PHYSICAL, CHEMICAL, AND BIOLOGICAL DATA FOR DETAILED STUDY OF IRRIGATION DRAINAGE IN THE MIDDLE GREEN RIVER BASIN, UTAH, 1988-89, WITH SELECTED DATA FOR 1982-87

By Lorri A. Peltz, U.S. Geological Survey
and Bruce Waddell, U.S. Fish and Wildlife Service

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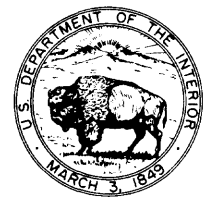

Salt Lake City, Utah

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U.S. DEPARTMENT OF THE INTERIOR

MANUEL LUJAN, JR., Secretary

U.S. GEOLOGICAL SURVEY

Dallas L. Peck, Director

For additional information
write to:

District Chief
U.S. Geological Survey, WRD
Room 1016 Administration Building
1745 West 1700 South
Salt Lake City, Utah 84104

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CONVERSION FACTORS, VERTICAL DATUM, AND ABBREVIATED WATER-QUALITY UNITS

Multiply	By	To obtain
cubic foot per second (ft^3s)	0.2832	cubic meter per second
inch (in.)	25.4	millimeter
foot (ft)	0.3048	meter
mile (mi)	1.609	kilometer
pound (lb)	373.242	gram

Water temperature is given in degrees Celsius (°C), which can be converted to degrees Fahrenheit (°F) by the following equation:

$$°F = 1.8\ (°C) + 32.$$

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

Chemical concentration in water is given in milligrams per liter (mg/L) or micrograms per liter (µg/L). Milligrams per liter is a unit expressing the solute per unit volume (liter) of water and is about the same as parts per million unless concentrations are more than 7,000 milligrams per liter. One thousand micrograms per liter is equivalent to 1 milligram per liter. Radioactivity is expressed in picocuries per liter (pCi/L), which is the quantity of radioactive decay producing 2.2 disintegrations per minute in a unit volume (liter) of water. Chemical concentration in sediment and biological tissues is given in milligrams per kilogram (mg/kg) or micrograms per gram (µg/g), which are both equal to parts per million. For those who wish to compare dry-weight tissue concentrations to wet weight, the equation is:

$$\text{wet weight} = \text{dry weight}\ [1 - (\text{percent moisture}/100)]$$

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Bruce Waddell
U.S. Fish and Wildlife Service

ABSTRACT

Physical, chemical, and biological data were collected in the middle Green River basin, eastern Utah, between 1988 and 1989, as part of a detailed study of the effects of irrigation drainage on wetland areas. Data-collection efforts were concentrated in the Stewart Lake Waterfowl Management Area near Jensen, and Ouray National Wildlife Refuge near Ouray. Data also were collected from Ashley Creek near Vernal, Pelican Lake near Ouray, and in Pariette Wetlands near Myton. A limited quantity of data collected during earlier studies (1982-87), funded by the U.S. Fish and Wildlife Service, also is included.

This report contains data needed to assess the effects of selenium and other potentially toxic contaminants on streams and wetlands. Data consist of concentrations of trace elements and common elements in samples of water, sediment, plants, waterfowl, birds, fish, and invertebrates. Other data presented in the report are ground-water levels, surface-water discharges, radiochemical constituents in water, analyses of organochlorine compounds in biota, and morphometric measurements of biota.

INTRODUCTION

During the last several years, there has been increasing concern about the chemical quality of irrigation drainage, both surface and subsurface water draining irrigated land, and its potential effects on human health, fish, and wildlife. Large concentrations of selenium have been detected in subsurface water draining from irrigated land in the western part of the San Joaquin Valley in the State of California. In 1983, incidences of mortality, birth defects, and reproductive failure in waterfowl were discovered by the U.S. Fish and Wildlife Service at the Kesterson National Wildlife Refuge in the western San Joaquin Valley, where irrigation drainage water was impounded. In addition, potentially toxic trace elements and pesticide residues have been detected in other areas in the western United States that receive irrigation drainage water.

Because of concerns expressed by the U.S. Congress, the Department of the Interior (DOI) initiated a program in late 1985 to identify the nature and extent of irrigation-induced water-quality problems that might exist in the

western United States. In October 1985, an interbureau group known as the "Task Group on Irrigation Drainage" was formed within the DOI. The Task Group subsequently prepared a comprehensive plan for reviewing irrigation-drainage concerns for which the DOI has responsibility.

Initially, the Task Group identified 20 locations in 13 states that warranted reconnaissance investigations. These locations relate to three specific areas of DOI responsibilities: (1) Irrigation or drainage facilities constructed or managed by the DOI, (2) national wildlife refuges (NWR's) that receive irrigation drainage, and (3) other migratory bird or endangered species waterfowl management areas (WMA's) that receive water from DOI-funded projects. Reconnaissance investigations at 9 of the 20 locations were completed during 1987-88. Reconnaissance studies at the 11 remaining sites were made during 1988.

Each reconnaissance study was conducted by interbureau field teams composed of a scientist from the U.S. Geological Survey as team leader with additional U.S. Geological Survey, U.S. Fish and Wildlife Service, and U.S. Bureau of Reclamation scientists representing several different disciplines. The investigations were directed toward determining whether irrigation drainage (1) has caused or has the potential to cause substantial harmful effects on human health, fish, and wildlife, or (2) might adversely affect the suitability of water for other beneficial uses.

The reconnaissance investigations that were completed in 1986-87 indicated that concentrations of trace elements were sufficiently large in water, sediment, and biota to warrant further investigation at four sites:

Middle Green River basin area, Utah
Stillwater Wildlife Management Area, Nevada
Salton Sea area, California
Kendrick Reclamation Project area, Wyoming

The results of the 1986-87 reconnaissance study of the middle Green River basin appear in Stephens and others (1988a, b). A preliminary interpretation of the data appears in Stephens and Waddell (1989).

Purpose and Scope

The purpose of this report is to present data collected during the detailed study of the effects of irrigation drainage on wetland areas in the middle Green River basin area, Utah (plate 1). The study was conducted from 1988 through 1989, and some supplemental data for 1982 through 1987, collected during earlier studies by the U.S. Fish and Wildlife Service, are included in this report. Data are presented for concentrations of major ions and trace elements in sediment, ground water, surface water, and plants and animals, primarily to address issues of irrigation-related contamination from selenium.

The scope of the detailed study involved the collection and analyses of physical, chemical, and biological data from Ashley Creek and tributaries (figs. 1 and 2), Stewart Lake Waterfowl Management Area (WMA) (figs. 3 and 4), Ouray National Wildlife Refuge (NWR) and Pelican Lake (figs. 5 and 6), and reconnaissance at Pariette Wetlands downstream from Pleasant Valley (fig. 7). In addition, several tissue samples from fish and birds were collected at sites on and adjacent to the Green River outside the study area (fig. 8).

Data Organization

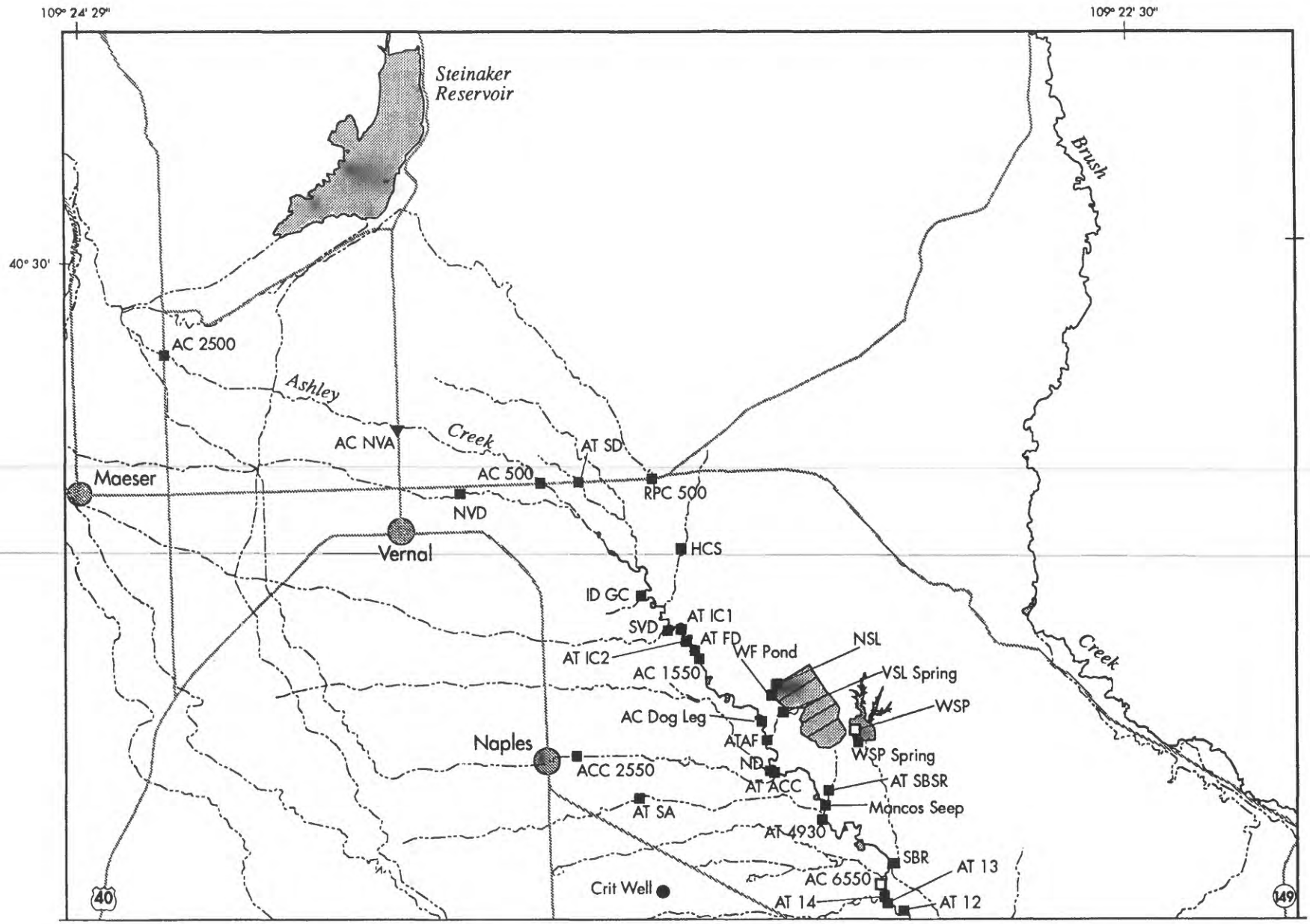
Data are organized into tables of general information (tables 1-4), physical and chemical data (tables 5-33), and biological data (tables 34-69). General information includes reporting levels on water and bottom sediment (table 1), reporting level ranges for biological samples (table 2), U.S. Geological Survey site names (table 3), and U.S. Fish and Wildlife Service site names (table 4).

Numbering System for Hydrologic Stations, Wells, and Miscellaneous Data-Collection Sites

Since October 1, 1950, the order of listing hydrologic-station records in U.S. Geological Survey reports has been in a downstream direction along the main stream. All stations on a tributary entering upstream from a main stream station are listed before that station. A station on a tributary entering between two main stream stations is listed between those stations. The complete 8-digit number for each station such as 03041000 includes a 2-digit number "03" plus the 6-digit downstream-order number "041000". The 8-digit station numbers are not assigned to wells and miscellaneous sites where only random water-quality samples or discharge measurements are taken.

The numbering system of the U.S. Geological Survey for wells and miscellaneous data-collection sites is based on the grid system of latitude and longitude. The latitude-longitude identification numbering system is used for all wells and may be used for off-stream sites and certain on-stream sites. The system provides the geographic location of the well or miscellaneous site and a unique number for each site. The number consists of 15 digits. The first 6 digits denote the degrees, minutes, and seconds of latitude; the next 7 digits denote degrees, minutes, and seconds of longitude; and the last 2 digits are a sequential number for wells within a 1-second grid. In the event that the latitude-longitude coordinates for a well and miscellaneous site are the same, sequential numbers "01, "02," are assigned (fig. 9).

Physical and chemical data collected by the U.S. Geological Survey are associated with specific sites identified by a site number (table 3) and are available on the Water Data Storage and Retrieval System (WATSTORE) of the U.S. Geological Survey. Data sites of the U.S. Fish and Wildlife Service represent a broader geographical area and are shown in table 4. The U.S. Fish and Wildlife Service data are not stored on a national database system but may be obtained from the U.S. Fish and Wildlife Service in Salt Lake City, Utah.


109° 24' 29"
109° 22' 30"
40° 30'
Steinaker Reservoir
Brush Creek
Ashley Creek
AC 2500
AC NVA
AT SD
AC 500
RPC 500
Maeser
NVD
Vernal
HCS
ID GC
SVD
AT IC1
AT FD
AT IC2
WF Pond
NSL
VSL Spring
WSP
AC 1550
AC Dog Leg
ATAF
WSP Spring
Naples
ACC 2550
ND
AT ACC
AT SBSR
Moncos Seep
AT SA
AT 4930
SBR
AT 13
AC 6550
Crit Well
AT 14
AT 12
40
149

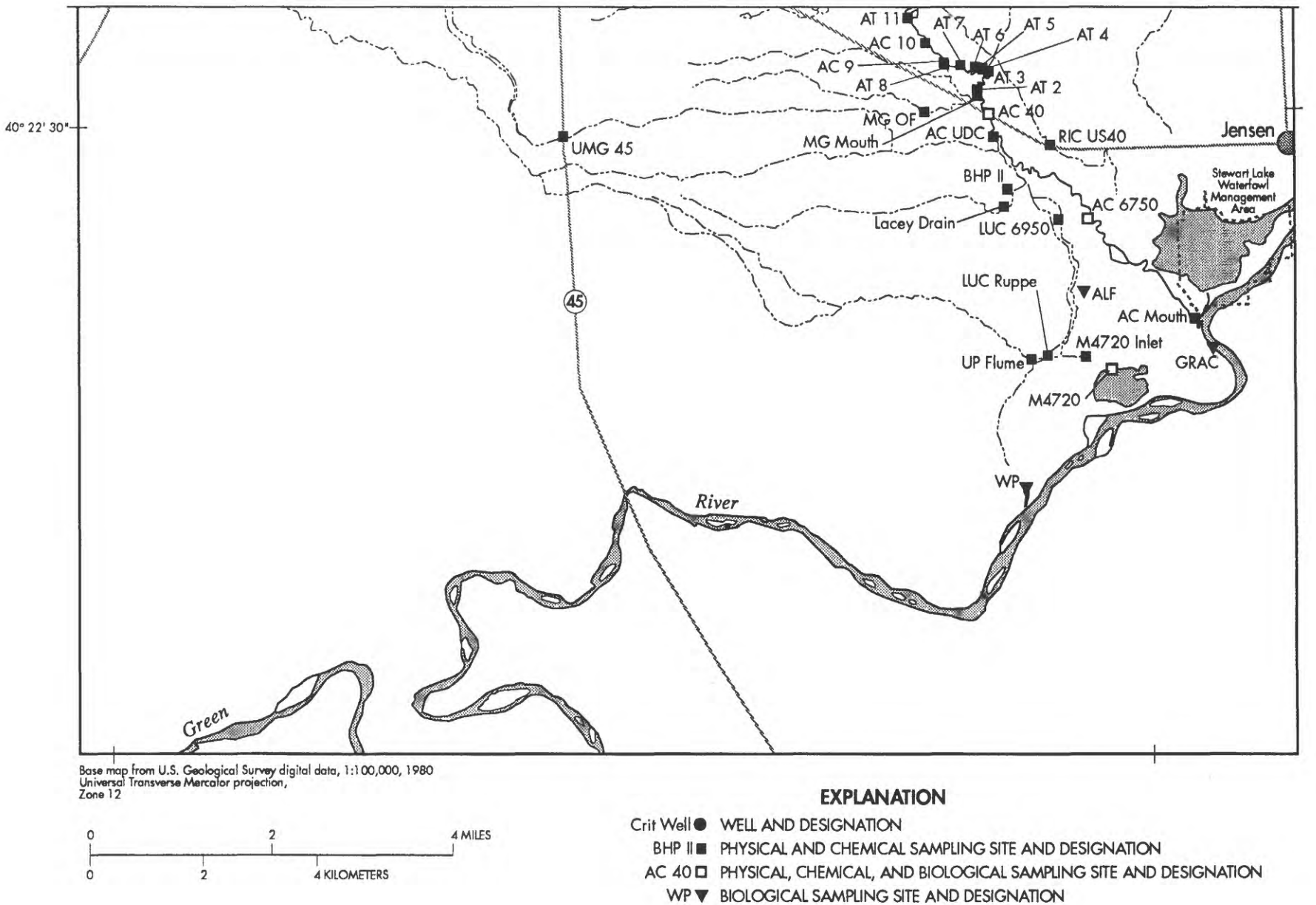


Figure 1.--Location of wells, and physical, chemical, and biological sampling sites along Ashley Creek and tributaries.

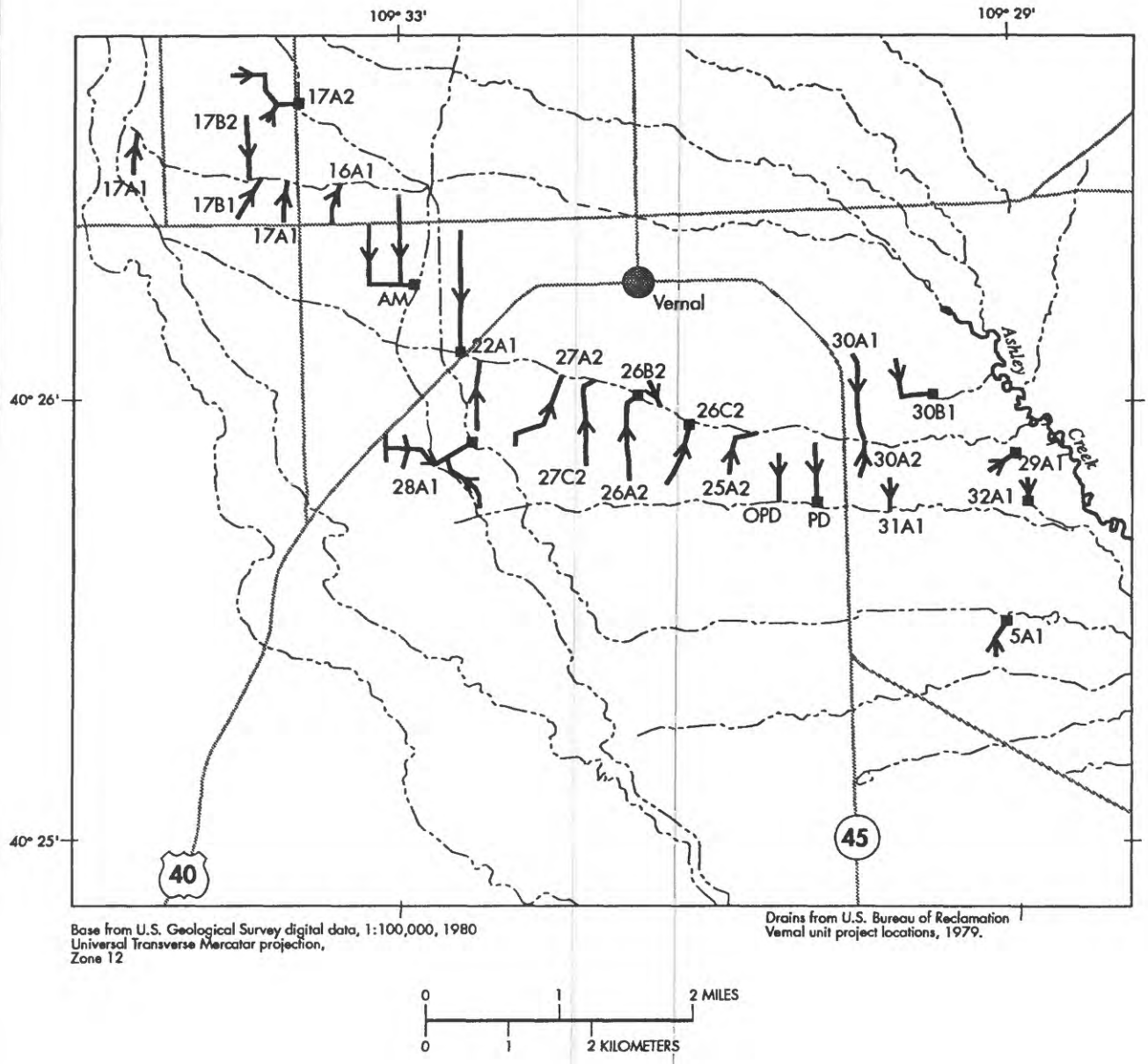


Figure 2.--Location of U.S. Bureau of Reclamation drains and physical and chemical sampling sites in the Vernal, Utah area.

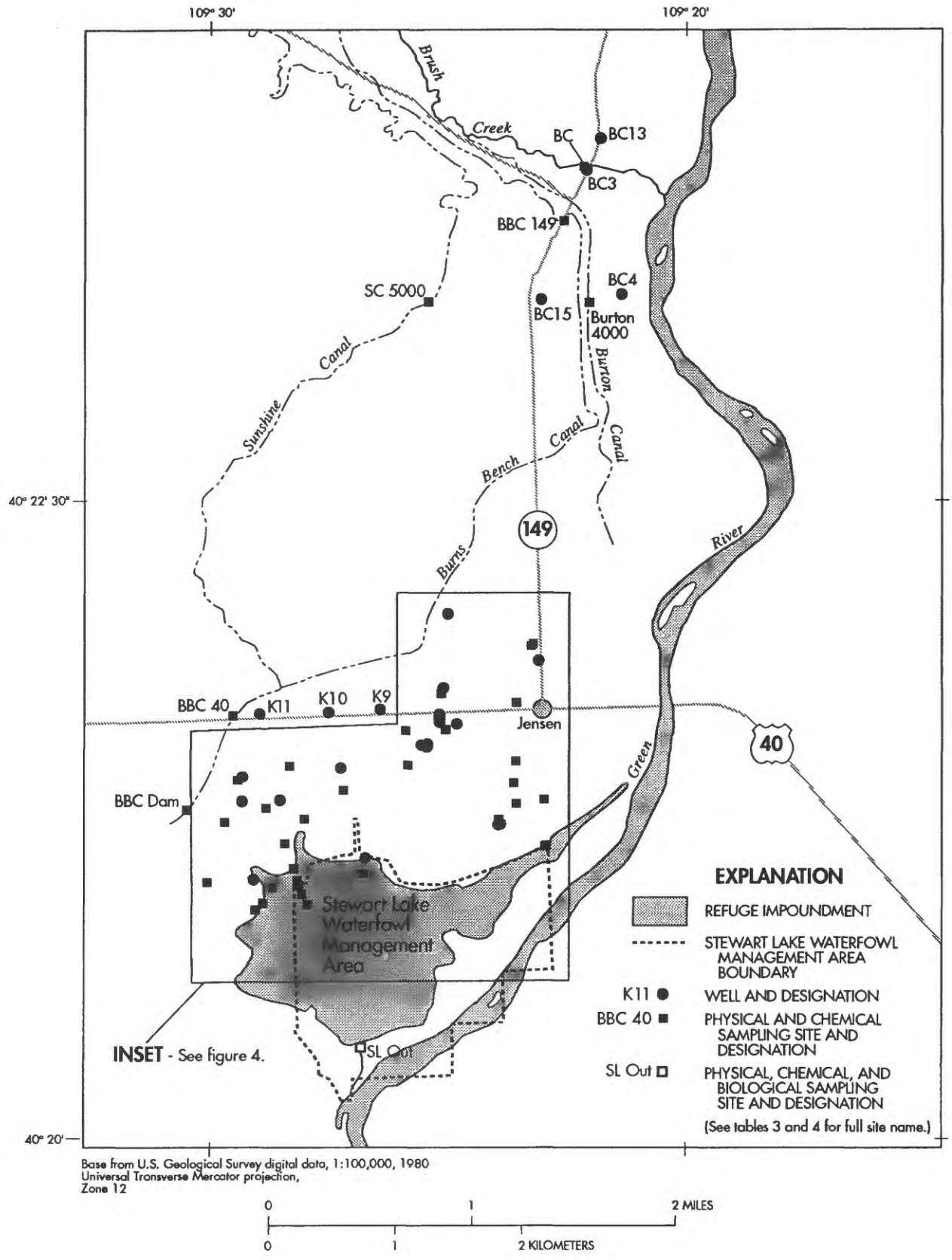
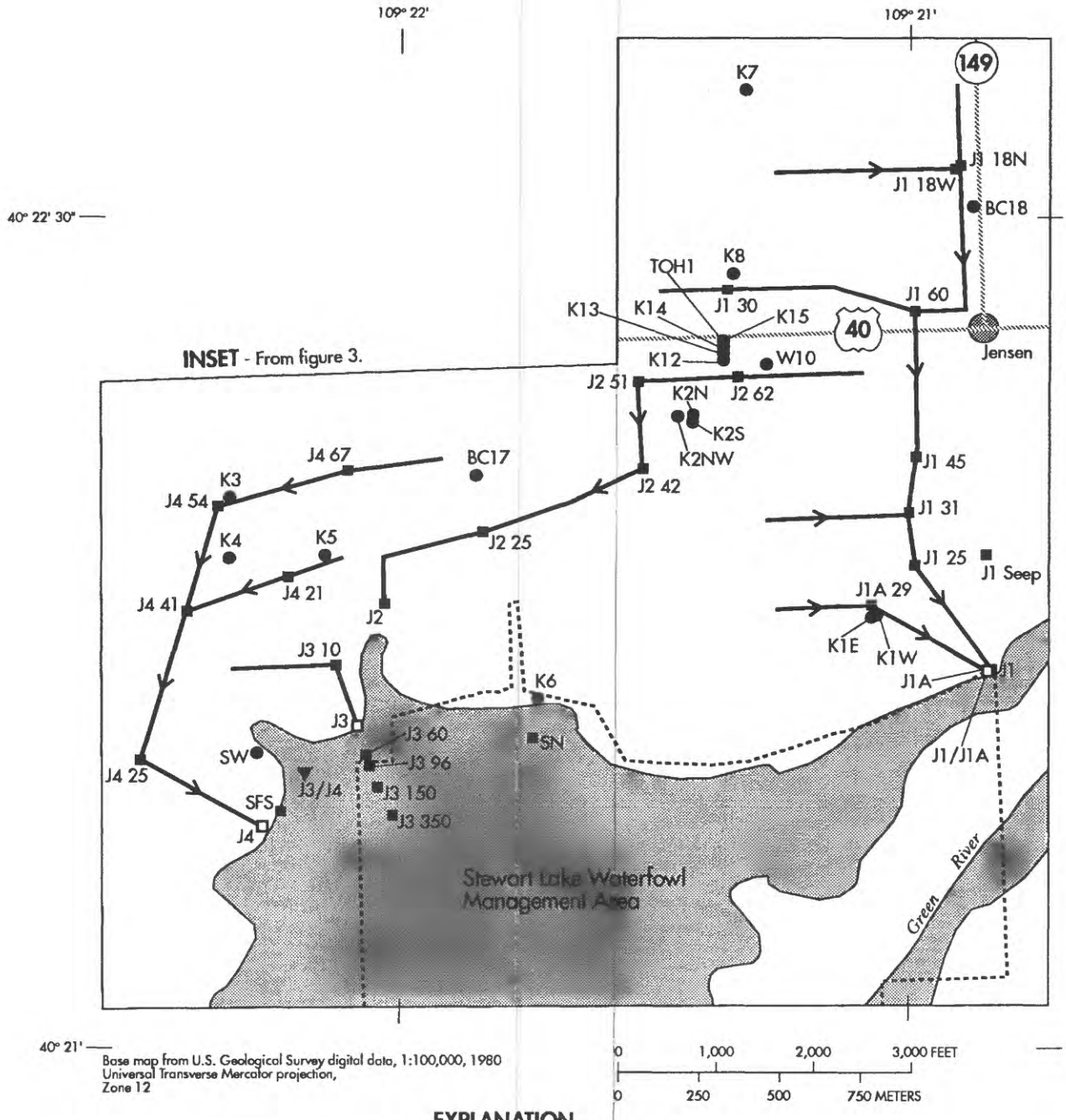


Figure 3.--Location of wells and physical, chemical, and biological sampling sites in the area of Stewart Lake Waterfowl Management Area and Brush Creek near Jensen, Utah.



EXPLANATION

- REFUGE IMPOUNDMENT
- STEWART LAKE WATERFOWL MANAGEMENT AREA BOUNDARY
- DRAIN--Arrow indicates direction of flow
- K4 ● WELL AND DESIGNATION
- J4 25 ■ PHYSICAL AND CHEMICAL SAMPLING SITE AND DESIGNATION
- J3 □ PHYSICAL, CHEMICAL, AND BIOLOGICAL SAMPLING SITE AND DESIGNATION
- J3/J4 ▼ BIOLOGICAL SAMPLING SITE AND DESIGNATION

(See tables 3 and 4 for full site name.)

Figure 4.--Location of wells and physical, chemical, and biological sampling sites in the area north of Stewart Lake Waterfowl Management Area, Jensen, Utah.

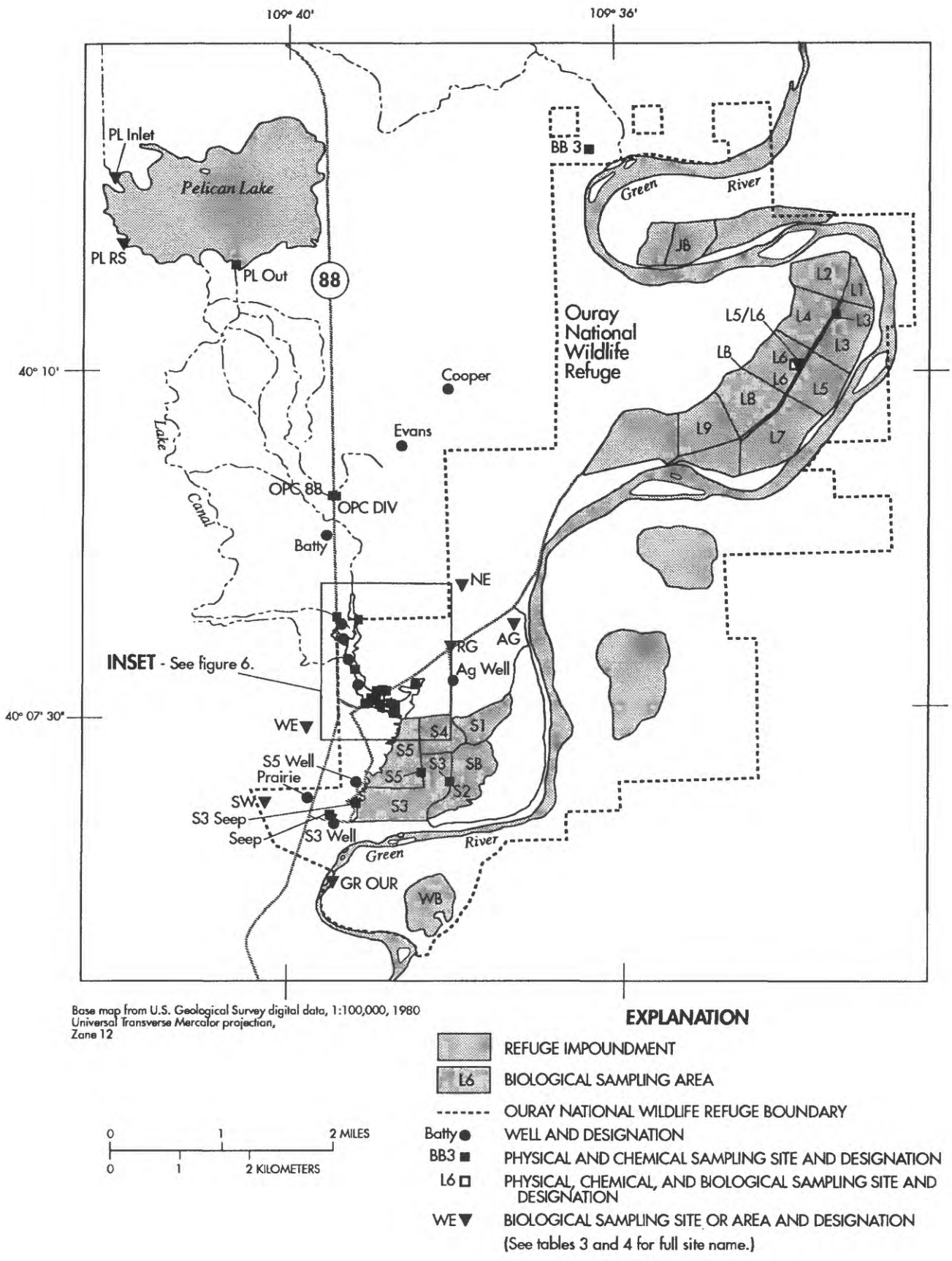


Figure 5.--Location of wells and physical, chemical, and biological sampling sites in the area of Johnson Bottom (JB), Leota Bottom (LB), Woods Bottom (WB), and Sheppard Bottom (SB), at the Ouray National Wildlife Refuge and Pelican Lake.

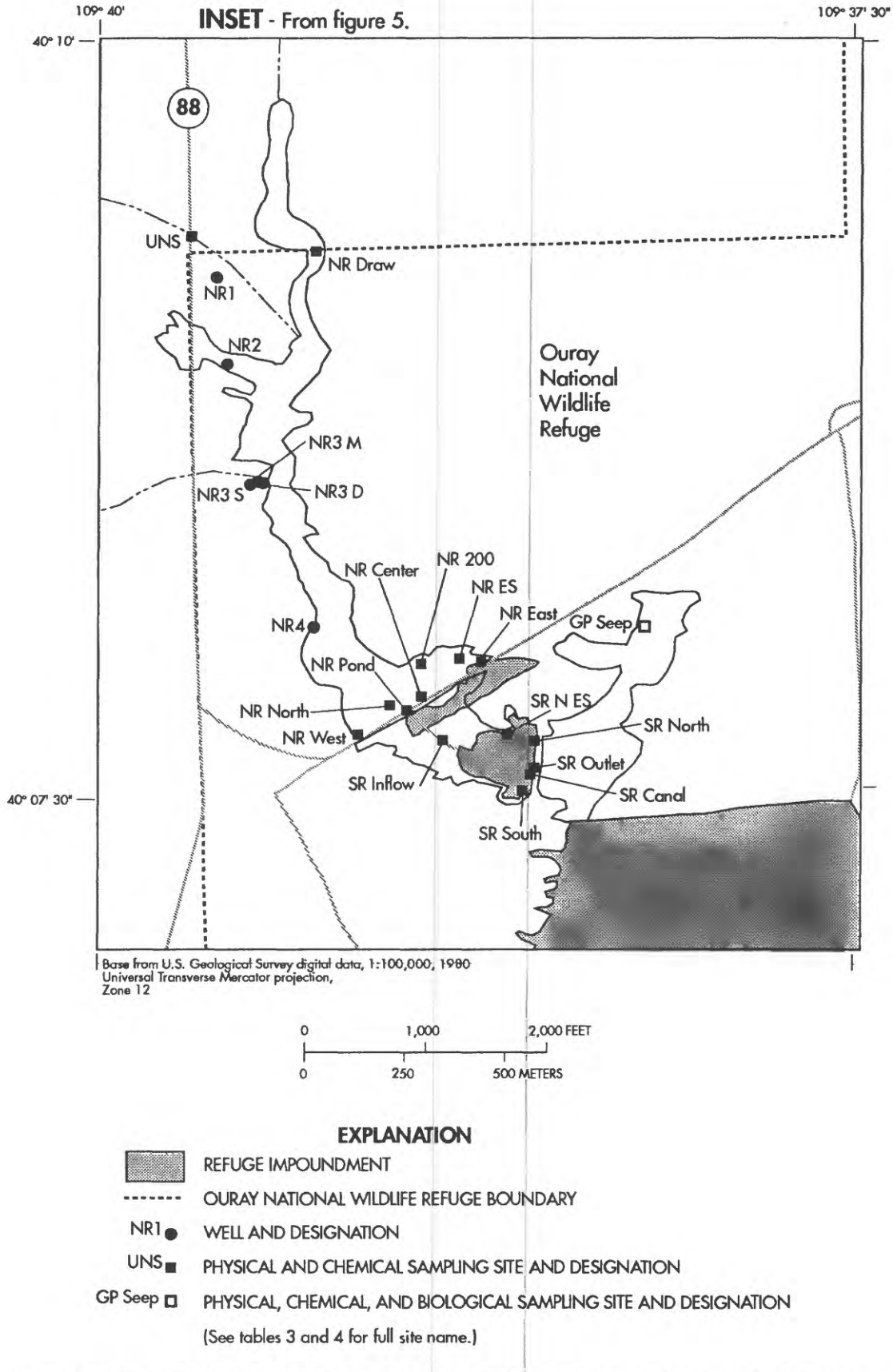


Figure 6.--Location of wells and physical, chemical, and biological sampling sites for the North Roadside (NR) pond and the South Roadside (SR) pond at Ouray National Wildlife Refuge.

(PAGE 12 FOLLOWS)

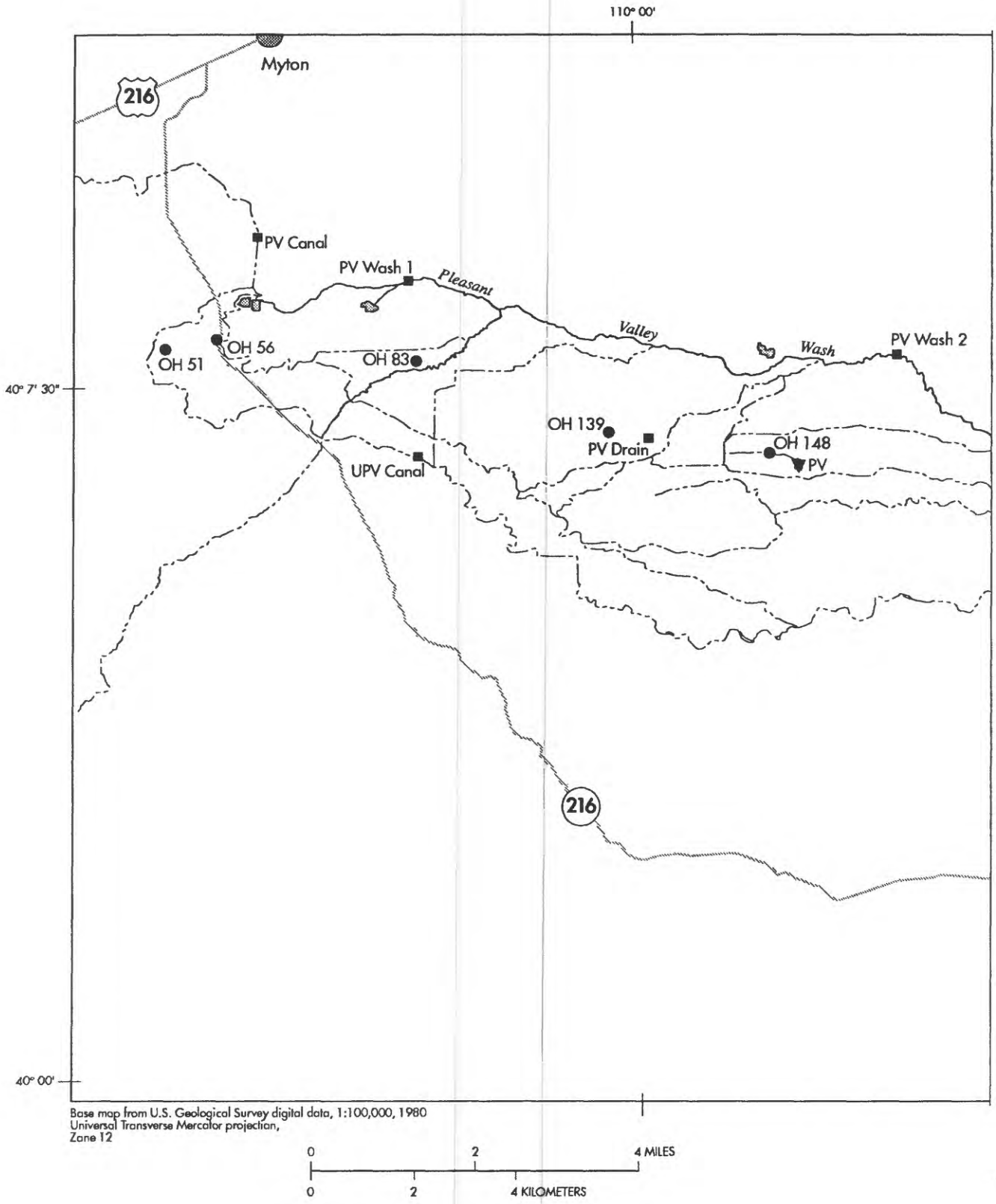
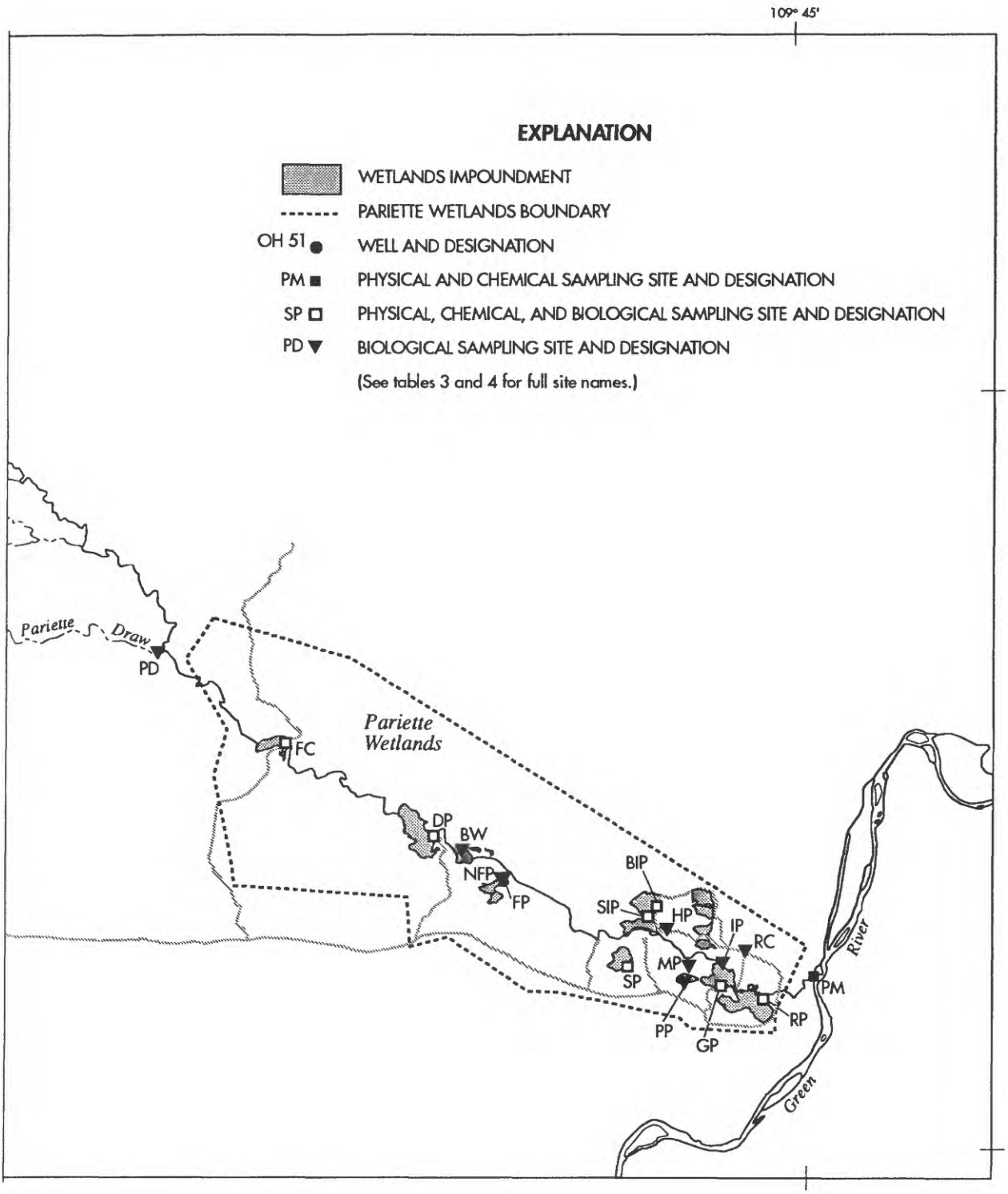


Figure 7.--Location of wells and physical, chemical, and biological sampling sites



and areas in Pleasant valley and Pariette Wetlands area, south of Myton, Utah.

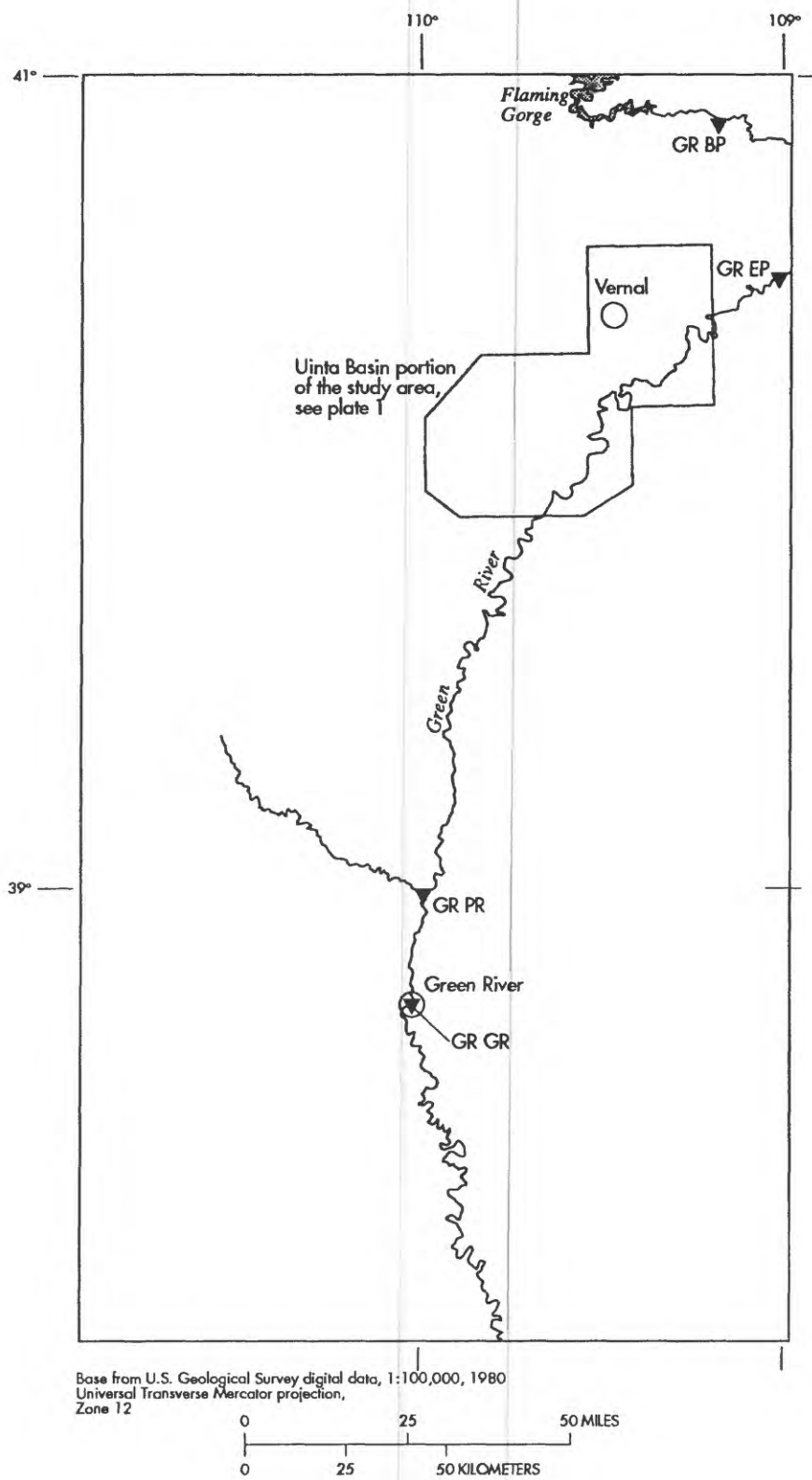


Figure 8.--Location of biological sampling sites along the Green River.

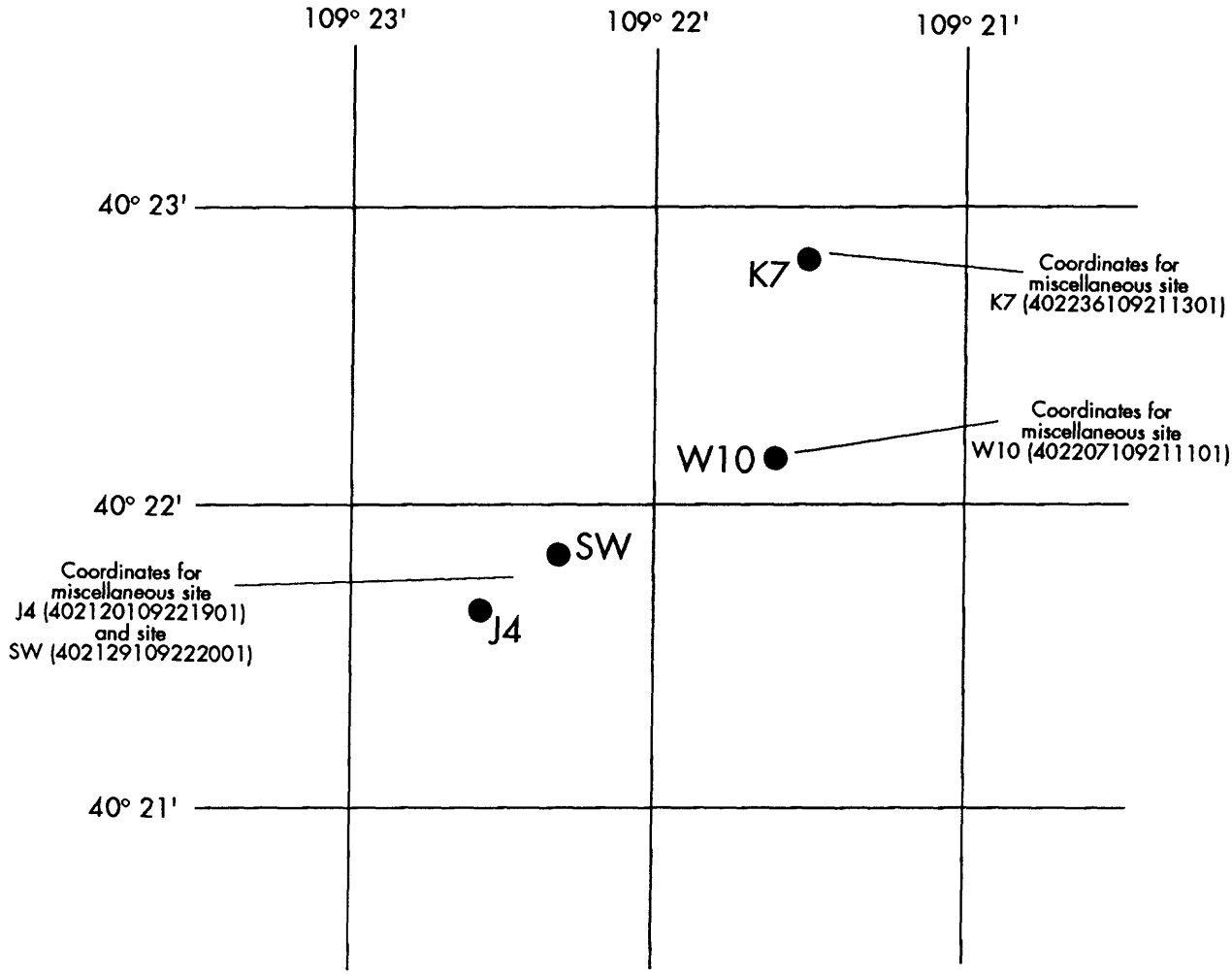


Figure 9.–Numbering system for wells and miscellaneous data-collection sites.

DATA COLLECTION AND ANALYSES

Physical and Chemical Data

Samples of bottom sediment were collected using a BMH-53 sampler with a stainless-steel barrel (U.S. Geological Survey, 1977, p. 3-37). Three to four sediment cores were collected in each area from depths of less than 8 inches and usually to a depth at which the underlying clay was uniform in color and compacted. The cores were placed in an aluminum container, homogenized using a stainless-steel spoon, and sampled. Several samples of core cuttings were collected as grab samples from wells installed in the Ouray area.

Water samples were collected from wells using either a dedicated WaTerra[1] inertial pump with Delrin[1] foot valve and high-density polyethylene tubing, or a Brainard-Kilman[1] 1.7-inch positive-displacement piston pump that discharged to the surface through polyvinylchloride (PVC) pipe. Each well was pumped dry or a minimum of two casing volumes of water was removed, generally one day prior to collection of a water sample. Water levels in all wells recovered within one day.

The collection of samples was done using procedures given by the U.S. Geological Survey (1977). Grab samples of water were collected from most surface-water sites because the flow was small and well mixed. Samples collected from Ashley Creek at U.S. 40 were collected using equal-width, depth-integrated methods and a DH-48TM sampler (U.S. Geological Survey, 1977, p. 3-20). Field measurements of conductivity and pH were made using meters that were calibrated with at least two standards prior to use. Dissolved oxygen was measured using a polaragraphic system that was air-calibrated at the local barometric pressure and temperature. Water samples requiring filtration for inorganic chemical analyses were processed in the field using 0.45 micrometer filters and a plastic filtration unit. When acid was used to stabilize samples for trace-metal analyses, one milliliter of concentrated nitric acid was added per 250 milliliters of sample. This resulted in a measured pH of less than 2. Water samples collected for radiochemical analyses were preserved with hydrochloric acid to a pH less than 2, and stable-isotope samples were preserved with tablets of mercuric chloride.

A field or pump blank commonly was collected at the time of each field trip. The field blank consisted of deionized water filtered directly and stabilized using nitric acid. The pump blank consisted of deionized water pumped through a well-sampling pump, filtered, and stabilized using nitric acid. All blank samples were analyzed for selenium, and on three occasions, all samples were analyzed for a selected number of trace elements. Concentrations of all trace elements in the blanks except boron, lead, and selenium never exceeded the lower reporting level in the blanks (table 1). Concentrations of boron in the blanks ranged from 20 to 50 µg/L, and for one sample, lead was 6 µg/L. At one time, a field blank for selenium was 1 µg/L, and at another time the pump blank was 2 µg/L. The source of the minor contamination in the field blanks is not known. Incomplete washing of the pump likely caused the contamination of the pump blank.

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[1]Use of brand names in this report is for identification purposes only and does not constitute endorsement by the U.S. Geological Survey.

Analytical determinations of common ions and trace elements in water and sediment were made by the U.S. Geological Survey, Water Resources Division Laboratory in Arvada, Colorado, using procedures in Fishman and Friedman (1985). Radiochemical analyses were performed by a private laboratory under contract to the U.S. Geological Survey using procedures given in Thatcher and others (1977). The stable oxygen isotopic composition was determined by modification of the carbon dioxide equilibration method of Epstein and Mayeda (1953). The stable hydrogen isotopic composition was determined by analyzing hydrogen quantitatively extracted from water (Kendall and Coplen, 1985). Sediment samples were analyzed by two U.S. Geological Survey laboratories: data reported as "bottom sediment" were analyzed by the Water Resources Division in Arvada, Colorado; data reported as "constituent in sediment" were analyzed by the Geologic Division in Lakewood, Colorado. The constituents of interest and the lower reporting levels for them are given in table 2.

Biological Data

Plants

Aquatic plants were collected at most sites. Sampling schedules varied by site and by year. Species collected included those commonly available and also those believed to be plants important for food or cover for aquatic birds. As many as three species were collected at each site with three composite samples being taken during each collection period at intensively sampled sites.

Generally, the non-rooted sections were collected except for cattail and hardstem bulrush. The cattail samples usually consisted of 6 to 8 inches of stem starting at the root and 6 to 8 inches of root, except for samples collected in 1986, which were entire plants. The bulrush samples usually included the entire rooted plant, but in 1989, some samples of stem and root were collected in a manner similar to the cattails. All samples were composite samples. Samples were double bagged in plastic and then frozen for storage. Samples were analyzed for inorganic elements only. When samples of cattail and bulrush seed were collected, the seed was stripped from the stalk but the chaff was not separated from the seed.

Cattail samples were collected near the J3 Drain (fig. 4) at Stewart Lake in 1989 at varying distances in a transect from the drain. The area included the combined flow from drains J3 and J4 and seepage from a spring to the open water area of Stewart Lake. Samples of bottom sediment were collected coincidentally.

Waterfowl

Muscle tissue from coots collected in 1986 and stored frozen was removed and analyzed. The coot livers had been previously removed and analyzed (Stephens and others, 1988a). In 1987, juvenile coots were collected. Birds were taken while most were still flightless and before any substantial movement between areas would have occurred. Only liver tissues were collected and analyzed. From 1987 to 1989, 10 to 20 birds were found dead, and liver or kidney samples were salvaged for chemical analyses when possible.

Limited numbers of waterfowl were collected during the 1988 fall migration and in spring 1989. The fall collections of birds simulated those potentially available to hunters. Birds were shot with steel shot except for limited numbers taken by volunteer hunters. Tissues analyzed were not contaminated by lead shot. Livers and portions of breast muscle were collected. All samples were placed in chemically clean jars or wrapped in aluminum foil for analyses. Data on age, sex, and weight were recorded.

The stage of embryo development for waterfowl eggs was estimated using methods of Caldwell and Snart (1974). The volume of each egg was measured by egg displacement in water; length by calipers to 0.1 millimeter; net weight of egg contents by gravimetry to 1 gram. Eggs were usually opened by cracking the air-cell end with forceps (previously cleaned by washing with 10-percent nitric acid solution followed by an acetone or hexane rinse and a deionized water rinse) and peeling the shell until the contents could be removed. Samples were placed in chemically clean jars and frozen. Most eggs were analyzed individually; but with blackbirds, 2 to 3 eggs were composited because of their small size.

Forty-four captive-reared pinioned mallards of equal sex ratio were released at the Roadside ponds at Ouray NWR in 1989. A control sample consisting of six additional birds was sacrificed prior to release of the birds in the environment. Birds were sacrificed at the end of the first, second, and fourth weeks. Samples of liver and breast tissue were taken in the manner described previously. Samples of water, sediment, plants, and invertebrates were collected concurrently.

Bald and Golden Eagles

Bald and golden eagles were captured live during spring migration. Captured birds were weighed, measured, and banded, and had blood samples taken for inorganic analyses.

Fish

Fish were collected predominantly by using gill nets during early spring and mid-summer. Fish were also collected using a variety of techniques, including hook and line, electro-shocking, dip nets, and gill nets. In most cases, each sample consisted of five adult fish of similar size. In some cases, fewer fish were collected and less than five fish were composited. All adult fish were weighed, measured, and double bagged in plastic bags prior to shipment for analyses. Samples to be analyzed for organochlorine residue were first wrapped in aluminum foil and then plastic. At most data-collection sites, three or more composite samples were collected. A few samples were collected as fillets. In some samples consisting of small fish, only the weight of the composite sample was taken.

One sample of eggs from the razorback sucker, proposed for listing as an endangered species, was obtained from the Green River near Jensen, Utah, by personnel of the Colorado River Fishery Project (CRFP). In addition, tissues of several other endangered fish archived by CRFP were analyzed as above. One carp sample was opportunistically obtained at the great blue heron rookery near Stewart Lake WMA. It was mostly intact when dropped from a nest.

Invertebrates

Invertebrates were obtained primarily by using light traps (Espinosa and Clark, 1972). All invertebrates collected in the traps were included in these composite samples. Excess water was removed from samples, and samples were placed in chemically clean jars. Other invertebrates, such as snails and damselfly larvae, were opportunistically sampled using invertebrate nets or by hand.

Several samples of invertebrates were collected from fish stomachs. Composite samples of the contents of up to 10 fish stomachs were obtained at 3 sites in 1988. A gross examination for species composition was made.

Analyses of Biological Tissue

Tissue samples were analyzed at a number of laboratories under contract to the U.S. Fish and Wildlife Service, Patuxent Analytical Control Facility. Concentrations of the following elements were determined in the analyses of biological tissues: aluminum, antimony, arsenic, barium, beryllium, boron, cadmium, copper, iron, lead, magnesium, manganese, mercury, nickel, selenium, silver, tin, vanadium, and zinc. Although reported for several samples, recovery of antimony, silver, and tin analyzed by inductively coupled plasma usually is low and little confidence can be placed in the accuracy of these determinations. The analytical procedures consisted of an inductively coupled plasma scan without preconcentration for most elements. Selenium and arsenic were analyzed by hydride generation, and mercury was analyzed by cold-vapor methods. Several tissue samples were analyzed for organochlorine pesticides. The analytical procedure for pesticides consisted of solvent extraction and analyses using electron-capture gas chromatography.

The reporting levels for constituents in biological samples (table 1) varied over time and among laboratories performing the analyses. The reporting levels shown in table 1 represent a summary for all samples analyzed by all laboratories and not those of a single laboratory. Reporting levels can be affected by a number of factors including quantity of samples submitted, percent moisture, type of equipment used to analyze samples, and method of sampling. In most cases, reporting levels were substantially less than the value shown. Many of the larger values for the reporting of elements were for a single plant sample that contained a large quantity of water.

Preparation of Figures Using a Geographic Information System

Figures in this report were prepared using maps in a digital format. When digitizing was necessary, data were digitized from the smallest scale map available, usually 1:24,000. Figures based on aerial photographs were georeferenced using 1:24,000-scale maps and a 3-point latitude-longitude method to assure geographic location. Digitizing was completed within a largest acceptable root mean square error of 0.003. Most of the area maps were available as digital line graphs at a scale of 1:100,000 and were obtained from the National Mapping Division of the U.S. Geological Survey.

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Table 1.--*Reporting levels for constituents determined in water and bottom sediment*

[mg/L, milligrams per liter; µg/L, micrograms per liter; pCi/L, picocuries per liter; µg/g, micrograms per gram; °C, degrees Celsius; SMOW, Standard Mean Ocean Water; percent, weight percent; per mil, per thousand; --, not analyzed]

Constituent	Analytical reporting level		
	Water	Selected bottom sediment	Constituent in sediment
Alkalinity	0.1 mg/L	--	--
Nitrite plus nitrate	0.1 mg/L	--	--
Solids, volatile on ignition	--	1 µg/g	--
Solids, total residue at 180 °C	1 mg/L	--	--
Aluminum	--	2 µg/g	0.05 percent
Arsenic	1 µg/L	1 µg/g	0.1 µg/g
Barium	100 µg/L	10 µg/g	1 µg/g
Beryllium	--	--	1 µg/g
Bismuth	--	--	10 µg/g
Boron	10 µg/L	10 µg/g	0.4 µg/g
Cadmium	1 µg/L	1 µg/g	2 µg/g
Calcium	0.1 mg/L	--	0.05 percent
Carbon, inorganic	--	1 µg/g	--
Carbon, inorganic plus organic	--	1 µg/g	--
Cesium	--	--	4 µg/g
Chloride	0.1 mg/L	--	--
Chromium	10 µg/L	--	1 µg/g
Cobalt	--	--	1 µg/g
Copper	10 µg/L	1 µg/g	1 µg/g
Europium	--	--	2 µg/g
Fluoride	0.1 mg/L	--	--
Gallium	--	--	4 µg/g
Gold	--	--	8 µg/g
Holmium	--	--	4 µg/g
Iron	--	--	0.05 percent
Lanthanum	--	--	2 µg/g
Lead	1 µg/L	10 µg/g	4 µg/g
Lithium	--	--	2 µg/g
Magnesium	0.1 mg/L	--	0.005 percent
Manganese	--	--	4 µg/g
Mercury	0.1 µg/L	0.01 µg/g	--
Molybdenum	1 µg/L	0.1 µg/g	2 µg/g
Neodymium	--	--	4 µg/g
Nickel	1 µg/L	--	2 µg/g
Niobium	--	--	4 µg/g
Phosphorus	--	--	0.005 percent
Potassium	--	--	0.05 percent
Scandium	--	--	2 µg/g
Selenium	1 µg/L	1 µg/g	0.1 µg/g
Silica	0.1 mg/L	--	--
Silver	1 µg/L	--	2 µg/g
Sodium	0.1 mg/L	--	0.005 percent
Strontium	--	--	2 µg/g
Sulfate	1 mg/L	--	--

Table 1.--*Reporting levels for constituents determined in water and bottom sediment--Continued*

Constituent	Analytical reporting level		
	Water	Selected bottom sediment	Constituent in sediment
Tantalum	--	--	40 µg/g
Thallium	--	--	4 µg/g
Tin	--	--	10 µg/g
Titanium	--	--	0.005 percent
Uranium, natural	0.4 µg/L	--	100 µg/g
Vanadium	1 µg/L	--	2 µg/g
Ytterbium	--	--	1 µg/g
Yttrium	--	--	2 µg/g
Zinc	10 µg/L	1 µg/g	2 µg/g
Gross alpha (as natural uranium)	0.4 µg/L	--	--
Gross beta (as Cesium-137)	0.4 pCi/L	--	--
Gross beta (as Strontium-90/ Ytterbium-90)	0.4 pCi/L	--	--
Radium-226	0.1 pCi/L	--	--
Oxygen-18/Oxygen-16 relative to SMOW	0.15 permil	--	--
Deuterium/Protium relative to SMOW	1.5 permil	--	--

Table 2.—*Range of lower analytical reporting levels for biological constituents in samples reported by various laboratories*

[µg/g, micrograms per gram; PCB, polychlorinated biphenyl; p,p', para para'; o,p',ortho para'; DCPA, dimethyl tetra chloroterephthalate]

Constituent	Concentration, dry weight, µg/g	
	Lowest low limit	Highest low limit
Aluminum	0.9	120
Antimony	0.027	50
Arsenic	0.5	3.49
Barium	0.1	102
Beryllium	0.09	10.2
Boron	0.5	94.3
Cadmium	0.15	10.2
Chromium	0.31	20.4
Cobalt	0.6	4
Copper	0.4	51.0
Iron	27.7	64.7
Lead	0.2	189
Magnesium	287	683
Manganese	0.2	11.2
Mercury	0.027	0.59
Molybdenum	0.2	102
Nickel	0.63	86.1
Selenium	0.1	2.1
Silver	0.9	102
Strontium	0.35	10
Thallium	0.32	30
Tin	4.85	102
Vanadium	0.2	102
Zinc	0.64	25
PCB Total	0.01	0.94
oxychlordane	0.001	0.05
cis-Chlordane	0.001	0.05
trans-Chlordane	0.001	0.05
cis-Nonachlor	0.001	0.05
trans-Nonachlor	0.001	0.05
Heptachlor	0.001	0.05
Heptachlor epoxide	0.001	0.05
Methoxychlor	0.003	0.051
o,p'-DDE	0.001	0.05
p,p'-DDE	0.001	0.015
o,p'-DDD	0.002	0.05
p,p'-DDD	0.002	0.05
o,p'-DDT	0.001	0.05
p,p'-DDT	0.002	0.05
Endrin	0.001	0.05
Dieldrin	0.001	0.05
Aldrin	0.001	0.05
alpha-Benzene hexachloride	0.001	0.05
beta-Benzene hexachloride	0.001	0.05
gamma-Benzene hexachloride (Lindane)	0.001	0.05
delta-Benzene hexachloride	0.002	0.05
Hexachlorobenze	0.001	0.05
Endosulfan 1	0.001	0.01
Endosulfan 2	0.001	0.01
Endosulfan sulfate	0.001	0.01
Mirex	0.001	0.05
DCPA (Dacthal)	0.002	0.025
Dicofol	0.001	0.001
Tetradifon	0.001	0.017
Toxaphene	0.009	0.5

Table 3.--*Site name, abbreviated site name, and site identification number for locations sampled by the U.S. Geological Survey*

[nr., near; NNW, North North West; S., South; E., East; US, United States route; U.S., United States; BC, Brush Creek; NW, North West; ft., feet; WMA, Waterfowl Management Area; NWR, National Wildlife Refuge]

Site name	Abbreviated site name	Site identification number
Ashley Creek, Ashley Creek tributaries, and nearby area (figure 1):		
Ashley Creek at 2500 West in Maeser, Utah	AC 2500	402905109343501
Ashley Creek at 500 North nr. Steinaker Draw	AC 500	402749109295401
Rockpoint Canal at 500 North, Vernal, Utah	RPC 500	402749109283001
North Vernal Irrigation Drain from West	NVD	402738109295701
Steinaker Draw on Road to Dump	AT SD	402749109292301
Ingram Drain at Ashley Creek nr. Golf Course	ID GC	402642109284101
Hookless Cactus Spring NNW of Sewage Lagoons	HCS	402709109281101
South Vernal Drain at Ashley Creek	SVD	402623109282301
First Irrigation Canal South of South Vernal Drain	AT IC1	402622109281201
Second Irrigation Canal South of South Vernal Drain	AT IC2	402615109280001
Tributary North of 1500 South Naples, Farm Drain	AT FD	402610109280201
Ashley Creek at 1550 South, Naples, Utah	AC 1550	402605109275901
North Sewage Lagoon at Gate, Pond 1	NSL	402550109270001
Spring West of Lagoon 1, Vernal Sewage Lagoons	VSL Spring	402544109271001
Waterfowl Pond Under Sewage Lagoons, Vernal, Utah	WF Pond	402534109265601
Winter Storage Pond	WSP	402518109260001
Spring Below Winter Storage Pond	WSP Spring	402516109260001
Ashley Creek at Dog Leg Road, East of Naples, Utah	AC Dog Leg	402529109271201
Tributary Below Sewer Lagoon Springs, Abandon Farm	AT AF	402517109271001
Ashley Central Canal at Flume, 2550 South, Naples, Utah	ACC 2550	402511109293201
Naples Drain at Ashley Creek	ND	402500109270701
Ashley Central Canal at Ashley Creek	AT ACC	402459109270401
Tributary under Sewer Aquaduct on 2500 East, Naples, Utah	AT SA	402446109284501
Critton Well at 3950 S. 2700 E., Naples, Utah	Crit Well	402352109282901
Sunshine Burns Southwest Runoff From East	AT SBSR	402448109262301
Sunshine Burns Mancos Seep at Ashley Creek	Mancos Seep	402443109262101
4930 Foot Tributary to Ashley Below the Winter Storage Pond	AT 4930	402432109262801
Sunshine/Burns Runoff North of US 40	SBR	402406109253401
Ashley Creek at 6550 East, Naples, Utah	AC 6550	402354109254301
Ashley Tributary 14, North of US 40	AT 14	402347109254201
Ashley Creek Location 13, North of US 40	AC 13	402343109253901
Ashley Tributary 12, North of US 40	AT 12	402340109252701
Ashley Tributary 11, North of US 40	AT 11	402327109252601
Ashley Creek Location 10, North of US 40	AC 10	402313109251401
Ashley Creek Location 9, North of US 40	AC 9	402300109250101
Ashley Tributary 8, North of US 40	AT 8	402300109250001
Ashley Tributary 7, North of US 40	AT 7	402300109244701
Ashley Tributary 6, North of US 40	AT 6	402259109243601
Ashley Tributary 5, North of US 40	AT 5	402259109243101
Ashley Tributary 4, North of US 40	AT 4	402256109242901
Ashley Tributary 3, North of US 40	AT 3	402256109242501
Ashley Tributary 2, North of US 40	AT 2	402242109242901
Upper Mantle Gulch at State Road 45 to Bonanza	UMG 45	402222109295101
Mantle Gulch at Oilfield Road East, Naples, Utah	MG OF	402233109251601
Mantle Gulch Discharge to Ashley Creek	MG Mouth	402241109243501
Ashley Creek at US 40 nr. Jensen, Utah	AC 40	09271500
River Irrigation Canal at US 40	RIC US 40	402212109234001
Union Diversion Canal at Ashley Creek	AC UDC	402218109242501
Petroleum Battery II	BHP II	402137109241701
Lacey Oil Field Drain	Lacey Drain	402147109241401

Table 3.--*Site name, abbreviated site name, and site identification number for locations sampled by the U.S. Geological Survey--Continued*

Site name	Abbreviated site name	Site identification number
Ashley Creek, Ashley Creek tributaries, and nearby area (figure 1)--Continued:		
Ashley Creek at 6750 South in Jensen, Utah	AC 6750	402129109231301
Lower Union Canal at 6950 East 6750 South	LUC 6950	402129109233501
Lower Union Canal nr. Ruppe Farm	LUC Ruppe	402010109234601
Upper Poulton at Flume nr. Rassmussen Hollow	UP Flume	402007109235801
Inlet to Marsh 4720 Southwest of Stewart Lake	M4720 Inlet	402011109231101
Marsh 4720 Southwest of Stewart Lake	M4720	402001109225701
Ashley Creek at Mouth at the Green River	AC Mouth	402030109215401
U.S. Bureau of Reclamation drains in the Vernal area (figure 2):		
17A2 Drain nr. Vernal, Utah	17A2	402830109343301
22A1 Drain nr. Vernal, Utah	22A1	402653109331301
26B2 Drain nr. Vernal, Utah	26B2	402636109314101
26C2 Drain nr. Vernal, Utah	26C2	402625109311501
28A1 Drain nr. Vernal, Utah	28A1	402615109330601
29A1 Drain nr. Naples, Utah	29A1	402611109282901
30B1 Drain nr. Naples, Utah	30B1	402634109291501
32A1 Drain nr. Naples, Utah	32A1	402553109282301
5A1 Drain nr. Naples, Utah	5A1	402506109283501
Amos/Merkly Drain in Maeser, Utah	AM	402720109333401
Pilot Drain nr. Vernal, Utah	PD	402555109301301
Stewart Lake and Brush Creek areas (figure 3):		
Brush Creek nr. Jensen, Utah	BC	09263500
BC 3 U.S. Bureau of Reclamation Well in Brush Creek	BC3	402429109202401
BC 13 U.S. Bureau of Reclamation well in Brush Creek	BC13	402437109201901
Burns Bench Canal at State Road 149	BBC 149	402416109203201
Burton Canal at 4000 South Dinosaur	Burton 4000	402355109202401
U.S. Bureau of Reclamation Well BC 4	BC4	402357109201301
U.S. Bureau of Reclamation Well BC 15	BC15	402356109204001
Sunshine Canal at 5000 South Dinosaur	SC 5000	402356109211801
K9 Well in Stewart Area nr. Firestation	K9	402212109213701
K10 Well in Stewart Area	K10	402211109215401
K11 Well in Stewart Area	K11	402211109221701
Burns Bench Canal at US 40	BBC 40	402211109222601
Burns Bench Canal at Diversion Dam South of US 40	BBC Dam	402147109224101
Stewart Lake Outlet	SL Out	402046109214501
Stewart Lake area (figure 4):		
K7 Well in Stewart Area	K7	402236109211301
BC 18 U.S. Bureau of Reclamation Well North of Stewart Lake	BC18	402225109204201
K8 Well in Stewart Area	K8	402217109211701
BC 17 U.S. Bureau of Reclamation Well in Jensen, Utah	BC17	402157109215001
Well 10 in Jensen, Utah	W10	402207109211101
U.S. Bureau of Reclamation Well TOH 1	TOH1	402210109211701
K12 Well	K12	402210109211601
K13 Well	K13	402210109211602
K14 Well	K14	402210109211603
K15 Well	K15	402210109211604
K2 North Well nr. Jensen, Utah	K2N	402202109212101
K2 South Well nr. Jensen, Utah	K2S	402202109212102
K2NW Well in Stewart Area	K2NW	402203109212301
J1 Seep, Jensen, Utah	J1 Seep	402148109204201
J1 18 North Manhole to Irrgation Drain, North	J1 18 N	402229109204401

Table 3.--*Site name, abbreviated site name, and site identification number for locations sampled by the U.S. Geological Survey--Continued*

Site name	Abbreviated site name	Site identification number
Stewart Lake area (figure 4)--Continued:		
J1 18 West Manhole to Irrigation Drain, West	J1 18 W	402229109204402
J1 25 Manhole to Irrigation Drain	J1 25	402148109205001
J1 30 Manhole to Irrigation Drain	J1 30	402216109211701
Manhole J1 31 Dudley Stock Usage	J1 31	402152109205001
J1 45 Manhole to Irrigation Drain	J1 45	402158109204801
J1 60 Manhole to Irrigation Drain	J1 60	402214109204901
J1 U.S. Bureau of Reclamation Drain to Stewart Lake	J1	402136109204103
J1A-29 Manhole to Irrigation Drain	J1A 29	402144109205701
J1A U.S. Bureau of Reclamation Drain to Stewart Lake	J1A	402136109204104
J1 and J1A Drains Combined	J1/J1A	402136109204102
K1 East Well nr. Jensen, Utah	K1E	402144109205703
K1 West Well nr. Jensen, Utah	K1W	402144109205702
J2 25 Manhole to Irrigation Drain	J2 25	402153109215001
J2 42 Manhole to Irrigation Drain	J2 42	402155109212601
J2 51 Manhole to Irrigation Drain	J2 51	402207109212601
J2 62 Manhole to Irrigation Drain	J2 62	402207109211501
J2 U.S. Bureau of Reclamation Drain Stewart Lake Inflow	J2	402146109220301
K6 Well in Stewart Area	K6	402134109214201
Stewart Lake North Side	SN	402130109214301
J3 10 Manhole to Irrigation Drain	J3 10	402138109221501
J3 U.S. Bureau of Reclamation Drain to Stewart Lake	J3	402134109221001
J3 Drain 60 ft. South of Outflow	J3 60	402134109221004
J3 Drain 96 ft. South of Outflow	J3 96	402134109221003
J3 150 ft. South of Outflow	J3 150	402134109221002
J3 350 ft. South of Outflow	J3 350	402134109221005
K3 Well nr. Jensen, Utah	K3	402153109222301
K4 Well nr. Jensen, Utah	K4	402200109222501
K5 Well nr. Jensen, Utah	K5	402152109221101
J4 21 Manhole to Irrigation Drain	J4 21	402147109221701
J4 25 Manhole to Irrigation Drain	J4 25	402127109223301
J4 41 Manhole to Irrigation Drain	J4 41	402144109222801
J4 54 Manhole to Irrigation Drain	J4 54	402158109222401
J4 67 Manhole to Irrigation Drain	J4 67	402200109220801
J4 U.S. Bureau of Reclamation Drain Stewart Lake Inflow	J4	402120109221901
Snow Well, Stewart WMA	SW	402129109222001
Snow Farm Spring	SFS	402123109221701
Ouray National Wildlife Refuge and Pelican Lake (figure 5):		
Pelican Lake Discharge at Old Pumping Site	PL Out	401102109404701
Cooper Domestic Well	Cooper	401002109383801
Evans Well, North of Ouray NWR	Evans	400936109390701
Batty Well, North of Ouray NWR	Batty	400854109395301
Ouray Park Irrigation Canal at State Road 88	OPC 88	400814109394601
Ouray Park Irrigation Canal at Diversion	OPC DIV	400903109394401
Brennan Bottom Spring 3	BB 3	401154109371001
Sheppard Bottom Pond S5, South End nr. Dike	S5	400658109392201
Sheppard 5 Well, Ouray WMA	S5 Well	400658109393701
Sheppard Bottom Pond S3	S3	400658109383001
Sheppard S3 Seep West	S3 Seep	400648109393701
Sheppard Well South of S3 at Ouray NWR	S3 Well	400638109395201
Sheppard Seep at Ouray NWR	Seep	400641109395201
Prairie Dog 1, Ouray WMA	Prairie	400651109400701
Agriculture Field Well, Ouray WMA	Ag Well	400745109383701

Table 3.--*Site name, abbreviated site name, and site identification number for locations sampled by the U.S. Geological Survey--Continued*

Site name	Abbreviated site name	Site identification number
Ouray National Wildlife Refuge and Pelican Lake (figure 5)--Continued:		
Leota Pond L3 at Ouray NWR	L3	401035109340801
Leota Pond L6 at Ouray NWR	L6	401010109350101
Ouray National Wildlife Refuge, North and South Roadside locations (figure 6):		
Unnamed Stream Above North Entry Pond Above Canal	UNS	400823109393601
North Roadside Draw	NR Draw	400815109393601
North Roadside Well NR1 at Ouray NWR	NR1	400812109394501
North Roadside Well NR2 at Ouray NWR	NR2	400805109394401
NR3 Shallow Well	NR3 S	400755109394101
NR3 Mid-Depth Well at Ouray NWR	NR3 M	400756109394001
NR3 Deep Well at Ouray NWR	NR3 D	400756109393701
North Roadside Well NR4 at Ouray NWR	NR4	400745109393401
North Roadside North Edge of Pond North of West Outlet	NR North	400742109392701
North Roadside Pond North East Side 200 ft. North of sign	NR 200	400743109392401
North Roadside East Side	NR ES	400741109392001
North Roadside East End nr. Dike	NR East	400741109392002
North Roadside West End nr. Road Dike	NR West	400737109392901
North Roadside Center nr. Dike	NR Center	400738109392401
North Roadside Pond Outflow at Ouray NWR	NR Pond	400737109392501
South Roadside Inflow Channel 200 ft. North of Pond	SR Inflow	400733109391801
South Roadside North End East Side	SR N ES	400736109390501
South Roadside North Edge nr. New Fence	SR North	400731109390601
South Roadside South End West Side	SR South	400731109391201
South Roadside South End nr. Outlet	SR Outlet	400731109392502
Unnamed Canal from South Roadside to Pond S5	SR Canal	400731109392501
Gravel Pit Seep on Entry Road at Ouray NWR	GP Seep	400745109380001
Pleasant Valley and Pariette Wetlands area (figure 7):		
Pleasant Valley Canal at Flume nr. Myton, Utah	PV Canal	400920110050001
Pleasant Valley Farm Drain nr. OH 135	PV Drain	400710109594001
Pleasant Valley Wash at County Road	PV Wash 1	400852110025701
Pleasant Valley Wash Location 2	PV Wash 2	400800109561601
Upper Pleasant Valley Canal 1 Mile East of Highway 216	UPV Canal	400701110025001
OH 139 U.S. Bureau of Reclamation Well in Pleasant Valley	OH 139	400714110001301
OH 148 U.S. Bureau of Reclamation Well in Pleasant Valley	OH 148	400700109580101
OH 51 U.S. Bureau of Reclamation Well in Pleasant Valley	OH 51	400809110061701
OH 56 U.S. Bureau of Reclamation Well in Pleasant Valley	OH 56	400815110053501
OH 83 U.S. Bureau of Reclamation Well in Pleasant Valley	OH 83	400800110025101
Flood Control Pond at Outlet at Pariette Wetlands	FC	400421109512601
Desilting Basin Outlet at Pariette Draw	DP	400325109493601
Gadwall Pond nr. Middle Outlet at Pariette Draw	GP	400153109455701
Shoveler Pond at Pariette Wetlands	SP	400201109470001
Small Island Pond Outflow to Big Island Pond	SIP	400237109465101
Big Island Pond at Pariette Draw	BIP	400243109465501
Redhead Pond	RP	400145109453401
Pariette Draw at Mouth nr. Ouray, Utah	PM	09307300

Table 4.—*Site name and abbreviated site name for locations sampled by the U.S. Fish and Wildlife Service*
[US, United States route; NWR, National Wildlife Refuge; NE, North East; SW, South West;]

Site name	Abbreviated site name
Ashley Creek area (figure 1):	
Ashley Creek North Vernal Ave.	AC NVA
Winter Storage Pond	WSP
Ashley Creek at 6550 East, Naples, Utah	AC 6550
Ashley Creek at US 40 near Jensen, Utah	AC 40
Ashley Creek at 6750 South, Jensen, Utah	AC 6750
Alfalfa field north of Marsh 4720	ALF
Marsh 4720 southwest of Stewart Lake	M4720
Wheeler Pond	WP
Stewart Lake area (figures 3 and 4):	
J1 and J1A Drains Combined	J1/J1A
J3 U.S. Bureau of Reclamation Drain to Stewart Lake	J3
J4 U.S. Bureau of Reclamation Drain Stewart Lake Inflow	J4
J3 and J4 Drains, confluence to Stewart Lake	J3/J4
[1]North Shore of Stewart Lake	NS
[1]Stewart Lake	SL
[1]South Shore of Stewart Lake	SS
Stewart Lake Outlet	SL Out
Ouray area (figures 5 and 6):	
Pelican Lake Inlet	PL Inlet
[1]Pelican Lake North Shore	PL NS
[1]Pelican Lake East Shore	PL ES
Pelican Lake Recreation Site	PL RS
[1]Pelican Lake Outlet	PL Outlet
Gravel Pit Seep on Entry Road at Ouray NWR	GP Seep
Ouray NWR 2 miles NE of Entrance	NE
Ouray NWR North Side of refuge agriculture field	AG
[1]Ouray NWR at Johnson Bottom impoundment	JB
[1]North Roadside Pond	NR

Table 4.—*Site name and abbreviated site name for locations sampled by the U.S. Fish and Wildlife Service—Continued*

Site name	Abbreviated site name
Ouray area (figures 5 and 6)—Continued:	
[1]South Roadside Pond	SR
West Entrance	WE
[1]1/2 mile SW of entrance to Ouray NWR	SW
Residence Garden	RG
Woods Bottom/Wyasket	WB
[1]Leota Bottom	LB
[1]Leota #1	L1
[1]Leota #2	L2
[1]Leota #3	L3
[1]Leota #4	L4
[1]Leota #5	L5
Leota #5 and #6 Canal	L5/6
[1]Leota #6	L6
[1]Leota #7	L7
[1]Leota #8	L8
[1]Leota #9	L9
[1]Sheppard #1	S1
[1]Sheppard #2	S2
[1]Sheppard #3	S3
[1]Sheppard #4	S4
[1]Sheppard #5	S5
[1]Sheppard Bottom	SB
Pariette Wetlands area (figure 7):	
[2]Roosevelt, Utah	Roosevelt
[1]Pleasant Valley	PV
[1]Pariette Draw	PD
[1]Flood Control	FC
[1]Desiltation Pond	DP
[1]North Felters Pond	NFP
[1]Big Wash	BW
[1]Felters Pond	FP
[1]Shoveler Pond	SP
[1]Pintail Pond	PP

Table 4.—*Site name and abbreviated site name for locations sampled by the U.S. Fish and Wildlife Service—Continued*

Site name	Abbreviated site name
Pariette Wetlands area (figure 7)--Continued:	
[1]Big Island Pond	BIP
[1]Small Island Pond	SIP
[1]Roadside Cliff	RC
[1]Horseshoe Pond	HP
[1]Mallard Pond	MP
[1]Indian Pond	IP
[1]Gadwall Pond	GP
[1]Redhead Pond	RP
Green River area (figures 1, 5, and 8):	
Green River Brown's Park	GR BP
Green River Echo Park	GR EP
Green River at Ashley Creek near Jensen, Utah	GRAC
[1]Green River	GR
Green River near Ouray NWR	GR OUR
Green River at Price River	GR PR
Green River at Green River, Utah	GR GR

[1] area name - not a specific site.
[2] See plate 1 for location of Roosevelt (not in fig. 7)

Table 5.--*Selected chemical analyses of deionized-water blanks from each sampling trip*

[Field blank is water carried into the field, filtered and processed to simulate a sample; pump blank is water pumped through the sampling device, filtered and processed to simulate a sample; µg/L, micrograms per liter; --, not determined; <, less than]

Type of blank	Date	Time (24-hour)	Arsenic, dissolved (µg/L as As)	Barium, dissolved (µg/L as Ba)	Boron, dissolved (µg/L as B)	Cadmium, dissolved (µg/L as Cd)	Chromium, dissolved (µg/L as Cr)	Copper, dissolved (µg/L as Cu)	Lead, dissolved (µg/L as Pb)	Mercury, dissolved (µg/L as Hg)	Molybdenum, dissolved (µg/L as Mo)	Nickel, dissolved (µg/L as Ni)	Silver, dissolved (µg/L as Ag)	Selenium, dissolved (µg/L as Se)	Vanadium, dissolved (µg/L as V)	Zinc, dissolved (µg/L as Zn)
Field blank	08-13-87	1500	1	<100	30	<1	<10	<10	6	<0.1	<1	<1	<1	<1	<1	<10
	08-18-87	1620	1	<100	20	<1	<10	<10	<5	<0.1	<1	<1	<1	<1	<1	<10
	04-06-88	1600	--	--	--	--	--	--	--	--	--	--	--	<1	--	--
	06-08-88	1730	--	--	--	--	--	--	--	--	--	--	--	<1	--	--
Field blank	07-14-88	1700	--	--	--	--	--	--	--	--	--	--	--	<1	--	--
	07-27-88	2015	--	--	--	--	--	--	--	--	--	--	--	1	--	--
Pump blank	08-25-88	0950	--	--	--	--	--	--	--	--	--	--	--	<1	--	--
Field blank	08-25-88	1900	--	--	--	--	--	--	--	--	--	--	--	<1	--	--
	09-01-88	1950	--	--	--	--	--	--	--	--	--	--	--	<1	--	--
Field blank	09-21-88	1500	--	--	--	--	--	--	--	--	--	--	--	<1	--	--
	09-27-88	1040	--	--	--	--	--	--	--	--	--	--	--	<1	--	--
	09-28-88	1740	<1	100	50	<1	<1	<10	<5	--	<1	<1	<1	<1	<1	<10
	10-06-88	0810	--	--	--	--	--	--	--	--	--	--	--	<1	--	--
	10-19-88	1530	--	--	--	--	--	--	--	--	--	--	--	<1	--	--
Field blank	02-02-89	1320	--	--	--	--	--	--	--	--	--	--	--	<1	--	--
Pump blank	03-22-89	1630	--	--	--	--	--	--	--	--	--	--	--	<1	--	--
Pump blank	04-26-89	1700	--	--	--	--	--	--	--	--	--	--	--	2	--	--
Field blank	06-14-89	1525	--	--	--	--	--	--	--	--	--	--	--	<1	--	--
Field blank	06-28-89	1245	--	--	--	--	--	--	--	--	--	--	--	<1	--	--
Pump blank	06-28-89	1610	--	--	--	--	--	--	--	--	--	--	--	<1	--	--
Pump blank	07-26-89	1935	--	--	--	--	--	--	--	--	--	--	--	<1	--	--
Field blank	08-22-89	1945	--	--	--	--	--	--	--	--	--	--	--	<1	--	--
Field blank	08-23-89	1600	--	--	--	--	--	--	--	--	--	--	--	<1	--	--
Pump blank	08-24-89	0925	--	--	--	--	--	--	--	--	--	--	--	<1	--	--
Pump blank	09-27-89	0930	--	--	--	--	--	--	--	--	--	--	--	<1	--	--
Field blank	10-26-89	1515	--	--	--	--	--	--	--	--	--	--	--	<1	--	--

Table 6.--*Physical and chemical analyses of water from Ashley Creek and water sources near Vernal and Jensen, Utah*

[°C, degrees Celsius; ft³/s, cubic feet per second; µS/cm, microsiemens per centimeter at 25 degrees Celsius; m, L, milligrams per liter; µg/L, micrograms per liter; pCi/L, picocuries per liter; --, not determined; <, less than]

Site name: See tables 3 and 4 for full site name.

