more than 80 percent of the observations were censored (Helsel, 2005b).

Dissolved-oxygen concentrations and methane concentrations were also used to stratify concentration data for each constituent. Dissolved-oxygen data were used to determine if a sample was oxic (dissolved-oxygen concentrations greater than or equal to 0.5 milligrams per liter (mg/L)) or anoxic (dissolved-oxygen concentrations less than 0.5 mg/L) (McMahon and Chapelle, 2008). Methane concentrations greater than or equal to 1 mg/L were considered high; methane concentrations less than 1 mg/L were considered low (McMahon and others, 2010). The nonparametric Wilcoxon rank sum test was used to identify statistically significant differences (p <0.05) in average constituent concentrations belonging to different groups (for example anoxic as compared to oxic samples) (Helsel and Hirsch, 2002).

Overview of Groundwater Quality in the Piceance Basin

This report provides an overview of constituents, which include stable isotopes of water, dissolved oxygen, major ions (dissolved solids, pH, chloride, sulfate, fluoride), trace elements (arsenic, barium, iron, manganese, selenium), nitrate, benzene, toluene, ethylbenzene, and xylene, methane, and isotopic composition of methane. These were analyzed because they accounted for most of the exceedances of water-quality standards in the data repository. Other data, such as dissolved-oxygen concentrations and water and methane isotopic values, provide understanding with respect to the water sources and fate and transport of the selected constituents.

Sources of Recharge to Wells

Recharge to most wells in the study area was derived from precipitation, as indicated by the ratio of deuterium (^2H) and protium (^1H) (δ^2H [H_2O]) and the ratio of ^{18}O and ^{16}O in water ($\delta^{18}O[H_2O]$) values which plot along or near the Global Meteoric Water Line (GMWL) (Craig, 1961).

Data for Grand Mesa snow and for Mesaverde Group produced water were plotted to provide additional context for these stable-isotope values in the study area. Grand Mesa snow samples were intended to generally represent precipitation from higher elevations and colder temperatures, whereas produced waters from the Mesaverde Group were intended to generally represent produced water and/or deep groundwater.

Extensive faulting and fracturing in the study area and drilling for natural gas provide potential conduits through which deep groundwater can move upward into freshwater aquifers. Chemical and isotopic characterization of deep groundwater allows its presence in the shallow aquifers to be recognized and the ability to know from which deep geologic unit it originated. These comparisons were somewhat qualitative because the isotopic composition of various types of produced waters in the study area were not well characterized, nor was the composition of water from below the sampled aquifers but above the gas-producing intervals. Most of the groundwater samples plotted near the snow samples, indicating that they were probably recharged at higher elevations or colder temperatures (or both), similar to the conditions on the Grand Mesa.

Methane concentrations were greater than 1 mg/L (high methane concentrations) in 75 samples, but only 4 had associated δ^2H [H_2O] and $\delta^{18}O[H_2O]$ concentrations to provide an understanding of sources of recharge for such groundwater samples. Hydrogen and oxygen isotope concentrations of samples with low methane concentrations (less than 1 mg/L) plot relatively close to those of snow samples. Hydrogen and oxygen isotope concentrations of samples from two sites (report numbers 164 and 807 in appendix 1) had high methane concentrations and plot along the GMWL but away from Grand Mesa snow and report number 807 plots closer to produced water from the Mesaverde Group (fig. 6). Hydrogen and oxygen isotope concentrations of samples for report numbers 226 and 465 (appendix 1) had high methane concentrations and plotted to the right of the meteoric water line, similar to hydrogen and oxygen isotope concentrations of samples of produced water from the Mesaverde Group. These data indicate that samples from those two sites may represent much older and deeper formation water than samples from other sites. Report number 226, a domestic well in Garfield County, is likely completed in the Tertiary Wasatch Formation (completion interval not provided by the data source) (URS

Table 4. Categories of groundwater-quality data used in this overview analysis by source in the Piceance Basin common data repository, 1946–2009.

Agency Name	Total sites	Domestic wells	Agri-cultural wells	Observation wells	Other	Sam-ples	Date range		Results
Antero Resources	159	159				159	8/25/2005	7/16/2009	6,526
City of Grand Junction	3			3		3	5/7/2002	10/28/2008	74
Colorado Department of Agriculture	43	33		10		43	3/31/1998	10/26/2000	354
Colorado Oil and Gas Conservation Commission	506	449	1	10	46	508	9/12/1977	10/14/2008	11,810
EnCana Oil & Gas (USA) Inc.	354	293	12	49		354	8/8/2001	4/13/2009	13,213
Mine Consultant	24			24		24	8/10/1995	12/6/2006	139
Oxbow Mining	1			1		1	8/10/2006	8/10/2006	5
U.S. Forest Service	1			1		1	6/27/2007	6/27/2007	23
U.S. Geological Survey	468	100	25	331	12	468	3/29/1951	4/27/2009	13,139
Williams	12	11	1			12	8/30/2006	10/6/2008	593
Wright Water Engineeres, Inc, CO	15			15		15	4/26/2002	7/17/2002	75

Agency name	Constituent catergories[1]												
	Informa-tion	Inorganic compounds, major ions, metals	Inorganic compounds, major ions, non-metals	Inorganic compounds, minor ions, metals	Inorganic compounds, minor ions, non-metals	Micro-biological constitu-ents	Nutrient	Organic and other com-pounds	Organic com-pounds and pesticide	Physical charac-teristics	Radio-chemical com-pounds	Sediment	Stable Iso-topes
Antero Resources	636	636	1,072	908	436	314	477	954		1,093			
City of Grand Junction		12		42	11	4	3				2		
Colorado Department of Agriculture		84	82		21		41			126			
Colorado Oil and Gas Conservation Commission		1,683	2,959	1,181	464	199	957	2,609	24	1,634	46	1	53
EnCana Oil & Gas (USA) Inc.	689	1,255	2,661	1,046	492	457	978	2,606		2,859	20		150
Mine Consultant			20		34		15			70			
Oxbow Mining			1				1			3			
U.S. Forest Service	9		7							7			
U.S. Geological Survey	715	1,656	2,547	2,252	589	3	1,243	256	126	3,385	233		134
Williams	33	56	122	112	42	24	52	71		81			
Wright Water Engineeres, Inc, CO			15		2		13			45			

[1] Examples of constiuents for “Information” would be sampling purpose, methods, analyzing agency. Examples for “Inorganics, Major, Metals” would include calcium, magnesium, and sodium. Examples of constiuents for “Inorganics, Major, Non-metals” would include chloride and sulfate. Examples of constiuents for “Inorganics, Minor, Metals” would be manganese and iron. Examples of constiuents for “Inorganics, Minor, Non-Metals” would be arsenic and selenium. Examples of constiuents for “Microbiological” would be fecal coliform and iron reducing bacteria. Examples of constiuents for “Nutrient” would be nitrate as N and total phosphorus. Examples of constiuents for “Organics, Other” would be benzene, toluene, and methane. Examples of constiuents for “Organics, Pesticide” would be alachlor and chlorpyrifos. Examples of constiuents for “Physical” would be field parameters and depth to water. Examples of constiuents for “Radiochemical” would be uranium and tritium. Examples of constiuents for “Stable Isotopes” would be carbon-13/carbon-12 ratio in methane and deuterium/protium ratio in methane.

Table 5. Number and percentage of water-quality samples discussed in this report with associated well-depth, depth-to-water, and well-type information.

Number (percentage) of samples		Number (percentage) of samples by well type			
Well-depth data	**Depth-to-water data**	**Domestic**	**Observation**	**Irrigation**	**Other**
529 (33 percent)	75 (5 percent)	1,045 (66 percent)	444 (28 percent)	39 (2 percent)	58 (4 percent)

Table 6. Number of water-quality samples by county, geologic unit, and aquifer, Piceance Basin, western Colorado.
[Most samples discussed in this report lacked information about geologic unit or aquifer in which well was completed]

[--, Not present, not sampled, or unknown]

County	Geologic unit	Aquifer	Sample count
Delta	Quaternary	--	25
	Tertiary	Undifferentiated	1
	Cretaceous	Mesaverde	20
		Mancos	4
		Dakota	1
	Other	--	0
	Unknown	--	72
Garfield	Quaternary	--	14
	Tertiary	Green River	4
		Wasatch	31
	Cretaceous	Mesaverde	1
	Other	--	0
	Unknown	--	979
Gunnison	Quaternary	--	1
	Tertiary	--	0
	Cretaceous	Mesaverde	1
	Other	--	0
	Unknown	--	1
Mesa	Quaternary	--	58
	Tertiary	Wasatch	8
	Cretaceous	Fox Hills	2
Mesa		Mancos	13
	Other	--	3
	Unknown	--	95
Moffat	Quaternary	--	1
	Tertiary	--	0
	Cretaceous	Mesaverde	2
	Other	--	10
	Unknown	--	9
Montrose	Quaternary	--	4
	Tertiary	--	0
	Cretaceous	Mancos	1
		Dakota	6
	Other	--	0
	Unknown	--	6
Rio Blanco	Quaternary	--	41
	Tertiary	Green River	31
		Wasatch	4
		Undifferentiated	9
	Cretaceous	Mesaverde	6
	Other	--	3
	Unknown	--	139

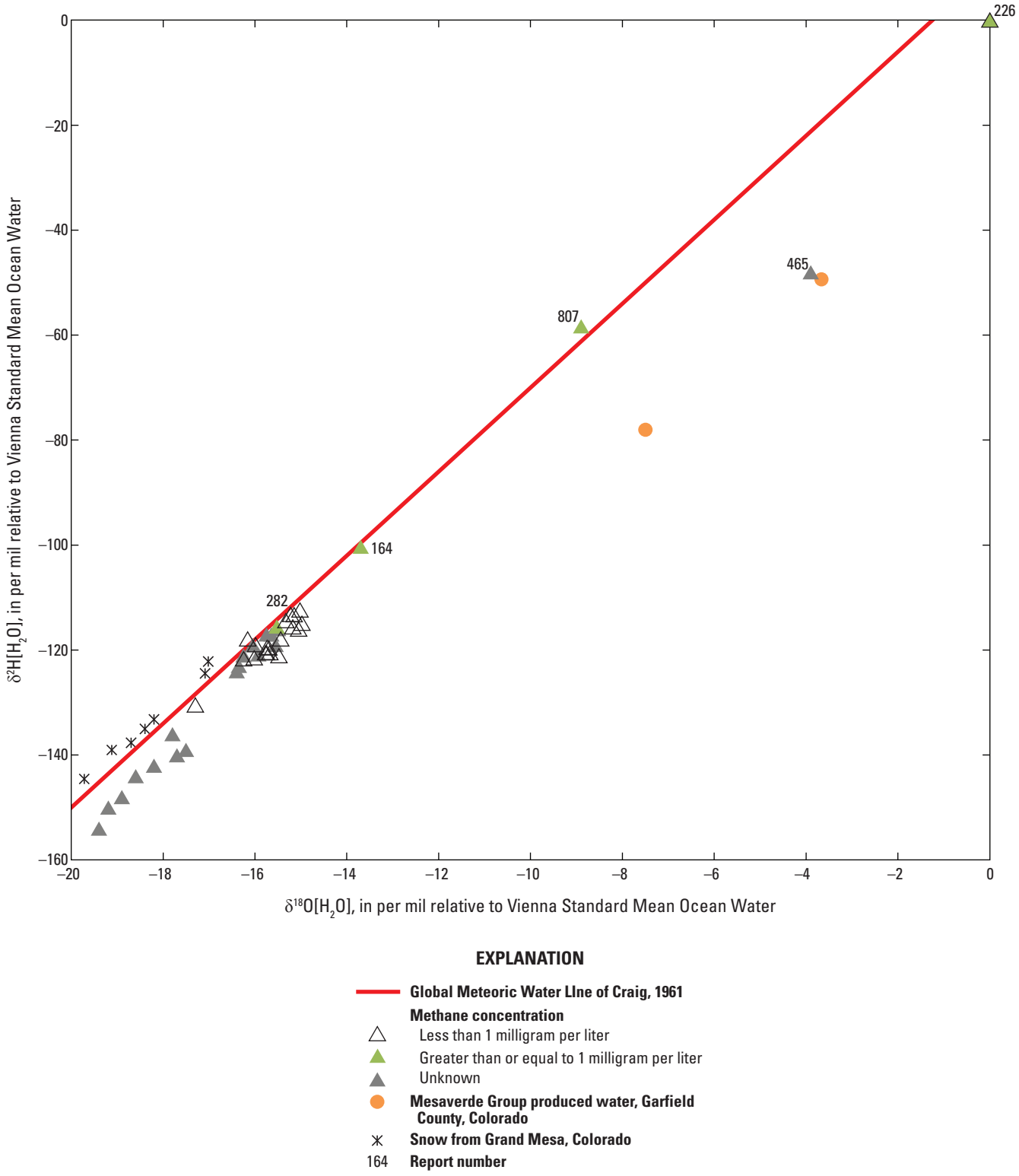

Figure 6. Stable isotopic composition of water from water wells compared with stable isotopic composition of snow from Grand Mesa, Colo., and produced waters from the Mesaverde Group, Piceance Basin, western Colorado. Report No., report number as provided in appendix 1. Grand Mesa snow data are unpublished U.S. Geological Survey data (George Ingersoll, U.S. Geological Survey, written commun., 2006).

Corporation, 2006). Report number 465, an observation well in Garfield County, is completed in the Cretaceous Mesaverde Group.

Dissolved Oxygen

Reduction-oxidation (redox) processes affect the chemical quality of groundwater in all aquifer systems. Redox processes can mobilize or immobilize potentially toxic metals associated with naturally occurring aquifer materials, contribute to the degradation or preservation of anthropogenic contaminants, and generate undesirable byproducts such as dissolved ferrous iron, hydrogen sulfide, and methane. Dissolved-oxygen (DO) concentrations can be used as an indicator of redox processes within groundwater systems (McMahon and Chapelle, 2008). For example, McMahon and others (2010) mapped a low-DO zone in the Wasatch Formation south of the town of Silt in Garfield County, where both denitrification (the primary sink for nitrate in groundwater) and biogenic methanogenesis were observed. In general, such maps of DO concentration can be used to assess an aquifer's vulnerability to contamination by a variety of redox-sensitive chemicals. DO concentrations greater than or equal to 0.5 mg/L generally indicate oxic conditions and DO concentrations less than 0.5 mg/L indicate anoxic conditions (McMahon and Chapelle, 2008). In oxic groundwater, dissolved chemicals such as nitrate, uranium, and selenium tend to persist, but constituents such as methane and BTEX (benzene, toluene, ethylbenzene, and xylene) tend to degrade. In anoxic groundwater, conditions favor mobilization of arsenic from aquifer solids, production of biogenic methane, and degradation of dissolved nitrate (Chapelle and others, 1995; McMahon and Chapelle, 2008).

DO concentrations, measured between 1983 and 2009, were available for 733 wells (representing 47 percent of the wells in appendix 1). Concentrations ranged from less than 0.1 to 14 mg/L, with a median of 3.2 mg/L (table 7). Ninety-three percent of the samples had DO concentrations indicative of oxic conditions (table 7.). DO samples were collected primarily in Garfield County near Rifle and many of the anoxic wells were located in the Mamm Creek–Divide Creek area (fig. 7). Few of the sample data included information on the completion intervals, but at least 10 DO samples were assigned to the Wasatch Formation in Garfield County and to Quaternary deposits in Mesa County. Of those, 70 percent and 68 percent of those samples, respectively, were characterized as oxic (table 8).

Because DO in groundwater is obtained from the atmosphere, DO concentrations in groundwater typically decrease with depth below water as it is consumed by redox processes. Understanding the relations between DO concentration and depth in aquifers is helpful for placement of water-well screens in relation to the distribution of certain redox-sensitive chemicals. Because of the lack of well-depth and water-level information, this study did not examine the relation between DO concentration and depth at the regional scale (table 5). An alternative method of analysis uses DO data stratified by geologic unit or aquifer, but those data also were generally lacking (table 8).

Major Ions

Dissolved solids (DS) are widely used in evaluating water quality because they can be correlated with certain major ions and with specific conductance to determine water-quality characteristics such as salinity (Hem, 1989). This information can suggest water sources; deeper sources tend to have high DS concentrations and are also high in certain constituents such as chloride. DS concentrations measured between 1958 and 2009 were available for 684 wells, and 497 concentrations (72 percent) exceeded the secondary drinking-water standard of 500 mg/L (table 7). DS exceedances were relatively widespread in the study area (fig. 8). DS concentrations ranged from 139 to 66,600 mg/L, with a median of 840 mg/L (table 7). The highest concentration was in a sample from an observation well that was screened in rocks of Tertiary age in Rio Blanco County (appendix 1). Of samples for which the geologic unit or aquifer was designated, only the Wasatch Formation in Garfield County had 10 or more DS values. The median DS concentration in that unit was 1,135 mg/L (table 8), which exceeds the secondary standard. The National Academy of Sciences recommends that water with DS concentrations greater than 7,000 mg/L should not be used for watering livestock (ALL Consulting, 2003). Where the geologic unit was known, DS concentrations greater than 7,000 mg/L in the study area were found in association with rocks of Tertiary and Cretaceous age (fig. 8 and appendix 1).

Major ion chemistry was used to evaluate the composition of dissolved solids within the study area (fig. 9A). Major ion chemistry of DS concentrations greater than 1,000 mg/L were mostly sodium-sulfate or sodium-bicarbonate-sulfate waters, whereas major ion chemistry of DS concentrations below 1,000 mg/L were mostly mixed cation bicarbonate waters (fig. 9A). Major ion chemistry was also plotted by geologic unit where this information was available. Water-quality samples from wells screened in Quaternary units were mixed cation–sulfate or mixed cation–bicarbonate waters (fig. 9B). Water samples from wells screened in Cretaceous units were mostly mixed cation—sulfate waters. Water-quality samples from wells screened in aquifers with unknown geologic units plot into three water types; type 1, calcium magnesium–bicarbonate water; type 2, sodium–bicarbonate water; and type 3, sodium–sulfate water. Samples from wells screened in aquifers with unknown geologic units that plot with water type 1 may be most similar to samples from wells screened in aquifers from Tertiary geologic units. Type 2 and type 3 waters have cation compositions similar to those of produced waters from Mesaverde and Wasatch wells (fig. 10), but they typically have lower chloride and DS concentrations than the produced waters.

Table 7. Summary analyses in the Piceance Basin common data repository of constituents discussed in this report.

[<, less than; ≥, greater than or equal to; >, greater than; N/A, not applicable; --, unknown]

Constituent	Observations	Value			Detections			
		Minimum	Median	Maximum	Detections	Percentage of total observations	Date range of observations	
Dissolved oxygen, water, unfiltered, milligrams per liter	733	0.1	3.2	14.0	N/A	N/A	8/3/1983	7/16/2009
Total dissolved solids, milligrams per liter	686	139	840	66,630	N/A	N/A	7/14/1958	7/16/2009
pH, standard units	1,444	3.47	7.63	12.8	N/A	N/A	7/14/1958	7/16/2009
Sulfate, water, filtered, milligrams per liter	1,229	<5, <2.5, <0.31, <0.30	155	18,000	1,211	98.5%	3/29/1951	7/16/2009
Chloride, water, filtered, milligrams per liter	1,203	<1, <0.1	22.2	18,000	1,173	97.5%	3/29/1951	7/16/2009
Fluoride, water, filtered, milligrams per liter	1,138	<2.5, <2.0, <1.0, <0.5, <0.4, <0.1	0.64	95	1,045	91.8%	7/14/1958	7/16/2009
Iron, water, filtered, micrograms per liter	589	<100, <70, <60, <50, <40, <30, <18, <10, <9, <8	40	110,000	321	54.5%	4/5/1968	4/27/2009
Arsenic, water, filtered, micrograms per liter	256	<1, <15, <2, <20, <3, <5	1	1,100	165	64.5%	12/19/1971	10/28/2008
Barium, water, filtered, micrograms per liter	193	<100, <200	100	5,300	162	83.9%	4/5/1968	4/13/2009
Manganese, water, filtered, micrograms per liter	681	<20, <15, <10, <5, <3, <1, <0.2	6	8,900	368	54.0%	4/5/1968	4/26/2009
Selenium, water, filtered, micrograms per liter	551	<20, <15, <5, <4.8, <2.4, <2.0, <1.0, <0.7	5	1,640	298	54.1%	5/30/1972	10/6/2008
Nitrate as nitrogen, water, filtered, millgrams per liter	791	<0.4, <0.32, <0.29, <0.24, <0.16, <0.09, <0.08, <0.07, <0.06, <0.05, <0.04	0.206	179	601	76.0%	7/14/1958	7/16/2009
Benzene, water, unfiltered, recoverable, micrograms per liter	808	<5, <1, <0.5, <0.4, <0.3, <0.2, <0.001, <0.0005	NA	160	11	1.4%	9/13/1989	10/1/2008 (all data 7/16/2009)
Toluene, water, unfiltered, recoverable, micrograms per liter	808	<5, <3, <2, <1, <0.5, <0.4, <0.2, <0.005	NA	14	38	4.7%	6/2/1997 (9/13/1989 all data)	9/30/2008 (7/16/2009 all data)
Ethylbenzene, water, unfiltered, recoverable, micrograms per liter	806	<5, <3, <2, <0.5, <0.001, <0.0005	NA	4.8	6	0.7%	9/13/1989 (all data)	7/16/2009 (all data)
Xylene (all isomers), water, unfiltered, recoverable, micrograms per liter	526	<3, <1.5, <0.003, <0.0015	NA	3.6	7	1.3%	9/13/1989 (all data)	7/16/2009 (all data)
Methane, water, unfiltered, recoverable, milligrams per liter	874	<0.01, <0.001, <0.0008	0.001	36.7	207	23.6%	6/2/1997	7/16/2009

Table 7. Summary of analyses of data in the Piceance Basin common data repository for constituents discussed in this report.—Continued

[<, less than; ≥, greater than or equal to; >, greater than; N/A, not applicable; --, unknown]

Constituent	Standard			Exceedances			
	Standard	Standard units	Standard type	Exceedances	Percentage of total observations	Date range of exceedances	
Dissolved oxygen, water, unfiltered, milligrams per liter	<0.5	mg/L	anoxic conditions	51	7	8/3/1983	4/25/2009
	≥0.5	mg/L	oxic conditions	682	93	4/2/1991	7/16/2009
Total dissolved solids, milligrams per liter	500	mg/L	EPA Secondary Drinking water standard	497	72	5/24/1966	7/16/2009
pH, standard units	6.5	NA	EPA Secondary Drinking water standard	15	1	8/29/1977	11/15/2006
	8.5	NA	EPA Secondary Drinking water standard	95	7	2/1/1967	12/3/2008
Sulfate, water, filtered, milligrams per liter	250	mg/L	EPA Secondary Drinking water standard	460	37	2/1/1967	7/16/2009
Chloride, water, filtered, milligrams per liter	250	mg/L	EPA Secondary Drinking water standard	123	10	5/24/1966	4/25/2009
Fluoride, water, filtered, milligrams per liter	4	mg/L	EPA Primary Drinking water standard	96	8	5/24/1966	4/26/2009
Iron, water, filtered, micrograms per liter	300	ug/L	EPA Secondary Drinking water standard	96	16	8/14/1972	7/5/2006
Arsenic, water, filtered, micrograms per liter	10	ug/L	EPA Primary Drinking water standard	33	13	11/12/1972	7/13/2007
Barium, water, filtered, micrograms per liter	2,000	ug/L	EPA Primary Drinking water standard	8	4	8/18/1975	1/14/2003
Manganese, water, filtered, micrograms per liter	50	ug/L	EPA Secondary Drinking water standard	140	21	7/11/1972	4/26/2009
Selenium, water, filtered, micrograms per liter	50	ug/L	EPA Primary Drinking water standard	51	9	2/21/1992	9/17/2008
Nitrate as nitrogen, water, filtered, millgrams per liter	10	mg/L	EPA Primary Drinking water standard	13	2	4/2/1991	10/14/2008
Benzene, water, unfiltered, recoverable, micrograms per liter	5	ug/L	EPA Primary Drinking water standard	5	1	9/13/1989	10/1/2008
Toluene, water, unfiltered, recoverable, micrograms per liter	1,000	ug/L	EPA Primary Drinking water standard	0	0	--	--
Ethylbenzene, water, unfiltered, recoverable, micrograms per liter	700	ug/L	EPA Primary Drinking water standard	0	0	--	--
Xylene (all isomers), water, unfiltered, recoverable, micrograms per liter	10,000	ug/L	EPA Primary Drinking water standard	0	0	--	--
Methane, water, unfiltered, recoverable, milligrams per liter	<1	mg/L		799	91	6/2/1997	4/26/2009
	1 to 10	mg/L		65	7	9/15/1999	10/1/2008
	>10	mg/L		10	1	1/28/2003	4/26/2009

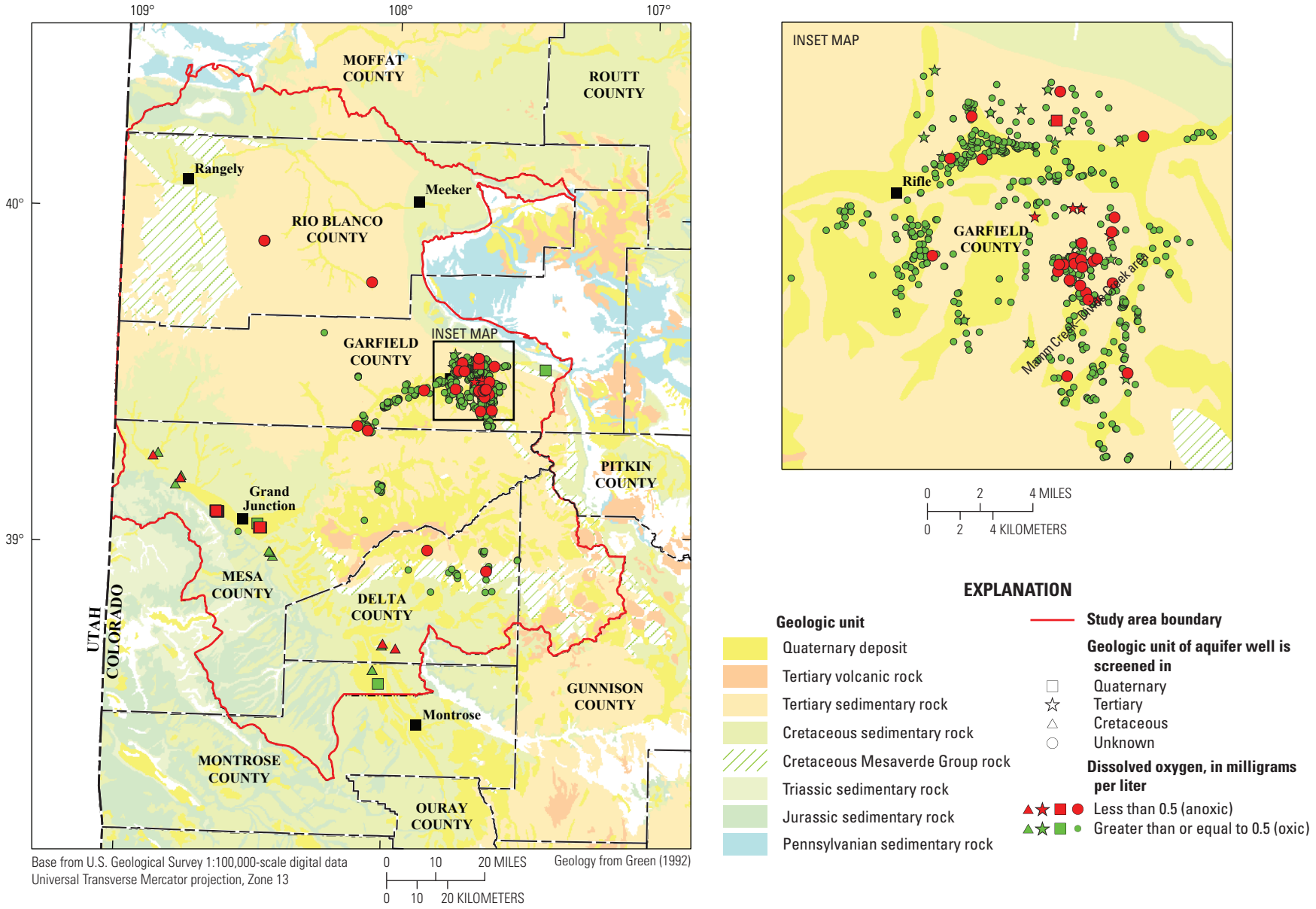

Figure 7. Concentrations of dissolved oxygen in groundwater from wells in the Piceance Basin, western Colorado. [<, less than; ≥, greater than or equal to]

Table 8. Concentrations of selected water-quality constituents, by county, geologic unit, and aquifer. The majority of samples discussed in this report lacked information for geologic unit or aquifer.

[mg/L, milligrams per liter; µg/L, micrograms per liter; MCL, maximum containment level; SMCL, secondary maximum containment level; --, not applicable; ≥ less than or equal to; <, less than]

County	Geologic unit	Aquifer	Dissolved oxygen			Dissolved solids			Sulfate		
			Median concentration (range), mg/L	n	Percentage of oxic (O2 ≥ 0.5 mg/L) samples	Median concentration (range), mg/L	n	Percent exceedances (SMCL=500 mg/L)	Median concentration (range), mg/L	n	Percent exceedances (SMCL=250 mg/L)
Delta	Quaternary	--	-- (--)	0	--	-- (--)	0	--	761 (2.1–3,243)	17	71
	Cretaceous	Mesaverde	-- (--)	0	--	-- (--)	0	--	18 (1.0–510)	17	6
Garfield	Quaternary	--	0.9 (0.1–1.7)	2	50	4,773 (2,819–6,726)	2	100	490 (170–3,729)	6	67
	Tertiary	Wasatch	1.5 (0.1–8.6)	23	70	1,135 (558–5,281)	20	100	357 (15.7–2,882)	29	62
Mesa	Quaternary	--	0.9 (0–2.3)	28	68	6,460 (--)	1	100	2,907 (548–5,582)	19	100
	Cretaceous	Mancos	0.9 (0.1–3.5)	9	68	4,460 (3,820–16,100)	6	100	2,800 (1,224–8,400)	12	100
Rio Blanco	Quaternary	--	-- (--)	0	--	1,908 (214–3,664)	3	67	340 (13.0–1,741)	29	59
	Tertiary	Green River	-- (--)	0	--	926 (909–944)	2	100	140 (4.2–850)	31	26

County	Geologic unit	Aquifer	Chloride			Fluoride			Nitrite+nitrate		
			Median concentration (range), mg/L	n	Percent exceedances (SMCL=250 mg/L)	Median concentration (range), mg/L	n	Percent exceedances (MCL=4 mg/L)	Median concentration (range), mg/L as N	n	Percent exceedances (MCL=10 mg/L as N)
Delta	Quaternary	--	8.76 (6.40–11.0)	4	0	0.68 (0.50–1.50)	4	0	-- (--)	0	--
	Cretaceous	Mesaverde	14.0 (2.70–180)	11	0	0.80 (0.20–5.40)	11	9	-- (--)	0	--
Garfield	Quaternary	--	20.5 (12.0–281)	6	17	1.10 (0.48–2.44)	6	0	7.52 (1.37–13.7)	2	50
	Tertiary	Wasatch	43.3 (<1.0 –1,116)	29	7	0.97 (0.33–5.10)	29	7	0.40 (<0.038–6.73)	27	0
Mesa	Quaternary	--	367 (20.0–1,201)	20	70	0.54 (0.11–1.21)	19	0	5.78 (--)	1	0
	Cretaceous	Mancos	215 (34.5–4,880)	10	30	0.71 (0.30–5.52)	10	10	2.64 (<0.04–7.58)	7	0
Rio Blanco	Quaternary	--	19.0 (4.00–270)	29	3	0.80 (0.10–33.0)	29	21	0.30 (<0.08–0.54)	4	0
	Tertiary	Green River	13.0 (0.1–1,700)	31	10	5.00 (<0.10 –47.0)	31	52	<0.08 (<0.08–<0.08)	4	0

Table 8. Concentrations of selected water-quality constituents, by county, geologic unit, and aquifer. The majority of samples discussed in this report lacked information for geologic unit or aquifer.—Continued

[mg/L, milligrams per liter; µg/L, micrograms per liter; MCL, maximum containment level; SMCL, secondary maximum containment level; --, not applicable; ≥ less than or equal to; <, less than]

County	Geologic unit	Aquifer	Iron			Manganese			Arsenic		
			Median concentration range, µg/L	n	Percent exceedances (SMCL=300 µg/L)	Median concentration (range), µg/L	n	Percent exceedances (SMCL=50 µg/L)	Median concentration (range), µg/L	n	Percent exceedances (MCL=10 µg/L)
Delta	Quaternary	--	40 (<10–60)	3	0	<10 (<10–20)	4	0	1.38 (<1–5.00)	3	0
	Cretaceous	Mesaverde	150 (10–580)	11	27	20 (2–120)	11	9	<1 (<1 - 6.00)	11	0
Garfield	Quaternary	--	<14 (<14–2,400)	6	17	<10 (<10–876)	6	33	1.61 (<1–3.00)	6	0
	Tertiary	Wasatch	9.2 (3.0–92)	20	0	2.1 (<0.2–220)	21	10	-- (--)	0	--
Mesa	Quaternary	--	<60 (<60–7,206)	13	23	1,410 (<10–7,243)	12	92	1.50 (<1–8.00)	4	0
	Cretaceous	Mancos	<10 (<10–780)	8	25	195 (30–860)	8	75	6.43 (5.63–7.23)	2	0
Rio Blanco	Quaternary	--	70 (<10–49,000)	28	7	45 (8–530)	28	39	5.00 (<1–66)	28	25
	Tertiary	Green River	80 (9 –2,400)	29	14	<10 (<10–100)	31	6	4.00 (<1–150)	27	15

County	Geologic unit	Aquifer	Barium			Selenium			Methane		
			Median concentration (range), µg/L	n	Percent exceedances (MCL=2,000 µg/L)	Median concentration (range), µg/L	n	Percent exceedances (MCL=50 µg/L)	Median concentration (range), mg/L	n	Percentage of samples > 1 mg/L
Delta	Quaternary	--	36 (--)	1	0	7.50 (1.30–32.0)	14	0	-- (--)	0	--
	Cretaceous	Mesaverde	90 (50–2,100)	11	9	18.0 (<1–238)	16	19	-- (--)	0	--
Garfield	Quaternary	--	<100 (<100)	6	0	2.00 (<1–160)	6	17	-- (--)	0	--
	Tertiary	Wasatch	-- (--)	0	--	13.6 (5.50–21.6)	2	0	<0.0005 (<0.000–32.5)	27	11
Mesa	Quaternary	--	<100 (<100)	4	0	2.72 (<1–280)	31	10	-- (--)	0	--
	Cretaceous	Mancos	-- (--)	0	--	9.00 (<5–1,000)	11	27	-- (--)	0	--
Rio Blanco	Quaternary	--	36 (15–56)	3	0	4.00 (<1–9.00)	27	0	-- (--)	0	--
	Tertiary	Green River	<200 (<200–800)	10	0	<1 (<1–7.00)	20	0	-- (--)	0	--

Table 8. Concentrations of selected water-quality constituents, by county, geologic unit, and aquifer. The majority of samples discussed in this report lacked information for geologic unit or aquifer.—Continued

[mg/L, milligrams per liter; µg/L, micrograms per liter; MCL, maximum containment level; SMCL, secondary maximum containment level; --, not applicable; ≥ less than or equal to; <, less than]

County	Geologic unit	Aquifer	Benzene			Toluene		
			Median concentration (range), µg/L	n	Percent exceedances (MCL=5 µg/L)	Median concentration (range), µg/L	n	Percent exceedances (MCL=1,000 µg/L)
Delta	Quaternary	--	-- (--)	0	--	-- (--)	0	--
	Cretaceous	Mesaverde	-- (--)	0	--	-- (--)	0	--
Garfield	Quaternary	--	-- (--)	0	--	-- (--)	0	--
	Tertiary	Wasatch	<1 (<1)	8	0	<5 (<5)	8	0
Mesa	Quaternary	--	-- (--)	0	--	-- (--)	0	--
	Cretaceous	Mancos	-- (--)	0	--	-- (--)	0	--
Rio Blanco	Quaternary	--	-- (--)	0	--	-- (--)	0	--
	Tertiary	Green River	-- (--)	0	--	-- (--)	0	--

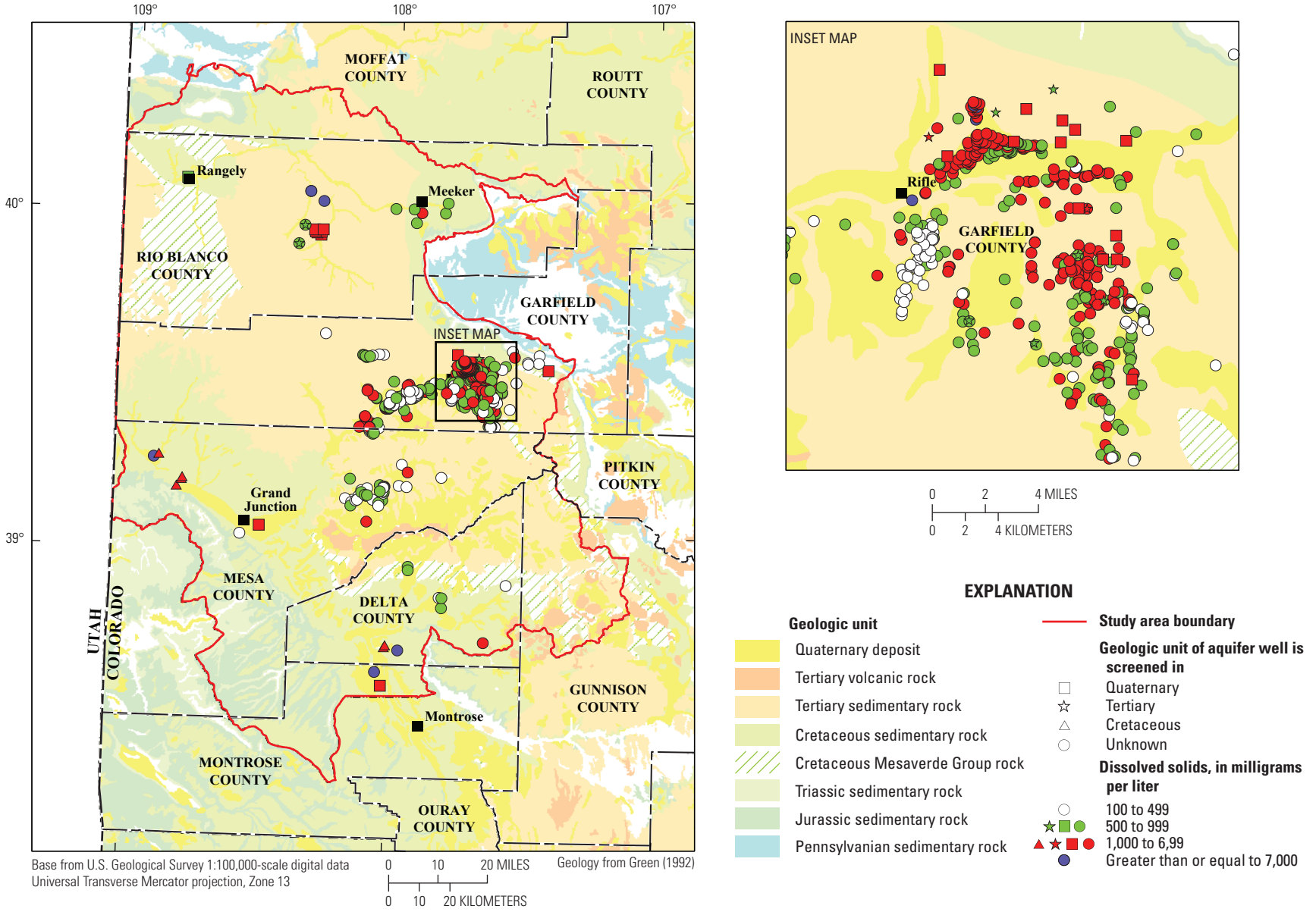

Figure 8. Concentrations of dissolved solids in groundwater from wells in the Piceance Basin, western Colorado. [≥, greater than or equal to]

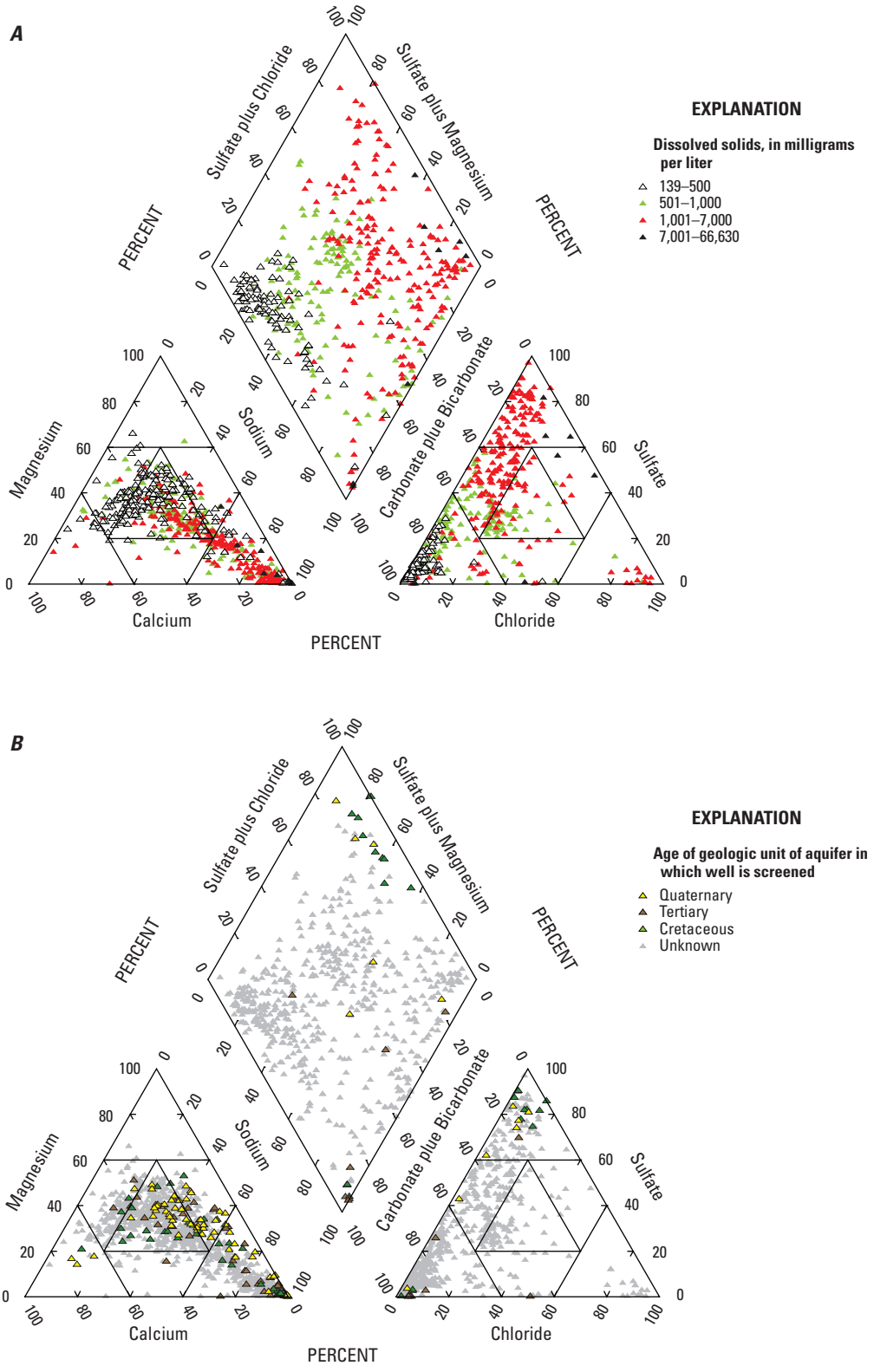

Figure 9. Trilinear diagram of major-ion chemistry of groundwater by (*A*) dissolved solids, and (*B*) geologic unit of aquifer in which well is screened, Piceance Basin, western Colorado.

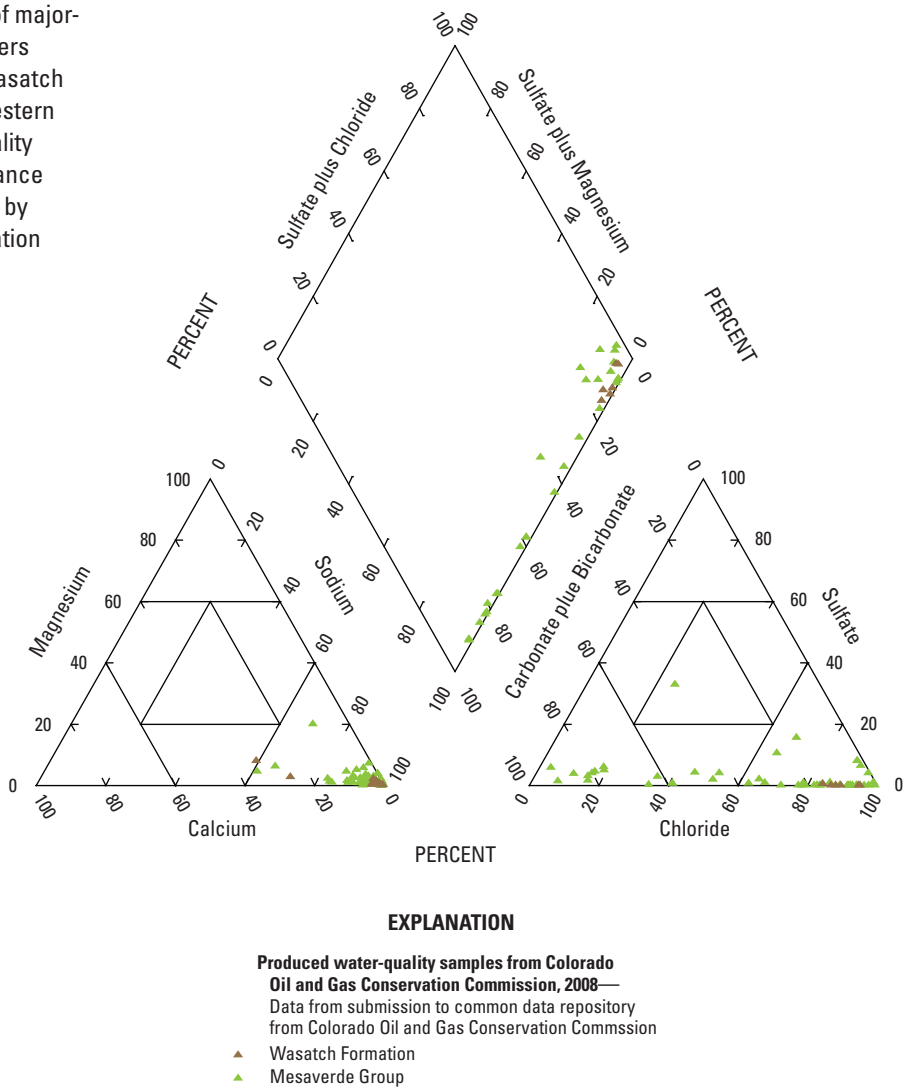

Figure 10. Trilinear diagram of major-ion chemistry of produced waters from Mesaverde Group and Wasatch Formation, Piceance Basin, western Colorado. Produced-water-quality samples submitted to the Piceance Basin common data repository by Colorado Oil and Gas Conservation Commission, 2010.

The property pH is a measure of the hydrogen ion activity in water and, like water temperature, is often collected as part of a water-quality-sampling program because it provides the most basic understanding of water quality. Values of pH less than 7 are generally referred to as acidic; those greater than 7 are generally referred to as basic. The normal range of pH in natural waters is between 6.5 and 8.5 (Hem, 1989). Values of pH less than 6.5 or greater than 8.5 exceed the secondary standard. Of pH values collected between 1958 and 2009 for 1,441 wells, only 15 values (1 percent) were less than 6.5 (acidic) and 95 values (6.6 percent) were greater than 8.5 (basic) (table 7). The median value was 7.6 standard units. Several of the pH values greater than 8.5 were measured in samples from wells completed in Quaternary deposits in Rio Blanco County, but the majority of the samples with pH greater than 8.5 were from unknown geologic units (fig. 11).

Chloride is a conservative constituent—it is not likely to be participate in geochemical processes or be precipitated once mobilized (Hem, 1989). Chloride concentrations, measured between 1951 and 2009, were available for 1,203 wells, and 123 concentrations (10 percent) exceeded the secondary standard of 250 mg/L (table 7). Like DS exceedances, chloride exceedances were relatively widespread in the study area (fig. 12). Concentrations ranged from less than detection to 18,000 mg/L, with a median concentration of 22.2 mg/L (table 7). The highest chloride concentration was found in a sample from an observation well screened in the Pennsylvanian and Permian Weber Sandstone in Rio Blanco County (appendix 1). Several of the samples had geologic unit or aquifer designations. Of those samples, only samples from Quaternary units in Mesa County had a median chloride concentration greater than the secondary standard (table 8). Overall, 85 chloride concentrations (7 percent) were greater than 355 mg/L, a concentration above which agricultural use should be severely restricted, specifically with respect to irrigation (Ayers and Westcot, 1985). These samples were collected in Garfield, Rio Blanco, and Mesa Counties (fig. 12). Eight chloride concentrations (less than 1 percent) were greater than 4,000 mg/L, similar to some brines (Hem, 1989),

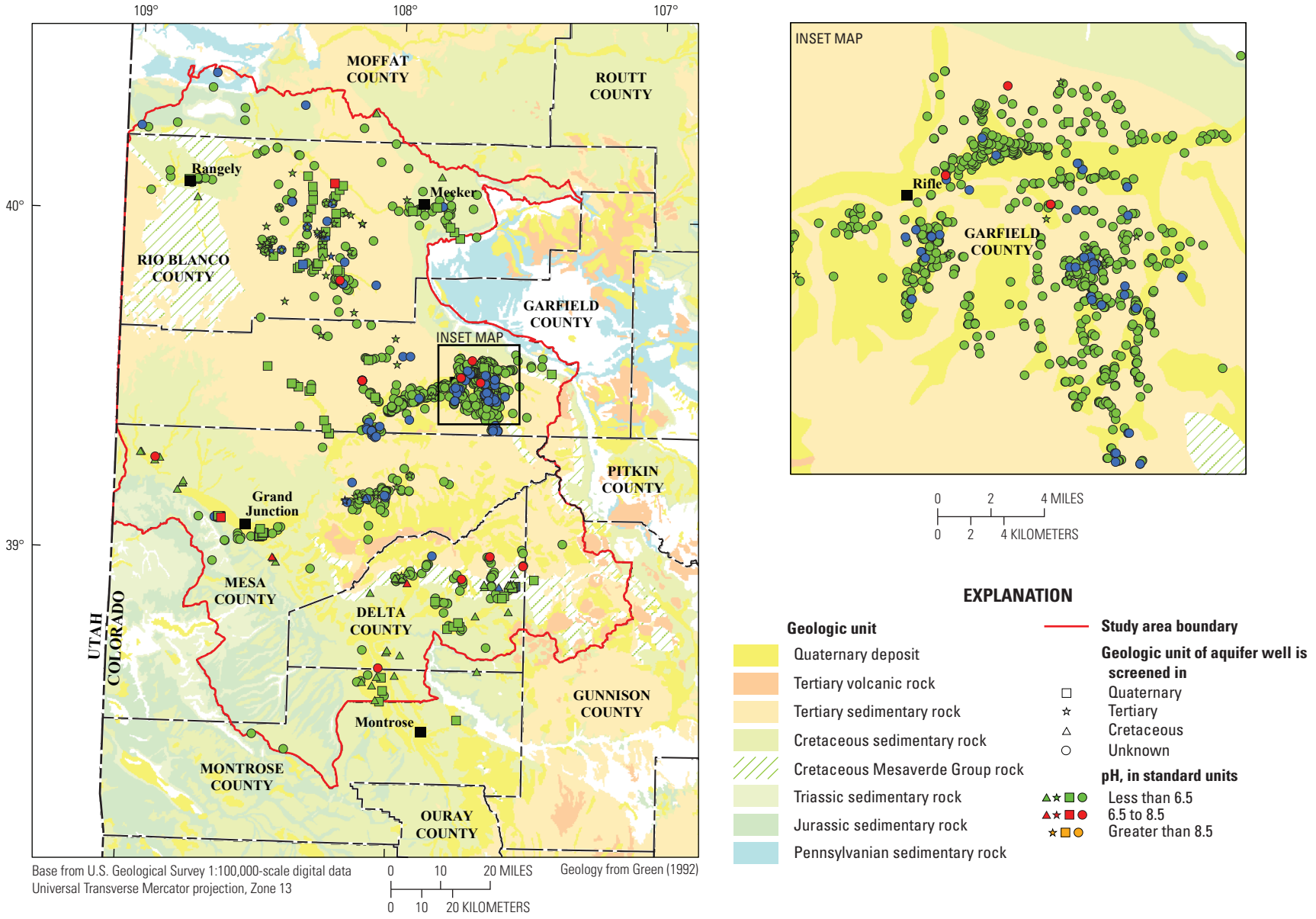

Figure 11. Values of pH in groundwater from wells in the Piceance Basin, western Colorado. [<, less than; >, greater than]

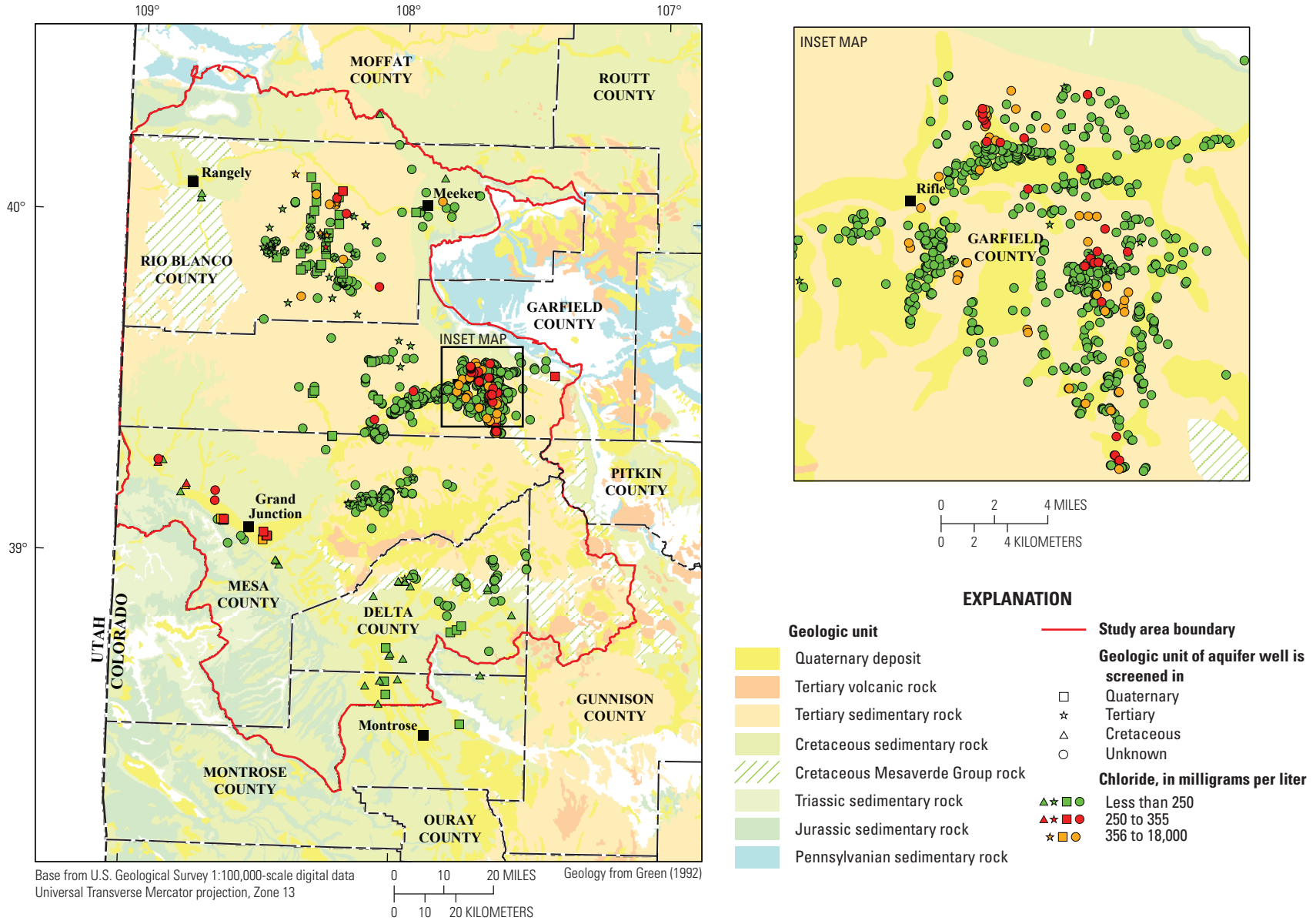

Figure 12. Concentrations of chloride in groundwater from wells in the Piceance Basin, western Colorado. [<, less than]

and these samples were primarily collected in Rio Blanco County (appendix 1).

Sulfate concentrations measured between 1951 and 2009 were available for 1,226 wells and 460 concentrations (37 percent) exceeded the secondary standard of 250 mg/L (table 7). Like DS and chloride exceedances, sulfate exceedances were relatively widespread in the study area (fig. 13). Concentrations ranged from below detection (commonly less than 5 mg/L) to 18,000 mg/L, with a median concentration of 155 mg/L (table 7). The highest sulfate concentration was found in a sample from an observation well in Garfield County (geologic unit in which it was screened was not reported) (appendix 1). Of the several samples that did have geologic unit or aquifer designations, most had median sulfate concentrations higher than the standard (table 8). These data indicated that subsurface sulfate sources were relatively common in the study area. In the absence of additional information, such as stable sulfur-isotope data, it is difficult to identify those sources. Likely sources include minerals such as gypsum and pyrite (following oxidation). Produced waters are less likely to contribute sulfate to the freshwater aquifers because sulfate concentrations in those waters typically are low (URS Corporation, 2006). Produced waters from the Mesaverde Group in Garfield County, for example, generally contained less than 10 mg/L sulfate (S.S. Papadopulos & Associates, Inc., 2008). On the basis of the nonparametric Wilcoxon rank-sum test, sulfate concentrations were significantly higher (p <0.001) in anoxic groundwater than oxic groundwater (table 9) (Helsel and Hirsch, 2002). This result is opposite the result expected on the basis of the redox chemistry of sulfate (McMahon and Chapelle, 2008). The reason for this outcome is unclear, but it could indicate a relative abundance of sulfate sources in the aquifers compared with electron donors, such as organic carbon, to support sulfate reduction under anoxic conditions.

Fluoride has a low solubility and, in natural waters, is typically found at concentrations less than 1 mg/L (Hem, 1989). Fluoride concentrations, measured from 1958 to 2009, were available for 1,138 wells, and 96 concentrations (8.4 percent) exceeded the primary standard of 4 mg/L (table 7). Most of these exceedances were in samples from Rio Blanco County (fig. 14). Additionally, fluoride concentrations commonly exceeded the primary standard in the Mamm Creek–Divide Creek area of Garfield County (URS Corporation, 2006). Fluoride concentrations ranged from less than detection (commonly less than 0.5 mg/L) to 95 mg/L, with median fluoride concentration of 0.64 mg/L. A sample from an observation well in Rio Blanco County had the highest fluoride concentration (geologic unit in which it was screened not reported) (appendix 1). Of samples for which the geologic unit or aquifer was designated, only the Green River Formation in Rio Blanco County had 10 or more fluoride values and a median fluoride concentration greater than the primary standard (table 8).

Trace Elements

Trace element data for arsenic, barium, manganese, iron, and selenium in groundwater were included in this report. These trace elements are typically derived from minerals in the aquifer rocks and sediment (Hem, 1989). Arsenic concentrations, measured between 1971 and 2008, were available for 256 wells and 33 concentrations (13 percent) exceeded the primary standard of 10 micrograms per liter (µg/L) (table 7). Most of these exceedances were in samples from Rio Blanco County (fig. 15). Arsenic concentrations ranged from less than detection (most commonly less than 1 µg/L) to 1,100 µg/L, with a median concentration of 1 µg/L (table 7). A sample from an observation well in Garfield County had the highest arsenic concentration (geologic unit in which it was screened was not reported) (appendix 1). Quaternary and Tertiary units in Rio Blanco County had the highest median arsenic concentrations (5 and 4 µg/L, respectively) of those units with at least 10 assigned samples (table 8). Arsenic concentrations were significantly (p=0.008) larger in anoxic groundwater than in oxic groundwater (table 9), indicating that reductive dissolution of manganese and/or iron oxide minerals in the aquifer rock and sediment probably was an important mechanism for producing elevated arsenic concentrations in groundwater (Smedley and Kinniburgh, 2002). In fact, iron concentrations were significantly higher (p=0.001) in samples with arsenic concentrations above the primary standard of 10 µg/L than in samples with lower arsenic concentrations. There was no significant difference in manganese concentrations between samples with arsenic concentrations higher and lower than the standard. The arsenic-DO relation also implies that DO measurements indicating anoxic conditions could be a useful guide to groundwater vulnerability to arsenic enrichment.

Barium concentrations measured between 1968 and 2009 were available for 193 wells, and 8 concentrations (4.1 percent) exceeded the primary standard of 2,000 µg/L (table 7). Samples with barium exceedances were collected in Delta, Garfield, and Rio Blanco Counties (fig. 16). Concentrations ranged from less than detection to 5,300 µg/L, with a median concentration of 90 µg/L. A sample from an observation well in Rio Blanco County had the highest barium concentration (geologic unit in which it was screened was not reported) (appendix 1). The Mesaverde Group in Delta County had the highest quantifiable median barium concentrations (90 µg/L) of those units with at least 10 assigned samples (table 8).

Manganese concentrations measured between 1968 and 2009 were available for 681 wells, and 140 concentrations

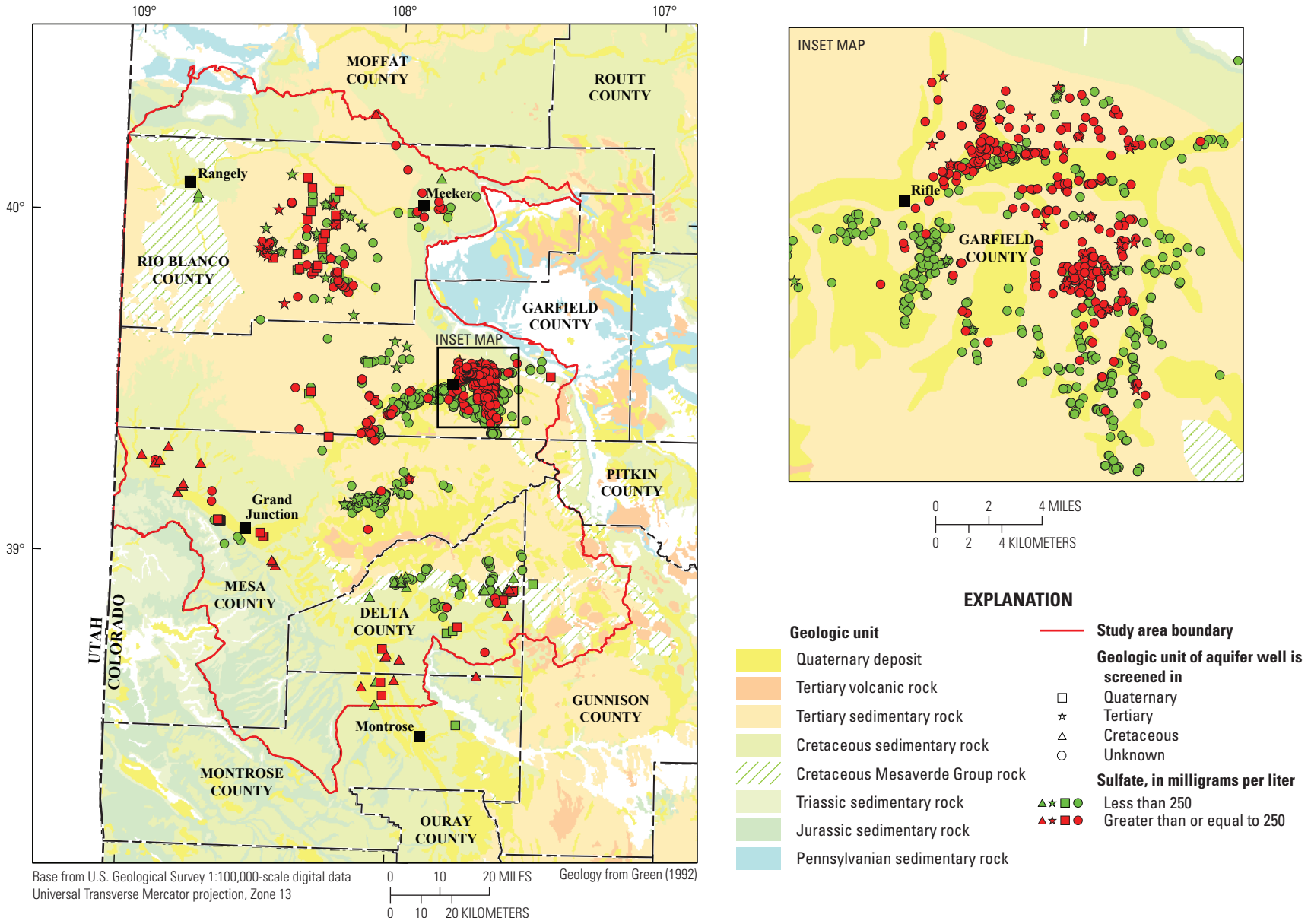

Figure 13. Concentrations of sulfate in groundwater from wells in the Piceance Basin, western Colorado. [<, less than; ≥, greater than or equal to]

Table 9. Concentrations of selected water-quality constituents relative to three dissolved-oxygen concentration thresholds. [Reported concentrations below the indicated common assessment levels set to zero. P-values determined from the nonparametric Wilcoxon rank-sum test (Helsel and Hirsch, 2002]

[mg/L, milligrams per liter; µg/L , micrograms per liter; <, less than; ≥, greater than or equal to;]

Constituent	Concentration units	Common assessment concentration	Average concentration (number of samples)								
			O_2 concentration (mg/L)			O_2 concentration (mg/L)			O_2 concentration (mg/L)		
			<0.5	≥0.5	p-value	<1.0	≥1.0	p-value	<2.0	≥2.0	p-value
Nitrate	mg/L as N	0.29	0.87 (35)	0.93 (547)	0.459	0.84 (85)	0.95 (497)	0.183	0.91 (183)	0.94 (399)	0.015
Sulfate	mg/L	2.5	1,320 (43)	551 (623)	<0.001	1,080 (102)	514 (564)	<0.001	821 (211)	499 (455)	<0.001
Manganese	µg/L	5	580 (31)	151 (267)	0.001	366 (66)	148 (232)	<0.001	300 (100)	143 (198)	<0.001
Iron	µg/L	70	315 (31)	749 (291)	0.486	354 (68)	801 (254)	0.856	348 (108)	888 (214)	0.973
Methane	mg/L	0.01	1.86 (31)	0.54 (605)	0.004	1.78 (80)	0.43 (556)	<0.001	1.47 (181)	0.26 (455)	<0.001
Arsenic	µg/L	3	4.57 (7)	0.40 (45)	0.008	4.00 (7)	0.41 (45)	0.018	2.12 (17)	0.40 (35)	0.118
Selenium	µg/L	20	80 (25)	35 (271)	0.043	51 (60)	35 (236)	0.120	59 (99)	28 (197)	0.289

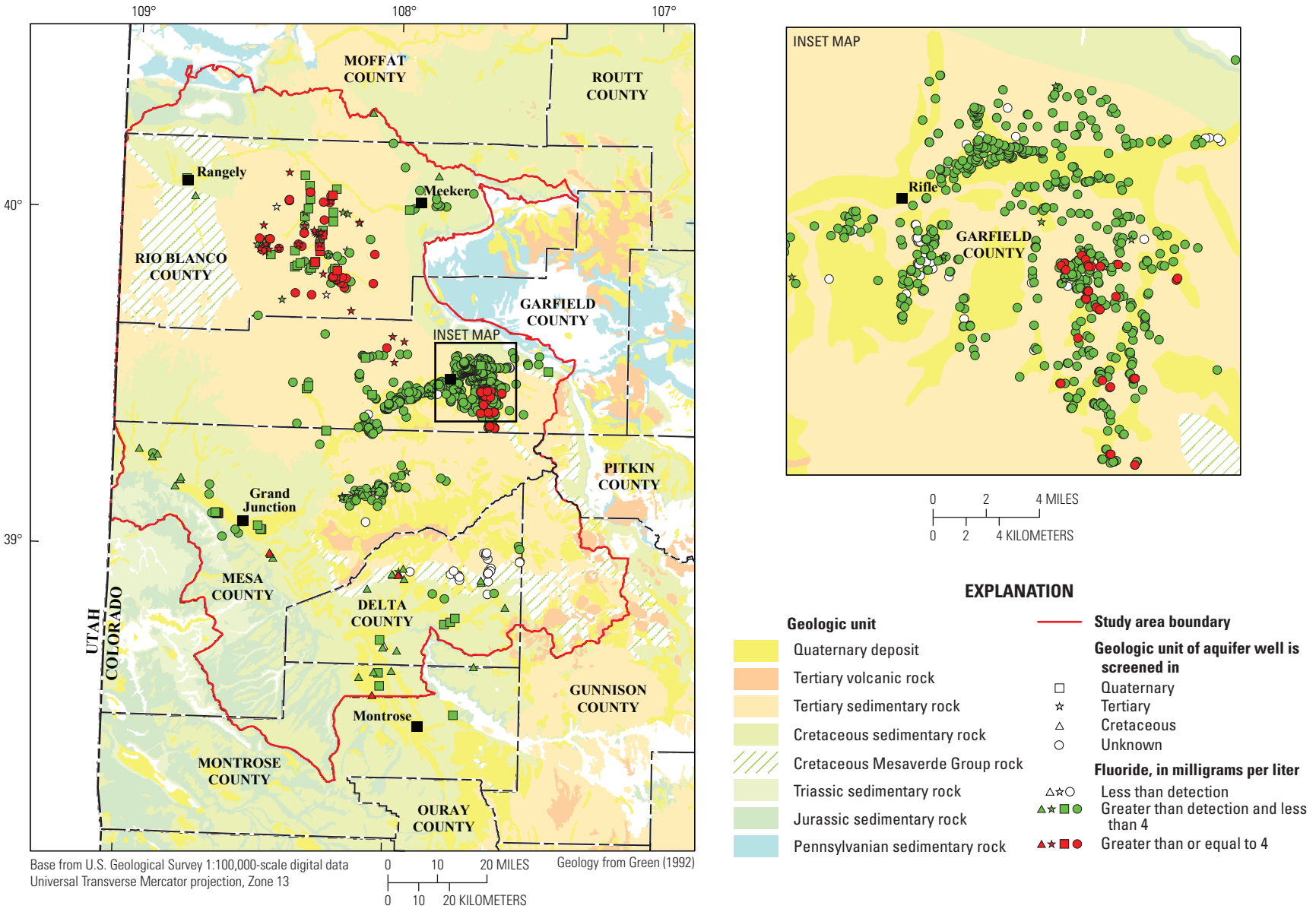

Figure 14. Concentrations of fluoride in groundwater from wells in the Piceance Basin, western Colorado. [<, less than; ≥, greater than or equal to]

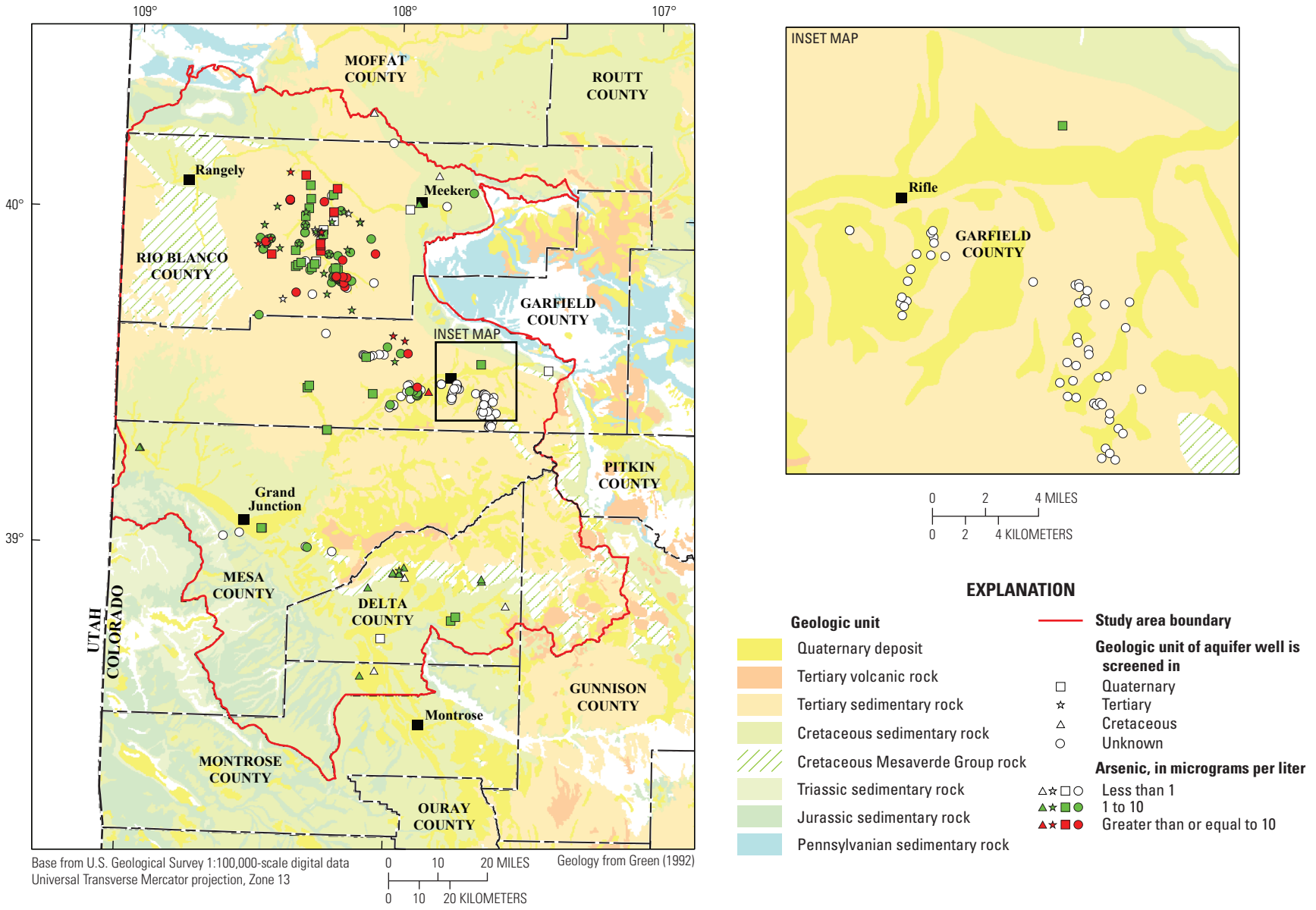

Figure 15. Concentrations of arsenic in groundwater from wells in the Piceance Basin, western Colorado. [<, less than; ≥, greater than or equal to]

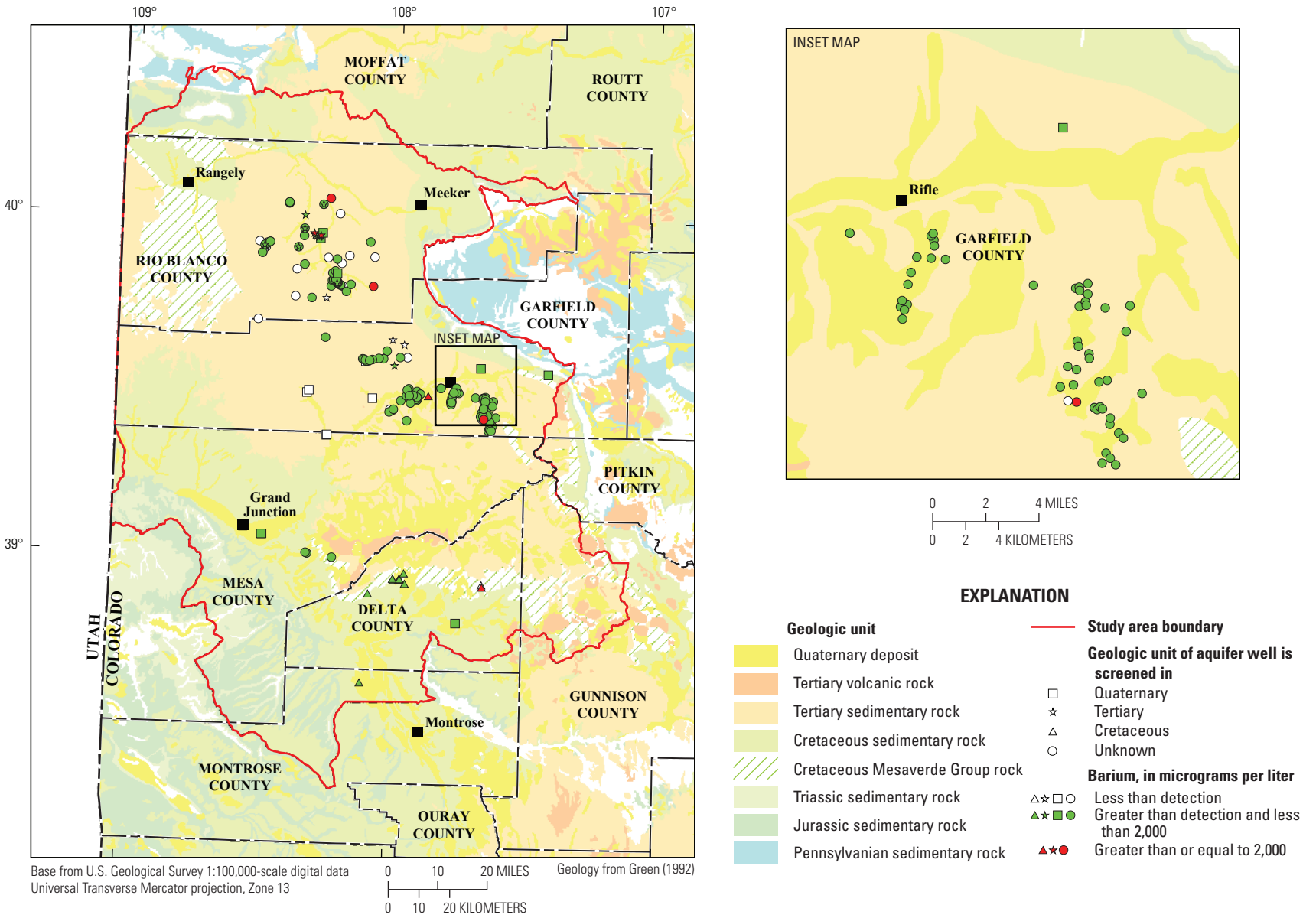

Figure 16. Concentrations of barium in groundwater from wells in the Piceance Basin, western Colorado. [<, less than; ≥, greater than or equal to]

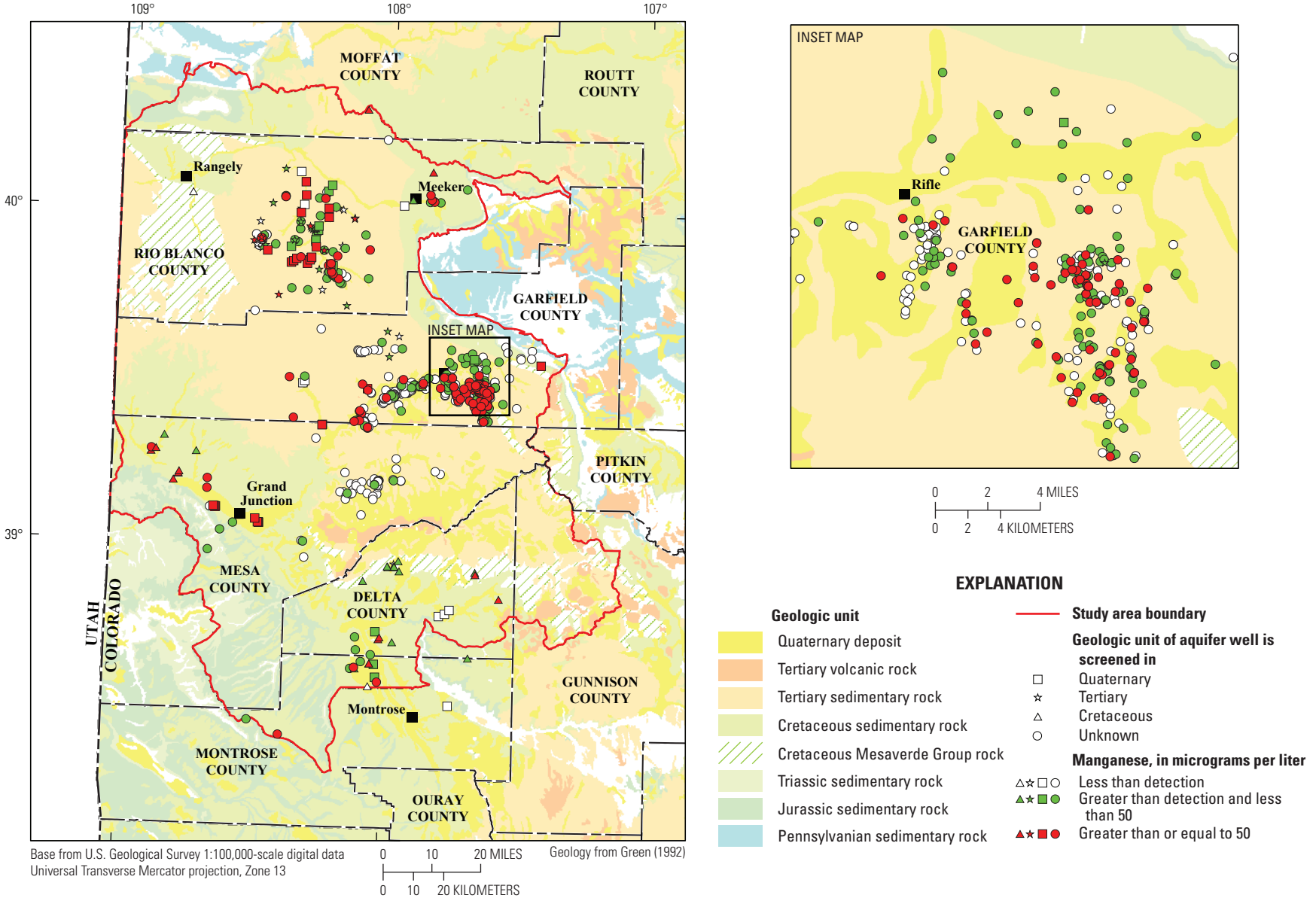

Figure 17. Concentrations of manganese in groundwater from wells in the Piceance Basin, western Colorado. [<, less than; ≥, greater than or equal to]

(21 percent) exceeded the secondary standard of 50 µg/L (table 7). Exceedances of the secondary standard were relatively widespread in the study area (fig. 17). Manganese concentrations ranged from below detection (most commonly 5 µg/L) to 8,900 µg/L, with a median of 6 µg/L (table 7). A sample from a domestic well in Garfield County had the highest manganese concentration (geologic unit in which well was screened was not reported) (appendix 1). Quaternary deposits in Mesa County had the highest median manganese concentration (1,410 µg/L) of those units with at least 10 assigned samples (table 8). Like arsenic, manganese concentrations were significantly higher (p=0.001) in anoxic groundwater than in oxic groundwater (table 9), which indicates that DO measurements also could be a useful indicator of groundwater vulnerability to manganese enrichment.

Iron is the second most abundant metallic element in the earth's crust; however, concentrations in water are generally small (Hem, 1989). Iron concentrations measured between 1968 and 2009 were available for 589 wells, and 96 concentrations (16 percent) exceeded the secondary standard of 300 µg/L (table 7). Most of the concentrations that exceeded the standard were from Garfield and Rio Blanco Counties (fig. 18). Iron concentrations ranged from less than detection (most commonly 70 µg/L) to 110,000 µg/L, with a median of 40 µg/L (table 7). A sample from a domestic well in Garfield County had the highest iron concentration (geologic unit in which well was screened was not reported) (appendix 1). The Mesaverde Group in Delta County had the highest median iron concentration (150 µg/L) of those units with at least 10 assigned samples (table 8). Unlike arsenic and manganese, iron concentrations were not significantly different between oxic and anoxic water samples, nor were they different at DO-concentration thresholds of 1 and 2 mg/L (table 9). Iron concentrations typically would be expected to be higher in anoxic groundwater than oxic groundwater based on its redox chemistry (McMahon and Chapelle, 2008). The reason for this apparent discordant finding is unclear, but it could be related to sample collection and preservation techniques used. If the sample had been preserved with acid in the field at the time it was collected but filtered later in the laboratory, it is possible that the acid could have dissolved particulate iron in the sample. Ideally, trace element samples would be first filtered and then acidified in the field immediately after sample collection. For example, in a set of 6,906 groundwater samples collected from around the country by the U.S. Geological Survey National Water-Quality Assessment Program, median iron concentrations were significantly (p <0.001) higher in anoxic groundwater than in oxic groundwater (220 µg/L and less than 10 µg/L, respectively) (P.B. McMahon, U.S. Geological Survey, written commun., 2011). Those samples were filtered and acidified in the field immediately after collection.

Selenium is a trace element that occurs naturally in the environment. The processes that control selenium mobilization are strongly controlled by the geochemical environment. Selenium concentrations measured between 1972 and 2008 were available for 551 wells, and 51 concentrations (9 percent) exceeded the primary standard of 50 µg/L (table 7). Most of the concentrations that exceeded the selenium standard were from Garfield County (fig. 19). Selenium concentrations ranged from less than detection (most commonly 20 µg/L) to 1,640 µg/L, with a median of 5 µg/L (table 7). A sample from a domestic well in Garfield County had the highest selenium concentration (geologic unit in which the well was screened was not reported) (appendix 1). The Mesaverde Group in Delta County had the highest median selenium concentration (18 µg/L) of those units with at least 10 assigned samples (table 8).

Natural sources of selenium in the study area include authigenic pyrite in Mancos Shale, particularly in Mesa and Delta Counties, and other selenium-bearing solid phases that have been deposited in the aquifer or redistributed by geochemical processes within the groundwater environment (Wright and Butler, 1993). Percolation of irrigation water through selenium-bearing geologic units such as the Mancos Shale has the potential to oxidize and mobilize selenium. This study found that selenium concentrations were significantly higher (p< 0.001) in samples containing nitrate at a concentration of at least 1 mg/L (as nitrogen) than in samples with lower nitrate concentrations. Mean selenium concentrations in the high- and low-nitrate samples were 85 and 7 µg/L, respectively (most common censoring level for nitrate and selenium of 0.29 mg/L and 20 µg/L, respectively). The nitrate concentration of 1 mg/L (as nitrogen) is a proposed national baseline concentration in groundwater (Dubrovsky and others, 2010), and nitrate concentrations above that level could indicate inputs from human sources such as irrigated agriculture or septic leachate. Stratified by DO concentrations, selenium concentrations were significantly higher (p=0.043) in anoxic groundwater than in oxic groundwater (table 9). This result is opposite of the result expected based on the redox chemistry of selenium and may reflect the diversity of geologic units from which samples were collected, however, further sampling would need to be conducted. Analyses of DO-selenium relations in more uniform geologic settings such as the Central Valley of California have shown that selenium concentrations typically are highest in oxic groundwater (Dubrovsky and others, 1993).

Nitrate

Excessive nitrate in drinking water supplies is a human health concern especially for small children because it may cause methemoglobinemia ("blue baby" syndrome). Elevated sources of nitrate in groundwater are likely to be associated with septic systems, animal manure, or fertilizers applied to lawns and crops (Hem, 1989). Concentrations of nitrite in most of the samples were less than the reporting level; therefore, concentrations of nitrite plus nitrate consisted almost entirely of nitrate and are referred to as such in this report (appendix 1). Nitrate concentrations measured between 1958

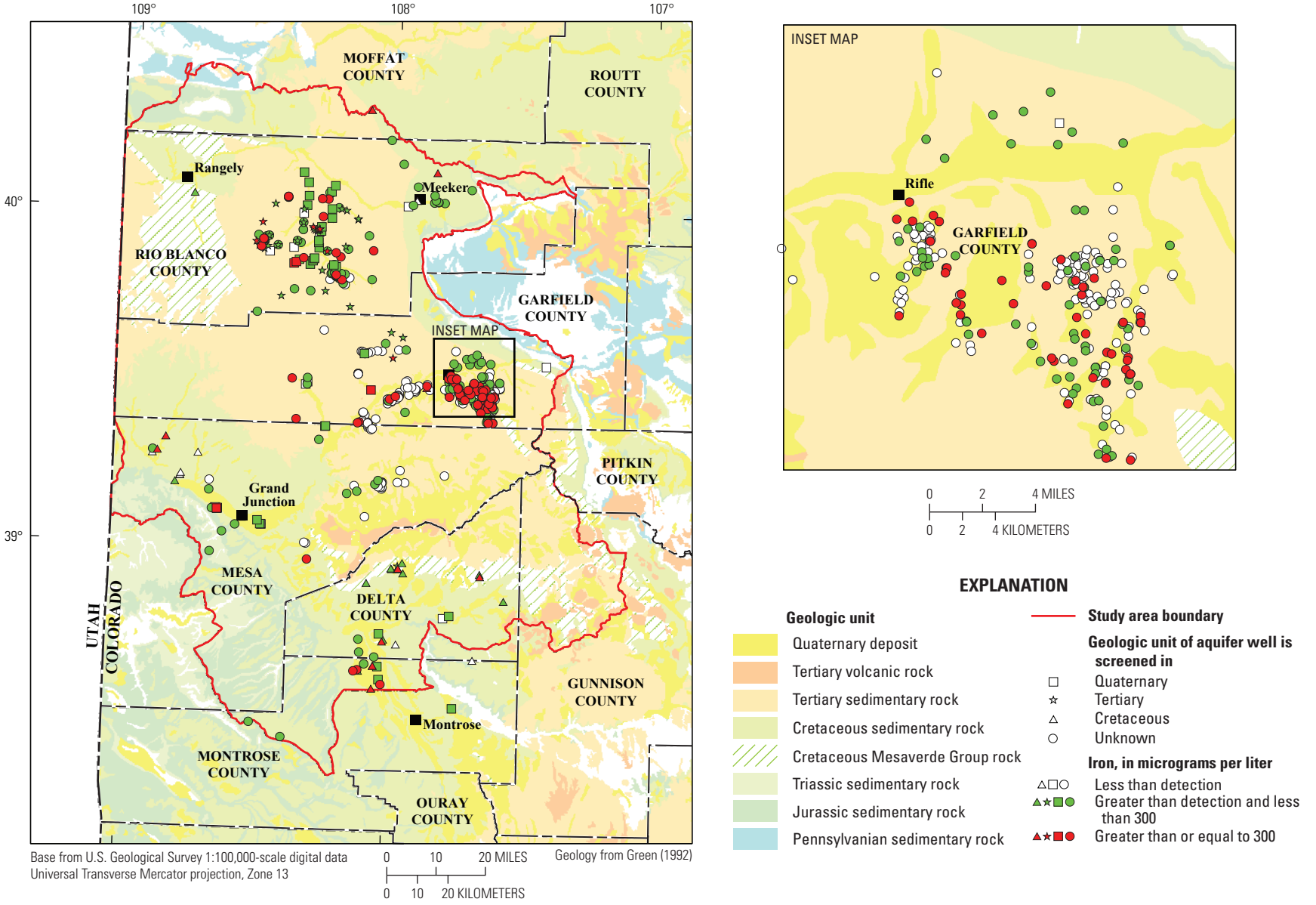

Figure 18. Concentrations of iron in groundwater from wells in the Piceance Basin, western Colorado. [<, less than; ≥, greater than or equal to]

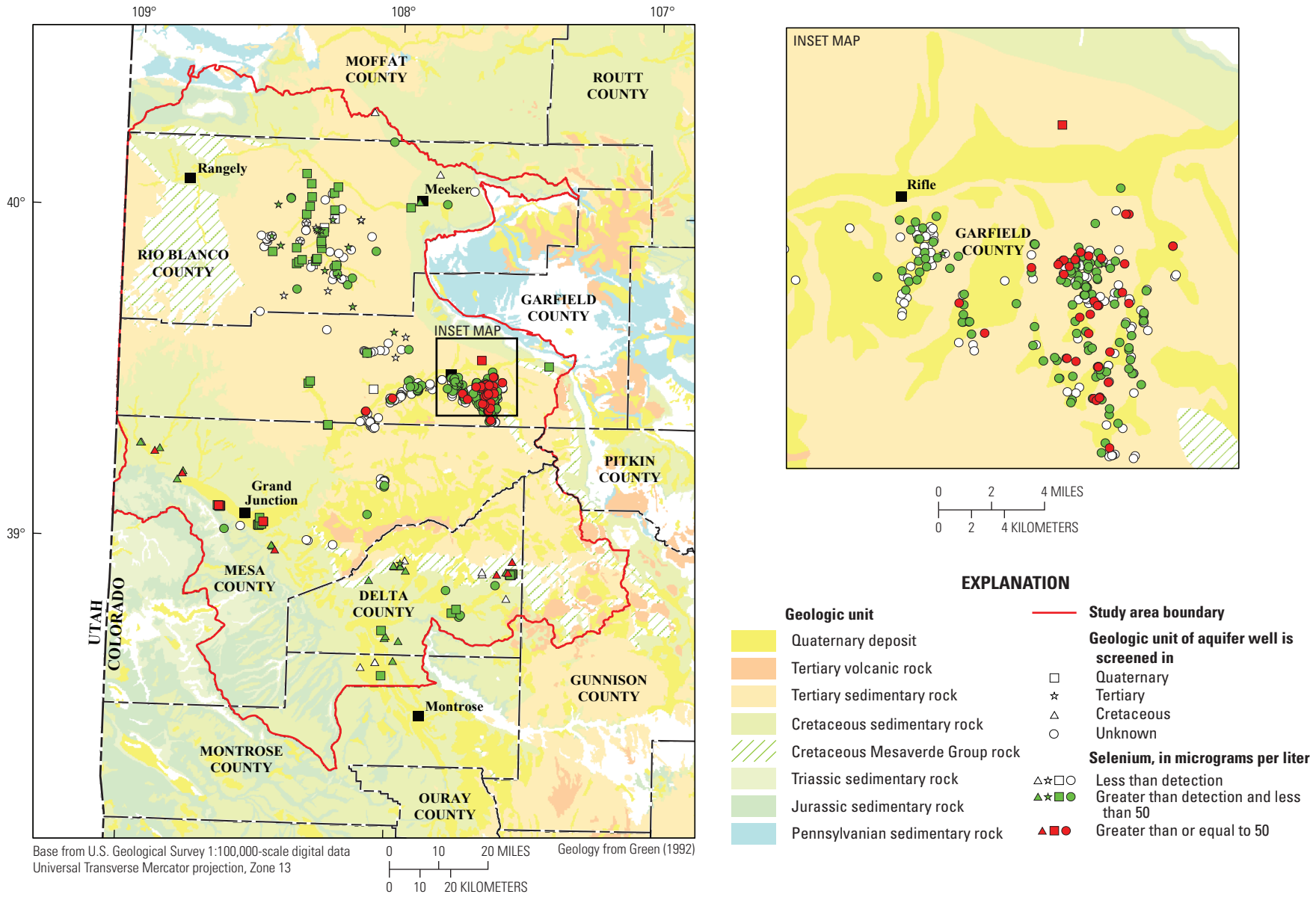

Figure 19. Concentrations of selenium in groundwater from wells in the Piceance Basin, western Colorado. [<, less than; ≥, greater than or equal to]

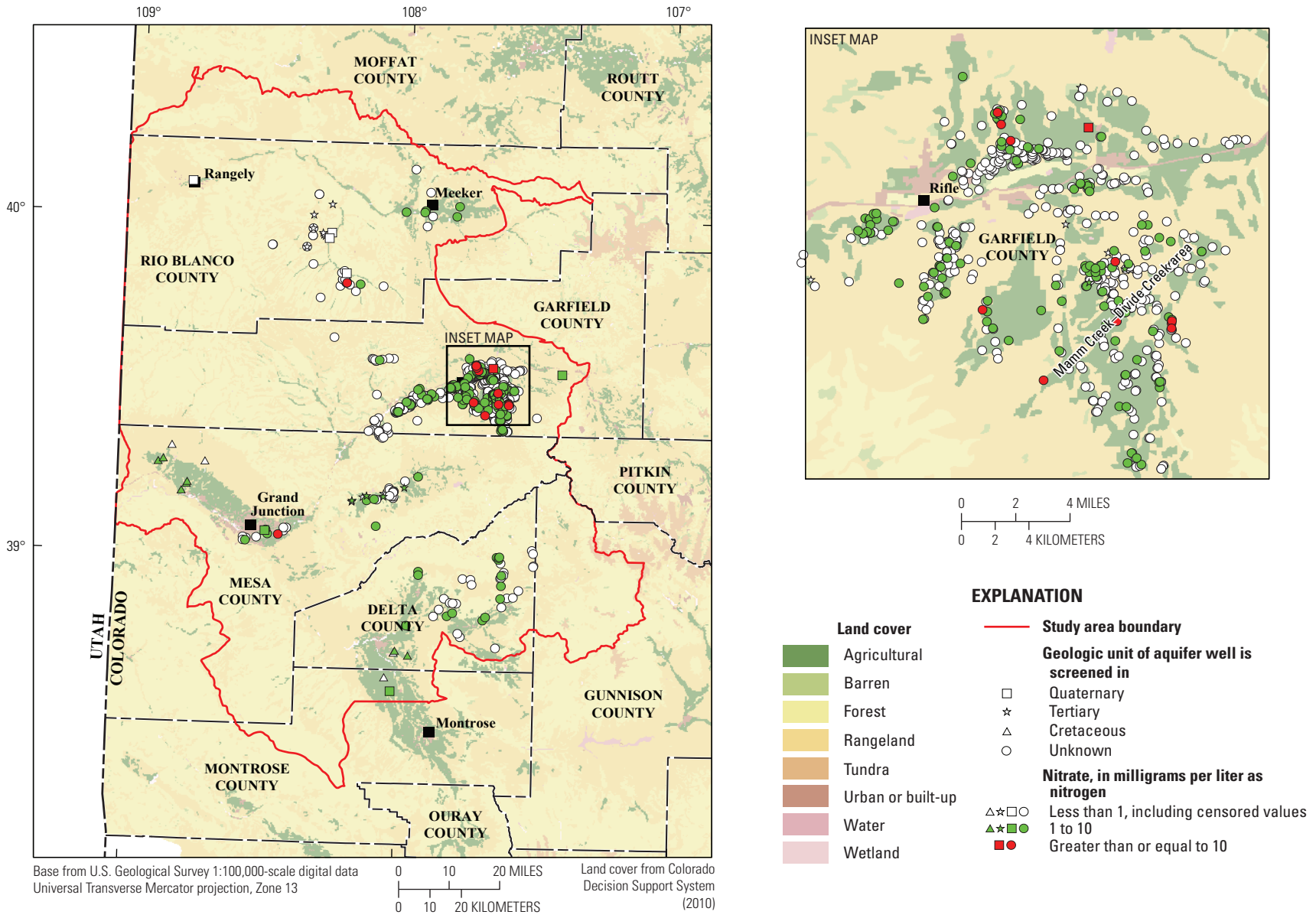

Figure 20. Concentrations of nitrate in groundwater from wells in the Piceance Basin, western Colorado. [<, less than; ≥, greater than or equal to]

and 2009 were available for 791 wells, and 13 concentrations (1.6 percent) exceeded the primary standard of 10 mg/L as nitrogen (table 7). Most of these exceedances were in samples collected from agricultural areas of Garfield County (fig. 20). Nitrate concentrations ranged from less than detection (most commonly about 0.29 mg/L as nitrogen) to 29.4 mg/L, with a median concentration less than 0.21 mg/L as nitrogen (table 7). A domestic well in Garfield County had the highest nitrate concentration (geologic unit in which well was screened was not reported) (appendix 1). The Wasatch Formation in Garfield County was the only geologic unit to have at least 10 assigned samples (table 8), and the median nitrate concentration for those samples was 0.4 mg/L as nitrogen.

McMahon and others (2010) sampled 26 domestic wells completed in the Wasatch Formation in Garfield County and found that nitrate concentrations in oxic groundwater were significantly higher (p=0.03) than concentrations in anoxic groundwater. This same relation was observed in a national study of nitrate in groundwater (McMahon and Chapelle, 2008). This relation between DO and nitrate was not observed in this study, although nitrate concentrations were significantly higher (p=0.015) in groundwater containing at least 2 mg/L DO than in less oxygenated groundwater (table 9). The apparent similarity in nitrate concentrations in oxic and anoxic groundwater may reflect the generally low concentrations of nitrate in the dataset (median nitrate concentration less than 0.21 mg/L as nitrogen); however, further data collection is needed to verify this hypothesis. Although this DO-nitrate relation differs somewhat from the relation described in previous studies, it still indicates that DO measurements could be a useful indicator of groundwater vulnerability to nitrate contamination.

Benzene, Toluene, Ethylbenzene, Xylene

Benzene, toluene, ethylbenzene, and xylene (BTEX) are volatile organic compounds typically found in petroleum products such as gasoline and diesel fuel, but these compounds also occur in some natural gas reservoirs. Benzene concentrations measured between 1989 and 2008 were available for 808 wells, but benzene was detected in only 11 wells (1.4 percent); 5 concentrations (0.6 percent) exceeded the primary standard of 5 µg/L (table7). These exceedances were in samples from wells located in Garfield (3 samples) and Rio Blanco (2 samples) Counties (geologic unit in which the wells were screened not reported) (fig. 21, appendix 1). Toluene concentrations measured between 1997 and 2008 were available for 808 wells. Toluene was detected in 38 wells (4.7 percent), but none of the concentrations exceeded the primary drinking-water standard (1,000 µg/L) (table 7, fig. 22). Ethylbenzene and xylene were sampled at a frequency similar to that of benzene and toluene, but detections were few and without exceedances of primary standards (table 7).

Methane

Methane is a combustible gas that can accumulate to explosive levels in well bores and confined spaces in buildings. Methane can be either thermogenic or biogenic in origin. Thermogenic methane is generally produced at depths far below freshwater aquifers, and its presence in water wells can be due to natural conditions, such as migration of gas along naturally occurring fracture zones from underlying gas-bearing reservoirs such as the Mesaverde Group or the Wasatch Formation, or from oil and gas drilling, completion, and production activities. Biogenic methane, which is produced through microbial degradation of organic matter (Whiticar, 1999), generally originates from much shallower depths than thermogenic methane and can occur naturally in shallow anoxic groundwater systems. Methane concentrations measured between 1997 and 2009 were available for 874 wells, in which methane was detected in 207 wells (24 percent) (table 7). Most samples that contained detectable methane concentrations were from Garfield County (fig. 23). Methane concentrations in the study area ranged from less than the detection limit (commonly 0.0008 mg/L) to 36.7 mg/L, and 75 values (8.5 percent) were greater than 1 mg/L (high methane). Most methane detections and methane concentrations greater than 1 mg/L were found in Garfield County in the Mamm Creek–Divide Creek area (fig. 23). A sample from a domestic well in Garfield County had the highest methane concentration (geologic unit in which well was screened was not reported) (appendix 1). The Wasatch Formation in Garfield County was the only one to have at least 10 assigned samples (table 8), and the median methane concentration for those samples was less than 0.0005 mg/L. Methane concentrations in anoxic groundwater were significantly higher (p=0.004) than the concentrations in oxic groundwater, which is consistent with previous results from the study area (McMahon and others, 2010). These findings indicate that dissolved-oxygen measurements could be a useful indicator of groundwater vulnerability to methane enrichment.

Several studies have used methane isotopic compositions (ratio of 13C to 12C relative to a standard material) to determine the origin (biogenic or thermogenic) of methane in groundwater (Whiticar, 1999; URS Corporation, 2006; S.S. Papadopoulos & Associates, Inc., 2008; McMahon and others, 2010). Only about 30 percent of the samples with high methane concentrations (greater than or equal to 1 mg/L) had isotopic data for methane (appendix 1). Overall, 37 samples had isotopic data for methane, and all but one sample came from domestic or observation wells located in Garfield County (appendix 1). The isotopic data indicate that methane in the Garfield County water wells was from both biogenic and thermogenic sources (fig. 24) (appendix 1).

For comparison, natural gas from the Mesaverde Group in Garfield County was exclusively thermogenic in origin (fig. 24). Thermogenic methane in domestic wells is likely to have come from much deeper sources than the freshwater aquifer in which the water wells were screened, although the

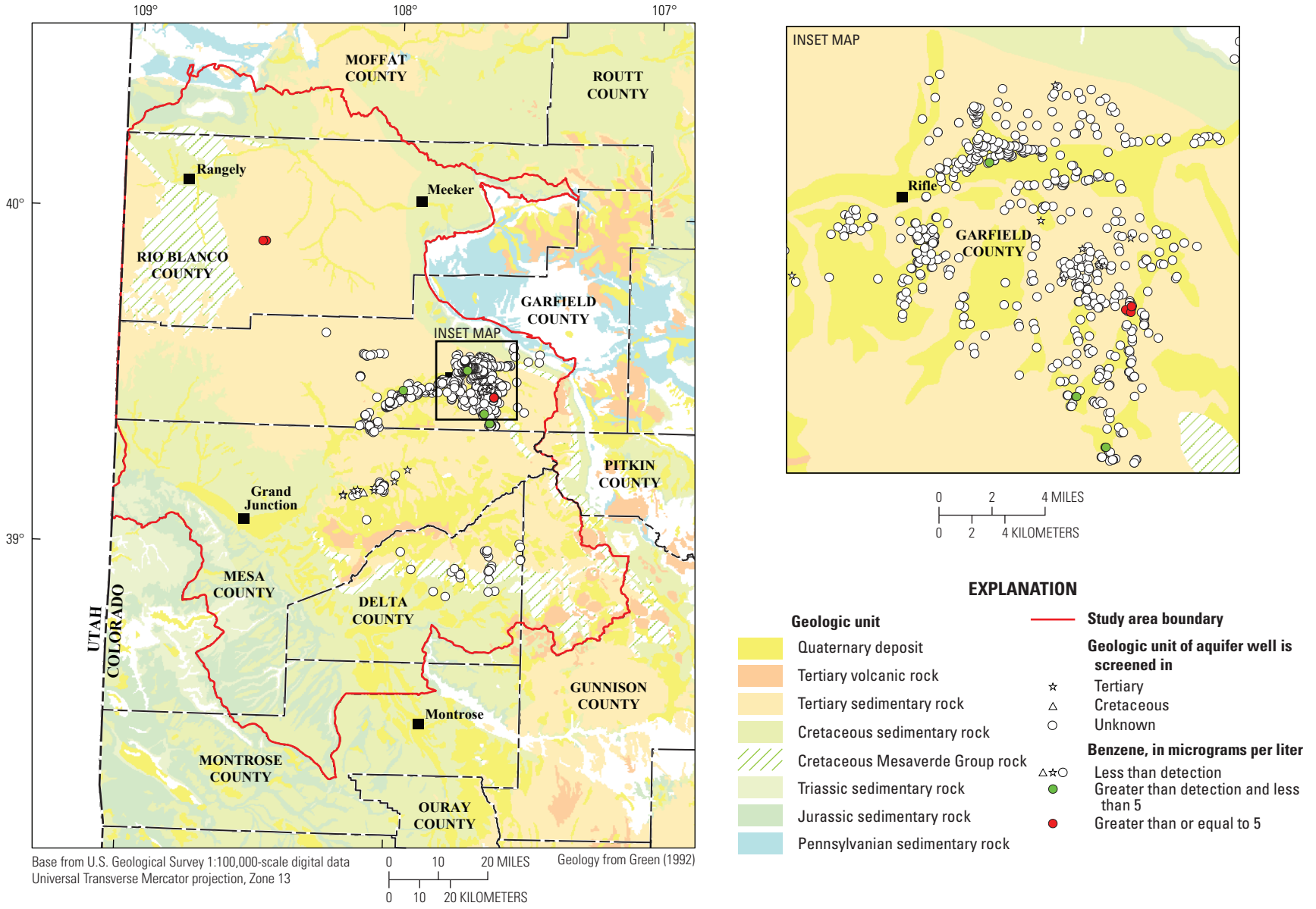

Figure 21. Concentrations of benzene in groundwater from wells in the Piceance Basin, western Colorado. [<, less than; ≥, greater than or equal to]

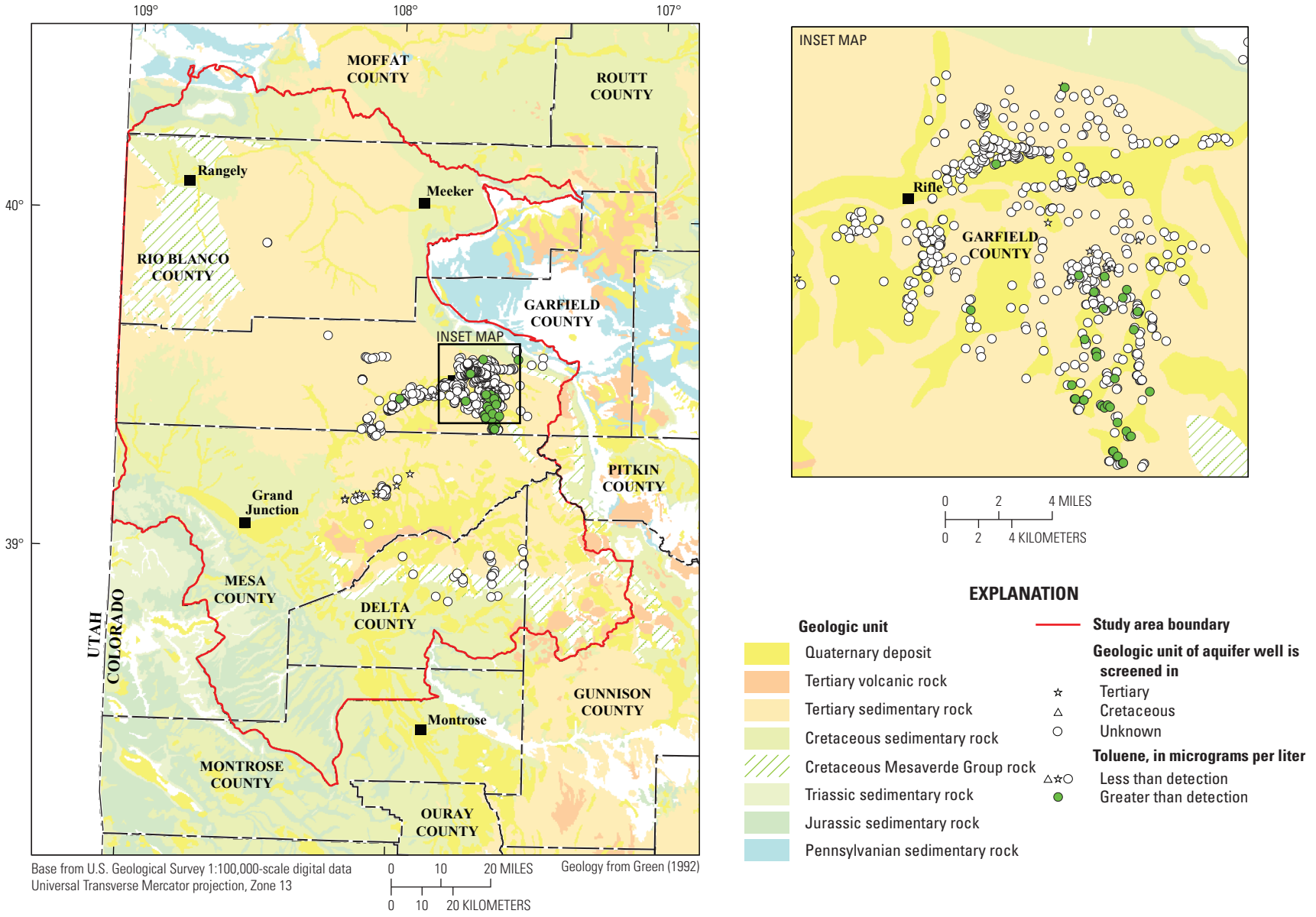

Figure 22. Detections of toluene in groundwater from wells in the Piceance Basin, western Colorado.

