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SRB TECHNOLOGIES (CANADA) INC.

2010 ANNUAL COMPLIANCE REPORT

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INTRODUCTION

Since July 1, 2010 SRB Technologies (Canada) Inc. is licensed under Canadian Nuclear Safety Commission Nuclear Substance Processing Facility Operating Licence, NSPFOL-13.00/2015[1]. From January 1 to June 30, 2010 SRB Technologies (Canada) Inc. was licensed under Canadian Nuclear Safety Commission Nuclear Substance Processing Facility Licence, NSPFOL-13.00/2010[2].

Condition 2.4 of Licence NSPFOL-13.00/2015[1] reads:

> ***The licensee shall prepare an annual compliance and performance report.***

Condition 6.4 of Licence NSPFOL-13.00/2010[2] 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.***

Section 3.2 SCA – Management System of the The Licence Conditions Handbook LCH-SRBT-R000[3] for licence NSPFOL-13.00/2015[1] and Appendix E of Licence NSPFOL-13.00/2010[2] read:

> ***For licence condition 2.4, that the Annual Compliance Report should be submitted to the CNSC by March 31 of each year, covering the previous calendar year's operation including the following information:***
>
> ***i. Operational review including equipment and facility performance and changes, significant events/highlights that occurred during the year.***
>
> ***ii. Information on production including verification that limits specified in the licence was complied with.***
>
> ***iii. Modifications including changes in organization, administration and/or procedures that may affect licensed activities.***
>
> ***iv. Health physics information including operating staff radiation exposures including distributions, maxima and collective doses; review of action level or regulatory exceedence(s), if any, historical trending where appropriate.***
>
> ***v. 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.***

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vi. ***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.***

vii. ***Waste management including types, volumes and activities of solid wastes produced, and the handling and storage or disposal of those wastes.***

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

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

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

xi. ***Public information initiatives.***

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

PURPOSE

The purpose of this report is to meet the reporting requirements of conditions 2.4 of Licence NSPFOL-13.00/2015[1] and 6.4 of Nuclear Licence NSPFOL-13.00/2010[2].

METHODOLOGY

The report is structured to provide the information listed in Section 3.2 SCA – Management System of the the Licence Conditions Handbook LCH-SRBT-R000[3] for licence NSPFOL-13.00/2015[1] and Appendix E of Licence NSPFOL-13.00/2010[2]

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 2010.

1.1 SIGNIFICANT EVENTS / HIGHLIGHTS

On October 28, 2009 SRB made an application[4], in accordance with section 24(2) of the Nuclear Safety and Control Act, for the renewal of licence NSPFOL-13.00/2010[2] for a period of 5 years.

SRB requested little change to its licence with the same licensed activities and licence conditions as those described in licence NSPFOL-13.00/2010[2].

In the application[4] SRB requested that the Commission continue to accept SRB's previous proposal[5] for payment of the cost recovery fee adjustments, and continue to include this plan as a licence condition with the schedule in Appendix G of licence NSPFOL-13.00/2010[2]. In the application[4] SRB also proposed a schedule of payments to grow the decommissioning fund by April 30, 2014 to $550,476.94 which is the value necessary for the full decommissioning of the facility.

Following a two day public hearing held on February 17 and May 19, 2010 on June 30, 2010 the CNSC announced its decision[6] to renew SRB's operating licence for a period of 5 years. In their decision, the Commission approved SRB's proposal[5] for payment of the cost recovery fee adjustments and the schedule of payments to grow the decommissioning fund to the full amount by April 30, 2014.

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 10,000 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 2010 can be found in **Appendix A** of this report.

All ventilation systems were maintained in fully operational condition with no major system failures during 2010 to the requirements of our Maintenance Program [7] and operational procedures [8], [9]. 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 STACK FLOW PERFORMANCE

Over the past few years the majority of equipment used in emissions monitoring has been upgraded to more modern standards in order to provide better assurance of accuracy.

Stack maintenance is performed by a third party, in order to ensure effective performance of the ventilation system and minimize airflow reductions from the beginning to the end of the maintenance cycle to ensure accuracy of results.

Pitot tubes that were installed in the stacks are monitored and maintained by a third party to ensure stack airflow are at design requirements. This essentially allows for daily stack flow verification in addition to more detailed annual stack flow verification performed by an independent third party.

Stack performance Verification was performed on October 7, 2010 by an independent third party. The inspection confirmed that the stacks were performing to design requirements.

1.2.3 PORTABLE TRITIUM-IN-AIR MONITORS

Portable tritium-in-air monitors are also maintained in Zones 1, 2 and 3. The portable units are used to determine the source of tritium that might cause an alarm threshold to be breached.

By the end of 2010 there were three portable tritium-in-air monitors available for airborne tritium monitoring at the facility. Normally two monitors are located in Zone 3, one in Zone 2. A fourth monitor was being maintained and will be put back in service in early 2011 and a fifth monitor has been permanently taken out of service.

As required by our Radiation Safety Program[10] all tritium-in-air monitors were calibrated at least once during 2010, all three now in service were last calibrated in July and September.

1.2.4 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 are strategically located in Zone 3; one in the Rig Room where gaseous tritium light sources are filled, 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[10] all tritium-in-air monitors were calibrated at least once during 2010, in November and December 2010.

1.2.5 LIQUID SCINTILLATION COUNTERS

Two 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.

Both liquid scintillation counters were serviced as required at least once during 2010. Service on the units was completed in August 2010.

1.2.6 STACK MONITORING EQUIPMENT

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

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 with elapsed time, flow rate and volume.

As required by our procedures[11], each tritium-in-air monitor connected to the real-time recording device (chart recorder) was calibrated at least once in 2010. The bulk stack monitor was calibrated in May and the rig stack monitor was calibrated in November.

The chart recorder itself was calibrated at least every three months during 2010 for a total of 4 times in 2010, in March, June, September and November.

Filters for the bubbler system and for both tritium-in-air monitors connected to the chart recorder are changed regularly and records are kept on file.

As the calibration of a flow measurement device is only valid for one year, each device was replaced a year after being in place in March 2010.

In 2009 we contracted a third party to install an independent bubbler monitoring system to perform a validation of the bubbler system. Third party validations are to be performed every two years and therefore none were performed in 2010.

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 POSSESSION LIMIT

Section IV (c) of Licence NSPFOL-13.00/2015[1] and of Licence NSPFOL-13.00/2010[2] read:

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

Throughout 2010 the possession limit was not exceeded. The maximum tritium activity possessed at any time during 2010 was 4,997 TBq in March. Tritium activity on site during 2010 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.

2.2 IMPORT AND EXPORT ACTIVITIES

During 2010 all Import and Export licences were acquired as necessary and no licence limits were exceeded. Prior and Post Notifications were made to the CNSC for all international shipments.

2.3 SHIPPING ACTIVITIES

In 2010, SRB prepared, packaged and shipped, in accordance with CNSC regulatory document, SOR/2000-208, Packaging and Transport of Nuclear Substances Regulations, 218 consignments to various customers located in 10 countries around the world including Canada. The number of monthly shipments containing radioactive material for 2010 can be found in **Appendix D**.

No transport incidents occurred nor were reported during 2010.

2.4 TRITIUM PROCESSED

In 2010 a total of 6,643,732 GBq's of tritium was processed. For comparison in 2009 a total of 5,045,720 GBq's of tritium was processed, an increase of approximately 32%.

2.5 RELEASE LIMITS TO ATMOSPHERE

Throughout the year SRB operated under release limits to atmosphere prescribed under its licence.

From January 1, 2010 to June 30, 2010 SRB operated under Nuclear Substance Processing Facility Operating Licence number NSPFOL-13.00/2010[2] and its associated release limits to atmosphere which are outlined in Appendix C.

From July 1, 2010 to December 31, 2010 SRB operated under Nuclear Substance Processing Facility Operating Licence number NSPFOL-13.00/2015[1] and its associated release limits to atmosphere which are outlined in Appendix A.

Both licences have the same release limits to atmosphere.

Stack release values in 2010 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 13.65% of the licence limit and the emissions of HTO + HT was maintained at 8.13% of the licence limit.

TABLE 1: 2010 AIR RELEASES AGAINST RELEASE LIMIT:

NUCLEAR SUBSTANCE AND FORM	LIMIT (GBq/YEAR)	RELEASED (GBq/YEAR)	RELEASED (GBq/WEEK)	% OF LIMIT
TRITIUM AS TRITIUM OXIDE (HTO)	67,200	9,173	176.40	13.65%
TOTAL TRITIUM AS TRITIUM OXIDE (HTO) AND TRITIUM GAS (HT)	448,000	36,426	700.51	8.13%

2.6 ACTION LEVELS FOR RELEASES TO ATMOSPHERE

Throughout the year SRB operated under release limits to atmosphere prescribed under its licence.

From January 1, 2010 to June 30, 2010 SRB operated under Nuclear Substance Processing Facility Operating Licence number NSPFOL-13.00/2010[2] and its associated release limits to atmosphere which are outlined in the SRB document titled Licence Limits, Actions Levels and Administrative Limits, listed in Appendix B.

From July 1, 2010 to December 31, 2010 SRB operated under Nuclear Substance Processing Facility Operating Licence number NSPFOL-13.00/2015[1] and its Licence Conditions Handbook number LCH-SRBT-R000[3], listed in Section 3.10.

Both licences have the same action levels for releases to atmosphere.

TABLE 2: PROCESSING LICENCE STACK EMISSION ACTION LEVELS:

NUCLEAR SUBSTANCE AND FORM	WEEKLY ACTION LEVEL (GBq)
TRITIUM AS TRITIUM OXIDE (HTO)	840
TOTAL TRITIUM AS TRITIUM OXIDE (HTO) AND TRITIUM GAS (HT)	7,753

On no occasions have one of the weekly stack emission action levels been exceeded during 2010.

In 2011, SRB will undertake a formal review of current operating conditions, 2010 performance data and the "Licence Limits, Action Levels and Administrative Limits"[12] document to ensure that action levels continue to be adequate to detect the emergence of a potential loss of control of the radiation protection program as defined in the Radiation Protection Regulations regulatory guide G-228 titled "Developing And Using Action Levels"[13] and G-129 titled "Keeping Radiation Exposures and Doses As Low As Reasonably Achievable - ALARA"[14]. SRB will further document the process and frequency for performing future reviews against operating conditions and performance data.

2.7 AIR EMISSIONS AGAINST TARGET

Based on operational experience we have developed practical targets that could be achieved in reducing emissions:

TABLE 3: PROJECTED YEARLY TARGETS

PERIOD	PROJECTED TARGET	ACHIEVED
JULY 1, 2009 TO JUNE 30,2010	-10%	-41%
JULY 1, 2010 TO JUNE 30,2011*	-8%	-6*

*** PROJECTED BASED ON DATA FROM JULY 1, 2010 TO DECEMBER 31, 2010**

Despite an increase in the tritium processed we have met the target observed for the first half of 2010 reaching a reduction in emissions of 41% compared to a target reduction of 10%. Again despite an increase in the tritium processed we are on target to reduce emissions by 6% based on the data to date. We expect to meet the target of 8% reduction with the emission reduction initiatives planned in early 2011 and production output predictions for early 2011.

For ease of review and management it has been decided that future targets will be set and observed on annual basis from January to December.

2.8 RELEASE LIMIT TO SEWER

Throughout the year SRB operated under release limits to sewer prescribed under its licence.

From January 1, 2010 to June 30, 2010 SRB operated under Nuclear Substance Processing Facility Operating Licence number NSPFOL-13.00/2010[2] and its associated release limits to sewer which are outlined in Appendix C.

From July 1, 2010 to December 31, 2010 SRB operated under Nuclear Substance Processing Facility Operating Licence number NSPFOL-13.00/2015[1] and its associated release limits to sewer which are outlined in Appendix A.

Both licences have the same releases limits to sewer.

Sewer release values based on sampling and analysis indicate that the emissions to sewer in 2010 were 3.31% of the license limit.

TABLE 4: 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	7	3.31%

In order to further reduce the fluctuations in the environment it should be noted that SRB has established on October 30, 2008 as part of its EMS Objectives and targets[15] a maximum liquid release per day of 0.3 GBq.

Weekly releases were below target for all of 2010 with the exception of one week where a planned one time daily release of approximately 0.4 GBq (above EMS target) was made on October 25, 2010 in order to assess impact on sludge at Townline Lift Station. Results are discussed in section 5.1.8 of this report.

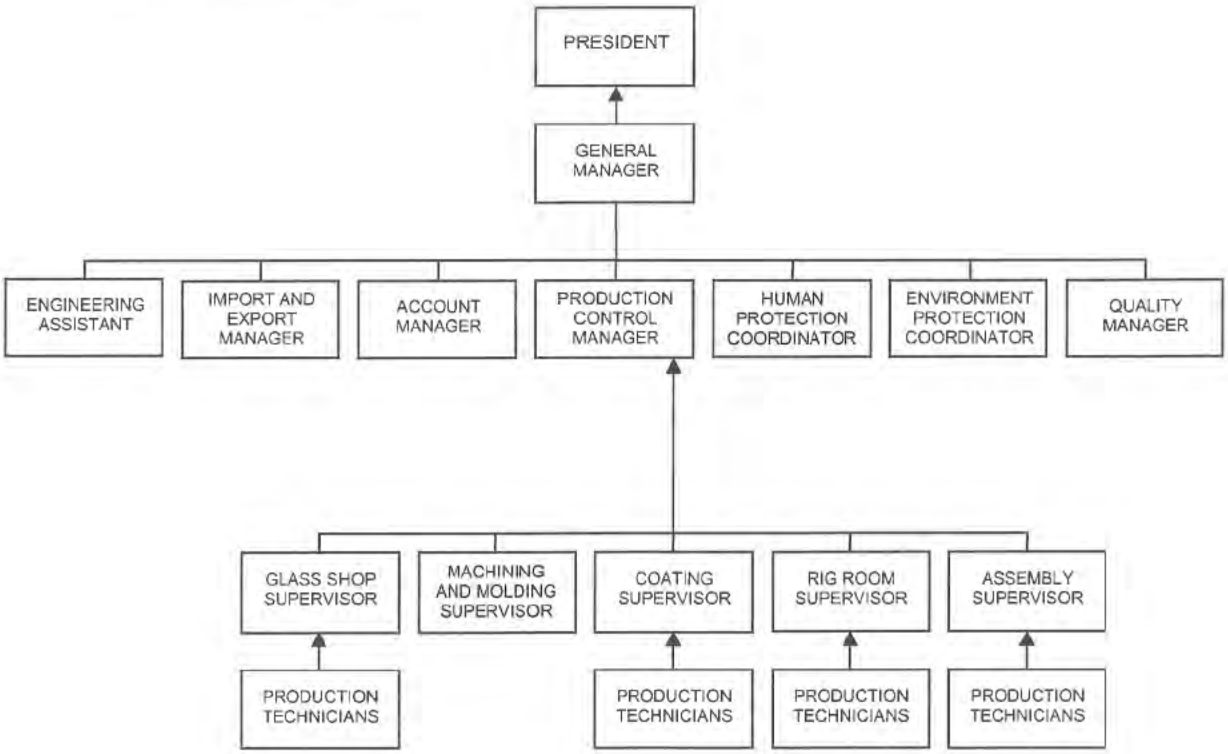
3.0 MODIFICATIONS

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

3.1 ORGANIZATIONAL IMPROVEMENTS

The following organizational chart represents the current structure at the company as a result of addressing the recommendations of the organizational study[16] [17] that was performed in support of maintaining a processing licence. Each position is held by a single individual who possesses the "qualifications" and "experience requirements" of the position:

FIGURE 1: ORGANIZATIONAL CHART



After adding a fifth member to the Health Physics Team in 2009, in 2010 Senior Management decided to further increase the company's emphasis on Health Physics by adding a sixth member to the Health Physics Team and Committee. The Health Physics Committee and its members, now comprised of six staff members, is primarily responsible for the review of all safety programs and safety related procedures to ensure that requirements of the Nuclear Safety and Control Act, Regulations, conditions of the licence[1] are met in addition to performing day to day tasks for environment and human protection. A training plan was developed to ensure the new member of the Health Physics Team is adequately trained to perform these tasks.

3.1.1 STABLE WORKFORCE

In 2010 our workforce continued to be stable, this is the same structure with the exact same staff, in the same positions, that was in place in 2009.

3.1.2 EXPERIENCED WORKFORCE

By the end of 2010 employees in our workforce had an average experience of over 14 years at the company with the experience of any employee ranging between 4 and 19 years, with an average age of just over 42 years of age.

3.1.3 COMMITTEES

Again in 2010 committees have been instrumental in the development and refinement of company programs and procedures and at identifying ways to reduce emissions and improve safety at the facility. Committees use meeting results as an opportunity for improvement and make recommendations accordingly. In 2010 a total of 56 minuted meetings have taken place at the company with Health Physics Committee meetings being most frequent at 20:

TABLE 5: BREAKDOWN OF MEETINGS HELD

COMMITTEE	NUMBER OF MEETINGS
HEALTH PHYSICS COMMITTEE	20
OCCUPATIONAL HEALTH AND SAFETY COMMITTEE	12
EXECUTIVE COMMITTEE	2
FIRE PROTECTION COMMITTEE	5
MITIGATION COMMITTEE	6
PUBLIC INFORMATION COMMITTEE	4
WASTE MANAGEMENT COMMITTEE	4
OTHER STAFF	3
TOTAL	**56**

Notable improvements made by the Committees in 2010 included; the installation of a surge protector on the chart recorder, the introduction of new methods that reduce the liquid waste from the liquid scintillation of betalights process and solid waste from the silk screening process.

In 2010 changes have also been made to Committees themselves to improve their effectiveness. For example, as a result of an Executive Committee Meeting held on August 24, 2010, Senior Management decided to increase the company's emphasis on Health Physics by adding an additional member to the Health Physics Committee. Also in a meeting held on May 10, 2010 the Waste Management Committee also made a decision to add another member to the committee in order to further increase the knowledge base of the committee to identify additional areas where waste minimization could be achieved.

3.1.4 VISION, MISSION, GOALS, VALUES AND POLICY

In December of 2010 the company vision, mission, goals, values and policy was reviewed to ensure that the company adopts a pro-active approach to safety. The company vision, mission, goals, values and policy are fully communicated to our contractors and posted on our web site, to demonstrate to the public that the overriding corporate objective is the company's commitment to public and environmental safety.

FIGURE 2: COMPANY'S GOVERNING PRINCIPLES

SRBT

Our Vision

Strive to maintain or exceed the standing required to allow our company to process tritium and manufacture life safety devices to fulfill the needs of our customers.

Our Mission

Continuously improve company programs in order to meet or exceed the requirements of the Nuclear Safety and Control Act, Regulations and conditions of the licence in order to strive to achieve higher grades in all safety areas.

Our Goals

1. To promote a strong safety culture throughout the organization by having all employees continuously assess and analyze any impact the operations may have on the public and the environment.
2. To reduce any risk to the public and the environment due to the operations to ensure that requirements of the Nuclear Safety and Control Act, Regulations, conditions of the licence and ISO 9001 requirements are met or exceeded.
3. To be transparent, visible and open with our community, our regulators, and our staff.
4. To ensure that the products are supplied to customer requirements and specifications and to the requirements of the Nuclear Safety and Control Act, Regulations, conditions of the licence and ISO 9001 requirements.
5. To continue to lower emissions and improve the effectiveness of our programs and processes.

Our Values

We will achieve our goals by acting with integrity with the regulators, the members of the public and our employees, and by respecting their input and contribution by making improvements based on this input.

Our Policy

It is the policy of the company and its employees to learn from our operational experience and research, to consider the input of all stakeholders and be conservative in our decision making to ensure the protection of the public and the environment to achieve the goals that we have set to meet our ultimate vision.

3.2 PROGRAM AND PROCEDURE IMPROVEMENTS

In 2010 only minor changes have been made to programs and procedures to include more detail, to further describe activities and controls that are currently in place at the facility. These minor changes further ensure protection of the public, the workers and the environment.

Programs and procedures are continuously reviewed by SRB staff against information in 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.

3.2.1 IMPROVED FIRE PROTECTION PROGRAM

On October 28, 2010 minor changes were made to the Fire Protection Program[18] and a new revision was issued to address the comments of the 2009 Annual Third Party Review performed by Mr. Rhéaume Chaput.

3.2.2 IMPROVEMENTS TO DOSIMETRY DOCUMENTATION

As a result of a Type I Inspection of the Dosimetry Services performed between September 2 and 4, 2009 SRB improved a number of documents to address findings of CNSC Staff outlined in Dosimetry Services Inspection Report MSD-SRBT-2009-T16318-T1[19].

The LSC-QA program[20] was revised on November 9, 2010 mainly to provide more detail and clarity and better reflect the requirements of Revision 1 of S-106, the CNSC Regulatory Standard on Technical and Quality Assurance for Dosimetry Services[21].

Procedure RSO-004[22] titled "Bioassay Procedure" was also revised on November 11, 2010 mainly to address CNSC comments regarding Committed Effective Dose (CED).

A new procedure RSO-036[23] titled "Independent Testing For In Vitro Measurements" was developed on November 8, 2010 to document the process for participating in the independent testing directly with the National Calibration Reference Centre for Bioassay and In Vivo Monitoring of Health Canada (NCRC).

3.2.3 IMPROVEMENTS TO CALIBRATION PROCESS

As an improvement to our calibrated equipment process procedure QAS-010[24], titled "Calibration of Measuring/Test Equipment" was updated on February 26, 2010 to keep track of calibration due dates of all calibrated equipment and to implement a master list on calibrated equipment. The master list is viewed as an important tool to ensure calibration due dates are maintained.

3.2.4 IMPROVEMENTS TO CORRECTIVE ACTION PROCESS

Procedure QAS-020[25] titled "Corrective Action" was revised on February 26, 2010 to reflect changes to the Non-Conformance Report (NCR) form, the form now includes a distinct section to review effectiveness of corrective action taken.

Procedure QAS-019[26] titled "Management Reviews" has also been updated on February 26, 2010 to ensure that yearly management reviews include an agenda item to formally verify the effectiveness of the corrective actions taken on non-conformances raised throughout the year.

3.2.5 IMPROVEMENTS TO ENGINEERING CHANGE REQUESTS

Procedure ENG-004[27] titled "Engineering Change" was updated in August 2010 to incorporate the use of the Engineering Change Request (ECR) form for program and procedure changes. Therefore when changes to programs and procedures are made, these are formally documented on the ECR form.

3.2.6 OTHER ONGOING PROGRAM AND PROCEDURE IMPROVEMENTS

Only minor changes have been made to many other procedures to include more detail, to further describe activities and controls that are currently in place at the facility. These minor changes further ensure protection of the public, the workers and the environment.

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

SRB's Dosimetry Service Licence was amended May 31, 2010 to extend the expiry date to May 31, 2013. The only other change to the licence was Licence Documents Appendix was updated to reflect the current document revision numbers.

During 2010, SRB maintained a Dosimetry Service Licence[28], 11341-3-10.1, 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 17 individual staff members.

SRB participated in the annual Tritium Urinalysis Performance Test 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[29] of Achievement for successful participation in the Tritium Urinalysis Performance Test from the National Calibration Reference Centre for Bioassay and In Vivo Monitoring for the year 2010.

SRB also submits, to the CNSC, an Annual Compliance Report (ACR) for Dosimetry Service Licence[28], 11341-3-10.1.

4.2 STAFF RADIATION EXPOSURE

SRB, through the Dosimetry Service License[28], 11341-3-10.1, 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 Guidelines for Tritium Bioassay and Revision 1 of S-106, the CNSC Regulatory Standard on Technical and Quality Assurance for Dosimetry Services[21].

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 was 0.88 mSv with an average for all staff of only 0.11 mSv. Collective dose was also low at 1.82 mSv. The table found in **Appendix E** provides the radiological occupational annual dose data for 2010. The table provides a comparison of dosimetry results for the years 1997 to 2010. Any comparison of the dose in 2007 and 2008 to previous years is not informative or appropriate as the facility only processed tritium until January 31, 2007, and only resumed processing tritium in July of 2008.

4.3 ACTION LEVELS FOR DOSE AND BIOASSAY LEVEL

Under processing licence NSPFOL-13.00/2010[2] the actions levels are not included directly in the licence but referenced in the document titled Licence limits, action levels and administrative limits[12] dated May 16, 2008. Section 3.8 of the Licence Conditions Handbook LCH-SRBT-R000[3] for licence NSPFOL-13.00/2015[1] provides the same information:

TABLE 6: ACTION LEVELS FOR EFFECTIVE DOSE TO WORKER

PERSON	PERIOD	ACTION LEVEL (mSv)
NUCLEAR ENERGY WORKER	QUARTER OF A YEAR	2.6
	1 YEAR	5.0
	5 YEAR	25.0
PREGNANT NUCLEAR ENERGY WORKER	BALANCE OF THE PREGNANCY	3.5

TABLE 7: ACTION LEVELS FOR BIOASSAY RESULT

PARAMETER	ACTION LEVEL
BIOASSAY RESULT	1,000 Bq/ml FOR ANY PERIOD

There were no instances at anytime in 2010 whereby a staff member's tritium body burden exceeded the action level of 1,000 Bq/mL.

The highest annual staff dose for the year was 0.88 mSv, therefore none of the staff members 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 8: 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

At no time in 2010 did Zone 3 staff bioassay sample results exceed the administrative limit of 500 Bq/mL.

At no time in 2010 did Zone 2 or Zone 1 staff bioassay sample results exceed the administrative limit of 100 Bq/mL.

The highest annual staff dose for the year was 0.88 mSv, therefore none of the staff members exceeded the administrative levels for effective dose to worker.

In 2011, SRB will undertake a formal review of current operating conditions, 2010 performance data and the "Licence Limits, Action Levels and Administrative Limits"[12] document to ensure that action levels continue to be adequate to detect the emergence of a potential loss of control of the radiation protection program as defined in the Radiation Protection Regulations regulatory guide G-228 titled "Developing And Using Action Levels"[13] and G-129 titled "Keeping Radiation Exposures and Doses As Low As Reasonably Achievable - ALARA"[14]. SRB will further document the process and frequency for performing future reviews against operating conditions and performance data.

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 9: 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/cm^2

An overview of swipe monitoring results for 2010 has been tabulated and is included in **Appendix F**. As expected failures were more prominent in the area where tritium was processed. All swipe results are reported to the area supervisors. The area supervisor would review the results to determine where extra cleaning effort is necessary.

The data collected shows that 1,380 swipes were taken in Zone 1 resulting in a pass rate of 99.28% below the administrative level of 4 Bq/cm^2.

The data collected shows that 2,064 swipes were taken in Zone 2 resulting in a pass rate of 96.85% below the administrative level of 4 Bq/cm^2.

The data collected shows that 5,667 swipes were taken in Zone 3 resulting in a pass rate of 93.35% below the administrative level of 40 Bq/cm^2.

A comparison of the data for 2010 and 2009 was made as the facility processed for the entire year of 2009 and 2010:

TABLE 10: 2009 AND 2010 PASS/FAIL RATIO COMPARISON

ZONE	2009 PASS/FAIL RATIO	2010 PASS/FAIL RATIO
1	98.94%	99.28%
2	96.00%	96.85%
3	78.62%	93.35%

In 2010, SRB Health Physics Staff have initiated a review of the locations of the swipes to ensure that appropriate contamination control measures are implemented to control and minimize the contamination of areas, equipment and personnel. Preliminary findings have showed that locations where the swipes are performed should not only be re-assessed but be formally re-assessed at defined intervals by analyzing work practice, processes and results and identifying areas with higher probability for surface contamination and adjust future locations accordingly.

In 2011, Health Physics Staff will review historical results and set parameters for altering the frequency of swipes, the locations of the swipes and number of locations to be swiped based on the results analyzed. As part of this exercise Health Physics Staff will also set a frequency for this review to be performed.

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[30] 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 third party laboratory for tritium concentration assessment by the third party 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.

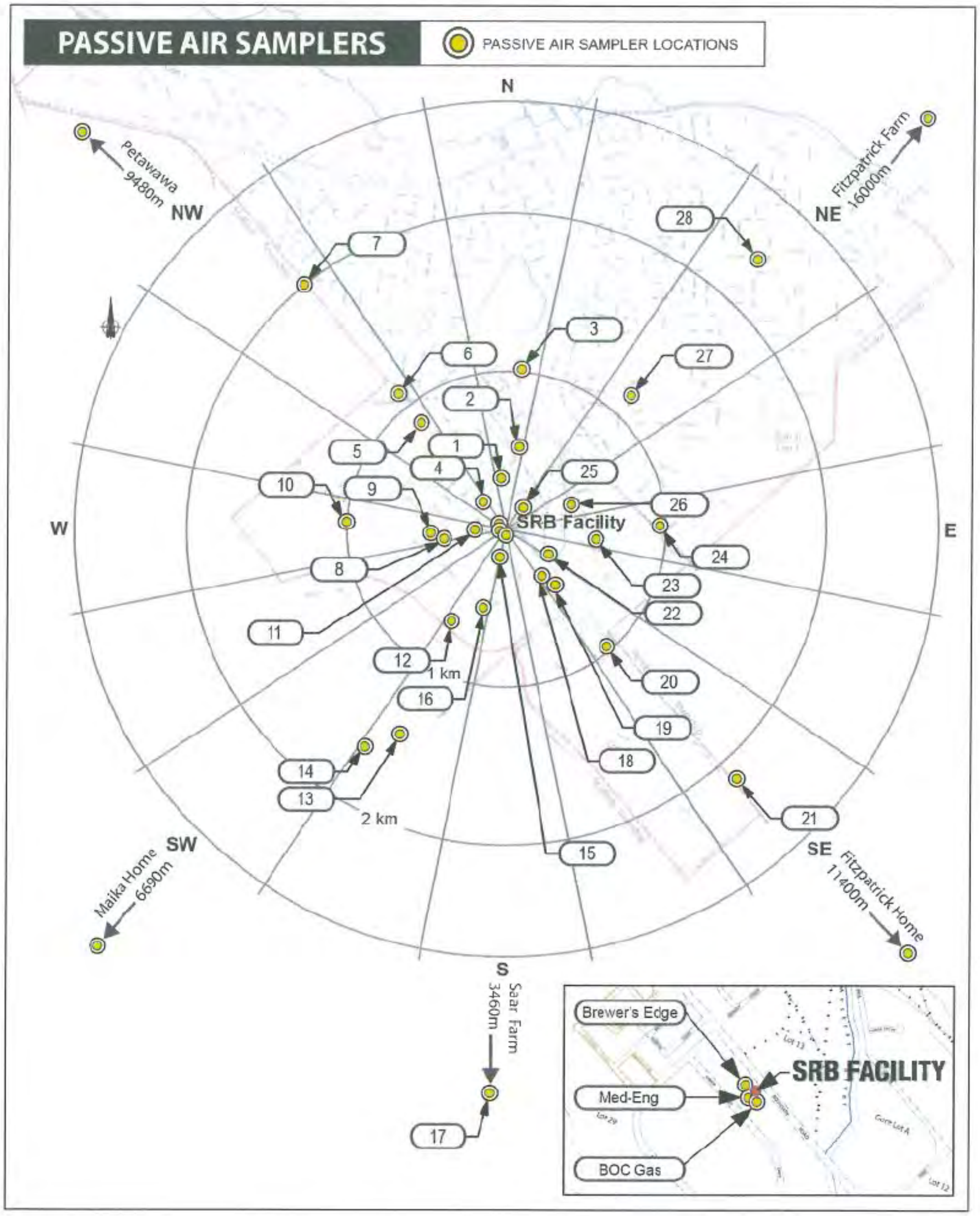
Passive air sampler results for 2010 can be found in the table on **page A1** in **Appendix G**.

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

Tritium oxide in air concentrations for each month of 2010 are graphically represented for each of 8 compass sectors and for each of the distances from the facility on **page A2** in **Appendix G**.

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 2010.

FIGURE 3: PASSIVE AIR SAMPLER LOCATIONS



5.1.2 WELL MONITORING RESULTS

Our groundwater studies and ensuing reports[31] [32] [33] now includes monitoring data from 57 wells drilled at different depths in the stratigraphy including 37 wells located within approximately 150 meters of our stacks. Well monitoring results can be found in **Appendix H**.

5.1.2.1 MONITORING WELLS

32 of these wells are monitored on a monthly basis and another 5 located further from the facility are monitored every 4 months.

FIGURE 4: LOCATIONS OF MONITORING WELLS

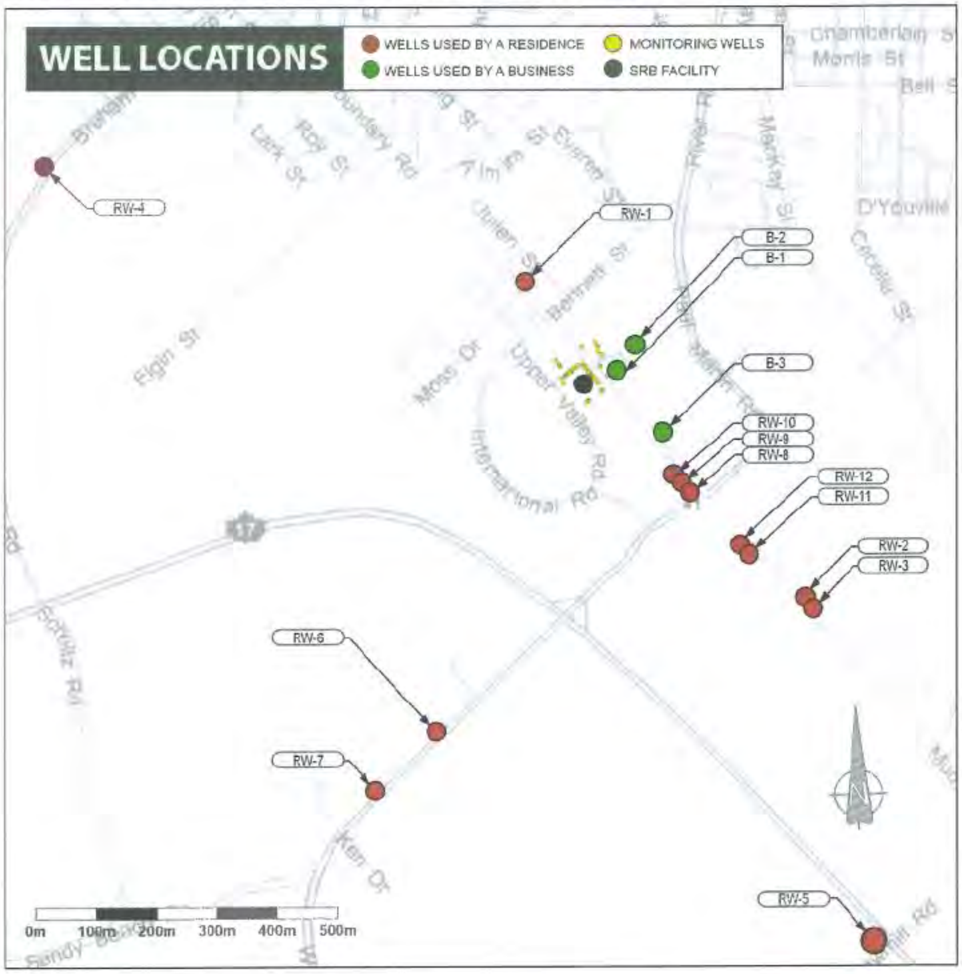
Of the 37 monitoring wells, the concentrations of 6 wells exceed the current Ontario Drinking water Guideline of 7,000 Bq/L. These 6 wells (MW06-1, MW06-10, MW07-13, MW07-18, MW07-29 and MW07-34) are located on the SRB site within 50 meters of the stack and showed either decreasing or steady concentrations in 2010.

The highest tritium concentration averaging 44,438 Bq/L in 2010 remains in monitoring well MW06-10 which is located in the stack area on the SRB property. This concentration is significantly lower than what it was in November 2006 at 156,643 Bq/L. The tritium concentration since the well was drilled in September 2006 is decreasing.

5.1.2.2 RESIDENTIAL AND BUSINESS WELLS

All water supply wells located in the vicinity of SRB's facility have been identified, we have also assessed the drinking water usage for each of these wells and have been monitoring them at least every four months or at a frequency requested by the owner.

FIGURE 5: LOCATIONS OF RESIDENTIAL AND BUSINESS WELLS



The highest tritium concentration in a well used for drinking water remains in the water supply well B-1 which is located closest to SRB and is being used by a business. Tritium concentrations in this well in 2010 averaged 1,075 Bq/L, which is approximately 15% of the Ontario Drinking Water Standard of 7,000 Bq/L. This concentration is significantly lower than what it was in April 2009 at 2,063 Bq/L. Average concentrations over 2010 for other wells used for drinking water ranged from 6 Bq/L to 405 Bq/L, depending on their location in relation to the facility. Tritium concentrations for all residential and business wells have showed either decreasing or steady concentrations in 2010.

5.1.2.3 PREDICTED GROUNDWATER CONDITIONS

While most of the released tritium in the air is dispersed, some of it will reach the soil through dry and wet deposition. Infiltrated precipitation water brings tritium into the groundwater below it. The deposition of tritium on and around the facility from air emissions and resulting soil moisture and standing water are the sole direct contributor to tritium concentrations found in groundwater.

Groundwater is affected by the percolation of soil moisture and standing water from the surface.

Current concentrations in the wells are expected to eventually gradually decrease once all historical emissions have flushed through the system and/or decayed with some influence of higher concentrations in nearby wells from lateral underground water flow. This will be confirmed by continuous monitoring of the existing network of wells.

The rate at which this decrease will occur is dependent on the level and speed of recharge of the groundwater on and around the SRB facility.

The level and speed of recharge of groundwater differs drastically depending on the geology, surface topography, surface vegetation, soil characteristics, precipitation and climate. In turn the level and speed of recharge can differ from one monitoring well to another.

The tritium concentrations in groundwater are consistent with historical emission levels. Groundwater samples that are greater than those expected from air dispersion were affected by water draining from roof downspouts or from snow storage areas in which water or snow would have historically developed with higher tritium levels in closer proximity to the stacks. The concentrations measured in the well is dependent on the level and speed of recharge for a well and the depth of the well.

Therefore the slower the speed of recharge of a well, the older the emissions the well will be reflecting in its tritium concentration. It will take longer for soil moisture from the surface to reach the sampling depth of a well with a slower speed or recharge.

A deeper well will be reflecting older emissions than would a shallower well. In a deeper well soil moisture from the surface has to travel much longer to reach the sampling depth of the well.

Bedrock was found to range between 5.2 to 7.5 meters below ground in the vicinity of SRB, vertical infiltration rate in clay is approximately 1 meter per year. Therefore it takes at least 5.2 years for tritium concentrations in soil moisture at the surface to be reflected in the wells.

5.1.3 WATER LEVEL MEASUREMENTS

Compilation of water level measurements for 2010 can be found in **Appendix I**.

5.1.4 PRODUCE MONITORING RESULTS

Produce from a local market and from local gardens were sampled once in 2010. The samples were collected by SRB and a third party laboratory for tritium concentration assessment by the third party 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 2010.

Produce monitoring results and locations for 2010 can be found in **Appendix J** with a graph comparing 2010, 2009, 2008, 2007 and 2006 results. Tritium concentrations in produce on average are slightly lower in 2010 than in 2009.

5.1.5 MILK MONITORING RESULTS

Milk from a local producer and from a local distributor is sampled every 4 months. The samples were collected by SRB and a third party laboratory for tritium concentration assessment by the third party laboratory. This data is also used in the calculations for critical group annual estimated dose for 2010.

Milk monitoring results and locations for 2010 can be found in **Appendix K.** Tritium concentrations in milk in 2010 are comparable to those in 2009.

5.1.6 WINE MONITORING RESULTS

Wine from a local producer is sampled once a year. The sample was collected by SRB and a third party laboratory for tritium concentration assessment by the third party laboratory. The results were reported to the members of the public.

Wine monitoring results for 2010 can be found in **Appendix L** with a graph comparing 2010, 2009, 2008, 2007 and 2006 results. Tritium concentrations in wine on 2010 are comparable to those in 2009.

5.1.7 RECEIVING WATERS MONITORING RESULTS

Samples of receiving waters upstream and downstream from SRB in the Muskrat River were collected regularly. Samples were collected by SRB and a third party laboratory for tritium concentration assessment by the third party laboratory. 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.

Receiving waters monitoring results for can be found in **Appendix M**. Tritium concentrations in receiving waters in 2010 are comparable to those in 2009.

5.1.8 SEWAGE MONITORING RESULTS

Sewage samples were taken by Pollution Control Plant staff on a daily basis and provided to a third party laboratory for tritium concentration assessment.

Maximum concentration in sewage in 2010 was 85 Bq/L, a decrease from the maximum in 2009 of 138 Bq/L. Sewage monitoring results can be found in **Appendix N**.

In addition, a single planned release of approximately 0.4 GBq was made on October 25, 2010 in order to assess impact on sludge at the Townline Lift Station. Ensuing tritium concentrations of the sludge at the Townline Lift Station were between 181 Bq/L and 72 Bq/L. The possible doses to sewage plant workers from sewage were previously calculated and reported in Appendix 5 of CMD 10-H5.1.B[34]. The information included demonstrates that the public and workers will not be at risk as a result of the exposure to tritium levels associated with releases to the sewer from SRB.

5.1.9 PRECIPITATION SAMPLER RESULTS

Eight precipitation monitors are installed near existing air monitoring stations that are located approximately 250 m from the facility.

FIGURE 6: MAP OF AIR AND PRECIPITATION MONITORING STATIONS

The samples were collected on a monthly basis by SRB and a third party laboratory for tritium concentration assessment by the third party laboratory. Average results in 2010 ranged between 34 Bq/L (sampler 1P) and 131 Bq/L (sampler 18P). The average for all eight precipitation monitors in 2010 is 82 Bq/L a decrease from 106 Bq/L in 2009.

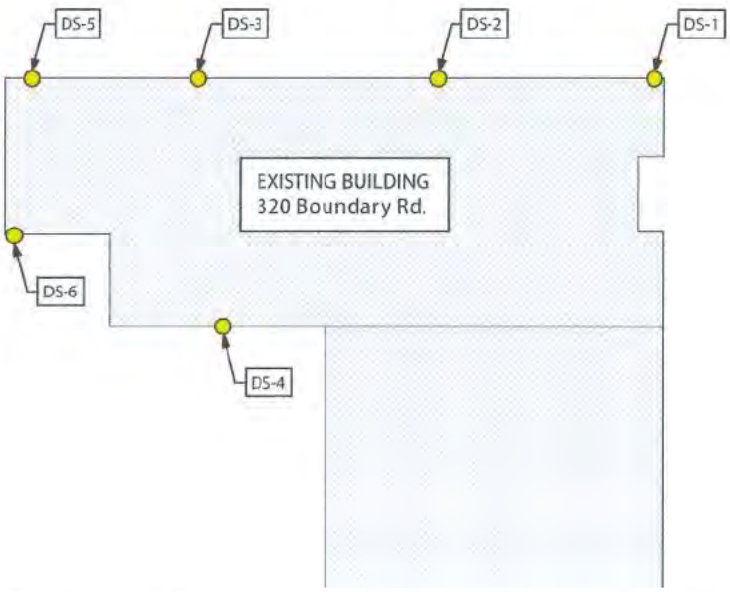
The tritium concentration in precipitation monitors are generally lower than the concentrations that are expected. This means that the model used to define the estimated values was adequate in overestimating the impact from the emissions on soil moisture and in turn protective of groundwater. The overestimation can also be partly attributed to the fact that SRB does not process tritium during the occurrence of any type of precipitation. Having lower values in the precipitation monitors than the concentrations that were expected by the model can provide further evidence that concentration in soil moisture are lower when no processing takes places during the occurrence of precipitation.

Precipitation monitoring results and comparisons can be found in **Appendix O**.

5.1.10 RUN OFF FROM DOWNSPOUTS

Tritium concentrations are measured in all facility downspouts. The samples were collected periodically by SRB for tritium concentration assessment.

FIGURE 7: BUILDING DOWNSPOUTS



Runoff from downspouts was collected 13 times throughout 2010. Average results in 2010 ranged between 178 Bq/L (DS-6) and 305 Bq/L (DS-1) and 248 Bq/L for all six downspouts.

Runoff monitoring results can be found in **Appendix P**.

5.2 PUBLIC DOSE FOR A MEMBER OF THE CRITICAL GROUP FOR 2010

The calculation method used to determine the dose to the 'Critical Group' as defined in the SRB Environment Monitoring Program[30] is described in the EMP document using the effective dose coefficients found in CSA Guideline N288.1-08[35]. 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}).

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 2010 average concentration of tritium oxide in air at Passive Air Sampler NW250 has been determined to be 2.49 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 2010 for PAS # 1, PAS # 2, and PAS # 13 is 5.65 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 2.49 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)
= 2.49 Bq/m^3 x 6,680 h/a x 1.2 m^3/h x 2.0E-05 µSv/Bq
= 0.399 µSv/a

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

Taking the highest concentration between Passive Air Samplers #1, #2, and #13 is Passive Air Samplers #13 at 5.65 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)
= 5.65 Bq/m^3 x 2,080 h/a x 1.2 m^3/h x 2.0E-05 µSv/Bq
= 0.282 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 2.49 Bq/m^3:

$P_{(i)19}$ = [$H\text{-}3_{air}$] (Bq/m^3) x Time (h/a) x Breathing Rate (m^3/h) x DCF_{H3} (μSv/Bq)
= 2.49 Bq/m^3 x 8,760 h/a x 1.2 m^3/h x 2.0E-05 μSv/Bq
= 0.523 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 2.49 Bq/m^3:

$P_{(i)19}$ = [$H\text{-}3_{air}$] (Bq/m^3) Breathing Rate (m^3/a) x DCF_{H3} (μSv/Bq)
= 2.49 Bq/m^3 x 1.4 E+03m^3/a x 5.3E-05 μSv/Bq
= 0.185 μSv/a

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.

$P_{(e)19r}$ = 0.399μSv/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.

$P_{(e)19w}$ = 0.282 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.

$P_{(e)19}$ = 0.523 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.

$P_{(e)19}$ = 0.185 μSv/a

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 well water is assumed to be 700 L/a for adults and 300 L/a for infants. The highest concentration in a residential well used as the sole source of the drinking water is found in RW-8 at 248 Bq/L and will therefore be used in the calculation of the public dose:

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

P_{29} = $[H\text{-}3]_{well}$ x M x 2.0E-05 μSv/Bq;
= [248 Bq/L] x 700 L/a x 2.0E-05 μSv/Bq
= 3.472 μSv/a

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

P_{29} = $[H\text{-}3]_{well}$ x M x 5.3E-05 μSv/Bq;
= [248 Bq/L] x 300 L/a x 5.3E-05 μSv/Bq
= 3.943 μSv/a

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 70% of the annual total and by taking the average tritium concentration from local gardens and consuming 30% 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 19.67 Bq/L and if we assume the average concentration in produce from local gardens to be 77.5 Bq/L.

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

$\mathbf{P_{49HTO}}$ = $[[\mathbf{H}_{prod,market}] + [\mathbf{H}_{prod,res}]]$ x 2.0E-05 μSv/Bq
= $[[H\text{-}3_{veg}]$ (Bq/kg) x (kg) x 0.7] + $[H\text{-}3_{veg}]$ (Bq/kg) x (kg) x 0.3]] x 2.0E-5 μSv/Bq
= [[19.67 Bq/kg x 200 kg/a x 0.7] + [77.5 Bq/kg x 200 kg/a x 0.3]] x 2.0E-05 μSv/Bq
= [[2,753.8 Bq/a] + [4,650 Bq/a]] x 2.0E-05 μSv/Bq
= 0.148 μSv/a

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

$\mathbf{P_{49HTO}}$ = $[[\mathbf{H}_{prod,market}] + [\mathbf{H}_{prod,res}]]$ x 5.3E-05 μSv/Bq
= $[[H\text{-}3_{veg}]$ (Bq/kg) x (kg) x 0.7] + $[H\text{-}3_{veg}]$ (Bq/kg) x (kg) x 0.3]] x 5.3E-5 μSv/Bq
= [[19.67 Bq/kg x 84 kg/a x 0.7] + [77.5 Bq/kg x 84 kg/a x 0.3]] x 5.3E-05 μSv/Bq
= [[1,156.6 Bq/a] + [1,953 Bq/a]] x 5.3E-05 μSv/Bq
= 0.165 μSv/a

For OBT, the same equations are applied, using the same ingestion rates and fractions. Since measures of OBT are not available, the measured HTO amount can be used to estimate the OBT. The transfer parameter from HTO in air to HTO in the plant (on a fresh weight basis) is given by:

$\mathbf{P_{14HTO} = RF_p \cdot [1 - DW_p] / H_a}$

The transfer parameter from HTO in air to OBT in the plant (fresh weight basis) is:

$\mathbf{P_{14HTO\text{-}OBT} = RF_p \cdot DW_p \cdot ID_p \cdot WE_p / H_a}$

where: RF_p = reduction factor – default is 0.68
DW_p = dry weight of plant – default value of 0.1 for generic fruit and vegetables
ID_p = isotopic discrimination factor for plant metabolism (unitless) - default is 0.8
WE_p = water equivalent of the plant dry matter (L water • kg^{-1} dry plant) –default value for all plants is 0.56
H_a = atmospheric absolute humidity - a generic default value of 0.011 L/m^3 can be used.

In using the default values and combining the equations, the amount of OBT in a plant (fresh weight basis) can be determined by multiplying the HTO measure for plants for the same location by 0.05. If we assume the average concentration in produce purchased from a market to be 19.67 Bq/L and if we assume the average concentration in produce from local gardens to be 77.5 Bq/L. Then the values for OBT will be 0.98 Bq/L produce purchased from a market and 3.88 Bq/L in produce from local gardens:

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

$\mathbf{P_{49OBT}}$ = [[$\mathbf{H_{prod,market}}$] + [$\mathbf{H_{prod,res}}$]] x 4.6E-05 μSv/Bq
= [[H-3_{veg}] (Bq/kg) x (kg) x 0.7] + [H-3_{veg}] (Bq/kg) x (kg) x 0.3]] x 4.6E-5 μSv/Bq
= [[0.98 Bq/kg x 200 kg/a x 0.7] + [3.88 Bq/kg x 200 kg/a x 0.3]] x 4.6E-05 μSv/Bq
= [[137.2 Bq/a] + [232.8 Bq/a]] x 4.6E-05 μSv/Bq
= 0.017 μSv/a

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

$\mathbf{P_{49OBT}}$ = [[$\mathbf{H_{prod,market}}$] + [$\mathbf{H_{prod,res}}$]] x 1.3E-4 μSv/Bq
= [[H-3_{veg}] (Bq/kg) x (kg) x 0.7] + [H-3_{veg}] (Bq/kg) x (kg) x 0.3]] x 1.3E-4 μSv/Bq
= [[0.98 Bq/kg x 84 kg/a x 0.7] + [3.88 Bq/kg x 84 kg/a x 0.3]] x 1.3E-4 μSv/Bq
= [[57.62 Bq/a] + [97.78 Bq/a]] x 1.3E-4 μSv/Bq
= 0.020 μSv/a

P_{49}: Adult dose due to consumption of produce (HTO + OBT)

$\mathbf{P_{49}}$ = $\mathbf{P_{49HTO}}$ + $\mathbf{P_{49OBT}}$
= 0.148 μSv/a + 0.017 μSv/a
= 0.165 μSv/a

P_{49}: Infant dose due to consumption of produce (HTO + OBT)

P_{49} = P_{49HTO} + P_{49OBT}
= 0.165 µSv/a + 0.020 µSv/a
= 0.185 µSv/a

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 milk is assumed to be 120.45 kg/a (0.33 kg/day) for adults and 219 kg/a (0.6 kg/day) for infants. The average concentration in milk being 7.02 Bq/L but adjusting for the density of milk 7.02 Bq/L x 0.97 L/kg = 6.81 Bq/kg:

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

P_{59} = $[H\text{-}3]_{dairy}$ x M x 2.0E-05 µSv/Bq;
= [6.81 Bq/kg] x 120 kg/a x 2.0E-05 µSv/Bq
= 0.016 µSv/a

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

P_{59} = $[H\text{-}3]_{dairy}$ x M x 5.3E-05 µSv/Bq;
= [6.81 Bq/kg] x 219 kg/a x 5.3E-05 µSv/Bq
= 0.079 µSv/a

CRITICAL GROUP ANNUAL DOSE DUE TO TRITIUM UPTAKE

Based on the Environmental Monitoring Program[30] 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 5.015 µSv/A for an adult worker of the critical group:

TABLE 11: 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	$P_{(I)19}$	0.282	N/A	N/A
DOSE DUE TO SKIN ABSORPTION AT WORK	$P_{(E)19}$	0.282	N/A	N/A
DOSE DUE TO INHALATION AT RESIDENCE	$P_{(I)19}$	0.399	0.523	0.185
DOSE DUE TO SKIN ABSORPTION AT RESIDENCE	$P_{(E)19}$	0.399	0.523	0.185
DOSE DUE TO CONSUMPTION OF WELL WATER	P_{29}	3.472	3.472	3.943
DOSE DUE TO CONSUMPTION OF PRODUCE	P_{49}	0.165	0.165	0.185
DOSE DUE TO CONSUMPTION OF MILK	P_{59}	0.016	0.016	0.079
TOTAL DOSE DUE TO TRITIUM UPTAKE	P_{TOTAL}	5.015	4.699	4.577

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 2.9 of this report, throughout the year SRB operated under release limits to sewer prescribed in Appendix C of licence NSPFOL-13.00/2010[2] and in Appendix A of licence NSPFOL-13.00/2015[1].

Sewer release values based on sampling and analysis indicate that the emissions to sewer in 2010 were 3.31% of the license limit.

A weekly breakdown of liquid effluent monitoring results for 2010 can be found in **Appendix Q** of this report.

6.2 GASEOUS EFFLUENT

As discussed in section 2.5 of this report, throughout the year SRB operated under release limits to atmosphere prescribed in Appendix C of licence NSPFOL-13.00/2010[2] and in Appendix A of licence NSPFOL-13.00/2015[1].

A weekly breakdown of air emission monitoring results for 2010 can be found in **Appendix R** of this report.

6.2.1 HTO EMISSIONS VS PASSIVE AIR SAMPLERS

To compare the releases directly from the facility to the measurements in the passive air samplers a calculation can be performed. This was done comparing both HTO releases alone and HTO releases also assuming 2% conversion of HT releases.

