9399 West Higgins Rd Ste
1100
Rosemont, IL, 60018

Phone: 877-889-8195
Web: www.culligan.com

Report Date: 9/25/2019

CERTIFICATE OF ANALYSIS

ANALYSIS NUMBER: 1912409

Culligan Water Conditioning of Scotia, New York
One Culligan Drive
Scotia, NY 12302

Customer: **660885-Ninth Planet Bev**
41 Geyser Rd
Saratogo NY, 12866

Control Number:

Account Number: US10_031
Collected By: Josh Baruch

Misc:
cc: jparker@culliganwaterco.com

SAMPLE INFORMATION:

Analysis Type Requested: Comprehensive Analysis

Sampled: 9/12/2019 at 2:00 PM
Received: 9/18/2019 at 3:00 PM
Supply/Source: Private Well
Sampling Point:
Condition: Treated Water
Application: Commercial

ANALYSIS INFORMATION:

Turbidity (180.1 Rev. 2 1993):	0.16 NTU	Turbidity after filtration:	NM
Conductivity (120.1):	771.60 microS/cm	Est. TDS by Conductivity:	477.56
Color* (SM2120C, 21Ed):	NM	Color after Acidification*:	<5.00 color
pH* (150.1):	7.97	Tannins:	<2.00 mg/L

Concentrations reported as mg/L (PPM) unless otherwise indicated

CATIONS (Method 200.7 Rev 4.4)

	As Element	As CaCO3
Calcium* (Ca)	55.31	138.28
Magnesium* (Mg)	11.89	48.99
Sodium* (Na)	69.83	152.23
Potassium* (K)	1.28	1.64
Strontium (Sr)	0.29	
Barium* (Ba) [ppb]	20.59	
Iron* (Fe)	<0.05	
Manganese* (Mn)	<0.02	
Copper* (Cu)	<0.003	
Zinc* (Zn)	<0.05	

ANIONS (Method 300.0)

	As Element	As CaCO3
Chloride* (Cl)	156.41	220.54
Nitrate As N* (NO3)	0.51	1.82
Nitrite As N* (NO2)	<0.10	0.00
Sulfate* (SO4)	28.90	30.06
Bicarbonate*	140.09	114.87
Carbonate*	NM	NM
Fluoride* (F)	0.73	1.88
Silica* (SiO2)	14.60	

	Mg/L	GPG		Mg/L	GPG		Mg/L	GPG
Cations (CaCO3)	341.14	19.95	Anions (CaCO3)	369.17	21.59	Hardness* (CaCO3)	187.27	10.95

Additional Tests

Aluminum	ND ug/L	Antimony*	ND ug/L
Total Arsenic*	ND ug/L	Berylium*	ND ug/L
Cadmium (Cd)*	ND ug/L	Chromium*	1.72 ug/L
Lead (Pb)*	ND ug/L	Mercury (Hg)	ND ug/L
Selenium (Se)*	ND ug/L	Silver (Ag)*	ND ug/L
Thallium (Tl)*	ND ug/L		

Analysis Number: **1912409**

Consumer:

NA = Not Analyzed NM = Not Measured ND = Not Detected * = NELAP accredited parameter

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NELAP Certifications: IL-100213; PA-68-04623; NY-11756; TX-TX269-2007A
State Certifications: IL-IDPH-17598; CA-2958; MT-CERT0091; IA-369;
VT-02199; WI-105-10119; CO-IL100213; MI-9988; MO-1060

Maria Mozdzen
Analytical Lab Manager

Analysis Number: **1912409**

Consumer:

FEDERAL SAFE DRINKING WATER ACT

All tested parameters exceeding the maximum concentration levels (MCL) established under the "Federal Safe Drinking Water Act"

Parameter	Found	MCL

* MCL for Turbidity varies as follows:

1. Municipal Direct Filtration 0.5 NTU
2. Municipal Sand Filtration 1.0 NTU
3. Unfiltered Water Supply 5.0 NTU

TYPICAL POST RO DRINKING WATER UNITS

(Concentrations reported as mg/L (PPM) as the element)

