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SRB TECHNOLOGIES (CANADA) INC.

2007 ANNUAL COMPLIANCE REPORT

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INTRODUCTION

SRB Technologies (Canada) Inc. is licensed operated under Canadian Nuclear Safety Commission Nuclear Substance Processing Facility Possession Licence, NSPFPL-13.01/2008.

Condition 6.4 of Licence NSPFPL-13.01/2008 reads:

> ***The licensee shall prepare and submit to the Commission or a person authorized by the Commission by March 31 of each year, an annual compliance report that covers the previous calendar year's operation prepared in accordance with Appendix E to this licence.***

Appendix E of Licence NSPFPL-13.01/2008 reads:

> ***This Appendix outlines the information to be included in the Annual Compliance Report by licence condition of this licence.***
>
> ***The following information shall be included:***
>
> ***1. Operational review including equipment and facility performance and changes, significant events / highlights that occurred during the year.***
>
> ***2. Information on production including verification that limits specified in the licence was complied with.***
>
> ***3. Modifications including changes in organization, administration and / or procedures that may affect licensed activities.***
>
> ***4. Health physics information including operating staff radiation exposures including distributions, maxima and collective doses; review of action level or regulatory exceedance(s) if any, historical trending where appropriate.***
>
> ***5. Environmental and radiological compliance including results from environmental and radiological monitoring, assessment of compliance with licence limits, historical trending where appropriate, and quality assurance / quality control results for the monitoring.***
>
> ***6. Facility effluents including gaseous and liquid effluent releases of nuclear substances from the facility, including unplanned releases of radioactive materials and any releases of hazardous substances.***
>
> ***7. Waste management including types, volumes and activities of solid wastes produced, and the handling and storage or disposal of those wastes.***

INTRODUCTION (Continued)

8. ***Updates regarding activities pertaining to safety, fire protection, security, quality assurance, emergency preparedness, research and development, waste management, tritium mitigation and training (as applicable).***

9. ***Compliance with other federal and / or provincial Regulations.***

10. ***A summary of non-radiological health and safety activities, including information on minor incidents and lost time incidents.***

11. ***Public information initiatives.***

12. ***Forecast for coming year(s).***

PURPOSE

The purpose of this report is to meet the reporting requirements of condition 6.4 of Nuclear Substance Processing Facility Possession Licence NSPFPL-13.01/2008 and to provide the information detailed in Appendix E of this Licence.

METHODOLOGY

The report is structured to provide the information listed in Appendix E of Licence NSPFPL-13.01/2008 as follows:

1.0 Operational review
2.0 Information on production
3.0 Modifications
4.0 Health physics information
5.0 Environmental and radiological compliance
6.0 Facility effluents
7.0 Waste management
8.0 Updates
9.0 Compliance with other Regulations.
10.0 Non-radiological health and safety activities
11.0 Public information initiatives
12.0 Forecast

1.0 OPERATIONAL REVIEW

This section of the report will provide an operational review including equipment and facility performance and changes, significant events / highlights that occurred during 2007.

1.1 SIGNIFICANT EVENTS / HIGHLIGHTS

In a decision[1] released on January 31, 2007 the company's licence to process tritium was not renewed by the Commission. A possession licence was issued in its place which allowed SRB to continue assembly of its product with tritium light sources that remained in inventory.

As the sale of tritium light sources and their associated assemblies are the sole source of revenue for the SRB facility, on February 23, 2007 SRB applied for an amendment of its licence to allow receipt of tritium filled light sources from other facilities for the sole purpose of direct onward sale to SRB customers or for assembly in devices for direct onward sale to SRB customers. The amendment[2] also stipulated that, at any time, no more than 6,000 TBq of tritium in any form may be held at SRB's facility. The 6,000 TBq of tritium represented just 55% of the allowable quantity under the current possession licence. Approval of the amendment did not require that any new methods or procedures be implemented; required measures were already in place and in use as authorized by the licence. The amendment was granted by the Commission in a decision[3] released on May 11, 2007.

SRB also submitted an application[4] to the Commission for acceptance of the proposed financial guarantee for safe state of closure on July 18, 2007. In a decision[5] released on October 23, 2007, the Commission, pursuant to section 24 of the Nuclear Safety and Control Act, accepted the Escrow Agreement for $79,368.10 and the Financial Security and Access Agreement as the financial guarantee provided by SRB for safe state of closure.

In an application[6] dated December 12, 2007 SRB requested approval to resume operation, including the processing of tritium. The matter is scheduled to be heard in April and June 2008.

In 2007 SRB made some significant improvements to increase the safety and environmental performance of the facility, and public acceptance, which include the drilling of 27 additional wells to various depths, a greatly enhanced Public Information Program and improvements implemented as a result of an organizational study.

Senior Management performed a thorough analysis of all company activities and processes that result in emissions of tritium to the environment and produced a document[7] which identified all sources of tritium emission from the facility, Systematic And Quantitative Analysis Of Tritium Sources, dated March 29, 2007.

1.2 EQUIPMENT AND FACILITY PERFORMANCE

For the purpose of providing a safe working environment, the most prominent protective element of the radiation protection system is the workplace ventilation system including the safety cabinets. The facility has several air-handling units that provide supply air and exhaust air for protective workplace ventilation.

1.2.1 VENTILATION

The ventilation of the facility is such that the air from the facility flows to the area with greatest negative pressure in zone 3 which has the highest potential for tritium contamination where all tritium processing takes place. This area and part of zone 2 are kept at high negative pressure with the use of two air handling units which combined provide airflow of approximately 12,000 cubic feet per minute.

The air handling units are connected to a series of galvanized and stainless steel ducts. In addition to providing ventilation for the facility these air handling units also provide local ventilation to a number of fume hoods which are used to perform activities that have a potential for tritium contamination.

These air handling units are maintained through contract maintenance and service program with local contract providers in conjunction whereby preventive maintenance is performed by qualified staff.

Ventilation equipment maintained in 2007 remained the same as that maintained in 2006. A list of this equipment can be found in **Appendix A** of this report.

All ventilation systems were maintained in fully operational condition with no major system failures during 2007 to the requirements of our Maintenance Program[8] and operational procedures[9], [10]. Equipment is maintained on a quarterly or monthly basis, see equipment maintenance information in **Appendix B** of this report. Equipment maintenance was performed under contract with a fully licensed maintenance and TSSA certified local HVAC contract provider.

1.2.2 PORTABLE TRITIUM-IN-AIR MONITORS

Portable tritium-in-air monitors are also maintained in Zones 2 and 3. The portable units are used to determine the source of tritium that might cause an alarm threshold to be breached.

There are three portable tritium-in-air monitors available for airborne tritium monitoring at the facility. Two in Zone 3 and one in Zone 2.

As required by our Radiation Safety Program[11] all tritium-in-air monitors were calibrated once during 2007, in April.

1.2.3 TRITIUM-IN-AIR ROOM MONITORS

The ambient air in Zones 2 and 3 is continuously monitored using stationary tritium-in-air monitors.

There are four stationary tritium-in-air monitors available for airborne tritium monitoring at the facility. Three monitors are strategically located in Zone 3; one in the Rig Room where gaseous tritium light sources are filled and sealed, one in the Laser Room where laser energy is used to cut and seal small gaseous tritium light sources and inspected, and one in the Tritium Laboratory where tritium is transferred from bulk supply containers to filling containers. One stationary tritium-in-air monitor is located in Zone 2 in the Assembly Area, where gaseous tritium light sources are pre-packed in preparation for shipping or installed into device housings.

As required by our Radiation Safety Program[11] all tritium-in-air monitors were calibrated once during 2007, in November.

1.2.4 STACK MONITORING EQUIPMENT

Stack monitoring equipment is incorporated for each of two main air-handling units. The monitoring equipment includes, for each air-handling unit, the following:

1. A tritium-in-air monitor connected to a real-time recording device.
2. A bubbler system for discriminately collecting HTO and HT.
3. A flow measurement device to indicate elapsed time, flow rate and volume.

As required each tritium-in-air monitor was calibrated once during 2007, in November 2007.

As required by our procedures[12] the recording device was calibrated at least every three months during 2007. Calibration was actually performed a total of 10 times in 2007.

As the calibration of a flow measurement device is only valid for one year, each device was replaced in 2007, in April.

1.2.5 LIQUID SCINTILLATION COUNTERS

Liquid scintillation counters are maintained and calibrated on a yearly basis to ensure their functionality by a qualified service representative from the manufacturer of the equipment. Equipment was calibrated in August 2007.

2.0 INFORMATION ON PRODUCTION

This section of the report will provide information on production including verification that limits specified in the licence was complied with.

2.1.1 POSSESSION LIMIT

Section IV (c) of Licence NSPFPL-13.01/2008 reads:

possess a maximum of 6,000 TBq of tritium in any form.

The maximum tritium activity possessed at any time during 2007 did not exceed 5,750 TBq. It should also be noted that on May 11, 2007, a decision[3] was released by the Commission to reduce SRB's possession limit from 11,000 TBq to 6,000 TBq on SRB's application. Tritium activity on site during 2007 can be found in **Appendix C** of this report.

At all times, unsealed source material was stored on uranium getter beds or in the handling volumes of the gas filling rigs.

2.1.2 IMPORT AND EXPORT ACTIVITIES

On February 23, 2007 SRB applied for an amendment[2] of its licence to allow receipt of tritium filled light sources from other facilities for the sole purpose of direct onward sale to SRB customers or for assembly in devices for direct onward sale to SRB customers. On May 11, 2007, a decision[3] was released by the Commission to allow SRB to apply and receive import licenses to import tritium filled light sources for distribution and assembly into radiation devices for distribution. SRB applied for and received from the CNSC export licenses for countries worldwide for the purpose of exporting and supplying GTLS's and GTLD's to customers.

2.1.3 SHIPPING ACTIVITIES

In 2007, SRB prepared, packaged and shipped, in accordance with CNSC regulatory document, SOR/2000-208, Packaging and Transport of Nuclear Substances Regulations, 272 consignments to various customers located in 15 countries around the world including Canada. The number of monthly shipments containing radioactive material for 2007 can be found in **Appendix D**.

No transport incidents occurred nor were reported during 2007.

2.1.4 TRITIUM PROCESSED

Tritium was only processed at the facility until January 31, 2007. A total of 1,497,912 GBq was processed during that period.

2.1.5 RELEASE LIMITS TO ATMOSPHERE

Appendix C of licence NSPFPL-13.01/2008 outlines release limits to atmosphere.

Stack release values based on weekly sampling and analysis for tritium oxide (HTO) and elemental tritium (HT) indicate that, on average, the emissions of HTO was maintained at 4.26% and the emissions of HTO + HT was maintained at 8.02% of the license limit.

TABLE 1: RELEASE LIMITS TO ATMOSPHERE AGAINST RELEASES AND PERCENTAGE OF LIMIT

NUCLEAR SUBSTANCE AND FORM	LIMIT (Bq/YEAR)	RELEASED (Bq/YEAR)	% OF LIMIT
Tritium as tritium oxide (HTO)	1.35 E+14	5.75 E+12	4.26%
Total tritium as tritium oxide (HTO) and tritium gas (HT)	5.21 E+14	4.18 E+13	8.02%

2.1.6 ACTION LEVELS FOR RELEASE LIMITS TO ATMOSPHERE

In a letter[19] dated May 30, 2007 SRB proposed to CNSC Staff weekly stack emission action levels associated with the activities under licence NSPFPL-13.01/2008. CNSC Staff later concluded that the proposed action levels were acceptable.

The weekly stack emission action levels were not exceed after their institution on May 30, 2007.

2.1.7 RELEASE LIMITS TO SEWER

Appendix C of licence NSPFPL-13.01/2008 outlines a release limits to sewer.

Sewer release values based on sampling and analysis performed by a third party indicate that the emissions to sewer in 2007 were 4% of the license limit.

TABLE 2: RELEASE LIMITS TO SEWER AGAINST RELEASES AND PERCENTAGE OF LIMIT

NUCLEAR SUBSTANCE AND FORM	LIMIT (GBq/YEAR)	RELEASED (GBq/YEAR)	% OF LIMIT
Tritium water soluble	200	8	4%

3.0 MODIFICATIONS

This section of the report will outline modifications including changes in organization, administration and / or procedures that may affect licensed activities.

3.1 ORGANIZATION

As directed by the Commission we have conducted an organizational study, documented as Organizational Study[13], dated July 31, 2007, which defines the management capacity needed at the facility to manage the safety programs, the workers and contractors.

In the study we focused on the requirements, conditions, and activities associated with the current possession licence, however the study also addressed the requirements, conditions and activities associated with the resumption of operations.

The study identified a number of deficiencies and outlined a number of recommendations to address these deficiencies which have all been implemented in the last few months and reported to CNSC Staff in a document titled Supplemental To Organizational Study[14], dated December 31, 2007. This further ensures that as required under Section 24(4), subsection (a) of the Nuclear Safety and Control Act, that SRB is qualified to carry on the activities for which it has applied in the amendment.

3.1.1 VISION, MISSION, GOALS, VALUES AND POLICY

With the involvement of all staff and the majority of the shareholders we have developed a new set of vision, mission, goals, values and policy and have set frequent intervals for future reviews.

The vision was defined, not only for where the organization would like to be today, but also for where the organization would like to be in the future, with this future direction being understood and shared by all staff. It was also recognized that the company vision, mission, goals, values and policy needed to be fully communicated and understood by all contractors to ensure that their activities are geared to meet the requirements of the Nuclear Safety and Control Act, Regulations and conditions of the Licence. We have also declared our vision, mission, goals, values and policy publicly, notably on our web site, to demonstrate to the public that the overriding corporate objective is the company's commitment to nuclear and environmental safety.

Most importantly, the key was to define how the vision, mission, goals, values and policy are followed by staff. Historically SRB was satisfied if it operated below its set administrative levels. Little effort was put to analyzing performance data or to strive for continuous reduction of effects on the public and the environment.

Over the course of 2007 SRB has defined a number of quantifiable and qualifiable performance indicators that are used to identify shortcomings in terms of meeting the Nuclear Safety and Control Act, Regulations, and conditions of the Licence. Data and information are assessed and analyzed against historical data and relevance to our vision, mission, goals, values and policy.

FIGURE 1: COMPANY'S GOVERNING PRINCIPLES

3.1.2 ROLES AND RESPONSIBILITIES

We have reviewed decision making responsibilities of individuals to ensure that there are no omissions or overlaps and no problems of shared responsibilities.

3.1.2.1 HEALTH PHYSICS

As a result of the findings of the study it was therefore decided to appoint a single individual dedicated to human protection and another to environmental protection, thereby putting more focus on both radiation and environmental protection, since both roles were previously performed by a single individual.

A task analysis and various discussions and reviews resulted in the appointment of two individuals who met the respective criteria of each position.

3.1.2.2 PRODUCTION CONTROL

As a result of the study it was also recognized that it was better suited for the Production Control Manager's role to be responsible for all communication with the Production Supervisors and other production staff relating to production output and scheduling.

Before roles were redefined Senior Management had some involvement with production staff regarding various production related matters, Senior Management's involvement has now been limited to the oversight of safety. Production Control Manager's and Production Supervisor's responsibilities were revised to clarify and reinforce this change.

3.1.2.3 SALES SUPPORT

Historically some interaction with some new customers was performed by the President. An individual has now been appointed at our facility in the United States to perform all interactions with new customers.

This alleviates the President's time to focus on ensuring that steps are taken to ensure that staff understand their responsibilities, the tasks they have to perform and their role in achieving a high level of safety.

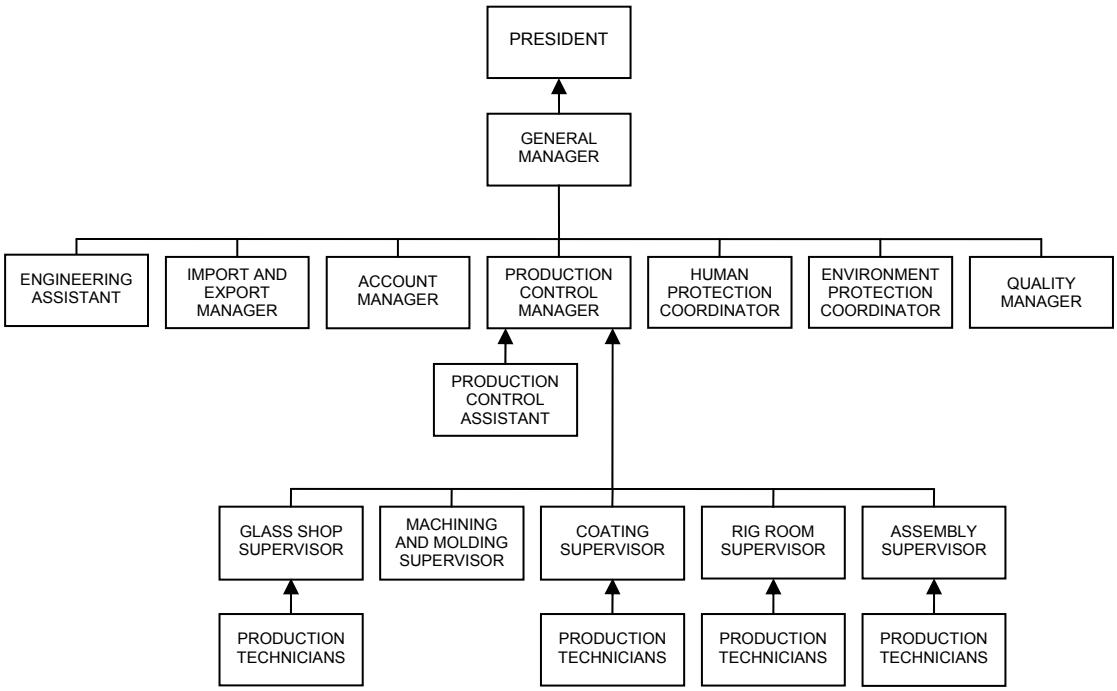
3.1.3 QUALITY MANAGEMENT

A stringent audit plan[15] starting in 2007 has been developed by the Quality Manager and supported by Senior Management to audit all activities associated with developing, managing and implementing all company safety programs.

3.1.4 ORGANIZATIONAL CHART

The following organizational chart represents the structure at the end of 2007 at the company as a result of addressing the recommendations of the organizational study[13].

FIGURE 2: ORGANIZATIONAL CHART



3.1.5 COMMITTEES

In 2007 SRB Senior Management has formally constituted committees in the organizational structure:

- Health physics Committee
- Occupational health and safety Committee
- Executive Committee
- Fire Protection Committee
- Mitigation Committee
- Public information Committee
- Waste management Committee

Senior Management has formally and clearly defined the responsibilities of these committees including those of the Health Physics Team. Senior Management has also formally instituted minimum requirements for each committee or team, including listing the employees who hold positions requiring them to be part of the committee. Senior Management held individual meetings with mandatory members of each committee to discuss the responsibilities and requirements of each committee, the tasks expected specifically of them and others as they apply to meeting the requirements of the Canadian Nuclear And Safety Control Act, Regulations and conditions of the Licence.

3.2 PROGRAMS, PROCEDURES AND ASSOCIATED DOCUMENTS

Since January 2007, most programs and procedures were improved and complemented by other programs and procedures to further ensure protection of the public, the workers and the environment. Improvements were made as a result of SRB staff's research and study of International Atomic Energy Agency documents, CNSC Regulatory Guides, recommendations from the International Commission on Radiological Protection and various industry standards and documents of other CNSC licensees.

Most notable changes include a new revisions of the Radiation Safety Program[11], Waste Management Program[16] and Quality Manual[17].

Concerns were raised during the licence hearings in 2006 over SRB's ability to effectively manage contractors. In 2007, SRB ensured that the roles and responsibilities of contractors were clearly defined and understood, whilst understanding that the responsibility for safety rested with SRB. A Contractor Management Program[18] was instituted to formalize these activities. This program formally ensures that contractors selected can perform all necessary tasks required in a timely professional manner. All contractors are also required to hold all necessary approvals and certifications required to perform the services required.

A number of minor changes were also made to second tier procedures to include more detail to further describe activities and controls that are currently in place at the facility.

4.0 HEALTH PHYSICS INFORMATION

This section of the report will provide health physics information including operating staff radiation exposures including distributions, maxima and collective doses; review of action level or regulatory exceedance(s) if any, historical trending where appropriate.

4.1 DOSIMETRY SERVICES

During 2007, SRB maintained a Dosimetry Service License, 11341-3-10.0, for the purpose of providing in-house dosimetry services for the staff of SRB Technologies (Canada) Inc. and contract workers performing services for SRB where there existed potential exposure for uptake of tritium.

Dosimetry results were submitted on a quarterly basis to Health Canada in a timely fashion for input to the National Dose Registry for 32 individual staff members, a number of layoffs were made throughout the year and by the end of 2007 only 15 staff members remained employed.

SRB participated in the Annual Bioassay Intercomparison Analysis program sponsored by the National Calibration Reference Centre for Bioassay, Radiation Surveillance and Health Assessment Division, Radiation Protection Bureau of Health Canada. The participation is a regulatory requirement for Dosimetry Service Providers.

SRB received the Certificate of Achievement for successful participation in the Tritium Urinalysis Intercomparison Program National Calibration Reference Centre for Bioassay and In Vivo Monitoring for the year 2007.

SRB also submits, to the CNSC, an annual compliance report (ACR) for Dosimetry Service License, 11341-3-10.0.

4.2 STAFF RADIATION EXPOSURE

SRB, through the Dosimetry Service License, 11341-3-10.0, assesses the radiation dose to its employees and to contract workers who may have exposure to tritium that might pose a significant uptake.

For SRB staff members, all are classified as Nuclear Energy Workers. All staff members participate in the dosimetry program. Persons who work in Zones 1 and 2 provide bioassay samples for tritium concentration assessment on a bi-weekly frequency due to the very low probability of uptake of tritium. Persons assigned to work in Zone 3 provide bioassay samples on a weekly frequency due to the significant probability of uptake of tritium.

The assessment of dose to personnel, due to tritium uptake, is performed in accordance with the Health Canada document, 83-EHD-87, Bioassay Guideline 2, Guidelines for Tritium Bioassay.

The maximum annual dose received by any person employed by SRB is well within the regulatory limit for a nuclear energy worker, which is 50.0 mSv per calendar year. The maximum annual staff dose of 0.48 mSv with an average for all staff of only 0.04 mSv. Collective dose was also low at 1.40 mSv. The table found in **Appendix E** provides the radiological occupational annual dose data for 2007. The table provides a comparison of dosimetry results for the years 1996 to 2007. Any comparison of the dose in 2007 to previous years is not informative or appropriate as the facility only processed tritium until January 31, 2007.

4.3 ACTION LEVELS FOR DOSE AND BIOASSAY LEVEL

Appendix D of licence NSPFPL-13.01/2008 outlines action levels for effective dose to workers and for bioassay level.

TABLE 3: ACTION LEVELS FOR DOSE AND BIOASSAY LEVEL

PARAMETER	ACTION LEVEL
Effective dose for worker	5 mSv/year 2.6 mSv/quarter
Bioassay result	1,000 Bq/ml for any period

There were no instances whereby a staff member's tritium body burden exceeded the action level of 1,000 Bq/mL. The highest staff dose for the year was 0.48 mSv, therefore none of the staff member exceeded the action levels for effective dose to worker.

4.4 ADMINISTRATIVE LIMITS FOR DOSE AND BIOASSAY LEVEL

SRB has in place administrative limits for effective dose to worker and bioassay result:

TABLE 4: ADMINISTRATIVE LIMITS FOR DOSE AND BIOASSAY LEVEL

PARAMETER	ADMINISTRATIVE LEVEL
Effective dose for worker	4 mSv/year 2.0 mSv/quarter
Bioassay result	500 Bq/ml for any period in Zone 3 100 Bq/ml for any period in Zone 1 or 2

There were no instances whereby a staff member's tritium body burden exceeded the action level of 500 Bq/mL. One weekly bioassay sample was recorded for a Zone 2 worker in excess of 100 Bq/mL, but less than 500 Bq/mL. This result occurred during the first week on January 2007 when tritium processing was still taking.

At no time did Zone 1 staff bioassay sample results exceed the administrative limit of 100 Bq/mL.

4.5 CONTAMINATION CONTROL

Tritium contamination control is maintained by assessment of non-fixed tritium contamination levels throughout the facility by means of swipe method and liquid scintillation counting of the swipe material. SRB has in place administrative surface contamination limits:

TABLE 5: ADMINISTRATIVE SURFACE CONTAMINATION LIMITS

ZONE	SURFACES	ADMINISTRATIVE SURFACE CONTAMINATION LIMITS
1	All surfaces	4.0 Bq/cm^2
2	All surfaces	4.0 Bq/cm^2
3	All surfaces	40.0 Bq/cm2

An overview of swipe monitoring results for 2007 have been tabulated and is included in **Appendix F**. Any comparison of the data in 2007 to that collected in 2006 is not informative or appropriate as the facility only processed tritium until January 31, 2007. However as would be expected failure rate has decreased form 2006. Also as expected failures were more prominent in the area where light sources are handled.

The data collected shows that 742 swipes were taken in Zone 1 resulting in a pass rate of 99.32% bellow the administrative level of 4 Bq/cm^2.

The data collected shows that 2,472 swipes were taken in Zone 2 resulting in a pass rate of 95.11% bellow the administrative level of 4 Bq/cm^2.

The data collected shows that 3,117 swipes were taken in Zone 3 resulting in a pass rate of 90.05% bellow the administrative level of 40 Bq/cm^2.

All swipe results are reported to the area supervisors. The area supervisor would review the results to determine where extra cleaning effort is necessary.

5.0 ENVIRONMENTAL AND RADIOLOGICAL COMPLIANCE

This section of the report will provide environmental and radiological compliance including results from environmental and radiological monitoring, assessment of compliance with licence limits, historical trending where appropriate, and quality assurance / quality control results for the monitoring.

5.1 ENVIRONMENTAL MONITORING PROGRAM

SRB Technologies (Canada) Inc. developed an environmental monitoring program that provides data for site-specific determination of tritium concentrations along the various pathways for exposure probabilities to the public due to the activities of the operations.

5.1.1 PASSIVE AIR SAMPLERS

A total of 40 passive air samplers are located throughout a 2 kilometer radius from the SRB facility, in 8 sectors, ranging in distance at 250, 500, 1000, and 2000 meters.

The samples were collected on a monthly basis by SRB and a contract laboratory for tritium concentration assessment by the contract laboratory. The results were reported to the members of the public and posted on the web site.

Several duplicate samplers are included for quality assurance purposes. Several samplers are also located specifically to provide data for assessment of the defined critical group members.

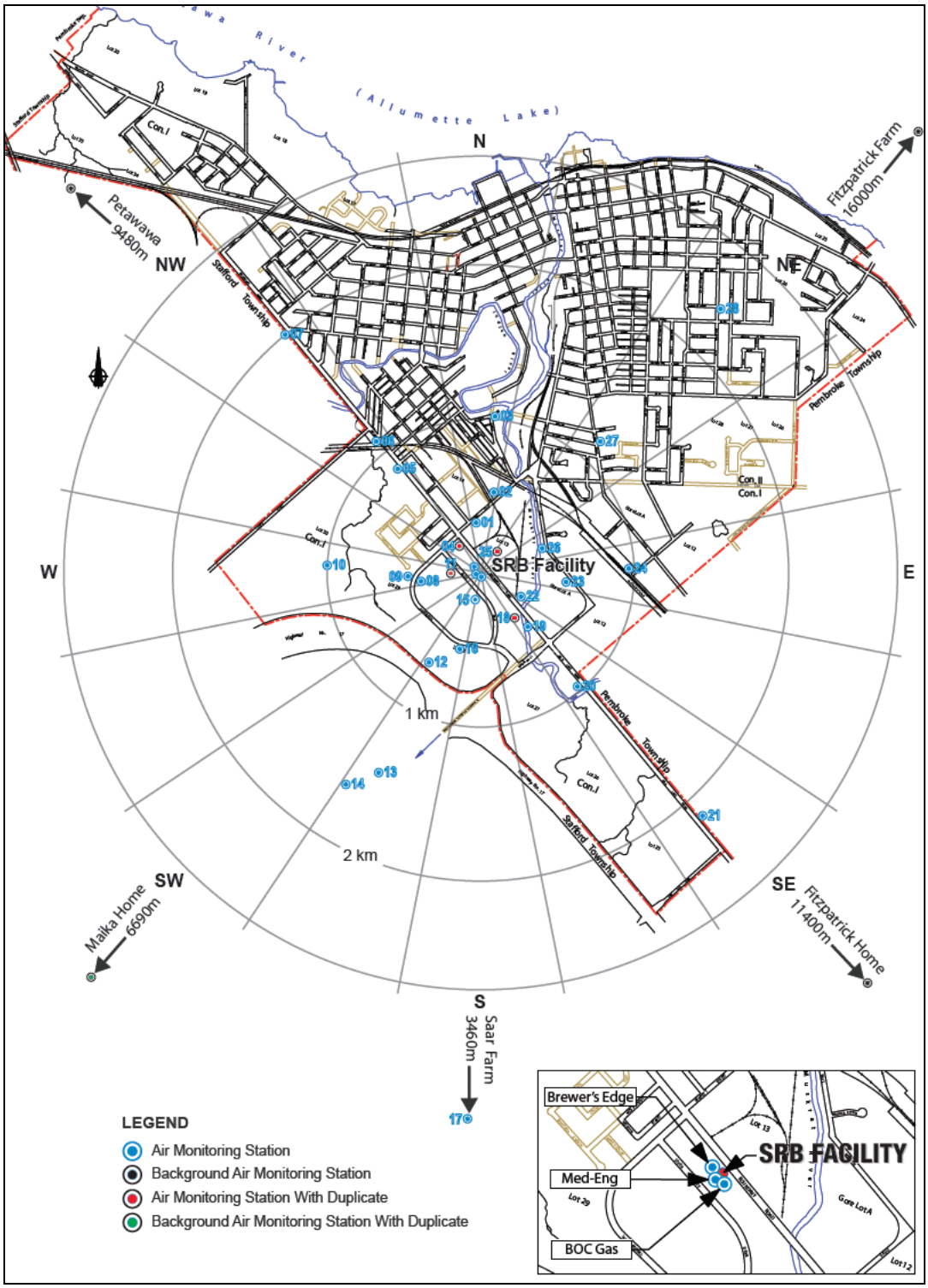
Passive air sampler results for 2007 can be found in the table on **page A1** in **Appendix G**. It was noted that 3 samplers were missing during all sample collections in 2007, sampler number 10 in May, PAS # 13 in October and PAS # 1 in December. Samplers were replaced the following month.

The table shows the HTO concentrations for the samplers located in each of the 8 compass sectors are shown. The correlation for the results of the samplers as they increase in distance from the facility is quite evident. The pattern of the lines are very similar in most cases.

Tritium oxide in air concentrations for each month of 2007 are graphically represented for each of 8 compass sectors and for each of the distances from the facility on **page A2** in **Appendix G**. Results for 2007 were not compared to those of 2006 as comparison is not very informative as SRB only processed tritium in during the month of January in 2007.

The Passive Air Samplers represent tritium exposure pathways for inhalation and skin absorption and used in the calculations for critical group annual estimated dose for 2007.

FIGURE 3: PASSIVE AIR SAMPLER LOCATIONS



5.1.2 WELL MONITORING RESULTS

Water from residential wells used as a source of drinking water by members of the public are sampled every 4 months. The samples were collected by SRB and a contract laboratory for tritium concentration assessment. The results were reported to the members of the public and posted on the web site.

Analyzing all monitoring results in 2007 from all 13 residential and business wells indicates that the concentrations in all wells are below 7,000 Bq/L. Tritium concentrations in these wells have generally been stable or have showed a slight downward trend in 2007.

The highest concentration in a well used for drinking water remains in well RW-1 (1,399 Bq/L in Nov). Concentrations have shown a steady trend in the last few months of 2007. This well used for some limited water consumption as the residence is also connected to City services.

This data is also used in the calculations for critical group annual estimated dose for 2007.

Well monitoring results and locations for 2007 can be found in **Appendix H**. Although SRB only processed tritium in during the month of January in 2007, several graphs were produced to compare well concentrations from 2006 to those of 2007 as groundwater can take a number of years to react to reduction in emissions, also see section 8.3 on groundwater.

We now also have a total of 55 wells that have been studied to date. 27 additional wells were drilled in 2007 and monthly concentrations have now been graphed or compared.

Analyzing all monitoring results in 2007 indicates that the concentrations in the month of December for 6 wells (MW06-1, MW06-10, MW07-13, MW07-18, MW07-29, MW07-34) which are located on site exceed 7,000 Bq/L.

Two of the new wells (MW07-35, MW07-36) located just off site also slightly exceed 7,000 Bq/L, however concentrations over the past couple of months of the year show a decrease in concentration since the first samplings.

Concentrations in some on site wells have been quite stable in 2007, others have slightly increased and a number have decreased. Largest decrease in concentration has occurred in well MW06-10.

5.1.3 PRODUCE MONITORING RESULTS

Produce from a local market and from local gardens were sampled once in 2007. The samples were collected by SRB and a contract laboratory for tritium concentration assessment by the contract laboratory. The results were reported to the members of the public and posted on the web site. This data is also used in the calculations for critical group annual estimated dose for 2007. Produce monitoring results and locations for 2007 can be found in **Appendix I**. Graphs were produced to compare results to those of 2006, comparison is not very informative as SRB only processed tritium in during the month of January.

5.1.4 MILK MONITORING RESULTS

Milk from a local producer and from a local distributor are sampled every 4 months. The samples were collected by SRB and a contract laboratory for tritium concentration assessment by the contract laboratory. This data is also used in the calculations for critical group annual estimated dose for 2007. Produce monitoring results and locations for 2007 can be found in **Appendix J**. Graphs were produced to compare results to those of 2006, comparison is not very informative as SRB only processed tritium in during the month of January.

5.1.5 WINE MONITORING RESULT

Wine from a local producer is sampled once a year. The sample was collected by SRB and a contract laboratory for tritium concentration assessment by the contract laboratory. The results were reported to the members of the public. Wine monitoring result for 2007 can be found in **Appendix K**. A graph was produced to compare result to the one in 2006, comparison is not very informative as SRB only processed tritium in during the month of January in 2007.

5.1.6 RECEIVING WATERS MONITORING RESULTS

Samples of receiving waters upstream and downstream form SRB in the Muskrat River were collected regularly. Samples were collected by SRB and a contract laboratory for tritium concentration assessment by the contract laboratory. Receiving waters monitoring results for can be found in **Appendix L**. All measurements are near the minimum detection limit and any fluctuation is difficult to observe and it is hard to draw any conclusions on a trend.

5.1.7 SEWAGE MONITORING RESULTS

Sewage samples were taken by Pollution Control Plant staff on a daily basis and provided to a contract laboratory for tritium concentration assessment. Sewage monitoring results can be found in **Appendix M**.

5.2 PUBLIC DOSE FOR A MEMBER OF THE CRITICAL GROUP FOR 2007

The calculation method used to determine the dose to the 'Critical Group' as defined in the SRB Environment Monitoring Program is described in the EMP document. The dose assessed for the Critical Group is a summation of:

a) Tritium uptake from inhalation and absorption through skin at the place of residence and/or the place of work, ($P_{(i)19}$ and $P_{(e)19}$), and

b) Tritium uptake due to consumption of well water (P_{29}), and

c) Tritium uptake due to consumption of produce (P_{49}), and

d) Tritium uptake due to consumption of dairy products (P_{59}).

5.2.1 DOSE DUE TO INHALATION

The closest residence to Passive Air Sampler NW250 is located at the intersection of Boundary Road and International Drive at approximately 240 meters from the point of release. The 2007 average concentration of tritium oxide in air at Passive Air Sampler NW250 has been determined to be 1.79 Bq/m3.

Three passive air samplers are located close to the SRB facility and represent the tritium oxide in air ($P_{(i)19}$ and $P_{(e)19}$) concentrations for the critical group member (adult worker) at samplers 1, 2, and 13. The sampler indicating the highest tritium oxide in air concentration is used to calculate the P19 dose values while at work. The highest average result for 2007 for PAS # 1, PAS # 2, and PAS # 13 is 3.34 Bq/m^3 at PAS # 13.

$P_{(i)19}$: Adult worker dose due to HTO inhaled at residence

The average value for tritium oxide in air for the sampler representing the place of residence for the defined critical group equals 1.79 Bq/m^3.

$P_{(i)19r}$ = [H-3_{air}] (Bq/m^3) x Time (h/a) x Breathing Rate (m^3/h) x DCF_{H3} (µSv/Bq)
= 1.79 Bq/m^3 x 6,680 h/a x 1.2m^3/h x 1.8E-05 µSv/Bq
= 0.258 µSv/a

$P_{(i)19}$: Adult worker dose due to HTO inhaled at work

The highest average for tritium oxide concentration for Passive Air Samplers #1, 2, and 13 equals 3.34 Bq/m^3.

$P_{(i)19w}$ = [H-3_{air}] (Bq/m^3) x Time (h/a) x Breathing Rate (m^3/h) x DCF_{H3} (µSv/Bq)
= 3.34 Bq/m^3 x 2,080 h/a x 1.2m^3/h x 1.8E-05 µSv/Bq
= 0.15 µSv/a.

$P_{(i)19}$: Adult resident dose due to HTO inhaled at residence

The average value for tritium oxide in air for the sampler representing the place of residence for the defined critical group equals 1.79 Bq/m^3.

$P_{(i)19}$ = [H-3_{air}] (Bq/m^3) x Time (h/a) x Breathing Rate (m^3/h) x DCF_{H3} (µSv/Bq)
= 1.79 Bq/m^3 x 8,760 h/a x 1.2 m^3/h x 1.8E-05 µSv/Bq
= 0.338 µSv/a

$P_{(i)19}$: Infant resident dose due to HTO inhaled at residence

The average value for tritium oxide in air for the sampler representing the place of residence for the defined critical group equals 1.79 Bq/m^3.

$P_{(i)19}$ = [H-3_{air}] (Bq/m^3) Breathing Rate (m^3/a) x DCF_{H3} (µSv/Bq)
= 1.79Bq/m^3 x 1.4 E+03m^3/a x 6.4E-05 µSv/Bq
= 0.16E µSv/a

5.2.2 DOSE DUE TO SKIN ABSORPTION

$P_{(e)19}$: Adult worker dose due to skin absorption of HTO at residence

The dose due to skin absorption is equal to the dose due to inhalation.

$P_{(e)19r}$ = 0.258 µSv/a

$P_{(e)19}$: Adult worker dose due to skin absorption of HTO at work

The dose due to skin absorption is equal to the dose due to inhalation.

$P_{(e)19w}$ = 0.15 µSv/a

$P_{(e)19}$: Adult resident dose due to skin absorption of HTO at residence

The dose due to skin absorption is equal to the dose due to inhalation.

$P_{(e)19}$ = 0.338 µSv/a

$P_{(e)19}$: Infant resident dose due to skin absorption of HTO at residence

The dose due to skin absorption is equal to the dose due to inhalation.

$P_{(e)19}$ = 0.16 µSv/a

5.2.3 DOSE DUE TO CONSUMPTION OF WELL WATER

The tritium uptake due to consumption of well water is calculated by taking the average tritium concentration of the water sampled. The annual consumption rate for produce is assumed to be 700 L/a for adults and 300 L/a for infants. Although the wells with the two highest concentrations (RW-1 and B-1) are not used a sole source of drinking water taking them in consideration assumes that the average concentration in water is 324 Bq/L.

P_{29}: Adult dose due to consumption of well water

P_{29} = $[H\text{-}3]_{dairy}$ x M x 1.8E-05 µSv/Bq;
= [324 Bq/L] x 700 L/a x 1.8E-05 µSv/Bq
= 4.082 µSv/a

P_{29}: Infant dose due to consumption of well water

P_{29} = $[H\text{-}3]_{dairy}$ x M x 5.8E-05 µSv/Bq;
= [324 Bq/L] x 300 L/a x 5.8E-05 µSv/Bq
= 5.638 µSv/a

5.2.4 DOSE DUE TO CONSUMPTION OF PRODUCE

The tritium uptake due to consumption of produce, both locally purchased and home grown is calculated by taking the average tritium concentration of produce purchased from the local market and consuming 90% of the annual total and by taking the average tritium concentration from local gardens and consuming 10% of the annual total. The annual consumption rate for produce is assumed to be 200 kg/a for adults and 84 kg/a for infants. If we assume the average concentration in produce purchased from a market to be 21 Bq/L and if we assume the average concentration in produce from local gardens to be 144 Bq/L.

P_{49}: Adult dose due to consumption of produce

$\mathbf{P_{49}}$ = [[$\mathbf{H_{prod,market}}$] + [$\mathbf{H_{prod,res}}$]] x 1.8E-05 µSv/Bq
= [[$H\text{-}3_{veg}$] (Bq/kg) x (kg) x 0.9] + [$H\text{-}3_{veg}$] (Bq/kg) x (kg) x 0.10]] x 1.8E-5 µSv/Bq
= [[21 Bq/kg x 200 kg/a x 0.9] + [144 Bq/kg x 200 kg/a x 0.1]] x 1.8E-05 µSv/Bq
= [[3,780 Bq/a] + [2,880 Bq/a]] x 1.8E-05 µSv/Bq
= 0.120 µSv/a

P_{49}: Infant dose due to consumption of produce

$\mathbf{P_{49}}$ = [[$\mathbf{H_{prod,market}}$] + [$\mathbf{H_{prod,res}}$]] x 5.8E-05 µSv/Bq
= [[$H\text{-}3_{veg}$] (Bq/kg) x (kg) x 0.9] + [$H\text{-}3_{veg}$] (Bq/kg) x (kg) x 0.10]] x 5.8E-5 µSv/Bq
= [[21 Bq/kg x 84 kg/a x 0.9] + [144 Bq/kg x 84 kg/a x 0.1]] x 5.8E-05 µSv/Bq
= [[1,587.6 Bq/a] + [1,209.6 Bq/a]] x 5.8E-05 µSv/Bq
= 0.162 µSv/a

5.2.5 DOSE DUE TO CONSUMPTION OF LOCAL MILK

The tritium uptake due to consumption of milk, from a local producer and distributor is calculated by taking the average tritium concentration of the milk sampled. The annual consumption rate for produce is assumed to be 120 kg/a for adults and 220 kg/a for infants. The average concentration in milk to be 12 Bq/L. Adjusting for the density of milk 12 Bq/L x 0.97 L/kg = 11.64 Bq/kg.

P_{59}: Adult dose due to consumption of milk

P_{59} = $[H\text{-}3]_{dairy}$ x M x 1.8E-05 µSv/Bq;
= [11.64 Bq/kg] x 120 kg/a x 1.8E-05 µSv/Bq
= 0.025 µSv/a

P_{59}: Infant dose due to consumption of milk

P_{59} = $[H\text{-}3]_{dairy}$ x M x 5.8E-05 µSv/Bq;
= [11.64 Bq/kg] x 220 kg/a x 5.8E-05 µSv/Bq
= 0.149 µSv/a

5.2.6 CRITICAL GROUP ANNUAL DOSE DUE TO TRITIUM UPTAKE

Based on the environmental monitoring program results the annual dose (P_{total}) due to tritium uptake from inhalation and skin absorption, consumption of local produce, local milk and well water equates to a maximum of 6.269 µSv for an infant resident of the critical group.

TABLE 6: CRITICAL GROUP ANNUAL DOSE DUE TO TRITIUM UPTAKE

Dose Contributor		Adult Worker Annual Dose (µSv/a)	Adult Resident Annual Dose (µSv/a)	Infant Resident Annual Dose (µSv/a)
Dose due to inhalation at work	$P_{(i)19}$	0.150	N/A	N/A
Dose due to skin absorption at work	$P_{(e)19}$	0.150	N/A	N/A
Dose due to inhalation at residence	$P_{(i)19}$	0.258	0.338	0.160
Dose due to skin absorption at residence	$P_{(e)19}$	0.258	0.338	0.160
Dose due to consumption of well water	P_{29}	4.082	4.082	5.638
Dose due to consumption of produce	P_{49}	0.120	0.120	0.162
Dose due to consumption of milk	P_{59}	0.025	0.025	0.149
Total dose due to tritium uptake	P_{total}	**5.043**	**4.903**	**6.269**

6.0 FACILITY EFFLUENTS

This section of the report will provide information on facility effluents including gaseous and liquid effluent releases of nuclear substances from the facility, including unplanned releases of radioactive materials and any releases of hazardous substances.

6.1 LIQUID EFFLUENT

As discussed in section 2.1.5 of this report, appendix C of licence NSPFPL-13.01/2008 outlines a release limits to sewer.

Sewer release values based on sampling and analysis performed by a third party indicate that the emissions to sewer in 2007 were 4% of the license limit. A weekly breakdown of liquid effluent monitoring results for 2007 can be found in **Appendix N** of this report.

6.2 GASEOUS EFFLUENT

As discussed in section 2.1.7 of this report, appendix C of licence NSPFPL-13.01/2008 outlines release limits to atmosphere.

Stack release values based on weekly sampling and analysis for tritium oxide (HTO) and elemental tritium (HT) indicate that, on average, the emissions of HTO was maintained at 4.26% and the emissions of HTO + HT was maintained at 8.02% of the license limit. A weekly breakdown of air emission monitoring results for 2007 can be found in **Appendix O** of this report.

6.2.1 HTO EMISSIONS VS PASSIVE AIR SAMPLERS

It continues to be readily seen in the data provided that the gaseous tritium activity in the exhaust gases decreased significantly with the ceased operations of filling gaseous tritium light sources commencing February 1, 2007. In comparing the passive air samplers from 2006 to 2007, it can be seen that the averaged total in 2007 (34.90 Bq/m3) is significantly lower than the averaged total in 2006 (400.69 Bq/m3).

To compare the HTO releases from the facility to the HTO sampled in the passive air samplers a calculation can be performed.

HTO releases 2007/2006 → 5,750 GBq / 71,500 GBq = 8.04 %

HTO in PAS 2007/2006 → 34.9 Bq/m3 / 400.7 Bq/m3 = 8.71%

In comparing these two collectively it shows that there is a good correlation between the stack monitoring performance and the passive air sampler performance.

6.2.2 DOSE FROM EMP DATA VS DOSE FROM DRL

For 2007, if we compare passive air samplers where members of the public live, samplers number 1, 4 (PAS # 4), 9, and 19. Sampler number 4 (PAS # 4) still remains highest in concentration, therefore still remains adequate to determine the dose to the public.

TABLE 7: DOSE FROM EMP DATA VS DOSE FROM DRL

Dose Contributor	Adult Worker Annual Dose (µSv/a)	Adult Resident Annual Dose (µSv/a)	Infant Resident Annual Dose (µSv/a)
Total dose based on EMP data	5.043	4.903	6.269
Total dose based on EMP data without well consumption	0.961	0.821	0.631
Total dose based on DRL	0.79	0.81	0.63

When we compare the data from the EMP one can see that the annual dose to the public based on the DRL compared is much lower than to the dose based on EMP results. If we exclude the contribution from consumption of well water the dose based on the DRL compared is very comparable to the dose based on EMP results.

Therefore the DRL used is therefore accurate is estimating the dose to a member of the public when consumption of well water is excluded.

6.3 UNPLANNED RELEASE OF RADIOCATIVE MATERIALS

In 2007 there were no unplanned releases of radioactive materials form the facility.

6.4 ANY RELEASES OF HAZARDOUS SUBSTANES

In 2007 SRB continued to make releases of hazardous substances to the air under a Certificate of Approval (Air), Number 5310-4NJQE issued by the Ontario Ministry of the Environment in accordance with Section 9 of the Ontario Environment Protection Act.

These releases are mostly associated with the screen printing process used to screen print signage used for marking escape route in airplanes and buildings.

7.0 WASTE MANAGEMENT

This section of the report will provide information on waste management including types, volumes and activities of solid wastes produced, and the handling and storage or disposal of those wastes.

7.1 WASTE MANAGEMENT PROGRAM

SRB's Waste Management Program was revised October 24, 2007. CNSC staff have reviewed the program and concluded that the program is satisfactory and that its implementation would not pose an unreasonable risk to the health and safety of persons or the environment. A few items still require revision.

7.2 RADIOACTIVE CONSIGNMENTS

In 2007, due to the facility not processing tritium, radioactive waste generated was small and no consignments were made.

7.3 STORAGE OF RADIOACTIVE WASTE

Radioactive waste was stored on-site and inventory records of the waste were maintained. All packaged wastes were inspected monthly for potential off-gassing and container integrity.

7.3.1 INTERIM STORAGE OF "VERY LOW-LEVEL WASTE"

Waste that is only minimally contaminated and contains activity levels of 4.0 Bq/cm² or less is considered "very low-level waste" as defined in the Waste Management Program. Examples of such waste are typically paper towel, gloves, disposable lab coats, shoe covers, etc. "Very low-level waste" was collected in various receptacles throughout Zones 2 & 3, assessed, and ultimately placed into steel drums also located within those zones. Once a drum was full, it was prepared for interim storage and transferred to the secure, fenced-in compound area awaiting transfer to a CNSC licensed waste handling facility.

TABLE 8: INTERIM STORAGE OF "VERY LOW LEVEL WASTE"

Very Low-Level Waste container description	Amount in Storage at year end 2007 (container)	Amount Generated throughout 2007 (container)	Total Activity of Tritium (GBq)
200 Liter Steel Drums	57	18	0.60

7.3.2 INTERIM STORAGE OF "LOW-LEVEL WASTE"

"Low-level waste" as defined in nthe Waste Management Program is any waste with activity levels that exceed 4.0 Bq/cm². Typical examples of such waste are tritium-contaminated equipment or components, crushed glass, filters, broken lights, clean-up material, pumps, pump oil, etc. Low-level waste was collected in various sealed receptacles (cans or re-sealable bags) assessed, and ultimately placed into a steel drum, which is located in the Waste Storage Room within Zone 3. Once a drum was full it was prepared for interim storage and placed in the Waste Storage Room awaiting transfer to a CNSC licensed waste handling facility.

TABLE 9: INTERIM STORAGE OF "LOW LEVEL WASTE"

Low-Level Waste container description	Amount in Storage at year end 2007 (container)	Amount Generated throughout 2007 (container)	Total Activity of Tritium (GBq)
* 200 Liter Steel Drums	9	3	20,003.80
** 3.83 L Steel Cans	8	0	26.40
*** 70 Liter Steel Drums	11	0	660.00

* Contain used equipment components , crushed glass, filters, broken lights, clean-up material, etc.
** Contain only solidified pump oil.
*** Contain only oil sealed high vacuum pumps.

7.4 HAZARDOUS MATERIAL COLLECTION

In 2007, due to the facility not processing tritium, hazardous waste generated was small and no consignments were made.

7.5 HAZARDOUS MATERIAL STORAGE

Hazardous (non-radioactive) liquid waste material is produced as a result of the silk screening process and is comprised of a combination of paints and thinners. This waste is stored in 20-liter plastic containers waiting for sufficient quantity for disposal. The containers are stored in the fumehood in the silk screening area located in the assembly room in zone 2. Any storage and disposal of hazardous substances (non-radioactive) is reported to the Ontario Ministry of the Environment.

TABLE 10: HAZARDOUS MATERIAL STORAGE

Hazardous Liquid Waste	Amount in Storage at year end 2007	Amount Generated throughout 2007
20 Liter Plastic Drums	5	1

8.0 UPDATES

This section of the report will provide updates regarding activities pertaining to safety, fire protection, security, quality assurance, emergency preparedness, research and development, waste management, tritium mitigation and training (as applicable).

8.1 BENCHMARKING

In 2007 senior Management initiated a research study of other CNSC Licensees that best match the requirements that our company is subjected to. The intent of performing this study was to benchmark the performance of other licensees against the performance of SRB to help define where improvements could be made. Eighteen other CNSC licensees were selected for review. These other eighteen CNSC licensees follow the same Act and Regulations. A number of them also handle and release tritium.

We have held a number of meetings with a few CNSC Licensees to discuss their interpretation of the requirements for having a licence issued by the Commission and to get their opinion on where SRB should improve. In addition, a number of documents issued between 2004 and 2007 were reviewed in close detail to define specific areas of improvement for SRB.

Documents reviewed were as follows:

- Commission Member Documents
- Proceedings, Including Reasons for Decision
- Licensee documents acquired from licensees or through Access to Information requests
- CNSC Staff technical briefing on tritium

Particular attention was placed on environmental protection matters, groundwater issues and results and public perception as those were perceived to be the greatest areas needing improvement from SRB's point of view. Attention was given to actions taken by the Commission, CNSC Staff and the licensees.

A chart was developed to compare the grades allocated by CNSC Staff to other licensees for five safety areas (definition of safety area varies for some licensees) against the grades allocated to SRB in 2006:

- Environmental Protection
- Radiation Protection
- Quality Management
- Fire Protection
- Operations

Other than comments of the Commission and CNSC Staff, performance indicators were also reviewed for all licenses. Some of these comparisons are difficult to make as Licensees individually operate to ALARA, but it was decided that the following indicators should be analyzed to indicate possible areas of improvement:

- Occupational dose
- Public dose
- Emissions of tritium where applicable
- Emissions of isotopes other than tritium where applicable
- Number of reportable events and incidents
- Public concerns

A meeting was then held between Senior and Middle Management to discuss the results and to define areas of improvement for SRB. These findings were shared with all staff and considered as part of any action going forward. It was also decided that benchmarking proved to be a effective tool that should continue to be used in the future. An overview of the results were as follows:

8.2 SOURCES OF EMISSIONS FROM THE FACILITY

To address a requirement of the Commission, we have completed a report that systematically and quantitatively analyzed tritium sources and their potential contribution to groundwater contamination, in document Systematic And Quantitative Analysis Of Tritium Sources And Their Potential Contribution To Groundwater Contamination[7], dated March 29, 2007.

The report[7] confirms that all sources of groundwater contamination that would result from resumption of operations are clearly identified and quantified.

In order to complete this report[7], a thorough review of the land, facility, equipment and storage areas was performed to determine how tritium could escape the facility. An analysis of tritium movement through the entire facility and each individual process was also performed.

All data was gathered by performing a review of historical records held by SRB and the CNSC that may provide insight on an historical event or work practice which could have had an effect on groundwater contamination. Other information was acquired by performing interviews of staff who may have had insight into historical events or work practices which could have had an effect on groundwater contamination.

The report[7] identified and discussed thirty-five potential and known tritium sources of groundwater contamination. The report also quantified or qualified these sources, where possible, and their potential impact on or contribution to groundwater contamination.

Finally, the report[7] contains an analysis of historical tritium measurements of emissions, wells, precipitation and standing water was performed and discussion was provided to rationalize transport mechanisms of each source to groundwater.

The analysis demonstrates that the observed tritium in groundwater is consistent with the evaluation of tritium releases in the report. This provided confidence that the assessment of tritium sources is comprehensive and that no significant source has been overlooked.

CNSC Staff visited SRB on April 30, 2007 to discuss each source further and to review additional supporting information. CNSC Staff later reported that it was satisfied that the atmospheric modeling provided by SRB provided a reasonable basis for concluding that aerial releases through the stack are the most plausible source term for the levels of groundwater contamination now found near the facility.

The data analysis has shown that the current situation several meters below the ground surface is likely a function of high aerial stack releases peaking in 2000.

Of the 35 potential and known tritium sources of groundwater contamination identified by the report, a total of 23 would remain should tritium processing resume. Two of the sources eliminated are associated with the reclamation process and others are from discontinued practices or incidents.

A number of sources have been reduced through mitigation measures implemented in the last 21 weeks of operation of the facility prior to the issuance of the existing licence.

8.3 GROUNDWATER

The Commission has expressed the view that more wells were needed to be drilled through the stratigraphy to get a better understanding of the tritium levels in groundwater and tritium releases to the environment.

Since the Commission published its decision[1] on January 31, 2007, SRB has analyzed data from existing groundwater wells, met with CNSC Staff and Ontario Ministry of the Environment (MOE) Staff and developed a plan[20] with the full knowledge and cooperation from adjacent property owners that has resulted in two additional phases of groundwater investigations.

These investigations included the installation of an additional 27 new monitoring wells located on and around the property where SRB is located.

