

**UTILITY**  
**SERVICE**  
**AFFILIATES**

*Perth Amboy*



# ANNUAL WATER QUALITY REPORT

A Middlesex Water Company Affiliate



*Get To Know Your Drinking Water*

This document is an annual report on the quality of water delivered by Utility Service Affiliates (Perth Amboy) Inc. (USA-PA), in 2020. It meets the Federal Safe Drinking Water Act for “Consumer Confidence Reports” and contains information on the sources of our water, its constituents, and the health risks associated with any contaminants.

We believe high quality drinking water is vital to the well-being of the residents of the City of Perth Amboy and are committed to delivering a safe and plentiful drinking water supply. We are pleased to report that numerous improvements were made to the City's water and wastewater infrastructure during 2020 to help ensure clean, safe drinking water. These include:

- Replacement of many fire hydrants and valves throughout the water distribution system
- Continuation of an ongoing project to replace water meters and installation of radios to improve meter reading accuracy
- Due to COVID19 and the safety precautions require to be follow in accordance with CDC, USA-PA was not able to to replace as many meters as it was estimated.
- Upgrade of the water testing equipment to ensure continued accurate readings, monitoring and results at the Runyon Treatment Plant.
- Installation of a new 4 million gallon pump for the Ranney Well and started the installation of a new Variable Frequency Drive to operate the new pump.
- Securing of reduced sampling waivers for lead and copper from the state.
- As a result of the high quality water we are producing, the number of sampling sites has been maintained at 30 sites instead of 60.
- Continue to work with BASF in the installation of a treatment system to address removal of 1,4 Dioxane. This cost, estimated at approx. half a million dollars, is not being paid by the City of Perth Amboy or USA-PA but by BASF, the firm responsible for the contamination.
- Loan approval from the DEP was granted for the painting of the Albert Street stand pipe and the backwash water tank at Runyon.
- Completed the Sewer Separation Project on State Street near the Outer Bridge area.
- Despite the pandemic situation and guidelines implemented and the fact that USA-PA had to work on a staggered schedule to protect the employees, USA-PA was able to complete a total of 794 service calls from customers and continued all operations with no interruption in service.

We encourage you to read this report to gain a better understanding of all that's involved in bringing clean, clear tap water to your home. We are committed to transparency, to keeping residents informed of water and wastewater system developments and to promoting the importance of a plentiful and reliable supply of water in our daily lives.

## How to Contact Us

The Perth Amboy water system is owned by the City of Perth Amboy and managed and operated by Utility Service Affiliates (Perth Amboy) Inc., a subsidiary of Middlesex Water Company.

If you have questions about this report, would like more information about your water quality and/or opportunities for public participation in decisions about our drinking water, please call Luis Perez Jimenez, Director of Operations at (732) 826-5335.

You may also write to USA-PA at:

Utility Service Affiliates (Perth Amboy) Inc.  
P.O. Box 167  
Iselin, NJ 08830

Additional information about drinking water regulatory programs may be obtained by contacting the Environmental Protection Agency (EPA) Safe Drinking Water Hotline at (800) 426-4791.



## Water When You Need It!

USA-PA delivered 1.9 million gallons of water to approximately 12,000 customer accounts in 2020. Water is treated and then delivered to customers through 95 miles of distribution mains. The Perth Amboy water system consists of 1,300 acres of watershed, wells, a treatment plant, transmission and distribution mains, a reservoir with booster pumps and a standpipe. The City's water supply is obtained from groundwater in the Runyon Well field in Old Bridge, NJ – about nine miles south of the City of Perth Amboy. The Runyon Well fields are located in the Old Bridge Aquifer.

### Special Notes Regarding COVID-19

Throughout the public health crisis, our dedicated team of essential employees continued to work to provide reliable water service critically important for washing hands and maintaining overall appropriate personal hygiene. According to the World Health Organization and the American Water Works Association, treatment methods like those used by our companies are sufficient to disinfect water for numerous contaminants, including COVID-19. Our crews continued to maintain treatment plants and water quality, repair main breaks and respond to customer calls all while maintaining appropriate safety measures and precautions. We also moved forward with important construction projects designed to enhance the reliability and resiliency of our water treatment and distribution systems.