Calcium (Ca)	1.11	Sulfate (SO4)	0.58
Iron (Fe)	0.00	Magnesium (Mg)	0.24
Manganese (Mn)	0.00	Sodium (Na)	1.40
Zinc (Zn)	0.00	Potassium (K)	0.04
Copper (Cu)	0.00	Chloride (Cl)	7.82
Nitrate As N (NO3)	0.12	Fluoride (F)	0.04
Nitrite As N (NO3)	0.00		

These values are typical of new modules on water with a pH of 7-9 at 70-74 F with 500-3000 mg/ L total salts operating with 40-70 PSI pressure across the module. Local conditions may yield different results.

DI CALCULATION FACTORS

			GPG	mg/L
Sodium	44.62%	Weak Base Fact X	14.65	250.60
Alkalinity	31.12%	Carbonic Acid	7.12	121.77
Chloride	88.00%	Cation Fact Y	19.95	341.14
Carbonic Acid	30.71%	Silica	12.11	249.66
Monovalent Ions	57.70%	Carbon Dioxide	0.20	3.45
Silica	3.79%	Strong Base Fact Z	22.53	385.34

Method	Date	Method	Date
120.1	9/25/2019	150.1	9/25/2019
180.1 Rev. 2 1993	9/25/2019	200.7 R4.4	9/25/2019
200.8 R5.4	9/25/2019	245.1 Rev. 3	9/25/2019
300.0 R2.1	9/25/2019	SM 5550	9/25/2019
SM2120C, 21Ed	9/25/2019	SM2120C,21Ed	9/25/2019
SM2320B, 18Ed	9/25/2019		

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Comprehensive Analysis

Customer Name: 660885-Ninth Planet Bev
Customer Address: 41 Geyser Rd
Customer City, State:

Sample Date: 9/18/2019
Sample Description:
Condition: Treated Water
Date Reviewed: 9/25/2019
Sample I.D.: 1912409

Contaminant	Sample Result	AAMI Suggested MCL	Instrument Detection Limit
ALUMINUM	<2.00 ug/L	10.00 ug/L	2.000 ug/L
ANTIMONY	<2.00 ug/L	6.00 ug/L	2.000 ug/L
BARIUM	20.59ug/L	100.00 ug/L	10.000 ug/L
BERYLIUM	<0.10 ug/L	4.00 ug/L	0.100 ug/L
CADMIUM	<0.10 ug/L	1.00 ug/L	0.100 ug/L
CALCIUM	55.31mg/L	2.00 mg/L	0.100 mg/L
CHLORIDE	156.41mg/L	50.00 mg/L	0.500 mg/L
CHROMIUM	1.72ug/L	14.00 ug/L	0.500 ug/L
COPPER	<0.02 mg/L	0.10 mg/L	0.015 mg/L
FLUORIDE	0.73mg/L	0.20 mg/L	0.200 mg/L
LEAD	<1.00 ug/L	5.00 ug/L	1.000 ug/L
MAGNESIUM	11.89mg/L	4.00 mg/L	0.100 mg/L
MERCURY	<0.20 ug/L	0.20 ug/L	0.200 ug/L
NITRATE	0.51mg/L	2.00 mg/L	0.200 mg/L
POTASSIUM	1.28mg/L	8.00 mg/L	0.100 mg/L
SELENIUM	<2.00 ug/L	90.00 ug/L	2.000 ug/L
SILVER	<0.10 ug/L	5.00 ug/L	0.100 ug/L
SODIUM	69.83mg/L	70.00 mg/L	0.100 mg/L
SULFATE	28.90mg/L	100.00 mg/L	3.000 mg/L
THALLIUM	<1.00 ug/L	2.00 ug/L	1.000 ug/L
ARSENIC	<1.00 ug/L	5.00 ug/L	1.000 ug/L
ZINC	<0.05 mg/L	0.10 mg/L	0.050 mg/L

To convert ug/L to mg/L, Divide the ug/L value by 1000.

