## **Annual Drinking Water Quality Report**

#### TX0840044

#### **BOLIVAR PENINSULA SUD**

Annual Water Quality Report for the period of January 1 to December 31, 2015	For more information regarding this report contact:				
This report is intended to provide you with important information about your drin king water and the efforts made by the water system to provide safe drinking water.	NameDarold C. Howard				
	Phone409-684-3515				
BOLIVAR PENINSULA SUD is Purchased Surface Water	Este reporte incluye información importante sobre el agua para tomar. Para asistencia en español, favor de llamar al telefono (409) 684-3515				
	A public hearing to address our CCR will be held before our regular schedule d Board meeting on August 9, 2016 at 5:00pm at our District office located at				

## **Sources of Drinking Water**

1840 Hwy 87, Crystal Beach, Texas 77650

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 su rface of the 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.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants doe s not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPAs S afe Drinking Water Hotline at (800) 426-4791.

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 wil dlife.
- Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater d ischarges, oil and gas production, mining, or farming.
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water 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 storm water runoff, and septic systems.

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

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 syst ems. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Contaminants may be found in drinking water that may cause taste, color, or odor problems. These types of problems are not necessarily causes for health conc erns. For more information on taste, odor, or color of drinking water, please contact the system's business office.

You may be more vulnerable than the general population to certain microbial contaminants, such as Cryptosporidium, in drinking water. Infants, some elderly, or i mmunocompromised persons such as those undergoing chemotherapy for cancer; persons who have undergone organ transplants; those who are undergoing tre atment with steroids; and people with HIV/AIDS or other immune system disorders, can be particularly at risk from infections. You should seek advice about drinking water from your physician or health care providers additional guidelines on appropriate means to lessen the risk of infection by Cryptosporidium are available from the Safe Drinking Water Hotline (800-426-4791).

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. We are responsible for providing high quality drinking water, but we cannot control t he 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 flu shing 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/

#### **Information about Source Water Assessments**

The TCEQ has completed a Source Water Assessment for all drinking water systems that own their sources. The report describes the susceptibility and types of cons tituents that may come into contact with your drinking water source based on human activities and natural conditions. The system(s) from which we purchase our water received the assessment report. For more information on source water assessments and protection efforts at our system, contact Darold C. Howard.

or more information about your sources of wa	iter, please refer to the Source Water Ass	essment Viewer available at the t	following URL: <a href="http://new.ncbi.nlm.nih.gov">http://new.ncbi.nlm.nih.gov</a>	//www.tceq.texas.gov/gis/swaview
Further details about sources and source-wate	r assessments are available in Drinking V	Vater Watch at the following URL	: http://dww2.tceq.te	exas.gov/DWW/
Source Water Name		Type of Water	Report Status	Location
SW FROM LOWER NECHES VALLEY	CC FROM TX0360112 LOWER	SW – Neches River	A	Winnie, Texas

#### Coliform Bacteria

Maximum Contaminant	Total Coliform Maxi		Fecal Coliform or E. Coli M			Likely Source of Contamination
Level Goal	mum Contaminant L	е	aximum Contaminant Leve	li or Fecal Coliform Sampl		
	evel			es		
0	1 positive monthly s ample.	1		0	N	Naturally present in the environment.

### **Water Quality Test Results**

Definitions: The following tables contain scientific terms and measures, some of which may require explanation.

Avg: Regulatory compliance with some MCLs are based on running annual average of monthly samples.

Maximum Contaminant Level or MCL: The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment t

echnology.

Maximum Contaminant Level Goal or MCLG: The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Maximum residual disinfectant level or 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 micro

bial contaminants.

## **Water Quality Test Results**

Maximum residual disinfectant level goal or 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 disi

nfectants to control microbial contaminants.

MFL million fibers per liter (a measure of asbestos)

na: not applicable.

NTU nephelometric turbidity units (a measure of turbidity)

pCi/L picocuries per liter (a measure of radioactivity)

ppb: micrograms per liter or parts per billion - or one ounce in 7,350,000 gallons of water.

ppm: milligrams per liter or parts per million - or one ounce in 7,350 gallons of water.

ppt parts per trillion, or nanograms per liter (ng/L)

ppq parts per quadrillion, or picograms per liter (pg/L)

### Disinfectant

Disinfectant	Year	Average L evel	Minimum L evel	Maximum Level	MRDL	MRDLG	Unit of Me asure	Violation (Y /N)	Likely Source of Contamination
Chloramines	2015	1.67	.02	5.00	4	4	ppm	N	Water additive used to control microbes.

# **Regulated Contaminants**

Disinfectants and Disinfecti on By-Products	Collection Date	Highest Level Detec ted	Range of Levels Det ected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Haloacetic Acids (HAA5)*	2015	53	24 - 58.3	No goal for the to tal	60	ppb	N	By-product of drinking water disinfection.
Total Trihalomethanes (TT HM)	2015	53	17.6 - 79	No goal for the to tal	80	ppb	N	By-product of drinking water disinfection.
Inorganic Contaminants	Collection Date	Highest Level Detec ted	Range of Levels Det ected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Asbestos	01/03/2012	0.1952	0.1952 - 0.1952	7	7	MFL	N	Decay of asbestos cement water mains; Erosion of natural deposits.
Nitrate [measured as Nitrog en]	2015	0.48	0.12 - 0.48	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic ta nks, sewage; Erosion of natural deposits.
Nitrite [measured as Nitrog en]	2015	0.04	0 - 0.04	1	1	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

### **Violations Table**

## Lead and Copper Rule

The Lead and Copper Rule protects public health by minimizing lead and copper levels in drinking water, primarily by reducing water corrosivity. Lead and copper enter drinking water mainly from corrosion of ead and copper containing plumbing materials.

