

Public Water System Annual Report

Town of Melita
2009

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Water Plant

Date Prepared: 3/30/2010

Prepared by: Brock Bolton

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Introduction:

The 2009 Annual Report for the Town of Melita summarizes the water utility's ability to produce safe potable water and meet or exceed provincial regulations. We hope that the following report answers any and all questions regarding the new water system. It is our belief that the public has a right to access information related to the drinking water they consume. To that end the following report has been prepared for the residents of the Town of Melita and rural users.

1. Description of the Water System

The Melita Public Water System (PWS) provides safe potable drinking water to the residents of Melita through the distribution system and to rural residents by means of the Truck Fill System at the new Water Treatment Plant (WTP). Treated water produced from the WTP meets or exceeds all health and aesthetic objectives as stated in the *Guidelines for Canadian Drinking Water Quality*.

The Melita Water Treatment Plant



Truck Fill



1.1. Water Supply Source

The WTP receives groundwater from two wells located at 16 km North East of Melita @ NW23-5-27W. The wells draw groundwater from the Oak Lake Aquifer. Both wells were drilled to a depth of 33 feet. Raw water pumped from the wells into a 200 mm (8 inch) pipeline where it flows directly into the WTP for processing and treatment.



Well Site 1

During 2007-2008, the Town of Melita developed a new Public Water System (PWS) which includes two groundwater wells, a Water Treatment Plant (WTP) in NW6-4-26W, and a raw water pipeline between the wells and the WTP. During the initial 6 months of operation it was determined the water supply wells have insufficient capacity due to the presence of impervious clay ridges which were not detected during the initial groundwater sourcing study. As a result, a new well field was developed on municipal right-of-way between SE24-5-27W and SW19-5-26W which is located 3.2kms east of the existing wells. This well field consists of two 760 mm (30 inch) wells, however, only the north well was mechanised and connected to the raw water supply line. This site will not be operational until spring 2010.

As water flows through the ground it dissolves metals and minerals. In the case of the Melita water supply, the water has come into contact with primarily iron and manganese. These items do not pose health concerns, rather they are known as aesthetic water quality parameters.

1.2. Water Treatment Process

Raw water is pumped to the WTP where approximately 84% of the flow is directed through a combination of nano-filtration and reverse osmosis membranes. The remaining 16% by-passes through a sand-filter prior to blending with membrane permeate. Blended flow is chlorinated with sodium hypochlorite and then stored in a 1,000,000 litre concrete reservoir for distribution. Since membranes remove most dissolved minerals, blending permeate with filter water allows the operation to produce treated water with a more desirable hardness and PH. Approximately 20% of membrane flow (14% of the raw water) is discharged as membrane concentrate to the Souris River. Treated water is distributed to the Town of Melita and a bulk water (truck) fill is available for rural usage.



The R.O. Unit



The Sand Filter

1.3. Distribution System

Treated water from the reservoir, located underneath the WTP, is pumped throughout the Melita distribution system via three 7.5 horsepower duty pumps, with one 30 horsepower emergency standby pump for firefighting purposes. The Town of Melita has 3 different types of pipe in its distribution system; they consist of PVC, cast iron and ductile iron, which run for a total of about 12-15 km in total length. The WTP also has a natural gas powered generator located in the building that powers the distribution pumps during times of a power failure.

The Distribution Pumps



The Generator

1.4. Storage Reservoir

The storage reservoir for the Town of Melita's drinking water has a capacity of 1,000,000 litres or 220,000 Imperial Gallons, which gives us an available storage time of 3 days without plant operation. Currently the plant runs daily keeping the reservoir full, the main reason for this is to have enough water on hand for firefighting and domestic use. It also helps to keep the water fresh and well circulated.

1.5. Number of Connections, Population Served and types of Water Users

The Melita distribution system is comprised of 592 service connections, with a population of 1056 (2006 Statistics Canada Census) approximately. The distribution system also services a few rural connections located directly around town in the RM of Arthur.

1.6. Classification and Certification

- The Melita WTP is classified as a Class 2 Water Treatment Facility.
- Certification Level of Operators;
 - Brock Bolton, Level 2
 - Jack Bloomer, Level 2
 - Kelly Fry, currently in the process of obtaining certification.