The physician in charge of dialysis has the ultimate responsibility for selecting the maximum allowable levels of chemical contaminants in the water and also is responsible for monitoring the water. For further information regarding the physician's responsibility Please contact: Association for the Advancement of Medical Instrumentation
3330 Washington Boulevard, Suite 400
Arlington, VA 22201-4598

The above detection limits are representative of the water sample on the day tests were performed.

N.D. = Not Detected

Chlorine and Chloramine must be measured on-site and consequently are not listed.

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State Certifications: IL-IDPH-17598; CA-01133A; MT-CERT0091; IA-369; VT- VT02199; WI-399016200

pH - the acid strength of water on a scale of 0 to 14 (neutral = pH 7.0). Values from 7→0 are increasingly more acidic; values from 7→14 are increasingly more alkaline. The recommended range for drinking water under the U.S. regulations is 6.5 to 8.5.

Conductivity - the relative ability of water to carry an electrical current, used to estimate the total concentration of dissolved ions.

Turbidity - cloudiness in water caused by the dispersion of light by extremely tiny particles. Measured on an arbitrary scale of Nephelometric Turbidity Units (NTUs). The mandatory maximum under U.S. regulations is 0.5 NTU. Turbidity Filtered is measured through 11 micron filter paper.

Color - the amount of brownish-yellow color from dissolved tannins from vegetation (like tea) and metals (like rust) and their combinations, measured on an arbitrary scale. The recommended maximum under U.S. regulations is 15 CU.

Silica, SiO_2 - a naturally occurring dissolved mineral, which produces a glassy scale in high temperature equipment but is more important in predicting the life of certain water treatment media.

Hydrogen Sulfide, H_2S - a toxic, noxious, corrosive gas that smells like rotten eggs. Bacteria acting on sulfate or organic sulfurcontaining materials in the absence of oxygen produce it. Only “special” water analyses can determine hydrogen sulfide levels.

Total Hardness - the sum of all metal ions which react with soap to inhibit sudsing and form “scum” or “bathtub ring” - mostly Calcium and Magnesium. When heated or evaporated, hard water can cause lime scale that can deposit on sink and shower fixtures and walls and result in loss in efficiency or fuel waste in water heaters, boilers, and cooling systems.

Total Alkalinity - the sum of hydroxide (OH^-), carbonate (CO_3^{-2}), and bicarbonate (HCO_3^-) ions, which can combine with both acids and bases, which act to buffer water and prevent sudden uncontrolled changes in pH.

Cations - ions (atoms or molecules with an electrical charge) with a positive (+) electrical charge, so named because they go toward the cathode in an electric field. Besides the hardness ions, the main cations in water are sodium, Na^+, and potassium, K^+.

Anions - ions (atoms or molecules with an electrical charge) with a negative (-) electrical charge, so named because they go toward the anode in an electric field. The main anions in water are hydroxide (OH^-), carbonate (CO_3^{-2}), bicarbonate (HCO_3^-) (which together comprise "alkalinity"), sulfate (SO_4^{-2}), nitrate (NO_3^-) and chloride (Cl^-).

Nitrate/Nitrite, NO_3^-/NO_2^- - important because of toxicity to infants, nitrate comes from fertilizers and animal wastes. Water supplies with high nitrate levels should also be screened for agricultural pesticides and bacterial contamination. The mandatory limit under U.S. regulations is 10 mg/L.

Sulfate, SO_4^{-2} - a common mineral component, only rarely occurring at excessive levels, which can cause a temporary diarrhea in visitors who have not become acclimated to it. Recommended U.S. limit, 250 mg/L.

Fluoride, F^- - often added to water to inhibit tooth decay. Mandatory U.S. limits range from 4.0 mg/L in northern regions to 1.4 mg/L in southern regions (where more water in consumed).

Chloride, Cl^- - a common mineral component, can be found in elevated levels near seawater and other salt supplies, which can cause taste problems and can contribute to corrosion. Recommended U.S. limit, 250 mg/L.

