OCCURRENCE OF MINOR ELEMENTS IN GROUND WATER IN LOUISIANA INCLUDING A DISCUSSION OF THREE SELECTED SITES HAVING ELEVATED CONCENTRATIONS OF BARIUM

STATE OF LOUISIANA

DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

In cooperation with the

DEPARTMENT OF THE INTERIOR

U.S. GEOLOGICAL SURVEY
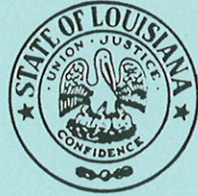
Water Resources

TECHNICAL REPORT NO. 47

OCCURRENCE OF MINOR ELEMENTS IN GROUND WATER IN LOUISIANA INCLUDING A

DISCUSSION OF THREE SELECTED SITES HAVING ELEVATED CONCENTRATIONS OF BARIUM

By

D.C. Dial and G.F. Huff

U.S. Geological Survey

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For the convenience of readers who prefer to use metric (International System) units rather than the inch-pound units used in this report, values may be converted by using the following factors:

Multiply inch-pound unit	By	To obtain metric unit
foot (ft)	0.3048	meter (m)
mile (mi)	1.609	kilometer (km)

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

OCCURRENCE OF MINOR ELEMENTS IN GROUND WATER IN LOUISIANA INCLUDING A DISCUSSION OF THREE SELECTED SITES HAVING ELEVATED CONCENTRATIONS OF BARIUM

By D.C. Dial and G.F. Huff

ABSTRACT

More than 200 ground-water samples from the major aquifers in Louisiana were analyzed for minor-element concentrations. In the vast majority of samples, concentrations of minor elements were well below the maximum contaminant levels established by the U.S. Environmental Protection Agency.

In Ascension Parish, barium concentrations in public-supply wells An-332 and An-333 were 800 and 400 µg/L (micrograms per liter), respectively. These concentrations were well above background levels (100 µg/L or less) but were below the recommended maximum contaminant level (1,000 µg/L) established by the U.S. Environmental Protection Agency. Water samples from seven wells within a 1-mile radius of well An-333 did not have barium concentrations above background levels. Concentrations of lead in the Ascension Parish wells were well below the recommended maximum contaminant level (50 µg/L) established by the U.S. Environmental Protection Agency.

In 1986, ground-water samples from wells G-385 (Grant Parish) and R-951 (Rapides Parish) completed in the Red River alluvial aquifer had barium concentrations of 800 and 1,200 µg/L, respectively. No evidence suggests that the elevated barium concentrations in either well were anthropogenic. At well G-385, elevated barium concentrations may be associated with high-chloride ground water from underlying Tertiary sediments. The high-chloride ground water has been diluted by inflow of less mineralized ground water from another part of the Red River alluvial aquifer, resulting in a decrease in the concentration of all measured chemical constituents.

INTRODUCTION

One of Louisiana's most valuable natural resources is ground water. Abundant quantities of ground water are available for public water supplies as well as agricultural and industrial purposes. Ground water for use in public supply generally is developed less expensively and more easily than surface water because it requires simpler treatment. It is also less vulnerable to contamination than surface water.

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Public concern is increasing over the quality of the ground-water supply. One concern is the presence of elevated concentrations of minor elements (including heavy metals) in ground water. Maximum contaminant levels of most minor elements, as well as other dissolved chemical constituents in potable water, have been established by the U.S. Environmental Protection Agency (1986). Therefore, information on the concentration of minor elements in water in the aquifers that supply ground water is needed to assess any potential problems that may exist. In 1984, the U.S. Geological Survey, in cooperation with the Louisiana Department of Transportation and Development began a study to describe the occurrence and concentration of minor elements in ground water from the aquifers that supply water for public consumption in Louisiana.

Purpose and Scope

The purpose of this report is to discuss the occurrence of minor elements in ground water from the major aquifers in Louisiana and to present and interpret the results of chemical analyses of ground water from selected areas of elevated barium concentration. The study was divided into two phases. The first phase involved the collection and analysis of ground-water samples from major aquifers that are used for public water supply. The second phase of the study involved investigation of selected sites where elevated concentrations of barium were documented. The site investigations focused on the sources of the elevated concentrations (natural or anthropogenic) and the distributions of minor elements in ground water. Barium was of principal concern because of reported high concentrations in some public water supplies. The minor elements investigated were aluminum, antimony, arsenic, barium, beryllium, boron, cadmium, chromium, cobalt, copper, lead, lithium, mercury, molybdenum, nickel, selenium, silver, strontium, vanadium, and zinc. Analyses of barium, chloride, hardness, iron, manganese, and sulfate for a well in Grant Parish and a well in Rapides Parish are presented and discussed.

Approach

More than 200 ground-water samples were collected from major aquifers used for public water supply in Louisiana. Public-supply wells that were pumped on a regular basis were chosen to insure that samples represented the aquifers in which the wells are completed. Analyses of samples from test wells drilled in major aquifers also were included. Most of the sampling for this study was conducted from 1984 to 1986, but analyses of samples collected prior to 1984 also were included in the results (appendixes A and B). The areal distribution of wells sampled is shown in figure 1. Particular attention was given to those minor elements that have a maximum contaminant level established by the U.S. Environmental Protection Agency (1986).

Ground-water samples were collected according to standard methods established for ground-water sampling (American Public Health Association and others, 1980; Brown and others, 1970). Samples were filtered and acidified in

the field for later analysis by the U.S. Geological Survey central laboratory Arvada, Colo. Temperature, pH, alkalinity, and specific conductance were determined in the field using procedures described by Wood (1976).

Public-supply wells were sampled from spigots on the wellhead allowing collection of water samples before entry into a pressure tank. Domestic wells were sampled from spigots in the plumbing system as close as possible to the pumped wells. All wells were pumped until the temperature, pH, and specific conductance of the water stabilized before sampling.
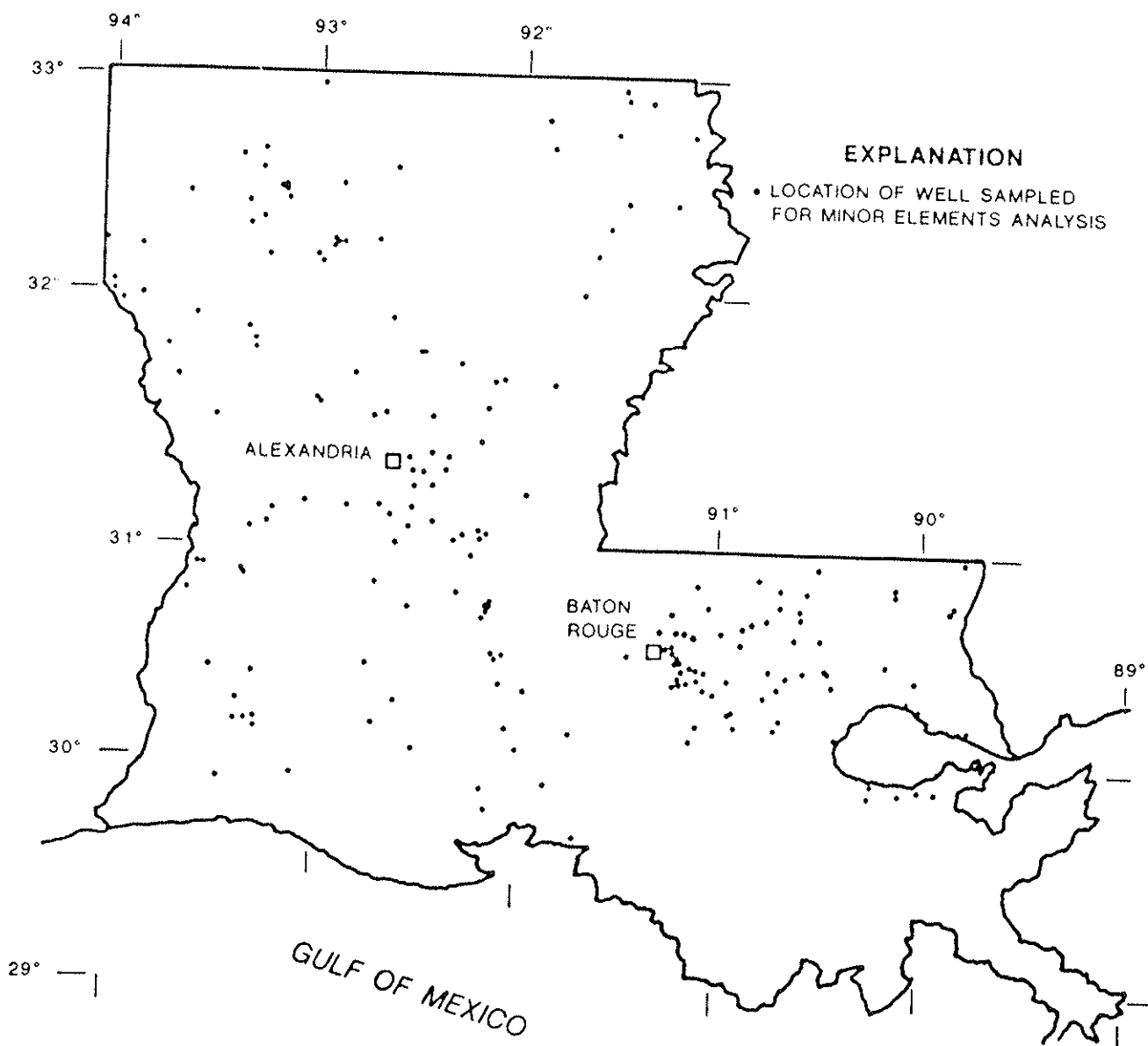
Figure 1.--Wells sampled for selected minor elements.

MAJOR SOURCES OF GROUND WATER FOR PUBLIC SUPPLY IN LOUISIANA

The aquifers of Miocene and Pliocene age are used for public supply throughout much of the southern part of the State, especially in the parishes east of the Mississippi River. Aquifers in Miocene sediments include the Jasper in southwestern Louisiana; the Catahoula in the Catahoula Formation in central Louisiana; and the Tchefuncta, Hammond, and Amite aquifers in southeastern Louisiana. In the Baton Rouge area, the "2,000-, 2,400-, and 2,800-foot" aquifers are of Miocene age. Aquifers in Pliocene sediments include the Evangeline in southwestern Louisiana; the lower Ponchatoula, Big Branch, Kentwood, Abita, Covington, and Slidell aquifers in southeastern Louisiana; and the "800-, 1,000-, 1,200-, 1,500-, and 1,700-foot" aquifers in the Baton Rouge area.

The aquifers of Pleistocene age are used throughout the State as public-supply sources. Aquifers in Pleistocene sediments include the Chicot in southwestern Louisiana; the northern Louisiana terrace; the Gonzales-New Orleans and upper Ponchatoula aquifers in southeastern Louisiana; and the "400- and 600-foot" aquifers in the Baton Rouge area. Also the alluvial aquifers of the major rivers, such as the Mississippi and the Red, are Pleistocene. The alluvial aquifers are not used extensively where better quality water in deeper aquifers is available. The terrace aquifer also is used little for public supply except for the city of Alexandria, La.

OCCURRENCE OF MINOR ELEMENTS IN GROUND WATER IN LOUISIANA

Analyses of ground water (appendix A) in major aquifers used for public supply in Louisiana indicated that the natural occurrence of minor elements in these aquifers was below the maximum recommended contaminant levels established by the U.S. Environmental Protection Agency (1986) in the vast majority of samples. The areal distribution of wells sampled for analysis of minor-element concentrations is shown in figure 1. The maximum concentration of selected minor elements and the corresponding well from which the sample was collected is shown in figure 2. Most occurrences of the highest concentrations of minor elements were in the aquifers of Pleistocene age. In other studies relating to minor-element concentrations in shallow aquifers in the Baton Rouge area, abnormally high values of barium were reported at three well sites (Strickland and others, 1987). The reasons for the high barium concentrations have not been determined.

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R-951 [Red River alluvial aquifer]
Barium 1,200(1,000)

Ri-114 [Mississippi River alluvial aquifer]
Strontium 6,200

EC-159 [Mississippi River alluvial aquifer]
Cadmium 10(10)

Ma-53 [Mississippi River alluvial aquifer]
Copper 420, Nickel 90

EXPLANATION

.Ve-722 [Chicot aquifer]
Well location, well number, and aquifer in which
the well is screened
Lead 30(50)
Element name and concentration in micrograms
per liter. The number inside the parenthesis
is the recommended maximum contaminant level
established for the element by the U.S. Environ-
mental Protection Agency. If no maximum contami-
nant level has been established, none is shown

Li-167 ["600-foot" aquifer]
Silver 5

Av-441 [Evangeline
aquifer]
Molybdenum 13

SL-407 [alluvial aquifer, undifferentiated]
Arsenic 200(50)

Ve-722 [Chicot aquifer]
Lead 30(50)

Or-67 [Gonzales-New Orleans
aquifer]
Vanadium 7

Figure 2.--Location of wells sampled that contained maximum observed
concentrations of selected minor elements.

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SELECTED AREAS OF ELEVATED CONCENTRATIONS OF BARIUM

Barium sulfate is a common constituent in water-based drilling muds used by the petroleum industry. Intrusion of drilling muds into sediments surrounding petroleum wells are possible sources of barium and lead contamination in ground water. The U.S. Environmental Protection Agency (1986) has established maximum contaminant levels of 1,000 µg/L for barium and 50 µg/L for lead in domestic water. A residential area (Bon Lieu subdivision) in Ascension Parish, located near a site of petroleum drilling (fig. 3), was selected because of reported barium contamination in a public-supply well serving the subdivision. Wells in Grant and Rapides Parishes (fig. 4) which contained ground water with elevated concentrations of barium also were selected for further study.

Bon Lieu Subdivision

The Bon Lieu subdivision is located in Ascension Parish near Hobart, La. (fig. 3). In 1983, suspended particulate matter, which was believed to contain barium, was reported in the water supply of Bon Lieu subdivision (W.J. Hughes, Louisiana Department of Health and Hospitals, written commun., 1983). The U.S. Geological Survey sampled Bon Lieu public-supply wells An-332 and An-333 plus seven additional public-supply and domestic water wells within a 1-mile radius of An-333 (fig. 3). Table 1 lists the identifying number of sampled wells, the aquifer in which the wells are screened, and analytical results. Five of the additional wells were screened in the "400-foot" aquifer along with wells An-332 and An-333. Two of the additional wells were screened in the overlying Gonzales-New Orleans aquifer. All nine wells were sampled at least once in 1984. Four of the additional wells were resampled in 1986.