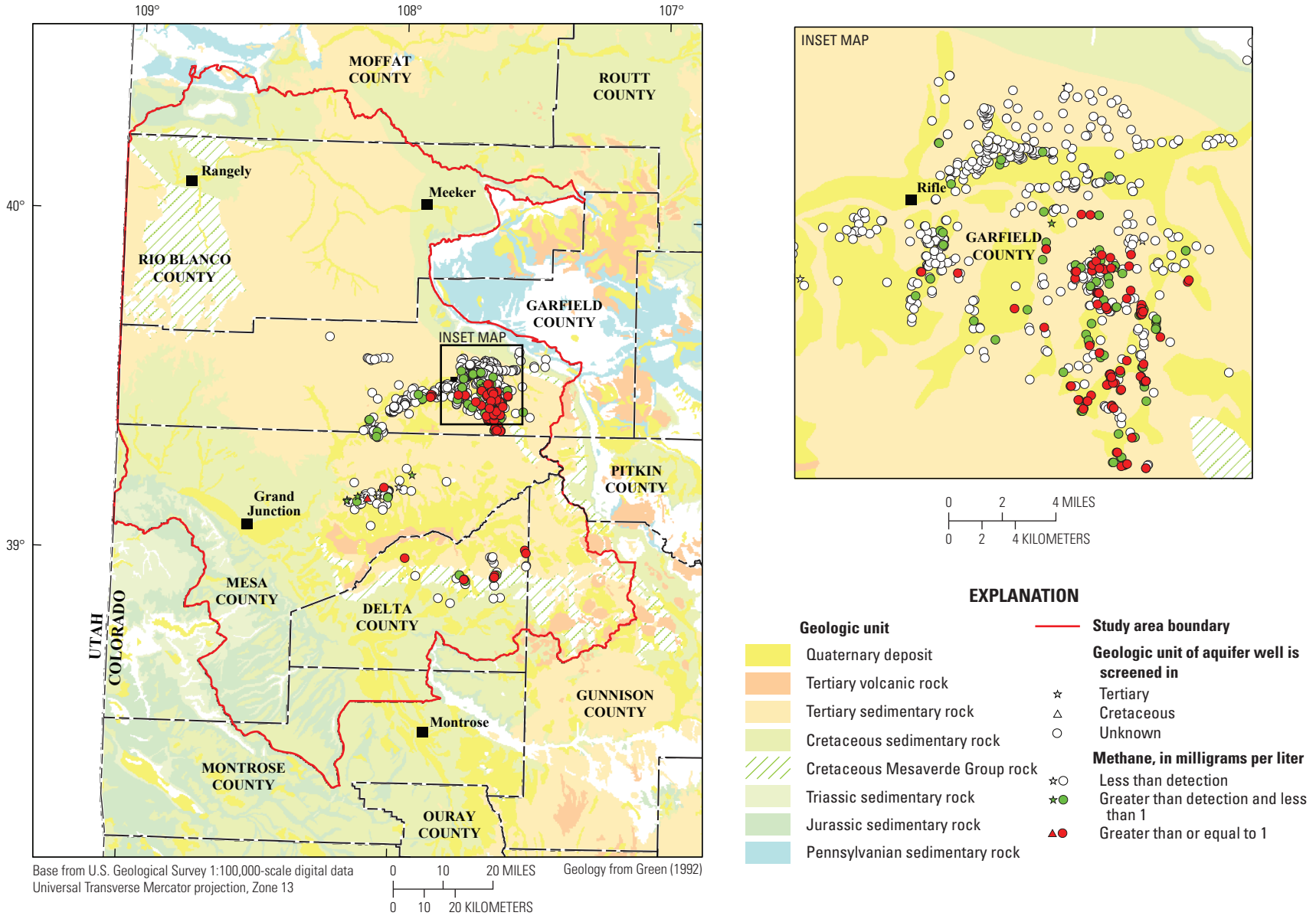

Figure 23. Concentrations of methane in groundwater from wells in the Piceance Basin, western Colorado. [<, less than; ≥, greater than or equal to]

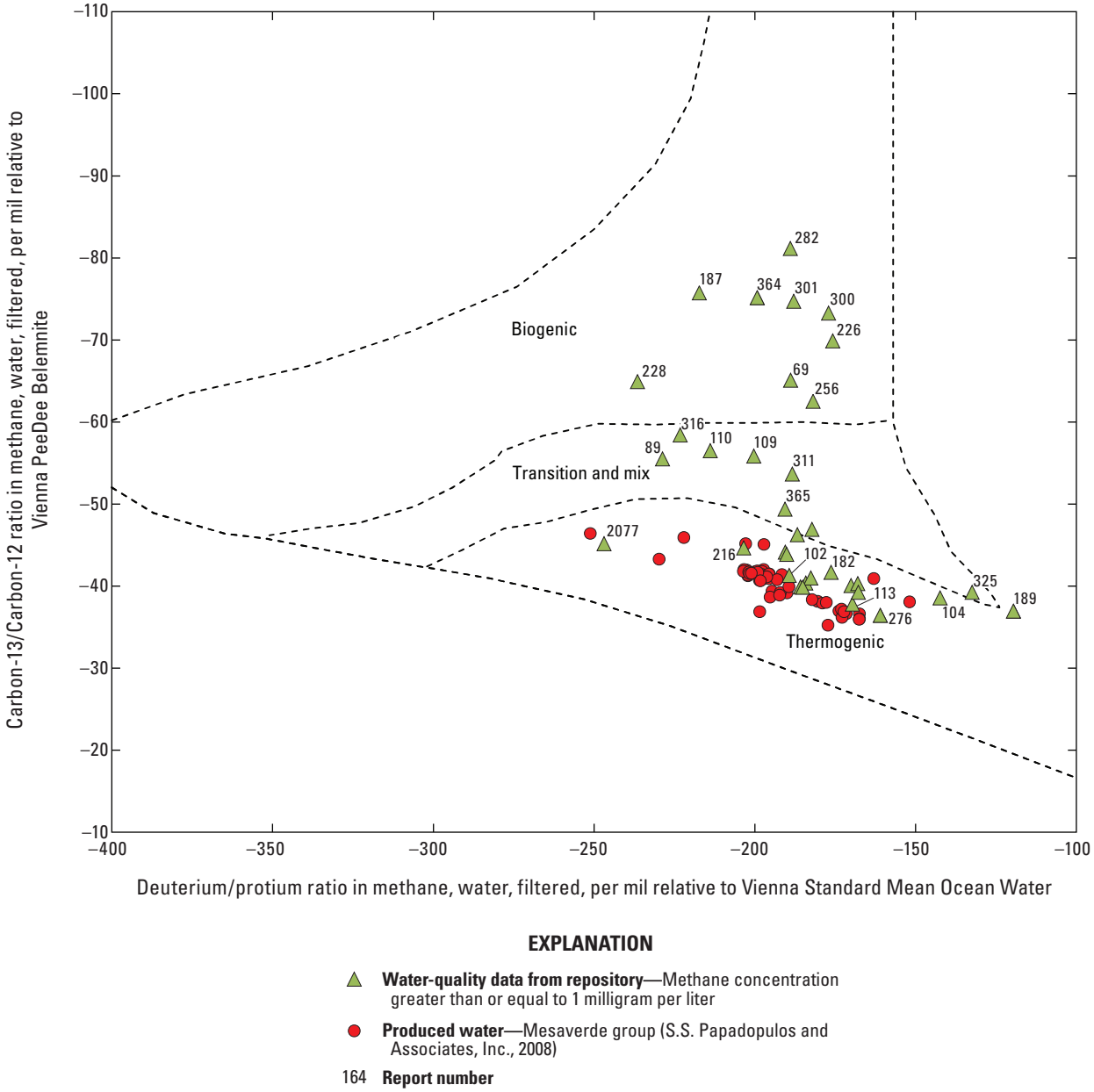

Figure 24. Stable hydrogen and carbon isotope compositions of methane in water wells in the Piceance Basin, for water samples with at least 1 mg/L of methane. The isotopic composition of methane in natural gas from the Mesaverde Group in Garfield Country (Colorado Oil and Gas Conservation Commission, 2010) is shown for comparison (data from submission to common data repository by Colorado Oil and Gas Conservation Commission). The fields for bacterial and thermogenic methane are modified from Whiticar and others, 1986.

geologic unit in which they were screened was not provided by the data source (appendix 1). In contrast, biogenic methane in the domestic wells could have been produced locally in an aquifer with anoxic groundwater, or it could have come from deeper geologic units underlying the aquifer (but not as deep as the zones of thermogenic methane). In a domestic well completed in the shallow Wasatch Formation in Garfield County, helium-4 concentration data have been used to show that biogenic methane was most likely produced in a deeper part of the Wasatch Formation and subsequently transported to shallower depths (McMahon and others, 2010). The methane transport mechanism was not identified, but possible mechanisms included transport along natural fractures or movement up the uncemented annular space of gas wells.

Limitations of the Common Data Repository for Assessing Groundwater Quality and Opportunities for Future Monitoring

More than 480 groundwater-quality constituents exist in the common data repository, but only a subset of these has been discussed in this report. Assessing such a large and diverse dataset as the one available through the repository poses unique challenges for assessing groundwater quality in the study area. The repository contains data from several studies that differed widely in purpose and scope. Garfield County is the site of several groundwater studies, which have produced a wealth of information. However, much of the data collection was focused on the effects of energy development on water quality in the Mamm Creek–Divide Creek area. The majority of groundwater-quality data collected in Rio Blanco County is from the 1970s and 1980s and focused on understanding water bearing units of the Green River Formation in relation to oil shale development. Groundwater-quality data in Mesa and Delta Counties are from several small studies and provides a limited understanding of groundwater resources for those counties.

Data gaps exist in the repository. Groundwater-quality data in the repository were not evenly distributed throughout the study area. For example, the repository contained very little data for some parts of the study area that have many oil or gas wells, such as western Garfield, Mesa, and Rio Blanco Counties (fig. 25). Moffat and Montrose Counties contained relatively small amounts of data compared with Garfield and Rio Blanco Counties. Furthermore, the repository did not contain data for many of the water-supply wells (domestic, municipal) in the study area (fig. 26). Delta County, for example, is somewhat underrepresented with respect to groundwater-quality data even though there were many domestic wells in the county (fig. 26).

Several key water-quality constituents or indicators were underrepresented in the repository. Dissolved-oxygen data, for example, were available for only 47 percent of samples even though DO measurements were shown to be useful for assessing the vulnerability of the aquifer to enrichment by or contamination from constituents such as arsenic, manganese, methane, and nitrate. Arsenic and nitrate, in particular, are of concern from a human health standpoint, but they have been measured in fewer than 17 and 51 percent of the samples, respectively. Stable isotopic values of water and methane were available for fewer than 5 percent of the samples even though those data were shown to be useful tracers of water and methane sources, respectively. Other useful tracers that are either underrepresented or absent from the repository include age tracers such as tritium and carbon-14 and gas tracers such as helium-4, the combination of which can be used to examine sources of water and chemicals in aquifers.

Ancillary information, such as well depth, depth to water, and the geologic unit or aquifer in which a well was completed, was missing for more than 50 percent of the samples. This information is crucial for placing the well and its water chemistry in hydrologic context. The majority of wells with completion information were in Quaternary deposits. Quaternary deposits were important sources of groundwater in the study area where population centers were located in river valleys. But many rural household wells are also completed in bedrock aquifers below the Quaternary deposits, and the distribution of wells in the repository in each of those units is not well understood.

One additional aspect of the repository worth noting is the general lack of chemical and isotopic data for produced waters and for other groundwater at depth below the freshwater aquifers. Extensive faulting and fracturing in the study area, as well as drilling for natural gas, provides potential conduits for deep groundwater to move upward into freshwater aquifers. Without adequate chemical and isotopic characterization of that deep water, it can be difficult to recognize its presence in shallow aquifers or, if it is identified, to know from which deep geologic unit it originated.

Future monitoring could avoid several limitations of the current repository by making relatively minor changes to sample-collection and data-reporting protocols.

- Add field measurements for dissolved oxygen to sampling protocols
- Filter cation and trace element samples in the field prior to acidification
- Measure the water level in a well prior to sampling
- Report information on well construction and the geologic unit or aquifer in which a well is completed as part of the water-quality database

Implementation of these types of changes would increase the comparability of data from different monitoring programs and also add value to each program individually and to that of the regional dataset as a whole.

Other changes to monitoring programs could require greater resources. When possible, such changes might include sampling for a basic set of constituents that is relevant to

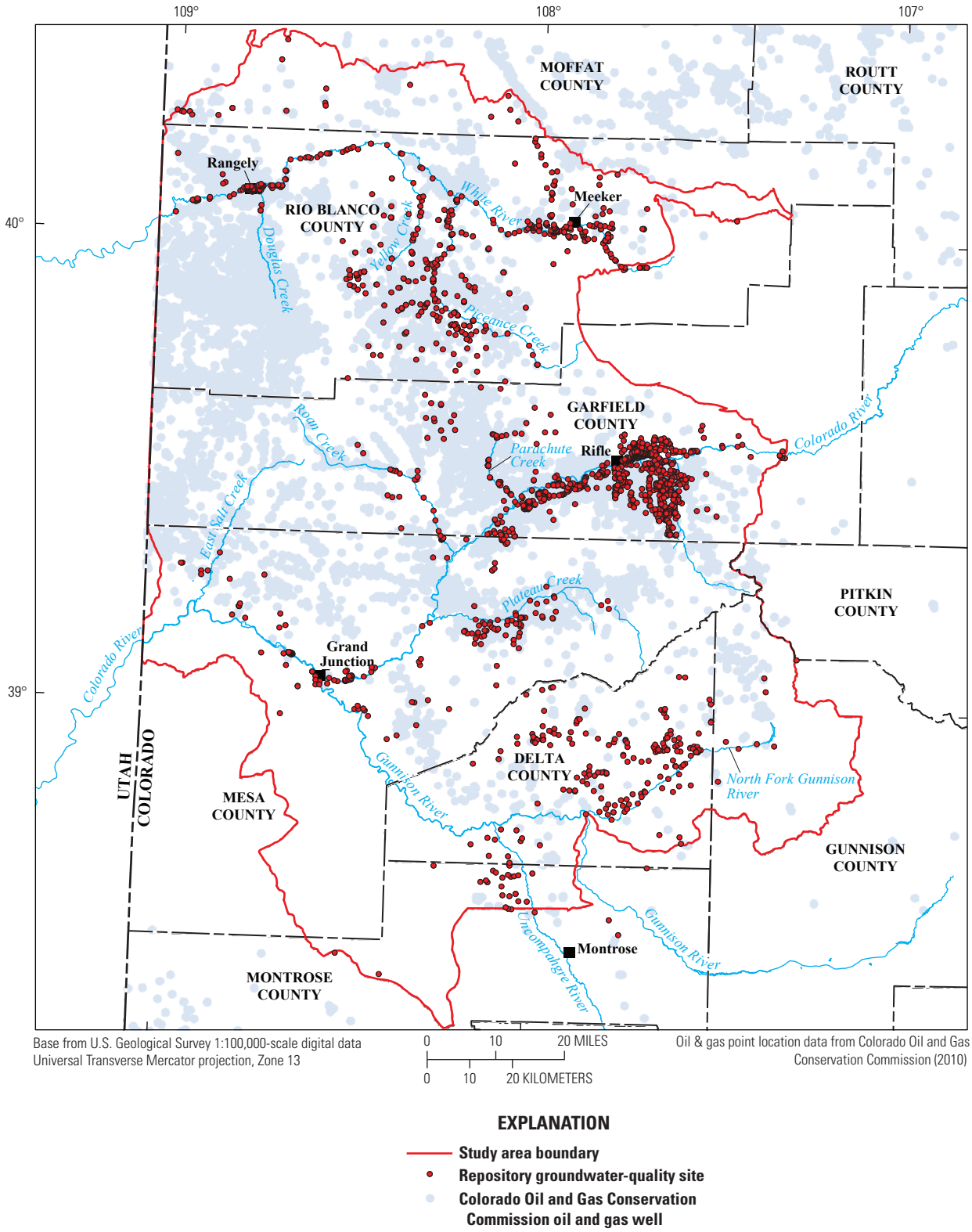

Figure 25. Groundwater-quality sites in the Piceance Basin common data repository and oil and gas wells permitted by Colorado Oil and Gas Conservation Commission permit layer.

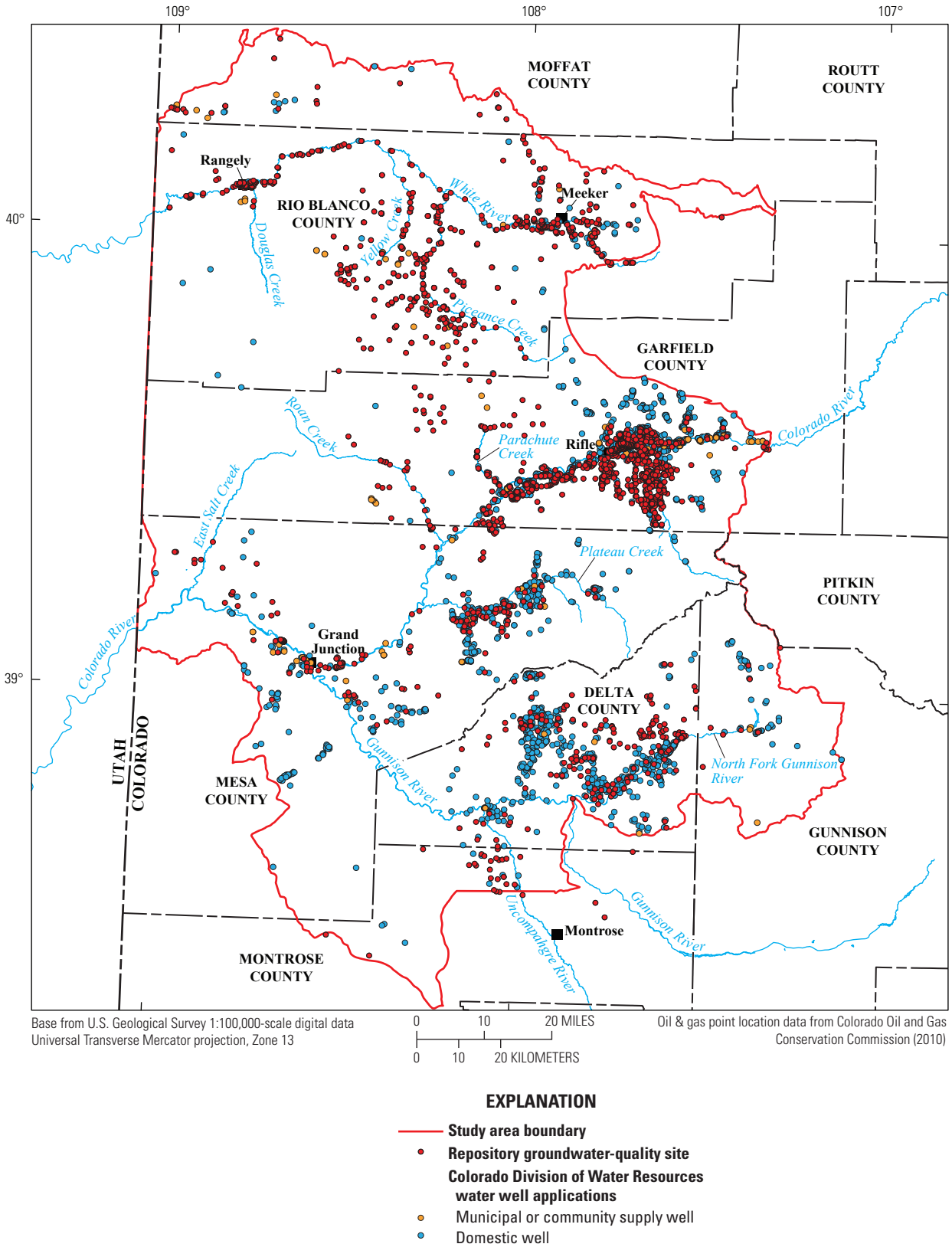

Figure 26. Groundwater-quality sites in the Piceance Basin common data repository and domestic and municipal wells permitted by Colorado Division of Water Resources (2011).

major water-quality issues in the regional study area. Although some components of the constituent set might not be relevant to the immediate goals of individual monitoring programs, creation of such a dataset for the regional study area would help to provide the kinds of information needed to characterize background conditions and the spatial and temporal variability in constituent concentrations associated with those conditions. Without that information, it becomes difficult to recognize departures from background that might be associated with human activities. That kind of information is likely to be useful to many monitoring programs. In addition to the constituents and ancillary information described above (for example, DO and well completion interval), such a basic set of constituents might include nitrate, arsenic, chloride, fluoride, manganese, selenium, sulfate, methane, and possibly the BTEX compounds and stable isotopic compositions of water and methane.

Summary

Groundwater-quality data from public and industry sources for the period 1946 to 2009 were compiled and loaded into a common data repository for the Piceance Basin. This report describes the availability of groundwater-quality data in the Piceance Basin in terms of three characteristics: spatial (where sample sites were located), temporal (what is the period of record), and analytical (what constituents were sampled). Spatial variability in constituent concentrations are described and, where possible, examined relative to human and natural factors. The repository is available on the web at *http://rmgsc.cr.usgs.gov/cwqdr/Piceance/index.shtml*. A subset of groundwater-quality data from this repository was compiled, reviewed, and quality assured for this report. The resulting dataset consists of the most recently collected samples from 1,545 wells, 1,007 (65 percent) of which were domestic wells. Concentration data were compared with primary and secondary drinking-water standards established by the U.S. Environmental Protection Agency. The three principal geologic units discussed in this report—Quaternary deposits, Tertiary sedimentary rocks, and Cretaceous sedimentary rocks—were the primary host materials for aquifers in the Piceance Basin in which water-quality data were collected. From those samples, the following constituents were discussed in this report: dissolved oxygen, dissolved solids, pH, major ions (chloride, sulfate, fluoride), trace elements (arsenic, barium, iron, manganese, selenium), nitrate, BTEX compounds (benzene, toluene, ethylbenzene, xylene), methane, and the stable isotopic compositions of water and methane. Dissolved-oxygen concentration and methane concentrations were also used to stratify concentration data per constituent.

The stable isotopic composition of water was used to identify potential sources of recharge to wells. Recharge to most of the wells for which data were available was derived from precipitation, as indicated by δ^2H [H_2O] and $\delta^{18}O$[H_2O] values that plot along the Global Meteoric Water Line and near the values of snow samples collected in the study area. Recharge to two wells appeared to be derived from a deeper groundwater source, as indicated by isotopic values that plot near the values for produced water from the Mesaverde Group.

Reduction/oxidation (redox) processes affect the chemical quality of groundwater in the study area by affecting the mobility of potentially toxic metals associated with naturally occurring aquifer materials. These processes influence the degradation or preservation of anthropogenic contaminants such as benzene, toluene, ethylbenzene, and xylene. In addition, these processes can generate undesirable byproducts such as dissolved ferrous iron, hydrogen sulfide, and methane. Dissolved-oxygen concentrations in 93 percent of the samples indicated oxic conditions (less than or equal to 0.5 milligrams per liter). Dissolved-oxygen samples were collected primarily in Garfield County near Rifle and many of the anoxic wells were located in the Mamm Creek–Divide Creek area.

Dissolved solids can be used to infer water sources because deeper sources tend to have higher dissolved-solids concentrations and are also higher in certain constituents like chloride. Dissolved-solids concentrations in 72 percent of samples exceeded the secondary drinking-water standard of 500 milligrams per liter. These exceedances were relatively widespread in the study area. Samples from wells screened in Quaternary, Tertiary, and Cretaceous geologic units each had a distinct suite of major ions. Variations in concentration with depth could not be evaluated because of the general lack of well-depth and water-level data. Chloride concentrations in 10 percent of samples exceeded the chloride standard. Of those samples with geologic unit or aquifer designations, only those from Quaternary units in Mesa County had a median chloride concentration greater than the secondary standard. Sulfate concentration data in 37 percent of samples exceeded the secondary standard of 250 milligrams per liter, and exceedances were relatively widespread in the study area. These data indicate that subsurface sulfate sources were relatively common in the study area. In the absence of additional information, such as stable sulfur isotope data, it is difficult to identify those sources, but likely sources include minerals such as gypsum and pyrite (following oxidation). Produced waters are a less likely source of sulfate to the freshwater aquifers. Fluoride concentrations in 8.4 percent of samples exceeded the primary standard of 4 milligrams per liter. Most of the fluoride exceedances were found in Rio Blanco County, although many exceedances were observed in the Mamm Creek–Divide Creek area of Garfield County.

Trace elements in groundwater are typically derived from minerals in aquifer rocks and sediment that are subsequently mobilized by various processes such as redox processes. Arsenic concentrations were available for 256 wells; 33 concentrations (13 percent) exceeded the primary standard of 10 micrograms per liter, and exceedances occurred primarily from Rio Blanco County. Quaternary and Tertiary units in Rio Blanco County had the highest median arsenic concentrations (5 and 4 micrograms per liter, respectively). Arsenic

concentrations were significantly higher (p=0.008) in anoxic groundwater than in oxic groundwater, indicating that reductive dissolution of manganese or iron oxide minerals (or both) in the aquifer rock and sediment probably was an important mechanism for producing elevated arsenic concentrations in groundwater. In fact, iron concentrations were significantly higher (p=0.001) in samples with arsenic concentrations above the primary standard of 10 micrograms per liter than in samples with lower arsenic concentrations. The arsenic-dissolved oxygen relation also indicates that dissolved-oxygen measurements could be a useful indicator of groundwater vulnerability to arsenic enrichment. Barium concentrations in 4.1 percent of samples exceeded the primary standard of 2,000 micrograms per liter. Barium exceedances were found in samples from Delta, Garfield, and Rio Blanco Counties. The Mesaverde Group in Delta County had the highest median barium concentrations (90 micrograms per liter). Manganese concentrations in 21 percent of samples exceeded the secondary standard of 50 micrograms per liter. Exceedances of the secondary standard were relatively widespread in the study area. Quaternary deposits in Mesa County had the highest median manganese concentration (1,410 micrograms per liter). Similar to arsenic concentrations, manganese concentrations were significantly higher (p=0.001) in anoxic groundwater than oxic groundwater. This result indicates that dissolved-oxygen measurements also could be a useful indicator of groundwater vulnerability to manganese enrichment. Iron concentrations were available for 589 wells, and 96 concentrations (16 percent) exceeded the secondary standard of 300 micrograms per liter. Most of the exceedances were in samples from Garfield and Rio Blanco Counties. Unlike arsenic and manganese, iron concentrations were not significantly different between oxic and anoxic water samples, nor were they different at dissolved-oxygen concentration thresholds of 1 and 2 milligrams per liter. The reason for this apparent discordant finding is unclear, but it could be related to the sample collection and preservation techniques used. Selenium concentrations were available for 551 wells, and 51 concentrations (9.2 percent) exceeded the primary standard of 50 micrograms per liter. Most of the samples that exceeded the selenium standard were from Garfield County. In this study, selenium concentrations were significantly higher (p <0.001) in samples containing nitrate at a concentration of at least 1 milligram per liter (as nitrogen) than in samples with less nitrate.

Elevated sources of nitrate in groundwater are likely to be associated with septic systems, animal manure, or fertilizers applied to lawns and crops. Nitrate concentrations were available for 791 wells, and 13 concentrations (1.6 percent) exceeded the primary standard of 10 milligrams per liter as nitrogen. Most of the samples that exceeded the standard were from wells located in agricultural areas of Garfield County. Nitrate concentrations ranged from less than detection (most commonly about 0.3 milligrams per liter as nitrogen) to 29.4 milligrams per liter, with a median concentration of 0.21 milligrams per liter as nitrogen. The highest concentration was found in a sample from a domestic well in Garfield County. The Wasatch Formation in Garfield County was the only one to have at least 10 assigned samples, and the median nitrate concentration for those samples was 0.4 milligrams per liter as nitrogen. Nitrate concentrations were significantly higher (p=0.015) in groundwater containing at least 2 milligrams per liter dissolved oxygen than in less oxygenated groundwater. This dissolved oxygen-nitrate relation differs somewhat from the relationship described in previous studies, but it still indicates that dissolved-oxygen measurements could be a useful indicator of groundwater vulnerability to nitrate contamination.

Benzene, toluene, ethylbenzene, and xylene (BTEX) are volatile organic compounds typically found in petroleum products, such as gasoline and diesel fuel, and also occur in some natural gas reservoirs. Benzene concentrations were available for 808 wells, but only 11 wells (1.4 percent) had detections and 5 concentrations (0.6 percent) exceeded the primary standard (5 micrograms per liter). Samples that exceeded the standard were from wells located in Garfield and Rio Blanco Counties. Toluene concentrations were available for 808 wells; 38 wells (4.7 percent) had detections but none of the concentrations exceeded the primary drinking-water standard (1,000 micrograms per liter). Ethylbenzene and xylene were sampled at a frequency similar to that of benzene and toluene but they had few detections and no exceedances of primary standards.

Methane is a combustible gas that can accumulate to explosive levels in well bores and confined spaces in buildings. Methane can be either thermogenic or biogenic in origin. Thermogenic methane is generally produced at depths far below freshwater aquifers, and its presence in water wells can be due to natural conditions, or from activities related to oil and gas drilling, completion, and production. Methane concentrations were available for 874 wells primarily in Garfield County. Drinking-water standards have not been established for methane, which was detected in 24 percent of samples (207 wells). Methane concentrations were greater than or equal to 1 milligram per liter in 8.5 percent of samples (75 samples). The majority of methane detections and high methane concentrations were found in Garfield County near the Mamm Creek–Divide Creek area. Methane concentrations in anoxic groundwater were significantly higher (p=0.004) than oxic groundwater, a finding that is consistent with previous results and indicates that dissolved-oxygen measurements could be a useful indicator of groundwater vulnerability to methane enrichment. Isotopic data indicate that methane in the Garfield County water wells was from both biogenic and thermogenic sources. For comparison, natural gas from the Mesaverde Group in Garfield County was exclusively thermogenic in origin. Biogenic methane in domestic wells could have been produced locally in the aquifer if the groundwater was anoxic or it could have come from deeper geologic units underlying the aquifer.

Assessing such a large and diverse dataset as the one available through the repository poses unique challenges for

assessing groundwater quality in the study area. The repository contains data from several studies that differed widely in purpose and scope. Data gaps exist in the repository. For example, groundwater-quality data in the repository were not evenly distributed throughout the study area. Several key water-quality constituents or indicators were underrepresented in the repository, including dissolved oxygen. Ancillary information, such as well depth, depth to water, and the geologic unit or aquifer in which a well was completed, was missing for more than 50 percent of the samples. Future monitoring could avoid several limitations of the repository by making relatively minor changes to sample-collection and data-reporting protocols. The addition of field measurements for dissolved oxygen to sampling protocols, for example, is one such change. Measuring the water level in a well prior to sampling is another. With respect to data reporting, including information on well construction and the geologic unit or aquifer in which a well is completed as part of the water-quality database would be helpful. Implementing these types of changes would increase the comparability of data from different monitoring programs and also add value to each program individually and to the regional dataset as a whole. Other changes to monitoring programs could require greater resources, such as sampling for a basic set of constituents that is relevant to major water-quality issues in the regional study area. Creation of such a dataset for the regional study area would help to provide the kinds of information needed to characterize background conditions and the spatial and temporal variability in constituent concentrations associated with those conditions. Without that information, it becomes difficult to recognize departures from background that might be associated with human activities.

Acknowledgments

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References Cited

ALL Consulting, 2003, Handbook on coal bed methane produced water—Management and beneficial use alternatives: Tulsa, Oklahoma, 322 p.

Ayers, R.S., and Westcot, D.W., 1985, Water quality for agriculture: FAO Irrigation and Drainage Paper 29 Rev 1, Food and Agriculture Organization of the United Nations; accessed April 3, 2012, at *http://www.fao.org/DOCREP/003/T0234E/T0234E00.HTM*

Bradley, W.H., 1931, Origin and microfossils of the oil shale of the Green River Formation of Colorado and Utah: U.S. Geological Survey Professional Paper 168, 58 p.

Brooks, Tom, and Ackerman, D.J., 1985, Reconnaissance of ground-water resources in the Lower Gunnison River Basin, southwestern Colorado: U.S. Geological Survey Water-Resources Investigations Report 84–4185, 35 p.

Bureau of Land Management, 2009, Geospatial data and metadata statewide GIS layers for BLM Colorado 1st conflated poly: Bureau of Land Management, Colorado State Office; accessed January 26, 2010, at *http://www.blm.gov/co/st/en/BLM_Programs/geographical_sciences/gis/metadata.html*

Bureau of Land Management, 2011a, Oil shale and tar sands: accessed January 3, 2011, at *http://www.blm.gov/wo/st/en/prog/energy/oilshale_2.html*

Bureau of Land Management, 2011b, Reasonable foreseeable development scenario for oil and gas activities in the BLM White River Field Office—Rio Blanco, Moffat and Garfield Counties, Colorado: accessed January 17, 2011, at *http://www.blm.gov/pgdata/etc/medialib/blm/co/programs/land_use_planning/rmp/white_river/documents.Par.86610.File.dat/RFD_Executuve_Summary.pdf*

Butler, D.L., and Osmundson, B.C., 2000, Physical, chemical, and biological data for the Uncompahgre Project area and the Grand Valley, west-central Colorado,1993–98: U.S. Geological Survey Open-File Report 99–453, 216 p.

Butler, D.L., Wright, W.G., Stewart, K.C., Osmundson, B.C., Krueger, R.P., and Crabtree, D.W., 1996, Detailed study of selenium and other constituents in water, bottom sediment, soil, alfalfa, and biota associated with irrigation drainage in the Uncompahgre Project area and in the Grand Valley, west-central Colorado, 1991–93: U.S. Geological Survey Water-Resources Investigations Report 96–4138, 136 p.

Cashion, W.B., and Donnell, J.R., 1974, Revision of nomenclature of the upper part of the Green River Formation, Piceance Creek Basin, Colorado, and eastern Uinta Basin, Utah: U.S. Geological Survey Bulletin 1394–G, 9 p.

Chapelle, F.H., McMahon, P.B., Dubrovsky, N.M., Fujii, R.F., Oaksford, E.T., and Vroblesky, D.A., 1995, Deducing the distribution of terminal electron-accepting processes on hydrologically diverse groundwater systems: Water Resources Research, v. 31, p. 359–371.

Coffin, D.L., Welder, F.A., and Glanzman, R.K., 1971, Geohydrology of the Piceance Creek structural basin between the White and Colorado Rivers, northwestern Colorado: U.S. Geological Survey Hydrologic Investigations Atlas HA–370; 2 maps on 2 sheets in pocket.

Coffin, D.L., Welder, F.A., Glanzman, R.K., and Dutton, X.W., 1968, Geohydrologic data from Piceance Creek Basin between the White and Colorado Rivers, northwestern Colorado: Colorado Water Conservation Board Water Resources Circular 12, 38 p.

Colorado's Decision Support Systems, 2010, Colorado's Decision Support Systems: accessed February 17, 2010, at *http://cdss.state.co.us/*

Colorado Division of Water Resources, 2011, GIS data for download—Water well applications: accessed June 9, 2011, at *http://water.state.co.us/*

Colorado Oil and Gas Conservation Commission, 2010, GIS downloads—Wells: accessed January 26, 2010, at *http://cogcc.state.co.us/*

Coplen, T.B., 1988, Normalization of oxygen and hydrogen isotope data: Chemical Geology, v. 72, p. 293–297.

Craig, Harmon, 1961, Isotopic variations in meteoric waters: Science, v. 133, p.1702–1703.

Donnell, J.R., 1961, Tertiary geology and oil-shale resources of the Piceance Creek Basin between the Colorado and White Rivers, northwestern Colorado: U.S. Geological Survey Bulletin 1082–L, p. L835–L891.

Dubrovsky, N.M., Burow, K.R., Clark, G.M., Gronberg, J.M., Hamilton, P.A., Hitt, K.J., Mueller, D.K., Munn, M.D., Nolan, B.T., Puckett, L.J., Rupert, M.G., Short, T.M., Spahr, N.E., Sprague, L.A., and Wilber, W.G., 2010, The quality of our Nation's waters—Nutrients in the Nation's streams and groundwater, 1992–2004: U.S. Geological Survey Circular 1350, 174 p.

Dubrovsky, N.M., Deverel, S.J., and Gilliom, R.J., 1993, Multiscale approach to regional groundwater-quality assessment—Selenium in the San Joaquin Valley, California, *in* Alley, W.M., ed., Regional groundwater quality: New York, Van Nostrand Reinhold, 26 p.

Green, G.N., 1992, The digital geological map of Colorado in Arc/Info format: U.S. Geological Survey Open-File Report 92–0507, scale 1:500,000.

Hamilton, S.J., Holley, K.M., Buhl, K.J., Bullard, F.A., Weston, L.K., and McDonald, S.F., 2003, Evaluation of flushing of backwater channel—Concentrations of selenium and other inorganic elements in water, sediment, invertebrates, forage fish, and Colorado Pikeminnow: Draft report prepared by the Upper Colorado River Endangered Fish Recovery Program. U.S. Geological Survey, Columbia Environmental Research Center, Yankton Field Research Station, 31247 436th Avenue, Yankton, South Dakota 57078–9214, 149 pages.

Helsel, D.R., 2005a, Insider censoring-distortion of data with nondetects: Human and Ecological Risk Assessment, v. 11, p. 1127–1137.

Helsel, D.R., 2005b, Non-detects and data analysis—Statistics for censored environmental data: New Jersey, John Wiley, 268 p.

Helsel, D.R., and Hirsch, R.M., 2002, Statistical methods in water resources: U.S. Geological Survey Techniques of Water-Resources Investigation, book 4, chap. A3, 523 p.

Hem, J.D., 1989, Study and interpretation of the chemical characteristics of natural water, 3d edition: U.S. Geological Survey Water-Supply Paper 2254, 225 p.

Johnson, R.C., 1989, Geologic history and hydrocarbon potential of late Cretaceous-age, low permeability reservoirs, Piceance Basin, western Colorado: U.S. Geological Survey Bulletin 1787–E, 51 p.

Johnson, R.C., and Flores, R.M., 2003, History of the Piceance Basin from latest Cretaceous through early Eocene and the characterization of lower Tertiary sandstone reservoirs, chap. 3, *in* Peterson, K.M., Olson, T.M., and Anderson, D.S., eds., Piceance Basin 2003 Guidebook: Denver, Colo., Rocky Mountain Association of Geologists, p. 21–61.

Lohman, S.W., 1965, Geology and artesian water supply, Grand Junction area, Colorado: U.S. Geological Survey Professional Paper 451, 2 plates in pocket, 149 p.

McMahon, P.B., and Chapelle, F.H., 2008, Redox processes and water quality of selected principal aquifer systems: Ground Water, v. 46, p. 259–271.

McMahon, P.B., Thomas, J.C., and Hunt, A.G., 2010, Use of diverse geochemical datasets to enhance groundwater-quality assessments—A case study from Garfield County, Colorado: U.S. Geological Survey Scientific Investigations Report 2010–5215, 40 p.

National Nuclear Security Administration, 2010, Plowshare Program: accessed January 1, 2011, at *http://www.nv.doe.gov/library/factsheets/DOENV_766.pdf*

Nelson, P.H., and Santus, S.L., 2010, Gas, water, and oil production from Grand Valley, Parachute, Rulison, and Mamm Creek fields in the Piceance Basin, Colorado: U.S. Geological Survey Open-File Report 2010–1110, 28 p., 6 plates and 6 appendixes.

Reinecke, K.M., Rice, D.D., and Johnson, R.C., 1991, Characteristics and development of fluvial sandstone and coalbed reservoirs of Upper Cretaceous Mesaverde Group, Grand Valley field, Colorado, *in* Schwochow, S.D., Murray, D.K., and Fahy, M.F., eds., Coalbed methane of Western North America, Rocky Mountain Association of Geologists Fall Conference and Field Trip, September, 17–20, 1991, Guidebook: Rocky Mountain Association of Geologists, p. 209–225.

Smedley, P.L., and Kinniburgh, D.G., 2002, A review of the source, behavior, and distribution of arsenic in natural waters: Applied Geochemistry, v. 17, p. 517–568.

S.S. Papadopulos & Associates, Inc., 2008, Phase II hydrogeologic characterization of the Mamm Creek Field area, Garfield County, Colorado: (Prepared for the Board of County Commissioners, Garfield County, Colorado), 41 p.; accessed April 5, 2012, at *http://www.garfield-county.com/oil-gas/phase-II-hydrogeologic-characterization-mamm-creek.aspx*

Taylor, O.J., 1987, Oil shale, water resources, and valuable minerals of the Piceance Basin, Colorado—The challenge and choices of development: U.S. Geological Professional Paper 1310, 143 p.

Thomas, J.C., 2009, Analysis of dissolved selenium loading from surface water and groundwater to Sweitzer Lake, Colorado, 2006–07: U.S. Geological Survey Scientific Investigations Report 2009–5048, 19 p.

Tyler, Roger, Kaiser, W.R., McMurry, R.G., Nance, H.S., Scott, A.R., and Zhou, Naijiang, 1995, Geologic characterization and coalbed methane occurrence—Williams Fork Formation, Piceance Basin, northwest Colorado, *in* The University of Texas at Austin, Bureau of Economic Geology, annual report prepared for Gas Research Institute under contract no. 5091–214–2261, GRI–94/0456, p. 192–197.

URS Corporation, 2006, Phase I hydrogeologic characterization of the Mamm Creek Field area in Garfield County: Prepared for Board of County Commissioners, Garfield County, Colorado, 86 p.: accessed April 5, 2012, at *http://www.garfield-county.com/oil-gas/phase-I-hydrogeologic-characterization-mamm-creek.aspx*

U.S. Census Bureau, 2011, Population finder, Fact Sheet 2005–2009: accessed January 18, 2011, at *http://www.census.gov/*

U.S. Department of Energy, 2011a, Naval Petroleum Reserves—Profile: accessed January 1, 2011, at *http://fossil.energy.gov/programs/reserves/npr/*

U.S. Department of Energy, 2011b, Environmental Management—Rio Blanco and Rulison sites: accessed October 10, 2011, at *http://www.em.doe.gov/bemr/BEMRSites/prbs.aspx*

U.S. Environmental Protection Agency, 2010, Drinking water contaminants, national primary drinking water regulations and national secondary drinking water regulations: accessed November 9, 2010, at *http://water.epa.gov/drink/contaminants/index.cfm*

U.S. Geological Survey, 2011, Annual water data reports, 2009: accessed January 5, 2011, at *http://wdr.water.usgs.gov/wy2009/search.jsp*

U.S. Geological Survey Oil Shale Assessment Team, 2010, Oil shale and nahcolite resources of the Piceance Basin, Colorado: U.S. Geological Survey Digital Data Series DDS–69–Y, 7 chapters, pages variable.

Weeks, J.B., Leavesley, G.H., Welder, F.A., and Saulnier, G.J., Jr., 1975, Simulated effects of oil-shale development on the hydrology of Piceance Basin, Colorado: U.S. Geological Survey Professional Paper 908, 84 p.

Whiticar, M.J., 1999, Carbon and hydrogen isotope systematic of bacterial formation and oxidation of methane: Chemical Geology, v. 161, p. 291–314.

Whiticar, M.J., Faber, E., and Schoell, M., 1986, Biogenic methane formation in marine and freshwater environments—CO_2 reduction vs. acetate fermentation, isotope evidence: Geochimica and Cosmochimica Acta, v. 50, p. 693–709.

Wright, W.G., and Butler, D.L., 1993, Distribution and mobilization of dissolved selenium in ground water of the irrigated Grand and Uncompahgre Valleys, western Colorado, *in* Allen, R.G., and Neale, C.M.U., eds., Management of irrigation and drainage systems—Integrated perspectives: American Society of Civil Engineers National Conference on Irrigation and Drainage Engineering: Park City, Utah, July 21–23, 1993, Proceedings, p. 770–777.

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Appendix

Appendix 1. Water Quality Data Used in This Report.

Report No.	Agency name	Site identifier	Site name	Well use	County
1	EnCana Oil & Gas (USA) Inc.	BARE1WW	BARE1WW	DOMESTIC USE	Garfield County
2	U.S. Geological Survey	393401107595501	SC00509536DCA1	OBSERVATION	Garfield County
3	U.S. Geological Survey	393532107583701	SC00509419DDD1	OBSERVATION	Garfield County
4	U.S. Geological Survey	393533107565701	SC00509421CDC	OBSERVATION	Garfield County
5	URS Corporation	WMS-202848	WMS-202848	DOMESTIC USE	Garfield County
6	U.S. Geological Survey	126150	126150	OBSERVATION	Garfield County
8	U.S. Geological Survey	393850108172200	SC00509704BBD1	OBSERVATION	Garfield County
9	EnCana Oil & Gas (USA) Inc.	OLDL1WW	OLDL1WW	DOMESTIC USE	Garfield County
13	Colorado Oil and Gas Conservation Commission	703875	COGCC Facility ID:703875	PUBLIC SUPPLY	Garfield County
14	Colorado Oil and Gas Conservation Commission	703876	COGCC Facility ID:703876	PUBLIC SUPPLY	Garfield County
15	Colorado Oil and Gas Conservation Commission	703877	COGCC Facility ID:703877	PUBLIC SUPPLY	Garfield County
16	Colorado Oil and Gas Conservation Commission	703878	COGCC Facility ID:703878	PUBLIC SUPPLY	Garfield County
17	EnCana Oil & Gas (USA) Inc.	LCSMW1	LCSMW1	OBSERVATION	Garfield County
18	EnCana Oil & Gas (USA) Inc.	LCSMW10	LCSMW10	OBSERVATION	Garfield County
19	EnCana Oil & Gas (USA) Inc.	LCSMW11	LCSMW11	OBSERVATION	Garfield County
20	EnCana Oil & Gas (USA) Inc.	LCSMW2	LCSMW2	OBSERVATION	Garfield County
21	EnCana Oil & Gas (USA) Inc.	LCSMW3	LCSMW3	OBSERVATION	Garfield County
22	EnCana Oil & Gas (USA) Inc.	LCSMW4	LCSMW4	OBSERVATION	Garfield County
23	EnCana Oil & Gas (USA) Inc.	LCSMW5	LCSMW5	OBSERVATION	Garfield County
24	EnCana Oil & Gas (USA) Inc.	LCSMW6	LCSMW6	OBSERVATION	Garfield County
25	EnCana Oil & Gas (USA) Inc.	lcsmw7	LCSMW7	OBSERVATION	Garfield County
26	EnCana Oil & Gas (USA) Inc.	LCSMW8	LCSMW8	OBSERVATION	Garfield County
27	EnCana Oil & Gas (USA) Inc.	LCSMW9	LCSMW9	OBSERVATION	Garfield County
28	EnCana Oil & Gas (USA) Inc.	LCSSUMP	LCSSUMP	AGRICULTURAL USE	Garfield County
29	U.S. Geological Survey	127013	127013	OBSERVATION	Garfield County
30	EnCana Oil & Gas (USA) Inc.	KEIN2WW	KEIN2WW	DOMESTIC USE	Garfield County
31	U.S. Geological Survey	126202	126202	OBSERVATION	Garfield County
33	U.S. Geological Survey	393011108234201	SC00609925CBA1	AGRICULTURAL USE	Garfield County
34	U.S. Geological Survey	393013108234201	SC00609925CBA2	DOMESTIC USE	Garfield County
36	U.S. Geological Survey	393311108291401	SC00609907BAC1	DOMESTIC USE	Garfield County
38	U.S. Geological Survey	393442108062901	SC00509530CCC1	AGRICULTURAL USE	Garfield County
39	U.S. Geological Survey	393637108014301	SC00509514CBD	OBSERVATION	Garfield County
40	EnCana Oil & Gas (USA) Inc.	ENPR10MW	ENPR10MW	OBSERVATION	Garfield County
41	EnCana Oil & Gas (USA) Inc.	ENPR11MW	ENPR11MW	OBSERVATION	Garfield County
42	Colorado Oil and Gas Conservation Commission	703181	COGCC Facility ID:703181	DOMESTIC USE	Garfield County
43	EnCana Oil & Gas (USA) Inc.	ENPR3MW	ENPR3MW	OBSERVATION	Garfield County
44	EnCana Oil & Gas (USA) Inc.	ENPR4MW	ENPR4MW	OBSERVATION	Garfield County
45	EnCana Oil & Gas (USA) Inc.	ENPR5MW	ENPR5MW	OBSERVATION	Garfield County
46	EnCana Oil & Gas (USA) Inc.	ENPR6MW	ENPR6MW	OBSERVATION	Garfield County
47	EnCana Oil & Gas (USA) Inc.	ENPR7MW	ENPR7MW	OBSERVATION	Garfield County
48	EnCana Oil & Gas (USA) Inc.	ENPR8MW	ENPR8MW	OBSERVATION	Garfield County
49	EnCana Oil & Gas (USA) Inc.	ENPR9MW	ENPR9MW	OBSERVATION	Garfield County
50	U.S. Geological Survey	392524107370301	SC00709225BADD GRFLDS10	DOMESTIC USE	Garfield County
51	Colorado Oil and Gas Conservation Commission	703200	COGCC Facility ID:703200	DOMESTIC USE	Garfield County
52	Colorado Oil and Gas Conservation Commission	703248	COGCC Facility ID:703248	PUBLIC SUPPLY	Garfield County
53	Colorado Oil and Gas Conservation Commission	703269	COGCC Facility ID:703269	PUBLIC SUPPLY	Garfield County
54	Colorado Oil and Gas Conservation Commission	703022	COGCC Facility ID:703022	DOMESTIC USE	Garfield County
55	Colorado Oil and Gas Conservation Commission	703149	COGCC Facility ID:703149	DOMESTIC USE	Garfield County
56	Colorado Oil and Gas Conservation Commission	703977	COGCC Facility ID:703977	DOMESTIC USE	Garfield County
57	Colorado Oil and Gas Conservation Commission	703978	COGCC Facility ID:703978	DOMESTIC USE	Garfield County
58	Colorado Oil and Gas Conservation Commission	703979	COGCC Facility ID:703979	DOMESTIC USE	Garfield County
59	Colorado Oil and Gas Conservation Commission	703980	COGCC Facility ID:703980	DOMESTIC USE	Garfield County
60	Colorado Oil and Gas Conservation Commission	703998	COGCC Facility ID:703998	DOMESTIC USE	Garfield County
61	Colorado Oil and Gas Conservation Commission	704115	COGCC Facility ID:704115	DOMESTIC USE	Garfield County
62	Colorado Oil and Gas Conservation Commission	704150	COGCC Facility ID:704150	DOMESTIC USE	Garfield County
63	Colorado Oil and Gas Conservation Commission	704166	COGCC Facility ID:704166	OBSERVATION	Garfield County
64	Colorado Oil and Gas Conservation Commission	703018	COGCC Facility ID:703018	DOMESTIC USE	Garfield County
65	Colorado Oil and Gas Conservation Commission	704167	COGCC Facility ID:704167	OBSERVATION	Garfield County
66	Colorado Oil and Gas Conservation Commission	704188	COGCC Facility ID:704188	OBSERVATION	Garfield County
67	Colorado Oil and Gas Conservation Commission	704337	COGCC Facility ID:704337	DOMESTIC USE	Garfield County
68	Colorado Oil and Gas Conservation Commission	704380	COGCC Facility ID:704380	DOMESTIC USE	Garfield County
69	EnCana Oil & Gas (USA) Inc.	EICH2WW	EICH2WW	OBSERVATION	Garfield County
70	EnCana Oil & Gas (USA) Inc.	EICH3WW	EICH3WW	OBSERVATION	Garfield County
71	Colorado Oil and Gas Conservation Commission	704483	COGCC Facility ID:704483	DOMESTIC USE	Garfield County
72	Colorado Oil and Gas Conservation Commission	704485	COGCC Facility ID:704485	DOMESTIC USE	Garfield County
73	Colorado Oil and Gas Conservation Commission	704504	COGCC Facility ID:704504	DOMESTIC USE	Garfield County

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Agency name	Site identifier	Site name	Well use	County
74	Colorado Oil and Gas Conservation Commission	704505	COGCC Facility ID:704505	DOMESTIC USE	Garfield County
75	Colorado Oil and Gas Conservation Commission	704506	COGCC Facility ID:704506	DOMESTIC USE	Garfield County
76	Colorado Oil and Gas Conservation Commission	704530	COGCC Facility ID:704530	DOMESTIC USE	Garfield County
77	Colorado Oil and Gas Conservation Commission	704321	COGCC Facility ID:704321	DOMESTIC USE	Garfield County
78	Colorado Oil and Gas Conservation Commission	704336	COGCC Facility ID:704336	DOMESTIC USE	Garfield County
79	EnCana Oil & Gas (USA) Inc.	DODD1WW	DODD1WW	DOMESTIC USE	Garfield County
80	EnCana Oil & Gas (USA) Inc.	EICH1WW	EICH1WW	DOMESTIC USE	Garfield County
81	EnCana Oil & Gas (USA) Inc.	HARD2WW	HARD2WW	DOMESTIC USE	Garfield County
82	EnCana Oil & Gas (USA) Inc.	LANG6WW	LANG6WW	DOMESTIC USE	Garfield County
83	EnCana Oil & Gas (USA) Inc.	LANG7WW	LANG7WW	DOMESTIC USE	Garfield County
84	EnCana Oil & Gas (USA) Inc.	LANG8WW	LANG8WW	DOMESTIC USE	Garfield County
85	EnCana Oil & Gas (USA) Inc.	LANG9WW	LANG9WW	DOMESTIC USE	Garfield County
86	EnCana Oil & Gas (USA) Inc.	MILLWW	MILLWW	DOMESTIC USE	Garfield County
87	EnCana Oil & Gas (USA) Inc.	MORG3WW	MORG3WW	AGRICULTURAL USE	Garfield County
88	EnCana Oil & Gas (USA) Inc.	MORG4WW	MORG4WW	DOMESTIC USE	Garfield County
89	EnCana Oil & Gas (USA) Inc.	SPAU1WW	SPAU1WW	DOMESTIC USE	Garfield County
90	EnCana Oil & Gas (USA) Inc.	FAIT1WW	FAIT1WW	DOMESTIC USE	Garfield County
91	EnCana Oil & Gas (USA) Inc.	GALL4WW	GALL4WW	DOMESTIC USE	Garfield County
92	EnCana Oil & Gas (USA) Inc.	GEOR1WW	GEOR1WW	DOMESTIC USE	Garfield County
93	EnCana Oil & Gas (USA) Inc.	HAWK1WW	HAWK1WW	DOMESTIC USE	Garfield County
94	EnCana Oil & Gas (USA) Inc.	HAWK2WW	HAWK2WW	DOMESTIC USE	Garfield County
95	EnCana Oil & Gas (USA) Inc.	HAWK3WW	HAWK3WW	DOMESTIC USE	Garfield County
96	EnCana Oil & Gas (USA) Inc.	HAWK4WW	HAWK4WW	DOMESTIC USE	Garfield County
97	EnCana Oil & Gas (USA) Inc.	HAWK5WW	HAWK5WW	DOMESTIC USE	Garfield County
98	EnCana Oil & Gas (USA) Inc.	LANG10WW	LANG10WW	OBSERVATION	Garfield County
99	EnCana Oil & Gas (USA) Inc.	LANG11WW	LANG11WW	OBSERVATION	Garfield County
100	EnCana Oil & Gas (USA) Inc.	LANG12WW	LANG12WW	OBSERVATION	Garfield County
101	EnCana Oil & Gas (USA) Inc.	LANG13WW	LANG13WW	OBSERVATION	Garfield County
102	EnCana Oil & Gas (USA) Inc.	LANG14WW	LANG14WW	OBSERVATION	Garfield County
103	EnCana Oil & Gas (USA) Inc.	LANG15WW	LANG15WW	OBSERVATION	Garfield County
104	EnCana Oil & Gas (USA) Inc.	LANG16WW	LANG16WW	OBSERVATION	Garfield County
105	EnCana Oil & Gas (USA) Inc.	LANG17WW	LANG17WW	OBSERVATION	Garfield County
106	EnCana Oil & Gas (USA) Inc.	LANG18WW	LANG18WW	OBSERVATION	Garfield County
107	EnCana Oil & Gas (USA) Inc.	LANG19WW	LANG19WW	OBSERVATION	Garfield County
108	EnCana Oil & Gas (USA) Inc.	MCPH2WW	MCPH2WW	DOMESTIC USE	Garfield County
109	EnCana Oil & Gas (USA) Inc.	MILL5WW	MILL5WW	DOMESTIC USE	Garfield County
110	EnCana Oil & Gas (USA) Inc.	MILL6WW	MILL6WW	DOMESTIC USE	Garfield County
111	EnCana Oil & Gas (USA) Inc.	MORG1WW	MORG1WW	DOMESTIC USE	Garfield County
112	EnCana Oil & Gas (USA) Inc.	MORG2WW	MORG2WW	DOMESTIC USE	Garfield County
113	EnCana Oil & Gas (USA) Inc.	LANG20WW	LANG20WW	OBSERVATION	Garfield County
114	EnCana Oil & Gas (USA) Inc.	LANG21WW	LANG21WW	OBSERVATION	Garfield County
115	EnCana Oil & Gas (USA) Inc.	LANG22WW	LANG22WW	OBSERVATION	Garfield County
116	EnCana Oil & Gas (USA) Inc.	LANG23WW	LANG23WW	OBSERVATION	Garfield County
117	EnCana Oil & Gas (USA) Inc.	LANG24WW	LANG24WW	OBSERVATION	Garfield County
118	EnCana Oil & Gas (USA) Inc.	LANG25WW	LANG25WW	OBSERVATION	Garfield County
119	EnCana Oil & Gas (USA) Inc.	LANG26WW	LANG26WW	OBSERVATION	Garfield County
120	EnCana Oil & Gas (USA) Inc.	LANG2WW	LANG2WW	OBSERVATION	Garfield County
121	EnCana Oil & Gas (USA) Inc.	LANG3WW	LANG3WW	OBSERVATION	Garfield County
122	EnCana Oil & Gas (USA) Inc.	LANG4WW	LANG4WW	OBSERVATION	Garfield County
123	EnCana Oil & Gas (USA) Inc.	LANG5WW	LANG5WW	OBSERVATION	Garfield County
124	EnCana Oil & Gas (USA) Inc.	LIGH1WW	LIGH1WW	DOMESTIC USE	Garfield County
125	EnCana Oil & Gas (USA) Inc.	MCPH1WW	MCPH1WW	DOMESTIC USE	Garfield County
126	EnCana Oil & Gas (USA) Inc.	MORT1WW	MORT1WW	DOMESTIC USE	Garfield County
127	EnCana Oil & Gas (USA) Inc.	ONEI1WW	ONEI1WW	DOMESTIC USE	Garfield County
128	EnCana Oil & Gas (USA) Inc.	VANO2WW	VANO2WW	DOMESTIC USE	Garfield County
129	EnCana Oil & Gas (USA) Inc.	VANO3WW	VANO3WW	DOMESTIC USE	Garfield County
130	EnCana Oil & Gas (USA) Inc.	RIPP1WW	RIPP1WW	DOMESTIC USE	Garfield County
131	EnCana Oil & Gas (USA) Inc.	RIPP2WW	RIPP2WW	DOMESTIC USE	Garfield County
132	EnCana Oil & Gas (USA) Inc.	STAU1WW	STAU1WW	DOMESTIC USE	Garfield County
133	EnCana Oil & Gas (USA) Inc.	STAU2WW	STAU2WW	DOMESTIC USE	Garfield County
134	EnCana Oil & Gas (USA) Inc.	THOM2WW	THOM2WW	DOMESTIC USE	Garfield County
135	EnCana Oil & Gas (USA) Inc.	THOM3WW	THOM3WW	OBSERVATION	Garfield County
138	U.S. Geological Survey	393309107200201	SC00608909BBD	OBSERVATION	Garfield County
142	U.S. Geological Survey	392210108030500	SC00809612AAC1	AGRICULTURAL USE	Garfield County
143	Colorado Oil and Gas Conservation Commission	704196	COGCC Facility ID:704196	DOMESTIC USE	Garfield County

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Agency name	Site identifier	Site name	Well use	County
144	Colorado Oil and Gas Conservation Commission	704208	COGCC Facility ID:704208	DOMESTIC USE	Garfield County
145	Colorado Oil and Gas Conservation Commission	703094	COGCC Facility ID:703094	DOMESTIC USE	Garfield County
146	EnCana Oil & Gas (USA) Inc.	KNOX1WW	KNOX1WW	DOMESTIC USE	Garfield County
147	EnCana Oil & Gas (USA) Inc.	JOLL3WW	JOLL3WW	OBSERVATION	Garfield County
148	EnCana Oil & Gas (USA) Inc.	KEIN1WW	KEIN1WW	DOMESTIC USE	Garfield County
149	EnCana Oil & Gas (USA) Inc.	KOST1WW	KOST1WW	DOMESTIC USE	Garfield County
150	EnCana Oil & Gas (USA) Inc.	SATT1WW	SATT1WW	DOMESTIC USE	Garfield County
151	EnCana Oil & Gas (USA) Inc.	SATT2WW	SATT2WW	DOMESTIC USE	Garfield County
152	Colorado Oil and Gas Conservation Commission	703250	COGCC Facility ID:703250	DOMESTIC USE	Garfield County
153	Colorado Oil and Gas Conservation Commission	703256	COGCC Facility ID:703256	DOMESTIC USE	Garfield County
154	Colorado Oil and Gas Conservation Commission	703258	COGCC Facility ID:703258	DOMESTIC USE	Garfield County
155	Colorado Oil and Gas Conservation Commission	703262	COGCC Facility ID:703262	PUBLIC SUPPLY	Garfield County
157	Colorado Oil and Gas Conservation Commission	703266	COGCC Facility ID:703266	PUBLIC SUPPLY	Garfield County
158	U.S. Geological Survey	392631107411401	SC00709217DCBA GRFLDS1	DOMESTIC USE	Garfield County
159	U.S. Geological Survey	392712107440101	SC00709311DDDC GRFLDS2	DOMESTIC USE	Garfield County
161	Colorado Oil and Gas Conservation Commission	703542	COGCC Facility ID:703542	DOMESTIC USE	Garfield County
162	U.S. Geological Survey	392800107382101	SC00709211BBDC GRFLDS11	DOMESTIC USE	Garfield County
163	U.S. Geological Survey	392921107382601	SC00609235BBCB GRFLDS6	DOMESTIC USE	Garfield County
164	U.S. Geological Survey	392922107375001	SC00609235ABDB GRFLDS4	DOMESTIC USE	Garfield County
165	U.S. Geological Survey	392928107392901	SC00609227CCDC GRFLDS5	DOMESTIC USE	Garfield County
166	Colorado Oil and Gas Conservation Commission	703144	COGCC Facility ID:703144	DOMESTIC USE	Garfield County
167	Colorado Oil and Gas Conservation Commission	703145	COGCC Facility ID:703145	DOMESTIC USE	Garfield County
168	Colorado Oil and Gas Conservation Commission	703803	COGCC Facility ID:703803	DOMESTIC USE	Garfield County
169	Colorado Oil and Gas Conservation Commission	703866	COGCC Facility ID:703866	DOMESTIC USE	Garfield County
169	Colorado Oil and Gas Conservation Commission	703866	COGCC Facility ID:703866	DOMESTIC USE	Garfield County
170	Colorado Oil and Gas Conservation Commission	703915	COGCC Facility ID:703915	DOMESTIC USE	Garfield County
171	Colorado Oil and Gas Conservation Commission	704404	COGCC Facility ID:704404	DOMESTIC USE	Garfield County
172	Colorado Oil and Gas Conservation Commission	704419	COGCC Facility ID:704419	DOMESTIC USE	Garfield County
173	Colorado Oil and Gas Conservation Commission	703952	COGCC Facility ID:703952	DOMESTIC USE	Garfield County
174	Colorado Oil and Gas Conservation Commission	703953	COGCC Facility ID:703953	DOMESTIC USE	Garfield County
175	Colorado Oil and Gas Conservation Commission	703955	COGCC Facility ID:703955	DOMESTIC USE	Garfield County
176	Colorado Oil and Gas Conservation Commission	703956	COGCC Facility ID:703956	DOMESTIC USE	Garfield County
177	Colorado Oil and Gas Conservation Commission	703961	COGCC Facility ID:703961	DOMESTIC USE	Garfield County
178	Colorado Oil and Gas Conservation Commission	703962	COGCC Facility ID:703962	DOMESTIC USE	Garfield County
179	Colorado Oil and Gas Conservation Commission	703967	COGCC Facility ID:703967	DOMESTIC USE	Garfield County
180	Colorado Oil and Gas Conservation Commission	703968	COGCC Facility ID:703968	DOMESTIC USE	Garfield County
181	Colorado Oil and Gas Conservation Commission	703986	COGCC Facility ID:703986	DOMESTIC USE	Garfield County
182	Colorado Oil and Gas Conservation Commission	703996	COGCC Facility ID:703996	DOMESTIC USE	Garfield County
182	Colorado Oil and Gas on	703996	COGCC Facility ID:703996	DOMESTIC USE	Garfield County
183	Colorado Oil and Gas Conservation Commission	704001	COGCC Facility ID:704001	DOMESTIC USE	Garfield County
184	Colorado Oil and Gas Conservation Commission	704004	COGCC Facility ID:704004	DOMESTIC USE	Garfield County
185	Colorado Oil and Gas Conservation Commission	704010	COGCC Facility ID:704010	DOMESTIC USE	Garfield County
186	Colorado Oil and Gas Conservation Commission	704011	COGCC Facility ID:704011	DOMESTIC USE	Garfield County
187	Colorado Oil and Gas Conservation Commission	704012	COGCC Facility ID:704012	DOMESTIC USE	Garfield County
187	Colorado Oil and Gas Conservation Commission	704012	COGCC Facility ID:704012	DOMESTIC USE	Garfield County
188	Colorado Oil and Gas Conservation Commission	704016	COGCC Facility ID:704016	DOMESTIC USE	Garfield County
189	Colorado Oil and Gas Conservation Commission	704023	COGCC Facility ID:704023	DOMESTIC USE	Garfield County
189	Colorado Oil and Gas Conservation Commission	704023	COGCC Facility ID:704023	DOMESTIC USE	Garfield County
191	Colorado Oil and Gas Conservation Commission	704035	COGCC Facility ID:704035	DOMESTIC USE	Garfield County
192	Colorado Oil and Gas Conservation Commission	704038	COGCC Facility ID:704038	DOMESTIC USE	Garfield County
193	Colorado Oil and Gas Conservation Commission	704044	COGCC Facility ID:704044	DOMESTIC USE	Garfield County
194	Colorado Oil and Gas Conservation Commission	704045	COGCC Facility ID:704045	DOMESTIC USE	Garfield County
195	Colorado Oil and Gas Conservation Commission	704048	COGCC Facility ID:704048	DOMESTIC USE	Garfield County
196	Colorado Oil and Gas Conservation Commission	704049	COGCC Facility ID:704049	DOMESTIC USE	Garfield County
197	Colorado Oil and Gas Conservation Commission	704050	COGCC Facility ID:704050	DOMESTIC USE	Garfield County
198	Colorado Oil and Gas Conservation Commission	704051	COGCC Facility ID:704051	DOMESTIC USE	Garfield County
199	Colorado Oil and Gas Conservation Commission	704053	COGCC Facility ID:704053	DOMESTIC USE	Garfield County
200	Colorado Oil and Gas Conservation Commission	704060	COGCC Facility ID:704060	DOMESTIC USE	Garfield County
201	Colorado Oil and Gas Conservation Commission	704074	COGCC Facility ID:704074	DOMESTIC USE	Garfield County
201	Colorado Oil and Gas Conservation Commission	704074	COGCC Facility ID:704074	DOMESTIC USE	Garfield County
202	Colorado Oil and Gas Conservation Commission	704075	COGCC Facility ID:704075	DOMESTIC USE	Garfield County
203	Colorado Oil and Gas Conservation Commission	704076	COGCC Facility ID:704076	DOMESTIC USE	Garfield County
203	Colorado Oil and Gas Conservation Commission	704076	COGCC Facility ID:704076	DOMESTIC USE	Garfield County
204	Colorado Oil and Gas Conservation Commission	704088	COGCC Facility ID:704088	DOMESTIC USE	Garfield County
205	Colorado Oil and Gas Conservation Commission	704151	COGCC Facility ID:704151	DOMESTIC USE	Garfield County
205	Colorado Oil and Gas Conservation Commission	704151	COGCC Facility ID:704151	DOMESTIC USE	Garfield County
206	Colorado Oil and Gas Conservation Commission	703016	COGCC Facility ID:703016	DOMESTIC USE	Garfield County
207	Colorado Oil and Gas Conservation Commission	703017	COGCC Facility ID:703017	DOMESTIC USE	Garfield County

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Agency name	Site identifier	Site name	Well use	County
208	Colorado Oil and Gas Conservation Commission	704164	COGCC Facility ID:704164	DOMESTIC USE	Garfield County
209	Colorado Oil and Gas Conservation Commission	703019	COGCC Facility ID:703019	DOMESTIC USE	Garfield County
211	Colorado Oil and Gas Conservation Commission	703021	COGCC Facility ID:703021	DOMESTIC USE	Garfield County
213	Colorado Oil and Gas Conservation Commission	704197	COGCC Facility ID:704197	DOMESTIC USE	Garfield County
214	Colorado Oil and Gas Conservation Commission	704222	COGCC Facility ID:704222	DOMESTIC USE	Garfield County
214	Colorado Oil and Gas Conservation Commission	704222	COGCC Facility ID:704222	DOMESTIC USE	Garfield County
215	Colorado Oil and Gas Conservation Commission	704329	COGCC Facility ID:704329	DOMESTIC USE	Garfield County
216	Colorado Oil and Gas Conservation Commission	704330	COGCC Facility ID:704330	DOMESTIC USE	Garfield County
216	Colorado Oil and Gas Conservation Commission	704330	COGCC Facility ID:704330	DOMESTIC USE	Garfield County
217	Colorado Oil and Gas Conservation Commission	704338	COGCC Facility ID:704338	DOMESTIC USE	Garfield County
218	Colorado Oil and Gas Conservation Commission	704343	COGCC Facility ID:704343	DOMESTIC USE	Garfield County
219	Colorado Oil and Gas Conservation Commission	704374	COGCC Facility ID:704374	DOMESTIC USE	Garfield County
220	Colorado Oil and Gas Conservation Commission	704392	COGCC Facility ID:704392	DOMESTIC USE	Garfield County
221	Colorado Oil and Gas Conservation Commission	704430	COGCC Facility ID:704430	DOMESTIC USE	Garfield County
222	Colorado Oil and Gas Conservation Commission	704434	COGCC Facility ID:704434	DOMESTIC USE	Garfield County
223	Colorado Oil and Gas Conservation Commission	703082	COGCC Facility ID:703082	DOMESTIC USE	Garfield County
224	EnCana Oil & Gas (USA) Inc.	DARD1WW	DARD1WW	DOMESTIC USE	Garfield County
225	EnCana Oil & Gas (USA) Inc.	DEXT1WW	DEXT1WW	DOMESTIC USE	Garfield County
226	EnCana Oil & Gas (USA) Inc.	diet2ww	DIET2WW	DOMESTIC USE	Garfield County
227	Colorado Oil and Gas Conservation Commission	703969	COGCC Facility ID:703969	DOMESTIC USE	Garfield County
228	Colorado Oil and Gas Conservation Commission	703983	COGCC Facility ID:703983	DOMESTIC USE	Garfield County
228	Colorado Oil and Gas Conservation Commission	703983	COGCC Facility ID:703983	DOMESTIC USE	Garfield County
229	EnCana Oil & Gas (USA) Inc.	DOLL1WW	DOLL1WW	DOMESTIC USE	Garfield County
230	EnCana Oil & Gas (USA) Inc.	DONE1WW	DONE1WW	DOMESTIC USE	Garfield County
231	EnCana Oil & Gas (USA) Inc.	DOWN1WW	DOWN1WW	DOMESTIC USE	Garfield County
232	EnCana Oil & Gas (USA) Inc.	DROS1WW	DROS1WW	DOMESTIC USE	Garfield County
233	EnCana Oil & Gas (USA) Inc.	DUMA1WW	DUMA1WW	DOMESTIC USE	Garfield County
234	EnCana Oil & Gas (USA) Inc.	DUNN1WW	DUNN1WW	DOMESTIC USE	Garfield County
235	Colorado Oil and Gas Conservation Commission	703084	COGCC Facility ID:703084	DOMESTIC USE	Garfield County
236	Colorado Oil and Gas Conservation Commission	703086	COGCC Facility ID:703086	DOMESTIC USE	Garfield County
237	EnCana Oil & Gas (USA) Inc.	EACH1WW	EACH1WW	DOMESTIC USE	Garfield County
238	EnCana Oil & Gas (USA) Inc.	ELDE1WW	ELDE1WW	DOMESTIC USE	Garfield County
239	EnCana Oil & Gas (USA) Inc.	ELDE2WW	ELDE2WW	DOMESTIC USE	Garfield County
240	EnCana Oil & Gas (USA) Inc.	ENRI1WW	ENRI1WW	DOMESTIC USE	Garfield County
241	Colorado Oil and Gas Conservation Commission	703147	COGCC Facility ID:703147	DOMESTIC USE	Garfield County
242	Colorado Oil and Gas Conservation Commission	703148	COGCC Facility ID:703148	DOMESTIC USE	Garfield County
243	Colorado Oil and Gas Conservation Commission	703182	COGCC Facility ID:703182	DOMESTIC USE	Garfield County
244	Colorado Oil and Gas Conservation Commission	703184	COGCC Facility ID:703184	DOMESTIC USE	Garfield County
245	Colorado Oil and Gas Conservation Commission	703187	COGCC Facility ID:703187	DOMESTIC USE	Garfield County
246	EnCana Oil & Gas (USA) Inc.	SPIN1WW	SPIN1WW	DOMESTIC USE	Garfield County
247	EnCana Oil & Gas (USA) Inc.	spin2ww	SPIN2WW	DOMESTIC USE	Garfield County
248	Colorado Oil and Gas Conservation Commission	704454	COGCC Facility ID:704454	DOMESTIC USE	Garfield County
249	Colorado Oil and Gas Conservation Commission	703260	COGCC Facility ID:703260	DOMESTIC USE	Garfield County
250	Colorado Oil and Gas Conservation Commission	704473	COGCC Facility ID:704473	DOMESTIC USE	Garfield County
251	Colorado Oil and Gas Conservation Commission	704477	COGCC Facility ID:704477	DOMESTIC USE	Garfield County
252	Colorado Oil and Gas Conservation Commission	704500	COGCC Facility ID:704500	DOMESTIC USE	Garfield County
253	Colorado Oil and Gas Conservation Commission	704516	COGCC Facility ID:704516	DOMESTIC USE	Garfield County
254	Colorado Oil and Gas Conservation Commission	704526	COGCC Facility ID:704526	DOMESTIC USE	Garfield County
255	Colorado Oil and Gas Conservation Commission	703900	COGCC Facility ID:703900	DOMESTIC USE	Garfield County
256	Colorado Oil and Gas Conservation Commission	704195	COGCC Facility ID:704195	DOMESTIC USE	Garfield County
256	Colorado Oil and Gas Conservation Commission	704195	COGCC Facility ID:704195	DOMESTIC USE	Garfield County
257	Colorado Oil and Gas Conservation Commission	704198	COGCC Facility ID:704198	DOMESTIC USE	Garfield County
258	Colorado Oil and Gas Conservation Commission	704288	COGCC Facility ID:704288	DOMESTIC USE	Garfield County
259	Colorado Oil and Gas Conservation Commission	704315	COGCC Facility ID:704315	PUBLIC SUPPLY	Garfield County
259	Colorado Oil and Gas Conservation Commission	704315	COGCC Facility ID:704315	PUBLIC SUPPLY	Garfield County
260	Colorado Oil and Gas Conservation Commission	704320	COGCC Facility ID:704320	DOMESTIC USE	Garfield County
261	Colorado Oil and Gas Conservation Commission	704322	COGCC Facility ID:704322	DOMESTIC USE	Garfield County
262	Colorado Oil and Gas Conservation Commission	704326	COGCC Facility ID:704326	DOMESTIC USE	Garfield County
263	Colorado Oil and Gas Conservation Commission	704331	COGCC Facility ID:704331	DOMESTIC USE	Garfield County
264	Colorado Oil and Gas Conservation Commission	704332	COGCC Facility ID:704332	DOMESTIC USE	Garfield County
264	Colorado Oil and Gas Conservation Commission	704332	COGCC Facility ID:704332	DOMESTIC USE	Garfield County
265	Colorado Oil and Gas Conservation Commission	704333	COGCC Facility ID:704333	DOMESTIC USE	Garfield County
266	Colorado Oil and Gas Conservation Commission	704340	COGCC Facility ID:704340	DOMESTIC USE	Garfield County
267	EnCana Oil & Gas (USA) Inc.	AABE1WW	AABE1WW	DOMESTIC USE	Garfield County
268	EnCana Oil & Gas (USA) Inc.	ANDE2WW	ANDE2WW	DOMESTIC USE	Garfield County
269	EnCana Oil & Gas (USA) Inc.	ANGE1WW	ANGE1WW	DOMESTIC USE	Garfield County
270	EnCana Oil & Gas (USA) Inc.	ANGE2WW	ANGE2WW	DOMESTIC USE	Garfield County

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Agency name	Site identifier	Site name	Well use	County
271	EnCana Oil & Gas (USA) Inc.	ANGE3WW	ANGE3WW	AGRICULTURAL USE	Garfield County
272	EnCana Oil & Gas (USA) Inc.	DIET1WW	DIET1WW	DOMESTIC USE	Garfield County
273	EnCana Oil & Gas (USA) Inc.	dunc1ww	DUNC1WW	DOMESTIC USE	Garfield County
274	EnCana Oil & Gas (USA) Inc.	DUNC2WW	DUNC2WW	DOMESTIC USE	Garfield County
275	EnCana Oil & Gas (USA) Inc.	allm1ww	ALLM1WW	DOMESTIC USE	Garfield County
276	EnCana Oil & Gas (USA) Inc.	AMOS1WW	AMOS1WW	DOMESTIC USE	Garfield County
277	EnCana Oil & Gas (USA) Inc.	ARBA1WW	ARBA1WW	DOMESTIC USE	Garfield County
278	EnCana Oil & Gas (USA) Inc.	BELL1WW	BELL1WW	DOMESTIC USE	Garfield County
279	EnCana Oil & Gas (USA) Inc.	BELL2WW	BELL2WW	DOMESTIC USE	Garfield County
280	EnCana Oil & Gas (USA) Inc.	BELL3WW	BELL3WW	DOMESTIC USE	Garfield County
281	EnCana Oil & Gas (USA) Inc.	BUTT1WW	BUTT1WW	DOMESTIC USE	Garfield County
282	EnCana Oil & Gas (USA) Inc.	COTT1WW	COTT1WW	DOMESTIC USE	Garfield County
283	EnCana Oil & Gas (USA) Inc.	ENCA1ww	ENCA1WW	DOMESTIC USE	Garfield County
284	EnCana Oil & Gas (USA) Inc.	ESGA1WW	ESGA1WW	DOMESTIC USE	Garfield County
285	EnCana Oil & Gas (USA) Inc.	EUBA1WW	EUBA1WW	DOMESTIC USE	Garfield County
286	EnCana Oil & Gas (USA) Inc.	GAGN1WW	GAGN1WW	DOMESTIC USE	Garfield County
287	EnCana Oil & Gas (USA) Inc.	grif1ww	GRIF1WW	DOMESTIC USE	Garfield County
288	EnCana Oil & Gas (USA) Inc.	BAKE1WW	BAKE1WW	DOMESTIC USE	Garfield County
289	EnCana Oil & Gas (USA) Inc.	BALL1WW	BALL1WW	DOMESTIC USE	Garfield County
290	EnCana Oil & Gas (USA) Inc.	BARR1WW	BARR1WW	DOMESTIC USE	Garfield County
291	EnCana Oil & Gas (USA) Inc.	BELA1WW	BELA1WW	DOMESTIC USE	Garfield County
292	EnCana Oil & Gas (USA) Inc.	BELA2WW	BELA2WW	DOMESTIC USE	Garfield County
293	EnCana Oil & Gas (USA) Inc.	BELA3WW	BELA3WW	DOMESTIC USE	Garfield County
294	EnCana Oil & Gas (USA) Inc.	BELA4WW	BELA4WW	AGRICULTURAL USE	Garfield County
295	EnCana Oil & Gas (USA) Inc.	BELA5WW	BELA5WW	DOMESTIC USE	Garfield County
296	EnCana Oil & Gas (USA) Inc.	BENN1WW	BENN1WW	DOMESTIC USE	Garfield County
297	EnCana Oil & Gas (USA) Inc.	BILC1WW	BILC1WW	DOMESTIC USE	Garfield County
298	EnCana Oil & Gas (USA) Inc.	BILC2WW	BILC2WW	DOMESTIC USE	Garfield County
299	EnCana Oil & Gas (USA) Inc.	boul1ww	BOUL1WW	DOMESTIC USE	Garfield County
300	EnCana Oil & Gas (USA) Inc.	LLOY3WW	LLOY3WW	DOMESTIC USE	Garfield County
301	EnCana Oil & Gas (USA) Inc.	LLOY4WW	LLOY4WW	DOMESTIC USE	Garfield County
302	EnCana Oil & Gas (USA) Inc.	BUER1WW	BUER1WW	DOMESTIC USE	Garfield County
303	EnCana Oil & Gas (USA) Inc.	BUER2WW	BUER2WW	DOMESTIC USE	Garfield County
304	EnCana Oil & Gas (USA) Inc.	PAVI2WW	PAVI2WW	DOMESTIC USE	Garfield County
305	EnCana Oil & Gas (USA) Inc.	PRIC1WW	PRIC1WW	DOMESTIC USE	Garfield County
306	EnCana Oil & Gas (USA) Inc.	PRIC2WW	PRIC2WW	DOMESTIC USE	Garfield County
307	EnCana Oil & Gas (USA) Inc.	CAMP1WW	CAMP1WW	DOMESTIC USE	Garfield County
308	EnCana Oil & Gas (USA) Inc.	CANO1WW	CANO1WW	DOMESTIC USE	Garfield County
309	EnCana Oil & Gas (USA) Inc.	CHAP1WW	CHAP1WW	DOMESTIC USE	Garfield County
310	EnCana Oil & Gas (USA) Inc.	schw1ww	SCHW1WW	DOMESTIC USE	Garfield County
311	EnCana Oil & Gas (USA) Inc.	COUE2WW	COUE2WW	DOMESTIC USE	Garfield County
312	EnCana Oil & Gas (USA) Inc.	COUE3WW	COUE3WW	DOMESTIC USE	Garfield County
313	EnCana Oil & Gas (USA) Inc.	CRAI1WW	CRAI1WW	DOMESTIC USE	Garfield County
314	EnCana Oil & Gas (USA) Inc.	CRAI2WW	CRAI2WW	DOMESTIC USE	Garfield County
315	EnCana Oil & Gas (USA) Inc.	SHAE3WW	SHAE3WW	DOMESTIC USE	Garfield County
316	EnCana Oil & Gas (USA) Inc.	SHAN1WW	SHAN1WW	DOMESTIC USE	Garfield County
317	EnCana Oil & Gas (USA) Inc.	CRUZ2WW	CRUZ2WW	DOMESTIC USE	Garfield County
318	EnCana Oil & Gas (USA) Inc.	CULL1WW	CULL1WW	DOMESTIC USE	Garfield County
319	EnCana Oil & Gas (USA) Inc.	curr1ww	CURR1WW	DOMESTIC USE	Garfield County
320	EnCana Oil & Gas (USA) Inc.	DAHL1WW	DAHL1WW	AGRICULTURAL USE	Garfield County
321	EnCana Oil & Gas (USA) Inc.	DALE3WW	DALE3WW	DOMESTIC USE	Garfield County
322	EnCana Oil & Gas (USA) Inc.	SHER2WW	SHER2WW	DOMESTIC USE	Garfield County
323	EnCana Oil & Gas (USA) Inc.	FAZZ1WW	FAZZ1WW	DOMESTIC USE	Garfield County
324	EnCana Oil & Gas (USA) Inc.	FERG1WW	FERG1WW	DOMESTIC USE	Garfield County
325	EnCana Oil & Gas (USA) Inc.	FILI1WW	FILI1WW	DOMESTIC USE	Garfield County
326	EnCana Oil & Gas (USA) Inc.	FILI2WW	FILI2WW	DOMESTIC USE	Garfield County
327	EnCana Oil & Gas (USA) Inc.	THOM1WW	THOM1WW	AGRICULTURAL USE	Garfield County
328	EnCana Oil & Gas (USA) Inc.	thom4ww	THOM4WW	DOMESTIC USE	Garfield County
329	EnCana Oil & Gas (USA) Inc.	GALL1WW	GALL1WW	AGRICULTURAL USE	Garfield County
330	EnCana Oil & Gas (USA) Inc.	GALL2WW	GALL2WW	DOMESTIC USE	Garfield County
331	EnCana Oil & Gas (USA) Inc.	GALL3WW	GALL3WW	DOMESTIC USE	Garfield County
332	EnCana Oil & Gas (USA) Inc.	TRUL1WW	TRUL1WW	DOMESTIC USE	Garfield County
333	EnCana Oil & Gas (USA) Inc.	vall1ww	VALL1WW	DOMESTIC USE	Garfield County
334	EnCana Oil & Gas (USA) Inc.	GARD1WW	GARD1WW	DOMESTIC USE	Garfield County
335	EnCana Oil & Gas (USA) Inc.	GEIS1WW	GEIS1WW	DOMESTIC USE	Garfield County

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Agency name	Site identifier	Site name	Well use	County
336	EnCana Oil & Gas (USA) Inc.	GEIS2WW	GEIS2WW	DOMESTIC USE	Garfield County
337	EnCana Oil & Gas (USA) Inc.	GILK1WW	GILK1WW	DOMESTIC USE	Garfield County
338	EnCana Oil & Gas (USA) Inc.	GODA1WW	GODA1WW	DOMESTIC USE	Garfield County
339	EnCana Oil & Gas (USA) Inc.	GUTH1WW	GUTH1WW	DOMESTIC USE	Garfield County
340	EnCana Oil & Gas (USA) Inc.	HARR1WW	HARR1WW	DOMESTIC USE	Garfield County
341	EnCana Oil & Gas (USA) Inc.	HAYE1WW	HAYE1WW	DOMESTIC USE	Garfield County
342	EnCana Oil & Gas (USA) Inc.	HILL1WW	HILL1WW	DOMESTIC USE	Garfield County
343	EnCana Oil & Gas (USA) Inc.	HILL2WW	HILL2WW	DOMESTIC USE	Garfield County
344	EnCana Oil & Gas (USA) Inc.	HOFF1WW	HOFF1WW	DOMESTIC USE	Garfield County
345	EnCana Oil & Gas (USA) Inc.	HOFF2WW	HOFF2WW	DOMESTIC USE	Garfield County
346	EnCana Oil & Gas (USA) Inc.	HOLG1WW	HOLG1WW	DOMESTIC USE	Garfield County
347	EnCana Oil & Gas (USA) Inc.	HOOD1WW	HOOD1WW	DOMESTIC USE	Garfield County
348	EnCana Oil & Gas (USA) Inc.	HOWA1WW	HOWA1WW	DOMESTIC USE	Garfield County
349	EnCana Oil & Gas (USA) Inc.	KNIG1WW	KNIG1WW	DOMESTIC USE	Garfield County
350	EnCana Oil & Gas (USA) Inc.	KNIG2WW	KNIG2WW	DOMESTIC USE	Garfield County
351	EnCana Oil & Gas (USA) Inc.	KOCH1WW	KOCH1WW	DOMESTIC USE	Garfield County
352	EnCana Oil & Gas (USA) Inc.	KOZA1WW	KOZA1WW	DOMESTIC USE	Garfield County
353	EnCana Oil & Gas (USA) Inc.	LAND1WW	LAND1WW	DOMESTIC USE	Garfield County
354	EnCana Oil & Gas (USA) Inc.	meas1ww	MEAS1WW	DOMESTIC USE	Garfield County
355	EnCana Oil & Gas (USA) Inc.	Meas2ww	MEAS2WW	DOMESTIC USE	Garfield County
356	EnCana Oil & Gas (USA) Inc.	MEYE1WW	MEYE1WW	DOMESTIC USE	Garfield County
357	EnCana Oil & Gas (USA) Inc.	MILL1WW	MILL1WW	DOMESTIC USE	Garfield County
358	EnCana Oil & Gas (USA) Inc.	MILL4WW	MILL4WW	DOMESTIC USE	Garfield County
359	EnCana Oil & Gas (USA) Inc.	moon1ww	MOON1WW	OBSERVATION	Garfield County
360	EnCana Oil & Gas (USA) Inc.	MOON2WW	MOON2WW	DOMESTIC USE	Garfield County
361	EnCana Oil & Gas (USA) Inc.	MOOR1WW	MOOR1WW	DOMESTIC USE	Garfield County
362	EnCana Oil & Gas (USA) Inc.	LAYM1WW	LAYM1WW	DOMESTIC USE	Garfield County
363	EnCana Oil & Gas (USA) Inc.	LLOY1WW	LLOY1WW	DOMESTIC USE	Garfield County
364	EnCana Oil & Gas (USA) Inc.	LLOY2WW	LLOY2WW	DOMESTIC USE	Garfield County
365	EnCana Oil & Gas (USA) Inc.	LOUT1WW	LOUT1WW	DOMESTIC USE	Garfield County
366	EnCana Oil & Gas (USA) Inc.	MALO1WW	MALO1WW	DOMESTIC USE	Garfield County
367	EnCana Oil & Gas (USA) Inc.	MALO2WW	MALO2WW	DOMESTIC USE	Garfield County
368	EnCana Oil & Gas (USA) Inc.	MALO3WW	MALO3WW	DOMESTIC USE	Garfield County
369	EnCana Oil & Gas (USA) Inc.	MANU1WW	MANU1WW	DOMESTIC USE	Garfield County
370	EnCana Oil & Gas (USA) Inc.	MCCR1WW	MCCR1WW	DOMESTIC USE	Garfield County
371	EnCana Oil & Gas (USA) Inc.	MCCR2WW	MCCR2WW	DOMESTIC USE	Garfield County
372	EnCana Oil & Gas (USA) Inc.	MORR1WW	MORR1WW	DOMESTIC USE	Garfield County
373	EnCana Oil & Gas (USA) Inc.	OCON1WW	OCON1WW	DOMESTIC USE	Garfield County
374	EnCana Oil & Gas (USA) Inc.	PARA1WW	PARA1WW	DOMESTIC USE	Garfield County
375	EnCana Oil & Gas (USA) Inc.	PERI1WW	PERI1WW	DOMESTIC USE	Garfield County
376	EnCana Oil & Gas (USA) Inc.	PLAT1WW	PLAT1WW	DOMESTIC USE	Garfield County
377	EnCana Oil & Gas (USA) Inc.	PLAT2WW	PLAT2WW	DOMESTIC USE	Garfield County
378	EnCana Oil & Gas (USA) Inc.	WAGS1WW	WAGS1WW	DOMESTIC USE	Garfield County
379	EnCana Oil & Gas (USA) Inc.	WALL1WW	WALL1WW	DOMESTIC USE	Garfield County
380	EnCana Oil & Gas (USA) Inc.	WALT2WW	WALT2WW	DOMESTIC USE	Garfield County
381	EnCana Oil & Gas (USA) Inc.	WELL2WW	WELL2WW	DOMESTIC USE	Garfield County
382	EnCana Oil & Gas (USA) Inc.	RAIL1WW	RAIL1WW	DOMESTIC USE	Garfield County
383	EnCana Oil & Gas (USA) Inc.	RICH1WW	RICH1WW	DOMESTIC USE	Garfield County
384	EnCana Oil & Gas (USA) Inc.	RIVE1WW	RIVE1WW	DOMESTIC USE	Garfield County
385	EnCana Oil & Gas (USA) Inc.	ROE1WW	ROE1WW	DOMESTIC USE	Garfield County
386	EnCana Oil & Gas (USA) Inc.	ROLE1WW	ROLE1WW	DOMESTIC USE	Garfield County
387	EnCana Oil & Gas (USA) Inc.	ROWE1WW	ROWE1WW	DOMESTIC USE	Garfield County
388	EnCana Oil & Gas (USA) Inc.	ROWE2WW	ROWE2WW	DOMESTIC USE	Garfield County
389	EnCana Oil & Gas (USA) Inc.	ROWE3WW	ROWE3WW	DOMESTIC USE	Garfield County
390	EnCana Oil & Gas (USA) Inc.	ROWE4WW	ROWE4WW	DOMESTIC USE	Garfield County
391	EnCana Oil & Gas (USA) Inc.	SCHE1WW	SCHE1WW	DOMESTIC USE	Garfield County
392	EnCana Oil & Gas (USA) Inc.	SCHI1WW	SCHI1WW	DOMESTIC USE	Garfield County
393	EnCana Oil & Gas (USA) Inc.	SCHI2WW	SCHI2WW	DOMESTIC USE	Garfield County
394	EnCana Oil & Gas (USA) Inc.	SCHO1WW	SCHO1WW	DOMESTIC USE	Garfield County
395	EnCana Oil & Gas (USA) Inc.	SCHU1WW	SCHU1WW	DOMESTIC USE	Garfield County
396	EnCana Oil & Gas (USA) Inc.	SCHU2WW	SCHU2WW	DOMESTIC USE	Garfield County
397	EnCana Oil & Gas (USA) Inc.	SHAE1WW	SHAE1WW	DOMESTIC USE	Garfield County
398	EnCana Oil & Gas (USA) Inc.	SHAE2WW	SHAE2WW	AGRICULTURAL USE	Garfield County
399	EnCana Oil & Gas (USA) Inc.	SHID1WW	SHID1WW	DOMESTIC USE	Garfield County
400	EnCana Oil & Gas (USA) Inc.	SHID2WW	SHID2WW	DOMESTIC USE	Garfield County

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Agency name	Site identifier	Site name	Well use	County
401	EnCana Oil & Gas (USA) Inc.	SMIT1WW	SMIT1WW	DOMESTIC USE	Garfield County
402	EnCana Oil & Gas (USA) Inc.	SMIT3WW	SMIT3WW	DOMESTIC USE	Garfield County
403	EnCana Oil & Gas (USA) Inc.	STAR1WW	STAR1WW	DOMESTIC USE	Garfield County
404	EnCana Oil & Gas (USA) Inc.	TURN1WW	TURN1WW	DOMESTIC USE	Garfield County
405	EnCana Oil & Gas (USA) Inc.	WILL2WW	WILL2WW	DOMESTIC USE	Garfield County
406	EnCana Oil & Gas (USA) Inc.	WILL4WW	WILL4WW	DOMESTIC USE	Garfield County
407	EnCana Oil & Gas (USA) Inc.	WING1WW	WING1WW	DOMESTIC USE	Garfield County
408	U.S. Geological Survey	392231108153203	SC00809707ACC1	DOMESTIC USE	Garfield County
409	U.S. Geological Survey	392242108213701	SC00809807AAD	OBSERVATION	Garfield County
410	U.S. Geological Survey	392352108160601	SC00709731CCB1	DOMESTIC USE	Garfield County
414	U.S. Geological Survey	392859108192101	SC00609833DCC	OBSERVATION	Garfield County
415	U.S. Geological Survey	392859108193901	SC00609833DDD1	DOMESTIC USE	Garfield County
416	U.S. Geological Survey	392923108191401	SC00609834BDC1	DOMESTIC USE	Garfield County
417	U.S. Geological Survey	392941108220801	SC00609831ABD1	DOMESTIC USE	Garfield County
418	U.S. Geological Survey	126166	126166	OBSERVATION	Garfield County
419	U.S. Geological Survey	393836108002401	SC00509501BDC1	OBSERVATION	Garfield County
420	U.S. Geological Survey	393009108191601	SC00609827CAB	OBSERVATION	Garfield County
428	Colorado Oil and Gas Conservation Commission	703240	COGCC Facility ID:703240	DOMESTIC USE	Garfield County
429	Colorado Oil and Gas Conservation Commission	703078	COGCC Facility ID:703078	DOMESTIC USE	Garfield County
430	Colorado Oil and Gas Conservation Commission	703104	COGCC Facility ID:703104	DOMESTIC USE	Garfield County
432	Colorado Oil and Gas Conservation Commission	703141	COGCC Facility ID:703141	DOMESTIC USE	Garfield County
433	Colorado Oil and Gas Conservation Commission	703142	COGCC Facility ID:703142	DOMESTIC USE	Garfield County
434	Colorado Oil and Gas Conservation Commission	704406	COGCC Facility ID:704406	DOMESTIC USE	Garfield County
435	Colorado Oil and Gas Conservation Commission	704407	COGCC Facility ID:704407	DOMESTIC USE	Garfield County
436	Colorado Oil and Gas Conservation Commission	704410	COGCC Facility ID:704410	DOMESTIC USE	Garfield County
437	Colorado Oil and Gas Conservation Commission	703023	COGCC Facility ID:703023	DOMESTIC USE	Garfield County
438	Colorado Oil and Gas Conservation Commission	703028	COGCC Facility ID:703028	DOMESTIC USE	Garfield County
439	Colorado Oil and Gas Conservation Commission	704267	COGCC Facility ID:704267	DOMESTIC USE	Garfield County
440	Colorado Oil and Gas Conservation Commission	703085	COGCC Facility ID:703085	DOMESTIC USE	Garfield County
441	Colorado Oil and Gas Conservation Commission	703140	COGCC Facility ID:703140	DOMESTIC USE	Garfield County
442	Colorado Oil and Gas Conservation Commission	704444	COGCC Facility ID:704444	DOMESTIC USE	Garfield County
443	Colorado Oil and Gas Conservation Commission	703907	COGCC Facility ID:703907	DOMESTIC USE	Garfield County
444	Colorado Oil and Gas Conservation Commission	704540	COGCC Facility ID:704540	DOMESTIC USE	Garfield County
445	Colorado Oil and Gas Conservation Commission	704555	COGCC Facility ID:704555	DOMESTIC USE	Garfield County
446	Colorado Oil and Gas Conservation Commission	704737	COGCC Facility ID:704737	DOMESTIC USE	Garfield County
447	Colorado Oil and Gas Conservation Commission	704738	COGCC Facility ID:704738	DOMESTIC USE	Garfield County
447	Colorado Oil and Gas Conservation Commission	704738	COGCC Facility ID:704738	DOMESTIC USE	Garfield County
448	Colorado Oil and Gas Conservation Commission	704739	COGCC Facility ID:704739	DOMESTIC USE	Garfield County
448	Colorado Oil and Gas Conservation Commission	704739	COGCC Facility ID:704739	DOMESTIC USE	Garfield County
449	Colorado Oil and Gas Conservation Commission	704736	COGCC Facility ID:704736	DOMESTIC USE	Garfield County
450	Colorado Oil and Gas Conservation Commission	704740	COGCC Facility ID:704740	DOMESTIC USE	Garfield County
451	Colorado Oil and Gas Conservation Commission	704741	COGCC Facility ID:704741	DOMESTIC USE	Garfield County
452	Colorado Oil and Gas Conservation Commission	704742	COGCC Facility ID:704742	DOMESTIC USE	Garfield County
453	Colorado Oil and Gas Conservation Commission	704743	COGCC Facility ID:704743	DOMESTIC USE	Garfield County
453	Colorado Oil and Gas Conservation Commission	704743	COGCC Facility ID:704743	DOMESTIC USE	Garfield County
454	Colorado Oil and Gas Conservation Commission	704744	COGCC Facility ID:704744	DOMESTIC USE	Garfield County
454	Colorado Oil and Gas Conservation Commission	704744	COGCC Facility ID:704744	DOMESTIC USE	Garfield County
455	Colorado Department of Agriculture	WS-051	WS-051CDOA	DOMESTIC USE	Garfield County
456	Colorado Department of Agriculture	WS-049	WS-049CDOA	DOMESTIC USE	Garfield County
457	Colorado Oil and Gas Conservation Commission	703192	COGCC Facility ID:703192	DOMESTIC USE	Garfield County
458	Colorado Oil and Gas Conservation Commission	703194	COGCC Facility ID:703194	DOMESTIC USE	Garfield County
459	Colorado Oil and Gas Conservation Commission	703195	COGCC Facility ID:703195	DOMESTIC USE	Garfield County
460	Colorado Oil and Gas Conservation Commission	703255	COGCC Facility ID:703255	DOMESTIC USE	Garfield County
461	Colorado Oil and Gas Conservation Commission	703259	COGCC Facility ID:703259	DOMESTIC USE	Garfield County
462	Colorado Oil and Gas Conservation Commission	703264	COGCC Facility ID:703264	DOMESTIC USE	Garfield County
463	Colorado Oil and Gas Conservation Commission	703267	COGCC Facility ID:703267	PUBLIC SUPPLY	Garfield County
464	Colorado Oil and Gas Conservation Commission	703268	COGCC Facility ID:703268	PUBLIC SUPPLY	Garfield County
465	U.S. Geological Survey	392848107520201	SC00609434BCD1 (MWX-1)	OBSERVATION	Garfield County
466	Colorado Oil and Gas Conservation Commission	703048	COGCC Facility ID:703048	DOMESTIC USE	Garfield County
468	Colorado Oil and Gas Conservation Commission	703133	COGCC Facility ID:703133	DOMESTIC USE	Garfield County
469	Colorado Oil and Gas Conservation Commission	704427	COGCC Facility ID:704427	DOMESTIC USE	Garfield County
470	Colorado Oil and Gas Conservation Commission	703988	COGCC Facility ID:703988	DOMESTIC USE	Garfield County
471	Colorado Oil and Gas Conservation Commission	703991	COGCC Facility ID:703991	DOMESTIC USE	Garfield County
472	Colorado Oil and Gas Conservation Commission	703995	COGCC Facility ID:703995	DOMESTIC USE	Garfield County
473	Colorado Oil and Gas Conservation Commission	704017	COGCC Facility ID:704017	DOMESTIC USE	Garfield County
474	Colorado Oil and Gas Conservation Commission	704042	COGCC Facility ID:704042	DOMESTIC USE	Garfield County
475	Colorado Oil and Gas Conservation Commission	704052	COGCC Facility ID:704052	DOMESTIC USE	Garfield County

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Agency name	Site identifier	Site name	Well use	County
476	Colorado Oil and Gas Conservation Commission	704063	COGCC Facility ID:704063	DOMESTIC USE	Garfield County
477	Colorado Oil and Gas Conservation Commission	704065	COGCC Facility ID:704065	DOMESTIC USE	Garfield County
478	Colorado Oil and Gas Conservation Commission	704067	COGCC Facility ID:704067	DOMESTIC USE	Garfield County
479	Colorado Oil and Gas Conservation Commission	704304	COGCC Facility ID:704304	OBSERVATION	Garfield County
480	Colorado Oil and Gas Conservation Commission	704306	COGCC Facility ID:704306	OBSERVATION	Garfield County
481	Colorado Oil and Gas Conservation Commission	704368	COGCC Facility ID:704368	DOMESTIC USE	Garfield County
482	Colorado Oil and Gas Conservation Commission	704376	COGCC Facility ID:704376	DOMESTIC USE	Garfield County
483	Colorado Oil and Gas Conservation Commission	704379	COGCC Facility ID:704379	DOMESTIC USE	Garfield County
484	Colorado Oil and Gas Conservation Commission	704396	COGCC Facility ID:704396	DOMESTIC USE	Garfield County
485	Colorado Oil and Gas Conservation Commission	704397	COGCC Facility ID:704397	DOMESTIC USE	Garfield County
486	EnCana Oil & Gas (USA) Inc.	DURN1WW	DURN1WW	DOMESTIC USE	Garfield County
487	EnCana Oil & Gas (USA) Inc.	ENLF1MW	ENLF1MW	OBSERVATION	Garfield County
488	Colorado Oil and Gas Conservation Commission	703120	COGCC Facility ID:703120	DOMESTIC USE	Garfield County
489	Colorado Oil and Gas Conservation Commission	703131	COGCC Facility ID:703131	DOMESTIC USE	Garfield County
490	Colorado Oil and Gas Conservation Commission	703134	COGCC Facility ID:703134	DOMESTIC USE	Garfield County
491	Colorado Oil and Gas Conservation Commission	703222	COGCC Facility ID:703222	DOMESTIC USE	Garfield County
492	Colorado Oil and Gas Conservation Commission	704443	COGCC Facility ID:704443	DOMESTIC USE	Garfield County
493	Colorado Oil and Gas Conservation Commission	703226	COGCC Facility ID:703226	DOMESTIC USE	Garfield County
494	Colorado Oil and Gas Conservation Commission	703235	COGCC Facility ID:703235	PUBLIC SUPPLY	Garfield County
495	Colorado Oil and Gas Conservation Commission	703245	COGCC Facility ID:703245	DOMESTIC USE	Garfield County
496	Colorado Oil and Gas Conservation Commission	704464	COGCC Facility ID:704464	DOMESTIC USE	Garfield County
497	Colorado Oil and Gas Conservation Commission	704509	COGCC Facility ID:704509	DOMESTIC USE	Garfield County
498	Colorado Oil and Gas Conservation Commission	704513	COGCC Facility ID:704513	DOMESTIC USE	Garfield County
499	Colorado Oil and Gas Conservation Commission	704514	COGCC Facility ID:704514	DOMESTIC USE	Garfield County
500	Colorado Oil and Gas Conservation Commission	704532	COGCC Facility ID:704532	DOMESTIC USE	Garfield County
501	Colorado Oil and Gas Conservation Commission	704103	COGCC Facility ID:704103	DOMESTIC USE	Garfield County
502	Colorado Oil and Gas Conservation Commission	704809	COGCC Facility ID:704809	DOMESTIC USE	Garfield County
503	Colorado Oil and Gas Conservation Commission	705430	COGCC Facility ID:705430	DOMESTIC USE	Garfield County
504	EnCana Oil & Gas (USA) Inc.	ANDE1WW	ANDE1WW	DOMESTIC USE	Garfield County
505	EnCana Oil & Gas (USA) Inc.	HUBB1WW	HUBB1WW	DOMESTIC USE	Garfield County
506	EnCana Oil & Gas (USA) Inc.	BARN1WW	BARN1WW	DOMESTIC USE	Garfield County
507	EnCana Oil & Gas (USA) Inc.	BECK1WW	BECK1WW	DOMESTIC USE	Garfield County
508	EnCana Oil & Gas (USA) Inc.	BEEC1WW	BEEC1WW	DOMESTIC USE	Garfield County
509	EnCana Oil & Gas (USA) Inc.	BENJ1WW	BENJ1WW	DOMESTIC USE	Garfield County
510	EnCana Oil & Gas (USA) Inc.	BENJ2WW	BENJ2WW	DOMESTIC USE	Garfield County
511	EnCana Oil & Gas (USA) Inc.	BLAC1WW	BLAC1WW	DOMESTIC USE	Garfield County
512	EnCana Oil & Gas (USA) Inc.	BOLA1WW	BOLA1WW	DOMESTIC USE	Garfield County
513	EnCana Oil & Gas (USA) Inc.	broc1ww	BROC1WW	DOMESTIC USE	Garfield County
514	EnCana Oil & Gas (USA) Inc.	ROSE1WW	ROSE1WW	DOMESTIC USE	Garfield County
515	EnCana Oil & Gas (USA) Inc.	CAND1WW	CAND1WW	DOMESTIC USE	Garfield County
516	EnCana Oil & Gas (USA) Inc.	CAPP1WW	CAPP1WW	DOMESTIC USE	Garfield County
517	EnCana Oil & Gas (USA) Inc.	CHAR1WW	CHAR1WW	DOMESTIC USE	Garfield County
518	EnCana Oil & Gas (USA) Inc.	CLOS1WW	CLOS1WW	DOMESTIC USE	Garfield County
519	EnCana Oil & Gas (USA) Inc.	CLOS2WW	CLOS2WW	DOMESTIC USE	Garfield County
520	EnCana Oil & Gas (USA) Inc.	FRAN2WW	FRAN2WW	DOMESTIC USE	Garfield County
521	EnCana Oil & Gas (USA) Inc.	HOGU1WW	HOGU1WW	DOMESTIC USE	Garfield County
522	EnCana Oil & Gas (USA) Inc.	HUNT1WW	HUNT1WW	DOMESTIC USE	Garfield County
523	EnCana Oil & Gas (USA) Inc.	ISLE1WW	ISLE1WW	DOMESTIC USE	Garfield County
524	EnCana Oil & Gas (USA) Inc.	JOHN1WW	JOHN1WW	DOMESTIC USE	Garfield County
525	EnCana Oil & Gas (USA) Inc.	KEHR1WW	KEHR1WW	DOMESTIC USE	Garfield County
526	EnCana Oil & Gas (USA) Inc.	LAKE1MW	LAKE1MW	OBSERVATION	Garfield County
527	EnCana Oil & Gas (USA) Inc.	LANG1WW	LANG1WW	DOMESTIC USE	Garfield County
528	EnCana Oil & Gas (USA) Inc.	MILL3WW	MILL3WW	DOMESTIC USE	Garfield County
529	EnCana Oil & Gas (USA) Inc.	ZILE1WW	ZILE1WW	DOMESTIC USE	Garfield County
530	EnCana Oil & Gas (USA) Inc.	ZIMM1WW	ZIMM1WW	DOMESTIC USE	Garfield County
531	EnCana Oil & Gas (USA) Inc.	OVER1WW	OVER1WW	DOMESTIC USE	Garfield County
532	EnCana Oil & Gas (USA) Inc.	PARL1WW	PARL1WW	DOMESTIC USE	Garfield County
533	EnCana Oil & Gas (USA) Inc.	RHIN1WW	RHIN1WW	DOMESTIC USE	Garfield County
534	EnCana Oil & Gas (USA) Inc.	SAVA1WW	SAVA1WW	DOMESTIC USE	Garfield County
535	EnCana Oil & Gas (USA) Inc.	SAVA3WW	SAVA3WW	AGRICULTURAL USE	Garfield County
536	EnCana Oil & Gas (USA) Inc.	SHER1WW	SHER1WW	DOMESTIC USE	Garfield County
537	EnCana Oil & Gas (USA) Inc.	SHUS1WW	SHUS1WW	DOMESTIC USE	Garfield County
538	EnCana Oil & Gas (USA) Inc.	SIMM1WW	SIMM1WW	DOMESTIC USE	Garfield County
539	EnCana Oil & Gas (USA) Inc.	SKEL1WW	SKEL1WW	DOMESTIC USE	Garfield County
540	EnCana Oil & Gas (USA) Inc.	STEI1WW	STEI1WW	DOMESTIC USE	Garfield County

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Agency name	Site identifier	Site name	Well use	County
541	EnCana Oil & Gas (USA) Inc.	STOK1WW	STOK1WW	DOMESTIC USE	Garfield County
542	EnCana Oil & Gas (USA) Inc.	VALD1WW	VALD1WW	DOMESTIC USE	Garfield County
543	EnCana Oil & Gas (USA) Inc.	WILS2WW	WILS2WW	DOMESTIC USE	Garfield County
544	U.S. Geological Survey	392638108005501	SC00709517AAB1 USGS 392638108005501	OBSERVATION	Garfield County
558	U.S. Geological Survey	392758108043301	SC00709602DBB1	DOMESTIC USE	Garfield County
559	U.S. Geological Survey	392813108044401	SC00709602BDB1	DOMESTIC USE	Garfield County
560	U.S. Geological Survey	392835108054900	SC00609634CDB	OBSERVATION	Garfield County
561	U.S. Geological Survey	392838108053900	SC00609634CAD	OBSERVATION	Garfield County
562	Colorado Oil and Gas Conservation Commission	703032	COGCC Facility ID:703032	DOMESTIC USE	Garfield County
563	Colorado Oil and Gas Conservation Commission	703040	COGCC Facility ID:703040	DOMESTIC USE	Garfield County
564	U.S. Geological Survey	392859108055300	SC00609634BDB	OBSERVATION	Garfield County
565	U.S. Geological Survey	392900108053900	SC00609634BDA	OBSERVATION	Garfield County
566	U.S. Geological Survey	392920108001400	SC00609528CDD1	COMMERCIAL USE	Garfield County
569	U.S. Geological Survey	392936108072500	SC00609629DAA	OBSERVATION	Garfield County
570	Colorado Oil and Gas Conservation Commission	703091	COGCC Facility ID:703091	DOMESTIC USE	Garfield County
571	Colorado Oil and Gas Conservation Commission	703092	COGCC Facility ID:703092	DOMESTIC USE	Garfield County
572	Colorado Oil and Gas Conservation Commission	703039	COGCC Facility ID:703039	DOMESTIC USE	Garfield County
573	Colorado Oil and Gas Conservation Commission	703069	COGCC Facility ID:703069	DOMESTIC USE	Garfield County
574	Colorado Oil and Gas Conservation Commission	703070	COGCC Facility ID:703070	DOMESTIC USE	Garfield County
575	EnCana Oil & Gas (USA) Inc.	DEKA1	DEKA1	DOMESTIC USE	Garfield County
576	Colorado Oil and Gas Conservation Commission	703093	COGCC Facility ID:703093	DOMESTIC USE	Garfield County
577	Colorado Oil and Gas Conservation Commission	703096	COGCC Facility ID:703096	DOMESTIC USE	Garfield County
578	Colorado Oil and Gas Conservation Commission	703097	COGCC Facility ID:703097	DOMESTIC USE	Garfield County
579	EnCana Oil & Gas (USA) Inc.	ENYE1WW	ENYE1WW	DOMESTIC USE	Garfield County
580	Colorado Oil and Gas Conservation Commission	703164	COGCC Facility ID:703164	DOMESTIC USE	Garfield County
581	Antero Resources	ANT3925381080135	ANT3925381080135	DOMESTIC USE	Garfield County
582	Antero Resources	ANT3925391080145	ANT3925391080145	DOMESTIC USE	Garfield County
583	Antero Resources	ANT3925481080108	ANT3925481080108	DOMESTIC USE	Garfield County
584	Antero Resources	ANT3925481080128	ANT3925481080128	DOMESTIC USE	Garfield County
585	Antero Resources	ANT3925491080052	ANT3925491080052	DOMESTIC USE	Garfield County
586	Antero Resources	ANT3925491080139	ANT3925491080139	DOMESTIC USE	Garfield County
587	Antero Resources	ANT3925501080112	ANT3925501080112	DOMESTIC USE	Garfield County
588	Antero Resources	ANT3925511080108	ANT3925511080108	DOMESTIC USE	Garfield County
589	Antero Resources	ANT3925511080124	ANT3925511080124	DOMESTIC USE	Garfield County
590	Antero Resources	ANT3925531080145	ANT3925531080145	DOMESTIC USE	Garfield County
591	Antero Resources	ANT3925561080144	ANT3925561080144	DOMESTIC USE	Garfield County
592	Antero Resources	ANT3925601080133	ANT3925601080133	DOMESTIC USE	Garfield County
593	Antero Resources	ANT3926031080140	ANT3926031080140	DOMESTIC USE	Garfield County
594	Antero Resources	ANT3926041080145	ANT3926041080145	DOMESTIC USE	Garfield County
595	Antero Resources	ANT3926041080151	ANT3926041080151	DOMESTIC USE	Garfield County
596	Antero Resources	ANT3926221080054	ANT3926221080054	DOMESTIC USE	Garfield County
597	Antero Resources	ANT3926351080051	ANT3926351080051	DOMESTIC USE	Garfield County
598	Antero Resources	ANT3926371080056	ANT3926371080056	DOMESTIC USE	Garfield County
599	Colorado Oil and Gas Conservation Commission	705029	COGCC Facility ID:705029	DOMESTIC USE	Garfield County
600	Colorado Oil and Gas Conservation Commission	705051	COGCC Facility ID:705051	DOMESTIC USE	Garfield County
601	EnCana Oil & Gas (USA) Inc.	Gard3ww	GARD3WW	DOMESTIC USE	Garfield County
602	EnCana Oil & Gas (USA) Inc.	BREW1WW	BREW1WW	DOMESTIC USE	Garfield County
603	EnCana Oil & Gas (USA) Inc.	CAMP2WW	CAMP2WW	DOMESTIC USE	Garfield County
604	EnCana Oil & Gas (USA) Inc.	JOLL2WW	JOLL2WW	OBSERVATION	Garfield County
605	EnCana Oil & Gas (USA) Inc.	MCEL1	MCEL1	AGRICULTURAL USE	Garfield County
606	EnCana Oil & Gas (USA) Inc.	MCEL2	MCEL2	DOMESTIC USE	Garfield County
607	EnCana Oil & Gas (USA) Inc.	NOCK1WW	NOCK1WW	DOMESTIC USE	Garfield County
608	EnCana Oil & Gas (USA) Inc.	PAVI1WW	PAVI1WW	DOMESTIC USE	Garfield County
609	EnCana Oil & Gas (USA) Inc.	PAYT1ww	PAYT1WW	DOMESTIC USE	Garfield County
610	EnCana Oil & Gas (USA) Inc.	SAVA4WW	SAVA4WW	DOMESTIC USE	Garfield County
611	EnCana Oil & Gas (USA) Inc.	TOND1WW	TOND1WW	DOMESTIC USE	Garfield County
612	EnCana Oil & Gas (USA) Inc.	TOND2WW	TOND2WW	DOMESTIC USE	Garfield County
613	EnCana Oil & Gas (USA) Inc.	TOND3WW	TOND3WW	DOMESTIC USE	Garfield County
614	EnCana Oil & Gas (USA) Inc.	WINT1WW	WINT1WW	DOMESTIC USE	Garfield County
615	Colorado Department of Agriculture	WS-048	WS-048CDOA	DOMESTIC USE	Garfield County
616	Colorado Oil and Gas Conservation Commission	703198	COGCC Facility ID:703198	DOMESTIC USE	Garfield County
617	Colorado Oil and Gas Conservation Commission	703199	COGCC Facility ID:703199	DOMESTIC USE	Garfield County
623	U.S. Geological Survey	393237107450901	SC00609311BCBC GRFLN2	DOMESTIC USE	Garfield County
624	U.S. Geological Survey	393314107455801	SC0060930CBDC GRFLN7	DOMESTIC USE	Garfield County