Iron, Fe - cause of metallic taste, rust stains on laundry and porcelain fixtures, and clogging/fouling of equipment. The recommended U.S. limit is 0.3 mg/L.

Manganese, Mn - cause of metallic taste and black stains on laundry and porcelain. Often occurs in combination with iron. The recommended U.S. limit is 0.05 mg/L Mn or a total of 0.3 mg/L of Fe + Mn.

Copper, Cu - cause of green stains on porcelain and fittings, seldom naturally-occurring, usually due to corrosion. The mandatory U.S. "actions level" of 1.3 mg/L is tied to the regulation for lead contamination due to corrosion of plumbing materials.

Zinc, Zn - cause of metallic taste and upset stomach. Due to corrosion of galvanized plumbing materials. Recommended U.S. limit, 5.0 mg/L.

Units of Concentration used in this Report

gpg-abbreviation for "grains per gallon" calculated in terms of calcium carbonate equivalents. Multiply by 17.12 to convert gpg into either ppm or mg/L.
ppm-abbreviation for "parts per million." Interchangeable with mg/L.
mg/L-abbreviation for "milligrams per liter." Interchangeable with ppm. (There are one million milligrams in a liter of pure water).
ppb-abbreviation for "parts per billion." Interchangeable with µg/L or micrograms per liter.
µg/L-abbreviation for “micrograms per liter.” Interchangeable with ppb. (There are a billion micrograms in a liter).

1000 ppb = 1 ppm; 1000 µg/L = 1 mg/L

THIS ANALYSIS WILL NOT DETERMINE WHETHER A WATER IS SAFE FOR HUMAN CONSUMPTION

CONTAMINANT	PRODUCT RECOMMENDATION
Alkalinity	Softener
Aluminum	Softener
Ammonia	Deionization, Filtration
Antimony	Ultra Filtration, Reverse Osmosis
Arsenic	Arsenic Filter
Arsenic +3	Arsenic Filter
Arsenic +5	Arsenic Filter
Barium	Softener
Beryllium	Reverse Osmosis, UF, Softener
Bromate	Activated Carbon
Cadmium	Reverse Osmosis, UF, Ion Exchange
Calcium	Softener
Chloride	Ion Exchange
Chromium	Reverse Osmosis
Color	Activated Carbon
Conductivity	Deionization
Copper	Reverse Osmosis, Softener
Fluoride	Reverse Osmosis
Hydrogen Sulfide	Aeration, Chemical Filtration
Iron	Aeration, Filtration
Iron Bacteria	Chlorine, UV, Ultrafiltration
Lead	Carbon Block, Faucet Filter
Magnesium	Softener
Manganese	Softener
Mercury	Carbon Block
Mod Susp Solids	Depth Filter, Particle Filter
Nitrate/Nitrite	Reverse Osmosis
pH	Calcite
Potassium	Softener
Selenuim	Reverse Osmosis
Silica	Reverse Osmosis
Silver	Reverse Osmosis, Ion Exchange, Activated Carbon
Slime Forming Bacteria	Chlorine, UV, Ultrafiltration
Sodium	Reverse Osmosis
Solids (TDS, TSS, TS) each	Reverse Osmosis, Deionization
Strontium	No Reliable Treatment
Sulfate	Ion Exchange, Reverse Osmosis
Sulfate Bacteria	Chlorine, UV, Ultrafiltration
Tannins (if color is present)	Carbon Filter
Thallium	Reverse Osmosis, Cation Exchange
TOC	Carbon Filter
Total Coliform	Chlorine, UV, Ultrafiltration
Total Hardness	Softener
Total Phosphate	Particle Filter, Depth Filter, Reverse Osmosis
Uranium	Ion Exchange
Volitile Organic Compound	Carbon Filter
Zinc	Reverse Osmosis, Cation Exchange

Note: The product recommendations listed above are not guaranteed solutions for all applications. The client is solely responsible for proper system selection and application . Not all product recommendation may be used in all states.

