

# Bacteriological and Water-Quality Data Collected at Coastal Mississippi Sites Following Hurricane Katrina, September-October 2005

Data Series 174

## **Bacteriological and Water-Quality Data Collected at Coastal Mississippi Sites Following Hurricane Katrina, September-October 2005**

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Multiply	By	To Obtain
	Length	
foot (ft)	0.3048	meter (m)
	Volume	
gallon (gal) gallon (gal)	3.785 3.785.412	liter (L) milliliter (mL)

## **CONVERSION FACTORS, ABBREVIATIONS, AND ACRONYMS**

Temperature in degrees Celsius (°C) may be converted to degrees Fahrenheit (°F) as follows:  $^\circ F{=}(1.8x^\circ C){+}32$ 

Temperature in degrees Fahrenheit (°F) may be converted to degrees Celsius (°C) as follows: °C=(°F-32)/1.8

Horizontal coordinate information is referenced to the North American Datum of 1983 (NAD83).

Specific conductance is given in microsiemens per centimeter at 25 degrees Celsius ( $\mu$ S/cm at 25 °C).

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

ft	foot
T T	
L	liter
mL	milliliter
mg/l	milligrams per liter
μg/L	micrograms per liter
μS/cm	microsiemens per centimeter
CFU	colony forming units
CO	Colorado
COD	chemical oxygen demand
E. coli	Escherichia coli
MDEQ	Mississippi Department of Environmental Quality
MPN	most probably number
MS	Mississippi
NOAA	National Oceanic and Atmospheric Administration
NWQL	USGS National Water Quality Laboratory
PVC	polyvinyl chloride
RPD	relative percent difference
USEPA	U.S. Environmental Protection Agency
USGS	U.S. Geological Survey

#### ABSTRACT

On August 29, 2005, Hurricane Katrina devastated coastal Mississippi with 150 mile-per-hour winds and a storm surge in excess of 20 feet. Katrina moved inland and wreaked destruction on a broad swath of eastern Mississippi. Some eastern Mississippi counties were left without power and water and some major roads were impassable for weeks. The possibility of disease transmission from contaminated water and contamination caused by chemical spills were major concerns.

As part of a multi-agency response to the disaster, the U.S. Geological Survey (USGS), in partnership with the Mississippi Department of Environmental Quality (MDEQ), established a network of sampling locations to determine the effects of the storm on surface-water quality along the Mississippi Gulf Coast. Water samples were collected weekly at 31 estuarine tributary sites and 13 beach monitoring sites in coastal Mississippi Counties – Hancock, Harrison, and Jackson – for a period of 5 weeks beginning September 19, 2005. Samples were collected by MDEQ and USGS, were transported to a temporary laboratory established at a USGS facility at Stennis Space Center near Bay St. Louis, MS, and were analyzed within 6 hours of collection. USGS analyzed the samples primarily for enterococci densities were determined by the most probable value method. About 14 percent of the enterococci densities were less than the detection limit, and 81 percent were lower than U.S. Environmental Agency criteria for the protection of public health. Densities at several of the bacteriological sites increased during the second week of sampling possibly due to runoff associated with Hurricane Rita rainfall that occurred September 23-24, 2005. Quality-control data were reviewed to ensure that methods performed as expected.

USGS also collected 19 water-quality samples at 12 inland freshwater sites for a period of 2 weeks starting on September 19, 2005. Sampling sites were located near established USGS stream gages. Physical properties of the streams were measured on site. Waterquality samples were collected, processed, and preserved on site according to standard procedures and then shipped to the USGS National Water Quality Laboratory in Denver, CO, for analysis--except for biochemical oxygen demand samples, which were analyzed by the MDEQ laboratory in Pearl, MS. Each sample was analyzed for multiple constituents including nutrients, major ions, trace metals, modern-use and polar pesticides, wastewater compounds, volatile organic compounds, and degradate organic compounds. Most detections were below available State and Federal water-quality criteria for Mississippi streams. Overall, the results from the bacteriological and water-quality samples indicated no systematic contamination in the sampled streams in the aftermath of Hurricane Katrina.

#### **INTRODUCTION**

Hurricane Katrina made landfall in coastal Alabama, Mississippi, and Louisiana on August 29, 2005. The local population in the three coastal Mississippi Counties – Hancock, Harrison, and Jackson – was concerned about water quality in streams, bays, and estuaries of the Gulf Coast in the aftermath of the hurricane because of damage caused by flooding, wind, and storm surge. Nearly all of the municipal wastewater treatment facilities in the three coastal counties, as well as many north of the affected counties, were out of operation for an extended period of time due to widespread power outages. Many of the industrial operations in the region, such as oil refineries, chemical production plants, and timber processing plants, were also without power for an extended period of time. As a result, there were concerns about potential contamination of the bays and estuaries that are used for commercial, recreational, and subsistence fishing and shellfish harvesting along the Mississippi Gulf Coast. There were also concerns about the safety of workers involved in debris removal from these same estuarine locations.

The U.S. Geological Survey (USGS) partnered with the Mississippi Department of Environmental Quality (MDEQ) to collect bacteriological samples at tributary locations to the estuaries and bays and at selected MDEQ beach monitoring sites in the three Mississippi Gulf Coast counties. Bacteriological samples were collected weekly for 5 consecutive weeks beginning September 19, 2005, and were analyzed primarily for enterococci, which is the U.S. Environmental Protection Agency (USEPA) standard for fecal-indicator bacteria for brackish waters (U.S. Environmental Protection Agency, 2000 and 2004a). Selected samples were also analyzed for Escherichia coli (E. Coli).

The USGS also collected water-quality samples at current real-time stream gage or crest-stage gage locations on inland freshwater streams tributary to the coastal estuaries and bays. Water-quality samples were collected weekly for 2 weeks beginning September 19, 2005, and were analyzed for numerous constituents including nutrients, major ions, trace metals, modern-use and polar pesticides, wastewater compounds, volatile organic compounds, and degradate organic compounds.

This report documents the site-selection criteria, sample-collection and analysis methods, quality-assurance procedures, and analysis results of the bacteriological and water-quality samples collected along the Mississippi Gulf Coast in the aftermath of Hurricane Katrina. This information will be useful to agencies that continue to coordinate clean-up efforts, community leaders involved in industrial recovery, and natural resource managers leading environmental assessments and restoration.

#### SITE SELECTION

Many Federal, State, and local agencies were involved in collecting environmental data in the aftermath of Hurricane Katrina. It was determined, through numerous conference calls to coordinate the field activities of the involved Federal agencies, that the USEPA and the National Oceanic and Atmospheric Administration (NOAA) would collect bacteriological and water-quality samples in the Mississippi Sound and in the primary bays and estuaries (St. Louis Bay, Biloxi Bay, Pascagoula Bay) along the Mississippi Gulf Coast (National Oceanic and Atmospheric Administration, 2005a; U.S. Environmental Protection Agency, 2005). In an effort to coordinate with the data-collection efforts of USEPA and NOAA and to avoid duplication, the USGS and MDEQ chose to sample locations along the beaches and at inland locations on small tributaries of the bays and estuaries. This section documents selection of the bacteriological and the water-quality sampling sites by the USGS and MDEQ.

#### **Bacteriological Sampling Sites**

USGS and MDEQ selected 31 near-coastal sites for bacteriological sampling (table 1). These sites were located near active or historical USGS streamflow gage, crest-stage gage (which measures the highest stage during a runoff event), or water-quality sampling sites on inland tributaries to bays and estuaries in the three Mississippi Gulf Coast counties. Figure 1 shows site locations in all three counties, and figures 2, 3, and 4 show site locations in each county – Hancock, Harrison, and Jackson – respectively. Although each of the 31 sites has a USGS station number and station name, they were also assigned a unique field number for quick reference. The field number begins with the initials of the county: HK, Hancock County Site, HN, Harrison County site, and JK, Jackson County site (table 1). For example, HK-1 is Hancock County site 1 (table 1).

The USGS and MDEQ also collected bacteriological samples at 13 "beach" sites (table 1; figs. 1, 2, 3, and 4). These sites were part of MDEQ's Mississippi Beach Monitoring Program, which began in 2000 (Mississippi Department of Environmental Quality, 2005). These sites were also assigned a unique field number similar to the nomenclature used for the near-coastal sites; for example, HKB-1 is Hancock County beach site 1 (table 1).

#### Water-Quality Sampling Sites

As Hurricane Katrina made landfall, its strength diminished slowly as it proceeded northward into Mississippi. The cities of Hattiesburg and Meridian, MS, experienced Category 2 and Category 1 force winds, respectively, throughout the day and evening after landfall. Widespread damage to trees resulting in power outages that lasted for days, and in some cases weeks, were common in southern and eastern Mississippi. Such damage could potentially be a source of contamination to rivers and streams. There were reports of numerous fish kills in the Pascagoula River Basin, and although depletion of dissolved oxygen caused by large amounts of debris flushing into the streams was the likely cause, increased toxicity due to possible chemical spills was also suspected. For these reasons, USGS and MDEQ agreed that inland freshwater sites, especially in the Pascagoula River Basin, were of concern and were, therefore, targeted for sampling.

Water-quality sampling sites included eight sites in the Pascagoula River Basin, and one site each in the Tchoutacabouffa, Biloxi, Wolf, and Jourdan River Basins (fig. 5). All of the water-quality sampling sites were located at active USGS real-time streamflow gages (satellite telemetry) except for the Tchoutacabouffa River sampling site, which is an active crest-stage gage. Table 2 lists the station number, station name, type of site, dates sampled, and latitude-longitude for each of the water-quality sampling sites.

#### SAMPLE COLLECTION AND ANALYSIS METHODS

The methods used to collect and process bacteriological and water-quality samples collected in this study are documented in this section. These methods were agreed upon by the USGS and MDEQ prior to sampling, and generally followed procedures outlined in the USGS National Field Manual for the Collection of Water-Quality Data (U.S. Geological Survey, variously dated; hereafter referred to in this report as USGS-NFM).

#### **Bacteriological Samples**

Each field crew collecting bacteriological samples was composed of one USGS and one MDEQ employee. During each site visit, the stream stage was measured relative to an established reference point, hydrologic conditions were noted, a water sample was collected, and the date and time of the sample were recorded. In general, the water sample was collected in a 300-milliliter (mL) polypropylene bottle attached to a weighted sampler, which was lowered over the side of the bridge near the center of flow in the stream. The polypropylene bottle was sterilized and sealed prior to use and contained a tablet of sodium thiosulfate, which minimizes the potential effects of residual anti-bacterial chemicals, such as chlorine, that could be present in the water at each sampling location. At the beach monitoring sites, a special sampler made of a large polyvinyl chloride (PVC) elbow joint attached to an 8-foot (ft) aluminum pole was used to collect the sample in the surf at the shoreline. This sampler was used so that field personnel could avoid wading into the surf to collect a sample in unsafe conditions caused by the large amount of debris along the beach and in the surf. All samplers were cleaned with either anti-bacterial spray or isopropyl alcohol and allowed to air-dry between sampling sites. Sample bottles were stored in a cooler filled with ice for transport to the lab and were analyzed within 6 hours of collection.





Figure 2. Bacteriological sampling sites in Hancock County, Mississippi.



Figure 3. Bacteriological sampling sites in Harrison County, Mississippi.







Figure 5. Water-quality sampling sites in southeastern Mississippi.

Bacteriological samples were processed and analyzed by USGS employees at a temporary laboratory at the USGS Hydrologic Instrumentation Facility located on the property of the National Aeronautics and Space Administration's Stennis Space Center near Bay St. Louis, MS. When the samples were received at the laboratory, information about each sample was logged onto a lab analysis sheet, and a specific conductance reading was obtained from the sample bottle to determine if the sample water was considered freshwater or saltwater. All original field notes and lab sheets are available for inspection in the files of the USGS Mississippi Water Science Center.

Current USEPA recreational criteria for evaluating the microbiological quality of marine/brackish waters use an enterococci standard (U.S. Environmental Protection Agency, 2004a). Enterococci can also be used as an indicator of microbiological contamination in freshwater. Therefore, all bacteriological samples collected during this study were analyzed for enterococci.

There were two methods of analysis used to measure densities of enterococci in the samples. The primary method used for all samples was most-probable-number (MPN) using Enterolert defined-substrate medium (U.S. Environmental Protection Agency, 2003a) in Quanti-Tray 2000® wells (IDEXX Corporation, 2005a). MPN analyses result in a statistical estimate of the original density of cells in a water volume based on positive reactions (plus-minus response) in multiple sub-aliquots. Results of MPN tests are reported as MPN per 100 mL. Confidence intervals were applied to MPN density estimates according to a tabulation of 95 percent confidence intervals provided by the manufacturer (IDEXX Corporation, 2005b).

Sample dilutions prior to analysis by MPN were based on whether the sample water was freshwater or saltwater. An undiluted, a 1:10 dilution, and in some cases, a 1:100 dilution were run on freshwater samples. A 1:10, and in some cases, a 1:100 dilution were run on saltwater samples. MPN analyses were not run on undiluted saltwater samples to avoid potential false positives caused by interference from a common marine bacillus bacteria as instructed by the manufacturer (Sharon Muhilly, IDEXX Corporation, oral commun., September 21, 2005).

About 15 percent of the samples were analyzed by membrane filtration methods for enterococci and for E. coli. Membrane filtration for enterococci was used as a means of comparison and verification of MPN results; E. coli analysis was used to further characterize the sampled waters for other fecal indicators. Enterococci and E. coli densities were determined by membrane filtration and cultivation on mEI agar and modified mTEC agar, respectively (U.S. Environmental Protection Agency, 2000). Membrane filtration results in a colony count from a defined volume of water, generally reported as colony forming units (CFU) per 100 mL water. Confidence intervals were not applied to bacteria densities measured by membrane filtration.

#### Water-Quality Samples

At each site, physical properties of the streams were measured near the center of flow at each site using a multi-probe which measured temperature, specific conductance, pH, dissolved oxygen, and turbidity. Calibration of the multi-probe followed guidelines outlined in USGS-NFM (U.S. Geological Survey, variously dated). All instruments were calibrated each morning, and calibration was checked at the end of each day. Physical properties were recorded on field sheets, which are stored in files of the USGS Mississippi Water Science Center.

Prior to use, all equipment that came into contact with a water sample was cleaned with non-phosphate detergent, rinsed with deionized water, rinsed with methanol, air dried, and stored in a dust-free environment. All equipment (churn splitter, tubing, and bottles) was placed in plastic bags after cleaning to prevent contamination. Water samples were collected from bridges or by wading using established depth- and width-integrated procedures, and about 10 liters (L) of water were processed at each site using methods as outlined in the USGS-NFM (U.S. Geological Survey, variously dated). A Teflon churn splitter was used to subdivide each sample into appropriate bottles as required by the laboratory. Bottle requirements, filtering requirements, and sample-preservation techniques are listed in table 3. All samples were double-bagged in plastic bags, packed on ice, and shipped overnight to the USGS National Water Quality Laboratory (NWQL) in Denver, CO. The exception was for biochemical oxygen demand samples, which were collected in a 1-L polypropylene bottle, stored on ice and transported to the MDEQ laboratory in Pearl, MS, and were analyzed within 48 hours of collection. Between sites and at the end of each day of sampling, all equipment was cleaned and stored as specified earlier.

#### **QUALITY-ASSURANCE PROCEDURES**

This section documents the quality-assurance procedures for the processing and analysis of the bacteriological and water-quality samples. These procedures were followed to document potential bias and variability in the data sets.

#### **Bacteriological Sample Processing and Analysis**

Generally, quality-assurance practices for bacteriological analysis were followed as described by Francy and others (2005) and Myers and Wilde (2004). All sample collection and processing information was recorded on USGS microbiology field forms. Each day a media batch preparation form was completed to document the lot numbers of media and supplies used. The performance of the autoclaves was checked throughout the sampling period with heat-indicating autoclave tape to ensure that supplies were properly sterilized. Incubator temperatures were monitored with mercury thermometers at a minimum of twice daily, and results were recorded in a logbook. Each time the incubators were opened during the day, the temperature was checked and recorded on the field sheets. For the MPN Enterolert method, quality-control samples included duplicate samples, procedure and field blanks, and positive and negative controls. Generally, two water samples were analyzed weekly, in duplicate, to test analytical variability. Procedure blanks using deionized water were also analyzed at a frequency of two samples per week. A procedure blank is a blank solution that is processed through all stages of set-up and analysis to ensure that no contamination is introduced after samples were received at the lab. Only one field blank was processed for the study period. A field blank is a blank solution that is processed through all stages of sample collection to ensure that no contamination is introduced during the sample collection and handling phase prior to delivering the sample to the lab. Positive and negative control samples were grown on the MPN media to test the ability of the method to detect targeted bacteria and exclude non-targeted bacteria, respectively. The positive control bacteria were enterococci, and the negative control bacteria were E. coli. Positive and negative control samples were analyzed at a rate of once weekly.

For the membrane filtration method, quality-assurance samples included filter and procedure blanks, which were analyzed during sample processing to ensure that filtration equipment and buffer solutions were not contaminated. Filter and procedure blanks were analyzed at a rate of once every three to four samples processed.

#### Water-Quality Sample Processing and Analysis

Quality-assurance procedures generally followed those outlined in the USGS-NFM (U.S. Geological Survey, variously dated). As part of these procedures, quality-assurance samples collected during the study period included one sequential replicate, field blank, equipment blank, and laboratory spike. Sites were chosen at random for the collection and processing of these samples. A sequential replicate is an additional 10-L sample of environmental water collected immediately after an environmental sample is collected at a particular site. The sequential replicate is subjected to the same processing as the environmental sample and is used to assess variability among samples due to collection, processing, shipping, and analysis procedures for samples collected at different times. The sequential replicate is also used to assess water-quality variability in the stream being sampled.

For the field blank, laboratory-assured chemical-free water was processed at a field site in the same manner and with the same equipment used to process the environmental sample. A field blank is used to determine if there are any sources of contamination introduced by the sample collection and processing procedures that could bias results for the environmental samples. For the equipment blank, laboratory-assured chemical-free water was processed through the field equipment at the USGS office in Jackson, MS, prior to sampling to check initial cleaning procedures.

For the laboratory spike, an additional sample was collected at one site, processed in the same manner as the environmental sample, and shipped to the laboratory where a mix of known concentrations of target compound was added to the sample. The target compounds included organic chemicals such as pesticides, wastewater compounds, and volatile organic compounds. The laboratory spike samples were used to test the ability of the laboratory to accurately measure those particular compounds, to assess environmental matrix effects associated with the analysis, and to assess potential degradations in these compounds due to sample processing, shipping, or analysis.

#### RESULTS

Analytical results for the bacteriological and water-quality samples collected during this study period are stored in the USGS National Water Information System (NWIS) database. Results of the quality-assurance samples are stored locally in the USGS Mississippi Water Science Center NWIS quality-assurance database.

#### **Bacteriological Results**

Bacteriological data for MPN analyses of enterococci (including 95 percent confidence intervals) and membrane filtration of enterococci and E. coli are presented in table 4. The MPN test results are a statistical estimate of the density of enterococci in a water sample based on a presence/absence test in multiple sub-aliquots. Membrane filtration test results are based on an actual count of colonies forming on a nutrient agar medium under the conditions of the analysis. There were 200 samples analyzed for enterococci using the Enterolert MPN method and 30 samples analyzed for enterococci results from the MPN method, one enterococci result from the mEI agar and modified mTEC agar membrane filtration method, respectively. Twenty-seven enterococci results from the MPN method, one enterococci result from the mEI method, and two E. coli results from the modified mTEC method, were less than detection.

Table 5 lists the USEPA recreational criteria for the protection of public health for single-sample densities of enterococci and E. coli (U.S. Environmental Protection Agency, 2004a). Enterococci results from the MPN analyses were compared to criteria in table 5 based on site classifications (table 1) as follows: results at freshwater and mixed sites were compared to the infrequent full body contact criteria of 151 colonies per 100 mL; results at saltwater sites were compared to the infrequent full body contact criteria of 501 colonies per 100 mL; and results at beach sites were compared to the designated beach area criteria of 104 colonies per 100 mL (table 5). Only the enterococci results from the MPN method were compared to USEPA criteria in this report because the MPN analyses were considered the primary method for analyses by MDEQ for this study. Of the 200 enterococci samples analyzed by the MPN method, 162 results were less than the USEPA criteria (table 4). Seventeen samples from sites considered to be freshwater or mixed exceeded the criterion, ranging from 162 to 719 MPN per 100 mL; 5 samples from sites considered to be saltwater exceeded the criterion, ranging from 644 to 24,200 MPN per 100 mL; and 16 samples from designated beach sites exceeded the criterion, ranging from 109 to 1,918 MPN per 100 mL. The highest density of 24,200 MPN per 100 mL occurred at Bayou Chico at Pascagoula, MS, on October 11, 2005 (table 4). Densities at most of the bacteriological sites increased during the second week of sampling, possibly due

to runoff from an estimated 2-day rainfall total of about 3 inches, caused by outer bands of Hurricane Rita, which made landfall along the western Louisiana and eastern Texas coastline, September 23-24, 2005 (National Oceanic and Atmospheric Administration, 2005b).

Thirty samples from all site types were analyzed for E. coli using the modified mTEC membrane filtration method during the study period (table 4). Of the 30 samples, 13 samples were reported as estimated due to non-ideal colony counts. The highest E. coli density was 2,400 CFU per 100 mL at the Mississippi Sound at Maywood Road at Gulfport, MS, on October 18, 2005. Because criteria for E. coli are only available for freshwaters (U.S. Environmental Protection Agency, 2004a), densities from freshwater and mixed sites for this study were compared to criteria listed in table 5, specifically, to the single-sample density of 575 CFU per 100 mL for infrequent full-body contact. Of the 13 E. coli samples from freshwater or mixed sites, none exceeded the criterion.

Eleven duplicate, 11 procedure blank, 1 field blank, 5 positive control, and 5 negative control quality-assurance samples were run using the MPN Enterolert method during the study period (table 6). Relative percent differences (RPD) were calculated for the 11 duplicate samples by subtracting the density of the duplicate from the environmental sample, dividing by their average, and multiplying by 100 (RPDs not shown). The average RPD was 49 percent, and ranged from 0 to 152 percent. There were no detections of enterococci in the procedure blanks. The field blank had a density of 8 MPN per 100 mL; although this density was slightly above detection, it did not reflect potential contamination to the environmental results due to improper handling by field personnel. All of the positive control samples were greater than 2,420 MPN per 100 mL, and all of the negative control samples were less than detection, as expected.

#### Water-Quality Results

Nineteen water-quality samples were collected at 12 sites over a 2-week period beginning September 19, 2005 (table 2). Water measurements and water-quality analysis for samples collected during the study period included the following constituents and compounds as listed in table 7 with their respective reporting levels:

- Physical properties and other water-quality measurements discharge (flow), turbidity, dissolved oxygen, pH, specific conductance, and temperature;
- Nitrogen, phosphorus, carbon, and oxygen demand 5 nitrogen and 3 phosphorus compounds, total organic carbon, biochemical oxygen demand, and chemical oxygen demand;
- 34 major ions, trace metals, and related constituents including residue on evaporation (total dissolved solids), alkalinity, and bicarbonate;
- 82 modern-use pesticide compounds and degradation products;
- 60 polar pesticide compounds and degradation products;
- 63 waste-water organic compounds and degradation products; and
- 85 volatile organic compounds and degradation products.

Organic compounds listed in table 7 are grouped according to standardized NWQL laboratory schedules; selected compounds may be repeated in other lists. For example, metalaxyl is listed in both the polar pesticide and wastewater compound lists in table 7. There were 265 constituents and compounds that were not detected in any of the samples (compounds that are listed in bold in table 7). Concentrations of constituents and compounds that were detected at each site and water-quality criteria for freshwater systems, where available, are listed in table 8. Nearly all of the constituents and compounds detected were below water-quality criteria except for the following:

- Dissolved oxygen concentrations were 3.3 and 3.6 milligrams per liter (mg/L) at Tchoutacabouffa River at D'Iberville, MS, on September 21 and 28, respectively. Dissolved oxygen was 2.3 mg/L at Jourdan River near Bay St. Louis, MS, on September 28. The State of Mississippi dissolved oxygen criterion is 5 mg/L (4 mg/L instantaneous) (State of Mississippi, 2003).
- Total phosphorus was 0.137 mg/L at the Leaf River near McClain, MS, on September 27. The USEPA recommends that total phosphorus not exceed 0.1 mg/L for flowing water that does not discharge into a lake or reservoir (U.S. Environmental Protection Agency, 1986).
- Aluminum concentrations in 11 samples exceeded the USEPA criteria continuous concentration (similar to chronic toxicity) of 87 micrograms per liter (µg/L), but none exceeded the criteria maximum concentration (similar to acute toxicity) of 750 µg/L (U.S. Environmental Protection Agency, 2004b). Aluminum is considered a non-priority pollutant.
- Copper concentrations were 13.1 µg/L at Bluff Creek at Vancleave, MS, on September 27 and 5 µg/L at Jourdan River near Bay St. Louis, MS, on September 21. The acute and chronic water-quality criteria for State of Mississippi waters are 7 and 5 µg/L, respectively (State of Mississippi, 2003). Copper is considered a priority pollutant.

It should be noted that there were about 18 detections of organic chemicals above respective detection limits (there were also compounds that were detected, but concentrations were estimated below detection limits). Detections included the presence of caffeine, toluene, N,N-diethyl-meta-toluamide (DEET), naphthalene, and para-nonylphenol, which are wastewater organic compounds. These detections indicated the presence of wastewater at selected sampling locations; however, concentrations were very low, and none exceeded available water-quality criteria.

Quality-assurance samples were used to assess bias and variability in the water-quality data (table 9). All of the equipment blank constituents and compounds were either below detection or were estimated below the laboratory reporting level, except for ammonia plus organic nitrogen (filtered), which had a concentration of 0.16 mg/L. There were several significant detections in the field blank at Red Creek at Vestry, MS, on September 29, especially for chemical oxygen demand and for several major ions and trace metals. Although every precaution was taken in the field to ensure a clean working environment, the samples were collected and processed under adverse conditions, and consequently, some contamination may have occurred. Therefore, the reader is cautioned in interpreting results for the following constituents as there may have been some bias that was introduced during sample collection and processing: chemical oxygen demand, sodium, chloride, silica, barium, calcium, lead, nickel, and zinc.

A duplicate sample was collected at Cypress Creek near Janice, MS, and RPDs were computed for detectable constituents. All RPDs were lower than 20 percent, signifying that variability associated with random errors in the collection, processing, and analysis of the samples was minimal (RPDs not shown). Results from laboratory spike samples indicated that the laboratory could successfully detect constituents when they were present, matrix effects were minimal, and little degradation occurred in sample processing, shipping, and storage (data not shown).

#### SUMMARY

Nearly all bacteriological results were below current criteria, and several were below detection; bacteriological results above current criteria were isolated, localized, and were sporadic, for the most part, with the exception of several occurrences possibly due to rainfall from Hurricane Rita, September 23-24, 2005. Nearly all of the results from the water-quality samples were below available criteria, with the exceptions of a few dissolved oxygen, total phosphorus, aluminum, and copper concentrations. Although a few wastewater compounds were detected at selected sites, concentrations were very low, and none exceeded available criteria. Therefore, it did not appear that there was any systematic contamination in the aftermath of Hurricane Katrina at the streams sampled during this study.

