

Appendix A

Staff Report of Investigation

PSC Water and Sewer Department

Case Nos.

**SR-2010-0023, WR-2010-0025,
SR-2010-0026, and WR-2010-0027**

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SR-2010-0023, WR-2010-0025,
SR-2010-0026, and WR-2010-0027**

Prepared By:

**Jerry Scheible, P.E.
Utility Regulatory Engineer
Water & Sewer Department**

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Utility Operations Technical Specialist
Water & Sewer Department**

Approved By:

**Jim Busch – Manager
Water & Sewer Department**

March 8, 2010

INTRODUCTION

Aqua Missouri, Inc., Aqua RU, Inc. d/b/a Aqua Missouri, Inc., and Aqua Development Company d/b/a Aqua Missouri, Inc. (collectively referred to hereinafter as “Aqua” or “the Company”) provides water and/or sewer service to customers located in the Central and Southwest portions of the State of Missouri.

On July 15, 2009, the Missouri Public Service Commission (“the Commission”) received a Rate Increase Request Letter, requesting an increase in the Company’s annual operating revenues pursuant to Commission Rule 4 CSR 240-3.050 (“Small Utility Rate Case Procedure”). These matters have been designated as Case Nos. SR-2010-0023, WR-2010-0025, SR-2010-0026 and WR-2010-0027. Pursuant to the Small Utility Rate Case Procedure, Local Public Hearings were held on February 10, 2010¹, in Reeds Spring; February 11 in Shell Knob; February 16 in Republic; February 17 in Sedalia; February 18 in Warsaw; and February 22 in Jefferson City. Customers reported several issues at these hearings that had not been reported to the Commission’s Water & Sewer Department Staff (Staff) previously.

This Staff Report of Investigation (“Staff Report”) is dedicated to a discussion of the quality of service delivered by the Company to its customers and is submitted in response to testimony presented by Aqua customers at the Local Public Hearings held in February of 2010 in the above-listed cases. Specifically, the issues examined in this Staff Report address concerns

¹ Unless noted otherwise, all dates contained herein refer to calendar year 2010.

related to drinking water quality in the Aqua RU, Inc. d/b/a Aqua Missouri Inc.² service areas of White Branch and Ozark Mountain, in Warsaw and Shell Knob, respectively. For the Commission's information, there are approximately 160 water customers in the White Branch service area and approximately 445 customers served in the three (3) separate subdivisions, each of which is served by a separate water system, comprising the Company's Ozark Mountain service area.

DESCRIPTION OF AQUA'S WATER SUPPLY FACILITIES

Aqua's water supplies all originate from groundwater wells. Typically, the water is pumped from a drilled well, stored in a standpipe or hydro-pneumatic tank, treated with liquid chlorine and distributed throughout the supply main lines.

Iron and hardness are common in Missouri groundwater. Iron typically becomes a problem when it precipitates and settles in the distribution mains or customer service lines. Water can become discolored (typically a reddish color) when it remains in contact with a settled deposit of iron in the distribution system. Missouri groundwater is notorious for hardness, which varies by location, aquifer and even over time. Hard water is not an issue unique to Aqua's facilities, nor due to any operational or original construction method error.

WATER QUALITY AS MEASURED BY DNR WATER QUALITY REPORTS

Water Quality Reports (Reports), also known as *Consumer Confidence Reports (CCR's)*, are prepared annually by all public water supply systems, as required by the Missouri Department of Natural Resources (DNR) and the United States Environmental Protection Agency (EPA). (Code of State Regulations 10 CSR 60-8.030) The public water supplies are then required to make the reports available to their customers by July 1 of each year. DNR assists in providing test results and preparation of the reports. These *Reports* describe how DNR monitors the quality of the water supplied, and provide the results of selected contaminants and compounds that affect the water characteristics, along with concentration limits if applicable. Annual inspections of certificated water utilities performed by PSC Staff include obtaining a copy of these *Reports* either from the company or from DNR. The 2008 *Reports* for Aqua's White Branch and Ozark Mountain service areas are attached to this Staff Report as Attachment A. Staff would note that the 2009 *Reports* are not available until July 1 of this year.

DNR requires all water utilities to notify their customers that the *Report* for each utility's system(s) are available and how to view or obtain a copy. Aqua informs its customers according to this requirement, and also posts the *Reports* on its corporate website at www.aquaamerica.com. The 2008 *Reports* for all of Aqua's PSC certificated water supplies may be viewed by accessing this website.

Among the information required to be in each *Report*, DNR requires a statement as to what types of violations, if any, were cited by DNR against the water utility for the calendar year covered by the *Report*. The 2008 *Reports* for all (12) twelve of Aqua's water supplies that provide water service in Aqua's PSC certificated service areas state that no drinking water violations occurred

² Specifically, Case No. WR-2010-0025.

during the calendar year 2008. Staff has reviewed the *Reports* for those same Aqua supplies for the years of 2006 and 2007, and no drinking water violations are noted by DNR in those years.

In addition to the annual *Water Quality Report*, monthly testing is required by DNR at the source of supplies and at various points throughout all water distribution systems. The purpose of this testing is to check for the presence of total coliform, which is an indicator that more harmful bacteria may be present. A search of all of Aqua's water supplies included in this rate case was performed on DNR's *Drinking Water Watch* website. There are no monitoring violations indicated for any of Aqua's water supplies in the past (5) five years.

WATER QUALITY AS MEASURED BY GROUNDWATER SAMPLING

Staff has acquired copies of the latest inspections performed by DNR for Aqua's PSC certificated water supplies, including the White Branch and Ozark Mountain service areas targeted by a majority of the testimony regarding water quality at the Local Public Hearings. There were no DNR violations noted that indicate an issue with the quality or safety of the water for any of the water supplies.

DNR also requires the operators of groundwater systems to sample the water quality once every three years for an extensive list of possible contaminants. (4 CSR Chapter 4) A significant portion of the contaminants tested for are considered to be "secondary contaminants." This means there is not an enforceable limit on what level of the contaminant can be present in drinking water, and that the presence of such contaminants does not present safety or health risks, but instead could have detectable aesthetic affects with regard to water characteristics.

The results of DNR testing for the White Branch and Ozark Mountain service area water supplies were obtained and reviewed by Staff. Dissolved iron and water hardness (as calcium carbonate) are present at the facilities at levels which can cause some issues with the taste, color, and aesthetics of the water supplied. However, both iron and hardness are considered by DNR to be secondary contaminants, therefore with no enforceable limits.