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Agency name	Site identifier	Site name	Well use	County
625	Colorado Oil and Gas Conservation Commission	703112	COGCC Facility ID:703112	DOMESTIC USE	Garfield County
626	Colorado Oil and Gas Conservation Commission	703113	COGCC Facility ID:703113	DOMESTIC USE	Garfield County
627	U.S. Geological Survey	393528107453601	SC00509230BADB GRFLN1	DOMESTIC USE	Garfield County
628	Colorado Oil and Gas Conservation Commission	703546	COGCC Facility ID:703546	DOMESTIC USE	Garfield County
629	Colorado Oil and Gas Conservation Commission	703964	COGCC Facility ID:703964	DOMESTIC USE	Garfield County
630	Colorado Oil and Gas Conservation Commission	703989	COGCC Facility ID:703989	DOMESTIC USE	Garfield County
631	Colorado Oil and Gas Conservation Commission	703990	COGCC Facility ID:703990	DOMESTIC USE	Garfield County
632	Colorado Oil and Gas Conservation Commission	704020	COGCC Facility ID:704020	DOMESTIC USE	Garfield County
633	Colorado Oil and Gas Conservation Commission	704064	COGCC Facility ID:704064	DOMESTIC USE	Garfield County
634	Colorado Oil and Gas Conservation Commission	703121	COGCC Facility ID:703121	DOMESTIC USE	Garfield County
635	Colorado Oil and Gas Conservation Commission	703123	COGCC Facility ID:703123	DOMESTIC USE	Garfield County
636	Colorado Oil and Gas Conservation Commission	703124	COGCC Facility ID:703124	DOMESTIC USE	Garfield County
637	Colorado Oil and Gas Conservation Commission	703178	COGCC Facility ID:703178	DOMESTIC USE	Garfield County
638	Colorado Oil and Gas Conservation Commission	703179	COGCC Facility ID:703179	DOMESTIC USE	Garfield County
639	Colorado Oil and Gas Conservation Commission	703180	COGCC Facility ID:703180	DOMESTIC USE	Garfield County
640	Colorado Oil and Gas Conservation Commission	704451	COGCC Facility ID:704451	DOMESTIC USE	Garfield County
641	Colorado Oil and Gas Conservation Commission	703232	COGCC Facility ID:703232	DOMESTIC USE	Garfield County
642	Colorado Oil and Gas Conservation Commission	703233	COGCC Facility ID:703233	PUBLIC SUPPLY	Garfield County
643	Colorado Oil and Gas Conservation Commission	704528	COGCC Facility ID:704528	DOMESTIC USE	Garfield County
644	Colorado Oil and Gas Conservation Commission	704537	COGCC Facility ID:704537	DOMESTIC USE	Garfield County
645	Colorado Oil and Gas Conservation Commission	704539	COGCC Facility ID:704539	DOMESTIC USE	Garfield County
646	Colorado Oil and Gas Conservation Commission	704722	COGCC Facility ID:704722	DOMESTIC USE	Garfield County
647	Colorado Oil and Gas Conservation Commission	704735	COGCC Facility ID:704735	DOMESTIC USE	Garfield County
649	Colorado Oil and Gas Conservation Commission	704758	COGCC Facility ID:704758	DOMESTIC USE	Garfield County
650	Colorado Oil and Gas Conservation Commission	704784	COGCC Facility ID:704784	DOMESTIC USE	Garfield County
651	Colorado Oil and Gas Conservation Commission	704785	COGCC Facility ID:704785	DOMESTIC USE	Garfield County
652	Colorado Oil and Gas Conservation Commission	704805	COGCC Facility ID:704805	DOMESTIC USE	Garfield County
653	Colorado Oil and Gas Conservation Commission	705431	COGCC Facility ID:705431	DOMESTIC USE	Garfield County
654	Antero Resources	ANT3931221074602	ANT3931221074602	DOMESTIC USE	Garfield County
655	Antero Resources	ANT3931231074601	ANT3931231074601	DOMESTIC USE	Garfield County
656	Antero Resources	ANT3931391074513	ANT3931391074513	DOMESTIC USE	Garfield County
657	Antero Resources	ANT3931541074524	ANT3931541074524	DOMESTIC USE	Garfield County
658	Antero Resources	ANT3932021074527	ANT3932021074527	DOMESTIC USE	Garfield County
660	Colorado Oil and Gas Conservation Commission	704723	COGCC Facility ID:704723	DOMESTIC USE	Garfield County
660	Colorado Oil and Gas Conservation Commission	704723	COGCC Facility ID:704723	DOMESTIC USE	Garfield County
661	Antero Resources	ANT3932101074552	ANT3932101074552	DOMESTIC USE	Garfield County
662	Colorado Oil and Gas Conservation Commission	704759	COGCC Facility ID:704759	DOMESTIC USE	Garfield County
663	Colorado Oil and Gas Conservation Commission	704760	COGCC Facility ID:704760	DOMESTIC USE	Garfield County
663	Colorado Oil and Gas Conservation Commission	704760	COGCC Facility ID:704760	DOMESTIC USE	Garfield County
664	Antero Resources	ANT3932171074514	ANT3932171074514	DOMESTIC USE	Garfield County
665	Colorado Oil and Gas Conservation Commission	704783	COGCC Facility ID:704783	DOMESTIC USE	Garfield County
666	Colorado Oil and Gas Conservation Commission	704795	COGCC Facility ID:704795	DOMESTIC USE	Garfield County
667	Colorado Oil and Gas Conservation Commission	704798	COGCC Facility ID:704798	DOMESTIC USE	Garfield County
668	Colorado Oil and Gas Conservation Commission	704799	COGCC Facility ID:704799	DOMESTIC USE	Garfield County
669	Antero Resources	ANT3932191074528	ANT3932191074528	DOMESTIC USE	Garfield County
670	Colorado Oil and Gas Conservation Commission	704800	COGCC Facility ID:704800	DOMESTIC USE	Garfield County
671	Colorado Oil and Gas Conservation Commission	704801	COGCC Facility ID:704801	DOMESTIC USE	Garfield County
672	Colorado Oil and Gas Conservation Commission	704802	COGCC Facility ID:704802	DOMESTIC USE	Garfield County
673	Colorado Oil and Gas Conservation Commission	704807	COGCC Facility ID:704807	DOMESTIC USE	Garfield County
674	Colorado Oil and Gas Conservation Commission	704813	COGCC Facility ID:704813	DOMESTIC USE	Garfield County
675	Antero Resources	ANT3932211074530	ANT3932211074530	DOMESTIC USE	Garfield County
676	Antero Resources	ANT3933321074537	ANT3933321074537	DOMESTIC USE	Garfield County
677	EnCana Oil & Gas (USA) Inc.	HUFF1WW	HUFF1WW	DOMESTIC USE	Garfield County
678	EnCana Oil & Gas (USA) Inc.	BUSB1WW	BUSB1WW	DOMESTIC USE	Garfield County
679	EnCana Oil & Gas (USA) Inc.	DANI1WW	DANI1WW	DOMESTIC USE	Garfield County
680	EnCana Oil & Gas (USA) Inc.	FRAN1WW	FRAN1WW	DOMESTIC USE	Garfield County
681	EnCana Oil & Gas (USA) Inc.	HASE1WW	HASE1WW	DOMESTIC USE	Garfield County
682	EnCana Oil & Gas (USA) Inc.	JEWE2WW	JEWE2WW	DOMESTIC USE	Garfield County
683	EnCana Oil & Gas (USA) Inc.	WUSS1WW	WUSS1WW	DOMESTIC USE	Garfield County
684	EnCana Oil & Gas (USA) Inc.	LATR1WW	LATR1WW	DOMESTIC USE	Garfield County
685	EnCana Oil & Gas (USA) Inc.	MAY1WW	MAY1WW	DOMESTIC USE	Garfield County
686	EnCana Oil & Gas (USA) Inc.	MCKE1WW	MCKE1WW	DOMESTIC USE	Garfield County
687	EnCana Oil & Gas (USA) Inc.	PETR1WW	PETR1WW	DOMESTIC USE	Garfield County
688	EnCana Oil & Gas (USA) Inc.	WEIN1WW	WEIN1WW	DOMESTIC USE	Garfield County
689	EnCana Oil & Gas (USA) Inc.	RENN1WW	RENN1WW	DOMESTIC USE	Garfield County
690	EnCana Oil & Gas (USA) Inc.	STEW1WW	STEW1WW	DOMESTIC USE	Garfield County
691	U.S. Geological Survey	393746107574801	SC00509508ACC1	OBSERVATION	Garfield County

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Agency name	Site identifier	Site name	Well use	County
692	U.S. Geological Survey	392421107565200	R-EX (RULISON EXPLORATORY HOLE)	OBSERVATION	Garfield County
693	Colorado Oil and Gas Conservation Commission	703190	COGCC Facility ID:703190	DOMESTIC USE	Garfield County
694	Colorado Oil and Gas Conservation Commission	703201	COGCC Facility ID:703201	DOMESTIC USE	Garfield County
695	Colorado Oil and Gas Conservation Commission	703224	COGCC Facility ID:703224	DOMESTIC USE	Garfield County
696	Colorado Oil and Gas Conservation Commission	703225	COGCC Facility ID:703225	DOMESTIC USE	Garfield County
699	Colorado Oil and Gas Conservation Commission	703528	COGCC Facility ID:703528	PUBLIC SUPPLY	Garfield County
704	U.S. Geological Survey	392854107560000	SC00609431BDC1	COMMERCIAL USE	Garfield County
706	Colorado Oil and Gas Conservation Commission	703042	COGCC Facility ID:703042	DOMESTIC USE	Garfield County
707	Colorado Oil and Gas Conservation Commission	703044	COGCC Facility ID:703044	DOMESTIC USE	Garfield County
708	Colorado Oil and Gas Conservation Commission	703052	COGCC Facility ID:703052	DOMESTIC USE	Garfield County
709	Colorado Oil and Gas Conservation Commission	703054	COGCC Facility ID:703054	DOMESTIC USE	Garfield County
710	Colorado Oil and Gas Conservation Commission	703057	COGCC Facility ID:703057	DOMESTIC USE	Garfield County
711	Colorado Oil and Gas Conservation Commission	703063	COGCC Facility ID:703063	DOMESTIC USE	Garfield County
712	Colorado Oil and Gas Conservation Commission	703074	COGCC Facility ID:703074	DOMESTIC USE	Garfield County
714	Colorado Oil and Gas Conservation Commission	703075	COGCC Facility ID:703075	DOMESTIC USE	Garfield County
715	Colorado Oil and Gas Conservation Commission	703127	COGCC Facility ID:703127	DOMESTIC USE	Garfield County
716	Colorado Oil and Gas Conservation Commission	703135	COGCC Facility ID:703135	DOMESTIC USE	Garfield County
717	Colorado Oil and Gas Conservation Commission	703136	COGCC Facility ID:703136	DOMESTIC USE	Garfield County
718	Colorado Oil and Gas Conservation Commission	703138	COGCC Facility ID:703138	DOMESTIC USE	Garfield County
719	Colorado Oil and Gas Conservation Commission	703034	COGCC Facility ID:703034	DOMESTIC USE	Garfield County
720	Colorado Oil and Gas Conservation Commission	703035	COGCC Facility ID:703035	DOMESTIC USE	Garfield County
721	Colorado Oil and Gas Conservation Commission	704305	COGCC Facility ID:704305	OBSERVATION	Garfield County
722	Colorado Oil and Gas Conservation Commission	704307	COGCC Facility ID:704307	OBSERVATION	Garfield County
723	Colorado Oil and Gas Conservation Commission	704308	COGCC Facility ID:704308	OBSERVATION	Garfield County
724	Colorado Oil and Gas Conservation Commission	704309	COGCC Facility ID:704309	OBSERVATION	Garfield County
725	Colorado Oil and Gas Conservation Commission	704312	COGCC Facility ID:704312	OBSERVATION	Garfield County
726	Colorado Oil and Gas Conservation Commission	704364	COGCC Facility ID:704364	AGRICULTURAL USE	Garfield County
727	Colorado Oil and Gas Conservation Commission	703041	COGCC Facility ID:703041	DOMESTIC USE	Garfield County
728	Colorado Oil and Gas Conservation Commission	703043	COGCC Facility ID:703043	DOMESTIC USE	Garfield County
729	Colorado Oil and Gas Conservation Commission	703045	COGCC Facility ID:703045	DOMESTIC USE	Garfield County
730	Colorado Oil and Gas Conservation Commission	703046	COGCC Facility ID:703046	DOMESTIC USE	Garfield County
731	Colorado Oil and Gas Conservation Commission	703049	COGCC Facility ID:703049	DOMESTIC USE	Garfield County
732	Colorado Oil and Gas Conservation Commission	703050	COGCC Facility ID:703050	DOMESTIC USE	Garfield County
733	Colorado Oil and Gas Conservation Commission	703051	COGCC Facility ID:703051	DOMESTIC USE	Garfield County
734	Colorado Oil and Gas Conservation Commission	703053	COGCC Facility ID:703053	DOMESTIC USE	Garfield County
735	Colorado Oil and Gas Conservation Commission	703055	COGCC Facility ID:703055	DOMESTIC USE	Garfield County
736	Colorado Oil and Gas Conservation Commission	703056	COGCC Facility ID:703056	DOMESTIC USE	Garfield County
737	Colorado Oil and Gas Conservation Commission	703058	COGCC Facility ID:703058	DOMESTIC USE	Garfield County
738	Colorado Oil and Gas Conservation Commission	703059	COGCC Facility ID:703059	DOMESTIC USE	Garfield County
739	Colorado Oil and Gas Conservation Commission	703060	COGCC Facility ID:703060	DOMESTIC USE	Garfield County
740	Colorado Oil and Gas Conservation Commission	703061	COGCC Facility ID:703061	DOMESTIC USE	Garfield County
741	Colorado Oil and Gas Conservation Commission	703062	COGCC Facility ID:703062	DOMESTIC USE	Garfield County
742	Colorado Oil and Gas Conservation Commission	703064	COGCC Facility ID:703064	DOMESTIC USE	Garfield County
743	Colorado Oil and Gas Conservation Commission	703098	COGCC Facility ID:703098	DOMESTIC USE	Garfield County
744	Colorado Oil and Gas Conservation Commission	703099	COGCC Facility ID:703099	DOMESTIC USE	Garfield County
745	Colorado Oil and Gas Conservation Commission	703100	COGCC Facility ID:703100	DOMESTIC USE	Garfield County
746	Colorado Oil and Gas Conservation Commission	703114	COGCC Facility ID:703114	DOMESTIC USE	Garfield County
747	Colorado Oil and Gas Conservation Commission	703115	COGCC Facility ID:703115	DOMESTIC USE	Garfield County
748	Colorado Oil and Gas Conservation Commission	703116	COGCC Facility ID:703116	DOMESTIC USE	Garfield County
749	Colorado Oil and Gas Conservation Commission	703117	COGCC Facility ID:703117	DOMESTIC USE	Garfield County
750	Colorado Oil and Gas Conservation Commission	703118	COGCC Facility ID:703118	DOMESTIC USE	Garfield County
751	Colorado Oil and Gas Conservation Commission	703119	COGCC Facility ID:703119	DOMESTIC USE	Garfield County
752	Colorado Oil and Gas Conservation Commission	703122	COGCC Facility ID:703122	DOMESTIC USE	Garfield County
753	Colorado Oil and Gas Conservation Commission	703125	COGCC Facility ID:703125	DOMESTIC USE	Garfield County
754	Colorado Oil and Gas Conservation Commission	703126	COGCC Facility ID:703126	DOMESTIC USE	Garfield County
755	Colorado Oil and Gas Conservation Commission	703128	COGCC Facility ID:703128	DOMESTIC USE	Garfield County
756	Colorado Oil and Gas Conservation Commission	703129	COGCC Facility ID:703129	PUBLIC SUPPLY	Garfield County
757	Colorado Oil and Gas Conservation Commission	703130	COGCC Facility ID:703130	DOMESTIC USE	Garfield County
758	Colorado Oil and Gas Conservation Commission	703137	COGCC Facility ID:703137	DOMESTIC USE	Garfield County
759	Colorado Oil and Gas Conservation Commission	703139	COGCC Facility ID:703139	DOMESTIC USE	Garfield County
760	Colorado Oil and Gas Conservation Commission	703161	COGCC Facility ID:703161	DOMESTIC USE	Garfield County
761	Colorado Oil and Gas Conservation Commission	703162	COGCC Facility ID:703162	DOMESTIC USE	Garfield County
762	Colorado Oil and Gas Conservation Commission	703163	COGCC Facility ID:703163	DOMESTIC USE	Garfield County
763	Colorado Oil and Gas Conservation Commission	703165	COGCC Facility ID:703165	DOMESTIC USE	Garfield County
764	Colorado Oil and Gas Conservation Commission	703166	COGCC Facility ID:703166	DOMESTIC USE	Garfield County
765	Colorado Oil and Gas Conservation Commission	703193	COGCC Facility ID:703193	DOMESTIC USE	Garfield County

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Agency name	Site identifier	Site name	Well use	County
766	Colorado Oil and Gas Conservation Commission	704660	COGCC Facility ID:704660	DOMESTIC USE	Garfield County
767	Colorado Oil and Gas Conservation Commission	704664	COGCC Facility ID:704664	DOMESTIC USE	Garfield County
768	Colorado Oil and Gas Conservation Commission	704671	COGCC Facility ID:704671	DOMESTIC USE	Garfield County
769	Colorado Oil and Gas Conservation Commission	704672	COGCC Facility ID:704672	DOMESTIC USE	Garfield County
770	Colorado Oil and Gas Conservation Commission	704674	COGCC Facility ID:704674	DOMESTIC USE	Garfield County
771	Colorado Oil and Gas Conservation Commission	704676	COGCC Facility ID:704676	DOMESTIC USE	Garfield County
772	Colorado Oil and Gas Conservation Commission	704677	COGCC Facility ID:704677	DOMESTIC USE	Garfield County
773	Colorado Oil and Gas Conservation Commission	704678	COGCC Facility ID:704678	DOMESTIC USE	Garfield County
774	Colorado Oil and Gas Conservation Commission	704685	COGCC Facility ID:704685	DOMESTIC USE	Garfield County
775	EnCana Oil & Gas (USA) Inc.	beas1WW	BEAS1WW	DOMESTIC USE	Garfield County
776	EnCana Oil & Gas (USA) Inc.	BROD1WW	BROD1WW	DOMESTIC USE	Garfield County
777	EnCana Oil & Gas (USA) Inc.	BURD1WW	BURD1WW	DOMESTIC USE	Garfield County
778	EnCana Oil & Gas (USA) Inc.	FRAN3WW	FRAN3WW	DOMESTIC USE	Garfield County
779	URS Corporation	WMS-110187	WMS-110187	DOMESTIC USE	Garfield County
780	URS Corporation	WMS-110699	WMS-110699	DOMESTIC USE	Garfield County
781	URS Corporation	WMS-131809-A	WMS-131809-A	DOMESTIC USE	Garfield County
782	EnCana Oil & Gas (USA) Inc.	HANS1WW	HANS1WW	DOMESTIC USE	Garfield County
783	URS Corporation	WMS-189716	WMS-189716	DOMESTIC USE	Garfield County
784	URS Corporation	WMS-194692	WMS-194692	DOMESTIC USE	Garfield County
785	URS Corporation	WMS-202849	WMS-202849	AGRICULTURAL USE	Garfield County
786	URS Corporation	WMS-205725	WMS-205725	DOMESTIC USE	Garfield County
787	URS Corporation	WMS-218976	WMS-218976	DOMESTIC USE	Garfield County
788	URS Corporation	WMS-55273	WMS-55273	DOMESTIC USE	Garfield County
789	URS Corporation	WMS-62642	WMS-62642	DOMESTIC USE	Garfield County
790	URS Corporation	WMS-71080	WMS-71080	DOMESTIC USE	Garfield County
791	EnCana Oil & Gas (USA) Inc.	HIRN1WW	HIRN1WW	DOMESTIC USE	Garfield County
792	EnCana Oil & Gas (USA) Inc.	LEBO1WW	LEBO1WW	DOMESTIC USE	Garfield County
793	EnCana Oil & Gas (USA) Inc.	MAHA1WW	MAHA1WW	DOMESTIC USE	Garfield County
794	EnCana Oil & Gas (USA) Inc.	Rill1WW	RILL1WW	DOMESTIC USE	Garfield County
795	EnCana Oil & Gas (USA) Inc.	sacc1WW	SACC1WW	DOMESTIC USE	Garfield County
796	EnCana Oil & Gas (USA) Inc.	SAPP1WW	SAPP1WW	DOMESTIC USE	Garfield County
797	EnCana Oil & Gas (USA) Inc.	SAVA2WW	SAVA2WW	DOMESTIC USE	Garfield County
798	EnCana Oil & Gas (USA) Inc.	SCHA1WW	SCHA1WW	DOMESTIC USE	Garfield County
799	EnCana Oil & Gas (USA) Inc.	SHOR1WW	SHOR1WW	DOMESTIC USE	Garfield County
800	Colorado Department of Agriculture	WS-047	WS-047CDOA	DOMESTIC USE	Garfield County
801	U.S. Geological Survey	393135107442301	SC00609314ACD1	OBSERVATION	Garfield County
802	Colorado Oil and Gas Conservation Commission	703261	COGCC Facility ID:703261	DOMESTIC USE	Garfield County
803	Colorado Oil and Gas Conservation Commission	703263	COGCC Facility ID:703263	DOMESTIC USE	Garfield County
804	U.S. Geological Survey	393009107375401	SC0060925BDAA GRFLDS7	DOMESTIC USE	Garfield County
805	U.S. Geological Survey	393101107391001	SC00609222BACD GRFLDS8	DOMESTIC USE	Garfield County
806	Colorado Oil and Gas Conservation Commission	703083	COGCC Facility ID:703083	DOMESTIC USE	Garfield County
807	U.S. Geological Survey	393101107393201	SC00609222BBDD GRFLDS9	DOMESTIC USE	Garfield County
811	U.S. Geological Survey	393310107422101	SC00609206DBAC GRFLN4	DOMESTIC USE	Garfield County
812	U.S. Geological Survey	393311107402201	SC00609204CADD GRFLN9	DOMESTIC USE	Garfield County
813	U.S. Geological Survey	393318107373601	SC00609202DABA GRFLN3	DOMESTIC USE	Garfield County
814	U.S. Geological Survey	393337107394601	SC00609203BCBB GRFLN8	DOMESTIC USE	Garfield County
815	Colorado Oil and Gas Conservation Commission	703110	COGCC Facility ID:703110	DOMESTIC USE	Garfield County
816	U.S. Geological Survey	393407107430901	SC00509233DBCB GRFLN5	DOMESTIC USE	Garfield County
817	U.S. Geological Survey	393415107415201	SC00509234DBAC GRFLN10	DOMESTIC USE	Garfield County
818	Colorado Oil and Gas Conservation Commission	703111	COGCC Facility ID:703111	DOMESTIC USE	Garfield County
819	U.S. Geological Survey	393429107412400	SC0050923BBD00-BARRIE	DOMESTIC USE	Garfield County
820	U.S. Geological Survey	393456107404501	SC0060920DACB GRFLN6	DOMESTIC USE	Garfield County
821	Colorado Oil and Gas Conservation Commission	703143	COGCC Facility ID:703143	DOMESTIC USE	Garfield County
822	Colorado Oil and Gas Conservation Commission	704415	COGCC Facility ID:704415	DOMESTIC USE	Garfield County
823	Colorado Oil and Gas Conservation Commission	704416	COGCC Facility ID:704416	DOMESTIC USE	Garfield County
824	Colorado Oil and Gas Conservation Commission	704417	COGCC Facility ID:704417	DOMESTIC USE	Garfield County
825	Colorado Oil and Gas Conservation Commission	704418	COGCC Facility ID:704418	DOMESTIC USE	Garfield County
826	Colorado Oil and Gas Conservation Commission	704423	COGCC Facility ID:704423	DOMESTIC USE	Garfield County
827	Colorado Oil and Gas Conservation Commission	704424	COGCC Facility ID:704424	DOMESTIC USE	Garfield County
828	Colorado Oil and Gas Conservation Commission	703029	COGCC Facility ID:703029	DOMESTIC USE	Garfield County
829	Colorado Oil and Gas Conservation Commission	703030	COGCC Facility ID:703030	DOMESTIC USE	Garfield County
830	Colorado Oil and Gas Conservation Commission	703031	COGCC Facility ID:703031	DOMESTIC USE	Garfield County
831	Colorado Oil and Gas Conservation Commission	704265	COGCC Facility ID:704265	DOMESTIC USE	Garfield County
832	Colorado Oil and Gas Conservation Commission	704431	COGCC Facility ID:704431	DOMESTIC USE	Garfield County
833	Colorado Oil and Gas Conservation Commission	704432	COGCC Facility ID:704432	DOMESTIC USE	Garfield County
834	Colorado Oil and Gas Conservation Commission	703079	COGCC Facility ID:703079	DOMESTIC USE	Garfield County

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Agency name	Site identifier	Site name	Well use	County
835	Colorado Oil and Gas Conservation Commission	703080	COGCC Facility ID:703080	DOMESTIC USE	Garfield County
836	Colorado Oil and Gas Conservation Commission	703081	COGCC Facility ID:703081	DOMESTIC USE	Garfield County
837	Colorado Oil and Gas Conservation Commission	703101	COGCC Facility ID:703101	DOMESTIC USE	Garfield County
838	Colorado Oil and Gas Conservation Commission	703102	COGCC Facility ID:703102	DOMESTIC USE	Garfield County
838	Colorado Oil and Gas Conservation Commission	703102	COGCC Facility ID:703102	DOMESTIC USE	Garfield County
839	Colorado Oil and Gas Conservation Commission	703103	COGCC Facility ID:703103	DOMESTIC USE	Garfield County
840	Colorado Oil and Gas Conservation Commission	703107	COGCC Facility ID:703107	DOMESTIC USE	Garfield County
840	Colorado Oil and Gas Conservation Commission	703107	COGCC Facility ID:703107	DOMESTIC USE	Garfield County
841	Colorado Oil and Gas Conservation Commission	703108	COGCC Facility ID:703108	DOMESTIC USE	Garfield County
842	Colorado Oil and Gas Conservation Commission	703109	COGCC Facility ID:703109	DOMESTIC USE	Garfield County
842	Colorado Oil and Gas Conservation Commission	703109	COGCC Facility ID:703109	DOMESTIC USE	Garfield County
843	Colorado Oil and Gas Conservation Commission	703185	COGCC Facility ID:703185	DOMESTIC USE	Garfield County
844	Colorado Oil and Gas Conservation Commission	703186	COGCC Facility ID:703186	DOMESTIC USE	Garfield County
845	Colorado Oil and Gas Conservation Commission	703236	COGCC Facility ID:703236	DOMESTIC USE	Garfield County
846	Colorado Oil and Gas Conservation Commission	704460	COGCC Facility ID:704460	DOMESTIC USE	Garfield County
847	Colorado Oil and Gas Conservation Commission	704475	COGCC Facility ID:704475	DOMESTIC USE	Garfield County
848	Colorado Oil and Gas Conservation Commission	704515	COGCC Facility ID:704515	DOMESTIC USE	Garfield County
849	Colorado Oil and Gas Conservation Commission	704534	COGCC Facility ID:704534	DOMESTIC USE	Garfield County
850	Colorado Oil and Gas Conservation Commission	704545	COGCC Facility ID:704545	DOMESTIC USE	Garfield County
851	Colorado Oil and Gas Conservation Commission	704558	COGCC Facility ID:704558	DOMESTIC USE	Garfield County
852	Colorado Oil and Gas Conservation Commission	704695	COGCC Facility ID:704695	DOMESTIC USE	Garfield County
853	Colorado Oil and Gas Conservation Commission	704696	COGCC Facility ID:704696	DOMESTIC USE	Garfield County
854	Colorado Oil and Gas Conservation Commission	704697	COGCC Facility ID:704697	DOMESTIC USE	Garfield County
855	Colorado Oil and Gas Conservation Commission	704709	COGCC Facility ID:704709	DOMESTIC USE	Garfield County
855	Colorado Oil and Gas Conservation Commission	704709	COGCC Facility ID:704709	DOMESTIC USE	Garfield County
856	Colorado Oil and Gas Conservation Commission	704711	COGCC Facility ID:704711	DOMESTIC USE	Garfield County
857	Colorado Oil and Gas Conservation Commission	704713	COGCC Facility ID:704713	DOMESTIC USE	Garfield County
858	Colorado Oil and Gas Conservation Commission	704715	COGCC Facility ID:704715	DOMESTIC USE	Garfield County
859	Colorado Oil and Gas Conservation Commission	704717	COGCC Facility ID:704717	DOMESTIC USE	Garfield County
860	Colorado Oil and Gas Conservation Commission	704720	COGCC Facility ID:704720	DOMESTIC USE	Garfield County
860	Colorado Oil and Gas Conservation Commission	704720	COGCC Facility ID:704720	DOMESTIC USE	Garfield County
861	Colorado Oil and Gas Conservation Commission	704725	COGCC Facility ID:704725	DOMESTIC USE	Garfield County
862	Colorado Oil and Gas Conservation Commission	704732	COGCC Facility ID:704732	DOMESTIC USE	Garfield County
862	Colorado Oil and Gas Conservation Commission	704732	COGCC Facility ID:704732	DOMESTIC USE	Garfield County
863	Colorado Oil and Gas Conservation Commission	704234	COGCC Facility ID:704234	DOMESTIC USE	Garfield County
864	Colorado Oil and Gas Conservation Commission	704748	COGCC Facility ID:704748	DOMESTIC USE	Garfield County
865	Colorado Oil and Gas Conservation Commission	704750	COGCC Facility ID:704750	DOMESTIC USE	Garfield County
866	Colorado Oil and Gas Conservation Commission	704754	COGCC Facility ID:704754	DOMESTIC USE	Garfield County
866	Colorado Oil and Gas Conservation Commission	704754	COGCC Facility ID:704754	DOMESTIC USE	Garfield County
867	Colorado Oil and Gas Conservation Commission	704755	COGCC Facility ID:704755	DOMESTIC USE	Garfield County
868	Colorado Oil and Gas Conservation Commission	704756	COGCC Facility ID:704756	DOMESTIC USE	Garfield County
869	Colorado Oil and Gas Conservation Commission	704763	COGCC Facility ID:704763	DOMESTIC USE	Garfield County
870	Antero Resources	ANT3930451074016	ANT3930451074016	DOMESTIC USE	Garfield County
871	Antero Resources	ANT3931001074241	ANT3931001074241	DOMESTIC USE	Garfield County
872	Antero Resources	ANT3931011073910	ANT3931011073910	DOMESTIC USE	Garfield County
873	Antero Resources	ANT3931021073954	ANT3931021073954	DOMESTIC USE	Garfield County
874	Antero Resources	ANT3931111074058	ANT3931111074058	DOMESTIC USE	Garfield County
875	Antero Resources	ANT3931121074228	ANT3931121074228	DOMESTIC USE	Garfield County
876	Antero Resources	ANT3931151074158	ANT3931151074158	DOMESTIC USE	Garfield County
877	Antero Resources	ANT3931401074214	ANT3931401074214	DOMESTIC USE	Garfield County
878	Antero Resources	ANT3931451074446	ANT3931451074446	DOMESTIC USE	Garfield County
879	Antero Resources	ANT3931501073746	ANT3931501073746	DOMESTIC USE	Garfield County
880	Antero Resources	ANT3931511074137	ANT3931511074137	DOMESTIC USE	Garfield County
881	Antero Resources	ANT3931511074140	ANT3931511074140	DOMESTIC USE	Garfield County
882	Antero Resources	ANT3931511074144	ANT3931511074144	DOMESTIC USE	Garfield County
883	Antero Resources	ANT3931511074206	ANT3931511074206	DOMESTIC USE	Garfield County
884	Antero Resources	ANT3931521074050	ANT3931521074050	DOMESTIC USE	Garfield County
885	Antero Resources	ANT3931531074013	ANT3931531074013	DOMESTIC USE	Garfield County
886	Colorado Oil and Gas Conservation Commission	704556	COGCC Facility ID:704556	DOMESTIC USE	Garfield County
887	Antero Resources	ANT3931531074017	ANT3931531074017	DOMESTIC USE	Garfield County
888	Antero Resources	ANT3931531074127	ANT3931531074127	DOMESTIC USE	Garfield County
889	Antero Resources	ANT3931561074055	ANT3931561074055	DOMESTIC USE	Garfield County
890	Antero Resources	ANT3931581074011	ANT3931581074011	DOMESTIC USE	Garfield County
891	Antero Resources	ANT3931591073750	ANT3931591073750	DOMESTIC USE	Garfield County
892	Antero Resources	ANT3931591074017	ANT3931591074017	DOMESTIC USE	Garfield County
893	Antero Resources	ANT3931601074012	ANT3931601074012	DOMESTIC USE	Garfield County

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Agency name	Site identifier	Site name	Well use	County
894	Antero Resources	ANT3932021074034	ANT3932021074034	DOMESTIC USE	Garfield County
895	Antero Resources	ANT3932031074454	ANT3932031074454	DOMESTIC USE	Garfield County
896	Antero Resources	ANT3932041073917	ANT3932041073917	DOMESTIC USE	Garfield County
897	Colorado Oil and Gas Conservation Commission	704710	COGCC Facility ID:704710	DOMESTIC USE	Garfield County
898	Colorado Oil and Gas Conservation Commission	704712	COGCC Facility ID:704712	DOMESTIC USE	Garfield County
898	Colorado Oil and Gas Conservation Commission	704712	COGCC Facility ID:704712	DOMESTIC USE	Garfield County
899	Colorado Oil and Gas Conservation Commission	704714	COGCC Facility ID:704714	DOMESTIC USE	Garfield County
899	Colorado Oil and Gas Conservation Commission	704714	COGCC Facility ID:704714	DOMESTIC USE	Garfield County
900	Antero Resources	ANT3932041073919	ANT3932041073919	DOMESTIC USE	Garfield County
901	Antero Resources	ANT3932041074019	ANT3932041074019	DOMESTIC USE	Garfield County
902	Antero Resources	ANT3932041074035	ANT3932041074035	DOMESTIC USE	Garfield County
903	Antero Resources	ANT3932061073907	ANT3932061073907	DOMESTIC USE	Garfield County
904	Antero Resources	ANT3932061073911	ANT3932061073911	DOMESTIC USE	Garfield County
905	Colorado Oil and Gas Conservation Commission	704716	COGCC Facility ID:704716	DOMESTIC USE	Garfield County
905	Colorado Oil and Gas Conservation Commission	704716	COGCC Facility ID:704716	DOMESTIC USE	Garfield County
906	Colorado Oil and Gas Conservation Commission	704718	COGCC Facility ID:704718	DOMESTIC USE	Garfield County
907	Colorado Oil and Gas Conservation Commission	704719	COGCC Facility ID:704719	DOMESTIC USE	Garfield County
907	Colorado Oil and Gas Conservation Commission	704719	COGCC Facility ID:704719	DOMESTIC USE	Garfield County
908	Colorado Oil and Gas Conservation Commission	704724	COGCC Facility ID:704724	DOMESTIC USE	Garfield County
908	Colorado Oil and Gas Conservation Commission	704724	COGCC Facility ID:704724	DOMESTIC USE	Garfield County
909	Antero Resources	ANT3932061074012	ANT3932061074012	DOMESTIC USE	Garfield County
910	Colorado Oil and Gas Conservation Commission	704726	COGCC Facility ID:704726	DOMESTIC USE	Garfield County
911	Colorado Oil and Gas Conservation Commission	704727	COGCC Facility ID:704727	DOMESTIC USE	Garfield County
912	Colorado Oil and Gas Conservation Commission	704728	COGCC Facility ID:704728	DOMESTIC USE	Garfield County
913	Colorado Oil and Gas Conservation Commission	704729	COGCC Facility ID:704729	DOMESTIC USE	Garfield County
913	Colorado Oil and Gas Conservation Commission	704729	COGCC Facility ID:704729	DOMESTIC USE	Garfield County
915	Colorado Oil and Gas Conservation Commission	704731	COGCC Facility ID:704731	DOMESTIC USE	Garfield County
916	Colorado Oil and Gas Conservation Commission	704733	COGCC Facility ID:704733	DOMESTIC USE	Garfield County
916	Colorado Oil and Gas Conservation Commission	704733	COGCC Facility ID:704733	DOMESTIC USE	Garfield County
917	Antero Resources	ANT3932111073945	ANT3932111073945	DOMESTIC USE	Garfield County
918	Colorado Oil and Gas Conservation Commission	704734	COGCC Facility ID:704734	DOMESTIC USE	Garfield County
918	Colorado Oil and Gas Conservation Commission	704734	COGCC Facility ID:704734	DOMESTIC USE	Garfield County
919	Antero Resources	ANT3932121073847	ANT3932121073847	DOMESTIC USE	Garfield County
920	Antero Resources	ANT3932131073818	ANT3932131073818	DOMESTIC USE	Garfield County
921	Antero Resources	ANT3932131073842	ANT3932131073842	DOMESTIC USE	Garfield County
922	Colorado Oil and Gas Conservation Commission	704745	COGCC Facility ID:704745	DOMESTIC USE	Garfield County
923	Colorado Oil and Gas Conservation Commission	704746	COGCC Facility ID:704746	DOMESTIC USE	Garfield County
924	Colorado Oil and Gas Conservation Commission	704747	COGCC Facility ID:704747	DOMESTIC USE	Garfield County
924	Colorado Oil and Gas Conservation Commission	704747	COGCC Facility ID:704747	DOMESTIC USE	Garfield County
925	Colorado Oil and Gas Conservation Commission	704749	COGCC Facility ID:704749	DOMESTIC USE	Garfield County
925	Colorado Oil and Gas Conservation Commission	704749	COGCC Facility ID:704749	DOMESTIC USE	Garfield County
926	Colorado Oil and Gas Conservation Commission	704751	COGCC Facility ID:704751	DOMESTIC USE	Garfield County
927	Antero Resources	ANT3932131074453	ANT3932131074453	DOMESTIC USE	Garfield County
928	Colorado Oil and Gas Conservation Commission	704752	COGCC Facility ID:704752	DOMESTIC USE	Garfield County
928	Colorado Oil and Gas Conservation Commission	704752	COGCC Facility ID:704752	DOMESTIC USE	Garfield County
930	Antero Resources	ANT3932141074421	ANT3932141074421	DOMESTIC USE	Garfield County
931	Antero Resources	ANT3932171074038	ANT3932171074038	DOMESTIC USE	Garfield County
932	Antero Resources	ANT3932181073847	ANT3932181073847	DOMESTIC USE	Garfield County
933	Colorado Oil and Gas Conservation Commission	704761	COGCC Facility ID:704761	DOMESTIC USE	Garfield County
934	Colorado Oil and Gas Conservation Commission	704762	COGCC Facility ID:704762	DOMESTIC USE	Garfield County
934	Colorado Oil and Gas Conservation Commission	704762	COGCC Facility ID:704762	DOMESTIC USE	Garfield County
935	Antero Resources	ANT3932201074446	ANT3932201074446	DOMESTIC USE	Garfield County
936	Antero Resources	ANT3932221073940	ANT3932221073940	DOMESTIC USE	Garfield County
937	Antero Resources	ANT3932221074413	ANT3932221074413	DOMESTIC USE	Garfield County
938	Antero Resources	ANT3932231073941	ANT3932231073941	DOMESTIC USE	Garfield County
939	Antero Resources	ANT3932251074410	ANT3932251074410	DOMESTIC USE	Garfield County
940	Antero Resources	ANT3932251074431	ANT3932251074431	DOMESTIC USE	Garfield County
941	Antero Resources	ANT3932261074419	ANT3932261074419	DOMESTIC USE	Garfield County
942	Antero Resources	ANT3932291074416	ANT3932291074416	DOMESTIC USE	Garfield County
943	Antero Resources	ANT3932311074422	ANT3932311074422	DOMESTIC USE	Garfield County
944	Antero Resources	ANT3932311074441	ANT3932311074441	DOMESTIC USE	Garfield County
945	Antero Resources	ANT3932341073950	ANT3932341073950	DOMESTIC USE	Garfield County
946	Antero Resources	ANT3932341073954	ANT3932341073954	DOMESTIC USE	Garfield County
947	Antero Resources	ANT3932351074324	ANT3932351074324	DOMESTIC USE	Garfield County
948	Antero Resources	ANT3932371074360	ANT3932371074360	DOMESTIC USE	Garfield County
949	Antero Resources	ANT3932391074433	ANT3932391074433	DOMESTIC USE	Garfield County

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Agency name	Site identifier	Site name	Well use	County
950	Antero Resources	ANT3932401074311	ANT3932401074311	DOMESTIC USE	Garfield County
951	Antero Resources	ANT3932401074351	ANT3932401074351	DOMESTIC USE	Garfield County
952	Antero Resources	ANT3932411074410	ANT3932411074410	DOMESTIC USE	Garfield County
953	Antero Resources	ANT3932421074359	ANT3932421074359	DOMESTIC USE	Garfield County
954	Antero Resources	ANT3932451074320	ANT3932451074320	DOMESTIC USE	Garfield County
955	Antero Resources	ANT3932461074234	ANT3932461074234	DOMESTIC USE	Garfield County
956	Antero Resources	ANT3932471074356	ANT3932471074356	DOMESTIC USE	Garfield County
957	Antero Resources	ANT3932481074110	ANT3932481074110	DOMESTIC USE	Garfield County
958	Antero Resources	ANT3932481074229	ANT3932481074229	DOMESTIC USE	Garfield County
959	Antero Resources	ANT3932481074309	ANT3932481074309	DOMESTIC USE	Garfield County
960	Antero Resources	ANT3932491074226	ANT3932491074226	DOMESTIC USE	Garfield County
961	Antero Resources	ANT3932491074242	ANT3932491074242	DOMESTIC USE	Garfield County
962	Antero Resources	ANT3932511074229	ANT3932511074229	DOMESTIC USE	Garfield County
963	Antero Resources	ANT3932511074253	ANT3932511074253	DOMESTIC USE	Garfield County
964	Antero Resources	ANT3932511074258	ANT3932511074258	DOMESTIC USE	Garfield County
965	Antero Resources	ANT3932531074234	ANT3932531074234	DOMESTIC USE	Garfield County
966	Antero Resources	ANT3932531074237	ANT3932531074237	DOMESTIC USE	Garfield County
967	Antero Resources	ANT3932541074350	ANT3932541074350	DOMESTIC USE	Garfield County
968	Antero Resources	ANT3932551074340	ANT3932551074340	DOMESTIC USE	Garfield County
969	Antero Resources	ANT3932561074156	ANT3932561074156	DOMESTIC USE	Garfield County
970	Antero Resources	ANT3932561074158	ANT3932561074158	DOMESTIC USE	Garfield County
971	Antero Resources	ANT3932581074236	ANT3932581074236	DOMESTIC USE	Garfield County
972	Antero Resources	ANT3932581074408	ANT3932581074408	DOMESTIC USE	Garfield County
973	Antero Resources	ANT3932581074415	ANT3932581074415	DOMESTIC USE	Garfield County
974	Antero Resources	ANT3932591074113	ANT3932591074113	DOMESTIC USE	Garfield County
975	Antero Resources	ANT3932591074203	ANT3932591074203	DOMESTIC USE	Garfield County
976	Antero Resources	ANT3932601074160	ANT3932601074160	DOMESTIC USE	Garfield County
977	Antero Resources	ANT3933001074148	ANT3933001074148	DOMESTIC USE	Garfield County
978	Antero Resources	ANT3933011074118	ANT3933011074118	DOMESTIC USE	Garfield County
979	Antero Resources	ANT3933011074200	ANT3933011074200	DOMESTIC USE	Garfield County
980	Antero Resources	ANT3933011074305	ANT3933011074305	DOMESTIC USE	Garfield County
981	Antero Resources	ANT3933011074355	ANT3933011074355	DOMESTIC USE	Garfield County
982	Antero Resources	ANT3933021074114	ANT3933021074114	DOMESTIC USE	Garfield County
983	Antero Resources	ANT3933021074302	ANT3933021074302	DOMESTIC USE	Garfield County
984	Antero Resources	ANT3933031074112	ANT3933031074112	DOMESTIC USE	Garfield County
985	Antero Resources	ANT3933031074129	ANT3933031074129	DOMESTIC USE	Garfield County
986	Antero Resources	ANT3933031074136	ANT3933031074136	DOMESTIC USE	Garfield County
987	Antero Resources	ANT3933031074236	ANT3933031074236	DOMESTIC USE	Garfield County
988	Antero Resources	ANT3933041074110	ANT3933041074110	DOMESTIC USE	Garfield County
989	Antero Resources	ANT3933041074147	ANT3933041074147	DOMESTIC USE	Garfield County
990	Antero Resources	ANT3933051074203	ANT3933051074203	DOMESTIC USE	Garfield County
991	Antero Resources	ANT3933051074311	ANT3933051074311	DOMESTIC USE	Garfield County
992	Antero Resources	ANT3933051074315	ANT3933051074315	DOMESTIC USE	Garfield County
993	Antero Resources	ANT3933051074333	ANT3933051074333	DOMESTIC USE	Garfield County
994	Antero Resources	ANT3933051074418	ANT3933051074418	DOMESTIC USE	Garfield County
995	Antero Resources	ANT3933061074344	ANT3933061074344	DOMESTIC USE	Garfield County
996	Antero Resources	ANT3933071074210	ANT3933071074210	DOMESTIC USE	Garfield County
997	Antero Resources	ANT3933071074348	ANT3933071074348	DOMESTIC USE	Garfield County
998	Antero Resources	ANT3933081074212	ANT3933081074212	DOMESTIC USE	Garfield County
999	Antero Resources	ANT3933081074341	ANT3933081074341	DOMESTIC USE	Garfield County
1000	Antero Resources	ANT3933081074356	ANT3933081074356	DOMESTIC USE	Garfield County
1001	Antero Resources	ANT3933091074220	ANT3933091074220	DOMESTIC USE	Garfield County
1002	Antero Resources	ANT3933091074232	ANT3933091074232	DOMESTIC USE	Garfield County
1003	Antero Resources	ANT3933101074246	ANT3933101074246	DOMESTIC USE	Garfield County
1004	Antero Resources	ANT3933121074249	ANT3933121074249	DOMESTIC USE	Garfield County
1005	Antero Resources	ANT3933121074353	ANT3933121074353	DOMESTIC USE	Garfield County
1006	Antero Resources	ANT3933151074302	ANT3933151074302	DOMESTIC USE	Garfield County
1007	Antero Resources	ANT3933181074357	ANT3933181074357	DOMESTIC USE	Garfield County
1008	Antero Resources	ANT3933201074320	ANT3933201074320	DOMESTIC USE	Garfield County
1009	Antero Resources	ANT3933211074354	ANT3933211074354	DOMESTIC USE	Garfield County
1010	Antero Resources	ANT3933241074332	ANT3933241074332	DOMESTIC USE	Garfield County
1011	Antero Resources	ANT3933511074360	ANT3933511074360	DOMESTIC USE	Garfield County
1012	Antero Resources	ANT3933521074445	ANT3933521074445	DOMESTIC USE	Garfield County
1013	Antero Resources	ANT3933561074357	ANT3933561074357	DOMESTIC USE	Garfield County

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Agency name	Site identifier	Site name	Well use	County
1014	Antero Resources	ANT3934041074402	ANT3934041074402	DOMESTIC USE	Garfield County
1015	Antero Resources	ANT3934081074407	ANT3934081074407	DOMESTIC USE	Garfield County
1016	Antero Resources	ANT3934091074357	ANT3934091074357	DOMESTIC USE	Garfield County
1017	Antero Resources	ANT3934121074355	ANT3934121074355	DOMESTIC USE	Garfield County
1018	Antero Resources	ANT3934161074358	ANT3934161074358	DOMESTIC USE	Garfield County
1019	Antero Resources	ANT3934161074406	ANT3934161074406	DOMESTIC USE	Garfield County
1020	Antero Resources	ANT3934171074413	ANT3934171074413	DOMESTIC USE	Garfield County
1021	Antero Resources	ANT3934191074406	ANT3934191074406	DOMESTIC USE	Garfield County
1022	Antero Resources	ANT3934221074404	ANT3934221074404	DOMESTIC USE	Garfield County
1023	Antero Resources	ANT3934231074352	ANT3934231074352	DOMESTIC USE	Garfield County
1024	Antero Resources	ANT3934241074401	ANT3934241074401	DOMESTIC USE	Garfield County
1025	Antero Resources	ANT3934261074407	ANT3934261074407	DOMESTIC USE	Garfield County
1026	EnCana Oil & Gas (USA) Inc.	MINE1WW	MINE1WW	AGRICULTURAL USE	Garfield County
1027	EnCana Oil & Gas (USA) Inc.	MINE2WW	MINE2WW	AGRICULTURAL USE	Garfield County
1028	Colorado Department of Agriculture	WS-052	WS-052CDOA	DOMESTIC USE	Garfield County
1029	EnCana Oil & Gas (USA) Inc.	NELS1WW	NELS1WW	DOMESTIC USE	Garfield County
1030	Colorado Oil and Gas Conservation Commission	703025	COGCC Facility ID:703025	DOMESTIC USE	Garfield County
1031	Colorado Oil and Gas Conservation Commission	703026	COGCC Facility ID:703026	DOMESTIC USE	Garfield County
1032	Colorado Oil and Gas Conservation Commission	703027	COGCC Facility ID:703027	DOMESTIC USE	Garfield County
1033	Colorado Oil and Gas Conservation Commission	703105	COGCC Facility ID:703105	DOMESTIC USE	Garfield County
1034	U.S. Geological Survey	393302107242600	SC00609003DC00	OBSERVATION	Garfield County
1038	U.S. Geological Survey	393000108225001	SC00609830CCB	OBSERVATION	Garfield County
1039	U.S. Geological Survey	400340108571101	SB00110316AAD1	DOMESTIC USE	Rio Blanco County
1051	U.S. Geological Survey	400614108522701	SB00210232BCB1	OBSERVATION	Rio Blanco County
1052	U.S. Geological Survey	C00276	C00276	OBSERVATION	Rio Blanco County
1053	U.S. Geological Survey	C00277	C00277	OBSERVATION	Rio Blanco County
1054	U.S. Geological Survey	400228108245400	NONE USGS 400228108245400	OBSERVATION	Rio Blanco County
1055	U.S. Geological Survey	400113108274700	GEN PET 88-26 B1-99-26DDDD	OBSERVATION	Rio Blanco County
1057	U.S. Geological Survey	400223108245400	TH 75-2A (B1-98-20 DBB1)	OBSERVATION	Rio Blanco County
1058	U.S. Geological Survey	400223108245401	TH 75-2B (B1-98-20 DBB2)	OBSERVATION	Rio Blanco County
1059	U.S. Geological Survey	400228108245401	SB00109820DBB	OBSERVATION	Rio Blanco County
1062	U.S. Geological Survey	400725108250400	BARODYANAM 72-1 B2-98-20CDBA	OBSERVATION	Rio Blanco County
1064	U.S. Geological Survey	C00559	C00559	OBSERVATION	Rio Blanco County
1065	U.S. Geological Survey	C00561	C00561	OBSERVATION	Rio Blanco County
1066	U.S. Geological Survey	C00564	C00564	OBSERVATION	Rio Blanco County
1067	U.S. Geological Survey	C00567	C00567	OBSERVATION	Rio Blanco County
1068	U.S. Geological Survey	400216108154000	ALK FLAT	OBSERVATION	Rio Blanco County
1069	U.S. Geological Survey	400325108152700	S SPR B1-97-22DBCD SUPERIOR TS-40 (B1-97-15 ADB)	OBSERVATION	Rio Blanco County
1070	U.S. Geological Survey	400443108195901	SB00109801DDC1	DESTROYED	Rio Blanco County
1071	U.S. Geological Survey	400019108211001	SC00109802AAB	OBSERVATION	Rio Blanco County
1073	U.S. Geological Survey	400103108203000	Y73-3 B1-98-36BACA	OBSERVATION	Rio Blanco County
1080	U.S. Geological Survey	400218108170600	TH 75-1A (B1-97-21 CAD1)	OBSERVATION	Rio Blanco County
1081	U.S. Geological Survey	400218108170601	SB00109721CAD	OBSERVATION	Rio Blanco County
1084	U.S. Geological Survey	400226108152700	SUPERIOR CH-20 B1-97-22ADCD	OBSERVATION	Rio Blanco County
1085	U.S. Geological Survey	400246108200800	Y73-2 B1-98-24ABAD	OBSERVATION	Rio Blanco County
1091	U.S. Geological Survey	400334108150200	P73-2 B1-97-14BBD	OBSERVATION	Rio Blanco County
1094	U.S. Geological Survey	400400108201200	B 1N98W 13DB	OBSERVATION	Rio Blanco County
1095	U.S. Geological Survey	400400108201201	SB00109813DB	OBSERVATION	Rio Blanco County
1096	U.S. Geological Survey	400508108202000	Y73-1 B1-98-01ACCB	OBSERVATION	Rio Blanco County
1099	U.S. Geological Survey	400547108151801	SB00209734DAD1	DOMESTIC USE	Rio Blanco County
1100	U.S. Geological Survey	400655108212900	FLOWING WELL YC B2-98-26ACBC	OBSERVATION	Rio Blanco County
1101	U.S. Geological Survey	395655107423601	SC00109222CCA1	DOMESTIC USE	Rio Blanco County
1107	U.S. Geological Survey	400047108053101	SB00109531ACC1	OBSERVATION	Rio Blanco County
1125	U.S. Geological Survey	400202108020101	SC00109522DCD1	DOMESTIC USE	Rio Blanco County
1130	Colorado Department of Agriculture	WS-026	WS-026CDOA	DOMESTIC USE	Rio Blanco County
1141	U.S. Geological Survey	127002	127002	OBSERVATION	Rio Blanco County
1142	U.S. Geological Survey	394304108100200	TOSCO BUTTE 25 C4-96-09ADC DUP1	OBSERVATION	Rio Blanco County
1144	U.S. Geological Survey	400848107583700	JIM COOK WELL	OBSERVATION	Rio Blanco County

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Agency name	Site identifier	Site name	Well use	County
1146	U.S. Geological Survey	400855107575001	SB00209417BAA1	AGRICULTURAL USE	Rio Blanco County
1147	U.S. Geological Survey	400943107594701	SB00209512ABD1	DOMESTIC USE	Rio Blanco County
1149	U.S. Geological Survey	401035108331701	SB00209906BBC1	AGRICULTURAL USE	Rio Blanco County
1153	U.S. Geological Survey	401106108315501	SB00309932CAB1	AGRICULTURAL USE	Rio Blanco County
1154	U.S. Geological Survey	401119108313201	SB00309932ACA1	AGRICULTURAL USE	Rio Blanco County
1160	U.S. Geological Survey	394444108255400	ARCO-MOBIL 31-1 C3-98-31ACCD	OBSERVATION	Rio Blanco County
1164	U.S. Geological Survey	400548108431801	SB00210134CBD1	DOMESTIC USE	Rio Blanco County
1173	U.S. Geological Survey	126300	126300	OBSERVATION	Rio Blanco County
1174	U.S. Geological Survey	395239108133900	MOBIL 54 13 C2 97 13ACCC	OBSERVATION	Rio Blanco County
1175	U.S. Geological Survey	395322108104800	SC00209609CBB MOBIL WELL	OBSERVATION	Rio Blanco County
1176	Colorado Oil and Gas Conservation Commission	701448	COGCC Facility ID:701448	PUBLIC SUPPLY	Rio Blanco County
1177	Colorado Oil and Gas Conservation Commission	701449	COGCC Facility ID:701449	PUBLIC SUPPLY	Rio Blanco County
1178	U.S. Geological Survey	395349108112900	ELPASO N GAS C2-96-08BADA	OBSERVATION	Rio Blanco County
1182	U.S. Geological Survey	395844108084500	CO DIV WILDLIFE C1-96-10	OBSERVATION	Rio Blanco County
1185	U.S. Geological Survey	395849108144700	DICK BURKE WELL C1-97-11ACDB DUP1	OBSERVATION	Rio Blanco County
1186	U.S. Geological Survey	395852108084400	L HILLS IR WELL C1-96-10DACA	OBSERVATION	Rio Blanco County
1187	U.S. Geological Survey	126120	126120	OBSERVATION	Rio Blanco County
1188	U.S. Geological Survey	394751108145201	SC00309711CDD1 (W-2)	OBSERVATION	Rio Blanco County
1189	U.S. Geological Survey	394801108124300	ARCO AT 1 C3 96 7CAD	OBSERVATION	Rio Blanco County
1190	U.S. Geological Survey	394806108124301	AT-1C-3	OBSERVATION	Rio Blanco County
1191	U.S. Geological Survey	394812108102101	C-B ALLUVIUM WELL A-9	OBSERVATION	Rio Blanco County
1192	U.S. Geological Survey	394826108132301	32Y12	OBSERVATION	Rio Blanco County
1193	U.S. Geological Survey	394826108133001	32X12	OBSERVATION	Rio Blanco County
1194	U.S. Geological Survey	394828108132704	SC00309712ACB1 USGS 394828108132704	OBSERVATION	Rio Blanco County
1195	U.S. Geological Survey	394836108134001	21X12-01	OBSERVATION	Rio Blanco County
1196	U.S. Geological Survey	394659108112402	C-B ALLUVIUM WELL A-12	OBSERVATION	Rio Blanco County
1197	U.S. Geological Survey	394711108115100	TOSCO CB-4 C3-96-17CBDD	OBSERVATION	Rio Blanco County
1198	U.S. Geological Survey	394749108120700	ARCO SG-11(C3-96-7DDD)	OBSERVATION	Rio Blanco County
1199	U.S. Geological Survey	394836108134002	21X12-2	OBSERVATION	Rio Blanco County
1200	U.S. Geological Survey	394843108132701	31X12	OBSERVATION	Rio Blanco County
1201	U.S. Geological Survey	394851108112800	TOSCO CB-3 C3-96-05DCBC	OBSERVATION	Rio Blanco County
1202	U.S. Geological Survey	394852108135800	TOSCO CB-1 C3-97-01CCAB	OBSERVATION	Rio Blanco County
1203	U.S. Geological Survey	394853108143600	ARCO SG-1A (C3-97-2DBD)	OBSERVATION	Rio Blanco County
1204	U.S. Geological Survey	394857108122100	TOSCO CB-2 C3-96-06DBDD	OBSERVATION	Rio Blanco County
1205	U.S. Geological Survey	394859108135100	OCCY33X-1(C3-97-1)CADA	OBSERVATION	Rio Blanco County
1206	U.S. Geological Survey	394900108142101	WELL 43X2-1	OBSERVATION	Rio Blanco County
1207	U.S. Geological Survey	394900108142102	43X2-2	OBSERVATION	Rio Blanco County
1208	U.S. Geological Survey	394903108135002	22X1-2	OBSERVATION	Rio Blanco County
1209	U.S. Geological Survey	394903108135003	22X1-3	OBSERVATION	Rio Blanco County
1210	U.S. Geological Survey	395012108143702	C-B ALLUVIUM WELL A-2	OBSERVATION	Rio Blanco County
1211	U.S. Geological Survey	395034108135700	C-B ALLUVIUM WELL A-1	OBSERVATION	Rio Blanco County
1213	U.S. Geological Survey	394824108133500	OCCY 32X-12(C3-97-12ACBB)	OBSERVATION	Rio Blanco County
1230	U.S. Geological Survey	395010108132901	SC00209736ACA1	OBSERVATION	Rio Blanco County
1237	U.S. Geological Survey	395029108140400	P73-5 C2-97-25CCDA	OBSERVATION	Rio Blanco County
1239	U.S. Geological Survey	395155108123100	TH 75-10A (C2-96-19 ACBA1)	OBSERVATION	Rio Blanco County
1244	Colorado Department of Agriculture	WS-021	WS-021CDOA	DOMESTIC USE	Rio Blanco County
1250	U.S. Geological Survey	400131107561400	SCHULTZ NO. 1	OBSERVATION	Rio Blanco County
1251	U.S. Geological Survey	400137107574701	SB00109429BDD1	DOMESTIC USE	Rio Blanco County
1252	U.S. Geological Survey	400140107570001	SB00109428ADD1	DOMESTIC USE	Rio Blanco County
1253	U.S. Geological Survey	400447107550700	SULPHUR C CO WELL L	OBSERVATION	Rio Blanco County
1254	U.S. Geological Survey	400643107551901	SB00209427DBB1	AGRICULTURAL USE	Rio Blanco County
1256	U.S. Geological Survey	400009107525801	SC00109306BBC1	DOMESTIC USE	Rio Blanco County
1260	U.S. Geological Survey	400036107580301	SB00109432CBA1	AGRICULTURAL USE	Rio Blanco County
1265	U.S. Geological Survey	400044107530601	SB00109436DBB1	DOMESTIC USE	Rio Blanco County
1267	U.S. Geological Survey	400053107583901	SB00109431ACA1	AGRICULTURAL USE	Rio Blanco County
1272	U.S. Geological Survey	400108107581901	SB00109431AAA1	DOMESTIC USE	Rio Blanco County
1273	U.S. Geological Survey	400109107562101	SB00109433ABA1	OBSERVATION	Rio Blanco County
1277	U.S. Geological Survey	400115107572101	SB00109429AAC1	PUBLIC SUPPLY	Rio Blanco County

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Agency name	Site identifier	Site name	Well use	County
1282	U.S. Geological Survey	400119107525601	SB00109425DCA1	DOMESTIC USE	Rio Blanco County
1297	U.S. Geological Survey	400146107552201	SB00109427ACB1	DOMESTIC USE	Rio Blanco County
1302	U.S. Geological Survey	400206107580401	SB00109419DDC1	DOMESTIC USE	Rio Blanco County
1305	U.S. Geological Survey	400221107552201	SB00109420BAC1	DOMESTIC USE	Rio Blanco County
1306	U.S. Geological Survey	400308107583601	SB00109418DBA1	DOMESTIC USE	Rio Blanco County
1307	U.S. Geological Survey	400312107584201	SB00109418DBD1	DOMESTIC USE	Rio Blanco County
1317	Colorado Department of Agriculture	WS-025	WS-025CDOA	DOMESTIC USE	Rio Blanco County
1318	Colorado Department of Agriculture	WS-022	WS-022CDOA	DOMESTIC USE	Rio Blanco County
1321	U.S. Geological Survey	394800108051100	BEDROCK WELL 17X8-G	OBSERVATION	Rio Blanco County
1327	U.S. Geological Survey	400557108460801	SB00210131DBA1	OBSERVATION	Rio Blanco County
1328	U.S. Geological Survey	400245108462600	S(B- 1-101)19BAD- 1	OBSERVATION	Rio Blanco County
1329	U.S. Geological Survey	400245108462601	SB00110119BAD1	DOMESTIC USE	Rio Blanco County
1330	U.S. Geological Survey	400330108462001	SB00110118BDA1	OBSERVATION	Rio Blanco County
1333	U.S. Geological Survey	400509108475201	SB00110201BCC3	OBSERVATION	Rio Blanco County
1369	U.S. Geological Survey	400545108461901	SB00210131CDA1	DOMESTIC USE	Rio Blanco County
1371	U.S. Geological Survey	400547108483301	SB00210235DBC1 USGS 400547108483301	DOMESTIC USE	Rio Blanco County
1381	U.S. Geological Survey	400557108462801	SB00210131CAA1	DOMESTIC USE	Rio Blanco County
1382	U.S. Geological Survey	400600108445701	SB00210132ACD1	AGRICULTURAL USE	Rio Blanco County
1383	U.S. Geological Survey	400601108463601	SB00210131BDC1	DOMESTIC USE	Rio Blanco County
1387	U.S. Geological Survey	400108107490801	SB00109334BBB1	DOMESTIC USE	Rio Blanco County
1388	U.S. Geological Survey	400152107483601	SB00109327ABC2	DOMESTIC USE	Rio Blanco County
1389	U.S. Geological Survey	400202107512200	SB00109329BB	OBSERVATION	Rio Blanco County
1390	U.S. Geological Survey	400206107502200	SB00109320DD	OBSERVATION	Rio Blanco County
1391	U.S. Geological Survey	400209107502600	UNNAMED DUP26	OBSERVATION	Rio Blanco County
1392	U.S. Geological Survey	400224107505900	SB00109320CA	OBSERVATION	Rio Blanco County
1393	U.S. Geological Survey	400318107511800	SB00109317BC	OBSERVATION	Rio Blanco County
1395	U.S. Geological Survey	400011107490701	SB00109303BAD1	DOMESTIC USE	Rio Blanco County
1403	U.S. Geological Survey	400045107484101	SB00109334CAA2	AGRICULTURAL USE	Rio Blanco County
1409	U.S. Geological Survey	400152107483501	SB00109327ABC1	OBSERVATION	Rio Blanco County
1410	U.S. Geological Survey	400158107485501	SB00109327BAB1	DOMESTIC USE	Rio Blanco County
1411	U.S. Geological Survey	400202107564501	SB00109330AAB1	PUBLIC SUPPLY	Rio Blanco County
1415	U.S. Geological Survey	400209107521601	SB00109319CDB1	DOMESTIC USE	Rio Blanco County
1416	U.S. Geological Survey	400400107485901	SC00109310CCA1	DOMESTIC USE	Rio Blanco County
1418	U.S. Geological Survey	400723107504901	SB00209320DCB1	OBSERVATION	Rio Blanco County
1419	Colorado Department of Agriculture	WS-023	WS-023CDOA	DOMESTIC USE	Rio Blanco County
1420	Colorado Department of Agriculture	WS-024	WS-024CDOA	DOMESTIC USE	Rio Blanco County
1421	U.S. Geological Survey	394142108311201	SC00409917DDC1 (B-6B)	OBSERVATION	Rio Blanco County
1422	U.S. Geological Survey	394959108195500	CER RB-D-02 C3-98-11CDCD	OBSERVATION	Rio Blanco County
1423	U.S. Geological Survey	394540108191201	TH 75-15A (C3-97-30 ACC1)	OBSERVATION	Rio Blanco County
1426	U.S. Geological Survey	394545108154700	CARTER-HUMBLE WILLOW CREEK #2 C3-97-27ACA	OBSERVATION	Rio Blanco County
1433	U.S. Geological Survey	394926108163900	SHELL GREENO 4-4C3-97-04AAAC	OBSERVATION	Rio Blanco County
1438	U.S. Geological Survey	395028108192700	CER RB-W-2 C2-97-30DCCB	OBSERVATION	Rio Blanco County
1443	U.S. Geological Survey	395105108185400	CER RB-W-3 C2-97-30AADD	OBSERVATION	Rio Blanco County
1445	U.S. Geological Survey	395118108220100	CER RB-W-7 C2-98-23CCDD	OBSERVATION	Rio Blanco County
1448	U.S. Geological Survey	395130108184000	CER RB-W-9W C2-97-20CCAB	OBSERVATION	Rio Blanco County
1450	U.S. Geological Survey	395131108183800	CER RB-W-9E C2-97-20CBDD	OBSERVATION	Rio Blanco County
1452	U.S. Geological Survey	395136108183000	CER RB-W-4 C2-97-20CACA	OBSERVATION	Rio Blanco County
1454	U.S. Geological Survey	395136108210000	TH 75-13A (C2-98-24 CBB2)	OBSERVATION	Rio Blanco County
1461	U.S. Geological Survey	401040108234301	SB00209804ABB1	DOMESTIC USE	Rio Blanco County
1463	U.S. Geological Survey	401148108283801	SB00309926CCA2	DOMESTIC USE	Rio Blanco County
1464	U.S. Geological Survey	401148108284001	SB00309926CCA1	AGRICULTURAL USE	Rio Blanco County
1465	U.S. Geological Survey	C00030	C00030	OBSERVATION	Rio Blanco County
1466	U.S. Geological Survey	395328108304300	GULF STANDARD D16 C2 99 9CABA	OBSERVATION	Rio Blanco County
1467	U.S. Geological Survey	395328108304301	GULF STANDARD C 12 C2 99 9CABA	OBSERVATION	Rio Blanco County
1468	U.S. Geological Survey	395425108300000	CAMERON 705 C2-99-04ADDA	OBSERVATION	Rio Blanco County
1469	U.S. Geological Survey	395449108300401	CA LYSIMETER-5 FT DEPTH	OBSERVATION	Rio Blanco County
1475	U.S. Geological Survey	395452108301401	CA RETORT WELL RAM-6A	OBSERVATION	Rio Blanco County
1476	U.S. Geological Survey	395452108301502	CA RETORT WELL, RAM-5A	OBSERVATION	Rio Blanco County
1477	U.S. Geological Survey	395530108312700	RIO BLANCO CORP D-17 (C1-99-32ABC)	OBSERVATION	Rio Blanco County

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Agency name	Site identifier	Site name	Well use	County
1478	U.S. Geological Survey	395303108300300	AMOCO CH-2A C2-99-09DDDD	OBSERVATION	Rio Blanco County
1480	U.S. Geological Survey	395338108311900	AMOCO CH-3 C2-99-08ADBC	OBSERVATION	Rio Blanco County
1482	U.S. Geological Survey	395423108315500	CAMERON 703 C2-99-05	OBSERVATION	Rio Blanco County
1484	U.S. Geological Survey	395425108300001	SC00209904ADD1	OBSERVATION	Rio Blanco County
1486	U.S. Geological Survey	395452108301501	D-5, CA DEWATERING WELL C1-99-33DCD	OBSERVATION	Rio Blanco County
1487	U.S. Geological Survey	395453108301601	CA DEWATERING WELL D-4 C1-99-33DCD	OBSERVATION	Rio Blanco County
1488	U.S. Geological Survey	395454108301702	TRACT CA DEWATERING WELL D2 (C1--99-33 DCAD)	OBSERVATION	Rio Blanco County
1492	U.S. Geological Survey	395749108303800	CAMERON 704 C1-99-16	OBSERVATION	Rio Blanco County
1497	U.S. Geological Survey	400153107433101	SB00109228BBC1	DOMESTIC USE	Rio Blanco County
1498	U.S. Geological Survey	400427107424901	SB00109209BAD1	DOMESTIC USE	Rio Blanco County
1499	U.S. Geological Survey	395310108050400	TH 75-9A (C2-95-8 CCA1)	OBSERVATION	Rio Blanco County
1502	U.S. Geological Survey	395549108060900	TH 75-4A (C1-95-31 BBAB)	OBSERVATION	Rio Blanco County
1506	U.S. Geological Survey	C00037	C00037	OBSERVATION	Rio Blanco County
1507	U.S. Geological Survey	395904108164600	SHELL 41X-9 C1-97-09AADD	OBSERVATION	Rio Blanco County
1508	U.S. Geological Survey	395420108214400	SHELL 23X-2 C2-98-02CABA	OBSERVATION	Rio Blanco County
1509	U.S. Geological Survey	395447108192100	USBM 0W-01 C1-97-31DCC	OBSERVATION	Rio Blanco County
1510	U.S. Geological Survey	395600108184600	USBM ON-01A C1-97-29BAD	OBSERVATION	Rio Blanco County
1512	U.S. Geological Survey	395637108211900	SB00109823DDC MMC-IRI 8	OBSERVATION	Rio Blanco County
1513	U.S. Geological Survey	395637108211901	MULTI MIN WELL MMCIRI8	OBSERVATION	Rio Blanco County
1514	U.S. Geological Survey	395640108174601	AMERICAN SODA MINE WELL 21-4DX	OBSERVATION	Rio Blanco County
1515	U.S. Geological Survey	395640108182901	AMERICAN SODA MINE WELL 20-4B	OBSERVATION	Rio Blanco County
1516	U.S. Geological Survey	395648108172901	AMERICAN SODA MINE WELL 21-3U	OBSERVATION	Rio Blanco County
1517	U.S. Geological Survey	395648108172902	AMERICAN SODA MINE WELL 21-3B	OBSERVATION	Rio Blanco County
1518	U.S. Geological Survey	395255108154200	TH 75-18A (C2-97-15 AAC1)	OBSERVATION	Rio Blanco County
1519	U.S. Geological Survey	395255108154201	SC00209715AAC	OBSERVATION	Rio Blanco County
1523	U.S. Geological Survey	395327108173500	HUMBLE QAL WELL C2-97-09CBAB	OBSERVATION	Rio Blanco County
1526	U.S. Geological Survey	395424108174200	CER RB-W-8 C2-97-04BCCC	OBSERVATION	Rio Blanco County
1530	U.S. Geological Survey	395445108173900	MARATHON #1 C2-97-04BBBA	OBSERVATION	Rio Blanco County
1532	U.S. Geological Survey	395445108174300	MARATHON 1-A C2-97-04BBBB DUP1	OBSERVATION	Rio Blanco County
1535	U.S. Geological Survey	395617108173701	AMERICAN SODA MINE WELL 28-1	OBSERVATION	Rio Blanco County
1536	U.S. Geological Survey	395630108170600	P73-4 C1-97-28ABBD	OBSERVATION	Rio Blanco County
1538	U.S. Geological Survey	395633108175501	AMERICAN SODA MINE WELL 29-3	OBSERVATION	Rio Blanco County
1539	U.S. Geological Survey	395648108172903	AMERICAN SODA MINE WELL 21-3D	OBSERVATION	Rio Blanco County
1539	U.S. Geological Survey	395648108172903	AMERICAN SODA MINE WELL 21-3D	OBSERVATION	Rio Blanco County
1540	U.S. Geological Survey	395649108185101	AMERICAN SODA MINE WELL 20-10	OBSERVATION	Rio Blanco County
1541	U.S. Geological Survey	395712108190201	AMERICAN SODA MINE WELL 19-2	OBSERVATION	Rio Blanco County
1542	U.S. Geological Survey	395715108170301	AMERICAN SODA MINE WELL 21-5	OBSERVATION	Rio Blanco County
1546	U.S. Geological Survey	395755108211401	TH 75-6B (C1-98-14 ADC2)	OBSERVATION	Rio Blanco County
1547	U.S. Geological Survey	395755108211402	SC00109814ADC2	OBSERVATION	Rio Blanco County
1549	U.S. Geological Survey	395841108151000	DEAN BURKE WELL C1-97-11CABC	OBSERVATION	Rio Blanco County
1552	U.S. Geological Survey	395935108211600	Y73-4 C1-98-02DBAA	OBSERVATION	Rio Blanco County
1555	Colorado Oil and Gas Conservation Commission	703243	COGCC Facility ID:703243	PUBLIC SUPPLY	Rio Blanco County
1558	U.S. Geological Survey	395633107462301	SC00109325ADB1	DOMESTIC USE	Rio Blanco County
1559	U.S. Geological Survey	395650107461601	SC00109324DDD1	DOMESTIC USE	Rio Blanco County

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Agency name	Site identifier	Site name	Well use	County
1560	U.S. Geological Survey	395655107465001	SC00109324CDA1	DOMESTIC USE	Rio Blanco County
1561	U.S. Geological Survey	395741107474401	SC00109323ABA1	DOMESTIC USE	Rio Blanco County
1565	U.S. Geological Survey	395832107483901	SC00109315AAB1	DOMESTIC USE	Rio Blanco County
1566	U.S. Geological Survey	395859107491401	SC00109310CAB1	DOMESTIC USE	Rio Blanco County
1567	U.S. Geological Survey	395922107493301	SC00109310BBB1	DOMESTIC USE	Rio Blanco County
1568	U.S. Geological Survey	395953107495301	SC00109304DAB1	DOMESTIC USE	Rio Blanco County
1571	U.S. Geological Survey	400019108112500	LITTLE HILLS HQ B1-96-32	OBSERVATION	Rio Blanco County
1576	U.S. Geological Survey	400030108145000	P73-3 B1-97-35CDAB	OBSERVATION	Rio Blanco County
1580	U.S. Geological Survey	400033108123400	L. HILLS CAMPG. B1-96-31	OBSERVATION	Rio Blanco County
1581	U.S. Geological Survey	400045108131401	TH 75-17B, CR2, (B1-97-36 ADCC)	OBSERVATION	Rio Blanco County
1587	U.S. Geological Survey	400439108141000	P73-1 B1-97-02DDDD	OBSERVATION	Rio Blanco County
1592	U.S. Geological Survey	400525108132601	SB00109701ABB1	DOMESTIC USE	Rio Blanco County
1593	U.S. Geological Survey	C00028	C00028	OBSERVATION	Rio Blanco County
1594	U.S. Geological Survey	401209108011101	SB00309526BAD1	AGRICULTURAL USE	Rio Blanco County
1595	U.S. Geological Survey	401038108002801	SB00309501BBB1	AGRICULTURAL USE	Rio Blanco County
1596	U.S. Geological Survey	401105108002901	SB00309536CBB1	COMMERCIAL USE	Rio Blanco County
1597	U.S. Geological Survey	401241108013501	SB00309523CBC1	COMMERCIAL USE	Rio Blanco County
1598	U.S. Geological Survey	401305108012901	SB00309523BCA1	DOMESTIC USE	Rio Blanco County
1599	U.S. Geological Survey	C00795	C00795	OBSERVATION	Rio Blanco County
1600	U.S. Geological Survey	126281	126281	OBSERVATION	Rio Blanco County
1601	U.S. Geological Survey	126139	126139	OBSERVATION	Rio Blanco County
1602	U.S. Geological Survey	395347108270000	UNNAMED DUP25	OBSERVATION	Rio Blanco County
1603	U.S. Geological Survey	395516108294200	GULF STND C 4 5 C1 99 BDC	OBSERVATION	Rio Blanco County
1604	U.S. Geological Survey	395524108290301	RIO BLANCO CORP D-18 (C1-99-34A)	OBSERVATION	Rio Blanco County
1605	U.S. Geological Survey	395524108290302	GULF STANDARD CA 3 C1 99 34 ADB	OBSERVATION	Rio Blanco County
1607	U.S. Geological Survey	395238108284400	BLM QAL SSD C2-99-14BCDA	OBSERVATION	Rio Blanco County
1609	U.S. Geological Survey	395327108232000	BLM QAL WELL C2-98-09DACC	OBSERVATION	Rio Blanco County
1610	U.S. Geological Survey	395336108291500	AMOCO CH-4 C2-99-10ACAC	OBSERVATION	Rio Blanco County
1612	U.S. Geological Survey	395348108265800	OCCIDENTAL OIL CORP WELL	OBSERVATION	Rio Blanco County
1613	U.S. Geological Survey	395439108223301	SC00209803ABD	OBSERVATION	Rio Blanco County
1614	U.S. Geological Survey	395439108223302	SC00209803ABD2	OBSERVATION	Rio Blanco County
1617	U.S. Geological Survey	395524108290300	CAMERON 702 C1-99-34ADBA	OBSERVATION	Rio Blanco County
1622	U.S. Geological Survey	394557108225300	CARTER HUMBLE FAWN CR 2 C3 98 27BAD	OBSERVATION	Rio Blanco County
1623	U.S. Geological Survey	395046108224301	SC00209827DBB1 (CER 5)	OBSERVATION	Rio Blanco County
1626	U.S. Geological Survey	395034108231300	CER RB-W-5 C2-98-27CCAB	OBSERVATION	Rio Blanco County
1628	U.S. Geological Survey	395053108223900	CER RB-W-6 C2-98-27ACDB	OBSERVATION	Rio Blanco County
1631	Colorado Department of Agriculture	WS-M-005	WS-M-005CDOA	OBSERVATION	Mesa County
1632	U.S. Geological Survey	391629108540101	034 OLD SCHOOL WELL	OBSERVATION	Mesa County
1633	U.S. Geological Survey	391559108540001	SC00910321BBB-080Q9	OBSERVATION	Mesa County
1634	U.S. Geological Survey	391630108525701	SC00910316ADD-090R5	OBSERVATION	Mesa County
1635	U.S. Geological Survey	391723108570501	SC00910412BDC1 (VT1)	OBSERVATION	Mesa County
1636	U.S. Geological Survey	391723108572101	SC00910412BCC1 (VT2)	OBSERVATION	Mesa County
1639	U.S. Geological Survey	390312108290101	OBSERVATION WELL OMW1 AT ORCHARD MESA W. AREA	OBSERVATION	Mesa County
1640	U.S. Geological Survey	390339108285701	COLO.R.WILDLIFE AREA,EAST POOL, TEST SITE 1,(SW)	OBSERVATION	Mesa County
1641	U.S. Geological Survey	390257108295301	OBSERVATION WELL OMW9, ORCHARD MESA W. AREA	OBSERVATION	Mesa County
1642	U.S. Geological Survey	390303108295501	OBSERVATION WELL OMW10, ORCHARD MESA W. AREA	OBSERVATION	Mesa County
1643	U.S. Geological Survey	390305108294101	OBSERVATION WELL OMW7, ORCHARD MESA W. AREA	OBSERVATION	Mesa County

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Agency name	Site identifier	Site name	Well use	County
1644	U.S. Geological Survey	390306108292801	OBSERVATION WELL OMW5, ORCHARD MESA W. AREA	OBSERVATION	Mesa County
1645	U.S. Geological Survey	390307108295301	OBSERVATION WELL OMW8, ORCHARD MESA W. AREA	OBSERVATION	Mesa County
1646	U.S. Geological Survey	390308108291301	OBSERVATION WELL OMW3, ORCHARD MESA W.AREA	OBSERVATION	Mesa County
1647	U.S. Geological Survey	390308108292801	OBSERVATION WELL OMW6, ORCHARD MESA W. AREA	OBSERVATION	Mesa County
1648	U.S. Geological Survey	390310108291301	OBSERVATION WELL OMW4,ORCHARD MESA W. AREA	OBSERVATION	Mesa County
1649	U.S. Geological Survey	390317108290301	OBSERVATION WELL OMW2, ORCHARD MESA W,AREA	OBSERVATION	Mesa County
1650	U.S. Geological Survey	390335108291902	COLO.R.WILDLIFE AREA,WEST POOL, TEST SITE 3 (GW)	OBSERVATION	Mesa County
1651	U.S. Geological Survey	390338108285102	COLO.R.WILDLIFE AREA,EAST POOL TEST SITE 2(GW)	OBSERVATION	Mesa County
1652	U.S. Geological Survey	390339108285702	COLO.R.WILDLIFE AREA,EAST POOL, TEST SITE 1 (GW)	OBSERVATION	Mesa County
1653	U.S. Geological Survey	390339108290702	COLO.R.WILDLIFE AREA,WEST POOL, TEST SITE 2 (GW)	OBSERVATION	Mesa County
1654	U.S. Geological Survey	390419108294601	UD00100117ADA-300D6	OBSERVATION	Mesa County
1655	Colorado Department of Agriculture	WS-M-001	WS-M-001CDOA	OBSERVATION	Mesa County
1656	Colorado Department of Agriculture	WS-M-002	WS-M-002CDOA	OBSERVATION	Mesa County
1657	Colorado Department of Agriculture	WS-M-003	WS-M-003CDOA	OBSERVATION	Mesa County
1658	Colorado Department of Agriculture	WS-M-004	WS-M-004CDOA	OBSERVATION	Mesa County
1659	Colorado Department of Agriculture	WS-M-006	WS-M-006CDOA	OBSERVATION	Mesa County
1660	U.S. Geological Survey	391143107563001	020A CARPENTER	OBSERVATION	Mesa County
1661	U.S. Geological Survey	391147107581001	020B CARPENTER	OBSERVATION	Mesa County
1662	U.S. Geological Survey	391353107573901	021 CASTLE	OBSERVATION	Mesa County
1664	Colorado Oil and Gas Conservation Commission	703154	COGCC Facility ID:703154	DOMESTIC USE	Mesa County
1665	Colorado Oil and Gas Conservation Commission	703155	COGCC Facility ID:703155	DOMESTIC USE	Mesa County
1666	Colorado Oil and Gas Conservation Commission	704268	COGCC Facility ID:704268	DOMESTIC USE	Mesa County
1667	Colorado Oil and Gas Conservation Commission	704277	COGCC Facility ID:704277	DOMESTIC USE	Mesa County
1668	Colorado Oil and Gas Conservation Commission	704278	COGCC Facility ID:704278	DOMESTIC USE	Mesa County
1669	Colorado Department of Agriculture	WS-054	WS-054CDOA	DOMESTIC USE	Mesa County
1670	U.S. Geological Survey	125015	125015	OBSERVATION	Mesa County
1671	U.S. Geological Survey	390210108374000	UNNAMED DUP23	OBSERVATION	Mesa County
1672	U.S. Geological Survey	390614108400901	038 A SLASSON WELL	OBSERVATION	Mesa County
1673	U.S. Geological Survey	390620108385601	WALKER SWA CHANNEL, SEEPAGE SITE WWC4- SW	OBSERVATION	Mesa County
1674	U.S. Geological Survey	390626108391101	WALKER SWA CHANNEL, SEEPAGE SITE WWC9- SW	OBSERVATION	Mesa County
1675	U.S. Geological Survey	390630108391701	WALKER SWA CHANNEL, SEEPAGE SITE WWC7- SW	OBSERVATION	Mesa County
1676	U.S. Geological Survey	125009	125009	OBSERVATION	Mesa County
1677	U.S. Geological Survey	390445108393901	UC00100222DDC-INNIS	DOMESTIC USE	Mesa County
1678	U.S. Geological Survey	390612108385602	WALKER SWA CHANNEL SITE CH18 (GW)	OBSERVATION	Mesa County
1679	U.S. Geological Survey	390613108384101	SC01110114AAA1 (WALKER SWA, OW22)	OBSERVATION	Mesa County
1680	U.S. Geological Survey	390614108384702	SC01110114DAA1 (WALKER SWA, OW11B)	OBSERVATION	Mesa County
1681	U.S. Geological Survey	390615108385602	NORTH POND SEEPAGE SITE NP5 (GW)	OBSERVATION	Mesa County
1682	U.S. Geological Survey	390618108384201	WALKER STATE WILDLIFE AREA, WELL 12	OBSERVATION	Mesa County

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Agency name	Site identifier	Site name	Well use	County
1683	U.S. Geological Survey	390618108385201	WALKER SWA CHANNEL, SEEPAGE SITE WWC13B-GW	OBSERVATION	Mesa County
1684	U.S. Geological Survey	390618108385601	WALKER STATE WILDLIFE AREA, WELL 17	OBSERVATION	Mesa County
1685	U.S. Geological Survey	390619108385601	WALKER STATE WILDLIFE AREA, WELL 18	OBSERVATION	Mesa County
1686	U.S. Geological Survey	390620108385002	SC01110114AAB1 (WALKER SWA, OW10B)	OBSERVATION	Mesa County
1687	U.S. Geological Survey	390620108385301	WALKER STATE WILDLIFE AREA, WELL 1	OBSERVATION	Mesa County
1688	U.S. Geological Survey	390620108385302	WALKER STATE WILDLIFE AREA, WELL 2	OBSERVATION	Mesa County
1689	U.S. Geological Survey	390620108385402	WALKER SWA CHANNEL, SEEPAGE SITE WWC2- GW	OBSERVATION	Mesa County
1690	U.S. Geological Survey	390620108385602	WALKER SWA CHANNEL, SEEPAGE SITE WWC4- GW	OBSERVATION	Mesa County
1691	U.S. Geological Survey	390621108384601	WALKER STATE WILDLIFE AREA, WELL 11	OBSERVATION	Mesa County
1692	U.S. Geological Survey	390621108385701	WALKER STATE WILDLIFE AREA, WELL 4	OBSERVATION	Mesa County
1693	U.S. Geological Survey	390621108385901	WALKER SWA CHANNEL, SEEPAGE SITE WWC15- GW	OBSERVATION	Mesa County
1694	U.S. Geological Survey	390622108384901	WALKER STATE WILDLIFE AREA, WELL 7	OBSERVATION	Mesa County
1695	U.S. Geological Survey	390622108385001	WALKER STATE WILDLIFE AREA, WELL 6	OBSERVATION	Mesa County
1696	U.S. Geological Survey	390622108385102	NORTH POND SEEPAGE TEST SITE NP2 (GW)	OBSERVATION	Mesa County
1697	U.S. Geological Survey	390622108385501	WALKER STATE WILDLIFE AREA, WELL 3	OBSERVATION	Mesa County
1699	U.S. Geological Survey	390622108390201	WALKER STATE WILDLIFE AREA, WELL 19	OBSERVATION	Mesa County
1700	U.S. Geological Survey	390623108385302	NORTH POND SEEPAGE TEST SITE NP4 (GW)	OBSERVATION	Mesa County
1701	U.S. Geological Survey	390624108390201	WALKER STATE WILDLIFE AREA, WELL 5	OBSERVATION	Mesa County
1702	U.S. Geological Survey	390624108390202	WALKER SWA CHANNEL, SEEPAGE SITE WWC5- GW	OBSERVATION	Mesa County
1703	U.S. Geological Survey	390624108390801	WALKER STATE WILDLIFE AREA, WELL 20	OBSERVATION	Mesa County
1704	U.S. Geological Survey	390625108384901	WALKER STATE WILDLIFE AREA, WELL 10	OBSERVATION	Mesa County
1705	U.S. Geological Survey	390625108385301	WALKER STATE WILDLIFE AREA, WELL 9	OBSERVATION	Mesa County
1706	U.S. Geological Survey	390625108390401	WALKER STATE WILDLIFE AREA, WELL 13	OBSERVATION	Mesa County
1707	U.S. Geological Survey	390625108390403	WALKER SWA CHANNEL, SEEPAGE SITE WWC11-GW	OBSERVATION	Mesa County
1708	U.S. Geological Survey	390625108390601	WALKER SWA CHANNEL, SEEPAGE SITE WWC6- GW	OBSERVATION	Mesa County
1709	U.S. Geological Survey	390626108391102	WALKER SWA CHANNEL, SEEPAGE SITE WWC9- GW	OBSERVATION	Mesa County
1710	U.S. Geological Survey	390626108391401	WALKER STATE WILDLIFE AREA, WELL 21	OBSERVATION	Mesa County
1711	U.S. Geological Survey	390627108390001	WALKER STATE WILDLIFE AREA, WELL 8	OBSERVATION	Mesa County
1712	U.S. Geological Survey	390628108390901	WALKER STATE WILDLIFE AREA, WELL 14	OBSERVATION	Mesa County
1713	U.S. Geological Survey	390630108391702	WALKER SWA CHANNEL, SEEPAGE SITE WWC7- GW	OBSERVATION	Mesa County
1714	U.S. Geological Survey	390630108392001	WALKER SWA CHANNEL, SEEPAGE SITE WWC19- GW	OBSERVATION	Mesa County
1715	U.S. Geological Survey	390631108391501	WALKER STATE WILDLIFE AREA, WELL 15	OBSERVATION	Mesa County
1716	U.S. Geological Survey	390632108391801	WALKER STATE WILDLIFE AREA, WELL 16	OBSERVATION	Mesa County

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Agency name	Site identifier	Site name	Well use	County
1723	U.S. Geological Survey	392132108145301	SC00809717CBA4	OBSERVATION	Mesa County
1727	U.S. Geological Survey	390933108405701	035 ARS18	OBSERVATION	Mesa County
1728	U.S. Geological Survey	391119108405301	036 ARS13	OBSERVATION	Mesa County
1730	U.S. Geological Survey	C16217	C16217	OBSERVATION	Mesa County
1731	U.S. Geological Survey	390232108325201	UC00100125BCD1	DOMESTIC USE	Mesa County
1732	U.S. Geological Survey	390246108340301	UC00100126BBD1	OBSERVATION	Mesa County
1733	U.S. Geological Survey	390255108311201	UD00100119DCD1	AGRICULTURAL USE	Mesa County
1734	U.S. Geological Survey	390301108300101	OBSERVATION WELL OMW13, ORCHARD MESA W. AREA	OBSERVATION	Mesa County
1735	U.S. Geological Survey	390302108295901	OBSERVATION WELL OMW11, ORCHARD MESA W. AREA	OBSERVATION	Mesa County
1736	U.S. Geological Survey	390306108295901	OBSERVATION WELL OMW12, ORCHARD MESA W. AREA	OBSERVATION	Mesa County
1738	U.S. Geological Survey	390328108344701	UC00100122BAA1	OBSERVATION	Mesa County
1741	Colorado Department of Agriculture	WS-M-007	WS-M-007CDOA	OBSERVATION	Mesa County
1742	Colorado Department of Agriculture	WS-M-008	WS-M-008CDOA	OBSERVATION	Mesa County
1743	Colorado Department of Agriculture	WS-M-009	WS-M-009CDOA	OBSERVATION	Mesa County
1744	Colorado Department of Agriculture	WS-M-010	WS-M-010CDOA	OBSERVATION	Mesa County
1745	Colorado Oil and Gas Conservation Commission	703089	COGCC Facility ID:703089	DOMESTIC USE	Mesa County
1747	U.S. Geological Survey	391853108510401	SC00810335DBD-108U0	OBSERVATION	Mesa County
1752	EnCana Oil & Gas (USA) Inc.	BAIL1WW	BAIL1WW	DOMESTIC USE	Mesa County
1753	EnCana Oil & Gas (USA) Inc.	BRAD1WW	BRAD1WW	DOMESTIC USE	Mesa County
1754	EnCana Oil & Gas (USA) Inc.	CROM1WW	CROM1WW	DOMESTIC USE	Mesa County
1755	EnCana Oil & Gas (USA) Inc.	HONA1WW	HONA1WW	DOMESTIC USE	Mesa County
1756	EnCana Oil & Gas (USA) Inc.	LAKE1WW	LAKE1WW	DOMESTIC USE	Mesa County
1757	EnCana Oil & Gas (USA) Inc.	MACK1WW	MACK1WW	DOMESTIC USE	Mesa County
1758	EnCana Oil & Gas (USA) Inc.	RADE1WW	RADE1WW	DOMESTIC USE	Mesa County
1759	EnCana Oil & Gas (USA) Inc.	STAN1WW	STAN1WW	DOMESTIC USE	Mesa County
1760	EnCana Oil & Gas (USA) Inc.	WHIT1WW	WHIT1WW	DOMESTIC USE	Mesa County
1761	City of Grand Junction	GWSOMR3	Sommerville Well 3	OBSERVATION	Mesa County
1762	U.S. Geological Survey	385623108255401	UD00200234DBC1	OBSERVATION	Mesa County
1763	U.S. Geological Survey	C16582	C16582	OBSERVATION	Mesa County
1765	U.S. Geological Survey	391057108484301	UB00100303CCB-130L3	OBSERVATION	Mesa County
1766	U.S. Geological Survey	391203108473801	UB00200334ADD01-RW1	OBSERVATION	Mesa County
1768	U.S. Geological Survey	391208108473801	UB00200334ADD03-RW3	OBSERVATION	Mesa County
1769	U.S. Geological Survey	391226108472801	UB00200335BBA-143N0	OBSERVATION	Mesa County
1770	U.S. Geological Survey	125788	125788	OBSERVATION	Mesa County
1771	U.S. Geological Survey	390931108093601	059 HARVEY WELL	OBSERVATION	Mesa County
1772	U.S. Geological Survey	391059108075601	016 HIGHWAY SPRING	OBSERVATION	Mesa County
1773	Colorado Oil and Gas Conservation Commission	703157	COGCC Facility ID:703157	DOMESTIC USE	Mesa County
1774	Colorado Oil and Gas Conservation Commission	703076	COGCC Facility ID:703076	DOMESTIC USE	Mesa County
1776	Colorado Oil and Gas Conservation Commission	703090	COGCC Facility ID:703090	DOMESTIC USE	Mesa County
1777	Colorado Oil and Gas Conservation Commission	703158	COGCC Facility ID:703158	DOMESTIC USE	Mesa County
1778	Colorado Oil and Gas Conservation Commission	703167	COGCC Facility ID:703167	DOMESTIC USE	Mesa County
1779	Colorado Oil and Gas Conservation Commission	703168	COGCC Facility ID:703168	DOMESTIC USE	Mesa County
1780	Colorado Oil and Gas Conservation Commission	703170	COGCC Facility ID:703170	DOMESTIC USE	Mesa County
1781	Colorado Oil and Gas Conservation Commission	703171	COGCC Facility ID:703171	DOMESTIC USE	Mesa County
1782	Colorado Oil and Gas Conservation Commission	704270	COGCC Facility ID:704270	DOMESTIC USE	Mesa County
1783	Colorado Oil and Gas Conservation Commission	704271	COGCC Facility ID:704271	DOMESTIC USE	Mesa County
1784	Colorado Oil and Gas Conservation Commission	704272	COGCC Facility ID:704272	DOMESTIC USE	Mesa County
1785	Colorado Oil and Gas Conservation Commission	704273	COGCC Facility ID:704273	DOMESTIC USE	Mesa County
1786	Colorado Oil and Gas Conservation Commission	704274	COGCC Facility ID:704274	DOMESTIC USE	Mesa County
1787	U.S. Geological Survey	125808	125808	OBSERVATION	Mesa County
1788	EnCana Oil & Gas (USA) Inc.	LIND1WW	LIND1WW	DOMESTIC USE	Mesa County
1789	U.S. Geological Survey	125619	125619	OBSERVATION	Mesa County
1790	U.S. Geological Survey	125772	125772	OBSERVATION	Mesa County
1791	U.S. Geological Survey	125773	125773	OBSERVATION	Mesa County
1792	U.S. Geological Survey	125774	125774	OBSERVATION	Mesa County
1793	U.S. Geological Survey	125775	125775	OBSERVATION	Mesa County
1794	U.S. Geological Survey	390958108071701	058 TRAHERN WELL	OBSERVATION	Mesa County
1795	U.S. Geological Survey	391119108031301	017 CHURCH	OBSERVATION	Mesa County
1796	Colorado Oil and Gas Conservation Commission	703152	COGCC Facility ID:703152	DOMESTIC USE	Mesa County
1797	Colorado Oil and Gas Conservation Commission	703150	COGCC Facility ID:703150	DOMESTIC USE	Mesa County
1798	Colorado Oil and Gas Conservation Commission	703151	COGCC Facility ID:703151	DOMESTIC USE	Mesa County
1799	Colorado Oil and Gas Conservation Commission	703153	COGCC Facility ID:703153	DOMESTIC USE	Mesa County

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Agency name	Site identifier	Site name	Well use	County
1800	Colorado Oil and Gas Conservation Commission	703156	COGCC Facility ID:703156	DOMESTIC USE	Mesa County
1801	Colorado Oil and Gas Conservation Commission	703159	COGCC Facility ID:703159	DOMESTIC USE	Mesa County
1802	Colorado Oil and Gas Conservation Commission	703172	COGCC Facility ID:703172	DOMESTIC USE	Mesa County
1803	Colorado Oil and Gas Conservation Commission	703173	COGCC Facility ID:703173	DOMESTIC USE	Mesa County
1804	Colorado Oil and Gas Conservation Commission	703174	COGCC Facility ID:703174	DOMESTIC USE	Mesa County
1805	Colorado Oil and Gas Conservation Commission	703175	COGCC Facility ID:703175	DOMESTIC USE	Mesa County
1806	Colorado Oil and Gas Conservation Commission	703176	COGCC Facility ID:703176	DOMESTIC USE	Mesa County
1807	Colorado Oil and Gas Conservation Commission	703805	COGCC Facility ID:703805	DOMESTIC USE	Mesa County
1807	Colorado Oil and Gas Conservation Commission	703805	COGCC Facility ID:703805	DOMESTIC USE	Mesa County
1808	Colorado Oil and Gas Conservation Commission	704269	COGCC Facility ID:704269	DOMESTIC USE	Mesa County
1809	Colorado Oil and Gas Conservation Commission	704275	COGCC Facility ID:704275	DOMESTIC USE	Mesa County
1810	Colorado Oil and Gas Conservation Commission	704276	COGCC Facility ID:704276	DOMESTIC USE	Mesa County
1811	EnCana Oil & Gas (USA) Inc.	brit1ww	BRIT1WW	DOMESTIC USE	Mesa County
1812	EnCana Oil & Gas (USA) Inc.	curr2ww	CURR2WW	DOMESTIC USE	Mesa County
1813	EnCana Oil & Gas (USA) Inc.	FIFI1WW	FIFI1WW	DOMESTIC USE	Mesa County
1814	EnCana Oil & Gas (USA) Inc.	hall1ww	HALL1WW	DOMESTIC USE	Mesa County
1815	Colorado Department of Agriculture	WS-055	WS-055CDOA	DOMESTIC USE	Mesa County
1816	EnCana Oil & Gas (USA) Inc.	HITT1WW	HITT1WW	DOMESTIC USE	Mesa County
1817	EnCana Oil & Gas (USA) Inc.	hitt2ww	HITT2WW	DOMESTIC USE	Mesa County
1818	EnCana Oil & Gas (USA) Inc.	KITC1WW	KITC1WW	DOMESTIC USE	Mesa County
1819	Colorado Department of Agriculture	WS-056	WS-056CDOA	DOMESTIC USE	Mesa County
1820	EnCana Oil & Gas (USA) Inc.	ZENT1WW	ZENT1WW	DOMESTIC USE	Mesa County
1821	EnCana Oil & Gas (USA) Inc.	VANZ1	VANZ1	DOMESTIC USE	Mesa County
1822	EnCana Oil & Gas (USA) Inc.	REID1WW	REID1WW	DOMESTIC USE	Mesa County
1827	City of Grand Junction	GWSOMR1	Sommerville Well 1	OBSERVATION	Mesa County
1828	City of Grand Junction	GWSOMR2	Sommerville Well 2	OBSERVATION	Mesa County
1829	U.S. Geological Survey	391613108434301	174R4	OBSERVATION	Mesa County
1830	U.S. Geological Survey	391310107472801	023 VEGA LAKE WELL	OBSERVATION	Mesa County
1832	Colorado Oil and Gas Conservation Commission	703088	COGCC Facility ID:703088	DOMESTIC USE	Mesa County
1833	U.S. Geological Survey	391906108161801	044 WEB PLACE WELL	OBSERVATION	Mesa County
1837	U.S. Geological Survey	392129108145701	SC00809717CBA8	OBSERVATION	Mesa County
1842	U.S. Geological Survey	385835108260701	UC00200113CCC1 (WELL 3)	OBSERVATION	Mesa County
1843	U.S. Geological Survey	385918108263901	UC00200114AAC1 (WELL 5)	OBSERVATION	Mesa County
1845	U.S. Geological Survey	385924108314101	UD00200115BAB1	AGRICULTURAL USE	Mesa County
1847	U.S. Geological Survey	385930108265701	UC00200111DCC1 (WELL6)	OBSERVATION	Mesa County
1855	Colorado Oil and Gas Conservation Commission	703831	COGCC Facility ID:703831	PUBLIC SUPPLY	Delta County
1856	Colorado Oil and Gas Conservation Commission	703832	COGCC Facility ID:703832	PUBLIC SUPPLY	Delta County
1857	Colorado Oil and Gas Conservation Commission	703839	COGCC Facility ID:703839	PUBLIC SUPPLY	Delta County
1858	Colorado Oil and Gas Conservation Commission	703845	COGCC Facility ID:703845	PUBLIC SUPPLY	Delta County
1859	Colorado Oil and Gas Conservation Commission	703846	COGCC Facility ID:703846	PUBLIC SUPPLY	Delta County
1860	Colorado Oil and Gas Conservation Commission	703847	COGCC Facility ID:703847	PUBLIC SUPPLY	Delta County
1861	Colorado Oil and Gas Conservation Commission	703856	COGCC Facility ID:703856	PUBLIC SUPPLY	Delta County
1862	Colorado Oil and Gas Conservation Commission	703837	COGCC Facility ID:703837	PUBLIC SUPPLY	Delta County
1863	Colorado Oil and Gas Conservation Commission	703838	COGCC Facility ID:703838	PUBLIC SUPPLY	Delta County
1864	Mine Consultant	DH-15-Bowie #2	DH-15-Bowie #2	OBSERVATION	Delta County
1865	Mine Consultant	DH-25-Bowie #2	DH-25-Bowie #2	OBSERVATION	Delta County
1866	Mine Consultant	DH-38-Bowie #2	DH-38-Bowie #2	OBSERVATION	Delta County
1867	Mine Consultant	DH-39-Bowie #2	DH-39-Bowie #2	OBSERVATION	Delta County
1868	Mine Consultant	DH-49-Bowie #2	DH-49-Bowie #2	OBSERVATION	Delta County
1869	Mine Consultant	DH-58-Bowie #2	DH-58-Bowie #2	OBSERVATION	Delta County
1870	Mine Consultant	DH-67B-Bowie #2	DH-67B-Bowie #2	OBSERVATION	Delta County
1871	Mine Consultant	AW-11-Bowie #2	AW-11-Bowie #2	OBSERVATION	Delta County
1872	Mine Consultant	AW-14-Bowie #2	AW-14-Bowie #2	OBSERVATION	Delta County
1873	Mine Consultant	AW-16-Bowie #2	AW-16-Bowie #2	OBSERVATION	Delta County
1874	Mine Consultant	AW-17-Bowie #2	AW-17-Bowie #2	OBSERVATION	Delta County
1875	Mine Consultant	AW-1-Bowie #2	AW-1-Bowie #2	OBSERVATION	Delta County
1876	Mine Consultant	AW-2-Bowie #2	AW-2-Bowie #2	OBSERVATION	Delta County
1877	Mine Consultant	AW-3-Bowie #2	AW-3-Bowie #2	OBSERVATION	Delta County
1878	Mine Consultant	AW-4-Bowie #2	AW-4-Bowie #2	OBSERVATION	Delta County
1879	Mine Consultant	AW-5-Bowie #2	AW-5-Bowie #2	OBSERVATION	Delta County
1880	Mine Consultant	AW-6-Bowie #2	AW-6-Bowie #2	OBSERVATION	Delta County
1881	Mine Consultant	AW-7-Bowie #2	AW-7-Bowie #2	OBSERVATION	Delta County
1882	Mine Consultant	AW-8-Bowie #2	AW-8-Bowie #2	OBSERVATION	Delta County
1883	Mine Consultant	AW-9-Bowie #2	AW-9-Bowie #2	OBSERVATION	Delta County
1884	Mine Consultant	B07-Bowie #1	B07-Bowie #1	OBSERVATION	Delta County
1885	Mine Consultant	MW01-Bowie #1	MW01-Bowie #1	OBSERVATION	Delta County
1886	Mine Consultant	MW03-Bowie #1	MW03-Bowie #1	OBSERVATION	Delta County
1887	Colorado Department of Agriculture	WS-063	WS-063CDOA	DOMESTIC USE	Delta County

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Agency name	Site identifier	Site name	Well use	County
1888	Wright Water Engineeres, Inc, CO	SG-DW1-Stevens Gulch	SG-DW1-Stevens Gulch	OBSERVATION	Delta County
1889	Wright Water Engineeres, Inc, CO	SG-DW2-Stevens Gulch	SG-DW2-Stevens Gulch	OBSERVATION	Delta County
1890	Colorado Department of Agriculture	WS-002	WS-002CDOA	DOMESTIC USE	Delta County
1891	U.S. Geological Survey	385530107562201	SC01309418DBA1	DOMESTIC USE	Delta County
1895	U.S. Geological Survey	385612107574402	SC01309512BDC2	OBSERVATION	Delta County
1896	U.S. Geological Survey	385612107574403	SC01309512BDC3	OBSERVATION	Delta County
1897	U.S. Geological Survey	385612107585801	SC01309511CAD1	DOMESTIC USE	Delta County
1898	U.S. Geological Survey	385615107573501	SC01309512CAA1	DOMESTIC USE	Delta County
1899	U.S. Geological Survey	385617107573401	SC01309512ACC1	DOMESTIC USE	Delta County
1900	U.S. Geological Survey	385617107590501	SC01309511CBA1	DOMESTIC USE	Delta County
1904	U.S. Geological Survey	385644107574001	SC01309501CDD1	DOMESTIC USE	Delta County
1906	U.S. Geological Survey	385714107561301	SC01209431DCB1	DOMESTIC USE	Delta County
1907	U.S. Geological Survey	385720107563801	SC01309406BAC1	DOMESTIC USE	Delta County
1908	U.S. Geological Survey	385755107574301	SC01209536CAB1	DOMESTIC USE	Delta County
1909	Colorado Oil and Gas Conservation Commission	703857	COGCC Facility ID:703857	PUBLIC SUPPLY	Delta County
1910	Colorado Oil and Gas Conservation Commission	704303	COGCC Facility ID:704303	DOMESTIC USE	Delta County
1911	Wright Water Engineeres, Inc, CO	SP-DW6-Spaulding Peak	SP-DW6-Spaulding Peak	OBSERVATION	Delta County
1912	Wright Water Engineeres, Inc, CO	SP-DW7-Spaulding Peak	SP-DW7-Spaulding Peak	OBSERVATION	Delta County
1913	Colorado Department of Agriculture	WS-057	WS-057CDOA	DOMESTIC USE	Delta County
1914	Colorado Department of Agriculture	WS-058	WS-058CDOA	DOMESTIC USE	Delta County
1915	Wright Water Engineeres, Inc, CO	SP-DW10-Spaulding Peak	SP-DW10-Spaulding Peak	OBSERVATION	Delta County
1916	Wright Water Engineeres, Inc, CO	SP-DW1-Spaulding Peak	SP-DW1-Spaulding Peak	OBSERVATION	Delta County
1917	Wright Water Engineeres, Inc, CO	SP-DW2-Spaulding Peak	SP-DW2-Spaulding Peak	OBSERVATION	Delta County
1918	Wright Water Engineeres, Inc, CO	SP-DW4-Spaulding Peak	SP-DW4-Spaulding Peak	OBSERVATION	Delta County
1919	Colorado Oil and Gas Conservation Commission	703851	COGCC Facility ID:703851	PUBLIC SUPPLY	Delta County
1920	Colorado Oil and Gas Conservation Commission	703854	COGCC Facility ID:703854	PUBLIC SUPPLY	Delta County
1921	Colorado Oil and Gas Conservation Commission	703855	COGCC Facility ID:703855	PUBLIC SUPPLY	Delta County
1925	U.S. Geological Survey	384309108004601	SC01509528ACD-SL2	OBSERVATION	Delta County
1926	U.S. Geological Survey	384313108003101	SC01509528ADD-SL1	OBSERVATION	Delta County
1928	U.S. Geological Survey	384432108012901	SC01509516CCC1	AGRICULTURAL USE	Delta County
1930	U.S. Geological Survey	C16871	C16871	OBSERVATION	Delta County
1931	U.S. Geological Survey	C16875	C16875	OBSERVATION	Delta County
1932	U.S. Geological Survey	C16877	C16877	OBSERVATION	Delta County
1937	Colorado Oil and Gas Conservation Commission	703807	COGCC Facility ID:703807	PUBLIC SUPPLY	Delta County
1938	Colorado Oil and Gas Conservation Commission	703812	COGCC Facility ID:703812	PUBLIC SUPPLY	Delta County
1939	Colorado Oil and Gas Conservation Commission	703820	COGCC Facility ID:703820	PUBLIC SUPPLY	Delta County
1940	Wright Water Engineeres, Inc, CO	SP-DW5-Spaulding Peak	SP-DW5-Spaulding Peak	OBSERVATION	Delta County
1941	Wright Water Engineeres, Inc, CO	SP-DW8-Spaulding Peak	SP-DW8-Spaulding Peak	OBSERVATION	Delta County
1942	Wright Water Engineeres, Inc, CO	SP-DW9-Spaulding Peak	SP-DW9-Spaulding Peak	OBSERVATION	Delta County
1943	Wright Water Engineeres, Inc, CO	SP-DW3-Spaulding Peak	SP-DW3-Spaulding Peak	OBSERVATION	Delta County
1944	U.S. Geological Survey	390438107344601	SC01109129BAB1	DOMESTIC USE	Delta County
1945	U.S. Geological Survey	390438107354601	SC01109130BAC1	DOMESTIC USE	Delta County
1946	Colorado Oil and Gas Conservation Commission	703833	COGCC Facility ID:703833	PUBLIC SUPPLY	Delta County
1947	Colorado Oil and Gas Conservation Commission	703834	COGCC Facility ID:703834	PUBLIC SUPPLY	Delta County
1951	Colorado Department of Agriculture	WS-068	WS-068CDOA	DOMESTIC USE	Delta County
1955	U.S. Geological Survey	385507107385701	SC01309215DAC1	OBSERVATION	Delta County
1962	U.S. Geological Survey	385533107390401	SC01309215ABD1	OBSERVATION	Delta County
1967	Colorado Oil and Gas Conservation Commission	703816	COGCC Facility ID:703816	PUBLIC SUPPLY	Delta County
1968	Colorado Oil and Gas Conservation Commission	703817	COGCC Facility ID:703817	PUBLIC SUPPLY	Delta County
1969	Colorado Oil and Gas Conservation Commission	703818	COGCC Facility ID:703818	PUBLIC SUPPLY	Delta County
1970	Colorado Oil and Gas Conservation Commission	703819	COGCC Facility ID:703819	PUBLIC SUPPLY	Delta County
1971	Colorado Oil and Gas Conservation Commission	703844	COGCC Facility ID:703844	PUBLIC SUPPLY	Delta County
1972	Colorado Oil and Gas Conservation Commission	703848	COGCC Facility ID:703848	PUBLIC SUPPLY	Delta County
1973	Colorado Oil and Gas Conservation Commission	703849	COGCC Facility ID:703849	PUBLIC SUPPLY	Delta County
1974	Colorado Oil and Gas Conservation Commission	703852	COGCC Facility ID:703852	PUBLIC SUPPLY	Delta County
1975	Wright Water Engineeres, Inc, CO	DC-MW1-Dever Creek	DC-MW1-Dever Creek	OBSERVATION	Delta County
1976	Mine Consultant	DH-66-Bowie #2	DH-66-Bowie #2	OBSERVATION	Delta County
1978	U.S. Geological Survey	385336108043901	SC01309625BDC1	OBSERVATION	Delta County
1981	U.S. Geological Survey	384714107440301	WELL NEAR NEW HOTCHKISS SEWER PONDS	OBSERVATION	Delta County
1982	U.S. Geological Survey	384735107434101	WELL 1A NORTH OF OLD HOTCHKISS SEWER PONDS	OBSERVATION	Delta County
1983	U.S. Geological Survey	384800107442201	SC01409325CCD1	DOMESTIC USE	Delta County
1986	U.S. Geological Survey	384842107444201	T14SR93W026ADD-WELL NR 3300 ROAD,LEROUX CREEK	DOMESTIC USE	Delta County
1990	U.S. Geological Survey	384955107405601	SC01409216CCA1	DOMESTIC USE	Delta County
1993	U.S. Geological Survey	385058107402602	SC01409209DBA2	DOMESTIC USE	Delta County
1995	Colorado Department of Agriculture	WS-001	WS-001CDOA	DOMESTIC USE	Delta County

