



GLOBAL WATER GROUP

DALLAS, TEXAS U.S.A.

MANUFACTURER OF THE WORLD'S BEST
WATER PURIFICATION AND WASTE WATER EQUIPMENT

Fresh Water Purification for Municipal Systems

Global's Unique Modular Platform Systems



The Old Way

The New Way →



Global Water Group *incorporated*

Global Water Technologies

Global Wastewater

Global Water Home Systems

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Subject: ENVIRONMENTALLY CORRECT MUNICIPAL WATER PURIFICATION SYSTEMS

For All Municipal Water Engineers:

Today, in the U.S. and the world-over, we are faced with incredible problems regarding repairing or replacing municipal water systems that no longer work properly or building new systems for our ever-expanding growth in a manner that is environmentally correct.

We can no longer build “new antiquated” water systems!

The first word we must put into these new systems is: purification!

Global Water Group’s modular, proprietary Water Purification Systems provide:

Removal of parasites, including *Cryptosporidium*.

Removal of hazardous chemicals, hazardous metals, insecticides, pesticides, radon, etc.

Killing all bacteria and viruses without using chlorine in unclean water.

The key to Global’s efficiency in water purification is modularity. Global’s systems, proven by the U.S. Military for fifteen years, can accomplish all of the processes needed for true water purification based upon flow rates and timing. By creating the largest module that loses none of the benefits needed for true purification, Global can now network those modules to create any size municipal system.

Global can build these systems faster, more efficiently, more cost effective, and provide every municipality, from a village to a major city, with the only environmentally correct system on the planet! No matter the size, 50,000 GPD or 500,000,000 GPD, the footprint will be equal or less with these modular systems.

These modular systems are applicable for municipalities, villages, condominiums, schools, restaurants, motels, hotels, mobile home parks, processing plants, industrial plants, animal farms, oilfield platform rigs, oilfield jack-up rigs, oilfield posted and inland drilling barges, fixed structures offshore or anywhere sewage processing is required. These systems can be constructed of standard configurations or engineered for custom designed special configurations.

As the engineers who are designing the systems for tomorrow, Global offers you its expertise and product line to help solve these emerging water problems. Our engineers are ready to work hand-in-hand with you to make your business more profitable and to make our environment the friendly place it should be. Please give us a call today for estimates and designs.

**Very truly yours,
Alan M. Weiss
President
Global Water Group**

P.S.: Global's Municipal Waste-Water Processing and Waste-Water-Effluent-Recycling Systems also provide the best quality of municipal systems; eliminating all sludge, having no odor, utilizing a smaller footprint, and with Global's modular system it is easier to operate, easier to maintain and more economical than older systems that do not work in the 21st century.

Explanation of Cleaning Water

Getting clean water is not really rocket science. There are three basic areas that have to be cleaned to get good, pure water.

1. You've got to remove the parasites. Parasites include *Giardia* and *Cryptosporidium*. *Cryptosporidium* is referred to as an oocyst and it is present in over 88% of all source water in the U.S. Guaranteed it is all over the earth. Crypto creates a flu-like symptom and is very dangerous to anyone with a weak immune system.
2. You've got to get rid of the hazardous chemicals; hazardous metals such as lead and mercury; insecticides, pesticides, radon, chlorine, etc. In this process you also get rid of bad taste and odor.
3. You need to kill the bacteria and viruses.

Problem #1: Removing parasites, in requirement one, is no magic. This requires filtering down to one (1) micron. At one micron you remove those parasitic cysts. Unfortunately, most municipal systems don't remove the parasites, and probably can't. If they filtered down to one micron their systems would slow to a crawl and not provide the water we consume. In fact, the recent Safe Drinking Water Act removed the requirement for eliminating *Cryptosporidium* because it would cause almost all of the municipal systems to fail the Act. Supposedly, this requirement is scheduled for sometime in the future.

All of Global's systems filter to one micron, removing parasites (including cryptosporidium).