STAFF INVESTIGATION AND FINDINGS REGARDING CUSTOMER COMPLAINTS AS PERFORMED AND PREPARED BY DAVID SPRATT

In Staff's investigation of the Company's rate increase request Staff performed inspections on all of Aqua's facilities and also investigated customer comments dealing with quality of service issues submitted in the rate cases in response to the required customer notification. Staff also investigated numerous complaints brought up at the Local Public Hearings listed above. The following is a summary of Staff's investigation related to complaints obtained from customer at the Local Public Hearings:

REEDS SPRING

Conducted February 10, 2010 near the Company's service areas of Spring Valley in Ozark, Lake Taneycomo Acres (LTA) in Branson, and Riverside Estates in Branson.

- No Aqua customers appeared at the hearing.

SHELL KNOB

Conducted February 11, 2010 near the Company's service areas of Ozark Mountain #1, #2, #3, and Lakewood Manor.

- Several customers appeared and approximately fifteen (15) testified.
- Lewis Williams (Ozark Mountain #3) testified that he has a filter on his water service line that he has to replace every thirty (30) to forty-five (45) days because of the particulates in the water. Mr. Williams said the water from his outside faucets that do not run through the filter come out red from iron. Mr. Williams further discussed multiple main breaks in the area and spikes in chlorine levels.

Following the Local Public Hearing, Staff contacted Mr. Williams to discuss his issues and to make an appointment to visit his residence and observe the water characteristics. On March 2nd Staff visited Mr. Williams at his home. When Mr. Williams opened up the first of two outside hydrants on his property the water came out black for a few seconds and then ran clear. By the time Staff placed a container under the water stream to collect the water there was nothing visible present. Staff also examined the water presented by the second hydrant, which appeared to be light brown before turning clear a few seconds later.

In addition, Staff also inspected the filter system installed by Mr. Williams. At the time of Staff's inspection the filter was brown and dirty. Mr. Williams stated that it had probably been a little over a month since he had replaced the current filter. Attached is a photo (Attachment B) of a new filter next to the existing filter found on Mr. William's property.

Staff also sampled the water available inside the home. In the opinion of Staff such water did not have an unpleasant taste or odor. Mr. Williams told Staff that at times the water has spikes of chlorine that make the water smell terrible, although Staff did not observe this condition at the time of the visit.

Mr. Williams lives near the end of a road, under which he claims Aqua constructed a dead end water main. In the opinion of Mr. Williams this dead end means that any dirt, grit, or sediments will not have an escape route except through the faucets of the customers. Staff has not confirmed that he is in fact on a dead end main or whether or not there would be any feasible way to loop it. Staff would note however that the Company did not construct the present water system, as it was acquired from a

previously existing utility. If a dead end main is in fact present then one solution could be to install a flush valve to help flush out any sediment.

Staff met with Ms. Tena Hale-Rush, (Manager of systems for Aqua MO) on February 23rd at the Jefferson City office to discuss a number of issues, including the possible installation of additional flush valves. Ms. Hale-Rush indicated that several flush valves are going to be installed at the end of dead end mains in all of the Company's water distribution systems. Staff informed Ms. Hale-Rush that Staff would like to see maps of the systems to correlate customer comments to their location on the water system, as well as see where flush valves are planned to be installed, and to evaluate what additional flush valves may need to be installed.

- Paula Andersen (Ozark Mountain #3) testified at the Shell Knob Local Public Hearing that the water is dirty and unfit to drink, that she is unable to get her laundry clean, that appliances and shower heads have to be replaced regularly because of the water, and that she is afraid her hot water heater is going out again.

Staff visited Ms. Andersen on March 2nd to investigate her claims. Staff sampled a glass of water and states that while the water did have a distinctive taste that could be considered objectionable that Staff would not have classified the water as unfit to drink. Ms. Andersen said there is no consistency from week to week with the quality of the water. She said some weeks it will be ok and other weeks it will be awful.

Ms. Andersen does not have a filter on her home like Mr. Williams does. Ms. Andersen indicated that she recently cleaned her bathroom sink and toilet so the stains that normally appear were not there. Staff took a picture (Attachment C) of the red-colored sediments and grit in the back of the toilet tank for reference.

Of the main breaks Ms. Andersen discussed, Staff did not see any evidence of a problem with water damage or any holes in the ground that were in disrepair. Ms. Andersen showed Staff some digging that had been done recently near her home, which she believed was the result of shut off valves being (unnecessarily) installed. Staff attempted to assure her that shut off valves will help to sectionalize the system in the event of a leak so that minimal numbers of customers will need to be out of water while a main break or leak is repaired, and they can be a tool to help the Company locate leaks more quickly. Pictures of two of the shut off valves installed near Ms. Andersen's home are attached to this Staff Report as Attachment D.

- Ruth Murray (Ozark Mountain #2) testified at the Shell Knob Local Public Hearing that she has seen deposits of dirt and debris come out her garden

hose and outside faucet. Ms. Murray has a filter on her home and a pressure regulator to reduce the pressure. As a result, Ms. Murray did not express many concerns about the water inside of her home. Staff met with Ms. Murray before the hearing and answered questions related to water testing. Staff assured Ms. Murray that the Company did in fact monitor and test its water, and that the Company is required to send samples to the DNR every month for bacteriological testing. Ms. Murray also had questions as to where the samples were tested. After investigation, Staff reported to her that the samples are delivered by courier to a State-sanctioned laboratory in Springfield, MO.

Following the Local Public Hearing Staff made arrangements to meet Ms. Murray on the morning of March 2nd at her home in Shell Knob. Unfortunately, Ms. Murray cancelled the appointment prior to the meeting. Staff did take a sample from her outside faucet but did not see any debris or discoloration in the water.

- Dale Jenkins (Ozark Mountain #2) testified at the Shell Knob Local Public Hearing generally regarding the poor quality of the water. In addition, Mr. Jenkins brought in a sample from his toilet tank to show what the water looks like when it has been sitting. Staff spoke with Mr. Jenkins at the end of the hearing and attempted unsuccessfully to arrange a time to meet. Unfortunately, Mr. Jenkins was unable to meet Staff during its investigation on March 2nd because he was working in Branson.

Staff did however take a sample of the water available at an outside faucet located on his residence. The water came out clear and showed no signs of debris or discoloration. In addition, the water had no odor and had no foul taste. After allowing the sample to settle in a clear bottle Staff did not notice any sediment.

- Zoa Joanne Spalinger (Lakewood Manor) testified at the Shell Knob Local Public Hearing that her water pressure had been high in the past, causing lines to break in her home. Staff previously investigated this particular problem and was unable to see any problems with Ms. Spalinger's pressure at that time. Staff obtained a reading at her outside faucet of 40 psi, which is not considered to be high pressure.