The additional 27 wells were drilled to the top of bedrock and at various depths into bedrock to confirm the depth of bedrock surface, to measure the hydraulic conductivity values in those zones, and to identify concentrations of tritium in the groundwater below and adjacent to the site

The information was used to verify that groundwater with elevated concentrations of tritium is moving, as predicted, to the Muskrat River. Our groundwater studies now include monitoring data from 55 wells, including 38 wells located within 150 meters of our stacks. The locations of the wells in close proximity of our facility are depicted in Figure 4:

FIGURE 4: MONITORING WELLS DRILLED BEFORE AND AFTER JANUARY 31, 2007

FIGURE 5: WELLS IN THE VICINITY OF SRB

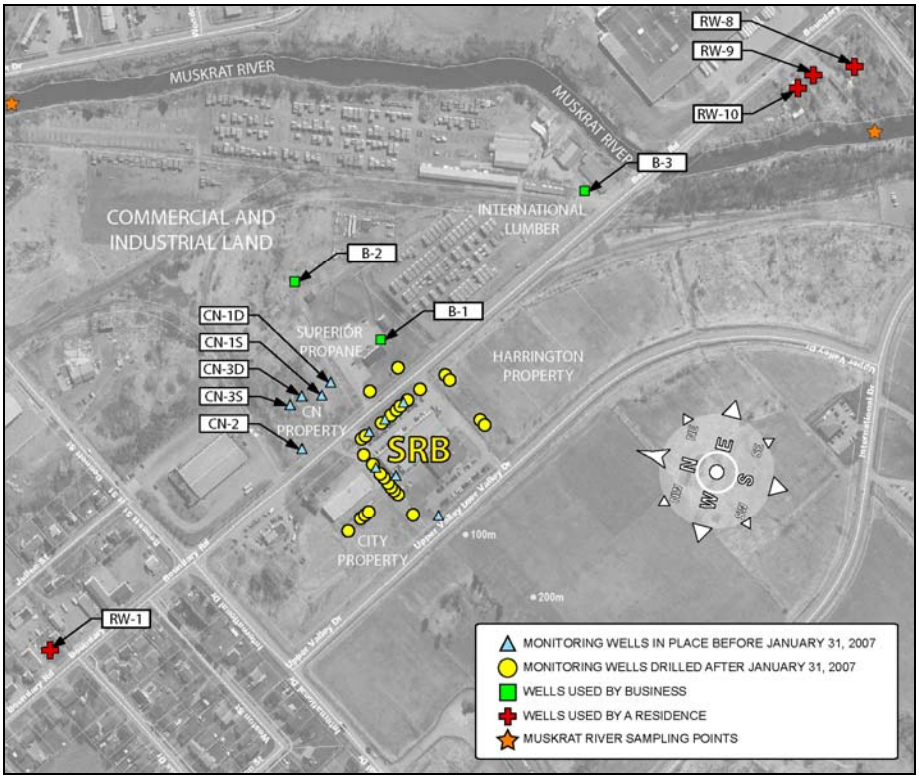
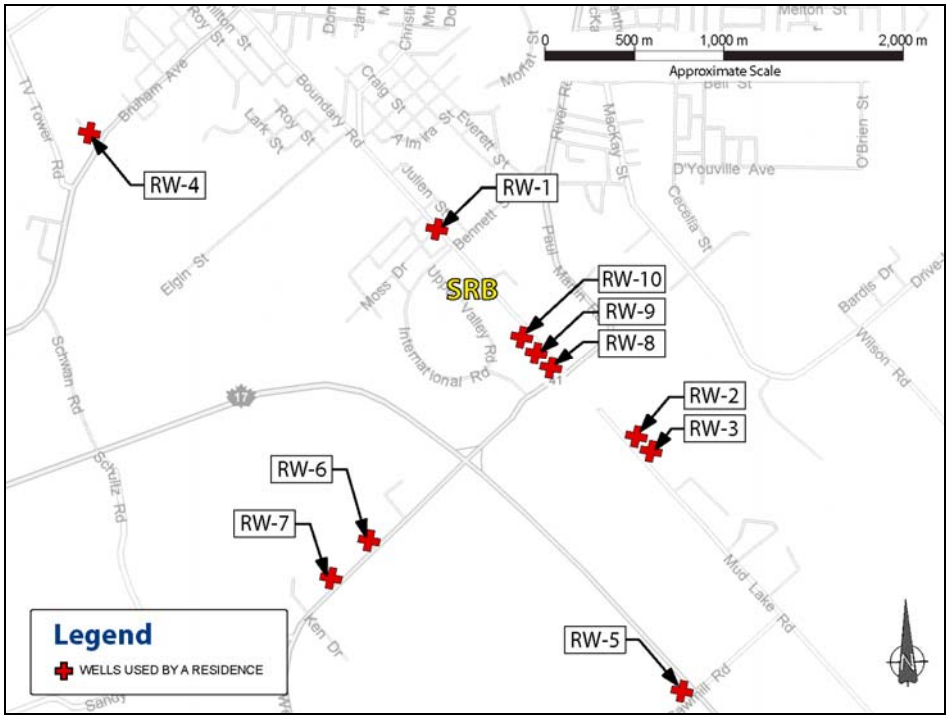


FIGURE 6: LOCATION OF ALL RESIDENTIAL WELLS



The highest elevated tritium concentrations of approximately 50,000 Bq/L remains in a monitoring well located near the stack area on the SRB property. Only two water supply wells are located down gradient of the SRB site. Those supply wells (B1 and B2 on Figure 6) are located on the Superior Propane property. The one well that is used to supply water to the office has been monitored regularly and exhibits tritium concentrations less than 1,500 Bq/L. The other well is used to supply water for truck washing and is not used for drinking purposes and has not exceeded 5,000 Bq/L. As a precautionary measure SRB has been supplying Superior Propane with bottled drinking water since October 2006 and has been sampling concentrations in the well monthly.

SRB has been monitoring all residential wells used for drinking water for more than one year and concentrations have ranged from 4 Bq/L to less than 1,500 Bq/L (depending on their location in relation to the facility), or less than 20% of the Ontario Drinking Water Standard of 7,000 Bq/L.

If an individual was to use the water from a well with a concentration of 1,500 Bq/L as a sole source of drinking water for the entire year, their dose from consuming that water would be approximately 0.025 mSv (millisieverts) for the entire year, or approximately 2.5% of the annual public dose limit set by the Canadian Nuclear Safety Commission of 1 mSV (millisieverts).

The Muskrat River likely represents the main discharge area for shallow groundwater in the area and is about 420 meters from the SRB property along the shortest pathway. Assessment of groundwater velocities in conjunction with natural decay of tritium indicates that any discharge of groundwater, at the river, that originated at the SRB site will have tritium levels well below the Drinking Water Standard. SRB has been measuring concentrations of tritium for over one year upstream and downstream of the SRB site in the Muskrat River and all measurements are near background levels.

8.3.1 FUTURE DEVELOPMENT

Vacant lands in the vicinity of SRB are primarily zoned as Industrial. In 2007 SRB has agreed with the City of Pembroke to perform surface soil sampling at all new developments within the vicinity of the SRB Facility.

Under this agreement in 2007, two developments have been initiated near the site, including the construction on the vacant lands immediately to the east of SRB. The second development of a motel is approximately 500 m to the southeast of the site. Soil samples were collected for both sites by SRB with tritium concentrations in surface soil water of less than 340 Bq/L, levels that do not represent a risk to workers or the environment. The sampling of soils prior to construction activities will ensure that new developments will not be at risk from elevated tritium concentrations.

8.4 FIRE PROTECTION

The building where SRB is located is classified as a Group F, Division 3 "Low Hazard Industrial Occupancy". In 2007, both the Pembroke Fire Department and Nadine International Inc. performed the yearly fire protection inspection.

8.4.1 FIRE PROTECTION PROGRAM

Our Fire Protection Program[21] is to ensure the company's compliance with the National Fire and Building Codes and the National Fire Protection Association, NFPA-801.The Fire Protection Program is also complemented by a Site Plan, a Fire Hazards Analysis, a Fire Systems Inspection Audit, a Pre-Incident Plan and a Fire Safety Plan.

8.4.2 INSPECTIONS FROM THE PEMBROKE FIRE DEPARTMENT

The last site inspection was performed on May 15, 2007 which resulted in one recommendation and no violations. The recommendation which pertained to identification of the sprinkler shut off valve has since been addressed.

8.4.3 THIRD PARTY INSPECTIONS

Nadine International Inc. performs yearly site visits to ensure SRB's compliance with the requirements of the National Fire and Building Codes, and of the National Fire Protection Association, NFPA-801. The last site inspection was performed by Nadine International Inc. on November 21, 2007 which resulted in no recommendation or violations.

8.4.4 STAFF TRAINING

Yearly fire extinguisher training is performed for all staff. Training was last performed on September 5,2007 by the Pembroke Fire Department.

8.4.5 MAINTENANCE OF THE SPRINKLER SYSTEM

Maintenance was performed monthly on the automatic fire sprinkler system and of the fire alarm control panel by a third party, to the requirements of the National Fire Code.

8.4.6 FIRE PROTECTION EQUIPMENT INSPECTIONS

In 2007 inspections of the emergency lighting and fire extinguishers, have been performed monthly.

8.5 EMERGNECY PREPAREDNESS

SRB Technologies (Canada) Inc. has various components to deal with emergency situations with tritium incidents and fire scenarios. The details of emergency preparedness are described in the SRB document, Emergency Plan[22].

In conjunction with the Pembroke Fire Department one emergency drill was performed in 2007, on September 5. SRB staff members were observed as they rapidly but carefully evacuated the building and assembled in the marshalling area.

There were two recommendations from the Fire Department; they involved the fire panel and the monitoring company. The monitoring company is to call the Fire Department first and the fire alarm pull stations are to be connected to the fire panel. They have since both been addressed and solved.

8.6 QUALITY ASSURANCE

Under Section 24(4), subsection (b) of the Nuclear Safety and Control Act, SRB is required to make adequate provisions for the protection of the environment and the health and safety of persons in carrying on the activity for which it has applied for. In order to ensure that this requirement was met SRB's Quality Manager issued a non-conformance on the matter and the company developed a Corrective Action Plan to address any possible areas of improvement in detail.

We have carefully reviewed the Record of Proceedings[1] issued on January 31, 2007 by the Commission to develop our Corrective Action Plan and our root cause analysis.

As part of the Corrective Action Plan, the following factors were addressed:

- Business strategy
- Benchmarking
- Organization
- Sources of emissions from the facility
- Effect of amended operations on groundwater, the environment and public
- Public relations

As part of the review of all job descriptions, Senior Management Senior Management openly supported Quality Staff with other employees, and explained that their role was crucial to the success of the company and to the improvement of the safety culture. In 2007 a system was developed to ensure that results of various assessments are raised in a corrective or preventive action and subjected to a root cause analysis controlled by the Quality Department. Over the course of 2007 a total 16 non-conformances were raised regarding various aspects of the operations. By the end of 2007 a total of 8 of these non-conformances had been addressed in full and another 3 were near addressed, the outstanding 5 non-conformances are expected to be addressed in the first few months of 2008.

8.6.1 AUDITS

As mentioned in section 3.1.3 of this report, a stringent audit plan[15] has been developed by the Quality Manager in 2007 to audit all activities associated with developing, managing and implementing all company safety programs.

Two full formal internal audits were performed under this plan in 2007. One audit was performed on November 19, 2007 on various procedures associated with bioassay which resulted in one non-conformance and opportunity for improvement and another which was performed in December 10, 2007 on various procedures associated with our public information program which resulted in one non-conformance.

An external audit of our many aspects of our operations was also performed by our ISO 9001 registrar BSI Management System in December 2007 which resulted in two non-conformances and one opportunity for improvement. One non-conformance pertained to document control of various forms in use at the facility that are not controlled with a revision number and/or date. Another non-conformance addressed a minor lapse in the organization's process for control of suppliers pertaining to supplier evaluations. An opportunity for Improvement was also issued requesting organization to collect more customer satisfaction data rather than dissatisfaction data.

8.6.2 CHANGES IN QUALITY ASSURANCE DOCUMENTS

As mentioned in section 3.2 of this report, a new revisions of the Quality Manual[17] was submitted to CNSC Staff for review in 2007.

In 2007 changes were also made to the SRB Liquid Scintillation Counting Quality Assurance Program (LSC QA) to address new requirements of S-106, revision 1. S-106 is a CNSC standard on technical and quality assurance requirements for dosimetry services

8.6.3 RESULTS OF LSC QA PROGRAM

The LSC-QA program includes weekly instrument efficiency checks using NIST traceable standards of a blank, H-3 and C-14 standards.

The absolute activity of the capsules is calibrated by comparison with the reference standards of tritiated toluene supplied by the National Institute of Standards and Technology (NIST), USA. The Standard Reference Material (SRM) is certified to have an estimated accuracy of ± 1.2%.

Weekly instrument performance report for Wallac 1409 LSC for 2007 is includes in **Appendix P**. The report shows that the liquid scintillation counter performed within the specified criteria.

8.7 RESEARCH AND DEVELOPMENT

During 2007 SRB has been performing research and development activities with respect to groundwater including studying effects from emissions on groundwater and sources of emissions form the facility and their effects on groundwater. An overview of these efforts have been provided in section 8.2 and 8.3 of this report.

Finding are also detailed in a document[7] which identified all sources of tritium emission from the facility, Systematic And Quantitative Analysis Of Tritium Sources, dated March 29, 2007.

Findings on Groundwater will be summarized in a comprehensive report which will be issued in January 2008.

There have been no product research and development initiatives taken in 2007.

8.8 WASTE MANAGEMENT

Waste management activities are described in section 7 of this report.

8.9 TRITIUM MITIGATION

The most significant tritium emissions from the facility arise form the processing of tritium. Having processed tritium for only the month of January in 2007 did not allow SRB to implement tritium mitigation initiatives with this respect.

SRB did however visit other sites that processed tritium in 2007 and discussed with other licensees possible methods of further reducing emissions from those in the last 21 weeks of operation.

SRB did however focused on further reducing remaining sources of tritium emissions resulting from the handling of tritium sources by performing increased one-on-one training which probed the depth of knowledge and understanding of employees and led to more vigilance.

8.10 TRAINING

All staff received Radiation Protection Training as part of the ongoing employee-training program on December 20, 2007. The training included information with respect to natural radiation exposure, anticipated health effects from radiation exposure, tritium, proper handling of tritium throughout the facility, emissions monitoring, environmental monitoring, WHMIS introduction, fire safety, licensing, overview of other licensees and facilities, public relations, emergency and safety features within the facility and open dialogue with a question and answer session.

A written test was provided to all 15 participants. The pass criterion for the test is 75%. Results averaged 94.0% with no marks below 75%. Any wrong answer on the test was also discussed in detail as a group with all employees and with employees individually.

No new employees were hired in 2007 and therefore no indoctrination-training had to be

As discussed in section 8.4.4 fire extinguisher training was performed for all staff on September 5,2007 by the Pembroke Fire Department.

Part VI of the TDG regulations states that the certificate of training is valid for 3 years for surface transport and 2 years for transport by aircraft. No training was performed in 2007 as training was provided to two employees in 2006.

In 2007, members of the Health Physics Team (President, General Manager, Human Protection Coordinator and Environment Protection Coordinator), the Production Supervisor responsible for the Rig Room where tritium is processed and the Import and Export Manager all received one-on-one training to perform various tasks associated with Health Physics.

The individual was provided the procedure and the trainer explained how to perform the procedure. The trainer discussed the consequences of not performing the procedure or aspects of the procedures or wrongly performing a step of the procedure. The trainer discussed with the trainee instances where the procedure can result in problems and describe to the trainee measures that should be taken in the eventuality of these problems occurring.

The trainee was then expected to answer a number of oral questions at the discretion of the trainer, numerous questions were asked until the trainer was satisfied that the procedure and associated benefits and consequences were understood by the trainee. The trainer then performed the procedure in front of the trainee and questions the trainee on each step being performed. This was repeated until the trainer was satisfied that the task could be performed by the trainee. Attention was given to ensure that questions were asked in a manner which did not lead the trainee to the answer.

The trainer encouraged the trainee to explain what the trainee understood of the task. Once this was achieved to the satisfaction of the trainer the trainee was asked to perform the task under constant and direct supervision from the trainer.

Once the task has been performed correctly by the trainee a number of times the trainer at its discretion qualified the individual to perform the task by themselves and training records were updated and kept in the employee personnel files.

Spot checks of the trainee were also performed by the trainer or an individual at a higher level of authority to ensure that all tasks are being performed to procedure.

9.0 COMPLIANCE WITH OTHER REGULATIONS

This section of the report will provide information on compliance with other federal and / or provincial Regulations.

9.1 INTERNATIONAL

For the purpose of packaging and offering for transport, shipments of product designated as dangerous goods, SRB must comply with the requirements of the Transport Canada Dangerous Goods Act and Regulations, the US code of Federal Regulations 49, Transportation, IAEA Safety Standard Series, Regulations for the Safe Transport of Radioactive Material, 1996 Ed. (Revised), and IATA Dangerous Goods Regulations, most current edition. Staff members involved with the packaging, offering for transport and receipt of dangerous goods are given training in accordance with the applicable regulations and are issued certificates by the employer.

9.2 PROVINCIAL

In 2007 SRB continued to make releases of hazardous substances to the air under a Certificate of Approval (Air), Number 5310-4NJQE issued by the Ontario Ministry of the Environment in accordance with Section 9 of the Ontario Environment Protection Act.

For the purpose of operating a business within Ontario a Joint Health & Safety Committee had been established and maintained in accordance with the Ontario Occupational Health and Safety Act and WHMIS Regulation. The committee consists of one employee representative and one employer representative, each with Part I and II certification as required. As required all staff members have received WHMIS training, which includes pertinent information with respect to Material Safety Data Sheets, and workplace hazardous material information system training.

10.0 NON-RADIOLOGICAL HEALTH AND SAFETY ACTIVITIES

This section of the report will provide a summary of non-radiological health and safety activities, including information on minor incidents and lost time incidents.

10.1 JURISDICTION

At the request of CNSC Staff SRB followed-up with Human Resources and Social Development Canada (HRSDC) regarding the jurisdiction for conventional safety.

On May 28, 2007 SRB contacted Mr. Gaston R. Martin, District Manager for Ottawa, North and East at HRSDC and requested that HRSDC make a determination on whether SRB is subject to HRSDC as per letter which was received in April 2006 by the CNSC from HRSDC stating that SRB fell under federal jurisdiction contradicting a letter previously received by SRB form HRSDC dated September 26, 2005.

Later, on May 29, 2007, Mr. Martin responded by e-mail stating that pursuant to a review communicated in writing to SRB on September 26, 2005, that SRB was not subject to Federal Jurisdiction for the purposes of labour legislation; which means that Part II of the Canada Labour Code (Occupational Health & Safety) does not apply to SRB. SRB then coordinated talks between Mr. Martin and the CNSC Project Officer for SRB; Ms. Ann Erdman to discuss the matter

On November 21, 2007 SRB contacted Mr. Gaston R. Martin to get an update as HRSDC had not yet provided a final determination.

While waiting for the determination SRB staff worked on a gap analysis in 2007 in anticipation of being informed that SRB is subject to Federal jurisdiction in 2008 which will require that SRB make the amendments to existing Occupational Health & Safety program as necessary.

10.2 INDUSTRIAL HEALTH AND SAFETY PROGRAM

Being under Provincial jurisdiction in 2007, the industrial Health and Safety Program for the SRB facility was compliant with the requirements of the Ontario Ministry of Labour, Occupational Health and Safety Act, RSO 1990, Chapter 01, and WHMIS Regulation.

10.3 JOINT HEALTH AND SAFETY COMMITTEE

Being under Provincial jurisdiction in 2007, in accordance with Section 9 of the Ontario Occupational Health and Safety Act, SRB Technologies (Canada) Inc. maintains a Joint Health and Safety Committee.

The committee is comprised of a representative on behalf of the workers and a representative on behalf of the employer. The representatives met on four occasions March 15, June 15, October 17 and on December 15, 2007.

10.4 VISITS FROM THE ONTARIO MINISTRY OF LABOUR

During 2007 there were 3 facility visits by a representative of the Ministry of Labour. On June 19, September 18, and December 4, 2007.

Two minor orders were issued during the June 19, 2007 which were promptly addressed and closed.

10.5 MINOR INCIDENTS AND LOST TIME INCIDENTS

During 2007 there were 6 minor incidents reported to the SRB Joint Health and Safety Committee. Of the 6 incidents, no individuals were taken to the outpatient department at the local hospital and no incident resulted in lost time.

TABLE 11: INCIDENT SUMMARY

Description	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.
Minor accidents involving cuts or burns:	0	2	0	0
Minor injuries such as pulled muscles, etc.	2	1	0	1
Incidents whereby persons were sent to outpatients	0	0	0	0
Lost time incident (days lost)	0	0	0	0

11.0 PUBLIC INFORMATION INITIATIVES

This section of the report will provide information public information initiatives taken in 2007.

11.1 VISION, MISSION, GOALS, VALUES AND POLICY

In 2007 Senior Management felt it was important to incorporate its new revised company vision and goals. Our new vision requires that SRB remain in good standing with the Commission by maintaining or exceeding the standards required. Such standing is partly achieved by acceptance by the public. In turn, one of our company's new goals is to be transparent, visible and open with our community. One of the values set by Senior Management is to act with integrity with members of the public by respecting their input and contribution. The new company vision, mission, goals, values and policy were made publicly known on our website shortly after their institution.

11.2 COMMITTEES

In 2007 SRB Senior Management has formally constituted a Public Information Program Committee in the organizational structure. Senior Management has formally and clearly defined the responsibilities, composition and requirements of this committee. This committee has met on 4 occasions in 2007 to discuss various Public Information Program matters as documented in the meeting minutes.

11.3 NEW APPOINTMENTS

11.3.1 PUBLIC RELATIONS MATERIAL DESIGNER

A Public Relations Material Designer function has been added to our organization, SRB has created this function in order to design and produce public relations material specifically aimed at meeting the needs of local special interest groups, members of the public with concerns and the public at large.

This function was incorporated in the responsibilities of the Engineering Assistant as documented in the Engineering Assistant job description. This individual has formal training in designing and producing advertising and public relations material coupled with a number of years of work experience in graphic design and printing. This individual's workload allows this function to be performed and no changes are expected as a result in the future.

11.3.2 PUBLIC RELATIONS COORDINATOR

A Public Relations Coordinator function has been added to our organization, SRB has created this new role to support the President in coordinating and focusing all public relations efforts to implement the company vision. This individual is responsible for providing information to the public.

In the first Public Information Program Committee meeting held on October 22, 2007 this individual who also holds the position of Environment Protection Coordinator was appointed this role as this individual possesses intimate knowledge of public concerns. This is also a good fit as the Environmental Protection Coordinator has also been responsible for communicating and explaining environmental monitoring results to the public.

The workload of this individual will continuously be assessed to ensure that all her duties can be performed effectively. A possibility exists that the Public Relations Coordinator function will be delegated to another employee or to a new employee should it be necessary in the future.

11.4 COMMUNICATION

We have proactively initiated an increased number of meetings and discussions to familiarize various stakeholders with our operations.

11.4.1 PUBLIC

On July 27, 2007 we met with members of the public and local interest groups who were most concerned regarding our operations. The purpose of this meeting was to define areas of concern for the public to help SRB develop a path forward that would address these concerns. Following this meeting we have incorporated methods to address these concerns as part of our plan for resumption of operation.

For example the public have clearly stated during their meeting in July that “the Concerned Citizens of Renfrew County’s main and most important concern was over the operation of the reclaim”. As a result in their request for licence amendment SRB proposes “No operation of the reclamation unit due to concerns expressed by some members of the public”. In addition during the meeting in July the public requested “that the environmental monitoring continue to be done by a third party”. As a direct result we have incorporated the continued analysis of the environmental monitoring program by a third party in our request for licence amendment.

We met members of the public and of a local interest group again on December 7, 2007 to discuss some of the details of this amendment application. We informed the public that based on their comments from previous meetings, the company had made the decision not to include the operation of the reclamation rig and to continue to use third parties for conducting environmental monitoring activities.

As part of the current licence we sample the water in a number of wells belonging to the public every 4 months for tritium concentration. On a yearly basis we also sample produce from gardens belonging to members of the public for tritium concentration. We promptly provide each member of the public with a report of the sample results along with the anticipated radioactive exposure due to tritium from consuming either the water or produce. We provide members of the public a comparison of this exposure against the CNSC limit and against radioactive exposure from other known sources, such as cosmic radiation, x-rays, etc.

We also continue to address inquiries from members of the public and provide information accordingly.

11.4.2 CITY OF PEMBROKE

On August 10, 2007 we met with members of Pembroke City Council and other City Officials operations. The purpose of this meeting was to provide an annual update to the City and to define areas of concern for the City to help SRB develop a path forward that would address these concerns. Following this meeting we have incorporated methods to address these concerns as part of our plan for resumption of operation. During the meeting with the City, two Councillors stated that they were pleased that SRB was maintaining an open dialogue with the concerned members of the public and that they wished for that to continue in the future. We confirmed that we would continue these efforts in the future. SRB invited members of Council for a tour of the facility but no one to date has requested a tour. It is important to note however that the Mayor, the Deputy Mayor and four of the six Councilors have already visited our facility in the past.

We continue to regularly provide the Mayor and City of Pembroke officials information on licensing actions or other issues regarding SRB, tritium, relevant media coverage, groundwater study results and sewage measurements. All information is followed by a phone call to ensure clear understanding.

11.4.3 FEDERAL MEMBER OF PARLIAMENT

We regularly provide our local Member of Parliament and staff with information on licensing actions or other issues regarding SRB, tritium and relevant media coverage. All information is followed up by a phone call to ensure that all information supplied was clearly understood.

11.4.4 NEIGHBOURS

We have initiated a number of meetings and discussions with our landlord and neighbours to provide them information on our operation. Information was mostly focused on groundwater results and resumption of operation. Again, all information is followed up by a phone call.

11.4.5 MEDIA

SRB has held meetings and discussions with members of the local media to help ensure that future reporting is accurate and balanced and that SRB is given the opportunity to comment, clarify and explain any issue at hand.

Discussions take place after any article or letter to the editor that contains information that does not accurately reflect facts about tritium or radiation or SRB's position.

11.4.6 PRESS RELEASES

As the media have proven to be the most effective way of communicating with the public, we realized that SRB had previously not proactively informed the media of licensing actions or other issues regarding the facility.

As a result SRB developed a list of local media contacts who are provided press releases regarding licensing actions or other issues regarding the facility.

Press releases and detailed supporting information is also provided to the City of Pembroke, the Federal Member of Parliament and to members of the public who have expressed concerns regarding our operations at past CNSC licence hearings.

In 2007 two such press releases have been issued to the media. The press releases have resulted in much more balanced and positive media coverage and have served well in informing the public.

Press releases provide a contact person to provide media the opportunity to ask questions or seek clarification. SRB addresses inquiries more promptly than in the past while ensuring that all information supplied is clearly understood.

11.4.7 SURVEYS

In 2007 a local newspaper survey found that of 2,311 respondents, over 90% of survey respondents and a significant proportion of the population were not concerned at the presence of the facility in their community.

11.4.8 WEBSITE

The website is frequently updated to provide up to date information on the facility.

12.0 FORECAST

This section will provide information on our forecast for the coming years.

12.1 VISION, MISSION, GOALS, VALUES AND POLICY

The forecast in the coming years will be to follow our the vision, mission, goals, values and policy that we have developed in 2007.

This will ensure a proactive approach to safety and protection of the environment and the public while achieving public acceptance.

12.2 TRITIUM PROCESSING

In an application[6] dated December 12, 2007 SRB requested approval to resume operation, including the processing of tritium. The matter is scheduled to be heard in April and June 2008.

As we anticipate return to operations we will continue to reinforce the framework established in 2007 in years to come in order to continuously improve.

In anticipation of resumption of operation we have our first formal “Emission reduction target” and “Occupational dose reduction target”. Senior Management will continue to urge the operations to set these sort of measurable performance targets and to support staff in achieving these targets.

12.3 GROUNDWATER

Based on work and analysis mostly performed in 2007. In 2008 a Comprehensive Groundwater Report will be Completed and provided to CNSC and MOE Staff. This report will include:

- All groundwater and soil data that have been collected.
- All results of monitoring data with concentrations and water levels.
- Interpretation of the data in the context of tritium concentrations in groundwater at and around the SRB facility. The interpretation includes analysis of:
    - Depths to bedrock.
    - Distributions of hydraulic conductivity in bedrock and overburden.
    - Horizontal and vertical hydraulic gradients.
    - Available MOE water well logs from the surrounding area.
    - Groundwater velocities and travel times.
    - Tritium distributions in soil and groundwater.
    - Potential future impacts and other potential monitoring locations.

12.4 PUBLIC ACCEPTANCE

In years to come SRB intends on continuing the work it has begun in achieving public acceptance and trust of local interest groups. This will be primarily achieved by continuing to provide information regarding our operations and by continuing to hold face to face meetings. SRB also intends to perform community surveys to get a better understanding of the community's concerns.

12.5 REVIEW OF HYPOTHETICAL INCIDENT SCENARIOS

In 2008 we intend on performing a review of hypothetical incident scenarios. The purpose of this document will to review the existing incident scenarios for the facility and to determine if these were still applicable considering the improvements made to the safety programs and procedures and the equipment and system upgrades that have been implemented over the years. The review will also ensure that the hypothetical incidents identified are credible and reflect worse case conditions.

12.6 ENVIRONMENT MANAGEMENT SYSTEM

In 2008 we also intend to incorporate all the organizational controls, changes and improvements that have been implemented at the facility into a new Environmental Management System.

12.7 DRL

SRB is committed to receive approval of the DRL from the CNSC with the objective of protecting the environment and the public for possible conditions at present and into the future.

12.8 ENVIRONMENTAL MONITORING PROGRAM

SRB is committed to the continuous improvement of the Environmental Monitoring Program (EMP) to ensure that the EMP provides appropriate and adequate information for calculating the dose to the public. This will ensure that results continue to be carefully analyzed, interpreted and understood.

12.9 CONTINUOUS IMPROVEMENT

In the coming years we will continue the improvement process already achieved in 2007. Line Managers will review the effectiveness of each program and procedure on a yearly basis with the Quality Manager. The result of these reviews will be reported and discussed with the President. An action plan will be developed to promptly make the required changes documents to address any opportunity for improvement.

REFERENCES

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[2] SRB TECHNOLOGIES (CANADA) INC., “Application for Licence Amendment of Class 1B Nuclear Facility”, February 23, 2007.

[3] CANADIAN NUCLEAR SAFETY COMMISSION, “Records of Proceedings, Including Reasons for Decision, Application to Amend the Nuclear Substance Processing Facility Possession Licence”, May 11, 2007.

[4] SRB TECHNOLOGIES (CANADA) INC., “Financial Guarantee for the Full Cost of The Safe Shutdown State, including the Financial Security and Access Agreement, and the Escrow Agreement and the evidence of the funds held by the Escrow Agent.” July 18, 2007.

[5] CANADIAN NUCLEAR SAFETY COMMISSION, “Records of Proceedings, Including Reasons for Decision, Financial Guarantee for the Safe State of Closure for the Class IB Facility Located in Pembroke, Ontario”, October 23, 2007.

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[11] SRB TECHNOLOGIES (CANADA) INC., “Radiation Safety Program”, November 21, 2007.

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[13] SRB TECHNOLOGIES (CANADA) INC., “Organizational Study”, July 31, 2007.

[14] SRB TECHNOLOGIES (CANADA) INC., “Supplemental to Organizational Study”, December 31, 2007.

[15] SRB TECHNOLOGIES (CANADA) INC., “Internal Memo dated November 2, 2007 with Quality Audit Schedule, Supplemental to Organizational Study, Appendix H”, December 31, 2007.

[16] SRB TECHNOLOGIES (CANADA) INC., “Waste Management Program”, October 24, 2007.

[17] SRB TECHNOLOGIES (CANADA) INC., “Quality Manual”, November 21, 2007.

[18] SRB TECHNOLOGIES (CANADA) INC., “Contractor Management Program”, December 10, 2007.

[19] SRB TECHNOLOGIES (CANADA) INC., letter, Stephane Levesque to Ann Erdman, “Rational for stack emission action level”, May 30, 2007.

[20] SRB TECHNOLOGIES (CANADA) INC., letter, Stephane Levesque to Ann Erdman, “Revised Plan for Groundwater Work”, August 23, 2007.

[21] SRB TECHNOLOGIES (CANADA) INC., “Fire Protection Program”, April 21, 2006.

[22] SRB TECHNOLOGIES (CANADA) INC., “Emergency Plan”, July 1, 2006.

APPENDIX A

VENTILATION EQUIPMENT MAINTAINED IN 2007

VENTILATION EQUIPMENT MAINTAINED IN 2007

	TYPE	ZONE	LOCATION
1	Heat Recovery unit	1	Mold area/Office
4	Unit heaters	1 & 3	Rig room, Glass shop, Molding area & office
4	A/C wall units	1 & 3	Rig room, Coating room, Glass shop & Laser room
2	Makeup air units	1 & 2	Coating room, Assembly room
4	Exhaust fans	1 & 2	Coating, Assembly, Glass room, Paint Booth
1	HRV with reheat	2	Assembly room
2	Fan coils	1	Office, Mold area/Office
2	Condenser	1	Mold area/Office
1	Mid efficient gas furnace & central air	1	Stores
1	Mid efficient gas furnace	1	Receiving
1	Bulk stack air handling unit	1	Compound
1	Rig stack air handling unit	1	Compound
2	Rig and Bulk stack air handling unit pitot tubes	1	Compound

APPENDIX B

EQUIPMENT MAINTENANCE INFORMATION FOR 2007

EQUIPMENT MAINTENANCE INFORMATION FOR 2007

Major maintenance carried out in 2007:	None
Quarterly Maintenance Schedule: **Contract:** Kool Temp/ Valley Refrigeration Ltd.	January 25, 2007 April 26, 2007 July 23, 2007 October 29, 2007
Monthly maintenance carried out in 2007: **Contract:** Kool Temp/ Valley Refrigeration Ltd.	January 25, 2007 February 28, 2007 March 26, 2007 April 26, 2007 May 31, 2007 June 28, 2007 July 23, 2007 August 28, 2007 September 28, 2007 October 29, 2007 November 30, 2007 December 19, 2007
Report of any weakening or possible major failure of any components:	None

APPENDIX C

TRITIUM ACTIVITY ON SITE DURING 2007

TRITIUM ACTIVITY ON SITE DURING 2007

Month / 2007	Month-end H-3 Activity On-Site (PBq)	Percent of License Limit (%)
January*	4.27	38.8
February*	5.75	52.3
March*	4.54	41.3
April*	3.63	33.0
May*	3.62	32.9
June	3.57	59.5
July	3.67	61.2
August	3.61	60.2
September	3.78	63.0
October	3.75	62.5
November	3.66	61.0
December	3.61	60.2
2007 Monthly Average	***3.96***	***66.0***

* The possession limit was 11.00 PBq during these months, while the remainder of the year the possession limit was amended to 6.00 PBq.

APPENDIX D

SHIPMENTS CONTAINING RADIOACTIVE MATERIAL FOR 2007

SHIPMENTS CONTAINING RADIOACTIVE MATERIAL FOR 2007

Month / 2007	**Number of Shipments**
January	28
February	38
March	34
April	18
May	16
June	16
July	30
August	16
September	22
October	13
November	27
December	14
Total Shipments	***272***
2007 Monthly Average:	***22.67***

APPENDIX E

RADIOLOGICAL OCCUPATIONAL ANNUAL DOSE DATA FOR 2007

RADIOLOGICAL ANNUAL DOSE DATA FOR 2007

Annual Dose (mSv/a)	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	Ave.
Maximum Dose	5.29	3.55	1.91	3.48	4.89	3.11	5.08	4.54	4.90	3.61	3.35	0.48	3.68
Average	0.88	0.52	0.24	0.46	0.38	0.29	0.40	0.55	0.67	0.50	0.30	0.04	0.44
Average Zone 3	3.43	2.12	1.26	1.62	2.30	1.70	1.94	2.22	2.58	1.61	1.57	0.17	1.88
AverageZone 2	0.55	0.07	0.12	0.11	0.15	0.08	0.18	0.16	0.18	0.12	0.07	0.07	0.16
Average Zone 1	0.17	0.08	<0.01	<0.01	<0.01	0.01	0.01	0.01	0.02	<0.01	<0.01	0.00	0.03
Average Admin.	1.26	0.61	0.17	0.60	0.12	0.31	0.11	0.39	0.24	0.12	0.09	<0.01	0.34
Collective Dose	30.69	15.01	7.72	13.47	11.91	13.65	19.21	22.91	27.75	23.50	11.34	1.40	16.55
Dosimetry Range													
0.00 – 0.99 mSv/a	29	23	29	28	33	43	43	39	30	39	34	32	34
1.00 – 1.99 mSv/a	0	4	3	4	1	4	2	0	5	3	3	0	2
2.00 – 2.99 mSv/a	3	1	0	0	1	1	2	3	2	3	0	0	1
3.00 – 3.99 mSv/a	1	1	0	2	1	1	0	2	2	2	1	0	1
4.00 – 4.99 mSv/a	2	0	0	0	1	0	0	1	2	0	0	0	1
> 5.00 mSv/a	1	0	0	0	0	0	1	0	0	0	0	0	0
> 50.00 mSv/a	0	0	0	0	0	0	0	0	0	0	0	0	0
Staff Members	36	29	32	34	37	49	48	45	41	47	38	32	32

APPENDIX F

SWIPE MONITORING RESULTS FOR 2007

SWIPE RESULTS FOR ZONE FOR 2007

ZONE	TOTAL SWIPES	PASS	FAIL	PASS %
1	742	737	5	99.32%
2	2,472	121	2351	95.11%
3	3,117	310	2807	90.05%

APPENDIX G

PASSIVE AIR SAMPLER DATA FOR 2007

2007 Environment Monitoring Program
Passive Air Sampling System

Sampler No.	Sampler ID	Location	Dist. to SRBT	(Bq/m3) Jan Jan16-Feb16	Feb Feb16-Mar15	Mar Mar15-Apr16	Apr Apr16-May17	May May17-Jun14	Jun Jun14-July17	Jul July17-Aug13	Aug Aug13-Sept10	Sep Sept10-Oct18	Oct Oct18-Nov23	Nov Nov23-Dec18	Dec Dec18-Jan16	Average (Bq/m3)
1	N250	N 45º 48.486' W 077º 07.092' Elev. 137m	322m	8.90	0.74	0.43	0.56	0.79	1.17	1.24	1.19	1.00	0.95	0.51	0.50	**1.50**
2	N500	N 45º 48.572' W 077º 07.008' Elev. 134m	493m	5.47	0.78	0.26	0.53	0.51	0.66	0.91	1.11	0.56	0.55	0.43	0.47	**1.02**
3	N1000	N 45º 48.869' W 077º 06.997' Elev. 135m	1040m	1.60	0.30	0.14	0.25	0.29	0.35	0.50	0.48	0.30	0.16	0.16	0.17	**0.39**
4 (PAS #4)	NW250	N 45º 48.412' W 077º 07.189' Elev. 137m	222m	5.31	1.00	1.10	0.64	2.67	1.95	2.05	1.76	1.50	1.78	0.53	1.14	**1.79**
5	NW500	N 45º 48.577' W 077º 07.382' Elev. 134m	615m	3.35	0.51	0.42	0.40	1.04	1.02	1.14	0.86	0.84	0.58	0.25	0.49	**0.91**
6 (PAS # 8)	NW1000	N 45º 48.754' W 077º 07.599' Elev. 130m	1050m	1.35	0.40	0.21	0.26	0.48	0.41	0.39	0.50	0.41	0.33	0.15	0.37	**0.44**
7	NW2000	N 45º 49.141' W 077º 08.090' Elev. 139m	2000m	0.78	0.40	0.12	0.23	0.43	0.31	0.29	0.37	0.36	0.18	0.13	0.20	**0.32**
8	W250	N 45º 48.300' W 077º 07.323' Elev. 138m	297m	1.78	0.99	0.54	0.74	0.75	0.48	0.52	0.63	0.60	0.31	0.26	0.47	**0.67**
9	W500	N 45º 48.288' W 077º 07.393' Elev. 137m	389m	1.11	0.50	0.29	0.52	0.41	0.27	0.36	0.42	0.40	0.15	0.16	0.35	**0.41**
10	W1000	N 45º 48.306' W 077º 07.630' Elev. 134m	691m	1.60	0.50	0.33	0.34	*	0.10	0.22	0.27	0.30	0.10	0.13	0.30	**0.38**
11	SW250	N 45º 48.247' W 077º 07.206' Elev. 140m	183m	1.13	0.70	0.68	1.20	0.78	0.47	0.91	0.65	0.70	0.13	0.14	0.39	**0.66**
12	SW500	N 45º 47.896' W 077º 07.307' Elev. 148m	839m	0.50	0.40	0.19	0.37	0.33	0.26	0.20	0.25	0.31	0.12	0.13	0.14	**0.27**
13	SW1000	N 45º 47.599' W 077º 07.543' Elev. 149m	1470m	0.16	0.18	0.11	0.12	0.12	0.10	0.04	0.14	0.17	0.10	0.13	0.14	**0.13**
14	SW2000	N 45º 47.408' W 077º 07.866' Elev. 155m	2110m	0.10	0.15	0.12	0.15	0.15	0.10	0.02	0.20	0.15	0.10	0.13	0.14	**0.13**
15	S250	N 45º 48.129' W 077º 07.014' Elev. 131m	356m	9.20	1.12	1.39	1.56	0.80	0.87	1.45	1.27	0.70	0.44	0.33	0.43	**1.63**
16	S500	N 45º 48.029' W 077º 07.110' Elev. 143m	532m	0.64	0.37	0.41	0.66	0.31	0.32	0.28	0.51	0.38	0.23	0.14	0.21	**0.37**
17 (PAS # 12)	S1000	N 45º 46.466' W 077º 07.441' Elev. 158m	1450m	0.10	0.13	0.12	0.11	0.12	0.11	0.04	0.14	0.10	0.10	0.13	0.14	**0.11**
18	SE250	N 45º 48.189' W 077º 06.874' Elev. 132m	365m	16.90	3.60	1.75	1.60	1.59	2.07	1.72	1.72	1.05	0.74	1.63	0.65	**2.92**
19	SE500	N 45º 48.108' W 077º 06.783' Elev. 123m	554m	0.10	1.30	0.87	0.95	0.63	1.01	0.95	0.81	0.50	0.31	0.55	0.30	**0.69**
20	SE1000	N 45º 47.894' W 077º 06.501' Elev. 120m	1090m	1.09	0.55	0.34	0.42	0.30	0.35	0.33	0.36	0.22	0.15	0.12	0.15	**0.37**
21	SE2000	N 45º 47.505' W 077º 05.978' Elev. 137m	2080m	0.54	0.40	0.21	0.25	0.23	0.21	0.20	0.23	0.16	0.10	0.13	0.14	**0.23**
22	E250	N 45º 48.234' W 077º 06.807' Elev. 131m	401m	11.20	2.00	1.23	0.96	0.83	1.56	1.25	1.10	1.10	0.75	0.87	0.66	**1.96**
23	E500	N 45º 48.333' W 077º 06.693' Elev. 132m	520m	0.80	0.80	0.47	0.42	0.72	1.21	0.97	0.60	0.60	0.24	0.13	0.26	**0.60**
24	E1000	N 45º 48.303' W 077º 06.260' Elev. 143m	1080m	0.54	0.40	0.23	0.35	0.42	0.65	0.45	0.30	0.39	0.14	0.13	0.19	**0.35**
25	NE250	N 45º 48.371' W 077º 06.964' Elev. 124m	198m	2.90	1.70	1.30	1.44	1.75	3.20	3.32	1.51	1.41	0.79	0.29	1.30	**1.74**
26	NE500	N 45º 48.421' W 077º 06.732' Elev. 131m	508m	1.10	0.50	0.47	0.43	0.69	1.37	1.12	0.54	0.50	0.29	0.13	0.28	**0.62**
27	NE1000	N 45º 48.683' W 077º 06.441' Elev. 148m	1100m	0.34	0.40	0.21	0.28	0.44	0.51	0.67	0.43	0.33	0.11	0.13	0.14	**0.33**
28	NE2000	N 45º 49.116' W 077º 05.843' Elev. 156m	2200m	0.37	0.32	0.13	0.15	0.19	0.26	0.29	0.20	0.25	0.10	0.13	0.14	**0.21**
Pre-Sample Points																
BOC Gas (PAS #1)		N 45º 48.287' W 077º 07.123' Elev. 129m	94.1m	3.30	0.13	1.44	3.10	2.28	0.94	2.35	1.24	1.20	0.59	0.29	*	**1.53**
Brewer's Edge (PAS #2)		N 45º 48.325' W 077º 07.132' Elev. 132m	52.8m	2.30	3.30	2.10	1.34	2.60	1.55	1.96	1.34	1.20	0.96	0.40	1.00	**1.67**
Med-Eng (PAS #13)		N 45º 48.262' W 077º 07.093' Elev. 132m	61.5m	5.76	2.01	2.40	7.50	3.30	3.07	4.22	4.41	1.80	*	1.79	0.46	**3.34**
Replicates																
4-2	NW250	N 45º 48.412' W 077º 07.189' Elev. 137m	222m	3.80	0.82	1.00	0.60	2.66	1.85	1.98	1.64	1.40	1.60	0.46	1.05	**1.57**
11-2	SW250	N 45º 48.247' W 077º 07.206' Elev. 140m	183m	0.83	0.57	0.65	1.10	0.72	0.45	0.89	0.55	0.60	0.13	0.13	0.27	**0.57**
18-2	SE250	N 45º 48.189' W 077º 06.874' Elev. 132m	365m	16.60	3.60	1.70	1.57	1.56	1.84	1.72	1.56	1.00	0.65	1.37	0.65	**2.82**
25-2	NE250	N 45º 48.371' W 077º 06.964' Elev. 124m	198m	2.70	1.45	1.02	1.34	1.63	3.19	3.13	1.50	1.30	0.79	0.22	0.78	**1.59**
Background Samples																
Maika (PAS # 10)	SW	N 45º 46.367' W 077º 11.447' Elev. 149m	6690m	0.10	0.13	0.10	0.11	0.12	0.11	0.01	0.14	0.10	0.10	0.13	0.15	**0.11**
Maika	Duplicate	Same as above	6690m	0.10	0.13	0.10	0.11	0.12	0.11	0.05	0.14	0.10	0.10	0.13	0.14	**0.11**
Fitzpatrick	SE	N 45º 44.818' W 076º 59.822' Elev. 159m	11400m	0.13	0.13	0.10	0.11	0.13	0.10	0.06	0.14	0.10	0.10	0.13	0.14	**0.11**
Petawawa	NW	N 45º 51.497' W 077º 12.828' Elev. 149m	9480m	0.24	0.20	0.10	0.13	0.12	0.16	0.06	0.19	0.11	0.10	0.13	0.14	**0.14**
Farm	NE	N 45º 53.071' W 076º 56.768' Elev. 142m	16000m	0.10	0.18	0.18	0.17	0.27	0.27	0.12	0.14	0.17	0.36	0.19	0.24	**0.20**
			Sum	114.92	33.79	24.96	33.07	33.28	34.99	38.38	31.54	24.37	15.51	13.45	15.28	34.90

* Sample lost

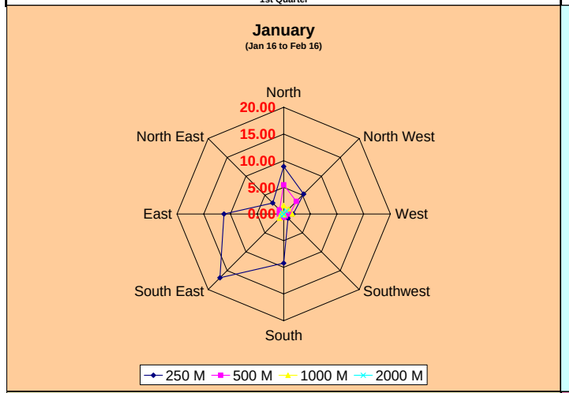
Passive Air Sampling Data (Results in Bq/m3)

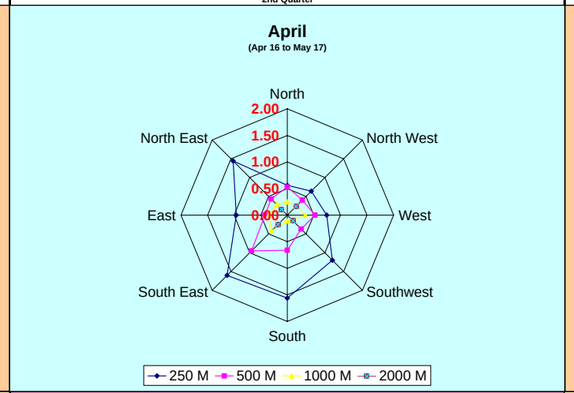
Direction	January (Jan 16 to Feb 16)				February (Feb 16 to Mar 15)				March (Mar 15 to Apr 16)			
	250 M	500 M	1000 M	2000 M	250 M	500 M	1000 M	2000 M	250 M	500 M	1000 M	2000 M
North	8.90	5.47	1.60		0.74	0.78	0.30		0.43	0.26	0.14	
North West	5.31	3.35	1.35	0.78	1.00	0.51	0.40	0.40	1.10	0.42	0.21	0.12
West	1.78	1.11	1.60		0.99	0.50	0.50		0.54	0.29	0.33	
Southwest	1.13	0.50	0.16	0.10	0.70	0.40	0.18	0.15	0.68	0.19	0.11	0.12
South	9.20	0.64	0.10		1.12	0.37	0.13		1.39	0.41	0.12	
South East	16.90	0.10	1.09	0.54	3.60	1.30	0.55	0.40	1.75	0.87	0.34	0.21
East	11.20	0.80	0.54		2.00	0.80	0.40		1.23	0.47	0.23	
North East	2.90	1.10	0.37	0.37	1.70	0.50	0.40	0.32	1.30	0.47	0.21	0.13
	1st Quarter											

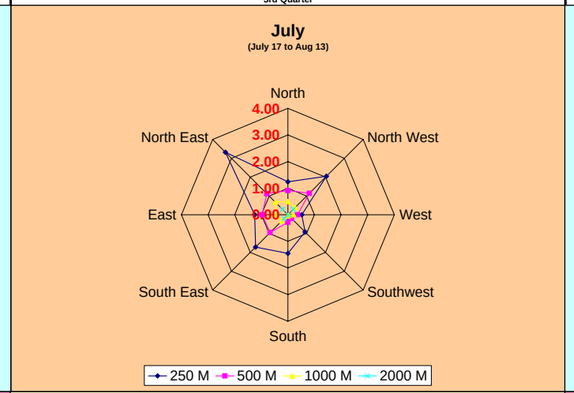
Direction	April (Apr 16 to May 17)				May (May 17 to June 14)				June (June 14 to July 17)			
	250 M	500 M	1000 M	2000 M	250 M	500 M	1000 M	2000 M	250 M	500 M	1000 M	2000 M
North	0.56	0.53	0.25		0.79	0.51	0.29		1.17	0.66	0.35	
North West	0.64	0.40	0.26	0.23	2.67	1.04	0.48	0.43	1.95	1.02	0.41	0.31
West	0.74	0.52	0.34		0.75	0.41 *			0.48	0.27	0.10	
Southwest	1.20	0.37	0.12	0.15	0.78	0.33	0.12	0.15	0.47	0.26	0.10	0.10
South	1.56	0.66	0.11		0.80	0.80	0.12		0.87	0.32	0.11	
South East	1.60	0.95	0.42	0.25	1.59	0.63	0.30	0.23	2.07	1.01	0.35	0.21
East	0.96	0.42	0.35		0.83	0.72	0.42		1.56	1.21	0.65	
North East	1.44	0.43	0.28	0.15	1.75	0.69	0.44	0.19	3.20	1.37	0.51	0.26
	2nd Quarter											

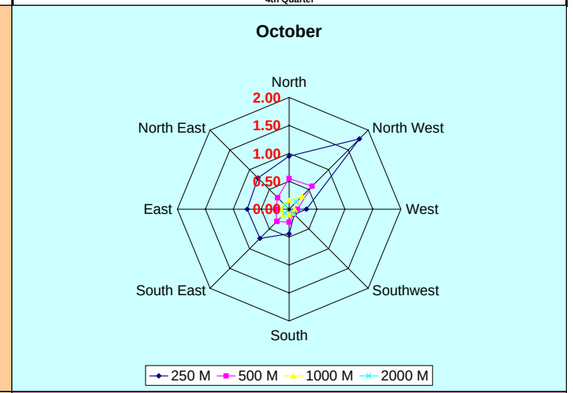
Direction	July (July 17 to Aug 13)				August (Aug 13 to Sept 10)				September (Sept 10 to Oct 18)			
	250 M	500 M	1000 M	2000 M	250 M	500 M	1000 M	2000 M	250 M	500 M	1000 M	2000 M
North	1.24	0.91	0.50		1.19	1.11	0.48		1.00	0.56	0.30	
North West	2.05	1.14	0.39	0.29	1.76	0.86	0.50	0.37	1.50	0.84	0.41	0.36
West	0.52	0.36	0.22		0.63	0.42	0.27		0.60	0.40	0.30	
Southwest	0.91	0.20	0.04	0.02	0.65	0.25	0.14	0.20	0.70	0.31	0.17	0.15
South	1.45	0.28	0.04		1.27	0.51	0.14		0.70	0.38	0.10	
South East	1.72	0.95	0.33	0.20	1.72	0.81	0.36	0.23	1.05	0.50	0.22	0.16
East	1.25	0.97	0.45		1.10	0.60	0.30		1.10	0.60	0.39	
North East	3.32	1.12	0.67	0.29	1.51	0.54	0.43	0.20	1.41	0.50	0.33	0.25
	3rd Quarter											

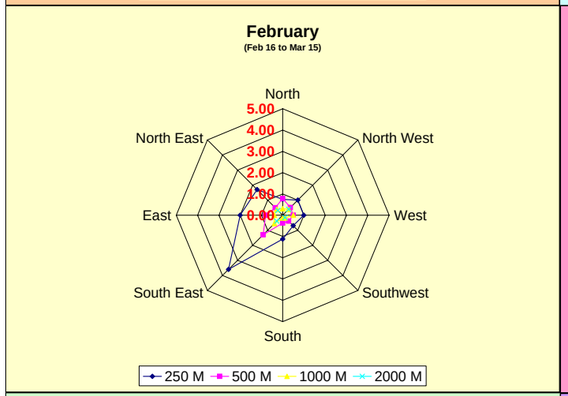
Direction	October				November				December			
	250 M	500 M	1000 M	2000 M	250 M	500 M	1000 M	2000 M	250 M	500 M	1000 M	2000 M
North	0.95	0.55	0.16		0.51	0.43	0.16		0.50	0.47	0.17	
North West	1.78	0.58	0.33	0.18	0.53	0.25	0.15	0.13	1.14	0.49	0.37	0.20
West	0.31	0.15	0.10		0.26	0.16	0.13		0.47	0.35	0.30	
Southwest	0.13	0.12	0.10	0.10	0.14	0.13	0.13	0.13	0.39	0.14	0.14	0.14
South	0.44	0.23	0.10		0.33	0.14	0.13		0.43	0.21	0.14	
South East	0.74	0.31	0.15	0.10	1.63	0.55	0.12	0.13	0.65	0.30	0.15	0.14
East	0.75	0.24	0.14		0.87	0.13	0.13		0.66	0.26	0.19	
North East	0.79	0.29	0.11	0.10	0.29	0.13	0.13	0.13	1.30	0.28	0.14	0.14
	4th Quarter											

