CALCASIEU PARISH WW DISTRICT 8
Public Water Supply ID: LA1019118

Consumer Confidence Report

2016 CCR

What you need to do:

Step 1: Review base report and inserts (numbered pages) for errors.

Surface Water Systems: If you are a surface water system, you must insert the turbidity data.

Step 2: Distribute completed report to your customers as outlined on the CCR Certification of Distribution Form no later than June 30, 2017.

Step 3: A completed CCR Certification of Distribution Form including a copy of the final CCR report shall be submitted to the State at the address provided on the form no later than September 30, 2017.

Notes:
This page is not part of your CCR; it is only the instruction page. The pages that are numbered in the upper right hand corner are the report pages.

The Water We Drink

CALCASIEU PARISH WW DISTRICT 8
Public Water Supply ID: LA1019118

We are pleased to present to you the Annual Water Quality Report for the year 2016. This report is designed to inform you about the quality of your water and services we deliver to you every day (Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien). Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water.
Our water source(s) are listed below:

Source Name	Source Water Type
WELL #1	Ground Water
WELL #2	Ground Water
WELL #3	Ground Water

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include:

Microbial Contaminants - such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

Inorganic Contaminants - such as salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial, or domestic wastewater discharges, oil and gas production, mining, or farming.

Pesticides and Herbicides - which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.

Organic Chemical Contaminants – including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.

Radioactive Contaminants – which can be naturally-occurring or be the result of oil and gas production and mining activities.

A Source Water Assessment Plan (SWAP) is now available from our office. This plan is an assessment of a delineated area around our listed sources through which contaminants, if present, could migrate and reach our source water. It also includes an inventory of potential sources of contamination within the delineated area, and a determination of the water supply's susceptibility to contamination by the identified potential sources. According to the Source Water Assessment Plan, our water system had a susceptibility rating of 'MEDIUM'. If you would like to review the Source Water Assessment Plan, please feel free to contact our office.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water which must provide the same protection for public health. We want our valued customers to be informed about their water utility. If you have any questions about this report, want to attend any scheduled meetings, or simply want to learn more about your drinking water, please contact DEBBIE FONTENOT at 337-582-3064.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. CALCASIEU PARISH WW DISTRICT 8 is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead.

The Louisiana Department of Health and Hospitals - Office of Public Health routinely monitors for constituents in your drinking water according to Federal and State laws. The tables that follow show the results of our monitoring during the period of January 1st to December 31st, 2016. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk.

In the tables below, you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms, we've provided the following definitions:

Parts per million (ppm) or Milligrams per liter (mg/L) – one part per million corresponds to one minute in two years or a single penny in $10,000.

Parts per billion (ppb) or Micrograms per liter (ug/L) – one part per billion corresponds to one minute in 2,000 years, or a single penny in $10,000,000.

Picocuries per liter (pCi/L) – picocuries per liter is a measure of the radioactivity in water.

Treatment Technique (TT) – an enforceable procedure or level of technological performance which public water systems must follow to ensure control of a contaminant.

Action level (AL) – the concentration of a contaminant that, if exceeded, triggers treatment or other requirements that a water system must follow.

Maximum contaminant level (MCL) – the "Maximum Allowed" MCL is the highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG's as feasible using the best available treatment technology.

Maximum contaminant level goal (MCLG) – the "Goal" is the level of a contaminant in drinking water below which there is no known or expected risk to human health. MCLG's allow for a margin of safety.

Maximum residual disinfectant level (MRDL) – The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum residual disinfectant level goal (MRDLG) – The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Level 1 assessment – A study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

Level 2 Assessment – A very detailed study of the water system to identify potential problems and determine (if possible) why an E. coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

During the period covered by this report we had the below noted violations.

Compliance Period	Analyte	Type
No Violations Occurred in the Calendar Year of 2016		

Our water system tested a minimum of 8 samples per month in accordance with the Total Coliform Rule for microbiological contaminants. During the monitoring period covered by this report, we had the following noted detections for microbiological contaminants:

Microbiological	Result	MCL	MCLG	Typical Source
COLIFORM (TCR)	In the month of June, 1 sample(s) returned as positive	MCL: Systems that Collect Less Than 40 Samples per Month - No more than 1 positive monthly sample	0	Naturally present in the environment

In the tables below, we have shown the regulated contaminants that were detected. Chemical Sampling of our drinking water may not be required on an annual basis; therefore, information provided in this table refers back to the latest year of chemical sampling results.

