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GEOLOGICAL SURVEY

WATER-QUALITY DATA FOR THE HANNA AND CARBON BASINS, WYOMING

by Pamela B. Freudenthal

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CONVERSION FACTORS

The following factors may be used to convert inch-pound units to metric units:

Multiply inch-pound units	by	To obtain metric units
foot (ft)	0.3048	meter (m)
acre	4,047	square meter (m^2)
square mile (mi^2)	2.590	square kilometer (km^2)
cubic foot per second (ft^3/s,CFS)	0.0283	cubic meter per second (m^3/s)

Multiply metric units	by	To inch-pound units
degree Celsius (°C, DEG C)	([1])	degree Fahrenheit (°F)
micrometer (μm)	0.00003937	inch (in)
millimeter (mm)	0.03937	inch (in)
centimeter (cm)	0.3937	inch (in)

([1]) Temp °F=1.8 temp °C+32

GLOSSARY

A brief glossary is included to familiarize the reader with the technical terms used in this report. For more detailed definitions, see the references section, especially Hem (1970) and Brown and others (1970).

Alkalinity is the capacity of water to neutralize acid. In most natural waters this ability is due to the presence of bicarbonate and carbonate ions. Alkalinity values are expressed as equivalent calcium carbonate.

Anticline is an arch of stratified rock in which the layers bend downward in opposite directions from the crest.

Bed material - see Sediment

Dissolved refers to the amount of substance present in true chemical solution. In practice, however, the term includes all forms of substance that will pass through a 0.45-micrometer membrane filter, and thus may include some very small (colloidal) suspended particles.

Fall diameter - see Sediment

Gaging station as used in this report is a surface-water site on a stream where flow measurements and water-quality samples are collected periodically.

Hardness of water is a physical-chemical characteristic that is commonly recognized by the increased quantity of soap required to produce lather. It is attributable to the presence of alkaline earths (principally calcium and magnesium) and is expressed as equivalent calcium carbonate ($CaCO_3$). Hardness due to salts other than carbonates and bicarbonates is termed noncarbonate hardness.

Micrograms per liter (µg/L) is a unit expressing the concentration of trace chemical constituents in solution as mass (micrograms) of solute per unit volume (liter) of water. One thousand micrograms per liter is equivalent to one milligram per liter. The weight per weight unit, parts per billion (ppb), is equivalent to the weight per volume unit (µg/L) when the density of water is one gram per milliliter. (For practical purposes, this is true when the dissolved-solids concentration is less than 7,000 mg/L.)

Micromho is a unit of measurement of electrical conductance. One thousand micromhos are equivalent to one mho, which is the reciprocal of the unit of electrical resistance, the ohm.

Milligrams per liter (mg/L) is a unit for expressing the concentration of major chemical constituents in solution. Milligrams per liter represent the mass of solute per unit volume (liter) of water. Concentration of suspended sediment also is expressed in milligrams per liter,

and is based on the mass of sediment per liter of water-sediment mixture. The weight per weight unit, parts per million (ppm), is equivalent to the weight per volume unit (mg/L) when the density of water is one gram per milliliter. (For practical purposes, this is true when the dissolved-solids concentration is less than 7,000 mg/L.)

Oxygen-demand, biochemical (BOD) is a measure of the quantity of dissolved oxygen, in milligrams per liter, necessary for the decomposition of organic matter by microorganisms (such as bacteria), and by chemicals.

pH indicates the degree of acidity or alkalinity of water and is expressed in terms of pH units. The pH value of a solution is the negative logarithm of the concentration of hydrogen ions, in moles per liter at 25°C. A pH of 7.0 indicates that the water is neither acid nor alkaline. pH readings progressively lower than 7.0 denote increasing acidity and those progressively higher than 7.0 denote increasing alkalinity.

Picocurie (pCi) is the unit of measurement of the amount of radioactivity yielding 2.2 disintegrations per minute. It is one trillionth ($1x10^{-12}$) of a curie, which is $3.7x10^{10}$ radioactive disintegrations per second.

Sediment is solid material that originates mostly from disintegrated rocks and is transported by, suspended in, or deposited from water; it includes chemical and biochemical precipitates and decomposed organic material, such as humus. The sediment in a stream is defined as: bed material, the sediment composing the bottom of the streambed; and suspended sediment, the sediment that at any given time is maintained in suspension by the upward components of turbulent currents or that exists in suspension as a colloid. Suspended sediment is found in ground water as well as surface water.

The following particle-size classification is used by the U.S. Geological Survey (Guy, 1969).

Classification	Size (mm)
Clay.....	0.00024 - 0.004
Silt.....	.004 - .062
Sand.....	.062 - 2.0
Gravel.....	2.0 - 64.0

The size of sediment in a sample is measured by two methods: fall diameter and sieve diameter. Fall diameter of a sediment particle is the diameter of a sphere that has a specific gravity of 2.65 and has the average rate of fall that a particle would finally attain if falling alone in quiescent distilled water of infinite extent at 24°C. Sieve diameter is the length of the side of the smallest square opening through which the given sediment particle will pass.

Sieve diameter - see Sediment

Sodium-adsorption-ratio (SAR) is the expression of relative activity of sodium ions in exchange reaction with soil and is an index of sodium or alkali hazard to the soil. The ratio should be known especially for water used for irrigating farmland.

Solids, residue at 105°, refers to that part of the sample which remains after baking at 105°C. This analysis may be done on the suspended or the dissolved part of the sample.

Solids, sum of constituents, dissolved is a calculation of the dissolved solids in a sample. The separate values of silica and the major cations (calcium, magnesium, sodium, and potassium) and anions (carbonate, bicarbonate [expressed as equivalent carbonate], sulfate, and chloride) present in the sample are totalled.

Specific conductance is a measure of the ability of a water to conduct an electrical current. It is expressed in micromhos per centimeter at 25°C. Specific conductance is related to the type and concentration of ions in solution and can be used for approximating the dissolved-solids concentration of the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is about 65 percent of the specific conductance (in micromhos), although this relation varies significantly according to the actual constituents in the water.

Suspended, total is that material which is retained by a 0.45-μm membrane filter. Determinations of "suspended" constituent are made either by analyzing portions of the material collected on the filter disk or, more commonly, by difference, based on determinations of (1) dissolved and (2) total (dissolved-plus-suspended) concentrations of the constituent (Friedman and Beetem, 1979, p. 8).

Suspended sediment - see Sediment

Total (as used in the tables of chemical analyses) refers to the concentration of a given constituent in a representative water sample in both dissolved and suspended forms.

Total, recoverable is the amount of a given constituent that is in solution after a representative water sample has been digested by a method (usually a dilute acid solution) that results in dissolution of readily soluble substances.

Turbidity is the degree of cloudiness of water due to suspended particles. These particles cause light to be scattered and absorbed rather than transmitted in straight lines through the sample. Turbidity is measured in Jackson turbidity units (JTU) based on use of or comparison to a Jackson candle turbidimeter. Turbidity is important to fish life and fish production.

WATER-QUALITY DATA FOR THE HANNA AND CARBON BASINS, WYOMING

by Pamela B. Freudenthal

ABSTRACT

Water-quality data for the Hanna and Carbon Basins, south-central Wyoming, are presented in tables with no interpretation. Common-constituent, trace-element, and radiochemical data for ground and surface water and sediment concentrations for surface water are included. Ground water at 53 sites and surface water at 3 gaging stations were sampled.

INTRODUCTION

Water-quality data have been collected by the U.S. Geological Survey in the Hanna Basin since 1967. When interest in western energy resources prompted several studies of water resources of basins in Wyoming, a 5-year project (1974-1979) was conducted by the Geological Survey to measure ground-water levels and to collect and analyze water-quality data associated with coal development in the Hanna Basin.

The Carbon Basin is also experiencing coal development and was included as part of the 5-year project due to its geographical proximity to the Hanna Basin.

The water-quality data from the 5-year project are presented in this report to make them available to the public. No interpretation is included.

DESCRIPTION OF AREA

The Hanna and Carbon Basins are in Carbon County in south-central Wyoming. Their combined area is approximately 1,500 mi^2. An anticline which forms the Saddleback Hills separates the Hanna Basin on the west from the Carbon Basin on the east (fig 1). The basins are bounded on the north by the Seminoe, Shirley, and Freezeout Mountains; on the west by the Haystack Mountains; and on the south by the Medicine Bow Mountains. The Carbon Basin merges with the Laramie Basin on the east.

The average altitude is about 7,000 feet, and the topography is principally undulating plains broken by high ridges. Typically, the topography closely reflects the structure of the underlying rocks.

As shown in figure 1, the major surface drainages are the Medicine Bow River and the North Platte River, which is dammed to form Seminoe Reservoir in the project area.

NUMBERING SYSTEMS

The ground-water sites in this report are assigned a latitude-longitude number and a township-range number. The 15-digit latitude-longitude number is based on the universal system of latitude and longitude and a sequential number. The first six digits denote degrees, minutes, and seconds of north latitude; the next seven digits are degrees, minutes, and seconds of west longitude; and the last two digits (assigned sequentially) identify the sites within a one-second grid (fig. 2).

The township-range numbering system is based on the Federal system of land subdivision. The first segment denotes the township, the second segment denotes the range, and the third segment denotes the section. The fourth segment of the number, consisting of three letters, denotes the 160-acre, 40-acre, and 10-acres tracts, respectively, in which the well is located. The section is divided into quarters of 160 acres each and lettered A, B, C, and D in a counterclockwise direction, beginning in the northeast quarter. Similarly, each quarter may be further divided into quarters of 40 acres and each again into 10-acre quarters and lettered as before. The first letter following the section number denotes the quarter section, the second letter denotes the quarter-quarter section, and the third letter denotes the quarter-quarter-quarter section, or 10-acre tract. A sequential number is added after the fourth segment to allow for designation of more than one well in that 10-acre tract. For example, in figure 3, the location-site number 23N 083W 32DBC01 is well 1 in the SW¼ of the NW¼ of the SE¼ of sec. 32, T. 23 N., R. 83 W.

The surface-water sites in this report are assigned 8-digit numbers. The first 2 digits are the part number, designating the major drainage basin involved. For the stations in this report, this is 06 for the Missouri River Basin. The last 6 digits are the station number for each individual station location, with increasing numbers referring to locations progressively farther downstream.

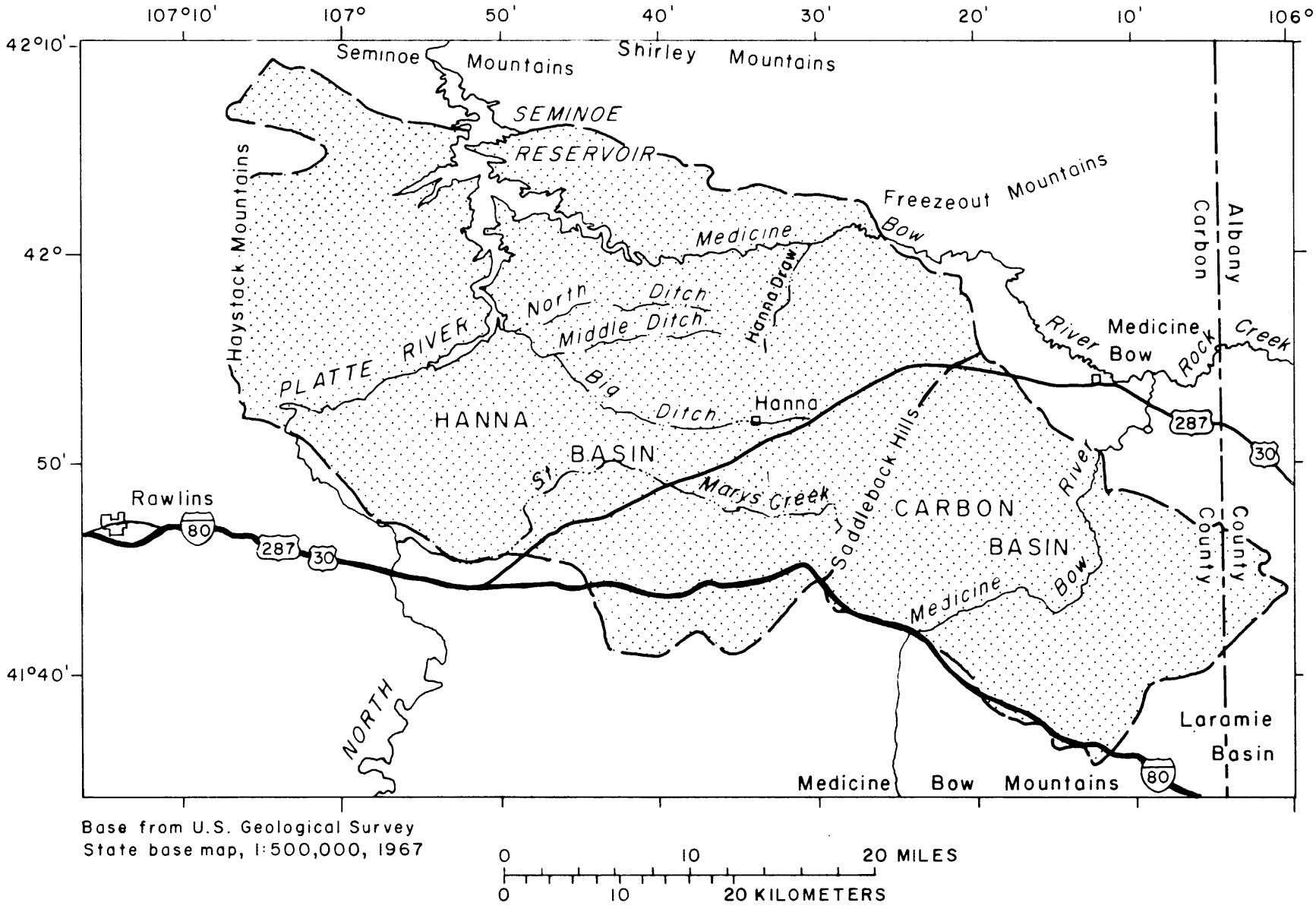

Figure 1.—Hanna and Carbon Basins.