Concentrations of dissolved barium, total (dissolved plus suspended particulate matter) barium, and total lead in all samples from all wells were less than the recommended maximum contaminant levels established for domestic water (U.S. Environmental Protection Agency, 1986) (table 1). Sampling and analysis of ground water from wells within a 1-mile radius of well An-333 (fig. 3) in 1984 and 1986 indicated a background concentration of barium of approximately 100 µg/L (table 1). In 1984, ground water from wells An-332 and An-333 showed higher than background levels of barium (table 1). Because of public concern, wells An-332 and An-333 were taken out of service in late-1985 (Audrey Manuel, Capitol Area Utilities, oral commun., 1987).

The coincidence of petroleum drilling operations in 1981-82 near well An-333 (fig. 3), and the report of a contamination problem involving barium in the Bon Lieu public-supply wells in 1983 suggests that drilling fluids containing barium sulfate could have been the source of contamination in ground water used for Bon Lieu public supply. The absence of any anomalous barium or lead concentrations in ground water within a 1-mile radius of well An-333 (excluding An-332) is consistent with the low solubility of barium sulfate and the small amount of lead extractable from drilling fluids in the normal range of ground-water conditions (Deeley and Canter, 1986).

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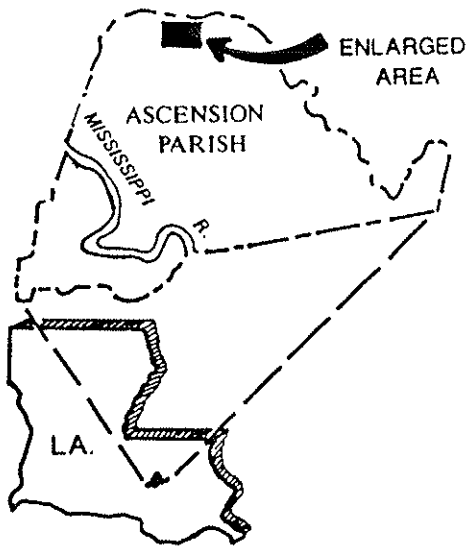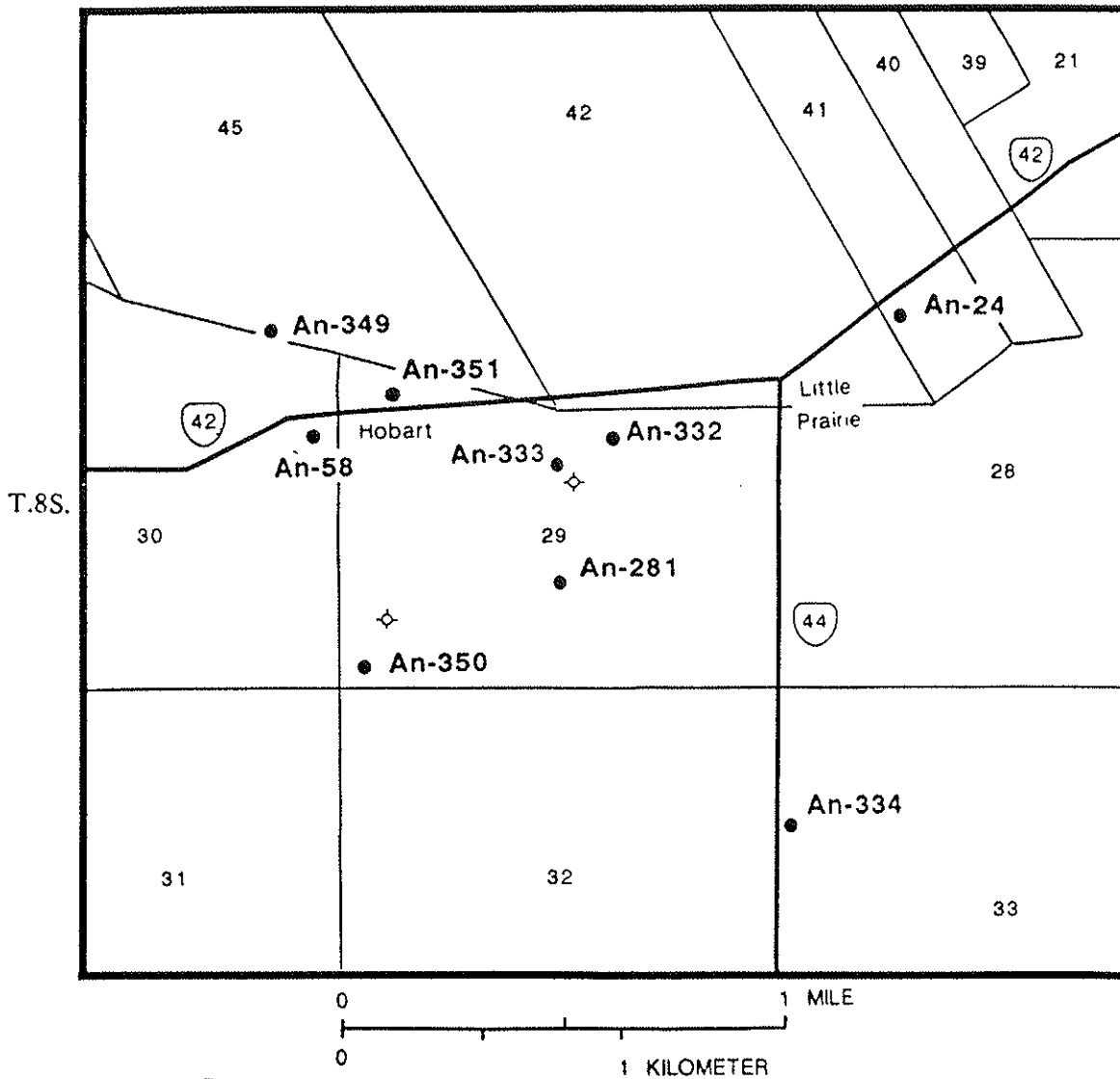
Figure 3.--Location of water and petroleum wells within a
1-mile radius of well An-333.

EXPLANATION

● OBSERVATION WELL

▲ STREAMGAGING STATION

GRANT

Colfax

0445015

31°30'

G-385,-386

92°45'

30'

92°15'

RED

ALEXANDRIA

RIVER

R-951

15'

RAPIDES

31°00'

L.A.

ENLARGED AREA

| 0 | 10 | 20 | MILES |
| 0 | 10 | 20 | KILOMETERS |
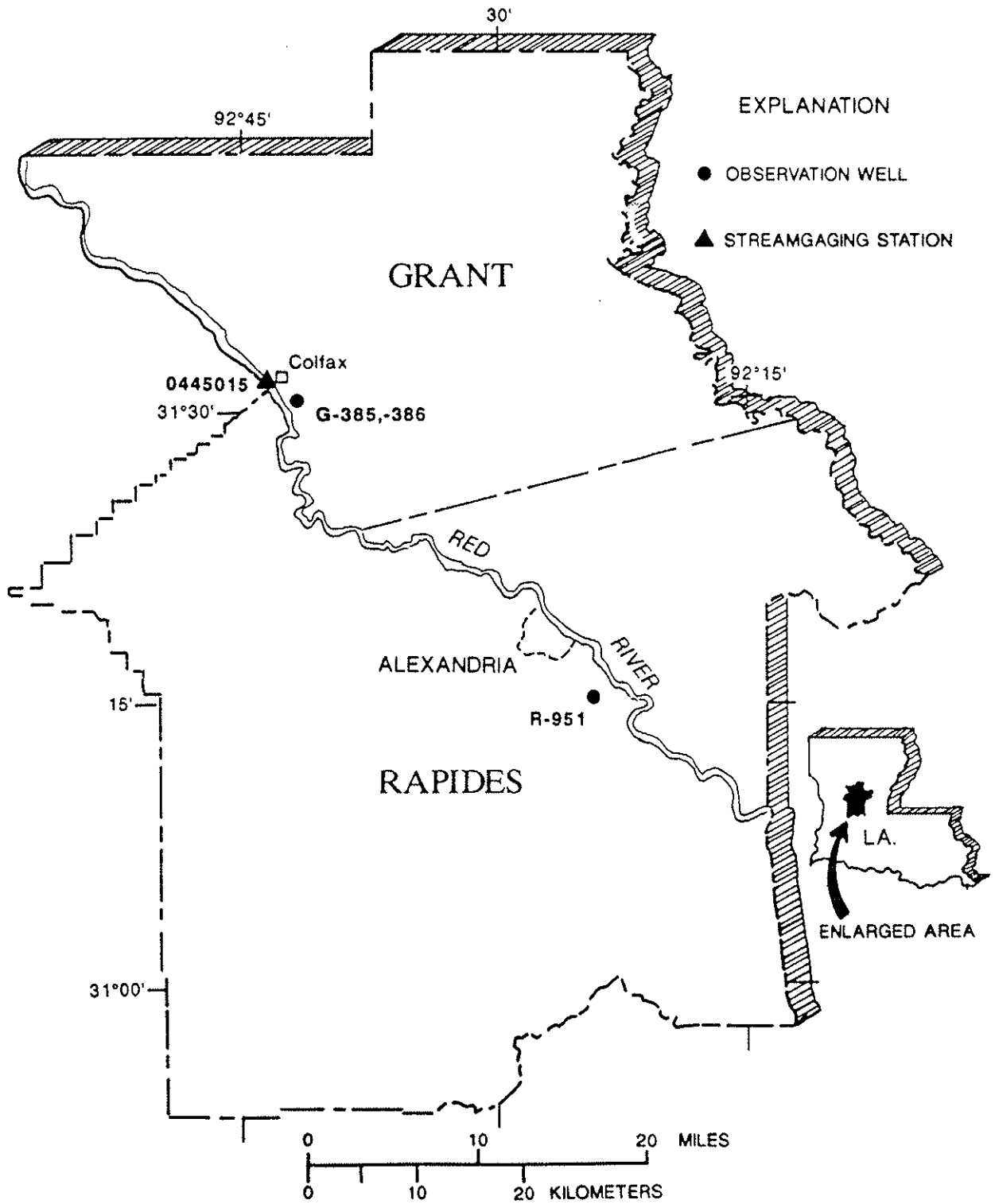
Figure 4.--Location of wells G-385 and G-386 in Grant Parish, well R-951 in Rapides Parish, and gaging station no. 0445015 near Colfax, Louisiana.

Table 1.---Chemical analyses of barium and lead in ground water from wells within a 1-mile radius of well An-333 in Ascension Parish

[well: PS, public supply; D, domestic]

Well no.	Well-aquifer	Sampling date	Barium (Ba) Dissolved	Barium (Ba) Total	Lead (Pb), total
			microgram per liter	microgram per liter	microgram per liter
An-24	PS-"400-foot"	5- 1-84	<100	<100	3
An-58	D-"400-foot"	5- 1-84	<100	<100	1
		5- 7-86		<100	--
An-281	PS-Gonzales-New Orleans	5- 3-84	100	100	5
		5- 7-86		100	--
An-332	PS-"400-foot"	4-30-84	800	----	11
		11-14-84		330	--
		12- 6-84		320	--
An-333	do.	4-30-84	400	----	5
		11-14-84		<100	--
An-334	PS-Gonzales-New Orleans	5- 4-84		100	--
		5- 7-86		100	--
An-349	D-"400-foot"	5- 1-84	<100	<100	4
An 350	do.	5- 3-84	100	100	1
An-351	do.	5- 3-84	<100	<100	2
	do.	5- 7-86		<100	--

Wells G-385 and R-951

In 1986, ground-water samples from the Red River alluvial aquifer in Grant (well G-385) and Rapides (well R-951) Parishes (fig. 4) contained 800 and 1,200 µg/L of barium, respectively.

Well G-385 is located near Colfax, La., and is screened near the base of the Red River alluvial aquifer in an area of naturally-occurring high-chloride ground water (table 2). The source of this high-chloride ground water in the alluvial aquifer is upward movement of high-chloride ground water from underlying Tertiary deltaic sediments (Whitfield, 1980). The concentrations of chloride, hardness, iron, and manganese decreased in ground water from well G-385 from mid-1975 to late-1979 (fig. 5). For the same period, the mass ratios of hardness, iron, and manganese to chloride varied little (fig. 6). The relation between hardness and chloride in water from wells in the area (fig. 7) shows that chloride concentrations and hardness values for ground

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water from well G-385 decreased from May 1975 and December 1979. However, the relation between hardness and chloride remained almost constant with concentrations falling along a straight line mixing curve (fig. 7). This indicates that ground water at the base of the Red River alluvial aquifer near well G-385 was being diluted with a ground water of lower chloride, hardness, iron, and manganese concentrations during this period. The concentrations of chloride and hardness in this diluting water should fall near the extrapolated part of the mixing curve (fig. 7).

Table 2.--Chemical analyses of selected dissolved constituents in
ground water from well G-385 in Grant Parish

Sampling date	Chloride	Hardness as $CaCO_3$	Sulfate	Iron	Manganese
	milligrams per liter			micrograms per liter	
5-30-75	4,300	1,400	-----	7,800	1,600
7-30-75	4,300	1,400	16	8,100	1,700
2-26-76	3,600	1,300	13	7,300	1,700
7-14-76	3,500	1,200	13	7,000	1,700
11-16-76	3,000	1,200	6.6	6,800	1,300
4- 1-77	2,800	1,000	8.8	6,100	1,700
9-27-77	2,600	950	11	6,000	1,300
3-31-78	2,000	730	4.8	4,200	1,200
9-18-78	2,000	780	3.4	-----	1,400
3-27-79	1,100	500	<1.0	2,800	670
12-20-79	1,100	510	21	2,600	630
3-21-80	780	450	<.1	2,300	600
9-16-80	720	460	.4	2,500	590
4-16-81	580	470	.2	2,600	680
9-18-81	600	440	.4	2,300	620
4-22-82	580	430	.8	2,200	550
9- 8-82	600	440	.6	2,200	620
4-14-83	500	460	.4	2,300	640
9-15-83	520	440	1.2	2,100	500
3-16-84	480	510	.2	2,400	540
10-29-84	500	480	1.2	2,500	680

Four potential sources exist for the diluting water near well G-385: (1) inflow from the Red River, (2) lateral inflow from the terrace aquifer adjacent to the Red River alluvial aquifer, (3) vertical inflow from the underlying Catahoula aquifer, and (4) other ground water within the Red River alluvial aquifer. Figure 8 shows that the water levels in well G-385[a] were higher than those in the Red River recorded at stream-gaging station number 0445015 near Colfax, La. (fig. 4), from May 1975 to December 1979, with the exception of a brief period in early-1977. Thus, the Red River was not a significant source of recharge to the Red River alluvial aquifer for the period in question. The extrapolation of the mixing curve in figure 7 does

[a] An uncertainty of +3 feet is recognized in the reported land elevation at the site of well G-385.