Ms. Spalinger further testified that at times the water tastes like chlorine but does not smell like chlorine. Staff called to make an appointment to meet with Ms. Spalinger on March 2nd but was unable to meet with her due to her work schedule. Staff did take a sample from her outside faucet and did not notice any chlorine taste in the water at that time. Staff plans to review Aqua's records to make sure that tests have shown a consistent residual in the system and to see if there have been any problems with the chlorinator.

- On March 2nd, while Staff was at Ms. Spalinger's house, Staff saw Kim Tate and her husband outside next door. Although they did not testify at the local public hearing, the Tates sent a letter in response to the initial customer notice regarding concerns with high pressure and inconsistent meter readings. Staff inquired as to whether they had been having any additional problems and was told that they do not have any new concerns.

WARSAW

Conducted February 18, 2010 near the Company's White Branch subdivision service area.

- Several residents appeared and testified at the Local Public Hearing. Staff was able to speak with only one customer before she left, but has since spoken with several other residents in the subdivision.
- The morning of February 26th Staff drove to Warsaw to meet with Jim Barb, the Company's operator for White Branch, to ask questions and to do an inspection of the system. The inspection showed no deficiencies. Staff would note however that as the customers are not metered it is not possible to determine how much water has been lost through leaks and flushing. As a result, Staff discussed with Mr. Barb the possibility and difficulties of metering the customers of White Branch. Some issues that were discussed were accessibility to customer service lines, maintaining the utility right of way on hills and through brush, knowledge of where service lines are connected to the company's mains, quality of service lines to homes, inconsistency in size of pipes for mains and service lines, mains that are not very deep in some areas which would require more excavation work to install meters, and costs associated both with installation of new meters and rate schedules for part time residents versus full time residents.

Staff also discussed with Mr. Barb the Warsaw Local Public Hearing, specifically about the customers who had testified about grit in the line. Mr. Barb showed Staff a map of the system, located in the well house. After review of the system map, Staff concluded that all of the White Branch customers at the hearing in Warsaw who testified about grit in their lines have a service line that comes off of the end of a dead end main. Mr. Barb showed Staff where two new flush valves have recently been installed to help clean out those mains and where a few more are scheduled to be installed once he receives approval from the company. A picture of the new flush valves is attached to the Staff Report as Attachment E.

Staff also inspected with Mr. Barb an area of Stonecrest Drive where customers said there had been a continuous leak. Mr. Barb said he replaced a section of main and moved a valve back about 80 feet out of the road, which had been too close to the road and had been hit by snow plows. Mr. Barb indicated that prior to replacement of that section there had been approximately eight (8) patches on that particular section of line, at least four of which had been installed by him. It was for this reason that the Company had replaced the main. Mr. Barb did indicate however that even after the main was changed there was still a leak in the area. Mr. Barb said he found out that this leak was due to a burned-up motor in a grinder pump for the city sewer system. Mr. Barb said he contacted the city sewer department and to his knowledge the problem has since been repaired.

- Mrs. Norma Walker testified at the Warsaw Local Public Hearing regarding the poor quality of water. She said the water tasted terrible and could not even be used to make coffee. Mrs. Walker said that when you boil water it has a terrible film on top of the water and there is also a lot of debris that settles in the bottom of the pot.

On the afternoon of February 26th, Staff met with Mrs. Walker, her son John, Deborah Lessley (the current home owners' association President), and Juanita Porche. Mrs. Lessley contacted the residents of White Branch through a website they have established for communication. Though many people were unable to meet with Staff on February 26, they delivered jars of water for Staff's inspection. Of the fifteen (15) samples currently in Staff's possession, only three (3) of them (2 from Mrs. Walker and 1 from Pete Downey who has his own well) were obtained under the supervision of Staff.

At the February 26 meeting Mrs. Walker presented Staff with a glass of water. The water looked clear but did not have a pleasant taste. Additionally, Mrs. Walker then made Staff a pot of coffee which was similarly unpleasant. Mrs. Walker also boiled a pot of water for Staff to see. Staff did not observe a film on the top of the water as had been mentioned by some who testified, but did in fact notice that some minerals had settled to the bottom of the pot. Staff has a jar of the water that Mrs. Walker boiled with the sediment still at the bottom of the jar. When the water was boiled and cooled it did taste better than tap water.

Mrs. Walker's son John removed the diffuser from the kitchen sink to show Staff the amount of grit that comes through the line. John thought he had cleaned it two weeks ago. A photo of the kitchen sink diffuser is attached to this Staff Report as Attachment F.

- Mrs. Lessley testified that when she filled her bathtub that approximately the first quarter of the water had sediment and was yellow in color before starting to run clear. On February 26 Mrs. Lessley presented Staff with a sample from the faucet in her bathtub, which did contain visible debris in the bottom of the jar. When the jar is shaken it makes the water appear yellow, a condition that was in fact testified to by other residents in the area. The water out of the bathtub typically does not have a screen over it like most other faucets and is not restricted like a shower head so more grit could be seen in a bath tub than in other fixtures. Mrs. Lessley also sent Staff some pictures of her bathroom faucet to show what the iron in the water does to the porcelain fixtures. These pictures are attached to the Staff Report as Attachment G.

Mrs. Lessley and her husband Robin both testified that they have replaced three (3) hot water heaters in the seventeen (17) years they have lived in their home and have also replaced eight (8) hot water heater elements due to the hard water. Mrs. Lessley also presented a jar of coffee as a sample. Staff did not see any separation in the coffee as some had testified. Staff currently has two jars of coffee that has been settling since February 26th.

Mr. Barb said that Aqua intends to put a flush valve on the end of the main serving this customer as her service line comes off of the end of that main. If the flush valves are operated properly and frequently enough they should help to clean out any sediment that may be in the main that becomes trapped at the end rather than going into the customer's home.

- Ms. Juanita Porche testified about rust and sand in the water. Ms. Porche was also present at the February 26 meeting and presented Staff with a filter that she has on her water service line coming into the home. According to Ms. Porche the filter had only been installed for a week. The filter was discolored, omitted a foul odor, and had visible grit on it. Ms. Porche gave Staff the filter element. The Company installed a flush valve behind Ms. Porche's home, but she stated she has never seen them operate it.

