2001
Annual Drinking Water Quality Report
for
Tremonton City Corporation

We're pleased to present to you this year's Annual Drinking Water Quality Report. This report is designed to inform you about the quality of the water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. Our water sources are the West Spring, East Spring, Gardner Spring, North Spring, South Spring, Fish Spring and the Garland Overflow. We also purchase water from the Bear River Water Conservancy District, from the Newman Well.

Tremonton City has a Drinking Water Source Protection Plan that is available for review to our customers at our office. It provides more information such as potential sources of contamination and our source protection areas.

I'm pleased to report that our drinking water is safe and meets federal and state requirements.

If you have any questions about this report or concerning your water utility, please contact Paul Fulgham, from 8:00 a.m. to 4:30 p.m. Monday thru Friday, at 257-2676. We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled meetings. They are held on the 1St and 3rd Tuesdays of each month at 7:00 p.m. at the Tremonton City Office Building located at 120 South Tremont Street

Tremonton City routinely monitors for constituents in our drinking water in accordance with the Federal and Utah State laws. The following table shows the results of our monitoring for the period of January 1st to December 31st, 2001. All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some constituents. It's important to remember that the presence of these constituents does not necessarily pose a health risk.

In the following table you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following definitions:

Non-Detects (ND) - laboratory analysis indicates that the constituent is not present.

ND/Low - High - For water systems that have multiple sources of water, the Utah Division of Drinking Water has given water systems the option of listing the test results of the constituents in one table, instead of multiple tables. To accomplish this, the lowest and highest values detected in the multiple sources are recorded in the same space in the report table.

Parts per million (ppm) or Milligrams per liter (mg/l) - one part per million corresponds to one minute in two years or a single penny in $10,000.

Parts per billion (ppb) or Micrograms per liter (ug/l) - one part per billion corresponds to one minute in 2,000 years, or a single penny in $10,000,000.

Parts per trillion (ppt) or Nanograms per liter (nanograms/l) - one part per trillion corresponds to one minute in 2,000,000 years, or a single penny in $10,000,000,000.

Parts per quadrillion (ppq) or Picograms per liter (picograms/l) - one part per quadrillion corresponds to one minute in 2,000,000,000 years or one penny in $10,000,000,000,000.

Picocuries per liter (pCi/L) - picocuries per liter is a measure of the radioactivity in water.

Millirems per year (mrem/yr) - measure of radiation absorbed by the body.

Million Fibers per Liter (MFL) - million fibers per liter is a measure of the presence of asbestos fibers that are longer than 10 micrometers.

Nephelometric Turbidity Unit (NTU) - nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

Action Level (AL) - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Treatment Technique (TT) - (mandatory language) A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.

Maximum Contaminant Level (MCL) - (mandatory language) The "Maximum Allowed" (MCL) is 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.

Maximum Contaminant Level Goal (MCLG) - (mandatory language) The "Goal"(MCLG) is the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Date- Because of required sampling time frames i.e. yearly, 3 years, 4 years and 6 years, sampling dates "May" seem out of date.

Waivers (W)- Because some chemicals are not used or stored in areas around drinking water sources, some water systems have been given waivers that exempt them from having to take certain chemical samples, these waivers are also tied to Drinking Water Source Protection Plans.