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not intersect points representative of analyses of ground water from the
terrace aquifer or the Catahoula aquifer in Grant Parish. The extrapolated
mixing curve does, however, fall near plots representing analyses of ground
water from the Red River alluvial aquifer in locations within Grant Parish.
These data suggest that ground water near the base of the Red River alluvial
aquifer in the area of well G-385 was being diluted with ground water origi-
nating in another part of the Red River alluvial aquifer. The declining
trends in iron and manganese concentrations indicate that this diluting water
was also lower in these constituents.

In early-1980, the mass ratios of hardness, iron, and manganese to chlo-
ride in ground water from well G-385 rose rapidly (fig. 6). Figure 7 shows
that the relation between hardness and chloride plotted above the mixing
curve. The rapid rise in the mass ratios slowed markedly in early-1981, but
continued to increase gradually through 1984 (fig. 6). The increase in mass
ratios from early-1980 to early-1981 was caused by a decrease in the concen-
tration of chloride while the concentrations of hardness, iron, and manganese
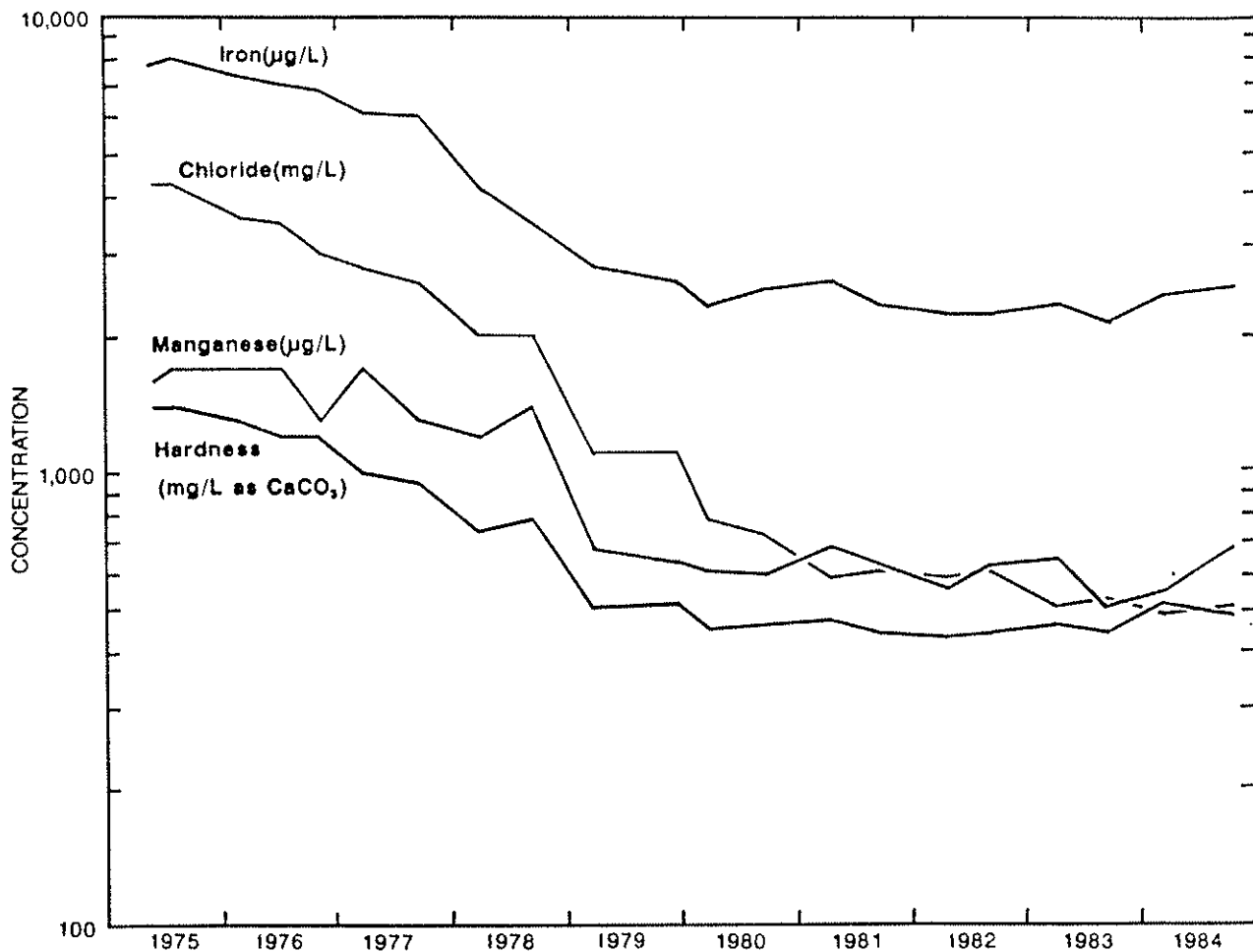
Figure 5.---Concentrations of chloride, hardness, iron, and manganese in
ground water from well G-385 from 1975 through 1984.

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remained largely unchanged. The increase in the rate of change of the mass ratios, the change in the relation between hardness and chloride, and the sudden change in sulfate concentrations (table 2) indicate that from early-1980 to early-1981 the ground water in well G-385 was mixing with a ground water of different chemical composition than that of the diluting water of the mid-1975 through late-1979 period. Lack of a clear trend in the relation between hardness and chloride for post early-1980 analyses (fig. 7) does not allow the chemical composition of post early-1980 diluting water to be estimated.

Analyses of ground water from well G-385 after early-1981 showed fluctuating, but generally increasing, mass ratios (fig. 6). The post early-1981 ground-water chemistry may have been the result of further mixing with an unidentified ground water, mineralization of the ground water near the base of the Red River alluvial aquifer by dissolution of aquifer materials, or both.

The concentration of barium in ground water from well G-385 was 2,700 µg/L in late-1976 and 800 µg/L in mid-1986. Two potential sources exist for the elevated barium concentrations in ground water from well G-385: (1) infiltration of ground water into the alluvial aquifer through surficial
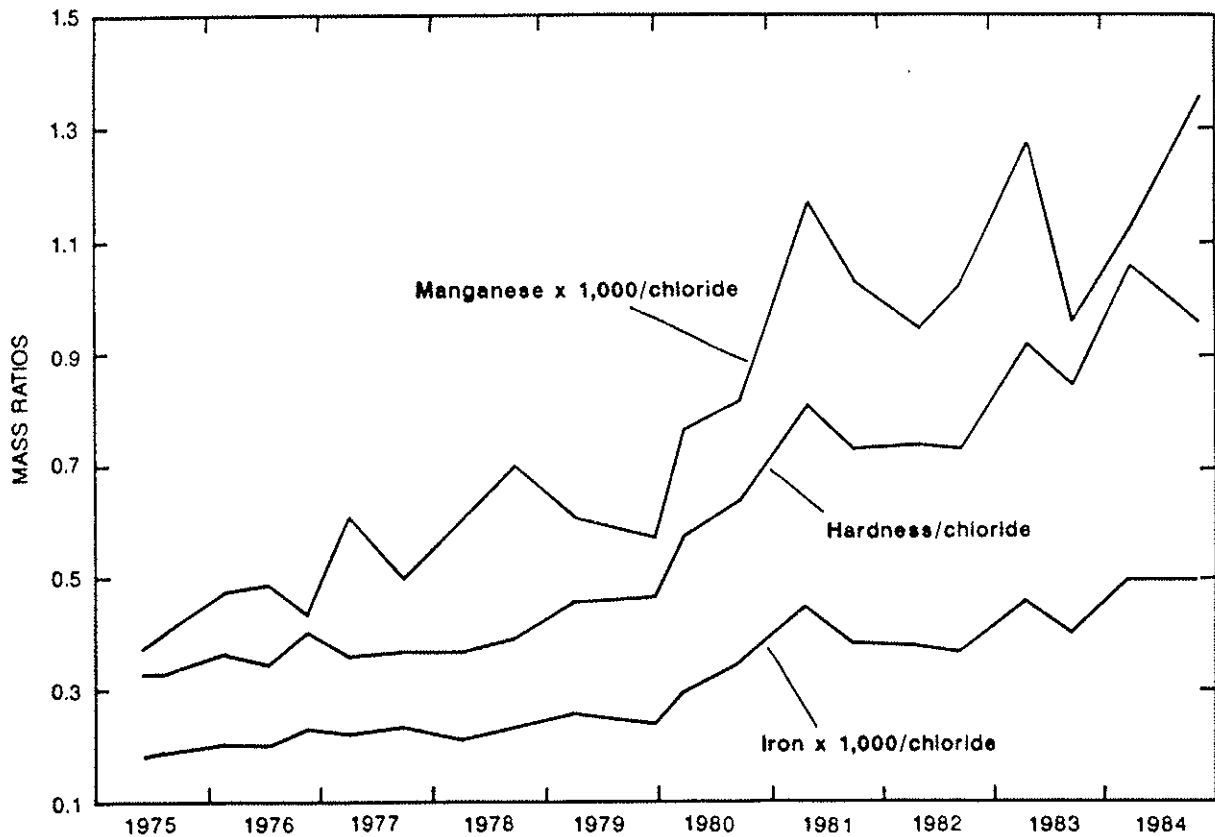
Figure 6.--Mass ratios of hardness, iron, and manganese to chloride in ground water from well G-385 from 1975 through 1984.
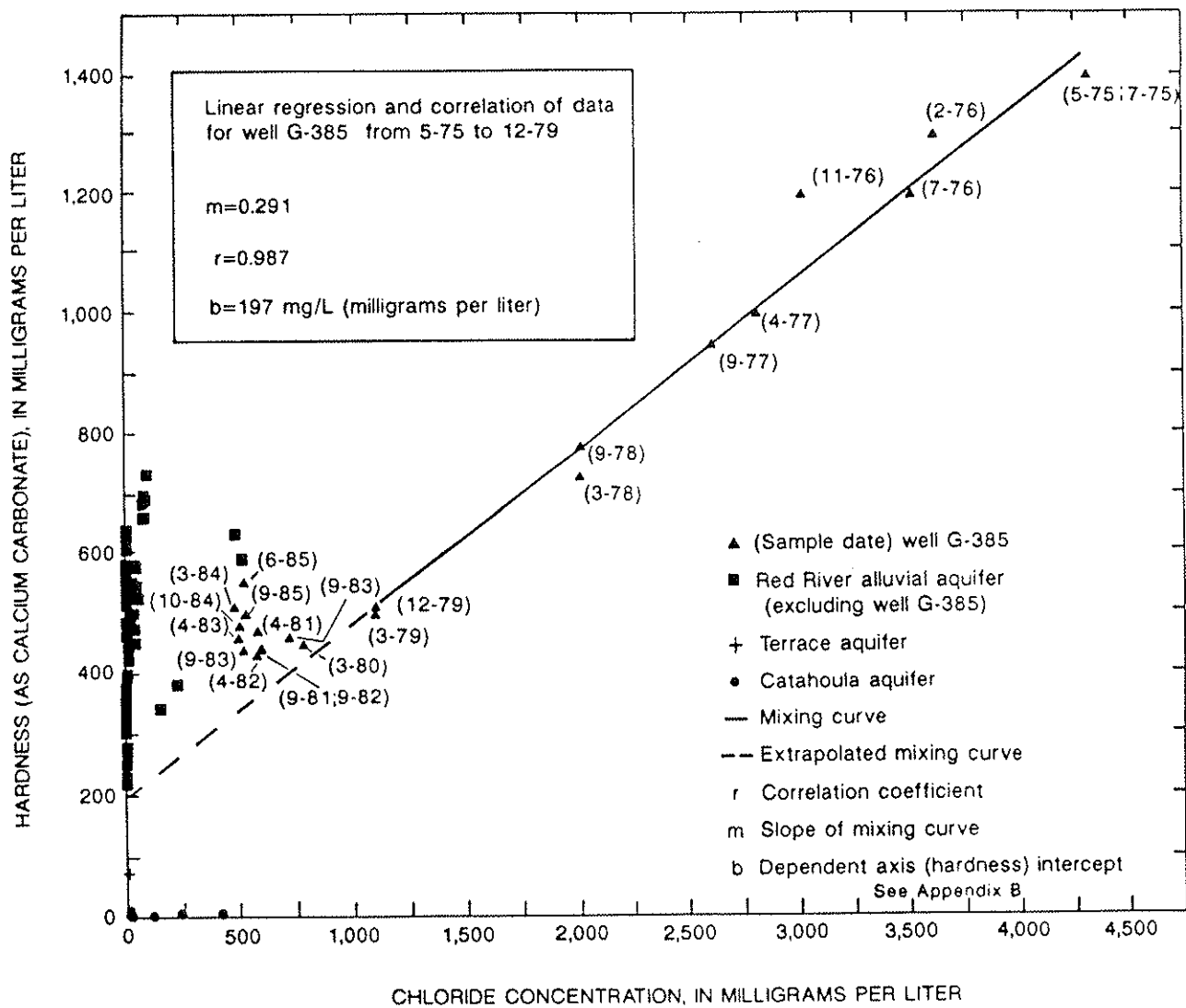
Figure 7.--Relation between hardness and chloride in water from the Red River, terrace, and Catahoula alluvial aquifers (including well G-385) in Grant Parish from 1975 through 1984.