GENERAL OBSERVATIONS

Regular and periodic flushing of the distribution system is normally an effective way to address and minimize the problems associated with iron content in the source water and the accumulation of sediments originating in the source water or entering the distribution system as a result of line repair work. Although Aqua currently does perform some flushing of the systems, Staff has been working with Aqua on installing properly sized and properly located flush valves and establishing a schedule to flush the water mains that is adequate to address customer color, taste and odor concerns. There are currently ten (10) flush valves installed throughout the Ozark Mountain distribution systems and six throughout the White Branch distribution system. Four (4) of those sixteen (16) total flush valves have been installed in the past 12 months,

demonstrating in the opinion of Staff that Aqua is actively attempting to address the issue. Aqua is currently performing further engineering evaluation of the distribution systems to determine proper size and location of additional flush valves on the systems. Aqua and Staff will continue to collaborate to ensure the customers of the water systems see improvement in water quality.

Hard water is typically best addressed by in-home water softening units. In-home water softening units are utilized by a significant portion of Missouri's population, whether they receive water from a personal well, municipality, water district, or privately owned utility. For customers concerned about preservation of the homes plumbing system, appliances, and fixtures, it is likely feasible for them to rent or purchase a home water softening system and/or a home filtration system. The cost of a company softening the water would most likely be much greater than the individual resident renting or purchasing a home water softening system and/or home filtration system.

Water customers who are part-time, in that the residence may be used only on a seasonal basis, would likely see improvement in their water quality by turning off the water at a valve outside or at the water shut off in the home before it enters the home piping. This would prevent water from sitting in their service lines and plumbing during extended periods of non-use. Hot water heaters should be drained during periods of non-use as well. When the customer returns to the premises, the water should be turned back on and should open a plumbing fixture to allow "fresh" water to flush out any potential debris, prior to any water usage, including the refilling of the hot water heater. These actions would reduce the occurrence of sediments, discolored water and odor from hydrogen sulfide content, and reduce the build up of scale from hard water in the hot water heater.

WATER & SEWER DEPARTMENT STAFF'S SUMMARY CONCLUSIONS

Staff has investigated the White Branch and Ozark Mountain service area water supply systems in the context of the above-listed rate increase requests and in response to testimony presented by Aqua customers at the Local Public Hearings in those matters. In addition, Staff has reviewed documentation from DNR regarding the safety of the drinking water, including the latest DNR inspection report, *Water Quality Reports*, and the results of various testing performed on the drinking water. Staff reports that there were no violations noted on such reports that indicate an issue with the quality or safety of the water for the facilities.

In addition to Staff's general quality of service investigation the issues brought up by customers at the Local Public Hearings in these matters were deserving of additional investigation and evaluation. Staff has previously had discussions with Aqua to determine solutions to help remove sediment and debris from the lines by installing flush valves, particularly on dead end mains, and implementing a flushing schedule. Installing flush valves on the ends of lines should make a difference in the amount of sediment that customers are getting in their lines, as well as reduce the occurrence of discolored water due to iron content, but will not improve the hardness of the water. Staff also plans to work with the Company to explore and discuss treatment and/or sequestration techniques available to address groundwater characteristics including iron and hydrogen sulfide content, though the true need and feasibility are uncertain at present. Staff will continue to monitor any issues related to quality of service and commits to work with the

customers, the Company, and DNR to reach acceptable resolutions outside of the context of a rate case.

There are available methods of treating or sequestering the problems of hardness and iron by water utilities at the water source, but, depending upon what construction and operational tasks would be required for specific situations, the resulting cost would likely be undesirable to the customers when compared to the cost associated with installing flush valves. These types of treatment are typically not utilized by comparatively small water utilities as the cost is prohibitive.

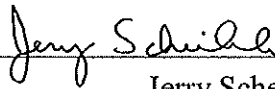
In conclusion, Staff feels Aqua is currently providing safe and adequate water service, and continued efforts will result in further improvement at a reasonable cost to the customers.

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

AFFIDAVIT OF JERRY SCHEIBLE, P.E.


STATE OF MISSOURI)
) SS **CASE NOS. SR-2010-0023; WR-2010-0025;**
) **SR-2010-0026 and WR-2010-0027**
COUNTY OF COLE)

COMES NOW Jerry Scheible, P.E., being of lawful age, and on his oath states the following:
(1) that he is a Utility Regulatory Engineer in the Missouri Public Service Commission's
Water & Sewer Department; (2) that he participated in the preparation of the foregoing *Staff*
Report of Investigation; (3) that he has knowledge of the information presented in the foregoing
Staff Report of Investigation; and (4) that the information presented in the foregoing *Staff Report*
of Investigation is true and correct to the best of his knowledge, information and belief.



Jerry Scheible, P.E.

At 5th
Subscribed and sworn to before me this 4th day of March 2010.



Notary Public



SUSAN L. SUNDERMEYER
My Commission Expires
September 21, 2010
Callaway County
Commission #06942086

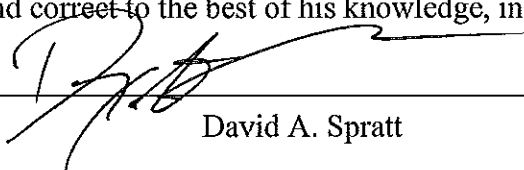
My Commission Expires: 9-21-10

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

AFFIDAVIT OF DAVID A. SPRATT

STATE OF MISSOURI)
) SS **CASE NOS. SR-2010-0023; WR-2010-0025;**
) **SR-2010-0026 and WR-2010-0027**
COUNTY OF COLE)

COMES NOW David A. Spratt, being of lawful age, and on his oath states the following: (1) that he is a Technical Specialist in the Missouri Public Service Commission's Water & Sewer Department; (2) that he participated in the preparation of the foregoing *Staff Report of Investigation*; (3) that he has knowledge of the information presented in the foregoing *Staff Report of Investigation*; and (4) that the information presented in the foregoing *Staff Report of Investigation* is true and correct to the best of his knowledge, information and belief.



David A. Spratt

Subscribed and sworn to before me this 8th day of March 2010.