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Agency name	Site identifier	Site name	Well use	County
1996	Colorado Department of Agriculture	WS-008	WS-008CDOA	DOMESTIC USE	Delta County
2001	U.S. Geological Survey	384735107470501	SC01409333ADC1	OBSERVATION	Delta County
2002	U.S. Geological Survey	384801107454201	SC01409326CCC1	DOMESTIC USE	Delta County
2003	U.S. Geological Survey	384809107464501	SC01409327CCC1	DOMESTIC USE	Delta County
2011	U.S. Geological Survey	385215107473201	SC01409304BAD1	OBSERVATION	Delta County
2012	U.S. Geological Survey	385221107500101	SC01409306BCD1	DOMESTIC USE	Delta County
2013	Wright Water Engineeres, Inc, CO	DC-DW1-Dever Creek	DC-DW1-Dever Creek	OBSERVATION	Delta County
2014	Wright Water Engineeres, Inc, CO	DC-DW2-Dever Creek	DC-DW2-Dever Creek	OBSERVATION	Delta County
2015	Colorado Oil and Gas Conservation Commission	703809	COGCC Facility ID:703809	PUBLIC SUPPLY	Delta County
2016	Colorado Department of Agriculture	WS-059	WS-059CDOA	DOMESTIC USE	Delta County
2017	Colorado Department of Agriculture	WS-062	WS-062CDOA	DOMESTIC USE	Delta County
2018	Colorado Department of Agriculture	WS-061	WS-061CDOA	DOMESTIC USE	Delta County
2019	Colorado Department of Agriculture	WS-004	WS-004CDOA	DOMESTIC USE	Delta County
2020	Colorado Department of Agriculture	WS-005	WS-005CDOA	DOMESTIC USE	Delta County
2021	Colorado Department of Agriculture	WS-006	WS-006CDOA	DOMESTIC USE	Delta County
2022	Colorado Department of Agriculture	WS-007	WS-007CDOA	DOMESTIC USE	Delta County
2023	Colorado Department of Agriculture	WS-009	WS-009CDOA	DOMESTIC USE	Delta County
2024	Colorado Department of Agriculture	WS-011	WS-011CDOA	DOMESTIC USE	Delta County
2025	U.S. Forest Service	390021107505801	LEON LAKE 5 MW	OBSERVATION	Delta County
2027	U.S. Geological Survey	384243107573701	SC01509525DCC-B254334	OBSERVATION	Delta County
2029	U.S. Geological Survey	384953107540601	SC01409416DCA1	DOMESTIC USE	Delta County
2030	Colorado Department of Agriculture	WS-012	WS-012CDOA	DOMESTIC USE	Delta County
2033	U.S. Geological Survey	385047107332801	SC01409109DAC1	DOMESTIC USE	Delta County
2034	Colorado Department of Agriculture	WS-003	WS-003CDOA	DOMESTIC USE	Delta County
2035	Colorado Department of Agriculture	WS-013	WS-013CDOA	DOMESTIC USE	Delta County
2037	U.S. Geological Survey	390256107214001	SC01208905BAA1	DOMESTIC USE	Gunnison County
2040	U.S. Geological Survey	C00132	C00132	OBSERVATION	Moffat County
2041	U.S. Geological Survey	383746108055601	NB05001104ADC1	DOMESTIC USE	Montrose County
2044	U.S. Geological Survey	383839108013801	NB05101031ACD	AGRICULTURAL USE	Montrose County
2046	U.S. Geological Survey	383847108024001	NB05101136ABD-KRAMER	AGRICULTURAL USE	Montrose County
2046	U.S. Geological Survey	383847108024001	NB05101136ABD-KRAMER	AGRICULTURAL USE	Montrose County
2049	U.S. Geological Survey	C16867	C16867	OBSERVATION	Montrose County
2050	U.S. Geological Survey	C16868	C16868	OBSERVATION	Montrose County
2051	U.S. Geological Survey	C16869	C16869	OBSERVATION	Montrose County
2052	U.S. Geological Survey	C00106	C00106	OBSERVATION	Moffat County
2053	U.S. Geological Survey	384005107401001	NB05100720DBD1	OBSERVATION	Montrose County
2054	U.S. Geological Survey	383126107443801	NB04900811CBD	DOMESTIC USE	Montrose County
2055	U.S. Geological Survey	C00268	C00268	OBSERVATION	Moffat County
2056	U.S. Geological Survey	383424108015801	NB05001030BAD1	DOMESTIC USE	Montrose County
2058	U.S. Geological Survey	383438108025401	NB05001124DCC	DOMESTIC USE	Montrose County
2061	U.S. Geological Survey	383621108012001	NB05001007DDD-WEBB	AGRICULTURAL USE	Montrose County
2063	U.S. Geological Survey	383715108033901	NB05001111AAB1	OBSERVATION	Montrose County
2064	U.S. Geological Survey	C16856	C16856	OBSERVATION	Montrose County
2065	U.S. Geological Survey	401545108514200	S(B- 3-102) 5ADB- 1	OBSERVATION	Moffat County
2066	U.S. Geological Survey	401545108514201	SB00310205ADB1	PUBLIC SUPPLY	Moffat County
2067	U.S. Geological Survey	C00337	C00337	OBSERVATION	Moffat County
2068	U.S. Geological Survey	401648108362701	SB00410034BBB1	DOMESTIC USE	Moffat County
2069	U.S. Geological Survey	C00200	C00200	OBSERVATION	Moffat County
2070	U.S. Geological Survey	C00204	C00204	OBSERVATION	Moffat County
2071	U.S. Geological Survey	401449108540101	SB00310312ACA1	AGRICULTURAL USE	Moffat County
2072	U.S. Geological Survey	C00220	C00220	OBSERVATION	Moffat County
2076	U.S. Geological Survey	383901107584401	NB05101027CDC1 (STOCK WELL,BANNER RD)	AGRICULTURAL USE	Montrose County
2077	Colorado Oil and Gas Conservation Commission	704194	COGCC Facility ID:704194	DOMESTIC USE	Gunnison County
2078	U.S. Geological Survey	401505108584201	S(B- 3-103) 5DCC- 1	OBSERVATION	Moffat County
2079	U.S. Geological Survey	401505108594501	SB00310307ABA1	PUBLIC SUPPLY	Moffat County
2080	U.S. Geological Survey	401506108584201	SB00310305DCC1	PUBLIC SUPPLY	Moffat County
2082	U.S. Geological Survey	C00251	C00251	OBSERVATION	Moffat County
2083	U.S. Geological Survey	401511108042701	SB00509533CCB	AGRICULTURAL USE	Moffat County
2084	U.S. Geological Survey	401640108055101	SB00409531BAC	OBSERVATION	Moffat County
2085	U.S. Geological Survey	401825108061201	SB00409624AAD1	OBSERVATION	Moffat County
2088	U.S. Geological Survey	401539108424601	SB00310103ACD1	OBSERVATION	Moffat County
2089	U.S. Geological Survey	C00344	C00344	OBSERVATION	Moffat County
2090	U.S. Geological Survey	401509109001001	SB00310306CDC1	PUBLIC SUPPLY	Moffat County
2091	U.S. Geological Survey	401517109004701	SB00310401DCA2	COMMERCIAL USE	Moffat County
2094	Oxbow Mining	EC-14-Elk Creek Mine	EC-14-Elk Creek Mine	OBSERVATION	Gunnison County
2095	U.S. Geological Survey	C16477	C16477	OBSERVATION	Montrose County
2096	U.S. Geological Survey	C16510	C16510	OBSERVATION	Montrose County

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Map name	Geologic unit	Aquifer description	Well depth (ft)	Latitude (decimal degrees, NAD83)	Longitude (decimal degrees, NAD83)	Collection date	Collection time
1		Unknown	Not available	–9,999	39.5	–107.766	10/2/2001	9999
2	Anvil Points	Tertiary	GREEN RIVER FORMATION	56	39.567	–107.999	10/7/1977	445
3	Anvil Points	Unknown	Not available	22	39.592	–107.978	10/30/1977	1000
4	Anvil Points	Unknown	Not available	22	39.592	–107.950	10/12/1977	1600
5	Anvil Points	Unknown	Not available	185	39.500	–107.942	10/26/2006	1050
6	Bull Fork	Unknown	Not available	–9,999	39.665	–108.308	9/16/1977	1100
8	Bull Fork	Tertiary	GREEN RIVER FORMATION	22	39.647	–108.290	7/27/1982	1400
9	Bull Fork	Unknown	Not available	–9,999	39.646	–108.264	6/2/2006	9999
13	Circle Dot Gulch	Unknown	Not available	–9,999	39.518	–108.131	12/9/2003	9999
14	Circle Dot Gulch	Unknown	Not available	–9,999	39.530	–108.130	12/9/2004	9999
15	Circle Dot Gulch	Unknown	Not available	–9,999	39.528	–108.130	12/9/2003	9999
16	Circle Dot Gulch	Unknown	Not available	–9,999	39.531	–108.129	12/9/2003	9999
17	Circle Dot Gulch	Unknown	Not available	35	39.519	–108.130	11/15/2006	9999
18	Circle Dot Gulch	Unknown	Not available	25	39.517	–108.129	11/15/2006	9999
19	Circle Dot Gulch	Unknown	Not available	25	39.518	–108.130	3/14/2007	9999
20	Circle Dot Gulch	Unknown	Not available	30	39.519	–108.130	11/15/2006	9999
21	Circle Dot Gulch	Unknown	Not available	30	39.519	–108.130	3/14/2007	9999
22	Circle Dot Gulch	Unknown	Not available	20	39.518	–108.130	11/15/2006	9999
23	Circle Dot Gulch	Unknown	Not available	25	39.518	–108.130	3/14/2007	9999
24	Circle Dot Gulch	Unknown	Not available	20	39.517	–108.130	11/15/2006	9999
25	Circle Dot Gulch	Unknown	Not available	25	39.518	–108.130	11/15/2006	9999
26	Circle Dot Gulch	Unknown	Not available	30	39.518	–108.130	11/15/2006	9999
27	Circle Dot Gulch	Unknown	Not available	25	39.517	–108.130	11/15/2006	9999
28	Circle Dot Gulch	Unknown	Not available	–9,999	39.517	–108.130	11/15/2006	9999
29	Cutoff Gulch	Unknown	Not available	–9,999	39.684	–108.157	9/15/1977	1600
30	De Beque	Unknown	Not available	–9,999	39.371	–108.127	9/1/2005	9999
31	Desert Gulch	Unknown	Not available	34	39.501	–108.380	9/13/1977	1200
33	Desert Gulch	Quaternary	ALLUVIUM,TERRACE	70	39.503	–108.396	4/18/1979	0
34	Desert Gulch	Quaternary	ALLUVIUM,TERRACE	70	39.504	–108.396	4/18/1979	0
36	Desert Gulch	Quaternary	ALLUVIUM,FLOOD PLAIN	56	39.553	–108.488	4/18/1979	0
38	Forked Gulch	Quaternary	ALLUVIUM,TERRACE	22	39.578	–108.109	4/23/1979	1200
39	Forked Gulch	Unknown	Not available	22	39.610	–108.029	10/3/1977	920
40	Forked Gulch	Unknown	Not available	–9,999	39.579	–108.105	3/19/2009	9999
41	Forked Gulch	Unknown	Not available	–9,999	39.579	–108.107	3/19/2009	9999
42	Forked Gulch	Unknown	Not available	180	39.508	–108.000	7/11/1997	9999
43	Forked Gulch	Unknown	Not available	19.9	39.585	–108.121	3/26/2009	9999
44	Forked Gulch	Unknown	Not available	29.9	39.584	–108.116	3/26/2009	9999
45	Forked Gulch	Unknown	Not available	28.2	39.582	–108.110	3/19/2009	9999
46	Forked Gulch	Unknown	Not available	29.5	39.588	–108.041	12/22/2008	9999
47	Forked Gulch	Unknown	Not available	23.7	39.588	–108.059	6/19/2008	9999
48	Forked Gulch	Unknown	Not available	34.2	39.584	–108.084	3/30/2009	9999
49	Forked Gulch	Unknown	Not available	33.6	39.582	–108.094	3/30/2009	9999
50	Gibson Gulch	Tertiary	WASATCH FORMATION	150	39.423	–107.618	4/21/2009	1030
51	Gibson Gulch	Unknown	Not available	–9,999	39.421	–107.505	8/6/1999	9999
52	Gibson Gulch	Unknown	Not available	–9,999	39.473	–107.609	6/14/2007	9999
53	Gibson Gulch	Unknown	Not available	–9,999	39.489	–107.600	3/6/2002	9999
54	Gibson Gulch	Unknown	Not available	–9,999	39.489	–107.613	9/17/1999	9999
55	Gibson Gulch	Unknown	Not available	–9,999	39.432	–107.559	6/9/1997	9999
56	Gibson Gulch	Unknown	Not available	–9,999	39.426	–107.618	11/13/2002	9999
57	Gibson Gulch	Unknown	Not available	–9,999	39.427	–107.617	11/13/2002	9999
58	Gibson Gulch	Unknown	Not available	–9,999	39.429	–107.621	11/12/2002	9999
59	Gibson Gulch	Unknown	Not available	–9,999	39.434	–107.620	11/13/2002	9999
60	Gibson Gulch	Unknown	Not available	–9,999	39.441	–107.621	11/13/2002	9999
61	Gibson Gulch	Unknown	Not available	–9,999	39.448	–107.600	4/20/2006	9999
62	Gibson Gulch	Unknown	Not available	–9,999	39.469	–107.621	10/14/2008	9999
63	Gibson Gulch	Unknown	Not available	–9,999	39.465	–107.621	3/4/2008	9999
64	Gibson Gulch	Unknown	Not available	70	39.436	–107.531	9/15/1999	9999
65	Gibson Gulch	Unknown	Not available	–9,999	39.465	–107.622	3/4/2008	9999
66	Gibson Gulch	Unknown	Not available	–9,999	39.466	–107.621	3/4/2008	9999
67	Gibson Gulch	Unknown	Not available	–9,999	39.379	–107.615	1/9/2003	9999

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Map name	Geologic unit	Aquifer description	Well depth (ft)	Latitude (decimal degrees, NAD83)	Longitude (decimal degrees, NAD83)	Collection date	Collection time
68	Gibson Gulch	Unknown	Not available	–9,999	39.492	–107.592	2/16/2005	9999
69	Gibson Gulch	Unknown	Not available	–9,999	39.466	–107.621	9/29/2008	9999
70	Gibson Gulch	Unknown	Not available	–9,999	39.468	–107.621	9/29/2008	9999
71	Gibson Gulch	Unknown	Not available	–9,999	39.496	–107.601	4/29/2005	9999
72	Gibson Gulch	Unknown	Not available	–9,999	39.489	–107.598	4/29/2005	9999
73	Gibson Gulch	Unknown	Not available	–9,999	39.492	–107.611	2/1/2005	9999
74	Gibson Gulch	Unknown	Not available	–9,999	39.491	–107.610	4/29/2005	9999
75	Gibson Gulch	Unknown	Not available	–9,999	39.487	–107.607	4/29/2005	9999
76	Gibson Gulch	Unknown	Not available	–9,999	39.500	–107.575	7/21/2005	9999
77	Gibson Gulch	Unknown	Not available	320	39.396	–107.624	1/9/2003	9999
78	Gibson Gulch	Unknown	Not available	260	39.381	–107.613	1/9/2003	9999
79	Gibson Gulch	Unknown	Not available	15	39.416	–107.616	8/11/2004	9999
80	Gibson Gulch	Unknown	Not available	18	39.467	–107.620	12/1/2008	9999
81	Gibson Gulch	Unknown	Not available	150	39.453	–107.619	5/1/2006	9999
82	Gibson Gulch	Unknown	Not available	90	39.462	–107.613	6/5/2006	9999
83	Gibson Gulch	Unknown	Not available	140	39.459	–107.611	5/2/2006	9999
84	Gibson Gulch	Unknown	Not available	120	39.460	–107.610	5/1/2006	9999
85	Gibson Gulch	Unknown	Not available	120	39.461	–107.611	6/5/2006	9999
86	Gibson Gulch	Unknown	Not available	140	39.474	–107.609	12/1/2008	9999
87	Gibson Gulch	Unknown	Not available	98	39.456	–107.610	5/1/2006	9999
88	Gibson Gulch	Unknown	Not available	12	39.455	–107.611	5/1/2006	9999
89	Gibson Gulch	Unknown	Not available	117	39.451	–107.607	5/2/2006	9999
90	Gibson Gulch	Unknown	Not available	–9,999	39.446	–107.619	4/28/2004	9999
91	Gibson Gulch	Unknown	Not available	–9,999	39.396	–107.623	1/9/2003	9999
92	Gibson Gulch	Unknown	Not available	–9,999	39.440	–107.620	5/2/2005	9999
93	Gibson Gulch	Unknown	Not available	–9,999	39.436	–107.618	11/12/2002	9999
94	Gibson Gulch	Unknown	Not available	–9,999	39.426	–107.617	11/13/2002	9999
95	Gibson Gulch	Unknown	Not available	–9,999	39.427	–107.617	11/13/2002	9999
96	Gibson Gulch	Unknown	Not available	–9,999	39.434	–107.619	11/13/2002	9999
97	Gibson Gulch	Unknown	Not available	–9,999	39.429	–107.620	11/12/2002	9999
98	Gibson Gulch	Unknown	Not available	–9,999	39.464	–107.621	9/30/2008	9999
99	Gibson Gulch	Unknown	Not available	–9,999	39.464	–107.621	10/1/2008	9999
100	Gibson Gulch	Unknown	Not available	–9,999	39.464	–107.621	10/1/2008	9999
101	Gibson Gulch	Unknown	Not available	–9,999	39.464	–107.621	9/30/2008	9999
102	Gibson Gulch	Unknown	Not available	–9,999	39.463	–107.621	9/30/2008	9999
103	Gibson Gulch	Unknown	Not available	–9,999	39.463	–107.621	9/30/2008	9999
104	Gibson Gulch	Unknown	Not available	–9,999	39.463	–107.622	9/30/2008	9999
105	Gibson Gulch	Unknown	Not available	–9,999	39.463	–107.623	9/12/2007	9999
106	Gibson Gulch	Unknown	Not available	–9,999	39.463	–107.621	9/30/2008	9999
107	Gibson Gulch	Unknown	Not available	–9,999	39.464	–107.620	6/17/2008	9999
108	Gibson Gulch	Unknown	Not available	–9,999	39.379	–107.615	1/25/2005	9999
109	Gibson Gulch	Unknown	Not available	–9,999	39.482	–107.589	5/1/2006	9999
110	Gibson Gulch	Unknown	Not available	–9,999	39.483	–107.589	5/1/2006	9999
111	Gibson Gulch	Unknown	Not available	–9,999	39.448	–107.619	11/19/2002	9999
112	Gibson Gulch	Unknown	Not available	–9,999	39.455	–107.610	7/8/2004	9999
113	Gibson Gulch	Unknown	Not available	–9,999	39.464	–107.621	9/30/2008	9999
114	Gibson Gulch	Unknown	Not available	–9,999	39.464	–107.621	9/30/2008	9999
115	Gibson Gulch	Unknown	Not available	–9,999	39.465	–107.620	9/30/2008	9999
116	Gibson Gulch	Unknown	Not available	–9,999	39.463	–107.621	6/12/2006	9999
117	Gibson Gulch	Unknown	Not available	–9,999	39.465	–107.621	9/30/2008	9999
118	Gibson Gulch	Unknown	Not available	–9,999	39.463	–107.621	6/17/2008	9999
119	Gibson Gulch	Unknown	Not available	–9,999	39.465	–107.620	10/1/2008	9999
120	Gibson Gulch	Unknown	Not available	–9,999	39.464	–107.621	6/17/2008	9999
121	Gibson Gulch	Unknown	Not available	–9,999	39.465	–107.621	9/30/2008	9999
122	Gibson Gulch	Unknown	Not available	–9,999	39.465	–107.620	9/30/2008	9999
123	Gibson Gulch	Unknown	Not available	–9,999	39.465	–107.621	9/30/2008	9999
124	Gibson Gulch	Unknown	Not available	–9,999	39.441	–107.620	11/13/2002	9999
125	Gibson Gulch	Unknown	Not available	–9,999	39.380	–107.614	1/25/2005	9999
126	Gibson Gulch	Unknown	Not available	–9,999	39.420	–107.611	5/22/2003	9999
127	Gibson Gulch	Unknown	Not available	–9,999	39.452	–107.619	5/2/2006	9999
128	Gibson Gulch	Unknown	Not available	–9,999	39.499	–107.591	12/1/2005	9999
129	Gibson Gulch	Unknown	Not available	–9,999	39.499	–107.591	5/1/2006	9999
130	Gibson Gulch	Unknown	Not available	–9,999	39.427	–107.617	1/20/2005	9999

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Map name	Geologic unit	Aquifer description	Well depth (ft)	Latitude (decimal degrees, NAD83)	Longitude (decimal degrees, NAD83)	Collection date	Collection time
131	Gibson Gulch	Unknown	Not available	–9,999	39.427	–107.617	3/16/2005	9999
132	Gibson Gulch	Unknown	Not available	–9,999	39.454	–107.623	1/24/2003	9999
133	Gibson Gulch	Unknown	Not available	–9,999	39.455	–107.623	5/2/2006	9999
134	Gibson Gulch	Unknown	Not available	–9,999	39.466	–107.621	4/12/2006	9999
135	Gibson Gulch	Unknown	Not available	–9,999	39.466	–107.620	10/1/2008	9999
138	Glenwood Springs	Quaternary	ALLUVIUM,TERRACE	–9,999	39.552	–107.334	11/16/1984	0
142	Housetop Mountain	Unknown	Not available	160	39.369	–108.052	10/21/1969	0
143	Housetop Mountain	Unknown	Not available	–9,999	39.368	–108.053	9/15/2004	9999
144	Housetop Mountain	Unknown	Not available	–9,999	39.369	–108.076	10/12/2004	9999
145	Housetop Mountain	Unknown	Not available	220	39.369	–108.052	6/12/1997	9999
146	Housetop Mountain	Unknown	Not available	100	39.372	–108.087	7/7/2006	9999
147	Housetop Mountain	Unknown	Not available	–9,999	39.374	–108.106	6/23/2006	9999
148	Housetop Mountain	Unknown	Not available	–9,999	39.374	–108.122	9/1/2005	9999
149	Housetop Mountain	Unknown	Not available	–9,999	39.369	–108.087	7/6/2006	9999
150	Housetop Mountain	Unknown	Not available	–9,999	39.371	–108.088	7/7/2006	9999
151	Housetop Mountain	Unknown	Not available	–9,999	39.371	–108.089	7/13/2006	9999
152	Hunter Mesa	Unknown	Not available	–9,999	39.478	–107.691	5/17/2004	9999
153	Hunter Mesa	Unknown	Not available	–9,999	39.476	–107.657	6/12/2007	9999
154	Hunter Mesa	Unknown	Not available	–9,999	39.464	–107.691	3/4/2003	1200
155	Hunter Mesa	Unknown	Not available	–9,999	39.454	–107.689	3/5/2002	9999
157	Hunter Mesa	Unknown	Not available	–9,999	39.453	–107.734	9/5/2007	9999
158	Hunter Mesa	Tertiary	WASATCH FORMATION	120	39.442	–107.687	4/21/2009	1400
159	Hunter Mesa	Tertiary	WASATCH FORMATION	180	39.453	–107.734	4/25/2009	910
161	Hunter Mesa	Unknown	Not available	–9,999	39.441	–107.650	1/21/2003	9999
162	Hunter Mesa	Tertiary	WASATCH FORMATION	190	39.467	–107.639	4/23/2009	1230
163	Hunter Mesa	Tertiary	WASATCH FORMATION	200	39.489	–107.641	4/23/2009	930
164	Hunter Mesa	Tertiary	WASATCH FORMATION	495	39.489	–107.631	4/26/2009	940
165	Hunter Mesa	Tertiary	WASATCH FORMATION	143	39.491	–107.658	4/27/2009	1010
166	Hunter Mesa	Unknown	Not available	–9,999	39.438	–107.658	6/4/1997	9999
167	Hunter Mesa	Unknown	Not available	–9,999	39.480	–107.653	6/4/1997	9999
168	Hunter Mesa	Unknown	Not available	–9,999	39.434	–107.664	9/5/2007	9999
169	Hunter Mesa	Unknown	Not available	–9,999	39.432	–107.635	9/6/2007	1200
169	Hunter Mesa	Unknown	Not available	–9,999	39.432	–107.635	9/6/2007	1215
170	Hunter Mesa	Unknown	Not available	–9,999	39.483	–107.645	8/3/2005	9999
171	Hunter Mesa	Unknown	Not available	–9,999	39.490	–107.743	7/7/2007	9999
172	Hunter Mesa	Unknown	Not available	–9,999	39.488	–107.653	4/14/2005	9999
173	Hunter Mesa	Unknown	Not available	–9,999	39.488	–107.665	5/5/2005	9999
174	Hunter Mesa	Unknown	Not available	–9,999	39.451	–107.659	1/16/2003	9999
175	Hunter Mesa	Unknown	Not available	–9,999	39.478	–107.670	7/13/2004	9999
176	Hunter Mesa	Unknown	Not available	–9,999	39.476	–107.653	6/13/2007	9999
177	Hunter Mesa	Unknown	Not available	–9,999	39.489	–107.669	6/14/2007	9999
178	Hunter Mesa	Unknown	Not available	–9,999	39.489	–107.671	8/25/2004	9999
179	Hunter Mesa	Unknown	Not available	–9,999	39.486	–107.660	9/5/2007	9999
180	Hunter Mesa	Unknown	Not available	–9,999	39.489	–107.657	8/5/2005	9999
181	Hunter Mesa	Unknown	Not available	–9,999	39.487	–107.664	8/25/2004	9999
182	Hunter Mesa	Unknown	Not available	–9,999	39.425	–107.638	7/12/2007	1215
182	Hunter Mesa	Unknown	Not available	–9,999	39.425	–107.638	7/12/2007	1200
183	Hunter Mesa	Unknown	Not available	–9,999	39.483	–107.660	7/12/2007	9999
184	Hunter Mesa	Unknown	Not available	–9,999	39.483	–107.657	8/31/2005	9999
185	Hunter Mesa	Unknown	Not available	–9,999	39.430	–107.642	7/13/2007	9999
186	Hunter Mesa	Unknown	Not available	–9,999	39.498	–107.690	9/5/2007	9999
187	Hunter Mesa	Unknown	Not available	–9,999	39.486	–107.668	7/20/2005	1215
187	Hunter Mesa	Unknown	Not available	–9,999	39.486	–107.668	7/20/2005	1200
188	Hunter Mesa	Unknown	Not available	–9,999	39.409	–107.661	11/6/2003	9999
189	Hunter Mesa	Unknown	Not available	–9,999	39.428	–107.641	6/25/2007	1215
189	Hunter Mesa	Unknown	Not available	–9,999	39.428	–107.641	6/25/2007	1200
191	Hunter Mesa	Unknown	Not available	–9,999	39.483	–107.664	7/13/2004	9999
192	Hunter Mesa	Unknown	Not available	–9,999	39.464	–107.710	10/7/2002	9999
193	Hunter Mesa	Unknown	Not available	–9,999	39.475	–107.659	7/13/2004	9999
194	Hunter Mesa	Unknown	Not available	–9,999	39.476	–107.657	7/13/2004	9999
195	Hunter Mesa	Unknown	Not available	–9,999	39.454	–107.699	8/8/2001	9999
196	Hunter Mesa	Unknown	Not available	–9,999	39.486	–107.651	4/14/2005	9999
197	Hunter Mesa	Unknown	Not available	–9,999	39.487	–107.647	9/6/2007	9999
198	Hunter Mesa	Unknown	Not available	–9,999	39.486	–107.658	6/12/2007	9999

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Map name	Geologic unit	Aquifer description	Well depth (ft)	Latitude (decimal degrees, NAD83)	Longitude (decimal degrees, NAD83)	Collection date	Collection time
199	Hunter Mesa	Unknown	Not available	–9,999	39.477	–107.666	7/12/2007	9999
200	Hunter Mesa	Unknown	Not available	–9,999	39.486	–107.660	6/29/2004	9999
201	Hunter Mesa	Unknown	Not available	–9,999	39.424	–107.644	7/13/2007	1200
201	Hunter Mesa	Unknown	Not available	–9,999	39.424	–107.644	7/13/2007	1215
202	Hunter Mesa	Unknown	Not available	–9,999	39.480	–107.652	7/14/2004	9999
203	Hunter Mesa	Unknown	Not available	–9,999	39.430	–107.642	7/13/2007	1215
203	Hunter Mesa	Unknown	Not available	–9,999	39.430	–107.642	7/13/2007	1200
204	Hunter Mesa	Unknown	Not available	–9,999	39.498	–107.652	4/7/2005	9999
205	Hunter Mesa	Unknown	Not available	–9,999	39.413	–107.640	6/26/2007	1215
205	Hunter Mesa	Unknown	Not available	–9,999	39.413	–107.640	6/26/2007	1200
206	Hunter Mesa	Unknown	Not available	500	39.406	–107.634	12/18/2002	9999
207	Hunter Mesa	Unknown	Not available	320	39.395	–107.625	9/15/1999	9999
208	Hunter Mesa	Unknown	Not available	–9,999	39.467	–107.657	8/26/2004	9999
209	Hunter Mesa	Unknown	Not available	70	39.469	–107.687	9/16/1999	9999
211	Hunter Mesa	Unknown	Not available	76	39.426	–107.698	9/16/1999	9999
213	Hunter Mesa	Unknown	Not available	–9,999	39.446	–107.657	9/15/2004	9999
214	Hunter Mesa	Unknown	Not available	–9,999	39.474	–107.653	6/6/2006	1215
214	Hunter Mesa	Unknown	Not available	–9,999	39.474	–107.653	6/6/2006	1200
215	Hunter Mesa	Unknown	Not available	–9,999	39.415	–107.657	1/14/2003	9999
216	Hunter Mesa	Unknown	Not available	–9,999	39.411	–107.639	6/23/2007	1215
216	Hunter Mesa	Unknown	Not available	–9,999	39.411	–107.639	6/23/2007	1200
217	Hunter Mesa	Unknown	Not available	–9,999	39.423	–107.666	1/14/2003	9999
218	Hunter Mesa	Unknown	Not available	–9,999	39.381	–107.629	12/18/2002	9999
219	Hunter Mesa	Unknown	Not available	–9,999	39.453	–107.739	6/22/2007	9999
220	Hunter Mesa	Unknown	Not available	–9,999	39.492	–107.654	7/12/2007	9999
221	Hunter Mesa	Unknown	Not available	–9,999	39.486	–107.657	8/4/2005	9999
222	Hunter Mesa	Unknown	Not available	–9,999	39.479	–107.644	6/15/2007	9999
223	Hunter Mesa	Unknown	Not available	300	39.430	–107.674	9/14/1999	9999
224	Hunter Mesa	Unknown	Not available	–9,999	39.481	–107.653	6/8/2006	9999
225	Hunter Mesa	Unknown	Not available	–9,999	39.438	–107.634	7/8/2004	9999
226	Hunter Mesa	Unknown	Not available	–9,999	39.465	–107.645	1/16/2008	9999
227	Hunter Mesa	Unknown	Not available	400	39.490	–107.661	6/30/2004	9999
228	Hunter Mesa	Unknown	Not available	135	39.488	–107.649	6/14/2007	1215
228	Hunter Mesa	Unknown	Not available	135	39.488	–107.649	6/14/2007	1200
229	Hunter Mesa	Unknown	Not available	–9,999	39.497	–107.658	9/2/2004	9999
230	Hunter Mesa	Unknown	Not available	–9,999	39.483	–107.645	6/14/2006	9999
231	Hunter Mesa	Unknown	Not available	–9,999	39.451	–107.687	1/31/2002	9999
232	Hunter Mesa	Unknown	Not available	–9,999	39.411	–107.659	11/6/2003	9999
233	Hunter Mesa	Unknown	Not available	–9,999	39.441	–107.740	2/16/2005	9999
234	Hunter Mesa	Unknown	Not available	–9,999	39.474	–107.678	8/8/2001	9999
235	Hunter Mesa	Unknown	Not available	340	39.410	–107.659	9/14/1999	9999
236	Hunter Mesa	Unknown	Not available	100	39.489	–107.653	3/13/2003	9999
237	Hunter Mesa	Unknown	Not available	–9,999	39.381	–107.637	12/18/2002	9999
238	Hunter Mesa	Unknown	Not available	–9,999	39.488	–107.652	6/19/2006	9999
239	Hunter Mesa	Unknown	Not available	–9,999	39.446	–107.732	7/19/2004	9999
240	Hunter Mesa	Unknown	Not available	–9,999	39.411	–107.642	12/20/2002	9999
241	Hunter Mesa	Unknown	Not available	180	39.410	–107.636	6/9/1997	9999
242	Hunter Mesa	Unknown	Not available	30	39.430	–107.635	6/9/1997	9999
243	Hunter Mesa	Unknown	Not available	160	39.453	–107.734	7/11/1997	9999
244	Hunter Mesa	Unknown	Not available	120	39.412	–107.645	1/15/2003	9999
245	Hunter Mesa	Unknown	Not available	5	39.440	–107.654	7/12/1997	9999
246	Hunter Mesa	Unknown	Not available	–9,999	39.475	–107.659	6/6/2006	9999
247	Hunter Mesa	Unknown	Not available	–9,999	39.476	–107.657	7/15/2008	9999
248	Hunter Mesa	Unknown	Not available	–9,999	39.494	–107.645	6/14/2007	9999
249	Hunter Mesa	Unknown	Not available	190	39.482	–107.663	6/12/2007	9999
250	Hunter Mesa	Unknown	Not available	–9,999	39.498	–107.630	6/29/2005	9999
251	Hunter Mesa	Unknown	Not available	–9,999	39.495	–107.651	9/5/2007	9999
252	Hunter Mesa	Unknown	Not available	–9,999	39.491	–107.642	6/14/2007	9999
253	Hunter Mesa	Unknown	Not available	–9,999	39.489	–107.641	6/13/2007	9999
254	Hunter Mesa	Unknown	Not available	–9,999	39.494	–107.657	6/25/2007	9999
255	Hunter Mesa	Tertiary	WASATCH FORMATION	–9,999	39.487	–107.640	4/9/2004	9999
256	Hunter Mesa	Tertiary	WASATCH FORMATION	–9,999	39.488	–107.644	4/14/2005	1215
256	Hunter Mesa	Tertiary	WASATCH FORMATION	–9,999	39.488	–107.644	4/14/2005	1200

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Map name	Geologic unit	Aquifer description	Well depth (ft)	Latitude (decimal degrees, NAD83)	Longitude (decimal degrees, NAD83)	Collection date	Collection time
257	Hunter Mesa	Tertiary	WASATCH FORMATION	310	39.497	–107.656	4/13/2005	9999
258	Hunter Mesa	Unknown	Not available	172	39.470	–107.653	6/13/2007	9999
259	Hunter Mesa	Tertiary	WASATCH FORMATION	–9,999	39.480	–107.668	6/22/2005	1215
259	Hunter Mesa	Tertiary	WASATCH FORMATION	–9,999	39.480	–107.668	6/22/2005	1200
260	Hunter Mesa	Unknown	Not available	124	39.412	–107.645	6/23/2007	9999
261	Hunter Mesa	Unknown	Not available	260	39.449	–107.651	6/23/2007	9999
262	Hunter Mesa	Unknown	Not available	160	39.381	–107.638	12/18/2002	9999
263	Hunter Mesa	Unknown	Not available	355	39.387	–107.636	12/19/2002	9999
264	Hunter Mesa	Unknown	Not available	6	39.423	–107.669	6/23/2007	1200
264	Hunter Mesa	Unknown	Not available	6	39.423	–107.669	6/23/2007	1215
265	Hunter Mesa	Unknown	Not available	140	39.415	–107.663	1/28/2003	9999
266	Hunter Mesa	Unknown	Not available	120	39.384	–107.633	12/19/2002	9999
267	Hunter Mesa	Unknown	Not available	–9,999	39.478	–107.670	6/8/2006	9999
268	Hunter Mesa	Unknown	Not available	–9,999	39.467	–107.657	7/15/2008	9999
269	Hunter Mesa	Unknown	Not available	–9,999	39.489	–107.668	9/7/2001	9999
270	Hunter Mesa	Unknown	Not available	–9,999	39.488	–107.671	9/28/2005	9999
271	Hunter Mesa	Unknown	Not available	–9,999	39.489	–107.668	7/5/2005	9999
272	Hunter Mesa	Unknown	Not available	240	39.467	–107.646	2/15/2008	9999
273	Hunter Mesa	Unknown	Not available	172	39.470	–107.653	7/22/2008	9999
274	Hunter Mesa	Unknown	Not available	172	39.470	–107.653	5/3/2005	9999
275	Hunter Mesa	Unknown	Not available	320	39.465	–107.650	8/29/2008	9999
276	Hunter Mesa	Unknown	Not available	225	39.482	–107.668	9/17/2008	9999
277	Hunter Mesa	Unknown	Not available	95	39.470	–107.648	9/11/2006	9999
278	Hunter Mesa	Unknown	Not available	185	39.486	–107.660	6/15/2006	9999
279	Hunter Mesa	Unknown	Not available	400	39.490	–107.660	6/15/2006	9999
280	Hunter Mesa	Unknown	Not available	242	39.489	–107.656	6/15/2006	9999
281	Hunter Mesa	Unknown	Not available	160	39.488	–107.625	4/28/2005	9999
282	Hunter Mesa	Unknown	Not available	300	39.476	–107.629	6/21/2006	9999
283	Hunter Mesa	Unknown	Not available	198	39.465	–107.645	6/21/2007	9999
284	Hunter Mesa	Unknown	Not available	320	39.467	–107.651	7/23/2008	9999
285	Hunter Mesa	Unknown	Not available	200	39.467	–107.639	1/26/2009	9999
286	Hunter Mesa	Unknown	Not available	310	39.464	–107.643	9/7/2006	9999
287	Hunter Mesa	Unknown	Not available	300	39.468	–107.632	8/28/2008	9999
288	Hunter Mesa	Unknown	Not available	–9,999	39.441	–107.649	1/21/2003	9999
289	Hunter Mesa	Unknown	Not available	–9,999	39.440	–107.730	2/24/2005	9999
290	Hunter Mesa	Unknown	Not available	–9,999	39.482	–107.691	5/19/2005	9999
291	Hunter Mesa	Unknown	Not available	–9,999	39.468	–107.738	5/24/2004	9999
292	Hunter Mesa	Unknown	Not available	–9,999	39.457	–107.738	5/24/2004	9999
293	Hunter Mesa	Unknown	Not available	–9,999	39.462	–107.738	5/25/2004	9999
294	Hunter Mesa	Unknown	Not available	–9,999	39.453	–107.738	3/7/2005	9999
295	Hunter Mesa	Unknown	Not available	–9,999	39.463	–107.741	8/24/2004	9999
296	Hunter Mesa	Unknown	Not available	–9,999	39.403	–107.633	1/10/2003	9999
297	Hunter Mesa	Unknown	Not available	–9,999	39.412	–107.644	1/15/2003	9999
298	Hunter Mesa	Unknown	Not available	–9,999	39.412	–107.644	1/15/2003	9999
299	Hunter Mesa	Unknown	Not available	–9,999	39.476	–107.652	11/29/2007	9999
300	Hunter Mesa	Unknown	Not available	110	39.474	–107.651	9/21/2004	9999
301	Hunter Mesa	Unknown	Not available	110	39.474	–107.651	9/21/2004	9999
302	Hunter Mesa	Unknown	Not available	–9,999	39.447	–107.656	4/29/2004	9999
303	Hunter Mesa	Unknown	Not available	–9,999	39.448	–107.649	5/12/2006	9999
304	Hunter Mesa	Unknown	Not available	250	39.481	–107.668	9/17/2008	9999
305	Hunter Mesa	Unknown	Not available	300	39.472	–107.626	5/21/2008	9999
306	Hunter Mesa	Unknown	Not available	290	39.471	–107.629	5/21/2008	9999
307	Hunter Mesa	Unknown	Not available	–9,999	39.492	–107.654	6/19/2006	9999
308	Hunter Mesa	Unknown	Not available	–9,999	39.470	–107.653	7/22/2008	9999
309	Hunter Mesa	Unknown	Not available	–9,999	39.492	–107.691	3/17/2005	9999
310	Hunter Mesa	Unknown	Not available	445	39.472	–107.632	5/28/2008	9999
311	Hunter Mesa	Unknown	Not available	–9,999	39.418	–107.654	3/17/2005	9999
312	Hunter Mesa	Unknown	Not available	–9,999	39.441	–107.686	2/8/2005	9999
313	Hunter Mesa	Unknown	Not available	–9,999	39.483	–107.748	11/16/2004	9999
314	Hunter Mesa	Unknown	Not available	–9,999	39.490	–107.743	11/16/2004	9999
315	Hunter Mesa	Unknown	Not available	140	39.477	–107.710	10/7/2002	9999
316	Hunter Mesa	Unknown	Not available	140	39.438	–107.630	9/30/2004	9999
317	Hunter Mesa	Unknown	Not available	–9,999	39.496	–107.630	3/23/2005	9999

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Map name	Geologic unit	Aquifer description	Well depth (ft)	Latitude (decimal degrees, NAD83)	Longitude (decimal degrees, NAD83)	Collection date	Collection time
318	Hunter Mesa	Unknown	Not available	–9,999	39.424	–107.643	9/11/2003	9999
319	Hunter Mesa	Unknown	Not available	–9,999	39.480	–107.651	7/30/2008	9999
320	Hunter Mesa	Unknown	Not available	–9,999	39.485	–107.635	6/8/2006	9999
321	Hunter Mesa	Unknown	Not available	–9,999	39.430	–107.642	8/2/2002	9999
322	Hunter Mesa	Unknown	Not available	140	39.469	–107.642	8/29/2008	9999
323	Hunter Mesa	Unknown	Not available	–9,999	39.412	–107.64	1/15/2003	9999
324	Hunter Mesa	Unknown	Not available	–9,999	39.492	–107.651	6/8/2006	9999
325	Hunter Mesa	Unknown	Not available	–9,999	39.422	–107.634	3/8/2005	9999
326	Hunter Mesa	Unknown	Not available	–9,999	39.421	–107.634	3/8/2005	9999
327	Hunter Mesa	Unknown	Not available	300	39.465	–107.631	8/28/2008	9999
328	Hunter Mesa	Unknown	Not available	110	39.474	–107.651	7/15/2008	9999
329	Hunter Mesa	Unknown	Not available	–9,999	39.397	–107.635	1/25/2005	9999
330	Hunter Mesa	Unknown	Not available	–9,999	39.398	–107.626	12/19/2002	9999
331	Hunter Mesa	Unknown	Not available	–9,999	39.387	–107.635	12/19/2002	9999
332	Hunter Mesa	Unknown	Not available	180	39.488	–107.664	6/15/2006	9999
333	Hunter Mesa	Unknown	Not available	180	39.468	–107.652	7/23/2008	9999
334	Hunter Mesa	Unknown	Not available	–9,999	39.486	–107.656	6/20/2006	9999
335	Hunter Mesa	Unknown	Not available	–9,999	39.431	–107.634	12/20/2005	9999
336	Hunter Mesa	Unknown	Not available	–9,999	39.431	–107.634	12/20/2005	9999
337	Hunter Mesa	Unknown	Not available	–9,999	39.448	–107.658	1/17/2003	9999
338	Hunter Mesa	Unknown	Not available	–9,999	39.415	–107.657	1/14/2003	9999
339	Hunter Mesa	Unknown	Not available	–9,999	39.481	–107.658	6/8/2006	9999
340	Hunter Mesa	Unknown	Not available	–9,999	39.411	–107.638	1/15/2003	9999
341	Hunter Mesa	Unknown	Not available	–9,999	39.483	–107.749	7/15/2004	9999
342	Hunter Mesa	Unknown	Not available	–9,999	39.464	–107.661	7/13/2004	9999
343	Hunter Mesa	Unknown	Not available	–9,999	39.455	–107.659	7/13/2004	9999
344	Hunter Mesa	Unknown	Not available	–9,999	39.488	–107.651	6/14/2006	9999
345	Hunter Mesa	Unknown	Not available	–9,999	39.484	–107.651	8/22/2008	9999
346	Hunter Mesa	Unknown	Not available	–9,999	39.486	–107.664	6/26/2006	9999
347	Hunter Mesa	Unknown	Not available	–9,999	39.439	–107.649	1/23/2003	9999
348	Hunter Mesa	Unknown	Not available	–9,999	39.478	–107.657	7/13/2004	9999
349	Hunter Mesa	Unknown	Not available	–9,999	39.433	–107.657	1/31/2003	9999
350	Hunter Mesa	Unknown	Not available	–9,999	39.434	–107.664	1/31/2003	9999
351	Hunter Mesa	Unknown	Not available	–9,999	39.487	–107.672	9/3/2004	9999
352	Hunter Mesa	Unknown	Not available	–9,999	39.440	–107.646	10/25/2004	9999
353	Hunter Mesa	Unknown	Not available	–9,999	39.479	–107.644	3/7/2003	9999
354	Hunter Mesa	Unknown	Not available	–9,999	39.477	–107.660	7/22/2008	9999
355	Hunter Mesa	Unknown	Not available	–9,999	39.478	–107.657	7/22/2008	9999
356	Hunter Mesa	Unknown	Not available	–9,999	39.430	–107.641	8/2/2002	9999
357	Hunter Mesa	Unknown	Not available	–9,999	39.498	–107.689	6/13/2003	9999
358	Hunter Mesa	Unknown	Not available	–9,999	39.498	–107.689	9/23/2004	9999
359	Hunter Mesa	Unknown	Not available	–9,999	39.467	–107.646	9/16/2008	9999
360	Hunter Mesa	Unknown	Not available	–9,999	39.467	–107.646	9/26/2008	9999
361	Hunter Mesa	Unknown	Not available	–9,999	39.486	–107.667	6/19/2006	9999
362	Hunter Mesa	Unknown	Not available	–9,999	39.425	–107.640	7/1/2003	9999
363	Hunter Mesa	Unknown	Not available	–9,999	39.474	–107.652	12/1/2004	9999
364	Hunter Mesa	Unknown	Not available	–9,999	39.474	–107.652	6/6/2006	9999
365	Hunter Mesa	Unknown	Not available	–9,999	39.494	–107.644	6/7/2006	9999
366	Hunter Mesa	Unknown	Not available	–9,999	39.433	–107.671	12/9/2002	9999
367	Hunter Mesa	Unknown	Not available	–9,999	39.423	–107.668	1/28/2003	9999
368	Hunter Mesa	Unknown	Not available	–9,999	39.415	–107.663	1/28/2003	9999
369	Hunter Mesa	Unknown	Not available	–9,999	39.478	–107.690	10/16/2008	9999
370	Hunter Mesa	Unknown	Not available	–9,999	39.444	–107.627	5/9/2003	9999
371	Hunter Mesa	Unknown	Not available	–9,999	39.427	–107.636	1/16/2003	9999
372	Hunter Mesa	Unknown	Not available	–9,999	39.457	–107.656	11/18/2004	9999
373	Hunter Mesa	Unknown	Not available	–9,999	39.409	–107.660	11/6/2003	9999
374	Hunter Mesa	Unknown	Not available	–9,999	39.468	–107.739	2/16/2005	9999
375	Hunter Mesa	Unknown	Not available	–9,999	39.384	–107.632	12/19/2002	9999
376	Hunter Mesa	Unknown	Not available	–9,999	39.497	–107.655	6/19/2006	9999
377	Hunter Mesa	Unknown	Not available	–9,999	39.495	–107.650	6/19/2006	9999
378	Hunter Mesa	Unknown	Not available	–9,999	39.452	–107.699	8/8/2001	9999
379	Hunter Mesa	Unknown	Not available	–9,999	39.480	–107.749	8/11/2005	9999
380	Hunter Mesa	Unknown	Not available	–9,999	39.464	–107.643	8/28/2008	9999
381	Hunter Mesa	Unknown	Not available	–9,999	39.486	–107.651	3/11/2003	9999

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Map name	Geologic unit	Aquifer description	Well depth (ft)	Latitude (decimal degrees, NAD83)	Longitude (decimal degrees, NAD83)	Collection date	Collection time
382	Hunter Mesa	Unknown	Not available	–9,999	39.484	–107.691	6/23/2004	9999
383	Hunter Mesa	Unknown	Not available	–9,999	39.485	–107.651	6/19/2006	9999
384	Hunter Mesa	Unknown	Not available	–9,999	39.428	–107.641	8/20/2002	9999
385	Hunter Mesa	Unknown	Not available	–9,999	39.437	–107.729	2/24/2005	9999
386	Hunter Mesa	Unknown	Not available	–9,999	39.447	–107.723	5/16/2005	9999
387	Hunter Mesa	Unknown	Not available	–9,999	39.379	–107.632	3/3/2005	9999
388	Hunter Mesa	Unknown	Not available	–9,999	39.381	–107.628	12/18/2002	9999
389	Hunter Mesa	Unknown	Not available	–9,999	39.380	–107.630	2/24/2005	9999
390	Hunter Mesa	Unknown	Not available	–9,999	39.380	–107.630	7/31/2006	9999
391	Hunter Mesa	Unknown	Not available	–9,999	39.491	–107.658	6/15/2006	9999
392	Hunter Mesa	Unknown	Not available	–9,999	39.491	–107.642	7/6/2006	9999
393	Hunter Mesa	Unknown	Not available	–9,999	39.483	–107.660	2/7/2005	9999
394	Hunter Mesa	Unknown	Not available	–9,999	39.459	–107.648	4/5/2006	9999
395	Hunter Mesa	Unknown	Not available	–9,999	39.482	–107.662	6/7/2006	9999
396	Hunter Mesa	Unknown	Not available	–9,999	39.483	–107.663	1/25/2006	9999
397	Hunter Mesa	Unknown	Not available	–9,999	39.453	–107.733	12/9/2004	9999
398	Hunter Mesa	Unknown	Not available	–9,999	39.464	–107.701	9/11/2003	9999
399	Hunter Mesa	Unknown	Not available	–9,999	39.432	–107.680	8/11/2004	9999
400	Hunter Mesa	Unknown	Not available	–9,999	39.434	–107.673	8/11/2004	9999
401	Hunter Mesa	Unknown	Not available	–9,999	39.488	–107.643	6/20/2006	9999
402	Hunter Mesa	Unknown	Not available	–9,999	39.489	–107.640	6/7/2006	9999
403	Hunter Mesa	Unknown	Not available	–9,999	39.406	–107.633	12/18/2002	9999
404	Hunter Mesa	Unknown	Not available	–9,999	39.426	–107.641	1/16/2003	9999
405	Hunter Mesa	Unknown	Not available	–9,999	39.424	–107.659	2/4/2003	9999
406	Hunter Mesa	Unknown	Not available	–9,999	39.488	–107.635	6/14/2006	9999
407	Hunter Mesa	Unknown	Not available	–9,999	39.445	–107.657	1/30/2003	9999
408	Long Point	Quaternary	ALLUVIUM,TERRACE	61	39.375	–108.260	4/19/1979	0
409	Long Point	Unknown	Not available	61	39.378	–108.361	9/6/1977	1200
410	Long Point	Quaternary	ALLUVIUM,TERRACE	70	39.398	–108.269	4/19/1979	0
414	Long Point	Unknown	Not available	56	39.483	–108.323	9/6/1977	940
415	Long Point	Quaternary	ALLUVIUM,TERRACE	56	39.483	–108.328	4/25/1979	1100
416	Long Point	Quaternary	ALLUVIUM,TERRACE	56	39.490	–108.321	4/25/1979	1000
417	Long Point	Quaternary	ALLUVIUM,TERRACE	56	39.495	–108.370	4/18/1979	0
418	McCarthy Gulch	Unknown	Not available	–9999	39.682	–108.103	9/13/1977	1300
419	McCarthy Gulch	Tertiary	GREEN RIVER FORMATION	22	39.643	–108.007	10/27/1977	1630
420	Mount Blaine	Unknown	Not available	56	39.502	–108.322	9/6/1977	1010
428	New Castle	Unknown	Not available	–9,999	39.506	–107.601	4/20/2005	9999
429	New Castle	Unknown	Not available	–9,999	39.588	–107.544	6/2/1997	9999
430	New Castle	Unknown	Not available	–9,999	39.559	–107.561	8/10/2006	9999
432	New Castle	Unknown	Not available	–9,999	39.560	–107.577	6/4/1997	9999
433	New Castle	Unknown	Not available	–9,999	39.512	–107.535	6/4/1997	9999
434	New Castle	Unknown	Not available	–9,999	39.501	–107.584	6/17/2005	9999
435	New Castle	Unknown	Not available	–9,999	39.506	–107.597	6/17/2005	9999
436	New Castle	Unknown	Not available	–9,999	39.506	–107.621	4/19/2005	9999
437	New Castle	Unknown	Not available	150	39.504	–107.613	9/17/1999	9999
438	New Castle	Unknown	Not available	120	39.604	–107.552	6/3/1997	9999
439	New Castle	Unknown	Not available	–9,999	39.515	–107.616	6/22/2004	9999
440	New Castle	Unknown	Not available	165	39.614	–107.549	9/14/1999	9999
441	New Castle	Unknown	Not available	210	39.559	–107.599	8/10/2006	9999
442	New Castle	Unknown	Not available	–9,999	39.516	–107.623	7/12/2007	9999
443	New Castle	Tertiary	WASATCH FORMATION	140	39.503	–107.622	12/4/2007	9999
444	New Castle	Unknown	Not available	–9,999	39.508	–107.604	4/20/2005	9999
445	New Castle	Unknown	Not available	–9,999	39.557	–107.619	5/10/2005	9999
446	New Castle	Unknown	Not available	–9,999	39.561	–107.569	8/3/2006	9999
447	New Castle	Unknown	Not available	–9,999	39.561	–107.563	8/3/2006	1215
447	New Castle	Unknown	Not available	–9,999	39.561	–107.563	8/3/2006	1200
448	New Castle	Unknown	Not available	–9,999	39.561	–107.572	8/4/2006	1215
448	New Castle	Unknown	Not available	–9,999	39.561	–107.572	8/4/2006	1200
449	New Castle	Unknown	Not available	168	39.556	–107.623	8/14/2006	9999
450	New Castle	Unknown	Not available	230	39.558	–107.574	8/7/2006	9999
451	New Castle	Unknown	Not available	130	39.557	–107.579	8/7/2006	9999
452	New Castle	Unknown	Not available	117	39.557	–107.602	8/8/2006	9999
453	New Castle	Unknown	Not available	275	39.559	–107.599	8/8/2006	1215

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Map name	Geologic unit	Aquifer description	Well depth (ft)	Latitude (decimal degrees, NAD83)	Longitude (decimal degrees, NAD83)	Collection date	Collection time
453	New Castle	Unknown	Not available	275	39.559	–107.599	8/8/2006	1200
454	New Castle	Unknown	Not available	110	39.558	–107.610	8/1/2006	1215
454	New Castle	Unknown	Not available	110	39.558	–107.610	8/1/2006	1200
455	New Castle	Unknown	Not available	–9,999	39.56	–107.62	8/12/1998	9999
456	New Castle	Unknown	Not available	–9,999	39.55	–107.59	8/12/1998	9999
457	North Mamm Peak	Unknown	Not available	–9,999	39.485	–107.868	10/23/1997	9999
458	North Mamm Peak	Unknown	Not available	–9,999	39.499	–107.864	10/23/1997	9999
459	North Mamm Peak	Unknown	Not available	–9,999	39.497	–107.863	10/23/1997	9999
460	North Mamm Peak	Unknown	Not available	–9,999	39.487	–107.772	4/19/2004	9999
461	North Mamm Peak	Unknown	Not available	–9,999	39.483	–107.750	7/9/2002	9999
462	North Mamm Peak	Unknown	Not available	–9,999	39.475	–107.777	6/25/2007	9999
463	North Mamm Peak	Unknown	Not available	–9,999	39.475	–107.782	3/4/2002	9999
464	North Mamm Peak	Unknown	Not available	–9,999	39.487	–107.772	3/4/2002	9999
465	North Mamm Peak	Cretaceous	MESAVERDE GROUP	–9,999	39.480	–107.868	4/18/1986	1300
466	North Mamm Peak	Unknown	Not available	–9,999	39.499	–107.862	6/12/1998	9999
468	North Mamm Peak	Unknown	Not available	–9,999	39.479	–107.874	10/23/1997	9999
469	North Mamm Peak	Unknown	Not available	–9,999	39.498	–107.761	5/11/2004	9999
470	North Mamm Peak	Unknown	Not available	–9,999	39.457	–107.782	7/19/2004	9999
471	North Mamm Peak	Unknown	Not available	–9,999	39.484	–107.762	4/6/2004	9999
472	North Mamm Peak	Unknown	Not available	–9,999	39.476	–107.779	6/8/2004	9999
473	North Mamm Peak	Unknown	Not available	–9,999	39.498	–107.762	10/2/2001	9999
474	North Mamm Peak	Unknown	Not available	–9,999	39.497	–107.762	10/2/2001	9999
475	North Mamm Peak	Unknown	Not available	–9,999	39.492	–107.773	10/2/2001	9999
476	North Mamm Peak	Unknown	Not available	–9,999	39.483	–107.765	7/6/2007	9999
477	North Mamm Peak	Unknown	Not available	–9,999	39.465	–107.779	6/8/2004	9999
478	North Mamm Peak	Unknown	Not available	–9,999	39.499	–107.772	3/23/2004	9999
479	North Mamm Peak	Unknown	Not available	–9,999	39.479	–107.769	1/30/2004	9999
480	North Mamm Peak	Unknown	Not available	–9,999	39.481	–107.872	4/27/2001	9999
481	North Mamm Peak	Unknown	Not available	–9,999	39.486	–107.771	4/8/2004	9999
482	North Mamm Peak	Unknown	Not available	–9,999	39.491	–107.767	4/8/2004	9999
483	North Mamm Peak	Unknown	Not available	–9,999	39.488	–107.770	4/7/2004	9999
484	North Mamm Peak	Unknown	Not available	–9,999	39.464	–107.783	7/21/2005	9999
485	North Mamm Peak	Unknown	Not available	–9,999	39.468	–107.783	12/29/2004	9999
486	North Mamm Peak	Unknown	Not available	–9,999	39.470	–107.779	3/26/2003	9999
487	North Mamm Peak	Unknown	Not available	–9,999	39.455	–107.781	11/17/2005	9999
488	North Mamm Peak	Unknown	Not available	102	39.495	–107.865	7/8/1997	9999
489	North Mamm Peak	Unknown	Not available	120	39.483	–107.873	10/22/1997	9999
490	North Mamm Peak	Unknown	Not available	140	39.485	–107.873	10/23/1997	9999
491	North Mamm Peak	Unknown	Not available	300	39.471	–107.768	6/14/2001	9999
492	North Mamm Peak	Unknown	Not available	–9,999	39.489	–107.754	7/22/2004	9999
493	North Mamm Peak	Tertiary	WASATCH FORMATION	100	39.491	–107.754	6/21/2007	9999
494	North Mamm Peak	Unknown	Not available	282	39.500	–107.766	9/28/2001	9999
495	North Mamm Peak	Unknown	Not available	300	39.473	–107.768	1/31/2002	9999
496	North Mamm Peak	Unknown	Not available	–9,999	39.488	–107.763	4/6/2004	9999
497	North Mamm Peak	Unknown	Not available	–9,999	39.483	–107.776	5/17/2004	9999
498	North Mamm Peak	Unknown	Not available	–9,999	39.494	–107.765	4/20/2004	9999
499	North Mamm Peak	Unknown	Not available	–9,999	39.491	–107.763	4/6/2004	9999
500	North Mamm Peak	Unknown	Not available	–9,999	39.499	–107.771	3/23/2004	9999
501	North Mamm Peak	Tertiary	WASATCH FORMATION	160	39.477	–107.860	2/3/2004	9999
502	North Mamm Peak	Unknown	Not available	235	39.500	–107.824	1/9/2008	9999
503	North Mamm Peak	Unknown	Not available	180	39.477	–107.834	7/16/2008	9999
504	North Mamm Peak	Unknown	Not available	100	39.491	–107.752	11/20/2008	9999
505	North Mamm Peak	Unknown	Not available	180	39.457	–107.781	6/6/2008	9999
506	North Mamm Peak	Unknown	Not available	–9,999	39.486	–107.771	4/8/2004	9999
507	North Mamm Peak	Unknown	Not available	–9,999	39.480	–107.782	7/20/2004	9999
508	North Mamm Peak	Unknown	Not available	–9,999	39.481	–107.773	6/8/2004	9999
509	North Mamm Peak	Unknown	Not available	–9,999	39.497	–107.783	7/21/2004	9999
510	North Mamm Peak	Unknown	Not available	–9,999	39.500	–107.784	7/14/2006	9999
511	North Mamm Peak	Unknown	Not available	–9,999	39.491	–107.767	4/8/2004	9999
512	North Mamm Peak	Unknown	Not available	–9,999	39.483	–107.764	7/14/2004	9999
513	North Mamm Peak	Unknown	Not available	–9,999	39.488	–107.770	2/6/2007	9999
514	North Mamm Peak	Unknown	Not available	180	39.480	–107.770	4/14/2003	9999
515	North Mamm Peak	Unknown	Not available	–9,999	39.465	–107.778	12/3/2008	9999
516	North Mamm Peak	Unknown	Not available	–9,999	39.499	–107.772	3/23/2004	9999
517	North Mamm Peak	Unknown	Not available	–9,999	39.476	–107.772	7/20/2004	9999
518	North Mamm Peak	Unknown	Not available	–9,999	39.464	–107.783	12/3/2008	9999

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Map name	Geologic unit	Aquifer description	Well depth (ft)	Latitude (decimal degrees, NAD83)	Longitude (decimal degrees, NAD83)	Collection date	Collection time
519	North Mamm Peak	Unknown	Not available	–9,999	39.468	–107.782	12/3/2008	9999
520	North Mamm Peak	Unknown	Not available	–9,999	39.498	–107.760	4/13/2009	9999
521	North Mamm Peak	Unknown	Not available	–9,999	39.488	–107.758	4/20/2005	9999
522	North Mamm Peak	Unknown	Not available	–9,999	39.497	–107.761	3/24/2005	9999
523	North Mamm Peak	Unknown	Not available	–9,999	39.473	–107.857	6/16/2005	9999
524	North Mamm Peak	Unknown	Not available	–9,999	39.477	–107.781	7/14/2004	9999
525	North Mamm Peak	Unknown	Not available	–9,999	39.484	–107.761	4/6/2004	9999
526	North Mamm Peak	Unknown	Not available	–9,999	39.455	–107.781	5/11/2006	9999
527	North Mamm Peak	Unknown	Not available	–9,999	39.476	–107.778	11/20/2008	9999
528	North Mamm Peak	Unknown	Not available	–9,999	39.488	–107.762	4/6/2004	9999
529	North Mamm Peak	Unknown	Not available	–9,999	39.492	–107.772	11/20/2008	9999
530	North Mamm Peak	Unknown	Not available	–9,999	39.477	–107.799	6/7/2006	9999
531	North Mamm Peak	Unknown	Not available	–9,999	39.499	–107.762	10/2/2001	9999
532	North Mamm Peak	Unknown	Not available	–9,999	39.488	–107.766	4/26/2003	9999
533	North Mamm Peak	Unknown	Not available	–9,999	39.482	–107.776	6/8/2004	9999
534	North Mamm Peak	Unknown	Not available	–9,999	39.486	–107.867	12/22/2004	9999
535	North Mamm Peak	Unknown	Not available	–9,999	39.491	–107.866	12/22/2004	9999
536	North Mamm Peak	Unknown	Not available	–9,999	39.483	–107.776	2/19/2009	9999
537	North Mamm Peak	Unknown	Not available	–9,999	39.495	–107.764	9/1/2005	9999
538	North Mamm Peak	Unknown	Not available	–9,999	39.497	–107.761	10/2/2001	9999
539	North Mamm Peak	Unknown	Not available	–9,999	39.491	–107.762	11/20/2008	9999
540	North Mamm Peak	Unknown	Not available	–9,999	39.495	–107.767	5/23/2005	9999
541	North Mamm Peak	Unknown	Not available	–9,999	39.472	–107.767	6/8/2004	9999
542	North Mamm Peak	Unknown	Not available	–9,999	39.499	–107.770	3/23/2004	9999
543	North Mamm Peak	Unknown	Not available	–9,999	39.462	–107.780	12/3/2008	9999
544	Parachute	Unknown	Not available	–9,999	39.444	–108.016	8/3/1978	0
558	Parachute	Quaternary	ALLUVIUM,TERRACE	152	39.466	–108.076	4/23/1979	0
559	Parachute	Quaternary	ALLUVIUM,TERRACE	152	39.470	–108.080	4/24/1979	930
560	Parachute	Unknown	Not available	56	39.476	–108.098	3/20/1969	0
561	Parachute	Unknown	Not available	56	39.477	–108.095	3/20/1969	0
562	Parachute	Unknown	Not available	–9,999	39.411	–108.092	8/5/1999	9999
563	Parachute	Unknown	Not available	–9,999	39.459	–108.067	6/11/1998	9999
564	Parachute	Unknown	Not available	56	39.483	–108.099	3/20/1969	0
565	Parachute	Unknown	Not available	56	39.483	–108.095	3/20/1969	0
566	Parachute	Unknown	Not available	180	39.489	–108.005	3/26/1969	0
569	Parachute	Unknown	Not available	56	39.493	–108.124	3/20/1969	0
570	Parachute	Unknown	Not available	–9,999	39.483	–108.100	6/12/1997	9999
571	Parachute	Unknown	Not available	–9,999	39.465	–108.077	6/12/1997	9999
572	Parachute	Unknown	Not available	60	39.457	–108.064	6/11/1998	9999
573	Parachute	Unknown	Not available	150	39.467	–108.009	6/10/1998	9999
574	Parachute	Unknown	Not available	170	39.467	–108.009	9/17/1999	9999
575	Parachute	Unknown	Not available	–9,999	39.396	–108.100	11/13/2006	9999
576	Parachute	Unknown	Not available	70	39.383	–108.078	6/12/1997	9999
577	Parachute	Unknown	Not available	87	39.432	–108.023	6/12/1997	9999
578	Parachute	Unknown	Not available	220	39.443	–108.017	6/12/1997	9999
579	Parachute	Unknown	Not available	–9,999	39.445	–108.008	7/5/2006	9999
580	Parachute	Unknown	Not available	75	39.427	–108.018	7/9/1997	9999
581	Parachute	Unknown	Not available	–9,999	39.427	–108.026	7/14/2009	1335
582	Parachute	Unknown	Not available	–9,999	39.428	–108.029	7/14/2009	1058
583	Parachute	Unknown	Not available	–9,999	39.430	–108.019	7/16/2009	856
584	Parachute	Unknown	Not available	–9,999	39.430	–108.024	7/15/2009	1337
585	Parachute	Unknown	Not available	–9,999	39.430	–108.014	7/16/2009	932
586	Parachute	Unknown	Not available	–9,999	39.430	–108.027	7/14/2009	1155
587	Parachute	Unknown	Not available	–9,999	39.431	–108.020	7/15/2009	951
588	Parachute	Unknown	Not available	–9,999	39.431	–108.019	7/15/2009	1129
589	Parachute	Unknown	Not available	–9,999	39.431	–108.023	7/15/2009	1223
590	Parachute	Unknown	Not available	–9,999	39.431	–108.029	7/14/2009	1010
591	Parachute	Unknown	Not available	–9,999	39.432	–108.029	7/14/2009	929
592	Parachute	Unknown	Not available	–9,999	39.433	–108.026	7/16/2009	1330
593	Parachute	Unknown	Not available	–9,999	39.434	–108.028	7/15/2009	850
594	Parachute	Unknown	Not available	–9,999	39.434	–108.029	7/15/2009	1058
595	Parachute	Unknown	Not available	–9,999	39.434	–108.031	7/14/2009	840
596	Parachute	Unknown	Not available	–9,999	39.440	–108.015	7/16/2009	1027
597	Parachute	Unknown	Not available	–9,999	39.443	–108.014	7/16/2009	1119
598	Parachute	Unknown	Not available	–9,999	39.444	–108.016	7/16/2009	1204
599	Parachute	Unknown	Not available	340	39.377	–108.058	7/13/2007	9999

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Map name	Geologic unit	Aquifer description	Well depth (ft)	Latitude (decimal degrees, NAD83)	Longitude (decimal degrees, NAD83)	Collection date	Collection time
600	Parachute	Unknown	Not available	200	39.378	–108.068	7/13/2007	9999
601	Parachute	Unknown	Not available	112	39.438	–108.012	5/1/2007	9999
602	Parachute	Unknown	Not available	–9,999	39.376	–108.092	7/7/2006	9999
603	Parachute	Unknown	Not available	–9,999	39.437	–108.000	12/5/2008	9999
604	Parachute	Unknown	Not available	–9,999	39.378	–108.109	6/23/2006	9999
605	Parachute	Unknown	Not available	–9,999	39.403	–108.108	10/19/2006	9999
606	Parachute	Unknown	Not available	–9,999	39.403	–108.107	10/19/2006	9999
607	Parachute	Unknown	Not available	–9,999	39.385	–108.059	4/28/2006	9999
608	Parachute	Unknown	Not available	–9,999	39.445	–108.006	9/17/2008	9999
609	Parachute	Unknown	Not available	–9,999	39.430	–108.014	11/8/2007	9999
610	Parachute	Unknown	Not available	–9,999	39.440	–108.015	6/29/2006	9999
611	Parachute	Unknown	Not available	–9,999	39.443	–108.014	6/30/2006	9999
612	Parachute	Unknown	Not available	–9,999	39.444	–108.015	7/5/2006	9999
613	Parachute	Unknown	Not available	–9,999	39.442	–108.015	7/6/2006	9999
614	Parachute	Unknown	Not available	–9,999	39.444	–108.016	6/29/2006	9999
615	Parachute	Unknown	Not available	–9,999	39.48	–108.1	8/12/1998	9999
616	Rifle	Unknown	Not available	–9,999	39.504	–107.822	8/30/1999	9999
617	Rifle	Unknown	Not available	–9,999	39.504	–107.823	8/30/1999	9999
623	Rifle	Tertiary	WASATCH FORMATION	200	39.544	–107.753	4/24/2009	1620
624	Rifle	Tertiary	WASATCH FORMATION	110	39.554	–107.766	4/26/2009	1240
625	Rifle	Unknown	Not available	–9,999	39.559	–107.760	8/15/2006	9999
626	Rifle	Unknown	Not available	–9,999	39.536	–107.756	7/7/1997	9999
627	Rifle	Tertiary	WASATCH FORMATION	100	39.591	–107.76	4/26/2009	1640
628	Rifle	Unknown	Not available	–9,999	39.511	–107.821	10/3/2007	9999
629	Rifle	Unknown	Not available	–9,999	39.500	–107.766	10/2/2001	9999
630	Rifle	Unknown	Not available	–9,999	39.508	–107.756	6/8/2004	9999
631	Rifle	Unknown	Not available	–9,999	39.512	–107.760	10/15/2001	9999
632	Rifle	Unknown	Not available	–9,999	39.505	–107.762	2/17/2005	9999
633	Rifle	Unknown	Not available	–9,999	39.501	–107.760	2/17/2005	9999
634	Rifle	Unknown	Not available	325	39.506	–107.845	7/8/1997	9999
635	Rifle	Unknown	Not available	150	39.512	–107.824	10/1/2007	9999
636	Rifle	Unknown	Not available	150	39.511	–107.821	10/2/2007	9999
637	Rifle	Unknown	Not available	120	39.510	–107.804	2/12/2008	9999
638	Rifle	Unknown	Not available	300	39.505	–107.808	2/12/2008	9999
639	Rifle	Unknown	Not available	200	39.504	–107.823	7/11/1997	9999
640	Rifle	Unknown	Not available	–9,999	39.500	–107.767	3/23/2004	9999
641	Rifle	Unknown	Not available	194	39.503	–107.763	5/11/2004	9999
642	Rifle	Unknown	Not available	185	39.508	–107.751	9/28/2001	9999
643	Rifle	Unknown	Not available	–9,999	39.508	–107.774	3/23/2004	9999
644	Rifle	Unknown	Not available	–9,999	39.501	–107.833	1/9/2008	9999
645	Rifle	Unknown	Not available	–9,999	39.501	–107.773	3/23/2004	9999
646	Rifle	Unknown	Not available	–9,999	39.587	–107.768	8/16/2006	9999
647	Rifle	Unknown	Not available	–9,999	39.566	–107.772	8/15/2006	9999
649	Rifle	Unknown	Not available	–9,999	39.534	–107.757	8/14/2006	9999
650	Rifle	Unknown	Not available	–9,999	39.504	–107.820	11/14/2006	9999
651	Rifle	Unknown	Not available	–9,999	39.504	–107.820	11/14/2006	9999
652	Rifle	Unknown	Not available	–9,999	39.503	–107.812	10/2/2007	9999
653	Rifle	Unknown	Not available	–9,999	39.504	–107.818	7/16/2008	9999
654	Rifle	Unknown	Not available	–9,999	39.523	–107.767	9/26/2007	1124
655	Rifle	Unknown	Not available	–9,999	39.523	–107.767	9/26/2007	1156
656	Rifle	Unknown	Not available	–9,999	39.528	–107.754	8/23/2006	1244
657	Rifle	Unknown	Not available	–9,999	39.532	–107.757	8/23/2006	1154
658	Rifle	Unknown	Not available	–9,999	39.534	–107.757	8/23/2006	930
660	Rifle	Unknown	Not available	80	39.578	–107.763	8/1/2006	1215
660	Rifle	Unknown	Not available	80	39.578	–107.763	8/1/2006	1200
661	Rifle	Unknown	Not available	–9,999	39.536	–107.765	9/25/2006	1116
662	Rifle	Unknown	Not available	75	39.539	–107.758	8/2/2006	9999
663	Rifle	Unknown	Not available	200	39.542	–107.753	8/1/2006	1215
663	Rifle	Unknown	Not available	200	39.542	–107.753	8/1/2006	1200
664	Rifle	Unknown	Not available	–9,999	39.538	–107.754	8/23/2006	1012
665	Rifle	Unknown	Not available	250	39.504	–107.820	1/8/2008	9999
666	Rifle	Unknown	Not available	240	39.511	–107.816	10/4/2007	9999
667	Rifle	Unknown	Not available	160	39.514	–107.818	10/4/2007	9999
668	Rifle	Unknown	Not available	145	39.514	–107.817	10/1/2007	9999
669	Rifle	Unknown	Not available	–9,999	39.539	–107.758	9/25/2006	826
670	Rifle	Unknown	Not available	200	39.508	–107.820	10/3/2007	9999

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Map name	Geologic unit	Aquifer description	Well depth (ft)	Latitude (decimal degrees, NAD83)	Longitude (decimal degrees, NAD83)	Collection date	Collection time
671	Rifle	Unknown	Not available	265	39.504	–107.822	1/8/2008	9999
672	Rifle	Unknown	Not available	130	39.510	–107.805	2/11/2008	9999
673	Rifle	Unknown	Not available	280	39.503	–107.825	1/8/2008	9999
674	Rifle	Unknown	Not available	210	39.505	–107.829	1/8/2008	9999
675	Rifle	Unknown	Not available	–9,999	39.539	–107.758	9/25/2006	1204
676	Rifle	Unknown	Not available	–9,999	39.559	–107.760	6/14/2006	924
677	Rifle	Unknown	Not available	280	39.509	–107.785	11/17/2005	9999
678	Rifle	Unknown	Not available	–9,999	39.501	–107.761	4/13/2009	9999
679	Rifle	Unknown	Not available	–9,999	39.506	–107.763	3/31/2004	9999
680	Rifle	Unknown	Not available	–9,999	39.505	–107.769	8/20/2002	9999
681	Rifle	Unknown	Not available	–9,999	39.504	–107.763	4/13/2009	9999
682	Rifle	Unknown	Not available	–9,999	39.512	–107.759	10/15/2001	9999
683	Rifle	Unknown	Not available	–9,999	39.508	–107.755	6/8/2004	9999
684	Rifle	Unknown	Not available	–9,999	39.500	–107.766	3/23/2004	9999
685	Rifle	Unknown	Not available	–9,999	39.505	–107.772	6/18/2003	9999
686	Rifle	Unknown	Not available	–9,999	39.504	–107.777	8/28/2002	9999
687	Rifle	Unknown	Not available	–9,999	39.505	–107.761	4/13/2009	9999
688	Rifle	Unknown	Not available	–9,999	39.501	–107.773	3/23/2004	9999
689	Rifle	Unknown	Not available	–9,999	39.519	–107.776	8/18/2004	9999
690	Rifle	Unknown	Not available	–9,999	39.508	–107.774	3/23/2004	9999
691	Rio Blanco	Tertiary	GREEN RIVER FORMATION	22	39.629	–107.964	10/23/1977	1525
692	Rulison	Unknown	Not available	–9,999	39.406	–107.948	4/5/1968	730
693	Rulison	Unknown	Not available	–9,999	39.472	–107.886	10/22/1997	9999
694	Rulison	Unknown	Not available	–9,999	39.457	–107.963	8/6/1999	9999
695	Rulison	Unknown	Not available	–9,999	39.493	–107.911	7/13/2007	9999
696	Rulison	Unknown	Not available	–9,999	39.479	–107.965	10/18/2000	9999
699	Rulison	Unknown	Not available	–9,999	39.477	–107.887	9/24/2002	9999
704	Rulison	Unknown	Not available	142	39.482	–107.934	9/13/1970	0
706	Rulison	Unknown	Not available	–9,999	39.479	–107.942	6/11/1998	9999
707	Rulison	Unknown	Not available	–9,999	39.481	–107.881	6/11/1998	9999
708	Rulison	Unknown	Not available	–9,999	39.457	–107.949	6/12/1998	9999
709	Rulison	Unknown	Not available	–9,999	39.456	–107.986	6/9/1998	9999
710	Rulison	Unknown	Not available	–9,999	39.446	–107.981	9/17/1999	9999
711	Rulison	Unknown	Not available	–9,999	39.459	–107.972	6/9/1998	9999
712	Rulison	Unknown	Not available	–9,999	39.484	–107.901	2/11/1999	9999
714	Rulison	Unknown	Not available	–9,999	39.483	–107.901	2/11/1999	9999
715	Rulison	Unknown	Not available	–9,999	39.482	–107.949	7/9/1997	9999
716	Rulison	Unknown	Not available	–9,999	39.480	–107.881	10/22/1997	9999
717	Rulison	Unknown	Not available	–9,999	39.481	–107.887	10/22/1997	9999
718	Rulison	Unknown	Not available	–9,999	39.473	–107.892	10/22/1997	9999
719	Rulison	Unknown	Not available	200	39.462	–107.973	6/10/1998	9999
720	Rulison	Unknown	Not available	210	39.465	–107.974	6/10/1998	9999
721	Rulison	Unknown	Not available	–9,999	39.482	–107.878	12/17/1998	9999
722	Rulison	Unknown	Not available	–9,999	39.482	–107.878	1/30/2004	9999
723	Rulison	Unknown	Not available	–9,999	39.476	–107.876	1/18/1999	9999
724	Rulison	Unknown	Not available	–9,999	39.475	–107.880	1/18/1999	9999
725	Rulison	Unknown	Not available	–9,999	39.481	–107.880	1/30/2004	9999
726	Rulison	Unknown	Not available	–9,999	39.456	–107.983	7/21/2005	9999
727	Rulison	Unknown	Not available	205	39.479	–107.942	6/11/1998	9999
728	Rulison	Unknown	Not available	90	39.480	–107.942	6/11/1998	9999
729	Rulison	Unknown	Not available	130	39.480	–107.940	6/11/1998	9999
730	Rulison	Unknown	Not available	130	39.480	–107.940	6/11/1998	9999
731	Rulison	Unknown	Not available	168	39.460	–107.925	6/12/1998	9999
732	Rulison	Unknown	Not available	140	39.461	–107.928	6/12/1998	9999
733	Rulison	Unknown	Not available	90	39.459	–107.931	6/12/1998	9999
734	Rulison	Unknown	Not available	150	39.457	–107.992	6/9/1998	9999
735	Rulison	Unknown	Not available	250	39.454	–107.981	6/9/1998	9999
736	Rulison	Unknown	Not available	84	39.446	–107.976	6/9/1998	9999
737	Rulison	Unknown	Not available	125	39.456	–107.982	6/9/1998	9999
738	Rulison	Unknown	Not available	160	39.450	–107.979	6/9/1998	9999
739	Rulison	Unknown	Not available	90	39.465	–107.988	9/17/1999	9999
740	Rulison	Unknown	Not available	175	39.463	–107.984	6/9/1998	9999
741	Rulison	Unknown	Not available	170	39.461	–107.992	9/17/1999	9999
742	Rulison	Unknown	Not available	80	39.456	–107.976	6/9/1998	9999
743	Rulison	Unknown	Not available	155	39.456	–107.988	6/12/1997	9999
744	Rulison	Unknown	Not available	105	39.447	–107.977	6/12/1997	9999

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Map name	Geologic unit	Aquifer description	Well depth (ft)	Latitude (decimal degrees, NAD83)	Longitude (decimal degrees, NAD83)	Collection date	Collection time
745	Rulison	Unknown	Not available	200	39.463	–107.973	6/12/1997	9999
746	Rulison	Unknown	Not available	50	39.492	–107.937	7/8/1997	9999
747	Rulison	Unknown	Not available	110	39.485	–107.937	7/8/1997	9999
748	Rulison	Unknown	Not available	130	39.485	–107.935	7/8/1997	9999
749	Rulison	Unknown	Not available	52	39.480	–107.928	7/8/1997	9999
750	Rulison	Unknown	Not available	130	39.485	–107.901	7/8/1997	9999
751	Rulison	Unknown	Not available	6	39.480	–107.882	7/8/1997	9999
752	Rulison	Unknown	Not available	130	39.480	–107.878	7/8/1997	9999
753	Rulison	Unknown	Not available	180	39.479	–107.943	7/9/1997	9999
754	Rulison	Unknown	Not available	80	39.480	–107.952	7/9/1997	9999
755	Rulison	Unknown	Not available	155	39.455	–107.990	7/9/1997	9999
756	Rulison	Unknown	Not available	270	39.478	–107.887	10/22/1997	9999
757	Rulison	Unknown	Not available	130	39.481	–107.875	10/23/1997	9999
758	Rulison	Unknown	Not available	150	39.472	–107.891	10/22/1997	9999
759	Rulison	Unknown	Not available	160	39.440	–107.891	10/22/1997	9999
760	Rulison	Unknown	Not available	170	39.458	–107.983	7/9/1997	9999
761	Rulison	Unknown	Not available	124	39.458	–107.979	7/9/1997	9999
762	Rulison	Unknown	Not available	250	39.424	–107.959	7/9/1997	9999
763	Rulison	Unknown	Not available	140	39.482	–107.934	7/9/1997	9999
764	Rulison	Unknown	Not available	120	39.482	–107.926	7/9/1997	9999
765	Rulison	Unknown	Not available	130	39.479	–107.879	10/23/1997	9999
766	Rulison	Unknown	Not available	–9,999	39.455	–107.973	6/20/2006	9999
767	Rulison	Unknown	Not available	–9,999	39.454	–107.976	6/20/2006	9999
768	Rulison	Unknown	Not available	–9,999	39.464	–107.977	6/20/2006	9999
769	Rulison	Unknown	Not available	–9,999	39.455	–107.974	6/20/2006	9999
770	Rulison	Unknown	Not available	–9,999	39.449	–107.978	7/19/2006	9999
771	Rulison	Unknown	Not available	–9,999	39.466	–107.974	7/25/2006	9999
772	Rulison	Unknown	Not available	–9,999	39.459	–107.979	7/19/2006	9999
773	Rulison	Unknown	Not available	–9,999	39.458	–107.963	7/19/2006	9999
774	Rulison	Unknown	Not available	275	39.461	–107.986	7/18/2006	9999
775	Rulison	Unknown	Not available	–9,999	39.455	–107.973	10/5/2006	9999
776	Rulison	Unknown	Not available	–9,999	39.455	–107.972	10/5/2006	9999
777	Rulison	Unknown	Not available	–9,999	39.444	–107.983	5/3/2005	9999
778	Rulison	Unknown	Not available	–9,999	39.454	–107.972	10/10/2006	9999
779	Rulison	Unknown	Not available	170	39.485	–107.897	10/9/2006	1145
780	Rulison	Unknown	Not available	60	39.474	–107.907	9/1/2006	1020
781	Rulison	Unknown	Not available	135	39.482	–107.935	11/1/2006	1500
782	Rulison	Unknown	Not available	–9,999	39.465	–107.972	3/27/2008	9999
783	Rulison	Unknown	Not available	170	39.469	–107.909	9/13/2006	903
784	Rulison	Unknown	Not available	220	39.467	–107.912	9/1/2006	1250
785	Rulison	Unknown	Not available	85	39.496	–107.948	10/26/2006	1200
786	Rulison	Unknown	Not available	240	39.470	–107.913	8/30/2006	1515
787	Rulison	Unknown	Not available	130	39.476	–107.911	10/6/2008	1515
788	Rulison	Unknown	Not available	130	39.482	–107.926	10/18/2006	1205
789	Rulison	Unknown	Not available	100	39.459	–107.935	10/17/2006	1510
790	Rulison	Unknown	Not available	74	39.480	–107.940	10/6/2008	1615
791	Rulison	Unknown	Not available	–9,999	39.452	–107.976	10/5/2006	9999
792	Rulison	Unknown	Not available	–9,999	39.456	–107.977	10/5/2006	9999
793	Rulison	Unknown	Not available	–9,999	39.480	–107.951	8/7/2006	9999
794	Rulison	Unknown	Not available	–9,999	39.455	–107.976	10/10/2006	9999
795	Rulison	Unknown	Not available	–9,999	39.452	–107.974	10/5/2006	9999
796	Rulison	Unknown	Not available	–9,999	39.453	–107.986	7/9/2004	9999
797	Rulison	Unknown	Not available	–9,999	39.483	–107.904	12/22/2004	9999
798	Rulison	Unknown	Not available	–9,999	39.450	–107.975	10/10/2006	9999
799	Rulison	Unknown	Not available	–9,999	39.439	–107.999	12/5/2008	9999
800	Rulison	Unknown	Not available	–9,999	39.46	–107.99	8/12/1998	9999
801	Silt	Unknown	Not available	–9,999	39.526	–107.740	8/3/1978	0
802	Silt	Unknown	Not available	–9,999	39.501	–107.689	1/20/2005	9999
803	Silt	Unknown	Not available	–9,999	39.505	–107.631	7/14/2005	9999
804	Silt	Tertiary	WASATCH FORMATION	140	39.503	–107.632	4/23/2009	1550
805	Silt	Tertiary	WASATCH FORMATION	150	39.517	–107.653	4/25/2009	1510
806	Silt	Unknown	Not available	–9,999	39.503	–107.659	6/8/2007	9999
807	Silt	Tertiary	WASATCH FORMATION	440	39.517	–107.659	4/25/2009	1210
811	Silt	Tertiary	WASATCH FORMATION	80	39.553	–107.706	4/21/2009	1700
812	Silt	Tertiary	WASATCH FORMATION	52	39.553	–107.673	4/22/2009	1600
813	Silt	Tertiary	WASATCH FORMATION	80	39.555	–107.627	4/20/2009	1430

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Map name	Geologic unit	Aquifer description	Well depth (ft)	Latitude (decimal degrees, NAD83)	Longitude (decimal degrees, NAD83)	Collection date	Collection time
814	Silt	Tertiary	WASATCH FORMATION	145	39.560	–107.663	4/24/2009	1100
815	Silt	Unknown	Not available	–9,999	39.544	–107.733	8/14/2006	9999
816	Silt	Tertiary	WASATCH FORMATION	100	39.569	–107.719	4/24/2009	900
817	Silt	Tertiary	WASATCH FORMATION	138	39.571	–107.698	4/22/2009	900
818	Silt	Unknown	Not available	–9,999	39.542	–107.747	8/14/2006	9999
819	Silt	Quaternary	VALLEY-FILL DEPOSITS	50	39.565	–107.672	9/11/1997	1015
820	Silt	Tertiary	WASATCH FORMATION	200	39.582	–107.679	4/22/2009	1200
821	Silt	Unknown	Not available	–9,999	39.537	–107.639	6/4/1997	9999
822	Silt	Unknown	Not available	–9,999	39.519	–107.684	6/28/2005	9999
823	Silt	Unknown	Not available	–9,999	39.518	–107.685	6/28/2005	9999
824	Silt	Unknown	Not available	–9,999	39.520	–107.678	6/30/2005	9999
825	Silt	Unknown	Not available	–9,999	39.520	–107.683	7/12/2005	9999
826	Silt	Unknown	Not available	–9,999	39.515	–107.628	6/14/2007	9999
827	Silt	Unknown	Not available	–9,999	39.509	–107.639	4/20/2005	9999
828	Silt	Unknown	Not available	100	39.580	–107.660	8/9/2006	9999
829	Silt	Unknown	Not available	120	39.574	–107.639	6/3/1997	9999
830	Silt	Unknown	Not available	140	39.566	–107.733	8/15/2006	9999
831	Silt	Unknown	Not available	–9,999	39.516	–107.661	1/31/1995	9999
832	Silt	Unknown	Not available	–9,999	39.518	–107.691	7/12/2005	9999
833	Silt	Unknown	Not available	–9,999	39.504	–107.628	7/14/2005	9999
834	Silt	Unknown	Not available	70	39.534	–107.672	6/4/1997	9999
835	Silt	Unknown	Not available	100	39.564	–107.675	8/1/2006	9999
836	Silt	Unknown	Not available	160	39.573	–107.635	8/15/2006	9999
837	Silt	Unknown	Not available	80	39.564	–107.701	8/10/2006	9999
838	Silt	Unknown	Not available	78	39.555	–107.677	8/8/2006	1215
838	Silt	Unknown	Not available	78	39.555	–107.677	8/8/2006	1200
839	Silt	Unknown	Not available	250	39.535	–107.625	6/13/1997	9999
840	Silt	Unknown	Not available	100	39.558	–107.730	7/31/2006	1215
840	Silt	Unknown	Not available	100	39.558	–107.730	7/31/2006	1200
841	Silt	Unknown	Not available	97	39.552	–107.726	8/14/2006	9999
842	Silt	Unknown	Not available	80	39.550	–107.718	7/31/2006	1215
842	Silt	Unknown	Not available	80	39.550	–107.718	7/31/2006	1200
843	Silt	Unknown	Not available	100	39.528	–107.661	7/12/1997	9999
844	Silt	Unknown	Not available	50	39.534	–107.656	7/12/1997	9999
845	Silt	Unknown	Not available	430	39.581	–107.670	8/15/2006	9999
846	Silt	Unknown	Not available	–9,999	39.516	–107.625	6/14/2007	9999
847	Silt	Unknown	Not available	–9,999	39.510	–107.647	7/13/2007	9999
848	Silt	Unknown	Not available	–9,999	39.513	–107.629	5/5/2005	9999
849	Silt	Unknown	Not available	–9,999	39.501	–107.629	7/6/2007	9999
850	Silt	Unknown	Not available	–9,999	39.512	–107.633	5/5/2005	9999
851	Silt	Unknown	Not available	–9,999	39.556	–107.700	9/21/2005	9999
852	Silt	Unknown	Not available	–9,999	39.543	–107.724	10/17/2006	9999
853	Silt	Unknown	Not available	–9,999	39.544	–107.720	10/17/2006	9999
854	Silt	Unknown	Not available	–9,999	39.546	–107.721	10/17/2006	9999
855	Silt	Unknown	Not available	–9,999	39.585	–107.653	8/7/2006	1215
855	Silt	Unknown	Not available	–9,999	39.585	–107.653	8/7/2006	1200
856	Silt	Unknown	Not available	–9,999	39.576	–107.638	8/2/2006	9999
857	Silt	Unknown	Not available	–9,999	39.569	–107.653	8/9/2006	9999
858	Silt	Unknown	Not available	–9,999	39.564	–107.649	8/2/2006	9999
859	Silt	Unknown	Not available	–9,999	39.586	–107.677	8/16/2006	9999
860	Silt	Unknown	Not available	–9,999	39.584	–107.716	8/15/2006	1215
860	Silt	Unknown	Not available	–9,999	39.584	–107.716	8/15/2006	1200
861	Silt	Unknown	Not available	–9,999	39.565	–107.746	8/16/2006	9999
862	Silt	Unknown	Not available	–9,999	39.572	–107.680	7/31/2006	1215
862	Silt	Unknown	Not available	–9,999	39.572	–107.680	7/31/2006	1200
863	Silt	Tertiary	WASATCH FORMATION	215	39.512	–107.686	3/31/2005	9999
864	Silt	Unknown	Not available	–9,999	39.560	–107.648	8/15/2006	9999
865	Silt	Unknown	Not available	–9,999	39.560	–107.664	8/8/2006	9999
866	Silt	Unknown	Not available	–9,999	39.558	–107.706	8/2/2006	1215
866	Silt	Unknown	Not available	–9,999	39.558	–107.706	8/2/2006	1200
867	Silt	Unknown	Not available	–9,999	39.548	–107.673	8/15/2006	9999
868	Silt	Unknown	Not available	–9,999	39.553	–107.740	8/14/2006	9999
869	Silt	Unknown	Not available	–9,999	39.544	–107.731	8/2/2006	9999
870	Silt	Unknown	Not available	–9,999	39.512	–107.671	6/12/2007	1014
871	Silt	Unknown	Not available	–9,999	39.517	–107.711	6/27/2006	813
872	Silt	Unknown	Not available	–9,999	39.517	–107.653	9/24/2008	1156

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Map name	Geologic unit	Aquifer description	Well depth (ft)	Latitude (decimal degrees, NAD83)	Longitude (decimal degrees, NAD83)	Collection date	Collection time
873	Silt	Unknown	Not available	–9,999	39.517	–107.665	9/24/2008	1258
874	Silt	Unknown	Not available	–9,999	39.520	–107.683	9/26/2007	1320
875	Silt	Unknown	Not available	–9,999	39.520	–107.708	6/27/2006	950
876	Silt	Unknown	Not available	–9,999	39.521	–107.700	6/27/2006	900
877	Silt	Unknown	Not available	–9,999	39.528	–107.704	6/27/2006	1039
878	Silt	Unknown	Not available	–9,999	39.529	–107.746	8/23/2006	1307
879	Silt	Unknown	Not available	–9,999	39.531	–107.629	6/28/2007	1210
880	Silt	Unknown	Not available	–9,999	39.531	–107.694	9/21/2005	1101
881	Silt	Unknown	Not available	–9,999	39.531	–107.694	9/21/2005	1314
882	Silt	Unknown	Not available	–9,999	39.531	–107.696	9/21/2005	1132
883	Silt	Unknown	Not available	–9,999	39.531	–107.702	9/21/2005	933
884	Silt	Unknown	Not available	–9,999	39.531	–107.681	11/30/2006	1205
885	Silt	Unknown	Not available	–9,999	39.531	–107.670	2/5/2009	856
886	Silt	Tertiary	WASATCH FORMATION	100	39.587	–107.678	5/10/2005	9999
887	Silt	Unknown	Not available	–9,999	39.531	–107.671	2/5/2009	932
888	Silt	Unknown	Not available	–9,999	39.531	–107.691	9/21/2005	1014
889	Silt	Unknown	Not available	–9,999	39.532	–107.682	11/30/2006	1244
890	Silt	Unknown	Not available	–9,999	39.533	–107.670	2/5/2009	1117
891	Silt	Unknown	Not available	–9,999	39.533	–107.631	6/28/2007	1241
892	Silt	Unknown	Not available	–9,999	39.533	–107.671	2/5/2009	1023
893	Silt	Unknown	Not available	–9,999	39.533	–107.670	2/5/2009	1205
894	Silt	Unknown	Not available	–9,999	39.534	–107.676	2/4/2009	1326
895	Silt	Unknown	Not available	–9,999	39.534	–107.748	8/23/2006	1047
896	Silt	Unknown	Not available	–9,999	39.534	–107.655	3/29/2006	1147
897	Silt	Unknown	Not available	400	39.580	–107.643	8/2/2006	9999
898	Silt	Unknown	Not available	60	39.579	–107.646	8/2/2006	1215
898	Silt	Unknown	Not available	60	39.579	–107.646	8/2/2006	1200
899	Silt	Unknown	Not available	200	39.564	–107.632	8/9/2006	1215
899	Silt	Unknown	Not available	200	39.564	–107.632	8/9/2006	1200
900	Silt	Unknown	Not available	–9,999	39.534	–107.655	3/29/2006	1216
901	Silt	Unknown	Not available	–9,999	39.534	–107.672	2/5/2009	1335
902	Silt	Unknown	Not available	–9,999	39.534	–107.676	2/4/2009	1247
903	Silt	Unknown	Not available	–9,999	39.535	–107.652	3/29/2006	1307
904	Silt	Unknown	Not available	–9,999	39.535	–107.653	3/29/2006	1244
905	Silt	Unknown	Not available	110	39.583	–107.662	8/9/2006	1215
905	Silt	Unknown	Not available	110	39.583	–107.662	8/9/2006	1200
906	Silt	Unknown	Not available	200	39.580	–107.680	8/8/2006	9999
907	Silt	Unknown	Not available	85	39.582	–107.679	8/8/2006	1215
907	Silt	Unknown	Not available	85	39.582	–107.679	8/8/2006	1200
908	Silt	Unknown	Not available	220	39.571	–107.735	8/4/2006	1215
908	Silt	Unknown	Not available	220	39.571	–107.735	8/4/2006	1200
909	Silt	Unknown	Not available	–9,999	39.535	–107.670	2/4/2009	1147
910	Silt	Unknown	Not available	110	39.569	–107.719	8/4/2006	9999
911	Silt	Unknown	Not available	50	39.577	–107.718	8/3/2006	9999
912	Silt	Unknown	Not available	80	39.564	–107.713	8/7/2006	9999
913	Silt	Unknown	Not available	265	39.574	–107.712	8/7/2006	1215
913	Silt	Unknown	Not available	265	39.574	–107.712	8/7/2006	1200
915	Silt	Unknown	Not available	125	39.564	–107.690	8/14/2006	9999
916	Silt	Unknown	Not available	110	39.571	–107.659	8/1/2006	1215
916	Silt	Unknown	Not available	110	39.571	–107.659	8/1/2006	1200
917	Silt	Unknown	Not available	–9,999	39.536	–107.662	3/28/2006	1006
918	Silt	Unknown	Not available	120	39.565	–107.660	7/31/2006	1215
918	Silt	Unknown	Not available	120	39.565	–107.660	7/31/2006	1200
919	Silt	Unknown	Not available	–9,999	39.537	–107.646	8/30/2005	935
920	Silt	Unknown	Not available	–9,999	39.537	–107.638	6/28/2007	1319
921	Silt	Unknown	Not available	–9,999	39.537	–107.645	8/25/2005	1210
922	Silt	Unknown	Not available	125	39.556	–107.627	8/9/2006	9999
923	Silt	Unknown	Not available	65	39.559	–107.628	8/9/2006	9999
924	Silt	Unknown	Not available	218	39.551	–107.640	8/4/2006	1215
924	Silt	Unknown	Not available	218	39.551	–107.640	8/4/2006	1200
925	Silt	Unknown	Not available	123	39.560	–107.663	8/9/2006	1215
925	Silt	Unknown	Not available	123	39.560	–107.663	8/9/2006	1200
926	Silt	Unknown	Not available	70	39.551	–107.696	8/2/2006	9999
927	Silt	Unknown	Not available	–9,999	39.537	–107.748	9/26/2007	924
928	Silt	Unknown	Not available	110	39.551	–107.694	8/2/2006	1215
928	Silt	Unknown	Not available	110	39.551	–107.694	8/2/2006	1200

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Map name	Geologic unit	Aquifer description	Well depth (ft)	Latitude (decimal degrees, NAD83)	Longitude (decimal degrees, NAD83)	Collection date	Collection time
930	Silt	Unknown	Not available	–9,999	39.537	–107.739	1/31/2006	924
931	Silt	Unknown	Not available	–9,999	39.538	–107.677	8/30/2005	1204
932	Silt	Unknown	Not available	–9,999	39.538	–107.646	8/30/2005	1236
933	Silt	Unknown	Not available	60	39.542	–107.739	8/2/2006	9999
934	Silt	Unknown	Not available	105	39.545	–107.736	8/2/2006	1215
934	Silt	Unknown	Not available	105	39.545	–107.736	8/2/2006	1200
935	Silt	Unknown	Not available	–9,999	39.539	–107.746	2/1/2006	1233
936	Silt	Unknown	Not available	–9,999	39.539	–107.661	3/28/2006	906
937	Silt	Unknown	Not available	–9,999	39.539	–107.737	1/31/2006	1052
938	Silt	Unknown	Not available	–9,999	39.540	–107.662	3/28/2006	845
939	Silt	Unknown	Not available	–9,999	39.540	–107.736	1/31/2006	1015
940	Silt	Unknown	Not available	–9,999	39.540	–107.742	2/1/2006	1105
941	Silt	Unknown	Not available	–9,999	39.541	–107.739	2/1/2006	1001
942	Silt	Unknown	Not available	–9,999	39.541	–107.738	2/1/2006	846
943	Silt	Unknown	Not available	–9,999	39.542	–107.739	2/1/2006	930
944	Silt	Unknown	Not available	–9,999	39.542	–107.745	2/2/2006	847
945	Silt	Unknown	Not available	–9,999	39.543	–107.664	11/30/2006	1044
946	Silt	Unknown	Not available	–9,999	39.543	–107.665	11/30/2006	1030
947	Silt	Unknown	Not available	–9,999	39.543	–107.723	12/6/2005	1037
948	Silt	Unknown	Not available	–9,999	39.544	–107.733	4/10/2007	1045
949	Silt	Unknown	Not available	–9,999	39.544	–107.743	2/1/2006	1146
950	Silt	Unknown	Not available	–9,999	39.544	–107.720	12/6/2005	936
951	Silt	Unknown	Not available	–9,999	39.544	–107.731	4/10/2007	1120
952	Silt	Unknown	Not available	–9,999	39.545	–107.736	1/31/2006	1201
953	Silt	Unknown	Not available	–9,999	39.545	–107.733	4/10/2007	1007
954	Silt	Unknown	Not available	–9,999	39.546	–107.722	12/6/2005	1213
955	Silt	Unknown	Not available	–9,999	39.546	–107.709	3/8/2006	1318
956	Silt	Unknown	Not available	–9,999	39.546	–107.732	4/10/2007	930
957	Silt	Unknown	Not available	–9,999	39.547	–107.686	11/15/2006	1346
958	Silt	Unknown	Not available	–9,999	39.547	–107.708	3/7/2006	1334
959	Silt	Unknown	Not available	–9,999	39.547	–107.719	12/6/2005	1121
960	Silt	Unknown	Not available	–9,999	39.547	–107.707	3/7/2006	1306
961	Silt	Unknown	Not available	–9,999	39.547	–107.712	5/9/2006	1312
962	Silt	Unknown	Not available	–9,999	39.548	–107.708	3/7/2006	948
963	Silt	Unknown	Not available	–9,999	39.547	–107.715	5/9/2006	1232
964	Silt	Unknown	Not available	–9,999	39.547	–107.716	12/6/2005	840
965	Silt	Unknown	Not available	–9,999	39.548	–107.709	3/7/2006	855
966	Silt	Unknown	Not available	–9,999	39.548	–107.710	3/7/2006	1026
967	Silt	Unknown	Not available	–9,999	39.548	–107.730	4/10/2007	815
968	Silt	Unknown	Not available	–9,999	39.549	–107.728	4/10/2007	857
969	Silt	Unknown	Not available	–9,999	39.549	–107.699	11/15/2006	1203
970	Silt	Unknown	Not available	–9,999	39.549	–107.700	3/8/2006	1137
971	Silt	Unknown	Not available	–9,999	39.549	–107.710	3/7/2006	1138
972	Silt	Unknown	Not available	–9,999	39.549	–107.736	10/16/2008	1020
973	Silt	Unknown	Not available	–9,999	39.550	–107.738	10/16/2008	930
974	Silt	Unknown	Not available	–9,999	39.550	–107.687	11/15/2006	906
975	Silt	Unknown	Not available	–9,999	39.550	–107.701	3/8/2006	959
976	Silt	Unknown	Not available	–9,999	39.550	–107.700	3/8/2006	1057
977	Silt	Unknown	Not available	–9,999	39.550	–107.697	11/15/2006	1052
978	Silt	Unknown	Not available	–9,999	39.550	–107.688	11/14/2006	1326
979	Silt	Unknown	Not available	–9,999	39.550	–107.700	3/8/2006	844
980	Silt	Unknown	Not available	–9,999	39.550	–107.718	5/9/2006	955
981	Silt	Unknown	Not available	–9,999	39.550	–107.732	10/15/2008	1251
982	Silt	Unknown	Not available	–9,999	39.551	–107.687	11/14/2006	1238
983	Silt	Unknown	Not available	–9,999	39.551	–107.717	5/9/2006	1034
984	Silt	Unknown	Not available	–9,999	39.551	–107.687	11/14/2006	1154
985	Silt	Unknown	Not available	–9,999	39.551	–107.691	11/14/2006	1044
986	Silt	Unknown	Not available	–9,999	39.551	–107.693	11/14/2006	947
987	Silt	Unknown	Not available	–9,999	39.551	–107.710	5/9/2006	1116
988	Silt	Unknown	Not available	–9,999	39.551	–107.686	11/15/2006	1010
989	Silt	Unknown	Not available	–9,999	39.551	–107.696	11/14/2006	906
990	Silt	Unknown	Not available	–9,999	39.551	–107.701	3/8/2006	917
991	Silt	Unknown	Not available	–9,999	39.551	–107.720	5/9/2006	832
992	Silt	Unknown	Not available	–9,999	39.551	–107.721	5/9/2006	913
993	Silt	Unknown	Not available	–9,999	39.552	–107.726	4/10/2007	1202
994	Silt	Unknown	Not available	–9,999	39.551	–107.738	10/16/2008	1103

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Map name	Geologic unit	Aquifer description	Well depth (ft)	Latitude (decimal degrees, NAD83)	Longitude (decimal degrees, NAD83)	Collection date	Collection time
995	Silt	Unknown	Not available	–9,999	39.552	–107.729	4/10/2007	1222
996	Silt	Unknown	Not available	–9,999	39.552	–107.703	3/9/2006	916
997	Silt	Unknown	Not available	–9,999	39.552	–107.730	10/15/2008	911
998	Silt	Unknown	Not available	–9,999	39.552	–107.703	3/9/2006	846
999	Silt	Unknown	Not available	–9,999	39.552	–107.728	10/14/2008	1130
1000	Silt	Unknown	Not available	–9,999	39.552	–107.732	10/15/2008	953
1001	Silt	Unknown	Not available	–9,999	39.552	–107.706	6/18/2008	1122
1002	Silt	Unknown	Not available	–9,999	39.552	–107.709	6/18/2008	1039
1003	Silt	Unknown	Not available	–9,999	39.553	–107.713	6/18/2008	934
1004	Silt	Unknown	Not available	–9,999	39.553	–107.714	10/14/2008	851
1005	Silt	Unknown	Not available	–9,999	39.553	–107.731	10/15/2008	1030
1006	Silt	Unknown	Not available	–9,999	39.554	–107.717	10/14/2008	951
1007	Silt	Unknown	Not available	–9,999	39.555	–107.732	10/15/2008	1127
1008	Silt	Unknown	Not available	–9,999	39.556	–107.722	10/14/2008	1201
1009	Silt	Unknown	Not available	–9,999	39.556	–107.732	10/14/2008	1313
1010	Silt	Unknown	Not available	–9,999	39.557	–107.726	10/14/2008	1404
1011	Silt	Unknown	Not available	–9,999	39.564	–107.733	6/15/2006	903
1012	Silt	Unknown	Not available	–9,999	39.565	–107.746	6/14/2006	902
1013	Silt	Unknown	Not available	–9,999	39.566	–107.732	6/13/2006	1102
1014	Silt	Unknown	Not available	–9,999	39.568	–107.734	6/14/2006	1140
1015	Silt	Unknown	Not available	–9,999	39.569	–107.735	6/14/2006	1216
1016	Silt	Unknown	Not available	–9,999	39.569	–107.732	6/14/2006	1342
1017	Silt	Unknown	Not available	–9,999	39.570	–107.732	6/14/2006	1312
1018	Silt	Unknown	Not available	–9,999	39.571	–107.733	6/13/2006	1143
1019	Silt	Unknown	Not available	–9,999	39.571	–107.735	6/13/2006	1222
1020	Silt	Unknown	Not available	–9,999	39.571	–107.737	6/13/2006	1337
1021	Silt	Unknown	Not available	–9,999	39.572	–107.735	6/13/2006	1307
1022	Silt	Unknown	Not available	–9,999	39.573	–107.734	6/15/2006	950
1023	Silt	Unknown	Not available	–9,999	39.573	–107.731	6/13/2006	957
1024	Silt	Unknown	Not available	–9,999	39.573	–107.734	6/13/2006	916
1025	Silt	Unknown	Not available	–9,999	39.574	–107.735	6/13/2006	837
1026	Silt	Unknown	Not available	–9,999	39.531	–107.630	9/16/2004	9999
1027	Silt	Unknown	Not available	–9,999	39.518	–107.632	9/16/2004	9999
1028	Silt	Unknown	Not available	–9,999	39.53	–107.67	8/12/1998	9999
1029	Silt	Unknown	Not available	–9,999	39.531	–107.630	9/16/2004	9999
1030	Storm King Mountain	Unknown	Not available	–9,999	39.594	–107.450	6/2/1997	9999
1031	Storm King Mountain	Unknown	Not available	–9,999	39.571	–107.452	6/2/1997	9999
1032	Storm King Mountain	Unknown	Not available	–9,999	39.572	–107.494	6/2/1997	9999
1033	Storm King Mountain	Unknown	Not available	–9,999	39.568	–107.492	6/12/1997	9999
1034	Storm King Mountain	Quaternary	VALLEY-FILL DEPOSITS	32	39.550	–107.415	9/10/1997	1500
1038	The Saddle	Unknown	Not available	56	39.500	–108.381	8/2/1977	940
1039	Banty Point	Unknown	Not available	30	40.061	–108.954	7/21/1981	0
1051	Banty Point	Pennsylvanian	WEBER FORMATION	7,500	40.104	–108.875	5/8/1973	0
1052	Banty Point	Unknown	Not available	–9,999	40.101	–108.881	9/19/1977	800
1053	Banty Point	Unknown	Not available	–9,999	40.121	–108.883	9/19/1977	800
1054	Barcus Creek	Unknown	Not available	–9,999	40.041	–108.416	9/13/1979	1130
1055	Barcus Creek	Tertiary	GREEN RIVER FORMATION	–9,999	40.020	–108.464	9/12/1973	1400
1057	Barcus Creek	Unknown	Not available	1,122	40.040	–108.416	11/12/1975	930
1058	Barcus Creek	Unknown	Not available	1,510	40.040	–108.416	11/16/1975	2100
1059	Barcus Creek	Unknown	Not available	2,008	40.041	–108.416	9/11/1979	1700
1062	Barcus Creek	Tertiary	GREEN RIVER FORMATION	–9,999	40.124	–108.418	6/21/1973	1330
1064	Barcus Creek	Unknown	Not available	–9,999	40.065	–108.417	9/17/1977	1400
1065	Barcus Creek	Unknown	Not available	–9,999	40.044	–108.436	9/17/1977	1400
1066	Barcus Creek	Unknown	Not available	–9,999	40.020	–108.463	9/17/1977	1400
1067	Barcus Creek	Unknown	Not available	–9,999	40.089	–108.470	9/17/1977	1600
1068	Barcus Creek SE	Unknown	Not available	–9,999	40.038	–108.262	8/30/1972	1100
1069	Barcus Creek SE	Unknown	Not available	–9,999	40.057	–108.258	8/18/1975	1415
1070	Barcus Creek SE	Unknown	Not available	–9,999	40.079	–108.334	10/2/1982	0
1071	Barcus Creek SE	Tertiary	GREEN RIVER FORMATION	–9,999	40.005	–108.353	10/14/1982	1445
1073	Barcus Creek SE	Quaternary	ALLUVIUM,FLOOD PLAIN	–9,999	40.017	–108.342	9/12/1973	1130
1080	Barcus Creek SE	Tertiary	GREEN RIVER FORMATION	1,060	40.038	–108.286	10/13/1982	1445
1081	Barcus Creek SE	Unknown	Not available	950	40.038	–108.286	12/8/1975	1800
1084	Barcus Creek SE	Tertiary	GREEN RIVER FORMATION	–9,999	40.041	–108.258	2/20/1973	1415
1085	Barcus Creek SE	Quaternary	ALLUVIUM,FLOOD PLAIN	–9,999	40.046	–108.336	9/12/1973	1600
1091	Barcus Creek SE	Quaternary	ALLUVIUM,FLOOD PLAIN	–9,999	40.059	–108.251	9/7/1973	930
1094	Barcus Creek SE	Unknown	Not available	3,140	40.067	–108.337	5/24/1966	0

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Map name	Geologic unit	Aquifer description	Well depth (ft)	Latitude (decimal degrees, NAD83)	Longitude (decimal degrees, NAD83)	Collection date	Collection time
1095	Barcus Creek SE	Unknown	Not available	3,140	40.067	–108.337	5/24/1966	0
1096	Barcus Creek SE	Quaternary	ALLUVIUM,FLOOD PLAIN	–9,999	40.086	–108.340	9/13/1973	1730
1099	Barcus Creek SE	Quaternary	ALLUVIUM,TERRACE	–9,999	40.096	–108.256	7/13/1982	0
1100	Barcus Creek SE	Quaternary	ALLUVIUM,FLOOD PLAIN	–9,999	40.115	–108.359	8/30/1973	1100
1101	Big Beaver Reservoir	Unknown	Not available	–9,999	39.949	–107.711	8/17/1981	0
1107	Buckskin Point	Quaternary	ALLUVIUM,FLOOD PLAIN	17.9	40.013	–108.093	3/30/1983	0
1125	Buckskin Point	Unknown	Not available	60	40.034	–108.034	1/23/1981	0
1130	Buckskin Point	Unknown	Not available	–9,999	40.02	–108.01	7/8/1998	9999
1141	Cutoff Gulch	Unknown	Not available	–9,999	39.718	–108.226	9/15/1977	1100
1142	Cutoff Gulch	Tertiary	GREEN RIVER FORMATION	–9,999	39.718	–108.168	9/5/1973	1230
1144	Devils Hole Gulch	Unknown	Not available	–9,999	40.147	–107.978	9/4/1981	1455
1146	Devils Hole Gulch	Tertiary	WASATCH FORMATION	100	40.149	–107.965	7/1/1975	0
1147	Devils Hole Gulch	Tertiary	WASATCH FORMATION	40	40.162	–107.997	7/1/1975	0
1149	Divide Creek	Unknown	Not available	65	40.176	–108.555	7/17/1981	0
1153	Divide Creek	Unknown	Not available	25	40.185	–108.533	7/19/1981	0
1154	Divide Creek	Unknown	Not available	35	40.189	–108.526	7/19/1981	0
1160	Figure Four Spring	Tertiary	GREEN RIVER FORMATION	2,389	39.746	–108.432	7/12/1973	1700
1164	Gillam Draw	Unknown	Not available	25	40.097	–108.722	7/20/1981	0
1173	Greasewood Gulch	Unknown	Not available	–9,999	39.889	–108.181	9/16/1977	1700
1174	Greasewood Gulch	Unknown	Not available	–9,999	39.877	–108.228	6/6/1975	1430
1175	Greasewood Gulch	Unknown	Not available	–9,999	39.889	–108.181	6/6/1975	1700
1176	Greasewood Gulch	Unknown	Not available	–9,999	39.912	–108.208	9/12/1977	9999
1177	Greasewood Gulch	Unknown	Not available	–9,999	39.897	–108.182	9/12/1977	9999
1178	Greasewood Gulch	Tertiary	GREEN RIVER FORMATION	–9,999	39.897	–108.192	8/29/1973	1200
1182	Greasewood Gulch	Tertiary	GREEN RIVER FORMATION	–9,999	39.979	–108.146	7/2/1973	1030
1185	Greasewood Gulch	Quaternary	ALLUVIUM,FLOOD PLAIN	–9,999	39.980	–108.247	7/11/1973	930
1186	Greasewood Gulch	Tertiary	GREEN RIVER FORMATION	–9,999	39.981	–108.146	6/27/1973	1630
1187	Jessup Gulch	Unknown	Not available	–9,999	39.753	–108.233	9/13/1977	1300
1188	Jessup Gulch	Unknown	Not available	–9,999	39.797	–108.248	10/30/1980	1015
1189	Jessup Gulch	Unknown	Not available	–9,999	39.800	–108.213	2/25/1975	1330
1190	Jessup Gulch	Unknown	Not available	–9,999	39.802	–108.213	4/9/1991	1005
1191	Jessup Gulch	Unknown	Not available	–9,999	39.803	–108.173	5/22/1981	1300
1192	Jessup Gulch	Unknown	Not available	–9,999	39.807	–108.224	4/2/1991	1235
1193	Jessup Gulch	Unknown	Not available	–9,999	39.807	–108.226	4/3/1991	1425
1194	Jessup Gulch	Unknown	Not available	–9,999	39.808	–108.225	3/24/1983	1230
1195	Jessup Gulch	Unknown	Not available	–9,999	39.810	–108.228	4/1/1991	1515
1196	Jessup Gulch	Unknown	Not available	–9,999	39.783	–108.191	5/22/1981	1030
1197	Jessup Gulch	Unknown	Not available	–9,999	39.786	–108.198	12/4/1972	1535
1198	Jessup Gulch	Unknown	Not available	–9,999	39.797	–108.203	10/9/1975	1430
1199	Jessup Gulch	Unknown	Not available	–9,999	39.810	–108.228	4/1/1991	1530
1200	Jessup Gulch	Unknown	Not available	–9,999	39.812	–108.225	4/1/1991	1330
1201	Jessup Gulch	Unknown	Not available	–9,999	39.814	–108.192	12/6/1972	1335
1202	Jessup Gulch	Unknown	Not available	–9,999	39.814	–108.233	11/12/1972	2015
1203	Jessup Gulch	Unknown	Not available	–9,999	39.815	–108.244	1/31/1975	1130
1204	Jessup Gulch	Unknown	Not available	–9,999	39.816	–108.206	11/13/1972	1435
1205	Jessup Gulch	Unknown	Not available	–9,999	39.816	–108.231	3/17/1977	800
1206	Jessup Gulch	Unknown	Not available	–9,999	39.817	–108.240	4/1/1991	1010
1207	Jessup Gulch	Unknown	Not available	–9,999	39.817	–108.240	4/1/1991	1050
1208	Jessup Gulch	Unknown	Not available	–9,999	39.817	–108.231	4/2/1991	1020
1209	Jessup Gulch	Unknown	Not available	–9,999	39.817	–108.231	4/2/1991	1030
1210	Jessup Gulch	Unknown	Not available	–9,999	39.837	–108.244	5/21/1981	1130
1211	Jessup Gulch	Unknown	Not available	–9,999	39.843	–108.233	5/21/1981	1345
1213	Jessup Gulch	Tertiary	GREEN RIVER FORMATION	–9,999	39.807	–108.227	4/13/1977	1230
1230	Jessup Gulch	Quaternary	VALLEY-FILL DEPOSITS	75.4	39.836	–108.225	4/3/1991	1200
1237	Jessup Gulch	Quaternary	ALLUVIUM,FLOOD PLAIN	–9,999	39.841	–108.235	9/6/1973	1000
1239	Jessup Gulch	Unknown	Not available	495	39.865	–108.209	5/12/1975	1900
1244	LO 7 Hill	Unknown	Not available	–9,999	39.98	–107.93	7/7/1998	9999
1250	Meeker	Unknown	Not available	–9,999	40.025	–107.938	6/29/1981	1400
1251	Meeker	Unknown	Not available	–9,999	40.027	–107.964	6/26/1980	0
1252	Meeker	Unknown	Not available	–9,999	40.028	–107.935	7/26/1979	0
1253	Meeker	Unknown	Not available	–9,999	40.080	–107.919	6/9/1981	1100
1254	Meeker	Unknown	Not available	–9,999	40.112	–107.923	7/1/1975	0
1256	Meeker	Quaternary	ALLUVIUM,TERRACE	60	40.002	–107.883	12/27/1978	0
1260	Meeker	Unknown	Not available	175	40.010	–107.968	7/1/1975	0
1265	Meeker	Unknown	Not available	22.5	40.012	–107.886	1/19/1979	0
1267	Meeker	Unknown	Not available	20	40.015	–107.978	7/1/1975	0