When buildings and facilities are left vacant for an extended period of time, as during the pandemic, we recommend that building owners and managers seek guidance on how to prepare their facility plumbing for reoccupation. Water that has been sitting idle within plumbing systems of unoccupied or partially occupied buildings and facilities could harbor microbial and other inorganic matter which, over time of non-use, can become a health issue. MWC recommends reviewing the following resources:

The Centers for Disease Control and Prevention (CDC): “Guidance for Building Water Systems” – <https://www.cdc.gov/coronavirus/2020-ncov/php/building-water-system.html>

The Environmental Science Policy & Research Institute: “Building Water Quality and Coronavirus: Flushing Guidance for Periods of Low or No Use” – [https://www.rwater.com/media/4664/final\\_coronavirus-building-flushing-guidance-20200403.pdf](https://www.rwater.com/media/4664/final_coronavirus-building-flushing-guidance-20200403.pdf)

# Protecting the Source of Your Drinking Water

## (SWAP) Source Water Assessment Program

The New Jersey Department of Environmental Protection (NJDEP) has implemented the Source Water Assessment Program to study existing and potential threats to the quality of public drinking water sources throughout the state.

### Susceptibility Ratings for the Perth Amboy Water System

The table below illustrates the susceptibility ratings for each contaminant category for each source in the system. For susceptibility ratings of purchased water, refer to the specific water system's source water assessment report.

Parameter	1 Well	5 GUDI*
Pathogens	Medium	High - 5
Nutrients	Medium	High - 3 Medium - 2
VOCs	High	High - 4 Medium - 1
Pesticides	Low	Medium - 1
Inorganics	Medium	High - 5
Radionuclides	High	High - 4 Medium - 1
Radon	Low	Medium - 5
Disinfection Byproduct Precursors	Medium	High - 5

\*GUDI (Groundwater Under Direct Influence of Surface Water)

### Susceptibility Chart Definitions

**Pathogens** – Organisms such as bacteria and viruses.

**Nutrients** – Compounds such as phosphorus and nitrogen that aid in the growth of organisms.

**Volatile Organic Compounds (VOCs)** – Man-made chemicals used as solvents, degreasers and gasoline components such as MTBE.

**Pesticides** – Man-made chemicals used to control pests and weeds such as Atrazine.

**Inorganics** – Mineral-based, man-made and naturally occurring, compounds such as arsenic and nitrates.

**Radionuclides** – Radioactive, man-made and naturally occurring, substances such as radium and uranium.

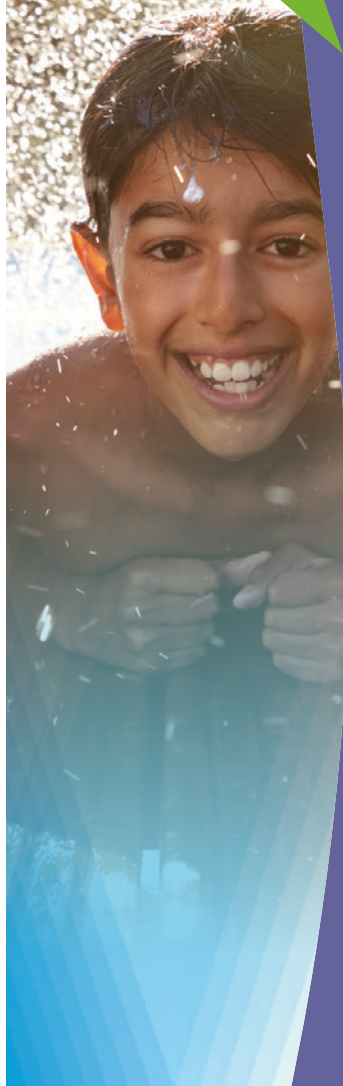
**Radon** – Naturally occurring gas.