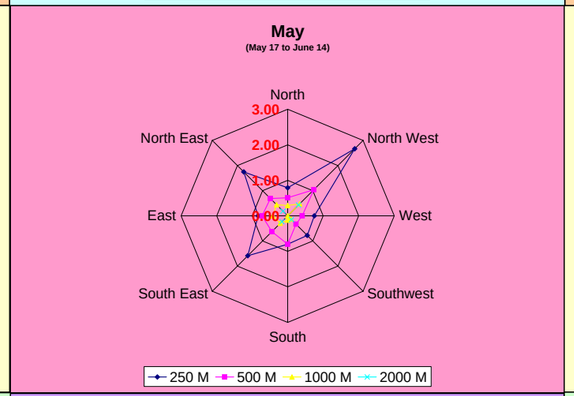


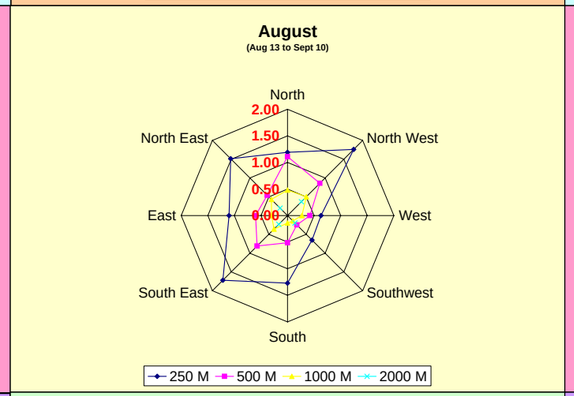


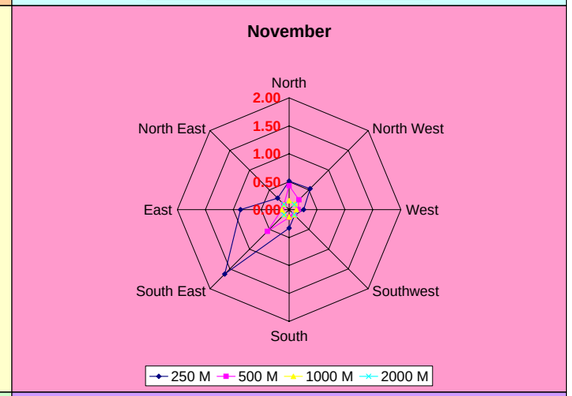


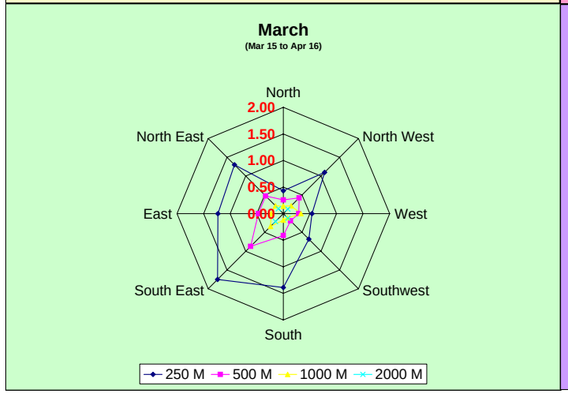


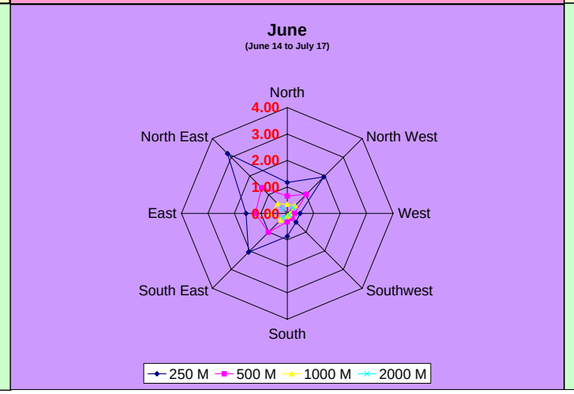


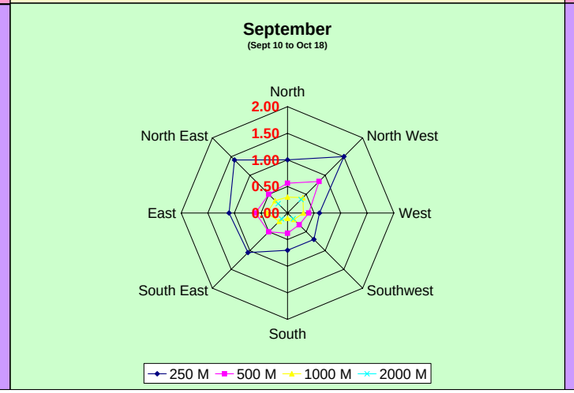


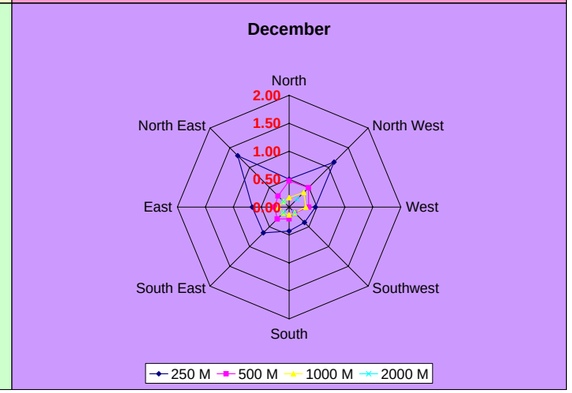




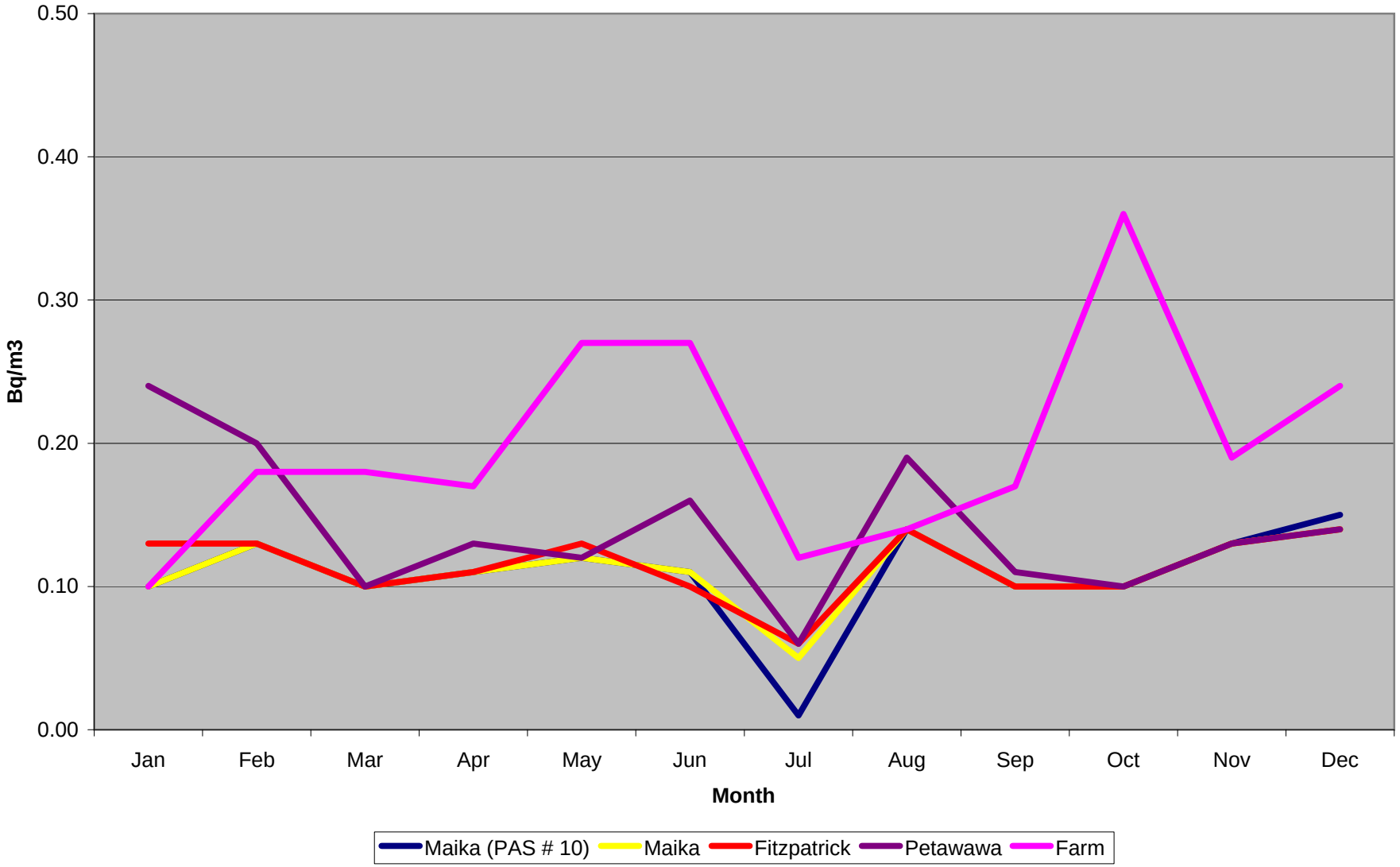




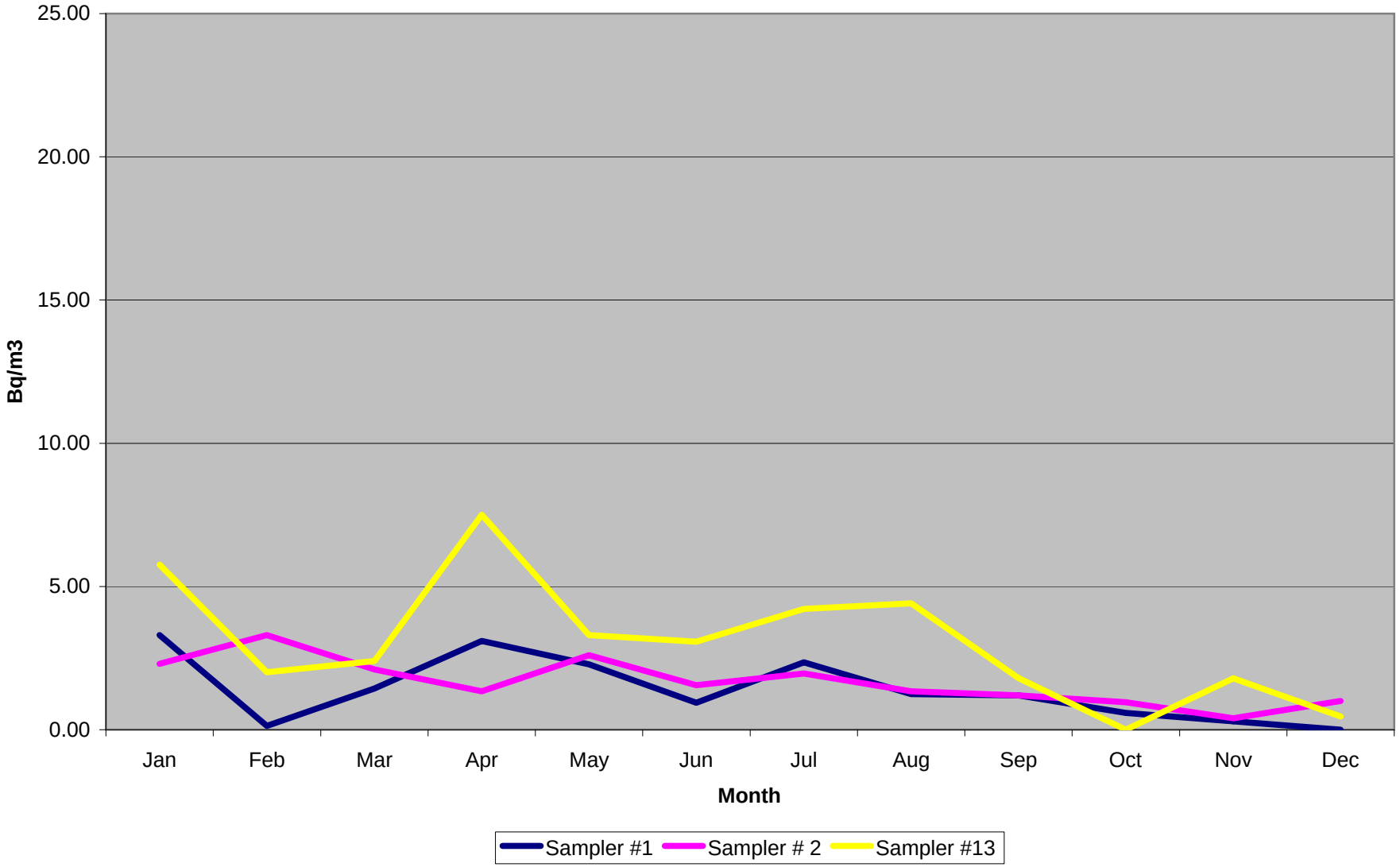


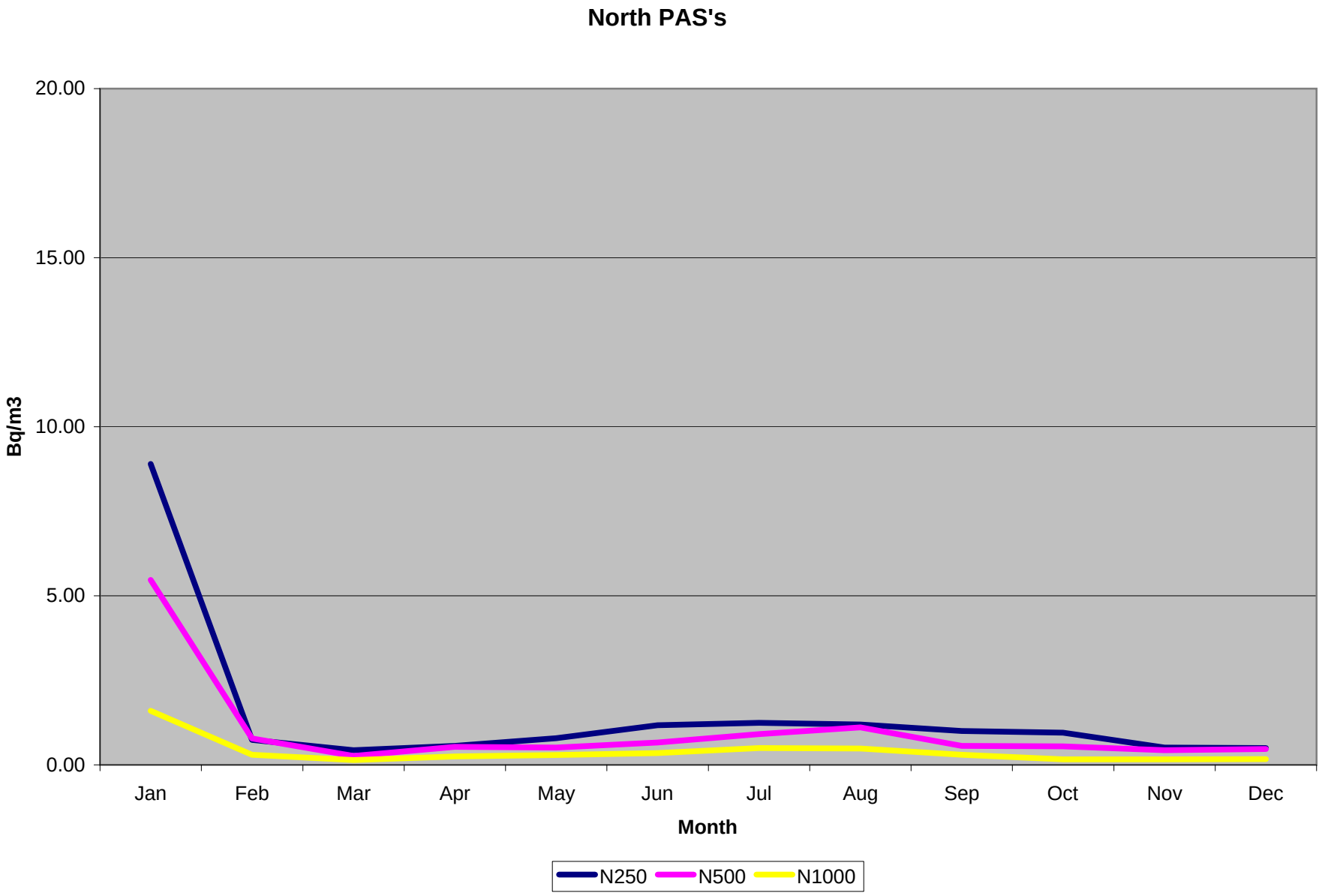


Background Samples



Samplers 1, 2, 13

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0.00
Bq/m3
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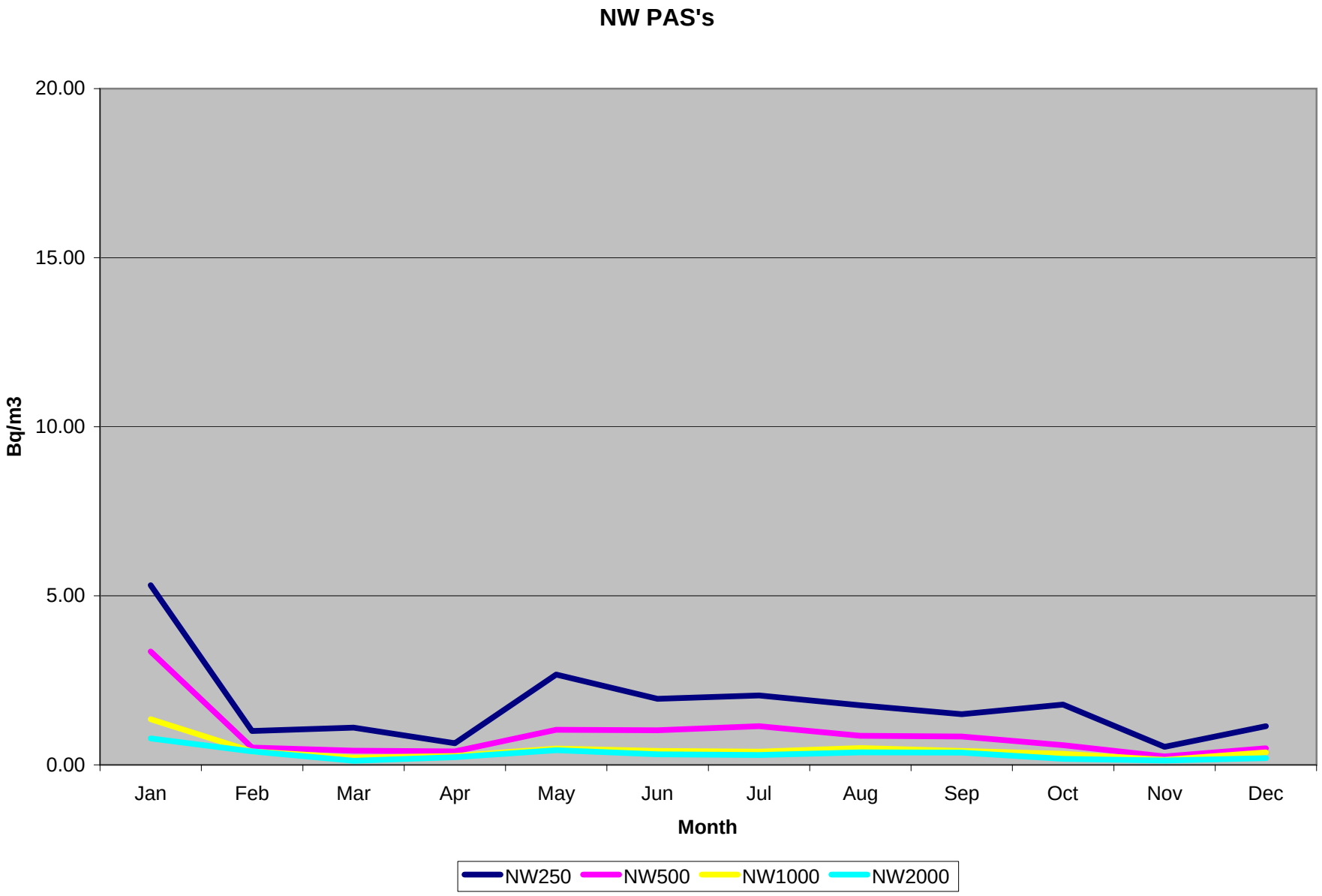
Month
N250
N500
N1000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Bq/m3
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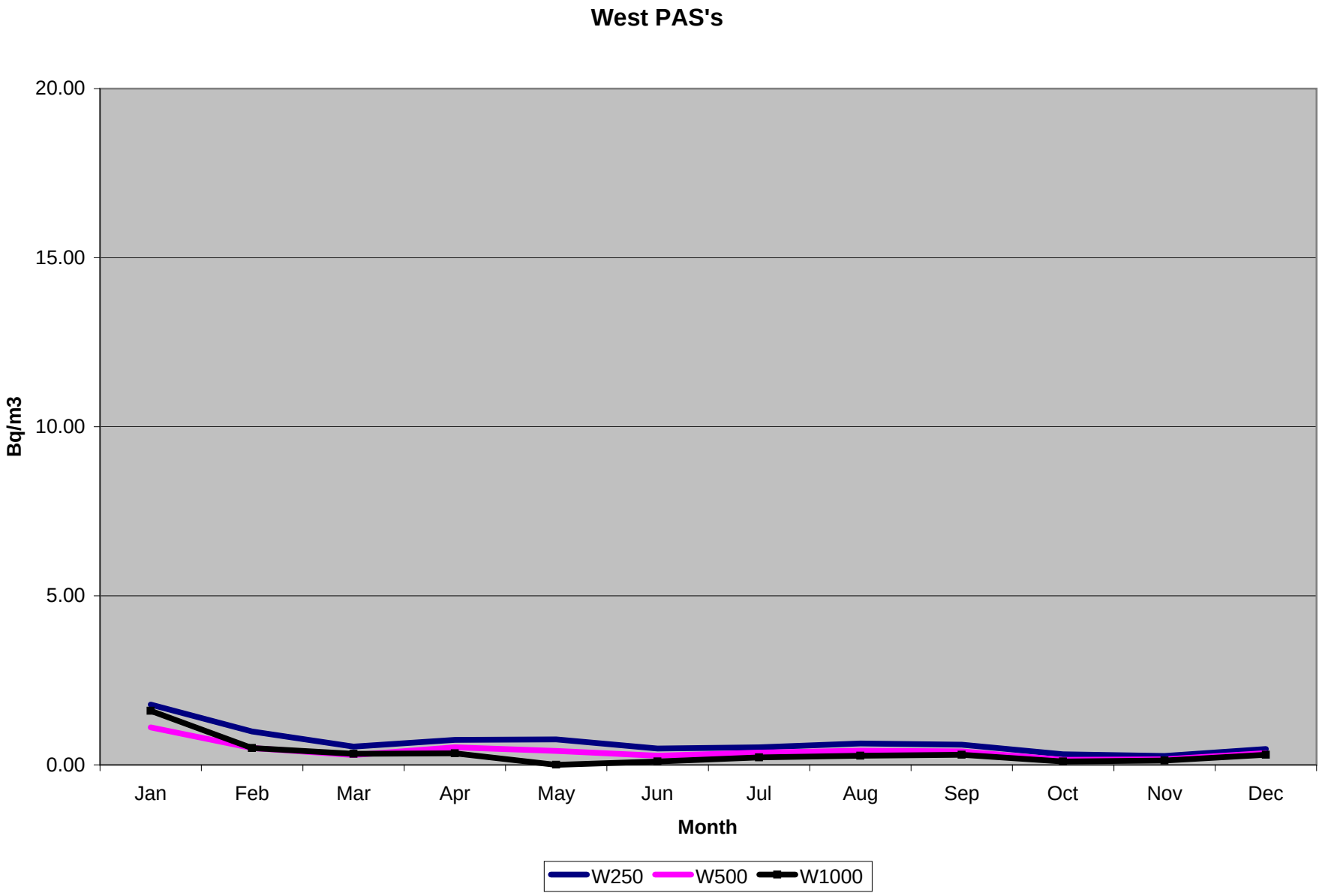
NW500
NW1000
NW2000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10.00
5.00
0.00
Bq/m3
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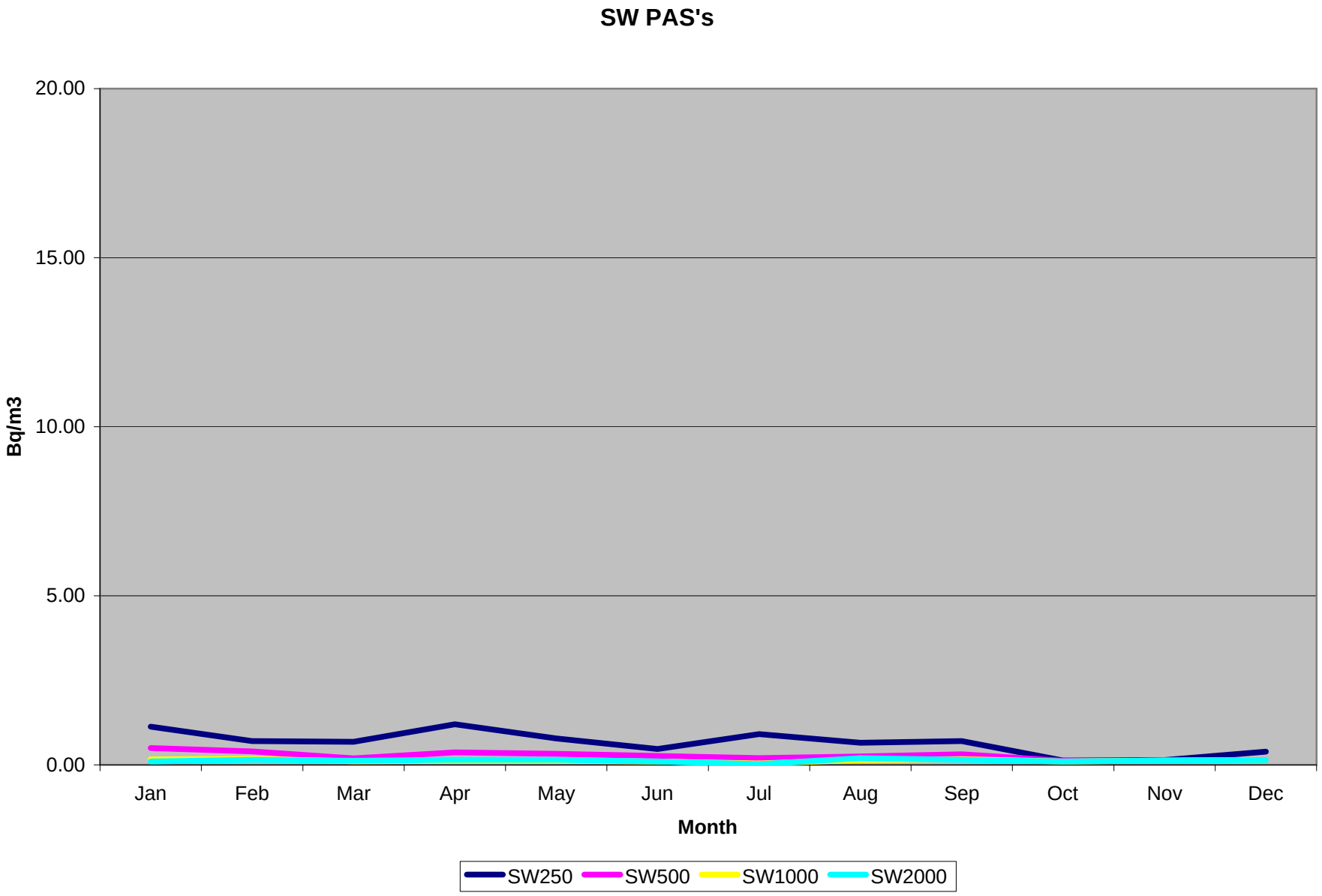
W250
W500
W1000


SW PAS's
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5.00
0.00
Bq/m3
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Oct
Nov
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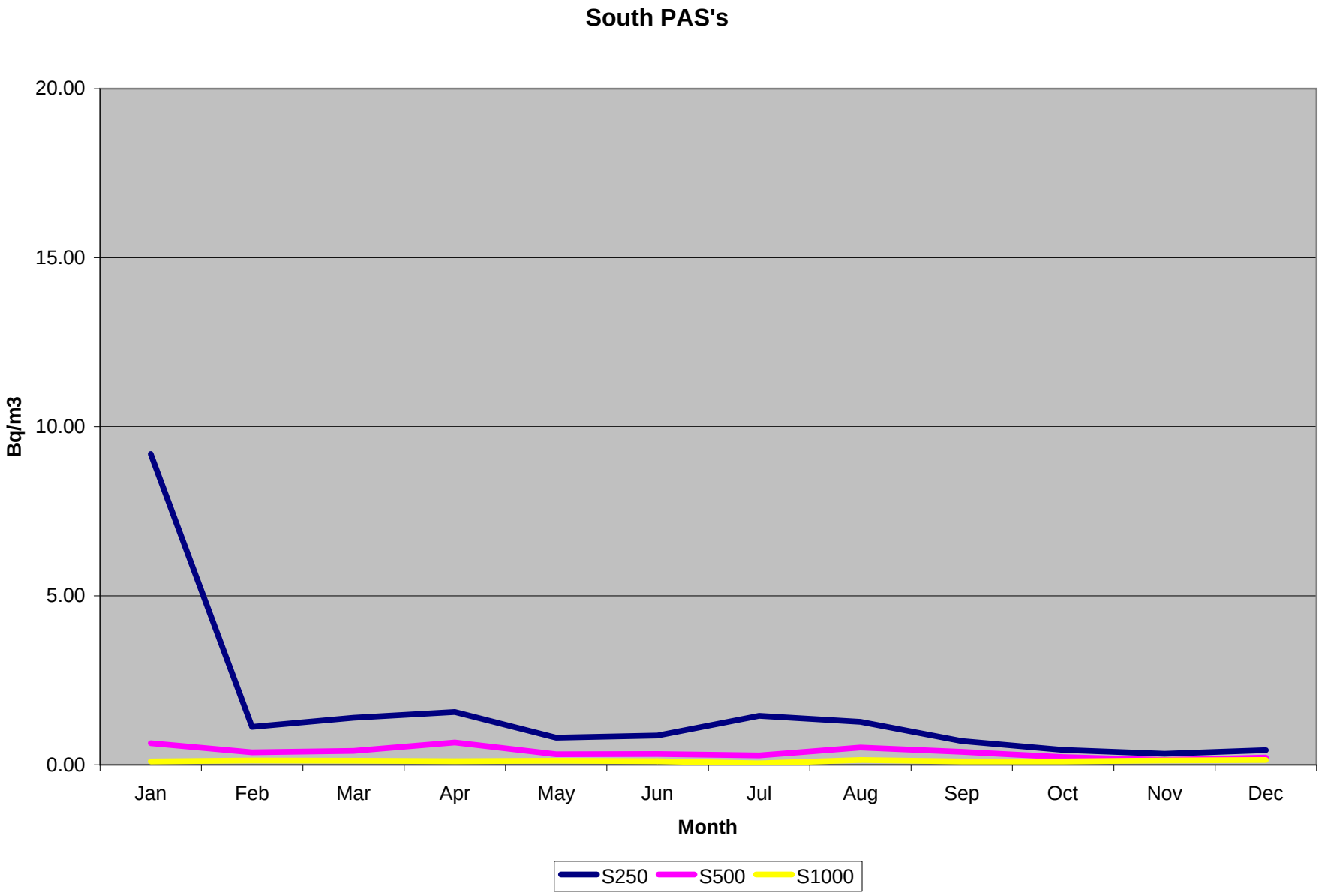
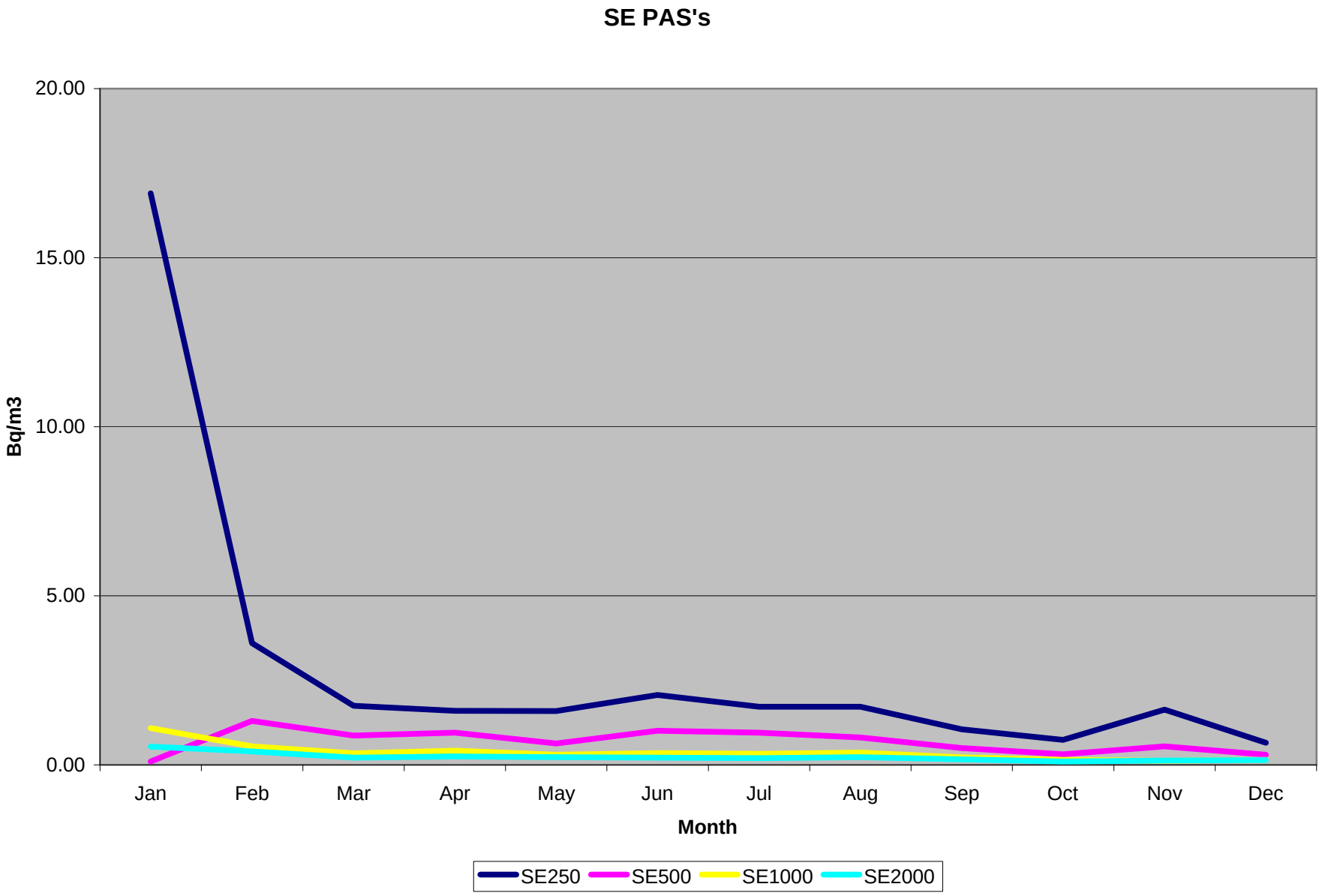
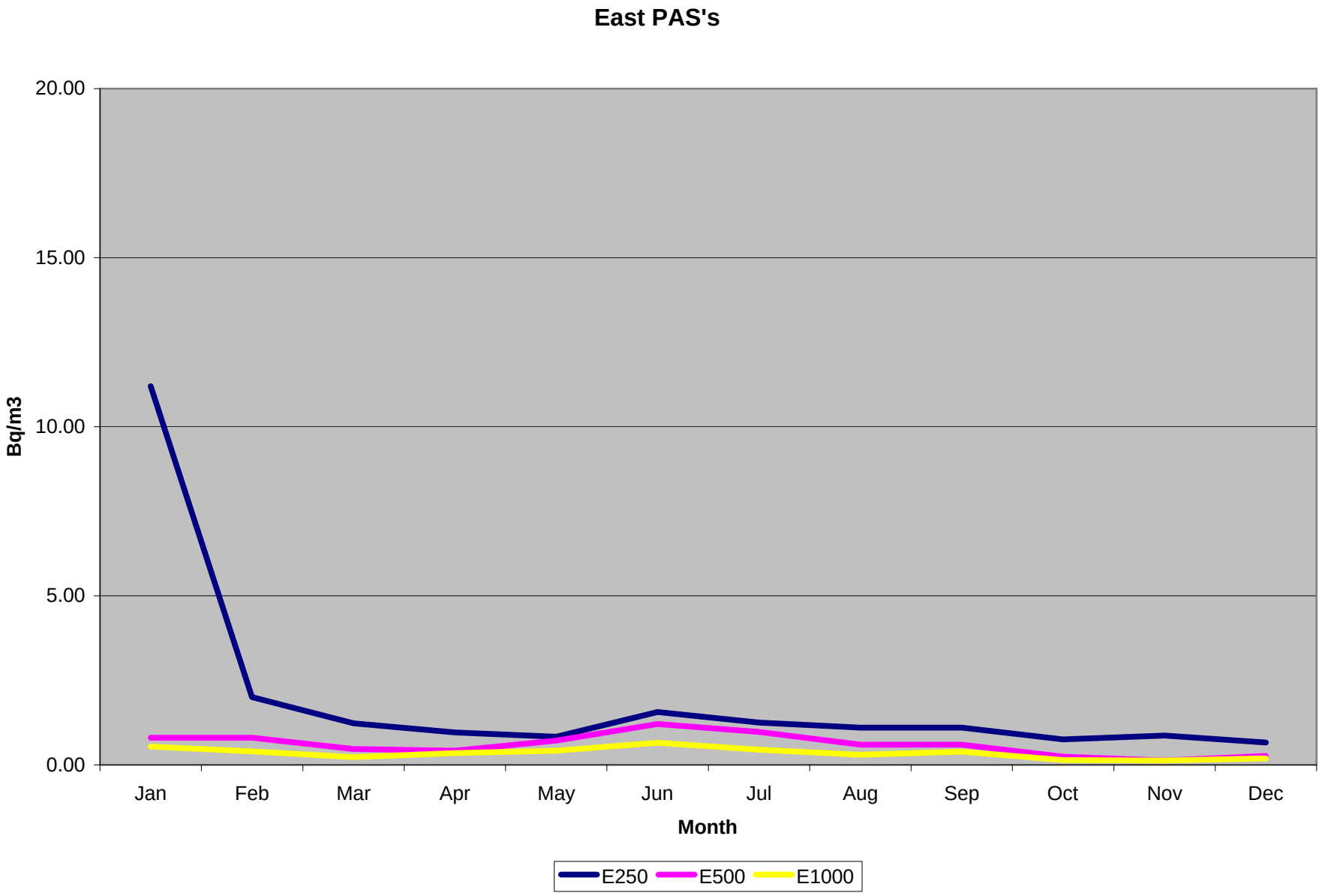
Month
SW250
SW500
SW1000
SW2000


South PAS's
20.00
15.00
10.00
5.00
0.00
Bq/m3
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Month
S250
S500
S1000


SE PAS's
20.00
15.00
10.00
5.00
0.00
Bq/m3
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Month
SE250
SE500
SE1000
SE2000


East PAS's
20.00
15.00
10.00
5.00
0.00
Bq/m3
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Month
E250
E500
E1000

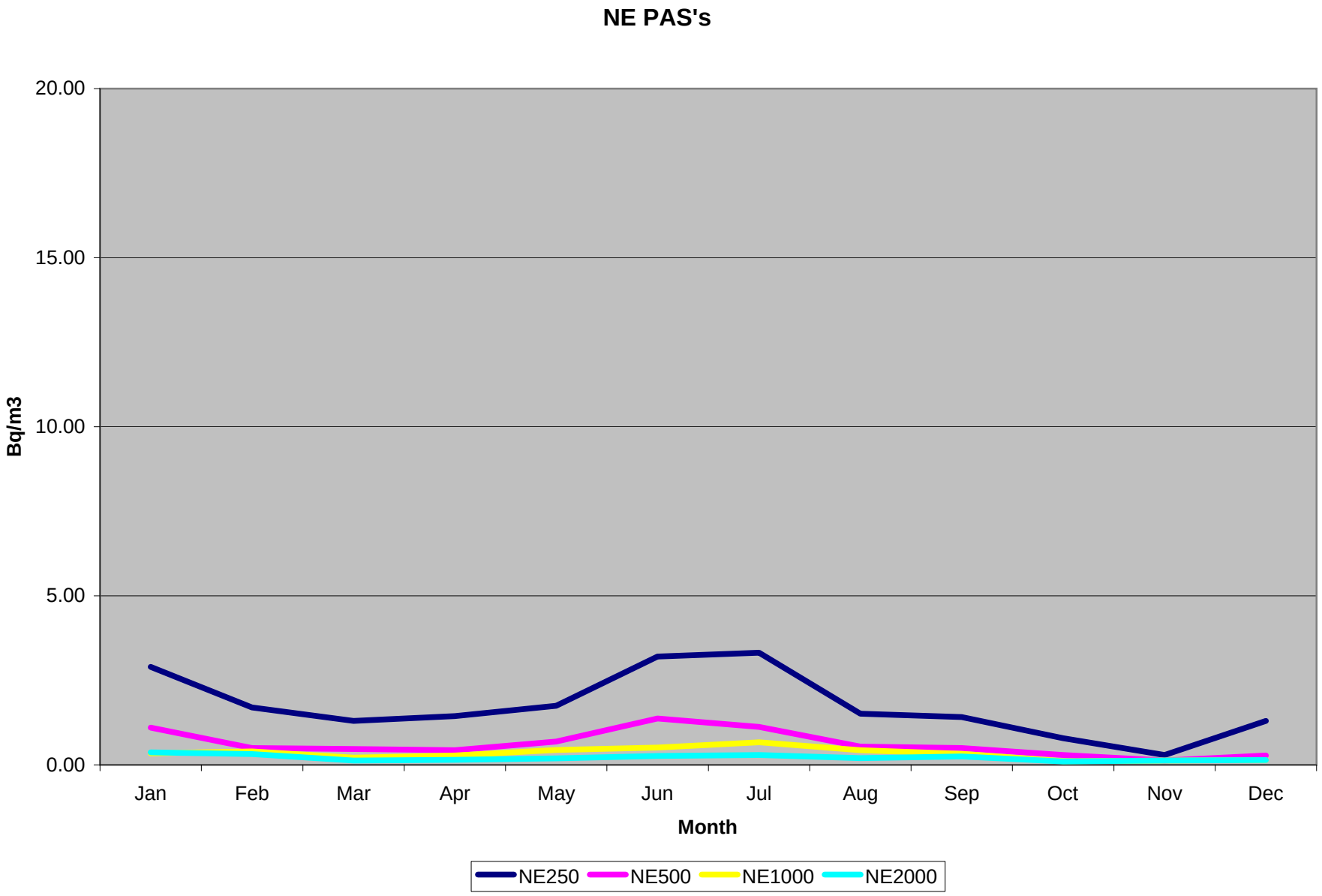
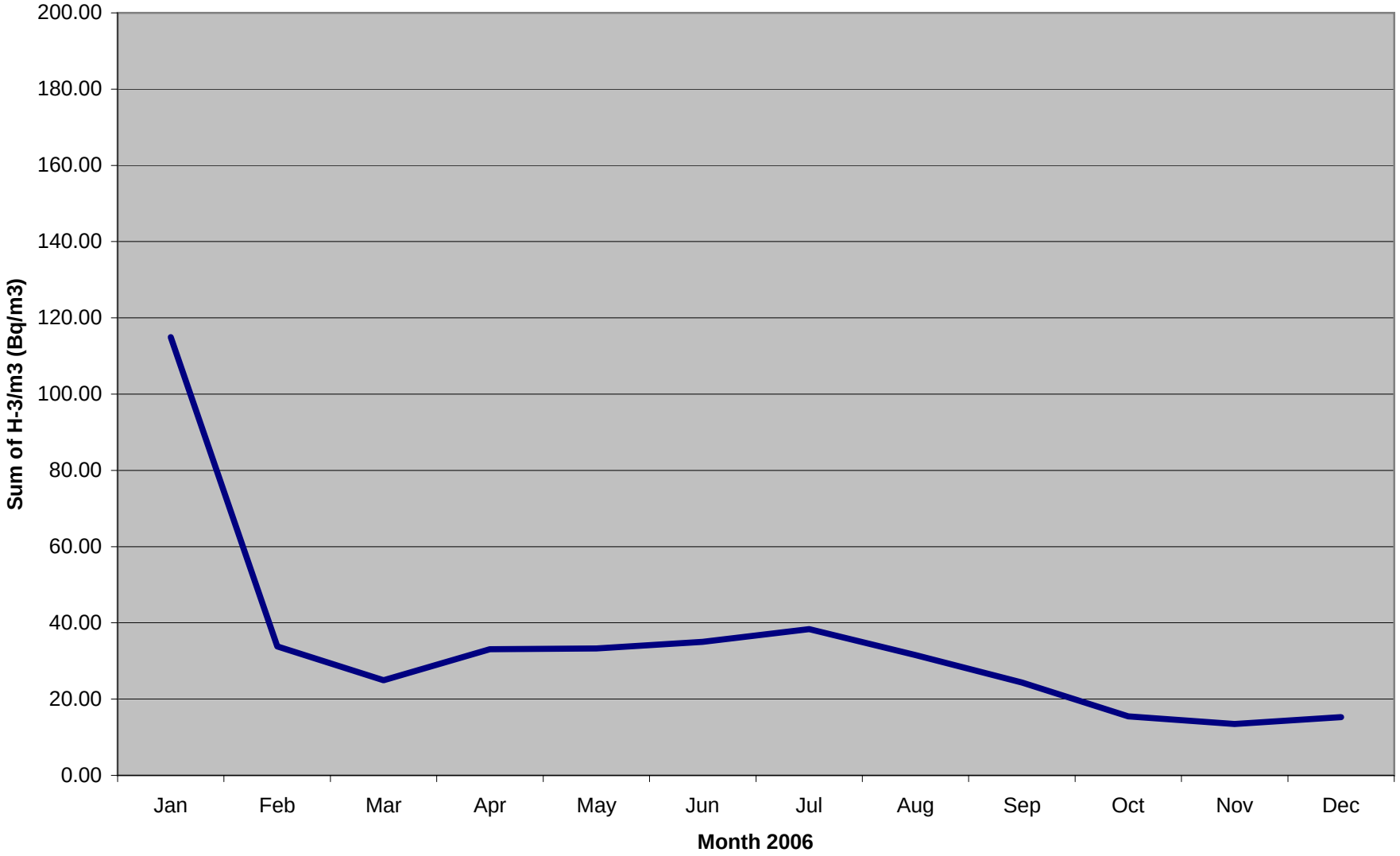

NE PAS's
20.00
15.00
10.00
5.00
0.00
Bq/m3
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Month
NE250
NE500
NE1000
NE2000

Chart of Sum of HTO in Air in PAS



APPENDIX H

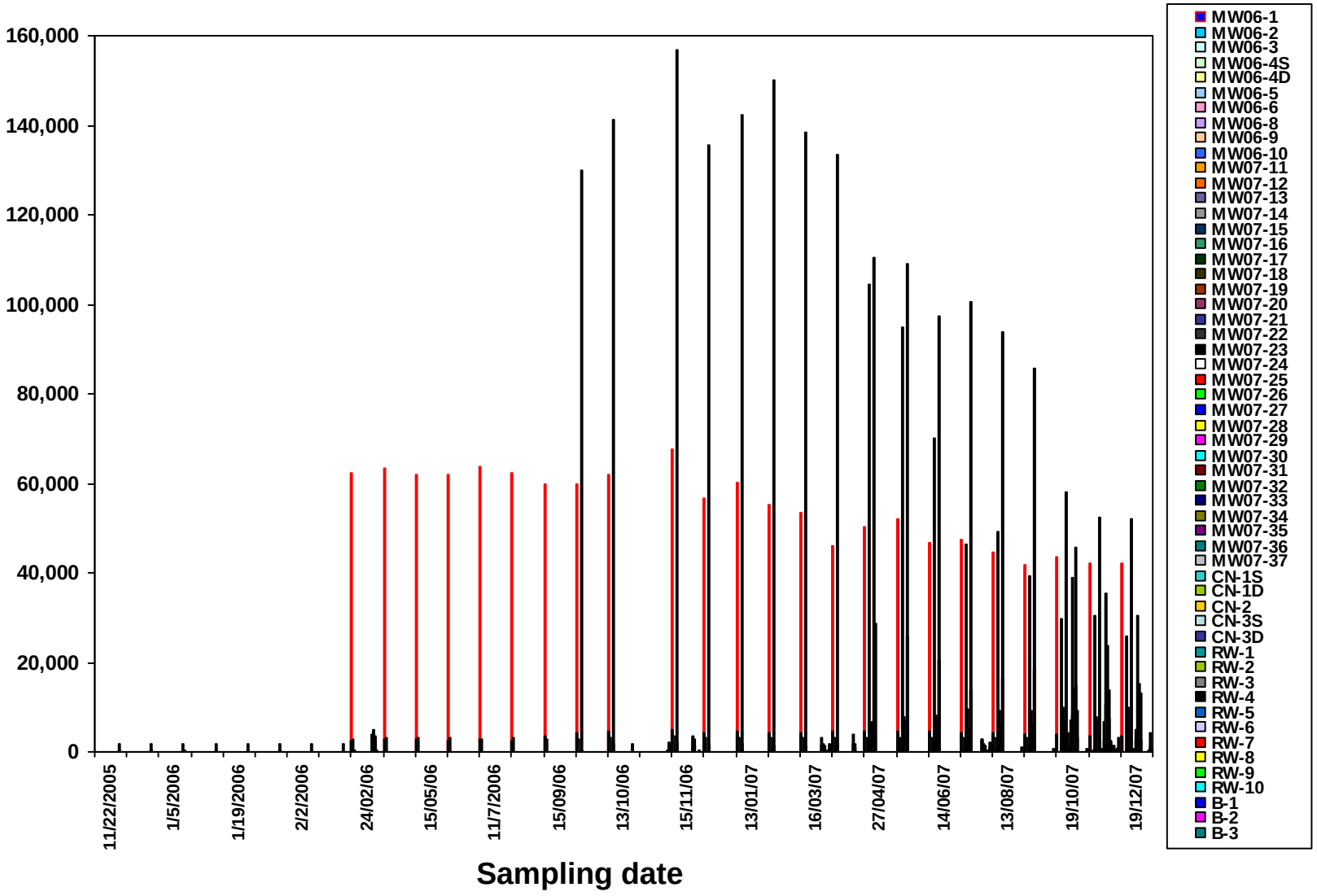
WELL RESULTS FOR 2007

WELL I.D.	DESCRIPTION	DISTANCE FROM STACKS (m)	16/03/07	17/5/07	14/6/07	18/7/07	13/8/07	11/9/07	19/10/07	22/11/07	19/12/07	AVG
RW-1	413 BOUNDARY ROAD	465	1,506	1,366		1,370				1,399		1,410
RW-2	185 MUD LAKE ROAD	1,100	336			311				287		311
RW-3	183 MUD LAKE ROAD	1,100	186			358				323		289
RW-4	711 BRUHAM AVENUE	2,200	3.8			3.0				4.2		4
RW-5	171 SAWMILL ROAD	2,300	14			18				17		16
RW-6	40987 HWY 41	1,400	69			70				82		74
RW-7	40925 HWY 41	1,600	67			38				25		43
RW-8	204 BOUNDARY ROAD	700	254			294				236		261
RW-9	206 BOUNDARY ROAD	650	268			269				583	442	391
RW-10	208 BOUNDARY ROAD	625	3.9			2.0				4.3		3
B-1	SUPERIOR PROPANE OFFICE	160	979	1,289	1,515	1,022	1,126	848	865	1,075	1,006	1,081
B-3	INTERNATIONAL LUMBER OFFICE	385	6.0			6.0				4.4		5
											AVG	324

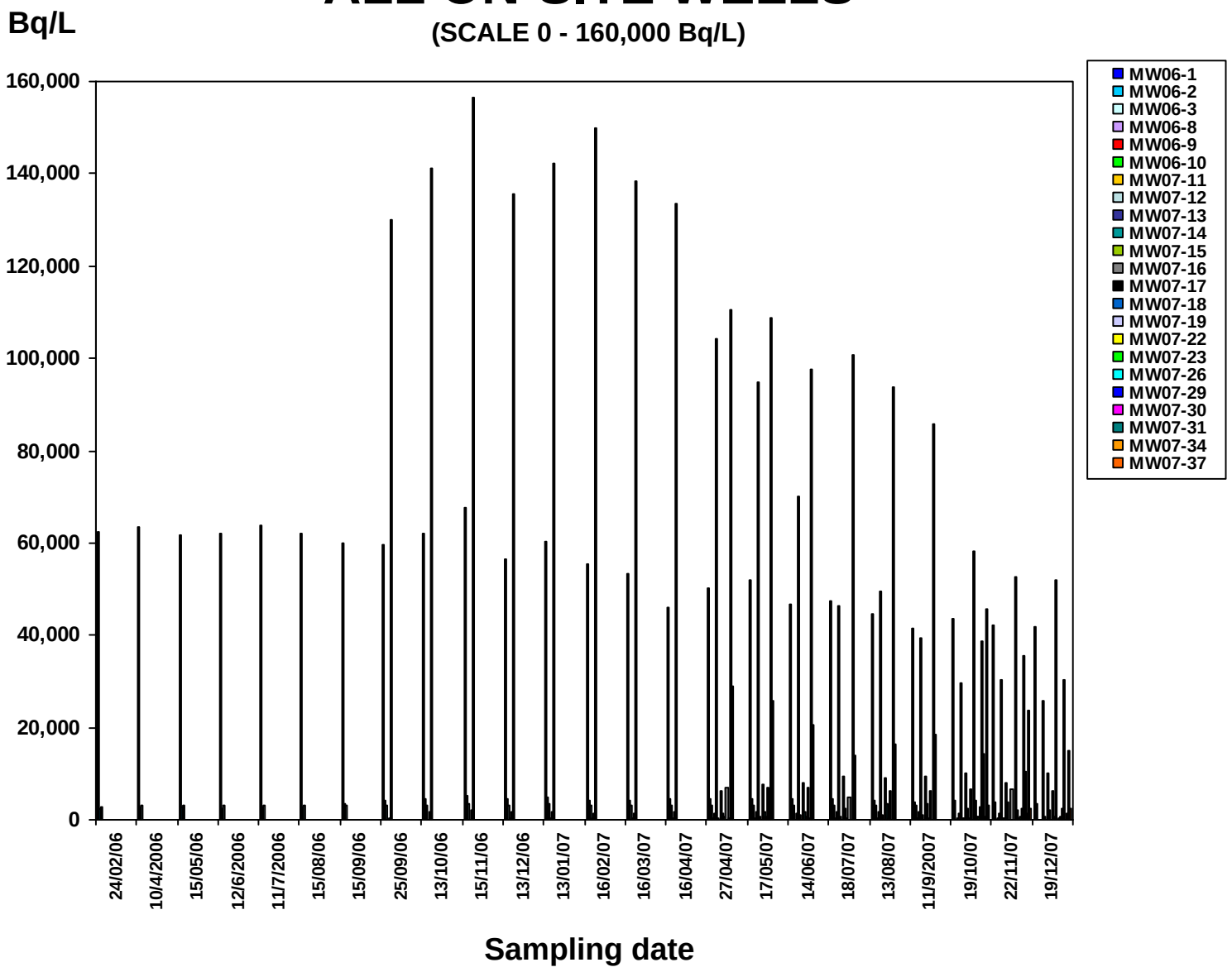
WELL I.D.	DESCRIPTION	DISTANCE FROM STACKS (m)	22/11/05	29/12/05	05/01/06	12/01/06	19/01/06	26/01/06	02/02/06	15/02/06	24/02/06	10/04/06	15/5/06	12/06/06	11/07/06	15/08/06	15/09/06	25/09/06	13/10/06	26/10/06	15/11/06	13/12/06	13/01/07	16/02/07	16/03/07	16/04/07	27/4/07	17/5/07	14/6/07	18/7/07	13/8/07	11/9/07	19/10/07	22/11/07	19/12/07	WELL I.D.
MW06-1	SRB SITE	50									62,434	63,518	61,774	62,025	63,631	62,155	59,902	59,734	61,947		67,606	56,595	60,166	55,310	53,306	45,932	50,170	51,972	46,565	47,489	44,653	41,651	43,586	42,299	41,947	MW06-1
MW06-2	SRB SITE	75									2,484	2,786	2,665	2,550	2,698	2,652	3,560	4,264	4,612		5,060	4,414	4,730	4,207	4,347	4,516	4,657	4,646	4,538	4,365	4,329	3,997	4,050	3,695	3,641	MW06-2
MW06-3	SRB SITE	50									2,722	3,068	3,133	3,045	2,982	3,205	2,990	2,999	3,209		3,564	3,103	3,324	3,282	3,243	3,236	3,273	3,267	3,288	3,187	3,247	3,139	DRY	DRY	DRY	MW06-3
MW06-4S	JOHNSTON MEADOWS	300									211																									MW06-4S
MW06-4D	JOHNSTON MEADOWS	300									3.0																									MW06-4D
MW06-5	RENFREW COUNTY HEALTH UNIT	500									14																									MW06-5
MW06-6	KI, 600 m	600									376																									MW06-6
MW06-8	SRB SITE	55																105	141		120	175	178	270	296	258	209	207	172	202	236	247	311	225	DRY	MW06-8
MW06-9	SRB SITE	25																439	1,772		2,003	1,640	1,611	1,487	1,444	1,642	1,450	1,609	1,526	1,866	1,704	1,723	1,489	1,402	DRY	MW06-9
MW06-10	SRB SITE	0																130,060	141,111		156,643	135,612	142,308	149,928	138,509	133,622	104,350	94,956	70,225	46,379	49,347	39,228	29,795	30,326	25,712	MW06-10
MW07-11	SRB SITE	75																									203	638	936	866	898	955	400	485	727	MW07-11
MW07-12	SRB SITE	55																									152	154	114	106	117	151	194	177	DRY	MW07-12
MW07-13	SRB SITE	50																									6,358	7,781	8,070	9,463	9,221	9,287	10,057	7,859	9,968	MW07-13
MW07-14	SRB SITE	40																									1,504	1,662	1,895	2,526	3,494	3,610	2,357	3,692	2,048	MW07-14
MW07-15	SRB SITE	25																									690	675	672	314	376	255	227	170	112	MW07-15
MW07-16	SRB SITE	15																									6,855	6,845	7,059	4,927	6,381	6,148	6,646	6,776	6,358	MW07-16
MW07-17	SRB SITE	15																									521	519	233	109	107	106	103	117	663	MW07-17
MW07-18	SRB SITE	10																									110,422	108,879	97,441	100,612	93,704	85,781	58,139	52,516	52,009	MW07-18
MW07-19	SRB SITE	20																									28,788	25,806	20,475	13,852	16,329	18,318	4,229	2,230	DRY	MW07-19
MW07-20	SUPERIOR PROPANE PROPERTY	90																															628	674	667	MW07-20
MW07-21	SUPERIOR PROPANE PROPERTY	110																															102	116	111	MW07-21
MW07-22	SRB SITE	70																															557	421	184	MW07-22
MW07-23	SRB SITE	90																															595	668	610	MW07-23
MW07-24	HARRINGTON PROPERTY	115																															102	118	111	MW07-24
MW07-25	HARRINGTON PROPERTY	105																															1,230	176	111	MW07-25
MW07-26	SRB SITE	50																															2,731	2,609	2,533	MW07-26
MW07-27	CITY PROPERTY	55																															6,959	6,652	DRY	MW07-27
MW07-28	CITY PROPERTY	55																															8,088	6,569	4,957	MW07-28
MW07-29	SRB SITE	10																															38,797	35,421	30,468	MW07-29
MW07-30	SRB SITE	50																															14,185	10,457	N/A	MW07-30
MW07-31	SRB SITE	70																															801	1,394	1,436	MW07-31
MW07-32	HARRINGTON PROPERTY	115																															143	117	111	MW07-32
MW07-33	HARRINGTON PROPERTY	105																															678	428	458	MW07-33
MW07-34	SRB SITE	10																															45,544	23,711	15,094	MW07-34
MW07-35	CITY PROPERTY	55																															14,824	13,641	12,948	MW07-35
MW07-36	CITY PROPERTY	80																															9,100	7,504	DRY	MW07-36
MW07-37	SRB SITE	60																															3,297	2,490	2,466	MW07-37
CN-1S	CN PROPERTY	125									3,928										3,511					3,780				2,326				2,458		CN-1S
CN-1D	CN PROPERTY	130									3,838										3,279				3,277	1,660				2,806			DRY	DRY	CN-1D
CN-2	CN PROPERTY	150									5,037										2,123				1,363	523				2,801			2,184		CN-2
CN-3S	CN PROPERTY	165									3,581										2,984				1,437	1,783				1,917			DRY	DRY	CN-3S
CN-3D	CN PROPERTY	160									3,283										1,427				1,890	891				1,239			1,354		CN-3D
RW-1	413 BOUNDARY ROAD	465	1,811	1,884	1,872	1,915	1,895	1,902	1,900	1,826	2,061								1,626						1,506			1,366		1,370			1,399		RW-1
RW-2	185 MUD LAKE ROAD	1,100		354	388			362											313						336					311			287		RW-2
RW-3	183 MUD LAKE ROAD	1,100	430	395	331	397	411	437	423		481								366						186					358			323		RW-3
RW-4	711 BRUHAM AVENUE	2,200				3.0	2.0	4.0	2.0	3.0	2.0								4.0						3.8					3.0			4.2		RW-4
RW-5	171 SAWMILL ROAD	2,300				13		18			15								14						14					18			17		RW-5
RW-6	40987 HWY 41	1,400									77								67						69					70			82		RW-6
RW-7	40925 HWY 41	1,600		123															90						67					38			25		RW-7
RW-8	204 BOUNDARY ROAD	700																		260					254					294			236		RW-8
RW-9	206 BOUNDARY ROAD	650																			455				268					269			583	442	RW-9
RW-10	208 BOUNDARY ROAD	625																			7.0				3.9					2.0			4.3		RW-10
B-1	SUPERIOR PROPANE OFFICE	160																		1,264					979			1,289	1,515	1,022	1,126	848	865	1,075	1,006	B-1
B-2	SUPERIOR PROPANE TRUCK WASH	250																		2,145					1,849					2,222			3,087	4,073	B-2
B-3	INTERNATIONAL LUMBER OFFICE	385																			15				6.0					6.0			4.4		B-3