#### ACKNOWLEDGMENTS

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## **TABLES**

 Table 1.
 Bacteriological sampling sites - Hancock, Harrison, and Jackson Counties, Mississippi - post Hurricane Katrina, September 19 through October 18, 2005

[USGS, U.S.	Geological	Survey; o	datum is	North	American	Datum	1983; MS,	Mississippi]
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Site						
identifier						
(figures 1·	USGS station					
4)	number	Station name	Site type	Field number	Latitude	Longitude
1	02481660	Jourdan River near Bay St. Louis, MS	Mixed	HK-1	30° 23' 14"	89° 26' 29"
2	02481670	Bayou La Croix near Clermont Harbour, MS	Saltwater	HK-2	30° 19' 25"	89° 29' 17"
3	02481671	Bayou La Croix at State Highway 603 near Waveland, MS	Saltwater	HK-3	30° 19' 48"	89° 25' 29"
4	02492610	Turtleskin Creek near Santa Rosa, MS	Freshwater	HK-4	30° 24' 24"	89° 38' 01"
5	02481565	Wolf Branch near Santa Rosa, MS	Freshwater	HK-5	30° 24' 34"	89° 32' 57"
6	02481649	Orphan Creek at Highway 43 near Kiln, MS	Freshwater	HK-6	30° 27' 16"	89° 28' 26"
7	0248166518	Bayou LaTerra at Fenton, MS	Freshwater	HK-7	30° 24' 51"	89° 22' 57"
8	02481663	Rotten Bayou near Fenton, MS	Freshwater	HK-8	30° 25' 09"	89° 20' 40"
9	0248166310	Mill Creek at Fenton, MS	Freshwater	HK-9	30° 24' 34"	89° 20' 40"
10	301541089241355	Mississippi Sound near Buccaneer State Park near Waveland, MS	Beach	HKB-1	30° 15' 41"	89° 24' 13"
11	301650089215300	Mississippi Sound at Waveland, MS	Beach	HKB-2	30° 16' 50"	89° 21' 53"
12	301808089193955	Mississippi Sound at Bay St. Louis, MS	Beach	HKB-3	30° 18' 08"	89° 19' 39"
13	02481524	Wolf River near Cuevas, MS	Mixed	HN-1	30° 22' 32"	89° 13' 51"
14	02481310	Bayou Portage at Cuevas, MS	Mixed	HN-2	30° 21' 46"	89° 13' 06"
15	02481526	DeLisle Bayou near DeLisle, MS	Freshwater	HN-3	30° 23' 37"	89° 15' 40"
16	02481510	Wolf River near Landon, MS	Freshwater	HN-4	30° 29' 01"	89° 16' 28"
17	02481240	Turkey Creek (Canal Road) near Gulfport, MS	Freshwater	HN-5	30° 23' 54"	89° 08' 12"
18	02481194	Bayou Bernard (Canal Road) near Landon, MS	Freshwater	HN-6	30° 26' 39"	89° 08' 13"
19	02481252	Turkey Creek at Creosote Road near Gulfport, MS	Saltwater	HN-7	30° 25' 27"	89° 04' 14"
20	02481130	Biloxi River near Lyman, MS	Freshwater	HN-8	30° 29' 18"	89° 02' 09"
21	02480606	Howard Creek at Cedar Lake, MS	Freshwater	HN-9	30° 28' 06"	88° 56' 18"
22	02480590	Tchoutacabouffa River near D'Iberville, MS	Freshwater	HN-10	30° 28' 33"	88° 53' 36"
23	02480595	Cypress Creek near D'Iberville, MS	Freshwater	HN-11	30° 27' 41"	88° 53' 30"
24	301827089173955	Mississippi Sound at Henderson Point, MS	Beach	HNB-1	30° 18' 27"	89° 17' 39"
25	301843089145255	Mississippi Sound at Pass Christian Harbour at Pass Christian, MS	Beach	HNB-2	30° 18' 43"	89° 14' 52"
26	302044089083655	Mississippi Sound at Long Beach, MS	Beach	HNB-3	30° 20' 44"	89° 08' 36"
27	302147089051055	Mississipi Sound at Gulfport Harbor at Gulfport, MS	Beach	HNB-4	30° 21' 47"	89° 05' 10"
28	302237089025855	Mississippi Sound at Maywood Road at Gulfport, MS	Beach	HNB-5	30° 22' 37"	89° 02' 58"
29	302328088575655	Mississippi Sound at Broadwater Marina at Biloxi, MS	Beach	HNB-6	30° 23' 28"	88° 57' 56"
30	302318088512600	Biloxi Bay at Point Cadet Harbor at Biloxi, MS	Beach	HNB-7	30° 23' 18"	88° 51' 26"
31	02481299	Old Fort Bayou at Ocean Springs, MS	Saltwater	JK-1	30° 25' 09"	88° 49' 41"
32	02481292	Perigal Creek near D'Iberville, MS	Freshwater	JK-2	30° 28' 58"	88° 49' 49"
33	0248129250	South Branch Perigal Creek near Ocean Springs, MS	Freshwater	JK-3	30° 27' 52"	88° 46' 17"
34	02480289	Davis Bayou at Ocean Springs, MS	Saltwater	JK-4	30° 23' 21"	88° 47' 31"
35	02480288	Simmons Bayou at Ocean Springs, MS	Saltwater	JK-5	30° 22' 28"	88° 45' 35"
36	02480284	Mary Walker Bayou at Gautier, MS	Mixed	JK-6	30° 24' 38"	88° 39' 18"
37	02480286	Bayou St. Pierre at Gautier, MS	Saltwater	JK-7	30° 22' 35"	88° 36' 51"
38	02480285	West Pascagoula at Highway 90 at Gautier, MS	Saltwater	JK-7A	30° 22' 58"	88° 36' 32"
39	02480205	Black Creek near Helena, MS	Freshwater	JK-8	30° 28' 21"	88° 28' 18"
40	0247109250	Bayou Chico at Pascagoula, MS	Saltwater	JK-9	30° 21' 17"	88° 31' 36"
41	0247109160	West Prong Bayou Cassotte at Louise Road at Pascagoula, MS	Saltwater	JK-10	30° 21' 51"	88° 30' 36"
42	0247109150	Bayou Cassotte at Orchard Avenue at Pascagoula, MS	Saltwater	JK-11	30° 22' 05"	88° 30' 05"
43	302421088495255	Biloxi Bay at Jackson Avenue at Ocean Springs, MS	Beach	JKB-1	30° 24' 21"	88° 49' 52"
44	302036088320955	Mississippi Sound at Country Club Drive at Pascagoula, MS	Beach	JKB-2	30° 20' 36"	88° 32' 09"
45	302031088313855	Mississippi Sound near Chico Bayou at Pascagoula, MS	Beach	JKB-3	30° 20' 31"	88° 31' 38"

 Table 2.
 Surface water-quality sampling sites, southeastern Mississippi, post-Hurricane Katrina, September 19-30, 2005.

[Datum is North American Datum 1983; MS, Mississippi; RT, active real-time gage; ---, did not sample; CSG, active crest-stage gage]

Site				Number	Week 1	Week 2		
identifier	Station		Type of	of	sampling	sampling		
(figure 5)	number	Station name	site	samples	date	date	Latitude	Longitude
A	02475000	Leaf River near McClain, MS	RT	1		9/27/2005	31° 06' 10"	88° 48' 30"
В	02478500	Chickasawhay River at Leakesville, MS	RT	1		9/27/2005	31° 08' 55"	88° 32' 53"
С	02479155	Cypress Creek near Janice, MS	RT	1	9/19/2005		31° 01' 31"	89° 01' 00"
D	02479160	Black Creek near Wiggins, MS	RT	2	9/22/2005	9/29/2005	30° 51' 12"	88° 54' 49"
E	02479300	Red Creek at Vestry, MS	RT	2	9/20/2005	9/29/2005	30° 44' 10"	88° 46' 52"
F	02479330	Pascagoula River at Cumbest Bluff, MS	RT	1		9/27/2005	30° 35' 02"	88° 34' 12"
G	02479560	Escatawpa River near Agricola, MS	RT	1	9/20/2005		30° 48' 12"	88° 27' 31"
Н	02480254	Bluff Creek at Vancleave, MS	RT	2	9/20/2005	9/27/2005	30° 31' 55"	88° 41' 25"
I	02480599	Tchoutacabouffa River at D'Iberville, MS	CSG	2	9/21/2005	9/28/2005	30° 27' 36"	88° 54' 03"
J	02481000	Biloxi River at Wortham, MS	RT	2	9/19/2005	9/28/2005	30° 33' 31"	89° 07' 19"
К	02481510	Wolf River near Landon, MS	RT	2	9/21/2005	9/28/2005	30° 29' 01"	89° 16' 28"
L	02481660	Jourdan River near Bay St. Louis, MS	RT	2	9/21/2005	9/28/2005	30° 23' 14"	89° 26' 29"

**Table 3.** Bottle requirements, filtering requirements, and sample-preservation techniques for waterquality samples collected in the aftermath of Hurricane Katrina, September through October 2005.

[mL, millilter;  $\mu$ m, micrometer; C, Celsius; L, liter; <, less than; HCl, hydrochloric acid]

Type of sample (number of bottles required)	Bottles required	Filtered or unfiltered	Filter type	Sample preservation
Nutrients (2)	125-mL brown polypropylene	Filtered	0.45 µm cartridge-type filter	Chilled at 4°C
	125-mL translucent polypropylene	Unfiltered	None	Acidified with 1mL of 4.5 normal sulfuric acid; then chilled at 4°C
Total organic carbon (1)	125-baked amber glass	Unfiltered	None	Chilled at 4°C
Chemical oxygen demand (1)	125-baked amber glass	Unfiltered	None	Acidified with sulfuric acid to a pH of <2; chilled at 4°C
Biochemical oxygen demand	1-L translucent polypropylene	Unfiltered	None	Chilled at 4°C
Major lons (3)	250-mL polypropylene, acid- rinsed	Filtered	0.45 $\mu$ m cartridge-type filter	Acidified with nitric acid to a pH of <2
	250-mL polypropylene	Filtered	0.45 $\mu$ m cartridge-type filter	None
	250-mL polypropylene	Unfiltered	None	None
Trace metals (2)	250-mL polypropylene, acid- rinsed	Filtered	0.45 $\mu$ m cartridge-type filter	Acidified with nitric acid to a pH of <2
	250-mL polypropylene	Unfiltered	None	None
Modern-use pesticides (1)	1-L baked amber glass	Filtered	0.7µm glass fiber filter	Chilled at 4°C
Polar pesticides (1)	1-L baked amber glass	Filtered	0.7µm glass fiber filter	Chilled at 4°C
Waste water organic compounds (1)	1-L baked amber glass	Filtered	0.7µm glass fiber filter	Chilled at 4°C
Volatile organic compounds (3)	40-mL amber glass bottle	Unfiltered	None	Bottle is filled completely with sample; sample is adjusted with a 1:1 HCl/water solution to a pH of <2; sample is protected from sunlight and chilled at 4° C

[MPN, most probable number; mL, milliliters; CFU, colony-forming units; numbers in brackets are unique field numbers; numbers in parenthesis are 95 percent confidence intervals; <, less than; E, estimated due to non-ideal colony counts]

Sample date	Sample time	Enterococci densities analyzed by Enterolert most probable number method, MPN per 100 ml	Enterococci densities analyzed by membrane filtration, mEl agar method, CEU per 100 ml	Escherichia Coli densities analyzed by membrane filtration, modified mTEC agar method, CEU per 100 ml
	Sample time			
	02481660	Jourdan River near Ba	y St. Louis, MS [HK-1]	l
9/20/2005	0925	37 (25-53)		
9/27/2005	0910	79 (56-109)		
10/4/2005	1200	26 (17-38)		
10/11/2005	1710	189 (142-251)		
10/17/2005	1550	<10 (0-37)		
	02494670 Po	you La Craix poor Clar	mont Harbour MS [H	( )]
0/20/2005	1125			<b>\-</b> 2]
9/20/2003	120	40 (11-09) 712 (507 092)		
9/21/2005	1245	F2 (19 109)		
10/4/2005	1420	52(10-100)		
10/17/2005	1615	<10 (0-37)	105	25⊑
10/17/2003	1015	<10 (0-37)	TOL	256
0248	B1671 Bayou La	Croix at State Highwa	y 603 near Waveland,	MS [HK-3]
9/20/2005	1100	201 (124-318)	<b>,</b>	
9/27/2005	1058	20 (3-59)		
10/4/2005	1615	52 (18-108)		
10/11/2005	1750	213 (127-326)		
10/17/2005	1630	31 (7-89)	24E	44E
	00400040			
0/00/0005	02492610		Santa Rosa, MS [HK-4	]
9/20/2005	1005	54 (39-73)	405	00 <b>F</b>
9/27/2005	0957	26 (16-39)	40E	22E
10/4/2005	1300	4 (2-10)		
10/11/2005	1815	24 (16-36)		
10/17/2005	1700	1 (0-6)		
	0248156	5 Wolf Branch near Sa	nta Rosa, MS [HK-5]	
9/20/2005	0945	10 (4-17)	· • •	
9/27/2005	0935	16 (9-25)́		
10/4/2005	1245	5 (2-12)		
	02404640 0-	nhan Craak at Linkuwa	42 noor Kiln MG III	61
0/20/2005				רס]
3/20/2003 0/27/2005	0950	30 (20-34) 75 (52 402)		
9/21/2005	0002	10 (00-100)		

Sample date	Sample time	Enterococci densities analyzed by Enterolert most probable number method, MPN per 100 mL	Enterococci densities analyzed by membrane filtration, mEl agar method, CFU per 100 mL	Escherichia Coli densities analyzed by membrane filtration, modified mTEC agar method, CFU per 100 mL				
10/4/2005	1145	6 (3-14)						
10/11/2005	1640	16 (9-26)						
10/17/2005	1530	6 (3-14)						
	0248166518 Bayou LaTerra at Fenton, MS [HK-7]							
9/20/2005	0837	138 (98-192)	·					
9/27/2005	0825	167 (123-223)						
10/4/2005	1125	21 (13-33)	143	73				
10/11/2005	1620	25 (16-37)						
10/17/2005	1505	8 (4-16)						
02491662 Potton Bayou poor Fonton MS [UK 9]								
9/20/2005	0830	40 (27-56)						
9/27/2005	0745	35 (24-50)						
10/4/2005	1115	12 (6-20)	43F	90				
10/11/2005	1610	38 (26-54)	56E	93				
10/17/2005	1455	11 (5-18)	002	00				
	0249	166210 Mill Crook at E	onton MS [UK 0]					
0/20/2005	0915							
9/20/2005	0725	40 (32-04)	169	10E				
9/27/2005	1100	91 (00-123) 22 (21 46)	100	49E				
10/4/2005	1600	32 (21-40) 20 (12 20)						
10/17/2005	1445	31 (7-89)						
30154108924	1355 Mississipp	i Sound near Buccane	er State Park near Wa	veland, MS [HKB-1]				
9/20/2005	1150	<10 (0-37)						
9/27/2005	1130	52 (23-119)	60E	17E				
10/4/2005	1545	269 (176-391)	198	28E				
10/12/2005	1500	<10 (0-37)						
10/18/2005	1510	<10 (0-37)						
	301650089215	300 Mississippi Sound	l at Waveland, MS [HK	(B-2]				
9/20/2005	1215	20 (3-71)						
9/27/2005	1140	233 (144-361)						
10/4/2005	1530	40 (11-89)	143E	49E				
10/12/2005	1445	41 (12-91)	70	100				
10/18/2005	1435	10 (1-55)						

$\begin{array}{ c c c c c c } \hline $301800809193955 $Mississippi Sound at Bay St. Louis, MS [HKB-3] \\ \hline $9/20/2005 & 1230 & 148 (85-251) \\ \hline $9/27/2005 & 1151 & 20 (0.37) \\ 10/12/2005 & 1515 & 210 (0.37) \\ 10/12/2005 & 1525 & 31 (7-89) \\ 10/18/2005 & 1450 & 10 (1-55) \\ \hline $02481524 Wolf River near Cuevas, MS [HN-1] \\ \hline $9/19/2005 & 1750 & 162 (115-221) \\ \hline $9/26/2005 & 1505 & 45 (31-61) & 180 & 90 \\ 10/4/2005 & 0945 & 62 (24-122) \\ 10/12/2005 & 1200 & 10 (1-55) & 40E & 51E \\ 10/18/2005 & 1245 & 63 (25-127) \\ \hline $02481310 Bayou Portage at Cuevas, MS [HN-2] \\ \hline $9/19/2005 & 1730 & 91 (67-121) \\ 9/26/2005 & 1458 & 206 (147-283) \\ 10/3/2005 & 1438 & 238 (146-358) & 410 & 120 \\ 10/12/2005 & 1438 & 238 (146-358) & 410 & 120 \\ 10/12/2005 & 1438 & 206 (147-283) \\ 10/3/2005 & 1438 & 42 (28-60) \\ \hline $9/26/2005 & 1542 & 51 (36-69) \\ 10/4/2005 & 1220 & 313 (217-440) \\ 10/12/2005 & 1210 & 326 (277-388) \\ 10/18/2005 & 1300 & 184 (149-222) & 182 & 20E \\ \hline $02481510 Wolf River near Landon, MS [HN-4] \\ \hline $9/20/2005 & 0800 & 122 (87-167) \\ 9/20/2005 & 0800 & 122 (87-167) \\ 9/20/2005 & 0800 & 122 (87-167) \\ 9/20/2005 & 0800 & 122 (87-167) \\ 9/20/2005 & 0800 & 122 (87-167) \\ 9/20/2005 & 0800 & 122 (87-167) \\ 9/20/2005 & 0800 & 122 (87-167) \\ 9/20/2005 & 0800 & 122 (87-167) \\ 9/20/2005 & 0800 & 122 (87-167) \\ 9/20/2005 & 0800 & 122 (87-167) \\ 9/20/2005 & 0800 & 122 (87-167) \\ 9/20/2005 & 0800 & 122 (87-167) \\ 9/20/2005 & 0800 & 122 (87-167) \\ 9/20/2005 & 0800 & 122 (87-167) \\ 9/20/2005 & 0800 & 122 (87-167) \\ 9/20/2005 & 0800 & 122 (87-167) \\ 9/20/2005 & 0800 & 122 (87-167) \\ 9/20/2005 & 0800 & 93 (88-123) \\ 10/17/2005 & 1540 & 5 (2-12) \\ \hline $0/17/2005 & 1540 & 5 (2-12) \\ \hline $0/17/2005 & 1540 & 5 (2-12) \\ \hline $0/17/2005 & 1540 & 5 (2-12) \\ \hline $0/2005 & 1410 & 12 (6-21) & 44E & 18E \\ 10/3/2005 & 1400 & 58 (42-78) \\ 10/17/2005 & 1545 & 719 (526-946) & 46E \\ 10/17/2005 & 1545 & 719 (526-946) & 46E \\ 10/17/2005 & 1545 & 719 (526-946) & 46E \\ 10/17/2005 & 1545 & 6 (2-12) \\ \hline $0/17/2005 & 1545 & 6 (2-12) \\ \hline $0/17 + 0005 & 1545 & 6 (2-12) \\ \hline $0/17 + 0005 & 1$	Sample date	Sample time	Enterococci densities analyzed by Enterolert most probable number method, MPN per 100 mL	Enterococci densities analyzed by membrane filtration, mEl agar method, CFU per 100 mL	Escherichia Coli densities analyzed by membrane filtration, modified mTEC agar method, CFU per 100 mL
301808089193955 Mississippi Sound at Bay St. Louis, MS [HKB-3]           9/20/2005         1230         148 (85-251)           9/27/2005         1150         20 (3-71)           10/4/2005         1515         <10 (0-37)					
9/20/2005 1230 148 (85-251) 9/27/2005 155 <10 (0-37) 10/12/2005 1525 31 (7-89) 10/18/2005 1450 10 (1-55) 02481524 Wolf River near Cuevas, MS [HN-1] 9/19/2005 1750 162 (115-221) 9/26/2005 1505 45 (31-61) 180 90 10/4/2005 0945 62 (24-122) 10/12/2005 1200 10 (1-55) 40E 51E 10/18/2005 1245 63 (25-127) 02481310 Bayou Portage at Cuevas, MS [HN-2] 9/19/2005 1730 91 (67-121) 9/26/2005 1458 206 (147-283) 10/3/2005 1458 206 (147-283) 10/3/2005 1155 169 (94-270) 10/18/2005 1235 41 (17-95) 02481526 DeLisle Bayou near DeLisle, MS [HN-3] 9/19/2005 1542 51 (36-69) 10/12/2005 1542 51 (36-69) 9/26/2005 1542 51 (36-69) 10/12/2005 1210 326 (270-388) 10/18/2005 1200 313 (217-440) 10/12/2005 1200 313 (217-440) 10/12/2005 1210 326 (270-388) 10/18/2005 1200 313 (217-440) 10/18/2005 1200 313 (217-440) 10/12/2005 1542 51 (36-69) 9/26/2005 1542 51 (36-69) 10/18/2005 1200 313 (217-440) 10/18/2005 1200 313 (217-440) 10/12/2005 1542 51 (36-69) 10/14/2005 1200 313 (217-440) 10/12/2005 1542 51 (36-69) 10/14/2005 1200 313 (217-440) 10/12/2005 1210 326 (270-388) 10/18/2005 1200 313 (217-440) 10/12/2005 1200 313 (217-440) 10/12/2005 1210 326 (270-388) 10/18/2005 1200 313 (217-440) 10/12/2005 1200 314 (149-222) 182 20E 02481510 Wolf River near Landon, MS [HN-4] 9/20/2005 1640 5 (2-12) 10/17/205 1540 5 (2-12) 10/17/205 1542 70 (50-95) 9/26/2005 1410 12 (6-21) 44E 18E 10/17/2005 1345 6 (2-12)	0/00/0005	30180808919395	5 Mississippi Sound a	it Bay St. Louis, MS [F	IKB-3]
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	9/20/2005	1230	148 (85-251)		
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	9/27/2005	1150	20 (3-71)		
$\begin{array}{c cccc} 10/12/2005 & 1525 & 31 (7-89) \\ 10/18/2005 & 1450 & 10 (1-55) \\ \hline \\ \hline \\ \hline \\ \hline \\ 02481524 Wolf River near Cuevas, MS [HN-1] \\ \hline \\ 9/19/2005 & 1750 & 162 (115-221) \\ \hline \\ 9/26/2005 & 1505 & 45 (31-61) & 180 & 90 \\ 10/4/2005 & 0945 & 62 (24-122) & & & & & & & & & & & & & & & & & & $	10/4/2005	1515	<10 (0-37)		
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	10/12/2005	1525	31 (7-89)		
02481524 Wolf River near Cuevas, MS [HN-1] $9/19/2005$ 1750162 (115-221) $9/26/2005$ 150545 (31-61)18090 $10/4/2005$ 094562 (24-122)10/12/2005120010 (1-55)40E51E $10/12/2005$ 120010 (1-55)40E51E10/18/2005124563 (25-127)02481310 Bayou Portage at Cuevas, MS [HN-2] $9/19/2005$ 173091 (67-121)9/26/20051458206 (147-283)100120 $10/12/2005$ 11450238 (146-358)41012010/12/205123541 (17-95)02481526 DeLisle Bayou near DeLisle, MS [HN-3] $9/19/2005$ 181842 (28-60)9/26/2005154251 (36-69)10/4/2005181842 (28-60) $9/26/2005$ 154251 (36-69)10/4/200520E02481526 DeLisle Bayou near DeLisle, MS [HN-3] $9/19/2005$ 181842 (28-60) $9/26/2005$ 154251 (36-69)10/14/2005 $10/12/2005$ 1020313 (217-440)10/12/20520E02481510 Wolf River near Landon, MS [HN-4] $9/20/2005$ 0800122 (87-167) $9/20/2005$ 080293 (68-123)10/12/205 $10/17/2005$ 140015 (8-25)10/11/20510/11/2005164270 (50-95) $9/26/2005$ 141012 (6-21)44E18E $10/3/2005$ 140058 (42-78)10/205<	10/18/2005	1450	10 (1-55)		
$\begin{array}{c c c c c c c c c c c c c c c c c c c $		02481	1524 Wolf River near C	uevas, MS [HN-1]	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	9/19/2005	1750	162 (115-221)		
$\begin{array}{c ccccc} 0.000 & 0.000 & 0.00000 & 0.00000 & 0.00000 & 0.00000 & 0.00000 & 0.00000 & 0.00000 & 0.00000 & 0.00000 & 0.00000 & 0.00000 & 0.00000 & 0.00000 & 0.00000 & 0.00000 & 0.00000000$	9/26/2005	1505	45 (31-61)	180	90
$\begin{array}{c cccc} 0.012 & 0.01 & 0.1 & (1-15) & 40E & 51E \\ \hline 10/18/2005 & 1245 & 63 & (25-127) & & & & & \\ \hline 02481310 \ Bayou \ Portage at Cuevas, MS [HN-2] & & & \\ \hline 0248130 \ Bayou \ Portage at Cuevas, MS [HN-2] & & & \\ \hline 0248130 \ Control & Control & Cuevas & Cuevas$	10/4/2005	0945	62 (24-122)	100	00
$\begin{array}{c ccccc} 103 & 1203 & 103 $	10/12/2005	1200	10 (1-55)	40F	51E
O2481310 Bayou Portage at Cuevas, MS [HN-2]           9/19/2005         1730         91 (67-121)           9/26/2005         1458         206 (147-283)           10/3/2005         1430         238 (146-358)         410         120           10/3/2005         1430         238 (146-358)         410         120           10/3/2005         1430         238 (146-358)         410         120           10/12/2005         1155         169 (94-270)         10/18/2005         1235         41 (17-95) <b>02481526 DeLisle Bayou near DeLisle, MS [HN-3]</b> 9/19/2005         1818         42 (28-60)         9/26/2005         1542         51 (36-69)           10/4/2005         1020         313 (217-440)         10/12/2005         1200         313 (217-440)           10/12/2005         1200         313 (217-440)         10/12/2005         1300         184 (149-222)         182         20E <b>02481510 Wolf River near Landon, MS [HN-4]</b> 9/20/2005         0800         122 (87-167)         9/27/2005         0802         93 (68-123)           10/12/2005         1040         15 (8-25)         10/11/2005         1420         2 (0-7) <b>02481240 Turkey Creek</b>	10/18/2005	1200	63 (25-127)	102	012
02481310 Bayou Portage at Cuevas, MS [HN-2] $9/19/2005$ 173091 (67-121) $9/26/2005$ 1458206 (147-283) $10/3/2005$ 1430238 (146-358)410 $10/3/2005$ 1430238 (146-358)410 $10/12/2005$ 1155169 (94-270) $10/12/2005$ 1123541 (17-95)D2481526 DeLisle Bayou near DeLisle, MS [HN-3] $9/19/2005$ 181842 (28-60) $9/26/2005$ 154251 (36-69) $10/4/2005$ 1020313 (217-440) $10/4/2005$ 1020313 (217-440) $10/12/2005$ 1210326 (270-388) $10/18/2005$ 1300184 (149-222)182D2481510 Wolf River near Landon, MS [HN-4] $9/20/2005$ 0800122 (87-167) $9/27/2005$ 080293 (68-123) $10/4/2005$ 104015 (8-25) $10/11/2005$ 15405 (2-12) $10/17/2005$ 154270 (50-95) $9/19/2005$ 154270 (50-95) $9/19/2005$ 154270 (50-95) $9/19/2005$ 154270 (50-95) $9/19/2005$ 154270 (50-95) $9/19/2005$ 154270 (50-95) $9/26/2005$ 141012 (6-21) $44E$ 18E $10/3/2005$ 140058 (42-78) $10/12/2005$ 1655719 (526-946) $46E$ 10/17/2005 $10/17/2005$ 13456 (2-12)	10/10/2000	1240	00 (20 121)		
$\begin{array}{c ccccc} 9/19/2005 & 1730 & 91 (67-121) \\ 9/26/2005 & 1458 & 206 (147-283) \\ 10/3/2005 & 1430 & 238 (146-358) & 410 & 120 \\ 10/12/2005 & 1155 & 169 (94-270) \\ 10/18/2005 & 1235 & 41 (17-95) \\ \hline \\ $		02481:	310 Bayou Portage at (	Cuevas, MS [HN-2]	
$\begin{array}{ccccccc} 9/26/2005 & 1458 & 206 (147-283) \\ 10/3/2005 & 1430 & 238 (146-358) & 410 & 120 \\ 10/12/2005 & 1155 & 169 (94-270) \\ 10/18/2005 & 1235 & 41 (17-95) \\ \hline & 02481526 \ DeLisle \ Bayou \ near \ DeLisle, \ MS \ [HN-3] \\ 9/19/2005 & 1818 & 42 (28-60) \\ 9/26/2005 & 1542 & 51 (36-69) \\ 10/4/2005 & 1020 & 313 (217-440) \\ 10/12/2005 & 1210 & 326 (270-388) \\ 10/18/2005 & 1300 & 184 (149-222) & 182 & 20E \\ \hline & 02481510 \ Wolf \ River \ near \ Landon, \ MS \ [HN-4] \\ 9/20/2005 & 0800 & 122 (87-167) \\ 9/27/2005 & 0800 & 122 (87-167) \\ 9/27/2005 & 0800 & 122 (87-167) \\ 9/27/2005 & 0800 & 122 (87-167) \\ 9/27/2005 & 0800 & 122 (87-167) \\ 9/27/2005 & 0800 & 122 (87-167) \\ 9/27/2005 & 1340 & 5 (2-12) \\ 10/11/2005 & 1540 & 5 (2-12) \\ 10/17/2005 & 1420 & 2 (0-7) \\ \hline & 02481240 \ Turkey \ Creek \ (Canal \ Road) \ near \ Gulfport, \ MS \ [HN-5] \\ 9/19/2005 & 1410 & 12 (6-21) & 44E & 18E \\ 10/3/2005 & 1410 & 12 (6-21) & 44E & 18E \\ 10/3/2005 & 1400 & 58 (42-78) \\ 10/12/2005 & 1655 & 719 (526-946) & 46E \\ 10/17/2005 & 1345 & 6 (2-12) \\ \hline \end{array}$	9/19/2005	1730	91 (67-121)		
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	9/26/2005	1458	206 (147-283)		
$ \begin{array}{c cccc} 10/12/2005 & 1155 & 169 (94-270) \\ 10/18/2005 & 1235 & 41 (17-95) \\ \hline \\ $	10/3/2005	1430	238 (146-358)	410	120
$\begin{array}{c ccccc} 10/18/2005 & 1235 & 41 (17-95) \\ \hline 02481526 \ DeLisle \ Bayou \ near \ DeLisle, \ MS \ [HN-3] \\ 9/19/2005 & 1818 & 42 (28-60) \\ 9/26/2005 & 1542 & 51 (36-69) \\ 10/4/2005 & 1020 & 313 (217-440) \\ 10/12/2005 & 1200 & 326 (270-388) \\ 10/18/2005 & 1300 & 184 (149-222) & 182 & 20E \\ \hline 02481510 \ Wolf \ River \ near \ Landon, \ MS \ [HN-4] \\ 9/20/2005 & 0800 & 122 (87-167) \\ 9/27/2005 & 0802 & 93 (68-123) \\ 10/4/2005 & 1040 & 15 (8-25) \\ 10/11/2005 & 1540 & 5 (2-12) \\ 10/17/2005 & 1540 & 5 (2-12) \\ 10/17/2005 & 1542 & 70 (50-95) \\ 9/26/2005 & 1410 & 12 (6-21) & 44E & 18E \\ 10/3/2005 & 1400 & 58 (42-78) \\ 10/12/2005 & 1655 & 719 (526-946) & 46E \\ 10/17/2005 & 1345 & 6 (2-12) \end{array}$	10/12/2005	1155	169 (94-270)		
$\begin{tabular}{ c c c c c } \hline 02481526 \ DeLisle Bayou near DeLisle, MS [HN-3] \\ \hline 9/19/2005 & 1818 & 42 (28-60) \\ \hline 9/26/2005 & 1542 & 51 (36-69) \\ \hline 10/4/2005 & 1020 & 313 (217-440) \\ \hline 10/12/2005 & 1210 & 326 (270-388) \\ \hline 10/18/2005 & 1300 & 184 (149-222) & 182 & 20E \\ \hline \hline 02481510 \ Wolf River near Landon, MS [HN-4] \\ \hline 9/20/2005 & 0800 & 122 (87-167) \\ \hline 9/27/2005 & 0802 & 93 (68-123) \\ \hline 10/4/2005 & 1040 & 15 (8-25) \\ \hline 10/11/2005 & 1540 & 5 (2-12) \\ \hline 10/17/2005 & 1542 & 70 (50-95) \\ \hline 9/19/2005 & 1542 & 70 (50-95) \\ \hline 9/19/2005 & 1410 & 12 (6-21) & 44E & 18E \\ \hline 10/3/2005 & 1400 & 58 (42-78) \\ \hline 10/12/2005 & 1655 & 719 (526-946) & 46E \\ \hline 10/17/2005 & 1345 & 6 (2-12) \\ \hline \end{tabular}$	10/18/2005	1235	41 (17-95)		
9/19/2005         1818         42 (28-60)           9/26/2005         1542         51 (36-69)           10/4/2005         1020         313 (217-440)           10/12/2005         1210         326 (270-388)           10/18/2005         1300         184 (149-222)         182         20E           02481510 Wolf River near Landon, MS [HN-4]           9/20/2005         0800         122 (87-167)           9/27/2005         0802         93 (68-123)           10/4/2005         1040         15 (8-25)           10/11/2005         1540         5 (2-12)           10/17/2005         1420         2 (0-7)           O2481240 Turkey Creek (Canal Road) near Gulfport, MS [HN-5]           9/19/2005         1542         70 (50-95)           9/19/2005         1542         70 (50-95)           9/26/2005         1410         12 (6-21)         44E           10/3/2005         1400         58 (42-78)           10/12/2005         1655         719 (526-946)         46E           10/17/2005         1345         6 (2-12)         44E		004045		Deliste MO (UNI 0)	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	0/40/0005	0248152	26 DeLisie Bayou near	Delisie, MS [HN-3]	
9/26/2005 1542 51 (30-69) 10/4/2005 1020 313 (217-440) 10/12/2005 1210 326 (270-388) 10/18/2005 1300 184 (149-222) 182 20E 02481510 Wolf River near Landon, MS [HN-4] 9/20/2005 0800 122 (87-167) 9/27/2005 0802 93 (68-123) 10/4/2005 1040 15 (8-25) 10/11/2005 1540 5 (2-12) 10/17/2005 1540 5 (2-12) 10/17/2005 1542 70 (50-95) 9/19/2005 1542 70 (50-95) 9/26/2005 1410 12 (6-21) 44E 18E 10/3/2005 1400 58 (42-78) 10/12/2005 1655 719 (526-946) 46E 10/17/2005 1345 6 (2-12)	9/19/2005	1818	42 (28-60)		
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	9/26/2005	1542	51 (36-69)		
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	10/4/2005	1020	313 (217-440)		
10/18/2005       1300       184 (149-222)       182       20E         02481510 Wolf River near Landon, MS [HN-4]         9/20/2005       0800       122 (87-167)         9/27/2005       0802       93 (68-123)         10/4/2005       1040       15 (8-25)         10/11/2005       1540       5 (2-12)         10/17/2005       1420       2 (0-7)         O2481240 Turkey Creek (Canal Road) near Gulfport, MS [HN-5]         9/19/2005       1542       70 (50-95)         9/26/2005       1410       12 (6-21)       44E       18E         10/3/2005       1400       58 (42-78)       10/12/2005       1655       719 (526-946)       46E         10/17/2005       1345       6 (2-12)       140       12       140       140	10/12/2005	1210	326 (270-388)	100	~~=
02481510 Wolf River near Landon, MS [HN-4]         9/20/2005       0800       122 (87-167)         9/27/2005       0802       93 (68-123)         10/4/2005       1040       15 (8-25)         10/11/2005       1540       5 (2-12)         10/17/2005       1420       2 (0-7)         O2481240 Turkey Creek (Canal Road) near Gulfport, MS [HN-5]         9/19/2005       1542       70 (50-95)         9/26/2005       1410       12 (6-21)       44E         10/3/2005       1400       58 (42-78)         10/12/2005       1655       719 (526-946)       46E         10/17/2005       1345       6 (2-12)	10/18/2005	1300	184 (149-222)	182	20E
9/20/2005 0800 122 (87-167) 9/27/2005 0802 93 (68-123) 10/4/2005 1040 15 (8-25) 10/11/2005 1540 5 (2-12) 10/17/2005 1420 2 (0-7) 02481240 Turkey Creek (Canal Road) near Gulfport, MS [HN-5] 9/19/2005 1542 70 (50-95) 9/26/2005 1410 12 (6-21) 44E 18E 10/3/2005 1400 58 (42-78) 10/12/2005 1655 719 (526-946) 46E 10/17/2005 1345 6 (2-12)		02481	510 Wolf River near L	andon. MS [HN-4]	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	9/20/2005	0800	122 (87-167)		
10/4/2005       1040       15 (8-25)         10/11/2005       1540       5 (2-12)         10/17/2005       1420       2 (0-7) <b>02481240 Turkey Creek (Canal Road) near Gulfport, MS [HN-5]</b> 9/19/2005       1542       70 (50-95)         9/26/2005       1410       12 (6-21)       44E       18E         10/3/2005       1400       58 (42-78)       10/12/2005       1655       719 (526-946)       46E         10/17/2005       1345       6 (2-12)       44E       18E	9/27/2005	0802	93 (68-123)		
10/11/2005       1540       5 (2-12)         10/17/2005       1420       2 (0-7) <b>02481240 Turkey Creek (Canal Road) near Gulfport, MS [HN-5]</b> 9/19/2005       1542       70 (50-95)         9/26/2005       1410       12 (6-21)       44E       18E         10/3/2005       1400       58 (42-78)       10/12/2005       1655       719 (526-946)       46E         10/17/2005       1345       6 (2-12)       46E       10/17/2005       1345       6 (2-12)	10/4/2005	1040	15 (8-25)		
10/17/2005       1420       2 (0-7)         02481240 Turkey Creek (Canal Road) near Gulfport, MS [HN-5]         9/19/2005       1542       70 (50-95)         9/26/2005       1410       12 (6-21)       44E       18E         10/3/2005       1400       58 (42-78)       10/12/2005       1655       719 (526-946)       46E         10/17/2005       1345       6 (2-12)       44E       46E       10/17/2005	10/11/2005	1540	5 (2-12)		
02481240 Turkey Creek (Canal Road) near Gulfport, MS [HN-5]           9/19/2005         1542         70 (50-95)           9/26/2005         1410         12 (6-21)         44E         18E           10/3/2005         1400         58 (42-78)         10/12/2005         1655         719 (526-946)         46E           10/17/2005         1345         6 (2-12)         44E         18E	10/17/2005	1420	2 (0-7)		
02481240 Turkey Creek (Canal Road) near Gulfport, MS [HN-5]           9/19/2005         1542         70 (50-95)           9/26/2005         1410         12 (6-21)         44E         18E           10/3/2005         1400         58 (42-78)         10/12/2005         1655         719 (526-946)         46E           10/17/2005         1345         6 (2-12)         4         10/12/2005         1345			- (3 / /		
9/19/2005         1542         70 (50-95)           9/26/2005         1410         12 (6-21)         44E         18E           10/3/2005         1400         58 (42-78)         10/12/2005         1655         719 (526-946)         46E           10/17/2005         1345         6 (2-12)         44E         18E		02481240 Turk	key Creek (Canal Road	) near Gulfport, MS [H	N-5]
9/26/2005141012 (6-21)44E18E10/3/2005140058 (42-78)10/12/20051655719 (526-946)46E10/17/200513456 (2-12)	9/19/2005	1542	70 (50-95)		
10/3/2005140058 (42-78)10/12/20051655719 (526-946)46E10/17/200513456 (2-12)	9/26/2005	1410	12 (6-21)	44E	18E
10/12/20051655719 (526-946)46E10/17/200513456 (2-12)	10/3/2005	1400	58 (42-78)		
10/17/2005 1345 6 (2-12)	10/12/2005	1655	719 (526-946)	46E	
	10/17/2005	1345	6 (2-12)		