2% HT + HTO releases 2010/2009 → 9,718 GBq / 14,779 GBq = 66 %

HTO releases 2010/2009 → 9,173 GBq / 14,253 GBq = 64 %

PAS measurements 2010/2009 → 56.19 Bq/m3 / 91.48 Bq/m3 = 61%

In comparing these three collectively it shows that there is a good correlation between the stack monitoring performance and the passive air sampler performance. We have also graphed HTO emissions against passive air sampler concentrations, this comparison shows good correlation. These graphs can be found in **Appendix S** of this report.

6.2.2 DOSE FROM EMP DATA VS DOSE FROM DRL

For 2010, 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 12: 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	5.015	4.699	4.577
TOTAL DOSE BASED ON EMP DATA WITHOUT WELL CONSUMPTION	1.543	1.227	0.634
TOTAL DOSE BASED ON DRL	1.125	1.125	1.841

When we compare the data from the EMP[30] one can see that the annual dose to the public based on the DRL[36] compared is much lower than to the dose based on EMP[30] results. If we exclude the contribution from consumption of well water the dose based on the DRL[36] is more comparable to the dose based on EMP[19] results.

Therefore the DRL[36] used is more accurate in estimating the dose to a member of the public when consumption of well water is excluded.

6.3 UNPLANNED RELEASE OF RADIOCATIVE MATERIALS

Other than routine and accidental releases arising out of tritium processing there were no unplanned releases of radioactive materials from the facility in 2010.

6.4 ANY RELEASES OF HAZARDOUS SUBSTANCES

In 2010 SRB continued to make releases of hazardous substances to the air under a Certificate[37] of Approval (Air), Number 5310-4NJQE2 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 & liquid wastes produced, and the handling and storage or disposal of those wastes.

7.1 WASTE MANAGEMENT PROGRAM

The Nuclear Substances and Radiation Regulations (CNSC) were amended April 2008 with one of the significant changes being the introduction of regulatory measures that allow for the removal of nuclear substances from regulatory control by establishing clearance limits below which abandonment or disposal is safe. These threshold limits are based on international standards and practices for bulk quantities of materials, published in the 2004 edition of the IAEA Safety Standards Series, Safety Guide No. RS-G-1.7 - *Application of the Concepts of Exclusion, Exemption and Clearance*. The adoption of these new international standards is consistent with the CNSC risk-informed regulatory control and ensures that Canadian regulations are consistent with international practices.

Therefore, as a result of these changes, SRB is able to dispose of some of its waste through conventional methods.

The Waste Management Program[38] will be revised to reflect these changes.

7.2 RADIOACTIVE CONSIGNMENTS

In 2010, only a small amount of radioactive waste was generated. This was due to waste minimization practices. The following waste consignments were made during 2010:

TABLE 13: RADIOACTIVE CONSIGNMENTS

DATE	CONSIGNOR	WASTE DESCRIPTION	QTY AND PACKAGE DESCRIPTION (200 L DRUM)	TOTAL WEIGHT (Kg)	TOTAL ACTIVITY (GBq)
JANUARY 7, 2010	BEE LINE DISPOSAL	VERY LOW LEVEL WASTE	25	964	8.98
DECEMBER 2, 2010	MONSERCO	SCINT VIALS	3	600	147.60

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[38]. 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 and 3, assessed, and ultimately placed into steel drums. 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 14: INTERIM STORAGE OF "VERY LOW LEVEL WASTE"

VERY LOW-LEVEL WASTE CONTAINER DESCRIPTION	AMOUNT IN STORAGE AT YEAR END 2010 (CONTAINER)	AMOUNT GENERATED THROUGHOUT 2010 (CONTAINER)	TOTAL ACTIVITY OF TRITIUM (GBQ)
200 LITER STEEL DRUMS	23	6	4.59
*200 LITER STEEL DRUMS	33	0	0.09

* Contains excavated soil from the well drilling activities on-site.

7.3.2 INTERIM STORAGE OF "LOW-LEVEL WASTE"

"Low-level waste" as defined in the Waste Management Program[38] 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 is full it is prepared for interim storage and placed in the Waste Storage Room awaiting transfer to a CNSC licensed waste handling facility.

TABLE 15: INTERIM STORAGE OF "LOW LEVEL WASTE"

LOW-LEVEL WASTE CONTAINER DESCRIPTION	AMOUNT IN STORAGE AT YEAR END 2010 (CONTAINER)	AMOUNT GENERATED THROUGHOUT 2010 (CONTAINER)	TOTAL ACTIVITY OF TRITIUM (GBq)
* 200 LITER STEEL DRUMS	12	7	127.80
** 70 LITER STEEL DRUMS	11	0	660.00

* Contains used equipment components, crushed glass, filters, broken lights, rags, scint vials, etc.
** Contains only oil sealed high vacuum pumps.

7.4 HAZARDOUS MATERIAL COLLECTION

In 2010 there were no hazardous waste collections required.

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.

Throughout 2010, the generation of liquid hazardous waste material has practically been reduced to zero mainly due to the elimination of certain silk screening activities. Historically, the screens were emulsioned on-site which generated the bulk of the hazardous liquid waste. A third party now performs this process off-site. Also paints and thinners are now more efficiently generated and re-used as part of SRB's waste minimization practices.

TABLE 16: HAZARDOUS MATERIAL STORAGE

HAZARDOUS LIQUID WASTE	AMOUNT IN STORAGE AT YEAR END 2010	AMOUNT GENERATED THROUGHOUT 2010
20 LITER PLASTIC DRUMS	0	0

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 FIRE PROTECTION

Various measures were taken at the facility in 2010 to improve fire safety. For example repairs to fire safety doors and the installation of a gas detector in Zone 3 where gas lines are present.

8.1.1 FIRE PROTECTION COMMITTEE

SRB Senior Management has formally constituted a Fire Protection Committee in the organizational structure. In 2010, five minuted meetings have been held which have resulted in the implementation of various measures which have improved fire safety at the facility.

8.1.2 IMPROVED FIRE PROTECTION PROGRAM

On October 28, 2010 minor changes were made to the Fire Protection Program[18] and a new revision was issued to address the comments of the 2009 Annual Third Party Review performed by Mr. Rhéaume Chaput.

8.1.3 MAINTENANCE OF THE SPRINKLER SYSTEM

Quarterly maintenance was performed on the fire sprinkler system by a third party, also a weekly check of various valves and line pressures were performed by trained SRB staff. In addition the maintenance was performed on the fire alarm control panel by a third party to the requirements of the National Fire Code.

8.1.4 FIRE PROTECTION EQUIPMENT INSPECTIONS

In 2010 inspections of the emergency lighting and fire extinguishers have been performed monthly by in-house trained staff and records are kept on file.

8.1.5 THIRD PARTY INSPECTIONS

Mr. Rhéaume Chaput performed an thorough inspection of the facility on December 19, 2010 with the main focus on ensuring SRB's compliance with the requirements of the National Fire Code, 2005, and National Fire Protection Association, NFPA-801, 2008 edition.

There were no new recommendations from Mr. Rhéaume Chaput at this time.

8.1.6 INSPECTIONS FROM THE PEMBROKE FIRE DEPARTMENT

The Pembroke Fire Department inspected the facility on June 25, 2010.

There were two minor violations of the Ontario Fire Code that were found. The two minor violations have since been addressed.

8.1.7 STAFF TRAINING

Yearly fire extinguisher training was performed for all staff on October 25, 2010 by the Pembroke Fire Department.

8.1.8 FIRE RESPONDER TRAINING

There was no Fire Responder training in 2010, it was deemed unnecessary as Fire Responders were trained to respond to a fire at the facility only on October 27, 2009. The training included a tour of the facility and information with respect to the hazardous materials found on the site. Responders were also instructed on the various properties and precautions with respect to tritium.

8.1.9 FIRE ALARM DRILLS

Six in-house Fire Alarm Drills were performed in 2010. Any findings were promptly addressed.

8.2 QUALITY ASSURANCE

The quality management system implemented continues 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.

For 2010 a total of 18 non-conformances and 5 opportunities for improvements were raised in various areas of the company operations. By the end of 2010, 15 of these non-conformances had been addressed in full and the other 3 are expected to be addressed in early 2011.

8.2.1 CNSC INSPECTIONS

A Type II inspection of the radiation protection program and waste program was conducted by CNSC staff at the facility between September 29 and 30, 2010. The purpose of the inspection was to verify compliance with the Nuclear Safety and Control Act, CNSC Regulations and the CNSC operating licence NSPFOL-13.00/2015[1]. The inspection resulted in 3 action notices and 2 recommendations which will be addressed by SRB in 2011.

8.2.2 ISO 9001 REGISTRAR AUDITS

SRB Technologies (Canada) Inc. continues to maintain registration with ISO 9001: 2008 by BSI Management Systems. Our registrar's next scheduled surveillance assessment of our operations is scheduled to be performed on January 14, 2011.

8.2.3 INTERNAL AUDITS

The stringent audit plan developed by the Quality Manager for 2010 has been followed. The audits performed focused on all activities associated with developing, managing and implementing all company safety programs. A total of 19 formal internal audits were completed as per the audit plan schedule for 2010. These audits resulted in identifying 3 non-conformances and 5 opportunities for improvement.

8.2.4 OTHER INSPECTIONS AND AUDITS

Ontario Power Generation who supplies SRB with tritium gas performed an audit of the facility on November 11 and 12, 2010. The audit reviewed the following:

- Operating License
- Operating procedures involving tritium
- Inventory control process/procedures
- Inventory control records/procedures
- Tritium stack monitoring procedures
- Staff training procedures and records for safe tritium handling
- Physical security measures at the facility
- Instrument calibration procedures/records for tritium accounting

The minor issues that arose from the audit have since been addressed.

8.2.5 BENCHMARKING

In 2010 individuals responsible for specific programs and procedures at SRB regularly looked at process problems, corrective actions as well as trending and used this information to benchmark elsewhere in or out of the organization in order to improve the effectiveness of these programs and procedures and to help define where improvements could be made.

Benchmarking against other CNSC Licensees was encouraged. The documents of other CNSC Licensees were continuously reviewed:

- Commission Member Documents
- Proceedings, Including Reasons for Decision
- Documents from other licensees

A meeting is scheduled in early 2011 with the Quality Manager, followed by a Senior Management meeting to discuss the results of benchmarking activities performed and to define areas of improvement.

8.2.6 SELF-ASSESSMENTS

Throughout 2010 routine self-assessments by Organizational Managers were undertaken to identify, correct and prevent problems that hinder the achievement of the company's vision, mission, goals, values and policy and to assess the adequacy and effectiveness of the Quality Management System.

Self-assessments were performed by review of:

- Analysis and trending of performance data against historical data
- Input from stakeholders (public, contractors, regulators, customers, suppliers, etc.)
- Workspace inspections or observations
- Routine communications with staff to determine whether expectations are understood
- Training and coaching results
- Corrective and preventive actions raised throughout the organization
- Internal audit results

A meeting is scheduled in early 2011 with the Quality Manager, followed by a Senior Management meeting to discuss the results of self-assessments and to define areas of improvement.

8.2.7 CHANGES IN QUALITY ASSURANCE DOCUMENTS

The Quality Manual remained unchanged for 2010, however it is currently under review. Various associated second tier procedures were updated to address minor changes needed on opportunities for improvements and corrective actions identified throughout the year.

8.2.8 RESULTS OF LSC QA PROGRAM

The LSC-QA[20] program includes weekly instrument efficiency checks using National Institute of Standards and Technology (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 NIST. The Standard Reference Material is certified to have an estimated accuracy of ± 1.2%. All tests have been performed at least on a weekly basis and passed the acceptability criteria and all records are kept on file.

In addition NIST traceable standards, prepared in-house, are analyzed and checked against a 10% acceptability criterion on a weekly basis. All tests have been performed on a weekly basis and passed the acceptability criteria and all records are kept on file. The "Weekly Instrument Reference Standard Report for 2010" for Wallac 1409 LSC is included in **Appendix T**. The report shows that the liquid scintillation counter performed within the specified criteria.

8.3 TRITIUM MITIGATION

In the past licence period we primarily focused our attention to developing emission reduction initiatives specifically related to the filling process as these formerly constituted the majority of the emissions. In 2010 we have continued to build on these initiatives and to expand to other processes and work areas.

8.3.1 MITIGATION COMMITTEE

In 2010 six minuted meetings have been held by the Mitigation Committee which have resulted in the implementation of various measures which have contributed to the reduction in emissions observed in 2010.

8.3.2 REDUCTION IN URANIUM BED HEATING CYCLES

In order to increase the ability of a uranium bed to reabsorb tritium during the filling process, in 2005 SRB implemented a reduction in the number of uranium bed heating cycles by approximately 30%. In 2006, based on successful results, SRB then implemented a further reduction of 25% and in December 2009 yet a further reduction of 13%. Results from implementing these reductions were reflected in the facility's emissions. Results will be monitored very closely in 2011 to see if it would be beneficial to make a further reduction in heating cycles.

8.4 RESEARCH AND DEVELOPMENT

There have been no product research and development initiatives taken in 2010.

8.5 TRAINING

Staff last received Radiation Protection Training as part of the ongoing employee-training program on September 21, 2010. 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, fire safety, security, 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 94.7% 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 2010 and therefore no indoctrination-training had to be performed. Only one employee who had previously worked at the facility returned from maternity leave in September 2010.

As discussed in section 8.1.7 fire extinguisher training was performed for all staff on October 25, 2010 by the Pembroke Fire Department.

In 2010, SRB continued to focus on further reducing remaining sources of tritium emissions resulting from the processing of tritium by performing increased one-on-one training.

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 NATIONAL AND INTERNATIONAL

For the purpose of packaging and offering for transport, shipments of product designated as dangerous goods, SRB must comply with the requirements of:

- Canadian Nuclear Safety Commission (CNSC)
- International Atomic Energy Agency
- International Air Transport Association (IATA)
- Transport Canada

Regulations for the safe transport of radioactive goods are found in guides published by the above groups. The procedures used at SRB are based on regulations and practices found in the following publications;

- IAEA Safety Standards Series – No. TS-R-1 (ST-1 Revised), 1996 edition
- CNSC Packaging and Transport of Nuclear Substances Regulations
- CNSC Nuclear Safety And Control Act
- The TDG Compliance Manual: Clear Language Edition (Carswell)
- Dangerous Goods Regulations (IATA)

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 2010 SRB continued to make releases of hazardous substances to the air under a Certificate[37] of Approval (Air), Number 5310-4NJQE2 issued by the Ontario Ministry of the Environment in accordance with Section 9 of the Ontario Environment Protection Act.

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

SRB is subject to Federal Jurisdiction thus, Part II of the Canada Labour Code (Occupational Health and Safety).

10.2 INDUSTRIAL HEALTH AND SAFETY PROGRAM

Being under federal jurisdiction in 2010, the industrial Health and Safety Program for the SRB facility was compliant with the requirements of the Canada Labour Code Part II (Occupational Health and Safety) and its regulations.

10.3 OCCUPATIONAL HEALTH AND SAFETY COMMITTEE

In accordance with Section 135(1) of the Canada Labour Code Part II (CLC Part II) SRB Technologies (Canada) Inc. maintains an Occupational Health and Safety Committee.

The committee is comprised of three representatives. The representatives are required to meet no less than 9 times per year as required under section 135(10) of the CLC Part II. In Section 3.1.3 of this submission it was discussed the Occupational Health and Safety Committee has met 12 times in 2010 at a rate of one meeting per month. All minutes are kept on file.

10.4 MINOR INCIDENTS AND LOST TIME INCIDENTS

During 2010 there were no minor or major incidents reported to the SRB Occupational Health and Safety Committee. No individuals were taken to the outpatient department at the local hospital and no incident resulted in lost time.

10.5 VISITS FROM HRSDC

In 2010 there has been no facility visits by a Health and Safety Officer from HRSDC.

10.6 REPORTING

In accordance with Section 15.10 (1) of Part XV of the Canada Occupational Health and Safety Regulations the Employer's Annual Hazardous Occurrence Report was submitted to HRSDC in 2010 as required.

In accordance with Section 135.2(1) (g) of Part II of the Canada Labour Code (Occupational Health and Safety) the Work Place Committee Report was submitted to HRSDC in 2010 as required.

11.0 PUBLIC INFORMATION INITIATIVES

This section of the report will provide public information initiatives taken in 2010.

11.1 PUBLIC INFORMATION COMMITTEE

The Public Information Committee had four minuted meetings in 2010 which have resulted in the implementation of various public information initiatives in support of the licence hearings for the renewal of the licence.

11.2 WEBSITE

The website is frequently updated to provide up to date information on the facility. The main page provides a number of possible information sources for the public.

11.3 DIRECT INTERACTION WITH THE PUBLIC

Historically almost all public inquiries occur during re-licensing. In 2008, a total of eighteen Submissions were received from the public who expressed concerns or were opposed to a possible resumption of operations for SRB. On January 13, 2010 we sent these eighteen past intervenors a copy of our press release announcing our application[4] for a licence with a postage-paid envelope for providing their comments. We received comments from two of these individuals which we have promptly responded.

Between Hearing Day One and Hearing Day Two, we have also received nine e-mail inquiries from the First Six Years and have responded to all questions and copied CNSC Staff. Responses were provided on an average of 3.11 working days after being requested with the shortest being answered on the same day and the longest request being answered after 16 working days.

A total of sixty Written Submissions were received from the public for consideration by the Commission during Hearing Day Two which was held on May 19, 2010.

Twenty-one Submissions were received in support of SRB's application for the renewal of SRB's Nuclear Substance Processing Facility Operating Licence for a period of five years. We have received the support of local elected officials, the Mayor for the City of Pembroke, the local Provincial Member of Parliament and the local Federal Member of Parliament. These three submissions and others reflect SRB's assessment that the majority of residents support SRB's presence in the community and feel that SRB poses no risk to local residents. Many submissions also testify to SRB's openness and transparency with the public and commitment to providing and explaining information to the members of the public. A number of submissions provide direct examples of SRB's commitment to protecting members of the public. Finally, a number of submissions from SRB's customers reflect the benefits of SRB's products and disposal services, and that SRB's operations have a positive effect on the emergency lighting industry and the safety of soldiers.

A total of thirty-nine Written Submissions expressed concerns or opposition to the renewal of SRB's Nuclear Substance Processing Facility Operating Licence for a period of five years. Seven are from special interest groups. Members of the public expressed a number of concerns mainly with:

- The safe level of exposure to tritium
- Groundwater
- Further reducing tritium emissions
- Releases of tritium to sewer
- Waste disposal activities
- Maintaining a qualified third party for environmental monitoring
- Expanding environmental monitoring program
- Funding the decommissioning fund

Following receipt on April 21, 2010 SRB began a thorough review of all Written Submissions and began to formulate individual and personalized letters with additional information in attempt to address the concerns of the public.

In addition to the letters that were sent to the individuals who wrote the Written Submissions, we have provided an information brochure which explains the impact posed by our operations on the environment and health and safety of the public. The brochure also includes a chart showing the dose associated with our operations compared to doses from other known sources of radiation. This chart refers to third party web sites which one can access to get further information. In the letters, we provided the public further opportunity to comment by enclosing a postage-paid envelope and company contact details. We also urged the public to visit our web site or to contact the company should they have any questions regarding the operations or if they would like to have a tour of our facility.

11.4 CITY OF PEMBROKE

A resident of the City of Pembroke who is an employee of the City of Pembroke in the water distribution and waste water collection in the Operations Department for the City of Pembroke expressed concerns with respect to SRB's releases to the sewer system. As a result on May 5, 2010 SRB conducted an information session for thirty-five City employees that attended. SRB also provided City employees further opportunity to comment by contacting the company directly, to date no further comment or concerns have been voiced.

We regularly provided the Mayor and City of Pembroke officials information on licensing issues regarding SRB, tritium, relevant media coverage, etc. All information is followed by a phone call to ensure clear understanding.

11.5 FEDERAL MEMBER OF PARLIAMENT

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

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 vision, mission, goals, values and policy. This will ensure a proactive approach to safety and protection of the environment and the public while achieving public acceptance.

12.2 OBJECTIVES AND TARGETS

Under our Environment Management System[39] we have set a number of measurable goals and targets. Senior Management will continue to urge the operations to set these sort of measurable performance targets and to support staff in achieving these objectives and targets.

12.3 GROUNDWATER

Continue to monitor and analyze our network of wells to ensure the continued protection of the public.

12.4 DRL

SRB continue to revise the DRL[36] document to address minor points of clarification. We expect to provide a revision of this document in 2011.

12.5 ENVIRONMENTAL MONITORING PROGRAM

SRB is committed to the continuous improvement of the Environmental Monitoring Program (EMP)[30] to ensure that the EMP[30] provides appropriate and adequate information for calculating the dose to the public.

In 2011 SRB will complete the work it has begun to improve the EMP[30]. Work on developing a detailed route for sampling that defines the specific order in which each sampler will be sampled is complete and will be incorporated in the EMP[30]. The EMP[30] will provide further detail and include monthly checklists and forms that are used to record field data, public interaction and specific activities being performed.

12.6 WASTE MANAGEMENT PROGRAM

SRB's Waste Management Program[38] was last fully 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, we expect to provide a revision of this document in 2011.

12.7 CONTINUOUS IMPROVEMENT

Benchmarking and self-assessment activities continue to be performed and are beneficial to improve on the effectiveness and help define where improvements can be made in the various company safety programs. We continue the improvement process achieved in previous years through continuous review of safety programs and procedures. All staff is encouraged to remain objective and maintain a questionable attitude while performing these activities.

Also to support continuous improvement to the quality management system the Quality Manager in 2010 has registered as a member to ASQ (American Society for Quality) and participated in BSI's webinar: the Nuts and Bolts of ISO 9001.

12.8 CHANGES IN QUALITY ASSURANCE DOCUMENTS

The Quality Manual is currently under review and the completion of the revised program is expected before the end of 2011. The minor changes will bring the program up to date with recent improvements, for example; revise staff responsibilities of new members of the Health Physics Staff, add statement for new version of ISO 9001:2008 standard, include a process chart (ISO), and add requirement to use the Engineering Change Request (ECR) form when document changes to programs or procedures are done. All changes will be drafted in a revision update of the Quality Manual and submitted to CNSC Staff for final approval.

12.9 AUDIT PLAN

For 2011, the Quality Manager has developed a stringent audit plan to maintain focus on all activities associated with developing, managing and implementing the various areas of company safety.

12.10 ACTION LEVELS REVIEW

In 2011, SRB will undertake a formal review of current operating conditions, 2010 performance data and the "Licence Limits, Action Levels and Administrative Limits"[12] document to ensure that action levels continue to be adequate to detect the emergence of a potential loss of control of the radiation protection program as defined in the Radiation Protection Regulations regulatory guide G-228 titled "Developing And Using Action Levels"[13] and G-129 titled "Keeping Radiation Exposures and Doses As Low As Reasonably Achievable - ALARA"[14]. SRB will further document the process and frequency for performing future reviews against operating conditions and performance data.

12.11 USE OF SITE SPECIFIC WEATHER DATA

We have erected a weather station near the facility and the collection of data started in May 2009. Monthly weather data is therefore only available since mid 2009. See 2010 weather data in **Appendix U**.

Typically models use meteorological data over 5 years to provide meaningful estimates. Data from Health Canada provides well over 20 years of data. In 2011 we plan on using the site specific data that we have collected to date for modeling expected concentrations in soil moisture, precipitation and air.

We expect this site specific data over the years will provide better comparison for all wind sectors.

12.12 SOIL CORE SAMPLES

Soil sampling taken at various depths has provided some useful data which has been used to confirm and rationalize current and predicted values in groundwater. These values helped validate the model. The soil samples taken at various depths during the drilling of a number of wells helped rationalize tritium concentration in wells and validate soil moisture model estimates.

In order to continue to further validate the model, we plan on taking and analyzing soil samples taken at different depths from the surface to a depth of approximately 1 to 1.5 meters near existing precipitation and passive air samplers.

Once the samples have been analyzed we will compare the results to emissions, passive air sampler concentrations, soil moisture model estimates and precipitation concentrations.

12.13 CONTAMINATION CONTROL

In 2010, SRB Health Physics Staff have initiated a review of the locations of the swipes to ensure that appropriate contamination control measures are implemented to control and minimize the contamination of areas, equipment and personnel. Preliminary findings have showed that locations where the swipes are performed should not only be re-assessed but be formally re-assessed at defined intervals by analyzing work practice, processes and results and identifying areas with higher probability for surface contamination and adjust future locations accordingly.

In 2011, Health Physics Staff will review historical results and set parameters for altering the frequency of swipes, the locations of the swipes and number of locations to be swiped based on the results analyzed. As part of this exercise Health Physics Staff will also set a frequency for this review to be performed.

12.14 ACTIVE AIR SAMPLER

CNSC research[40] has shown that discrepancies exist between active and passive air sampler results. Generally passive air sampler results tend to be approximately two-fold higher than active air sampler results, making their use more conservative when estimating the dose to the public.

SRB has an air monitoring network strictly comprising of passive air samplers. To assess the difference between passive and active air sampling SRB plans on attempting the installation of an active air sampler near the location of the passive air sampler that is used to determine the dose to the critical group. A number of challenges exist in bringing power to the unit in areas where power is not accessible.

REFERENCES

[1] CANADIAN NUCLEAR SAFETY COMMISSION, "Nuclear Substance Processing Facility Operating Licence", NSPFOL-13.00/2015, .

[2] CANADIAN NUCLEAR SAFETY COMMISSION, "Nuclear Substance Processing Facility Operating Licence", NSPFOL-13.00/2010, June 26, 2008.

[3] CANADIAN NUCLEAR SAFETY COMMISSION, "The Licence Conditions Handbook for Licence NSPFOL-13.00/2015", LCH-SRBT-R000, July 30, 2010.

[4] SRB TECHNOLOGIES (CANADA) INC., "Licence Renewal Application", October 28, 2009.

[5] SRB TECHNOLOGIES (CANADA) INC. letter, Stephane Levesque to Henry Rabski, "Financial Guarantee for the Full Cost of the Decommissioning and Cost Recovery Fee Arrears", June 11, 2008.

[6] Canadian Nuclear Safety Commission, "Records of Proceedings, Including Reasons for Decision for Application to Renew the Class 1B Nuclear Substance Processing Facility for the Gaseous Tritium Light Source Facility in Pembroke, Ontario", June 30, 2010.

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APPENDIX A

Ventillation equipment maintained in 2010

VENTILATION EQUIPMENT MAINTAINED IN 2010

	TYPE	ZONE	LOCATION
1	Heat Recovery unit	1	Mold area/Office
4	Unit heaters	1 & 3	Rig room, Glass shop, Molding area & office
2	A/C wall units	1	Coating room, Glass shop
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 A

APPENDIX B

Equipment maintenance information for 2010

EQUIPMENT MAINTENANCE INFORMATION FOR 2010

2010 Equipment Maintenance Information

Major maintenance carried out in 2010:	None
Quarterly Maintenance carried out in 2010: **Contract:** Kool Temp/ Valley Refrigeration Ltd.	April 29,2010 July 2,2010 October 1,2010 December 29,2010
Quarterly Maintenance Schedule: **Contract:** Valley Compressor	March 22,2010 June 17,2010 September 13,2010 December 2,2010
Monthly maintenance carried out in 2010: **Contract:** Kool Temp/ Valley Refrigeration Ltd.	January 28,2010 February 26,2010 March 30,2010 April 29,2010 May 3,2010 June 1,2010 July 2,2010 August 3,2010 September 27,2010 November 30,2010 December 29,2010
Report of any weakening or possible major failure of any components:	None

All ventilation systems were maintained in fully operational condition with no major system failures during 2010.

Equipment maintenance was performed under contract with a fully licensed maintenance and TSSA certified local HVAC contract provider.

The monthly Maintenance on the Rig and Bulk units was missed in the month of October due to a change in payment schedule with the contractor problem was noticed to late to be able to rectify the problem before the month was over. SRB checked the filter's in the units that month they were found to be sufficient, a non-conformance (NCR-349) was raised. We have since rectified the payment schedule with the contractor and maintenance has been occurring on a monthly basis. No negative effects have come from missing this one month of maintenance.

The contract stipulates quarterly service and maintenance program. All process equipment is serviced and maintained by qualified staff and through contract with companies that specialize in process control systems. All process equipment has been maintained in fully operational condition with no major equipment failures during 2010.

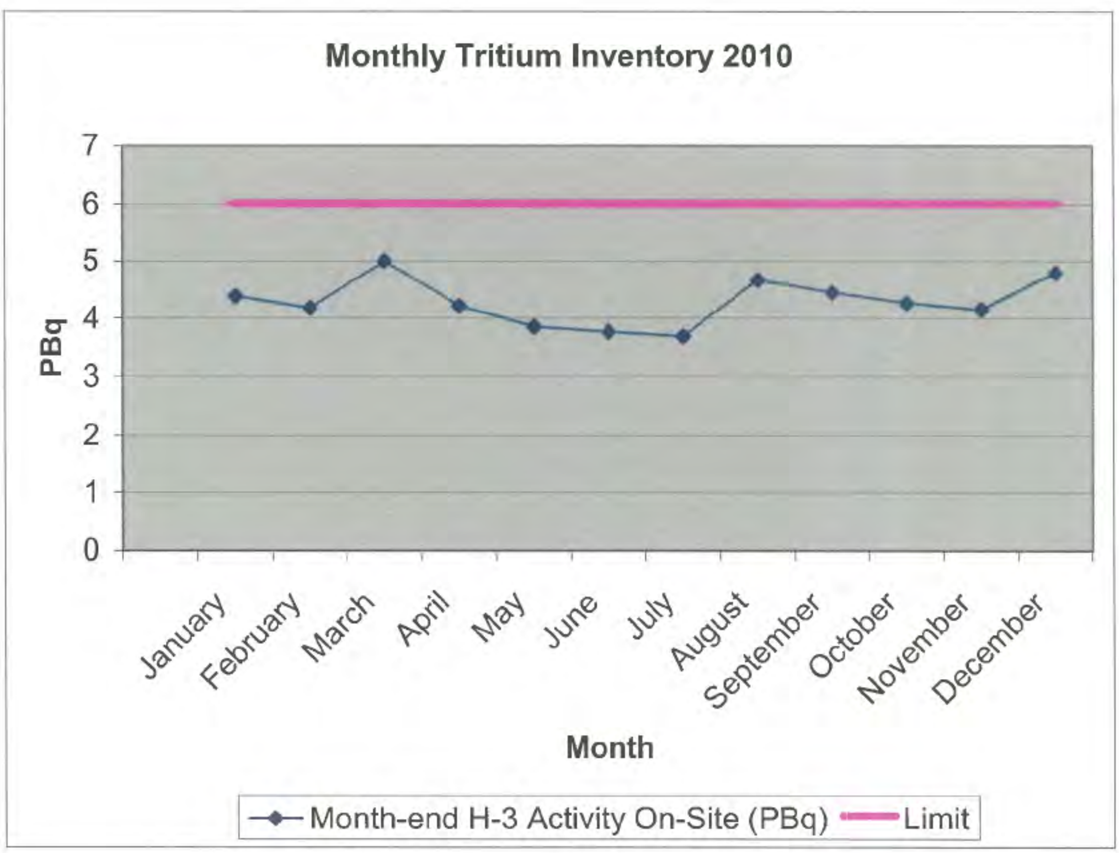
APPENDIX C

Tritium activity on site during 2010

TRITIUM ACTIVITY ON SITE DURING 2010

Month / 2010	Month-end H-3 Activity On-Site (PBq)	Percent of Licence Limit (%)
January	4.38	73
February	4.17	69
March	5.00	83
April	4.21	70
May	3.85	64
June	3.76	63
July	3.68	61
August	4.66	78
September	4.44	74
October	4.26	71
November	4.14	69
December	4.79	80
2010 Monthly Average	***4.28***	***71***

Note: Possession limit is 6.00 PBq.



APPENDIX D

Shipments containing radioactive material for 2010

SHIPMENTS CONTAINING RADIOACTIVE MATERIAL FOR 2010

Month / 2010	**Number of Shipments**
January	16
February	21
March	18
April	26
May	14
June	24
July	18
August	18
September	17
October	20
November	13
December	13
Total Shipments	***218***
2010 Monthly Average:	***18***

APPENDIX E

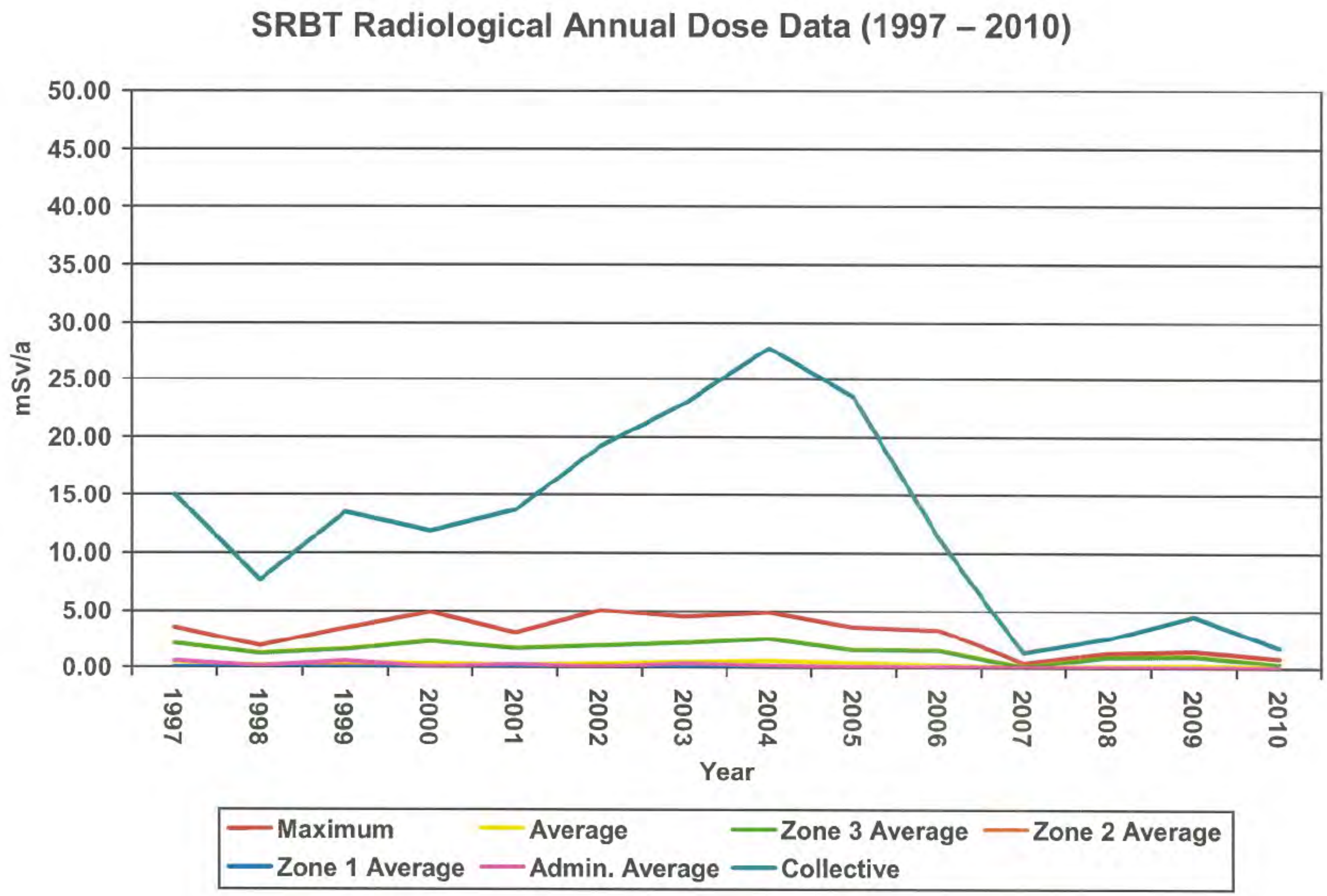
Radiological occupational annual dose data for 2010

SRB RADIOLOGICAL ANNUAL DOSE DATA (1997 – 2010)

ANNUAL DOSE (mSv/year)	1997	1998	1999	2000	2001	2002	2003	2004	2005	*2006	**2007	***2008	2009	2010	AVERAGE
Maximum Dose	3.55	1.91	3.48	4.89	3.11	5.08	4.54	4.90	3.61	3.35	0.48	1.34	1.50	0.88	3.04
Average	0.52	0.24	0.46	0.38	0.29	0.40	0.55	0.67	0.50	0.30	0.04	0.16	0.25	0.11	0.35
Average Zone 3	2.12	1.26	1.62	2.30	1.70	1.94	2.22	2.58	1.61	1.57	0.17	1.00	1.06	0.42	1.54
Average Zone 2	0.07	0.12	0.11	0.15	0.08	0.18	0.16	0.18	0.12	0.07	0.07	0.02	0.01	0.01	0.10
Average Zone 1	0.08	<0.01	<0.01	<0.01	0.01	0.01	0.01	0.02	<0.01	<0.01	0.00	0.03	0.03	0.02	0.02
Average Administration	0.61	0.17	0.60	0.12	0.31	0.11	0.39	0.24	0.12	0.09	<0.01	0.05	0.05	0.02	0.21
Collective Dose	15.01	7.72	13.47	11.91	13.65	19.21	22.91	27.75	23.50	11.34	1.40	2.62	4.57	1.82	12.63

DOSIMETRY RANGE (mSv/year)	1997	1998	1999	2000	2001	2002	2003	2004	2005	*2006	**2007	***2008	2009	2010	AVERAGE
0.00 – 0.99	23	29	28	33	43	43	39	30	39	34	32	15	15	17	30.00
1.00 – 1.99	4	3	4	1	4	2	0	5	3	3	0	1	3	0	2.36
2.00 – 2.99	1	0	0	1	1	2	3	2	3	0	0	0	0	0	0.93
3.00 – 3.99	1	0	2	1	1	0	2	2	2	1	0	0	0	0	0.86
4.00 – 4.99	0	0	0	1	0	0	1	2	0	0	0	0	0	0	0.29
> 5.00	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0.07
> 50.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
Staff Members	29	32	34	37	49	48	45	41	47	38	32	16	18	17	34.50

*** Operated 48 weeks**
**** Operated 5 weeks**
***** Operated 26 weeks**


SRBT Radiological Annual Dose Data (1997 – 2010)
50.00
45.00
40.00
35.00
30.00
25.00
20.00
15.00
10.00
5.00
0.00
mSv/a
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
Year
Maximum
Average
Zone 3 Average
Zone 2 Average
Zone 1 Average
Admin. Average
Collective

APPENDIX F

Swipe monitoring results for 2010

Zone 3 Area Swiped	Number of swipes	Average Value	Amount pass	Amount Fail	Average Pass
Rig Monitor Floor	234	15.33	217	17	92.74%
Rig 7/8 floor	234	13.80	222	12	94.87%
Rig 4/6 floor	234	14.18	221	13	94.44%
Rig 3/5 floor	234	14.14	215	19	91.88%
Rig 2 floor	234	12.79	225	9	96.15%
Rig 1 floor	234	17.00	223	11	95.30%
Rig room desk top	234	11.81	228	6	97.44%
Rig room fume hood	234	25.25	203	31	86.75%
Laser room floor	234	14.00	223	11	95.30%
Laser fume hood	234	31.22	210	24	89.74%
Culham Housing	234	7.94	233	1	99.57%
Culham key pad	234	6.02	229	5	97.86%
LMI Housing	234	15.65	222	12	94.87%
LMI key pad	234	5.96	232	2	99.15%
EIP Housing	234	7.60	226	8	96.58%
EIP key pad	234	5.94	229	5	97.86%
Reclaim floor	234	18.09	216	18	92.31%
Bulk splitter floor	234	42.56	203	31	86.75%
Storage floor	234	22.79	219	15	93.59%
Trit Lab desk	234	23.85	214	20	91.45%
Disassembly Fume Hood	234	115.64	185	49	79.06%
Bulk fume hood	234	32.17	197	37	84.19%
Reclaim fume hood	234	10.34	224	10	95.73%
glove port	234	9.01	227	7	97.01%
Waste room floor	51	14.82	47	4	92.16%
	5,667	**20.32**	**5,290**	**377**	**93.35%**
Zone 2 Area Swiped	**Number of swipes**	**Average Value**	**Amount pass**	**Amount Fail**	**Average Pass**
Floor at barrier	129	0.97	124	5	96.12%
Floor at computers	129	1.11	126	3	97.67%
Floor at Windows	129	0.90	124	5	96.12%
Counters	129	0.95	125	4	96.90%
Paint booth	129	2.47	128	1	99.22%
Exposing Room	129	1.46	126	3	97.67%
Silkscreening Room	129	0.86	124	5	96.12%
Inspection Floor	129	0.86	125	4	96.90%
Inspection Counter	129	2.87	125	4	96.90%
Inspection Prep floor	129	1.24	126	3	97.67%
Inspection Prep counter	129	2.18	118	11	91.47%
Rig porthole	129	1.27	125	4	96.90%
Photometer room floor	129	1.16	123	6	95.35%
Photometer room counter	129	0.79	127	2	98.45%
Dark room floor	129	1.02	126	3	97.67%
dark room counter	129	0.46	127	2	98.45%
	2,064	**1.29**	**1,999**	**65**	**96.85%**
Zone 1 Area Swiped	**Number of swipes**	**Average Value**	**Amount pass**	**Amount Fail**	**Average Pass**
Hallways	92	0.46	91	1	98.91%
Glass Shop	92	0.21	92	0	100.00%
Lunch Room	92	0.87	91	1	98.91%
Coating room	92	0.08	92	0	100.00%
Stores	92	0.17	92	0	100.00%
Receiving	92	0.12	92	0	100.00%
Main Offices	92	0.20	92	0	100.00%
Wing Offices	92	0.10	92	0	100.00%
Shipping area	92	0.14	92	0	100.00%
Milling area	92	0.07	92	0	100.00%
LSC Room	92	0.15	92	0	100.00%
Ante Room	92	2.13	90	2	97.83%
Rig room Barrier	92	1.52	87	5	94.57%
Rig room door handle	92	0.45	91	1	98.91%
Assembly entry	92	0.33	92	0	100.00%
	1380	**0.47**	**1370**	**10**	**99.28%**

APPENDIX F

APPENDIX G

Passive air sampler data for 2010

2010 Environment Monitoring Program
Passive Air Sampling System

Sampler No.	Sampler ID	Location	Dist. to SRBT	Jan (Jan5-Feb3) (Bq/m3)	Feb (Feb3-Mar2)	Mar (Mar2-Apr1)	Apr (Apr1-May4)	May (May4-June2)	Jun (June2-July5)	Jul (July6-Aug4)	Aug (Aug4-Sept1)	Sep (Sept1-Oct5)	Oct (Oct5-Nov2)	Nov (Nov2-Dec1)	Dec (Dec1-Jan5)	Average (Bq/m3)
1	N250	N 45° 48.486' W 077° 07.092' Elev. 137m	322m	0.45	0.46	1.11	1.85	1.83	0.90	1.79	2.04	0.95	2.04	1.48	0.61	1.29
2	N500	N 45° 48.572' W 077° 07.008' Elev. 134m	493m	0.31	0.34	0.29	0.67	1.22	0.70	1.43	1.24	0.80	0.90	0.63	0.32	0.74
3	N1000	N 45° 48.869' W 077° 06.997' Elev. 135m	1040m	0.31	0.34	0.29	0.29	0.42	0.37	0.52	0.61	0.27	0.35	0.82	0.27	0.41
4 (PAS #4)	NW250	N 45° 48.412' W 077° 07.189' Elev. 137m	222m	1.46	0.37	2.33	5.31	5.43	0.38	1.88	3.49	2.03	2.47	3.81	0.87	2.49
5	NW500	N 45° 48.577' W 077° 07.382' Elev. 134m	615m	0.54	0.33	0.66	1.65	1.68	0.67	0.91	1.50	0.71	0.91	1.64	0.32	0.96
6 (PAS # 8)	NW1000	N 45° 48.754' W 077° 07.599' Elev. 130m	1050m	0.31	0.34	0.29	0.95	0.72	0.27	0.37	0.62	0.40	0.56	0.62	0.28	0.48
7	NW2000	N 45° 49.141' W 077° 08.090' Elev. 139m	2000m	0.32	0.34	0.30	0.69	0.52	0.26	0.32	0.43	0.28	0.39	3.46	0.27	0.63
8	W250	N 45° 48.300' W 077° 07.323' Elev. 138m	297m	0.51	0.74	1.25	2.20	2.17	0.63	0.50	1.04	1.74	0.55	1.52	0.42	1.11
9	W500	N 45° 48.288' W 077° 07.393' Elev. 137m	389m	0.43	0.40	0.84	1.36	1.87	0.37	0.36	0.73	1.29	0.43	0.86	0.38	0.78
10	W1000	N 45° 48.306' W 077° 07.630' Elev. 134m	691m	0.41	0.66	0.40	0.94	0.65	0.26	0.31	0.36	0.34	0.36	0.68	0.31	0.47
11	SW250	N 45° 48.247' W 077° 07.206' Elev. 140m	183m	0.34	3.81	1.32	1.95	2.08	1.36	1.18	1.89	0.58	0.70	1.19	0.38	1.40
12	SW500	N 45° 47.896' W 077° 07.307' Elev. 148m	839m	0.45	0.38	0.29	0.30	0.37	0.26	0.32	0.33	0.27	0.36	0.33	0.27	0.33
13	SW1000	N 45° 47.599' W 077° 07.543' Elev. 149m	1470m	0.32	0.34	0.29	0.30	0.32	0.26	0.32	0.33	0.28	0.36	0.33	0.27	0.31
14	SW2000	N 45° 47.408' W 077° 07.866' Elev. 155m	2110m	0.32	0.33	0.30	0.30	0.32	0.27	0.32	0.33	0.28	0.35	0.34	0.28	0.31
15	S250	N 45° 48.129' W 077° 07.014' Elev. 131m	356m	0.63	1.18	1.37	4.94	1.61	1.03	0.70	0.58	0.89	0.75	1.17	1.19	1.34
16	S500	N 45° 48.029' W 077° 07.110' Elev. 143m	532m	0.32	0.46	0.53	0.96	0.82	0.38	0.34	0.34	0.40	0.36	0.33	0.28	0.46
17 (PAS # 12)	S1000	N 45° 46.466' W 077° 07.441' Elev. 158m	1450m	0.31	0.34	0.29	0.30	0.32	0.26	0.32	0.33	0.28	0.36	1.74	0.27	0.43
18	SE250	N 45° 48.189' W 077° 06.874' Elev. 132m	365m	6.56	5.20	2.57	10.96	5.54	4.24	2.57	1.27	4.28	2.54	3.93	5.79	4.62
19	SE500	N 45° 48.108' W 077° 06.783' Elev. 123m	554m	2.59	2.50	1.23	5.52	2.89	0.93	0.77	0.70	2.20	1.16	1.73	2.36	2.05
20	SE1000	N 45° 47.894' W 077° 06.501' Elev. 120m	1090m	0.52	0.87	0.62	1.81	1.05	0.40	0.31	0.33	0.55	0.35	0.42	0.34	0.63
21	SE2000	N 45° 47.505' W 077° 05.978' Elev. 137m	2080m	0.75	0.41	0.44	0.83	0.48	0.26	0.32	0.34	0.37	0.35	0.39	0.27	0.43
22	E250	N 45° 48.234' W 077° 06.807' Elev. 131m	401m	2.61	2.77	1.22	5.29	4.87	1.53	1.22	1.66	3.99	3.19	2.63	3.16	2.85
23	E500	N 45° 48.333' W 077° 06.693' Elev. 132m	520m	0.67	0.33	0.33	1.68	1.35	1.41	1.44	1.55	1.83	0.45	0.54	0.73	1.03
24	E1000	N 45° 48.303' W 077° 06.260' Elev. 143m	1080m	0.32	0.34	0.30	0.90	0.98	0.26	0.65	0.68	0.72	0.40	2.17	0.28	0.67
25	NE250	N 45° 48.371' W 077° 06.964' Elev. 124m	198m	3.02	0.63	0.47	4.44	2.18	1.78	6.02	12.60	3.40	3.41	1.26	0.91	3.34
26	NE500	N 45° 48.421' W 077° 06.732' Elev. 131m	508m	0.99	0.35	0.29	1.38	0.93	1.70	1.26	2.76	0.96	0.95	0.64	0.41	1.05
27	NE1000	N 45° 48.683' W 077° 06.441' Elev. 148m	1100m	0.47	0.34	0.29	0.49	0.31	0.44	0.62	0.82	0.28	0.35	0.33	0.27	0.42
28	NE2000	N 45° 49.116' W 077° 05.843' Elev. 156m	2200m	0.84	0.34	0.29	0.30	0.32	0.26	0.32	0.36	0.28	0.36	0.32	0.27	0.36
Pre-Sample Points																
BOC Gas (PAS #1)		N 45° 48.287' W 077° 07.123' Elev. 129m	94.1m	0.31	4.45	3.55	4.64	14.39	1.96	2.87	6.00	1.64	1.44	5.53	0.57	3.95
Brewer's Edge (PAS #2)		N 45° 48.325' W 077° 07.132' Elev. 132m	52.8m	1.39	0.91	1.98	3.61	6.54	1.62	2.57	4.48	2.21	1.69	5.12	1.43	2.80
Med-Eng (PAS #13)		N 45° 48.262' W 077° 07.093' Elev. 132m	61.5m	0.57	4.12	5.66	21.73	8.63	4.64	3.28	4.56	4.46	3.81	3.64	2.64	5.65
Replicates																
4-2	NW250	N 45° 48.412' W 077° 07.189' Elev. 137m	222m	1.40	0.33	2.27	4.93	5.33	0.67	1.47	3.35	2.03	2.46	3.70	0.77	2.39
11-2	SW250	N 45° 48.247' W 077° 07.206' Elev. 140m	183m	0.31	2.17	1.21	1.79	2.07	0.76	0.88	1.76	0.50	0.58	0.77	0.30	1.09
18-2	SE250	N 45° 48.189' W 077° 06.874' Elev. 132m	365m	5.29	4.60	2.27	10.69	5.49	4.17	1.67	1.27	4.09	2.35	3.80	5.04	4.23
25-2	NE250	N 45° 48.371' W 077° 06.964' Elev. 124m	198m	2.64	0.61	0.29	4.41	2.10	1.49	5.70	12.50	3.32	3.04	1.25	0.83	3.18
Background Samples																
Maika (PAS # 10)	SW	N 45° 46.367' W 077° 11.447' Elev. 149m	6690m	0.37	0.34	0.29	0.30	0.31	0.26	0.32	0.33	0.28	0.35	0.33	0.27	0.31
Maika	Duplicate	Same as above	6690m	0.31	0.34	0.29	0.30	0.32	0.26	0.32	0.34	0.28	0.36	0.33	0.27	0.31
Fitzpatrick	SE	N 45° 44.818' W 076° 59.822' Elev. 159m	11400m	0.31	0.34	0.29	0.30	0.32	0.26	0.32	0.33	0.28	0.36	0.33	0.27	0.31
Petawawa	NW	N 45° 51.497' W 077° 12.828' Elev. 149m	9480m	0.31	0.33	0.30	0.30	0.32	0.27	0.32	0.34	0.28	0.36	0.33	0.27	0.31
Farm	NE	N 45° 53.071' W 076° 56.768' Elev. 142m	16000m	0.31	0.34	0.29	0.30	0.31	0.26	0.32	0.33	0.28	0.35	0.33	0.27	0.31
			Sum	40.60	44.12	38.89	111.86	89.38	38.46	47.43	74.85	50.30	42.86	60.77	34.71	56.19

Passive Air Sampling Data (Results in Bq/m3)

1st Quarter

Direction	January 250 M	January 500 M	January 1000 M	January 2000 M	February 250 M	February 500 M	February 1000 M	February 2000 M	March 250 M	March 500 M	March 1000 M	March 2000 M
North	0.45	0.31	0.31		0.46	0.34	0.34		1.11	0.29	0.29	
North West	1.46	0.54	0.31	0.32	0.37	0.33	0.34	0.34	2.33	0.66	0.29	0.30
West	0.51	0.43	0.41		0.74	0.40	0.66		1.25	0.84	0.40	
Southwest	0.34	0.45	0.32	0.32	3.81	0.38	0.34	0.33	1.32	0.29	0.29	0.30
South	0.63	0.32	0.31		1.18	0.46	0.34		1.37	0.53	0.29	
South East	6.56	2.59	0.52	0.75	5.20	2.50	0.87	0.41	2.57	1.23	0.62	0.44
East	2.61	0.67	0.32		2.77	0.33	0.34		1.22	0.33	0.30	
North East	3.02	0.99	0.84	0.84	0.63	0.35	0.34	0.34	0.47	0.29	0.29	0.29