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Map name	Geologic unit	Aquifer description	Well depth (ft)	Latitude (decimal degrees, NAD83)	Longitude (decimal degrees, NAD83)	Collection date	Collection time
1272	Meeker	Unknown	Not available	16	40.019	–107.973	7/11/1979	0
1273	Meeker	Quaternary	ALLUVIUM,FLOOD PLAIN	120	40.019	–107.940	7/1/1975	0
1277	Meeker	Quaternary	ALLUVIUM,FLOOD PLAIN	25	40.021	–107.956	7/29/1975	0
1282	Meeker	Unknown	Not available	80	40.022	–107.883	7/26/1979	0
1297	Meeker	Unknown	Not available	35	40.029	–107.923	8/1/1979	0
1302	Meeker	Unknown	Not available	240	40.035	–107.968	1/14/1981	0
1305	Meeker	Cretaceous	MESAVERDE GROUP	180	40.039	–107.923	7/29/1975	0
1306	Meeker	Tertiary	WASATCH FORMATION	280	40.052	–107.977	7/1/1975	0
1307	Meeker	Tertiary	WASATCH FORMATION	530	40.053	–107.979	7/16/1979	0
1317	Meeker	Unknown	Not available	40	40.02	–107.94	7/7/1998	9999
1318	Meeker	Unknown	Not available	–9,999	40.01	–107.91	7/7/1998	9999
1321	No Name Ridge	Unknown	Not available	–9,999	39.800	–108.087	8/3/1983	915
1327	Rangely	Unknown	Not available	–9,999	40.099	–108.770	6/18/1981	0
1328	Rangely	Cretaceous	MESAVERDE GROUP	665	40.046	–108.775	10/17/1972	0
1329	Rangely	Cretaceous	MESAVERDE GROUP	665	40.046	–108.775	10/1/1972	0
1330	Rangely	Cretaceous	MESAVERDE GROUP	908	40.058	–108.773	3/29/1951	0
1333	Rangely	Unknown	Not available	18	40.086	–108.798	6/19/1981	0
1369	Rangely	Unknown	Not available	46	40.096	–108.773	7/17/1981	0
1371	Rangely	Quaternary	ALLUVIUM	12	40.096	–108.810	7/14/1958	0
1381	Rangely	Unknown	Not available	16	40.099	–108.775	6/9/1981	0
1382	Rangely	Unknown	Not available	15	40.100	–108.750	6/19/1980	0
1383	Rangely	Unknown	Not available	11	40.100	–108.777	6/9/1981	0
1387	Rattlesnake Mesa	Unknown	Not available	–9,999	40.019	–107.820	8/12/1981	0
1388	Rattlesnake Mesa	Unknown	Not available	–9,999	40.031	–107.811	7/2/1982	0
1389	Rattlesnake Mesa	Unknown	Not available	–9,999	40.034	–107.857	7/11/1972	1430
1390	Rattlesnake Mesa	Unknown	Not available	–9,999	40.035	–107.840	7/11/1972	1500
1391	Rattlesnake Mesa	Unknown	Not available	–9,999	40.036	–107.841	4/28/1973	1445
1392	Rattlesnake Mesa	Unknown	Not available	–9,999	40.040	–107.850	7/11/1972	1200
1393	Rattlesnake Mesa	Unknown	Not available	–9,999	40.055	–107.856	7/11/1972	1730
1395	Rattlesnake Mesa	Quaternary	ALLUVIUM,FLOOD PLAIN	–9,999	40.003	–107.819	7/1/1975	0
1403	Rattlesnake Mesa	Unknown	Not available	72	40.012	–107.812	8/13/1981	0
1409	Rattlesnake Mesa	Unknown	Not available	57.5	40.031	–107.810	7/2/1982	0
1410	Rattlesnake Mesa	Unknown	Not available	100	40.033	–107.816	6/18/1975	0
1411	Rattlesnake Mesa	Quaternary	ALLUVIUM,FLOOD PLAIN	5.3	40.034	–107.863	7/20/1979	0
1415	Rattlesnake Mesa	Unknown	Not available	20	40.036	–107.872	8/17/1981	0
1416	Rattlesnake Mesa	Unknown	Not available	52	40.067	–107.817	1/23/1981	0
1418	Rattlesnake Mesa	Cretaceous	MESAVERDE GROUP	1,200	40.123	–107.848	6/4/1975	0
1419	Rattlesnake Mesa	Unknown	Not available	–9,999	40.01	–107.82	7/7/1998	9999
1420	Rattlesnake Mesa	Unknown	Not available	–9,999	40.04	–107.81	7/7/1998	9999
1421	Razorback Ridge	Unknown	Not available	–9,999	39.695	–108.521	10/6/1976	1030
1422	Rock School	Unknown	Not available	–9,999	39.833	–108.333	12/19/1971	1415
1423	Rock School	Unknown	Not available	655	39.761	–108.321	10/5/1982	1230
1426	Rock School	Tertiary	GREEN RIVER FORMATION	–9,999	39.762	–108.264	10/18/1974	400
1433	Rock School	Tertiary	GREEN RIVER FORMATION	–9,999	39.824	–108.278	8/14/1973	1500
1438	Rock School	Quaternary	ALLUVIUM,FLOOD PLAIN	–9,999	39.841	–108.325	8/2/1973	1200
1443	Rock School	Quaternary	ALLUVIUM,FLOOD PLAIN	–9,999	39.851	–108.316	8/2/1973	1300
1445	Rock School	Quaternary	ALLUVIUM,FLOOD PLAIN	80	39.855	–108.368	8/2/1973	1630
1448	Rock School	Quaternary	ALLUVIUM,FLOOD PLAIN	–9,999	39.858	–108.312	8/2/1973	1530
1450	Rock School	Quaternary	ALLUVIUM,FLOOD PLAIN	–9,999	39.859	–108.311	8/2/1973	1500
1452	Rock School	Quaternary	ALLUVIUM,FLOOD PLAIN	–9,999	39.860	–108.309	8/2/1973	1600
1454	Rock School	Unknown	Not available	640	39.860	–108.351	10/7/1982	1630
1461	Rough Gulch	Unknown	Not available	10	40.178	–108.396	7/20/1981	0
1463	Rough Gulch	Unknown	Not available	27	40.197	–108.478	7/20/1981	0
1464	Rough Gulch	Unknown	Not available	60	40.197	–108.478	7/20/1981	0
1465	Rough Gulch	Unknown	Not available	–9,999	40.177	–108.392	9/17/1977	1000
1466	Sagebrush Hill	Unknown	Not available	–9,999	39.891	–108.513	2/20/1975	1515
1467	Sagebrush Hill	Unknown	Not available	–9,999	39.891	–108.513	4/3/1975	1300
1468	Sagebrush Hill	Unknown	Not available	–9,999	39.907	–108.501	3/7/1975	1445
1469	Sagebrush Hill	Unknown	Not available	–9,999	39.914	–108.502	8/26/1980	1635
1475	Sagebrush Hill	Unknown	Not available	–9,999	39.914	–108.505	9/13/1989	1000
1476	Sagebrush Hill	Unknown	Not available	–9,999	39.914	–108.505	9/13/1989	830
1477	Sagebrush Hill	Unknown	Not available	–9,999	39.925	–108.525	1/29/1975	1100
1478	Sagebrush Hill	Tertiary	GREEN RIVER FORMATION	–9,999	39.884	–108.501	9/26/1973	1300
1480	Sagebrush Hill	Tertiary	GREEN RIVER FORMATION	–9,999	39.894	–108.523	10/9/1973	1700
1482	Sagebrush Hill	Tertiary	GREEN RIVER FORMATION	–9,999	39.906	–108.533	6/8/1973	1200
1484	Sagebrush Hill	Tertiary	GREEN RIVER FORMATION	1,736	39.907	–108.501	4/10/1975	1545

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Map name	Geologic unit	Aquifer description	Well depth (ft)	Latitude (decimal degrees, NAD83)	Longitude (decimal degrees, NAD83)	Collection date	Collection time
1486	Sagebrush Hill	Tertiary	GREEN RIVER FORMATION	–9,999	39.914	–108.505	7/19/1978	1030
1487	Sagebrush Hill	Tertiary	GREEN RIVER FORMATION	–9,999	39.915	–108.505	7/19/1978	1230
1488	Sagebrush Hill	Tertiary	GREEN RIVER FORMATION	–9,999	39.915	–108.505	3/22/1978	1500
1492	Sagebrush Hill	Tertiary	GREEN RIVER FORMATION	–9,999	39.964	–108.511	6/26/1973	1000
1497	Sawmill Mountain	Unknown	Not available	35	40.031	–107.726	8/28/1981	0
1498	Sawmill Mountain	Unknown	Not available	80	40.074	–107.714	7/31/1975	0
1499	Segar Mountain	Unknown	Not available	1,182	39.886	–108.085	9/18/1975	2000
1502	Segar Mountain	Unknown	Not available	790	39.930	–108.103	1/26/1976	1700
1506	Smizer Gulch	Unknown	Not available	–9,999	40.147	–108.335	9/16/1977	1700
1507	Square S Ranch	Unknown	Not available	–9,999	39.984	–108.280	8/14/1972	1130
1508	Square S Ranch	Unknown	Not available	–9,999	39.906	–108.363	8/28/1972	1400
1509	Square S Ranch	Unknown	Not available	–9,999	39.913	–108.323	10/28/1976	600
1510	Square S Ranch	Unknown	Not available	–9,999	39.933	–108.313	11/7/1976	410
1512	Square S Ranch	Unknown	Not available	–9,999	39.944	–108.356	11/13/1981	1030
1513	Square S Ranch	Unknown	Not available	–9,999	39.944	–108.356	7/17/1981	1500
1514	Square S Ranch	Tertiary	EOCENE SERIES	1,442	39.944	–108.297	7/13/2000	1531
1515	Square S Ranch	Tertiary	EOCENE SERIES	1,305	39.944	–108.309	7/12/2000	1551
1516	Square S Ranch	Tertiary	EOCENE SERIES	490	39.947	–108.292	7/11/2000	901
1517	Square S Ranch	Tertiary	EOCENE SERIES	919	39.947	–108.292	7/10/2000	1201
1518	Square S Ranch	Tertiary	GREEN RIVER FORMATION	810	39.882	–108.262	9/9/1975	1000
1519	Square S Ranch	Unknown	Not available	5,182	39.882	–108.262	6/15/1979	710
1523	Square S Ranch	Quaternary	ALLUVIUM,FLOOD PLAIN	–9,999	39.891	–108.294	8/3/1973	1130
1526	Square S Ranch	Quaternary	ALLUVIUM,FLOOD PLAIN	–9,999	39.907	–108.296	8/3/1973	1200
1530	Square S Ranch	Tertiary	GREEN RIVER FORMATION	–9,999	39.912	–108.295	6/21/1973	1700
1532	Square S Ranch	Quaternary	ALLUVIUM,FLOOD PLAIN	–9,999	39.912	–108.296	8/3/1973	1300
1535	Square S Ranch	Quaternary	ALLUVIUM,TERRACE	34.5	39.938	–108.294	7/12/2000	1811
1536	Square S Ranch	Quaternary	ALLUVIUM,FLOOD PLAIN	42	39.942	–108.286	9/6/1973	1230
1538	Square S Ranch	Tertiary	EOCENE SERIES	1,028	39.942	–108.299	7/13/2000	1131
1539	Square S Ranch	Tertiary	EOCENE SERIES	1,283	39.947	–108.292	7/11/2000	1001
1539	Square S Ranch	Tertiary	EOCENE SERIES	1,283	39.947	–108.292	7/11/2000	1000
1540	Square S Ranch	Tertiary	EOCENE SERIES	1,000	39.947	–108.315	7/12/2000	1211
1541	Square S Ranch	Tertiary	EOCENE SERIES	1,280	39.953	–108.318	7/12/2000	1101
1542	Square S Ranch	Quaternary	ALLUVIUM,TERRACE	111	39.954	–108.285	7/11/2000	1711
1546	Square S Ranch	Unknown	Not available	1,755	39.965	–108.355	10/6/1983	1100
1547	Square S Ranch	Tertiary	GREEN RIVER FORMATION	1,755	39.965	–108.355	10/4/1983	1800
1549	Square S Ranch	Tertiary	GREEN RIVER FORMATION	–9,999	39.978	–108.253	7/11/1973	1030
1552	Square S Ranch	Quaternary	ALLUVIUM,FLOOD PLAIN	–9,999	39.993	–108.355	9/12/1973	930
1555	Square S Ranch	Cretaceous	MESAVERDE GROUP	12,700	39.878	–108.294	1/30/2002	9999
1558	Veatch Gulch	Quaternary	ALLUVIUM,TERRACE	50	39.942	–107.774	8/2/1979	0
1559	Veatch Gulch	Pennsylvanian	UPPER PENNSYLVANIAN SERIES	86	39.947	–107.772	7/8/1982	0
1560	Veatch Gulch	Pennsylvanian	PERMIAN PENNSYLVANIAN SYSTEMS	85	39.949	–107.781	7/8/1982	0
1561	Veatch Gulch	Quaternary	ALLUVIUM,TERRACE	112	39.961	–107.796	8/2/1979	0
1565	Veatch Gulch	Quaternary	ALLUVIUM,FLOOD PLAIN	50	39.976	–107.811	7/8/1982	0
1566	Veatch Gulch	Unknown	Not available	45	39.983	–107.821	8/14/1981	0
1567	Veatch Gulch	Unknown	Not available	30	39.989	–107.826	8/15/1981	0
1568	Veatch Gulch	Unknown	Not available	35	39.998	–107.832	8/12/1981	0
1571	White River City	Tertiary	GREEN RIVER FORMATION	–9,999	40.005	–108.191	6/27/1973	1300
1576	White River City	Quaternary	ALLUVIUM,FLOOD PLAIN	–9,999	40.008	–108.248	9/6/1973	1430
1580	White River City	Tertiary	GREEN RIVER FORMATION	–9,999	40.009	–108.210	6/27/1973	1430
1581	White River City	Unknown	Not available	2,400	40.012	–108.221	7/17/1980	735
1587	White River City	Quaternary	ALLUVIUM,FLOOD PLAIN	–9,999	40.077	–108.237	9/6/1973	1730
1592	White River City	Quaternary	ALLUVIUM,TERRACE	60	40.090	–108.225	7/10/1982	0
1593	White River City	Unknown	Not available	–9,999	40.006	–108.191	9/16/1977	1200
1594	White Rock	Unknown	Not available	–9,999	40.202	–108.020	7/1/1975	0
1595	White Rock	Unknown	Not available	40	40.177	–108.008	7/1/1975	0
1596	White Rock	Quaternary	ALLUVIUM,FLOOD PLAIN	14	40.185	–108.009	7/1/1975	0
1597	White Rock	Quaternary	ALLUVIUM,FLOOD PLAIN	30	40.211	–108.027	7/1/1975	0
1598	White Rock	Unknown	Not available	60	40.218	–108.025	7/28/1975	0
1599	White Rock	Unknown	Not available	–9,999	40.164	–108.080	9/20/1977	1300
1600	Wolf Ridge	Unknown	Not available	–9,999	39.981	–108.443	9/16/1977	1600
1601	Wolf Ridge	Unknown	Not available	600	39.891	–108.386	9/15/1977	1100
1602	Wolf Ridge	Unknown	Not available	–9,999	39.896	–108.451	11/28/1971	1000
1603	Wolf Ridge	Unknown	Not available	–9,999	39.921	–108.496	5/7/1975	1530
1604	Wolf Ridge	Unknown	Not available	–9,999	39.923	–108.485	5/27/1975	1400
1605	Wolf Ridge	Unknown	Not available	–9,999	39.923	–108.485	1/8/1975	1305

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Map name	Geologic unit	Aquifer description	Well depth (ft)	Latitude (decimal degrees, NAD83)	Longitude (decimal degrees, NAD83)	Collection date	Collection time
1607	Wolf Ridge	Quaternary	ALLUVIUM,FLOOD PLAIN	–9,999	39.877	–108.480	8/31/1973	1130
1609	Wolf Ridge	Quaternary	ALLUVIUM,FLOOD PLAIN	–9,999	39.891	–108.390	8/31/1973	930
1610	Wolf Ridge	Tertiary	GREEN RIVER FORMATION	–9,999	39.893	–108.488	9/9/1973	2050
1612	Wolf Ridge	Tertiary	GREEN RIVER FORMATION	–9,999	39.897	–108.450	8/2/1973	1700
1613	Wolf Ridge	Unknown	Not available	3,100	39.911	–108.376	8/26/1983	1245
1614	Wolf Ridge	Tertiary	GREEN RIVER FORMATION	1,185	39.911	–108.376	8/30/1983	1545
1617	Wolf Ridge	Tertiary	GREEN RIVER FORMATION	–9,999	39.923	–108.485	8/9/1973	1500
1622	Yankee Gulch	Unknown	Not available	–9,999	39.766	–108.382	11/21/1974	2200
1623	Yankee Gulch	Unknown	Not available	–9,999	39.846	–108.379	11/5/1976	1030
1626	Yankee Gulch	Quaternary	ALLUVIUM,FLOOD PLAIN	–9,999	39.843	–108.388	8/3/1973	1030
1628	Yankee Gulch	Quaternary	ALLUVIUM,FLOOD PLAIN	–9,999	39.848	–108.378	8/3/1973	1100
1631		Unknown	Not available	–9,999	39.07	–108.5	10/18/2000	9999
1632	Badger Wash	Unknown	Not available	–9,999	39.275	–108.901	9/20/1977	1515
1633	Badger Wash	Cretaceous	MANCOS SHALE	35	39.266	–108.901	2/21/1992	900
1634	Badger Wash	Cretaceous	MANCOS SHALE	19	39.275	–108.883	2/21/1992	1000
1635	Badger Wash	Cretaceous	MANCOS SHALE	40	39.290	–108.952	3/27/2001	1040
1636	Badger Wash	Cretaceous	MANCOS SHALE	37	39.290	–108.956	3/27/2001	1215
1639	Clifton	Unknown	Not available	–9,999	39.053	–108.484	5/16/2000	900
1640	Clifton	Unknown	Not available	–9,999	39.061	–108.483	7/29/1998	1000
1641	Clifton	Quaternary	QUATERNARY SYSTEM	–9,999	39.049	–108.499	3/30/2000	1325
1642	Clifton	Quaternary	QUATERNARY SYSTEM	–9,999	39.051	–108.499	5/16/2000	1050
1643	Clifton	Quaternary	QUATERNARY SYSTEM	–9,999	39.051	–108.495	5/16/2000	1000
1644	Clifton	Quaternary	QUATERNARY SYSTEM	–9,999	39.052	–108.492	5/16/2000	940
1645	Clifton	Quaternary	QUATERNARY SYSTEM	–9,999	39.052	–108.499	3/30/2000	1300
1646	Clifton	Quaternary	QUATERNARY SYSTEM	–9,999	39.052	–108.488	3/30/2000	1035
1647	Clifton	Quaternary	QUATERNARY SYSTEM	–9,999	39.052	–108.492	3/30/2000	1220
1648	Clifton	Quaternary	QUATERNARY SYSTEM	–9,999	39.053	–108.488	5/16/2000	925
1649	Clifton	Quaternary	QUATERNARY SYSTEM	–9,999	39.055	–108.485	3/30/2000	1025
1650	Clifton	Quaternary	QUATERNARY SYSTEM	–9,999	39.060	–108.489	5/5/1998	1115
1651	Clifton	Quaternary	QUATERNARY SYSTEM	–9,999	39.061	–108.481	7/29/1998	910
1652	Clifton	Quaternary	QUATERNARY SYSTEM	–9,999	39.061	–108.483	7/29/1998	950
1653	Clifton	Quaternary	QUATERNARY SYSTEM	–9,999	39.061	–108.486	7/29/1998	1025
1654	Clifton	Quaternary	QUATERNARY SYSTEM	46.8	39.072	–108.497	3/10/1992	900
1655	Clifton	Unknown	Not available	–9,999	39.07	–108.43	10/17/2000	9999
1656	Clifton	Unknown	Not available	–9,999	39.08	–108.42	10/17/2000	9999
1657	Clifton	Unknown	Not available	–9,999	39.08	–108.43	10/17/2000	9999
1658	Clifton	Unknown	Not available	–9,999	39.06	–108.45	10/18/2000	9999
1659	Clifton	Unknown	Not available	–9,999	39.06	–108.49	10/18/2000	9999
1660	Collbran	Unknown	Not available	–9,999	39.195	–107.942	9/7/1977	1455
1661	Collbran	Unknown	Not available	–9,999	39.196	–107.970	9/7/1977	1520
1662	Collbran	Unknown	Not available	–9,999	39.231	–107.961	8/1/1977	1445
1664	Collbran	Unknown	Not available	60	39.200	–107.972	6/10/1997	9999
1665	Collbran	Unknown	Not available	45	39.196	–107.943	6/10/1997	9999
1666	Collbran	Unknown	Not available	80	39.226	–107.987	2/25/2004	9999
1667	Collbran	Tertiary	WASATCH FORMATION	110	39.207	–107.990	2/25/2004	9999
1668	Collbran	Tertiary	WASATCH FORMATION	400	39.243	–107.941	2/26/2004	9999
1669	Collbran	Unknown	Not available	200	39.24	–107.94	8/19/1998	9999
1670	Colorado National Monument	Unknown	Not available	–9,999	39.104	–108.730	8/13/1977	1400
1671	Colorado National Monument	Unknown	Not available	–9,999	39.036	–108.628	5/30/1972	1120
1672	Colorado National Monument	Unknown	Not available	–9,999	39.104	–108.670	9/20/1977	1800
1673	Colorado National Monument	Unknown	Not available	–9,999	39.104	–108.650	3/3/1997	1300
1674	Colorado National Monument	Unknown	Not available	–9,999	39.106	–108.654	2/11/1998	900
1675	Colorado National Monument	Unknown	Not available	–9,999	39.107	–108.655	6/6/2002	940
1676	Colorado National Monument	Unknown	Not available	350	39.035	–108.628	8/13/1977	1200
1677	Colorado National Monument	Jurrassic	BRUSHY BASIN SHALE MEMBER OF MORRISON FORMATION	210	39.079	–108.661	5/8/1991	900
1678	Colorado National Monument	Quaternary	QUATERNARY SYSTEM	–9,999	39.103	–108.650	2/11/1998	1105
1679	Colorado National Monument	Quaternary	QUATERNARY SYSTEM	22.5	39.104	–108.645	4/1/2003	1610
1680	Colorado National Monument	Quaternary	QUATERNARY SYSTEM	18	39.104	–108.646	4/1/2003	1520
1681	Colorado National Monument	Quaternary	QUATERNARY SYSTEM	–9,999	39.104	–108.650	2/18/1998	800
1682	Colorado National Monument	Quaternary	QUATERNARY SYSTEM	–9,999	39.103	–108.646	7/24/1998	950
1683	Colorado National Monument	Quaternary	QUATERNARY SYSTEM	–9,999	39.102	–108.648	7/17/1997	1215
1684	Colorado National Monument	Quaternary	QUATERNARY SYSTEM	–9,999	39.103	–108.650	4/1/1998	1120
1685	Colorado National Monument	Quaternary	QUATERNARY SYSTEM	–9,999	39.104	–108.650	4/1/1998	1145
1686	Colorado National Monument	Quaternary	QUATERNARY SYSTEM	17	39.106	–108.647	4/1/2003	1425
1687	Colorado National Monument	Quaternary	QUATERNARY SYSTEM	–9,999	39.103	–108.649	4/2/1998	950

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Map name	Geologic unit	Aquifer description	Well depth (ft)	Latitude (decimal degrees, NAD83)	Longitude (decimal degrees, NAD83)	Collection date	Collection time
1688	Colorado National Monument	Quaternary	QUATERNARY SYSTEM	–9,999	39.103	–108.649	4/2/1998	1000
1689	Colorado National Monument	Quaternary	QUATERNARY SYSTEM	–9,999	39.103	–108.649	2/12/1998	1015
1690	Colorado National Monument	Quaternary	QUATERNARY SYSTEM	–9,999	39.104	–108.650	3/3/1997	1330
1691	Colorado National Monument	Quaternary	QUATERNARY SYSTEM	–9,999	39.104	–108.647	7/24/1998	938
1692	Colorado National Monument	Quaternary	QUATERNARY SYSTEM	–9,999	39.104	–108.650	4/2/1998	915
1693	Colorado National Monument	Quaternary	QUATERNARY SYSTEM	–9,999	39.104	–108.650	2/11/1998	1020
1694	Colorado National Monument	Quaternary	QUATERNARY SYSTEM	–9,999	39.104	–108.648	4/2/1998	1030
1695	Colorado National Monument	Quaternary	QUATERNARY SYSTEM	–9,999	39.104	–108.648	7/24/1998	912
1696	Colorado National Monument	Quaternary	QUATERNARY SYSTEM	–9,999	39.104	–108.648	2/18/1998	1045
1697	Colorado National Monument	Quaternary	QUATERNARY SYSTEM	–9,999	39.104	–108.649	4/2/1998	930
1699	Colorado National Monument	Quaternary	QUATERNARY SYSTEM	–9,999	39.104	–108.651	4/1/1998	1215
1700	Colorado National Monument	Quaternary	QUATERNARY SYSTEM	–9,999	39.105	–108.649	2/18/1998	1010
1701	Colorado National Monument	Quaternary	QUATERNARY SYSTEM	–9,999	39.105	–108.652	4/1/1998	725
1702	Colorado National Monument	Quaternary	QUATERNARY SYSTEM	–9,999	39.105	–108.651	7/17/1997	1105
1703	Colorado National Monument	Quaternary	QUATERNARY SYSTEM	–9,999	39.105	–108.653	4/1/1998	835
1704	Colorado National Monument	Quaternary	QUATERNARY SYSTEM	–9,999	39.106	–108.648	4/2/1998	1135
1705	Colorado National Monument	Quaternary	QUATERNARY SYSTEM	–9,999	39.105	–108.649	7/24/1998	925
1706	Colorado National Monument	Quaternary	QUATERNARY SYSTEM	–9,999	39.106	–108.652	7/24/1998	838
1707	Colorado National Monument	Quaternary	QUATERNARY SYSTEM	–9,999	39.106	–108.652	2/10/1998	1130
1708	Colorado National Monument	Quaternary	QUATERNARY SYSTEM	–9,999	39.106	–108.652	2/10/1998	1040
1709	Colorado National Monument	Quaternary	QUATERNARY SYSTEM	–9,999	39.106	–108.654	3/5/1997	1200
1710	Colorado National Monument	Quaternary	QUATERNARY SYSTEM	–9,999	39.105	–108.655	4/1/1998	915
1711	Colorado National Monument	Quaternary	QUATERNARY SYSTEM	–9,999	39.106	–108.651	7/24/1998	843
1712	Colorado National Monument	Quaternary	QUATERNARY SYSTEM	–9,999	39.106	–108.653	4/1/1998	945
1713	Colorado National Monument	Quaternary	QUATERNARY SYSTEM	–9,999	39.107	–108.655	7/17/1997	940
1714	Colorado National Monument	Quaternary	QUATERNARY SYSTEM	–9,999	39.107	–108.656	2/10/1998	915
1715	Colorado National Monument	Quaternary	QUATERNARY SYSTEM	–9,999	39.107	–108.655	4/1/1998	1000
1716	Colorado National Monument	Quaternary	QUATERNARY SYSTEM	–9,999	39.107	–108.656	4/1/1998	1030
1723	De Beque	Quaternary	ALLUVIUM,TERRACE	42	39.359	–108.249	5/18/1979	1600
1727	Fruita	Unknown	Not available	–9,999	39.159	–108.683	8/9/1977	1100
1728	Fruita	Unknown	Not available	–9,999	39.189	–108.682	8/9/1977	1145
1730	Glade Park	Unknown	Not available	–9,999	38.976	–108.673	8/15/1977	1100
1731	Grand Junction	Jurrassic	ENTRADA SANDSTONE	940	39.042	–108.548	7/13/1981	0
1732	Grand Junction	Unknown	MESOZOIC ERATHEM	1,213	39.047	–108.568	4/2/1991	830
1733	Grand Junction	Jurrassic	ENTRADA SANDSTONE	1,380	39.049	–108.521	4/21/1981	1630
1734	Grand Junction	Quaternary	QUATERNARY SYSTEM	–9,999	39.050	–108.501	5/16/2000	1020
1735	Grand Junction	Quaternary	QUATERNARY SYSTEM	–9,999	39.051	–108.500	3/30/2000	1425
1736	Grand Junction	Quaternary	QUATERNARY SYSTEM	–9,999	39.052	–108.500	3/30/2000	1430
1738	Grand Junction	Unknown	Not available	810	39.058	–108.580	8/16/1977	1330
1741	Grand Junction	Unknown	Not available	–9,999	39.05	–108.53	10/19/2000	9999
1742	Grand Junction	Unknown	Not available	–9,999	39.05	–108.58	10/26/2000	9999
1743	Grand Junction	Unknown	Not available	–9,999	39.04	–108.58	10/26/2000	9999
1744	Grand Junction	Unknown	Not available	–9,999	39.04	–108.57	10/26/2000	9999
1745	Hawxhurst Creek	Unknown	Not available	125	39.263	–107.962	6/11/1997	9999
1747	Highline Lake	Cretaceous	MANCOS SHALE	88.1	39.315	–108.852	6/3/1992	900
1752	Housetop Mountain	Unknown	Not available	–9,999	39.355	–108.078	10/19/2006	9999
1753	Housetop Mountain	Unknown	Not available	–9,999	39.359	–108.087	7/7/2006	9999
1754	Housetop Mountain	Unknown	Not available	–9,999	39.362	–108.087	7/7/2006	9999
1755	Housetop Mountain	Unknown	Not available	–9,999	39.358	–108.081	9/29/2006	9999
1756	Housetop Mountain	Unknown	Not available	–9,999	39.365	–108.089	7/6/2006	9999
1757	Housetop Mountain	Unknown	Not available	–9,999	39.355	–108.075	7/20/2006	9999
1758	Housetop Mountain	Unknown	Not available	–9,999	39.361	–108.082	3/14/2007	9999
1759	Housetop Mountain	Unknown	Not available	–9,999	39.351	–108.075	7/20/2006	9999
1760	Housetop Mountain	Unknown	Not available	–9,999	39.354	–108.071	7/20/2006	9999
1761	Indian Point	Unknown	Not available	46	38.997	–108.217	5/7/2002	9999
1762	Juniata Reservoir	Quaternary	QUATERNARY SYSTEM	123	38.937	–108.356	6/24/1981	0
1763	Juniata Reservoir	Unknown	Not available	–9,999	38.960	–108.304	9/2/1977	1000
1765	Mack	Cretaceous	MANCOS SHALE	27.85	39.182	–108.813	2/19/1992	1200
1766	Mack	Cretaceous	MANCOS SHALE	28	39.201	–108.795	5/29/1992	1000
1768	Mack	Cretaceous	MANCOS SHALE	20	39.202	–108.795	2/18/1992	1130
1769	Mack	Cretaceous	MANCOS SHALE	29.9	39.207	–108.792	2/18/1992	1400
1770	Mesa	Unknown	Not available	–9,999	39.137	–108.136	9/7/1977	1100
1771	Mesa	Unknown	Not available	–9,999	39.159	–108.161	9/1/1977	0
1772	Mesa	Unknown	Not available	–9,999	39.183	–108.133	9/7/1977	950
1773	Mesa	Unknown	Not available	–9,999	39.154	–108.146	6/11/1997	9999
1774	Mesa	Unknown	Not available	200	39.161	–108.144	10/18/1999	9999

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Map name	Geologic unit	Aquifer description	Well depth (ft)	Latitude (decimal degrees, NAD83)	Longitude (decimal degrees, NAD83)	Collection date	Collection time
1776	Mesa	Unknown	Not available	350	39.217	–108.156	6/11/1997	9999
1777	Mesa	Unknown	Not available	300	39.159	–108.174	6/11/1997	9999
1778	Mesa	Unknown	Not available	100	39.148	–108.150	7/10/1997	9999
1779	Mesa	Unknown	Not available	85	39.137	–108.153	7/10/1997	9999
1780	Mesa	Unknown	Not available	30	39.153	–108.133	7/10/1997	9999
1781	Mesa	Unknown	Not available	35	39.155	–108.128	7/10/1997	9999
1782	Mesa	Tertiary	WASATCH FORMATION	500	39.165	–108.181	2/23/2004	9999
1783	Mesa	Tertiary	WASATCH FORMATION	500	39.162	–108.182	2/24/2004	9999
1784	Mesa	Tertiary	WASATCH FORMATION	480	39.176	–108.142	2/25/2004	9999
1785	Mesa	Unknown	Not available	60	39.166	–108.127	2/23/2004	9999
1786	Mesa	Tertiary	WASATCH FORMATION	125	39.180	–108.128	2/24/2004	9999
1787	Mesa Lakes	Unknown	Not available	–9,999	39.050	–108.091	9/7/1977	9999
1788	Mesa Lakes	Unknown	Not available	–9,999	39.091	–108.091	4/19/2006	9999
1789	Molina	Unknown	Not available	–9,999	39.232	–108.005	9/5/1977	1900
1790	Molina	Unknown	Not available	–9,999	39.163	–108.031	9/6/1977	1000
1791	Molina	Unknown	Not available	–9,999	39.131	–108.033	9/6/1977	1000
1792	Molina	Unknown	Not available	–9,999	39.196	–108.017	9/6/1977	1100
1793	Molina	Unknown	Not available	–9,999	39.189	–108.062	9/6/1977	1200
1794	Molina	Unknown	Not available	–9,999	39.166	–108.122	9/7/1977	1030
1795	Molina	Unknown	Not available	–9,999	39.189	–108.054	7/28/1977	1245
1796	Molina	Unknown	Not available	–9,999	39.155	–108.033	6/10/1997	9999
1797	Molina	Unknown	Not available	40	39.184	–108.113	6/10/1997	9999
1798	Molina	Unknown	Not available	20	39.183	–108.042	6/10/1997	9999
1799	Molina	Unknown	Not available	31	39.196	–108.025	6/10/1997	9999
1800	Molina	Unknown	Not available	35	39.190	–108.092	6/10/1997	9999
1801	Molina	Unknown	Not available	30	39.166	–108.123	6/11/1997	9999
1802	Molina	Unknown	Not available	40	39.178	–108.113	7/10/1997	9999
1803	Molina	Unknown	Not available	60	39.167	–108.093	7/10/1997	9999
1804	Molina	Unknown	Not available	89	39.157	–108.069	7/10/1997	9999
1805	Molina	Unknown	Not available	150	39.147	–108.048	7/10/1997	9999
1806	Molina	Unknown	Not available	120	39.139	–108.047	7/10/1997	9999
1807	Molina	Cretaceous	FOX HILLS FORMATION	700	39.173	–108.106	2/18/2003	1215
1807	Molina	Cretaceous	FOX HILLS FORMATION	700	39.173	–108.106	2/18/2003	1200
1808	Molina	Unknown	Not available	46	39.205	–108.045	2/23/2004	9999
1809	Molina	Tertiary	WASATCH FORMATION	127	39.180	–108.066	2/24/2004	9999
1810	Molina	Tertiary	WASATCH FORMATION	108	39.188	–108.065	2/25/2004	9999
1811	Molina	Unknown	Not available	–9,999	39.178	–108.030	1/19/2007	9999
1812	Molina	Unknown	Not available	–9,999	39.176	–108.030	1/19/2007	9999
1813	Molina	Unknown	Not available	–9,999	39.200	–108.043	4/26/2006	9999
1814	Molina	Unknown	Not available	–9,999	39.196	–108.028	4/24/2006	9999
1815	Molina	Unknown	Not available	150	39.17	–108.1	8/20/1998	9999
1816	Molina	Unknown	Not available	–9,999	39.180	–108.028	1/19/2007	9999
1817	Molina	Unknown	Not available	–9,999	39.181	–108.033	1/19/2007	9999
1818	Molina	Unknown	Not available	–9,999	39.195	–108.027	2/28/2006	9999
1819	Molina	Unknown	Not available	–9,999	39.17	–108.09	8/20/1998	9999
1820	Molina	Unknown	Not available	–9,999	39.182	–108.042	4/10/2007	9999
1821	Molina	Unknown	Not available	–9,999	39.193	–108.030	4/24/2006	9999
1822	Molina	Unknown	Not available	–9,999	39.195	–108.030	4/24/2006	9999
1827	Palisade	Unknown	Not available	50	39.008	–108.311	10/28/2008	9999
1828	Palisade	Unknown	Not available	80	39.009	–108.317	10/28/2008	9999
1829	Ruby Lee Reservoir	Cretaceous	MANCOS SHALE	100	39.270	–108.729	6/3/1992	1200
1830	Vega Reservoir	Unknown	Not available	–9,999	39.219	–107.792	9/7/1977	1605
1832	Vega Reservoir	Unknown	Not available	–9,999	39.227	–107.812	6/11/1997	9999
1833	Wagon Track Ridge	Unknown	Not available	–9,999	39.318	–108.272	8/18/1977	1420
1837	Wagon Track Ridge	Quaternary	ALLUVIUM,TERRACE	47	39.358	–108.250	5/15/1979	1430
1842	Whitewater	Cretaceous	MANCOS SHALE	25	38.977	–108.435	11/15/2001	1315
1843	Whitewater	Cretaceous	MANCOS SHALE	23	38.988	–108.444	11/15/2001	1200
1845	Whitewater	Unknown	MESOZOIC ERATHEM	1,100	38.990	–108.473	6/18/1981	0
1847	Whitewater	Cretaceous	MANCOS SHALE	29.6	38.992	–108.449	11/15/2001	935
1855	Bowie	Unknown	Not available	–9,999	38.984	–107.507	5/29/2002	9999
1856	Bowie	Unknown	Not available	–9,999	38.982	–107.508	5/29/2002	9999
1857	Bowie	Unknown	Not available	–9,999	38.963	–107.616	5/17/2002	9999
1858	Bowie	Unknown	Not available	–9,999	38.954	–107.623	5/17/2002	9999
1859	Bowie	Unknown	Not available	–9,999	38.955	–107.616	5/17/2002	9999
1860	Bowie	Unknown	Not available	–9,999	38.948	–107.624	6/23/2000	9999
1861	Bowie	Unknown	Not available	–9,999	38.948	–107.625	6/23/2002	9999

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Map name	Geologic unit	Aquifer description	Well depth (ft)	Latitude (decimal degrees, NAD83)	Longitude (decimal degrees, NAD83)	Collection date	Collection time
1862	Bowie	Unknown	Not available	74	38.923	–107.624	6/23/2002	9999
1863	Bowie	Unknown	Not available	170	38.888	–107.601	7/7/2002	9999
1864	Bowie	Cretaceous	MESAVERDE GROUP	–9,999	38.926	–107.562	12/6/2006	9999
1865	Bowie	Cretaceous	MESAVERDE GROUP	–9,999	38.930	–107.552	11/22/2002	9999
1866	Bowie	Cretaceous	MESAVERDE GROUP	–9,999	38.930	–107.543	8/10/1995	9999
1867	Bowie	Cretaceous	MESAVERDE GROUP	–9,999	38.926	–107.561	12/6/2006	9999
1868	Bowie	Cretaceous	MESAVERDE GROUP	–9,999	38.925	–107.555	12/6/2006	9999
1869	Bowie	Cretaceous	MESAVERDE GROUP	–9,999	38.919	–107.597	10/9/2003	9999
1870	Bowie	Cretaceous	MESAVERDE GROUP	–9,999	38.958	–107.540	11/21/2006	9999
1871	Bowie	Quaternary	ALLUVIUM	–9,999	38.920	–107.540	11/20/2006	9999
1872	Bowie	Quaternary	ALLUVIUM	–9,999	38.917	–107.542	11/20/2006	9999
1873	Bowie	Quaternary	ALLUVIUM	–9,999	38.922	–107.536	9/18/2006	9999
1874	Bowie	Quaternary	ALLUVIUM	–9,999	38.923	–107.534	12/29/2003	9999
1875	Bowie	Quaternary	ALLUVIUM	–9,999	38.919	–107.546	11/20/2006	9999
1876	Bowie	Quaternary	ALLUVIUM	–9,999	38.919	–107.545	11/20/2006	9999
1877	Bowie	Quaternary	ALLUVIUM	–9,999	38.919	–107.544	11/20/2006	9999
1878	Bowie	Quaternary	ALLUVIUM	–9,999	38.922	–107.541	11/20/2006	9999
1879	Bowie	Quaternary	ALLUVIUM	–9,999	38.922	–107.540	11/20/2006	9999
1880	Bowie	Quaternary	ALLUVIUM	–9,999	38.922	–107.540	11/20/2006	9999
1881	Bowie	Quaternary	ALLUVIUM	–9,999	38.918	–107.546	11/20/2006	9999
1882	Bowie	Quaternary	ALLUVIUM	–9,999	38.918	–107.545	9/29/2000	9999
1883	Bowie	Quaternary	ALLUVIUM	–9,999	38.918	–107.545	11/20/2006	9999
1884	Bowie	Unknown	Not available	–9,999	38.900	–107.608	6/20/2001	9999
1885	Bowie	Quaternary	ALLUVIUM	–9,999	38.893	–107.575	11/26/2006	9999
1886	Bowie	Quaternary	ALLUVIUM	–9,999	38.886	–107.584	11/26/2006	9999
1887	Bowie	Unknown	Not available	27	38.91	–107.56	8/26/1998	9999
1888	Bowie	Unknown	Not available	–9,999	38.921	–107.624	6/23/2002	9999
1889	Bowie	Unknown	Not available	–9,999	38.886	–107.600	7/7/2002	9999
1890	Bowie	Unknown	Not available	–9,999	38.89	–107.58	3/31/1998	9999
1891	Cedaredge	Cretaceous	MESAVERDE GROUP	75	38.925	–107.940	8/26/1981	1100
1895	Cedaredge	Cretaceous	MESAVERDE GROUP	119	38.937	–107.963	7/24/1981	1530
1896	Cedaredge	Cretaceous	MESAVERDE GROUP	253	38.937	–107.963	8/11/1981	1000
1897	Cedaredge	Cretaceous	MESAVERDE GROUP	118	38.937	–107.983	7/7/1981	1630
1898	Cedaredge	Cretaceous	MESAVERDE GROUP	55	38.937	–107.960	7/7/1981	1250
1899	Cedaredge	Cretaceous	MESAVERDE GROUP	100	38.938	–107.960	7/30/1981	1130
1900	Cedaredge	Cretaceous	MESAVERDE GROUP	140	38.938	–107.985	7/8/1981	930
1904	Cedaredge	Tertiary	TERTIARY SYSTEM	66	38.946	–107.962	9/18/1974	1300
1906	Cedaredge	Quaternary	QUATERNARY SYSTEM	162	38.954	–107.938	7/30/1981	0
1907	Cedaredge	Cretaceous	MESAVERDE GROUP	120	38.956	–107.945	8/26/1981	1400
1908	Cedaredge	Cretaceous	MESAVERDE GROUP	203	38.965	–107.963	7/24/1981	0
1909	Cedaredge	Unknown	Not available	–9,999	38.947	–107.919	6/25/2002	9999
1910	Cedaredge	Unknown	Not available	–9,999	38.998	–107.960	6/9/2005	9999
1911	Cedaredge	Unknown	Not available	–9,999	38.935	–107.977	5/16/2002	9999
1912	Cedaredge	Unknown	Not available	–9,999	38.955	–107.886	6/4/2002	9999
1913	Cedaredge	Unknown	Not available	85	38.96	–107.93	8/25/1998	9999
1914	Cedaredge	Unknown	Not available	95	38.95	–107.93	8/25/1998	9999
1915	Cedaredge	Unknown	Not available	–9,999	38.936	–107.960	7/17/2002	9999
1916	Cedaredge	Unknown	Not available	–9,999	38.930	–107.982	4/26/2002	9999
1917	Cedaredge	Unknown	Not available	–9,999	38.930	–107.982	4/26/2002	9999
1918	Cedaredge	Unknown	Not available	–9,999	38.943	–107.987	5/7/2002	9999
1919	Chalk Mountain	Unknown	Not available	–9,999	39.006	–107.642	6/5/2002	9999
1920	Chalk Mountain	Unknown	Not available	–9,999	39.005	–107.634	6/11/2002	9999
1921	Chalk Mountain	Unknown	Not available	–9,999	39.008	–107.633	6/11/2002	9999
1925	Delta	Cretaceous	MANCOS SHALE	8	38.719	–108.013	3/2/1992	1300
1926	Delta	Cretaceous	MANCOS SHALE	18	38.725	–108.009	5/28/1992	1100
1928	Delta	Quaternary	ALLUVIUM,TERRACE	42	38.742	–108.025	9/19/1974	1000
1930	Delta	Unknown	Not available	–9,999	38.672	–108.041	8/29/1977	1000
1931	Delta	Unknown	Not available	–9,999	38.686	–108.097	8/29/1977	1200
1932	Delta	Unknown	Not available	–9,999	38.724	–108.103	8/29/1977	1300
1937	Dry Creek	Unknown	Not available	–9,999	38.883	–107.833	6/6/2002	9999
1938	Dry Creek	Unknown	Not available	–9,999	38.942	–107.766	6/21/2002	9999
1939	Dry Creek	Unknown	Not available	–9,999	38.953	–107.755	7/7/2002	9999
1940	Dry Creek	Unknown	Not available	–9,999	38.982	–107.868	5/7/2002	9999
1941	Dry Creek	Unknown	Not available	–9,999	38.973	–107.871	6/4/2002	9999
1942	Dry Creek	Unknown	Not available	–9,999	38.978	–107.870	6/4/2002	9999
1943	Dry Creek	Unknown	Not available	–9,999	38.982	–107.862	4/26/2002	9999

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Map name	Geologic unit	Aquifer description	Well depth (ft)	Latitude (decimal degrees, NAD83)	Longitude (decimal degrees, NAD83)	Collection date	Collection time
1944	Electric Mountain	Unknown	Not available	–9,999	39.077	–107.580	7/11/1978	0
1945	Electric Mountain	Unknown	Not available	–9,999	39.077	–107.597	7/11/1978	0
1946	Electric Mountain	Unknown	Not available	–9,999	39.030	–107.513	5/30/2002	9999
1947	Electric Mountain	Unknown	Not available	–9,999	39.021	–107.509	5/30/2002	9999
1951	Grand View Mesa	Unknown	Not available	–9,999	38.74	–107.64	9/15/1998	9999
1955	Gray Reservoir	Cretaceous	MESAVERDE GROUP	922	38.919	–107.650	8/3/1982	1100
1962	Gray Reservoir	Cretaceous	MESAVERDE GROUP	1,655	38.926	–107.652	8/4/1982	1144
1967	Gray Reservoir	Unknown	Not available	–9,999	38.941	–107.737	5/1/2002	9999
1968	Gray Reservoir	Unknown	Not available	–9,999	38.926	–107.732	5/1/2002	9999
1969	Gray Reservoir	Unknown	Not available	–9,999	38.938	–107.737	5/2/2002	9999
1970	Gray Reservoir	Unknown	Not available	–9,999	38.935	–107.733	5/2/2002	9999
1971	Gray Reservoir	Unknown	Not available	–9,999	38.991	–107.628	6/3/2002	9999
1972	Gray Reservoir	Unknown	Not available	–9,999	38.946	–107.628	6/23/2002	9999
1973	Gray Reservoir	Unknown	Not available	–9,999	38.885	–107.626	6/5/2002	9999
1974	Gray Reservoir	Unknown	Not available	–9,999	39.000	–107.635	6/5/2002	9999
1975	Gray Reservoir	Unknown	Not available	–9,999	38.906	–107.742	6/6/2002	9999
1976	Gray Reservoir	Cretaceous	MESAVERDE GROUP	–9,999	38.922	–107.647	6/25/2003	9999
1978	Hells Kitchen	Cretaceous	MESAVERDE GROUP	232	38.893	–108.078	8/11/1981	1530
1981	Hotchkiss	Unknown	Not available	–9,999	38.787	–107.735	10/15/1998	1250
1982	Hotchkiss	Unknown	Not available	–9,999	38.793	–107.729	10/15/1998	1311
1983	Hotchkiss	Quaternary	GLACIAL COLLUVIUM	132	38.800	–107.740	3/23/1979	0
1986	Hotchkiss	Quaternary	ALLUVIUM,TERRACE	–9,999	38.812	–107.746	6/20/2000	1315
1990	Hotchkiss	Cretaceous	DAKOTA SANDSTONE OR FORMATION OR GROUP	1,386	38.832	–107.683	7/31/1979	0
1993	Hotchkiss	Quaternary	GLACIAL COLLUVIUM	60	38.849	–107.675	8/29/1979	0
1995	Hotchkiss	Unknown	Not available	–9,999	38.82	–107.69	3/31/1998	9999
1996	Hotchkiss	Unknown	Not available	–9,999	38.83	–107.68	4/1/1998	9999
2001	Lazear	Quaternary	TERRACE DEPOSITS	–9,999	38.793	–107.785	8/18/1977	1000
2002	Lazear	Quaternary	GLACIAL COLLUVIUM	140	38.800	–107.762	4/15/1978	1130
2003	Lazear	Unknown	Not available	119	38.802	–107.780	3/23/1979	0
2011	Lazear	Quaternary	GLACIAL COLLUVIUM	99	38.871	–107.793	8/30/1979	0
2012	Lazear	Quaternary	ALLUVIUM,TERRACE	40	38.872	–107.834	9/18/1981	0
2013	Lazear	Unknown	Not available	–9,999	38.864	–107.832	6/6/2002	9999
2014	Lazear	Unknown	Not available	–9,999	38.867	–107.787	6/21/2002	9999
2015	Lazear	Unknown	Not available	110	38.869	–107.787	6/21/2002	9999
2016	Lazear	Unknown	Not available	90	38.84	–107.8	8/26/1998	9999
2017	Lazear	Unknown	Not available	55	38.87	–107.8	8/26/1998	9999
2018	Lazear	Unknown	Not available	–9,999	38.87	–107.81	8/26/1998	9999
2019	Lazear	Unknown	Not available	–9,999	38.83	–107.87	3/31/1998	9999
2020	Lazear	Unknown	Not available	–9,999	38.83	–107.82	3/31/1998	9999
2021	Lazear	Unknown	Not available	–9,999	38.77	–107.77	4/1/1998	9999
2022	Lazear	Unknown	Not available	–9,999	38.78	–107.78	4/1/1998	9999
2023	Lazear	Unknown	Not available	–9,999	38.78	–107.84	4/1/1998	9999
2024	Lazear	Unknown	Not available	–9,999	38.85	–107.85	4/1/1998	9999
2025	Leon Peak	Unknown	Not available	96	39.006	–107.849	6/27/2007	1100
2027	Olathe NW	Cretaceous	MANCOS SHALE	26	38.712	–107.961	3/4/1992	1300
2029	Orchard City	Quaternary	QUATERNARY SYSTEM	177	38.831	–107.902	8/4/1981	0
2030	Orchard City	Unknown	Not available	–9,999	38.8	–107.97	4/1/1998	9999
2033	Paonia	Cretaceous	MANCOS SHALE	66	38.846	–107.558	9/17/1974	1400
2034	Paonia	Unknown	Not available	–9,999	38.87	–107.59	3/31/1998	9999

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Map name	Geologic unit	Aquifer description	Well depth (ft)	Latitude (decimal degrees, NAD83)	Longitude (decimal degrees, NAD83)	Collection date	Collection time
2035	Paonia	Unknown	Not available	–9,999	38.86	–107.62	4/1/1998	9999
2037	Chair Mountain	Unknown	Not available	46	39.049	–107.362	7/13/1978	0
2040	Citadel Plateau	Unknown	Not available	–9,999	40.261	–108.150	9/12/1977	1800
2041	Delta	Cretaceous	DAKOTA SANDSTONE OR FORMATION OR GROUP	230	38.629	–108.100	8/25/1981	1230
2044	Delta	Quaternary	VALLEY-FILL DEPOSITS	71	38.644	–108.028	5/8/1974	1100
2046	Delta	Cretaceous	DAKOTA SANDSTONE OR FORMATION OR GROUP	693	38.646	–108.045	7/3/1991	930
2046	Delta	Cretaceous	DAKOTA SANDSTONE OR FORMATION OR GROUP	693	38.646	–108.045	7/3/1991	1100
2049	Delta	Unknown	Not available	–9,999	38.633	–108.103	8/27/1977	1800
2050	Delta	Unknown	Not available	–9,999	38.630	–108.118	8/29/1977	800
2051	Delta	Unknown	Not available	–9,999	38.651	–108.078	8/29/1977	900
2052	Elk Springs	Unknown	Not available	–9,999	40.324	–108.376	9/12/1977	1100
2053	Grand View Mesa	Cretaceous	DAKOTA SANDSTONE OR FORMATION OR GROUP	–9,999	38.668	–107.671	8/18/1977	1330
2054	Grizzly Ridge	Quaternary	VALLEY-FILL DEPOSITS	50	38.524	–107.745	5/7/1974	1300
2055	Haystack Rock	Unknown	Not available	–9,999	40.413	–108.715	9/17/1977	900
2056	Hoovers Corner	Quaternary	ALLUVIUM,TERRACE	36	38.573	–108.033	7/30/1982	0
2058	Hoovers Corner	Cretaceous	DAKOTA SANDSTONE OR FORMATION OR GROUP	265	38.577	–108.049	5/8/1974	800
2061	Hoovers Corner	Quaternary	QUATERNARY SYSTEM	60	38.606	–108.023	3/4/1992	1100
2063	Hoovers Corner	Cretaceous	DAKOTA SANDSTONE OR FORMATION OR GROUP	390	38.621	–108.061	8/5/1982	0
2064	Hoovers Corner	Unknown	Not available	–9,999	38.591	–108.015	8/27/1977	1100
2065	Lazy Y Point	Pennsylvanian	WEBER FORMATION	750	40.262	–108.862	10/19/1972	0
2066	Lazy Y Point	Pennsylvanian	WEBER FORMATION	750	40.262	–108.862	10/1/1972	0
2067	Lazy Y Point	Unknown	Not available	–9,999	40.262	–108.862	9/24/1977	1100
2068	M F Mountain	Jurrassic	ENTRADA SANDSTONE	54	40.280	–108.608	7/14/1958	0
2069	M F Mountain	Unknown	Not available	–9,999	40.311	–108.606	9/14/1977	1500
2070	M F Mountain	Unknown	Not available	–9,999	40.274	–108.606	9/14/1977	1600
2071	Mellen Hill	Pennsylvanian	WEBER FORMATION	1400	40.247	–108.901	5/10/1973	0
2072	Mellen Hill	Unknown	Not available	–9,999	40.245	–108.973	9/19/1977	1300
2076	Olathe NW	Cretaceous	MANCOS SHALE	–9,999	38.650	–107.980	2/23/2000	1130
2077	Paonia Reservoir	Cretaceous	MESAVERDE GROUP	28	38.933	–107.335	7/27/2004	1200
2078	Plug Hat Rock	Jurrassic	NAVAJO SANDSTONE	800	40.252	–108.979	7/22/1971	1700
2079	Plug Hat Rock	Jurrassic	NAVAJO SANDSTONE	1,400	40.251	–108.997	9/30/1958	0
2080	Plug Hat Rock	Jurrassic	NAVAJO SANDSTONE	800	40.252	–108.979	5/1/1969	0
2082	Plug Hat Rock	Unknown	Not available	–9,999	40.251	–108.996	9/17/1977	1800
2083	Price Creek	Quaternary	ALLUVIUM,FLOOD PLAIN	–9,999	40.253	–108.075	6/1/1975	0
2084	Price Creek	Cretaceous	MESAVERDE GROUP	160	40.278	–108.098	7/1/1975	0
2085	Price Creek	Cretaceous	MESAVERDE GROUP	180	40.307	–108.104	7/26/1975	0
2088	Skull Creek	Pennsylvanian	WEBER FORMATION	3,365	40.261	–108.713	2/1/1967	0
2089	Skull Creek	Unknown	Not available	–9,999	40.370	–108.730	9/24/1977	1400
2090	Snake John Reef	Jurrassic	NAVAJO SANDSTONE	1,020	40.252	–109.003	9/30/1958	0
2091	Snake John Reef	Jurrassic	NAVAJO SANDSTONE	700	40.255	–109.014	10/3/1958	0
2094	Somerset	Quaternary	ALLUVIUM	–9,999	38.941	–107.466	8/10/2006	9999
2095	Starvation Point	Unknown	Not available	–9,999	38.427	–108.384	8/26/1977	1100
2096	Windy Point	Unknown	Not available	–9,999	38.469	–108.503	8/26/1977	1600

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Specific conductance (µs/cm at 25°C)	pH, standard units	Temperature, water, (°C)	Dissolved oxygen (mg/L)	Alkalinity (mg/L as $CaCO_3$)	Bicarbonate (mg/L)	Carbonate (mg/L)	Total dissolved solids (mg/L)	Calcium, dissolved (mg/L)	Magnesium, dissolved (mg/L)
1	779	8.85	31.9	--	300	--	--	387	16.0	20.0
2	700	8.1	13.5	--	754	460	0	--	15.0	5.60
3	500	8.8	11.0	--	510	310	1	--	41.0	18.0
4	660	9.3	13.0	--	641	390	1	--	20.0	6.70
5	6,590	6.79	13.6	8.5	--	746	<1	5,370	243	176
6	600	7.1	13.0	--	--	--	--	--	--	--
8	1,650	8	21.5	--	--	--	--	--	--	--
9	570	7.88	15.3	1.5	252	--	--	288	57.3	18.8
13	1,017	--	--	--	392	--	--	--	69.0	61.2
14	--	--	--	--	467	--	--	--	187	73.0
15	1,025	--	--	--	423	--	--	--	76.6	62.2
16	773	--	--	--	337	--	--	--	56.0	52.8
17	944	8.57	11.8	2.4	--	--	--	--	--	--
18	977	8.57	12.2	2.5	--	--	--	--	--	--
19	878	8.85	13.7	0.9	--	--	--	--	--	--
20	840	8.62	12.4	3.4	--	--	--	--	--	--
21	804	8.81	13.1	2.3	--	--	--	--	--	--
22	856	8.56	12.6	2.9	--	--	--	--	--	--
23	839	8.88	12.1	1.0	--	--	--	--	--	--
24	850	8.57	11.6	2.2	--	--	--	--	--	--
25	879	8.5	11.6	1.6	--	--	--	--	--	--
26	1,102	3.47	12.1	1.6	--	--	--	--	--	--
27	885	8.46	12.4	2.0	--	--	--	--	--	--
28	894	8.55	11.9	3.0	--	--	--	--	--	--
29	1,100	6.9	11.0	--	--	--	--	--	--	--
30	3,160	7.37	15.0	0.4	310	--	--	3,000	220	180
31	1,600	8	16.5	--	--	--	--	--	--	--
33	1,600	7.5	9.0	--	--	--	--	--	--	--
34	1,120	7.6	9.0	--	--	--	--	--	--	--
36	800	7.6	9.0	--	--	--	--	--	--	--
38	925	7.3	18.0	--	656	400	0	--	76.0	48.0
39	870	8.4	18.0	--	1,010	600	16	--	12.0	13.0
40	1,100	7.4	--	--	740	--	--	690	84.0	53.0
41	800	7.7	--	--	680	--	--	510	67.0	39.0
42	--	8.100	--	--	247	405	0	550	54.5	30.4
43	890	7.8	--	--	720	--	600	520	60.0	41.0
44	960	7.7	--	--	760	--	634	560	60.0	45.0
45	1,000	7.8	--	--	800	--	667	640	61.0	48.0
46	720	8.1	--	--	600	--	500	450	57.0	34.0
47	470	8.1	--	--	480	--	400	260	46.0	21.0
48	650	7.6	--	--	620	--	517	380	48.0	28.0
49	1,000	7.6	--	--	720	--	600	670	71.0	50.0
50	1,640	7.2	11.7	2.8	445	542	--	1,184	133	114
51	--	7.390	--	--	419	--	--	--	270	110
52	--	8.200	--	--	391	--	--	--	53.8	28.4
53	--	7.520	--	--	391	--	--	--	68.0	38.0
54	--	7.5	--	--	270	--	--	--	49.0	31.0
55	--	7.700	--	--	430	--	--	490	80.9	25.0
56	1,070	7.080	--	--	429	--	--	--	130	76.0
57	1,420	7.270	--	6.9	226	--	--	--	150	34.0
58	--	7.200	--	6.5	473	--	--	--	78.0	72.0
59	894	7.270	--	--	523	--	--	--	100	47.0
60	746	7.640	--	9.8	404	--	--	--	36.0	27.0
61	--	--	--	--	370	--	--	--	--	--
62	--	7.800	--	--	470	--	--	--	--	--
63	911	7.640	6.4	1.9	--	--	--	--	--	--
64	--	--	--	--	--	--	--	--	--	--
65	1,390	7.600	8.9	1.5	--	--	--	--	--	--
66	1,396	8.090	8.3	3.9	--	--	--	--	--	--
67	910	8.100	6.6	1.5	369	--	--	--	8.3	0.300
68	1,090	7.410	11.1	4.2	--	--	--	--	68.0	34.0
69	1,610	7.57	10.4	3.9	--	--	--	1,160	--	--
70	1,870	7.64	11.7	3.4	--	--	--	1,590	--	--
71	1,149	7.35	12.6	1.1	--	--	--	--	62.0	43.0

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Specific conductance (µs/cm at 25°C)	pH, standard units	Temperature, water, (°C)	Dissolved oxygen (mg/L)	Alkalinity (mg/L as $CaCO_3$)	Bicarbonate (mg/L)	Carbonate (mg/L)	Total dissolved solids (mg/L)	Calcium, dissolved (mg/L)	Magnesium, dissolved (mg/L)
72	763	7.35	10.3	6.2	--	--	--	--	67.0	35.0
73	897	7.50	6.6	--	--	--	--	--	60.0	54.0
74	1,021	7.44	10.6	3.3	--	--	--	--	--	58.0
75	969	7.25	11.2	3.0	--	--	--	--	87.0	44.0
76	1,184	7.04	14.4	5.3	--	--	--	--	140	44.0
77	1,404	8.70	7.6	2.0	352	344	8	--	7.4	1.20
78	1,090	7.5	6.4	5.6	499	499	0	--	21.3	3.80
79	865	7.72	15.4	11.4	1,279	--	<5	512	87.0	38.0
80	912	7.29	8.6	1.3	410	--	--	530	64.0	35.0
81	598	7.45	11.3	7.8	1,154	--	<5	403	64.1	37.2
82	587	7.19	11.5	5.3	1,002	--	<5	407	76.3	24.8
83	1,335	7.26	11.1	2.9	1,524	--	<5	977	94.6	31.9
84	1,880	8.16	11.8	3.1	1,362	--	<5	766	69.2	18.1
85	1,300	7.03	12.4	1.2	1,108	--	<5	724	32.2	6.15
86	855	7.27	10.5	6.9	450	--	--	860	76.0	39.0
87	1,773	7.96	8.2	2.5	1,293	--	<5	762	101	48.5
88	717	8.11	7.5	5.9	1,243	--	<5	452	72.6	29.8
89	751	8.38	12.8	2.0	1,015	--	<5	497	5.9	0.307
90	873	7.48	11.5	3.4	--	--	--	551	--	--
91	1,404	8.7	7.6	2.0	352	--	--	690	7.4	1.20
92	811	7.84	11.7	6.4	350	--	--	500	79.0	44.0
93	960	8.21	10.5	7.2	319	--	--	530	8.8	0.110
94	1,580	7.08	10.5	--	429	--	--	1,090	130	76.0
95	1,990	7.27	11.0	6.9	226	--	--	1,360	150	34.0
96	1,186	7.27	11.2	--	523	--	--	704	100	47.0
97	1,084	7.2	12.6	6.5	473	--	--	650	78.0	72.0
98	1,331	7.6	12.4	2.7	--	--	--	931	--	--
99	804	7.61	11.8	2.7	--	--	--	532	--	--
100	750	7.91	16.7	2.9	--	--	--	494	--	--
101	1,218	6.77	15.0	3.6	--	--	--	804	--	--
102	811	7.38	10.6	2.9	--	--	--	508	--	--
103	653	7.38	8.6	3.1	--	--	--	425	--	--
104	872	7.29	10.6	3.7	--	--	--	542	--	--
105	944	7.58	18.1	2.1	--	--	--	626	--	--
106	813	7.43	10.1	3.6	--	--	--	521	--	--
107	752	8.29	7.4	3.6	--	--	--	487	--	--
108	800	8.78	10.6	0.8	350	--	--	450	6.5	0.190
109	6,980	8.86	11.6	0.5	265	--	--	482	3.7	0.630
110	979	8.2	12.0	0.5	280	--	--	638	14.7	5.91
111	884	8.26	5.4	--	445	--	--	512	56.0	65.0
112	736	7.34	12.4	0.6	333	--	--	458	93.0	30.0
113	1,005	8.16	12.7	4.2	--	--	--	740	--	--
114	1,163	7.45	12.9	1.8	--	--	--	796	--	--
115	752	7.43	11.3	4.1	--	--	--	479	--	--
116	688	7.19	13.0	1.2	--	--	--	--	--	--
117	1,114	7.39	10.0	4.2	--	--	--	745	--	--
118	725	8.02	5.8	2.4	--	--	--	462	--	--
119	745	7.37	11.6	3.0	--	--	--	512	--	--
120	1,138	8.65	11.0	5.5	--	--	--	786	--	--
121	1,304	7.27	13.5	3.7	--	--	--	870	--	--
122	1,230	7.37	10.6	4.7	--	--	--	824	--	--
123	1,299	7.67	9.4	4.7	--	--	--	857	--	--
124	983	7.64	9.8	9.8	404	--	--	599	36.0	27.0
125	941	8.29	7.0	2.2	500	--	--	520	20.0	3.80
126	1,306.7	7.6	17.0	0.9	177	--	--	690	39.1	3.90
127	590	7.69	11.6	4.4	347	--	--	388	65.3	35.9
128	916	7.29	10.6	3.8	436	--	--	624	42.0	29.0
129	977	7.4	10.8	3.1	424	--	--	680	52.9	36.6
130	1,890	8.32	9.1	3.1	340	--	--	1,400	230	30.0
131	1,800	7.36	10.8	0.5	310	--	--	1,200	180	66.0
132	750	7.5	8.3	5.1	427	--	--	490	71.6	35.4
133	664	8.35	11.3	7.4	344	--	--	426	72.9	27.1
134	1,990	7.45	8.5	2.0	844	--	--	1,520	45.4	16.2
135	706	6.8	12.0	4.0	--	--	--	472	--	--

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Specific conductance (µs/cm at 25°C)	pH, standard units	Temperature, water, (°C)	Dissolved oxygen (mg/L)	Alkalinity (mg/L as $CaCO_3$)	Bicarbonate (mg/L)	Carbonate (mg/L)	Total dissolved solids (mg/L)	Calcium, dissolved (mg/L)	Magnesium, dissolved (mg/L)
138	34,000	--	27.0	--	--	--	--	--	--	--
142	760	7.7	12.0	--	--	--	--	--	--	--
143	--	--	--	--	--	--	--	--	--	44.0
144	0.72	8.12	13.8	6.7	--	--	--	--	41.0	38.0
145	--	7.90	--	--	261	428	0	450	47.2	44.8
146	700	8.66	13.9	5.4	959	--	--	450	54.0	31.0
147	3,550	8.52	14.4	3.4	550	--	--	2,800	140	100
148	3,010	7.22	14.1	1.1	330	--	--	2,700	210	170
149	616	8.42	13.9	4.8	270	--	--	390	53.0	35.0
150	660	8.70	13.4	4.9	290	--	--	420	58.0	37.0
151	1,950	8.89	15.2	3.1	240	--	--	1,900	130	120
152	2,060	7.43	11.6	2.4	608	--	--	--	78.0	150
153	--	8.00	--	--	567	--	--	--	181	87.8
154	--	--	--	--	--	--	--	--	--	--
155	--	7.38	--	--	624	--	--	--	71.0	57.0
157	--	8.10	--	--	499	--	--	--	90.2	63.5
158	1,310	7.20	10.8	2.0	645	786	--	863	83.5	53.2
159	1,190	7.25	11.9	1.5	488	595	--	782	90.0	59.9
161	1,150	7.90	9.4	3.2	390	--	--	--	10.1	1.50
162	1,430	8.30	11.0	0.1	354	308	61	922	8.3	0.248
163	2,460	7.90	9.1	0.2	402	491	--	1,667	21.1	4.87
164	1,834	7.45	12.0	1.0	594	725	--	1,169	16.6	4.65
165	1,232	7.51	11.1	8.6	505	616	--	796	52.4	51.6
166	--	7.90	--	--	439	--	--	1,270	31.6	24.5
167	--	7.20	--	--	503	--	--	1,410	132	71.0
168	--	8.00	--	--	544	--	--	--	100	47.8
169	--	--	--	--	--	--	--	--	--	--
169	--	8.10	--	--	520	--	--	--	71.4	44.8
170	2,870	7.74	13.1	4.5	--	--	--	--	120	61.0
171	--	7.90	--	--	403	--	--	--	211	121
172	2,110	7.17	13.6	0.8	--	--	--	--	58.0	68.0
173	5,970	8.11	12.8	1.4	280	--	--	--	130	6.20
174	1,587	7.60	7.3	2.6	478	--	--	--	44.6	5.00
175	2,130	7.32	11.9	8.9	400	--	--	--	170	110
176	--	8.10	--	--	532	--	--	--	66.4	50.6
177	--	8.30	--	--	177	--	--	--	51.4	2.00
178	4,610	8.12	19.2	1.4	180	--	--	--	64.0	3.40
179	--	8.10	--	--	583	--	--	--	73.0	47.2
180	2,090	8.25	19.2	0.2	--	--	--	--	14.0	1.00
181	6,450	7.77	13.9	0.7	270	--	--	--	130	29.0
182	--	8.20	--	--	590	--	--	--	26.0	15.5
182	--	--	--	--	--	--	--	--	--	--
183	--	7.70	--	--	463	--	--	--	318	166
184	--	--	--	--	--	--	--	--	--	--
185	--	8.00	--	--	709	--	--	--	63.4	23.8
186	--	8.40	--	--	386	--	--	--	31.6	51.8
187	--	8.71	--	--	--	--	--	--	3.1	<0.1
187	--	--	--	--	--	--	--	--	--	--
188	--	7.56	--	8.2	841	--	--	--	74.0	42.0
189	--	8.40	--	--	412	--	--	--	41.5	5.70
189	--	--	--	--	--	--	--	--	--	--
191	3,780	8.09	17.2	7.0	180	--	--	--	53.0	3.40
192	--	7.47	--	14.0	537	--	--	--	--	96.0
193	1,640	7.08	11.8	8.4	490	--	--	--	88.0	57.0
194	1,181	7.37	11.6	8.6	520	--	--	--	61.0	47.0
195	--	7.12	--	--	143	--	--	--	15.0	1.10
196	3,430	7.49	13.1	0.4	--	--	--	--	93.0	26.0
197	--	8.30	--	--	528	--	--	--	65.8	35.9
198	--	8.20	--	--	565	--	--	--	84.9	36.5
199	--	7.50	--	--	441	--	--	--	477	286
200	1,750	7.39	12.8	5.6	630	--	--	--	50.0	33.0
201	--	--	--	--	--	--	--	--	--	--
201	--	8.00	--	--	514	--	--	--	91.4	34.4
202	1,740	7.29	13.9	6.7	480	--	--	--	100	60.0

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Specific conductance (µs/cm at 25°C)	pH, standard units	Temperature, water, (°C)	Dissolved oxygen (mg/L)	Alkalinity (mg/L as $CaCO_3$)	Bicarbonate (mg/L)	Carbonate (mg/L)	Total dissolved solids (mg/L)	Calcium, dissolved (mg/L)	Magnesium, dissolved (mg/L)
203	--	8.30	--	--	486	--	--	--	40.1	2.90
203	--	--	--	--	--	--	--	--	--	--
204	3,840	7.34	13.1	0.5	--	--	--	--	100	30.0
205	--	8.20	--	--	346	--	--	--	35.9	1.50
205	--	--	--	--	--	--	--	--	--	--
206	1,390	8.00	9.8	--	376	376	0	--	15.8	<0.1
207	--	--	--	--	--	--	--	--	--	--
208	1.36	7.19	11.7	4.9	572	--	--	--	70.0	64.0
209	--	7.10	--	--	620	620	0	--	120	130
211	--	7.30	--	--	460	460	0	--	98.0	53.0
213	804	7.68	--	--	--	--	--	--	--	47.0
214	4,540	8.13	15.1	0.6	139	--	--	--	63.3	3.26
214	--	--	--	--	--	--	--	--	--	--
215	5,063	7.40	4.3	7.8	226	--	--	--	89.6	2.90
216	--	7.90	--	--	61.0	--	--	--	235	2.90
216	--	--	--	--	--	--	--	--	--	--
217	1,249	7.10	3.3	0.8	372	--	--	--	91.3	33.1
218	1,107	7.70	6.2	--	301	--	--	--	26.7	5.70
219	--	8.10	--	--	539	--	--	--	120	73.5
220	--	8.30	--	--	442	--	--	--	48.9	24.3
221	3,400	7.35	13.1	0.2	--	--	--	--	110	48.0
222	--	8.10	--	--	233	--	--	--	87.8	25.9
223	--	--	--	--	--	--	--	--	--	--
224	1,780	6.87	13.2	1.1	416	--	--	1,570	168	79.8
225	1,660	7.16	13.0	2.8	431	--	--	1,180	81.0	16.0
226	2,040	8.55	10.1	3.2	68.0	--	--	1,000	25.0	1.20
227	4,900	7.63	13.5	5.0	480	480	--	--	120	37.0
228	--	8.60	--	--	290	445	30	--	7.0	1.30
228	--	--	--	--	--	--	--	--	--	--
229	2,270	8.28	15.8	7.1	590	--	--	1,700	74.0	99.0
230	1,880	7.92	13.7	7.7	369	--	--	1,410	91.7	57.7
231	1,300	7.34	4.6	--	607	--	--	833	68.0	49.0
232	1,700	7.79	10.2	8.0	811	--	--	1,060	26.0	17.0
233	1,022	8.25	9.6	4.9	460	--	--	630	89.0	54.0
234	2,930	7.33	21.9	--	558	--	--	2,730	280	160
235	--	--	--	--	--	--	--	--	--	--
236	--	7.99	--	8.6	475	779	0	--	1.7	3.30
237	1,792	7.30	6.1	--	564	--	--	860	72.3	50.6
238	1,560	9.01	17.4	0.4	346	--	--	1,010	0.4	<0.1
239	829	7.33	12.0	0.6	390	--	--	570	58.0	49.0
240	1,558	8.00	1.8	5.9	467	--	--	790	12.1	0.500
241	--	7.50	--	--	465	763	0	620	115	24.6
242	--	7.60	--	--	542	889	0	720	78.8	50.2
243	--	7.60	--	--	498	817	0	960	90.9	66.8
244	1,590	7.10	2.7	6.8	607	607	0	--	106	47.4
245	--	8.10	--	--	478	784	0	600	89.1	49.1
246	2,350	7.73	12.1	1.4	447	--	--	1,540	133	86.0
247	1,650	6.97	13.2	4.7	480	--	--	1,200	53.0	32.0
248	--	8.30	--	--	476	--	--	--	40.5	2.40
249	--	8.40	--	--	186	294	13	--	43.7	2.80
250	2,950	7.25	14.5	4.3	--	--	--	--	210	100
251	--	8.30	--	--	540	--	--	--	58.6	19.7
252	--	8.20	--	--	555	--	--	--	25.8	8.40
253	--	8.40	--	--	348	--	--	--	18.6	4.70
254	--	8.20	--	--	93.0	--	--	--	37.4	4.20
255	--	--	--	--	209	209	0	--	15.0	2.90
256	1,328	8.07	13.0	0.2	--	--	--	--	9.6	1.40
256	--	--	--	--	--	--	--	--	--	--
257	2,750	7.47	8.6	4.4	--	--	--	--	81.0	58.0
258	--	8.30	--	--	452	741	0	--	22.7	11.4
259	3,300	8.10	--	--	--	--	--	--	55.0	8.60
259	--	--	--	--	--	--	--	--	--	--
260	--	8.20	--	--	563	923	0	--	62.8	49.5
261	--	8.20	--	--	463	759	0	--	81.2	43.9

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Specific conductance (µs/cm at 25°C)	pH, standard units	Temperature, water, (°C)	Dissolved oxygen (mg/L)	Alkalinity (mg/L as $CaCO_3$)	Bicarbonate (mg/L)	Carbonate (mg/L)	Total dissolved solids (mg/L)	Calcium, dissolved (mg/L)	Magnesium, dissolved (mg/L)
262	1,792	7.30	6.1	--	564	564	0	--	72.3	50.6
263	2,180	7.40	2.6	4.5	426	426	0	--	62.0	6.30
264	--	--	--	--	--	--	--	--	--	--
264	--	8.00	--	--	483	792	0	--	69.6	37.2
265	1,387	7.50	7.6	1.1	478	478	0	--	0.3	<0.1
266	1,404	8.70	7.6	2.0	65.0	65.0	0	--	13.1	<0.1
267	2,170	6.87	11.8	3.7	395	--	--	2,080	196	117
268	1,421	7.42	13.5	6.8	440	--	--	960	98.0	65.0
269	--	8.00	16.9	0.8	169	--	--	3,030	100	3.40
270	4,040	8.48	17.5	1.5	190	--	--	3,000	62.0	3.30
271	4,240	8.35	21.2	1.1	230	--	--	3,300	68.0	3.60
272	2,300	8.21	12.0	1.5	--	--	--	1,600	--	--
273	1,082	8.07	14.5	2.7	1,289	--	<5	2,400	14.0	6.10
274	1,139	8.51	12.3	3.9	1,055	--	<5	691	16.0	7.30
275	1,456	8.31	15.8	5.3	600	--	--	1,000	79.0	43.0
276	2,400	7.22	13.4	0.4	1,058	--	<5	1,500	23.0	3.50
277	3,280	7.65	12.6	0.4	668	--	<5	1,960	36.6	1.77
278	1,680	7.26	12.1	3.9	1,544	--	<5	1,280	51.9	32.9
279	3,730	7.64	14.0	1.2	1,402	--	<5	3,040	92.9	33.4
280	1,960	8.18	14.2	0.5	1,121	--	<5	1,410	14.2	2.36
281	1,760	7.62	9.8	0.7	2,321	--	<5	1,130	11.0	2.10
282	2,470	9.58	13.6	0.2	625	--	<5	1,540	20.9	0.849
283	1,305	8.65	16.8	0.8	397	--	<5	790	11.0	0.380
284	826	7.83	16.4	7.1	1,488	--	<5	520	24.0	18.0
285	1,500	8.20	--	--	800	--	667	930	9.5	0.320
286	1,850	7.07	15.5	4.6	1,160	--	<5	1,050	12.4	0.347
287	2,590	7.90	20.5	4.4	160	--	--	1,700	35.0	1.00
288	1,150	7.90	9.4	3.2	390	--	--	530	10.1	1.50
289	1,211	8.37	8.9	4.1	510	--	--	740	87.0	61.0
290	1,780	8.03	10.5	4.6	650	--	--	1,200	61.0	120
291	960	7.45	12.1	6.5	294	--	--	611	81.0	38.0
292	1,267	7.24	12.1	3.9	480	--	--	830	110	66.0
293	1,620	7.46	12.7	7.4	383	--	--	1,080	89.0	98.0
294	1,221	7.38	10.3	2.2	500	--	--	740	80.0	50.0
295	2,150	7.70	12.4	8.6	379	--	--	1,580	170	71.0
296	752.7	7.10	7.8	5.2	338	--	--	400	62.3	32.7
297	1,283	8.10	1.5	4.1	401	--	--	590	11.8	2.50
298	1,590	7.10	2.7	6.8	607	--	--	770	106	47.4
299	2,290	7.25	9.6	4.0	440	--	--	1,500	130	60.0
300	2,960	7.86	13.3	1.6	1,174	--	<5	1,790	43.0	4.00
301	2,940	7.86	16.4	1.8	1,154	--	<5	1,780	41.0	3.90
302	1,232	7.81	13.3	7.2	--	--	--	780	--	--
303	1,830	8.21	14.8	0.9	140	--	--	960	14.0	1.20
304	4,690	6.65	12.7	4.3	1,289	--	<5	4,300	170	59.0
305	2,480	7.85	13.2	0.6	1,223	--	<5	1,700	58.0	7.50
306	1,580	8.61	12.4	0.8	595	--	<5	980	10.0	0.550
307	2,060	9.17	22.3	0.9	363	--	--	1,250	35.7	18.5
308	1,082	8.07	14.5	2.7	390	--	--	2,400	14.0	6.10
309	1,780	8.12	12.7	1.7	460	--	--	1,000	12.0	1.40
310	3,300	7.70	--	--	--	--	--	1,700	45.0	0.980
311	1,146	8.15	10.1	1.3	360	--	--	640	11.0	1.60
312	1,324	7.57	10.9	3.8	640	--	--	840	64.0	55.0
313	4,580	8.11	14.0	2.0	470	--	--	2,800	52.0	37.0
314	4,000	7.74	11.9	2.6	390	--	--	2,800	220	130
315	1,314	8.01	14.0	8.8	1,944	--	<5	764	31.0	120
316	4,650	8.23	11.3	1.0	119	--	<5	2,650	120	1.70
317	2,390	8.28	10.2	2.9	690	--	--	1,700	35.0	65.0
318	1,299	7.54	13.8	6.3	531	--	--	785	110	41.0
319	1,690	7.11	16.4	1.3	470	--	--	1,500	120	66.0
320	861	7.67	12.0	2.6	346	--	--	492	45.0	30.9
321	2,200	7.83	16.8	6.0	441	--	--	1,360	35.0	2.40
322	1,710	7.24	13.5	0.6	460	--	--	1,200	10.0	1.40
323	2,117	7.50	5.0	2.8	366	--	--	1,040	40.7	1.90
324	4,520	7.88	15.3	3.6	512	--	--	2,830	67.9	22.5

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Specific conductance (µs/cm at 25°C)	pH, standard units	Temperature, water, (°C)	Dissolved oxygen (mg/L)	Alkalinity (mg/L as $CaCO_3$)	Bicarbonate (mg/L)	Carbonate (mg/L)	Total dissolved solids (mg/L)	Calcium, dissolved (mg/L)	Magnesium, dissolved (mg/L)
325	1,990	7.85	6.3	2.7	160	--	--	1,100	39.0	1.70
326	1,620	8.20	8.2	5.5	350	--	--	960	31.0	0.730
327	2,780	8.18	13.5	6.0	--	--	--	1,500	27.0	0.680
328	2,850	7.90	14.6	3.2	1,785	--	<5	1,900	66.0	62.0
329	2,080	8.33	6.5	3.8	420	--	--	1,100	59.0	5.60
330	1,313	7.30	6.7	4.9	480	--	--	670	66.6	13.3
331	2,180	7.40	2.6	4.5	426	--	--	1,210	62.0	6.30
332	5,010	7.89	12.0	2.1	936	--	<5	4,420	108	6.26
333	1,180	8.56	13.4	3.7	1,719	--	<5	740	8.2	0.430
334	3,280	7.41	11.6	4.3	477	--	--	2,730	103	42.6
335	1,068	7.56	7.2	0.6	560	--	--	620	72.0	45.0
336	1,193	7.63	43.1	1.3	500	--	--	630	68.0	44.0
337	1,730	8.00	7.6	3.1	223	--	--	900	14.1	0.300
338	5,063	7.40	4.3	7.8	226	--	--	2,280	89.6	2.90
339	2,860	7.16	13.4	4.1	437	--	--	2,910	299	170
340	3,237	7.30	1.9	3.6	444	--	--	1,750	80.8	14.8
341	8,040	7.72	19.2	3.0	270	--	--	4,100	43.0	12.0
342	1,420	7.24	18.2	1.2	730	--	--	920	62.0	54.0
343	1,500	7.43	15.3	1.7	660	--	--	960	35.0	23.0
344	1,490	9.97	13.0	1.1	292	--	--	1,200	12.9	1.79
345	--	--	--	--	--	--	--	--	--	--
346	6,010	9.05	7.8	0.3	439	--	--	4,930	119	38.1
347	1,463	7.70	7.9	6.9	645	--	--	800	41.6	24.0
348	1,950	6.94	12.3	2.5	440	--	--	1,400	170	79.0
349	1,220	7.20	7.2	5.2	541	--	--	640	43.8	15.6
350	1,153	7.30	8.3	3.2	531	--	--	640	61.8	25.4
351	5,480	7.53	14.9	5.0	490	--	--	4,300	120	23.0
352	1,610	7.90	12.0	2.3	340	--	--	940	42.0	8.80
353	2,800	7.68	12.0	--	343	--	--	1,820	78.0	11.0
354	1,740	6.91	12.6	0.4	450	--	--	740	170	81.0
355	2,870	6.86	12.2	3.2	550	--	--	1,500	250	140
356	2,070	7.60	19.4	9.0	626	--	--	1,260	1.0	0.220
357	3,040	7.61	14.4	7.8	553	--	--	2,130	150	100
358	2,780	7.50	17.7	5.8	640	--	--	2,100	160	120
359	2,360	7.00	13.3	0.3	280	--	--	1,700	25.0	1.50
360	--	--	--	--	--	--	--	--	--	--
361	892	8.38	13.0	0.5	257	--	--	596	4.4	<0.1
362	1,860	7.84	11.4	7.3	440	--	--	1,050	28.0	6.60
363	3,500	7.44	12.1	0.5	194	--	--	2,000	48.0	5.80
364	4,540	8.13	15.1	0.6	139	--	--	1,990	63.3	3.26
365	2,630	7.63	14.8	1.2	420	--	--	2,050	29.7	2.35
366	1,283	7.46	12.5	3.3	550	--	--	748	72.0	38.0
367	2,760	7.80	4.5	1.0	135	--	--	1,210	29.8	5.60
368	1,387	7.50	7.6	1.1	478	--	--	790	0.3	<0.1
369	1,900	7.60	--	--	1,680	--	--	1,200	78.0	140
370	1,098	7.27	9.8	4.2	467	--	--	669	80.0	45.0
371	1,153	7.20	7.4	4.3	490	--	--	660	85.7	45.5
372	1,780	8.31	12.4	3.7	431	--	--	1,560	33.0	10.0
373	1,630	7.56	11.2	8.2	841	--	--	1,060	74.0	42.0
374	713	8.43	10.2	5.1	310	--	--	400	55.0	25.0
375	1,404	8.70	7.6	2.0	65.0	--	--	610	13.1	<0.1
376	--	--	--	--	--	--	--	--	--	--
377	2,670	7.47	13.9	0.6	522	--	--	2,080	52.5	18.3
378	3,010	7.12	21.1	--	143	--	--	1,630	15.0	1.10
379	9,900	7.80	--	--	250	--	--	5,200	78.0	24.0
380	1,610	8.23	20.1	2.6	400	--	--	1,100	13.0	0.490
381	3,640	7.74	12.4	10.3	357	--	--	2,320	75.0	20.0
382	2,400	8.00	15.0	3.5	890	--	--	1,500	33.0	62.0
383	2,930	8.82	16.2	0.3	448	--	--	2,100	71.1	26.5
384	1,700	7.30	13.9	5.0	484	--	--	1,030	82.0	16.0
385	1,225	8.34	8.8	2.7	530	--	--	760	86.0	62.0
386	4,220	8.18	21.1	2.7	510	--	--	3,000	37.0	8.90
387	2,850	8.60	11.1	5.4	120	--	--	1,500	43.0	2.10
388	1,107	7.70	6.2	--	301	--	--	520	26.7	5.70

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Specific conductance (µs/cm at 25°C)	pH, standard units	Temperature, water, (°C)	Dissolved oxygen (mg/L)	Alkalinity (mg/L as $CaCO_3$)	Bicarbonate (mg/L)	Carbonate (mg/L)	Total dissolved solids (mg/L)	Calcium, dissolved (mg/L)	Magnesium, dissolved (mg/L)
389	621	7.93	7.2	3.6	270	--	--	400	38.0	10.0
390	692	7.12	15.4	3.5	300	--	--	340	37.0	10.0
391	906	8.76	14.6	--	411	--	--	704	37.6	43.1
392	1,830	8.08	13.2	0.6	439	--	--	4,930	119	38.1
393	3,250	7.10	10.7	0.8	160	--	--	2,700	310	170
394	2,170	8.18	14.7	1.2	608	--	--	1,460	17.3	2.12
395	4,320	8.34	15.9	0.7	130	--	--	2,710	57.3	4.49
396	3,310	8.20	9.1	3.5	193	--	--	2,500	49.1	3.00
397	1,054	7.50	10.8	2.0	510	--	--	700	80.0	55.0
398	1,350	7.53	15.0	5.1	514	--	--	844	69.0	96.0
399	1,296	7.37	15.5	14.0	660	--	--	770	75.0	48.0
400	1,276	7.42	14.6	3.9	590	--	--	750	69.0	44.0
401	1,142	8.40	15.6	0.4	340	--	--	743	6.2	0.491
402	1,830	8.24	11.7	0.1	232	--	--	1,410	12.6	2.79
403	1,390	8.00	9.8	--	376	--	--	790	15.8	<0.1
404	1,587	7.60	7.3	2.6	478	--	--	810	44.6	5.00
405	960	7.20	2.3	0.2	384	--	--	460	74.8	22.6
406	1,319	8.24	18.3	0.7	451	--	--	976	6.8	0.402
407	1,510	7.90	7.2	6.2	577	--	--	880	18.5	7.70
408	3,000	7.10	17.0	--	--	--	--	--	--	--
409	1,200	7.20	18.0	--	967	590	0	--	82.0	88.0
410	1,550	7.40	15.0	--	--	--	--	--	--	--
414	1,250	7.50	12.5	--	951	580	0	--	83.0	66.0
415	975	7.20	20.0	--	836	510	0	--	76.0	55.0
416	1,225	7.10	12.0	--	787	480	0	--	78.0	60.0
417	1,820	7.00	9.5	--	--	--	--	--	--	--
418	--	7.80	18.0	--	--	--	--	--	--	--
419	1,550	8.40	17.0	--	1879	1,130	16	--	9.0	7.60
420	220	7.70	14.8	--	197	120	0	--	25.0	8.00
428	12,310	7.15	10.9	2.3	--	--	--	--	110	43.0
429	--	7.60	--	--	198	--	--	1,870	487	49.0
430	690	7.20	19.4	5.8	--	--	--	--	90.0	30.0
432	--	7.50	--	--	261	--	--	710	62.9	6.00
433	--	7.60	--	--	371	--	--	460	117	28.1
434	890	7.39	10.1	4.8	--	--	--	--	79.0	40.0
435	10,760	7.42	12.1	6.9	--	--	--	--	70.0	47.0
436	3,130	7.44	13.4	2.2	--	--	--	--	98.0	18.0
437	--	7.30	--	--	250	250	0	--	74.0	19.0
438	--	7.90	--	--	248	407	0	390	94.6	24.4
439	--	--	--	--	--	--	--	--	110	57.0
440	--	--	--	--	--	--	--	--	--	--
441	900	7.90	13.7	--	--	591	0	--	19.0	1.30
442	--	8.00	--	--	275	--	--	--	256	153
443	--	7.70	--	--	350	574	--	--	70.0	<0.1
444	1,430	7.08	7.6	0.8	--	--	--	--	27.0	5.80
445	--	7.79	--	--	--	--	--	--	44.0	18.0
446	510	7.20	13.3	1.7	--	--	--	--	79.0	38.0
447	570	7.40	19.3	6.4	--	--	--	--	85.0	29.0
447	--	--	--	--	--	--	--	--	--	--
448	410	7.40	15.0	8.1	--	--	--	--	87.0	13.0
448	--	--	--	--	--	--	--	--	--	--
449	1,810	8.00	12.1	0.6	--	771	0	--	38.0	16.0
450	530	7.30	14.1	4.0	--	476	0	--	77.0	17.0
451	630	7.30	19.9	8.9	--	558	0	--	100	21.0
452	800	7.60	13.6	--	--	738	0	--	43.0	15.0
453	780	7.30	13.0	--	--	689	0	--	80.0	32.0
453	--	--	--	--	--	--	--	--	--	--
454	890	7.10	13.7	0.2	--	689	0	--	50.0	16.0
454	--	--	--	--	--	--	--	--	--	--
455	812	8.10	14.0	--	--	--	--	733	6.0	3.10
456	541	7.50	14.6	--	--	--	--	444	32.8	44.1
457	--	7.60	--	--	--	--	--	--	--	--
458	--	7.60	--	--	--	--	--	--	--	--
459	--	7.60	--	--	--	--	--	--	--	--

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Specific conductance (µs/cm at 25°C)	pH, standard units	Temperature, water, (°C)	Dissolved oxygen (mg/L)	Alkalinity (mg/L as $CaCO_3$)	Bicarbonate (mg/L)	Carbonate (mg/L)	Total dissolved solids (mg/L)	Calcium, dissolved (mg/L)	Magnesium, dissolved (mg/L)
460	--	--	--	--	--	--	--	--	42.0	35.0
461	--	--	--	--	--	--	--	--	--	--
462	--	8.40	--	--	282	--	--	--	62.2	40.2
463	--	7.76	--	--	382	--	--	--	43.0	49.0
464	--	7.66	--	--	292	--	--	--	55.0	32.0
465	15,400	6.90	--	--	--	--	--	11,600	20.0	10.0
466	--	7.80	--	--	274	--	--	280	60.8	20.4
468	--	7.80	--	--	--	--	--	--	--	--
469	649	7.34	12.1	7.3	263	--	--	--	42.0	43.0
470	575	7.59	16.4	2.7	370	--	--	--	44.0	43.0
471	851	7.61	12.6	5.0	369	--	--	--	39.0	53.0
472	555	7.58	14.8	5.9	280	--	--	--	57.0	31.0
473	--	8.48	--	--	300	--	--	--	43.0	--
474	--	8.44	--	--	342	--	--	--	40.0	--
475	--	8.83	--	--	228	--	--	--	14.0	--
476	--	8.20	--	--	524	--	--	--	53.9	75.2
477	557	9.00	18.0	5.5	270	--	--	--	1.1	0.160
478	694	7.49	19.6	2.6	312	--	--	--	39.0	19.0
479	815	7.55	--	7.5	--	--	--	--	--	--
480	756	7.75	--	5.1	--	--	--	--	--	--
481	645	6.73	12.0	8.2	257	--	--	--	44.0	36.0
482	410	7.17	12.0	5.7	254	--	--	--	43.0	41.0
483	559	7.77	11.9	8.6	292	--	--	--	45.0	37.0
484	--	--	--	--	--	--	--	--	--	--
485	555	7.15	11.1	3.3	300	--	--	--	55.0	33.0
486	706	7.96	8.3	12.0	301	--	--	411	35.0	34.0
487	527	7.36	9.8	8.2	300	--	--	350	74.0	28.0
488	--	7.30	--	--	489	802	0	890	141	66.7
489	--	8.00	--	--	--	--	--	--	--	--
490	--	7.70	--	--	--	--	--	--	--	--
491	--	8.10	--	--	312	312	--	--	24.0	38.0
492	862	7.60	20.5	5.1	370	--	--	--	55.0	40.0
493	--	8.30	--	--	492	781	27	--	56.8	70.9
494	591	8.56	--	--	308	--	--	--	10.0	12.0
495	--	8.00	--	--	229	--	--	--	49.0	0.014
496	699	7.87	12.2	5.1	357	--	--	--	24.0	43.0
497	601	7.50	12.3	5.8	252	--	--	--	54.0	35.0
498	528	7.84	12.1	6.7	271	--	--	--	28.0	34.0
499	608	8.01	12.1	6.8	309	--	--	--	24.0	30.0
500	716	7.44	19.2	5.8	311	--	--	--	56.0	27.0
501	1,400	7.40	--	--	--	--	--	--	120	67.0
502	374	8.10	--	--	225	220	0	--	13.9	29.6
503	--	7.90	--	--	--	--	--	--	73.0	--
504	1,200	7.70	--	--	960	--	801	710	51.0	68.0
505	640	7.40	--	--	260	--	217	360	47.0	42.0
506	645	6.73	12.0	8.2	257	--	--	342	44.0	36.0
507	547	7.40	14.3	6.7	270	--	--	340	68.0	26.0
508	625	7.53	15.2	5.0	310	--	--	380	48.0	45.0
509	7,890	7.77	19.0	2.5	250	--	--	4,600	56.0	13.0
510	7,560	9.14	15.3	5.2	260	--	--	4,300	53.0	13.0
511	410	7.17	12.0	5.7	254	--	--	328	43.0	41.0
512	895	7.46	15.2	6.8	500	--	--	560	48.0	71.0
513	530	9.05	9.3	5.1	270	--	--	300	42.0	37.0
514	784	7.58	12.9	3.3	1,127	--	<5	450	52.0	47.0
515	590	8.90	--	--	520	--	--	350	0.8	<0.1
516	694	7.49	19.6	2.6	312	--	--	427	39.0	19.0
517	671	7.98	16.1	7.3	320	--	--	420	43.0	39.0
518	610	7.40	--	--	560	--	--	360	67.0	30.0
519	590	7.60	--	--	560	--	--	350	53.0	32.0
520	1,100	7.70	--	--	700	--	--	590	65.0	60.0
521	1,041	7.21	10.8	0.5	480	--	--	570	52.0	67.0
522	721	7.39	8.5	3.4	330	--	--	420	42.0	47.0
523	977	7.55	13.4	8.4	420	--	--	590	80.0	40.0
524	522	7.35	12.0	8.6	260	--	--	330	59.0	29.0

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Specific conductance (µs/cm at 25°C)	pH, standard units	Temperature, water, (°C)	Dissolved oxygen (mg/L)	Alkalinity (mg/L as $CaCO_3$)	Bicarbonate (mg/L)	Carbonate (mg/L)	Total dissolved solids (mg/L)	Calcium, dissolved (mg/L)	Magnesium, dissolved (mg/L)
525	851	7.61	12.6	5.0	369	--	--	493	39.0	53.0
526	--	--	--	--	--	--	--	--	--	--
527	580	7.40	--	--	620	--	--	200	55.0	32.0
528	699	7.87	12.2	5.1	357	--	--	405	24.0	43.0
529	590	7.90	--	--	440	--	--	320	27.0	18.0
530	594	7.32	10.1	1.7	418	--	--	4,220	423	240
531	591	8.48	19.1	--	300	--	--	367	43.0	37.0
532	842	7.49	11.5	8.4	392	--	--	466	47.0	56.0
533	562	7.39	14.5	2.5	290	--	--	350	65.0	30.0
534	954	7.93	8.2	8.2	420	--	--	690	110	59.0
535	1,107	7.58	12.5	1.8	440	--	--	750	110	65.0
536	610	8.30	--	--	700	--	--	330	62.0	33.0
537	499	7.89	12.1	0.8	280	--	--	320	35.0	34.0
538	680	8.44	19.0	--	342	--	--	429	40.0	45.0
539	610	8.00	--	--	680	--	--	310	26.0	32.0
540	635	7.38	12.4	4.3	290	--	--	380	51.0	40.0
541	677	8.01	13.2	5.5	300	--	--	450	28.0	40.0
542	716	7.44	19.2	5.8	311	--	--	436	56.0	27.0
543	740	7.30	--	--	700	--	--	440	74.0	36.0
544	440	7.80	--	--	--	--	--	--	--	--
558	1,800	7.40	18.0	--	--	--	--	--	--	--
559	1,700	7.50	15.5	--	1,098	670	0	--	150	120
560	1,800	7.40	--	--	--	--	--	--	--	--
561	1,640	7.40	--	--	--	--	--	--	--	--
562	--	7.35	--	--	323	--	--	--	97.0	16.0
563	--	8.10	--	--	310	--	--	540	61.6	43.8
564	1,340	7.40	--	--	--	--	--	--	--	--
565	1,360	7.40	--	--	--	--	--	--	--	--
566	686	7.60	--	--	--	--	--	--	--	--
569	1,260	7.40	14.0	--	--	--	--	--	--	--
570	--	7.50	--	--	455	--	--	1,170	125	85.6
571	--	7.40	--	--	410	--	--	1,270	134	91.8
572	--	7.80	--	--	402	659	0	580	72.9	50.9
573	--	7.70	--	--	376	617	0	370	46.4	45.6
574	--	--	--	--	--	--	--	--	--	--
575	1,620	8.50	13.1	1.8	220	--	--	1,000	120	38.0
576	--	7.60	--	--	296	486	0	1,360	109	88.2
577	--	7.60	--	--	334	548	0	470	57.4	41.7
578	--	7.90	--	--	304	499	0	340	25.1	22.9
579	619	8.04	16.9	6.7	280	--	--	320	30.0	40.0
580	--	7.30	--	--	422	692	0	2,670	159	142
581	1,130	7.37	17.1	7.0	430	--	--	720	64.0	54.0
582	1,540	7.68	18.5	6.4	390	--	--	1,100	77.0	66.0
583	2,350	7.20	15.7	4.6	350	--	--	2,000	160	140
584	1,660	7.42	13.9	6.9	350	--	--	1,200	110	100
585	1,630	7.46	15.2	4.9	430	--	--	1,100	66.0	92.0
586	837	7.56	13.2	6.6	340	--	--	520	53.0	44.0
587	1,830	7.48	14.4	7.3	340	--	--	1,400	120	110
588	1,040	7.67	12.2	8.4	350	--	--	680	56.0	57.0
589	808	7.68	13.6	6.7	320	--	--	500	58.0	46.0
590	733	7.50	16.2	5.7	340	--	--	450	41.0	40.0
591	645	7.62	14.1	7.5	310	--	--	400	31.0	20.0
592	723	7.91	15.2	7.7	340	--	--	430	26.0	30.0
593	696	7.80	14.0	7.3	300	--	--	440	34.0	31.0
594	880	7.64	14.6	5.3	310	--	--	570	42.0	38.0
595	936	7.40	14.3	7.0	320	--	--	600	39.0	38.0
596	630	7.96	16.0	6.9	280	--	--	380	26.0	22.0
597	547	7.84	15.7	5.2	260	--	--	340	35.0	28.0
598	625	8.01	15.0	7.2	280	--	--	400	20.0	20.0
599	900	8.10	--	--	250	410	0	--	15.0	<0.1
600	860	7.70	--	--	--	--	--	--	43.0	--
601	1,300	7.07	--	7.6	597	--	<5	252	39.6	21.0
602	1,410	8.90	19.9	5.5	240	--	--	920	1.7	0.940
603	630	7.70	--	--	560	--	--	360	36.0	40.0

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Specific conductance (µs/cm at 25°C)	pH, standard units	Temperature, water, (°C)	Dissolved oxygen (mg/L)	Alkalinity (mg/L as $CaCO_3$)	Bicarbonate (mg/L)	Carbonate (mg/L)	Total dissolved solids (mg/L)	Calcium, dissolved (mg/L)	Magnesium, dissolved (mg/L)
604	2,990	8.74	15.3	3.1	520	--	--	2,200	94.0	97.0
605	3,930	7.15	15.3	0.6	430	--	--	3,600	310	180
606	3,750	7.35	14.8	3.2	450	--	--	3,400	310	180
607	872	8.71	15.8	3.5	260	--	--	530	34.0	44.0
608	4,690	6.65	12.7	4.3	390	--	--	4,300	170	59.0
609	154	7.52	13.3	4.8	450	--	--	960	63.0	84.0
610	595	8.14	14.9	6.8	230	--	--	320	36.0	29.0
611	608	8.01	13.8	5.2	280	--	--	320	37.0	31.0
612	782	8.19	14.3	7.6	330	--	--	460	22.0	21.0
613	620	7.80	--	--	310	--	--	360	28.0	39.0
614	694	8.17	13.7	7.1	300	--	--	390	23.0	24.0
615	1,470	7.50	14.0	--	--	--	--	1,168	49.6	80.1
616	--	8.11	--	--	292	--	--	--	21.0	35.0
617	--	7.85	--	--	326	--	--	--	19.0	32.0
623	1,983	7.10	11.5	2.4	481	587	--	1,614	157	111
624	2,866	6.85	12.4	0.7	352	429	--	2,756	384	159
625	1,360	7.10	14.0	6.4	--	--	--	--	150	99.0
626	--	7.50	--	--	373	--	--	1,110	159	103
627	2,765	7.75	10.6	0.7	475	579	--	1,954	53.2	19.7
628	789	8.01	13.8	12.0	372	--	--	--	23.1	24.7
629	--	8.85	--	--	300	--	--	--	16.0	--
630	807	7.61	16.2	6.8	420	--	--	--	52.0	53.0
631	801	7.63	--	--	497	--	--	--	--	62.0
632	591	8.40	8.3	6.5	340	--	--	--	17.0	16.0
633	612	8.68	9.1	2.3	350	--	--	--	27.0	34.0
634	--	8.20	--	--	156	241	15	300	23.2	8.30
635	1,100	6.84	16.0	12.0	388	635	0	--	47.7	60.0
636	780	7.62	13.9	12.4	330	541	0	--	23.7	30.1
637	486	7.82	11.6	7.9	220	361	0	--	34.2	25.7
638	627	7.73	12.4	7.3	330	540	0	--	44.3	36.9
639	--	8.10	--	--	316	518	0	560	18.9	36.0
640	597	8.06	12.4	4.7	291	--	--	--	19.0	23.0
641	549	7.70	12.3	6.1	243	243	0	--	33.0	39.0
642	519	8.44	--	--	302	--	--	--	15.0	16.0
643	1,183	7.35	12.8	6.9	394	--	--	--	67.0	41.0
644	536	7.40	10.5	4.8	230	--	--	--	61.8	14.3
645	695	7.70	12.4	5.6	311	--	--	--	27.0	12.0
646	1,150	8.00	12.0	3.5	--	--	--	--	150	74.0
647	2,620	7.80	14.7	4.4	--	--	--	--	27.0	33.0
649	2,050	6.10	11.6	10.7	--	--	--	--	47.0	16.0
650	788	8.10	--	--	324	--	--	--	39.7	44.5
651	789	8.30	--	--	325	--	--	--	40.0	44.9
652	351	8.00	--	--	79.5	--	--	--	19.8	10.6
653	--	8.20	--	--	--	--	--	--	33.0	--
654	1,780	7.26	12.4	3.8	480	--	--	1,100	120	69.0
655	2,020	7.23	11.6	3.1	530	--	--	1,300	130	73.0
656	1	7.19	19.9	1.0	290	--	--	730	97.0	31.0
657	1,800	8.60	20.4	1.8	280	--	--	1,100	27.0	30.0
658	2,170	7.83	19.7	3.1	270	--	--	1,700	44.0	15.0
660	980	7.50	13.2	2.6	--	640	0	--	150	67.0
660	--	--	--	--	--	--	--	--	--	--
661	5,690	7.44	12.9	8.1	370	--	--	5,100	320	290
662	910	8.00	13.0	10.2	--	492	0	--	130	75.0
663	1,680	7.60	15.3	4.4	--	673	0	--	150	100
663	--	--	--	--	--	--	--	--	--	--
664	3,120	7.55	14.5	2.0	300	--	--	2,100	98.0	34.0
665	608	8.12	8.2	8.9	340	556	0	--	39.3	40.9
666	739	7.69	14.4	11.1	368	602	0	--	25.1	26.6
667	963	7.43	12.7	11.4	348	569	0	--	30.7	58.9
668	770	7.26	12.7	13.6	370	607	0	--	21.2	42.5
669	1,169	7.29	11.1	7.4	310	--	--	870	120	73.0
670	732	7.52	12.5	11.9	349	571	0	--	16.7	25.8
671	553	8.14	12.1	8.4	320	523	0	--	18.5	30.7
672	628	7.65	11.5	8.2	376	615	0	--	34.6	34.8

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Specific conductance (µs/cm at 25°C)	pH, standard units	Temperature, water, (°C)	Dissolved oxygen (mg/L)	Alkalinity (mg/L as $CaCO_3$)	Bicarbonate (mg/L)	Carbonate (mg/L)	Total dissolved solids (mg/L)	Calcium, dissolved (mg/L)	Magnesium, dissolved (mg/L)
673	715	8.02	12.1	7.9	328	538	0	--	32.8	34.5
674	608	7.30	--	--	268	440	0	--	60.1	38.1
675	1,155	7.20	17.0	5.6	310	--	--	860	120	72.0
676	1,870	7.08	14.6	4.3	410	--	--	1,400	160	100
677	771	7.58	13.3	1.4	1,355	--	0	530	52.0	39.0
678	600	7.90	--	--	720	--	--	350	26.0	34.0
679	563	7.53	14.2	5.1	272	--	--	338	28.0	26.0
680	1,400	8.00	19.5	10.9	291	--	--	846	55.0	20.0
681	560	7.80	--	--	660	--	--	320	37.0	36.0
682	801	7.63	15.5	--	497	--	--	565	58.0	62.0
683	906	8.09	16.1	7.3	450	--	--	570	62.0	28.0
684	597	8.06	12.4	4.7	291	--	--	360	19.0	23.0
685	1,151	8.06	13.5	7.3	387	--	--	700	14.0	5.40
686	1,280	8.55	20.1	10.1	431	--	--	761	5.1	1.30
687	600	8.30	--	--	680	--	--	350	17.0	18.0
688	695	7.70	12.4	5.6	311	--	--	426	27.0	12.0
689	10,860	7.53	13.5	5.8	810	--	--	8,800	160	300
690	1,183	7.35	12.8	6.9	394	--	--	768	67.0	41.0
691	670	--	16.5	--	--	520	--	--	13.0	7.40
692	4,080	12.00	91.0	--	--	--	--	1,340	316	<0.1
693	--	8.00	--	--	--	--	--	--	--	--
694	--	8.31	--	--	245	--	--	--	11.0	14.0
695	590	7.90	--	--	260	--	--	--	37.0	23.0
696	--	7.88	--	--	411	--	--	--	--	--
699	--	--	--	--	330	--	--	--	71.0	41.0
704	740	7.60	12.0	--	--	--	--	--	--	--
706	--	8.20	--	--	309	--	--	340	57.9	32.5
707	--	8.30	--	--	356	--	--	440	59.8	41.1
708	--	8.10	--	--	324	--	--	330	82.6	23.7
709	--	7.70	--	--	337	--	--	380	29.7	38.8
710	--	--	--	--	--	--	--	--	--	--
711	--	7.80	--	--	308	--	--	350	29.5	35.2
712	--	7.65	--	--	285	--	--	532	50.0	31.0
714	--	8.05	--	--	286	--	--	548	63.0	38.0
715	--	7.40	--	--	309	--	--	430	72.9	27.2
716	--	8.00	--	--	--	--	--	--	--	--
717	--	8.00	--	--	--	--	--	--	--	--
718	--	8.00	--	--	--	--	--	--	--	--
719	--	8.10	--	--	343	563	0	390	14.8	29.9
720	--	8.10	--	--	353	579	0	390	20.5	32.0
721	--	--	--	0.1	--	--	--	--	--	--
722	864	7.60	--	4.3	--	--	--	--	--	--
723	780	6.78	--	--	--	--	--	--	--	--
724	820	7.53	--	--	--	--	--	--	--	--
725	835	7.46	--	5.6	--	--	--	--	--	--
726	125	8.01	--	--	62.6	--	--	--	16.0	4.50
727	--	7.90	--	--	425	697	0	450	80.8	38.5
728	--	7.90	--	--	394	646	0	440	75.9	34.7
729	--	8.00	--	--	383	628	0	440	73.2	34.8
730	--	7.90	--	--	381	625	0	440	73.8	35.0
731	--	8.00	--	--	291	477	0	320	63.6	20.2
732	--	7.90	--	--	320	525	0	310	56.2	31.7
733	--	7.90	--	--	199	326	0	230	53.3	13.9
734	--	7.70	--	--	319	523	0	380	37.3	41.3
735	--	7.60	--	--	292	479	0	400	64.8	36.2
736	--	7.70	--	--	214	351	0	240	44.0	24.0
737	--	7.80	--	--	310	508	0	340	34.8	42.1
738	--	7.80	--	--	230	377	0	340	44.0	37.3
739	--	--	--	--	--	--	--	--	--	--
740	--	7.90	--	--	331	543	0	340	47.4	37.2
741	--	--	--	--	--	--	--	--	--	--
742	--	7.60	--	--	333	546	0	380	49.0	33.0
743	--	7.80	--	--	356	584	0	380	39.0	40.5
744	--	7.80	--	--	308	505	0	510	35.3	28.2