Site name	Date	Time (24-hour)	Temperature, water (°C)	Streamflow, instantaneous (ft³/s)	Specific conductance (µS/cm)	pH (standard units)	Alkalinity, lab (mg/L as $CaCO_3$)	Calcium, dissolved (mg/L as Ca)	Chloride, dissolved (mg/L as Cl)	Fluoride, dissolved (mg/L as F)	Magnesium, dissolved (mg/L as Mg)	Potassium, dissolved (mg/L as K)	Silica, dissolved (mg/L as SiO_2)	Sodium, dissolved (mg/L as Na)	Sulfate, dissolved (mg/L as SO_4)	Arsenic, dissolved (µg/L as As)
AC 1550	09-27-88	1910	--	6.7	1,600	--	--	--	--	--	--	--	--	--	--	1
AC 6550	09-27-88	1150	--	13	2,350	--	--	--	--	--	--	--	--	--	--	1
AC UDC	06-14-89	1600	28.0	5.6	3,000	8.2	281	300	39	0.80	190	9.8	20	220	1,700	--
BHP II	06-14-89	1145	40.0	1.4	1,620	--	132	250	67	1.6	50	21	26	70	770	--
Lacy Drain	06-14-89	1130	45.0	0.900	2,160	7.3	109	390	66	1.6	65	19	30	73	1,200	--
LUC Ruppe	06-14-89	1215	--	3.4	2,640	8.3	216	300	47	1.0	140	38	21	190	1,500	--
M4720 Inlet	04-06-88	1015	5.0	0.655	5,300	7.9	358	330	110	0.60	320	15	18	490	2,900	1
	09-28-88	0920	--	0.311	2,950	--	--	--	--	--	--	--	--	--	--	1
	11-17-88	0920	--	--	--	--	419	410	120	0.70	340	5.9	15	580	3,300	--
M4720	09-28-88	0850	--	--	21,500	--	--	--	--	--	--	--	--	--	--	5
AC Mouth	08-11-87	1300	25.0	16	2,190	8.2	189	210	26	0.70	100	5.9	14	140	950	1
	04-06-88	0915	7.0	--	2,550	8.1	210	270	35	0.70	130	6.7	14	170	1,300	<1

Table 6.--*Physical and chemical analyses of water from Ashley Creek and water sources near Vernal and Jensen, Utah*--Continued

Site name	Barium, dissolved (µg/L as Ba)	Boron, dissolved (µg/L as B)	Cadmium, dissolved (µg/L as Cd)	Chromium, dissolved (µg/L as Cr)	Copper, dissolved (µg/L as Cu)	Lead, dissolved (µg/L as Pb)	Molybdenum, dissolved (µg/L as Mo)	Nickel, dissolved (µg/L as Ni)	Selenium, dissolved (µg/L as Se)	Silver, dissolved (µg/L as Ag)	Vanadium, dissolved (µg/L as V)	Zinc, dissolved (µg/L as Zn)	Gross alpha, dissolved (µg/L as U-nat)	Gross alpha, susp. total (µg/L as U-nat)	Gross beta, dissolved (pCi/L as Cs-137)	Gross beta, susp. total (pCi/L as Cs-137)	Gross beta, dissolved (pCi/L as Sr/Yt-90)	Gross beta, susp. total (pCi/L as Sr/Yt-90)
AC 1550	44	340	3	1	<10	<5	3	2	3	<1.0	2	5	--	--	--	--	--	--
AC 6550	100	570	<1	2	10	<5	3	3	77	<1.0	2	<10	--	--	--	--	--	--
AC UDC	--	--	--	--	--	--	--	--	69	--	--	--	--	--	--	--	--	--
BHP II	--	--	--	--	--	--	--	--	<1	--	--	--	--	--	--	--	--	--
Lacy Drain	--	--	--	--	--	--	--	--	<1	--	--	--	--	--	--	--	--	--
LUC Ruppe	--	--	--	--	--	--	--	--	46	--	--	--	--	--	--	--	--	--
M4720 Inlet	<100	1,500	<1	1	20	<5	8	4	26	1.0	8	10	--	--	--	--	--	--
	100	680	1	2	20	<5	7	4	73	<1.0	3	<10	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	130	--	--	--	--	--	--	--	--	--
M4720	100	8,800	<1	2	80	<5	41	8	7	<1.0	36	30	--	--	--	--	--	--
AC Mouth	<100	550	<1	<10	10	<5	3	<1	59	<1.0	2	<10	43	<0.4	17	0.8	11	0.7
	<100	500	<1	1	10	<5	3	4	78	<1.0	2	<10	--	--	--	--	--	--

Table 7.—*Selected physical and chemical analyses of water from Ashley Creek and water sources near Vernal and Jensen, Utah*

[°C, degrees Celsius; ft³/s, cubic feet per second; µS/cm, microsiemens per centimeter at 25° Celsius; mg/L, milligrams per liter; µg/L, micrograms per liter; --, not determined; <, less than]

Site name: See tables 3 and 4 for full site name.

Site name	Date	Time (24-hour)	Temperature, water (°C)	Streamflow, instantaneous (ft³/s)	Specific conductance (µS/cm)	pH (standard units)	Oxygen, dissolved (mg/L)	Selenium, dissolved (µg/L as Se)	Selenium, total (µg/L as Se)	Zinc, dissolved (µg/L as Zn)
AC 2500	04-06-88	1500	17.0	0.77	500	8.5	--	<1	--	--
AC 500	04-06-88	1400	13.0	2.9	520	8.4	--	<1	--	--
	07-13-88	1830	--	--	430	8.2	9.8	<1	--	--
AC Dog Leg	07-13-88	1850	28.5	--	1,610	8.1	10.2	31	--	--
AC 6550	07-13-88	1420	29.0	--	2,450	8.2	10.2	150	--	--
	10-24-88	1535	--	--	--	--	--	--	260	--
AC 13	07-13-88	1445	27.5	--	2,360	8.1	--	100	--	--
AC 10	07-13-88	1555	--	--	2,430	8.1	--	90	--	--
AC 9	07-13-88	1135	23.0	--	2,500	8.1	--	85	--	--
AC 40	04-06-88	1315	11.0	22	2,500	8.2	10.8	94	--	--
	07-13-88	0935	20.0	--	2,690	8.1	--	91	--	--
	09-28-88	1600	--	13	2,600	--	--	71	--	--
	08-23-89	1110	21.0	0.83	2,920	7.6	--	96	--	--
AC 6750	04-06-88	1215	9.5	18	2,500	8.3	11.1	110	--	--
	07-13-88	0920	18.0	--	2,690	8.0	--	76	--	--
	10-24-88	1640	--	--	--	7.5	--	--	120	--
LUC 6950	04-06-88	1110	17.0	--	2,250	8.1	--	38	--	<10
	07-13-88	0900	--	--	2,450	8.0	--	75	--	--
LUC Ruppe	04-06-88	1100	4.0	2.8	7,150	8.3	12.8	140	--	10
UP Flume	04-06-88	1045	10.5	0.64	2,350	8.1	--	40	--	<10
	07-13-88	0910	--	--	2,420	8.0	--	52	--	--
M4720 Inlet	11-04-87	1455	--	--	--	--	--	--	33	--
AC Mouth	11-04-87	1005	10.0	49	--	--	--	--	61	--

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Table 8.--*Physical and chemical analyses of*

[°C, degrees Celsius; ft³/s, cubic feet per second; µS/cm, microsiemens per centimeter

Site name: See tables 3 and 4 for full site name.

Site name	Date	Time (24-hour)	Temperature, water (°C)	Streamflow, instantaneous (ft³/s)	Specific conductance (µS/cm)	pH (standard units)	Alkalinity, lab (mg/L as $CaCO_3$)	Calcium, dissolved (mg/L as Ca)	Chloride, dissolved (mg/L as Cl)	Fluoride, dissolved (mg/L as F)	Magnesium, dissolved (mg/L as Mg)	Potassium, dissolved (mg/L as K)	Sodium, dissolved (mg/L as Na)
RPC 500	09-27-88	1420	--	2.3	350	--	--	--	--	--	--	--	--
HCS	09-26-88	1800	--	--	1,790	--	--	--	--	--	--	--	--
NSL	09-26-88	1700	--	--	800	--	--	--	--	--	--	--	--
WSP	09-26-88	1715	--	--	7,600	--	--	--	--	--	--	--	--
	08-22-89	1725	22.0	--	7,400	8.4	87	550	--	--	370	10	1,100
WSP Spring	09-27-88	0950	--	0.08	5,900	--	--	--	--	--	--	--	--
	08-22-89	1730	21.0	0.26	3,200	7.9	170	360	--	--	140	5.5	320
AT AF	09-28-88	1315	--	0.50	4,100	--	--	--	--	--	--	--	--
ACC 2550	09-28-88	1145	--	0.47	3,130	--	--	--	--	--	--	--	--
Crit Well	02-02-89	0830	--	--	2,700	7.3	206	480	4.9	0.80	130	1.9	52
	08-24-89	1045	--	--	2,600	7.1	--	--	--	--	--	--	--
AT SBSR	08-22-89	1700	21.5	0.04	2,500	8.0	184	300	56	<0.10	97	1.9	170
Mancos Seep	08-22-89	1635	--	0.20	25,100	7.7	668	440	520	0.30	1,000	55	5,900
AT 4930	08-22-89	1600	24.0	1.0	1,580	8.0	--	--	--	--	--	--	--
AT 14	09-27-88	1220	--	0.37	4,050	--	--	--	--	--	--	--	--
UMG 45	09-28-88	1035	--	0.15	1,450	--	--	--	--	--	--	--	--
RIC US 40	10-19-88	0830	--	--	2,420	--	--	--	--	--	--	--	--

water from tributaries to Ashley Creek

at 25° Celsius; mg/L, milligrams per liter; --, not determined; <, less than]

Sulfate, dissolved (mg/L as SO_4)	Arsenic, dissolved (µg/L as As)	Barium, dissolved (µg/L as Ba)	Boron, dissolved (µg/L as B)	Cadmium, dissolved (µg/L as Cd)	Chromium, dissolved (µg/L as Cr)	Copper, dissolved (µg/L as Cu)	Lead, dissolved (µg/L as Pb)	Molybdenum, dissolved (µg/L as Mo)	Nickel, dissolved (µg/L as Ni)	Selenium, dissolved (µg/L as Se)	Silver, dissolved (µg/L as Ag)	Vanadium, dissolved (µg/L as V)	Zinc, dissolved (µg/L as Zn)
--	1	87	30	<1	<1	<10	<5	<1	1	2	<1.0	2	7
--	1	29	210	<1	3	<10	<10	3	<2	3	<1.0	3	15
--	2	49	230	<1	1	<10	<15	2	<3	1	<1.0	1	10
--	2	<100	4,100	<1	3	30	<5	4	3	9	<1.0	6	10
--	--	--	--	--	--	--	--	--	--	8	--	--	--
--	1	<100	3,100	<1	3	20	<5	11	4	390	<1.0	3	10
--	--	--	--	--	--	--	--	--	--	30	--	--	--
--	<1	100	1,300	<1	2	20	<5	11	18	530	<1.0	1	10
--	<1	100	130	<1	1	<10	<5	1	1	2	<1.0	3	<10
1,600	--	--	--	--	--	--	--	--	--	9	--	--	--
--	--	--	--	--	--	--	--	--	--	8	--	--	--
1,300	--	--	--	--	--	--	--	--	--	4	--	--	--
14,000	--	--	--	--	--	--	--	--	--	16,000	--	--	--
--	--	--	210	<1	--	--	--	--	--	3	<1.0	--	--
--	1	<100	1,600	<1	3	20	<5	3	9	45	<1.0	1	20
--	1	41	170	2	2	<10	<5	3	<1	7	<1.0	<1	20
--	1	<100	600	<1	3	10	<5	4	5	120	<1.0	2	10

Table 9.—*Selected physical and chemical analyses of water from tributaries to Ashley Creek*

[°C, degrees Celsius; ft³/s, cubic feet per second; µS/cm, microsiemens per centimeter at 25° Celsius; µg/L, micrograms per liter; --, not determined; <, less than]

Site name: See table 3 for full site name.

Site name	Date	Time (24-hour)	Temperature, water (°C)	Streamflow, instantaneous (ft³/s)	Specific conductance (µS/cm)	pH (standard units)	Selenium, dissolved (µg/L as Se)
NVD	08-23-89	0715	13.0	1.4	750	7.4	<1
AT SD	07-13-88	1825	--	--	380	7.9	2
ID GC	09-27-88	1645	--	0.48	1,070	--	<1
SVD	09-27-88	1730	--	1.3	1,330	--	2
AT IC1	09-27-88	1800	--	0.96	1,690	--	3
AT IC2	09-27-88	1830	--	0.19	1,590	--	5
AT FD	09-27-88	1850	--	0.36	1,850	--	9
NSL	08-23-89	0800	--	--	750	7.7	1
VSL Spring	08-23-89	0815	14.5	0.04	2,050	7.6	1
WF Pond	08-23-89	0830	--	--	2,520	7.3	23
AT AF	08-23-89	0850	--	0.02	5,150	7.5	830
ND	09-28-88	1425	--	0.87	3,900	--	3
AT ACC	09-28-88	1400	--	0.05	3,130	--	15
AT SA	09-28-88	1100	--	0.63	1,650	--	2
SBR	07-14-88	0820	28.0	--	9,750	8.0	3,800
	09-27-88	1045	--	0.06	9,990	--	8,300
	09-27-88	1046	--	0.06	9,990	--	8,900
	10-24-88	1606	--	--	--	--	--
AT 14	07-13-88	1435	23.5	--	2,250	8.0	--
AT 12	07-13-88	1510	28.5	--	2,350	8.2	71
AT 11	07-13-88	1530	26.5	--	2,000	8.2	18
AT 8	07-13-88	1130	26.0	--	6,090	7.9	1,600
AT 7	07-13-88	1110	28.0	--	3,350	7.6	2
	07-13-88	1120	28.0	--	3,350	7.6	--
AT 6	07-13-88	1055	18.0	--	4,150	7.6	9
AT 5	07-13-88	1040	28.0	--	2,950	8.0	1
AT 4	07-13-88	1020	23.0	--	2,180	8.0	79
AT 3	07-13-88	1020	18.0	--	4,320	7.8	200
RIC US 40	08-24-88	1655	--	--	2,810	--	100
	08-23-89	1055	18.0	0.10	2,290	7.8	93
AT 2	07-13-88	1005	17.5	--	6,000	7.5	130
MG OF	09-28-88	1000	--	0.06	4,230	--	790
MG Mouth	07-13-88	1000	16.0	--	4,700	8.0	540

Table 10.--*Selected physical and chemical analyses of water from U.S. Bureau of Reclamation drains in the Vernal, Utah area*

[°C, degrees Celsius; ft^3/s, cubic feet per second; µS/cm, microsiemens per centimeter at 25° Celsius; µg/L, micrograms per liter; --, not determined]

Site name: See table 3 for full site name.

Site name	Date	Time (24-hour)	Temperature, water (°C)	Streamflow, instantaneous (ft^3/s)	Specific conductance (µS/cm)	pH (standard units)	Selenium, dissolved (µg/L as Se)
17A2	06-14-89	1015	10.0	0.39	880	7.2	3
22A1	06-14-89	0930	11.0	1.6	950	7.3	3
26B2	06-14-89	0900	11.0	0.11	1,180	7.2	2
26C2	06-14-89	0830	11.5	0.53	1,050	7.1	2
28A1	06-14-89	0850	12.0	0.42	1,400	7.2	2
29A1	06-13-89	1610	12.0	0.06	1,720	7.1	4
30B1	06-13-89	1650	11.0	0.83	1,350	7.2	6
32A1	06-13-89	1630	11.0	0.06	1,540	7.1	5
5A1	06-13-89	1545	11.0	0.01	2,800	7.3	13
AM	04-27-89	1030	--	--	1,060	--	3
PD	06-14-89	0800	11.5	0.02	1,750	7.1	7

Table 11.—*Physical and chemical analyses of water from the Stewart Lake area, Jensen, Utah*

[°C, degrees Celsius; ft³/s, cubic feet per second; µS/cm, microsiemens per centimeter at 25° Celsius; mg/L, milligrams per liter; µg/L, micrograms per liter; --, not determined; <. less than]

Site name: See tables 3 and 4 for full site name.

Site name	Date	Time (24-hour)	Temperature, water (°C)	Streamflow, instantaneous (ft³/s)	Specific conductance (µS/cm)	pH (standard units)	Alkalinity, lab (mg/L as $CaCO_3$)	Calcium, dissolved (mg/L as Ca)	Chloride, dissolved (mg/L as Cl)	Fluoride, dissolved (mg/L as F)	Magnesium, dissolved (mg/L as Mg)
BC	07-26-88	1530	--	--	1,000	8.1	179	96	6.5	0.20	37
BBC 40	07-26-88	1630	--	2.7	530	8.4	121	61	3.7	0.20	19
J1 Seep	11-30-88	1115	--	--	1,010	7.4	311	110	7.7	0.50	41
SFS	02-02-89	0930	--	--	3,820	7.0	396	280	66	0.60	160
SL Out	04-05-88	1510	--	--	1,510	8.1	161	92	22	0.30	68
	03-22-89	1015	9.0	--	1,600	8.2	—	120	23	0.30	70
	09-27-89	0845	12.5	0.50	2,200	7.3	187	150	36	0.50	110

Site name	Potassium, dissolved (mg/L as K)	Silica, dissolved (mg/L as SiO_2)	Sodium, dissolved (mg/L as Na)	Sulfate, dissolved (mg/L as SO_4)	Arsenic, dissolved (ug/L as As)	Barium, dissolved (ug/L as Ba)	Boron, dissolved (µg/L as B)	Cadmium, dissolved (µg/L as Cd)	Chromium, dissolved (µg/L as Cr)
BC	2.8	5.3	65	370	--	--	--	--	--
BBC 40	1.5	4.6	20	130	--	--	--	--	--
J1 Seep	2.7	16	70	280	--	--	--	--	--
SFS	4.9	15	450	2,000	--	--	--	--	--
SL Out	4.7	0.51	150	650	2	59	370	<1	1
	5.0	1.5	150	750	--	--	--	--	--
	6.7	3.0	250	1,200	--	--	--	--	--

Site name	Copper, dissolved (µg/L as Cu)	Lead, dissolved (µg/L as Pb)	Mercury, dissolved (µg/L as Hg)	Molybdenum, dissolved (µg/L as Mo)	Nickel, dissolved (µg/L as Ni)	Selenium, dissolved (µg/L as Se)	Silver, dissolved (µg/L as Ag)	Vanadium, dissolved (µg/L as V)	Zinc, dissolved (µg/L as Zn)	Uranium, natural, dissolved (µg/L as U)
BC	--	--	--	--	--	12	--	--	--	--
BBC 40	--	--	--	--	--	4	--	--	--	--
J1 Seep	--	--	--	--	--	7	--	--	--	--
SFS	--	--	--	--	--	80	--	--	--	--
SL Out	<10	<5	<0.1	4	1	5	<1.0	<1	<3	15
	--	--	--	--	--	6	--	--	--	--
	--	--	--	--	--	2	--	--	--	--

Table 12.--*Selected physical and chemical analyses of water from the Stewart Lake area, Jensen, Utah*

[°C, degrees Celsius; ft³/s, cubic feet per second; µS/cm, microsiemens per centimeter at 25° Celsius; µg/L, micrograms per liter; --, not determined]

Site name: See tables 3 and 4 for full site name.

Site name	Date	Time (24-hour)	Temperature, water (°C)	Streamflow, instantaneous (ft³/s)	Specific conductance (µS/cm)	pH (standard units)	Selenium, dissolved (µg/L as Se)	Selenium, total (µg/L as Se)
BC	06-27-89	1735	--	--	820	8.0	8	--
BBC Dam	09-21-88	1000	--	--	1,220	8.1	6	--
BBC 149	07-26-89	1700	23.5	--	640	8.2	15	--
BBC 40	06-23-89	1115	14.0	1.9	570	7.5	4	--
Burton 4000	06-28-89	1020	--	--	520	7.9	3	--
SC 5000	06-28-89	1030	--	--	350	8.1	1	--
SL Out	11-04-87	1340	--	--	--	--	--	7
	06-08-88	1245	--	--	2,350	7.6	12	--
	10-24-88	1800	--	--	--	7.7	--	5
	04-26-89	0840	11.5	--	2,420	7.6	4	--
	06-23-89	1105	17.0	--	2,680	7.6	11	--

Table 13.--*Physical and chemical analyses of water from U.S. Bureau of*

[°C, degrees Celsius; ft³/s, cubic feet per second; μS/cm, microsiemens per centimeter at 25° Celsius;

Site name: See tables 3 and 4 for full site name.

Site name	Date	Time (24-hour)	Temperature, water (°C)	Streamflow, instantaneous (ft³/s)	Specific conductance (μS/cm)	pH (standard units)	Oxygen, dissolved (mg/L)	Barometric pressure (mm of Hg)	Alkalinity, lab (mg/L as $CaCO_3$)	Calcium, dissolved (mg/L as Ca)	Chloride, dissolved (mg/L as Cl)	Fluoride, dissolved (mg/L as F)	Magnesium, dissolved (mg/L as Mg)	Potassium, dissolved (mg/L as K)	Silica, dissolved (mg/L as SiO_2)	Sodium, dissolved (mg/L as Na)
J1	04-05-88	1230	8.0	--	1,750	7.7	10.0	--	345	190	11	0.40	75	3.5	13	110
	09-20-88	1550	14.5	--	2,130	7.2	--	--	276	240	19	0.50	89	4.9	15	150
	03-22-89	1020	8.0	--	1,410	7.6	--	--	324	170	11	0.50	65	3.2	13	92
	09-27-89	0900	14.5	--	2,000	7.2	--	--	336	250	20	0.50	110	4.4	16	140
J1A	04-05-88	1240	8.5	--	1,480	7.4	4.0	--	374	140	11	0.50	60	3.1	16	97
	09-20-88	1545	16.5	--	1,170	7.1	--	--	281	120	7.5	0.60	53	3.3	17	61
	03-22-89	1025	8.5	--	1,320	--	--	--	359	140	9.0	0.60	63	3.3	16	100
	09-27-89	0905	16.0	--	1,130	7.1	--	--	342	130	5.9	0.60	52	3.7	17	68
J2	04-05-88	1000	6.0	0.05	2,720	7.4	7.0	650	410	290	16	0.40	110	4.8	16	150
	09-20-88	1455	14.5	1.1	2,300	7.1	--	--	382	260	27	0.50	82	5.6	16	160
	03-22-89	1000	7.5	0.04	2,000	7.4	--	--	409	290	16	0.60	94	4.7	27	120
	09-27-89	0920	14.0	0.91	1,570	7.1	--	--	324	250	22	0.60	82	5.0	17	140
J3	04-05-88	1040	8.0	0.17	3,080	7.3	5.1	650	151	260	35	0.50	100	5.3	16	270
	09-20-88	1530	14.5	0.41	3,390	7.1	--	--	329	280	55	0.60	130	5.9	17	360
	03-22-89	0930	9.0	0.17	2,650	7.1	--	--	427	310	42	0.70	120	5.2	31	280
	09-27-89	0945	14.0	0.44	3,000	7.1	--	--	416	330	50	0.60	130	6.1	18	330
J4	04-05-88	1140	7.5	0.07	4,700	7.3	7.0	--	402	350	79	0.60	170	4.9	14	580
	09-20-88	1510	14.5	0.42	3,740	7.1	--	--	379	330	60	0.50	140	6.0	15	450
	03-22-89	0945	7.0	0.10	3,900	7.2	--	--	413	360	77	0.60	190	5.2	18	520
	09-27-89	1000	14.0	0.21	3,750	7.2	--	--	416	320	59	0.60	150	5.7	16	510
SW	04-07-89	1000	--	--	4,650	7.2	--	--	369	390	100	0.50	210	6.0	17	560

Reclamation drains and the Snow well in the Stewart Lake area, Jensen, Utah

mg/L, milligrams per liter; mm, millimeter; µg/L, micrograms per liter; --, not determined; <, less than]

Sulfate, dissolved (mg/L as SO_4)	Arsenic, dissolved (µg/L as As)	Barium, dissolved (µg/L as Ba)	Boron, dissolved (µg/L as B)	Cadmium, dissolved (µg/L as Cd)	Chromium, dissolved (µg/L as Cr)	Copper, dissolved (µg/L as Cu)	Lead, dissolved (µg/L as Pb)	Mercury, dissolved (µg/L as Hg)	Molybdenum, dissolved (µg/L as Mo)	Nickel, dissolved (µg/L as Ni)	Selenium, dissolved (µg/L as Se)	Silver, dissolved (µg/L as Ag)	Uranium, natural, dissolved (µg/L as U)	Vanadium, dissolved (µg/L as V)	Zinc, dissolved (µg/L as Zn)
680	1	34	310	<1	1	<10	<5	<0.1	2	5	17	<1.0	17	1	<3
920	--	--	--	--	--	--	--	--	--	--	23	--	--	--	--
560	--	--	--	--	--	--	--	--	--	--	13	--	--	--	--
920	--	--	--	--	--	--	--	--	--	--	26	--	--	--	--
450	1	33	210	<1	<1	<10	<5	<0.1	2	3	7	<1.0	11	1	5
320	--	--	--	--	--	--	--	--	--	--	4	--	--	--	--
460	--	--	--	--	--	--	--	--	--	--	6	--	--	--	--
340	--	--	--	--	--	--	--	--	--	--	5	--	--	--	--
1,000	1	<100	580	2	1	10	<5	<0.1	3	5	35	<1.0	28	1	10
1,000	--	--	--	--	--	--	--	--	--	--	34	--	--	--	--
960	--	--	--	--	--	--	--	--	--	--	29	--	--	--	--
890	--	--	--	--	--	--	--	--	--	--	27	--	--	--	--
1,500	<1	<100	770	1	2	10	<5	<0.1	3	10	59	<1.0	34	1	<10
1,700	--	--	--	--	--	--	--	--	--	--	59	--	--	--	--
1,400	--	--	--	--	--	--	--	--	--	--	53	--	--	--	--
1,700	--	--	--	--	--	--	--	--	--	--	59	--	--	--	--
2,500	<1	<100	1,100	1	2	20	<5	<0.1	2	2	85	<1.0	42	2	<10
2,000	--	--	--	--	--	--	--	--	--	--	81	--	--	--	--
2,400	--	--	--	--	--	--	--	--	--	--	74	--	--	--	--
2,100	--	--	--	--	--	--	--	--	--	--	67	--	--	--	--
2,700	--	--	--	--	--	--	--	--	--	--	80	--	--	--	--

Table 14.—*Selected physical and chemical analyses of water from U.S. Bureau of Reclamation drains in the Stewart Lake area, Jensen, Utah*

[°C, degrees Celsius; ft³/s, cubic feet per second; µS/cm, microsiemens per centimeter at 25° Celsius; mg/L, milligrams per liter; µg/L, micrograms per liter; --, not determined]

Site name: See tables 3 and 4 for full site name.

Site name	Date	Time (24-hour)	Temperature, water (°C)	Streamflow, instantaneous (ft³/s)	Specific conductance (µS/cm)	pH (standard units)	Oxygen, dissolved (mg/L)	Selenium, dissolved (µg/L as Se)	Selenium, total (µg/L as Se)
J1	06-08-88	1250	--	--	2,450	7.2	--	79	--
	07-27-88	1220	12.5	--	2,630	7.1	8.0	32	--
	07-27-88	1230	12.5	--	2,630	7.1	8.0	37	--
	04-26-89	0850	9.0	--	2,880	7.1	--	42	--
	06-23-89	1055	11.5	--	2,400	6.9	--	37	--
	07-26-89	1635	13.0	2.7	2,180	7.2	--	29	--
J1 18 N	07-27-88	0930	--	0.10	2,320	7.1	--	34	--
J1 18 W	07-27-88	0930	--	0.24	2,730	7.0	--	39	--
J1 25	07-27-88	1200	12.5	1.8	2,630	7.1	--	42	--
J1 30	07-27-88	1015	--	0.08	2,730	7.0	--	11	--
J1 31	02-02-89	0900	--	--	2,450	7.4	--	30	--
J1 45	07-27-88	1125	12.0	1.5	2,790	7.0	--	39	--
J1 60	07-27-88	1150	12.0	1.5	2,730	7.0	--	38	--
J1A	06-08-88	1255	--	--	1,380	7.1	--	12	--
	07-27-88	1225	15.5	--	1,200	7.1	1.9	6	--
	04-26-89	0855	9.0	--	1,500	7.2	--	11	--
	06-23-89	1100	12.5	--	1,220	6.9	--	13	--
	07-26-89	1640	14.0	2.7	1,220	7.1	--	9	--
J1A 29	07-27-88	1205	16.5	--	1,030	7.2	--	8	--
J1/J1A	04-05-88	1230	--	0.35	--	--	--	--	--
	06-08-88	1250	--	3.9	--	--	--	--	--
	07-27-88	1220	--	4.0	--	--	--	--	--
	09-20-88	1550	--	2.2	--	--	--	--	--
	10-24-88	1740	--	--	--	6.6	--	--	20
	03-22-89	1020	--	0.25	--	--	--	--	--
	04-26-89	0850	--	1.6	--	--	--	--	--
	06-23-89	1055	--	2.5	--	--	--	--	--
	07-26-89	1635	--	2.7	--	--	--	--	--
	09-27-89	0900	--	1.1	--	--	--	--	--
	10-25-89	1641	--	1.2	--	--	--	--	--
	12-30-89	1610	--	0.43	--	--	--	--	--
J2	06-08-88	1300	--	1.9	2,450	7.0	--	43	--
	06-08-88	1301	--	1.9	2,450	7.0	--	40	--
	06-08-88	1302	--	1.9	2,450	7.0	--	40	--
	07-27-88	1505	13.0	1.5	2,250	7.1	3.1	29	--
	04-26-89	0900	9.5	0.84	2,150	7.1	--	34	--
	06-23-89	1045	11.0	1.7	2,250	7.0	--	33	--
	10-25-89	1700	--	0.54	--	--	--	--	--
	12-30-89	1618	--	0.17	--	--	--	--	--
J2 25	07-27-88	1450	13.0	1.4	2,390	7.0	3.3	37	--
J2 42	07-27-88	1430	13.0	1.7	2,340	7.1	--	33	--
J2 51	11-30-88	1140	--	--	2,180	7.1	--	28	--
J2 62	07-27-88	1350	13.0	0.16	3,390	7.1	1.1	63	--

Table 14.--*Selected physical and chemical analyses of water from U.S. Bureau of Reclamation drains in the Stewart Lake area, Jensen, Utah*—Continued

Site name	Date	Time (24-hour)	Temperature, water (°C)	Streamflow, instantaneous (ft^3/s)	Specific conductance ($\mu S/cm$)	pH (standard units)	Oxygen, dissolved (mg/L)	Selenium, dissolved ($\mu g/L$ as Se)	Selenium, total ($\mu g/L$ as Se)
J3	06-08-88	1320	--	--	3,600	7.2	--	88	--
	06-08-88	1321	--	--	3,600	7.2	--	85	--
	06-08-88	1322	--	--	3,600	7.2	--	88	--
	07-27-88	1800	13.0	0.70	3,700	7.0	0.7	92	--
	10-24-88	1715	--	--	--	6.3	--	--	87
	04-26-89	0925	8.5	0.35	2,350	7.0	--	68	--
	06-23-89	1000	11.0	0.51	3,500	6.9	--	79	--
	07-26-89	1350	13.0	0.54	3,500	7.1	--	75	--
	10-25-89	1813	--	0.37	--	--	--	--	--
	12-30-89	1440	--	0.90	--	--	--	--	--
J3 10	07-27-88	1650	13.0	--	3,950	7.1	--	34	--
J3 150	07-26-89	1350	--	--	3,600	7.4	--	66	--
J4	06-08-88	1310	--	1.5	3,430	7.1	--	65	--
	07-27-88	1840	13.0	1.2	3,850	7.2	6.1	77	--
	04-26-89	0910	9.0	0.15	4,100	7.1	--	89	--
	06-23-89	0945	11.0	0.63	3,400	7.0	--	67	--
	07-26-89	1415	12.5	0.40	3,300	7.1	--	55	--
	10-25-89	1800	--	0.18	--	--	--	--	--
	12-30-89	1430	--	0.10	--	--	--	--	--
J4 21	07-27-88	1635	13.0	0.19	2,730	7.0	--	59	--
J4 25	07-27-88	1820	12.0	0.79	3,630	7.0	--	75	--
J4 41	07-27-88	1620	13.0	0.15	3,600	7.0	--	51	--
J4 54	07-27-88	1600	13.0	0.10	2,550	7.0	--	31	--
J4 67	07-27-88	1545	12.0	0.09	2,320	7.0	--	23	--

Table 15.--*Selected physical and chemical analyses of water from wells in the Stewart Lake area, Jensen, Utah*

[°C, degrees Celsius; µS/cm, microsiemens per centimeter at 25° Celsius; µg/L, micrograms per liter; --, not determined; <, less than]

Site name: See table 3 for full site name.

Site name	Date	Time (24-hour)	Temperature water (°C)	Specific conductance (µS/cm)	pH (standard units)	Selenium, dissolved (µg/L as Se)
BC3	07-13-88	0810	--	4,000	7.2	40
	08-25-88	0755	--	3,680	--	26
	09-21-88	0830	--	3,000	7.2	26
	11-30-88	1705	--	4,880	7.1	36
	04-27-89	0715	8.5	4,150	7.3	19
	06-28-89	1005	--	3,500	7.0	26
	07-26-89	1710	15.0	3,100	7.2	1
	09-27-89	1030	15.5	3,350	7.1	28
BC13	07-13-88	0830	--	1,320	7.3	70
	08-25-88	0810	--	1,280	--	46
	09-21-88	0845	--	2,200	7.3	240
	06-28-89	1010	--	2,010	7.0	150
	07-26-89	1715	15.0	1,600	7.1	92
BC4	09-21-88	0930	--	1,270	7.4	<1
BC15	09-21-88	0910	--	1,600	7.4	6
K7	08-24-89	0755	--	830	7.3	3
	10-26-89	1531	--	730	7.6	4
BC18	07-13-88	0755	--	790	7.5	<1
	08-25-88	0745	--	570	--	1
	09-21-88	0815	--	625	7.4	<1
	11-30-88	1650	--	1,000	7.7	1
	04-27-89	0725	9.0	1,040	7.5	<1
	06-28-89	0955	--	670	7.4	2
	07-26-89	1730	--	830	7.3	1
	09-27-89	1020	16.0	935	7.1	<1
K8	08-24-89	0905	--	920	7.3	10
	10-26-89	1523	--	1,550	7.3	42
K9	08-24-89	0900	--	1,000	7.2	2
	10-26-89	1505	--	1,260	7.6	1
K10	08-24-89	0915	--	1,230	7.2	15
BC17	07-13-88	0730	--	1,650	7.3	24
	08-25-88	0730	--	1,990	--	21
	09-21-88	0750	--	1,520	7.2	14
	11-30-88	1720	--	1,500	7.3	3
	04-27-89	0745	--	1,450	7.5	16
	06-28-89	0800	--	2,150	7.1	29
	07-26-89	1625	--	1,530	7.3	12
	09-27-89	0835	--	1,500	7.2	2
W10	11-30-88	1150	--	3,200	7.1	64
	04-27-89	0735	9.5	3,070	7.3	29
	06-29-89	0715	--	2,770	7.5	32
	07-26-89	1645	17.0	2,450	7.6	10
	09-27-89	1015	18.5	2,100	7.5	20
K11	08-24-89	0925	--	990	7.2	10
	10-26-89	1450	--	1,020	7.3	8

Table 15.--*Selected physical and chemical analyses of water from wells in the Stewart Lake area, Jensen, Utah*--Continued

Site name	Date	Time (24-hour)	Temperature water (°C)	Specific conductance (µS/cm)	pH (standard units)	Selenium, dissolved (µg/L as Se)
K12	10-26-89	1435	--	1,600	7.6	<1
	12-30-89	0815	--	1,550	7.4	<1
K13	10-26-89	1428	--	1,720	7.3	2
	12-30-89	0823	--	1,550	7.3	<1
K14	10-26-89	1425	--	1,550	7.2	<1
	12-30-89	0828	--	1,520	7.1	<1
K15	10-26-89	1350	--	5,080	7.6	<1
	12-30-89	0835	--	1,000	7.5	<1
K2N	06-28-89	0930	--	1,700	7.8	6
K2S	06-28-89	0925	--	1,800	7.6	87
	07-26-89	1610	20.0	2,250	7.7	110
K2NW	08-24-89	0815	--	2,680	7.5	360
K1E	06-28-89	0920	--	7,900	7.7	19
	07-26-89	1555	14.5	4,900	7.2	1
	09-27-89	0915	15.0	4,190	7.5	4
K1W	06-28-89	0910	--	1,500	7.2	13
	07-26-89	1550	17.0	1,500	7.2	14
	09-27-89	0910	14.0	1,340	7.3	12
K3	06-28-89	0850	--	2,320	7.7	10
	07-26-89	1440	--	2,610	7.6	19
	09-27-89	0925	10.0	2,440	7.5	50
K4	06-28-89	0820	--	4,630	7.4	60
	07-26-89	1500	14.0	4,800	7.0	53
	09-27-89	0935	15.0	4,150	7.3	48
K6	08-24-89	0830	--	3,990	7.7	2
	10-26-89	1540	--	4,100	7.5	3
SW	04-26-89	0950	9.0	4,560	7.0	87
	06-28-89	0805	--	5,550	7.1	130
	07-26-89	1420	--	5,750	7.1	140
	08-24-89	1010	--	5,490	7.2	110

Table 16.--*Water levels for selected wells in the Stewart Lake area, Jensen, Utah*
[Elevation, in feet above sea level; Water level, in feet below land surface]

Site name: See table 3 for full site name.

Site name and elevation	Date	Water level	Date	Water level	Date	Water level
BC13	06-08-88	14.6	08-25-88	14.9	07-26-89	13.83
4,755	07-12-88	14.41	09-20-88	16.51	08-24-89	13.12
	07-13-88	14.54	09-21-88	16.57	09-25-89	16.42
	07-26-88	10.97	06-27-89	14.87	12-11-89	15.33
	08-24-88	14.92	06-28-89	14.98		
BC3	06-08-88	4.42	10-19-88	4.27	06-27-89	9.83
4,752	07-12-88	4.63	11-30-88	5.23	06-28-89	4.79
	07-13-88	4.51	11-30-88	5.23	07-26-89	5.96
	07-26-88	5.41	02-01-89	6.46	08-24-89	6.18
	08-24-88	4.86	03-22-89	6.69	09-25-89	3.99
	08-25-88	4.75	04-07-89	6.77	12-11-89	6.07
	09-20-88	4.79	04-26-89	6.25		
	09-21-88	4.81	04-27-89	6.18		
BC4	06-08-88	1.81	08-24-88	5.32	10-19-88	6.23
4,740	07-12-88	4.82	09-20-88	5.41	11-30-88	7.39
	07-26-88	5.21	09-21-88	5.5		
BC15	07-12-88	7.21	08-24-88	6.99	09-21-88	3.38
4,835	07-26-88	6.89	09-20-88	8.39		
K7	08-23-89	11.52	09-26-89	13.65	12-11-89	16.47
4,782.74	08-24-89	12.37	10-25-89	15.15	12-30-89	17.21
BC18	06-08-88	5.29	10-19-88	7.03	06-27-89	2.61
4,762.79	07-12-88	4.75	11-30-88	7.45	06-28-89	4.03
	07-13-88	5.62	11-30-88	7.44	07-26-89	4.78
	07-26-88	3.92	02-01-89	7.02	08-24-89	5.70
	08-24-88	1.68	03-22-89	7.01	09-25-89	7.15
	08-25-88	3.14	04-07-89	7.12	10-26-89	5.49
	09-20-88	5.49	04-26-89	6.33	12-11-89	6.77
	09-21-88	6.4	04-27-89	7.36	12-30-89	6.86
K8	08-23-89	5.86	09-25-89	7.65	12-11-89	9.16
4,765.99	08-24-89	6.12	10-25-89	7.90	12-30-89	9.50
K9	08-23-89	13.04	09-25-89	14.87	12-11-89	17.75
4,772.40	08-24-89	13.33	10-25-89	16.50	12-30-89	17.74
K10	08-23-89	10.94	09-25-89	15.33		
4,774.22	08-24-89	8.19	10-25-89	17.65		

Table 16.--*Water levels for selected wells in the Stewart Lake area, Jensen, Utah--Continued*

Site name and elevation	Date	Water level	Date	Water level	Date	Water level
K11	08-23-89	9.87	09-25-89	7.02	12-11-89	17.51
4,773.09	08-24-89	10.07	10-25-89	10.65	12-30-89	17.53
K12	10-25-89	6.22	12-30-89	7.67		
4,760.5	12-11-89	7.46				
K13	10-25-89	5.89	12-30-89	7.91		
4,760.70	12-11-89	7.70				
K14	10-25-89	7.06	12-30-89	7.99		
4,761.00	12-11-89	7.77				
K15	10-25-89	7.41	12-30-89	8.39		
4,761.13	12-11-89	8.14				
W10	11-30-88	7.65	06-28-89	5.38	10-26-89	6.59
4,759.25	03-22-89	8.67	06-29-89	3.76	12-11-89	7.39
	04-07-89	8.77	07-26-89	5.89	12-30-89	7.62
	04-26-89	7.42	08-24-89	5.76		
	04-27-89	7.54	09-25-89	6.53		
TOH1	06-08-88	3.90	10-19-88	7.36	04-26-89	7.75
4,761.13	07-12-88	5.87	11-30-88	7.96	06-27-89	6.34
	07-26-88	6.19	02-01-89	8.86	08-24-89	6.22
	08-24-88	5.24	03-22-89	9.28	12-11-89	8.12
	09-20-88	7.20	04-07-89	9.38	12-30-89	8.35
K2N	06-27-89	5.16	08-24-89	5.43	12-11-89	6.81
4,757.74	06-28-89	7.07	09-25-89	5.78	12-30-89	7.04
	07-26-89	5.21	10-25-89	6.04		
K2NW	08-23-89	5.46	09-25-89	5.72	12-30-89	5.32
4,757.74	08-24-89	5.68	10-25-89	6.07		
K2S	06-27-89	5.03	08-24-89	5.33	12-11-89	6.67
4,757.54	06-28-89	5.11	09-25-89	5.54	12-30-89	6.89
	07-26-89	5.05	10-25-89	5.85		

Table 16.--*Water levels for selected wells in the Stewart Lake area, Jensen, Utah--Continued*

Site name and elevation	Date	Water level	Date	Water level	Date	Water level
BC17	06-08-88	7.14	10-19-88	8.85	06-28-89	6.26
4,757.21	07-12-88	3.77	11-30-88	9.75	07-26-89	7.24
	07-13-88	3.43	11-30-88	9.77	08-24-89	7.04
	07-26-88	6.68	02-01-89	10.92	09-25-89	8.06
	08-24-88	6.60	04-07-89	9.83	10-26-89	9.28
	08-25-88	6.68	04-26-89	6.74	12-11-89	10.22
	09-20-88	5.9	04-27-89	8.11	12-30-89	10.50
	09-21-88	6.06	06-27-89	6.38		
K4	06-27-89	6.08	08-24-89	5.75	12-11-89	10.66
4,756.28	06-28-89	5.63	09-25-89	7.48	12-30-89	11.33
	07-26-89	6.47	10-25-89	7.16		
K3	06-27-89	4.84	08-24-89	4.16	12-11-89	7.26
4,750.38	06-28-89	6.44	09-25-89	5.65	12-30-89	8.19
	07-26-89	4.82	10-25-89	6.05		
K5	06-27-89	6.88	08-24-89	6.89	10-25-89	8.24
4,752.52	07-26-89	6.9	09-25-89	6.93	12-11-89	6.94
K1W	06-27-89	2.14	08-24-89	5.01	12-30-89	6.61
4,734.27	06-28-89	2.19	09-25-89	5.80		
	07-26-89	4.49	12-11-89	6.52		
K1E	06-27-89	2.67	08-24-89	4.98	12-11-89	6.51
4,734.25	06-28-89	2.49	09-25-89	5.78	12-30-89	6.61
	07-26-89	4.47	10-25-89	6.13		
SW	04-07-89	7.57	06-27-89	6.76	09-26-89	6.96
4,738.37	04-07-89	7.58	06-28-89	3.38	10-25-89	7.03
	04-26-89	6.94	07-26-89	6.57	12-11-89	7.29
	06-15-89	6.13	08-24-89	6.59	12-30-89	7.37
K6	08-23-89	3.59	09-25-89	+0.43	12-11-89	0.68
4,728.13	08-24-89	7.35	10-25-89	0.5		

Table 17.--*Concentrations of carbon and selenium in bottom material from Stewart Lake collected near drain J3 and selenium in core cuttings from the Snow well*

[g/kg, grams per kilogram; µg/g, micrograms per gram; --, not determined; <, less than]

Site name: See tables 3 and 4 for full site name.

Site name	Date	Time (24-hour)	Carbon, inorganic, total in bottom material (g/kg as C)	Carbon, inorganic + organic, total in bottom material (g/kg as C)	Selenium, total in bottom material (µg/g)
SN	07-26-89	1515	34	50	11
J3	07-26-89	1250	12	34	19
J3 60	07-26-89	1300	25	68	140
J3 96	07-26-89	1310	26	88	90
J3 150	07-26-89	1325	35	120	55
J3 350	07-26-89	1335	61	110	250
SW	04-06-89	1500	--	--	<1

Table 18.—*Concentrations of tritium and stable isotopes of oxygen and hydrogen in water from Brush Creek and from wells in the Stewart Lake area*

[pCi/L, picocuries per liter; permil, per thousand; --, not determined]

Site name: See tables 3 and 4 for full site name.

Site name	Date	Time (24-hour)	Tritium total (pCi/L)	O-18 / O-16, stable isotope ratio (permil)	H-2 / H-1, stable isotope ratio (permil)
BC	07-26-88	1530	76	-15.50	-118.5
BBC 149	07-26-89	1700	47	-15.40	-119.5
BC13	08-25-88	0810	--	-15.55	-118.5
	07-26-89	1715	--	-15.50	-117.0
BC3	08-25-88	0755	--	-15.65	-118.0
	07-26-89	1710	--	-15.50	-117.5
BC18	08-25-88	0745	--	-15.95	-121.0
	07-26-89	1730	--	-14.90	-116.5
W10	07-26-89	1645	58	-14.95	-117.0
BC17	08-25-88	0730	--	-15.50	-117.0
	07-26-89	1625	--	-14.85	-116.5
K2S	07-26-89	1610	--	-15.40	-116.5
K3	07-26-89	1440	--	-15.20	-117.0
K4	07-26-89	1500	79	-15.25	-116.0
K1E	07-26-89	1555	--	-15.45	-118.5
	07-26-89	1550	--	-15.30	-119.0
SW	07-26-89	1420	130	-15.35	-116.0
J1 18 N	07-27-88	0930	--	-15.35	-117.5
J1 18 W	07-27-88	0930	86	-15.40	-118.5
J1 30	07-27-88	1015	78	-15.20	-116.5
J1	07-27-88	1220	93	-15.40	-116.0
	07-27-88	1230	--	-15.30	-117.5
J1A 29	07-27-88	1205	66	-15.05	-116.5
J1A	07-27-88	1225	72	-15.20	-115.5
J2 62	07-27-88	1350	110	-15.55	-116.5
J2	07-27-88	1505	92	-15.40	-117.0
J3 10	07-27-88	1650	--	-15.35	-117.5
J3	07-27-88	1800	100	-15.35	-117.5
J4 21	07-27-88	1635	--	-15.35	-116.5
J4 25	07-27-88	1820	--	-15.45	-118.0
J4 67	07-27-88	1545	87	-15.35	-116.0
J4	07-27-88	1840	100	-15.35	-116.5

Table 19.--*Physical and chemical analyses of water from the Ouray National Wildlife Refuge area*

[°C, degrees Celsius; ft^3/s, cubic feet per second; µS/cm, microsiemens per centimeter at 25° Celsius; mg/L, milligrams per liter; mm, millimeter; $NO^2 + NO^3$, nitrate + nitrite; µg/L, micrograms per liter; susp., suspended; pCi/L, picocuries per liter; --, not determined; <, less than]

Site name: See tables 3 and 4 for full site name.

Site name	Date	Time (24-hour)	Temperature, water (°C)	Streamflow, instantaneous (ft^3/s)	Specific conductance (µs/cm)	pH (standard units)	Oxygen, dissolved (mg/L)	Oxygen, dissolved (percent saturation)	Barometric pressure (mm of Hg)	Alkalinity, lab (mg/L as $CaCO_3$)	Solids, residue at 180 °C dissolved (mg/L)	Calcium, dissolved (mg/L as Ca)	Chloride, dissolved (mg/L as Cl)	Fluoride, dissolved (mg/L as F)
L3	04-04-88	1600	11.0	--	--	--	--	--	--	263	--	65	250	0.50
	03-23-89	1520	13.0	--	820	8.2	--	--	--	137	--	62	24	0.20
	08-23-89	1420	27.0	--	730	9.2	--	--	--	107	462	28	37	0.40
L6	04-04-88	1520	11.0	--	--	--	--	--	--	158	--	70	37	0.30
	06-07-88	1720	22.0	--	460	9.1	14.7	--	--	121	--	39	13	0.40
NR ES	03-23-89	1545	16.0	--	1,480	8.4	--	--	--	160	--	60	110	0.50
NR Pond	04-04-88	1715	--	--	1,990	--	--	--	--	200	--	78	180	0.10
	06-07-88	1630	18.0	4.3	2,500	8.6	11.9	150	645	220	--	45	49	0.50
	09-01-88	1720	--	2.2	1,030	8.9	--	--	--	--	--	--	--	--
	03-22-89	1530	--	0.49	1,630	8.4	--	--	--	194	--	77	140	0.60
	08-23-89	1440	25.0	0.05	2,350	9.0	--	--	--	109	1,660	56	200	0.60
SR N ES	03-22-89	1500	--	--	1,050	8.3	--	--	--	139	--	50	83	0.40
SR Canal	09-01-88	1740	--	--	1,040	9.3	--	--	--	--	--	--	--	--
S5	04-05-88	1645	14.5	--	2,010	8.3	10.8	125	650	226	--	70	200	0.50
	06-07-88	1755	--	--	1,830	8.2	--	--	--	299	--	73	150	0.60
	09-01-88	1815	--	--	1,330	8.5	--	--	--	--	--	--	--	--
S3	08-13-87	1315	25.0	--	2,360	9.1	--	--	--	257	--	35	230	0.70
	09-01-88	1800	--	--	3,510	9.4	--	--	--	--	--	--	--	--
S3 Seep	03-23-89	1330	16.0	--	3,650	8.4	--	--	--	222	--	130	350	0.40

Table 19.--*Physical and chemical analyses of water from the Ouray National Wildlife Refuge area*--Continued

Site name	Magnesium, dissolved (mg/L as Mg)	Nitrogen, NO^2+NO^3 dissolved (mg/L as N)	Potassium, dissolved (mg/L as K)	Silica, dissolved (mg/L as SiO_2)	Sodium, dissolved (mg/L as Na)	Sulfate, dissolved (mg/L as SO_4)	Arsenic, dissolved (µg/L as As)	Barium, dissolved (µg/L as Ba)	Boron, dissolved (µg/L as B)	Cadmium dissolved (µg/L as Cd)	Chromium, dissolved (µg/L as Cr)	Copper, dissolved (µg/L as Cu)	Lead, dissolved (µg/L as Pb)
L3	60	--	7.8	4.8	360	660	2	100	370	<1	<1	<10	<5
	27	--	3.9	7.6	73	240	--	--	--	--	--	--	--
	25	<0.100	7.5	0.33	92	200	2	--	110	<1	<1	<1	<1
L6	35	--	4.9	5.8	94	320	2	76	90	<1	<1	<10	<5
	19	--	1.4	9.6	41	110	--	--	--	--	--	--	--
NR ES	26	--	3.1	5.3	210	380	--	--	--	--	--	--	--
NR Pond	41	--	3.0	2.6	320	640	1	50	380	<1	<1	<10	<5
	45	--	3.5	5.0	110	240	--	--	--	--	--	--	--
	--	--	--	--	--	--	1	45	240	<1	<1	<10	<5
	32	--	2.9	9.0	250	470	1	40	300	<1	<1	<10	<5
	52	0.100	3.0	20	440	780	2	--	670	<1	<1	1	<1
SR N ES	20	--	2.5	6.7	160	300	--	--	--	--	--	--	--
SR Canal	--	--	--	--	--	--	2	43	250	<1	<1	<10	<5
S5	45	--	6.0	1.2	300	500	1	100	280	<1	1	<10	<5
	54	--	5.4	7.4	250	450	--	--	--	--	--	--	--
	--	--	--	--	--	--	2	73	320	<1	<1	<10	<5
S3	53	--	8.3	2.4	410	500	11	100	550	<1	10	10	<5
	--	--	--	--	--	--	4	300	560	2	<1	<10	9
S3 Seep	77	--	10	12	570	1,500	--	--	--	--	--	--	--

Table 19.--*Physical and chemical analyses of water from the Ouray National Wildlife Refuge area*--Continued

Site name	Mercury, dissolved (µg/L as Hg)	Molybdenum, dissolved (µg/L as Mo)	Nickel, dissolved (µg/L as Ni)	Selenium, dissolved (µg/L as Se)	Silver, dissolved (µg/L as Ag)	Vanadium, dissolved (µg/L as V)	Zinc, dissolved (µg/L as Zn)	Gross alpha, dissolved (µg/L as U-nat)	Gross alpha, susp. total (µg/L as U-nat)	Gross beta, dissolved (pCi/L as Cs-137)	Gross beta, susp. total (pCi/L as Cs-137)	Gross beta, dissolved (pCi/L as Sr/Yt-90)	Gross beta, susp. total (pCi/L as Sr/Yt-90)	Uranium, natural, dissolved (µg/L as U)
L3	<0.1	5	2	<1	<1.0	6	<10	--	--	--	--	--	--	--
	--	--	--	3	--	--	--	--	--	--	--	--	--	--
	<0.1	14	--	1	--	4	8	--	--	--	--	--	--	--
L6	<0.1	4	1	<1	<1.0	2	<3	--	--	--	--	--	--	--
	--	--	--	<1	--	--	--	--	--	--	--	--	--	--
NR ES	--	--	--	53	--	--	--	--	--	--	--	--	--	--
NR Pond	--	6	2	85	<1.0	6	<3	--	--	--	--	--	--	56
	--	--	--	10	--	--	--	--	--	--	--	--	--	--
	<0.1	2	<1	12	<1.0	1	7	--	--	--	--	--	--	--
	--	3	2	64	<1.0	4	<3	--	--	--	--	--	--	--
	<0.1	3	--	40	--	6	<10	--	--	--	--	--	--	--
SR N ES	--	--	--	39	--	--	--	--	--	--	--	--	--	--
SR Canal	<0.1	5	1	10	<1.0	1	4	--	--	--	--	--	--	--
S5	--	4	3	4	<1.0	5	<3	--	--	--	--	--	--	17
	--	--	--	4	--	--	--	--	--	--	--	--	--	--
	<0.1	3	<1	3	<1.0	2	11	--	--	--	--	--	--	--
S3	0.5	10	3	<1	<1.0	10	<10	28	1.4	20	4.0	13	3.8	14
	<0.1	17	<1	1	1.0	9	10	--	--	--	--	--	--	--
S3 Seep	--	--	--	73	--	--	--	--	--	--	--	--	--	--

Table 20.--*Selected physical and chemical analyses of water from Pelican Lake and the Ouray National Wildlife Refuge area*

[°C, degrees Celsius; ft³/s, cubic feet per second; µS/cm, microsiemens per centimeter at 25° Celsius; µg/L, micrograms per liter; --, not determined; <, less than]

Site name: See tables 3 and 4 for full site name.

Site name	Date	Time (24-hour)	Temperature, water (°C)	Streamflow, instantaneous (ft³/s)	Specific conductance (µs/cm)	pH (standard units)	Selenium, dissolved (µg/L as Se)	Boron, dissolved (µg/L as B)
PL Out	06-27-89	1030	--	--	730	9.4	<1	--
	07-13-89	1215	--	--	750	9.6	1	--
OPC 88	08-12-87	1200	--	--	620	--	1	170
	08-25-88	0930	--	--	700	--	<1	--
OPC DIV	08-12-87	1320	26.0	--	590	--	93	--
BB 3	07-13-89	0900	18.0	--	1,780	7.0	<1	--
UNS	08-12-87	1130	20.0	0.55	620	9.4	1	150
NR Pond	04-05-89	0850	--	--	2,050	8.4	62	--
	04-26-89	1330	15.0	0.30	2,070	8.2	40	--
	06-27-89	1200	--	--	2,000	8.5	24	--
	09-27-89	1505	--	0.11	--	--	--	--
GP Seep	08-25-88	1055	--	--	2,070	--	1	--
SR Canal	04-05-89	0855	--	--	1,670	8.7	48	--
	04-26-89	1345	14.5	--	2,050	7.8	40	--
	06-27-89	1145	--	--	1,750	9.1	17	--
Seep	06-23-88	0900	--	--	--	--	1	--
	08-25-88	1110	--	--	5,750	--	29	--

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Table 21.--*Physical and chemical analyses of water from wells*

[µS/cm, microsiemens per centimeter at 25° Celsius; mg/L, milligrams per liter;

Site name: See table 3 for full site name.

Site name	Date	Time (24-hour)	Specific conductance (µS/cm)	pH (standard units)	Alkalinity, lab (mg/L as $CaCO_3$)	Calcium, dissolved (mg/L as Ca)	Chloride, dissolved (mg/L as Cl)	Fluoride, dissolved (mg/L as F)	Magnesium, dissolved (mg/L as Mg)	Potassium, dissolved (mg/L as K)	Silica, dissolved (mg/L as SiO_2)	Sodium, dissolved (mg/L as Na)	Sulfate dissolved (mg/L as SO_4)
Cooper	06-27-89	1415	1,750	8.3	287	72	130	1.5	35	4.3	18	270	480
Evans	04-07-89	1155	950	7.6	124	43	110	0.60	15	7.1	16	120	160
Batty	04-26-89	1200	1,160	8.3	422	17	110	0.30	22	15	2.8	200	55
NR1	06-08-88	1450	6,130	7.7	165	100	760	1.2	59	1.5	14	1,300	2,100
	09-21-88	1130	7,500	7.9	461	300	970	1.3	84	0.90	15	1,500	2,600
	10-18-88	1535	8,250	--	--	--	--	--	--	--	--	--	--
	03-22-89	1430	4,100	7.8	367	96	450	1.9	35	0.60	11	900	1,500
NR2	06-08-88	1500	6,500	7.6	478	390	960	2.0	150	3.3	18	1,500	3,200
	09-21-88	1150	6,500	7.9	359	420	840	2.4	120	1.2	22	1,500	2,900
	10-18-88	1510	8,250	--	--	--	--	--	--	--	--	--	--
	11-30-88	1535	7,500	7.4	460	430	770	2.4	120	0.90	19	1,200	2,900
	03-22-89	1415	6,200	7.5	462	420	790	2.4	110	0.90	18	1,200	2,900
NR3 S	06-08-88	1510	4,700	7.8	302	69	500	1.5	35	1.1	12	1,000	1,600
	09-21-88	1210	4,800	7.9	346	120	500	1.7	33	0.60	18	930	18
	10-18-88	1100	5,420	--	--	--	--	--	--	--	--	--	--
	03-22-89	1345	4,620	7.8	345	110	550	1.5	45	0.90	23	1,100	1,600
NR3 M	10-19-88	1330	5,150	--	--	--	--	--	--	--	--	--	--
	11-30-88	1505	5,900	7.6	104	230	870	0.90	42	7.8	11	980	1,700
	03-22-89	1350	5,220	7.8	62	300	1,100	0.90	48	7.5	15	1,100	1,800
NR3 D	10-19-88	1250	4,100	--	--	--	--	--	--	--	--	--	--
	11-30-88	1450	5,250	8.0	63	110	780	1.2	10	5.0	12	1,000	1,400
	03-22-89	1400	4,420	7.8	44	160	790	1.4	9.5	5.0	15	970	1,400
NR4	06-08-88	1525	2,100	7.3	609	120	110	0.30	41	1.1	16	340	330
	09-21-88	1225	1,690	7.4	603	120	110	0.30	41	1.1	19	300	380
	10-19-88	1150	2,200	--	--	--	--	--	--	--	--	--	--
	03-22-89	1230	2,100	7.7	728	150	110	0.20	55	1.0	23	320	430
Prairie	04-07-89	1145	2,200	7.2	245	64	180	1.0	28	6.7	15	380	670
Ag Well	04-06-89	1100	11,300	7.2	463	310	1,900	0.40	850	11	13	2,000	4,200
S5 Well	04-06-89	1120	13,500	7.3	129	640	4,100	0.40	230	15	12	2,100	1,600
S3 Well	11-30-88	1400	19,000	7.4	189	530	3,700	0.70	280	9.6	19	3,300	4,400
	03-22-89	1150	23,200	7.3	131	1,000	6,700	0.50	340	16	22	4,100	3,500

in the Ouray National Wildlife Refuge area

µg/L, micrograms per liter; --, not determined; <, less than]

Site name	Arsenic, dissolved (µg/L as As)	Barium, dissolved (µg/L as Ba)	Boron, dissolved (µg/L as B)	Cadmium dissolved (µg/L as Cd)	Chromium, dissolved (µg/L as Cr)	Copper, dissolved (µg/L as Cu)	Lead, dissolved (µg/L as Pb)	Molybdenum, dissolved (µg/L as Mo)	Nickel, dissolved (µg/L as Ni)	Selenium, dissolved (µg/L as Se)	Silver, dissolved (µg/L as Ag)	Vanadium, dissolved (µg/L as V)	Zinc, dissolved (µg/L as Zn)
Cooper	--	--	--	--	--	--	--	--	--	90	--	--	--
Evans	--	--	--	--	--	--	--	--	--	73	--	--	--
Batty	--	--	--	--	--	--	--	--	--	1	--	--	--
NR1	--	--	--	--	--	--	--	--	--	12	--	--	--
	--	--	--	--	--	--	--	--	--	16	--	--	--
	5	<100	1,500	<1	3	20	<5	39	14	16	<1.0	26	20
	--	--	--	--	--	--	--	--	--	56	--	--	--
NR2	--	--	--	--	--	--	--	--	--	36	--	--	--
	--	--	--	--	--	--	--	--	--	20	--	--	--
	3	<100	1,200	2	3	30	<5	110	10	50	1.0	25	30
	--	--	--	--	--	--	--	--	--	48	--	--	--
	--	--	--	--	--	--	--	--	--	31	--	--	--
NR3 S	--	--	--	--	--	--	--	--	--	410	--	--	--
	--	--	--	--	--	--	--	--	--	7	--	--	--
	7	<100	1,200	<1	3	20	5	32	6	20	1.0	26	20
	--	--	--	--	--	--	--	--	--	200	--	--	--
NR3 M	2	<100	1,000	<1	30	30	<5	30	16	830	<1.0	13	40
	--	--	--	--	--	--	--	--	--	610	--	--	--
	--	--	--	--	--	--	--	--	--	480	--	--	--
NR3 D	3	<100	1,100	<1	2	30	<5	44	4	170	<1.0	12	20
	--	--	--	--	--	--	--	--	--	600	--	--	--
	--	--	--	--	--	--	--	--	--	460	--	--	--
NR4	--	--	--	--	--	--	--	--	--	1	--	--	--
	--	--	--	--	--	--	--	--	--	<1	--	--	--
	6	<100	580	1	2	10	11	4	6	<1	1.0	2	20
	--	--	--	--	--	--	--	--	--	<1	--	--	--
Prairie	--	--	--	--	--	--	--	--	--	210	--	--	--
Ag Well	--	--	--	--	--	--	--	--	--	1	--	--	--
S5 Well	--	--	--	--	--	--	--	--	--	85	--	--	--
S3 Well	--	--	--	--	--	--	--	--	--	3,200	--	--	--
	--	--	--	--	--	--	--	--	--	6,400	--	--	--

Table 22.--*Selected physical and chemical analyses of water from wells in the Ouray National Wildlife Refuge area*

[°C, degrees Celsius; µS/cm, microsiemens per centimeter at 25° Celsius; µg/L, micrograms per liter; --, not determined; <, less than]

Site name: See tables 3 and 4 for full site name.

Site name	Date	Time (24-hour)	Temperature, water (°C)	Specific conductance (µS/cm)	pH (standard units)	Selenium, dissolved (µg/L as Se)
Cooper	08-23-89	1650	--	1,740	7.9	83
Evans	04-26-89	1125	--	1,590	7.6	210
	06-28-89	1400	--	2,090	8.2	260
	07-13-89	0945	14.5	2,660	7.6	380
	09-27-89	1340	17.5	2,550	7.2	380
Batty	06-28-89	1420	--	2,030	7.7	20
NR1	07-14-88	1000	--	7,350	7.7	22
	08-25-88	0940	--	7,400	--	26
	11-30-88	1545	--	7,600	7.3	19
	02-02-89	1200	--	5,500	7.7	36
	04-26-89	1425	9.5	4,800	7.6	80
	06-28-89	1620	--	5,100	7.6	98
	09-27-89	1350	18.0	3,550	7.6	110
NR2	07-14-88	1025	--	8,500	7.6	13
	08-25-88	0955	--	8,500	--	10
	04-26-89	1415	10.5	6,500	7.3	61
	06-28-89	1615	--	6,500	7.2	31
	09-27-89	1355	18.0	5,350	7.3	86
NR3 S	07-14-88	1045	--	4,380	7.9	310
	08-25-88	1005	--	4,940	--	32
	11-30-88	1520	--	4,650	7.7	97
	02-02-89	1215	--	5,500	7.4	120
	04-26-89	1400	8.5	6,000	7.5	150
	06-28-89	1605	--	5,800	7.6	70
	09-27-89	1405	20.0	4,800	7.5	42
NR3 M	02-02-89	1220	--	6,020	7.4	520
	04-26-89	1405	10.5	6,100	7.3	530
	06-28-89	1600	--	5,780	7.6	540
	09-27-89	1410	16.0	5,750	7.0	460
NR3 D	02-02-89	1230	--	4,800	7.9	690
	04-26-89	1410	10.5	6,500	7.3	660
	06-28-89	1550	--	4,700	7.9	720
	07-13-89	1015	14.5	4,000	7.8	360
	09-27-89	1415	14.0	5,000	7.1	830
NR4	07-14-88	1110	--	2,050	7.3	<1
	08-25-88	1030	--	2,200	--	<1
	08-25-88	1035	--	2,200	--	<1
	02-02-89	1245	--	2,280	7.4	15
	04-26-89	1325	--	2,180	7.4	2
	06-28-89	1545	--	2,140	7.2	2
	07-13-89	1030	17.0	2,140	7.4	2
	09-27-89	1420	19.5	1,620	7.2	<1
S5 Well	04-26-89	1245	9.5	17,600	7.2	69
	06-28-89	1500	--	19,700	7.1	35
	07-13-89	1110	18.5	20,000	--	36
	09-27-89	1455	17.5	25,600	7.0	25
Prairie	04-26-89	1230	--	1,590	7.9	28
	06-28-89	1455	--	1,820	8.1	4
	09-27-89	1425	18.5	1,720	7.5	2

Table 22.--*Selected physical and chemical analyses of water from wells in the Ouray National Wildlife Refuge area*--Continued

Site name	Date	Time (24-hour)	Temperature, water (°C)	Specific conductance (µS/cm)	pH (standard units)	Selenium, dissolved (µg/L as Se)
S3 Well	02-02-89	1130	--	37,000	7.5	7,000
	04-26-89	1300	--	26,400	7.3	7,400
	06-28-89	1520	--	27,000	7.2	9,300
	07-13-89	1125	16.0	14,600	7.6	5,900
	09-27-89	1450	14.0	19,400	7.1	7,600
Ag Well	04-26-89	1310	14.5	15,000	7.2	1
	06-28-89	1530	--	13,700	7.1	1
	07-13-89	1145	13.5	16,300	7.6	1
	09-27-89	1440	13.5	12,500	7.4	2

Table 23.—*Water levels for selected wells in the Ouray National Wildlife Refuge area*

[Elevation, in feet above sea level; water level, in feet below land surface]

Site name: See table 3 for full site name.

Site name and elevation	Date	Water level	Date	Water level	Date	Water level
Evans	04-06-89	30.91	06-15-89	36.37	08-23-89	39.84
4,765.73	04-07-89	37.24	06-27-89	36.20	09-25-89	37.38
	04-25-89	37.06	06-28-89	36.64	12-11-89	38.05
	04-26-89	38.41	07-12-89	36.28		
Batty	04-05-89	26.75	06-27-89	26.24	09-25-89	26.68
4,745	04-25-89	26.32	06-28-89	26.29		
	04-26-89	26.87	07-12-89	26.37		
NR1	04-21-88	1.38	09-21-88	1.94	04-25-89	1.82
4,699.52	06-07-88	1.95	10-17-88	0.15	04-26-89	1.81
	06-08-88	2.10	10-18-88	1.84	06-15-89	2.06
	07-12-88	2.12	11-29-88	1.87	06-27-89	2.10
	07-14-88	2.02	11-30-88	1.54	06-28-89	2.20
	07-26-88	2.15	02-01-89	1.37	07-12-89	2.24
	08-24-88	2.11	02-02-89	1.50	08-23-89	2.16
	08-25-88	2.06	03-21-89	1.48	09-25-89	2.1
	09-20-88	1.87	03-22-89	1.45	12-11-89	1.87
NR2	04-21-88	0.45	09-21-88	0.89	06-15-89	1.04
4,695.12	06-07-88	1.11	10-17-88	0.83	06-27-89	1.15
	06-08-88	1.17	10-18-88	0.83	06-28-89	1.32
	07-12-88	1.33	11-29-88	0.76	07-12-89	1.26
	07-14-88	1.18	11-30-88	0.73	07-14-89	1.26
	07-26-88	1.28	03-21-89	0.40	08-23-89	1.18
	08-24-88	1.16	03-22-89	0.37	09-25-89	0.94
	08-25-88	1.09	04-25-89	0.91		
	09-20-88	0.90	04-26-89	0.81		
NR3 S	04-21-88	3.80	10-17-88	2.86	06-15-89	2.91
4,691.07	06-07-88	2.63	10-18-88	2.87	06-27-89	3.06
	06-08-88	2.80	11-29-88	2.68	06-28-89	3.09
	07-12-88	3.14	11-30-88	2.63	07-12-89	3.31
	07-14-88	3.11	02-01-89	2.68	08-23-89	3.07
	07-26-88	3.28	02-02-89	2.73	09-25-89	3.24
	08-24-88	3.36	03-21-89	2.03	12-11-89	2.73
	08-25-88	3.34	03-22-89	3.12		
	09-20-88	3.17	04-25-89	2.44		
	09-21-88	3.16	04-26-89	2.43		

Table 23.—Water levels for selected wells in the Ouray National Wildlife Refuge area—Continued

Site name and elevation	Date	Water level	Date	Water level	Date	Water level
NR3 M	11-29-88	2.61	03-21-89	4.29	06-27-89	4.98
4,688.66	11-30-88	8.96	03-21-89	4.42	06-28-89	6.44
	02-01-89	4.21	03-22-89	1.29	07-12-89	5.29
	02-02-89	4.21	04-25-89	4.58	08-23-89	4.95
	03-21-89	6.46	04-26-89	6.80	09-25-89	5.73
	03-21-89	4.67	06-15-89	5.03	12-11-89	4.86
NR3 D	11-30-88	6.4	03-22-89	5.41	06-28-89	5.65
4,687.31	02-01-89	4.7	03-22-89	5.41	07-12-89	5.63
	02-02-89	5.41	04-25-89	4.95	08-23-89	5.40
	03-21-89	5.18	04-26-89	5.35	09-25-89	5.69
	03-21-89	4.83	06-15-89	5.44	12-11-89	5.50
	03-21-89	5.15	06-27-89	5.38		
NR4	04-21-88	4.6	09-20-88	2.31	04-26-89	1.25
4,678.12	06-07-88	2.23	10-17-88	2.28	06-15-89	3.23
	06-07-88	11.18	10-19-88	2.29	06-27-89	3.1
	06-08-88	4.87	11-30-88	2.41	06-28-89	3.83
	07-12-88	2.46	02-01-89	1.8	07-12-89	4.53
	07-14-88	2.82	02-02-89	2.01	08-23-89	4.25
	07-26-88	3.52	03-21-89	0.7	09-25-89	3.67
	08-24-88	2.85	03-22-89	1.0	12-11-89	2.36
	08-25-88	4.94	04-25-89	2.24		
Prairie	04-07-89	7.65	06-27-89	8.2	09-25-89	8.41
4,680.26	04-25-89	7.9	06-28-89	8.23	12-11-89	8.27
	04-26-89	2.46	07-12-89	8.22		
	06-15-89	8.19	08-23-89	8.31		
S5 Well	04-05-89	3.63	06-15-89	4.49	08-23-89	6.05
4,655.41	04-06-89	3.63	06-24-89	4.87	09-25-89	6.63
	04-25-89	3.75	06-27-89	4.84	12-11-89	6.93
	04-26-89	3.61	07-12-89	5.36		
S3 Well	11-30-88	2.64	04-05-89	3.50	08-23-89	5.58
4,657.41	02-01-89	4.86	04-25-89	3.9	09-25-89	5.65
	02-02-89	5.04	06-15-89	4.75	12-11-89	3.94
	03-21-89	2.55	06-27-89	4.75	02-02-90	4.52
	03-21-89	3.00	07-12-89	5.42		
Ag Well	04-05-89	3.92	06-15-89	5.31	08-23-89	6.44
4,653.78	04-06-89	4.07	06-27-89	5.45	09-25-89	6.71
	04-25-89	4.45	06-28-89	5.51	12-11-89	6.64
	04-26-89	4.55	07-12-89	5.88		

Table 24.—*Concentrations of selected trace elements in sediment from the Ouray National Wildlife Refuge area collected on August 13, 1987*

[All units in micrograms per gram, dry weight; <, less than]

Site name: See tables 3 and 4 for full site name.

Constituent	Site name				
	L3	NR Draw	NR Pond	SR Canal	S3
Arsenic	5.9	3.0	2.1	3.0	5.0
Barium	700	570	600	730	730
Beryllium	<1	<1	<1	1	<1
Bismuth	<10	<10	<10	<10	<10
Cadmium	<2	<2	<2	<2	<2
Cerium	64	51	42	55	79
Chromium	59	30	24	50	28
Cobalt	10	5	4	8	5
Copper	21	12	10	14	7
Europium	<2	<2	<2	<2	<2
Gallium	14	8	8	13	8
Gold	<8	<8	<8	<8	<8
Holmium	<4	<4	<4	<4	<4
Lantharum	36	31	25	32	46
Lead	19	10	11	16	12
Lithium	34	19	18	28	13
Manganese	450	170	99	230	380
Molybdenum	2	<2	<2	<2	<2
Neodymium	29	22	17	24	32
Nickel	22	9	7	18	7
Niobium	5	4	<4	7	<4
Scandium	8	4	4	7	4
Selenium	0.7	<0.1	17	3.0	0.6
Silver	<2	<2	<2	<2	<2
Strontium	320	230	250	350	270
Tantalum	<40	<40	<40	<40	<40
Thorium	11	8	5	10	12
Tin	<10	<10	<10	<10	<10
Uranium	<100	<100	<100	<100	<100
Vanadium	72	35	28	57	31
Ytterbium	2	1	<1	2	1
Yttrium	18	10	8	15	12
Zinc	73	30	27	66	25

Table 25.--*Concentrations of selected constituents in sediment from the Ouray National Wildlife Refuge area collected on August 13, 1987*

[All units in weight percent]

Site name: See tables 3 and 4 for full site name.

Constituent	Site name				
	L3	NR Draw	NR Pond	SR Canal	S3
Aluminum	6.0	3.9	3.7	3.8	5.6
Calcium	4.7	2.3	1.4	2.9	4.0
Iron	2.2	1.3	0.94	1.2	1.9
Magnesium	1.3	0.68	0.49	0.57	1.1
Phosphorus	0.09	0.04	0.05	0.05	0.08
Potassium	2.0	1.4	1.5	1.8	2.0
Sodium	0.80	0.68	0.85	0.89	0.96
Titanium	0.23	0.13	0.1	0.12	0.18

Table 26.--*Concentrations of selenium and volatile solids in bottom material from sites in the Ouray National Wildlife Refuge area*

[ft, feet; µg/g, micrograms per gram; mg/kg, milligrams per kilogram; --, not determined; <, less than]

Site name: See tables 3 and 4 for full site name.

Site name	Date	Time (24-hour)	Sample depth below land surface (ft)	Selenium, total in bottom material (µg/g)	Selenium, total in sediment (µg/g)	Solids, volatile in bottom material (mg/kg)
Evans	04-05-89	1530	63.5	<1	--	--
NR3 S	04-20-88	1600	<1	--	0.6	--
NR3 M	10-19-88	1000	25	<1	--	--
NR3 D	10-18-88	1220	10	<1	--	--
	10-18-88	1230	15	<1	--	--
	10-18-88	1240	20	<1	--	--
	10-18-88	1300	25	<1	--	--
	10-18-88	1330	31	<1	--	--
	10-18-88	1410	38	<1	--	--
	10-18-88	1445	42.5	<1	--	--
NR Draw	08-13-87	1145	<1	--	<1	--
NR Pond	08-13-87	1130	<1	--	17	--
NR Center	03-21-89	1715	<1	26	--	73,700
NR East	03-21-89	1550	<1	7	--	47,700
NR North	03-21-89	1540	<1	23	--	131,000
NR West	03-21-89	1530	<1	20	--	64,500
NR 200	03-21-89	1600	<1	25	--	102,000
SR Inflow	03-21-89	1700	<1	4	--	28,200
SR North	03-21-89	1710	<1	8	--	34,900
SR Outlet	03-21-89	1630	<1	12	--	35,400
SR South	03-21-89	1645	<1	11	--	53,600
Ag Well	04-04-89	1200	38.5	<1	--	--
Prairie	04-06-89	1300	20	<1	--	--
S3	08-13-87	1300	--	--	0.6	--
S3 Well	10-19-88	1615	27	<1	--	--
	10-19-88	1700	38	<1	--	--
SR Canal	08-13-87	1245	--	--	3.0	--
S5 Well	04-04-89	1300	15.5	<1	--	--
L3	08-13-87	1415	--	--	0.7	--

Table 27.—*Concentrations of tritium and isotope ratios for stable forms of oxygen and hydrogen in water from Pelican Lake and wells in the Ouray National Wildlife Refuge area*

[pCi/L, picocuries per liter; permil, per thousand; --, not determined]

Site name: See tables 3 and 4 for full site name.

Site name	Date	Time (24-hour)	Tritium, total (pCi/L)	O-18 / O-16, stable isotope ratio (permil)	H-2 / H-1, stable isotope ratio (permil)
PL Out	07-13-89	1215	—	-3.65	-57.5
Evans	07-13-89	0945	16	-14.50	-121.5
NR1	08-25-88	0940	—	-10.15	-90.5
NR2	08-25-88	0955	—	-10.35	-90.5
NR3 S	08-25-88	1005	—	-11.45	-97.5
NR3 D	07-13-89	1015	21	-12.90	-104.0
NR4	08-25-88	1030	—	-8.25	-78.0
	07-13-89	1030	—	-8.20	-79.0
S3 Well	07-13-89	1125	16	-13.35	-116.5
S5 Well	07-13-89	1110	—	-15.50	-125.5
Ag Well	07-13-89	1145	6.7	-15.95	-128.0

Table 28.--*Selected physical and chemical analyses of water from Pariette Wetlands*

[°C, degrees Celsius; ft³/s, cubic feet per second; µS/cm, microsiemens per centimeter at 25° Celsius; susp., suspended; mg/L, milligrams per liter; µg/L, micrograms per liter; pCi/L, picocuries per liter; --, not determined; <, less than]

Site name: See tables 3 and 4 for full site name.

Site name	Date	Time (24-hour)	Temperature, water (°C)	Streamflow, instantaneous (ft³/s)	Specific conductance (µS/cm)	pH (standard units)	Alkalinity, lab (mg/L as $CaCO_3$)	Calcium, dissolved (mg/L as Ca)	Chloride, dissolved (mg/L as Cl)	Fluoride, dissolved (mg/L as F)
FC	09-01-88	1610	--	5.8	2,630	8.3	--	--	--	--
DP	08-19-87	1045	19.5	35	--	8.3	212	90	39	0.50
	08-25-88	1630	--	--	2,450	--	--	--	--	--
GP	08-19-87	1320	22.0	--	--	8.3	--	--	--	--
	09-01-88	1315	--	--	2,770	8.4	--	--	--	--
SP	08-19-87	1330	24.0	--	--	9.3	--	--	--	--
SIP	09-01-88	1445	--	--	2,630	8.0	--	--	--	--
BIP	04-13-87	1600	--	--	--	--	--	--	--	--
	08-19-87	1345	25.0	--	1,760	8.5	--	--	--	--
	09-01-88	1430	--	--	3,610	8.8	--	--	--	--
PM	08-19-87	1215	21.5	49	--	--	209	90	51	0.50
	09-01-88	1340	--	--	2,550	8.3	--	--	--	--

Site name	Magnesium, dissolved (mg/L as Mg)	Potassium, dissolved (mg/L as K)	Silica, dissolved (mg/L as SiO_2)	Sodium, dissolved (mg/L as Na)	Sulfate, dissolved (mg/L as SO_4)	Arsenic, dissolved (µg/L as As)	Barium, dissolved (ug/L as Ba)	Boron, dissolved (µg/L as B)	Cadmium, dissolved (µg/L as Cd)	Chromium, dissolved (µg/L as Cr)
FC	--	--	--	--	--	1	<100	1,000	2	<1
DP	46	2.8	10	220	590	5	110	690	<1	10
	--	--	--	--	--	--	--	--	--	--
GP	--	--	--	--	--	--	--	790	--	--
	--	--	--	--	--	5	100	1,200	2	1
SP	--	--	--	--	--	--	--	2,300	--	--
SIP	--	--	--	--	--	9	200	1,200	2	<1
BIP	--	--	--	--	--	--	--	1,500	--	--
	--	--	--	--	--	--	--	860	--	--
	--	--	--	--	--	3	100	1,700	2	<1
PM	49	3.2	9.5	260	630	6	110	800	<1	<10
	--	--	--	--	--	5	<100	1,100	2	<1

Table 28.—*Selected physical and chemical analyses of water from Pariette Wetlands*—Continued

Site name	Copper, dissolved (µg/L as Cu)	Lead, dissolved (µg/L as Pb)	Mercury, dissolved (µg/L as Hg)	Molybdenum, dissolved (µg/L as Mo)	Nickel, dissolved (µg/L as Ni)	Selenium, dissolved (µg/L as Se)	Silver, dissolved (µg/L as Ag)	Vanadium, dissolved (µg/L as V)	Zinc, dissolved (µg/L as Zn)
FC	<10	<5	<0.1	16	<1	5	2.0	4	<10
DP	<10	<5	0.1	10	<1	3	<1.0	5	17
	--	--	--	--	--	5	--	--	--
GP	--	--	--	--	--	4	--	--	<10
	10	<5	<0.1	16	1	3	1.0	4	<10
SP	--	--	--	--	--	2	--	--	<10
SIP	<10	<5	<0.1	13	<1	1	1.0	3	<10
BIP	--	--	--	--	--	5	--	--	20
	--	--	--	--	--	3	--	--	10
	<10	<5	<0.1	33	<1	2	1.0	11	<10
PM	<10	<5	0.2	11	<1	1	<1.0	6	5
	<10	<5	<0.1	12	1	2	1.0	3	<10

Site name	Gross alpha, dissolved (µg/L as U-nat)	Gross alpha, susp. total (µg/L as U-nat)	Gross beta, dissolved (pCi/L as Cs-137)	Gross beta, susp. total (pCi/L as Cs-137)	Gross beta, dissolved (pCi/L as Sr/Yt-90)	Gross beta, susp. total (pCi/L as Sr/Yt-90)	Uranium, natural, dissolved (µg/L as U)
FC	--	--	--	--	--	--	--
DP	11	<0.4	9.8	1.0	6.6	1.0	7.6
	--	--	--	--	--	--	--
GP	--	--	--	--	--	--	--
	--	--	--	--	--	--	--
SP	--	--	--	--	--	--	--
SIP	--	--	--	--	--	--	--
BIP	--	--	--	--	--	--	--
	--	--	--	--	--	--	--
	--	--	--	--	--	--	--
PM	19	<0.4	14	<0.4	8.9	<0.4	8.2
	--	--	--	--	--	--	--

Table 29.—*Concentrations of selected trace elements in sediment from Pariette Wetlands collected on August 13, 1987*
[All units in micrograms per gram, dry weight; <, less than]

Constituent	Site name	
	Desilting basin	Redhead pond
Arsenic	5.4	11
Barium	940	950
Beryllium	1	1
Bismuth	<10	<10
Cadmium	<2	<2
Cerium	54	55
Chromium	46	51
Cobalt	9	9
Copper	18	19
Europium	<2	<2
Gallium	14	15
Gold	<8	<8
Holmium	<4	<4
Lanthanum	32	32
Lead	15	16
Lithium	33	34
Manganese	400	380
Molybdenum	<2	<2
Neodymium	25	24
Nickel	17	16
Niobium	7	5
Scandium	7	8
Selenium	0.4	1.5
Silver	<2	<2
Strontium	510	530
Tantalum	<40	<40
Thorium	8	8
Tin	<10	<10
Uranium	<100	<100
Vanadium	50	53
Ytterbium	1	1
Yttrium	13	13
Zinc	43	47

Table 30.—*Concentrations of selected constituents in sediment from Pariette Wetlands collected on August 13, 1987*
[All units in weight percent]

Constituent	Site name	
	Desilting basin	Redhead pond
Aluminum	6.5	6.6
Calcium	3.4	3.6
Iron	1.9	2.0
Magnesium	0.88	0.98
Phosphorus	0.08	0.09
Potassium	1.9	2.0
Sodium	2.0	2.0
Titanium	0.2	0.21

Table 31.—*Selected physical and chemical analyses of water from Pleasant Valley near Roosevelt, Utah*

[ft^3/s, cubic feet per second; µS/cm, microsiemens per Centimeter at 25° Celsius; mg/L, milligrams per liter; µg/L, micrograms per liter; --, not determined; <. less than]

Site name: See table 3 for full site name.