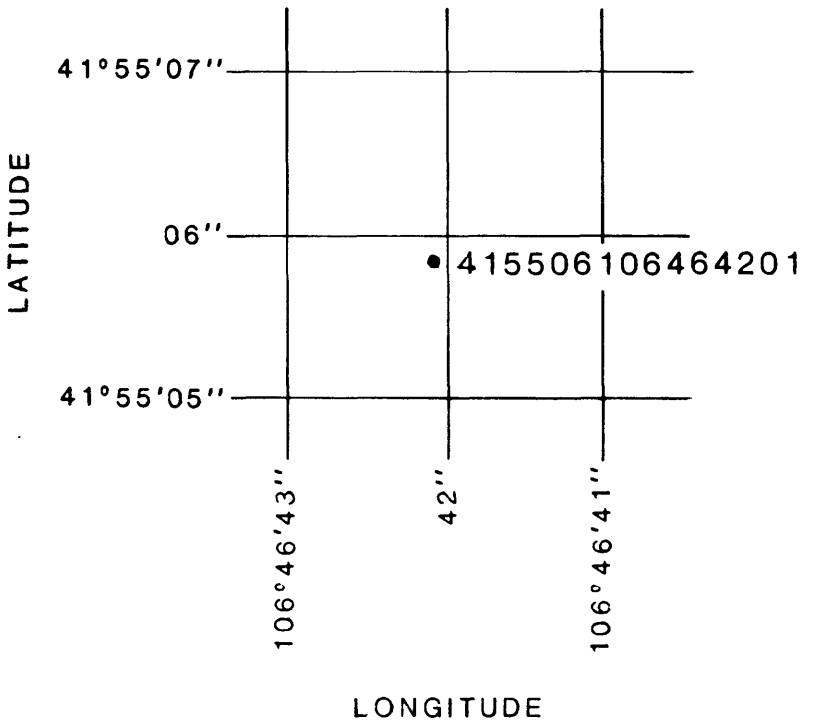

Figure 2.—Well-numbering system based on latitude and longitude.

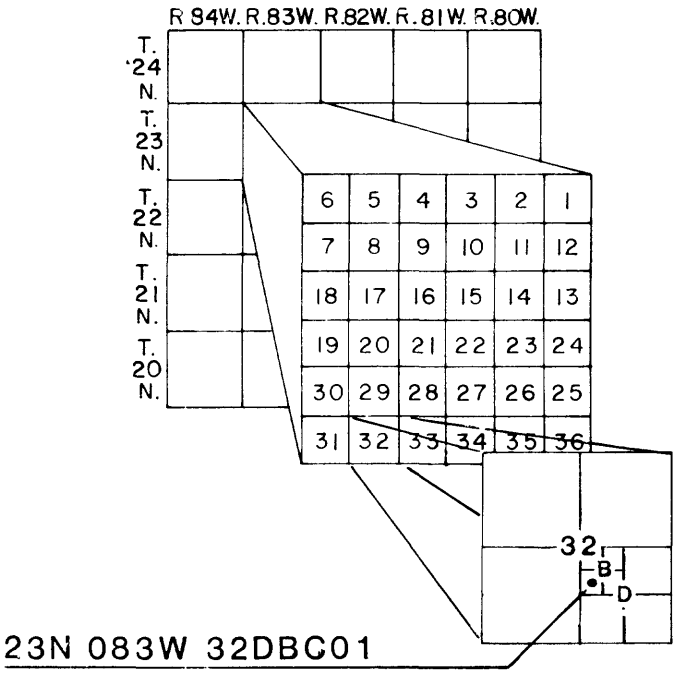

Figure 3.—Well-numbering system based on township and range.

SAMPLING POINTS

Data for fifty-three ground-water sites and three surface-water sites that have been sampled are included in this report. The ground-water sites include 40 observation wells installed by the U.S. Geological Survey and by mining companies, 10 stock wells, a seepage face in a pit wall, an old underground mine, and a spring. The locations of the sites are shown in figure 4.

The three surface-water sites are gaging stations installed for this study in 1975. The streams flow only in response to precipitation or snowmelt and are sampled regularly when they are flowing. All surface-water stations are published annually in the U.S. Geological Survey Water Resources Data for Wyoming (for example, see U.S. Geological Survey, 1978). The locations of these stations are shown in figure 4.

Some ground-water analyses from a previous investigation of south-central Wyoming (Lowry and others, 1973) are also included; some of these sites were resampled during this study.

METHODS

The samples were analyzed for common constituents and associated measurements. In addition, some samples were analyzed for trace elements and for radiochemical parameters, and some surface-water samples were analyzed for sediment.

The methods used to collect, process, and analyze the samples are explained briefly here and are described more fully in U.S. Geological Survey Techniques of Water-Resources Investigations (Brown and others, 1970; Guy, 1969; Guy, 1970; Guy and Norman, 1970; Thatcher and others, 1977; and Wood, 1976).

One problem is to obtain a sample of water representative of the aquifer or the stream. Water and mud in the well casing must be removed before a representative sample can be collected from the aquifer. The water, mud, and sample were bailed from most wells, while wells equipped with windmills and a well equipped with a pump were pumped. Naturally flowing wells provide water representative of the aquifer continually.

Generally, wells were bailed or pumped until three parameters stabilized: temperature, specific conductance, and pH. This is the minimum required precaution for insuring that a sample adequately represents the water in the aquifer (Wood, 1976). Before these parameters were monitored, a volume of water approximately equal to three times the volume of water standing in the casing was removed.

Clear water from the aquifer was not obtained in all wells because of the presence of drilling mud or sediment that could not be cleaned out of the well. These wells are footnoted in the tables. Any total

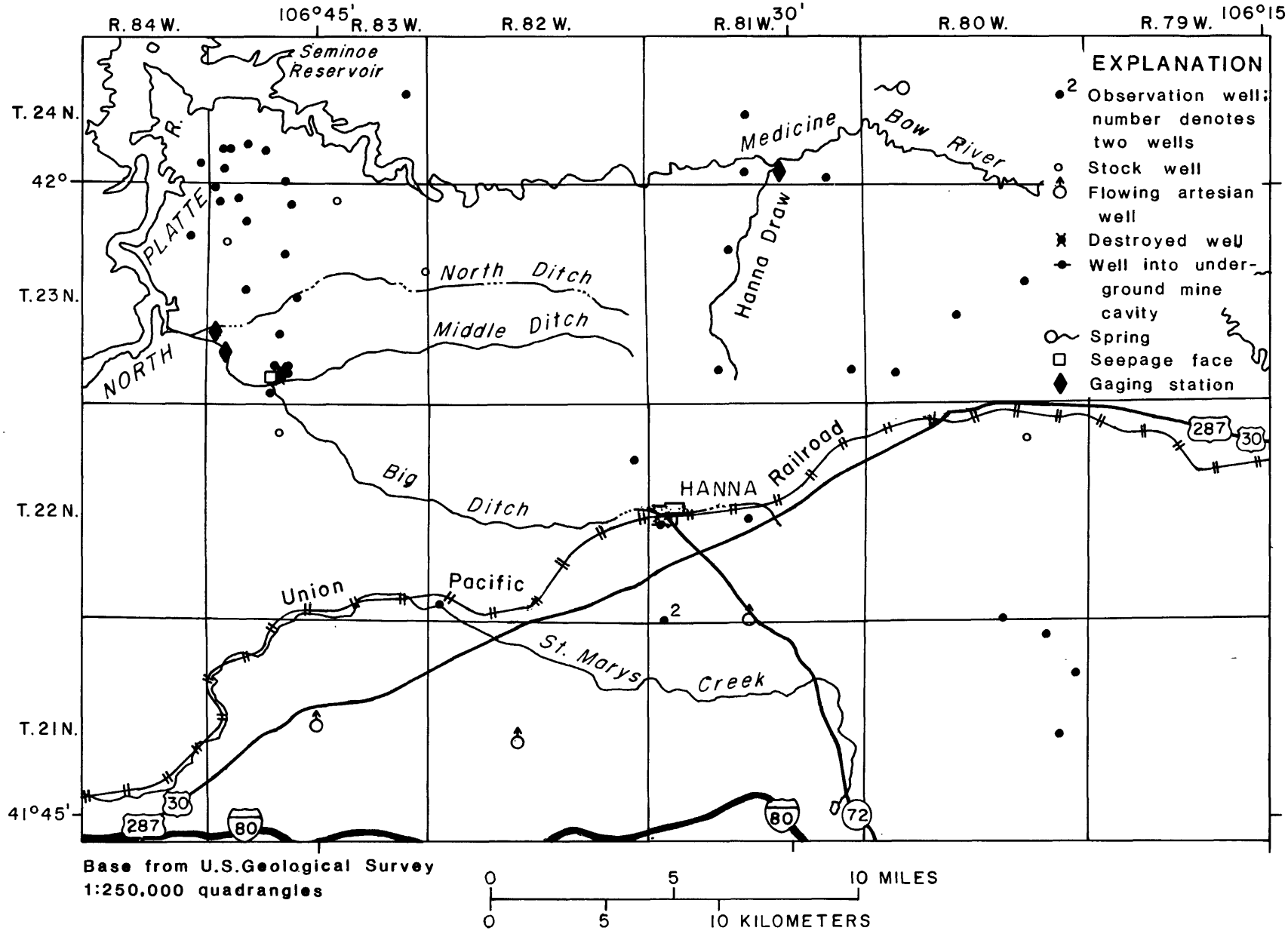

Figure 4.—Location of sampling sites in the Hanna and Carbon Basins.

value for a constituent from this group of wells may represent the presence of the constituent in the sediment as well as in the aquifer water. The sampling process (bailed, pumped, flowing) is also listed in the tables.

Samples to determine the concentration of suspended sediment in the streamflow were collected by the standard EWI (equal width increment) method as described by Guy and Norman (1970). This method of sampling permits proportionate sampling of the water-sediment mixture both from the stream surface to near the stream bed and from one edge of the water to the other.

Samples were collected and processed as close to the wellhead or the stream as possible to prevent contamination and exchange of gases with the atmosphere.

Temperature, pH, and specific conductance were measured for all samples in the field. Samples for the determination of dissolved constituents were filtered in the field to remove particulate matter. Samples for dissolved and total trace elements were treated with nitric acid to preserve their condition for laboratory analysis, and nutrient samples were chilled to inhibit biochemical change.

EXPLANATION OF TABLES

The water-quality data are presented in separate tables for ground water and surface water and by type of analysis. Common-constituent and associated measurements, trace-element, and radiochemical analyses for ground water are presented in tables 1, 2, and 3, respectively; those for surface water are presented in tables 4, 5, and 6. Sediment data for surface water are presented in table 7.

In the ground-water tables the geologic-unit code refers to the source of water for the well. The unit codes used in this report are listed below:

121NRPK	North Park Formation
124HANN	Hanna Formation
125FRRS	Ferris Formation
211MDCB	Medicine Bow Formation
211MVRD	Mesaverde Formation
221SNDC	Sundance Formation

REFERENCES

Brown, Eugene, Skougstad, M.W., and Fishman, M.J., 1970, Methods for collection and analysis of water samples for dissolved minerals and gases: U.S. Geological Survey Techniques of Water-Resources Investigations, Book 5, Chapter A1, 160 p.

Friedman, L. C., and Beetem, W. A., eds., 1979, 1980 water quality laboratory services catalog: U.S. Geological Survey Open-File Report 79-697, 186 p.

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Guy, H.P., and Norman, V.W., 1970, Field methods for measurement of fluvial sediment: U.S. Geological Survey Techniques of Water-Resources Investigations, Book 3, Chapter C2, 59 p.

Hem, J.D., 1970, Study and interpretation of the chemical characteristics of natural water, (2d ed.): U.S. Geological Survey Water-Supply Paper 1473, 363 p.

Lowry, M.E., Rucker, S.J.IV, and Wahl, K.L., 1973, Water resources of the Laramie, Shirley, Hanna Basins and adjacent areas, southeastern Wyoming: U.S. Geological Survey Hydrologic Investigations Atlas HA-471, 4 sheets.