Culligan Water

SA
Culliga

1912409

Control Number: _____

UEST
Laboratory

9399 W. Higgins Road Suite 1100
Rosemont, IL 60018

SAMPLE SUBMITTED BY:

Account Number: US10_031
Account Name: Culligan of Scotia
Phone Number: 518 374-1805
E-mail: JPARKER@CULLIGANWATERCO.COM
Person Taking Sample: Josh Barach
Date Sample Taken: 9/12/19 Time Sample Taken: 2pm

CUSTOMER INFORMATION:

Customer Name: 660885- Ninth Planet Bev
Address: 41 Geyser Rd.
City: Saratoga State: NY Zip: 12866
Customer reported concern: _____

SAMPLE INFORMATION:

Water Supply: Private ✓ Municipal _____
Source: Surface _____ Well ✓ Unknown _____
Condition: Treated ✓ Untreated _____
Sample Point: Faucet _____ Equipment _____ Other ✓ _____
Application: Household _____ Commercial ✓ National Account _____
General Sample* _____ Compliance Sample* _____
* if not marked, will treat as general sample

ANALYSIS REQUESTED:

Standard w/TOC Analysis: ____
Problem Water Analysis: _____
Comprehensive Analysis: ✓
Basic Well: _____
Silver/Realtor Well: _____
Expended Well: _____
Gold Well: _____

Scale Analysis: _____
Resin Analysis: _____
Depth Filter Analysis: ____
Arsenic Filter: _____
Total Coliform/e-Coli: ____
Iron/Slime/Sulfate Bacteria: __

Special Analysis: (List Analysis Requested): _____

For Questions contact Maria Mozdzen at (847) 430-1219 or maria.mozdzen@culligan.com

LAB USE ONLY FOR COMPLIANCE SAMPLES:

Sample received in acceptable condition: Yes _____ No _____ Received by: _____ Date: _____ Time: _____
If not reason: _____
Disposition of sample: _____

Litigation samples are not accepted by the laboratory

Customer:
Please Sign: Barbara Metcalfe
Print Name: Barbara Metcalfe

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One Culligan Drive
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41 Geyser Rd
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Control Number:
Account Number: US10_031
Collected By: Josh Baruch

Misc:
cc: jparker@culliganwaterco.com

SAMPLE INFORMATION:

Analysis Type Requested: Comprehensive Analysis

Sampled:	9/12/2019	**Supply/Source:**	Private Well	**Condition:**	Treated Water
Received:	9/18/2019	**Sampling Point:**		**Application:**	Commercial

This Certificate of Analysis compares the actual test result to national standards as defined in the EPA 's Primary and Secondary Drinking Water Regulations.

Primary Standards: Are expressed as the maximum contaminant level (MCL) which is the highest level of contaminant that is allowed in drinking water. MCLs are enforceable standards.

Secondary Standards: Are non-enforceable guidelines regulating contaminants that may cause cosmetic effects (such as skin or tooth discoloration) or aesthetic effects (such as taste, odor, or color) in drinking water. Some states may choose to adopt that as enforceable standards.

ug/L (ppb): Unless otherwise indicated, results and standards are expressed as an amount in micrograms per liter or parts per billion.

mg/L (ppm): Unless otherwise indicated, results and standards are expressed as an amount in milligrams per liter or parts per million.

Minimum Detection Level (MDL): The lowest concentration level that the laboratory can detect a contaminant.

ND: The contaminant was not detected above the minimun detection level.

NA: The contaminant was not analyzed.

***** : NELAP accredited parameter.

Status

The contaminant was not detected in the sample above the minimum detection level.

The contaminant was detected below National Standard limit.

The contaminant was detected above National Standard limit.