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sulfate-containing sediments associated with overbank deposits of the Red River (Whitfield, 1980) and (2) elevated barium concentrations in ground water from the deltaic sediments underlying the alluvial aquifer. Well G-386 is located adjacent to, but screened 48 feet above, well G-385 (fig. 4). The barium concentration in a sample of ground water from well G-386 was 300 µg/L in 1976 in contrast to a barium concentration of 2,700 µg/L in ground water from well G-385 in the same year. This indicates that surficial sediments in the area of well G-385 are an unlikely primary source for the elevated barium concentrations in ground water from this well. It is more likely that the elevated barium concentrations in well G-385 are associated with high-chloride ground water from the sediments underlying the alluvial aquifer. The observed decrease in barium concentration in ground water from well G-385 between 1976 and 1985 is consistent with dilution of the high-chloride ground water near the base of the alluvial aquifer near well G-385 as discussed previously.
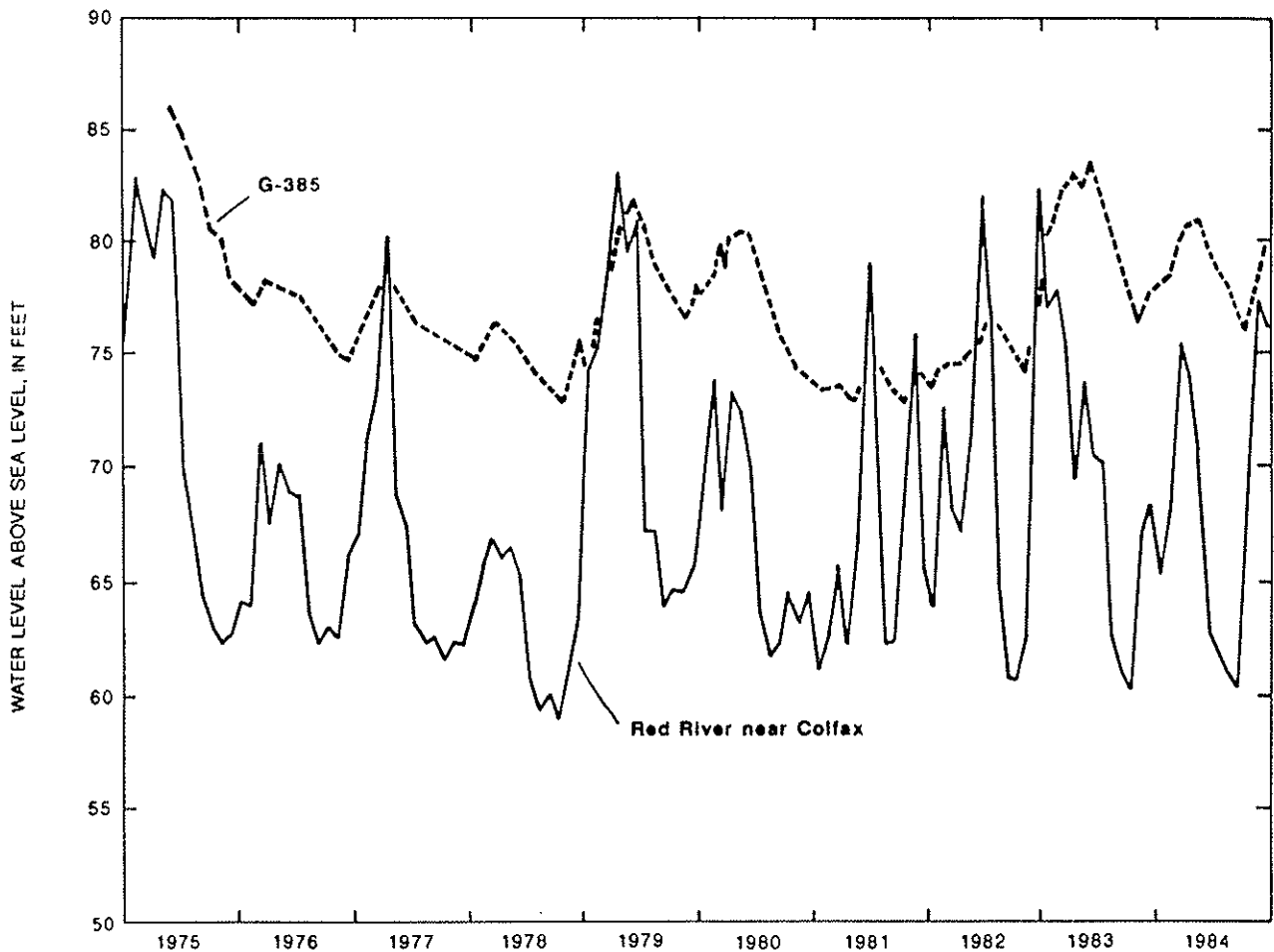
Figure 8.--Comparison of water levels in well G-385 and the stage of the Red River near Colfax, Louisiana, from 1975 through 1984.

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Well R-951 is located near Willow Glen, La. (fig. 4), and is screened near the base of the Red River alluvial aquifer. Barium concentrations in ground water from well R-951 were 1,000 µg/L in early-1977 and 1,200 µg/L in mid-1986. The available geochemical data (table 3) indicate that the chemical composition of ground water near well R-951 changed little for the period 1969-77. The small difference in the concentrations of barium in ground water from well R-951 measured in 1977 and 1986 also indicates there may have been little change in the chemical composition of this ground water for the period 1977-86. The source of elevated barium concentrations in ground water from well R-951 is unknown. The absence of petroleum activities in the area of well R-951 (Louisiana Geological Survey, 1981) does not indicate petroleum-related contamination as the source of elevated barium concentrations in the ground water.

Table 3.--Chemical analyses of selected dissolved constituents in ground water from well R-951 in Rapides Parish

Sampling date	Chloride	Hardness as CaCO$_3$	Sulfate	Iron	Manganese
	milligrams per liter			micrograms per liter	
3-25-69	280	670	0.8	------	170
5-17-74	260	640	2.8	6,700	190
1-15-75	280	660	3.4	5,100	180
8- 5-76	290	640	.2	6,800	250
1-14-77	290	660	4.2	8,000	180

SUMMARY AND CONCLUSIONS

More than 200 samples collected from the mid-1970's through 1987 were evaluated to determine if anomalous concentrations of minor elements occur in ground water in Louisiana, the extent of their occurrence, and their probable sources. Results of these analyses indicated that in the vast majority of samples minor-element concentrations in those major aquifers used for public supply in Louisiana were below the recommended maximum contaminant levels established by the U.S. Environmental Protection Agency (1986).

Two areas of elevated barium concentrations in ground water were selected for further study: (1) Bon Lieu subdivision in Ascension Parish, and (2) selected wells in Grant and Rapides Parishes. The Bon Lieu site was studied in response to reports of potential barium contamination in the public water supply. Although barium concentrations as high as 800 and 400 µg/L were found in the Bon Lieu public-supply wells An-332 and An-333, respectively, concentrations in seven other wells within a 1-mile radius of well An-333 were not above background levels (100 µg/L or less). Barium and lead concentrations in ground water from the Bon Lieu subdivision area were less than the recommended maximum contaminant levels of 1,000 µg/L and 50 µg/L, respectively (U.S. Environmental Protection Agency, 1986). The proximity of a nearby petroleum well and the report of contamination soon after drilling operations began (1981-82) indicate that drilling fluids containing barium sulfate may have been the source of the barium contamination.

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Well G-385 in Grant Parish and well R-951 in Rapides Parish were investigated when ground-water analyses indicated elevated barium concentrations. Both wells were completed near the base of the Red River alluvial aquifer. Chloride and barium concentrations in ground water from well G-385 decreased significantly from 1975 to 1984. The decrease is attributed to dilution of the ground water in well G-385 with less mineralized ground water occurring in the Red River alluvial aquifer. The elevated barium concentrations in wells G-385 and R-951 do not appear to be caused by petroleum-related activities.

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APPENDIXES

Explanation of Appendixes A and B

UG/L, micrograms per liter
MG/L, milligrams per liter

Explanation of Aquifer and Geologic Unit Codes

Geohydrologic unit codes	Geohydrologic unit
11202LC	"200-foot" aquifer in Lake Charles area
11204BR	"400-foot" aquifer of Baton Rouge-Gonzales area
11205LC	"500-foot" aquifer of Lake Charles area
11206BR	"600-foot" aquifer of Baton Rouge-Gonzales area
11207LC	"700-foot" aquifer of Lake Charles
112ACFL	Atchafalaya aquifer
112ALVL	Undifferentiated alluvial aquifers
112BNTL	Terrace aquifer
112CHCT	Chicot aquifer
112CHCTL	Chicot aquifer, lower aquifer
112CHCTS	Chicot aquifer, shallow aquifer
112CHCTU	Chicot aquifer, upper aquifer
112GZNO	Gonzales-New Orleans aquifer
112MRVA	Mississippi River alluvial aquifer
112PNCLU	Upper Ponchatoula aquifer
112PRIR	Prairie Formation
112RRVA	Red River alluvial aquifer
112SLBR	Shallow aquifers of Baton Rouge area
112UPTC	Upland terrace deposits
112WLLN	Williana Formation
120ABIT	Abita aquifer (zone 2)
120CVGN	Covington aquifer (zone 2)
120KNTD	Kentwood aquifer (zone 2)
120SLDL	Slidell aquifer (zone 2)
12101FP	Zone 1 Florida Parishes and Pointe Coupee Parish
12108BR	"800-foot" aquifer of Baton Rouge area
12110BR	"1,000-foot" aquifer of Baton Rouge area
12112BR	"1,200-foot" aquifer of Baton Rouge area
12115BR	"1,500-foot" aquifer of Baton Rouge area
12117BR	"1,700-foot" aquifer of Baton Rouge area
121BLCK	Blounts Creek Member of Fleming Formation
121EVGL	Evangeline aquifer
12203FP	Zone 3 Florida Parishes and Pointe Coupee Parish
12220BR	"2,000-foot" aquifer of Baton Rouge area
12224BR	"2,400-foot" aquifer of Baton Rouge area
12228BR	"2,800-foot" aquifer of Baton Rouge area
122AMIT	Amite aquifer (zone 3)
122CRNB	Carnahan Bayou Member of Fleming Formation
122CTHL	Catahoula Formation
122FRKL	Franklinton aquifer (zone 3)
122HMND	Hammond aquifer (zone 3)

Explanation of Aquifer and Geologic Unit Codes--Continued

Geohydrologic unit codes	Geohydrologic unit
122JSPR	Jasper aquifer
122MOCN	Miocene Series
122RMSY	Ramsay aquifer
122TCFC	Tchefuncta aquifer
122WMCK	Williamson Creek Member of Fleming Formation
124CCKF	Cockfield Formation
124CRVR	Cane River Formation
124SPRT	Sparta aquifer
124WLCX	Wilcox Group

WELL NUMBER	STATION NUMBER	GEO-LOGIC UNIT	DEPTH OF WELL, TOTAL (FEET)	DATE	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	ANTIMONY, TOTAL (UG/L AS SB)	ANTIMONY, DISSOLVED (UG/L AS SB)
ACADIA PARISH								
AC- 452	300742092265901	112CHCTU	246.00	02-14-84	--	--	<1	--
		112CHCTU	246.00	03-22-85	--	--	<1	--
		112CHCTU	246.00	05-21-86	--	<10	--	--
AC- 517	301946092325101	112CHCTU	249.00	04-16-82	--	--	--	--
ALLEN PARISH								
AL- 120	304921092402202	121EVGL	910.00	09-05-86	--	<10	--	<1
AL- 370	304910092400301	121EVGL	682.00	04-15-82	--	--	--	--
ASCENSION PARISH								
AN- 24	301933090550501	11204BR	619.00	05-01-84	--	--	--	--
AN- 58	301918090562601	11204BR	654.00	05-01-84	--	--	--	--
		11204BR	654.00	05-07-86	--	--	--	--
AN- 267	301544090543901	112GZNO	488.00	06-13-85	--	--	--	--
		112GZNO	488.00	08-21-85	--	--	<1	--
		112GZNO	488.00	04-28-86	--	20	--	--
AN- 281	301902090555201	112GZNO	365.00	05-03-84	--	--	--	--
		112GZNO	365.00	05-07-86	--	--	--	--
AN- 332	301917090555301	11204BR	--	04-30-84	--	--	<1	--
		11204BR	--	11-14-84	--	--	--	--
		11204BR	--	12-06-84	--	--	--	--

WELL NUMBER	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BERYLLIUM, DISSOLVED (UG/L AS BE)	BORON, DISSOLVED (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)
ACADIA PARISH									
AC- 452	<1	--	--	--	<10	--	--	<1	--
	1	--	--	--	<10	--	--	<1	--
	--	<1	600	600	--	--	--	--	<1
AC- 517	--	1	--	260	--	<0.5	40	--	<1
ALLEN PARISH									
AL- 120	--	<1	--	10	--	<0.5	--	--	<1
AL- 370	--	1	--	14	--	<0.5	130	--	<1
ASCENSION PARISH									
AN- 24	--	--	<100	<100	--	--	--	--	--
AN- 58	--	--	<100	<100	--	--	--	--	--
	--	--	<100	<100	--	--	--	--	--
AN- 267	--	<1	--	110	--	--	--	--	<1
	<1	--	--	--	<10	--	--	1	--
	--	<1	--	100	--	--	--	--	<1
AN- 281	--	--	100	100	--	--	--	--	--
	--	--	100	100	--	--	--	--	--
AN- 332	1	--	800	--	<10	--	--	1	--
	--	--	300	330	--	--	--	--	--
	--	--	300	320	--	--	--	--	--

WELL NUMBER	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, TOTAL RECOVERABLE (UG/L AS CO)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)
ACADIA PARISH								
AC- 452	1	--	--	--	<1	--	1	--
	1	--	--	--	3	--	4	--
	--	<1	--	--	--	2	--	1
AC- 517	--	10	--	<3	--	<10	--	<10
ALLEN PARISH								
AL- 120	--	<10	--	--	--	1	--	<5
AL- 370	--	10	--	<3	--	<10	--	<10
ASCENSION PARISH								
AN- 24	--	--	--	--	--	--	3	--
AN- 58	--	--	--	--	--	--	1	--
	--	--	--	--	--	--	--	--
AN- 267	--	10	--	<1	--	<1	--	3
	1	--	--	--	2	--	2	--
	--	<1	--	--	--	<1	--	<1
AN- 281	--	--	--	--	--	--	5	--
	--	--	--	--	--	--	--	--
AN- 332	<1	--	--	--	5	--	11	--
	--	--	--	--	--	--	2	<10
	--	--	--	--	--	--	10	1

WELL NUMBER	LITHIUM TOTAL RECOVERABLE (UG/L AS LI)	LITHIUM DISSOLVED (UG/L AS LI)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, DISSOLVED (UG/L AS NI)
ACADIA PARISH								
AC- 452	--	--	0.1	--	--	--	1	--
	--	--	--	--	--	--	<1	--
	--	--	--	<0.1	--	--	--	1
AC- 517	--	18	--	<0.1	--	<10	--	--
ALLEN PARISH								
AL- 120	--	--	--	<0.1	--	--	--	2
AL- 370	--	7	--	<0.1	--	<10	--	--
ASCENSION PARISH								
AN- 24	--	--	--	--	--	--	--	--
AN- 58	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--
AN- 267	--	20	--	<0.1	--	--	--	--
	--	--	<0.1	--	--	--	3	--
	--	--	--	<0.1	--	--	--	<1
AN- 281	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--
AN- 332	--	--	<0.1	--	--	--	4	--
	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--