1.7. Hydrological Investigations

In 2005, KGS Group conducted a groundwater sourcing study near the Broomhill truck loader station approximately 16 km north of Melita. The objective of the study was to carry out exploratory drilling and installation of a production well with sufficient capacity for the Town's water supply. KGS Group conducted an EM34 survey and drilled approximately 20 test-holes and installed 15 monitoring wells. A 96.5 hour pump test at a constant 15 L/s pump rate was completed and drawdown was monitored. In October 2005, a 200 mm (8 inch) production well was installed on the NW23-5-27W on the Broomhill Wildlife Management Area (WMA). The water level was recorded to be 1.8 meters below ground at the time of drilling. A second production well was installed 15 meters south of the first in 2007 so that one well could act as a backup supply.

After commissioning the WTP in 2009, a monitoring well system was installed which showed a significant water table drop over the first 6 months of operation. Subsequent test drilling by KGS Group showed that the aquifer was not continuous as originally determined from the 2005 investigations. Newer test drilling at close intervals showed the presence of clay ridges that separated the larger aquifer into smaller basins. It was determined that these clay ridges result in an "egg carton" or "ice cube tray" effect such that once the water table dropped below the top of the ridges, the production wells, which are located into a much smaller basin, are unable to sustain withdrawals necessary to sustain Melita.

1.8. Artificial Recharge

Test drilling activities in 2009 revealed at least three separate basins in close proximity to the well field. The basins are referred to as the south, middle and north basins whereby the production wells are located in the south basin. In addition, the Broomhill truck loader station is also located in the south basin. Due to the water table drop, the pump in the truck fill had to be lowered to maintain its operation.

Recharge infrastructure include a 760 mm (30 inch) well was installed in both the middle and north basin. A 75 mm pipe line was installed from the middle basin well to the south

production well. This would allow groundwater from the middle basin to be pumped to the production well site and artificially recharge the south basin. However, due to Manitoba Hydro power restrictions, this well can only be pumped while the production well is not in operation. The WTP generally requires water for about 10 hours a day such that the middle basin is pumping for about 12 hours a day. The switch-over from the production well to the recharge well currently requires the operator to travel to the well site. An automatic switch-over is planned in the near future. Pumping groundwater from the middle basin to the south basin commenced on August 26th.