MONITORING RESULTS
ALL WELLS

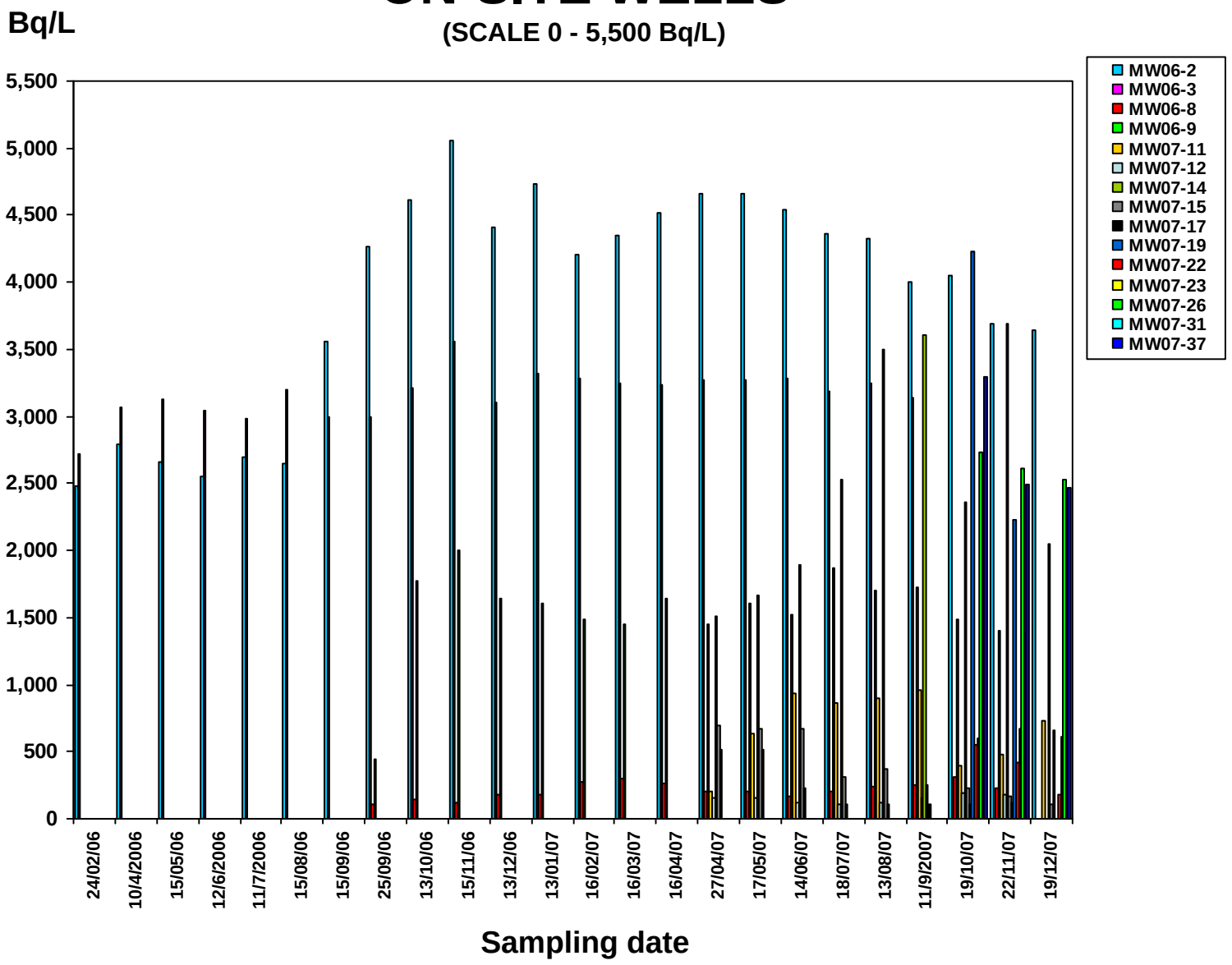
(SCALE 0 – 160,000 Bq/L)



MONITORING RESULTS
ALL ON-SITE WELLS



MONITORING RESULTS
ON-SITE WELLS



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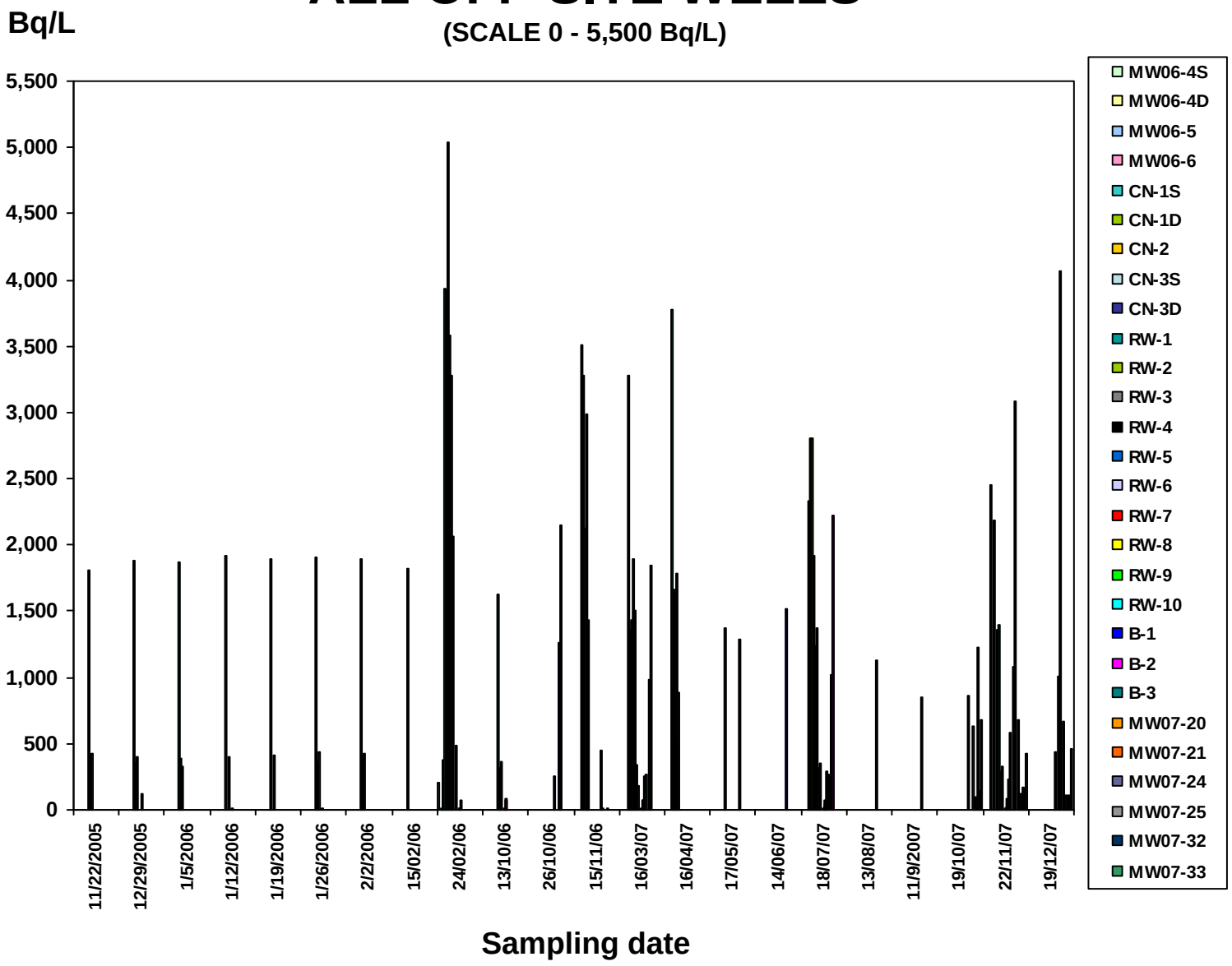
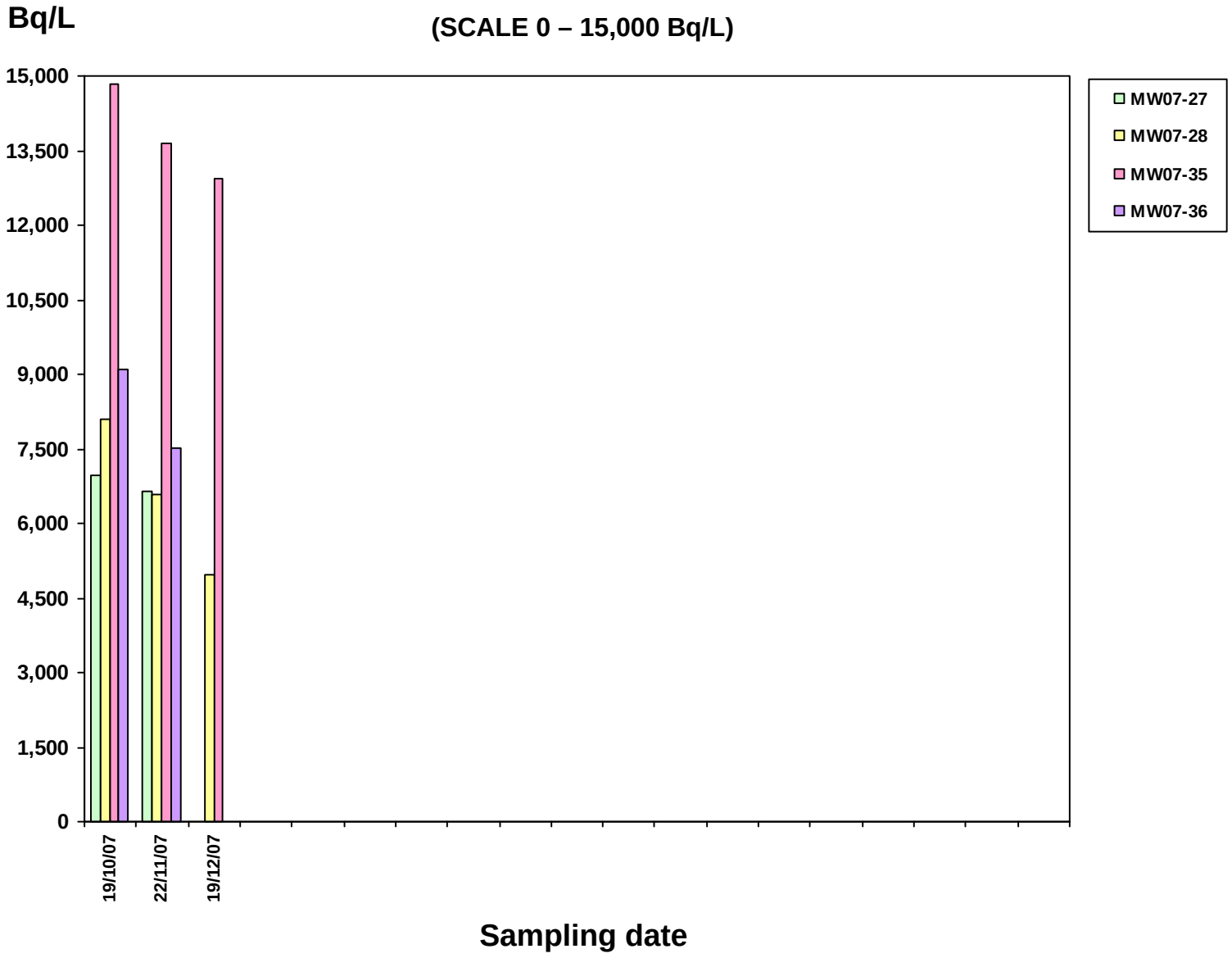
ALL OFF-SITE WELLS

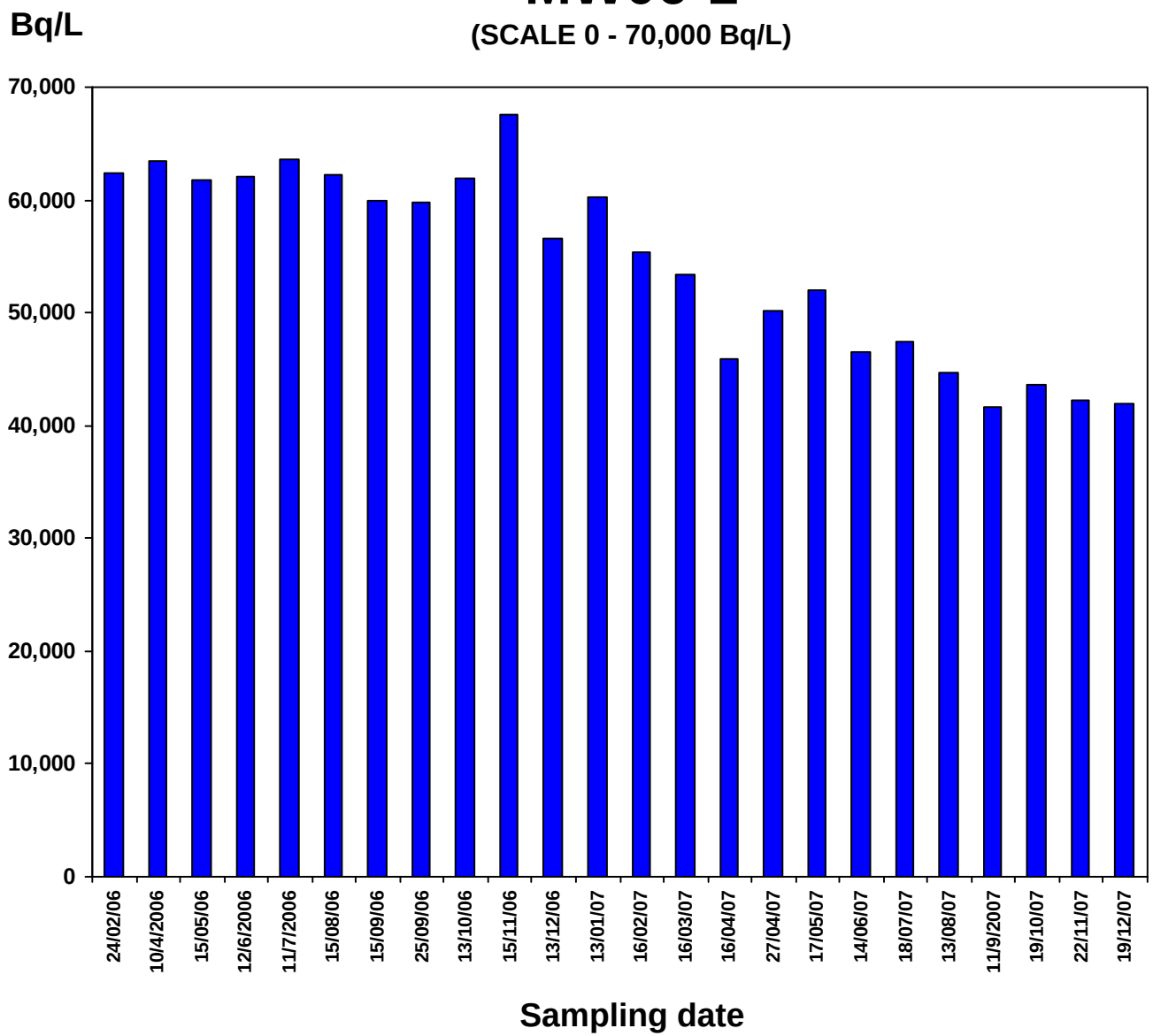


MONITORING RESULTS
ALL OFF-SITE WELLS

(SCALE 0 – 15,000 Bq/L)



MONITORING RESULTS
MW06-1



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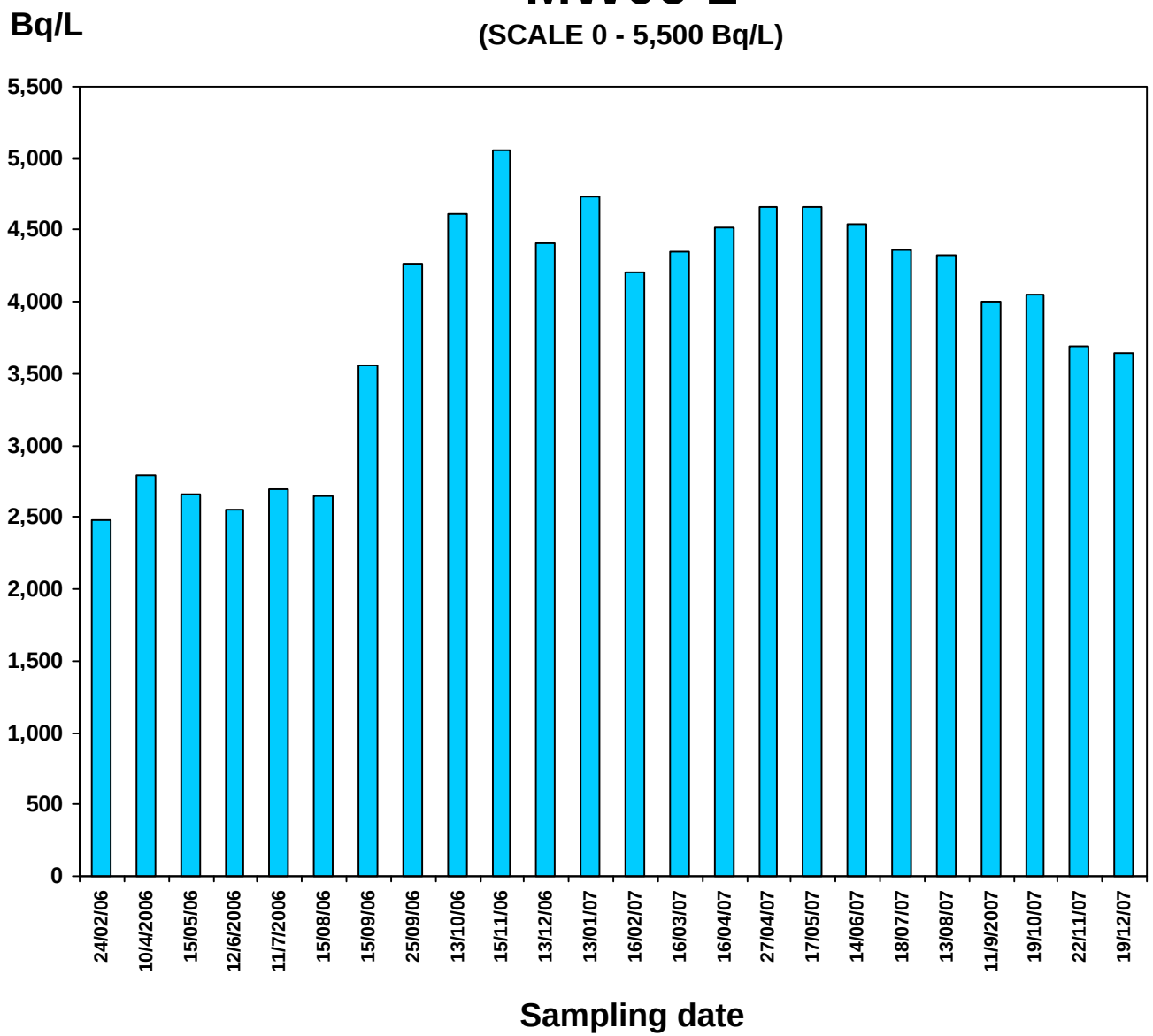
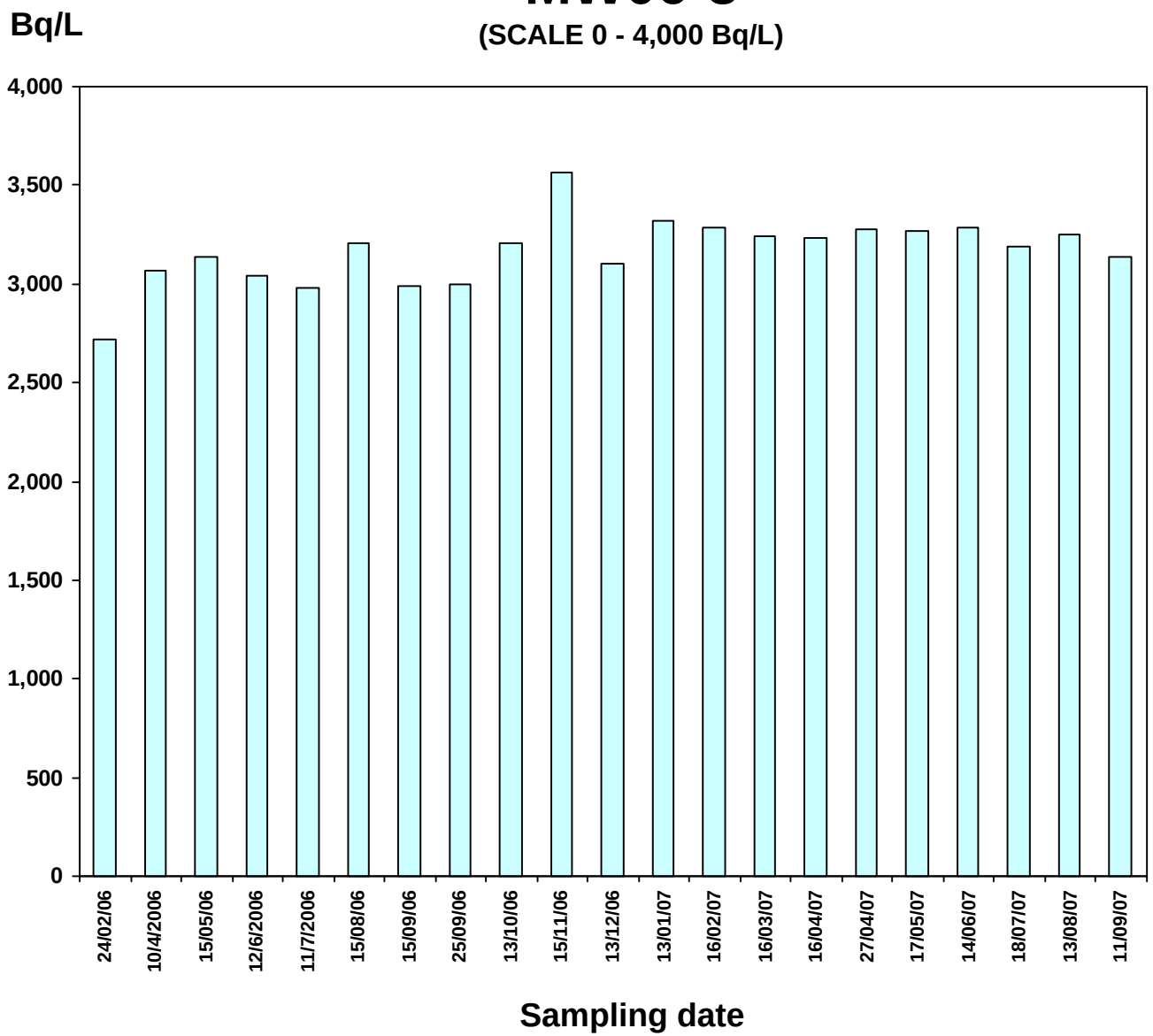
MW06-2



MONITORING RESULTS
MW06-3



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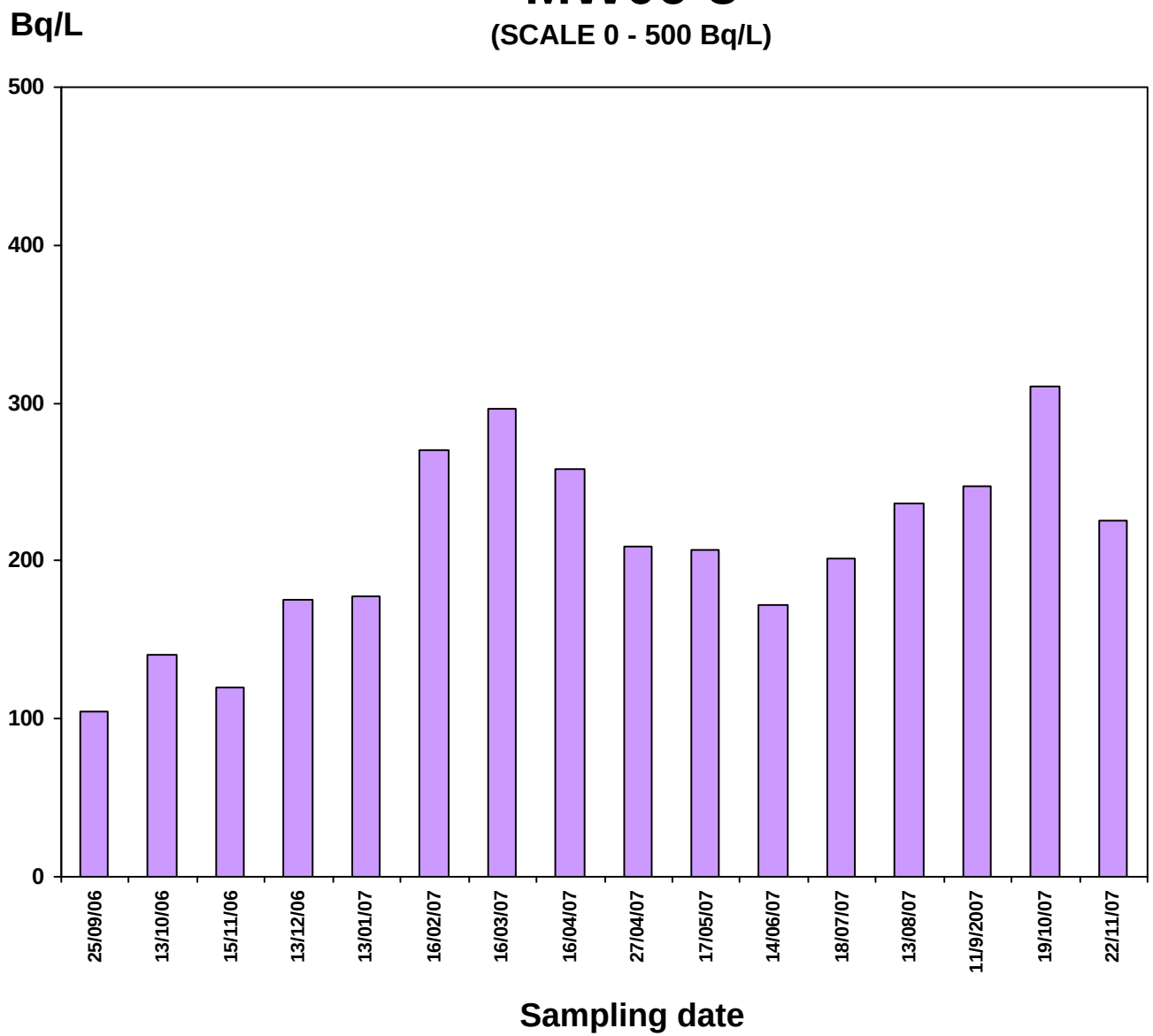
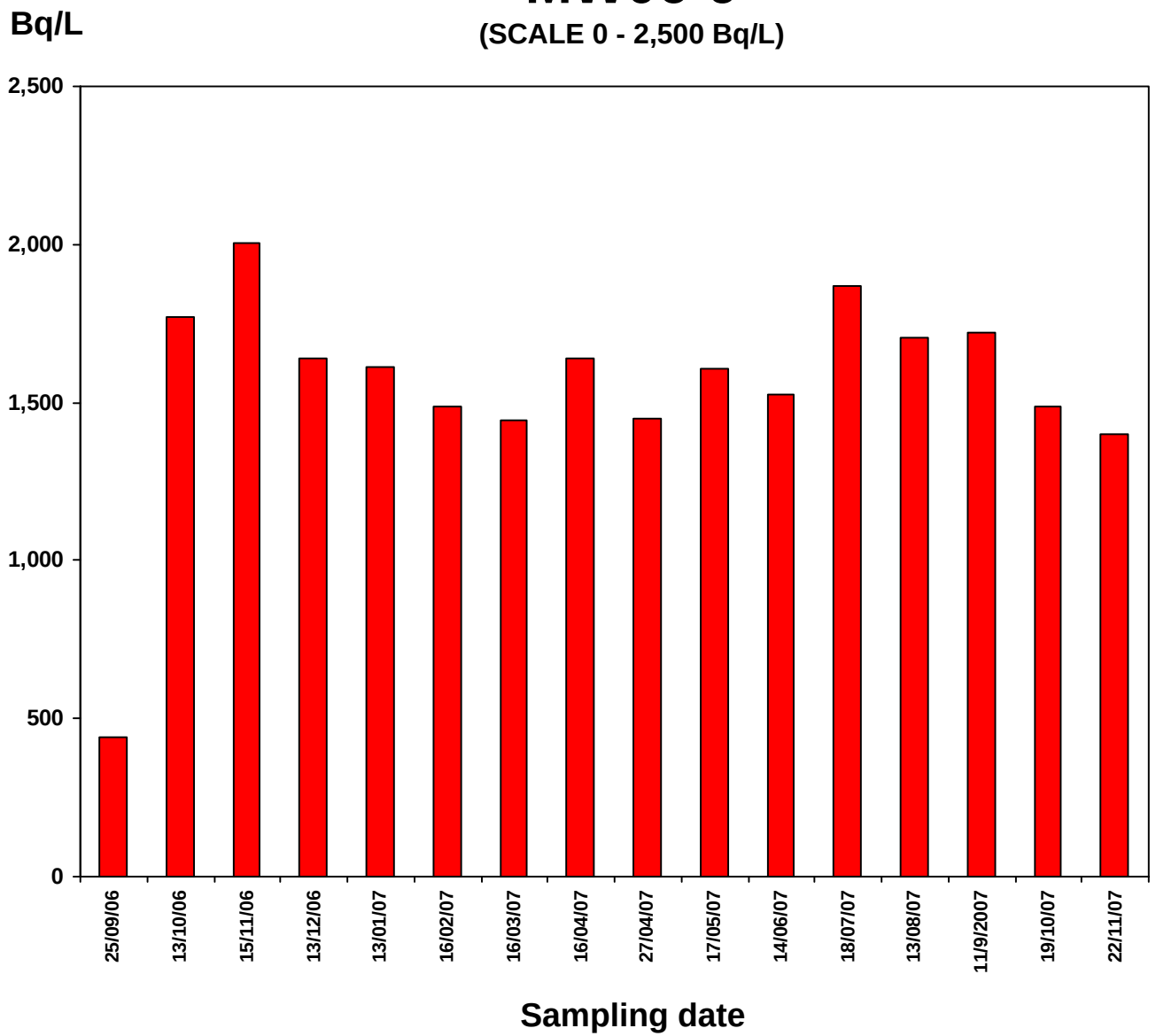
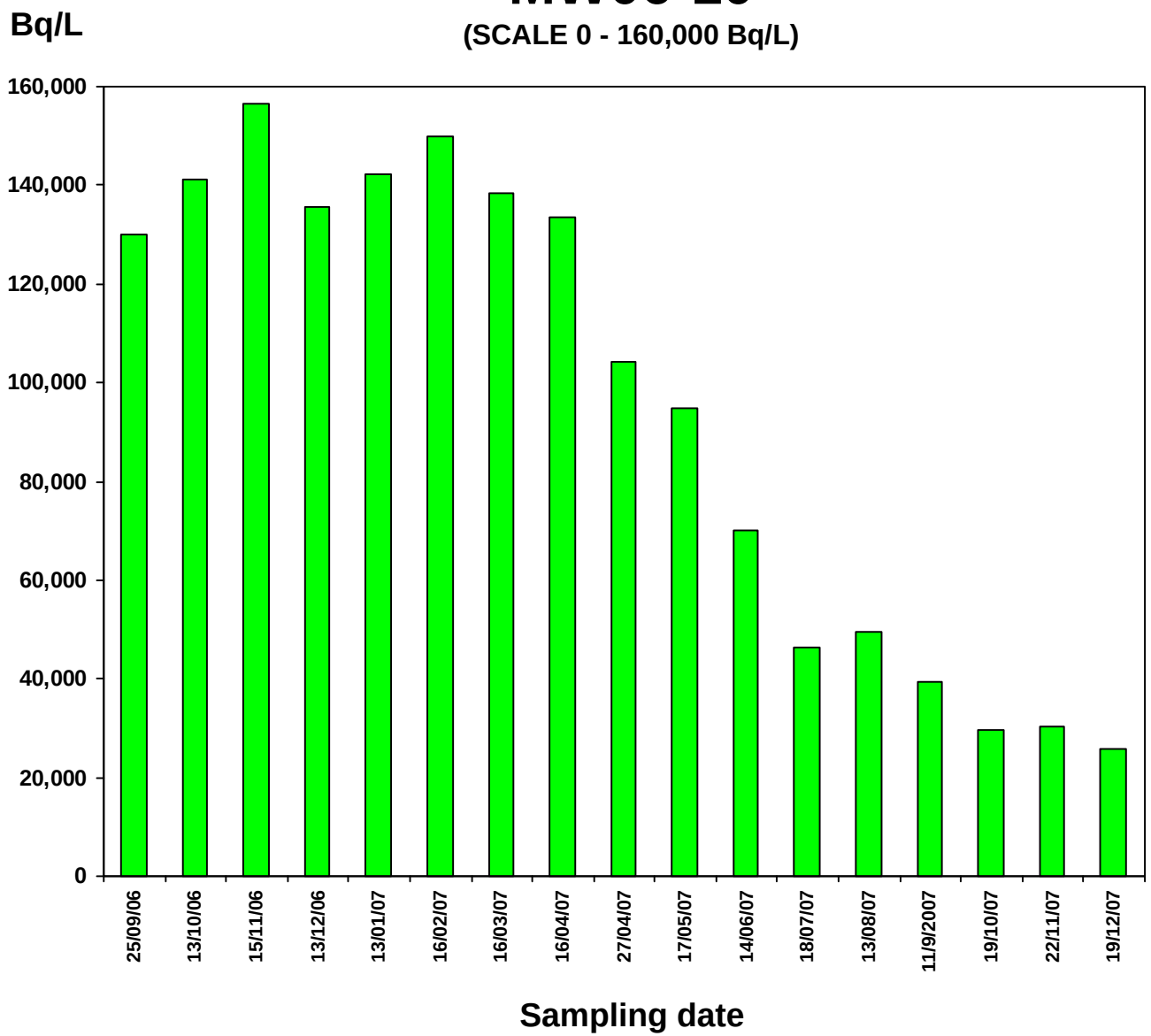