21

WELL NUMBER	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
ACADIA PARISH								
AC- 452	<1	--	<1	--	--	--	<10	--
	<1	--	<1	--	--	--	20	--
	--	<1	--	<1	--	--	--	10
AC- 517	--	<1	--	--	190	<6	--	35
ALLEN PARISH								
AL- 120	--	<1	--	<1	--	--	--	<3
AL- 370	--	<1	--	--	13	<6	--	<3
ASCENSION PARISH								
AN- 24	--	--	--	--	--	--	--	--
AN- 58	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--
AN- 267	--	<1	--	--	110	--	--	6
	<1	--	<1	--	--	--	10	--
	--	<1	--	<1	--	--	--	<10
AN- 281	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--
AN- 332	<1	--	<1	--	--	--	3200	--
	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--

WELL NUMBER	STATION NUMBER	GEO-LOGIC UNIT	DEPTH OF WELL, TOTAL (FEET)	DATE	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ANTI-MONY, TOTAL (UG/L AS SB)	ANTI-MONY, DIS-SOLVED (UG/L AS SB)
ASCENSION PARISH								
AN- 333	301914090555101	11204BR	645.00	04-30-84	--	--	<1	--
		11204BR	645.00	11-14-84	--	--	--	--
AN- 334	301832090551901	112GZNO	403.00	05-04-84	--	--	--	--
		112GZNO	403.00	05-07-86	--	--	--	--
AN- 349	301928090561801	11204BR	630.00	05-01-84	--	--	--	--
AN- 350	301850090561501	11204BR	465.00	05-03-84	--	--	--	--
AN- 351	301922090560801	11204BR	589.00	05-03-84	--	--	--	--
		11204BR	589.00	05-07-86	--	--	--	--
AVOYELLES PARISH								
AV- 309	310219092082701	121EVGL	270.00	08-01-84	--	10	--	<1
AV- 335	311248091571801	112RRVA	85.00	11-29-76	10	<100	--	--
AV- 398	310321092103902	121EVGL	379.00	07-31-84	--	10	--	<1
AV- 430	305657092121901	121BLCK	572.00	08-13-84	--	<10	--	<1
AV- 441	310117092100201	121EVGL	319.00	08-01-84	--	80	--	<1
		121EVGL	319.00	09-05-86	--	<10	--	<1

APPENDIX A.--CONCENTRATIONS OF MINOR ELEMENTS IN WATER FROM
THE MAJOR AQUIFERS OF LOUISIANA, 1972-87--CONTINUED

WELL NUMBER	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BERYLLIUM, DIS-SOLVED (UG/L AS BE)	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)
ASCENSION PARISH									
AN- 333	<1	--	400	--	<10	--	--	1	--
	--	--	100	<10	--	--	--	--	--
AN- 334	--	--	--	100	--	--	--	--	--
	--	--	200	100	--	--	--	--	--
AN- 349	--	--	<100	<100	--	--	--	--	--
AN- 350	--	--	100	100	--	--	--	--	--
AN- 351	--	--	<100	<100	--	--	--	--	--
	--	--	100	<100	--	--	--	--	--
AVOYELLES PARISH									
AV- 309	--	<1	--	62	--	<1	--	--	<1
AV- 335	13	4	300	--	--	--	60	6	6
AV- 398	--	<1	--	30	--	<1	--	--	<1
AV- 430	--	2	--	53	--	1	--	--	<1
AV- 441	--	1	--	64	--	<1	--	--	<1
	--	<1	--	52	--	0.7	--	--	1

WELL NUMBER	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, DIS-SOLVED (UG/L AS CR)	COBALT, TOTAL RECOVERABLE (UG/L AS CO)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)
ASCENSION PARISH								
AN- 333	<1	--	--	--	<1	--	5	--
	--	--	--	--	--	--	2	20
AN- 334	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--
AN- 349	--	--	--	--	--	--	4	--
AN- 350	--	--	--	--	--	--	1	--
AN- 351	--	--	--	--	--	--	2	--
	--	--	--	--	--	--	--	--
AVOYELLES PARISH								
AV- 309	--	10	--	1	--	2	--	<1
AV- 335	<20	3	ND	ND	8	8	2	2
AV- 398	--	<10	--	1	--	2	--	<1
AV- 430	--	<10	--	4	--	1	--	1
AV- 441	--	<10	--	1	--	2	--	1
	--	<10	--	--	--	2	--	<5

APPENDIX A.--CONCENTRATIONS OF MINOR ELEMENTS IN WATER FROM
THE MAJOR AQUIFERS OF LOUISIANA, 1972-87--CONTINUED

WELL NUMBER	LITHIUM TOTAL RECOV- ERABLE (UG/L AS LI)	LITHIUM DIS- SOLVED (UG/L AS LI)	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)	NICKEL, DIS- SOLVED (UG/L AS NI)
				ASCENSION PARISH				
AN- 333	--	--	<0.1	--	--	--	1	--
	--	--	--	--	--	--	--	--
AN- 334	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--
AN- 349	--	--	--	--	--	--	--	--
AN- 350	--	--	--	--	--	--	--	--
AN- 351	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--
				AVOYELLES PARISH				
AV- 309	--	18	--	<0.1	--	5	--	<1
AV- 335	20	20	<0.5	<0.5	--	--	2	ND
AV- 398	--	18	--	<0.1	--	5	--	<1
AV- 430	--	28	--	0.4	--	2	--	9
AV- 441	--	26	--	<0.1	--	13	--	1
	--	--	--	<0.1	--	--	--	1

WELL NUMBER	SELE- NIUM, TOTAL (UG/L AS SE)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)
				ASCENSION PARISH				
AN- 333	<1	--	2	--	--	--	<10	--
	--	--	--	--	--	--	--	--
AN- 334	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--
AN- 349	--	--	--	--	--	--	--	--
AN- 350	--	--	--	--	--	--	--	--
AN- 351	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--
				AVOYELLES PARISH				
AV- 309	--	<1	--	<1	--	--	--	18
AV- 335	--	--	--	--	--	--	1600	1400
AV- 398	--	<1	--	<1	--	--	--	39
AV- 430	--	<1	--	2	--	--	--	150
AV- 441	--	<1	--	<1	--	--	--	19
	--	<1	--	<1	--	--	--	<3

WELL NUMBER	STATION NUMBER	GEO-LOGIC UNIT	DEPTH OF WELL, TOTAL (FEET)	DATE	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ANTI-MONY, TOTAL (UG/L AS SB)	ANTI-MONY, DIS-SOLVED (UG/L AS SB)
				BEAUREGARD PARISH				
BE- 366	304934093170801	122JSPR	1206.00	05-12-82	--	--	--	--
BE- 375	305022093174001	112CHCT	173.00	02-18-82	--	--	--	--
BE- 378	302553093135002	112CHCT	172.00	02-14-84	--	--	<1	--
		112CHCT	172.00	03-21-85	--	--	<1	--
		112CHCT	172.00	05-21-86	--	<10	--	--
BE- 468	304521093324201	121EVGL	394.00	05-12-82	--	--	--	--
				BIENVILLE PARISH				
BI- 132	321943093170601	124WLCX	435.00	08-31-84	--	40	--	<1
BI- 177	323008093025404	124SPRT	514.00	09-27-85	--	20	--	<1
BI- 181	322641093105501	124WLCX	387.00	04-12-77	--	120	--	--
BI- 183	321420092550001	124WLCX	487.00	09-23-77	--	30	--	--
BI- 185	321456092560901	124WLCX	665.00	09-29-77	--	10	--	--
BI- 191	322703092585501	124SPRT	425.00	09-27-85	--	<10	--	<1
BI- 193	321422092530801	124SPRT	238.00	08-31-84	--	30	--	<1
BI- 214	322343093211501	124WLCX	159.00	07-02-80	--	0	--	0

WELL NUMBER	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)
				BEAUREGARD PARISH					
BE- 366	--	1	--	17	--	<1	90	--	<1
BE- 375	--	1	--	80	--	<1	20	--	<1
BE- 378	3	--	--	--	<10	--	--	<1	--
	2	--	--	--	<10	--	--	1	--
	--	2	200	200	--	--	--	--	<1
BE- 468	--	3	--	62	--	1	70	--	1
				BIENVILLE PARISH					
BI- 132	--	<1	--	74	--	<1	--	--	<1
BI- 177	--	<1	--	<100	--	<10	--	--	1
BI- 181	--	1	--	300	--	<10	--	--	ND
BI- 183	--	<1	--	<100	--	<10	--	--	ND
BI- 185	--	<1	--	200	--	<10	--	--	ND
BI- 191	--	<1	--	<100	--	<10	--	--	1
BI- 193	--	<1	--	110	--	<0.5	--	--	<1
BI- 214	--	0	--	100	--	<1	--	--	1

APPENDIX A.--CONCENTRATIONS OF MINOR ELEMENTS IN WATER FROM
THE MAJOR AQUIFERS OF LOUISIANA, 1972-87--CONTINUED

WELL NUMBER	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)
				BEAUREGARD PARISH				
BE- 366	--	<10	--	<3	--	20	--	<10
BE- 375	--	10	--	<3	--	<10	--	<10
BE- 378	12	--	--	--	80	--	8	--
	1	--	--	--	10	--	3	--
	--	1	--	--	--	5	--	1
BE- 468	--	<10	--	3	--	10	--	10
				BIENVILLE PARISH				
BI- 132	--	10	--	5	--	<1	--	4
BI- 177	--	<10	--	4	--	1	--	<1
BI- 181	--	ND	--	ND	--	2	--	3
BI- 183	--	<20	--	ND	--	ND	--	ND
BI- 185	--	ND	--	<2	--	<2	--	ND
BI- 191	--	<10	--	10	--	1	--	2
BI- 193	--	<10	--	4	--	2	--	5
BI- 214	--	0	--	3	--	0	--	2

WELL NUMBER	LITHIUM TOTAL RECOV-ERABLE (UG/L AS LI)	LITHIUM DIS-SOLVED (UG/L AS LI)	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)	NICKEL, DIS-SOLVED (UG/L AS NI)
				BEAUREGARD PARISH				
BE- 366	--	11	--	0.1	--	<10	--	10
BE- 375	--	<4	--	<0.1	--	<10	--	10
BE- 378	--	--	<0.1	--	--	--	1	--
	--	--	<0.1	--	--	--	1	--
	--	--	--	<0.1	--	--	--	1
BE- 468	--	13	--	<0.1	--	10	--	3
				BIENVILLE PARISH				
BI- 132	--	15	--	0.1	--	<1	--	1
BI- 177	--	10	--	<0.1	--	<1	--	1
BI- 181	--	90	1.6	<0.5	--	<1	--	ND
BI- 183	--	50	--	<0.5	--	<1	--	<2
BI- 185	--	60	--	<0.5	--	1	--	2
BI- 191	--	10	--	<0.1	--	<1	--	2
BI- 193	--	<4	--	<0.1	--	<1	--	2
BI- 214	--	20	--	0.1	--	<10	--	2

WELL NUMBER	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)
BEAUREGARD PARISH								
BE- 366	--	<1	--	--	19	<6	--	<4
BE- 375	--	<1	--	--	51	<6	--	8
BE- 378	<1	--	<1	--	--	--	430	--
	<1	--	<1	--	--	--	70	--
	--	<1	--	<1	--	--	--	30
BE- 468	--	<1	--	--	54	6	--	4
BIENVILLE PARISH								
BI- 132	--	<1	--	<1	--	--	--	370
BI- 177	--	<1	--	<1	--	--	--	20
BI- 181	--	<1	--	ND	--	--	--	50
BI- 183	--	<1	--	ND	--	--	--	20
BI- 185	--	<1	--	ND	--	--	--	ND
BI- 191	--	<1	--	1	--	--	--	10
BI- 193	--	<1	--	<1	--	--	--	79
BI- 214	--	0	--	0	--	--	--	160

WELL NUMBER	STATION NUMBER	GEOLOGIC UNIT	DEPTH OF WELL, TOTAL (FEET)	DATE	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	ANTIMONY, TOTAL (UG/L AS SB)	ANTIMONY, DISSOLVED (UG/L AS SB)
BIENVILLE PARISH								
BI- 217	322900092544001	124SPRT	590.00	05-29-80	--	0	--	0
BI- 218	322900092544002	124WLCX	1561.00	05-07-80	--	30	--	2
BI- 219	322900092544003	124WLCX	1047.00	05-17-80	--	10	--	0
BI- 220	321317092562701	124SPRT	192.00	06-25-80	--	0	--	0
BI- 221	321317092562702	124WLCX	1215.00	07-10-80	--	0	--	0
BI- 222	321317092562703	124WLCX	662.00	06-20-80	--	10	--	0
BI- 223	322457093100301	124SPRT	94.00	07-30-80	--	0	--	0
BI- 226	322457093100304	124WLCX	970.00	07-24-80	--	0	--	0
BI- 227	321804093202501	124WLCX	428.00	09-10-80	--	10	--	1
BI- 232B	321047093004501	124WLCX	774.00	04-24-80	--	20	--	1
BI- 239	320924092593103	124CRVR	325.00	08-31-84	--	40	--	<1

WELL NUMBER	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BERYLLIUM, DISSOLVED (UG/L AS BE)	BORON, DISSOLVED (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)
BIENVILLE PARISH									
BI- 217	--	1	--	90	--	<1	--	--	<1
BI- 218	--	0	--	800	--	10	--	--	0
BI- 219	--	0	--	100	--	0	--	--	0
BI- 220	--	1	--	100	--	<1	--	--	<1
BI- 221	--	1	--	80	--	1	--	--	<1
BI- 222	--	1	--	40	--	<1	--	--	<1
BI- 223	--	0	--	20	--	<1	--	--	<1
BI- 226	--	0	--	100	--	10	--	--	1
BI- 227	--	0	--	200	--	<1	--	--	<1
BI- 232B	--	0	--	20	--	<1	--	--	<1
BI- 239	--	1	--	66	--	<1	--	--	<1

APPENDIX A.--CONCENTRATIONS OF MINOR ELEMENTS IN WATER FROM
THE MAJOR AQUIFERS OF LOUISIANA, 1972-87--CONTINUED

WELL NUMBER	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)
				BIENVILLE PARISH				
BI- 217	--	0	--	<3	--	0	--	0
BI- 218	--	10	--	1	--	0	--	0
BI- 219	--	10	--	0	--	0	--	2
BI- 220	--	10	--	<3	--	1	--	3
BI- 221	--	10	--	<3	--	0	--	1
BI- 222	--	10	--	<3	--	0	--	0
BI- 223	--	10	--	<3	--	0	--	1
BI- 226	--	10	--	0	--	0	--	2
BI- 227	--	10	--	<3	--	0	--	0
BI- 232B	--	0	--	<3	--	2	--	2
BI- 239	--	<10	--	1	--	2	--	9