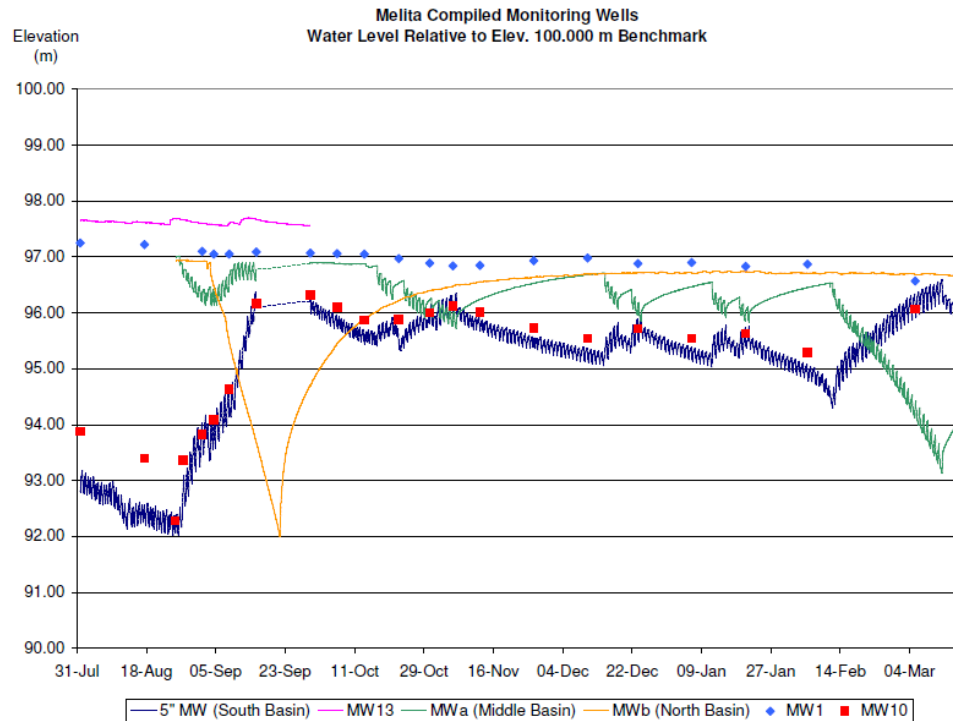
Recharge Wells

Since the middle basin could only be pumped intermittently, the north basin well was temporarily equipped with a pump, generator and overland pipeline to speed up the water table recovery. Pumping from this basin occurred from September 3rd to September 21st until water levels significantly recovered and the north basin water table prevented further pumping. The water table in the north basin has since recovered.

Currently, the middle basin well is intermittently pumped to the production well site in an attempt to maintain water levels until the new well field located on the SE24-5-27W can be put into operation. KGS Group determined that pumping from all three basins will not be sustainable to meet Melita demands and recommended developing the new well site.

1.9. Groundwater Levels and Monitoring

Groundwater monitoring commenced in July 2009. As many as four pressure transducers were initially set-up and currently three pressure transducers are continuous and manual readings. This graph uses a benchmark of 100.00 m in order to compare levels in each the three basins.



The locations of all monitoring wells are shown in the appendices. 5" MW represents the water table depth near the production well, while MWa and MWb represent the water table depth in the middle and north basins.

In 2007, the Manitoba Water Services Board (MWSB) developed a groundwater monitoring plan for the existing well field (site 1) as required in Environment Act license No. 2745 issued to the Town of Melita. On October 5, 2009, MWSB requested a minor alteration to this license to include the new well field (site 2) located on the SE24-5-27W. As a result, Manitoba Conservation requires a revised water level monitoring plan.

Once operational, site 2 will become the main supply for the Town of Melita. Site 1 will remain as a backup supply. Therefore, the groundwater monitoring plan will include monitoring of both sites. The following groundwater monitoring plan is proposed for a period of two years commencing site 2 operation. After two years, the location and frequency of groundwater monitoring is proposed to be re-evaluated.

Site 1 – NW23-5-27W

In 2009, three new monitoring wells were installed at site 1. A 125 mm monitoring well (MW-21) was installed 15 m east of the production wells in the south basin, a 50 mm monitoring well (MW-22) located 110 m north of the north production well in the middle basin, and a 50 mm monitoring well (MW-23) located 245 m north of the north production well in the north basin. All three monitoring wells were equipped with pressure transducers. However, it is proposed to maintain two pressure transducers at MW-21 and MW-22 for continuous monitoring. A manual water level reading with an electronic tape is proposed semi-annually at MW-10, MW-23 and MW-14. The monitoring of these wells will provide water level data on each of the three basins as well as MW-14 located outside of the basins.

Site 2 – SE24-5-27W

The proposed monitoring system for site 2 will include pressure transducers installed in MW-103 near the proposed production well and in MW-104 located adjacent to the Harmon farmstead. Manual level readings are proposed semi-annually at MW-100, MW-101 and MW-102. MW-100 is located near the Miner and Carr properties. Each monitoring well is protected with a locked steel cover. However at each monitoring well location, a second 50 mm monitoring well (without steel cover and lock) was provided for public observations.

2. Water Testing

Water tests are taken daily on a routine basis to ensure that the water is safe and to monitor how well the treatment process is performing. We test the water at the WTP and in the distribution system. We perform daily tests at the WTP on 5 different aspects of the treatment process.

- Distribution Tests (*water taken from a point in the distribution system*) on average 6 tests per day.
- Treated Tap (*water taken from a point in the WTP before it leaves the plant*) on average 6 tests per day.
- Raw (*untreated well water as it enters the WTP*) on average 4 tests per day.
- Permeate (*water from the R.O. Unit before chemical addition*) on average 2 tests per day.
- Sand-filter (*treated water from the sand-filter, before it blends with R.O. water*) 6 tests per day, 4 when chlorine isn't used as a pre-treatment.

2.1. Bacterial Testing

We test the raw water (untreated well water), the treated water (water leaving the treatment plant) and the water in two locations in the distribution system (within the Town of Melita) every two weeks (bi-weekly) for the presence of Total Coli forms (TC) and E. Coli (EC) bacteria. If these bacteria are present in the water it is an indication that disease causing organisms may also be present.