**Disinfection Byproduct Precursors** – Naturally occurring organic matter, mainly in surface waters, that when combined with disinfectants such as chlorine, produce unwanted byproducts.

A public water system's susceptibility rating (Low, Medium or High) is a combination of two factors:

- 🔵 How sensitive the water supply is to potential contamination.
- 🔵 How often a contaminant is used or exists near the source water.

The USA-PA system produced **1.9 billion gallons** of water in 2020.





The ratings are based on the potential for a contaminant to be at or above 50% of the MCL (High), between 10% and 50% of the MCL (Medium) and less than 10% of the MCL (Low).

DEP considered all surface water highly susceptible to pathogens; therefore, all intakes received a high rating for the pathogen category. For the purpose of the Source Water Assessment Program, radionuclides are more of a concern for groundwater than surface water. As a result, surface water intakes' susceptibility to radionuclides was not determined and they all received a low rating.

**If a system is rated highly susceptible for a contaminant category, it does not mean a customer is or will be consuming contaminated drinking water. The rating reflects the potential for contamination of source water, not the existence of contamination.** Public water systems are required to monitor for regulated contaminants and to install treatment if any contaminants are detected at frequencies and concentrations above allowable levels. As a result of the assessments, the DEP may customize (change existing) monitoring schedules based on the susceptibility ratings.

Source Water Assessment Reports and Summaries are available for public water systems at [www.state.nj.us/dep/swap](http://www.state.nj.us/dep/swap) or by contacting the NJDEP's Bureau of Safe Drinking Water at (609) 292-5550.

## What Substances May be Found in the Source Water Before it is Treated?

The sources of drinking water (both tap water and bottled water) generally include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water moves over land or through the ground, it dissolves naturally occurring minerals and organics and can pick up substances resulting from the presence of animal or human activity. Substances that may be present in source waters prior to the treatment process include:

### Microbial Contaminants

Such as viruses and bacteria, which may come from sewage treatment plants, septic systems, livestock and wildlife.

### Inorganic Contaminants

Such as salts and metals, which can be naturally occurring or result from storm water runoff, wastewater discharges, or farming.

**For more information about contaminants and potential health effects, call the EPA's Safe Drinking Water Hotline at 1-800-426-4791.**

### Pesticides and Herbicides

May come from a variety of sources such as agriculture, storm water runoff, and residential uses.

### Organic Chemical Contaminants

Including natural, synthetic and volatile organic chemicals, which are by-products of nature and industrial processes and petroleum production. Can also come from gas stations, storm water runoff and septic systems.

### Radioactive Contaminants

Can be naturally occurring or may be the result of oil and gas production and mining activities.



## What You Should Know About Lead in Drinking Water

Recently, water quality issues related to lead in drinking water have dominated national headlines. Perhaps you are concerned if similar circumstances could be present in your own water systems?

We want you to know that water delivered by USA-PA is in compliance with the U.S. Environmental Protection Agency's Lead and Copper Rule, which sets standards for sampling for lead in drinking water.

USA-PA is responsible for providing high quality drinking water, but cannot control the variety of materials used in household plumbing components. If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead typically enters drinking water as a result of corrosion, or wearing away, of materials in household plumbing containing lead. While our surface water treatment process includes corrosion control to further protect customers, lead plumbing fixtures still present in your home are a cause for concern. These materials include lead-based solder that in the past had been used to join copper pipe, brass and chrome-plated brass faucets, and in some cases, the service line that connects your house to the water main, if the pipe is made of lead.

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 internal plumbing, 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 <https://www.epa.gov/your-drinking-water/basic-information-about-lead-drinking-water>.