Sample date	Sample time	Enterococci densities analyzed by Enterolert most probable number method, MPN per 100 mL	Enterococci densities analyzed by membrane filtration, mEl agar method, CFU per 100 mL	Escherichia Coli densities analyzed by membrane filtration, modified mTEC agar method, CFU per 100 mL			
	02491104 Pov	u Pernard (Canal Pea	d) noor London MC [L				
0/10/2005	1520	56 (29 77)	u) near Landon, wis [r	נס-אור			
9/19/2005	1350	145 (100-205)					
3/20/2005	1245	71 (50 05)					
10/3/2005	1545	7 T (50-95) 97 (64 115)					
10/11/2005	1303	07 (04-115) 24 (15 25)					
10/17/2005	1400	24 (15-55)					
	02481252 Turkey	y Creek at Creosote Ro	oad near Gulfport, MS	[HN-7]			
9/20/2005	1340	, 186 (125-269)	• *				
9/27/2005	1300	181 (104-286)	340	70			
10/4/2005	1245	63 (25-127)					
10/12/2005	0905	41 (17-95)					
10/18/2005	1430	10 (1-55)	40E	58E			
	02481	130 Biloxi River near l	Lyman, MS [HN-8]				
9/20/2005	1415	28 (18-41)					
9/27/2005	1005	63 (45-85)					
10/12/2005	1425	12 (6-21)					
10/18/2005	1000	17 (9-27)					
	02/8060	)6 Howard Creek at Ce	dar Lako MS [HN-0]				
9/20/2005	1455	101 (74-136)					
9/20/2005	0040	261 (171-308)					
3/27/2005 10/4/2005	1450	201 (171-390) 278 (262-526)	510	137			
10/4/2005	1255	210 (202-320) 210 (172-350)	510	157			
10/12/2005	1335	249 (173-330) 407 (207 556)					
10/16/2005	0940	437 (337-330)					
	02480590 Tch	outacabouffa River ne	ar D'Iberville, MS [HN	-10]			
9/20/2005	1505	1 (0-4)	· -	-			
	00400505	0					
0/00/0005	02480595	Cypress Creek near L	Diberville, NIS [HN-11]				
9/20/2005	1510	4 (2-10)					
30	301827089173955 Mississippi Sound at Henderson Point, MS [HNB-1]						
9/19/2005	1710	<10 (0-37)	, -	- <b>-</b>			
9/26/2005	1640	10 (1-55)					
10/3/2005	1550	20 (3-56)	90	10E			
10/12/2005	1110	<10 (0-37)					
10/18/2005	1200	<10 (0-37)	8E	<3			