WELL NUMBER	LITHIUM TOTAL RECOV-ERABLE (UG/L AS LI)	LITHIUM DIS-SOLVED (UG/L AS LI)	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)	NICKEL, DIS-SOLVED (UG/L AS NI)
				BIENVILLE PARISH				
BI- 217	--	20	--	0	--	<10	--	0
BI- 218	--	200	--	0.3	--	1	--	3
BI- 219	--	50	--	0.2	--	1	--	2
BI- 220	--	10	--	0.1	--	<10	--	7
BI- 221	--	10	--	0	--	<10	--	0
BI- 222	--	8	--	0.1	--	<10	--	4
BI- 223	--	6	--	0	--	<10	--	0
BI- 226	--	70	--	0.2	--	1	--	0
BI- 227	--	20	--	0	--	<10	--	0
BI- 232B	--	20	--	0	--	<10	--	0
BI- 239	--	8	--	<0.1	--	1	--	1

WELL NUMBER	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
				BIENVILLE PARISH				
BI- 217	--	0	--	1	--	--	--	440
BI- 218	--	0	--	0	--	--	--	240
BI- 219	--	0	--	0	--	--	--	40
BI- 220	--	0	--	0	--	--	--	610
BI- 221	--	0	--	0	--	--	--	<3
BI- 222	--	0	--	0	--	--	--	<3
BI- 223	--	0	--	0	--	--	--	490
BI- 226	--	0	--	0	--	--	--	40
BI- 227	--	0	--	0	--	--	--	80
BI- 232B	--	0	--	0	--	--	--	4
BI- 239	--	<1	--	<1	--	--	--	430

WELL NUMBER	STATION NUMBER	GEO-LOGIC UNIT	DEPTH OF WELL, TOTAL (FEET)	DATE	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ANTI-MONY, TOTAL (UG/L AS SB)	ANTI-MONY, DIS-SOLVED (UG/L AS SB)
			BOSSIER PARISH					
BO- 135	322519093380201	112RRVA	78.00	01-04-77	<100	<100	--	--
			CADDO PARISH					
CD- 453	325331093585501	124WLCX	228.00	09-06-86	--	50	--	<1
CD- 589	321237094010001	124WLCX	270.00	09-16-83	--	<10	--	<1
			CALCASIEU PARISH					
CU- 341	301155093123801	11205LC	496.00	07-10-81	--	--	--	--
CU- 457	301424093125301	11207LC	697.00	07-10-81	--	--	--	--
CU- 579	302718093252801	121EVGL	652.00	08-05-81	--	--	--	--
CU- 622	301355093152301	11202LC	219.00	11-05-81	--	--	--	--
CU- 771	301336093183002	11202LC	241.00	03-07-84	--	--	2	--
		11202LC	241.00	03-22-85	--	--	<1	--
		11202LC	241.00	05-06-86	--	<10	--	--
CU- 872	301919093180101	112CHCTS	47.25	09-12-85	--	--	--	--
CU- 874	301907093180601	112CHCTS	50.60	09-12-85	--	--	--	--
CU- 875	301907093181401	112CHCTS	44.00	09-13-85	--	--	--	--

WELL NUMBER	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)
				BOSSIER PARISH					
BO- 135	1	1	300	--	--	--	140	ND	ND
				CADDO PARISH					
CD- 453	--	<1	--	46	--	1	--	--	3
CD- 589	--	1	--	45	--	<0.5	--	--	<1
				CALCASIEU PARISH					
CU- 341	--	0	--	250	--	<1	30	--	<1
CU- 457	--	0	--	310	--	<1	30	--	<1
CU- 579	--	1	--	160	--	<1	70	--	<1
CU- 622	--	1	--	280	--	<1	<10	--	<1
CU- 771	1	--	--	--	<10	--	--	1	--
	1	--	--	--	--	--	--	--	--
	--	<1	200	300	--	--	--	--	<1
CU- 872	--	<1	--	680	--	--	--	--	2
CU- 874	--	2	--	300	--	--	--	--	2
CU- 875	--	<1	--	200	--	--	--	--	1

WELL NUMBER	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, TOTAL RECOVERABLE (UG/L AS CO)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)
				BOSSIER PARISH				
BO- 135	<20	6	<2	<2	ND	ND	4	4
				CADDO PARISH				
CD- 453	--	<10	--	--	--	<1	--	<5
CD- 589	--	<10	--	2	--	<1	--	4
				CALCASIEU PARISH				
CU- 341	--	10	--	<3	--	<10	--	14
CU- 457	--	10	--	<3	--	<10	--	<10
CU- 579	--	0	--	<3	--	<10	--	<10
CU- 622	--	<10	--	9	--	<10	--	<10
CU- 771	7	--	--	--	2	--	3	--
	--	--	--	--	--	--	--	--
	--	<1	--	--	--	2	--	<1
CU- 872	--	<10	--	1	--	3	--	<1
CU- 874	--	<10	--	3	--	2	--	1
CU- 875	--	<10	--	1	--	1	--	1

WELL NUMBER	LITHIUM TOTAL RECOVERABLE (UG/L AS LI)	LITHIUM DISSOLVED (UG/L AS LI)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, DISSOLVED (UG/L AS NI)
				BOSSIER PARISH				
BO- 135	20	20	<0.5	<0.5	--	--	ND	ND
				CADDO PARISH				
CD- 453	--	--	--	<0.1	--	--	--	1
CD- 589	--	13	--	0.5	--	<1	--	<1
				CALCASIEU PARISH				
CU- 341	--	24	--	0	--	<10	--	--
CU- 457	--	25	--	0.1	--	<10	--	--
CU- 579	--	13	--	0	--	<10	--	--
CU- 622	--	23	--	<0.1	--	<10	--	--
CU- 771	--	--	0.1	--	--	--	3	--
	--	--	--	--	--	--	--	--
	--	--	--	<0.1	--	--	--	2
CU- 872	--	65	--	<0.1	--	--	--	--
CU- 874	--	90	--	<0.1	--	--	--	--
CU- 875	--	70	--	<0.1	--	--	--	--

WELL NUMBER	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
			BOSSIER PARISH					
BO- 135	--	--	--	--	--	--	--	100
			CADDO PARISH					
CD- 453	--	<1	--	<1	--	--	--	4
CD- 589	--	<1	--	<1	--	--	--	4
			CALCASIEU PARISH					
CU- 341	--	0	--	--	270	<6	--	28
CU- 457	--	1	--	--	250	<6	--	10
CU- 579	--	0	--	--	110	<6	--	28
CU- 622	--	<1	--	--	320	<6	--	8
CU- 771	<1	--	<1	--	--	--	600	--
	<1	--	--	--	--	--	--	--
	--	<1	--	<1	--	--	--	20
CU- 872	--	<1	--	--	1000	--	--	25
CU- 874	--	<1	--	--	910	--	--	50
CU- 875	--	<1	--	--	1100	--	--	50

WELL NUMBER	STATION NUMBER	GEO-LOGIC UNIT	DEPTH OF WELL, TOTAL (FEET)	DATE	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ANTI-MONY, TOTAL (UG/L AS SB)	ANTI-MONY, DIS-SOLVED (UG/L AS SB)
			CALCASIEU PARISH					
CU- 881	301913093181301	112CHCTS	59.37	09-13-85	--	--	--	--
CU- 893	301926093181801	112CHCTS	45.00	08-28-85	--	--	--	--
CU- 899	301857093180101	11202LC	155.00	11-20-85	--	--	--	--
CU- 904	301919093180301	112ALVL	24.75	09-17-85	--	--	--	--
CU- 906	301911093180801	112CHCTS	54.75	09-13-85	--	--	--	--
CU- 907	301913093180801	11202LC	103.75	09-12-85	--	--	--	--
CU- 908	301917093181501	11202LC	99.67	09-12-85	--	--	--	--
CU- 909	301917093181801	112CHCTS	59.75	09-13-85	--	--	--	--
CU- 914	301907093181201	112CHCTS	59.66	09-12-85	--	--	--	--
CU- 936	301918093181102	112CHCTS	63.80	09-13-85	--	--	--	--
CU- 939	301926093181802	11202LC	95.15	08-29-85	--	--	--	--
CU- 940	301926093181803	112ALVL	17.80	09-17-85	--	--	--	--
CU- 941	301850093181201	11202LC	71.15	09-20-85	--	--	--	--
CU- 942	301850093181202	112CHCTS	37.85	09-18-85	--	--	--	--
CU- 943	301850093181203	112ALVL	23.15	09-18-85	--	--	--	--

WELL NUMBER	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM DIS- SOLVED (UG/L AS CD)
				CALCASIEU PARISH					
CU- 881	--	36	--	280	--	--	--	--	<1
CU- 893	--	1	--	120	--	--	--	--	2
CU- 899	--	1	--	120	--	--	--	--	<1
CU- 904	--	1	--	800	--	--	--	--	<100
CU- 906	--	1	--	290	--	--	--	--	<1
CU- 907	--	1	--	280	--	--	--	--	<1
CU- 908	--	<1	--	350	--	--	--	--	<1
CU- 909	--	<1	--	300	--	--	--	--	<1
CU- 914	--	1	--	300	--	--	--	--	<1
CU- 936	--	<1	--	440	--	--	--	--	<1
CU- 939	--	<1	--	370	--	--	--	--	2
CU- 940	--	<1	--	180	--	--	--	--	<1
CU- 941	--	5	--	170	--	--	--	--	<1
CU- 942	--	6	--	92	--	--	--	--	<1
CU- 943	--	<1	--	70	--	--	--	--	<1

WELL NUMBER	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, TOTAL RECOV- ERABLE (UG/L AS CO)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, DIS- SOLVED (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, DIS- SOLVED (UG/L AS PB)
			CALCASIEU PARISH					
CU- 881	--	<10	--	2	--	1	--	<1
CU- 893	--	<10	--	<1	--	7	--	2
CU- 899	--	<10	--	40	--	3	--	<1
CU- 904	--	<10	--	<100	--	300	--	<100
CU- 906	--	<10	--	6	--	2	--	1
CU- 907	--	<10	--	4	--	2	--	<1
CU- 908	--	<10	--	1	--	2	--	1
CU- 909	--	<10	--	2	--	1	--	<1
CU- 914	--	<10	--	7	--	5	--	1
CU- 936	--	<10	--	<1	--	2	--	<1
CU- 939	--	<10	--	3	--	5	--	1
CU- 940	--	<10	--	1	--	8	--	1
CU- 941	--	10	--	1	--	5	--	<1
CU- 942	--	<10	--	2	--	27	--	2
CU- 943	--	<10	--	3	--	28	--	12

WELL NUMBER	LITHIUM TOTAL RECOV- ERABLE (UG/L AS LI)	LITHIUM DIS- SOLVED (UG/L AS LI)	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)	NICKEL, DIS- SOLVED (UG/L AS NI)
			CALCASIEU PARISH					
CU- 881	--	68	--	<0.1	--	--	--	--
CU- 893	--	47	--	0.1	--	--	--	--
CU- 899	--	18	--	<0.1	--	--	--	--
CU- 904	--	20	--	<10	--	--	--	--
CU- 906	--	94	--	<0.1	--	--	--	--
CU- 907	--	34	--	<0.1	--	--	--	--
CU- 908	--	110	--	<0.1	--	--	--	--
CU- 909	--	42	--	<0.1	--	--	--	--
CU- 914	--	150	--	--	--	--	--	--
CU- 936	--	66	--	<0.1	--	--	--	--
CU- 939	--	28	--	<0.1	--	--	--	--
CU- 940	--	53	--	--	--	--	--	--
CU- 941	--	44	--	<0.1	--	--	--	--
CU- 942	--	65	--	--	--	--	--	--
CU- 943	--	38	--	--	--	--	--	--

APPENDIX A.--CONCENTRATIONS OF MINOR ELEMENTS IN WATER FROM
THE MAJOR AQUIFERS OF LOUISIANA, 1972-87--CONTINUED

WELL NUMBER	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)
				CALCASIEU PARISH				
CU- 881	--	<1	--	--	440	--	--	13
CU- 893	--	<1	--	--	250	--	--	18
CU- 899	--	<1	--	--	180	--	--	19
CU- 904	--	<1	--	--	750	--	--	40
CU- 906	--	<1	--	--	570	--	--	24
CU- 907	--	<1	--	--	370	--	--	8
CU- 908	--	<1	--	--	450	--	--	17
CU- 909	--	<1	--	--	490	--	--	22
CU- 914	--	<1	--	--	1100	--	--	50
CU- 936	--	<1	--	--	570	--	--	26
CU- 939	--	<1	--	--	490	--	--	52
CU- 940	--	<1	--	--	180	--	--	12
CU- 941	--	<1	--	--	240	--	--	19
CU- 942	--	<1	--	--	74	--	--	10
CU- 943	--	<1	--	--	29	--	--	78

WELL NUMBER	STATION NUMBER	GEOLOGIC UNIT	DEPTH OF WELL, TOTAL (FEET)	DATE	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	ANTIMONY, TOTAL (UG/L AS SB)	ANTIMONY, DISSOLVED (UG/L AS SB)
			CALCASIEU PARISH					
CU- 945	301920093175701	112ALVL	24.70	11-19-85	--	--	--	--
CU-1049	301851093180101	11205LC	300.00	02-04-80	--	10	--	--
CU-1217	301907093174801	112ALVL	85.00	08-27-85	--	--	--	--
CU-1218	301907093174802	112ALVL	62.80	08-28-85	--	--	--	--
CU-1219	301907093174803	112ALVL	23.95	08-28-85	--	--	--	--
CU-1220	301855093180101	112CHCTS	65.60	09-18-85	--	--	--	--
CU-1221	301855093180102	112ALVL	25.97	09-18-85	--	--	--	--
			CAMERON PARISH					
CN- 92	300104093015601	112CHCTU	443.00	04-26-84	--	--	<1	--
		112CHCTU	443.00	03-21-85	--	--	<1	--
		112CHCTU	443.00	05-05-86	--	<10	--	--
CN- 159	295912093220401	11202LC	555.00	11-05-81	--	--	--	--
			CATAHOULA PARISH					
CT- 211	314018091500801	112MRVA	30.00	11-17-83	--	30	--	<1

WELL NUMBER	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BERYLLIUM, DISSOLVED (UG/L AS BE)	BORON, DISSOLVED (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)
				CALCASIEU PARISH					
CU- 945	--	3	--	530	--	--	--	--	<1
CU-1049	--	0	--	200	--	--	30	--	<1
CU-1217	--	<1	--	280	--	--	--	--	<1
CU-1218	--	<1	--	200	--	--	--	--	<1
CU-1219	--	2	--	1300	--	--	--	--	1
CU-1220	--	1	--	350	--	--	--	--	<1
CU-1221	--	1	--	240	--	--	--	--	<1
				CAMERON PARISH					
CN- 92	<1	--	--	--	<10	--	--	1	--
	1	--	--	--	--	--	--	--	--
	--	<1	1200	1100	--	--	--	--	<1
CN- 159	--	1	--	280	--	1	100	--	1
				CATAHOULA PARISH					
CT- 211	--	<1	--	91	--	<0.5	--	--	<1