Violation Type	Violation Begin	Violation End	Violation Explanation
INITIAL TAP SAMPLING (LCR)	07/01/2010	2015	We failed to test our drinking water for the contaminant and period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during the period indicated.
INITIAL TAP SAMPLING (LCR)	01/01/2011	2015	We failed to test our drinking water for the contaminant and period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during the period indicated.
INITIAL TAP SAMPLING (LCR)	07/01/2011	2015	We failed to test our drinking water for the contaminant and period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during the period indicated.
INITIAL TAP SAMPLING (LCR)	01/01/2012	2015	We failed to test our drinking water for the contaminant and period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during the period indicated.
LEAD CONSUMER NOTICE (LCR)	12/30/2013	2015	We failed to provide the results of lead tap water monitoring to the consumers at the location water was tested. These were supposed to be provided no later than 30 days after learning the results.

# **Lead and Copper**

Definitions:

Action Level Goal (ALG): The level of a contaminant in drinking water below which there is no known or expected risk to health. ALGs allow for a margin of safety. Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	08/13/2013	1.3	1.3	0.038	0	ppm	N	Erosion of natural deposits; Leaching from w ood preservatives; Corrosion of household plumbing systems
Lead	08/13/2013	0	15	2.56	0	ppb	N	Corrosion of household plumbing systems; Er osion of natural deposits.

### **Lead and Copper**

<u>01-01-2013</u> 12-31-2013	95%	30	.078	MG/L	CU90 - COPPER SUMMARY	
<u>01-01-2013</u> 12-31-2013	90%	30	.038	MG/L	CU90 - COPPER SUMMARY	08-13-2013
<u>01-01-2013</u> 12-31-2013	AL	0 Exceeding Action Level			CU90 - COPPER SUMMARY	
01-01-2013 12-31-2013	AL	0 Exceeding Action Level			PB90 - LEAD SUMMARY	

<u>01-01-2013</u> 12-31-2013	95%	30	.00389	MG/L	PB90 - LEAD SUMMARY	
01-01-2013 12-31-2013	90%	30	.00256	MG/L	PB90 - LEAD SUMMARY	08-13-2013
<u>07-01-2012</u> 12-31-2012	90%	60	.258	MG/L	CU90 - COPPER SUMMARY	12-12-2012
<u>07-01-2012</u> 12-31-2012	95%	60	.36	MG/L	CU90 - COPPER SUMMARY	
<u>07-01-2012</u> 12-31-2012	AL	0 Exceeding Action Level			CU90 - COPPER SUMMARY	
<u>07-01-2012</u> 12-31-2012	AL	4 Exceeding Action Level			PB90 - LEAD SUMMARY	
<u>07-01-2012</u> 12-31-2012	90%	60	.0138	MG/L	PB90 - LEAD SUMMARY	12-12-2012
<u>07-01-2012</u> 12-31-2012	95%	60	.0213	MG/L	PB90 - LEAD SUMMARY	
<u>01-01-2005</u> 12-31-2007	AL	2 Exceeding Action Level			CU90 - COPPER SUMMARY	
<u>01-01-2005</u> 12-31-2007	95%	30	1.6325	MG/L	CU90 - COPPER SUMMARY	
<u>01-01-2005</u> 12-31-2007	90%	30	.237	MG/L	CU90 - COPPER SUMMARY	07-12-2007
<u>01-01-2005</u> 12-31-2007	90%	30	.0241	MG/L	PB90 - LEAD SUMMARY	07-12-2007
<u>01-01-2005</u> 12-31-2007	95%	30	.02665	MG/L	PB90 - LEAD SUMMARY	
<u>01-01-2005</u> 12-31-2007	AL	7 Exceeding Action Level			PB90 - LEAD SUMMARY	

# Regulated Contaminants for LNVA

Disinfectants and Disinfection By-Products	Collection Date	Highest Level Dete cted	Range of Levels D etected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Haloacetic Acids (HAA5)*	2015	33	18.1 – 65.7	No goal for the to tal	60	ppb	N	By-product of drinking water disinfection.
Total Trihalomethanes (TT HM)	2015	56	27.9 - 111	No goal for the to tal	80	ppb	N	By-product of drinking water disinfection.
Inorganic Contaminants	Collection Date	Highest Level Dete cted	Range of Levels D etected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Barium	2015	0.0449	0.0449 - 0.0449	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Nitrate [measured as Nitro gen]	2015	0.06	0.06 - 0.06	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Nitrite [measured as Nitro gen]	07/24/2013	0.01	0.01 - 0.01	1	1	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Radioactive Contaminants	Collection Date	Highest Level Dete cted	Range of Levels D etected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Combined Radium 226/22 8	01/11/2011	1	1 - 1	0	5	pCi/L	N	Erosion of natural deposits.
Synthetic organic contami nants including pesticides and herbicides	Collection Date	Highest Level Dete cted	Range of Levels D etected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Dalapon	2015	1	0 - 1	200	200	ppb	N	Runoff from herbicides on right a ways.

# **Turbidity for Lower Neches Valley Authority**

	Limit (Treatment Techniq ue)	Level Detected	Violation	Likely Source of Contamination
Highest single measurement	1 NTU	0.58 NTU	N	Soil runoff.
Lowest monthly % meeting limit	0.3 NTU	99%	N	Soil runoff.

Information Statement: Turbidity is a measurement of the cloudiness of the water caused by suspended particles. We monitor it because it is a good indicator of water quality and the effectiveness of our filtration