Site name	Date	Time (24-hour)	Stream-flow,-instan-taneous (ft^3/s)	Specific con-duct-ance (µS/cm)	pH (stand-ard units)	Alka-linity, lab (mg/L as $CaCO_3$)	Calcium, dis-solved (mg/L as Ca)	Chro-mium, dis-solved (µg/L as Cr)	Chlo-ride, dis-solved (mg/L as Cl)	Fluo-ride, dis-solved (mg/L as F)	Magne-sium, dis-solved (mg/L as Mg)	Potas-sium, dis-solved (mg/L as K)	Silica, dis-solved (mg/L as SiO_2)	Sodium, dis-solved (mg/L as Na)
PV Canal	08-25-88	1515	81	820	--	250	53	<1	18	0.30	36	1.8	11	64
PV Drain	06-13-89	1245	--	2,470	7.2	--	--	--	--	--	--	--	--	--
PV Wash 1	08-25-88	1530	4.3	1,740	--	--	--	--	--	--	--	--	--	--
PV Wash 2	08-25-88	1800	13	2,650	--	240	150	<1	66	0.50	80	2.8	13	430
UPV Canal	08-25-88	1715	--	7,390	--	--	--	--	--	--	--	--	--	--

Site name	Sulfate, dis-solved (mg/L as SO_4)	Arsenic, dis-solved (µg/L as As)	Barium, dis-solved (µg/L as Ba)	Boron, dis-solved (µg/L as B)	Cadmium, dis-solved (µg/L as Cd)	Copper, dis-solved (µg/L as Cu)	Lead, dis-solved (µg/L as Pb)	Mercury, dis-solved (µg/L as Hg)	Molyb-denum, dis-solved (µg/L as Mo)	Nickel, dis-solved (µg/L as Ni)	Sele-nium, dis-solved (µg/L as Se)	Silver, dis-solved (µg/L as Ag)	Vana-dium, dis-solved (µg/L as V)	Zinc, dis-solved (µg/L as Zn)
PV Canal	130	4	83	370	<1	<10	<5	<0.1	3	3	<1	4.0	1	5
PV Drain	--	--	--	--	--	--	--	--	--	--	9	--	--	--
PV Wash 1	--	--	--	--	--	--	--	--	--	--	4	--	--	--
PV Wash 2	1,300	5	100	1,100	<1	10	<5	<0.1	12	3	6	<1.0	3	<10
UPV Canal	--	--	--	--	--	--	--	--	--	--	<1	--	--	--

Table 32.--*Selected physical and chemical analyses of water from U.S. Bureau of Reclamation wells in Pleasant Valley near Roosevelt, Utah*

[°C, degrees Celsius; µS/cm, microsiemens per centimeter at 25° Celsius; mg/L, milligrams per liter; µg/L, micrograms per liter; --, not determined; <, less than]

Site name: See table 3 for full site name.

Site name	Date	Time (24-hour)	Temperature, water (°C)	Specific conductance (µS/cm)	pH (standard units)	Alkalinity, lab (mg/L as $CaCO_3$)	Solids, residue at 180 °C dissolved (mg/L)	Calcium, dissolved (mg/L as Ca)	Chloride, dissolved (mg/L as Cl)	Magnesium, dissolved (mg/L as Mg)	Potassium, dissolved (mg/L as K)	Sodium, dissolved (mg/L as Na)	Sulfate, dissolved (mg/L as SO_4)
OH 139	12-01-88	0930	--	3,200	6.6	376	2,980	520	25	95	1.2	140	1,700
OH 148	12-01-88	0955	--	50,000	8.0	482	42,000	440	2,300	210	9.1	11,000	25,000
	06-15-89	1520	21.5	16,100	7.5	--	--	--	--	--	--	--	--
OH 51	12-01-88	0825	--	990	7.8	342	610	87	29	24	1.5	98	150
OH 56	12-01-88	0840	--	4,350	7.6	360	3,130	180	400	85	1.4	630	1,400
OH 83	12-01-88	0900	--	6,450	7.5	399	5,890	370	270	290	5.1	810	3,400

Site name	Arsenic, dissolved (µg/L as As)	Boron, dissolved (µg/L as B)	Cadmium, dissolved (µg/L as Cd)	Chromium, dissolved (µg/L as Cr)	Copper, dissolved (µg/L as Cu)	Lead, dissolved (µg/L as Pb)	Mercury, dissolved (µg/L as Hg)	Molybdenum, dissolved (µg/L as Mo)	Selenium, dissolved (µg/L as Se)	Vanadium, dissolved (µg/L as V)	Zinc, dissolved (µg/L as Zn)
OH 139	<1	870	<1	4	3	<5	<0.1	14	4	2	15,000
OH 148	8	29,000	2	<4	16	<5	<0.1	1,100	840	70	1,000
	--	11,000	--	--	--	--	--	--	14	--	--
OH 51	<1	500	4	2	2	<5	<0.1	8	3	<1	2,200
OH 56	<1	1,500	<1	2	5	<5	<0.1	8	11	7	2,800
OH 83	4	2,400	<1	3	2	<5	0.1	20	1	6	2,300

Table 33.--*Water levels for selected U.S. Bureau of Reclamation wells in Pleasant Valley near Roosevelt, Utah*
[Elevation, in feet above sea level;
Water level, in feet below land surface]

Site name: See table 3 for full site name.

Site name and elevation	Date	Water level	Date	Water level
OH 148	11-29-88	4.9	06-13-89	1.0
5,073.0	12-01-88	4.95	06-15-89	0.11
OH 139	11-29-88	7.19		
5,149.5	12-01-88	7.24		
OH 83	11-29-88	4.32		
5,190.1	12-01-88	6.07		
OH 51	11-29-88	9.22		
5,283.5	12-01-88	8.29		
OH 56	11-29-88	8.28		
5,257.2	12-01-88	8.35		

Table 34.--*Concentrations of organochlorine pesticides in biological samples from the middle Green River basin study area*

[Element concentrations are in units of micrograms per gram dry weight;
PCB, polychlorinated biphenyl; o,p', ortho para'; p,p', para para';
DCPA, dimethyl tetrachloroterephthalate;
--, not determined; <, less than; ND, not detected]

Site name: See tables 3 and 4 for full site name.

Site name	Date	Organism	Tissue	Percent moisture	Percent lipids	PCB, total	Oxy-chlor-dane	cis-Chlor-dane	trans-Chlor-dane
SL	05-11-88	Canada Goose	Bird-Egg	71	14.6	--	<0.01	<0.01	<0.01
L3	05-17-88	Canada Goose	Bird-Egg	70.5	15.9	<0.05	<0.01	<0.01	<0.01
L4	05-03-88	Canada Goose	Bird-Egg	67	16.1	<0.01	<0.01	<0.01	<0.01
L6	06-08-88	Black-Crowned Night Heron	Bird-Egg	81.05	4.93	<0.5	<0.05	<0.05	<0.05
	04-20-88	Black-Crowned Night Heron	Bird-Egg	82.6	3.65	<0.94	<0.05	<0.05	<0.05
	06-08-88	Black-Crowned Night Heron	Bird-Egg	80.85	5.81	<0.5	<0.05	<0.05	<0.05
L7	05-18-88	Canada Goose	Bird-Egg	66	17.4	<0.05	<0.01	<0.01	<0.01
S2	05-15-87	Canada Goose	Bird-Egg	69.6	13.2	0.03	<0.009	<0.004	<0.004
	05-15-87	Canada Goose	Bird-Egg	78.9	16.7	0.27	<0.013	<0.005	<0.005
	05-15-87	Canada Goose	Bird-Egg	78.2	8.1	0.52	<0.001	<0.001	<0.001
	05-15-87	Canada Goose	Bird-Egg	72.1	17.5	0.25	<0.001	<0.001	<0.001
	04-28-88	Canada Goose	Bird-Egg	66	17.1	<0.05	<0.01	<0.01	<0.01
	04-28-88	Canada Goose	Bird-Egg	71.5	15.1	<0.05	<0.01	<0.01	<0.01
	05-04-88	Canada Goose	Bird-Egg	69	15.8	<0.05	<0.01	<0.01	<0.01
	05-04-88	Canada Goose	Bird-Egg	70.5	13.3	<0.01	<0.01	<0.01	<0.01
S3	05-15-87	Canada Goose	Bird-Egg	88	22.2	ND	<0.001	<0.001	<0.001
	05-15-87	Canada Goose	Bird-Egg	80	15.4	ND	<0.001	<0.001	<0.001
	05-15-87	Canada Goose	Bird-Egg	85.7	15.1	0.12	<0.001	<0.001	<0.001
	05-15-87	Canada Goose	Bird-Egg	77.5	17.6	0.31	<0.001	<0.001	<0.001
	05-15-87	Canada Goose	Bird-Egg	65.3	18.3	4	<0.007	<0.003	<0.003
	05-04-88	Canada Goose	Bird-Egg	66	17.1	<0.01	<0.01	<0.01	<0.01
	05-04-88	Canada Goose	Bird-Egg	66.8	14.8	<0.01	<0.01	<0.01	<0.01
	05-04-88	Canada Goose	Bird-Egg	71	13.5	<0.01	<0.01	<0.01	<0.01
	04-28-88	Canada Goose	Bird-Egg	69.5	14.3	<0.01	<0.01	<0.01	<0.01
S5	05-25-88	Black-Crowned Night Heron	Bird-Egg	81.69	4.36	<0.5	<0.05	<0.05	<0.05
	05-25-88	Black-Crowned Night Heron	Bird-Egg	83.06	4.29	<0.5	<0.05	<0.05	<0.05
	05-25-88	Black-Crowned Night Heron	Bird-Egg	83.47	3.84	0.13	<0.05	<0.05	<0.05
	05-15-87	Canada Goose	Bird-Egg	89.5	15.8	ND	<0.001	<0.001	<0.001
	05-15-87	Canada Goose	Bird-Egg	86.5	15.1	ND	<0.002	<0.001	<0.001
	05-04-88	Canada Goose	Bird-Egg	67	13.4	<0.01	<0.01	<0.01	<0.01
WB	05-04-88	Canada Goose	Bird-Egg	70.5	15.3	<0.05	<0.01	<0.01	<0.01
	05-04-88	Canada Goose	Bird-Egg	72	16.2	<0.05	<0.01	<0.01	<0.01
	05-04-88	Canada Goose	Bird-Egg	68.5	14.1	<0.05	<0.01	<0.01	<0.01
BIP	06-03-87	Canada Goose	Bird-Egg	86.5	13.2	ND	<0.001	<0.001	<0.001
GP	06-14-88	Snowy Egret	Bird-Egg	81.18	5.26	<0.5	<0.05	<0.05	<0.05

Table 34.--*Concentrations of organochlorine pesticides in biological samples from the middle Green River basin study area*—Continued

Site name	cis-Nona-chlor	trans-Nona-chlor	Hepta-chlor	Hepta-chlor epoxide	Meth-oxy-chlor	o,p' -DDE	p,p' -DDE	o,p' -DDD	p,p' -DDD	o,p' -DDT	p,p' -DDT	Sample number
SL	<0.01	<0.01	--	<0.01	--	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	455
L3	<0.01	<0.01	--	<0.01	--	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	456
L4	<0.01	<0.01	<0.01	--	--	<0.01	0.16	<0.01	<0.01	<0.01	<0.01	442
L6	<0.05	<0.05	<0.05	0.26	--	<0.05	3.05	<0.05	<0.05	<0.05	<0.05	615
	<0.05	<0.05	<0.05	<0.05	--	<0.05	7.05	<0.05	0.47	<0.05	0.34	616
	<0.05	<0.05	<0.05	<0.05	--	<0.05	3.48	<0.05	<0.05	<0.05	<0.05	617
L7	<0.01	<0.01	--	<0.01	--	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	457
S2	<0.004	<0.003	<0.003	<0.004	0.290	<0.009	<0.010	<0.013	<0.019	<0.011	<0.018	986
	<0.007	<0.004	<0.004	<0.006	0.260	<0.014	<0.015	<0.020	<0.028	<0.016	<0.026	987
	<0.001	<0.001	<0.001	<0.001	0.050	<0.002	<0.002	<0.002	<0.003	<0.002	<0.003	988
	<0.001	<0.001	<0.001	<0.001	0.027	<0.001	<0.001	<0.002	<0.003	<0.002	<0.002	989
	<0.01	<0.01	--	<0.01	--	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	450
	<0.01	<0.01	--	<0.01	--	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	451
	<0.01	<0.01	--	<0.01	--	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	449
	<0.01	<0.01	--	--	--	<0.01	<0.01	<0.01	<0.01	<0.01	--	448
S3	<0.001	0.004	<0.001	<0.001	0.008	<0.001	0.005	<0.002	<0.003	<0.002	<0.003	981
	<0.001	<0.001	0.004	<0.001	0.005	<0.001	0.002	<0.002	<0.002	<0.001	<0.002	982
	<0.001	0.002	<0.001	<0.001	0.023	<0.001	<0.001	<0.001	<0.002	<0.001	<0.002	983
	<0.001	<0.001	<0.001	<0.001	0.034	<0.001	<0.001	<0.002	<0.003	<0.001	<0.002	984
	<0.003	<0.002	0.016	<0.003	1.40	<0.007	<0.008	<0.011	<0.015	<0.009	<0.014	985
	<0.01	<0.01	<0.01	--	--	<0.01	0.06	<0.01	<0.01	<0.01	<0.01	443
	<0.01	<0.01	<0.01	--	--	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	444
	<0.01	<0.01	<0.01	--	--	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	445
	<0.01	<0.01	<0.01	--	--	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	446
S5	<0.05	<0.05	<0.05	<0.05	--	<0.05	1.92	<0.05	<0.05	<0.05	<0.05	618
	<0.05	<0.05	<0.05	<0.05	--	<0.05	3.08	<0.05	<0.05	<0.05	<0.05	619
	<0.05	<0.05	<0.05	<0.05	--	<0.05	2.36	<0.05	<0.05	<0.05	<0.05	620
	<0.001	0.002	<0.001	<0.001	0.007	<0.001	0.002	<0.002	<0.002	<0.001	<0.002	979
	<0.001	0.004	<0.001	<0.001	0.007	<0.002	0.006	<0.002	<0.003	<0.002	<0.003	980
	<0.01	<0.01	<0.01	--	--	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	447
WB	<0.01	<0.01	--	<0.01	--	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	452
	<0.01	<0.01	--	<0.01	--	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	453
	<0.01	<0.01	--	<0.01	--	<0.01	0.16	<0.01	<0.01	<0.01	<0.01	454
BIP	<0.001	0.003	<0.001	<0.001	0.005	<0.001	0.004	<0.002	<0.003	<0.002	<0.003	978
GP	<0.05	<0.05	<0.05	<0.05	--	<0.05	12.50	<0.05	<0.05	<0.05	<0.05	622

Table 34.--*Concentrations of organochlorine pesticides in biological samples from the middle Green River basin study area*--Continued

Site name	Date	Organism	Tissue	Endrin	Dieldrin	Aldrin	alpha-Benzene hexachloride	beta-Benzene hexachloride	gamma-Benzene hexachloride	delta-Benzene hexachloride
SL	05-11-88	Canada Goose	Bird-Egg	<0.01	<0.01	--	<0.01	<0.01	<0.01	<0.01
L3	05-17-88	Canada Goose	Bird-Egg	<0.01	<0.01	--	<0.01	<0.01	<0.01	<0.01
L4	05-03-88	Canada Goose	Bird-Egg	<0.01	--	<0.01	<0.01	<0.01	<0.01	<0.01
L6	06-08-88	Black-Crowned Night Heron	Bird-Egg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	04-20-88	Black-Crowned Night Heron	Bird-Egg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	06-08-88	Black-Crowned Night Heron	Bird-Egg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
L7	05-18-88	Canada Goose	Bird-Egg	<0.01	<0.01	--	<0.01	<0.01	<0.01	<0.01
S2	05-15-87	Canada Goose	Bird-Egg	<0.007	0.041	<0.003	<0.006	<0.006	<0.006	<0.015
	05-15-87	Canada Goose	Bird-Egg	<0.011	<0.008	<0.005	<0.010	<0.009	<0.009	<0.022
	05-15-87	Canada Goose	Bird-Egg	<0.001	0.010	<0.001	0.003	<0.001	<0.001	<0.003
	05-15-87	Canada Goose	Bird-Egg	<0.001	0.008	<0.001	<0.001	<0.001	<0.001	<0.002
	04-28-88	Canada Goose	Bird-Egg	<0.01	<0.01	--	<0.01	<0.01	<0.01	<0.01
	04-28-88	Canada Goose	Bird-Egg	<0.01	<0.01	--	<0.01	<0.01	<0.01	<0.01
	05-04-88	Canada Goose	Bird-Egg	<0.01	<0.01	--	<0.01	<0.01	<0.01	<0.01
	05-04-88	Canada Goose	Bird-Egg	<0.01	<0.01	<0.01	<0.01	<0.01	--	--
S3	05-15-87	Canada Goose	Bird-Egg	<0.001	0.006	<0.001	<0.001	<0.001	<0.001	<0.002
	05-15-87	Canada Goose	Bird-Egg	<0.001	0.004	<0.001	<0.001	<0.001	<0.001	<0.002
	05-15-87	Canada Goose	Bird-Egg	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002
	05-15-87	Canada Goose	Bird-Egg	<0.001	0.006	<0.001	<0.001	<0.001	<0.001	<0.002
	05-15-87	Canada Goose	Bird-Egg	<0.006	0.075	<0.002	<0.005	<0.005	<0.004	<0.012
	05-04-88	Canada Goose	Bird-Egg	<0.01	--	<0.01	<0.01	<0.01	<0.01	<0.01
	05-04-88	Canada Goose	Bird-Egg	<0.01	--	<0.01	<0.01	<0.01	<0.01	<0.01
	05-04-88	Canada Goose	Bird-Egg	<0.01	--	<0.01	<0.01	<0.01	<0.01	<0.01
	04-28-88	Canada Goose	Bird-Egg	<0.01	--	<0.01	<0.01	<0.01	<0.01	<0.01
S5	05-25-88	Black-Crowned Night Heron	Bird-Egg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	05-25-88	Black-Crowned Night Heron	Bird-Egg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	05-25-88	Black-Crowned Night Heron	Bird-Egg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	05-15-87	Canada Goose	Bird-Egg	<0.001	0.004	<0.001	<0.001	<0.001	<0.001	<0.002
	05-15-87	Canada Goose	Bird-Egg	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
	05-04-88	Canada Goose	Bird-Egg	<0.01	--	<0.01	<0.01	<0.01	<0.01	<0.01
WB	05-04-88	Canada Goose	Bird-Egg	<0.01	<0.01	--	<0.01	<0.01	<0.01	<0.01
	05-04-88	Canada Goose	Bird-Egg	<0.01	<0.01	--	<0.01	<0.01	<0.01	<0.01
	05-04-88	Canada Goose	Bird-Egg	<0.01	0.01	--	<0.01	<0.01	<0.01	<0.01
BIP	06-03-87	Canada Goose	Bird-Egg	<0.001	<0.001	<0.001	<0.001	<0.001	0.003	<0.002
GP	06-14-88	Snowy Egret	Bird-Egg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

Table 34.--*Concentrations of organochlorine pesticides in biological samples from the middle Green River basin study area*—Continued

Site name	Hexachlorobenze	Endosulfan 1	Endosulfan 2	Endosulfan sulfate	Mirex	DCPA	Dicofol	Tetradifon	Toxaphene	Sample number
SL	<0.01	--	--	--	<0.01	--	--	--	<0.05	455
L3	<0.01	--	--	--	<0.01	--	--	--	<0.05	456
L4	--	--	--	<0.01	--	--	--	--	<0.05	442
L6	0.09	--	--	--	<0.05	--	--	--	<0.5	615
	0.30	--	--	--	<0.05	--	--	--	<0.5	616
	<0.05	--	--	--	<0.05	--	--	--	<0.5	617
L7	<0.01	--	--	--	<0.01	--	--	--	<0.05	457
S2	0.009	<0.004	<0.006	<0.005	<0.003	<0.016	<0.001	<0.011	<0.086	986
	0.010	<0.007	<0.010	<0.007	<0.005	<0.025	<0.001	<0.017	<0.128	987
	0.004	<0.001	<0.001	<0.001	<0.001	<0.003	<0.001	<0.002	<0.014	988
	0.003	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.002	<0.012	989
	<0.01	--	--	--	<0.01	--	--	--	<0.05	450
	<0.01	--	--	--	<0.01	--	--	--	<0.05	451
	0.01	--	--	--	<0.01	--	--	--	<0.05	449
	--	<0.01	--	--	<0.05	--	--	--	<0.05	448
S3	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.002	<0.012	981
	0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.010	982
	0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.009	983
	0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.012	984
	0.039	<0.003	<0.005	<0.004	<0.003	<0.013	<0.001	<0.009	<0.067	985
	--	--	--	<0.01	--	--	--	--	<0.05	443
	--	--	--	<0.01	--	--	--	--	<0.05	444
	--	--	--	<0.01	--	--	--	--	<0.05	445
	--	--	--	<0.01	--	--	--	--	<0.05	446
S5	<0.05	--	--	--	<0.05	--	--	--	<0.5	618
	<0.05	--	--	--	<0.05	--	--	--	<0.5	619
	0.08	--	--	--	<0.05	--	--	--	<0.5	620
	0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.010	979
	0.001	<0.001	<0.001	<0.001	<0.001	0.003	<0.001	<0.002	<0.015	980
	--	--	--	<0.01	--	--	--	--	<0.05	447
WB	<0.01	--	--	--	<0.01	--	--	--	<0.05	452
	<0.01	--	--	--	<0.01	--	--	--	<0.05	453
	<0.01	--	--	--	<0.01	--	--	--	<0.05	454
BIP	0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.002	<0.012	978
GP	<0.05	--	--	--	<0.05	--	--	--	<0.5	622

Table 35.--*Field and laboratory analyses of biological samples from Ashley Creek, its tributaries, and areas near Vernal and Jensen, Utah*

[g, gram; mm, millimeter; Organism: spp. species. Tissue: C7, composite sample, number of individuals; I, individual sample; Egg, net sample weight. Life stage: listed as days for embryos; --, not determined; <. less than]

Site name: See tables 3 and 4 for full site name.

Site name	Organism	Tissue	Date	Moisture content (percent)	Life stage	Sex	Organism data: Average weight (g)	Organism data: Total weight (g)	Organism data: Length (mm)
AC NVA	Red-Sided Shiner	Fish-Whole Body-C7	07-18-89	76	--	--	2	--	--
	Sucker	Fish-Whole Body-C5	07-18-89	75.5	--	--	5	--	--
	Potamogeton spp.	Plant-without Root-C	07-18-89	87.7	--	--	--	71	--
AC 6550	Common Carp	Fish-Whole Body-C4	10-26-88	75.7	--	--	8	--	78
	Fathead Minnow	Fish-Whole Body-C10	10-26-88	78	--	--	1.6	--	--
	Red Shiner	Fish-Whole Body-C30	10-26-88	78.8	--	--	1	--	--
	White Sucker	Fish-Whole Body-C5	10-26-88	79.4	--	--	46	--	157
	White Sucker	Fish-Whole Body-I	10-26-88	77.3	--	--	--	185	281
AC 40	Crayfish	Fish-Whole Body-C5	07-18-89	75.6	--	--	16	--	--
	Red Shiner	Fish-Whole Body-C9	07-18-89	77.7	--	--	2	--	--
	White Sucker	Fish-Whole Body-C5	07-18-89	77	--	--	13	--	--
AC 6750	Crayfish	Invertebrate-Whole Body-C3	07-18-89	79	--	--	19	--	--
	Black Bullhead	Fish-Whole Body-I	07-18-89	75.8	--	--	--	109	190
	Fathead Minnow	Fish-Whole Body-C4	07-18-89	77.4	--	--	3	--	--
	Green Sunfish	Fish-Whole Body-I	07-18-89	74.8	--	--	--	34	117
	White Sucker	Fish-Whole Body-C5	07-18-89	77.7	--	--	60	--	175
	Chara spp.	Plant-without Root-C	07-18-89	85.7	--	--	--	64	--
ALF	Alfalfa	Plant-without Root-C	07-26-89	65.2	--	--	--	--	--
M4720	Black-Necked Stilt	Bird-Egg-I	06-14-88	74.1	20	--	--	18	47.3
	Black-Necked Stilt	Bird-Egg-I	06-14-88	73.8	9	--	--	24	46.8
	Black-Necked Stilt	Bird-Egg-I	06-14-88	74.5	7	--	--	17	45.5
	Wilsons Snipe	Bird-Egg-I	06-07-88	77.4	3	--	--	9	31.3
	Northern Pike	Fish-Muscle-I	08-09-88	79.3	--	--	--	647	482
	Black Bullhead	Fish-Whole Body-C5	04-08-88	80.7	--	--	80	--	186
	Black Bullhead	Fish-Whole Body-C5	08-09-88	80.9	--	--	84	--	191
	Common Carp	Fish-Whole Body-C5	04-08-88	70.7	--	--	582	--	364
	Common Carp	Fish-Whole Body-C5	04-08-88	80.1	--	--	783	--	405
	Common Carp	Fish-Whole Body-C5	08-09-88	77.3	--	--	579	--	369
	Common Carp	Fish-Whole Body-C5	08-09-88	77.6	--	--	644	--	380
	Northern Pike	Fish-Whole Body-C3	04-08-88	79.1	--	--	681	--	510
	Chironomidae(Predominant)	Invertebrate-Whole Body-C	04-08-88	84.1	--	--	--	6	--
	Invertebrates-Hemiptera	Invertebrate-Whole Body-I	08-09-88	84.9	--	--	--	4	--
	Scirpus acutus	Plant-Seed/Chaff-C	09-08-88	7.8	--	--	--	15	--
	Filamentous Green Algae	Plant-without Root-C	06-16-88	89.9	--	--	--	38	--
	Filamentous Green Algae	Plant-without Root-C	09-21-88	84.6	--	--	--	109	--
	Lemna spp.	Plant-without Root-C	06-16-88	93	--	--	--	25	--
	Ruppia maritima	Plant-without Root-C	06-16-88	87.6	--	--	--	28	--
	Ruppia maritima	Plant-without Root-C	06-16-88	87.4	--	--	--	38	--
	Scirpus acutus	Plant-Root and Stem-C	06-16-88	81.3	--	--	--	336	--
	Scirpus acutus	Plant-Root and Stem-C	06-16-88	85.8	--	--	--	372	--
	Scirpus acutus	Plant-Root and Stem-C	06-16-88	81	--	--	--	412	--
	Scirpus acutus	Plant-Root and Stem-C	08-10-88	71.9	--	--	--	201	--
	Scirpus acutus	Plant-Root and Stem-C	08-10-88	71.9	--	--	--	304	--
	Scirpus acutus	Plant-Root and Stem-C	08-10-88	74.9	--	--	--	348	--
	Typha spp.	Plant-Root and Stem-C	06-16-88	90.2	--	--	--	588	--
	Typha spp.	Plant-Root and Stem-C	06-16-88	91.2	--	--	--	506	--
	Typha spp.	Plant-Root and Stem-C	08-10-88	80.7	--	--	--	457	--
	Typha spp.	Plant-Root and Stem-C	08-10-88	82.1	--	--	--	504	--
WP	Red-Winged Blackbird	Bird-Egg-C2	06-06-89	84.2	--	--	4	--	--

Table 35.—*Field and laboratory analyses of biological samples from Ashley Creek, its tributaries, and areas near Vernal and Jensen, Utah*—Continued

Site name	Aluminium	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Chromium	Copper	Iron	Lead	Sample number
AC NVA	34.2	<4.17	<0.42	31	<0.21	<2.08	<0.21	2.25	6.58	202	<1.25	1312
	71.3	<4.08	<0.41	56.7	<0.2	<2.04	<0.2	1.88	5.63	627	<1.22	1313
	55.9	<8.13	8.9	269	<0.41	62.7	0.73	<0.81	3.33	3,550	<2.44	1311
AC 6550	75.7	<4.12	<0.41	2.51	<0.21	<2.06	<0.21	<0.41	5.68	219	<1.23	251
	658	<4.55	<0.45	10.6	<0.23	5.86	<0.23	3	5.73	700	<1.36	248
	27.9	<4.72	<0.47	<2.36	<0.24	<2.36	<0.24	<0.47	2.97	108	<1.42	247
	337	<4.85	<0.49	6.46	<0.24	3.11	<0.24	0.63	6.70	432	<1.46	249
	178	<4.41	<0.44	6.74	<0.22	3.30	<0.22	13.5	5.99	482	<1.32	250
AC 40	198	<4.1	0.41	21.8	<0.2	7.46	0.25	0.981	92.1	349	<1.23	1308
	26.7	<4.48	<0.45	<2.24	<0.22	4.3	<0.22	2.65	5.83	133	<1.35	1309
	139	<4.35	<0.43	5.65	<0.22	5.61	<0.22	2.87	4.57	383	<1.3	1310
AC 6750	177	<4.76	0.48	<17.9	<0.24	7	<0.24	1.38	114	505	<1.43	1303
	33	<4.13	<0.41	<2.07	<0.21	2.15	<0.21	2.11	6.49	105	<1.24	1302
	147	<4.42	<0.44	7.39	<0.22	5.49	<0.22	2.77	6.77	309	<1.33	1305
	27.2	<3.97	<0.4	<1.98	<0.2	5.24	<0.2	3.02	3.21	75.8	<1.19	1306
	107	<4.48	<0.45	3.5	<0.22	4.39	<0.22	2.51	5.7	288	<1.35	1307
	413	<6.99	4.2	158	<0.35	25.1	0.7	<0.78	4.48	2,430	<2.1	1304
ALF	31	<2.87	<0.29	1.7	<0.1	73.4	<0.14	<0.28	7.9	48.3	<0.86	1367
M4720	<25.9	<0.097	<0.020	<12.9	<1.27	<12.9	<1.27	<2.59	<6.45	124	<25.9	654
	<38.2	<0.095	<0.019	<19.1	<1.91	<19.1	<1.91	<3.82	12.6	130	<38.2	655
	51	<0.098	<0.020	<19.6	<1.96	<19.6	<1.96	<3.92	<9.80	102	<39.2	656
	<42.7	<0.111	0.062	<21.4	<2.12	<21.4	<2.12	<4.29	<10.7	94.2	<42.7	647
	<48.3	<0.121	<0.025	<24.2	<2.42	<24.2	<2.42	<4.83	<12.1	48.3	<48.3	826
	250	--	<0.2	5	<0.1	3	<0.2	<2	1.7	341	<4	575
	173	<0.131	0.136	<26.2	<2.62	<26.2	<2.62	<5.24	<13.1	649	<52.4	829
	401	--	0.4	6.2	<0.1	3	0.2	<2	2.6	433	<4	585
	240	--	<0.2	6.1	<0.1	3	0.68	<2	2.3	360	<4	586
	<44.1	<0.110	<0.023	<22	<2.20	<22	<2.20	<4.41	<11	220	<44.1	827
	<44.6	<0.112	<0.023	<22.3	<2.23	<22.3	<2.23	<4.46	<11.2	232	<44.6	828
	9	--	0.3	1.4	<0.1	<2	<0.2	<2	1.4	88	<4	592
	1,130	--	0.75	8.4	<0.1	8.6	<0.2	<2	17	1,050	<4	565
	1,360	--	--	<33.1	<3.31	<33.1	<3.31	7.95	23.8	1,230	<66.2	807
	<10.8	<0.027	0.077	<5.42	<0.542	599	<0.542	<1.08	5.21	60.7	<10.8	815
	2,530	0.356	11.6	66.3	<4.95	163	<4.95	<9.90	30.7	9,070	<99	778
	10,900	--	7.7	102	0.61	68	0.4	13	14	13,100	10	359
	2,030	<0.357	2.64	<71.4	<7.14	966	<7.14	<14.3	<35.7	5,370	<143	783
	250	0.295	9.92	<40.3	<4.03	160	<4.03	<8.06	<20.2	2,580	<80.6	779
	1,150	<0.198	3.65	<39.7	<3.97	208	<3.97	<7.94	<19.8	5,080	<79.4	784
	171	<0.134	2.49	<26.7	<2.67	28.9	<2.67	<5.35	<13.4	1,700	<53.5	776
	275	<0.176	3.35	<35.2	<3.52	51.4	<3.52	<7.04	<17.6	2,700	<70.4	781
	332	<0.132	1.53	<26.3	<2.63	36.3	<2.63	<5.26	<13.2	1,880	<52.6	782
	281	<0.089	0.819	<17.8	<1.78	25.6	<1.78	<3.56	13.9	580	<35.6	801
	71.2	<0.089	0.979	<17.8	<1.78	27	<1.78	<3.56	<8.90	1,040	<35.6	802
	55.8	<0.10	0.259	<19.9	<1.99	33.1	<1.99	<3.98	28.7	394	<39.8	803
	724	<0.255	13.5	<51	<5.10	<51	<5.10	<10.2	<25.5	8,060	<102	777
	1,330	0.330	6.65	<56.8	<5.68	<56.8	<5.68	<11.4	<28.4	6,780	<114	780
	187	0.135	1.17	<25.9	<2.59	<25.9	<2.59	<5.18	<13	1,000	<51.8	800
	156	0.162	4.21	<27.9	<2.79	<27.9	<2.79	<5.59	20.1	3,760	<55.9	804
WP	<5	--	<0.1	0.63	<0.7	<7	<0.9	<4	3.3	140	<6	1288

Table 35.--*Field and laboratory analyses of biological samples from Ashley Creek, its tributaries, and areas near Vernal and Jensen, Utah*—Continued

Site name	Organism	Tissue	Date	Magnesium	Manganese	Mercury	Molybdenum
AC NVA	Red-Sided Shiner	Fish-Whole Body-C7	07-18-89	1,600	50.7	0.317	2.33
	Sucker	Fish-Whole Body-C5	07-18-89	1,510	199	0.204	2.33
	Potamogeton spp.	Plant-without Root-C	07-18-89	3,410	1,030	<0.203	<4.06
AC 6550	Common Carp	Fish-Whole Body-C4	10-26-88	1,700	9.67	<0.103	2.63
	Fathead Minnow	Fish-Whole Body-C10	10-26-88	1,800	39.1	<0.114	<2.27
	Red Shiner	Fish-Whole Body-C30	10-26-88	1,420	11.3	0.118	2.59
	White Sucker	Fish-Whole Body-C5	10-26-88	1,930	27.8	<0.121	<2.43
	White Sucker	Fish-Whole Body-I	10-26-88	2,630	45.4	0.273	5.73
AC 40	Crayfish	Fish-Whole Body-C5	07-18-89	3,970	88.8	<0.102	<2.05
	Red Shiner	Fish-Whole Body-C9	07-18-89	1,980	15.5	<0.112	<2.24
	White Sucker	Fish-Whole Body-C5	07-18-89	2,040	19.3	<0.109	3.61
AC 6750	Crayfish	Invertebrate-Whole Body-C3	07-18-89	3,460	125	<0.119	<2.38
	Black Bullhead	Fish-Whole Body-I	07-18-89	1,610	8.84	<0.103	2.85
	Fathead Minnow	Fish-Whole Body-C4	07-18-89	1,920	32.5	<0.111	3.1
	Green Sunfish	Fish-Whole Body-I	07-18-89	1,790	21.4	<0.099	3.25
	White Sucker	Fish-Whole Body-C5	07-18-89	1,780	13.7	<0.112	<2.24
	Chara spp.	Plant-without Root-C	07-18-89	7,650	1,530	<0.175	<3.5
ALF	Alfalfa	Plant-without Root-C	07-26-89	2,120	12.2	0.072	<1.44
M4720	Black-Necked Stilt	Bird-Egg-I	06-14-88	595	<3.86	0.699	<12.9
	Black-Necked Stilt	Bird-Egg-I	06-14-88	534	5.73	0.363	<19.1
	Black-Necked Stilt	Bird-Egg-I	06-14-88	392	<5.88	0.400	<19.6
	Wilsons Snipe	Bird-Egg-I	06-07-88	<427	<6.42	0.531	<21.4
	Northern Pike	Fish-Muscle-I	08-09-88	1,500	<7.25	0.290	<24.2
	Black Bullhead	Fish-Whole Body-C5	04-08-88	1,920	19	0.039	<1
	Black Bullhead	Fish-Whole Body-C5	08-09-88	2,090	20.9	<0.131	<26.2
	Common Carp	Fish-Whole Body-C5	04-08-88	1,790	15	0.081	<1
	Common Carp	Fish-Whole Body-C5	04-08-88	1,850	10	0.21	<1
	Common Carp	Fish-Whole Body-C5	08-09-88	1,670	6.61	<0.111	<22
	Common Carp	Fish-Whole Body-C5	08-09-88	1,650	6.70	<0.112	<22.3
	Northern Pike	Fish-Whole Body-C3	04-08-88	1,500	11	0.17	<1
	Chironomidae(Predominant)	Invertebrate-Whole Body-C	04-08-88	2,710	20	0.03	<1
	Invertebrates-Hemiptera	Invertebrate-Whole Body-I	08-09-88	5,230	58.9	0.205	<33.1
	Scirpus acutus	Plant-Seed/Chaff-C	09-08-88	2,130	606	0.034	<5.42
	Filamentous Green Algae	Plant-without Root-C	06-16-88	7,820	1,810	<0.248	<49.5
	Filamentous Green Algae	Plant-without Root-C	09-21-88	23,100	368	0.024	<2
	Lemna spp.	Plant-without Root-C	06-16-88	11,900	2,260	<0.358	<71.4
	Ruppia maritima	Plant-without Root-C	06-16-88	6,370	390	<0.202	<40.3
	Ruppia maritima	Plant-without Root-C	06-16-88	9,210	386	<0.199	<39.7
	Scirpus acutus	Plant-Root and Stem-C	06-16-88	2,830	277	<0.134	<26.7
	Scirpus acutus	Plant-Root and Stem-C	06-16-88	2,890	497	<0.177	<35.2
	Scirpus acutus	Plant-Root and Stem-C	06-16-88	2,580	308	<0.132	<26.3
	Scirpus acutus	Plant-Root and Stem-C	08-10-88	2,560	577	<0.089	<17.8
	Scirpus acutus	Plant-Root and Stem-C	08-10-88	2,280	581	<0.089	<17.8
	Scirpus acutus	Plant-Root and Stem-C	08-10-88	1,670	438	<0.100	<19.9
	Typha spp.	Plant-Root and Stem-C	06-16-88	6,120	392	<0.256	<51
	Typha spp.	Plant-Root and Stem-C	06-16-88	7,390	313	<0.285	<56.8
	Typha spp.	Plant-Root and Stem-C	08-10-88	4,200	156	<0.130	<25.9
	Typha spp.	Plant-Root and Stem-C	08-10-88	3,520	110	<0.140	<27.9
WP	Red-Winged Blackbird	Bird-Egg-C2	06-06-89	495	2	0.038	<2

Table 35.--*Field and laboratory analyses of biological samples from Ashley Creek, its tributaries, and areas near Vernal and Jensen, Utah*—Continued

Site name	Nickel	Selenium	Silver	Strontium	Thallium	Tin	Vanadium	Zinc	Sample number
AC NVA	<1.67	3.3	<2.08	109	<8.33	14.9	<2.08	230	1312
	<1.63	1.6	<2.04	85.5	<8.16	13.1	<2.04	101	1313
	<3.25	1.6	<4.06	376	<16.3	8.78	<4.06	23.2	1311
AC 6550	<1.65	90.1	<2.06	260	<8.23	11.7	<2.06	29.7	251
	<1.82	40.9	<2.27	164	<9.09	20.8	2.68	148	248
	<1.89	20.8	<2.36	202	<9.43	14.9	<2.36	192	247
	<1.94	45.6	<2.43	177	<9.71	14	<2.43	98.3	249
	6.92	33	<2.20	507	<8.81	27.9	<2.20	116	250
AC 40	<1.64	36.9	<2.05	1,230	<8.2	3.36	<2.05	82.4	1308
	<1.79	72.6	<2.24	276	<8.97	9.91	<2.24	222	1309
	<1.74	82.2	<2.17	262	<8.7	15.1	<2.17	110	1310
AC 6750	<1.9	51.4	<2.38	862	<9.52	14.1	<2.38	84.5	1303
	<1.65	40.1	<2.07	179	<8.26	13.1	<2.07	92.9	1302
	<1.77	122	<2.21	239	<8.85	13.2	<2.21	204	1305
	<1.59	49.2	<1.98	251	<7.94	16	<1.98	95.2	1306
	<1.79	55.2	<2.24	180	<8.97	12.6	<2.24	85.2	1307
	<2.8	13.3	<3.5	4,050	<14	<3.5	3.57	18.3	1304
ALF	<1.15	<2.9	<1.44	209	<5.75	5.43	<1.44	19.1	1367
M4720	<10.3	2.3	<12.9	19.9	--	<12.9	<12.9	60.2	654
	<15.3	11.8	<19.1	8.40	--	<19.1	<19.1	66.8	655
	<15.7	25.1	<19.6	15.7	--	<19.6	<19.6	63.1	656
	<17.1	5.8	<21.4	17.5	--	<21.4	<21.4	69.5	647
	<19.3	39.6	<24.2	14.5	--	<24.2	<24.2	36.2	826
	<1	11	<2	194	<4	--	2.6	88.4	575
	<20.9	26.2	<26.2	92.1	--	<26.2	<26.2	71.7	829
	<1	24	<2	188	<4	--	1.3	211	585
	<1	25	<2	169	<4	--	1	281	586
	<17.6	36.6	<22	148	--	<22	<22	223	827
	<17.9	37.1	<22.3	193	--	<22.3	<22.3	196	828
	<1	12	<2	94.8	<4	--	<0.3	193	592
	<1	16	<2	33.1	<4	--	2.7	100	565
	<26.5	26.5	<33.1	134	--	<33.1	<33.1	257	807
	<4.34	0.98	<5.42	69.3	--	<5.42	<5.42	28.1	815
	<39.6	20.8	<49.5	513	--	<49.5	<49.5	62.4	778
	15	4.2	<2	591	<4	--	23	47.7	359
	<57.1	41.4	<71.4	1,050	--	<71.4	<71.4	60	783
	<32.3	11.3	<40.3	225	--	<40.3	<40.3	66.9	779
	<31.7	36.5	<39.7	552	--	<39.7	<39.7	48.4	784
	<21.4	5.3	<26.7	75.9	--	<26.7	<26.7	27.8	776
	<28.2	3.5	<35.2	120	--	<35.2	<35.2	23.2	781
	<21.1	4.2	<26.3	106	--	<26.3	<26.3	32.1	782
	<14.2	1.8	<17.8	74.7	--	<17.8	<17.8	39.9	801
	<14.2	4.6	<17.8	99.6	--	<17.8	<17.8	22.1	802
	<15.9	2	<19.9	66.1	--	<19.9	<19.9	31.9	803
	<40.8	11.2	<51	168	--	<51	<51	50	777
	<45.5	18.2	<56.8	225	--	<56.8	<56.8	50	780
	<20.7	3.1	<25.9	110	--	<25.9	<25.9	35.8	800
	<22.3	9.5	<27.9	103	--	<27.9	<27.9	47.5	804
WP	<9	9.9	<3	22	<6	--	<1	59	1288

Table 36.—*Field and laboratory analyses of bird samples from the Winter Storage Pond near Vernal, Utah*

[g, gram; mm, millimeter; Organism: spp. species. Tissue: C3, composite sample, number of individuals; I, individual sample; Egg, net sample weight. Life stage: listed as days for embryos; I, immature; A, Adult. Sex: M, male; F, female. --, not determined; <, less than]

Organism	Tissue	Date	Moisture content (percent)	Life stage	Sex	Organism			Alum-inum
						Average weight (g)	Total weight (g)	Length (mm)	
American Avocet	Bird-Egg-I	06-13-89	73.1	1	--	--	25	--	<3
American Avocet	Bird-Egg-I	06-22-89	73.4	6	--	--	29	--	<3
American Coot	Bird-Egg-I	07-14-88	76	10	--	--	24	49.2	<41.7
American Coot	Bird-Egg-I	06-13-89	76	3	--	--	28	--	<3
American Coot	Bird-Egg-I	06-14-89	76.2	2	--	--	25	--	<3
American Coot	Bird-Egg-I	06-22-89	75.1	1	--	--	27	--	<3
Black-Necked Stilt	Bird-Egg-I	06-13-89	72.5	1	--	--	18	--	<3
Black-Necked Stilt	Bird-Egg-I	06-22-89	74.5	5	--	--	18	--	<3
Canada Goose	Bird-Egg-I	04-25-89	70.6	18	--	--	117	86.2	<15
Cinnamon Teal	Bird-Egg-I	07-14-88	66.3	--	--	--	22	46.4	<29.7
Cinnamon Teal	Bird-Egg-I	07-14-88	62.5	17	--	--	23	46.9	<26.7
Cinnamon Teal	Bird-Egg-I	07-21-88	68.9	16	--	--	20	43	<32.2
Cinnamon Teal	Bird-Egg-I	07-21-88	63.2	16	--	--	20	48.1	<27.2
Eared Grebe	Bird-Egg-I	06-22-89	78.6	1	--	--	17	--	<3
Eared Grebe	Bird-Egg-I	07-06-89	78.2	2	--	--	19	--	<3
Eared Grebe	Bird-Egg-I	07-06-89	77.2	3	--	--	17	--	<3
Eared Grebe	Bird-Egg-I	07-06-89	78.3	13	--	--	18	--	<3
Eared Grebe	Bird-Egg-I	07-06-89	78.4	13	--	--	18	--	<3
Gadwall	Bird-Egg-I	07-14-88	67.8	22	--	--	28	49.1	<30.1
Gadwall	Bird-Egg-I	07-21-88	62	--	--	--	32	51	<26.3
Gadwall	Bird-Egg-I	07-21-88	61.7	--	--	--	32	51.4	<26.1
Gadwall	Bird-Egg-I	06-13-89	69.5	7	--	--	36	--	<3
Gadwall	Bird-Egg-I	06-13-89	68.1	13	--	--	34	--	4
Gadwall	Bird-Egg-I	06-13-89	65.8	9	--	--	37	--	<3
Gadwall	Bird-Egg-I	06-13-89	68.3	5	--	--	39	--	<4
Gadwall	Bird-Egg-I	06-13-89	68.7	1	--	--	40	--	<3
Gadwall	Bird-Egg-I	06-14-89	68	1	--	--	41	--	<3
Gadwall	Bird-Egg-I	06-20-89	67.4	1	--	--	36	--	<3
Gadwall	Bird-Egg-I	06-22-89	69.2	6	--	--	39	--	<3
Gadwall	Bird-Egg-I	06-22-89	69.5	1	--	--	34	--	<3
Northern Harrier	Bird-Egg-I	05-24-89	82.9	19	--	--	28	48	<3
Aytha spp.	Bird-Egg-I	06-13-89	65.9	1	--	--	39	--	3
Yellow-Headed Blackbird	Bird-Egg-C3	06-13-89	83.4	2	--	4	--	--	<3
American Coot	Bird-Liver-I	11-29-88	73.8	I	--	--	511	--	<30
American Coot	Bird-Liver-I	11-29-88	74.8	I	--	--	422	--	<30
Goldeneye	Bird-Liver-I	11-29-88	73.3	I	F	--	961	--	<30
Ruddy Duck	Bird-Liver-I	11-29-88	71.9	I	F	--	464	--	<30
Scaup	Bird-Liver-I	11-29-88	71	A	M	--	876	--	<30
American Coot	Bird-Muscle-I	11-29-88	70.2	I	--	--	511	--	<30
American Coot	Bird-Muscle-I	11-30-88	78.2	I	--	--	422	--	<30
Goldeneye	Bird-Muscle-I	11-29-88	71.8	I	F	--	961	--	<30
Ruddy Duck	Bird-Muscle-I	11-29-88	71	I	F	--	464	--	<30
Scaup	Bird-Muscle-I	11-29-88	71.5	A	M	--	876	--	<30

Table 36.—*Field and laboratory analyses of bird samples from the Winter Storage Pond near Vernal, Utah*—Continued

Organism	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Chromium	Cobalt	Copper	Iron	Lead	Sample number
American Avocet	--	<0.1	0.82	<0.1	<2	<0.3	<1	--	1.9	108	<4	1135
American Avocet	--	<0.1	1.9	<0.1	<2	<0.3	<1	--	2.5	138	<4	1134
American Coot	<0.105	<0.021	<20.8	<2.1	<20.8	<2.1	<4.2	--	<10.4	83.3	<42	833
American Coot	--	<0.1	0.31	<0.1	4	<0.2	<1	--	2.2	98	<4	1139
American Coot	--	<0.1	0.2	<0.1	4	<0.3	<1	--	2.8	105	<4	1140
American Coot	--	<0.1	0.31	<0.1	4	<0.2	<1	--	3	147	<4	1141
Black-Necked Stilt	--	<0.1	1.4	<0.1	2	<0.3	<1	--	2.8	131	<4	1137
Black-Necked Stilt	--	<0.1	1.4	<0.1	3	<0.3	<1	--	3	117	<4	1138
Canada Goose	<30	<0.3	1.07	<0.100	6.76	<0.400	<2	<3	3.20	94.3	<6	62
Cinnamon Teal	<0.074	<0.015	<14.8	<1.48	<14.8	<1.48	<2.97	--	<7.42	110	<29.7	683
Cinnamon Teal	<0.067	<0.014	<13.3	<1.3	<13.3	<1.3	<4	--	<6.7	53.3	<26.7	835
Cinnamon Teal	<0.080	<0.016	<16.1	<1.61	<16.1	<1.61	<3.22	--	<8.04	254	<32.2	684
Cinnamon Teal	<0.068	<0.014	<13.6	<1.36	<13.6	<1.36	<2.72	--	<6.79	177	<27.2	685
Eared Grebe	--	<0.1	0.2	<0.1	2	<0.3	<1	--	3.7	129	<4	1144
Eared Grebe	--	<0.1	0.2	<0.1	2	<0.3	<1	--	3.6	144	<4	1145
Eared Grebe	--	<0.1	0.2	<0.1	3	<0.3	<1	--	3.9	152	<4	1146
Eared Grebe	--	<0.1	0.34	<0.1	3	<0.3	<1	--	3	158	<4	1142
Eared Grebe	--	<0.1	0.2	<0.1	3	<0.3	<1	--	3.1	130	<4	1143
Gadwall	<0.076	0.081	<15.1	<1.5	<15.7	<1.5	47.6	--	196	331	<30.1	834
Gadwall	<0.066	<0.013	<13.2	<1.32	<13.2	<1.32	<2.63	--	8.68	139	<26.3	686
Gadwall	<0.065	<0.013	<13.1	<1.31	<13.1	<1.31	<2.61	--	<6.53	136	<26.1	687
Gadwall	--	<0.1	6.3	<0.1	4	<0.3	<1	--	2.2	147	<4	1147
Gadwall	--	<0.1	4.5	<0.1	2	<0.2	<1	--	3.3	128	<4	1148
Gadwall	--	<0.1	1.9	<0.1	<2	<0.2	<1	--	3.2	108	<4	1149
Gadwall	--	<0.1	3.7	<0.1	<2	<0.2	<1	--	3.9	117	<4	1150
Gadwall	--	<0.1	3.4	<0.1	<2	<0.2	<1	--	3	131	<4	1151
Gadwall	--	<0.1	2.1	<0.1	<2	<0.2	<1	--	3.4	112	<4	1152
Gadwall	--	<0.1	3.2	<0.1	<2	<0.2	<1	--	2.5	95	<4	1153
Gadwall	--	<0.1	4.5	<0.1	<2	<0.2	<1	--	2.9	137	<4	1154
Gadwall	--	<0.1	2.4	<0.1	<2	<0.2	<1	--	2.8	93	<4	1155
Northern Harrier	--	<0.1	0.58	<0.4	<4	<0.5	<3	--	9.1	93	<4	1282
Aytha spp.	--	<0.1	2.7	<0.1	<2	<0.2	<1	--	3.1	118	<4	1156
Yellow-Headed Blackbird	--	<0.1	0.65	<0.1	2	<0.3	<1	--	1.5	164	<4	1136
American Coot	<30	<0.37	<1	<0.20	<3	<0.50	<1.5	<3	17.9	922	<7.5	346
American Coot	<30	1.43	<1	<0.20	13.4	0.577	<1.5	<3	34.4	5,710	18.3	347
Goldeneye	<30	<0.37	<1	<0.20	5.52	2.48	<1.5	<3	36.3	4,090	<7.5	350
Ruddy Duck	<30	<0.37	<1	<0.20	6.08	<0.50	<1.5	<3	24.3	2,180	<7.5	349
Scaup	<30	<0.37	<1	<0.20	3.41	0.940	<1.5	<3	176	2,000	<7.5	348
American Coot	<30	<0.37	<1	<0.20	<3	<0.50	<1.5	<3	32.1	326	<7.5	321
American Coot	<30	0.556	<1	<0.20	8.49	<0.50	1.58	<3	136	460	<7.5	322
Goldeneye	<30	<0.37	<1	<0.20	<3	<0.50	<1.5	<3	54.6	322	<7.5	320
Ruddy Duck	<30	<0.37	<1	<0.20	3.47	<0.50	<1.5	<3	53.6	393	<7.5	324
Scaup	<30	<0.37	<1	<0.20	<3	<0.50	<1.5	<3	32.7	292	<7.5	323

Table 36.—*Field and laboratory analyses of bird samples from the Winter Storage Pond near Vernal, Utah*—Continued

Organism	Tissue	Date	Magnesium	Manganese	Mercury	Molybdenum
American Avocet	Bird-Egg-I	06-13-89	372	2	0.27	<1
American Avocet	Bird-Egg-I	06-22-89	342	2.1	0.069	<1
American Coot	Bird-Egg-I	07-14-88	<500	<6.2	0.525	<12.5
American Coot	Bird-Egg-I	06-13-89	442	2.5	0.27	<1
American Coot	Bird-Egg-I	06-14-89	520	1.5	0.43	<1
American Coot	Bird-Egg-I	06-22-89	430	0.8	0.17	<1
Black-Necked Stilt	Bird-Egg-I	06-13-89	367	0.98	0.25	<1
Black-Necked Stilt	Bird-Egg-I	06-22-89	411	1.3	0.785	<1
Canada Goose	Bird-Egg-I	04-25-89	432	1.08	<0.02	<5
Cinnamon Teal	Bird-Egg-I	07-14-88	326	<4.45	0.632	<14.8
Cinnamon Teal	Bird-Egg-I	07-14-88	267	4.5	0.219	<8
Cinnamon Teal	Bird-Egg-I	07-21-88	<322	<4.82	0.534	<16.1
Cinnamon Teal	Bird-Egg-I	07-21-88	435	<4.08	0.481	<13.6
Eared Grebe	Bird-Egg-I	06-22-89	443	4.1	0.38	<1
Eared Grebe	Bird-Egg-I	07-06-89	557	4.2	0.26	<1
Eared Grebe	Bird-Egg-I	07-06-89	482	4.2	0.38	<1
Eared Grebe	Bird-Egg-I	07-06-89	345	2.7	0.3	<1
Eared Grebe	Bird-Egg-I	07-06-89	362	2.6	0.28	<1
Gadwall	Bird-Egg-I	07-14-88	482	4.5	0.755	<9
Gadwall	Bird-Egg-I	07-21-88	342	<3.95	0.353	<13.2
Gadwall	Bird-Egg-I	07-21-88	366	<3.92	0.298	<13.1
Gadwall	Bird-Egg-I	06-13-89	423	9.1	0.21	<1
Gadwall	Bird-Egg-I	06-13-89	441	1.2	0.39	<1
Gadwall	Bird-Egg-I	06-13-89	315	1.1	0.628	<1
Gadwall	Bird-Egg-I	06-13-89	421	1.5	0.33	<1
Gadwall	Bird-Egg-I	06-13-89	350	1.6	0.647	<1
Gadwall	Bird-Egg-I	06-14-89	374	0.6	1.05	<1
Gadwall	Bird-Egg-I	06-20-89	232	1.1	0.798	<1
Gadwall	Bird-Egg-I	06-22-89	353	3	0.654	<1
Gadwall	Bird-Egg-I	06-22-89	340	1.1	1.01	<1
Northern Harrier	Bird-Egg-I	05-24-89	700	<0.9	0.13	<1
Aytha spp.	Bird-Egg-I	06-13-89	334	1.2	0.35	<1
Yellow-Headed Blackbird	Bird-Egg-C3	06-13-89	315	3.1	0.13	<1
American Coot	Bird-Liver-I	11-29-88	791	14.8	0.281	<5
American Coot	Bird-Liver-I	11-29-88	881	26.1	0.335	<5
Goldeneye	Bird-Liver-I	11-29-88	701	12.8	1.11	<5
Ruddy Duck	Bird-Liver-I	11-29-88	634	11.1	0.0824	<5
Scaup	Bird-Liver-I	11-29-88	718	11.6	0.185	5.17
American Coot	Bird-Muscle-I	11-29-88	1,090	2.40	0.0416	<5
American Coot	Bird-Muscle-I	11-30-88	1,140	2.46	0.0514	<5
Goldeneye	Bird-Muscle-I	11-29-88	1,160	2.53	0.508	<5
Ruddy Duck	Bird-Muscle-I	11-29-88	1,100	3.53	0.0811	<5
Scaup	Bird-Muscle-I	11-29-88	1,090	1.94	0.0622	<5

Table 36.—*Field and laboratory analyses of bird samples from the Winter Storage Pond near Vernal, Utah*—Continued

Organism	Nickel	Selenium	Silver	Strontium	Thallium	Tin	Vanadium	Zinc	Sample number
American Avocet	<1	11	<2	9.67	<4	--	<0.3	43.3	1135
American Avocet	<1	18	<2	<4	<4	9.9	<0.3	44.7	1134
American Coot	<16.7	41.7	<20.8	14.6	--	<20.8	<20.8	61.2	833
American Coot	<1	33	<2	10	<5	--	<0.3	49	1139
American Coot	<1	30.8	<2	10.2	<4	--	<0.3	55.8	1140
American Coot	<1	20	<2	18	<5	--	<0.3	53.6	1141
Black-Necked Stilt	<2	25.4	<2	12.2	<4	--	<0.3	52	1137
Black-Necked Stilt	<1	43	<2	16.9	<4	--	<0.3	38.9	1138
Canada Goose	<2.50	4.52	<9	<10	--	<30	<1	55	62
Cinnamon Teal	<11.9	29.7	<14.8	12.8	--	<14.8	<14.8	55.5	683
Cinnamon Teal	<10.7	42.7	<13.3	13.1	--	13.6	<13.3	61.3	835
Cinnamon Teal	<12.9	29.3	<16.1	25.7	--	59.8	<16.1	70.1	684
Cinnamon Teal	<10.9	51.6	<13.6	23.4	--	24.5	<13.6	68.2	685
Eared Grebe	<1	59	<2	9.3	<4	--	<0.3	56.8	1144
Eared Grebe	<1	69.2	<2	11.5	<4	--	<0.3	54.3	1145
Eared Grebe	<1	54.3	<2	9	<4	--	<0.3	48.5	1146
Eared Grebe	<1	52	<2	7.9	<4	--	<0.3	47.7	1142
Eared Grebe	<1	71	<2	9.1	<4	--	<0.3	51.1	1143
Gadwall	60.2	15.2	<15.1	21.4	--	<15.1	<15.1	176	834
Gadwall	<10.5	13.9	<13.2	10.8	--	<13.2	<13.2	62.6	686
Gadwall	<10.4	12.8	<13.1	12	--	13.1	<13.1	66.6	687
Gadwall	<1	4.1	<2	11.9	<4	--	<0.3	63.2	1147
Gadwall	<1	7.9	<2	16.3	<4	--	<0.3	57.9	1148
Gadwall	<1	12	<2	9.2	<4	--	<0.3	53.7	1149
Gadwall	<1	5.1	<2	10.9	<4	--	<0.3	55.9	1150
Gadwall	<1	4.9	<2	11.6	<4	--	<0.3	60.6	1151
Gadwall	<1	9.9	<2	10.8	<4	--	<0.3	79.8	1152
Gadwall	<1	12	<2	9.6	<4	--	<0.3	45.3	1153
Gadwall	<1	5.3	<2	12.4	<4	--	<0.3	61.6	1154
Gadwall	<1	4.7	<2	14.6	<4	--	<0.3	56.4	1155
Northern Harrier	<5	5.2	<2	3.9	<4	--	<0.9	53	1282
Aytha spp.	<1	29.5	<2	12	<4	--	<0.3	54.5	1156
Yellow-Headed Blackbird	<1	12	<2	10.9	<4	--	<0.3	54.5	1136
American Coot	<2	45.3	<10	1.70	--	<30	<2.6	175	346
American Coot	<2	31.7	<10	1.60	--	<30	<2.6	435	347
Goldeneye	2.49	50.3	<10	<1	--	<30	<2.6	93.8	350
Ruddy Duck	<2	43.3	<10	<1	--	<30	<2.6	82.1	349
Scaup	<2	30.8	<10	<1	--	<30	<2.6	137	348
American Coot	<2	27.2	<10	<1	--	<30	<2.6	52.4	321
American Coot	<2	9.63	<10	<1	--	<30	<2.6	113	322
Goldeneye	<2	20.3	<10	<1	--	<30	<2.6	62.1	320
Ruddy Duck	<2	16.7	<10	<1	--	<30	<2.6	52.2	324
Scaup	<2	13.3	<10	<1	--	<30	<2.6	39.2	323

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Table 37.—*Field and laboratory analyses of biological samples*

[g, gram; mm, millimeter; Organism: spp. species; --, not determined;

Organism	Tissue	Date	Moisture content (percent)	Life stage	Sex	Organism data		
						Average weight (g)	Total weight (g)	Length (mm)
Black Bullhead	Fish-Whole Body-I	07-26-89	81.8	--	--	--	897	362
Invertebrates-Mixed	Invertebrate-Whole Body-C	05-04-89	94.8	--	--	--	114	--
Invertebrates-Mixed	Invertebrate-Whole Body-C	06-08-89	89.5	--	--	--	160	--
Invertebrates-Mixed	Invertebrate-Whole Body-C	07-12-89	82.7	--	--	--	42	--
Chara spp.	Plant-without Root-C	09-20-88	79.6	--	--	--	54	--
Chara spp.	Plant-without Root-C	08-02-89	80.2	--	--	--	103	--
Chara spp.	Plant-without Root-C	08-02-89	77.4	--	--	--	46	--
Chara spp.	Plant-without Root-C	08-02-89	85.3	--	--	--	76	--
Myriophyllum spp.	Plant-without Root-C	08-02-89	85.5	--	--	--	51	--
Myriophyllum spp.	Plant-without Root-C	08-02-89	88.1	--	--	--	97	--
Myriophyllum spp.	Plant-without Root-C	08-02-89	91.1	--	--	--	102	--
Potamogeton spp.	Plant-without Root-C	05-03-89	89.8	--	--	--	211	--
Potamogeton spp.	Plant-without Root-C	08-02-89	88.6	--	--	--	86	--
Potamogeton spp.	Plant-without Root-C	08-02-89	86.3	--	--	--	160	--
Potamogeton spp.	Plant-without Root-C	08-02-89	87.1	--	--	--	81	--
Potamogeton vaginatus	Plant-without Root-C	11-30-88	89.2	--	--	--	67	--
Typha spp.	Plant-Root and Stem-C	11-30-88	81.6	--	--	--	523	--

Organism	Tissue	Date	Magnesium	Manganese	Mercury	Molybdenum
Black Bullhead	Fish-Whole Body-I	07-26-89	1,370	12.6	0.308	<2.75
Invertebrates-Mixed	Invertebrate-Whole Body-C	05-04-89	4,660	68.3	0.111	<5
Invertebrates-Mixed	Invertebrate-Whole Body-C	06-08-89	3,340	68.1	0.0985	<5
Invertebrates-Mixed	Invertebrate-Whole Body-C	07-12-89	2,040	44.5	0.234	<5
Chara spp.	Plant-without Root-C	09-20-88	7,830	921	<0.005	<1
Chara spp.	Plant-without Root-C	08-02-89	7,980	3,710	<0.126	<2.53
Chara spp.	Plant-without Root-C	08-02-89	6,200	1,110	<0.111	<2.12
Chara spp.	Plant-without Root-C	08-02-89	7,350	277	<0.17	<3.4
Myriophyllum spp.	Plant-without Root-C	08-02-89	12,900	7,660	<0.172	4.41
Myriophyllum spp.	Plant-without Root-C	08-02-89	10,800	1,900	<0.21	<4.2
Myriophyllum spp.	Plant-without Root-C	08-02-89	9,810	992	<0.281	<5.62
Potamogeton spp.	Plant-without Root-C	05-03-89	8,880	1,980	—	<10
Potamogeton spp.	Plant-without Root-C	08-02-89	14,300	2,720	<0.219	<4.39
Potamogeton spp.	Plant-without Root-C	08-02-89	13,200	1,680	<0.182	<3.65
Potamogeton spp.	Plant-without Root-C	08-02-89	12,800	598	0.31	<3.88
Potamogeton vaginatus	Plant-without Root-C	11-30-88	13,400	1,720	0.027	2
Typha spp.	Plant-Root and Stem-C	11-30-88	4,650	707	0.007	<1

from the Winter Storage Pond near Vernal, Utah

Tissue: C, composite sample; I, individual sample;
<, less than]

Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Chromium	Cobalt	Copper	Iron	Lead	Sample number
12.3	<5.49	<0.55	<2.75	<0.27	9.62	<0.27	1.32	--	3.24	248	<1.65	1366
164	<20	<3.06	3.57	<0.200	59.4	<0.800	<3	3.65	11.8	460	<6	138
272	<20	1.97	4.73	<0.200	44.3	1.33	<3	<3	14.1	545	<6	144
119	<20	0.634	1.69	<0.200	27.2	<0.800	<3	<3	12.2	225	<6	145
1,460	--	3.9	69.5	<0.1	14	<0.3	3	--	<2	2,520	4	394
1,150	<5.05	6.6	28.5	<0.25	80.8	<0.25	2.12	--	1.57	1,270	<1.52	1292
966	<4.24	4.9	25.7	<0.21	88.2	0.72	1.82	--	1.61	783	<1.27	1295
34	<6.8	6.8	21.6	<0.34	90.8	<0.34	<0.68	--	<1.7	98	<2.04	1298
543	<6.9	4.1	15.8	<0.34	122	<0.34	1.86	--	2.69	920	<2.07	1293
1,260	<8.4	2.5	27.7	<0.42	101	<0.42	2.18	--	3.11	1,390	<2.52	1296
88.8	<11.2	2.2	17.4	<0.56	103	<0.56	<1.12	--	<2.81	290	<3.37	1299
1,190	<50	--	17.6	<0.300	2,940	<1	<3	6.84	11.8	2,460	<15	119
815	<8.77	4.4	11.8	<0.44	1,750	<0.44	2.28	--	3.77	1,320	<2.63	1294
177	<7.3	2.2	6.86	<0.36	1,520	<0.36	0.95	--	2.92	330	<2.19	1297
135	<7.75	3.1	7.44	<0.39	1,550	<0.39	<0.78	--	<1.94	378	<2.33	1300
2,160	--	3.1	27.3	<0.1	1,070	<0.3	3	--	7.6	1,650	<4	380
1,860	--	2.8	28.1	<0.1	17	<0.3	5.7	--	4	2,400	<4	393

Nickel	Selenium	Silver	Strontium	Thallium	Tin	Vanadium	Zinc	Sample number
<2.2	17.6	<2.75	47.3	<11	15.7	<2.75	68.5	1366
<2.50	41.8	<10	217	--	<25	1.34	84.3	138
3.17	42	<10	113	--	<25	1.01	105	144
<2.50	36.7	<10	34.4	--	<25	<1	192	145
4	13	<2	1,590	<4	--	7.3	13	394
2.78	5.1	<2.53	2,320	<10.1	<2.53	6.16	10.4	1292
2.5	4.9	<2.12	2,280	<8.47	<2.12	4.03	13.6	1295
<2.72	6.8	<3.4	1,810	<13.6	<3.4	<3.4	13.8	1298
4.34	9	<3.45	669	<13.8	<3.45	6.62	32.2	1293
<3.36	4.2	<4.2	773	<16.8	<4.2	6.13	26.1	1296
<4.49	2.2	<5.62	529	<22.5	<5.62	<5.62	22.5	1299
16.5	30.4	<15	366	--	<50	5.66	21.9	119
4.74	5.3	<4.39	255	<17.5	<4.39	4.65	29.6	1294
<2.92	4.4	<3.65	32	<14.6	<5.99	<3.65	28.8	1297
<3.1	3.9	<3.88	379	<15.5	<3.88	<3.88	25.1	1300
6	16	<2	389	<4	--	8.2	19	380
5	8.4	<2	62	<4	--	6.8	31	393

Table 38.--*Field and laboratory analyses of biological samples from areas near the discharge of drains at Stewart Lake*

[g, gram; mm, millimeter; Organism: spp. species. Tissue: C3, composite sample, number of individuals; I, individual sample. --, not determined; <, less than]

Site name: See tables 3 and 4 for full site name.

Site name	Organism	Tissue	Date	Moisture content (percent)	Life stage	Sex	Organism data: Average weight (g)	Organism data: Total weight (g)	Organism data: Length (mm)
J1/J1A	Filamentous Green Algae	Plant-without Root-C	04-20-88	89.3	--	--	--	28	--
	Filamentous Green Algae	Plant-without Root-C	05-11-88	92.2	--	--	--	64	--
	Filamentous Green Algae	Plant-without Root-C	08-10-88	81.3	--	--	--	54	--
	Filamentous Green Algae	Plant-without Root-C	07-19-89	78.3	--	--	--	72	--
	Zannichellia palustris	Plant-without Root-C	05-11-88	94.7	--	--	--	50	--
	Zannichellia palustris	Plant-without Root-C	08-10-88	92.9	--	--	--	59	--
	Zannichellia palustris	Plant-without Root-C	07-19-89	87.4	--	--	--	69	--
	Scirpus acutus	Plant-Root and Stem-C	05-11-88	85.9	--	--	--	458	--
	Scirpus acutus	Plant-Root and Stem-C	08-10-88	84	--	--	--	243	--
	Scirpus acutus	Plant-Root and Stem-C	07-19-89	86.4	--	--	--	236	--
	Typha spp.	Plant-Root and Stem-C	04-20-88	87	--	--	--	245	--
	Typha spp.	Plant-Root and Stem-C	05-11-88	90.1	--	--	--	440	--
	Typha spp.	Plant-Root and Stem-C	08-10-88	85.7	--	--	--	748	--
	Typha spp.	Plant-Root and Stem-C	07-19-89	90.9	--	--	--	681	--
	Asparagus officinalis	Plant-without Root-C	05-11-88	90.4	--	--	--	102	--
J3	Invertebrates-Hemiptera	Invertebrate-Whole Body-C	07-12-89	58.7	--	--	--	5	--
	Filamentous Green Algae	Plant-without Root-C	06-16-88	89.3	--	--	--	32	--
	Filamentous Green Algae	Plant-without Root-C	08-09-88	74.4	--	--	--	42	--
	Ruppia maritima	Plant-without Root-C	04-20-88	91	--	--	--	41	--
	Ruppia maritima	Plant-without Root-C	08-09-88	91.7	--	--	--	101	--
	Ruppia maritima	Plant-without Root-C	11-10-88	84.1	--	--	--	29	--
	Ruppia maritima	Plant-Root and Stem-C	07-19-89	88.6	--	--	--	39	--
	Zannichellia palustris	Plant-without Root-C	11-10-88	92	--	--	--	23	--
	Scirpus acutus	Plant-Root and Stem-C	06-16-88	82.9	--	--	--	484	--
	Scirpus acutus	Plant-Root and Stem-C	08-09-88	83.6	--	--	--	316	--
	Scripus acutus	Plant-Whole-C	07-19-89	86.5	--	--	--	279	--
	Typha spp.	Plant-Root and Stem-C	04-20-88	86.5	--	--	--	680	--
	Typha spp.	Plant-Root and Stem-C	05-11-88	89.3	--	--	--	1,036	--
	Typha spp.	Plant-Root and Stem-C	08-09-88	87.9	--	--	--	850	--
	Typha spp.	Plant-Root and Stem-C	07-26-89	87.4	--	--	--	195	--
	Typha spp.	Plant-Root and Stem-C	07-26-89	84.4	--	--	--	151	--
	Typha spp.	Plant-Root and Stem-C	07-26-89	81.7	--	--	--	458	--
	Typha spp.	Plant-Root and Stem-C	07-26-89	84.2	--	--	--	311	--
J4	Scirpus acutus	Plant-Seed/Chaff-C	09-08-88	20.5	--	--	--	15	--
	Typha spp.	Plant-Seed-C	09-08-88	51	--	--	--	15	--
	Filamentous Green Algae	Plant-without Root-C	05-11-88	90.8	--	--	--	65	--
	Filamentous Green Algae	Plant-without Root-C	07-11-88	66.1	--	--	--	64	--
	Filamentous Green Algae	Plant-without Root-C	08-10-88	78.8	--	--	--	48	--
	Filamentous Green Algae	Plant-without Root-C	09-21-88	80.7	--	--	--	98	--
	Lemna spp.	Plant-without Root-C	05-11-88	94.2	--	--	--	100	--
	Lemna spp.	Plant-without Root-C	07-11-88	93.8	--	--	--	120	--
	Lemna spp.	Plant-without Root-C	08-10-88	93.6	--	--	--	94	--
	Lemna spp.	Plant-without Root-C	09-21-88	93.2	--	--	--	88	--
	Zannichellia palustris	Plant-without Root-C	05-11-88	90.9	--	--	--	28	--
	Zannichellia palustris	Plant-without Root-C	07-11-88	93.9	--	--	--	48	--
	Zannichellia palustris	Plant-without Root-C	08-10-88	92.6	--	--	--	61	--
	Zannichellia palustris	Plant-without Root-C	09-21-88	92.9	--	--	--	64	--
	Typha spp.	Plant-Whole Body-C	05-11-88	86.6	--	--	--	730	--
	Typha spp.	Plant-Root and Stem-C	07-11-88	87.9	--	--	--	380	--
	Typha spp.	Plant-Root and Stem-C	08-10-88	86.4	--	--	--	1,031	--
	Typha spp.	Plant-Root and Stem-C	09-21-88	84.2	--	--	--	430	--
J3/J4	Typha spp	Plant-Root and Stem-C	07-26-89	90.3	--	--	--	204	--
	Typha spp.	Plant-Root and Stem-C	07-26-89	86.5	--	--	--	107	--
	Common Carp	Fish-Whole Body-C3	08-08-88	80.1	--	--	363	--	304

Table 38.--*Field and laboratory analyses of biological samples from areas near the discharge of drains at Stewart Lake*--Continued

Site name	Alum-inum	Anti-mony	Arse-nic	Barium	Beryl-lium	Boron	Cadm-ium	Chrom-ium	Cobalt	Copper	Iron	Lead	Sample number
J1/J1A	4,640	--	3.7	118	0.43	5	1.3	12	--	12	6,430	<4	556
	449	<0.321	9.55	<64.1	<6.41	<64.1	<6.41	<12.8	--	<32.1	1,180	<128	756
	1,490	0.647	10.6	125	<2.67	33.7	<2.67	<5.35	--	24.6	2,410	<53.5	795
	490	<50	--	14.7	<0.300	21.3	<1	<3	<4	9.97	2,620	<15	123
	2,570	<0.472	20.8	<94.3	<9.43	<94.3	<9.43	<18.9	--	<47.2	7,300	<189	757
	1,140	<0.352	2.79	<70.4	<7.04	<70.4	<7.04	<14.1	--	100	2,240	<141	793
	3,010	<50	--	63.5	<0.300	142	<1	<3	<4	18.8	5,800	<15	126
	348	<0.177	0.674	<35.5	<3.55	<35.5	<3.55	<7.09	--	<17.7	1,360	<70.9	759
	100	<0.156	0.675	<31.3	<3.13	<31.3	<3.13	<6.25	--	40	944	<62.5	794
	582	<50	--	12.9	<0.300	16.4	<1	<3	<4	6.76	1,500	<15	124
	2,890	--	1.4	19	0.2	23	<0.3	4.1	--	7.3	2,450	<4	547
	475	<0.253	0.606	<50.5	<5.05	<50.5	<5.05	<10.1	--	<25.2	1,390	101	758
	182	<0.175	0.462	<35	<3.50	<35	<3.50	<6.99	--	23.1	1,340	<69.9	792
	2,360	<50	--	50	<0.300	24.9	2.53	5.77	<4	28.4	4,950	<15	125
	8	--	<0.2	0.1	<0.1	16	<0.3	<1	--	13	53	<4	557
J3	1,270	<20	0.789	22.4	<0.200	15	<0.80	<3	<3	12.2	1,630	<6	146
	3,400	0.860	15	136	<4.67	<46.7	<4.67	13.1	--	<23.4	10,200	<93.5	775
	1,550	0.352	5.160	50.4	<1.95	<19.5	<1.95	4.69	--	23.8	3,390	<39.1	788
	4,550	--	3.4	45.6	0.39	228	0.6	7	--	10	4,560	<4	554
	133	0.494	1.870	60.2	<6.02	220	<6.02	<12	--	<30.1	1,300	<120	789
	724	--	3.3	18	<0.1	326	<0.2	1	--	4.8	907	<4	403
	442	<50	--	34	<0.300	323	1.21	<3	<4	8.03	2,810	<15	128
	1,630	--	1.5	18.7	<0.1	38	5.1	3.2	--	35.1	1,720	<5	404
	339	<0.146	0.556	<29.2	<2.92	<29.2	<2.92	<5.85	--	<14.6	1,050	<58.5	774
			0.780										787
	714	<50	--	7.37	<0.300	17.6	<1	<3	<4	6.15	898	<15	127
	3,790	--	0.89	32.7	0.31	27	<0.3	17	--	5.1	2,780	<4	551
	1,130	<0.234	4.11	<46.7	<4.67	<46.7	<4.67	10.3	--	<23.4	4,550	<93.5	773
	107	0.215	0.744	<41.3	<4.13	<41.3	<4.13	<8.26	--	35.5	1,020	<82.6	786
	113	<7.94	<0.79	<3.97	<0.40	13.9	<0.4	<0.79	--	6.83	415	<2.38	1326
	201	<6.41	<0.64	13	<0.32	17	<0.32	1.28	--	9.94	296	<1.92	1327
	415	<5.46	<0.55	7.1	<0.27	17.2	0.27	0.98	--	5.79	820	<1.64	1329
	187	<6.33	<0.63	6.01	<0.32	15.3	0.38	<0.63	--	15.1	396	<1.9	1330
J4	<12.6	<0.031	0.093	12.3	<0.63	554	<0.63	<1.26	--	5.66	83	<12.6	817
	<20.4	<0.051	0.069	<10.2	<1.02	28.6	<1.02	<2.04	--	7.14	69.4	<20.4	821
	1,980	0.283	9.13	82.6	<5.43	<54.3	<5.43	<10.9	--	<27.2	5,270	<109	763
	1,120	0.177	2.40	43.4	<1.47	<14.7	<1.47	2.95	--	<7.37	3,220	<29.5	767
	1,740	0.396	11.2	52.4	<2.36	59.9	<2.36	6.13	--	15.1	3,270	<47.2	797
	2,140	--	2.9	44.2	<0.1	58	1.3	3	--	8.9	2,340	<4	358
	1,190	<0.431	2.33	<86.2	<8.62	341	<8.62	<17.2	--	<43.1	2,330	<172	760
	<161	<0.403	2.02	<80.6	<8.06	689	<8.06	<16.1	--	<40.3	677	<161	764
	<156	<0.391	1.06	<78.1	<7.81	725	<7.81	<15.6	--	<39.1	406	<156	796
	328	--	1	19.6	<0.1	857	<0.2	<1	--	3.4	347	<4	405
	637	<0.275	3.96	<54.9	<5.49	<54.9	<5.49	<11	--	<27.5	3,230	<110	761
	377	<0.410	2.46	<82	<8.20	<82	<8.20	<16.4	--	<41	2,610	<164	765
	1,040	<0.338	2.23	<67.6	<6.76	<67.6	<6.76	<13.5	--	<33.8	2,280	<135	798
	5,560	--	2.9	45.6	0.2	38	1	6.8	--	19	5,770	5	406
	1,310	<0.187	1.57	<37.3	<3.73	<37.3	<3.73	<7.46	--	34.3	2,860	<74.6	762
	595	<0.207	6.40	<41.3	<4.13	<41.3	<4.13	<8.26	--	112	1,320	<82.6	766
	897	0.213	1.99	<36.8	<3.68	<36.8	<3.68	<7.35	--	27.2	2,220	<73.5	799
	1,230	--	0.69	14.3	<0.1	9.3	<0.3	3	--	6	1,610	<4	381
J3/J4	471	<10.3	<1	8.56	<0.52	21.8	<0.52	1.55	--	5.05	2,090	<3.09	1325
	304	<7.41	<0.74	5.11	<0.37	17.3	<0.37	0.74	--	56.4	792	<2.22	1328
	50.3	<0.126	<0.026	<25.1	<2.51	<25.1	<2.51	<5.03	--	<12.6	392	<50.3	822

Table 38.--*Field and laboratory analyses of biological samples from areas near the discharge of drains at Stewart Lake*--Continued

Site name	Organism	Tissue	Date	Magnesium	Manganese	Mercury	Molybdenum	Nickel
J1/J1A	Filamentous Green Algae	Plant-without Root-C	04-20-88	4,900	260	0.019	<1	7.9
	Filamentous Green Algae	Plant-without Root-C	05-11-88	4,620	129	<0.321	<64.1	<51.3
	Filamentous Green Algae	Plant-without Root-C	08-10-88	5,880	425	0.139	<26.7	<21.4
	Filamentous Green Algae	Plant-without Root-C	07-19-89	2,340	184	--	<10	5.35
	Zannichellia palustris	Plant-without Root-C	05-11-88	5,850	1,140	<0.472	<94.3	<75.5
	Zannichellia palustris	Plant-without Root-C	08-10-88	4,370	4,220	<0.353	<70.4	<56.3
	Zannichellia palustris	Plant-without Root-C	07-19-89	6,220	842	--	<10	10.9
	Scirpus acutus	Plant-Root and Stem-C	05-11-88	2,270	500	<0.178	<35.5	<35.5
	Scirpus acutus	Plant-Root and Stem-C	08-10-88	1,560	356	<0.157	<31.3	<25
	Scirpus acutus	Plant-Root and Stem-C	07-19-89	3,630	146	--	<10	<4.50
	Typha spp.	Plant-Root and Stem-C	04-20-88	4,930	143	0.018	<1	3
	Typha spp.	Plant-Root and Stem-C	05-11-88	3,130	129	<0.253	<50.5	<40.4
	Typha spp.	Plant-Root and Stem-C	08-10-88	2,800	158	<0.175	<35	<28
	Typha spp.	Plant-Root and Stem-C	07-19-89	4,870	996	--	<10	9.71
	Asparagus officinalis	Plant-without Root-C	05-11-88	2,170	14	0.006	<1	4
J3	Invertebrates-Hemiptera	Invertebrate-Whole Body-C	07-12-89	3,380	393	0.0572	<5	4.54
	Filamentous Green Algae	Plant-without Root-C	06-16-88	9,530	2,820	<0.234	<46.7	<37.4
	Filamentous Green Algae	Plant-without Root-C	08-09-88	4,140	5,280	<0.098	<19.5	<15.6
	Ruppia maritima	Plant-without Root-C	04-20-88	9,150	4,320	0.017	2	17
	Ruppia maritima	Plant-without Root-C	08-09-88	5,540	5,430	<0.302	<60.2	<48.2
	Ruppia maritima	Plant-without Root-C	11-10-88	7,020	2,650	0.007	<1	16
	Ruppia maritima	Plant-Root and Stem-C	07-19-89	7,760	7,750	--	<10	15.8
	Zannichellia palustris	Plant-without Root-C	11-10-88	3,850	3,910	0.024	6	28
	Scirpus acutus	Plant-Root and Stem-C	06-16-88	1,400	541	0.199	<29.2	<23.4
	Scirpus acutus	Plant-Root and Stem-C	08-09-88			<0.153		
	Scripus acutus	Plant-Whole-C	07-19-89	1,980	919	--	<10	6.98
	Typha spp.	Plant-Root and Stem-C	04-20-88	4,850	339	0.017	<1	11
	Typha spp.	Plant-Root and Stem-C	05-11-88	3,640	463	<0.234	<46.7	<37.4
	Typha spp.	Plant-Root and Stem-C	08-09-88	3,800	1,940	<0.207	<41.3	<33.1
	Typha spp.	Plant-Root and Stem-C	07-26-89	2,630	305	0.254	<3.97	<3.17
	Typha spp.	Plant-Root and Stem-C	07-26-89	2,820	5,770	<0.160	5.58	18.1
	Typha spp.	Plant-Root and Stem-C	07-26-89	2,760	699	<0.137	6.07	8.2
	Typha spp.	Plant-Root and Stem-C	07-26-89	2,550	2,110	<0.158	<3.16	13.5
J4	Scirpus acutus	Plant-Seed/Chaff-C	09-08-88	1,500	1,360	0.035	<6.29	<5.03
	Typha spp.	Plant-Seed-C	09-08-88	3,180	264	<0.052	<10.2	<8.16
	Filamentous Green Algae	Plant-without Root-C	05-11-88	6,630	977	<0.272	<54.3	<43.5
	Filamentous Green Algae	Plant-without Root-C	07-11-88	3,010	758	<0.074	<14.7	<11.8
	Filamentous Green Algae	Plant-without Root-C	08-10-88	5,050	2,920	0.118	<23.6	<18.9
	Filamentous Green Algae	Plant-without Root-C	09-21-88	5,480	2,140	0.01	<1	7.1
	Lemna spp.	Plant-without Root-C	05-11-88	5,170	1,150	<0.432	<86.2	<69
	Lemna spp.	Plant-without Root-C	07-11-88	7,420	1,179	<0.404	<80.6	<64.5
	Lemna spp.	Plant-without Root-C	08-10-88	6,250	1,316	<0.391	<78.1	<62.5
	Lemna spp.	Plant-without Root-C	09-21-88	7,020	1,597	<0.005	<1	7
	Zannichellia palustris	Plant-without Root-C	05-11-88	3,080	179	<0.275	<54.9	<44
	Zannichellia palustris	Plant-without Root-C	07-11-88	3,930	316	<0.410	<82	<65.6
	Zannichellia palustris	Plant-without Root-C	08-10-88	4,050	597	<0.338	<67.6	<54.1
	Zannichellia palustris	Plant-without Root-C	09-21-88	6,100	355	0.027	<1	8
	Typha spp.	Plant-Whole Body-C	05-11-88	4,780	402	<0.239	<37.3	<29.9
	Typha spp.	Plant-Root and Stem-C	07-11-88	4,130	481	<0.207	<41.3	<33.1
	Typha spp.	Plant-Root and Stem-C	08-10-88	4,710	378	<0.184	<36.8	<29.4
	Typha spp.	Plant-Root and Stem-C	09-21-88	3,500	187	<0.005	<1	4
J3/J4	Typha spp	Plant-Root and Stem-C	07-26-89	3,710	250	<0.258	<5.15	<4.12
	Typha spp.	Plant-Root and Stem-C	07-26-89	3,360	160	<0.185	<3.7	<2.96
	Common Carp	Fish-Whole Body-C3	08-08-88	1,510	186	<0.126	<25.1	<20.1