2.2. Disinfection

The final step in the treatment of safe water is disinfection. Disinfection is the selective destruction or inactivation of potential disease causing organisms in water. Per the *Drinking Water Safety Act* the Melita PWS must ensure that a disinfection residual of at least:

- 0.5 mg/L of free chlorine per litre of water is detectable at the point where water enters the distribution system, after a minimum contact time of 20 minutes.
- 0.1 mg/L of free chlorine per litre of water is detectable at all time at in any point in the distribution network.

2.3. Type of Disinfection Used

The Melita WTP disinfects by adding a 12% sodium hypochlorite solution to the water via 3 chlorinator pumps. One for the raw water before it enters the sand-filter (pre-treatment) and two for the blended water before it enters the reservoir.

2.4. Equipment Redundancy and Monitoring Requirements

As required by the *Drinking Water Safety Act* the Melita PWS ensures continuous disinfection is maintained at the WTP by keeping in stock all spare parts required for the chlorinators, as well there are two spare chlorinator pumps kept at the plant. Disinfection residuals are monitored continuously by an online monitor that monitors the water continuously as it leaves the WTP. We



Online Monitoring Equipment

also monitor the residuals daily at the WTP and in the distribution system; these tests are performed at the WTP after the samples are collected. The results of all tests are recorded on our records at the WTP as well as Monthly Chlorination Report forms which are sent to the regional *Drinking Water Officer* at the end of each month, to check for standard compliance.

2.5. Turbidity Testing

Turbidity is a measurement of the clarity of water. We use turbidity as another means to tell us how well our treatment system is working and to remove particles and other contaminants that can cause the water to look cloudy and affect our disinfection process. Turbidity is tested daily, the raw, treated, sand-filter and distribution by a portable testing meter. The water from the sand-filter and the blended permeate (combined waters from the R.O. Unit and sand-filter) before it enters the reservoir are monitored continuously while the plant is in operation, by two separate online turbidity monitors. The results of all turbidity tests are recorded on our records

at the WTP as well as Monthly Turbidity Report forms which are sent to the regional *Drinking Water Officer* at the end of each month to check for standard compliance.

2.6. Other Testing Performed at the WTP

- **Iron Testing:** Is performed daily on the following samples, distribution, treated tap, sand-filter. Every 5 days on the raw and every 10 days on permeate.
- **Manganese Testing:** Is performed daily on the following sample, sand-filter and every 7 days on the distribution, treated tap, raw and permeate.
- **PH Testing:** Is performed daily on the following samples, treated tap, raw, permeate and concentrate.
- **Hardness Testing:** Is performed every 10 days on the following samples, raw and treated tap.
- **Fluoride Testing:** Is performed daily on the distribution sample. See section 5 for more on fluoride.
- **Chlorine Testing:** Is performed daily on the following samples, distribution, treated tap and sand-filter. As previously described in sections 2.2 and 2.3.

2.7. Plant Operation

The WTP is monitored continuously by the computer system; it is continuously taking readings from 60 different locations by sensors, probes and meters. This information is displayed in real-time on a different number of screens (see Figure A, B, C which show three different computer screens) and is also recorded and compiled in the form of a trend. These trends can be accessed at anytime and show a history of plant operation in various areas (see Figure D for an example of a trend screen).