Notary Public

My Commission Expires: October 1, 2011



2008 Water Quality Report

Aqua Missouri, Inc.
PO Box 7017
Jefferson City, MO 65102

* Or Current Resident

2008 WATER QUALITY REPORT

Aqua Missouri, Inc.		Este informe contiene información importante acerca de su agua potable. Haga que alguien lo traduzca para usted, o hable con alguien que lo entienda.	
Nothing is more basic to the life and health of a community than the quality of its drinking water.		Ensuring that our customers consistently receive clean, reliable water is an enormous responsibility that we take very seriously. This Water Quality Report identifies the source of your drinking water and the results of water quality monitoring conducted during 2008 (except where noted). If you have any questions about this report or your water quality, please call us at 573.634.2699 or visit our website at www.aquamissouri.com .	
PROTECTING OUR WATER RESOURCES			
The sources of drinking water (both tap water and bottle water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface 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.			
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 productions, 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 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, the U.S. Environmental Protection Agency (EPA) prescribes regulations, which limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) 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 water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (1.800.426.4791) or by visiting www.epa.gov/safewater .	
NEED MORE INFORMATION? Aqua Missouri values your input and welcomes your questions. If you would like to talk to an Aqua Missouri representative about your Water Quality Report, please call us at: 1.573.634.2699 You can also write us or visit our website at: www.aquamissouri.com		PROTECTING OUR CUSTOMERS Some people may be more vulnerable to disease causing microorganisms or pathogens in drinking water than the general population. Immuno-compromised persons such as person 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 their drinking water from their health care providers. The EPA/Center for Disease Control guidelines on appropriate means to lessen the risk of infection by <i>Cryptosporidium</i> and other microbial contaminants are available from the EPA's Safe Drinking Water Hotline (1.800.426.4791).	
The EPA sets MCLs at very stringent levels. In developing the standard, the EPA assumes that the average adult drinks 2 liters of water each day throughout a 70-year life span. EPA generally sets MCLs at levels that will result in no adverse health effects for some contaminants or a one-in-ten thousand to one-in-a-million chance of having the described health effect for other contaminants.			
DEFINITIONS - All definitions given are general and may not apply to a particular system			
AL: Action Level – The concentration of a contaminant, which, if exceeded, triggers treatment or other requirements that a water system must follow. 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. MCLG: Maximum Contaminant Level Goal – The level of contaminant in drinking water below, which there is no known or expected risk to health. MCLGs allow for a margin of safety. MFL: Million Fibers per Liter – measure of the presence of asbestos fibers that are longer than 10 micrometers. 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 contaminants.		mrrem/yr: Millirems per year – The measure of radiation absorbed by the body. N/A: Not Applicable. ND: Non-Detect – Not detected and indicates that the substance was not found by laboratory analysis. NTU: Nephelometric Turbidity Unit – Measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person. pCi/l: Picocuries per liter – A measure of the radioactivity in water. ppb: Parts per billion or micrograms per liter – One part by weight of analyte to 1 billion parts by weight of the water sample. ppm: Parts per million or milligrams per liter – One part by weight of analyte to 1 million parts by weight of the water sample. TT: Treatment Technique – A required process intended to reduce the level of a contaminant in drinking water. TTHMs: Total Trihalomethanes – TTHMs form when natural organic matter decomposes and combines chemically with the chlorine added for disinfection. Levels of TTHMs vary seasonally. Variances and Exemptions: State or EPA permission not to meet an MCL or a treatment technique under certain conditions or a treatment technique under certain conditions.	

Whitebranch

We are pleased to present our Drinking Water Quality Report results. Whitebranch routinely monitors for contaminants in your drinking water according to Federal and State laws, rules and regulations. Except where indicated otherwise, this report is based on the results of our monitoring for the period of January 1, 2008 to December 31, 2008. As authorized and approved by the EPA, the State has reduced monitoring requirements for certain contaminants to less than once a year because concentrations of these contaminants are not expected to vary significantly from year to year. Some of our data, though representative, is more than one year old.

Your water comes from the following source(s):

Ground Water – Well

The Department of Natural Resources conducted an assessment of our source water to determine its susceptibility to contamination. The assessment is a three-step process of identifying an area around our wellhead(s), inventorying potential sources of contaminants within that area (a one-half mile radius around the wellhead(s)) and a look at the adequacy of well construction. The assessment can be used to develop a wellhead protection program to protect this valuable resource. If you want to know more about the assessment or wish to participate on a watershed protection team to protect this valuable resource, then please call 573.634.2699.

Is our water system meeting other rules that govern our operations?

The Missouri Department of Natural Resources regulates our water system and requires us to test our water on a regular basis to ensure it's safety. Our system has been assigned the identification number MO3036113 for the purposes of tracking our test results. Last year, we tested for a variety of contaminants. The detectable results of these tests are on the following pages of this report. Any violations of state requirements or standards will be further explained later in this report.

How might I become actively involved?

If you would like to observe the decision-making process that affect drinking water quality or if you have any further questions about your drinking water report, please call 573.634.2699 to inquire about scheduled meetings or contact persons.

Regulated Contaminants							
Regulated Contaminants	Collection Date	Highest Value	Range	Unit	MCL	MCLG	Typical Source
Barium	05/04/06	0.0954	0.0447 – 0.0954	ppm	2	2	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chromium	05/04/06	2.1	2.1 – 3.16	ppb	100	100	Discharge from steel and pulp mills
Fluoride	05/04/06	0.12	0.12	ppm	4.0	4	Natural deposits; Water additive which promotes strong teeth
Toluene	05/04/06	0.00109	0.00109	ppm	1	1	Discharge from petroleum factories

Disinfection By Products	Monitoring Period	RAA	Range	Unit	MCL	MCLG	Typical Source
No Detected Results were Found in the Calendar Year of 2008							

Lead and Copper	Date	90 th Percentile	Range	Unit	AL	Sites Over AL	Typical Source
Copper	2004	0.1335	0.0267 – 0.139	ppm	1.3	0	Corrosion of household plumbing systems
Lead	2004	4.3	1.28 – 6.09	ppb	15	0	Corrosion of household plumbing systems

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. Aqua 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>.

Microbiological	Result	MCL	MCLG	Typical Source
No Detected Results were Found in the Calendar Year of 2008				

Radionuclides	Collection Date	Highest Value	Range	Unit	MCL	MCLG	Typical Source
Radium, Combined (226, 228)	04/14/08	1.4	1.4	pCi/l	5	0	Erosion of natural deposits
Radium-226	04/14/08	0.8	0.08	pCi/l	5	0	
Radium-228	04/14/08	1.4	1.4	pCi/l	5	0	

Violations and Health Effects Information

During the 2008 calendar year, there were no drinking water violations.

2008 Water Quality Report

Aqua Missouri, Inc.
PO Box 7017
Jefferson City, MO 65102

* Or Current Resident

2008 WATER QUALITY REPORT

Aqua Missouri, Inc.	Este informe contiene información importante acerca de su agua potable. Haga que alguien lo traduzca para usted, o hable con alguien que lo entienda.
Nothing is more basic to the life and health of a community than the quality of its drinking water.	Ensuring that our customers consistently receive clean, reliable water is an enormous responsibility that we take very seriously. This Water Quality Report identifies the source of your drinking water and the results of water quality monitoring conducted during 2008 (except where noted). If you have any questions about this report or your water quality, please call us at or 573.634.2699 or visit our website at www.aquamissouri.com .