2nd Quarter

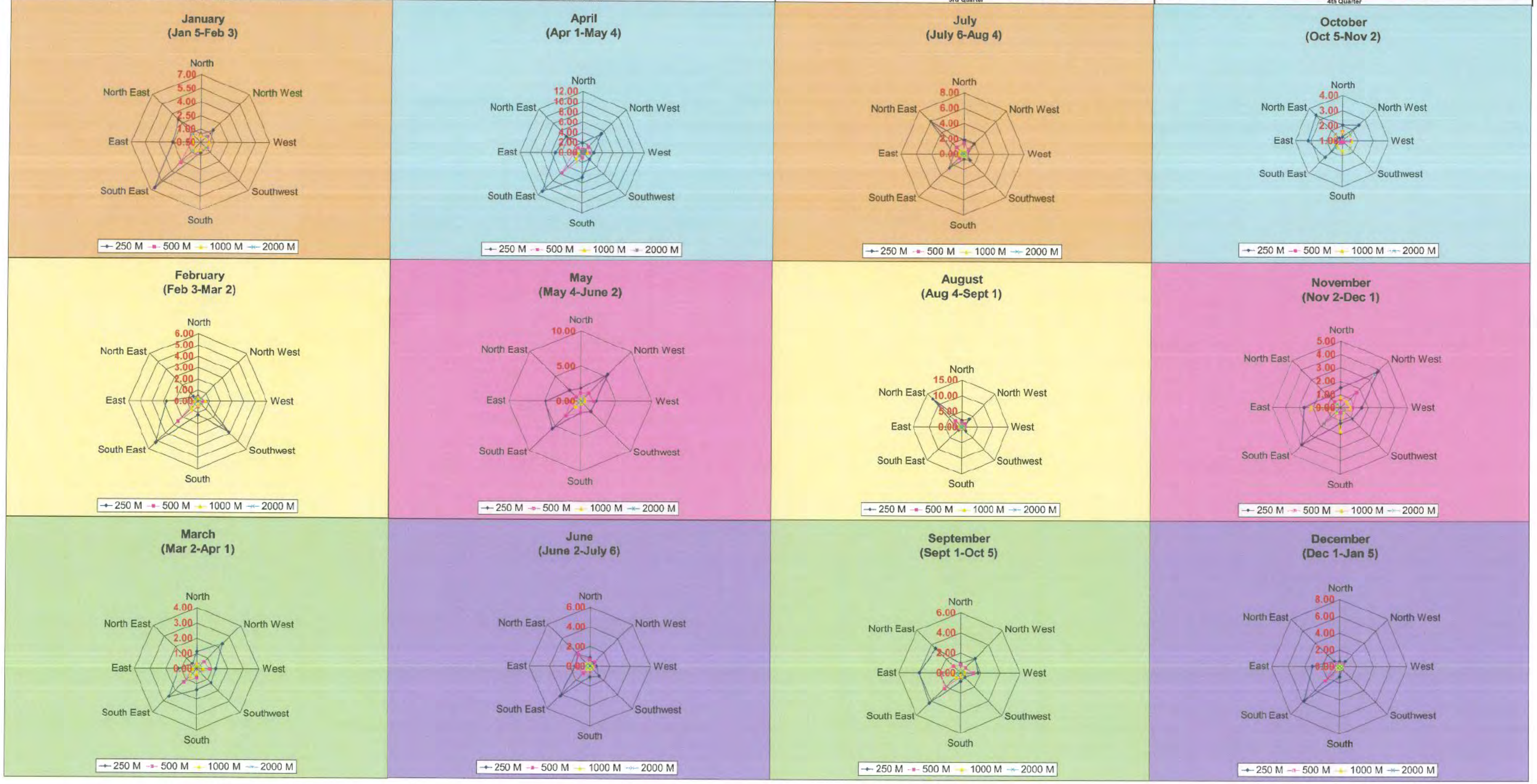
Direction	April 250 M	April 500 M	April 1000 M	April 2000 M	May 250 M	May 500 M	May 1000 M	May 2000 M	June 250 M	June 500 M	June 1000 M	June 2000 M
North	1.85	0.67	0.29		1.83	1.22	0.42		0.90	0.70	0.37	
North West	5.31	1.65	0.95	0.69	5.43	1.68	0.72	0.52	0.38	0.67	0.27	0.26
West	2.20	1.36	0.94		2.17	1.87	0.65		0.63	0.37	0.26	
Southwest	1.95	0.30	0.30	0.30	2.08	0.37	0.32	0.32	1.36	0.26	0.26	0.27
South	4.94	0.96	0.30		1.61	1.61	0.32		1.03	0.38	0.26	
South East	10.96	5.52	1.81	0.83	5.54	2.89	1.05	0.48	4.24	0.93	0.40	0.26
East	5.29	1.68	0.90		4.87	1.35	0.98		1.53	1.41	0.26	
North East	4.44	1.38	0.49	0.30	2.18	0.93	0.31	0.32	1.78	1.70	0.44	0.26

3rd Quarter

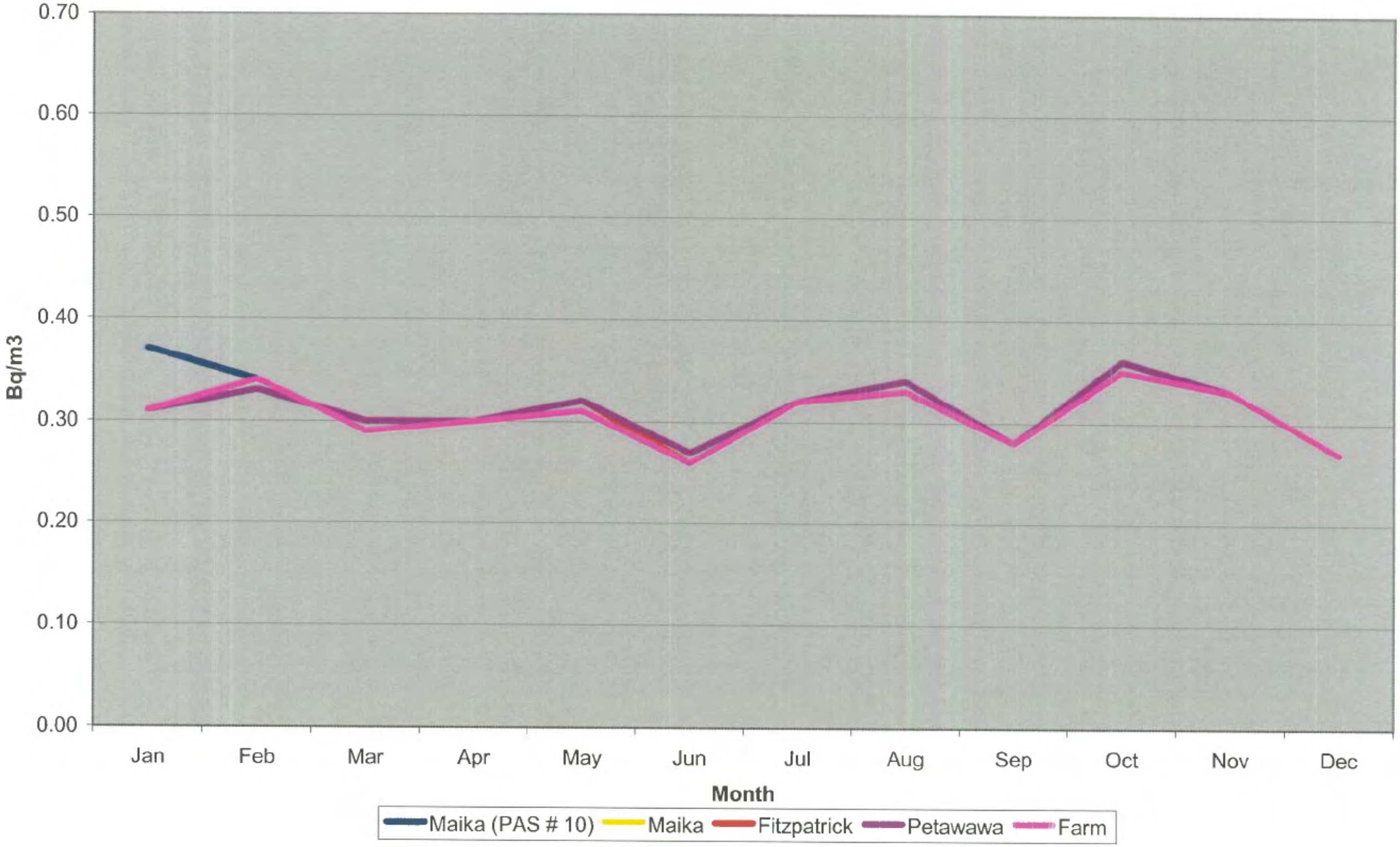
Direction	July 250 M	July 500 M	July 1000 M	July 2000 M	August 250 M	August 500 M	August 1000 M	August 2000 M	September 250 M	September 500 M	September 1000 M	September 2000 M
North	1.79	1.43	0.52		2.04	1.24	0.61		0.95	0.80	0.27	
North West	1.88	0.91	0.37	0.32	3.49	1.50	0.62	0.43	2.03	0.71	0.40	0.28
West	0.50	0.36	0.31		1.04	0.73	0.36		1.74	1.29	0.34	
Southwest	1.18	0.32	0.32	0.32	1.89	0.33	0.33	0.33	0.58	0.27	0.28	0.28
South	0.70	0.34	0.32		0.58	0.34	0.33		0.89	0.40	0.28	
South East	2.57	0.77	0.31	0.32	1.27	0.70	0.33	0.34	4.28	2.20	0.55	0.37
East	1.22	1.44	0.65		1.66	1.55	0.68		3.99	1.83	0.72	
North East	6.02	1.26	0.62	0.32	12.60	2.76	0.82	0.36	3.40	0.96	0.28	0.28

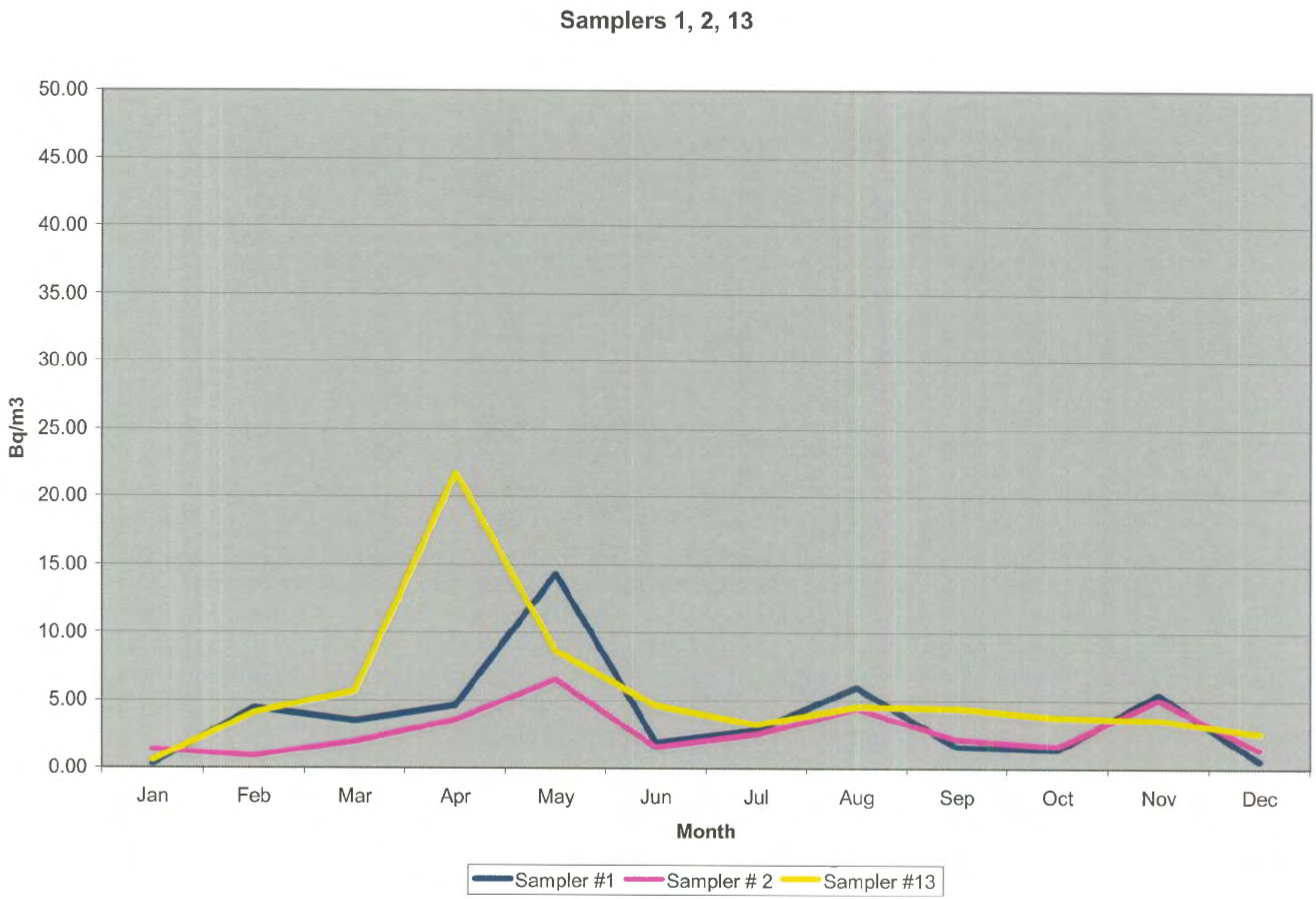
4th Quarter

Direction	October 250 M	October 500 M	October 1000 M	October 2000 M	November 250 M	November 500 M	November 1000 M	November 2000 M	December 250 M	December 500 M	December 1000 M	December 2000 M
North	2.04	0.90	0.35		1.48	0.63	0.82		0.61	0.32	0.27	
North West	2.47	0.91	0.56	0.39	3.81	1.64	0.62	3.46	0.87	0.32	0.28	0.27
West	0.55	0.43	0.36		1.52	0.86	0.68		0.42	0.38	0.31	
Southwest	0.70	0.36	0.36	0.35	1.19	0.33	0.33	0.34	0.38	0.27	0.27	0.28
South	0.75	0.36	0.36		1.17	0.33	1.74		1.19	0.28	0.27	
South East	2.54	1.16	0.35	0.35	3.93	1.73	0.42	0.39	5.79	2.36	0.34	0.27
East	3.19	0.45	0.40		2.63	0.54	2.17		3.16	0.73	0.28	
North East	3.41	0.95	0.35	0.36	1.26	0.64	0.33	0.32	0.91	0.41	0.27	0.27



Background Samples

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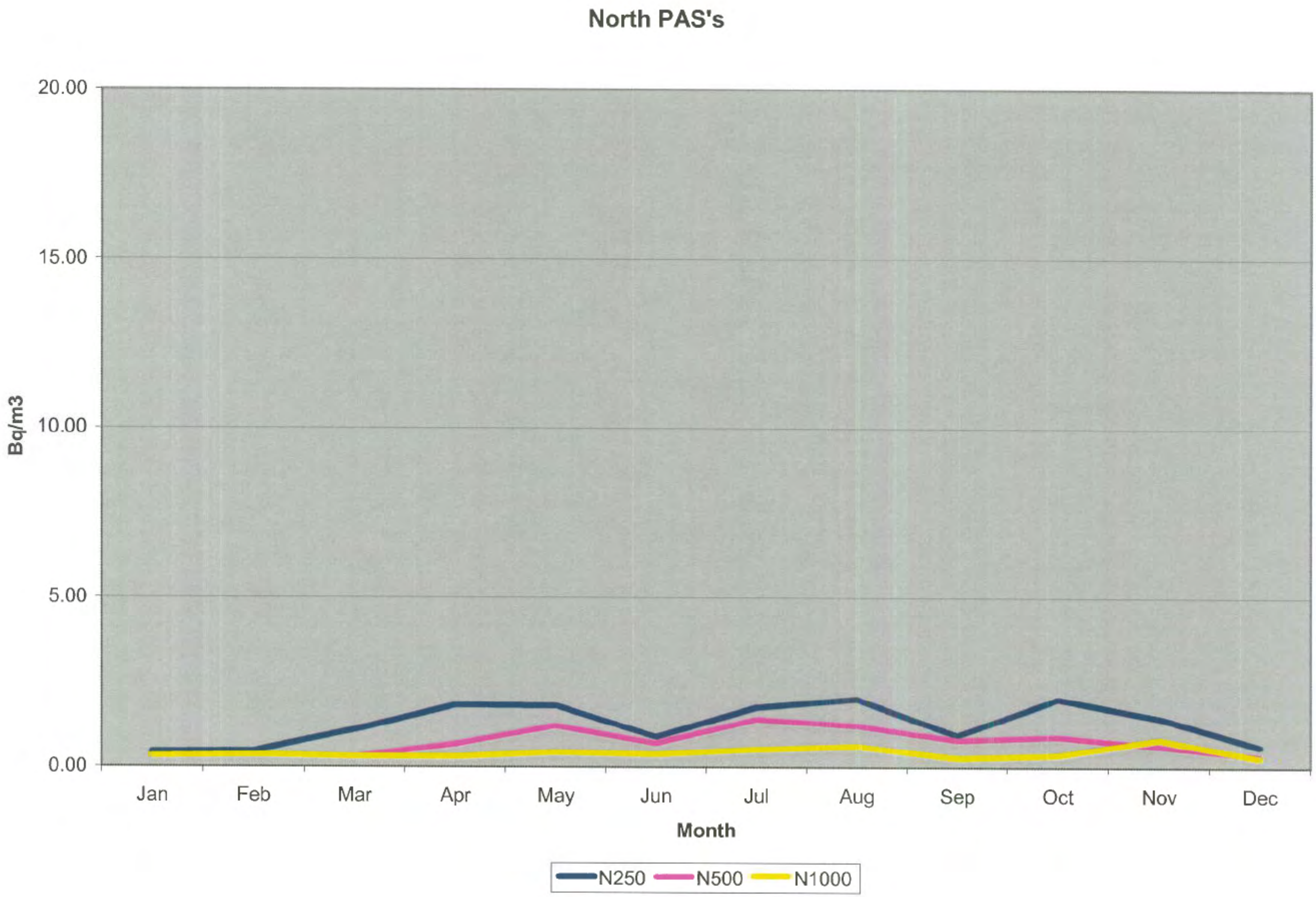
45.00
40.00
35.00
30.00
25.00
20.00
15.00
10.00
5.00
0.00
Bq/m3
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Month
Sampler #1
Sampler # 2
Sampler #13


North PAS's
20.00
15.00
10.00
5.00
0.00
Bq/m3
Jan
Feb
Mar
Apr
May
Jun
Jul
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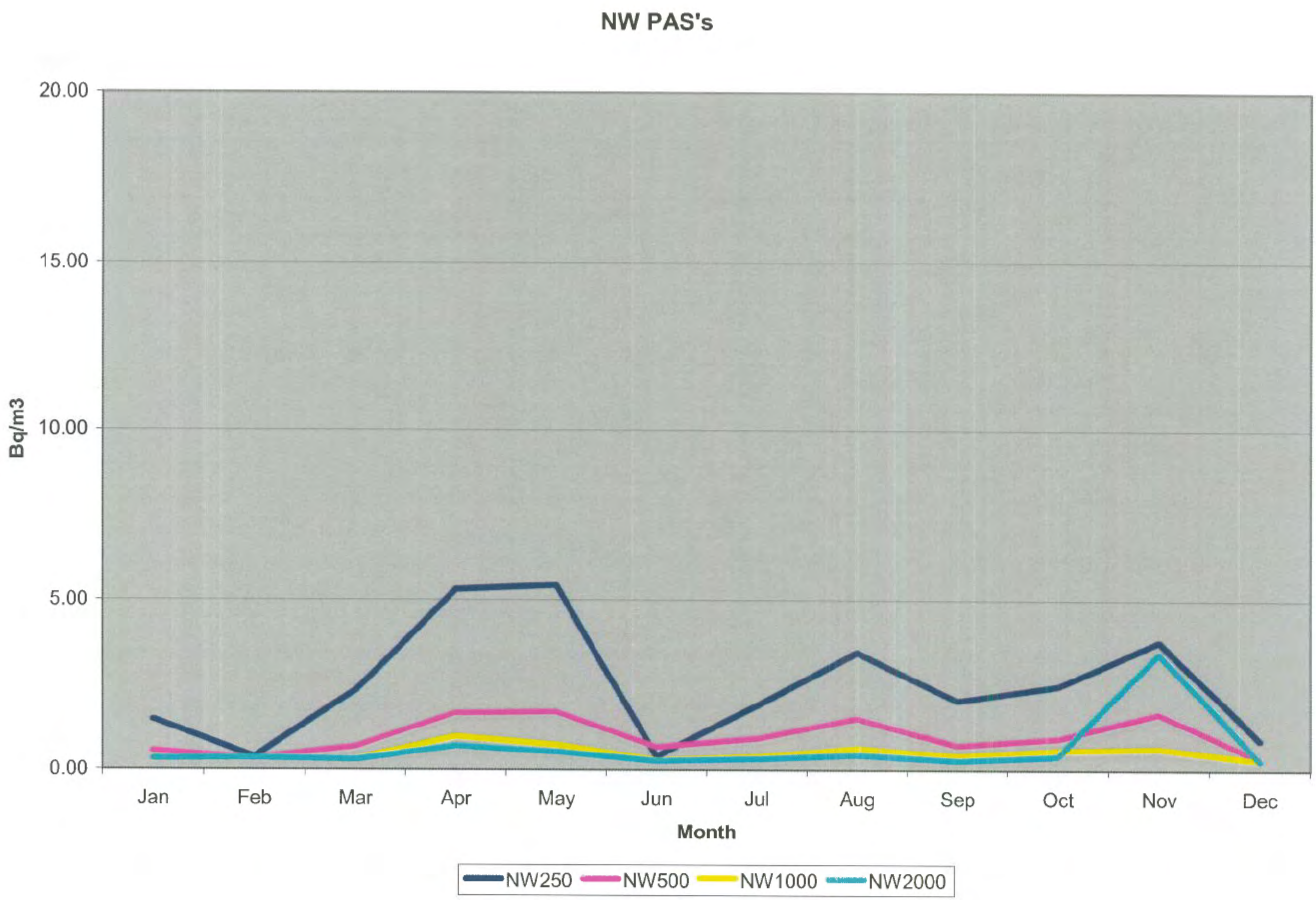
Month
N250
N500
N1000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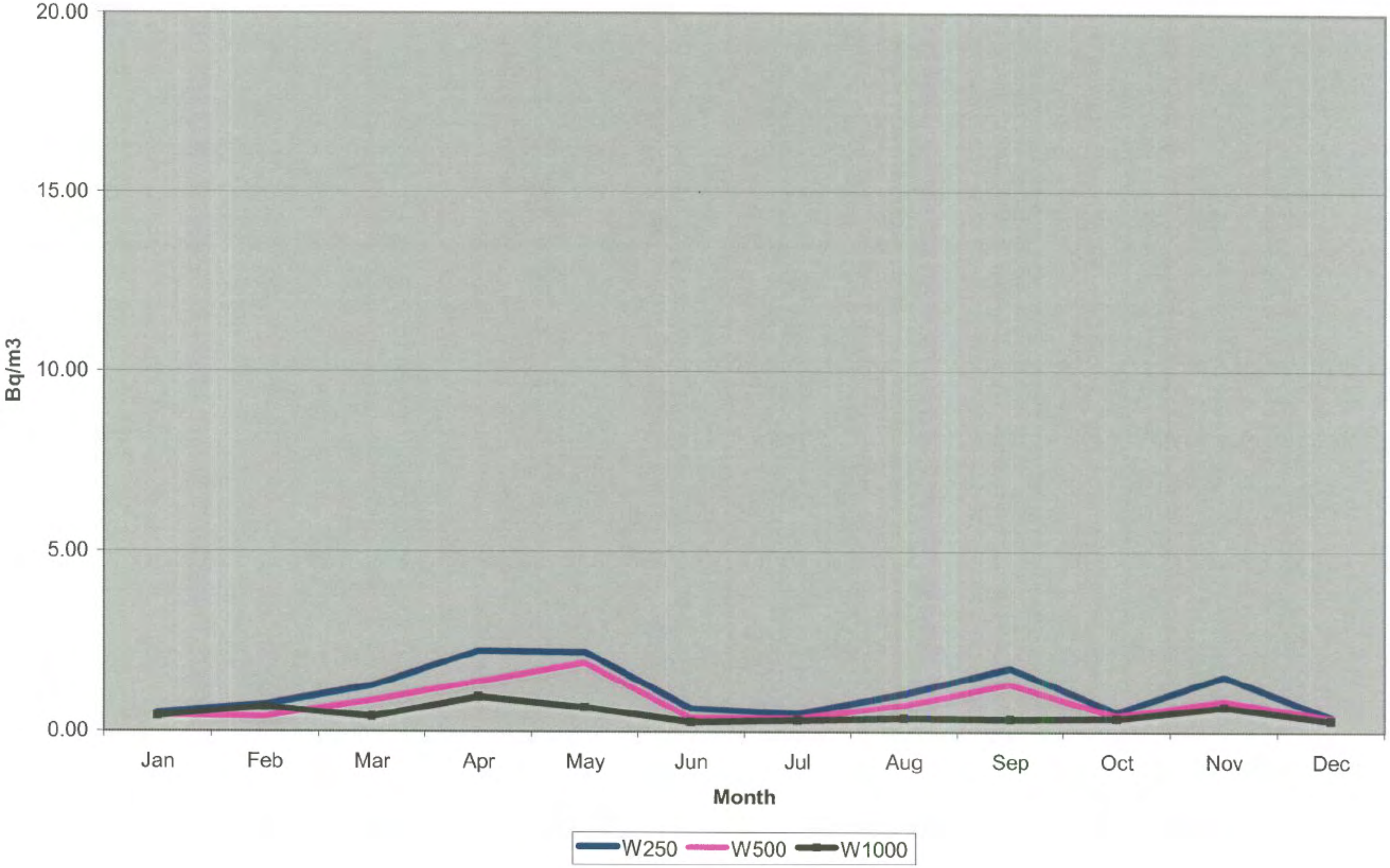
15.00
10.00
5.00
0.00
Bq/m3
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Month
NW250
NW500
NW1000
NW2000

West PAS's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15.00
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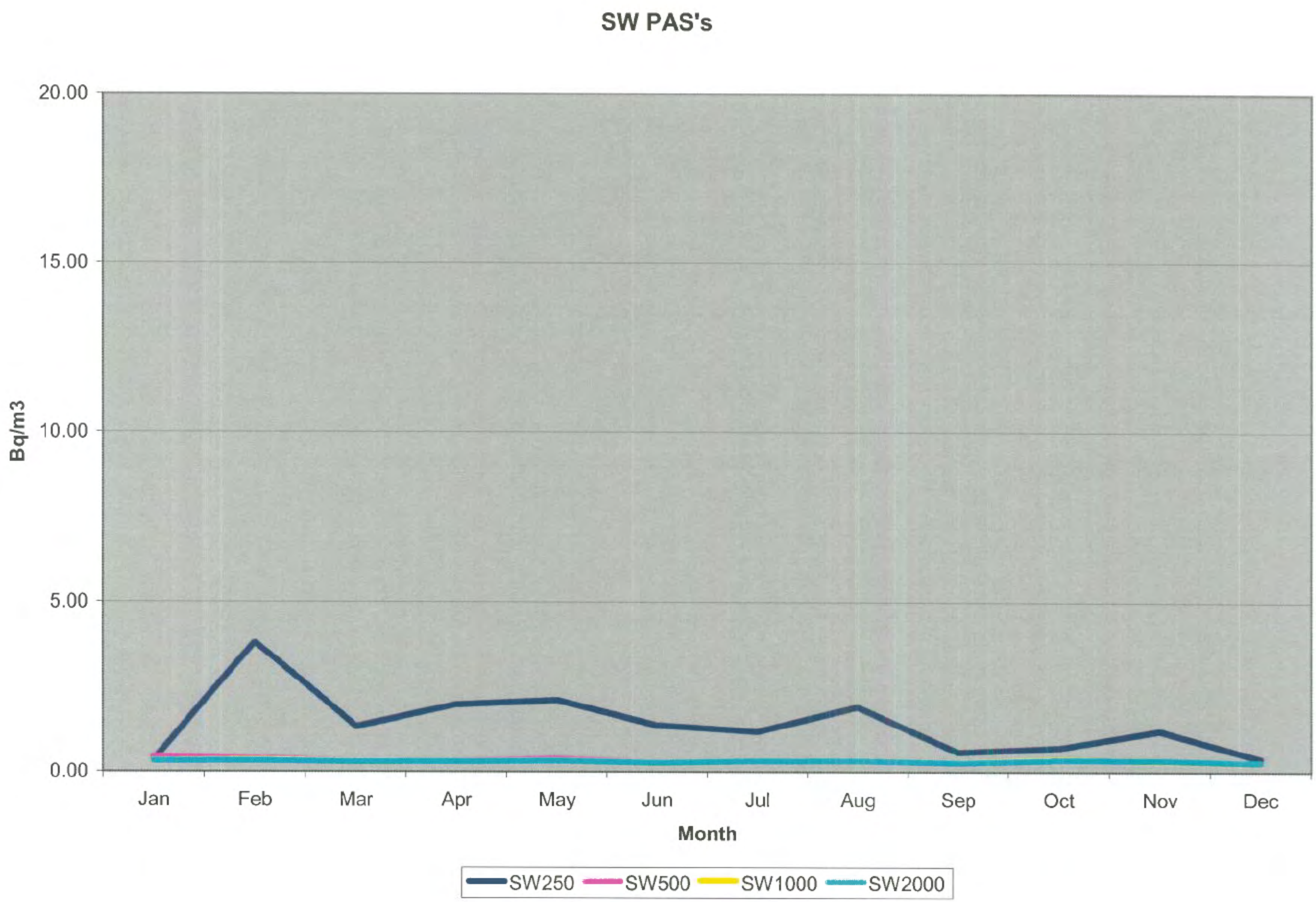
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Month
W250
W500
W1000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5.00
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Bq/m3
Jan
Feb
Mar
Apr
May
Jun
Jul
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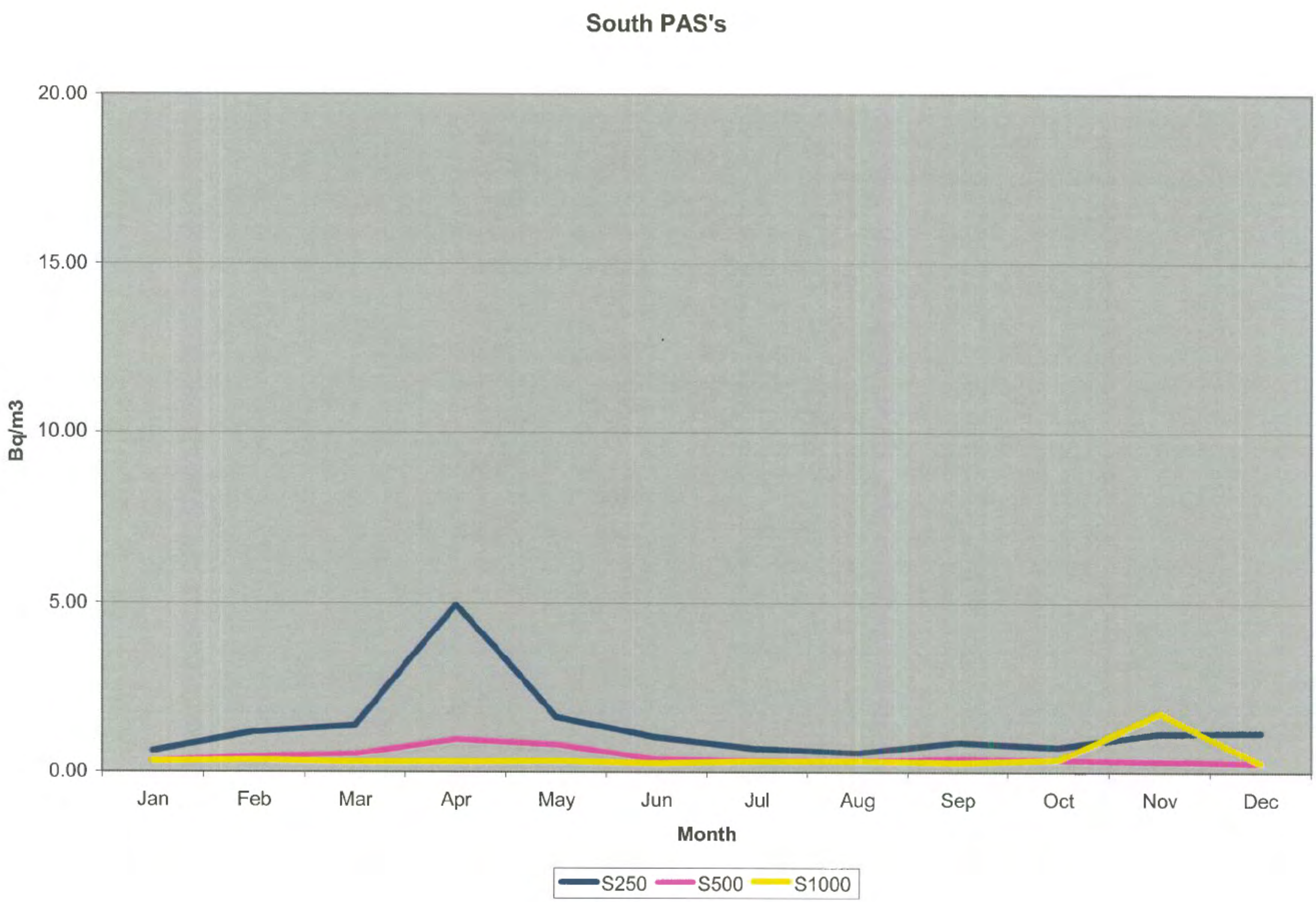
Oct
Nov
Dec
Month
SW250
SW500
SW1000
SW2000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15.00
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5.00
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Bq/m3
Jan
Feb
Mar
Apr
May
Jun
Jul
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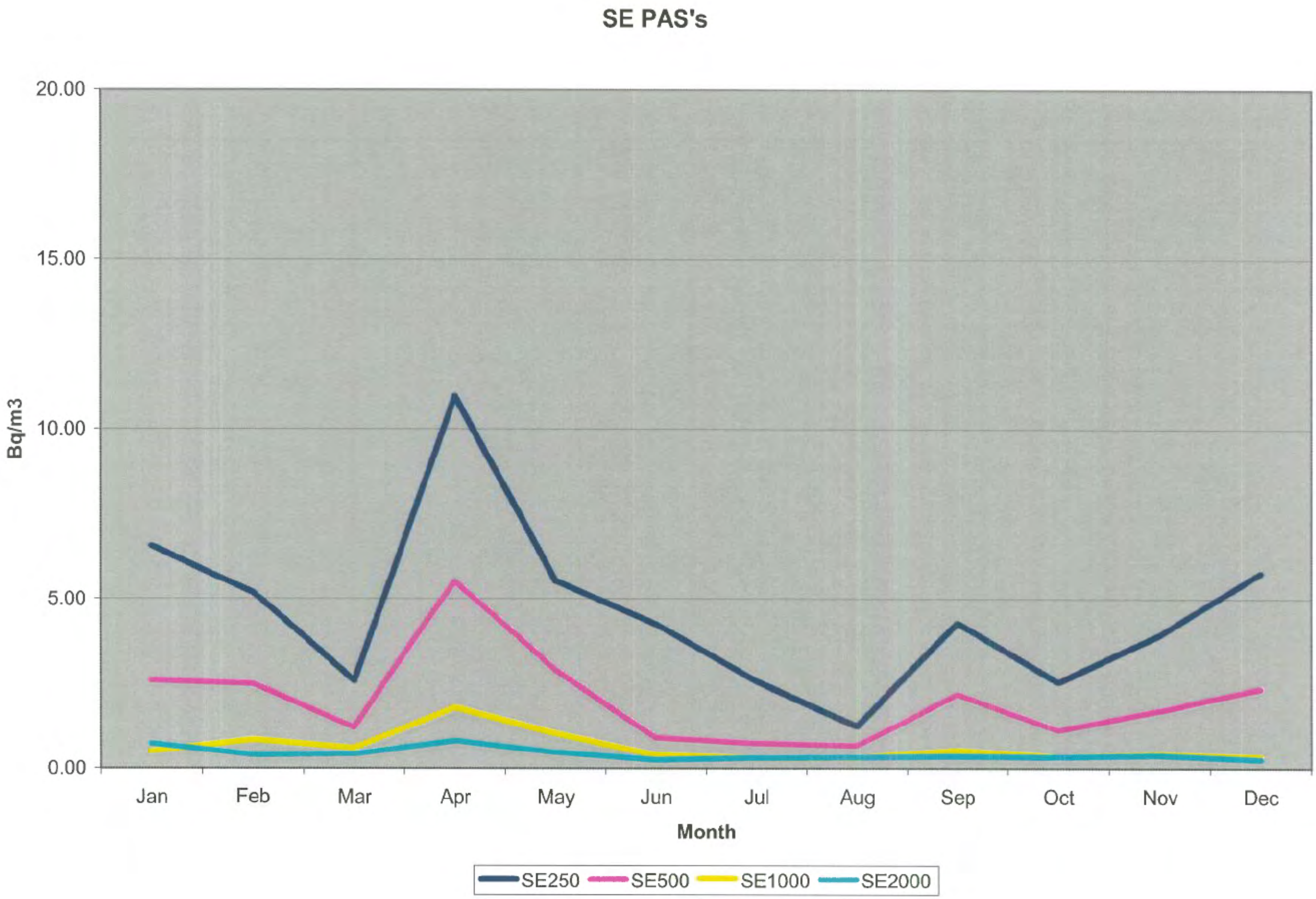
Oct
Nov
Dec
Month
S250
S500
S1000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10.00
5.00
0.00
Bq/m3
Jan
Feb
Mar
Apr
May
Jun
Jul
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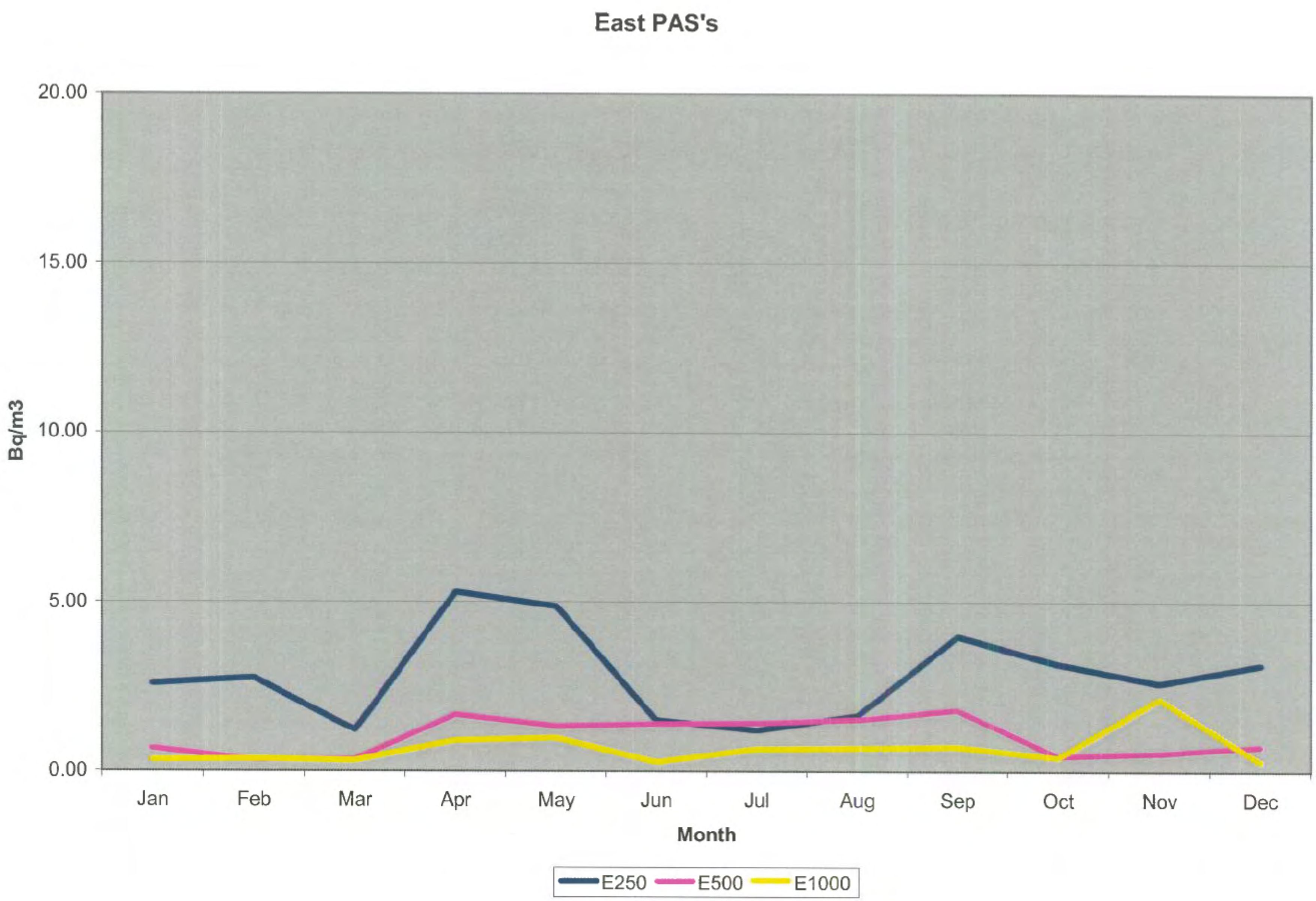
Month
SE250
SE500
SE1000
SE2000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5.00
0.00
Bq/m3
Jan
Feb
Mar
Apr
May
Jun
Jul
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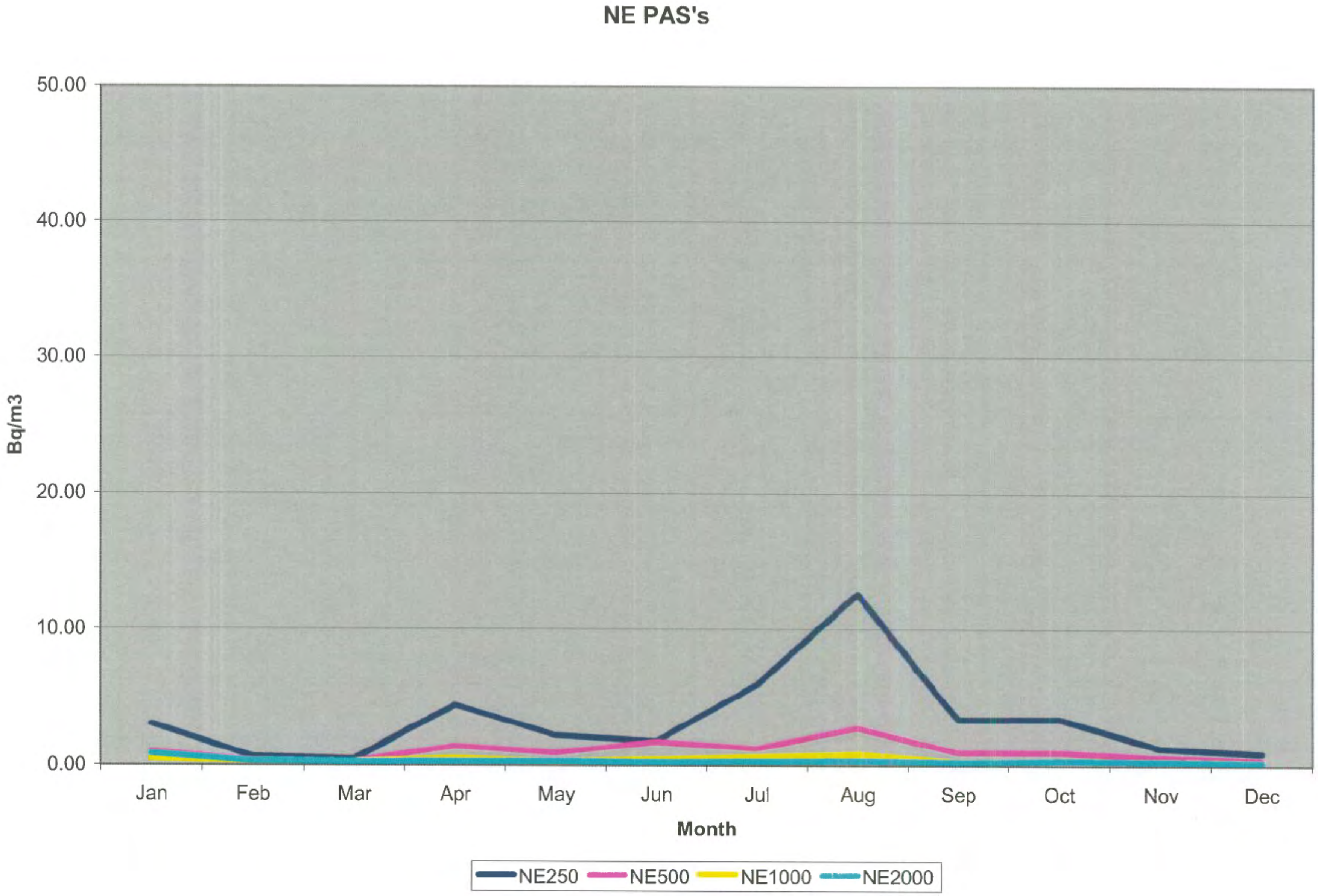
Month
E250
E500
E1000


NE PAS's
50.00
40.00
30.00
20.00
10.00
0.00
Bq/m3
Jan
Feb
Mar
Apr
May
Jun
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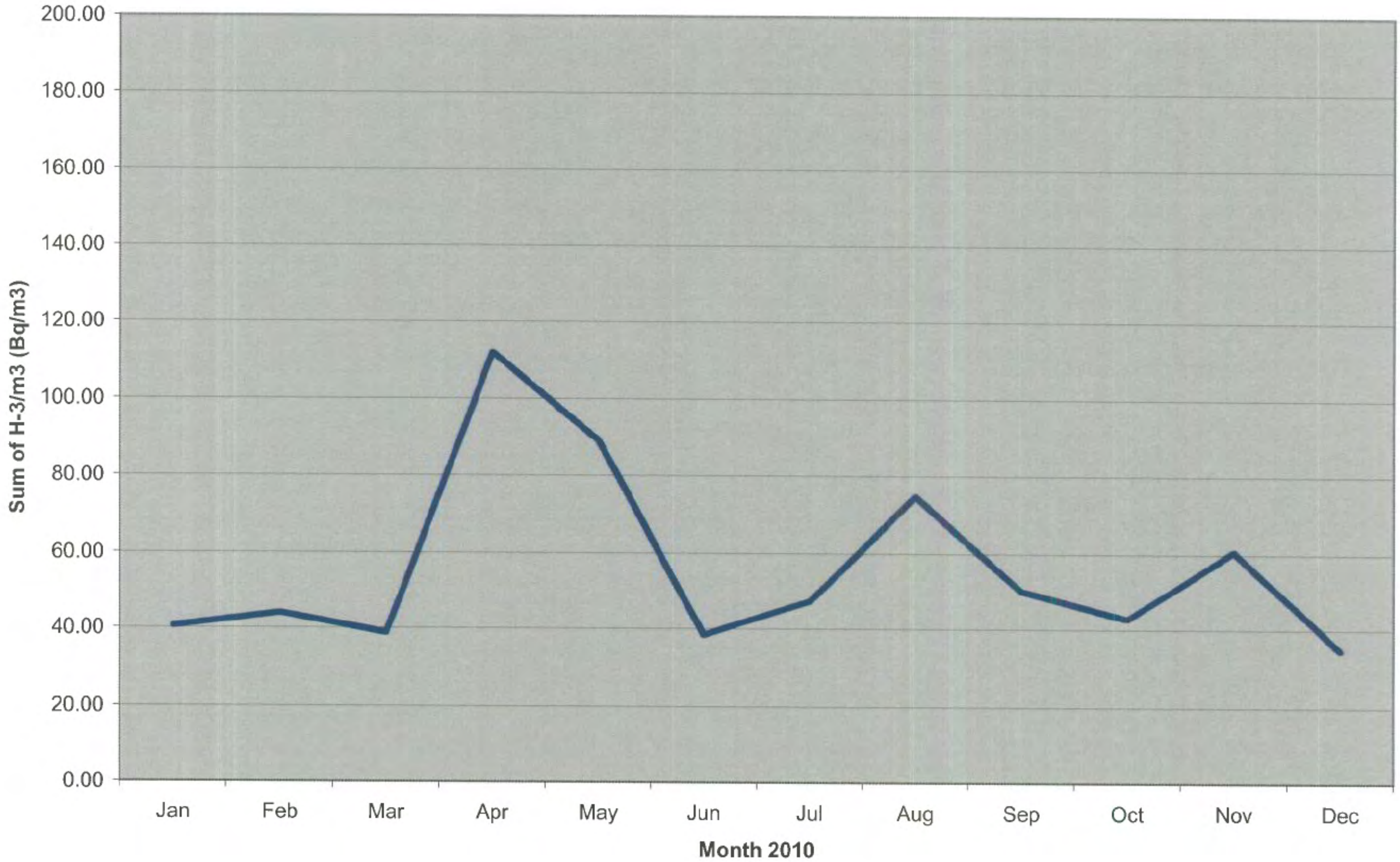
Oct
Nov
Dec
Month
NE250
NE500
NE1000
NE2000

Chart of Sum of HTO in Air in PAS



APPENDIX H

Well monitoring results for 2010

WELL I.D.	DESCRIPTION	DISTANCE FROM STACKS (m)	5/1/10	3/2/10	4/3/10	1/4/10	4/5/10	2/6/10	6/7/10	5/8/10	1/9/10	5/10/10	2/11/10	1/12/10	AVG
RW-1	413 BOUNDARY ROAD	465			423				424				368		405
RW-2	185 MUD LAKE ROAD	1,100			199				189				153		180
RW-3	183 MUD LAKE ROAD	1,100			190				198				167		185
RW-4	711 BRUHAM AVENUE	2,200			6.0				6.2				6.0		6
RW-5	171 SAWMILL ROAD	2,300			14				12				14		13
RW-6	40987 HWY 41	1,400			74				63				46		61
RW-7	40925 HWY 41	1,600			10				11				8		10
RW-8	204 BOUNDARY ROAD	700			238				261				245		248
RW-9	206 BOUNDARY ROAD	650			104				58				62		75
RW-10	208 BOUNDARY ROAD	625			6.0				6.3				6.0		6
RW-11	200 MUD LAKE ROAD	794				6.0			6.3						6
RW-12	202 MUD LAKE ROAD	753				30			17				6		18
B-1	SUPERIOR PROPANE OFFICE	160	1,186	1,138	890	1,377	1,215	951	973	900			1,048		1,075
B-3	INTERNATIONAL LUMBER OFFICI	385			6.0				6.6				6.0		6
														AVG	164

APPENDIX H

WELL I.D.	DESCRIPTION		DISTANCE FROM STACKS (m)	22/11/07	19/12/07	17/01/08	15/02/08	18/03/08	10/4/08	16/5/08	11/6/08	10/7/08
MW06-1	SRB SITE	IN SOIL	50	42,299	41,947	39,251	41,989	41,623	38,970	35,667	35,864	33,197
MW06-2	SRB SITE	IN SOIL	72	3,695	3,641	3,748	2,973	3,827	3,953	3,880	4,024	3,389
MW06-3	SRB SITE	IN SOIL	50	DRY	DRY	3,136	3,342	3,072	3,128	3,010	3,045	3,019
[illegible]	JOHNSTON MEADOWS		[illegible]									
[illegible]	JOHNSTON MEADOWS		[illegible]									
[illegible]	RENFREW COUNTY HEALTH UNIT		[illegible]									
[illegible]	KI 900		[illegible]									
MW06-8	SRB SITE	IN SOIL	55	223	DRY	485	541	456	577	792	912	871
MW06-9	SRB SITE	IN SOIL	35	1,242	DRY	2,613	3,078	2,002	2,617	2,782	3,939	3,024
MW06-10	SRB SITE	SURFACE OF BEDROCK	0	30,326	25,712	12,995	12,448	17,064	6,243	24,126	36,040	27,930
MW07-11	SRB SITE	SURFACE OF BEDROCK	75	485	727	1,248	1,717	1,615	1,759	1,294	1,511	1,224
MW07-12	SRB SITE	SURFACE OF BEDROCK	55	177	DRY	212	490	252	292	255	283	375
MW07-13	SRB SITE	SURFACE OF BEDROCK	50	7,859	9,968	7,344	7,654	11,007	6,092	8,507	11,120	12,382
MW07-14	SRB SITE	SURFACE OF BEDROCK	40	3,692	2,048	3,063	3,216	2,845	2,878	2,679	2,917	2,503
MW07-15	SRB SITE	SURFACE OF BEDROCK	25	170	112	598	642	374	769	442	406	442
MW07-16	SRB SITE	SURFACE OF BEDROCK	15	6,776	6,358	7,007	6,543	6,545	6,388	5,720	4,785	4,884
MW07-17	SRB SITE	DEEPER BEDROCK	15	117	663	1,208	1,425	1,265	1,516	1,088	688	828
MW07-18	SRB SITE	SURFACE OF BEDROCK	10	52,516	52,009	52,690	49,994	46,343	46,735	41,374	39,674	39,345
MW07-19	SRB SITE	SURFACE OF BEDROCK	20	2,230	DRY	5,153	2,806	2,455	2,708	4,839	4,687	3,730
MW07-20	SUPERIOR PROPANE PROPERTY	SURFACE OF BEDROCK	60	674	667	570	1,151	762	912	998	1,013	1,108
MW07-21	SUPERIOR PROPANE PROPERTY	SURFACE OF BEDROCK	110	110	111	100	359	156	273	245	251	310
MW07-22	SRB SITE	SURFACE OF BEDROCK	70	421	184	225	578	493	422	227	187	243
MW07-23	SRB SITE	SURFACE OF BEDROCK	90	668	610	992	1,318	1,387	1,632	1,309	1,257	1,315
MW07-24	HARRINGTON PROPERTY	SURFACE OF BEDROCK	115	118	111	150	374	273	243	476	448	473
MW07-25	HARRINGTON PROPERTY	SURFACE OF BEDROCK	105	176	111	376	334	118	111	159	172	178
MW07-26	SRB SITE	SURFACE OF BEDROCK	50	2,609	2,533	2,839	3,429	2,917	2,919	3,376	3,624	3,833
MW07-27	CITY PROPERTY	SURFACE OF BEDROCK	55	6,652	DRY	7,393	7,216	7,366	7,400	6,832	7,002	7,210
MW07-28	CITY PROPERTY	DEEPER BEDROCK	65	6,569	4,957	3,493	2,102	2,722	1,360	2,244	2,066	2,388
MW07-29	SRB SITE	DEEPER BEDROCK	10	35,421	30,468	28,862	19,999	15,779	8,596	10,661	10,827	16,263
MW07-30	SRB SITE	DEEPER BEDROCK	50	10,457	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
MW07-31	SRB SITE	DEEPER BEDROCK	70	1,394	1,436	929	1,622	940	1,115	653	1,457	2,170
MW07-32	HARRINGTON PROPERTY	DEEPER BEDROCK	115	117	111	100	264	112	247	367	284	217
MW07-33	HARRINGTON PROPERTY	DEEPER BEDROCK	105	426	456	553	791	512	532	754	690	586
MW07-34	SRB SITE	SHALLOW BEDROCK	10	23,711	15,094	23,258	19,424	14,885	11,687	14,393	14,963	13,197
MW07-35	CITY PROPERTY	SHALLOW BEDROCK	55	13,641	12,948	10,857	11,431	10,021	9,060	8,797	8,443	8,738
MW07-36	CITY PROPERTY	SHALLOW BEDROCK	80	7,504	DRY	7,649	6,777	6,545	7,043	6,775	6,472	5,915
MW07-37	SRB SITE	SHALLOW BEDROCK	60	2,490	2,466	2,515	2,402	2,162	2,087	1,776	1,577	1,490
CN-1S	CN PROPERTY		125	2,458				1,980				2,234
CN-1D	CN PROPERTY		130	DRY	DRY	1,865		2,673				2,458
CN-2	CN PROPERTY		150	2,184				1,455				1,257
CN-3S	CN PROPERTY		165	DRY	DRY	1,407		956				1,049
CN-3D	CN PROPERTY		160	1,354				1,494				1,100
RW-1	413 BOUNDARY ROAD		465	1,399				1,236				972
RW-2	185 MUD LAKE ROAD		1,100	287				324				293
RW-3	183 MUD LAKE ROAD		1,100	323				299				318
RW-4	711 BRUHAM AVENUE		2,200	4.2				3.0				3.1
RW-5	171 SAWMILL ROAD		2,300	17				20				19
RW-6	40987 HWY 41		1,400	82				92				75
RW-7	40925 HWY 41		1,600	25				31				23
RW-8	204 BOUNDARY ROAD		700	236				262				307
RW-9	206 BOUNDARY ROAD		650	583	442			454				539
RW-10	208 BOUNDARY ROAD		625	4.3				3.0				2.6
RW-11	200 MUD LAKE ROAD		794									
RW-12	202 MUD LAKE ROAD		753									
B-1	SUPERIOR PROPANE OFFICE		160	1,075	1,006	1,306	820	1,034	1,727	2,001	1,876	1,404
B-2	SUPERIOR PROPANE TRUCK WASH		250	3,087	4,073			4,435				3,939
B-3	INTERNATIONAL LUMBER OFFICE		385	4.4				6.0				5.0