Figure A

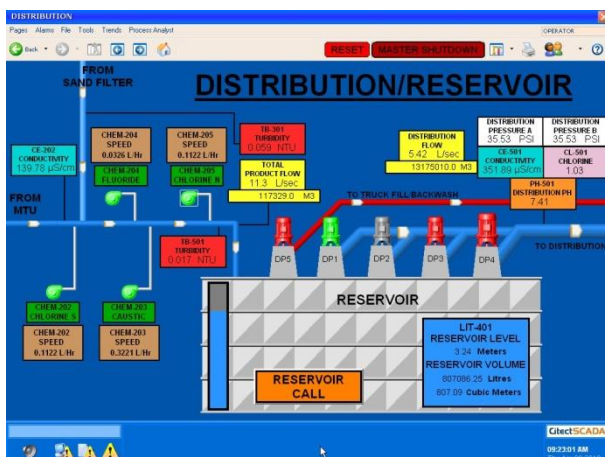
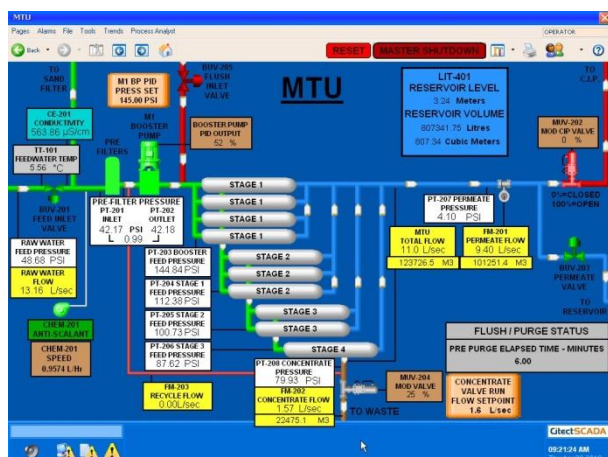


Figure B

Figure C

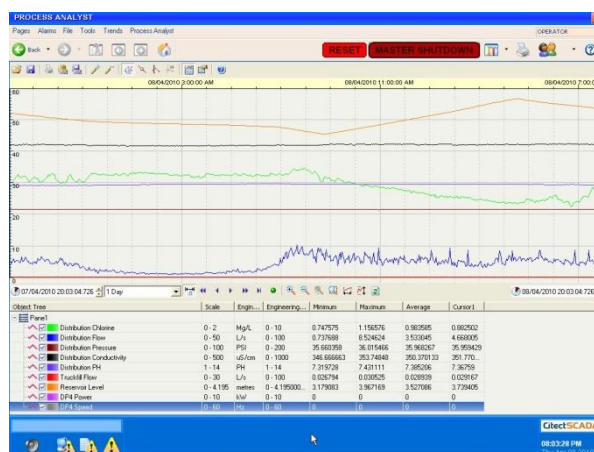
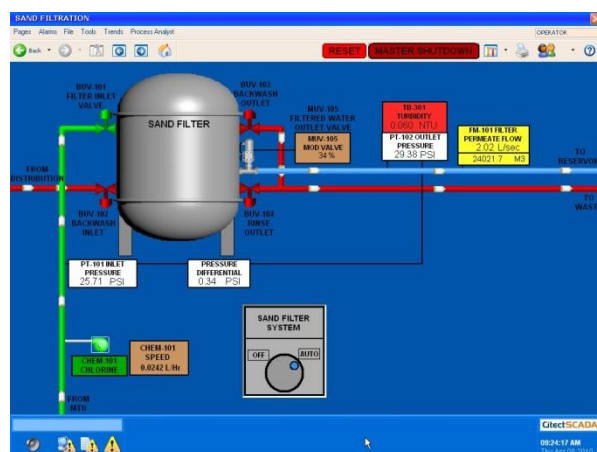


Figure D

2.8. Chemicals Added to our Water and Why

- Sodium Hypochlorite 12%: (Chlorine) Disinfectant, source of available chlorine.
- Pre-Treat Plus: (Antiscalant) Injected in the raw water before the membranes to protect them.
- Sodium Hydroxide 50%: (Caustic Soda) Acid neutralization raises PH.
- Fluorosilicic Acid 23-27%: Water fluoridation.

3. Disinfectant Residual, Turbidity, Bacteria and Overall Performance Results

For 2009, the Melita PWS has met all regulatory requirements in regard to monitoring and reporting in the WTP, leaving the WTP and in the distribution system (*see Appendix "B" – Annual Audit – 2009*).

3.1. List of Water Quality Standards

The province of Manitoba has adopted a number of water quality standards from the *Guidelines for Canadian Drinking Water Quality* developed by Health Canada and two regulations under the *Drinking Water Safety Act*. A copy of the Annual Audit – 2009 from the Office of Drinking Water is located in **Appendix "B"**.

4. Water System Incidents and Corrective Actions

In 2009 the Melita PWS repaired 13 water main breaks, 9 residential service lines, 2 sewer mains and completed 2 new service installations.