Sample date	Sample time	Enterococci densities analyzed by Enterolert most probable number method, MPN per 100 mL	Enterococci densities analyzed by membrane filtration, mEl agar method, CFU per 100 mL	Escherichia Coli densities analyzed by membrane filtration, modified mTEC agar method, CFU per 100 mL
301843089145	255 Mississinni	Sound at Pass Christi	an Harbour at Pass Ci	hristian MS [HNB-2]
9/19/2005	1640	85 (39-156)		
9/26/2005	1605	10 (1-55)	9F	7F
10/3/2005	1520	120 (60-203)	02	<i>,</i> –
10/12/2005	1050	<10 (0-37)		
10/18/2005	1130	<10 (0 07) 41 (17-95)		
10/10/2003	1150	41 (17 55)		
	3020440890836	55 Mississippi Sound	at Long Beach, MS [H	NB-3]
9/19/2005	1620	10 (1-55)		-
9/26/2005	1430	323 (211-472)		
10/4/2005	0840	262 (166-397)		
10/12/2005	1020	109 (56-195)		
10/18/2005	1100	31 (7-89)		
30214	7089051055 Mis	sissipi Sound at Gulfpo	ort Harbor at Gulfport	, MS [HNB-4]
9/20/2005	1525	132 (71-220)		
9/27/2005	1410	40 (11-89)		
10/4/2005	1305	337 (227-480)		
10/12/2005	1005	1918 (1367-2645)		
10/18/2005	1210	<10 (0-37)		
302237	<b>/089025855 Miss</b>	sissippi Sound at Mayw	vood Road at Gulfport	, MS [HNB-5]
9/20/2005	1535	645 (460-873)		
10/4/2005	1315	73 (29-139)		
10/12/2005	1630	<10 (0-37)		
10/18/2005	1200	757 (569-985)	2500	2400
302328	088575655 Miss	issippi Sound at Broad	lwater Marina at Bilox	i, MS [HNB-6]
9/20/2005	1600	448 (302-634)		
9/27/2005	1425	63 (29-137)		
10/4/2005	1335	20 (3-71)		
10/12/2005	1615	<10 (0-37)		
10/18/2005	1145	109 (56-195)		
~~~	240000540000		of Lloubou of Dilaut M	
302	2318088512600 E	Siloxi Bay at Point Cad	et Harbor at Blioxi, M	о [цив-/]
3/20/2005 0/27/2005	1020	10 (1-00) 10 (0.027)		
9/27/2005	1440	10(0-37)		
10/4/2005	1350	<10 (0-37)		
10/12/2005	1300	<10 (0-37)		
10/18/2005	1125	<10 (0-37)		

Sample date	Sample time	Enterococci densities analyzed by Enterolert most probable number method, MPN per 100 mL	Enterococci densities analyzed by membrane filtration, mEl agar method, CFU per 100 mL	Escherichia Coli densities analyzed by membrane filtration, modified mTEC agar method, CFU per 100 mL
	02484200	Old Fart Bayay at Oas	on Chrings MC [ IV 4]	
0/20/2005	1230	10 (1-55)	an oprings, wo [JK-1]	
3/20/2003	1250	10 (1-55)		
	0248129	2 Perigal Creek near I	VIberville, MS [JK-2]	
9/20/2005	1315	27 (17-39)		
9/27/2005	0905	317 (264-378)		
10/4/2005	0930	326 (270-388)		
10/12/2005	0630	31 (21-44)		
10/17/2005	1855	4 (2-10)		
024	8129250 South	Branch Perigal Creek	near Ocean Springs, N	MS [JK-3]
9/20/2005	1250	4 (2-10)		
	02480280	) Davis Bayou at Ocea	n Springs MS [  K-/1	
9/20/2005	1155	122 (68-214)		
9/27/2005	0835	644 (446-886)		
10/4/2005	0850	86 (45-169)		
10/12/2005	1005	146 (82-246)		
10/17/2005	1810	135 (78-234)		
	02480288 \$	Simmons Bayou at Oc	ean Springs, MS [JK-5	]
9/20/2005	1125	41 (17-95)		
9/27/2005	0815	74 (36-149)		
10/4/2005	0830	98 (47-184)		
10/12/2005	0905	20 (3-71)		
10/17/2005	1755	41 (17-95)		
0/00/0005	0248028	4 Mary Walker Bayou	at Gautier, MS [JK-6]	
9/20/2005	1105	72 (53-95)		
9/26/2005	1600	461 (293-688)		
10/3/2005	1545	74 (32-144)	280	155
10/11/2005	1810	10 (1-55)		
10/17/2005	1720	10 (0-37)		
	024802	86 Bayou St. Pierre at	Gautier MS [.IK-7]	
10/11/2005	1740	10 (0-37)		
	02480285 West	Pascagoula at Highwa	y 90 at Gautier, MS [J	K-7A]
9/19/2005	1715	10 (1-55)		
9/26/2005	1545	108 (52-186)		
10/3/2005	1530	20 (3-59)		
10/17/2005	1705	<10 (0-37)		

Sample date	Sample time	Enterococci densities analyzed by Enterolert most probable number method, MPN per 100 ml	Enterococci densities analyzed by membrane filtration, mEl agar method, CEU per 100 ml	Escherichia Coli densities analyzed by membrane filtration, modified mTEC agar method, CEU per 100 ml
Sample date	Sample time			
	02480	)205 Black Creek near I	Helena, MS [JK-8]	
9/20/2005	0915	49 (36-65)		
9/26/2005	1415	91 (66-123́)	280	440
10/3/2005	1425	6 (3-14)		
10/11/2005	1525	15 (8-25)		
10/17/2005	1555	1 (0-4)		
- / /	0247109	250 Bayou Chico at Pa	scagoula, MS [JK-9]	
9/20/2005	1005	288 (183-427)		
9/26/2005	1500	1785 (1238-2505)		
10/3/2005	1455	160 (95-251)		
10/11/2005	1640	24196 (16304-47161)		
10/17/2005	1625	<10 (0-37)		
0247109	160 West Prong	Bayou Cassotte at Lou	uise Road at Pascago	ula MS [.IK-10]
9/20/2005	0950	85 (39-156)	nse rroud at i usougo	
9/26/2005	1450	3076 (1953-4712)		
10/3/2005	1430	41 (17-95)		
10/11/2005	1625	41 (17-55) 10 (1-55)		
10/17/2005	1620	<pre>-10 (1-33)</pre>		
10/11/2000	1020			
0247	7109150 Bayou (	Cassotte at Orchard Av	enue at Pascagoula,	MS [JK-11]
9/20/2005	0945	81 (37-153)		
9/26/2005	1440	121 (65-211)		
10/3/2005	1400	41 (17-95)	21E	160
10/11/2005	1615	10 (1-55)		
10/17/2005	1615	<10 (0-37)		
30242	1088495255 Bild	DXI Bay at Jackson Ave	nue at Ocean Springs	, MS [JKB-1]
9/20/2005	1210	20 (3-71)	0005	400
9/27/2005	0845	161 (93-268)	202E	130
10/4/2005	0910	52 (23-119)	405	•
10/12/2005	1025	<10 (0-37)	12E	<3
10/17/2005	1835	41 (17-95)		
302036088	320955 Mississ	ippi Sound at Country	Club Drive at Pascage	oula. MS [JKB-2]
9/20/2005	1025	<10 (0-37)		·,
9/26/2005	1515	1137 (833-1517)		
10/3/2005	1510	20 (3-71)		
10/11/2005	1705	<10 (0-37)	<3	<3
10/17/2005	1635	10 (1-55)		

Sample date	Sample time	Enterococci densities analyzed by Enterolert most probable number method, MPN per 100 mL	Enterococci densities analyzed by membrane filtration, mEl agar method, CFU per 100 mL	Escherichia Coli densities analyzed by membrane filtration, modified mTEC agar method, CFU per 100 mL
3020310	88313855 Missi	ssinni Sound near Chir	o Bayou at Pascadou	IIA MS[IKB-3]
9/20/2005	1035	<10 (0-37)	o bayou at i ascagot	
9/26/2005	1520	31 (7-89)		
10/3/2005	1515	<10 (0-37)		
10/11/2005	1655	<10 (0-37)		
10/17/2005	1645	41 (17-95)		

**Table 5.** U.S. Environmental Protection Agency criteria for Enterococci and

 *Escherichia coli* in recreational waters

[CFU, colony-forming units]

Fecal indicator bacteria	Single-sample density (CFU per 100 milliliters; not to be exceeded in more than 10 percent of samples taken over a 30-day period)*			
	Designated beach areas	Moderate full-body contact	Infrequent full- body contact	
Freshwater				
Enterococci	61	78	151	
Escherichia coli	235	298	575	
Marine water				
Enterococci	104	158	501	

\* U.S. Environmental Protection Agency (2004a)

**Table 6.** Results of bacteriological quality-assurance samples collected in the aftermath

 of Hurricane Katrina, coastal Mississippi Counties, September 19 - October 18, 2005.

[MPN, most probable number; numbers in parentheses are environmental sample results for comparison; >, greater than; QC, quality control; <, less than]

					Enterococci concentrations
					analyzed by Enterolert most
		Sample	Sample	Time	probable number method,
Sample/Site	Туре	date	time	processed	MPN per 100 mL
REPLICATES					
02481671	replicate	10/4/2005	1615	1805	41 (52)
02481526	replicate	10/12/2005	1210	1650	>2420 (326)
02481194	replicate	10/17/2005	1400	1745	14 (24)
302044089083655	replicate	10/4/2005	840	1430	148 (262)
302044089083655	replicate	10/12/2005	1020	1448	95 (109)
302044089083655	replicate	10/18/2005	1100	1615	41 (31)
302147089051055	replicate	10/4/2005	1305	1810	262 (337)
02480284	replicate	9/26/2005	1600	2040	201 (461)
02480285	replicate	9/19/2005	1715	2125	20 (10)
302421088495255	replicate	9/20/2005	1210	1635	10 (20)
302031088313855	replicate	9/26/2005	1520	2025	20 (31)
BLANKS					
Blank	QC	9/19/2005		2125	<1
Blank	QC	9/20/2005		1415	<1
Blank	QC	9/26/2005		2015	<1
Blank	QC	9/27/2005		1335	<1
Blank	QC	10/4/2005		1315	<1
Blank	QC	10/4/2005		1630	<1
Blank	QC	10/11/2005		2155	<1
Blank	QC	10/12/2005		1620	<1
Blank	QC	10/18/2005		1820	<1
Blank	QC	10/18/2005		1215	<1
Blank	QC	10/17/2005		2010	<1
Field blank	QC	10/18/2005	1030	1620	8
POSITIVE/NEGATIV	E CONTR	OLS			
Positive control	QC	9/20/2005		1710	>2400
Positive control	QC	9/27/2005		1335	>2420
Positive control	QC	10/4/2005		1630	>2420
Positive control	QC	10/12/2005		1620	>2420
Positive control	QC	10/17/2005		2015	>2420
Negative control	QC	9/20/2005		1710	<1
Negative control	QC	9/27/2005		1335	<1
Negative control	QC	10/4/2005		1630	<1
Negative control	QC	10/12/2005		1620	<1
Negative control	QC	10/17/2005		2015	<1

[cfs, cubic feet per second; NTU, Nephlometric Turbidity Units; mg/L, milligrams per liter; uS/cm, microsiemens per centimeter; C, Celsius; N, nitrogen; P, phosphorus; ug/L, micrograms per liter; compounds in **bold** were not detected in any sample]

	Reporting	
Analyte	level	Units
PHYSICAL PROPERTIES		
Discharge	0	cfs
Turbidity	0	NTU
Dissolved oxygen	0.1	ma/L
μ	0.1	На
Specific conductance	2.6	uS/cm
Temperature	0.1	C
	0.1	U
NITROGEN PHOSPHORUS CARBON AND OXYGEN DEMAND		
Ammonia plus organic nitrogen as N filtered	0.1	ma/l
Ammonia plus organic nitrogen as N unfiltered	0.1	ma/l
Ammonia as N filtered	0.04	mg/L
Nitrite plus pitrate as N. filtered	0.04	mg/L
Nitrite plus filtered	0.00	mg/L
Orthophophoto on D filtered	0.008	mg/L
Dhaanharua, filtarad	0.018	mg/L
Phosphorus, Intered	0.004	mg/L
Phosphorus, uniitered	0.004	mg/∟
Organic carbon, unfiltered	0.4	mg/L
Biochemical oxygen demand, unfiltered	1	mg/L
Chemical oxygen demand, high level, unfiltered	10	mg/L
	6 GU	
MAJOR IONS, METALS, AND RELATED CHEMISTRY (all constituents	s are from filtere	ed sample)
Calcium	0.02	mg/L
Magnesium	0.008	mg/L
Potassium	0.16	mg/L
Sodium	0.2	mg/L
Alkalinity	1	mg/L
Bicarbonate	1	mg/L
Chloride	0.2	mg/L
Fluoride	0.1	mg/L
Silica	0.04	mg/L
Sulfate	0.18	mg/L
Residue on evaporation, 180 degrees Celsius	10	mg/L
Aluminum	1.6	ug/L
Antimony	0.2	ug/L
Arsenic	0.12	ug/L
Barium	0.2	ug/L
Beryllium	0.06	ug/L
Boron	8	ug/L
Cadmium	0.04	ug/L
Chromium	0.04	ug/L
Cobalt	0.04	ug/L
Copper	0.4	ug/L
Iron	6	ug/L
Lead	0.08	ug/L
Lithium	0.6	ug/L
Manganese	0.6	ug/L
Molvbdenum	0.4	ua/L
Nickel	0.06	ug/L

	Reporting	
Analyte	level	Units
Selenium	0.08	ug/L
Silver	0.2	ug/L
Strontium	0.4	ug/L
Thallium	0.04	ug/L
Uranium, natural	0.04	ug/L
Vanadium	0.1	ug/L
Zinc	0.6	ug/L
MODERN LISE RESTICIDES AND DEGRADATES (all constituents ar	e from filtered sa	mole)
1-Nanhthol	0 0882	
2-Chloro-2 6-diethylacetanilide	0.0002	ug/L
2-5thvl-6-methylacetaninde	0.000	ug/L
3 4-Dichloroaniline	0.0045	ug/L
3.5-Dichloroaniline	0.0043	ug/L
4-Chloro-2-methylphenol	0.0040	ug/L
Acetochlor	0.0050	ug/L
Alachlor	0.000	ug/L
2 6-Diethylaniline	0.005	ug/L
	0.000	ug/L
Azinnhos-methyl	0.007	ug/L
Azinphos-methyl-oxon	0.05	ug/L
Benfluralin	0.01	ug/L
Carband	0.01	ug/L
Carbofuran	0.041	ug/L
Chlorpyrifes	0.02	ug/L
Chlorpyrios Chlorpyrofos oxygen analog	0.000	ug/L
cis-Permethrin	0.0002	ug/L
cis-Proniconazole	0.000	ug/L
Cyanazine	0.000	ug/L
Cyfluthrin	0.010	ug/L
Cynermethrin	0.0207	ug/L
Dacthal	0.0000	ug/L
2-Chloro-4-isopropylamino-6-amino-s-triazine {CIAT}	0.006	ug/L
	0.005	ug/L
Dichloryos	0.0118	ug/L
Dicrotophos	0.0843	ug/L
Dieldrin	0.009	ug/L
Dimethoate	0.0061	ug/L
Disulfoton	0.021	ug/L
Disulfoton sulfone	0.0059	ua/L
alpha-Endosulfan	0.0047	ug/L
Endosulfan sulfate	0.0138	ug/L
EPTC	0.004	ug/L
Ethion	0.004	ug/L
Ethion monoxon	0.002	ug/L
Ethoprophos	0.005	ug/L
Fenamiphos	0.029	ug/L
Fenamiphos sulfone	0.0491	ug/L
Fenamiphos sulfoxide	0.0387	ug/L
Desulfinylfipronil amide	0.029	ug/L
Fipronil sulfide	0.013	ug/L
Fipronil sulfone	0.024	ug/L
Desulfinylfipronil	0.012	ug/L

	Reporting	
Analyte	level	Units
Fipronil	0.016	ug/L
Fonofos	0.003	ug/L
Hexazinone	0.0129	ug/L
Iprodione	0.538	ug/L
Isofenphos	0.0034	ug/L
lambda-Cyhalothrin	0.0089	ug/L
Malaoxon	0.0298	ug/L
Malathion	0.027	ug/L
Metalaxyl	0.0051	ug/L
Methidathion	0.0058	ug/L
Parathion-methyl	0.015	ug/L
Metolachlor	0.006	ug/L
Metribuzin	0.006	ug/L
Molinate	0.003	ug/L
Myclobutanil	0.008	ug/L
Oxyfluorfen	0.0073	ug/L
Paraoxon-methyl	0.0299	ug/L
Pendimethalin	0.022	ug/L
Phorate Bharata annual an char	0.011	ug/L
Phorate oxygen analog	0.1048	ug/L
Phosmet	0.0079	ug/L
Promotion	0.0311	ug/L
Prometryn	0.01	ug/L
Pronyzamide	0.0034	ug/L
Pronanil	0.004	ug/L
Proparaite	0.011	ug/L
Simazine	0.025	ug/L
Tebuconazole	0.0136	ug/L
Tebuthiuron	0.016	ua/L
Tefluthrin	0.0077	ug/L
Terbufos	0.017	ug/L
Terbufos oxygen analog sulfone	0.0676	ug/L
Terbuthylazine	0.0102	ug/L
Thiobencarb	0.01	ug/L
trans-Propiconazole	0.0133	ug/L
Tribufos	0.0044	ug/L
Trifluralin	0.009	ug/L
POLAR PESTICIDES AND DEGRADATES (all constituents are from f	iltered sample)	
2.4-D	0.038	ug/L
2,4-D methyl ester	0.016	ug/L
2,4-DB	0.02	ug/L
2-Hydroxy-4-isopropylamino-6-ethylamino-s-triazine {OIET}	0.032	ug/L
3(4-Chlorophenyl)-1-methyl urea	0.036	ug/L
Acifluorfen	0.028	ug/L
Aldicarb	0.04	ug/L
Aldicarb sulfone	0.018	ug/L
Aldicarb sulfoxide	0.022	ug/L
Chloramben, methyl ester	0.024	ug/L
Atrazine	0.008	ug/L
Bendiocarb	0.02	ug/L
Benomyl	0.022	ug/L

	Reporting	
Analyte	level	Units
Bensulfuron-methyl	0.018	ug/L
Bentazon	0.012	ug/L
Bromacil	0.018	ug/L
Bromoxynil	0.028	ug/L
Caffeine	0.018	ug/L
Carbaryl	0.018	ug/L
Carbofuran	0.016	ug/L
3-Hydroxycarbofuran	0.008	ug/L
Chlorimuron-ethyl	0.032	ug/L
Clopyralid	0.024	ug/L
Cycloate	0.014	ug/L
Dacthal monoacid	0.028	ug/L
2-Chloro-4-isopropylamino-6-amino-s-triazine {CIAT}	0.028	ug/L
Chlordiamino-s-triazine	0.04	ug/L
2-Chloro-6-ethylamino-4-amino-s-triazine {CEAT}	0.08	ug/L
Dicamba	0.036	ug/L
Dichlorprop	0.028	ug/L
Dinoseb	0.038	ug/L
Diphenamid	0.01	ug/L
Diuron	0.015	ug/L
Fenuron	0.019	ug/L
Flumetsulam	0.04	ug/L
Fluometuron	0.016	ug/L
Imazaquin	0.036	ug/L
Imazethapyr	0.038	ug/L
Imidacloprid	0.02	ug/L
Linuron	0.014	ug/L
MCPA	0.03	ug/L
MCPB	0.01	ug/L
Metalaxyl	0.012	ug/L
Methiocarb Methiocarb	0.01	ug/L
Methomyl	0.02	ug/L
Metsulfuron methyl	0.025	ug/L
Neburon	0.012	ug/L
Nicosultuton	0.04	ug/L
Normurazon	0.02	ug/L
Oryzalli	0.012	ug/L
Dicloram	0.03	ug/L
Pronham	0.032	ug/L
Proniconazole	0.00	ug/L
Proposiir	0.008	ug/L
Siduron	0.02	ug/L
Sulfometuron-methyl	0.02	ug/L
	0.026	ug/L
Terbacil	0.016	ug/L
Triclopyr	0.026	ua/L
1.1		<u>-</u>
WASTE WATER ORGANIC COMPOUNDS AND DEGRADATES		
(all constituents are from filtered sample)		
Cotinine	1	ug/L
5-Methyl-1H-benzotriazole	2	ug/L
Anthraquinone	0.5	ug/L

	Reporting	
Analyte	level	Units
Acetophenone	0.5	ug/L
Acetyl hexamethyl tetrahydronaphthalene (AHTN)	0.5	ug/L
Anthracene	0.5	ug/L
1,4-Dichlorobenzene	0.5	ug/L
Benzo[a]pyrene	0.5	ug/L
Benzophenone	0.5	ug/L
Bromacil	0.5	ug/L
Bromoform	0.5	ug/L
3-tert-Butyl-4-hydroxy anisole (BHA)	5	ug/L
Caffeine	0.5	ug/L
Camphor	0.5	ug/L
Carbaryl	1	ug/L
Carbazole	0.5	ug/L
Chlorpyrifos	0.5	ug/L
Cholesterol	2	ug/L
3-beta-Coprostanol	2	ug/L
Isopropylbenzene	0.5	ug/L
N.N-diethvl-meta-toluamide (DEET)	0.5	ua/L
Diazinon	0.5	ua/L
Dichlorvos	1	ua/L
Bisphenol A	1	ua/L
Triethyl citrate (ethyl citrate)	0.5	ua/L
Tetrachloroethylene	0.5	ua/L
Fluoranthene	0.5	ua/L
Hexahydrohexamethylcyclopentabenzopyran (HHCB)	0.5	ua/L
Indole	0.5	ua/L
Isoborneol	0.5	ua/L
Isophorone	0.5	ua/L
Isoquinoline	0.5	ua/L
d-Limonene	0.5	ua/L
Menthol	0.5	ua/L
Metalaxyl	0.5	ua/L
Metolachlor	0.5	ua/L
Naphthalene	0.5	ua/L
1-Methylnaphthalene	0.5	ua/L
2.6-Dimethylnaphthalene	0.5	ua/L
2-Methylnaphthalene	0.5	ua/L
4-Nonviphenol diethoxylates	5	ua/L
4-Octvlphenol diethoxvlates	1	ua/L
4-Octviphenol monoethoxviates	1	ua/L
p-Cresol	1	ua/L
4-Cumylphenol	1	ug/L
para-Nonviphenol (total)	5	ua/L
4-n-Octvlphenol	1	ua/L
4-tert-Octvlphenol	1	ua/L
Phenanthrene	0.5	ua/L
Phenol	0.5	ug/L
Pentachlorophenol	2	ug/L
Tributyl phosphate	0.5	ug/L
Triphenyl phosphate	0.5	ug/L
Tris(2-butoxyethyl)phosphate	0.5	ug/L
Tris(2-chloroethyl)phosphate	0.5	ug/L
Prometon	0.5	ug/L

Reporting Units Analyte level Pyrene 0.5 ug/L Methyl salicylate 0.5 ug/L 3-Methyl-1(H)-indole (Skatole) ug/L 1 beta-Sitosterol 2 ug/L beta-Stigmastanol 2 ug/L Triclosan 1 ug/L Tris(dichlorisopropyl)phosphate 0.5 ug/L VOLATILE ORGANIC COMPOUNDS AND DEGRADATES (all constituents are from unfiltered sample) 1,2,3,4-Tetramethylbenzene 0.14 ug/L 1,2,3,5-Tetramethylbenzene 0.14 ug/L 2-Butanone ug/L 2 trans-1,4-Dichloro-2-butene 0.7 ug/L 2-Hexanone 0.4 ug/L 4-Methyl-2-pentanone 0.37 ug/L Acetone 6 ug/L Acrylonitrile ug/L 0.8 Benzene ug/L 0.021 1,2,3-Trichlorobenzene 0.18 ug/L 1.2.3-Trimethylbenzene 0.06 ug/L 1,2,4-Trichlorobenzene ug/L 0.12 Bromobenzene 0.028 ug/L Chlorobenzene 0.028 ug/L Ethvlbenzene ug/L 0.03 1,3-Dichlorobenzene 0.03 ug/L Butvlbenzene 0.12 ug/L n-Propylbenzene 0.042 ug/L 1,2-Dichlorobenzene 0.048 ug/L 1,4-Dichlorobenzene ug/L 0.034 sec-Butylbenzene 0.06 ug/L tert-Butvlbenzene 0.06 ua/L **Bromoethene** ug/L 0.1 Bromoform 0.1 ug/L Hexachlorobutadiene 0.14 ug/L Carbon disulfide 0.038 ug/L **Tetrachloromethane** 0.06 ug/L Chloroform ug/L 0.024 Isopropylbenzene 0.038 ug/L 1,1,1,2-Tetrachloroethane 0.03 ug/L 1,1,1-Trichloroethane 0.032 ug/L 1,1,2-Trichlorotrifluoroethane ug/L 0.038 1.2-Dibromoethane 0.036 ug/L 1.2-Dichloroethane ug/L 0.13 Hexachloroethane 0.14 ug/L 1,1,2,2-Tetrachloroethane ug/L 0.08 Chloroethane ug/L 0.12 **Diethyl ether** 0.08 ug/L Ethyl tert-butyl ether 0.03 ug/L cis-1,2-Dichloroethylene 0.024 ug/L Tetrachloroethylene 0.03 ug/L trans-1,2-Dichloroethylene 0.032 ug/L Trichloroethylene 0.038 ug/L

	Reporting	
Analyte	level	Units
1,1-Dichloroethane	0.035	ug/L
Tetrahydrofuran	1	ug/L
Diisopropyl ether	0.1	ug/L
m- and p-Xylene	0.06	ug/L
1,3,5-Trimethylbenzene	0.044	ug/L
Ethyl methacrylate	0.18	ug/L
Methyl methacrylate	0.2	ug/L
Methyl acrylonitrile	0.4	ug/L
Bromochloromethane	0.12	ug/L
Bromodichloromethane	0.028	ug/L
Dibromochloromethane	0.1	ug/L
Dichlorodifluoromethane	0.18	ug/L
Trichlorofluoromethane	0.08	ug/L
Methyl acrylate	1	ug/L
Bromomethane	0.26	ug/L
Chloromethane	0.17	ug/L
Methyl iodide	0.5	ug/L
tert-Butyl methyl ether	0.1	ug/L
Dibromomethane	0.05	ug/L
Dichloromethane	0.06	ug/L
Naphthalene	0.52	ug/L
o-Xylene	0.038	ug/L
4-Isopropyl-1-methylbenzene	0.08	ug/L
1,2,3-Trichloropropane	0.18	ug/L
1,3-Dichloropropane	0.06	ug/L
2,2-Dichloropropane	0.05	ug/L
1,2-Dibromo-3-chloropropane	0.51	ug/L
1,1-Dichloropropene	0.026	ug/L
3-Chloropropene	0.5	ug/L
cis-1,3-Dichloropropene	0.05	ug/L
trans-1,3-Dichloropropene	0.09	ug/L
1,2-Dichloropropane	0.029	ug/L
1,2,4-Trimethylbenzene	0.056	ug/L
Styrene	0.042	ug/L
tert-Pentyl methyl ether	0.04	ug/L
Toluene	0.02	ug/L
2-Chlorotoluene	0.04	ug/L
o-Ethyl toluene	0.06	ug/L
4-Chlorotoluene	0.05	ug/L
Vinyl chloride	0.08	ug/L
1,1,2-Trichloroethane	0.04	ug/L
1,1-Dichloroethylene	0.024	ug/L

[MS, Mississippi; inst, instantaneous; E, estimated (typically below laboratory reporting level); water-quality criteria values with a slash (/) are acute and chronic values, respectively, unless otherwise stated; CMC, criteria maximum concentration (related to acute toxicity); CCC, criteria continuous concentration (related to chronic toxicity); residue upon evaporation (parameter code 70300) is equivalent to total dissolved solids; recom, recommended]

Parameter			Water-quality criteria
code	Parameter name	Result	or recommendation
02475000 Le	af River near McClain, MS, Sample Date: 9/27/05, Sample Time: 1000		
Physical pro	pperties		
00061	Discharge, instantaneous, cubic feet per second	1420	
63676	Turbidity, water, unfiltered, Nephiometric Turbidity Ratio-Units	19	= ( 4 · · · · ) <sup>a</sup>
00300	Dissolved oxygen, water, untiltered, milligrams per liter	6.5	5 (4 inst)
00400	pH, water, unfiltered, field, standard units	6.5	6-9 10008
00095	Specific conductance, water, unfiltered, microsiemens per centimeter at 25 degrees Celsius	157	1000
00010	l emperature, water, degrees Celsius	27.8	32.2
Nitrogen, Pi	Ammonia plus organis nitrogon, water, filtered, milligrams per liter as nitrogon	0.41	
00625	Ammonia plus organic nitrogen, water, intered, milligrams per liter as nitrogen	0.41	
00608	Ammonia plus organic hitrogen, water, unintered, hinngranis per inter as hitrogen	0.40 E0.02	1 5-2 <sup>b</sup>
00600	Nitrite plus nitrate water filtered milligrams per liter as nitrogen	0.34	1.5-2
00613	Nitrite, water, filtered, milliorams per liter as nitrogen	0.008	
00671	Orthophosphate, water, filtered, milligrams per liter as phosphorus	0.04	
00666	Phosphorus, water, filtered, milligrams per liter	0.064	
00665	Phosphorus, water, unfiltered, milligrams per liter	0.137	0.1 <sup>°</sup>
00680	Organic carbon, water, unfiltered, milligrams per liter	8.1	
00310	Biochemical oxygen demand, water, unfiltered, 5 days at 20 degrees Celsius, milligrams per liter	2	
00340	Chemical oxygen demand, high level, water, unfiltered, milligrams per liter	20	
Major ions,	metals, and related chemistry		
00915	Calcium, water, filtered, milligrams per liter	5.36	
00925	Magnesium, water, filtered, milligrams per liter	1.57	
00935	Potassium, water, filtered, milligrams per liter	3.33	
20086	Socium, water, intered, intergrams per inter Alkalinity, water, filtered, incremental titration, field, milligrams per liter as calcium carbonate	22.4	
00453	Ricarbonate water, filtered incremental titration, field, milligrams per liter	20	
0040	Chloride water filtered milligrams per liter	15.7	860(CMC)/230(CCC) <sup>d</sup>
00940	Silica water filtered milligrams per liter	12.3	000(01110)/200(000)
00945	Sulfate, water, filtered, milligrams per liter	14.5	
70300	Residue on evanoration dried at 180 degrees Celsius water filtered milligrams per liter	112	1 500 <sup>a</sup>
01106	Aluminum water filtered micrograms per liter	21	750(CMC)/87(CCC) <sup>d</sup>
01000	Arsenic water filtered micrograms per liter	0.9	340/150 <sup>a</sup>
01000	Barium water, filtered micrograms per liter	31	50,000 (recom) <sup>c</sup>
01020	Boron water filtered micrograms per liter	20	50,000 (iccom)
01030	Chromium water filtered micrograms per liter	0.18	16/11 <sup>a</sup>
01035	Cobalt water filtered micrograms per liter	0 229	10/11
01040	Copper, water, filtered, micrograms per liter	1.3	7/5 <sup>a</sup>
01046	Iron water filtered micrograms per liter	149	1000 <sup>d</sup>
01049	Lead water filtered micrograms per liter	0.09	30/1 18 <sup>a</sup>
01130	Lithium water filtered micrograms per liter	1.2	00/1110
01056	Manganese, water, filtered, micrograms per liter	59.7	
01060	Molybdenum, water, filtered, micrograms per liter	0.4	
01065	Nickel, water, filtered, micrograms per liter	0.97	260/29 <sup>a</sup>
01080	Strontium, water, filtered, micrograms per liter	36.3	
22703	Uranium (natural), water, filtered, micrograms per liter	E0.04	
01085	Vanadium, water, filtered, micrograms per liter	1.1	
01090	Zinc, water, filtered, micrograms per liter	1.2	65/65 <sup>a</sup>
Organic che	micals		
50305	Caffeine, water, filtered, recoverable, micrograms per liter	0.028	
62083	Diethoxynonylphenol, water, filtered, recoverable, micrograms per liter	E3	
32106	Trichloromethane, water, unfiltered, recoverable, micrograms per liter	E0.02	
02478500 C	nickasawhay River at Leakesville, MS, Sample Date: 9/27/05, Sample Time: 1330		
Physical pro	percies	4750	
00061	Discharge, instantaneous, cubic feet per second	1750	
63676	I urbiaity, water, untilitered, Nephiometric I urbiaity Ratio-Units	/3	E (4 : 1)8
00300	Dissolved oxygen, water, untilitered, milligrams per liter	6.8	5 (4 inst)"
00400	pH, water, untiltered, field, standard units	6.7	6-9 <sup>4</sup>
00095	Specific conductance, water, unfiltered, microsiemens per centimeter at 25 degrees Celsius	88	1000°

Devementer			Motor quality oritoria
code	Parameter name	Result	or recommendation
00010	Temperature water degrees Celsius	28.3	32 2ª
Nitrogen, Ph	hosphorus, Carbon, and Oxygen Demand	2010	0212
00623	Ammonia plus organic nitrogen, water, filtered, milligrams per liter as nitrogen	0.22	
00625	Ammonia plus organic nitrogen, water, unfiltered, milligrams per liter as nitrogen	0.47	
00631	Nitrite plus nitrate, water, filtered, milligrams per liter as nitrogen	0.22	
00613	Nitrite, water, filtered, milligrams per liter as nitrogen	E0.004	
00666	Phosphorus, water, filtered, milligrams per liter	0.006	
00665	Phosphorus, water, unfiltered, milligrams per liter	0.052	0.1 <sup>c</sup>
00680	Organic carbon, water, unfiltered, milligrams per liter	6.9	
00340	Chemical oxygen demand, high level, water, unfiltered, milligrams per liter	20	
Major ions,	Metals, and related chemistry	0.00	
00915	Calcium, water, filtered, milligrams per liter	8.06	
00925	Potossium, water, filtered, milligrams per liter	1.5	
00935	Polassium, water, intered, minigrams per liter	5.51	
39086	Alkalinity water, filtered, incremental titration, field, milligrams per liter as calcium carbonate	21	
00453	Ricarbonate water filtered incremental titration field milliorams per liter	E25	
00433	Chloride water filtered milligrams per liter	63	860(CMC)/230(CCC) <sup>d</sup>
00940	Fluoride, water, filtered, milligrams per liter	6.5 F0.1	000(01110)/200(000)
00955	Silica water filtered milligrams per liter	10.8	
00945	Sulfate, water, filtered, milliorams per liter	4.2	
70300	Residue on evaporation dried at 180 degrees Celsius water filtered milligrams per liter	72	1 500 <sup>a</sup>
01106	Aluminum water filtered micrograms per liter	9	750(CMC)/87(CCC) <sup>d</sup>
01000	Arsenic water filtered micrograms per liter	0.5	340/150 <sup>a</sup>
01000	Barium water filtered micrograms per liter	25	50,000 (recom) <sup>c</sup>
01005	Boron water filtered micrograms per liter	19	50,000 (recom)
01020	Chromium water filtered micrograms per liter	0.09	16/11 <sup>a</sup>
01035	Cobalt water filtered micrograms per liter	0.03	10/11
01040	Copper water filtered micrograms per liter	0.7	7/5 <sup>a</sup>
01040	Iron water filtered micrograms per liter	135	1000 <sup>d</sup>
01040	Load water, filtered, micrograms per liter	E0.06	20/1 19 <sup>a</sup>
01049	Leau, water, intered, interograms per liter	13	30/1.10
01056	Manganese water filtered micrograms per liter	25.1	
01065	Nickel water, filtered micrograms per liter	0.95	260/20 <sup>a</sup>
01005	Strontium water filtered micrograms per liter	66.6	200/23
22703	Uranium (natural) water filtered micrograms per liter	F0.03	
01085	Vanadium, water, filtered, micrograms per liter	0.3	
01090	Zinc, water, filtered, micrograms per liter	0.9	65/65 <sup>ª</sup>
Organic che	micals		
62083	Diethoxynonylphenol, water, filtered, recoverable, micrograms per liter	E3	
04025	Hexazinone, water, filtered, recoverable, micrograms per liter	E0.011	
50359	Metalaxyl, water, filtered, recoverable, micrograms per liter	0.71	
04035	Simazine, water, filtered, recoverable, micrograms per liter	0.011	
02479155 C	press Creek near Janice, MS, Sample Date: 9/19/05, Sample Time: 1100		
Physical pro	perties		
00061	Discharge, instantaneous, cubic feet per second	69	
00300	Dissolved oxygen, water, unfiltered, milligrams per liter	7.7	5 (4 inst) <sup>a</sup>
00400	pH, water, unfiltered, field, standard units	5	6-9 <sup>a</sup>
00095	Specific conductance, water, unfiltered, microsiemens per centimeter at 25 degrees Celsius	23	1000 <sup>a</sup>
00010	Temperature, water, degrees Celsius	25.5	32.2 <sup>a</sup>
Nitrogen, Pł	hosphorus, Carbon, and Oxygen Demand		
00623	Ammonia plus organic nitrogen, water, filtered, milligrams per liter as nitrogen	0.42	
00625	Ammonia plus organic nitrogen, water, unfiltered, milligrams per liter as nitrogen	0.36	
00608	Ammonia, water, filtered, milligrams per liter as nitrogen	E0.02	1.5-2 <sup>b</sup>
00631	Nitrite plus nitrate, water, filtered, milligrams per liter as nitrogen	E0.05	
00666	Phosphorus, water, filtered, milligrams per liter	0.005	
00665	Phosphorus, water, unfiltered, milligrams per liter	0.011	0.1 <sup>c</sup>
00680	Organic carbon, water, unfiltered, milligrams per liter	10.1	

code         Parameter name         Result         or recommendation           00015         Calcium, water, filtered, miligrams per liter         0.76           00025         Mapacian, water, filtered, miligrams per liter         0.77           00030         Potasium, water, filtered, miligrams per liter         0.74           00040         Colocian, water, filtered, miligrams per liter         0.74           00140         Colocian, water, filtered, miligrams per liter         1.70           00030         Salota, water, filtered, miligrams per liter         1.70           00160         Antered, water, filtered, miligrams per liter         0.6         3.000 (recom) <sup>14</sup> 00160         Marker, water, filtered, micrograms per liter         0.6         3.000 (recom) <sup>14</sup> 01161         Marker, water, filtered, micrograms per liter         0.6         3.000 (recom) <sup>14</sup> 01161         Bary marker, filtered, micrograms per liter         0.6         3.000 (recom) <sup>14</sup> 01161         Bary marker, filtered, micrograms per liter         0.6         7.000 (recom) <sup>14</sup> 01161         Bary marker, filtered, micrograms per liter         0.6         7.001 (recom) <sup>14</sup> 01162         Colocian vater, filtered, micrograms per liter         0.6         7.000 (recom) <sup>14</sup> 0101	Parameter			Water-quality criteria
Major ions, metal, and related chemistry         United ions           00016         Calcium, water, fittered, miligrams per liter         0.50           00030         Socium, water, fittered, miligrams per liter         0.4           00030         Socium, water, fittered, miligrams per liter         0.4           00040         Chiotise, water, fittered, miligrams per liter         0.7           00040         Chiotise, water, fittered, miligrams per liter         0.7           00100         Assent, fittered, miligrams per liter         0.1           00100         Assent, fittered, milorograms per liter         0.1         1000.53           00100         Assent, fittered, micrograms per liter         0.1         1000.53           00100         Assent, fittered, micrograms per liter         0.0         1000.53           00100         Barum, water, fittered, micrograms per liter         0.0         1000.53           00100         Chintum, water, fittered, micrograms per liter         0.3         1000.75           00100         Chintum, water, fittered, micrograms per liter         0.3         200.118*           001000         Chintum, water, fittered, micrograms per liter         0.3         200.118*           001000         Chintum, water, fittered, micrograms per liter         0.3         200.23*	code	Parameter name	Result	or recommendation