Table 38.--*Field and laboratory analyses of biological samples from areas near the discharge of drains at Stewart Lake*--Continued

Site name	Selenium	Silver	Strontium	Thallium	Tin	Vanadium	Zinc	Sample number
J1/J1A	1.3	<2	89.8	<4	--	13	99.9	556
	1.3	<64.1	80.8	--	<64.1	<64.1	67.9	756
	2.7	<26.7	540	--	<26.7	<26.7	81.8	795
	2.42	<15	62.7	--	<50	4.51	23.2	123
	13.2	<94.3	219	--	<94.3	<94.3	94.3	757
	5.6	<70.4	132	--	<70.4	<70.4	114	793
	4.44	<15	165	--	<50	12	38.2	126
	2.8	<28.4	86.5	--	<35.5	<35.5	48.2	759
	5	<31.3	64.4	--	<31.3	<31.3	47.5	794
	1.90	<15	123	--	<50	3.73	22.6	124
	3.9	<2	121	<4	--	7.2	45	547
	4	<50.5	121	--	<50.5	<50.5	45.5	758
	4.9	<35	95.8	--	<35	<35	52.4	792
	4.43	<15	172	--	<50	9.26	119	125
	3.3	<2	4.2	<4	--	<0.3	68.6	557
J3	37.4	<10	362	--	<25	4.75	124	146
	5.6	<46.7	134	--	<46.7	<46.7	77.6	775
	3.9	<19.5	366	--	<19.5	<19.5	36.7	788
	73	<2	516	<4	--	19	43	554
	31.3	<60.2	325	--	<60.2	<60.2	89.2	789
	14.5	<2	375	<4	--	5.1	30	403
	31.2	<15	388	--	<50	7.78	48.5	128
	58	<2	179	<4	--	6.7	165	404
	2.9	<29.2	74.9	--	<29.2	<29.2	35.1	774
	14							787
	14.5	<15	61.6	--	<50	3.85	22.9	127
	29	<2	245	<4	--	11	30	551
	6.5	<46.7	137	--	<46.7	<46.7	29	773
	33.9	<41.3	201	--	<41.3	<41.3	70.2	786
	10.3	<3.97	92.8	<15.9	8.33	<3.97	50.1	1326
	12.2	<3.21	127	<12.8	12.2	<3.21	37.8	1327
	39.3	<2.73	111	<10.9	10.6	<2.73	36.6	1329
	18.4	<3.16	97.4	<12.7	8.48	<3.16	34.6	1330
J4	0.50	<6.29	93.3	--	<6.29	<6.29	30.4	817
	1	<10.2	53.5	--	<10.2	<10.2	23.3	821
	4.3	<54.3	117	--	<54.3	<54.3	47.8	763
	1.2	<14.7	41	--	<14.7	<14.7	22.1	767
	3.3	<23.6	300	--	36.8	<23.6	48.1	797
	3.2	<2	697	<4	--	7.6	27	358
	39.7	<86.2	203	--	<86.2	<86.2	58.6	760
	19.4	<80.6	545	--	<80.6	<80.6	37.1	764
	42.2	<78.1	564	--	<78.1	<78.1	54.7	796
	16	<2	755	<4	--	1.5	12	405
	38.5	<54.9	144	--	<54.9	<54.9	59.3	761
	47.5	<82	195	--	<82	<82	72.1	765
	29.7	<67.6	199	--	<67.6	<67.6	81.1	798
	44	<2	218	<4	--	18	57	406
	50	<37.3	201	--	<37.3	<37.3	43.3	762
	12.4	<41.3	148	--	<41.3	<41.3	96.7	766
	33.1	<36.8	139	--	<36.8	<36.8	60.3	799
	12	<2	118	<4	--	4.6	38	381
J3/J4	6.2	<5.15	135	<20.6	10.7	<5.15	37.6	1325
	8.1	<3.7	135	<14.8	8	<3.7	32.5	1328
	83.9	<25.1	107	--	<25.1	<25.1	222	822

Table 39.--*Field and laboratory analyses of bird egg samples*

[g, gram; mm, millimeter; Tissue: I, individual sample; Life stage: listed as days for embryos;

Organism	Tissue	Date	Moisture content (percent)	Life stage	Sex	Organism data		
						Average weight (g)	Total weight (g)	Length (mm)
Black-Crowned Night Heron	Bird-Egg-I	06-07-89	79	18	--	--	33	52.8
Black-Crowned Night Heron	Bird-Egg-I	06-07-89	79.5	18	--	--	27	53.1
Black-Crowned Night Heron	Bird-Egg-I	06-07-89	82.5	11	--	--	34	51.7
Black-Crowned Night Heron	Bird-Egg-I	06-14-89	82.8	6	--	--	35	52.2
Black-Crowned Night Heron	Bird-Egg-I	06-14-89	80.3	24	--	--	29	50.3
Black-Crowned Night Heron	Bird-Egg-I	06-14-89	79.2	11	--	--	29	48.8
Canada Goose	Bird-Egg-I	05-11-88	69.3	4	--	--	108	83
Canada Goose	Bird-Egg-I	03-29-89	70.6	2	--	--	155	83.5
Canada Goose	Bird-Egg-I	03-29-89	68.1	--	--	--	160	87.4
Canada Goose	Bird-Egg-I	04-04-89	69.1	7	--	--	156	81.4
Canada Goose	Bird-Egg-I	04-04-89	67.7	7	--	--	166	89.2
Canada Goose	Bird-Egg-I	04-20-88	69	4	--	--	115	83.7
Canada Goose	Bird-Egg-I	04-25-89	66.3	15	--	--	131	86.1
Canada Goose	Bird-Egg-I	05-03-89	64.6	25	--	--	99	84.3
Canada Goose	Bird-Egg-I	05-03-89	67	--	--	--	93	86.8
Canada Goose	Bird-Egg-I	05-03-89	68.4	--	--	--	--	--
Cinnamon Teal	Bird-Egg-I	06-08-88	71.6	5	--	--	22	45.4
Cinnamon Teal	Bird-Egg-I	06-08-88	69.5	8	--	--	30	48.1
Cinnamon Teal	Bird-Egg-I	06-08-88	70.3	6	--	--	24	45.4
Cinnamon Teal	Bird-Egg-I	06-08-88	72.6	3	--	--	24	45.8
Cinnamon Teal	Bird-Egg-I	06-08-88	69.9	7	--	--	24	46.3
Cinnamon Teal	Bird-Egg-I	05-24-89	68.5	1	--	--	28	47.7
Cinnamon Teal	Bird-Egg-I	06-20-89	66.4	1	--	--	23	44.5
Gadwall	Bird-Egg-I	07-18-88	67.6	19	--	--	36	52.6
Gadwall	Bird-Egg-I	07-28-88	66	--	--	--	24	51.8
Killdeer	Bird-Egg-I	05-25-89	70.5	4	--	--	11	35.5
Killdeer	Bird-Egg-I	06-06-89	69.9	10	--	--	12	37
Mallard	Bird-Egg-I	05-12-88	68.5	7	--	--	46	56
Mallard	Bird-Egg-I	05-12-88	68.8	8	--	--	44	55.9
Mallard	Bird-Egg-I	06-08-88	69.1	15	--	--	44	56.2
Redhead	Bird-Egg-I	05-24-88	71.8	7	--	--	50	59.4
Redhead	Bird-Egg-I	05-24-88	70.8	1	--	--	52	59.1
Redhead	Bird-Egg-I	06-02-88	71.4	1	--	--	54	56.5
Redhead	Bird-Egg-I	06-27-88	66.4	19	--	--	40	55.2
Redhead	Bird-Egg-I	06-27-88	67.6	17	--	--	48	57.9
Redhead	Bird-Egg-I	06-07-89	68.5	1	--	--	56	61.6
Redhead	Bird-Egg-I	06-07-89	69.8	9	--	--	42	60.8
Western Grebe	Bird-Egg-I	05-31-89	77	5	--	--	39	61.2
Western Grebe	Bird-Egg-I	06-07-89	77.4	9	--	--	42	60.8
Western Grebe	Bird-Egg-I	06-14-89	76.9	7	--	--	41	56.8
Western Grebe	Bird-Egg-I	06-14-89	78.2	21	--	--	35	57.5
Western Grebe	Bird-Egg-I	06-14-89	77.6	19	--	--	35	56.4
Western Grebe	Bird-Egg-I	06-22-89	78.1	21	--	--	34	57.1
Western Grebe	Bird-Egg-I	06-22-89	78.3	1	--	--	43	61.5
Wilsons Snipe	Bird-Egg-I	05-24-88	76.1	I	--	--	14	37.9
Wilsons Snipe	Bird-Egg-I	06-08-88	69.2	--	--	--	9	39.2
Yellow-Headed Blackbird	Bird-Egg-C3	06-20-88	82	4	--	--	4	25.4
Yellow-Headed Blackbird	Bird-Egg-C3	05-24-89	83.5	--	--	--	4	--
Yellow-Headed Blackbird	Bird-Egg-C3	05-31-89	81.9	--	--	--	4	--

from Stewart Lake Waterfowl Management Area

C3, composite sample, number of individuals; Egg, net sample weight;
I, immature. --, not determined; <. less than]

Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Chromium	Cobalt	Copper	Iron	Lead	Sample number
<3	--	<0.1	0.2	<0.4	<4	<0.5	<2	--	5	119	<4	1274
<3	--	<0.1	0.37	<0.4	<4	<0.5	<2	--	5.6	79	<4	1275
<3	--	<0.1	0.2	<0.4	<4	<0.5	<2	--	4.6	100	<4	1276
<3	--	<0.1	0.33	<0.1	<2	<0.3	<1	--	4.5	86	<4	1124
<3	--	<0.1	0.3	<0.1	2	<0.3	<1	--	5	90	<4	1125
<3	--	<0.1	0.2	<0.1	2	<0.3	<1	--	2.6	89	<4	1126
4	--	<0.2	3.1	<0.1	<3	<0.3	<1	--	3	98.5	<4	455
5.51	<3.40	<0.34	5.58	<0.17	<1.70	<0.17	0.34	--	3.81	105	<1.02	261
6.05	<3.13	<0.31	2.82	<0.16	1.72	<0.16	<0.31	--	3.45	134	<0.94	262
<3.24	<3.24	<0.32	5.95	<0.16	<1.62	<0.16	<0.32	--	3.66	161	<0.97	263
<3.10	<3.10	<0.31	3.31	<0.15	1.76	<0.15	<0.31	--	3.06	125	<0.93	264
<3	--	<0.2	2.9	<0.1	<2	<0.2	<3	--	2.3	133	<4	614
84.6	<30	<0.3	6.15	<0.100	2.49	<0.400	<2	<3	4.41	151	<6	61
<15	<30	<0.3	1.34	<0.100	<2	<0.400	<2	<3	3.88	132	<6	59
16.2	<30	<0.3	3.77	<0.100	<2	<0.400	<2	<3	2.70	175	<6	60
6.20	<3.16	0.32	2.18	<0.16	1.68	<0.16	<0.32	--	4.62	114	<0.95	260
<30.6	<0.088	<0.018	<15.3	<1.51	<15.3	<1.51	<3.06	--	10.1	110	<30.6	649
<20.6	<0.082	<0.017	<10.3	<1.02	<10.3	<10.3	<2.07	--	7.61	<20.6	<20.6	650
<40.4	<0.084	<0.017	8.08	<2.02	<20.2	<2.02	<4.04	--	<10.1	109	<40.4	651
<21.4	<0.091	<0.019	<10.7	<1.06	<10.7	<1.06	<2.15	--	10.3	<21.4	<21.4	652
<28.1	<0.083	<0.017	<14.1	<1.40	<14.1	<1.40	<2.82	--	10.7	101	<28.1	653
<3	--	<0.1	2.8	<0.4	<4	<0.5	<2	--	3	82	<4	1277
<3	--	<0.1	5.6	<0.1	2	<0.3	<1	--	2.6	103	<4	1127
<30.9	<0.077	<0.015	<15.4	<1.54	<15.4	<1.54	<3.09	<7.72	--	148	<30.9	681
<29.4	<0.074	0.018	<14.7	<1.47	<14.7	<1.47	<2.94	--	<7.35	85.3	<29.4	416
<3	--	<0.1	2.2	<0.4	<4	<0.5	<2	--	3.1	110	<4	1278
<3	--	<0.1	3.8	<0.4	<4	<0.5	<2	--	2.9	97.9	<4	1279
<3	--	<0.2	7.8	<0.1	<3	<0.3	<1	--	2.9	105	<4	440
<3	--	<0.2	4	<0.1	<3	<0.3	<1	--	2.9	109	<4	441
15.1	<0.081	0.023	8.03	<0.74	<7.57	<0.74	<1.52	--	5.76	105	<15.1	648
37.2	<0.089	0.032	<12.4	<1.24	<12.4	<1.24	<2.48	--	10.6	77	<24.8	643
<19.3	<0.086	0.051	<9.66	<0.96	<9.66	<0.96	<1.92	--	9.49	90.8	<19.3	644
<26.9	<0.087	0.035	<13.5	<1.36	<13.5	<1.36	<2.69	--	21.5	99.7	<26.9	646
<29.8	<0.074	<0.015	<14.9	<1.49	<14.9	<1.49	<2.98	--	<7.44	134	<29.8	752
<30.9	<0.078	<0.016	<15.4	<1.5	<15.4	<1.5	4.3	--	<7.7	61.7	<30.9	832
<3	--	<0.1	2.6	<0.4	<4	<0.5	<2	--	3.3	128	<4	1289
<3	--	<0.1	6.1	<0.4	<4	<0.5	<3	--	2.3	138	<4	1290
<3	--	<0.1	0.2	<0.4	<4	<0.5	<2	--	3	145	<4	1280
<3	--	<0.1	0.2	<0.4	<4	<0.5	<2	--	2.9	139	<4	1281
<3	--	<0.1	0.2	<0.1	2	<0.3	<1	--	2.8	141	<4	1128
<3	--	<0.1	<0.1	<0.1	<2	<0.3	<1	--	2.9	139	<4	1129
<3	--	<0.1	0.1	<0.1	<2	<0.3	<1	--	2.8	142	<4	1130
<3	--	<0.1	0.1	<0.1	<2	<0.3	<1	--	2.9	122	<4	1131
<3	--	<0.1	0.1	0.1	<2	0.3	<1	--	2.1	121	<4	1132
<45.6	<0.105	<0.021	<22.8	<2.26	<22.8	<2.26	29.1	--	16.9	2,720	<45.6	645
<32.5	<0.082	<0.017	<16.2	<1.6	<16.2	<1.6	<3.2	--	<8.1	97.4	<32.5	831
<55.6	<0.139	0.094	<27.8	<2.78	<27.8	<2.78	<5.56	--	<13.9	128	<55.6	753
<3	--	<0.1	1.1	<0.4	6	<0.5	<2	--	1.7	135	<4	1271
<3	--	<0.1	1.3	<0.4	<4	<0.5	<2	--	2	151	<4	1272

Table 39.--*Field and laboratory analyses of bird egg samples*

Organism	Tissue	Date	Magnesium	Manganese	Mercury	Molybdenum
Black-Crowned Night Heron	Bird-Egg-I	06-07-89	427	2	2.7	<1
Black-Crowned Night Heron	Bird-Egg-I	06-07-89	443	3.1	1.5	2
Black-Crowned Night Heron	Bird-Egg-I	06-07-89	417	2	1.6	1
Black-Crowned Night Heron	Bird-Egg-I	06-14-89	527	1.4	0.49	<1
Black-Crowned Night Heron	Bird-Egg-I	06-14-89	546	2.5	2.3	1
Black-Crowned Night Heron	Bird-Egg-I	06-14-89	286	2	2.4	<1
Canada Goose	Bird-Egg-I	05-11-88	494	1	0.009	<1
Canada Goose	Bird-Egg-I	03-29-89	446	1.12	<0.085	<1.70
Canada Goose	Bird-Egg-I	03-29-89	417	1.13	<0.078	<1.57
Canada Goose	Bird-Egg-I	04-04-89	398	1.04	0.097	<1.62
Canada Goose	Bird-Egg-I	04-04-89	443	0.99	<0.077	<1.55
Canada Goose	Bird-Egg-I	04-20-88	445	1.3	0.017	<1
Canada Goose	Bird-Egg-I	04-25-89	379	1.77	<0.02	<5
Canada Goose	Bird-Egg-I	05-03-89	449	<1	<0.02	<5
Canada Goose	Bird-Egg-I	05-03-89	488	1.78	<0.02	<5
Canada Goose	Bird-Egg-I	05-03-89	342	1.36	0.120	<1.58
Cinnamon Teal	Bird-Egg-I	06-08-88	366	<4.58	0.239	<15.3
Cinnamon Teal	Bird-Egg-I	06-08-88	370	4.75	0.246	<10.3
Cinnamon Teal	Bird-Egg-I	06-08-88	<404	<6.06	0.276	<20.2
Cinnamon Teal	Bird-Egg-I	06-08-88	427	<3.21	0.139	<10.7
Cinnamon Teal	Bird-Egg-I	06-08-88	399	<4.22	0.120	<14.1
Cinnamon Teal	Bird-Egg-I	05-24-89	323	2	0.057	<1
Cinnamon Teal	Bird-Egg-I	06-20-89	247	1.2	0.025	<1
Gadwall	Bird-Egg-I	07-18-88	432	<4.63	<0.077	<15.4
Gadwall	Bird-Egg-I	07-28-88	441	<4.41	<0.074	<14.7
Killdeer	Bird-Egg-I	05-25-89	387	2	0.17	<1
Killdeer	Bird-Egg-I	06-06-89	390	1	0.062	<1
Mallard	Bird-Egg-I	05-12-88	396	1.3	0.016	<1
Mallard	Bird-Egg-I	05-12-88	409	1.3	0.015	<1
Mallard	Bird-Egg-I	06-08-88	469	<2.27	0.129	<7.57
Redhead	Bird-Egg-I	05-24-88	422	<3.72	0.103	<12.4
Redhead	Bird-Egg-I	05-24-88	328	<2.91	0.216	<9.66
Redhead	Bird-Egg-I	06-02-88	378	<4.02	0.329	<13.5
Redhead	Bird-Egg-I	06-27-88	387	<4.46	0.125	<14.9
Redhead	Bird-Egg-I	06-27-88	401	<4.6	<0.078	<9.3
Redhead	Bird-Egg-I	06-07-89	329	<0.8	0.35	<1
Redhead	Bird-Egg-I	06-07-89	352	1	0.036	<1
Western Grebe	Bird-Egg-I	05-31-89	352	3.8	0.12	<1
Western Grebe	Bird-Egg-I	06-07-89	385	3.5	0.13	<1
Western Grebe	Bird-Egg-I	06-14-89	380	2.5	0.093	<1
Western Grebe	Bird-Egg-I	06-14-89	552	3	0.22	<1
Western Grebe	Bird-Egg-I	06-14-89	441	2.2	0.09	<1
Western Grebe	Bird-Egg-I	06-22-89	532	1.7	0.098	<1
Western Grebe	Bird-Egg-I	06-22-89	361	2.1	0.056	<1
Wilsons Snipe	Bird-Egg-I	05-24-88	456	29.1	0.351	<22.8
Wilsons Snipe	Bird-Egg-I	06-08-88	325	<4.9	0.266	<9.7
Yellow-Headed Blackbird	Bird-Egg-C3	06-20-88	<556	<8.33	0.667	<27.8
Yellow-Headed Blackbird	Bird-Egg-C3	05-24-89	380	5	0.043	<1
Yellow-Headed Blackbird	Bird-Egg-C3	05-31-89	550	4.9	0.039	<1

from Stewart Lake Waterfowl Management Area—Continued

Nickel	Sele-nium	Silver	Stron-tium	Thal-lium	Tin	Vanad-ium	Zinc	Sample number
<5	18	<2	3.7	<4	--	<0.9	45	1274
<5	17.5	<2	5.8	<4	--	<0.9	48	1275
<5	29.3	<2	3.7	<4	--	<0.8	43	1276
<1	14	<2	4	<4	--	<0.3	43.1	1124
<1	20.5	<2	5.8	<4	--	<0.3	44.8	1125
<1	14	<2	2.2	<4	--	<0.3	24	1126
<1	5	<2	6	<4	--	<0.3	55.8	455
<1.36	2	<1.70	6.05	<6.80	5.71	<1.70	51.2	261
<1.25	3.1	<1.57	5.71	<6.27	4.51	<1.57	56.8	262
<1.29	3.9	<1.62	9.51	<6.47	6.34	<1.62	62	263
<1.24	3.4	<1.55	5.85	<6.19	5.63	<1.55	57.4	264
<1	4.9	<2	4.1	<4	--	<0.3	54.1	614
<2.50	3.40	<9	<10	--	<30	<1	60.8	61
<2.50	4.64	<9	<10	--	<30	<1	62.9	59
<2.50	3.95	<9	<10	--	<30	<1	54.8	60
<1.27	2.8	<1.58	3.54	<6.33	5.03	<1.58	56.9	260
<12.3	21.8	<15.3	13.2	--	<15.3	<15.3	60.6	649
<8.26	14.8	<10.3	13	--	10.5	<10.3	53.8	650
<16.2	12.5	<20.2	9.70	--	<20.2	<20.2	76.4	651
<8.58	3.3	<10.7	15.8	--	12	<10.7	62	652
<11.2	2.7	<14.1	11.8	--	<14.1	<14.1	64.5	653
<5	18.2	<2	12.3	<4	--	<0.8	45	1277
<1	11	<2	9.5	<4	--	<0.3	53.2	1127
<12.3	21.6	<15.4	17.6	--	<15.4	<15.4	65.1	681
<11.8	20.3	<14.7	14.1	--	<14.7	<14.7	52.4	416
<5	8.5	<2	10.3	<4	--	<0.9	45	1278
<5	3.8	<2	9.2	<4	--	<0.8	44	1279
<1	4.2	<2	8.5	<4	--	<0.3	55.5	440
<1	5	<2	8	<4	--	<0.3	53.7	441
<6.05	9.4	<7.57	10.5	--	10.9	<7.57	56	648
<9.93	7.1	<12.4	12.4	--	<12.4	<12.4	61	643
7.74	8.2	<9.66	12.7	--	9.86	<9.66	65.1	644
<10.8	9.8	<13.5	13.5	--	<13.5	<13.5	63.6	646
<11.9	3.9	<14.9	13.7	--	<14.9	<14.9	65.5	752
<12.3	19.6	<15.4	17.9	--	<15.4	<15.4	63	832
<5	7.7	<2	11.3	<4	--	<0.8	49	1289
<5	2.7	<2	14.2	<4	--	<0.9	56	1290
<5	20.4	<2	6.7	<4	--	<0.8	46	1280
<5	22	<2	7.1	<4	--	<0.9	49	1281
<1	24.3	<2	9.6	<4	--	<0.3	39.5	1128
<1	23.6	<2	15.8	<4	--	<0.3	53.3	1129
<1	27.2	<2	15.7	<4	--	<0.3	51.2	1130
<1	33	<2	16.5	<4	--	<0.3	51.8	1131
<1	23.9	<2	6.5	<4	--	<0.3	45.4	1132
<18.2	21.3	<22.8	8.66	--	<22.8	<22.8	90.8	645
13	21.9	<16.2	7.5	--	<16.2	<16.2	48.1	831
<22.2	7.8	<27.8	9.44	--	<27.8	<27.8	67.2	753
<5	4.8	<2	9.4	<4	--	<0.9	58	1271
<5	6.5	<2	23.8	<4	--	<0.8	69.4	1272

Table 40.--*Field and laboratory analyses of biological samples*

[g, gram; mm, millimeter; Tissue: I, individual sample; A, adult; Sex: M, male; F, female;

Organism	Tissue	Date	Moisture content (percent)	Life stage	Sex	Organism data		
						Average weight (g)	Total weight (g)	Length (mm)
Canada Goose	Bird-Liver-I	10-11-88	70.8	--	F	--	4,302	--
Great Blue Heron	Bird-Liver-I	08-18-87	76.7	--	--	--	--	--
Green-Winged Teal	Bird-Liver-I	10-11-88	74.2	I	F	--	307	--
Mallard	Bird-Liver-I	10-11-88	74.8	A	F	--	928	--
Mallard	Bird-Liver-I	10-11-88	77.7	A	F	--	917	--
Mallard	Bird-Liver-I	10-11-88	74.1	I	M	--	872	--
Northern Shoveler	Bird-Liver-I	10-11-88	66.6	I	M	--	702	--
Northern Shoveler	Bird-Liver-I	10-11-88	66.2	A	F	--	705	--
Northern Shoveler	Bird-Liver-I	10-11-88	65.9	A	F	--	641	--
Northern Shoveler	Bird-Liver-I	10-11-88	68.7	A	F	--	619	--
American Coot	Bird-Muscle-I	08-27-86	76.6	I	--	--	--	--
American Coot	Bird-Muscle-I	09-03-86	75.4	I	--	--	--	--
American Coot	Bird-Muscle-I	09-03-86	72.4	A	--	--	--	--
American Coot	Bird-Muscle-I	09-03-86	66.6	A	--	--	--	--
American Coot	Bird-Muscle-I	09-03-86	65.9	I	--	--	--	--
American Coot	Bird-Muscle-I	09-03-86	67.9	I	--	--	--	--
Canada Goose	Bird-Muscle-I	10-11-88	72.3	--	F	--	4,302	--
Green-Winged Teal	Bird-Muscle-I	10-11-88	71.6	I	F	--	307	--
Mallard	Bird-Muscle-I	10-11-88	73.6	A	F	--	928	--
Mallard	Bird-Muscle-I	10-11-88	73.4	A	F	--	917	--
Mallard	Bird-Muscle-I	10-12-88	75.2	I	M	--	872	--
Northern Shoveler	Bird-Muscle-I	10-11-88	71.4	I	M	--	702	--
Northern Shoveler	Bird-Muscle-I	10-11-88	71.3	A	F	--	705	--
Northern Shoveler	Bird-Muscle-I	10-11-88	71.1	A	F	--	641	--
Northern Shoveler	Bird-Muscle-I	10-11-88	71.7	A	F	--	619	--
American Coot	Bird-Whole Body-I	07-05-88	84	I	--	--	50	--
Corixidae	Invertebrate-Whole Body-C	07-28-88	87.4	--	--	--	9	--

from Stewart Lake Waterfowl Management Area

C, composite sample; Life stage: I, immature;
--, not determined; <, less than]

Alum-inum	Anti-mony	Arse-nic	Barium	Beryl-lium	Boron	Cadm-ium	Chrom-ium	Cobalt	Copper	Iron	Lead	Sample number
<30	<30	<0.37	<1	<0.20	<3	1.17	<1.5	<3	61.8	1,330	<7.5	338
3	--	<0.2	<0.1	<0.1	<2	<0.4	<1	--	3.4	2,060	<4	1076
<30	<30	<0.37	<1	<0.20	3	<0.50	<1.5	<3	22.8	1,810	<7.5	344
<30	<30	<0.37	<1	<0.20	4.28	<0.50	<1.5	<3	109	4,640	<7.5	337
<30	<30	<0.37	<1	<0.20	7.05	1.06	<1.5	<3	23.2	6,040	<7.5	345
<30	<30	<0.37	<1	<0.20	4.87	0.769	<1.5	<3	41	4,930	<7.5	339
<30	<30	<0.37	<1	<0.20	<3	0.967	<1.5	<3	12.8	2,150	<7.5	340
<30	<30	<0.37	<1	<0.20	<3	2.67	<1.5	<3	23.7	2,250	<7.5	341
<30	<30	<0.37	<1	<0.20	3.10	1.14	<1.5	<3	32.5	2,670	<7.5	342
<30	<30	<0.37	<1	<0.20	<3	<0.50	<1.5	<3	61.2	1,610	<7.5	343
7	<0.2	<0.1	0.40	<0.1	<2	<0.2	<1	--	27.1	271	<4	917
6	<0.2	0.3	0.3	<0.1	<2	<0.2	<1	--	53.5	258	<4	918
5	<0.3	0.1	<0.1	<0.1	<2	<0.2	<1	--	74.2	311	<4	919
5	<0.2	<0.1	<0.1	<0.1	<2	<0.2	<1	--	47.6	253	<4	920
220	<0.2	0.3	7.5	<0.1	<2	<0.2	2	--	4.5	468	<4	921
5	<0.2	0.1	<0.1	<0.1	<2	<0.2	<1	--	47.1	285	<4	922
<30	<30	<0.37	<1	<0.20	<3	<0.50	<1.5	<3	18.4	232	<7.5	312
<30	<30	<0.37	<1	<0.20	<3	<0.50	<1.5	<3	19.7	199	<7.5	318
<30	<30	<0.37	<1	<0.20	<3	<0.50	<1.5	<3	23.7	266	<7.5	311
<30	<30	<0.37	<1	<0.20	<3	<0.50	<1.5	<3	14.5	227	<7.5	319
<30	<30	<0.37	<1	<0.20	<3	<0.50	<1.5	<3	29.1	350	<7.5	313
<30	<30	<0.37	<1	<0.20	<3	<0.50	<1.5	<3	29.8	275	<7.5	314
<30	<30	<0.37	<1	<0.20	<3	<0.50	<1.5	<3	23.2	317	<7.5	315
<30	<30	<0.37	<1	<0.20	<3	<0.50	<1.5	<3	37	282	<7.5	316
<30	<30	<0.37	<1	<0.202	<3	<0.50	<1.5	<3	39.9	279	<7.5	317
125	0.162	1.34	<31.3	<3.13	<31.3	<3.13	<6.25	--	29.4	750	<62.5	754
<79.4	<0.198	0.730	<39.7	<3.97	<39.7	<3.97	<7.94	--	<19.8	254	<79.4	805

Table 40.--*Field and laboratory analyses of biological samples*

Organism	Tissue	Date	Magnesium	Manganese	Mercury	Molybdenum
Canada Goose	Bird-Liver-I	10-11-88	571	10.3	<0.02	<5
Great Blue Heron	Bird-Liver-I	08-18-87	838	6.1	0.686	<1
Green-Winged Teal	Bird-Liver-I	10-11-88	923	12.1	<0.02	<5
Mallard	Bird-Liver-I	10-11-88	746	11.4	<0.02	<5
Mallard	Bird-Liver-I	10-11-88	815	11.9	0.251	5.73
Mallard	Bird-Liver-I	10-11-88	815	15.3	<0.02	<5
Northern Shoveler	Bird-Liver-I	10-11-88	760	21.5	1.59	<5
Northern Shoveler	Bird-Liver-I	10-11-88	785	20.9	1.05	<5
Northern Shoveler	Bird-Liver-I	10-11-88	790	20.5	2.21	<5
Northern Shoveler	Bird-Liver-I	10-11-88	766	18.4	2.35	<5
American Coot	Bird-Muscle-I	08-27-86	908	0.82	0.038	<1
American Coot	Bird-Muscle-I	09-03-86	959	2.9	0.22	<1
American Coot	Bird-Muscle-I	09-03-86	938	3.4	0.22	<1
American Coot	Bird-Muscle-I	09-03-86	808	0.6	0.019	<1
American Coot	Bird-Muscle-I	09-03-86	1,420	13	0.032	<1
American Coot	Bird-Muscle-I	09-03-86	846	0.86	0.029	<1
Canada Goose	Bird-Muscle-I	10-11-88	1,090	2.06	<0.02	<5
Green-Winged Teal	Bird-Muscle-I	10-11-88	1,080	1.94	0.0363	<5
Mallard	Bird-Muscle-I	10-11-88	1,140	2.56	<0.02	<5
Mallard	Bird-Muscle-I	10-11-88	1,180	1.96	0.159	<5
Mallard	Bird-Muscle-I	10-12-88	1,160	1.68	<0.02	<5
Northern Shoveler	Bird-Muscle-I	10-11-88	1,210	2.62	0.419	<5
Northern Shoveler	Bird-Muscle-I	10-11-88	1,210	2.57	0.290	<5
Northern Shoveler	Bird-Muscle-I	10-11-88	1,180	2.48	0.531	<5
Northern Shoveler	Bird-Muscle-I	10-11-88	1,170	2.93	0.674	<5
American Coot	Bird-Whole Body-I	07-05-88	3,000	374	0.362	<31.3
Corixidae	Invertebrate-Whole Body-C	07-28-88	1,590	38.1	<0.199	<39.7

from Stewart Lake Waterfowl Management Area--Continued

Nickel	Selenium	Silver	Strontium	Thallium	Tin	Vanadium	Zinc	Sample number
<2	3.66	<10	<1	--	<30	<2.6	113	338
<2	9	<1	0.52	<6	--	<0.3	313	1076
<2	20.6	<10	<1	--	<30	<2.6	134	344
<2	13.5	<10	<1	--	<30	<2.6	179	337
<2	11.7	<10	<1	--	<30	<2.6	150	345
<2	74.7	<10	1.42	--	<30	<2.6	90.5	339
<2	11.9	<10	<1	--	<30	<2.6	104	340
<2	14.9	<10	<1	--	<30	<2.6	105	341
<2	15.3	<10	<1	--	<30	<2.6	120	342
<2	8.80	<10	<1	--	<30	<2.6	114	343
<1	8.7	<2	5.2	<7	<5	<0.3	76.3	917
<1	14	<2	1.1	<7	<5	<0.3	55.2	918
<1	2.7	<2	1.1	<7	<5	<0.3	56	919
<1	0.86	<2	0.1	<7	<5	<0.3	44.2	920
<1	27	<2	152	<7	<5	0.9	203	921
<1	1.4	<2	0.33	<7	<5	<0.3	47	922
<2	1.92	<10	<1	--	<30	<2.6	48.1	312
<2	5.74	<10	<1	--	<30	<2.6	44.1	318
<2	5.26	<10	<1	--	<30	<2.6	47	311
<2	5.45	<10	<1	--	<30	2.86	48.2	319
<2	27.6	<10	<1	--	<30	<2.6	39.7	313
<2	2.45	<10	<1	--	<30	<2.6	46.9	314
<2	2.54	<10	<1	--	<30	<2.6	52.1	315
<2	2.97	<10	<1	--	<30	<2.6	54.2	316
<2	1.77	<10	<1	--	<30	<2.6	60.9	317
<25	86.9	<31.3	171	--	<31.3	<31.3	170	754
<31.7	13.5	<39.7	49.2	--	<39.7	<39.7	294	805

Table 41.--*Field and laboratory analyses of biological*

[g, gram; mm, millimeter; Organism: spp., species. Tissue: C5, composite sample,

Organism	Tissue	Date	Moisture content (percent)	Life stage	Sex	Organism data		
						Average weight (g)	Total weight (g)	Length (mm)
Black Bullhead	Fish-Whole Body-C5	08-09-88	84.2	--	--	69	--	180
Black Bullhead	Fish-Whole Body-C5	04-14-89	81	--	--	74	--	184
Black Bullhead	Fish-Whole Body-C5	07-26-89	84.8	--	--	62	--	184
Channel Catfish	Fish-Whole Body-I	07-26-89	83.6	--	--	--	773	455
Common Carp	Fish-Whole Body-C5	08-09-88	77.8	--	--	432	--	323
Common Carp	Fish-Whole Body-C5	08-09-88	78.9	--	--	489	--	355
Common Carp	Fish-Whole Body-C3	04-20-88	81.8	--	--	634	--	382
Common Carp	Fish-Whole Body-C5	04-13-89	70.9	--	--	472	--	329
Common Carp	Fish-Whole Body-C5	04-14-89	73.1	--	--	473	--	329
Common Carp	Fish-Whole Body-C5	07-26-89	75.2	--	--	377	--	301
Common Carp	Fish-Whole Body-C5	07-26-89	73.5	--	--	564	--	347
Invertebrates-Hemiptera	Invertebrate-Whole Body-C	07-12-89	76.9	--	--	--	11	--
Typha spp.	Plant-Root and Stem-C	04-20-88	85.2	--	--	--	457	--
Typha spp.	Plant-Root and Stem-C	04-20-88	87.8	--	--	--	467	--

Organism	Tissue	Date	Magnesium	Manganese	Mercury
Black Bullhead	Fish-Whole Body-C5	08-09-88	1,710	14.6	<0.159
Black Bullhead	Fish-Whole Body-C5	04-14-89	2,560	25.6	0.0739
Black Bullhead	Fish-Whole Body-C5	07-26-89	1,840	9.21	<0.164
Channel Catfish	Fish-Whole Body-I	07-26-89	2,350	21.6	1.91
Common Carp	Fish-Whole Body-C5	08-09-88	1,350	6.76	<0.113
Common Carp	Fish-Whole Body-C5	08-09-88	1,420	8.53	<0.119
Common Carp	Fish-Whole Body-C3	04-20-88	1,870	17	0.020
Common Carp	Fish-Whole Body-C5	04-13-89	1,680	13.7	0.756
Common Carp	Fish-Whole Body-C5	04-14-89	1,930	12.6	0.0593
Common Carp	Fish-Whole Body-C5	07-26-89	1,470	5.56	<0.101
Common Carp	Fish-Whole Body-C5	07-26-89	1,250	5.4	<0.094
Invertebrates-Hemiptera	Invertebrate-Whole Body-C	07-12-89	2,100	61.1	0.0897
Typha spp.	Plant-Root and Stem-C	04-20-88	2,780	61.1	0.01
Typha spp.	Plant-Root and Stem-C	04-20-88	4,930	147	0.019

samples from the north shoreline of Stewart Lake

number of individuals; I, individual sample. --, not determined; <, less than]

Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Chromium	Cobalt	Copper	Iron	Lead	Sample number
127	<0.156	0.095	<31.6	<3.16	<31.6	<3.16	<6.33	--	<15.8	500	<63.3	825
369	<30	<0.3	15.2	<0.100	3.10	<0.800	1.52	<2	<3	829	<6	177
149	<6.58	<0.66	9.08	<0.33	3.68	<0.33	4.61	--	4.67	549	<1.97	1354
381	<6.1	<0.61	13.6	<0.3	3.05	<0.3	3.17	--	12.6	477	<1.83	1355
58.6	<0.113	<0.023	<22.5	<2.25	<22.5	<2.25	<4.50	--	15.3	275	<45	823
<47.4	<0.118	<0.024	<23.7	<2.37	<23.7	<2.37	<4.74	--	<11.8	265	<47.4	824
495	--	<0.2	7.8	<0.1	2	0.2	<2	--	3	507	<4	582
555	<30	<0.3	9.06	0.311	3.31	1.46	2.56	<2	6.08	503	<6	178
416	<30	<0.3	12.2	<0.100	1.37	<0.800	2.21	<2	<3	355	<6	181
23.4	<4.03	<0.4	5.48	<0.2	<2.02	<0.2	1.94	--	2.26	155	<1.21	1358
55	<3.77	<0.38	3.09	<0.19	<1.89	<0.19	1.62	--	2.94	213	<1.13	1359
644	<20	1.54	24.3	<0.200	7.07	<0.800	<3	<3	9.66	1,060	<6	143
802	--	0.3	12.8	0.1	9.4	<0.3	3	--	2.8	705	<4	548
5,580	--	1.8	37	0.39	18	<0.3	8.2	--	8.5	4,460	<4	549

Molybdenum	Nickel	Selenium	Silver	Strontium	Thallium	Tin	Vanadium	Zinc	Sample number
<31.6	<25.3	27.2	<31.6	69.6	--	<31.6	<31.6	94.9	825
<5	<3.50	19.5	<10	348	--	<30	2.63	111	177
<3.29	<2.63	17.8	<3.29	136	<13.2	17.9	<3.29	115	1354
<3.05	<2.44	22	<3.05	445	<12.2	<3.05	<3.05	219	1355
<22.5	<18	53.6	<22.5	108	--	<22.5	<22.5	286	823
<23.7	<19	48.3	<23.7	113	--	<23.7	<23.7	203	824
<1	<1	69	<2	201	<4	--	1.6	288	582
<5	<3.50	46.5	<10	185	--	<30	<1.50	274	178
<5	<3.50	47.5	<10	296	--	<30	<1.50	274	181
2.26	<1.61	34.3	<2.02	216	<8.06	16.9	<2.02	335	1358
<1.89	<1.51	65.7	<1.89	126	<7.55	6.49	<1.89	256	1359
<5	<2.50	17.8	<10	64.9	--	<25	2.75	150	143
<1	2	1.8	<2	60.5	<4	--	1.8	18	548
<1	4.4	3.1	<2	161	<4	--	13	53	549

Table 42.--*Field and laboratory analyses of fish*
[g, gram; mm, millimeter; Tissue: C5, composite sample, number
Life stage: A, Adult; I, immature;

Organism	Tissue	Date	Moisture content (percent)	Life stage	Sex	Organism data		
						Average weight (g)	Total weight (g)	Length (mm)
Black Bullhead	Fish-Gastrointestinal-C	04-13-89	31.4	--	--	--	4	--
Channel Catfish	Fish-Muscle-I	04-07-88	80.2	A	--	--	772	440
Channel Catfish	Fish-Muscle-I	04-07-88	81.3	--	--	--	542	422
Channel Catfish	Fish-Liver-I	04-13-89	80.8	--	--	--	4,427	720
Channel Catfish	Fish-Muscle-I	04-13-89	69.1	--	--	--	4,427	720
Common Carp	Fish-Muscle-I	04-01-87	81.3	--	--	--	202	272
Common Carp	Fish-Muscle-I	04-01-87	80.9	--	--	--	180	250
Common Carp	Fish-Muscle-I	04-01-87	81.2	--	--	--	262	287
Common Carp	Fish-Muscle-I	04-01-87	81.5	--	--	--	468	338
Common Carp	Fish-Muscle-I	04-01-87	80.8	--	--	--	460	333
Black Bullhead	Fish-Whole Body-C5	04-01-87	82.7	--	--	66	--	174
Black Bullhead	Fish-Whole Body-C5	08-13-87	73.1	A	--	15	--	131
Black Bullhead	Fish-Whole Body-C5	04-07-88	80.2	--	--	25	--	290
Black Bullhead	Fish-Whole Body-C100	07-05-88	85.2	I	--	<1	--	--
Black Bullhead	Fish-Whole Body-C4	08-02-88	83.5	--	--	68	--	166
Black Bullhead	Fish-Whole Body-C5	04-13-89	81.5	--	--	70	--	179
Black Bullhead	Fish-Whole Body-C5	04-13-89	80.7	--	--	77	--	182
Black Bullhead	Fish-Whole Body-C2	07-26-89	79.8	--	--	65	--	185
Channel Catfish	Fish-Whole Body-I	08-02-88	79.2	--	--	834	--	445
Common Carp	Fish-Whole Body-C5	04-01-87	76.9	--	--	409	--	319
Common Carp	Fish-Whole Body-C5	04-01-87	75.7	--	--	322	--	292
Common Carp	Fish-Whole Body-C5	08-12-87	75.5	A	--	528	--	357
Common Carp	Fish-Whole Body-C5	08-12-87	77.6	A	--	484	--	331
Common Carp	Fish-Whole Body-C5	04-07-88	80.4	--	--	406	--	315
Common Carp	Fish-Whole Body-C5	04-07-88	80.1	--	--	302	--	290
Common Carp	Fish-Whole Body-C5	08-02-88	77.3	--	--	578	--	364
Common Carp	Fish-Whole Body-C5	08-02-88	77.4	--	--	639	--	395
Common Carp	Fish-Whole Body-C4	04-13-89	73.6	--	--	454	--	325
Common Carp	Fish-Whole Body-C5	04-13-89	75.1	--	--	652	--	370
Common Carp	Fish-Whole Body-C5	07-26-89	74.1	--	--	626	--	367.8
Common Carp	Fish-Whole Body-C5	07-26-89	75.2	--	--	486	--	331.6
White Sucker	Fish-Whole Body-C2	04-13-89	75.2	--	--	143	--	238

samples from the south shoreline of Stewart Lake
of individuals; I, individual sample.
--, not determined; <, less than]

Alum-inum	Anti-mony	Arse-nic	Barium	Beryl-lium	Boron	Cadm-ium	Chrom-ium	Cobalt	Copper	Iron	Lead	Sample number
5,720	<30	7.71	133	0.822	17.8	1.48	11.5	6.77	33.1	9,300	21.6	183
30	--	<0.2	0.49	<0.1	<2	<0.2	<2	--	1	47	<4	566
9.1	--	<0.2	0.1	<0.1	<2	<0.2	<2	--	1	43	<4	567
<20	<20	<0.3	<1	<0.2	<3	<0.6	<3	3.10	9.23	866	<6	848
<20	<20	<0.3	<1	<0.2	<3	<0.6	<3	<2	<2	34.9	14.7	849
11	<0.2	0.2	1.1	<0.1	<2	<0.2	<1	--	0.96	38	<4	912
10	<0.2	0.08	0.64	<0.1	<2	<0.2	<1	--	1	42	<4	913
12	<0.2	<0.08	0.95	<0.1	<2	<0.2	<1	--	1	42	<4	914
12	<0.2	0.2	1.9	<0.1	<2	<0.2	<1	--	1	48	<4	915
11	<0.2	0.2	1.3	<0.1	<2	<0.2	<1	--	0.76	47	<4	916
851	<0.2	0.49	18.4	0.1	<2	<0.2	2	--	2.8	1,230	<4	911
405	<0.093	0.089	33.5	<1.86	<18.6	<1.86	<3.72	--	<9.29	829	<37.2	496
1,090	--	<0.2	16.2	<0.1	<2	<0.2	<2	--	2.2	782	<4	568
74.3	<0.169	0.169	<33.8	<3.38	<33.8	<3.38	<6.76	--	<16.9	405	<67.6	755
<60.6	<0.152	0.352	<30.3	<3.03	<30.3	<3.03	<6.06	--	19.4	424	<60.6	425
1,150	<30	<0.03	18.9	<0.100	4.57	2.40	2.77	<2	12.2	957	<6	175
607	<30	<0.3	11.9	<0.100	2.99	<0.800	1.99	<2	3.29	971	<6	176
621	<4.95	<0.5	40.4	<0.25	4.95	<0.25	4.31	--	5.2	1,160	<1.49	1353
<48.1	<0.121	0.120	<24	<2.40	<24	<2.40	<4.81	--	<12	<48.1	<48.1	426
210	<0.2	0.2	7.8	0.1	<2	<0.2	2	--	3.9	461	<4	909
140	<0.2	0.30	13.7	<0.1	<2	<0.2	<1	--	2	277	<4	910
44.9	0.188	7.63	<20.4	<2.04	<20.4	<2.04	<4.08	--	<10.2	245	<40.8	494
93.8	<0.112	0.027	<22.3	<2.23	<22.3	<2.23	<4.46	--	<11.2	179	<44.6	495
521	--	0.3	7.7	<0.1	<2	<0.2	<2	--	3.2	456	<4	580
920	--	<0.2	9.9	<0.1	2	<0.2	<2	--	3.7	604	<4	581
<44.1	<0.111	0.242	<22	<2.20	<22	<2.20	<4.41	--	<11	185	<44.1	423
<44.2	<0.111	0.301	<22.1	<2.21	<22.1	<2.21	<4.42	--	<11.1	190	<44.2	424
136	<30	<0.3	10.3	<0.100	1.25	<0.800	1.35	<2	<3	270	<6	179
168	<30	<0.3	7.63	<0.100	1.01	<0.800	1.56	<2	3.97	331	<6	180
29.5	<3.86	<0.39	5.1	<0.19	2.01	<0.19	1.54	--	2.66	193	<1.16	1356
102	<4.03	<0.4	6.37	<0.2	<4	<0.2	2.58	--	2.46	219	<1.21	1357
353	<30	<0.03	14.8	<0.100	3.08	<0.800	1.93	<2	<3	490	<6	182

Table 42.--*Field and laboratory analyses of fish*

Organism	Tissue	Date	Magnesium	Manganese	Mercury	Molybdenum
Black Bullhead	Fish-Gastrointestinal-C	04-13-89	4,620	269	<0.02	<5
Channel Catfish	Fish-Muscle-I	04-07-88	1,120	0.78	0.26	<1
Channel Catfish	Fish-Muscle-I	04-07-88	1,090	0.68	0.41	<1
Channel Catfish	Fish-Liver-I	04-13-89	1,030	9.99	<0.02	<5
Channel Catfish	Fish-Muscle-I	04-13-89	613	1.90	0.0385	<5
Common Carp	Fish-Muscle-I	04-01-87	1,360	1.1	0.065	<1
Common Carp	Fish-Muscle-I	04-01-87	1,310	1	0.056	<1
Common Carp	Fish-Muscle-I	04-01-87	1,340	0.86	0.084	<1
Common Carp	Fish-Muscle-I	04-01-87	1,320	1.6	0.089	<1
Common Carp	Fish-Muscle-I	04-01-87	1,340	0.7	0.046	<1
Black Bullhead	Fish-Whole Body-C5	04-01-87	1,800	22	0.093	<1
Black Bullhead	Fish-Whole Body-C5	08-13-87	3,090	36.7	<0.093	<18.6
Black Bullhead	Fish-Whole Body-C5	04-07-88	2,310	29.4	0.071	<1
Black Bullhead	Fish-Whole Body-C100	07-05-88	1,960	126	<0.169	<33.8
Black Bullhead	Fish-Whole Body-C4	08-02-88	1,640	40	0.158	<30.3
Black Bullhead	Fish-Whole Body-C5	04-13-89	2,600	34.4	0.0687	<5
Black Bullhead	Fish-Whole Body-C5	04-13-89	2,100	45.1	0.0390	<5
Black Bullhead	Fish-Whole Body-C2	07-26-89	2,830	29.9	<0.124	4.46
Channel Catfish	Fish-Whole Body-I	08-02-88	1,250	<7.21	0.303	<24
Common Carp	Fish-Whole Body-C5	04-01-87	1,410	13	0.033	<1
Common Carp	Fish-Whole Body-C5	04-01-87	1,750	17	0.028	<1
Common Carp	Fish-Whole Body-C5	08-12-87	1,880	15.5	<0.103	<20.4
Common Carp	Fish-Whole Body-C5	08-12-87	1,700	13.4	<0.112	<22.3
Common Carp	Fish-Whole Body-C5	04-07-88	1,560	16	0.049	<1
Common Carp	Fish-Whole Body-C5	04-07-88	1,650	19	0.041	<1
Common Carp	Fish-Whole Body-C5	08-02-88	1,450	8.37	<0.111	<22
Common Carp	Fish-Whole Body-C5	08-02-88	1,810	15.5	0.159	<22.1
Common Carp	Fish-Whole Body-C4	04-13-89	1,780	13.7	0.721	<5
Common Carp	Fish-Whole Body-C5	04-13-89	1,580	10.8	0.153	<5
Common Carp	Fish-Whole Body-C5	07-26-89	1,310	8.11	<0.097	<1.93
Common Carp	Fish-Whole Body-C5	07-26-89	1,530	5.36	<0.101	2.1
White Sucker	Fish-Whole Body-C2	04-13-89	2,040	24.9	<0.02	<5

samples from the south shoreline of Stewart Lake—Continued

Nickel	Selenium	Silver	Strontium	Thallium	Tin	Vanadium	Zinc	Sample number
14	13.5	<10	178	--	<30	17.8	107	183
<1	14	<2	2	<4	—	<0.3	26	566
<1	9.7	<2	1.7	<4	—	<0.3	28	567
<2.5	41.8	<10	<2.5	--	<25	<1	129	848
<2.5	12.7	<10	<2.5	--	<25	<1	47.5	849
<1	27	<2	13.4	<7	<5	<0.3	36.9	912
<1	32	<2	9.8	<7	<5	<0.3	43	913
<1	28	<2	12.1	<7	<5	<0.3	44	914
<1	22	<2	14.9	<7	<5	<0.3	32.6	915
<1	30	<2	13.4	<7	<5	<0.3	27	916
2	16	<2	157	<7	<5	3.3	103	911
<14.9	14.1	<18.6	492	--	<18.6	<18.6	130	496
1	14.5	<2	299	<4	—	4.1	126	568
<27	56.1	<33.8	142	--	<33.8	<33.8	170	755
<24.2	27.9	<30.3	44.8	--	<30.3	<30.3	91.5	425
<3.50	14.1	<10	327	--	<30	4.89	117	175
<3.50	16.2	<10	188	--	<30	3.06	109	176
<1.98	4	<2.48	393	<9.9	14.3	3.47	121	1353
<19.2	9.1	<24	<4.81	--	<24	<24	36.6	426
1	26	<2	161	<7	<5	1	200	909
<1	20	<2	319	<7	<5	0.7	195	910
<16.3	31.8	<20.4	273	--	<20.4	<20.4	171	494
<17.9	33.5	<22.3	179	--	<22.3	<22.3	230	495
1	31	<2	130	<4	—	1.5	262	580
1	35	<2	141	<4	—	2.4	260	581
<17.6	37.9	<22	144	--	<22	<22	261	423
<17.7	22.1	<22.1	215	--	<22.1	<22.1	313	424
<3.50	31.8	<10	254	--	<30	<1.50	304	179
<3.50	31.7	<10	148	--	<30	<1.50	405	180
<1.54	17.4	<1.93	1.03	<7.72	11	<1.93	233	1356
<1.61	58.5	<2.02	88.6	<8.06	3.23	<2.02	338	1357
<3.50	19.2	<10	229	--	<30	<1.50	76.3	182

Table 43.—*Field and laboratory analyses of biological samples from the south shoreline and outlet of Stewart Lake*

[g, gram; mm, millimeter; Organism: spp. species. Tissue: C5, composite sample, number of individuals; I, individual sample. Life stage: A, Adult. Sex: F, female; --, not determined; <, less than]

Site name: See table 3 and 4 for full site name.

Site name	Organism	Tissue	Date	Moisture content (percent)	Life stage	Sex	Organism data		
							Average weight (g)	Total weight (g)	Length (mm)
SS	American Coot	Bird-Liver-I	04-14-89	77.7	A	F	--	7	--
	American Coot	Bird-Muscle-I	04-14-89	71.9	A	F	--	20	--
	Chironomidae(Predominant)	Invertebrate-Whole Body-C	04-07-88	86.8	--	--	--	6	--
	Invertebrates-Corixidae	Invertebrate-Whole Body-C	08-02-88	88.6	--	--	--	18	--
	Invertebrates-Mixed	Invertebrate-Whole Body-C	05-04-89	78.8	--	--	--	7	--
	Invertebrates-Mixed	Invertebrate-Whole Body-C	06-15-89	85.8	--	--	--	21	--
	Invertebrates-Mixed	Invertebrate-Whole Body-C	07-12-89	86.2	--	--	--	30	--
	Scirpus acutus	Plant-Seed/Chaff-C	09-08-88	13.6	--	--	--	15	--
	Typha spp.	Plant-Seed-C	09-08-88	44.4	--	--	--	15	--
	Filamentous Green Algae	Plant-without Root-C	06-16-88	85.7	--	--	--	32	--
	Filamentous Green Algae	Plant-without Root-C	07-11-88	92.8	--	--	--	42	--
	Potamogeton spp.	Plant-without Root-C	07-19-89	86.8	--	--	--	125	--
	Scirpus acutus	Plant-Root and Stem-C	05-11-88	85.3	--	--	--	430	--
	Scirpus acutus	Plant-Root and Stem-C	07-11-88	78.5	--	--	--	328	--
	Scirpus acutus	Plant-Root and Stem-C	08-10-88	83.7	--	--	--	455	--
	Scirpus acutus	Plant-Root and Stem-C	07-19-89	88.1	--	--	--	320	--
	Typha spp.	Plant-Root and Stem-C	04-20-88	89.2	--	--	--	557	--
	Typha spp.	Plant-Root and Stem-C	04-20-88	85.1	--	--	--	353	--
	Typha spp.	Plant-Root and Stem-C	04-20-88	90.3	--	--	--	250	--
	Typha spp.	Plant-Root and Stem-C	05-11-88	91.6	--	--	--	650	--
	Typha spp.	Plant-Root and Stem-C	07-11-88	89.8	--	--	--	992	--
	Typha spp.	Plant-Root and Stem-C	08-10-88	88.9	--	--	--	714	--
	Typha spp.	Plant-Root and Stem-C	09-21-88	83.8	--	--	--	645	--
	Typha spp.	Plant-Root and Stem-C	07-19-89	87.6	--	--	--	1,226	--
SL Out	Black Bullhead	Fish-Whole Body-C5	07-18-89	77.3	--	--	23	--	117.8
	Common Carp	Fish-Whole Body-C5	07-18-89	80.8	--	--	676	--	392.8
	Fathead Minnow	Fish-Whole Body-C3	07-18-89	76.6	--	--	4	--	--
	Green Sunfish	Fish-Whole Body-C5	07-18-89	79.5	--	--	28	--	108.2

Table 43.--*Field and laboratory analyses of biological samples from the south shoreline and outlet of Stewart Lake*--Continued

Site name	Alum-inum	Anti-mony	Arse-nic	Barium	Beryl-lium	Boron	Cadm-ium	Chrom-ium	Cobalt	Copper	Iron	Lead	Sample number
SS	28.7	<8.97	0.72	<4.48	<0.45	6.19	1.26	<0.90	--	65	3,840	<2.69	242
	<14.2	<7.12	<0.36	<3.56	<0.36	3.84	<0.36	<0.71	--	90.1	350	<2.14	243
	15,100	--	3.7	85	0.5	10	0.8	18	--	22	9,930	9	562
	<87.7	<0.219	1	<43.9	<4.39	<43.9	<4.39	<8.77	--	<21.9	219	<87.7	806
	143	<20	1.69	28.8	0.401	8.39	1.19	<3	<3	12.7	593	<6	137
	2,410	<20	2.96	51.8	0.205	14.1	<0.800	4.32	<3	8.01	3,350	<6	141
	1,110	<20	2.53	77.5	<0.200	11.2	<0.800	<3	<3	7.29	2,440	<6	142
	22	<0.029	0.102	14.5	<0.58	387	<0.58	<1.16	--	4.28	86.8	<11.6	816
	<18	<0.045	0.061	<8.99	<0.90	20.3	1.98	<1.80	--	4.50	62.9	<18	820
	6,860	--	--	114	<3.50	70.6	<3.50	14	--	<17.5	10,800	<69.9	785
	4,040	0.50	16.5	87.5	<6.94	<69.4	<6.94	<13.9	--	<34.7	7,680	<139	770
	495	<50	--	12.1	<0.300	99	<1	<3	<4	5.37	625	<15	120
	184	<0.176	1.43	<34	<3.40	<34	<3.40	<6.80	--	<17	1,110	<68	772
	251	0.158	1.93	41.4	<2.33	<23.3	<2.33	<4.65	--	<11.6	1,290	<46.5	769
	160	0.233	1.77	<30.7	<3.07	<30.7	<3.07	<6.14	--	47.2	933	<61.3	791
	2,290	<50	--	29.8	<0.300	18.2	<1	4.75	<4	5.90	2,570	<15	121
	4,990	--	3.1	46	0.41	14	<0.4	8.3	--	5.3	4,950	<4	546
	792	--	0.4	9.3	0.1	27	<0.3	3.2	--	6.4	558	<4	550
	2,950	--	2.7	22.9	0.2	30	<0.3	4.3	--	4.8	3,780	<4	552
	1,460	<0.298	4.05	<59.5	<5.95	<59.5	<5.95	<11.9	--	<29.8	5,130	<119	771
	2,540	<0.284	4.56	56.9	<4.90	<49	<4.90	<9.80	--	211	7,320	<98	768
	1,860	0.396	5.36	<45	<4.50	<45	<4.50	<9	--	89.2	5,350	<90.1	790
	1,570	--	1.8	26.7	<0.1	6	<0.3	2	--	<2	2,660	<4	384
	2,100	<50	--	31.2	<0.300	23.4	<1	4.95	<4	5.72	3,370	<15	122
SL Out	176	<4.41	<0.44	11.4	<0.22	2.51	<0.22	3	--	3.48	429	<1.32	1360
	86.8	<5.21	<0.52	8.75	<0.26	4.01	1.61	2.34	--	4.53	386	<1.56	1361
	343	<4.27	<0.43	14.1	<0.21	2.48	0.26	2.56	--	3.08	358	<1.28	1362
	28.2	<4.88	<0.49	<2.44	<0.24	<2.44	<0.24	0.98	--	3.41	131	<1.46	1363

Table 43.--*Field and laboratory analyses of biological samples from the south shoreline and outlet of Stewart Lake*--Continued

Site name	Organism	Tissue	Date	Magnesium	Manganese	Mercury
SS	American Coot	Bird-Liver-I	04-14-89	1,090	63.3	2.21
	American Coot	Bird-Muscle-I	04-14-89	968	2.49	0.648
	Chironomidae(Predominant)	Invertebrate-Whole Body-C	04-07-88	4,400	104	0.03
	Invertebrates-Corixidae	Invertebrate-Whole Body-C	08-02-88	1,930	28.1	<0.220
	Invertebrates-Mixed	Invertebrate-Whole Body-C	05-04-89	1,810	117	<0.02
	Invertebrates-Mixed	Invertebrate-Whole Body-C	06-15-89	3,830	101	0.0269
	Invertebrates-Mixed	Invertebrate-Whole Body-C	07-12-89	3,550	96.3	0.311
	Scirpus acutus	Plant-Seed/Chaff-C	09-08-88	1,660	543	0.032
	Typha spp.	Plant-Seed-C	09-08-88	2,030	225	<0.045
	Filamentous Green Algae	Plant-without Root-C	06-16-88	5,800	762	<0.175
	Filamentous Green Algae	Plant-without Root-C	07-11-88	5,560	876	<0.348
	Potamogeton spp.	Plant-without Root-C	07-19-89	2,680	287	--
	Scirpus acutus	Plant-Root and Stem-C	05-11-88	1,500	446	<0.171
	Scirpus acutus	Plant-Root and Stem-C	07-11-88	1,260	605	<0.117
	Scirpus acutus	Plant-Root and Stem-C	08-10-88	1,410	257	<0.154
	Scirpus acutus	Plant-Root and Stem-C	07-19-89	2,360	318	--
	Typha spp.	Plant-Root and Stem-C	04-20-88	4,080	299	0.020
	Typha spp.	Plant-Root and Stem-C	04-20-88	3,600	1,670	0.01
	Typha spp.	Plant-Root and Stem-C	04-20-88	4,550	180	0.018
	Typha spp.	Plant-Root and Stem-C	05-11-88	4,050	299	<0.298
	Typha spp.	Plant-Root and Stem-C	07-11-88	5,200	344	<0.246
	Typha spp.	Plant-Root and Stem-C	08-10-88	4,860	223	<0.226
	Typha spp.	Plant-Root and Stem-C	09-21-88	2,610	100	0.015
	Typha spp.	Plant-Root and Stem-C	07-19-89	4,980	173	--
SL Out	Black Bullhead	Fish-Whole Body-C5	07-18-89	1,930	34.4	0.137
	Common Carp	Fish-Whole Body-C5	07-18-89	1,600	7.92	0.776
	Fathead Minnow	Fish-Whole Body-C3	07-18-89	1,930	16	<0.107
	Green Sunfish	Fish-Whole Body-C5	07-18-89	1,510	9.22	0.293

Table 43.--*Field and laboratory analyses of biological samples from the south shoreline and outlet of Stewart Lake*--Continued

Site name	Molybdenum	Nickel	Selenium	Silver	Strontium	Thallium	Tin	Vanadium	Zinc	Sample number
SS	7.44	<3.59	8.39	<4.48	7.35	<17.9	7.17	<4.48	324	242
	<3.56	<2.85	2.78	<3.56	0.85	<14.2	10.8	<3.56	81.9	243
	<3	9.8	27	<4	70.5	<9	--	37	91	562
	<43.9	<35.1	13.2	<43.9	47.4	--	<43.9	<43.9	188	806
	<5	4.55	11.2	<10	38.4	--	<25	2.01	171	137
	<5	4.66	10.4	<10	145	--	<25	8.53	89.4	141
	<5	<2.50	16	<10	144	--	<25	6.10	96.5	142
	<5.79	<4.63	0.93	<5.79	53.5	--	<5.79	<5.79	21.4	816
	<8.99	<7.19	0.36	<8.99	20.9	--	<8.99	<8.99	18.7	820
	<35	<28	9.1	<35	206	--	<35	<35	49.7	785
	<69.4	<55.6	8.3	<69.4	174	--	<69.4	<69.4	30.6	770
	<10	<4.50	6.77	<15	224	--	<50	2.53	<12	120
	<34	<27.2	2	<34	72.1	--	<34	<34	17	772
	<23.3	<18.6	2.3	<23.3	82.3	--	<23.3	<23.3	11.2	769
	<30.7	<24.5	3.7	<30.7	47.2	--	<30.7	<30.7	40.5	791
	<10	<4.50	4.25	<15	58.2	--	<50	7.62	17.7	121
	<1	<3	1.8	<2	97.2	<4	--	11	38	546
	2	6.9	12	<2	114	<4	--	2.7	34	550
	<1	4	2.4	<2	78.1	<4	--	7.5	28	552
	<59.5	<47.6	3.6	<59.5	125	--	<59.5	<59.5	42.9	771
	<49	<39.2	4.9	<49	169	--	<49	<49	155	768
	<45	<36	3.6	<45	134	--	<45	<45	95.5	790
	<1	2	1.6	<2	67.8	<4	--	4.8	12	384
	<10	5.07	2.04	<15	139	--	<50	7.79	37.2	122
SL Out	3	<1.76	12.3	<2.2	248	<8.81	12.1	<2.2	93.1	1360
	<2.6	<2.08	13.5	<2.6	96.1	<10.4	14.7	<2.6	470	1361
	<2.14	<1.71	24.8	<2.14	171	<8.55	9.15	<2.14	150	1362
	<2.44	<1.95	11.2	<2.44	164	<9.76	17.2	<2.44	80.6	1363

Table 44.--*Field and laboratory analyses of biological samples from the inlet and outlet of Pelican Lake near Ouray, Utah*

[g, gram; mm, millimeter; Organism: spp. species. Tissue: C5, composite sample, number of individuals; I, individual sample. Life stage: listed as days for embryos; A, Adult; I, immature. --, not determined; <, less than]

Site name: See tables 3 and 4 for full site name.

Site name	Organism	Tissue	Date	Moisture content (percent)	Life stage	Sex	Organism data		
							Average weight (g)	Total weight (g)	Length (mm)
PL Inlet	American Coot	Bird-Liver-I	06-16-87	73.9	A	--	--	345	--
	American Coot	Bird-Liver-I	08-12-87	67.4	A	--	--	575	--
	American Coot	Bird-Liver-I	08-12-87	70.5	I	--	--	425	--
	American Coot	Bird-Liver-I	08-12-87	70.6	I	--	--	500	--
	American Coot	Bird-Liver-I	08-12-87	71.2	I	--	--	550	--
	Ruddy Duck	Bird-Liver-I	08-12-87	67.3	A	F	--	525	--
	Ruddy Duck	Bird-Liver-C2	08-12-87	61.5	I	--	--	75	--
	Bluegill	Fish-Muscle-I	08-05-87	77.5	A	--	--	--	--
	Bluegill	Fish-Muscle-I	08-05-87	77.7	A	--	--	--	--
	Largemouth Bass	Fish-Muscle-I	08-05-87	78.8	A	--	--	--	--
	Bluegill	Fish-Whole Body-C5	08-04-87	74.6	A	--	118	--	170
	Largemouth Bass	Fish-Whole Body-C5	08-04-87	76.4	A	--	132	--	212
	Invertebrates-Odonata	Invertebrate-Whole Body-C	08-01-87	83.3	--	--	--	--	--
	Invertebrates-Snails	Invertebrate-Whole Body-C	08-01-87	75.8	--	--	--	--	--
	Filamentous Green Algae	Plant-without Root-C	07-20-87	91.6	--	--	--	--	--
	Potamogeton/Ruppia spp.	Plant-without Root-C	07-20-87	91	--	--	--	--	--
	Chara spp.	Plant-without Root-C	07-20-87	76.9	--	--	--	--	--
PL Outlet	American Coot	Bird-Liver-I	08-12-87	72.2	I	--	--	475	--
	American Coot	Bird-Liver-I	08-12-87	68.7	I	--	--	525	--
	American Coot	Bird-Liver-I	08-12-87	68.5	I	--	--	575	--
	American Coot	Bird-Liver-I	08-14-87	74.3	I	--	--	450	--
	Bluegill	Fish-Muscle-I	08-05-87	77.1	A	--	--	--	--
	Bluegill	Fish-Muscle-I	08-05-87	78.9	A	--	--	--	--
	Largemouth Bass	Fish-Muscle-I	08-05-87	78.3	A	--	--	--	--
	Bluegill	Fish-Whole Body-C5	08-04-87	77.3	A	--	103	--	157
	Largemouth Bass	Fish-Whole Body-C5	08-04-87	76.4	A	--	117	--	177
	Invertebrates-Odonata	Invertebrate-Whole Body-C	07-31-87	85.6	--	--	--	--	--
	Invertebrates-Snails	Invertebrate-Whole Body-C	07-31-87	81.5	--	--	--	--	--
	Filamentous Green Algae	Plant-without Root-C	07-20-87	90.4	--	--	--	--	--
	Potamogeton pusillus	Plant-without Root-C	07-20-87	83.8	--	--	--	--	--
	Chara spp.	Plant-without Root-C	07-20-87	85.5	--	--	--	--	--

Table 44.--*Field and laboratory analyses of biological samples from the inlet and outlet of Pelican Lake near Ouray, Utah*--Continued

Site name	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Chromium	Cobalt	Copper	Iron	Lead	Sample number
PL Inlet	157	<0.39	<0.39	<19.2	<1.92	<19.2	<1.92	<3.83	--	19.9	1,030	<38.3	459
	3	--	<0.2	0.38	<0.1	<2	1	<1	--	7.6	4,160	<4	1045
	<3	--	<0.2	0.1	<0.1	<2	<0.4	<1	--	19	2,580	<4	1046
	<3	--	<0.2	0.1	<0.1	3	<0.4	<1	--	27.1	3,460	<4	1047
	<3	--	<0.2	0.2	<0.1	<2	<0.4	<1	--	22	2,990	<4	1048
	<3	--	<0.2	0.40	<0.1	<2	0.8	<1	--	5.3	4,250	<4	1053
	<3	--	<0.2	0.68	<0.1	<2	<0.4	<1	--	6.3	590	<4	1054
	<44.4	<0.112	0.151	<22.2	<2.22	<22.2	<2.22	<4.44	--	<11.1	<44.4	<44.4	511
	<44.8	<0.113	0.170	<22.4	<2.24	<22.4	<2.24	<4.48	--	<11.2	<44.8	<44.8	512
	<47.2	<0.118	0.132	<23.6	<2.36	<23.6	<2.36	<4.72	--	<11.8	<47.2	<47.2	513
	55.1	<0.099	0.189	<19.7	<1.97	<19.7	<1.97	<3.94	--	<9.84	130	<39.4	508
	<42.4	<0.106	0.157	<21.2	<2.12	<21.2	<2.12	<4.24	--	<10.6	89	<42.4	507
	162	--	--	<29.9	<2.99	<29.9	<2.99	<5.99	--	<15	222	<60	522
	124	<0.104	1.47	118	<2.07	<20.7	<2.07	<4.13	--	<10.3	202	<41.3	524
	1,970	--	<0.5	293	0.1	232	<0.2	3	--	3.6	2,360	<4	1008
	1,020	--	1.4	167	<0.1	565	<0.2	1	--	3.5	906	<4	994
	99	--	0.5	849	<0.1	16	<0.2	<1	--	0.80	166	<4	1003
PL Outlet	<3	--	<0.2	0.2	<0.1	3	<0.4	<1	--	18	1,660	<4	1049
	<3	--	<0.2	0.2	<0.1	<2	<0.4	<1	--	9.7	1,880	<4	1050
	<3	--	<0.2	0.1	<0.1	2	<0.4	<1	--	13	2,720	<4	1051
	<3	--	<0.2	0.2	<0.1	<2	<0.4	<1	--	48.4	4,480	<4	1052
	<43.7	<0.110	0.175	<21.8	<2.18	<21.8	<2.18	<4.37	--	<10.9	<43.7	<43.7	514
	<47.4	<0.119	0.180	<23.7	<2.37	<23.7	<2.37	<4.74	--	<11.8	<47.4	<47.4	515
	<46.1	<0.116	0.101	<23	<2.3	<23	<2.30	<4.61	--	<11.5	<46.1	<46.1	516
	44.1	<0.111	0.291	<22	<2.2	<22	<2.2	<4.41	--	<11	83.7	<44.1	510
	46.6	<0.106	0.127	<21.2	<2.12	<21.2	<2.12	<4.24	--	<10.6	97.5	<42.4	509
	153	--	--	<34.7	<3.47	<34.7	<3.47	<6.94	--	18.7	187	<69.4	523
	227	0.189	2.59	177	<2.70	<27	<2.70	<5.40	--	<13.5	189	<54	525
	5,130	--	3.1	199	0.3	236	<0.2	5.3	--	4.5	4,210	<4	1009
	344	--	<0.2	103	<0.1	667	<0.2	1	--	3.1	240	<4	995
	660	--	0.64	924	<0.1	14	<0.2	<1	--	0.76	504	<4	1004

Table 44.--*Field and laboratory analyses of biological samples from the inlet and outlet of Pelican Lake near Ouray, Utah*--Continued

Site name	Organism	Tissue	Date	Magnesium	Manganese	Mercury
PL Inlet	American Coot	Bird-Liver-I	06-16-87	728	7.28	0.690
	American Coot	Bird-Liver-I	08-12-87	542	8.2	0.34
	American Coot	Bird-Liver-I	08-12-87	610	6.8	0.11
	American Coot	Bird-Liver-I	08-12-87	647	10	0.513
	American Coot	Bird-Liver-I	08-12-87	559	8.3	0.33
	Ruddy Duck	Bird-Liver-I	08-12-87	508	6.5	0.091
	Ruddy Duck	Bird-Liver-C	08-12-87	546	9.1	--
	Bluegill	Fish-Muscle-I	08-05-87	1,380	<6.67	0.818
	Bluegill	Fish-Muscle-I	08-05-87	1,350	<6.73	1.83
	Largemouth Bass	Fish-Muscle-I	08-05-87	1,420	<7.08	1.75
	Bluegill	Fish-Whole Body-C5	08-04-87	1,570	8.27	0.496
	Largemouth Bass	Fish-Whole Body-C5	08-04-87	1,440	<6.36	0.551
	Invertebrates-Odonata	Invertebrate-Whole Body-C	08-01-87	1,260	119	0.269
	Invertebrates-Snails	Invertebrate-Whole Body-C	08-01-87	1,070	169	<0.104
	Filamentous Green Algae	Plant-without Root-C	07-20-87	8,050	1,040	0.020
	Potamogeton/Ruppia spp.	Plant-without Root-C	07-20-87	6,880	1,410	0.023
	Chara spp.	Plant-without Root-C	07-20-87	7,230	344	0.01
PL Outlet	American Coot	Bird-Liver-I	08-12-87	694	9	0.40
	American Coot	Bird-Liver-I	08-12-87	532	8	0.19
	American Coot	Bird-Liver-I	08-12-87	541	8.2	0.18
	American Coot	Bird-Liver-I	08-14-87	883	10	0.47
	Bluegill	Fish-Muscle-I	08-05-87	1,270	<21.8	0.747
	Bluegill	Fish-Muscle-I	08-05-87	1,470	<7.11	0.588
	Largemouth Bass	Fish-Muscle-I	08-05-87	1,340	<6.91	1.09
	Bluegill	Fish-Whole Body-C5	08-04-87	1,450	<6.61	0.665
	Largemouth Bass	Fish-Whole Body-C5	08-04-87	1,360	<6.36	0.805
	Invertebrates-Odonata	Invertebrate-Whole Body-C	07-31-87	1,390	10.4	0.271
	Invertebrates-Snails	Invertebrate-Whole Body-C	07-31-87	2,110	63.8	<0.136
	Filamentous Green Algae	Plant-without Root-C	07-20-87	15,700	169	0.022
	Potamogeton pusillus	Plant-without Root-C	07-20-87	11,700	49	0.062
	Chara spp.	Plant-without Root-C	07-20-87	8,210	49.6	0.015

Table 44.--*Field and laboratory analyses of biological samples from the inlet and outlet of Pelican Lake near Ouray, Utah*--Continued

Site name	Molybdenum	Nickel	Selenium	Silver	Strontium	Thallium	Tin	Vanadium	Zinc	Sample number
PL Inlet	<19.2	<15.3	108	<19.2	<3.83	--	<19.2	<19.2	151	459
	<1	<2	2.8	<1	2.2	<6	--	1.1	68.4	1045
	3.8	<2	2.8	<1	0.81	<6	--	<0.3	95.6	1046
	3	<2	4.3	<1	0.60	<6	--	0.3	165	1047
	<1	<2	2.9	<1	0.77	<6	--	<0.3	93.5	1048
	<1	<2	3.5	<1	0.51	<6	--	0.9	95.8	1053
	<1	<3	2.2	<1	2.9	<7	--	0.4	55.3	1054
	<22.2	<17.8	2.2	<22.2	<4.44	--	<22.2	<22.2	32.9	511
	<22.4	<17.9	2.2	<22.4	4.48	--	<22.4	<22.4	33.6	512
	<23.6	<18.9	2.8	<23.6	<4.72	--	<23.6	<23.6	27.4	513
	<19.7	<15.7	2.4	<19.7	245	--	<19.7	<19.7	83.1	508
	<21.2	<16.9	2.5	<21.2	211	--	<21.2	<21.2	84.3	507
	<29.9	<24	2.4	<29.9	32.3	--	<29.9	<29.9	97	522
	<20.7	<16.5	<0.42	<20.7	1,300	--	<20.7	<20.7	21.5	524
	<1	2	0.55	<2	659	<5	--	5.4	12	1008
	2	<1	0.36	<2	348	<5	--	3.8	12	994
	<1	<1	0.3	<2	2,700	<5	--	0.5	3.6	1003
PL Outlet	1	<2	2.5	<1	1.2	<6	--	0.3	157	1049
	<1	<2	2.7	<1	0.94	<6	--	<0.3	70.8	1050
	2	<2	2.6	<1	0.52	<6	--	0.8	78	1051
	2	<2	5.7	<1	1	<6	--	0.3	174	1052
	<21.8	<17.5	1.7	<21.8	<4.37	--	<21.8	<21.8	26.2	514
	<23.7	<19	2.4	<23.7	24.2	--	<23.7	<23.7	34.1	515
	<23	<18.4	1.8	<23	<4.61	--	<23	<23	24.4	516
	<22	<17.6	2.2	<22	222	--	<22	<22	81.1	510
	<21.2	<16.9	2.1	<21.2	180	--	<21.2	<21.2	69.5	509
	<34.7	<27.8	3.5	<34.7	63.2	--	<34.7	<34.7	104	523
	<27	<21.6	0.5	<27	1,700	--	<27	<27	26.5	525
	<1	4.3	0.59	<2	450	<5	--	9	22	1009
	2	<1	0.2	<2	270	<5	--	1.3	11	995
	<1	<1	0.40	<2	4,000	<5	--	1.5	4.2	1004

Table 45.—*Field and laboratory analyses of biological samples from the Pelican Lake area near Ouray, Utah*

[g, gram; mm, millimeter; Tissue: I, individual sample; Egg, net sample weight. Life stage: I, immature; A, Adult. Sex: F, female; M, male. --, not determined; <, less than]

Site name: See table 4 for full site name.