PROTECTING OUR WATER RESOURCES

The sources of drinking water (both tap water and bottle water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface 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.

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 productions, 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 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, the U.S. Environmental Protection Agency (EPA) prescribes regulations, which limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) 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 water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (1.800.426.4791) or by visiting www.epa.gov/safewater .
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NEED MORE INFORMATION?

Aqua Missouri values your input and welcomes your questions. If you would like to talk to an Aqua Missouri representative about your Water Quality Report, please call us at:
1.573.634.2699
You can also write us or visit our website at:
www.aquamissouri.com.

PROTECTING OUR CUSTOMERS

Some people may be more vulnerable to disease causing microorganisms or pathogens in drinking water than the general population. Immuno-compromised persons such as person 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 their drinking water from their health care providers. The EPA/Center for Disease Control guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the EPA's Safe Drinking Water Hotline (1.800.426.4791).

The EPA sets MCLs at very stringent levels. In developing the standard, the EPA assumes that the average adult drinks 2 liters of water each day throughout a 70-year life span. EPA generally sets MCLs at levels that will result in no adverse health effects for some contaminants or a one-in-ten thousand to one-in-a-million chance of having the described health effect for other contaminants.

DEFINITIONS - All definitions given are general and may not apply to a particular system

AL: Action Level – The concentration of a contaminant, which, if exceeded, triggers treatment or other requirements that a water system must follow. 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. MCLG: Maximum Contaminant Level Goal – The level of contaminant in drinking water below, which there is no known or expected risk to health. MCLGs allow for a margin of safety. MFL: Million Fibers per Liter – measure of the presence of asbestos fibers that are longer than 10 micrometers. 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 contaminants.	mrem/yr: Millirems per year – The measure of radiation absorbed by the body. N/A: Not Applicable. ND: Non-Detect – Not detected and indicates that the substance was not found by laboratory analysis. NTU: Nephelometric Turbidity Unit – Measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person. pCi/l: Picocuries per liter – A measure of the radioactivity in water. ppb: Parts per billion or micrograms per liter – One part by weight of analyte to 1 billion parts by weight of the water sample. ppm: Parts per million or milligrams per liter – One part by weight of analyte to 1 million parts by weight of the water sample. TT: Treatment Technique – A required process intended to reduce the level of a contaminant in drinking water. TTHMs: Total Trihalomethanes – TTHMs form when natural organic matter decomposes and combines chemically with the chlorine added for disinfection. Levels of TTHMs vary seasonally. Variances and Exemptions: State or EPA permission not to meet an MCL or a treatment technique under certain conditions or a treatment technique under certain conditions.
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Ozark Mountain #1 Water System

We are pleased to present our Drinking Water Quality Report results. Ozark Mountain #1 Water System routinely monitors for contaminants in your drinking water according to Federal and State laws, rules and regulations. Except where indicated otherwise, this report is based on the results of our monitoring for the period of January 1, 2008 to December 31, 2008. As authorized and approved by the EPA, the State has reduced monitoring requirements for certain contaminants to less than once a year because concentrations of these contaminants are not expected to vary significantly from year to year. Some of our data, though representative, is more than one year old.

Your water comes from the following source(s): Ground Water – Well

The Department of Natural Resources conducted an assessment of our source water to determine its susceptibility to contamination. The assessment is a three-step process of identifying an area around our wellhead(s), inventorying potential sources of contaminants within that area (a one-half mile radius around the wellhead(s)) and a look at the adequacy of well construction. The assessment can be used to develop a wellhead protection program to protect this valuable resource. If you want to know more about the assessment or wish to participate on a watershed protection team to protect this valuable resource, then please call 573.634.2699.

Is our water system meeting other rules that govern our operations?

The Missouri Department of Natural Resources regulates our water system and requires us to test our water on a regular basis to ensure it's safety. Our system has been assigned the identification number MO5036177 for the purposes of tracking our test results. Last year, we tested for a variety of contaminants. The detectable results of these tests are on the following pages of this report. Any violations of state requirements or standards will be further explained later in this report.

How might I become actively involved?

If you would like to observe the decision-making process that affect drinking water quality or if you have any further questions about your drinking water report, please call us at 573.634.2699 to inquire about scheduled meetings or contact persons.

Regulated Contaminants

Regulated Contaminants	Collection Date	Highest Value	Range	Unit	MCL	MCLG	Typical Source
Barium	08/21/07	0.00974	0.00974	ppm	2	2	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits

Disinfection By Products	Monitoring Period	RAA	Range	Unit	MCL	MCLG	Typical Source
No Detected Results were Found in the Calendar Year of 2008							

Lead and Copper	Date	90 th Percentile	Range	Unit	AL	Sites Over AL	Typical Source
Copper	2008 – 2010	0.1194	0.0132 – 0.156	ppm	1.3	0	Corrosion of household plumbing systems
Lead	2008 – 2010	4.4	1.73 – 5.6	ppb	15	0	Corrosion of household plumbing systems

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. Aqua 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>.

Microbiological	Result	MCL	MCLG	Typical Source
No Detected Results were Found in the Calendar Year of 2008				

Radionuclides	Collection Date	Highest Value	Range	Unit	MCL	MCLG	Typical Source
Gross Alpha Particle Activity, Total	11/12/04	5.8	5.8	pCi/l	15	0	Erosion of natural deposits

Violations and Health Effects Information

During the 2008 calendar year, there were no drinking water violations.