00015         Calcium, vater, filtered, miligrams per liter         0.76           00012         Magnesium, vater, filtered, miligrams per liter         0.77           00013         Magnesium, vater, filtered, miligrams per liter         1.4           00014         Shutek, vater, filtered, miligrams per liter         1.2           00015         Sultick, vater, filtered, miligrams per liter         1.2           00016         Shutek, vater, filtered, miligrams per liter         6.6           00017         Residue on expontation, dired at 180 degrees Celsus, water, filtered, miligrams per liter         6.6           00018         Sature, water, filtered, micorgams per liter         6.6           00108         Berylium, vater, filtered, micorgams per liter         6.4           00102         Cadnium, water, filtered, micorgams per liter         6.4           01020         Cadnium, water, filtered, micorgams per liter         0.43           01020         Cadnium, water, filtered, micorgams per liter         0.43           01020         Cadnium, water, filtered, micorgams per liter         0.43           01020         Cadniu, water, filtered, micorgams per liter         0.43           01020         Lank, water, filtered, micorgams per liter         0.5           01020         Lank, water, filtered, micorgams per liter         0.	Major ions, r	netals, and related chemistry		
00135         Mageesum, water, filtered, miligrams per liter         0.71           00136         Potasim, water, filtered, miligrams per liter         2.4           00137         Potasim, water, filtered, miligrams per liter         2.4           00136         Potasim, water, filtered, miligrams per liter         0.7           00137         Situati, water, filtered, miligrams per liter         0.7           00108         Auminum, water, filtered, miligrams per liter         0.4           00100         Ansen, water, filtered, milorgrams per liter         0.6           00100         Ansen, water, filtered, milorgrams per liter         0.1           00100         Ansen, water, filtered, micorgrams per liter         0.1           00108         Boron, water, filtered, micorgrams per liter         0.4           00102         Boron, water, filtered, micorgrams per liter         0.43           00103         Chornium, water, filtered, micorgrams per liter         0.43           00104         Chornium, water, filtered, micorgrams per liter         0.43           00105         Chornium, water, filtered, micorgrams per liter         0.32           00106         Chornium, water, filtered, micorgrams per liter         0.32           00107         Last, water, filtered, micorgrams per liter         0.32 <t< td=""><td>00915</td><td>Calcium, water, filtered, milligrams per liter</td><td>0.76</td><td></td></t<>	00915	Calcium, water, filtered, milligrams per liter	0.76	
00033         Produstation, water, filtered, minigrams per filter         0.71           00343         Scolar, water, filtered, miligrams per filter         3.66           00345         Scolar, water, filtered, miligrams per filter         0.7           00346         Subtix, water, filtered, miligrams per filter         0.7           00346         Subtix, water, filtered, miliograms per filter         0.7           00368         Subtix, water, filtered, micrograms per filter         0.8         300,000 (econ)*           01068         Barium, water, filtered, micrograms per filter         0.4         1,300,53*           01020         Baroy, water, filtered, micrograms per filter         0.43         1611**           01030         Chonkin, water, filtered, micrograms per filter         0.43         1611**           01031         Chonkin, water, filtered, micrograms per filter         0.8         70.5*           01040         Coper, water, filtered, micrograms per filter         0.8         70.5*           01041         Itered, water, filtered, micrograms per filter         0.8         70.5*           01040         Libit, water, filtered, micrograms per filter         0.32         30.01.8*           01041         Libit, water, filtered, micrograms per filter         0.32         30.1.8*           01050	00925	Magnesium, water, filtered, milligrams per liter	0.509	
00330         Solutin, water, filtered, minigrams per liter         2.34         860(CMC)/230(CCC) <sup>1</sup> 00460         Chinke, water, filtered, miligrams per liter         0.7           007300         Residue on evoporation (and of al 180 degrees Celsus, water, filtered, miligrams per liter         1.4         1.500 <sup>2</sup> 01060         Assuring, water, filtered, micrograms per liter         1.6         3.000 (recon) <sup>1</sup> 01060         Assuring, water, filtered, micrograms per liter         0.1         1.500 <sup>2</sup> 01070         Barishum, water, filtered, micrograms per liter         0.4         1.740.62 <sup>2</sup> 01070         Boron, water, filtered, micrograms per liter         0.43         1.740.62 <sup>2</sup> 01070         Boron, water, filtered, micrograms per liter         0.83         16 <sup>11</sup> <sup>3</sup> 01070         Copper, water, filtered, micrograms per liter         0.83         16 <sup>11</sup> <sup>3</sup> 010710         Ladd, water, filtered, micrograms per liter         0.83         16 <sup>11</sup> <sup>3</sup> 010710         Ladd, water, filtered, micrograms per liter         0.3         20 <sup>11</sup> <sup>3</sup> 010710         Ladd, water, filtered, micrograms per liter         0.3         20 <sup>11</sup> <sup>3</sup> 010710         Ladd, water, filtered, micrograms per liter         0.3         20 <sup>11</sup> <sup>3</sup>	00935	Potassium, water, filtered, milligrams per liter	0.71	
0.004         Chrönsby, Martin, Hindred, Hindgrams partiter         3.6         6000,MR/C/SAUCC/           0.004         Statiker, winter, filtered, millegrams partiter         1.7           70300         Residue on exoporation, dired at 150 degrees Celsus, water, filtered, milligrams part liter         14         1,500 <sup>4</sup> 0.0046         Statiker, winter, filtered, micrograms per liter         0.6         5,400/500 <sup>4</sup> 0.0100         Associe, water, filtered, micrograms per liter         0.1         1,240,623 <sup>4</sup> 0.0102         Bordon, water, filtered, micrograms per liter         0.43         1,600,62 <sup>2</sup> 0.0102         Bordon, water, filtered, micrograms per liter         0.43         1,611 <sup>4</sup> 0.0130         Chronium, water, filtered, micrograms per liter         0.8         7,75 <sup>3</sup> 0.0140         Logen, water, filtered, micrograms per liter         0.8         7,75 <sup>3</sup> 0.0140         Logen, water, filtered, micrograms per liter         0.9         9           0.0140         Logen, water, filtered, micrograms per liter         0.3         200/1.8 <sup>4</sup> 0.0166         Nickel, water, filtered, micrograms per liter         0.3         200/1.8 <sup>4</sup> 0.0166         Nickel, water, filtered, micrograms per liter         0.3         200/2.4 <sup>4</sup>	00930	Sodium, water, filtered, milligrams per liter	2.34	
0039         Suita, water, lineerd, minigrants pet iter         10.3           00304         Suita, water, lineerd, micrograms pet iter         0.5           00100         Arsenic, water, lineerd, micrograms pet iter         0.6           00100         Arsenic, water, lineerd, micrograms pet iter         0.6           00100         Brain, water, lineerd, micrograms pet iter         0.6           00100         Brain, water, lineerd, micrograms pet iter         0.1           00101         Brain, water, lineerd, micrograms pet iter         0.4           00102         Brain, water, lineerd, micrograms pet iter         0.4           00103         Chronium, water, filtered, micrograms pet iter         0.43           00104         Copper, water, littered, micrograms pet iter         0.3           00105         Marganese, water, filtered, micrograms pet iter         0.3           00106         Norwater, filtered, micrograms pet iter         0.3           00106         Marganese, water, filtered, micrograms pet iter         0.3           00106         Norwater, filtered, micrograms pet iter         0.3           00105         Stonlur, water, filtered, micrograms pet iter         0.5           00106         Norwater, filtered, micrograms pet iter         0.5           00107         Carabine, water,	00940	Chloride, water, filtered, milligrams per liter	3.46	860(CMC)/230(CCC)
0000         Salada, water, filtered, micrograms per liter         10         750(CHC)87(CFC) <sup>1</sup> 01000         Aluminum, water, filtered, micrograms per liter         0.6         340/150"           01000         Assert, Mittered, micrograms per liter         0.6         340/150"           01000         Assert, Mittered, micrograms per liter         0.6         340/150"           01000         Assert, Mittered, micrograms per liter         0.6         340/150"           01001         Berginum, water, filtered, micrograms per liter         0.4         100.5.3"           01002         Chormium, water, filtered, micrograms per liter         0.63         161'11"           01003         Choker, Water, Mittered, micrograms per liter         0.63         7.5"           01040         Exox, water, filtered, micrograms per liter         0.3         30'1.8"           01041         Exox, water, filtered, micrograms per liter         0.3         260.22"           01045         Mittered, micrograms per liter         0.3         260.22"           01045         Mittered, micrograms per liter         0.3         260.22"           01045         Mittered, micrograms per liter         0.5         0.5           01045         Mittered, micrograms per liter         0.5         0.1	00955	Silica, water, filtered, milligrams per liter	12.3	
Total Actional of Network (Interd, micrograms per liter         100         7796(CMC)87(CCC) <sup>4</sup> 10108         Automin, water, filtered, micrograms per liter         0.6         340150 <sup>2</sup> 10108         Barylinn, water, filtered, micrograms per liter         0.1         1300.5.3 <sup>2</sup> 10109         Barylinn, water, filtered, micrograms per liter         0.1         1300.5.3 <sup>2</sup> 101010         Barylinn, water, filtered, micrograms per liter         0.4         1300.5.3 <sup>2</sup> 10102         Chornium, water, filtered, micrograms per liter         0.4         1300.5.3 <sup>2</sup> 10104         Copper, water, filtered, micrograms per liter         0.4         1000 <sup>4</sup> 10104         Lead, water, filtered, micrograms per liter         0.3         200.21           10105         Micrograms per liter         0.3         200.29 <sup>3</sup> 10106         Micrograms per liter         0.3         200.29 <sup>3</sup> 10105         Micrograms per liter         0.3         200.29 <sup>3</sup> 10106         Micrograms per liter         0.3         200.29 <sup>3</sup> 10108         Stontium, water, filtered, micrograms per liter         0.5         1000 <sup>4</sup> 10109         Xin, water, filtered, micrograms per liter         0.5         1000 <sup>4</sup>	70200	Besidue en suspension, dried et 190 degrees Calsius, water filtered milligrome per liter	0.7	1 500 <sup>a</sup>
0100         Ausminum, vater, fittered, micrograms per itter         100         100         100         100         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000         1000	70300	Austicuse unstan filtered, mingrams per liter	44	
01000         Arshin, water, filtered, micrograms per liter         0.0         5.0000 (recom) <sup>6</sup> 01000         Beryllum, vater, filtered, micrograms per liter         0.1         1306.3°           01020         Cardmiur, water, filtered, micrograms per liter         0.4         1406.5°           01030         Consum, water, filtered, micrograms per liter         0.43         16/11°           01030         Chonum, water, filtered, micrograms per liter         0.43         16/11°           01040         Coper, water, filtered, micrograms per liter         0.8         7/5°           01040         Loge, water, filtered, micrograms per liter         0.3         200/18°           01041         Logd, water, filtered, micrograms per liter         0.3         200/18°           01041         Logd, water, filtered, micrograms per liter         0.3         200/29°           01055         Micagenese, water, filtered, micrograms per liter         0.6         0.6           01056         Micagenese, water, filtered, micrograms per liter         0.5         0.6           01057         Zamphor, water, filtered, micrograms per liter         0.5         0.6           01058         Micagenese, water, filtered, micrograms per liter         0.5         0.1           01050         Zance, water, filtered, micrograms p	01106	Aluminum, water, filtered, micrograms per liter	190	750(CMC)/87(CCC) <sup>-</sup>
01000         Barum, water, filtered, micrograms per liter         0,1         1308.5.3 <sup>c</sup> 01010         Bergin, water, filtered, micrograms per liter         E0.02         1.740.62 <sup>a</sup> 01025         Cadmin, water, filtered, micrograms per liter         0.63         1671.5           01035         Cohomium, water, filtered, micrograms per liter         0.63         705 <sup>c</sup> 01040         Copper, water, filtered, micrograms per liter         0.63         705 <sup>c</sup> 01041         Lon, water, filtered, micrograms per liter         0.9         3.071.8 <sup>c</sup> 01041         Lon, water, filtered, micrograms per liter         0.9         3.071.8 <sup>c</sup> 01055         Manganese, water, filtered, micrograms per liter         0.9         3.071.8 <sup>c</sup> 01055         Manganese, water, filtered, micrograms per liter         0.06         3.071.8 <sup>c</sup> 01055         Vanadum, water, filtered, micrograms per liter         0.06         3.071.8 <sup>c</sup> 01050         Stontium, filtered, micrograms per liter         0.06         3.071.8 <sup>c</sup> 01050         Stontium, water, filtered, micrograms per liter         2.9         65/6 <sup>c</sup> 01050         Camphor, water, filtered, micrograms per liter         E0.1         2.7           01050         Cance, wa	01000	Arsenic, water, filtered, micrograms per liter	0.6	340/150
01010         Beryllum, vater, filtered, micrograms per liter         0.1         1306.3"           01020         Boron, water, filtered, micrograms per liter         0.4         1406.2"           01030         Chonum, water, filtered, micrograms per liter         0.43         16/11*           01030         Chonum, water, filtered, micrograms per liter         0.43         16/11*           01040         Caper, water, filtered, micrograms per liter         0.8         705*           01041         Lithum, water, filtered, micrograms per liter         0.3         200/18*           01050         Magnesee, water, filtered, micrograms per liter         0.3         200/18*           01060         Nickel, water, filtered, micrograms per liter         0.6         0.6           01080         Zincolum, water, filtered, micrograms per liter         0.6         0.6           01080         Zincolum, water, filtered, micrograms per liter         0.6         0.6           01080         Zincolum, water, filtered, micrograms per liter         0.6         0.6           01080         Zincolum, water, filtered, recoverable, micrograms per liter         0.1         7.75*           01090         Zincolum, water, filtered, recoverable, micrograms per liter         E0.1         7.75*           01090         Zincolum, water, filt	01005	Barium, water, filtered, micrograms per liter	30	50,000 (recom)°
01020         Boron, water, littered, micrograms per liter         E4           01025         Cadmin, water, littered, micrograms per liter         0.43         16*11*           01035         Cobati, water, littered, micrograms per liter         0.635         75*           01046         Copper, water, littered, micrograms per liter         0.63         75*           01046         Lon, water, littered, micrograms per liter         0.9         30           01046         Lon, water, littered, micrograms per liter         0.9         30           01056         Manganese, water, littered, micrograms per liter         0.3         280/29*           01056         Manganese, water, littered, micrograms per liter         0.6         30           01058         Vanadum, water, littered, micrograms per liter         0.6         30           01080         Zincv, water, littered, micrograms per liter         0.6         30           01080         Zincv, water, littered, micrograms per liter         2.9         65%6*           01090         Zincv, water, littered, micrograms per liter         E0.01         2.7           02020         Camphor, water, unifitered, recoverable, micrograms per liter         E0.01         2.7           12022         Cale hear Wiggins, MS, Sample Date: 90/210S, Sample Tate: 90/210S, Sample Tate: 90/210	01010	Beryllium, water, filtered, micrograms per liter	0.1	130/5.3°
01025         Cadmium, water, filtered, micrograms per liter         0.43         16/11*           01030         Chonnium, water, filtered, micrograms per liter         0.635         7/5*           01040         Copen, water, filtered, micrograms per liter         0.8         7/5*           01046         Icon, water, filtered, micrograms per liter         0.8         7/5*           01046         Icon, water, filtered, micrograms per liter         0.9         30/1.18*           01055         Minganese, water, filtered, micrograms per liter         0.3         260/29*           01005         Nickel, water, filtered, micrograms per liter         0.05         0.06           01005         Zincalum, water, filtered, micrograms per liter         0.05         0.05           01005         Zinc, water, filtered, micrograms per liter         0.05         0.05           01005         Zinc, water, filtered, micrograms per liter         0.05         0.05           01005         Zinc, water, filtered, micrograms per liter         0.02         0.05           01005         Zinc, water, filtered, micrograms per liter         0.02         0.02           01005         Zinc, water, filtered, micrograms per liter         0.02         0.1           01005         Zinc, water, filtered, micrograms per liter         0.02	01020	Boron, water, filtered, micrograms per liter	E4	
01030         Chomium, water, filtered, micrograms per liter         0.43         16/11*           01035         Cobust, water, filtered, micrograms per liter         0.8         7/5*           01046         Copper, water, filtered, micrograms per liter         0.9         0.32         30/1.18*           01046         Inv, water, filtered, micrograms per liter         0.9         0.32         30/1.18*           01055         Micket, water, filtered, micrograms per liter         0.32         30/1.18*           01056         Micket, water, filtered, micrograms per liter         0.06         0.06           01055         Vinket, water, filtered, micrograms per liter         0.06         0.06           01080         Strontum, water, filtered, micrograms per liter         0.06         0.06           01080         Zince, water, filtered, recoverable, micrograms per liter         0.06         0.07           01090         Zince, water, filtered, recoverable, micrograms per liter         E0.1         0.27           02020         Camphor, water, filtered, recoverable, micrograms per liter         E0.2         0.27           03030         Discharge, nistanianeous, cubic fiet per second         384         0.000*           03030         Discharge, nistanianeous, cubic fiet per second         5.7         6.4*3*	01025	Cadmium, water, filtered, micrograms per liter	E0.02	1.74/0.62°
01040         Coppr, water, filtered, micrograms per liter         0.8         7/5 <sup>4</sup> 01040         Coppr, water, filtered, micrograms per liter         0.3         100 <sup>4</sup> 01049         Lead, water, filtered, micrograms per liter         0.3         30/1.18 <sup>2</sup> 01130         Lithum, water, filtered, micrograms per liter         0.3         260/29 <sup>4</sup> 01055         Micagnese, water, filtered, micrograms per liter         0.6         260/29 <sup>4</sup> 01080         Xinonium, water, filtered, micrograms per liter         0.6         0.5           01080         Zino, water, filtered, micrograms per liter         0.6         0.6           01090         Zinc, water, filtered, micrograms per liter         0.6         0.6           01090         Zinc, water, filtered, micrograms per liter         0.6         0.6           01090         Zinc, water, filtered, recoverable, micrograms per liter         E0.1         2.0           02070         Campbor, water, filtered, recoverable, micrograms per liter         E2.1         2.3         6300/500° <sup>5</sup> 00410         Dickarge, filtered, recoverable, micrograms per liter         E2.1         2.3         2.4           00521         Actone, water, unfiltered, micrograms per liter         E3.4         1.0         1.0	01030	Chromium, water, filtered, micrograms per liter	0.43	16/11 <sup>a</sup>
01040         Copper, water, filtered, micrograms per liter         496         1000 <sup>4</sup> 01046         Lead, water, filtered, micrograms per liter         0.9         30/1.18 <sup>4</sup> 01130         Lithum, water, filtered, micrograms per liter         0.9         47.5           01055         Nickel, water, filtered, micrograms per liter         0.9         47.5           01055         Nickel, water, filtered, micrograms per liter         0.66         67.6           01055         Vanadium, water, filtered, micrograms per liter         0.66         67.6           01050         Strontum, water, filtered, micrograms per liter         0.6         67.6           01050         Zinc, water, filtered, recoverable, micrograms per liter         E0.1         67.6           00505         Caffene, water, filtered, recoverable, micrograms per liter         E0.1         77.5           00505         Caffene, water, filtered, recoverable, micrograms per liter         E2         30.0         5           00510         Dicker, water, filtered, recoverable, micrograms per liter         E2         30.0         5           00525         Acadoue, water, unfiltered, recoverable, micrograms per liter         E2         30.0         5           00526         Dicker, water, filtered, micrograms per liter         E2         34.0	01035	Cobalt, water, filtered, micrograms per liter	0.635	
01046         Iton, water, filtered, micrograms per liter         496         1000 <sup>4</sup> 01049         Lack, water, filtered, micrograms per liter         0.9         3071.18 <sup>4</sup> 01056         Manganese, water, filtered, micrograms per liter         47.5           01066         Nickel, water, filtered, micrograms per liter         0.6           01080         Strontium, water, filtered, micrograms per liter         0.6           01080         Zinc, water, filtered, micrograms per liter         0.6           01080         Zinc, water, filtered, micrograms per liter         0.6           01080         Zinc, water, filtered, micrograms per liter         0.5           01080         Zinc, water, filtered, micrograms per liter         0.6           02070         Caraphor, water, filtered, recoverable, micrograms per liter         E0.1           02070         Camphor, water, filtered, recoverable, micrograms per liter         E0.3           03020         Discharge, inistantaneous, cubic feet per second         384           03030         Discharge, instantaneous, cubic feet per second         384           03040         phi, water, unfiltered, recoverable, micrograms per liter         6.9         5 (4 inst) <sup>4</sup> 03040         phi, water, unfiltered, necoverable, micrograms per liter         100.0°         2.2	01040	Copper, water, filtered, micrograms per liter	0.8	7/5ª
01049         Lead, water, littered, micrograms per liter         0.32         301.18 <sup>b</sup> 01130         Lithum, water, filtered, micrograms per liter         47.5           01065         Nickel, water, filtered, micrograms per liter         8.66           02703         Lithum, water, filtered, micrograms per liter         0.66           01080         Strontium, water, filtered, micrograms per liter         0.5           01090         Zince, water, filtered, recoverable, micrograms per liter         0.6           01090         Zince, water, filtered, recoverable, micrograms per liter         0.08           01090         Zince, water, filtered, recoverable, micrograms per liter         E0.1           50305         Caffeine, water, filtered, recoverable, micrograms per liter         E0.1           62070         Camphor, water, filtered, recoverable, micrograms per liter         E0.1           7356         41 Sopropholitoure, water, unlittered, recoverable, micrograms per liter         E2           90010         Tolkene, water, unlittered, recoverable, micrograms per liter         E2           90021         Biascher Geoverable, micrograms per liter         E2           900310         Discharge, instantaneous, cubic feet per second         384           900305         Specific conductance, water, unlitered, milingrams per liter as nitrogen         0.32 </td <td>01046</td> <td>Iron, water, filtered, micrograms per liter</td> <td>496</td> <td>1000<sup>a</sup></td>	01046	Iron, water, filtered, micrograms per liter	496	1000 <sup>a</sup>
01130       Lithium, water, filtered, micrograms per liter       0.9         01056       Magnaese, water, filtered, micrograms per liter       1.03       260/29*         01060       Strontium, water, filtered, micrograms per liter       0.06       0.06         01080       Strontium, water, filtered, micrograms per liter       0.05       0.06         01080       Zinc, water, filtered, micrograms per liter       0.5       0.5         01080       Zinc, water, filtered, micrograms per liter       E0.028       5         02070       Cardinen, water, filtered, recoverable, micrograms per liter       E0.1       5         50305       Caffeine, water, filtered, recoverable, micrograms per liter       E0.1       5         50207       Camphor, water, filtered, recoverable, micrograms per liter       E0.2       5         50305       Caffeine, water, unlitered, recoverable, micrograms per liter       E0.4       5         50301       Toluene, water, unlitered, recoverable, micrograms per liter       E2       3       3       1000°         20479160       Black Creek near Wiggins, MS, Sample Dates 9/2205, Sample Time: 1015       5       6       10         79xical properties	01049	Lead, water, filtered, micrograms per liter	0.32	30/1.18 <sup>a</sup>
01056         Marganese, water, filtered, micrograms per liter         47.5           01068         Strontium, water, filtered, micrograms per liter         0.3         260/29 <sup>a</sup> 01080         Strontium, water, filtered, micrograms per liter         0.5         0.06           01080         Vicanium (naturally, water, filtered, micrograms per liter         0.5         0.06           01080         Zince, water, filtered, micrograms per liter         E0.1         2.9         65/66 <sup>a</sup> 07ganic chemicals         E0.1         E0.1         2.9         65/66 <sup>a</sup> 07ganic chemicals         E0.1         E0.1         2.9         65/66 <sup>a</sup> 07305         Caffeine, water, filtered, recoverable, micrograms per liter         E0.1         2.2         65/00 <sup>o</sup> 2047         Discharge, instantaneous, cubic feet per second         384         0.000 <sup>o</sup> 2.2           00051         Discharge, instantaneous, cubic feet per second         384         1000 <sup>a</sup> 3.2.2 <sup>a</sup> 00055         Specific conductance, water, unfiltered, miligrams per liter as nitrogen         0.3         2.2 <sup>a</sup> 2.2 <sup>a</sup> 00050         Discharge, instantaneous, cubic feet per second         384         1000 <sup>a</sup> 0.000 <sup>a</sup> 00061         Temperature, wate	01130	Lithium, water, filtered, micrograms per liter	0.9	
01065         Nickel, water, filtered, micrograms per liter         1.03         260/29 <sup>3</sup> 01080         Strontum, water, filtered, micrograms per liter         0.66           01080         Zinc, water, filtered, micrograms per liter         0.5           01080         Zinc, water, filtered, micrograms per liter         0.5           01080         Zinc, water, filtered, micrograms per liter         E0.028           02021         Camphor, water, filtered, necoverable, micrograms per liter         E0.1           02022         Camphor, water, filtered, necoverable, micrograms per liter         E0.1           02023         Camphor, water, filtered, necoverable, micrograms per liter         E0.1           02024         DET, water, filtered, necoverable, micrograms per liter         E2           34010         Toluene, water, unfiltered, recoverable, micrograms per liter         E2           34010         Toluene, water, unfiltered, recoverable, micrograms per liter         6.9         5 (4 inst) <sup>1</sup> 000300         Discharge, instantaneous, cubic feet per second         384         10000 <sup>a</sup> 00400         pH, water, unfiltered, milligrams per liter as nitrogen         0.32         2.4 <sup>a</sup> 00401         Temperature, water, filtered, milligrams per liter as nitrogen         0.32         2.4 <sup>a</sup> 00525 <td>01056</td> <td>Manganese, water, filtered, micrograms per liter</td> <td>47.5</td> <td></td>	01056	Manganese, water, filtered, micrograms per liter	47.5	
01080         Strontium, water, filtered, micrograms per liter         8.66           02703         Uranium (natural), water, filtered, micrograms per liter         0.5           01080         Zinc, water, filtered, micrograms per liter         2.9         65/65*           02gnic chemicals         E0.028         E0.028           50305         Caffeine, water, filtered, recoverable, micrograms per liter         E0.1         E0.1           62007         Camphor, water, mittered, recoverable, micrograms per liter         E0.1         E0.1           7356         4-Jsoprophotulene, water, untiltered, recoverable, micrograms per liter         E2         6300/5000°           2047160         Datek Creek near Wiggins, MS, Sample Date: 9/22/05, Sample Time: 1015         Physical properties         5.7         6-9°           00061         Discharge, instantaneous, cubic feet per second         384         1000°         1000°           00016         Discharge, instantaneous, cubic feet per second         34         1000°         32           00065         Specific conductance, water, unfiltered, miligrams per liter         6.9         5 (4 inst) <sup>a</sup> 00005         Specific conductance, water, unfiltered, miligrams per liter as nitrogen         0.35         32.2 <sup>a</sup> 00010         Temperature, water, degrees Celsius         3.2 <td< td=""><td>01065</td><td>Nickel, water, filtered, micrograms per liter</td><td>1.03</td><td>260/29<sup>a</sup></td></td<>	01065	Nickel, water, filtered, micrograms per liter	1.03	260/29 <sup>a</sup>