Thatcher, L.L., Janzer, V.J., and Edwards, K.W., 1977, Methods for determination of radioactive substances in water and fluvial sediments: U.S. Geological Survey Techniques of Water-Resources Investigations, Book 5, Chapter A5, 95 p.

U.S. Geological Survey, 1978, Water resources data for Wyoming, water year 1977, volume 1, Missouri River basin: U.S. Geological Survey Water-Data Report WY-77-1, 616 p.

Wood, W.W., 1976, Guidelines for collection and field analysis of ground-water samples for selected unstable constituents: U.S. Geological Survey Techniques of Water-Resources Investigations, Book 1, Chapter D2, 24 p.

WATER-QUALITY DATA

TABLE 1.--COMMON-CONSTITUENT ANALYSES AND ASSOCIATED MEASUREMENTS OF GROUND WATER

STATION NUMBER	LOCAL IDENTIFIER	GEOLOGIC UNIT	DATE OF SAMPLE	TIME	DEPTH OF WELL, TOTAL (FEET)	SAMPLING PROCESS	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)
414643106384701	21N 082W 21BDA01	121NRPK	67-07-10	--	200	FLOWING	1010	8.2	8.3
		121NRPK	78-06-12	1515	200	FLOWING	1050	7.8	8.0
414657106213601	21N 080W 24BBA01	124HANN	77-10-06	1500	200	BAILED	970	7.2	11.0
414709106450701	21N 083W 16DDA01	211MVRD	67-06-29	--	1503	FLOWING	788	7.3	12.0
		211MVRD	78-06-13	0900	1503	FLOWING	700	6.7	12.0
414828106205601	21N 080W 12ACA01	124HANN	77-10-07	1345	310	BAILED[1]	2260	7.3	9.0
414928106215601	21N 080W 02AAD01	124HANN	77-10-08	1515	175	BAILED[1]	1380	7.9	9.5
414932106232201	22N 080W 34DCD01	124HANN	77-10-05	1330	330	BAILED[1]	1300	7.3	10.2
414938106312201	22N 081W 33DDC01	124HANN	77-11-13	1130	120	FLOWING	850	7.2	7.2
		124HANN	77-11-13	1200	120	FLOWING	850	7.2	7.2
414942106340402	22N 081W 31CDD02	124HANN	77-09-02	1200	260	BAILED[1]	2520	8.4	9.0
414942106340601	22N 081W 31CDD01	124HANN	77-09-01	1700	140	BAILED[1]	2700	8.1	8.5
415005106411701	22N 082W 31BCD01	124HANN	77-09-01	1245	140	BAILED[1]	9810	8.7	9.0
415209106340301	22N 081W 19BAA01	124HANN	76-12-13	1430	--	PUMPED	4800	7.2	10.0
		124HANN	78-06-16	0900	--	PUMPED	4500	7.2	11.5
415210106312602	22N 081W 21AAB02	124HANN	77-09-24	0740	150	BAILED[1]	6200	7.3	7.5
415336106345501	22N 082W 12ACD01	124HANN	77-09-25	1350	240	BAILED[1]	1500	8.0	9.0
415401106223601	22N 080W 02CDC01	125FRKS	68-08-16	--	120	PUMPED	2060	7.6	8.0
		125FRKS	78-06-22	1230	120	PUMPED	430	7.6	9.0
415408106463001	22N 083W 05DDB01	124HANN	68-10-09	--	--	PUMPED	2600	8.1	--
		125FRKS	76-06-04	1300	--	PUMPED	--	7.8	10.0
415506106464201	23N 083W 32DBC01	125FRKS	75-09-09	--	300	PUMPED	2500	8.3	10.0
		125FRKS	77-09-21	1430	300	BAILED	2450	8.4	9.0
		125FRKS	77-11-10	1515	300	BAILED	2500	8.4	9.5
415514106280901	23N 081W 36ABB01	124HANN	77-11-12	0915	254	BAILED[1]	1300	7.8	8.0
415522106461701	23N 083W 32ADA01	125FRKS	75-02-27	--	115	PUMPED	5000	6.7	10.0
415529106332501	23N 081W 32AAA01	124HANN	77-09-25	0800	200	BAILED[1]	1450	9.0	7.0
415530106461601	23N 083W 32AAD01	125FRKS	75-09-09	--	140	PUMPED	6100	7.0	10.0
		125FRKS	77-11-07	1235	140	BAILED	8000	7.4	9.5
415530106463301	23N 083W 32ABD01	125FRKS	77-11-07	1330	--	FLOWING	7500	6.9	12.0
415533106460901	23N 083W 33BBC01	125FRKS	77-06-30	1400	198	PUMPED	7940	7.0	13.0
415537106461101	23N 083W 33BBB01	125FRKS	77-09-22	1245	320	BAILED	4080	7.5	9.0
415539106463301	23N 083W 32ABA01	125FRKS	75-09-10	--	130	PUMPED	5150	6.9	10.0
		125FRKS	77-09-21	1040	130	BAILED[1]	3870	7.4	9.5
415542106271501	23N 080W 31BAB01	124HANN	77-11-12	1200	208	BAILED[1]	1730	6.5	8.5
415631106462601	23N 083W 29AAB01	125FRKS	77-09-23	0900	150	BAILED[1]	2600	7.2	8.0
415700106244401	23N 080W 21BDD01	124HANN	77-11-12	1515	185	BAILED[1]	1310	7.2	9.0
415722106455301	23N 083W 21BAB01	125FRKS	77-09-10	0945	140	BAILED[1]	1760	6.3	8.5
415727106473101	23N 083W 18DDD01	125FRKS	77-09-07	1630	275	BAILED[1]	2700	7.8	12.0
415750106225001	23N 080W 14CBA01	211MDCR	77-11-13	0925	110	BAILED[1]	560	7.1	8.0

SEE FOOTNOTE AT END OF TABLE.

TABLE 1.--COMMON-CONSTITUENT ANALYSES AND ASSOCIATED MEASUREMENTS OF GROUND WATER--CONTINUED

STATION NUMBER	DATE OF SAMPLE	TURBIDITY (JTU)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)
414643106384701	67-07-10	--	244	119	52	27	128	3.6	2.2	153	0
	78-06-12	1	260	110	64	29	130	3.4	3.3	210	0
414657106213601	77-10-06	--	450	98	93	53	62	1.3	2.9	430	0
414709106450701	67-06-29	--	420	160	100	38	12	.3	6.5	323	0
	78-06-13	45	440	170	110	41	13	.3	6.2	330	0
414828106205601	77-10-07	--	840	580	190	88	240	3.6	4.9	310	0
414928106215601	77-10-08	--	620	420	180	41	93	1.6	5.8	240	0
414932106232201	77-10-05	--	460	160	110	44	120	2.4	5.5	360	0
414938106312201	77-11-13	--	450	130	100	49	21	.4	1.8	390	0
	77-11-13	--	460	140	100	50	21	.4	1.9	390	0
414942106340402	77-09-02	--	67	0	18	5.3	520	28	3.2	370	9
414942106340601	77-09-01	--	49	0	13	3.9	620	39	2.7	610	0
415005106411701	77-09-01	--	750	540	230	43	2400	38	5.2	214	22
415209106340301	76-12-13	40	1300	610	210	200	680	8.1	11	900	0
	78-06-16	45	1400	630	210	210	690	8.1	12	920	0
415210106312602	77-09-24	--	3400	2900	550	480	710	5.3	13	602	0
415336106345501	77-09-25	--	490	130	100	58	170	3.3	6.8	444	0
415401106223601	68-08-16	--	686	470	175	61	195	3.2	3.0	258	0
	78-06-22	0	370	120	100	28	87	2.0	1.5	300	0
415408106463001	68-10-09	--	1060	470	234	116	290	3.9	11	718	0
	76-06-04	120	810	160	78	150	360	5.5	13	794	0
415506106464201	75-09-09	0	29	0	5.7	3.6	550	44	2.9	536	100
	77-09-21	--	36	0	7.6	4.1	570	41	2.4	656	137
	77-11-10	--	29	0	5.1	4.0	570	46	2.6	700	13
415514106280901	77-11-12	--	660	570	180	52	60	1.0	3.6	120	0
415522106461701	75-02-27	70	3000	2600	510	420	520	4.1	9.1	487	0
415529106332501	77-09-25	--	42	0	9.4	4.4	340	23	6.3	520	23
415530106461601	75-09-09	20	--	--	--	21	--	--	6.3	437	0
	77-11-07	--	3600	3200	450	600	800	5.8	9.6	530	0
415530106463301	77-11-07	--	3500	3000	540	520	660	4.9	16	580	0
415533106460901	77-06-30	45	3800	3400	440	660	980	6.9	7.0	540	0
415537106461101	77-09-22	--	1900	1500	320	260	430	4.3	5.9	486	0
415539106463301	75-09-10	14	1500	1000	270	200	160	1.8	6.7	548	0
	77-09-21	--	1600	1000	300	200	390	4.3	7.4	693	0
415542106271501	77-11-12	--	1000	860	230	110	14	.2	9.5	210	0
415631106462601	77-09-23	--	1500	970	270	210	160	1.8	5.8	649	0
415700106244401	77-11-12	--	710	260	150	81	41	.7	12	550	0
415722106455301	77-09-10	--	74	0	9.9	12	440	22	2.9	1130	0
415727106473101	77-09-07	--	500	0	76	76	400	7.8	5.5	1100	0
415750106225001	77-11-13	--	230	6	45	28	33	1.0	3.6	270	0

TABLE 1.--COMMON-CONSTITUENT ANALYSES AND ASSOCIATED MEASUREMENTS OF GROUND WATER--CONTINUED

STATION NUMBER	DATE OF SAMPLE	ALKALINITY (MG/L AS CACO3)	CARBON DIOXIDE DISSOLVED (MG/L AS CO2)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUSPENDED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)
414643106584701	67-07-10	125	1.5	374	8.9	.9	22	695	--	--	--
	78-06-12	170	5.3	350	7.9	.5	21	710	--	.00	.25
414657106215601	77-10-06	350	39	620	9.1	.4	11	664	--	.35	--
414709106450701	67-06-29	265	26	170	5.3	.6	13	515	--	--	--
	78-06-13	270	105	180	4.2	.5	13	535	10	.00	.38
414828106205601	77-10-07	250	25	1000	28	.7	19	1720	530	.00	--
414928106215601	77-10-08	200	4.8	550	10	.2	13	1010	--	.00	--
414932106232201	77-10-05	300	29	420	11	.4	14	904	--	.01	--
414938106312201	77-11-13	320	39	170	4.9	.2	18	558	1	.01	--
	77-11-13	320	39	160	4.6	.2	18	549	1	.01	--
414946106340402	77-09-02	320	2.5	890	20	.8	7.2	1660	--	.38	--
414942106340601	77-09-01	300	7.8	660	180	1.5	6.9	1790	24	.01	--
415005106411701	77-09-01	212	.8	5200	140	.2	12	8160	690	.06	--
415209106340301	76-12-13	738	91	2000	44	.5	11	3610	--	.04	1.2
	78-06-16	750	93	1900	52	.5	12	3540	--	.01	.92
415210106312602	77-09-24	494	48	4300	64	.3	12	6430	--	.03	--
415336106345501	77-09-25	364	7.1	590	6.3	.3	15	1170	830	.04	--
415401106223601	68-08-16	212	10	797	76	.7	8.5	1440	--	--	--
	78-06-22	250	12	220	29	.3	.0	614	--	.49	.01
415408106465001	68-10-09	589	9.1	1050	8.0	.5	21	2090	--	--	--
	76-06-04	651	20	900	19	.3	7.0	1930	--	.01	.04
415506106464201	75-09-09	606	5.3	580	24	1.9	6.4	1540	<1	.00	1.0
	77-09-21	766	6.0	630	20	1.9	7.3	1700	22	.01	--
	77-11-10	600	4.6	600	24	1.9	7.1	1570	94	.03	--
415514106280901	77-11-12	96	3.0	650	18	.2	12	1040	--	.03	--
415522106461701	75-02-27	399	155	3600	29	.2	18	5350	88	.42	2.6
415529106332501	77-09-25	460	.9	320	7.2	.5	6.8	974	--	.04	--
415530106461601	75-09-09	356	62	4000	29	--	--	--	--	.01	4.2
	77-11-07	430	54	4600	43	.1	12	6780	--	1.8	--
415530106463301	77-11-07	480	117	4200	51	.0	10	6280	200	12	--
415533106460901	77-06-30	440	86	5200	45	.1	11	7620	--	.01	2.5
415537106461101	77-09-22	399	25	2400	21	.1	13	3690	--	.04	--
415539106463301	75-09-10	449	108	1300	11	.1	15	2240	1100	.00	3.2
	77-09-21	568	44	2000	15	.1	15	3270	710	.01	--
415542106271501	77-11-12	170	106	820	4.1	.0	20	1330	--	.01	--
415631106462601	77-09-23	532	66	1300	6.8	.7	15	2290	--	.01	--
415700106244401	77-11-12	450	56	350	3.1	.4	9.5	919	--	.01	--
415722106455301	77-09-10	927	9.1	59	31	3.1	7.4	1120	240	.04	--
415727106473101	77-09-07	902	28	470	20	3.1	9.6	1600	--	.01	--
415750106225001	77-11-13	220	34	69	4.4	.5	8.8	328	--	.01	--