Site name	Organism	Tissue	Date	Moisture content (percent)	Life stage	Sex	Organism data		
							Average weight (g)	Total weight (g)	Length (mm)
PL NS	Bald Eagle	Bird-Blood-I	03-22-89	82	I	F	--	5,550	685
	Bald Eagle	Bird-Blood-I	03-22-89	77.4	I	F	--	4,550	660
PL ES	Northern Shoveler	Bird-Liver-I	03-23-89	71.6	A	M	--	555	--
	Northern Shoveler	Bird-Liver-I	03-28-89	69.8	A	M	--	539	--
	Northern Shoveler	Bird-Liver-I	03-28-89	71.2	A	M	--	556	--
	Northern Shoveler	Bird-Muscle-I	03-23-89	72.6	A	M	--	555	--
	Northern Shoveler	Bird-Muscle-I	03-28-89	73.1	A	M	--	539	--
	Northern Shoveler	Bird-Muscle-I	03-28-89	71.7	A	M	--	556	--
PL	Bald Eagle	Bird-Blood-I	03-15-88	79.9	I	F	--	4,800	662
	Bald Eagle	Bird-Blood-I	03-18-88	77.3	I	F	--	5,300	650
	Bald Eagle	Bird-Blood-I	03-21-89	79	I	M	--	3,850	630
	American Coot	Bird-Egg-I	06-02-87	75	--	--	--	--	47.9
	American Coot	Bird-Egg-I	06-09-87	71.2	--	--	--	--	51
	American Coot	Bird-Egg-I	06-09-87	80.8	--	--	--	--	50
	American Coot	Bird-Egg-I	06-09-87	75.8	--	--	--	--	49.2
	American Coot	Bird-Egg-I	06-09-87	72.7	--	--	--	--	48.2
	American Coot	Bird-Egg-I	06-09-87	76.5	--	--	--	--	48.4
	American Coot	Bird-Egg-I	06-09-87	76.3	--	--	--	--	46.1
	American Coot	Bird-Egg-I	06-16-87	78.1	--	--	--	--	49.6
	American Coot	Bird-Egg-I	06-23-87	76.3	--	--	--	--	51.3
	American Coot	Bird-Egg-I	06-23-87	78	--	--	--	--	47.5
	American Coot	Bird-Egg-I	06-25-87	78.1	--	--	--	--	--
	American Coot	Bird-Egg-I	06-30-87	74.2	--	--	--	--	50.3
	Yellow-Headed Blackbird	Bird-Egg-I	06-23-87	81.5	--	--	--	--	--
PL RS	Golden Eagle	Bird-Blood-I	03-21-89	79	I	M	--	3,600	620
	Golden Eagle	Bird-Blood-I	03-21-89	78.8	I	M	--	3,400	610

Table 45.--*Field and laboratory analyses of biological samples from the Pelican Lake area near Ouray, Utah*—Continued

Site name	Alum-inum	Anti-mony	Arse-nic	Barium	Beryl-lium	Boron	Cadm-ium	Chrom-ium	Cobalt	Copper	Iron	Lead	Sample number
PL NS	<15	<30	<0.2	<1	<0.100	8.85	<0.400	<2	<3	2.03	2,350	<9	78
	<15	<30	<0.2	<1	<0.100	3.42	<0.400	<2	<3	<2	2,520	<9	79
PL ES	19.5	<3.52	<0.35	<1.76	<1.18	<1.76	1.30	<0.35	--	40.2	6,320	<1.06	254
	22.3	<3.31	0.33	<1.66	<0.17	2.98	5.26	<0.33	--	40.3	4,050	<0.99	256
	32	<3.47	0.35	<1.74	<0.17	5.35	8.47	<0.35	--	86.2	2,380	<1.04	258
	<3.65	<3.65	<0.36	<1.82	<0.18	2.12	<0.18	<0.36	--	27.2	274	<1.09	255
	7.55	<3.72	<0.37	<1.86	<0.19	3.75	<0.18	<0.37	--	35.5	330	<1.12	257
	7.35	<3.53	<0.35	<1.77	<0.18	5.16	<0.18	<0.35	--	31.6	269	<1.06	259
PL	--	--	<0.06	--	--	--	--	--	--	--	--	0.87	83
	--	--	<0.06	--	--	--	--	--	--	--	--	0.46	87
	<15	<30	<0.2	<1	<0.100	8	<0.400	<2	<3	3.04	2,620	<9	73
	<3	--	<0.2	9	<0.1	<2	<0.4	<1	--	3.5	110	<4	965
	8	--	<0.2	60.6	<0.1	2	<0.4	<1	--	2.7	106	<4	960
	<3	--	<0.2	27.2	<0.1	2	<0.4	<1	--	4	96.5	<4	961
	<3	--	<0.2	16.8	<0.1	2	<0.4	1	--	3	118	<4	963
	<3	--	<0.2	11.1	<0.1	<2	<0.4	<1	--	2	87	<4	964
	<3	--	<0.2	21.4	<0.1	2	<0.4	<1	--	3.4	80	<4	966
	<3	--	<0.2	5.7	<0.1	<2	<0.4	<1	--	2.5	69	<4	967
	<3	--	<0.2	5.2	<0.1	<2	<0.4	<1	--	1.9	78	<4	962
	<42.2	<0.106	0.473	<21.1	<2.11	<21.1	<2.11	<4.22	--	<10.5	54.8	<42.2	475
	<3	--	<0.2	8.2	<0.1	<2	<0.4	1	--	4.7	119	<4	968
	4	--	<0.2	9.4	<0.1	<2	<0.4	<1	--	3.3	96	<4	969
	<38.8	<0.097	0.236	<19.4	<1.94	<19.4	<1.94	<3.88	--	<9.69	42.6	<38.8	476
	54	<0.136	<0.028	<27	<2.70	<27	<2.70	<5.40	--	<13.5	64.9	<54	478
PL RS	<15	<30	<0.2	<1	<0.100	3.60	<0.400	<2	<3	<2	2,460	<9	76
	<15	<30	<0.2	<1	<0.100	8.29	<0.400	<2	<3	<2	2,630	<9	77

Table 45.--*Field and laboratory analyses of biological samples from the Pelican Lake area near Ouray, Utah*—Continued

Site name	Organism	Tissue	Date	Magnesium	Manganese	Mercury
PL NS	Bald Eagle	Bird-Blood-I	03-22-89	390	<1	3.67
	Bald Eagle	Bird-Blood-I	03-22-89	350	<1	4.77
PL ES	Northern Shoveler	Bird-Liver-I	03-23-89	870	12.9	2.11
	Northern Shoveler	Bird-Liver-I	03-28-89	838	12.3	2.58
	Northern Shoveler	Bird-Liver-I	03-28-89	837	14.7	38.9
	Northern Shoveler	Bird-Muscle-I	03-23-89	1,020	1.79	0.799
	Northern Shoveler	Bird-Muscle-I	03-28-89	1,130	2.30	0.985
	Northern Shoveler	Bird-Muscle-I	03-28-89	1,080	1.77	3.30
PL	Bald Eagle	Bird-Blood-I	03-15-88	--	--	0.92
	Bald Eagle	Bird-Blood-I	03-18-88	--	--	1.7
	Bald Eagle	Bird-Blood-I	03-21-89	374	<1	5.09
	American Coot	Bird-Egg-I	06-02-87	459	<0.7	0.38
	American Coot	Bird-Egg-I	06-09-87	658	2	0.19
	American Coot	Bird-Egg-I	06-09-87	891	1	0.38
	American Coot	Bird-Egg-I	06-09-87	763	1	0.37
	American Coot	Bird-Egg-I	06-09-87	585	0.8	0.27
	American Coot	Bird-Egg-I	06-09-87	709	<0.7	0.35
	American Coot	Bird-Egg-I	06-09-87	583	1	0.42
	American Coot	Bird-Egg-I	06-16-87	633	0.8	0.18
	American Coot	Bird-Egg-I	06-23-87	506	<6.33	1.12
	American Coot	Bird-Egg-I	06-23-87	536	0.7	0.65
	American Coot	Bird-Egg-I	06-25-87	768	2.3	0.39
	American Coot	Bird-Egg-I	06-30-87	543	<5.81	0.388
	Yellow-Headed Blackbird	Bird-Egg-I	06-23-87	<540	<8.11	0.427
PL RS	Golden Eagle	Bird-Blood-I	03-21-89	410	<1	0.0758
	Golden Eagle	Bird-Blood-I	03-21-89	358	1.37	0.0291

Table 45.—*Field and laboratory analyses of biological samples from the Pelican Lake area near Ouray, Utah*—Continued

Site name	Molybdenum	Nickel	Selenium	Silver	Strontium	Thallium	Tin	Vanadium	Zinc	Sample number
PL NS	<5	<2.50	2.62	<9	<6	--	<30	<1	25.8	78
	<5	<2.50	5.08	<9	<6	--	<30	<1	24.4	79
PL ES	8.03	<1.41	9.9	<1.76	2.01	<7.04	5.67	<1.76	114	254
	4.80	<1.32	5.6	<1.66	0.56	<6.62	2.78	<1.66	135	256
	4.69	<1.39	18.8	<1.74	0.56	<6.94	7.81	<1.74	172	258
	<1.82	<1.46	3.6	<1.82	0.44	<7.30	14.5	<1.82	35.1	255
	<1.86	<1.49	2.2	<1.86	0.52	<7.43	8.70	<1.86	45.4	257
	<1.77	<1.41	1.4	<1.77	<0.35	<7.07	8.80	<1.77	41.6	259
PL	--	--	2.3	--	--	--	—	--	—	83
	--	--	3.1	--	--	--	—	--	—	87
	<5	<2.50	2.88	<9	<6	--	<30	<1	21	73
	<1	<1	1.1	<1	13.2	<3	—	<0.3	72.4	965
	<1	<1	1.4	<1	52.8	<3	—	<0.3	75.2	960
	<1	<1	2.3	<1	50.1	<3	—	<0.3	60.2	961
	<1	<1	2.6	<1	53.8	<3	—	<0.3	75.9	963
	<1	<1	1.7	<1	36.4	<3	—	<0.3	64.9	964
	<1	<1	1.6	<1	59.7	<3	—	<0.3	76.2	966
	<1	<1	1.4	<1	16.2	<3	—	<0.3	48.5	967
	<1	<1	1.1	<1	36	<3	—	<0.3	74.5	962
	<20.1	<16.9	2.5	<21.1	17.3	--	<21.1	<21.1	60.8	475
	<1	<1	1.5	<1	22.1	<3	—	<0.3	71.7	968
	<1	<1	1.8	<1	52.9	<3	—	<0.3	63.9	969
	<19.4	<15.5	0.8	<19.4	15.9	--	<19.4	<19.4	51.9	476
	<27	<21.6	4.3	<27	6.49	--	<27	<27	31.9	478
PL RS	<5	<2.50	1.68	<9	<6	--	<30	<1	26.7	76
	<5	<2.50	2.47	<9	<6	--	<30	<1	24.4	77

Table 46.--*Field and laboratory analyses of biological samples from ponds 1, 2, 3, and 4 in Leota Bottom at Ouray National Wildlife Refuge*

[g, gram; mm, millimeter; Organism: spp. species. Tissue: C5, composite sample, number of individuals; I, individual sample; Egg, net sample weight. Life stage: listed as days for embryos; A, Adult. --, not determined; <, less than]

Site name: See tables 3 and 4 for full site name.

Site name	Organism	Tissue	Date	Moisture content (percent)	Life stage	Sex	Organism data		
							Average weight (g)	Total weight (g)	Length (mm)
L1	Mallard	Bird-Egg-I	05-18-89	69.7	--	--	--	47	57.4
L2	Northern Shoveler	Bird-Egg-I	05-18-89	70	1	--	--	34	49.8
L3	American Coot	Bird-Egg-I	05-28-87	78.7	--	--	--	--	47.1
	American Coot	Bird-Egg-I	06-04-87	76.7	--	--	--	--	47
	American Coot	Bird-Egg-I	06-04-87	76.6	--	--	--	--	--
	American Coot	Bird-Egg-I	06-12-87	73.5	--	--	--	--	47.6
	American Coot	Bird-Egg-I	06-12-87	75.6	--	--	--	--	50.3
	Canada Goose	Bird-Egg-I	05-17-88	68.8	--	--	--	107	80.2
	Canada Goose	Bird-Egg-I	05-02-89	67.6	26	--	--	--	--
	Cinnamon Teal	Bird-Egg-I	05-18-89	66.8	8	--	--	27	47.2
	Pied-Billed Grebe	Bird-Egg-I	06-12-87	77.9	--	--	--	--	44.1
	Black Bullhead	Fish-Whole Body-C5	04-03-87	78.9	--	--	316	--	252
	Black Bullhead	Fish-Whole Body-C5	07-30-87	82	A	--	270	--	257
	Common Carp	Fish-Whole Body-C5	04-03-87	80.2	--	--	116	--	195
	Common Carp	Fish-Whole Body-C5	04-03-87	79.8	--	--	119	--	198
	Common Carp	Fish-Whole Body-C5	07-30-87	76.6	A	--	1,058	--	418
	Common Carp	Fish-Whole Body-C5	07-30-87	75.6	A	--	592	--	336
	Green Sunfish	Fish-Whole Body-I	04-03-87	70	--	--	--	102	165
	Green Sunfish	Fish-Whole Body-C3	07-30-87	79.9	A	--	50	--	129
	Filamentous Green Algae	Plant-without Root-C	07-20-87	90.9	--	--	--	--	--
	Myriophyllum spp.	Plant-without Root-C	08-13-87	88.6	--	--	--	--	--
	Potamogeton pusillus	Plant-without Root-C	07-20-87	89.5	--	--	--	--	--
	Typha spp.	Plant-Root and Stem-C	08-13-87	88.8	--	--	--	--	--
L4	Cinnamon Teal	Bird-Egg-I	05-18-89	68.7	1	--	--	26	49.1
	Canada Goose	Bird-Egg-I	05-03-88	69.9	7	--	--	145	92.6
	Canada Goose	Bird-Egg-I	04-27-89	33.8	26	--	--	54	86.4
	Gadwall	Bird-Egg-I	06-14-89	59.8	0	--	--	36	56
	Gadwall	Bird-Egg-I	06-15-89	66.8	20	--	--	33	55.3
	Mallard	Bird-Egg-I	05-18-89	70.1	6	--	--	37	55.4

Table 46.--*Field and laboratory analyses of biological samples from ponds 1, 2, 3, and 4 in Leota Bottom at Ouray National Wildlife Refuge*--Continued

Site name	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Chromium	Cobalt	Copper	Iron	Lead	Sample number
L1	--	--	--	--	--	--	--	--	--	--	--	--	1236
L2	--	--	--	--	--	--	--	--	--	--	--	--	1227
L3	3	--	<0.2	0.79	<0.1	3	<0.4	<1	--	2.8	57	<4	950
	<3	--	<0.2	10.4	<0.1	2	<0.4	<1	--	4.4	97	<4	946
	<3	--	<0.2	8.7	<0.09	3	<0.4	<0.9	--	3.3	104	<4	949
	37.7	<0.095	0.091	<18.9	<1.89	<18.9	<1.89	<3.77	--	<9.43	49	<37.7	474
	<3	--	<0.1	3.5	<0.1	<2	<0.4	2	--	3.8	128	<4	948
	<3	--	<0.2	4.3	<0.1	<3	<0.3	<1	--	2.9	136	<4	456
	<15	<30	<0.3	1.55	<0.100	2.96	<0.400	<2	<3	5.19	99.2	<6	3
	--	--	--	--	--	--	--	--	--	--	--	--	1229
	<3	--	<0.2	0.2	<0.1	<2	<0.4	<1	--	2.9	76	<4	947
	290	--	0.1	6.8	<0.1	<2	<0.2	<1	--	2	287	<4	895
	55.6	<0.139	0.344	<27.8	<2.78	<27.8	<2.78	<5.56	--	<13.9	139	<55.6	492
	190	--	0.1	5.1	<0.1	<2	<0.2	<1	--	3	289	<4	896
	160	--	0.2	5.6	<0.1	<2	<0.2	<1	--	2.5	280	<4	897
	59.8	<0.107	0.188	<21.4	<2.14	<21.4	<2.14	<4.27	--	<10.7	107	<42.7	490
	45.1	<0.103	0.168	<20.5	<2.05	<20.5	<2.05	<4.1	--	<10.2	156	<41	491
	23	--	<0.1	1.4	<0.1	<2	<0.2	<1	--	0.93	58	<4	898
	<49.8	<0.125	0.199	<24.9	<2.49	<24.9	<2.49	<4.98	--	<12.4	124	<49.8	493
	4,250	--	4.4	154	0.2	170	<0.2	5.3	--	5.8	4,170	<4	1007
	2,040	--	12	326	0.1	14	<0.2	2.9	--	4	5,650	<4	1002
	3,820	--	3.2	182	0.2	265	<0.2	4.4	--	4.8	2,320	<4	993
	1,200	--	3.4	37.3	<0.1	7.3	<0.2	4	--	3	2,650	<4	1017
L4	--	--	--	--	--	--	--	--	--	--	--	--	1230
	<3	--	<0.2	4.3	<0.1	<3	<0.3	<1	--	1.8	113	<4	442
	<15	<30	<0.3	4.40	<0.100	<2	<0.400	<2	<3	4.15	152	<6	47
	--	--	--	--	--	--	--	--	--	--	--	--	1164
	--	--	--	--	--	--	--	--	--	--	--	--	1167
	--	--	--	--	--	--	--	--	--	--	--	--	1234

Table 46.--*Field and laboratory analyses of biological samples from ponds 1, 2, 3, and 4 in Leota Bottom at Ouray National Wildlife Refuge*--Continued

Site name	Organism	Tissue	Date	Magnesium	Manganese	Mercury
L1	Mallard	Bird-Egg-I	05-18-89	--	--	--
L2	Northern Shoveler	Bird-Egg-I	05-18-89	--	--	--
L3	American Coot	Bird-Egg-I	05-28-87	839	5.9	0.091
	American Coot	Bird-Egg-I	06-04-87	862	0.7	0.059
	American Coot	Bird-Egg-I	06-04-87	908	2	0.15
	American Coot	Bird-Egg-I	06-12-87	528	<5.66	0.132
	American Coot	Bird-Egg-I	06-12-87	793	2.5	0.063
	Canada Goose	Bird-Egg-I	05-17-88	376	2	<0.005
	Canada Goose	Bird-Egg-I	05-02-89	493	<1	<0.02
	Cinnamon Teal	Bird-Egg-I	05-18-89	--	--	--
	Pied-Billed Grebe	Bird-Egg-I	06-12-87	696	1	0.68
	Black Bullhead	Fish-Whole Body-C5	04-03-87	1,380	20	0.31
	Black Bullhead	Fish-Whole Body-C5	07-30-87	1,830	20	0.711
	Common Carp	Fish-Whole Body-C5	04-03-87	1,340	14	0.072
	Common Carp	Fish-Whole Body-C5	04-03-87	1,370	22.3	0.071
	Common Carp	Fish-Whole Body-C5	07-30-87	983	<6.41	<0.107
	Common Carp	Fish-Whole Body-C5	07-30-87	1,230	6.15	<0.103
	Green Sunfish	Fish-Whole Body-I	04-03-87	1,120	7.4	0.22
	Green Sunfish	Fish-Whole Body-C3	07-30-87	1,240	9.95	0.189
	Filamentous Green Algae	Plant-without Root-C	07-20-87	7,460	699	0.022
	Myriophyllum spp.	Plant-without Root-C	08-13-87	6,410	1,380	0.019
	Potamogeton pusillus	Plant-without Root-C	07-20-87	6,980	409	0.025
	Typha spp.	Plant-Root and Stem-C	08-13-87	3,140	116	0.01
L4	Cinnamon Teal	Bird-Egg-I	05-18-89	--	--	--
	Canada Goose	Bird-Egg-I	05-03-88	433	2.6	<0.005
	Canada Goose	Bird-Egg-I	04-27-89	682	3.33	<0.02
	Gadwall	Bird-Egg-I	06-14-89	--	--	--
	Gadwall	Bird-Egg-I	06-15-89	--	--	--
	Mallard	Bird-Egg-I	05-18-89	--	--	--

Table 46.—*Field and laboratory analyses of biological samples from ponds 1, 2, 3, and 4 in Leota Bottom at Ouray National Wildlife Refuge*—Continued

Site name	Molybdenum	Nickel	Selenium	Silver	Strontium	Thallium	Tin	Vanadium	Zinc	Sample number
L1	--	--	7.6	--	--	--	--	--	--	1236
L2	--	--	3.1	--	--	--	--	--	--	1227
L3	<1	<1	3.8	<1	12.1	<3	--	<0.3	77.2	950
	<1	<1	2.1	<1	28	<3	--	<0.3	72.8	946
	<0.9	<1	3	<0.9	22.7	<3	--	<0.3	69.8	949
	<18.9	<15.1	1.5	<18.9	15.1	--	<18.9	<18.9	52.1	474
	<1	<1	1.9	<1	27.1	<3	--	<0.3	73.5	948
	<1	<1	1.3	<2	3.7	<4	--	<0.3	63.8	456
	<5	<2.50	3.12	<9	<10	--	<30	<1	63.9	3
	--	--	9	--	--	--	--	--	--	1229
	<1	<1	5	<1	11.5	<3	--	<0.3	59.6	947
	<1	<1	2.9	<2	141	<6	--	0.8	79.6	895
	<27.8	<22.2	2.2	<27.8	236	--	<27.8	<27.8	102	492
	<1	<1	3.2	<2	111	<6	--	0.6	188	896
	<1	<1	2.8	<2	122	<6	--	0.6	169	897
	<21.4	<17.1	3	<21.4	43.2	--	<21.4	<21.4	115	490
	<20.5	<16.4	2	<20.5	166	--	<20.5	<20.5	158	491
	<1	<1	2.9	<2	156	<6	--	<0.3	68.3	898
	<24.9	<19.9	5	<24.9	101	--	<24.9	<24.9	87.6	493
	<1	5.3	0.97	<2	314	<5	--	8.2	39	1007
	<1	3.7	1.2	<2	414	<5	--	7.8	23.4	1002
	<1	3.7	1.2	<2	375	<5	--	9.7	19	993
	<1	3	0.3	<2	64.8	<5	--	3.8	18	1017
L4	--	--	4.1	--	--	--	--	--	--	1230
	<1	<1	1.2	<2	3.6	<4	--	<0.3	46.1	442
	<5	<2.50	1.96	<9	10.4	--	<30	<1	50.6	47
	--	--	2.2	--	--	--	--	--	--	1164
	--	--	2.5	--	--	--	--	--	--	1167
	--	--	3.1	--	--	--	--	--	--	1234

Table 47.--*Field and laboratory analyses of biological samples from ponds 5 and 6 in Leota Bottom at Ouray National Wildlife Refuge*

[g, gram; mm, millimeter; Organism: spp. species. Tissue: C5, composite sample, number of individuals; I, individual sample; Egg, net sample weight. Life stage: listed as days for embryos; I, immature; A, Adult. Sex: M, male; F, female. --, not determined; <, less than]

Site name: See tables 3 and 4 for full site name.

Site name	Organism	Tissue	Date	Moisture content (percent)	Life stage	Sex	Organism data: Average weight (g)	Organism data: Total weight (g)	Organism data: Length (mm)
L5	American Coot	Bird-Egg-I	05-22-89	74.8	11	--	--	23	47.3
	American Coot	Bird-Egg-I	05-22-89	74.7	1	--	--	24	47
	Mallard	Bird-Egg-I	05-18-89	71.2	1	--	--	50	61.1
	Pied-Billed Grebe	Bird-Egg-I	05-22-89	76.2	1	--	--	17	41.4
L5/L6	Typha spp.	Plant-Root and Stem-C	04-21-88	84.2	--	--	--	312	--
L6	American Coot	Bird-Egg-I	05-28-87	76.4	--	--	--	--	49.9
	American Coot	Bird-Egg-I	05-28-87	75.9	--	--	--	--	52.2
	American Coot	Bird-Egg-I	06-04-87	74.9	--	--	--	--	48
	American Coot	Bird-Egg-I	06-04-87	76.6	--	--	--	--	46.1
	Black-Crowned Night Heron	Bird-Egg-I	04-20-88	79.7	20	--	--	34	50
	Black-Crowned Night Heron	Bird-Egg-I	06-08-88	83.3	17	--	--	36	55.7
	Black-Crowned Night Heron	Bird-Egg-I	06-08-88	80	23	--	--	30	50.6
	Canada Goose	Bird-Egg-I	04-27-89	66.8	23	--	--	114	86.8
	Cinnamon Teal	Bird-Egg-I	05-18-89	69.6	1	--	--	25	44.8
	Redhead	Bird-Egg-I	06-16-88	68	22	--	--	49	60.4
	American Coot	Bird-Liver-I	08-12-87	73.9	I	--	--	650	--
	American Coot	Bird-Liver-I	08-12-87	75.5	I	--	--	600	--
	American Coot	Bird-Liver-I	08-12-87	74.3	I	--	--	425	--
	American Coot	Bird-Liver-I	08-12-87	74.2	I	--	--	550	--
	American Coot	Bird-Liver-I	08-12-87	74.4	I	--	--	400	--
	Ruddy Duck	Bird-Liver-I	05-10-89	71.4	A	M	--	19	--
	Ruddy Duck	Bird-Liver-I	05-10-89	72.3	A	F	--	35	--
	Ruddy Duck	Bird-Muscle-I	05-10-89	73.7	A	M	--	45	--
	Ruddy Duck	Bird-Muscle-I	05-10-89	71.3	A	F	--	44	--
	Black Bullhead	Fish-Whole Body-C5	04-06-88	82	--	--	63	--	183
	Black Bullhead	Fish-Whole Body-C5	04-06-88	81.6	--	--	254	--	263
	Black Bullhead	Fish-Whole Body-C5	04-12-89	79.7	--	--	111	--	192
	Black Bullhead	Fish-Whole Body-C5	04-12-89	78.5	--	--	80	--	178
	Black Bullhead	Fish-Whole Body-I	07-27-88	83	--	--	210	--	138
	Black Bullhead	Fish-Whole Body-C5	07-28-89	84.2	--	--	79	--	173.8
	Black Bullhead	Fish-Whole Body-C5	07-28-89	81.8	--	--	95	--	187
	Black Bullhead	Fish-Whole Body-I	03-16-89	82.9	--	--	145	--	--
	Common Carp	Fish-Whole Body-C5	07-27-88	71.3	--	--	972	--	385
	Common Carp	Fish-Whole Body-C5	07-28-89	74.1	--	--	1,321	--	465.4
	Common Carp	Fish-Whole Body-C5	07-28-89	70.8	--	--	1,107	--	440.4
	Green Sunfish	Fish-Whole Body-I	07-27-88	79.8	--	--	--	44	134
	Chironomidae(Predominant)	Invertebrate-Whole Body-C	04-06-88	83.5	--	--	--	11	--
	Invertebrates-Anisoptera	Invertebrate-Whole Body-C	07-27-88	88.3	--	--	--	8	--
	Invertebrates-Hemiptera	Invertebrate-Whole Body-C	07-27-88	83.7	--	--	--	69	--
	Invertebrates-Mixed	Invertebrate-Whole Body-C	05-03-89	92.1	--	--	--	69	--
	Invertebrates-Mixed	Invertebrate-Whole Body-C	06-07-89	80.1	--	--	--	16	--
	Chironomidae(Pred,GI trac)	Invertebrate-Whole Body-C	04-12-89	59.9	--	--	--	10	--
	Invertebrates-Snails	Invertebrate-Whole Body-C	06-30-88	69.5	--	--	--	11	--
	Invertebrates-Zygoptera	Invertebrate-Whole Body-C	06-30-88	83.6	--	--	--	7	--

Table 47.--*Field and laboratory analyses of biological samples from ponds 5 and 6 in Leota Bottom at Ouray National Wildlife Refuge*--Continued

Site name	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Chromium	Cobalt	Copper	Iron	Lead	Sample number
L5	--	--	--	--	--	--	--	--	--	--	--	--	1239
	--	--	--	--	--	--	--	--	--	--	--	--	1240
	--	--	--	--	--	--	--	--	--	--	--	--	1235
	--	--	--	--	--	--	--	--	--	--	--	--	1263
L5/L6	5,570	--	4.9	48.6	0.34	26	0.4	5.5	--	8.9	4,740	<4	545
L6	<3	--	<0.2	4.4	<0.1	<2	<0.4	<1	--	3.1	135	<4	951
	<3	--	<0.2	8.3	<0.1	3	<0.4	<1	--	2.7	122	<4	954
	<4	--	<0.2	5	<0.1	2	<0.4	1	--	4.1	120	<4	952
	<3	--	<0.2	13.9	<0.1	<2	<0.4	<1	--	3.4	92	<4	953
	<49.3	<0.123	<0.025	<24.6	<2.5	<24.6	<2.5	<4.9	--	<12.3	133	<49.3	616
	<59.9	<0.150	0.048	<29.9	<3	<29.9	<3	<6	--	16.2	156	<59.9	615
	<50	<0.125	<0.025	<25	<2.50	<25	<2.50	<5	--	<12.5	140	<50	617
	<15	<30	<0.3	4.15	<0.100	<2	<0.400	<2	<3	3.80	140	<6	48
	--	--	--	--	--	--	--	--	--	--	--	--	1231
	<31.3	<0.078	0.031	<15.6	<1.56	<15.6	<1.56	<3.13	--	<7.81	169	<31.3	739
	4	--	<0.2	0.1	<0.1	3	<0.4	<1	--	25.9	2,850	<4	1031
	4	--	<0.2	0.1	<0.1	4	<0.4	<1	--	19	2,390	<4	1032
	7	--	0.2	0.2	<0.1	3	<0.4	<1	--	17	3,450	<4	1033
	<3	--	<0.2	1.8	<0.1	3	<0.4	<1	--	19	5,190	<4	1034
	3	--	<0.2	0.2	<0.1	3	<0.4	<1	--	64.9	3,570	<4	1035
	3.95	<3.5	<0.35	<1.75	<0.17	<1.75	0.87	0.84	--	35.2	6,580	<1.05	1335
	<3.61	<3.61	<0.36	<1.81	<0.18	<1.81	0.87	1.12	--	20.6	3,420	<1.08	1337
	7.22	<3.8	<0.38	<1.9	<0.19	<1.9	<0.19	0.87	--	30.8	433	<1.14	1336
	3.48	3.48	<0.35	<1.74	<0.17	<1.74	<0.17	0.56	--	27.36	557	<1.05	1338
	810	--	0.71	26.8	<0.1	<2	<0.2	2	--	1.6	674	<4	569
	1,250	--	0.77	21.4	<0.1	<2	<0.2	2	--	2	961	<4	570
	271	<30	<0.3	9.82	<0.100	1.64	<0.800	1.25	<2	<3	465	<6	172
	74.1	<30	<0.3	14.3	<0.100	1.16	<0.800	<0.700	<2	<3	229	<6	173
	<58.8	<0.147	0.365	<29.4	<2.94	<29.4	<2.94	<5.88	--	<14.7	229	<58.8	721
	38.9	<6.33	<0.63	6.46	<0.32	<3.6	<0.32	1.52	--	3.92	130	<1.9	1331
	21.1	<5.49	<0.55	6.65	<0.27	<2.75	<0.27	1.21	--	3.74	114	<1.65	1332
	237	<5.85	<0.58	23.7	<0.29	<2.92	<0.29	<0.58	--	139	393	<1.75	265
	<34.8	<0.087	0.484	<17.4	<1.74	<17.4	<1.74	<3.48	--	<8.71	108	<34.8	722
	30	<3.86	<0.39	4.4	<0.19	<1.93	0.46	1.39	--	3.75	212	<1.16	1333
	29.9	<3.42	<0.34	8.365	<0.17	<1.71	<0.17	2.23	--	4.11	156	<1.03	1334
	<49.5	<0.124	0.139	<24.8	<2.48	<24.8	<2.48	<4.95	--	<12.4	84.2	<49.5	720
	20,000	--	14	216	0.75	9.1	0.5	22	--	26.1	15,500	10	564
	<85.5	0.342	4.15	<42.7	<4.27	<42.7	<4.27	<8.55	--	27.4	197	<85.5	708
	79.8	<0.153	0.687	<30.7	<3.07	<30.7	<3.07	<6.13	--	17.8	368	<61.3	707
	531	<20	2.45	30.7	<0.200	3.47	<0.800	<3	<3	21.4	1,140	<6	134
	219	<20	1.88	17.6	<0.200	3.44	<0.800	<3	<3	16.5	394	<6	131
	897	<30	2.03	34.1	<0.100	5.50	<0.800	1.54	<2	12.8	2,140	<6	174
	439	0.102	3.48	40.7	<1.64	<16.4	<1.64	<3.28	--	33.4	947	<32.8	750
	280	0.189	1.55	<30.5	<3.05	<30.5	<3.05	<6.10	--	21.3	762	<61	749

Table 47.--*Field and laboratory analyses of biological samples from ponds 5 and 6 in Leota Bottom at Ouray National Wildlife Refuge*--Continued

Site name	Organism	Tissue	Date	Magnesium	Manganese	Mercury	Molybdenum
L5	American Coot	Bird-Egg-I	05-22-89	--	--	--	--
	American Coot	Bird-Egg-I	05-22-89	--	--	--	--
	Mallard	Bird-Egg-I	05-18-89	--	--	--	--
	Pied-Billed Grebe	Bird-Egg-I	05-22-89	--	--	--	--
L5/L6	Typha spp.	Plant-Root and Stem-C	04-21-88	4,800	231	0.009	2
L6	American Coot	Bird-Egg-I	05-28-87	640	3.3	0.41	<1
	American Coot	Bird-Egg-I	05-28-87	776	2	0.053	<1
	American Coot	Bird-Egg-I	06-04-87	785	3.3	0.12	<1
	American Coot	Bird-Egg-I	06-04-87	847	1	0.092	<1
	Black-Crowned Night Heron	Bird-Egg-I	04-20-88	739	<7.4	0.365	<24.6
	Black-Crowned Night Heron	Bird-Egg-I	06-08-88	659	<9	1.50	<29.9
	Black-Crowned Night Heron	Bird-Egg-I	06-08-88	600	<7.50	2.13	<25
	Canada Goose	Bird-Egg-I	04-27-89	607	2.11	<0.02	<5
	Cinnamon Teal	Bird-Egg-I	05-18-89	--	--	--	--
	Redhead	Bird-Egg-I	06-16-88	438	<4.69	0.262	<15.6
	American Coot	Bird-Liver-I	08-12-87	854	16	0.28	3
	American Coot	Bird-Liver-I	08-12-87	805	11	0.50	2
	American Coot	Bird-Liver-I	08-12-87	786	11	0.30	4
	American Coot	Bird-Liver-I	08-12-87	803	13	0.35	3
	American Coot	Bird-Liver-I	08-12-87	854	13	0.567	3
	Ruddy Duck	Bird-Liver-I	05-10-89	647	22.6	0.406	5.98
	Ruddy Duck	Bird-Liver-I	05-10-89	632	15.1	1.21	4.19
	Ruddy Duck	Bird-Muscle-I	05-10-89	966	2.36	0.141	<1.9
	Ruddy Duck	Bird-Muscle-I	05-10-89	927	1.92	0.341	<1.74
	Black Bullhead	Fish-Whole Body-C5	04-06-88	2,010	35.8	0.17	<1
	Black Bullhead	Fish-Whole Body-C5	04-06-88	1,870	38.8	0.24	<1
	Black Bullhead	Fish-Whole Body-C5	04-12-89	1,470	22.1	0.211	<5
	Black Bullhead	Fish-Whole Body-C5	04-12-89	1,640	19.6	0.135	<5
	Black Bullhead	Fish-Whole Body-I	07-27-88	1,470	19.4	0.259	<29.4
	Black Bullhead	Fish-Whole Body-C5	07-28-89	1,250	10.1	0.228	<3.16
	Black Bullhead	Fish-Whole Body-C5	07-28-89	1,210	10.5	0.253	<2.75
	Black Bullhead	Fish-Whole Body-I	03-16-89	1,570	58.9	0.333	<2.92
	Common Carp	Fish-Whole Body-C5	07-27-88	906	6.62	0.132	<17.4
	Common Carp	Fish-Whole Body-C5	07-28-89	1,070	4.86	0.347	<1.93
	Common Carp	Fish-Whole Body-C5	07-28-89	1,290	5.89	0.401	1.78
	Green Sunfish	Fish-Whole Body-I	07-27-88	2,620	59.4	0.287	<24.8
	Chironomidae(Predominant)	Invertebrate-Whole Body-C	04-06-88	6,650	243	0.058	<2
	Invertebrates-Anisoptera	Invertebrate-Whole Body-C	07-27-88	2,910	56.4	0.231	<42.7
	Invertebrates-Hemiptera	Invertebrate-Whole Body-C	07-27-88	1,230	31.9	<0.154	<30.7
	Invertebrates-Mixed	Invertebrate-Whole Body-C	05-03-89	1,950	130	0.141	<5
	Invertebrates-Mixed	Invertebrate-Whole Body-C	06-07-89	1,430	113	0.115	<5
	Chironomidae(Pred,GI trac)	Invertebrate-Whole Body-C	04-12-89	2,110	189	0.094	<5
	Invertebrates-Snails	Invertebrate-Whole Body-C	06-30-88	1,900	285	<0.082	<16.4
	Invertebrates-Zygoptera	Invertebrate-Whole Body-C	06-30-88	3,290	180	0.152	<30.5

Table 47.--*Field and laboratory analyses of biological samples from ponds 5 and 6 in Leota Bottom at Ouray National Wildlife Refuge*--Continued

Site name	Nickel	Selenium	Silver	Strontium	Thallium	Tin	Vanadium	Zinc	Sample number
L5	--	1.5	--	--	--	--	--	--	1239
	--	1.6	--	--	--	--	--	--	1240
	--	2.5	--	--	--	--	--	--	1235
	--	3.2	--	--	--	--	--	--	1263
L5/L6	4.8	0.3	<2	65.9	<4	--	11	30	545
L6	<1	1.9	<1	25.2	<3	--	<0.3	64	951
	<1	2	<1	23.2	<3	--	<0.3	70.7	954
	<1	2.1	<1	30.4	<3	--	<0.3	76.7	952
	<1	2.2	<1	29.9	<3	--	<0.3	81.9	953
	<19.7	7.9	<24.6	7.88	--	<24.6	<24.6	77.3	616
	<24	4.2	<29.9	6	--	<29.9	<29.9	77.2	615
	<20	11.5	<25	7.50	--	<25	<25	62	617
	<2.50	2.51	<9	10.7	--	<30	<1	61.7	48
	--	3.6	--	--	--	--	--	--	1231
	<12.5	3.4	<15.6	11.6	--	<15.6	<15.6	60	739
	<2	4.3	<1	0.51	<6	--	<0.3	173	1031
	<2	4.2	<1	0.3	<6	--	<0.3	175	1032
	<2	5.4	<1	1	<6	--	<0.3	153	1033
	<2	7.5	<1	0.94	<6	--	<0.3	142	1034
	<2	7.7	1	0.47	<6	--	<0.3	201	1035
	<1.4	23.4	<1.75	0.52	<6.99	10.3	<1.75	127	1335
	<1.44	48.4	<1.81	1.3	<7.22	16.9	<1.81	68.2	1337
	<1.52	8.4	<1.9	0.53	<7.6	15	<1.9	32.7	1336
	<1.39	12.5	<1.74	0.73	<6.97	19.5	<1.74	34.2	1338
	1	1.8	<2	234	<4	--	2.1	96.6	569
	<1	2.4	<2	174	<4	--	3	89.3	570
	<3.50	2.63	<10	55.9	--	<30	<1.50	84	172
	<3.50	2.53	<10	141	--	<30	<1.50	84.5	173
	<23.5	2.4	<29.4	97.6	--	<29.4	<29.4	91.2	721
	<2.53	1.9	<3.16	46.6	<12.7	19.4	<3.16	73.2	1331
	<2.2	1.6	<2.75	50.2	<11	14	<2.75	80.5	1332
	<2.34	0.58	<2.92	176	<11.7	13.4	<2.92	107	265
	<13.9	1.4	<17.4	68.3	--	17.8	<17.4	159	722
	<1.54	1.5	<1.93	59.3	<7.72	18.7	<1.93	162	1333
	<1.37	2.1	<1.71	112	<6.85	9.79	<1.71	164	1334
	<19.8	4	<24.8	265	--	<24.8	<24.8	133	720
	13	3.7	<2	102	<5	--	34.6	121	564
	<34.2	3.4	<42.7	23.1	--	<42.7	<42.7	174	708
	<24.5	1.8	<30.7	50.3	--	<30.7	<30.7	202	707
	<2.50	3.23	<10	155	--	<25	1.79	105	134
	<2.50	2.61	<10	13.9	--	<25	<1	142	131
	<3.50	2.59	<10	43.1	--	<30	2.87	88.8	174
	<13.1	0.66	<16.4	633	--	<16.4	<16.4	34.8	750
	<24.4	2.4	<30.5	144	--	<30.5	<30.5	83.5	749

Table 48.--*Field and laboratory analyses of plant samples from*

[g, gram; mm, millimeter; Organism: spp. species. Tissue: C,

Organism	Tissue	Date	Moisture content (percent)	Organism data			Alum-inum
				Average weight (g)	Total weight (g)	Length (mm)	
Scirpus acutus	Plant-Seed-C	09-07-88	15.2	--	15	--	<11.8
Typha spp.	Plant-Seed-C	09-07-88	55.5	--	15	--	<22.5
Filamentous Green Algae	Plant-without Root-C	05-23-88	80	--	47	--	8,250
Filamentous Green Algae	Plant-without Root-C	06-13-88	78.3	--	32	--	866
Filamentous Green Algae	Plant-without Root-C	07-14-88	83	--	43	--	1,600
Filamentous Green Algae	Plant-without Root-C	08-17-88	90.3	--	12	--	2,540
Filamentous Green Algae	Plant-without Root-C	09-20-88	80.1	--	48	--	14,900
Potamogeton filiformis	Plant-without Root-C	08-17-88	88.2	--	195	--	2,700
Potamogeton filiformis	Plant-without Root-C	09-20-88	93.6	--	127	--	2,870
Potamogeton nodosus	Plant-without Root-C	08-17-88	90.1	--	131	--	1,990
Potamogeton spp.	Plant-without Root-C	05-23-88	90.3	--	251	--	340
Potamogeton spp.	Plant-without Root-C	05-23-88	95.1	--	196	--	265
Potamogeton spp.	Plant-without Root-C	06-13-88	89.7	--	252	--	97.1
Potamogeton spp.	Plant-without Root-C	07-14-88	87.7	--	287	--	146
Chara spp.	Plant-without Root-C	05-23-88	82.8	--	37	--	2,400
Chara spp.	Plant-without Root-C	06-13-88	79.9	--	171	--	<49.8
Chara spp.	Plant-without Root-C	07-14-88	76.5	--	329	--	1,550
Chara spp.	Plant-without Root-C	08-17-88	80.1	--	148	--	2,170
Typha spp.	Plant-Root and Stem-C	05-23-88	87.2	--	402	--	1,200
Typha spp.	Plant-Root and Stem-C	06-13-88	85.5	--	811	--	5,380
Typha spp.	Plant-Root and Stem-C	07-14-88	91.7	--	895	--	1,630
Typha spp.	Plant-Root and Stem-C	08-17-88	94	--	612	--	2,990
Typha spp.	Plant-Root and Stem-C	09-20-88	87.5	--	544	--	1,720

pond 6 in Leota Bottom at Ouray National Wildlife Refuge

composite sample; --, not determined; <, less than]

Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Chromium	Cobalt	Copper	Iron	Lead	Sample number
<0.029	0.092	38.7	<0.59	188	<0.59	<1.18	--	6.49	47.2	<11.8	812
<0.056	0.092	<11.2	<1.12	38	<1.12	<2.25	--	9.66	87.6	<22.5	818
0.245	18.1	240	<2.50	<25	<2.50	15.5	--	19	14,700	<50	679
<0.116	6.22	193	<2.30	118	<2.30	<4.61	--	<11.5	2,290	<46.1	671
<0.147	8.82	169	<2.94	192	<2.94	<5.88	--	<14.7	3,320	<58.8	700
--	4.8	330	<0.1	82	0.5	3	--	5	3,010	4	368
--	5.9	299	0.79	15	0.7	17	--	18	17,100	16	362
--	5.1	180	0.1	486	<0.3	3	--	4.4	2,940	<4	378
--	5.8	260	0.1	240	<0.3	5.9	--	3.1	3,320	<4	370
--	2.7	184	0.1	35	<0.2	3	--	3.2	2,050	<4	379
<0.258	1.24	<51.5	<5.15	108	<5.15	<10.3	--	<25.8	732	<103	676
<0.510	0.367	<102	<10.2	<102	<10.2	<20.4	--	<51	408	<204	677
<0.243	1.02	58.3	<4.85	83.5	<4.85	<9.71	--	30.1	262	<97.1	670
0.260	2.60	131	<4.06	602	<4.06	<8.13	--	24.4	528	<81.3	702
<0.146	7.67	227	<2.91	<29.1	<2.91	<5.81	--	19.2	5,370	<58.1	678
0.124	2.61	205	<2.49	<24.9	<2.49	<4.98	--	<12.4	1,640	<49.8	672
0.264	4.09	264	<2.13	101	<2.13	<4.26	--	23.4	2,210	<42.6	701
--	5.6	221	<0.1	69	<0.3	3	--	<2	1,990	5	398
<0.195	1.76	<39.1	<3.91	<39.1	<3.91	<7.81	--	32.8	1,980	<78.1	680
0.510	9.79	136	<3.45	<34.5	<3.45	18.6	--	31	12,700	<69	669
<0.301	7.83	<60.2	<6.02	<60.2	<6.02	<12	--	<30.1	6,290	<120	699
--	8.1	63.5	0.1	5	<0.3	6.5	--	7.1	7,320	<4	392
--	9.9	48.1	<0.1	4	0.3	3	--	5	5,660	<4	383

Table 48.—*Field and laboratory analyses of plant samples from*

Organism	Tissue	Date	Magnesium	Manganese	Mercury
Scirpus acutus	Plant-Seed-C	09-07-88	1,360	1,230	0.055
Typha spp.	Plant-Seed-C	09-07-88	2,470	846	<0.057
Filamentous Green Algae	Plant-without Root-C	05-23-88	8,600	5,450	<0.125
Filamentous Green Algae	Plant-without Root-C	06-13-88	7,560	1,870	<0.116
Filamentous Green Algae	Plant-without Root-C	07-14-88	17,100	1,150	<0.148
Filamentous Green Algae	Plant-without Root-C	08-17-88	8,660	1,140	0.02
Filamentous Green Algae	Plant-without Root-C	09-20-88	13,500	373	0.024
Potamogeton filiformis	Plant-without Root-C	08-17-88	7,830	2,420	0.017
Potamogeton filiformis	Plant-without Root-C	09-20-88	7,060	2,530	0.01
Potamogeton nodosus	Plant-without Root-C	08-17-88	7,060	704	0.01
Potamogeton spp.	Plant-without Root-C	05-23-88	5,050	395	0.536
Potamogeton spp.	Plant-without Root-C	05-23-88	3,470	410	<0.511
Potamogeton spp.	Plant-without Root-C	06-13-88	5,240	218	0.311
Potamogeton spp.	Plant-without Root-C	07-14-88	10,500	920	<0.204
Chara spp.	Plant-without Root-C	05-23-88	9,480	180	<0.146
Chara spp.	Plant-without Root-C	06-13-88	7,660	647	<0.125
Chara spp.	Plant-without Root-C	07-14-88	9,870	289	<0.107
Chara spp.	Plant-without Root-C	08-17-88	10,100	1,800	0.006
Typha spp.	Plant-Root and Stem-C	05-23-88	3,280	191	<0.196
Typha spp.	Plant-Root and Stem-C	06-13-88	6,830	459	0.448
Typha spp.	Plant-Root and Stem-C	07-14-88	4,340	294	<0.302
Typha spp.	Plant-Root and Stem-C	08-17-88	3,990	454	0.007
Typha spp.	Plant-Root and Stem-C	09-20-88	3,210	732	<0.005

pond 6 in Leota Bottom at Ouray National Wildlife Refuge—Continued

Molybdenum	Nickel	Selenium	Silver	Strontium	Thallium	Tin	Vanadium	Zinc	Sample number
<5.90	<4.72	0.12	<5.90	46.1	--	<5.90	<5.90	14.9	812
<11.2	<8.99	<0.22	<11.2	33.3	--	<11.2	<11.2	30.3	818
<25	<20	1.5	<25	348	--	<25	<25	65.5	679
<23	<18.4	0.46	<23	608	--	27.2	<23	29.5	671
<29.4	<23.5	<0.59	<29.4	1,290	--	203	<29.4	25.3	700
<1	4.9	0.83	<2	304	<4	--	6	54.3	368
<2	17	1.2	<2	238	<4	--	26	287	362
<1	5.5	1	<2	314	<4	--	6.8	28	378
<1	5.6	0.93	<2	343	<4	--	8.2	14	370
<1	2	0.6	<2	227	<4	--	4.6	41.6	379
<51.5	<41.2	<1.1	<51.5	135	--	<51.5	<51.5	163	676
<102	<81.6	<2.1	<102	83.7	--	<102	<102	83.7	677
<48.5	<38.8	<0.98	<48.5	231	--	<48.5	<48.5	52.4	670
<40.6	<32.5	<0.81	<40.6	546	--	<40.6	<40.6	40.6	702
<29.1	<23.3	0.58	<29.1	988	--	40.1	<29.1	42.4	678
<24.9	19.9	<0.50	<24.9	970	--	<24.9	<24.9	19.4	672
<21.3	<17	<0.43	<21.3	1,040	--	<21.3	<21.3	22.1	701
<1	5	0.54	<2	1,190	<4	--	5.3	11	398
<39.1	<31.2	<0.78	<39.1	91.7	--	<39.1	<39.1	50.8	680
<34.5	<27.6	1.4	<34.5	130	--	<34.5	<34.5	75.9	669
<60.2	<48.2	<1.2	<60.2	101	--	<60.2	<60.2	<24.1	699
<2	6.4	0.4	<2	81.1	<4	--	7.3	31	392
<1	2	0.5	<2	70.8	<4	--	4.9	25	383

Table 49.—*Field and laboratory analyses of biological samples from ponds 7, 8, and 9 in Leota Bottom at Ouray National Wildlife Refuge*

[g, gram; mm, millimeter; Organism: spp. species. Tissue: C2, composite sample, number of individuals; I, individual sample; Egg, net sample weight. Life stage: listed as days for embryos. —, not determined; <, less than]

Site name: See table 4 for full site name.

Site name	Organism	Tissue	Date	Moisture content (percent)	Life stage	Sex	Organism data		
							Average weight (g)	Total weight (g)	Length (mm)
L7	American Coot	Bird-Egg-I	05-28-87	76	--	--	--	--	48.5
	American Coot	Bird-Egg-I	05-28-87	74.6	--	--	--	--	48.9
	American Coot	Bird-Egg-I	06-04-87	72.1	--	--	--	--	49
	American Coot	Bird-Egg-I	06-11-87	75.2	--	--	--	--	51.1
	American Coot	Bird-Egg-I	06-11-87	74.7	--	--	--	--	49.6
	American Coot	Bird-Egg-I	05-18-88	70.8	19	--	--	23	48.7
	American Coot	Bird-Egg-I	05-18-88	73.5	20	--	--	22	50.8
	American Coot	Bird-Egg-I	05-18-88	78.8	21	--	--	24	50.7
	Canada Goose	Bird-Egg-I	05-18-88	68.4	--	--	--	112	82.7
	Canada Goose	Bird-Egg-I	05-02-89	69.2	19	--	--	131	90.1
	Cinnamon Teal	Bird-Egg-I	06-22-88	65.2	--	--	--	28	46.5
	Gadwall	Bird-Egg-I	06-07-88	70.4	1	--	--	38	52.3
L8	American Coot	Bird-Egg-I	05-16-89	53.9	22	--	--	23	50.9
	American Coot	Bird-Egg-I	05-22-89	76.6	21	--	--	28	52.8
	American Coot	Bird-Egg-I	05-22-89	72.2	--	--	--	20	50.5
	American Coot	Bird-Egg-I	05-22-89	74.7	15	--	--	24	49.3
	American Coot	Bird-Egg-I	05-22-89	75.7	19	--	--	26	48.8
	American Coot	Bird-Egg-I	05-22-89	76.1	19	--	--	24	49.8
	American Coot	Bird-Egg-I	05-22-89	55.3	21	--	--	29	50.5
	Canada Goose	Bird-Egg-I	04-27-89	65.1	26	--	--	89	85.8
	Canada Goose	Bird-Liver-C2	11-04-87	71.8	--	--	--	107	--
	Canada Goose	Bird-Liver-I	11-04-87	71.6	--	--	--	86	--
	Polygonum spp.	Plant-without Root-C	04-21-88	95.7	--	--	--	51	--
	Typha spp.	Plant-Root and Stem-C	04-21-88	84.9	--	--	--	506	--
L9	Gadwall	Bird-Egg-I	06-15-89	66.3	16	--	--	35	52.5
	Gadwall	Bird-Egg-I	06-15-89	65.1	24	--	--	28	51.8

Table 49.—*Field and laboratory analyses of biological samples from ponds 7, 8, and 9 in Leota Bottom at Ouray National Wildlife Refuge*—Continued

Site name	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Chromium	Cobalt	Copper	Iron	Lead	Sample number
L7	<3	--	<0.2	6.8	<0.1	<2	<0.4	1	--	3.3	105	<4	955
	<3	--	<0.2	5.3	<0.1	3	<0.4	<1	--	2.6	107	<4	957
	<3	--	<0.2	9.4	<0.1	2	<0.4	<1	--	2.7	68	<4	956
	9.4	--	<0.2	4.9	<0.1	5	<0.4	<1	--	2.9	93	<4	958
	<3	--	<0.2	3	<0.1	3	<0.4	<1	--	2.6	118	<4	959
	<3	--	<0.2	3	<0.1	<3	<0.4	<1	--	2.7	88	<5	436
	<3	--	<0.2	3.1	<0.1	<3	<0.3	2	--	2.9	98.2	<4	437
	<3	--	<0.2	0.78	<0.1	<3	<0.3	<1	--	3.1	141	<4	438
	<3	--	<0.2	1.9	<0.1	<3	<0.3	<1	--	3	137	<4	457
	<15	<30	<0.3	2.68	<0.100	3.98	<0.400	<2	<3	3.3	166	6.45	49
	<28.7	<0.072	0.072	<14.4	<1.44	<14.4	<1.44	<2.87	--	<7.18	92	<28.7	736
	<18.2	<0.084	0.054	12.9	<0.91	9.46	<0.91	<1.82	--	8.21	34.5	<18.2	642
L8	--	--	--	--	--	--	--	--	--	--	--	--	1247
	--	--	--	--	--	--	--	--	--	--	--	--	1241
	--	--	--	--	--	--	--	--	--	--	--	--	1242
	--	--	--	--	--	--	--	--	--	--	--	--	1243
	--	--	--	--	--	--	--	--	--	--	--	--	1244
	--	--	--	--	--	--	--	--	--	--	--	--	1245
	--	--	--	--	--	--	--	--	--	--	--	--	1246
	<15	<30	<0.3	1.08	<0.100	3.03	<0.400	<2	<3	4.50	162	<6	50
	<3	--	<0.2	0.1	<0.1	2	1.7	<2	--	71.8	2,360	<4	606
	3	--	<0.2	0.40	<0.1	<2	0.5	<2	--	129	877	<4	607
	1,820	--	0.76	15.6	0.2	29	<0.3	3.3	--	14	1,460	<4	558
	10,300	--	3.1	68.3	0.59	32	0.5	10	--	12	6,870	<4	544
L9	--	--	--	--	--	--	--	--	--	--	--	--	1165
	--	--	--	--	--	--	--	--	--	--	--	--	1166

Table 49.—*Field and laboratory analyses of biological samples from ponds 7, 8, and 9 in Leota Bottom at Ouray National Wildlife Refuge*—Continued

Site name	Organism	Tissue	Date	Magnesium	Manganese	Mercury
L7	American Coot	Bird-Egg-I	05-28-87	800	3.2	0.087
	American Coot	Bird-Egg-I	05-28-87	766	2.5	0.68
	American Coot	Bird-Egg-I	06-04-87	602	<0.7	0.041
	American Coot	Bird-Egg-I	06-11-87	805	2.3	0.10
	American Coot	Bird-Egg-I	06-11-87	754	2	0.086
	American Coot	Bird-Egg-I	05-18-88	636	2.3	0.01
	American Coot	Bird-Egg-I	05-18-88	707	2.9	0.01
	American Coot	Bird-Egg-I	05-18-88	902	2.7	0.058
	Canada Goose	Bird-Egg-I	05-18-88	437	2.4	<0.005
	Canada Goose	Bird-Egg-I	05-02-89	621	3.91	<0.02
	Cinnamon Teal	Bird-Egg-I	06-22-88	<287	<4.31	0.402
	Gadwall	Bird-Egg-I	06-07-88	402	<2.74	0.240
L8	American Coot	Bird-Egg-I	05-16-89	--	--	--
	American Coot	Bird-Egg-I	05-22-89	--	--	--
	American Coot	Bird-Egg-I	05-22-89	--	--	--
	American Coot	Bird-Egg-I	05-22-89	--	--	--
	American Coot	Bird-Egg-I	05-22-89	--	--	--
	American Coot	Bird-Egg-I	05-22-89	--	--	--
	Canada Goose	Bird-Egg-I	04-27-89	492	<1	<0.02
	Canada Goose	Bird-Liver-C2	11-04-87	625	10	0.01
	Canada Goose	Bird-Liver-I	11-04-87	587	6.8	0.018
	Polygonum spp.	Plant-without Root-C	04-21-88	4,010	365	0.01
	Typha spp.	Plant-Root and Stem-C	04-21-88	6440	208	0.015
L9	Gadwall	Bird-Egg-I	06-15-89	--	--	--
	Gadwall	Bird-Egg-I	06-15-89	--	--	--

Table 49.—*Field and laboratory analyses of biological samples from ponds 7, 8, and 9 in Leota Bottom at Ouray National Wildlife Refuge*—Continued

Site name	Molybdenum	Nickel	Selenium	Silver	Strontium	Thallium	Tin	Vanadium	Zinc	Sample number
L7	<1	<1	2.1	<1	25.9	<3	—	<0.3	84.6	955
	<1	<1	2.2	<1	27.4	<3	—	<0.3	74.4	957
	<1	<1	1.6	<1	29.7	<3	—	<0.3	55.7	956
	<1	<1	1.9	<1	26.1	<3	—	<0.3	69.8	958
	<1	<1	1.7	<1	21.5	<3	—	<0.3	69.6	959
	<1	<1	1.7	<2	18.1	<4	—	<0.3	57.8	436
	<1	2	2.4	<2	18.4	<4	—	<0.3	73.2	437
	1	<1	2.1	<2	19.2	<4	—	<0.3	73.1	438
	<1	<1	1.5	<2	2.7	<4	—	<0.3	51.3	457
	<5	<2.50	2.02	<9	<10	—	<30	<1	56.5	49
	<14.4	<11.5	1.4	<14.4	4.02	—	<14.4	<14.4	69.3	736
	<9.12	<7.30	2.7	<9.12	15.1	—	<9.12	<9.12	62.8	642
L8	—	—	1.7	—	—	—	—	—	—	1247
	—	—	2.7	—	—	—	—	—	—	1241
	—	—	2.8	—	—	—	—	—	—	1242
	—	—	2.3	—	—	—	—	—	—	1243
	—	—	2.2	—	—	—	—	—	—	1244
	—	—	2.5	—	—	—	—	—	—	1245
	—	—	1.3	—	—	—	—	—	—	1246
	<5	<2.50	2.91	<9	<10	—	<30	<1	68.9	50
	3	<1	3.1	<2	0.21	5	—	<0.3	153	606
	2	<1	4.1	<2	0.36	<4	—	<0.3	141	607
	<1	3	0.84	<2	38.6	<4	—	4	61	558
	2	7.8	0.56	<2	101	<4	—	18	48	544
L9	—	—	1.6	—	—	—	—	—	—	1165
	—	—	2.7	—	—	—	—	—	—	1166

Table 50.—*Field and laboratory analyses of biological samples from*

[g, gram; mm, millimeter; Tissue: I, individual sample; Egg, net sample weight. Sex: M, male; F, female.

Organism	Tissue	Date	Moisture content (percent)	Life stage	Sex	Organism data	
						Total weight (g)	Length (mm)
Bald Eagle	Bird-Blood-I	03-19-89	91.2	I	M	—	--
Gadwall	Bird-Egg-I	06-26-88	65.8	5	--	40	54
Canada Goose	Bird-Liver-I	10-13-88	70.9	A	M	4,442	--
Cinnamon Teal	Bird-Liver-I	10-12-88	68.5	I	M	356	--
Gadwall	Bird-Liver-I	10-12-88	72.7	A	F	786	--
Gadwall	Bird-Liver-I	10-12-88	76	I	F	707	--
Gadwall	Bird-Liver-I	10-12-88	75.5	I	F	802	--
Mallard	Bird-Liver-I	10-13-88	70.2	A	M	1,217	--
Redhead	Bird-Liver-I	10-12-88	74.2	I	F	556	--
Redhead	Bird-Liver-I	10-12-88	73	I	M	789	--
Redhead	Bird-Liver-I	10-12-88	73.6	I	M	671	--
Redhead	Bird-Liver-I	10-12-88	71.7	I	M	714	--
Redhead	Bird-Liver-I	10-12-88	74	I	M	685	--
Ruddy Duck	Bird-Liver-I	10-12-88	72.1	I	M	353	--
American Coot	Bird-Muscle-I	09-04-86	68.7	A	--	—	--
American Coot	Bird-Muscle-I	09-04-86	69.2	I	--	—	--
American Coot	Bird-Muscle-I	09-04-86	73	A	--	—	--
American Coot	Bird-Muscle-I	09-04-86	76.8	I	--	—	--
American Coot	Bird-Muscle-I	09-04-86	75.3	I	--	—	--
American Coot	Bird-Muscle-I	09-04-86	74.2	I	--	—	--
American Coot	Bird-Muscle-I	09-04-86	71.1	I	--	—	--
Canada Goose	Bird-Muscle-I	10-13-88	73.5	--	F	4,442	--
Cinnamon Teal	Bird-Muscle-I	10-12-88	74.8	I	M	356	--
Gadwall	Bird-Muscle-I	10-12-88	74.9	A	F	786	--
Gadwall	Bird-Muscle-I	10-12-88	74.1	I	F	707	--
Gadwall	Bird-Muscle-I	10-12-88	76.1	I	F	802	--
Mallard	Bird-Muscle-I	10-13-88	72.6	A	M	1,217	--
Redhead	Bird-Muscle-I	10-12-88	78.1	I	F	556	--
Redhead	Bird-Muscle-I	10-12-88	73	I	M	789	--
Redhead	Bird-Muscle-I	10-12-88	76.6	I	M	671	--
Redhead	Bird-Muscle-I	10-12-88	75.8	I	M	714	--
Redhead	Bird-Muscle-I	10-12-88	79.3	I	M	685	--
Ruddy Duck	Bird-Muscle-I	10-12-88	80.8	I	M	353	--
Mule Deer	Deer-Liver-I	10-19-87	67.7	A	--	78	--
Mule Deer	Deer-Liver-I	10-21-87	71.8	A	--	82	--

Leota Bottom at Ouray National Wildlife Refuge

Life stage: listed as days for embryos; I, immature; A, Adult.
—, not determined; <, less than]

Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Chromium	Cobalt	Copper	Iron	Lead	Sample number
<15	<30	<0.2	<1	<0.100	<1.50	<0.400	<2	<3	2.49	2,430	<9	69
<29.2	<0.073	0.073	<14.6	<1.46	<14.6	<1.46	<2.92	--	7.31	114	<29.2	738
<30	<30	<0.37	<1	<0.20	3.83	3.56	2.37	<3	47.4	2,950	<7.5	326
<30	<30	0.423	<1	<0.20	3.02	0.728	<1.5	<3	29.3	2,070	<7.5	335
<30	<30	0.538	<1	<0.20	<3	1.06	<1.5	<3	66	1,860	<7.5	332
<30	<30	0.514	<1	<0.20	4.80	0.551	1.75	<3	75.8	4,040	<7.5	333
<30	<30	0.988	2.63	<0.20	4.04	1.10	2.15	<3	83.9	1,620	<7.5	334
<30	<30	0.638	<1	<0.20	24.7	1.34	2.04	<3	16.7	25,500	<7.5	325
<30	<30	0.382	1.32	<0.20	7.10	<0.50	2.83	<3	21.4	6,470	<7.5	327
<30	<30	<0.37	<1	<0.20	4.97	<0.50	2.28	<3	<5	4,260	<7.5	328
<30	<30	<0.37	<1	<0.20	5.14	<0.50	2.24	<3	93.7	4,130	<7.5	329
<30	<30	0.398	<1	<0.20	<3	<0.50	2.05	<3	59.2	2,580	<7.5	330
<30	<30	0.508	<1	<0.20	3.75	<0.50	<1.5	<3	236	2,550	11	331
<30	<30	0.582	<1	<0.20	4.27	<0.50	2.05	<3	10.6	3,800	<7.5	336
4	—	0.1	<0.1	<0.1	<2	<0.2	<1	--	21	216	<4	881
4	—	0.36	<0.1	<0.1	5	<0.2	<1	--	18	213	<4	882
7	—	0.98	<0.1	0.1	2	<0.2	<1	--	19	283	<4	887
7	—	0.64	0.2	0.1	2	<0.2	<1	--	10	224	<4	888
9.3	—	0.72	0.1	0.1	3	<0.2	<1	--	18	226	<4	889
6	—	0.48	0.1	0.1	3	<0.2	<1	--	18	204	<4	890
7	—	0.36	0.2	0.1	3	<0.2	<1	--	9	199	<4	891
<30	<30	<0.37	<1	<0.20	<3	<0.50	<1.5	<3	15.7	324	<7.5	300
<30	<30	<0.37	<1	<0.20	<3	<0.50	<1.5	<3	24.5	250	<7.5	309
<30	<30	0.379	<1	<0.20	<3	<0.50	<1.5	<3	25.5	315	<7.5	306
<30	<30	<0.37	<1	<0.20	<3	<0.50	<1.5	<3	18.6	287	<7.5	307
<30	33.7	<0.37	<1	<0.20	<3	<0.50	<1.5	<3	16.1	214	<7.5	308
<30	<30	<0.37	<1	<0.20	<3	<0.50	<1.5	<3	6	270	<7.5	299
<30	<30	<0.37	<1	<0.20	<3	<0.50	<1.5	<3	14.3	299	<7.5	301
<30	<30	<0.37	<1	<0.20	<3	<0.50	<1.5	<3	<5	301	<7.5	302
<30	<30	<0.37	<1	<0.20	<3	<0.50	<1.5	<3	14.4	327	<7.5	303
<30	<30	<0.37	<1	<0.20	<3	<0.50	<1.5	<3	25.1	299	<7.5	304
<30	<30	<0.37	<1	<0.20	<3	<0.50	<1.5	<3	11.8	480	<7.5	305
<30	<30	0.417	<1	<0.20	<3	<0.50	1.79	<3	<5	285	<7.5	310
<3	—	<0.2	<0.1	<0.1	<2	<0.2	<2	--	66.3	368	<4	604
40	—	<0.2	0.72	<0.1	<2	0.5	<1	--	30.6	659	<4	605

Table 50.—*Field and laboratory analyses of biological samples from*

Organism	Tissue	Date	Magnesium	Manganese	Mercury	Molybdenum
Bald Eagle	Bird-Blood-I	03-19-89	372	<1	1.78	<5
Gadwall	Bird-Egg-I	06-26-88	380	<4.39	<0.074	<14.6
Canada Goose	Bird-Liver-I	10-13-88	655	16.9	<0.02	<5
Cinnamon Teal	Bird-Liver-I	10-12-88	696	24.8	1.43	<5
Gadwall	Bird-Liver-I	10-12-88	784	20.1	0.230	<5
Gadwall	Bird-Liver-I	10-12-88	808	32.8	0.0378	8.10
Gadwall	Bird-Liver-I	10-12-88	850	42.7	0.0628	<5
Mallard	Bird-Liver-I	10-13-88	648	10.9	0.103	10.6
Redhead	Bird-Liver-I	10-12-88	707	14.5	0.0758	<5
Redhead	Bird-Liver-I	10-12-88	668	14.4	0.0691	<5
Redhead	Bird-Liver-I	10-12-88	628	19	0.0458	<5
Redhead	Bird-Liver-I	10-12-88	673	12.7	0.0810	<5
Redhead	Bird-Liver-I	10-12-88	657	12.2	0.107	<5
Ruddy Duck	Bird-Liver-I	10-12-88	716	11.4	<0.02	<5
American Coot	Bird-Muscle-I	09-04-86	901	1.9	0.039	<1
American Coot	Bird-Muscle-I	09-04-86	897	1.5	0.040	<1
American Coot	Bird-Muscle-I	09-04-86	956	1.7	0.042	<1
American Coot	Bird-Muscle-I	09-04-86	924	1.2	0.050	<1
American Coot	Bird-Muscle-I	09-04-86	960	1.7	0.069	<1
American Coot	Bird-Muscle-I	09-04-86	951	3.4	0.043	<1
American Coot	Bird-Muscle-I	09-04-86	867	1.5	0.069	<1
Canada Goose	Bird-Muscle-I	10-13-88	1,070	2.11	<0.02	<5
Cinnamon Teal	Bird-Muscle-I	10-12-88	1,160	2.68	0.686	<5
Gadwall	Bird-Muscle-I	10-12-88	1,130	2.17	0.0376	<5
Gadwall	Bird-Muscle-I	10-12-88	1,110	1.76	<0.02	<5
Gadwall	Bird-Muscle-I	10-12-88	1,160	4.87	0.0357	<5
Mallard	Bird-Muscle-I	10-13-88	1,190	2.36	<0.02	<5
Redhead	Bird-Muscle-I	10-12-88	1,270	1.47	0.0629	<5
Redhead	Bird-Muscle-I	10-12-88	1,140	2.20	0.0435	<5
Redhead	Bird-Muscle-I	10-12-88	1,210	1.92	0.0430	<5
Redhead	Bird-Muscle-I	10-12-88	1,210	1.86	0.0592	<5
Redhead	Bird-Muscle-I	10-12-88	1,040	1.66	0.0845	5.52
Ruddy Duck	Bird-Muscle-I	10-12-88	1,090	1.99	0.0260	<5
Mule Deer	Deer-Liver-I	10-19-87	522	7	0.016	2
Mule Deer	Deer-Liver-I	10-21-87	585	8.5	0.015	3

Leota Bottom at Ouray National Wildlife Refuge—Continued

Nickel	Selenium	Silver	Strontium	Thallium	Tin	Vanadium	Zinc	Sample number
<2.50	3.35	<9	<6	--	<30	<1	22.8	69
<11.7	1.2	<14.6	10.5	--	15.5	<14.6	70.2	738
<2	6.28	<10	<1	--	<30	<2.6	171	326
<2	6.25	<10	1.86	--	<30	<2.6	86.9	335
<2	7.50	<10	1.65	--	<30	<2.6	161	332
<2	9.70	<10	1.03	--	<30	<2.6	122	333
<2	11.9	<10	1.72	--	<30	<2.6	129	334
<2	4.60	<10	1.07	--	<30	<2.6	96.7	325
<2	4.22	<10	1.16	--	<30	<2.6	137	327
<2	3.02	<10	<1	--	<30	<2.6	79.3	328
<2	3.51	<10	<1	--	<30	<2.6	150	329
<2	3.87	<10	<1	--	<30	<2.6	131	330
<2	3.99	<10	<1	--	<30	<2.6	174	331
<2	4.30	<10	<1	--	<30	<2.6	94	336
<1	1.7	<2	0.63	<6	--	<0.3	49.8	881
<1	1.3	<2	0.80	<6	--	<0.3	43	882
<1	2.5	<2	0.80	<6	--	<0.3	42.3	887
<1	2.2	<2	1.6	<6	--	<0.3	60.1	888
<1	2	<2	1.6	<6	--	<0.3	62.1	889
<1	1.7	<2	1.3	<6	--	<0.3	47.5	890
<1	1.7	<2	1.9	<6	--	<0.3	59.1	891
<2	3.24	<10	<1	--	<30	<2.6	52.6	300
<2	1.73	<10	<1	--	<30	<2.6	46.6	309
<2	4.72	<10	<1	--	<30	<2.6	48	306
<2	4.45	<10	<1	--	<30	<2.6	58.4	307
<2	4.44	<10	<1	--	<30	<2.6	41.3	308
<2	2.28	<10	<1	--	<30	<2.6	40.8	299
<2	1.78	<10	<1	--	<30	<2.6	56.8	301
<2	1.65	<10	<1	--	<30	<2.6	44.6	302
<2	1.64	<10	<1	--	<30	<2.6	47.6	303
<2	1.80	<10	<1	--	<30	<2.6	60.4	304
<2	2.20	<10	<1	--	<30	<2.6	55.3	305
<2	2.50	<10	<1	--	<30	<2.6	51.5	310
<1	1.4	<2	0.20	<4	--	<0.3	220	604
<1	1.5	<2	0.60	<8	--	<0.3	144	605

Table 51.--*Field and laboratory analyses of biological samples from ponds 1, 2, and 4 in Sheppard Bottom and the Sheppard Bottom area at Ouray National Wildlife Refuge*

[g, gram; mm, millimeter; Tissue: I, individual sample; Egg, net sample weight. Life stage: listed as days for embryos; A, Adult. Sex: M, male. --, not determined; <, less than]

Site name: See table 4 for full site name.

Site name	Organism	Tissue	Date	Moisture content (percent)	Life stage	Sex	Organism data: Total weight (g)	Organism data: Length (mm)
S1	Cinnamon Teal	Bird-Egg-I	05-18-89	68.3	6	--	25	45
	Cinnamon Teal	Bird-Egg-I	05-18-89	67.1	1	--	21	43.9
	Canada Goose	Bird-Egg-I	04-27-89	62.9	21	--	106	80
	Gadwall	Bird-Egg-I	07-06-88	67.7	20	--	35	53.9
	Gadwall	Bird-Egg-I	06-28-89	68	12	--	34	49.9
	Great Blue Heron	Bird-Liver-I	05-05-88	77.5	A	M	1,675	--
	Northern Shoveler	Bird-Liver-I	03-22-89	69	A	M	659	--
	Northern Shoveler	Bird-Muscle-I	03-22-89	70.9	A	M	659	--
S2	American Coot	Bird-Egg-I	06-11-87	74.5	--	--	--	49.5
	Canada Goose	Bird-Egg-I	05-15-87	68.8	--	--	--	82.9
	Canada Goose	Bird-Egg-I	05-15-87	64.2	--	--	--	81.8
	Canada Goose	Bird-Egg-I	05-15-87	70.5	--	--	--	83.1
	Canada Goose	Bird-Egg-I	05-15-87	59.3	--	--	--	81.9
	Canada Goose	Bird-Egg-I	04-28-88	65.5	19	--	123	95.8
	Canada Goose	Bird-Egg-I	04-28-88	69.4	--	--	131	83.5
	Canada Goose	Bird-Egg-I	05-04-88	69.1	27	--	109	81.8
	Canada Goose	Bird-Egg-I	05-04-88	67.8	--	--	112	82
	Canada Goose	Bird-Egg-I	04-27-89	71.4	27	--	105	81.5
	Canada Goose	Bird-Egg-I	05-09-89	65	--	--	79	80.1
	Gadwall	Bird-Egg-I	06-28-89	68.6	15	--	36	53.4
S4	American Coot	Bird-Egg-I	05-23-89	75.2	18	--	21	46.8
	American Coot	Bird-Egg-I	05-23-89	74.6	16	--	23	48.4
	American Coot	Bird-Egg-I	05-23-89	75.4	8	--	26	49.5
	Cinnamon Teal	Bird-Egg-I	07-05-88	68.6	--	--	23	45.3
	Gadwall	Bird-Egg-I	07-07-88	65.9	15	--	40	56.8
	Gadwall	Bird-Egg-I	06-28-89	68.3	22	--	33	52.3
	Gadwall	Bird-Egg-I	06-28-89	66.9	15	--	32	51.9
	Gadwall	Bird-Egg-I	06-28-89	69.9	20	--	39	57
	Northern Shoveler	Bird-Egg-I	06-28-89	70.1	20	--	31	52.9
SB	American Coot	Bird-Liver-I	03-15-88	69	--	--	7	--
	American Coot	Bird-Liver-I	03-15-88	72.7	--	--	10	--
	American Coot	Bird-Liver-I	03-15-88	70.8	--	--	8	--

Table 51.--*Field and laboratory analyses of biological samples from ponds 1, 2, and 4 in Sheppard Bottom and the Sheppard Bottom area at Ouray National Wildlife Refuge*--Continued

Site name	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Chromium	Cobalt	Copper	Iron	Lead	Sample number
S1	--	--	--	--	--	--	--	--	--	--	--	--	1232
	--	--	--	--	--	--	--	--	--	--	--	--	1233
	<15	<30	<0.3	7.76	<0.100	<2	<0.40	<2	<3	2.82	136	6.60	52
	<31	<0.077	0.062	<15.5	<1.55	<15.5	<1.55	<3.10	--	7.74	121	<31	742
	--	--	--	--	--	--	--	--	--	--	--	--	1171
	8	--	<0.2	0.2	<0.1	<2	0.4	2	--	103	10,000	<4	411
	47.6	<3.23	<0.32	<1.61	<0.16	<1.61	<0.16	<0.32	--	42.5	2,030	<0.97	252
	4.81	<3.44	<0.34	<1.72	<0.17	<1.72	<0.17	<0.34	--	21.8	246	<1.03	253
S2	<3	--	<0.2	3.4	<0.1	2	<0.4	<1	--	4.1	118	<4	945
	<3	--	<0.2	5	<0.1	<2	<0.4	<1	--	3.4	147	<4	986
	<3	--	<0.2	0.46	<0.1	<2	<0.4	<1	--	3.3	79	<4	987
	<3	--	<0.2	3.3	<0.1	<2	<0.4	<1	--	4	154	<4	988
	<3	--	<0.2	1.4	<0.1	<2	<0.4	<1	--	3.1	73	<4	989
	<3	--	<0.2	5.9	<0.1	<3	<0.3	<1	--	3.4	156	<4	450
	<3	--	<0.2	3.5	<0.1	<3	<0.3	<1	--	2.9	146	<4	451
	<3	--	<0.2	8.8	<0.1	<3	<0.3	<1	--	4	113	<4	448
	<3	--	<0.2	7.9	<0.1	<3	<0.3	<1	--	3.8	88	<4	449
	<15	<30	<0.3	5.17	<0.100	3.17	<0.40	<2	<3	3.48	135	<6	53
	<15	<30	<0.3	1.03	<0.100	3.64	<0.40	<2	<3	4.05	80.9	<6	54
	--	--	--	--	--	--	--	--	--	--	--	--	1172
S4	--	--	--	--	--	--	--	--	--	--	--	--	1252
	--	--	--	--	--	--	--	--	--	--	--	--	1253
	--	--	--	--	--	--	--	--	--	--	--	--	1254
	<31.8	<0.080	0.045	<15.9	<1.59	<15.9	<1.59	<3.18	--	<7.96	115	<31.8	741
	<29.3	<0.073	0.073	<14.7	<1.47	<14.7	<1.47	<2.93	--	<7.33	126	<29.3	734
	--	--	--	--	--	--	--	--	--	--	--	--	1168
	--	--	--	--	--	--	--	--	--	--	--	--	1169
	--	--	--	--	--	--	--	--	--	--	--	--	1170
	--	--	--	--	--	--	--	--	--	--	--	--	1174
SB	220	--	<0.2	2.2	<0.1	2	0.97	<2	--	44.9	8,590	<4	600
	<3	--	0.5	0.84	<0.1	3	1.5	<2	--	47.4	14,500	<4	601
	4	--	0.2	0.48	<0.1	<2	1.1	<2	--	424	10,500	<4	602

Table 51.—*Field and laboratory analyses of biological samples from ponds 1, 2, and 4 in Sheppard Bottom and the Sheppard Bottom area at Ouray National Wildlife Refuge*—Continued

Site name	Organism	Tissue	Date	Magnesium	Manganese	Mercury	Molybdenum
S1	Cinnamon Teal	Bird-Egg-I	05-18-89	--	--	--	—
	Cinnamon Teal	Bird-Egg-I	05-18-89	--	--	--	—
	Canada Goose	Bird-Egg-I	04-27-89	465	1.74	<0.02	<5
	Gadwall	Bird-Egg-I	07-06-88	495	<4.64	<0.078	<15.5
	Gadwall	Bird-Egg-I	06-28-89	--	--	--	—
	Great Blue Heron	Bird-Liver-I	05-05-88	801	11	18.9	4
	Northern Shoveler	Bird-Liver-I	03-22-89	774	17.8	11.3	4.35
	Northern Shoveler	Bird-Muscle-I	03-22-89	1,090	2.10	3.23	<1.72
S2	American Coot	Bird-Egg-I	06-11-87	592	2	0.14	<1
	Canada Goose	Bird-Egg-I	05-15-87	510	2	0.02	<1
	Canada Goose	Bird-Egg-I	05-15-87	499	<0.7	0.01	<1
	Canada Goose	Bird-Egg-I	05-15-87	674	1	0.02	<1
	Canada Goose	Bird-Egg-I	05-15-87	413	<0.7	0.01	<1
	Canada Goose	Bird-Egg-I	04-28-88	397	2.7	<0.005	<1
	Canada Goose	Bird-Egg-I	04-28-88	419	1.3	<0.005	<1
	Canada Goose	Bird-Egg-I	05-04-88	639	1.8	<0.005	<1
	Canada Goose	Bird-Egg-I	05-04-88	439	1.5	<0.005	<1
	Canada Goose	Bird-Egg-I	04-27-89	1,010	2.03	<0.02	<5
	Canada Goose	Bird-Egg-I	05-09-89	465	<1	<0.02	<5
	Gadwall	Bird-Egg-I	06-28-89	--	--	--	—
S4	American Coot	Bird-Egg-I	05-23-89	--	--	--	—
	American Coot	Bird-Egg-I	05-23-89	--	--	--	--
	American Coot	Bird-Egg-I	05-23-89	--	--	--	--
	Cinnamon Teal	Bird-Egg-I	07-05-88	318	<4.78	0.892	<15.9
	Gadwall	Bird-Egg-I	07-07-88	411	<4.40	0.252	<14.7
	Gadwall	Bird-Egg-I	06-28-89	--	--	--	—
	Gadwall	Bird-Egg-I	06-28-89	--	--	--	—
	Gadwall	Bird-Egg-I	06-28-89	--	--	--	—
	Northern Shoveler	Bird-Egg-I	06-28-89	--	--	--	—
SB	American Coot	Bird-Liver-I	03-15-88	923	11	1.12	5
	American Coot	Bird-Liver-I	03-15-88	1,040	61.7	2.3	8.2
	American Coot	Bird-Liver-I	03-15-88	918	21	0.39	11

Table 51.--*Field and laboratory analyses of biological samples from ponds 1, 2, and 4 in Sheppard Bottom and the Sheppard Bottom area at Ouray National Wildlife Refuge*--Continued

Site name	Nickel	Selenium	Silver	Strontium	Thallium	Tin	Vanadium	Zinc	Sample number
S1	--	3	--	--	—	--	--	--	1232
	--	3.5	--	--	—	--	--	--	1233
	<2.50	2.26	<9	<10	—	<30	<1	72.4	52
	<12.4	0.93	<15.5	23.8	—	<15.5	<15.5	69.3	742
	--	2.6	--	--	—	--	--	--	1171
	<2	11	<2	1.2	<5	--	6.4	423	411
	<1.29	8.7	<1.61	1.19	<6.45	7.97	<1.61	<0.64	252
	<1.37	2.1	<1.72	0.34	<6.87	5.70	<1.72	38.6	253
S2	<1	2.7	<1	18.5	<3	--	<0.3	57.2	945
	<1	1.5	<1	6.4	<3	--	<0.3	57.5	986
	<1	1.2	<1	4.9	<3	--	<0.3	44.9	987
	<1	1.8	<1	12.7	<3	--	<0.3	58.1	988
	<1	0.98	<1	5.6	<3	--	<0.3	48.1	989
	<1	1.4	<2	4.5	<4	--	<0.3	59.2	450
	<1	2	<2	2.7	<4	--	<0.3	59.2	451
	<1	1.3	<2	15.9	<4	--	<0.3	59.1	448
	<1	1	<2	5.2	<4	--	<0.3	52	449
	<2.50	3.35	<9	26.8	—	<30	<1	86.9	53
	<2.50	2.18	<9	<10	—	<30	<1	44.9	54
	--	1.9	--	--	—	--	--	--	1172
S4	--	3.4	--	--	—	--	--	--	1252
	--	6.5	--	--	—	--	--	--	1253
	--	4.6	--	--	—	--	--	--	1254
	<12.7	17.2	<15.9	18.5	—	<15.9	<15.9	70.1	741
	<11.7	5	<14.7	11.1	—	<14.7	<14.7	61.9	734
	--	7.7	--	--	—	--	--	--	1168
	--	2.2	--	--	—	--	--	--	1169
	--	2.9	--	--	—	--	--	--	1170
	--	12	--	--	—	--	--	--	1174
SB	<1	7.5	<2	3	<4	--	1.7	287	600
	<1	4.1	<2	5.28	<4	--	2.6	258	601
	<1	7.3	<2	2.3	<4	--	2.7	235	602

Table 52.--*Field and laboratory analyses of bird samples from pond*

[g, gram; mm, millimeter; Tissue: I, individual
Life stage: listed as days for embryos; I,

Organism	Tissue	Date	Moisture content (percent)	Life stage	Sex	Organism data		
						Average weight (g)	Total weight (g)	Length (mm)
American Coot	Bird-Egg-I	05-27-87	65.8	--	--	--	--	50.9
American Coot	Bird-Egg-I	06-02-87	75.1	--	--	--	--	49.3
American Coot	Bird-Egg-I	06-08-87	75.7	--	--	--	--	47.2
American Coot	Bird-Egg-I	06-11-87	77.4	--	--	--	--	45.3
American Coot	Bird-Egg-I	06-01-88	75.9	11	--	--	23	49.3
American Coot	Bird-Egg-I	06-15-88	75.2	15	--	--	26	48.6
American Coot	Bird-Egg-I	06-21-88	73	13	--	--	29	53.5
American Coot	Bird-Egg-I	06-21-88	75.6	4	--	--	26	49.9
American Coot	Bird-Egg-I	06-21-88	74.8	13	--	--	20	45.8
American Coot	Bird-Egg-I	06-07-89	74.2	20	--	--	25	49.5
American Coot	Bird-Egg-I	06-07-89	75.6	19	--	--	28	51
Canada Goose	Bird-Egg-I	05-15-87	59.7	--	--	--	--	81
Canada Goose	Bird-Egg-I	05-15-87	65.4	--	--	--	--	86
Canada Goose	Bird-Egg-I	05-15-87	69.3	--	--	--	--	83.9
Canada Goose	Bird-Egg-I	05-15-87	65.2	--	--	--	--	86
Canada Goose	Bird-Egg-I	05-15-87	61.5	--	--	--	--	84.9
Canada Goose	Bird-Egg-I	04-28-88	68.4	14	--	--	141	87
Canada Goose	Bird-Egg-I	05-04-88	67.2	27	--	--	98	82.8
Canada Goose	Bird-Egg-I	05-04-88	68	--	--	--	108	84
Canada Goose	Bird-Egg-I	05-04-88	70.3	28	--	--	116	87.1
Canada Goose	Bird-Egg-I	04-27-89	65.8	--	--	--	106	86.9
Canada Goose	Bird-Egg-I	04-27-89	65.6	21	--	--	119	85.9
Canada Goose	Bird-Egg-I	05-11-89	68.7	--	--	--	133	85.7
Canada Goose	Bird-Egg-I	05-11-89	60.2	0	--	--	121	83.7
Gadwall	Bird-Egg-I	06-02-88	73.6	0	--	--	39	50.7
Gadwall	Bird-Egg-I	06-22-88	69.7	5	--	--	38	53.9
Gadwall	Bird-Egg-I	07-06-88	66.3	17	--	--	33	51.7
Gadwall	Bird-Egg-I	07-06-88	69.5	17	--	--	33	54.5
Gadwall	Bird-Egg-I	06-28-89	65	6	--	--	36	56.2
Pied-Billed Grebe	Bird-Egg-I	05-25-88	77.8	9	--	--	20	45.7
Pied-Billed Grebe	Bird-Egg-I	06-21-88	77.8	12	--	--	18	43.4
American Coot	Bird-Liver-I	08-12-87	77.1	I	--	--	400	--
American Coot	Bird-Liver-I	08-13-87	76.1	I	--	--	500	--
American Coot	Bird-Liver-I	08-13-87	75.6	I	--	--	500	--
American Coot	Bird-Liver-I	08-20-87	72	I	--	--	575	--
Great Blue Heron	Bird-Liver-I	08-27-87	76.6	--	--	--	2,260	--
Pied-Billed Grebe	Bird-Liver-I	07-29-87	79	I	--	--	750	--

3 in Sheppard Bottom at Ouray National Wildlife Refuge

sample; Egg, net sample weight.
immature. --, not determined; <, less than]

Alum-inum	Anti-mony	Arse-nic	Barium	Beryl-lium	Boron	Cadm-ium	Chrom-ium	Cobalt	Copper	Iron	Lead	Sample number
<3	--	<0.2	14	<0.1	2	<0.4	3.6	--	10	149	<4	942
<3	<0.101	<0.2	12.4	<0.1	2	<0.4	<1	--	3.8	102	<4	943
<3	<0.093	<0.2	16.4	<0.1	3	<0.4	<1	--	3.8	114	<4	944
<3	<0.102	<0.2	2.9	<0.1	2	<0.4	<1	--	4.7	71	<4	941
<35.1	<0.104	0.033	<17.6	<1.74	<17.6	<1.74	<3.53	--	<8.80	66.8	<35.1	635
<40.3	<0.099	0.065	<20.2	<2.02	<20.2	<2.02	<4.03	--	<10.1	101	<40.3	725
<37	--	2.20	<18.5	<1.85	<18.5	<1.85	<3.70	--	<9.26	96.3	<37	729
<41	--	0.090	<20.5	<2.05	<20.5	<2.05	<4.10	--	<10.2	45.1	<41	730
<39.7	--	0.972	<19.8	<1.98	<19.8	<1.98	<3.97	--	<9.92	63.5	<39.7	731
--	--	--	--	--	--	--	--	--	--	--	--	1250
--	--	--	--	--	--	--	--	--	--	--	--	1251
<3	--	<0.2	4.7	<0.1	<2	<0.4	<1	--	2.1	121	<4	981
3	--	<0.2	5.4	<0.1	<2	<0.4	<1	--	2.7	136	<4	982
<3	--	<0.2	1.1	<0.1	<2	<0.4	<1	--	1.9	50	<4	983
<3	--	<0.2	3.4	<0.1	2	<0.4	<1	--	1.1	117	<4	984
<3	--	<0.2	3.4	<0.1	<2	<0.4	<1	--	1.6	112	<4	985
<3	--	<0.2	3.7	<0.1	<3	<0.3	<1	--	2.9	123	<4	446
<3	--	<0.2	1.1	<0.1	<3	<0.3	<1	--	3.9	143	<4	443
<3	--	<0.2	7.6	<0.1	<3	<0.3	<1	--	3.4	112	<4	444
<3	--	<0.2	12.3	<0.1	<3	<0.3	2	--	3	124	<4	445
<15	<30	<0.3	4.29	<0.100	2.21	<0.40	<2	<3	2.68	119	<6	55
<15	<30	<0.3	1.49	<0.100	<2	<0.40	<2	<3	4.12	135	<6	58
<15	<30	<0.3	2.44	<0.100	2.12	<0.40	<2	<3	3.30	157	<6	56
<15	<30	<0.3	3.04	<0.100	3.03	<0.40	<2	<3	2.83	128	<6	57
<26.8	<0.095	0.053	<13.4	<1.33	<13.4	<1.33	<2.69	--	9.36	45.5	<26.8	639
<33	<0.083	0.073	<16.5	<1.65	<16.5	<1.65	<3.30	--	<8.25	109	<33	737
<29.7	<0.074	0.077	17.8	<1.48	<14.8	<1.48	<2.97	--	8.90	113	<29.7	732
<32.8	<0.082	0.105	<16.4	<1.64	<16.4	<1.64	<3.28	--	<8.20	131	<32.8	743
--	--	--	--	--	--	--	--	--	--	--	--	1173
<28.2	<0.113	<0.023	<14.1	<1.40	<14.1	<1.40	<2.79	--	9.01	87.4	<28.2	628
<45	<0.113	0.072	<22.5	<2.25	<22.5	<2.25	<4.50	--	<11.3	81.1	<45	735
<3	--	<0.2	0.2	<0.1	3	<0.4	<1	--	17	3,130	<4	1036
4	--	<0.2	0.2	<0.1	2	<0.4	<1	--	12	4,730	<4	1037
7	--	<0.2	0.2	<0.1	3	<0.4	<1	--	14	3,860	<4	1038
9.5	--	0.2	0.2	<0.1	4	2.4	<2	--	27.5	6,840	<4	599
<3	--	<0.2	0.2	<0.1	<2	<0.3	1	--	12	2,620	<4	410
11	--	<0.2	0.2	<0.1	3	<0.4	<1	--	9.8	512	<4	1044

Table 52.--*Field and laboratory analyses of bird samples from pond*

Organism	Tissue	Date	Magnesium	Manganese	Mercury	Molybdenum
American Coot	Bird-Egg-I	05-27-87	770	7.1	0.073	1
American Coot	Bird-Egg-I	06-02-87	828	1	0.052	<1
American Coot	Bird-Egg-I	06-08-87	707	3.7	0.084	<1
American Coot	Bird-Egg-I	06-11-87	637	1	0.077	<1
American Coot	Bird-Egg-I	06-01-88	560	<5.10	<0.104	<17.6
American Coot	Bird-Egg-I	06-15-88	685	<6.05	<0.101	<20.2
American Coot	Bird-Egg-I	06-21-88	519	<5.56	0.093	<18.5
American Coot	Bird-Egg-I	06-21-88	451	<6.15	0.164	<20.5
American Coot	Bird-Egg-I	06-21-88	595	<5.95	0.357	<19.8
American Coot	Bird-Egg-I	06-07-89	--	--	--	--
American Coot	Bird-Egg-I	06-07-89	--	--	--	--
Canada Goose	Bird-Egg-I	05-15-87	438	1	0.01	<1
Canada Goose	Bird-Egg-I	05-15-87	507	0.9	0.01	<1
Canada Goose	Bird-Egg-I	05-15-87	351	<0.7	0.01	<1
Canada Goose	Bird-Egg-I	05-15-87	378	1	0.01	<1
Canada Goose	Bird-Egg-I	05-15-87	390	1	0.009	<1
Canada Goose	Bird-Egg-I	04-28-88	452	2.1	0.01	<1
Canada Goose	Bird-Egg-I	05-04-88	533	1.2	0.005	<1
Canada Goose	Bird-Egg-I	05-04-88	433	1.3	0.005	<1
Canada Goose	Bird-Egg-I	05-04-88	606	0.8	<0.005	<1
Canada Goose	Bird-Egg-I	04-27-89	383	1.79	<0.02	<5
Canada Goose	Bird-Egg-I	04-27-89	563	1.74	<0.02	<5
Canada Goose	Bird-Egg-I	05-11-89	498	1.11	<0.02	<5
Canada Goose	Bird-Egg-I	05-11-89	424	2.18	<0.02	<5
Gadwall	Bird-Egg-I	06-02-88	481	<4.02	<0.095	<13.4
Gadwall	Bird-Egg-I	06-22-88	396	<4.95	<0.083	<16.5
Gadwall	Bird-Egg-I	07-06-88	415	<4.45	<0.075	<14.8
Gadwall	Bird-Egg-I	07-06-88	459	<4.92	0.187	<16.4
Gadwall	Bird-Egg-I	06-28-89	--	--	--	--
Pied-Billed Grebe	Bird-Egg-I	05-25-88	450	4.23	0.468	<14.1
Pied-Billed Grebe	Bird-Egg-I	06-21-88	<450	<6.76	0.968	<22.5
American Coot	Bird-Liver-I	08-12-87	864	12	0.16	3
American Coot	Bird-Liver-I	08-13-87	810	12	0.092	3
American Coot	Bird-Liver-I	08-13-87	815	13	0.084	3
American Coot	Bird-Liver-I	08-20-87	748	11	0.16	5
Great Blue Heron	Bird-Liver-I	08-27-87	679	4.5	24	2
Pied-Billed Grebe	Bird-Liver-I	07-29-87	791	14	0.30	<1

3 in Sheppard Bottom at Ouray National Wildlife Refuge—Continued

Nickel	Selenium	Silver	Strontium	Thallium	Tin	Vanadium	Zinc	Sample number
<1	4.6	<1	40.4	<3	--	<0.3	83.7	942
<1	3.4	<1	34.8	<3	--	<0.3	78.6	943
<1	4	<1	24.8	<3	--	<0.3	81.3	944
<1	3.2	<1	22.3	<3	--	<0.3	59.3	941
14	3.3	<17.6	9.13	--	<17.6	<17.6	56.4	635
<16.1	4.4	<20.2	25	--	<20.2	<20.2	65.7	725
<14.8	3	<18.5	24.4	--	<18.5	<18.5	77.8	729
<16.4	3.7	<20.5	11.9	--	<20.5	<20.5	54.9	730
<15.9	2.8	<19.8	15.9	--	<19.8	<19.8	69	731
--	3.6	--	--	--	--	--	--	1250
--	3.3	--	--	--	--	--	--	1251
<1	1.2	<1	5.8	<3	--	<0.3	63.4	981
<1	1.4	<1	7	<3	--	<0.3	60.9	982
<1	1.4	<1	2.5	<3	--	<0.3	48.8	983
<1	2.9	<1	4	<3	--	<0.3	59.3	984
<1	1.3	<1	4	<3	--	<0.3	57.8	985
<1	1.3	<2	6.6	<4	--	<0.3	49.2	446
<1	2.5	<2	5.6	<4	5.6	<0.3	58.7	443
<1	0.99	<2	5.2	<4	--	<0.3	53	444
<1	1.3	<2	15.2	<4	--	<0.3	68.5	445
<2.50	1.87	<9	<10	--	<30	<1	54.6	55
<2.50	2.34	<9	<10	--	<30	<1	63	58
<2.50	2.44	<9	<10	--	<30	<1	59.7	56
<2.50	1.96	<9	<10	--	<30	<1	61.3	57
<10.7	1.9	<13.4	10.2	--	<13.4	<13.4	55.3	639
<13.2	2	<16.5	12.2	--	<16.5	<16.5	63.4	737
<11.9	1.2	<14.8	17.5	--	<14.8	<14.8	<5.93	732
<13.1	2	<16.4	19.7	--	<16.4	<16.4	66.2	743
--	4.4	--	--	--	--	--	--	1173
<11.3	6.8	<14.1	9.55	--	<14.1	<14.1	55	628
<18	5	<22.5	7.21	--	<22.5	<22.5	49.1	735
<2	11	<1	0.52	<6	--	<0.3	201	1036
<2	10	<1	0.66	<6	--	0.4	141	1037
<2	12	<1	0.59	<6	--	0.4	192	1038
<1	14	<2	0.43	<4	--	<0.3	158	599
<2	47	<2	1.4	<5	--	<0.6	129	410
<2	10	<1	1.6	<6	--	<0.3	105	1044

Table 53.—*Field and laboratory analyses of biological samples from pond*

[g, gram; mm, millimeter; Organism: spp., species. Tissue: C5, composite
Life stage: A, Adult. Sex: M, male.