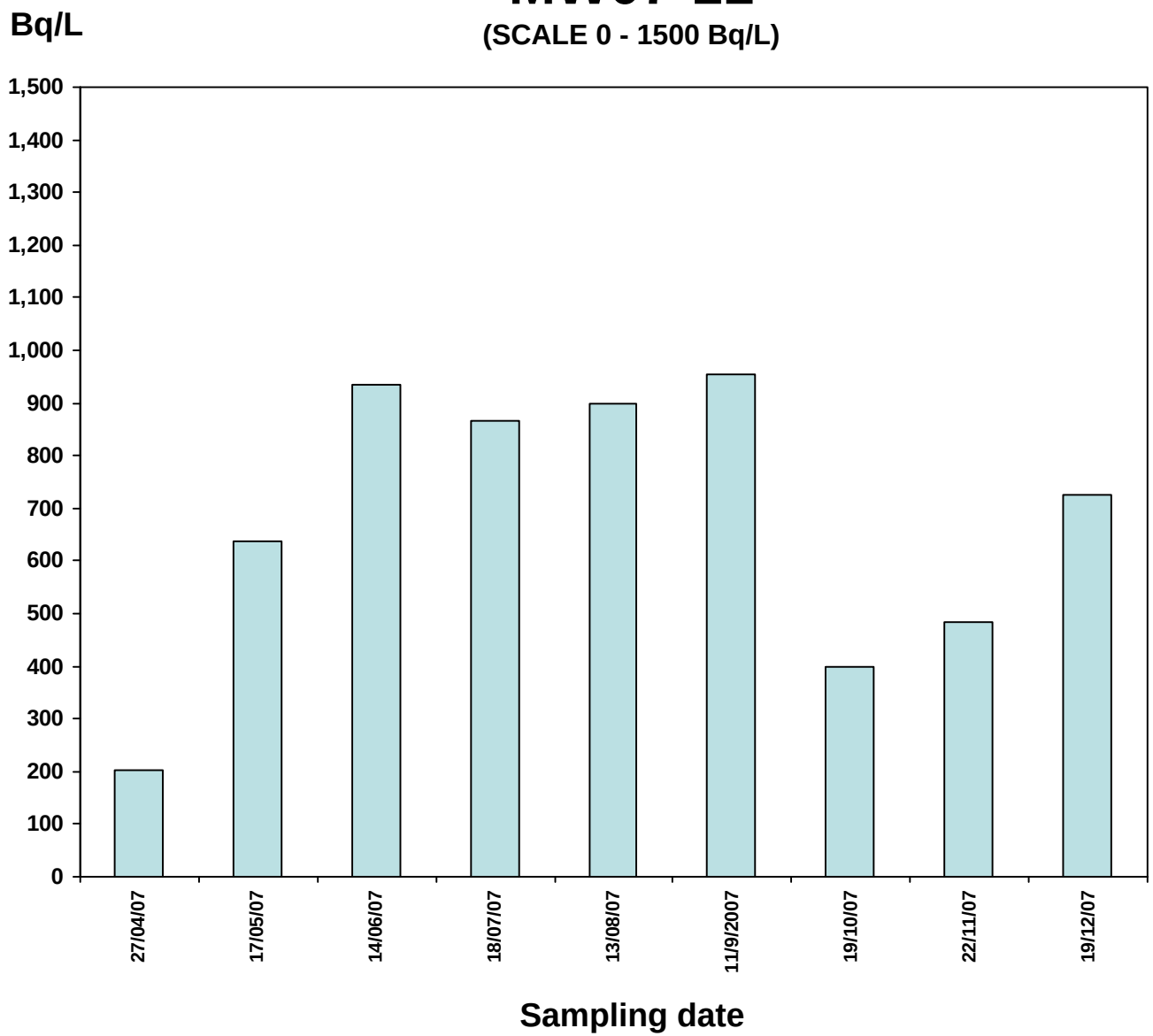
MONITORING RESULTS
MW06-9



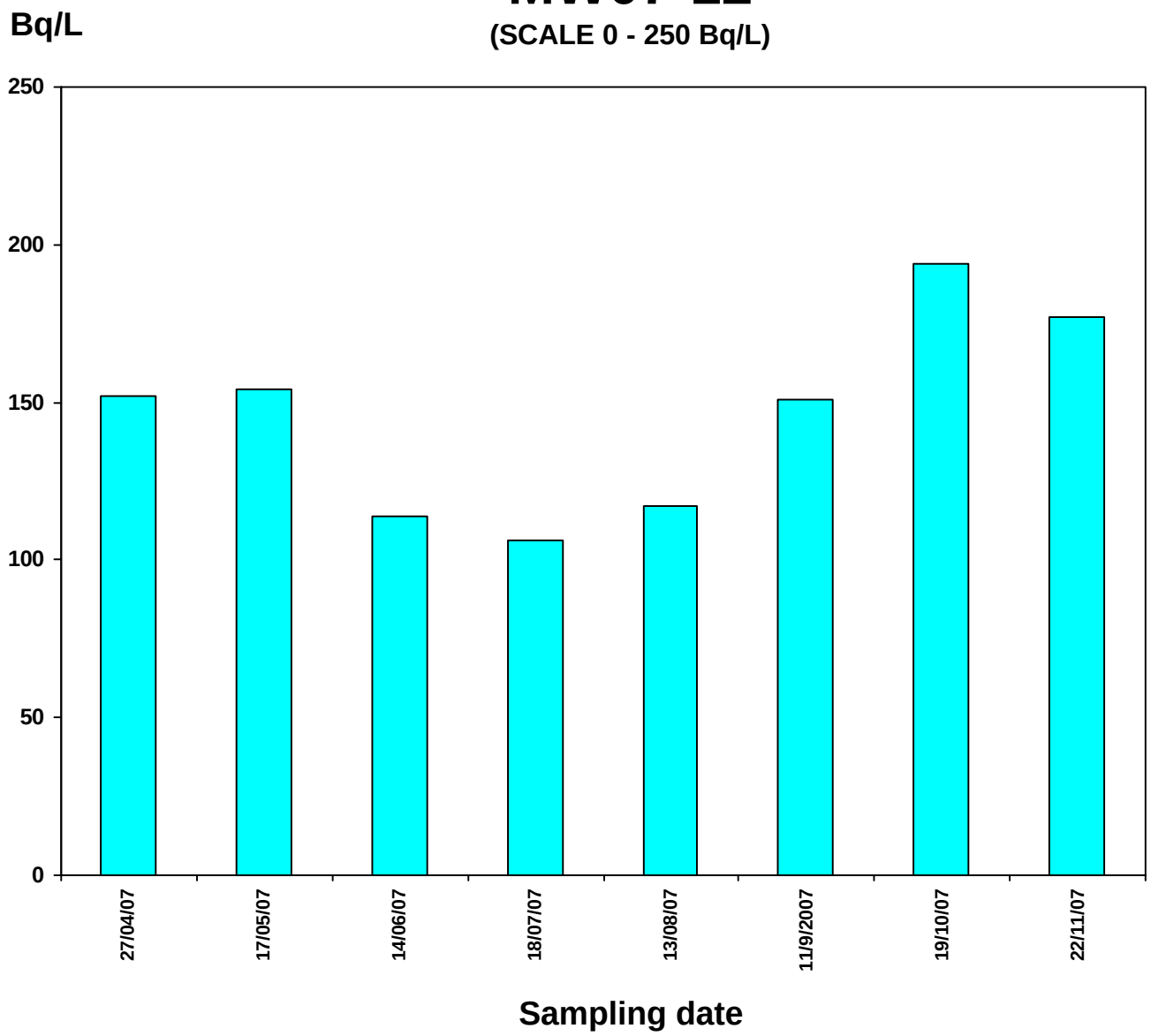
MONITORING RESULTS
MW06-10



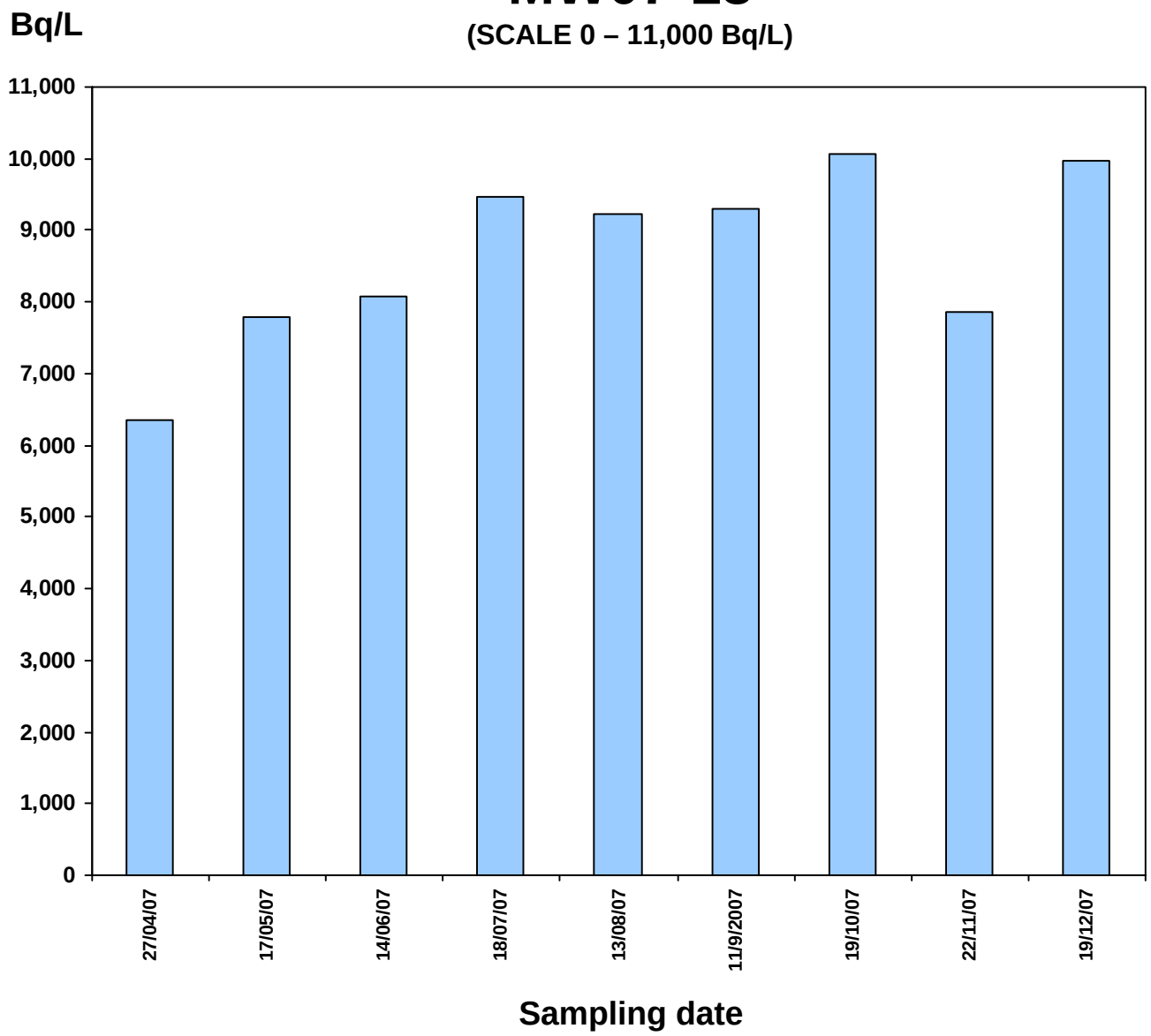
MONITORING RESULTS
MW07-11



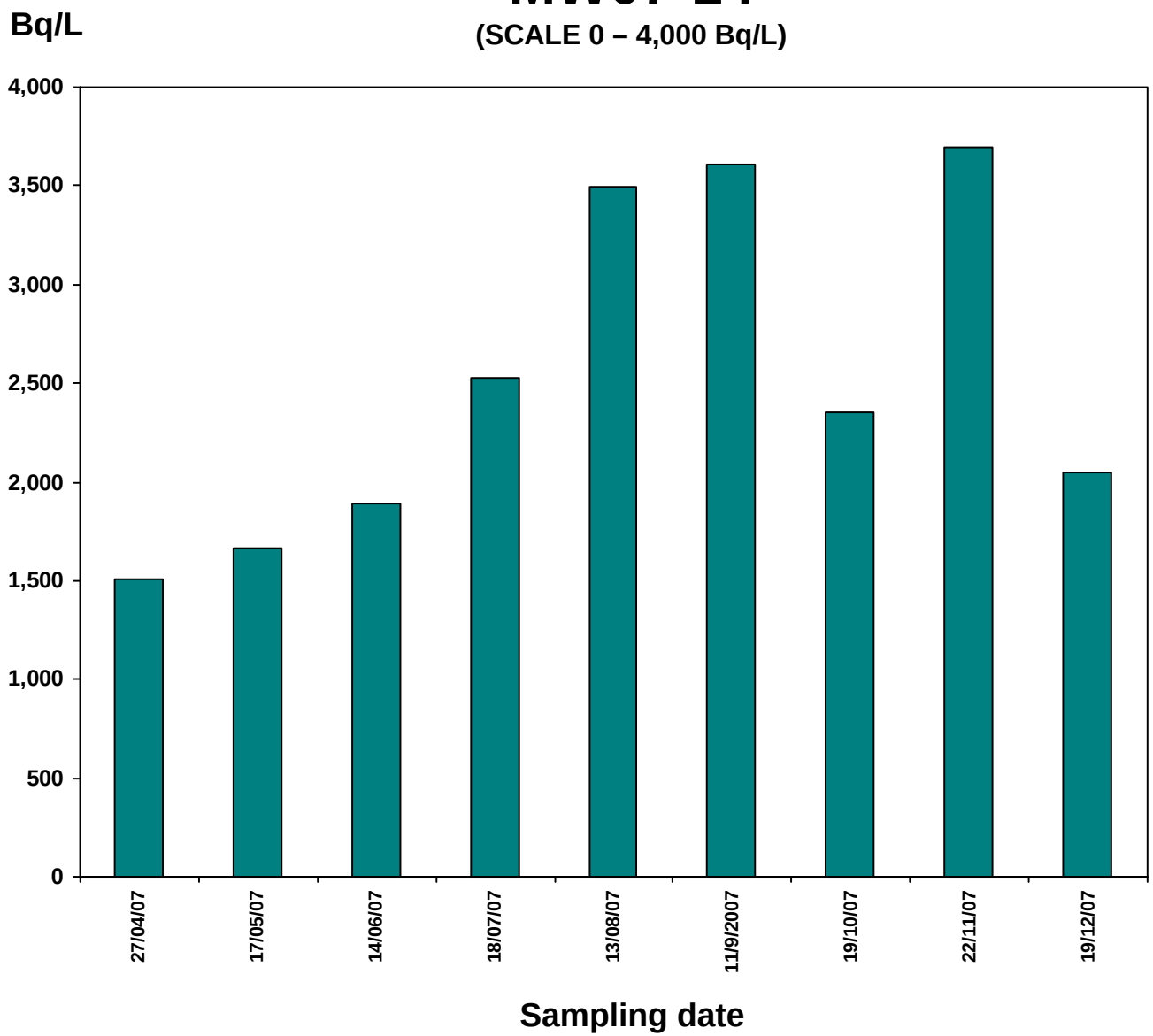
MONITORING RESULTS
MW07-12



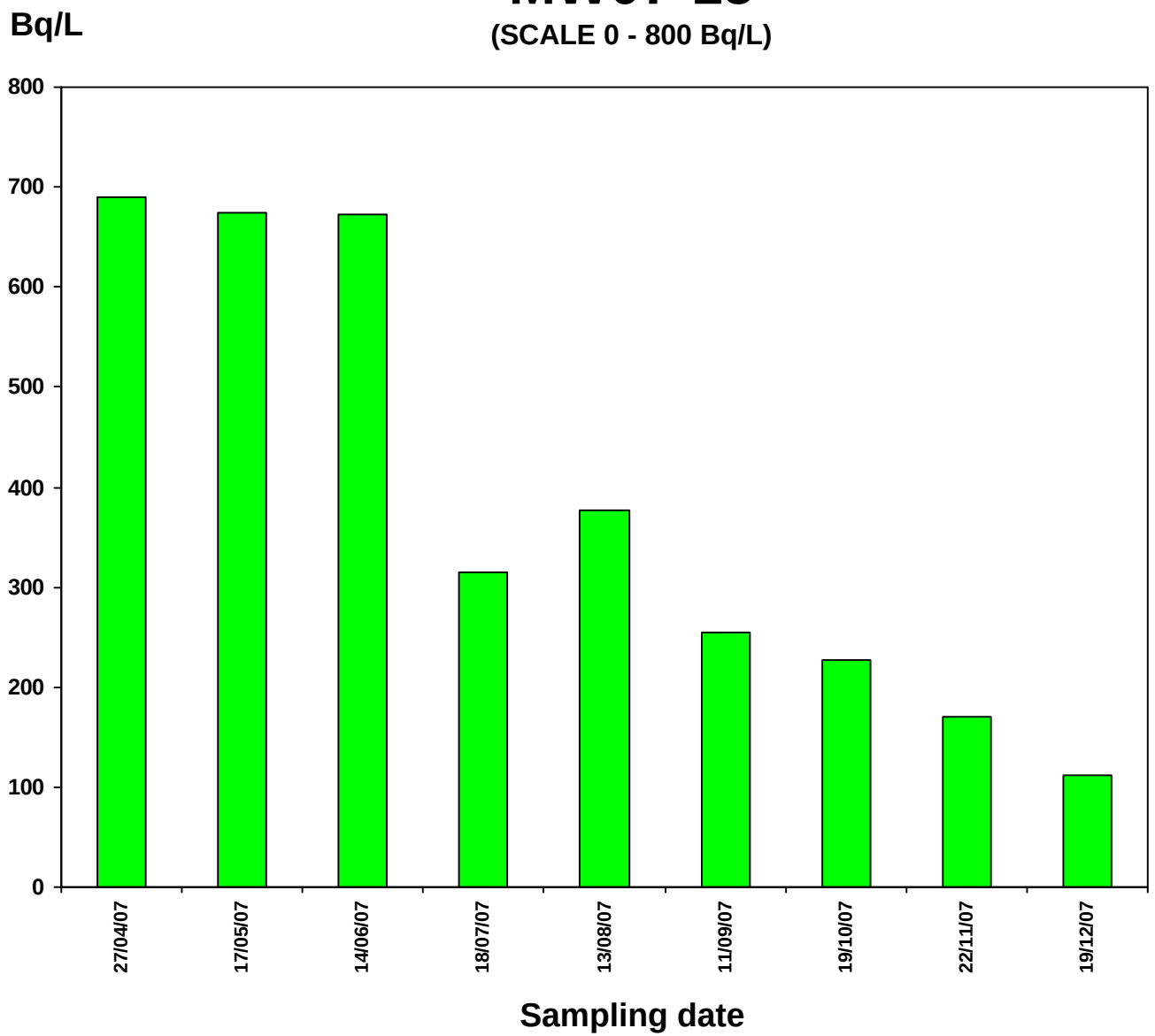
MONITORING RESULTS
MW07-13



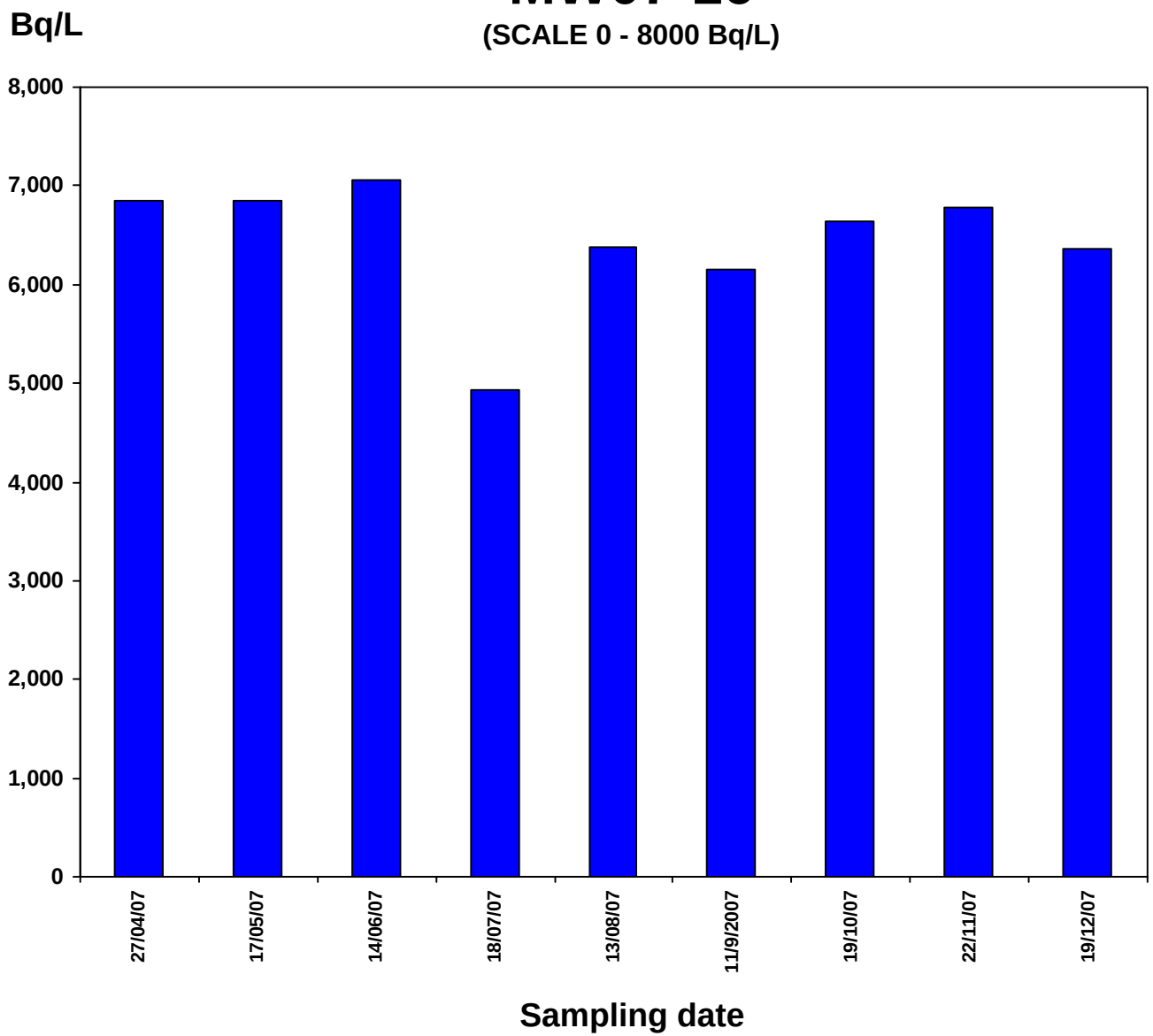
MONITORING RESULTS
MW07-14



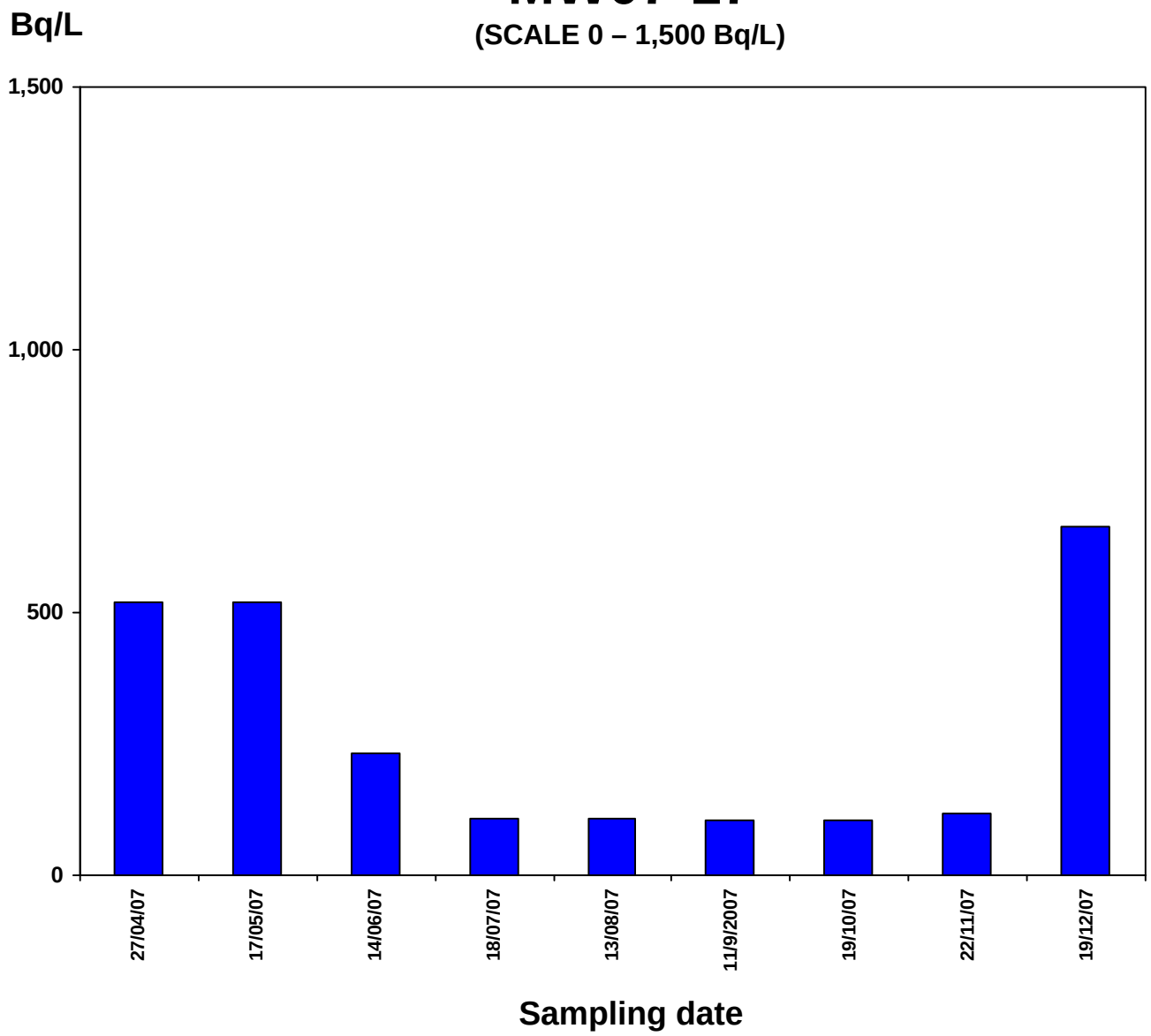
MONITORING RESULTS
MW07-15



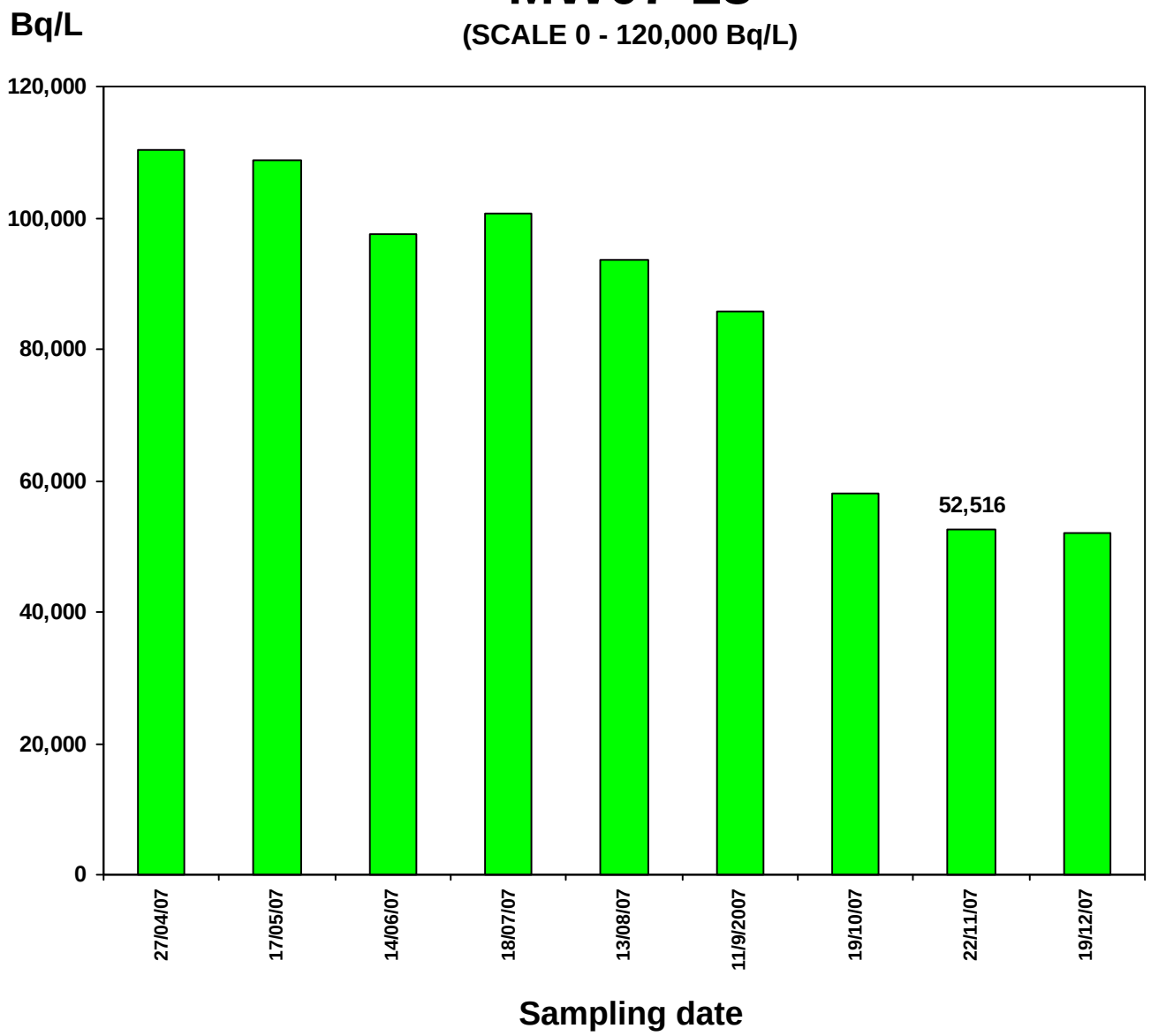
MONITORING RESULTS
MW07-16



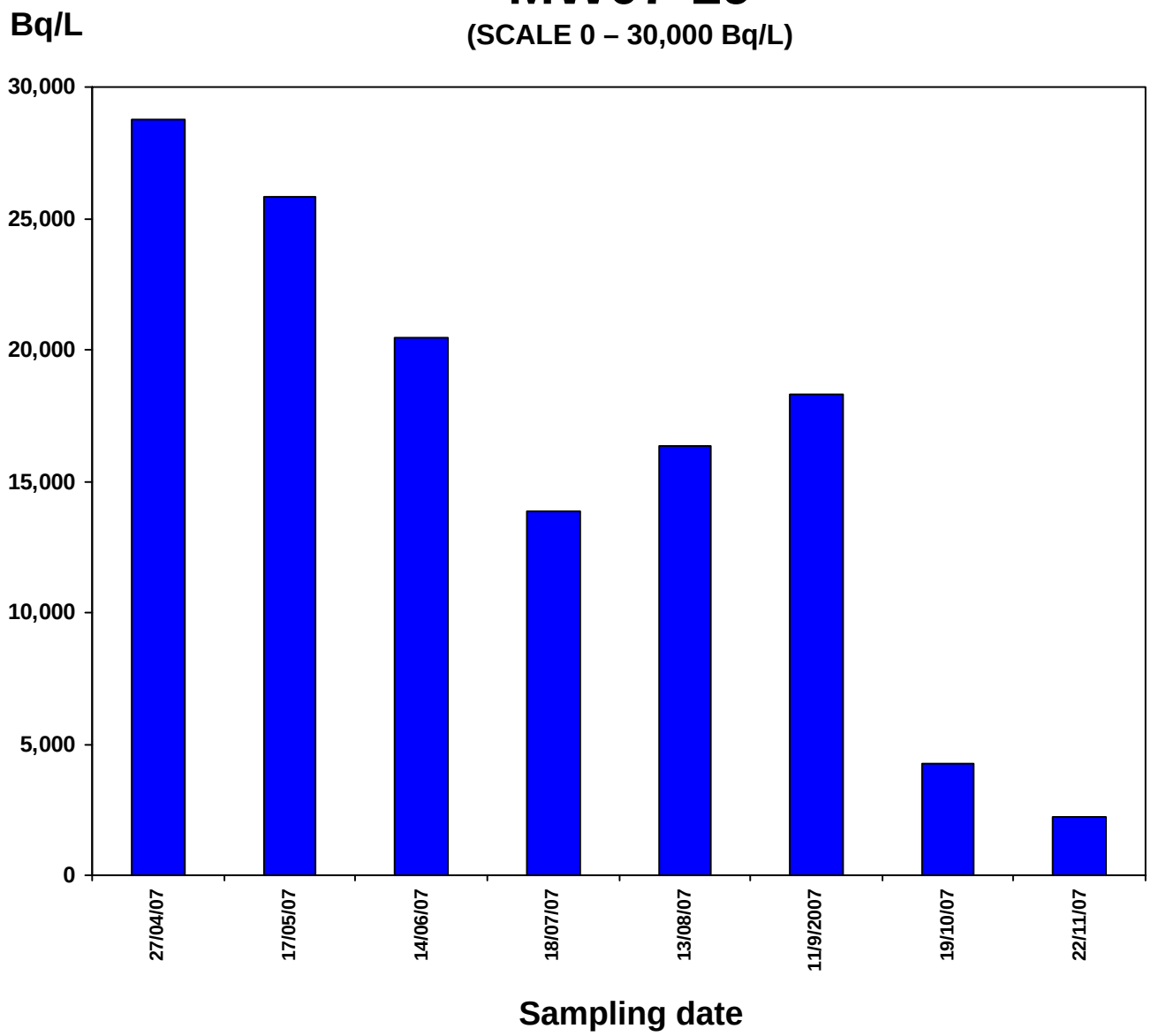
MONITORING RESULTS
MW07-17



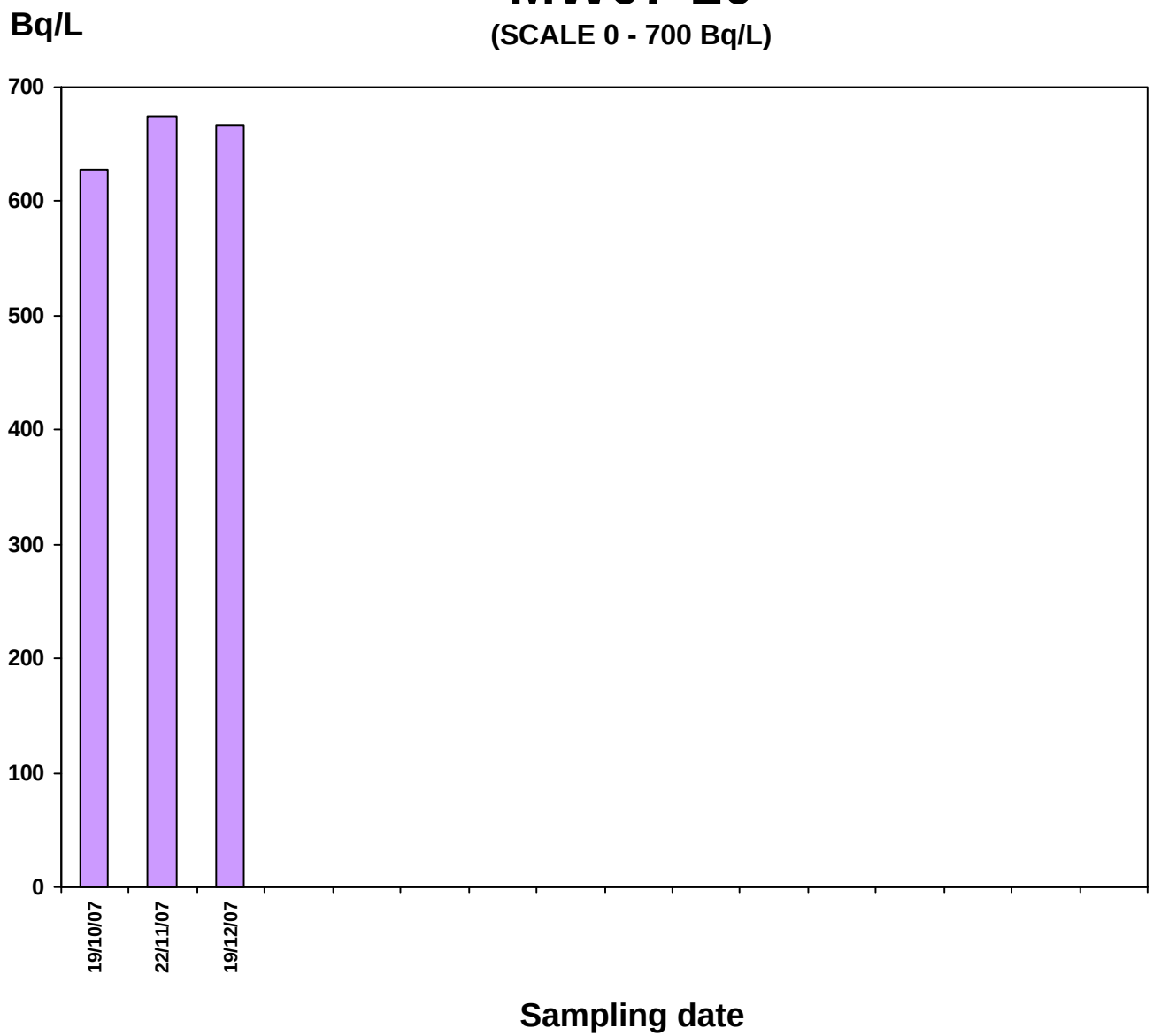
MONITORING RESULTS
MW07-18



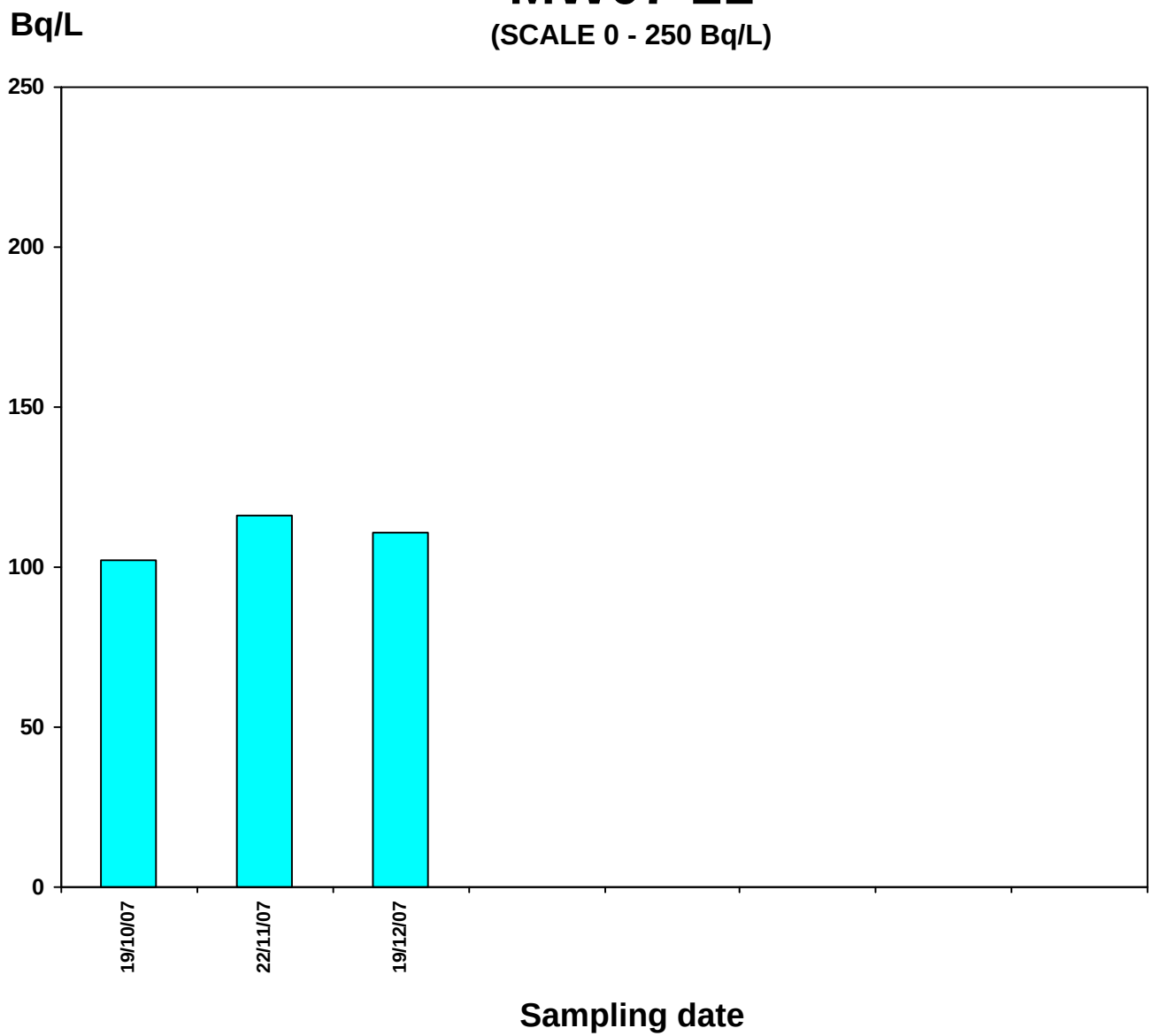
MONITORING RESULTS
MW07-19



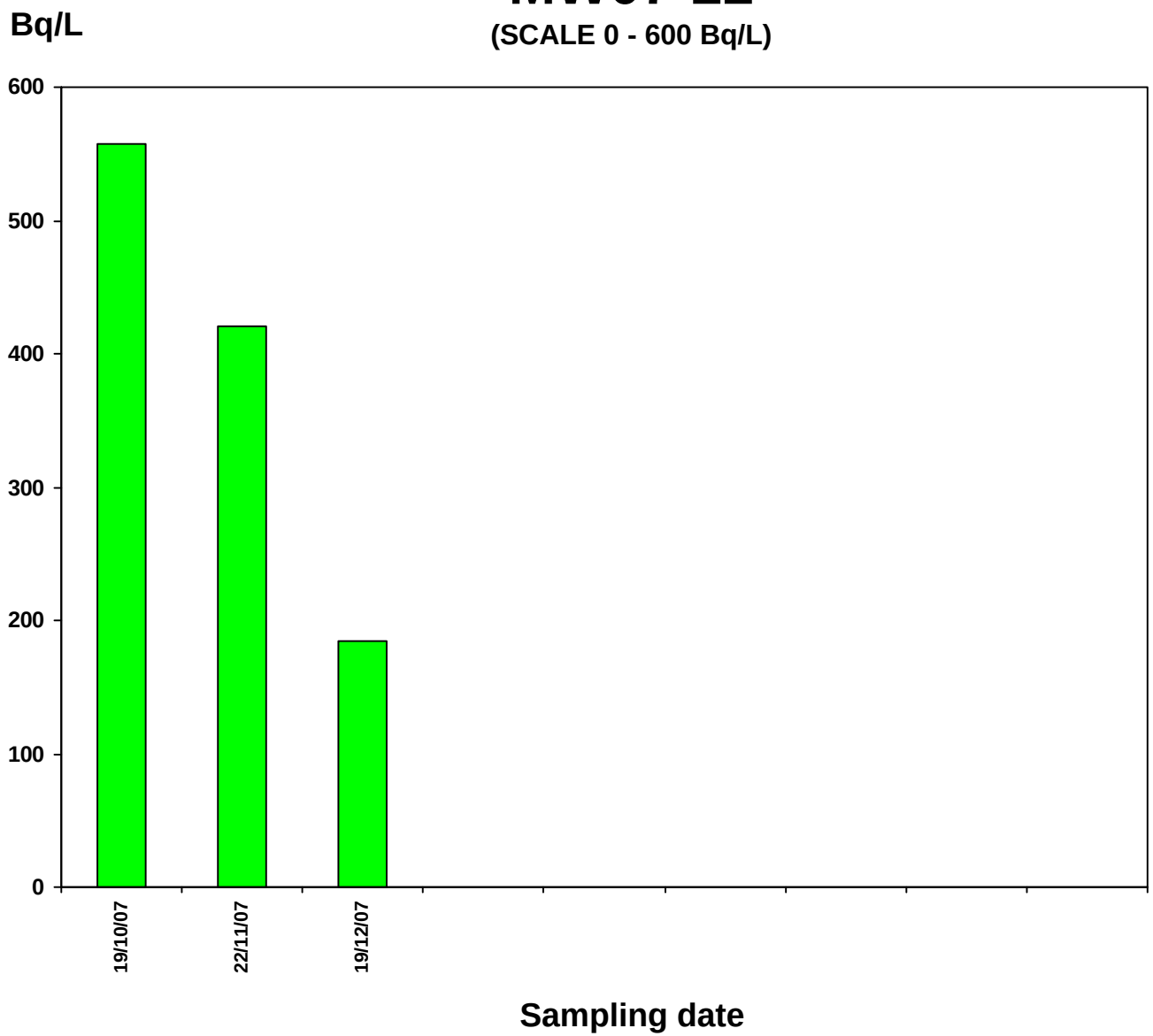
MONITORING RESULTS
MW07-20



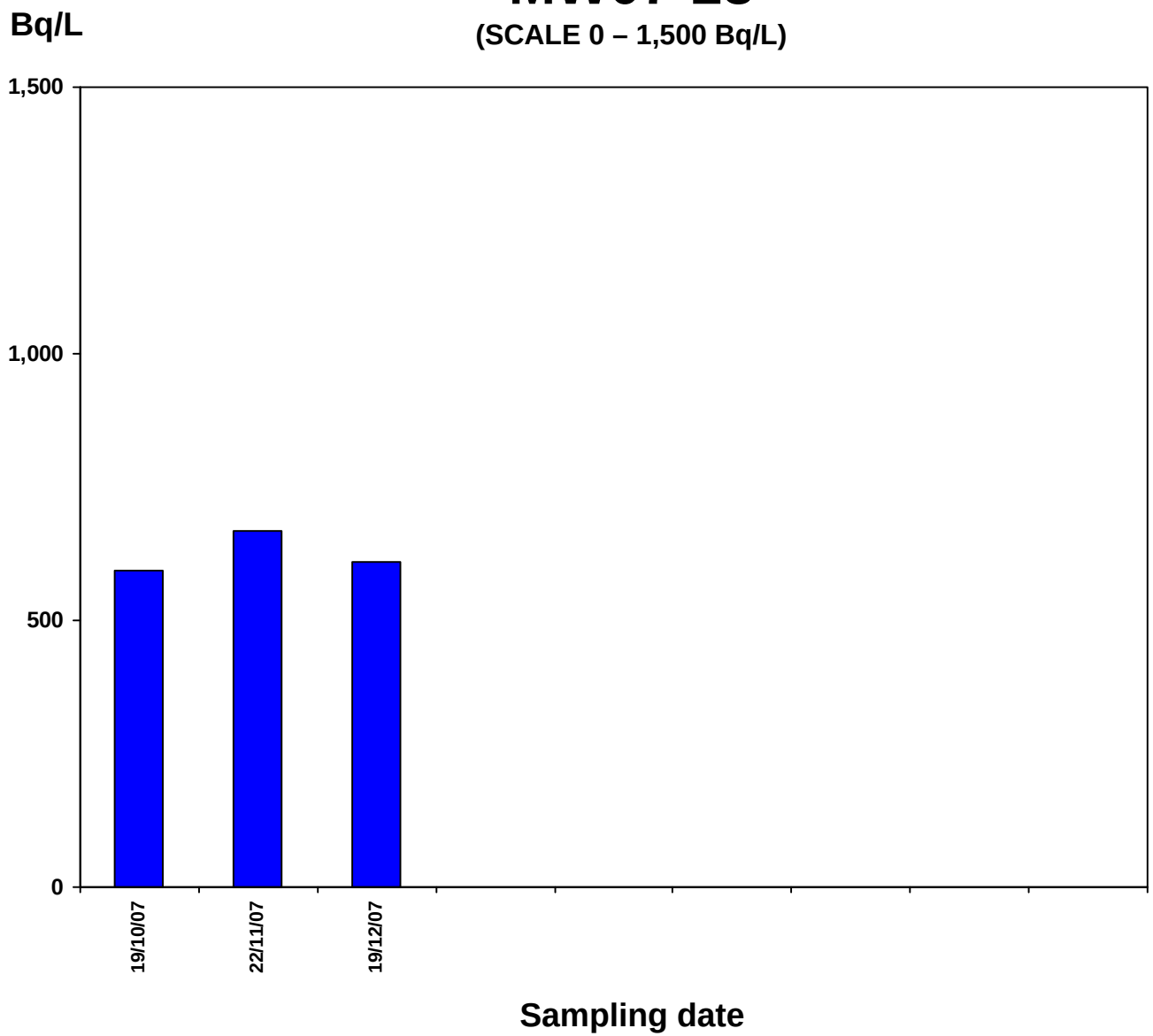
MONITORING RESULTS
MW07-21



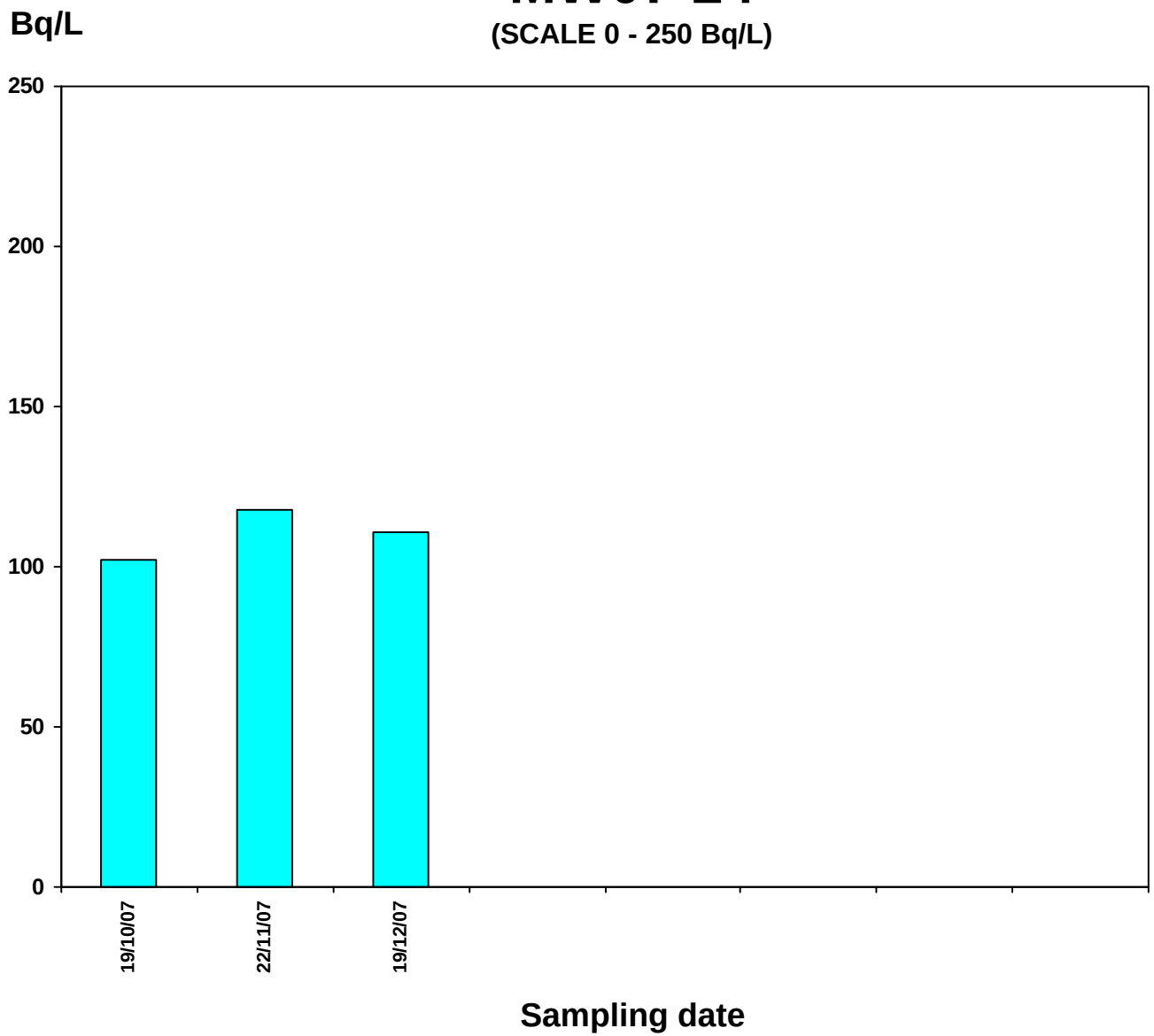
MONITORING RESULTS
MW07-22



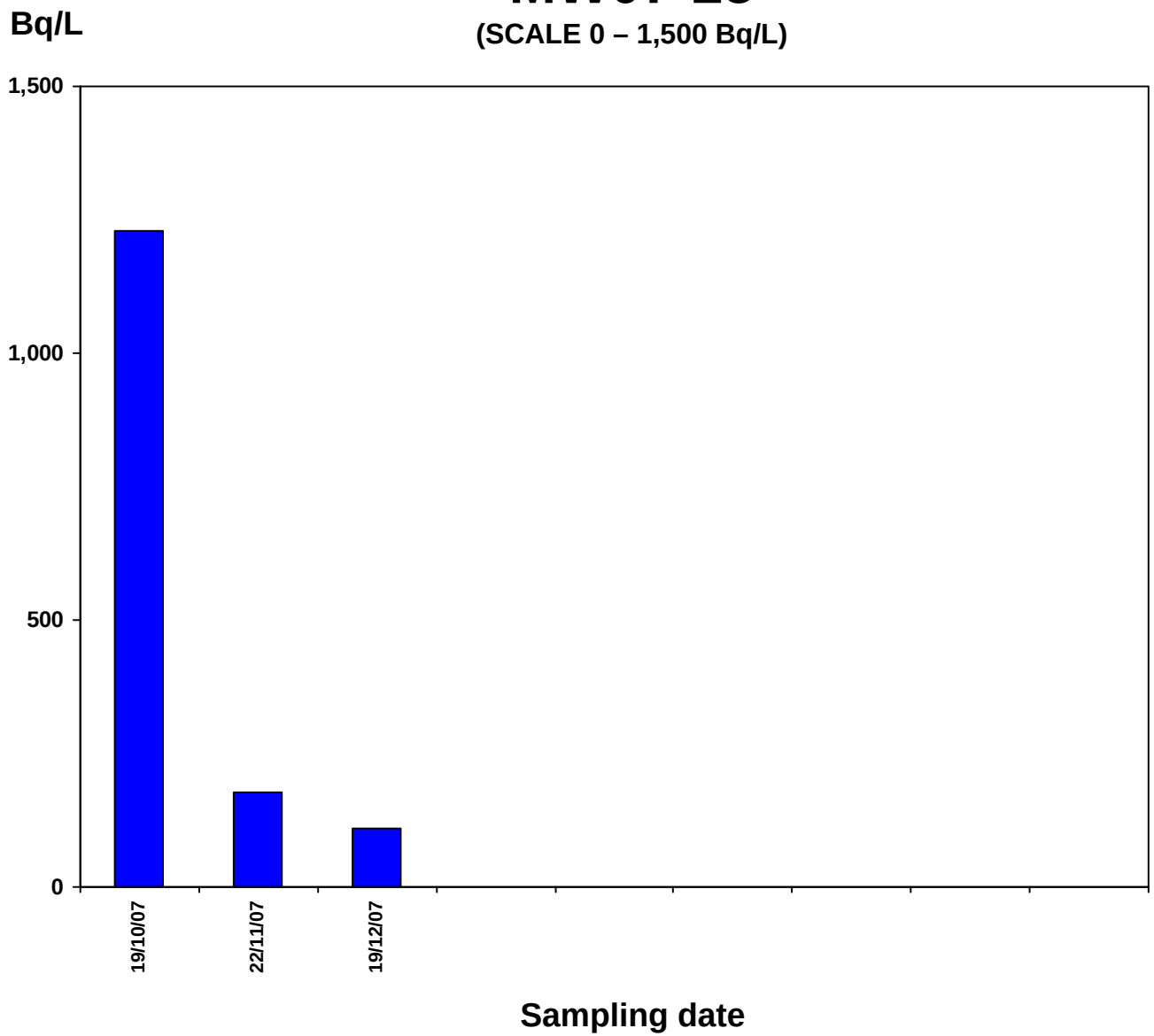
MONITORING RESULTS
MW07-23



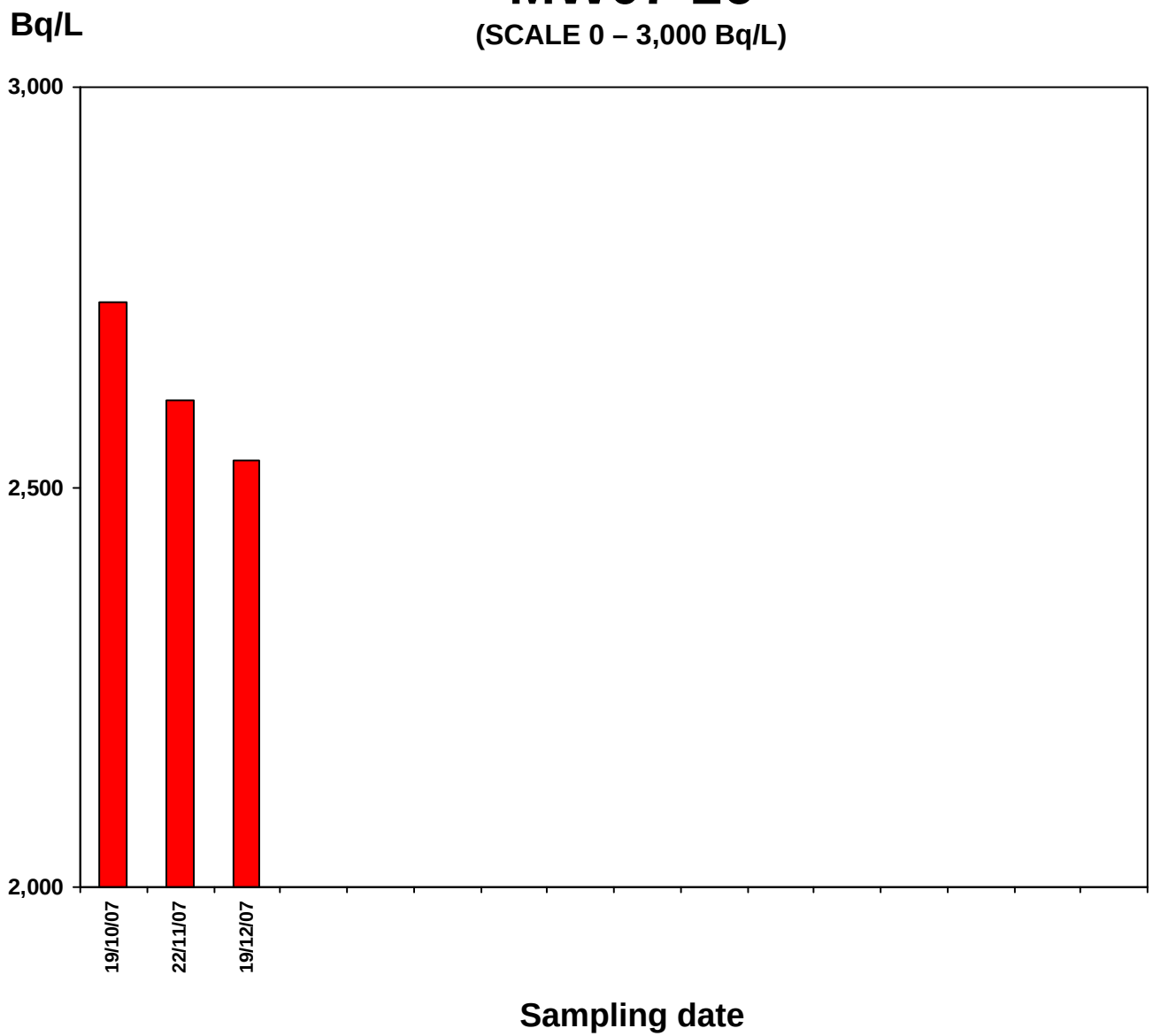