### *Do I Need to Take Special Precautions?*

To ensure that tap water is safe to drink, the EPA and the DEP Bureau of Safe Drinking Water prescribe regulations which limit the amount of certain contaminants in water provided by public water systems. The U.S. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

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 the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the **EPA Safe Drinking Water Hotline at (800) 426-4791**.

## General Safety Suggestions Regarding Water Main Breaks

During main breaks or other system disruptions, USA-PA may encourage customers to boil their water used for drinking. **Customers should bring tap water to a rolling boil, boil for one minute, and cool before using.** Boiled or bottled water should be used for drinking, making ice, washing dishes, brushing teeth, and preparing food until further notice. This suggestion is offered to provide an extra margin of safety to our customers. This precautionary advisory is typically in effect from the time of the break, until 48 hours after service is restored.

These safety suggestions may be of particular interest to people with compromised immune systems, the elderly and infants who may be more vulnerable to possible contaminants in drinking water than the general population and have special needs regarding water quality. The Company suggests that these individuals discuss the boil water safety recommendation with their health care providers, should they experience any water service disruption to their homes in the future.

Based on past experience, USA-PA does not expect any water quality problems to be associated with main repairs. Its recommendation is simply a standard precautionary measure to better ensure the safety of its customers during distribution system and main repair work.



**64,240 gallons**

*The amount of water used by the average American in one year.* Source: [Water.org](http://Water.org)

## HEALTH INFORMATION

### Health Effects of Detected Contaminants (Required Language)

**Lead** - Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.

**Copper** - Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.

**Fluoride** - Some people who drink water containing fluoride in excess of the MCL over many years could get bone disease, including pain and tenderness of the bones. Children may get mottled teeth.

### Required Additional Health Information

#### *Special Considerations Regarding Children, Pregnant Women, Nursing Mothers, and Others*

Children may receive a slightly higher amount of a contaminant present in the water than do adults, on a body weight basis, because they may drink a greater amount of water per pound of body weight than do adults. For this reason, reproductive or developmental effects are used for calculating a drinking water standard if these effects occur at lower levels than other health effects of concern. If there is insufficient toxicity information for a chemical (for example, lack of data on reproductive or developmental effects), an extra uncertainty factor may be incorporated into the calculation of the drinking water standard, this making the standard more stringent, to account for additional uncertainties regarding these effects. In the cases of lead and nitrate, effects on infants and children are the health endpoints upon which the standards are based.

#### *A Word of Caution*

Our treatment systems are designed and operated to produce water that meets all state and federal standards. Many substances and microscopic organisms found in water may be a concern if they occur at high concentrations. For some contaminants, MCL levels have not been set because the EPA has not determined at what level they pose a public health risk. This is often because a reliable detection method is unavailable and/or because the contaminant is rarely found in treated water.

Some naturally occurring organisms commonly found in the natural water supplies may not be eliminated during the treatment process. This means that even a well-run system may contain low levels of microscopic organisms. The levels, however, are normally of little concern to healthy individuals. It should be noted, however, that under certain circumstances, these organisms might amplify to dangerous levels within a customer's own water supply system. All customers, including residential, commercial and industrial customers, and other large facilities such as schools, hospitals and hotels/motels, should follow appropriate procedures for maintaining their own internal plumbing systems and appliances. If you have any concerns about these matters, please call the **EPA Safe Drinking Water Hotline at (800) 426-4791**.

### For Your Safety

#### *A Message for People with Compromised Immune Systems*

**Although our drinking water meets all state and federal regulations, some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised individuals 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 individuals 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 pathogens are available from the EPA Safe Drinking Water Hotline at (1-800 426-4791).**