TEST RESULTS							
Contaminant	Violation Y/N	Level Detected ND/Low-High	Unit Measurement	MCLG	MCL	Date Sampled	Likely Source of Contamination
Microbiological Contaminants							
1. Total Coliform Bacteria	N	ND	N/A	0	Presence of coliform bacteria in 5% of monthly samples	2001	Naturally present in the environment
2. Fecal coliform and *E.coli*	N	ND	N/A	0	a routine sample and repeat sample are total coliform positive, and one is also fecal coliform or *E. coli* positive	2001	Human and animal fecal waste
3.a. Turbidity for Ground Water	N	0.37 - 0.58	NTU	N/A	5	2001	Soil runoff
3.b. Turbidity for Surface Water	N		NTU	N/A	0.5 in at least 95% of the samples and must never exceed 5.0		Soil Runoff (highest single measurement & the lowest monthly percentage of samples meeting the turbidity limits)
Radioactive Contaminants							
4. Alpha emitters	N	ND-11	pCi/1	0	15	2001	Erosion of natural deposits
5. Beta emitters*	N	2.1–7.8	pCi/l	0	50	2001	Erosion of natural deposits
6. Combined radium	N	ND	pCi/1	0	5	2001	Erosion of natural deposits
*__Beta Particles:__ The MCL for beta particles is 4 mrem/year. EPA considers 50 pCi/l to be the level of concern for beta particles.							
Inorganic Contaminants							
7. Antimony	N	ND	ppb	6	6	2001	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
8. Arsenic	N	ND	ppb	N/A	50	2001	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
9. Asbestos	N	ND	MFL	7	7	1994	Decay of asbestos cement water mains; erosion of natural deposits
10. Barium	N	40-120	ppb	2000	2000	2001	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
11. Beryllium	N	ND	ppb	4	4	2001	Discharge from metal refineries and coal-burning factories; discharge from electrical, aerospace, and defense industries
12. Cadmium	N	ND	ppb	5	5	2001	Corrosion of galvanized pipes; erosion of natural deposits; discharge from metal refineries; runoff from waste batteries and paints

13. Chromium	N	ND	ppb	100	100	2001	Discharge from steel and pulp mills; erosion of natural deposits
14. Copper a. 90% results b. # of sites that exceed the **AL**	N	a. 570 b. 0	ppb	1300	AL=1300	1999	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
15. Cyanide	N	ND	ppb	200	200	2001	Discharge from steel/metal factories; discharge from plastic and fertilizer factories
16. Fluoride	N	ND – 200	ppb	4000	4000	2001	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
17. Lead a. 90% results b. # of sites that exceed the **AL**	N	a. 6 b. 0	ppb	0	AL=15	1999	Corrosion of household plumbing systems, erosion of natural deposits
18. Mercury (inorganic)	N	ND	ppb	2	2	2001	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills; runoff from cropland
19. Nitrate (as Nitrogen)	N	900 – 6300	ppb	10000	10000	2001	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
20. Nitrite (as Nitrogen)	N	ND	ppb	1000	1000	2001	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
21. Selenium	N	ND	ppb	50	50	2001	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
22. Sodium	N	8 – 120	ppm	None set by EPA	None set by EPA	2001	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills.
23. Sulfate	N	15 – 65	ppm	500*	500	2001	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills, runoff from cropland
24. Thallium	N	ND	ppb	1	2	2001	Leaching from ore-processing sites; discharge from electronics, glass, and drug factories
25. TDS (Total Dissolved Solids	N	180 – 890	ppm	1000**	1000**	2001	Erosion of natural deposits

*If the sulfate level of a public water system is greater than 500 ppm, the supplier must satisfactorily demonstrate that: a) no better water is available, and b) the water shall not be available for human consumption from commercial establishments. In no case shall water having a level above 1000 ppm be used.
**If TDS is greater than 1000 ppm the supplier shall deomonstrate to the Utah Drinking Water Board that no better water is available. The Board shall not allow the use of an inferior source of water if a better source is available.

Synthetic Organic Contaminants including Pesticides and Herbicides (If Water System has been issued waivers for these samples then this table with # 26 - # 57 can be deleted from the report).