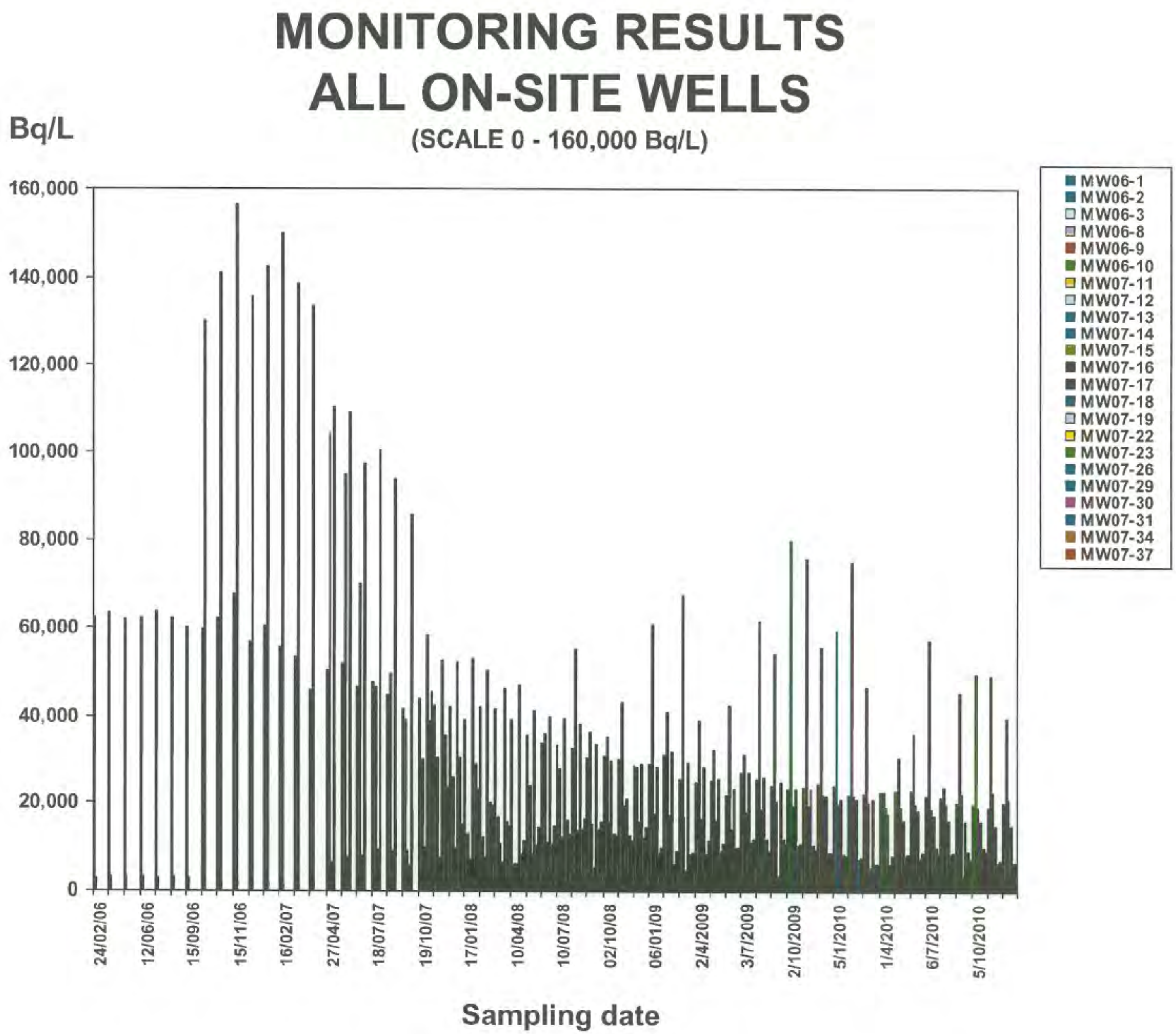
WELL I.D.	6/8/08	4/9/08	2/10/08	4/11/08	3/12/08	6/1/09	4/2/09	3/3/09	2/4/09	5/5/09	4/6/09	3/7/09	6/8/09	4/9/09
MW06-1	32,396	30,416	30,590	29,888	28,520	29,045	31,171	25,477	24,502	24,869	21,702	26,783	25,452	24,126
MW06-2	3,839	3,710	3,579	3,359	3,301	3,663	3,757	3,556	3,866	3,499	3,075	3,623	3,508	3,432
MW06-3	3,079	DRY	DRY	DRY	2,832	2,998	DRY	2,580	2,441	2,551	2,109	2,528	2,863	DRY
[illegible]														
[illegible]														
[illegible]														
[illegible]														
MW06-8	1,059	1,034	1,072	985	1,162	1,165	1,035	1,009	1,032	1,052	935	1,207	1,187	1,197
MW06-9	3,229	3,294	2,544	2,567	3,578	3,816	3,300	3,799	3,728	3,213	2,938	3,071	3,411	3,301
MW06-10	54,979	36,311	35,275	42,897	28,330	60,624	41,029	67,282	38,639	32,241	42,319	30,839	61,191	53,990
MW07-11	1,116	1,044	1,152	1,204	1,399	1,151	1,380	1,424	1,589	1,513	1,468	1,586	1,681	1,594
MW07-12	345	341	307	323	352	364	304	345	322	287	239	283	347	337
MW07-13	13,699	14,997	15,718	19,248	15,963	17,504	17,421	16,932	16,625	16,312	14,135	17,899	18,815	20,310
MW07-14	2,868	2,716	2,887	2,624	2,775	2,774	2,743	2,845	3,370	2,886	2,661	3,136	3,019	2,772
MW07-15	361	377	436	457	785	580	594	642	783	852	771	687	680	719
MW07-16	4,385	5,520	5,143	5,295	5,859	5,256	4,097	5,083	4,126	4,996	4,271	4,674	4,219	3,642
MW07-17	1,310	1,414	1,604	1,798	1,904	1,863	1,864	1,839	1,766	1,425	1,010	1,308	1,866	1,867
MW07-18	37,892	33,369	29,530	20,752	28,723	28,066	31,743	29,267	28,347	25,318	23,198	26,736	25,664	24,601
MW07-19	3,749	3,781	3,503	3,967	4,103	6,874	6,407	6,432	9,723	5,529	3,750	5,824	7,462	7,945
MW07-20	1,024	1,120	1,098	962	1,182	1,298	1,206	1,332	1,182	1,262	1,089	1,256	1,259	1,351
MW07-21	290	326	334	341	359	437	442	542	482	445	390	481	495	576
MW07-22	246	298	291	318	807	334	396	377	440	373	338	454	465	514
MW07-23	1,397	1,408	1,479	1,467	1,691	1,741	1,890	1,901	2,135	2,083	2,008	2,230	2,222	2,296
MW07-24	454	564	570	717	803	911	952	979	1,170	1,154	1,048	1,232	1,229	1,285
MW07-25	103	138	93	210	144	100	178	249	312	296	371	490	529	428
MW07-26	3,803	3,800	3,471	3,193	2,947	3,479	3,811	3,835	4,077	3,941	3,481	3,934	3,915	3,763
MW07-27	6,999	7,001	7,156	7,635	6,965	6,799	7,550	7,078	7,322	7,229	6,085	6,765	6,729	6,717
MW07-28	2,401	1,979	1,601	928	1,630	2,340	1,306	1,680	3,216	2,470	2,561	3,644	3,578	3,223
MW07-29	14,152	14,098	12,923	12,833	12,305	8,822	6,404	8,500	8,566	9,277	9,808	11,390	11,977	11,888
MW07-30	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
MW07-31	2,199	2,260	1,986	1,233	1,337	1,111	1,113	1,009	1,779	531	1,340	1,606	2,005	1,617
MW07-32	149	197	173	251	235	311	293	254	270	348	221	205	239	285
MW07-33	546	551	486	476	439	524	473	472	708	732	809	653	585	599
MW07-34	16,687	15,837	12,617	11,759	14,581	9,749	9,315	8,640	11,723	10,862	9,740	12,132	9,313	11,053
MW07-35	8,438	7,957	7,581	6,695	7,006	6,835	8,523	7,525	7,798	7,400	6,363	7,457	7,093	7,150
MW07-36	6,112	5,532	5,427	5,574	6,268	7,826	6,175	6,930	6,395	5,425	4,708	5,958	6,154	6,269
MW07-37	1,358	1,472	1,588	1,340	1,421	1,457	1,598	1,423	1,549	1,264	996	1,163	1,245	1,228
CN-1S				2,385	2,286			1,465				1,611		
CN-1D				DRY	2,396			2,232				1,764		
CN-2				2,958	2,687			857				928		
CN-3S				DRY	1,406			636				412		
CN-3D				1,550	1,431			1,119				958		
RW-1				866				701				632		
RW-2				252				268				230		
RW-3				250				265				225		
RW-4				5				3				3.4		
RW-5				25				17				17		
RW-6				83				81				75		
RW-7				16				12				14		
RW-8				242				303				283		
RW-9				422				139				132		
RW-10				3				7				3.5		
RW-11														
RW-12														
B-1	1,309	1,132	1,122	1,037	1,293	1,558	1,211	1,411	2,063	1,864	1,460	1,542	1,362	1,405
B-2				3,875				3,376				2,661		
B-3				7				2				3.5		

2/10/09	4/11/09	2/12/09	5/1/10	3/2/10	4/3/10	1/4/10	4/5/10	2/6/10	6/7/10	5/8/10	1/9/10	5/10/10	2/11/10	1/12/10	WELL I.D.
23,320	23,461	24,457	23,377	21,982	22,779	22,401	22,835	23,063	21,461	21,116	20,264	19,690	18,160	20,134	MW06-1
3,220	3,346	1,560	3,527	3,460	3,485	3,277	1,367	3,487	3,316	3,228	3,095	2,992	1,044	3,195	MW06-2
DRY	2,847	3,578	2,361	2,690	3,580	2,185	2,030	2,246	2,292	DRY	DRY	2,240	2,223	2,377	MW06-3
															[illegible]
															[illegible]
															[illegible]
															[illegible]
1,632	1,193	1,240	1,251	1,396	1,293	1,185	1,294	1,108	1,232	1,133	1,180	1,175	1,124	1,212	MW06-8
2,996	3,723	3,687	3,751	3,148	2,820	3,558	3,297	3,273	3,171	3,211	2,522	3,305	3,296	3,327	MW06-9
79,479	75,762	55,334	59,317	74,942	46,473	22,666	30,160	35,986	57,159	23,579	45,181	49,327	46,842	39,501	MW06-10
1,780	1,749	2,092	1,717	1,861	1,635	1,667	1,673	1,738	1,706	1,666	1,769	1,732	1,708	1,827	MW07-11
316	344	363	357	335	338	361	367	365	342	389	389	405	406	430	MW07-12
19,339	19,321	21,746	19,727	21,655	19,973	19,085	19,135	19,717	18,831	19,823	22,163	19,017	22,403	20,809	MW07-13
2,852	3,003	3,089	2,968	3,005	3,032	2,967	3,093	2,981	2,858	2,918	2,865	2,828	2,821	2,943	MW07-14
759	808	1,001	722	848	967	1,135	1,273	1,121	933	828	1,055	1,197	1,133	1,258	MW07-15
4,750	4,620	4,293	4,621	4,642	5,539	4,272	4,536	4,445	3,908	3,680	3,651	4,031	3,780	3,757	MW07-16
2,046	2,063	2,191	2,204	2,056	1,900	1,772	1,524	1,398	1,628	1,727	1,669	1,798	1,722	1,785	MW07-17
23,189	23,164	21,323	20,673	20,855	20,714	17,722	16,383	18,194	17,367	16,078	16,029	15,715	14,658	14,935	MW07-18
6,101	6,442	7,421	6,885	7,604	7,313	6,042	6,327	6,882	6,101	6,757	6,065	5,343	5,311	6,225	MW07-19
1,268	1,346	1,738	1,356	1,340	1,396	1,279	1,276	1,217	1,229	1,235	1,237	1,249	1,187	1,233	MW07-20
578	591	635	579	604	643	576	642	654	713	788	809	863	716	579	MW07-21
644	593	727	619	691	654	640	711	645	731	779	785	757	753	796	MW07-22
2,339	2,354	2,650	2,448	2,543	2,620	2,528	2,555	2,544	2,524	2,508	2,530	2,390	2,383	2,450	MW07-23
1,384	1,504	1,371	1,450	1,582	1,715	1,593	1,696	1,745	1,663	1,744	1,860	1,809	1,754	1,709	MW07-24
338	403	436	586	925	794	714	839	673	588	470	652	386	243	1,306	MW07-25
3,332	3,514	3,600	3,854	3,662	3,123	3,518	3,635	3,605	3,524	3,569	3,113	2,670	2,877	3,255	MW07-26
7,011	6,662	6,763	6,937	6,723	6,251	6,370	6,931	6,638	6,480	6,531	6,616	6,487	6,409	6,700	MW07-27
2,297	2,875	4,026	2,358	2,116	2,501	2,440	3,282	2,399	2,908	2,786	2,278	2,599	2,966	3,496	MW07-28
10,495	10,647	8,685	8,538	7,370	6,366	6,500	6,060	7,758	9,862	8,533	9,313	9,931	6,637	7,979	MW07-29
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	MW07-30
1,906	1,720	1,618	1,135	981	903	475	1,107	1,031	1,361	1,521	1,611	1,655	1,624	1,653	MW07-31
308	366	540	342	314	344	337	173	176	251	302	267	299	340	385	MW07-32
607	631	817	805	859	892	939	919	788	677	691	641	522	574	No Sample	MW07-33
11,006	9,375	8,922	8,063	7,852	6,189	8,155	8,471	8,686	8,718	8,650	7,436	9,221	7,183	6,709	MW07-34
6,259	6,142	6,214	6,248	6,194	5,730	6,279	6,399	6,545	6,020	5,698	5,631	5,441	5,477	5,634	MW07-35
5,636	7,566	7,651	7,150	7,032	6,066	4,864	4,392	5,539	6,214	5,687	5,877	6,142	6,541	6,642	MW07-36
1,336	1,351	1,341	1,285	1,330	1,374	1,245	1,235	1,100	1,264	1,310	1,299	1,273	1,228	1,379	MW07-37
	1,510				1,434				1,248				1,157		CN-1S
	1,750				1,642				DRY				DRY	1,491	CN-1D
	1,158				555				1,180				1,020		CN-2
	DRY	817			527				DRY				DRY	644	CN-3S
	1,154				1,022				755				1,049		CN-3D
	507				423				424				368		RW-1
	200				199				189				153		RW-2
	176				190				198				167		RW-3
	4.0				6.0				6.2				6.0		RW-4
	15				14				12				14		RW-5
	74				74				63				46		RW-6
	9				10				11				8		RW-7
	246				238				261				245		RW-8
	20				104				58				62		RW-9
	4.0				6.0				6.3				6.0		RW-10
						6.0			6.3				N/A		RW-11
						30			17				6		RW-12
1,168	1,319	1,346	1,186	1,138	890	1,377	1,215	951	973	900			1,048		B-1
	2,660				2,303				2,051				2,022		B-2
	4.0				6.0				6.6				6.0		B-3

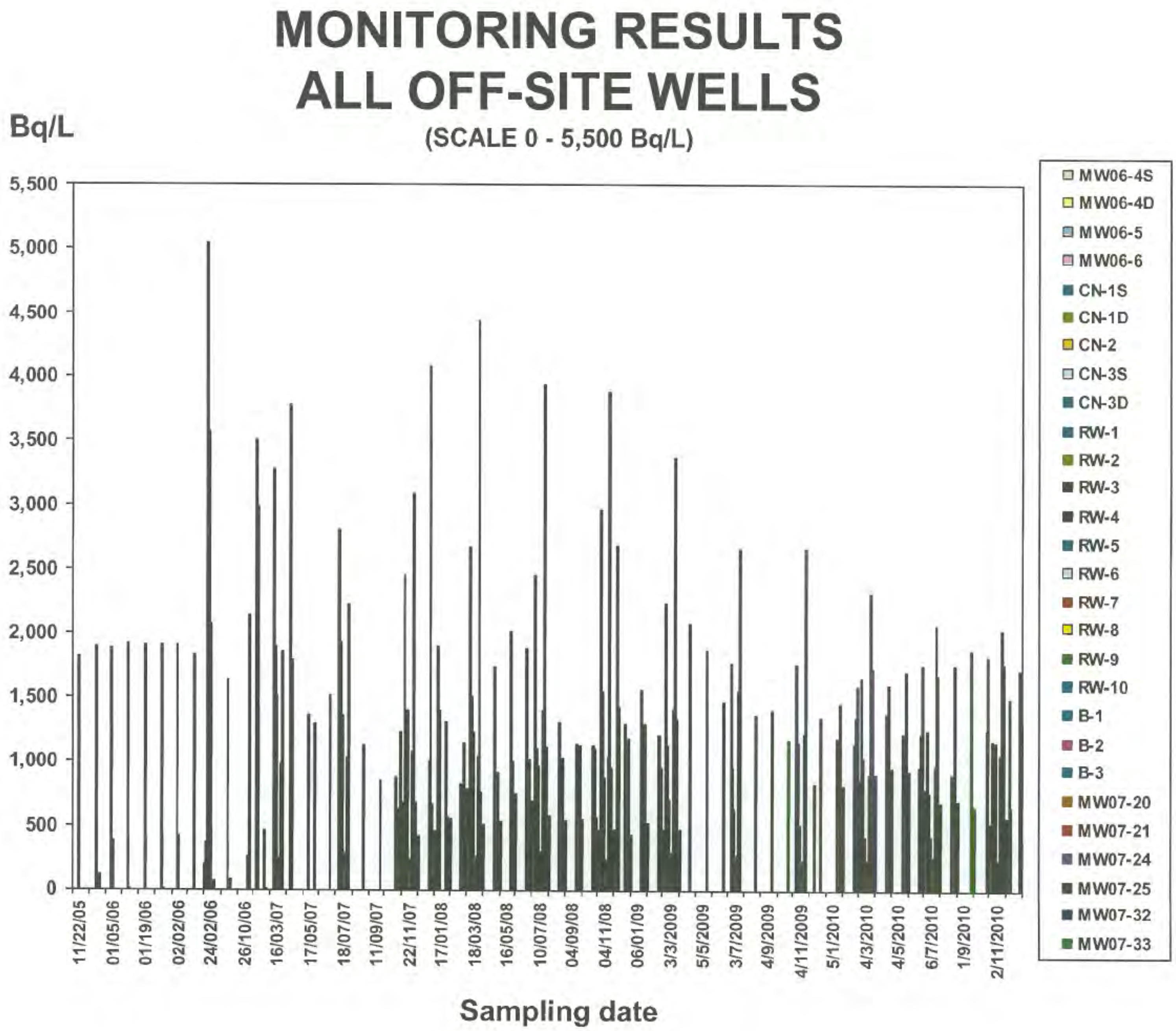
APPENDIX H

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	18/04/07	27/4/07	17/5/07	14/6/07	18/7/07	13/8/07	11/9/07	19/10/07	WELL I.D.
MW06-1	SRB SITE	IN SOIL	50									62,434	63,518	61,774	62,025	63,631	62,165	59,002	59,734	61,947		57,606	56,595	60,766	55,310	53,306	46,932	50,170	51,972	46,565	47,469	44,653	41,651	43,586	MW06-1
MW06-2	SRB SITE	IN SOIL	70									2,484	3,788	2,665	2,560	2,696	2,652	3,860	4,284	4,612		5,060	4,414	4,730	4,287	4,347	4,516	4,857	4,548	4,533	4,385	4,329	3,997	4,050	MW06-2
MW06-3	SRB SITE	IN SOIL	50									2,722	3,088	3,133	3,045	2,963	3,205	2,969	2,999	3,209		3,564	3,173	3,324	3,282	3,243	3,236	3,273	3,267	1,386	3,187	3,247	3,139	DRY	MW06-3
MW06-4S	JOHNSTON MEADOWS		700									211																							MW06-4S
MW06-4D	JOHNSTON MEADOWS		300									3.0																							MW06-4D
MW06-5	RENFREW COUNTY HEALTH UNIT		500									14																							MW06-5
MW06-6	U. 590 W		500									376																							MW06-6
MW06-8	SRB SITE	IN SOIL	55																195	141		120	175	178	270	296	258	209	297	172	202	236	247	311	MW06-8
MW06-9	SRB SITE	IN SOIL	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	MW06-9
MW06-10	SRB SITE	SURFACE OF BEDROCK	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	MW06-10
MW07-11	SRB SITE	SURFACE OF BEDROCK	75																									203	638	936	866	898	955	400	MW07-11
MW07-12	SRB SITE	SURFACE OF BEDROCK	55																									152	154	114	106	117	151	104	MW07-12
MW07-13	SRB SITE	SURFACE OF BEDROCK	50																									6,358	7,781	8,070	9,463	9,221	9,287	10,057	MW07-13
MW07-14	SRB SITE	SURFACE OF BEDROCK	40																									1,504	1,662	1,895	2,526	3,494	3,610	2,357	MW07-14
MW07-15	SRB SITE	SURFACE OF BEDROCK	25																									690	675	672	314	376	255	227	MW07-15
MW07-16	SRB SITE	SURFACE OF BEDROCK	15																									6,855	6,845	7,059	4,927	6,381	6,148	6,646	MW07-16
MW07-17	SRB SITE	DEEPER BEDROCK	15																									521	519	233	109	107	106	103	MW07-17
MW07-18	SRB SITE	SURFACE OF BEDROCK	10																									110,422	108,879	97,441	100,612	93,704	85,781	58,139	MW07-18
MW07-19	SRB SITE	SURFACE OF BEDROCK	20																									28,788	25,806	20,475	13,852	16,329	18,318	4,229	MW07-19
MW07-20	SUPERIOR PROPANE PROPERTY	SURFACE OF BEDROCK	90																															628	MW07-20
MW07-21	SUPERIOR PROPANE PROPERTY	SURFACE OF BEDROCK	110																															102	MW07-21
MW07-22	SRB SITE	SURFACE OF BEDROCK	70																															557	MW07-22
MW07-23	SRB SITE	SURFACE OF BEDROCK	90																															595	MW07-23
MW07-24	HARRINGTON PROPERTY	SURFACE OF BEDROCK	115																															102	MW07-24
MW07-25	HARRINGTON PROPERTY	SURFACE OF BEDROCK	105																															1,230	MW07-25
MW07-26	SRB SITE	SURFACE OF BEDROCK	50																															2,731	MW07-26
MW07-27	CITY PROPERTY	SURFACE OF BEDROCK	55																															6,959	MW07-27
MW07-28	CITY PROPERTY	DEEPER BEDROCK	55																															8,088	MW07-28
MW07-29	SRB SITE	DEEPER BEDROCK	10																															38,797	MW07-29
MW07-30	SRB SITE	DEEPER BEDROCK	50																															14,185	MW07-30
MW07-31	SRB SITE	DEEPER BEDROCK	70																															801	MW07-31
MW07-32	HARRINGTON PROPERTY	DEEPER BEDROCK	115																															143	MW07-32
MW07-33	HARRINGTON PROPERTY	DEEPER BEDROCK	105																															678	MW07-33
MW07-34	SRB SITE	SHALLOW BEDROCK	10																															45,544	MW07-34
MW07-35	CITY PROPERTY	SHALLOW BEDROCK	55																															14,824	MW07-35
MW07-36	CITY PROPERTY	SHALLOW BEDROCK	80																															9,100	MW07-36
MW07-37	SRB SITE	SHALLOW BEDROCK	60																															3,297	MW07-37
CN-1S	CN PROPERTY		125									3,928										3,511					3,780				2,326				CN-1S
CN-1D	CN PROPERTY		130									3,838										3,279				3,277	1,660				2,806				CN-1D
CN-2	CN PROPERTY		150									5,037										2,123				1,363	523				2,801				CN-2
CN-3S	CN PROPERTY		165									3,581										2,984				1,437	1,783				1,917				CN-3S
CN-3D	CN PROPERTY		160									3,283										1,427				1,890	891				1,239				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				RW-1
RW-2	185 MUD LAKE ROAD		1,100		354	388			362											313						336					311				RW-2
RW-3	183 MUD LAKE ROAD		1,100	430	395	331	397	411	437	423		481								366						186					358				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				RW-4
RW-5	171 SAWMILL ROAD		2,300				13		18			15								14						14					18				RW-5
RW-6	40987 HWY 41		1,400									77								67						69					70				RW-6
RW-7	40925 HWY 41		1,600		123															90						67					38				RW-7
RW-8	204 BOUNDARY ROAD		700																		260					254					294				RW-8
RW-9	206 BOUNDARY ROAD		650																			455				268					269				RW-9
RW-10	208 BOUNDARY ROAD		625																			7.0				3.9					2.0				RW-10
B-1	SUPERIOR PROPANE OFFICE		160																		1,264					979			1,289	1,515	1,022	1,126	848	865	B-1
B-2	SUPERIOR PROPANE TRUCK WASH		250																		2,145					1,849					2,222				B-2
B-3	INTERNATIONAL LUMBER OFFICE		385																			15				6.0					6.0				B-3

APPENDIX H


MONITORING RESULTS
ALL ON-SITE WELLS
(SCALE 0 - 160,000 Bq/L)
Bq/L
160,000
140,000
120,000
100,000
80,000
60,000
40,000
20,000
0
24/02/06
12/06/06
15/09/06
15/11/06
16/02/07
27/04/07
18/07/07
19/10/07
17/01/08
10/04/08
10/07/08
02/10/08
06/01/09
2/4/2009
3/7/2009
2/10/2009
5/1/2010
1/4/2010
6/7/2010
5/10/2010
Sampling date
MW06-1
MW06-2
MW06-3
MW06-8
MW06-9
MW06-10
MW07-11
MW07-12
MW07-13
MW07-14
MW07-15
MW07-16
MW07-17
MW07-18
MW07-19
MW07-22
MW07-23
MW07-26
MW07-29
MW07-30
MW07-31
MW07-34
MW07-37

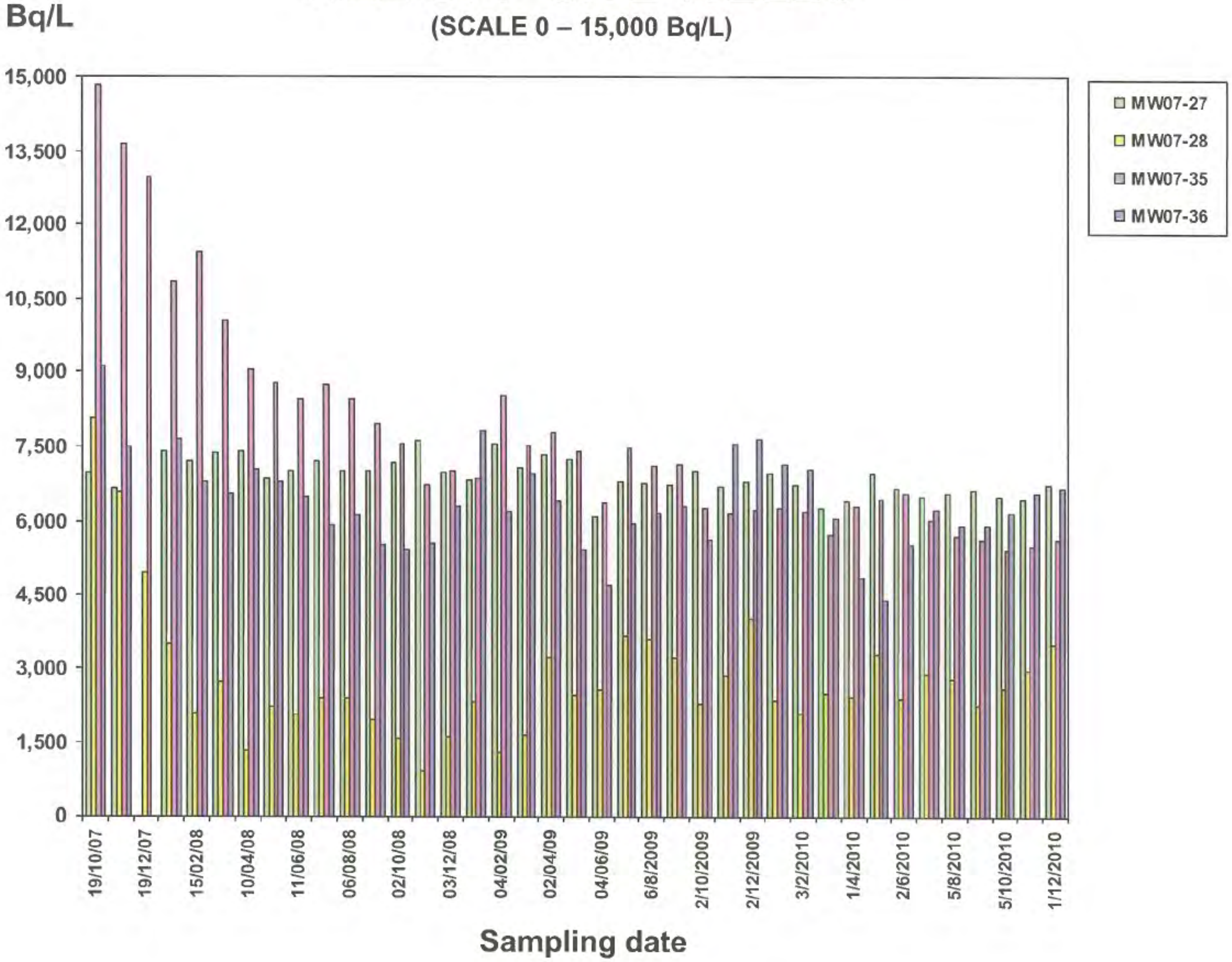
APPENDIX H



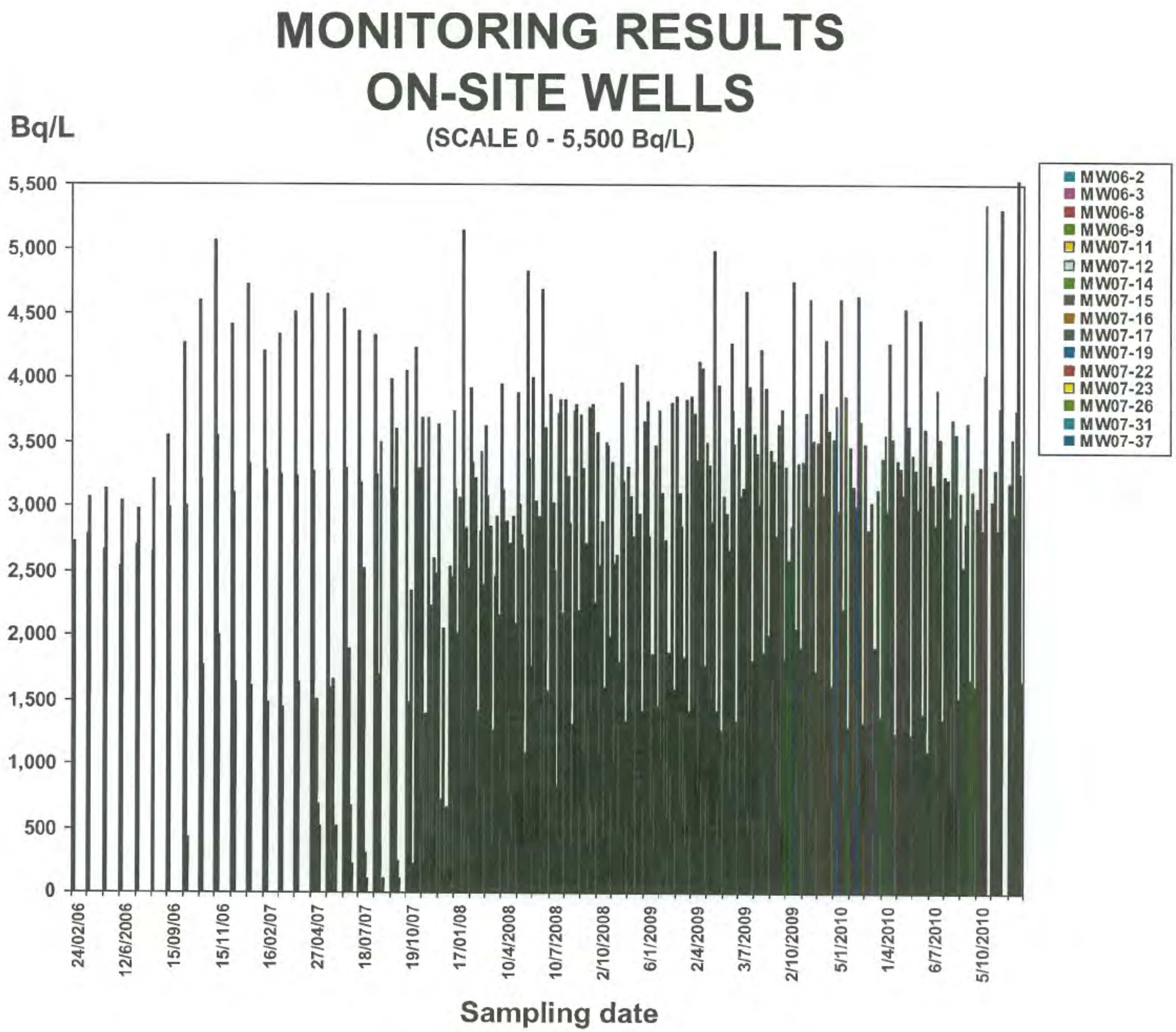
MONITORING RESULTS
ALL OFF-SITE WELLS
(SCALE 0 - 5,500 Bq/L)
Bq/L
5,500
5,000
4,500
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
0
11/22/05
01/05/06
01/19/06
02/02/06
24/02/06
26/10/06
16/03/07
17/05/07
18/07/07
11/09/07
22/11/07
17/01/08
18/03/08
16/05/08
10/07/08
04/09/08
04/11/08
06/01/09
3/3/2009
5/5/2009
3/7/2009
4/9/2009
4/11/2009
5/1/2010
4/3/2010
4/5/2010
6/7/2010
1/9/2010
2/11/2010
Sampling date
MW06-4S
MW06-4D
MW06-5
MW06-6
CN-1S
CN-1D
CN-2
CN-3S
CN-3D
RW-1
RW-2
RW-3
RW-4
RW-5
RW-6
RW-7
RW-8
RW-9
RW-10
B-1
B-2
B-3
MW07-20
MW07-21
MW07-24
MW07-25
MW07-32
MW07-33

MONITORING RESULTS
ALL OFF-SITE WELLS

(SCALE 0 – 15,000 Bq/L)



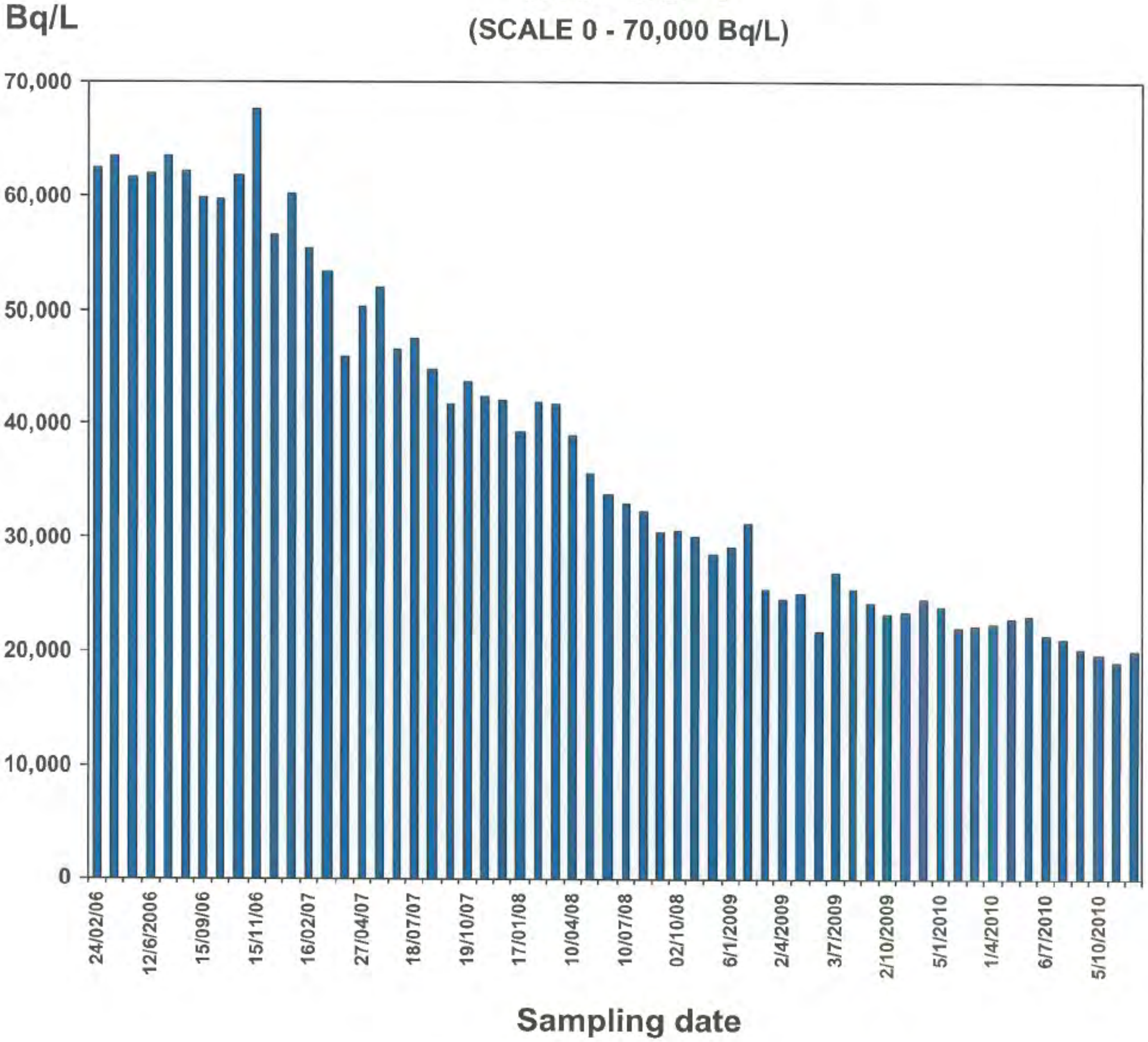
APPENDIX H



MONITORING RESULTS
ON-SITE WELLS
(SCALE 0 - 5,500 Bq/L)
Bq/L
5,500
5,000
4,500
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
0
24/02/06
12/6/2006
15/09/06
15/11/06
16/02/07
27/04/07
18/07/07
19/10/07
17/01/08
10/4/2008
10/7/2008
2/10/2008
6/1/2009
2/4/2009
3/7/2009
2/10/2009
5/1/2010
1/4/2010
6/7/2010
5/10/2010
Sampling date
MW06-2
MW06-3
MW06-8
MW06-9
MW07-11
MW07-12
MW07-14
MW07-15
MW07-16
MW07-17
MW07-19
MW07-22
MW07-23
MW07-26
MW07-31
MW07-37

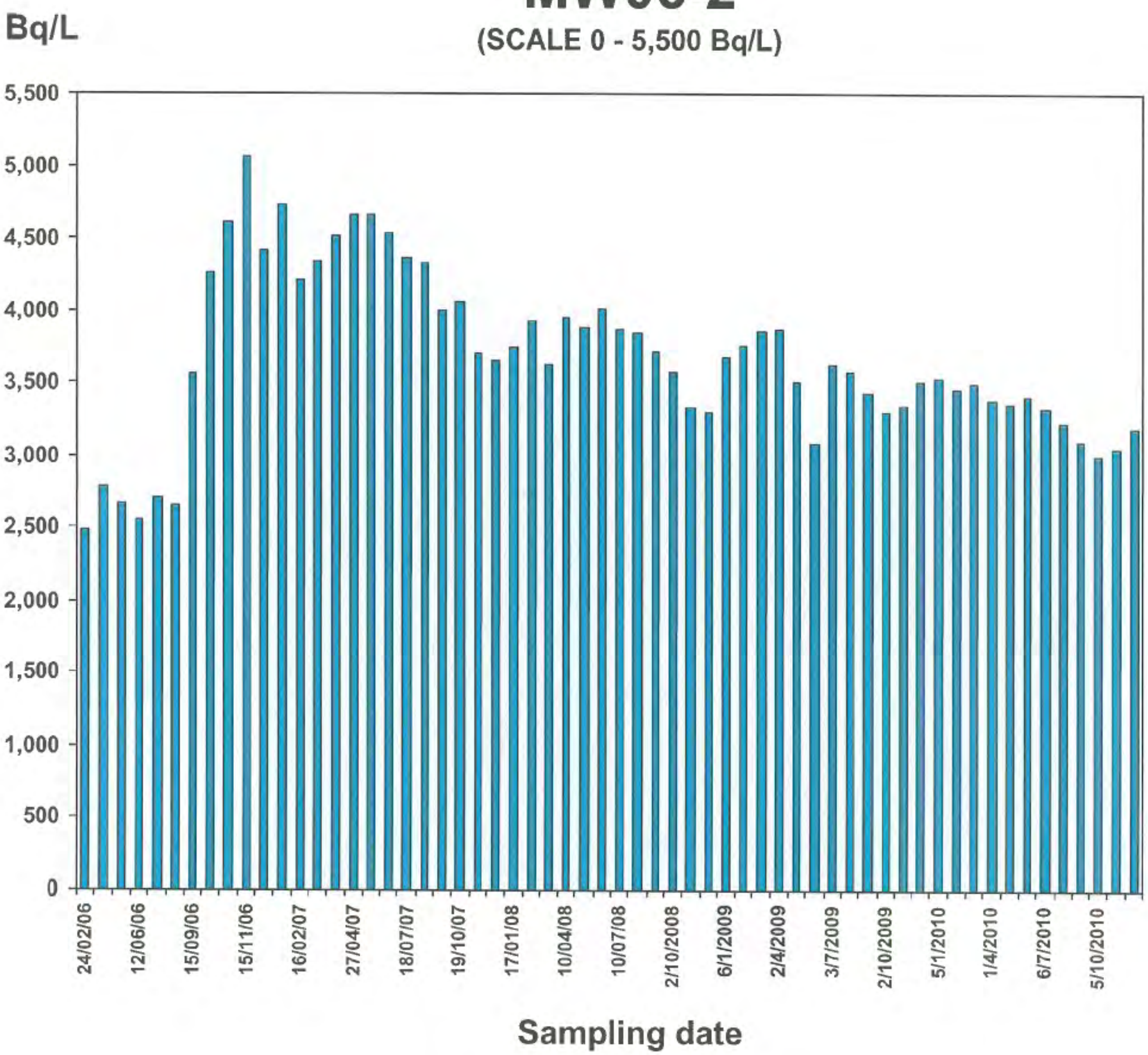
APPENDIX H

MONITORING RESULTS
MW06-1

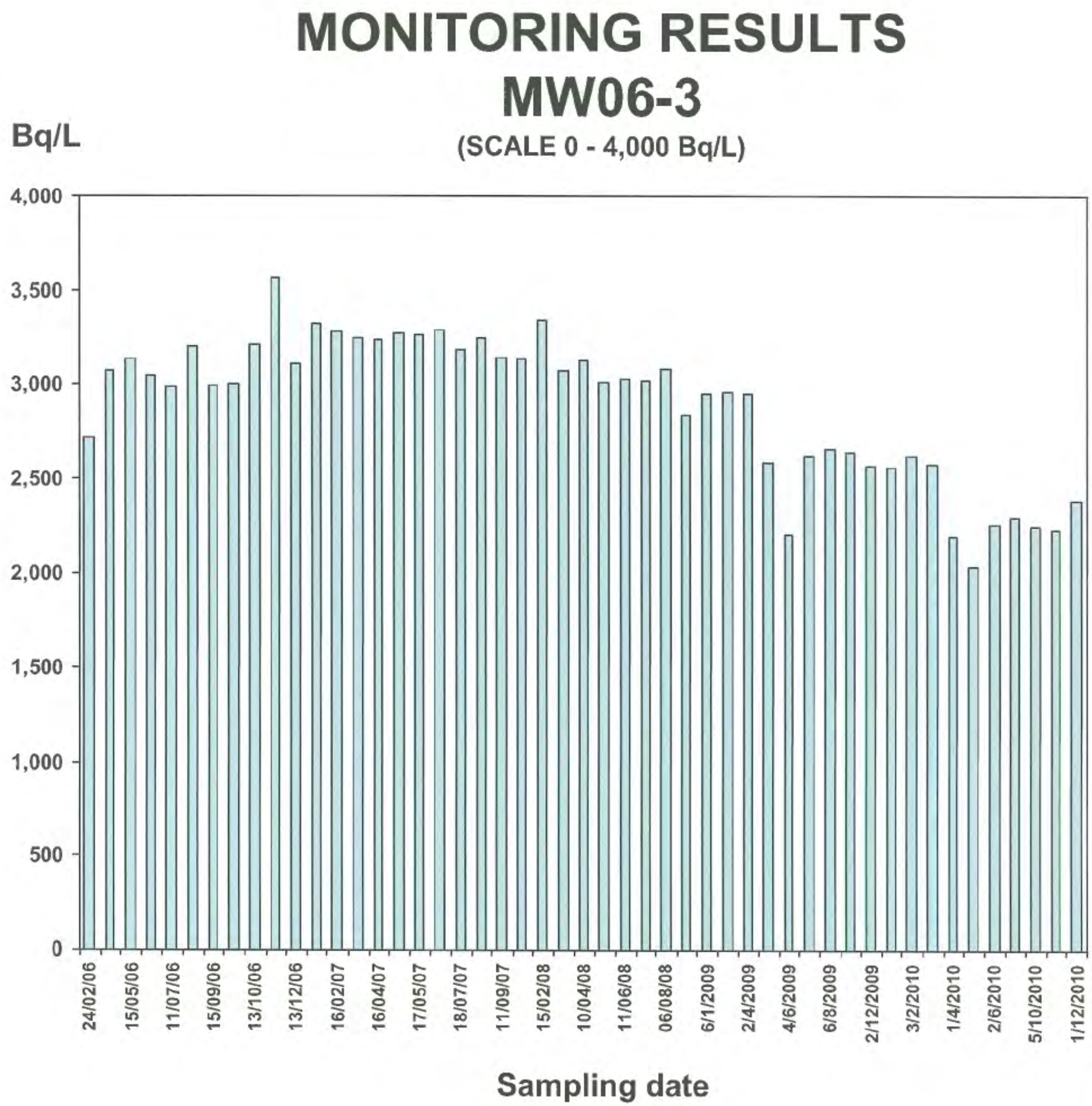


APPENDIX H

MONITORING RESULTS
MW06-2

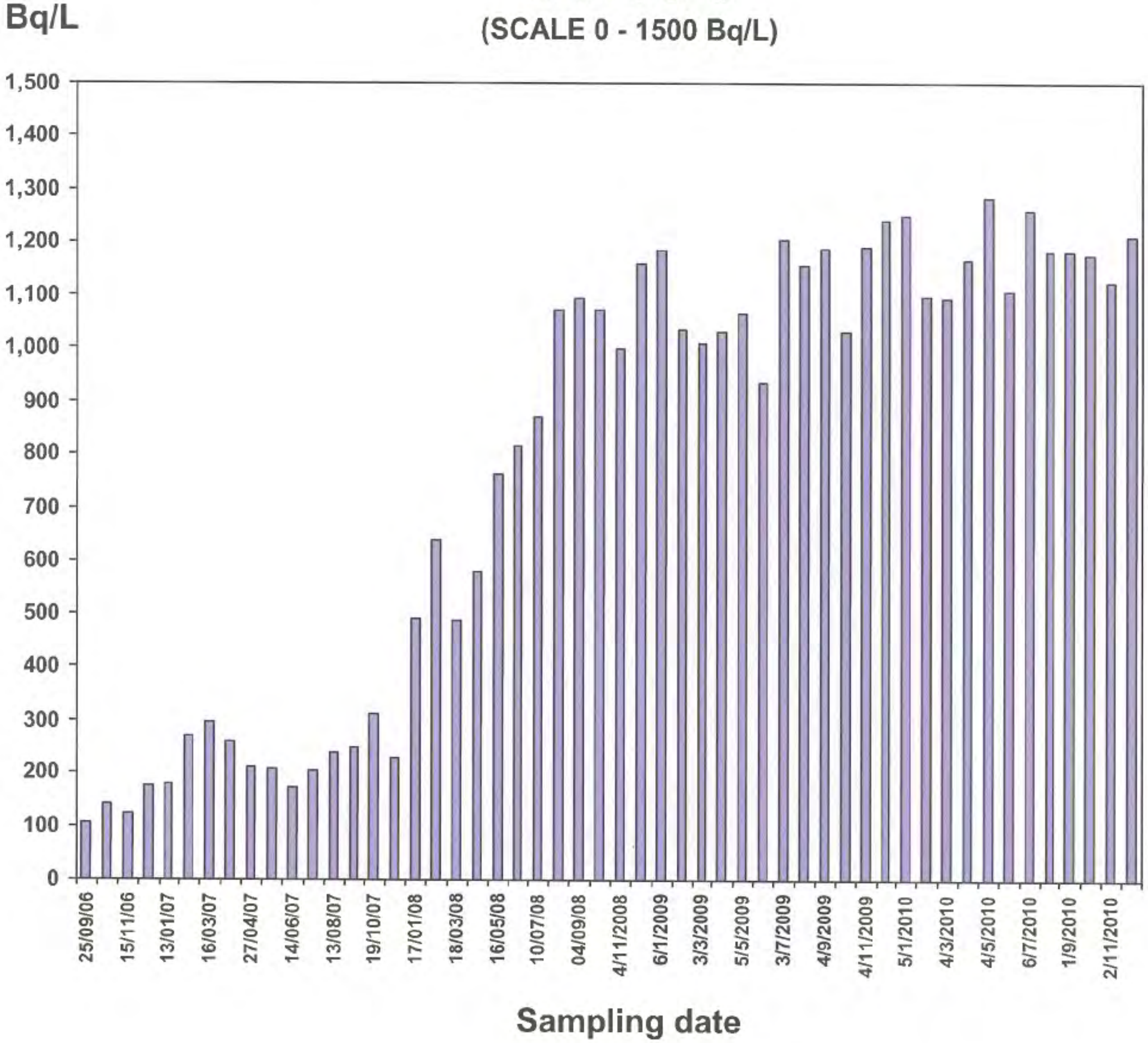


APPENDIX H

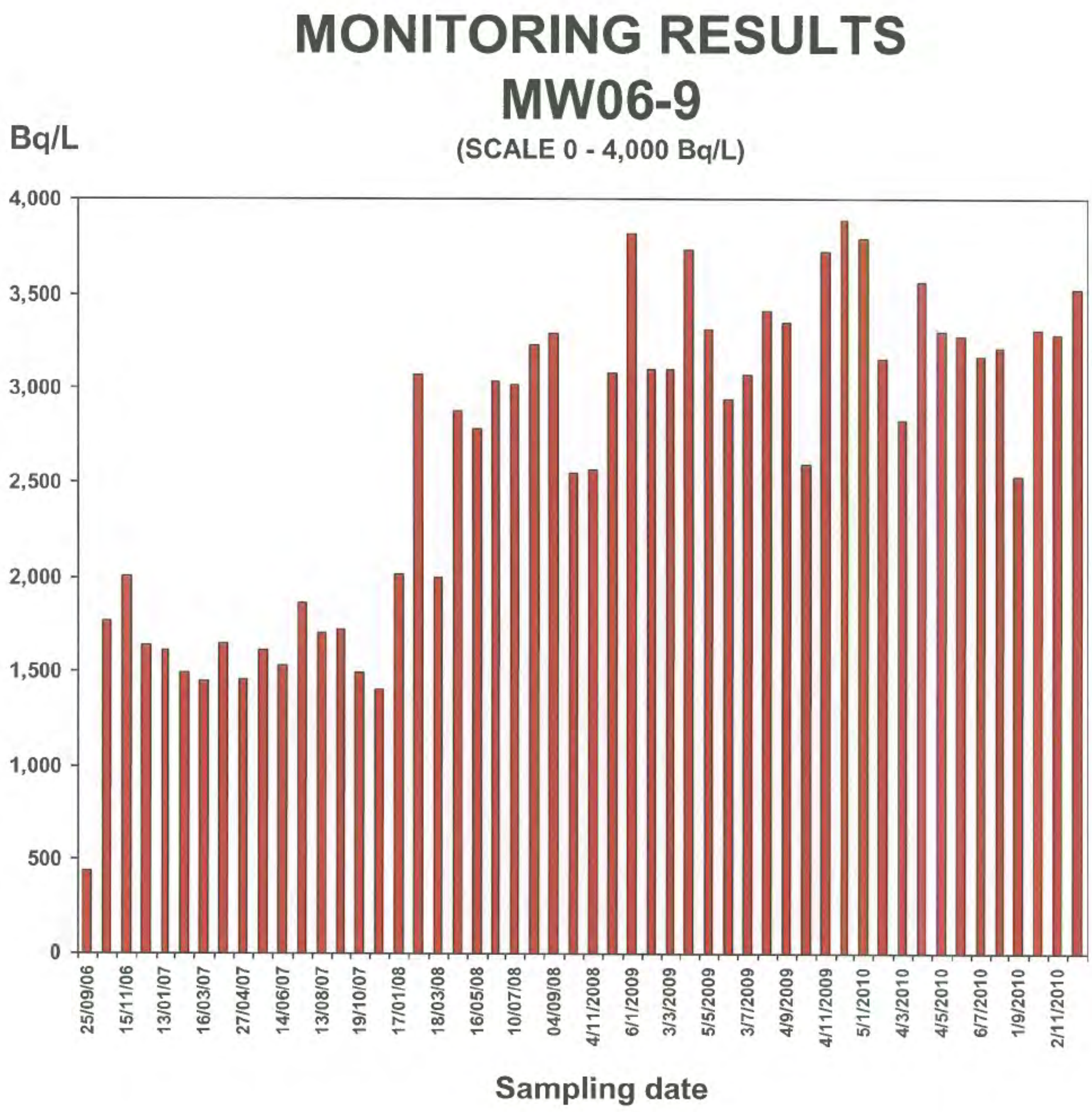


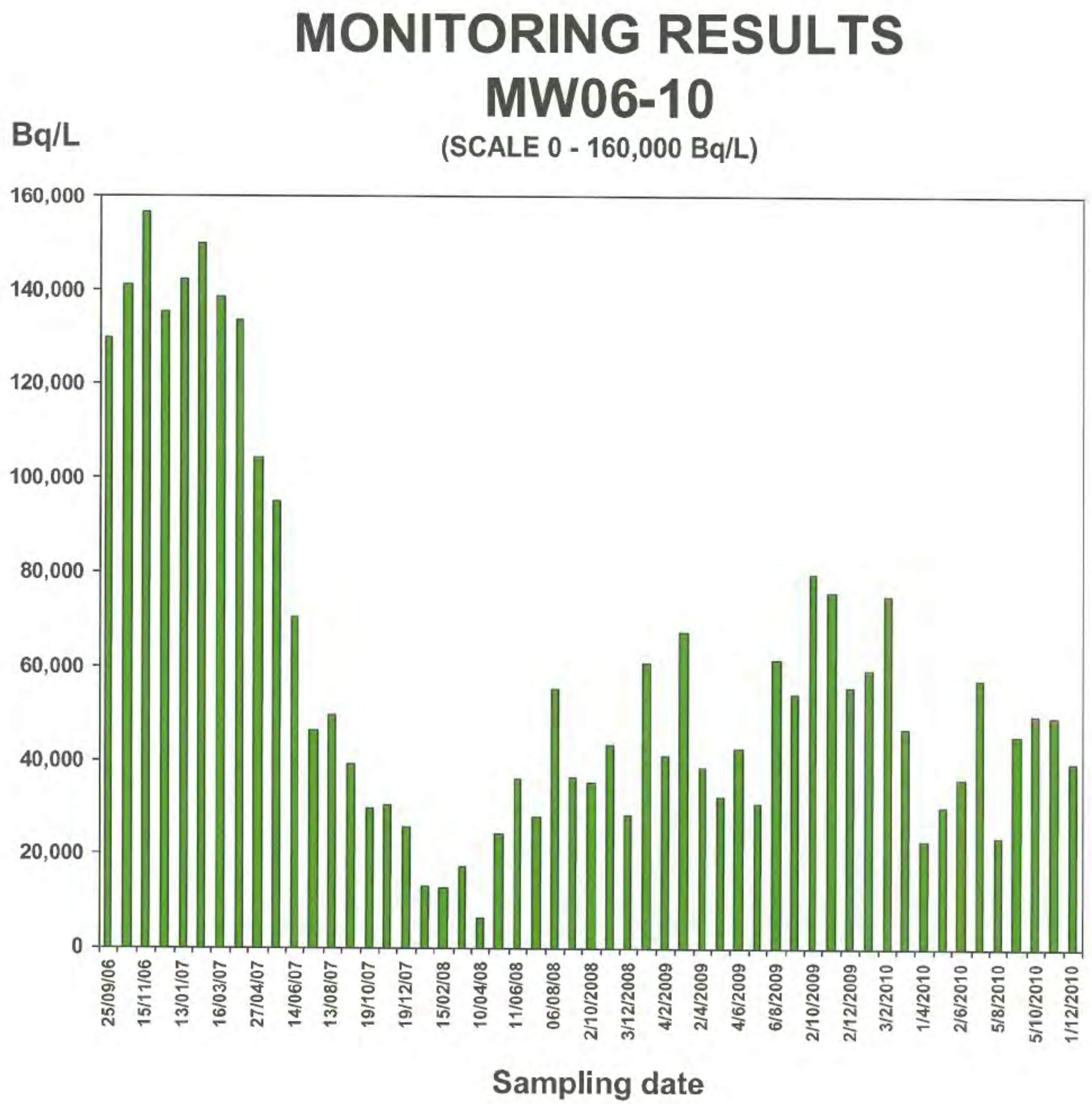
MONITORING RESULTS
MW06-3
(SCALE 0 - 4,000 Bq/L)
Bq/L
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
0
24/02/06
15/05/06
11/07/06
15/09/06
13/10/06
13/12/06
16/02/07
16/04/07
17/05/07
18/07/07
11/09/07
15/02/08
10/04/08
11/06/08
06/08/08
6/1/2009
2/4/2009
4/6/2009
6/8/2009
2/12/2009
3/2/2010
1/4/2010
2/6/2010
5/10/2010
1/12/2010
Sampling date