2008 Water Quality Report

Aqua Missouri, Inc.
PO Box 7017
Jefferson City, MO 65102

* Or Current Resident

2008 WATER QUALITY REPORT

Aqua Missouri, Inc.	
Nothing is more basic to the life and health of a community than the quality of its drinking water.	Este informe contiene información importante acerca de su agua potable. Haga que alguien lo traduzca para usted, o hable con alguien que lo entienda.
	Ensuring that our customers consistently receive clean, reliable water is an enormous responsibility that we take very seriously. This Water Quality Report identifies the source of your drinking water and the results of water quality monitoring conducted during 2008 (except where noted). If you have any questions about this report or your water quality, please call us at 573.634.2699 or visit www.aquamissouri.com .
PROTECTING OUR WATER RESOURCES	
The sources of drinking water (both tap water and bottle water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface 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.	
CONTAMINANTS THAT MAY BE PRESENT IN SOURCE WATER INCLUDE:	
<p>Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.</p> <p>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 productions, mining or farming.</p> <p>Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.</p> <p>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.</p>	
<p>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, the U.S. Environmental Protection Agency (EPA) prescribes regulations, which limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.</p>	
<p>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. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (1.800.426.4791) or by visiting www.epa.gov/safewater.</p>	
NEED MORE INFORMATION?	PROTECTING OUR CUSTOMERS
Aqua Missouri values your input and welcomes your questions. If you would like to talk to an Aqua Missouri representative about your Water Quality Report, please call us at: 1.573.634.2699 You can also write us or visit our website at: www.aquamissouri.com .	Some people may be more vulnerable to disease causing microorganisms or pathogens in drinking water than the general population. Immuno-compromised persons such as person 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 their drinking water from their health care providers. The EPA/Center for Disease Control guidelines on appropriate means to lessen the risk of infection by <i>Cryptosporidium</i> and other microbial contaminants are available from the EPA's Safe Drinking Water Hotline (1.800.426.4791).
The EPA sets MCLs at very stringent levels. In developing the standard, the EPA assumes that the average adult drinks 2 liters of water each day throughout a 70-year life span. EPA generally sets MCLs at levels that will result in no adverse health effects for some contaminants or a one-in-ten thousand to one-in-a-million chance of having the described health effect for other contaminants.	
DEFINITIONS - All definitions given are general and may not apply to a particular system	
<p>AL: Action Level – The concentration of a contaminant, which, if exceeded, triggers treatment or other requirements that a water system must follow.</p> <p>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.</p> <p>MCLG: Maximum Contaminant Level Goal – The level of contaminant in drinking water below, which there is no known or expected risk to health. MCLGs allow for a margin of safety.</p> <p>MFL: Million Fibers per Liter – measure of the presence of asbestos fibers that are longer than 10 micrometers.</p> <p>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.</p> <p>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 contaminants.</p>	
<p>mmrem/yr: Millirems per year – The measure of radiation absorbed by the body.</p> <p>N/A: Not Applicable.</p> <p>ND: Non-Detect – Not detected and indicates that the substance was not found by laboratory analysis.</p> <p>NTU: Nephelometric Turbidity Unit – Measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.</p> <p>pCi/l: Picocuries per liter – A measure of the radioactivity in water.</p> <p>ppb: Parts per billion or micrograms per liter – One part by weight of analyte to 1 billion parts by weight of the water sample.</p> <p>ppm: Parts per million or milligrams per liter – One part by weight of analyte to 1 million parts by weight of the water sample.</p> <p>TT: Treatment Technique – A required process intended to reduce the level of a contaminant in drinking water.</p> <p>TTHMs: Total Trihalomethanes – TTHMs form when natural organic matter decomposes and combines chemically with the chlorine added for disinfection. Levels of TTHMs vary seasonally.</p> <p>Variances and Exemptions: State or EPA permission not to meet an MCL or a treatment technique under certain conditions or a treatment technique under certain conditions.</p>	

Ozark Mountain #2 Water System

We are pleased to present our Drinking Water Quality Report results. Ozark Mountain #2 Water System routinely monitors for contaminants in your drinking water according to Federal and State laws, rules and regulations. Except where indicated otherwise, this report is based on the results of our monitoring for the period of January 1, 2008 to December 31, 2008. As authorized and approved by the EPA, the State has reduced monitoring requirements for certain contaminants to less than once a year because concentrations of these contaminants are not expected to vary significantly from year to year. Some of our data, though representative, is more than one year old.

Your water comes from the following source(s): Ground Water – Well

The Department of Natural Resources conducted an assessment of our source water to determine its susceptibility to contamination. The assessment is a three-step process of identifying an area around our wellhead(s), inventorying potential sources of contaminants within that area (a one-half mile radius around the wellhead(s)) and a look at the adequacy of well construction. The assessment can be used to develop a wellhead protection program to protect this valuable resource. If you want to know more about the assessment or wish to participate on a watershed protection team to protect this valuable resource, then please call 573.634.2699.

Is our water system meeting other rules that govern our operations?

The Missouri Department of Natural Resources regulates our water system and requires us to test our water on a regular basis to ensure it's safety. Our system has been assigned the identification number MO5036163 for the purposes of tracking our test results. Last year, we tested for a variety of contaminants. The detectable results of these tests are on the following pages of this report. Any violations of state requirements or standards will be further explained later in this report.

How might I become actively involved?

If you would like to observe the decision-making process that affect drinking water quality or if you have any further questions about your drinking water report, please call us at 573.634.2699 to inquire about scheduled meetings or contact persons.

Regulated Contaminants

Regulated Contaminants	Collection Date	Highest Value	Range	Unit	MCL	MCLG	Typical Source
Barium	08/22/07	0.0134	0.0134	ppm	2	2	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Fluoride	08/22/07	0.14	0.14	ppm	4.0	4	Natural deposits; Water additive which promotes strong teeth.

Disinfection By Products	Monitoring Period	RAA	Range	Unit	MCL	MCLG	Typical Source
Total Trihalomethanes (TTHM)	2008 – 2010	3.3	3.3	ppb	80	0	By-product of drinking water chlorination

Lead and Copper	Date	90 th Percentile	Range	Unit	AL	Sites Over AL	Typical Source
Copper	2002 - 2010	0.142	0.0189 – 0.176	ppm	1.3	0	Corrosion of household plumbing systems
Lead	2002 - 2010	6.6	1.38 – 7.22	ppb	15	0	Corrosion of household plumbing systems

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. Aqua 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>.

Microbiological	Result	MCL	MCLG	Typical Source
No Detected Results were Found in the Calendar Year of 2008				

Radionuclides	Collection Date	Highest Value	Range	Unit	MCL	MCLG	Typical Source
Gross Alpha Particle Activity, Total	05/21/07	7.2	7.2	pCi/l	15	0	Erosion of natural deposits
Radium, Combined (226, 228)	05/21/07	2.6	2.6	pCi/l	5	0	Erosion of natural deposits
Radium, Combined – 226	05/21/07	2.6	2.6	pCi/l	5	0	Erosion of natural deposits

Violations and Health Effects Information

During the 2008 calendar year, there were no drinking water violations.