5. Additional Records Required

As part of Manitoba Health's fluoridation program, water samples are collected on a daily basis from the distribution system and tested at the WTP. Daily fluoride results are recorded and a 14 day composite sample is submitted by-weekly for analysis (*see Appendix "C" – 2009 Fluoridation Results*). The Melita PWS strives to maintain a 1.00 mg/L fluoride level. The operating range for fluoride, as identified by Manitoba Health, is 0.80 – 1.20 mg/L. In 2009 fluoride levels exceeded the 1.20 mg/L recommended level 8 times. Fluoride levels were also below the 0.80 mg/L recommended level 4 times. The reasons for straying outside the recommended range were due to primarily chemical pump issues or problems, other reasons were differences in solution strength between barrels and injector failures.

Daily Log Sheets are also kept to check plant performance, copies of these forms are sent into the Water Services Board for review.

R. O. Data Sheets are also kept to check plant performance, a copy of these forms is sent into Sapphire Group for review.

6. Drinking Water Safety Orders and Actions Taken in Response

In 2009, no drinking water safety orders were issued for the Melita PWS.

7. Boil Water Advisories Issued and Actions Taken in Response

In 2009, no boil water advisories were issued for the Melita PWS.

8. Warnings Issued/Charges Laid in Accordance with the Drinking Water Safety Act

In 2009, no warnings were issued or charges laid for the Melita PWS.

9. Major Expenses Incurred

None

10. Future System Expansion and/or Increased Production

In 2010, the Town of Melita will be starting a new development in the northeast part of town which will service 15 new lots. There is also a rural pipeline that is being developed by the Water Services Board that will run out of the Melita WTP.

11. Water Production/Usage for 2009

The treatment system capacity was designed to meet a 20 year future demand for Melita as well as additional capacity for a rural water system. The water system production and usage are summarized in the following charts in *Appendix "A" – Usage Charts*.

Appendix “A” – Usage Charts

Truck Fill

Date	Reading	Total Gals	Highest Day	Lowest Day	Monthly Average
31-Dec-08	0.0				
31-Dec-09	650.37				
Total	650.37	143,253	4,524	0	403

Raw

Date	Reading	Total Gals	Highest Day	Lowest Day	Monthly Average
31-Dec-08	0				
31-Dec-09	150,302				
Total	150,302	33,106,167	7,484,802	0	90,661

Distribution

Date	Reading	Total Gals	Highest Day	Lowest Day	Monthly Average
31-Dec-08	0				
31-Dec-09	128,827				
Total	128,827	28,375,991	752,313	71,366	77,801

Appendix "B" – Annual Audit 2009



Water Stewardship
Office of Drinking Water
1129 Queens Avenue, Brandon, Manitoba, Canada R7A 1L9
T 204-726-6563 F 204-726-6567
Glen.Robertson@gov.mb.ca
<http://www.manitoba.ca/drinkingwater>

PWS 137.00

March 8, 2010

Mayor and Council
Town of Melita
Box 364
Melita MB R0M 1L0

Town of Melita - Public Water System Annual Audit - 2009

Dear Mayor and Council:

This audit provides a summary of the **Town of Melita Public Water System's (PWS)** performance in 2009 in meeting provincial regulatory requirements associated with the provision of safe drinking water.

The primary criteria used to assess compliance was adherence to the conditions of your system's Operating Licence along with Health Canada's *Guidelines for Canadian Drinking Water Quality* (GCDWQ) and two regulations under the *Drinking Water Safety Act* (DWSA): the *Drinking Water Safety Regulation* (MR 40/2007) and the *Drinking Water Quality Standards Regulation* (MR 41/2007). Specific sections of these regulations are noted in this audit for your reference. A copy of the regulations is available at <http://www.manitoba.ca/drinkingwater>.