Organism	Tissue	Date	Moisture content (percent)	Life stage	Sex	Organism data		
						Average weight (g)	Total weight (g)	Length (mm)
Black Bullhead	Fish-Whole Body-C5	04-03-87	78.8	--	--	258	--	249
Black Bullhead	Fish-Whole Body-C5	07-29-87	82	A	--	200	--	227
Black Bullhead	Fish-Whole Body-C5	04-06-88	79.7	--	--	321	--	264
Black Bullhead	Fish-Whole Body-C5	04-06-88	81.2	--	--	101	--	185
Black Bullhead	Fish-Whole Body-C5	07-21-88	82	--	--	95	--	193
Black Bullhead	Fish-Whole Body-C5	07-21-88	80.5	--	--	88	--	190
Common Carp	Fish-Whole Body-C5	04-03-87	74.9	--	--	850	--	367
Common Carp	Fish-Whole Body-C5	04-03-87	74.4	--	--	1,124	--	396
Common Carp	Fish-Whole Body-C5	07-29-87	71.3	A	--	1,898	--	491
Common Carp	Fish-Whole Body-C5	07-29-87	79.2	A	--	308	--	275
Common Carp	Fish-Whole Body-C5	04-06-88	79.6	--	--	356	--	294
Common Carp	Fish-Whole Body-C5	07-21-88	79	--	--	580	--	344
Common Carp	Fish-Whole Body-C5	07-21-88	77.7	--	--	588	--	348
Green Sunfish	Fish-Whole Body-C5	07-29-87	80	A	--	43	--	127
Green Sunfish	Fish-Whole Body-I	07-21-88	77.4	--	--	--	59	147
Chironomidae(Predominant)	Invertebrate-Whole Body-C	04-06-88	86.7	--	--	--	16	--
Invertebrates-Hemiptera	Invertebrate-Whole Body-C	06-28-88	76.6	--	--	--	6	--
Invertebrates-Hemiptera	Invertebrate-Whole Body-C	07-27-88	81.9	--	--	--	6	--
Invertebrates-Mixed	Invertebrate-Whole Body-C	05-03-89	92.9	--	--	--	70	--
Invertebrates-Mixed	Invertebrate-Whole Body-C	06-07-89	87.7	--	--	--	84	--
Invertebrates-Odonata	Invertebrate-Whole Body-C	08-06-87	80.8	--	--	--	--	--
Blue-Green Algae	Plant-without Root-C	08-17-88	74.2	--	--	--	80	--
Filamentous Green Algae	Plant-without Root-C	06-13-88	69.7	--	--	--	52	--
Najas marina	Plant-without Root-C	08-17-88	92.7	--	--	--	94	--
Potamogeton filiformis	Plant-without Root-C	08-16-88	88	--	--	--	298	--
Potamogeton nodosus	Plant-without Root-C	08-17-88	88.2	--	--	--	48	--
Potamogeton pusillus	Plant-without Root-C	07-20-87	86.7	--	--	--	--	--
Potamogeton spp.	Plant-without Root-C	06-13-88	90.9	--	--	--	205	--
Typha spp.	Plant-Root and Stem-C	08-13-87	82.1	--	--	--	--	--
Typha spp.	Plant-Root and Stem-C	06-13-88	90.2	--	M	--	1,007	--
Typha spp.	Plant-Root and Stem-C	08-16-88	91.8	--	--	--	741	--

3 in Sheppard Bottom at Ouray National Wildlife Refuge area

sample, number of individuals; I, individual sample.
--, not determined; <, less than]

Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Chromium	Cobalt	Copper	Iron	Lead	Sample number
110	--	0.1	12.7	<0.1	<2	0.2	<1	—	1.8	193	<4	894
<28.8	0.333	0.178	<29.4	<2.94	<29.4	<2.94	<5.88	—	<14.7	129	<58.8	484
220	--	<0.2	18	<0.1	<2	<0.2	<2	—	1.1	242	<4	571
731	--	<0.2	20.6	<0.1	<2	<0.2	<2	—	2.1	587	<4	572
139	<0.139	0.311	<27.8	<2.78	<27.8	<2.78	<5.56	—	<13.9	678	<55.6	718
61.5	<0.128	0.159	<25.6	<2.56	<25.6	<2.56	<5.13	—	<12.8	215	<51.3	719
150	--	0.33	8.5	<0.1	<2	<0.2	<1	—	1.5	292	<4	892
94	--	0.1	8	<0.1	<2	<0.2	<1	—	1.5	176	<4	893
<37.8	<0.088	0.167	<17.4	<1.74	<17.4	<1.74	<3.48	—	<8.71	83.6	<34.8	482
<48.1	<0.121	0.144	<24	<2.4	<24	<2.4	<4.81	—	<12	168	<48.1	483
110	--	0.2	14.4	<0.1	<2	<0.2	<2	—	0.98	204	<4	583
<47.6	<0.119	0.152	<23.8	<2.38	<23.8	<2.38	<4.76	—	<11.9	143	<47.6	715
<44.8	<0.112	0.269	<22.4	<2.24	<22.4	<2.24	<4.48	—	42.2	157	<44.8	716
<50	<0.125	0.220	<25	<2.5	<25	<2.5	<5	—	<12.5	130	<50	485
<44.2	<0.111	0.106	<22.1	<2.21	<22.1	<2.21	<4.42	—	<11.1	53.1	<44.2	717
9,190	--	2.7	57.7	0.34	6	0.3	10	--	24.7	7,370	6	563
385	<0.107	0.855	50	<2.14	<21.4	<2.14	<4.27	--	24.4	667	<42.7	745
348	<0.138	0.691	36.5	<2.76	<27.6	<2.76	<5.52	--	21.6	757	<55.2	706
1,140	<20	3.06	20.3	0.363	6.90	1.29	<3	<3	14.2	1,270	6.46	136
900	<20	1.76	21.4	<0.200	4.32	<0.800	<3	<3	14	975	<6	133
406	--	--	<26	<2.60	<26	<2.60	<5.21	--	<14.1	474	<52.1	520
15,900	--	6.7	226	0.86	18	0.5	23	—	19	18,500	16	367
9,540	0.195	17.4	222	<1.65	16.5	<1.65	20.1	—	18.2	14,700	<33	663
10,700	--	8.5	202	0.38	62	0.3	12	—	7.2	7,740	6	401
9,810	--	6.5	266	0.36	216	<0.3	11	—	6.8	7,450	7	376
9,670	--	7	337	0.34	35	<0.3	11	—	7.4	7,120	7	377
7,920	--	9.9	153	0.3	293	<0.2	8.3	—	5.7	4,400	<4	991
2,050	0.330	10.3	147	<5.49	191	<5.49	<11	--	<27.5	3,310	<110	662
1,470	--	4	31.7	<0.1	6.9	<0.2	4.4	—	4.2	2,840	<4	1015
4,700	0.480	12.7	120	<5.10	<51	<5.10	<10.2	—	<25.5	9,630	<102	661
2,450	--	5.8	52.6	<0.1	7.5	<0.3	6.4	—	6	4,350	<4	391

Table 53.—*Field and laboratory analyses of biological samples from pond*

Organism	Tissue	Date	Magnesium	Manganese	Mercury	Molybdenum
Black Bullhead	Fish-Whole Body-C5	04-03-87	1,400	18	0.12	<1
Black Bullhead	Fish-Whole Body-C5	07-29-87	1,940	25.3	0.306	<29.4
Black Bullhead	Fish-Whole Body-C5	04-06-88	1,560	18	0.18	<1
Black Bullhead	Fish-Whole Body-C5	04-06-88	1,760	27.8	0.081	<1
Black Bullhead	Fish-Whole Body-C5	07-21-88	1,500	18.3	0.178	<27.8
Black Bullhead	Fish-Whole Body-C5	07-21-88	1,790	23.1	0.174	<25.6
Common Carp	Fish-Whole Body-C5	04-03-87	1,010	9.1	0.048	<1
Common Carp	Fish-Whole Body-C5	04-03-87	1,110	6.4	0.043	<1
Common Carp	Fish-Whole Body-C5	07-29-87	1,050	<5.23	0.300	<17.4
Common Carp	Fish-Whole Body-C5	07-29-87	1,590	11.1	<0.121	<24
Common Carp	Fish-Whole Body-C5	04-06-88	1,400	11	0.024	<1
Common Carp	Fish-Whole Body-C5	07-21-88	1,330	<7.14	<0.120	<23.8
Common Carp	Fish-Whole Body-C5	07-21-88	1,260	<6.73	<0.113	<22.4
Green Sunfish	Fish-Whole Body-C5	07-29-87	1,250	11.5	0.205	<25
Green Sunfish	Fish-Whole Body-I	07-21-88	2,040	45.6	0.204	<22.1
Chironomidae(Predominant)	Invertebrate-Whole Body-C	04-06-88	3,870	101	0.023	<1
Invertebrates-Hemiptera	Invertebrate-Whole Body-C	06-28-88	1,200	44	0.295	<21.4
Invertebrates-Hemiptera	Invertebrate-Whole Body-C	07-27-88	1,710	55.8	<0.139	<27.6
Invertebrates-Mixed	Invertebrate-Whole Body-C	05-03-89	2,490	59.5	0.287	<5
Invertebrates-Mixed	Invertebrate-Whole Body-C	06-07-89	1,920	66.6	0.159	<5
Invertebrates-Odonata	Invertebrate-Whole Body-C	08-06-87	1,200	58.8	0.130	<26
Blue-Green Algae	Plant-without Root-C	08-17-88	14,900	483	0.023	<2
Filamentous Green Algae	Plant-without Root-C	06-13-88	10,600	2,000	<0.083	<16.5
Najas marina	Plant-without Root-C	08-17-88	12,500	460	0.01	<2
Potamogeton filiformis	Plant-without Root-C	08-16-88	14,100	1,080	0.01	<2
Potamogeton nodosus	Plant-without Root-C	08-17-88	13,500	909	0.01	<2
Potamogeton pusillus	Plant-without Root-C	07-20-87	11,200	567	0.01	<1
Potamogeton spp.	Plant-without Root-C	06-13-88	6,590	1,760	<0.275	<54.9
Typha spp.	Plant-Root and Stem-C	08-13-87	3,670	312	0.028	<1
Typha spp.	Plant-Root and Stem-C	06-13-88	7,450	913	0.286	<51
Typha spp.	Plant-Root and Stem-C	08-16-88	5,060	242	0.01	<1

3 in Sheppard Bottom at Ouray National Wildlife Refuge area—Continued

Nickel	Sele-nium	Silver	Stron-tium	Thal-lium	Tin	Vanad-ium	Zinc	Sample number
<1	2.5	<2	295	<6	--	0.6	96.7	894
<23.5	2.8	<29.4	348	--	<29.4	<29.4	114	484
<1	2.6	<2	269	<4	--	0.90	92.1	571
<1	3.6	<2	242	<4	--	2.2	91.7	572
<22.2	13.9	<27.8	89.4	--	<27.8	<27.8	87.2	718
<20.5	4.1	<25.6	309	--	<25.6	<25.6	94.4	719
<1	4	<2	145	<6	--	0.5	133	892
<1	5.5	<2	203	<6	--	0.4	147	893
<13.9	3.8	<17.4	88.8	--	<17.4	<17.4	188	482
<19.2	7.7	<24	360	--	<24	<24	201	483
<1	5.6	<2	193	<4	--	0.5	161	583
<19	6.7	<23.8	176	--	<23.8	<23.8	197	715
<17.9	6.3	<22.4	193	--	<22.4	<22.4	218	716
<20	5	<25	89	--	<25	<25	85	485
<17.7	5.8	<22.1	417	--	<22.1	<22.1	126	717
5.9	5.4	<2	46.1	<4	--	17	102	563
<17.1	3	<21.4	21.8	--	<21.4	<21.4	132	745
<22.1	3.9	<27.6	37.6	--	<27.6	<27.6	161	706
3.83	3.84	<10	297	--	<25	2.42	112	136
<2.50	3.02	<10	121	--	<25	1.64	113	133
<20.8	4.2	<26	14.1	--	<26	<26	79.7	520
20	1.3	<2	293	<4	--	27	65.2	367
<13.2	0.99	<16.5	488	--	<16.5	<16.5	63.7	663
9	1.6	<2	470	<4	--	22	33.6	401
7.5	1.3	<2	754	<4	--	19	28	376
7.1	1.7	<2	1,070	<4	--	19	80	377
4.8	1.2	<2	290	<5	--	18	24.3	991
<44	<1.1	<54.9	338	--	<54.9	<54.9	57.1	662
3.4	0.30	<2	74.7	<5	--	4.3	21.1	1015
<40.8	1	<51	146	--	<51	<51	74.5	661
5	0.82	<2	99.1	<4	--	8.3	26	391

Table 54.—*Field and laboratory analyses of bird samples from pond 5 in*

[g, gram; mm, millimeter; Tissue: C3, composite sample, number of
Life stage: listed as days for embryos; I, immature; A, Adult.

Organism	Tissue	Date	Moisture content (percent)	Life stage	Sex	Organism data		
						Average weight (g)	Total weight (g)	Length (mm)
American Avocet	Bird-Egg-I	05-31-89	72.9	--	--	--	24	49.9
American Coot	Bird-Egg-I	06-05-87	74.8	--	--	--	--	49.1
American Coot	Bird-Egg-I	06-05-87	75.4	--	--	--	--	45.4
American Coot	Bird-Egg-I	06-05-87	82.1	--	--	--	--	50.5
American Coot	Bird-Egg-I	06-11-87	76.5	--	--	--	--	51
American Coot	Bird-Egg-I	07-18-87	72	--	--	--	--	--
American Coot	Bird-Egg-I	05-25-88	75.4	16	--	--	23	46.9
American Coot	Bird-Egg-I	06-01-88	77.1	7	--	--	29	50.2
American Coot	Bird-Egg-I	06-01-88	76.6	23	--	--	23	46.9
American Coot	Bird-Egg-I	06-15-88	75	1	--	--	27	49
American Coot	Bird-Egg-I	06-29-88	73.9	9	--	--	26	50.3
American Coot	Bird-Egg-I	05-18-89	74.4	4	--	--	24	48.6
American Coot	Bird-Egg-I	05-31-89	75.2	20	--	--	26	50.1
American Coot	Bird-Egg-I	05-31-89	73.7	18	--	--	26	48.3
American Coot	Bird-Egg-I	05-31-89	75.1	19	--	--	26	51.8
American Coot	Bird-Egg-I	05-31-89	49.8	23	--	--	22	50
American Coot	Bird-Egg-I	05-31-89	72.6	19	--	--	23	47.6
Black-Crowned Night Heron	Bird-Egg-I	05-25-88	82	17	--	--	32	49.6
Black-Crowned Night Heron	Bird-Egg-I	05-25-88	82.8	20	--	--	37	52.5
Black-Crowned Night Heron	Bird-Egg-I	05-25-88	84.1	24	--	--	37	54.7
Black-Crowned Night Heron	Bird-Egg-I	06-13-89	70.8	22	--	--	14	41.4
Black-Necked Stilt	Bird-Egg-I	05-31-89	74.3	8	--	--	17	40.5
Black-Necked Stilt	Bird-Egg-I	05-31-89	73.5	10	--	--	16	42.3
Canada Goose	Bird-Egg-I	05-15-87	62.5	--	--	--	--	86.9
Canada Goose	Bird-Egg-I	05-15-87	66.7	--	--	--	--	83.4
Canada Goose	Bird-Egg-I	05-04-88	69.8	28	--	--	123	84.9
Cinnamon Teal	Bird-Egg-I	06-14-88	70.9	1	--	--	24	44.3
Pied-Billed Grebe	Bird-Egg-I	06-05-87	78.6	--	--	--	--	44
Pied-Billed Grebe	Bird-Egg-I	05-10-88	74	15	--	--	18	44.7
Pied-Billed Grebe	Bird-Egg-I	05-10-88	74.2	15	--	--	15	40.4
Pied-Billed Grebe	Bird-Egg-I	05-25-88	76.7	13	--	--	16	41.6
Pied-Billed Grebe	Bird-Egg-I	06-01-88	75.9	21	--	--	17	43.2
Pied-Billed Grebe	Bird-Egg-I	06-15-88	78.3	21	--	--	17	43.8
Yellow-Headed Blackbird	Bird-Egg-C3	05-23-89	83.1	--	--	4	--	27
Mallard	Bird-Crop-Barley-I	11-03-87	49.9	--	--	--	19	--
Mallard	Bird-Crop-Barley-I	11-03-87	48.3	--	--	--	12	--
American Coot	Bird-Liver-I	08-13-87	72.5	I	--	--	400	--
American Coot	Bird-Liver-I	08-13-87	73.3	I	--	--	450	--
American Coot	Bird-Liver-I	08-13-87	76.3	A	--	--	600	--
American Coot	Bird-Liver-I	08-14-87	70.8	I	--	--	400	--
American Coot	Bird-Liver-I	08-14-87	73	I	--	--	350	--
American Coot	Bird-Liver-I	08-04-89	72.9	A	--	--	8	--
Mallard	Bird-Liver-I	11-03-87	68.5	--	--	--	15	--
Mallard	Bird-Liver-I	11-03-87	73.3	--	--	--	39	--
Scaup	Bird-Liver-I	04-04-88	71.6	A	F	--	26	--
American Coot	Bird-Muscle-I	08-04-89	74.5	A	--	--	7	--
Mallard	Bird-Muscle-I	11-03-87	72.4	--	--	--	65	--
Mallard	Bird-Muscle-I	11-03-87	69.8	--	--	--	49	--

individuals; I, individual sample; Egg, net sample weight.
Sex: F, female. --, not determined; <, less than]

Alum-inum	Anti-mony	Arse-nic	Barium	Beryl-lium	Boron	Cadm-ium	Chrom-ium	Cobalt	Copper	Iron	Lead	Sample number
--	--	--	--	--	--	--	--	--	--	--	--	1267
<3	--	<0.2	6.2	<0.1	2	<0.4	<1	--	4	110	<4	936
<3	--	<0.2	8	<0.1	6.2	<0.4	<1	--	4.4	125	<4	938
<3	--	<0.1	1.9	<0.09	<2	<0.4	<0.9	--	5.4	102	<4	940
<3	--	<0.2	13.9	<0.1	<2	<0.4	<1	--	2.5	105	<4	937
<35.7	<0.09	0.018	<17.8	<1.78	<17.8	<1.78	<3.57	--	<8.92	39.3	<35.7	477
<35.7	<0.102	0.033	<17.8	<1.79	<17.8	<1.79	<3.58	--	<8.94	118	<35.7	630
<41.4	<0.109	0.044	<20.7	<2.05	<20.7	<2.06	<4.15	--	<10.3	66.4	<41.4	636
<59	<0.107	0.030	<29.4	<2.95	<29.4	<2.95	<5.90	--	<14.7	70.5	<59	637
<40	<0.10	0.048	<20	<2	<20	<2	<4	--	<10	80	<40	726
<38.3	<0.096	0.038	<19.2	<1.92	<19.2	<1.92	<3.83	--	<9.58	95.8	<38.3	740
--	--	--	--	--	--	--	--	--	--	--	--	1258
--	--	--	--	--	--	--	--	--	--	--	--	1255
--	--	--	--	--	--	--	--	--	--	--	--	1256
--	--	--	--	--	--	--	--	--	--	--	--	1257
--	--	--	--	--	--	--	--	--	--	--	--	1259
--	--	--	--	--	--	--	--	--	--	--	--	1260
<55.6	<0.139	0.028	<27.8	<2.78	<27.8	<2.78	<5.56	--	14.4	88.9	<55.6	618
<58.1	<0.145	0.035	<29.1	<2.91	<29.1	<2.91	<5.81	--	<14.5	98.8	<58.1	619
<61.9	<0.157	0.069	<30.9	<3.08	<30.9	<3.08	<6.16	--	<15.5	124	<61.9	620
--	--	--	--	--	--	--	--	--	--	--	--	1176
--	--	--	--	--	--	--	--	--	--	--	--	1268
--	--	--	--	--	--	--	--	--	--	--	--	1269
6	--	<0.2	4.3	<0.1	<2	<0.4	<1	--	3.5	138	<4	979
<3	--	<0.2	3	<0.09	<2	<0.4	<0.9	--	1.4	122	<4	980
<3	--	<0.2	5.1	<0.1	<3	<0.4	1	--	3.3	145	<5	447
<23.8	<0.086	0.062	<11.9	<1.20	<11.9	<1.20	<2.37	--	30.4	73.5	<23.8	626
<3	--	<0.2	0.43	<0.1	<2	<0.4	<1	--	4.9	147	<4	939
<3	--	<0.2	0.60	<0.1	<3	<0.3	<1	--	2.3	155	<4	433
<3	--	<0.2	0.51	<0.1	<3	<0.3	<1	--	2.6	131	<4	434
<31.4	<0.107	0.034	<15.7	<1.59	<15.7	<1.59	<3.13	--	10	103	<31.4	629
<33.8	<0.104	0.046	<16.9	<1.70	18.9	<1.70	<3.40	--	9.79	118	<33.8	634
<46.1	<0.115	0.065	<23	<2.30	<23	<2.30	<4.61	--	<11.5	134	<46.1	727
--	--	--	--	--	--	--	--	--	--	--	--	1266
1,210	--	0.2	11	<0.1	4	0.3	3	--	5.1	951	<4	612
347	--	<0.2	4.8	<0.1	<2	<0.2	2	--	5.1	342	<4	613
<3	--	<0.2	0.2	<0.1	<2	<0.4	<1	--	20	4,390	<4	1039
3	--	<0.2	0.2	<0.1	<2	<0.4	<1	--	19	4,050	<4	1040
7	--	<0.2	0.2	<0.1	<2	0.4	<1	--	66.6	5,470	<4	1041
<3	--	0.2	0.2	<0.1	2	<0.4	<1	--	19	2,910	<4	1042
<3	--	0.2	0.3	<0.1	<2	<0.4	<1	--	86.7	6,870	<4	1043
<3.69	<3.69	<0.37	<1.84	<0.18	<1.84	0.55	0.7	--	41	12,400	<1.11	1364
<3	--	<0.2	0.36	<0.1	3	3	<2	--	202	3,260	<4	608
<3	--	<0.2	0.2	<0.1	<2	<0.2	<2	--	112	2,210	<4	609
<3	--	<0.2	0.2	<0.1	2	0.3	<2	--	35.2	3,640	<4	598
5.73	<3.92	<0.39	<1.96	<0.2	<1.96	<0.2	0.94	--	73.8	502	<1.18	1365
<3	--	<0.2	0.1	<0.1	2	<0.2	<2	--	15	228	<4	610
<3	--	<0.2	0.1	<0.1	3	<0.2	<2	--	19	241	<4	611

Table 54.--*Field and laboratory analyses of bird samples from pond 5 in*

Organism	Tissue	Date	Magnesium	Manganese	Mercury	Molybdenum
American Avocet	Bird-Egg-I	05-31-89	--	--	--	--
American Coot	Bird-Egg-I	06-05-87	508	2	0.057	<1
American Coot	Bird-Egg-I	06-05-87	624	4	0.13	2
American Coot	Bird-Egg-I	06-05-87	680	1	0.822	1
American Coot	Bird-Egg-I	06-11-87	531	4.1	0.19	<1
American Coot	Bird-Egg-I	07-18-87	393	<5.36	0.089	<17.8
American Coot	Bird-Egg-I	05-25-88	606	<5.37	0.122	<17.8
American Coot	Bird-Egg-I	06-01-88	537	<6.20	0.563	<20.7
American Coot	Bird-Egg-I	06-01-88	705	<8.85	0.150	<29.4
American Coot	Bird-Egg-I	06-15-88	640	<6	0.112	<20
American Coot	Bird-Egg-I	06-29-88	498	<5.75	<0.096	<19.2
American Coot	Bird-Egg-I	05-18-89	--	--	--	--
American Coot	Bird-Egg-I	05-31-89	--	--	--	--
American Coot	Bird-Egg-I	05-31-89	--	--	--	--
American Coot	Bird-Egg-I	05-31-89	--	--	--	--
American Coot	Bird-Egg-I	05-31-89	--	--	--	--
American Coot	Bird-Egg-I	05-31-89	--	--	--	--
Black-Crowned Night Heron	Bird-Egg-I	05-25-88	556	<8.33	0.733	<27.8
Black-Crowned Night Heron	Bird-Egg-I	05-25-88	814	<8.72	0.837	<29.1
Black-Crowned Night Heron	Bird-Egg-I	05-25-88	742	<9.31	1.46	<30.9
Black-Crowned Night Heron	Bird-Egg-I	06-13-89	--	--	--	--
Black-Necked Stilt	Bird-Egg-I	05-31-89	--	--	--	--
Black-Necked Stilt	Bird-Egg-I	05-31-89	--	--	--	--
Canada Goose	Bird-Egg-I	05-15-87	281	0.9	0.01	<1
Canada Goose	Bird-Egg-I	05-15-87	354	2	0.01	<1
Canada Goose	Bird-Egg-I	05-04-88	666	2.7	0.005	1
Cinnamon Teal	Bird-Egg-I	06-14-88	430	<3.57	0.271	<11.9
Pied-Billed Grebe	Bird-Egg-I	06-05-87	671	1	1.11	<1
Pied-Billed Grebe	Bird-Egg-I	05-10-88	551	3.3	0.50	<1
Pied-Billed Grebe	Bird-Egg-I	05-10-88	524	3.6	0.34	<1
Pied-Billed Grebe	Bird-Egg-I	05-25-88	502	<4.72	1.60	<15.7
Pied-Billed Grebe	Bird-Egg-I	06-01-88	539	<5.06	0.763	<16.9
Pied-Billed Grebe	Bird-Egg-I	06-15-88	553	11.1	1.76	<23
Yellow-Headed Blackbird	Bird-Egg-C3	05-23-89	--	--	--	--
Mallard	Bird-Crop-Barley-I	11-03-87	1,910	34.2	0.008	2
Mallard	Bird-Crop-Barley-I	11-03-87	1,440	22.3	<0.005	2
American Coot	Bird-Liver-I	08-13-87	728	20	0.085	5.3
American Coot	Bird-Liver-I	08-13-87	859	17	0.15	3
American Coot	Bird-Liver-I	08-13-87	686	9.7	0.625	5.3
American Coot	Bird-Liver-I	08-14-87	771	14	0.15	3
American Coot	Bird-Liver-I	08-14-87	845	16	0.23	4.4
American Coot	Bird-Liver-I	08-04-89	716	24.9	0.14	6.31
Mallard	Bird-Liver-I	11-03-87	746	13	0.03	3.9
Mallard	Bird-Liver-I	11-03-87	635	13	0.077	2
Scaup	Bird-Liver-I	04-04-88	704	12	1.2	2
American Coot	Bird-Muscle-I	08-04-89	929	1.88	0.098	<1.96
Mallard	Bird-Muscle-I	11-03-87	1,210	1.3	0.23	<1
Mallard	Bird-Muscle-I	11-03-87	1,160	1.8	0.025	<1

Sheppard Bottom at Ouray National Wildlife Refuge--Continued

Nickel	Selenium	Silver	Strontium	Thallium	Tin	Vanadium	Zinc	Sample number
--	3.6	--	--	--	--	--	--	1267
<1	6.5	<1	15	<3	--	<0.3	65	936
<1	6	<1	38.7	<3	--	<0.3	83.7	938
<1	9.5	<0.9	19.9	<3	--	<0.3	63.9	940
<1	5.8	<1	53.7	<3	--	<0.3	58.1	937
<14.3	18.9	<17.8	33.2	--	<17.8	<17.8	57.1	477
<14.3	6.9	<17.8	18.2	--	<17.8	<17.8	69.9	630
<16.6	5.7	<20.7	15.3	--	<20.7	<20.7	70.7	636
<23.6	18.4	<29.4	24.1	--	<29.4	<29.4	67.1	637
<16	6	<20	25.2	--	<20	<20	88	726
<15.3	8.4	<19.2	22.6	--	<19.2	<19.2	73.6	740
--	5.6	--	--	--	--	--	--	1258
--	6.2	--	--	--	--	--	--	1255
--	5.9	--	--	--	--	--	--	1256
--	5.5	--	--	--	--	--	--	1257
--	2.5	--	--	--	--	--	--	1259
--	5.2	--	--	--	--	--	--	1260
<22.2	12.8	<27.8	9.44	--	<27.8	<27.8	70	618
<23.3	11.6	<29.1	12.8	--	<29.1	<29.1	72.1	619
<24.8	9.4	<30.9	11.3	--	<30.9	<30.9	82.4	620
--	6.2	--	--	--	--	--	--	1176
--	5.3	--	--	--	--	--	--	1268
--	5.4	--	--	--	--	--	--	1269
<1	1.3	<1	4.7	<3	--	<0.3	63.1	979
<1	2.3	<1	4.1	<3	--	<0.3	60.8	980
2	1.4	<2	24	<4	--	<0.3	59.5	447
<9.52	3.1	<11.9	16.4	--	<11.9	<11.9	58.1	626
<1	7.8	<1	16	<3	--	<0.3	65.8	939
<1	6.6	<2	11.6	<4	--	<0.3	62.1	433
<1	8.7	<2	14.3	<4	--	<0.3	65.6	434
<12.6	9	<15.7	12.6	--	<15.7	<15.7	67.4	629
<13.5	10	<16.9	32.1	--	<16.9	<16.9	65.6	634
<18.4	10.1	<23	13.4	--	<23	<23	61.8	727
--	5.1	--	--	--	--	--	--	1266
2	0.42	<2	11.9	<4	--	2.2	42	612
2	<0.1	<2	6.4	<4	--	0.6	35	613
<2	8.3	<1	0.47	<6	--	0.4	165	1039
<2	11	<1	0.53	<6	--	0.3	205	1040
<2	6.2	<1	0.53	<6	--	0.5	329	1041
<2	11	<1	0.50	<6	--	0.3	232	1042
<2	12	2	0.59	<6	--	<0.3	268	1043
<1.48	18.8	<1.48	134	<7.38	8.93	<1.84	115	1364
<1	6.6	<2	0.21	<4	--	<0.3	152	608
<1	9.1	<2	0.23	<4	--	<0.3	118	609
<1	18	<2	0.67	<4	--	<0.3	86.8	598
<1.57	6.3	<1.96	0.82	<7.84	18	<1.96	53.6	1365
<1	2.7	<2	0.06	<4	--	<0.3	35	610
<1	4.9	<2	0.1	<4	--	<0.3	42	611

Table 55.--*Field and laboratory analyses of biological samples from*

[g, gram; mm, millimeter; Organism: spp., species. Tissue: C5, Life stage: A, Adult.

Organism	Tissue	Date	Moisture content (percent)	Life stage	Sex	Organism data		
						Average weight (g)	Total weight (g)	Length (mm)
Black Bullhead	Fish-Whole Body-C5	07-29-87	83.4	A	--	96	--	185
Black Bullhead	Fish-Whole Body-C5	04-04-88	81.6	--	--	110	--	191
Black Bullhead	Fish-Whole Body-C5	04-04-88	80.9	--	--	90	--	180
Black Bullhead	Fish-Whole Body-C5	07-20-88	82.1	--	--	87	--	183
Common Carp	Fish-Whole Body-C5	07-29-87	71.8	A	--	1,598	--	444
Common Carp	Fish-Whole Body-C5	07-29-87	79.1	A	--	56	--	150
Common Carp	Fish-Whole Body-I	04-04-88	79	--	--	220	--	255
Common Carp	Fish-Whole Body-C5	07-20-88	81.4	--	--	--	94	184
Common Carp	Fish-Whole Body-C5	07-20-88	79.9	--	--	645	--	358
Green Sunfish	Fish-Whole Body-C5	07-29-87	76.3	A	--	20	--	105
Chironomidae(Predominate)	Invertebrate-Gastrointestinal-C	04-04-88	189.5	--	--	--	15	--
Invertebrates-Hemiptera	Invertebrate-Whole Body-C	06-21-88	75.8	--	--	--	5	--
Invertebrates-Hemiptera	Invertebrate-Whole Body-C	07-20-88	88.8	--	--	--	23	--
Invertebrates-Mixed	Invertebrate-Whole Body-C	05-03-89	93.1	--	--	--	66	--
Invertebrates-Mixed	Invertebrate-Whole Body-C	06-07-89	90.5	--	--	--	36	--
Invertebrates-Odonata	Invertebrate-Whole Body-C	08-07-87	84.2	--	--	--	--	--
Scirpus acutus	Plant-Seed/Chaff-C	09-07-88	13.8	--	--	--	15	--
Blue-Green Algae	Plant-without Root-C	08-16-88	82.6	--	--	--	37	--
Filamentous Green Algae	Plant-without Root-C	07-20-87	81.6	--	--	--	--	--
Filamentous Green Algae	Plant-without Root-C	06-13-88	85.7	--	--	--	38	--
Najas marina	Plant-without Root-C	08-17-88	93.7	--	--	--	200	--
Potamogeton filiformis	Plant-without Root-C	08-16-88	90.7	--	--	--	59	--
Potamogeton pusillus	Plant-without Root-C	07-20-87	88	--	--	--	--	--
Typha spp.	Plant-Root and Stem-C	08-13-87	81.4	--	--	--	--	--
Typha spp.	Plant-Root and Stem-C	06-13-88	91.7	--	--	--	1,038	--
Typha spp.	Plant-Root and Stem-C	08-16-88	88.2	--	--	--	1,279	--

pond 5 in Sheppard Bottom at Ouray National Wildlife Refuge

composite sample, number of individuals; I, individual sample.
—, not determined; <, less than]

Alum-inum	Anti-mony	Arse-nic	Barium	Beryl-lium	Boron	Cadm-ium	Chrom-ium	Cobalt	Copper	Iron	Lead	Sample number
102	<0.151	0.169	<30.1	<3.01	<30.1	<3.01	<6.02	--	<15.1	181	<60.2	488
493	--	<0.2	15	<0.1	<2	<0.2	<2	--	2	418	<4	573
455	--	<0.2	16.6	<0.1	<2	<0.2	<2	--	1.5	389	<4	574
<117	<0.140	<0.028	<27.9	<2.79	<27.9	<2.79	<5.59	--	25.1	296	<55.9	711
42.6	<0.089	0.092	<17.7	<1.77	<17.7	<1.77	<3.55	--	<8.86	92.2	<35.5	486
86.1	<0.120	0.144	<23.9	<2.39	<23.9	<2.39	<4.78	--	<12	124	<47.8	487
160	--	<0.2	9.6	<0.1	<2	<0.3	<2	--	1.8	199	<6	584
<53.8	<0.134	0.226	<26.9	<2.69	<26.9	<2.69	<5.38	--	<13.4	188	<53.8	709
<49.8	<0.124	0.259	<24.9	<2.49	<24.9	<2.49	<4.98	--	<12.4	199	<49.8	710
42.2	<0.106	0.093	<21.1	<2.11	<21.1	<2.11	<4.22	--	<10.5	42.2	<42.2	489
5,150	--	0.81	69.7	0.2	9.7	0.4	4.7	--	25.7	3,630	<4	560
459	--	--	47.9	<2.07	<20.7	<2.07	<4.13	--	11.2	756	<41.3	744
170	<0.223	0.759	70.5	<4.46	<44.6	<4.46	<8.93	--	<22.3	625	<89.3	705
926	<20	3.09	22.9	<0.200	6.98	<0.800	<3	4.11	18.5	1,150	<6	135
1,630	<20	3.76	42.5	<0.200	10.2	<0.800	3.16	4.05	8.66	1,650	<6	132
848	--	--	<31.6	<3.16	<31.6	<3.16	7.59	--	<15.8	918	<63.3	521
13.9	<0.029	0.048	21.1	<0.58	142	<0.58	<1.16	--	5.22	42.9	<11.6	813
17,500	--	4.1	259	0.90	15	0.4	19	--	19	18,000	15	366
3,460	--	4.6	314	0.2	87	<0.2	4.1	--	4.6	3,920	7	1006
5,560	0.406	12.6	424	<3.50	42	<3.50	9.09	--	<17.5	9,720	<69.9	665
5,420	--	3.4	164	0.2	39	<0.2	5.1	--	3.6	4,130	<4	400
6,740	--	6.9	365	0.2	297	<0.3	6.7	--	5.3	5,540	6	375
5,930	--	20	264	0.40	68	0.4	7.6	--	7.8	9,950	10	992
3,640	--	5.9	55.8	0.2	6.6	<0.2	7.1	--	5.2	4,930	<4	1016
3,390	0.482	8.43	91.6	<6.02	<60.2	<6.02	<12	--	<30.1	8,810	<120	664
9,220	--	3.2	105	0.47	8.2	<0.3	13	--	9.6	10,000	9	390

Table 55.--*Field and laboratory analyses of biological samples from*

Organism	Tissue	Date	Magnesium	Manganese	Mercury	Molybdenum
Black Bullhead	Fish-Whole Body-C5	07-29-87	1,140	17.5	<0.151	<30.1
Black Bullhead	Fish-Whole Body-C5	04-04-88	1,740	25.9	0.066	<1
Black Bullhead	Fish-Whole Body-C5	04-04-88	1,620	20.3	0.10	<1
Black Bullhead	Fish-Whole Body-C5	07-20-88	1,840	29.6	0.151	<27.9
Common Carp	Fish-Whole Body-C5	07-29-87	922	<5.32	<0.089	<17.7
Common Carp	Fish-Whole Body-C5	07-29-87	1,770	15.8	<0.120	<23.9
Common Carp	Fish-Whole Body-I	04-04-88	1,630	15	0.026	2
Common Carp	Fish-Whole Body-C5	07-20-88	1,610	<8.06	<0.135	<26.9
Common Carp	Fish-Whole Body-C5	07-20-88	1,490	<7.46	<0.125	<24.9
Green Sunfish	Fish-Whole Body-C5	07-29-87	1,390	25.7	0.122	<21.1
Chironomidae(Predominate)	Invertebrate-Gastrointestinal-C	04-04-88	2,520	76.1	0.02	<1
Invertebrates-Hemiptera	Invertebrate-Whole Body-C	06-21-88	1,490	94.6	1.24	<20.7
Invertebrates-Hemiptera	Invertebrate-Whole Body-C	07-20-88	2,230	106	0.241	<44.6
Invertebrates-Mixed	Invertebrate-Whole Body-C	05-03-89	2,390	94.8	0.0876	<5
Invertebrates-Mixed	Invertebrate-Whole Body-C	06-07-89	3,020	173	0.126	<5
Invertebrates-Odonata	Invertebrate-Whole Body-C	08-07-87	1,650	120	0.177	<31.6
Scirpus acutus	Plant-Seed/Chaff-C	09-07-88	1,190	734	0.029	<5.80
Blue-Green Algae	Plant-without Root-C	08-16-88	12,700	372	0.029	<2
Filamentous Green Algae	Plant-without Root-C	07-20-87	9,970	1,190	0.018	<1
Filamentous Green Algae	Plant-without Root-C	06-13-88	8,810	5,660	0.364	<35
Najas marina	Plant-without Root-C	08-17-88	8,130	1,980	0.007	<1
Potamogeton filiformis	Plant-without Root-C	08-16-88	8,440	3,730	0.01	<1
Potamogeton pusillus	Plant-without Root-C	07-20-87	8,150	2,740	0.025	<2
Typha spp.	Plant-Root and Stem-C	08-13-87	4,540	329	0.016	<1
Typha spp.	Plant-Root and Stem-C	06-13-88	5,660	711	<0.302	<60.2
Typha spp.	Plant-Root and Stem-C	08-16-88	7,530	297	0.01	<2

pond 5 in Sheppard Bottom at Ouray National Wildlife Refuge--Continued

Nickel	Selenium	Silver	Strontium	Thallium	Tin	Vanadium	Zinc	Sample number
<24.1	4.8	<30.1	68.1	--	<30.1	<30.1	77.1	488
<1	6.4	<2	274	<4	--	1.8	81.2	573
<1	4.9	<2	261	<4	--	1.3	74	574
<22.3	14	<27.9	242	--	<27.9	<27.9	115	711
<14.2	5.3	<17.7	50.7	--	<17.7	<17.7	198	486
<19.1	6.7	<23.9	424	--	<23.9	<23.9	194	487
16	7.7	<2	346	<4	--	0.6	154	584
<21.5	19.9	<26.9	226	--	<26.9	<26.9	209	709
<19.9	12.4	<24.9	247	--	27.9	<24.9	206	710
<16.9	5.1	<21.1	182	--	<21.1	<21.1	89	489
3	33	<2	180	<4	--	11	63.9	560
<16.5	5.8	<20.7	27.7	--	<20.7	<20.7	138	744
<35.7	8.9	<44.6	58	--	<44.6	<44.6	224	705
<2.50	7.52	<10	262	--	<25	2.08	115	135
<2.50	6.35	<10	498	--	<25	3.03	89.6	132
<25.3	4.4	<31.6	118	--	<31.6	<31.6	81	521
<4.64	2.1	<5.80	51.7	--	7.08	<5.80	13.9	813
17	5.7	<2	283	<4	--	28	63.8	366
4.4	2.3	<2	1,240	<5	--	10	17	1006
<28	6.3	<35	553	--	<35	<35	57.3	665
5	3.3	<2	338	<4	--	11	24	400
6.2	2.8	<2	392	<4	--	16	24	375
7.4	2	<2	688	<5	--	15	32.8	992
4.5	0.55	<2	108	<5	--	8	18	1016
<48.2	4.8	<60.2	163	--	<60.2	<60.2	78.3	664
11	2.2	<2	151	<4	--	19	38	390

Table 56.—*Field and laboratory analyses of bird samples from the*

[g, gram; mm, millimeter; Tissue: C2, composite sample, number
Life stage: listed as days for embryos; I, immature; A, Adult.

Organism	Tissue	Date	Moisture content (percent)	Life stage	Sex	Organism data		
						Average weight (g)	Total weight (g)	Length (mm)
American Coot	Bird-Egg-I	06-09-87	72.6	—	--	--	--	47.5
American Coot	Bird-Egg-I	06-09-87	77.1	—	--	--	20	53.4
American Coot	Bird-Egg-I	06-09-87	84.2	—	--	--	18	50.2
American Coot	Bird-Egg-I	06-11-87	75.2	—	--	--	--	62.8
American Coot	Bird-Egg-I	06-11-87	66.9	—	--	--	--	48.4
American Coot	Bird-Egg-I	06-11-87	63.9	—	--	--	--	47.2
American Coot	Bird-Egg-I	07-09-87	69.5	—	--	--	--	--
American Coot	Bird-Egg-I	07-23-87	77	—	--	--	--	--
American Coot	Bird-Egg-I	07-23-87	72.4	—	--	--	--	--
American Coot	Bird-Egg-I	05-19-88	76.9	21	--	--	23	46.4
American Coot	Bird-Egg-I	06-06-88	75.6	2	--	--	23	48.1
American Coot	Bird-Egg-I	06-06-88	76.5	—	--	--	22	49.1
American Coot	Bird-Egg-I	07-06-88	76.3	4	--	--	25	46.8
American Coot	Bird-Egg-I	05-30-89	75.8	4	--	--	19	44.3
American Coot	Bird-Egg-I	06-07-89	76.4	8	--	--	18	42.9
Gadwall	Bird-Egg-I	07-15-87	68.2	--	--	--	--	53.9
Gadwall	Bird-Egg-I	07-15-87	63.1	—	--	--	--	52.1
Gadwall	Bird-Egg-I	07-15-87	70.3	—	--	--	--	53.1
Gadwall	Bird-Egg-I	07-18-88	64.2	--	--	--	28	51.5
Gadwall	Bird-Egg-I	07-27-88	66.5	24	--	--	23	53.7
Mallard	Bird-Egg-I	06-14-88	67.2	23	--	--	31	55
Mallard	Bird-Egg-I	06-15-88	65.4	24	--	--	24	55
Pied-Billed Grebe	Bird-Egg-I	06-04-87	76.2	--	--	--	13	41.3
Pied-Billed Grebe	Bird-Egg-I	06-16-87	77.6	21	--	--	--	42.5
Yellow-Headed Blackbird	Bird-Egg-C2	06-23-87	65.1	--	--	--	--	27.3
Yellow-Headed Blackbird	Bird-Egg-C4	06-06-88	83.9	—	--	3	--	--
Yellow-Headed Blackbird	Bird-Egg-C3	06-07-89	84.5	—	--	3	--	25.7
American Coot	Bird-Kidney-I	06-10-87	71.4	—	--	--	--	--
American Coot	Bird-Liver-I	08-11-87	70.5	I	--	--	--	--
American Coot	Bird-Liver-I	08-11-87	69.6	I	--	--	--	--
American Coot	Bird-Liver-I	04-04-89	73.9	A	F	--	12	--
American Coot	Bird-Liver-I	04-04-89	73.9	A	F	--	9	--
American Coot	Bird-Liver-I	04-14-89	74.3	A	F	--	10	--
American Coot	Bird-Liver-I	04-18-89	76.8	A	F	--	8	--
American Coot	Bird-Liver-I	05-15-89	79.8	—	--	--	8	--
Mallard	Bird-Liver-I	05-16-89	76.1	A	F	--	20	--
American Coot	Bird-Muscle-I	09-04-86	60.1	I	--	--	--	--
American Coot	Bird-Muscle-I	09-04-86	74.1	I	--	--	--	--
American Coot	Bird-Muscle-I	09-04-86	72	I	--	--	--	--
American Coot	Bird-Muscle-I	09-04-86	71.8	I	--	--	--	--
American Coot	Bird-Muscle-I	04-04-89	74	A	F	--	37	--
American Coot	Bird-Muscle-I	04-04-89	76.7	A	F	--	17	--
American Coot	Bird-Muscle-I	04-14-89	79.2	A	F	--	22	--
American Coot	Bird-Muscle-I	04-18-89	81.6	A	F	--	13	--
American Coot	Bird-Muscle-I	05-15-89	79.3	--	--	--	7	--
Mallard	Bird-Muscle-I	05-16-89	77.6	A	F	--	42	--

of individuals; I, individual sample; Egg, net sample weight.
Sex: F, female. --, not determined; <, less than]

Alum-inum	Anti-mony	Arse-nic	Barium	Beryl-lium	Boron	Cadm-ium	Chrom-ium	Cobalt	Copper	Iron	Lead	Sample number
62	<0.092	<0.019	<18.2	<1.82	<18.2	<1.82	<3.65	--	<9.12	<36.5	<36.5	462
<17	--	<0.44	3.6	<0.43	<4.8	<0.43	11	--	--	150	<0.86	929
<25	--	<0.59	3.4	<0.63	<4.6	<0.63	1.4	--	--	150	<1.3	930
<40.3	<0.101	<0.021	<20.2	<2.02	<20.2	<2.02	<4.03	--	<10.1	129	<40.3	461
36.3	<0.076	<0.016	<15.1	<1.51	<15.1	<1.51	<3.02	--	<7.55	<30.2	<30.2	463
<27.7	<0.07	<0.014	<13.8	<1.38	<13.8	<1.38	<2.77	--	<6.92	<27.7	<27.7	464
<32.8	<0.082	<0.017	<16.4	<1.64	<16.4	<1.64	<3.28	--	<8.20	72.1	<32.8	465
<43.5	<0.109	<0.022	<21.8	<2.18	<21.8	<2.18	<4.35	--	<10.9	<43.5	<43.5	466
<36.2	<0.091	<0.019	<18.1	<1.81	<18.1	<1.81	<3.62	--	<9.05	36.2	<36.2	467
<3	--	<0.2	3	<0.1	<3	<0.3	1	--	3.3	93	<4	439
<23.1	<0.102	<0.021	<11.6	<1.15	<11.6	<1.15	<2.30	--	7.87	41.4	<23.1	640
<34.8	<0.106	<0.022	<17.4	<1.74	<17.4	<1.74	<3.49	--	10.8	34.8	<34.8	641
<42.2	<0.105	<0.021	<21.1	<2.11	<21.1	<2.11	<4.22	--	<10.5	84.4	<42.2	733
--	--	--	--	--	--	--	--	--	--	--	--	1248
--	--	--	--	--	--	--	--	--	--	--	--	1249
<3	--	<0.2	31.8	<0.09	3	<0.3	1	--	5.9	92.6	<4	934
<3	--	<0.2	16.8	<0.1	3	<0.4	<1	--	4.3	71	<4	935
7	--	<0.2	45.4	<0.1	3	<0.4	3.2	--	5.4	122	<4	1025
<27.9	<0.07	0.034	<14	<1.40	<14	<1.40	<2.79	--	<6.98	106	<27.9	688
<29.9	<0.075	0.093	28.1	<1.49	<14.9	<1.49	<2.99	--	<7.46	152	<29.9	689
<23.5	<0.076	<0.016	<11.7	<1.19	<11.7	<1.19	<2.35	--	8.90	110	<23.5	624
<28.9	<0.073	<0.015	<14.5	<1.4	<14.5	<1.4	76.6	--	7.5	376	<28.9	830
<17	--	<0.41	0.74	<0.41	<4.7	0.66	21	--	--	120	<0.83	928
<44.6	<0.112	<0.023	<22.3	<2.23	<22.3	<2.23	<4.46	--	<11.2	116	<44.6	460
<5	--	<0.2	2.1	<0.2	<3	<0.6	<2	--	2.5	157	<6	933
<68.3	<0.055	0.037	<34.2	<3.42	<34.2	<3.42	<6.83	--	<17.1	184	<68.3	638
--	--	--	--	--	--	--	--	--	--	--	--	1264
<35	<0.35	<0.35	<17.5	<1.75	<17.5	<1.75	<3.5	--	74.1	755	<35	458
3	--	<0.2	0.1	<0.1	2	<0.4	<1	--	30	1,390	<4	1029
<3	--	<0.2	0.1	<0.1	3	<0.4	<1	--	38.2	393	<4	1030
<15.3	<15.3	<0.38	<7.66	<3.83	<0.38	<3.83	<0.77	--	50.4	4,700	<2.30	241
23.8	<7.66	<0.38	<3.83	<0.38	<3.83	3.75	<0.77	--	18.6	8,750	<2.30	238
<15.6	<7.78	0.58	<3.89	<0.39	<3.89	<0.39	<0.78	--	28.6	12,000	<2.33	244
<17.2	<8.62	<0.43	<4.31	<0.43	<4.31	<0.43	<0.86	--	51.3	11,300	<2.59	236
<4.95	<4.95	<0.5	<2.48	<0.25	<2.48	2.57	1.14	--	60	11,400	<1.49	1340
<4.18	<4.18	<0.42	<2.09	<0.21	<2.09	0.63	<0.42	--	28.3	4,980	<1.26	1342
9.8	--	<0.1	0.2	<0.1	2	<0.2	<1	--	20	173	<4	883
9.5	--	<0.1	0.2	<0.1	2	<0.2	<1	--	30.5	252	<4	884
6	--	<0.1	0.1	<0.1	3	<0.2	<1	--	34.6	226	<4	885
9	--	<0.1	0.2	0.1	2	<0.2	<1	--	38	260	<4	886
<15.4	<7.69	<0.38	<3.85	<0.38	<3.85	<0.38	<0.77	--	52.6	408	<2.31	239
<17.2	<17.2	<0.43	<8.58	<0.43	<4.29	<0.43	<0.86	--	54.6	639	<2.58	240
<19.2	<9.62	<0.48	<4.81	<0.48	<4.81	<0.48	<0.96	--	45.8	652	<2.88	245
<21.7	<10.9	<0.54	<5.43	<0.54	<5.43	<0.54	<1.09	--	74.2	1,260	<3.26	237
9.03	<4.83	<0.48	<2.42	<0.24	<2.42	<0.24	1.5	--	156	812	<1.43	1341
5.94	<4.46	<0.45	<2.23	<0.22	<2.23	<0.22	<0.45	--	27.3	353	<1.34	1343

Table 56.—*Field and laboratory analyses of bird samples from the*

Organism	Tissue	Date	Magnesium	Manganese	Mercury	Molybdenum
American Coot	Bird-Egg-I	06-09-87	474	<5.48	<0.092	<18.2
American Coot	Bird-Egg-I	06-09-87	770	<4.3	<0.20	0.60
American Coot	Bird-Egg-I	06-09-87	670	<6.3	<0.28	1.6
American Coot	Bird-Egg-I	06-11-87	564	<6.05	<0.101	<20.2
American Coot	Bird-Egg-I	06-11-87	393	<4.53	<0.076	<15.1
American Coot	Bird-Egg-I	06-11-87	582	<4.16	0.069	<13.8
American Coot	Bird-Egg-I	07-09-87	393	<4.92	0.115	<16.4
American Coot	Bird-Egg-I	07-23-87	<435	<6.52	<0.109	<21.8
American Coot	Bird-Egg-I	07-23-87	471	<5.43	0.188	<18.1
American Coot	Bird-Egg-I	05-19-88	771	2.6	0.064	<1
American Coot	Bird-Egg-I	06-06-88	370	<3.48	0.127	<11.6
American Coot	Bird-Egg-I	06-06-88	732	<5.23	0.221	<17.4
American Coot	Bird-Egg-I	07-06-88	464	<6.33	0.135	<21.1
American Coot	Bird-Egg-I	05-30-89	--	--	--	--
American Coot	Bird-Egg-I	06-07-89	--	--	--	--
Gadwall	Bird-Egg-I	07-15-87	532	2.4	0.032	<0.9
Gadwall	Bird-Egg-I	07-15-87	371	1	0.043	<1
Gadwall	Bird-Egg-I	07-15-87	595	3.6	0.018	<1
Gadwall	Bird-Egg-I	07-18-88	363	<4.19	0.084	<14
Gadwall	Bird-Egg-I	07-27-88	687	8.36	0.110	<14.9
Mallard	Bird-Egg-I	06-14-88	329	<3.51	0.076	<11.7
Mallard	Bird-Egg-I	06-15-88	462	8.4	<0.073	<8.7
Pied-Billed Grebe	Bird-Egg-I	06-04-87	410	5	<0.16	0.83
Pied-Billed Grebe	Bird-Egg-I	06-16-87	670	<6.70	0.982	<22.3
Yellow-Headed Blackbird	Bird-Egg-C2	06-23-87	457	3	0.045	<2
Yellow-Headed Blackbird	Bird-Egg-C4	06-06-88	<683	<10.2	<0.156	<34.2
Yellow-Headed Blackbird	Bird-Egg-C3	06-07-89	--	--	--	--
American Coot	Bird-Kidney-I	06-10-87	874	6.99	--	<17.5
American Coot	Bird-Liver-I	08-11-87	610	7.2	0.14	2
American Coot	Bird-Liver-I	08-11-87	543	4.2	0.061	2
American Coot	Bird-Liver-I	04-04-89	797	7.51	1.03	4.75
American Coot	Bird-Liver-I	04-04-89	828	8.74	0.536	6.59
American Coot	Bird-Liver-I	04-14-89	840	9.81	0.981	5.45
American Coot	Bird-Liver-I	04-18-89	879	9.31	0.172	5.17
American Coot	Bird-Liver-I	05-15-89	817	6.34	0.262	6.19
Mallard	Bird-Liver-I	05-16-89	1,030	22.4	0.226	5.52
American Coot	Bird-Muscle-I	09-04-86	681	0.6	0.057	<1
American Coot	Bird-Muscle-I	09-04-86	899	1.3	0.053	<1
American Coot	Bird-Muscle-I	09-04-86	817	1.2	0.018	<1
American Coot	Bird-Muscle-I	09-04-86	853	1.3	0.02	<1
American Coot	Bird-Muscle-I	04-04-89	969	2.15	0.215	<3.85
American Coot	Bird-Muscle-I	04-04-89	936	1.11	0.382	<4.29
American Coot	Bird-Muscle-I	04-14-89	1,020	<1.20	0.548	<4.81
American Coot	Bird-Muscle-I	04-18-89	924	<1.36	0.174	<5.43
American Coot	Bird-Muscle-I	05-15-89	758	1.21	0.193	<2.42
Mallard	Bird-Muscle-I	05-16-89	1,140	1.16	0.268	<2.23

North Roadside pond area at Ouray National Wildlife Refuge—Continued

Nickel	Selenium	Silver	Strontium	Thallium	Tin	Vanadium	Zinc	Sample number
<14.6	36.5	<18.2	17.2	--	<18.2	<18.2	59.1	462
3.9	65	--	44	--	23	--	65	929
<0.63	79	--	32	--	23	--	92	930
<16.1	42.3	<20.2	40.3	--	<20.2	<20.2	76.2	461
<12.1	42.9	<15.1	23.6	--	<15.1	<15.1	50.1	463
<11.1	29.1	<13.8	101	--	<13.8	<13.8	59.6	464
<13.1	53.1	<16.4	14.4	--	<16.4	<16.4	59	465
<17.4	48.7	<21.8	26.1	--	<21.8	<21.8	69.2	466
<14.5	38	<18.1	51	--	<18.1	<18.1	65.9	467
<1	39	<2	42.9	<4	--	<0.3	71.4	439
<9.22	72.5	<11.6	10.2	--	<11.6	<11.6	39.3	640
<13.9	71.1	<17.4	72.3	--	<17.4	<17.4	61.3	641
<16.9	48.9	<21.1	33.3	--	<21.1	<21.1	70	733
--	45	--	--	--	--	--	--	1248
--	41	--	--	--	--	--	--	1249
<1	23	<0.9	39.9	<3	--	<0.3	68	934
<1	16	<1	32.8	<3	--	<0.3	50.6	935
<2	22	<1	51.1	<6	--	<0.3	70.7	1025
<11.2	7.8	<14	12.3	--	<14	<14	59.5	688
<11.9	9.6	<14.9	49.6	--	<14.9	<14.9	89.6	689
<9.39	43.6	<11.7	35.2	--	<11.7	<11.7	54.3	624
33.2	38.2	<14.5	69.4	--	<14.5	<14.5	67.6	830
8.3	63	--	7.3	--	17	--	50	928
<17.8	88.4	<22.3	30.8	--	<22.3	<22.3	69.2	460
<2	10	<2	22.3	<5	--	<0.5	79.2	933
<27.3	20.5	<34.2	42.4	--	<34.2	<34.2	87.6	638
--	9.9	--	--	--	--	--	--	1264
<14	213	<17.5	<3.50	--	<17.5	<17.5	112	458
<2	26	<1	0.71	<6	--	<0.3	111	1029
<2	22	<1	0.95	<6	--	<0.3	106	1030
<3.07	23.6	<3.83	2.07	<15.3	<3.83	<3.83	223	241
<3.07	19	<3.83	2.91	<15.3	14.8	11.6	194	238
<3.11	33.5	<3.89	8.95	<15.6	11.7	<3.89	257	244
<3.45	27	<4.31	3.19	<17.2	11.4	<4.31	137	236
<1.98	125	<2.48	9.7	<9.95	17.5	<2.48	185	1340
<1.67	56.5	<2.09	0.59	<8.37	12.1	<2.09	362	1342
<1	14	<2	3.6	<6	--	<0.3	66.8	883
<1	17	<2	2.5	<6	--	<0.3	53.5	884
<1	21	<2	1.7	<6	--	<0.3	61.1	885
<1	20	<2	1.9	<6	--	<0.3	49.7	886
<3.08	7.23	<3.85	<0.77	<15.4	15.5	<3.85	64.9	239
<3.43	13.1	<4.29	1.55	<17.2	14.7	<4.29	91.1	240
<3.85	5.82	<4.81	1.83	<19.2	12.2	<4.81	90.3	245
<4.35	20.7	<5.43	1.96	<21.7	17.7	<5.43	171	237
<1.93	84.5	<2.42	4.4	<9.66	10.7	<2.42	223	1341
<1.79	8	<2.23	0.71	<8.93	19.7	<2.23	46.4	1343

Table 57.—*Field and laboratory analyses of biological samples from*

[g, gram; mm, millimeter; Tissue: individuals; I, individual sample.

Organism	Tissue	Date	Moisture content (percent)	Life stage	Sex	Organism data		
						Average weight (g)	Total weight (g)	Length (mm)
Fathead Minnow	Fish-Whole Body-C28	05-24-88	80.2	--	--	--	15	--
Fathead Minnow	Fish-Whole Body-C50	05-24-88	83.5	--	--	--	17	--
Fathead Minnow	Fish-Whole Body-C11	07-17-89	79.4	--	--	2	--	--
Invertebrates-Amphipoda	Invertebrate-Whole Body-C	06-14-88	80.5	--	--	--	5	--
Invertebrates-Mixed	Invertebrate-Whole Body-C	07-20-88	89	--	--	--	45	--
Invertebrates-Mixed	Invertebrate-Whole Body-C	09-20-88	71.2	--	--	--	17	--
Invertebrates-Mixed	Invertebrate-Whole Body-C	03-23-89	81.5	--	--	--	13	--
Invertebrates-Mixed	Invertebrate-Whole Body-C	04-05-89	84.6	--	--	--	5	--
Invertebrates-Mixed	Invertebrate-Whole Body-C	04-05-89	73.9	--	--	--	8	--
Invertebrates-Mixed	Invertebrate-Whole Body-C	04-05-89	86.9	--	--	--	13	--
Invertebrates-Mixed	Invertebrate-Whole Body-C	04-27-89	86.2	--	--	--	14	--
Invertebrates-Mixed	Invertebrate-Whole Body-C	04-27-89	91.4	--	--	--	17	--
Invertebrates-Mixed	Invertebrate-Whole Body-C	04-27-89	91	--	--	--	5	--
Invertebrates-Mixed	Invertebrate-Whole Body-C	06-06-89	80.5	--	--	--	16	--
Invertebrates-Odonata	Invertebrate-Whole Body-C	07-28-87	86.1	--	--	--	--	--
Invertebrates-Snails	Invertebrate-Whole Body-C	06-28-88	74.7	--	--	--	23	--
Invertebrates-Snails	Invertebrate-Whole Body-C	07-20-87	77.7	--	--	--	--	--
Tadpoles/Frogs	Tadpole-Whole Body-C	06-23-88	89.3	--	--	--	9	--

Organism	Tissue	Date	Magnesium	Manganese	Mercury	Molybdenum
Fathead Minnow	Fish-Whole Body-C28	05-24-88	1,970	27.8	<0.127	<25.3
Fathead Minnow	Fish-Whole Body-C50	05-24-88	3,270	26.1	<0.152	<30.3
Fathead Minnow	Fish-Whole Body-C11	07-17-89	1,810	14	<0.121	2.57
Invertebrates-Amphipoda	Invertebrate-Whole Body-C	06-14-88	3,230	76.9	0.533	<25.6
Invertebrates-Mixed	Invertebrate-Whole Body-C	07-20-88	2,000	39.1	0.327	<45.5
Invertebrates-Mixed	Invertebrate-Whole Body-C	09-20-88	1,300	139	0.01	<1
Invertebrates-Mixed	Invertebrate-Whole Body-C	03-23-89	1,210	21	0.067	<1
Invertebrates-Mixed	Invertebrate-Whole Body-C	04-05-89	1,210	33	--	<1
Invertebrates-Mixed	Invertebrate-Whole Body-C	04-05-89	1,320	40.5	0.21	<1
Invertebrates-Mixed	Invertebrate-Whole Body-C	04-05-89	1,350	35	0.022	<1
Invertebrates-Mixed	Invertebrate-Whole Body-C	04-27-89	2,700	151	0.0545	<5
Invertebrates-Mixed	Invertebrate-Whole Body-C	04-27-89	1,710	63	0.177	<5
Invertebrates-Mixed	Invertebrate-Whole Body-C	04-27-89	1,660	44	0.106	<5
Invertebrates-Mixed	Invertebrate-Whole Body-C	06-06-89	4,470	133	0.0436	<5
Invertebrates-Odonata	Invertebrate-Whole Body-C	07-28-87	1,120	36.6	0.026	<2
Invertebrates-Snails	Invertebrate-Whole Body-C	06-28-88	1,230	196	<0.099	<19.8
Invertebrates-Snails	Invertebrate-Whole Body-C	07-20-87	1,000	143	0.018	<1
Tadpoles/Frogs	Tadpole-Whole Body-C	06-23-88	7,290	199	0.346	<46.7

the North Roadside pond area at Ouray National Wildlife Refuge

C28, composite sample, number of
--, not determined; <, less than]

Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Chromium	Cobalt	Copper	Iron	Lead	Sample number
<50.5	<0.126	<0.025	25.8	<2.53	<25.3	<2.53	<5.05	--	<12.6	323	<50.5	723
<60.6	<0.125	<0.030	78.8	<3.03	<30.3	<3.03	<6.06	--	17.6	303	<60.6	724
18.3	<4.85	<0.49	22.7	<0.24	<2.43	<0.24	2.62	--	6.26	259	<1.46	1349
241	<0.128	2.67	60	<2.56	<25.6	<2.56	<5.13	--	60	231	<51.3	748
427	<0.227	1.32	<45.5	<4.55	<45.5	<4.55	<9.09	--	46.4	691	<90.9	703
424	--	1.3	55.2	<0.1	<2	<0.2	2.5	--	39.3	352	6	407
130	--	<0.2	31.4	<0.1	3	<0.3	4.8	--	35.8	187	<4	266
170	--	<0.5	91.5	<0.1	4	0.4	6.3	--	30	214	<4	267
445	--	<0.2	24.1	<0.1	4	<0.3	4	--	40.1	393	<4	268
290	--	<0.3	29.7	<0.1	4	<0.3	4.5	--	40.3	305	4	269
861	<20	1.07	268	<0.200	8.85	<0.80	<3	<3	31.1	1,020	<6	147
509	<20	2.08	29.7	0.215	6.24	0.849	<3	<3	37.7	476	6.15	148
356	<20	0.924	54.	<0.200	6.60	<0.80	<3	<3	38.6	448	<6	149
4,190	<20	2.26	132	0.431	16	0.990	5.31	<3	28.3	3,550	7.62	140
37	--	<0.4	9.5	<0.2	5	0.5	<2	--	14	69	<7	1024
43.5	<0.099	2	102	<1.98	<19.8	<1.98	<3.95	--	42.3	249	<39.5	747
110	--	<0.2	85.2	<0.1	<2	<0.2	2	--	34.5	210	<4	1023
2,440	<0.234	2.38	91.6	<4.67	<46.7	<4.67	<9.35	--	<23.4	2,700	<93.5	751

Nickel	Selenium	Silver	Strontium	Thallium	Tin	Vanadium	Zinc	Sample number
<20.2	87.9	<25.3	318	--	77.8	<25.3	203	723
<24.2	64.2	<30.3	437	--	<30.3	<30.3	247	724
<1.94	100	<2.43	335	<9.71	11.2	<2.43	189	1349
<20.5	32.8	<25.6	1,360	--	<25.6	<25.6	62.1	748
<36.4	40.9	<45.5	221	--	<45.5	<45.5	125	703
3	12	<2	869	<4	--	1	19	407
<3	13	<2	153	<4	--	0.4	95.6	266
<3	16.6	<2	35.6	<4	--	<0.3	127	267
<3	17.2	<2	188	<4	--	1.1	90.1	268
<3	24	<2	188	<4	--	0.9	120	269
<2.50	38.1	<10	466	--	<25	2.13	88.5	147
<2.50	40.3	<10	677	--	<25	1.61	73.5	148
<2.50	30.5	<10	198	--	<25	1.60	103	149
5.88	49	<10	529	--	<25	8.39	93.9	140
<2	43	<3	32.8	<9	--	<0.6	81.9	1024
<15.8	10.7	<19.8	1,720	--	<19.8	<19.8	21.3	747
<1	10	2	1,250	<5	--	<0.3	17	1023
<37.4	65.4	<46.7	569	--	<46.7	<46.7	53.3	751

Table 58.—*Field and laboratory analyses of tissues experiment in the North Roadside pond area*

[g, gram; mm, millimeter; Tissue: I, individual sample.