MONITORING RESULTS
MW06-8



APPENDIX H


MONITORING RESULTS
MW06-9
Bq/L
(SCALE 0 - 4,000 Bq/L)
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
0
25/09/06
15/11/06
13/01/07
16/03/07
27/04/07
14/06/07
13/08/07
19/10/07
17/01/08
18/03/08
16/05/08
10/07/08
04/09/08
4/11/2008
6/1/2009
3/3/2009
5/5/2009
3/7/2009
4/9/2009
4/11/2009
5/1/2010
4/3/2010
4/5/2010
6/7/2010
1/9/2010
2/11/2010
Sampling date

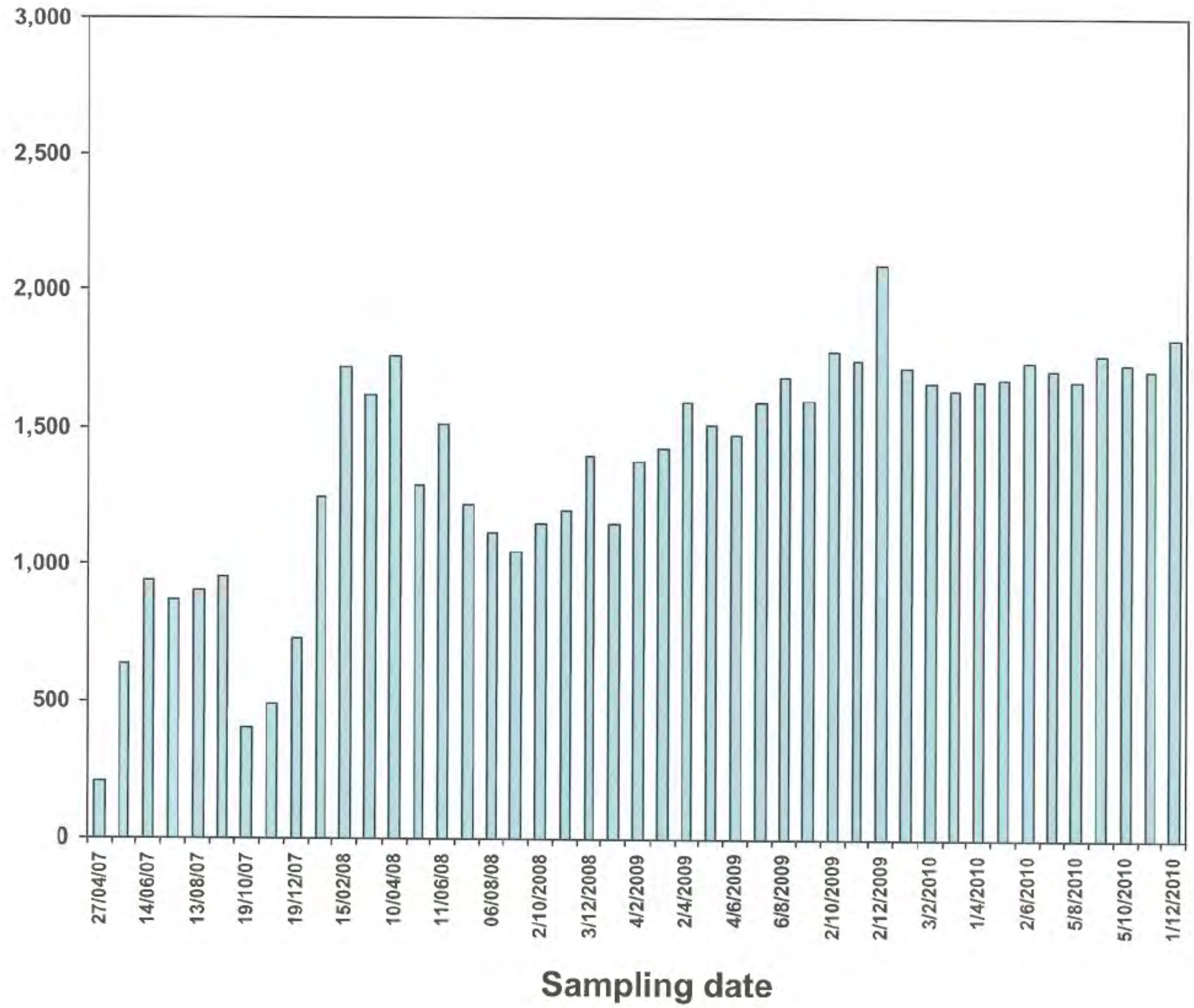

MONITORING RESULTS
MW06-10
Bq/L
(SCALE 0 - 160,000 Bq/L)
160,000
140,000
120,000
100,000
80,000
60,000
40,000
20,000
0
25/09/06
15/11/06
13/01/07
16/03/07
27/04/07
14/06/07
13/08/07
19/10/07
19/12/07
15/02/08
10/04/08
11/06/08
06/08/08
2/10/2008
3/12/2008
4/2/2009
2/4/2009
4/6/2009
6/8/2009
2/10/2009
2/12/2009
3/2/2010
1/4/2010
2/6/2010
5/8/2010
5/10/2010
1/12/2010
Sampling date

APPENDIX H

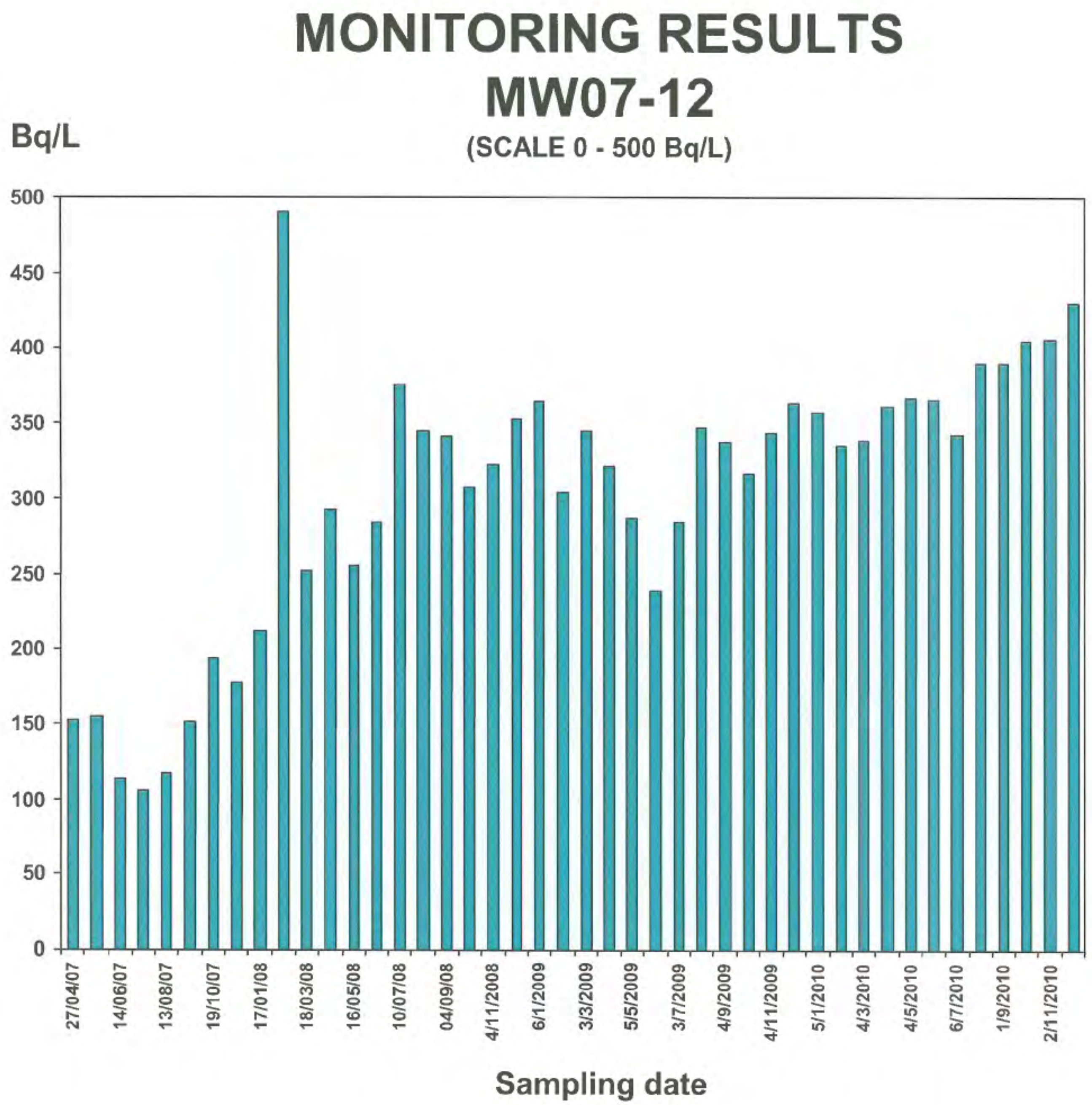
MONITORING RESULTS
MW07-11

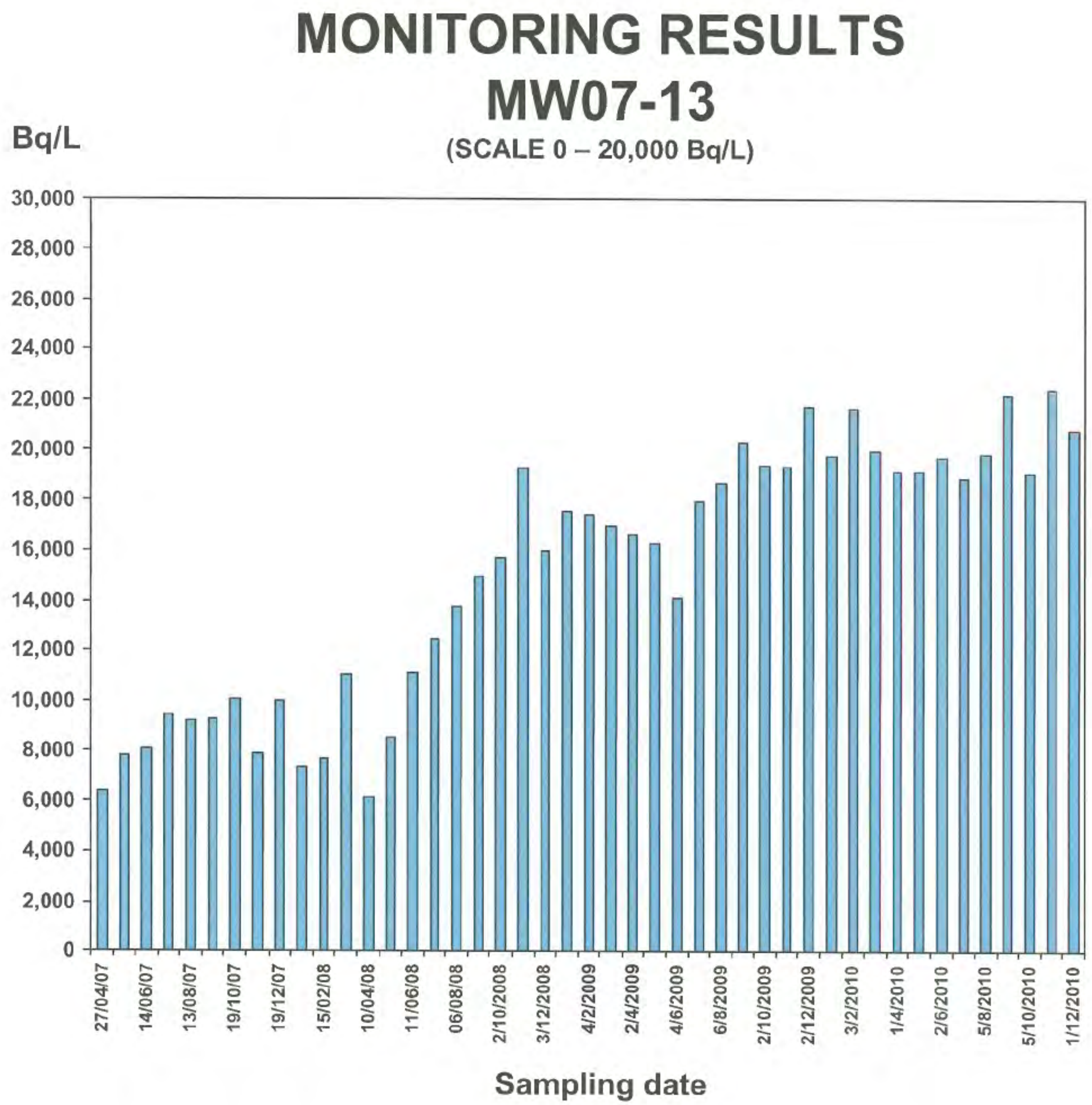
(SCALE 0 - 3000 Bq/L)

Bq/L



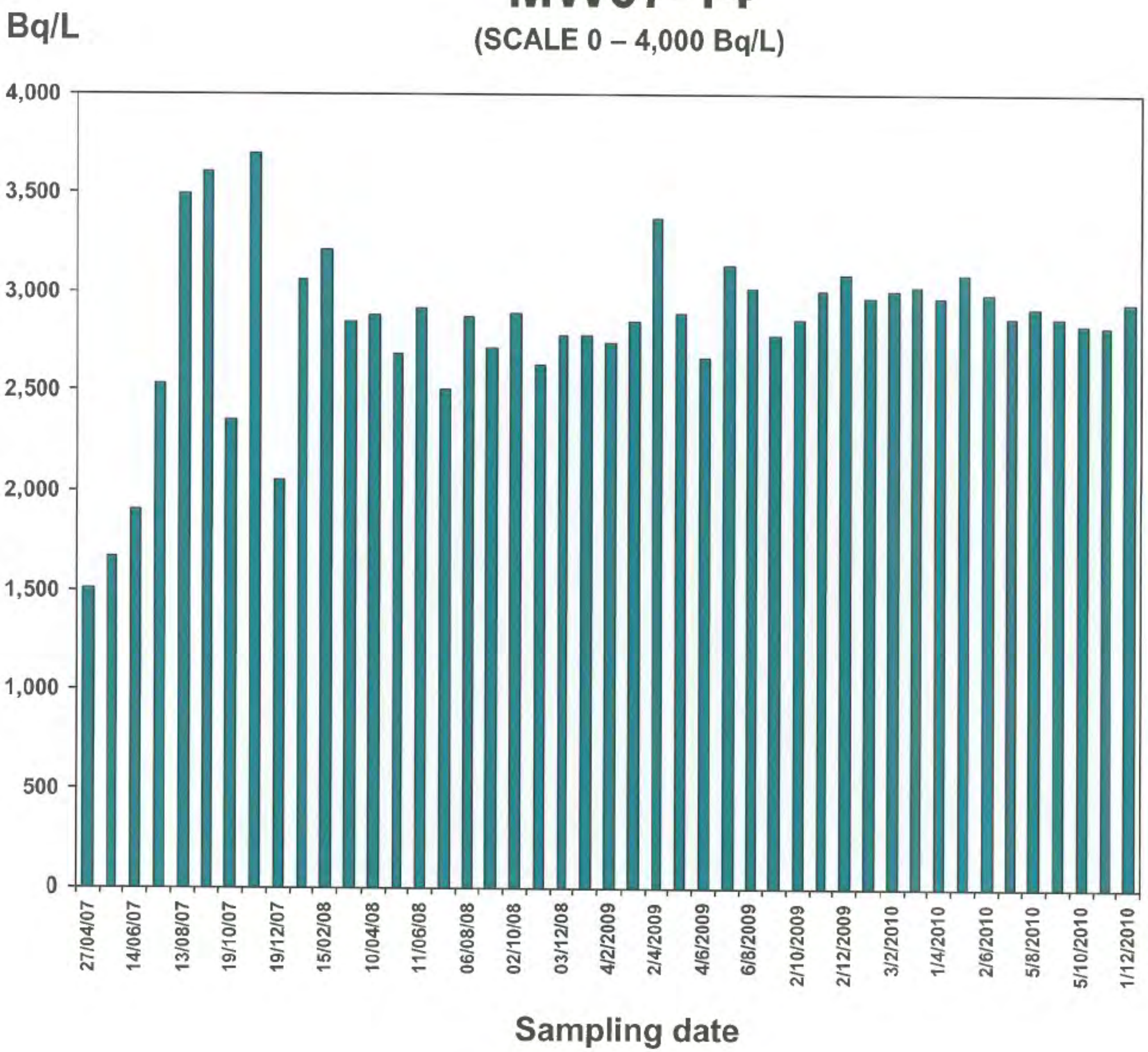
APPENDIX H


MONITORING RESULTS
MW07-12
(SCALE 0 - 500 Bq/L)
Bq/L
500
450
400
350
300
250
200
150
100
50
0
27/04/07
14/06/07
13/08/07
19/10/07
17/01/08
18/03/08
16/05/08
10/07/08
04/09/08
4/11/2008
6/1/2009
3/3/2009
5/5/2009
3/7/2009
4/9/2009
4/11/2009
5/1/2010
4/3/2010
4/5/2010
6/7/2010
1/9/2010
2/11/2010
Sampling date

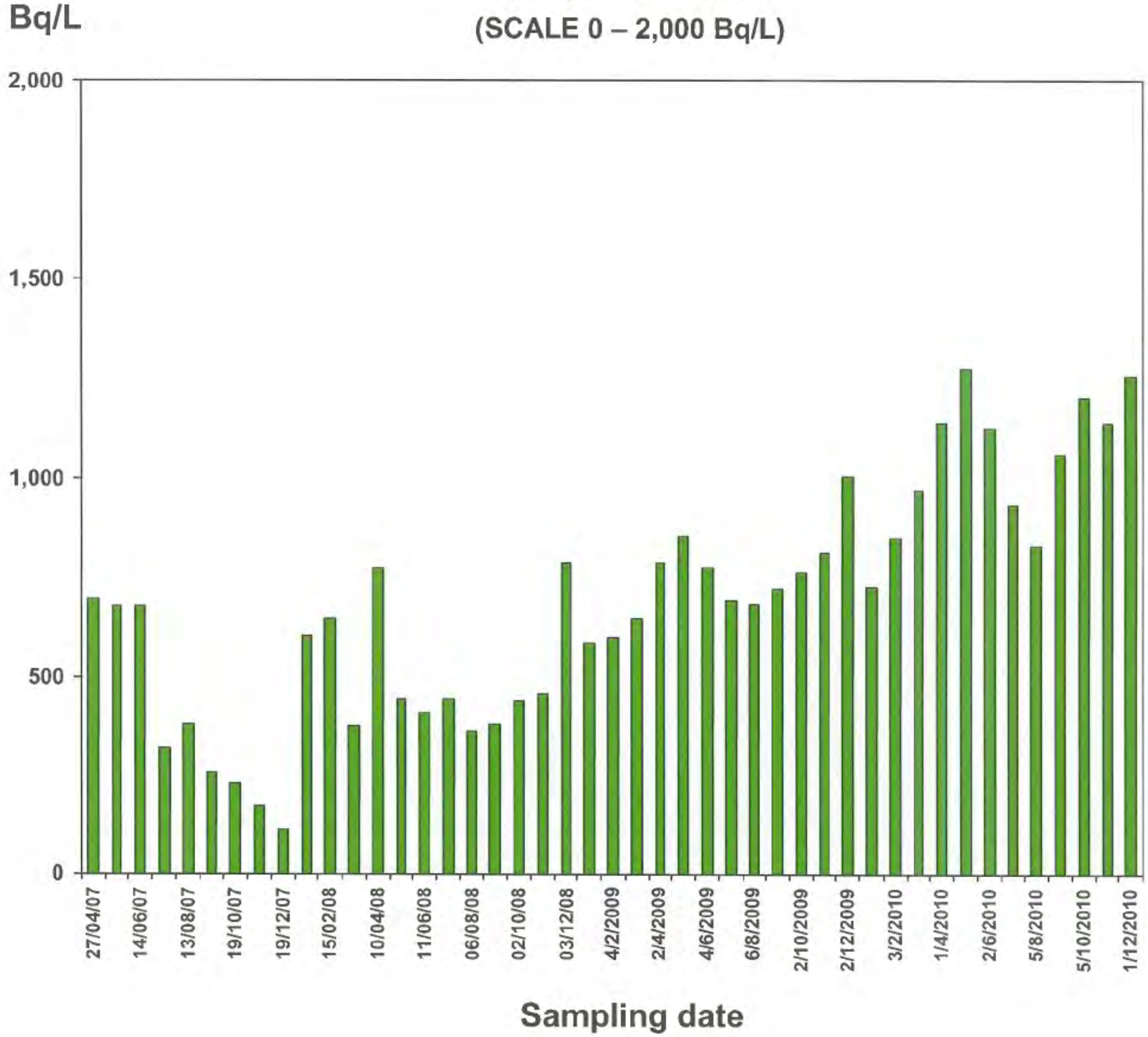

MONITORING RESULTS
MW07-13
Bq/L
(SCALE 0 – 20,000 Bq/L)
30,000
28,000
26,000
24,000
22,000
20,000
18,000
16,000
14,000
12,000
10,000
8,000
6,000
4,000
2,000
0
27/04/07
14/06/07
13/08/07
19/10/07
19/12/07
15/02/08
10/04/08
11/06/08
06/08/08
2/10/2008
3/12/2008
4/2/2009
2/4/2009
4/6/2009
6/8/2009
2/10/2009
2/12/2009
3/2/2010
1/4/2010
2/6/2010
5/8/2010
5/10/2010
1/12/2010
Sampling date

APPENDIX H

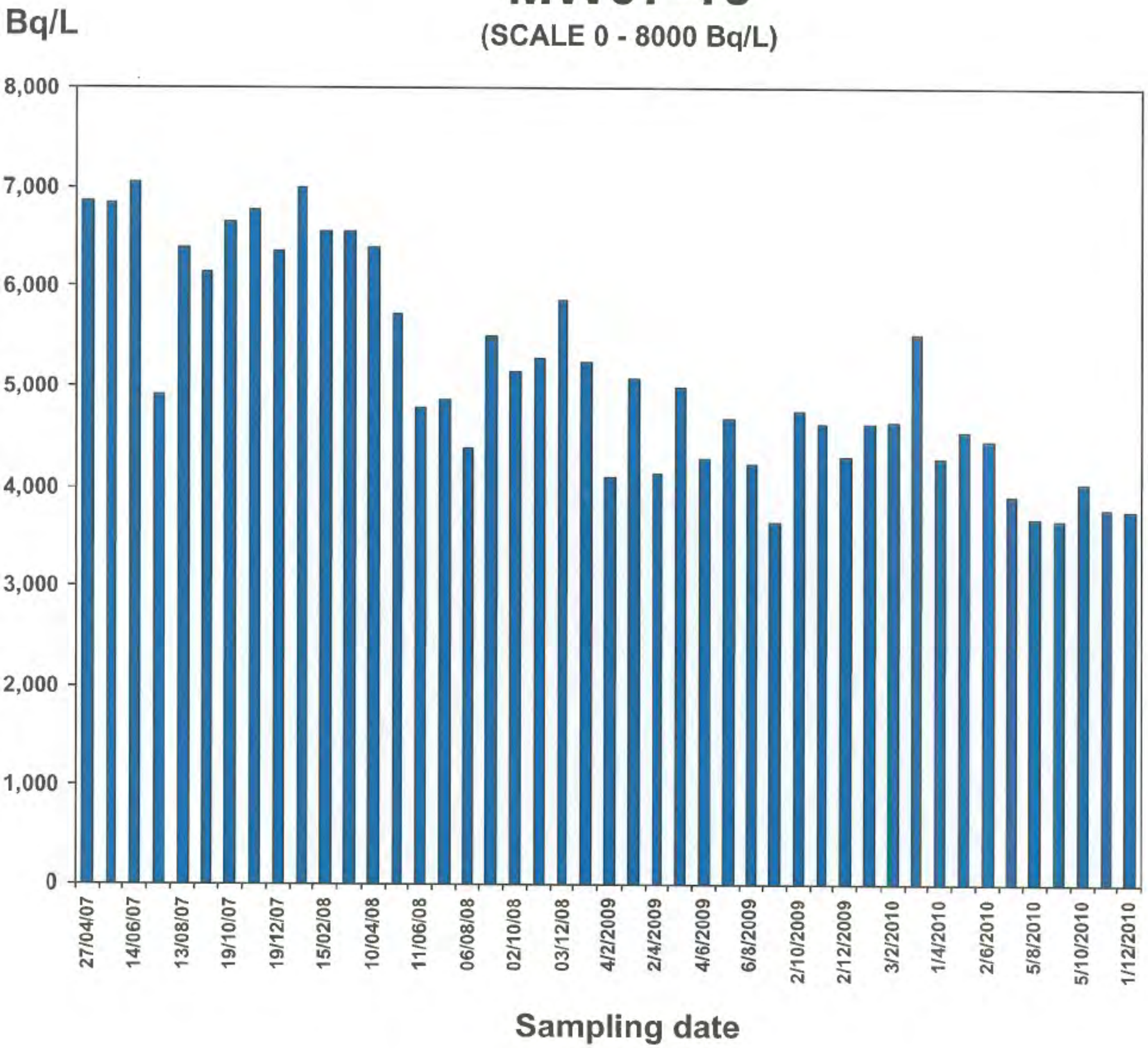
MONITORING RESULTS
MW07-14



MONITORING RESULTS
MW07-15
(SCALE 0 – 2,000 Bq/L)



MONITORING RESULTS
MW07-16



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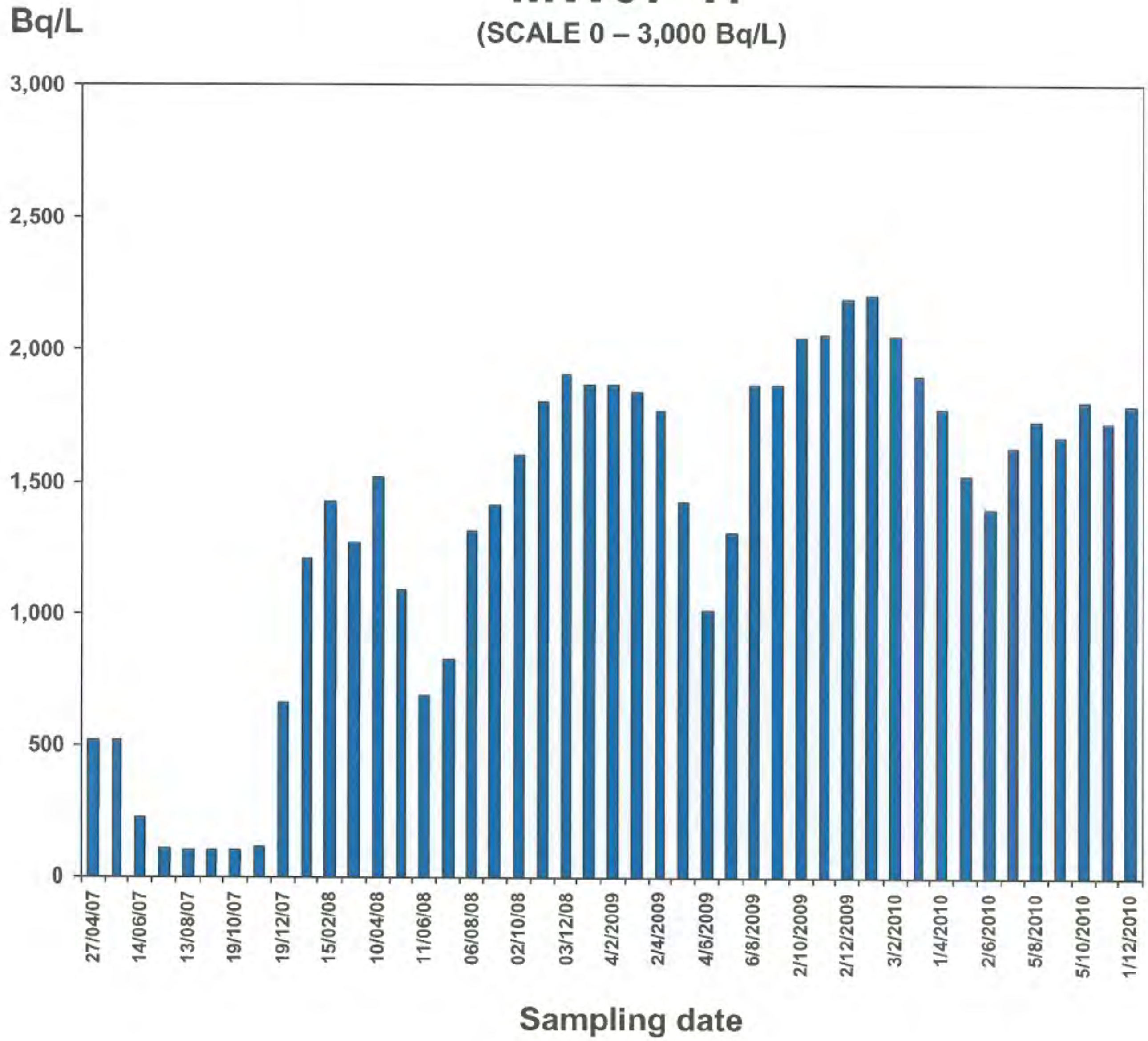
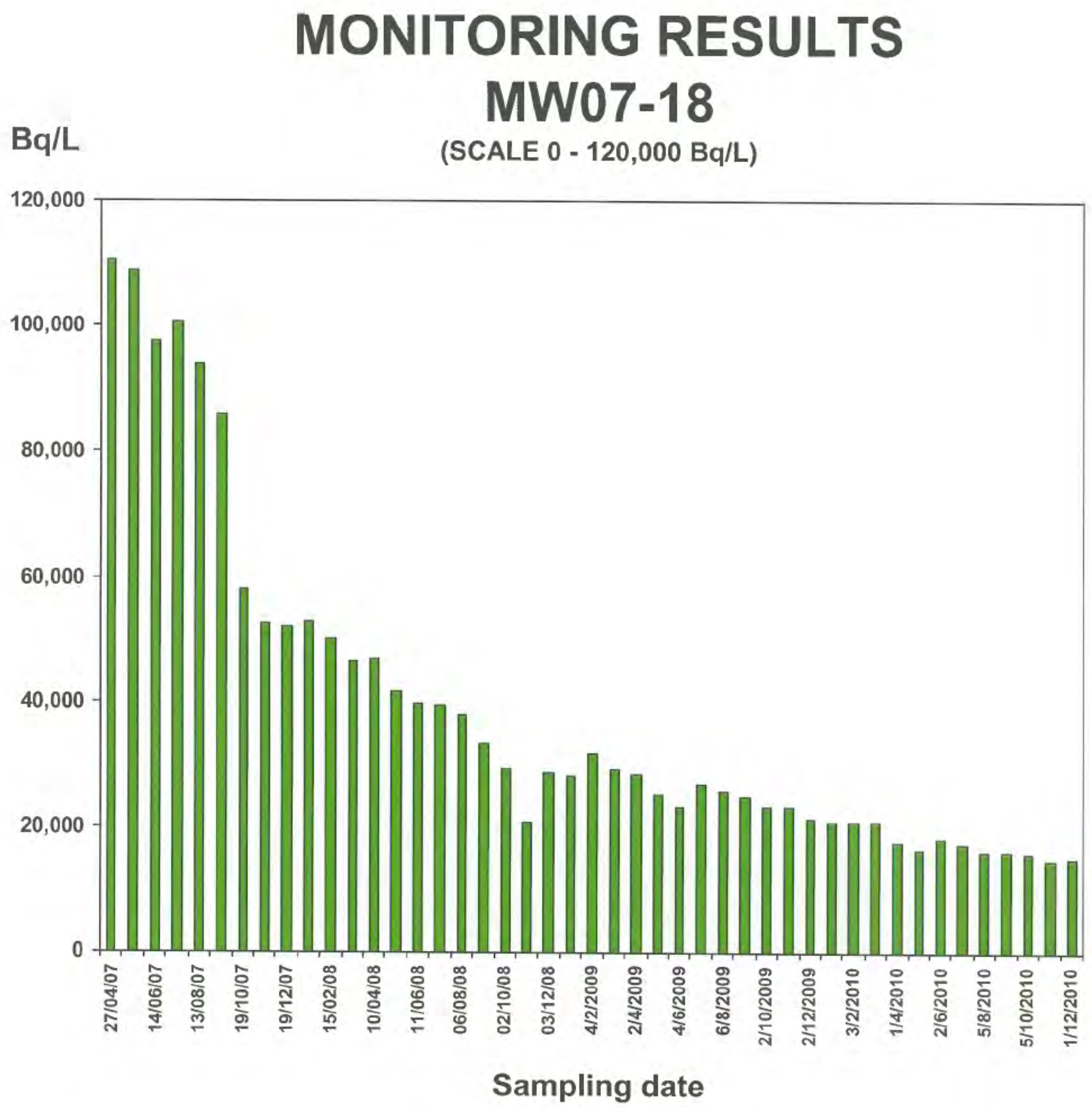
MONITORING RESULTS
MW07-17

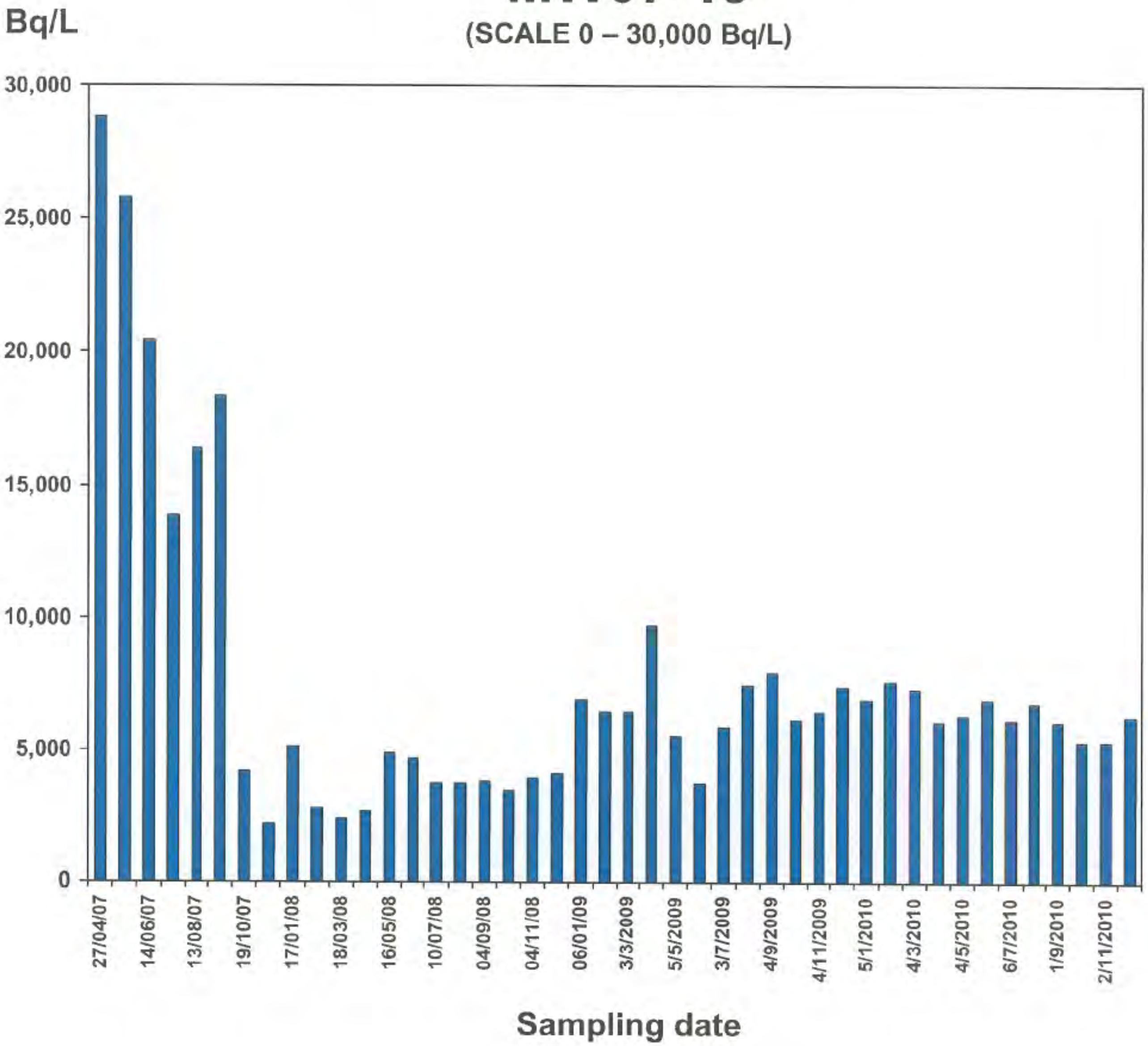


APPENDIX H


MONITORING RESULTS
MW07-18
(SCALE 0 - 120,000 Bq/L)
Bq/L
120,000
100,000
80,000
60,000
40,000
20,000
0
27/04/07
14/06/07
13/08/07
19/10/07
19/12/07
15/02/08
10/04/08
11/06/08
06/08/08
02/10/08
03/12/08
4/2/2009
2/4/2009
4/6/2009
6/8/2009
2/10/2009
2/12/2009
3/2/2010
1/4/2010
2/6/2010
5/8/2010
5/10/2010
1/12/2010
Sampling date

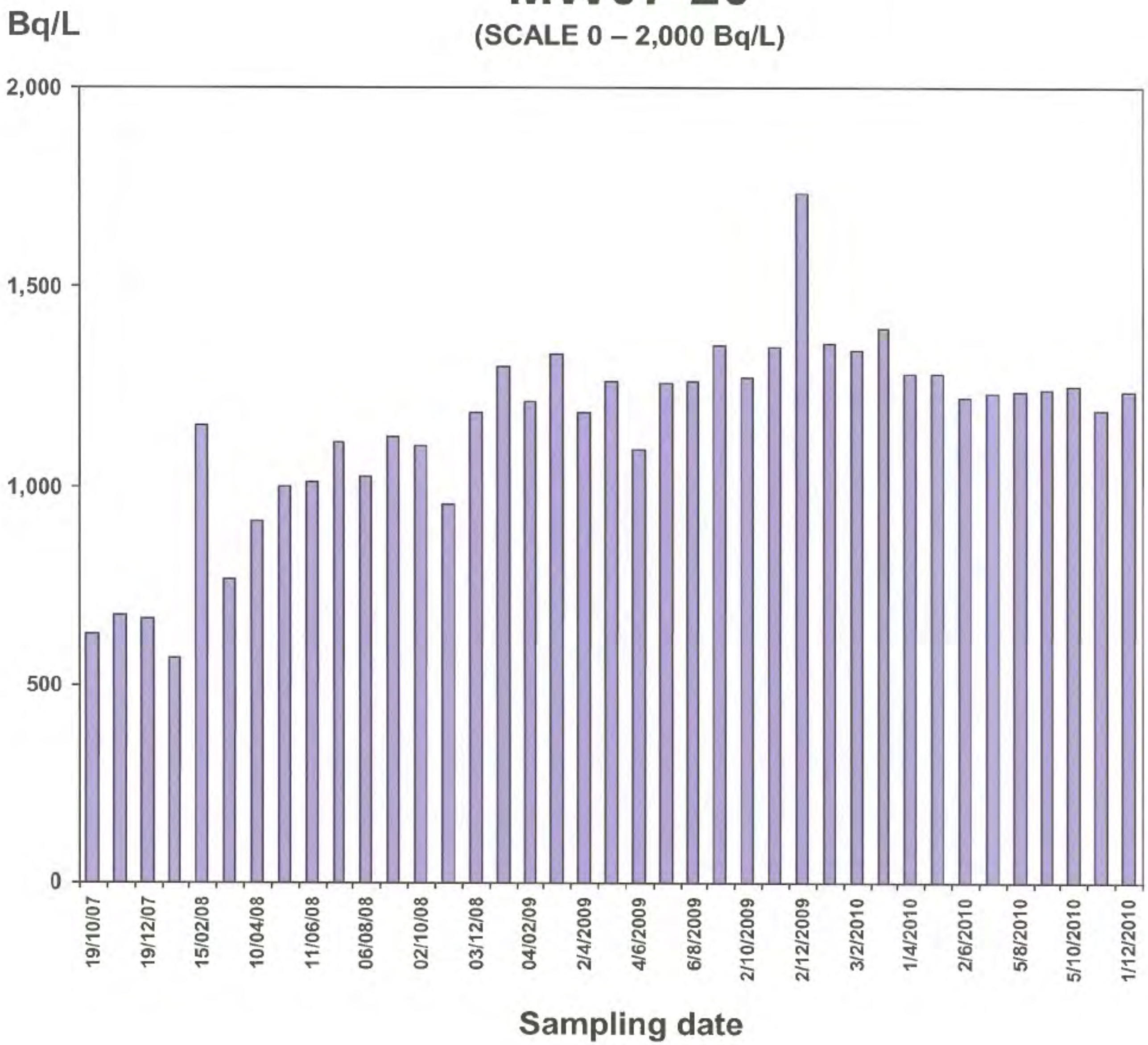
APPENDIX H

MONITORING RESULTS
MW07-19



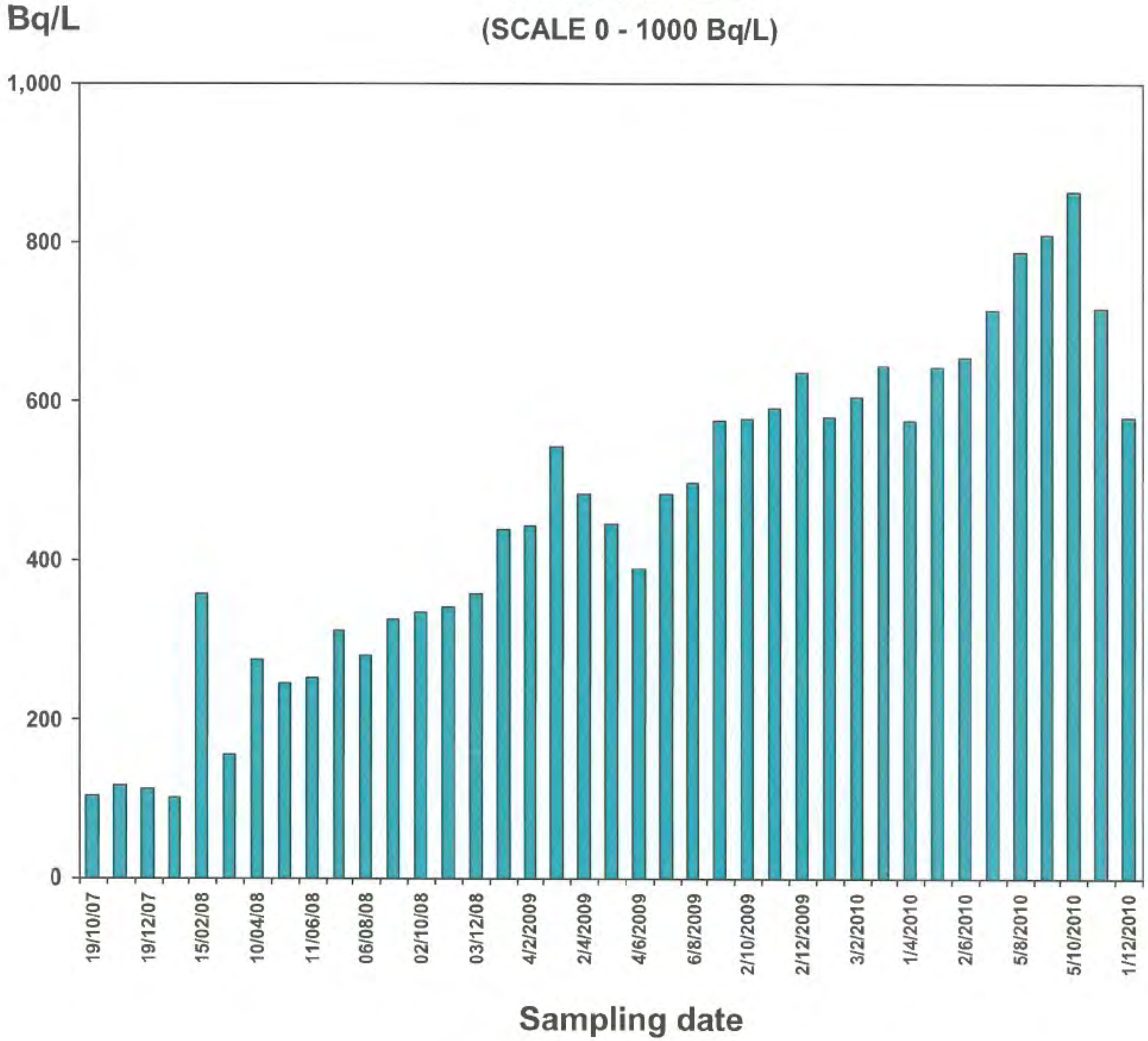
APPENDIX H

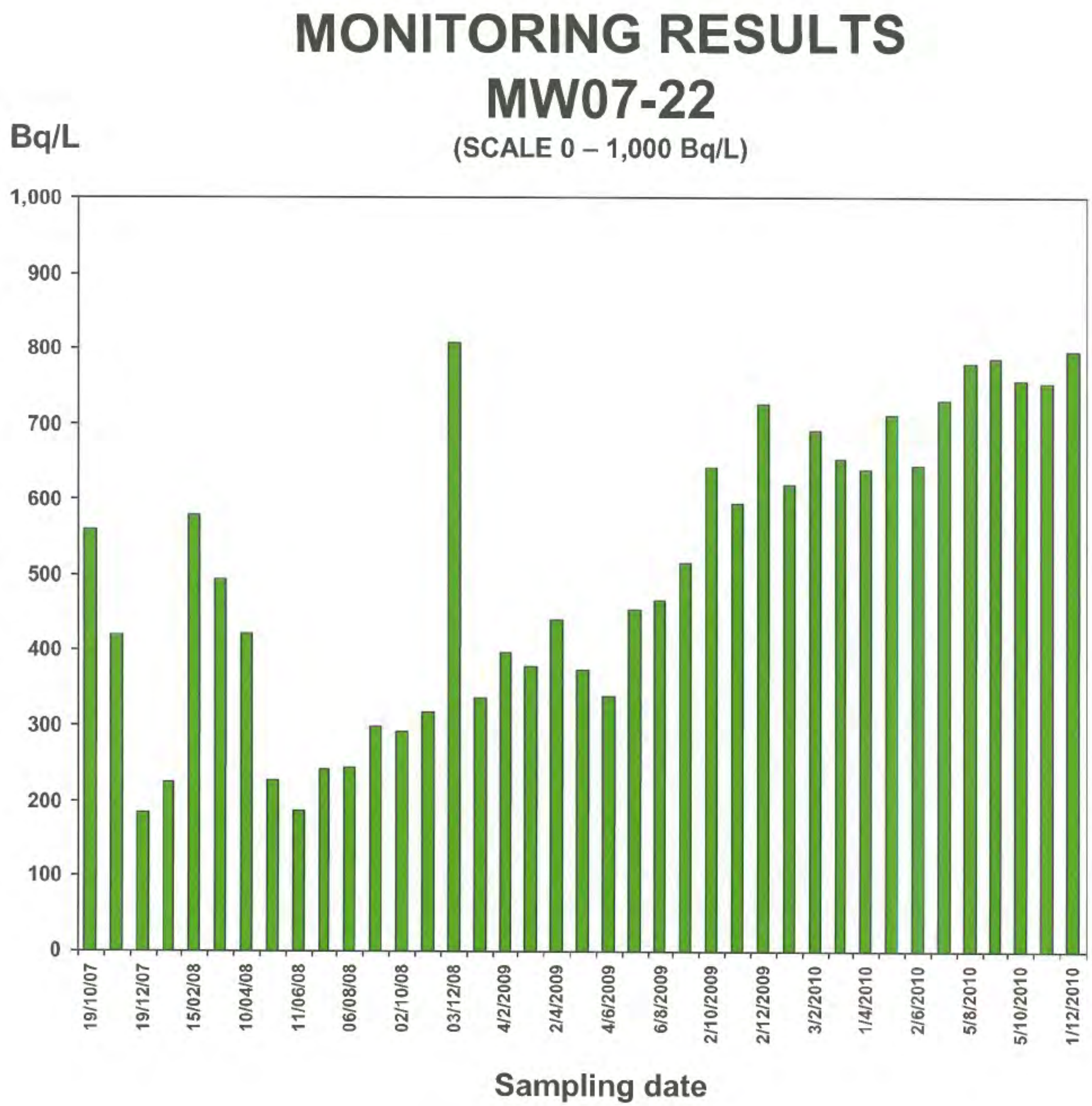
MONITORING RESULTS
MW07-20
(SCALE 0 – 2,000 Bq/L)