MONITORING RESULTS
MW07-24



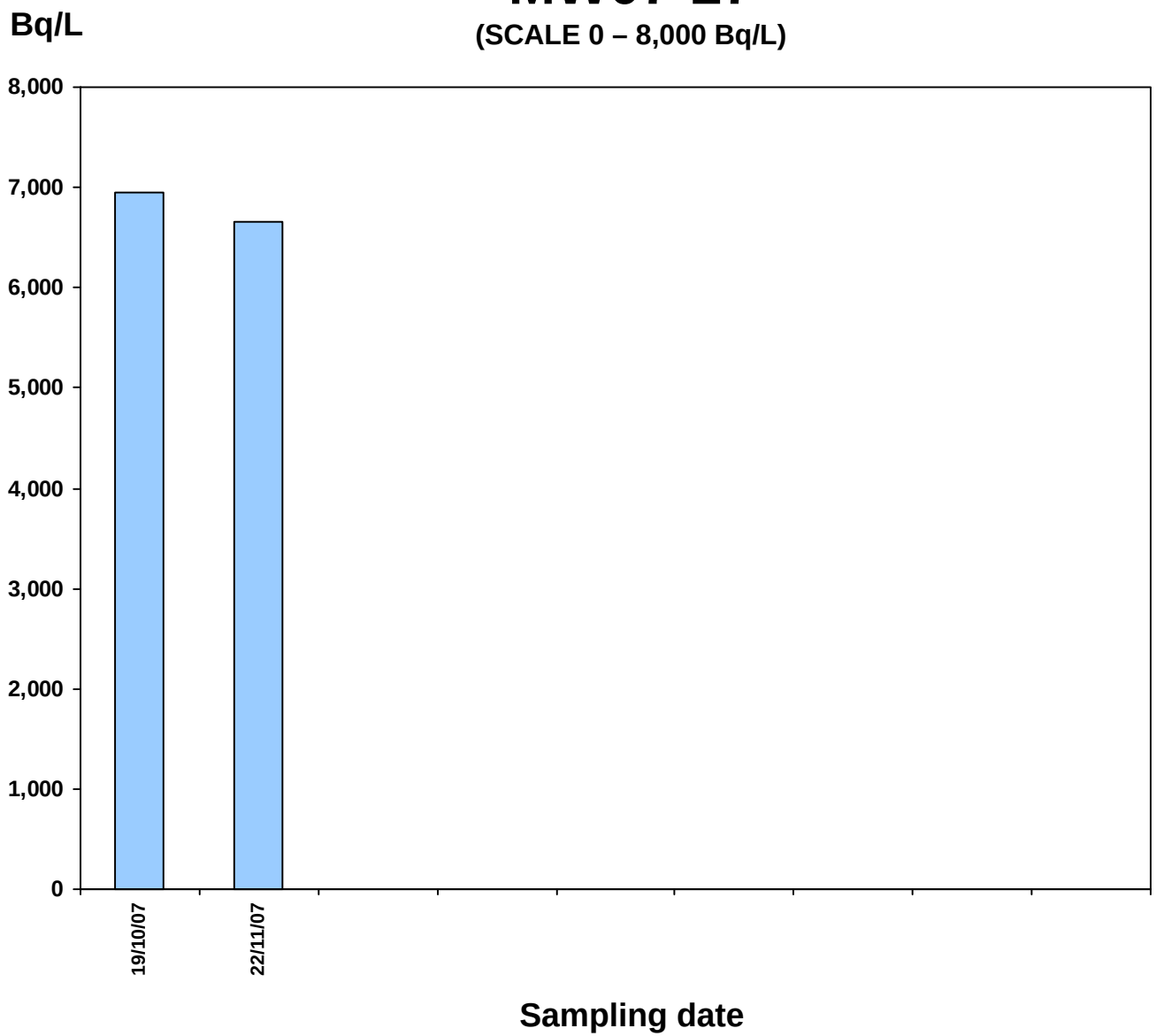
MONITORING RESULTS
MW07-25



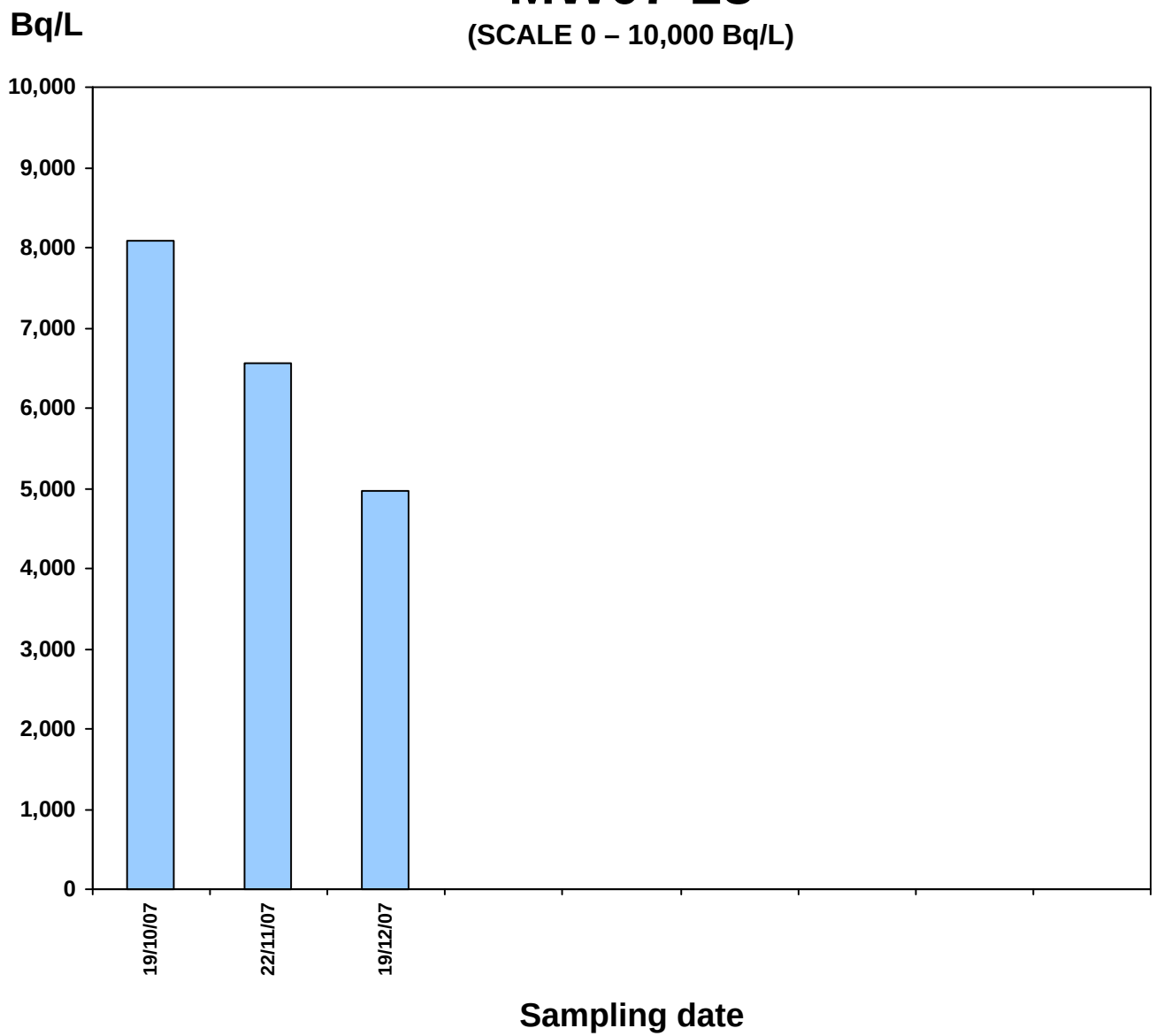
MONITORING RESULTS
MW07-26



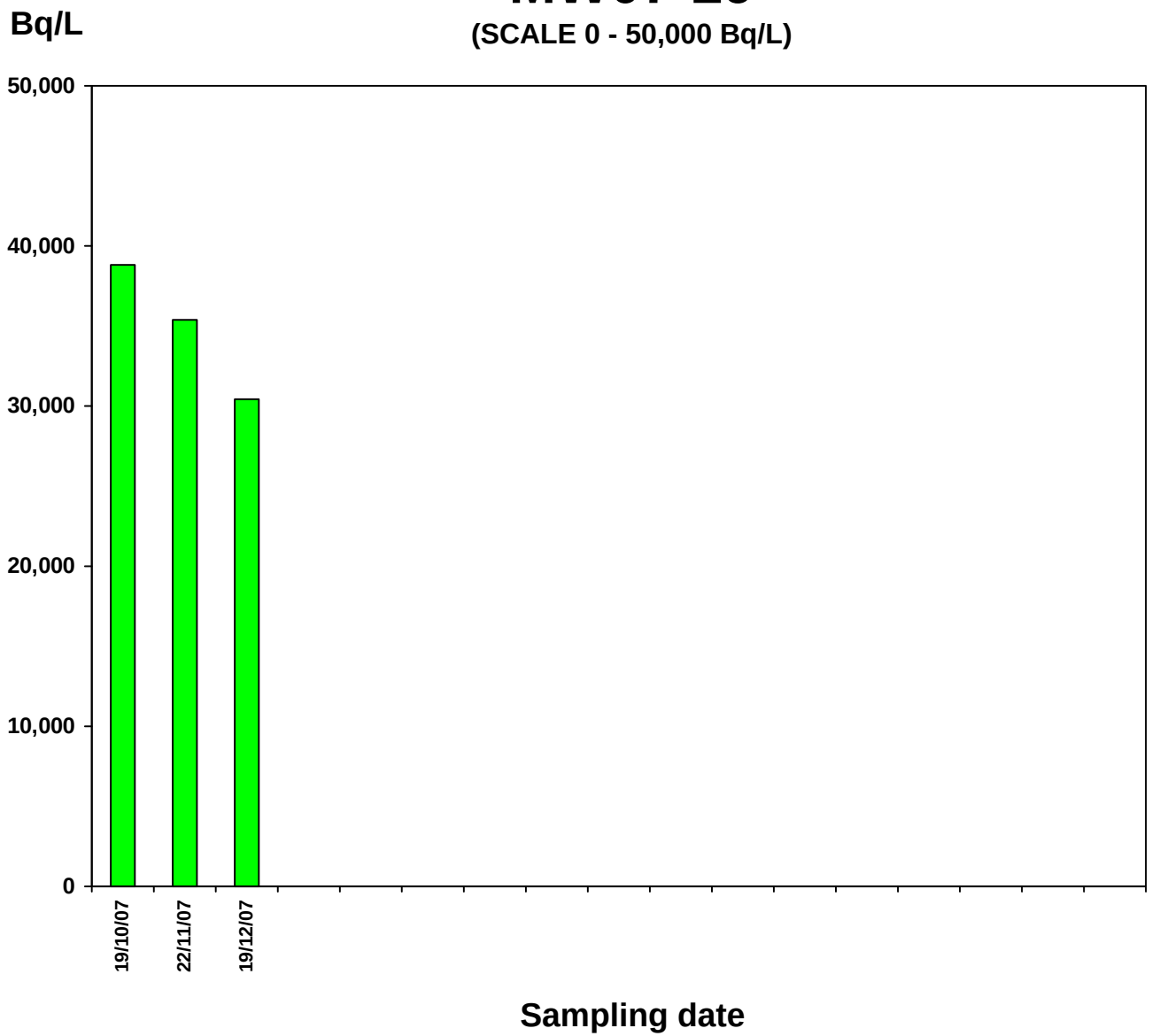
MONITORING RESULTS
MW07-27



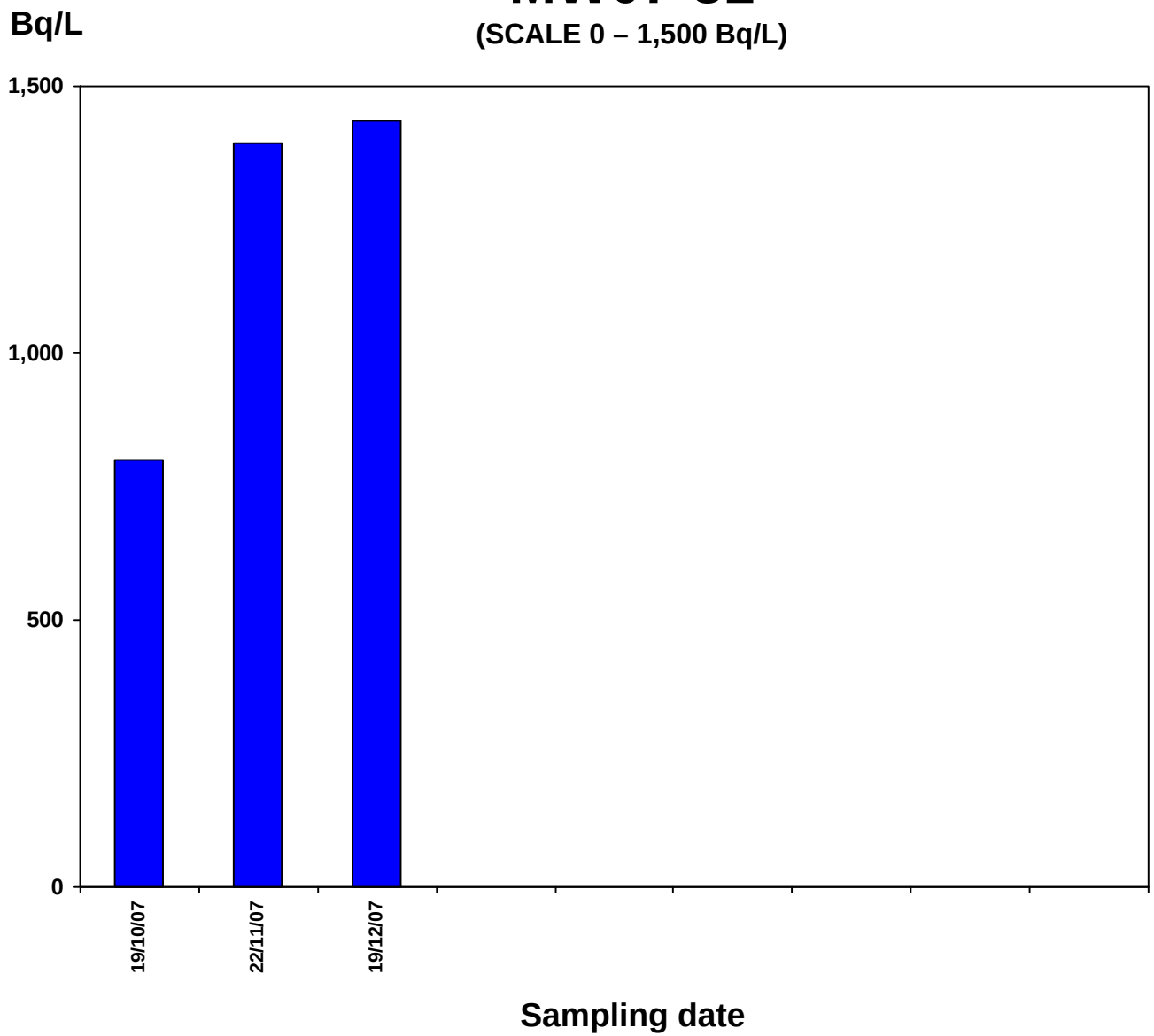
MONITORING RESULTS
MW07-28



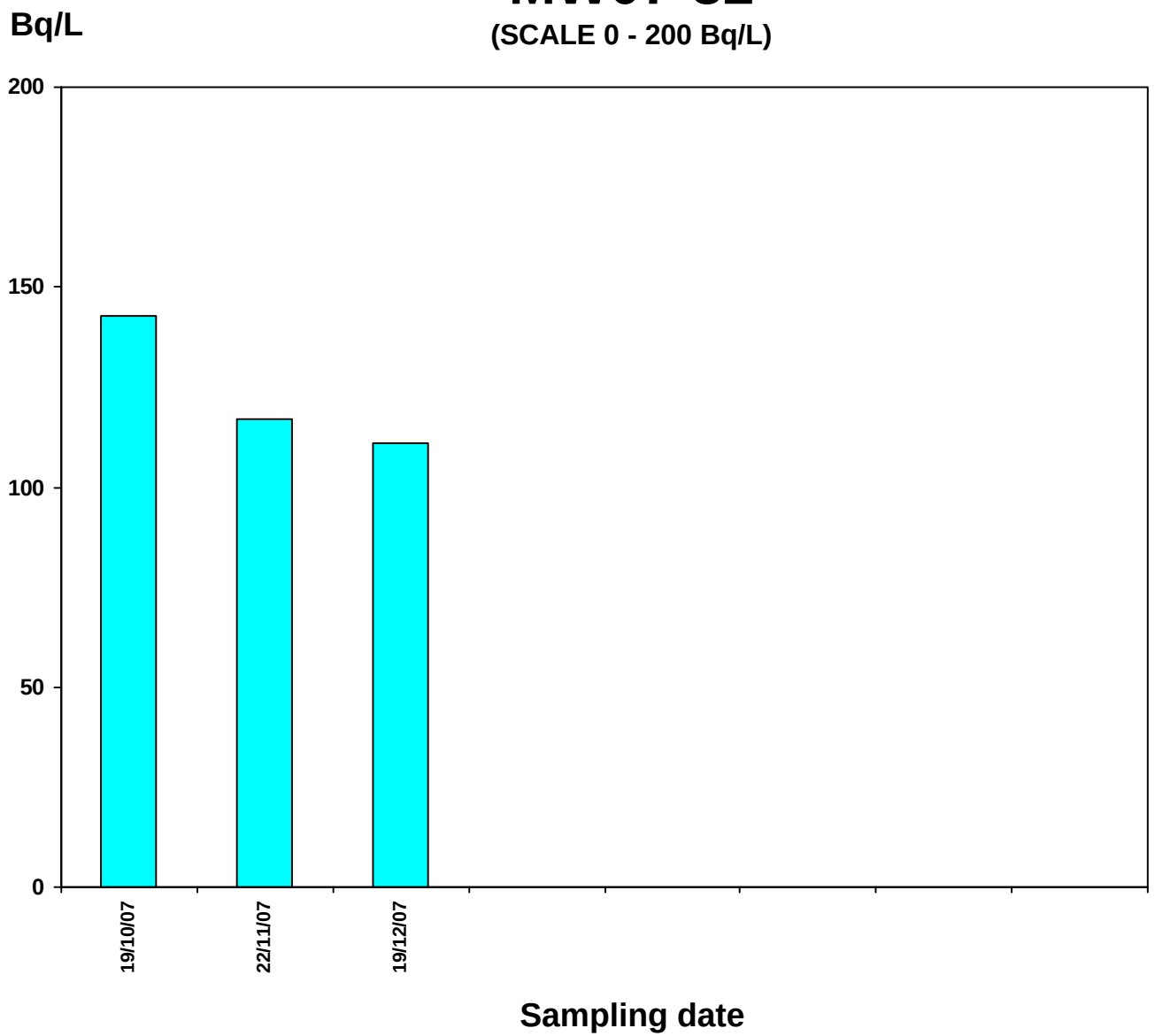
MONITORING RESULTS
MW07-29



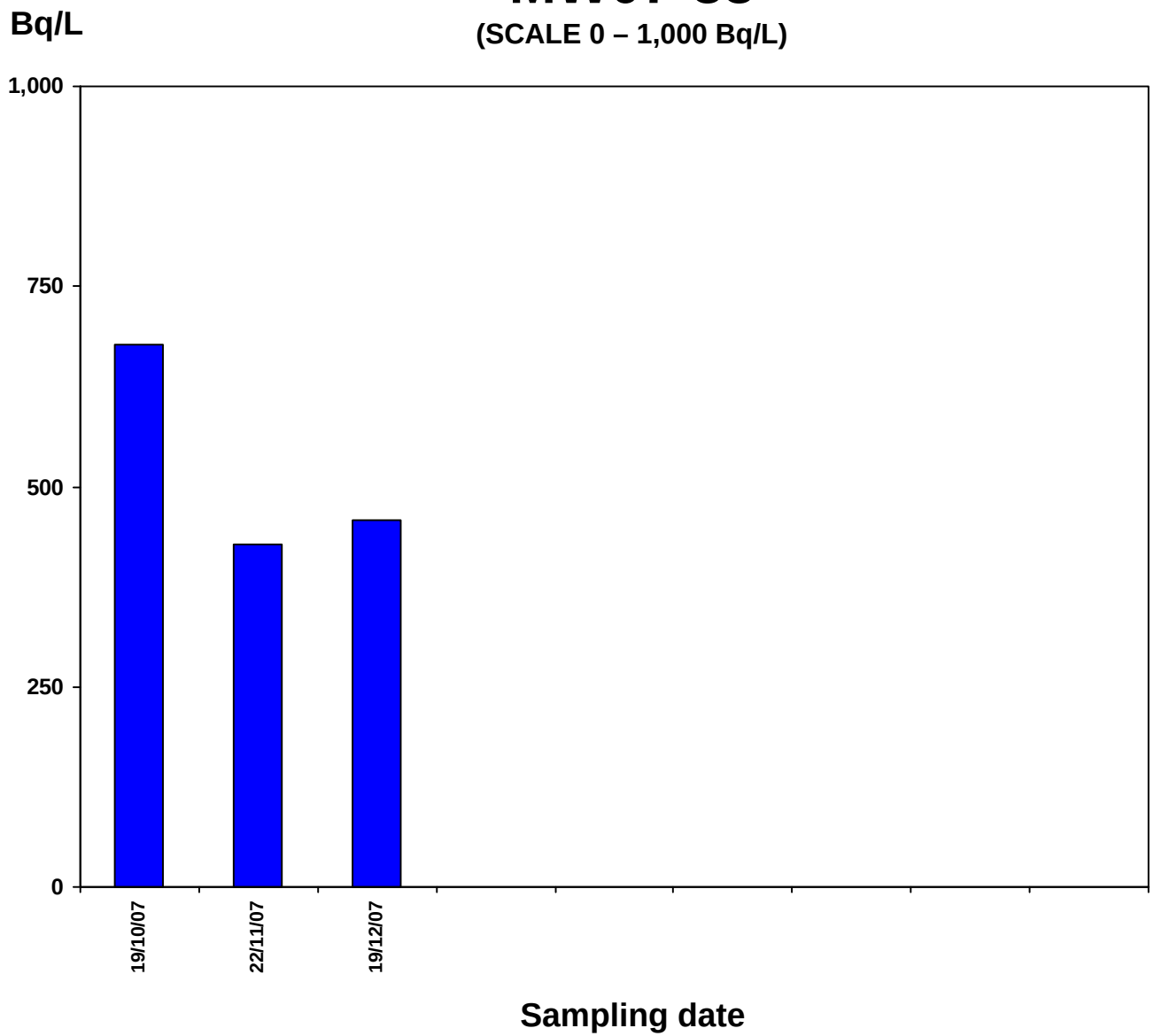
MONITORING RESULTS
MW07-31



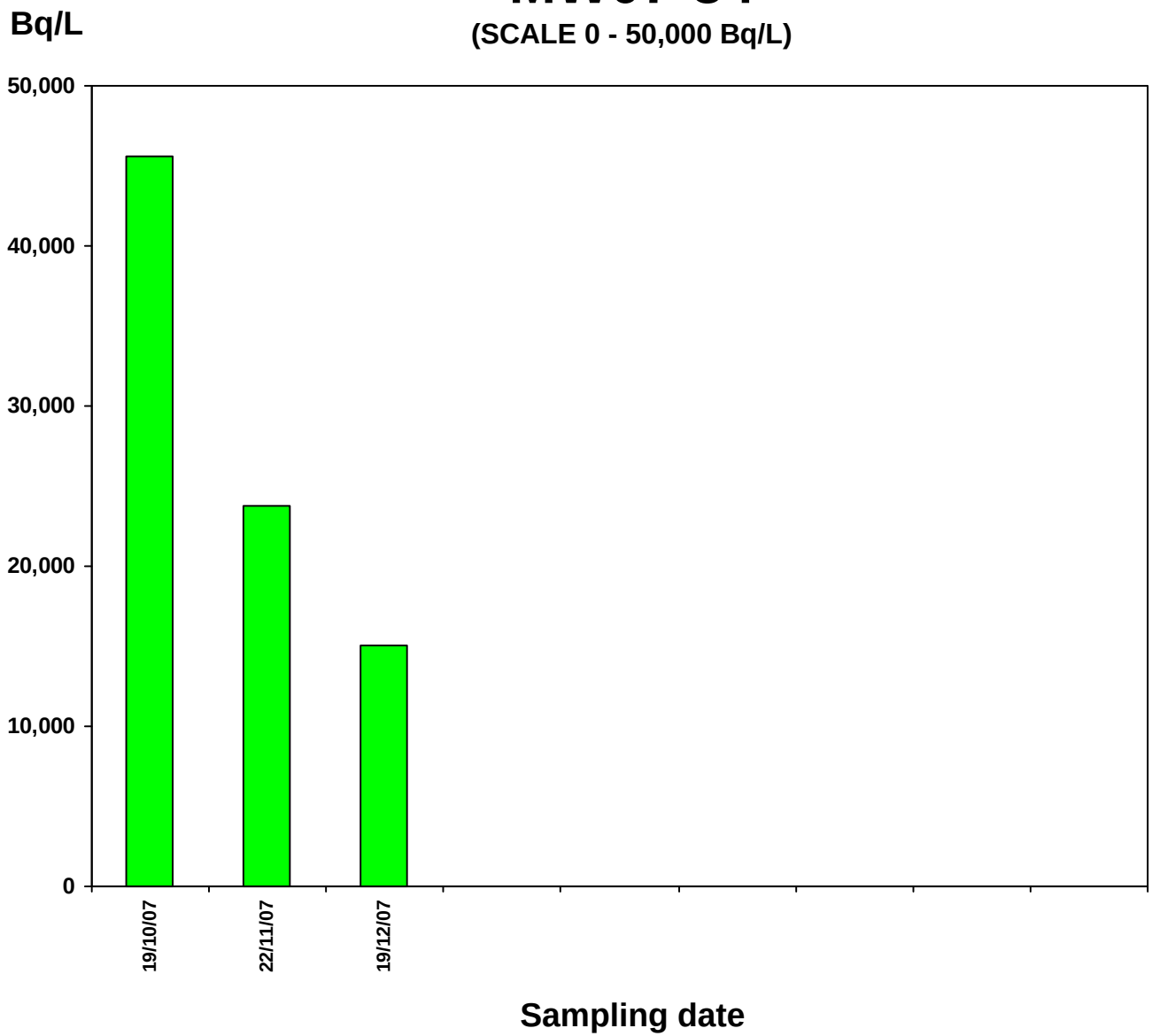
MONITORING RESULTS
MW07-32



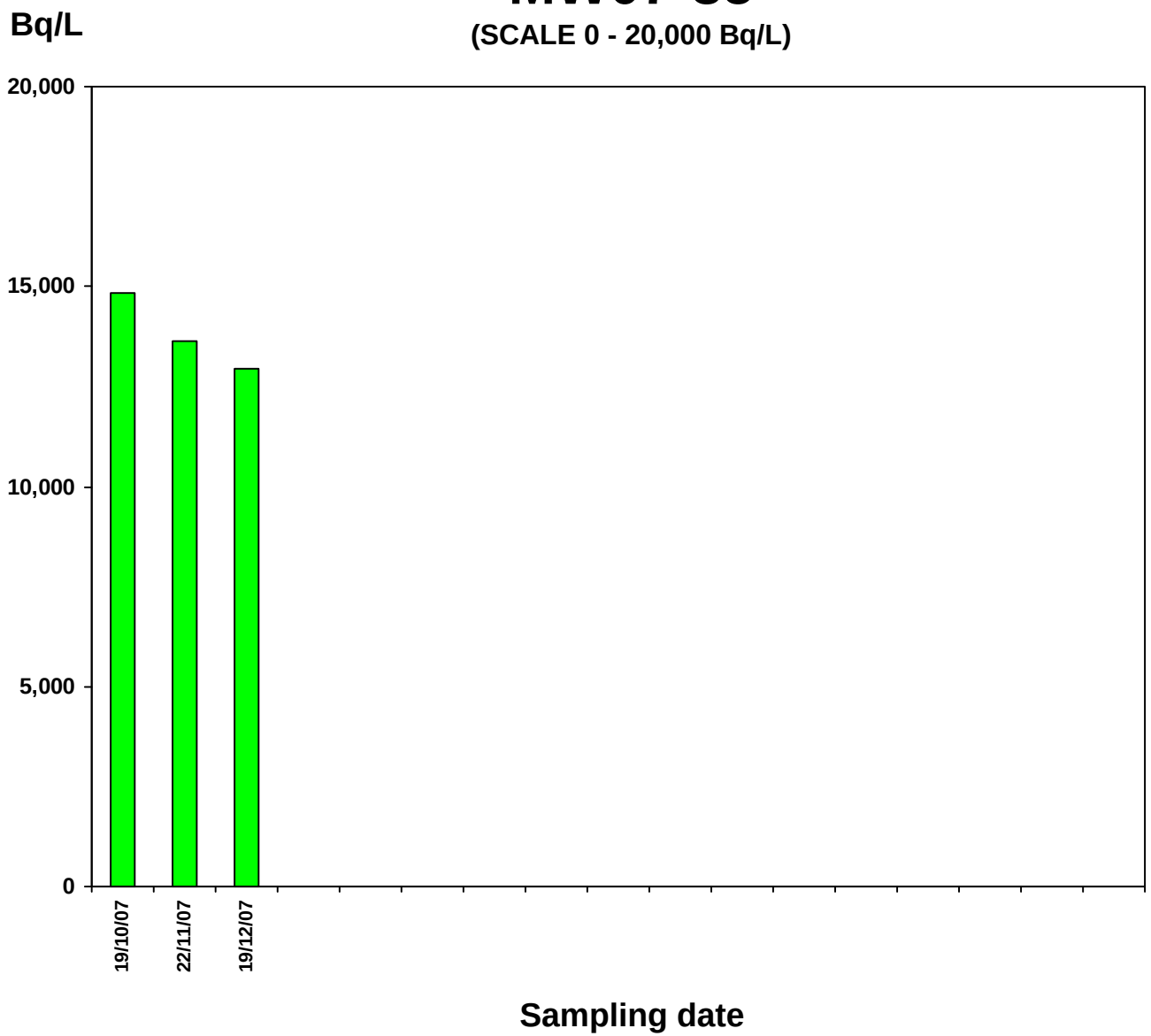
MONITORING RESULTS
MW07-33



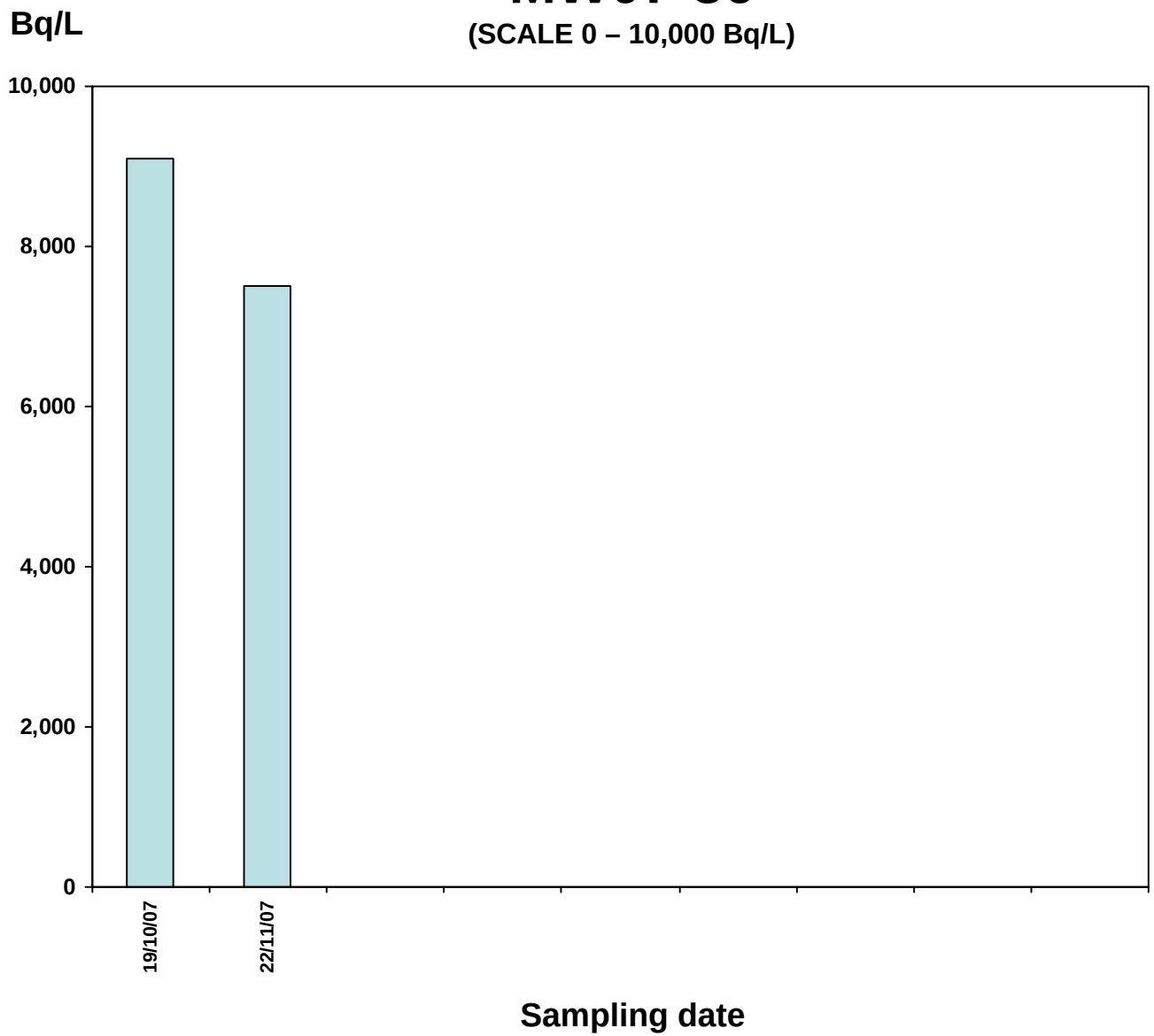
MONITORING RESULTS
MW07-34



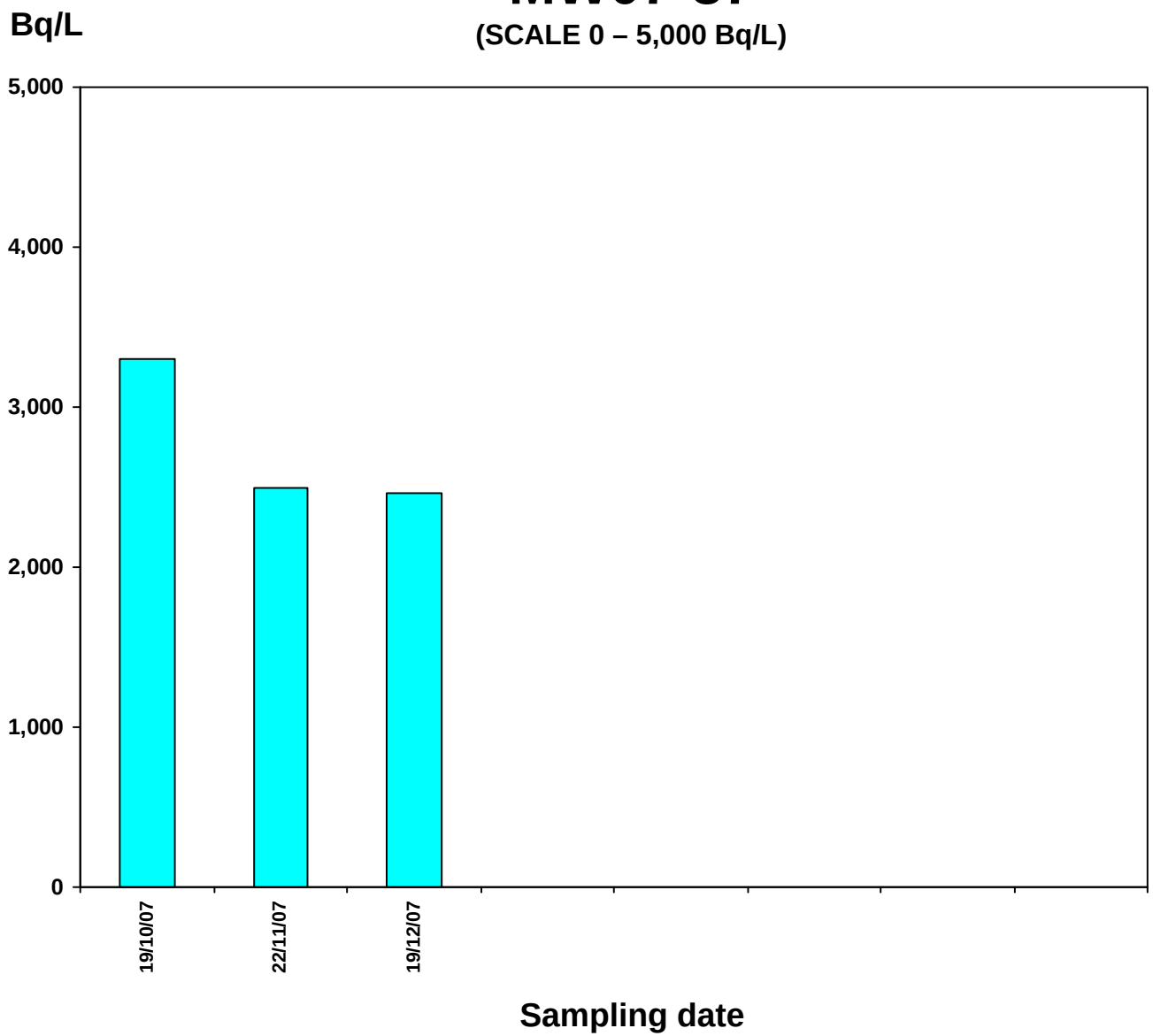
MONITORING RESULTS
MW07-35



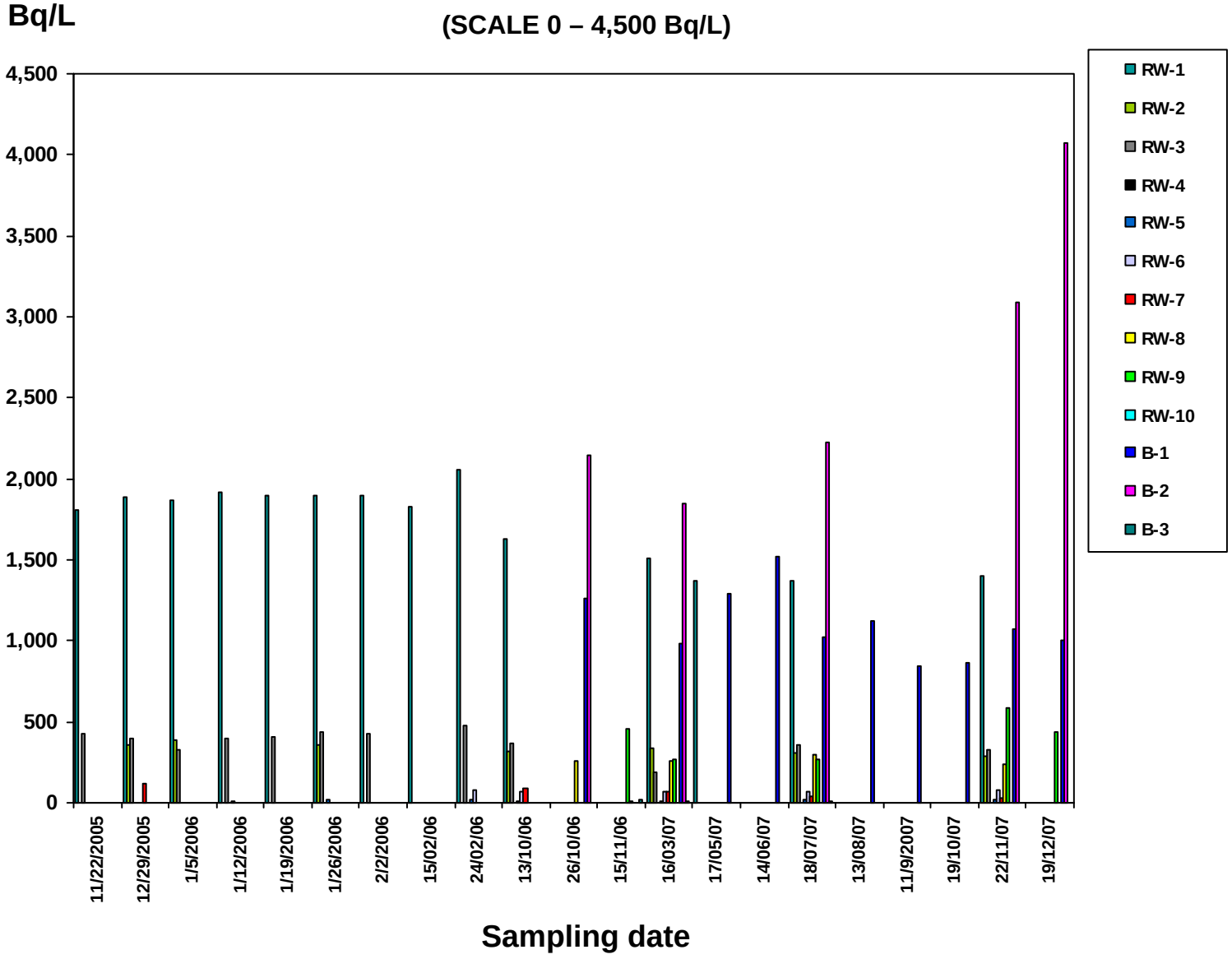
MONITORING RESULTS
MW07-36



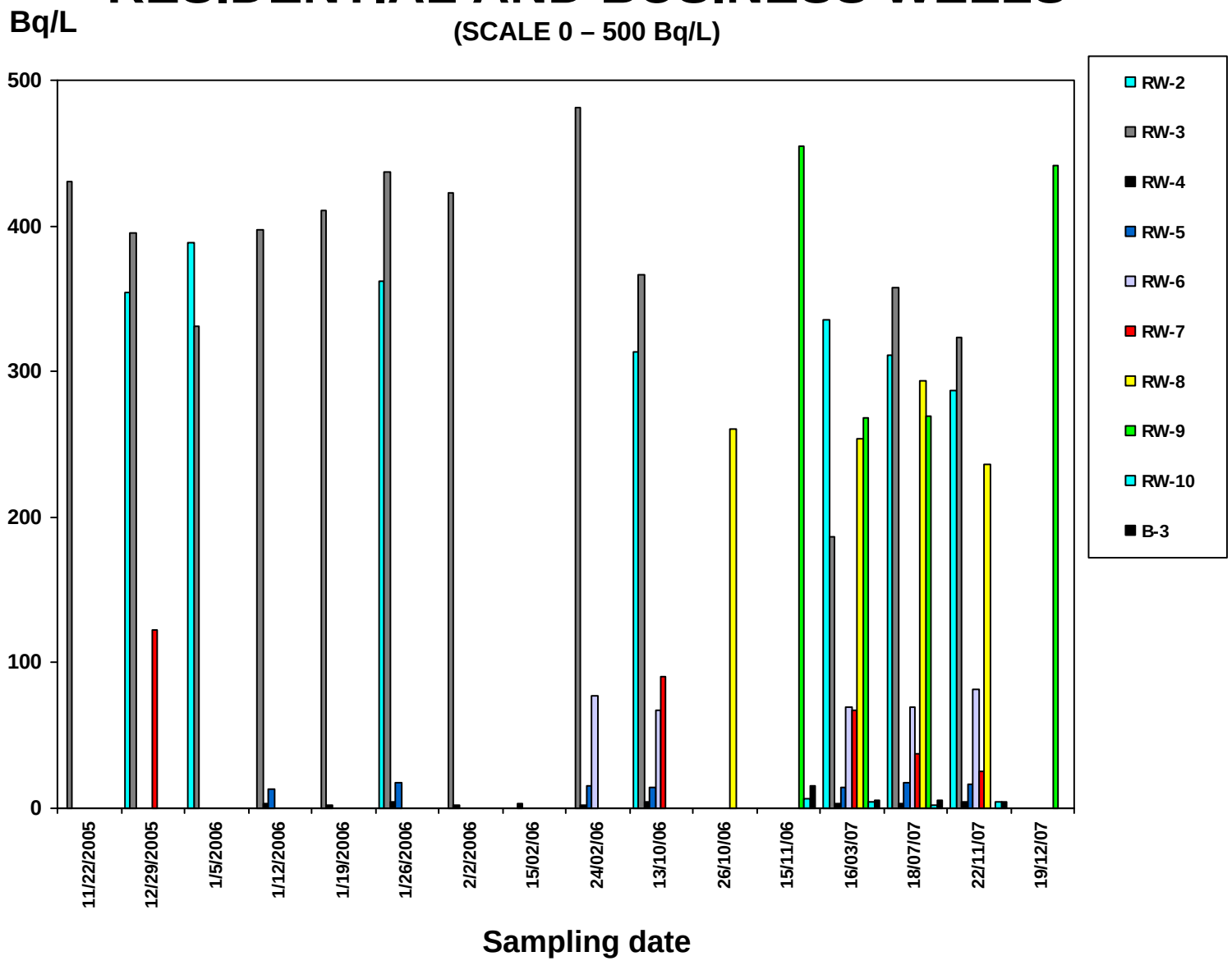
MONITORING RESULTS
MW07-37



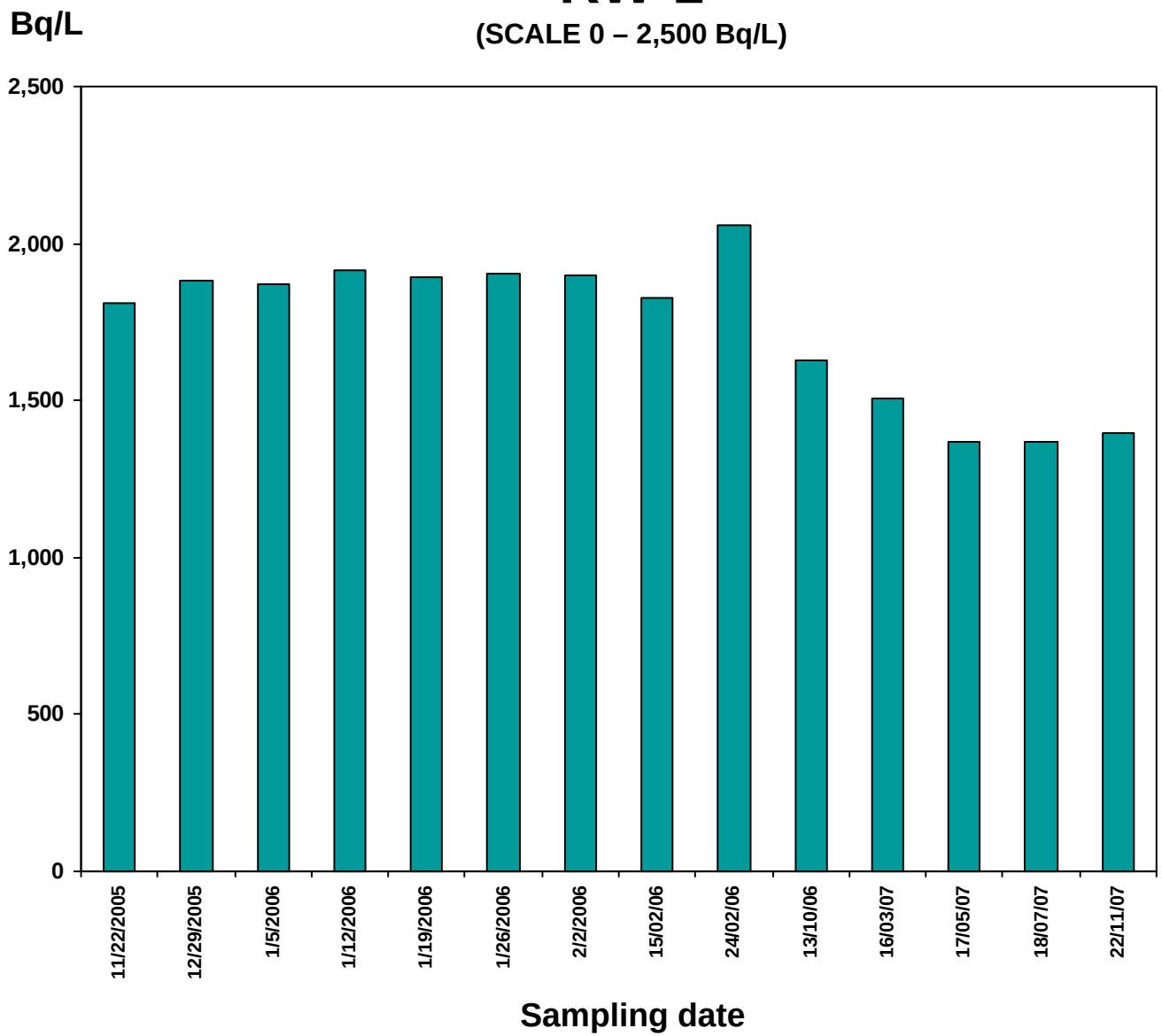
MONITORING RESULTS
ALL RESIDENTIAL AND BUSINESS WELLS



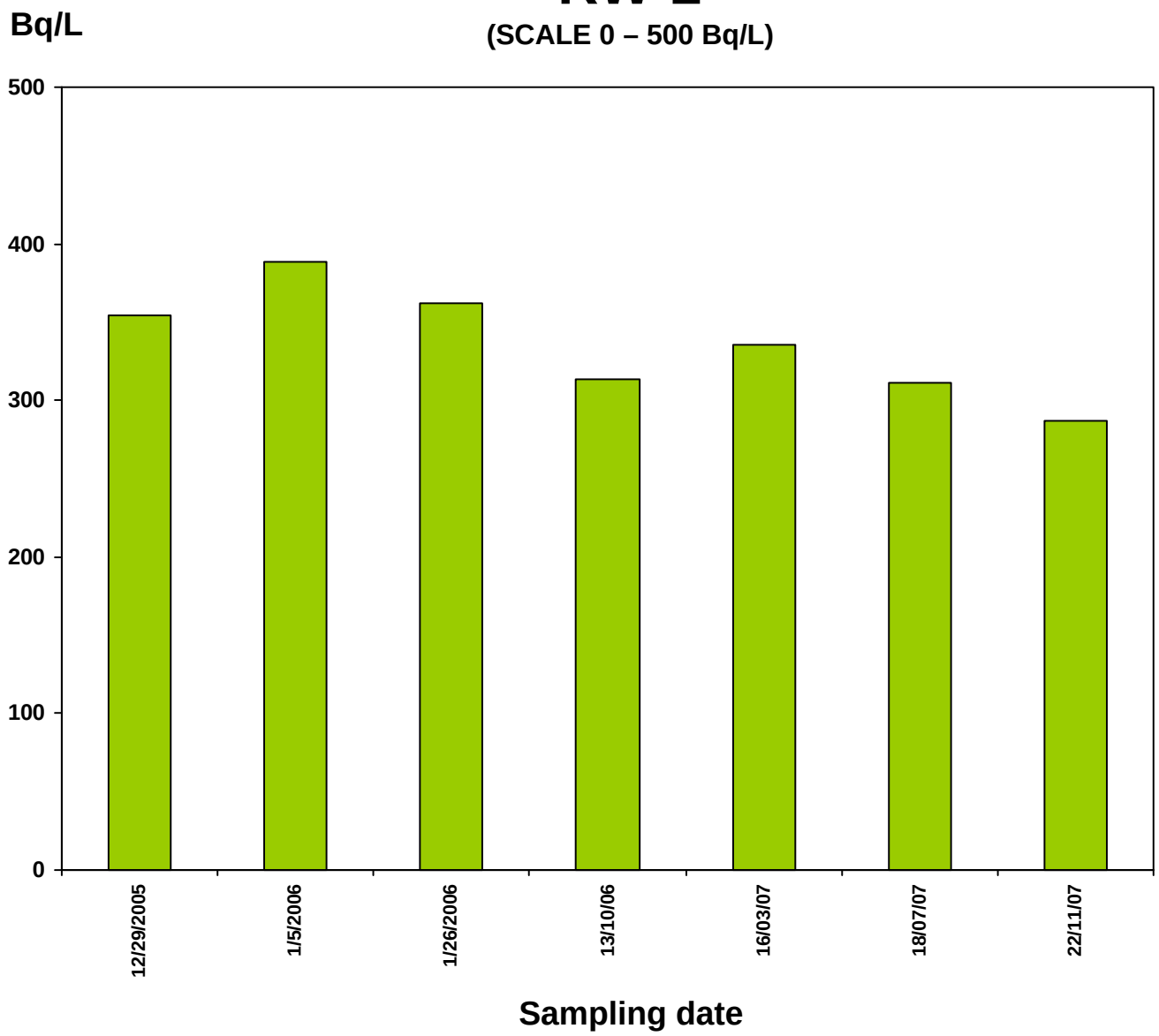
MONITORING RESULTS
RESIDENTIAL AND BUSINESS WELLS