TABLE 1.--COMMON-CONSTITUENT ANALYSES AND ASSOCIATED MEASUREMENTS OF GROUND WATER--CONTINUED

STATION NUMBER	DATE OF SAMPLE	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)
414643106384701	67-07-10	--	--	--	--	--
	78-06-12	.05	.30	.30	1.3	.00
414657106213601	77-10-06	--	--	--	--	.04
414709106450701	67-06-29	--	--	--	--	--
	78-06-13	.09	.47	.47	2.1	.02
414828106205601	77-10-07	--	--	--	--	11
414928106215601	77-10-08	--	--	--	--	8.5
414932106232201	77-10-05	--	--	--	--	.09
414938106312201	77-11-13	--	--	--	--	.01
	77-11-13	--	--	--	--	.02
414942106340402	77-09-02	--	--	--	--	10
414942106340601	77-09-01	--	--	--	--	.06
415005106411701	77-09-01	--	--	--	--	.46
415209106340301	76-12-13	.20	1.4	1.4	6.4	.04
	78-06-16	.76	1.7	1.7	7.6	.00
415210106312602	77-09-24	--	--	--	--	.05
415336106345501	77-09-25	--	--	--	--	.29
415401106223601	68-06-16	--	--	--	--	--
	78-06-22	.11	.12	.61	2.7	.01
415408106463001	68-10-09	--	--	--	--	--
	76-06-04	.00	1.7	1.7	7.7	.02
415506106464201	75-09-09	.40	1.4	1.4	6.2	.03
	77-09-21	--	--	--	--	.03
	77-11-10	--	--	--	--	.12
415514106280901	77-11-12	--	--	--	--	.88
415522106461701	75-02-27	1.7	4.3	4.7	21	.25
415529106332501	77-09-25	--	--	--	--	2.0
415530106461601	75-09-09	.20	4.4	4.4	20	.02
	77-11-07	--	--	--	--	.09
415530106463301	77-11-07	--	--	--	--	.01
415533106460901	77-06-30	.00	2.3	2.3	10	.01
415537106461101	77-09-22	--	--	--	--	.06
415539106463301	75-09-10	.50	3.7	3.7	16	.38
	77-09-21	--	--	--	--	.09
415542106271501	77-11-12	--	--	--	--	.74
415631106462601	77-09-23	--	--	--	--	.08
415700106244401	77-11-12	--	--	--	--	4.8
415722106455301	77-09-10	--	--	--	--	.20
415727106473101	77-09-07	--	--	--	--	4.7
415750106225001	77-11-13	--	--	--	--	.19

TABLE 1.--COMMON-CONSTITUENT ANALYSES AND ASSOCIATED MEASUREMENTS OF GROUND WATER--CONTINUED

STATION NUMBER	LOCAL IDENTIFIER	GEOLOGIC UNIT	DATE OF SAMPLE	TIME	DEPTH OF WELL, TOTAL (FEET)	SAMPLING PROCESS	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)
415808106413701	23N 083W 13AAD01	124HANN	68-10-23	--	--	PUMPED	4890	8.0	--
415816106461501	23N 083W 08DDD01	125FRRS	77-09-09	1500	412	BAILED[1]	5000	7.8	10.0
415830106320503	23N 081W 09CAC03	124HANN	77-09-26	1445	175	BAILED[1]	2220	8.1	10.5
415838106480701	23N 083W 07CAA01	125FRRS	76-06-03	1400	110	PUMPED	--	--	--
415852106490301	23N 084W 12ACB01	125FRRS	74-12-10	1200	121	BAILED[1]	1550	7.2	7.0
415908106472701	23N 083W 06DDD01	125FRRS	74-12-06	0930	200	BAILED[1]	4350	7.2	7.0
		125FRRS	77-09-12	0920	200	BAILED[1]	4200	7.3	8.5
415937106461301	23N 083W 04BCC01	125FRRS	77-09-11	1240	387	BAILED[1]	2750	8.1	10.0
415938106482101	23N 083W 06BCD01	125FRRS	77-09-13	1130	265	BAILED[1]	3570	7.0	9.0
415939106443901	23N 083W 03BDC01	125FRRS	76-06-03	1600	126	PUMPED	--	7.3	9.0
415945106474401	23N 083W 06ACA01	125FRRS	77-09-12	1345	303	BAILED[1]	3370	7.1	10.0
415958106482901	23N 083W 06BBB01	125FRRS	74-12-04	1230	146	BAILED[1]	3100	7.2	8.5
		125FRRS	77-09-13	1635	146	BAILED[1]	3162	7.1	9.0
420001106461501	24N 083W 32DDD01	125FRRS	74-12-06	1400	97	BAILED[1]	2810	7.5	7.0
		125FRRS	76-05-28	1200	97	BAILED[1]	3400	--	12.0
420009106285701	24N 081W 35DDA01	124HANN	77-09-28	1120	231	BAILED[1]	3160	9.6	10.5
420022106313301	24N 081W 33DBA01	124HANN	77-09-28	0830	193	BAILED[1]	3520	8.0	8.5
420023106481001	24N 083W 31CAB01	125FRRS	77-11-09	1450	317	BAILED[1]	7800	7.8	10.0
420027106484301	24N 084W 36ADC01	125FRRS	77-09-14	1400	300	BAILED[1]	3366	7.4	11.0
		125FRRS	77-11-09	1100	300	BAILED[1]	3700	7.2	9.5
420044106465201	24N 083W 32BAA01	125FRRS	77-09-20	1510	250	BAILED[1]	3620	7.2	10.0
420048106480901	24N 083W 31BAB01	125FRRS	77-11-08	1315	116	PUMPED	5500	6.9	8.0
420049106480701	24N 083W 31BAA01	125FRRS	77-06-27	1515	95	PUMPED	5600	7.3	13.0
420052106472801	24N 083W 30UDD01	125FRRS	74-12-05	1000	202	BAILED[1]	1980	6.2	8.5
		125FRRS	76-05-27	1800	202	BAILED[1]	1650	--	--
		125FRRS	77-09-20	1110	202	BAILED[1]	2860	7.1	9.5
420139106313901	24N 081W 28ABA01	124HANN	67-07-12	--	120	PUMPED	1830	8.0	8.8
420203106421901	24N 083W 24CAA01	124HANN	77-10-04	1300	258	BAILED	2840	8.4	9.0
420214106263301	24N 080W 19ADD01	221SNDC	67-07-14	--	--	FLOWING	976	7.9	21.1
		221SNDC	78-06-15	1400	--	FLOWING	470	8.0	14.0

SEE FOOTNOTE AT END OF TABLE.

TABLE 1.--COMMON-CONSTITUENT ANALYSES AND ASSOCIATED MEASUREMENTS OF GROUND WATER--CONTINUED

STATION NUMBER	DATE OF SAMPLE	TURBIDITY (JTU)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)
415808106413701	68-10-23	--	1500	1200	350	160	660	7.3	11	401	0
415816106461501	77-09-09	--	190	0	41	22	940	29	6.7	760	0
415830106320503	77-09-26	--	61	0	15	5.6	620	35	7.4	1660	0
415838106480701	76-06-03	60	950	300	150	140	1200	17	13	795	--
415852106490301	74-12-10	400	56	0	13	5.8	410	24	5.6	1020	0
415908106472701	74-12-06	200	1600	830	240	250	660	7.1	17	975	0
	77-09-12	--	1300	330	180	200	650	7.9	17	1180	0
415937106461301	77-09-11	--	75	0	16	8.6	620	31	7.0	1180	0
415938106482101	77-09-13	--	1400	680	190	230	380	4.4	18	884	0
415939106443901	76-06-03	15	690	230	93	110	46	.8	3.8	558	0
415945106474401	77-09-12	--	700	0	100	110	560	9.2	12	1280	0
415958106482901	74-12-04	300	1900	1200	270	290	160	1.6	20	867	0
	77-09-13	--	2000	1200	290	300	140	1.4	24	922	0
420001106461501	74-12-06	1500	170	0	33	22	730	24	9.8	1300	0
	76-05-28	400	220	0	45	27	840	24	11	1410	--
420009106285701	77-09-28	--	26	0	2.9	4.5	820	70	6.3	475	140
420022106313301	77-09-28	--	170	0	39	18	750	25	9.5	733	0
420023106481001	77-11-09	--	5200	4500	490	960	130	.8	51	850	0
420027106484301	77-09-14	--	1400	470	210	220	370	4.3	29	1130	0
	77-11-09	--	1800	920	230	290	260	2.7	30	1030	0
420044106465201	77-09-20	--	1000	320	190	130	580	7.9	17	824	0
420048106480901	77-11-08	--	4100	3300	440	740	50	.3	110	1040	0
420049106480701	77-06-27	2	2300	1700	180	460	26	.2	56	820	0
420052106472801	74-12-05	200	970	880	110	170	28	.4	25	120	0
	76-05-27	900	890	850	110	150	28	.4	28	52	--
	77-09-20	--	1800	1000	210	320	99	1.0	41	987	0
420139106313901	67-07-12	--	20	0	4.6	2.1	477	46	2.3	1220	0
420203106421901	77-10-04	--	130	0	32	13	620	23	3.5	330	3
420214106263301	67-07-14	--	211	24	39	27	135	4.1	2.1	228	0
	78-06-15	35	180	0	40	20	170	5.5	2.3	260	0

TABLE 1.--COMMON-CONSTITUENT ANALYSES AND ASSOCIATED MEASUREMENTS OF GROUND WATER--CONTINUED

STATION NUMBER	DATE OF SAMPLE	ALKALINITY (MG/L AS CACO3)	CARBON DIOXIDE DISSOLVED (MG/L AS CO2)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUSPENDED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)
415808106413701	68-10-23	329	6.4	2400	150	.6	14	3900	--	--	--
415816106461501	77-09-09	623	19	1500	12	1.0	6.9	2900	200	.22	--
415830106320503	77-09-26	1360	21	47	29	2.2	7.1	1550	--	.03	--
415838106480701	76-06-03	652	--	2400	100	.4	5.9	4410	--	.01	.03
415852106490301	74-12-10	837	103	28	66	.3	20	1050	--	.09	1.7
415908106472701	74-12-06	800	98	2300	16	.3	7.1	3970	--	.04	6.0
	77-09-12	968	95	1600	37	.6	7.1	3270	--	.16	--
415937106461301	77-09-11	970	15	210	200	1.4	6.3	1650	--	.05	--
415938106482101	77-09-13	725	141	1400	19	.3	12	2690	--	.06	--
415939106445901	76-06-03	458	45	530	7.4	.2	9.3	880	--	.01	.14
415945106474401	77-09-12	1050	163	870	37	.4	13	2330	--	.09	--
415958106482901	74-12-04	711	88	1400	19	.2	23	2610	--	.01	8.8
	77-09-13	756	117	1500	22	.2	8.8	2740	--	.10	--
420001106461501	74-12-06	1070	54	610	31	.4	6.4	2080	--	.00	3.5
	76-05-28	1160	--	740	33	.4	5.9	2400	--	--	--
420009106285701	77-09-28	623	.3	1100	24	1.7	19	2350	--	.41	--
420022106513301	77-09-28	601	12	1300	7.5	1.6	7.8	2500	350	.01	--
420023106481001	77-11-09	700	22	4800	7.9	.7	13	6870	--	.01	--
420027106484301	77-09-14	927	72	1300	23	1.1	7.9	2720	660	.66	--
	77-11-09	840	104	1500	13	.7	7.5	2840	1400	5.3	--
420044106465201	77-09-20	676	83	1600	10	.4	8.0	2940	--	.03	--
420048106480901	77-11-08	850	209	3200	5.3	.2	31	5090	--	40	--
420049106480701	77-06-27	670	66	1700	5.1	.3	25	2860	--	31	.04
420052106472801	74-12-05	98	121	950	6.5	.1	21	1410	--	.05	16
	76-05-27	43	--	890	7.8	.2	19	1290	--	--	--
	77-09-20	810	125	1200	11	.6	9.9	2380	--	.08	--
420139106313901	67-07-12	1000	20	2.5	38	1.2	7.3	1140	--	--	--
420203106421901	77-10-04	280	2.1	1100	8.0	.3	4.2	1950	19	.01	--
420214106263301	67-07-14	187	4.6	298	7.4	.6	11	632	--	--	--
	78-06-15	210	4.2	300	7.4	.5	11	680	--	.04	.11

TABLE 1.--COMMON-CONSTITUENT ANALYSES AND ASSOCIATED MEASUREMENTS OF GROUND WATER--CONTINUED

STATION NUMBER	DATE OF SAMPLE	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)
415808106413701	68-10-23	--	--	--	--	--
415816106461501	77-09-09	--	--	--	--	.18
415830106320503	77-09-26	--	--	--	--	4.3
415838106480701	76-06-03	1.9	6.3	6.4	28	.02
415852106490301	74-12-10	3.1	4.8	4.9	22	.72
415908106472701	74-12-06	.00	5.5	5.5	25	.13
	77-09-12	--	--	--	--	.19
415937106461301	77-09-11	--	--	--	--	.99
415938106482101	77-09-13	--	--	--	--	.22
415939106443901	76-06-03	.04	.18	.26	1.2	.01
415945106474401	77-09-12	--	--	--	--	.21
415958106482901	74-12-04	.00	5.7	5.7	25	.50
	77-09-13	--	--	--	--	.20
420001106461501	74-12-06	6.1	9.6	9.6	43	.54
	76-05-28	--	--	--	--	--
420009106285701	77-09-28	--	--	--	--	.20
420022106313301	77-09-28	--	--	--	--	.29
420023106481001	77-11-09	--	--	--	--	.64
420027106484301	77-09-14	--	--	--	--	.17
	77-11-09	--	--	--	--	.34
420044106465201	77-09-20	--	--	--	--	.36
420048106480901	77-11-08	--	--	--	--	.39
420049106480701	77-06-27	.49	.53	32	140	.80
420052106472801	74-12-05	.00	16	16	71	.59
	76-05-27	--	--	--	--	--
	77-09-20	--	--	--	--	.34
420139106313901	67-07-12	--	--	--	--	--
420203106421901	77-10-04	--	--	--	--	.01
420214106263301	67-07-14	--	--	--	--	--
	78-06-15	.22	.33	.37	1.6	.01

[1] SAMPLE WATER NOT CLEAR.