Problem #2: To reduce or eliminate hazardous chemicals below US-EPA, World Health Organization or International-EPA standards, the system needs to have a process which can *adsorb* and *absorb* those hazard chemicals, hazardous metal, insecticides, radon, etc. Most municipal systems use various sand filtration and flocculation methods. Most water filtering systems use activated carbon; some use another media in combination. Carbon only goes so far in reducing hazards. Carbon is great for removing chlorine, bad taste and odor... and that is what sells most consumers.

Global uses a proprietary formula of multi-media that grab and hold those elements. No one has the formulation that Global created over fifteen years ago, a formula that will far exceed those EPA standards.

Problem #3: To kill bacteria and viruses municipal systems use chlorine. Chlorine kills most bacteria and viruses when dosed heavy enough. Quite often you can smell and taste the over-chlorination to accomplish this, making water sometimes undrinkable. Unfortunately, the WHO for years has been telling the world to STOP using chlorine. As was confirmed in a front page article by the Dallas Morning News on August 6, 2000, while chlorine has benefits of killing viruses and bacteria, it is probably killing us in other ways by creating carcinogens and sending them down to the drinking public. It is unfortunate because, for the most part, there has been no alternative for municipalities, Third World Countries, etc.

Global, on the other hand, uses Ultra-Violet. UV will kill the bacteria and viruses and NOT create carcinogens. Then, chlorine can be added to the output water to keep bacteria from growing while in storage or distribution. Because the water has been cleaned, the chlorine will not create carcinogens

Modular Systems:

The key to Global's efficiency in water purification is modularity. Global's systems, proven by the U.S. Military for fifteen years, can accomplish all of the processes needed for true water purification based upon flow rates and timing. By creating the largest module that loses none of the benefits needed for true purification, Global can now network those modules to create any size municipal system.

Municipal Modules:

The optimum efficiency for a fresh water purification system is up to 250,000 GPD (or 1,000 m³/day). A Global fresh water purification system would be a platform of about 30' x 6' x 6'. A 500,000 GPD system would fit on a platform 40' x 8' x 8'... or the size of a flat-bed trailer. If you needed one million gallons per day, it would be two of those 40' platforms networked together. 10,000, 000 GPD would be 20-platforms; 100,000,000 GPD would be 200-platforms.

Global can build these systems faster, more efficiently, more cost effective, and provide every municipality, from a village to a major city, with the only environmentally correct system on the planet! No matter the size, 50,000 GPD or 500,000,000 GPD, the footprint will be equal or less with these modular systems.

These modular systems are applicable for municipalities, villages, condominiums, schools, restaurants, motels, hotels, mobile home parks, processing plants, industrial plants, animal farms, oilfield platform rigs, oilfield jack-up rigs, oilfield posted and inland drilling barges, fixed structures offshore or anywhere sewage processing is required. These systems can be constructed of standard configurations or engineered for custom designed special configurations.

DRINKING WATER TREATMENT UNITS and HEALTH EFFECTS

GLOBAL WATER – TEST RESULTS

THE INFORMATION CONTAINED HEREIN RELATES TO THE RESULTS OF TESTING TO REQUIREMENTS OF THE NATIONAL SANITATION FOUNDATION (NSF) STANDARD NUMBER 53 (PAR 5.2.1). THE ONLY PORTION OMITTED RELATES TO THE INTERNAL CONSTRUCTION, COMPONENTS, AND MATERIALS OF THE MEDIA AS THEY ARE PROPRIETARY.