26. 2,4-D	N	ND	ppb	70	70	2001	Runoff from herbicide used on row crops

27. 2,4,5-TP (Silvex)	N	ND	ppb	50	50	2001	Residue of banned herbicide
28. Acrylamide	TT	W	N/A		TT		Added to water during sewage/wastewater treatment
29. Alachlor	N	ND	ppb	0	2	2001	Runoff from herbicide used on row crops
30. Atrazine	N	ND	ppb	3	3	2001	Runoff from herbicide used on row crops
31. Benzo(a)pyrene (PAH)	N	ND	ppt	0	200	2001	Leaching from linings of water storage tanks and distribution lines
32. Carbofuran	N	ND	ppb	40	40	2001	Leaching of soil fumigant used on rice and alfalfa
33. Chlordane	N	ND	ppb	0	2	2001	Residue of banned termiticide
34. Dalapon	N	ND	ppb	200	200	2001	Runoff from herbicide used on rights of way
35. Di(2-ethylhexyl) adipate	N	ND	ppb	400	400	2001	Discharge from chemical factories
36. Di(2-ethylhexyl) phthalate	N	ND	ppb	0	6	2001	Discharge from rubber and chemical factories
37. Dibromochloropropane	N	W	ppt	0	200		Runoff/leaching from soil fumigant used on soybeans, cotton, pineapples, and orchards
38. Dinoseb	N	ND	ppb	7	7	2001	Runoff from herbicide used on soybeans and vegetables
39. Diquat	N	W	ppb	20	20		Runoff from herbicide use
40. Dioxin [2,3,7,8-TCDD]	N	W	ppq	0	30		Emissions from waste incineration and other combustion; discharge from chemical factories
41. Endothall	N	W	ppb	100	100		Runoff from herbicide use
42. Endrin	N	ND	ppb	2	2	2001	Residue of banned insecticide
43. Epichlorohydrin	TT	W	N/A	0	TT		Discharge from industrial chemical factories; an impurity of some water treatment chemicals
44. Ethylene dibromide	N	W	ppt	0	50		Discharge from petroleum refineries
45. Glyphosate	N	W	ppb	700	700		Runoff from herbicide use
46. Heptachlor	N	ND	ppt	0	400	2001	Residue of banned termiticide
47. Heptachlor epoxide	N	ND	ppt	0	200	2001	Breakdown of heptachlor
48. Hexachlorobenzene	N	ND	ppb	0	1	2001	Discharge from metal refineries and agricultural chemical factories
49. Hexachlorocyclo-pentadiene	N	ND	ppb	50	50	2001	Discharge from chemical factories
50. Lindane	N	ND	ppt	200	200	2001	Runoff/leaching from insecticide used on cattle, lumber, gardens
51. Methoxychlor	N	ND	ppb	40	40	2001	Runoff/leaching from insecticide used on fruits, vegetables, alfalfa, livestock
52. Oxamyl [Vydate]	N	ND	ppb	200	200	2001	Runoff/leaching from insecticide used on apples, potatoes and tomatoes

53. PCBs [Polychlorinated biphenyls]	N	ND	ppt	0	500	2001	Runoff from landfills; discharge of waste chemicals
54. Pentachlorophenol	N	ND	ppb	0	1	2001	Discharge from wood preserving factories
55. Picloram	N	ND	ppb	500	500	2001	Herbicide runoff
56. Simazine	N	ND	ppb	4	4	2001	Herbicide runoff
57. Toxaphene	N	ND	ppb	0	3	2001	Runoff/leaching from insecticide used on cotton and cattle
Volatile Organic Contaminants							
58. Benzene	N	ND	ppb	0	5	2001	Discharge from factories; leaching from gas storage tanks and landfills
59. Carbon tetrachloride	N	ND	ppb	0	5	2001	Discharge from chemical plants and other industrial activities
60. Chlorobenzene	N	ND	ppb	100	100	2001	Discharge from chemical and agricultural chemical factories
61. o-Dichlorobenzene	N	ND	ppb	600	600	2001	Discharge from industrial chemical factories
62. p-Dichlorobenzene	N	ND	ppb	75	75	2001	Discharge from industrial chemical factories
63. 1,2 - Dichloroethane	N	ND	ppb	0	5	2001	Discharge from industrial chemical factories
64. 1,1 - Dichloroethylene	N	ND	ppb	7	7	2001	Discharge from industrial chemical factories
65. cis-1,2-ichloroethylene	N	ND	ppb	70	70	2001	Discharge from industrial chemical factories
66. trans - 1,2 - Dichloroethylene	N	ND	ppb	100	100	2001	Discharge from industrial chemical factories
67. Dichloromethane	N	ND	ppb	0	5	2001	Discharge from pharmaceutical and chemical factories
68. 1,2-Dichloropropane	N	ND	ppb	0	5	2001	Discharge from industrial chemical factories
69. Ethylbenzene	N	ND	ppb	700	700	2001	Discharge from petroleum refineries
70. Styrene	N	ND	ppb	100	100	2001	Discharge from rubber and plastic factories; leaching from landfills
71. Tetrachloroethylene	N	ND	ppb	0	5	2001	Leaching from PVC pipes; discharge from factories and dry cleaners
72. 1,2,4 - Trichlorobenzene	N	ND	ppb	70	70	2001	Discharge from textile-finishing factories
73. 1,1,1 - Trichloroethane	N	ND	ppb	200	200	2001	Discharge from metal degreasing sites and other factories
74. 1,1,2 -Trichloroethane	N	ND	ppb	3	5	2001	Discharge from industrial chemical factories
75. Trichloroethylene	N	ND	ppb	0	5	2001	Discharge from metal degreasing sites and other factories
76. TTHM [Total trihalomethanes]	N	ND	ppb	0	100	2001	By-product of drinking water chlorination
77. Toluene	N	ND	ppb	1000	1000	2001	Discharge from petroleum factories