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APPENDIX A.--CONCENTRATIONS OF MINOR ELEMENTS IN WATER FROM
THE MAJOR AQUIFERS OF LOUISIANA, 1972-87--CONTINUED

WELL NUMBER	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)
				CALCASIEU PARISH				
CU- 945	--	<10	10	10	--	3	--	1
CU-1049	--	0	--	<3	--	<10	--	1
CU-1217	--	<10	--	3	--	2	--	1
CU-1218	--	10	--	1	--	2	--	2
CU-1219	--	10	--	4	--	2	--	1
CU-1220	--	<10	--	2	--	14	--	2
CU-1221	--	<10	--	10	--	4	--	<1
				CAMERON PARISH				
CN- 92	<1	--	--	--	<1	--	3	--
	--	--	--	--	--	--	--	--
	--	<1	--	--	--	1	--	<1
CN- 159	--	10	--	3	--	10	--	10
				CATAHOULA PARISH				
CT- 211	--	10	--	6	--	3	--	4

WELL NUMBER	LITHIUM TOTAL RECOV-ERABLE (UG/L AS LI)	LITHIUM DIS-SOLVED (UG/L AS LI)	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)	NICKEL, DIS-SOLVED (UG/L AS NI)
				CALCASIEU PARISH				
CU- 945	--	73	--	<0.1	--	--	--	--
CU-1049	--	--	--	0	--	<10	--	0
CU-1217	--	20	--	0.1	--	--	--	--
CU-1218	--	13	--	0.5	--	--	--	--
CU-1219	--	50	--	0.1	--	--	--	--
CU-1220	--	58	--	--	--	--	--	--
CU-1221	--	61	--	--	--	--	--	--
				CAMERON PARISH				
CN- 92	--	--	0.2	--	--	--	3	--
	--	--	--	--	--	--	--	--
	--	--	--	<0.1	--	--	--	9
CN- 159	--	29	--	<0.1	--	10	--	--
				CATAHOULA PARISH				
CT- 211	--	9	--	<0.1	--	<1	--	7

WELL NUMBER	SELE- NIUM, TOTAL (UG/L AS SE)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)
				CALCASIEU PARISH				
CU- 945	--	<1	--	--	850	--	--	6900
CU-1049	--	0	--	--	--	0	--	30
CU-1217	--	<1	--	--	230	--	--	7
CU-1218	--	<1	--	--	120	--	--	11
CU-1219	--	<1	--	--	1200	--	--	20
CU-1220	--	<1	--	--	300	--	--	95
CU-1221	--	1	--	--	300	--	--	71
				CAMERON PARISH				
CN- 92	<1	--	<1	--	--	--	190	--
	<1	--	--	--	--	--	--	--
	--	<1	--	<1	--	--	--	100
CN- 159	--	<1	--	--	370	6	--	7
				CATAHOULA PARISH				
CT- 211	--	<1	--	<1	--	--	--	42

WELL NUMBER	STATION NUMBER	GEO- LOGIC UNIT	DEPTH OF WELL, TOTAL (FEET)	DATE	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ANTI- MONY, TOTAL (UG/L AS SB)	ANTI- MONY, DIS- SOLVED (UG/L AS SB)
			CLAIBORNE PARISH					
CL- 163A	325415093013002	124SPRT	655.00	01-11-84	--	<10	--	<1
CL- 163B	325415093013001	124SPRT	708.00	12-20-83	--	20	--	<1
			CONCORDIA PARISH					
CO- 164	313813091330302	112MRVA	136.00	09-04-86	--	<10	--	<1
CO- 155A	310400091351801	122WMCK	605.00	08-07-85	--	--	--	--
CO- 155B	310400091351802	122WMCK	504.00	08-09-85	--	--	--	--
			DE SOTO PARISH					
DS- 363	320727093415801	124WLCX	280.00	09-06-86	--	<10	--	<1
DS- 428	315729093553501	124WLCX	260.00	08-22-84	--	60	--	<1
DS- 432	315501093342101	124WLCX	248.00	08-23-84	--	--	--	1
DS- 512	321137093505901	124WLCX	400.00	08-24-84	--	20	--	<1
DS- 517	320153093583601	124WLCX	131.00	09-03-82	--	30	--	1
DS- 522	315945093581501	124WLCX	240.00	09-02-82	--	30	--	<1
DS- 579	315914093500701	124WLCX	199.00	05-10-84	--	20	--	<1

WELL NUMBER	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM DIS- SOLVED (UG/L AS CD)
CLAIBORNE PARISH									
CL- 163A	--	<1	--	51	--	<0.5	--	--	1
CL- 163B	--	1	--	42	--	<0.5	--	--	<1
CONCORDIA PARISH									
CO- 164	--	<1	--	540	--	0.9	--	--	<1
CO- 155A	<1	--	<100	--	--	--	--	<1	--
CO- 155B	--	--	100	--	--	--	--	<1	--
DE SOTO PARISH									
DS- 363	--	<1	--	9	--	1	--	--	<1
DS- 428	--	<1	--	66	--	<1	--	--	<1
DS- 432	--	<1	--	51	--	<1	--	--	<1
DS- 512	--	<1	--	44	--	<0.5	--	--	<1
DS- 517	--	1	--	77	--	<1	--	--	<1
DS- 522	--	1	--	100	--	<10	--	--	<1
DS- 579	--	<1	--	<100	--	<10	--	--	1

WELL NUMBER	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, TOTAL RECOV- ERABLE (UG/L AS CO)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, DIS- SOLVED (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, DIS- SOLVED (UG/L AS PB)
CLAIBORNE PARISH								
CL- 163A	--	<10	--	8	--	<1	--	2
CL- 163B	--	<10	--	5	--	1	--	3
CONCORDIA PARISH								
CO- 164	--	<10	--	--	--	3	--	<5
CO- 155A	10	--	--	--	<1	--	<1	--
CO- 155B	<10	--	--	--	2	--	<1	--
DE SOTO PARISH								
DS- 363	--	<10	--	--	--	<1	--	<5
DS- 428	--	<10	--	3	--	2	--	5
DS- 432	--	<10	--	<1	--	1	--	5
DS- 512	--	<10	--	<1	--	1	--	6
DS- 517	--	10	--	<1	--	<1	--	2
DS- 522	--	10	--	<1	--	6	--	5
DS- 579	--	10	--	2	--	12	--	6

APPENDIX A.--CONCENTRATIONS OF MINOR ELEMENTS IN WATER FROM
THE MAJOR AQUIFERS OF LOUISIANA, 1972-87--CONTINUED

WELL NUMBER	LITHIUM TOTAL RECOVERABLE (UG/L AS LI)	LITHIUM DISSOLVED (UG/L AS LI)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, DISSOLVED (UG/L AS NI)
CLAIBORNE PARISH								
CL- 163A	--	11	--	<0.1	--	<1	--	4
CL- 163B	--	<4	--	<0.1	--	<1	--	1
CONCORDIA PARISH								
CO- 164	--	--	--	<0.1	--	--	--	<1
CO- 155A	--	--	0.5	--	--	--	--	--
CO- 155B	--	--	0.1	--	--	--	--	--
DE SOTO PARISH								
DS- 363	--	--	--	<0.1	--	--	--	1
DS- 428	--	21	--	0.1	--	<1	--	1
DS- 432	--	26	--	<0.1	--	1	--	1
DS- 512	--	28	--	<0.1	--	<1	--	1
DS- 517	--	21	--	0.1	--	<1	--	<1
DS- 522	--	60	--	0.2	--	5	--	1
DS- 579	--	20	--	0.2	--	<1	--	4

WELL NUMBER	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)
CLAIBORNE PARISH								
CL- 163A	--	<1	--	<1	--	--	--	210
CL- 163B	--	<1	--	<1	--	--	--	210
CONCORDIA PARISH								
CO- 164	--	<1	--	<1	--	--	--	5
CO- 155A	<1	--	1	--	--	--	10	--
CO- 155B	--	--	<1	--	--	--	20	--
DE SOTO PARISH								
DS- 363	--	<1	--	<1	--	--	--	4
DS- 428	--	<1	--	2	--	--	--	34
DS- 432	--	<1	--	<1	--	--	--	29
DS- 512	--	<1	--	<1	--	--	--	44
DS- 517	--	<1	--	1	--	--	--	70
DS- 522	--	<1	--	2	--	--	--	<10
DS- 579	--	<1	--	<1	--	--	--	10

WELL NUMBER	STATION NUMBER	GEO-LOGIC UNIT	DEPTH OF WELL, TOTAL (FEET)	DATE	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ANTI-MONY, TOTAL (UG/L AS SB)	ANTI-MONY, DIS-SOLVED (UG/L AS SB)
				EAST BATON ROUGE PARISH				
EB- 96	302651091112402	12220BR	2254.00	01-29-75	--	30	--	--
EB- 512	302617091103605	112SLBR	336.00	04-29-74	--	<100	--	--
EB- 578B	303904091093102	12228BR	2132.00	01-24-75	--	20	--	--
EB- 659	303408091113201	12115BR	1276.00	04-01-87	--	--	--	--
EB- 718	303018091075601	12224BR	2380.00	05-01-85	--	--	--	--
EB- 750	303141091114801	12228BR	2643.00	01-29-75	--	40	--	--
		12228BR	2643.00	05-01-85	--	--	--	--
EB- 756	303019091073701	12112BR	1168.00	01-29-75	--	20	--	--
		12112BR	1168.00	05-01-85	--	--	--	--
EB- 771	302646091083801	12115BR	1739.00	06-25-74	--	20	--	--
		12115BR	1739.00	05-01-85	--	--	--	--
EB- 773	303132091103201	12115BR	1395.00	01-29-75	--	10	--	--
EB- 813	302749091111101	12224BR	2536.00	01-29-75	--	30	--	--
EB- 817	302644091101801	12220BR	2284.00	09-08-86	--	10	--	<1
EB- 873	302721091054801	12117BR	1884.00	01-29-75	--	10	--	--
EB- 878	302721091054701	12220BR	2178.00	01-29-75	--	20	--	--
		12220BR	2178.00	05-01-85	--	--	--	--
EB- 879	302402091005201	11206BR	664.00	06-12-85	--	--	--	--

WELL NUMBER	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)
				EAST BATON ROUGE PARISH					
EB- 96	--	<1	--	--	--	--	110	--	<2
EB- 512	--	3	--	--	--	--	60	--	<2
EB- 578B	--	<1	--	--	--	--	90	--	<2
EB- 659	--	<1	--	<100	--	--	--	--	<1
EB- 718	--	<1	--	14	--	--	--	--	<1
EB- 750	--	<1	--	--	--	--	310	--	<2
	--	<1	--	10	--	--	--	--	<1
EB- 756	--	<1	--	--	--	--	40	--	ND
	--	<1	--	5	--	--	--	--	<1
EB- 771	--	1	--	--	--	--	60	--	ND
	--	<1	--	5	--	--	--	--	<1
EB- 773	--	<1	--	--	--	--	60	--	ND
EB- 813	--	1	--	--	--	--	80	--	<2
EB- 817	--	<1	--	8	--	<0.5	--	--	<1
EB- 873	--	<1	--	--	--	--	60	--	ND
EB- 878	--	<1	--	--	--	--	50	--	<2
	--	<1	--	5	--	--	--	--	<1
EB- 879	--	<1	--	7	--	--	--	--	<1

WELL NUMBER	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, TOTAL RECOVERABLE (UG/L AS CO)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)
				EAST BATON ROUGE PARISH				
EB- 96	--	--	--	--	--	ND	--	3
EB- 512	--	--	--	--	--	ND	--	7
EB- 578B	--	--	--	--	--	<2	--	ND
EB- 659	--	<10	--	--	--	2	--	<5
EB- 718	--	10	--	3	--	1	--	6
EB- 750	--	--	--	--	--	ND	--	<2
	--	10	--	1	--	1	--	1
EB- 756	--	--	--	--	--	ND	--	2
	--	<10	--	1	--	1	--	1
EB- 771	--	--	--	--	--	2	--	2
	--	<10	--	5	--	1	--	2
EB- 773	--	--	--	--	--	2	--	2
EB- 813	--	--	--	--	--	ND	--	3
EB- 817	--	<10	--	--	--	1	--	<5
EB- 873	--	--	--	--	--	ND	--	<2
EB- 878	--	--	--	--	--	ND	--	<2
	--	<10	--	1	--	1	--	2
EB- 879	--	10	--	<1	--	1	--	2

WELL NUMBER	LITHIUM TOTAL RECOVERABLE (UG/L AS LI)	LITHIUM DISSOLVED (UG/L AS LI)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, DISSOLVED (UG/L AS NI)
				EAST BATON ROUGE PARISH				
EB- 96	--	--	--	--	--	--	--	--
EB- 512	--	--	<0.5	--	--	--	--	--
EB- 578B	--	--	<0.5	--	--	--	--	--
EB- 659	--	--	--	<0.1	--	--	--	--
EB- 718	--	12	--	<0.1	--	--	--	--
EB- 750	--	--	<0.5	--	--	--	--	--
	--	17	--	<0.1	--	--	--	--
EB- 756	--	--	<0.5	--	--	--	--	--
	--	19	--	<0.1	--	--	--	--
EB- 771	--	--	<0.5	--	--	--	--	--
	--	7	--	<0.1	--	--	--	--
EB- 773	--	--	<0.5	--	--	--	--	--
EB- 813	--	--	<0.5	--	--	--	--	--
EB- 817	--	--	--	<0.1	--	--	--	1
EB- 873	--	--	<0.5	--	--	--	--	--
EB- 878	--	--	<0.5	--	--	--	--	--
	--	7	--	<0.1	--	--	--	--
EB- 879	--	6	--	<0.1	--	--	--	--

WELL NUMBER	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)
				EAST BATON ROUGE PARISH				
EB- 96	--	--	--	ND	--	--	--	ND
EB- 512	--	--	--	ND	--	--	--	50
EB- 578B	--	--	--	ND	--	--	--	<20
EB- 659	--	<1	--	<1	--	--	--	<10
EB- 718	--	<1	--	--	17	--	--	<3
EB- 750	--	--	--	ND	--	--	--	ND
	--	<1	--	--	25	--	--	<3
EB- 756	--	--	--	ND	--	--	--	ND
	--	<1	--	--	8	--	--	<3
EB- 771	--	--	--	ND	--	--	--	30
	--	<1	--	--	6	--	--	3
EB- 773	--	--	--	ND	--	--	--	ND
EB- 813	--	--	--	ND	--	--	--	6
EB- 817	--	<1	--	<1	--	--	--	4
EB- 873	--	--	--	ND	--	--	--	ND
EB- 878	--	--	--	ND	--	--	--	6
	--	<1	--	--	5	--	--	<3
EB- 879	--	<1	--	--	8	--	--	<3