TABLE 2.--TRACE-ELEMENT ANALYSES OF GROUND WATER

STATION NUMBER	LOCAL IDENTIFIER	GEOLOGIC UNIT	DATE OF SAMPLE	TIME	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)
414643106384701	21N 082W 21BDA01	121NRPK	67-07-10	--	--	--	--	--	--
		121NRPK	78-06-12	1515	4	0	0	0	0
414657106213601	21N 080W 24BBA01	124HANN	77-10-06	1500	1200	20	0	0	0
414709106450701	21N 083W 16ODA01	211MVRD	67-06-29	--	--	--	--	--	--
		211MVRD	78-06-13	0900	3	0	1	0	0
414828106205601	21N 080W 12ACA01	124HANN	77-10-07	1345	25000	30	4	0	0
414932106232201	22N 080W 34DCD01	124HANN	77-10-05	1330	3600	20	2	0	0
414938106312201	22N 081W 33DDC01	124HANN	77-11-13	1130	30	10	0	0	0
		124HANN	77-11-13	1200	30	20	1	1	0
414942106340601	22N 081W 31CDD01	124HANN	77-09-01	1700	200	0	3	3	0
415005106411701	22N 082W 31BCD01	124HANN	77-09-01	1245	12000	40	5	1	10
415209106340301	22N 081W 19BAA01	124HANN	76-12-13	1430	60	10	3	3	0
		124HANN	78-06-16	0900	30	0	2	2	0
415336106345501	22N 082W 12ACD01	124HANN	77-09-25	1330	11000	20	5	0	0
415401106223601	22N 080W 02CDC01	125FRRS	68-08-16	--	--	--	--	--	--
		125FRRS	78-06-22	1230	2	0	1	1	5
415408106463001	22N 083W 05DDB01	124HANN	68-10-09	--	--	--	--	--	--
		125FRRS	76-06-04	1300	200	40	0	0	10
415506106464201	23N 083W 32DBC01	125FRRS	75-09-09	--	50	0	5	5	<10
		125FRRS	77-09-21	1430	370	10	3	2	10
		125FRRS	77-11-10	1515	2600	20	4	3	0
415514106280901	23N 081W 36ABB01	124HANN	77-11-12	0915	18000	10	14	1	0
415522106461701	23N 083W 32ADA01	125FRRS	75-02-27	--	--	30	28	29	30
415530106461601	23N 083W 32AAD01	125FRRS	75-09-09	--	--	--	0	--	--
		125FRRS	77-11-07	1235	600	10	2	0	0
415530106463301	23N 083W 32ABD01	125FRRS	77-11-07	1330	800	10	1	1	0
415533106460901	23N 083W 33BBC01	125FRRS	77-06-30	1400	40	0	1	0	5
415537106461101	23N 083W 33BBB01	125FRRS	77-09-22	1245	80	10	0	0	0
415539106463301	23N 083W 32ABA01	125FRRS	75-09-10	--	18000	170	19	0	<10
		125FRRS	77-09-21	1040	5200	0	4	0	0
415542106271501	23N 080W 31BAB01	124HANN	77-11-12	1200	8000	10	8	1	10
415631106462601	23N 083W 29AAB01	125FRRS	77-09-23	0900	1200	10	25	1	10
415700106244401	23N 080W 21BDD01	124HANN	77-11-12	1515	32000	10	90	1	20
415722106455301	23N 083W 21BAB01	125FRRS	77-09-10	0945	4400	110	0	0	10
415750106225001	23N 080W 14CBA01	211MDCB	77-11-13	0925	6000	20	4	1	10
415808106413701	23N 083W 13AAD01	124HANN	68-10-23	--	--	--	--	--	--
415816106461501	23N 083W 08DDD01	125FRRS	77-09-09	1500	2600	30	0	0	0
415838106480701	23N 083W 07CAA01	125FRRS	76-06-03	1400	200	100	0	0	0
415852106490301	23N 084W 12ACB01	125FRRS	74-12-10	1200	--	190	27	4	<10
415908106472701	23N 083W 06DDD01	125FRRS	74-12-06	0930	--	10	2	0	10

TABLE 2.--TRACE-ELEMENT ANALYSES OF GROUND WATER--CONTINUED

STATION NUMBER	DATE OF SAMPLE	BERYLLIUM, DISSOLVED (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	BORON, DISSOLVED (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)
414643106384701	67-07-10	--	--	50	--	--	--	--	--	--	--
	78-06-12	0	--	130	14	0	0	10	6	0	260
414657106213601	77-10-06	0	70	50	<10	1	10	0	<10	0	2700
414709106450701	67-06-29	--	--	60	--	--	--	--	--	--	8100
	78-06-13	0	--	70	3	3	0	0	10	2	4700
414828106205601	77-10-07	0	90	70	<10	0	60	60	30	0	42000
414932106232201	77-10-05	10	140	120	<10	1	20	10	<10	1	9100
414938106312201	77-11-13	0	60	40	0	2	8	0	2	1	620
	77-11-13	0	80	40	0	1	12	8	2	0	610
414942106340601	77-09-01	0	130	110	<10	0	20	0	<10	1	1800
415005106411701	77-09-01	0	1100	990	20	0	50	0	50	1	18000
415209106340301	76-12-13	0	--	70	10	0	10	0	20	0	4900
	78-06-16	5	--	80	3	2	10	0	5	0	4900
415336106345501	77-09-25	10	140	60	10	0	70	0	50	0	19000
415401106223601	68-08-16	--	--	80	--	--	--	--	--	--	--
	78-06-22	0	--	50	3	1	5	0	6	0	200
415408106463001	68-10-09	--	--	120	--	--	--	--	--	--	--
	76-06-04	0	--	130	0	0	10	<10	20	0	19000
415506106464201	75-09-09	<10	--	120	<10	0	0	10	10	0	70
	77-09-21	10	140	110	<10	2	30	0	<10	0	770
	77-11-10	0	160	110	0	0	12	4	12	0	6900
415514106280901	77-11-12	0	90	40	0	0	44	8	40	4	44000
415522106461701	75-02-27	20	--	140	30	0	20	20	30	0	17000
415530106461601	75-09-09	--	--	100	--	--	--	--	--	--	--
	77-11-07	0	150	110	10	1	10	0	30	4	19000
415530106463301	77-11-07	0	170	140	10	1	20	28	20	2	2800
415533106460901	77-06-30	0	--	120	10	5	20	10	20	20	5700
415537106461101	77-09-22	0	150	100	10	0	20	10	<10	0	7400
415539106463301	75-09-10	<10	--	120	<10	0	40	10	40	0	36000
	77-09-21	10	150	120	10	1	30	0	20	6	13000
415542106271501	77-11-12	0	670	650	0	1	24	20	29	3	38000
415631106462601	77-09-23	10	130	90	10	0	10	20	20	0	6800
415700106244401	77-11-12	0	130	70	1	0	76	4	190	6	130000
415722106455301	77-09-10	0	120	110	<10	1	30	40	<10	0	4600
415750106225001	77-11-13	0	150	110	0	0	28	0	10	1	40000
415808106413701	68-10-23	--	--	130	--	--	--	--	--	--	5200
415816106461501	77-09-09	0	130	100	10	1	10	0	<10	0	5900
415838106480701	76-06-03	0	--	80	0	0	20	10	20	10	14000
415852106490301	74-12-10	<10	--	70	20	1	70	<10	200	4	18000
415908106472701	74-12-06	<10	--	90	20	<1	70	10	60	0	10000

TABLE 2.--TRACE-ELEMENT ANALYSES OF GROUND WATER--CONTINUED

STATION NUMBER	DATE OF SAMPLE	IRON, DIS-SOLVED (UG/L AS FE)	IRON (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM TOTAL RECOV-ERABLE (UG/L AS LI)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)
414643106384701	67-07-10	--	160	--	--	--	--	--	--	--	--
	78-06-12	140	--	13	0	140	140	90	80	.0	.0
414657106213601	77-10-06	70	--	<100	4	7	8	150	60	.0	.0
414709106450701	67-06-29	--	--	--	--	--	--	--	--	--	--
	78-06-13	4100	--	7	3	50	60	610	600	.0	.0
414828106205601	77-10-07	120	--	100	0	50	20	1500	880	.0	.0
414932106232201	77-10-05	410	--	<100	6	30	30	740	620	.0	.0
414938106512201	77-11-13	620	--	2	1	10	10	170	190	.0	.0
	77-11-13	600	--	1	2	10	20	180	190	.0	.0
414942106340601	77-09-01	80	--	100	1	20	8	20	0	.0	.0
415005106411701	77-09-01	70	--	200	1	130	120	500	150	.0	.0
415009106340301	76-12-13	5100	--	<100	2	110	110	450	460	5.4	.2
	78-06-16	3200	--	19	9	110	110	450	430	.2	.0
415336106345501	77-09-25	110	--	200	2	30	20	610	90	.0	.0
415401106223601	68-08-16	--	60	--	--	--	--	--	--	--	--
	78-06-22	20	--	20	9	9	9	70	60	.0	.0
415408106463001	68-10-09	--	1200	--	--	--	--	--	--	--	--
	76-06-04	6000	--	12	0	90	90	240	220	<.5	<.5
415506106464201	75-09-09	10	--	<100	0	20	20	20	10	.0	.0
	77-09-21	760	--	<100	7	30	60	20	10	.0	.0
	77-11-10	40	--	9	2	40	40	80	30	.0	.0
415514106280901	77-11-12	100	--	12	2	40	20	1600	250	.0	.0
415522106461701	75-02-27	2100	--	100	2	180	--	880	760	.3	.5
415530106461601	75-09-09	--	--	--	--	--	--	--	--	--	--
	77-11-07	5300	--	100	2	70	70	270	230	.0	.0
415530106463301	77-11-07	60	--	100	3	100	100	950	940	.0	.0
415533106460901	77-06-30	6000	--	200	22	40	50	480	460	--	.0
415537106461101	77-09-22	2600	--	100	6	50	50	170	150	.0	.0
415539106463301	75-09-10	2300	--	100	0	70	50	750	260	.1	.0
	77-09-21	2800	--	100	2	60	60	220	130	.0	.0
415542106271501	77-11-12	14000	--	9	1	180	180	1800	1300	.0	.0
415631106462601	77-09-23	3200	--	100	1	40	40	120	80	.0	.0
415700106244401	77-11-12	140	--	78	3	130	80	2800	80	.4	.0
415722106455301	77-09-10	100	--	<100	4	30	40	60	0	.0	.0
415750106225001	77-11-13	2000	--	14	2	8	20	330	240	.0	.0
415808106413701	68-10-23	--	--	--	--	--	--	--	--	--	--
415816106461501	77-09-09	20	--	<100	2	50	50	320	210	.0	.0
415838106480701	76-06-03	9400	--	16	0	50	50	110	100	<.5	<.5
415852106490301	74-12-10	140	--	200	4	50	--	330	30	1.2	2.1
415908106472701	74-12-06	130	--	400	4	40	--	880	450	.0	.0