APPENDIX H

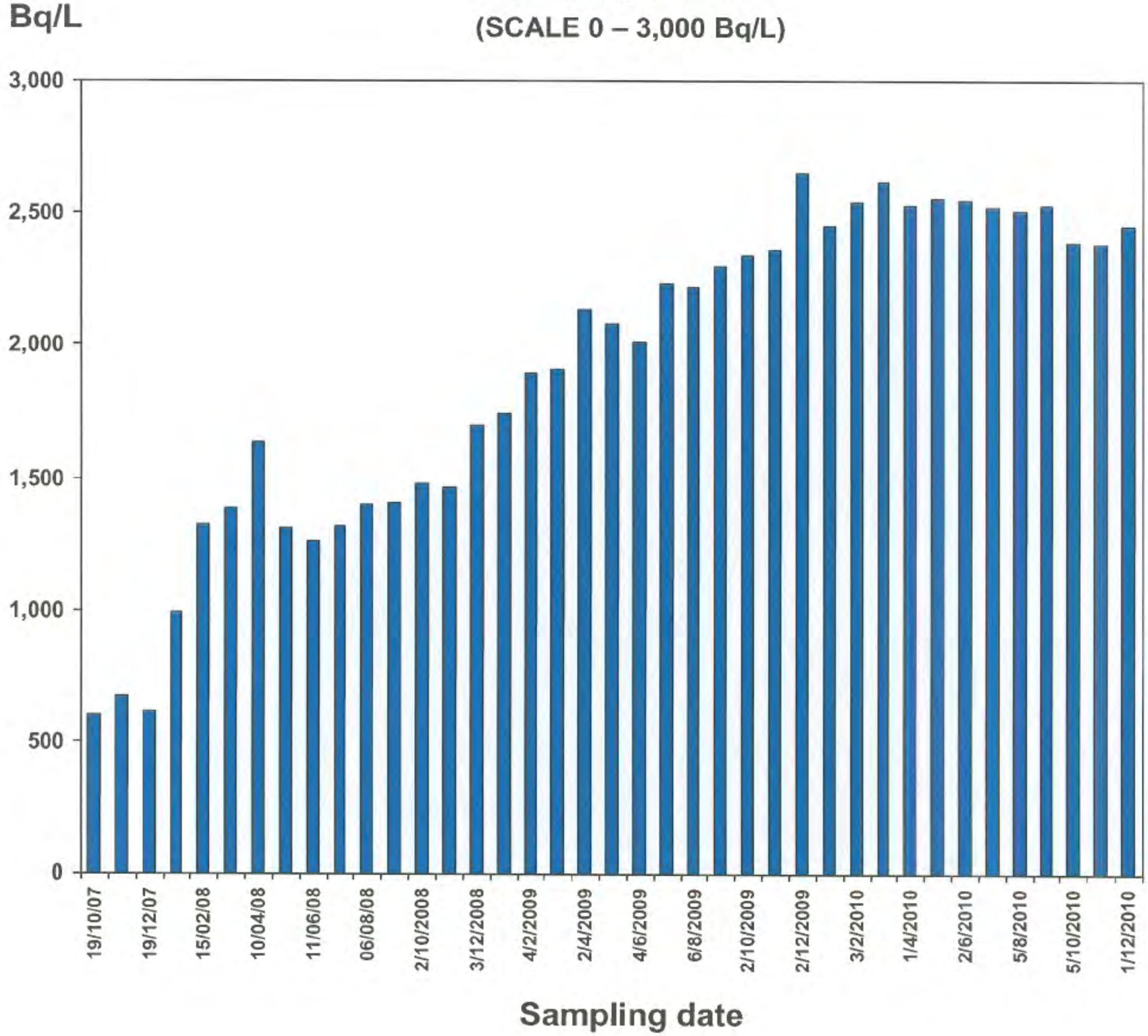
MONITORING RESULTS
MW07-21
(SCALE 0 - 1000 Bq/L)



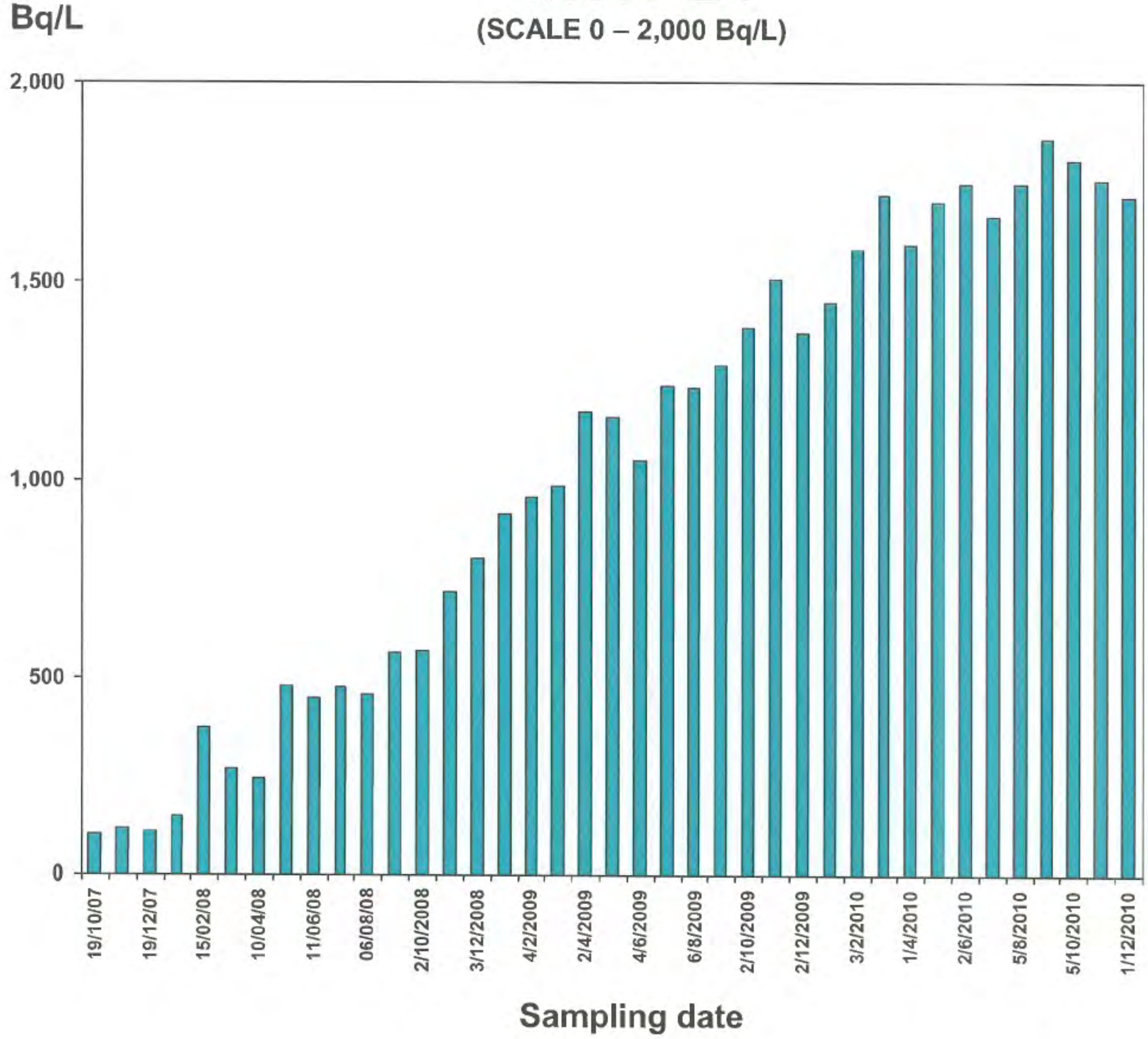

MONITORING RESULTS
MW07-22
(SCALE 0 – 1,000 Bq/L)
Bq/L
1,000
900
800
700
600
500
400
300
200
100
0
19/10/07
19/12/07
15/02/08
10/04/08
11/06/08
06/08/08
02/10/08
03/12/08
4/2/2009
2/4/2009
4/6/2009
6/8/2009
2/10/2009
2/12/2009
3/2/2010
1/4/2010
2/6/2010
5/8/2010
5/10/2010
1/12/2010
Sampling date

APPENDIX H

MONITORING RESULTS
MW07-23

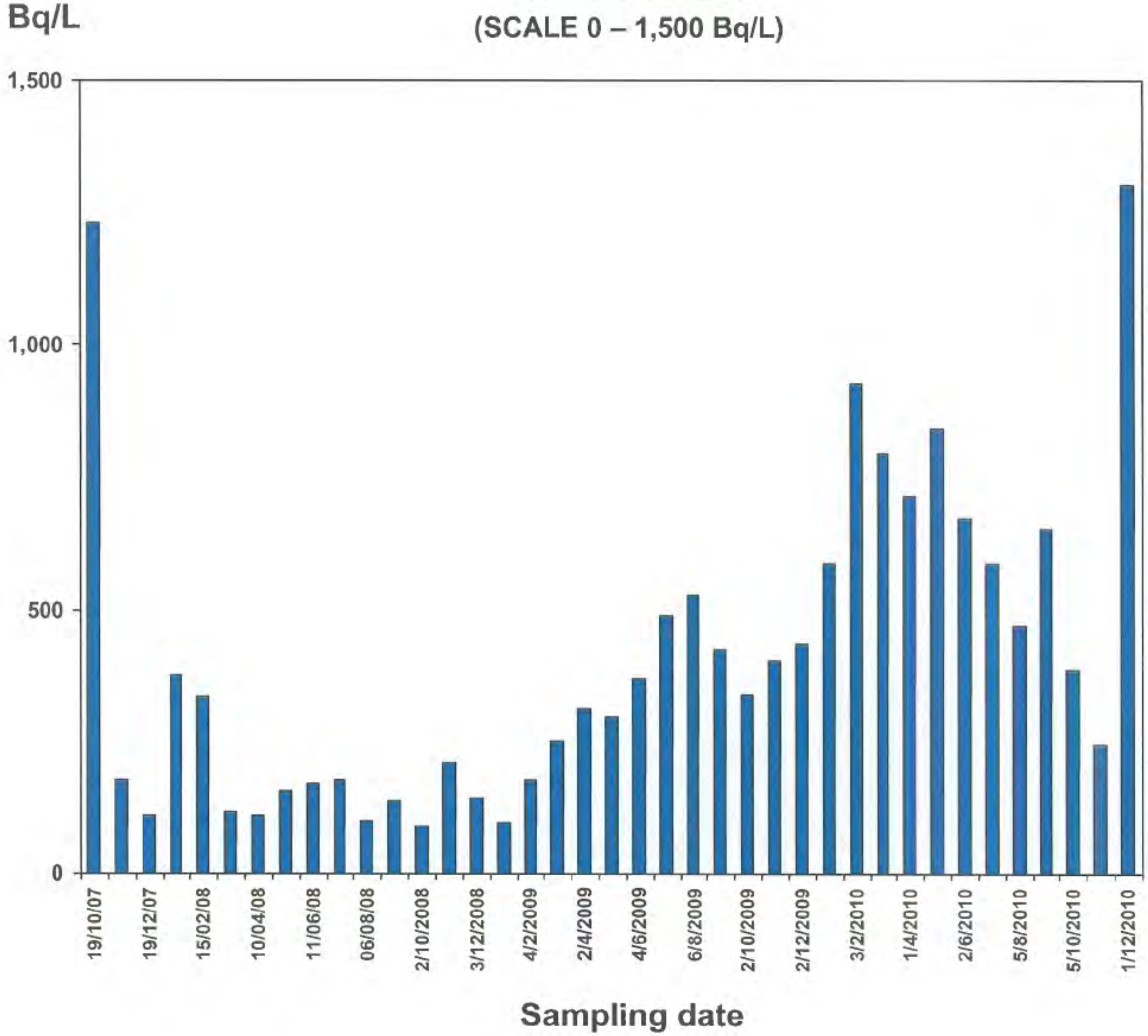


MONITORING RESULTS
MW07-24

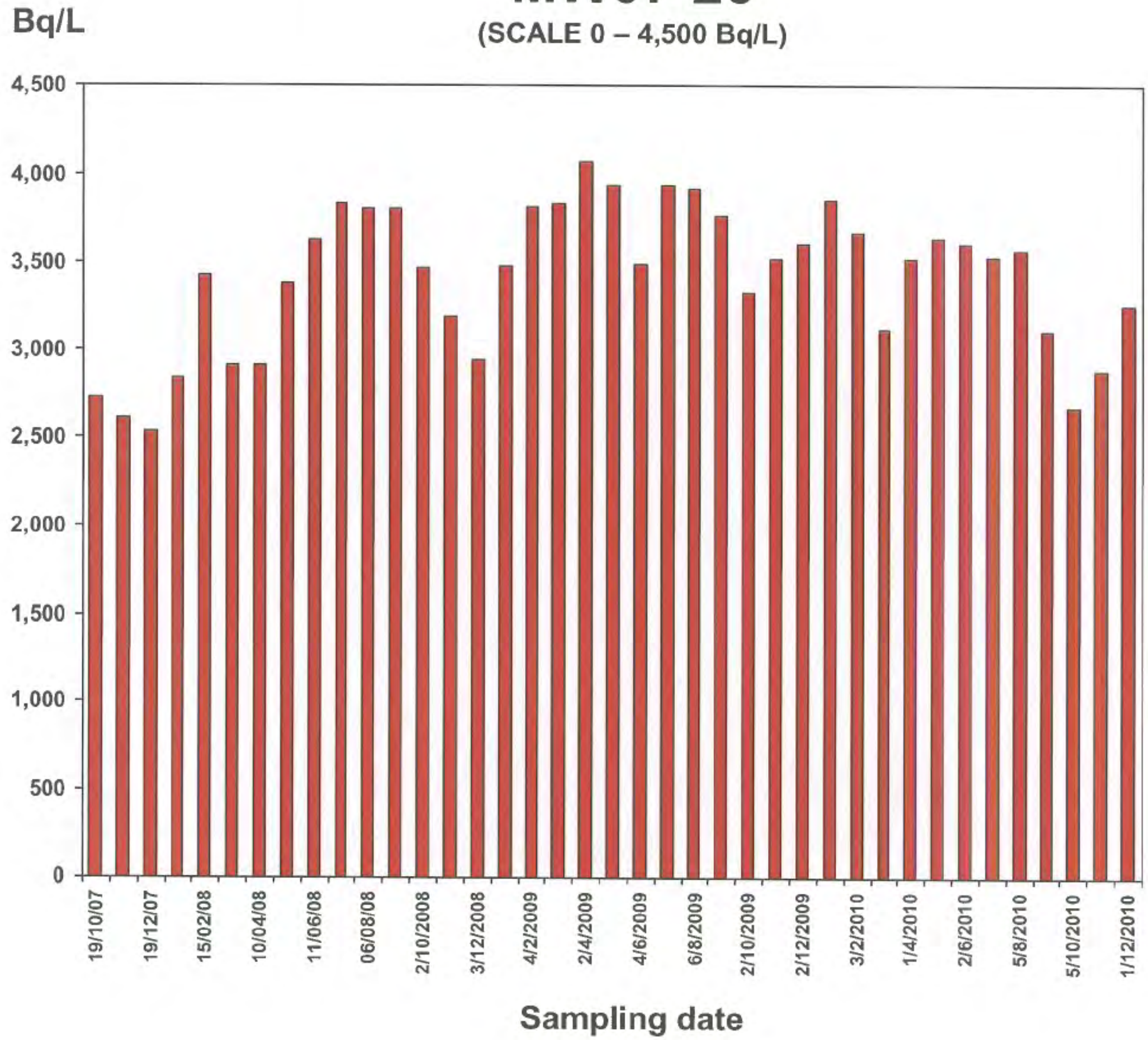


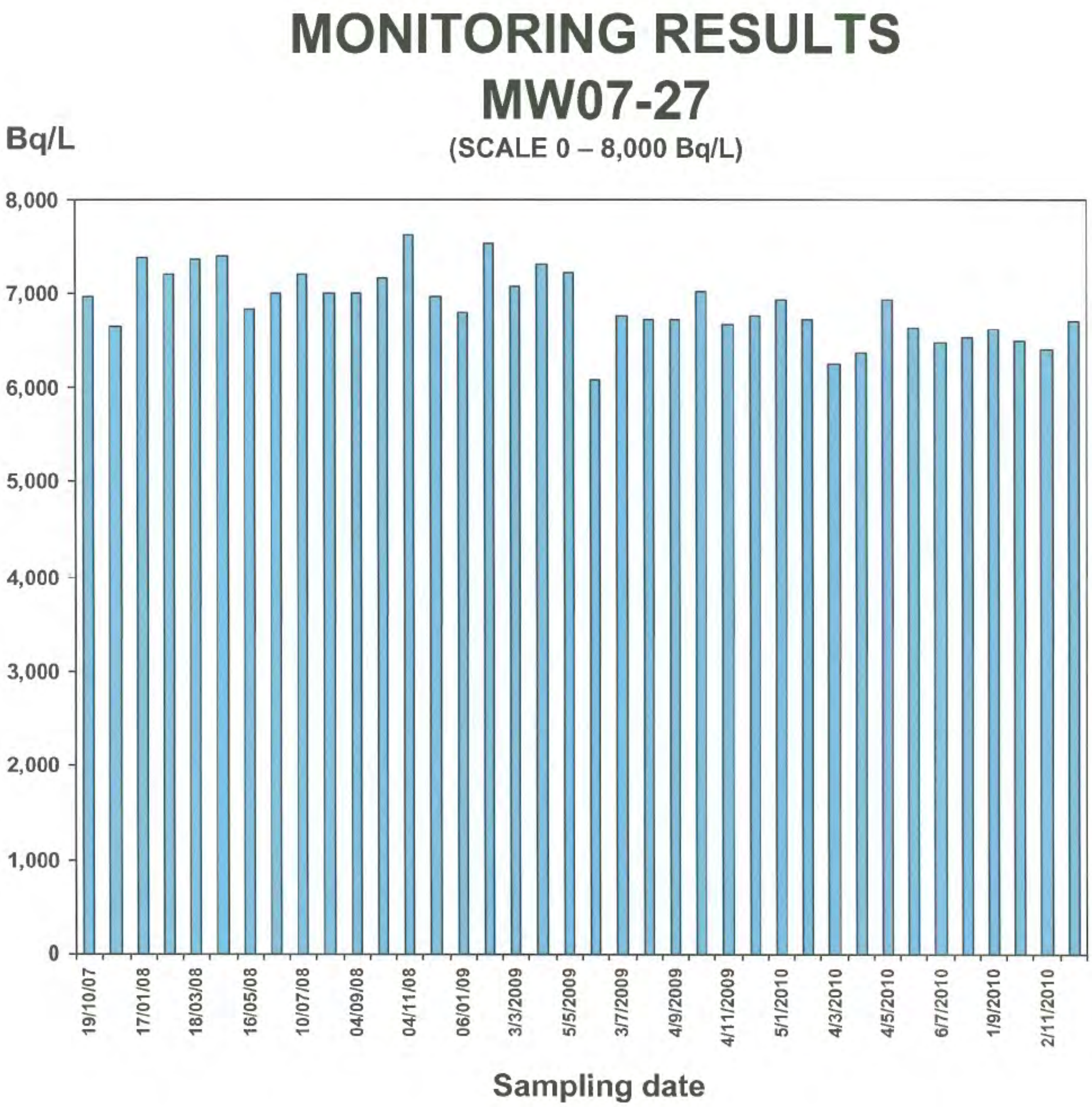
APPENDIX H

MONITORING RESULTS
MW07-25



MONITORING RESULTS
MW07-26

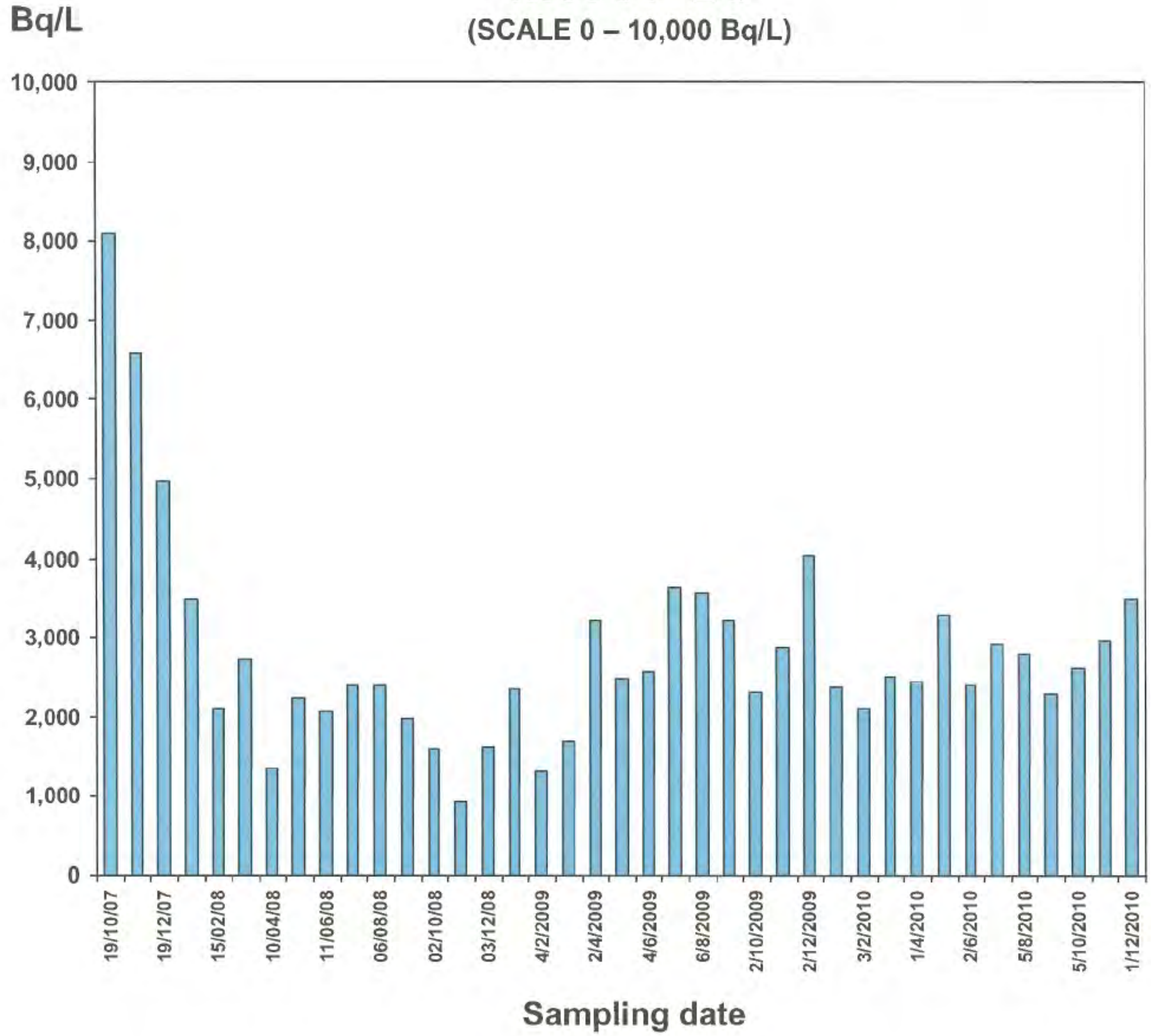



MONITORING RESULTS
MW07-27
(SCALE 0 – 8,000 Bq/L)
Bq/L
8,000
7,000
6,000
5,000
4,000
3,000
2,000
1,000
0
19/10/07
17/01/08
18/03/08
16/05/08
10/07/08
04/09/08
04/11/08
06/01/09
3/3/2009
5/5/2009
3/7/2009
4/9/2009
4/11/2009
5/1/2010
4/3/2010
4/5/2010
6/7/2010
1/9/2010
2/11/2010
Sampling date

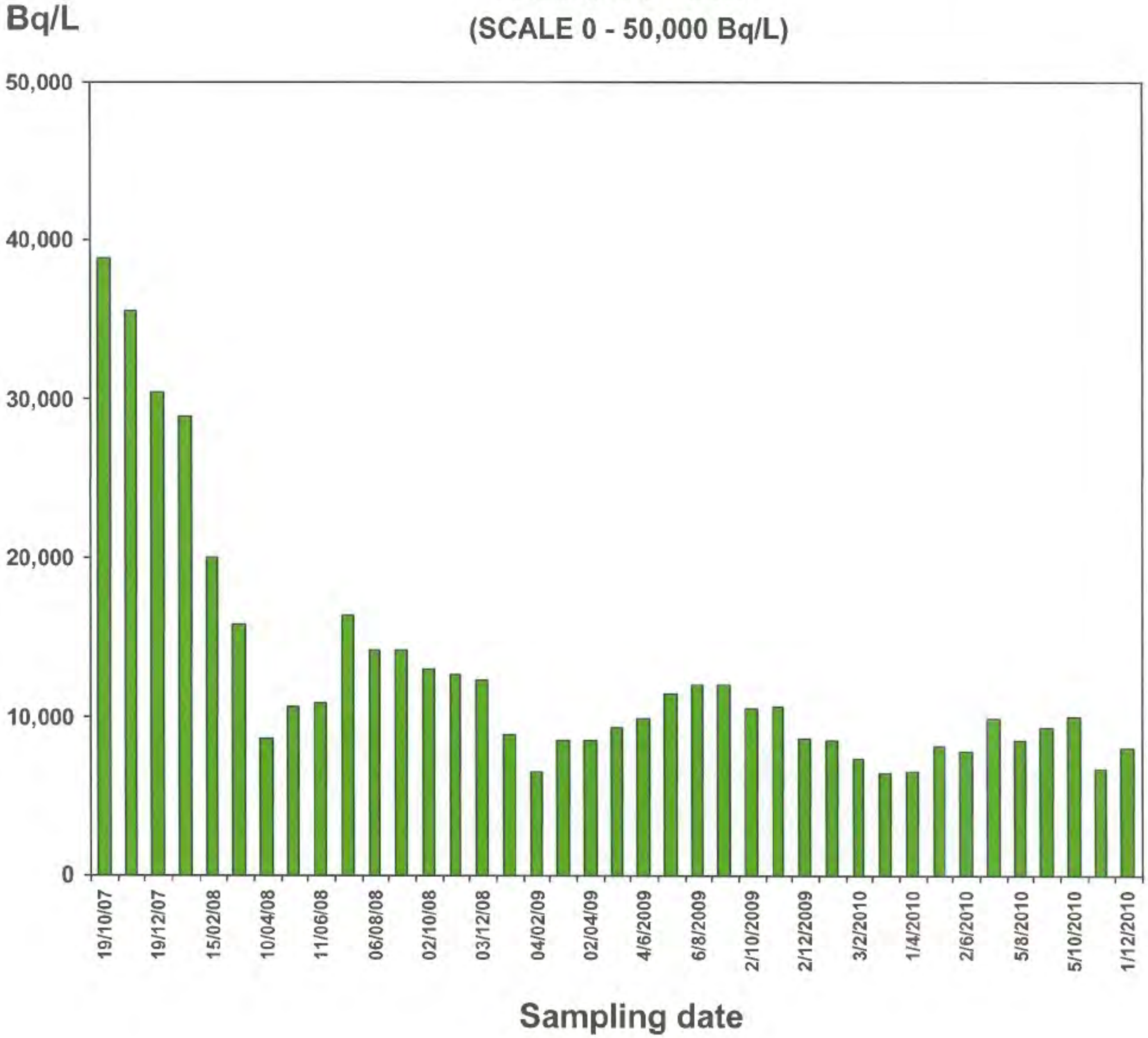
APPENDIX H

MONITORING RESULTS
MW07-28

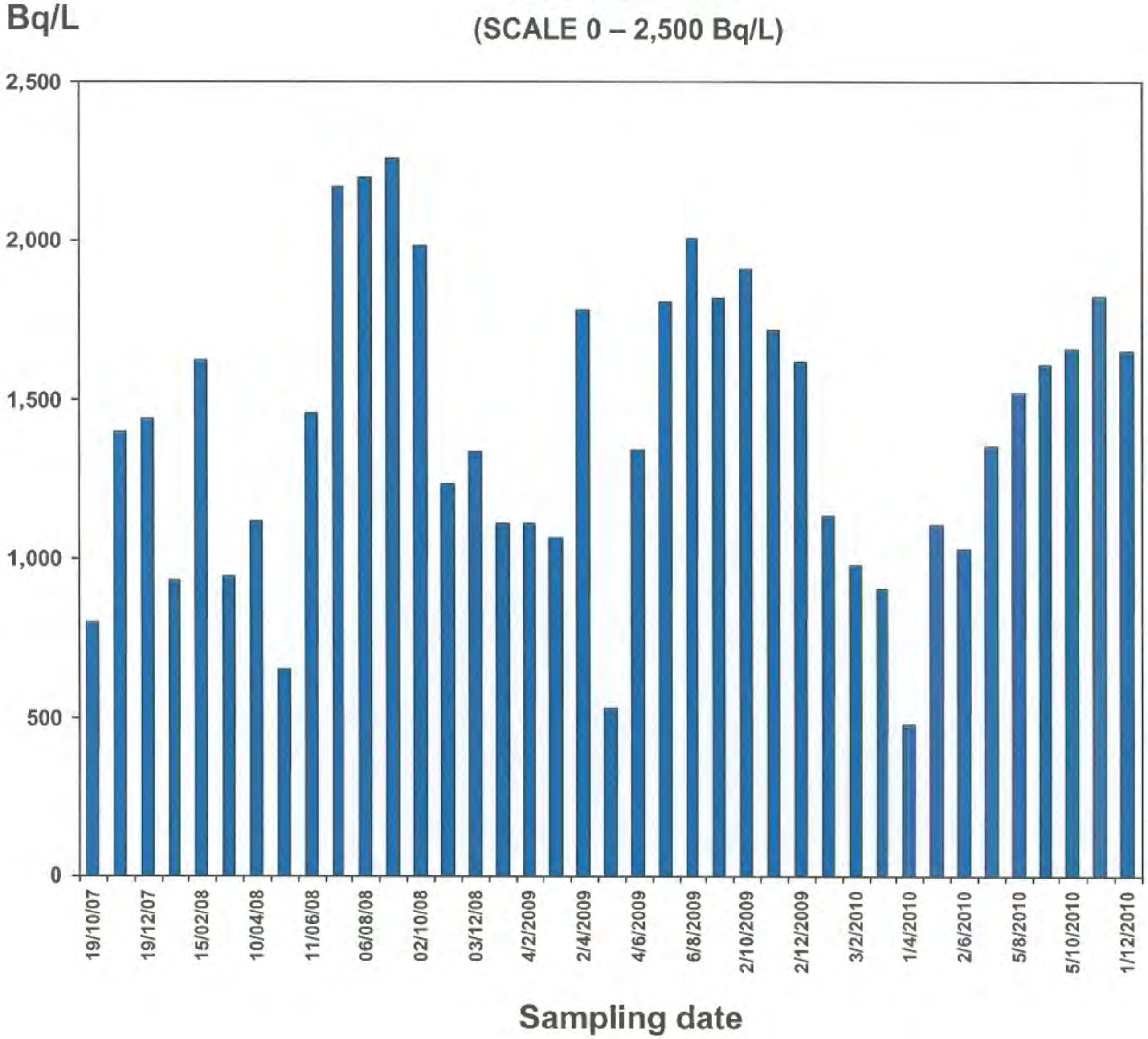
(SCALE 0 – 10,000 Bq/L)

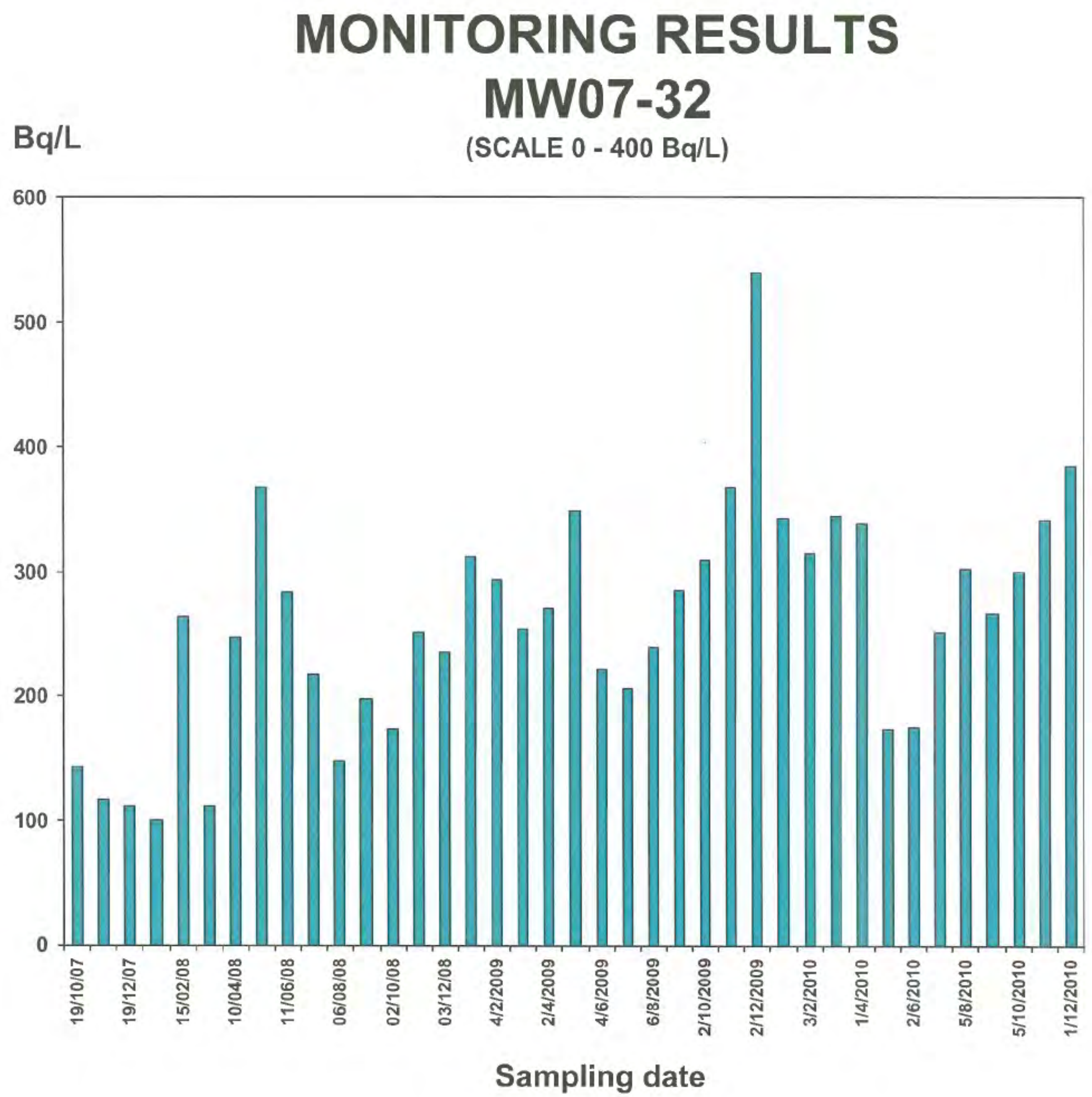


MONITORING RESULTS
MW07-29
(SCALE 0 - 50,000 Bq/L)



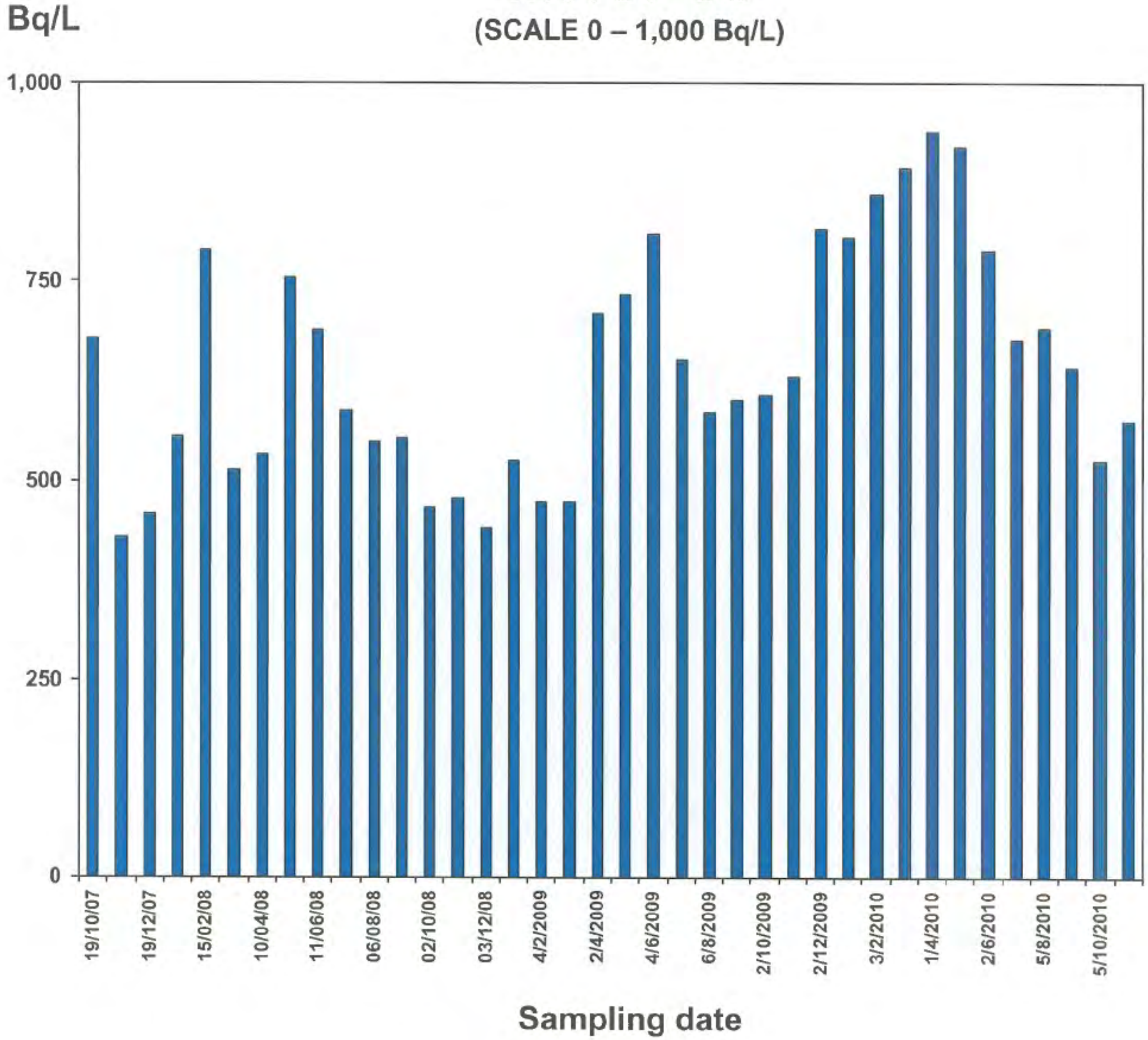
MONITORING RESULTS
MW07-31




MONITORING RESULTS
MW07-32
(SCALE 0 - 400 Bq/L)
Bq/L
600
500
400
300
200
100
0
19/10/07
19/12/07
15/02/08
10/04/08
11/06/08
06/08/08
02/10/08
03/12/08
4/2/2009
2/4/2009
4/6/2009
6/8/2009
2/10/2009
2/12/2009
3/2/2010
1/4/2010
2/6/2010
5/8/2010
5/10/2010
1/12/2010
Sampling date

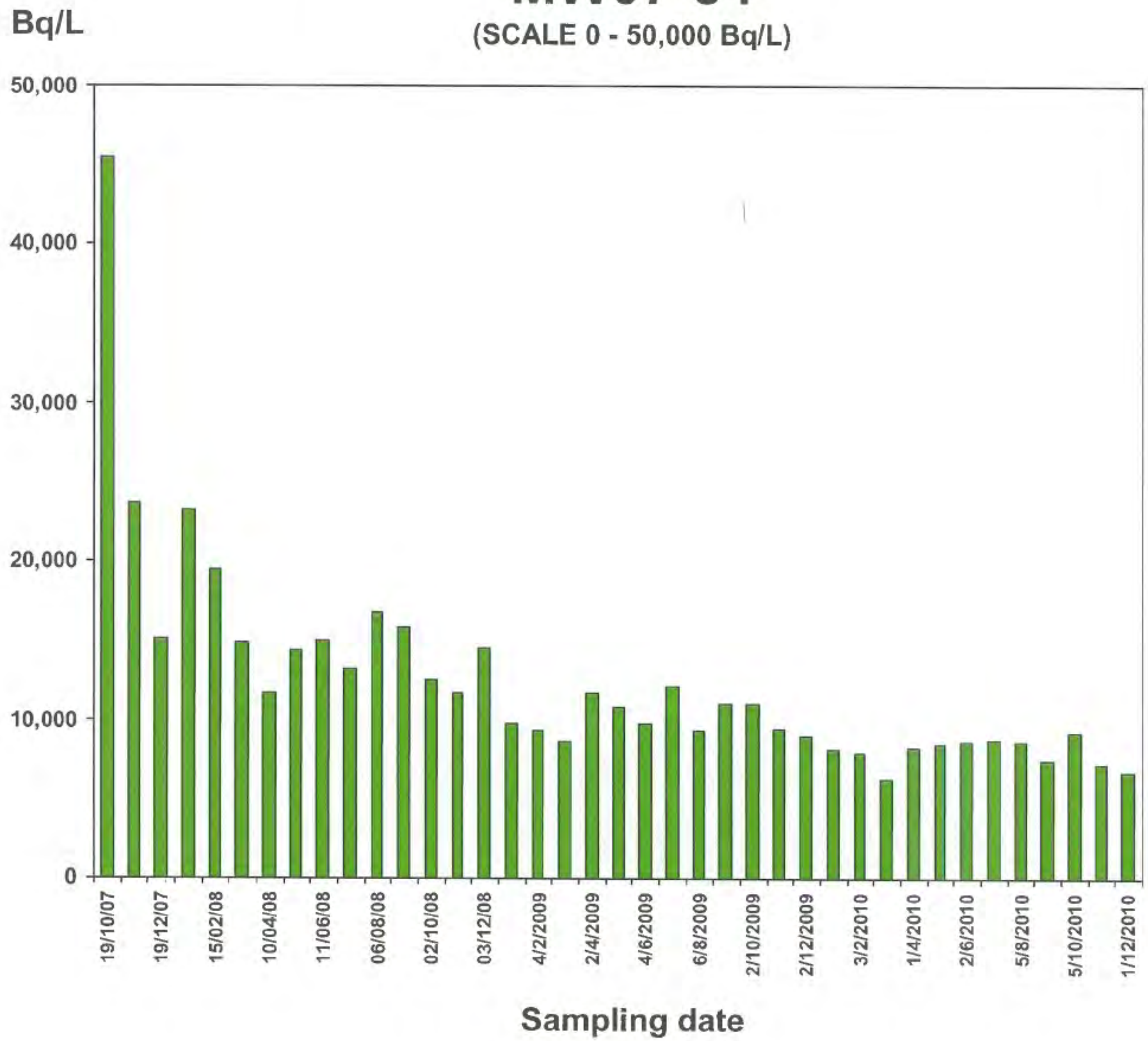
APPENDIX H

MONITORING RESULTS
MW07-33
(SCALE 0 – 1,000 Bq/L)

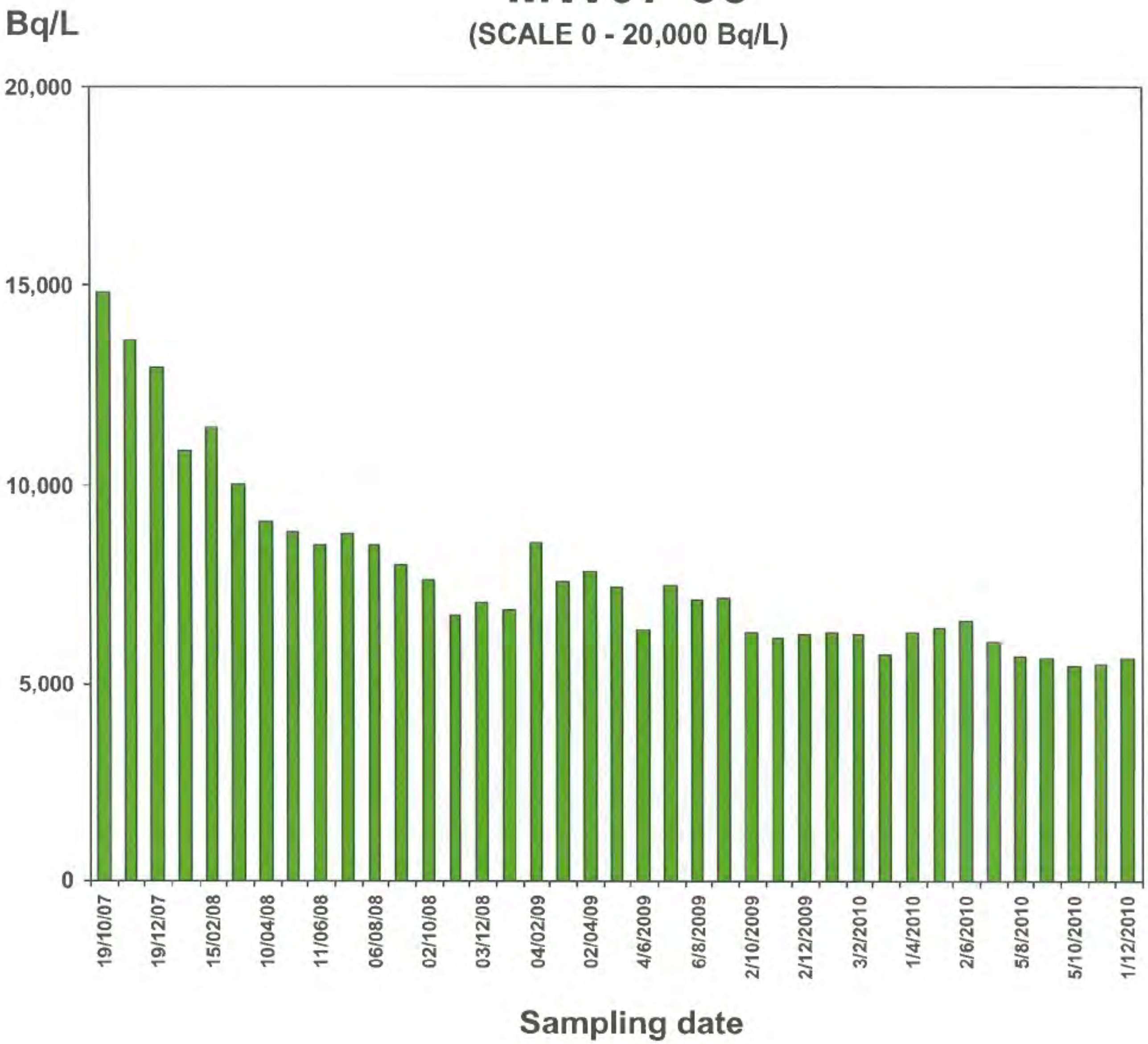


MONITORING RESULTS
MW07-34

(SCALE 0 - 50,000 Bq/L)

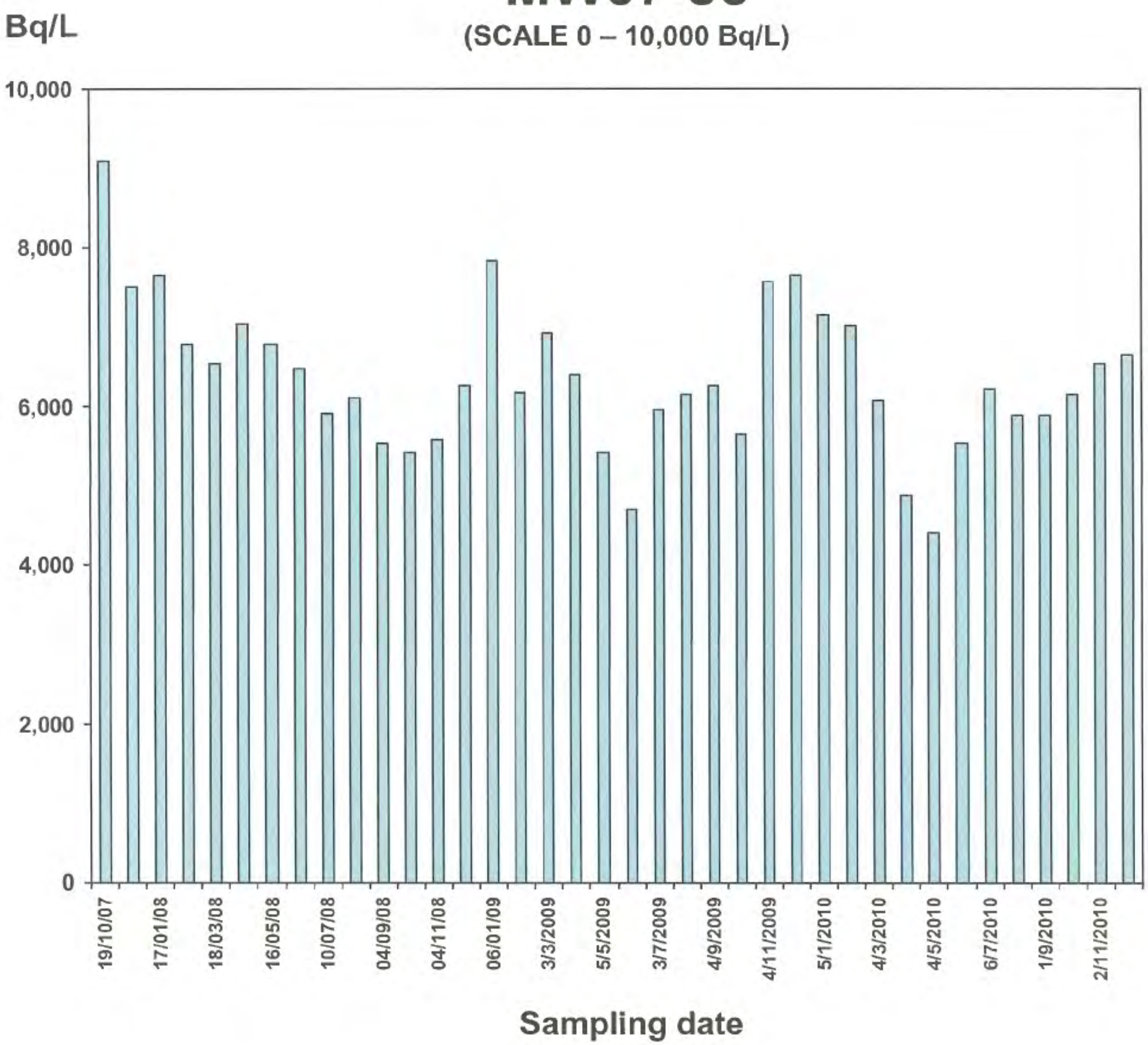


MONITORING RESULTS
MW07-35
(SCALE 0 - 20,000 Bq/L)