## Definitions & Abbreviations used below:

**Primary Standards:** Standards which relate to public health. **MCLG:** Maximum Contaminant Level Goal. 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. **MCL:** Maximum Contaminant Level. 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 technology. **MRDL:** Maximum Residual Disinfectant Level. 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. **MRDLG:** Maximum Residual Disinfectant Level Goal. 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 contamination. **Waiver:** State permission to reduce monitoring frequency because previous results have consistently been below the MCL. **ppt:** Parts Per Trillion. 1 ppt corresponds to 1 penny in \$10 billion. **ppb:** Parts Per Billion. 1 ppb corresponds to 1 penny in \$10 million. **ppm:** Parts Per Million. 1 ppm corresponds to 1 penny in \$10 thousand. **mrem/year:** Millirems per year. A measure of radiation absorbed by the body. **N/A:** Not Applicable. **ND:** None Detectable at testing limit. **NR:** Not Reported. **<:** Less Than. **>:** Greater Than. **AL:** Action Level. The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow. **CNR:** Currently Not Regulated. **NTU:** Nephelometric

Turbidity Unit. Used to measure cloudiness in drinking water. We monitor turbidity because it is a good indicator that our filtration system is functioning properly. High turbidity can hinder the effectiveness of disinfectants. **pCi/l:** Picouries per Liter. A measure of the radioactivity in water. **TT (Treatment Technique):** A required process intended to reduce the level of a contaminant in drinking water.

### Monitoring Waivers

The Safe Drinking Water Act regulations allow monitoring waivers to reduce or eliminate the monitoring requirements for some compounds because previous results have consistently been below the MCL. USA-PA received waivers for the following contaminants in its groundwater supplies: Synthetic Organic Chemicals and Asbestos.

**What the Numbers Mean to You:** The table shows the results of our monitoring during 2020. The EPA requires monitoring of over 100 drinking water contaminants. Those listed are the only contaminants detected. For a complete list of monitored contaminants, contact USA-PA at (732) 826-5330. As you can see, the USA-PA system had no MCL violations. The EPA has determined that your water is safe at these levels. The State requires water systems to monitor for certain contaminants less than once a year because the concentration of these contaminants is not expected to vary significantly from year to year. Therefore, some of these data may represent prior period testing that is considered representative of water quality.

ANNUAL WATER QUALITY RESULTS - 2020							Primary Standards
Parameter	Units	MCL (State/Federal Standard)	MCLG (Ideal Goal)	Results		MCL Violation Yes/No	Major Sources in Drinking Water
				Highest Level used for Compliance	Range		
<b>INORGANIC</b>							
Nickel	ppb	N/A	N/A	4.97	3.13 - 4.97	No	Discharge from petroleum and metal refineries; Erosion of natural deposits.
Barium	ppm	2	2	0.05	0.04 - 0.05	No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
Chromium	ppb	50	50	0.6	0.4 - 0.6	No	Discharge from steel and pulp mills. Erosion of natural deposits.
Fluoride (5)	ppm	4	4	.54	0.39 - 0.54	No	Added as part of treatment.
Lead (1)	ppb	AL = 15	0	2.7	ND - 13.2	No	Corrosion of household plumbing systems; Erosion of natural deposits
Copper (1)	ppm	AL = 1.3	1.3	0.12	ND - 0.78	No	Corrosion of household plumbing systems; Erosion of natural deposits
<b>MICROBIOLOGICAL</b>							
Turbidity	NTU's	TT = 1 NTU	0	0.14	N/A	No	Soil runoff
		TT = 95% of samples < 0.3 NTU		100%	N/A		
Disinfectant Residuals (Chlorine/Chloramines)	ppm	>4 (MRDL)	>4 (MRDLG)	0.57	0.32 - 0.77	No	Water additive used to control microbes
<b>DISINFECTION BY-PRODUCTS (2)</b>							
Total Trihalomethanes (Stage 2)	ppb	80	N/A	71	39 - 86	No	By-product of drinking water disinfection
Total Haloacetic Acids (Stage 2)	ppb	60	N/A	26	2 - 38	No	By-product of drinking water disinfection
Total Trihalomethanes (Stage 2) TTHM	ppb	80	N/A	92	40 - 125	See Sites 1, 2, 3	By-product of drinking water disinfection
<b>RADIOLOGICAL</b>							
Total Rad 226 + 228 (Note 3)	pCi/l	5	0	3	2 - 4	No	Decay of natural and man-made deposits
Alpha emitters (Note 3)	pCi/l	15	0	12	10 - 15	No	Erosion of natural deposits
Additional Monitoring	Units	MCL (State/Federal Standard)	MCLG (Ideal Goal)	Highest Level Detected	Range	MCL Violation Yes/No	Major Sources in Drinking Water
Additional contaminants for which we monitor that are currently not regulated by the EPA							
1,4 dioxane	ppb	CNR	N/A	0.7	0.2 - 0.7	N/A	Solvent or solvent stabilizer in manufacture of paper, cotton, textile products, auto coolant, cosmetics and shampoos.
Perfluorooctanoic acid (PFOA) (Note 6)	ppt	CNR	N/A	14	9.5 - 14	N/A	Used in the production of Teflon, firefighting foams, cleaners, cosmetics, greases and lubricants, paints, polishes, adhesives and photographic films.
Perfluorooctane Sulfonic Acid (PFOS)	ppt	CNR	N/A	4.7	2.7 - 4.7	N/A	Used in the production of Teflon, firefighting foams, cleaners, cosmetics, greases and lubricants, paints, polishes, adhesives and photographic films.
<b>UCMR4 (Unregulated Contaminant Monitoring Rule) (4)</b>							
Manganese	ppb	CNR	N/A	1 - 89	1 - 2	N/A	Naturally-occurring element; commercially available in combination with other elements and minerals; used in steel production, fertilizer, batteries and fireworks; drinking water and wastewater treatment chemical; essential nutrient.
HAA6Br	ppb	CNR	N/A	17	11 - 17	N/A	By-product of drinking water disinfection.
HAA9	ppb	CNR	N/A	99	20 - 99	N/A	By-product of drinking water disinfection.