78. Vinyl Chloride	N	ND	ppb	0	2	2001	Leaching from PVC piping; discharge from plastics factories
79. Xylenes	N	ND	ppb	10000	10000	2001	Discharge from petroleum factories; discharge from chemical factories

Unregulated Contaminants

These are contaminants that some systems are required to monitor for but which EPA has not set MCLs.

Contaminant	Level Detected	Unit Measurement	Date Sampled	Contaminant	Level Detected	Unit Measurement	Date Sampled
1. Chloroform	ND	ppb	2001	1. Aldrin	ND	ppb	2001
2. Bromodichloromethane	ND	ppb	2001	2. Butachlor	ND	ppb	2001
3. Chlorodibromomethane	ND	ppb	2001	3. Carbaryl	ND	ppb	2001
4. Bromoform	ND	ppb	2001	4. Dicamba	ND	ppb	2001
5. m-Dichlorobenzene	ND	ppb	2001	5. Dieldrin	ND	ppb	2001
6. 1,1-Dichloropropene	ND	ppb	2001	6. 3-Hydroxycarbofuran	ND	ppb	2001
7. 1,1-Dichloroethane	ND	ppb	2001	7. Methomyl	ND	ppb	2001
8. 1,1,2,2-Tetrachloroethane	ND	ppb	2001	8. Metolachlor	ND	ppb	2001
9. 1,3-Dichloropropane	ND	ppb	2001	9. Metribuzin	ND	ppb	2001
10. Chloromethane	ND	ppb	2001	10. Propachlor	ND	ppb	2001
11. Bromomethane	ND	ppb	2001	1. 1,2,4-Trimethylbenzene	ND	ppb	2001
12. 1,2,3-Trichloropropane	ND	ppb	2001	2. 1,2,3-Trichlorobenzene	ND	ppb	2001
13. 1,1,1,2-Tetrachloroethane	ND	ppb	2001	3. n-Propylbenzene	ND	ppb	2001
14. Chloroethane	ND	ppb	2001	4. n-Butylbenzene	ND	ppb	2001
15. 2,2-Dichloropropane	ND	ppb	2001	5. Napthalene	ND	ppb	2001
16. o-Chlorotoluene	ND	ppb	2001	6. Hexachlorobutadiene	ND	ppb	2001
17. p-Chlorotoluene	ND	ppb	2001	7. 1,3,5-Trimethylbenzene	ND	ppb	2001
18. Bromobenzene	ND	ppb	2001	8. p-Isopropyltoluene	ND	ppb	2001
19. 1,3 -Dichloropropene	ND	ppb	2001	9. Isopropylbenzene	ND	ppb	2001
				10. Tert-butylbenzene	ND	ppb	2001
1. Nickel	ND	ppb	2001	11. Sec-butylbenzene	ND	ppb	2001
				12. Fluorotrichloromethane	ND	ppb	2001
				13. Dichlorodifluoromethane	ND	ppb	2001
				14. Bromochloromethane	ND	ppb	2001

All sources of drinking water are subject to potential contamination by constituents that are naturally occurring or are man made. Those constituents can be microbes, organic or inorganic chemicals, or radioactive materials. All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

MCL's are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

Please call our office if you have questions 257-2676.