TABLE 2.--TRACE-ELEMENT ANALYSES OF GROUND WATER--CONTINUED

STATION NUMBER	DATE OF SAMPLE	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
414643106384701	67-07-10	--	--	--	--	--	--	--	--	--
	78-06-12	42	10	4	2	3	0	.0	10	10
414657106213601	77-10-06	10	2	<50	2	0	0	.0	30	20
414709106450701	67-06-29	--	--	--	--	--	--	--	--	--
	78-06-13	6	0	4	4	0	0	.0	10	20
414828106205601	77-10-07	7	1	50	3	0	0	.0	90	30
414932106232201	77-10-05	11	2	<50	2	0	0	.0	100	10
414938106312201	77-11-13	2	0	4	1	0	0	.1	10	10
	77-11-13	3	0	4	1	0	0	.1	8	4
414942106340601	77-09-01	13	10	<50	0	0	0	.6	20	0
415005106411701	77-09-01	14	12	100	0	0	0	2.9	190	10
415209106340301	76-12-13	0	1	300	2	0	0	.0	20	20
	78-06-16	4	3	5	0	0	0	.0	30	20
415336106345501	77-09-25	19	15	50	3	0	0	.0	160	10
415401106223601	68-08-16	--	--	--	--	--	--	--	--	--
	78-06-22	2	0	0	0	4	4	.0	20	10
415408106463001	68-10-09	--	--	--	--	--	--	--	--	--
	76-06-04	0	0	24	12	0	0	--	1200	130
415506106464201	75-09-09	7	4	<50	0	0	0	.2	10	10
	77-09-21	2	2	<50	0	0	0	.0	30	0
	77-11-10	5	2	13	4	0	0	2.1	90	20
415514106280901	77-11-12	3	0	38	3	1	0	.2	130	6
415522106461701	75-02-27	5	--	50	3	1	--	--	--	60
415530106461601	75-09-09	--	--	--	--	0	--	.3	--	--
	77-11-07	5	0	100	5	0	0	.3	190	30
415530106463301	77-11-07	9	10	200	51	1	2	.8	70	50
415533106460901	77-06-30	0	0	100	7	0	0	.0	50	40
415537106461101	77-09-22	2	1	50	0	0	0	.0	20	20
415539106463301	75-09-10	2	0	<50	2	1	0	.0	160	20
	77-09-21	0	0	50	0	0	0	.0	80	70
415542106271501	77-11-12	3	0	21	2	1	0	.2	110	20
415631106462601	77-09-23	5	5	50	5	0	0	.0	50	30
415700106244401	77-11-12	3	0	50	2	8	0	.9	580	10
415722106455301	77-09-10	6	5	50	2	0	0	.0	30	10
415750106225001	77-11-13	0	0	14	1	0	0	.2	50	6
415808106413701	68-10-23	--	--	--	--	--	--	--	--	--
415816106461501	77-09-09	7	7	50	2	0	0	.0	50	20
415838106480701	76-06-03	0	0	20	12	0	0	--	1600	530
415852106490301	74-12-10	0	--	50	3	5	--	--	--	200
415908106472701	74-12-06	3	--	50	1	0	--	--	--	470

TABLE 2.--TRACE-ELEMENT ANALYSES OF GROUND WATER--CONTINUED

STATION NUMBER	LOCAL IDENTIFIER	GEOLOGIC UNIT	DATE OF SAMPLE	TIME	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)
415938106482101	23N 083W 06BCD01	125FRRS	77-09-13	1130	4800	0	2	0	10
415939106443901	23N 083W 03BDC01	125FRRS	76-06-03	1600	200	10	0	0	0
415945106474401	23N 083W 06ACA01	125FRRS	77-09-12	1345	2800	10	0	0	10
415958106482901	23N 083W 06BBB01	125FRRS	74-12-04	1230	--	0	18	4	<10
420001106461501	24N 083W 32DDD01	125FRRS	74-12-06	1400	--	10	85	6	<10
		125FRRS	76-05-28	1200	14000	30	14	3	0
420009106285701	24N 081W 35DDA01	124HANN	77-09-28	1120	3200	90	9	0	10
420022106313301	24N 081W 33DBA01	124HANN	77-09-28	0830	2400	30	5	0	0
420027106484301	24N 084W 36ADC01	125FRRS	77-09-14	1400	8200	10	4	0	10
		125FRRS	77-11-09	1100	21000	10	14	1	10
420044106465201	24N.083W 32BAA01	125FRRS	77-09-20	1510	6800	0	8	0	10
420048106480901	24N 083W 31BAB01	125FRRS	77-11-08	1315	40	10	13	10	0
420049106480701	24N 083W 31BAA01	125FRRS	77-06-27	1515	70	0	12	2	5
420052106472801	24N 083W 30DDD01	125FRRS	74-12-05	1000	--	20	5	1	<10
		125FRRS	76-05-27	1800	14000	10	16	2	0
420139106313901	24N 081W 28ABA01	124HANN	67-07-12	--	--	--	--	--	--
420203106421901	24N 083W 24CAA01	124HANN	77-10-04	1300	230	20	0	0	0
420214106263301	24N 080W 19ADD01	221SNDC	67-07-14	--	--	--	--	--	--
		221SNDC	78-06-15	1400	90	20	1	1	5

TABLE 2.--TRACE-ELEMENT ANALYSES OF GROUND WATER--CONTINUED

STATION NUMBER	DATE OF SAMPLE	BERYLLIUM, DISSOLVED (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	BORON, DISSOLVED (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)
415938106482101	77-09-13	20	170	150	10	2	20	0	20	0	15000
415939106443901	76-06-03	0	--	110	4	3	10	<10	50	10	9300
415945106474401	77-09-12	10	260	200	10	1	10	0	10	0	7000
415958106482901	74-12-04	<10	--	110	20	1	50	<10	130	4	23000
420001106461501	74-12-06	<10	--	70	10	<1	150	10	160	8	32000
	76-05-28	20	--	90	20	0	80	0	80	4	15000
420009106285701	77-09-28	10	130	60	<10	0	80	10	20	2	13000
420022106313301	77-09-28	10	90	50	10	0	10	10	10	0	5400
420027106484301	77-09-14	0	160	130	10	2	30	0	20	1	13000
	77-11-09	0	170	100	1	0	42	4	160	0	320
420044106465201	77-09-20	10	130	90	10	1	60	0	20	0	17000
420048106480901	77-11-08	0	1800	1700	10	1	16	20	20	6	160
420049106480701	77-06-27	0	--	540	10	2	10	0	30	11	50
420052106472801	74-12-05	<10	--	490	10	0	20	0	70	5	41000
	76-05-27	20	--	540	10	0	50	0	50	1	47000
420139106313901	67-07-12	--	--	50	--	--	--	--	--	--	--
420203106421901	77-10-04	0	80	70	<10	0	10	0	<10	0	3900
420214106263301	67-07-14	--	--	110	--	--	--	--	--	--	--
	78-06-15	0	--	200	6	0	5	0	6	0	1200

TABLE 2.--TRACE-ELEMENT ANALYSES OF GROUND WATER--CONTINUED

STATION NUMBER	DATE OF SAMPLE	IRON, DIS-SOLVED (UG/L AS FE)	IRON (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM TOTAL RECOV-ERABLE (UG/L AS LI)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)
415938106482101	77-09-13	730	--	100	7	130	130	100	40	.0	.0
415939106443901	76-06-03	30	--	56	1	10	0	320	280	<.5	<.5
415945106474401	77-09-12	640	--	100	2	100	100	160	30	.0	.0
415958106482901	74-12-04	800	--	600	5	110	--	530	120	1.5	.3
420001106461501	74-12-06	50	--	700	5	50	--	460	30	.2	.0
	76-05-28	180	--	200	5	60	30	170	30	.3	.0
420009106285701	77-09-28	70	--	200	4	100	100	160	0	.0	.0
420022106513301	77-09-28	120	--	100	4	130	130	230	50	.0	.0
420027106484301	77-09-14	40	--	100	6	130	120	100	20	.0	.0
	77-11-09	40	--	110	2	180	120	240	50	.2	.0
420044106465201	77-09-20	2600	--	200	4	130	130	310	110	.0	.0
420048106480901	77-11-08	70	--	100	5	1000	1000	1400	1300	.0	.0
420049106480701	77-06-27	40	--	<100	9	280	280	310	300	.0	.0
420052106472801	74-12-05	33000	--	300	5	700	--	2000	1900	.0	.0
	76-05-27	26000	--	<100	5	770	700	2000	1900	.1	.0
420139106313901	67-07-12	--	120	--	--	--	--	--	--	--	--
420203106421901	77-10-04	30	--	<100	4	20	30	120	80	.0	.0
420214106263301	67-07-14	--	60	--	--	--	--	--	--	--	--
	78-06-15	30	--	54	0	60	60	30	10	.2	.0

TABLE 2.--TRACE-ELEMENT ANALYSES OF GROUND WATER--CONTINUED

STATION NUMBER	DATE OF SAMPLE	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
415938106482101	77-09-13	0	0	50	1	1	1	.0	70	10
415939106443901	76-06-03	3	2	4	3	2	0	.0	6000	5200
415945106474401	77-09-12	0	0	50	1	0	1	.0	40	10
415958106482901	74-12-04	0	--	50	3	1	--	--	--	800
420001106461501	74-12-06	15	--	100	1	0	--	--	--	100
	76-05-28	2	2	100	11	0	0	.0	4500	50
420009106285701	77-09-28	37	32	<50	1	0	0	25	170	0
420022106513301	77-09-28	4	4	50	1	0	0	.0	130	10
420027106484301	77-09-14	1	1	50	4	0	0	.0	140	10
	77-11-09	1	1	79	6	1	0	.6	420	20
420044106465201	77-09-20	9	4	50	2	0	0	.0	100	10
420048106480901	77-11-08	27	24	100	8	27	80	340	70	60
420049106480701	77-06-27	14	15	<50	7	50	50	360	40	30
420052106472801	74-12-05	3	--	<50	10	0	--	--	--	400
	76-05-27	0	0	50	10	0	0	.0	370	50
420139106515901	67-07-12	--	--	--	--	--	--	--	--	--
420203106421901	77-10-04	9	3	<50	0	0	1	.3	40	10
420214106263301	67-07-14	--	--	--	--	--	--	--	--	--
	78-06-15	6	6	5	0	0	1	.0	20	10

TABLE 3.--RADIOCHEMICAL ANALYSES OF GROUND WATER

STATION NUMBER	LOCAL IDENTIFIER	GEOLOGIC UNIT	DATE OF SAMPLE	TIME	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/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)
414709106450701	21N 083W 16DDA01	211MVRD	78-06-13	0900	5.3	.4	7.3	<.4	6.5
414828106205601	21N 080W 12ACA01	124HANN	77-10-07	1345	<19	240	7.4	20	6.4
414938106312201	22N 081W 33DDC01	124HANN	77-11-13	1130	<7.1	<.4	<2.1	<.4	<1.9
		124HANN	77-11-13	1200	<6.9	<.4	3.4	<.4	3.1
414942106340601	22N 081W 31CDD01	124HANN	77-09-01	1700	<27	1.1	<7.3	.9	<5.8
415005106411701	22N 082W 31BCD01	124HANN	77-09-01	1245	<81	93	<23	24	<19
415336106345501	22N 082W 12ACD01	124HANN	77-09-25	1330	18	95	12	35	10
415506106464201	23N 083W 32DBC01	125FRRS	75-09-09	--	<18	<.4	6.0	<.4	5.0
		125FRRS	77-09-21	1430	<24	3.6	<6.0	1.8	<4.8
		125FRRS	77-11-10	1515	<17	10	<5.6	5.7	<5.1
415522106461701	23N 083W 32ADA01	125FRRS	75-02-27	--	<84	11	18	4.7	17
415530106463301	23N 083W 32ABD01	125FRRS	77-11-07	1330	140	18	<18	10	<16
415539106463301	23N 083W 32ABA01	125FRRS	75-09-10	--	<29	86	10	40	8.8
		125FRRS	77-09-21	1040	100	120	11	35	10
415722106455301	23N 083W 21BAB01	125FRRS	77-09-10	0945	<16	24	7.0	11	5.7
415816106461501	23N 083W 08DDD01	125FRRS	77-09-09	1500	<50	27	20	11	17
420022106313301	24N 081W 33DBA01	124HANN	77-09-28	0830	<37	86	12	24	10
420027106484301	24N 084W 36ADC01	125FRRS	77-09-14	1400	<60	74	40	30	35
		125FRRS	77-11-09	1100	65	140	29	70	26
420203106421901	24N 083W 24CAA01	124HANN	77-10-04	1300	44	5.5	<6.3	3.4	<5.1

TABLE 3.--RADIOCHEMICAL ANALYSES OF GROUND WATER--CONTINUED

STATION NUMBER	DATE OF SAMPLE	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L)	URANIUM NATURAL DIS-SOLVED (UG/L AS U)	URANIUM DIS-SOLVED, EXTRAC-TION (UG/L)
414709106450701	78-06-13	<.4	.55	<.4	--
414828106205601	77-10-07	16	.22	--	.15
414938106312201	77-11-13	<.4	.33	--	.17
	77-11-13	<.4	.34	--	.16
414942106340601	77-09-01	.8	.59	3.0	--
415005106411701	77-09-01	20	.31	3.3	--
415336106345501	77-09-25	29	.84	.8	--
415506106464201	75-09-09	<.4	.07	--	1.3
	77-09-21	1.5	.20	1.4	--
	77-11-10	5.4	.19	1.1	--
415522106461701	75-02-27	3.8	2.1	--	1.2
415530106463301	77-11-07	9.7	1.5	12	--
415539106463301	75-09-10	32	.35	--	1.1
	77-09-21	28	.53	.6	--
415722106455301	77-09-10	9.5	.46	.5	--
415816106461501	77-09-09	8.6	.15	.6	--
420022106313301	77-09-28	19	.35	.5	--
420027106484301	77-09-14	26	2.1	1.0	--
	77-11-09	65	2.0	1.0	--
420203106421901	77-10-04	2.9	.43	14	--