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Specific conductance (µs/cm at 25°C)	pH, standard units	Temperature, water, (°C)	Dissolved oxygen (mg/L)	Alkalinity (mg/L as $CaCO_3$)	Bicarbonate (mg/L)	Carbonate (mg/L)	Total dissolved solids (mg/L)	Calcium, dissolved (mg/L)	Magnesium, dissolved (mg/L)
745	--	8.20	--	--	371	609	0	440	12.5	22.3
746	--	7.70	--	--	297	487	0	320	59.8	22.6
747	--	7.70	--	--	337	553	0	410	81.0	24.8
748	--	7.70	--	--	335	550	0	400	82.3	23.2
749	--	7.50	--	--	367	602	0	480	71.0	37.2
750	--	7.60	--	--	399	654	0	540	79.5	40.2
751	--	7.70	--	--	365	599	0	500	81.5	39.4
752	--	7.40	--	--	583	956	0	1,090	105	116
753	--	7.60	--	--	370	607	0	490	70.6	39.6
754	--	7.60	--	--	288	472	0	400	63.7	28.5
755	--	8.00	--	--	347	569	0	420	31.4	40.3
756	--	8.00	--	--	--	--	--	--	--	--
757	--	7.50	--	--	--	--	--	--	--	--
758	--	8.00	--	--	--	--	--	--	--	--
759	--	7.70	--	--	--	--	--	--	--	--
760	--	7.80	--	--	288	472	0	370	28.2	39.9
761	--	7.80	--	--	244	400	0	310	26.4	33.8
762	--	7.30	--	--	422	692	0	530	87.8	45.2
763	--	7.60	--	--	366	600	0	440	82.2	32.4
764	--	7.70	--	--	378	620	0	440	62.5	43.7
765	--	7.40	--	--	--	--	--	--	--	--
766	590	7.50	--	--	290	--	--	--	64.0	27.0
767	570	7.70	--	--	290	--	--	--	40.0	28.0
768	540	8.10	--	--	260	--	--	--	17.0	29.0
769	560	7.80	--	--	280	--	--	--	44.0	31.0
770	790	7.80	--	--	460	--	--	--	67.0	69.0
771	590	8.00	--	--	310	--	--	--	18.0	27.0
772	500	8.00	--	--	260	--	--	--	27.0	34.0
773	440	8.40	--	--	240	--	--	--	18.0	23.0
774	640	8.30	--	--	320	320	6	--	9.1	17.0
775	554	7.57	12.9	5.3	320	--	--	350	45.0	30.0
776	563	7.23	11.3	8.1	300	--	--	340	63.0	27.0
777	655	7.71	12.1	5.7	280	--	--	400	48.0	35.0
778	644	7.14	13.2	3.7	310	--	--	410	70.0	33.0
779	762	6.98	14.8	9.6	--	420	<1	570	60.0	42.0
780	240	6.53	13.5	--	--	116	<1	139	26.0	6.00
781	600	7.37	14.0	12.3	--	449	<1	443	81.0	30.0
782	940	7.70	--	--	760	--	--	540	20.0	38.0
783	450	7.53	17.4	10.0	--	261	<1	287	67.0	16.0
784	600	7.30	14.8	--	--	305	<1	272	54.0	28.0
785	5,520	6.81	18.1	7.4	--	559	<1	4,620	351	191
786	700	7.70	19.4	12.0	--	335	<1	330	58.0	30.0
787	550	7.90	--	--	483	443	<33.358	340	73.0	14.0
788	720	7.23	11.4	10.3	--	559	<1	478	75.0	44.0
789	340	7.11	9.7	10.6	--	234	<1	234	50.0	16.0
790	743	7.73	--	--	666	623	<33.358	460	73.0	35.0
791	494	7.47	10.8	6.3	240	--	--	310	41.0	28.0
792	637	7.37	11.3	7.0	360	--	--	380	28.0	32.0
793	735	6.98	20.7	6.2	334	--	--	408	66.3	29.1
794	558	7.48	11.4	5.8	310	--	--	380	41.0	28.0
795	1,320	7.20	11.3	3.5	300	--	--	910	86.0	48.0
796	733	7.67	14.6	6.9	290	--	--	450	40.0	33.0
797	424	8.41	9.9	8.2	220	--	--	240	22.0	30.0
798	412	7.55	9.5	6.2	220	--	--	280	32.0	23.0
799	550	7.60	--	--	520	--	--	310	35.0	39.0
800	656	7.70	12.7	--	--	--	--	619	24.2	35.1
801	1,700	8.90	--	--	--	--	--	--	--	--
802	2,750	8.26	10.8	1.0	--	--	--	--	140	100
803	2,950	7.20	16.6	0.4	--	--	--	--	94.0	39.0
804	2,130	7.10	12.0	0.2	551	672	--	1,491	87.4	41.3
805	6,622	7.55	10.1	0.2	249	303	--	5,281	258	62.1
806	--	8.40	--	--	394	--	--	--	42.9	3.10
807	3,530	8.36	15.3	0.2	113	138	--	1,962	29.4	1.29
811	1,672	7.20	10.4	5.5	456	556	--	1,102	87.0	83.4

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Specific conductance (µs/cm at 25°C)	pH, standard units	Temperature, water, (°C)	Dissolved oxygen (mg/L)	Alkalinity (mg/L as $CaCO_3$)	Bicarbonate (mg/L)	Carbonate (mg/L)	Total dissolved solids (mg/L)	Calcium, dissolved (mg/L)	Magnesium, dissolved (mg/L)
812	1,415	7.33	10.6	5.5	394	481	--	1,003	95.5	62.2
813	1,895	7.02	10.8	0.5	604	736	--	1,518	151	153
814	1,580	7.24	12.7	4.2	460	561	--	1,086	114	67.9
815	1,740	8.10	14.5	0.8	--	--	--	--	90.0	49.0
816	1,150	7.30	11.8	8.6	364	444	--	773	94.5	73.3
817	1,510	8.20	10.5	3.7	374	456	--	1,001	11.4	3.56
818	2,430	8.20	12.9	0.4	--	--	--	--	170	100
819	4,020	7.95	12.8	0.1	350	--	--	2,819	48.3	10.0
820	813	7.55	13.3	7.7	257	313	--	558	51.3	53.0
821	--	7.40	--	--	496	--	--	970	87.0	55.7
822	2,200	7.02	13.7	1.8	--	--	--	--	180	96.0
823	1,840	7.11	12.3	0.8	--	--	--	--	120	71.0
824	3,180	6.86	12.5	0.8	--	--	--	--	330	150
825	3,380	6.14	13.0	2.7	--	--	--	--	420	210
826	--	8.50	--	--	196	--	--	--	23.8	5.90
827	2,430	8.47	5.9	2.8	--	--	--	--	21.0	3.90
828	1,070	7.30	14.5	6.6	--	558	0	--	38.0	17.0
829	--	7.70	--	--	358	587	0	730	79.5	59.5
830	4,650	8.20	13.9	0.3	--	1,033	0	--	130	65.0
831	--	--	--	--	--	--	--	--	--	--
832	1,700	7.58	15.9	0.6	--	--	--	--	9.6	1.30
833	2,260	7.40	16.7	0.8	--	--	--	--	39.0	9.60
834	--	7.20	--	--	630	1,033	0	2,160	166	89.7
835	1,490	7.00	19.9	4.1	--	574	0	--	140	84.0
836	2,130	8.10	12.1	0.8	--	394	0	--	58.0	10.0
837	2,760	7.30	15.5	8.0	--	738	0	--	42.0	33.0
838	1,500	7.80	15.5	6.9	--	656	0	--	90.0	59.0
838	--	--	--	--	--	--	--	--	--	--
839	--	7.80	--	--	499	819	0	2,240	61.8	5.80
840	5,750	7.30	12.3	1.7	--	607	0	--	280	180
840	--	--	--	--	--	--	--	--	--	--
841	1,880	7.30	14.3	0.5	--	837	0	--	100	69.0
842	1,280	7.30	12.3	1.9	--	607	0	--	110	54.0
842	--	--	--	--	--	--	--	--	--	--
843	--	7.70	--	--	529	868	0	1,070	94.7	51.5
844	--	7.50	--	--	554	909	0	1,500	98.4	61.4
845	1,470	7.40	12.8	0.1	--	853	0	--	130	56.0
846	--	8.00	--	--	317	--	--	--	195	121
847	--	8.00	--	--	187	--	--	--	143	43.4
848	2,740	8.14	15.2	0.3	--	--	--	--	20.0	3.10
849	--	8.10	--	--	553	--	--	--	84.0	38.8
850	1,960	8.29	14.6	6.5	--	--	--	--	15.0	5.60
851	1.460	7.40	12.3	2.0	410	--	--	--	90,000	79,000
852	1.570	7.42	12.4	0.4	350	--	--	--	<0.4	0.300
853	1.310	7.23	2.2	0.9	380	--	--	--	79.0	42.0
854	1.451	7.44	11.2	1.0	330	--	--	--	72.0	37.0
855	590	7.70	13.1	--	--	--	--	--	19.0	2.40
855	--	--	--	--	--	--	--	--	--	--
856	1,040	7.50	14.5	--	--	--	--	--	60.0	30.0
857	1,710	7.40	14.1	4.6	--	--	--	--	28.0	10.0
858	2,160	6.70	14.1	1.2	--	--	--	--	32.0	1.10
859	590	7.60	13.6	7.4	--	--	--	--	57.0	27.0
860	4,500	6.30	15.3	4.2	--	--	--	--	63.0	71.0
860	--	--	--	--	--	--	--	--	--	--
861	1,210	7.60	12.7	8.6	--	--	--	--	73.0	67.0
862	850	7.40	14.5	8.6	--	--	--	--	68.0	59.0
862	--	--	--	--	--	--	--	--	--	--
863	2,230	8.01	12.3	0.2	--	--	--	--	52.0	33.0
864	1,860	7.40	13.2	6.7	--	--	--	--	110	49.0
865	1,560	7.80	14.0	5.7	--	--	--	--	110	66.0
866	4,050	7.10	18.0	4.1	--	--	--	--	140	170
866	--	--	--	--	--	--	--	--	--	--
867	1,730	7.50	14.0	1.5	--	--	--	--	110	65.0

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Specific conductance (µs/cm at 25°C)	pH, standard units	Temperature, water, (°C)	Dissolved oxygen (mg/L)	Alkalinity (mg/L as $CaCO_3$)	Bicarbonate (mg/L)	Carbonate (mg/L)	Total dissolved solids (mg/L)	Calcium, dissolved (mg/L)	Magnesium, dissolved (mg/L)
868	1,530	7.90	15.9	9.7	--	--	--	--	93.0	84.0
869	1,670	7.70	12.4	1.4	--	--	--	--	94.0	57.0
870	2,520	7.45	12.2	1.9	360	--	--	1,800	140	84.0
871	1,308	8.12	21.6	4.0	460	--	--	800	78.0	58.0
872	6,650	8.42	15.2	2.8	270	--	--	5,000	200	49.0
873	3,540	8.61	14.2	4.2	52.0	--	--	1,700	22.0	1.20
874	3,080	7.07	14.9	3.2	350	--	--	2,800	350	160
875	1,285	8.08	19.8	5.7	190	--	--	730	32.0	6.40
876	4,000	7.36	16.1	4.8	630	--	--	3,100	190	200
877	1,186	7.69	17.3	5.1	330	--	--	680	46.0	39.0
878	1,550	7.17	16.9	1.7	410	--	--	940	140	42.0
879	1,305	7.07	16.0	5.1	510	--	--	790	82.0	45.0
880	2,430	6.90	12.5	2.0	520	--	--	2,100	130	100
881	2,600	7.10	15.2	2.2	440	--	--	2,300	120	91.0
882	2,180	6.78	13.3	1.1	540	--	--	1,900	140	98.0
883	3,360	6.88	12.7	2.4	490	--	--	2,100	110	65.0
884	3,940	7.49	10.9	4.2	610	--	--	2,700	110	85.0
885	2,780	7.45	10.4	3.6	700	--	--	1,900	110	65.0
886	--	7.42	--	--	746	455	0	--	57.0	67.0
887	2,710	7.53	11.3	3.3	580	--	--	1,900	99.0	64.0
888	2,100	6.95	14.0	2.1	430	--	--	2,000	170	98.0
889	1,317	7.52	12.9	2.0	310	--	--	810	110	26.0
890	3,270	7.28	11.7	2.2	820	--	--	2,400	160	87.0
891	1,034	7.05	18.8	3.7	470	--	--	630	72.0	46.0
892	3,340	7.30	8.3	2.9	800	--	--	2,400	180	90.0
893	3,050	7.27	11.3	1.9	690	--	--	2,100	170	83.0
894	3,010	7.22	10.9	1.5	630	--	--	2,100	160	79.0
895	2,260	7.77	16.3	4.9	240	--	--	1,400	62.0	46.0
896	1,990	7.17	12.2	1.8	550	--	--	1,200	92.0	63.0
897	700	7.10	14.4	6.4	--	459	0	--	84.0	59.0
898	850	6.90	12.9	--	--	541	0	--	63.0	53.0
898	--	--	--	--	--	--	--	--	--	--
899	990	7.50	12.5	--	--	820	0	--	67.0	46.0
899	--	--	--	--	--	--	--	--	--	--
900	2,170	7.25	11.1	2.9	600	--	--	1,400	100	67.0
901	3,090	7.46	12.1	4.4	720	--	--	2,200	170	85.0
902	2,580	7.37	11.6	2.6	560	--	--	1,700	130	60.0
903	1,630	7.31	11.6	2.2	440	--	--	1,000	100	56.0
904	1,990	7.25	11.0	3.4	470	--	--	1,300	130	76.0
905	2,250	6.50	14.8	1.3	--	738	0	--	150	67.0
905	--	--	--	--	--	--	--	--	--	--
906	820	7.70	15.2	--	--	558	0	--	50.0	52.0
907	850	7.00	16.8	8.6	--	476	0	--	61.0	58.0
907	--	--	--	--	--	--	--	--	--	--
908	5,590	8.00	13.7	2.5	--	837	0	--	170	160
908	--	--	--	--	--	--	--	--	--	--
909	2,330	7.35	11.9	1.7	390	--	--	1,500	130	30.0
910	990	7.50	13.8	10.4	--	607	0	--	100	83.0
911	630	8.00	14.5	4.0	--	410	0	--	48.0	37.0
912	2,420	8.00	17.3	2.0	--	673	0	--	97.0	86.0
913	7,030	7.90	17.9	2.1	--	476	0	--	250	47.0
913	--	--	--	--	--	--	--	--	--	--
915	4,430	8.20	12.5	1.1	--	508	0	--	5.6	0.320
916	1,760	7.60	18.1	3.2	595	558	28	--	30.0	1.00
916	--	--	--	--	--	--	--	--	--	--
917	1,870	7.51	11.5	2.6	250	--	--	1,100	90.0	20.0
918	1,640	7.00	13.2	3.6	--	574	0	--	150	66.0
918	--	--	--	--	--	--	--	--	--	--
919	1,600	7.17	15.9	5.2	440	--	--	1,100	120	45.0
920	839	7.25	15.0	4.0	620	--	--	1,000	97.0	63.0
921	1,700	7.27	16.9	4.2	500	--	--	1,100	93.0	45.0
922	1,090	7.20	13.4	6.5	--	837	0	--	100	100
923	1,340	7.20	14.0	--	--	902	0	--	100	76.0

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Specific conductance (µs/cm at 25°C)	pH, standard units	Temperature, water, (°C)	Dissolved oxygen (mg/L)	Alkalinity (mg/L as $CaCO_3$)	Bicarbonate (mg/L)	Carbonate (mg/L)	Total dissolved solids (mg/L)	Calcium, dissolved (mg/L)	Magnesium, dissolved (mg/L)
924	1,140	7.40	14.1	11.3	--	508	0	--	100	63.0
924	--	--	--	--	--	--	--	--	--	--
925	1,150	7.30	13.3	--	--	722	0	--	100	62.0
925	--	--	--	--	--	--	--	--	--	--
926	1,490	7.30	14.5	7.7	--	640	0	--	100	59.0
927	1,940	7.48	14.8	1.8	370	--	--	1,300	90.0	65.0
928	1,530	7.30	15.2	5.0	--	591	0	--	89.0	60.0
928	--	--	--	--	--	--	--	--	--	--
930	1,580	7.60	11.7	2.7	490	--	--	930	130	41.0
931	2,150	7.45	16.8	3.2	490	--	--	1,300	1.5	0.660
932	1,750	7.48	17.3	2.8	390	--	--	1,000	77.0	23.0
933	1,600	7.90	12.5	1.3	--	886	0	--	75.0	46.0
934	1,420	7.90	12.3	1.4	--	804	0	--	72.0	47.0
934	--	--	--	--	--	--	--	--	--	--
935	2,780	7.81	7.6	2.5	710	--	--	1,700	72.0	69.0
936	497	8.70	7.6	2.4	400	--	--	870	21.0	31.0
937	2,140	7.72	7.0	1.7	490	--	--	1,300	96.0	43.0
938	950	7.84	9.1	1.6	240	--	--	460	16.0	11.0
939	232	8.47	8.4	1.0	310	--	--	1,300	58.0	18.0
940	1	7.82	10.0	0.9	530	--	--	1,700	77.0	59.0
941	2,070	7.78	8.7	1.6	550	--	--	1,300	67.0	49.0
942	2,080	7.78	10.4	1.9	580	--	--	1,300	82.0	48.0
943	2,170	7.85	9.7	1.0	490	--	--	1,300	72.0	47.0
944	2,590	7.81	6.3	2.1	580	--	--	1,600	89.0	69.0
945	1,600	7.30	10.6	1.2	350	--	--	1,000	140	45.0
946	1,550	8.93	10.0	2.0	180	--	--	830	6.9	1.40
947	1,680	7.90	10.8	1.9	390	--	--	960	0.5	0.260
948	--	7.88	11.6	2.2	520	--	--	1,400	88.0	49.0
949	2,390	8.47	11.9	0.7	310	--	--	1,400	33.0	20.0
950	872	7.94	9.1	2.1	370	--	--	810	74.0	42.0
951	2,340	8.00	9.3	1.2	540	--	--	1,600	93.0	56.0
952	1,950	7.88	11.7	2.0	480	--	--	1,200	70.0	44.0
953	1,920	8.00	10.8	1.3	510	--	--	1,200	84.0	45.0
954	1,530	8.60	11.2	0.9	290	--	--	870	40.0	21.0
955	1,480	7.76	8.3	2.7	400	--	--	860	98.0	43.0
956	1,840	8.08	9.9	1.9	470	--	--	1,200	79.0	43.0
957	1,580	7.60	11.4	1.9	440	--	--	970	100	56.0
958	1,449	7.81	9.9	1.8	380	--	--	860	90.0	50.0
959	1,520	7.91	8.5	1.1	380	--	--	850	78.0	43.0
960	931	7.78	9.0	1.8	490	--	--	870	98.0	56.0
961	1,485	8.22	13.9	3.0	300	--	--	850	31.0	17.0
962	443	7.76	6.5	1.2	390	--	--	820	93.0	48.0
963	1,670	7.97	17.3	1.4	290	--	--	1,100	29.0	8.50
964	1,550	7.88	8.0	1.8	380	--	--	880	86.0	48.0
965	1,254	7.77	12.0	1.2	310	--	--	840	83.0	43.0
966	1,510	7.76	12.0	1.5	220	--	--	880	97.0	46.0
967	1,740	8.01	11.3	3.4	480	--	--	1,100	76.0	41.0
968	2,280	7.91	10.1	2.0	530	--	--	1,500	87.0	56.0
969	1,520	7.74	11.6	2.6	420	--	--	940	89.0	47.0
970	2,910	8.02	9.5	1.3	450	--	--	1,900	56.0	24.0
971	1,670	7.78	9.5	1.9	390	--	--	1,000	90.0	50.0
972	2,000	8.24	13.2	1.4	530	--	--	1,200	69.0	56.0
973	2,570	8.17	13.2	1.2	380	--	--	1,600	58.0	57.0
974	1,457	7.54	10.5	4.5	380	--	--	880	100	64.0
975	1,373	7.77	11.2	3.0	390	--	--	870	2.1	1.70
976	1,294	7.87	8.5	2.6	400	--	--	740	79.0	49.0
977	2,110	7.98	11.6	1.4	360	--	--	1,300	83.0	45.0
978	1,560	7.55	10.1	4.9	430	--	--	970	98.0	65.0
979	981	7.66	10.0	3.2	500	--	--	1,000	89.0	55.0
980	1,840	7.49	11.8	1.3	350	--	--	1,100	100	52.0
981	1,780	8.16	12.7	1.6	570	--	--	1,100	68.0	47.0
982	1,580	7.50	12.8	4.8	400	--	--	970	96.0	63.0
983	2,120	7.43	12.6	2.3	360	--	--	1,400	120	61.0

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Specific conductance (µs/cm at 25°C)	pH, standard units	Temperature, water, (°C)	Dissolved oxygen (mg/L)	Alkalinity (mg/L as $CaCO_3$)	Bicarbonate (mg/L)	Carbonate (mg/L)	Total dissolved solids (mg/L)	Calcium, dissolved (mg/L)	Magnesium, dissolved (mg/L)
984	1,496	7.48	10.6	4.6	400	--	--	920	96.0	64.0
985	1,720	7.58	10.4	4.7	400	--	--	1,100	95.0	65.0
986	1,670	7.62	10.8	4.2	360	--	--	1,100	84.0	56.0
987	1,178	7.60	14.3	7.1	240	--	--	650	76.0	31.0
988	1,510	7.48	12.3	4.5	390	--	--	950	100	66.0
989	1,432	7.57	11.3	4.4	380	--	--	880	90.0	49.0
990	1,375	7.81	9.6	5.7	430	--	--	790	86.0	73.0
991	2,440	7.36	12.8	1.2	460	--	--	1,600	150	67.0
992	2,350	7.38	11.8	1.4	460	--	--	1,500	120	62.0
993	2,330	7.99	10.2	1.0	490	--	--	1,500	100	74.0
994	2,600	8.05	13.1	2.8	490	--	--	1,900	150	95.0
995	1,620	8.01	12.4	1.2	440	--	--	1,000	81.0	53.0
996	1,377	7.66	10.8	4.3	340	--	--	780	89.0	82.0
997	1,740	8.19	14.3	1.5	530	--	--	1,000	68.0	49.0
998	1,382	7.65	10.5	4.0	360	--	--	800	90.0	79.0
999	1,660	8.12	15.2	4.0	500	--	--	1,000	92.0	54.0
1000	2,480	8.17	13.3	1.6	480	--	--	1,600	110	71.0
1001	1,640	7.85	14.1	5.2	450	--	--	1,000	86.0	83.0
1002	1,377	8.02	13.6	1.5	360	--	--	840	64.0	47.0
1003	2,500	7.89	13.9	2.4	400	--	--	1,600	87.0	49.0
1004	3,020	8.10	12.1	1.8	490	--	--	2,000	120	70.0
1005	3,350	8.16	13.8	1.9	560	--	--	2,300	140	83.0
1006	1,760	8.05	13.3	5.2	510	--	--	1,000	81.0	75.0
1007	2,240	8.63	16.5	1.0	600	--	--	1,400	19.0	14.0
1008	4,770	7.83	13.5	2.5	590	--	--	3,800	340	170
1009	6,300	8.28	16.3	2.5	620	--	--	4,600	110	65.0
1010	5,970	8.42	13.6	4.9	600	--	--	4,000	120	100
1011	13,170	7.79	18.7	5.4	140	--	--	9,000	230	73.0
1012	1,560	7.49	14.1	6.1	360	--	--	960	65.0	60.0
1013	6,070	7.67	14.9	1.7	610	--	--	4,300	130	70.0
1014	5,490	7.30	19.1	1.4	840	--	--	3,800	150	85.0
1015	7,030	7.55	18.2	0.8	480	--	--	5,100	120	70.0
1016	5,800	7.29	18.7	2.0	500	--	--	4,300	200	120
1017	6,670	7.51	23.9	3.0	440	--	--	4,800	200	110
1018	10,180	7.21	14.9	2.1	720	--	--	8,000	290	240
1019	5,050	7.60	20.6	5.3	540	--	--	5,600	170	140
1020	6,170	7.70	19.6	0.7	400	--	--	4,200	81.0	23.0
1021	11,440	7.70	16.9	3.8	190	--	--	8,300	87.0	51.0
1022	8,950	7.56	14.8	3.4	500	--	--	6,700	180	150
1023	2,260	7.60	18.2	6.6	270	--	--	1,700	160	67.0
1024	4,560	7.52	18.3	6.4	400	--	--	2,900	140	59.0
1025	6,000	7.84	17.1	2.0	540	--	--	4,200	36.0	86.0
1026	1,370	8.67	11.4	6.9	1,000	--	--	850	83.0	46.0
1027	1,350	8.12	21.4	6.4	530	--	--	850	78.0	45.0
1028	2,520	7.50	13.3	--	--	--	--	2,029	69.1	64.7
1029	1,370	8.67	11.4	6.9	--	--	--	--	--	--
1030	--	7.40	--	--	242	--	--	430	118	23.3
1031	--	7.80	--	--	264	--	--	340	75.5	39.9
1032	--	7.70	--	--	260	--	--	410	77.1	31.2
1033	--	7.50	--	--	360	--	--	420	106	33.5
1034	6,650	6.92	11.2	1.7	754	--	--	6,726	516	523
1038	2,000	--	12.0	--	--	340	--	--	41.0	120
1039	7,000	7.20	13.0	--	--	--	--	--	--	--
1051	--	7.40	47.5	--	723	441	0	--	900	120
1052	320	6.80	18.5	--	--	--	--	--	--	--
1053	180	7.20	20.5	--	--	--	--	--	--	--
1054	1,690	7.60	17.5	--	--	--	--	--	64.0	110
1055	2,060	7.10	12.0	--	1,383	844	0	--	110	110
1057	1,295	8.60	14.0	--	1,017	601	19	--	31.0	57.0
1058	5,340	8.50	17.5	--	6,015	3,480	187	--	11.0	4.50
1059	7,100	8.00	21.0	--	11,112	6,780	0	--	4.0	3.00
1062	23,000	7.90	15.3	--	27,699	16,900	0	--	8.5	21.0
1064	1,900	7.90	19.0	--	--	--	--	--	--	--

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Specific conductance (µs/cm at 25°C)	pH, standard units	Temperature, water, (°C)	Dissolved oxygen (mg/L)	Alkalinity (mg/L as $CaCO_3$)	Bicarbonate (mg/L)	Carbonate (mg/L)	Total dissolved solids (mg/L)	Calcium, dissolved (mg/L)	Magnesium, dissolved (mg/L)
1065	2,100	8.10	19.8	--	--	--	--	--	--	--
1066	1,950	7.80	18.0	--	--	--	--	--	--	--
1067	1,500	8.40	21.0	--	--	--	--	--	--	--
1068	9,190	8.90	20.0	--	--	--	--	--	18.0	64.0
1069	8,550	7.70	16.0	--	--	--	--	--	5.0	6.90
1070	--	--	25.0	--	--	--	--	--	--	--
1071	1,120	8.30	16.0	--	--	--	--	--	6.6	12.0
1073	2,300	8.20	11.0	--	1,069	652	0	--	77.0	150
1080	1,330	7.90	14.0	--	--	--	--	--	26.0	54.0
1081	38,300	8.30	20.5	--	50,937	29,400	1,650	33,300	4.2	2.80
1084	30,000	7.70	17.0	--	43,270	26400	0	--	6.3	14.0
1085	669	7.80	11.0	--	397	242	0	--	32.0	40.0
1091	4,664	8.40	9.0	--	4,852	2,660	295	--	14.0	67.0
1094	29,400	8.30	25.6	--	4,423	2,200	490	24,700	4.7	6.20
1095	29,400	8.30	25.6	--	4,423	2,200	490	24,700	4.7	6.20
1096	2,950	7.70	11.0	--	2,819	1,720	0	--	21.0	86.0
1099	1,700	6.40	19.0	--	--	--	--	--	--	--
1100	2,760	7.60	9.5	--	1,737	1,060	0	--	49.0	150
1101	595	7.00	13.0	--	--	--	--	--	--	--
1107	680	--	6.0	--	--	--	--	--	--	--
1125	5,000	7.70	9.0	--	--	--	--	--	--	--
1130	1,080	7.50	13.2	--	--	--	--	764	47.5	29.2
1141	950	6.80	14.0	--	--	--	--	--	--	--
1142	827	8.10	19.0	--	836	510	0	--	5.4	3.90
1144	4,170	7.40	12.8	--	--	--	--	--	220	240
1146	--	--	9.0	--	--	--	--	--	--	--
1147	--	--	18.0	--	--	--	--	--	--	--
1149	5,600	8.20	15.0	--	--	--	--	--	--	--
1153	2,100	7.50	12.0	--	--	--	--	--	--	--
1154	3,250	7.70	12.0	--	--	--	--	--	--	--
1160	1,340	7.60	14.0	--	654	399	0	--	30.0	27.0
1164	1,300	7.40	19.0	--	--	--	--	--	--	--
1173	500	8.00	19.0	--	--	--	--	--	--	--
1174	10,000	7.35	36.0	--	--	--	--	--	31.0	8.70
1175	650	8.00	14.0	--	--	--	--	--	47.0	18.0
1176	--	7.80	--	--	--	--	--	--	28.0	25.0
1177	--	7.80	--	--	--	--	--	--	47.0	17.0
1178	669	8.10	12.5	--	557	340	0	--	15.0	9.80
1182	1,010	8.50	26.0	--	946	570	7	--	3.4	6.10
1185	1,510	7.60	14.0	--	997	608	0	--	27.0	56.0
1186	1,010	7.60	10.0	--	785	479	0	--	76.0	43.0
1187	1,600	6.70	--	--	--	--	--	--	--	--
1188	1,390	7.60	9.0	--	--	--	--	--	97.0	71.0
1189	1,180	8.20	29.0	--	--	--	--	--	4.4	2.50
1190	1,250	8.50	--	--	--	--	--	--	21.0	48.0
1191	1,200	7.70	9.8	--	--	--	--	--	74.0	63.0
1192	1,470	7.80	--	--	--	--	--	--	96.0	65.0
1193	962	8.40	--	--	--	--	--	--	10.0	8.00
1194	1,940	8.30	25.5	--	--	--	--	--	5.0	3.20
1195	2,400	8.10	--	--	--	--	--	--	8.8	8.40
1196	1,550	7.60	8.5	--	--	--	--	--	100	91.0
1197	1,010	8.20	18.5	--	--	--	--	--	23.0	16.0
1198	38,000	7.70	26.0	--	--	--	--	--	9.5	4.30
1199	1,790	7.60	--	--	--	--	--	--	100	110
1200	3,050	6.40	--	--	--	--	--	--	57.0	250
1201	3,040	8.40	29.0	--	--	--	--	--	6.3	3.10
1202	2,520	8.40	25.0	--	--	--	--	--	9.2	7.40
1203	1,800	8.30	16.0	--	--	--	--	--	4.7	3.80
1204	2,180	8.40	23.0	--	--	--	--	--	13.0	4.50
1205	3,900	7.40	29.0	--	--	--	--	--	11.0	11.0
1206	2,540	8.10	--	--	--	--	--	--	8.3	7.20
1207	1,230	8.30	--	--	--	--	--	--	4.7	3.00

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Specific conductance (µs/cm at 25°C)	pH, standard units	Temperature, water, (°C)	Dissolved oxygen (mg/L)	Alkalinity (mg/L as $CaCO_3$)	Bicarbonate (mg/L)	Carbonate (mg/L)	Total dissolved solids (mg/L)	Calcium, dissolved (mg/L)	Magnesium, dissolved (mg/L)
1208	1,340	8.00	--	--	--	--	--	--	33.0	31.0
1209	1,430	7.90	--	--	--	--	--	--	47.0	49.0
1210	1,280	7.50	7.0	--	--	--	--	--	77.0	71.0
1211	1,830	7.50	10.2	--	--	--	--	--	70.0	78.0
1213	2,600	8.30	28.5	--	3,065	1,870	0	--	4.5	2.90
1230	1,780	8.10	--	--	--	--	--	--	46.0	42.0
1237	1,511	7.70	14.0	--	1,128	688	0	--	78.0	73.0
1239	1,700	8.80	16.0	--	992	605	0	--	75.0	90.0
1244	620	7.40	15.5	--	--	--	--	510	87.0	27.0
1250	2,580	7.30	10.6	--	--	--	--	--	250	190
1251	1,900	7.20	13.0	--	--	--	--	--	--	--
1252	1,800	6.80	19.5	--	--	--	--	--	--	--
1253	5,800	7.40	11.0	--	--	--	--	--	230	450
1254	--	--	10.0	--	--	--	--	--	--	--
1256	875	--	18.0	--	--	--	--	--	--	--
1260	--	--	10.0	--	--	--	--	--	--	--
1265	745	--	18.0	--	--	--	--	--	--	--
1267	--	--	10.0	--	--	--	--	--	--	--
1272	2,400	7.00	10.0	--	--	--	--	--	--	--
1273	--	--	10.0	--	--	--	--	--	--	--
1277	580	7.20	11.0	--	392	239	0	--	51.0	25.0
1282	1,790	7.20	8.0	--	--	--	--	--	--	--
1297	925	7.10	14.0	--	--	--	--	--	--	--
1302	4,000	8.40	8.5	--	--	--	--	--	--	--
1305	1,400	7.50	12.0	--	1,052	642	0	--	65.0	51.0
1306	--	--	15.0	--	--	--	--	--	--	--
1307	2,400	8.40	15.0	--	--	--	--	--	--	--
1317	962	7.50	10.8	--	--	--	--	816	111	60.5
1318	3,350	7.50	13.5	--	--	--	--	2,768	504	138
1321	2,800	8.50	25.0	0.1	--	--	--	--	4.3	5.70
1327	7,000	7.40	11.0	--	--	--	--	--	--	--
1328	2,580	8.30	17.5	--	2,770	1,690	0	--	1.7	1.20
1329	--	--	17.5	--	--	--	--	--	--	--
1330	--	--	--	--	--	1,507	--	--	6.0	6.00
1333	9,300	8.10	15.0	--	--	--	--	--	--	--
1369	3,100	7.30	14.0	--	--	--	--	--	--	--
1371	362	7.90	--	--	364	222	0	214	22.0	11.0
1381	4,200	7.20	12.0	--	--	--	--	--	--	--
1382	1,290	7.20	10.0	--	--	--	--	--	--	--
1383	1,400	7.20	11.0	--	--	--	--	--	--	--
1387	600	7.30	11.0	--	--	--	--	--	--	--
1388	1,010	7.20	12.5	--	--	--	--	--	--	--
1389	26,100	8.20	15.0	--	--	--	--	--	870	200
1390	32,200	7.80	16.0	--	--	--	--	--	2,500	790
1391	1,590	10.80	16.0	--	--	--	--	--	190	2.00
1392	26,500	7.80	14.5	--	--	--	--	--	490	130
1393	15,300	8.00	16.0	--	--	--	--	--	480	660
1395	--	--	10.0	--	--	--	--	--	--	--
1403	390	7.60	11.5	--	--	--	--	--	--	--
1409	1,190	7.30	10.0	--	--	--	--	--	--	--
1410	790	7.50	14.5	--	580	354	0	--	68.0	44.0
1411	440	7.00	15.0	--	--	--	--	--	--	--
1415	925	6.60	14.0	--	--	--	--	--	--	--
1416	900	7.20	10.0	--	--	--	--	--	--	--
1418	1,090	7.70	14.5	--	1,164	710	0	--	37.0	21.0
1419	883	7.20	12.4	--	--	--	--	701	132	40.0
1420	975	7.50	11.6	--	--	--	--	794	91.0	58.1
1421	570	7.10	5.0	--	--	--	--	--	63.0	24.0
1422	1,340	7.90	9.0	--	--	--	--	--	65.0	83.0
1423	3,300	7.70	18.5	--	--	--	--	--	6.4	6.60
1426	1,390	--	19.0	--	--	749	--	--	5.6	4.60
1433	1,260	7.70	17.5	--	1,319	805	0	--	15.0	4.20
1438	1,650	7.00	13.5	--	964	588	0	--	88.0	95.0

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Specific conductance (µs/cm at 25°C)	pH, standard units	Temperature, water, (°C)	Dissolved oxygen (mg/L)	Alkalinity (mg/L as $CaCO_3$)	Bicarbonate (mg/L)	Carbonate (mg/L)	Total dissolved solids (mg/L)	Calcium, dissolved (mg/L)	Magnesium, dissolved (mg/L)
1443	1,780	7.90	12.0	--	1,041	635	0	--	100	110
1445	1,020	8.70	8.0	--	842	464	49	--	37.0	74.0
1448	1,320	8.30	9.0	--	1,147	700	0	--	49.0	59.0
1450	1,480	9.20	9.5	--	1,298	674	116	--	32.0	50.0
1452	1,860	8.10	9.5	--	1,316	803	0	--	80.0	100
1454	1,450	7.80	15.5	--	--	--	--	--	34.0	56.0
1461	1,100	7.30	13.0	--	--	--	--	--	--	--
1463	1,300	8.00	15.0	--	--	--	--	--	--	--
1464	1,750	7.10	11.0	--	--	--	--	--	--	--
1465	1,220	7.40	19.0	--	--	--	--	--	--	--
1466	4,050	8.05	25.0	--	--	--	--	--	4.5	24.0
1467	1,700	7.00	16.0	--	--	--	--	--	78.0	90.0
1468	1,480	7.40	14.0	--	--	--	--	--	62.0	75.0
1469	3,950	7.70	18.5	--	--	--	--	--	440	300
1475	1,710	7.28	13.5	0.1	454	--	--	--	120	98.0
1476	1,780	7.43	13.0	0.1	377	--	--	--	130	94.0
1477	1,725	7.55	17.0	--	--	--	--	--	55.0	48.0
1478	3,920	8.10	25.6	--	3,393	2,070	0	--	14.0	17.0
1480	7,400	8.30	19.0	--	7,900	4,820	0	--	9.5	11.0
1482	1,520	7.50	12.0	--	1,033	630	0	--	86.0	57.0
1484	1,750	--	18.0	--	--	1,090	--	--	190	46.0
1486	1,300	7.75	18.5	--	836	510	0	--	28.0	69.0
1487	1,400	7.50	18.5	--	656	400	0	--	27.0	74.0
1488	1,250	7.30	15.0	--	852	520	0	--	49.0	80.0
1492	2,210	7.70	14.5	--	2,196	1,340	0	--	10.0	14.0
1497	1,720	7.00	11.5	--	--	--	--	--	--	--
1498	560	8.00	9.0	--	413	252	0	--	73.0	18.0
1499	1,490	--	15.0	--	--	990	--	--	1.1	0.300
1502	850	8.30	11.0	--	770	470	0	--	18.0	16.0
1506	900	8.00	19.0	--	--	--	--	--	--	--
1507	3,130	8.50	16.0	--	--	--	--	--	10.0	2.80
1508	1,400	8.20	16.0	--	--	--	--	--	11.0	8.50
1509	11,800	--	--	--	--	--	--	--	--	--
1510	1,280	--	--	--	--	--	--	--	--	--
1512	840	8.10	13.5	--	--	--	--	--	7.8	6.60
1513	1,650	8.20	18.5	--	--	--	--	--	3.6	2.10
1514	64,800	7.86	--	--	48,800	--	--	66,630	2.2	1.12
1515	2,190	8.04	--	--	1,254	--	--	1,400	5.1	2.92
1516	18,700	7.83	--	--	12,800	--	--	14,570	5.6	15.7
1517	36,200	7.95	--	--	28,900	--	--	33,340	6.7	8.84
1518	1,510	8.90	16.0	--	1,016	620	0	--	24.0	60.0
1519	1,600	--	18.0	--	--	590	--	--	41.0	85.0
1523	2,650	8.00	11.5	--	3,081	1,880	0	--	18.0	34.0
1526	4,880	8.40	16.5	--	6,503	3,560	401	--	2.9	3.60
1530	14,800	8.10	12.5	--	20,815	12,700	0	--	13.0	26.0
1532	6,000	8.40	7.5	--	3,843	2,200	142	--	4.8	81.0
1535	4,790	7.81	--	--	1,022	--	--	3,664	63.5	245
1536	8,800	8.50	13.5	--	11,702	7,140	0	--	2.4	8.30
1538	24,800	8.42	--	--	17,700	--	--	20,272	3.9	2.99
1539	40,800	7.90	--	--	33,100	--	--	1,890	9.1	5.75
1539	41,100	7.89	--	--	33,100	--	--	1,900	8.9	5.88
1540	2,230	8.77	--	--	1,500	--	--	1,724	5.0	19.9
1541	3,850	6.76	--	--	863	--	--	1,912	96.2	23.0
1542	2,690	7.81	--	--	878	--	--	1,908	50.8	121
1546	1,580	8.50	15.0	--	--	--	--	946	8.4	12.0
1547	1,430	8.30	20.5	--	--	--	--	909	3.7	2.50
1549	3,260	7.80	9.0	--	1,505	918	0	--	40.0	110
1552	2,080	7.70	9.0	--	1,105	674	0	--	80.0	160
1555	--	7.17	--	--	--	1,007	--	--	102	13.0
1558	1,450	7.10	5.5	--	--	--	--	--	--	--
1559	950	6.70	12.0	--	--	--	--	--	--	--
1560	948	6.40	12.0	--	--	--	--	--	--	--
1561	2,500	7.00	5.5	--	--	--	--	--	--	--

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Specific conductance (µs/cm at 25°C)	pH, standard units	Temperature, water, (°C)	Dissolved oxygen (mg/L)	Alkalinity (mg/L as $CaCO_3$)	Bicarbonate (mg/L)	Carbonate (mg/L)	Total dissolved solids (mg/L)	Calcium, dissolved (mg/L)	Magnesium, dissolved (mg/L)
1565	510	7.00	12.0	--	--	--	--	--	--	--
1566	400	7.20	14.0	--	--	--	--	--	--	--
1567	500	7.50	13.0	--	--	--	--	--	--	--
1568	420	7.20	12.5	--	--	--	--	--	--	--
1571	1,100	7.50	9.5	--	874	533	0	--	74.0	48.0
1576	2,127	7.50	13.5	--	1,623	990	0	--	86.0	99.0
1580	1,140	7.40	8.0	--	865	528	0	--	66.0	53.0
1581	6,050	7.70	24.0	--	--	--	--	--	7.0	5.50
1587	4,236	7.90	12.0	--	2,344	1,430	0	--	52.0	110
1592	2,900	6.50	17.0	--	--	--	--	--	--	--
1593	950	--	17.5	--	--	--	--	--	--	--
1594	--	--	8.0	--	--	--	--	--	--	--
1595	--	--	9.0	--	--	--	--	--	--	--
1596	--	--	13.0	--	--	--	--	--	--	--
1597	--	--	18.0	--	--	--	--	--	--	--
1598	2,300	7.60	15.0	--	1,508	920	0	--	82.0	82.0
1599	2,600	8.30	16.0	--	--	--	--	--	--	--
1600	1,500	7.60	17.5	--	--	--	--	--	--	--
1601	21,000	7.20	10.5	--	--	--	--	--	--	--
1602	5,020	8.50	27.0	--	--	--	--	--	14.0	25.0
1603	1,390	7.90	17.0	--	--	--	--	--	28.0	28.0
1604	5,590	8.00	25.0	--	--	--	--	--	2.9	3.40
1605	3,600	7.65	25.0	--	--	--	--	--	14.0	17.0
1607	1,570	7.50	9.0	--	903	551	0	--	120	90.0
1609	2,060	7.50	8.0	--	1,108	676	0	--	87.0	130
1610	4,180	8.70	26.1	--	3,902	2,160	217	--	7.1	11.0
1612	6,570	8.20	32.0	--	7,523	4,590	0	--	2.8	4.00
1613	1,200	8.10	20.0	--	--	--	--	742	9.6	14.0
1614	1,590	7.90	23.0	--	--	--	--	944	8.4	3.70
1617	4,080	8.20	29.0	--	5,212	3,180	0	--	3.6	3.40
1622	--	--	17.0	--	--	--	--	--	280	12.0
1623	1,200	7.30	9.0	--	--	--	--	--	84.0	74.0
1626	955	7.90	9.5	--	693	423	0	--	65.0	52.0
1628	1,230	8.10	11.0	--	857	523	0	--	79.0	72.0
1631	--	7.50	--	--	--	--	--	--	--	--
1632	5,400	6.40	16.3	--	--	--	--	--	560	270
1633	4,110	6.71	10.8	0.2	--	--	--	3,820	540	200
1634	4,650	6.82	12.2	0.9	330	403	0	4,430	500	190
1635	18,880	7.26	14.0	--	807	--	--	--	82.8	28.8
1636	20,100	6.97	14.4	--	--	--	--	--	--	--
1639	5,960	6.88	15.6	--	--	--	--	--	--	--
1640	995	8.12	24.0	--	--	--	--	--	74.2	29.8
1641	4,120	7.50	8.4	--	--	--	--	--	--	--
1642	5,580	7.11	18.4	--	--	--	--	--	--	--
1643	16,700	7.28	14.1	--	--	--	--	--	--	--
1644	3,560	7.14	12.0	--	--	--	--	--	--	--
1645	4,980	7.28	10.4	--	--	--	--	--	--	--
1646	3,030	--	8.1	--	--	--	--	--	--	--
1647	3,680	--	8.6	--	--	--	--	--	--	--
1648	4,600	7.10	11.6	--	--	--	--	--	--	--
1649	7,910	--	12.4	--	--	--	--	--	--	--
1650	11,900	7.10	16.0	0.2	--	--	--	--	--	--
1651	5,090	7.25	23.5	2.2	--	--	--	--	384	322
1652	5,880	7.08	23.5	1.8	485	592	--	--	467	387
1653	6,690	7.19	25.0	0.1	897	1,094	--	--	518	421
1654	6,250	7.03	12.8	0.7	420	513	0	6,460	480	430
1655	--	7.40	--	--	--	--	--	--	--	--
1656	--	7.50	--	--	--	--	--	--	--	--
1657	--	7.40	--	--	--	--	--	--	--	--
1658	--	7.50	--	--	--	--	--	--	--	--
1659	--	7.40	--	--	--	--	--	--	--	--
1660	750	6.80	12.0	--	--	--	--	--	85.0	39.0
1661	580	7.10	12.0	--	--	--	--	--	40.0	37.0

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Specific conductance (µs/cm at 25°C)	pH, standard units	Temperature, water, (°C)	Dissolved oxygen (mg/L)	Alkalinity (mg/L as $CaCO_3$)	Bicarbonate (mg/L)	Carbonate (mg/L)	Total dissolved solids (mg/L)	Calcium, dissolved (mg/L)	Magnesium, dissolved (mg/L)
1662	800	--	14.0	--	--	--	--	--	62.0	44.0
1664	--	7.80	--	--	366	600	0	410	65.6	39.0
1665	--	8.00	--	--	342	561	0	380	65.7	35.4
1666	--	7.77	--	--	--	--	--	--	38.0	38.0
1667	--	7.85	--	--	--	--	--	--	57.0	34.0
1668	--	8.00	--	--	--	--	--	--	54.0	2.30
1669	1,750	7.70	17.0	--	--	--	--	1,490	75.4	52.9
1670	150	7.00	27.0	--	--	--	--	--	--	--
1671	503	7.90	18.0	--	--	--	--	--	37.0	10.0
1672	950	8.80	18.0	--	--	--	--	--	20.0	0.300
1673	980	8.66	6.5	--	--	--	--	--	--	--
1674	907	8.13	2.5	--	--	--	--	--	65.3	23.1
1675	3,420	8.30	--	--	--	--	--	--	--	--
1676	55	7.50	19.5	--	--	--	--	--	--	--
1677	3,120	7.52	12.5	1.4	450	--	--	2,220	37.0	56.0
1678	9,000	7.58	4.0	0.9	514	627	--	--	285	528
1679	1,769	7.61	15.4	1.0	232	--	--	--	62.5	59.1
1680	2,940	7.43	13.7	0.6	371	--	--	--	76.8	78.7
1681	10,640	7.44	2.5	--	--	--	--	--	--	--
1682	19,580	6.24	20.0	--	--	--	--	--	--	--
1683	10,200	7.25	25.0	--	--	--	--	--	494	425
1684	1,090	7.81	11.0	2.3	--	--	--	--	--	--
1685	7,070	8.63	10.0	2.1	--	--	--	--	--	--
1686	4,600	7.04	12.7	0.8	419	--	--	--	338	220
1687	9,290	10.96	7.0	--	--	--	--	--	--	--
1688	7,440	7.46	7.5	0.6	--	--	--	--	--	--
1689	8,220	7.35	4.5	0.2	525	641	--	--	608	606
1690	2,330	8.17	10.0	--	--	--	--	--	--	--
1691	13,820	6.91	17.5	--	--	--	--	--	--	--
1692	9,390	7.50	8.5	0.9	--	--	--	--	--	--
1693	4,230	7.55	4.5	1.2	459	560	--	--	316	234
1694	13,600	6.88	8.0	0.1	--	--	--	--	--	--
1695	12,340	7.28	18.0	--	--	--	--	--	--	--
1696	10,660	7.29	7.0	0.3	589	719	--	--	517	605
1697	6,560	7.82	7.5	1.5	--	--	--	--	--	--
1699	2,110	7.82	10.0	1.9	--	--	--	--	--	--
1700	10,030	7.43	7.0	0.4	--	--	--	--	--	--
1701	8,530	7.08	6.5	0.4	--	--	--	--	--	--
1702	3,320	7.27	20.0	--	--	--	--	--	137	136
1703	53,400	7.08	7.0	0.1	--	--	--	--	--	--
1704	17,700	6.90	8.0	--	--	--	--	--	--	--
1705	6,780	6.63	17.5	--	--	--	--	--	--	--
1706	11,210	6.94	21.5	--	--	--	--	--	--	--
1707	9,060	7.33	8.0	2.3	588	717	--	--	465	556
1708	5,220	7.69	7.0	2.0	--	--	--	--	307	268
1709	9,510	7.31	8.5	--	--	--	--	--	--	--
1710	11,100	7.14	7.0	0.2	--	--	--	--	--	--
1711	10,840	6.64	18.5	--	--	--	--	--	--	--
1712	9,530	7.26	8.5	0.9	--	--	--	--	--	--
1713	7,760	7.14	22.5	--	--	--	--	--	430	396
1714	8,040	7.21	5.0	2.2	516	630	--	--	522	473
1715	9,020	7.23	9.5	1.4	--	--	--	--	--	--
1716	9,540	6.96	10.0	--	--	--	--	--	--	--
1723	2,900	7.20	10.0	--	951	580	0	--	140	130
1727	8,500	--	14.0	--	--	--	--	--	300	160
1728	5,500	--	16.0	--	--	--	--	--	540	160
1730	650	8.40	20.0	--	--	--	--	--	86.6	16.5
1731	629	--	18.5	--	--	--	--	--	--	--
1732	560	8.02	19.2	1.4	225	--	--	316	16.0	8.10
1733	806	9.00	25.5	--	--	--	--	--	2.0	0.300
1734	817	7.58	19.1	--	--	--	--	--	--	--
1735	6,440	7.26	8.2	--	--	--	--	--	--	--
1736	1,260	7.88	7.8	--	--	--	--	--	--	--

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Specific conductance (µs/cm at 25°C)	pH, standard units	Temperature, water, (°C)	Dissolved oxygen (mg/L)	Alkalinity (mg/L as $CaCO_3$)	Bicarbonate (mg/L)	Carbonate (mg/L)	Total dissolved solids (mg/L)	Calcium, dissolved (mg/L)	Magnesium, dissolved (mg/L)
1738	350	7.30	21.0	--	410	250	0	--	22.0	6.30
1741	--	7.50	--	--	--	--	--	--	--	--
1742	--	7.30	--	--	--	--	--	--	--	--
1743	--	7.50	--	--	--	--	--	--	--	--
1744	--	7.30	--	--	--	--	--	--	--	--
1745	--	7.60	--	--	447	733	0	430	58.3	41.4
1747	--	--	--	--	--	--	--	--	--	--
1752	532	7.80	14.4	4.4	270	--	--	640	51.0	60.0
1753	549	8.85	16.1	0.3	290	--	--	320	49.0	30.0
1754	--	--	--	--	--	--	--	--	--	--
1755	557	7.50	17.2	1.9	260	--	--	350	34.0	34.0
1756	542	8.88	15.5	3.2	280	--	--	310	40.0	32.0
1757	588	9.03	19.1	6.4	280	--	--	360	31.0	41.0
1758	690	7.26	12.6	4.9	260	--	--	370	48.0	34.0
1759	1,052	9.45	17.1	1.9	290	--	--	690	18.0	14.0
1760	743	9.08	20.5	5.1	300	--	--	500	66.0	35.0
1761	--	--	--	--	--	--	--	--	88.7	42.8
1762	--	--	12.0	--	--	--	--	--	--	--
1763	300	7.20	--	--	--	--	--	--	31.8	4.78
1765	6,140	6.57	11.2	0.8	570	696	0	5,910	470	250
1766	14,970	7.17	10.0	0.2	470	574	0	16,100	410	830
1768	4,410	6.67	11.5	0.1	300	366	0	4,490	510	300
1769	4,400	6.58	8.1	1.5	305	372	0	4,030	540	270
1770	600	7.00	20.5	--	--	--	--	--	--	--
1771	820	7.00	13.0	--	--	--	--	--	51.0	39.0
1772	800	7.10	12.0	--	--	--	--	--	78.0	40.0
1773	--	7.40	--	--	433	--	--	490	77.2	53.5
1774	--	--	--	--	--	--	--	--	--	--
1776	--	8.70	--	--	538	856	28	610	3.9	0.900
1777	--	9.10	--	--	313	425	90	450	4.6	4.20
1778	--	7.70	--	--	420	689	0	460	68.4	44.2
1779	--	7.60	--	--	374	613	0	550	117	38.2
1780	--	7.40	--	--	290	476	0	350	85.1	21.9
1781	--	7.50	--	--	313	513	0	420	89.7	25.4
1782	--	9.17	--	--	--	--	--	--	0.8	<0.1
1783	--	9.44	--	--	--	--	--	--	0.6	<0.1
1784	--	8.33	--	--	--	--	--	--	1.8	0.380
1785	--	7.26	--	--	--	--	--	--	<0.4	<0.1
1786	--	7.38	--	--	--	--	--	--	60.0	56.0
1787	110	7.20	20.5	--	--	--	--	--	--	--
1788	3,950	7.38	13.3	7.3	220	--	--	4,100	350	270
1789	910	7.70	21.5	--	--	--	--	--	--	--
1790	1,310	6.90	19.8	--	--	--	--	--	--	--
1791	380	6.50	17.1	--	--	--	--	--	--	--
1792	1,310	6.80	17.8	--	--	--	--	--	--	--
1793	320	7.20	20.1	--	--	--	--	--	--	--
1794	750	6.50	15.0	--	--	--	--	--	87.0	43.0
1795	780	--	12.5	--	--	--	--	--	47.0	46.0
1796	--	7.60	--	--	576	--	--	750	74.2	60.4
1797	--	7.80	--	--	402	659	0	450	75.3	32.7
1798	--	7.70	--	--	488	800	0	700	79.4	50.3
1799	--	7.90	--	--	297	487	0	320	36.3	52.5
1800	--	7.80	--	--	394	646	0	490	91.0	19.9
1801	--	7.70	--	--	426	699	0	480	65.5	69.8
1802	--	7.60	--	--	375	615	0	610	69.7	54.8
1803	--	7.80	--	--	539	884	0	630	64.4	77.9
1804	--	7.80	--	--	377	618	0	410	77.7	31.2
1805	--	7.60	--	--	447	733	0	500	96.6	40.0
1806	--	7.90	--	--	264	433	0	310	47.6	30.5
1807	--	9.45	--	--	398	--	152	--	0.6	<0.1
1807	--	--	--	--	--	--	--	--	--	--
1808	--	7.36	--	--	--	--	--	--	200	160
1809	--	7.48	--	--	--	--	--	--	61.0	49.0

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Specific conductance (µs/cm at 25°C)	pH, standard units	Temperature, water, (°C)	Dissolved oxygen (mg/L)	Alkalinity (mg/L as $CaCO_3$)	Bicarbonate (mg/L)	Carbonate (mg/L)	Total dissolved solids (mg/L)	Calcium, dissolved (mg/L)	Magnesium, dissolved (mg/L)
1810	--	7.43	--	--	--	--	--	--	68.0	50.0
1811	645	--	8.9	5.2	340	--	--	390	55.0	38.0
1812	642	9.19	6.0	5.5	330	--	--	400	43.0	32.0
1813	1,510	8.48	11.9	3.6	--	--	--	950	38.0	31.0
1814	524	8.31	6.6	7.6	300	--	--	320	50.0	41.0
1815	841	9.10	15.9	--	--	--	--	717	1.5	0.400
1816	874	9.24	3.0	3.1	430	--	--	540	50.0	56.0
1817	673	9.15	8.2	4.8	340	--	--	430	59.0	28.0
1818	463	7.57	6.2	8.1	280	--	--	270	35.0	43.0
1819	962	7.80	12.1	--	--	--	--	886	56.2	67.7
1820	1,112	7.20	7.4	3.2	480	--	--	580	69.0	49.0
1821	596	8.28	10.2	6.5	330	--	--	340	45.0	45.0
1822	499	8.34	15.2	0.9	290	--	--	270	31.0	34.0
1827	--	--	--	--	--	--	--	--	68.4	17.9
1828	--	--	--	--	--	--	--	--	49.1	15.5
1829	--	--	--	--	--	--	--	--	--	--
1830	850	7.10	14.0	--	--	--	--	--	93.0	20.0
1832	--	7.70	--	--	271	--	--	300	71.5	22.8
1833	900	7.00	11.0	--	--	--	--	--	60.0	69.0
1837	4,500	7.20	14.0	--	967	590	0	--	200	210
1842	2,860	7.34	15.7	1.0	294	--	--	--	276	121
1843	9,170	7.20	15.8	2.0	850	--	--	--	378	914
1845	731	--	21.0	--	--	--	--	--	--	--
1847	5,890	6.20	15.9	3.5	189	--	--	--	430	489
1855	194	7.10	17.0	2.6	91.8	--	--	--	28.0	4.00
1856	100	6.20	16.0	2.7	47.6	--	--	--	15.0	2.10
1857	105	8.10	13.0	2.8	58.4	--	--	--	16.0	5.10
1858	0	8.00	21.0	3.2	--	--	--	--	17.0	5.40
1859	195	7.90	17.0	3.1	115	--	--	--	25.0	5.10
1860	0.10	7.30	21.0	1.4	128	--	--	--	25.0	11.0
1861	0.20	6.90	16.0	0.4	137	--	--	--	30.0	13.0
1862	0.38	7.00	13.0	2.6	236	--	--	--	59.0	21.0
1863	2.19	7.50	16.0	9.7	444	--	--	--	140	100
1864	2,000	8.10	--	--	--	--	--	--	--	--
1865	4,700	7.60	--	--	--	--	--	--	--	--
1866	741	7.10	--	--	--	--	--	--	--	--
1867	1,210	7.60	--	--	--	--	--	--	--	--
1868	4,300	7.50	--	--	--	--	--	--	--	--
1869	2,750	12.80	--	--	--	--	--	--	--	--
1870	6,100	7.70	--	--	--	--	--	--	--	--
1871	1,280	7.30	--	--	--	--	--	--	--	--
1872	1,370	7.40	--	--	--	--	--	--	--	--
1873	940	7.10	--	--	--	--	--	--	--	--
1874	272	8.50	--	--	--	--	--	--	--	--
1875	6,400	7.10	--	--	--	--	--	--	--	--
1876	9,500	7.10	--	--	--	--	--	--	--	--
1877	3,200	7.10	--	--	--	--	--	--	--	--
1878	3,000	7.30	--	--	--	--	--	--	--	--
1879	4,500	7.00	--	--	--	--	--	--	--	--
1880	5,400	7.20	--	--	--	--	--	--	--	--
1881	2,400	7.30	--	--	--	--	--	--	--	--
1882	460	8.20	--	--	--	--	--	--	--	--
1883	3,400	7.30	--	--	--	--	--	--	--	--
1884	1,350	7.30	--	--	--	--	--	--	--	--
1885	960	7.60	--	--	--	--	--	--	--	--
1886	660	7.80	--	--	--	--	--	--	--	--
1887	345	8.30	18.1	--	--	--	--	298	38.7	13.8
1888	416	7.00	--	--	--	--	--	--	--	--
1889	1,416	7.50	--	--	--	--	--	--	--	--
1890	--	--	12.2	--	--	--	--	--	--	--
1891	325	6.30	12.0	--	--	--	--	--	24.0	16.0
1895	1,850	8.50	16.0	--	--	--	--	--	3.1	0.500
1896	3,820	9.60	14.0	--	--	--	--	--	3.0	0.500

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Specific conductance (µs/cm at 25°C)	pH, standard units	Temperature, water, (°C)	Dissolved oxygen (mg/L)	Alkalinity (mg/L as $CaCO_3$)	Bicarbonate (mg/L)	Carbonate (mg/L)	Total dissolved solids (mg/L)	Calcium, dissolved (mg/L)	Magnesium, dissolved (mg/L)
1897	1,230	7.40	13.5	--	--	--	--	--	62.0	56.0
1898	1,150	7.10	15.5	--	--	--	--	--	50.0	75.0
1899	626	8.20	14.0	--	--	--	--	--	25.0	14.0
1900	1,120	8.20	15.5	--	--	--	--	--	18.0	34.0
1904	640	6.80	15.0	--	--	421	--	--	70.0	35.0
1906	550	--	13.5	--	--	--	--	--	--	--
1907	325	8.30	12.5	--	--	--	--	--	10.0	9.40
1908	810	--	13.0	--	--	--	--	--	--	--
1909	0.18	6.60	14.9	7.0	75.1	--	--	--	20.0	3.20
1910	--	--	--	--	--	--	--	--	--	--
1911	465	7.30	--	--	--	--	--	--	--	--
1912	574	7.10	--	--	--	--	--	--	--	--
1913	686	7.60	14.4	--	--	--	--	612	58.0	52.9
1914	633	7.70	17.3	--	--	--	--	532	74.0	32.8
1915	505	8.40	--	--	--	--	--	--	--	--
1916	543	7.43	--	--	--	--	--	--	--	--
1917	571	7.51	--	--	--	--	--	--	--	--
1918	393	7.70	--	--	--	--	--	--	--	--
1919	0.20	7.50	3.0	2.1	28.1	--	--	--	6.5	2.40
1920	50	6.50	6.0	3.9	29.4	--	--	--	6.8	2.50
1921	77	6.20	7.0	2.6	45.4	--	--	--	10.0	4.30
1925	5,040	7.02	5.2	0.5	310	378	0	4,850	440	230
1926	5,270	7.02	8.2	0.4	285	348	0	5,280	420	230
1928	2,830	--	17.0	--	--	264	--	--	560	65.0
1930	70	5.60	--	--	--	--	--	--	224	52.5
1931	2,100	--	24.5	--	--	--	--	--	557	61.8
1932	600	6.90	22.0	--	--	--	--	--	118	17.0
1937	318	7.30	19.0	2.7	170	--	--	--	30.0	20.0
1938	110	8.00	15.6	11.7	48.3	--	--	--	15.0	3.60
1939	231	7.90	20.8	8.0	148	--	--	--	26.0	15.0
1940	475	7.42	--	--	--	--	--	--	--	--
1941	712	7.50	--	--	--	--	--	--	--	--
1942	324	7.30	--	--	--	--	--	--	--	--
1943	706	7.55	--	--	--	--	--	--	--	--
1944	261	--	15.0	--	--	--	--	--	--	--
1945	200	--	15.0	--	--	--	--	--	--	--
1946	0.69	7.74	24.0	--	246	--	--	--	78.0	14.0
1947	0.15	7.61	29.6	--	50.8	--	--	--	19.0	4.90
1951	2,600	7.50	15.4	--	--	--	--	2,749	456	139
1955	4,230	7.50	21.5	--	--	--	--	--	9.0	3.20
1962	2,820	7.10	19.5	--	--	--	--	--	2.1	0.700
1967	111	6.40	9.8	7.9	61.4	--	--	--	15.0	6.40
1968	44.6	7.54	11.8	5.6	22.1	--	--	--	7.8	3.20
1969	167	7.65	18.2	7.5	89.1	--	--	--	23.0	8.40
1970	78.7	8.06	12.9	6.3	39.9	--	--	--	11.0	3.80
1971	78	6.88	--	--	43.2	--	--	--	14.0	3.70
1972	0.35	7.30	22.0	1.3	229	--	--	--	45.0	19.0
1973	0.24	7.70	12.0	3.1	173	--	--	--	19.0	5.00
1974	0.60	7.60	8.0	3.0	38.5	--	--	--	7.9	3.60
1975	358	7.70	--	--	--	--	--	--	--	--
1976	--	--	--	--	--	--	--	--	--	--
1978	1,110	7.50	15.5	--	--	--	--	--	15.0	6.20
1981	1,580	7.70	17.0	--	--	--	--	--	--	--
1982	1,650	8.00	14.7	--	--	--	--	--	--	--
1983	875	7.60	9.0	--	--	--	--	--	--	--
1986	1,710	7.49	14.1	--	348	--	--	--	110	120
1990	4,800	7.30	42.0	--	--	--	--	--	--	--
1993	491	--	13.5	--	--	--	--	--	--	--
1995	--	--	8.6	--	--	--	--	--	--	--
1996	--	--	13.8	--	--	--	--	--	--	--
2001	910	7.60	13.0	--	688	420	0	--	47.0	59.0
2002	860	7.50	14.5	--	672	410	0	--	64.0	37.0
2003	900	7.80	9.0	--	--	--	--	--	--	--

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Specific conductance (µs/cm at 25°C)	pH, standard units	Temperature, water, (°C)	Dissolved oxygen (mg/L)	Alkalinity (mg/L as $CaCO_3$)	Bicarbonate (mg/L)	Carbonate (mg/L)	Total dissolved solids (mg/L)	Calcium, dissolved (mg/L)	Magnesium, dissolved (mg/L)
2011	540	--	12.0	--	--	--	--	--	--	--
2012	360	7.20	12.0	--	--	--	--	--	--	--
2013	318	7.30	--	--	--	--	--	--	--	--
2014	1,104	7.70	--	--	--	--	--	--	--	--
2015	1,104	7.70	--	--	343	--	--	--	38.0	94.0
2016	761	7.90	13.6	--	--	--	--	658	49.4	40.3
2017	604	7.90	14.2	--	--	--	--	558	54.2	44.5
2018	361	8.10	11.6	--	--	--	--	312	40.6	17.4
2019	--	--	11.7	--	--	--	--	--	--	--
2020	--	--	11.3	--	--	--	--	--	--	--
2021	--	--	9.5	--	--	--	--	--	--	--
2022	--	--	13.5	--	--	--	--	--	--	--
2023	--	--	9.4	--	--	--	--	--	--	--
2024	--	--	11.4	--	--	--	--	--	--	--
2025	280	8.60	10.6	0.3	131	149	5	--	--	--
2027	4,040	6.86	11.7	0.1	330	403	0	3,850	520	180
2029	3,190	--	14.0	--	--	--	--	--	--	--
2030	--	--	13.1	--	--	--	--	--	--	--
2033	9,420	7.00	15.0	--	--	937	--	--	390	530
2034	--	--	12.5	--	--	--	--	--	--	--
2035	--	--	9.1	--	--	--	--	--	--	--
2037	320	7.10	18.0	--	--	--	--	--	--	--
2040	1,210	7.50	17.0	--	--	--	--	--	--	--
2041	1,900	8.20	14.5	--	--	--	--	--	15.0	7.60
2044	1,430	7.50	15.0	--	403	246	0	--	220	36.0
2046	3,830	7.11	16.0	1.7	2,300	2,810	0	2,670	24.0	9.80
2046	3,830	7.11	16.0	1.7	2,300	2,810	0	2,700	23.0	9.80
2049	600	7.80	20.5	--	--	--	--	--	146	34.6
2050	300	7.20	--	--	--	--	--	--	76.4	7.20
2051	500	6.80	--	--	--	--	--	--	118	18.3
2052	2,700	8.70	16.8	--	--	--	--	--	--	--
2053	1,330	7.40	--	--	688	420	0	--	160	46.0
2054	965	7.60	10.0	--	651	397	0	--	73.0	60.0
2055	750	8.60	--	--	--	--	--	--	--	--
2056	1,022	6.50	14.0	--	--	--	--	--	--	--
2058	1,890	7.80	16.0	--	1,472	898	0	--	12.0	5.90
2061	2,640	6.96	12.2	4.7	245	299	0	2,450	540	73.0
2063	4,050	6.50	18.5	--	--	--	--	--	--	--
2064	440	6.80	18.5	--	--	--	--	--	111	22.3
2065	681	8.40	13.5	--	647	395	0	--	59.0	45.0
2066	--	--	13.5	--	--	--	--	--	--	--
2067	3,400	7.80	17.0	--	--	--	--	--	--	--
2068	<400	7.80	12.5	--	613	357	17	--	--	--
2069	360	7.10	14.0	--	--	--	--	--	--	--
2070	380	7.00	19.2	--	--	--	--	--	--	--
2071	359	8.20	10.0	--	349	213	0	--	22.0	11.0
2072	600	7.90	12.0	--	--	--	--	--	--	--
2076	3,030	7.18	9.4	--	228	--	--	--	554	102
2077	--	--	--	--	--	--	--	--	--	--
2078	596	7.50	13.0	--	351	214	0	--	39.0	36.0
2079	549	7.50	13.0	--	465	284	0	--	50.0	32.0
2080	--	--	55.0	--	--	--	--	--	--	--
2082	600	9.50	--	--	--	--	--	--	--	--
2083	--	--	9.0	--	--	--	--	--	--	--
2084	--	--	16.0	--	--	--	--	--	--	--
2085	2,400	7.30	12.0	--	1,549	945	0	--	63.0	83.0
2088	3,240	9.00	--	--	1,740	964	96	--	35.0	3.00
2089	860	7.10	--	--	--	--	--	--	--	--
2090	561	7.50	13.5	--	467	285	0	--	50.0	35.0
2091	522	7.50	16.5	--	465	284	0	--	45.0	30.0
2094	1,190	7.53	--	--	--	--	--	--	--	--
2095	100	6.60	15.8	--	--	--	--	--	12.2	3.68
2096	42	6.90	11.0	--	--	--	--	--	6.8	1.33

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Sodium, dissolved (mg/L)	Potassium, dissolved (mg/L)	Sulfate, dissolved (mg/L)	Chloride, dissolved (mg/L)	Fluoride, dissolved (mg/L)	Bromide, dissolved (mg/L)	Nitrite+Nitrate, dissolved (mg/L as N)	Iron, dissolved (ug/L)	Manganese, dissolved (ug/L)	Arsenic, dissolved (ug/L)
1	110	2.50	24.8	20.7	--	--	--	<70	<5	--
2	170	0.500	10.0	5.50	7.10	--	--	2,000	20.0	8.00
3	57.0	0.300	25.0	1.80	0.900	--	--	<10	<10	2.00
4	140	1.40	30.0	7.20	2.20	--	--	130	20.0	1,100
5	1,290	9.00	3,200	157	0.680	0.15	2.70	<50	170	<3
6	--	--	--	--	--	--	--	--	--	--
8	--	--	--	--	--	--	--	--	--	--
9	28.5	0.300	29.0	1.50	0.100	--	<0.29	<70	<5	<1
13	89.6	4.49	236	63.1	0.813	--	--	--	--	--
14	99.6	7.85	369	31.6	0.209	--	--	--	--	--
15	80.6	9.00	384	47.3	0.249	--	--	--	--	--
16	61.2	2.69	369	15.8	0.222	--	--	--	--	--
17	--	--	--	--	--	--	--	<70	--	--
18	--	--	--	--	--	--	--	<70	--	--
19	--	--	--	--	--	--	--	<70	--	--
20	--	--	--	--	--	--	--	<70	--	--
21	--	--	--	--	--	--	--	<70	--	--
22	--	--	--	--	--	--	--	<70	--	--
23	--	--	--	--	--	--	--	<70	--	--
24	--	--	--	--	--	--	--	<70	--	--
25	--	--	--	--	--	--	--	<70	--	--
26	--	--	--	--	--	--	--	<70	--	--
27	--	--	--	--	--	--	--	<70	--	--
28	--	--	--	--	--	--	--	<70	--	--
29	--	--	--	--	--	--	--	--	--	--
30	350	6.30	1,700	14.0	0.340	--	<0.29	650	140	--
31	--	--	--	--	--	--	--	--	--	--
33	--	--	--	--	--	--	--	--	--	--
34	--	--	--	--	--	--	--	--	--	--
36	--	--	--	--	--	--	--	--	--	--
38	80.0	1.40	190	12.0	0.700	--	--	170	<10	3.00
39	220	0.700	8.70	10.0	5.60	--	--	20	20.0	8.00
40	73.0	3.10	190	50.0	0.640	--	0.99	<70	<5	<1
41	50.0	2.30	110	30.0	0.530	--	0.41	<70	<5	<1
42	62.3	7.70	120	16.0	0.200	--	--	--	<5	--
43	75.0	2.40	120	35.0	0.410	<0.1	0.14	<70	<10	<20
44	83.0	3.10	130	40.0	0.430	<0.1	0.22	<70	<10	<20
45	93.0	2.90	140	56.0	0.670	<0.1	0.25	<70	<10	<20
46	57.0	0.920	86.0	14.0	0.130	<0.1	0.036	<70	<10	<20
47	23.0	1.20	21.0	2.00	0.290	<0.1	0.047	<70	<10	<20
48	39.0	2.00	60.0	16.0	0.300	<0.1	0.16	<70	<10	<20
49	64.0	2.80	190	44.0	0.330	<0.1	1.06	<70	<10	<20
50	75.5	8.99	362	108	0.929	0.24	1.20	9.1	2.12	--
51	420	4.00	11.2	19.0	0.640	--	0.45	--	<5	--
52	81.0	4.80	29.0	8.80	1.40	--	--	--	--	--
53	67.0	1.90	31.8	6.00	1.10	--	0.61	--	--	--
54	18.0	1.70	9.50	7.80	0.250	--	0.55	--	--	--
55	74.3	5.00	20.0	10.0	0.600	--	--	--	8.00	--
56	96.0	4.70	401	40.6	1.60	--	0.079	--	--	--
57	230	2.10	622	102	5.60	--	0.081	--	--	--
58	51.0	5.30	117	6.30	1.30	--	0.14	--	--	--
59	90.0	6.20	72.2	30.6	1.40	--	0.10	--	--	--
60	130	14.0	60.0	28.3	0.980	--	0.17	--	--	--
61	30.0	--	14.0	5.30	1.00	--	0.21	--	--	--
62	--	--	33.0	12.0	0.600	--	<0.29	--	--	<1
63	93.0	--	--	18.7	--	--	--	--	--	--
64	--	--	--	--	--	--	--	--	--	--
65	260	--	--	30.4	--	--	--	--	--	--
66	320	--	--	64.4	--	--	--	--	--	--
67	195	0.500	30.0	35.0	5.10	--	<0.29	--	--	--
68	140	1.30	140	21.0	1.10	--	0.23	--	--	--
69	350	--	--	--	--	--	--	--	--	--

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Sodium, dissolved (mg/L)	Potassium, dissolved (mg/L)	Sulfate, dissolved (mg/L)	Chloride, dissolved (mg/L)	Fluoride, dissolved (mg/L)	Bromide, dissolved (mg/L)	Nitrite+Nitrate, dissolved (mg/L as N)	Iron, dissolved (ug/L)	Manganese, dissolved (ug/L)	Arsenic, dissolved (ug/L)
70	440	--	--	--	--	--	--	--	--	--
71	160	4.60	69.0	32.0	0.980	--	0.22	--	--	--
72	61.0	1.90	27.0	5.20	0.870	--	0.27	--	--	--
73	95.0	3.60	42.0	5.80	1.30	--	0.34	--	--	--
74	98.0	3.60	45.0	6.10	1.20	--	0.32	--	--	--
75	120	7.20	38.0	7.30	0.440	--	0.27	--	--	--
76	87.0	5.70	180	38.0	0.250	--	0.32	--	--	--
77	249	0.600	20.0	151	3.50	0.90	<0.29	--	--	--
78	205	1.10	20.0	7.00	1.70	<0.1	0.21	--	--	--
79	60.0	0.810	45.4	5.67	1.20	0.080	<0.29	<70	35.0	--
80	80.0	4.70	25.0	10.0	1.00	<0.1	0.29	<70	<10	--
81	28.6	2.94	16.8	3.51	0.820	<0.1	0.41	<70	<5	--
82	24.8	1.99	24.2	7.11	0.680	0.050	3.91	<70	<5	--
83	200	1.07	114	93.1	0.700	0.52	19.45	392	<5	--
84	179	0.706	80.9	65.5	1.60	0.33	12.83	<70	18.9	--
85	215	0.590	56.6	115	3.00	0.55	6.42	<70	44.7	--
86	74.0	2.10	34.0	8.00	0.570	<0.1	<0.29	<70	1,800	--
87	49.5	48.6	70.4	54.8	0.820	0.14	21.42	<70	30.1	--
88	45.9	3.11	18.8	5.42	0.890	0.090	<0.29	<70	459	--
89	197	0.415	8.30	69.3	3.30	0.33	0.11	<70	<5	--
90	--	--	--	12.7	--	--	--	--	--	--
91	249	0.600	20.0	151	3.50	--	<0.29	<70	19.0	0.003
92	55.0	5.20	68.0	9.90	0.880	--	0.34	<70	<5	--
93	200	0.380	1.10	105	3.00	--	<0.29	420	27.0	--
94	96.0	4.70	401	40.6	1.60	--	0.079	2,200	48.0	--
95	230	2.10	622	102	5.60	--	0.081	210	140	--
96	90.0	6.20	72.2	30.6	1.40	--	0.10	1,300	220	--
97	51.0	5.30	117	6.30	1.30	--	0.14	930	14.0	--
98	260	--	--	--	--	--	--	--	--	--
99	130	--	--	--	--	--	--	--	--	--
100	130	--	--	--	--	--	--	--	--	--
101	150	--	--	--	--	--	--	--	--	--
102	66.0	--	--	--	--	--	--	--	--	--
103	41.0	--	--	--	--	--	--	--	--	--
104	96.0	--	--	--	--	--	--	--	--	--
105	84.0	--	--	4.30	--	--	--	--	--	--
106	49.0	--	--	--	--	--	--	--	--	--
107	53.0	--	--	4.80	--	--	--	--	--	--
108	180	<0.5	19.0	26.0	5.00	--	<0.29	310	13.0	--
109	174	0.395	35.7	56.7	4.30	--	<0.29	<70	5.42	--
110	219	0.816	49.0	137	5.50	--	<0.29	<70	6.60	--
111	43.0	1.40	40.0	3.59	1.40	--	0.19	<70	<5	--
112	33.0	3.20	31.1	6.32	0.620	--	<0.29	410	2,100	--
113	260	--	--	--	--	--	--	--	--	--
114	260	--	--	--	--	--	--	--	--	--
115	68.0	--	--	--	--	--	--	--	--	--
116	--	--	--	--	--	--	--	--	--	--
117	160	--	--	--	--	--	--	--	--	--
118	37.0	--	--	32.5	--	--	--	--	--	--
119	86.0	--	--	--	--	--	--	--	--	--
120	140	--	--	35.6	--	--	--	--	--	--
121	190	--	--	--	--	--	--	--	--	--
122	130	--	--	--	--	--	--	--	--	--
123	280	--	--	--	--	--	--	--	--	--
124	130	14.0	60.0	28.3	0.980	--	0.17	270	<5	--
125	210	1.00	19.0	5.70	1.80	--	0.21	<70	<5	--
126	217	1.10	310	46.0	2.40	--	--	30	6.00	0.001
127	32.5	3.44	11.5	4.21	0.740	--	0.095	242	55.2	--
128	150	1.80	98.8	25.3	1.50	--	1.33	290	<5	--
129	143	1.69	113	35.7	1.30	--	1.72	<70	<5	--
130	180	3.30	660	49.0	2.50	--	<0.29	<70	220	--
131	140	4.80	570	55.0	2.70	--	<0.29	6,000	270	--
132	85.8	3.10	50.0	8.00	0.800	--	1.63	40	<5	0.001

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Sodium, dissolved (mg/L)	Potassium, dissolved (mg/L)	Sulfate, dissolved (mg/L)	Chloride, dissolved (mg/L)	Fluoride, dissolved (mg/L)	Bromide, dissolved (mg/L)	Nitrite+Nitrate, dissolved (mg/L as N)	Iron, dissolved (ug/L)	Manganese, dissolved (ug/L)	Arsenic, dissolved (ug/L)
133	35.6	3.34	17.9	3.55	0.640	--	0.52	332	<5	--
134	479	1.40	257	64.9	3.20	--	0.75	<70	234	--
135	47.0	--	--	--	--	--	--	--	--	--
138	--	--	--	--	--	--	--	--	--	--
142	--	--	--	--	--	--	--	--	--	--
143	56.0	4.10	88.0	15.0	0.470	--	0.54	--	--	--
144	68.0	5.40	58.0	4.61	0.530	--	0.32	--	--	--
145	45.5	3.90	120	18.0	0.400	--	--	--	<5	--
146	60.0	2.60	100	5.00	0.220	<0.1	0.12	<70	<10	--
147	620	2.90	18,000	50.0	0.660	--	<0.29	<70	150	--
148	340	4.90	1,600	12.0	0.400	--	<0.29	640	48.0	--
149	33.0	2.70	73.0	4.30	0.260	--	0.059	<70	<5	--
150	36.0	3.40	96.0	5.40	0.280	--	0.084	<70	<5	--
151	140	5.10	960	36.0	0.310	--	0.013	<70	<5	--
152	190	7.80	496	21.4	<0.5	--	3.03	--	--	--
153	354	3.20	880	130	1.10	--	--	--	--	--
154	--	--	--	--	--	--	--	--	--	--
155	170	3.60	220	4.80	0.420	--	0.88	--	--	--
157	116	3.90	172	9.00	0.400	--	--	--	--	--
158	150	3.17	106	5.71	0.353	0.049	6.73	16	35.0	--
159	105	3.40	180	9.59	0.378	0.094	3.03	5.6	<0.2	--
161	170	0.800	70.0	14.0	3.80	--	0.11	--	--	--
162	305	0.548	302	43.4	2.37	0.36	0.20	3.0	8.79	--
163	538	1.70	748	70.9	2.52	0.79	0.17	39	12.4	--
164	395	1.53	176	126	4.07	0.90	<0.038	92	73.5	--
165	164	1.64	140	24.4	1.96	0.19	0.25	9.2	<0.2	--
166	365	1.30	430	29.0	2.30	--	--	--	<5	--
167	224	2.40	600	47.0	1.00	--	--	--	56.0	--
168	138	1.70	29.7	99.9	0.900	--	--	--	--	--
169	--	--	--	--	--	--	--	--	--	--
169	125	0.400	75.4	22.4	--	--	--	--	--	--
170	510	6.10	910	210	0.270	--	0.25	--	--	--
171	443	3.00	740	460	1.10	--	--	--	--	--
172	340	6.60	600	69.0	1.10	--	0.099	--	--	--
173	1,300	3.20	2,600	91.0	0.990	--	0.077	--	--	--
174	279	1.20	140	79.0	1.40	--	<0.29	--	--	--
175	170	3.70	1,000	18.0	0.670	--	0.59	--	--	--
176	144	0.800	94.2	7.50	0.900	--	--	--	--	--
177	829	3.60	1,490	172	4.00	--	--	--	--	--
178	980	3.50	2,600	98.0	3.90	--	7.23	--	--	--
179	408	3.10	538	85.0	1.30	--	--	--	--	--
180	520	1.60	470	170	0.900	--	<0.29	--	--	--
181	1,700	4.40	2,700	110	1.00	--	0.32	--	--	--
182	390	0.700	116	143	--	--	--	--	--	--
182	--	--	--	--	--	--	--	--	--	--
183	289	5.60	1,530	130	0.400	--	--	--	--	--
184	--	--	--	--	--	--	--	--	--	--
185	387	3.00	225	82.4	0.900	--	--	--	--	--
186	69.7	3.70	28.6	8.80	0.300	--	--	--	--	--
187	230	0.610	23.3	171	10.4	--	0.023	--	--	--
187	--	--	--	--	--	--	--	--	--	--
188	300	0.570	77.3	16.0	0.780	--	0.28	--	--	--
189	316	1.00	170	110	--	--	--	--	--	--
189	--	--	--	--	--	--	--	--	--	--
191	920	1.80	2,100	110	1.60	--	0.029	--	--	--
192	89.0	8.10	197	6.80	--	--	--	--	--	--
193	200	1.70	550	16.0	1.10	--	0.56	--	--	--
194	130	0.790	120	13.0	0.890	--	0.25	--	--	--
195	620	1.50	64.6	873	--	--	--	--	--	--
196	760	4.70	1,200	110	1.00	--	0.17	--	--	--
197	706	3.70	1,100	170	--	--	--	--	--	--
198	667	2.00	1,310	128	1.30	--	--	--	--	--
199	324	17.0	2,500	125	<0.5	--	--	--	--	--

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Sodium, dissolved (mg/L)	Potassium, dissolved (mg/L)	Sulfate, dissolved (mg/L)	Chloride, dissolved (mg/L)	Fluoride, dissolved (mg/L)	Bromide, dissolved (mg/L)	Nitrite+Nitrate, dissolved (mg/L as N)	Iron, dissolved (ug/L)	Manganese, dissolved (ug/L)	Arsenic, dissolved (ug/L)
200	340	2.40	390	48.0	1.40	--	0.099	--	--	--
201	--	--	--	--	--	--	--	--	--	--
201	122	0.700	71.6	10.6	--	--	--	--	--	--
202	190	2.60	660	34.0	0.810	--	0.16	--	--	--
203	492	1.50	479	111	1.50	--	--	--	--	--
203	--	--	--	--	--	--	--	--	--	--
204	940	3.80	1,000	260	0.860	--	7.45	--	--	--
205	356	1.00	116	231	2.00	--	--	--	--	--
205	--	--	--	--	--	--	--	--	--	--
206	275	0.700	240	30.0	1.90	<0.1	0.14	--	--	--
207	--	--	--	--	--	--	--	--	--	--
208	200	1.50	229	12.6	--	--	1.93	--	--	--
209	250	3.70	--	32.0	0.360	--	6.00	--	--	--
211	110	1.80	130	29.0	0.220	--	23.00	--	--	--
213	57.0	0.960	14.0	7.60	--	--	<0.29	--	--	--
214	783	1.31	96.2	1,280	3.50	--	<0.29	--	--	--
214	--	--	--	--	--	--	--	--	--	--
215	757	1.80	<5	1,160	1.70	--	<0.29	--	--	--
216	909	2.10	40.0	1,790	--	--	--	--	--	--
216	--	--	--	--	--	--	--	--	--	--
217	81.5	1.40	160	49.0	1.20	--	0.12	--	--	--
218	190	1.20	20.0	115	2.90	--	0.009	--	--	--
219	162	3.50	300	70.0	<0.5	--	--	--	--	--
220	438	1.70	265	277	3.50	--	--	--	--	--
221	690	2.20	1,300	150	1.00	--	0.027	--	--	--
222	451	2.60	468	389	2.30	--	--	--	--	--
223	--	--	--	--	--	--	--	--	--	--
224	170	2.48	638	77.5	0.710	--	<0.29	<70	364	--
225	340	3.60	383	46.7	1.50	--	1.86	490	<5	--
226	450	1.30	6.00	560	6.00	--	<0.29	<70	280	--
227	1,000	5.40	1,600	400	1.20	--	0.43	--	--	--
228	291	0.800	55.9	203	6.70	--	--	--	--	--
228	--	--	--	--	--	--	--	--	--	--
229	400	4.40	1,000	35.0	1.60	--	--	--	--	--
230	289	4.23	578	157	0.840	--	0.38	<70	<5	--
231	160	3.30	123	4.50	--	--	--	<70	<5	--
232	420	1.80	87.0	187	2.20	--	0.42	<70	<5	--
233	69.0	2.40	130	6.60	0.340	--	0.41	<70	<5	--
234	330	8.50	1,380	25.8	--	--	--	310	150	--
235	--	--	--	--	--	--	--	--	--	--
236	480	160	600	136	2.30	--	0.50	--	--	--
237	213	4.10	80.0	117	1.10	--	--	20	<5	0.001
238	365	6.67	220	154	5.50	--	<0.29	<70	35.3	--
239	74.0	3.90	120	3.70	0.240	--	0.072	71	12.0	--
240	215	0.800	130	65.0	1.30	--	--	180	<5	0.004
241	78.3	0.800	90.0	11.0	0.500	--	0.39	--	<5	--
242	144	0.600	90.0	24.0	1.10	--	<0.29	--	493	--
243	122	3.60	200	9.00	0.400	--	--	--	<5	--
244	149	3.00	110	24.0	0.500	<0.1	0.032	--	--	--
245	59.5	0.900	20.0	14.0	0.900	--	--	--	31.0	--
246	219	1.68	687	49.9	1.00	--	2.18	<70	6.10	--
247	170	2.60	74.0	15.0	1.00	--	0.027	<70	13.0	<1
248	745	1.80	1,040	140	1.70	--	--	--	--	--
249	717	1.50	1,510	130	1.70	2.00	--	--	--	--
250	340	5.00	830	290	0.510	--	3.39	--	--	--
251	578	3.20	820	190	2.00	--	--	--	--	--
252	349	3.20	204	73.5	2.30	--	--	--	--	--
253	576	1.90	750	80.0	2.70	--	--	--	--	--
254	677	1.60	1,080	250	4.20	--	--	--	--	--
255	490	1.20	747	86.5	3.40	--	<0.29	--	14.0	--
256	330	0.560	77.0	150	5.10	1.10	0.093	--	--	--
256	--	--	--	--	--	--	--	--	--	--
257	500	3.70	660	98.0	1.60	<0.1	<0.29	--	--	--
258	266	1.20	79.1	69.3	3.10	--	--	--	--	--

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Sodium, dissolved (mg/L)	Potassium, dissolved (mg/L)	Sulfate, dissolved (mg/L)	Chloride, dissolved (mg/L)	Fluoride, dissolved (mg/L)	Bromide, dissolved (mg/L)	Nitrite+Nitrate, dissolved (mg/L as N)	Iron, dissolved (ug/L)	Manganese, dissolved (ug/L)	Arsenic, dissolved (ug/L)
259	700	3.00	1,300	73.0	1.50	<0.1	0.075	--	--	--
259	--	--	--	--	--	--	--	--	--	--
260	134	1.60	38.3	28.1	2.50	--	--	--	--	--
261	57.5	1.60	6.10	8.80	0.900	--	--	--	--	--
262	213	4.10	80.0	117	1.10	0.80	1.38	--	--	--
263	378	1.50	<5	321	2.70	1.00	0.009	--	--	--
264	--	--	--	--	--	--	--	--	--	--
264	145	2.80	101	12.0	0.500	--	--	--	--	--
265	319	1.50	160	26.0	1.00	0.20	<0.29	--	--	--
266	238	0.500	60.0	260	9.50	2.00	0.23	--	--	--
267	218	3.81	1,110	20.2	0.660	--	2.06	<70	5.97	--
268	220	1.80	430	15.0	0.930	--	--	<70	11.0	<1
269	1,500	3.10	1,720	151	--	--	--	730	19.0	--
270	1,300	3.10	--	97.0	4.00	--	4.74	<70	<5	--
271	920	3.60	1,900	100	3.00	--	5.42	<70	<5	--
272	--	--	720	99.0	--	--	--	--	--	--
273	250	0.810	80.0	97.0	3.50	<0.1	0.084	<70	<10	<20
274	250	2.30	77.2	131	4.90	0.70	0.36	5,800	450	--
275	270	4.20	140	78.0	2.60	<0.1	0.27	<70	800	--
276	520	1.60	830	62.0	1.20	<0.1	<0.29	<70	22.0	--
277	633	1.53	911	263	3.30	2.40	2.01	<70	27.5	--
278	312	2.17	459	65.5	1.80	0.80	0.59	<70	<5	--
279	756	4.64	1,380	287	1.20	3.14	2.78	<70	<5	--
280	439	1.07	514	173	1.20	1.10	<0.29	<70	5.93	--
281	490	2.40	168	47.4	2.80	0.30	0.67	<70	<10	--
282	510	1.30	299	492	2.20	2.76	<0.29	<70	113	--
283	300	1.00	11.0	390	8.00	1.80	<0.29	--	14.0	--
284	170	0.950	--	--	--	--	0.063	<70	<10	--
285	320	0.660	320	29.0	1.70	<0.1	<0.29	<70	11.0	<20
286	374	0.644	316	111	4.00	0.69	3.73	<70	<5	--
287	560	1.50	600	380	2.50	3.80	0.036	<70	<10	--
288	170	0.800	70.0	14.0	3.80	--	--	40	24.0	0.003
289	110	2.40	190	5.90	0.330	--	0.086	<70	130	--
290	220	11.0	300	38.0	0.430	--	0.27	290	<5	--
291	80.0	1.80	157	20.3	0.590	--	2.35	820	<5	--
292	100	3.20	172	16.7	<0.5	--	1.31	5,800	86.0	--
293	140	6.70	378	61.4	0.540	--	4.86	110,000	980	--
294	130	2.60	170	23.0	0.420	--	0.50	<70	<5	--
295	230	4.20	624	86.1	0.920	--	18.09	1,500	31.0	--
296	47.4	1.20	50.0	6.00	0.800	--	--	<70	<5	<1
297	238	0.700	70.0	45.0	2.60	--	--	<70	<5	0.004
298	149	3.00	110	24.0	0.500	--	--	<70	191	0.001
299	340	2.60	560	97.0	1.00	--	<0.29	<70	1,600	--
300	660	1.30	190	663	4.60	2.75	<0.29	220	73.0	--
301	640	1.30	189	661	4.70	2.74	<0.29	210	69.0	--
302	--	--	--	6.90	--	--	--	--	--	--
303	320	2.00	310	180	3.90	--	2.10	2,000	20.0	--
304	990	--	2,700	150	1.20	1.50	0.79	<70	130	--
305	550	2.30	870	--	0.730	<0.1	<0.29	<70	14.0	--
306	340	1.00	260	--	2.80	<0.1	<0.29	<70	48.0	--
307	388	1.10	196	348	5.40	--	<0.29	<70	51.8	--
308	250	0.810	80.0	97.0	3.50	--	0.084	<70	<5	<1
309	400	1.40	200	150	1.30	--	0.54	<70	<5	--
310	610	1.70	<2.5	1,000	4.70	6.00	<0.29	<70	54.0	--
311	240	0.580	77.0	100	1.50	--	<0.29	110	18.0	--
312	170	5.80	130	5.00	0.330	--	0.27	<70	280	--
313	940	5.50	820	750	1.10	--	0.047	1,600	53.0	--
314	520	3.60	930	810	0.990	--	0.99	260	<5	--
315	95.0	11.0	142	9.90	--	--	--	14,000	74.0	--
316	930	1.90	<2.5	1,560	2.40	4.00	<0.29	300	200	--
317	490	2.70	530	110	1.10	--	<0.29	160	16.0	--
318	130	0.810	110	42.6	1.10	--	0.10	840	30.0	--
319	220	2.40	--	--	--	--	0.32	<70	42.0	--
320	91.0	2.05	58.0	11.1	1.80	--	0.25	<70	<5	--

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Sodium, dissolved (mg/L)	Potassium, dissolved (mg/L)	Sulfate, dissolved (mg/L)	Chloride, dissolved (mg/L)	Fluoride, dissolved (mg/L)	Bromide, dissolved (mg/L)	Nitrite+Nitrate, dissolved (mg/L as N)	Iron, dissolved (ug/L)	Manganese, dissolved (ug/L)	Arsenic, dissolved (ug/L)
321	480	1.40	452	127	2.30	--	3.34	220	14.0	--
322	360	1.40	420	56.0	1.60	<0.1	0.20	<70	<10	--
323	348	1.30	150	195	1.20	--	6.37	<70	13.0	0.002
324	758	3.25	1,070	293	0.910	--	16.85	<70	<5	--
325	380	0.750	44.0	500	4.40	--	<0.29	160	45.0	--
326	350	0.910	180	170	2.60	--	0.86	300	20.0	--
327	510	1.70	20.0	790	3.90	5.60	0.41	<70	<10	--
328	200	1.30	240	9.70	1.40	<0.1	0.32	<70	<10	<20
329	380	1.40	150	280	2.10	--	0.25	130	25.0	--
330	191	2.40	130	12.0	1.00	--	--	<70	<5	0.001
331	378	1.50	<2.5	321	2.70	--	0.040	<70	37.0	0.002
332	1,100	3.09	2,670	92.7	1.50	1.13	1.01	<70	59.1	--
333	290	0.590	--	--	--	--	<0.29	<70	43.0	<20
334	702	1.96	1,350	154	1.50	--	<0.29	<70	136	--
335	120	0.600	64.0	17.0	1.00	--	<0.29	<70	260	--
336	110	0.500	64.0	17.0	0.920	--	<0.29	<70	210	--
337	277	0.600	200	214	4.50	--	0.64	20	10.0	0.004
338	757	1.80	<2.5	1,160	1.70	--	<0.29	150	90.0	0.003
339	244	5.43	1,520	114	0.490	--	0.39	<70	25.0	--
340	468	2.20	730	158	1.40	--	<0.29	160	404	0.002
341	2,100	4.40	160	3,500	1.90	--	--	260	27.0	--
342	200	1.50	140	18.0	--	--	--	110	--	--
343	300	1.60	140	24.0	1.80	--	--	--	--	--
344	304	0.975	246	132	5.40	--	<0.29	<70	16.9	--
345	--	--	--	--	--	--	--	--	--	--
346	1,300	4.08	2,890	115	1.80	--	1.56	<70	6.61	--
347	232	0.500	80.0	20.0	1.20	--	<0.29	70	155	0.002
348	160	2.20	760	28.0	0.510	--	--	470	510	--
349	210	2.20	30.0	14.0	1.60	--	--	30	<5	0.001
350	190	1.60	40.0	25.0	1.40	--	--	<70	<5	0.002
351	1,400	6.70	3,200	84.0	0.860	--	0.13	--	--	--
352	410	1.30	190	210	1.70	--	0.79	<70	28.0	--
353	560	2.00	981	52.7	1.20	--	0.066	2,100	460	--
354	160	2.40	630	28.0	0.210	--	<0.29	110	330	<1
355	280	3.10	980	210	0.260	--	0.034	<70	1,000	<1
356	540	1.10	245	101	1.60	--	7.59	<70	<5	--
357	350	3.00	899	113	0.910	--	0.17	1,400	300	--
358	400	2.90	1,300	89.0	0.800	--	<0.29	2,500	360	--
359	530	1.80	780	89.0	2.00	--	0.41	<70	36.0	--
360	--	--	--	--	--	--	--	--	--	--
361	211	0.411	17.6	135	11.0	--	<0.29	<70	10.4	--
362	390	0.470	186	174	4.10	--	0.099	<70	190	--
363	660	1.60	101	1,030	4.00	--	<0.29	440	170	--
364	783	1.31	96.2	1,280	3.50	--	<0.29	<70	79.8	--
365	650	1.35	882	137	1.90	--	0.70	<70	41.6	--
366	170	2.80	91.6	12.6	0.650	--	0.99	2,100	31.0	--
367	433	1.80	<2.5	590	4.20	--	<0.29	30	51.0	0.009
368	319	1.50	160	26.0	1.00	--	<0.29	<70	<5	0.001
369	190	7.90	420	20.0	0.350	--	0.38	<70	64.0	<1
370	110	3.00	101	12.0	1.10	--	0.18	<70	<5	--
371	106	3.00	110	16.0	0.900	--	--	<70	10.0	0.001
372	430	1.80	689	48.3	2.50	--	2.89	840	22.0	--
373	300	0.570	77.3	16.0	0.780	--	0.28	370	110	--
374	68.0	1.30	77.0	20.0	0.610	--	0.38	<70	<5	--
375	238	0.500	60.0	260	9.50	--	1.04	130	20.0	0.009
376	--	--	--	--	--	--	--	--	--	--
377	629	2.69	842	172	2.40	--	<0.29	<70	19.5	--
378	620	1.50	64.6	873	--	--	--	220	<5	--
379	1,600	6.70	130	3,100	<0.5	--	<0.29	800	40.0	--
380	360	1.10	320	81.0	2.60	--	0.77	<70	<5	--
381	690	4.50	1,290	151	2.60	--	0.74	270	<5	--
382	470	2.80	450	26.0	0.950	--	--	130	72.0	--
383	583	4.72	884	181	1.30	--	0.68	<70	<5	--

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Sodium, dissolved (mg/L)	Potassium, dissolved (mg/L)	Sulfate, dissolved (mg/L)	Chloride, dissolved (mg/L)	Fluoride, dissolved (mg/L)	Bromide, dissolved (mg/L)	Nitrite+Nitrate, dissolved (mg/L as N)	Iron, dissolved (ug/L)	Manganese, dissolved (ug/L)	Arsenic, dissolved (ug/L)
384	260	1.70	236	82.9	2.40	--	0.070	<70	38.0	--
385	110	2.60	200	10.0	0.360	--	<0.29	<70	<5	--
386	1,100	4.40	1,200	220	0.580	--	9.04	520	8,900	--
387	520	2.30	17.0	820	2.90	--	<0.29	4,000	51.0	--
388	190	1.20	20.0	115	2.90	--	--	20	16.0	0.004
389	--	0.920	17.0	24.0	1.30	--	<0.29	<70	<5	--
390	99.0	1.00	19.0	20.0	1.40	--	--	<70	<5	--
391	131	1.23	154	9.40	2.70	--	0.19	<70	<5	--
392	1,300	4.08	2,890	115	1.80	--	1.56	<70	6.61	--
393	280	6.30	1,500	94.0	0.410	--	0.11	<70	140	--
394	460	1.44	292	98.3	2.30	--	23.72	<70	8.76	--
395	834	1.85	1,780	118	0.440	--	0.33	<70	7.19	--
396	762	1.90	1,480	114	1.90	--	0.034	60	50.0	--
397	110	3.30	160	6.00	0.370	--	0.38	67	39.0	--
398	88.0	8.00	203	6.50	0.430	--	1.59	2,100	100	--
399	160	3.00	110	4.10	0.370	--	0.59	200	--	--
400	160	3.20	130	16.0	--	--	0.38	520	94.0	--
401	273	0.639	70.4	136	6.70	--	<0.29	<70	11.0	--
402	444	1.07	654	84.9	3.00	--	<0.29	<70	12.5	--
403	275	0.700	240	30.0	1.90	--	--	<70	<5	0.002
404	279	1.20	140	79.0	1.40	--	<0.29	30	72.0	0.001
405	84.5	1.20	40.0	15.0	0.700	--	--	170	<5	0.001
406	334	1.03	230	55.0	3.70	--	<0.29	<70	5.23	--
407	329	1.30	150	30.0	1.80	--	<0.29	40	28.0	0.002
408	--	--	--	--	--	--	--	--	--	--
409	540	1.80	1,200	15.0	0.600	--	--	310	80.0	--
410	--	--	--	--	--	--	--	--	--	--
414	100	3.00	190	19.0	1.00	--	--	30	<10	--
415	84.0	2.90	170	19.0	1.00	--	--	<10	<10	2.00
416	120	3.50	260	22.0	1.20	--	--	<10	<10	3.00
417	--	--	--	--	--	--	--	--	--	--
418	--	--	--	--	--	--	--	--	--	--
419	450	0.600	23.0	13.0	11.0	--	--	50	8.00	60.0
420	9.60	9.50	20.0	3.30	0.200	--	--	70	40.0	--
428	120	3.40	150	39.0	0.360	--	0.56	--	--	--
429	14.9	2.30	1,110	<1	0.300	--	--	--	<5	--
430	10.0	<0.5	29.0	3.00	<0.5	--	--	--	--	--
432	162	0.600	260	13.0	1.30	--	<0.29	--	30.0	--
433	30.7	5.50	50.0	13.0	0.200	--	--	--	<5	--
434	61.0	5.10	62.0	11.0	0.340	--	0.16	--	--	--
435	110	1.70	90.0	12.0	1.00	--	0.50	--	--	--
436	630	3.10	1,200	140	0.840	--	0.043	--	--	--
437	33.0	1.50	80.0	13.0	<0.1	--	1.60	--	--	--
438	8.10	1.30	90.0	3.00	0.100	--	--	--	<5	--
439	180	3.10	210	115	1.30	--	0.83	--	--	--
440	--	--	--	--	--	--	--	--	--	--
441	270	<0.5	130	70.0	3.40	<0.1	<0.29	--	--	--
442	546	8.20	2,310	200	0.700	--	--	--	--	--
443	230	3.90	390	29.0	1.00	0.21	--	--	--	--
444	330	3.20	190	30.0	0.360	--	0.23	--	--	--
445	380	1.30	508	31.8	3.10	--	0.10	--	--	--
446	15.0	<0.5	51.0	<1	<0.5	--	<0.29	--	--	--
447	18.0	<0.5	49.0	<1	<0.5	--	<0.29	--	--	--
447	--	--	--	--	--	--	--	--	--	--
448	9.60	<0.5	25.0	<1	<0.5	--	<0.29	--	--	--
448	--	--	--	--	--	--	--	--	--	--
449	380	<0.5	430	25.0	2.50	<0.1	--	--	--	--
450	57.0	<0.5	74.0	3.80	0.590	<0.1	<0.29	--	--	--
451	29.0	<0.5	51.0	7.80	0.650	<0.1	--	--	--	--
452	200	<0.5	110	9.50	1.40	<0.1	--	--	--	--
453	120	<0.5	130	26.0	1.20	<0.1	--	--	--	--
453	--	--	--	--	--	--	--	--	--	--
454	210	<0.5	150	19.0	1.70	<0.1	<0.29	--	--	--

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Sodium, dissolved (mg/L)	Potassium, dissolved (mg/L)	Sulfate, dissolved (mg/L)	Chloride, dissolved (mg/L)	Fluoride, dissolved (mg/L)	Bromide, dissolved (mg/L)	Nitrite+Nitrate, dissolved (mg/L as N)	Iron, dissolved (ug/L)	Manganese, dissolved (ug/L)	Arsenic, dissolved (ug/L)
454	--	--	--	--	--	--	--	--	--	--
455	191	2.10	48.1	1.20	--	--	0.18	--	--	--
456	15.0	2.80	58.0	3.70	--	--	<0.01	--	--	--
457	--	--	--	--	--	--	--	--	--	--
458	--	--	--	--	--	--	--	--	--	--
459	--	--	--	--	--	--	--	--	--	--
460	28.0	2.80	16.3	11.5	<0.5	--	0.42	--	--	--
461	--	--	--	--	--	--	--	--	--	--
462	57.5	3.40	64.0	43.9	0.400	--	--	--	--	--
463	46.0	3.80	34.2	14.4	0.430	--	1.13	--	--	--
464	21.0	2.70	15.7	11.4	<0.5	--	1.56	--	--	--
465	4,000	590	99.0	4,500	2.30	15.00	--	3,000	40.0	160
466	22.6	3.30	20.0	<1	0.300	--	--	--	<5	--
468	--	--	--	--	--	--	--	--	--	--
469	45.0	3.10	20.8	12.1	<0.5	--	2.28	--	--	--
470	29.0	4.00	13.0	7.30	0.360	--	0.045	--	--	--
471	82.0	4.30	43.5	12.3	<0.5	--	0.54	--	--	--
472	28.0	2.80	15.0	9.10	0.360	--	0.23	--	--	--
473	--	3.00	20.5	12.0	--	--	--	--	--	--
474	--	3.40	34.4	14.9	--	--	--	--	--	--
475	--	2.80	14.7	4.70	--	--	--	--	--	--
476	70.4	5.10	32.6	12.9	0.200	--	--	--	--	--
477	150	0.720	24.0	4.50	0.390	--	--	--	--	--
478	90.0	2.50	54.4	9.30	<0.5	--	0.32	--	--	--
479	--	--	--	--	--	--	--	--	--	--
480	--	--	--	--	--	--	--	--	--	--
481	26.0	2.80	16.3	10.4	<0.5	--	2.01	--	--	--
482	29.0	3.00	15.5	8.58	<0.5	--	1.59	--	--	--
483	27.0	2.80	15.1	7.33	<0.5	--	0.77	--	--	--
484	--	--	--	--	--	--	--	--	--	--
485	25.0	3.00	14.0	9.00	0.410	--	0.11	--	--	--
486	66.0	3.70	24.0	20.5	<0.5	--	2.91	<70	<5	--
487	18.0	2.60	13.0	7.30	0.250	--	--	550	<5	--
488	66.6	5.80	210	21.0	0.300	--	--	--	<5	--
489	--	--	--	--	--	--	--	--	--	--
490	--	--	--	--	--	--	--	--	--	--
491	57.0	4.60	30.7	21.4	0.430	--	4.80	--	10.0	--
492	81.0	3.90	66.0	62.0	0.260	--	--	--	--	--
493	146	2.90	72.7	110	0.400	--	--	--	--	--
494	130	1.60	24.3	22.0	1.70	--	0.052	--	--	--
495	110	4.90	92.8	119	0.750	--	2.46	--	--	--
496	64.0	2.90	29.7	7.56	<0.5	--	<0.29	--	--	--
497	24.0	2.70	15.7	11.6	<0.5	--	1.40	--	--	--
498	35.0	2.50	14.3	7.71	0.440	--	0.52	--	--	--
499	69.0	2.40	20.4	7.08	0.460	--	0.13	--	--	--
500	64.0	2.50	67.2	8.50	<0.5	--	0.41	--	--	--
501	100	7.40	240	<1	0.580	--	0.72	--	--	--
502	26.1	10.0	48.0	6.50	0.570	<0.1	0.40	--	--	--
503	--	--	56.0	16.0	<0.5	<0.1	0.14	--	--	--
504	130	2.60	64.0	92.0	0.400	<0.1	0.68	<70	<10	<20
505	28.0	4.10	14.0	8.50	0.140	<0.1	0.081	<70	<10	<20
506	26.0	2.80	16.3	10.4	<0.5	--	2.01	<70	<5	--
507	19.0	2.20	14.0	10.0	0.240	--	0.14	--	--	--
508	28.0	3.30	17.0	15.0	0.370	--	0.50	--	--	--
509	1,600	5.50	260	2,800	0.360	--	--	61	--	--
510	1,600	5.30	250	2,400	0.670	--	0.38	<70	10.0	--
511	29.0	3.00	15.5	8.58	<0.5	--	1.59	250	<5	--
512	67.0	5.80	31.0	10.0	0.360	--	0.63	120	18.0	--
513	28.0	2.80	13.0	4.70	0.250	--	0.029	<70	<5	--
514	34.0	3.10	26.0	22.4	<0.4	--	3.46	260	18.0	--
515	130	0.930	24.0	5.60	0.350	--	<0.29	<70	<5	<1
516	90.0	2.50	54.4	9.30	<0.5	--	0.32	<70	<5	--
517	54.0	3.70	38.0	19.0	0.410	--	0.54	--	--	--
518	21.0	2.90	17.0	15.0	0.220	--	0.14	<70	<5	<1
519	25.0	3.20	14.0	10.0	0.200	--	0.13	<70	<5	<1

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Sodium, dissolved (mg/L)	Potassium, dissolved (mg/L)	Sulfate, dissolved (mg/L)	Chloride, dissolved (mg/L)	Fluoride, dissolved (mg/L)	Bromide, dissolved (mg/L)	Nitrite+Nitrate, dissolved (mg/L as N)	Iron, dissolved (ug/L)	Manganese, dissolved (ug/L)	Arsenic, dissolved (ug/L)
520	52.0	4.00	22.0	170	0.130	--	0.50	<70	<5	<1
521	86.0	5.30	34.0	10.0	0.320	--	1.06	<70	10.0	--
522	54.0	3.30	27.0	14.0	0.320	--	0.68	390	16.0	--
523	70.0	4.80	150	6.50	0.360	--	0.79	<70	<5	--
524	20.0	2.80	14.0	11.0	0.330	--	0.21	84	<5	--
525	82.0	4.30	43.5	12.3	<0.5	--	0.54	220	33.0	--
526	--	--	--	--	--	--	--	--	--	--
527	26.0	2.80	14.0	12.0	0.240	--	0.21	<70	<5	<1
528	64.0	2.90	29.7	7.56	<0.5	--	<0.29	290	20.0	--
529	72.0	2.60	43.0	40.0	0.270	--	<0.29	<70	<5	<1
530	284	8.70	2,280	115	1.80	--	1.79	<70	942	--
531	39.0	3.00	20.5	12.0	--	--	--	<70	<5	--
532	53.0	4.50	30.0	17.3	<0.5	--	0.32	250	25.0	--
533	22.0	2.80	14.0	7.80	0.340	--	0.20	--	--	--
534	50.0	5.80	210	3.80	0.320	--	0.68	3,500	120	--
535	60.0	6.00	190	7.90	0.460	--	0.59	<70	88.0	--
536	22.0	2.40	15.0	7.40	0.150	--	0.084	<70	<5	<1
537	30.0	2.50	14.0	8.60	0.290	--	0.21	<70	<5	--
538	54.0	3.40	34.4	14.9	--	--	--	<70	<5	--
539	68.0	2.60	19.0	6.90	0.270	--	0.063	<70	11.0	<1
540	28.0	3.40	16.0	31.0	0.260	--	0.68	<70	<5	--
541	71.0	5.60	27.0	22.0	0.420	--	1.06	--	--	--
542	64.0	2.50	67.2	8.50	<0.5	--	0.41	<70	<5	--
543	28.0	2.90	20.0	13.0	0.210	--	0.22	<70	<5	<1
544	--	--	--	--	--	--	--	--	--	--
558	--	--	--	--	--	--	--	--	--	--
559	230	4.10	720	17.0	1.30	--	--	2,400	440	1.00
560	--	--	--	--	--	--	--	--	--	--
561	--	--	--	--	--	--	--	--	--	--
562	25.0	2.20	877	353	<0.5	--	0.24	--	<5	--
563	73.9	2.80	160	11.0	0.800	--	--	--	<5	--
564	--	--	--	--	--	--	--	--	--	--
565	--	--	--	--	--	--	--	--	--	--
566	--	--	--	--	--	--	--	--	--	--
569	--	--	--	--	--	--	--	--	--	--
570	194	4.90	700	17.0	1.00	--	--	--	206	--
571	178	4.20	590	19.0	1.10	--	--	--	331	--
572	81.2	3.40	150	11.0	1.10	--	--	--	<5	--
573	44.0	2.20	10.0	2.00	0.400	--	--	--	<5	--
574	--	--	--	--	--	--	--	--	--	--
575	170	2.80	280	230	0.400	--	<0.29	<70	69.0	--
576	159	6.30	620	49.0	0.400	--	--	--	<5	--
577	48.8	3.10	110	8.00	0.300	--	--	--	<5	--
578	68.4	4.30	20.0	3.00	0.400	--	--	--	<5	--
579	34.0	2.50	27.0	3.90	0.220	--	0.20	640	<5	--
580	470	4.50	1,340	60.0	0.600	--	--	--	<10	--
581	120	2.10	200	4.80	0.240	--	0.23	--	--	--
582	180	3.00	470	13.0	0.240	--	0.32	--	--	--
583	200	4.00	930	58.0	0.290	--	3.84	--	--	--
584	130	3.00	540	34.0	0.290	--	2.03	--	--	--
585	180	4.20	470	24.0	0.460	--	0.12	--	--	--
586	61.0	2.70	120	9.10	0.260	--	0.41	--	--	--
587	150	4.40	640	41.0	0.280	--	2.48	--	--	--
588	110	3.80	210	15.0	0.360	--	0.13	--	--	--
589	61.0	3.20	110	8.50	0.260	--	0.29	--	--	--
590	62.0	3.80	59.0	5.40	0.330	--	0.32	--	--	--
591	89.0	3.40	49.0	2.70	0.360	--	0.077	--	--	--
592	95.0	4.50	55.0	3.40	0.400	--	0.097	--	--	--
593	82.0	4.30	95.0	2.70	0.320	--	0.11	--	--	--
594	110	4.80	170	5.10	0.200	--	0.11	--	--	--
595	110	4.40	190	4.60	0.200	--	0.11	--	--	--
596	78.0	4.80	40.0	7.50	0.430	--	0.27	--	--	--
597	45.0	4.40	29.0	7.10	0.190	--	0.17	--	--	--
598	98.0	4.70	50.0	5.10	0.350	--	0.23	--	--	--
599	130	6.70	190	20.0	<0.5	0.26	0.38	--	--	--