The 2009 Audit considers the requirement for Operators to undertake corrective action reporting. This is a compliance process that was discussed in previous audits and explained in the *Operational Guidelines for Monitoring and Reporting - Public and Semi-Public Water Systems* (ODW Guideline 2007 - 01). Pursuant to the guideline, and condition 5.4 of the Operating Licence, Operators are required to complete a Corrective Action Report whenever there is a routine non-conformance variation from normal operations associated with the following items:

- Low disinfection residual entering the distribution system: 21(1) MR 40/2007
- Low disinfection residual in the distribution system: 22 MR 40/2007
- Filtered water turbidity exceeding the turbidity standards: 6(1) MR 41/2007
- Low positive total coliform (<10 CFU/100mL): 3 MR 41/2007

If there is a non-conformance variance from the standards associated with the above items, a water system is considered to be in **non-compliance** unless corrective actions are taken and a Corrective Action Report form is submitted to the regional Drinking Water Officer. By completing and submitting the form, the system is **deemed compliant** for the circumstance in question.

1) 2009 Compliance Report

The Corrective Action Report forms submitted in 2009 were considered in the determination of the PWS performance percentages in the applicable tables. Performance percentages that have been augmented by submission of a Corrective Action Report are highlighted with an asterisk.

Experience has demonstrated that the addition of enhanced monitoring equipment or more diligent monitoring often lends itself to more consistent adherence to the standards resulting in a reduced need to complete corrective action Reports. Owners are encouraged to discuss this matter with their operators in instances where the completion of Corrective Action Reports is being used to achieve compliance on a routine basis.

The following Monitoring and Reporting requirements are specified in Table 1 and Table 2 of your Operating Licence PWS-09-394. Reference to the appropriate section in the supporting regulations is also provided.

Disinfection Monitoring and Reporting

	Regulatory Requirement	PWS Performance
Free chlorine residual entering the distribution system Section 21(1) a - MR 40/2007	≥ 0.5 mg/L	100 % *
Frequency of testing entering the distribution system Schedule A - MR 40/2007	Daily or continuous	100 %
Free chlorine residual in the distribution system Section 22 a - MR 40/2007	≥ 0.1 mg/L	100 %
Frequency of testing in the distribution system Schedule A - MR 40/2007	Bi-weekly	100 %
Report submissions Section 25(2) - MR 40/2007	Monthly	100 %
<u>Comments:</u> The Public Water System has met their regulatory requirements for 2009. Corrective action forms were received on 24 different occasions. Corrective action were primarily reporting problems with the chlorine analyzer, confirmatory measurements met the minimum requirement of 0.5 mg/L. Failure to submit the corrective action forms would have resulted in a non-compliant situation for this item.		

Bacteriological Monitoring and Reporting

	Regulatory Requirement	PWS Performance
Number of raw/incoming water samples Schedule A - MR 40/2007	26	100 %
Number of treated water samples Schedule A - MR 40/2007	26	100 %
The Public Water System has met their regulatory requirements for 2009 Number of distribution water samples Schedule A - MR 40/2007	26	100 %
Frequency of testing Schedule A - MR 40/2007	Bi-weekly	100 %

Total Coliform present in samples Section 3(1) b - MR 41/2007	0 TC per 100mL	100 %
E. Coli present in samples Section 3(1) a - MR 41/2007	0 EC per 100mL	100 %
Comments: The Public Water System has met their regulatory requirements for 2009.		

Water Chemistry Analyses

The Office of Drinking Water submitted water samples from the **Town of Melita PWS** for general chemical analysis on December 17, 2009. This action is considered to fulfill the general chemistry monitoring requirement outlined in Table 2 of your Operating Licence. A Letter providing interpretation comments and recommendations on the test results were sent to the Town of Melita February 1, 2010. **The treated water met all the applicable GCDWQ health-based maximum acceptable concentrations (MAC).**

The link to Health Canada's *Guidelines for Canadian Drinking Water Quality* website is:

http://www.hc-sc.gc.ca/ewh-semt/water-eau/drink-potab/guide/index_e.html

Chemical Water Quality Standards Monitoring and Reporting		
Schedule B – MR 41/2007	Regulatory Requirement	PWS Performance
Arsenic	0.010 mg/L	0.00032 mg/L
Benzene	0.005 mg/L	<0.00050 mg/L
Fluoride	1.5 mg/L	0.93 mg/L
Lead	0.010 mg/L	0.000294 mg/L
Nitrate	as nitrogen: 10mg/L	0.140 mg/L
Tetrachloroethylene	0.03 mg/L	<0.00050 mg/L
Trichloroethylene	0.005 mg/L	<0.00050 mg/L
Uranium	0.02 mg/L	0.00163 mg/L
Comments: The results for the above standards were generated from the 2009 chemical audit undertaken by the Office of Drinking Water.		