TABLE 4.--COMMON-CONSTITUENT ANALYSES AND ASSOCIATED MEASUREMENTS OF SURFACE WATER

STATION NUMBER	LOCAL IDENTIFIER	DATE OF SAMPLE	TIME	SAMPLING DEPTH (FT)	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)
06630300	BIG DITCH NR COYOTE SP	76-03-25	1000	1.5	.74	3050	8.5	2.0	900
		76-04-12	1830	1.3	.18	5000	8.6	10.0	350
		78-03-09	1145	--	4.8	1200	8.0	3.0	3000
		78-03-10	1545	--	4.0	2200	8.0	1.0	1400
		78-05-20	0845	--	--	--	--	--	--
		78-05-20	1430	--	14	2900	7.9	15.5	800
		78-05-23	1645	--	4.0	4600	8.6	15.0	160
		79-04-23	1800	--	4.3	--	--	--	--
06630330	NORTH DITCH NR COYOTE SP	76-08-18	2015	--	.08	5200	8.0	18.0	10
		78-03-10	1100	--	2.3	425	8.1	1.0	1600
		78-05-20	0845	--	1.2	900	7.8	7.0	480
06634990	HANNA DRAW NR HANNA WY	75-03-24	1845	--	.12	--	--	1.0	--
		75-04-28	1630	.4	.32	2700	8.2	13.0	15
		75-05-16	1530	.4	.15	3200	8.2	23.5	4
		76-03-24	1430	.6	2.8	1350	7.9	5.5	330
		76-03-30	1200	.4	.20	2820	8.0	2.5	15
		76-04-12	1300	.6	1.1	2100	8.2	14.0	30
		76-05-11	1145	--	.12	2980	8.2	14.0	80
		76-05-24	1315	.4	.28	2800	8.2	17.0	15
		76-08-02	1900	--	45	615	7.6	15.5	9000
		77-04-19	1210	--	.22	2400	8.2	6.0	15
		77-05-17	1210	--	.22	2800	8.2	14.0	35
		78-03-09	1830	--	32	--	--	--	1500
		78-03-10	1500	--	2.7	835	7.7	2.0	225
		78-03-20	0945	--	1.0	1220	7.3	2.5	420
		78-03-28	0945	--	.66	--	--	--	--
		78-04-18	0910	--	.12	3100	8.0	1.0	3
		78-05-19	1100	--	4.1	1520	8.0	9.0	720
		78-05-23	1215	--	.82	2475	8.4	12.0	20
		78-06-20	1100	--	.03	3800	8.0	21.0	20
		79-03-13	1230	--	2.9	1310	7.9	2.0	860
		79-03-14	1230	--	2.9	1310	7.9	2.0	--
		79-03-26	1300	--	1.0	1830	8.0	6.5	130
		79-04-24	1000	--	4.3	1230	8.2	8.0	--

TABLE 4.--COMMON-CONSTITUENT ANALYSES AND ASSOCIATED MEASUREMENTS OF SURFACE WATER--CONTINUED

STATION NUMBER	DATE OF SAMPLE	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)
06630300	76-03-25	10.5	10	750	340	120	110	310	4.9	8.8	488
	76-04-12	8.9	8.4	1700	1200	200	280	720	7.7	18	488
	78-03-09	10.4	8.1	490	320	77	72	160	3.2	6.5	210
	78-03-10	--	--	600	420	92	91	240	4.2	7.6	230
	78-05-20	--	7.4	--	--	--	--	--	--	--	--
	78-05-20	7.4	--	730	480	110	110	340	5.5	10	300
	78-05-23	7.9	--	1100	710	160	160	500	6.7	12	390
	79-04-23	--	--	--	--	--	--	--	--	--	--
06630330	76-08-18	6.0	--	2500	2300	470	310	810	7.1	11	166
	78-03-10	11.7	6.2	78	13	17	8.7	62	3.1	3.1	80
	78-05-20	9.1	--	130	53	25	16	110	4.2	3.4	92
06634990	75-03-24	--	--	--	--	--	--	--	--	--	--
	75-04-28	9.4	--	1300	940	250	170	210	2.5	8.6	472
	75-05-16	9.0	--	1500	1100	290	180	250	2.8	8.8	483
	76-03-24	9.5	4.2	590	380	110	77	86	1.5	7.3	263
	76-03-30	10.7	1.8	1400	1000	260	180	200	2.3	9.3	474
	76-04-12	9.7	2.0	940	610	180	120	170	2.4	8.8	411
	76-05-11	8.7	2.7	1300	1100	270	190	240	2.7	9.5	462
	76-05-24	9.2	1.5	1500	1200	270	210	290	3.2	10	462
	76-06-02	8.1	6.4	270	170	67	24	27	.7	7.7	117
	77-04-19	11.9	1.8	1400	1000	260	190	240	2.8	8.8	470
	77-05-17	11.6	1.2	--	--	--	--	--	--	--	--
	78-03-09	--	6.4	--	--	--	--	--	--	--	--
	78-03-10	10.9	4.8	380	260	77	46	45	1.0	6.0	150
	78-03-20	10.6	2.7	580	430	120	69	67	1.2	5.5	190
	78-03-28	--	--	--	--	--	--	--	--	--	--
	78-04-18	11.5	.7	1500	1100	290	190	220	2.5	8.8	480
	78-05-19	8.9	--	640	490	130	81	84	1.4	6.1	210
	78-05-23	7.9	--	1000	670	280	77	230	3.1	9.0	420
	78-06-20	7.3	--	1100	770	240	130	230	3.0	12	450
	79-03-13	10.7	--	760	560	140	100	130	2.1	7.6	240
	79-03-14	10.7	--	--	--	--	--	--	--	--	--
	79-03-26	9.7	--	1000	730	170	140	170	2.3	8.0	330
	79-04-24	9.2	--	--	--	--	--	--	--	--	--

TABLE 4.--COMMON-CONSTITUENT ANALYSES AND ASSOCIATED MEASUREMENTS OF SURFACE WATER--CONTINUED

STATION NUMBER	DATE OF SAMPLE	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)	CARBON DIOXIDE DISSOLVED (MG/L AS CO2)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, DISSOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUSPENDED (MG/L)
06630300	76-03-25	8	414	2.6	1200	31	.3	6.9	2040	2500	2600
	76-04-12	22	437	2.1	2500	71	.3	3.3	4060	--	--
	78-03-09	0	170	3.4	620	17	.4	4.6	1060	1200	5400
	78-03-10	0	190	3.7	880	21	.5	4.3	1450	--	--
	78-05-20	--	--	--	--	--	--	--	--	--	--
	78-05-20	0	250	6.0	1100	38	.5	3.9	1860	--	--
	78-05-23	17	350	1.7	1700	52	.5	2.3	2800	--	--
	79-04-23	--	--	--	--	--	--	--	--	--	--
06630330	76-08-18	0	136	2.7	4100	40	.7	2.8	5830	6600	29
	78-03-10	0	66	1.0	150	5.6	.2	3.0	290	330	2300
	78-05-20	0	75	2.3	270	7.0	.3	3.3	481	--	--
06634990	75-03-24	--	--	--	--	--	--	--	--	--	--
	75-04-28	0	387	4.8	1300	15	.4	7.1	2190	2600	33
	75-05-16	0	396	4.9	1600	19	.5	5.5	2590	--	--
	76-03-24	0	216	5.3	550	6.9	.3	5.3	973	1300	690
	76-03-30	0	389	7.6	1400	27	.3	7.2	2320	--	--
	76-04-12	0	337	3.7	930	13	.4	5.7	1630	--	--
	76-05-11	0	379	4.7	1500	16	.4	5.2	2460	--	--
	76-05-24	0	379	4.7	1600	19	.2	5.4	2630	--	--
	76-08-02	0	96	4.2	220	5.5	.4	5.3	415	--	--
	77-04-19	0	390	4.7	1500	15	.4	6.0	2450	2900	24
	77-05-17	--	--	--	--	--	--	--	--	--	--
	78-03-09	--	--	--	--	--	--	--	--	--	--
	78-03-10	0	120	4.8	350	4.6	.3	4.1	607	660	370
	78-03-20	0	160	15	520	6.1	.3	5.3	887	--	--
	78-03-28	--	--	--	--	--	--	--	--	--	--
	78-04-18	0	390	7.7	1400	27	.4	6.4	2380	--	--
	78-05-19	0	170	3.4	610	7.9	.2	14	1040	--	--
	78-05-23	0	340	2.7	1100	13	.4	6.6	1920	--	--
	78-06-20	0	370	7.2	1200	25	.5	6.2	2070	--	--
	79-03-13	0	200	4.8	800	10	.4	6.0	1310	--	--
	79-05-14	--	--	--	--	--	--	--	--	--	--
	79-03-26	0	270	5.3	1100	15	.4	6.7	1770	--	--
	79-04-24	--	--	--	--	--	--	--	--	--	--

TABLE 4.--COMMON-CONSTITUENT ANALYSES AND ASSOCIATED MEASUREMENTS OF SURFACE WATER--CONTINUED

STATION NUMBER	DATE OF SAMPLE	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)
06630300	76-03-25	.27	1.1	5.9	7.0	7.3	32	.20
	76-04-12	.25	.34	4.0	4.3	4.6	20	.99
	78-03-09	2.8	.64	4.3	4.9	7.7	34	2.8
	78-03-10	2.4	.46	3.7	4.2	6.6	29	1.6
	78-05-20	--	--	--	--	--	--	--
	78-05-20	--	--	--	--	--	--	--
	78-05-23	.02	.05	2.3	2.3	2.3	10	.19
	79-04-23	--	--	--	--	--	--	--
06630330	76-08-18	2.1	7.8	.00	6.6	8.7	39	.07
	78-03-10	.33	.23	3.2	3.4	3.7	17	1.5
	78-05-20	1.1	.01	1.6	1.6	2.7	12	1.6
06634990	75-03-24	--	--	--	--	--	--	--
	75-04-28	.08	.02	.69	.71	.79	3.5	.01
	75-05-16	.00	.02	.46	.48	.48	2.1	.02
	76-03-24	.25	.16	2.4	2.6	2.9	13	.33
	76-03-30	.20	.13	.85	.98	1.2	5.2	.02
	76-04-12	.03	.02	.93	.95	.98	4.3	.04
	76-05-11	.03	.03	1.2	1.2	1.2	5.4	.10
	76-05-24	.05	.03	.57	.60	.65	2.9	.03
	76-08-02	.73	.16	24	24	25	110	3.0
	77-04-19	1.2	.02	.61	.63	1.8	8.1	.00
	77-05-17	--	--	--	--	--	--	--
	78-03-09	--	--	--	--	--	--	--
	78-03-10	.24	.10	1.0	1.1	1.3	5.9	.30
	78-03-20	.34	.16	1.2	1.4	1.7	7.7	.35
	78-03-28	--	--	--	--	--	--	--
	78-04-18	.14	.10	.51	.61	.75	3.3	.02
	78-05-19	.87	.01	2.3	2.3	3.2	14	.53
	78-05-23	.14	.03	.82	.85	.99	4.4	.02
	78-06-20	.01	.00	3.7	3.7	3.7	16	.01
	79-03-13	.34	.20	.40	.60	.94	4.2	.59
	79-03-14	--	--	--	--	--	--	--
	79-03-26	.34	.16	1.6	1.8	2.1	9.5	.10
	79-04-24	--	--	--	--	--	--	--

TABLE 5.--TRACE-ELEMENT ANALYSES OF SURFACE WATER

STATION NUMBER	LOCAL IDENTIFIER	DATE OF SAMPLE	TIME	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BERYLLIUM, DISSOLVED (UG/L AS BE)
06630300	BIG DITCH NR COYOTE SP	76-03-25	1000	37000	--	51	--	10	--
		76-04-12	1830	--	10	--	2	--	0
		76-03-09	1145	--	60	11	2	0	0
		78-03-10	1545	--	50	7	2	0	0
		78-05-20	1430	20000	0	6	1	10	5
		78-05-23	1645	--	--	--	--	--	--
06630330	NORTH DITCH NR COYOTE SP	76-08-18	2015	1000	1200	20	3	10	20
		78-03-10	1100	--	250	9	3	0	0
		78-05-20	0845	100000	30	3	2	0	10
06634990	HANNA DRAW NR HANNA WY	75-04-28	1630	400	10	0	1	0	0
		75-05-16	1530	--	--	--	--	--	--
		76-03-24	1430	8800	--	12	--	10	--
		76-03-30	1200	--	--	--	--	--	--
		76-04-12	1300	--	0	--	0	--	10
		76-05-11	1145	100	--	1	--	0	--
		76-05-24	1315	240	--	0	--	10	--
		76-08-02	1900	220000	--	250	--	20	--
		77-04-19	1210	100	20	1	1	10	10
		77-05-17	1210	30	--	0	--	0	--
		78-03-10	1500	--	--	3	--	0	--
		78-03-20	0945	--	40	--	1	--	10
		78-04-18	0910	110	10	2	3	0	0
		78-05-19	1100	--	--	--	--	--	--
		78-05-23	1215	--	--	--	--	--	--
		78-06-20	1100	--	--	--	--	--	--
		79-03-13	1230	--	--	--	--	--	--
		79-03-14	1230	9200	100	4	1	0	10
		79-03-26	1300	--	--	--	--	--	--