22703         Uranium (natural), water, filtered, micrograms per liter         0.66           01080         Zinc, water, filtered, micrograms per liter         2.9         65/65 <sup>a</sup> 07030         Candium, water, filtered, micrograms per liter         E0.1         50305         Caffeine, water, filtered, recoverable, micrograms per liter         E0.1         E0.1         50305         Caffeine, water, filtered, recoverable, micrograms per liter         E0.1         E0.1         50305         Caffeine, water, filtered, recoverable, micrograms per liter         E0.1         E0.02         50307         Camphor, water, militered, recoverable, micrograms per liter         E0.1         E0.02         50307/5000 <sup>c</sup> 50307/5000 <sup>c</sup> 202791500 Black Creek near Wiggins, MS, Sample Date: 9/22/05, Sample Time: 1015         Physical properties         E         50005         5000/5000 <sup>c</sup> 203000         Discharge, instantaneous, cubic feet per second         384         1000 <sup>a</sup> 384         1000 <sup>a</sup> 003000         Dissohved oxygen, water, unfiltered, milligrams per liter         6.9         5 (4 inst) <sup>a</sup> 5.7         6-9 <sup>a</sup> 00400         pH, water, degrees Celsius         3.4         1000 <sup>a</sup> 32.2 <sup>a</sup> Nitrogen, Phosphorus, Carbon, and Oxygen Demand         2.8         32.2 <sup>a</sup> 3.2           00523	01080	Strontium, water, filtered, micrograms per liter	8.66	
01085         Vanadium, water, filtered, micrograms per liter         0.5           01090         Zinc, water, filtered, micrograms per liter         2.9         65/65 <sup>a</sup> 02030         Caffeine, water, filtered, micrograms per liter         E0.1         2.9         65/65 <sup>a</sup> 02030         Caffeine, water, filtered, recoverable, micrograms per liter         E0.1         E0.1         2.9         65/05 <sup>a</sup> 02030         Caffeine, water, filtered, recoverable, micrograms per liter         E0.1         E0.2         E1552         Acetone, water, unfiltered, recoverable, micrograms per liter         E2         0.27         6300/5000 <sup>c</sup> 02479160         Black Creek near Wiggins, MS, Sample Date: 9/22/05, Sample Time: 1015         Prysical properties         5.7         6.9 <sup>a</sup> 5 (4 inst) <sup>a</sup> 000051         Discharge, instantaneous, cubic fet per second         28.4         1000 <sup>a</sup> 1000 <sup>a</sup> 00010         Dissolved oxygen, water, differed, milligrams per liter as nitrogen         0.32         2.8         32.2 <sup>a</sup> 100052         Specific conductance, water, unfiltered, milligrams per liter as nitrogen         0.32         2.4 <sup>a</sup> 1000 <sup>a</sup> 00052         Ammonia plus organic nitrogen, water, unfiltered, milligrams per liter         0.017         0.1 <sup>c</sup> 0.1 <sup>c</sup> 0.006	22703	Uranium (natural), water, filtered, micrograms per liter	0.06	
01030         Zinc, water, filtered, micrograms per liter         2.9         65/65 <sup>4</sup> 50305         Carlfeine, water, filtered, recoverable, micrograms per liter         E0.1         50305           62070         Camphor, water, filtered, recoverable, micrograms per liter         E0.1         50305           62070         Camphor, water, filtered, recoverable, micrograms per liter         E0.1         50.1           73366         4-lsopropytholuene, water, unfiltered, recoverable, micrograms per liter         E2         34010         Toluene, water, unfiltered, recoverable, micrograms per liter         E2           34010         Toluene, water, unfiltered, recoverable, micrograms per liter         0.27         6300/5000 <sup>c</sup> 02473160         Black Creek near Wiggins, MS, Sample Date: 9/22/05, Sample Time: 1015         Physical properties         0.27         6300/5000 <sup>c</sup> 00061         Dissolved oxygen, water, unfiltered, milligrams per liter         8.9         5 (4 inst) <sup>a</sup> 6.9         5 (4 inst) <sup>a</sup> 00010         Temperature, degrees Celsius         3.4         1000 <sup>a</sup> 3.2.2 <sup>a</sup> Nitrogen, Phosphorus, Qarbon, and Oxygen Demand         0.35         6.6         6.0.5           00625         Ammonia plus organic nitrogen, water, filtered, milligrams per liter as nitrogen         0.32         6.0         6.0	01085	Vanadium, water, filtered, micrograms per liter	0.5	
Organic chemicals         E0.028           50305         Caffeine, water, filtered, recoverable, micrograms per liter         E0.1           62070         Camphor, water, filtered, recoverable, micrograms per liter         E0.1           62082         DET, water, filtered, recoverable, micrograms per liter         E0.02           81552         Acetone, water, unfiltered, recoverable, micrograms per liter         E0.02           34010         Toluene, water, unfiltered, recoverable, micrograms per liter         E2           00061         Dischargo, instantaneous, cubic feet per second         384           000300         Dissolved oxygen, water, unfiltered, miligrams per liter         6.9         5 (4 inst) <sup>a</sup> 000400         pH, water, unfiltered, miligrams per liter as nitrogen         384         1000 <sup>a</sup> 00010         Temperature, water, degrees Celsius         26.8         32.2 <sup>a</sup> Nitrogen, Phosphorus, Carbon, and Oxygen Demand         0.35         00052           00666         Phosphorus, water, unfiltered, miligrams per liter as nitrogen         0.32           00668         Phosphorus, water, unfiltered, miligrams per liter as nitrogen         0.32           00668         Phosphorus, water, unfiltered, miligrams per liter         0.017         0.1 <sup>c</sup> 00668         Phosphorus, water, unfiltered, miligrams p	01090	Zinc, water, filtered, micrograms per liter	2.9	65/65 <sup>a</sup>
50305         Caffeine, water, filtered, recoverable, micrograms per liter         E0.1           62070         Camphor, water, filtered, recoverable, micrograms per liter         E0.1           77356         4-lesprozyholuene, water, unfiltered, recoverable, micrograms per liter         E0.2           34010         Toluene, water, unfiltered, recoverable, micrograms per liter         E2           34010         Toluene, water, unfiltered, recoverable, micrograms per liter         E2           02479160         Black Creek near Wiggins, MS, Sample Date: 9/22/05, Sample Time: 1015         Physical properties           00061         Discharge, instantaneous, cubic feet per second         384           000300         Dissolved oxygen, water, unfiltered, microslemens per centimeter at 25 degrees Celsius         34         1000°           00061         Discharge, Celsius         26.8         32.2°         Nitrogen, Phosphorus, avet, degrees Celsius         34         1000°           00052         Ammonia plus organic nitrogen, water, filtered, milligrams per liter as nitrogen         0.32         0.32           00666         Phosphorus, water, filtered, milligrams per liter as nitrogen         0.32         0.06           00666         Phosphorus, water, filtered, milligrams per liter         0.017         0.1°           00666         Phosphorus, water, filtered, milligrams per liter <t< td=""><td>Organic che</td><td>micals</td><td></td><td></td></t<>	Organic che	micals		
62070         Camphor, water, filtered, recoverable, micrograms per liter         E0.1           62082         DEET, water, filtered, recoverable, micrograms per liter         E0.2           81552         Acetone, water, unfiltered, recoverable, micrograms per liter         E2           34010         Toluene, water, unfiltered, recoverable, micrograms per liter         0.27           6300/5000 <sup>c</sup> State, unfiltered, recoverable, micrograms per liter         0.27           6300/5000 <sup>c</sup> Discharge, instantaneous, cubic feet per second         384           00300         Discharge, instantaneous, cubic feet per second         384           00400         pH, water, unfiltered, field, standard units         5.7         6.9 <sup>d</sup> 000901         Temperature, water, degrees Celsius         34         1000 <sup>a</sup> 00010         Temperature, water, degrees Celsius         26.8         32.2 <sup>a</sup> Nitrogen, Phosphorus, Carbon, and Oxygen Demand         0.35         0.32           00623         Armonia plus organic nitrogen, water, filtered, milligrams per liter as nitrogen         0.32           00655         Phosphorus, water, filtered, milligrams per liter         0.017         0.1 <sup>d</sup> 00666         Phosphorus, water, milleren milligrams per liter         1.03         0.007         0.1 <sup>d</sup> 0.1 <sup>d</sup> <td>50305</td> <td>Caffeine, water, filtered, recoverable, micrograms per liter</td> <td>E0.028</td> <td></td>	50305	Caffeine, water, filtered, recoverable, micrograms per liter	E0.028	
62082         DEET, water, filtered, recoverable, micrograms per liter         E0.1           77356         4-isopropytitoune, water, unfiltered, recoverable, micrograms per liter         E2           3401         Toluene, water, unfiltered, recoverable, micrograms per liter         0.27         6300/5000 <sup>c</sup> 22479160         Black Creek near Wiggins, MS, Sample Date: 9/22/05, Sample Time: 1015         Physical properties         384           00001         Discharge, instantaneous, cubic feet per second         384         6.9         5 (4 inst) <sup>4</sup> 00400         PL vater, unfiltered, field, standard units         5.7         6.9 <sup>8</sup> 0000 <sup>6</sup> 00400         PL vater, unfiltered, field, standard units         5.7         6.9 <sup>8</sup> 0000 <sup>6</sup> 00400         PL vater, unfiltered, field, standard units         5.7         6.9 <sup>8</sup> 0000 <sup>6</sup> 00401         Temperature, water, degrees Celsius         3.4         1000 <sup>6</sup> 000 <sup>6</sup> 00402         Ammonia plus organic nitrogen, water, filtered, milligrams per liter as nitrogen         0.32         0.32           00623         Ammonia plus organic nitrogen per liter         0.008         0.006         0.006         0.007         0.16 <sup>6</sup> 006665         Phosphorus, water, filtered, milligrams per liter         1.03	62070	Camphor, water, filtered, recoverable, micrograms per liter	E0.1	
77365       4-isopropytioluene, water, unfiltered, recoverable, micrograms per liter       E0.02         941552       Acetone, water, unfiltered, recoverable, micrograms per liter       0.27       6300/5000 <sup>c</sup> 02479160       Black Creek near Wiggins, MS, Sample Date: 9/22/05, Sample Time: 1015       Physical properties       0.27       6300/5000 <sup>c</sup> 00061       Discharge, instantaneous, cubic feet per second       384       384         000300       Discharge, instantaneous, cubic feet per second       384       1000 <sup>a</sup> 000915       Discharge, instantaneous, cubic feet per second       384       1000 <sup>a</sup> 000925       Specific conductance, water, unfiltered, microsiemens per centimeter at 25 degrees Celsius       34       1000 <sup>a</sup> 000926       Specific conductance, water, unfiltered, milligrams per liter as nitrogen       0.35       0.35         Nitrogen, Phosphorus, Carbon, and Oxygen Demand       0.32       0.0631       0.0625       Ammonia plus organic nitrogen, water, unfiltered, milligrams per liter as nitrogen       0.32       0.0665       Phosphorus, water, infiltered, milligrams per liter       0.017       0.1 <sup>e</sup> 00666       Phosphorus, water, filtered, milligrams per liter       0.017       0.1 <sup>e</sup> 0.4 <sup>e</sup> 00935       Calcium, water, filtered, milligrams per liter       1.03       0.00935       0.0066	62082	DEET, water, filtered, recoverable, micrograms per liter	E0.1	
81552         Acetone, water, unfiltered, recoverable, micrograms per liter         E2           34010         Toluene, water, unfiltered, recoverable, micrograms per liter         0.27         6300/5000 <sup>c</sup> 02479160         Black Creek near Wiggins, MS, Sample Date: 9/22/05, Sample Time: 1015         Physical properties         384           00061         Discharge, instantaneous, cubic feet per second         384         0300         Dissolved oxygen, water, unfiltered, milligrams per liter         6.9         5 (4 inst) <sup>a</sup> 00061         Discharge, instantaneous, cubic feet per second         384         1000 <sup>a</sup> 00090         Dissolved oxygen, water, unfiltered, milligrams per liter as nitrogen         5.7         6-9 <sup>a</sup> 000905         Specific conductance, water, digrees Celsius         34         1000 <sup>a</sup> 00010         Temperature, water, digrees Celsius         34         1000 <sup>a</sup> 001022         Ammonia plus organic nitrogen, water, filtered, milligrams per liter as nitrogen         0.35           00105         Phosphorus, water, filtered, milligrams per liter         0.017         0.1 <sup>c</sup> 00866         Phosphorus, water, filtered, milligrams per liter         0.017         0.1 <sup>c</sup> 00860         Organic carbon, water, infiltered, milligrams per liter         1.03         00317         0.1 <sup>c</sup> <td>77356</td> <td>4-Isopropyltoluene, water, unfiltered, recoverable, micrograms per liter</td> <td>E0.02</td> <td></td>	77356	4-Isopropyltoluene, water, unfiltered, recoverable, micrograms per liter	E0.02	
34010         Toluene, water, unfiltered, recoverable, micrograms per liter         0.27         63300/5000 <sup>c</sup> 02479160         Black Creek near Wiggins, MS, Sample Date: 9/22/05, Sample Time: 1015           Physical properties         384           00300         Discharge, instantaneous, cubic feet per second         384           00300         Discolved oxygen, water, unfiltered, milligrams per liter         6.9         5 (4 inst) <sup>a</sup> 00400         pH, water, unfiltered, microsiemens per centimeter at 25 degrees Celsius         34         1000 <sup>a</sup> 00010         Temperature, water, degrees Celsius         26.8         32.2 <sup>a</sup> Nitrogen, Phosphorus, Carbon, and Oxygen Demand         0.35         0.05           00622         Armmonia plus organic nitrogen, water, filtered, milligrams per liter as nitrogen         0.32           00651         Phosphorus, water, unfiltered, milligrams per liter as nitrogen         0.32           00665         Phosphorus, water, unfiltered, milligrams per liter         0.008           006665         Phosphorus, water, unfiltered, milligrams per liter         1.4           00830         Chemical oxygen demand, high level, water, unfiltered, milligrams per liter         1.0           00915         Calcium, water, filtered, milligrams per liter         1.4           00825         Calcium, water,	81552	Acetone, water, unfiltered, recoverable, micrograms per liter	E2	
02479160 Black Creek near Wiggins, MS, Sample Date: 9/22/05, Sample Time: 1015           Physical properties           00061         Discharge, instantaneous, cubic feet per second         384           00300         Discolved oxygen, water, unfiltered, milligrams per liter         6.9         5 (4 inst) <sup>a</sup> 00400         pH, water, unfiltered, milligrams per liter         6.9         5.7         6.9 <sup>a</sup> 00400         pH, water, unfiltered, milligrams per liter as 125 degrees Celsius         34         1000 <sup>a</sup> 00010         Temperature, water, degrees Celsius         26.8         32.2 <sup>a</sup> Nitrogen, Phosphorus, Carbon, and Oxygen Demand         26.8         32.2 <sup>a</sup> 00625         Ammonia plus organic nitrogen, water, filtered, milligrams per liter as nitrogen         0.32           00665         Phosphorus, water, filtered, milligrams per liter         0.007         0.1 <sup>c</sup> 00665         Phosphorus, water, filtered, milligrams per liter         10         0.017         0.1 <sup>c</sup> 00935         Calcium, water, filtered, milligrams per liter         1.03         0.008         0.0093         60(CMC)/230(CCC) <sup>d</sup> 00930         Sodium, water, filtered, milligrams per liter         1.03         0.00 <sup>d</sup> 0.00 <sup>d</sup> 0.00 <sup>d</sup> 0.00 <sup>d</sup> 0.00 <sup>d</sup> 0.0	34010	Toluene, water, unfiltered, recoverable, micrograms per liter	0.27	6300/5000 <sup>°</sup>
Prystan program38400061Discharge, instantaneous, cubic feet per second38400300Dissolved oxygen, water, unfiltered, milligrams per liter6.95 (4 inst) <sup>a</sup> 00400pH, water, unfiltered, field, standard units5.7 $6 \cdot 9^a$ 00095Specific conductance, water, unfiltered, microsiemens per centimeter at 25 degrees Celsius34 $1000^a$ 00010Temperature, water, degrees Celsius26.8 $32 \cdot 2^a$ Nitrogen, Phosphorus, Carbon, and Oxygen Demand0.350.3200623Ammonia plus organic nitrogen, water, filtered, milligrams per liter as nitrogen0.3200631Nitrite plus nitrate, water, filtered, milligrams per liter as nitrogen0.017 $0.1^c$ 00666Phosphorus, water, unfiltered, milligrams per liter0.0080.0017 $0.1^c$ 00880Organic carbon, water, unfiltered, milligrams per liter100.004Major ions, metals, and related chemistry11.480.003000935Potassium, water, filtered, milligrams per liter1.030.093500945Sulface, water, filtered, milligrams per liter1.030.00400945Sulface, water, filtered, milligrams per liter1.7750(CMC)/230(CCC)^d00945Sulface, water, filtered, milligrams per liter1.7750(CMC)/37(CCC)^d00945Sulface, water, filtered, milligrams per liter1.7750(CMC)/37(CCC)^d00945Sulface, water, filtered, milligrams per liter2.950.000 (recom)^c01100Arsenic, water, filtered, microgram	02479160 Bla	ack Creek near Wiggins, MS, Sample Date: 9/22/05, Sample Time: 1015		
OutputDisclarge, instantaneous, unfiltered, milligrams per liter6.95 (4 inst) <sup>a</sup> 00300Discloved oxygen, water, unfiltered, milligrams per liter6.95 (4 inst) <sup>a</sup> 00400pH, water, unfiltered, field, standard units5.76-9 <sup>a</sup> 00905Specific conductance, water, unfiltered, milligrams per liter as 125 degrees Celsius341000 <sup>a</sup> 00010Temperature, water, degrees Celsius26.832.2 <sup>a</sup> Nitrogen, Phosphorus, Carbon, and Oxygen Demand0.3500623Ammonia plus organic nitrogen, water, unfiltered, milligrams per liter as nitrogen0.3200631Nitrite plus nitrate, water, filtered, milligrams per liter as nitrogen0.03200666Phosphorus, water, unfiltered, milligrams per liter0.0170.1 <sup>c</sup> 00666Phosphorus, water, unfiltered, milligrams per liter70.00800666Organic carbon, water, unfiltered, milligrams per liter1.40.01700340Chemical oxygen demand, high level, water, unfiltered, milligrams per liter1.030.01700340Chemical oxygen demand, high level, water, unfiltered, milligrams per liter1.030.09300355Potassium, water, filtered, milligrams per liter1.030.09400356Suffate, water, filtered, milligrams per liter1.11.100357Potassium, water, filtered, milligrams per liter3.85860(CMC)/230(CCC) <sup>d</sup> 00350Solium, water, filtered, milligrams per liter1.11.700360Amsteria, filtered, milligrams per liter1.41.500 <sup>a</sup> <td>00061</td> <td>Discharge instantaneous, cubic feet per second</td> <td>384</td> <td></td>	00061	Discharge instantaneous, cubic feet per second	384	
00000Dissibility water, fullifiered, field, standard unitis5.76.9°00005Specific conductance, water, unfiltered, microsiemens per centimeter at 25 degrees Celsius341000°00010Temperature, water, degrees Celsius26.832.2°Nitrogen, Phosphorus, Carbon, and Oxygen Demand00623Ammonia plus organic nitrogen, water, filtered, milligrams per liter as nitrogen0.3500625Ammonia plus organic nitrogen, water, filtered, milligrams per liter as nitrogen0.3200631Nitrite plus nitrate, water, filtered, milligrams per liter as nitrogen0.01700665Phosphorus, water, unfiltered, milligrams per liter0.008006665Phosphorus, water, unfiltered, milligrams per liter0.01700800Organic carbon, water, unfiltered, milligrams per liter10Major ions, metals, and related chemistry1.4800915Calcium, water, filtered, milligrams per liter1.0300933Sodium, water, filtered, milligrams per liter1.0900930Sodium, water, filtered, milligrams per liter1.0900930Sodium, water, filtered, milligrams per liter1.770300Residue on evaporation, dried at 180 degrees Celsius, water, filtered, milligrams per liter1.770300Residue on evaporation, dried at 180 degrees Celsius, water, filtered, milligrams per liter2.900945Sulfate, water, filtered, milligrams per liter2.900945Solica, water, filtered, milligrams per liter2.900945Solica water, filtered, millograms per liter2.9<	00001	Discharge, Instantatieuus, cubic leet per second	504	5 (1 inct) <sup>a</sup>
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00095       Specific conductance, water, initiated, militorsemens per centimeter at 25 degrees Celsius       34       1000         00010       Temperature, water, degrees Celsius       26.8       32.2°         Nitrogen, Phosphorus, Carbon, and Oxygen Demand       0.35       00623       Ammonia plus organic nitrogen, water, initered, milligrams per liter as nitrogen       0.32         00623       Ammonia plus organic nitrogen, water, filtered, milligrams per liter as nitrogen       0.32         00666       Phosphorus, water, filtered, milligrams per liter as nitrogen       0.008         00665       Phosphorus, water, unfiltered, milligrams per liter       0.017       0.1°         00666       Organic carbon, water, unfiltered, milligrams per liter       10       100         00665       Phosphorus, water, unfiltered, milligrams per liter       10       100         00666       Organic carbon, water, unfiltered, milligrams per liter       10       100         00915       Calcium, water, filtered, milligrams per liter       1.48       00025         00925       Magnesium, water, filtered, milligrams per liter       1.03       1.03         00930       Sodium, water, filtered, milligrams per liter       1.6       1.7         00940       Chloride, water, filtered, milligrams per liter       1.7       750(CMC)/87(CCC)^d	00400	pri, water, unintered, neid, standard units	5.7	0-9 4000 <sup>a</sup>
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O0025Potassium, water, filtered, milligrams per liter1.0900930Sodium, water, filtered, milligrams per liter2.6400940Chloride, water, filtered, milligrams per liter3.85860(CMC)/230(CCC)^d00955Silica, water, filtered, milligrams per liter1100945Sulfate, water, filtered, milligrams per liter1100946Chloride, water, filtered, milligrams per liter1.770300Residue on evaporation, dried at 180 degrees Celsius, water, filtered, milligrams per liter4401106Aluminum, water, filtered, micrograms per liter7001000Arsenic, water, filtered, micrograms per liter0.801005Barium, water, filtered, micrograms per liter2901005Barium, water, filtered, micrograms per liter2901010Beryllium, water, filtered, micrograms per liter1401020Boron, water, filtered, micrograms per liter0.327	00925	Magnesium water filtered milligrams per liter	1.03	
00930Sodium, water, filtered, milligrams per liter2.6400940Chloride, water, filtered, milligrams per liter3.85860(CMC)/230(CCC)^d00955Silica, water, filtered, milligrams per liter1100945Sulfate, water, filtered, milligrams per liter1100945Sulfate, water, filtered, milligrams per liter1.770300Residue on evaporation, dried at 180 degrees Celsius, water, filtered, milligrams per liter441,500 <sup>a</sup> 01106Aluminum, water, filtered, micrograms per liter70750(CMC)/87(CCC)^d01000Arsenic, water, filtered, micrograms per liter0.8340/150 <sup>a</sup> 01005Barium, water, filtered, micrograms per liter2950,000 (recom) <sup>c</sup> 01010Beryllium, water, filtered, micrograms per liter14100201020Boron, water, filtered, micrograms per liter0.32716/11 <sup>a</sup>	00935	Potassium, water, filtered, milliorams per liter	1.09	
00940Chloride, water, filtered, milligrams per liter3.85860(CMC)/230(CCC)^d00955Silica, water, filtered, milligrams per liter1100945Sulfate, water, filtered, milligrams per liter1.770300Residue on evaporation, dried at 180 degrees Celsius, water, filtered, milligrams per liter4401106Aluminum, water, filtered, micrograms per liter7001000Arsenic, water, filtered, micrograms per liter0.801005Barium, water, filtered, micrograms per liter2901005Barium, water, filtered, micrograms per liter2901010Beryllium, water, filtered, micrograms per liter1401020Boron, water, filtered, micrograms per liter1401030Chromium, water, filtered, micrograms per liter0.22016/11a0.2216/11a	00930	Sodium, water, filtered, milligrams per liter	2.64	
00955Silica, water, filtered, milligrams per liter1100945Sulfate, water, filtered, milligrams per liter1.770300Residue on evaporation, dried at 180 degrees Celsius, water, filtered, milligrams per liter441,500°01106Aluminum, water, filtered, micrograms per liter70750(CMC)/87(CCC)°01000Arsenic, water, filtered, micrograms per liter0.8340/150°01005Barium, water, filtered, micrograms per liter2950,000 (recom)°01010Beryllium, water, filtered, micrograms per liter1401020Boron, water, filtered, micrograms per liter1401030Chromium, water, filtered, micrograms per liter0.2201035Cobalt water, filtered, micrograms per liter0.337	00940	Chloride, water, filtered, milligrams per liter	3.85	860(CMC)/230(CCC) <sup>d</sup>
00945Sulfate, water, filtered, milligrams per liter1.770300Residue on evaporation, dried at 180 degrees Celsius, water, filtered, milligrams per liter441,500°01106Aluminum, water, filtered, micrograms per liter70750(CMC)/87(CCC)°01000Arsenic, water, filtered, micrograms per liter0.8340/150°01005Barium, water, filtered, micrograms per liter2950,000 (recom)°01010Beryllium, water, filtered, micrograms per liter1401020Boron, water, filtered, micrograms per liter1401030Chromium, water, filtered, micrograms per liter0.2201035Cobalt water, filtered, micrograms per liter0.337	00955	Silica, water, filtered, milligrams per liter	11	
70300Residue on evaporation, dried at 180 degrees Celsius, water, filtered, milligrams per liter441,500°01106Aluminum, water, filtered, micrograms per liter70750(CMC)/87(CCC)°01000Arsenic, water, filtered, micrograms per liter0.8340/150°01005Barium, water, filtered, micrograms per liter2950,000 (recom)°01010Beryllium, water, filtered, micrograms per liter130/5.3°01020Boron, water, filtered, micrograms per liter1401030Chromium, water, filtered, micrograms per liter0.2216/11°0.337	00945	Sulfate, water, filtered, milligrams per liter	1.7	
01106Aluminum, water, filtered, micrograms per liter70 $750(CMC)/87(CCC)^d$ 01000Arsenic, water, filtered, micrograms per liter0.8 $340/150^a$ 01005Barium, water, filtered, micrograms per liter29 $50,000 (recom)^c$ 01010Beryllium, water, filtered, micrograms per liter1401020Boron, water, filtered, micrograms per liter1401030Chromium, water, filtered, micrograms per liter0.2201035Cobalt water filtered, micrograms per liter0.337	70300	Residue on evaporation, dried at 180 degrees Celsius, water, filtered, milligrams per liter	44	1.500 <sup>a</sup>
01100Arsenic, water, filtered, micrograms per liter0.8340/150°01005Barium, water, filtered, micrograms per liter2950,000 (recom)°01010Beryllium, water, filtered, micrograms per literE0.06130/5.3°01020Boron, water, filtered, micrograms per liter1401030Chromium, water, filtered, micrograms per liter0.2216/11°01035Cobalt water filtered micrograms per liter0.337	01106	Aluminum water filtered micrograms per liter	70	750(CMC)/87(CCC) <sup>d</sup>
01005Barium, water, filtered, micrograms per liter0.0540/15001005Beryllium, water, filtered, micrograms per liter2950,000 (recom)°01010Beryllium, water, filtered, micrograms per literE0.06130/5.3°01020Boron, water, filtered, micrograms per liter1401030Chromium, water, filtered, micrograms per liter0.2216/11°01035Cobalt water filtered micrograms per liter0.337	01000	Arsenic water filtered micrograms per liter	0.8	340/150 <sup>a</sup>
01000     Deryllium, water, filtered, micrograms per liter     29     50,000 (fec0fif)       01010     Beryllium, water, filtered, micrograms per liter     E0.06     130/5.3°       01020     Boron, water, filtered, micrograms per liter     14       01030     Chromium, water, filtered, micrograms per liter     0.22     16/11 <sup>a</sup> 01035     Cobalt water filtered micrograms per liter     0.337	01005	Barium water filtered micrograms per liter	20	50 000 (recom) <sup>c</sup>
0100     Bernmann, water, intered, micrograms per liter     14       01030     Chromium, water, filtered, micrograms per liter     0.22       01035     Cobalt water filtered micrograms per liter     0.337	01005	Danum, water, mereu, merograme per mer	23	120/E 2 <sup>C</sup>
01020     boon, water, inteleg, intelogrants per liter     14       01030     Chromium, water, filtered, micrograms per liter     0.22     16/11 <sup>a</sup> 01035     Cobalt water filtered micrograms per liter     0.37	01010	Derymum, water, illered, micrograms per liter	EU.U6	130/5.3
01035 Cobalt water filtered micrograms per liter 0.327	01020	Chromium water, filtered micrograms per liter	14	16/118
	01030	Cobalt water filtered micrograms per liter	0.22	10/11

Parameter	Parameter name	Posult	Water-quality criteria
01040	Copper water filtered micrograme per liter	0.5	7/58
01040	Iron weter filtered micrograms per liter	400	1000 <sup>d</sup>
01046		409	1000 20/4 40 <sup>a</sup>
01049	Lead, water, intered, micrograms per liter	0.20	30/1.10
01150	Manganese, water filtered micrograms per liter	50	
01050	Nickel water filtered micrograms per liter	0.77	260/20 <sup>8</sup>
01005	Colonium unter filtered, micrograms per liter	0.77	200/29
01145	Strentium, water, filtered, micrograms per liter	EU.4	11.8/4.0
22703	Uranium (natural) water filtered micrograms per liter	F0.03	
01085	Vanadium water filtered micrograms per liter	0.4	
01000	Zine water filtered micrograms per liter	1.4	65/65 <sup>a</sup>
Organic che	micals	1.4	00/00
50305	Caffeine water filtered recoverable micrograms per liter	E0.093	