WELL NUMBER	STATION NUMBER	GEOLOGIC UNIT	DEPTH OF WELL, TOTAL (FEET)	DATE	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	ANTIMONY, TOTAL (UG/L AS SB)	ANTIMONY, DISSOLVED (UG/L AS SB)
				EAST BATON ROUGE PARISH				
EB- 886	303404091124001	11206BR	384.00	01-31-75	--	10	--	--
EB- 896	303905090583301	11204BR	73.00	04-11-73	--	--	--	--
		11204BR	73.00	04-18-74	--	<100	--	--
EB- 898	303512091125901	112SLBR	101.00	04-18-74	--	<100	--	--
EB- 909	303804091065201	11204BR	142.00	07-25-73	--	--	--	--
EB- 926	302910091033801	12110BR	980.00	06-03-74	--	<100	--	--
		12110BR	980.00	05-15-85	--	--	--	--
EB- 928	303018091075602	12224BR	2375.00	01-29-75	--	20	--	--
		12224BR	2375.00	05-01-85	--	--	--	--
EB- 933	302955091060601	11206BR	603.00	07-31-74	--	<100	--	--
EB- 934	302955091060501	11204BR	385.00	07-09-74	--	<100	--	--
EB- 940	303908091164301	11204BR	244.00	01-24-75	--	10	--	--
EB- 991B	302508091035402	11204BR	565.00	05-15-85	--	--	--	--
		11204BR	565.00	09-08-86	--	<10	--	<1
EB-1003	302635091022201	12112BR	1431.00	09-03-86	--	<10	--	<1
EB-1027	303421091123003	12224BR	1926.00	04-01-87	--	--	--	--
EB-1036	302520091041401	11204BR	549.00	09-08-86	--	<10	--	<1
EB-1078	303454091143101	11204BR	230.00	08-06-84	--	<10	--	--

WELL NUMBER	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)
				EAST BATON ROUGE PARISH					
EB- 886	--	<1	--	--	--	--	30	--	2
EB- 896	--	<1	--	--	--	--	--	--	ND
	--	<1	--	--	--	--	9	--	ND
EB- 898	--	<1	--	--	--	--	30	--	ND
EB- 909	--	<1	--	--	--	--	--	--	2
EB- 926	--	1	--	--	--	--	<20	--	22
	--	<1	--	5	--	--	--	--	<1
EB- 928	--	<1	--	--	--	--	70	--	ND
	--	<1	--	14	--	--	--	--	<1
EB- 933	--	1	--	--	--	--	30	--	ND
EB- 934	--	1	--	--	--	--	<20	--	ND
EB- 940	--	<1	--	--	--	--	4	--	ND
EB- 991B	--	<1	--	26	--	--	--	--	<1
	--	1	--	27	--	<0.5	--	--	<1
EB-1003	--	<1	--	17	--	<0.5	--	--	<1
EB-1027	--	<1	--	<100	--	--	--	--	<1
EB-1036	--	1	--	34	--	<0.5	--	--	<1
EB-1078	--	<1	--	280	--	--	--	--	<1

WELL NUMBER	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)
				EAST BATON ROUGE PARISH				
EB- 886	--	--	--	--	--	ND	--	<2
EB- 896	--	--	--	--	--	ND	--	ND
	--	--	--	--	--	3	--	ND
EB- 898	--	--	--	--	--	<2	--	ND
EB- 909	--	--	--	--	--	ND	--	10
EB- 926	--	--	--	--	--	2	--	<2
	--	<10	--	1	--	<1	--	1
EB- 928	--	--	--	--	--	ND	--	<2
	--	10	--	3	--	1	--	6
EB- 933	--	--	--	--	--	<2	--	ND
EB- 934	--	--	--	--	--	4	--	ND
EB- 940	--	--	--	--	--	5	--	<2
EB- 991B	--	<10	--	2	--	1	--	1
	--	<10	--	--	--	1	--	<5
EB-1003	--	<10	--	--	--	2	--	<5
EB-1027	--	<10	--	--	--	1	--	5
EB-1036	--	<10	--	--	--	3	--	<5
EB-1078	--	<1	--	--	--	<1	--	2

APPENDIX A.--CONCENTRATIONS OF MINOR ELEMENTS IN WATER FROM
THE MAJOR AQUIFERS OF LOUISIANA, 1972-87--CONTINUED

WELL NUMBER	LITHIUM TOTAL RECOVERABLE (UG/L AS LI)	LITHIUM DISSOLVED (UG/L AS LI)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, DISSOLVED (UG/L AS NI)
EB- 886	--	--	<0.5	--	--	--	--	--
EB- 896	--	--	<0.5	--	--	--	--	--
	--	--	<0.5	--	--	--	--	--
EB- 898	--	--	<0.5	--	--	--	--	--
EB- 909	--	--	<0.5	--	--	--	--	--
EB- 926	--	--	<0.5	--	--	--	--	--
	--	7	--	<0.1	--	--	--	--
EB- 928	--	--	<0.5	--	--	--	--	--
	--	12	--	<0.1	--	--	--	--
EB- 933	--	--	<0.5	--	--	--	--	--
EB- 934	--	--	<0.5	--	--	--	--	--
EB- 940	--	--	<0.5	--	--	--	--	--
EB- 991B	--	12	--	<0.1	--	--	--	--
	--	--	--	0.1	--	--	--	1
EB-1003	--	--	--	<0.1	--	--	--	1
EB-1027	--	--	--	<0.1	--	--	--	--
EB-1036	--	--	--	<0.1	--	--	--	2
EB-1078	--	--	--	0.1	--	--	--	2

WELL NUMBER	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)

EAST BATON ROUGE PARISH

WELL NUMBER	SELENIUM, TOTAL	SELENIUM, DISSOLVED	SILVER, TOTAL RECOVERABLE	SILVER, DISSOLVED	STRONTIUM, DISSOLVED	VANADIUM, DISSOLVED	ZINC, TOTAL RECOVERABLE	ZINC, DISSOLVED
EB- 886	--	--	--	ND	--	--	--	20
EB- 896	--	--	--	--	--	--	--	2100
	--	--	--	ND	--	--	--	2900
EB- 898	--	--	--	ND	--	--	--	1000
EB- 909	--	--	--	--	--	--	--	920
EB- 926	--	--	--	ND	--	--	--	7
	--	<1	--	--	7	--	--	<3
EB- 928	--	--	--	ND	--	--	--	120
	--	<1	--	--	17	--	--	<3
EB- 933	--	--	--	ND	--	--	--	<20
EB- 934	--	--	--	ND	--	--	--	1400
EB- 940	--	--	--	ND	--	--	--	4
EB- 991B	--	<1	--	--	30	--	--	<3
	--	<1	--	<1	--	--	--	4
EB-1003	--	<1	--	<1	--	--	--	4
EB-1027	--	<1	--	<1	--	--	--	<10
EB-1036	--	<1	--	<1	--	--	--	7
EB-1078	--	--	--	--	--	--	--	1600

WELL NUMBER	STATION NUMBER	GEO-LOGIC UNIT	DEPTH OF WELL, TOTAL (FEET)	DATE	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ANTI-MONY, TOTAL (UG/L AS SB)	ANTI-MONY, DIS-SOLVED (UG/L AS SB)
				EAST BATON ROUGE PARISH				
EB-1080	303916091113501	11204BR	82.00	12-14-84	--	<10	--	--
EB-1081	303227091112801	112SLBR	77.00	12-19-84	--	<10	--	--
EB-1082	303339091124901	112SLBR	75.00	01-09-85	--	20	--	--
EB-1086	303512091125902	112SLBR	25.00	02-15-85	--	50	--	--
EB-1087	303641091134601	112SLBR	44.00	02-15-85	--	<10	--	--
		112SLBR	44.00	04-18-86	--	--	--	--
EB-1088	303444091131501	112SLBR	30.00	02-19-85	--	<10	--	--
EB-1089	303442091131601	112SLBR	20.00	02-19-85	--	10	--	--
EB-1090	303905091150101	112SLBR	22.00	02-15-85	--	20	--	--
EB-1091	303133091083701	112SLBR	36.00	02-25-85	--	50	--	--
EB-1092	303859091082301	112SLBR	31.00	02-25-85	--	20	--	--
EB-1093	303331091101801	112SLBR	36.00	02-19-85	--	10	--	--
		112SLBR	36.00	04-18-86	--	--	--	--
				EAST CARROLL PARISH				
EC- 159	324325091104901	112MRVA	16.00	01-21-72	--	--	--	--
EC- 233	324739091110201	124CCKF	371.00	09-05-86	--	<10	--	<1

WELL NUMBER	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)
				EAST BATON ROUGE PARISH					
EB-1080	--	2	--	200	--	--	--	--	1
EB-1081	--	3	--	400	--	--	--	--	1
EB-1082	--	1	--	300	--	--	--	--	1
EB-1086	--	<1	--	<100	--	--	--	--	1
EB-1087	--	<1	--	2000	--	--	--	--	1
	--	--	--	2100	--	--	--	--	--
EB-1088	--	<1	--	300	--	--	--	--	1
EB-1089	--	<1	--	300	--	--	--	--	1
EB-1090	--	<1	--	300	--	--	--	--	1
EB-1091	--	1	--	300	--	--	--	--	3
EB-1092	--	<1	--	800	--	--	--	--	2
EB-1093	--	<1	--	900	--	--	--	--	1
	--	--	--	800	--	--	--	--	--
				EAST CARROLL PARISH					
EC- 159	--	0	--	--	--	--	--	--	10
EC- 233	--	<1	--	190	--	0.9	--	--	<1

APPENDIX A.--CONCENTRATIONS OF MINOR ELEMENTS IN WATER FROM
THE MAJOR AQUIFERS OF LOUISIANA, 1972-87--CONTINUED

WELL NUMBER	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)
					EAST BATON ROUGE PARISH			
EB-1080	--	<1	--	--	--	<1	--	<1
EB-1081	--	<1	--	--	--	<1	--	<1
EB-1082	--	<1	--	--	--	3	--	2
EB-1086	--	<1	--	--	--	1	--	2
EB-1087	--	<1	--	--	--	1	--	3
	--	--	--	--	--	--	--	--
EB-1088	--	<1	--	--	--	<1	--	1
EB-1089	--	<1	--	--	--	<1	--	<1
EB-1090	--	<1	--	--	--	1	--	3
EB-1091	--	<1	--	--	--	2	--	4
EB-1092	--	<1	--	--	--	2	--	1
EB-1093	--	<1	--	--	--	<1	--	1
	--	--	--	--	--	--	--	--
				EAST CARROLL PARISH				
EC- 159	--	--	--	--	--	250	--	25
EC- 233	--	<10	--	--	--	<1	--	<5

WELL NUMBER	LITHIUM TOTAL RECOV-ERABLE (UG/L AS LI)	LITHIUM DIS-SOLVED (UG/L AS LI)	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)	NICKEL, DIS-SOLVED (UG/L AS NI)
				EAST BATON ROUGE PARISH				
EB-1080	--	--	--	0.6	--	--	--	1
EB-1081	--	--	--	<0.1	--	--	--	4
EB-1082	--	--	--	<0.1	--	--	--	2
EB-1086	--	--	--	<0.1	--	--	--	2
EB-1087	--	--	--	<0.1	--	--	--	6
	--	--	--	--	--	--	--	--
EB-1088	--	--	--	0.3	--	--	--	1
EB-1089	--	--	--	<0.1	--	--	--	1
EB-1090	--	--	--	0.2	--	--	--	5
EB-1091	--	--	--	0.1	--	--	--	7
EB-1092	--	--	--	0.3	--	--	--	8
EB-1093	--	--	--	0.1	--	--	--	1
	--	--	--	--	--	--	--	--
				EAST CARROLL PARISH				
EC- 159	--	--	<0.5	--	--	--	--	20
EC- 233	--	--	--	<0.1	--	--	--	1

WELL NUMBER	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
				EAST BATON ROUGE PARISH				
EB-1080	--	--	--	--	--	--	--	20
EB-1081	--	--	--	--	--	--	--	910
EB-1082	--	--	--	--	--	--	--	60
EB-1086	--	--	--	--	--	--	--	60
EB-1087	--	--	--	--	--	--	--	40
	--	--	--	--	--	--	--	--
EB-1088	--	--	--	--	--	--	--	10
EB-1089	--	--	--	--	--	--	--	10
EB-1090	--	--	--	--	--	--	--	60
EB-1091	--	--	--	--	--	--	--	30
EB-1092	--	--	--	--	--	--	--	230
EB-1093	--	--	--	--	--	--	--	30
	--	--	--	--	--	--	--	--
				EAST CARROLL PARISH				
EC- 159	--	--	--	--	1	--	--	300
EC- 233	--	<1	--	<1	--	--	--	3

WELL NUMBER	STATION NUMBER	GEO-LOGIC UNIT	DEPTH OF WELL, TOTAL (FEET)	DATE	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ANTI-MONY, TOTAL (UG/L AS SB)	ANTI-MONY, DIS-SOLVED (UG/L AS SB)
				EAST FELICIANA PARISH				
EF- 225	305803091061101	12101FP	444.00	05-08-86	--	<10	--	--
EF- 241	305052091060001	112UPTC	96.00	02-06-75	--	6	--	--
EF- 243	304522091024701	112UPTC	73.00	02-06-75	--	6	--	--
EF- 246	305950090521501	112UPTC	69.60	10-27-77	--	<100	--	--
EF- 271	304346091130701	112UPTC	83.00	12-19-84	--	<10	--	--
EF- 274	304802091122701	112UPTC	59.00	02-25-85	--	40	--	--
EF- 275	304720091075201	112UPTC	49.00	02-25-85	--	20	--	--
EF- 276	304418091082101	112UPTC	19.00	02-20-85	--	<10	--	--
EF- 277B	304853091032402	12203FP	2101.00	10-24-85	--	--	--	--
				EVANGELINE PARISH				
EV- 703	304721092162401	112CHCT	208.00	04-16-82	--	--	--	--
EV- 749	304316092300701	112CHCT	144.00	03-22-84	--	--	<1	--
		112CHCT	144.00	03-28-85	--	--	<1	--
		112CHCT	144.00	05-12-86	--	<10	--	--