Status	Contaminant	Results	MDL	Units	Method	National Standards EPA Limit	National Standards Primary/ Secondary
⚠	Est TDS By Conductivity	477.56		mg/L		500.00	Secondary
⚠	Conductivity	771.60		microS/cm	120.1		
⚠	pH*	7.97			150.1	6.50 to 8.50	Secondary
⚠	Turbidity	0.16	0.100	NTU	180.1 Rev. 2 1993	0.50	Primary
🚰	Turbidity Filtered	<0.100	0.100	NTU	180.1 Rev. 2 1993	0.50	Primary
⚠	Barium*	20.59	10.000	ug/L	200.7 R4.4	2,000.00	Primary
⚠	Calcium*	55.31	0.100	mg/L	200.7 R4.4		
🚰	Copper (Cu)*	<0.015	0.015	mg/L	200.7 R4.4	1.30	Primary
⚠	Hardness (CaCO3)*	187.27 10.95		mg/L GPG	200.7 R4.4		
🚰	Iron (Fe)*	<0.050	0.050	mg/L	200.7 R4.4	0.30	Secondary
⚠	Magnesium*	11.89	0.100	mg/L	200.7 R4.4		
🚰	Manganese (Mn)*	<0.020	0.020	mg/L	200.7 R4.4	0.05	Secondary
⚠	Potassium	1.28	0.100	mg/L	200.7 R4.4		
⚠	Silica*	14.60	0.010	mg/L	200.7 R4.4		
⚠	Sodium*	69.83	0.100	mg/L	200.7 R4.4		
⚠	Strontium (Sr)	0.29	0.050	mg/L	200.7 R4.4		
🚰	Zinc (Zn)*	<0.050	0.050	mg/L	200.7 R4.4	5.00	Secondary
🚰	Aluminum	<2.000	2.000	ug/L	200.8 R5.4	200.00	Secondary
🚰	Antimony*	<2.000	2.000	ug/L	200.8 R5.4	6.00	Primary
🚰	Total Arsenic*	<1.000	1.000	ug/L	200.8 R5.4	10.00	Primary
🚰	Berylium*	<0.100	0.100	ug/L	200.8 R5.4	4.00	Primary
🚰	Cadmium (Cd)*	<0.100	0.100	ug/L	200.8 R5.4	5.00	Primary
⚠	Chromium*	1.72	0.500	ug/L	200.8 R5.4	100.00	Primary
🚰	Lead (Pb)*	<1.000	1.000	ug/L	200.8 R5.4	15.00	Primary
🚰	Selenium (Se)*	<2.000	2.000	ug/L	200.8 R5.4	50.00	Primary
🚰	Silver (Ag)*	<0.100	0.100	ug/L	200.8 R5.4	100.00	Secondary
🚰	Thallium (Tl)*	<1.000	1.000	ug/L	200.8 R5.4	2.00	Primary
🚰	Mercury (Hg)	<0.200	0.200	ug/L	245.1 Rev. 3	2.00	Primary
⚠	Chloride*	156.41	0.500	mg/L	300.0 R2.1	250.00	Secondary
⚠	Fluoride*	0.73	0.200	mg/L	300.0 R2.1	4.00	Primary

Status	Contaminant	Results	MDL	Units	Method	National Standards EPA Limit	National Standards Primary/ Secondary
⚠	Nitrate as N*	0.51	0.200	mg/L	300.0 R2.1	10.00	Primary
	Nitrite as N*	<0.100	0.100	mg/L	300.0 R2.1	1.00	Primary
⚠	Sulfate*	28.90	3.000	mg/L	300.0 R2.1	250.00	Secondary
	Tannins	<2.000	2.000	mg/L	SM 5550		
	Color*	<5.000	5.000	color	SM2120C, 21Ed	15.00	Secondary
	Color after Acidification	<5.000	5.000	color	SM2120C,21Ed		
⚠	Bicarbonate*	140.09		mg/L	SM2320B, 18Ed		
	Carbonate*	NM		mg/L	SM2320B, 18Ed		

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This analysis will not determine whether a water is safe for human consumption.

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State Certifications: IL-IDPH-17598; CA-2958; MT-CERT0091; IA-369;
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Maria Mozdzen
Analytical Lab Manager