34010	Toluene, water, unfiltered, recoverable, micrograms per liter	E0.030	6300/5000°
04010		20.00	0000/0000
02479160 Bl Physical pro	ack Creek near Wiggins, MS, Sample Date: 9/29/05, Sample Time: 1430 perties		
00061	Discharge, instantaneous, cubic feet per second	404	
63676	Turbidity, water, unfiltered, Nephlometric Turbidity Ratio-Units	5	
00300	Dissolved oxygen, water, unfiltered, milligrams per liter	6.8	5 (4 inst) <sup>a</sup>
00400	pH, water, unfiltered, field, standard units	5.8	6-9 <sup>a</sup>
00095	Specific conductance, water, unfiltered, microsiemens per centimeter at 25 degrees Celsius	62	1000 <sup>a</sup>
00010	Temperature, water, degrees Celsius	27.6	32.2 <sup>a</sup>
Nitrogen, Ph	osphorus, Carbon, and Oxygen Demand		
00623	Ammonia plus organic nitrogen, water, filtered, milligrams per liter as nitrogen	0.38	
00625	Ammonia plus organic nitrogen, water, unfiltered, milligrams per liter as nitrogen	0.35	
00608	Ammonia, water, filtered, milligrams per liter as nitrogen	E0.02	1.5-2 <sup>b</sup>
00631	Nitrite plus nitrate, water, filtered, milligrams per liter as nitrogen	E0.06	
00666	Phosphorus, water, filtered, milligrams per liter	0.005	
00665	Phosphorus, water, unfiltered, milligrams per liter	0.014	0.1 <sup>c</sup>
00680	Organic carbon, water, unfiltered, milligrams per liter	8.3	
00340	Chemical oxygen demand, high level, water, unfiltered, milligrams per liter	20	
Major ions, I	netals, and related chemistry		
00915	Calcium, water, filtered, milligrams per liter	2.46	
00925	Magnesium, water, filtered, milligrams per liter	2.27	
00935	Potassium, water, filtered, milligrams per liter	1.25	
00930	Sodium, water, filtered, milligrams per liter	3.99	
39086	Alkalinity, water, filtered, incremental titration, field, milligrams per liter as calcium carbonate	5	
00455	Chlarida weter filtered, incremental unation, neid, minigrams per inter	0	
00940	Chioride, water, filtered, milligrams per liter	6.83 E0.1	860(CIMC)/230(CCC)
00950	Silica water, filtered, milligrams per liter	E0.1	
00933	Sulfate water, filtered, millionams per liter	71	
70300	Residue on evaporation, dried at 180 degrees Calcius, water, filtered, milligrams per liter	65	1 500 <sup>a</sup>
01106	Aluminum water filtered micrograms per liter	47	750(CMC)/87(CCC) <sup>d</sup>
01100	Aranninum, water, mered, micrograms per liter	47	750(CINC)/87(CCC)
01000	Alsenic, water, intered, micrograms per inter	0.7	540/150
01005	Barium, water, filtered, micrograms per liter	43	50,000 (recom)
01010	Beryllium, water, filtered, micrograms per liter	E0.04	130/5.3
01020	Boron, water, filtered, micrograms per liter	55	10/112
01030	Chromium, water, filtered, micrograms per liter	0.2	16/11
01030	Conner water, filtered, micrograms per liter	0.502	7/5 <sup>a</sup>
01046	Iron water filtered micrograms per liter	261	1000 <sup>d</sup>
01040	Lood water, filtered micrograms per liter	0.12	30/1 18 <sup>a</sup>
01049	Lithium water filtered micrograms per liter	13	30/1.10
01056	Manganese water filtered micrograms per liter	61.3	
01065	Nickel water, filtered micrograms per liter	01.0	260/29 <sup>a</sup>
01080	Strontium water filtered micrograms per liter	17 7	200/23
22703	Uranium (natural) water filtered micrograms per liter	F0.03	
01085	Vanadium, water, filtered, micrograms per liter	0.3	
01090	Zinc, water, filtered, micrograms per liter	11	65/65 <sup>a</sup>
0.000			00,00

Parameter	Parameter name	Result	Water-quality criteria
Organic che	micals	Result	or recommendation
62085	4-Nonylphenol, water, filtered, recoverable, micrograms per liter	E2	
50305	Caffeine, water, filtered, recoverable, micrograms per liter	0.08	
62082	DEET, water, filtered, recoverable, micrograms per liter	E0.1	
62083	Diethoxynonylphenol, water, filtered, recoverable, micrograms per liter	E10	
34010	Toluene, water, unfiltered, recoverable, micrograms per liter	E0.09	6300/5000 <sup>c</sup>
02479300 Re	ed Creek at Vestry, MS, Sample Date: 9/20/05, Sample Time: 1500		
00061	Discharge instantaneous cubic feet per second	369	
00300	Dissolved oxygen water unfiltered milligrams per liter	6.4	5 (4 inst) <sup>a</sup>
00400	pH water unfiltered field standard units	6	6-Q <sup>a</sup>
00400	Provide conductores, water unfiltered microsiemens per contineter at 25 degrees Coloius	41	1000 <sup>a</sup>
00095	Specific conductance, water, unintered, microslemens per centimeter at 25 degrees celsius	41	1000 22.2 <sup>a</sup>
Nitrogen, Ph	remperature, water, degrees Celsius	28.3	32.2
00623	Ammonia plus organic nitrogen, water, filtered, milligrams per liter as nitrogen	0.37	
00625	Ammonia plus organic nitrogen, water, unfiltered, milligrams per liter as nitrogen	0.36	
00631	Nitrite plus nitrate, water, filtered, milligrams per liter as nitrogen	E0.05	
00666	Phosphorus, water, filtered, milligrams per liter	0.008	
00665	Phosphorus, water, unfiltered, milligrams per liter	0.023	0.1°
00680	Organic carbon, water, unfiltered, milligrams per liter	8.4	
00340	Chemical oxygen demand, high level, water, unfiltered, milligrams per liter	20	
Major ions,	metals, and related chemistry		
00915	Calcium, water, filtered, milligrams per liter	1.77	
00925	Magnesium, water, filtered, milligrams per liter	0.891	
00935	Potassium, water, filtered, milligrams per liter	1.21	
00930	Sodium, water, filtered, milligrams per liter	3.78	
00940	Chloride, water, filtered, milligrams per liter	5.9	860(CMC)/230(CCC) <sup>a</sup>
00955	Silica, water, filtered, milligrams per liter	12.1	
00945	Sulfate, water, filtered, milligrams per liter	1.5	
70300	Residue on evaporation, dried at 180 degrees Celsius, water, filtered, milligrams per liter	55	1,500 <sup>a</sup>
01106	Aluminum, water, filtered, micrograms per liter	66	750(CMC)/87(CCC) <sup>d</sup>
01000	Arsenic, water, filtered, micrograms per liter	0.7	340/150 <sup>a</sup>
01005	Barium, water, filtered, micrograms per liter	38	50,000 (recom) <sup>c</sup>
01010	Beryllium, water, filtered, micrograms per liter	0.09	130/5.3 <sup>c</sup>
01020	Boron, water, filtered, micrograms per liter	12	
01025	Cadmium, water, filtered, micrograms per liter	E0.03	1.74/0.62 <sup>a</sup>
01030	Chromium, water, filtered, micrograms per liter	0.3	16/11 <sup>a</sup>
01035	Cobalt, water, filtered, micrograms per liter	0.27	
01040	Copper, water, filtered, micrograms per liter	0.9	7/5 <sup>a</sup>
01046	Iron, water, filtered, micrograms per liter	386	1000 <sup>d</sup>
01049	Lead, water, filtered, micrograms per liter	0.2	30/1.18 <sup>a</sup>
01130	Lithium, water, filtered, micrograms per liter	1.1	
01056	Manganese, water, filtered, micrograms per liter	31.6	
01065	Nickel, water, filtered, micrograms per liter	0.9	260/29 <sup>a</sup>
01145	Selenium, water, filtered, micrograms per liter	E0.3	11.8/4.6 <sup>a</sup>
01080	Strontium, water, filtered, micrograms per liter	24.2	
22703	Uranium (natural), water, filtered, micrograms per liter	E0.03	
01085	Vanadium, water, filtered, micrograms per liter	0.4	
01090	Zinc, water, filtered, micrograms per liter	3	65/65 <sup>a</sup>
Organic che	micals		
50305	Caffeine, water, filtered, recoverable, micrograms per liter	E0.106	
62082	DEET, water, filtered, recoverable, micrograms per liter	E0.1	
04025	Hexazinone, water, filtered, recoverable, micrograms per liter	E0.009	
39415	Metolachior, water, filtered, recoverable, micrograms per liter	E0.005	
81002	Acetone, water, unintered, recoverable, micrograms per inter	EI	0000/50000
34010	I oluene, water, unfiltered, recoverable, micrograms per liter	E0.08	6300/5000°
02479300 Re Physical pro	ed Creek at Vestry, MS, Sample Date: 9/29/05, Sample Time: 1030 perties		
00061	Discharge, instantaneous, cubic feet per second	400	
63676	Turbidity, water, unfiltered, Nephlometric Turbidity Ratio-Units	7	
00300	Dissolved oxygen, water, unfiltered, milligrams per liter	6.6	5 (4 inst) <sup>a</sup>
00400	pH water unfiltered field standard units	5.6	6-9 <sup>a</sup>
00095	Specific conductance water unfiltered microsiemens per centimeter at 25 degrees Calsius	44	1000ª
00030	Temperature water degrees Celsius	 26 6	32 2 <sup>a</sup>
00010	remperature, water, degrees delsius	20.0	32.2

Parameter			Water-quality criteria
Code	Parameter name	Result	or recommendation
00623	Ammonia plus organic nitrogen water filtered milligrams per liter as nitrogen	0.36	
00625	Ammonia plus organic nitrogen, water, unfiltered, milligrams per liter as nitrogen	0.42	
00631	Nitrite plus nitrate, water, filtered, milligrams per liter as nitrogen	E0.06	
00666	Phosphorus, water, filtered, milligrams per liter	0.008	
00665	Phosphorus, water, unfiltered, milligrams per liter	0.024	0.1 <sup>c</sup>
00680	Organic carbon, water, unfiltered, milligrams per liter	10.3	
00310	Biochemical oxygen demand, water, unfiltered, 5 days at 20 degrees Celsius, milligrams per liter	21	
00340	Chemical oxygen demand, high level, water, unfiltered, milligrams per liter	60	
Major ions,	metals, and related chemistry		
00915	Calcium, water, filtered, milligrams per liter	1.79	
00925	Magnesium, water, filtered, milligrams per liter	0.917	
00935	Potassium, water, filtered, milligrams per liter	1.52	
00930	Sodium, water, filtered, milligrams per liter	3.9	
39086	Aikaining, water, filtered, incremental titration, field, milligrams per liter as calcium carbonate	1	
00455	Chlarida water, filtered, inclemental turation, neid, minigrams per inter	1	
00940	Chlonde, water, filtered, milligrame per liter	0.4	000(CIVIC)/230(CCC)
00935	Sulfate water filtered milligrams per liter	12.1	
70200	Posiduo on overperation, dried at 190 degrees Colsius, water filtered, milligrams per liter	1.5	1 500 <sup>a</sup>
70300	Aluminum water filtered misrograme per liter	02	750(CMC)/07(CCC) <sup>d</sup>
01106	Aluminum, water, intered, micrograms per inter	93	750(CIVIC)/87(CCC)
01000	Arsenic, water, filtered, micrograms per liter	0.6	340/150
01005	Barium, water, filtered, micrograms per liter	40	50,000 (recom)°
01010	Beryllium, water, filtered, micrograms per liter	0.06	130/5.3°
01020	Boron, water, filtered, micrograms per liter	18	
01025	Cadmium, water, filtered, micrograms per liter	E0.03	1.74/0.62
01030	Chromium, water, filtered, micrograms per liter	0.33	16/11ª
01035	Cobalt, water, filtered, micrograms per liter	0.272	9
01040	Copper, water, filtered, micrograms per liter	1	7/5°
01046	Iron, water, filtered, micrograms per liter	444	1000°
01049	Lead, water, filtered, micrograms per liter	0.28	30/1.18ª
01130	Lithium, water, filtered, micrograms per liter	0.8	
01056	Manganese, water, filtered, micrograms per liter	31.6	9
01065	Nickel, water, filtered, micrograms per liter	1.09	260/29ª
01080	Strontium, water, filtered, micrograms per liter	23.7	
22703	Vanadium (natural), water, intered, micrograms per liter	E0.04	
01085	Vanadium, water, intered, micrograms per inter	0.4	05/058
01090	Zinc, water, filtered, micrograms per litter	4.3	65/65
50305	Caffaine water filtered recoverable micrograms per liter	0 123	
62082	DEET water filtered recoverable micrograms per liter	0.123 E0.1	
81552	Acetone water unfiltered recoverable micrograms per liter	F2	
34010	Toluene water unfiltered recoverable micrograms per liter	0.11	6300/5000°
54010	roldene, water, unintered, recoverable, micrograms per inter	0.11	0300/3000
02479330 Pa	scagoula River at Cumbest Bluff, MS, Sample Date: 9/27/05, Sample Date: 1700		
Physical pro	perties		
63676	Turbidity, water, unfiltered, Nephlometric Turbidity Ratio-Units	26	
00300	Dissolved oxygen, water, unfiltered, milligrams per liter	6.7	5 (4 inst) <sup>a</sup>
00400	pH. water, unfiltered, field, standard units	6.7	6-9 <sup>a</sup>
00095	Specific conductance, water, unfiltered, microsiemens per centimeter at 25 degrees Celsius	91	1000 <sup>a</sup>
00010	Temperature water degrees Celsius	28.5	32.2ª
Nitrogen, Pl	osphorus. Carbon, and Oxygen Demand	2010	02.12
00623	Ammonia plus organic nitrogen, water, filtered, milligrams per liter as nitrogen	0.28	
00625	Ammonia plus organic nitrogen, water, unfiltered, milligrams per liter as nitrogen	0.51	
00631	Nitrite plus nitrate, water, filtered, milligrams per liter as nitrogen	0.16	
00613	Nitrite, water, filtered, milligrams per liter as nitrogen	E0.004	
00666	Phosphorus, water, filtered, milligrams per liter	0.014	
00665	Phosphorus, water, unfiltered, milligrams per liter	0.061	0.1 <sup>c</sup>
00680	Organic carbon, water, unfiltered, milligrams per liter	8.7	
00310	Biochemical oxygen demand, water, unfiltered, 5 days at 20 degrees Celsius, milligrams per liter	3	
00340	Chemical oxygen demand, high level, water, unfiltered, milligrams per liter	20	

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Parameter	Perameter name	Popult	Water-quality criteria
Maior ions r	Parameter name	Result	or recommendation
00915	Calcium, water, filtered, milligrams per liter	4.52	
00925	Magnesium, water, filtered, milligrams per liter	1.23	
00935	Potassium, water, filtered, milligrams per liter	1.85	
00930	Sodium, water, filtered, milligrams per liter	9.77	
39086	Alkalinity, water, filtered, incremental titration, field, milligrams per liter as calcium carbonate	17	
00453	Bicarbonate, water, filtered, incremental titration, field, milligrams per liter	20	
00940	Chloride, water, filtered, milligrams per liter	8.36	860(CMC)/230(CCC) <sup>a</sup>
00955	Silica, water, filtered, milligrams per liter	11.3	
70200	Sunate, water, intered, minigrams per inter	1	1 500 <sup>a</sup>
70300	Residue on evaporation, dried at 180 degrees Celsius, water, filtered, milligrams per liter	11	1,500°
01106	Aluminum, water, filtered, micrograms per liter	32	750(CINC)/87(CCC)
01000	Arsenic, water, filtered, micrograms per liter	0.7	340/150
01005	Barlum, water, filtered, micrograms per liter	32	50,000 (recom)
01010	Beryllium, water, filtered, micrograms per liter	E0.03	130/5.3
01020	Chromium water, filtered, micrograms per liter	23	16/11 <sup>a</sup>
01030	Coholt water, filtered micrograms per liter	0.19	10/11
01035	Copport water, filtered, micrograms per liter	0.15	7/5 <sup>a</sup>
01040	Iron water, intered, micrograms per liter	0.0	1000 <sup>d</sup>
01040	Lood water, filtered, micrograms per liter	490	20/1 19 <sup>a</sup>
01049	Leau, water, intereu, interograms per liter	0.1	30/1.10
01056	Manganese water filtered micrograms per liter	43.9	
01060	Molybdenum, water, filtered, micrograms per liter	E0.2	
01065	Nickel, water, filtered, micrograms per liter	0.91	260/29 <sup>a</sup>
01080	Strontium, water, filtered, micrograms per liter	38.7	
22703	Uranium (natural), water, filtered, micrograms per liter	E0.04	
01085	Vanadium, water, filtered, micrograms per liter	0.4	
01090	Zinc, water, filtered, micrograms per liter	1.4	65/65 <sup>a</sup>
Organic che	nicals		
50305	Caffeine, water, filtered, recoverable, micrograms per liter	0.03	
04025	Hexazinone, water, filtered, recoverable, micrograms per liter	E0.009	
34443	Naphthalene, water, filtered, recoverable, micrograms per liter	E0.1	2300/620
34010	Toluene, water, unfiltered, recoverable, micrograms per liter	E0.03	6300/5000°
02479560 Es	catawpa River near Agricola, MS, Sample Date: 9/20/05, Sample Time: 1045		
Physical pro	perties		
00061	Discharge, instantaneous, cubic feet per second	343	
00300	Dissolved oxygen, water, unfiltered, milligrams per liter	6.6	5 (4 inst) <sup>a</sup>
00400	pH, water, unfiltered, field, standard units	5.5	6-9 <sup>a</sup>
00095	Specific conductance, water, unfiltered, microsiemens per centimeter at 25 degrees Celsius	30	1000 <sup>a</sup>
00010	Temperature, water, degrees Celsius	26.6	32.2 <sup>a</sup>
Nitrogen, Ph	osphorus, Carbon, and Oxygen Demand		
00623	Ammonia plus organic nitrogen, water, filtered, milligrams per liter as nitrogen	0.47	
00625	Ammonia plus organic nitrogen, water, unfiltered, milligrams per liter as nitrogen	0.4	
00608	Ammonia, water, filtered, milligrams per liter as nitrogen	E0.03	1.5-2 <sup>°</sup>
00631	Nitrite plus nitrate, water, filtered, milligrams per liter as nitrogen	0.1	
00666	Phosphorus, water, filtered, milligrams per liter	E0.003	a . (
00665	Phosphorus, water, unfiltered, milligrams per liter	0.014	0.1°
00680	Organic carbon, water, untilitered, milligrams per liter	9.5	
Maior ions r	netals and related chemistry	20	
00915	Calcium, water, filtered, milligrams per liter	1.29	
00925	Magnesium, water, filtered, milligrams per liter	0.848	
00935	Potassium, water, filtered, milligrams per liter	0.79	
00930	Sodium, water, filtered, milligrams per liter	2.32	
00940	Chloride, water, filtered, milligrams per liter	4.33	860(CMC)/230(CCC) <sup>d</sup>
00955	Silica, water, filtered, milligrams per liter	9.3	
00945	Sultate, water, filtered, milligrams per liter	1.4	
70300	Residue on evaporation, dried at 180 degrees Celsius, water, filtered, milligrams per liter	38	1,500ª
01106	Aluminum, water, filtered, micrograms per liter	102	750(CMC)/87(CCC) <sup>a</sup>
01000	Arsenic, water, filtered, micrograms per liter	0.8	340/150°
01005	Barium, water, filtered, micrograms per liter	33	50,000 (recom)
01010	Beryllium, water, filtered, micrograms per liter	E0.05	130/5.3°
01020	Boron, water, filtered, micrograms per liter	11	

Parameter code	Parameter name	Result	Water-quality criteria or recommendation
01030	Chromium, water, filtered, micrograms per liter	0.3	16/11 <sup>a</sup>
01035	Cobalt, water, filtered, micrograms per liter	0.756	
01040	Copper, water, filtered, micrograms per liter	0.8	7/5 <sup>a</sup>
01046	Iron, water, filtered, micrograms per liter	477	1000 <sup>d</sup>
01049	Lead, water, filtered, micrograms per liter	0.24	30/1.18 <sup>a</sup>
01130	Lithium, water, filtered, micrograms per liter	0.7	
01056	Manganese, water, filtered, micrograms per liter	41.1	
01065	Nickel, water, filtered, micrograms per liter	1.19	260/29 <sup>a</sup>
01145	Selenium, water, filtered, micrograms per liter	E0.2	11.8/4.6 <sup>a</sup>
01080	Strontium, water, filtered, micrograms per liter	17.1	
22703	Uranium (natural), water, filtered, micrograms per liter	E0.03	
01085	Vanadium, water, filtered, micrograms per liter	0.4	
01090	Zinc, water, filtered, micrograms per liter	3.5	65/65 <sup>ª</sup>
Organic che	micals		
50305	Caffeine, water, filtered, recoverable, micrograms per liter	E0.027	
04025	Hexazinone, water, filtered, recoverable, micrograms per liter	E0.009	
39415	Tobutburgen water, filtered (0.7 micrographs, filter), recoverable, micrographs, mi	E0.005	
81552	Acetope, water, unfiltered, recoverable, micrograms per liter	0.02 E3	
24010	Toluono, water, unintered, recoverable, micrograms per inter	E0.05	6200/5000 <sup>0</sup>
34010	roldene, water, difinitered, recoverable, filiciografiis per inter	L0.05	0300/3000
02480254 Bl Physical pro	uff Creek at Vancleave, MS, Sampling Date: 9/20/05, Sample Time: 1745 perties		
00300	Dissolved oxygen, water, unfiltered, milligrams per liter	6.2	5 (4 inst) <sup>a</sup>
00400	pH, water, unfiltered, field, standard units	5.3	6-9 <sup>a</sup>
00095	Specific conductance, water, unfiltered, microsiemens per centimeter at 25 degrees Celsius	33	1000 <sup>a</sup>
00010	Temperature, water, degrees Celsius	27.5	32.2 <sup>a</sup>
Nitrogen, Ph	osphorus, Carbon, and Oxygen Demand		
00623	Ammonia plus organic nitrogen, water, filtered, milligrams per liter as nitrogen	0.3	
00625	Ammonia plus organic nitrogen, water, unfiltered, milligrams per liter as nitrogen	0.36	
00608	Ammonia, water, filtered, milligrams per liter as nitrogen	E0.03	1.5-2 <sup>b</sup>
00666	Phosphorus, water, filtered, milligrams per liter	E0.003	
00665	Phosphorus, water, unfiltered, milligrams per liter	0.013	0.1 <sup>c</sup>
00680	Organic carbon, water, unfiltered, milligrams per liter	9.5	
00340	Chemical oxygen demand, high level, water, unfiltered, milligrams per liter	30	
Major ions,	netals, and related chemistry		
00915	Calcium, water, filtered, milligrams per liter	1.05	
00925	Magnesium, water, filtered, milligrams per liter	0.612	
00935	Polassium, water, intered, miningrams per inter	1.00	
00930	Oblarida water, filterad, milligrama per liter	5.49	860(CMC)/220(CCC)d
00940	Chionde, water, intered, minigrams per liter	0.08 12.5	800(CINC)/230(CCC)
00955	Sulfate, water, filtered, milligrams per liter	13.5	
70300	Residue on evaporation, dried at 180 degrees Celsius, water filtered milligrams per liter	1.2	1 500 <sup>a</sup>
01106	Aluminum water filtered micrograms per liter	116	750(CMC)/97(CCC) <sup>d</sup>
01100	Arconic water, filtered, micrograms per liter	0.8	730(CIMC)/87(CCC) 240/150ª
01000	Arsenic, water, intered, micrograms per liter	0.0	540/150
01005	Bandin, water, intered, micrograms per inter	34	50,000 (lecolii)
01010	Beryllium, water, filtered, micrograms per liter	0.08	130/5.3
01020	Codmium water, filtered, micrograms per liter	12	1 74/0 628
01025	Cadmium, water, intered, micrograms per inter	0.07	1.74/0.02
01030	Chromium, water, filtered, micrograms per liter	0.37	16/11
01035		1.20	7/58
01040	Copper, water, intered, micrograms per inter	0.5	7/5
01046	iron, water, filtered, micrograms per liter	361	1000
01049	Lead, water, tiltered, micrograms per liter	0.17	30/1.18
01130	Lithum, water, filtered, micrograms per liter	0.8 45.4	
01056	Nichal water, filtered, micrograms per liter	40.4	200/208
01065	Nickel, water, intered, micrograms per liter	1.03	200/29
01000	Seienium, water, filtered, micrograms per liter	E0.2	11.8/4.6
01080	Strontium, water, filtered, micrograms per liter	10.6	4.400/400
01057	I nallium, water, filtered, micrograms per liter	E0.02	1400/40°
22703	Uranium (natural), water, filtered, micrograms per liter	EU.U3	
01000		0.3	CE/CE <sup>a</sup>
01090	Zinc, water, intered, micrograms per inter	5.7	69/60

Parameter			Water-quality criteria
code	Parameter name	Result	or recommendation
Organic che	micals		
62085	4-Nonylphenol, water, filtered, recoverable, micrograms per liter	E2	
50305	Caffeine, water, filtered, recoverable, micrograms per liter	E0.147	
62082	DEET, water, filtered, recoverable, micrograms per liter	E0.2	
62083	Diethoxynonylphenol, water, filtered, recoverable, micrograms per liter	E2	
34466	Phenol, water, filtered, recoverable, micrograms per liter	E0.9	300/102°
81552	Acetone, water, unfiltered, recoverable, micrograms per liter	E4	
34010	Toluene, water, unfiltered, recoverable, micrograms per liter	0.48	6300/5000°
02480254 Bl Physical pro	uff Creek at Vancleave, MS, Sampling Date: 9/27/05, Sample Time: 2030 perties		
63676	Turbidity, water, unfiltered, Nephlometric Turbidity Ratio-Units	6	
00300	Dissolved oxygen, water, unfiltered, milligrams per liter	6.8	5 (4 inst) <sup>a</sup>
00400	nH water unfiltered field standard units	5.0	6-9 <sup>a</sup>
00095	Specific conductance water unfiltered microsiemens per centimeter at 25 degrees Celsius	36	1000 <sup>a</sup>
00010	Temperature water degrees Celsius	27.5	32 2 <sup>a</sup>
Nitrogen Ph	osphorus Carbon and Oxygen Demand	21.5	02.2
00623	Ammonia plus organic nitrogen, water, filtered, milligrams per liter as nitrogen	0.31	
00625	Ammonia plus organic nitrogen, water, unfiltered, milligrams per liter as nitrogen	0.33	
00608	Ammonia water filtered milligrams per liter as nitrogen	E0.03	1 5-2 <sup>b</sup>
00665	Phosphorus water unfiltered milliorams per liter	0.01	0.1°
00680	Organic carbon water unfiltered milligrams per liter	10.9	0.1
00340	Chemical oxygen demand, high level, water, unfiltered, milligrams per liter	20	
Maior ions.	netals, and related chemistry	20	
00915	Calcium, water, filtered, milligrams per liter	0.98	
00925	Magnesium, water, filtered, milligrams per liter	0.637	
00935	Potassium, water, filtered, milligrams per liter	1.15	
00930	Sodium, water, filtered, milligrams per liter	3.54	
39086	Alkalinity, water, filtered, incremental titration, field, milligrams per liter as calcium carbonate	1	
00453	Bicarbonate, water, filtered, incremental titration, field, milligrams per liter	1	
00940	Chloride, water, filtered, milligrams per liter	6.46	860(CMC)/230(CCC) <sup>d</sup>
00955	Silica, water, filtered, milligrams per liter	12.9	
00945	Sulfate, water, filtered, milligrams per liter	1.1	
70300	Residue on evaporation, dried at 180 degrees Celsius, water, filtered, milligrams per liter	48	1,500 <sup>a</sup>
01106	Aluminum, water, filtered, micrograms per liter	151	750(CMC)/87(CCC) <sup>d</sup>
01000	Arsenic, water, filtered, micrograms per liter	0.8	340/150 <sup>a</sup>
01005	Barium, water, filtered, micrograms per liter	36	50,000 (recom) <sup>c</sup>
01010	Beryllium, water, filtered, micrograms per liter	0.1	130/5.3 <sup>c</sup>
01020	Boron, water, filtered, micrograms per liter	16	
01025	Cadmium, water, filtered, micrograms per liter	0.11	1.74/0.62 <sup>a</sup>
01030	Chromium, water, filtered, micrograms per liter	0.39	16/11 <sup>a</sup>
01035	Cobalt, water, filtered, micrograms per liter	1.26	
01040	Copper, water, filtered, micrograms per liter	13.1	7/5 <sup>a</sup>
01046	Iron, water, filtered, micrograms per liter	305	1000 <sup>d</sup>
01049	Lead, water, filtered, micrograms per liter	0.59	30/1.18 <sup>a</sup>
01130	Lithium, water, filtered, micrograms per liter	0.7	
01056	Manganese, water, filtered, micrograms per liter	42.6	
01065	Nickel, water, filtered, micrograms per liter	1.52	260/29 <sup>a</sup>
01080	Strontium, water, filtered, micrograms per liter	10.1	
01057	Thallium, water, filtered, micrograms per liter	E0.03	1400/40 <sup>c</sup>
22703	Uranium (natural), water, filtered, micrograms per liter	E0.03	
01085	Vanadium, water, filtered, micrograms per liter	0.3	
01090	Zinc, water, filtered, micrograms per liter	21.5	65/65 <sup>a</sup>
Organic che	micals		
50305	Caffeine, water, filtered, recoverable, micrograms per liter	E0.1	
62083	Diethoxynonylphenol, water, filtered, recoverable, micrograms per liter	E3	
77356	4-Isopropyltoluene, water, unfiltered, recoverable, micrograms per liter	E0.02	
81552	Acetone, water, unfiltered, recoverable, micrograms per liter	E3	
77128	Styrene, water, unfiltered, recoverable, micrograms per liter	E0.02	-
34010	Toluene, water, unfiltered, recoverable, micrograms per liter	1.27	6300/5000 <sup>c</sup>

Parameter	_		Water-quality criteria
CODE	Parameter name	Result	or recommendation
02480599 TC Physical pro	noutacabourna River at Diberville, MS, Sample Date: 9/21/05, Sample Time: 1050		
00300	Dissolved oxygen, water unfiltered milligrams per liter	33	5 (4 inst) <sup>a</sup>
00400	pH, water, unfiltered, field, standard units	5.1	6-9 <sup>a</sup>
00095	Specific conductance, water, unfiltered, microsiemens per centimeter at 25 degrees Celsius	72	1000 <sup>a</sup>
00010	Temperature, water, degrees Celsius	29.1	32.2ª
Nitrogen, Ph	osphorus, Carbon, and Oxygen Demand	2011	02.2
00623	Ammonia plus organic nitrogen, water, filtered, milligrams per liter as nitrogen	0.42	
00625	Ammonia plus organic nitrogen, water, unfiltered, milligrams per liter as nitrogen	0.52	
00666	Phosphorus, water, filtered, milligrams per liter	0.006	
00665	Phosphorus, water, unfiltered, milligrams per liter	0.037	0.1 <sup>c</sup>
00680	Organic carbon, water, unfiltered, milligrams per liter	13.1	
00340	Chemical oxygen demand, high level, water, unfiltered, milligrams per liter	30	
Major ions, i	Coloium water filtered milligrams per liter	1 71	
00915	Magnesium, water, filtered, milligrams per liter	1.71	
00935	Potassium water, filtered milligrams per liter	1.00	
00930	Sodium, water, filtered, milligrams per liter	7.11	
00940	Chloride, water, filtered, milligrams per liter	11.5	860(CMC)/230(CCC) <sup>d</sup>
00955	Silica, water, filtered, milligrams per liter	12.7	
00945	Sulfate, water, filtered, milligrams per liter	2.4	
70300	Residue on evaporation, dried at 180 degrees Celsius, water, filtered, milligrams per liter	73	1,500 <sup>a</sup>
01106	Aluminum, water, filtered, micrograms per liter	156	750(CMC)/87(CCC) <sup>d</sup>
01000	Arsenic, water, filtered, micrograms per liter	1.1	340/150 <sup>a</sup>
01005	Barium, water, filtered, micrograms per liter	37	50,000 (recom) <sup>c</sup>
01010	Beryllium, water, filtered, micrograms per liter	0.11	130/5.3 <sup>c</sup>
01020	Boron, water, filtered, micrograms per liter	20	
01025	Cadmium, water, filtered, micrograms per liter	0.05	1.74/0.62 <sup>a</sup>
01030	Chromium, water, filtered, micrograms per liter	0.47	16/11 <sup>a</sup>
01035	Cobalt, water, filtered, micrograms per liter	1.36	
01040	Copper, water, filtered, micrograms per liter	1	7/5 <sup>a</sup>
01046	Iron, water, filtered, micrograms per liter	345	1000 <sup>°</sup>
01049	Lead, water, filtered, micrograms per liter	0.25	30/1.18 <sup>ª</sup>
01130	Lithium, water, filtered, micrograms per liter	1.6	
01056	Manganese, water, filtered, micrograms per liter	73.4	000/003
01065	Nickel, water, filtered, micrograms per liter	1.35	260/29*
22703	Stronitum, water, intered, micrograms per liter	20	
01085	Vanadium water filtered micrograms per liter	0.04	
01090	Zinc water, filtered micrograms per liter	4.8	65/65 <sup>a</sup>
Organic che	micals		00,00
39632	Atrazine, water, filtered, recoverable, micrograms per liter	E0.007	1.500 <sup>e</sup>
50305	Caffeine, water, filtered, recoverable, micrograms per liter	E0.111	,
62082	DEET, water, filtered, recoverable, micrograms per liter	E0.1	
34466	Phenol, water, filtered, recoverable, micrograms per liter	E0.1	300/102 <sup>a</sup>
77356	4-Isopropyltoluene, water, unfiltered, recoverable, micrograms per liter	E0.03	
81552	Acetone, water, unfiltered, recoverable, micrograms per liter	E2	
34010	Toluene, water, unfiltered, recoverable, micrograms per liter	0.31	6300/5000 <sup>c</sup>
38775	Dichlorvos, water, filtered, recoverable, micrograms per liter	E0.03	
02490500 Ta	hautaaahauffa Biyar at Dilharvilla MS, Sampla Data, 0/29/05, Sampla Tima, 0020		
Physical pro	noutacabouria River at Dibervine, MS, Sample Date. 9/20/05, Sample Time. 0950		
63676	Turbidity water unfiltered Nephlometric Turbidity Ratio-Units	5	
00300	Dissolved oxygen, water, unfiltered, milligrams per liter	3.6	5 (4 inst) <sup>a</sup>
00400	pH. water, unfiltered, field, standard units	5.3	6-9 <sup>a</sup>
00095	Specific conductance, water, unfiltered, microsiemens per centimeter at 25 degrees Celsius	79	1000 <sup>a</sup>
00010	Temperature, water, degrees Celsius	28	32.2ª
Nitrogen, Ph	osphorus, Carbon, and Oxygen Demand		
00623	Ammonia plus organic nitrogen, water, filtered, milligrams per liter as nitrogen	0.6	
00625	Ammonia plus organic nitrogen, water, unfiltered, milligrams per liter as nitrogen	0.51	
00666	Phosphorus, water, filtered, milligrams per liter	0.017	
00665	Phosphorus, water, unfiltered, milligrams per liter	0.044	0.1°
00680	Organic carbon, water, unfiltered, milligrams per liter	15.4	