The Office of Drinking Water has determined that it will continue to undertake general chemistry sampling for 2010 on behalf of water utilities. However, this policy may change in the future. Please note that the general chemistry sampling requirement in your licence is associated with public health protection monitoring. This should not be confused with the chemical sampling that utilities should undertake to ensure effective and efficient operation of the water treatment system. In that regard, water systems are encouraged to submit routine water samples for chemical analysis to monitor the effectiveness of treatment processes.

Additional Operating Licence Requirements

Section 2 of your Operating Licence PWS-09-394 specifies submission dates for:

- Engineering Assessment: September 1, 2010
- Emergency Response Plan: September 1, 2011

Co-operation in meeting the above submission dates will assist in processing applications and reports and enable your water system to meet the 2012 compliance deadline for meeting water quality standards.

Annual Reports

Section 32(1) MR 40/2007 stipulates that public water systems serving 1,000 or more persons must prepare an Annual Report about the operation of their water system for the preceding calendar year. A copy of the report must be submitted to the Office of Drinking Water by March 31 of each year and also be made available to the public. A guideline and examples to aid in the completion of the report are available on the Office of Drinking Water web site: <http://www.manitoba.ca/drinkingwater>

Your 2009 water system report was received on March 20, 2009 and as such you have met your regulatory requirement.

2. Future Considerations

In the upcoming year the ODW will pursue full implementation of the Drinking Water Regulation and Water Quality Standards regulations that came into force in 2007. Focus will be placed on ensuring that water systems fully comply with their Operating Licence conditions including the completions of Engineering Assessments, Compliance Plans, and Emergency Response Plans. Guidance documents related to these particular items are available on the ODW web site.

In addition to the above, the ODW is proceeding with the development and implementation of enforcement policies. These policies and the commensurate actions will reflect the degree to which a given infraction may affect public health. Not undertaking proper disinfection, for example, would result in immediate enforcement action that would include a significant fine.

3. Emergency Reporting

This office must be notified immediately when emergencies occur that may result in an inability to supply safe drinking water. This includes instances where a community is unable to maintain adequate distribution system water pressure (ex: during a pump failure).

For after hour emergencies please contact the 24-hour Environmental Emergency Line at (204) 944-4888 and ask to have the On-Call Drinking Water Officer contact you.

4. Summary

The **Town of Melita** PWS has fulfilled its obligations in 2009 in complying with the terms and conditions of their Operating Licence PWS-09-394 issued pursuant to the Manitoba *Drinking Water Safety Act* and regulations.

The above assessment is based on information submitted to this office. If your records conflict with the above assessment, or if you have any questions concerning this report, or any other drinking water related issues, please call me at (204) 726-6563.

Sincerely,

A handwritten signature in black ink, appearing to read "Glen Robertson", is written over a horizontal line.

Glen Robertson
Drinking Water Officer

copy: Linda Cripps, Chief Administrative Officer
Brock Bolton, Water Treatment Plant Operator

Appendix "C" – 2009 Fluoridation Results

Sampling Period	Dates	Results in mg/L
22	January 10 - 23	1.6
23	January 24 - February 6	1.2
24	February 7 - 20	1.1
25	February 21 - March 6	1.1
26	March 7 - 20	1.06
1	March 21 - April 3	0.88
2	April 4 - 17	1.01
3	April 18 - May 1	0.87
4	May 2 - 15	0.72
5	May 16 - 29	1.48
6	May 30 - June 12	1.33
7	June 13 - 26	1.37
8	June 27 - July 10	1.01
9	July 11 - 24	1.15
10	July 25 - August 7	1.25
11	August 8 - 21	1.3
12	August 22 -September 4	1.07
13	September 5 - 18	0.93
14	September 19 - October 2	0.96
15	October 3 - 16	0.72
16	October 17 - 30	2.45
17	October 31 - November 6	0.97
18	November 7 - 20	0.92
19	November 21 - December 4	0.72
20	December 5 - 18	1.81
21	December 19 - January 1	0.34
Average Reading for 2009		1.13 mg/L