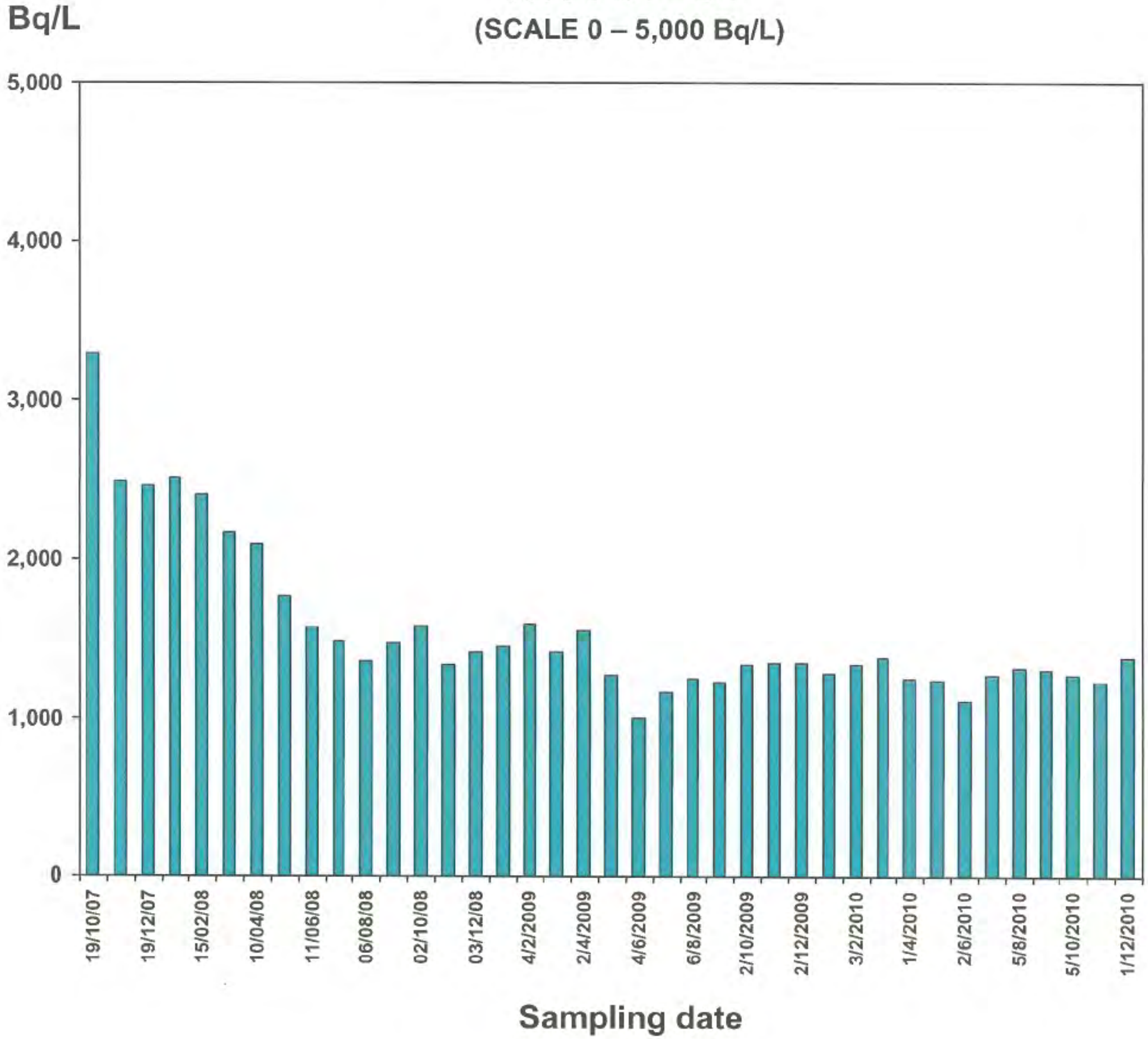
APPENDIX H

MONITORING RESULTS
MW07-36

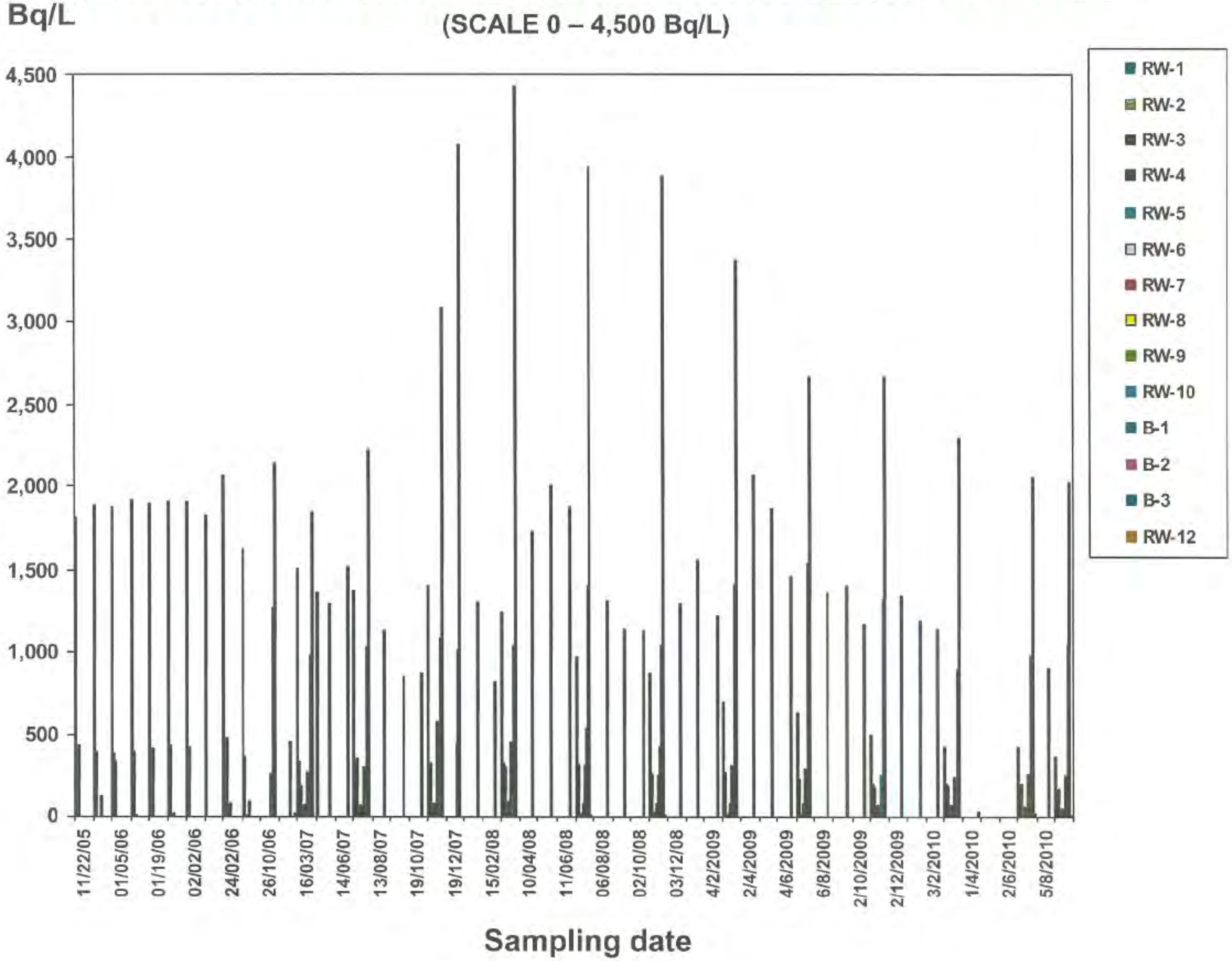


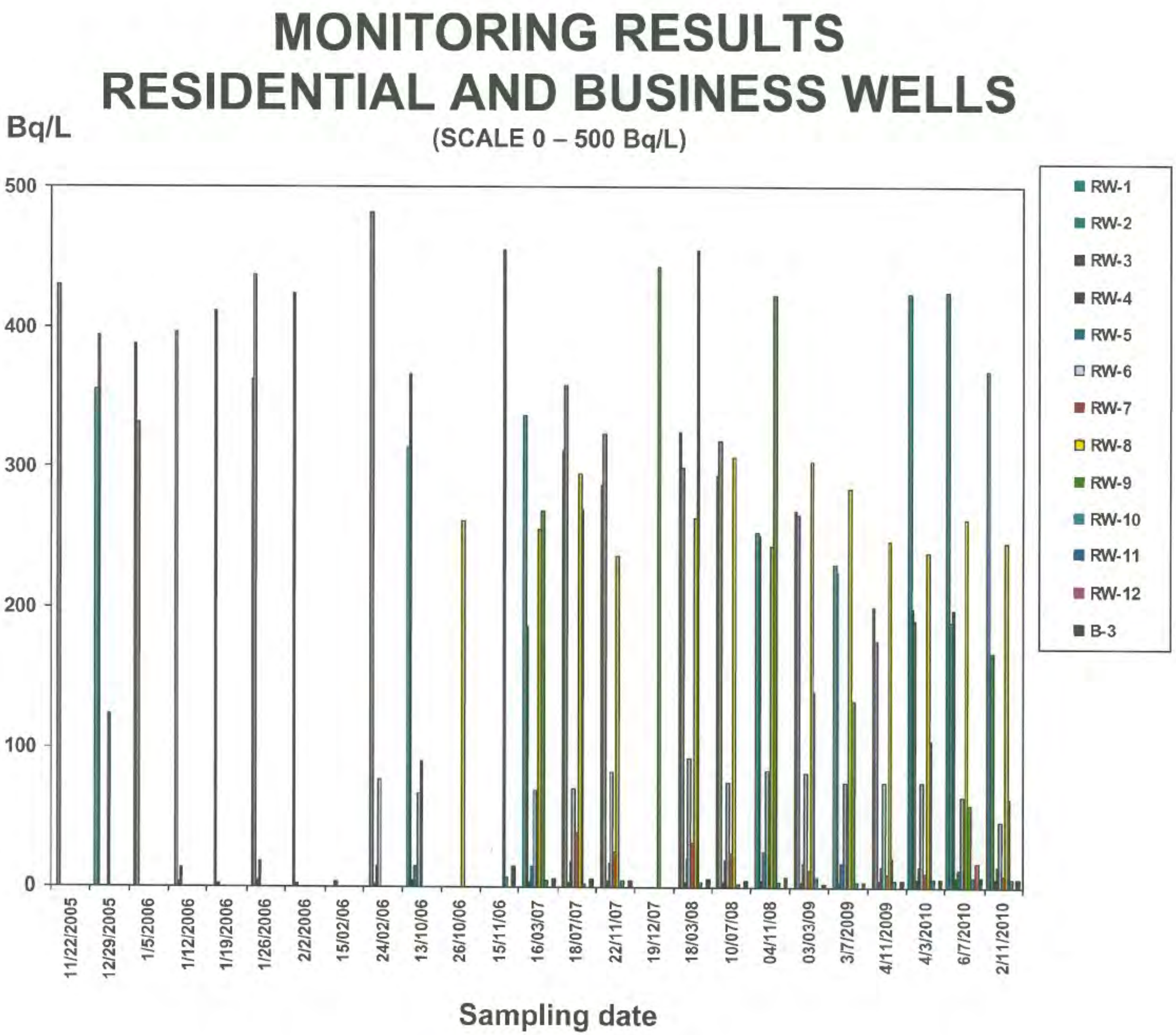
APPENDIX H

MONITORING RESULTS
MW07-37



MONITORING RESULTS
ALL RESIDENTIAL AND BUSINESS WELLS

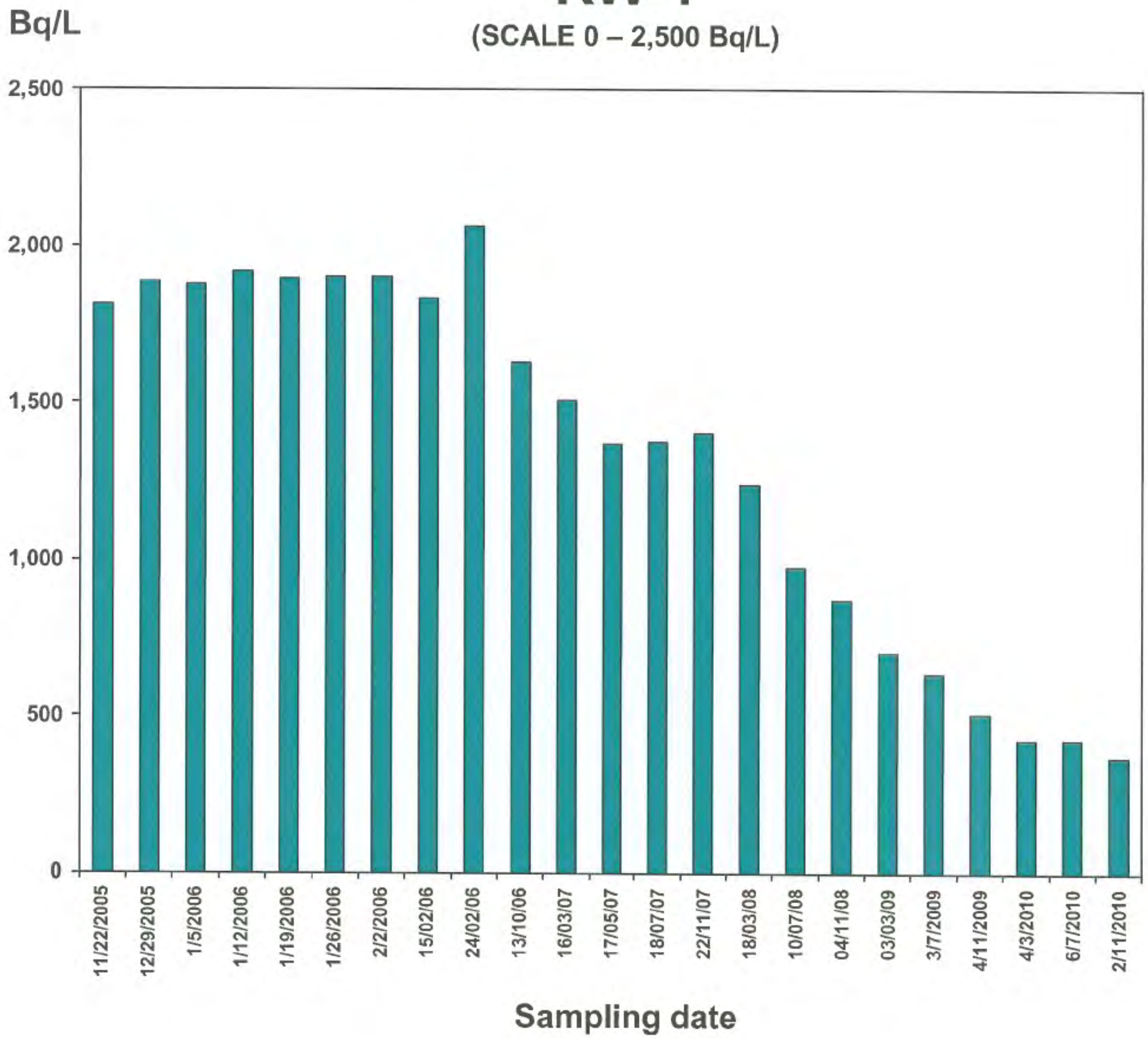



MONITORING RESULTS
RESIDENTIAL AND BUSINESS WELLS
Bq/L
(SCALE 0 – 500 Bq/L)
500
400
300
200
100
0
RW-1
RW-2
RW-3
RW-4
RW-5
RW-6
RW-7
RW-8
RW-9
RW-10
RW-11
RW-12
B-3
11/22/2005
12/29/2005
1/5/2006
1/12/2006
1/19/2006
1/26/2006
2/2/2006
15/02/06
24/02/06
13/10/06
26/10/06
15/11/06
16/03/07
18/07/07
22/11/07
19/12/07
18/03/08
10/07/08
04/11/08
03/03/09
3/7/2009
4/11/2009
4/3/2010
6/7/2010
2/11/2010
Sampling date

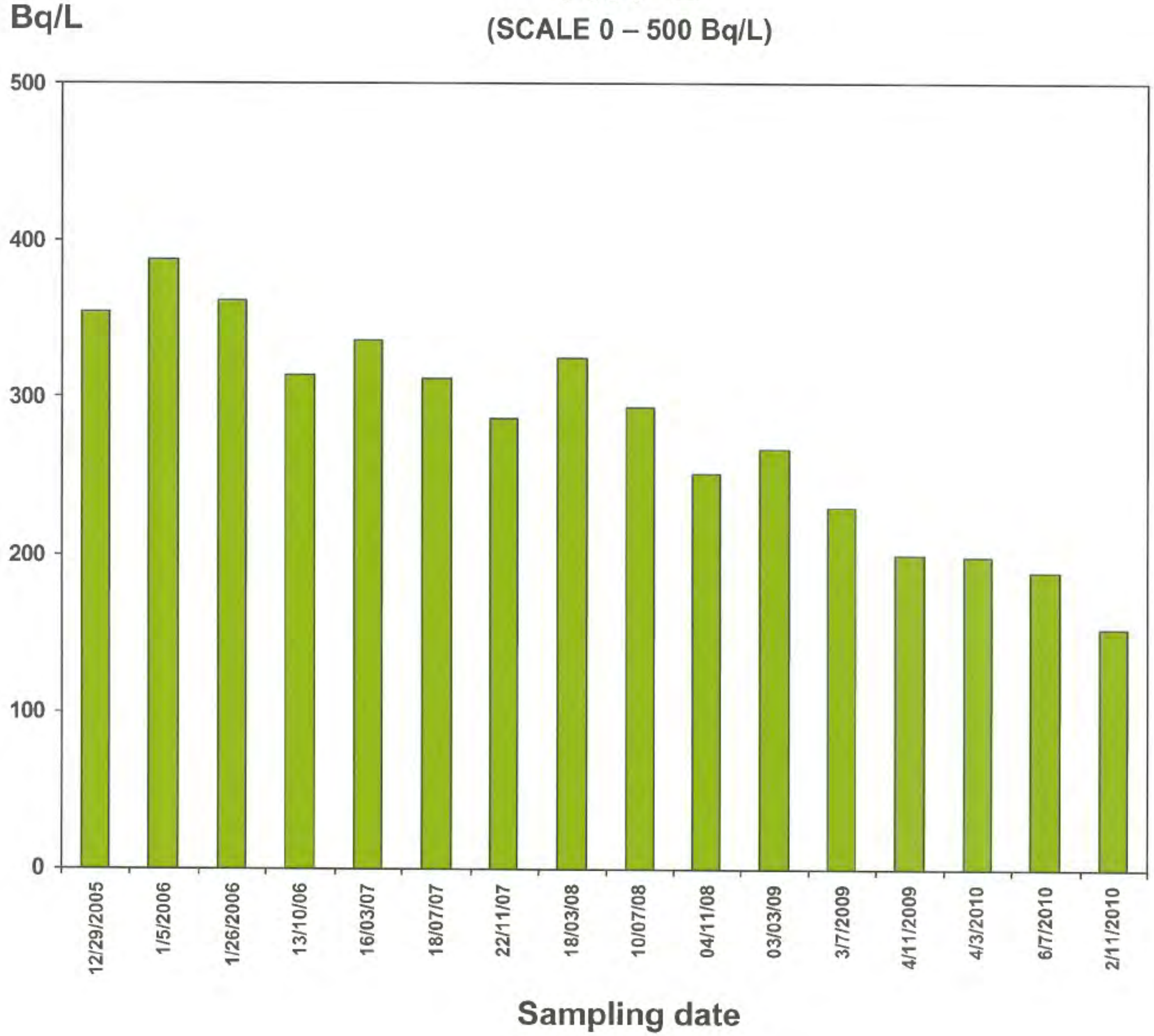
APPENDIX H

MONITORING RESULTS
RW-1

(SCALE 0 – 2,500 Bq/L)

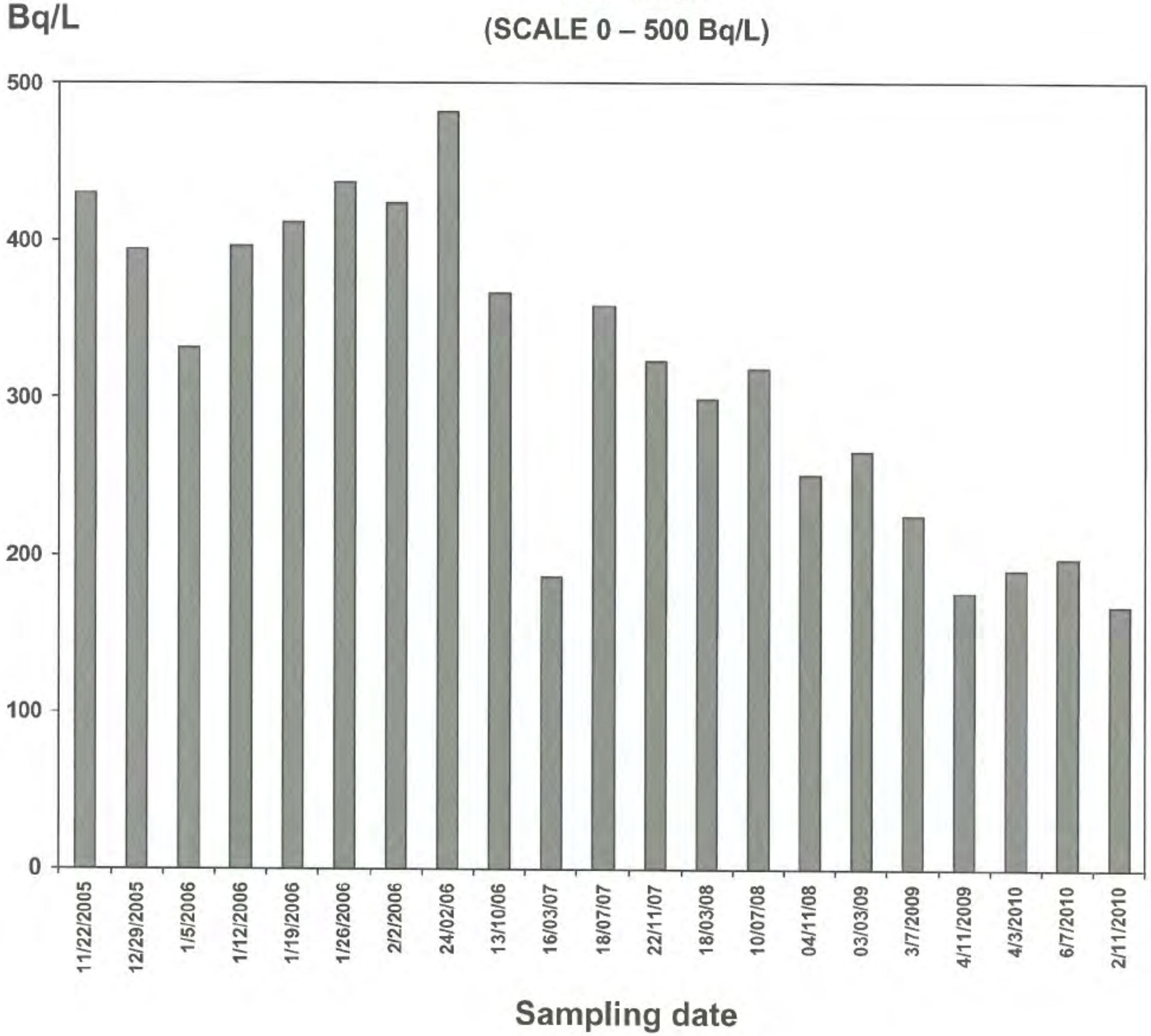


MONITORING RESULTS
RW-2

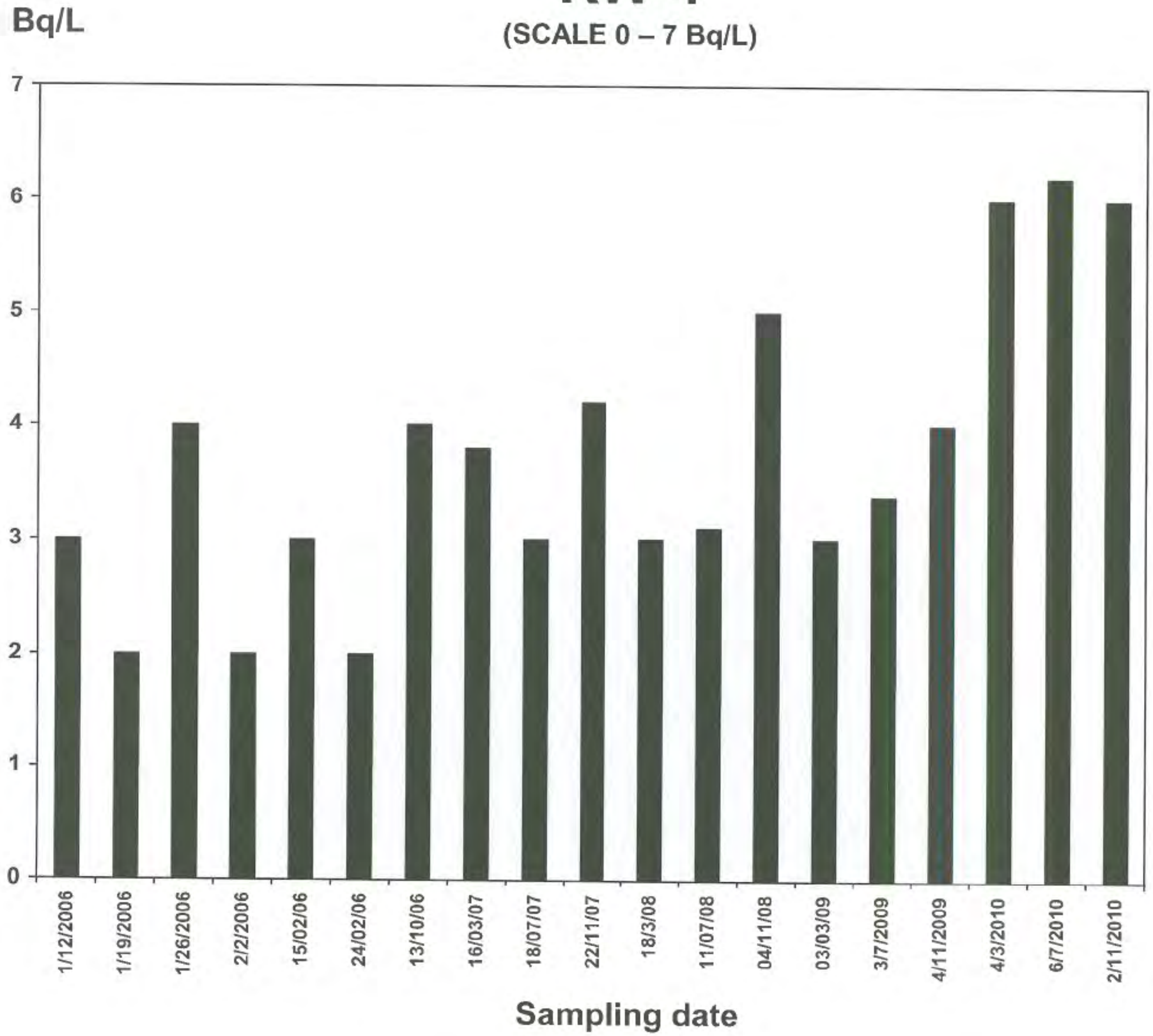


APPENDIX H

MONITORING RESULTS
RW-3

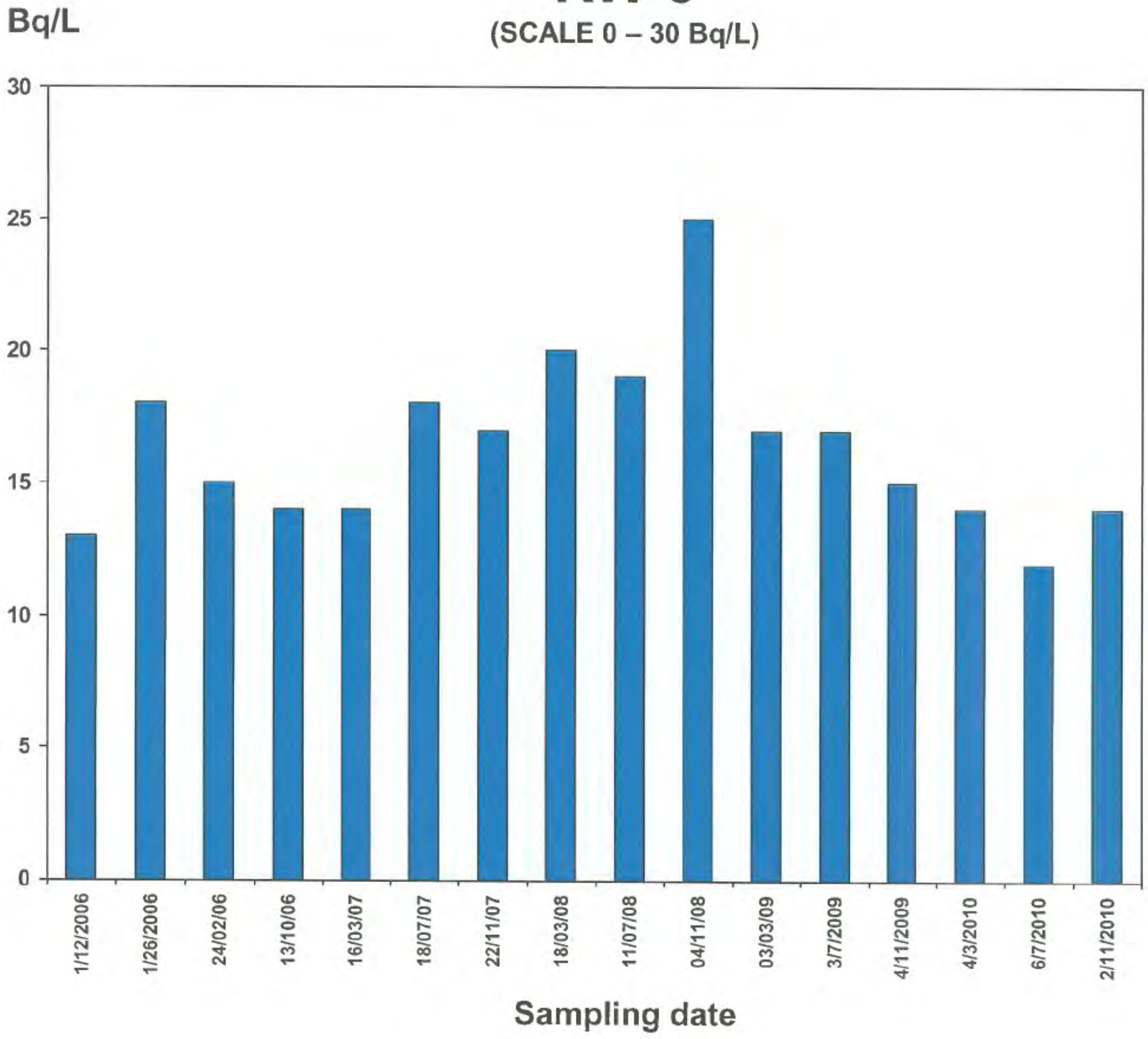


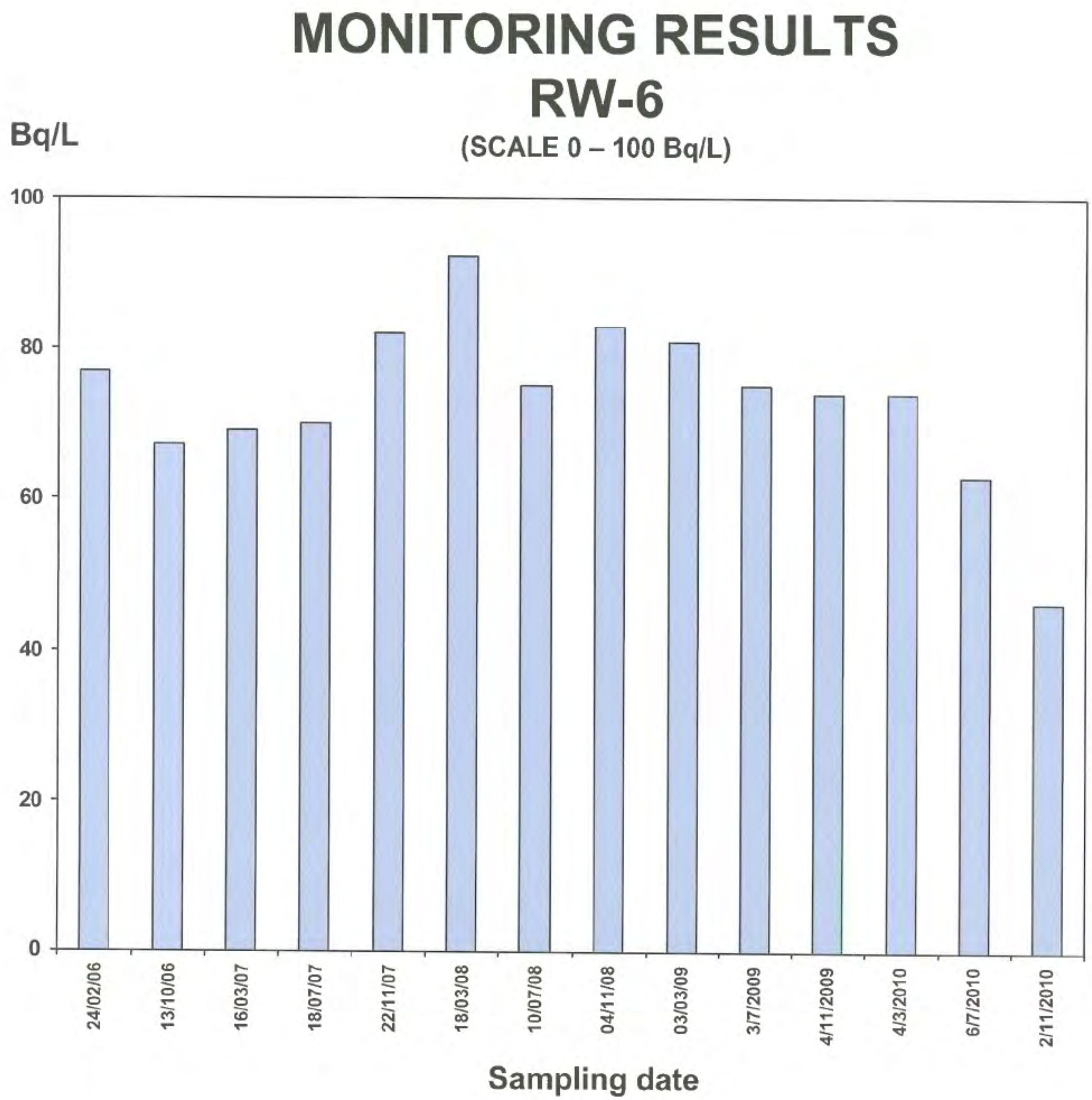
MONITORING RESULTS
RW-4



APPENDIX H

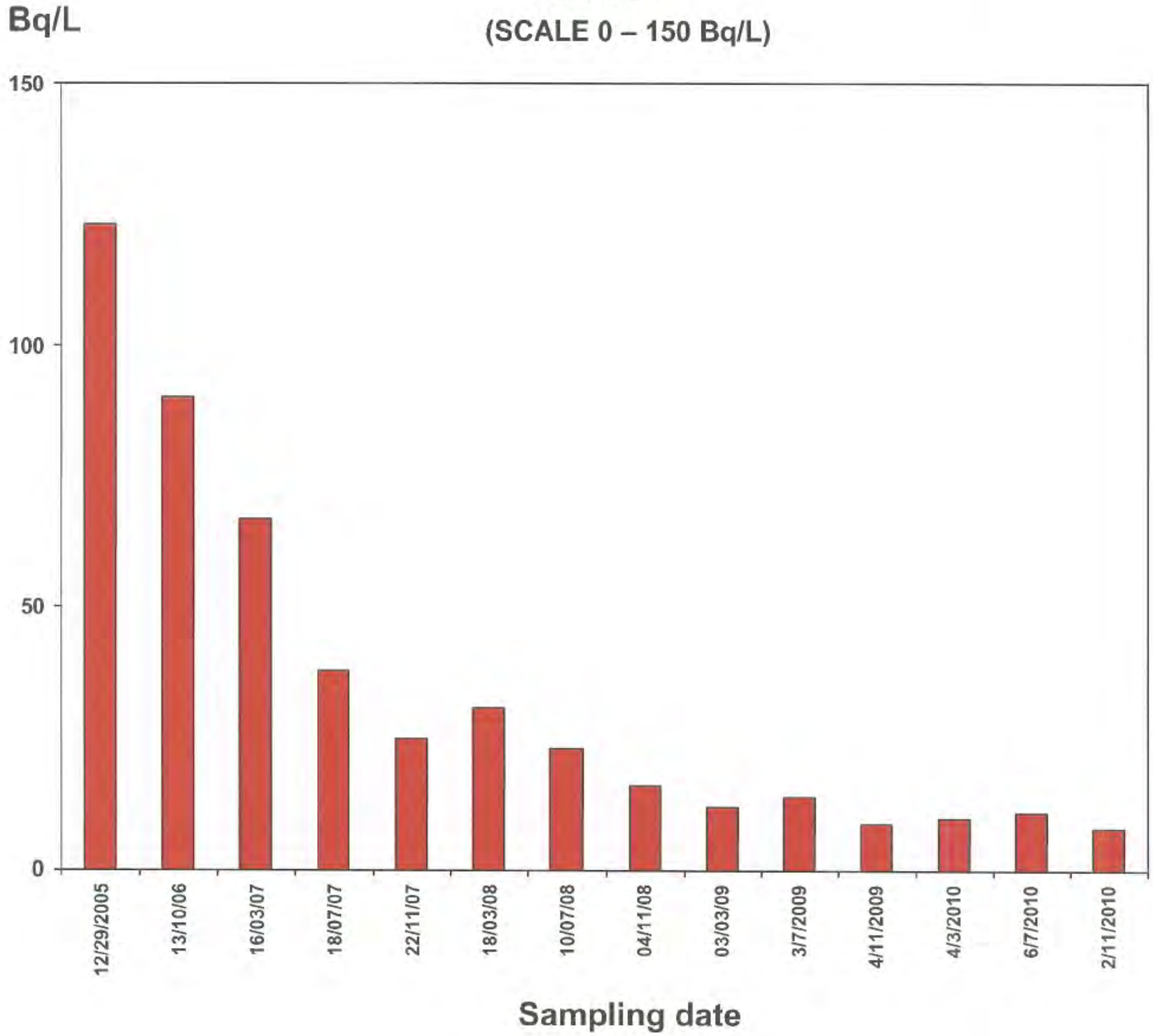
MONITORING RESULTS
RW-5
(SCALE 0 – 30 Bq/L)




MONITORING RESULTS
RW-6
(SCALE 0 – 100 Bq/L)
Bq/L
100
80
60
40
20
0
24/02/06
13/10/06
16/03/07
18/07/07
22/11/07
18/03/08
10/07/08
04/11/08
03/03/09
3/7/2009
4/11/2009
4/3/2010
6/7/2010
2/11/2010
Sampling date

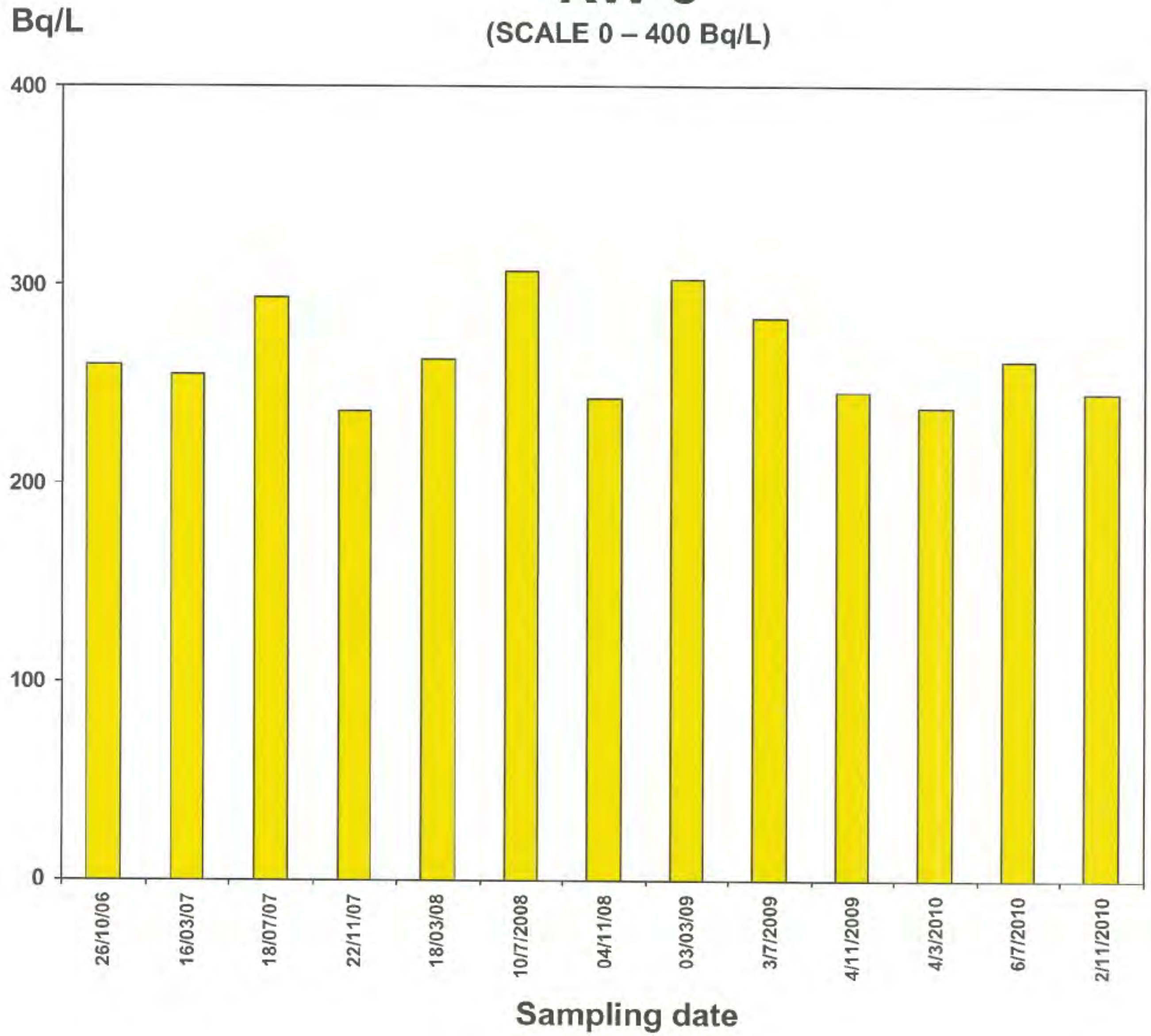
APPENDIX H

MONITORING RESULTS
RW-7



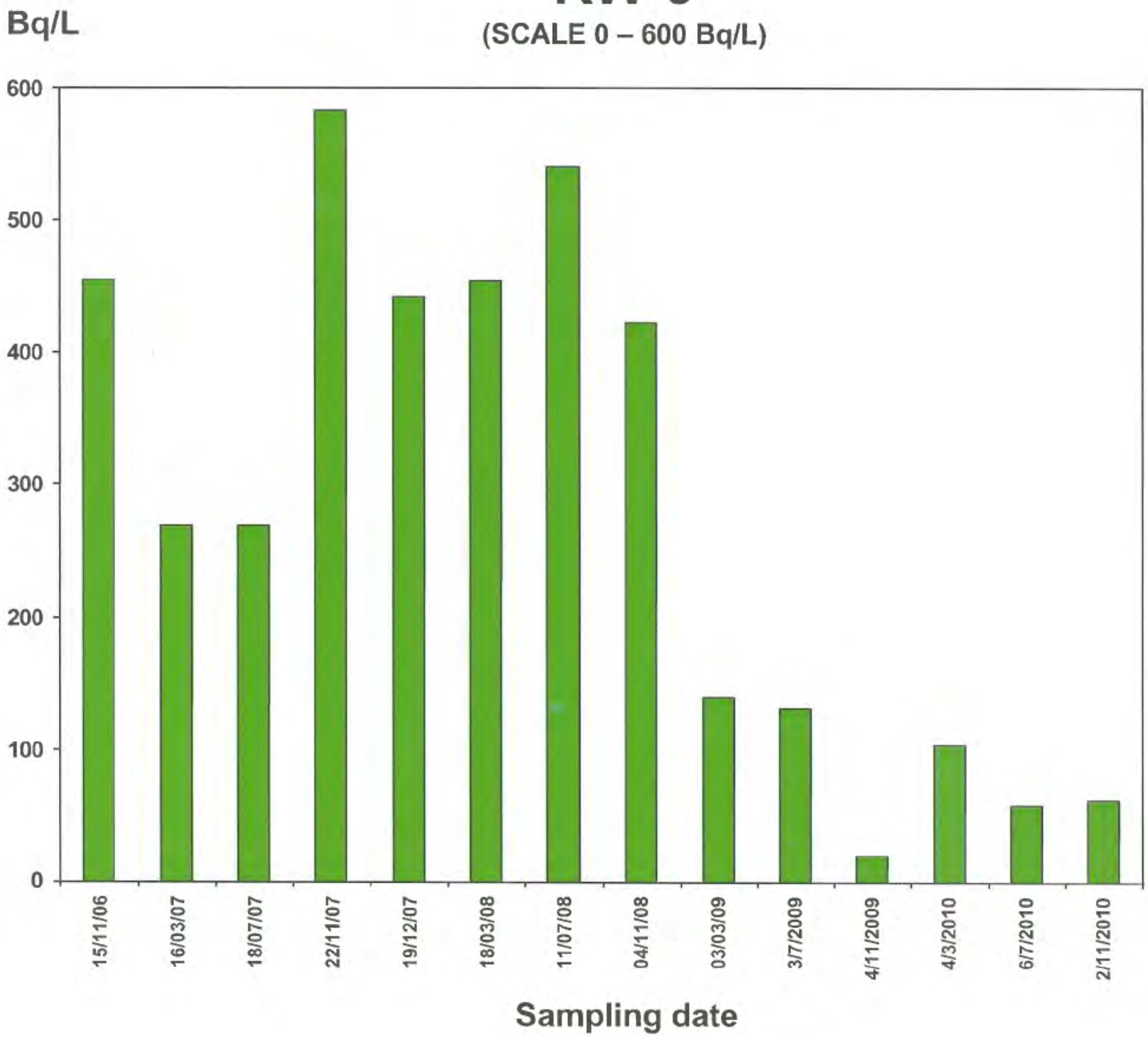
APPENDIX H

MONITORING RESULTS
RW-8
(SCALE 0 – 400 Bq/L)



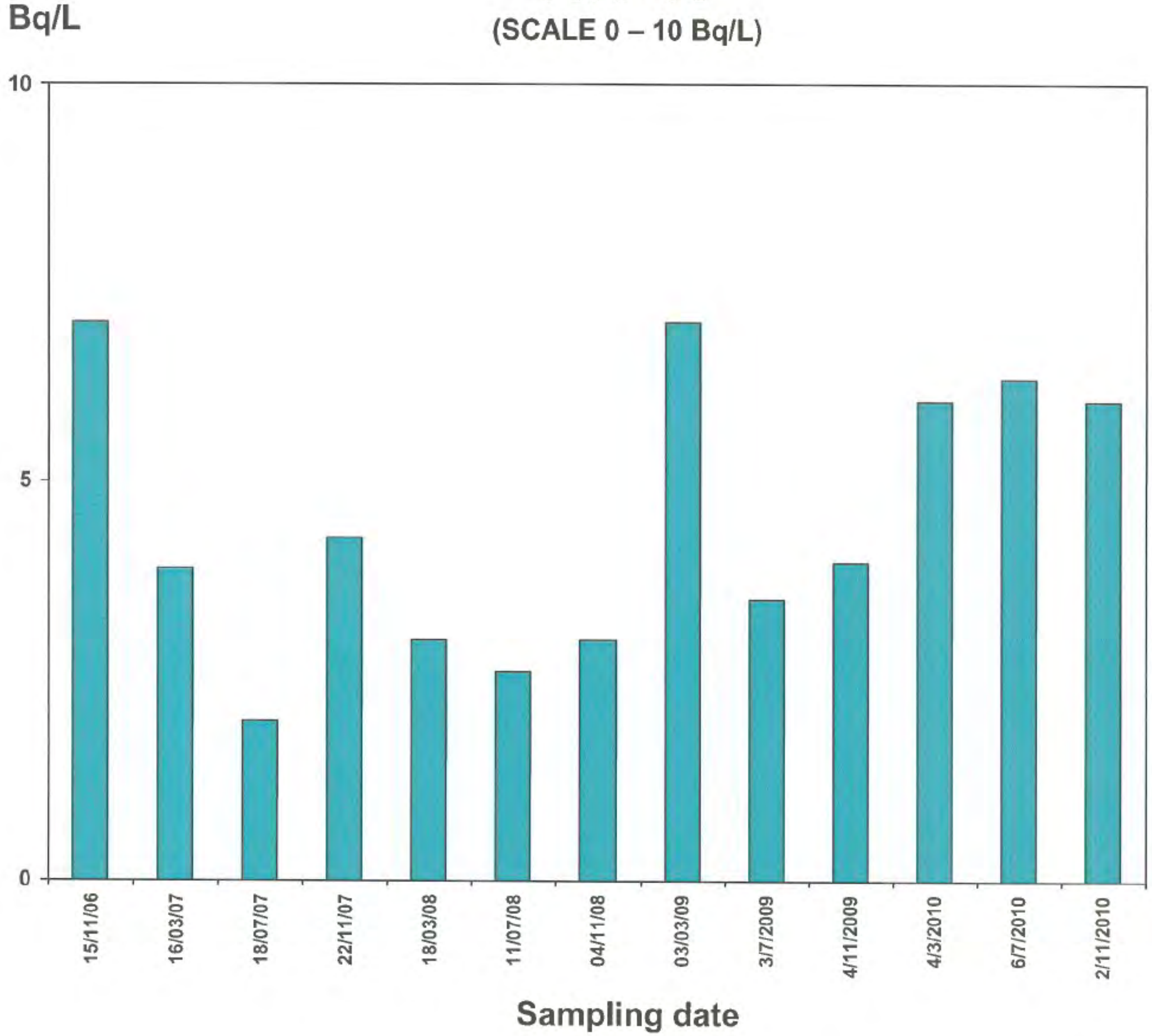
APPENDIX H

MONITORING RESULTS
RW-9
(SCALE 0 – 600 Bq/L)



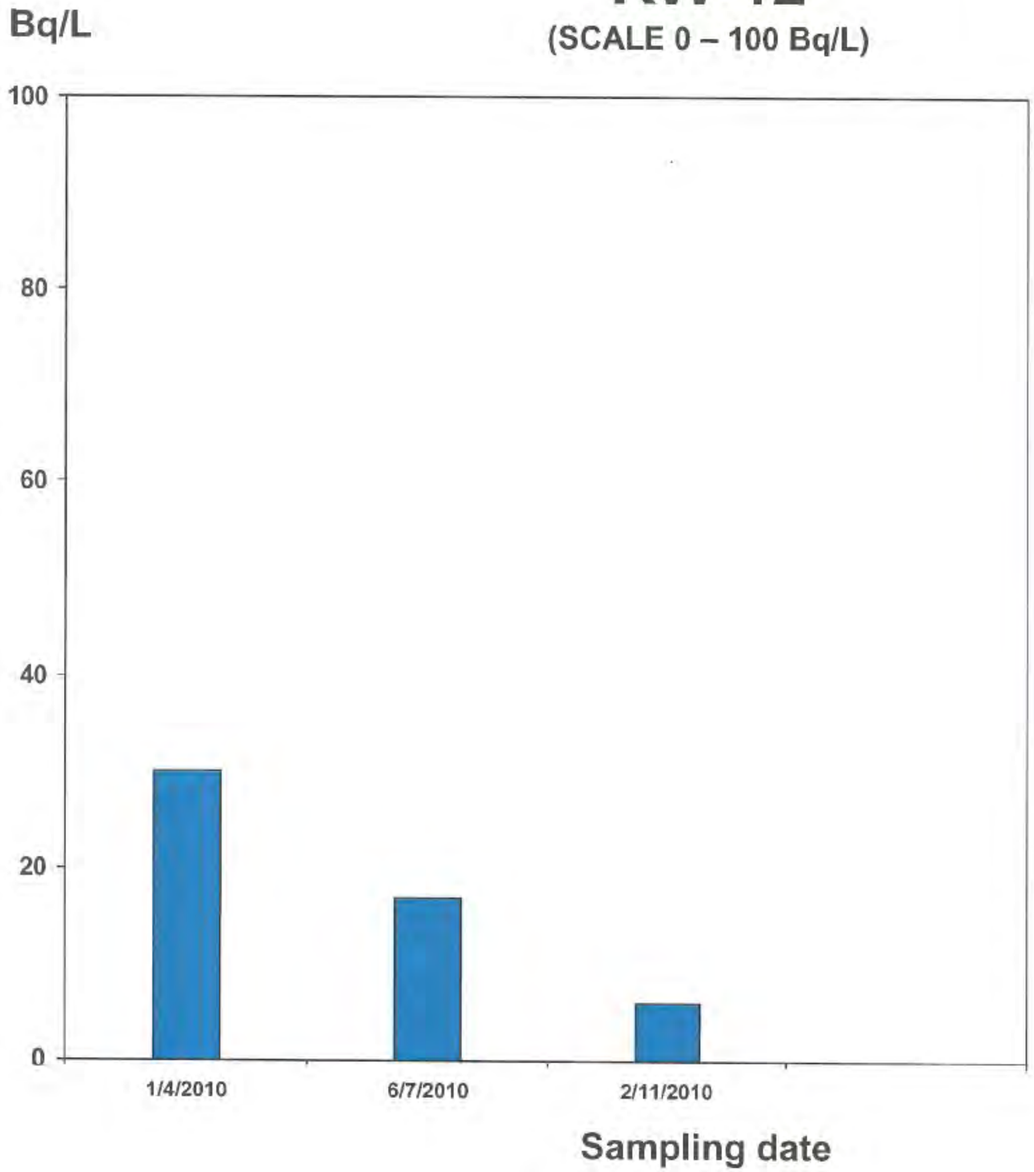
APPENDIX H

MONITORING RESULTS
RW-10
(SCALE 0 – 10 Bq/L)