Secondary Standards ( Non-Health Related)				
Parameter	Units	RUL*	Results	
			Average	Range
Sodium	ppm	50	38	33 - 42
Alkalinity	ppm	N/A	40	35 - 44
Aluminum	ppm	NA	61	38 - 85
Chloride	ppm	250	68	60 - 75
Hardness (as CaCO3)	ppm	250	78	77 - 79
Sulfates	ppm	250	30	29 - 30
Odor	Threshold Odor Number	3	ND	N/A
Zinc	ppm	5	12	1 - 23
pH	N/A	6.5 - 8.5 (optimum range)	7	7 - 8
Total Dissolved Solids	ppm	500	190	131 - 248

- 1: Perth Amboy water system is in a reduce monitoring from 60 samples to 30 samples per year. The listed Lead and Copper concentrations are the 90th Percentile Value.
- 2: Compliance is based on Local Running Annual Average of quarterly samples of individual sites.
- 3: The Gross Alpha compliance is determined minus the Radon and Uranium contribution. Results are from 2020.
- 4: The purpose of the UCMR monitoring is to provide the EPA Administrator with data to support decisions concerning whether or not to regulate these contaminants.
- 5: Fluoride is added as part of the treatment.
- 6: NJDEP established MCLs for PFOA and PFOS in 2020 with compliance sampling starting in 2021.

\*RUL: Recommended Upper Limit



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A Middlesex Water Company Affiliate

P. O. Box 167  
Iselin, New Jersey 08830

You can help

**protect drinking water!**

**Never flush unwanted or expired medicine down the toilet or drain.**

**Avoid using pesticides and fertilizers.**

**Pick up after your pets.**

**Use and dispose of chemicals properly.**

ANNUAL WATER QUALITY REPORT

2020



This report contains important information about your drinking water. If you do not understand it, please have someone translate it for you.

Este reporte contiene información muy importante con relación a su agua potable. Si no lo entiende bien, hable con alguien que se lo pueda traducir ó llame al Department de Servicios al Cliente al telefono (732) 826-0290, ext. 4024 ó 4025, para hablar con un representante en español sobre este reporte.