Regulated Contaminants	Collection Date	Highest Value	Range	Unit	MCL	MCLG	Typical Source
BARIUM	3/21/2016	0.19	0.18 - 0.19	ppm	2	2	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
DI(2-ETHYLHEXYL) PHTHALATE	3/21/2016	1.2	0.83 - 1.2	ppb	6	0	Discharge from rubber and chemical factories
FLUORIDE	3/21/2016	0.3	0.27 - 0.3	ppm	4	4	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories

Radionuclides	Collection Date	Highest Value	Range	Unit	MCL	MCLG	Typical Source
COMBINED RADIUM (-226 & -228)	3/21/2016	0.862	0.862	pCi/l	5	0	Erosion of natural deposits
GROSS BETA PARTICLE ACTIVITY	3/21/2016	2.05	2.05	pCi/l	50	0	Decay of natural and man-made deposits. Note: The gross beta particle activity MCL is 4 millirems/year annual dose equivalent to the total body or any internal organ. 50 pCi/L is used as a screening level.

Lead and Copper	Date	90TH Percentile	Range	Unit	AL	Sites Over AL	Typical Source
COPPER, FREE	2012 - 2014	0.4	0.1 - 0.6	ppm	1.3	0	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
LEAD	2012 - 2014	8	1 - 13	ppb	15	0	Corrosion of household plumbing systems; Erosion of natural deposits

Disinfection Byproducts	Sample Point	Period	Highest LRAA	Range	Unit	MCL	MCLG	Typical Source
TOTAL HALOACETIC ACIDS (HAA5)	4351 LUTHER ROAD	2016	12	12.2 - 12.2	ppb	60	0	By-product of drinking water disinfection
TOTAL HALOACETIC ACIDS (HAA5)	PARK RIDGE LANE @ HWY 90	2016	4	3.9 - 3.9	ppb	60	0	By-product of drinking water disinfection
TTHM	4351 LUTHER ROAD	2016	51	51 - 51	ppb	80	0	By-product of drinking water chlorination
TTHM	PARK RIDGE LANE @ HWY 90	2016	14	13.5 - 13.5	ppb	80	0	By-product of drinking water chlorination

Secondary Contaminants	Collection Date	Highest Value	Range	Unit	SMCL

CHLORIDE	3/21/2016	36.8	31.1 - 36.8	MG/L	250
IRON	3/21/2016	2.6	2.2 - 2.6	MG/L	0.3
MANGANESE	3/21/2016	0.36	0.3 - 0.36	MG/L	0.05
PH	3/21/2016	7.1	7.1	SU	8.5

++++++++++++++++Environmental Protection Agency Required Health Effects Language++++++++++++++++
Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (800–426–4791).

Additional Required Health Effects Language:

Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially-harmful, bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems.

There are no additional required health effects violation notices.

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Thank you for allowing us to continue providing your family with clean, quality water this year. In order to maintain a safe and dependable water supply we sometimes need to make improvements that will benefit all of our customers.

We at the CALCASIEU PARISH WW DISTRICT 8 work around the clock to provide top quality drinking water to every tap. We ask that all our customers help us protect and conserve our water sources, which are the heart of our community, our way of life, and our children's future. Please call our office if you have questions.

Addendum to Consumer Confidence Report (CCR) - Water We Drink

Insert: Disinfectants - Maximum Residual Disinfectant Level (MRDL) and Disinfection By-products - Maximum Contaminant Level (MCL)

Instructions: For all systems which use either Chlorine or Chloramines, as a disinfectant: You must report the annual average disinfectant residual level result and range of individual results in a Table in your CCR as shown in the following examples. You must also add the appropriate health effects language to the report in the Health Effects Language Section if the MRDL for either disinfectant was exceeded.

For all systems which use Chlorine Dioxide as a disinfectant: You must report the highest daily chlorine dioxide disinfectant residual level result and range of results and you must report the highest arithmetic average of monthly sample sets (3 samples in distribution system) and range in a Table in your CCR as shown in the following examples. You must also add the appropriate health effects language to the report in the Health Effects Language Section if the Chlorine Dioxide MRDL or the Chlorite MCL was exceeded.

For all systems which use Ozone as a disinfectant: You must report the annual average bromate level result and range of individual results in a Table in your CCR as shown in the following examples. You must also add the appropriate health effects language to the report in the Health Effects Language Section if the bromate MCL was exceeded.

Example Table (The below data is for example only and is not real data for the water system)

Contaminants	Date	Result	Unit	Range	MRDL or MCL	MRDLG or MCLG	Typical Source
Chlorine	2015	1.1	ppm	0.6-1.7	4	4	Water additive used to control microbes
Chloramines	2015	1.8	ppm	0.7-2.1	4	4	Water additive used to control microbes
Chlorine Dioxide	2015	778	ppb	722-778	800	800	Water additive used to control microbes
Chlorite	2015	0.6	ppm	0.4-0.6	1	0.8	By-product of drinking water disinfection
Bromate	2015	6	ppb	2-6	10	0	By-product of drinking water disinfection