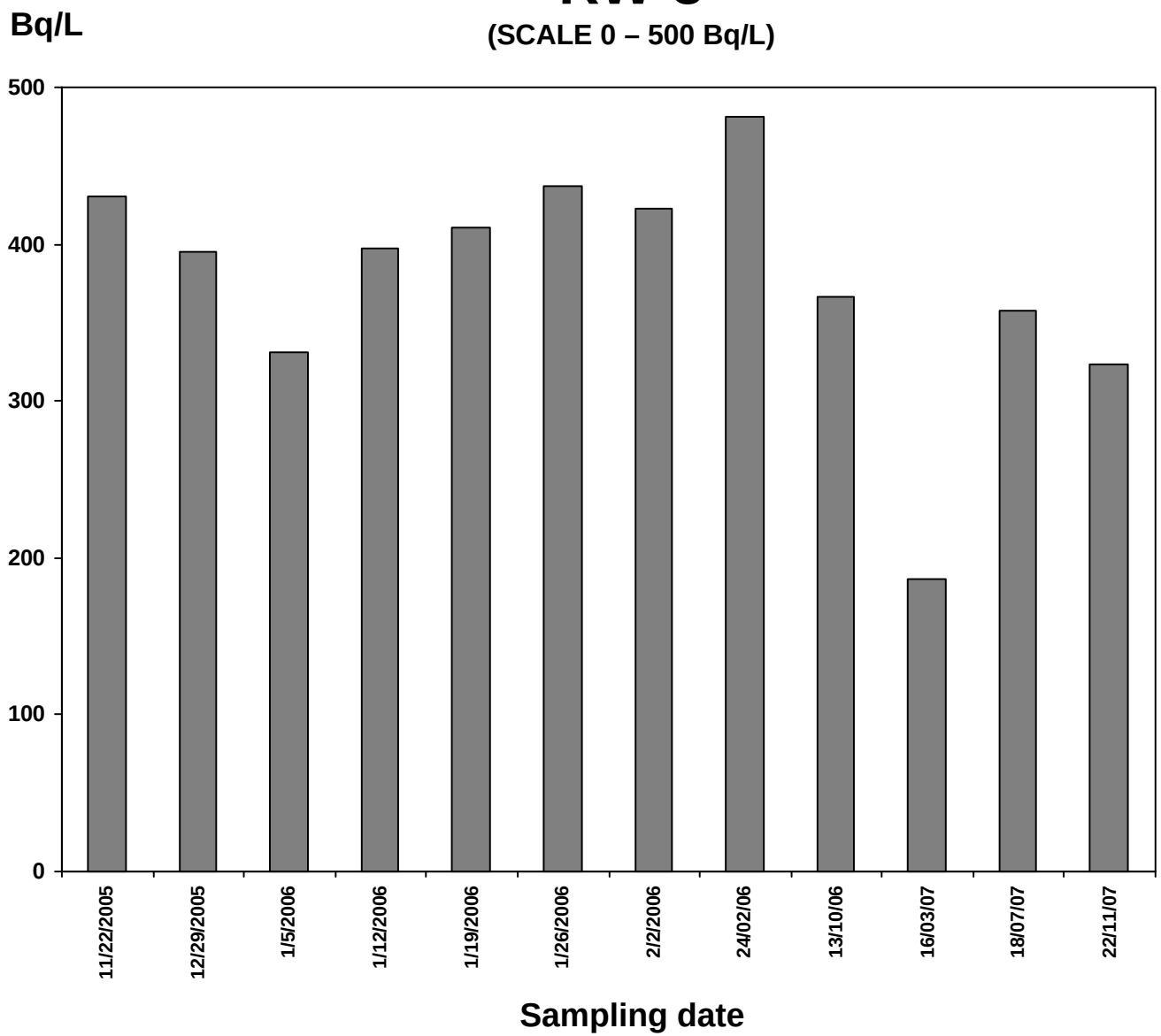
MONITORING RESULTS
RW-1



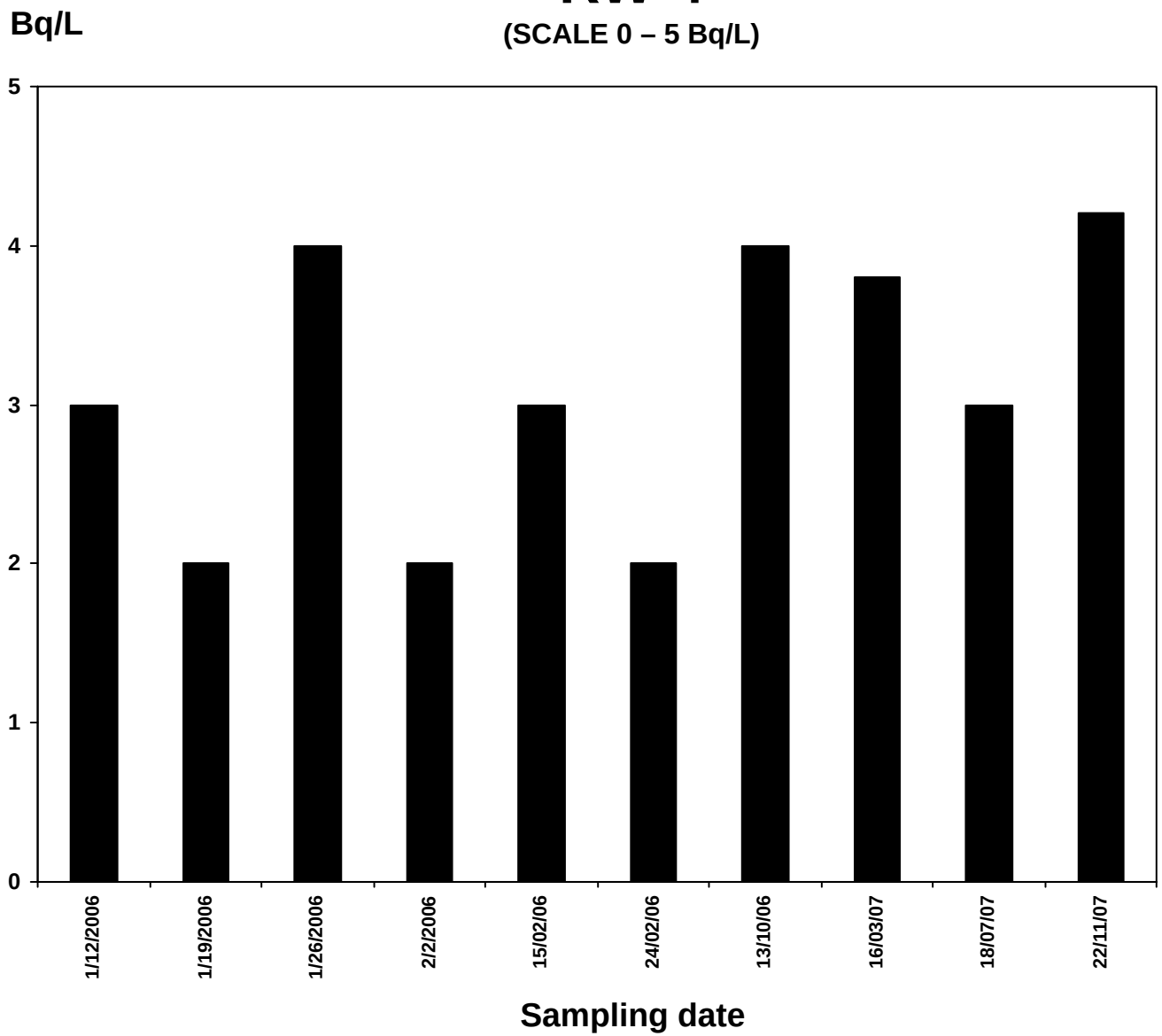
MONITORING RESULTS
RW-2



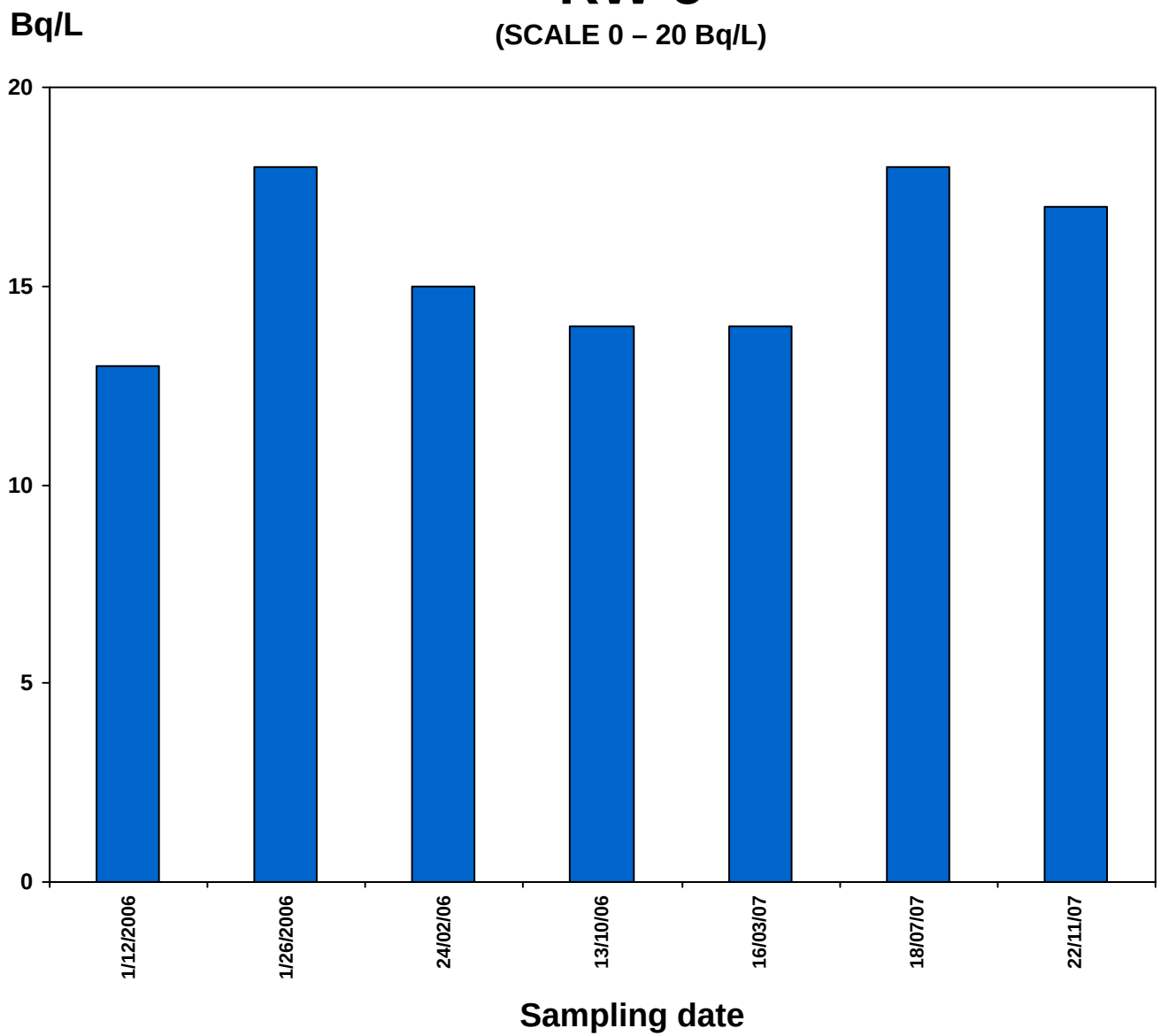
MONITORING RESULTS
RW-3



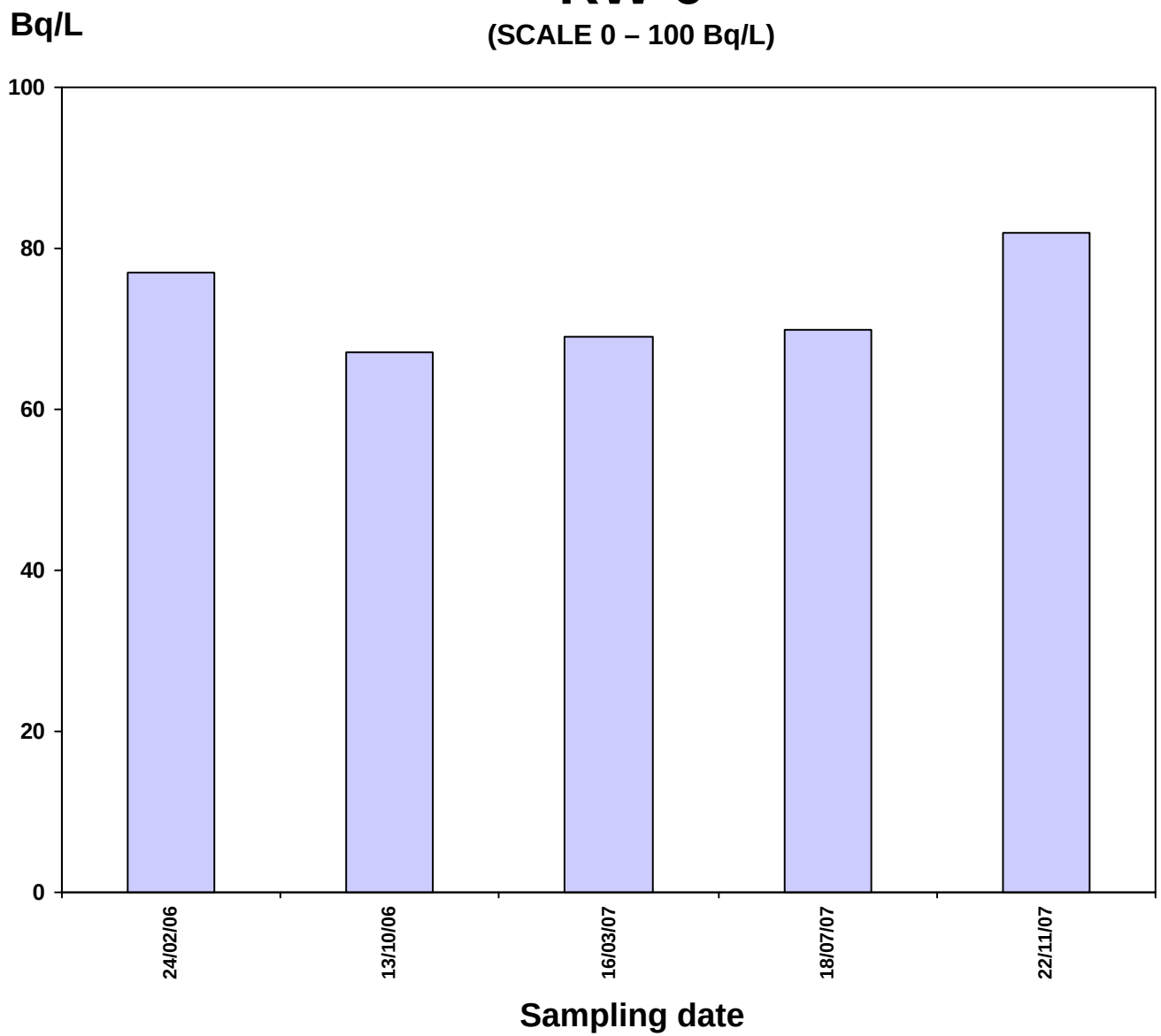
MONITORING RESULTS
RW-4



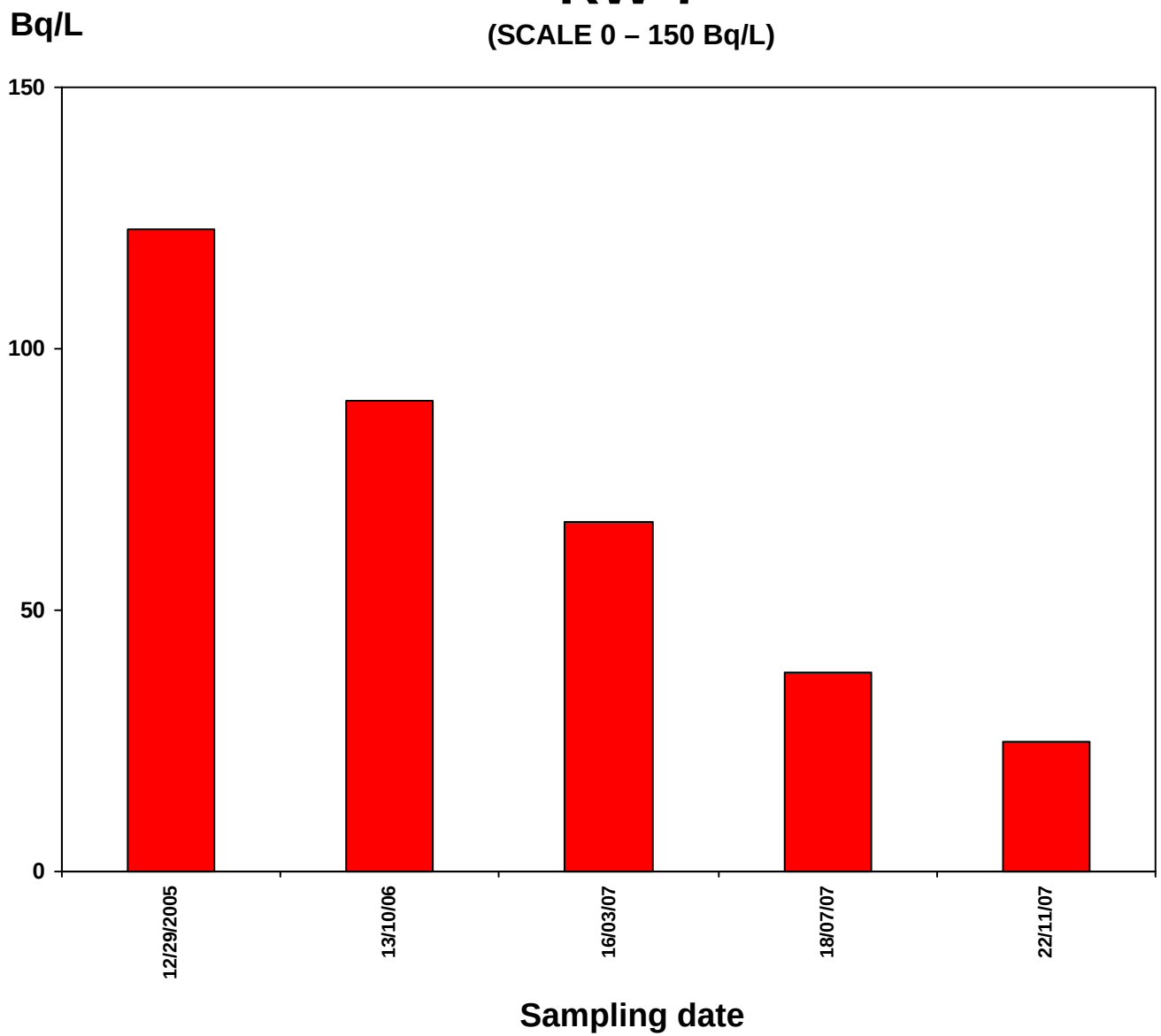
MONITORING RESULTS
RW-5



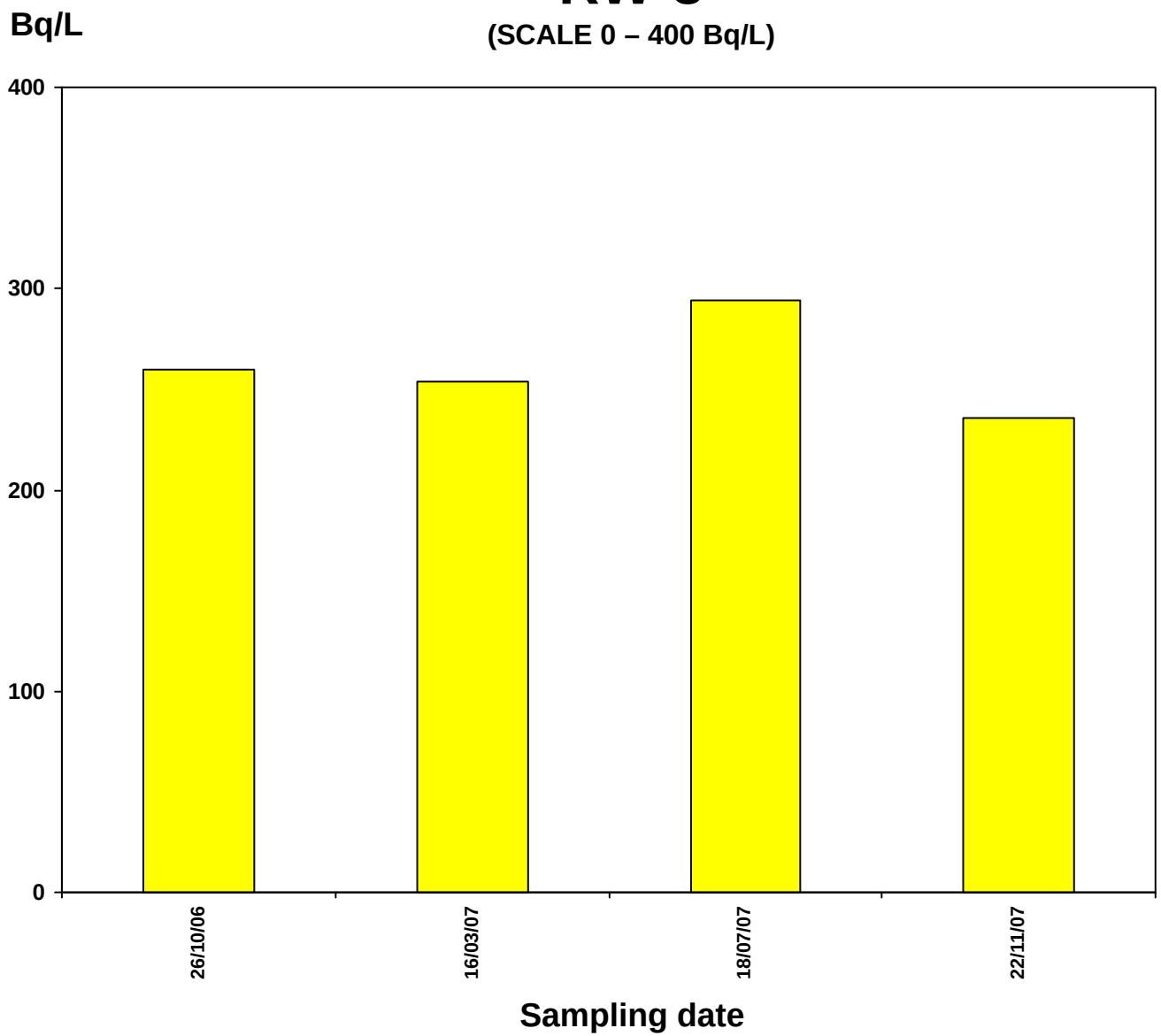
MONITORING RESULTS
RW-6



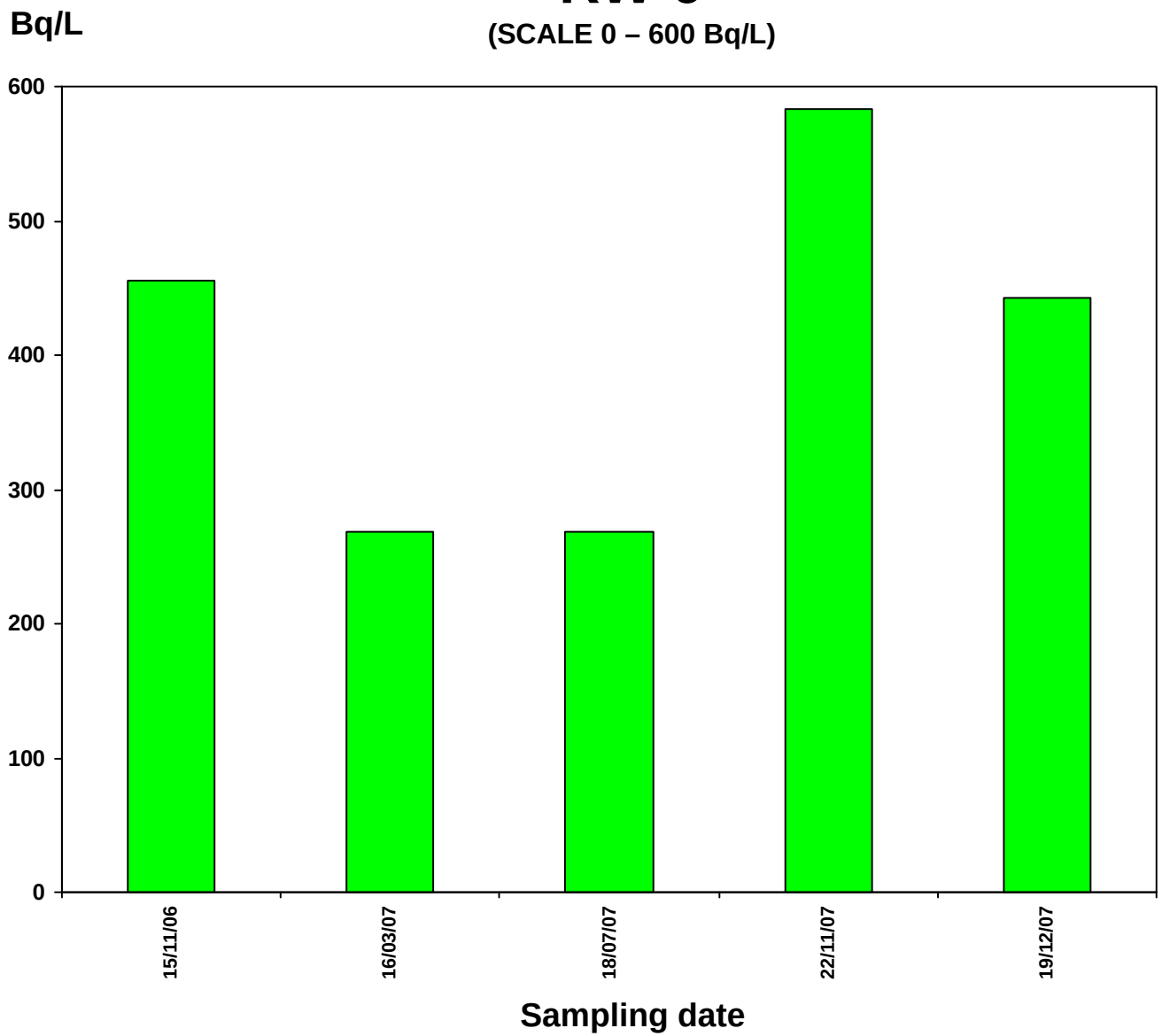
MONITORING RESULTS
RW-7



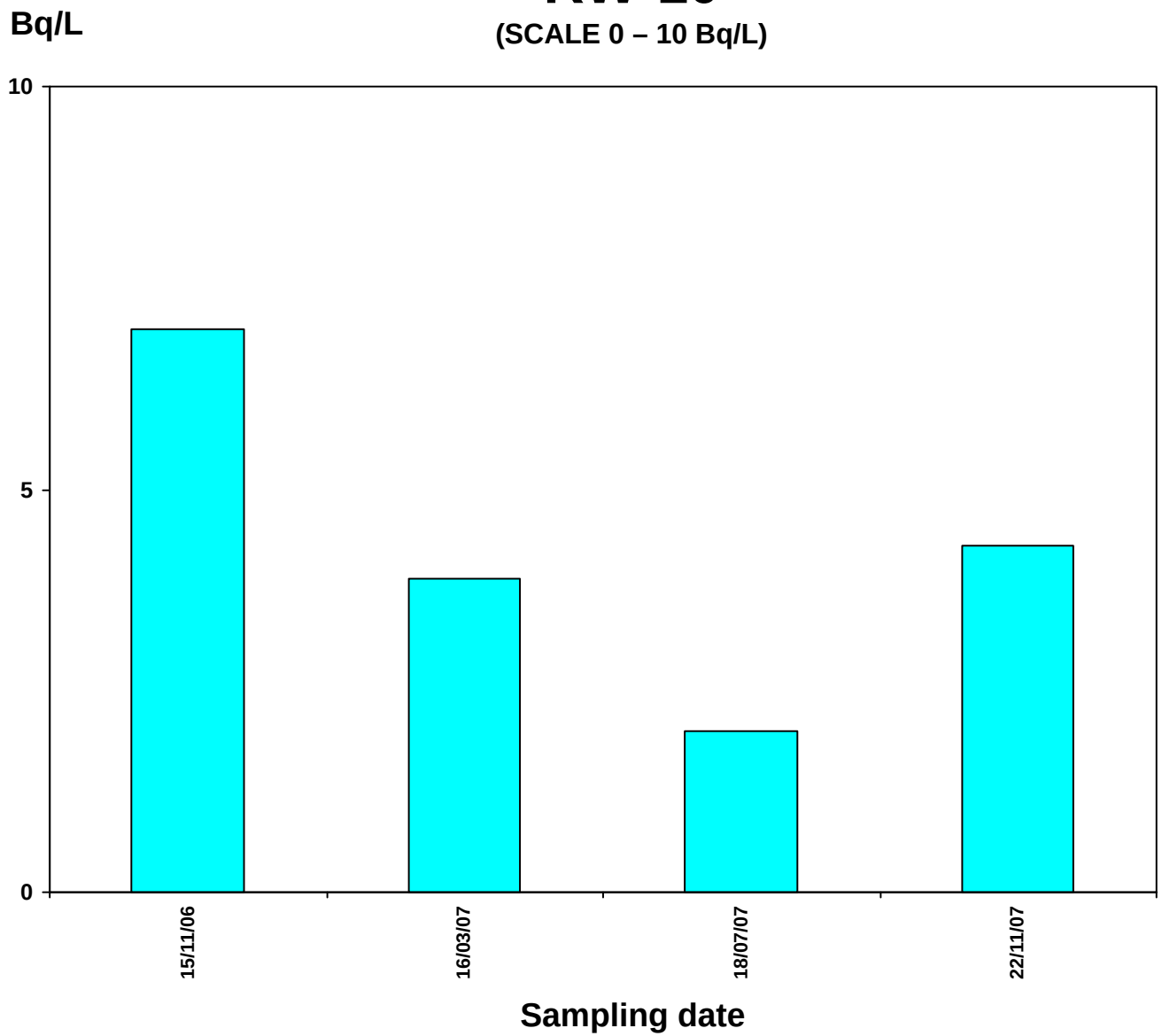
MONITORING RESULTS
RW-8



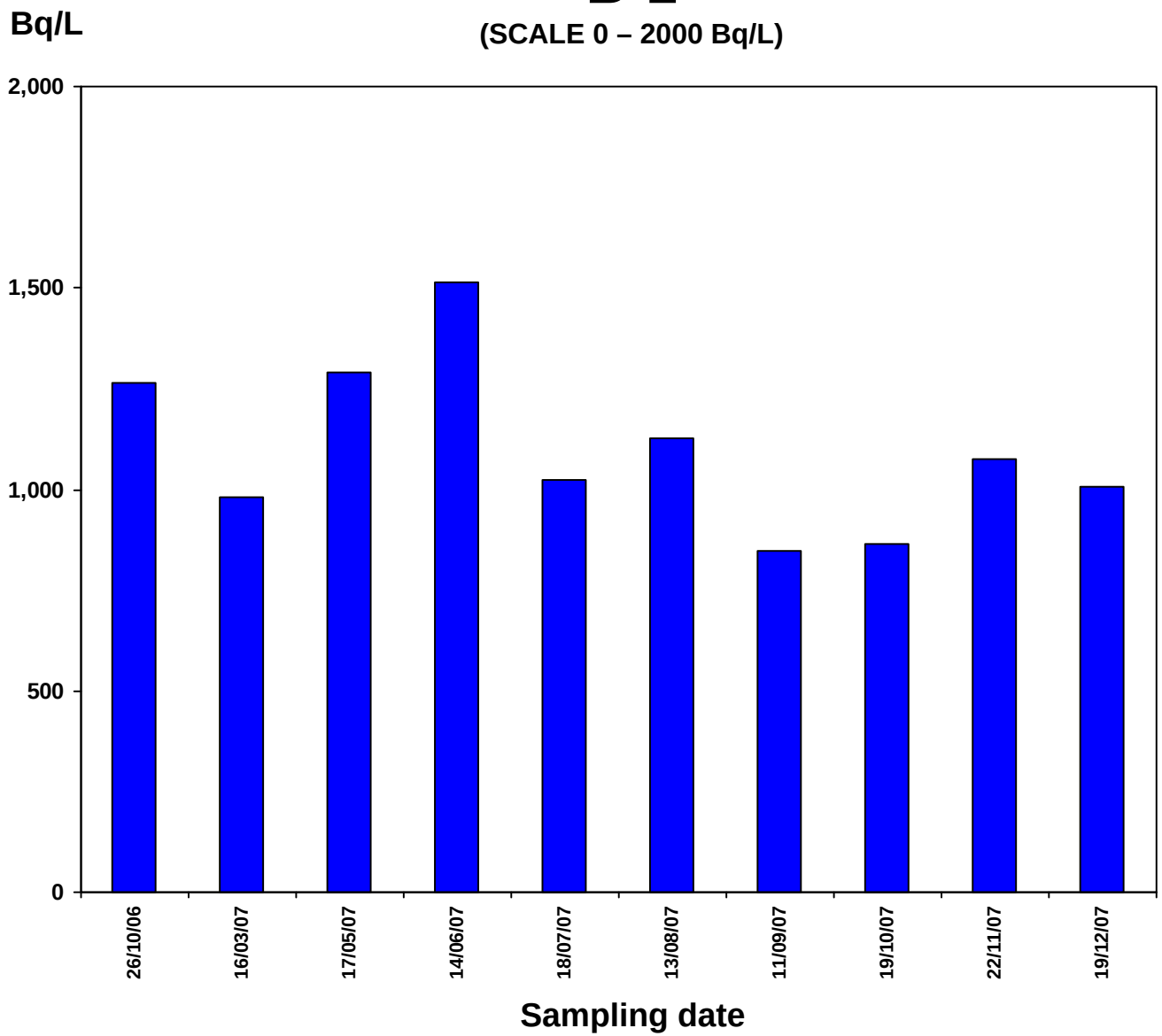
MONITORING RESULTS
RW-9



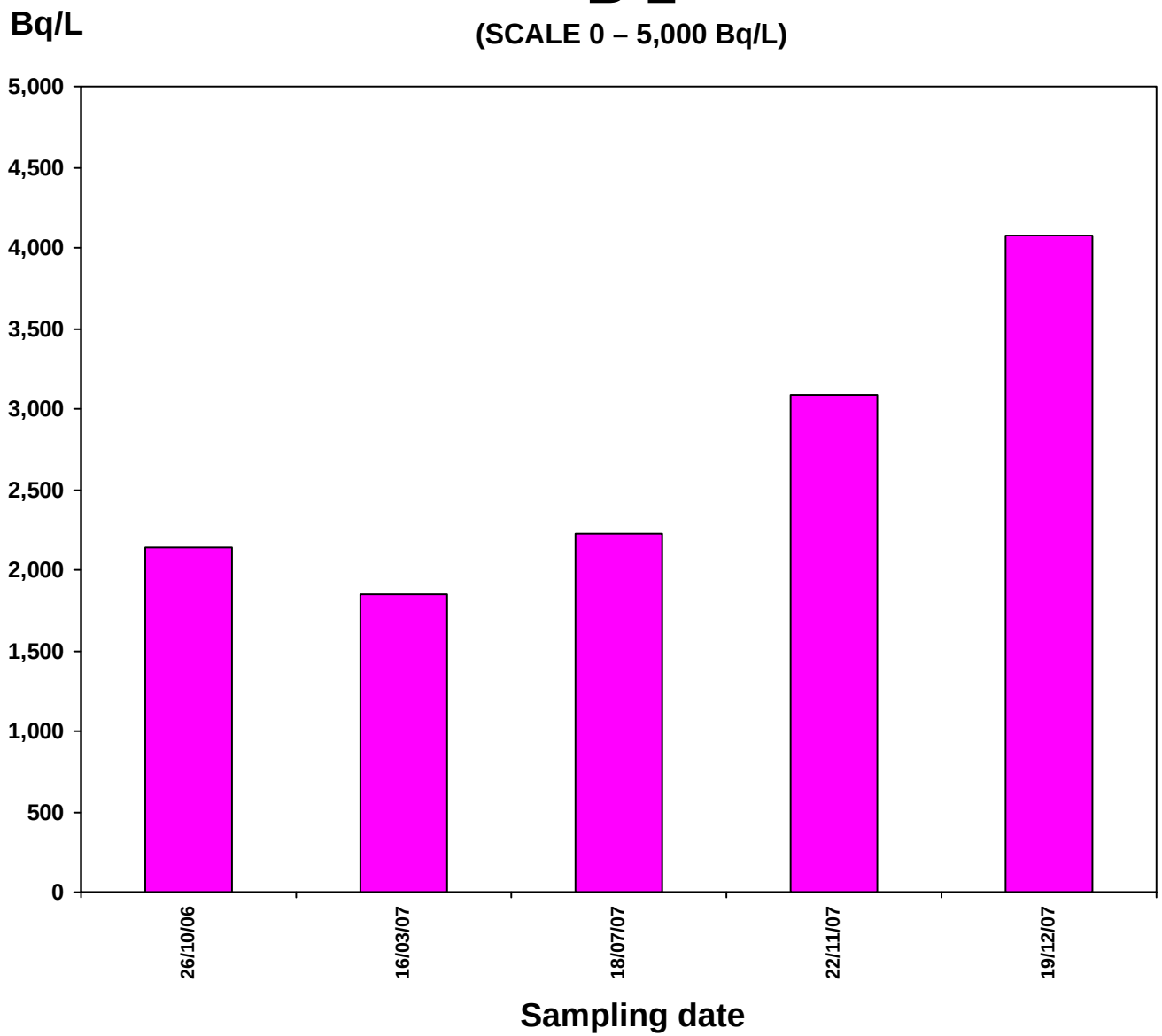
MONITORING RESULTS
RW-10



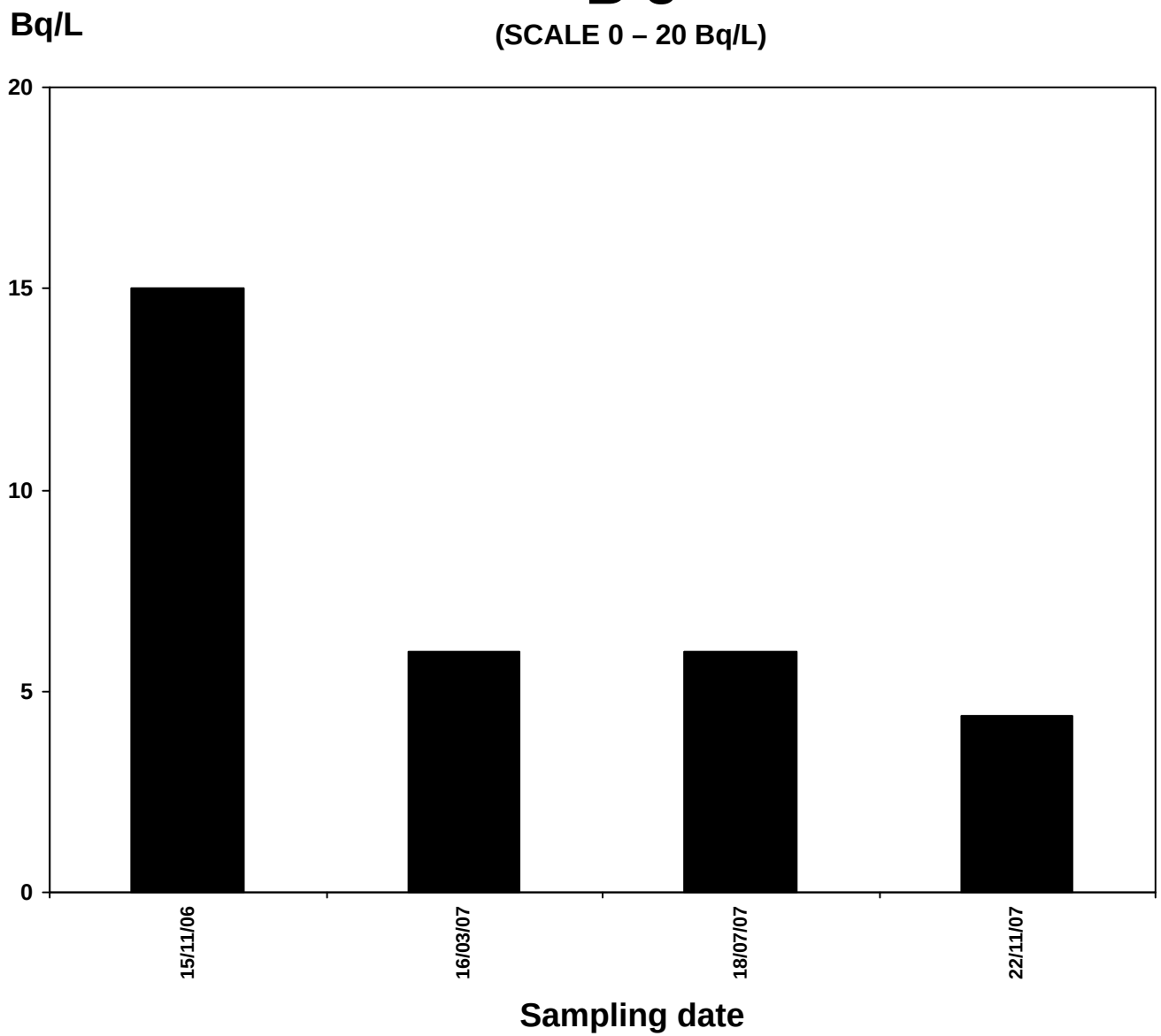
MONITORING RESULTS
B-1



MONITORING RESULTS
B-2

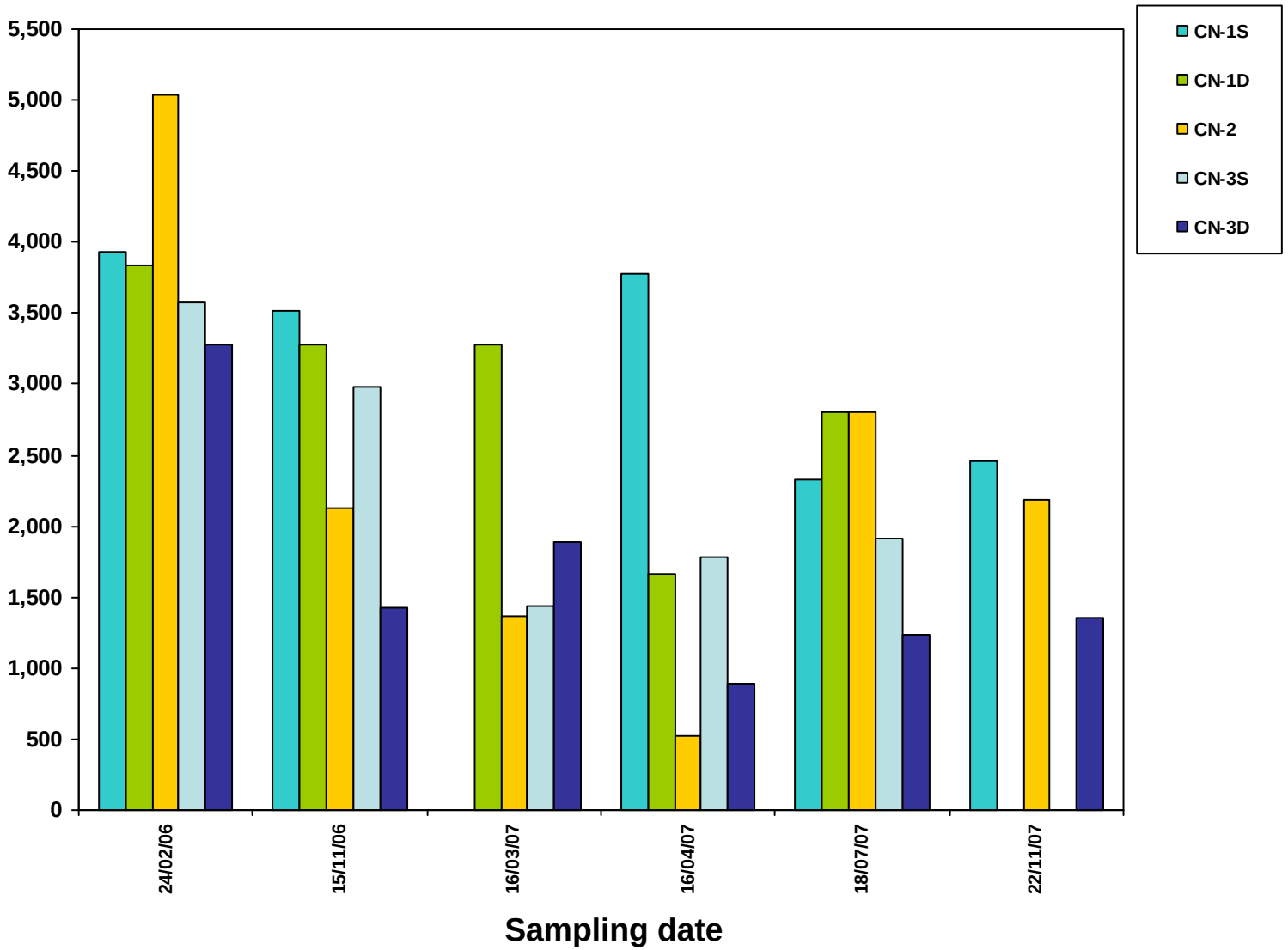


MONITORING RESULTS
B-3

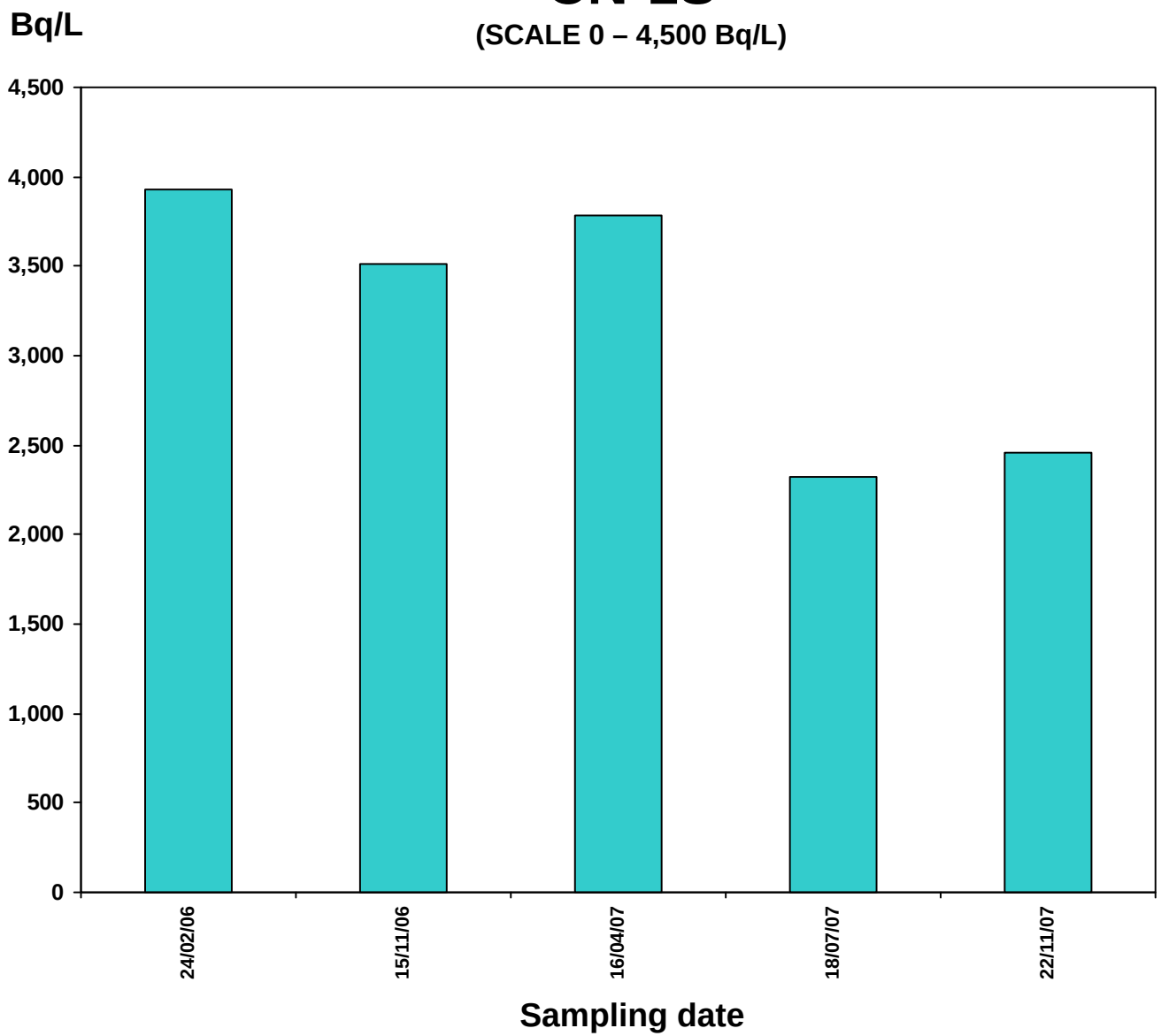


MONITORING RESULTS
ALL CN WELLS

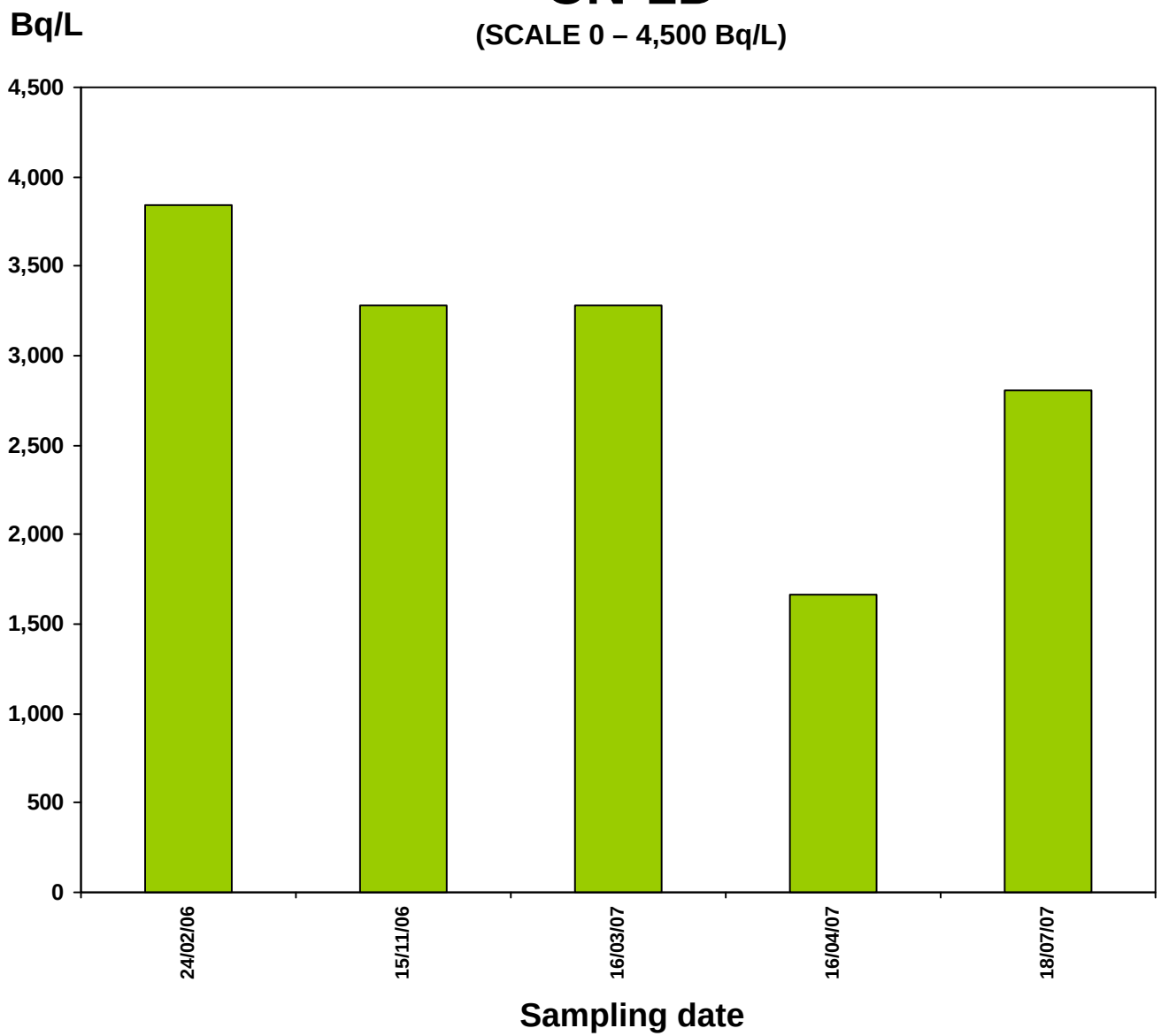
(SCALE 0 – 5,500 Bq/L)



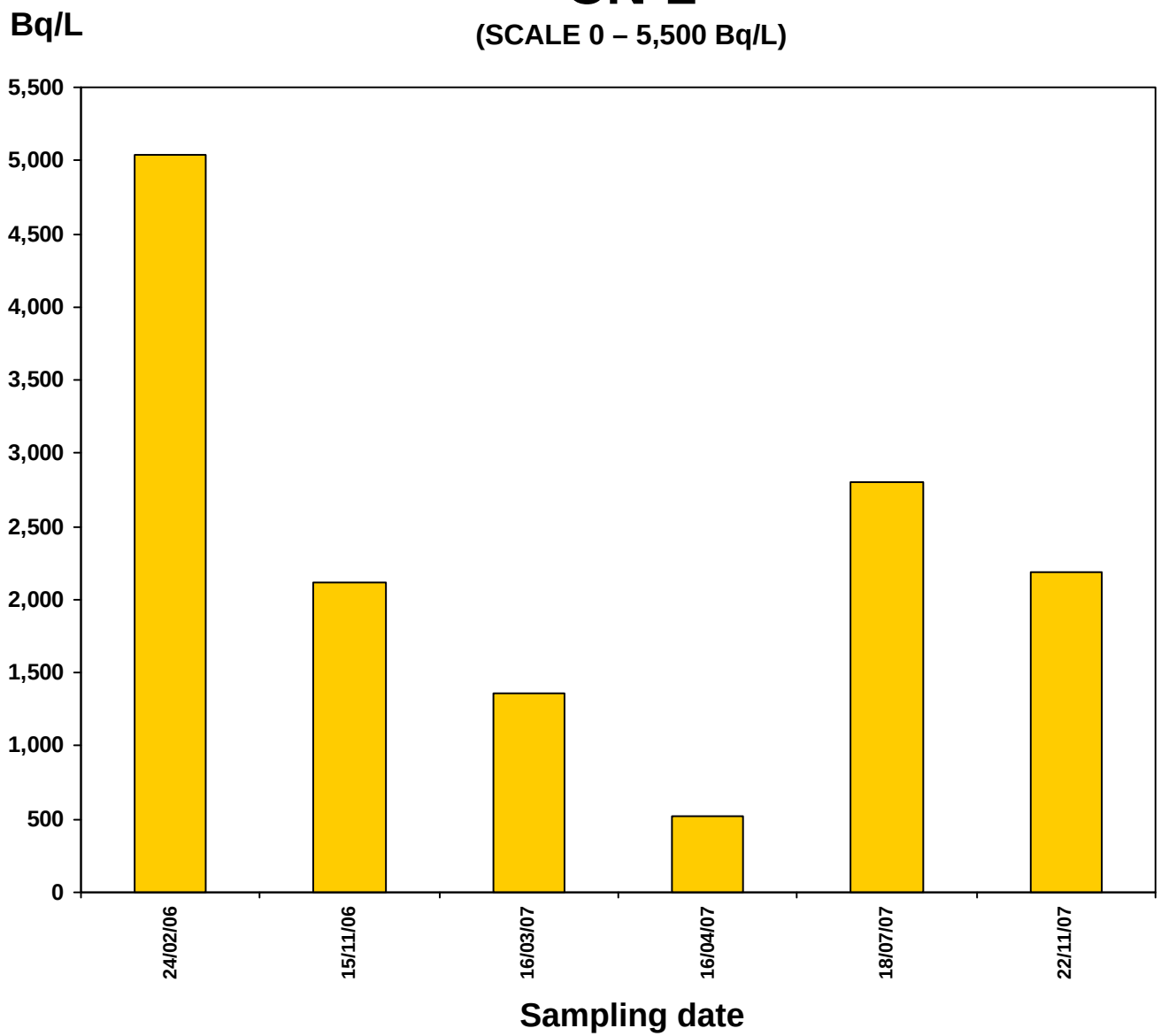
MONITORING RESULTS
CN-1S



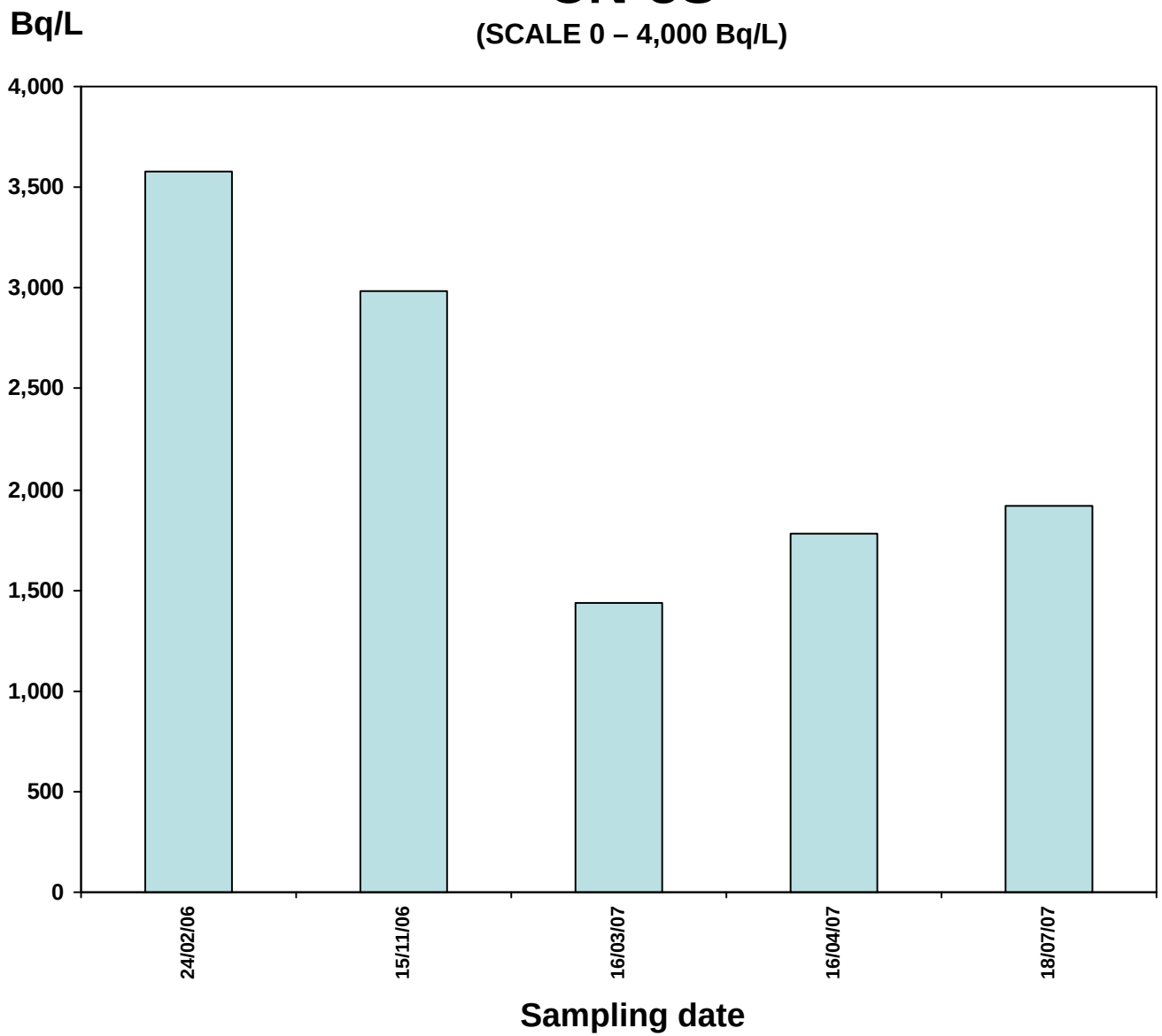
MONITORING RESULTS
CN-1D



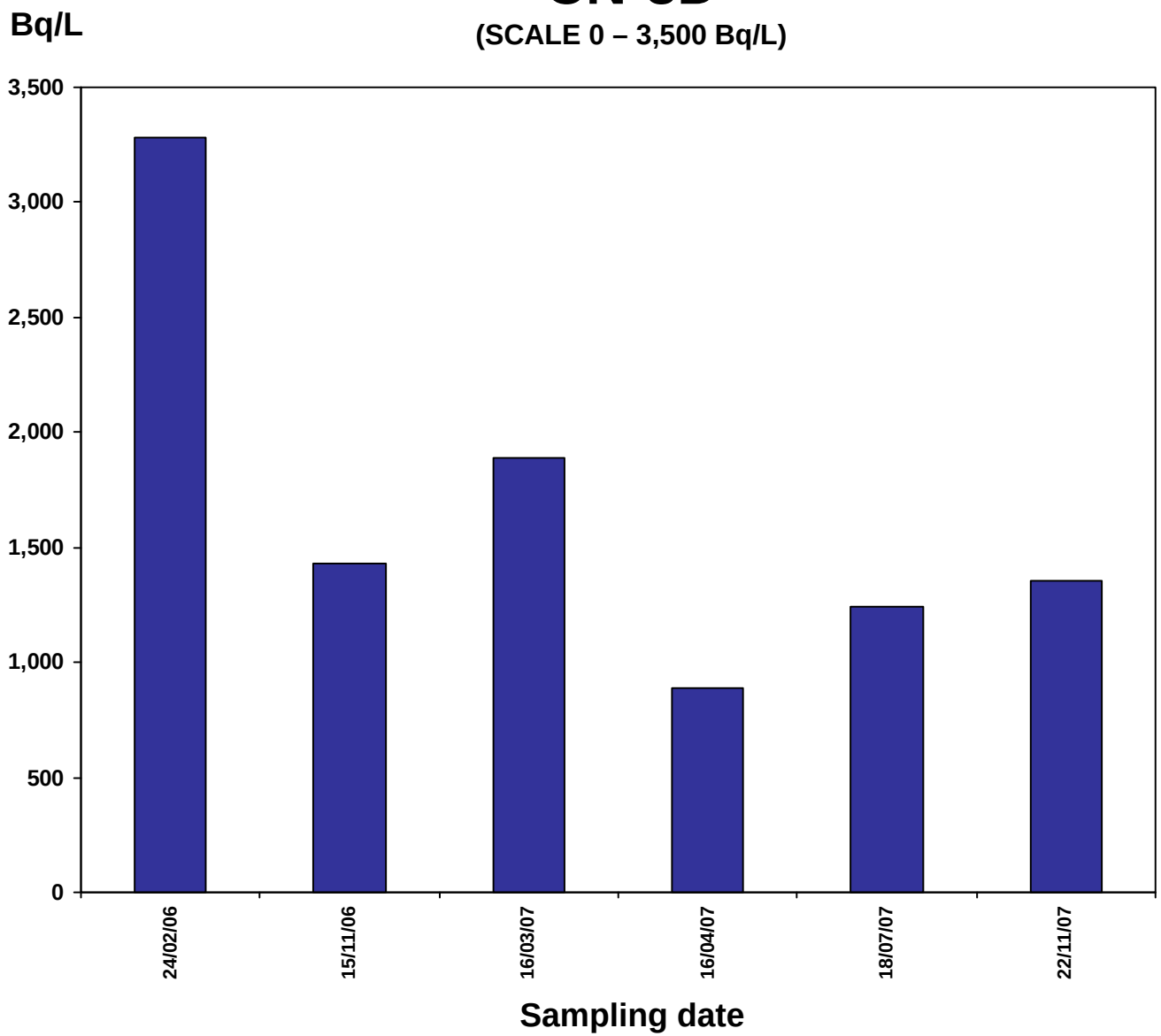
MONITORING RESULTS
CN-2



MONITORING RESULTS
CN-3S



MONITORING RESULTS
CN-3D



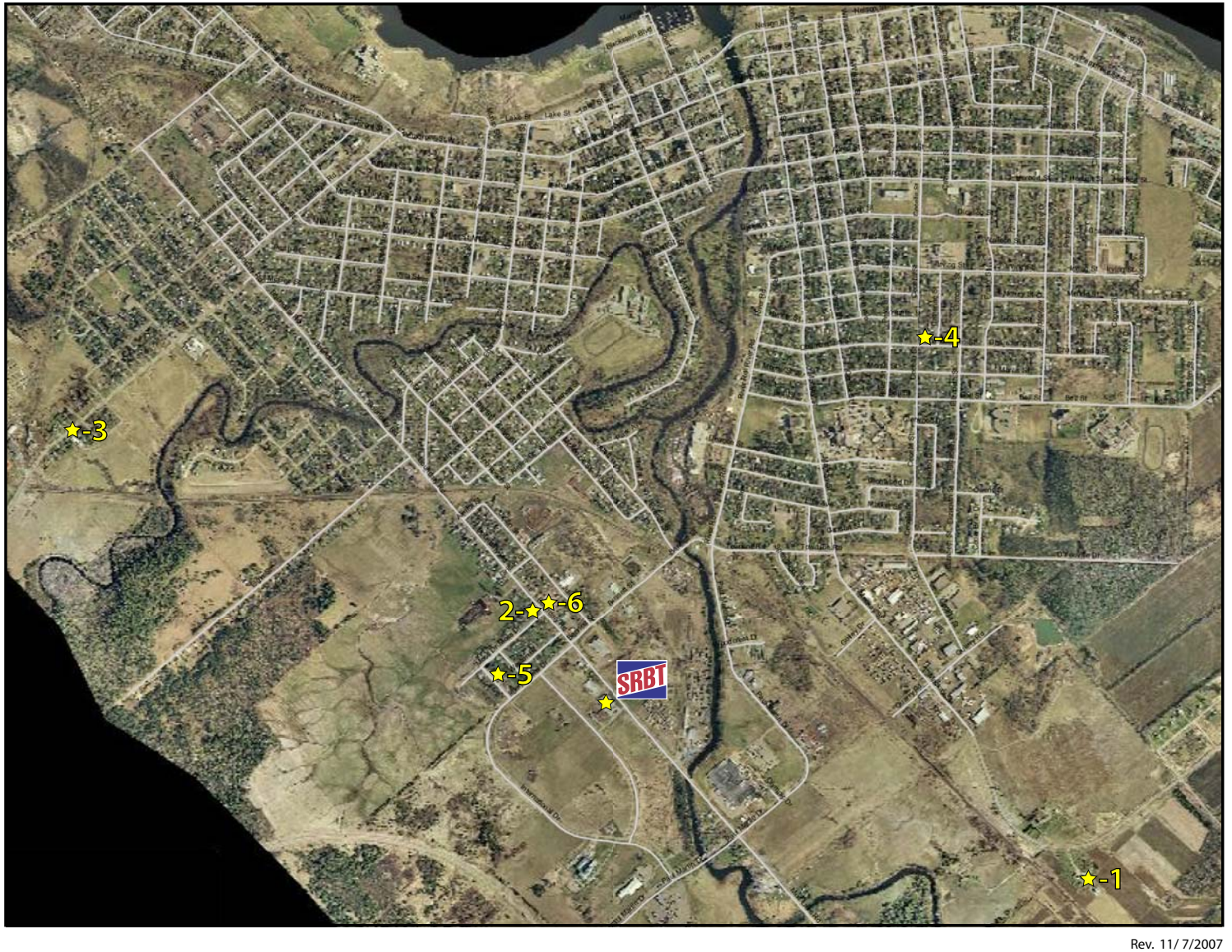
APPENDIX I

PRODUCE MONITORING RESULTS FOR 2007

DESCRIPTION	DISTANCE FROM STACKS (m)	CARROT	LETTUCE	TOMATO	APPLE	RHUBARB	POTATO	SPINACH	RED BEET	AVG
LOCAL MARKET	1,750	13	17	33						21
									AVG	21

DESCRIPTION	DISTANCE FROM STACKS (m)	CARROT	LETTUCE	TOMATO	APPLE	RHUBARB	POTATO	SPINACH	RED BEET	AVG
416 BOUNDARY ROAD	400	157			326	96	136			179
711 BRUHAM AVENUE	2,000			42			26	12		27
366 CHAMBERLAIN STREET	1,650			21		16			13	17
413 SWEEZEY COURT	400				259					259
413 BOUNDARY ROAD	400				240					240
									AVG	144

SRB PRODUCE SAMPLING - 2007



Sample Locations

1- Local Market ~ 1.75 KM
2- 416 Boundary Rd. ~ 0.4 KM
3- 711 Bruham Ave. ~ 2.0 KM
4- 366 Chamberlain St. ~ 1.65 KM
5- 413 Sweezey Crt. ~ 0.4 KM
6- 413 Boundary Rd. ~ 0.4 KM

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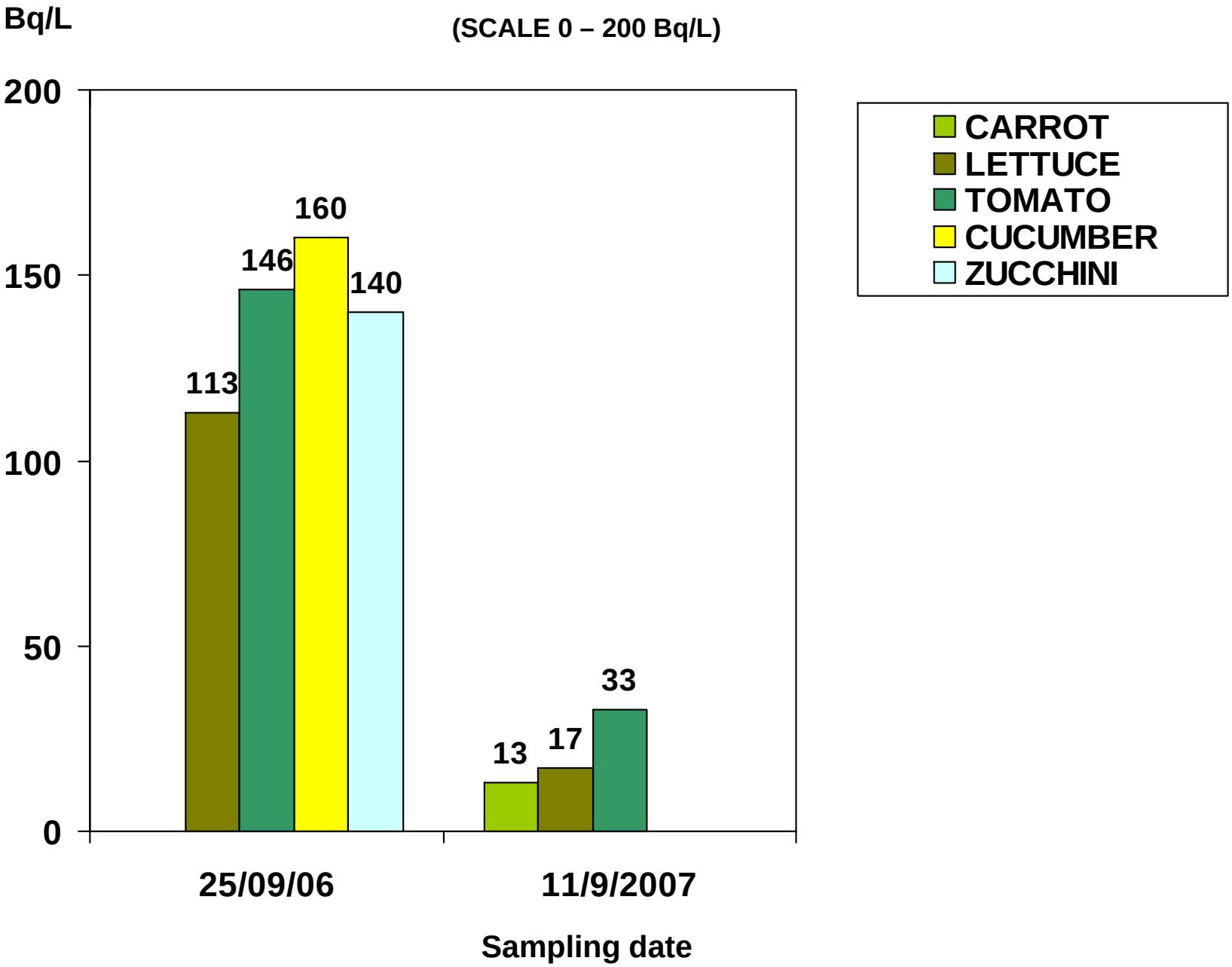
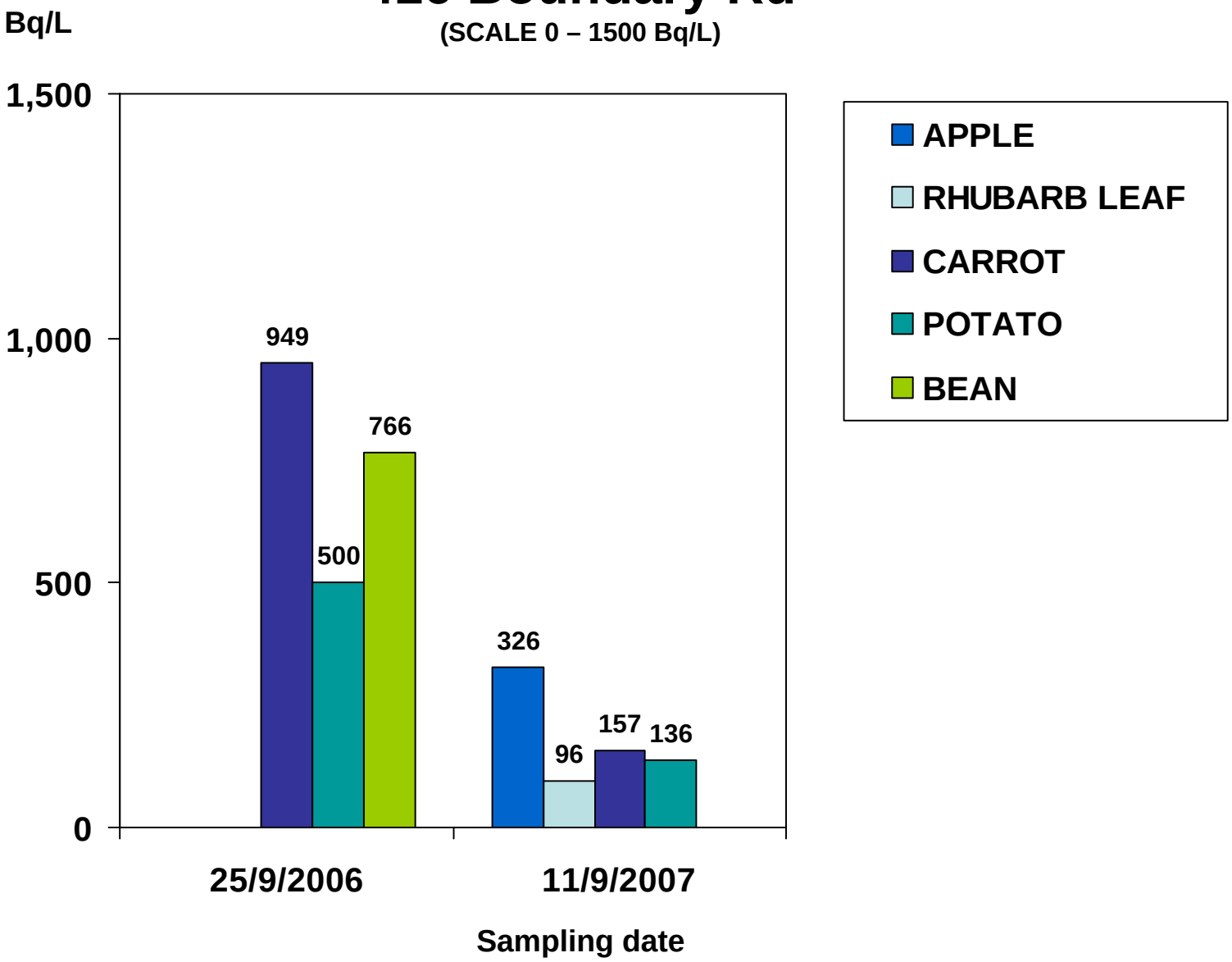
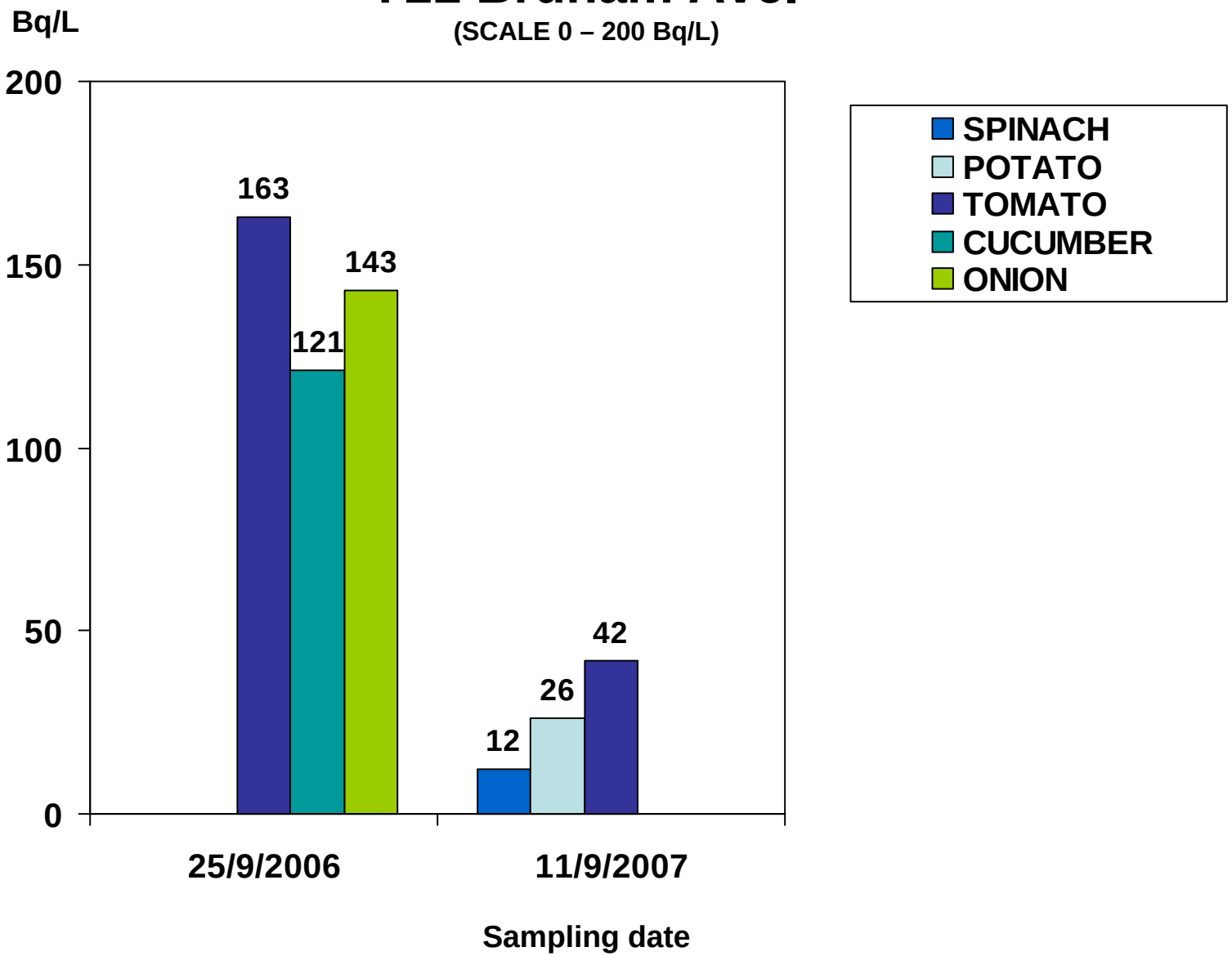
PRODUCE MONITORING RESULTS FROM LOCAL MARKET



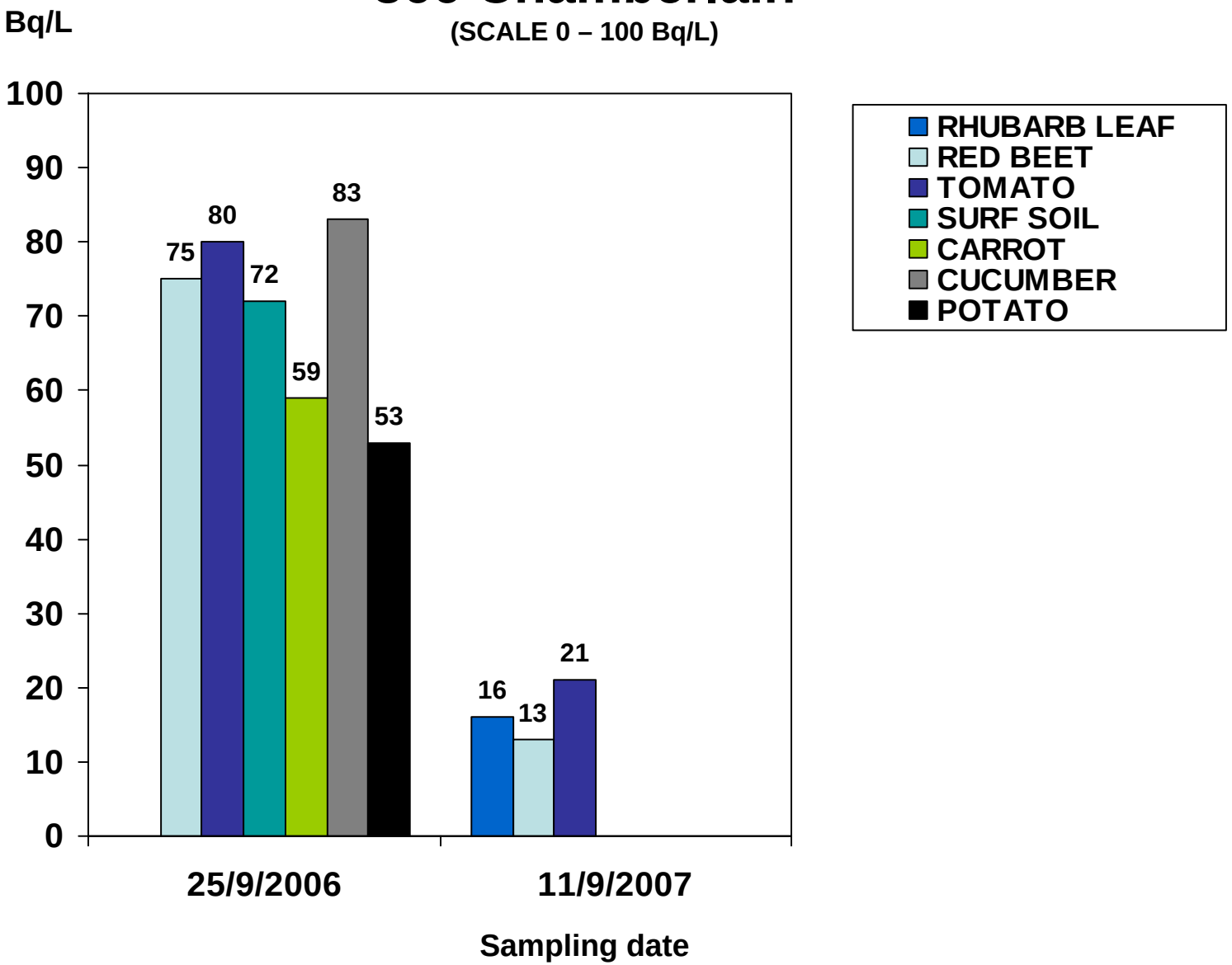
PRODUCE MONITORING RESULTS
416 Boundary Rd



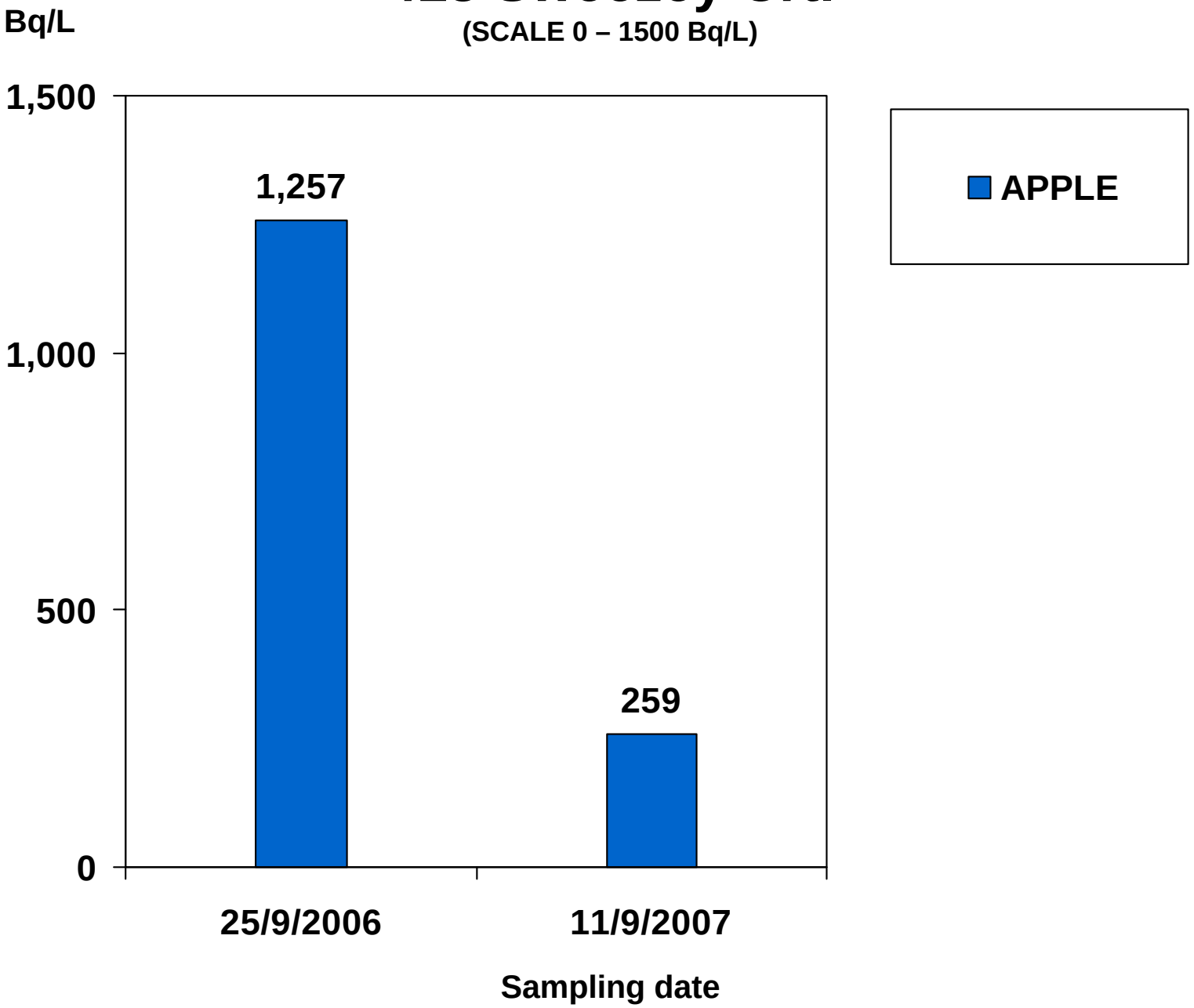
PRODUCE MONITORING RESULTS
711 Bruham Ave.