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Sodium, dissolved (mg/L)	Potassium, dissolved (mg/L)	Sulfate, dissolved (mg/L)	Chloride, dissolved (mg/L)	Fluoride, dissolved (mg/L)	Bromide, dissolved (mg/L)	Nitrite+Nitrate, dissolved (mg/L as N)	Iron, dissolved (ug/L)	Manganese, dissolved (ug/L)	Arsenic, dissolved (ug/L)
600	120	5.00	130	10.0	<0.5	<0.1	0.50	--	--	--
601	20.5	5.22	14.0	<1	0.710	0.88	<0.29	170	<10	2.00
602	320	<0.5	390	49.0	0.250	--	0.38	<70	<5	--
603	38.0	7.40	40.0	4.70	0.200	--	0.17	<70	<5	<1
604	560	1.60	1,200	45.0	0.990	--	<0.29	<70	31.0	--
605	480	6.60	1,600	76.0	0.520	--	<0.29	<70	150	--
606	480	6.60	1,700	76.0	0.520	--	0.14	<70	250	--
607	89.0	5.20	190	28.0	0.480	--	0.56	<70	<5	--
608	990	4.80	2,700	150	1.20	--	0.79	<70	130	--
609	140	2.80	350	23.0	0.530	--	0.075	<70	<5	<1
610	44.0	4.20	26.0	3.50	0.280	--	0.086	<70	<5	--
611	50.0	4.40	26.0	3.70	0.260	--	0.14	<70	<5	--
612	120	4.60	28.0	1.00	0.220	--	0.059	<70	<5	--
613	60.0	5.40	12.0	<1	0.510	--	0.066	<70	<5	--
614	94.0	4.40	47.0	2.20	0.410	--	0.23	<70	<5	--
615	171	4.90	484	19.7	--	--	0.060	--	--	--
616	100	6.40	89.5	9.40	0.540	--	1.70	--	--	--
617	94.0	6.30	97.1	15.0	0.510	--	1.20	--	--	--
623	166	6.42	713	14.2	0.327	0.12	1.50	11	0.24	--
624	174	4.47	1,595	13.4	0.348	0.079	0.076	4.6	10.1	--
625	110	<0.5	560	18.0	1.00	--	--	--	--	--
626	48.7	2.30	490	10.0	0.400	--	--	--	<5	--
627	567	4.28	860	82.6	1.27	0.10	4.03	<8	0.44	--
628	105	11.8	61.1	10.1	0.670	--	1.60	--	--	--
629	--	2.50	24.8	20.7	--	--	--	--	--	--
630	70.0	3.20	36.0	6.50	0.330	--	0.63	--	--	--
631	--	3.80	42.7	8.80	--	--	--	--	--	--
632	93.0	2.50	19.0	7.60	0.310	--	0.12	--	--	--
633	55.0	2.90	18.0	7.60	0.300	--	0.22	--	--	--
634	61.3	14.3	50.0	15.0	0.200	--	--	--	5.00	--
635	90.1	12.5	215	26.6	0.650	0.63	3.20	--	--	--
636	85.5	11.8	82.6	13.5	0.570	<0.1	1.90	--	--	--
637	35.8	4.74	54.3	9.70	0.520	<0.1	0.28	--	--	--
638	43.8	5.29	30.6	11.0	0.900	<0.1	1.60	--	--	--
639	108	7.70	80.0	10.0	0.500	--	--	--	<5	--
640	84.0	2.40	20.7	12.0	1.10	--	0.45	--	--	--
641	33.0	2.60	14.1	6.38	<0.4	--	0.46	--	--	--
642	88.0	2.40	20.8	8.80	0.450	--	0.16	--	--	--
643	94.0	2.80	211	21.0	<0.5	--	3.37	--	--	--
644	23.6	1.28	45.1	6.30	0.340	--	0.56	--	--	--
645	110	2.20	51.5	8.96	<0.5	--	<0.29	--	--	--
646	91.0	3.40	460	25.0	0.500	--	--	--	--	--
647	740	<0.5	1,000	42.0	1.50	--	<0.29	--	--	--
649	560	5.50	840	240	0.520	--	<0.29	--	--	--
650	89.2	7.79	60.9	10.0	<0.5	--	1.50	--	<5	<1
651	89.6	7.87	94.8	16.1	<0.5	--	1.50	--	<5	<1
652	26.0	<0.5	39.9	34.0	0.680	--	0.95	--	--	--
653	--	--	11.0	<1	<0.5	--	<0.29	--	--	--
654	160	2.90	220	160	0.380	--	0.13	--	--	--
655	210	3.30	320	170	0.430	--	0.20	--	--	--
656	120	4.60	160	130	0.330	--	0.16	--	--	--
657	320	5.80	360	160	0.350	--	<0.02259	--	--	--
658	540	4.10	770	160	0.390	--	<0.02259	--	--	--
660	71.0	4.00	340	12.0	0.620	<0.1	--	--	--	--
660	--	--	--	--	--	--	--	--	--	--
661	760	11.0	2,400	450	0.250	--	4.97	--	--	--
662	31.0	<0.5	360	9.50	<0.5	<0.1	--	--	--	--
663	220	8.90	380	17.0	<0.5	<0.1	--	--	--	--
663	--	--	--	--	--	--	--	--	--	--
664	560	4.90	1,100	140	0.450	--	<0.02259	--	--	--
665	69.1	6.09	93.2	15.1	0.450	0.54	1.40	--	--	--
666	95.4	<0.5	52.9	10.0	0.800	<0.1	1.40	--	--	--
667	82.6	13.4	173	21.6	0.580	0.57	3.40	--	--	--
668	76.2	12.9	50.4	10.0	0.730	<0.1	1.50	--	--	--
669	32.0	2.00	340	8.50	0.310	--	0.15	--	--	--

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Sodium, dissolved (mg/L)	Potassium, dissolved (mg/L)	Sulfate, dissolved (mg/L)	Chloride, dissolved (mg/L)	Fluoride, dissolved (mg/L)	Bromide, dissolved (mg/L)	Nitrite+Nitrate, dissolved (mg/L as N)	Iron, dissolved (ug/L)	Manganese, dissolved (ug/L)	Arsenic, dissolved (ug/L)
670	98.3	<0.5	40.7	9.00	0.780	<0.1	1.30	--	--	--
671	80.3	6.59	72.3	6.60	0.660	<0.1	1.60	--	--	--
672	97.4	6.80	82.3	10.9	0.640	<0.1	1.30	--	--	--
673	63.5	8.27	56.6	7.10	0.560	<0.1	1.40	--	--	--
674	46.0	4.51	138	12.0	0.190	0.53	1.80	--	--	--
675	31.0	1.90	360	8.30	0.320	--	0.14	--	--	--
676	130	2.40	590	19.0	1.00	--	0.43	--	--	--
677	100	4.40	71.0	9.60	0.540	<0.1	0.13	7,900	210	--
678	60.0	3.70	19.0	10.0	0.160	--	0.25	<70	<5	<1
679	34.0	2.10	15.2	6.67	0.420	--	0.71	<70	74.0	--
680	210	4.00	264	99.2	--	--	--	210	<5	--
681	30.0	3.10	14.0	7.90	0.160	--	0.27	<70	<5	<1
682	85.0	3.80	42.7	8.80	--	--	--	350	<5	--
683	180	10.0	65.0	7.40	0.390	--	0.17	17,000	530	--
684	84.0	2.40	20.7	12.0	1.10	--	0.45	<70	<5	--
685	210	1.90	148	18.5	0.480	--	0.036	<70	<5	--
686	290	1.20	172	11.9	--	--	--	250	<5	--
687	97.0	3.00	19.0	9.60	0.170	--	0.17	<70	<5	<1
688	110	2.20	51.5	8.96	<0.5	--	<0.29	<70	42.0	--
689	3,200	11.0	3,600	1,500	2.40	--	1.08	1,900	15.0	--
690	94.0	2.80	211	21.0	<0.5	--	3.37	1,500	16.0	--
691	180	0.700	11.0	6.20	4.90	--	--	40	<10	65.0
692	114	79.0	112	20.0	3.70	--	0.25	100	10.0	--
693	--	--	--	--	--	--	--	--	--	--
694	44.0	2.60	--	--	<0.5	--	--	--	<5	--
695	68.0	7.00	47.0	5.80	0.650	--	--	--	<5	12.0
696	--	--	32.2	2.70	0.440	--	<0.29	--	--	--
699	40.0	3.40	--	12.8	0.550	--	1.83	--	--	--
704	--	--	--	--	--	--	--	--	--	--
706	23.3	2.70	10.0	2.00	0.400	--	--	--	<5	--
707	54.5	3.80	60.0	11.0	0.400	--	--	--	<5	--
708	24.6	1.80	20.0	6.00	0.500	--	--	--	<5	--
709	71.0	1.90	20.0	2.00	0.300	--	--	--	<5	--
710	--	--	--	--	--	--	--	--	--	--
711	65.5	1.80	20.0	6.00	0.300	--	--	--	<5	--
712	70.0	6.70	107	19.1	0.600	--	--	--	2.50	--
714	58.0	7.60	124	21.8	<0.5	--	--	--	<5	--
715	35.9	3.80	30.0	5.00	0.200	--	--	--	6.00	--
716	--	--	--	--	--	--	--	--	--	--
717	--	--	--	--	--	--	--	--	--	--
718	--	--	--	--	--	--	--	--	--	--
719	108	2.40	30.0	1.00	0.500	--	--	--	<5	--
720	99.0	2.30	30.0	<1	0.400	--	--	--	<5	--
721	--	--	--	--	--	--	--	--	--	--
722	--	--	--	--	--	--	--	--	--	--
723	--	--	--	--	--	--	--	--	--	--
724	--	--	--	--	--	--	--	--	--	--
725	--	--	--	--	--	--	--	--	--	--
726	5.90	1.50	6.80	1.10	<0.5	--	<0.29	--	--	--
727	44.1	2.30	30.0	5.00	0.500	--	--	--	<5	--
728	49.4	2.80	40.0	6.00	0.500	--	--	--	<5	--
729	52.4	3.20	50.0	10.0	0.400	--	--	--	<5	--
730	52.9	3.10	40.0	10.0	0.400	--	--	--	<5	--
731	34.4	3.20	20.0	4.00	0.300	--	--	--	<5	--
732	30.0	2.30	20.0	2.00	0.300	--	--	--	<5	--
733	10.7	1.10	<5	<1	0.400	--	--	--	<5	--
734	57.6	2.60	30.0	6.00	0.200	--	--	--	<5	--
735	38.4	1.20	50.0	5.00	0.400	--	--	--	<5	--
736	17.3	1.00	20.0	<1	0.600	--	<0.29	--	<5	--
737	49.1	1.90	30.0	3.00	0.300	--	--	--	<5	--
738	29.5	1.40	50.0	5.00	0.600	--	--	--	<5	--
739	--	--	--	--	--	--	--	--	--	--
740	41.9	1.10	20.0	<1	0.500	--	--	--	<5	--
741	--	--	--	--	--	--	--	--	--	--
742	58.5	1.50	20.0	6.00	0.400	--	--	--	<5	--

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Sodium, dissolved (mg/L)	Potassium, dissolved (mg/L)	Sulfate, dissolved (mg/L)	Chloride, dissolved (mg/L)	Fluoride, dissolved (mg/L)	Bromide, dissolved (mg/L)	Nitrite+Nitrate, dissolved (mg/L as N)	Iron, dissolved (ug/L)	Manganese, dissolved (ug/L)	Arsenic, dissolved (ug/L)
743	65.6	1.60	60.0	2.00	0.200	--	--	--	<5	--
744	127	2.20	130	10.0	0.800	--	--	--	5.00	--
745	146	2.20	50.0	1.00	0.600	--	--	--	<5	--
746	23.2	6.60	10.0	2.00	0.200	--	--	--	<5	--
747	35.0	5.70	30.0	7.00	0.200	--	--	--	<5	--
748	31.1	5.20	30.0	8.00	0.200	--	--	--	<5	--
749	56.9	4.00	50.0	9.00	0.500	--	--	--	<5	--
750	58.6	8.00	70.0	14.0	0.300	--	--	--	5.00	--
751	51.5	3.80	70.0	13.0	0.300	--	--	--	5.00	--
752	119	6.90	340	16.0	0.500	--	--	--	6.00	--
753	48.0	2.60	40.0	6.00	0.400	--	--	--	<5	--
754	31.6	2.70	20.0	4.00	0.400	--	--	--	<5	--
755	76.2	2.10	30.0	3.00	0.300	--	--	--	<5	--
756	--	--	--	--	--	--	--	--	--	--
757	--	--	--	--	--	--	--	--	--	--
758	--	--	--	--	--	--	--	--	--	--
759	--	--	--	--	--	--	--	--	--	--
760	55.9	2.00	40.0	4.00	0.300	--	--	--	<5	--
761	39.6	1.30	20.0	1.00	0.400	--	--	--	<5	--
762	37.4	1.90	50.0	10.0	0.300	--	--	--	<5	--
763	47.8	4.80	50.0	10.0	0.300	--	--	--	<5	--
764	50.6	5.60	60.0	9.00	0.400	--	--	--	<5	--
765	--	--	--	--	--	--	--	--	--	--
766	29.0	<0.5	22.0	4.70	<0.5	--	0.29	--	--	--
767	51.0	<0.5	30.0	5.10	<0.5	--	0.23	--	--	--
768	65.0	<0.5	34.0	<1	<0.5	--	0.21	--	--	--
769	39.0	<0.5	26.0	<1	0.510	--	0.17	--	--	--
770	25.0	<0.5	16.0	<1	<0.5	--	0.17	--	--	--
771	77.0	<0.5	18.0	<1	--	--	<0.29	--	--	--
772	34.0	<0.5	19.0	<1	<0.5	--	0.15	--	--	--
773	68.0	4.40	33.0	7.20	<0.5	--	<0.29	--	--	--
774	130	3.20	49.0	<1	<0.5	--	0.16	--	--	--
775	42.0	1.20	24.0	1.70	0.540	--	0.15	<70	<5	--
776	34.0	1.40	20.0	4.20	0.420	--	0.29	<70	<5	--
777	48.0	2.60	24.0	2.00	0.370	--	0.16	<70	<5	--
778	33.0	1.90	22.0	5.80	0.460	--	0.027	<70	<5	--
779	86.0	6.00	129	18.0	0.330	0.24	4.76	<50	<5	<3
780	9.00	<0.5	13.0	<1	0.180	<0.05	0.090	<50	<5	<3
781	40.0	4.00	34.0	6.00	0.320	0.060	1.16	<50	<5	4.00
782	--	2.00	82.0	30.0	0.300	--	0.88	<70	<5	<1
783	13.0	3.00	25.0	7.00	1.03	<0.05	1.30	<50	<5	<3
784	23.0	4.00	29.0	6.00	0.350	<0.05	0.95	<50	<5	4.00
785	853	9.00	2,720	263	0.560	0.34	9.42	<50	<5	<3
786	30.0	4.00	31.0	6.00	0.240	<0.05	1.62	<50	<5	5.00
787	27.0	4.30	31.0	4.50	0.110	0.086	--	<100	2.70	2.20
788	42.0	5.00	38.0	5.00	0.360	0.11	0.75	<50	<5	5.00
789	12.0	<0.5	12.0	2.00	0.420	<0.05	0.41	<50	<5	<3
790	42.0	2.80	38.0	14.0	0.320	<0.2	--	<100	<10	5.40
791	44.0	1.30	27.0	1.60	0.550	--	0.086	<70	<5	--
792	87.0	2.00	24.0	2.20	0.510	--	0.29	<70	<5	--
793	40.7	3.00	28.1	4.43	0.400	--	0.33	<70	<5	<1
794	56.0	1.80	30.0	4.80	0.480	--	0.25	<70	<5	--
795	150	2.50	200	100	0.530	--	4.97	<70	<5	--
796	75.0	2.30	40.0	2.80	0.250	--	0.12	780	13.0	--
797	27.0	5.80	16.0	1.20	0.640	--	0.093	<70	<5	--
798	30.0	1.50	22.0	2.30	0.520	--	0.070	<70	<5	--
799	22.0	6.80	20.0	3.10	0.180	--	0.12	<70	<5	<1
800	81.0	2.30	21.9	14.8	--	--	1.20	--	--	--
801	--	--	--	--	--	--	--	--	--	--
802	410	3.00	860	110	0.860	--	<0.29	--	--	--
803	530	2.90	950	56.0	0.610	--	0.19	--	--	--
804	367	2.72	568	43.3	0.784	0.49	0.93	<8	1.70	--
805	1,339	5.05	2,882	391	1.30	1.63	0.40	23	220	--
806	739	1.90	1,010	370	2.20	--	--	--	--	--
807	682	1.61	15.7	1,116	3.76	4.75	<0.038	7.5	16.7	--

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Sodium, dissolved (mg/L)	Potassium, dissolved (mg/L)	Sulfate, dissolved (mg/L)	Chloride, dissolved (mg/L)	Fluoride, dissolved (mg/L)	Bromide, dissolved (mg/L)	Nitrite+Nitrate, dissolved (mg/L as N)	Iron, dissolved (ug/L)	Manganese, dissolved (ug/L)	Arsenic, dissolved (ug/L)
811	165	3.46	244	152	0.974	0.12	2.24	4.4	0.18	--
812	159	3.17	354	39.9	0.741	0.14	0.78	13	2.12	--
813	100	2.98	603	4.42	0.680	0.060	0.17	31	2.12	--
814	157	2.90	396	27.6	0.534	0.12	1.14	20	0.88	--
815	360	4.40	420	160	0.710	--	--	--	--	--
816	65.8	2.01	248	31.5	0.512	0.066	1.61	8.4	0.82	--
817	343	1.84	357	23.3	1.01	0.057	0.67	5.1	1.62	--
818	480	5.30	1,100	150	1.30	--	--	--	--	--
819	796	3.44	1,439	87.3	2.44	0.56	13.68	<9	8.90	1.22
820	45.4	5.25	187	9.38	0.686	0.053	0.61	13	0.59	--
821	203	6.20	240	46.0	0.800	--	--	--	<5	--
822	220	5.40	790	35.0	0.380	--	0.68	--	--	--
823	220	6.00	600	24.0	0.450	--	0.68	--	--	--
824	250	4.00	1,500	30.0	0.240	--	0.25	--	--	--
825	330	4.60	2,200	36.0	0.210	--	0.29	--	--	--
826	650	1.90	1,130	77.7	2.70	--	--	--	--	--
827	570	2.80	740	78.0	1.80	--	0.86	--	--	--
828	180	<0.5	180	14.0	1.50	<0.1	<0.29	--	--	--
829	87.1	1.40	250	17.0	0.900	--	--	--	<5	--
830	1,300	7.20	1,900	330	<1	1.90	--	--	--	--
831	--	--	--	--	--	--	--	--	--	--
832	430	1.20	310	160	2.90	--	<0.29	--	--	--
833	450	2.30	610	32.0	0.690	--	0.27	--	--	--
834	509	5.30	750	235	0.300	--	2.95	--	5.00	--
835	110	4.80	520	10.0	0.560	<0.1	--	--	--	--
836	460	<0.5	690	78.0	0.950	0.23	--	--	--	--
837	570	4.80	690	210	1.30	0.58	--	--	--	--
838	170	4.10	300	51.0	0.500	<0.1	<0.29	--	--	--
838	--	--	--	--	--	--	--	--	--	--
839	765	2.60	1,400	37.0	1.60	--	--	--	20.0	--
840	1,600	15.0	2,500	790	<2.5	3.40	<0.29	--	--	--
840	--	--	--	--	--	--	--	--	--	--
841	350	4.70	540	150	0.560	0.40	--	--	--	--
842	220	3.60	370	150	0.600	0.26	--	--	--	--
842	--	--	--	--	--	--	--	--	--	--
843	181	8.80	210	45.0	0.500	--	--	--	<5	--
844	313	5.10	440	80.0	0.800	--	--	--	<5	--
845	150	<0.5	300	19.0	0.660	<0.1	--	--	--	--
846	588	3.50	1,870	214	1.40	--	--	--	--	--
847	761	5.00	1,780	340	0.200	--	--	--	--	--
848	580	2.20	1,100	39.0	1.70	--	0.043	--	--	--
849	437	2.80	700	37.5	0.700	--	--	--	--	--
850	410	7.00	700	56.0	2.30	--	0.084	--	--	--
851	85,000	3,500	130	130	0.720	--	0.18	--	--	--
852	380	0.580	190	120	0.450	--	<0.29	--	--	--
853	170	3.00	190	120	0.510	--	0.093	--	--	--
854	230	3.40	210	140	0.420	--	0.036	--	--	--
855	170	<0.5	130	6.30	1.10	--	<0.29	--	--	--
855	--	--	--	--	--	--	--	--	--	--
856	180	<0.5	280	51.0	1.30	--	--	--	--	--
857	340	<0.5	370	22.0	1.10	--	--	--	--	--
858	600	<0.5	600	220	1.30	--	--	--	--	--
859	69.0	<0.5	110	10.0	0.620	--	<0.29	--	--	--
860	1,200	<0.5	1,700	490	1.50	--	--	--	--	--
860	--	--	--	--	--	--	--	--	--	--
861	200	<0.5	470	15.0	0.620	--	--	--	--	--
862	46.0	4.50	170	8.60	0.540	--	--	--	--	--
862	--	--	--	--	--	--	--	--	--	--
863	430	2.60	520	230	2.90	2.90	0.12	--	--	--
864	260	<0.5	530	87.0	1.30	--	--	--	--	--
865	170	3.40	380	32.0	0.540	--	<0.29	--	--	--
866	380	6.10	960	270	<0.5	--	--	--	--	--
866	--	--	--	--	--	--	--	--	--	--
867	230	3.30	460	55.0	0.580	--	--	--	--	--

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Sodium, dissolved (mg/L)	Potassium, dissolved (mg/L)	Sulfate, dissolved (mg/L)	Chloride, dissolved (mg/L)	Fluoride, dissolved (mg/L)	Bromide, dissolved (mg/L)	Nitrite+Nitrate, dissolved (mg/L as N)	Iron, dissolved (ug/L)	Manganese, dissolved (ug/L)	Arsenic, dissolved (ug/L)
868	240	<0.5	640	24.0	<0.5	--	--	--	--	--
869	390	4.70	480	150	0.770	--	--	--	--	--
870	340	4.50	750	24.0	0.490	--	<0.02259	--	--	--
871	150	3.40	190	24.0	0.460	--	0.16	--	--	--
872	1,400	5.50	2,800	410	<0.1	--	0.052	--	--	--
873	660	2.40	38.0	1,000	3.40	--	<0.02259	--	--	--
874	220	4.00	1,700	36.0	0.410	--	0.29	--	--	--
875	210	1.80	250	79.0	0.550	--	0.93	--	--	--
876	470	3.80	1,400	120	0.460	--	<0.02259	--	--	--
877	150	3.90	210	25.0	0.790	--	0.86	--	--	--
878	130	3.70	170	140	0.450	--	0.29	--	--	--
879	140	7.70	140	44.0	0.470	--	0.20	--	--	--
880	370	5.40	890	120	1.20	--	0.054	--	--	--
881	440	5.20	1,000	180	0.540	--	0.068	--	--	--
882	300	5.30	700	130	0.610	--	0.081	--	--	--
883	550	10.0	840	260	1.30	--	0.25	--	--	--
884	680	6.40	1,300	170	0.920	--	1.06	--	--	--
885	470	4.40	800	100	0.640	--	1.33	--	--	--
886	100	5.20	255	13.8	0.720	0.080	0.33	--	--	--
887	460	4.10	770	91.0	0.680	--	0.63	--	--	--
888	270	6.20	810	83.0	0.520	--	0.029	--	--	--
889	140	4.20	200	98.0	0.330	--	0.17	--	--	--
890	500	6.30	850	150	0.260	--	1.63	--	--	--
891	87.0	5.70	65.0	30.0	0.450	--	0.14	--	--	--
892	520	6.20	910	150	0.190	--	1.38	--	--	--
893	470	6.10	840	140	0.240	--	0.75	--	--	--
894	440	6.10	870	150	0.160	--	1.38	--	--	--
895	360	5.90	590	180	0.650	--	0.054	--	--	--
896	290	4.60	420	94.0	0.620	--	0.099	--	--	--
897	25.0	<0.5	170	9.20	1.00	<0.1	<0.29	--	--	--
898	110	3.30	220	12.0	0.990	<0.1	--	--	--	--
898	--	--	--	--	--	--	--	--	--	--
899	190	<0.5	260	10.0	0.840	<0.1	<0.29	--	--	--
899	--	--	--	--	--	--	--	--	--	--
900	300	4.60	490	110	0.570	--	0.097	--	--	--
901	480	5.70	870	150	0.160	--	0.95	--	--	--
902	390	4.90	68.0	150	0.210	--	1.11	--	--	--
903	170	4.30	350	79.0	0.530	--	0.090	--	--	--
904	210	4.70	560	93.0	0.560	--	0.050	--	--	--
905	290	4.10	790	250	0.920	0.61	--	--	--	--
905	--	--	--	--	--	--	--	--	--	--
906	110	6.30	180	11.0	0.830	<0.1	--	--	--	--
907	34.0	5.40	150	9.40	0.550	<0.1	<0.29	--	--	--
907	--	--	--	--	--	--	--	--	--	--
908	1,500	12.0	3,400	370	<1	1.80	--	--	--	--
908	--	--	--	--	--	--	--	--	--	--
909	350	4.40	530	230	0.150	--	0.025	--	--	--
910	60.0	<0.5	260	38.0	0.540	<0.1	--	--	--	--
911	74.0	<0.5	140	9.40	0.900	<0.1	<0.29	--	--	--
912	310	<0.5	630	160	1.20	0.30	--	--	--	--
913	1,500	6.10	2,700	780	<1	2.50	--	--	--	--
913	--	--	--	--	--	--	--	--	--	--
915	1,400	49.0	1,100	930	2.10	1.50	--	--	--	--
916	400	<0.5	300	170	1.40	0.28	--	--	--	--
916	--	--	--	--	--	--	--	--	--	--
917	270	3.50	320	200	0.200	--	<0.02259	--	--	--
918	200	3.70	600	26.0	0.800	0.21	--	--	--	--
918	--	--	--	--	--	--	--	--	--	--
919	180	4.30	320	67.0	0.540	--	0.14	--	--	--
920	200	6.70	240	67.0	0.660	--	0.36	--	--	--
921	230	4.90	220	120	0.590	--	0.066	--	--	--
922	95.0	3.60	280	7.80	0.600	<0.1	<0.29	--	--	--
923	230	3.40	410	21.0	0.950	<0.1	--	--	--	--
924	150	3.20	370	86.0	0.820	<0.1	<0.29	--	--	--
924	--	--	--	--	--	--	--	--	--	--

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Sodium, dissolved (mg/L)	Potassium, dissolved (mg/L)	Sulfate, dissolved (mg/L)	Chloride, dissolved (mg/L)	Fluoride, dissolved (mg/L)	Bromide, dissolved (mg/L)	Nitrite+Nitrate, dissolved (mg/L as N)	Iron, dissolved (ug/L)	Manganese, dissolved (ug/L)	Arsenic, dissolved (ug/L)
925	180	3.10	360	30.0	0.540	<0.1	--	--	--	--
925	--	--	--	--	--	--	--	--	--	--
926	170	<0.5	280	99.0	0.770	<0.1	--	--	--	--
927	240	3.20	480	120	0.600	--	<0.02259	--	--	--
928	200	3.70	370	79.0	0.800	<0.1	--	--	--	--
928	--	--	--	--	--	--	--	--	--	--
930	150	4.40	210	140	0.410	--	0.045	--	--	--
931	290	270	350	110	0.330	--	<0.02259	--	--	--
932	270	2.60	260	170	1.00	--	0.068	--	--	--
933	360	3.80	390	160	0.850	0.25	<0.29	--	--	--
934	310	3.90	330	140	0.740	0.21	<0.29	--	--	--
934	--	--	--	--	--	--	--	--	--	--
935	530	12.0	64.0	180	0.920	--	0.093	--	--	--
936	260	4.20	180	110	0.240	--	<0.02259	--	--	--
937	320	3.50	330	170	0.600	--	0.15	--	--	--
938	140	2.80	<5	200	<0.1	--	<0.02259	--	--	--
939	390	3.30	240	370	0.990	--	<0.02259	--	--	--
940	450	3.70	630	190	0.840	--	0.12	--	--	--
941	360	3.90	35.0	170	0.640	--	0.17	--	--	--
942	360	3.90	34.0	170	0.640	--	0.19	--	--	--
943	390	3.90	38.0	160	0.760	--	0.10	--	--	--
944	390	4.00	620	180	0.730	--	0.14	--	--	--
945	140	3.20	230	150	0.320	--	<0.02259	--	--	--
946	300	1.00	120	280	2.10	--	<0.02259	--	--	--
947	350	0.500	200	120	0.490	--	0.023	--	--	--
948	340	4.10	390	160	0.650	--	0.50	--	--	--
949	480	3.10	42.0	24.0	0.960	--	<0.02259	--	--	--
950	160	2.40	190	110	0.540	--	0.10	--	--	--
951	370	4.40	480	170	0.700	--	0.54	--	--	--
952	290	3.20	300	150	0.690	--	0.086	--	--	--
953	310	3.40	340	140	0.600	--	0.36	--	--	--
954	240	2.50	230	140	0.400	--	<0.02259	--	--	--
955	160	3.00	210	150	0.490	--	0.099	--	--	--
956	270	3.70	290	130	0.550	--	0.38	--	--	--
957	180	2.50	240	120	0.590	--	0.029	--	--	--
958	170	2.90	200	130	0.520	--	0.045	--	--	--
959	170	2.50	220	110	0.570	--	0.12	--	--	--
960	150	3.10	190	130	0.450	--	0.041	--	--	--
961	240	2.10	220	140	0.600	--	<0.02259	--	--	--
962	160	2.90	180	130	0.490	--	0.043	--	--	--
963	280	1.90	350	170	0.870	--	<0.02259	--	--	--
964	180	2.90	220	120	0.480	--	0.12	--	--	--
965	180	2.70	230	150	0.600	--	0.070	--	--	--
966	160	3.00	190	150	0.470	--	0.10	--	--	--
967	270	3.30	260	130	0.500	--	0.27	--	--	--
968	350	4.20	540	170	0.670	--	0.43	--	--	--
969	190	2.60	250	110	0.740	--	<0.02259	--	--	--
970	580	3.40	770	180	0.670	--	<0.02259	--	--	--
971	220	2.90	260	160	0.640	--	0.11	--	--	--
972	310	3.70	390	150	0.650	--	0.054	--	--	--
973	440	4.20	480	180	0.810	--	0.21	--	--	--
974	140	3.60	260	93.0	0.550	--	0.29	--	--	--
975	340	0.570	180	110	1.00	--	0.20	--	--	--
976	140	2.40	170	110	0.800	--	0.063	--	--	--
977	340	3.80	450	180	0.720	--	<0.02259	--	--	--
978	160	4.70	230	110	0.540	--	0.36	--	--	--
979	200	2.50	270	91.0	0.790	--	0.15	--	--	--
980	200	2.90	380	140	0.560	--	0.17	--	--	--
981	260	2.90	260	140	0.590	--	0.11	--	--	--
982	160	4.90	300	96.0	0.550	--	0.32	--	--	--
983	230	3.40	560	150	0.520	--	0.27	--	--	--
984	150	4.60	270	99.0	0.540	--	0.29	--	--	--
985	190	4.30	420	71.0	0.590	--	0.36	--	--	--
986	200	3.30	390	96.0	0.800	--	0.23	--	--	--
987	100	1.80	170	130	0.590	--	<0.02259	--	--	--

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Sodium, dissolved (mg/L)	Potassium, dissolved (mg/L)	Sulfate, dissolved (mg/L)	Chloride, dissolved (mg/L)	Fluoride, dissolved (mg/L)	Bromide, dissolved (mg/L)	Nitrite+Nitrate, dissolved (mg/L as N)	Iron, dissolved (ug/L)	Manganese, dissolved (ug/L)	Arsenic, dissolved (ug/L)
988	140	4.20	280	94.0	0.550	--	0.25	--	--	--
989	150	2.80	230	110	0.920	--	0.11	--	--	--
990	110	2.60	160	120	0.880	--	0.23	--	--	--
991	290	3.80	610	170	0.460	--	0.059	--	--	--
992	290	3.40	520	170	0.560	--	0.097	--	--	--
993	350	4.70	550	150	0.520	--	1.67	--	--	--
994	320	4.10	940	81.0	0.560	--	0.93	--	--	--
995	210	3.90	260	120	0.530	--	0.17	--	--	--
996	94.0	2.30	160	130	0.950	--	0.32	--	--	--
997	250	3.20	280	130	0.620	--	0.034	--	--	--
998	94.0	2.40	160	130	0.970	--	0.34	--	--	--
999	200	3.10	260	120	0.450	--	0.17	--	--	--
1000	340	4.10	660	200	0.490	--	0.25	--	--	--
1001	140	3.40	220	150	0.610	--	0.50	--	--	--
1002	170	2.60	230	110	0.470	--	0.12	--	--	--
1003	410	2.00	1,200	190	0.400	--	1.13	--	--	--
1004	460	2.30	890	190	0.750	--	1.08	--	--	--
1005	540	4.50	1,000	240	0.640	--	1.24	--	--	--
1006	200	2.20	190	180	0.610	--	0.23	--	--	--
1007	480	2.60	430	140	2.00	--	0.15	--	--	--
1008	640	4.60	1,900	330	0.160	--	<0.02259	--	--	--
1009	1,600	9.20	2,600	270	0.650	--	4.74	--	--	--
1010	1,200	8.30	2,000	440	0.520	--	10.84	--	--	--
1011	2,700	10.0	2,600	1,800	0.220	--	--	--	--	--
1012	190	2.30	430	8.40	0.600	--	0.14	--	--	--
1013	1,200	6.60	2,000	330	0.420	--	14.46	--	--	--
1014	1,000	5.40	1,700	270	0.500	--	2.12	--	--	--
1015	1,500	9.20	2,600	290	0.740	--	6.33	--	--	--
1016	1,000	6.80	2,500	370	0.710	--	0.27	--	--	--
1017	1,300	5.80	2,600	380	0.670	--	1.22	--	--	--
1018	1,900	5.00	3,600	940	0.450	--	0.36	--	--	--
1019	1,400	9.70	3,300	350	0.540	--	1.94	--	--	--
1020	1,300	5.50	2,500	430	0.850	--	3.61	--	--	--
1021	2,400	14.0	3,700	1,300	0.290	--	29.37	--	--	--
1022	1,800	5.40	3,500	520	0.620	--	4.07	--	--	--
1023	260	3.30	1,000	22.0	0.650	--	0.21	--	--	--
1024	770	3.90	1,000	680	0.670	--	0.95	--	--	--
1025	1,300	2.00	2,600	260	1.20	--	0.99	--	--	--
1026	160	7.40	160	42.0	0.580	--	0.18	<70	<5	--
1027	160	7.60	170	43.0	0.560	--	0.19	<70	<5	--
1028	439	5.70	740	34.0	--	--	3.20	--	--	--
1029	--	--	--	--	--	--	--	--	--	--
1030	3.60	2.50	120	4.00	0.200	--	--	--	<5	--
1031	4.20	1.90	50.0	5.00	0.400	--	--	--	<5	--
1032	54.1	1.90	110	3.00	0.800	--	--	--	<5	--
1033	18.3	2.80	60.0	2.00	0.300	--	--	--	<5	--
1034	502	31.5	3,729	281	0.476	0.83	1.37	<18	876	<1
1038	230	2.90	740	17.0	1.10	--	--	2,500	70.0	--
1039	--	--	--	--	--	--	--	--	--	--
1051	11,000	330	590	18,000	1.10	--	--	520	120	--
1052	--	--	--	--	--	--	--	--	--	--
1053	--	--	--	--	--	--	--	--	--	--
1054	200	0.900	390	6.40	0.200	--	--	720	20.0	11.0
1055	240	1.20	570	13.0	<0.1	0.030	--	260	20.0	2.00
1057	240	0.900	300	5.20	1.00	<0.2	--	<10	120	5.00
1058	1,500	3.60	95.0	22.0	24.0	0.10	--	120	40.0	50.0
1059	2,100	4.30	55.0	32.0	27.0	--	--	160	20.0	3.00
1062	7,100	12.0	110	1,700	18.0	2.00	--	--	40.0	150
1064	--	--	--	--	--	--	--	--	--	--
1065	--	--	--	--	--	--	--	--	--	--
1066	--	--	--	--	--	--	--	--	--	--
1067	--	--	--	--	--	--	--	--	--	--
1068	2,300	8.50	180	780	7.10	--	--	1,100	190	--
1069	2,600	4.10	57.0	270	95.0	--	--	60	<10	<1
1070	--	--	--	--	--	--	--	--	--	--

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Sodium, dissolved (mg/L)	Potassium, dissolved (mg/L)	Sulfate, dissolved (mg/L)	Chloride, dissolved (mg/L)	Fluoride, dissolved (mg/L)	Bromide, dissolved (mg/L)	Nitrite+Nitrate, dissolved (mg/L as N)	Iron, dissolved (ug/L)	Manganese, dissolved (ug/L)	Arsenic, dissolved (ug/L)
1071	250	0.500	130	6.80	2.70	--	<0.08	11	<1	9.00
1073	250	4.30	830	24.0	0.600	0.30	--	70	<10	5.00
1080	210	0.500	180	9.40	0.400	--	<0.08	80	<1	4.00
1081	14,000	79.0	190	2,400	5.30	3.60	--	2,600	40.0	29.0
1084	10,000	24.0	360	1,700	32.0	--	--	9.0	<10	--
1085	66.0	2.90	190	10.0	0.300	0.30	--	30	130	8.00
1091	1,300	6.80	140	190	13.0	0.30	--	50	30.0	5.00
1094	1,010	11.0	51.0	2,750	35.0	--	0.34	--	--	--
1095	1,010	11.0	51.0	2,750	35.0	--	0.34	--	--	--
1096	650	3.00	360	26.0	1.20	<0.2	--	200	50.0	5.00
1099	--	--	--	--	--	--	--	--	--	--
1100	420	4.90	750	39.0	0.800	0.20	--	70	<10	38.0
1101	--	--	--	--	--	--	--	--	--	--
1107	--	--	--	--	--	--	--	--	--	--
1125	--	--	--	--	--	--	--	--	--	--
1130	139	1.00	110	82.2	--	--	3.90	--	--	--
1141	--	--	--	--	--	--	--	--	--	--
1142	200	0.800	4.20	1.30	11.0	<0.2	--	110	20.0	6.00
1144	530	4.90	1,900	38.0	0.100	--	0.020	90	--	--
1146	--	--	--	--	--	--	--	--	--	--
1147	--	--	--	--	--	--	--	--	--	--
1149	--	--	--	--	--	--	--	--	--	--
1153	--	--	--	--	--	--	--	--	--	--
1154	--	--	--	--	--	--	--	--	--	--
1160	210	0.500	390	20.0	0.400	0.060	--	290	50.0	<1
1164	--	--	--	--	--	--	--	--	--	--
1173	--	--	--	--	--	--	--	--	--	--
1174	2,500	21.0	220	3,000	0.800	--	--	840	20.0	3.00
1175	58.0	0.700	33.0	7.20	0.400	--	--	30	5.00	1.00
1176	80.0	1.00	58.0	12.0	--	--	--	--	--	--
1177	56.0	1.00	32.0	12.0	--	--	--	--	--	--
1178	130	0.600	78.0	4.60	<0.1	0.040	--	30	<10	2.00
1182	230	0.600	43.0	12.0	5.00	0.040	--	80	70.0	4.00
1185	240	1.70	340	5.20	0.900	0.10	--	50	80.0	<1
1186	89.0	1.80	140	9.00	0.500	0.070	--	70	<10	<1
1187	--	--	--	--	--	--	--	--	--	--
1188	120	1.40	290	10.0	0.500	--	0.28	<10	3.00	1.00
1189	310	1.30	18.0	4.90	18.0	--	--	60	<10	2.00
1190	190	1.80	300	12.0	2.50	--	<0.03	11	7.00	<1
1191	110	0.900	280	5.40	0.200	--	1.30	<10	<1	1.00
1192	120	1.70	350	53.0	0.400	--	11.99	7.0	<1	3.00
1193	210	0.300	46.0	7.90	12.0	--	<0.03	24	7.00	<1
1194	510	1.20	2.30	6.00	15.0	--	<0.08	25	<1	1.00
1195	620	1.20	12.0	15.0	20.0	--	0.047	90	30.0	<1
1196	140	1.70	440	7.60	0.200	--	0.47	<10	3.00	<1
1197	210	0.500	130	7.60	7.00	--	--	20	20.0	42.0
1198	12,000	81.0	300	6,300	29.0	--	--	5,900	70.0	40.0
1199	140	0.700	490	15.0	<0.1	--	<0.04	15	33.0	4.00
1200	290	43.0	2,500	11.0	0.300	--	<0.04	4,500	560	<1
1201	850	1.60	41.0	21.0	27.0	--	--	40	<10	22.0
1202	690	1.30	61.0	11.0	21.0	--	--	40	<10	16.0
1203	470	1.90	17.0	8.60	14.0	--	--	50	<10	8.00
1204	530	1.20	97.0	8.80	20.0	--	--	80	20.0	22.0
1205	1,000	2.50	21.0	32.0	24.0	--	--	190	30.0	25.0
1206	670	1.20	8.60	15.0	14.0	--	<0.04	20	20.0	<1
1207	290	0.700	0.400	9.50	21.0	--	<0.04	14	42.0	2.00
1208	210	0.700	370	7.80	<0.1	--	<0.04	5.0	73.0	<1
1209	200	0.500	360	9.80	0.100	--	<0.04	12	44.0	1.00
1210	120	1.50	320	10.0	0.500	--	0.25	10	60.0	1.00
1211	270	1.80	470	20.0	0.800	--	0.10	<10	330	1.00
1213	720	2.00	12.0	9.70	20.0	0.10	--	80	<10	11.0
1230	330	1.80	210	18.0	5.10	--	0.54	40	10.0	1.00
1237	180	3.20	280	19.0	0.600	0.080	--	50	470	6.00
1239	220	0.500	450	23.0	0.600	0.20	--	8,800	490	15.0
1244	6.60	0.400	48.1	16.8	--	--	0.70	--	--	--

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Sodium, dissolved (mg/L)	Potassium, dissolved (mg/L)	Sulfate, dissolved (mg/L)	Chloride, dissolved (mg/L)	Fluoride, dissolved (mg/L)	Bromide, dissolved (mg/L)	Nitrite+Nitrate, dissolved (mg/L as N)	Iron, dissolved (ug/L)	Manganese, dissolved (ug/L)	Arsenic, dissolved (ug/L)
1250	170	3.80	1,200	70.0	0.200	--	7.79	120	--	--
1251	--	--	--	--	--	--	--	--	--	--
1252	--	--	--	--	--	--	--	--	--	--
1253	710	21.0	3,200	43.0	0.600	--	0.030	50	--	--
1254	--	--	--	--	--	--	--	--	--	--
1256	--	--	--	--	--	--	--	--	--	--
1260	--	--	--	--	--	--	--	--	--	--
1265	--	--	--	--	--	--	--	--	--	--
1267	--	--	--	--	--	--	--	--	--	--
1272	--	--	--	--	--	--	--	--	--	--
1273	--	--	--	--	--	--	--	--	--	--
1277	31.0	1.40	78.0	12.0	0.500	--	--	<10	<10	<1
1282	--	--	--	--	--	--	--	--	--	--
1297	--	--	--	--	--	--	--	--	--	--
1302	--	--	--	--	--	--	--	--	--	--
1305	180	2.90	230	6.10	0.700	--	--	<10	40.0	1.00
1306	--	--	--	--	--	--	--	--	--	--
1307	--	--	--	--	--	--	--	--	--	--
1317	19.1	4.20	121	16.0	--	--	1.30	--	--	--
1318	66.1	2.00	1,617	6.50	--	--	<0.05	--	--	--
1321	660	1.50	0.700	340	22.0	--	<0.08	70	10.0	<1
1327	--	--	--	--	--	--	--	--	--	--
1328	710	2.40	5.30	67.0	2.50	--	--	180	<10	--
1329	--	--	--	--	--	--	--	--	--	--
1330	--	--	16.0	90.0	--	--	--	--	--	--
1333	--	--	--	--	--	--	--	--	--	--
1369	--	--	--	--	--	--	--	--	--	--
1371	--	--	13.0	4.00	1.00	--	0.36	--	--	--
1381	--	--	--	--	--	--	--	--	--	--
1382	--	--	--	--	--	--	--	--	--	--
1383	--	--	--	--	--	--	--	--	--	--
1387	--	--	--	--	--	--	--	--	--	--
1388	--	--	--	--	--	--	--	--	--	--
1389	5,100	60.0	3,100	7,900	2.00	--	--	60	8.00	--
1390	4,200	46.0	2,100	12,000	1.10	--	--	110	550	--
1391	180	16.0	7.00	190	0.400	--	--	40	20.0	--
1392	6,100	52.0	3,000	7,900	3.30	--	--	60	60.0	--
1393	2,600	12.0	5,400	2,800	0.700	--	--	120	490	--
1395	--	--	--	--	--	--	--	--	--	--
1403	--	--	--	--	--	--	--	--	--	--
1409	--	--	--	--	--	--	--	--	--	--
1410	44.0	1.50	110	16.0	0.600	--	--	60	20.0	<1
1411	--	--	--	--	--	--	--	--	--	--
1415	--	--	--	--	--	--	--	--	--	--
1416	--	--	--	--	--	--	--	--	--	--
1418	200	13.0	39.0	3.80	0.800	--	--	2,200	80.0	<1
1419	11.5	1.70	163	14.8	--	--	1.40	--	--	--
1420	48.2	1.40	112	20.0	--	--	2.60	--	--	--
1421	28.0	0.500	40.0	1.80	0.200	--	--	30	<5	4.00
1422	140	1.20	390	7.00	0.600	--	--	--	--	1.00
1423	820	2.60	6.00	230	21.0	--	<0.08	110	20.0	<1
1426	330	2.00	18.0	68.0	<0.1	--	--	50	<10	9.00
1433	310	0.900	5.70	14.0	17.0	0.020	--	90	40.0	4.00
1438	190	0.900	490	8.70	0.800	0.020	--	280	530	5.00
1443	170	1.60	560	8.70	0.400	0.020	--	110	60.0	4.00
1445	120	1.80	170	7.70	0.200	0.070	--	80	180	2.00
1448	230	1.10	220	9.90	1.50	0.10	--	160	20.0	<1
1450	280	0.800	41.0	62.0	30.0	0.20	--	260	<10	<1
1452	280	1.60	460	16.0	1.10	0.10	--	250	50.0	<1
1454	220	0.400	320	7.30	2.20	--	<0.08	1,000	56.0	<1
1461	--	--	--	--	--	--	--	--	--	--
1463	--	--	--	--	--	--	--	--	--	--
1464	--	--	--	--	--	--	--	--	--	--
1465	--	--	--	--	--	--	--	--	--	--
1466	1,200	1.90	48.0	130	60.0	--	--	80	<10	6.00

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Sodium, dissolved (mg/L)	Potassium, dissolved (mg/L)	Sulfate, dissolved (mg/L)	Chloride, dissolved (mg/L)	Fluoride, dissolved (mg/L)	Bromide, dissolved (mg/L)	Nitrite+Nitrate, dissolved (mg/L as N)	Iron, dissolved (ug/L)	Manganese, dissolved (ug/L)	Arsenic, dissolved (ug/L)
1467	240	2.40	570	8.60	0.200	--	--	380	<10	6.00
1468	170	0.800	340	11.0	0.800	--	--	90	<10	3.00
1469	180	3.50	2,300	29.0	2.40	--	--	60	220	2.00
1475	130	0.400	570	17.0	0.500	--	<0.09	820	19.0	17.0
1476	150	3.70	690	16.0	0.700	--	<0.09	700	110	7.00
1477	320	0.700	300	16.0	7.70	--	--	210	<10	3.00
1478	1,000	1.70	350	88.0	35.0	--	--	40	33.0	--
1480	2,000	4.90	190	140	47.0	--	--	200	<10	--
1482	200	1.30	350	10.0	2.60	0.060	--	2,000	50.0	32.0
1484	260	0.800	230	13.0	11.0	0.10	--	60	<10	4.00
1486	180	0.300	230	7.90	1.60	0.10	--	320	20.0	<1
1487	190	0.400	400	22.0	1.70	0.10	--	90	<10	1.00
1488	160	0.300	320	8.90	1.00	0.10	--	160	50.0	1.00
1492	540	1.40	130	<0.1	11.0	0.070	--	750	<10	1.00
1497	--	--	--	--	--	--	--	--	--	--
1498	14.0	2.70	69.0	2.80	0.100	--	--	100	30.0	1.00
1499	390	1.40	13.0	12.0	9.70	0.10	--	3,400	60.0	42.0
1502	160	0.600	55.0	5.10	3.80	0.10	--	60	20.0	2.00
1506	--	--	--	--	--	--	--	--	--	--
1507	770	1.20	10.0	160	20.0	--	--	1,600	30.0	--
1508	310	0.500	140	18.0	13.0	--	--	260	20.0	--
1509	--	--	--	--	--	--	--	--	--	--
1510	--	--	--	--	--	--	--	--	--	--
1512	180	0.300	200	11.0	0.400	--	<0.07	22	10.0	3.00
1513	440	0.800	2.00	110	22.0	--	0.040	170	7.00	5.00
1514	26,105	131	--	--	0.843	--	<0.4	1,339	7.65	13.9
1515	559	1.06	<0.31	13.0	15.0	--	<0.08	63	29.9	0.70
1516	6,026	14.6	2.18	530	19.5	--	<0.16	342	31.4	2.98
1517	12,944	26.4	40.8	1,060	40.2	--	<0.24	661	<15	24.3
1518	230	0.600	230	17.0	3.10	0.10	--	2,400	100	5.00
1519	230	0.500	380	30.0	2.00	--	--	200	20.0	1.00
1523	680	1.90	100	39.0	9.80	0.10	--	60	50.0	14.0
1526	1,700	2.70	58.0	98.0	26.0	0.30	--	50	20.0	14.0
1530	4,800	7.20	64.0	290	18.0	0.40	--	--	20.0	2.00
1532	1,500	1.50	1,500	59.0	2.00	0.40	--	110	20.0	26.0
1535	735	3.39	1,741	66.9	0.732	--	0.23	<30	7.95	<2
1536	2,900	4.60	41.0	190	33.0	0.30	--	240	30.0	1.00
1538	436	13.6	--	--	33.4	--	<0.06	106	5.05	0.51
1539	15,036	47.2	<0.3	1,167	1.46	--	<0.32	654	<20	68.0
1539	15,429	47.3	<0.31	1,166	1.46	--	<0.32	654	<20	63.6
1540	624	1.01	43.3	96.8	12.3	--	<0.08	11	11.9	2.48
1541	676	3.09	<0.31	615	11.0	--	<0.08	6,396	465	<2
1542	436	1.68	659	26.2	1.40	--	<0.08	153	22.7	<5
1546	320	0.500	430	12.0	2.10	0.070	<0.08	20	8.00	2.00
1547	370	0.800	5.70	13.0	18.0	0.020	<0.08	150	7.00	1.00
1549	650	2.40	850	57.0	0.900	0.30	--	60	<10	1.00
1552	230	3.90	690	20.0	0.500	0.20	--	<10	160	5.00
1555	8,450	729	<5	11,874	--	497.00	--	--	--	--
1558	--	--	--	--	--	--	--	--	--	--
1559	--	--	--	--	--	--	--	--	--	--
1560	--	--	--	--	--	--	--	--	--	--
1561	--	--	--	--	--	--	--	--	--	--
1565	--	--	--	--	--	--	--	--	--	--
1566	--	--	--	--	--	--	--	--	--	--
1567	--	--	--	--	--	--	--	--	--	--
1568	--	--	--	--	--	--	--	--	--	--
1571	120	1.60	170	10.0	0.600	0.20	--	50	<10	<1
1576	310	2.80	480	31.0	0.600	0.20	--	30	480	21.0
1580	110	4.80	190	13.0	0.500	0.080	--	60	<10	4.00
1581	1,700	7.80	10.0	310	--	--	--	40	10.0	2.00
1587	940	3.70	1,100	270	0.100	0.40	--	70	20.0	66.0
1592	--	--	--	--	--	--	--	--	--	--
1593	--	--	--	--	--	--	--	--	--	--
1594	--	--	--	--	--	--	--	--	--	--
1595	--	--	--	--	--	--	--	--	--	--

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Sodium, dissolved (mg/L)	Potassium, dissolved (mg/L)	Sulfate, dissolved (mg/L)	Chloride, dissolved (mg/L)	Fluoride, dissolved (mg/L)	Bromide, dissolved (mg/L)	Nitrite+Nitrate, dissolved (mg/L as N)	Iron, dissolved (ug/L)	Manganese, dissolved (ug/L)	Arsenic, dissolved (ug/L)
1596	--	--	--	--	--	--	--	--	--	--
1597	--	--	--	--	--	--	--	--	--	--
1598	330	4.20	480	21.0	1.50	--	--	40	<10	<1
1599	--	--	--	--	--	--	--	--	--	--
1600	--	--	--	--	--	--	--	--	--	--
1601	--	--	--	--	--	--	--	--	--	--
1602	1,400	2.70	130	59.0	30.0	--	--	50	10.0	--
1603	270	0.500	390	8.90	1.70	--	--	130	5.00	4.00
1604	1,600	2.20	25.0	66.0	35.0	--	--	230	<10	<1
1605	1,100	1.00	34.0	65.0	21.0	--	--	230	<10	1.00
1607	130	1.40	480	11.0	0.400	0.010	--	<10	240	30.0
1609	230	1.90	700	15.0	0.400	0.030	--	<10	40.0	2.00
1610	1,100	3.60	110	93.0	42.0	--	--	100	13.0	--
1612	1,800	2.50	51.0	70.0	34.0	0.30	--	50	<10	4.00
1613	270	1.40	180	14.0	5.60	0.080	<0.08	66	20.0	4.00
1614	380	1.20	13.0	19.0	21.0	0.040	<0.08	13	38.0	2.00
1617	1,200	1.90	19.0	52.0	34.0	0.070	--	110	<10	16.0
1622	2,800	22.0	310	1,800	8.80	--	--	280	20.0	26.0
1623	96.0	1.20	310	6.10	0.400	--	--	20	10.0	1.00
1626	75.0	1.00	200	6.30	0.400	0.040	--	49,000	160	7.00
1628	110	1.20	310	7.50	0.400	0.020	--	470	500	4.00
1631	--	--	--	--	--	--	3.12	--	--	--
1632	370	10.0	2,400	250	0.500	--	--	150	300	--
1633	270	7.00	2,100	250	0.400	--	3.25	<10	200	--
1634	500	8.00	2,500	170	0.600	--	2.64	440	190	--
1635	4,183	13.6	1,224	4,880	0.616	--	--	--	--	7.23
1636	--	--	--	--	--	--	--	--	--	5.63
1639	--	--	--	--	--	--	--	--	--	--
1640	86.6	3.42	210	85.8	0.301	--	--	<10	5.82	--
1641	--	--	--	356	--	--	--	--	--	--
1642	--	--	--	--	--	--	--	--	--	--
1643	--	--	--	--	--	--	--	--	--	--
1644	--	--	--	--	--	--	--	--	--	--
1645	--	--	--	--	--	--	--	--	--	--
1646	--	--	--	--	--	--	--	--	--	--
1647	--	--	--	--	--	--	--	--	--	--
1648	--	--	--	--	--	--	--	--	--	--
1649	--	--	--	--	--	--	--	--	--	--
1650	--	--	--	--	--	--	--	--	--	--
1651	491	9.10	2,487	227	0.957	--	--	<40	1,772	--
1652	547	9.60	2,907	315	0.972	--	--	<40	1,774	<1
1653	736	21.4	2,961	416	1.08	--	--	103	1,531	8.00
1654	660	12.0	3,500	300	1.10	--	5.78	10	350	--
1655	--	--	--	--	--	--	<0.05	--	--	--
1656	--	--	--	--	--	--	<0.05	--	--	--
1657	--	--	--	--	--	--	<0.05	--	--	--
1658	--	--	--	--	--	--	16.00	--	--	--
1659	--	--	--	--	--	--	9.30	--	--	--
1660	27.0	3.80	41.0	9.40	0.800	--	--	<10	<10	--
1661	31.0	12.0	27.0	17.0	1.10	--	--	<10	20.0	--
1662	53.0	12.0	31.0	5.90	0.600	--	--	<10	<10	--
1664	25.3	10.8	20.0	2.00	0.900	--	--	--	<5	--
1665	23.1	3.20	20.0	3.00	0.600	--	--	--	<5	--
1666	18.0	5.30	17.3	1.66	1.20	--	0.062	--	--	--
1667	32.0	1.90	16.5	2.47	1.20	--	0.054	--	--	--
1668	890	2.50	1,670	182	1.90	--	<0.29	--	--	--
1669	248	5.30	494	85.6	--	--	3.00	--	--	--
1670	--	--	--	--	--	--	--	--	--	--
1671	58.0	5.80	96.0	13.0	0.400	--	--	40	40.0	<1
1672	210	0.900	57.0	17.0	0.900	--	--	50	<10	--
1673	--	--	--	--	--	--	--	--	--	--
1674	90.6	3.10	190	98.2	0.325	--	--	--	--	--
1675	--	--	--	--	--	--	--	--	--	--
1676	--	--	--	--	--	--	--	--	--	--
1677	600	11.0	1,100	100	1.10	--	1.49	760	40.0	4.00

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Sodium, dissolved (mg/L)	Potassium, dissolved (mg/L)	Sulfate, dissolved (mg/L)	Chloride, dissolved (mg/L)	Fluoride, dissolved (mg/L)	Bromide, dissolved (mg/L)	Nitrite+Nitrate, dissolved (mg/L as N)	Iron, dissolved (ug/L)	Manganese, dissolved (ug/L)	Arsenic, dissolved (ug/L)
1678	1,672	11.9	4,270	1,129	0.453	--	--	2,470	1,289	--
1679	248	3.87	548	92.0	1.15	--	--	--	--	--
1680	485	5.47	1,022	149	1.21	--	--	--	--	--
1681	--	--	--	--	--	--	--	--	--	--
1682	--	--	--	--	--	--	--	--	--	--
1683	1,581	12.2	3,366	1,201	0.111	--	--	--	--	--
1684	--	--	--	--	--	--	--	--	--	--
1685	--	--	--	--	--	--	--	--	--	--
1686	533	8.98	2,109	260	0.504	--	--	--	--	--
1687	--	--	--	--	--	--	--	--	--	--
1688	--	--	--	--	--	--	--	--	--	--
1689	1,113	10.8	4,399	940	0.353	--	--	7,206	7,243	--
1690	--	--	--	--	--	--	--	--	--	--
1691	--	--	--	--	--	--	--	--	--	--
1692	--	--	--	--	--	--	--	--	--	--
1693	521	7.13	1,826	377	0.376	--	--	2,045	--	--
1694	--	--	--	--	--	--	--	--	--	--
1695	--	--	--	--	--	--	--	--	--	--
1696	1,908	1.33	5,582	1,096	0.493	--	--	<60	4,313	--
1697	--	--	--	--	--	--	--	--	--	--
1699	--	--	--	--	--	--	--	--	--	--
1700	--	--	--	--	--	--	--	<60	2,365	--
1701	--	--	--	--	--	--	--	--	--	--
1702	414	6.76	1,113	198	0.800	--	--	--	--	--
1703	--	--	--	--	--	--	--	--	--	--
1704	--	--	--	--	--	--	--	--	--	--
1705	--	--	--	--	--	--	--	--	--	--
1706	--	--	--	--	--	--	--	--	--	--
1707	1,552	12.6	4,798	911	0.560	--	--	<60	993	--
1708	891	1.57	2,676	484	0.423	--	--	--	--	--
1709	--	--	--	--	--	--	--	--	--	--
1710	--	--	--	--	--	--	--	--	--	--
1711	--	--	--	--	--	--	--	--	--	--
1712	--	--	--	--	--	--	--	--	--	--
1713	1,161	11.4	2,996	505	0.152	--	--	--	--	--
1714	1,327	11.3	4,484	723	0.541	--	--	<50	901	--
1715	--	--	--	--	--	--	--	--	--	--
1716	--	--	--	--	--	--	--	--	--	--
1723	410	4.10	1,300	20.0	0.700	--	--	40	<10	1.00
1727	1,100	28.0	2,800	260	0.300	--	--	60	150	--
1728	620	7.60	2,600	310	0.400	--	--	<10	240	--
1730	--	--	--	--	--	--	--	61	35.0	--
1731	--	--	--	--	--	--	--	--	--	--
1732	98.0	2.40	53.0	9.60	0.400	--	<0.04	--	--	<1
1733	190	1.10	43.0	6.70	0.500	--	--	30	5.00	8.00
1734	--	--	--	--	--	--	--	--	--	--
1735	--	--	--	--	--	--	--	--	--	--
1736	--	--	--	--	--	--	--	--	--	--
1738	77.0	2.90	50.0	4.60	0.400	--	--	30	20.0	--
1741	--	--	--	--	--	--	<0.05	--	--	--
1742	--	--	--	--	--	--	<0.05	--	--	--
1743	--	--	--	--	--	--	<0.05	--	--	--
1744	--	--	--	--	--	--	4.39	--	--	--
1745	66.5	1.60	50.0	1.00	0.500	--	--	--	<5	--
1747	--	--	7,400	--	--	--	<0.04	780	40.0	--
1752	120	3.80	230	12.0	0.420	--	0.97	<70	12.0	--
1753	30.0	2.10	34.0	1.90	0.300	--	<0.29	<70	31.0	--
1754	--	--	--	--	--	--	--	--	--	--
1755	52.0	2.60	68.0	4.30	0.440	--	0.084	<70	<5	--
1756	40.0	2.50	46.0	2.70	0.450	--	0.084	<70	<5	--
1757	43.0	1.60	70.0	4.50	0.460	--	0.19	<70	1,600	--
1758	36.0	1.80	78.0	4.10	0.340	--	0.072	<70	<5	--
1759	210	2.10	250	14.0	0.600	--	<0.29	<70	<5	--
1760	57.0	1.60	120	8.60	0.300	--	0.050	<70	<5	--
1761	64.0	<3	--	--	--	--	--	--	--	<15

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Sodium, dissolved (mg/L)	Potassium, dissolved (mg/L)	Sulfate, dissolved (mg/L)	Chloride, dissolved (mg/L)	Fluoride, dissolved (mg/L)	Bromide, dissolved (mg/L)	Nitrite+Nitrate, dissolved (mg/L as N)	Iron, dissolved (ug/L)	Manganese, dissolved (ug/L)	Arsenic, dissolved (ug/L)
1762	--	--	--	--	--	--	--	--	--	--
1763	--	--	--	--	--	--	--	497	<3	--
1765	830	12.0	3,100	240	1.50	--	3.81	260	540	--
1766	2,600	16.0	7,700	500	0.800	--	--	<10	110	--
1768	310	2.90	2,500	190	0.300	--	2.15	<10	860	--
1769	250	2.10	2,000	270	0.300	--	7.58	<10	450	--
1770	--	--	--	--	--	--	--	--	--	--
1771	86.0	3.20	100	7.70	1.90	--	--	40	<10	--
1772	46.0	4.10	40.0	6.00	0.400	--	--	<10	<10	--
1773	43.8	1.10	50.0	6.00	0.700	--	--	--	9.00	--
1774	--	--	--	--	--	--	--	--	--	--
1776	275	0.600	20.0	3.00	1.70	--	--	--	<5	--
1777	168	0.600	80.0	3.00	0.800	--	--	--	<5	--
1778	42.9	1.60	30.0	5.00	0.700	--	--	--	<5	--
1779	25.2	8.30	90.0	14.0	0.300	--	--	--	<5	--
1780	16.1	4.70	20.0	4.00	0.200	--	--	--	<5	--
1781	24.2	2.80	40.0	7.00	0.300	--	--	--	<5	--
1782	220	0.540	74.5	10.7	2.70	--	0.032	--	--	--
1783	170	0.390	57.6	1.16	0.860	--	<0.29	--	--	--
1784	140	0.740	32.5	3.21	<0.5	--	<0.29	--	--	--
1785	160	0.600	20.2	9.66	<0.5	--	0.035	--	--	--
1786	30.0	5.10	37.5	4.99	0.830	--	0.078	--	--	--
1787	--	--	--	--	--	--	--	--	--	--
1788	450	8.30	2,000	150	<0.5	--	2.06	<70	<5	--
1789	--	--	--	--	--	--	--	--	--	--
1790	--	--	--	--	--	--	--	--	--	--
1791	--	--	--	--	--	--	--	--	--	--
1792	--	--	--	--	--	--	--	--	--	--
1793	--	--	--	--	--	--	--	--	--	--
1794	19.0	2.30	21.0	3.90	0.600	--	--	20	<10	--
1795	47.0	17.0	49.0	9.20	0.800	--	--	20	<10	--
1796	113	1.20	70.0	25.0	0.100	--	--	--	<5	--
1797	47.0	3.50	40.0	6.00	0.600	--	--	--	<5	--
1798	107	4.00	110	23.0	0.800	--	--	--	26.0	--
1799	9.40	0.600	<5	<1	1.50	--	--	--	<5	--
1800	53.1	4.10	50.0	10.0	0.200	--	--	--	<5	--
1801	22.6	3.00	30.0	6.00	1.20	--	--	--	<5	--
1802	85.9	0.900	180	12.0	1.20	--	--	--	<5	--
1803	66.0	0.700	90.0	6.00	1.40	--	--	--	<5	--
1804	22.4	5.20	30.0	6.00	0.200	--	--	--	<5	--
1805	42.3	5.00	40.0	5.00	0.400	--	--	--	<5	--
1806	28.0	4.20	30.0	5.00	0.200	--	--	--	<5	--
1807	170	0.580	0.680	2.10	1.40	--	<0.29	--	--	--
1807	--	--	--	--	--	--	--	--	--	--
1808	200	7.60	827	26.5	0.660	--	<0.29	--	--	--
1809	68.0	1.00	48.2	4.38	1.60	--	0.080	--	--	--
1810	39.0	11.0	31.1	6.73	0.790	--	0.25	--	--	--
1811	42.0	9.50	24.0	2.70	0.680	--	0.070	<70	<5	--
1812	59.0	14.0	34.0	3.50	0.760	--	0.086	<70	<5	--
1813	280	2.50	190	9.20	3.00	--	<0.29	130	<5	--
1814	5.40	0.620	5.30	4.10	1.40	--	0.070	<70	<5	--
1815	189	0.700	17.8	16.4	--	--	4.90	--	--	--
1816	79.0	4.50	54.0	11.0	1.20	--	0.54	<70	<5	--
1817	63.0	--	35.0	4.10	0.630	--	0.14	<70	<5	--
1818	15.0	0.880	6.90	2.00	2.00	--	0.14	<70	<5	--
1819	69.3	1.10	72.7	6.00	--	--	0.50	--	--	--
1820	97.0	3.50	68.0	9.00	0.740	--	0.043	<70	17.0	--
1821	24.0	1.10	6.40	5.80	1.20	--	0.15	<70	<5	--
1822	30.0	1.60	7.30	1.50	1.50	--	0.052	<70	<5	--
1827	17.7	1.50	--	--	--	--	--	<100	16.8	1.54
1828	16.4	1.59	--	--	--	--	--	<100	<1	<1
1829	--	--	8,400	--	--	--	<0.04	<10	30.0	--
1830	75.0	1.40	70.0	33.0	0.400	--	--	<10	<10	--
1832	12.7	2.60	20.0	2.00	0.200	--	--	--	<5	--
1833	110	9.80	200	18.0	1.10	--	--	20	<10	--

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Sodium, dissolved (mg/L)	Potassium, dissolved (mg/L)	Sulfate, dissolved (mg/L)	Chloride, dissolved (mg/L)	Fluoride, dissolved (mg/L)	Bromide, dissolved (mg/L)	Nitrite+Nitrate, dissolved (mg/L as N)	Iron, dissolved (ug/L)	Manganese, dissolved (ug/L)	Arsenic, dissolved (ug/L)
1837	700	4.30	2,100	24.0	0.500	--	--	190	60.0	2.00
1842	254	1.16	1,463	38.5	0.948	--	--	--	--	--
1843	1,104	16.6	6,066	87.9	1.96	--	--	--	--	--
1845	--	--	--	--	--	--	--	--	--	--
1847	498	11.5	4,019	34.5	5.52	--	--	--	--	--
1855	13.0	5.90	3.90	4.10	<0.5	--	0.28	--	--	--
1856	5.90	3.80	3.60	2.80	<0.5	--	0.21	--	--	--
1857	5.70	1.60	3.60	<1	<0.5	--	0.10	--	--	--
1858	9.40	2.20	69.0	1.50	<0.5	--	0.097	--	--	--
1859	19.0	1.50	9.70	6.40	<0.5	--	0.10	--	--	--
1860	11.0	2.90	4.80	1.40	<0.5	--	0.13	--	--	--
1861	9.40	2.60	6.50	2.10	<0.5	--	0.21	--	--	--
1862	20.0	2.60	36.0	7.30	<0.4	--	0.045	--	--	--
1863	210	8.00	709	46.6	0.580	--	0.34	--	--	--
1864	--	--	23.9	--	--	--	--	--	--	--
1865	--	--	--	--	--	--	--	--	--	--
1866	--	--	--	--	--	--	--	--	--	--
1867	--	--	131	--	--	--	--	--	--	--
1868	--	--	510	--	--	--	--	--	--	--
1869	--	--	8.85	--	--	--	--	--	--	--
1870	--	--	2.88	--	--	--	--	--	--	--
1871	--	--	408	--	--	--	--	--	--	--
1872	--	--	228	--	--	--	--	--	--	--
1873	--	--	--	--	--	--	--	--	--	--
1874	--	--	2.10	--	--	--	--	--	--	--
1875	--	--	3,153	--	--	--	--	--	--	--
1876	--	--	3,243	--	--	--	--	--	--	--
1877	--	--	1,321	--	--	--	--	--	--	--
1878	--	--	998	--	--	--	--	--	--	--
1879	--	--	1,971	--	--	--	--	--	--	--
1880	--	--	2,627	--	--	--	--	--	--	--
1881	--	--	761	--	--	--	--	--	--	--
1882	--	--	--	--	--	--	--	--	--	--
1883	--	--	1,214	--	--	--	--	--	--	--
1884	--	--	390	--	--	--	--	--	--	--
1885	--	--	296	--	--	--	--	--	--	--
1886	--	--	31.3	--	--	--	--	--	--	--
1887	13.6	3.10	35.0	--	--	--	0.10	--	--	--
1888	--	--	36.0	--	--	--	--	--	--	--
1889	--	--	709	--	--	--	--	--	--	--
1890	--	--	--	--	--	--	0.90	--	--	--
1891	11.0	2.80	6.00	4.80	0.200	--	--	44	2.00	<1
1895	530	2.70	1.00	15.0	5.40	--	--	10	9.00	1.00
1896	860	7.20	20.0	90.0	3.00	--	--	40	10.0	6.00
1897	150	1.30	230	14.0	0.800	--	--	150	20.0	<1
1898	86.0	2.40	210	9.80	0.700	--	--	580	30.0	<1
1899	110	4.60	3.00	11.0	0.400	--	--	490	29.0	<1
1900	220	1.90	130	18.0	2.60	--	--	160	40.0	1.00
1904	21.0	5.70	24.0	4.70	0.500	--	--	30	<10	1.00
1906	--	--	--	--	--	--	--	--	--	--
1907	41.0	12.0	18.0	2.70	0.400	--	--	13	20.0	4.00
1908	--	--	--	--	--	--	--	--	--	--
1909	11.0	0.670	6.00	2.40	<0.5	--	--	--	--	--
1910	--	--	--	--	--	--	--	--	--	--
1911	--	--	8.70	--	--	--	--	--	--	--
1912	--	--	31.0	--	--	--	--	--	--	--
1913	13.2	7.20	--	8.40	--	--	1.30	--	--	--
1914	13.4	5.50	12.9	7.00	--	--	1.00	--	--	--
1915	--	--	0.830	--	--	--	--	--	--	--
1916	--	--	20.7	--	--	--	--	--	--	--
1917	--	--	20.4	--	--	--	--	--	--	--
1918	--	--	8.10	--	--	--	--	--	--	--
1919	2.20	1.80	1.50	<1	<0.5	--	0.075	--	--	--
1920	2.00	1.60	1.70	<1	<0.5	--	0.059	--	--	--
1921	2.80	2.00	2.00	<1	<0.5	--	0.047	--	--	--

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Sodium, dissolved (mg/L)	Potassium, dissolved (mg/L)	Sulfate, dissolved (mg/L)	Chloride, dissolved (mg/L)	Fluoride, dissolved (mg/L)	Bromide, dissolved (mg/L)	Nitrite+Nitrate, dissolved (mg/L as N)	Iron, dissolved (ug/L)	Manganese, dissolved (ug/L)	Arsenic, dissolved (ug/L)
1925	600	2.60	3,000	24.0	0.300	--	0.96	1,200	330	--
1926	600	14.0	2,900	26.0	<0.1	--	2.05	20	160	--
1928	110	4.30	1,600	11.0	1.50	--	--	60	20.0	<1
1930	--	--	--	--	--	--	--	123	20.0	--
1931	--	--	--	--	--	--	--	168	41.0	--
1932	--	--	--	--	--	--	--	172	11.0	--
1937	17.0	6.00	12.7	3.70	0.960	--	0.12	--	--	--
1938	2.30	1.20	4.70	<1	<0.5	--	0.11	--	--	--
1939	8.90	1.00	<5	<1	<0.5	--	--	--	--	--
1940	--	--	7.10	--	--	--	--	--	--	--
1941	--	--	19.9	--	--	--	--	--	--	--
1942	--	--	5.10	--	--	--	--	--	--	--
1943	--	--	44.9	--	--	--	--	--	--	--
1944	--	--	--	--	--	--	--	--	--	--
1945	--	--	--	--	--	--	--	--	--	--
1946	34.0	2.30	31.2	12.6	0.200	--	0.061	--	--	--
1947	5.40	3.60	4.90	5.30	0.100	--	0.77	--	--	--
1951	122	3.10	1,638	7.20	--	--	0.12	--	--	--
1955	1,300	13.0	11.0	180	1.90	--	--	310	120	5.00
1962	750	6.50	<5	56.0	3.50	--	--	100	40.0	1.00
1967	3.70	3.00	1.70	1.50	<0.5	--	0.22	--	--	--
1968	1.40	1.80	2.30	1.10	<0.5	--	0.42	--	--	--
1969	6.40	1.10	2.70	1.60	<0.5	--	--	--	--	--
1970	2.00	4.60	1.80	1.60	<0.5	--	--	--	--	--
1971	2.20	1.20	4.20	<1	<0.5	--	0.16	--	--	--
1972	11.0	10.0	2.20	3.40	<0.5	--	0.62	--	--	--
1973	55.0	1.30	3.90	1.40	<0.5	--	0.036	--	--	--
1974	2.90	1.60	1.60	<1	<0.5	--	0.050	--	--	--
1975	--	--	4.70	--	--	--	--	--	--	--
1976	--	--	1.23	--	--	--	--	--	--	--
1978	190	5.40	150	7.90	0.500	--	--	150	13.0	1.00
1981	--	--	--	--	--	--	--	--	--	--
1982	--	--	--	--	--	--	--	--	--	--
1983	--	--	--	--	--	--	--	--	--	--
1986	104	11.1	633	9.62	0.755	--	--	--	<1	1.38
1990	--	--	--	--	--	--	--	--	--	--
1993	--	--	--	--	--	--	--	--	--	--
1995	--	--	--	--	--	--	3.80	--	--	--
1996	--	--	--	--	--	--	1.10	--	--	--
2001	77.0	19.0	190	7.90	0.600	--	--	<10	<10	--
2002	110	12.0	210	6.40	0.500	--	--	40	<10	5.00
2003	--	--	--	--	--	--	--	--	--	--
2011	--	--	--	--	--	--	--	--	--	--
2012	--	--	--	--	--	--	--	--	--	--
2013	--	--	12.7	--	--	--	--	--	--	--
2014	--	--	393	--	--	--	--	--	--	--
2015	100	25.0	393	19.7	0.710	--	0.42	--	--	--
2016	60.7	8.10	113	12.7	--	--	1.30	--	--	--
2017	20.5	1.60	29.2	12.9	--	--	0.60	--	--	--
2018	10.2	2.30	11.3	2.60	--	--	0.50	--	--	--
2019	--	--	--	--	--	--	0.90	--	--	--
2020	--	--	--	--	--	--	3.10	--	--	--

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Sodium, dissolved (mg/L)	Potassium, dissolved (mg/L)	Sulfate, dissolved (mg/L)	Chloride, dissolved (mg/L)	Fluoride, dissolved (mg/L)	Bromide, dissolved (mg/L)	Nitrite+Nitrate, dissolved (mg/L as N)	Iron, dissolved (ug/L)	Manganese, dissolved (ug/L)	Arsenic, dissolved (ug/L)
2021	--	--	--	--	--	--	0.80	--	--	--
2022	--	--	--	--	--	--	0.80	--	--	--
2023	--	--	--	--	--	--	--	--	--	--
2024	--	--	--	--	--	--	0.60	--	--	--
2025	--	--	--	--	--	--	--	--	--	--
2027	340	9.00	2,400	19.0	0.400	--	3.25	<10	30.0	--
2029	--	--	--	--	--	--	--	--	--	--
2030	--	--	--	--	--	--	2.60	--	--	--
2033	1,500	25.0	5,200	88.0	0.300	--	--	50	120	<1
2034	--	--	--	--	--	--	--	--	--	--
2035	--	--	--	--	--	--	0.70	--	--	--
2037	--	--	--	--	--	--	--	--	--	--
2040	--	--	--	--	--	--	--	--	--	--
2041	400	9.40	290	63.0	1.30	--	--	170	22.0	1.00
2044	67.0	1.90	610	9.80	1.50	--	--	160	30.0	--
2046	1,100	19.0	60.0	82.0	2.90	--	<0.04	620	80.0	<1
2046	1,100	19.0	71.0	80.0	2.90	--	<0.04	520	70.0	<1
2049	--	--	--	--	--	--	--	1,720	61.0	--
2050	--	--	--	--	--	--	--	934	35.0	--
2051	--	--	--	--	--	--	--	81	12.0	--
2052	--	--	--	--	--	--	--	--	--	--
2053	89.0	2.00	380	15.0	0.600	--	--	<10	4.00	--
2054	40.0	6.20	110	18.0	0.800	--	--	40	<10	--
2055	--	--	--	--	--	--	--	--	--	--
2056	--	--	--	--	--	--	--	--	--	--
2058	440	10.0	240	37.0	6.00	--	--	1,000	<10	--
2061	78.0	1.70	1,400	14.0	1.50	--	6.79	20	10.0	--
2063	--	--	--	--	--	--	--	--	--	--
2064	--	--	--	--	--	--	--	6,701	117	--
2065	16.0	2.30	36.0	5.70	0.200	--	--	180	30.0	--
2066	--	--	--	--	--	--	--	--	--	--
2067	--	--	--	--	--	--	--	--	--	--
2068	--	--	--	19.0	--	--	--	<500	--	--
2069	--	--	--	--	--	--	--	--	--	--
2070	--	--	--	--	--	--	--	--	--	--
2071	43.0	2.00	16.0	1.60	0.300	--	--	60	<10	--
2072	--	--	--	--	--	--	--	--	--	--
2076	102	4.37	1,712	22.0	1.01	--	--	--	--	--
2077	--	--	--	--	--	--	--	--	--	--
2078	22.0	0.200	72.0	22.0	0.300	--	--	10	<5	--
2079	--	--	54.0	14.0	--	--	0.20	--	--	--
2080	--	--	--	--	--	--	--	--	--	--
2082	--	--	--	--	--	--	--	--	--	--
2083	--	--	--	--	--	--	--	--	--	--
2084	--	--	--	--	--	--	--	--	--	--
2085	440	6.40	630	37.0	0.600	--	--	1,500	90.0	<1
2088	877	20.0	850	140	--	--	--	<8	--	--
2089	--	--	--	--	--	--	--	--	--	--
2090	--	--	52.0	17.0	--	--	0.070	--	--	--
2091	--	--	40.0	14.0	--	--	0.14	--	--	--
2094	--	--	130	--	--	--	--	--	--	--
2095	--	--	--	--	--	--	--	56	96.0	--
2096	--	--	--	--	--	--	--	210	4.00	--

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Barium, dissolved (ug/L)	Selenium, dissolved (ug/L)	Methane (mg/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylene (all isomers) (ug/L)	Methane (mol %)	Ethane (mol %)	Propane (mol %)
1	--	--	<0.0008	<1	<5	<2	--	--	--	--
2	700	<1	--	--	--	--	--	--	--	--
3	600	<1	--	--	--	--	--	--	--	--
4	<100	6.00	--	--	--	--	--	--	--	--
5	7.0	19.0	<0.001	<0.5	<0.5	<0.5	<1.5	--	--	--
6	--	--	--	--	--	--	--	--	--	--
8	--	--	--	--	--	--	--	--	--	--
9	122	<20	<0.0008	<1	<5	<2	--	--	--	--
13	--	--	--	--	--	--	--	--	--	--
14	--	--	--	--	--	--	--	--	--	--
15	--	--	--	--	--	--	--	--	--	--
16	--	--	--	--	--	--	--	--	--	--
17	--	--	--	<0.5	<5	<2	<3	--	--	--
18	--	--	--	<0.5	<5	<2	<3	--	--	--
19	--	--	--	<0.001	<0.005	<2	<3	--	--	--
20	--	--	--	<0.5	<5	<2	<3	--	--	--
21	--	--	--	<0.001	<0.005	3.30	3.6	--	--	--
22	--	--	--	<0.5	<5	<2	<3	--	--	--
23	--	--	--	<0.001	<0.005	<2	<3	--	--	--
24	--	--	--	<0.5	<5	<2	<3	--	--	--
25	--	--	--	<0.5	<5	<2	<3	--	--	--
26	--	--	--	<0.5	<5	<2	<3	--	--	--
27	--	--	--	<0.5	<5	<2	<3	--	--	--
28	--	--	--	<1	<5	<2	<3	--	--	--
29	--	--	--	--	--	--	--	--	--	--
30	--	<20	<0.0008	<1	<5	<2	<3	--	--	--
31	--	--	--	--	--	--	--	--	--	--
33	--	--	--	--	--	--	--	--	--	--
34	--	--	--	--	--	--	--	--	--	--
36	--	--	--	--	--	--	--	--	--	--
38	<100	2.00	--	--	--	--	--	--	--	--
39	800	<1	--	--	--	--	--	--	--	--
40	110	<20	<0.0008	<1	<5	<2	<3	--	--	--
41	86	<20	<0.0008	<1	<5	<2	<3	--	--	--
42	--	--	<0.0008	--	--	--	--	--	--	--
43	62	<20	<0.0008	<1	<5	<2	--	--	--	--
44	53	<20	<0.0008	<1	<5	<2	--	--	--	--
45	56	<20	<0.0008	<1	<5	0.001	<3	--	--	--
46	85	<20	<0.0008	<1	<5	<2	<3	--	--	--
47	59	<20	<0.0008	<1	<5	<2	<3	--	--	--
48	59	<20	<0.0008	<1	<5	<2	--	--	--	--
49	63	<20	<0.0008	<1	<5	0.001	--	--	--	--
50	--	--	0.002	--	--	--	--	--	--	--
51	--	--	<0.0008	<1	<5	<2	<3	--	--	--
52	--	3.50	--	--	--	--	--	--	--	--
53	--	--	<0.0008	<1	<5	<2	--	--	--	--
54	--	--	<0.0008	<1	<5	<2	<3	--	--	--
55	--	--	<0.0008	--	--	--	--	--	--	--
56	--	--	0.14	<1	<5	<2	--	--	--	--
57	--	--	2.90	<1	<5	<2	--	--	--	--
58	--	--	0.002	<1	<5	<2	--	--	--	--
59	--	--	0.22	<1	<5	<2	--	--	--	--
60	--	--	<0.0008	<1	<5	<2	--	--	--	--
61	--	--	<0.0008	<1	<5	<2	<3	--	--	--
62	210	<20	0.028	<1	<5	<2	<3	--	--	--
63	--	--	<0.0008	<1	<5	<2	--	--	--	--
64	--	--	0.58	<0.2	<0.2	<2	<3	--	--	--
65	--	--	<0.0008	<1	<5	<2	--	--	--	--
66	--	--	1.30	<1	<5	<2	--	--	--	--
67	--	--	1.00	<1	<5	<2	--	--	--	--
68	--	--	<0.0008	<1	<5	<2	<3	--	--	--
69	--	--	0.72	<1	<5	<2	--	12.7	0.19	0.013
70	--	--	<0.0008	<1	<5	<2	--	0.025	0	0
71	--	--	<0.0008	<1	<5	<2	<3	--	--	--

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Barium, dissolved (ug/L)	Selenium, dissolved (ug/L)	Methane (mg/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylene (all isomers) (ug/L)	Methane (mol %)	Ethane (mol %)	Propane (mol %)
72	--	--	<0.0008	<1	<5	<2	<3	--	--	--
73	--	--	<0.0008	<1	<5	<2	<3	--	--	--
74	--	--	<0.0008	<1	<5	<2	<3	--	--	--
75	--	--	<0.0008	<1	<5	<2	<3	--	--	--
76	--	--	<0.0008	<1	<5	<2	<3	--	--	--
77	--	--	0.86	<0.3	1.30	<2	--	--	--	--
78	--	--	<0.0008	<0.3	<0.2	<2	--	--	--	--
79	--	<5	0.001	<1	<2	<2	--	--	--	--
80	--	<20	<0.0008	<0.5	<5	<2	<3	--	--	--
81	--	<5	<0.0008	<1	<2	<2	--	--	--	--
82	--	<5	<0.0008	<1	<2	<2	--	--	--	--
83	--	17.5	0.007	<1	<2	<2	--	--	--	--
84	--	13.0	0.010	<1	<2	<2	--	--	--	--
85	--	7.30	0.053	<1	<2	<2	--	--	--	--
86	--	<20	<0.0008	<0.5	<5	<2	<3	--	--	--
87	--	6.90	0.027	<1	<2	<2	--	--	--	--
88	--	<5	0.031	<1	<2	<2	--	--	--	--
89	--	<5	6.60	<1	<2	<2	--	40.1	0.018	0
90	--	--	<0.0008	<1	<5	<2	--	--	--	--
91	142	<20	0.86	<1	1.30	<2	--	--	--	--
92	--	22.0	<0.0008	<1	<5	<2	<3	--	--	--
93	--	<20	6.90	<1	<5	<2	--	--	--	--
94	--	6.70	0.14	<1	<5	<2	--	--	--	--
95	--	<20	2.90	<1	<5	<2	--	--	--	--
96	--	9.30	0.22	<1	<5	<2	--	--	--	--
97	--	6.20	0.002	<1	<5	<2	--	--	--	--
98	--	--	<0.0008	<1	4.10	<2	--	--	--	--
99	--	--	4.70	160	<5	4.60	--	52.2	6.95	1.99
100	--	--	6.20	110	<5	<2	--	59.1	7.51	2.79
101	--	--	<0.0008	<1	<5	<2	--	--	--	--
102	--	--	5.00	<1	<5	<2	--	46.9	5.23	1.92
103	--	--	0.002	<1	<5	<2	--	--	--	--
104	--	--	2.80	2.40	<5	<2	--	25.2	3.09	0
105	--	--	0.43	<1	<5	<2	--	--	--	--
106	--	--	2.90	<1	<5	<2	--	31.0	3.58	1.18
107	--	--	0.007	<1	<5	<2	--	--	--	--
108	--	<20	1.80	<1	<5	<2	<3	--	--	--
109	--	<20	6.40	<1	<5	<2	--	43.0	0.038	0
110	--	<20	16.0	<1	<5	<2	--	74.9	0.038	0
111	--	18.0	<0.0008	<1	<5	<2	--	--	--	--
112	--	<20	0.054	<1	<5	<2	--	--	--	--
113	--	--	1.30	<1	<5	<2	--	13.3	0.80	0
114	--	--	1.90	31.0	<5	<2	--	28.0	3.39	0.51
115	--	--	<0.0008	<1	<5	<2	--	--	--	--
116	--	--	1.30	<1	<5	<2	--	--	--	--
117	--	--	<0.0008	<1	<5	<2	--	--	--	--
118	--	--	0.003	<1	<5	<2	--	--	--	--
119	--	--	1.00	<1	<5	<2	--	--	--	--
120	--	--	<0.0008	<1	<5	<2	--	--	--	--
121	--	--	<0.0008	<1	<5	<2	--	--	--	--
122	--	--	0.004	<1	<5	<2	--	--	--	--
123	--	--	0.002	<1	<5	<2	--	--	--	--
124	--	5.40	<0.0008	<1	<5	<2	--	--	--	--
125	--	<20	<0.0008	<1	<5	<2	<3	--	--	--
126	42	47.0	<0.0008	<1	0.40	<2	--	--	--	--
127	--	<20	<0.0008	<1	<5	<2	--	--	--	--
128	--	41.0	0.001	<1	<5	<2	--	--	--	--
129	--	67.0	<0.0008	<1	<5	<2	--	--	--	--
130	--	<20	3.10	<1	<5	<2	<3	--	--	--
131	--	<20	7.80	<1	<5	<2	<3	34.8	0.039	0
132	97	3.00	<0.0008	<1	0.20	<2	--	--	--	--
133	--	<20	<0.0008	<1	<5	<2	--	--	--	--
134	--	61.0	0.001	<1	<5	<2	--	--	--	--
135	--	--	0.004	<1	<5	<2	--	--	--	--

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Barium, dissolved (ug/L)	Selenium, dissolved (ug/L)	Methane (mg/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylene (all isomers) (ug/L)	Methane (mol %)	Ethane (mol %)	Propane (mol %)
138	--	--	--	--	--	--	--	--	--	--
142	--	--	--	--	--	--	--	--	--	--
143	--	--	<0.0008	<1	<5	<2	--	--	--	--
144	--	--	0.008	<1	<5	<2	--	--	--	--
145	--	--	<0.0008	--	--	--	--	--	--	--
146	--	<20	<0.0008	<0.5	<5	<2	<3	0	0	0
147	--	<20	<0.0008	<1	<5	<2	<3	0.006	0	0
148	--	<20	<0.0008	<1	<5	<2	<3	--	--	--
149	--	<20	<0.0008	<1	<5	<2	<3	0	0	0
150	--	<20	<0.0008	<1	<5	<2	<3	0	0	0
151	--	<20	<0.0008	<1	<5	<2	<3	0.007	0	0
152	--	--	<0.0008	<1	<5	<2	--	--	--	--
153	--	26.8	--	--	--	--	--	--	--	--
154	--	--	--	--	--	--	--	76.3	0.061	0
155	--	--	0.002	<1	<5	<2	--	--	--	--
157	--	8.30	--	--	--	--	--	--	--	--
158	--	--	<0.0005	--	--	--	--	--	--	--
159	--	--	<0.0005	--	--	--	--	--	--	--
161	--	--	0.054	<1	0.30	<2	--	--	--	--
162	--	--	0.20	--	--	--	--	--	--	--
163	--	--	0.004	--	--	--	--	--	--	--
164	--	--	27.6	--	--	--	--	--	--	--
165	--	--	<0.0005	--	--	--	--	--	--	--
166	--	--	<0.0008	<1	<5	<2	<3	--	--	--
167	--	--	<0.0008	<1	<5	<2	<3	--	--	--
168	--	16.5	--	--	--	--	--	--	--	--
169	--	--	--	--	--	--	--	0.051	0	0
169	--	--	0.003	--	--	--	--	--	--	--
170	--	--	<0.0008	<1	<5	<2	<3	--	--	--
171	--	--	--	--	--	--	--	--	--	--
172	--	--	0.031	<1	<5	<2	<3	--	--	--
173	--	--	<0.0008	<1	<5	<2	<3	--	--	--
174	--	--	0.78	<1	<5	<2	--	--	--	--
175	--	--	--	--	--	--	--	--	--	--
176	--	7.70	--	--	--	--	--	--	--	--
177	--	792	--	--	--	--	--	--	--	--
178	--	--	--	--	--	--	--	--	--	--
179	--	44.8	--	--	--	--	--	--	--	--
180	--	--	0.93	<1	<5	<2	<3	--	--	--
181	--	--	--	--	--	--	--	--	--	--
182	--	--	6.10	--	--	--	--	--	--	--
182	--	--	--	--	--	--	--	43.1	0.35	0.001
183	--	6.00	--	--	--	--	--	--	--	--
184	--	--	--	--	--	--	--	7.42	0.39	0
185	--	30.9	0.006	--	--	--	--	--	--	--
186	--	3.20	--	--	--	--	--	--	--	--
187	--	--	3.50	<1	<5	<2	--	--	--	--
187	--	--	--	--	--	--	--	24.0	0.023	0.006
188	--	--	0.34	<1	<5	<2	--	--	--	--
189	--	--	1.60	--	--	--	--	--	--	--
189	--	--	--	--	--	--	--	12.3	0.34	0.005
191	--	--	--	--	--	--	--	--	--	--
192	--	--	0.005	<1	<5	<2	--	--	--	--
193	--	--	--	--	--	--	--	--	--	--
194	--	--	--	--	--	--	--	--	--	--
195	--	--	<0.0008	<1	<5	<2	--	--	--	--
196	--	--	<0.0008	<1	<5	<2	<3	--	--	--
197	--	--	1.74	--	--	--	--	--	--	--
198	--	--	--	--	--	--	--	--	--	--
199	--	21.8	--	--	--	--	--	--	--	--
200	--	--	--	--	--	--	--	--	--	--
201	--	--	--	--	--	--	--	0	0	0
201	--	--	0.005	--	--	--	--	--	--	--

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Barium, dissolved (ug/L)	Selenium, dissolved (ug/L)	Methane (mg/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylene (all isomers) (ug/L)	Methane (mol %)	Ethane (mol %)	Propane (mol %)
202	--	--	--	--	--	--	--	--	--	--
203	--	90.9	1.90	--	--	--	--	--	--	--
203	--	--	--	--	--	--	--	19.7	0	0
204	--	--	0.099	<1	<5	<2	<3	--	--	--
205	--	80.5	6.10	--	--	--	--	--	--	--
205	--	--	--	--	--	--	--	65.8	0.009	0
206	--	--	<0.0008	<0.3	<0.2	<2	--	--	--	--
207	--	--	1.10	<0.2	<0.2	<2	<3	--	--	--
208	--	--	<0.0008	<1	<5	<2	--	--	--	--
209	--	--	<0.0008	<1	<1	<2	<3	--	--	--
211	--	--	<0.0008	<1	<1	<2	<3	--	--	--
213	--	--	0.26	<1	<5	<2	--	--	--	--
214	--	--	7.30	<1	<5	<2	--	--	--	--
214	--	--	--	--	--	--	--	75.4	0.028	0
215	--	--	5.41	0.60	0.50	<2	--	--	--	--
216	--	--	11.0	--	--	--	--	--	--	--
216	--	--	--	--	--	--	--	93.3	0.048	0
217	--	--	<0.0008	<1	0.20	<2	--	--	--	--
218	--	--	3.23	<1	0.20	<2	--	--	--	--
219	--	12.6	--	--	--	--	--	--	--	--
220	--	0.600	--	--	--	--	--	--	--	--
221	--	--	0.019	<1	<5	<2	<3	--	--	--
222	--	0.200	--	--	--	--	--	--	--	--
223	--	--	0.27	<0.2	<0.2	<2	<3	--	--	--
224	--	<20	0.53	<1	<5	<2	--	4.19	0.18	0
225	--	79.0	<0.0008	<1	<5	<2	--	--	--	--
226	--	<20	1.30	<1	<5	<2	<3	17.1	0.006	0
227	--	--	--	--	--	--	--	--	--	--
228	--	0.500	3.93	--	--	--	--	--	--	--
228	--	--	--	--	--	--	--	63.3	0.021	0
229	--	33.0	--	--	--	--	--	--	--	--
230	--	8.30	0.004	<1	2.90	<2	--	0.029	0	0
231	--	9.30	<0.0008	<1	<5	<2	--	--	--	--
232	--	30.0	0.50	<1	<5	<2	--	--	--	--
233	--	<20	<0.0008	<1	<5	<2	<3	--	--	--
234	--	--	<0.0008	<1	<5	<2	--	--	--	--
235	--	--	0.001	<0.2	<0.2	<2	<3	--	--	--
236	--	--	1.20	<1	<2	<2	--	--	--	--
237	263	7.00	0.37	<1	<5	<2	--	--	--	--
238	--	<20	0.86	<1	<5	<2	--	5.87	0	0
239	--	24.0	--	--	--	--	--	--	--	--
240	45	210	<0.0008	<1	0.30	<2	--	--	--	--
241	--	--	<0.0008	--	--	--	--	--	--	--
242	--	--	<0.0008	--	--	--	--	--	--	--
243	--	--	<0.0008	--	--	--	--	--	--	--
244	--	--	<0.0008	<0.3	<0.2	<2	--	--	--	--
245	--	--	<0.0008	--	--	--	--	--	--	--
246	--	11.0	<0.0008	<1	<5	<2	--	0	0	0
247	140	<20	<0.0008	<1	<5	<2	<3	--	--	--
248	--	--	--	--	--	--	--	--	--	--
249	--	--	--	--	--	--	--	--	--	--
250	--	--	<0.0008	<1	<5	<2	<3	--	--	--
251	--	--	--	--	--	--	--	--	--	--
252	--	16.1	--	--	--	--	--	--	--	--
253	--	--	--	--	--	--	--	--	--	--
254	--	87.8	--	--	--	--	--	--	--	--
255	--	5.50	0.010	<1	<2	<2	--	--	--	--
256	--	--	3.80	<0.5	<5	<2	<3	--	--	--
256	--	--	--	--	--	--	--	36.3	0.018	0
257	--	--	<0.0008	<0.5	<5	<2	<3	--	--	--
258	--	6.30	--	--	--	--	--	--	--	--
259	--	--	<0.0008	<1	<5	<2	<3	--	--	--
259	--	--	--	--	--	--	--	0.30	0.040	0.011

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Barium, dissolved (ug/L)	Selenium, dissolved (ug/L)	Methane (mg/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylene (all isomers) (ug/L)	Methane (mol %)	Ethane (mol %)	Propane (mol %)
260	--	37.0	--	--	--	--	--	--	--	--
261	--	1.40	--	--	--	--	--	--	--	--
262	--	--	0.37	<0.3	<0.2	<2	--	--	--	--
263	--	--	1.71	0.30	0.20	<2	--	--	--	--
264	--	--	--	--	--	--	--	0	0	0
264	--	18.6	0.004	--	--	--	--	--	--	--
265	--	--	0.003	<0.3	0.30	<2	--	--	--	--
266	--	--	0.49	<0.3	0.30	<2	--	--	--	--
267	--	11.0	<0.0008	<1	<5	<2	--	0	0	0
268	9.1	<20	<0.0008	<1	<5	<2	<3	--	--	--
269	--	--	0.010	<1	<5	<2	--	--	--	--
270	--	990	<0.0008	<1	<5	<2	<3	--	--	--
271	--	1,000	<0.0008	<1	<5	<2	<3	0	0	0
272	--	--	11.0	<0.001	<0.005	<2	<3	--	--	--
273	98	23.0	<0.0008	<0.5	<5	<2	<3	--	--	--
274	--	6.90	<0.0008	<1	<2	<2	--	--	--	--
275	--	<20	<0.0008	<0.5	<5	<2	<3	--	--	--
276	--	<20	3.30	<1	<5	<2	<3	28.4	1.57	0
277	--	49.0	0.032	<1	<5	<2	--	--	--	--
278	--	32.0	<0.0008	<1	<2	<2	--	0.004	0	0
279	--	490	<0.0008	<1	<2	<2	--	0	0	0
280	--	<5	1.10	<1	<2	<2	--	7.80	0.007	0
281	--	64.0	<0.0008	<1	<2	<2	--	0	0	0
282	--	<5	6.00	<1	3.70	<2	--	33.9	0.015	0
283	--	<20	0.43	<0.5	8.00	<2	<3	--	--	--
284	--	<20	<0.0008	<0.5	<5	<2	<3	--	--	--
285	17	<20	0.049	<1	<5	<2	--	--	--	--
286	--	86.0	<0.0008	<1	<5	<2	--	--	--	--
287	--	<20	<0.0008	<0.5	<5	<2	<3	0	0	0
288	123	8.00	0.054	<1	0.30	<2	--	--	--	--
289	--	<20	<0.0008	<1	<5	<2	<3	--	--	--
290	--	43.0	<0.0008	<1	<5	<2	<3	--	--	--
291	--	13.0	<0.0008	<1	<5	<2	--	--	--	--
292	--	5.80	0.001	<1	<5	<2	--	--	--	--
293	--	36.0	<0.0008	<1	14.0	<2	--	--	--	--
294	--	<20	<0.0008	<1	<5	<2	<3	--	--	--
295	--	130	<0.0008	<1	<5	<2	--	--	--	--
296	130	4.00	<0.0008	<1	0.30	<2	--	--	--	--
297	31	128	<0.0008	<1	0.20	<2	--	--	--	--
298	138	<20	<0.0008	<1	<5	<2	--	--	--	--
299	--	<20	<0.0008	<1	<5	<2	<3	--	--	--
300	--	9.30	4.60	<1	<2	<2	--	41.6	0.017	0.001
301	--	6.00	6.20	<1	<2	<2	--	46.3	0.018	0
302	--	--	0.001	<1	<5	<2	--	--	--	--
303	--	560	<0.0008	<1	<5	<2	<3	--	--	--
304	--	67.0	<0.0008	<0.5	<5	<2	<3	--	--	--
305	--	110	<0.0008	<0.5	<5	<2	<3	0	0	0
306	--	39.0	<0.0008	<0.5	<5	<2	<3	0.18	0	0
307	--	<20	18.0	<1	<5	<2	--	69.8	0.026	0
308	980	23.0	<0.0008	<1	<5	<2	<3	--	--	--
309	--	<20	0.21	<1	<5	<2	<3	--	--	--
310	--	<20	2.60	<0.5	11.0	1.90	2.4	--	--	--
311	--	<20	2.70	<1	<5	<2	<3	14.2	0.006	0
312	--	<20	<0.0008	<1	<5	<2	<3	--	--	--
313	--	18.0	<0.0008	<1	<5	<2	<3	--	--	--
314	--	29.0	<0.0008	<1	<5	<2	<3	--	--	--
315	--	<5	<0.0008	<1	<2	<2	--	--	--	--
316	--	<5	24.0	<1	<2	<2	--	96.0	0.032	0
317	--	<20	1.40	<1	<5	<2	<3	--	--	--
318	--	15.0	<0.0008	<1	<5	<2	--	--	--	--
319	16	<20	<0.0008	<1	<5	<2	<3	0.036	0	0
320	--	5.70	0.017	<1	<5	<2	--	0.28	0	0
321	--	71.0	4.50	<1	<5	<2	--	--	--	--

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Barium, dissolved (ug/L)	Selenium, dissolved (ug/L)	Methane (mg/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylene (all isomers) (ug/L)	Methane (mol %)	Ethane (mol %)	Propane (mol %)
322	--	<20	<0.0008	<0.5	<5	<2	<3	0.032	0	0
323	108	78.0	4.34	<1	0.90	<2	--	--	--	--
324	--	220	0.002	<1	<5	<2	--	0.032	0	0
325	--	<20	8.90	<1	<5	<2	<3	48.5	0.064	0
326	--	360	0.29	<1	<5	<2	<3	--	--	--
327	--	43.0	<0.0008	<0.5	<5	<2	<3	0	0	0
328	22	<20	<0.0008	<0.5	<5	<2	<3	--	--	--
329	--	<20	0.60	<1	<5	<2	<3	--	--	--
330	27	17.0	<0.0008	<1	0.30	<2	--	--	--	--
331	53	7.00	1.71	0.30	0.20	<2	--	--	--	--
332	--	44.0	0.028	<1	<2	<2	--	0.17	0	0
333	200	<20	1.60	<0.5	<5	<2	<3	--	--	--
334	--	<20	0.010	<1	<5	<2	--	0.064	0	0
335	--	<20	0.045	<1	<5	<2	<3	--	--	--
336	--	<20	0.017	<1	<5	<2	<3	--	--	--
337	103	17.0	0.20	<1	0.40	<2	--	--	--	--
338	2,050	<20	5.41	0.60	0.50	<2	--	--	--	--
339	--	8.00	<0.0008	<1	<5	<2	--	0	0	0
340	27	4.00	3.62	<1	0.40	<2	--	--	--	--
341	--	--	--	--	--	--	--	--	--	--
342	--	29.0	--	--	--	--	--	--	--	--
343	--	26.0	--	--	--	--	--	--	--	--
344	--	5.80	1.20	<1	<5	<2	--	0.067	0	0
345	--	--	--	--	--	--	--	0	0	0
346	--	87.0	<0.0008	<1	<5	<2	--	0	0	0
347	41	3.00	0.53	<1	0.20	<2	--	--	--	--
348	--	14.0	0.33	--	--	--	--	--	--	--
349	259	1,640	<0.0008	<1	<5	<2	--	--	--	--
350	158	51.0	<0.0008	<1	<5	<2	--	--	--	--
351	--	73.0	--	--	--	--	--	--	--	--
352	--	45.0	0.50	<1	<5	<2	<3	--	--	--
353	--	5.20	0.004	<1	<5	<2	--	--	--	--
354	7.6	<20	<0.0008	<1	<5	<2	<3	--	--	--
355	7.2	<20	0.036	<1	<5	<2	<3	--	--	--
356	--	44.0	<0.0008	<1	<5	<2	--	--	--	--
357	--	6.90	0.48	<1	<5	<2	--	--	--	--
358	--	<20	1.60	<1	<5	<2	<3	--	--	--
359	--	120	2.40	<1	<5	<2	<3	36.8	2.43	0.68
360	--	--	--	--	--	--	--	11.2	0.51	0.16
361	--	<20	2.50	<1	<5	<2	--	17.0	0.012	0.004
362	--	5.80	7.70	<1	<5	<2	--	--	--	--
363	--	11.0	13.0	<1	3.00	<2	--	--	--	--
364	--	9.40	7.30	<1	<5	<2	--	75.4	0.028	0
365	--	19.0	2.80	<1	<5	<2	--	23.1	0.022	0
366	--	18.0	<0.0008	<1	<5	<2	--	--	--	--
367	673	<20	36.7	<1	<5	<2	--	--	--	--
368	<200	<20	0.003	<1	0.30	<2	--	--	--	--
369	140	<20	<0.0008	<1	<5	<2	<3	--	--	--
370	--	9.50	<0.0008	<1	<5	<2	--	--	--	--
371	50	2.00	<0.0008	<1	0.20	<2	--	--	--	--
372	--	480	0.002	<1	<5	<2	--	--	--	--
373	--	13.0	0.34	<1	<5	<2	--	--	--	--
374	--	<20	<0.0008	<1	<5	<2	<3	--	--	--
375	81	105	0.49	<1	0.30	<2	--	--	--	--
376	--	--	--	--	--	--	--	23.0	0.022	0
377	--	<20	2.30	<1	<5	<2	--	--	--	--
378	--	--	<0.0008	<1	<5	<2	--	--	--	--
379	--	--	<0.0008	<1	<5	<2	<3	--	--	--
380	--	110	<0.0008	<1	<5	<2	<3	0	0	0
381	--	30.0	<0.0008	<1	<5	<2	--	--	--	--
382	--	70.0	--	--	--	--	--	--	--	--
383	--	13.0	<0.0008	<1	<5	<2	--	0.008	0	0
384	--	44.0	2.30	<1	<5	<2	--	--	--	--

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Barium, dissolved (ug/L)	Selenium, dissolved (ug/L)	Methane (mg/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylene (all isomers) (ug/L)	Methane (mol %)	Ethane (mol %)	Propane (mol %)
385	--	<20	<0.0008	<1	<5	<2	<3	--	--	--
386	--	90.0	0.016	<1	<5	<2	<3	--	--	--
387	--	<20	1.20	<1	<5	<2	<3	25.0	0.010	0
388	248	<20	3.23	<1	0.20	<2	--	--	--	--
389	--	<20	0.11	<1	<5	<2	<3	2.05	0	0
390	--	<20	0.15	<1	<5	<2	<3	2.08	--	--
391	--	<20	<0.0008	<1	<5	<2	--	0	0	0
392	--	87.0	<0.0008	<1	<5	<2	--	4.08	0	0
393	--	<20	<0.0008	<1	<5	<2	<3	--	--	--
394	--	92.0	<0.0008	<1	<5	<2	--	--	--	--
395	--	20.0	<0.0008	<1	<5	<2	--	0.004	0	0
396	--	10.0	<0.0008	<1	0.20	<2	--	--	--	--
397	--	26.0	<0.0008	<1	<5	<2	<3	--	--	--
398	--	11.0	0.001	<1	<5	<2	--	--	--	--
399	--	24.0	--	--	--	--	--	--	--	--
400	--	19.0	--	--	--	--	--	--	--	--
401	--	15.0	7.30	<1	<5	<2	--	52.4	0.031	0
402	--	<20	0.008	<1	<5	<2	--	0.039	0	0
403	48	18.0	<0.0008	<1	<5	<2	--	--	--	--
404	56	<20	0.78	<1	<5	<2	--	--	--	--
405	117	40.0	<0.0008	<1	<5	<2	--	--	--	--
406	--	<20	<0.0008	<1	<5	<2	--	0	0	0
407	63	<20	1.75	<1	<5	<2	--	--	--	--
408	--	--	--	--	--	--	--	--	--	--
409	--	--	--	--	--	--	--	--	--	--
410	--	--	--	--	--	--	--	--	--	--
414	--	--	--	--	--	--	--	--	--	--
415	<100	2.00	--	--	--	--	--	--	--	--
416	<100	2.00	--	--	--	--	--	--	--	--
417	--	--	--	--	--	--	--	--	--	--
418	--	--	--	--	--	--	--	--	--	--
419	<100	1.00	--	--	--	--	--	--	--	--
420	--	--	--	--	--	--	--	--	--	--
428	--	--	<0.0008	<1	<5	<2	<3	--	--	--
429	--	--	<0.0008	<1	3.10	<2	1.600	--	--	--
430	--	--	<0.0008	<1	<5	<2	<3	--	--	--
432	--	--	<0.0008	<1	<5	<2	<3	--	--	--
433	--	--	<0.0008	<1	<5	<2	<3	--	--	--
434	--	--	<0.0008	<1	<5	<2	<3	--	--	--
435	--	--	<0.0008	<1	<5	<2	<3	--	--	--
436	--	--	<0.0008	<1	<5	<2	<3	--	--	--
437	--	--	<0.0008	<1	<1	<2	<3	--	--	--
438	--	--	<0.0008	<0.2	<0.2	<2	<3	--	--	--
439	--	--	<0.0008	<1	<5	<2	--	--	--	--
440	--	--	<0.0008	<0.2	<0.2	<2	0.280	--	--	--
441	--	--	<0.0008	<0.5	<0.5	<2	<3	--	--	--
442	--	149	--	--	--	--	--	--	--	--
443	--	--	<0.0008	<1	<5	<2	<3	--	--	--
444	--	--	<0.0008	<1	<5	<2	<3	--	--	--
445	--	--	<0.0008	<1	<5	<2	<3	--	--	--
446	--	--	<0.0008	<1	<5	<2	<3	--	--	--
447	--	--	<0.0008	<1	<5	<2	<3	--	--	--
447	--	--	--	--	--	--	--	0	0	0
448	--	--	<0.0008	<1	<5	<2	<3	--	--	--
448	--	--	--	--	--	--	--	0	0	0
449	--	--	<0.0008	<0.5	<0.5	<2	<3	--	--	--
450	--	--	<0.0008	<0.5	<0.5	<2	<3	--	--	--
451	--	--	<0.0008	<0.5	<0.5	<2	<3	--	--	--
452	--	--	<0.0008	<0.5	<0.5	<2	<3	--	--	--
453	--	--	<0.0008	<0.5	<0.5	<2	<3	--	--	--
453	--	--	--	--	--	--	--	0.004	0	0
454	--	--	<0.0008	<0.5	<0.5	<2	<3	--	--	--
454	--	--	--	--	--	--	--	0.039	0	0

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Barium, dissolved (ug/L)	Selenium, dissolved (ug/L)	Methane (mg/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylene (all isomers) (ug/L)	Methane (mol %)	Ethane (mol %)	Propane (mol %)
455	--	--	--	--	--	--	--	--	--	--
456	--	--	--	--	--	--	--	--	--	--
457	--	--	--	--	--	--	--	--	--	--
458	--	--	--	--	--	--	--	--	--	--
459	--	--	--	--	--	--	--	--	--	--
460	--	--	<0.0008	<1	<5	<2	--	--	--	--
461	--	--	0.002	<1	<5	<2	--	--	--	--
462	--	7.50	--	--	--	--	--	--	--	--
463	--	--	<0.0008	<1	<5	<2	--	--	--	--
464	--	--	<0.0008	<1	<5	<2	--	--	--	--
465	2,900	<1	--	--	--	--	--	--	--	--
466	--	--	--	--	--	--	--	--	--	--
468	--	--	--	--	--	--	--	--	--	--
469	--	--	0.008	<1	<5	<2	--	--	--	--
470	--	--	--	--	--	--	--	--	--	--
471	--	--	<0.0008	<1	<5	<2	--	--	--	--
472	--	--	--	--	--	--	--	--	--	--
473	--	--	<0.0008	<1	<5	<2	--	--	--	--
474	--	--	<0.0008	<1	<5	<2	--	--	--	--
475	--	--	<0.0008	<1	<5	<2	--	--	--	--
476	--	16.2	--	--	--	--	--	--	--	--
477	--	--	--	--	--	--	--	--	--	--
478	--	--	<0.0008	<1	<5	<2	--	--	--	--
479	--	--	0.10	<1	<5	<2	<3	--	--	--
480	--	--	1.75	<1	<5	<2	<3	--	--	--
481	--	--	<0.0008	<1	<5	<2	--	--	--	--
482	--	--	<0.0008	<1	<5	<2	--	--	--	--
483	--	--	<0.0008	<1	<5	<2	--	--	--	--
484	--	--	--	--	--	--	--	0	0	0
485	--	--	<0.0008	<1	<5	<2	<3	--	--	--
486	--	8.50	0.002	<1	<5	<2	--	--	--	--
487	--	<20	<0.0008	<1	<5	<2	<3	0	0	0
488	--	--	<0.0008	--	--	--	--	--	--	--
489	--	--	--	--	--	--	--	--	--	--
490	--	--	--	--	--	--	--	--	--	--
491	--	--	<0.0008	<1	<2	<2	--	--	--	--
492	--	--	<0.0008	<1	<5	<2	<3	--	--	--
493	--	21.6	--	--	--	--	--	--	--	--
494	--	--	<0.0008	<1	<2	<2	--	--	--	--
495	--	--	<0.0008	<1	<2	<2	--	--	--	--
496	--	--	<0.0008	<1	<5	<2	--	--	--	--
497	--	--	0.003	<1	<5	<2	--	--	--	--
498	--	--	<0.0008	<1	<5	<2	--	--	--	--
499	--	--	<0.0008	<1	<5	<2	--	--	--	--
500	--	--	<0.0008	<1	<5	<2	--	--	--	--
501	--	--	<0.0008	<1	<5	<2	<3	--	--	--
502	--	--	<0.0008	<1	<5	<2	<3	--	--	--
503	--	--	<0.0008	<1	<5	<2	<3	--	--	--
504	100	<20	<0.0008	<1	<5	<2	<3	--	--	--
505	140	<20	<0.0008	<1	<5	<2	<3	--	--	--
506	--	5.60	<0.0008	<1	<5	<2	--	--	--	--
507	--	20.0	--	--	--	--	--	--	--	--
508	--	--	--	--	--	--	--	--	--	--
509	--	--	--	--	--	--	--	--	--	--
510	--	<20	<0.0008	<1	<5	<2	<3	0.008	--	--
511	--	6.30	<0.0008	<1	<5	<2	--	--	--	--
512	--	--	--	--	--	--	--	--	--	--
513	--	<20	<0.0008	<1	<5	<2	<3	0	0	0
514	--	13.0	<0.0008	<1	<2	<2	--	--	--	--
515	34	<20	<0.0008	<1	<5	<2	<3	--	--	--
516	--	5.80	<0.0008	<1	<5	<2	--	--	--	--
517	--	24.0	--	--	--	--	--	--	--	--
518	140	<20	<0.0008	<1	<5	<2	<3	--	--	--