00310	Biochemical oxygen demand, water, untiltered, 5 days at 20 degrees Celsius, milligrams per liter	11 50	
00340	onemicai oxygen demand, nigh ievel, water, dinintered, filinigrams per inter	50	

Parameter code	Parameter name	Result	Water-quality criteria or recommendation
Major ions.	netals, and related chemistry		
00915	Calcium, water, filtered, milligrams per liter	1.78	
00925	Magnesium, water, filtered, milligrams per liter	1.1	
00935	Potassium, water, filtered, milligrams per liter	1.82	
00930	Sodium, water, filtered, milligrams per liter	9.5	
39086	Alkalinity, water, filtered, incremental titration, field, milligrams per liter as calcium carbonate	3	
00453	Bicarbonate, water, filtered, incremental titration, field, milligrams per liter	4	d
00940	Chloride, water, filtered, milligrams per liter	14.4	860(CMC)/230(CCC) <sup>a</sup>
00955	Silica, water, filtered, milligrams per liter	11.7	
00945	Suitate, water, filtered, milligrams per liter	3.3	4 5008
70300	Residue on evaporation, dried at 180 degrees Celsius, water, filtered, milligrams per liter	87	1,500 <sup>-</sup>
01106	Aluminum, water, filtered, micrograms per liter	167	750(CMC)/87(CCC)=
01000	Arsenic, water, filtered, micrograms per liter	0.9	340/150
01005	Barium, water, filtered, micrograms per liter	36	50,000 (recom)°
01010	Beryllium, water, filtered, micrograms per liter	0.11	130/5.3°
01020	Boron, water, filtered, micrograms per liter	33	4 74/0 008
01025	Cadmium, water, filtered, micrograms per liter	E0.02	1.74/0.62
01030	Chromium, water, filtered, micrograms per liter	0.4	16/11 <sup>°</sup>
01035	Cobait, water, filtered, micrograms per liter	1.3	7/58
01040	Copper, water, filtered, micrograms per liter	1.1	//5 <sup>-</sup>
01046	Iron, water, filtered, micrograms per liter	354	1000°
01049	Lead, water, filtered, micrograms per liter	0.34	30/1.18ª
01130	Lithium, water, filtered, micrograms per liter	1.1	
01056	Manganese, water, filtered, micrograms per liter	//.5	000/008
01065	Nickel, water, filtered, micrograms per liter	1.25	260/29*
01080	Strontium, water, filtered, micrograms per liter	20.2	4.400/400
01057	I nallium, water, filtered, micrograms per liter	E0.03	1400/40
22703	Vanadium water filtered micrograms per liter	0.05	
01000	Zine water, filtered, micrograms per liter	5.4	65/65 <sup>a</sup>
Organic che	micals	5.4	03/03
50305	Caffeine water filtered recoverable micrograms per liter	0.075	
62072	Cholesterol, water, filtered, recoverable, micrograms per liter	E1	
62082	DEET, water, filtered, recoverable, micrograms per liter	E0.1	
62083	Diethoxynonylphenol, water, filtered, recoverable, micrograms per liter	E2	
62167	Fipronil sulfide, water, filtered, recoverable, micrograms per liter	E0.005	
02481000 Bi	oxi River at Wortham MS, Sample Date: 9/19/05, Sample Time: 1630		
Physical pro	perties		
00061	Discharge, instantaneous, cubic feet per second	60	
00300	Dissolved oxygen water unfiltered milligrams per liter	67	5 (4 inst) <sup>a</sup>
00400	pH water unfiltered field standard units	5.3	6-9 <sup>a</sup>
00095	Specific conductance water unfiltered microsiemens per centimeter at 25 degrees Celsius	35	1000 <sup>a</sup>
00010	Temperature, water, degrees Calsius	26.8	32 2 <sup>a</sup>
Nitrogen, Ph	osphorus, Carbon, and Oxygen Demand	20.0	02.2
00623	Ammonia plus organic nitrogen, water, filtered, milligrams per liter as nitrogen	0.39	
00625	Ammonia plus organic nitrogen, water, unfiltered, milligrams per liter as nitrogen	0.49	
00666	Phosphorus, water, filtered, milligrams per liter	E0.003	
00665	Phosphorus, water, unfiltered, milligrams per liter	0.024	0.1 <sup>c</sup>
00680	Organic carbon, water, unfiltered, milligrams per liter	12.7	
00340	Chemical oxygen demand, high level, water, unfiltered, milligrams per liter	30	
Major ions, r	netals, and related chemistry		
00915	Calcium, water, filtered, milligrams per liter	1.54	
00925	Magnesium, water, filtered, milligrams per liter	0.928	
00935	Potassium, water, filtered, milligrams per liter	1.16	
00930	Sodium, water, filtered, milligrams per liter	3.23	
00940	Chioride, water, filtered, milligrams per liter	5.1	860(CIMC)/230(CCC)
00955	Silica, water, illered, milligrams per liter	10.7	
70200	Sunate, water, intered, initingrations per liter	1.9	1 5008
70300	Residue on evaporation, dried at 100 degrees Celsius, water, filtered, milligrams per liter	54	
01106	Aurinium, water, filtered, micrograms per liter	136	
01000	Arsenic, water, filtered, micrograms per liter	1	340/150
01005	Barium, water, tiltered, micrograms per liter	54	50,000 (recom)
01010	Beryllium, water, filtered, micrograms per liter	0.14	130/5.3°
01020	Boron, water, tiltered, micrograms per liter	9	10/113
01030	Unromium, water, filtered, micrograms per liter	0.52	16/11"

Parameter	Parameter name	Posult	Water-quality criteria
01035	Cobalt water filtered micrograms per liter	0 778	o. recommendation
01040	Copper water filtered micrograms per liter	0.7	7/5 <sup>a</sup>
01046	Iron water filtered micrograms per liter	499	1000 <sup>d</sup>
01040	Lead water filtered micrograms per liter	0.24	30/1 18 <sup>a</sup>
01049	Lithium water filtered micrograms per liter	1.24	50/1.10
01056	Manganese, water, filtered, micrograms per liter	50.2	
01065	Nickel water filtered micrograms per liter	1.68	260/29 <sup>a</sup>
01145	Selenium water filtered micrograms per liter	0.5	11 8/4 6 <sup>a</sup>
01080	Strontium, water, filtered, micrograms per liter	25.7	11.0/4.0
22703	Uranium (natural) water filtered micrograms per liter	0.06	
01085	Vanadium, water, filtered, micrograms per liter	0.4	
01090	Zinc water filtered micrograms per liter	27	65/65 <sup>a</sup>
Organic che	micals		
62085	4-Nonylphenol, water, filtered, recoverable, micrograms per liter	E1	
50305	Caffeine, water, filtered, recoverable, micrograms per liter	E0.097	
62083	Diethoxynonylphenol, water, filtered, recoverable, micrograms per liter	E2	
81552	Acetone, water, unfiltered, recoverable, micrograms per liter	E3	
34010	Toluene, water, unfiltered, recoverable, micrograms per liter	E0.03	6300/5000 <sup>c</sup>
02481000 Bi	loxi River at Wortham, MS, Sample Date: 9/28/05, Sample Time: 1315		
Physical pro	perties	00	
00061	Discharge, instantaneous, cubic teet per second	63	
63676	Turbidity, water, unfiltered, Nephiometric Turbidity Ratio-Units	6	- (
00300	Dissolved oxygen, water, unfiltered, milligrams per liter	6.7	5 (4 inst)"
00400	pH, water, unfiltered, field, standard units	5.2	6-9ª
00095	Specific conductance, water, unfiltered, microsiemens per centimeter at 25 degrees Celsius	36	1000 <sup>a</sup>
00010	Temperature, water, degrees Celsius	26.3	32.2 <sup>a</sup>
Nitrogen, Ph	osphorus, Carbon, and Oxygen Demand		
00623	Ammonia plus organic nitrogen, water, filtered, milligrams per liter as nitrogen	0.51	
00625	Ammonia plus organic nitrogen, water, unfiltered, milligrams per liter as nitrogen	0.53	h
00608	Ammonia, water, filtered, milligrams per liter as nitrogen	E0.02	1.5-2
00666	Phosphorus, water, filtered, milligrams per liter	0.005	
00665	Phosphorus, water, unfiltered, milligrams per liter	0.022	0.1
00680	Organic carbon, water, unfiltered, milligrams per liter	11.5	
00340	Chemical oxygen demand, high level, water, unfiltered, milligrams per liter	30	
wajor ions, i	Coloium weter filtered millioreme per liter	1.40	
00915	Calcium, water, filtered, milligrams per liter	1.40	
00925	Potossium, water, filtered, milligrams per liter	1.034	
00933	Sodium water, filtered, milligrams per liter	3.09	
39086	Alkalinity water, filtered, incremental titration, field, milligrams per liter as calcium carbonate	2	
00453	Bicarbonate water filtered incremental titration field milligrams per liter	3	
00940	Chloride water filtered millionams per liter	5 23	860(CMC)/230(CCC) <sup>d</sup>
00955	Silica, water, filtered, milligrams per liter	14.4	000(01110)/200(000)
00945	Sulfate, water, filtered, milliorams per liter	1.6	
70300	Residue on evaporation dried at 180 degrees Celsius water filtered milligrams per liter	62	1 500 <sup>a</sup>
01106	Aluminum water filtered micrograms per liter	120	750(CMC)/87(CCC) <sup>d</sup>
01000	Arsenic water filtered micrograms per liter	1	340/150 <sup>a</sup>
01000	Parium water, filtered, micrograme per liter	16	50,000 (recom) <sup>c</sup>
01005	Bandin, water, intered, micrograms per liter	-40	120/5 2 <sup>°</sup>
01010	Boron water filtered micrograms per liter	10	130/3.3
01020	Chromium water, filtered micrograms per liter	0.41	16/11 <sup>a</sup>
01030	Cobalt water, filtered, micrograms per liter	0.41	10/11
01035	Copper water, filtered, micrograms per liter	0.052	7/5 <sup>a</sup>
01040	Copper, water, intered, micrograms per liter	2.1	1000 <sup>d</sup>
01046		400	1000
01049	Lead, water, filtered, micrograms per liter	0.57	30/1.18
01130	Linnum, water, filtered, micrograms per liter	1.1	
01000	wanganese, water, intereu, micrograms per inter	42	260/20 <sup>8</sup>
01065	Nickel, water, liltered, micrograms per liter	1.6	200/29
01080	Suonuum, water, intered, micrograms per inter	19.8	
22/03	Vanadium (natural), water, filtered, micrograms per liter Vanadium, water, filtered, micrograms per liter	0.05	
01000	vanaurum, water, illereu, illerograms per liter Zinc, water, filtered, micrograms per liter	0.5	65/65 <sup>a</sup>
01090	Zino, water, intereu, micrograms per inter	1.9	00/00

Parameter			Water-quality criteria
code	Parameter name	Result	or recommendation
Organic che	micals		
50305	Caffeine, water, filtered, recoverable, micrograms per liter	0.123	
81552	Acetone, water, unfiltered, recoverable, micrograms per liter	E2	
34010	Toluene, water, unfiltered, recoverable, micrograms per liter	E0.05	6300/5000°
02481510 W	olf River near Landon, MS, Sample Date: 9/21/05, Sample Time: 1430		
Physical pro	perties		
00061	Discharge, instantaneous, cubic feet per second	198	<b>F</b> (4 : 1)8
00300	Dissolved oxygen, water, unfiltered, milligrams per liter	7.4	5 (4 inst)
00400	pH, water, unfiltered, field, standard units	5.4	6-9°
00095	Specific conductance, water, unfiltered, microsiemens per centimeter at 25 degrees Celsius	37	1000°
00010	Temperature, water, degrees Celsius	29.3	32.2ª
Nitrogen, Pr	losphorus, Carbon, and Oxygen Demand	0.40	
00623	Ammonia plus organic hitrogen, water, infered, miligrams per liter as hitrogen	0.42	
00625	Phosphorus water filtered milliorams per liter	0.41	
00665	Phosphorus, water, unfiltered, milligrams per liter	0.000	0.1°
00680	Organic carbon water unfiltered milligrams per liter	9.5	0.1
00340	Chemical oxygen demand high level water unfiltered milligrams per liter	20	
Maior ions.	metals, and related chemistry	20	
00915	Calcium, water, filtered, milligrams per liter	1.79	
00925	Magnesium, water, filtered, milligrams per liter	1.02	
00935	Potassium, water, filtered, milligrams per liter	1.29	
00930	Sodium, water, filtered, milligrams per liter	2.73	
00940	Chloride, water, filtered, milligrams per liter	5	860(CMC)/230(CCC) <sup>d</sup>
00955	Silica, water, filtered, milligrams per liter	12.8	
00945	Sulfate, water, filtered, milligrams per liter	2.3	
70300	Residue on evaporation, dried at 180 degrees Celsius, water, filtered, milligrams per liter	55	1,500 <sup>a</sup>
01106	Aluminum, water, filtered, micrograms per liter	79	750(CMC)/87(CCC) <sup>d</sup>
01000	Arsenic, water, filtered, micrograms per liter	1.1	340/150 <sup>a</sup>
01005	Barium, water, filtered, micrograms per liter	43	50,000 (recom) <sup>c</sup>
01010	Beryllium, water, filtered, micrograms per liter	0.16	130/5.3 <sup>c</sup>
01020	Boron, water, filtered, micrograms per liter	12	
01025	Cadmium, water, filtered, micrograms per liter	E0.02	1.74/0.62 <sup>a</sup>
01030	Chromium, water, filtered, micrograms per liter	0.33	16/11 <sup>a</sup>
01035	Cobalt, water, filtered, micrograms per liter	0.864	
01040	Copper, water, filtered, micrograms per liter	0.9	7/5 <sup>a</sup>
01046	Iron, water, filtered, micrograms per liter	327	1000 <sup>d</sup>
01049	Lead, water, filtered, micrograms per liter	0.18	30/1.18 <sup>a</sup>
01130	Lithium, water, filtered, micrograms per liter	1.5	
01056	Manganese, water, filtered, micrograms per liter	68.6	
01065	Nickel, water, filtered, micrograms per liter	1.5	260/29 <sup>a</sup>
01145	Selenium, water, filtered, micrograms per liter	E0.4	11.8/4.6 <sup>a</sup>
01080	Strontium, water, filtered, micrograms per liter	29.2	
22703	Uranium (natural), water, filtered, micrograms per liter	0.05	
01085	Vanadium, water, filtered, micrograms per liter	0.4	
01090	Zinc, water, filtered, micrograms per liter	2.2	65/65 <sup>a</sup>
Organic che	micals		
50305	Caffeine, water, filtered, recoverable, micrograms per liter	E0.164	
81552	Acetone, water, unfiltered, recoverable, micrograms per liter	E3	
34010	Toluene, water, unfiltered, recoverable, micrograms per liter	0.13	6300/5000°
02481510 W	olf River near Landon, MS, Sample Date: 9/28/05, Sample Time: 1615		
Physical pro	Discharge instanteneous subis fact per second	004	
00061	Discharge, instantaneous, cubic teet per second	231	
03070	rubiony, water, unintered, inephiometric rubiony Katio-Units	/ 	E (A :
00300	Dissolved oxygen, water, untiltered, milligrams per liter		5 (4 INSt) <sup>-</sup>
00400	pH, water, untiltered, field, standard units	5.4	6-9"
00095	Specific conductance, water, untiltered, microsiemens per centimeter at 25 degrees Celsius	38	1000
00010	I emperature, water, degrees Celsius	28.2	32.2ª

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Parameter code	Parameter name	Result	Water-quality criteria or recommendation
Nitrogen, Ph	osphorus, Carbon, and Oxygen Demand	Rooun	
00623	Ammonia plus organic nitrogen, water, filtered, milligrams per liter as nitrogen	0.42	
00625	Ammonia plus organic nitrogen, water, unfiltered, milligrams per liter as nitrogen	0.47	
00665	Phosphorus, water, filtered, milligrams per liter	0.005	0.1 <sup>c</sup>
00665	Organic carbon, water, unintered, milligrams per liter	12.6	0.1
00310	Biochemical oxygen demand, water, unfiltered, 5 days at 20 degrees Celsius, milligrams per liter	2	
00340	Chemical oxygen demand, high level, water, unfiltered, milligrams per liter	30	
Major ions, r	netals, and related chemistry		
00915	Calcium, water, filtered, milligrams per liter	1.61	
00925	Magnesium, water, filtered, milligrams per liter	0.932	
00935	Sodium, water, filtered, milligrams per liter	1.03	
39086	Alkalinity, water, filtered, incremental titration, field, milligrams per liter as calcium carbonate	3	
00453	Bicarbonate, water, filtered, incremental titration, field, milligrams per liter	3	
00940	Chloride, water, filtered, milligrams per liter	5.41	860(CMC)/230(CCC) <sup>d</sup>
00955	Silica, water, filtered, milligrams per liter	12.4	
00945	Sulfate, water, filtered, milligrams per liter	2	
70300	Residue on evaporation, dried at 180 degrees Celsius, water, filtered, milligrams per liter	58	1,500 <sup>ª</sup>
01106	Aluminum, water, filtered, micrograms per liter	97	750(CMC)/87(CCC) <sup>a</sup>
01000	Arsenic, water, filtered, micrograms per liter	0.9	340/150°
01005	Barium, water, filtered, micrograms per liter	43	50,000 (recom)°
01010	Beryllium, water, filtered, micrograms per liter	0.1	130/5.3°
01020	Boron, water, littered, micrograms per liter	10	16/118
01030	Cohalt water filtered micrograms per liter	0.34	10/11
01040	Copper water, filtered micrograms per liter	1.9	7/5 <sup>a</sup>
01046	Iron, water, filtered, micrograms per liter	519	1000 <sup>d</sup>
01049	Lead, water, filtered, micrograms per liter	0.2	30/1.18 <sup>a</sup>
01130	Lithium, water, filtered, micrograms per liter	1	
01056	Manganese, water, filtered, micrograms per liter	66.3	
01065	Nickel, water, filtered, micrograms per liter	1.58	260/29 <sup>a</sup>
01080	Strontium, water, filtered, micrograms per liter	26.9	
22703	Uranium (natural), water, filtered, micrograms per liter	0.05	
01065	Zine water filtered micrograms per liter	0.34	65/65 <sup>a</sup>
Organic che	micals	5.5	03/03
50305	Caffeine, water, filtered, recoverable, micrograms per liter	0.154	
81552	Acetone, water, unfiltered, recoverable, micrograms per liter	E3	
34010	Toluene, water, unfiltered, recoverable, micrograms per liter	E0.06	6300/5000 <sup>c</sup>
02481660 Jo	urdan River near Bay St. Louis, MS, Sample Date: 9/21/05, Sample Time: 1715		
Physical pro	perties	0540	
00061	Discharge, instantaneous, cubic feet per second	3540	E (4 in a 1) <sup>3</sup>
00300	Dissolved oxygen, water, untilitered, milligrams per liter	5.9	5 (4 INSt)
00400	pH, water, unilitered, field, standard units	5.8	0-9 1000 <sup>a</sup>
00095	Specific conductance, water, unifiliered, microsiemens per centimeter at 25 degrees Celsius	102	1000 32.2ª
Nitrogen Ph	osphorus Carbon and Oxygen Demand	29.7	32.2
00623	Ammonia plus organic nitrogen, water, filtered, milligrams per liter as nitrogen	0.33	
00625	Ammonia plus organic nitrogen, water, unfiltered, milligrams per liter as nitrogen	0.42	
00666	Phosphorus, water, filtered, milligrams per liter	0.006	
00665	Phosphorus, water, unfiltered, milligrams per liter	0.04	0.1 <sup>c</sup>
00680	Organic carbon, water, unfiltered, milligrams per liter	10.5	
00340	Chemical oxygen demand, high level, water, unfiltered, milligrams per liter	20	
00915	Calcium water filtered milliorams per liter	1 81	
00925	Magnesium, water, filtered, milligrams per liter	1.81	
00935	Potassium, water, filtered, milligrams per liter	1.41	
00930	Sodium, water, filtered, milligrams per liter	12.2	
00940	Chloride, water, filtered, milligrams per liter	20.3	860(CMC)/230(CCC) <sup>d</sup>
00955	Silica, water, filtered, milligrams per liter	10.9	
00945	Sunate, water, intered, milligrams per liter	3	4 5008
10300	Residue on evaporation, dhed at 100 degrees ceisius, water, tiltered, milligrams per liter	80	
01100	Arsenia water, filtered, micrograms per liter	8C 0 0	340/150ª
01000		0.9	5-10/100

Parameter	Parameter name	Posult	Water-quality criteria
01005	Barium water filtered micrograms per liter	24	50.000 (recom) <sup>c</sup>
01005	Banunn, water, mitted, mittograms per liter	0.07	120/E 2 <sup>c</sup>
01010	Boron water filtered micrograms per liter	21	130/3.3
01025	Cadmium water filtered micrograms per liter	0.04	1 74/0 62 <sup>a</sup>
01020	Chromium water, filtered, micrograms per liter	0.35	16/11 <sup>a</sup>
01035	Cobalt, water, filtered, micrograms per liter	0.442	10,11
01040	Copper, water, filtered, micrograms per liter	5	7/5 <sup>a</sup>
01046	Iron, water, filtered, micrograms per liter	210	1000 <sup>d</sup>
01049	Lead, water, filtered, micrograms per liter	0.18	30/1.18 <sup>ª</sup>
01130	Lithium, water, filtered, micrograms per liter	1.4	
01056	Manganese, water, filtered, micrograms per liter	76.4	
01065	Nickel, water, filtered, micrograms per liter	0.88	260/29 <sup>a</sup>
01145	Selenium, water, filtered, micrograms per liter	E0.2	11.8/4.6 <sup>a</sup>
01080	Strontium, water, filtered, micrograms per liter	23.9	
22703	Uranium (natural), water, filtered, micrograms per liter	E0.03	
01085	Vanadium, water, filtered, micrograms per liter	0.2	( 9
01090	Zinc, water, filtered, micrograms per liter	4.6	65/65ª
Organic che	micais	<b>F</b> 0.000	4 500 <sup>8</sup>
39632	Atrazine, water, filtered, recoverable, micrograms per liter	E0.006	1,500
62082	DEET water filtered recoverable micrograms per liter	E0.117	
39572	Diazinon water filtered, recoverable, micrograms per liter	0.065	0.1 <sup>f</sup>
62167	Eipropil sulfide water filtered recoverable micrograms per liter	E0.007	0.1
38775	Dichlorvos, water, filtered, recoverable, micrograms per liter	E0.17	
02481660 Jo	urdan River near Bay St. Louis, MS, Sample Date: 9/28/05, Sample Time: 1830		
Physical pro	perties		
00061	Discharge, instantaneous, cubic feet per second	3400	
63676	l'urbidity, water, unflitered, Nephlometric l'urbidity Ratio-Units	6	<b>F</b> (4 : 1)â
00300	Dissolved oxygen, water, untiltered, milligrams per liter	2.3	5 (4 Inst)
00400	pH, water, untiltered, field, standard units	5.3	6-9 <sup>-</sup>
00095	Specific conductance, water, unfiltered, microsiemens per centimeter at 25 degrees Celsius	188	1000-
00010	Temperature, water, degrees Celsius	28.6	32.2*
00623	Ammonia nus organic nitrogen, water filtered, milligrams per liter as nitrogen	0.46	
00625	Ammonia plus organic nitrogen, water, intered, miligrams per liter as nitrogen	0.40	
00608	Ammonia water filtered milligrams per liter as pitrogen	F0.02	1 5-2 <sup>b</sup>
00666	Phosphorus, water, filtered, milliorams per liter	0.005	
00665	Phosphorus, water, unfiltered, milligrams per liter	0.036	0.1 <sup>c</sup>
00680	Organic carbon, water, unfiltered, milligrams per liter	15.3	
00310	Biochemical oxygen demand, water, unfiltered, 5 days at 20 degrees Celsius, milligrams per liter	2	
00340	Chemical oxygen demand, high level, water, unfiltered, milligrams per liter	30	
Major ions, I	netals, and related chemistry		
00915	Calcium, water, filtered, milligrams per liter	2.48	
00925	Magnesium, water, filtered, milligrams per liter	2.98	
00935	Sodium, water, filtered, milligrams per liter	2.81	
39086	Alkalinity water filtered incremental titration field milligrams per liter as calcium carbonate	4	
00453	Bicarbonate, water, filtered, incremental titration, field, milligrams per liter	5	
00940	Chloride, water, filtered, milligrams per liter	41.3	860(CMC)/230(CCC) <sup>d</sup>
00955	Silica, water, filtered, milligrams per liter	11.3	
00945	Sulfate, water, filtered, milligrams per liter	5.2	
70300	Residue on evaporation, dried at 180 degrees Celsius, water, filtered, milligrams per liter	136	1,500 <sup>a</sup>
01106	Aluminum, water, filtered, micrograms per liter	107	750(CMC)/87(CCC) <sup>d</sup>
01000	Arsenic, water, filtered, micrograms per liter	1	340/150 <sup>a</sup>
01005	Barium, water, filtered, micrograms per liter	35	50,000 (recom) <sup>c</sup>
01010	Beryllium, water, filtered, micrograms per liter	0.06	130/5.3 <sup>°</sup>
01020	Boron, water, filtered, micrograms per liter	35	
01025	Cadmium, water, filtered, micrograms per liter	E0.03	1.74/0.62 <sup>a</sup>
01030	Chromium, water, filtered, micrograms per liter	0.42	16/11 <sup>a</sup>
01035	Cobalt, water, filtered, micrograms per liter	1.06	-
01040	Copper, water, filtered, micrograms per liter	1.2	7/5 <sup>a</sup>
01046	Iron, water, filtered, micrograms per liter	293	1000 <sup>a</sup>
01049	Lead, water, filtered, micrograms per liter	0.23	30/1.18 <sup>ª</sup>
01130	Lithium, water, filtered, micrograms per liter	1.2	

Parameter code	Parameter name	Result	Water-quality criteria or recommendation
01056	Manganese, water, filtered, micrograms per liter	154	
01065	Nickel, water, filtered, micrograms per liter	1.01	260/29 <sup>a</sup>
01080	Strontium, water, filtered, micrograms per liter	29.5	
01057	Thallium, water, filtered, micrograms per liter	E0.02	1400/40 <sup>c</sup>
22703	Uranium (natural), water, filtered, micrograms per liter	0.04	
01085	Vanadium, water, filtered, micrograms per liter	0.3	
01090	Zinc, water, filtered, micrograms per liter	5.2	65/65 <sup>a</sup>
Organic chemicals			
50305	Caffeine, water, filtered, recoverable, micrograms per liter	0.125	
77356	4-Isopropyltoluene, water, unfiltered, recoverable, micrograms per liter	E0.02	
34010	Toluene, water, unfiltered, recoverable, micrograms per liter	E0.05	6300/5000°

<sup>a</sup>Water quality criteria for intrastate, interstate, and coastal waters, State of Mississippi (State of Mississippi, 2003). Criterion listed here for chromium is for chromium IV, and USGS chromium data listed here are for total chromium including both chromium III and chromium IV; criterion listed here for arsenic is for arsenic III, and USGS arsenic values are for total arsenic; criteria listed here for dissolved oxygen, pH, and temperature are minimum criteria for all waters in Mississippi; criteria listed here for specific conductance and total dissolved solids are for Mississippi waters designated as recreation.

<sup>b</sup>Aquatic life ambient water quality criteria for ammonia update (U.S. Environmental Protection Agency, 1999). Ammonia criteria listed here are based on temperature, pH, and life-stage. This update is adopted by Mississippi as the current criteria for ammonia.

<sup>c</sup>U.S. Environmental Protection Agency "Gold Book" standards (U.S. Environmental Protection Agency, 1986). Barium criterion listed here is a recommended standard. Total phosphorus criterion listed here is recommended for flowing waters that do not discharge into a lake or reservoir.

<sup>d</sup>U.S Environmental Protection Agency National recommended water quality criteria (U.S. Environmental Protection Agency, 2004b). Criteria for chloride, aluminum, and iron are considered criteria for non-priority pollutants.

<sup>e</sup>Revised draft for aquatic life for atrazine (U.S. Environmental Protection Agency, 2003b).

<sup>f</sup>Draft diazinon criteria (U.S. Environmental Protection Agency, 2003c).

 Table 9. Results of quality-assurance samples collected at water-quality sites in the aftermath of Hurricane Katrina, southeastern

 Mississippi, September 19-30, 2005.

[MS, Mississippi; detections above laboratory reporting levels are presented for field blank, equipment blank, and replicate samples; all results are presented for spike sample; E, estimated; <, less than]

Parameter		
code	Parameter name	Result
EQUIPMEN	T BLANK, Sample Date - 9/26/05, Sample Time - 1500	
Nitrogen, P	hosphorus, Carbon, and Oxygen Demand	
00608	Ammonia, water, filtered, milligrams per liter as nitrogen	E0.02
00623	Ammonia plus organic nitrogen, water, filtered, milligrams per liter as nitrogen	0.16
Major ions,	metals, and related chemistry	
00915	Calcium, water, filtered, milligrams per liter	E0.01
00955	Silica, water, filtered, milligrams per liter	E0.04
01046	Iron, water, filtered, micrograms per liter	E4
01085	Vanadium, water, filtered, micrograms per liter	E0.1
01090	Zinc, water, filtered, micrograms per liter	E0.5
Organic ch	emicals	
62085	4-Nonylphenol, water, filtered, recoverable, micrograms per liter	E2
62064	Acetophenone, water, filtered, recoverable, micrograms per liter	E0.2
62083	Diethoxynonylphenol, water, filtered, recoverable, micrograms per liter	E3
50407	Imazethapyr, water, filtered, recoverable, micrograms per liter	E0.01
34010	Toluene, water, unfiltered, recoverable, micrograms per liter	E0.02
FIELD BLA	NK 02479300 Red Creek at Vestry, MS, Sample Date - 9/29/05, Sample Time - 1000	
Nitrogen, P	hosphorus, Carbon, and Oxygen Demand	
00623	Ammonia plus organic nitrogen, water, filtered, milligrams per liter as nitrogen	0.11
00340	Chemical oxygen demand, high level, water, unfiltered, milligrams per liter	60
Major ions,	metals, and related chemistry	
00915	Calcium, water, filtered, milligrams per liter	0.21
00925	Magnesium, water, filtered, milligrams per liter	0.008
00930	Sodium, water, filtered, milligrams per liter	0.51
00940	Chloride, water, filtered, milligrams per liter	3.73
00955	Silica, water, filtered, milligrams per liter	2.41
01106	Aluminum, water, filtered, micrograms per liter	11
01005	Barium, water, filtered, micrograms per liter	2
01025	Cadmium, water, filtered, micrograms per liter	E0.03
01030	Chromium, water, filtered, micrograms per liter	E0.02
01040	Copper, water, filtered, micrograms per liter	3.6
01049	Lead, water, filtered, micrograms per liter	0.12
01056	Manganese, water, filtered, micrograms per liter	0.2
01065	Nickel, water, filtered, micrograms per liter	0.18
01080	Strontium, water, filtered, micrograms per liter	E0.39
01090	Zinc, water, filtered, micrograms per liter	6.8
Organic ch	emicals	
34466	Phenol, water, filtered, recoverable, micrograms per liter	E0.3
REPLICATE	E: 02479155 Cypress Creek near Janice, MS, Sample Date - 9/19/05, Sample Time - 1245	
Nitrogen, P	hosphorus, Carbon, and Oxygen Demand	
00623	Ammonia plus organic nitrogen, water, filtered, milligrams per liter as nitrogen	0.4
00625	Ammonia plus organic nitrogen, water, unfiltered, milligrams per liter as nitrogen	0.34
00631	Nitrite plus nitrate, water, filtered, milligrams per liter as nitrogen	E0.05
00665	Phosphorus, water, unfiltered, milligrams per liter	0.015
00666	Phosphorus, water, filtered, milligrams per liter	E0.004
00680	Organic carbon, water, unfiltered, milligrams per liter	10
Major ions.	metals, and related chemistry	
00900	Hardness, water, milligrams per liter as calcium carbonate	4
00915	Calcium, water, filtered, milligrams per liter	0.74
00925	Magnesium, water, filtered, milligrams per liter	0.496
00935	Potassium, water, filtered, milligrams per liter	0.67
00930	Sodium, water, filtered, milligrams per liter	2.27
00940	Chloride, water, filtered, milligrams per liter	3.44
00955	Silica, water, filtered, milligrams per liter	12.2

 Table 9. Continued--Results of quality-assurance samples collected at water-quality sites in the aftermath of Hurricane Katrina, southeas

 Mississippi, September 19-30, 2005.

Parameter		
code	Parameter name	Result
00945	Sulfate, water, filtered, milligrams per liter	0.7
70300	Residue on evaporation, dried at 180 degrees Celsius, water, filtered, milligrams per liter	38
01106	Aluminum, water, filtered, micrograms per liter	186
01000	Arsenic, water, filtered, micrograms per liter	0.6
01005	Barium, water, filtered, micrograms per liter	31
01010	Beryllium, water, filtered, micrograms per liter	0.1
01020	Boron, water, filtered, micrograms per liter	E4
01030	Chromium, water, filtered, micrograms per liter	0.43
01035	Cobalt, water, filtered, micrograms per liter	0.643
01040	Copper, water, filtered, micrograms per liter	1
01046	Iron, water, filtered, micrograms per liter	448
01049	Lead, water, filtered, micrograms per liter	0.38
01130	Lithium, water, filtered, micrograms per liter	0.9
01056	Manganese, water, filtered, micrograms per liter	52.9
01065	Nickel, water, filtered, micrograms per liter	1.09
01145	Selenium, water, filtered, micrograms per liter	E0.4
01080	Strontium, water, filtered, micrograms per liter	8.6
22703	Uranium (natural), water, filtered, micrograms per liter	0.06
01085	Vanadium, water, filtered, micrograms per liter	0.5
01090	Zinc, water, filtered, micrograms per liter	3.3
Organic ch	emicals	
50305	Caffeine, water, filtered, recoverable, micrograms per liter	E0.054
62070	Camphor, water, filtered, recoverable, micrograms per liter	E0.1
77356	4-Isopropyltoluene, water, unfiltered, recoverable, micrograms per liter	E0.02
81552	Acetone, water, unfiltered, recoverable, micrograms per liter	E3
34010	Toluene, water, unfiltered, recoverable, micrograms per liter	0.27