Tissue	Date	Moisture content (percent)	Life stage	Sex	Organism data		
					Average weight (g)	Total weight (g)	Length (mm)
Bird-Liver-I	03-22-89	71.5	A	M	—	983	—
Bird-Liver-I	03-22-89	67.2	A	F	—	939	—
Bird-Liver-I	03-22-89	70.3	A	M	—	886	—
Bird-Liver-I	03-22-89	72.8	A	M	—	1,013	—
Bird-Liver-I	03-29-89	75.7	A	M	—	914	—
Bird-Liver-I	03-29-89	75.1	A	M	—	870	—
Bird-Liver-I	03-29-89	71.6	A	F	—	831	—
Bird-Liver-I	03-29-89	68.9	A	F	—	830	—
Bird-Liver-I	04-04-89	75.8	A	F	—	847	—
Bird-Liver-I	04-04-89	81	A	M	—	627	—
Bird-Liver-I	04-05-89	76.6	A	M	—	856	—
Bird-Liver-I	04-05-89	74.5	A	M	—	833	—
Bird-Liver-I	04-19-89	77.6	A	M	—	--	—
Bird-Muscle-I	03-22-89	71.2	A	M	—	983	—
Bird-Muscle-I	03-22-89	71.3	A	F	—	939	—
Bird-Muscle-I	03-22-89	72.1	A	M	—	886	—
Bird-Muscle-I	03-22-89	72	A	M	—	1,013	—
Bird-Muscle-I	03-29-89	73.9	A	M	—	914	—
Bird-Muscle-I	03-29-89	75.2	A	M	—	870	—
Bird-Muscle-I	03-29-89	72.8	A	F	—	831	—
Bird-Muscle-I	03-29-89	72.9	A	F	—	830	—
Bird-Muscle-I	04-04-89	77	A	F	—	847	—
Bird-Muscle-I	04-04-89	79.5	A	M	—	627	—
Bird-Muscle-I	04-05-89	77.8	A	M	—	856	—
Bird-Muscle-I	04-05-89	76.7	A	M	—	833	—
Bird-Muscle-I	04-19-89	79.2	A	M	—	--	—

from mallard ducks transplanted as part of an
at Ouray National Wildlife Refuge

Life stage: A, Adult. Sex: M, male; F, female. --, not determined; <, less than]

Alum-inum	Anti-mony	Arse-nic	Barium	Beryl-lium	Boron	Cadm-ium	Chrom-ium	Cobalt	Copper	Iron	Lead	Sample number
<14	<7.02	<0.35	<3.51	<0.35	<3.51	0.42	<0.70	--	108	2,230	<2.11	196
<12.2	<6.10	<0.30	<3.05	<0.30	<3.05	0.30	<0.61	--	120	2,000	<1.83	198
<13.5	<6.73	<0.34	<3.37	<0.34	<3.37	0.47	<0.67	--	155	4,030	<2.02	200
<14.7	<7.35	<0.37	<3.68	<0.37	<3.68	0.44	<0.74	--	92.8	2,400	<2.20	204
<16.5	<8.23	<0.41	<4.12	<0.41	<4.12	0.49	<0.82	--	70.5	2,480	<2.47	184
<16.1	<8.03	<0.40	<4.02	<0.40	<4.02	0.48	<0.80	--	47.2	2,730	<2.41	190
<14.1	<7.04	<0.35	<3.52	<0.35	<3.52	0.42	0.77	--	135	2,300	<2.11	192
<12.9	<6.43	<0.32	<3.22	<0.32	<3.22	0.71	0.64	--	151	2,680	<1.93	202
57.8	<8.26	<0.41	<4.13	<0.41	<4.13	0.58	<0.83	--	59.2	3,130	<2.48	208
34.7	<10.5	<0.53	<5.26	<0.53	<5.26	1.16	<1.05	--	59.8	5,230	3.16	216
<17.1	<8.55	<0.43	<4.27	<0.43	<4.27	0.43	<0.85	--	17.8	2,510	<2.56	188
<15.7	<7.84	<0.39	<3.92	<0.39	<3.92	0.392	<0.78	--	38.2	2,220	<2.35	194
<17.8	<8.93	<0.45	<4.46	<0.45	<4.46	0.625	<0.89	--	13.8	2,410	<2.68	206
<13.9	<6.94	<0.35	<3.47	<0.35	<3.47	<0.35	<0.69	--	12.9	191	<2.08	197
<13.9	<6.97	<0.35	<3.48	<0.35	<3.48	<0.35	0.70	--	10.4	207	<2.09	199
<14.3	<7.17	<0.36	<3.58	<0.36	<3.58	<0.36	<0.72	--	12.5	235	<2.15	201
<14.3	<7.14	<0.36	<3.57	<0.36	4.57	<0.36	<0.71	--	11.1	232	<2.14	205
78.9	<7.66	<0.38	<3.83	<0.38	<3.83	<0.38	<0.77	--	13.6	240	<2.30	185
<16.1	<8.06	<0.40	<4.03	<0.40	<4.03	<0.40	<0.81	--	18.6	277	<2.42	191
<14.7	<7.35	<0.37	<3.68	<0.37	<3.68	<0.37	<0.73	--	14.6	221	<2.21	193
<14.8	<7.38	<0.37	<3.69	<0.37	<3.69	<0.37	0.74	--	13.7	205	<2.21	203
35.7	<8.70	<0.43	<4.35	<0.43	<4.35	<0.43	<0.87	--	35.3	381	<2.61	209
<19.5	<9.76	<0.49	<4.88	<0.49	<4.88	<0.49	<0.98	--	42.6	682	<2.93	217
75.7	<9.01	<0.45	<4.50	<0.45	<4.50	<0.45	<0.90	--	25.9	345	<2.70	189
<17.2	<8.58	<0.43	<4.29	<0.43	<4.29	<0.43	<0.86	--	24.5	263	<2.58	195
<19.2	<9.62	<0.48	<4.81	<0.48	<4.81	<0.48	<0.96	--	60.1	56.2	<2.88	207

Table 58.—*Field and laboratory analyses of tissues experiment in the North Roadside pond area*

Tissue	Date	Magnesium	Manganese	Mercury	Molybdenum	Nickel
Bird-Liver-I	03-22-89	582	9.12	<0.088	<3.51	<2.81
Bird-Liver-I	03-22-89	683	16.3	<0.076	3.84	<2.44
Bird-Liver-I	03-22-89	687	11.4	<0.084	3.43	<2.69
Bird-Liver-I	03-22-89	544	6.84	<0.092	<3.68	<2.94
Bird-Liver-I	03-29-89	634	8.56	<0.103	<4.12	<3.29
Bird-Liver-I	03-29-89	747	8.03	<0.100	<4.02	<3.21
Bird-Liver-I	03-29-89	585	8.38	<0.088	<3.52	<2.82
Bird-Liver-I	03-29-89	707	12.5	<0.080	5.27	<2.57
Bird-Liver-I	04-04-89	603	5.37	<0.103	<4.13	<3.30
Bird-Liver-I	04-04-89	779	4.84	<0.132	<5.26	<4.21
Bird-Liver-I	04-05-89	752	7.44	<0.107	<4.27	<3.42
Bird-Liver-I	04-05-89	737	8.39	<0.098	<3.92	<3.14
Bird-Liver-I	04-19-89	652	9.11	<0.112	<4.46	<3.57
Bird-Muscle-I	03-22-89	1,030	1.04	<0.087	<3.47	<2.78
Bird-Muscle-I	03-22-89	1,030	1.12	<0.087	<3.48	<2.79
Bird-Muscle-I	03-22-89	1,070	1.22	<0.090	<3.58	<2.87
Bird-Muscle-I	03-22-89	1,110	1.07	<0.089	<3.57	<2.86
Bird-Muscle-I	03-29-89	1,100	1	<0.096	<3.83	<3.07
Bird-Muscle-I	03-29-89	1,080	<1.01	<0.101	<4.03	<3.23
Bird-Muscle-I	03-29-89	1,080	1.03	<0.092	<3.68	<2.94
Bird-Muscle-I	03-29-89	1,140	1.18	<0.092	<3.69	<2.95
Bird-Muscle-I	04-04-89	1,090	1.30	<0.109	<4.35	<3.48
Bird-Muscle-I	04-04-89	937	<1.22	<0.122	<4.88	<3.90
Bird-Muscle-I	04-05-89	1,140	<1.13	<0.113	<4.50	<3.60
Bird-Muscle-I	04-05-89	1,060	<1.07	<0.107	<4.29	<3.43
Bird-Muscle-I	04-19-89	798	<1.20	<0.120	<4.81	<3.85

from mallard ducks transplanted as part of an at Ouray National Wildlife Refuge--Continued

Selenium	Silver	Strontium	Thallium	Tin	Vanadium	Zinc	Sample number
2.74	<3.51	<0.70	<14	12.1	<3.51	160	196
2.65	<3.05	<0.61	<12.2	10.2	<3.05	199	198
2.76	<3.37	<0.67	<13.5	13.8	<3.37	192	200
2.35	<3.68	<0.74	<14.7	11.1	<3.68	109	204
30.5	<4.12	1.81	<16.5	12.8	<4.12	96.6	184
44.2	<4.02	1.93	<16.1	14.6	<4.02	98	190
9.93	<3.52	1.20	<14.1	13.9	<3.52	115	192
25.1	<3.22	1.16	<12.9	12.1	<3.22	176	202
29.3	<4.13	1.16	<16.5	13.6	<4.13	65.3	208
38.9	<5.26	6.21	<21.1	11.4	<5.26	83.6	216
62.8	<4.27	1.79	<17.1	11.4	<4.27	96.6	188
72.2	<3.92	3.37	<15.3	11.1	<3.92	105	194
106	<4.46	1.96	<17.8	14.7	<4.46	112	206
1.28	<3.47	<0.69	<13.9	16.2	<3.47	43.3	197
0.98	<3.48	0.70	<13.9	18.6	<3.48	43.9	199
0.86	<3.58	<0.72	<14.3	16.7	<3.58	48.5	201
0.82	<3.57	<0.71	<14.3	18.3	<3.57	44.2	205
4.21	<3.83	<0.77	<15.3	17.5	<3.83	37.3	185
2.74	<4.03	<0.81	<16.1	17.8	<4.03	61.6	191
2.65	<3.68	<0.74	<14.7	18.5	<3.68	37.6	193
3.21	<3.69	<0.74	<14.8	17.8	<3.69	40.8	203
2.22	<4.35	<0.87	<17.4	18	<4.35	66.3	209
7.71	<4.88	2.24	<19.5	17.9	<4.88	85.5	217
7.57	<4.50	<0.90	<18	17	<4.50	58.6	189
7.60	<4.29	1.03	<17.2	17.6	<4.29	43.7	195
37.4	<4.81	<1.15	<19.2	17.3	<4.81	89.9	207

Table 59.--*Field and laboratory analyses of plant samples from the North*

[g, gram; mm, millimeter; Organism: spp., species. Tissue:

Organism	Tissue	Date	Moisture content (percent)	Life stage	Organism data		
					Average weight (g)	Total weight (g)	Length (mm)
Scirpus acutus	Plant-Chaff-C	09-07-88	18	--	--	15	--
Typha spp.	Plant-Seed-C	09-07-88	55.5	--	--	15	--
Blue-Green Algae	Plant-without Root-C	08-18-88	78.2	--	--	71	--
Blue-Green Algae	Plant-without Root-C	09-20-88	86.7	--	--	89	--
Filamentous Green Algae	Plant-without Root-C	07-20-87	90.5	--	--	--	--
Filamentous Green Algae	Plant-without Root-C	04-21-88	92.5	--	--	52	--
Filamentous Green Algae	Plant-without Root-C	05-24-88	65	--	--	188	--
Filamentous Green Algae	Plant-without Root-C	06-13-88	73.4	--	--	120	--
Filamentous Green Algae	Plant-without Root-C	07-14-88	73.6	--	--	200	--
Filamentous Green Algae	Plant-without Root-C	09-20-88	90.1	--	--	148	--
Filamentous Green Algae	Plant-without Root-C	04-06-89	91	--	--	61	--
Potamogeton filiformis	Plant-without Root-C	08-16-88	89.1	--	--	61	--
Potamogeton spp.	Plant-without Root-C	07-14-88	88.5	--	--	214	--
Potamogeton spp.	Plant-without Root-C	04-06-89	84.3	--	--	17	--
Potamogeton filiformis	Plant-without Root-C	09-20-88	93.8	--	--	66	--
Ruppia maritima	Plant-without Root-C	07-20-87	85.8	--	--	--	--
Chara spp.	Plant-without Root-C	07-20-87	83.5	--	--	--	--
Chara spp.	Plant-without Root-C	05-24-88	81.1	--	--	392	--
Chara spp.	Plant-without Root-C	06-13-88	84	--	--	637	--
Chara spp.	Plant-without Root-C	07-14-88	83.4	--	--	362	--
Chara spp.	Plant-without Root-C	08-17-88	85.9	--	--	273	--
Chara spp.	Plant-without Root-C	09-20-88	83	--	--	151	--
Chara spp.	Plant-without Root-C	04-06-89	75.4	--	--	151	--
Chara spp.	Plant-without Root-C	04-06-89	70.6	--	--	194	--
Chara spp.	Plant-without Root-C	04-06-89	73.3	--	--	263	--
Chara spp.	Plant-without Root-C	04-06-89	79.2	--	--	165	--
Chara spp.	Plant-without Root-C	06-13-89	81.9	--	--	149	--
Chara spp.	Plant-without Root-C	07-17-89	80.5	--	--	47	--
Scirpus acutus	Plant-Root and Stem-C	04-06-89	70.1	--	--	536	--
Scirpus acutus	Plant-Root and Stem-C	04-06-89	76.8	--	--	487	--
Scirpus acutus	Plant-Root and Stem-C	04-06-89	82.1	--	--	381	--
Scirpus acutus	Plant-Root and Stem-C	04-06-89	75.3	--	--	301	--
Typha spp.	Plant-Root and Stem-C	04-21-88	86.2	--	--	406	--
Typha spp.	Plant-Root and Stem-C	04-21-88	87.4	--	--	469	--
Typha spp.	Plant-Root and Stem-C	05-24-88	92.1	--	--	774	--
Typha spp.	Plant-Root and Stem-C	06-13-88	92.3	--	--	1,145	--
Typha spp.	Plant-Root and Stem-C	07-14-88	90.9	--	--	658	--
Typha spp.	Plant-Root and Stem-C	08-16-88	90.7	--	--	640	--
Typha spp.	Plant-Root and Stem-C	09-20-88	86.4	--	--	828	--
Typha spp.	Plant-Root and Stem-C	04-06-89	73	--	--	374	--
Typha spp.	Plant-Root and Stem-C	04-06-89	84.8	--	--	863	--
Typha spp.	Plant-Root and Stem-C	04-06-89	90.6	--	--	1,040	--
Typha spp.	Plant-Root and Stem-C	04-06-89	81.1	--	--	515	--
Typha spp.	Plant-Root and Stem-C	04-06-89	83.4	--	--	779	--

Roadside pond area at Ouray National Wildlife Refuge

C, composite sample. --, not determined; <, less than]

Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Chromium	Cobalt	Copper	Iron	Lead	Sample number
37.8	<0.030	0.060	18.2	<0.61	135	<0.61	<1.22	--	3.29	69.5	<12.2	814
<22.5	<0.056	0.056	<11.2	<1.12	35.1	<1.12	<2.25	--	<5.62	49.4	<22.5	819
4,110	--	3.5	252	<0.1	247	0.3	4.8	--	14	3,320	4	364
15,800	--	2.2	617	0.57	14	<0.3	21	--	33	11,900	9	360
884	--	1.3	146	<0.1	330	<0.2	2	--	3.1	666	<4	1005
1,580	--	0.5	134	0.2	76	<0.3	2	--	4	1,010	<4	555
663	<0.072	1.83	161	<1.43	40.3	<1.43	<2.86	--	<7.14	574	<28.6	675
805	0.102	4.59	444	<1.88	130	<1.88	<3.76	--	13.9	805	<37.6	667
428	<0.095	5.19	229	<1.89	214	<1.89	<3.79	--	9.47	583	<37.9	691
2,290	--	6.1	708	<0.1	12	<0.2	2	--	6.5	1,920	<4	361
3,280	--	1.6	2,580	0.1	11	0.3	3.8	--	5.6	2,330	<4	296
426	--	1.6	273	<0.1	534	<0.2	<1	--	4.2	423	<4	373
<87	0.235	1.61	259	<4.35	814	<4.35	<8.70	--	25	278	<87	696
2,720	--	0.81	112	<0.1	1,180	<0.3	6.2	--	4.8	1,720	<4	297
1,820	--	1.5	236	0.1	334	<0.3	3	--	6	1,250	<4	369
96	--	1.1	65.9	<0.1	204	<0.2	<1	--	3.3	110	<4	990
53	--	<0.2	217	<0.1	20	<0.2	<1	--	1.6	55	<4	1001
212	<0.133	1.69	244	<2.65	<26.5	<2.65	<5.29	--	<13.2	243	<52.9	674
188	<0.156	3.09	402	<3.13	<31.3	<3.13	<6.25	--	18.1	275	<62.5	666
133	<0.151	3.49	337	<3.01	48.2	<3.01	<6.02	--	17.5	277	<60.2	692
444	--	2.9	399	<0.1	23	<0.3	<1	--	3	382	<4	396
501	--	2.6	342	<0.1	13	<0.3	2	--	<2	361	<4	395
3,720	--	0.61	223	0.1	28	<0.3	11	--	6.7	2,040	5	291
2,280	--	0.74	203	<0.1	21	0.4	7	--	2.1	1,380	5	292
2,550	--	0.64	359	0.1	16	<0.3	4.2	--	8.3	1,550	5	293
3,550	--	1.7	241	0.2	32	<0.3	4.3	--	5.5	2,160	7	294
<50	<50	--	298	<0.300	21.8	<1	<3	<4	<3	143	<15	129
192	<5.13	3.6	401	<0.26	21.6	<0.26	0.72	--	4.26	184	<1.54	1339
4,240	--	0.4	46	0.2	9.7	<0.3	34	--	5.6	3,280	<4	286
963	--	<0.2	19.7	<0.1	7	<0.3	10	--	2.9	928	<4	287
3,370	--	0.90	60.5	0.2	18	<0.3	19	--	5.6	2,400	<4	288
4,440	--	0.55	75.5	0.2	9.2	<0.3	29	--	6.5	3,300	<4	289
3,010	--	0.93	40	0.2	13	<0.3	9.5	--	3.8	2,200	<4	541
1,850	--	0.81	36.7	0.2	16	<0.3	6	--	4.9	1,370	<4	542
1,240	<0.316	0.696	<63.3	<6.33	<63.3	<6.33	<12.7	--	<31.6	2,000	<127	673
1,920	<0.325	2.79	71.4	<6.49	<64.9	<6.49	<13	--	<32.5	2,620	<130	668
1,540	<0.275	1.48	70.3	<5.49	<54.9	<5.49	19.8	--	<27.5	1,960	<110	690
1,780	--	1.1	53	<0.1	8.7	<0.3	4.3	--	3	1,660	<4	388
2,310	--	1.1	62.6	<0.1	7	<0.3	6.3	--	10	2,060	<4	382
4,960	--	0.50	66.3	0.3	23	<0.3	31	--	7.3	3,330	4	276
2,110	--	0.3	32.2	0.1	16	<0.3	17	--	3	1,800	<4	277
9,320	--	2	127	0.41	25	<0.3	13	--	16	5,810	4	278
2,570	--	0.48	54.7	0.2	16	<0.3	20	--	5.7	1,840	<4	279
3,480	--	0.63	59.6	0.3	17	<0.3	33	--	7.1	2,570	<4	280

Table 59.--*Field and laboratory analyses of plant samples from the North*

Organism	Tissue	Date	Magnesium	Manganese	Mercury	Molybdenum
Scirpus acutus	Plant/Chaff-C	09-07-88	1,440	73.7	0.030	<6.10
Typha spp.	Plant-Seed-C	09-07-88	2,700	158	<0.057	<11.2
Blue-Green Algae	Plant-without Root-C	08-18-88	9,080	796	0.01	<1
Blue-Green Algae	Plant-without Root-C	09-20-88	11,500	440	0.01	<2
Filamentous Green Algae	Plant-without Root-C	07-20-87	12,600	296	0.021	<1
Filamentous Green Algae	Plant-without Root-C	04-21-88	9,080	354	0.028	<1
Filamentous Green Algae	Plant-without Root-C	05-24-88	7,910	766	<0.072	<14.3
Filamentous Green Algae	Plant-without Root-C	06-13-88	8,350	1,010	0.414	<18.8
Filamentous Green Algae	Plant-without Root-C	07-14-88	13,800	1,090	0.121	<18.9
Filamentous Green Algae	Plant-without Root-C	09-20-88	8,680	1,920	0.007	<1
Filamentous Green Algae	Plant-without Root-C	04-06-89	3,870	298	0.009	<1
Potamogeton filiformis	Plant-without Root-C	08-16-88	8,480	427	0.01	<1
Potamogeton spp.	Plant-without Root-C	07-14-88	9,040	1,660	0.243	<43.5
Potamogeton spp.	Plant-without Root-C	04-06-89	7,260	221	0.008	<1
Potamogeton filiformis	Plant-without Root-C	09-20-88	6,920	677	0.01	<1
Ruppia maritima	Plant-without Root-C	07-20-87	9,300	198	0.019	1
Chara spp.	Plant-without Root-C	07-20-87	8,260	215	0.01	<1
Chara spp.	Plant-without Root-C	05-24-88	9,050	454	<0.133	<26.5
Chara spp.	Plant-without Root-C	06-13-88	9,310	675	<0.157	<31.3
Chara spp.	Plant-without Root-C	07-14-88	9,940	930	<0.151	<30.1
Chara spp.	Plant-without Root-C	08-17-88	10,500	683	<0.005	<1
Chara spp.	Plant-without Root-C	09-20-88	6,880	276	<0.005	<1
Chara spp.	Plant-without Root-C	04-06-89	6,960	196	0.007	1
Chara spp.	Plant-without Root-C	04-06-89	6,570	304	<0.005	<1
Chara spp.	Plant-without Root-C	04-06-89	8,650	575	<0.005	<1
Chara spp.	Plant-without Root-C	04-06-89	6,060	521	<0.005	<1
Chara spp.	Plant-without Root-C	06-13-89	6,180	402	--	<10
Chara spp.	Plant-without Root-C	07-17-89	5,910	499	<0.128	<2.56
Scirpus acutus	Plant-Root and Stem-C	04-06-89	2,440	140	0.008	<1
Scirpus acutus	Plant-Root and Stem-C	04-06-89	1,280	139	0.006	<1
Scirpus acutus	Plant-Root and Stem-C	04-06-89	2,400	166	0.007	<1
Scirpus acutus	Plant-Root and Stem-C	04-06-89	2,320	203	0.006	<1
Typha spp.	Plant-Root and Stem-C	04-21-88	3,070	124	0.01	<1
Typha spp.	Plant-Root and Stem-C	04-21-88	2,980	102	0.01	1
Typha spp.	Plant-Root and Stem-C	05-24-88	3,540	115	<0.317	<63.3
Typha spp.	Plant-Root and Stem-C	06-13-88	4,550	125	<0.325	<19.5
Typha spp.	Plant-Root and Stem-C	07-14-88	4,290	113	<0.275	<54.9
Typha spp.	Plant-Root and Stem-C	08-16-88	4,470	81	<0.005	<1
Typha spp.	Plant-Root and Stem-C	09-20-88	3,510	115	<0.005	<1
Typha spp.	Plant-Root and Stem-C	04-06-89	6,190	145	0.01	<1
Typha spp.	Plant-Root and Stem-C	04-06-89	3,440	169	<0.005	<1
Typha spp.	Plant-Root and Stem-C	04-06-89	6,430	136	<0.005	<1
Typha spp.	Plant-Root and Stem-C	04-06-89	3,100	85.5	0.006	<1
Typha spp.	Plant-Root and Stem-C	04-06-89	2,990	109	0.006	<1

Roadside pond area at Ouray National Wildlife Refuge—Continued

Nickel	Selenium	Silver	Strontium	Thallium	Tin	Vanadium	Zinc	Sample number
<4.88	1.7	<6.10	34.4	--	7.32	<6.10	15.7	814
<8.99	7.4	<11.2	55.1	--	<11.2	<11.2	17.3	819
3	18	<2	677	<4	--	7	12	364
13	51	<2	571	<4	--	22	37	360
<1	6.4	<2	741	<5	--	2.9	6.3	1005
<1	12	<2	1,510	<4	--	8.2	5.9	555
<11.4	9.1	<14.3	1,520	--	<14.3	<14.3	6.29	675
<15	8.6	<18.8	1,510	--	<18.8	<18.8	43.2	667
<15.2	12.9	<18.9	2,190	--	<18.9	<18.9	<7.58	691
3	11	<2	248	<4	--	3.6	8.6	361
4	30	<2	379	<4	--	6.3	24	296
<1	14	<2	331	<4	--	1.5	8	373
<34.8	15.7	<43.5	468	--	<43.5	<43.5	19.1	696
5	91	<2	1,100	<4	--	9.2	7.9	297
<1	5.5	<2	350	<4	--	4.4	8.2	369
<1	6.1	<2	425	<5	--	1.8	13	990
<1	14.9	<2	3,220	<5	--	0.9	3.8	1001
<21.2	16.9	<26.5	2,580	--	<26.5	<26.5	14.3	674
<25	11.9	<31.3	2,990	--	<31.3	<31.3	21.2	666
<24.1	14.5	<30.1	3,780	--	<30.1	<30.1	<12	692
<2	18.3	<2	1,920	<4	--	1.7	3.7	396
<2	19.5	<2	2,780	<4	--	1.9	5.7	395
6	49	<2	2,610	<4	--	11	11	291
<5	39	<2	2,410	<4	--	5.4	5	292
<3	54	<2	2,580	<4	--	6.7	6.2	293
4	63	<2	2,550	<4	--	7.6	12	294
<4.50	20.1	<15	5,590	--	<50	<1.50	<12	129
<2.05	19.5	<2.56	6,550	<10.3	<2.56	<2.56	7	1339
15	9.7	<2	51.7	<4	--	8.9	14	286
4	12	<2	30.4	<4	--	2.6	9	287
9	27	<2	70.6	<4	--	11	12	288
16	12	<2	44.4	<4	--	9.5	15	289
4.8	20	<2	77.2	--	--	6.1	20	541
3	16	<2	84.6	<4	--	4.9	13	542
<50.6	22.8	<63.3	224	--	<50.6	<50.6	<25.3	673
<64.9	35.1	<52	149	--	<64.9	<64.9	40.3	668
<44	22	<54.9	137	--	<54.9	<54.9	<22	690
3	24	<2	110	<4	--	5.4	8.2	388
4	19	<2	108	<4	--	6.4	8.2	382
16	22	<2	247	<4	--	10	17	276
8	14.4	<2	122	<4	--	4.8	18	277
6	72	<2	162	<4	--	20	19	278
11	14.1	<2	108	<4	--	6.7	10	279
15	18.6	<2	141	<4	--	7.5	19	280

Table 60.--*Field and laboratory analyses of biological samples from the*

[g, gram; mm, millimeter; Tissue: C5, composite sample, listed as days for embryos; I, immature;

Organism	Tissue	Date	Moisture content (percent)	Life stage	Sex	Organism data		
						Average weight (g)	Total weight (g)	Length (mm)
American Coot	Bird-Egg-I	06-09-87	82.6	--	--	--	--	--
American Coot	Bird-Egg-I	06-11-87	79.9	--	--	--	--	48.9
American Coot	Bird-Egg-I	06-11-87	87.1	--	--	--	21	46.2
American Coot	Bird-Egg-I	07-09-87	71.8	--	--	--	--	47.4
American Coot	Bird-Egg-I	07-09-87	71	--	--	--	--	48
American Coot	Bird-Egg-I	07-18-87	70.5	--	--	--	--	48.9
American Coot	Bird-Egg-I	07-23-87	65.1	--	--	--	--	46.9
American Coot	Bird-Egg-I	07-27-87	74.1	--	--	--	--	50.6
American Coot	Bird-Egg-I	05-11-88	73.9	5	--	--	24	48.8
American Coot	Bird-Egg-I	05-26-88	78.2	17	--	--	28	51.2
American Coot	Bird-Egg-I	05-31-88	76.9	--	--	--	22	49.2
American Coot	Bird-Egg-I	06-06-88	72.8	--	--	--	22	45.7
American Coot	Bird-Egg-I	06-20-88	69.2	--	--	--	19	46.8
American Coot	Bird-Egg-I	05-25-89	76.8	2	--	--	21	47.2
American Coot	Bird-Egg-I	05-25-89	80.2	--	--	--	16	46.6
Cinnamon Teal	Bird-Egg-I	05-26-88	69.7	10	--	--	24	45.6
Gadwall	Bird-Egg-I	06-14-88	68.7	2	--	--	33	53.8
Gadwall	Bird-Egg-I	06-13-89	68	5	--	--	38	53.4
Mallard	Bird-Egg-I	05-15-89	70.6	1	--	--	45	56.7
Mallard	Bird-Egg-I	05-15-89	70.3	2	--	--	46	55.5
Redhead	Bird-Egg-I	06-07-89	69.8	10	--	--	53	61.2
Yellow-Headed Blackbird	Bird-Egg-C3	06-05-89	80.2	--	--	3	--	26.9
American Coot	Bird-Liver-I	08-11-87	72.7	I	--	--	500	--
American Coot	Bird-Liver-I	08-11-87	77.3	I	--	--	350	--
American Coot	Bird-Liver-I	08-11-87	74.1	I	--	--	375	--
Great Blue Heron	Bird-Liver-I	05-10-88	78	A	--	--	1,260	--
Black Bullhead	Fish-Whole Body-C5	04-04-88	81.4	--	--	74	--	175
Black Bullhead	Fish-Whole Body-C2	07-20-88	83.2	--	--	81	--	187.5
Common Carp	Fish-Whole Body-C5	07-29-87	77.4	A	--	686	--	344
Common Carp	Fish-Whole Body-C5	07-29-87	77.8	A	--	583	--	304
Common Carp	Fish-Whole Body-C5	04-04-88	81.5	--	--	291	--	272
Common Carp	Fish-Whole Body-C5	04-04-88	81.7	--	--	297	--	282
Common Carp	Fish-Whole Body-C5	07-20-88	78.2	--	--	567	--	345
Green Sunfish	Fish-Whole Body-C5	07-29-87	76.4	A	--	82	--	156
Green Sunfish	Fish-Whole Body-C5	04-04-88	76.4	--	--	75	--	163
Green Sunfish	Fish-Whole Body-C4	07-20-88	74.8	--	--	61	--	150
Chironomidae(Predominant)	Invertebrate-Whole Body-C	04-04-88	90.3	--	--	--	15	--
Invertebrates-Mixed	Invertebrate-Whole Body-C	07-20-88	86	--	--	--	10	--
Invertebrates-Mixed	Invertebrate-Whole Body-C	04-05-89	78.3	--	--	--	8	--
Invertebrates-Mixed	Invertebrate-Whole Body-C	04-05-89	81.3	--	--	--	9	--
Invertebrates-Mixed	Invertebrate-Whole Body-C	04-27-89	88.6	--	--	--	25	--
Invertebrates-Mixed	Invertebrate-Whole Body-C	04-27-89	89.3	--	--	--	62	--
Invertebrates-Mixed	Invertebrate-Whole Body-C	06-06-89	74.8	--	--	--	11	--
Invertebrates-Zygoptera	Invertebrate-Whole Body-C	06-27-88	82	--	--	--	7	--

South Roadside pond area at Ouray National Wildlife Refuge

number of individuals; I, individual sample; Egg, net sample weight. Life stage: A, Adult. —, not determined; <, less than]

Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Chromium	Cobalt	Copper	Iron	Lead	Sample number
<23	--	<0.52	6.3	<0.57	—	<0.57	11	—	--	140	<1.1	932
<49.8	<0.125	<0.025	<24.9	<2.49	<24.9	<2.49	<4.98	—	<12.4	<64.7	<49.8	468
<30	--	<0.66	2.4	<0.76	<4.6	<0.76	8.5	—	--	150	<1.5	931
<35.5	<0.089	<0.018	<17.7	<1.77	<17.7	<1.77	<3.55	—	<8.06	35.5	<35.5	469
44.8	<0.087	0.034	<17.2	<1.72	<17.2	<1.72	<3.45	—	<8.62	114	<34.5	472
<33.9	<0.085	<0.017	<17	<1.7	<17	<1.7	<3.39	—	<8.48	57.6	<33.9	470
<28.6	<0.072	<0.015	<14.3	<1.43	<14.3	<1.43	<2.86	—	<7.16	48.7	<28.6	471
42.5	<0.097	<0.020	<19.3	<1.93	<19.3	<1.93	<3.86	—	<9.65	46.3	<38.6	473
<3	--	<0.2	10	<0.1	<3	<0.3	<1	—	3.6	123	<4	435
<45.8	<0.115	0.110	<22.9	<2.29	<22.9	<2.29	<4.59	—	<11.5	91.7	<45.8	631
<39.4	<0.108	<0.022	<19.7	<1.99	<19.7	<1.99	<3.94	—	<9.83	43.3	<39.4	633
<29.8	<0.092	<0.019	<14.9	<1.51	<14.9	<1.51	<2.98	—	<7.46	71.7	<29.8	623
<32.5	<0.081	<0.016	<16.2	<1.62	<16.2	<1.62	<3.25	—	<8.12	55.2	<32.5	728
--	--	--	—	--	—	--	—	—	--	—	--	1261
--	--	--	—	--	—	—	—	—	--	—	--	1262
<32.6	<0.083	0.020	<16.3	<1.62	<16.3	<1.62	<3.27	—	12.1	81.5	<32.6	632
<23.5	<0.080	0.026	<11.8	<1.18	<11.8	<1.18	<2.36	—	7.99	65.8	<23.5	625
--	--	--	—	--	—	--	—	—	--	—	--	1175
--	--	--	—	--	—	—	—	—	--	—	--	1237
--	--	--	—	--	—	—	—	—	--	—	--	1238
--	--	--	—	--	—	—	--	—	--	—	--	1270
--	--	--	—	--	—	—	—	—	--	—	--	1265
<3	--	<0.2	0.2	<0.1	<2	<0.4	<1	—	30.6	932	<4	1026
4	--	<0.2	0.1	<0.1	2	<0.4	<1	—	46.8	287	<4	1027
6	--	<0.2	0.41	<0.1	2	<0.4	2	—	32.8	890	<4	1028
4	--	<0.2	0.1	<0.1	<2	<0.3	<1	—	30.9	3,840	<4	412
160	--	<0.2	14	<0.1	<2	<0.2	<2	—	4.2	219	<4	576
95.2	<0.149	<0.030	32.7	<2.98	<29.8	<2.98	<5.95	—	<14.9	220	<59.5	713
57.5	<0.111	<0.023	<22.1	<2.21	<22.1	<2.21	<4.42	—	<11.7	124	<44.2	479
63.1	<0.113	<0.023	<22.5	<2.25	<22.5	<2.25	<4.50	—	<11.3	104	<45	480
90	--	<0.2	7.8	<0.1	<2	<0.2	<2	--	6.5	177	<4	587
28	--	<0.2	9.9	<0.1	<2	<0.2	<2	—	7.4	145	<4	588
<45.9	<0.115	<0.023	<22.9	<2.29	<22.9	<2.29	<4.59	—	<11.5	174	<45.9	712
<43.4	<0.106	<0.022	<21.2	<2.12	<21.2	<2.12	<4.24	—	<10.6	46.6	<42.4	481
9	--	<0.2	6.9	<0.1	<2	<0.2	<2	—	2.8	74	<4	593
<39.7	<0.099	<0.020	<19.8	<1.98	<19.8	<1.98	<3.97	—	<9.92	151	<39.7	714
6,480	--	1.7	47	0.2	5	0.3	7.5	—	17	5,030	5	561
<71.4	<0.179	0.607	37.9	<3.57	<35.7	<3.57	<7.14	—	38.6	271	<71.4	704
160	--	<0.2	6.3	<0.1	4	<0.3	3	—	25.2	214	<4	270
88	--	<0.2	7.4	<0.1	3	<0.3	3	—	23.1	155	<4	271
72.9	<20	1.43	12.6	<0.200	3.42	<0.800	<3	<3	27.6	157	<6	150
148	<20	1.83	13.8	<0.200	4.25	<0.800	<3	<3	22.9	202	<6	151
100	<20	1.38	25.7	<0.200	4.41	<0.800	<3	<3	22.4	185	<6	139
100	<0.139	1.67	<27.8	<2.78	<27.8	<2.78	<5.56	--	18.9	250	<55.6	746

Table 60.--*Field and laboratory analyses of biological samples from the*

Organism	Tissue	Date	Magnesium	Manganese	Mercury	Molybdenum
American Coot	Bird-Egg-I	06-09-87	1,700	<5.7	<0.22	<0.57
American Coot	Bird-Egg-I	06-11-87	647	<7.46	0.229	<24.9
American Coot	Bird-Egg-I	06-11-87	770	<7.6	<0.35	2
American Coot	Bird-Egg-I	07-09-87	603	<5.32	0.103	<17.7
American Coot	Bird-Egg-I	07-09-87	793	<5.17	<0.087	<17.2
American Coot	Bird-Egg-I	07-18-87	407	<5.08	0.224	<17
American Coot	Bird-Egg-I	07-23-87	487	<4.3	0.238	<14.3
American Coot	Bird-Egg-I	07-27-87	<386	<5.79	0.124	<19.3
American Coot	Bird-Egg-I	05-11-88	492	4.8	0.032	<1
American Coot	Bird-Egg-I	05-26-88	596	<6.88	0.427	<22.9
American Coot	Bird-Egg-I	05-31-88	749	<5.89	0.632	<19.7
American Coot	Bird-Egg-I	06-06-88	566	<4.49	0.184	<14.9
American Coot	Bird-Egg-I	06-20-88	519	<4.87	0.110	<16.2
American Coot	Bird-Egg-I	05-25-89	--	--	--	--
American Coot	Bird-Egg-I	05-25-89	--	--	--	--
Cinnamon Teal	Bird-Egg-I	05-26-88	360	<4.88	0.330	<16.3
Gadwall	Bird-Egg-I	06-14-88	351	<3.51	0.134	<11.8
Gadwall	Bird-Egg-I	06-13-89	--	--	--	--
Mallard	Bird-Egg-I	05-15-89	--	--	--	--
Mallard	Bird-Egg-I	05-15-89	--	--	--	--
Redhead	Bird-Egg-I	06-07-89	--	--	--	--
Yellow-Headed Blackbird	Bird-Egg-C3	06-06-89	--	--	--	--
American Coot	Bird-Liver-I	08-11-87	613	7.6	0.078	2
American Coot	Bird-Liver-I	08-11-87	786	6.4	0.18	2
American Coot	Bird-Liver-I	08-11-87	736	7	0.14	2
Great Blue Heron	Bird-Liver-I	05-10-88	714	6.8	17.8	2
Black Bullhead	Fish-Whole Body-C5	04-04-88	1,650	77.8	0.047	<1
Black Bullhead	Fish-Whole Body-C2	07-20-88	1,490	40.5	<0.149	<29.8
Common Carp	Fish-Whole Body-C5	07-29-87	1,640	14.2	<0.111	<22.1
Common Carp	Fish-Whole Body-C5	07-29-87	1,310	17.1	0.153	<22.5
Common Carp	Fish-Whole Body-C5	04-04-88	1,470	9.5	0.01	<1
Common Carp	Fish-Whole Body-C5	04-04-88	1,450	7.7	0.017	<1
Common Carp	Fish-Whole Body-C5	07-20-88	1,380	14.2	<0.115	<22.9
Green Sunfish	Fish-Whole Body-C5	07-29-87	1,360	14	0.114	<21.2
Green Sunfish	Fish-Whole Body-C5	04-04-88	1,340	21.2	0.089	<1
Green Sunfish	Fish-Whole Body-C4	07-20-88	1,830	36.9	0.111	<19.8
Chironomidae(Predominant)	Invertebrate-Whole Body-C	04-04-88	2,930	79.7	0.02	<1
Invertebrates-Mixed	Invertebrate-Whole Body-C	07-20-88	1,430	23.6	0.193	<35.7
Invertebrates-Mixed	Invertebrate-Whole Body-C	04-05-89	1,070	30	0.15	<1
Invertebrates-Mixed	Invertebrate-Whole Body-C	04-05-89	1,110	28	0.20	<1
Invertebrates-Mixed	Invertebrate-Whole Body-C	04-27-89	1,430	55.8	0.0838	<5
Invertebrates-Mixed	Invertebrate-Whole Body-C	04-27-89	1,680	89.3	0.122	<5
Invertebrates-Mixed	Invertebrate-Whole Body-C	06-06-89	1,850	73.8	0.0744	<5
Invertebrates-Zygoptera	Invertebrate-Whole Body-C	06-27-88	1,440	33.9	0.528	<27.8

South Roadside pond area at Ouray National Wildlife Refuge—Continued

Nickel	Selenium	Silver	Strontium	Thallium	Tin	Vanadium	Zinc	Sample number
4.2	63	--	220	--	26	--	110	932
<19.9	44.8	<24.9	47.3	--	<24.9	<24.9	59.7	468
3.5	120	--	38	--	20	--	70	931
<14.2	23	<17.7	28.4	--	<17.7	<17.7	62.4	469
<13.8	44.1	<17.2	80	--	<17.2	<17.2	77.9	472
<13.6	50.8	<17	16.3	--	<17	<17	60.3	470
<11.5	47.3	<14.3	35.2	--	<14.3	<14.3	59.6	471
<15.4	57.9	<19.3	15.1	--	<19.3	<19.3	57.9	473
<1	50	<2	21.1	<4	--	<0.3	60.3	435
<18.3	4.1	<22.9	11	--	<22.9	<22.9	66	631
<15.8	90.5	<19.7	28.4	--	<19.7	<19.7	62.3	633
<11.9	44.9	<14.9	27.1	--	<14.9	<14.9	55.9	623
<13	55.2	<16.2	33.1	--	<16.2	<16.2	55.8	728
—	75	--	--	--	--	--	—	1261
—	29.6	--	--	--	--	--	--	1262
<13.1	7.9	<16.3	15	--	<16.3	<16.3	66	632
<9.39	3.8	<11.8	7.76	--	12.2	<11.8	50.8	625
—	16	--	--	--	--	--	—	1175
—	24.4	--	--	--	--	--	—	1237
—	6.3	--	--	--	--	--	—	1238
—	19.7	--	--	--	--	--	--	1270
—	9.8	--	--	--	--	--	—	1265
<2	18	<1	0.49	<6	--	<0.3	144	1026
<2	36	<1	0.79	<6	--	<0.3	150	1027
<2	27	<1	1.3	<6	--	<0.3	169	1028
<2	38	<2	0.67	<5	--	<0.6	193	412
<1	25	<2	318	<4	--	0.5	112	576
<23.8	61.9	<29.8	59.5	--	<29.8	<29.8	89.9	713
<17.7	36.3	<22.1	347	--	<22.1	<22.1	203	479
<18	21.6	<22.5	232	--	<22.5	<22.5	196	480
<1	52.2	<2	195	<4	--	<0.3	224	587
<1	31	<2	236	<4	--	<0.3	234	588
<18.3	104	<22.9	228	--	<22.9	<22.9	224	712
<16.9	26.3	<21.2	145	--	<21.2	<21.2	91.5	481
1	30	<2	228	<4	--	<0.3	88.4	593
<15.9	85.3	<19.8	355	--	<19.8	<19.8	141	714
3.9	14.5	<2	65.8	<4	--	13	134	561
<28.6	17.9	<35.7	70.7	--	<35.7	<35.7	203	704
<3	12	<2	38.9	<4	--	0.5	115	270
<3	13	<2	28.5	<4	--	<0.3	120	271
<2.50	40.4	<10	146	--	<25	<1	115	150
<2.50	53.3	<10	305	--	<25	<1	100	151
<2.50	49.3	<10	444	--	<25	<1	113	139
<22.2	71.1	<27.8	65	--	<27.8	<27.8	81.1	746

Table 61.—*Field and laboratory analyses of plant samples from the*

[g, gram; mm, millimeter; Organism: spp., species. Tissue:

Organism	Tissue	Date	Moisture content (percent)	Organism data			Aluminum
				Average weight (g)	Total weight (g)	Length (mm)	
Filamentous Green Algae	Plant-without Root-C	06-13-88	83.2	—	204	--	1,850
Filamentous Green Algae	Plant-without Root-C	07-14-88	78.4	—	216	--	815
Filamentous Green Algae	Plant-without Root-C	08-16-88	83.1	—	72	--	1,320
Filamentous Green Algae	Plant-without Root-C	04-05-89	75.5	—	69	--	1,280
Potamogeton filiformis	Plant-without Root-C	08-16-88	90.9	—	29	--	2,620
Potamogeton spp.	Plant-without Root-C	07-14-88	88.2	—	122	--	322
Ruppia maritima	Plant-without Root-C	06-13-88	91.4	—	148	--	198
Ruppia maritima	Plant-without Root-C	07-14-88	87.1	—	205	--	147
Ruppia maritima	Plant-without Root-C	08-17-88	89.7	—	198	--	398
Ruppia maritima	Plant-without Root-C	04-05-89	82.5	—	213	--	601
Ruppia maritima	Plant-without Root-C	04-05-89	82.5	—	232	--	3,720
Ruppia maritima	Plant-without Root-C	04-05-89	80.8	—	368	--	2,800
Ruppia maritima	Plant-without Root-C	04-21-88	89.8	—	88	--	562
Chara spp.	Plant-without Root-C	06-13-88	81.1	—	177	--	630
Chara spp.	Plant-without Root-C	07-14-88	79	—	328	--	395
Chara spp.	Plant-without Root-C	08-17-88	81.3	—	181	--	607
Chara spp.	Plant-without Root-C	04-05-89	69.4	—	120	--	4,040
Scirpus acutus	Plant-without Root-C	04-05-89	71.5	—	313	--	319
Scirpus acutus	Plant-Root and Stem-C	04-05-89	72.1	—	474	--	4,420
Typha spp.	Plant-Root and Stem-C	04-21-88	87.4	—	396	--	1,900
Typha spp.	Plant-Root and Stem-C	06-13-88	89.5	—	798	--	2,010
Typha spp.	Plant-Root and Stem-C	07-14-88	92.1	—	729	--	2,680
Typha spp.	Plant-Root and Stem-C	08-16-88	92.7	—	504	--	486
Typha spp.	Plant-Root and Stem-C	04-05-89	80.9	—	372	--	791
Typha spp.	Plant-Root and Stem-C	04-05-89	89.9	—	566	--	2,360
Typha spp.	Plant-Root and Stem-C	04-05-89	84.3	—	913	--	3,710
Typha spp.	Plant-Root and Stem-C	04-05-89	88.6	—	1,083	--	4,470

South Roadside pond area at Ouray National Wildlife Refuge

C, composite sample; --, not determined; <, less than]

Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Chromium	Cobalt	Copper	Iron	Lead	Sample number
<0.149	5.83	334	<2.98	164	<2.98	<5.95	--	20.2	2,020	<59.5	660
<0.116	8.43	389	<2.31	432	<2.31	<4.63	--	42.6	1,010	<46.3	698
--	7.7	354	<0.1	427	<0.2	<1	--	3.5	1,130	<4	365
--	1.9	250	<0.1	301	<0.3	4	--	2.1	932	<4	295
--	1.6	132	<0.1	247	<0.3	4.2	--	8	1,920	<4	374
<0.212	2.03	294	<4.24	239	<4.24	<8.47	--	<21.2	576	<84.7	697
<0.291	1.67	70.9	<5.81	219	<5.81	<11.6	--	<29.1	279	<116	668
0.581	1.51	66.7	<3.88	202	<3.88	<7.75	--	<19.4	326	<77.5	694
--	2.2	142	<0.1	237	<0.2	<1	--	3.6	371	<4	402
--	0.4	97.9	<0.1	588	<0.3	5.2	--	3.9	584	<4	281
--	0.75	122	0.1	570	<0.3	7.1	--	7.9	3,160	<4	282
--	0.63	138	0.1	510	<0.3	5.5	--	4.4	1,980	<4	283
--	1.1	84.4	0.2	427	<0.3	2	--	5.8	508	<4	553
<0.132	<1.01	352	<2.65	<26.5	<2.65	<5.29	--	13.2	571	<52.9	659
0.143	2.17	411	<2.38	33.8	<2.38	<4.76	--	67.1	319	<47.6	695
--	1.9	251	<0.1	13	<0.3	1	--	<2	455	<4	397
--	1.2	280	0.2	28	<0.3	8.1	--	3.9	2,730	5	290
--	<0.2	8.4	<0.1	13	<0.3	15	--	9.6	385	<4	284
--	1.3	198	0.2	11	<0.3	45	--	6.3	3,630	<4	285
--	0.64	34.4	0.2	16	<0.3	5.4	--	4	1,570	<4	543
<0.238	1.67	58.1	<4.76	<47.6	<4.76	19	--	<23.8	2,820	<95.2	657
<0.316	1.96	113	<6.33	<63.3	<6.33	<12.7	--	51.9	4,390	<127	693
--	0.64	23	<0.1	11	<0.3	1	--	<2	675	<4	389
--	0.2	14.6	<0.1	9.8	<0.3	7.1	--	6.6	694	<4	272
--	0.79	36.5	0.1	16	<0.3	5.1	--	5.1	2,260	<4	273
--	1.8	65.5	0.2	14	<0.3	18	--	6.8	3,430	<4	274
--	0.80	93.6	0.2	23	<0.3	34	--	5.5	3,580	<4	275

Table 61.—*Field and laboratory analyses of plant samples from the*

Organism	Tissue	Date	Magnesium	Manganese	Mercury	Molybdenum
Filamentous Green Algae	Plant-without Root-C	06-13-88	10,200	1,030	<0.149	<29.8
Filamentous Green Algae	Plant-without Root-C	07-14-88	20,700	1,510	<0.116	<23.1
Filamentous Green Algae	Plant-without Root-C	08-16-88	33,300	895	0.008	<1
Filamentous Green Algae	Plant-without Root-C	04-05-89	12,300	765	<0.005	<1
Potamogeton filiformis	Plant-without Root-C	08-16-88	7,280	639	0.009	<1
Potamogeton spp.	Plant-without Root-C	07-14-88	7,710	969	<0.212	<42.4
Ruppia maritima	Plant-without Root-C	06-13-88	7,670	671	<0.291	<58.1
Ruppia maritima	Plant-without Root-C	07-14-88	7,440	507	<0.194	<38.8
Ruppia maritima	Plant-without Root-C	08-17-88	11,100	845	<0.005	<1
Ruppia maritima	Plant-without Root-C	04-05-89	5,750	176	0.01	2
Ruppia maritima	Plant-without Root-C	04-05-89	6,080	336	0.015	2
Ruppia maritima	Plant-without Root-C	04-05-89	6,350	452	0.01	2
Ruppia maritima	Plant-without Root-C	04-21-88	7,280	436	0.016	1
Chara spp.	Plant-without Root-C	06-13-88	7,040	144	0.132	<26.5
Chara spp.	Plant-without Root-C	07-14-88	12,800	162	<0.120	<23.8
Chara spp.	Plant-without Root-C	08-17-88	7,800	53	<0.005	<1
Chara spp.	Plant-without Root-C	04-05-89	10,700	222	<0.005	<1
Scirpus acutus	Plant-without Root-C	04-05-89	1,060	85.3	<0.005	<1
Scirpus acutus	Plant-Root and Stem-C	04-05-89	2,950	177	0.006	<1
Typha spp.	Plant-Root and Stem-C	04-21-88	2,610	182	0.01	<1
Typha spp.	Plant-Root and Stem-C	06-13-88	3,900	176	0.390	<47.6
Typha spp.	Plant-Root and Stem-C	07-14-88	4,300	358	<0.316	<63.3
Typha spp.	Plant-Root and Stem-C	08-16-88	3,120	78	<0.005	<1
Typha spp.	Plant-Root and Stem-C	04-05-89	2,640	124	0.006	<1
Typha spp.	Plant-Root and Stem-C	04-05-89	3,260	142	0.01	<1
Typha spp.	Plant-Root and Stem-C	04-05-89	3,520	244	0.009	<1
Typha spp.	Plant-Root and Stem-C	04-05-89	3,720	81.1	0.01	<1

South Roadside pond area at Ouray National Wildlife Refuge

Nickel	Selenium	Silver	Strontium	Thallium	Tin	Vanadium	Zinc	Sample number
<23.8	31	<29.8	1,140	--	<29.8	<29.8	36.3	660
<18.5	12	<23.1	2,090	--	<23.1	<23.1	16.7	698
<1	9	<2	1,390	<4	--	10	2.4	365
3	19.3	<2	2,650	<4	--	6.3	4.7	295
2	14	<2	273	<4	--	5.1	12	374
<33.9	5.9	<42.4	263	--	<42.4	<42.4	16.9	697
<46.5	38.4	<58.1	410	--	<58.1	<58.1	74.4	658
<31	12.4	<38.8	323	--	<38.8	<38.8	<15.5	694
<3	9.4	<2	342	<4	--	3.2	6.4	402
4	46	<2	755	<4	--	9.4	26.9	281
5	54	<2	657	<4	--	15	16	282
3	52	<2	875	<4	--	14	8.1	283
2	76	<2	487	<4	--	6.8	12	553
<21.2	35.4	<26.5	<5.2	--	<26.5	<26.5	28	659
<19	27.6	<23.8	<4.76	--	<23.8	<23.8	44.8	695
<2	22.4	<2	3,430	<4	--	2.1	3	397
4	27	<2	2,910	<4	--	8.8	8.6	290
4	12	<2	23.1	<4	--	1.1	8.5	284
22	15	<2	67.7	<4	--	11	13	285
3	6.5	<2	81.3	<4	--	3.6	17	543
<38.1	24.8	<47.6	155	--	<47.6	<47.6	60	657
<50.6	10.1	<63.3	273	--	<63.3	<63.3	46.8	693
<2	13	<2	92.4	<4	--	1.9	6.6	389
4	9.6	<2	77.6	<4	--	1.8	11	272
<3	17.9	<2	132	<4	--	5.6	14	273
9	13	<2	85.2	<4	--	8.7	18	274
16	31	<2	189	<4	--	10	14	275

Table 62.--*Field and laboratory analyses of tissues from the South Roadside pond area at*

[g, gram; mm, millimeter; Tissue:
Sex: M, male; F, female.

Tissue	Date	Moisture content (percent)	Life stage	Sex	Organism data		
					Average weight (g)	Total weight (g)	Length (mm)
Bird-Liver-I	03-22-89	65.8	A	F	--	1,010	--
Bird-Liver-I	03-22-89	70	A	F	--	891	--
Bird-Liver-I	03-29-89	73.6	A	M	--	969	--
Bird-Liver-I	03-29-89	72.8	A	F	--	815	--
Bird-Liver-I	03-29-89	75.5	A	M	--	711	--
Bird-Liver-I	03-29-89	70.4	A	F	--	949	--
Bird-Liver-I	04-03-89	74.4	A	M	--	646	--
Bird-Liver-I	04-04-89	79.4	A	F	--	808	--
Bird-Liver-I	04-04-89	75.9	A	F	--	513	--
Bird-Liver-I	04-05-89	79.4	A	M	--	722	--
Bird-Liver-I	04-05-89	77.6	A	F	--	582	--
Bird-Liver-I	04-05-89	74.9	A	F	--	633	--
Bird-Liver-I	04-11-89	76.9	A	M	--	568	--
Bird-Muscle-I	03-22-89	68.5	A	F	--	1,010	--
Bird-Muscle-I	03-22-89	72.3	A	F	--	891	--
Bird-Muscle-I	03-29-89	76.5	A	M	--	969	--
Bird-Muscle-I	03-29-89	73.7	A	F	--	815	--
Bird-Muscle-I	03-29-89	78.8	A	M	--	711	--
Bird-Muscle-I	03-29-89	73.1	A	F	--	949	--
Bird-Muscle-I	04-03-89	78.7	A	M	--	646	--
Bird-Muscle-I	04-04-89	78.4	A	F	--	808	--
Bird-Muscle-I	04-04-89	78	A	F	--	513	--
Bird-Muscle-I	04-05-89	81	A	M	--	722	--
Bird-Muscle-I	04-05-89	80	A	F	--	582	--
Bird-Muscle-I	04-05-89	76.9	A	F	--	633	--
Bird-Muscle-I	04-11-89	79.8	A	M	--	568	--

mallard ducks transplanted as part of an experiment in Ouray National Wildlife Refuge

I, individual sample. Life stage: A, Adult.
--, not determined; <, less than]

Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Chromium	Cobalt	Copper	Iron	Lead	Sample number
<11.7	<5.85	<0.29	<2.92	<0.29	<2.92	0.47	<0.58	--	198	1,520	<1.75	212
<13.3	<6.67	<0.33	<3.33	<0.33	3.53	<0.33	<0.67	--	139	1,910	<2	226
<15.2	<7.58	<0.38	<3.79	<0.38	<3.79	0.53	<0.76	--	124	2,760	<2.27	210
<14.7	<7.35	<0.37	<3.68	<0.37	<3.68	0.44	<0.74	--	144	2,660	<2.21	218
<16.3	<8.16	<0.41	<4.08	<0.41	4.08	0.49	<0.82	--	60.6	4,080	<2.45	224
<13.5	<6.76	<0.34	<3.38	<0.34	4.39	0.74	0.74	--	231	3,050	<2.03	230
<15.6	<7.81	<0.39	<3.91	<0.39	4.22	<0.39	<0.78	--	34.1	5,010	<2.34	228
34	<9.71	<0.49	<4.85	<0.49	<4.85	<0.49	<0.97	--	51.1	2,910	<2.91	186
32.4	<8.30	<0.41	<4.15	<0.41	<4.15	0.41	<0.83	--	36.8	7,330	<2.49	214
<19.4	<9.71	<0.49	<4.85	<0.49	<4.85	0.68	<0.97	--	40.5	3,890	<2.91	220
<17.9	<8.93	<0.45	<4.46	<0.45	<4.46	0.71	<0.89	--	90	4,110	<2.68	232
<15.9	<7.97	<0.40	<3.98	<0.40	<3.98	<0.40	<0.80	--	27	3,020	<2.39	234
<17.3	<8.66	<0.43	<4.33	<0.43	<4.33	0.95	<0.87	--	13.5	4,800	<2.60	222
<12.7	<6.35	<0.32	<3.17	<0.32	<3.17	<0.32	<0.63	--	12.3	199	<1.90	213
<14.4	<7.22	<0.36	<3.61	<0.36	3.61	<0.36	<0.72	--	15.9	209	<2.17	227
<17	<8.51	<0.43	<4.26	<0.43	4.43	<0.43	<0.85	--	16	276	<2.55	211
<15.2	<7.60	<0.38	<3.80	<0.38	<3.80	<0.38	<0.76	--	14.8	269	<2.28	219
<18.9	<9.43	<0.47	<4.72	<0.47	<4.72	<0.47	<0.94	--	34.5	448	<2.83	225
<14.9	<7.43	<0.37	<3.72	<0.37	4.83	<0.37	<0.74	--	15.1	215	<2.23	231
<18.8	<9.39	<0.47	<4.69	<0.47	<4.69	<0.47	<0.94	--	44	562	<2.82	229
19.4	<9.26	<0.46	<4.63	<0.46	<4.63	<0.46	<0.93	--	16.5	372	<2.78	187
<18.2	<9.09	<0.45	<4.55	<0.46	<4.55	<0.46	<0.91	--	49.1	664	2.73	215
<21.1	<10.5	<0.53	<5.26	<0.53	<5.26	<0.53	<1.05	--	59.9	693	<3.16	221
<20	<10	<0.50	<5	<0.50	5.70	<0.50	<1	--	45.2	560	<3	233
<17.3	<8.66	<0.43	<4.33	<0.43	<4.33	<0.43	<0.87	--	26.1	318	<2.60	235
<19.8	<9.90	<0.50	<4.95	<0.50	8.51	<0.50	<0.99	--	90.7	1,010	<2.97	223

Table 62.--*Field and laboratory analyses of tissues from the South Roadside pond area at*

[g, gram; mm, millimeter; Tissue:
Sex: M, male; F, female.

Tissue	Date	Moisture content (percent)	Life stage	Sex	Organism data		
					Average weight (g)	Total weight (g)	Length (mm)
Bird-Liver-I	03-22-89	65.8	A	F	--	1,010	--
Bird-Liver-I	03-22-89	70	A	F	--	891	--
Bird-Liver-I	03-29-89	73.6	A	M	--	969	--
Bird-Liver-I	03-29-89	72.8	A	F	--	815	--
Bird-Liver-I	03-29-89	75.5	A	M	--	711	--
Bird-Liver-I	03-29-89	70.4	A	F	--	949	--
Bird-Liver-I	04-03-89	74.4	A	M	--	646	--
Bird-Liver-I	04-04-89	79.4	A	F	--	808	--
Bird-Liver-I	04-04-89	75.9	A	F	--	513	--
Bird-Liver-I	04-05-89	79.4	A	M	--	722	--
Bird-Liver-I	04-05-89	77.6	A	F	--	582	--
Bird-Liver-I	04-05-89	74.9	A	F	--	633	--
Bird-Liver-I	04-11-89	76.9	A	M	--	568	--
Bird-Muscle-I	03-22-89	68.5	A	F	--	1,010	--
Bird-Muscle-I	03-22-89	72.3	A	F	--	891	--
Bird-Muscle-I	03-29-89	76.5	A	M	--	969	--
Bird-Muscle-I	03-29-89	73.7	A	F	--	815	--
Bird-Muscle-I	03-29-89	78.8	A	M	--	711	--
Bird-Muscle-I	03-29-89	73.1	A	F	--	949	--
Bird-Muscle-I	04-03-89	78.7	A	M	--	646	--
Bird-Muscle-I	04-04-89	78.4	A	F	--	808	--
Bird-Muscle-I	04-04-89	78	A	F	--	513	--
Bird-Muscle-I	04-05-89	81	A	M	--	722	--
Bird-Muscle-I	04-05-89	80	A	F	--	582	--
Bird-Muscle-I	04-05-89	76.9	A	F	--	633	--
Bird-Muscle-I	04-11-89	79.8	A	M	--	568	--

mallard ducks transplanted as part of an experiment in Ouray National Wildlife Refuge—Continued

I, individual sample. Life stage: A, Adult.
--, not determined; <, less than]

Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Chromium	Cobalt	Copper	Iron	Lead	Sample number
<11.7	<5.85	<0.29	<2.92	<0.29	<2.92	0.47	<0.58	--	198	1,520	<1.75	212
<13.3	<6.67	<0.33	<3.33	<0.33	3.53	<0.33	<0.67	--	139	1,910	<2	226
<15.2	<7.58	<0.38	<3.79	<0.38	<3.79	0.53	<0.76	--	124	2,760	<2.27	210
<14.7	<7.35	<0.37	<3.68	<0.37	<3.68	0.44	<0.74	--	144	2,660	<2.21	218
<16.3	<8.16	<0.41	<4.08	<0.41	4.08	0.49	<0.82	--	60.6	4,080	<2.45	224
<13.5	<6.76	<0.34	<3.38	<0.34	4.39	0.74	0.74	--	231	3,050	<2.03	230
<15.6	<7.81	<0.39	<3.91	<0.39	4.22	<0.39	<0.78	--	34.1	5,010	<2.34	228
34	<9.71	<0.49	<4.85	<0.49	<4.85	<0.49	<0.97	--	51.1	2,910	<2.91	186
32.4	<8.30	<0.41	<4.15	<0.41	<4.15	0.41	<0.83	--	36.8	7,330	<2.49	214
<19.4	<9.71	<0.49	<4.85	<0.49	<4.85	0.68	<0.97	--	40.5	3,890	<2.91	220
<17.9	<8.93	<0.45	<4.46	<0.45	<4.46	0.71	<0.89	--	90	4,110	<2.68	232
<15.9	<7.97	<0.40	<3.98	<0.40	<3.98	<0.40	<0.80	--	27	3,020	<2.39	234
<17.3	<8.66	<0.43	<4.33	<0.43	<4.33	0.95	<0.87	--	13.5	4,800	<2.60	222
<12.7	<6.35	<0.32	<3.17	<0.32	<3.17	<0.32	<0.63	--	12.3	199	<1.90	213
<14.4	<7.22	<0.36	<3.61	<0.36	3.61	<0.36	<0.72	--	15.9	209	<2.17	227
<17	<8.51	<0.43	<4.26	<0.43	4.43	<0.43	<0.85	--	16	276	<2.55	211
<15.2	<7.60	<0.38	<3.80	<0.38	<3.80	<0.38	<0.76	--	14.8	269	<2.28	219
<18.9	<9.43	<0.47	<4.72	<0.47	<4.72	<0.47	<0.94	--	34.5	448	<2.83	225
<14.9	<7.43	<0.37	<3.72	<0.37	4.83	<0.37	<0.74	--	15.1	215	<2.23	231
<18.8	<9.39	<0.47	<4.69	<0.47	<4.69	<0.47	<0.94	--	44	562	<2.82	229
19.4	<9.26	<0.46	<4.63	<0.46	<4.63	<0.46	<0.93	--	16.5	372	<2.78	187
<18.2	<9.09	<0.45	<4.55	<0.46	<4.55	<0.46	<0.91	--	49.1	664	2.73	215
<21.1	<10.5	<0.53	<5.26	<0.53	<5.26	<0.53	<1.05	--	59.9	693	<3.16	221
<20	<10	<0.50	<5	<0.50	5.70	<0.50	<1	--	45.2	560	<3	233
<17.3	<8.66	<0.43	<4.33	<0.43	<4.33	<0.43	<0.87	--	26.1	318	<2.60	235
<19.8	<9.90	<0.50	<4.95	<0.50	8.51	<0.50	<0.99	--	90.7	1,010	<2.97	223

Table 63.--*Field and laboratory analyses of biological samples from the Ouray National Wildlife Refuge area*

[g, gram; mm, millimeter; Tissue: C4, composite sample, number of individuals; I, individual sample; Egg, net sample weight. Life stage: listed as days for embryos; I, immature; A, Adult. Sex: M, male; F, female. —, not determined; <, less than]

Site name: See table 4 for full site name.

Site name	Organism	Tissue	Date	Moisture content (percent)	Life stage	Sex	Organism data		
							Average Weight (g)	Total Weight (g)	Length (mm)
GP Seep	Northern Shoveler	Bird-Egg-I	05-18-89	69.4	1	--	—	33	52.2
NE	Golden Eagle	Bird-Blood-I	03-14-88	78.9	I	M	—	3,050	632
AG	Bald Eagle	Bird-Blood-I	03-17-88	78.9	I	M	—	3,850	635
	Bald Eagle	Bird-Blood-I	03-17-88	78.2	I	M	—	3,850	628
	Golden Eagle	Bird-Blood-I	03-18-89	78.7	I	M	—	3,500	640
JB	Black-Necked Stilt	Bird-Egg-I	06-13-89	73	12	--	—	15	42.5
	Mallard	Bird-Egg-I	06-13-89	66.4	3	--	—	39	53.8
	Mule Deer	Deer-Liver-I	10-22-87	69	A	--	—	77	—
WE	Golden Eagle	Bird-Blood-I	03-19-89	83.5	I	F	—	4,600	—
	Golden Eagle	Bird-Blood-I	03-20-89	77.5	I	M	—	975	—
	Golden Eagle	Bird-Blood-I	03-20-89	81.9	I	M	—	--	--
SW	Golden Eagle	Bird-Blood-I	03-21-89	82	A	M	—	3,200	610
	Golden Eagle	Bird-Blood-I	03-21-89	81.1	I	F	—	4,200	665
	Bald Eagle	Bird-Blood-I	03-15-88	78.4	I	M	—	4,700	636
RG	Cabbage	Plant-without Root-C	06-26-87	--	—	--	—	--	—
	Radish	Plant-Whole-C	06-26-87	--	—	--	—	--	--
	Soil	Soil-C	06-26-87	--	—	--	—	--	—
WB	American Coot	Bird-Egg-I	05-31-89	74.2	16	--	—	23	48.3
	American Coot	Bird-Egg-I	05-31-89	73.5	7	--	—	25	49.2
	American Coot	Bird-Egg-I	05-31-89	73.3	14	--	—	23	47.5
	American Coot	Bird-Egg-I	06-06-89	74.9	20	--	—	22	52.2
	American Coot	Bird-Egg-I	06-14-89	74.9	0	--	—	33	51.6
	American Coot	Bird-Egg-I	06-14-89	76.7	12	--	—	23	46.7
	Canada Goose	Bird-Egg-I	05-04-88	70	—	--	—	123	82
	Canada Goose	Bird-Egg-I	05-04-88	71.5	—	--	—	141	83.7
	Canada Goose	Bird-Egg-I	05-04-88	68.8	23	--	—	104	82.7
	Canada Goose	Bird-Egg-I	05-04-89	62.7	27	--	—	108	88.9
	Canada Goose	Bird-Egg-I	05-04-89	67.5	—	--	—	127	98
	Canada Goose	Bird-Egg-I	05-09-89	69.9	25	--	—	91	78.1
	Canada Goose	Bird-Egg-I	05-09-89	64.6	26	--	—	102	88.2
	Gadwall	Bird-Egg-I	06-14-89	66.8	3	--	—	38	54.4
	Gadwall	Bird-Egg-I	06-14-89	67.4	1	--	—	39	54
	Gadwall	Bird-Egg-I	07-07-89	66.6	20	--	—	35	51
	Killdeer	Bird-Egg-I	06-14-89	72.9	3	--	—	15	38
	Pied-billed Grebe	Bird-Egg-I	06-06-89	76.6	15	--	—	15	42.9
	Yellow-Headed Blackbird	Bird-Egg-C4	05-31-89	83	--	--	4	--	—

Table 63.—*Field and laboratory analyses of biological samples from the Ouray National Wildlife Refuge area*—Continued

Site name	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Chromium	Cobalt	Copper	Iron	Lead	Sample number
GP Seep	—	--	--	--	--	—	—	—	--	--	--	--	1228
NE	—	--	<0.1	--	--	—	—	—	--	--	--	0.51	81
AG	—	--	<0.3	--	--	—	—	—	--	--	--	<0.2	84
	—	--	<0.06	--	--	—	—	—	--	--	--	0.44	85
	<15	<30	<0.2	<1	<0.100	<1.50	<0.40	<2	<3	<2	2,520	<9	68
JB	<3	--	<0.1	2.3	<0.1	<2	<0.3	<1	--	3.5	144	<4	1116
	<3	--	<0.1	5.9	<0.1	2	<0.3	<1	--	2	117	<4	1117
	17	--	<0.2	0.2	<0.1	4	0.3	<2	--	30.6	875	<4	603
WE	<15	<30	<1	2.17	0.222	<1.50	<0.400	9.93	11.3	4.80	2,060	<9	70
	<15	<30	<0.2	<1	<0.100	1.74	<0.400	<2	<3	<2	2,510	<9	71
	<15	<30	<0.2	<1	<0.100	3.78	<0.400	<2	<3	<2	2,130	<9	72
SW	<15	<30	<0.310	<1	<0.100	4.33	<0.400	<2	<3	2.27	2,380	<9	74
	<15	<30	<0.2	<1	<0.100	8.04	<0.400	<2	<3	2.66	2,470	<9	75
	—	--	<0.07	--	--	—	—	—	--	--	--	0.15	82
RG	—	--	--	--	--	—	—	—	--	--	--	--	923
	—	--	--	--	--	—	—	—	--	--	--	--	924
	—	--	--	--	--	—	—	—	--	--	--	--	927
WB	<3	--	<0.1	4.4	<0.4	<4	<0.5	<2	--	3.2	119	<4	1284
	<3	--	<0.1	1.2	<0.4	<4	<0.5	<2	--	2.3	94	<4	1285
	<3	--	<0.1	10.2	<0.4	<4	<0.5	<2	--	3	108	<4	1286
	<3	--	<0.1	5.7	<0.4	<4	<0.5	<2	--	3.1	133	<4	1283
	<3	--	<0.1	1.9	<0.1	<2	<0.2	<1	--	2.5	93	<4	1157
	<3	--	<0.1	13.5	<0.1	<2	<0.2	<1	--	2.7	128	<4	1158
	<3	--	<0.2	1.3	<0.1	<3	<0.3	<1	--	2.7	127	<4	452
	<3	--	<0.2	1.8	<0.1	<3	<0.3	<1	--	2.1	126	<4	453
	<3	--	<0.2	6	<0.1	<3	<0.3	<1	--	4.1	133	<4	454
	<15	<30	<0.3	4.45	<0.100	<2	<0.400	<2	<3	3.50	173	<6	63
	<15	<30	<0.3	4.13	<0.100	3.24	<0.400	<2	<3	3.45	144	<6	64
	<15	<30	<0.3	5.53	<0.100	2.32	<0.400	<2	<3	5.73	122	<6	65
	<15	<30	<0.3	1.08	<0.100	3.51	<0.400	<2	<3	3.72	140	<6	66
	<3	--	<0.1	9.5	<0.1	<2	<0.2	<1	--	3.5	110	<4	1159
	<3	--	<0.1	14.1	<0.1	<2	<0.2	<1	--	2.7	103	<4	1160
	<3	--	<0.1	9.96	<0.1	3	<0.2	<1	--	3.3	120	<4	1161
	<3	--	<0.1	2.3	<0.1	<2	<0.2	<1	--	2.8	103	<4	1162
	<3	--	<0.1	1.9	<0.4	<4	<0.5	<2	--	3.3	147	<4	1287
	<3	--	<0.1	2.1	<0.4	<4	<0.5	<2	--	1.2	104	<4	1273

Table 63.—*Field and laboratory analyses of biological samples from the Ouray National Wildlife Refuge area*—Continued

Site name	Organism	Tissue	Date	Magnesium	Manganese	Mercury	Molybdenum
GP Seep	Northern Shoveler	Bird-Egg-I	05-18-89	--	--	--	--
NE	Golden Eagle	Bird-Blood-I	03-14-88	--	--	0.14	--
AG	Bald Eagle	Bird-Blood-I	03-17-88	--	--	3.78	--
	Bald Eagle	Bird-Blood-I	03-17-88	--	--	2.4	--
	Golden Eagle	Bird-Blood-I	03-18-89	353	<1	0.0272	<5
JB	Black-Necked Stilt	Bird-Egg-I	06-13-89	467	1.3	0.501	<1
	Mallard	Bird-Egg-I	06-13-89	286	1.7	0.038	<1
	Mule Deer	Deer-Liver-I	10-22-87	629	10	0.009	3.3
WE	Golden Eagle	Bird-Blood-I	03-19-89	377	<1	<0.02	<5
	Golden Eagle	Bird-Blood-I	03-20-89	360	<1	0.0605	<5
	Golden Eagle	Bird-Blood-I	03-20-89	352	<1	0.0600	<5
SW	Golden Eagle	Bird-Blood-I	03-21-89	342	<1	0.875	<5
	Golden Eagle	Bird-Blood-I	03-21-89	327	6.55	0.0658	<5
	Bald Eagle	Bird-Blood-I	03-15-88	--	--	2.9	--
RG	Cabbage	Plant-without Root-C	06-26-87	--	--	--	--
	Radish	Plant-Whole-C	06-26-87	--	--	--	--
	Soil	Soil-C	06-26-87	--	--	--	--
WB	American Coot	Bird-Egg-I	05-31-89	610	2	0.063	<1
	American Coot	Bird-Egg-I	05-31-89	423	2	0.17	<1
	American Coot	Bird-Egg-I	05-31-89	446	2	0.086	<1
	American Coot	Bird-Egg-I	06-06-89	510	<0.8	0.078	<1
	American Coot	Bird-Egg-I	06-14-89	437	3.2	0.18	<1
	American Coot	Bird-Egg-I	06-14-89	540	2.2	0.26	<1
	Canada Goose	Bird-Egg-I	05-04-88	458	1.4	<0.005	<1
	Canada Goose	Bird-Egg-I	05-04-88	493	1.3	<0.005	<1
	Canada Goose	Bird-Egg-I	05-04-88	651	2	<0.005	<1
	Canada Goose	Bird-Egg-I	05-04-89	544	2.04	<0.02	<5
	Canada Goose	Bird-Egg-I	05-04-89	477	3.01	<0.02	<5
	Canada Goose	Bird-Egg-I	05-09-89	576	1.05	<0.02	<5
	Canada Goose	Bird-Egg-I	05-09-89	447	1	<0.02	<5
	Gadwall	Bird-Egg-I	06-14-89	328	1.7	0.054	<1
	Gadwall	Bird-Egg-I	06-14-89	323	1.4	0.087	<1
	Gadwall	Bird-Egg-I	07-07-89	440	2.5	0.051	<1
	Killdeer	Bird-Egg-I	06-14-89	401	2	0.19	<1
	Pied-billed Grebe	Bird-Egg-I	06-06-89	464	5.3	1.4	<1
	Yellow-Headed Blackbird	Bird-Egg-C4	05-31-89	237	4.8	0.11	<1

Table 63.--*Field and laboratory analyses of biological samples from the Ouray National Wildlife Refuge area*--Continued

Station name	Nickel	Selenium	Silver	Strontium	Thallium	Tin	Vanadium	Zinc	Sample number
GP Seep	--	3.9	--	--	--	--	--	--	1228
NE	--	1.9	--	--	--	--	--	--	81
AG	--	4	--	--	--	--	--	--	84
	--	2	--	--	--	--	--	--	85
	<2.50	2.56	<9	<6	--	<30	<1	23.2	68
JB	<1	4.9	<2	12.1	<4	--	<0.3	60.4	1116
	<1	4.2	<2	8.3	<4	--	<0.3	74.1	1117
	<1	1.5	<2	0.43	<4	--	<0.3	143	603
WE	<2.50	2.29	38.1	<6	--	<30	<1	35.9	70
	<2.50	2.91	<9	<6	--	<30	<1	22.8	71
	<2.50	2.41	<9	<6	--	<30	<1	24.6	72
SW	<2.50	2.77	<9	<6	--	<30	<1	23.5	74
	<2.50	2.32	<9	<6	--	<30	<1	25.7	75
	--	5.3	--	--	--	--	--	--	82
RG	--	<0.3	--	--	--	--	--	--	923
	--	<0.3	--	--	--	--	--	--	924
	--	<0.5	--	--	--	--	--	--	927
WB	<5	9	<2	12.1	<4	--	<0.9	59	1284
	<5	4.7	<2	3.2	<4	--	<0.9	49	1285
	<5	9.5	<2	9.4	<4	--	<0.9	58	1286
	<5	3.4	<2	12.2	<4	--	<0.8	61	1283
	<1	3.6	<2	6.7	<4	--	<0.3	61	1157
	<1	5	<2	10.4	<4	--	<0.3	55.1	1158
	<1	2.1	<2	2.4	<4	--	<0.3	39.3	452
	<1	6.2	<2	3.1	<4	--	<0.3	41.8	453
	<1	6.2	<2	17.3	<4	--	<0.3	65	454
	<2.50	2.80	<9	12.9	--	<30	<1	71.9	63
	<2.50	2.58	<9	<10	--	<30	<1	50.8	64
	<2.50	3.27	<9	<10	--	<30	<1	67	65
	<2.50	2.96	<9	<10	--	<30	<1	55.4	66
	<1	2.4	<2	10.8	<4	--	<0.3	51.7	1159
	<1	4.2	<2	5.5	<4	--	<0.3	54.6	1160
	<1	3.2	<2	22.8	<4	--	<0.3	63.8	1161
	<1	5.4	<2	9.97	<4	--	<0.3	48.6	1162
	<5	13.4	<2	4.5	<4	--	<0.8	52	1287
	<5	5.7	<2	8.7	<4	--	<0.9	39	1273

Table 64.—*Field and laboratory analyses of biological samples from Pleasant Valley, Roosevelt, Pariette Draw, and Pariette Wetlands Flood Control and Desiltation ponds*

[g, gram; mm, millimeter; Organism: spp. species. Tissue: C9, composite sample, number of individuals; I, individual sample; Egg, net sample weight. Life stage: listed as days for embryos; I, immature; A, Adult. --, not determined; <, less than]

Site name: See tables 3 and 4 for full site name.

Site name	Organism	Tissue	Date	Moisture content (percent)	Life stage	Sex	Organism data		
							Average weight (g)	Total weight (g)	Length (mm)
PV	Potamogeton spp.	Plant-without Root-C	07-12-89	83.2	--	--	--	150	--
Roosevelt	Sandhill Crane	Bird-Liver-I	04-08-88	71.8	--	--	--	4,600	--
	Sandhill Crane	Bird-Liver-I	04-08-88	70.7	--	--	--	4,800	--
PD	Fathead Minnow	Fish-Whole Body-C9	07-19-89	76.5	--	--	17	--	--
	Flannelmouth Sucker	Fish-Whole Body-C5	07-19-89	79.2	--	--	378	--	209.6
	Flannelmouth Sucker	Fish-Whole Body-C5	07-19-89	77.5	--	--	307	--	258.2
	Snails	Snail-Whole Body-C	07-19-89	71.2	--	--	--	10	--
	Potamogeton spp.	Plant-without Root-C	07-19-89	86.5	--	--	--	161	--
FC	Common Carp	Fish-Whole Body-C4	08-04-88	77.7	--	--	640	--	343
	Common Carp	Fish-Whole Body-C4	08-04-88	81.8	--	--	48	--	143
	Chara spp.	Plant-without Root-C	07-12-89	76	--	--	--	140	--
	Potamogeton spp.	Plant-without Root-C	07-12-89	81	--	--	--	122	--
	Zannichellia palustris	Plant-without Root-C	07-12-89	87.9	--	--	--	103	--
DP	American Coot	Bird-Egg-I	05-31-89	77.3	4	--	--	31	48.6
	American Coot	Bird-Egg-I	06-07-89	73.7	--	--	--	21	53.4
	American Coot	Bird-Egg-I	06-24-87	75.4	--	--	--	--	47.5
	American Coot	Bird-Liver-I	08-19-87	75.1	I	--	500	--	--
	American Coot	Bird-Liver-I	08-19-87	72.6	I	--	400	--	--
	Common Carp	Fish-Whole Body-C5	04-14-87	79.7	--	--	376	--	305
	Common Carp	Fish-Whole Body-C5	04-14-87	80.3	--	--	360	--	290
	Common Carp	Fish-Whole Body-C5	08-04-87	74.7	A	--	1,036	--	422
	Common Carp	Fish-Whole Body-C5	08-05-87	75.6	A	--	802	--	389
	Common Carp	Fish-Whole Body-C5	04-12-88	79	--	--	39	--	152
	Common Carp	Fish-Whole Body-C5	04-19-89	76.9	--	--	77	--	182
	Common Carp	Fish-Whole Body-C5	08-03-88	82.3	--	--	73	--	179
	Common Carp	Fish-Whole Body-C5	08-03-88	77.6	--	--	79	--	186
	Common Carp	Fish-Whole Body-C3	04-19-89	76.6	--	--	747	--	391
	Common Carp	Fish-Whole Body-C5	07-27-89	80.3	--	--	93	--	188.6
	Common Carp	Fish-Whole Body-C5	07-27-89	79.4	--	--	672	--	384.4
	Flannelmouth Sucker	Fish-Whole Body-C5	04-14-87	74.9	--	--	648	--	413
	Flannelmouth Sucker	Fish-Whole Body-C5	08-04-87	72.9	A	--	540	--	368
	Flannelmouth Sucker	Fish-Whole Body-C2	04-12-88	77.3	--	--	506	--	394
	Flannelmouth Sucker	Fish-Whole Body-C5	04-12-88	77.3	--	--	123	--	255
	Green Sunfish	Fish-Whole Body-I	04-12-88	73.6	--	--	--	58	153
	Invertebrates-Hemiptera	Invertebrate-Whole Body-C	08-03-88	77.8	--	--	--	5	--
	Invertebrates-Mixed	Invertebrate-Whole Body-C	05-09-89	60.4	--	--	--	3	--
	Invertebrates-Mixed	Invertebrate-Whole Body-C	06-16-89	68.3	--	--	--	5	--
	Invertebrates-Mixed	Invertebrate-Whole Body-C	07-18-89	74.7	--	--	--	8	--
	Filamentous Green Algae	Plant-without Root-C	07-20-87	87.3	--	--	--	--	--
	Filamentous Green Algae	Plant-without Root-C	08-18-88	75.8	--	--	--	43	--
	Filamentous Green Algae	Plant-without Root-C	06-27-89	79.9	--	--	--	25	--
	Typha spp.	Plant-Root and Stem-C	08-12-87	75.3	--	--	--	--	--
	Typha spp.	Plant-Root and Stem-C	08-18-88	89.8	--	--	--	827	--
	Typha spp.	Plant-Root and Stem-C	06-27-89	90	--	--	--	531	--

Table 64.—*Field and laboratory analyses of biological samples from Pleasant Valley, Roosevelt, Pariette Draw, and Pariette Wetlands Flood Control and Desiltation ponds*--Continued

Site name	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Chromium	Cobalt	Copper	Iron	Lead	Sample number
PV	674	<50	--	276	<0.300	287	<1	37.7	6.60	7.73	907	<15	101
Roosevelt	<3	--	<0.2	<0.1	<0.1	<2	0.5	2	--	8.8	2,240	<4	408
	4	--	<0.2	<0.1	<0.1	<2	0.4	2	--	5.7	1,730	<4	409
PD	8.94	<4.26	<0.43	<2.13	<0.21	<2.13	<0.21	0.68	--	1.23	24.3	<1.28	1345
	58.1	<4.81	<0.48	3.99	<0.24	3.15	0.34	2.07	--	5	120	<1.44	1346
	127	<4.44	<0.44	7.33	<0.22	3.11	<0.22	1.96	--	5.42	231	<1.33	1347
	1,200	<3.47	3.1	45.2	<0.17	7.43	0.66	1.49	--	62.8	1,240	<1.04	1348
	1,140	<50	--	58.2	<0.300	556	<1	<3	4.90	7.16	1,600	<15	99
FC	94.2	<0.113	0.713	<22.4	<2.24	<22.4	<2.24	<4.48	--	<11.2	220	<44.8	419
	725	<0.138	1.71	<27.5	<2.75	<27.5	<2.75	<5.49	--	<13.7	896	<54.9	420
	1,420	<50	--	190	<0.300	27.1	<1	<3	<4	<3	1,670	<15	94
	1,170	<50	--	85.7	<0.300	897	<1	6.37	18.4	4.94	1,360	<15	96
FC	6,340	<50	--	114	<0.300	63.8	<1	15.1	12.5	10.9	6,540	<15	97
DP	4	--	<0.1	3.1	0.4	<4	<0.5	<3	--	3.4	98	<4	1189
	4	--	0.1	2.8	<0.4	<4	<0.5	<2	--	3.2	74	<4	1190
	<3	--	<0.2	11	<0.1	<2	<0.4	<1	--	3.6	105	<4	970
	<3	--	<0.2	0.2	<0.1	3	<0.4	<1	--	57.8	581	<4	1055
	3	--	0.2	0.2	<0.1	3	<0.4	<1	--	149	1,050	<4	1056
	160	--	<0.1	7.3	0.1	<2	<0.2	<1	--	3.6	211	<4	899
	260	--	0.2	10.4	<0.1	<2	<0.2	<1	--	3.8	299	<4	900
	55.3	<0.099	<0.020	<19.8	<1.98	<19.8	<1.98	<3.95	--	<9.88	130	<39.5	504
	77.9	<0.103	<0.021	<20.5	<2.5	<20.5	<2.05	<4.10	--	<10.2	156	<41	505
	280	--	<0.2	10.4	<0.1	<2	<0.3	<2	--	5.6	307	<5	591
	71.9	<30	<0.3	10.7	<0.100	1.38	<0.800	1.30	<2	4.37	204	<6	167
	<56.5	<0.142	0.390	<28.2	<2.82	<28.2	<2.82	<5.65	--	<14.1	209	<56.5	415
	<44.6	<0.112	0.375	<22.3	<2.23	<22.3	<2.23	5.80	--	<11.2	969	<44.6	430
	87.9	<30	<0.3	7.96	0.281	2.48	<0.800	1.25	<2	4.17	237	<6	168
	201	<5.08	<0.51	6.5	<0.25	<2.54	<0.25	2.18	--	5.79	262	<1.52	1316
	56.6	<4.85	<0.49	4.76	<0.24	2.67	<0.24	1.8	--	4.95	115	<1.46	1317
	1,980	--	0.81	15	0.2	2	<0.2	2	--	3.9	1,530	<4	901
	40.6	<0.093	0.030	<18.5	<1.85	<18.5	<1.85	<3.69	--	<9.23	48	<36.9	506
	2,990	--	0.80	18	<0.1	7.4	<0.2	4	--	4.9	2,310	<4	595
	1,470	--	0.5	9.9	<0.1	4	<0.2	2	--	3.7	1,130	<4	596
	22	--	<0.2	2.4	<0.1	<2	<0.2	<2	--	1.3	78	<4	594
	523	<0.113	0.545	<22.5	<2.25	<22.5	<2.25	6.31	--	12.2	437	<45	808
	287	<20	1.62	7.91	<0.200	26.7	<0.800	<3	20.6	44.1	323	<6	130
	229	<20	1.87	8.82	<0.200	9.39	0.969	<3	<3	17.6	356	<6	157
	408	<20	1.78	27.2	<0.200	17.5	<0.800	<3	<3	13.9	1,030	<6	158
	2,850	--	12	157	0.1	207	<0.2	3.7	--	5.9	2,970	6	1011
	4,130	--	6.7	309	<0.1	141	0.5	6.3	--	8	3,480	5	363
	5,110	<50	--	107	0.458	152	<1	4.50	<4	12.9	6,040	<15	114
	2,610	--	2.3	42	0.1	13	<0.2	5.4	--	5.9	2,700	<4	1019
	2,530	--	3.7	53.6	<0.1	16	<0.3	12	--	4	2,560	<4	385
	1,710	<50	--	25.6	<0.300	28.8	<1	<3	<4	7.02	2,760	<15	93

Table 64.—*Field and laboratory analyses of biological samples from Pleasant Valley, Roosevelt, Pariette Draw, and Pariette Wetlands Flood Control and Desiltation ponds*—Continued

Site name	Organism	Tissue	Date	Magnesium	Manganese	Mercury	Molybdenum
PV	Potamogeton spp.	Plant-without Root-C	07-12-89	9,720	316	--	<10
Roosevelt	Sandhill Crane	Bird-Liver-I	04-08-88	613	4	0.017	2
	Sandhill Crane	Bird-Liver-I	04-08-88	586	3.7	0.017	<1
PD	Fathead Minnow	Fish-Whole Body-C9	07-19-89	821	<0.53	0.106	<2.13
	Flannelmouth Sucker	Fish-Whole Body-C5	07-19-89	1,620	13.1	0.380	<2.43
	Flannelmouth Sucker	Fish-Whole Body-C5	07-19-89	1,420	19.9	0.564	<2.22
	Snails	Snail-Whole Body-C	07-19-89	1,830	211	<0.087	<1.74
	Potamogeton spp.	Plant-without Root-C	07-19-89	8,210	922	--	<10
FC	Common Carp	Fish-Whole Body-C4	08-04-88	1,170	13.5	0.197	<22.4
	Common Carp	Fish-Whole Body-C4	08-04-88	1,700	47.3	0.154	<27.5
	Chara spp.	Plant-without Root-C	07-12-89	7,320	2,440	--	<10
	Potamogeton spp.	Plant-without Root-C	07-12-89	9,780	3,340	--	<10
FC	Zannichellia palustris	Plant-without Root-C	07-12-89	8,730	1,340	--	<10
DP	American Coot	Bird-Egg-I	05-31-89	540	3	0.41	1
	American Coot	Bird-Egg-I	06-07-89	441	2	0.16	<1
	American Coot	Bird-Egg-I	06-24-87	658	4.3	0.806	<1
	American Coot	Bird-Liver-I	08-19-87	805	15	1.5	4.5
	American Coot	Bird-Liver-I	08-19-87	818	15	1.7	5.5
	Common Carp	Fish-Whole Body-C5	04-14-87	1,480	6.7	0.34	<1
	Common Carp	Fish-Whole Body-C5	04-14-87	1,680	10	0.33	<1
	Common Carp	Fish-Whole Body-C5	08-04-87	1,340	8.3	0.664	<19.8
	Common Carp	Fish-Whole Body-C5	08-05-87	1,760	11.9	0.352	<20.5
	Common Carp	Fish-Whole Body-C5	04-12-88	1,760	12	0.30	2
	Common Carp	Fish-Whole Body-C5	04-19-89	2,020	14.6	0.374	<5
	Common Carp	Fish-Whole Body-C5	08-03-88	1,470	<8.47	0.655	<28.2
	Common Carp	Fish-Whole Body-C5	08-03-88	1,790	21	0.429	<22.3
	Common Carp	Fish-Whole Body-C3	04-19-89	1,630	11.7	0.533	<5
	Common Carp	Fish-Whole Body-C5	07-27-89	1,560	13.1	0.335	<2.54
	Common Carp	Fish-Whole Body-C5	07-27-89	1,410	5.24	0.767	<2.43
	Flannelmouth Sucker	Fish-Whole Body-C5	04-14-87	1,840	26.2	0.494	<1
	Flannelmouth Sucker	Fish-Whole Body-C5	08-04-87	1,440	14	0.487	<18.5
	Flannelmouth Sucker	Fish-Whole Body-C2	04-12-88	2,210	30.7	0.31	<1
	Flannelmouth Sucker	Fish-Whole Body-C5	04-12-88	1,900	23.6	0.15	<1
	Green Sunfish	Fish-Whole Body-I	04-12-88	1,640	15	2	<1
	Invertebrates-Hemiptera	Invertebrate-Whole Body-C	08-03-88	766	45	<0.113	<22.5
	Invertebrates-Mixed	Invertebrate-Whole Body-C	05-09-89	2,520	37.9	0.134	5.61
	Invertebrates-Mixed	Invertebrate-Whole Body-C	06-16-89	1,560	43.8	0.184	<5
	Invertebrates-Mixed	Invertebrate-Whole Body-C	07-18-89	2,120	71	0.273	<5
	Filamentous Green Algae	Plant-without Root-C	07-20-87	6,100	3,790	0.049	<1
	Filamentous Green Algae	Plant-without Root-C	08-18-88	6,800	1,170	0.023	<1
	Filamentous Green Algae	Plant-without Root-C	06-27-89	6,900	2,090	--	<10
	Typha spp.	Plant-Root and Stem-C	08-12-87	3,290	202	0.055	<1
	Typha spp.	Plant-Root and Stem-C	08-18-88	3,150	178	0.01	<1
	Typha spp.	Plant-Root and Stem-C	06-27-89	3,870	463	--	<10

Table 64.—*Field and laboratory analyses of biological samples from Pleasant Valley, Roosevelt, Pariette Draw, and Pariette Wetlands Flood Control and Desiltation ponds*—Continued

Site name	Nickel	Selenium	Silver	Strontium	Thallium	Tin	Vanadium	Zinc	Sample number
PV	19.5	<0.3	16	1,550	—	<50	3.35	24	101
Roosevelt	<2	2.1	<2	0.3	<5	—	<0.6	121	408
	<2	1.7	<2	0.2	<5	—	<0.6	86.5	409
PD	<1.7	1.3	<2.13	1.62	<8.51	12.5	<2.13	19.1	1345
	<1.92	1.4	<2.4	174	<9.62	13.3	<2.4	104	1346
	<1.78	<4.4	<2.22	149	<8.89	16.4	<2.22	77.4	1347
	2.19	<.3	<1.74	457	<6.94	3.92	2.71	30.1	1348
	<4.50	2.84	<15	1,020	—	<50	11.7	23.5	99
FC	<17.9	8.5	<22.4	170	—	<22.4	<22.4	174	419
	<22	13.2	<27.5	105	—	<27.5	<27.5	131	420
	<4.50	2.22	<15	7,820	—	<50	6.41	12.3	94
	6.61	1.63	25.7	1,580	—	<50	5.69	18.6	96
FC	9.22	4.89	28	741	—	<50	19.6	62	97
DP	<5	9.2	<2	24.3	<4	—	<0.9	50	1189
	<5	8.9	<2	29.8	<4	—	<0.8	55	1190
	<1	8	<1	48	<3	—	<0.3	72.5	970
	<2	23	<1	1.3	<6	—	1.5	200	1055
	<2	18	<1	0.96	<6	—	<0.3	206	1056
	<1	7.5	<2	360	<6	—	0.6	211	899
	<1	8.2	<2	458	<6	—	0.92	224	900
	<15.8	8.7	<19.8	319	—	<19.8	<19.8	215	504
	<16.4	16.4	<20.5	586	—	<20.5	<20.5	175	505
	7.8	8.1	<2	406	<4	—	0.8	168	591
	<3.50	10.3	<10	665	—	<30	<1.50	189	167
	<22.6	16.9	<28.2	180	—	<28.2	<28.2	149	415
	42.4	11.6	<22.3	500	—	<22.3	<22.3	157	430
	<3.50	12.3	<10	297	—	<30	<1.50	302	168
	<2.03	11.2	<2.54	298	<10.2	17	<2.54	184	1316
	<1.94	8.7	<2.43	232	<9.71	22.2	<2.43	195	1317
	<1	7.2	<2	176	<6	—	4.4	59.4	901
	<14.8	11.4	<18.5	200	—	<18.5	<18.5	63.5	506
	3	6.9	<2	89.5	<4	—	6.3	49.4	595
	2	8.6	<2	148	<4	—	3.2	72.6	596
	<1	7.7	<2	362	<4	—	<0.3	90	594
	<18	3.2	<22.5	22.5	—	<22.5	<22.5	64	808
	<2.50	9.03	15.8	99.2	—	30.3	2.81	128	130
	<2.50	7.52	<10	51.4	—	<25	<1	156	157
	6.73	8.04	<10	89.3	—	<25	1.97	215	158
	3.9	2.1	<2	1,160	<5	—	12	11	1011
	5.8	2.1	<2	1,070	<4	—	16	22	363
	9.45	2.24	<15	978	—	<50	17.2	26.2	114
	3	0.39	<2	154	<5	—	6.1	13	1019
	6.5	0.74	<2	119	<4	—	6.3	9.4	385
	<4.50	1.52	<15	202	—	<50	7.87	15.7	93

Table 65.—*Field and laboratory analyses of biological samples from Felters ponds, Big Wash, and Shoveler and Pintail ponds in the Pariette Wetlands area*

[g, gram; mm, millimeter; Organism: spp. species. Tissue: C3, composite sample, number of individuals; I, individual sample; Egg, net sample weight. Life stage: listed as days for embryos. --, not determined; <, less than]

Site name: See table 4 for full site name.