CHEMICAL CONCENTRATION	INPUT CHALLENGE	UNIT OUTFLOW	MAXIMUM ALLOWED
THM (as CHC13)	0.53	.04	< 0.1
Lead (as PbC 12)	0.13	.008	< 0.025
Fluoride	8.12	.098	< 1.4
Nitrate (as N)	30.2	3.17	10.0
Barium	10.0	.04	< 1.0
Arsenic	0.37	.001	< 0.05
Cadmium	0.030	.006	< 0.01
Chromium VI	0.150	.002	< 0.05
Chromium III	0.161	.003	< 0.05
Selenium	0.103	.0015	< 0.01
Mercury	0.006	.0007	< 0.002
Endrin	0.0007	.0001	0.0002
Lindane	0.012	.002	< 0.004
Methoxychlor	0.31	.03	< 0.1
Toxaphene	0.016	.0009	< 0.005
2, 4-D	0.31	.0067	< 0.1
Silvex (2, 4, 5-TP)	0.031	.006	< 0.01

REPORT
TRUESDAIL LABORATORIES, INC.

CHEMISTS · MICROBIOLOGISTS · ENGINEERS
 RESEARCH · DEVELOPMENT · TESTING
 ESTABLISHED 1981



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Global Water Technologies DATE: September 8, 1995
 1503 N. Zang Blvd. RECEIVED: June 30, 1995
 Dallas, Tx. 75203 LABORATORY NO. 82201-2

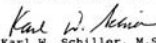
One Model UV20-1 UV System
 Microbiological Testing (APHA 17th Ed., 1989, 9215B)

RESULTS

Twenty Four hour cultures of E. coli were harvested off Tryptic Soy Agar slants and added to dechlorinated tap water and mixed. The inoculated water was pumped through the unit at 10.0 gallons per minute. Samples were taken and plate counts conducted. The results are given below:

Flow Rate: 10.0*	Bacteria Count** per milliliter	Percent Reduction Over Control
Control	1,500,000	-
After 10 gallons	<1***	>99.9999%
After 20 gallons	<1	>99.9999%
After 30 gallons	<1	>99.9999%

* Gallons per Minute
 ** Colony Forming Units, Violet Red Bile Agar, 24 hours, 35°C
 *** None Detected, less than the limit of detection

Respectfully submitted,
 TRUESDAIL LABORATORIES, INC.

 Karl W. Schiller, M.S.
 Chief Microbiologist

This report applies only to the sample, or samples, investigated and is not necessarily indicative of the quality or condition of apparently identical or similar products. As a mutual protection to clients, the public and these laboratories, this report is submitted and accepted for the exclusive use of the client to whom it is addressed and upon the condition that it is not to be used, in whole or in part, in any advertising of publicity matter without prior written authorization from these Laboratories.

LS3 WATER SYSTEMS ELIMINATES BACTERIA AND VIRUSES

<u>ORGANISM</u>	<u>LEADING TO:</u>
<ul style="list-style-type: none">• <i>Vibrio cholera</i>• <i>Escherichia coli</i>	Cholera Childrens diarrhea, Travelers diarrhea, Hemorrhagic uremic syndrome, Hemorrhagic colitis
<ul style="list-style-type: none">• <i>Leptospira interrogans</i>• <i>Salmonella paratyphi</i>• <i>Salmonella typhi</i>• <i>Shigella dysenteriae</i>• <i>Shigella boydi/S. sonnei</i>• <i>Campylobacter jejuni</i>• <i>Yersinia enterocolitica</i>• <i>Aeromonas</i><input type="checkbox"/> <i>Legionella pneumophila</i>	Leptospirosis Paratyphoid fever Typhoid fever Bacillary dysentery Shigellosis Diarrhea Enterocolitis Gastroenteritis Legioners disease and Potomac fever

LS3 WATER SYSTEMS ELIMINATES DISEASE CAUSING ORGANISMS

Protozoa

- *Entamoeba histolytica* (Amibiasis)
- *Balantidium coli* (Balantidiasis)
- Cryptosporidium* (Criptosporidiosis)
- *Giardia lamblia* (Giardiasis)

Nematodes

- *Ascarts lumbricoides* (Roundworm)

Viruses

- Hepatitis A and B (Hepatitis)
- Poliovirus 1,2, & 3 (Poliomelytis)
- Rotaviruses (Diarrhea)