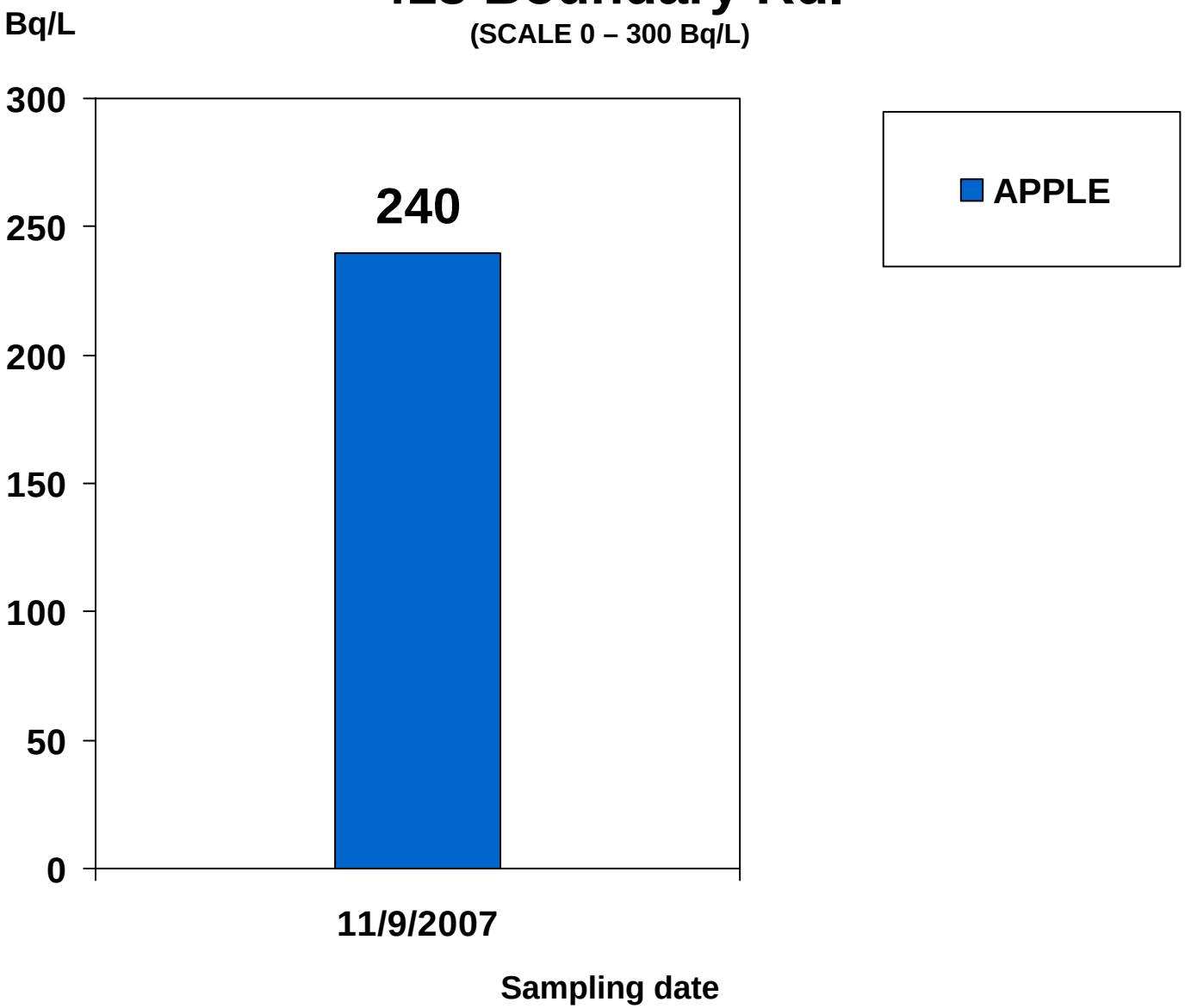
PRODUCE MONITORING RESULTS
366 Chamberlain



PRODUCE MONITORING RESULTS
413 Sweezey Crt.



PRODUCE MONITORING RESULTS
413 Boundary Rd.



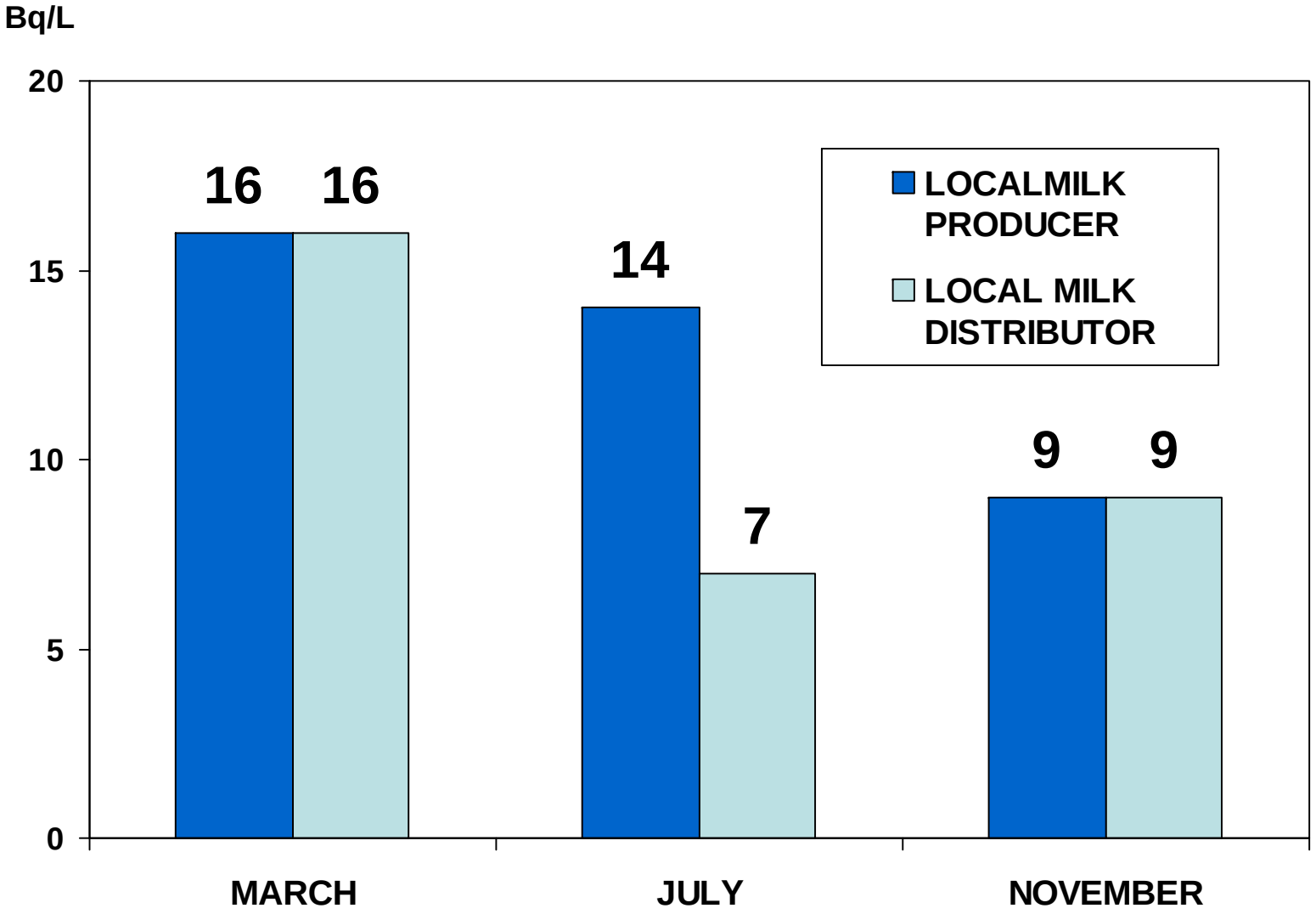
APPENDIX J

MILK MONITORING RESULTS FOR 2007

DESCRIPTION	MARCH	JULY	NOVEMBER	AVG
LOCAL PRODUCER	16	14	9	13
LOCAL DISTRIBUTOR	16	7	9	11
			AVG	12

MILK MONITORING RESULTS FOR 2007

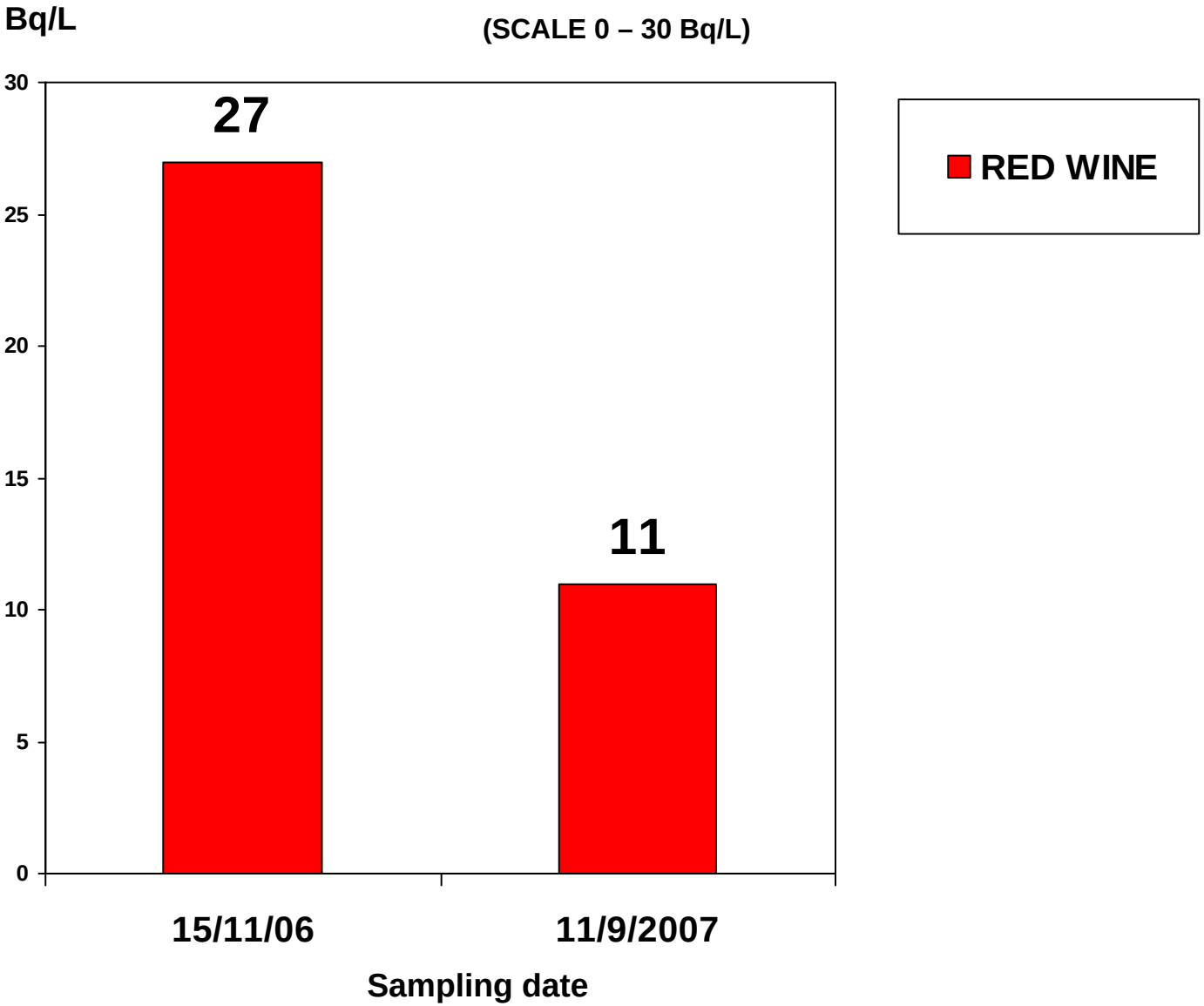
(SCALE 0 – 20 Bq/L)



APPENDIX K

WINE MONITORING RESULTS FOR 2007

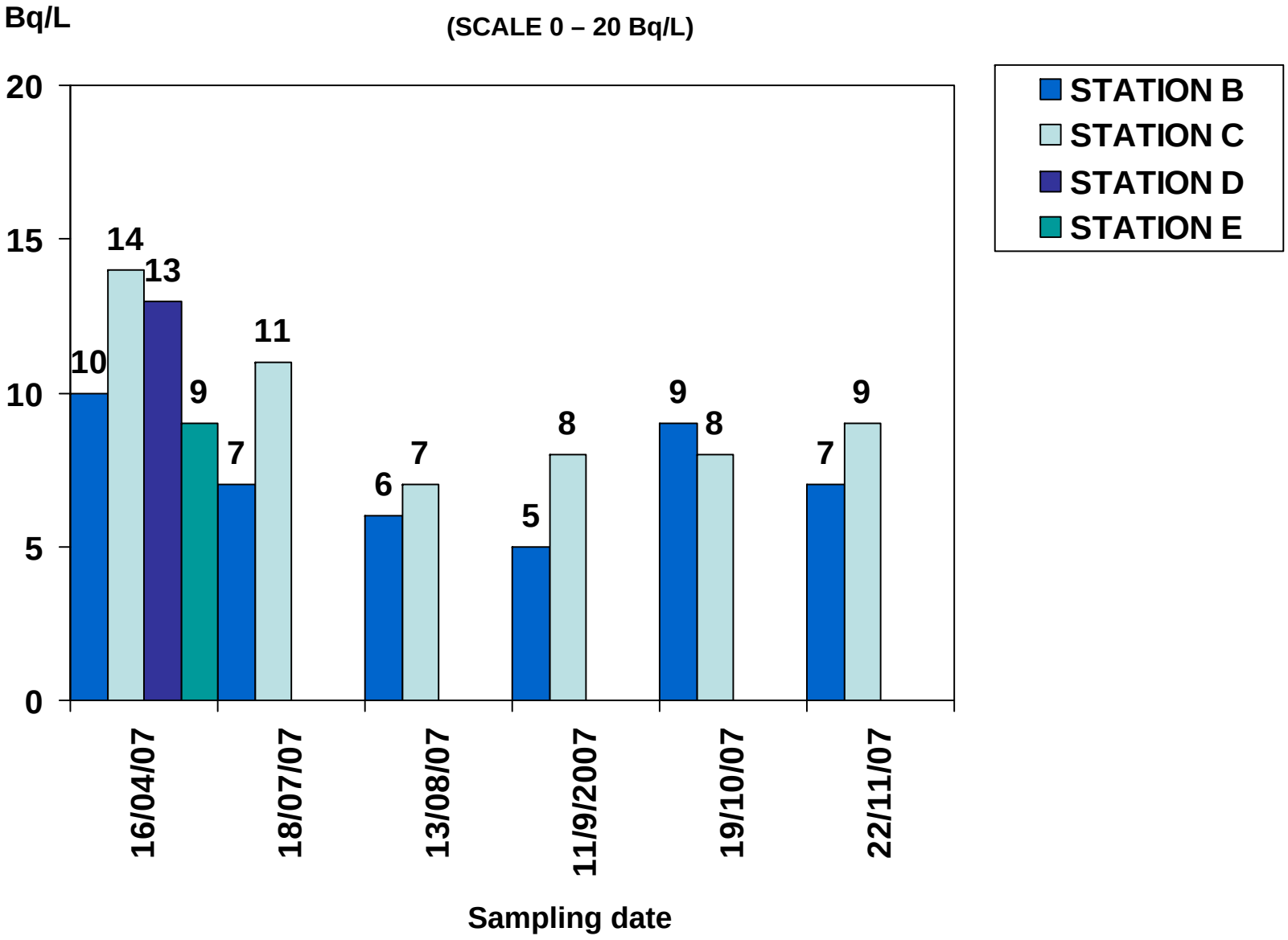
MONITORING RESULTS
WINE



APPENDIX L

RECEIVING WATERS MONITORING RESULTS FOR 2007

MONITORING RESULTS
RECEIVING WATERS



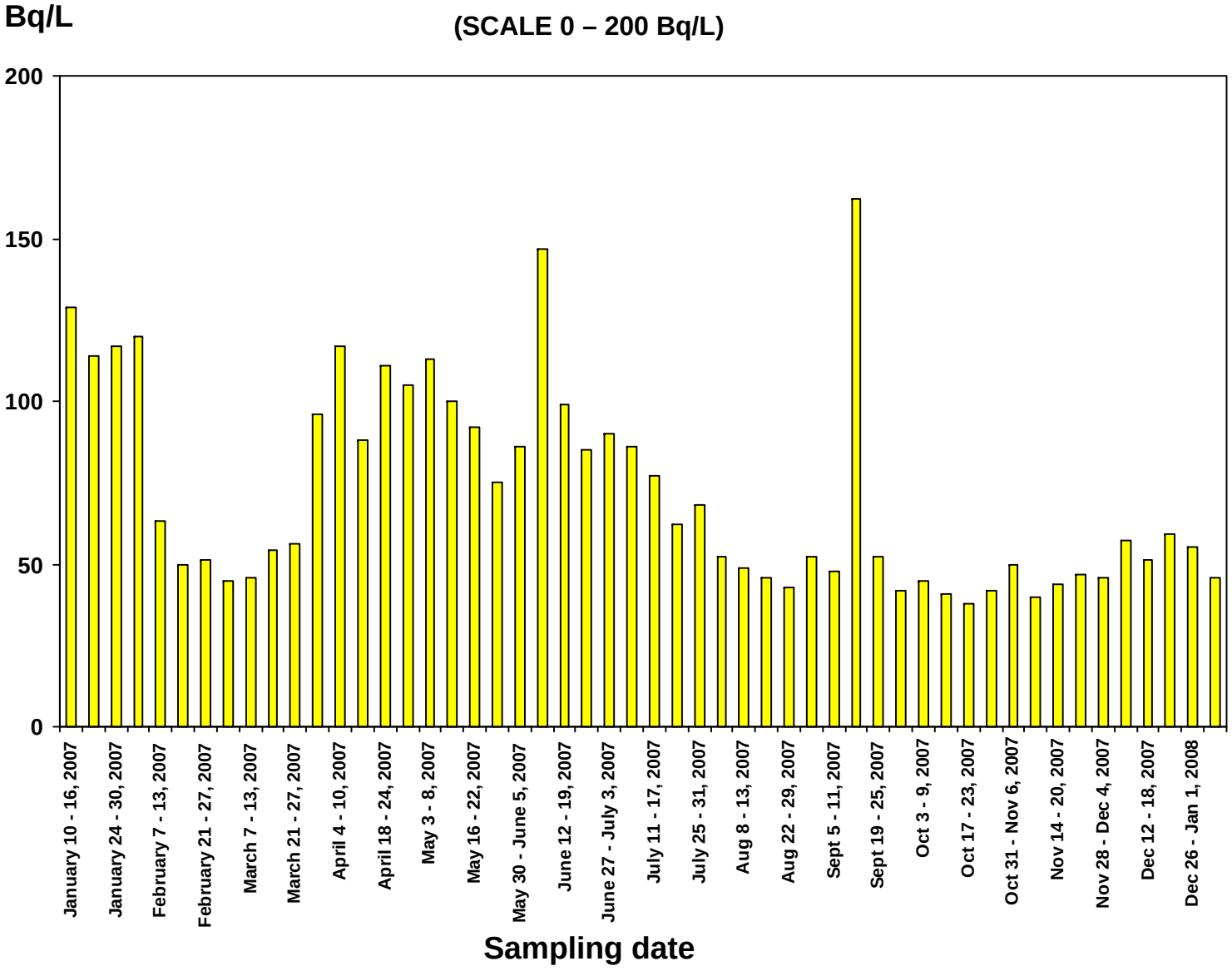
APPENDIX M

SEWAGE MONITORING RESULTS FOR 2007

SLUDGE WATER FROM POLLUTION CONTROL PLANT	
DATE	**Bq/L**
Jan 8 – 16, 2007	129
Jan 17 – 23, 2007	114
Jan 24 – 30, 2007	117
Jan 31 – Feb 6, 2007	120
Feb 7 – 13, 2007	63
Feb 14 – 20, 2007	50
Feb 21 – 27, 2007	51
Feb 28 – Mar 6, 2007	45
March 7 – 13, 2007	46
March 14 – 20, 2007	54
March 21 – 27, 2007	56
March 28 – April 3, 2007	96
April 4 - 10 2007	117
April 11 – 17, 2007	88
April 18 – 24, 2007	111
April 25 – May 1, 2007	105
May 2 – May 8, 2007	113
May 9 – 15, 2007	100
May 16 – 22, 2007	92
May 23 - 29, 2007	75
May 30 - June 5, 2007	86
June 5 - 12, 2007	147
June 12 - 19, 2007	99
June 19 – 26, 2007	85
June 27 – July 3, 2007	90
July 4 – 10, 2007	86
July 11 – 17, 2007	77
July 18 - 24, 2007	62
July 25 – 31, 2007	68
Aug 1 – 7, 2007	52
Aug 8 – 13, 2007	49
Aug 15 – 21, 2007	46
Aug 22 – 28, 2007	43
Aug 29 – Sept 4, 2007	52
Sept 5 – 11, 2007	48
Sept 12 – 18, 2007	162
Sept 19 – 25, 2007	52
Sept 26 – Oct 2, 2007	42
Oct 3 – 9, 2007	45
Oct 10 – 16, 2007	41
Oct 17 – 23, 2007	38
Oct 24 – 30, 2007	42
Oct 31 – Nov 6, 2007	50
Nov 7 – 13, 2007	40
Nov 14 – 20, 2007	44
Nov 21 – 27, 2007	47
Nov 28 – Dec 4, 2007	46
Dec 5 – 11, 2007	57
Dec 12 – 18, 2007	51
Dec 19 – 25, 2007	59
Dec 26 – Jan 1, 2008	55

TOWNLINE LIFT STATION	
DATE	**Bq/L**
Jan 25, 2007	178
Feb 8, 2007	232
Feb 15, 2007	127
Feb 22, 2007	61
Mar 6, 2007	97
Mar 29, 2007	134
Apr 5, 2007	161
Apr 12, 2007	165
Apr 19, 2007	195
Apr 26, 2007	169

MONITORING RESULTS
POLLUTION CONTROL PLANT



APPENDIX N

LIQUID EFFLUENT MONITORING RESULTS FOR 2007

2007 LIQUID EFFLUENT DATA

WEEK ENDING	WEEKLY RELEASE (Bq)	WEEK	LIMIT ALLOWANCE	IF RELEASED IN ONE WORK DAY AT SEWAGE PLANT (Bq/L)	IF RELEASED IN FIVE WORK DAYS AT SEWAGE PLANT (Bq/L)	IF RELEASED IN OVER ENTIRE WEEK AT SEWAGE PLANT (Bq/L)
5-Jan-07	1,202,255,829	51	198,394,870,493	288	58	14
12-Jan-07	175,349,139	50	198,219,521,354	42	8	2
19-Jan-07	399,771,200	49	197,819,750,154	96	19	5
26-Jan-07	535,202,857	48	197,284,547,297	128	26	6
31-Jan-07	352,728,308	47	196,931,818,989	85	17	4
2-Feb-07	0	46	196,931,818,989	0	0	0
9-Feb-07	0	45	196,931,818,989	0	0	0
16-Feb-07	0	44	196,931,818,989	0	0	0
23-Feb-07	0	43	196,931,818,989	0	0	0
2-Mar-07	0	42	196,931,818,989	0	0	0
9-Mar-07	0	41	196,931,818,989	0	0	0
16-Mar-07	0	40	196,931,818,989	0	0	0
23-Mar-07	0	39	196,931,818,989	0	0	0
30-Mar-07	0	38	196,931,818,989	0	0	0
6-Apr-07	0	37	196,931,818,989	0	0	0
13-Apr-07	0	36	196,931,818,989	0	0	0
20-Apr-07	0	35	196,931,818,989	0	0	0
27-Apr-07	82,518,368	34	196,849,300,621	20	4	1
4-May-07	389,348,544	33	196,459,952,077	93	19	4
11-May-07	859,835,411	32	195,600,116,666	206	41	10
18-May-07	859,835,411	31	194,740,281,255	206	41	10
25-May-07	171,967,082	30	194,568,314,173	41	8	2
1-Jun-07	23,936,340	29	194,544,377,833	6	1	0
8-Jun-07	0	28	194,544,377,833	0	0	0
15-Jun-07	0	27	194,544,377,833	0	0	0
22-Jun-07	0	26	194,544,377,833	0	0	0
29-Jun-07	0	25	194,544,377,833	0	0	0
6-Jul-07	0	24	194,544,377,833	0	0	0
13-Jul-07	0	23	194,544,377,833	0	0	0
20-Jul-07	0	22	194,544,377,833	0	0	0
27-Jul-07	0	21	194,544,377,833	0	0	0
3-Aug-07	132,149,682	20	194,412,228,151	32	6	2
10-Aug-07	0	19	194,412,228,151	0	0	0
17-Aug-07	0	18	194,412,228,151	0	0	0
24-Aug-07	0	17	194,412,228,151	0	0	0
31-Aug-07	0	16	194,412,228,151	0	0	0
7-Sep-07	0	15	194,412,228,151	0	0	0
14-Sep-07	4,304,768	14	194,407,923,383	1	0	0
21-Sep-07	0	13	194,407,923,383	0	0	0
28-Sep-07	0	12	194,407,923,383	0	0	0
5-Oct-07	485,134,280	11	193,922,789,103	116	23	6
12-Oct-07	0	10	193,922,789,103	0	0	0
19-Oct-07	0	9	193,922,789,103	0	0	0
26-Oct-07	0	8	193,922,789,103	0	0	0
2-Nov-07	1,346,021,040	7	192,576,768,063	323	65	15
9-Nov-07	24,495,800	6	192,552,272,263	6	1	0
16-Nov-07	0	5	192,552,272,263	0	0	0
23-Nov-07	433,920,680	4	192,118,351,583	104	21	5
30-Nov-07	0	3	192,118,351,583	0	0	0
7-Dec-07	433,920,680	2	191,684,430,903	104	21	5
14-Dec-07	179,297,800	1	191,505,133,103	43	9	2

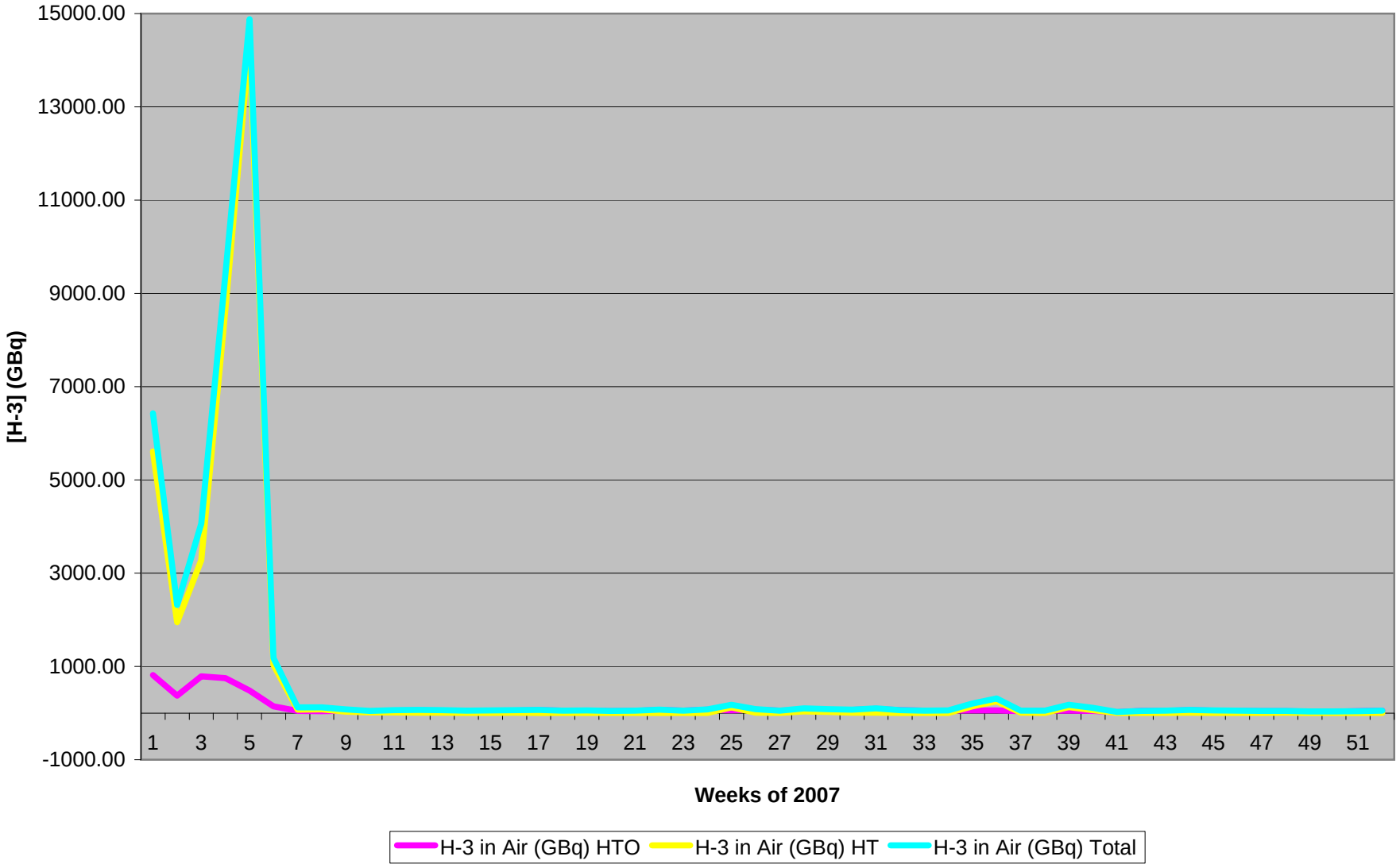
Annual Total (Bq)	8,091,993,219
Annual Total (GBq)	8
Limit (GBq)	200
% of limit	**4.05**

APPENDIX O

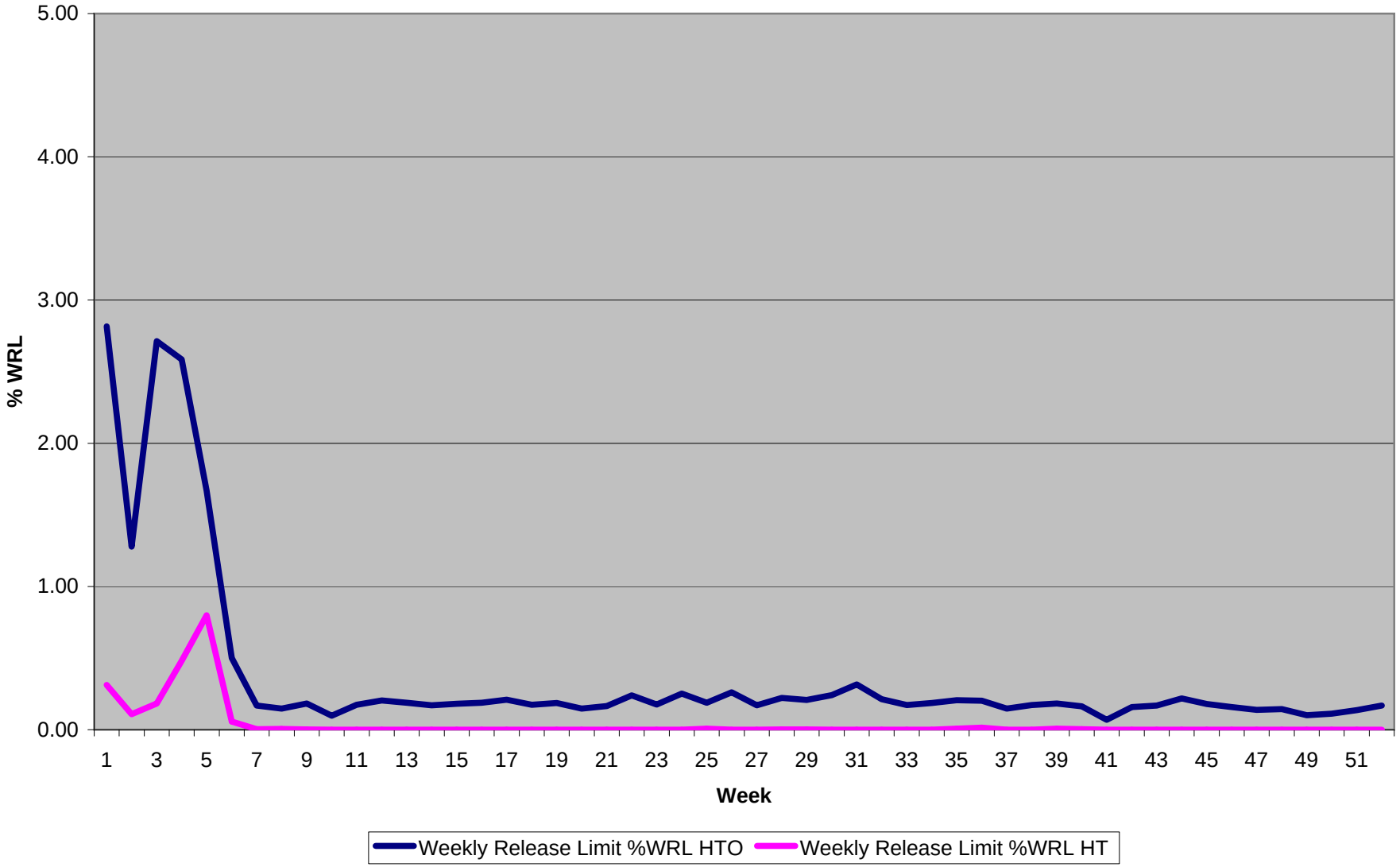
AIR EMISSION MONITORING RESULTS FOR 2007

Week	Date Initial	Date Final	Stack Release Data H-3 in Air (GBq) HTO	HT	Total	(GBq) ∑(HTO)	∑(HTO + HT)	1996 SRBT DEL %DEL Adult Resident	Infant Resident	Adult Worker	Weekly Release Limit %WRL HTO	HT	2006 SRBT DRL % DRL Adult Resident	Infant Resident	Nursing Infant	Nursing Mother	Adult Worker
1	1/1/2007	1/8/2007	816.82	5611.77	6428.59	816.82	6428.59	0.17	0.11	0.19	2.82	0.31	0.61	0.47	1.01	0.63	0.60
2	1/8/2007	1/15/2007	370.87	1947.84	2318.71	1187.69	8747.30	0.08	0.05	0.09	1.28	0.11	0.26	0.20	0.43	0.27	0.26
3	1/15/2007	1/22/2007	787.00	3278.16	4065.16	1974.69	12812.46	0.16	0.10	0.18	2.71	0.18	0.54	0.41	0.87	0.55	0.53
4	1/22/2007	1/29/2007	749.80	8663.52	9413.32	2724.49	22225.78	0.16	0.11	0.18	2.59	0.48	0.65	0.51	1.10	0.67	0.64
5	1/29/2007	2/5/2007	483.77	14397.85	14881.62	3208.26	37107.40	0.12	0.10	0.13	1.67	0.80	0.64	0.53	1.14	0.67	0.63
6	2/5/2007	2/12/2007	145.18	1032.19	1177.37	3353.44	38284.77	0.03	0.02	0.03	0.50	0.06	0.11	0.09	0.18	0.11	0.11
7	2/12/2007	2/19/2007	48.73	73.07	121.80	3402.17	38406.57	0.01	0.01	0.01	0.17	0.00	0.03	0.02	0.05	0.03	0.03
8	2/19/2007	2/26/2007	42.92	80.12	123.04	3445.09	38529.61	0.01	0.00	0.01	0.15	0.00	0.03	0.02	0.04	0.03	0.03
9	2/26/2007	3/5/2007	53.03	27.97	81.00	3498.12	38610.61	0.01	0.01	0.01	0.18	0.00	0.03	0.02	0.05	0.03	0.03
10	3/5/2007	3/12/2007	28.52	15.86	44.38	3526.64	38654.99	0.01	0.00	0.01	0.10	0.00	0.02	0.01	0.03	0.02	0.02
11	3/12/2007	3/19/2007	50.30	13.54	63.84	3576.94	38718.83	0.01	0.01	0.01	0.17	0.00	0.03	0.02	0.05	0.03	0.03
12	3/19/2007	3/26/2007	59.32	7.34	66.66	3636.26	38785.49	0.01	0.01	0.01	0.20	0.00	0.03	0.03	0.05	0.04	0.03
13	3/26/2007	4/2/2007	54.34	6.43	60.77	3690.60	38846.26	0.01	0.01	0.01	0.19	0.00	0.03	0.02	0.05	0.03	0.03
14	4/2/2007	4/9/2007	49.24	4.81	54.05	3739.84	38900.31	0.01	0.01	0.01	0.17	0.00	0.03	0.02	0.04	0.03	0.03
15	4/9/2007	4/16/2007	52.38	4.28	56.66	3792.22	38956.97	0.01	0.01	0.01	0.18	0.00	0.03	0.02	0.05	0.03	0.03
16	4/16/2007	4/23/2007	54.45	7.90	62.35	3846.67	39019.32	0.01	0.01	0.01	0.19	0.00	0.03	0.02	0.05	0.03	0.03
17	4/23/2007	4/30/2007	60.97	4.45	65.42	3907.64	39084.74	0.01	0.01	0.01	0.21	0.00	0.04	0.03	0.06	0.04	0.03
18	4/30/2007	5/7/2007	50.44	3.91	54.35	3958.08	39139.09	0.01	0.01	0.01	0.17	0.00	0.03	0.02	0.05	0.03	0.03
19	5/7/2007	5/14/2007	54.02	3.77	57.79	4012.10	39196.88	0.01	0.01	0.01	0.19	0.00	0.03	0.02	0.05	0.03	0.03
20	5/14/2007	5/22/2007	42.63	3.21	45.84	4054.73	39242.72	0.01	0.00	0.01	0.15	0.00	0.02	0.02	0.04	0.03	0.02
21	5/22/2007	5/28/2007	47.99	2.73	50.72	4102.72	39293.44	0.01	0.01	0.01	0.17	0.00	0.03	0.02	0.04	0.03	0.03
22	5/28/2007	6/4/2007	69.36	4.33	73.69	4172.08	39367.13	0.01	0.01	0.02	0.24	0.00	0.04	0.03	0.06	0.04	0.04
23	6/4/2007	6/11/2007	50.88	3.04	53.92	4222.96	39421.05	0.01	0.01	0.01	0.18	0.00	0.03	0.02	0.05	0.03	0.03
24	6/11/2007	6/18/2007	73.36	4.92	78.28	4296.32	39499.33	0.01	0.01	0.02	0.25	0.00	0.04	0.03	0.07	0.04	0.04
25	6/18/2007	6/25/2007	54.79	121.39	176.18	4351.11	39675.51	0.01	0.01	0.01	0.19	0.01	0.03	0.03	0.06	0.04	0.03
26	6/25/2007	7/3/2007	75.65	7.12	82.77	4426.76	39758.28	0.02	0.01	0.02	0.26	0.00	0.04	0.03	0.07	0.04	0.04
27	7/3/2007	7/9/2007	49.63	2.64	52.27	4476.39	39810.55	0.01	0.01	0.01	0.17	0.00	0.03	0.02	0.05	0.03	0.03
28	7/9/2007	7/17/2007	64.31	35.96	100.27	4540.70	39910.82	0.01	0.01	0.01	0.22	0.00	0.04	0.03	0.06	0.04	0.04
29	7/17/2007	7/23/2007	60.29	26.19	86.48	4600.99	39997.30	0.01	0.01	0.01	0.21	0.00	0.04	0.03	0.06	0.04	0.03
30	7/23/2007	7/30/2007	70.08	6.05	76.13	4671.07	40073.43	0.01	0.01	0.02	0.24	0.00	0.04	0.03	0.06	0.04	0.04
31	7/30/2007	8/7/2007	91.65	7.28	98.93	4762.72	40172.36	0.02	0.01	0.02	0.32	0.00	0.05	0.04	0.08	0.05	0.05
32	8/7/2007	8/13/2007	61.86	3.06	64.92	4824.58	40237.28	0.01	0.01	0.01	0.21	0.00	0.04	0.03	0.06	0.04	0.04
33	8/13/2007	8/21/2007	49.79	3.17	52.96	4874.37	40290.24	0.01	0.01	0.01	0.17	0.00	0.03	0.02	0.05	0.03	0.03
34	8/21/2007	8/27/2007	53.90	2.42	56.32	4928.27	40346.56	0.01	0.01	0.01	0.19	0.00	0.03	0.02	0.05	0.03	0.03
35	8/27/2007	9/4/2007	59.53	143.21	202.74	4987.80	40549.30	0.01	0.01	0.01	0.21	0.01	0.04	0.03	0.06	0.04	0.04
36	9/4/2007	9/10/2007	58.51	254.26	312.77	5046.31	40862.07	0.01	0.01	0.01	0.20	0.01	0.04	0.03	0.07	0.04	0.04
37	9/10/2007	9/17/2007	42.54	9.51	52.05	5088.85	40914.12	0.01	0.00	0.01	0.15	0.00	0.02	0.02	0.04	0.03	0.02
38	9/17/2007	9/24/2007	49.84	4.59	54.43	5138.69	40968.55	0.01	0.01	0.01	0.17	0.00	0.03	0.02	0.05	0.03	0.03
39	9/24/2007	10/2/2007	52.95	125.68	178.63	5191.64	41147.18	0.01	0.01	0.01	0.18	0.01	0.03	0.03	0.05	0.03	0.03
40	10/2/2007	10/9/2007	47.24	61.89	109.13	5238.88	41256.31	0.01	0.01	0.01	0.16	0.00	0.03	0.02	0.05	0.03	0.03
41	10/9/2007	10/15/2007	20.11	4.23	24.34	5258.99	41280.65	0.00	0.00	0.00	0.07	0.00	0.01	0.01	0.02	0.01	0.01
42	10/15/2007	10/22/2007	45.96	0.41	46.37	5304.95	41327.02	0.01	0.00	0.01	0.16	0.00	0.03	0.02	0.04	0.03	0.03
43	10/22/2007	10/29/2007	48.86	2.61	51.47	5353.81	41378.49	0.01	0.01	0.01	0.17	0.00	0.03	0.02	0.04	0.03	0.03
44	10/29/2007	11/5/2007	63.55	6.02	69.57	5417.36	41448.06	0.01	0.01	0.01	0.22	0.00	0.04	0.03	0.06	0.04	0.04
45	11/5/2007	11/12/2007	51.78	5.11	56.89	5469.14	41504.95	0.01	0.01	0.01	0.18	0.00	0.03	0.02	0.05	0.03	0.03
46	11/12/2007	11/19/2007	46.00	4.16	50.16	5515.14	41555.11	0.01	0.00	0.01	0.16	0.00	0.03	0.02	0.04	0.03	0.03
47	11/19/2007	11/26/2007	40.05	3.88	43.93	5555.19	41599.04	0.01	0.00	0.01	0.14	0.00	0.02	0.02	0.04	0.02	0.02
48	11/26/2007	12/4/2007	41.70	6.19	47.89	5596.89	41646.93	0.01	0.00	0.01	0.14	0.00	0.02	0.02	0.04	0.02	0.02
49	12/4/2007	12/10/2007	29.59	4.18	33.77	5626.48	41680.70	0.01	0.00	0.01	0.10	0.00	0.02	0.01	0.03	0.02	0.02
50	12/10/2007	12/17/2007	32.38	3.76	36.14	5658.86	41716.84	0.01	0.00	0.01	0.11	0.00	0.02	0.01	0.03	0.02	0.02
51	12/17/2007	12/23/2007	39.59	2.50	42.09	5698.45	41758.93	0.01	0.00	0.01	0.14	0.00	0.02	0.02	0.04	0.02	0.02
52	12/23/2007	12/31/2007	49.07	3.98	53.05	5747.52	41811.98	0.01	0.01	0.01	0.17	0.00	0.03	0.02	0.04	0.03	0.03
Annual	**Total**		5747.52	36064.46	41811.98												
Weekly	**Average**		110.53	693.55	804.08			0.02	0.01	0.03	0.38	0.04	0.08	0.06	0.13	0.08	0.08
				(Bq/a)	% Release Limit			Projected Dose (uSv/a)					Projected Dose (uSv/a)				
% Annual Release Limit:			**HTO**	1.35E+14	4.26			0.23	0.14	0.26			0.81	0.63	1.34	0.84	0.79
			HTO + HT	5.21E+14	8.03			**Adult Resident**	**Infant Resident**	**Adult Worker**	**HTO**	**HT**	**Adult Resident**	**Infant Resident**	**Nursing Infant**	**Nursing Mother**	**Adult Worker**
Derived Weekly HTO Release/Emission Limit (GBq/week)								5.00E+05	9.40E+05	4.40E+05	2.90E+04	NA	1.73E+05	2.33E+05	1.10E+05	1.69E+05	1.77E+05
Derived Weekly HT Release/ Emission Limit (GBq/week)								6.60E+07	2.70E+07	6.40E+07	NA	1.80E+06	4.02E+06	4.52E+06	2.07E+06	3.80E+06	4.07E+06

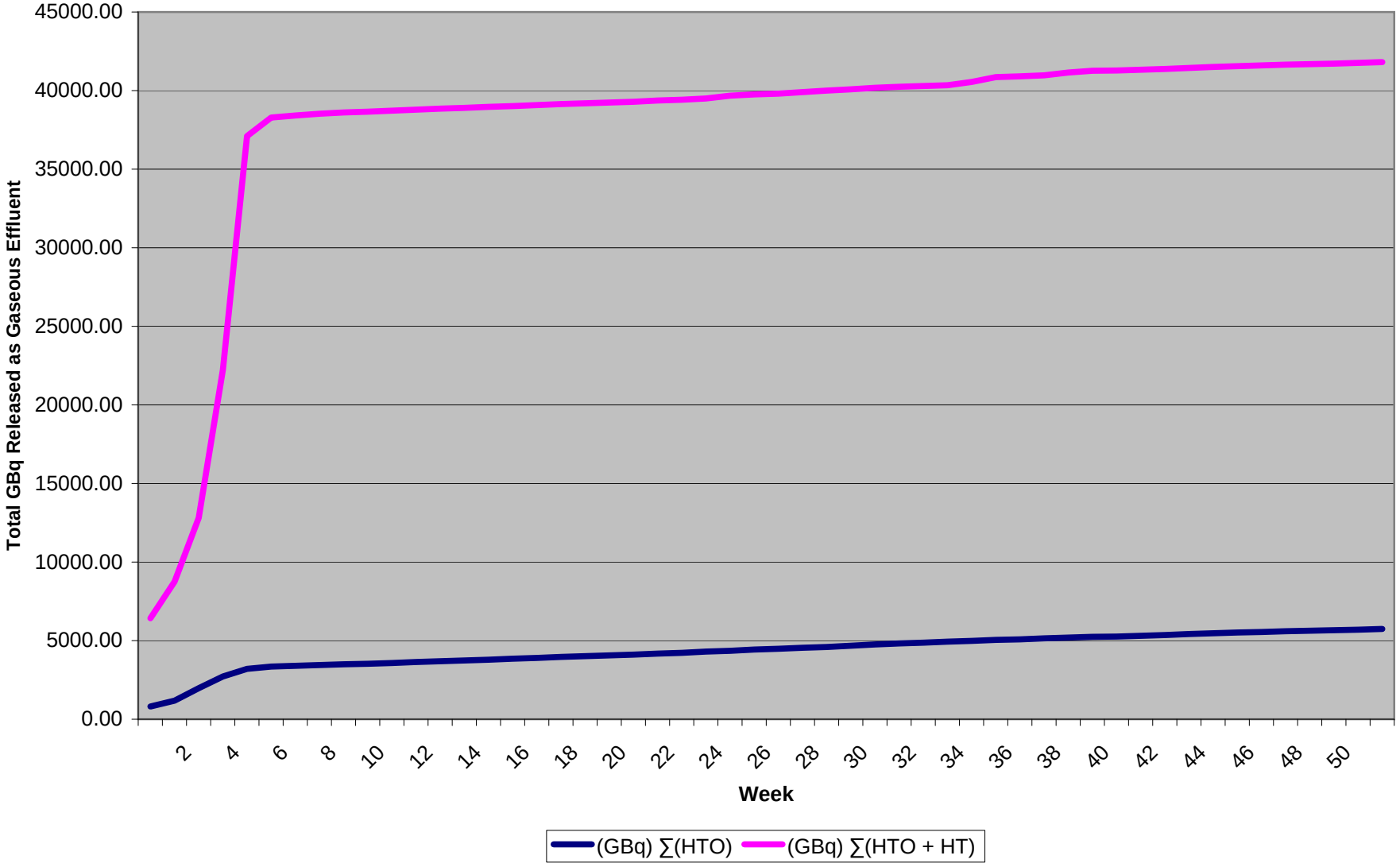
Emissions Data



% Weekly Release Limit (NSPFOL-13.01/2007) expired January 31, 2007



Emissions


45000.00
40000.00
35000.00
30000.00
25000.00
20000.00
15000.00
10000.00
5000.00
0.00
Total GBq Released as Gaseous Effluent
2
4
6
8
10
12
14
16
18
20
22
24
26
28
30
32
34
36
38
40
42
44
46
48
50
Week
(GBq) ∑(HTO)
(GBq) ∑(HTO + HT)

APPENDIX P

WEEKLY INSTRUMENT PERFORMANCE REPORT FOR WALLAC 1409 LSC FOR 2007

WEEKLY INSTRUMENT PERFORMANCE REPORT FOR WALLAC 1409 LSC FOR 2007