Contaminant	Result value	Health Effects Language if exceeded
Chlorine MRDL	Highest running annual arithmetic average, computed quarterly, of monthly samples	Some people who use water containing chlorine well in excess of the MRDL could experience irritating effects to their eyes and nose. Some people who drink water containing chlorine well in excess of the MRDL could experience stomach discomfort.
Chloramines MRDL	Highest running annual arithmetic average, computed quarterly, of monthly samples	Some people who use water containing chloramines well in excess of the MRDL could experience irritating effects to their eyes and nose. Some people who drink water containing chloramines well in excess of the MRDL could experience stomach discomfort or anemia.
Chlorine Dioxide MRDL	Highest daily value	Some infants and young children who drink water chlorine dioxide in excess of the MRDL could experience nervous system effects. Similar effects may occur in fetuses of pregnant women who drink water containing chlorine dioxide in excess of the MRDL. Some people may experience anemia.
Chlorite MCL	Highest arithmetic average of monthly sample sets (3 samples in distribution system	Some infants and young children who drink water containing chlorite in excess of the MCL could experience nervous system effects. Similar effects may occur in fetuses of pregnant women who drink water containing chlorite in excess of the MCL. Some people may experience anemia.
Bromate MCL	Highest running annual arithmetic average, computed quarterly, of monthly samples	Some people who drink water of containing bromate in excess of the MCL over many years may have an increased risk of getting cancer.

Addendum to Consumer Confidence Report (CCR) - Water We Drink

Calculating Quarterly running annual averages (RAAs) for disinfectants (Chlorine (Free) and Chloramines (Total))
Compliance residuals are taken from monthly bacteriological samples (Lab 8 forms)

Example 1:
• System size: 25-1,000 people Samples: 1 per month

Example table (**The below data is for example only and is not real data for the water system**)

	1st Quarter			2nd Quarter			3rd Quarter			4th Quarter		
Month	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.
Monthly Sample (ppm)	0.7	0.6	0.6	0.5	0.7	0.6	0.9	0.8	0.8	0.7	0.8	0.8
Monthly Avg.	0.7	0.6	0.6	0.5	0.7	0.6	0.9	0.8	0.8	0.7	0.8	0.8
Quarterly Avg.	0.6			0.6			0.8			0.8		
Quarterly RAA*	0.7			0.6			0.7			0.7		

***Reported RAA for 1st – 3rd quarters are based on results from previous quarters not reported on this table.**

Information to report in CCR
Highest Quarterly RAA Value for the year = 0.7 ppm
Range of individual values (0.5-09)

Example contaminant table to insert into CCR:

Contaminants	Date	Result	Unit	Range	MRDL	MRDLG	Typical Source
Chlorine	2015	0.7	ppm	0.5-0.9	4	4	Water additive used to control microbes

Example 2:
• System size: 1,001-2,500 people Samples: 2 per month

Example table (**The below data is for example only and is not real data for the water system**)

	1st Quarter			2nd Quarter			3rd Quarter			4th Quarter		
Month	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.
Sample 1 (ppm)	1.0	2.1	1.4	2.2	1.4	1.4	2.5	2.6	1.4	2.9	3.7	1.8
Sample 2 (ppm)	1.4	1.9	0.8	2.2	2.3	1.6	2.1	2.8	1.4	2.7	2.9	1.8
Monthly Avg.	1.2	2.0	1.1	2.2	1.9	1.5	2.3	2.7	1.4	2.8	3.3	1.8
Quarterly Avg.	1.4			1.9			2.1			2.6		
Quarterly RAA*	1.7			2.3			1.9			2.0		

***Reported RAA for 1st – 3rd quarters are based on results from previous quarters not reported on this table.**

Information to report in CCR
Highest Quarterly RAA Value for the year = 2.3 ppm
Range of individual values (0.8 -3.7)

Example contaminant table to insert into CCR:

Contaminants	Date	Result	Unit	Range	MRDL	MRDLG	Typical Source
Chloramines	2015	2.3	ppm	0.8-3.7	4	4	Water additive used to control microbes

Calculations

- Monthly Avg. = (Sum of individual sample results collected in the month)/ total number of samples in month
  Example: For January in Example 2: (1.0 + 1.4)/2 = 1.2
- Quarterly Avg. = (Sum of monthly avgs. for a quarter)/3
  Example: For 1st Quarter in Example 2: (1.2 + 2.0 + 1.1)/3 = 1.4
- Quarterly RAA = (The Quarterly Avg. + 3 previous Quarterly Avgs.)/4
  Example: For Quarterly Avg. for 4th Quarter in Example 2: (2.6+2.1+1.9+1.4)/4 = 2.0

Quarterly RAA

1st Quarterly RAA	(1st Quarterly Avg. + Sum of 2nd, 3rd and 4th Quarterly Avgs. from previous year) / 4
2nd Quarterly RAA	(2nd Quarterly Avg. + 1st Quarterly Avg. + 3rd and 4th Quarterly Avgs. from previous year) / 4
3rd Quarterly RAA	(3rd Quarterly Avg. + 2nd Quarterly Avg. + 1st Quarterly Avg. + 4th Quarterly Avg. from previous year) / 4
4th Quarterly RAA	(4th Quarterly Avg. + 3rd Quarterly Avg. + 2nd Quarterly Avg. + 1st Quarterly Avg.) / 4