2008 Water Quality Report

Aqua Missouri, Inc.
PO Box 7017
Jefferson City, MO 65102

* Or Current Resident

2008 WATER QUALITY REPORT	
<div>Aqua Missouri, Inc.</div> <div>Nothing is more basic to the life and health of a community than the quality of its drinking water.</div>	<div>Este informe contiene información importante acerca de su agua potable. Haga que alguien lo traduzca para usted, o hable con alguien que lo entienda.</div> <div>Ensuring that our customers consistently receive clean, reliable water is an enormous responsibility that we take very seriously. This Water Quality Report identifies the source of your drinking water and the results of water quality monitoring conducted during 2008 (except where noted). If you have any questions about this report or your water quality, please call us at 573.634.2699 or visit our website at www.aquamissouri.com.</div>
<div>PROTECTING OUR WATER RESOURCES</div> <div>The sources of drinking water (both tap water and bottle water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface 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.</div>	
<div>CONTAMINANTS THAT MAY BE PRESENT IN SOURCE WATER INCLUDE:</div> <div><div><div>Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.</div><div>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 productions, mining or farming.</div><div>Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.</div><div>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.</div></div><div><div>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, the U.S. Environmental Protection Agency (EPA) prescribes regulations, which limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.</div><div>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. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (1.800.426.4791) or by visiting www.epa.gov/safewater.</div></div></div>	
<div>NEED MORE INFORMATION?</div> <div>Aqua Missouri values your input and welcomes your questions. If you would like to talk to an Aqua Missouri representative about your Water Quality Report, please call us at: 1.573.634.2699 You can also write us or visit our website at: www.aquamissouri.com.</div>	<div>PROTECTING OUR CUSTOMERS</div> <div>Some people may be more vulnerable to disease causing microorganisms or pathogens in drinking water than the general population. Immuno-compromised persons such as person 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 their drinking water from their health care providers. The EPA/Center for Disease Control guidelines on appropriate means to lessen the risk of infection by <i>Cryptosporidium</i> and other microbial contaminants are available from the EPA's Safe Drinking Water Hotline (1.800.426.4791).</div>
<div>The EPA sets MCLs at very stringent levels. In developing the standard, the EPA assumes that the average adult drinks 2 liters of water each day throughout a 70-year life span. EPA generally sets MCLs at levels that will result in no adverse health effects for some contaminants or a one-in-ten thousand to one-in-a-million chance of having the described health effect for other contaminants.</div>	
<div>DEFINITIONS - All definitions given are general and may not apply to a particular system</div> <div><div><div>AL: Action Level – The concentration of a contaminant, which, if exceeded, triggers treatment or other requirements that a water system must follow.</div><div>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.</div><div>MCLG: Maximum Contaminant Level Goal – The level of contaminant in drinking water below, which there is no known or expected risk to health. MCLGs allow for a margin of safety.</div><div>MFL: Million Fibers per Liter – measure of the presence of asbestos fibers that are longer than 10 micrometers.</div><div>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.</div><div>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 contaminants.</div></div><div><div>mrem/yr: Millirems per year – The measure of radiation absorbed by the body.</div><div>N/A: Not Applicable.</div><div>ND: Non-Detect – Not detected and indicates that the substance was not found by laboratory analysis.</div><div>NTU: Nephelometric Turbidity Unit – Measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.</div><div>pCi/l: Picocuries per liter – A measure of the radioactivity in water.</div><div>ppb: Parts per billion or micrograms per liter – One part by weight of analyte to 1 billion parts by weight of the water sample.</div><div>ppm: Parts per million or milligrams per liter – One part by weight of analyte to 1 million parts by weight of the water sample.</div><div>TT: Treatment Technique – A required process intended to reduce the level of a contaminant in drinking water.</div><div>TTHMs: Total Trihalomethanes – TTHMs form when natural organic matter decomposes and combines chemically with the chlorine added for disinfection. Levels of TTHMs vary seasonally.</div><div>Variances and Exemptions: State or EPA permission not to meet an MCL or a treatment technique under certain conditions or a treatment technique under certain conditions.</div></div></div>	

Ozark Mountain #3 Water System

We are pleased to present our Drinking Water Quality Report results. Ozark Mountain #3 Water System routinely monitors for contaminants in your drinking water according to Federal and State laws, rules and regulations. Except where indicated otherwise, this report is based on the results of our monitoring for the period of January 1, 2008 to December 31, 2008. As authorized and approved by the EPA, the State has reduced monitoring requirements for certain contaminants to less than once a year because concentrations of these contaminants are not expected to vary significantly from year to year. Some of our data, though representative, is more than one year old.

Your water comes from the following source(s): Ground Water – Well

The Department of Natural Resources conducted an assessment of our source water to determine its susceptibility to contamination. The assessment is a three-step process of identifying an area around our wellhead(s), inventorying potential sources of contaminants within that area (a one-half mile radius around the wellhead(s)) and a look at the adequacy of well construction. The assessment can be used to develop a wellhead protection program to protect this valuable resource. If you want to know more about the assessment or wish to participate on a watershed protection team to protect this valuable resource, then please call 573.634.2699.

Is our water system meeting other rules that govern our operations?

The Missouri Department of Natural Resources regulates our water system and requires us to test our water on a regular basis to ensure it's safety. Our system has been assigned the identification number MO5036162 for the purposes of tracking our test results. Last year, we tested for a variety of contaminants. The detectable results of these tests are on the following pages of this report. Any violations of state requirements or standards will be further explained later in this report.

How might I become actively involved?

If you would like to observe the decision-making process that affect drinking water quality or if you have any further questions about your drinking water report, please call us at 573.634.2699 to inquire about scheduled meetings or contact persons.

Regulated Contaminants

Regulated Contaminants	Collection Date	Highest Value	Range	Unit	MCL	MCLG	Typical Source
Barium	08/22/07	0.0545	0.0545	ppm	2	2	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Nitrate + Nitrite (As N)	10/6/08	0.05	0.05	ppm	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits

Disinfection By Products	Monitoring Period	RAA	Range	Unit	MCL	MCLG	Typical Source
No Detected Results were Found in the Calendar Year of 2008.							

Lead and Copper	Date	90 th Percentile	Range	Unit	AL	Sites Over AL	Typical Source
Copper	2004	0.177	0.0351 – 0.19	ppm	1.3	0	Corrosion of household plumbing systems
Lead	2004	3.515	1.47 – 3.99	ppb	15	0	Corrosion of household plumbing systems

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. Aqua 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>.

Microbiological	Result	MCL	MCLG	Typical Source
No Detected Results were Found in the Calendar Year of 2008				

Radionuclides	Collection Date	Highest Value	Range	Unit	MCL	MCLG	Typical Source
Gross Alpha Particle Activity, Total	11/2/04	3.6	3.6	pCi/l	15	0	Erosion of natural deposits

Violations and Health Effects Information

During the 2008 calendar year, there were no drinking water violations.



03/02/2010

Attachment B



67-0044-A2

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03/02/2010



03/02/2010

Attachment D



02/26/2010



02/26/2010



Attachment G

2010/02/22