Site name	Organism	Tissue	Date	Moisture Content (percent)	Life Stage	Sex	Organism data		
							Average Weight (g)	Total Weight (g)	Length (mm)
NFP	American Coot	Bird-Liver-I	08-19-87	72.8	I	--	--	750	--
	American Coot	Bird-Liver-I	08-19-87	78	I	--	--	750	--
FP	American Coot	Bird-Egg-I	05-17-89	76.5	7	--	--	24	49
	American Coot	Bird-Egg-I	05-17-89	75.8	5	--	--	27	50.8
	American Coot	Bird-Egg-I	05-17-89	74.3	3	--	--	30	50.6
	American Coot	Bird-Egg-I	05-22-89	76.8	17	--	--	27	49.3
	American Coot	Bird-Egg-I	06-01-89	74	15	--	--	26	48.7
	American Coot	Bird-Egg-I	06-01-89	73.5	20	--	--	28	52.6
	American Coot	Bird-Egg-I	06-01-89	75	21	--	--	23	50.4
	American Coot	Bird-Egg-I	06-01-89	75.9	23	--	--	22	49
	Mallard	Bird-Egg-I	06-14-88	67.4	--	--	--	38	57.9
	Mallard	Bird-Egg-I	06-14-88	62.5	--	--	--	32	--
	Mallard	Bird-Egg-I	05-02-89	68.3	3	--	--	42	55.1
	Mallard	Bird-Egg-I	05-09-89	69.8	8	--	--	41	57.6
	Mallard	Bird-Egg-I	05-09-89	69.4	15	--	--	46	58.6
	Mallard	Bird-Egg-I	05-17-89	68.7	13	--	--	44	59.3
	Cinnamon Teal	Bird-Egg-I	05-09-89	67.5	0	--	--	27	47
	Pied-Billed Grebe	Bird-Egg-I	06-15-89	76.2	20	--	--	15	46.1
	Yellow-Headed Blackbird	Bird-Egg-C3	06-15-89	82.2	--	--	12	—	26.5
	Common Carp	Fish-Whole Body-C5	08-03-89	78.5	--	--	131	--	204.2
	Common Carp	Fish-Whole Body-C5	08-03-89	76.9	--	--	436	—	314
	Green Sunfish	Fish-Whole Body-C3	08-03-89	73	--	--	23	—	99.3
	Invertebrates-Hemiptera	Invertebrate-Whole Body-C	08-03-88	82.1	--	--	--	14	--
	Invertebrates-Mixed	Invertebrate-Whole Body-C	05-09-89	92.3	--	--	--	237	--
	Invertebrates-Mixed	Invertebrate-Whole Body-C	06-16-89	88.3	--	--	--	63	--
	Chara spp.	Plant-without Root-C	06-15-89	79.3	--	--	--	309	--
	Myriophyllum spp.	Plant-without Root-C	06-15-89	84.7	--	--	--	111	--
	Potamogeton spp.	Plant-without Root-C	05-02-89	80.9	--	--	--	140	--
	Potamogeton spp.	Plant-without Root-C	06-15-89	92.1	--	--	--	171	--
BW	Gadwall	Bird-Egg-I	06-07-89	68.6	0	--	--	40	53.5
SP	American Avocet	Bird-Egg-I	06-17-87	70	--	--	--	—	45.2
	Northern Shoveler	Bird-Egg-I	06-15-89	68.2	1	--	--	34	50
	Cinnamon Teal	Bird-Egg-I	06-01-89	65.7	16	--	--	19	45.8
	Cinnamon Teal	Bird-Egg-I	06-01-89	66.3	4	--	--	22	45.1
	Cinnamon Teal	Bird-Egg-I	06-05-89	68.6	19	--	--	22	47.4
	Cinnamon Teal	Bird-Egg-I	06-05-89	67.3	6	--	--	25	47.3
	Cinnamon Teal	Bird-Egg-I	06-22-89	67.9	1	--	--	26	49.2
	Killdeer	Bird-Egg-I	06-27-89	68.4	0	--	--	10	39.4
	Green Sunfish	Fish-Whole Body-I	08-03-89	76.3	--	--	--	47	125
	Invertebrates-Odonata	Invertebrate-Whole Body-C	08-05-87	84.3	--	--	--	--	--
	Filamentous Green Algae	Plant-without Root-C	07-20-87	85.1	--	--	--	--	--
	Myriophyllum spp.	Plant-without Root-C	07-11-89	85.6	--	--	--	70	--
	Potamogeton pusillus	Plant-without Root-C	07-20-87	85.6	--	--	--	--	--
	Potamogeton spp.	Plant-without Root-C	07-11-89	87.8	--	--	--	190	--
	Ruppia maritima	Plant-without Root-C	07-11-89	89.4	--	--	--	134	--
	Typha spp.	Plant-Root and Stem-C	08-12-87	84.7	--	--	--	--	--
PP	Canada Goose	Bird-Egg-I	04-25-89	66.9	23	--	--	120	87.8
	Gadwall	Bird-Egg-I	06-06-89	66.9	0	--	--	41	52.8
	Gadwall	Bird-Egg-I	06-21-89	68.1	1	--	--	36	52.6
	Mallard	Bird-Egg-I	06-21-89	66.6	25	--	--	26	--
	Northern Shoveler	Bird-Egg-I	05-23-89	67.9	7	--	--	36	52.7
	Invertebrates-Mixed	Invertebrate-Whole Body-C	07-27-89	82.3	--	--	--	65	--
	Potamogeton spp.	Plant-without Root-C	07-11-89	84.4	--	--	--	182	--
	Ruppia maritima	Plant-without Root-C	07-11-89	88.5	--	--	--	48	--
	Chara spp.	Plant-Root and Stem-C	07-11-89	90.2	--	--	--	58	--

Table 65.—*Field and laboratory analyses of biological samples from Felters ponds, Big Wash, and Shoveler and Pintail ponds in the Pariette Wetlands area*—Continued

Site name	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Chromium	Cobalt	Copper	Iron	Lead	Sample number
NFP	5	--	0.3	0.38	<0.1	3	<0.4	<1	--	19	2,670	<4	1057
	<3	--	0.2	0.1	<0.1	4	<0.4	<1	--	30.2	2,220	<4	1058
FP	4	--	<0.1	1.1	<0.4	<4	<0.5	<2	--	3.3	133	<4	1191
	4	--	0.1	2.8	0.4	<4	<0.5	<2	--	3	128	<4	1192
	4	--	<0.1	2	<0.4	<4	<0.5	<2	--	3.4	95	<4	1193
	<3	--	0.1	2	<0.1	4	<0.2	<1	--	2.9	100	<4	1195
	4	--	0.1	2.5	<0.4	<4	<0.5	<2	--	3.4	106	<4	1194
	<3	--	<0.1	3.7	<0.1	5	<0.2	<1	--	3	130	<4	1196
	<3	--	<0.1	2.8	<0.1	5	<0.2	<1	--	3.7	130	<4	1197
	<3	--	<0.1	2.4	<0.1	5	<0.2	<1	--	3.6	110	<4	1198
	<18.3	<0.077	<0.016	15.2	<0.92	<9.17	<0.92	<1.84	--	10.3	93.6	<18.3	627
	<26.7	<0.067	0.029	<13.3	<1.33	<13.3	<1.33	<2.67	--	<6.67	171	<26.7	810
	<3	--	<0.1	2.7	<0.4	<4	<0.5	<3	--	3.8	111	<4	1181
	<3	--	<0.1	2.7	<0.4	<4	<0.5	<2	--	2.7	109	<4	1180
	3	--	<0.1	4.6	<0.4	<4	<0.5	<2	--	3.5	91	<4	1183
	<3	--	<0.1	3.8	<4	<4	<5	<3	--	2.9	110	<4	1182
	<3	--	<0.1	0.89	<0.1	<2	<0.2	<1	--	4	140	<4	1211
	<3	--	<0.1	0.85	<0.1	<2	<0.2	<1	--	3.2	167	<4	1219
	<3	--	<0.1	0.8	<0.1	<2	<0.2	<1	--	1.9	167	<4	1223
	75.2	<4.65	<0.47	3.21	<0.23	6.09	<0.23	1.77	--	2.09	153	<1.4	1318
	56.7	<4.33	<0.43	3.85	<0.22	2.25	<0.22	1.73	--	2.55	132	<1.29	1319
	30.8	<3.7	<0.37	<1.85	<0.19	3.41	<0.19	2.85	--	3.85	48.9	<1.11	1320
	<55.9	<0.140	0.978	<27.9	<2.79	<27.9	<2.79	<5.59	--	24.6	179	<55.9	809
	508	<20	4.60	12.4	<0.200	33.2	<0.800	<3	<3	10.2	698	<6	152
	782	<20	<3.49	11.2	<0.200	22.2	<0.800	<3	<3	10.8	845	<6	156
	1,280	<50	--	122	<0.300	34.3	<1	<3	<4	<3	1,490	<15	95
	1,200	<50	--	155	<0.300	58.9	<1	5.78	12.8	3.22	1,350	<15	92
	3,860	<50	--	120	<0.300	2,130	<1	10.3	14.3	9.10	5,270	<15	88
	167	<50	--	39.2	<0.300	800	<1	4.33	11.7	<3	406	<15	89
BW	4	--	<0.1	6.1	<0.4	<4	<0.5	<2	--	3.5	101	<4	1187
SP	<3	--	<0.2	1.2	<0.09	<2	<0.4	<0.9	--	2.6	108	<4	977
	<3	--	<0.1	1.1	<0.1	4	<0.3	<1	--	2	105	<4	1133
	<3	--	<0.1	1	<0.1	<2	<0.2	<1	--	3.3	110	<4	1215
	<3	--	<0.1	3.5	<0.1	<2	<0.2	<1	--	3.3	87	<4	1216
	<3	--	<0.1	2.9	<0.1	<2	<0.2	<1	--	3.9	100	<4	1217
	<3	--	<0.1	0.99	<0.1	<2	<0.2	<1	--	3.6	89	<4	1218
	<3	--	<0.1	5	<0.1	3	<0.3	<1	--	1.4	114	<4	1122
	<3	--	<0.1	1	<0.1	2	<0.3	<1	--	2.5	89	<4	1123
	5.49	<4.22	<0.42	<2.11	<0.21	8.27	<0.21	2.19	--	2.53	58.2	<1.27	1291
	650	--	--	<31.8	<3.18	<31.8	<3.18	<6.37	--	<15.9	586	<63.7	519
	6,390	--	7.6	124	0.3	190	1.2	9	--	11	6,070	6	1013
	881	<50	--	44.9	<0.300	173	<1	<3	<4	8.85	1,050	<15	108
	695	--	5.9	25.4	<0.1	252	2.8	2	--	11	1,050	<4	999
	318	<50	--	18.2	<0.300	1,140	<1	6.29	<4	7.47	519	<15	109
	657	<50	--	16.7	<0.300	362	<1	72.9	<4	14.7	983	<15	110
	2,140	--	4.8	28.2	0.1	23	<0.2	4.3	--	7.7	2,620	<4	1021
PP	<15	<30	<0.3	5.01	<0.100	7.66	<0.400	<2	<3	3.81	119	<6	51
	4	--	<0.1	1.8	0.4	<4	<0.5	<2	--	2.8	93	<4	1188
	6	--	<0.1	5.5	<0.1	6	<0.3	<1	--	2.4	137	<4	1120
	<3	--	<0.1	1.3	<0.1	3	<0.3	<1	--	2.5	139	<4	1121
	<3	--	<0.1	1.9	<0.1	<2	<0.2	<1	--	2.6	110	<4	1226
	73.3	<20	1.70	3.38	<0.200	25.6	1.42	<3	<3	30.2	268	<6	162
	170	<50	--	8.96	<0.300	602	<1	4.77	5.50	9.93	248	<15	100
	301	<50	--	13.3	<0.300	327	<1	6.82	5.65	11	464	<15	118
	830	<50	--	39.8	<0.300	153	<1	<3	<4	<3	850	<15	98

Table 65.—*Field and laboratory analyses of biological samples from Felters ponds, Big Wash, and Shoveler and Pintail ponds in the Pariette Wetlands area*—Continued

Site name	Organism	Tissue	Date	Magnesium	Manganese	Mercury	Molybdenum
NFP	American Coot	Bird-Liver-I	08-19-87	666	14	0.32	2
	American Coot	Bird-Liver-I	08-19-87	722	10	0.38	2
FP	American Coot	Bird-Egg-I	05-17-89	416	2	0.25	2
	American Coot	Bird-Egg-I	05-17-89	393	2	0.13	<1
	American Coot	Bird-Egg-I	05-17-89	473	2.7	0.12	2
	American Coot	Bird-Egg-I	05-22-89	647	2.6	0.26	<1
	American Coot	Bird-Egg-I	06-01-89	570	2	0.536	<1
	American Coot	Bird-Egg-I	06-01-89	605	2.2	0.25	<1
	American Coot	Bird-Egg-I	06-01-89	597	1.9	0.24	2
	American Coot	Bird-Egg-I	06-01-89	776	2.4	0.19	<1
	Mallard	Bird-Egg-I	06-14-88	368	<2.76	0.120	<9.17
	Mallard	Bird-Egg-I	06-14-88	533	<4	0.272	<13.3
	Mallard	Bird-Egg-I	05-02-89	295	2	0.17	<1
	Mallard	Bird-Egg-I	05-09-89	314	1	0.086	<1
	Mallard	Bird-Egg-I	05-09-89	384	2	0.25	<1
	Mallard	Bird-Egg-I	05-17-89	366	2.5	0.091	<1
	Cinnamon Teal	Bird-Egg-I	05-09-89	266	2.4	0.11	<1
	Pied-Billed Grebe	Bird-Egg-I	06-15-89	584	4.3	1.01	<1
	Yellow-Headed Blackbird	Bird-Egg-C3	06-15-89	390	4.9	0.519	<1
	Common Carp	Fish-Whole Body-C5	08-03-89	1,360	7.44	0.167	<2.33
	Common Carp	Fish-Whole Body-C5	08-03-89	1,350	6.8	0.156	2.38
	Green Sunfish	Fish-Whole Body-C3	08-03-89	1,700	17.9	0.385	3.67
	Invertebrates-Hemiptera	Invertebrate-Whole Body-C	08-03-88	1,400	12.8	0.246	<27.9
	Invertebrates-Mixed	Invertebrate-Whole Body-C	05-09-89	2,610	59.3	0.378	<5
	Invertebrates-Mixed	Invertebrate-Whole Body-C	06-16-89	2,120	48.5	0.268	<5
	Chara spp.	Plant-without Root-I	06-15-89	10,300	830	--	<10
	Myriophyllum spp.	Plant-without Root-I	06-15-89	9,140	2,170	--	<10
	Potamogeton spp.	Plant-without Root-I	05-02-89	8,300	2,620	--	<10
	Potamogeton spp.	Plant-without Root-I	06-15-89	12,200	1,000	--	<10
BW	Gadwall	Bird-Egg-I	06-07-89	397	4.1	0.24	<1
SP	American Avocet	Bird-Egg-I	06-17-87	405	2.5	0.48	1
	Northern Shoveler	Bird-Egg-I	06-15-89	380	1.9	0.896	<1
	Cinnamon Teal	Bird-Egg-I	06-01-89	346	2.4	2.8	<1
	Cinnamon Teal	Bird-Egg-I	06-01-89	314	2.3	0.682	<1
	Cinnamon Teal	Bird-Egg-I	06-05-89	380	2.3	1.1	<1
	Cinnamon Teal	Bird-Egg-I	06-05-89	212	1.7	1.2	<1
	Cinnamon Teal	Bird-Egg-I	06-22-89	285	2	0.47	<1
	Killdeer	Bird-Egg-I	06-27-89	367	1.4	0.916	<1
	Green Sunfish	Fish-Whole Body-I	08-03-89	1,540	14.1	0.54	2.11
	Invertebrates-Odonata	Invertebrate-Whole Body-C	08-05-87	1,460	24.8	0.650	<31.8
	Filamentous Green Algae	Plant-without Root-C	07-20-87	9,100	396	0.038	<1
	Myriophyllum spp.	Plant-without Root-C	07-11-89	21,400	293	--	<10
	Potamogeton pusillus	Plant-without Root-C	07-20-87	6,210	333	0.026	2
	Potamogeton spp.	Plant-without Root-C	07-11-89	14,400	591	--	<10
	Ruppia maritima	Plant-without Root-C	07-11-89	8,700	170	--	<10
	Typha spp.	Plant-Root and Stem-C	08-12-87	3,720	264	0.01	<1
PP	Canada Goose	Bird-Egg-I	04-25-89	690	2.58	<0.02	<5
	Gadwall	Bird-Egg-I	06-06-89	343	3	0.32	<1
	Gadwall	Bird-Egg-I	06-21-89	344	4.2	1.3	<1
	Mallard	Bird-Egg-I	06-21-89	640	4.6	1.8	<1
	Northern Shoveler	Bird-Egg-I	05-23-89	340	3	2.2	<1
	Invertebrates-Mixed	Invertebrate-Whole Body-C	07-27-89	2,740	60.1	0.286	<5
	Potamogeton spp.	Plant-without Root-C	07-11-89	8,710	214	--	<10
	Ruppia maritima	Plant-without Root-C	07-11-89	7,700	143	--	<10
	Chara spp.	Plant-Root and Stem-C	07-11-89	13,000	284	--	<10

Table 65.—*Field and laboratory analyses of biological samples from Felters ponds, Big Wash, and Shoveler and Pintail ponds in the Pariette Wetlands area*—Continued

Site name	Nickel	Selenium	Silver	Strontium	Thallium	Tin	Vanadium	Zinc	Sample number
NFP	<2	11	<1	2.7	<6	--	<0.3	124	1057
	<2	12	<1	0.84	<6	--	<0.3	120	1058
FP	<5	8.6	<2	21.8	<4	--	<0.9	56	1191
	<5	8	<2	30.1	<4	--	<0.9	57	1192
	<5	11	<2	26.6	<4	--	<0.9	55	1193
	<1	12	<2	40.8	<6	--	0.4	57.2	1195
	<5	9.4	<2	42.2	<4	--	<0.8	55	1194
	<1	11	<2	43.2	6	--	<0.3	52.5	1196
	<1	8.5	<2	51.4	<6	--	<0.3	61.6	1197
	<1	13	<2	65.2	<6	--	<0.3	69.1	1198
	<7.33	10.1	<9.17	31.3	--	<9.17	<9.17	55.5	627
	<10.7	9.6	<13.3	67.7	--	<13.3	<13.3	72.5	810
	<5	12	<2	18.3	<4	--	<0.9	48	1181
	<5	6	<2	17	<4	--	<9	52	1180
	<5	8.8	<2	25.4	<4	--	<0.9	47	1183
	<5	14.8	<2	23.1	<4	--	<0.9	46	1182
	<1	9.6	<2	18.4	<6	--	<0.3	53.8	1211
	<1	16.9	<2	27	<6	--	<0.3	61.7	1219
	<1	11	<2	24.7	<6	--	<0.3	70.4	1223
	<1.86	13	<2.33	279	<9.3	15.3	<2.33	169	1318
	<1.73	14.7	<2.16	381	<8.66	11.4	<2.16	159	1319
	<1.48	4.8	<1.85	369	<7.41	17.3	<1.85	83.3	1320
	<22.3	7.3	<27.9	38	--	34.6	<27.9	120	809
	<2.50	8.18	<10	641	--	<25	1.55	88.5	152
	<2.50	10.60	<10	108	--	<25	1.74	91.4	156
	<4.50	1.04	<15	4,670	--	<50	5.88	12.4	95
	<4.50	1.38	24.7	2,570	--	<50	10.5	16	92
	10.8	15.3	23.2	1,300	--	<50	17.8	21	88
	<4.50	1.40	25.6	1,110	--	<50	2.87	13.9	89
BW	<5	8.4	<2	26.8	<4	--	<0.8	54	1187
SP	<1	6.1	<0.9	13.5	<3	--	<0.3	55.4	977
	<1	5.6	<2	38.2	<4	--	<0.3	56.6	1133
	<1	9.5	<2	19.5	<6	--	<0.3	44.4	1215
	<1	8.1	<2	26.3	<6	--	<0.3	51.3	1216
	<1	7.6	<2	36.3	<6	--	<0.3	49.5	1217
	<1	4.7	<2	13.9	<6	--	<0.3	42.8	1218
	<1	8.6	<2	25.6	<4	--	<0.3	59.2	1122
	<1	3.9	<2	33.1	<4	--	<0.3	44.8	1123
	<1.69	4.2	<2.11	473	<8.44	<2.11	<2.11	89	1291
	<25.5	6.4	<31.8	71.3	--	<31.8	<31.8	94.3	519
	6.4	1.4	<2	1,180	<5	--	12	38.5	1013
	<4.50	0.855	<15	1,660	--	<50	5.97	14.3	108
	2	1.6	<2	421	<5	--	3.5	45.2	999
	<4.50	0.805	<15	605	--	<50	2.52	19	109
	37	0.590	<15	523	--	<50	4.49	33.9	110
	2	0.34	<2	177	<5	--	5.4	21	1021
PP	<2.50	2.52	<9	28.9	--	<30	<1	61.1	51
	<5	2.7	<2	18.3	<4	--	<0.9	51	1188
	<1	6.9	<2	28.4	<4	--	<0.3	59.7	1120
	<1	8.9	<2	120	<4	--	<0.3	73.6	1121
	<1	6.8	<2	20.9	<6	--	<0.3	64.2	1226
	<2.50	7.97	<10	200	--	<25	<1	194	162
	<4.50	0.717	15.8	420	--	<50	2.82	23.8	100
	<4.50	<0.3	<15	493	--	<50	2.94	26.9	118
	<4.50	0.818	<15	1,620	--	<50	1.75	15.8	98

Table 66.--*Field and laboratory analyses of biological samples from Big Island and Small Island ponds and Roadside Cliff in the Pariette Wetlands area*

[g, gram; mm, millimeter; Organism: spp. species. Tissue: C3, composite sample, number of individuals; I, individual sample; Egg, net sample weight. Life stage: listed as days for embryos; I, immature; A, Adult. --, not determined; <, less than]

Site name: See tables 3 and 4 for full site name.

Site name	Organism	Tissue	Date	Moisture content (percent)	Life stage	Sex	Organism data		
							Average Weight (g)	Total Weight (g)	Length (mm)
BIP	American Coot	Bird-Egg-I	06-27-89	76.2	7	--	--	20	47.1
	Canada Goose	Bird-Egg-I	06-03-87	68.1	--	--	--	--	87.2
	Canada Goose	Bird-Egg-I	04-26-89	65.5	26	--	--	126	87.5
	Mallard	Bird-Egg-I	04-26-89	67.9	2	--	--	42	54.2
	Mallard	Bird-Egg-I	04-26-89	70.1	1	--	--	43	56.3
	Mallard	Bird-Egg-I	04-26-89	67.6	2	--	--	44	58
	Mallard	Bird-Egg-I	04-26-89	69.1	6	--	--	42	55.3
	American Coot	Bird-Liver-I	08-19-87	71	I	--	--	525	--
	American Coot	Bird-Liver-I	08-19-87	72.9	I	--	--	325	--
	Black Bullhead	Fish-Whole Body-C5	08-04-87	81	A	--	396	--	295
	Black Bullhead	Fish-Whole Body-C5	04-13-88	81.8	--	--	370	--	276
	Black Bullhead	Fish-Whole Body-C5	04-13-88	83.7	--	--	94	--	181
	Black Bullhead	Fish-Whole Body-C5	08-03-88	83.6	--	--	78	--	180
	Black Bullhead	Fish-Whole Body-C5	08-03-88	82.5	--	--	90	--	187
	Black Bullhead	Fish-Whole Body-C5	04-19-89	79.7	--	--	74	--	181
	Black Bullhead	Fish-Whole Body-C5	04-19-89	79.7	--	--	85	--	193
	Black Bullhead	Fish-Whole Body-C2	07-27-89	84.9	--	--	155	--	176.5
	Common Carp	Fish-Whole Body-C5	04-14-87	76.1	--	--	854	--	378
	Common Carp	Fish-Whole Body-C5	04-14-87	75	--	--	888	--	383
	Common Carp	Fish-Whole Body-C5	08-04-87	70.9	A	--	1,264	--	420
	Common Carp	Fish-Whole Body-I	04-13-88	71.8	--	--	--	2,140	498
	Common Carp	Fish-Whole Body-C2	04-19-89	75.2	--	--	990	--	406
	Common Carp	Fish-Whole Body-I	05-09-89	75.6	I	--	30	--	--
	Common Carp	Fish-Whole Body-C5	07-27-89	79.6	--	--	580	--	354.2
	Green Sunfish	Fish-Whole Body-C5	04-14-87	74.6	--	--	84	--	144
	Green Sunfish	Fish-Whole Body-C5	08-04-87	73.7	A	--	164	--	176
	Invertebrates-Mixed	Invertebrate-Whole Body-C	05-09-89	87.3	--	--	--	34	--
	Invertebrates-Mixed	Invertebrate-Whole Body-C	06-16-89	65.1	--	--	--	4	--
	Invertebrates-Mixed	Invertebrate-Whole Body-C	07-18-89	67.2	--	--	--	7	--
	Invertebrates-Odonata	Invertebrate-Whole Body-C	08-05-87	86	--	--	--	--	--
	Filamentous Green Algae	Plant-without Root-C	07-20-87	90.6	--	--	--	--	--
	Myriophyllum spp.	Plant-without Root-C	07-18-89	80.9	--	--	--	120	--
	Potamogeton filiformis	Plant-without Root-C	08-18-88	91.5	--	--	--	173	--
	Potamogeton pusillus	Plant-without Root-C	07-20-87	81.9	--	--	--	--	--
	Potamogeton spp.	Plant-without Root-C	07-18-89	82.5	--	--	--	219	--
	Typha spp.	Plant-Root and Stem-C	08-12-87	81.6	--	--	--	--	--
	Typha spp.	Plant-Root and Stem-C	08-18-88	93.1	--	--	--	393	--
	Typha spp.	Plant-Root and Stem-C	07-18-89	90.7	--	--	--	356	--
SIP	American Coot	Bird-Egg-I	06-06-89	73	19	--	--	23	47.4
	American Coot	Bird-Egg-I	06-06-89	74.4	19	--	--	20	47
	Pied-Billed Grebe	Bird-Egg-I	06-06-89	76.8	14	--	--	17	43.3
	Chara spp.	Plant-without Root-C	06-27-89	77.9	--	--	--	195	--
	Potamogeton spp.	Plant-without Root-C	06-27-89	88.6	--	--	--	60	--
	Ruppia maritima	Plant-without Root-C	06-27-89	84.7	--	--	--	82	--
RC	American Coot	Bird-Liver-I	08-19-87	69.5	I	--	--	600	--
	American Coot	Bird-Liver-I	08-19-87	71.1	I	--	--	675	--

Table 66.—*Field and laboratory analyses of biological samples from Big Island and Small Island ponds and Roadside Cliff in the Pariette Wetlands area*—Continued

Site name	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Chromium	Cobalt	Copper	Iron	Lead	Sample number
BIP	<3	--	<0.1	0.2	<0.1	3	<0.3	<1	--	2.3	82	<4	1108
	25	--	<0.2	4.1	<0.09	<2	<0.4	<1	--	9.9	165	<4	978
	<15	<30	<0.3	6.19	<0.100	4.68	<0.400	<2	<3	4.47	134	<6	1
	<3	--	0.2	5.8	<0.4	7	<0.5	<3	--	3.1	132	<4	1163
	<3	--	<0.1	4.7	<0.4	5	<0.5	<3	--	3.2	138	<4	1177
	<3	--	<0.1	3.4	<0.4	<4	<0.5	<2	--	3.3	136	<4	1178
	3	--	<0.1	1.9	<0.4	<4	<0.5	<3	--	3.4	128	<4	1179
	<3	--	0.47	0.2	<0.1	3	<0.4	<1	--	14	4,350	<4	1059
	<3	--	<0.2	0.40	<0.1	3	<0.4	<1	--	14	4,940	<4	1060
	63.2	<0.132	0.047	<26.3	<2.63	<26.3	<2.63	<5.26	--	<13.2	121	<52.6	502
	100	--	<0.2	4.8	<0.1	<2	<0.2	<2	--	1.8	201	<4	578
	260	--	<0.2	9	<0.1	2	<0.2	<2	--	2.1	331	<4	579
	<61	<0.153	0.476	<30.5	<3.05	<30.5	<3.05	<6.10	--	<15.2	262	<61	417
	<57.1	<0.143	0.360	<28.6	<2.86	<28.6	<2.86	<5.71	--	<14.3	229	<57.1	418
	87.8	<30	<0.3	8.41	<0.100	3.51	<0.800	0.833	<2	<3	231	<6	164
	77.5	<30	<0.3	13.3	<0.100	3.99	<0.800	1.45	<2	<3	233	<6	165
	17.4	<6.62	<0.66	<3.31	<0.33	5.23	<0.33	0.73	--	5.3	132	<1.99	1314
	80	--	<0.1	7.6	<0.1	<2	<0.2	<1	--	2.3	137	<4	907
	81	--	<0.1	6.4	<0.1	<2	<0.2	<1	--	2.2	139	<4	908
	72.2	<0.086	0.034	<17.2	<1.72	<17.2	<1.72	<3.44	--	<8.59	220	<34.4	501
	240	--	<0.2	6.4	<0.1	<2	<0.2	<2	--	2.5	408	<4	590
	83	<30	<0.3	13.2	0.340	3.80	0.860	1.48	<2	3.69	242	<6	166
	42.4	<20	0.507	7.13	<0.200	7.79	<0.800	<3	<3	<2	135	<6	163
	34.5	<4.9	<0.49	5.49	<0.25	4.02	<0.25	1.96	--	4.12	141	<1.47	1315
	110	--	0.1	3.8	<0.1	<2	<0.2	<1	--	1.1	155	<4	906
	53.2	<0.196	0.034	<19	<1.90	<19	<1.9	<3.80	--	<9.51	64.6	<38	503
	835	<20	2.50	28.2	0.370	19.9	1.04	<3	6.07	24.6	1,140	<6	159
	192	<20	1.69	8.23	<0.200	17.8	<0.800	<3	5.58	34.6	429	<6	160
	129	<20	1.38	9.29	<0.200	13.4	<0.800	<3	5.67	21.9	297	<6	161
	386	--	--	<35.7	<3.57	<35.7	<3.57	<7.14	--	<17.8	386	<71.4	518
	9,660	--	8.2	143	0.35	325	0.3	13	--	7.6	7,310	9	1012
	4,230	<50	--	124	<0.300	65.9	<1	10.8	4.98	8.85	4,310	<15	116
	10,400	--	8.3	442	0.34	320	<0.3	14	--	9.5	8,710	9	372
	994	--	2.7	62.9	<0.1	723	<0.2	2	--	3.4	1,220	<4	998
	1,970	<50	--	76.7	<0.300	496	<1	10.5	<4	11.7	1,910	<15	115
	1,140	--	3.4	35.2	<0.1	11	<0.2	3.9	--	5	1,980	<4	1020
	2,100	--	2.4	44.1	<0.1	21	<0.3	4.2	--	4	2,470	<4	387
	807	<50	--	14.8	<0.300	31.3	<1	<3	<4	5.49	3,130	<15	117
SIP	<3	--	0.2	2.4	<0.1	3	<0.2	<1	--	2.8	140	<4	1209
	<3	--	0.2	2.9	<0.1	3	<0.2	<1	--	3.4	120	<4	1210
	<3	--	<0.1	0.2	<0.1	<2	<0.2	<1	--	2.9	140	<4	1222
	1,590	<50	--	197	<0.300	55.8	<1	6.40	8.96	3.24	1,390	<15	103
	115	<50	--	14.3	<0.300	219	<1	11.3	<4	9.76	207	<15	102
	68.2	<50	--	11.3	<0.300	180	<1	49.6	<4	10.4	360	<15	104
RC	<3	--	0.3	0.2	<0.1	2	<0.4	<1	--	11	4,230	<4	1063
	<3	--	0.50	0.2	<0.1	2	<0.4	<1	--	10	2,920	<4	1064

Table 66.--*Field and laboratory analyses of biological samples from Big Island and Small Island ponds and Roadside Cliff in the Pariette Wetlands area*—Continued

Site name	Organism	Tissue	Date	Magnesium	Manganese	Mercury	Molybdenum
BIP	American Coot	Bird-Egg-I	06-27-89	472	1.1	0.17	<1
	Canada Goose	Bird-Egg-I	06-03-87	536	2	0.01	1
	Canada Goose	Bird-Egg-I	04-26-89	502	3.10	<0.02	<5
	Mallard	Bird-Egg-I	04-26-89	346	3.8	0.068	<1
	Mallard	Bird-Egg-I	04-26-89	354	2.7	0.091	<1
	Mallard	Bird-Egg-I	04-26-89	343	2	0.071	<1
	Mallard	Bird-Egg-I	04-26-89	353	1	0.11	<1
	American Coot	Bird-Liver-I	08-19-87	609	7.8	0.26	2
	American Coot	Bird-Liver-I	08-19-87	743	13	0.41	3
	Black Bullhead	Fish-Whole Body-C5	08-04-87	1,580	13.2	0.632	<26.3
	Black Bullhead	Fish-Whole Body-C5	04-13-88	1,420	9.9	0.46	<1
	Black Bullhead	Fish-Whole Body-C5	04-13-88	1,610	17	0.20	<1
	Black Bullhead	Fish-Whole Body-C5	08-03-88	1,460	17.7	0.171	<30.5
	Black Bullhead	Fish-Whole Body-C5	08-03-88	1,490	16	0.217	<28.6
	Black Bullhead	Fish-Whole Body-C5	04-19-89	1,760	13.5	0.157	<5
	Black Bullhead	Fish-Whole Body-C5	04-19-89	2,190	25.5	0.145	<5
	Black Bullhead	Fish-Whole Body-C2	07-27-89	1,360	3.51	0.245	<3.31
	Common Carp	Fish-Whole Body-C5	04-14-87	1,280	11	0.083	<1
	Common Carp	Fish-Whole Body-C5	04-14-87	1,130	7.3	0.076	<1
	Common Carp	Fish-Whole Body-C5	08-04-87	1,130	7.9	<0.086	<17.2
	Common Carp	Fish-Whole Body-I	04-13-88	1,110	7.3	0.053	<1
	Common Carp	Fish-Whole Body-C2	04-19-89	2,030	16.7	0.0877	<5
	Common Carp	Fish-Whole Body-I	05-09-89	1,810	15.7	0.0800	<5
	Common Carp	Fish-Whole Body-C5	07-27-89	1,480	8.24	0.127	2.79
	Green Sunfish	Fish-Whole Body-C5	04-14-87	1,360	10	0.38	<1
	Green Sunfish	Fish-Whole Body-C5	08-04-87	1,180	<5.7	0.570	<19
	Invertebrates-Mixed	Invertebrate-Whole Body-C	05-09-89	2,810	77.3	0.0492	<5
	Invertebrates-Mixed	Invertebrate-Whole Body-C	06-16-89	1,770	46	0.0912	<5
	Invertebrates-Mixed	Invertebrate-Whole Body-C	07-18-89	1,490	27.9	0.103	<5
	Invertebrates-Odonata	Invertebrate-Whole Body-C	08-05-87	1,430	57.9	0.329	<35.7
	Filamentous Green Algae	Plant-without Root-C	07-20-87	9,520	1,190	0.023	<1
	Myriophyllum spp.	Plant-without Root-C	07-18-89	11,100	846	--	<10
	Potamogeton filiformis	Plant-without Root-C	08-18-88	11,300	1,310	0.01	<2
	Potamogeton pusillus	Plant-without Root-C	07-20-87	7,660	829	0.020	2
	Potamogeton spp.	Plant-without Root-C	07-18-89	11,600	369	--	<10
	Typha spp.	Plant-Root and Stem-C	08-12-87	3,090	249	0.01	<1
	Typha spp.	Plant-Root and Stem-C	08-18-88	4,450	358	<0.005	<1
	Typha spp.	Plant-Root and Stem-C	07-18-89	3,710	406	--	<10
SIP	American Coot	Bird-Egg-I	06-06-89	504	1.8	0.094	<1
	American Coot	Bird-Egg-I	06-06-89	689	1.9	0.17	<1
	Pied-Billed Grebe	Bird-Egg-I	06-06-89	492	2.6	1.2	<1
	Chara spp.	Plant-without Root-C	06-27-89	9,810	558	--	<10
	Potamogeton spp.	Plant-without Root-C	06-27-89	4,920	161	--	<10
	Ruppia maritima	Plant-without Root-C	06-27-89	4,870	422	--	<10
RC	American Coot	Bird-Liver-I	08-19-87	691	10	0.43	2
	American Coot	Bird-Liver-I	08-19-87	552	9.7	0.43	2

Table 66.—*Field and laboratory analyses of biological samples from Big Island and Small Island ponds and Roadside Cliff in the Pariette Wetlands area*—Continued

Site name	Nickel	Selenium	Silver	Strontium	Thallium	Tin	Vanadium	Zinc	Sample number
BIP	<1	3.7	<2	10.6	<4	--	<0.3	40.5	1108
	<1	2.1	<0.9	22.2	<3	--	<0.3	60.6	978
	<2.50	1.39	<9	20.3	--	<30	<1	57.2	1
	<5	4.9	<2	32.8	<4	--	<0.9	55	1163
	<5	5.7	<2	26.9	<4	--	<0.9	55	1177
	<5	3.7	<2	20	<4	--	<0.8	51	1178
	<5	3.8	<2	16.5	<4	--	<0.9	46	1179
	<2	9.8	<1	0.76	<6	--	<0.3	140	1059
	<2	7.2	<1	1	<6	--	<0.3	254	1060
	<21.1	4.2	<26.3	342	--	<26.3	<26.3	82.6	502
	<1	5.1	<2	206	<4	--	0.7	88.7	578
	<1	6.4	<2	253	<4	--	0.98	92.2	579
	<24.4	6.7	<30.5	127	--	<30.5	<30.5	83.5	417
	<22.9	6.9	<28.6	147	--	<28.6	<28.6	84	418
	<3.50	5.08	<10	335	--	<30	2.39	89.2	164
	<3.50	4.61	<10	598	--	<30	3.08	111	165
	<2.65	6	<3.31	62.3	<13.2	17	<3.31	70.8	1314
	<1	6.2	<2	472	<6	--	0.3	130	907
	<1	5.9	<2	381	<6	--	0.4	119	908
	<13.7	3.8	<17.2	354	--	<17.2	<17.2	126	501
	2	5.3	<2	148	<4	--	0.8	129	590
	<3.50	7.08	<10	678	--	<30	1.59	234	166
	<2.50	8.71	<10	377	--	<25	<1	182	163
	<1.96	3.9	<2.45	426	<9.8	18.3	<2.45	189	1315
	<1	7.7	<2	273	<6	--	0.4	83.6	906
	<15.2	6.8	<19	187	--	<19	<19	81	503
	<2.50	6.14	<10	101	--	<25	4	96.6	159
	<2.50	6.49	<10	55.9	--	<25	1.37	355	160
	<2.50	4.70	<10	53.8	--	<25	1.08	177	161
	<28.6	9.3	<35.7	65.7	--	<35.7	<35.7	97.1	518
	7.1	2	<2	773	<5	--	23	23	1012
	8.91	1.04	<15	2,000	--	<50	10.9	22.3	116
	9.2	2.5	<2	1,060	<4	--	26	27	372
	2	1.8	<2	450	<5	--	5.6	8.1	998
	10.3	0.471	<15	2,020	--	<50	7.69	19.1	115
	2	0.3	<2	165	<5	--	4.6	10	1020
	3	0.2	<2	185	<4	--	5.6	13	387
	<4.50	<0.3	<15	177	--	<50	6.63	31.4	117
SIP	<1	5.4	<2	40.4	<6	--	<0.3	74.6	1209
	<1	7.2	<2	56	<6	--	<0.3	69.3	1210
	1	15	<2	17	<6	--	<0.3	53.3	1222
	<4.50	1.80	15.5	4,410	--	<50	6.96	<12	103
	8.87	0.930	<15	320	--	<50	1.55	23.7	102
	27	1.97	<15	444	--	<50	2.23	18.7	104
RC	<2	9	<1	0.70	<6	--	<0.3	115	1063
	<2	7.2	<1	0.62	<6	--	<0.3	88.4	1064

Table 67.--*Field and laboratory analyses of biological*

[g, gram; mm, millimeter; Organism: spp. species. Tissue: C3, Egg, net sample weight. Life stage: listed as days for

Organism	Tissue	Date	Moisture content (percent)	Life stage	Sex	Organism data		
						Average weight (g)	Total weight (g)	Length (mm)
American Coot	Bird-Egg-I	06-03-87	69	--	--	--	--	46.5
American Coot	Bird-Egg-I	06-10-87	75.7	--	--	--	--	51.9
American Coot	Bird-Egg-I	05-25-89	72.2	17	--	--	29	52.1
American Coot	Bird-Egg-I	06-14-89	76.2	3	--	--	26	50.1
Black-Crowned Night Heron	Bird-Egg-I	06-14-88	79.5	15	--	--	30	49.5
Black-Crowned Night Heron	Bird-Egg-I	07-06-89	81.6	--	--	--	32	47.7
Cinnamon Teal	Bird-Egg-I	06-07-89	69.4	7	--	--	28	45.3
Gadwall	Bird-Egg-I	06-21-89	70.4	4	--	--	40	51.8
Gadwall	Bird-Egg-I	06-21-89	67.3	7	--	--	43	54.6
Gadwall	Bird-Egg-I	06-21-89	70.7	2	--	--	43	40.6
Mallard	Bird-Egg-I	05-25-89	68.2	--	--	--	30	55.1
Pied-Billed Grebe	Bird-Egg-I	06-10-87	76.7	--	--	--	--	42
Pied-Billed Grebe	Bird-Egg-I	06-24-87	75.6	--	--	--	--	42
Pied-Billed Grebe	Bird-Egg-I	06-24-87	80.2	--	--	--	--	43.6
Ruddy Duck	Bird-Egg-I	06-10-87	72.3	--	--	--	--	63
Snowy Egret	Bird-Egg-I	06-14-88	76.8	3	--	--	21	45.7
Snowy Egret	Bird-Egg-I	07-06-89	79.5	--	--	--	20	44.3
Snowy Egret	Bird-Egg-I	07-06-89	78.5	19	--	--	17	42.6
American Coot	Bird-Liver-I	08-19-87	71.9	I	--	--	450	--
American Coot	Bird-Liver-I	08-19-87	72.5	I	--	--	550	--
Pied-Billed Grebe	Bird-Liver-I	08-03-88	74.7	I	--	--	10	--
Black Bullhead	Fish-Whole Body-C3	04-14-87	81.4	--	--	340	--	257
Black Bullhead	Fish-Whole Body-C2	08-03-88	86.6	--	--	80	--	173
Black Bullhead	Fish-Whole Body-C5	04-12-88	81.6	--	--	116	--	204
Black Bullhead	Fish-Whole Body-C4	07-27-89	82.9	--	--	97	--	185.5
Black Bullhead	Fish-Whole Body-C2	04-19-89	70.5	--	--	85	--	183
Common Carp	Fish-Whole Body-C2	04-14-87	83.6	--	--	205	--	242
Common Carp	Fish-Whole Body-C6	08-04-87	74.8	A	--	223	--	204
Common Carp	Fish-Whole Body-C5	08-04-87	78	A	--	80	--	178
Common Carp	Fish-Whole Body-C3	04-12-88	74.6	--	--	1,831	--	483
Common Carp	Fish-Whole Body-C4	08-03-88	79.9	--	--	535	--	337
Common Carp	Fish-Whole Body-C3	08-03-88	79.3	--	--	539	--	339
Common Carp	Fish-Whole Body-C4	04-19-89	74.9	--	--	574	--	341
Common Carp	Fish-Whole Body-C4	07-27-89	78.5	--	--	538	--	333
Flannelmouth Sucker	Fish-Whole Body-C5	04-14-87	73	--	--	422	--	346
Flannelmouth Sucker	Fish-Whole Body-C5	08-04-87	74.2	A	--	108	--	227
Flannelmouth Sucker	Fish-Whole Body-C5	04-12-88	75.3	--	--	128	--	236
Flannelmouth Sucker	Fish-Whole Body-C3	04-19-89	73.4	--	--	154	--	256
Green Sunfish	Fish-Whole Body-I	04-14-87	74.2	--	--	30	--	111
Green Sunfish	Fish-Whole Body-C4	08-04-87	72.6	A	--	10	--	113
Chironomidae(Predominant)	Invertebrate-Whole Body-C	04-12-88	87.1	--	--	--	8	--
Invertebrates-Mixed	Invertebrate-Whole Body-C	05-09-89	89.6	--	--	--	27	--
Invertebrates-Mixed	Invertebrate-Whole Body-C	06-16-89	92	--	--	--	57	--
Invertebrates-Mixed	Invertebrate-Whole Body-C	07-18-89	77.3	--	--	--	10	--
Invertebrates-Odonata	Invertebrate-Whole Body-C	08-04-87	84.3	--	--	--	--	--
Filamentous Green Algae	Plant-without root-C	07-20-87	88.8	--	--	--	--	--
Najas marina	Plant-without root-C	08-18-88	93.9	--	--	--	103	--
Potamogeton filiformis	Plant-without root-C	08-18-88	90.1	--	--	--	329	--
Potamogeton pusillus	Plant-without root-C	07-20-87	88.9	--	--	--	--	--
Potamogeton spp.	Plant-without root-C	06-14-89	88.8	--	--	--	175	--
Zannichellia palustris	Plant-without root-C	06-14-89	91	--	--	--	78	--
Typha spp.	Plant-Root and Stem-C	08-12-87	86.7	--	--	--	--	--
Typha spp.	Plant-Root and Stem-C	08-18-88	94.1	--	--	--	728	--
Typha spp.	Plant-Root and Stem-C	06-14-89	92.6	--	--	--	413	--

samples from Gadwall pond in the Pariette Wetlands area

composite sample, number of individuals; I, individual sample;
embryos; I, immature; A, adult. --, not determined; <. less than]

Alum-inum	Anti-mony	Arse-nic	Barium	Beryl-lium	Boron	Cadm-ium	Chrom-ium	Cobalt	Copper	Iron	Lead	Sample number
4	--	<0.2	2	<0.1	<2	<0.4	<1	--	3.5	98	<4	975
<3	--	<0.2	3.9	<0.1	<2	<0.4	<1	--	4.3	134	<4	971
<3	--	<0.1	2.2	<0.1	5	<0.2	<1	--	3.3	120	<4	1199
<3	--	0.1	0.95	<0.1	3	<0.2	<1	--	2.6	79	<4	1200
<34.9	0.195	<0.025	<17.5	<1.76	<17.5	<1.76	<3.51	--	<8.73	90.7	<34.9	621
<3	--	<0.1	0.38	<0.1	3	<0.3	<1	--	4.2	84	<4	1109
<3	--	<0.1	2	<0.1	2	<0.2	<1	--	2.9	110	<4	1212
<3	--	<0.1	4.3	<0.1	4	<0.3	<1	--	2.8	93	<4	1110
<3	--	<0.1	4.2	<0.1	4	<0.3	<1	--	2.8	99	<4	1111
<3	--	<0.1	2.6	<0.1	4	<0.3	<1	--	3	96	<4	1112
4	--	<0.1	2.7	<0.4	4	<0.5	<2	--	3.4	92	<4	1184
<3	--	<0.2	0.45	<0.1	<2	<0.4	<1	--	2.9	132	<4	974
<3	--	<0.2	0.42	<0.1	<2	<0.4	<1	--	2	122	<4	972
4	--	<0.2	0.78	<0.09	<2	<0.4	<0.9	--	5	188	<4	973
<3	--	<0.2	8.1	<0.1	<2	<0.4	<1	--	4.8	118	<4	976
<29.1	<0.108	0.060	<14.5	<1.47	<14.5	<1.47	<2.89	--	<7.24	93.1	<29.1	622
<3	--	<0.1	0.44	<0.1	3	<0.3	<1	--	5.6	100	<4	1113
<3	--	<0.1	0.78	<0.1	<2	<0.3	<1	--	5.8	129	<4	1114
3	--	<0.2	0.2	<0.1	2	<0.4	<1	--	79.6	2,370	<4	1061
<3	--	0.2	0.2	<0.1	2	<0.4	<1	--	17	7,290	<4	1062
<39.5	<0.099	0.059	<19.8	<1.98	<19.8	<1.98	<3.95	--	28.9	1,360	<39.5	811
61	--	0.1	3.1	<0.1	<2	<0.2	<1	--	2.3	138	<4	902
<74.6	<0.187	0.306	<37.3	<3.73	<37.3	<3.73	<7.46	--	<18.7	127	<74.6	427
348	--	<0.2	6.8	<0.1	3	<0.2	<2	--	3	388	<4	577
66.1	<5.85	<0.58	<2.92	<0.29	4.44	<0.29	1.52	--	3.57	112.9	<1.75	1321
<30	<30	<0.3	6.44	<0.100	2.93	<0.800	1.37	2.73	3.30	91.8	<6	169
391	--	0.43	8.5	0.1	<2	<0.2	<1	--	3.2	443	<4	904
75.4	<0.100	0.056	<19.8	<1.98	<19.8	<1.98	<3.97	--	<9.92	127	<39.7	497
81.8	<0.114	0.023	<22.7	<2.27	<22.7	<2.27	<4.54	--	<11.4	145	<45.4	498
190	--	<0.2	3.8	<0.1	<2	<0.2	<2	--	2.4	259	<4	589
<49.8	<0.125	0.289	<24.9	<2.49	<24.9	<2.49	<4.98	--	<12.4	149	<49.8	428
<48.3	<0.121	0.246	<24.2	<2.42	<24.2	<2.42	<4.83	--	<12.1	169	<48.3	429
34	<30	<0.3	4.39	<0.100	1.36	<0.800	0.883	3.05	4.72	150	<6	170
84	<4.65	<0.47	<2.42	<0.23	13.2	<0.23	1.86	--	3.91	127	<1.4	1322
607	--	0.33	9.7	0.1	<2	<0.2	<1	--	2.7	529	<4	903
171	<0.097	0.512	<19.4	<1.94	<19.4	<1.94	<3.88	--	<9.69	155	<38.8	499
561	--	<0.2	11.8	<0.1	<2	<0.2	3	--	2.9	517	<4	597
151	<30	<0.3	7.37	<0.100	2.14	<0.800	1.69	2.16	<3	247	<6	171
16	--	<0.1	2.7	<0.1	<2	<0.2	<1	--	1.7	51	<4	905
62	<0.092	0.084	<18.2	<1.82	<18.2	<1.82	<3.65	--	<9.12	69.4	<36.5	500
12,500	--	2.6	100	0.43	24	0.4	17	--	31.8	11,500	<4	559
557	<20	4.14	15.2	<0.200	33.6	<0.800	<3	<3	16.5	776	<6	153
878	<20	3.97	26.3	<0.200	28.5	<0.800	<3	<3	18.6	1,010	<6	154
655	<20	2.64	10.9	0.202	18.2	0.992	<3	<3	19.3	773	<6	155
1,200	--	--	<31.8	<3.18	<31.8	<3.18	<6.37	--	26.7	1,010	<63.7	517
3,590	--	8.1	84.7	0.2	353	<0.2	5.8	--	5.5	3,620	4	1010
5,170	--	4.4	81.2	0.2	43	<0.3	7.4	--	4	4,270	<4	399
4,010	--	5.7	122	0.1	651	<0.2	5.4	--	4.6	3,100	4	371
2,680	--	6.2	59.4	0.1	346	<0.2	3.9	--	5.5	2,100	<4	996
1,500	<50	--	54.3	<0.300	288	<1	<3	<4	6.83	2,040	<15	90
3,560	<50	--	96.5	<0.300	163	<1	7.41	5.54	11.2	7,890	<15	112
2,630	--	4.9	40	0.1	9.8	<0.2	5.7	--	7.8	3,380	<4	1018
2,520	--	3.1	42.2	<0.1	19	<0.3	7.6	--	6	3,200	<4	386
3,790	<50	--	52.2	<0.300	37.8	<1	7.60	<4	9.99	5,940	<15	91

Table 67.--*Field and laboratory analyses of biological*

Organism	Tissue	Date	Magnesium	Manganese	Mercury	Molybdenum
American Coot	Bird-Egg-I	06-03-87	445	2	0.38	<1
American Coot	Bird-Egg-I	06-10-87	869	4.7	0.801	<1
American Coot	Bird-Egg-I	05-25-89	700	2	0.3	<1
American Coot	Bird-Egg-I	06-14-89	435	3.5	0.11	<1
Black-Crowned Night Heron	Bird-Egg-I	06-14-88	561	<5.22	1.56	<17.5
Black-Crowned Night Heron	Bird-Egg-I	07-06-89	360	2.5	0.616	1
Cinnamon Teal	Bird-Egg-I	06-07-89	314	2.4	1.4	<1
Gadwall	Bird-Egg-I	06-21-89	370	1.9	0.19	<1
Gadwall	Bird-Egg-I	06-21-89	314	1.4	0.11	<1
Gadwall	Bird-Egg-I	06-21-89	457	0.95	0.078	<1
Mallard	Bird-Egg-I	05-25-89	357	0.9	0.12	<1
Pied-Billed Grebe	Bird-Egg-I	06-10-87	530	2.8	2.4	<1
Pied-Billed Grebe	Bird-Egg-I	06-24-87	479	2	1.6	<1
Pied-Billed Grebe	Bird-Egg-I	06-24-87	727	6	3	<1
Ruddy Duck	Bird-Egg-I	06-10-87	602	2.6	0.756	<1
Snowy Egret	Bird-Egg-I	06-14-88	496	<4.35	2.38	<14.5
Snowy Egret	Bird-Egg-I	07-06-89	488	2.2	0.702	2
Snowy Egret	Bird-Egg-I	07-06-89	632	3.4	0.44	<1
American Coot	Bird-Liver-I	08-19-87	799	11	0.20	4.8
American Coot	Bird-Liver-I	08-19-87	879	15	0.27	3
Pied-Billed Grebe	Bird-Liver-I	08-03-88	632	15	1.83	<19.8
Black Bullhead	Fish-Whole Body-C3	04-14-87	1,340	12	0.663	<1
Black Bullhead	Fish-Whole Body-C2	08-03-88	1,270	<11.2	0.679	<37.3
Black Bullhead	Fish-Whole Body-C5	04-12-88	1,660	20.2	0.40	<1
Black Bullhead	Fish-Whole Body-C4	07-27-89	1,260	20.4	0.275	<2.92
Black Bullhead	Fish-Whole Body-C2	04-19-89	1,880	26	0.266	<5
Common Carp	Fish-Whole Body-C2	04-14-87	1,560	19	0.22	<1
Common Carp	Fish-Whole Body-C6	08-04-87	1,190	8.33	0.238	<19.8
Common Carp	Fish-Whole Body-C5	08-04-87	1,360	8.18	0.164	<22.7
Common Carp	Fish-Whole Body-C3	04-12-88	1,120	9	0.11	<1
Common Carp	Fish-Whole Body-C4	08-03-88	1,190	7.96	0.209	<24.9
Common Carp	Fish-Whole Body-C3	08-03-88	1,300	7.25	0.174	<24.2
Common Carp	Fish-Whole Body-C4	04-19-89	1,650	50.2	0.144	<5
Common Carp	Fish-Whole Body-C4	07-27-89	1,290	6.09	0.158	<2.33
Flannelmouth Sucker	Fish-Whole Body-C5	04-14-87	1,390	39.4	0.33	<1
Flannelmouth Sucker	Fish-Whole Body-C5	08-04-87	1,510	20	0.264	<19.4
Flannelmouth Sucker	Fish-Whole Body-C5	04-12-88	1,480	26.4	0.34	<1
Flannelmouth Sucker	Fish-Whole Body-C3	04-19-89	1,670	49.9	0.296	<5
Green Sunfish	Fish-Whole Body-I	04-14-87	1,550	27.6	0.424	<1
Green Sunfish	Fish-Whole Body-C4	08-04-87	1,420	16.4	0.328	<18.2
Chironomidae(Predominant)	Invertebrate-Whole Body-C	04-12-88	5,300	101	0.059	<2
Invertebrates-Mixed	Invertebrate-Whole Body-C	05-09-89	3,470	226	0.406	<5
Invertebrates-Mixed	Invertebrate-Whole Body-C	06-16-89	3,180	133	0.0846	<5
Invertebrates-Mixed	Invertebrate-Whole Body-C	07-18-89	2,300	65.1	0.170	<5
Invertebrates-Odonata	Invertebrate-Whole Body-C	08-04-87	1,530	70.7	0.229	<31.8
Filamentous Green Algae	Plant-without root-C	07-20-87	7,050	1,080	0.018	<1
Najas marina	Plant-without root-C	08-18-88	8,770	821	0.01	<1
Potamogeton filiformis	Plant-without root-C	08-18-88	8,610	517	0.017	<1
Potamogeton pusillus	Plant-without root-C	07-20-87	7,420	743	0.017	1
Potamogeton spp.	Plant-without root-C	06-14-89	8,120	1,280	--	<10
Zannichellia palustris	Plant-without root-C	06-14-89	7,460	891	--	<10
Typha spp.	Plant-Root and Stem-C	08-12-87	3,040	334	0.18	<1
Typha spp.	Plant-Root and Stem-C	08-18-88	3,800	240	<0.005	2
Typha spp.	Plant-Root and Stem-C	06-14-89	590	329	--	<10

samples from Gadwall pond in the Pariette Wetlands area—Continued

Nickel	Selenium	Silver	Strontium	Thallium	Tin	Vanadium	Zinc	Sample number
<1	5.8	<1	20.7	<3	--	<0.3	60	975
<1	6.5	<1	78.2	<3	--	<0.3	79.7	971
<1	8.4	<2	39.2	<6	--	<0.3	49.1	1199
<1	5.1	<2	20.7	<7	--	<0.3	48.4	1200
<14	7.8	<17.5	9.80	--	<17.5	<17.5	64.9	621
<1	13	<2	6.2	<4	--	<0.3	42.5	1109
1	11	<2	23.1	<6	--	<0.3	57.6	1212
<1	6.1	<2	23.9	--	--	<4	49.9	1110
<1	5.6	<2	22.9	<4	--	<0.3	58.5	1111
<1	4.6	<2	20.3	<4	--	<0.3	53.9	1112
<5	6	<2	33.9	<4	--	<0.8	46	1184
<1	7.3	<1	16.1	<3	--	<0.3	62.7	974
<1	7.3	<1	21.8	<3	--	<0.3	43.6	972
<1	10	<1	47.1	<3	--	<0.3	82	973
<1	9.6	<1	44.4	<3	--	<0.3	63.1	976
<11.6	6.9	<14.5	5.52	--	<14.5	<14.5	76.3	622
<1	6.9	<2	3.7	<4	--	<0.3	44.2	1113
<1	6.4	<2	7.2	<4	--	<0.3	62.2	1114
<2	5.1	1	0.77	<6	--	<0.3	222	1061
<2	8.6	<1	1.3	<6	--	<0.3	164	1062
<15.8	47	<19.8	<3.95	--	<19.8	<19.8	100	811
<1	4.2	<2	237	<6	--	0.4	89.2	902
<29.9	9.7	<37.3	53	--	<37.3	<37.3	88.8	427
<1	5.7	<2	335	<4	--	1.5	96.1	577
<2.34	4.7	<2.92	169	<11.7	17.6	<2.92	78.3	1321
<3.50	5.07	<10	619	--	<30	<1.50	107	169
<2	7.7	<2	415	<6	--	1.3	230	904
<15.9	6.3	<19.8	313	--	<19.8	<19.8	157	497
<18.2	10.5	<22.7	308	--	<22.7	<22.7	166	498
<1	6.8	<2	185	<4	--	0.5	191	589
<19.9	11.4	<24.9	232	--	<24.9	<24.9	165	428
<19.3	12.6	<24.2	229	--	<24.2	<24.2	167	429
<3.50	11	<10	443	--	<30	<1.50	183	170
<1.86	4.2	<2.33	315	<9.3	16.7	<2.33	139	1322
<1	5.1	<2	159	<6	--	1.7	56.3	903
<15.5	5	<19.4	172.4	--	<19.4	<19.4	60.5	499
3	5.3	<2	137	<4	--	1.5	53	597
<3.50	7.80	<10	283	--	<30	<1.50	68.3	171
<1	6.2	<2	506	<6	--	0.3	96.2	905
<14.6	5.8	<18.2	349	--	<18.2	<18.2	84.7	500
9	5.7	<2	95.4	<5	--	24	108	559
<2.50	6.60	<10	311	--	<25	1.64	95.2	153
<2.50	8.80	<10	903	--	<25	2.33	98.2	154
2.64	6.80	<10	108	--	<25	2.76	165	155
<25.5	7.6	<31.8	54.8	--	<31.8	<31.8	96.2	517
3.9	1.1	<2	490	<5	--	10	13	1010
5	1.2	<2	592	<4	--	13	17	399
4	1.9	<2	1,060	<4	--	14	13	371
3.4	1.6	<2	657	<5	--	10	19	996
5.22	1.19	<15	1,110	--	<50	8.15	22.5	90
5.68	2.22	<15	973	--	<50	14.6	28.3	112
3	0.38	<2	158	<5	--	7.2	25.2	1018
5	1.1	<2	186	<4	--	8.5	14	386
4.78	0.473	<15	240	--	<50	10.2	24	91

Table 68.--*Field and laboratory analyses of biological samples from Horseshoe, Mallard, Indian, and Redhead ponds in the Pariette Wetlands area*

[g, gram; mm, millimeter; Organism: spp. species. Tissue: C4, composite sample, number of individuals; I, individual sample; Egg, net sample weight. Life stage: listed as days for embryos. --, not determined; <, less than]

Site name	Organism	Tissue	Date	Moisture content (percent)	Life stage	Sex	Organism data		
							Average weight (g)	Total weight (g)	Length (mm)
HP	Canada Goose	Bird-Egg-I	04-26-89	68.8	26	--	--	111	86.5
	Mallard	Bird-Egg-I	04-26-89	67.9	4	--	--	43	55.5
	Redhead	Bird-Egg-I	06-16-89	67.3	21	--	--	48	59.7
MP	American Coot	Bird-Egg-I	06-06-89	75.9	7	--	--	22	47.9
	American Coot	Bird-Egg-I	06-06-89	72.5	20	--	--	22	53.2
	American Coot	Bird-Egg-I	06-06-89	75.2	10	--	--	25	50.3
	American Coot	Bird-Egg-I	06-06-89	74.9	7	--	--	23	47.8
	Cinnamon Teal	Bird-Egg-I	06-05-89	66.4	4	--	--	21	43.4
	Cinnamon Teal	Bird-Egg-I	06-21-89	69.6	4	--	--	24	43.6
	Gadwall	Bird-Egg-I	06-21-89	67.4	19	--	--	37	53.2
	Mallard	Bird-Egg-I	05-23-89	68.1	21	--	--	36	56.6
	Yellow-Headed Blackbird	Bird-Egg-C4	06-07-89	82.9	--	--	--	15	27.9
	Chara spp.	Plant-without root-C	06-22-89	80.8	--	--	--	47	--
	Potamogeton spp.	Plant-without root-C	06-22-89	87	--	--	--	239	--
	Typha spp.	Plant-Root and Stem-C	06-22-89	93.3	--	--	--	434	--
IP	American Coot	Bird-Egg-I	06-06-89	72	19	--	--	22	49.7
	Pied-Billed Grebe	Bird-Egg-I	06-06-89	76.9	8	--	--	22	42.9
	Potamogeton spp.	Plant-without root-C	07-18-89	88.8	--	--	--	84	--
RP	American Coot	Bird-Egg-I	06-14-89	75.2	13	--	--	19	46.5
	American Coot	Bird-Egg-I	06-14-89	76.7	19	--	--	27	51.8
	American Coot	Bird-Egg-I	06-14-89	75.8	13	--	--	24	48.3
	Cinnamon Teal	Bird-Egg-I	06-05-89	69	6	--	--	27	47.1
	Pied-Billed Grebe	Bird-Egg-I	06-14-89	79.4	10	--	--	18	42.6
	Yellow-Headed Blackbird	Bird-Egg-C3	06-14-89	84	2	--	--	12	26.1
	Black Bullhead	Fish-Whole Body-C4	08-04-88	83.2	--	--	92	--	185
	Black Bullhead	Fish-Whole Body-C5	08-03-89	81.2	--	--	86	--	179.8
	Black Bullhead	Fish-Whole Body-C5	08-03-89	83.1	--	--	83	--	175.4
	Common Carp	Fish-Whole Body-I	08-04-88	83.7	--	--	--	386	292
	Common Carp	Fish-Whole Body-C3	08-03-89	74.5	--	--	1,669	--	500
	Filamentous Green Algae	Plant-without root-C	07-20-87	94.1	--	--	--	--	--
	Potamogeton pusillus	Plant-without root-C	07-20-87	84.5	--	--	--	--	--
	Potamogeton spp.	Plant-without root-C	06-14-89	87.8	--	--	--	101	--
	Ruppia maritima	Plant-without root-C	07-20-87	85	--	--	--	--	--
	Typha spp.	Plant-Root and Stem-C	08-12-87	79.5	--	--	--	--	--

Table 68.—*Field and laboratory analyses of biological samples from Horseshoe, Mallard, Indian, and Redhead ponds in the Pariette Wetlands area*—Continued

Site name	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Chromium	Cobalt	Copper	Iron	Lead	Sample number
HP	<15	<30	<0.3	3.56	<0.100	3.82	<0.400	<2	<3	4.37	163	<6	2
	4	--	<0.1	2.4	<0.4	<4	<0.5	<3	--	3	136	<4	1185
	<3	--	<0.1	6.1	<0.1	4	<0.3	<1	--	3	154	<4	1115
MP	6	--	0.2	2	<0.1	6.4	<0.2	<1	--	3.5	110	<4	1203
	<3	--	2	4.4	<0.1	8.5	<0.2	<1	--	3.4	110	<4	1202
	<3	--	<0.1	3.3	<0.1	6	<0.2	<1	--	3.2	120	<4	1204
	<3	--	0.1	4.1	<0.1	6.9	<0.2	<1	--	3.4	120	<4	1205
	<3	--	<0.1	4.1	<0.1	3	<0.2	<1	--	3.2	120	<4	1213
	<3	--	<0.1	2.8	<0.1	3	<0.3	<1	--	2.9	108	<4	1118
	<6	--	<0.1	4.7	<0.1	5	<0.3	<1	--	3.5	116	<4	1119
	3	--	<0.1	7.9	0.4	<4	<0.5	<2	--	4.2	119	<4	1186
	<3	--	<0.1	0.79	<0.1	<2	<0.2	<1	--	1.8	168	<4	1224
	1,530	<50	--	100	<0.300	55.8	<1	3.36	<4	3.59	1,460	<15	106
	634	<50	--	80	<0.300	557	<1	<3	<4	3.41	867	<15	105
	1,610	<50	--	32.2	<0.300	52.6	<1	3.92	<4	10.1	2,910	<15	107
IP	<3	--	<0.1	1.7	<0.1	6.3	<0.2	<1	--	2.9	100	<4	1201
	<3	--	<0.1	0.34	<0.1	<2	<0.2	<1	--	2.6	140	<4	1220
	421	<50	--	44.3	<0.300	476	<1	<3	5.78	<3	1,050	<15	111
RP	<3	--	0.1	2.3	<0.1	4	<0.2	<1	--	2.8	140	<4	1206
	<3	--	<0.1	2.8	<0.1	5	<0.2	<1	--	2.9	88	<4	1207
	<3	--	0.1	1.6	<0.1	5	<0.2	<1	--	2.7	85	<4	1208
	<3	--	<0.1	3.2	<0.1	3	<0.2	<1	--	4.4	89	<4	1214
	<3	--	<0.1	<0.1	<0.1	<2	<0.2	<1	--	2.1	82	<4	1221
	<3	--	<0.1	1.5	<0.1	<2	<0.2	<1	--	1.6	157	<4	1225
	<59.5	<0.149	0.214	<29.8	18.5	<29.8	3.57	<5.95	--	53	1,250	<59.5	422
	24.7	<5.32	<0.53	<2.66	<0.27	5.48	<0.27	1.54	--	3.51	107	<1.6	1350
	20	<5.92	<0.59	<2.96	<0.3	5.92	<0.3	1.72	--	3.79	90.5	<1.78	1351
	61.3	<0.154	0.724	<30.7	<3.07	<30.7	<3.07	<6.13	--	<15.3	264	<61.3	421
	29.6	<3.92	<0.39	2.12	<0.2	2.51	<0.2	1.57	--	5.02	143.5	<1.18	1352
	5,950	--	4.3	105	0.32	60	<0.2	7.5	--	9.2	6,100	5	1014
	989	--	1.9	30	<0.1	338	0.5	2	--	6	1,040	<4	1000
	567	<50	--	46.2	<0.300	301	<1	5.69	7.02	7.72	795	<15	113
	2,660	--	4	82.8	0.2	260	0.3	3.8	--	7.8	2,600	<4	997
	1,420	--	1.9	35.2	0.1	15	<0.2	3.9	--	6.1	2,230	<4	1022

Table 68.--*Field and laboratory analyses of biological samples from Horseshoe, Mallard, Indian, and Redhead ponds in the Pariette Wetlands area*—Continued

Site name	Organism	Tissue	Date	Magnesium	Manganese	Mercury	Molybdenum
HP	Canada Goose	Bird-Egg-I	04-26-89	579	2.35	<0.02	<5
	Mallard	Bird-Egg-I	04-26-89	279	2	0.085	<1
	Redhead	Bird-Egg-I	06-16-89	526	2.9	0.4	<1
MP	American Coot	Bird-Egg-I	06-06-89	461	3	1.9	<1
	American Coot	Bird-Egg-I	06-06-89	632	3.5	1.1	<1
	American Coot	Bird-Egg-I	06-06-89	439	4.5	1.4	<1
	American Coot	Bird-Egg-I	06-06-89	464	3.8	1.3	<1
	Cinnamon Teal	Bird-Egg-I	06-05-89	297	2.4	1.03	<1
	Cinnamon Teal	Bird-Egg-I	06-21-89	307	2.4	0.663	<1
	Gadwall	Bird-Egg-I	06-21-89	435	3.7	0.905	<1
	Mallard	Bird-Egg-I	05-23-89	376	5.1	0.47	<1
	Yellow-Headed Blackbird	Bird-Egg-C4	06-07-89	350	4	0.49	<1
	Chara spp.	Plant-without root-C	06-22-89	9,590	1,450	--	<10
	Potamogeton spp.	Plant-without root-C	06-22-89	9,000	5,740	--	<10
	Typha spp.	Plant-Root and Stem-C	06-22-89	4,550	631	--	<10
IP	American Coot	Bird-Egg-I	06-06-89	636	2.2	0.18	<1
	Pied-Billed Grebe	Bird-Egg-I	06-06-89	476	3.4	1.4	<1
	Potamogeton spp.	Plant-without root-C	07-18-89	8,600	4,840	--	<10
RP	American Coot	Bird-Egg-I	06-14-89	483	1	2.8	<1
	American Coot	Bird-Egg-I	06-14-89	623	3	0.11	<1
	American Coot	Bird-Egg-I	06-14-89	525	1.1	0.12	<1
	Cinnamon Teal	Bird-Egg-I	06-05-89	419	3.3	0.582	<1
	Pied-Billed Grebe	Bird-Egg-I	06-14-89	337	1.7	1.5	<1
	Yellow-Headed Blackbird	Bird-Egg-C3	06-14-89	334	3	0.14	<1
	Black Bullhead	Fish-Whole Body-C4	08-04-88	2,200	102	0.405	<29.8
	Black Bullhead	Fish-Whole Body-C5	08-03-89	1,350	12.1	0.34	<2.66
	Black Bullhead	Fish-Whole Body-C5	08-03-89	1,510	13.7	0.402	<2.96
	Common Carp	Fish-Whole Body-I	08-04-88	1,350	<9.20	0.172	<30.7
	Common Carp	Fish-Whole Body-C3	08-03-89	1,190	5.73	0.282	<1.96
	Filamentous Green Algae	Plant-without root-C	07-20-87	9,810	347	0.036	<1
	Potamogeton pusillus	Plant-without root-C	07-20-87	5,630	221	0.01	1
	Potamogeton spp.	Plant-without root-C	06-14-89	7,160	3,260	--	<10
	Ruppia maritima	Plant-without root-C	07-20-87	5,970	391	0.019	<1
	Typha spp.	Plant-Root and Stem-C	08-12-87	2,900	268	0.051	<1

Table 68.--*Field and laboratory analyses of biological samples from Horseshoe, Mallard, Indian, and Redhead ponds in the Pariette Wetlands area*—Continued

Site name	Nickel	Selenium	Silver	Strontium	Thallium	Tin	Vanadium	Zinc	Sample number
HP	<2.50	2.05	<9	35.7	--	<30	<1	67.5	2
	<5	4	<2	19	<4	--	<0.9	53	1185
	<1	13	<2	45.8	<4	--	<0.3	55.9	1115
MP	<1	4.2	<2	28.2	<6	--	<0.3	48.8	1203
	<1	3.7	<2	53.6	<6	--	<0.3	67.5	1202
	<1	5.7	<2	33.8	<6	--	<0.3	51.4	1204
	<1	4.3	<2	35.4	<6	--	<0.3	52.8	1205
	<1	8.7	<2	26.2	<6	--	<0.3	57.8	1213
	<1	8.9	<2	21.5	<4	--	<0.3	52.8	1118
	<1	8	<2	33	<4	--	<0.3	56.4	1119
	<5	11	<2	29.4	<4	--	<0.9	49	1186
	<1	8.5	<2	30.6	<6	--	<0.3	61.4	1224
	<4.50	0.854	<15	5,850	--	<50	2.69	18.4	106
	<4.50	1.42	<15	1,140	--	<50	3.52	15.2	105
	<4.50	0.936	<15	329	--	<50	5.57	37.3	107
IP	<1	5.4	<2	47.2	<6	--	<0.3	54.4	1201
	<1	10	<2	12.8	<6	--	<0.3	53.7	1220
	<4.50	1.38	<15	725	--	<50	4.09	21.7	111
RP	<1	5.8	<2	37.8	<6	--	<0.3	57.7	1206
	<1	6.4	<2	48	<6	--	<0.3	59.8	1207
	<1	6.6	<2	27.4	<6	--	<0.3	57.7	1208
	<1	11	<2	18.6	<6	--	<0.3	50.1	1214
	<1	7.7	<2	9.4	<6	--	<0.3	38.7	1221
	<1	12	<2	23.9	<6	--	<0.3	53.3	1225
	41.7	9.5	<29.8	102	--	<29.8	<29.8	114	422
	<2.13	<5.3	<2.66	181	<10.6	10.3	<2.66	85.9	1350
	<2.37	1.8	<2.96	212	<11.8	17.1	<2.96	99.3	1351
	<24.5	12.9	<30.7	91.4	--	<30.7	<30.7	175	421
	<1.57	<3.9	<1.96	307	<7.84	16.3	<1.96	200	1352
	5.5	1.8	<2	750	<5	--	18	22	1014
	2	0.99	<2	359	<5	--	5.9	17	1000
	<4.50	1.27	16.9	1,010	--	<50	4.02	27.8	113
	3.5	1.3	<2	586	<5	--	9.7	22	997
	2	0.59	<2	146	<5	--	5.1	22	1022

Table 69.—*Field and laboratory analyses of biological samples collected from and adjacent to the Green River*

[g, gram; mm, millimeter; Tissue: C5, composite sample, number of individuals; I, individual sample; Egg, net sample weight. Life stage: listed as days for embryos; I, immature; A, Adult; Sex: M, male; F, female. —, not determined; <, less than]

Site name: See table 4 for full site name.

Site name	Organism	Tissue	Date	Moisture content (percent)	Life stage	Sex	Organism		
							Average weight (g)	Total weight (g)	Length (mm)
GR BP	Brown Trout	Fish-Whole Body-C5	08-11-87	70.2	A	--	814	—	441
	Common Carp	Fish-Whole Body-C2	08-11-87	71.9	A	—	1,030	—	423
	Sucker, Composite	Fish-Whole Body-C7	08-11-87	68.9	A	--	673	—	428
GR EP	Channel Catfish	Fish-Whole Body-C6	08-14-87	70	A	—	--	149	259
	Common Carp	Fish-Whole Body-C4	07-28-87	72.6	A	--	--	925	354
	Common Carp	Fish-Whole Body-C4	08-14-87	73.8	A	—	--	1,105	424
GRAC	Canada Goose	Bird-Egg-I	04-13-89	69.1	18	—	--	135	88
	Great Blue Heron	Bird-Liver-I	08-18-87	76.2	I	—	--	—	—
	Great Blue Heron	Brid-Liver-I	08-18-87	76.7	I	—	--	—	--
	Razorback Sucker	Fish-Eggs-C	05-11-88	76.8	--	--	--	3	—
	Colorado Squawfish	Fish-Gonads-I	06-29-82	60.8	--	M	--	—	—
	Colorado Squawfish	Fish-Liver-I	06-29-82	52.3	--	M	--	—	—
	Colorado Squawfish	Fish-Muscle-I	06-29-82	74.6	--	M	--	—	—
	Northern Pike	Fish-Muscle-I	05-11-88	77.6	A	—	--	—	—
	Channel Catfish	Fish-Whole Body-C5	08-12-87	73	A	—	210	—	299
	Common Carp	Fish-Whole Body-C5	08-26-86	77.1	--	—	514	--	329
	Common Carp	Fish-Whole Body-C3	07-16-87	72.8	A	—	950	—	413
	Common Carp	Fish-Whole Body-C3	08-12-87	73	A	—	1,220	—	400
	Common Carp	Fish-Whole Body-I	07-11-88	78	--	—	--	108	—
	Flannelmouth Sucker	Fish-Whole Body-C2	08-26-86	75.9	--	—	910	—	483
GR	Humpback Chub	Fish-Gonads-I	08-15-86	76.3	--	—	--	--	--
	Humpback Chub	Fish-Liver-I	08-15-86	68.7	--	—	--	—	—
	Humpback Chub	Fish-Muscle-I	08-15-86	61.7	--	—	--	—	—
GR OUR	Bald Eagle	Bird-Blood-I	03-17-88	78.8	I	F	--	—	—
	Channel Catfish	Fish-Whole Body-C4	08-13-87	72	A	—	100	—	202
	Channel Catfish	Fish-Whole Body-C4	08-13-87	73.9	--	—	101	—	254
	Common Carp	Fish-Whole Body-C5	08-13-87	74.8	A	—	744	—	403
	Northern Pike	Fish-Whole Body-I	10-30-88	78.4	A	—	--	1,519	642
	Northern Pike	Fish-without Stomach-I	05-02-89	76.4	--	—	--	1,844	673
GR PR	Channel Catfish	Fish-Whole Body-C6	08-13-87	73	A	—	342	—	367
GR GR	Common Carp	Fish-Whole Body-C4	08-12-87	74.2	A	—	386	—	239
	Common Carp	Fish-Whole Body-C5	08-12-87	73.6	A	—	730	—	375

Table 69.—*Field and laboratory analyses of biological samples collected from and adjacent to the Green River*—Continued

Site name	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Chromium	Cobalt	Copper	Iron	Lead	Sample number
GR BP	218	<0.084	0.064	<16.8	<1.68	<16.8	<1.68	<3.36	--	<8.39	440	<33.6	529
	89	<0.089	0.811	<17.8	<1.78	<17.8	<1.78	<3.56	--	<8.90	303	<35.6	531
	<32.2	<0.081	0.550	<16.1	<1.61	<16.1	<1.61	<3.22	--	<8.04	77.2	<32.2	530
GR EP	66.7	<0.084	0.220	<16.7	<1.67	<16.7	<1.67	6	--	<8.33	223	<33.3	533
	266	<0.092	0.358	<18.2	<1.82	<18.2	<1.82	<3.65	--	<9.12	431	<36.5	534
	164	<0.096	0.164	<19.1	<1.91	<19.1	<1.91	<3.82	--	<9.54	386	<38.2	532
GRAC	<15	<30	<0.3	9.18	<0.100	<2	<0.400	<2	<3	4.37	132	<6	4
	<3	--	<0.2	0.1	<0.1	<2	<0.4	<1	--	3.7	2,180	<4	1075
	3	--	<0.2	<0.1	>0.1	>2	>0.4	>1	--	3.4	2,060	<4	1076
	786	--	<0.1	14.1	<0.1	<3	<0.3	<1	--	4.8	721	<4	431
	15	--	<0.1	0.55	<0.1	<2	<0.2	<1	--	14	188	<4	1098
	29	--	<0.6	0.38	<0.1	<2	0.4	<1	--	34.6	959	<4	1099
	21	--	<0.1	0.87	<0.1	<2	<0.2	<1	--	2.8	82.5	<4	1097
	<3	--	<0.2	0.2	<0.1	<3	<0.3	<1	--	2.5	18	<4	432
	89.3	<0.09	0.154	<17.9	<1.79	<17.9	<1.79	<3.57	--	<8.93	254	<35.7	537
	240	--	<0.22	13	<0.42	<8.4	<0.42	--	--	4.4	450	<0.84	872
	73.5	<0.092	0.081	<18.4	<1.84	<18.4	<1.84	<3.68	--	<9.19	320	<36.8	535
	126	<0.093	<0.019	<18.5	<1.85	<18.5	<1.85	<3.70	--	<9.26	315	<37	536
	<45.5	<0.114	0.032	35	<2.27	<22.7	<2.27	<4.55	--	<11.4	159	<45.5	682
	160	--	<0.17	<4	<0.40	<8.1	<0.40	--	--	<0.40	740	<0.81	880
GR	21	--	<0.1	5.6	<0.1	<2	<0.2	<1	--	2.2	172	<4	1101
	130	--	<0.3	5.4	<0.1	<3	7.7	<1	--	5.1	501	<5	1102
	<20	--	<0.8	2.6	<0.4	<8	<0.9	<4	--	<1	75	<20	1100
GR OUR	--	--	<0.09	--	--	--	--	--	--	--	--	0.1	86
	65.1	<0.096	0.192	<19.2	<1.92	<19.2	<1.92	<3.83	--	<9.58	249	<38.3	539
	72.8	<0.094	0.138	<19.2	<1.92	<19.2	<1.92	<3.83	--	<9.58	172	<38.3	540
	294	<0.1	0.310	<19.8	<1.98	<19.8	<1.98	<3.97	--	<9.92	548	<39.7	538
	<30	<30	<0.37	<1	<0.20	<3	<0.50	<1.5	<3	<5	<20	<7.5	351
	21.61	<1.24	<0.42	<2.12	<0.21	<2.12	<0.21	1.4	--	1.86	56.4	<1.27	1344
GR PR	104	<0.093	0.156	<18.5	<1.85	<18.5	<1.85	<3.70	--	<9.26	167	<37	526
GR GR	42.6	<0.097	0.093	<19.4	<1.94	<19.4	<1.94	<3.88	--	<9.69	248	<38.8	527
	75.8	<0.095	0.034	<18.9	<1.89	<18.9	<1.89	<3.79	--	<9.47	212	<37.9	528

Table 69.—*Field and laboratory analyses of biological samples collected from and adjacent to the Green River*—Continued

Site name	Organism	Tissue	Date	Magnesium	Manganese	Mercury	Molybdenum
GR BP	Brown Trout	Fish-Whole Body-C5	08-11-87	1,680	37.9	0.235	<16.8
	Common Carp	Fish-Whole Body-C2	08-11-87	1,570	11.7	0.555	<17.8
	Sucker, Composite	Fish-Whole Body-C7	08-11-87	868	<4.82	0.341	<16.1
GR EP	Channel Catfish	Fish-Whole Body-C6	08-14-87	1,100	12.3	0.420	<16.7
	Common Carp	Fish-Whole Body-C4	07-28-87	1,570	18.6	0.620	<18.2
	Common Carp	Fish-Whole Body-C4	08-14-87	1,340	14.1	0.626	<19.1
GRAC	Canada Goose	Bird-Egg-I	04-13-89	525	2.34	<0.02	<5
	Great Blue Heron	Bird-Liver-I	08-18-87	780	6.8	1.8	<1
	Great Blue Heron	Brid-Liver-I	08-18-87	838	6.1	0.686	<1
	Razorback Sucker	Fish-Eggs-C	05-11-88	892	28	0.038	<1
	Colorado Squawfish	Fish-Gonads-I	06-29-82	672	1	--	<0.2
	Colorado Squawfish	Fish-Liver-I	06-29-82	647	2.2	--	<0.3
	Colorado Squawfish	Fish-Muscle-I	06-29-82	1,270	<0.2	2.56	<0.2
	Northern Pike	Fish-Muscle-I	05-11-88	1,300	1.2	1.1	<1
	Channel Catfish	Fish-Whole Body-C5	08-12-87	1,110	12.5	0.279	<17.9
	Common Carp	Fish-Whole Body-C5	08-26-86	2,000	18	0.24	--
	Common Carp	Fish-Whole Body-C3	07-16-87	1,580	13.2	0.342	<18.4
	Common Carp	Fish-Whole Body-C3	08-12-87	1,440	11.5	0.111	<18.5
	Common Carp	Fish-Whole Body-I	07-11-88	2,320	13.6	0.168	<22.7
	Flannelmouth Sucker	Fish-Whole Body-C2	08-26-86	1,300	13	0.95	--
GR	Humpback Chub	Fish-Gonads-I	08-15-86	773	0.4	--	<0.2
	Humpback Chub	Fish-Liver-I	08-15-86	513	1.8	--	<0.4
	Humpback Chub	Fish-Muscle-I	08-15-86	571	<0.7	--	<0.9
GR OUR	Bald Eagle	Bird-Blood-I	03-17-88	--	--	3	--
	Channel Catfish	Fish-Whole Body-C4	08-13-87	1,030	7.28	0.425	<19.2
	Channel Catfish	Fish-Whole Body-C4	08-13-87	1,150	7.66	0.433	<19.2
	Common Carp	Fish-Whole Body-C5	08-13-87	1,670	17.1	0.762	<19.8
	Northern Pike	Fish-Whole Body-I	10-30-88	1,500	2.04	1.44	<5
	Northern Pike	Fish-without Stomach-I	05-02-89	1,270	8.31	0.958	2.123
GR PR	Channel Catfish	Fish-Whole Body-C6	08-13-87	1,190	8.15	0.393	<18.5
GR GR	Common Carp	Fish-Whole Body-C4	08-12-87	1,320	6.98	0.353	<19.4
	Common Carp	Fish-Whole Body-C5	08-12-87	1,440	10.6	0.318	<18.9

Table 69.—*Field and laboratory analyses of biological samples collected from and adjacent to the Green River*—Continued

Site name	Nickel	Selenium	Silver	Strontium	Thallium	Tin	Vanadium	Zinc	Sample number
GR BP	<13.4	3.7	<16.8	112	--	<16.8	<16.8	70.1	529
	<14.2	3.2	<17.8	145	--	<17.8	<17.8	416	531
	<12.9	1.9	<16.1	15.1	--	<16.1	<16.1	80.4	530
GR EP	<13.3	2.7	<16.7	70.7	--	<16.7	<16.7	69.7	533
	<14.6	4	<18.2	95.6	--	<18.2	<18.2	344	534
	<15.3	4.2	<19.1	131	--	<19.1	<19.1	355	532
GRAC	<2.50	3.38	<9	<10	--	<30	<1	60.1	4
	<2	11	<1	0.52	<6	--	<0.3	305	1075
	<2	9	<1	0.52	<6	--	<0.3	313	1076
	<1	4.9	<2	9.2	<4	--	1.9	66.3	431
	<0.8	6.5	<2	1.6	10	--	0.3	287	1098
	<0.8	9.2	<2	2.2	10	--	1.1	95.1	1099
	<0.8	2.7	<2	1.8	10	--	<0.2	19	1097
	<1	6.1	<2	3.2	<4	--	<0.3	21	432
	<14.3	3.2	<17.9	61.1	--	<17.9	<17.9	62.9	537
	<4.2	10	--	--	--	<8.4	<1.3	190	872
	<14.7	16.9	<18.4	159	--	<18.4	<18.4	297	535
	<14.8	22.2	<18.5	144	--	<18.5	<18.5	259	536
	<18.2	9.5	<22.7	486	--	<22.7	<22.7	140	682
	<4	3.1	--	--	--	<8.1	<1.2	40	880
GR	<0.8	7	<2	0.81	9	--	0.4	87.1	1101
	<1	6	<3	1.7	20	--	0.7	80.9	1102
	<3	4.3	<8	1.2	<30	--	<0.8	60	1100
GR OUR	--	3.5	--	--	--	--	--	--	86
	<15.3	3.1	<19.2	51.3	--	<19.2	<19.2	70.5	539
	<15.3	3	<18.7	88.4	--	<18.7	<18.7	84.7	540
	<15.9	4.4	<19.8	117	--	20.6	<19.8	275	538
	<2	2.89	<10	11.1	--	<30	<2.6	30.7	351
	<1.69	0.8	<2.12	45.3	<8.47	16.1	<2.12	105	1344
GR PR	<14.8	2.2	<18.5	83	--	<18.5	<18.5	60.7	526
GR GR	<15.5	5.4	<19.4	115	--	<19.4	<19.4	238	527
	<15.2	4.9	<18.9	155	--	<18.9	<18.9	262	528