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Barium, dissolved (ug/L)	Selenium, dissolved (ug/L)	Methane (mg/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylene (all isomers) (ug/L)	Methane (mol %)	Ethane (mol %)	Propane (mol %)
519	130	<20	<0.0008	<1	<5	<2	<3	--	--	--
520	260	<20	<0.0008	<1	<5	<2	<3	--	--	--
521	--	21.0	<0.0008	<1	<5	<2	<3	--	--	--
522	--	26.0	<0.0008	<1	<5	<2	<3	--	--	--
523	--	<20	<0.0008	<1	<5	<2	<3	0	0	0
524	--	<20	<0.0008	<1	<5	<2	--	--	--	--
525	--	<20	<0.0008	<1	<5	<2	--	--	--	--
526	--	--	--	--	--	--	--	0	0	0
527	150	<20	<0.0008	<1	<5	<2	<3	--	--	--
528	--	<20	<0.0008	<1	<5	<2	--	--	--	--
529	120	<20	<0.0008	<1	<5	<2	<3	--	--	--
530	--	18.0	<0.0008	<1	<5	<2	--	0.004	0	0
531	--	--	<0.0008	<1	<5	<2	--	--	--	--
532	--	5.00	<0.0008	<1	<5	<2	--	--	--	--
533	--	--	--	--	--	--	--	--	--	--
534	--	<20	<0.0008	<1	<5	<2	<3	--	--	--
535	--	<20	<0.0008	<1	<5	<2	<3	--	--	--
536	160	<20	<0.0008	<1	<5	<2	<3	--	--	--
537	--	<20	<0.0008	<1	<5	<2	<3	--	--	--
538	--	--	<0.0008	<1	<5	<2	--	--	--	--
539	120	<20	<0.0008	<1	<5	<2	<3	--	--	--
540	--	<20	<0.0008	<1	<5	<2	<3	--	--	--
541	--	--	--	--	--	--	--	--	--	--
542	--	12.0	<0.0008	<1	<5	<2	--	--	--	--
543	160	<20	<0.0008	<1	<5	<2	<3	--	--	--
544	--	--	--	--	--	--	--	--	--	--
558	--	--	--	--	--	--	--	--	--	--
559	<100	<1	--	--	--	--	--	--	--	--
560	--	--	--	--	--	--	--	--	--	--
561	--	--	--	--	--	--	--	--	--	--
562	--	--	<0.0008	<1	<5	<2	<3	--	--	--
563	--	--	--	--	--	--	--	--	--	--
564	--	--	--	--	--	--	--	--	--	--
565	--	--	--	--	--	--	--	--	--	--
566	--	--	--	--	--	--	--	--	--	--
569	--	--	--	--	--	--	--	--	--	--
570	--	--	<0.0008	--	--	--	--	--	--	--
571	--	--	<0.0008	--	--	--	--	--	--	--
572	--	--	--	<0.5	<1	<2	<3	--	--	--
573	--	--	--	--	--	--	--	--	--	--
574	--	--	<0.0008	<0.2	<0.2	<2	<3	--	--	--
575	--	<20	<0.0008	<1	<5	<2	<3	--	--	--
576	--	--	<0.0008	--	--	--	--	--	--	--
577	--	--	<0.0008	--	--	--	--	--	--	--
578	--	--	<0.0008	--	--	--	--	--	--	--
579	--	<20	<0.0008	<1	<5	<2	<3	--	--	--
580	--	--	<0.0008	--	--	--	--	--	--	--
581	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
582	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
583	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
584	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
585	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
586	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
587	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
588	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
589	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
590	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
591	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
592	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
593	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
594	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
595	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
596	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Barium, dissolved (ug/L)	Selenium, dissolved (ug/L)	Methane (mg/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylene (all isomers) (ug/L)	Methane (mol %)	Ethane (mol %)	Propane (mol %)
597	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
598	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
599	--	--	<0.0008	<1	<5	<2	<3	--	--	--
600	--	--	<0.0008	<1	<5	<2	<3	--	--	--
601	<200	16.0	<0.0008	<0.5	<5	<2	<3	--	--	--
602	--	<20	<0.0008	<1	<5	<2	<3	0	0	0
603	110	<20	<0.0008	<1	<5	<2	<3	--	--	--
604	--	<20	<0.0008	<1	<5	<2	<3	0	0	0
605	--	54.0	0.019	<1	<5	<2	<3	0	0	0
606	--	95.0	0.023	<1	<5	<2	<3	0	0	0
607	--	<20	<0.0008	<1	<5	<2	--	--	--	--
608	--	67.0	<0.0008	<1	<5	<2	<3	0.047	0	0
609	22	<20	<0.0008	<1	<5	<2	<3	--	--	--
610	--	<20	<0.0008	<1	<5	<2	<3	--	--	--
611	--	<20	<0.0008	<1	<5	<2	<3	--	--	--
612	--	<20	<0.0008	<1	<5	<2	<3	--	--	--
613	--	<20	<0.0008	<1	<5	<2	<3	--	--	--
614	--	<20	<0.0008	<1	<5	<2	<3	--	--	--
615	--	--	--	--	--	--	--	--	--	--
616	--	--	<0.0008	<1	<5	<2	<3	--	--	--
617	--	--	<0.0008	<1	<5	<2	<3	--	--	--
623	--	--	<0.0005	--	--	--	--	--	--	--
624	--	--	0.001	--	--	--	--	--	--	--
625	--	--	<0.0008	<1	<5	<2	<3	--	--	--
626	--	--	<0.0008	--	--	--	--	--	--	--
627	--	--	<0.0005	--	--	--	--	--	--	--
628	--	--	<0.0008	<1	<5	<2	<3	--	--	--
629	--	--	<0.0008	<1	<5	<2	--	--	--	--
630	--	--	--	--	--	--	--	--	--	--
631	--	--	<0.0008	<1	<5	<2	--	--	--	--
632	--	--	<0.0008	<1	<5	<2	<3	--	--	--
633	--	--	<0.0008	<1	<5	<2	<3	--	--	--
634	--	--	<0.0008	--	--	--	--	--	--	--
635	--	--	<0.0008	<1	<1	<2	<3	--	--	--
636	--	--	<0.0008	<1	<1	<2	<3	--	--	--
637	--	--	<0.0008	<1	<1	<2	<3	--	--	--
638	--	--	<0.0008	<1	<1	<2	<3	--	--	--
639	--	--	<0.0008	--	--	--	--	--	--	--
640	--	--	<0.0008	<1	<5	<2	--	--	--	--
641	--	--	<0.0008	<1	<2	<2	--	--	--	--
642	--	--	<0.0008	<1	<2	<2	--	--	--	--
643	--	--	<0.0008	<1	<5	<2	--	--	--	--
644	--	--	<0.0008	<1	<5	<2	<3	--	--	--
645	--	--	<0.0008	<1	<5	<2	--	--	--	--
646	--	--	<0.0008	<1	<5	<2	<3	--	--	--
647	--	--	<0.0008	<1	<5	<2	<3	--	--	--
649	--	--	<0.0008	<1	<5	<2	<3	--	--	--
650	52	<20	<0.0008	<1	<5	<2	<3	--	--	--
651	52	<20	<0.0008	<1	<5	<2	<3	--	--	--
652	--	--	<0.0008	<1	<5	<2	<3	--	--	--
653	--	--	<0.0008	<1	<5	<2	<3	--	--	--
654	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
655	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
656	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
657	--	--	0.077	<0.001	<0.005	<0.001	<0.003	--	--	--
658	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
660	--	--	<0.0008	<0.5	<0.5	<2	<3	--	--	--
660	--	--	--	--	--	--	--	0	0	0
661	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
662	--	--	<0.0008	<0.5	<0.5	<2	<3	--	--	--
663	--	--	<0.0008	<0.5	<0.5	<2	<3	--	--	--
663	--	--	--	--	--	--	--	0	0	0
664	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Barium, dissolved (ug/L)	Selenium, dissolved (ug/L)	Methane (mg/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylene (all isomers) (ug/L)	Methane (mol %)	Ethane (mol %)	Propane (mol %)
665	--	--	<0.0008	<1	<1	<2	<3	--	--	--
666	--	--	<0.0008	<1	<1	<2	<3	--	--	--
667	--	--	<0.0008	<1	<1	<2	<3	--	--	--
668	--	--	<0.0008	<1	<1	<2	<3	--	--	--
669	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
670	--	--	<0.0008	<1	<1	<2	<3	--	--	--
671	--	--	<0.0008	<1	<1	<2	<3	--	--	--
672	--	--	<0.0008	<1	<1	<2	<3	--	--	--
673	--	--	<0.0008	<1	<1	<2	<3	--	--	--
674	--	--	<0.0008	<1	<1	<2	<3	--	--	--
675	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
676	--	--	<0.01	<0.0005	<0.005	<0.0005	<0.0015	--	--	--
677	--	22.0	<0.0008	<0.5	<5	<2	<3	--	--	--
678	140	<20	<0.0008	<1	<5	<2	<3	--	--	--
679	--	<20	0.001	<1	<5	<2	--	--	--	--
680	--	20.0	<0.0008	<1	<5	<2	--	--	--	--
681	150	<20	<0.0008	<1	<5	<2	<3	--	--	--
682	--	17.0	<0.0008	<1	<5	<2	--	--	--	--
683	--	--	--	--	--	--	--	--	--	--
684	--	<20	<0.0008	<1	<5	<2	--	--	--	--
685	--	<20	<0.0008	<1	<5	<2	--	--	--	--
686	--	12.0	<0.0008	<1	<5	<2	--	--	--	--
687	140	<20	0.038	<1	<5	<2	<3	--	--	--
688	--	<20	<0.0008	<1	<5	<2	--	--	--	--
689	--	--	--	--	--	--	--	--	--	--
690	--	36.0	<0.0008	<1	<5	<2	--	--	--	--
691	<100	<1	--	--	--	--	--	--	--	--
692	390	--	--	--	--	--	--	--	--	--
693	--	--	--	--	--	--	--	--	--	--
694	--	--	<0.0008	<1	<5	<2	<3	--	--	--
695	73	<20	<0.0008	<1	<5	<2	<3	--	--	--
696	--	--	<0.0008	<1	<5	<2	--	--	--	--
699	--	--	<0.0008	<1	<5	<2	--	--	--	--
704	--	--	--	--	--	--	--	--	--	--
706	--	--	--	--	--	--	--	--	--	--
707	--	--	--	--	--	--	--	--	--	--
708	--	--	--	--	--	--	--	--	--	--
709	--	--	--	--	--	--	--	--	--	--
710	--	--	<0.0008	<1	<5	<2	<3	--	--	--
711	--	--	--	--	--	--	--	--	--	--
712	--	--	<0.0008	<1	<5	<2	<3	--	--	--
714	--	--	<0.0008	<1	<5	<2	<3	--	--	--
715	--	--	<0.0008	--	--	--	--	--	--	--
716	--	--	--	--	--	--	--	--	--	--
717	--	--	--	--	--	--	--	--	--	--
718	--	--	--	--	--	--	--	--	--	--
719	--	--	--	<0.5	<1	<2	<3	--	--	--
720	--	--	--	--	--	--	--	--	--	--
721	--	--	<0.0008	<1	<5	<2	<3	--	--	--
722	--	--	1.30	<1	<5	<2	<3	--	--	--
723	--	--	0.015	<1	<5	<2	<3	--	--	--
724	--	--	0.015	<1	<5	<2	<3	--	--	--
725	--	--	0.001	<1	<5	<2	<3	--	--	--
726	--	--	<0.0008	<1	<5	<2	--	--	--	--
727	--	--	--	--	--	--	--	--	--	--
728	--	--	--	<0.5	<1	<2	<3	--	--	--
729	--	--	--	<0.5	<1	<2	<3	--	--	--
730	--	--	--	<0.5	<1	<2	<3	--	--	--
731	--	--	--	--	--	--	--	--	--	--
732	--	--	--	<0.5	<1	<2	<3	--	--	--
733	--	--	--	--	--	--	--	--	--	--
734	--	--	--	<0.5	<1	<2	<3	--	--	--
735	--	--	--	<0.5	<1	<2	<3	--	--	--

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Barium, dissolved (ug/L)	Selenium, dissolved (ug/L)	Methane (mg/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylene (all isomers) (ug/L)	Methane (mol %)	Ethane (mol %)	Propane (mol %)
736	--	--	--	--	--	--	--	--	--	--
737	--	--	--	<0.5	<1	<2	<3	--	--	--
738	--	--	--	--	--	--	--	--	--	--
739	--	--	<0.0008	<0.2	0.31	<2	0.490	--	--	--
740	--	--	--	--	--	--	--	--	--	--
741	--	--	<0.0008	<0.2	<0.2	<2	<3	--	--	--
742	--	--	--	<0.5	<1	<2	<3	--	--	--
743	--	--	<0.0008	--	--	--	--	--	--	--
744	--	--	<0.0008	--	--	--	--	--	--	--
745	--	--	<0.0008	--	--	--	--	--	--	--
746	--	--	<0.0008	--	--	--	--	--	--	--
747	--	--	<0.0008	--	--	--	--	--	--	--
748	--	--	<0.0008	--	--	--	--	--	--	--
749	--	--	<0.0008	--	--	--	--	--	--	--
750	--	--	<0.0008	--	--	--	--	--	--	--
751	--	--	<0.0008	--	--	--	--	--	--	--
752	--	--	<0.0008	--	--	--	--	--	--	--
753	--	--	<0.0008	--	--	--	--	--	--	--
754	--	--	<0.0008	--	--	--	--	--	--	--
755	--	--	<0.0008	--	--	--	--	--	--	--
756	--	--	--	--	--	--	--	--	--	--
757	--	--	--	--	--	--	--	--	--	--
758	--	--	--	--	--	--	--	--	--	--
759	--	--	--	--	--	--	--	--	--	--
760	--	--	<0.0008	--	--	--	--	--	--	--
761	--	--	<0.0008	--	--	--	--	--	--	--
762	--	--	<0.0008	--	--	--	--	--	--	--
763	--	--	<0.0008	--	--	--	--	--	--	--
764	--	--	<0.0008	--	--	--	--	--	--	--
765	--	--	--	--	--	--	--	--	--	--
766	--	--	<0.0008	<1	<5	<2	<3	--	--	--
767	--	--	<0.0008	<1	<5	<2	<3	--	--	--
768	--	--	<0.0008	<1	<5	<2	<3	--	--	--
769	--	--	<0.0008	<1	<5	<2	<3	--	--	--
770	--	--	<0.0008	<1	<5	<2	<3	--	--	--
771	--	--	<0.0008	<1	<5	<2	<3	--	--	--
772	--	--	<0.0008	<1	<5	<2	<3	--	--	--
773	--	--	<0.0008	<1	<5	<2	<3	--	--	--
774	--	--	<0.0008	<1	<5	<2	<3	--	--	--
775	--	<20	<0.0008	<1	<5	<2	<3	0	0	0
776	--	<20	<0.0008	<1	<5	<2	<3	0	0	0
777	--	<20	<0.0008	<1	<5	<2	<3	--	--	--
778	--	<20	<0.0008	<1	<5	<2	<3	0	0	0
779	39	5.00	<0.001	<0.5	<0.5	<0.5	<1.5	--	--	--
780	33	<1	<0.001	<0.5	<0.5	<0.5	<1.5	--	--	--
781	210	2.00	<0.001	<0.5	<0.5	<0.5	<1.5	--	--	--
782	44	<20	<0.0008	<1	<5	<2	<3	--	--	--
783	96	2.00	0.002	<0.5	<0.5	<0.5	<1.5	--	--	--
784	100	2.00	<0.001	<0.5	<0.5	<0.5	<1.5	--	--	--
785	11	27.0	<0.001	<0.5	<0.5	<0.5	<1.5	--	--	--
786	140	2.00	<0.001	<0.5	<0.5	<0.5	<1.5	--	--	--
787	180	0.560	<0.001	<5	<5	<5	--	--	--	--
788	170	1.00	<0.001	<0.5	<0.5	<0.5	<1.5	--	--	--
789	78	<1	<0.001	<0.5	<0.5	<0.5	<1.5	--	--	--
790	190	0.630	<0.001	<5	<5	<5	--	--	--	--
791	--	<20	<0.0008	<1	<5	<2	<3	0	0	0
792	--	<20	<0.0008	<1	<5	<2	<3	0	0	0
793	178	<20	<0.0008	<1	<5	<2	--	--	--	--
794	--	<20	<0.0008	<1	<5	<2	<3	0	0	0
795	--	<20	<0.0008	<1	<5	<2	<3	0	0	0
796	--	--	--	--	--	--	--	--	--	--
797	--	<20	<0.0008	<1	<5	<2	<3	--	--	--
798	--	<20	<0.0008	<1	<5	<2	<3	0	0	0

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Barium, dissolved (ug/L)	Selenium, dissolved (ug/L)	Methane (mg/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylene (all isomers) (ug/L)	Methane (mol %)	Ethane (mol %)	Propane (mol %)
799	110	<20	<0.0008	<1	<5	<2	<3	--	--	--
800	--	--	--	--	--	--	--	--	--	--
801	--	--	--	--	--	--	--	--	--	--
802	--	--	0.23	<1	<5	<2	<3	--	--	--
803	--	--	<0.0008	<1	<5	<2	<3	--	--	--
804	--	--	<0.0005	--	--	--	--	--	--	--
805	--	--	0.005	--	--	--	--	--	--	--
806	--	--	--	--	--	--	--	--	--	--
807	--	--	32.5	--	--	--	--	--	--	--
811	--	--	<0.0005	--	--	--	--	--	--	--
812	--	--	<0.0005	--	--	--	--	--	--	--
813	--	--	<0.0005	--	--	--	--	--	--	--
814	--	--	<0.0005	--	--	--	--	--	--	--
815	--	--	<0.0008	<1	<5	<2	<3	--	--	--
816	--	--	<0.0005	--	--	--	--	--	--	--
817	--	--	--	--	--	--	--	--	--	--
818	--	--	<0.0008	<1	<5	<2	<3	--	--	--
819	6.1	160	--	--	--	--	--	--	--	--
820	--	--	<0.0005	--	--	--	--	--	--	--
821	--	--	<0.0008	<1	<5	<2	<3	--	--	--
822	--	--	<0.0008	<1	<5	<2	<3	--	--	--
823	--	--	<0.0008	<1	<5	<2	<3	--	--	--
824	--	--	<0.0008	<1	<5	<2	<3	--	--	--
825	--	--	<0.0008	<1	<5	<2	<3	--	--	--
826	--	--	--	--	--	--	--	--	--	--
827	--	--	<0.0008	<1	<5	<2	<3	--	--	--
828	--	--	<0.0008	<0.5	<0.5	<2	<3	--	--	--
829	--	--	<0.0008	<0.2	<0.2	<2	<3	--	--	--
830	--	--	<0.0008	<0.5	<0.5	<2	<3	--	--	--
831	--	--	--	--	--	--	--	65.5	0.16	0.010
832	--	--	0.68	<1	<5	<2	<3	--	--	--
833	--	--	<0.0008	<1	<5	<2	<3	--	--	--
834	--	--	<0.0008	<0.2	<0.2	<2	0.780	--	--	--
835	--	--	<0.0008	<0.5	<0.5	<2	<3	--	--	--
836	--	--	<0.0008	<0.5	<0.5	<2	<3	--	--	--
837	--	--	<0.0008	<0.5	<0.5	<2	<3	--	--	--
838	--	--	<0.0008	<0.5	<0.5	<2	<3	--	--	--
838	--	--	--	--	--	--	--	0	0	0
839	--	--	<0.0008	--	--	--	--	--	--	--
840	--	--	<0.0008	<0.5	<0.5	<2	<3	--	--	--
840	--	--	--	--	--	--	--	0	0	0
841	--	--	<0.0008	<0.5	<0.5	<2	<3	--	--	--
842	--	--	<0.0008	<0.5	<0.5	<2	<3	--	--	--
842	--	--	--	--	--	--	--	0	0	0
843	--	--	<0.0008	--	--	--	--	--	--	--
844	--	--	<0.0008	--	--	--	--	--	--	--
845	--	--	<0.0008	<0.5	<0.5	<2	<3	--	--	--
846	--	189	--	--	--	--	--	--	--	--
847	--	39.7	--	--	--	--	--	--	--	--
848	--	--	<0.0008	<1	<5	<2	<3	--	--	--
849	--	--	<0.0008	--	--	--	--	--	--	--
850	--	--	<0.0008	<1	<5	<2	<3	--	--	--
851	--	--	<0.0008	<1	<5	<2	<3	--	--	--
852	--	--	--	<1	<5	<2	<3	--	--	--
853	--	--	--	<1	<5	<2	<3	--	--	--
854	--	--	--	<1	<5	<2	<3	--	--	--
855	--	--	<0.0008	<1	<5	<2	<3	--	--	--
855	--	--	--	--	--	--	--	0.005	0	0
856	--	--	<0.0008	<1	<5	<2	<3	--	--	--
857	--	--	<0.0008	<1	<5	<2	<3	--	--	--
858	--	--	<0.0008	<1	<5	<2	<3	--	--	--
859	--	--	<0.0008	<1	2.40	<2	<3	--	--	--
860	--	--	<0.0008	<1	<5	<2	<3	--	--	--
860	--	--	--	--	--	--	--	0.009	0	0

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Barium, dissolved (ug/L)	Selenium, dissolved (ug/L)	Methane (mg/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylene (all isomers) (ug/L)	Methane (mol %)	Ethane (mol %)	Propane (mol %)
861	--	--	<0.0008	<1	<5	<2	<3	--	--	--
862	--	--	<0.0008	<1	<5	<2	<3	--	--	--
862	--	--	--	--	--	--	--	0	0	0
863	--	--	0.45	<0.5	<5	<2	<3	--	--	--
864	--	--	<0.0008	<1	<5	<2	<3	--	--	--
865	--	--	<0.0008	<1	<5	<2	<3	--	--	--
866	--	--	<0.0008	<1	<5	<2	<3	--	--	--
866	--	--	--	--	--	--	--	0	0	0
867	--	--	<0.0008	<1	<5	<2	<3	--	--	--
868	--	--	<0.0008	<1	<5	<2	<3	--	--	--
869	--	--	<0.0008	<1	<5	<2	<3	--	--	--
870	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
871	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
872	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
873	--	--	1.00	<0.001	<0.005	<0.001	<0.003	--	--	--
874	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
875	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
876	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
877	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
878	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
879	--	--	<0.01	<0.0005	<0.005	<0.0005	<0.0015	--	--	--
880	--	--	<0.01	<0.0005	<0.005	<0.0005	<0.0015	--	--	--
881	--	--	<0.01	<0.0005	<0.005	<0.0005	<0.0015	--	--	--
882	--	--	<0.01	<0.0005	<0.005	<0.0005	<0.0015	--	--	--
883	--	--	<0.01	<0.0005	<0.005	<0.0005	<0.0015	--	--	--
884	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
885	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
886	--	--	<0.0008	<1	<5	<2	<3	--	--	--
887	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
888	--	--	<0.01	<0.0005	<0.005	<0.0005	<0.0015	--	--	--
889	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
890	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
891	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
892	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
893	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
894	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
895	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
896	--	--	<0.01	<0.0005	<0.005	<0.0005	<0.0015	--	--	--
897	--	--	<0.0008	<0.5	<0.5	<2	<3	--	--	--
898	--	--	<0.0008	<0.5	<0.5	<2	<3	--	--	--
898	--	--	--	--	--	--	--	0	0	0
899	--	--	<0.0008	<0.5	<0.5	<2	<3	--	--	--
899	--	--	--	--	--	--	--	0	0	0
900	--	--	<0.01	<0.0005	<0.005	<0.0005	<0.0015	--	--	--
901	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
902	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
903	--	--	<0.01	<0.0005	<0.005	<0.0005	<0.0015	--	--	--
904	--	--	<0.01	<0.0005	<0.005	<0.0005	<0.0015	--	--	--
905	--	--	<0.0008	<0.5	<0.5	<2	<3	--	--	--
905	--	--	--	--	--	--	--	0	0	0
906	--	--	<0.0008	<0.5	<0.5	<2	<3	--	--	--
907	--	--	<0.0008	<0.5	<0.5	<2	<3	--	--	--
907	--	--	--	--	--	--	--	0	0	0
908	--	--	<0.0008	<0.5	<0.5	<2	<3	--	--	--
908	--	--	--	--	--	--	--	0	0	0
909	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
910	--	--	<0.0008	<0.5	<0.5	<2	<3	--	--	--
911	--	--	<0.0008	<0.5	<0.5	<2	<3	--	--	--
912	--	--	<0.0008	<0.5	<0.5	<2	<3	--	--	--
913	--	--	<0.0008	<0.5	<0.5	<2	<3	--	--	--
913	--	--	--	--	--	--	--	0.002	0	0
915	--	--	<0.0008	<0.5	<0.5	<2	<3	--	--	--
916	--	--	<0.0008	<0.5	<0.5	<2	<3	--	--	--
916	--	--	--	--	--	--	--	0	0	0

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Barium, dissolved (ug/L)	Selenium, dissolved (ug/L)	Methane (mg/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylene (all isomers) (ug/L)	Methane (mol %)	Ethane (mol %)	Propane (mol %)
917	--	--	<0.01	<0.0005	<0.005	<0.0005	<0.0015	--	--	--
918	--	--	<0.0008	<0.5	<0.5	<2	<3	--	--	--
918	--	--	--	--	--	--	--	0	0	0
919	--	--	<0.01	<0.0005	<0.005	<0.0005	<0.0015	--	--	--
920	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
921	--	--	<0.01	<0.0005	<0.005	<0.0005	<0.0015	--	--	--
922	--	--	<0.0008	<0.5	<0.5	<2	<3	--	--	--
923	--	--	<0.0008	<0.5	<0.5	<2	<3	--	--	--
924	--	--	<0.0008	<0.5	<0.5	<2	<3	--	--	--
924	--	--	--	--	--	--	--	0	0	0
925	--	--	<0.0008	<0.5	<0.5	<2	<3	--	--	--
925	--	--	--	--	--	--	--	0	0	0
926	--	--	<0.0008	<0.5	<0.5	<2	<3	--	--	--
927	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
928	--	--	<0.0008	<0.5	<0.5	<2	<3	--	--	--
928	--	--	--	--	--	--	--	0	0	0
930	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
931	--	--	<0.01	<0.0005	<0.005	<0.0005	<0.0015	--	--	--
932	--	--	0.085	<0.0005	<0.005	<0.0005	<0.0015	--	--	--
933	--	--	<0.0008	<0.5	<0.5	<2	<3	--	--	--
934	--	--	<0.0008	<0.5	<0.5	<2	<3	--	--	--
934	--	--	--	--	--	--	--	0	0	0
935	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
936	--	--	<0.01	<0.0005	<0.005	<0.0005	<0.0015	--	--	--
937	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
938	--	--	<0.01	<0.0005	<0.005	<0.0005	<0.0015	--	--	--
939	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
940	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
941	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
942	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
943	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
944	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
945	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
946	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
947	--	--	0.010	0.001	0.005	0.001	0.003	--	--	--
948	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
949	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
950	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
951	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
952	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
953	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
954	--	--	0.019	<0.001	<0.005	<0.001	<0.003	--	--	--
955	--	--	<0.01	<0.0005	<0.005	<0.0005	<0.0015	--	--	--
956	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
957	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
958	--	--	<0.01	<0.0005	<0.005	<0.0005	<0.0015	--	--	--
959	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
960	--	--	<0.01	<0.0005	<0.005	<0.0005	<0.0015	--	--	--
961	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
962	--	--	<0.01	<0.0005	<0.005	<0.0005	<0.0015	--	--	--
963	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
964	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
965	--	--	<0.01	<0.0005	<0.005	<0.0005	<0.0015	--	--	--
966	--	--	<0.01	<0.0005	<0.005	<0.0005	<0.0015	--	--	--
967	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
968	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
969	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
970	--	--	<0.01	<0.0005	<0.005	<0.0005	<0.0015	--	--	--
971	--	--	<0.01	<0.0005	<0.005	<0.0005	<0.0015	--	--	--
972	--	--	<0.01	<0.0005	<0.005	<0.0005	<0.0015	--	--	--
973	--	--	<0.01	<0.0005	<0.005	<0.0005	<0.0015	--	--	--
974	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
975	--	--	<0.01	<0.0005	<0.005	<0.0005	<0.0015	--	--	--
976	--	--	<0.01	<0.0005	<0.005	<0.0005	<0.0015	--	--	--

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Barium, dissolved (ug/L)	Selenium, dissolved (ug/L)	Methane (mg/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylene (all isomers) (ug/L)	Methane (mol %)	Ethane (mol %)	Propane (mol %)
977	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
978	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
979	--	--	<0.01	<0.0005	<0.005	<0.0005	<0.0015	--	--	--
980	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
981	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
982	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
983	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
984	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
985	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
986	--	--	0.017	<0.001	<0.005	<0.001	<0.003	--	--	--
987	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
988	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
989	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
990	--	--	<0.01	<0.0005	<0.005	<0.0005	<0.0015	--	--	--
991	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
992	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
993	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
994	--	--	<0.01	<0.0005	<0.005	<0.0005	<0.0015	--	--	--
995	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
996	--	--	<0.01	<0.0005	<0.005	<0.0005	<0.0015	--	--	--
997	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
998	--	--	<0.01	<0.0005	<0.005	<0.0005	<0.0015	--	--	--
999	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
1000	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
1001	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
1002	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
1003	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
1004	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
1005	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
1006	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
1007	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
1008	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
1009	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
1010	--	--	<0.01	<0.001	<0.005	<0.001	<0.003	--	--	--
1011	--	--	<0.01	<0.0005	<0.005	<0.0005	<0.0015	--	--	--
1012	--	--	<0.01	<0.0005	<0.005	<0.0005	<0.0015	--	--	--
1013	--	--	<0.01	<0.0005	<0.005	<0.0005	<0.0015	--	--	--
1014	--	--	<0.01	<0.0005	<0.005	<0.0005	<0.0015	--	--	--
1015	--	--	<0.01	<0.0005	<0.005	<0.0005	<0.0015	--	--	--
1016	--	--	<0.01	<0.0005	<0.005	<0.0005	<0.0015	--	--	--
1017	--	--	<0.01	<0.0005	<0.005	<0.0005	<0.0015	--	--	--
1018	--	--	<0.01	<0.0005	<0.005	<0.0005	<0.0015	--	--	--
1019	--	--	<0.01	<0.0005	<0.005	<0.0005	<0.0015	--	--	--
1020	--	--	<0.01	<0.0005	<0.005	<0.0005	<0.0015	--	--	--
1021	--	--	<0.01	<0.0005	<0.005	<0.0005	<0.0015	--	--	--
1022	--	--	<0.01	<0.0005	<0.005	<0.0005	<0.0015	--	--	--
1023	--	--	<0.01	<0.0005	<0.005	<0.0005	<0.0015	--	--	--
1024	--	--	<0.01	<0.0005	<0.005	<0.0005	<0.0015	--	--	--
1025	--	--	<0.01	<0.0005	<0.005	<0.0005	<0.0015	--	--	--
1026	--	21.0	<0.0008	<1	<5	<2	<3	--	--	--
1027	--	<20	<0.0008	<1	<5	<2	<3	--	--	--
1028	--	--	--	--	--	--	--	--	--	--
1029	--	--	--	--	--	--	--	--	--	--
1030	--	--	<0.0008	<1	<5	<2	<3	--	--	--
1031	--	--	<0.0008	<1	<5	<2	<3	--	--	--
1032	--	--	<0.0008	<1	<5	<2	<3	--	--	--
1033	--	--	<0.0008	--	--	--	--	--	--	--
1034	8.0	3.00	--	--	--	--	--	--	--	--
1038	--	--	--	--	--	--	--	--	--	--
1039	--	--	--	--	--	--	--	--	--	--
1051	--	--	--	--	--	--	--	--	--	--
1052	--	--	--	--	--	--	--	--	--	--
1053	--	--	--	--	--	--	--	--	--	--
1054	70	<1	--	--	--	--	--	--	--	--

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Barium, dissolved (ug/L)	Selenium, dissolved (ug/L)	Methane (mg/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylene (all isomers) (ug/L)	Methane (mol %)	Ethane (mol %)	Propane (mol %)
1055	--	6.00	--	--	--	--	--	--	--	--
1057	<100	1.00	--	--	--	--	--	--	--	--
1058	200	--	--	--	--	--	--	--	--	--
1059	1,000	<1	--	--	--	--	--	--	--	--
1062	--	--	--	--	--	--	--	--	--	--
1064	--	--	--	--	--	--	--	--	--	--
1065	--	--	--	--	--	--	--	--	--	--
1066	--	--	--	--	--	--	--	--	--	--
1067	--	--	--	--	--	--	--	--	--	--
1068	--	--	--	--	--	--	--	--	--	--
1069	3,200	<1	--	--	--	--	--	--	--	--
1070	--	--	--	--	--	--	--	--	--	--
1071	30	--	--	--	--	--	--	--	--	--
1073	--	4.00	--	--	--	--	--	--	--	--
1080	42	--	--	--	--	--	--	--	--	--
1081	5,300	<1	--	--	--	--	--	--	--	--
1084	--	--	--	--	--	--	--	--	--	--
1085	--	8.00	--	--	--	--	--	--	--	--
1091	--	8.00	--	--	--	--	--	--	--	--
1094	--	--	--	--	--	--	--	--	--	--
1095	--	--	--	--	--	--	--	--	--	--
1096	--	6.00	--	--	--	--	--	--	--	--
1099	--	--	--	--	--	--	--	--	--	--
1100	--	5.00	--	--	--	--	--	--	--	--
1101	--	--	--	--	--	--	--	--	--	--
1107	--	--	--	--	--	--	--	--	--	--
1125	--	--	--	--	--	--	--	--	--	--
1130	--	--	--	--	--	--	--	--	--	--
1141	--	--	--	--	--	--	--	--	--	--
1142	--	2.00	--	--	--	--	--	--	--	--
1144	--	--	--	--	--	--	--	--	--	--
1146	--	--	--	--	--	--	--	--	--	--
1147	--	--	--	--	--	--	--	--	--	--
1149	--	--	--	--	--	--	--	--	--	--
1153	--	--	--	--	--	--	--	--	--	--
1154	--	--	--	--	--	--	--	--	--	--
1160	--	<1	--	--	--	--	--	--	--	--
1164	--	--	--	--	--	--	--	--	--	--
1173	--	--	--	--	--	--	--	--	--	--
1174	200	<1	--	--	--	--	--	--	--	--
1175	<100	<1	--	--	--	--	--	--	--	--
1176	--	--	--	--	--	--	--	--	--	--
1177	--	--	--	--	--	--	--	--	--	--
1178	--	6.00	--	--	--	--	--	--	--	--
1182	--	<1	--	--	--	--	--	--	--	--
1185	--	<1	--	--	--	--	--	--	--	--
1186	--	<1	--	--	--	--	--	--	--	--
1187	--	--	--	--	--	--	--	--	--	--
1188	60	<20	--	--	--	--	--	--	--	--
1189	500	<1	--	--	--	--	--	--	--	--
1190	58	--	--	--	--	--	--	--	--	--
1191	40	1.00	--	--	--	--	--	--	--	--
1192	43	--	--	--	--	--	--	--	--	--
1193	120	--	--	--	--	--	--	--	--	--
1194	1,100	--	--	--	--	--	--	--	--	--
1195	600	--	--	--	--	--	--	--	--	--
1196	50	1.00	--	--	--	--	--	--	--	--
1197	--	--	--	--	--	--	--	--	--	--
1198	<100	<1	--	--	--	--	--	--	--	--
1199	25	--	--	--	--	--	--	--	--	--
1200	<100	--	--	--	--	--	--	--	--	--
1201	--	--	--	--	--	--	--	--	--	--
1202	--	--	--	--	--	--	--	--	--	--
1203	1,100	<1	--	--	--	--	--	--	--	--

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Barium, dissolved (ug/L)	Selenium, dissolved (ug/L)	Methane (mg/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylene (all isomers) (ug/L)	Methane (mol %)	Ethane (mol %)	Propane (mol %)
1204	--	--	--	--	--	--	--	--	--	--
1205	1,200	2.00	--	--	--	--	--	--	--	--
1206	900	--	--	--	--	--	--	--	--	--
1207	100	--	--	--	--	--	--	--	--	--
1208	45	--	--	--	--	--	--	--	--	--
1209	26	--	--	--	--	--	--	--	--	--
1210	90	1.00	--	--	--	--	--	--	--	--
1211	40	1.00	--	--	--	--	--	--	--	--
1213	800	1.00	--	--	--	--	--	--	--	--
1230	36	--	--	--	--	--	--	--	--	--
1237	--	1.00	--	--	--	--	--	--	--	--
1239	<100	<1	--	--	--	--	--	--	--	--
1244	--	--	--	--	--	--	--	--	--	--
1250	--	--	--	--	--	--	--	--	--	--
1251	--	--	--	--	--	--	--	--	--	--
1252	--	--	--	--	--	--	--	--	--	--
1253	--	--	--	--	--	--	--	--	--	--
1254	--	--	--	--	--	--	--	--	--	--
1256	--	--	--	--	--	--	--	--	--	--
1260	--	--	--	--	--	--	--	--	--	--
1265	--	--	--	--	--	--	--	--	--	--
1267	--	--	--	--	--	--	--	--	--	--
1272	--	--	--	--	--	--	--	--	--	--
1273	--	--	--	--	--	--	--	--	--	--
1277	--	1.00	--	--	--	--	--	--	--	--
1282	--	--	--	--	--	--	--	--	--	--
1297	--	--	--	--	--	--	--	--	--	--
1302	--	--	--	--	--	--	--	--	--	--
1305	--	7.00	--	--	--	--	--	--	--	--
1306	--	--	--	--	--	--	--	--	--	--
1307	--	--	--	--	--	--	--	--	--	--
1317	--	--	--	--	--	--	--	--	--	--
1318	--	--	--	--	--	--	--	--	--	--
1321	2,900	--	--	--	--	--	--	--	--	--
1327	--	--	--	--	--	--	--	--	--	--
1328	--	--	--	--	--	--	--	--	--	--
1329	--	--	--	--	--	--	--	--	--	--
1330	--	--	--	--	--	--	--	--	--	--
1333	--	--	--	--	--	--	--	--	--	--
1369	--	--	--	--	--	--	--	--	--	--
1371	--	--	--	--	--	--	--	--	--	--
1381	--	--	--	--	--	--	--	--	--	--
1382	--	--	--	--	--	--	--	--	--	--
1383	--	--	--	--	--	--	--	--	--	--
1387	--	--	--	--	--	--	--	--	--	--
1388	--	--	--	--	--	--	--	--	--	--
1389	--	--	--	--	--	--	--	--	--	--
1390	--	--	--	--	--	--	--	--	--	--
1391	--	--	--	--	--	--	--	--	--	--
1392	--	--	--	--	--	--	--	--	--	--
1393	--	--	--	--	--	--	--	--	--	--
1395	--	--	--	--	--	--	--	--	--	--
1403	--	--	--	--	--	--	--	--	--	--
1409	--	--	--	--	--	--	--	--	--	--
1410	--	20.0	--	--	--	--	--	--	--	--
1411	--	--	--	--	--	--	--	--	--	--
1415	--	--	--	--	--	--	--	--	--	--
1416	--	--	--	--	--	--	--	--	--	--
1418	--	<1	--	--	--	--	--	--	--	--
1419	--	--	--	--	--	--	--	--	--	--
1420	--	--	--	--	--	--	--	--	--	--
1421	<100	<20	--	--	--	--	--	--	--	--
1422	--	<20	--	--	--	--	--	--	--	--
1423	600	--	--	--	--	--	--	--	--	--

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Barium, dissolved (ug/L)	Selenium, dissolved (ug/L)	Methane (mg/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylene (all isomers) (ug/L)	Methane (mol %)	Ethane (mol %)	Propane (mol %)
1426	<100	<1	--	--	--	--	--	--	--	--
1433	--	4.00	--	--	--	--	--	--	--	--
1438	--	<1	--	--	--	--	--	--	--	--
1443	--	3.00	--	--	--	--	--	--	--	--
1445	--	4.00	--	--	--	--	--	--	--	--
1448	--	4.00	--	--	--	--	--	--	--	--
1450	--	5.00	--	--	--	--	--	--	--	--
1452	--	5.00	--	--	--	--	--	--	--	--
1454	43	--	--	--	--	--	--	--	--	--
1461	--	--	--	--	--	--	--	--	--	--
1463	--	--	--	--	--	--	--	--	--	--
1464	--	--	--	--	--	--	--	--	--	--
1465	--	--	--	--	--	--	--	--	--	--
1466	700	<1	--	--	--	--	--	--	--	--
1467	<100	<1	--	--	--	--	--	--	--	--
1468	<100	<1	--	--	--	--	--	--	--	--
1469	100	<20	--	--	--	--	--	--	--	--
1475	21	<1	--	10.0	<3	<3	<3	--	--	--
1476	41	<1	--	43.0	<3	<3	<3	--	--	--
1477	<100	<1	--	--	--	--	--	--	--	--
1478	--	--	--	--	--	--	--	--	--	--
1480	--	--	--	--	--	--	--	--	--	--
1482	--	--	--	--	--	--	--	--	--	--
1484	<100	<1	--	--	--	--	--	--	--	--
1486	300	<1	--	--	--	--	--	--	--	--
1487	--	<1	--	--	--	--	--	--	--	--
1488	<100	<1	--	--	--	--	--	--	--	--
1492	--	--	--	--	--	--	--	--	--	--
1497	--	--	--	--	--	--	--	--	--	--
1498	--	<1	--	--	--	--	--	--	--	--
1499	<200	1.00	--	--	--	--	--	--	--	--
1502	400	<1	--	--	--	--	--	--	--	--
1506	--	--	--	--	--	--	--	--	--	--
1507	--	--	--	--	--	--	--	--	--	--
1508	--	--	--	--	--	--	--	--	--	--
1509	--	--	--	--	--	--	--	--	--	--
1510	--	--	--	--	--	--	--	--	--	--
1512	31	<1	--	--	--	--	--	--	--	--
1513	--	<20	--	--	--	--	--	--	--	--
1514	426	0.638	--	--	--	--	--	--	--	--
1515	649	1.22	--	--	--	--	--	--	--	--
1516	4,841	<0.7	--	--	--	--	--	--	--	--
1517	1,786	<15	--	--	--	--	--	--	--	--
1518	<200	<1	--	--	--	--	--	--	--	--
1519	<100	<1	--	--	--	--	--	--	--	--
1523	--	3.00	--	--	--	--	--	--	--	--
1526	--	7.00	--	--	--	--	--	--	--	--
1530	--	<1	--	--	--	--	--	--	--	--
1532	--	9.00	--	--	--	--	--	--	--	--
1535	15	2.04	--	--	--	--	--	--	--	--
1536	--	4.00	--	--	--	--	--	--	--	--
1538	423	<0.7	--	--	--	--	--	--	--	--
1539	1,474	<20	--	--	--	--	--	--	--	--
1539	1,403	<20	--	--	--	--	--	--	--	--
1540	134	3.79	--	--	--	--	--	--	--	--
1541	2,437	<2	--	--	--	--	--	--	--	--
1542	56	<5	--	--	--	--	--	--	--	--
1546	55	<1	--	--	--	--	--	--	--	--
1547	420	<1	--	--	--	--	--	--	--	--
1549	--	5.00	--	--	--	--	--	--	--	--
1552	--	6.00	--	--	--	--	--	--	--	--
1555	--	--	--	--	--	--	--	--	--	--
1558	--	--	--	--	--	--	--	--	--	--
1559	--	--	--	--	--	--	--	--	--	--

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Barium, dissolved (ug/L)	Selenium, dissolved (ug/L)	Methane (mg/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylene (all isomers) (ug/L)	Methane (mol %)	Ethane (mol %)	Propane (mol %)
1560	--	--	--	--	--	--	--	--	--	--
1561	--	--	--	--	--	--	--	--	--	--
1565	--	--	--	--	--	--	--	--	--	--
1566	--	--	--	--	--	--	--	--	--	--
1567	--	--	--	--	--	--	--	--	--	--
1568	--	--	--	--	--	--	--	--	--	--
1571	--	--	--	--	--	--	--	--	--	--
1576	--	2.00	--	--	--	--	--	--	--	--
1580	--	--	--	--	--	--	--	--	--	--
1581	<100	<20	--	--	--	--	--	--	--	--
1587	--	2.00	--	--	--	--	--	--	--	--
1592	--	--	--	--	--	--	--	--	--	--
1593	--	--	--	--	--	--	--	--	--	--
1594	--	--	--	--	--	--	--	--	--	--
1595	--	--	--	--	--	--	--	--	--	--
1596	--	--	--	--	--	--	--	--	--	--
1597	--	--	--	--	--	--	--	--	--	--
1598	--	5.00	--	--	--	--	--	--	--	--
1599	--	--	--	--	--	--	--	--	--	--
1600	--	--	--	--	--	--	--	--	--	--
1601	--	--	--	--	--	--	--	--	--	--
1602	--	--	--	--	--	--	--	--	--	--
1603	<100	<1	--	--	--	--	--	--	--	--
1604	900	<1	--	--	--	--	--	--	--	--
1605	1,200	<1	--	--	--	--	--	--	--	--
1607	--	2.00	--	--	--	--	--	--	--	--
1609	--	7.00	--	--	--	--	--	--	--	--
1610	--	--	--	--	--	--	--	--	--	--
1612	--	7.00	--	--	--	--	--	--	--	--
1613	42	<1	--	--	--	--	--	--	--	--
1614	410	<1	--	--	--	--	--	--	--	--
1617	--	5.00	--	--	--	--	--	--	--	--
1622	<100	1.00	--	--	--	--	--	--	--	--
1623	<100	1.00	--	--	--	--	--	--	--	--
1626	--	2.00	--	--	--	--	--	--	--	--
1628	--	3.00	--	--	--	--	--	--	--	--
1631	--	--	--	--	--	--	--	--	--	--
1632	--	--	--	--	--	--	--	--	--	--
1633	--	61.0	--	--	--	--	--	--	--	--
1634	--	9.00	--	--	--	--	--	--	--	--
1635	--	<4.8	--	--	--	--	--	--	--	--
1636	--	21.6	--	--	--	--	--	--	--	--
1639	--	--	--	--	--	--	--	--	--	--
1640	--	2.79	--	--	--	--	--	--	--	--
1641	--	2.13	--	--	--	--	--	--	--	--
1642	--	1.75	--	--	--	--	--	--	--	--
1643	--	24.0	--	--	--	--	--	--	--	--
1644	--	--	--	--	--	--	--	--	--	--
1645	--	<2.4	--	--	--	--	--	--	--	--
1646	--	--	--	--	--	--	--	--	--	--
1647	--	--	--	--	--	--	--	--	--	--
1648	--	9.60	--	--	--	--	--	--	--	--
1649	--	--	--	--	--	--	--	--	--	--
1650	--	--	--	--	--	--	--	--	--	--
1651	--	71.4	--	--	--	--	--	--	--	--
1652	19	50.8	--	--	--	--	--	--	--	--
1653	33	<1	--	--	--	--	--	--	--	--
1654	--	32.0	--	--	--	--	--	--	--	--
1655	--	--	--	--	--	--	--	--	--	--
1656	--	--	--	--	--	--	--	--	--	--
1657	--	--	--	--	--	--	--	--	--	--
1658	--	--	--	--	--	--	--	--	--	--
1659	--	--	--	--	--	--	--	--	--	--
1660	--	--	--	--	--	--	--	--	--	--

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Barium, dissolved (ug/L)	Selenium, dissolved (ug/L)	Methane (mg/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylene (all isomers) (ug/L)	Methane (mol %)	Ethane (mol %)	Propane (mol %)
1661	--	--	--	--	--	--	--	--	--	--
1662	--	--	--	--	--	--	--	--	--	--
1664	--	--	<0.0008	--	--	--	--	--	--	--
1665	--	--	<0.0008	--	--	--	--	--	--	--
1666	--	--	<0.0008	<1	<5	<2	--	--	--	--
1667	--	--	<0.0008	<1	<5	<2	--	--	--	--
1668	--	--	0.094	<1	<5	<2	--	--	--	--
1669	--	--	--	--	--	--	--	--	--	--
1670	--	--	--	--	--	--	--	--	--	--
1671	--	4.00	--	--	--	--	--	--	--	--
1672	--	--	--	--	--	--	--	--	--	--
1673	--	2.00	--	--	--	--	--	--	--	--
1674	--	2.40	--	--	--	--	--	--	--	--
1675	--	7.20	--	--	--	--	--	--	--	--
1676	--	--	--	--	--	--	--	--	--	--
1677	--	11.0	--	--	--	--	--	--	--	--
1678	--	<1	--	--	--	--	--	--	--	--
1679	--	2.72	--	--	--	--	--	--	--	--
1680	--	2.75	--	--	--	--	--	--	--	--
1681	--	1.60	--	--	--	--	--	--	--	--
1682	--	--	--	--	--	--	--	--	--	--
1683	--	1.59	--	--	--	--	--	--	--	--
1684	--	--	--	--	--	--	--	--	--	--
1685	--	--	--	--	--	--	--	--	--	--
1686	--	6.34	--	--	--	--	--	--	--	--
1687	--	--	--	--	--	--	--	--	--	--
1688	--	--	--	--	--	--	--	--	--	--
1689	--	1.00	--	--	--	--	--	--	--	--
1690	--	<1	--	--	--	--	--	--	--	--
1691	--	--	--	--	--	--	--	--	--	--
1692	--	--	--	--	--	--	--	--	--	--
1693	--	<1	--	--	--	--	--	--	--	--
1694	--	--	--	--	--	--	--	--	--	--
1695	--	--	--	--	--	--	--	--	--	--
1696	--	160	--	--	--	--	--	--	--	--
1697	--	--	--	--	--	--	--	--	--	--
1699	--	--	--	--	--	--	--	--	--	--
1700	--	280	--	--	--	--	--	--	--	--
1701	--	--	--	--	--	--	--	--	--	--
1702	--	<1	--	--	--	--	--	--	--	--
1703	--	--	--	--	--	--	--	--	--	--
1704	--	--	--	--	--	--	--	--	--	--
1705	--	--	--	--	--	--	--	--	--	--
1706	--	--	--	--	--	--	--	--	--	--
1707	--	190	--	--	--	--	--	--	--	--
1708	--	47.0	--	--	--	--	--	--	--	--
1709	--	<1	--	--	--	--	--	--	--	--
1710	--	--	--	--	--	--	--	--	--	--
1711	--	--	--	--	--	--	--	--	--	--
1712	--	--	--	--	--	--	--	--	--	--
1713	--	30.6	--	--	--	--	--	--	--	--
1714	--	39.0	--	--	--	--	--	--	--	--
1715	--	--	--	--	--	--	--	--	--	--
1716	--	--	--	--	--	--	--	--	--	--
1723	<100	6.00	--	--	--	--	--	--	--	--
1727	--	--	--	--	--	--	--	--	--	--
1728	--	--	--	--	--	--	--	--	--	--
1730	--	--	--	--	--	--	--	--	--	--
1731	--	--	--	--	--	--	--	--	--	--
1732	--	<1	--	--	--	--	--	--	--	--
1733	60	<20	--	--	--	--	--	--	--	--
1734	--	0.713	--	--	--	--	--	--	--	--
1735	--	1.40	--	--	--	--	--	--	--	--

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Barium, dissolved (ug/L)	Selenium, dissolved (ug/L)	Methane (mg/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylene (all isomers) (ug/L)	Methane (mol %)	Ethane (mol %)	Propane (mol %)
1736	--	<0.7	--	--	--	--	--	--	--	--
1738	--	--	--	--	--	--	--	--	--	--
1741	--	--	--	--	--	--	--	--	--	--
1742	--	--	--	--	--	--	--	--	--	--
1743	--	--	--	--	--	--	--	--	--	--
1744	--	--	--	--	--	--	--	--	--	--
1745	--	--	<0.0008	--	--	--	--	--	--	--
1747	--	--	--	--	--	--	--	--	--	--
1752	--	<20	0.015	<1	<5	<2	<3	0	0	0
1753	--	<20	<0.0008	<1	<5	<2	<3	0	0	0
1754	--	--	--	--	--	--	--	0	0	0
1755	--	<20	<0.0008	<1	<5	<2	<3	0	0	0
1756	--	<20	<0.0008	<1	<5	<2	<3	0.042	0	0
1757	--	<20	<0.0008	<1	<5	<2	<3	0	0	0
1758	--	<20	<0.0008	<1	<5	<2	<3	--	--	--
1759	--	<20	<0.0008	<1	<5	<2	<3	0.025	0.008	0
1760	--	<20	<0.0008	<1	<5	<2	<3	--	--	--
1761	154	<5	--	--	--	--	--	--	--	--
1762	--	--	--	--	--	--	--	--	--	--
1763	--	--	--	--	--	--	--	--	--	--
1765	--	3.00	--	--	--	--	--	--	--	--
1766	--	1,000	--	--	--	--	--	--	--	--
1768	--	2.00	--	--	--	--	--	--	--	--
1769	--	35.0	--	--	--	--	--	--	--	--
1770	--	--	--	--	--	--	--	--	--	--
1771	--	--	--	--	--	--	--	--	--	--
1772	--	--	--	--	--	--	--	--	--	--
1773	--	--	<0.0008	--	--	--	--	--	--	--
1774	--	--	0.21	<0.4	<0.4	<2	<3	--	--	--
1776	--	--	<0.0008	--	--	--	--	--	--	--
1777	--	--	<0.0008	--	--	--	--	--	--	--
1778	--	--	<0.0008	--	--	--	--	--	--	--
1779	--	--	<0.0008	--	--	--	--	--	--	--
1780	--	--	<0.0008	--	--	--	--	--	--	--
1781	--	--	<0.0008	--	--	--	--	--	--	--
1782	--	--	0.001	<1	<5	<2	--	--	--	--
1783	--	--	0.060	<1	<5	<2	--	--	--	--
1784	--	--	0.11	<1	<5	<2	--	--	--	--
1785	--	--	<0.0008	<1	<5	<2	--	--	--	--
1786	--	--	<0.0008	<1	<5	<2	--	--	--	--
1787	--	--	--	--	--	--	--	--	--	--
1788	--	41.0	<0.0008	<1	<5	<2	--	--	--	--
1789	--	--	--	--	--	--	--	--	--	--
1790	--	--	--	--	--	--	--	--	--	--
1791	--	--	--	--	--	--	--	--	--	--
1792	--	--	--	--	--	--	--	--	--	--
1793	--	--	--	--	--	--	--	--	--	--
1794	--	--	--	--	--	--	--	--	--	--
1795	--	--	--	--	--	--	--	--	--	--
1796	--	--	<0.0008	--	--	--	--	--	--	--
1797	--	--	<0.0008	--	--	--	--	--	--	--
1798	--	--	<0.0008	--	--	--	--	--	--	--
1799	--	--	<0.0008	--	--	--	--	--	--	--
1800	--	--	<0.0008	--	--	--	--	--	--	--
1801	--	--	<0.0008	--	--	--	--	--	--	--
1802	--	--	<0.0008	--	--	--	--	--	--	--
1803	--	--	<0.0008	--	--	--	--	--	--	--
1804	--	--	<0.0008	--	--	--	--	--	--	--
1805	--	--	<0.0008	--	--	--	--	--	--	--
1806	--	--	<0.0008	--	--	--	--	--	--	--
1807	--	--	26.0	<1	<2	<2	--	--	--	--
1807	--	--	--	--	--	--	--	79.9	2.54	0.48
1808	--	--	0.002	<1	<5	<2	--	--	--	--

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Barium, dissolved (ug/L)	Selenium, dissolved (ug/L)	Methane (mg/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylene (all isomers) (ug/L)	Methane (mol %)	Ethane (mol %)	Propane (mol %)
1809	--	--	<0.0008	<1	<5	<2	--	--	--	--
1810	--	--	<0.0008	<1	<5	<2	--	--	--	--
1811	--	<20	0.012	<1	<5	<2	<3	0	0	0
1812	--	23.0	0.27	<1	<5	<2	<3	0	0	0
1813	--	<20	<0.0008	<1	<5	<2	--	0.010	0	0
1814	--	<20	<0.0008	<1	<5	<2	<3	0.004	0	0
1815	--	--	--	--	--	--	--	--	--	--
1816	--	32.0	<0.0008	<1	<5	<2	<3	0	0	0
1817	--	<20	<0.0008	<1	<5	<2	<3	0	0	0
1818	--	<20	<0.0008	<1	<5	<2	<3	0	0	0
1819	--	--	--	--	--	--	--	--	--	--
1820	--	<20	<0.0008	<1	<5	<2	<3	--	--	--
1821	--	<20	<0.0008	<1	<5	<2	<3	0.018	0	0
1822	--	<20	<0.0008	<1	<5	<2	<3	0	0	0
1827	184	<1	--	--	--	--	--	--	--	--
1828	234	<1	--	--	--	--	--	--	--	--
1829	--	--	--	--	--	--	--	--	--	--
1830	--	--	--	--	--	--	--	--	--	--
1832	--	--	<0.0008	--	--	--	--	--	--	--
1833	--	--	--	--	--	--	--	--	--	--
1837	<100	6.00	--	--	--	--	--	--	--	--
1842	--	69.4	--	--	--	--	--	--	--	--
1843	--	3.94	--	--	--	--	--	--	--	--
1845	--	--	--	--	--	--	--	--	--	--
1847	--	6.74	--	--	--	--	--	--	--	--
1855	--	--	<0.0008	<1	<5	<2	--	--	--	--
1856	--	--	<0.0008	<1	<5	<2	--	--	--	--
1857	--	--	<0.0008	<1	<5	<2	--	--	--	--
1858	--	--	0.002	<1	<5	<2	--	--	--	--
1859	--	--	0.007	<1	<5	<2	--	--	--	--
1860	--	--	0.056	<1	<5	<2	--	--	--	--
1861	--	--	<0.0008	<1	<5	<2	--	--	--	--
1862	--	--	<0.0008	<1	<2	<2	--	--	--	--
1863	--	--	<0.0008	<1	<2	<2	--	--	--	--
1864	--	49.0	--	--	--	--	--	--	--	--
1865	--	--	--	--	--	--	--	--	--	--
1866	--	--	--	--	--	--	--	--	--	--
1867	--	21.0	--	--	--	--	--	--	--	--
1868	--	85.0	--	--	--	--	--	--	--	--
1869	--	57.0	--	--	--	--	--	--	--	--
1870	--	238	--	--	--	--	--	--	--	--
1871	--	1.60	--	--	--	--	--	--	--	--
1872	--	1.30	--	--	--	--	--	--	--	--
1873	--	14.0	--	--	--	--	--	--	--	--
1874	--	--	--	--	--	--	--	--	--	--
1875	--	25.0	--	--	--	--	--	--	--	--
1876	--	32.0	--	--	--	--	--	--	--	--
1877	--	5.00	--	--	--	--	--	--	--	--
1878	--	5.00	--	--	--	--	--	--	--	--
1879	--	7.00	--	--	--	--	--	--	--	--
1880	--	16.0	--	--	--	--	--	--	--	--
1881	--	5.00	--	--	--	--	--	--	--	--
1882	--	--	--	--	--	--	--	--	--	--
1883	--	8.00	--	--	--	--	--	--	--	--
1884	--	--	--	--	--	--	--	--	--	--
1885	--	--	--	--	--	--	--	--	--	--
1886	--	--	--	--	--	--	--	--	--	--
1887	--	--	--	--	--	--	--	--	--	--
1888	--	--	--	--	--	--	--	--	--	--
1889	--	14.0	--	--	--	--	--	--	--	--
1890	--	--	--	--	--	--	--	--	--	--
1891	60	1.00	--	--	--	--	--	--	--	--
1895	50	<20	--	--	--	--	--	--	--	--

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Barium, dissolved (ug/L)	Selenium, dissolved (ug/L)	Methane (mg/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylene (all isomers) (ug/L)	Methane (mol %)	Ethane (mol %)	Propane (mol %)
1896	100	2.00	--	--	--	--	--	--	--	--
1897	100	16.0	--	--	--	--	--	--	--	--
1898	80	9.00	--	--	--	--	--	--	--	--
1899	90	<20	--	--	--	--	--	--	--	--
1900	400	3.00	--	--	--	--	--	--	--	--
1904	--	1.00	--	--	--	--	--	--	--	--
1906	--	--	--	--	--	--	--	--	--	--
1907	80	<20	--	--	--	--	--	--	--	--
1908	--	--	--	--	--	--	--	--	--	--
1909	--	--	<0.0008	<1	<5	<2	--	--	--	--
1910	--	--	0.011	<1	<5	<2	--	--	--	--
1911	--	--	--	--	--	--	--	--	--	--
1912	--	--	--	--	--	--	--	--	--	--
1913	--	--	--	--	--	--	--	--	--	--
1914	--	--	--	--	--	--	--	--	--	--
1915	--	--	--	--	--	--	--	--	--	--
1916	--	--	--	--	--	--	--	--	--	--
1917	--	--	--	--	--	--	--	--	--	--
1918	--	--	--	--	--	--	--	--	--	--
1919	--	--	<0.0008	<1	<5	<2	--	--	--	--
1920	--	--	<0.0008	<1	<5	<2	--	--	--	--
1921	--	--	<0.0008	<1	<5	<2	--	--	--	--
1925	--	4.00	--	--	--	--	--	--	--	--
1926	--	22.0	--	--	--	--	--	--	--	--
1928	--	21.0	--	--	--	--	--	--	--	--
1930	--	--	--	--	--	--	--	--	--	--
1931	--	--	--	--	--	--	--	--	--	--
1932	--	--	--	--	--	--	--	--	--	--
1937	--	--	<0.0008	<1	<5	--	--	--	--	--
1938	--	--	<0.0008	<1	<5	<2	--	--	--	--
1939	--	--	0.094	<1	<5	<2	--	--	--	--
1940	--	--	--	--	--	--	--	--	--	--
1941	--	--	--	--	--	--	--	--	--	--
1942	--	--	--	--	--	--	--	--	--	--
1943	--	--	--	--	--	--	--	--	--	--
1944	--	--	--	--	--	--	--	--	--	--
1945	--	--	--	--	--	--	--	--	--	--
1946	--	--	0.004	<1	<5	<2	--	--	--	--
1947	--	--	0.006	<1	<5	<2	--	--	--	--
1951	--	--	--	--	--	--	--	--	--	--
1955	2,100	<1	--	--	--	--	--	--	--	--
1962	<100	<1	--	--	--	--	--	--	--	--
1967	--	--	0.002	<1	<5	<2	--	--	--	--
1968	--	--	<0.0008	<1	<5	<2	--	--	--	--
1969	--	--	0.066	<1	<5	<2	--	--	--	--
1970	--	--	0.007	<1	<5	<2	--	--	--	--
1971	--	--	<0.0008	<1	<5	<2	--	--	--	--
1972	--	--	0.38	<1	<5	<2	--	--	--	--
1973	--	--	<0.0008	<1	<5	<2	--	--	--	--
1974	--	--	<0.0008	<1	<5	<2	--	--	--	--
1975	--	--	--	--	--	--	--	--	--	--
1976	--	--	--	--	--	--	--	--	--	--
1978	90	2.00	--	--	--	--	--	--	--	--
1981	--	4.59	--	--	--	--	--	--	--	--
1982	--	1.06	--	--	--	--	--	--	--	--
1983	--	--	--	--	--	--	--	--	--	--
1986	36	20.1	--	--	--	--	--	--	--	--
1990	--	--	--	--	--	--	--	--	--	--
1993	--	--	--	--	--	--	--	--	--	--
1995	--	--	--	--	--	--	--	--	--	--
1996	--	--	--	--	--	--	--	--	--	--
2001	--	--	--	--	--	--	--	--	--	--
2002	--	2.00	--	--	--	--	--	--	--	--

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Barium, dissolved (ug/L)	Selenium, dissolved (ug/L)	Methane (mg/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylene (all isomers) (ug/L)	Methane (mol %)	Ethane (mol %)	Propane (mol %)
2003	--	--	--	--	--	--	--	--	--	--
2011	--	--	--	--	--	--	--	--	--	--
2012	--	--	--	--	--	--	--	--	--	--
2013	--	--	--	--	--	--	--	--	--	--
2014	--	31.0	--	--	--	--	--	--	--	--
2015	--	--	<0.0008	<1	<2	<2	--	--	--	--
2016	--	--	--	--	--	--	--	--	--	--
2017	--	--	--	--	--	--	--	--	--	--
2018	--	--	--	--	--	--	--	--	--	--
2019	--	--	--	--	--	--	--	--	--	--
2020	--	--	--	--	--	--	--	--	--	--
2021	--	--	--	--	--	--	--	--	--	--
2022	--	--	--	--	--	--	--	--	--	--
2023	--	--	--	--	--	--	--	--	--	--
2024	--	--	--	--	--	--	--	--	--	--
2025	--	--	--	--	--	--	--	--	--	--
2027	--	25.0	--	--	--	--	--	--	--	--
2029	--	--	--	--	--	--	--	--	--	--
2030	--	--	--	--	--	--	--	--	--	--
2033	--	<1	--	--	--	--	--	--	--	--
2034	--	--	--	--	--	--	--	--	--	--
2035	--	--	--	--	--	--	--	--	--	--
2037	--	--	--	--	--	--	--	--	--	--
2040	--	--	--	--	--	--	--	--	--	--
2041	20	<20	--	--	--	--	--	--	--	--
2044	--	--	--	--	--	--	--	--	--	--
2046	--	<1	--	--	--	--	--	--	--	--
2046	--	<1	--	--	--	--	--	--	--	--
2049	--	--	--	--	--	--	--	--	--	--
2050	--	--	--	--	--	--	--	--	--	--
2051	--	--	--	--	--	--	--	--	--	--
2052	--	--	--	--	--	--	--	--	--	--
2053	--	--	--	--	--	--	--	--	--	--
2054	--	--	--	--	--	--	--	--	--	--
2055	--	--	--	--	--	--	--	--	--	--
2056	--	--	--	--	--	--	--	--	--	--
2058	--	--	--	--	--	--	--	--	--	--
2061	--	22.0	--	--	--	--	--	--	--	--
2063	--	--	--	--	--	--	--	--	--	--
2064	--	--	--	--	--	--	--	--	--	--
2065	--	--	--	--	--	--	--	--	--	--
2066	--	--	--	--	--	--	--	--	--	--
2067	--	--	--	--	--	--	--	--	--	--
2068	--	--	--	--	--	--	--	--	--	--
2069	--	--	--	--	--	--	--	--	--	--
2070	--	--	--	--	--	--	--	--	--	--
2071	--	--	--	--	--	--	--	--	--	--
2072	--	--	--	--	--	--	--	--	--	--
2076	--	24.9	--	--	--	--	--	--	--	--
2077	--	--	--	--	--	--	--	66.1	0.47	0.013
2078	--	--	--	--	--	--	--	--	--	--
2079	--	--	--	--	--	--	--	--	--	--
2080	--	--	--	--	--	--	--	--	--	--
2082	--	--	--	--	--	--	--	--	--	--
2083	--	--	--	--	--	--	--	--	--	--
2084	--	--	--	--	--	--	--	--	--	--
2085	--	<1	--	--	--	--	--	--	--	--
2088	--	--	--	--	--	--	--	--	--	--
2089	--	--	--	--	--	--	--	--	--	--
2090	--	--	--	--	--	--	--	--	--	--
2091	--	--	--	--	--	--	--	--	--	--
2094	--	--	--	--	--	--	--	--	--	--
2095	--	--	--	--	--	--	--	--	--	--
2096	--	--	--	--	--	--	--	--	--	--

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Deuterium/Protium ratio, water, unfiltered, per mil (P82082)	Oxygen-18/Oxygen-16 ratio, water, unfiltered, per mil (P82085)	Deuterium/Protium ratio in methane, water, filtered, per mil relative to VSMOW	Carbon-13/Carbon-12 ratio in methane, water, filtered, per mil relative to VSMOW
1	--	--	--	--
2	--	--	--	--
3	--	--	--	--
4	--	--	--	--
5	--	--	--	--
6	--	--	--	--
8	--	--	--	--
9	--	--	--	--
13	--	--	--	--
14	--	--	--	--
15	--	--	--	--
16	--	--	--	--
17	--	--	--	--
18	--	--	--	--
19	--	--	--	--
20	--	--	--	--
21	--	--	--	--
22	--	--	--	--
23	--	--	--	--
24	--	--	--	--
25	--	--	--	--
26	--	--	--	--
27	--	--	--	--
28	--	--	--	--
29	--	--	--	--
30	--	--	--	--
31	--	--	--	--
33	--	--	--	--
34	--	--	--	--
36	--	--	--	--
38	--	--	--	--
39	--	--	--	--
40	--	--	--	--
41	--	--	--	--
42	--	--	--	--
43	--	--	--	--
44	--	--	--	--
45	--	--	--	--
46	--	--	--	--
47	--	--	--	--
48	--	--	--	--
49	--	--	--	--
50	–114.5	–15.33	--	--
51	--	--	--	--
52	--	--	--	--
53	--	--	--	--
54	--	--	--	--
55	--	--	--	--
56	--	--	--	--
57	--	--	--	--
58	--	--	--	--
59	--	--	--	--
60	--	--	--	--
61	--	--	--	--
62	--	--	--	--
63	--	--	--	--
64	--	--	--	--
65	--	--	--	--
66	--	--	--	--
67	--	--	--	--
68	--	--	--	--
69	--	--	–188.9	–65.09
70	--	--	--	--
71	--	--	--	--

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Deuterium/Protium ratio, water, unfiltered, per mil (P82082)	Oxygen-18/Oxygen-16 ratio, water, unfiltered, per mil (P82085)	Deuterium/Protium ratio in methane, water, filtered, per mil relative to VSMOW	Carbon-13/Carbon-12 ratio in methane, water, filtered, per mil relative to VSMOW
72	--	--	--	--
73	--	--	--	--
74	--	--	--	--
75	--	--	--	--
76	--	--	--	--
77	--	--	--	--
78	--	--	--	--
79	--	--	--	--
80	--	--	--	--
81	--	--	--	--
82	--	--	--	--
83	--	--	--	--
84	--	--	--	--
85	--	--	--	--
86	--	--	--	--
87	--	--	--	--
88	--	--	--	--
89	--	--	–228.7	–55.51
90	--	--	--	--
91	--	--	--	--
92	--	--	--	--
93	--	--	--	--
94	--	--	--	--
95	--	--	--	--
96	--	--	--	--
97	--	--	--	--
98	--	--	--	--
99	--	--	–168	-40.33
100	--	--	–185.8	–39.9
101	--	--	--	--
102	--	--	–189.3	–41.3
103	--	--	--	--
104	--	--	–142.4	–38.57
105	--	--	--	--
106	--	--	–185.1	–39.88
107	--	--	--	--
108	--	--	--	--
109	--	--	–200.3	–55.86
110	--	--	–213.9	–56.5
111	--	--	--	--
112	--	--	--	--
113	--	--	–169.7	–37.83
114	--	--	–190.5	–44.14
115	--	--	--	--
116	--	--	--	--
117	--	--	--	--
118	--	--	--	--
119	--	--	--	--
120	--	--	--	--
121	--	--	--	--
122	--	--	--	--
123	--	--	--	--
124	--	--	--	--
125	--	--	--	--
126	--	--	--	--
127	--	--	--	--
128	--	--	--	--
129	--	--	--	--
130	--	--	--	--
131	--	--	–190.1	–43.87
132	--	--	--	--
133	--	--	--	--
134	--	--	--	--

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Deuterium/Protium ratio, water, unfiltered, per mil (P82082)	Oxygen-18/Oxygen-16 ratio, water, unfiltered, per mil (P82085)	Deuterium/Protium ratio in methane, water, filtered, per mil relative to VSMOW	Carbon-13/Carbon-12 ratio in methane, water, filtered, per mil relative to VSMOW
135	--	--	--	--
138	--	--	--	--
142	--	--	--	--
143	--	--	--	--
144	--	--	--	--
145	--	--	--	--
146	--	--	--	--
147	--	--	--	--
148	--	--	--	--
149	--	--	--	--
150	--	--	--	--
151	--	--	--	--
152	--	--	--	--
153	--	--	--	--
154	--	--	--	--
155	--	--	--	--
157	--	--	--	--
158	–113.3	–15.22	--	--
159	–119.1	–15.99	--	--
161	--	--	--	--
162	–120.6	–15.77	--	--
163	–121.2	–15.48	--	--
164	–100.3	–13.7	--	--
165	–113.4	–15.15	--	--
166	--	--	--	--
167	--	--	--	--
168	--	--	--	--
169	--	--	--	--
169	--	--	--	--
170	--	--	--	--
171	--	--	--	--
172	--	--	--	--
173	--	--	--	--
174	--	--	--	--
175	--	--	--	--
176	--	--	--	--
177	--	--	--	--
178	--	--	--	--
179	--	--	--	--
180	--	--	--	--
181	--	--	--	--
182	--	--	--	--
182	--	--	–176.300	–41.690
183	--	--	--	--
184	--	--	–184.200	–40.390
185	--	--	--	--
186	--	--	--	--
187	--	--	--	--
187	--	--	–217.300	–75.740
188	--	--	--	--
189	--	--	--	--
189	--	--	–119.600	–36.970
191	--	--	--	--
192	--	--	--	--
193	--	--	--	--
194	--	--	--	--
195	--	--	--	--
196	--	--	--	--
197	--	--	--	--
198	--	--	--	--
199	--	--	--	--
200	--	--	--	--
201	--	--	--	--

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Deuterium/Protium ratio, water, unfiltered, per mil (P82082)	Oxygen-18/Oxygen-16 ratio, water, unfiltered, per mil (P82085)	Deuterium/Protium ratio in methane, water, filtered, per mil relative to VSMOW	Carbon-13/Carbon-12 ratio in methane, water, filtered, per mil relative to VSMOW
201	--	--	--	--
202	--	--	--	--
203	--	--	--	--
203	--	--	–167.800	–39.270
204	--	--	--	--
205	--	--	--	--
205	--	--	–182.600	–40.990
206	--	--	--	--
207	--	--	--	--
208	--	--	--	--
209	--	--	--	--
211	--	--	--	--
213	--	--	--	--
214	--	--	--	--
214	--	--	–199.300	–75.160
215	--	--	--	--
216	--	--	--	--
216	--	--	–203.5	–44.680
217	--	--	--	--
218	--	--	--	--
219	--	--	--	--
220	--	--	--	--
221	--	--	--	--
222	--	--	--	--
223	--	--	--	--
224	--	--	–170.1	–40.08
225	--	--	--	--
226	U	U	–175.8	–69.88
227	--	--	--	--
228	--	--	--	--
228	--	--	–236.5	–64.910
229	--	--	--	--
230	--	--	--	--
231	--	--	--	--
232	--	--	--	--
233	--	--	--	--
234	--	--	--	--
235	--	--	--	--
236	--	--	--	--
237	--	--	--	--
238	--	--	--	--
239	--	--	--	--
240	--	--	--	--
241	--	--	--	--
242	--	--	--	--
243	--	--	--	--
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245	--	--	--	--
246	--	--	--	--
247	--	--	--	--
248	--	--	--	--
249	--	--	--	--
250	--	--	--	--
251	--	--	--	--
252	--	--	--	--
253	--	--	--	--
254	--	--	--	--
255	--	--	--	--
256	--	--	--	--
256	--	--	–181.900	–62.530
257	--	--	--	--
258	--	--	--	--
259	–130.600	–17.300	--	--
259	--	--	--	--

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Deuterium/Protium ratio, water, unfiltered, per mil (P82082)	Oxygen-18/Oxygen-16 ratio, water, unfiltered, per mil (P82085)	Deuterium/Protium ratio in methane, water, filtered, per mil relative to VSMOW	Carbon-13/Carbon-12 ratio in methane, water, filtered, per mil relative to VSMOW
260	--	--	--	--
261	--	--	--	--
262	--	--	--	--
263	--	--	--	--
264	--	--	--	--
264	--	--	--	--
265	--	--	--	--
266	--	--	--	--
267	--	--	--	--
268	--	--	--	--
269	--	--	--	--
270	--	--	--	--
271	--	--	--	--
272	--	--	--	--
273	--	--	--	--
274	--	--	--	--
275	--	--	--	--
276	--	--	–161	–36.45
277	--	--	--	--
278	--	--	--	--
279	--	--	--	--
280	--	--	–98.1	–50.88
281	--	--	--	U
282	–115.5	–15.52	–189	–81.15
283	--	--	--	--
284	--	--	--	--
285	--	--	--	--
286	--	--	--	--
287	--	--	--	--
288	--	--	--	--
289	--	--	--	--
290	--	--	--	--
291	--	--	--	--
292	--	--	--	--
293	--	--	--	--
294	--	--	--	--
295	--	--	--	--
296	--	--	--	--
297	--	--	--	--
298	--	--	--	--
299	--	--	--	--
300	--	--	–177.1	–73.27
301	--	--	–187.9	–74.7
302	--	--	--	--
303	--	--	--	--
304	--	--	--	--
305	--	--	--	--
306	--	--	--	--
307	--	--	--	--
308	--	--	--	--
309	--	--	--	--
310	--	--	--	--
311	--	--	–188.4	–53.68
312	--	--	--	--
313	--	--	--	--
314	--	--	--	--
315	--	--	--	--
316	--	--	–223.2	–58.41
317	--	--	--	--
318	--	--	--	--
319	--	--	--	--
320	--	--	--	--
321	--	--	--	--

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Deuterium/Protium ratio, water, unfiltered, per mil (P82082)	Oxygen-18/Oxygen-16 ratio, water, unfiltered, per mil (P82085)	Deuterium/Protium ratio in methane, water, filtered, per mil relative to VSMOW	Carbon-13/Carbon-12 ratio in methane, water, filtered, per mil relative to VSMOW
322	--	--	--	--
323	--	--	--	--
324	--	--	--	--
325	--	--	–132.4	–39.24
326	--	--	--	--
327	--	--	--	--
328	--	--	--	--
329	--	--	--	--
330	--	--	--	--
331	--	--	--	--
332	--	--	--	--
333	--	--	--	--
334	--	--	--	--
335	--	--	--	--
336	--	--	--	--
337	--	--	--	--
338	--	--	--	--
339	--	--	--	--
340	--	--	--	--
341	--	--	--	--
342	--	--	--	--
343	--	--	--	--
344	--	--	--	--
345	--	--	--	--
346	--	--	--	--
347	--	--	--	--
348	--	--	--	--
349	--	--	--	--
350	--	--	--	--
351	--	--	--	--
352	--	--	--	--
353	--	--	--	--
354	--	--	--	--
355	--	--	--	--
356	--	--	--	--
357	--	--	--	--
358	--	--	--	--
359	--	--	–186.8	–46.28
360	--	--	–182.2	–46.93
361	--	--	–75.26	--
362	--	--	--	--
363	--	--	--	--
364	--	--	–199.3	–75.16
365	--	--	–190.6	–49.38
366	--	--	--	--
367	--	--	--	--
368	--	--	--	--
369	--	--	--	--
370	--	--	--	--
371	--	--	--	--
372	--	--	--	--
373	--	--	--	--
374	--	--	--	--
375	--	--	--	--
376	--	--	–54.09	--
377	--	--	--	--
378	--	--	--	--
379	--	--	--	--
380	--	--	--	--
381	--	--	--	--
382	--	--	--	--
383	--	--	--	--
384	--	--	--	--
385	--	--	--	--

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Deuterium/Protium ratio, water, unfiltered, per mil (P82082)	Oxygen-18/Oxygen-16 ratio, water, unfiltered, per mil (P82085)	Deuterium/Protium ratio in methane, water, filtered, per mil relative to VSMOW	Carbon-13/Carbon-12 ratio in methane, water, filtered, per mil relative to VSMOW
386	--	--	--	--
387	--	--	--	--
388	--	--	--	--
389	--	--	--	--
390	--	--	--	--
391	--	--	--	--
392	--	--	--	--
393	--	--	--	--
394	--	--	--	--
395	--	--	--	--
396	--	--	--	--
397	--	--	--	--
398	--	--	--	--
399	--	--	--	--
400	--	--	--	--
401	--	--	–61.81	--
402	--	--	--	--
403	--	--	--	--
404	--	--	--	--
405	--	--	--	--
406	--	--	--	--
407	--	--	--	--
408	--	--	--	--
409	--	--	--	--
410	--	--	--	--
414	--	--	--	--
415	--	--	--	--
416	--	--	--	--
417	--	--	--	--
418	--	--	--	--
419	--	--	--	--
420	--	--	--	--
428	--	--	--	--
429	--	--	--	--
430	--	--	--	--
432	--	--	--	--
433	--	--	--	--
434	--	--	--	--
435	--	--	--	--
436	--	--	--	--
437	--	--	--	--
438	--	--	--	--
439	--	--	--	--
440	--	--	--	--
441	--	--	--	--
442	--	--	--	--
443	--	--	--	--
444	--	--	--	--
445	--	--	--	--
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448	--	--	--	--
448	--	--	--	--
449	--	--	--	--
450	--	--	--	--
451	--	--	--	--
452	--	--	--	--
453	--	--	--	--
453	--	--	--	--
454	--	--	--	--
454	--	--	--	--
455	--	--	--	--
456	--	--	--	--

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Deuterium/Protium ratio, water, unfiltered, per mil (P82082)	Oxygen-18/Oxygen-16 ratio, water, unfiltered, per mil (P82085)	Deuterium/Protium ratio in methane, water, filtered, per mil relative to VSMOW	Carbon-13/Carbon-12 ratio in methane, water, filtered, per mil relative to VSMOW
457	--	--	--	--
458	--	--	--	--
459	--	--	--	--
460	--	--	--	--
461	--	--	--	--
462	--	--	--	--
463	--	--	--	--
464	--	--	--	--
465	–48	–3.9	--	--
466	--	--	--	--
468	--	--	--	--
469	--	--	--	--
470	--	--	--	--
471	--	--	--	--
472	--	--	--	--
473	--	--	--	--
474	--	--	--	--
475	--	--	--	--
476	--	--	--	--
477	--	--	--	--
478	--	--	--	--
479	--	--	--	--
480	--	--	--	--
481	--	--	--	--
482	--	--	--	--
483	--	--	--	--
484	--	--	--	--
485	--	--	--	--
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488	--	--	--	--
489	--	--	--	--
490	--	--	--	--
491	--	--	--	--
492	--	--	--	--
493	--	--	--	--
494	--	--	--	--
495	--	--	--	--
496	--	--	--	--
497	--	--	--	--
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499	--	--	--	--
500	--	--	--	--
501	--	--	--	--
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503	--	--	--	--
504	--	--	--	--
505	--	--	--	--
506	--	--	--	--
507	--	--	--	--
508	--	--	--	--
509	--	--	--	--
510	--	--	--	--
511	--	--	--	--
512	--	--	--	--
513	U	U	U	U
514	--	--	--	--
515	--	--	--	--
516	--	--	--	--
517	--	--	--	--
518	--	--	--	--
519	--	--	--	--
520	--	--	--	--
521	--	--	--	--

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Deuterium/Protium ratio, water, unfiltered, per mil (P82082)	Oxygen-18/Oxygen-16 ratio, water, unfiltered, per mil (P82085)	Deuterium/Protium ratio in methane, water, filtered, per mil relative to VSMOW	Carbon-13/Carbon-12 ratio in methane, water, filtered, per mil relative to VSMOW
522	--	--	--	--
523	–118	–16.16	--	--
524	--	--	--	--
525	--	--	--	--
526	--	--	--	--
527	--	--	--	--
528	--	--	--	--
529	--	--	--	--
530	--	--	–43.38	--
531	--	--	--	--
532	--	--	--	--
533	--	--	--	--
534	--	--	--	--
535	--	--	--	--
536	--	--	--	--
537	--	--	--	--
538	--	--	--	--
539	--	--	--	--
540	--	--	--	--
541	--	--	--	--
542	--	--	--	--
543	--	--	--	--
544	--	--	--	--
558	--	--	--	--
559	--	--	--	--
560	--	--	--	--
561	--	--	--	--
562	--	--	--	--
563	--	--	--	--
564	--	--	--	--
565	--	--	--	--
566	--	--	--	--
569	--	--	--	--
570	--	--	--	--
571	--	--	--	--
572	--	--	--	--
573	--	--	--	--
574	--	--	--	--
575	--	--	--	--
576	--	--	--	--
577	--	--	--	--
578	--	--	--	--
579	--	--	--	--
580	--	--	--	--
581	--	--	--	--
582	--	--	--	--
583	--	--	--	--
584	--	--	--	--
585	--	--	--	--
586	--	--	--	--
587	--	--	--	--
588	--	--	--	--
589	--	--	--	--
590	--	--	--	--
591	--	--	--	--
592	--	--	--	--
593	--	--	--	--
594	--	--	--	--
595	--	--	--	--
596	--	--	--	--
597	--	--	--	--
598	--	--	--	--
599	--	--	--	--
600	--	--	--	--

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Deuterium/Protium ratio, water, unfiltered, per mil (P82082)	Oxygen-18/Oxygen-16 ratio, water, unfiltered, per mil (P82085)	Deuterium/Protium ratio in methane, water, filtered, per mil relative to VSMOW	Carbon-13/Carbon-12 ratio in methane, water, filtered, per mil relative to VSMOW
601	--	--	--	--
602	--	--	--	--
603	--	--	--	--
604	--	--	--	--
605	U	U	U	U
606	U	U	U	U
607	--	--	--	--
608	--	--	--	--
609	--	--	--	--
610	--	--	--	--
611	--	--	--	--
612	--	--	--	--
613	--	--	--	--
614	--	--	--	--
615	--	--	--	--
616	--	--	--	--
617	--	--	--	--
623	–118	–15.44	--	--
624	–120.6	–15.75	--	--
625	--	--	--	--
626	--	--	--	--
627	–115.7	–15.18	--	--
628	--	--	--	--
629	--	--	--	--
630	--	--	--	--
631	--	--	--	--
632	--	--	--	--
633	--	--	--	--
634	--	--	--	--
635	--	--	--	--
636	--	--	--	--
637	--	--	--	--
638	--	--	--	--
639	--	--	--	--
640	--	--	--	--
641	--	--	--	--
642	--	--	--	--
643	--	--	--	--
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658	--	--	--	--
660	--	--	--	--
660	--	--	--	--
661	--	--	--	--
662	--	--	--	--
663	--	--	--	--
663	--	--	--	--
664	--	--	--	--
665	--	--	--	--
666	--	--	--	--
667	--	--	--	--
668	--	--	--	--
669	--	--	--	--

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Deuterium/Protium ratio, water, unfiltered, per mil (P82082)	Oxygen-18/Oxygen-16 ratio, water, unfiltered, per mil (P82085)	Deuterium/Protium ratio in methane, water, filtered, per mil relative to VSMOW	Carbon-13/Carbon-12 ratio in methane, water, filtered, per mil relative to VSMOW
670	--	--	--	--
671	--	--	--	--
672	--	--	--	--
673	--	--	--	--
674	--	--	--	--
675	--	--	--	--
676	--	--	--	--
677	--	--	--	--
678	--	--	--	--
679	--	--	--	--
680	--	--	--	--
681	--	--	--	--
682	--	--	--	--
683	--	--	--	--
684	--	--	--	--
685	--	--	--	--
686	--	--	--	--
687	--	--	--	--
688	--	--	--	--
689	--	--	--	--
690	--	--	--	--
691	--	--	--	--
692	--	--	--	--
693	--	--	--	--
694	--	--	--	--
695	--	--	--	--
696	--	--	--	--
699	--	--	--	--
704	--	--	--	--
706	--	--	--	--
707	--	--	--	--
708	--	--	--	--
709	--	--	--	--
710	--	--	--	--
711	--	--	--	--
712	--	--	--	--
714	--	--	--	--
715	--	--	--	--
716	--	--	--	--
717	--	--	--	--
718	--	--	--	--
719	--	--	--	--
720	--	--	--	--
721	--	--	--	--
722	--	--	--	--
723	--	--	--	--
724	--	--	--	--
725	--	--	--	--
726	--	--	--	--
727	--	--	--	--
728	--	--	--	--
729	--	--	--	--
730	--	--	--	--
731	--	--	--	--
732	--	--	--	--
733	--	--	--	--
734	--	--	--	--
735	--	--	--	--
736	--	--	--	--
737	--	--	--	--
738	--	--	--	--
739	--	--	--	--
740	--	--	--	--
741	--	--	--	--

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Deuterium/Protium ratio, water, unfiltered, per mil (P82082)	Oxygen-18/Oxygen-16 ratio, water, unfiltered, per mil (P82085)	Deuterium/Protium ratio in methane, water, filtered, per mil relative to VSMOW	Carbon-13/Carbon-12 ratio in methane, water, filtered, per mil relative to VSMOW
742	--	--	--	--
743	--	--	--	--
744	--	--	--	--
745	--	--	--	--
746	--	--	--	--
747	--	--	--	--
748	--	--	--	--
749	--	--	--	--
750	--	--	--	--
751	--	--	--	--
752	--	--	--	--
753	--	--	--	--
754	--	--	--	--
755	--	--	--	--
756	--	--	--	--
757	--	--	--	--
758	--	--	--	--
759	--	--	--	--
760	--	--	--	--
761	--	--	--	--
762	--	--	--	--
763	--	--	--	--
764	--	--	--	--
765	--	--	--	--
766	--	--	--	--
767	--	--	--	--
768	--	--	--	--
769	--	--	--	--
770	--	--	--	--
771	--	--	--	--
772	--	--	--	--
773	--	--	--	--
774	--	--	--	--
775	--	--	--	--
776	--	--	--	--
777	--	--	--	--
778	--	--	--	--
779	--	--	--	--
780	--	--	--	--
781	--	--	--	--
782	--	--	--	--
783	--	--	--	--
784	--	--	--	--
785	--	--	--	--
786	--	--	--	--
787	--	--	--	--
788	--	--	--	--
789	--	--	--	--
790	--	--	--	--
791	--	--	--	--
792	--	--	--	--
793	--	--	--	--
794	--	--	--	--
795	--	--	--	--
796	--	--	--	--
797	--	--	--	--
798	--	--	--	--
799	--	--	--	--
800	--	--	--	--
801	--	--	--	--
802	--	--	--	--
803	--	--	--	--
804	–112.5	–15.02	--	--
805	–115	–14.98	--	--

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Deuterium/Protium ratio, water, unfiltered, per mil (P82082)	Oxygen-18/Oxygen-16 ratio, water, unfiltered, per mil (P82085)	Deuterium/Protium ratio in methane, water, filtered, per mil relative to VSMOW	Carbon-13/Carbon-12 ratio in methane, water, filtered, per mil relative to VSMOW
806	--	--	--	--
807	–58.3	–8.9	--	--
811	–121.8	–16.25	--	--
812	–120.6	–15.68	--	--
813	–116.1	–15.05	--	--
814	–119.6	–15.74	--	--
815	--	--	--	--
816	–119.6	–15.7	--	--
817	–120.8	–15.93	--	--
818	--	--	--	--
819	--	--	--	--
820	–121.6	–16.02	--	--
821	--	--	--	--
822	--	--	--	--
823	--	--	--	--
824	--	--	--	--
825	--	--	--	--
826	--	--	--	--
827	--	--	--	--
828	--	--	--	--
829	--	--	--	--
830	--	--	--	--
831	--	--	--	--
832	--	--	--	--
833	--	--	--	--
834	--	--	--	--
835	--	--	--	--
836	--	--	--	--
837	--	--	--	--
838	--	--	--	--
838	--	--	--	--
839	--	--	--	--
840	--	--	--	--
840	--	--	--	--
841	--	--	--	--
842	--	--	--	--
842	--	--	--	--
843	--	--	--	--
844	--	--	--	--
845	--	--	--	--
846	--	--	--	--
847	--	--	--	--
848	--	--	--	--
849	--	--	--	--
850	--	--	--	--
851	--	--	--	--
852	--	--	--	--
853	--	--	--	--
854	--	--	--	--
855	--	--	--	--
855	--	--	--	--
856	--	--	--	--
857	--	--	--	--
858	--	--	--	--
859	--	--	--	--
860	--	--	--	--
860	--	--	--	--
861	--	--	--	--
862	--	--	--	--
862	--	--	--	--
863	--	--	--	--
864	--	--	--	--
865	--	--	--	--
866	--	--	--	--

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Deuterium/Protium ratio, water, unfiltered, per mil (P82082)	Oxygen-18/Oxygen-16 ratio, water, unfiltered, per mil (P82085)	Deuterium/Protium ratio in methane, water, filtered, per mil relative to VSMOW	Carbon-13/Carbon-12 ratio in methane, water, filtered, per mil relative to VSMOW
866	--	--	--	--
867	--	--	--	--
868	--	--	--	--
869	--	--	--	--
870	--	--	--	--
871	--	--	--	--
872	--	--	--	--
873	--	--	--	--
874	--	--	--	--
875	--	--	--	--
876	--	--	--	--
877	--	--	--	--
878	--	--	--	--
879	--	--	--	--
880	--	--	--	--
881	--	--	--	--
882	--	--	--	--
883	--	--	--	--
884	--	--	--	--
885	--	--	--	--
886	--	--	--	--
887	--	--	--	--
888	--	--	--	--
889	--	--	--	--
890	--	--	--	--
891	--	--	--	--
892	--	--	--	--
893	--	--	--	--
894	--	--	--	--
895	--	--	--	--
896	--	--	--	--
897	--	--	--	--
898	--	--	--	--
898	--	--	--	--
899	--	--	--	--
899	--	--	--	--
900	--	--	--	--
901	--	--	--	--
902	--	--	--	--
903	--	--	--	--
904	--	--	--	--
905	--	--	--	--
905	--	--	--	--
906	--	--	--	--
907	--	--	--	--
907	--	--	--	--
908	--	--	--	--
908	--	--	--	--
909	--	--	--	--
910	--	--	--	--
911	--	--	--	--
912	--	--	--	--
913	--	--	--	--
913	--	--	--	--
915	--	--	--	--
916	--	--	--	--
916	--	--	--	--
917	--	--	--	--
918	--	--	--	--
918	--	--	--	--
919	--	--	--	--
920	--	--	--	--
921	--	--	--	--
922	--	--	--	--

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Deuterium/Protium ratio, water, unfiltered, per mil (P82082)	Oxygen-18/Oxygen-16 ratio, water, unfiltered, per mil (P82085)	Deuterium/Protium ratio in methane, water, filtered, per mil relative to VSMOW	Carbon-13/Carbon-12 ratio in methane, water, filtered, per mil relative to VSMOW
923	--	--	--	--
924	--	--	--	--
924	--	--	--	--
925	--	--	--	--
925	--	--	--	--
926	--	--	--	--
927	--	--	--	--
928	--	--	--	--
928	--	--	--	--
930	--	--	--	--
931	--	--	--	--
932	--	--	--	--
933	--	--	--	--
934	--	--	--	--
934	--	--	--	--
935	--	--	--	--
936	--	--	--	--
937	--	--	--	--
938	--	--	--	--
939	--	--	--	--
940	--	--	--	--
941	--	--	--	--
942	--	--	--	--
943	--	--	--	--
944	--	--	--	--
945	--	--	--	--
946	--	--	--	--
947	--	--	--	--
948	--	--	--	--
949	--	--	--	--
950	--	--	--	--
951	--	--	--	--
952	--	--	--	--
953	--	--	--	--
954	--	--	--	--
955	--	--	--	--
956	--	--	--	--
957	--	--	--	--
958	--	--	--	--
959	--	--	--	--
960	--	--	--	--
961	--	--	--	--
962	--	--	--	--
963	--	--	--	--
964	--	--	--	--
965	--	--	--	--
966	--	--	--	--
967	--	--	--	--
968	--	--	--	--
969	--	--	--	--
970	--	--	--	--
971	--	--	--	--
972	--	--	--	--
973	--	--	--	--
974	--	--	--	--
975	--	--	--	--
976	--	--	--	--
977	--	--	--	--
978	--	--	--	--
979	--	--	--	--
980	--	--	--	--
981	--	--	--	--
982	--	--	--	--
983	--	--	--	--

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Deuterium/Protium ratio, water, unfiltered, per mil (P82082)	Oxygen-18/Oxygen-16 ratio, water, unfiltered, per mil (P82085)	Deuterium/Protium ratio in methane, water, filtered, per mil relative to VSMOW	Carbon-13/Carbon-12 ratio in methane, water, filtered, per mil relative to VSMOW
984	--	--	--	--
985	--	--	--	--
986	--	--	--	--
987	--	--	--	--
988	--	--	--	--
989	--	--	--	--
990	--	--	--	--
991	--	--	--	--
992	--	--	--	--
993	--	--	--	--
994	--	--	--	--
995	--	--	--	--
996	--	--	--	--
997	--	--	--	--
998	--	--	--	--
999	--	--	--	--
1000	--	--	--	--
1001	--	--	--	--
1002	--	--	--	--
1003	--	--	--	--
1004	--	--	--	--
1005	--	--	--	--
1006	--	--	--	--
1007	--	--	--	--
1008	--	--	--	--
1009	--	--	--	--
1010	--	--	--	--
1011	--	--	--	--
1012	--	--	--	--
1013	--	--	--	--
1014	--	--	--	--
1015	--	--	--	--
1016	--	--	--	--
1017	--	--	--	--
1018	--	--	--	--
1019	--	--	--	--
1020	--	--	--	--
1021	--	--	--	--
1022	--	--	--	--
1023	--	--	--	--
1024	--	--	--	--
1025	--	--	--	--
1026	--	--	--	--
1027	--	--	--	--
1028	--	--	--	--
1029	--	--	--	--
1030	--	--	--	--
1031	--	--	--	--
1032	--	--	--	--
1033	--	--	--	--
1034	--	--	--	--
1038	--	--	--	--
1039	--	--	--	--
1051	--	--	--	--
1052	--	--	--	--
1053	--	--	--	--
1054	--	--	--	--
1055	--	--	--	--
1057	--	--	--	--
1058	--	--	--	--
1059	--	--	--	--
1062	--	--	--	--
1064	--	--	--	--

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Deuterium/Protium ratio, water, unfiltered, per mil (P82082)	Oxygen-18/Oxygen-16 ratio, water, unfiltered, per mil (P82085)	Deuterium/Protium ratio in methane, water, filtered, per mil relative to VSMOW	Carbon-13/Carbon-12 ratio in methane, water, filtered, per mil relative to VSMOW
1065	--	--	--	--
1066	--	--	--	--
1067	--	--	--	--
1068	--	--	--	--
1069	--	--	--	--
1070	--	--	--	--
1071	–154	–19.4	--	--
1073	--	--	--	--
1080	–140	–17.7	--	--
1081	--	--	--	--
1084	--	--	--	--
1085	--	--	--	--
1091	--	--	--	--
1094	--	--	--	--
1095	--	--	--	--
1096	--	--	--	--
1099	--	--	--	--
1100	--	--	--	--
1101	--	--	--	--
1107	--	--	--	--
1125	--	--	--	--
1130	--	--	--	--
1141	--	--	--	--
1142	--	--	--	--
1144	--	--	--	--
1146	--	--	--	--
1147	--	--	--	--
1149	--	--	--	--
1153	--	--	--	--
1154	--	--	--	--
1160	--	--	--	--
1164	--	--	--	--
1173	--	--	--	--
1174	--	--	--	--
1175	--	--	--	--
1176	--	--	--	--
1177	--	--	--	--
1178	--	--	--	--
1182	--	--	--	--
1185	--	--	--	--
1186	--	--	--	--
1187	--	--	--	--
1188	--	--	--	--
1189	--	--	--	--
1190	--	--	--	--
1191	--	--	--	--
1192	--	--	--	--
1193	--	--	--	--
1194	--	--	--	--
1195	--	--	--	--
1196	--	--	--	--
1197	--	--	--	--
1198	--	--	--	--
1199	--	--	--	--
1200	--	--	--	--
1201	--	--	--	--
1202	--	--	--	--
1203	--	--	--	--
1204	--	--	--	--
1205	--	--	--	--
1206	--	--	--	--
1207	--	--	--	--
1208	--	--	--	--

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Deuterium/Protium ratio, water, unfiltered, per mil (P82082)	Oxygen-18/Oxygen-16 ratio, water, unfiltered, per mil (P82085)	Deuterium/Protium ratio in methane, water, filtered, per mil relative to VSMOW	Carbon-13/Carbon-12 ratio in methane, water, filtered, per mil relative to VSMOW
1209	--	--	--	--
1210	--	--	--	--
1211	--	--	--	--
1213	--	--	--	--
1230	--	--	--	--
1237	--	--	--	--
1239	--	--	--	--
1244	--	--	--	--
1250	--	--	--	--
1251	--	--	--	--
1252	--	--	--	--
1253	--	--	--	--
1254	--	--	--	--
1256	--	--	--	--
1260	--	--	--	--
1265	--	--	--	--
1267	--	--	--	--
1272	--	--	--	--
1273	--	--	--	--
1277	--	--	--	--
1282	--	--	--	--
1297	--	--	--	--
1302	--	--	--	--
1305	--	--	--	--
1306	--	--	--	--
1307	--	--	--	--
1317	--	--	--	--
1318	--	--	--	--
1321	--	--	--	--
1327	--	--	--	--
1328	--	--	--	--
1329	--	--	--	--
1330	--	--	--	--
1333	--	--	--	--
1369	--	--	--	--
1371	--	--	--	--
1381	--	--	--	--
1382	--	--	--	--
1383	--	--	--	--
1387	--	--	--	--
1388	--	--	--	--
1389	--	--	--	--
1390	--	--	--	--
1391	--	--	--	--
1392	--	--	--	--
1393	--	--	--	--
1395	--	--	--	--
1403	--	--	--	--
1409	--	--	--	--
1410	--	--	--	--
1411	--	--	--	--
1415	--	--	--	--
1416	--	--	--	--
1418	--	--	--	--
1419	--	--	--	--
1420	--	--	--	--
1421	--	--	--	--
1422	--	--	--	--
1423	–136	–17.8	--	--
1426	--	--	--	--
1433	--	--	--	--
1438	--	--	--	--
1443	--	--	--	--

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Deuterium/Protium ratio, water, unfiltered, per mil (P82082)	Oxygen-18/Oxygen-16 ratio, water, unfiltered, per mil (P82085)	Deuterium/Protium ratio in methane, water, filtered, per mil relative to VSMOW	Carbon-13/Carbon-12 ratio in methane, water, filtered, per mil relative to VSMOW
1445	--	--	--	--
1448	--	--	--	--
1450	--	--	--	--
1452	--	--	--	--
1454	–144	–18.6	--	--
1461	--	--	--	--
1463	--	--	--	--
1464	--	--	--	--
1465	--	--	--	--
1466	--	--	--	--
1467	--	--	--	--
1468	--	--	--	--
1469	--	--	--	--
1475	--	--	--	--
1476	--	--	--	--
1477	--	--	--	--
1478	--	--	--	--
1480	--	--	--	--
1482	--	--	--	--
1484	--	--	--	--
1486	--	--	--	--
1487	--	--	--	--
1488	--	--	--	--
1492	--	--	--	--
1497	--	--	--	--
1498	--	--	--	--
1499	--	--	--	--
1502	--	--	--	--
1506	--	--	--	--
1507	--	--	--	--
1508	--	--	--	--
1509	--	--	--	--
1510	--	--	--	--
1512	--	--	--	--
1513	--	--	--	--
1514	--	--	--	--
1515	--	--	--	--
1516	--	--	--	--
1517	--	--	--	--
1518	--	--	--	--
1519	--	--	--	--
1523	--	--	--	--
1526	--	--	--	--
1530	--	--	--	--
1532	--	--	--	--
1535	--	--	--	--
1536	--	--	--	--
1538	--	--	--	--
1539	--	--	--	--
1539	--	--	--	--
1540	--	--	--	--
1541	--	--	--	--
1542	--	--	--	--
1546	–142	–18.2	--	--
1547	–148	–18.9	--	--
1549	--	--	--	--
1552	--	--	--	--
1555	--	--	--	--
1558	--	--	--	--
1559	--	--	--	--
1560	--	--	--	--
1561	--	--	--	--
1565	--	--	--	--

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Deuterium/Protium ratio, water, unfiltered, per mil (P82082)	Oxygen-18/Oxygen-16 ratio, water, unfiltered, per mil (P82085)	Deuterium/Protium ratio in methane, water, filtered, per mil relative to VSMOW	Carbon-13/Carbon-12 ratio in methane, water, filtered, per mil relative to VSMOW
1566	--	--	--	--
1567	--	--	--	--
1568	--	--	--	--
1571	--	--	--	--
1576	--	--	--	--
1580	--	--	--	--
1581	--	--	--	--
1587	--	--	--	--
1592	--	--	--	--
1593	--	--	--	--
1594	--	--	--	--
1595	--	--	--	--
1596	--	--	--	--
1597	--	--	--	--
1598	--	--	--	--
1599	--	--	--	--
1600	--	--	--	--
1601	--	--	--	--
1602	--	--	--	--
1603	--	--	--	--
1604	--	--	--	--
1605	--	--	--	--
1607	--	--	--	--
1609	--	--	--	--
1610	--	--	--	--
1612	--	--	--	--
1613	–139	–17.5	--	--
1614	–150	–19.2	--	--
1617	--	--	--	--
1622	--	--	--	--
1623	--	--	--	--
1626	--	--	--	--
1628	--	--	--	--
1631	--	--	--	--
1632	--	--	--	--
1633	--	--	--	--
1634	--	--	--	--
1635	--	--	--	--
1636	--	--	--	--
1639	--	--	--	--
1640	--	--	--	--
1641	--	--	--	--
1642	--	--	--	--
1643	--	--	--	--
1644	--	--	--	--
1645	--	--	--	--
1646	--	--	--	--
1647	--	--	--	--
1648	--	--	--	--
1649	--	--	--	--
1650	--	--	--	--
1651	--	--	--	--
1652	--	--	--	--
1653	--	--	--	--
1654	--	--	--	--
1655	--	--	--	--
1656	--	--	--	--
1657	--	--	--	--
1658	--	--	--	--
1659	--	--	--	--
1660	--	--	--	--
1661	--	--	--	--
1662	--	--	--	--
1664	--	--	--	--

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Deuterium/Protium ratio, water, unfiltered, per mil (P82082)	Oxygen-18/Oxygen-16 ratio, water, unfiltered, per mil (P82085)	Deuterium/Protium ratio in methane, water, filtered, per mil relative to VSMOW	Carbon-13/Carbon-12 ratio in methane, water, filtered, per mil relative to VSMOW
1665	--	--	--	--
1666	--	--	--	--
1667	--	--	--	--
1668	--	--	--	--
1669	--	--	--	--
1670	--	--	--	--
1671	--	--	--	--
1672	--	--	--	--
1673	--	--	--	--
1674	--	--	--	--
1675	--	--	--	--
1676	--	--	--	--
1677	--	--	--	--
1678	--	--	--	--
1679	--	--	--	--
1680	--	--	--	--
1681	--	--	--	--
1682	--	--	--	--
1683	--	--	--	--
1684	--	--	--	--
1685	--	--	--	--
1686	--	--	--	--
1687	--	--	--	--
1688	--	--	--	--
1689	--	--	--	--
1690	--	--	--	--
1691	--	--	--	--
1692	--	--	--	--
1693	--	--	--	--
1694	--	--	--	--
1695	--	--	--	--
1696	--	--	--	--
1697	--	--	--	--
1699	--	--	--	--
1700	--	--	--	--
1701	--	--	--	--
1702	--	--	--	--
1703	--	--	--	--
1704	--	--	--	--
1705	--	--	--	--
1706	--	--	--	--
1707	--	--	--	--
1708	--	--	--	--
1709	--	--	--	--
1710	--	--	--	--
1711	--	--	--	--
1712	--	--	--	--
1713	--	--	--	--
1714	--	--	--	--
1715	--	--	--	--
1716	--	--	--	--
1723	--	--	--	--
1727	--	--	--	--
1728	--	--	--	--
1730	--	--	--	--
1731	--	--	--	--
1732	--	--	--	--
1733	--	--	--	--
1734	--	--	--	--
1735	--	--	--	--
1736	--	--	--	--
1738	--	--	--	--
1741	--	--	--	--
1742	--	--	--	--

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Deuterium/Protium ratio, water, unfiltered, per mil (P82082)	Oxygen-18/Oxygen-16 ratio, water, unfiltered, per mil (P82085)	Deuterium/Protium ratio in methane, water, filtered, per mil relative to VSMOW	Carbon-13/Carbon-12 ratio in methane, water, filtered, per mil relative to VSMOW
1743	--	--	--	--
1744	--	--	--	--
1745	--	--	--	--
1747	--	--	--	--
1752	U	U	U	U
1753	--	--	--	--
1754	--	--	--	--
1755	U	U	U	U
1756	--	--	--	--
1757	--	--	--	--
1758	--	--	--	--
1759	--	--	--	--
1760	--	--	--	--
1761	--	--	--	--
1762	--	--	--	--
1763	--	--	--	--
1765	–123	–16.35	--	--
1766	–119	–15.55	--	--
1768	–124	–16.4	--	--
1769	–121	–16.25	--	--
1770	--	--	--	--
1771	--	--	--	--
1772	--	--	--	--
1773	--	--	--	--
1774	--	--	--	--
1776	--	--	--	--
1777	--	--	--	--
1778	--	--	--	--
1779	--	--	--	--
1780	--	--	--	--
1781	--	--	--	--
1782	--	--	--	--
1783	--	--	--	--
1784	--	--	--	--
1785	--	--	--	--
1786	--	--	--	--
1787	--	--	--	--
1788	--	--	--	--
1789	--	--	--	--
1790	--	--	--	--
1791	--	--	--	--
1792	--	--	--	--
1793	--	--	--	--
1794	--	--	--	--
1795	--	--	--	--
1796	--	--	--	--
1797	--	--	--	--
1798	--	--	--	--
1799	--	--	--	--
1800	--	--	--	--
1801	--	--	--	--
1802	--	--	--	--
1803	--	--	--	--
1804	--	--	--	--
1805	--	--	--	--
1806	--	--	--	--
1807	--	--	--	--
1807	--	--	--	–40.310
1808	--	--	--	--
1809	--	--	--	--
1810	--	--	--	--
1811	U	U	U	U
1812	U	U	U	U
1813	--	--	--	--

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Deuterium/Protium ratio, water, unfiltered, per mil (P82082)	Oxygen-18/Oxygen-16 ratio, water, unfiltered, per mil (P82085)	Deuterium/Protium ratio in methane, water, filtered, per mil relative to VSMOW	Carbon-13/Carbon-12 ratio in methane, water, filtered, per mil relative to VSMOW
1814	--	--	--	--
1815	--	--	--	--
1816	U	U	U	U
1817	U	U	U	U
1818	--	--	--	--
1819	--	--	--	--
1820	--	--	--	--
1821	--	--	--	--
1822	--	--	--	--
1827	--	--	--	--
1828	--	--	--	--
1829	--	--	--	--
1830	--	--	--	--
1832	--	--	--	--
1833	--	--	--	--
1837	--	--	--	--
1842	--	--	--	--
1843	--	--	--	--
1845	--	--	--	--
1847	--	--	--	--
1855	--	--	--	--
1856	--	--	--	--
1857	--	--	--	--
1858	--	--	--	--
1859	--	--	--	--
1860	--	--	--	--
1861	--	--	--	--
1862	--	--	--	--
1863	--	--	--	--
1864	--	--	--	--
1865	--	--	--	--
1866	--	--	--	--
1867	--	--	--	--
1868	--	--	--	--
1869	--	--	--	--
1870	--	--	--	--
1871	--	--	--	--
1872	--	--	--	--
1873	--	--	--	--
1874	--	--	--	--
1875	--	--	--	--
1876	--	--	--	--
1877	--	--	--	--
1878	--	--	--	--
1879	--	--	--	--
1880	--	--	--	--
1881	--	--	--	--
1882	--	--	--	--
1883	--	--	--	--
1884	--	--	--	--
1885	--	--	--	--
1886	--	--	--	--
1887	--	--	--	--
1888	--	--	--	--
1889	--	--	--	--
1890	--	--	--	--
1891	--	--	--	--
1895	--	--	--	--
1896	--	--	--	--
1897	--	--	--	--
1898	--	--	--	--
1899	--	--	--	--
1900	--	--	--	--
1904	--	--	--	--

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Deuterium/Protium ratio, water, unfiltered, per mil (P82082)	Oxygen-18/Oxygen-16 ratio, water, unfiltered, per mil (P82085)	Deuterium/Protium ratio in methane, water, filtered, per mil relative to VSMOW	Carbon-13/Carbon-12 ratio in methane, water, filtered, per mil relative to VSMOW
1906	--	--	--	--
1907	--	--	--	--
1908	--	--	--	--
1909	--	--	--	--
1910	--	--	--	--
1911	--	--	--	--
1912	--	--	--	--
1913	--	--	--	--
1914	--	--	--	--
1915	--	--	--	--
1916	--	--	--	--
1917	--	--	--	--
1918	--	--	--	--
1919	--	--	--	--
1920	--	--	--	--
1921	--	--	--	--
1925	–117	–15.75	--	--
1926	–116	–15.5	--	--
1928	--	--	--	--
1930	--	--	--	--
1931	--	--	--	--
1932	--	--	--	--
1937	--	--	--	--
1938	--	--	--	--
1939	--	--	--	--
1940	--	--	--	--
1941	--	--	--	--
1942	--	--	--	--
1943	--	--	--	--
1944	--	--	--	--
1945	--	--	--	--
1946	--	--	--	--
1947	--	--	--	--
1951	--	--	--	--
1955	--	--	--	--
1962	--	--	--	--
1967	--	--	--	--
1968	--	--	--	--
1969	--	--	--	--
1970	--	--	--	--
1971	--	--	--	--
1972	--	--	--	--
1973	--	--	--	--
1974	--	--	--	--
1975	--	--	--	--
1976	--	--	--	--
1978	--	--	--	--
1981	--	--	--	--
1982	--	--	--	--
1983	--	--	--	--
1986	--	--	--	--
1990	--	--	--	--
1993	--	--	--	--
1995	--	--	--	--
1996	--	--	--	--
2001	--	--	--	--
2002	--	--	--	--
2003	--	--	--	--
2011	--	--	--	--
2012	--	--	--	--

Appendix 1. Water Quality Data Used in This Report.—Continued

Report No.	Deuterium/Protium ratio, water, unfiltered, per mil (P82082)	Oxygen-18/Oxygen-16 ratio, water, unfiltered, per mil (P82085)	Deuterium/Protium ratio in methane, water, filtered, per mil relative to VSMOW	Carbon-13/Carbon-12 ratio in methane, water, filtered, per mil relative to VSMOW
2013	--	--	--	--
2014	--	--	--	--
2015	--	--	--	--
2016	--	--	--	--
2017	--	--	--	--
2018	--	--	--	--
2019	--	--	--	--
2020	--	--	--	--
2021	--	--	--	--
2022	--	--	--	--
2023	--	--	--	--
2024	--	--	--	--
2025	--	--	--	--
2027	--	--	--	--
2029	--	--	--	--
2030	--	--	--	--
2033	--	--	--	--
2034	--	--	--	--
2035	--	--	--	--
2037	--	--	--	--
2040	--	--	--	--
2041	--	--	--	--
2044	--	--	--	--
2046	–119	–16.05	--	--
2046	--	--	--	--
2049	--	--	--	--
2050	--	--	--	--
2051	--	--	--	--
2052	--	--	--	--
2053	--	--	--	--
2054	--	--	--	--
2055	--	--	--	--
2056	--	--	--	--
2058	--	--	--	--
2061	–117	–15.65	--	--
2063	--	--	--	--
2064	--	--	--	--
2065	--	--	--	--
2066	--	--	--	--
2067	--	--	--	--
2068	--	--	--	--
2069	--	--	--	--
2070	--	--	--	--
2071	--	--	--	--
2072	--	--	--	--
2076	--	--	--	--
2077	--	--	–246.900	–45.170
2078	--	--	--	--
2079	--	--	--	--
2080	--	--	--	--
2082	--	--	--	--
2083	--	--	--	--
2084	--	--	--	--
2085	--	--	--	--
2088	--	--	--	--
2089	--	--	--	--
2090	--	--	--	--
2091	--	--	--	--
2094	--	--	--	--
2095	--	--	--	--
2096	--	--	--	--