TABLE 5.--TRACE-ELEMENT ANALYSES OF SURFACE WATER--CONTINUED

STATION NUMBER	DATE OF SAMPLE	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)
06630300	76-03-25	60	<10	--	50	--	70	--	49000	40	100
	76-04-12	230	--	1	--	10	--	4	--	60	--
	78-05-09	100	1	1	100	0	160	4	120000	130	20
	78-05-10	130	0	1	60	0	79	9	69000	110	23
	78-05-20	170	6	3	45	0	180	2	51000	50	93
	78-05-23	240	--	--	--	--	--	--	--	40	--
06630330	76-06-18	400	20	1	10	20	30	8	360	400	140
	78-05-10	70	0	4	60	0	73	8	60000	380	38
	78-05-20	60	3	3	20	0	33	5	13000	80	49
06634990	75-04-28	100	<10	0	0	10	<10	3	660	20	<100
	75-05-16	110	--	--	--	--	--	--	--	110	--
	76-05-24	90	<10	--	40	--	30	--	19000	60	100
	76-05-30	60	--	--	--	--	--	--	--	40	--
	76-04-12	100	--	1	--	0	--	2	--	40	--
	76-05-11	90	10	--	10	--	10	--	330	40	<100
	76-05-24	130	<10	--	10	--	10	--	550	70	<100
	76-06-02	100	20	--	350	--	510	--	450000	90	600
	77-04-19	100	<10	1	<10	0	<10	4	580	80	100
	77-05-17	--	10	--	0	--	<10	--	670	--	100
	78-05-10	70	0	--	10	--	15	--	14000	80	14
	78-05-20	70	--	3	--	0	--	3	--	30	--
	78-04-18	100	3	2	10	0	3	1	400	20	18
	78-05-19	80	--	--	--	--	--	--	--	40	--
	78-05-23	120	--	--	--	--	--	--	--	50	--
	78-06-20	150	--	--	--	--	--	--	--	140	--
	79-03-13	70	--	--	--	--	--	--	--	70	--
	79-05-14	--	2	2	30	0	29	4	27000	30	38
	79-03-26	70	--	--	--	--	--	--	--	260	--

TABLE 5.--TRACE-ELEMENT ANALYSES OF SURFACE WATER--CONTINUED

STATION NUMBER	DATE OF SAMPLE	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM TOTAL RECOV-ERABLE (UG/L AS LI)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)
06630300	76-03-25	--	70	--	1200	--	.0	--	4	--	150
	76-04-12	2	--	60	--	10	--	.0	--	3	--
	78-03-09	1	120	30	2400	50	.1	.0	2	2	18
	78-03-10	0	70	20	1500	40	.0	.0	1	2	23
	78-05-20	17	70	30	1300	10	.2	.0	6	1	20
	78-05-23	--	--	--	--	--	--	--	--	--	--
06630330	76-08-18	2	80	80	3000	3200	.0	.0	1	3	70
	78-03-10	0	50	10	840	30	.1	.0	6	1	24
	78-05-20	17	20	7	310	10	.3	.2	5	0	21
06634990	75-04-28	2	40	40	270	240	.4	1.8	4	2	<50
	75-05-16	--	--	--	--	--	--	--	--	--	--
	76-03-24	--	20	--	490	--	.0	--	3	--	50
	76-03-30	--	--	--	--	--	--	--	--	--	--
	76-04-12	1	--	30	--	120	--	.0	--	2	--
	76-05-11	--	50	--	350	--	.0	--	2	--	50
	76-05-24	--	60	--	250	--	.0	--	1	--	50
	76-08-02	--	300	--	9200	--	.8	--	0	--	560
	77-04-19	2	50	40	360	350	.4	.7	0	0	50
	77-05-17	--	50	--	360	--	.2	--	0	--	<50
	78-03-10	--	20	--	320	--	.0	--	3	--	10
	78-03-20	18	--	20	--	80	--	.0	--	2	--
	78-04-18	10	40	40	390	390	.0	.1	3	1	7
	78-05-19	--	--	--	--	--	--	--	--	--	--
	78-05-23	--	--	--	--	--	--	--	--	--	--
	78-06-20	--	--	--	--	--	--	--	--	--	--
	79-03-13	--	--	--	--	--	--	--	--	--	--
	79-03-14	5	50	30	860	140	.2	.0	3	0	29
	79-03-26	--	--	--	--	--	--	--	--	--	--

TABLE 5.--TRACE-ELEMENT ANALYSES OF SURFACE WATER--CONTINUED

STATION NUMBER	DATE OF SAMPLE	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
06630300	76-03-25	--	1	--	--	240	--
	76-04-12	7	--	1	4.2	--	10
	78-03-09	4	8	1	.0	550	10
	78-03-10	4	5	1	.0	250	10
	78-05-20	0	2	1	.0	300	10
	78-05-23	--	--	--	--	--	--
06630330	76-08-18	28	7	7	2.0	40	60
	78-03-10	4	5	1	3.0	250	10
	78-05-20	1	2	1	.0	100	10
06634990	75-04-28	0	1	1	.4	20	8
	75-05-16	--	--	--	--	--	--
	76-03-24	--	0	--	--	80	--
	76-03-30	--	--	--	--	--	--
	76-04-12	4	--	1	.7	--	10
	76-05-11	--	0	--	--	0	--
	76-05-24	--	0	--	--	10	--
	76-08-02	--	6	--	--	1900	--
	77-04-19	7	1	1	--	10	10
	77-05-17	--	2	--	--	10	--
	78-03-10	--	1	--	--	50	--
	78-03-20	0	--	1	.0	--	10
	78-04-18	4	0	0	.0	20	10
	78-05-19	--	--	--	--	--	--
	78-05-23	--	--	--	--	--	--
	78-06-20	--	--	--	--	--	--
	79-03-13	--	--	--	--	--	--
	79-03-14	2	1	1	--	110	30
	79-03-26	--	--	--	--	--	--

TABLE 6.--RADIOCHEMICAL ANALYSES OF SURFACE WATER

STATION NUMBER	LOCAL IDENTIFIER	DATE OF SAMPLE	TIME	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/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)
06630300	BIG DITCH NR COYOTE SP	76-03-25	1000	<37	330	18	130	14	110
		78-03-09	1145	41	410	33	220	29	190
06630330	NORTH DITCH NR COYOTE SP	76-08-18	2015	85	2.1	23	2.4	18	2.0
		78-03-10	1100	8.7	230	14	110	12	94
06634990	HANNA DRAW NR HANNA WY	75-04-28	1630	37	2.0	21	8.5	18	7.1
		76-03-24	1430	48	56	13	28	11	22
		77-04-19	1210	<44	1.1	22	5.5	20	4.6
		78-03-10	1500	12	27	12	21	10	21

TABLE 6.--RADIOCHEMICAL ANALYSES OF SURFACE WATER--CONTINUED

STATION NUMBER	DATE OF SAMPLE	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L)	URANIUM NATURAL DIS-SOLVED (UG/L AS U)	URANIUM DIS-SOLVED, DIRECT FLUORO-METRIC (PCI/L)
06630300	76-03-25	.20	--	7.6
	78-03-09	.26	6.0	--
06630350	76-08-18	.20	--	18
	76-03-10	.12	3.3	--
06634990	75-04-28	.12	25	--
	76-03-24	.17	--	10
	77-04-19	.15	24	--
	76-03-10	.12	6.4	--

TABLE 7.--SEDIMENT ANALYSES OF SURFACE WATER

STATION NUMBER	LOCAL IDENTIFIER	DATE OF SAMPLE	TIME	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM
06630300	BIG DITCH NR COYOTE SP	76-03-25	1000	2170	4.3	--	--	--	--
		76-04-12	1830	643	.31	--	--	--	--
		78-03-10	1545	--	--	--	46	68	100
		78-05-19	0815	2620	--	--	--	--	--
		78-05-20	1430	3250	123	--	49	71	85
		78-05-23	1645	874	9.4	--	--	--	--
		79-04-23	1800	534	6.2	--	--	--	--
06630330	NORTH DITCH NR COYOTE SP	76-08-18	2015	52	.01	--	--	--	--
		78-03-10	1215	--	--	--	67	76	100
		78-05-20	0845	--	--	--	75	89	100
06634990	HANNA DRAW NR HANNA WY	75-04-28	1630	76	.07	--	--	--	--
		75-05-16	1530	9	.00	--	--	--	--
		76-03-24	1430	1040	7.9	--	--	--	--
		76-03-30	1200	72	.04	--	--	--	--
		76-04-12	1300	78	.23	--	--	--	--
		76-05-11	1145	70	.02	--	--	--	--
		76-05-24	1315	48	.04	--	--	--	--
		76-08-02	1900	25800	3140	52	67	91	100
		77-04-19	1210	52	.03	--	--	--	--
		77-05-17	1210	97	.06	--	--	--	--
		78-03-10	1500	736	5.4	--	82	96	100
		78-03-26	0935	--	--	--	--	--	--
		78-03-28	0945	530	.94	--	--	--	--
		78-04-18	0910	157	.05	--	--	--	--
		78-05-19	1100	1310	15	--	--	--	--
		78-05-23	1215	106	.23	--	--	--	--
		78-06-20	1100	180	.01	--	--	--	--
		79-03-13	1230	1220	9.6	--	--	--	--
		79-03-26	1300	244	.66	--	--	--	--
		79-04-24	1000	144	1.7	--	--	--	--

TABLE 7.--SEDIMENT ANALYSES OF SURFACE WATER--CONTINUED

STATION NUMBER	DATE OF SAMPLE	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. FALL DIAM. % FINER THAN .004 MM	BED MAT. FALL DIAM. % FINER THAN .062 MM	BED MAT. FALL DIAM. % FINER THAN .125 MM	BED MAT. FALL DIAM. % FINER THAN .250 MM	BED MAT. FALL DIAM. % FINER THAN .500 MM	BED MAT. FALL DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM
06630300	76-03-25	--	--	3	5	15	69	88	96	100
	76-04-12	100	--	--	--	--	--	--	--	--
	78-03-10	--	--	--	--	--	--	--	--	--
	78-05-19	--	--	--	--	--	--	--	--	--
	78-05-20	--	--	--	--	--	--	--	--	--
	78-05-23	--	--	1	2	8	15	40	49	60
	79-04-23	--	--	--	--	--	--	--	--	--
06630330	76-08-18	26	--	15	21	40	72	84	90	96
	78-03-10	--	--	--	--	--	--	--	--	--
	78-05-20	--	--	--	--	--	--	--	--	--
06634990	75-04-28	--	73	97	98	99	99	100	--	--
	75-05-16	--	--	--	--	--	--	--	--	--
	76-03-24	--	--	3	4	5	30	46	67	88
	76-03-30	--	--	--	--	--	--	--	--	--
	76-04-12	79	--	--	--	--	--	--	--	--
	76-05-11	63	--	8	10	19	57	78	90	98
	76-05-24	45	--	--	--	--	--	--	--	--
	76-08-02	--	--	--	--	--	--	--	--	--
	77-04-19	--	--	73	82	90	94	94	95	96
	77-05-17	--	--	--	--	--	--	--	--	--
	78-03-10	--	--	--	--	--	--	--	--	--
	78-03-26	--	--	8	20	67	91	96	98	99
	78-03-28	--	--	--	--	--	--	--	--	--
	78-04-18	--	--	--	--	--	--	--	--	--
	78-05-19	--	--	--	--	--	--	--	--	--
	78-05-23	--	--	--	--	--	--	--	--	--
	78-06-20	--	--	--	--	--	--	--	--	--
	79-03-13	--	--	--	--	--	--	--	--	--
	79-03-26	--	--	--	--	--	--	--	--	--
	79-04-24	--	--	--	--	--	--	--	--	--

TABLE 7.--SEDIMENT ANALYSES OF SURFACE WATER--CONTINUED

STATION NUMBER	DATE OF SAMPLE	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM
06630300	76-03-25	--	--	--
	76-04-12	--	--	--
	78-03-10	--	--	--
	78-05-19	--	--	--
	78-05-20	--	--	--
	78-05-23	75	85	100
	79-04-23	--	--	--
06630350	76-08-18	99	100	--
	78-03-10	--	--	--
	78-05-20	--	--	--
06634990	75-04-28	--	--	--
	75-05-16	--	--	--
	76-03-24	99	100	--
	76-03-30	--	--	--
	76-04-12	--	--	--
	76-05-11	100	--	--
	76-05-24	--	--	--
	76-08-02	--	--	--
	77-04-19	97	98	100
	77-05-17	--	--	--
	78-03-10	--	--	--
	78-03-26	100	--	--
	78-03-28	--	--	--
	78-04-18	--	--	--
	78-05-19	--	--	--
	78-05-23	--	--	--
	78-06-20	--	--	--
	79-03-13	--	--	--
	79-03-26	--	--	--
	79-04-24	--	--	--

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