LS3 WATER SYSTEMS REDUCE OR ELIMINATE TOXIC CHEMICALS BELOW U.S.-EPA OR INTERNATIONAL EPA STANDARDS

- | | |
|--|--|
| <ul style="list-style-type: none">• Organic Molecules• Detergents<input type="checkbox"/> Herbicides• Insecticides• Oils• Oil derivatives<input type="checkbox"/> Diesel fuel<input type="checkbox"/> Chlorine• Sulphydic acid• Radon (radioactive) | <ul style="list-style-type: none">• Lead• Mercury• Iron• Cyanate• Barium• Cadmium• Cromium• Selenium• Trihalometanes• Muriatic Acid |
|--|--|



Fresh water processing; FRAME ASSEMBLY suitable for lifting, placing on flatbed or ground; filter assembly: pre-filtering for silt, 5-Micron and 1-Micron for parasite removal; Global's LS3-Multi-Media system for removal of hazardous chemicals; Ultra-Violet assembly for killing bacteria and viruses; chlorine injection system for protection for holding water and redundant system for bacteria and viruses; floatation assembly for pulling source water; pressure gauges and flow meter with Global's electronic control box.

Fresh water Processing Systems

<u>Model #</u>	<u>GPM</u>	<u>L/min</u>	<u>GPH</u>	<u>L/hr</u>	<u>GPD</u>	<u>L/day</u>
LS3-10GPM-Platform	10	38	600	2,268	14,400	54,432
LS3-15GPM-Platform	15	57	900	3,402	21,600	81,648
LS3-20GPM-Platform	20	76	1,200	4,536	28,800	108,864
LS3-25GPM-Platform	25	95	1,500	5,670	36,000	136,080
LS3-30GPM-Platform	30	113	1,800	6,804	46,200	174,636
LS3-35GPM-Platform	35	132	2,100	7,938	50,400	190,512
LS3-40GPM-Platform	40	151	2,400	9,072	57,600	217,728
LS3-50GPM-Platform	50	189	3,000	11,340	72,000	272,160
LS3-60GPM-Platform	60	227	3,600	13,608	86,400	326,592
LS3-70GPM-Platform	70	265	4,200	15,876	100,800	381,024
LS3-80GPM-Platform	80	302	4,800	18,144	115,200	435,456
LS3-90GPM-Platform	90	340	5,400	20,412	129,600	489,888
LS3-100GPM-Platform	100	378	6,000	22,680	144,000	544,320
LS3-140GPM-Platform	140	529	8,400	31,752	201,600	762,048
LS3-174GPM-Platform	174	658	10,440	39,463	250,560	947,117
LS3-184GPM-Platform	184	694	11,023	41,667	264,550	1,000,000

The benefits from using Global Water's systems:

Water Purification Systems

- Exceed EU, WHO, International & U.S. EPA Standards
- Finest quality drinking water
- Easier to operate
- Easier to maintain
- More cost efficient

Other Tangible Benefits:

- Reduce health care cost
- Reduce illness for children and the elderly
- Improve the quality of life

Wastewater Processing & Effluent Recycling

- ✓ Exceed EU, WHO, International & U.S.-EPA Standards
- ✓ Eliminate the hazards and costs of sludge disposition
- ✓ Eliminate the health hazards of sewage system overflows
- ✓ Eliminate odor and other problems with waste processing
- ✓ Eliminate the distribution of over-chlorinated effluent
- ✓ Prevent the contamination of effluent runoff
- ✓ Improve the quality of life

Create additional potable resources

- ✓ Easier to maintain
- ✓ Easier to operate
- ✓ Cost efficient

Infrastructure Repairs and Improvements

The tangibles are:

- The cost of equipment and infrastructure
- The costs for maintenance
- Create a better business community

The intangibles are:

- Quality of life improvements
- Meeting US-EPA, EU or other government standards
- Health improvements and reduced medical costs