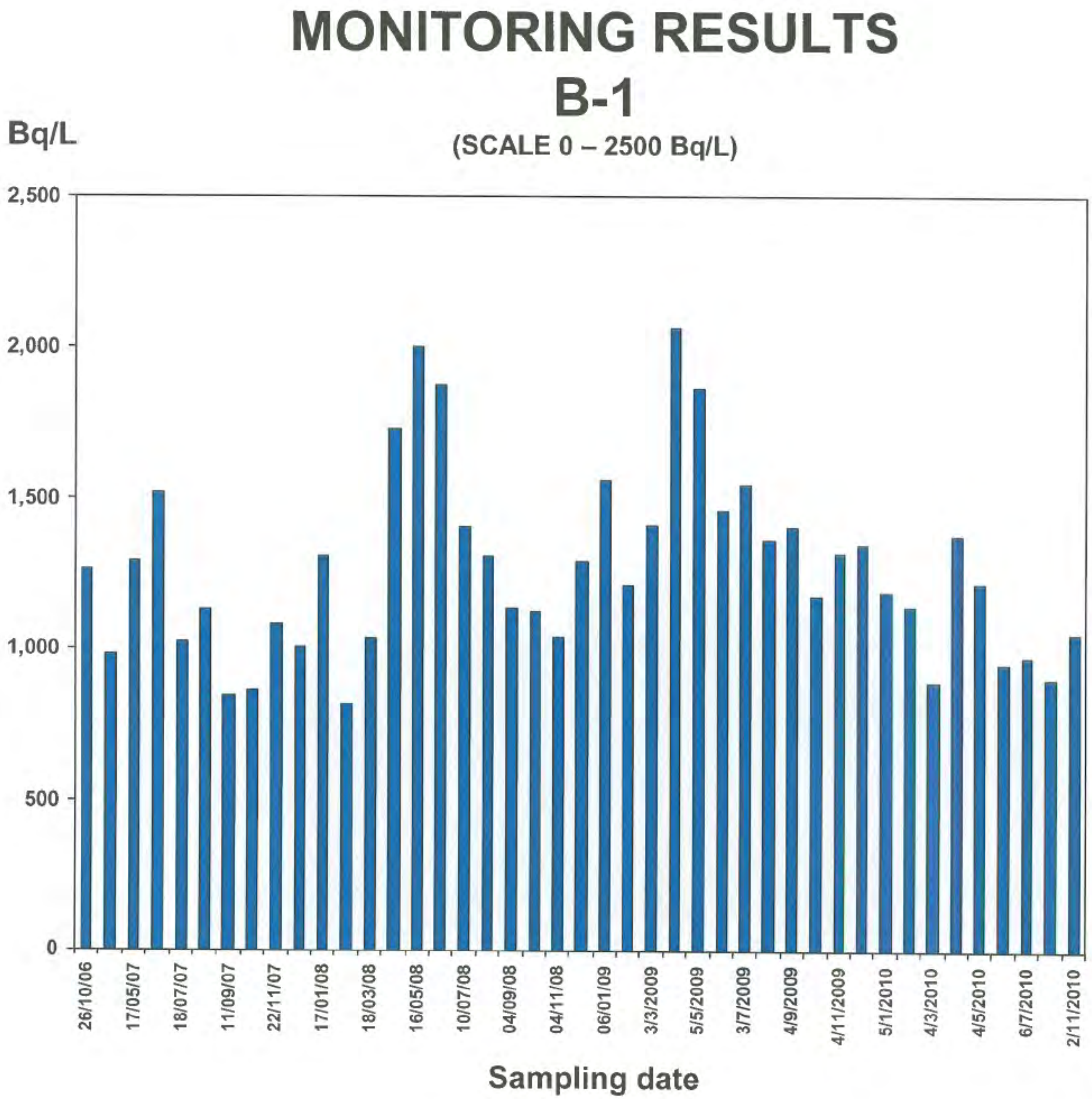


APPENDIX H

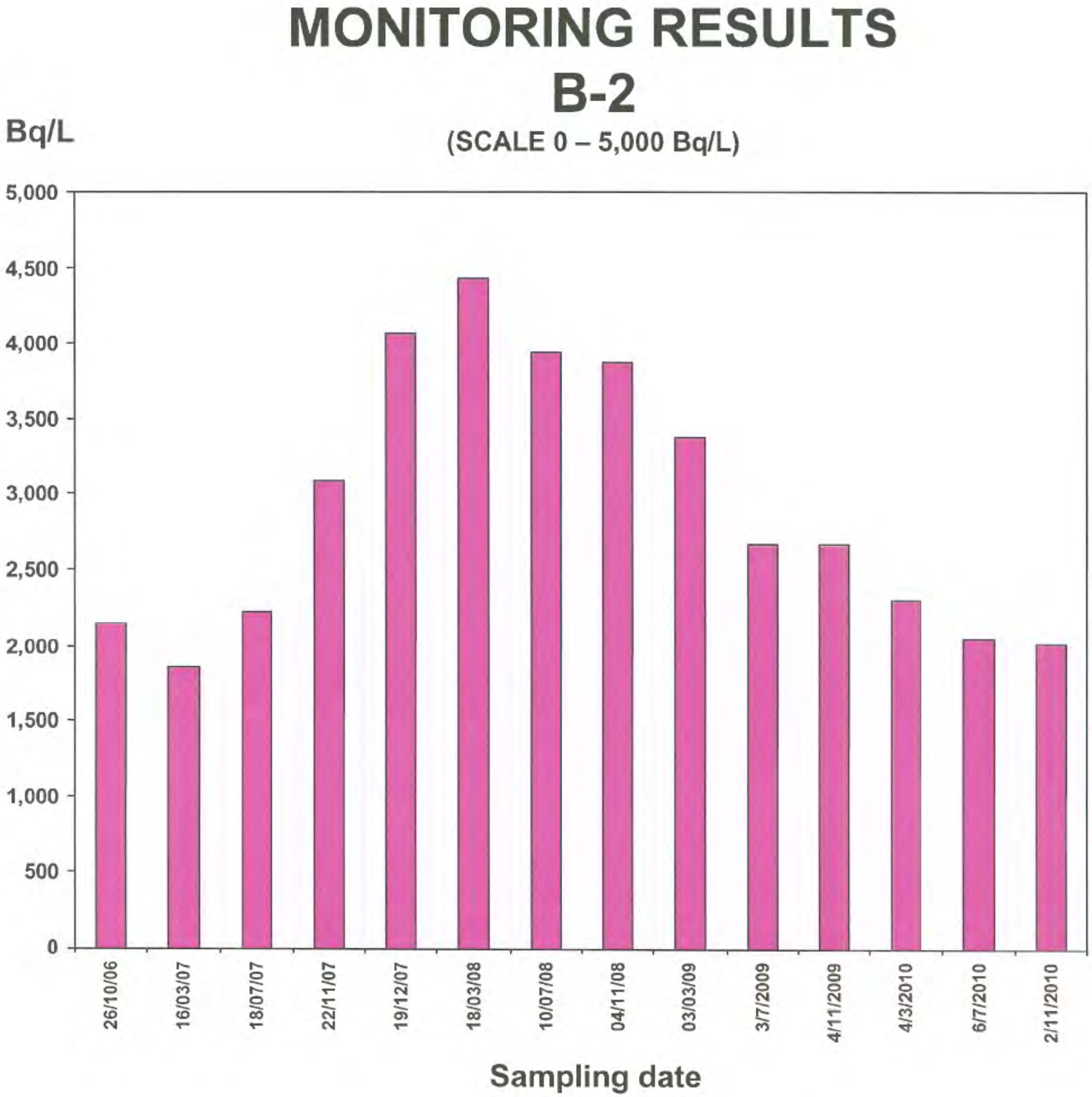
MONITORING RESULTS
RW-12
(SCALE 0 – 100 Bq/L)



APPENDIX H

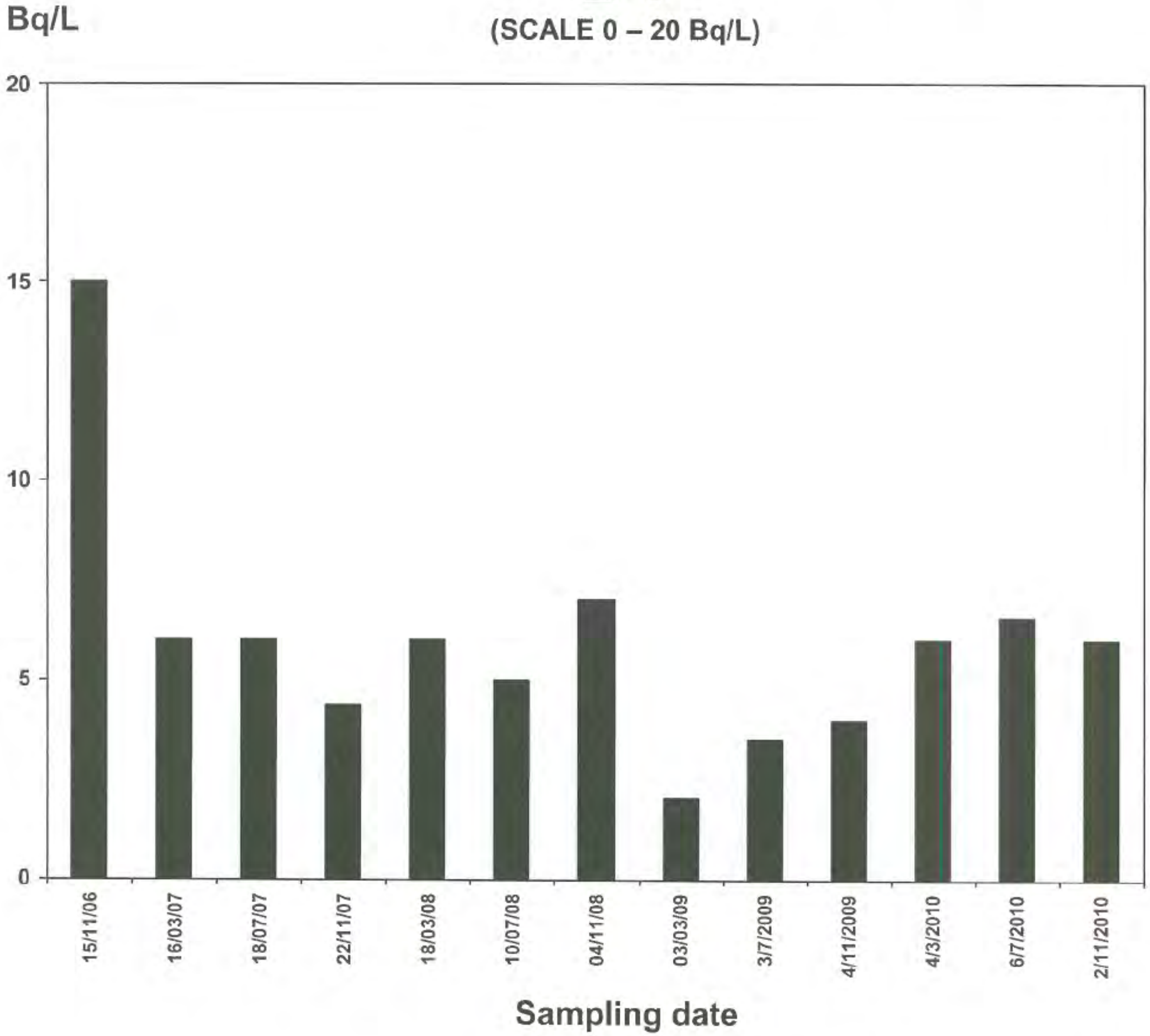

MONITORING RESULTS
B-1
Bq/L
(SCALE 0 – 2500 Bq/L)
2,500
2,000
1,500
1,000
500
0
26/10/06
17/05/07
18/07/07
11/09/07
22/11/07
17/01/08
18/03/08
16/05/08
10/07/08
04/09/08
04/11/08
06/01/09
3/3/2009
5/5/2009
3/7/2009
4/9/2009
4/11/2009
5/1/2010
4/3/2010
4/5/2010
6/7/2010
2/11/2010
Sampling date

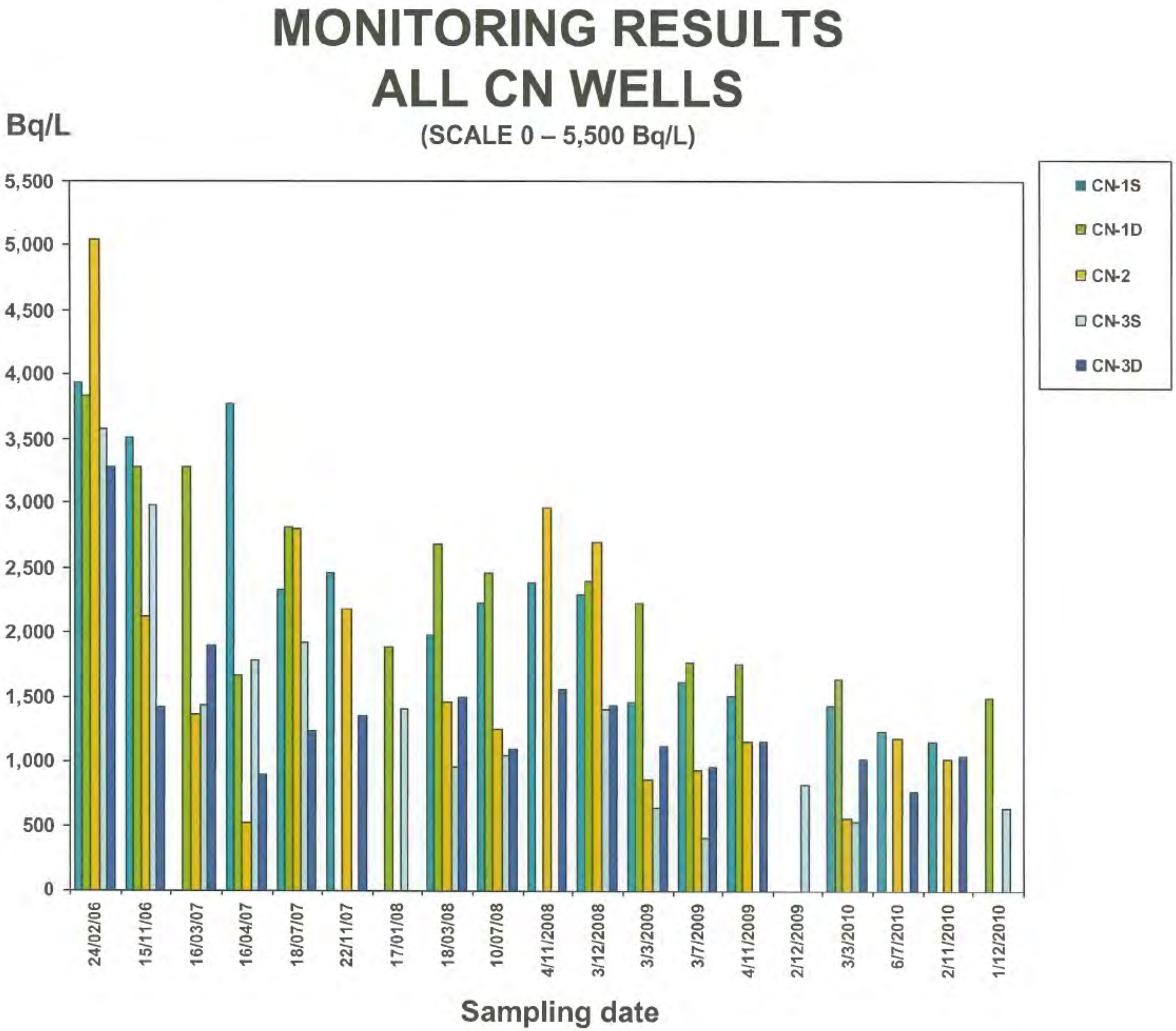
APPENDIX H


MONITORING RESULTS
B-2
(SCALE 0 – 5,000 Bq/L)
Bq/L
5,000
4,500
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
0
26/10/06
16/03/07
18/07/07
22/11/07
19/12/07
18/03/08
10/07/08
04/11/08
03/03/09
3/7/2009
4/11/2009
4/3/2010
6/7/2010
2/11/2010
Sampling date

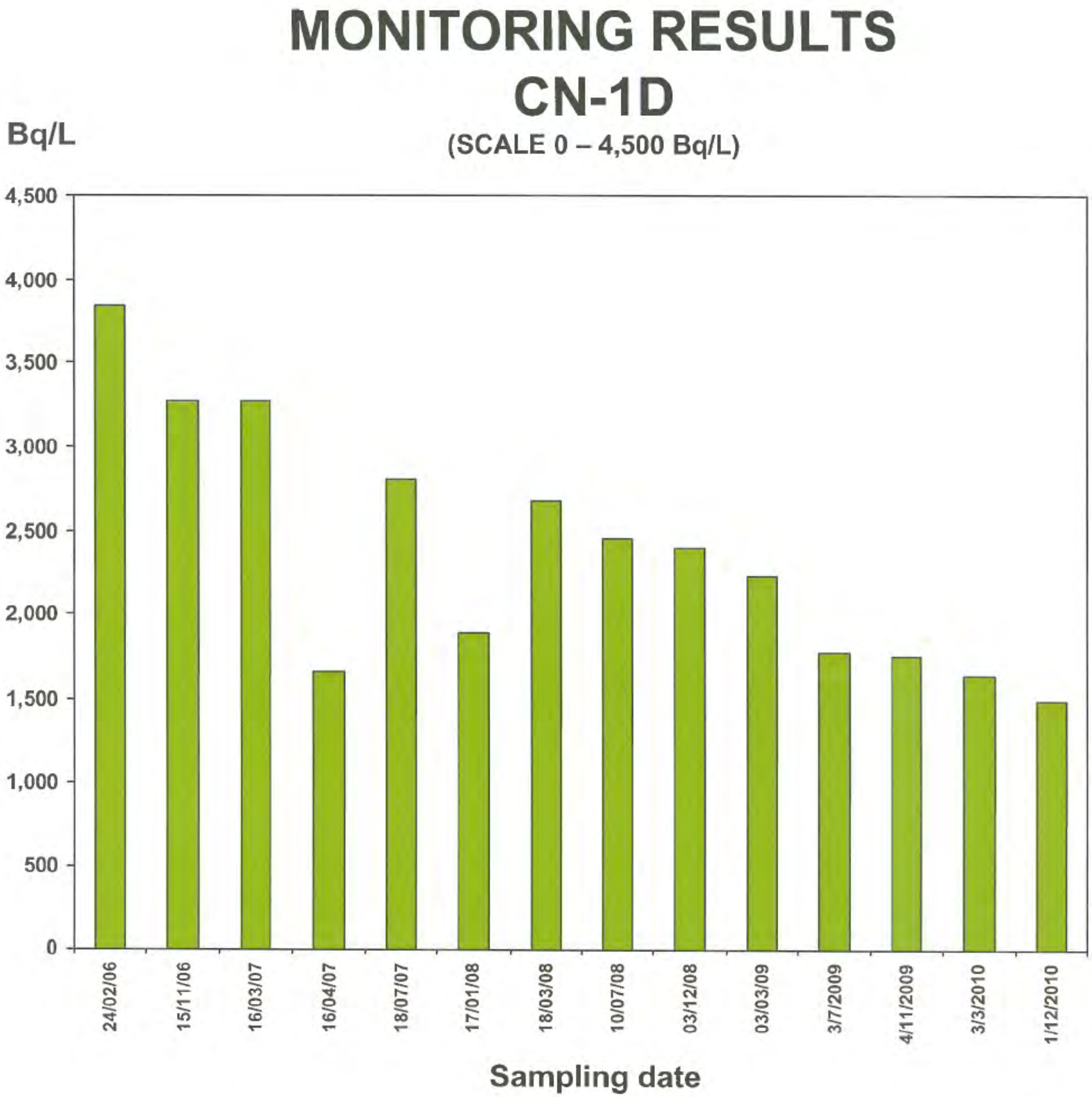
APPENDIX H

MONITORING RESULTS
B-3
(SCALE 0 – 20 Bq/L)

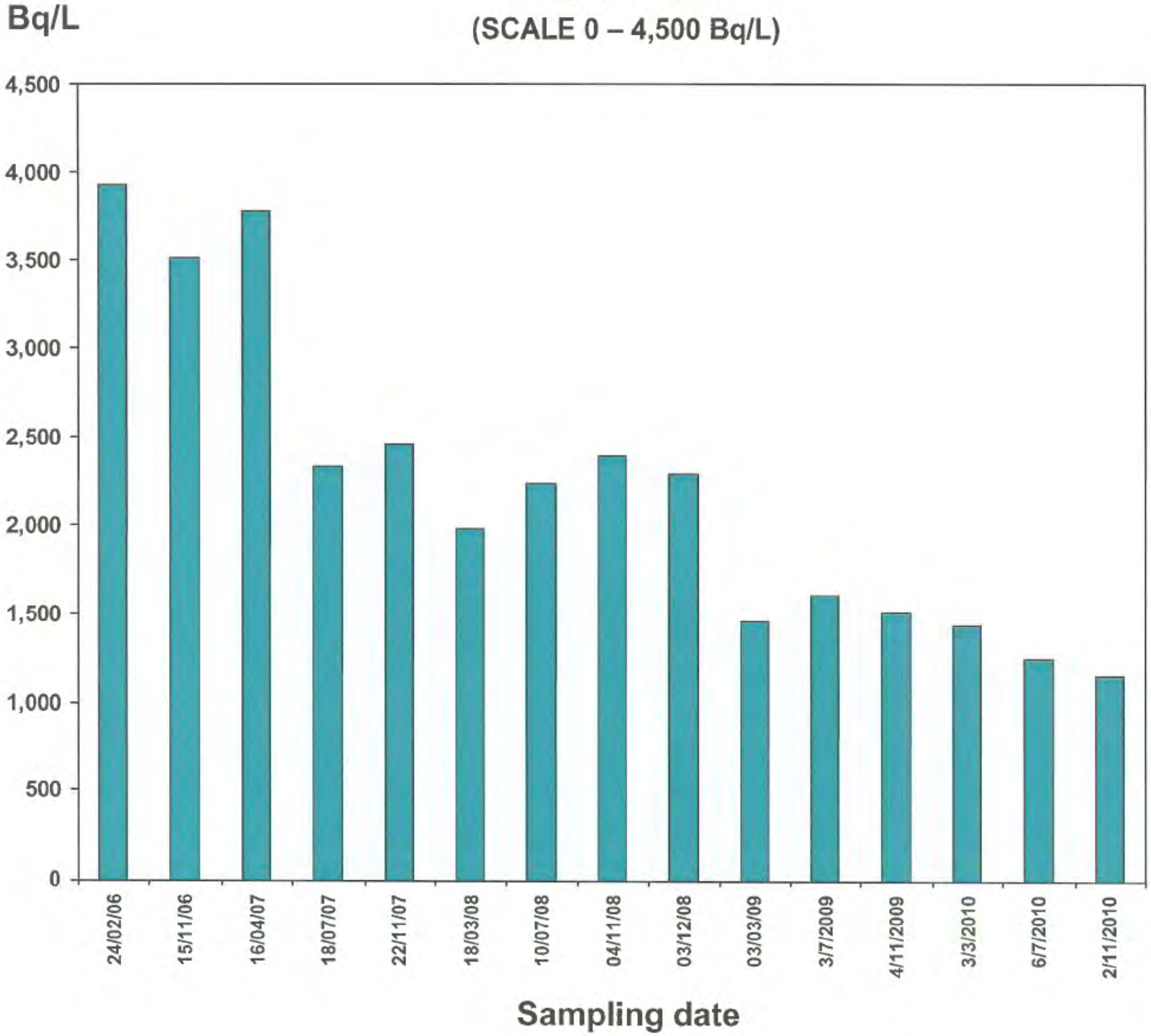



MONITORING RESULTS
ALL CN WELLS
(SCALE 0 – 5,500 Bq/L)
Bq/L
5,500
5,000
4,500
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
0
CN-1S
CN-1D
CN-2
CN-3S
CN-3D
24/02/06
15/11/06
16/03/07
16/04/07
18/07/07
22/11/07
17/01/08
18/03/08
10/07/08
4/11/2008
3/12/2008
3/3/2009
3/7/2009
4/11/2009
2/12/2009
3/3/2010
6/7/2010
2/11/2010
1/12/2010
Sampling date

APPENDIX H

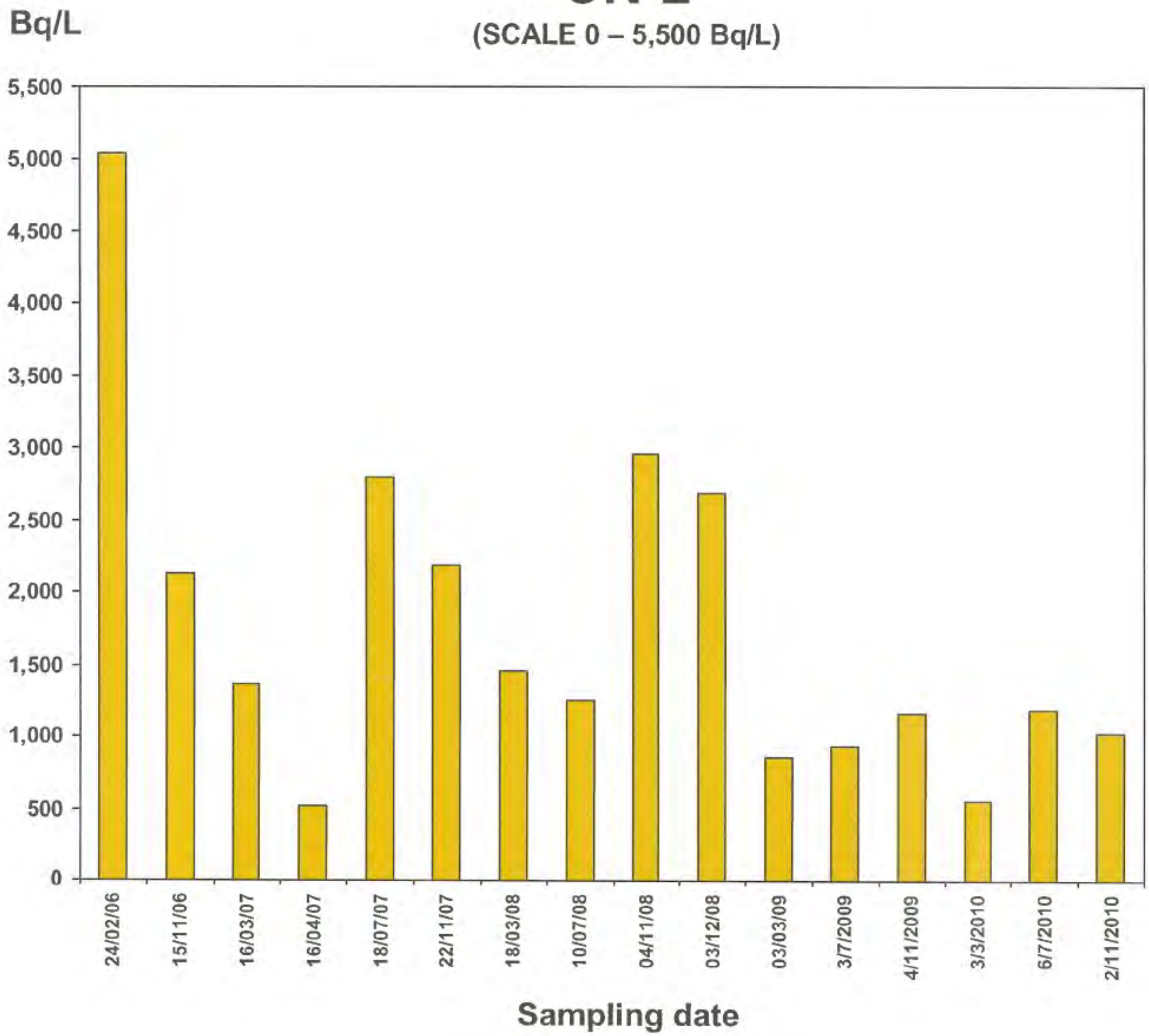

MONITORING RESULTS
CN-1D
(SCALE 0 – 4,500 Bq/L)
Bq/L
4,500
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
0
24/02/06
15/11/06
16/03/07
16/04/07
18/07/07
17/01/08
18/03/08
10/07/08
03/12/08
03/03/09
3/7/2009
4/11/2009
3/3/2010
1/12/2010
Sampling date

MONITORING RESULTS
CN-1S
(SCALE 0 – 4,500 Bq/L)

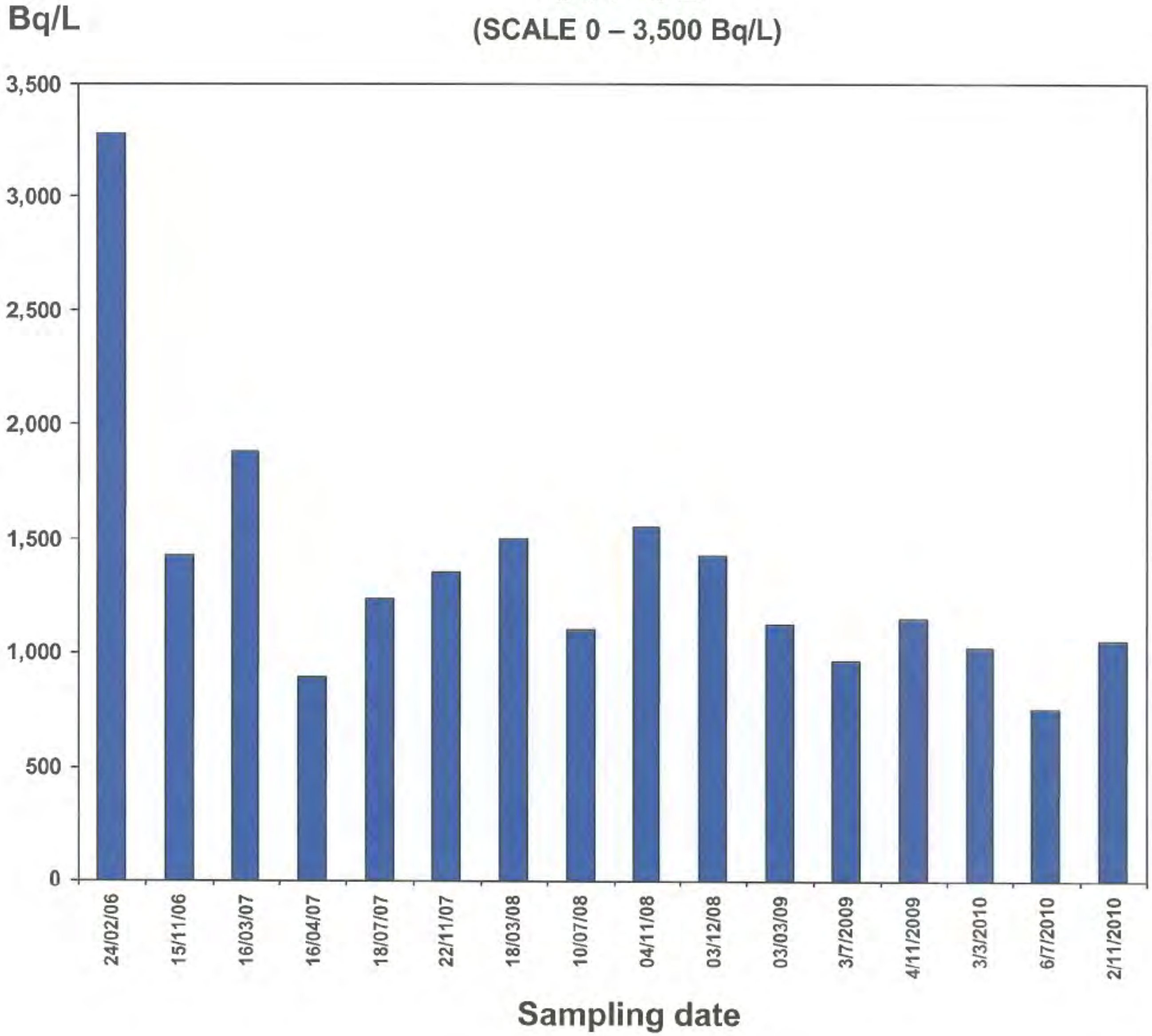


APPENDIX H

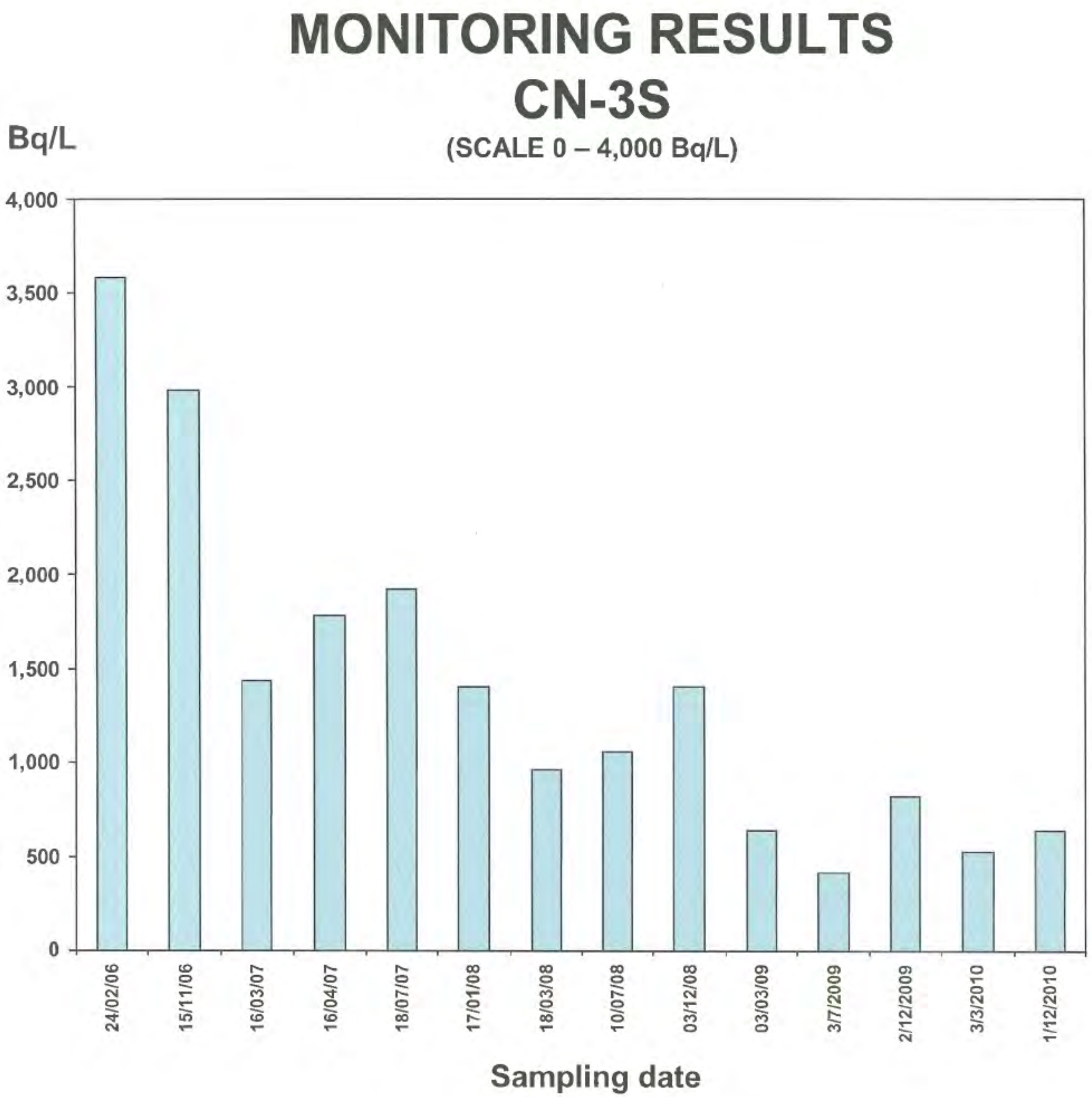
MONITORING RESULTS
CN-2



MONITORING RESULTS
CN-3D



APPENDIX H


MONITORING RESULTS
CN-3S
(SCALE 0 – 4,000 Bq/L)
Bq/L
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
0
24/02/06
15/11/06
16/03/07
16/04/07
18/07/07
17/01/08
18/03/08
10/07/08
03/12/08
03/03/09
3/7/2009
2/12/2009
3/3/2010
1/12/2010
Sampling date

APPENDIX H

APPENDIX I

Compilation of water level measurements for 2010

Date	MW06-1	MW06-2	MW06-3	MW06-8	MW06-9	MW06-10	MW07-11	MW07-12	MW07-13	MW07-14	MW07-15	MW07-16	MW07-17	MW07-18
	Monitoring Wells (Values in m)													
Easting	335449	335478	335363	335464	335401	335408	335478	335465	335448	335415	335403	335393	335392	335387
Northing	5074615	5074578	5074535	5074590	5074605	5074506	5074576	5074568	5074616	5074617	5074605	5074599	5074599	5074595
TOP Elevation (m)	130.99	130.03	133.09	130.30	131.15	131.32	130.06	130.41	130.92	130.86	130.84	130.98	131.08	131.23
GS Elevation (m)	130.17	129.24	132.32	129.58	129.86	130.24	129.15	129.58	130.03	129.98	129.93	130.16	130.16	130.37
Well Diameter (m)	0.051	0.051	0.051	0.032	0.032	0.032	0.032	0.032	0.032	0.032	0.032	0.032	0.051	0.032
Well Depth (m)	5.165	5.330	6.130	6.700	5.930	7.770	7.215	7.450	6.815	7.280	7.230	7.050	14.810	7.250
Stick-up (m)	0.820	0.788	0.767	0.720	1.290	1.077	0.905	0.835	0.893	0.880	0.910	0.822	0.915	0.868
4-Jan-10	127.20	127.23	127.41	125.54	126.78	126.32	125.64	125.44	125.47	126.27	126.12	126.32	122.41	126.13
13-Jan-10	126.97	127.02	127.18	125.08	126.27	125.90	125.35	125.09	124.81	125.77	125.71	125.87	122.08	125.68
20-Jan-10	126.30	126.93	127.04	124.58	125.80	125.49	124.82	124.54	124.27	125.06	125.14	125.19	121.72	125.32
28-Jan-10	128.08	127.95	128.52	125.77	125.94	127.11	125.84	125.65	125.90	127.06	126.81	126.87	121.93	126.94
2-Feb-10	127.65	127.86	128.01	125.77	126.68	126.90	125.84	125.66	125.83	126.82	126.68	126.71	122.19	126.74
10-Feb-10	126.85	127.21	127.37	125.21	126.60	125.98	125.35	125.13	125.02	125.77	125.73	125.74	122.12	125.78
19-Feb-10	126.49	126.91	127.11	124.68	126.17	125.48	124.88	124.62	124.41	125.14	125.16	125.19	121.78	125.24
20-Feb-10	126.44	127.04	127.32	124.85	126.14	125.65	125.03	124.84	124.66	125.34	125.38	125.37	121.82	125.51
1-Mar-10	126.35	127.44	127.81	125.27	126.03	126.68	125.48	125.28	125.56	126.84	126.40	126.42	121.78	126.49
10-Mar-10	128.50	128.50	130.22	126.50	127.69	128.07	126.51	126.40	126.72	127.99	127.81	127.85	122.72	127.94
19-Mar-10	128.96	128.33	130.45	127.48	129.00	129.25	127.42	127.40	127.74	129.02	129.06	129.15	124.46	129.29
26-Mar-10	128.90	127.60	130.03	127.38	129.22	128.98	127.33	127.31	127.59	128.82	128.85	128.91	124.49	128.99
31-Mar-10	128.98	127.90	129.91	127.46	129.22	128.98	127.41	127.37	127.65	128.87	128.87	128.91	124.52	128.96
9-Apr-10	129.24	128.36	130.46	127.60	128.91	129.11	127.57	127.51	127.77	128.99	128.97	126.03	124.49	129.11
14-Apr-10	128.96	128.05	130.05	127.48	129.15	128.94	127.46	127.41	127.64	128.82	128.82	128.87	124.58	128.92
21-Apr-10	128.86	127.84	129.53	127.29	129.03	128.44	127.27	127.19	127.42	128.63	128.52	128.44	124.18	128.64
28-Apr-10	128.74	127.73	129.06	127.00	128.85	128.30	127.00	126.92	127.18	128.30	128.23	128.24	123.98	128.25
3-May-10	128.73	127.74	128.64	126.85	128.61	128.07	126.86	126.76	127.05	128.20	128.03	128.03	123.72	128.01
14-May-10	128.57	127.68	128.15	126.52	128.13	127.62	126.53	126.41	126.70	127.77	127.59	127.57	123.10	127.52
20-May-10	128.03	127.38	127.39	125.81	127.50	126.74	125.81	125.68	126.00	127.00	126.75	126.72	122.02	126.61
28-May-10	127.74	127.41	127.50	125.80	127.35	126.70	125.85	125.67	125.86	126.79	126.62	126.60	122.49	126.57
1-Jun-10	127.44	127.33	127.38	125.62	127.05	126.48	125.68	125.48	125.65	126.58	126.37	126.36	122.34	126.32
10-Jun-10	127.02	127.30	127.23	125.38	126.35	126.19	125.45	125.24	125.37	126.42	126.05	126.05	121.97	126.02
18-Jun-10	127.58	127.42	127.18	125.50	126.41	126.32	125.56	125.35	125.52	126.45	126.24	126.22	121.79	126.17
30-Jun-10	128.40	127.48	127.75	125.99	127.53	126.98	125.98	125.85	126.24	127.34	127.06	126.99	122.02	126.86
7-Jul-10	128.34	127.49	127.65	125.90	127.48	126.90	125.91	125.79	126.20	127.17	126.95	126.89	121.98	126.78
14-Jul-10	128.24	127.37	127.53	125.81	127.44	126.73	125.84	125.66	126.02	127.11	126.89	126.76	121.97	126.65
21-Jul-10	127.98	127.32	127.31	125.75	127.37	126.66	125.75	125.61	125.91	126.91	126.72	126.59	121.89	126.56
29-Jul-10	127.82	127.27	127.15	125.68	127.36	126.57	125.70	125.56	125.85	126.80	126.57	126.53	121.88	126.45
3-Aug-10	127.21	127.07	127.04	125.41	126.92	126.24	125.43	125.28	125.18	126.34	126.15	126.13	121.72	126.08
12-Aug-10	126.79	126.96	127.03	125.12	126.07	125.85	125.17	124.99	124.99	125.70	125.66	125.64	121.44	125.66
19-Aug-10	127.10	126.89	127.03	125.06	125.96	125.79	125.12	124.93	124.98	125.71	125.60	125.59	121.26	125.58
26-Aug-10	127.51	126.92	127.03	125.22	125.98	126.03	125.28	125.11	125.41	126.44	125.99	125.95	121.20	125.86
31-Aug-10	127.18	126.79	127.04	125.05	126.00	125.82	125.12	124.94	125.04	125.87	125.70	125.66	121.10	125.62
9-Sep-10	127.72	126.78	127.03	125.28	125.92	126.15	125.34	125.17	125.51	126.56	126.17	126.11	121.06	126.00
15-Sep-10	127.23	126.65	127.03	125.14	126.38	125.96	125.20	125.03	125.19	126.10	125.90	125.87	121.01	125.80
22-Sep-10	127.56	126.69	126.58	125.28	126.60	126.10	125.32	125.17	125.42	126.42	126.07	126.04	121.04	125.94
27-Sep-10	128.24	126.86	127.26	125.67	127.07	126.56	125.71	125.56	125.92	127.06	126.65	126.59	121.08	126.42
4-Oct-10	128.42	127.03	127.76	126.00	127.83	126.97	126.01	125.88	126.24	127.38	127.08	127.01	121.44	126.85
13-Oct-10	127.80	126.91	127.08	125.69	127.15	126.48	125.73	125.57	125.80	126.73	126.48	126.43	121.48	126.34
19-Oct-10	128.29	127.13	127.48	126.00	127.54	126.89	126.03	125.85	126.16	127.23	126.96	126.87	121.60	126.75
27-Oct-10	128.62	127.35	128.40	126.25	127.75	127.25	126.28	126.13	126.47	127.70	127.30	127.18	121.72	127.06
1-Nov-10	128.51	127.38	127.96	126.27	127.99	127.15	126.29	126.09	126.42	127.53	127.22	127.08	121.79	126.94
10-Nov-10	128.53	127.59	128.14	126.39	127.81	127.28	126.38	126.24	126.53	127.61	127.32	127.19	122.04	127.08
16-Nov-10	128.30	127.55	127.56	126.20	127.81	126.95	126.24	126.10	126.32	127.27	127.00	126.88	122.09	126.76
24-Nov-10	128.61	127.89	128.61	126.51	127.96	127.45	126.53	126.39	126.64	127.73	127.45	127.35	122.20	127.25
30-Nov-10	128.48	127.82	127.96	126.41	127.99	127.27	126.47	126.32	126.57	127.55	127.29	127.21	122.27	127.09
8-Dec-10	128.74	128.19	129.73	127.13	128.44	128.28	127.11	127.04	127.28	128.32	128.24	128.23	123.36	128.18
15-Dec-10	128.54	127.84	128.63	126.80	128.40	127.84	126.80	126.73	126.99	127.95	127.80	127.77	123.35	127.71
22-Dec-10	128.26	127.51	127.89	126.45	127.95	127.31	126.47	126.37	126.61	127.48	127.29	127.25	123.10	127.16

Date	MW07-19	MW07-20	MW07-21	MW07-22	MW07-23	MW07-24	MW07-25	MW07-26	MW07-27	MW07-28	MW07-29	MW07-31	MW07-32	MW07-33	MW07-34	MW07-35	MW07-36	MW07-37
Easting	335378	335296	335522	335472	335492	335519	335466	335357	335354	335352	335384	335471	335517	335465				
Northing	5074587	5074616	5074584	5074584	5074560	5074530	5074498	5074567	5074611	5074612	5074592	5074583	5074530	5074497				
TOP Elevation (m)	131.61	130.70	129.51	130.25	130.04	129.03	129.85	132.42	132.89	132.71	131.09	130.16	128.86	129.88	131.12	132.89	133.10	130.06
GS Elevation (m)	130.79	129.85	128.78	129.05	129.29	128.22	129.03	131.85	132.02	132.04	130.57	129.38	128.23	129.26	130.71	132.16	132.31	129.47
Well Diameter (m)	0.032	0.032	0.032	0.032	0.032	0.032	0.032	0.032	0.032	0.032	0.032	0.032	0.032	0.032	0.032	0.032	0.032	0.032
Well Depth (m)	7.400	7.820	7.580	7.465	5.905	6.525	6.750	7.310	8.330	14.400	13.000	13.240	13.090	14.230	9.110	9.390	9.330	8.590
Stick-up (m)	0.815	0.850	0.730	1.206	0.750	0.810	0.820	0.570	0.870	0.670	0.520	0.780	0.630	0.620	0.410	0.730	0.790	0.590
4-Jan-10	126.23	125.37	125.13	125.37	126.94	126.23	127.05	126.62	125.82	122.49	122.55	121.48	121.48	121.47	125.83	125.49	124.90	125.44
13-Jan-10	125.91	124.73	124.53	124.93	126.60	126.01	126.84	126.34	125.35	122.31	122.21	121.19	121.31	121.11	125.22	125.04	124.61	124.96
20-Jan-10	125.39	124.10	123.91	124.50	126.26	125.68	126.56	126.02	125.06	121.72	121.76	120.96	120.97	120.96	124.99	124.79	124.37	124.57
28-Jan-10	127.15	125.25	125.43	125.57	127.21	126.38	127.38	128.40	126.61	122.04	122.09	121.23	121.22	121.22	126.49	126.02	125.09	125.65
2-Feb-10	126.90	125.54	125.42	125.58	127.15	126.33	127.24	127.77	126.50	122.25	122.28	121.43	121.45	121.42	126.35	126.00	125.16	125.66
10-Feb-10	125.90	125.04	124.66	125.05	126.68	125.96	126.81	126.47	125.52	122.11	122.14	121.40	121.39	121.38	125.52	125.21	124.69	125.15
19-Feb-10	125.37	124.32	123.93	124.58	126.25	125.64	126.55	126.07	125.07	121.79	121.81	121.49	121.09	121.11	125.00	124.81	124.42	124.66
20-Feb-10	125.61	124.48	124.19	124.78	126.48	125.82	126.78	126.23	125.49	121.80	121.83	121.39	121.11	121.11	125.14	124.92	124.58	124.93
1-Mar-10	126.70	124.84	124.79	125.20	126.78	126.16	127.13	127.78	126.10	121.82	121.86	121.16	121.16	121.14	126.08	125.60	124.84	125.31
10-Mar-10	128.19	126.49	126.20	126.31	127.55	126.81	127.82	129.82	127.74	122.81	122.85	121.78	121.76	121.77	127.51	127.09	125.98	126.40
19-Mar-10	129.47	127.33	126.69	127.32	128.09	127.28	128.20	130.62	129.72	124.51	124.51	123.91	123.99	123.89	128.91	129.06	128.12	127.42
26-Mar-10	129.14	127.17	126.56	127.23	128.05	127.22	128.11	130.05	129.31	124.42	124.43	123.83	123.83	123.83	128.63	128.72	127.85	127.33
31-Mar-10	129.11	127.21	126.58	127.29	128.14	127.28	128.16	129.92	129.23	124.49	124.50	123.83	123.85	123.83	128.60	128.65	127.82	127.40
9-Apr-10	129.27	127.41	126.73	127.44	128.30	127.39	128.24	130.32	129.35	124.52	124.53	123.76	123.76	123.75	128.72	128.74	127.79	127.53
14-Apr-10	129.06	127.24	126.64	127.35	128.14	127.28	128.15	129.93	129.19	124.60	124.61	123.86	123.85	123.85	128.56	128.63	127.78	127.45
21-Apr-10	128.63	126.91	126.40	127.06	127.96	127.04	127.84	129.40	128.64	124.35	124.32	123.24	122.99	122.96	128.11	128.14	127.27	127.17
28-Apr-10	128.36	126.63	125.96	126.85	127.76	126.90	127.69	129.02	128.36	124.05	124.05	122.76	122.75	122.76	127.88	127.83	126.99	126.94
3-May-10	128.12	126.39	125.66	126.69	127.68	126.79	127.52	128.63	128.05	123.85	123.84	122.37	122.37	122.37	127.64	127.54	126.70	126.79
14-May-10	127.63	126.02	125.23	126.33	127.50	126.61	127.30	128.02	127.46	123.27	123.29	121.77	121.78	121.77	127.15	126.84	125.88	126.43
20-May-10	127.18	125.29	124.66	125.60	126.88	126.04	126.60	126.76	126.35	122.18	122.20	120.66	120.65	120.65	126.20	125.85	125.03	125.68
28-May-10	126.66	125.25	124.31	125.59	126.96	126.06	126.80	126.88	126.26	122.60	122.61	121.16	121.14	121.15	126.18	125.79	124.97	125.68
1-Jun-10	126.41	125.00	124.10	125.41	126.83	125.93	126.69	126.67	125.96	122.47	122.48	121.06	121.04	121.04	125.96	125.56	124.88	125.50
10-Jun-10	126.10	124.58	123.77	125.17	126.59	125.73	126.51	126.40	125.61	122.06	122.07	120.74	120.76	120.73	125.66	125.26	125.10	121.61
18-Jun-10	126.23	124.63	123.78	125.28	126.74	125.75	126.48	126.39	125.74	121.89	121.92	120.62	120.58	120.59	125.77	125.34	124.68	125.38
30-Jun-10	126.93	125.46	124.89	125.77	127.07	126.20	126.75	126.99	126.59	122.16	122.19	120.71	120.70	120.70	126.45	126.06	125.15	125.85
7-Jul-10	126.82	125.38	124.80	125.75	126.99	126.14	126.66	126.93	126.49	122.12	122.19	120.64	120.66	120.63	126.33	125.98	125.11	125.77
14-Jul-10	126.76	125.25	124.62	125.63	126.93	126.08	126.60	126.86	126.29	122.10	122.17	120.55	120.59	120.56	126.26	125.90	125.05	125.71
21-Jul-10	126.61	125.20	124.50	125.55	126.84	126.01	126.53	126.65	126.20	122.05	122.12	120.48	120.54	120.49	126.13	125.78	124.98	125.65
29-Jul-10	126.53	125.13	124.43	125.48	126.75	125.90	126.48	126.55	126.14	122.05	122.12	120.45	120.47	120.45	126.04	125.69	124.93	125.58
3-Aug-10	126.15	124.76	124.11	125.22	126.52	125.71	126.33	126.33	125.72	121.88	122.07	120.36	120.36	120.34	125.70	125.36	124.74	125.31
12-Aug-10	125.74	124.29	123.72	124.91	126.29	125.41	126.15	126.08	125.33	121.57	121.61	120.15	120.15	120.14	125.31	125.01	124.51	125.01
19-Aug-10	125.67	124.15	123.60	124.87	126.20	125.40	126.07	125.97	125.27	121.41	121.43	120.04	120.04	120.03	125.24	124.95	124.48	124.96
26-Aug-10	125.90	124.26	123.65	125.03	126.33	125.47	126.11	125.99	125.47	121.31	121.36	119.97	118.98	119.97	125.46	125.12	124.56	125.12
31-Aug-10	125.69	124.15	123.56	124.86	126.19	125.35	126.03	126.92	125.27	121.22	121.25	119.96	119.89	119.88	125.25	124.94	124.48	124.96
9-Sep-10	126.03	124.30	123.61	125.09	126.34	125.46	126.09	125.99	125.61	121.18	121.21	119.86	119.86	119.85	125.55	125.20	124.64	125.18
15-Sep-10	125.85	124.21	123.60	124.96	126.23	125.39	126.04	125.96	125.42	121.12	121.16	120.79	119.79	119.79	125.40	125.06	124.56	125.05
22-Sep-10	125.98	124.32	123.70	125.10	126.35	125.47	126.09	126.01	125.50	121.15	121.20	119.83	119.82	119.82	125.56	125.14	124.63	125.19
27-Sep-10	126.45	124.78	124.25	125.49	126.73	125.82	126.34	126.33	125.95	121.29	121.35	119.95	119.92	119.92	125.96	125.52	124.87	125.57
4-Oct-10	126.89	125.45	124.91	125.80	127.03	126.13	126.61	126.81	126.45	121.60	121.68	120.13	120.13	120.12	126.36	125.93	125.12	125.90
13-Oct-10	126.40	125.09	124.48	125.51	126.77	125.90	126.39	126.39	125.91	121.62	121.72	120.18	120.17	120.17	125.91	125.52	124.90	125.60
19-Oct-10	126.81	125.36	124.78	125.80	127.07	120.16	126.60	126.80	126.34	121.79	121.85	120.27	120.26	120.25	126.29	125.86	125.09	125.90
27-Oct-10	127.14	125.55	125.02	126.06	127.35	126.43	126.88	127.70	126.66	121.89	121.94	120.39	120.39	120.37	126.57	126.13	125.24	126.17
1-Nov-10	127.05	125.66	125.21	126.07	127.36	126.44	126.88	127.41	126.69	121.95	122.00	120.31	120.31	120.30	126.45	126.17	125.27	126.17
10-Nov-10	127.19	125.82	125.40	126.20	127.44	126.57	127.05	127.76	126.88	122.23	122.28	120.48	120.48	120.46	126.64	126.34	125.37	126.30
16-Nov-10	126.83	125.64	125.20	126.03	127.32	126.45	126.91	127.08	126.60	122.29	122.36	120.55	120.54	120.53	126.36	126.12	125.26	126.13
24-Nov-10	127.33	125.91	125.52	126.33	127.64	126.72	127.40	128.22	127.02	122.38	122.43	120.65	120.64	120.63	126.78	126.45	125.40	126.42
30-Nov-10	127.23	125.89	125.49	126.27	127.54	126.63	127.26	127.72	126.95	122.51	122.56	120.71	120.68	120.67	126.65	126.40	125.42	126.36
8-Dec-10	128.37	126.88	126.49	126.97	127.88	127.04	127.85	129.48	128.35	123.51	123.58	121.89	121.88	121.87	127.76	127.79	126.68	127.08
15-Dec-10	127.89	126.48	126.08	126.66	127.58	126.81	127.62	128.61	127.84	123.50	123.51	122.01	122.01	121.98	127.31	127.35	126.36	126.76
22-Dec-10	127.28	126.10	125.82	126.31	127.34	126.62	127.40	127.70	127.19	123.27	123.29	121.84	121.84	121.81	126.76	126.70	125.77	126.40

APPENDIX J

Produce monitoring results for 2010

DESCRIPTION	DISTANCE FROM STACKS	RHUBBARB	TOMATO	BEANS	CORN	CUCUMBER	POTATO	SPINACH	ZUCCHINI	BEET	CARROT	APPLE	AVG
416 BOUNDARY RD	400	119		98			66		96		115		98.8
711 BRUHAM AVE	2,000		19	13		16	15	10					14.6
413 SWEEZEY CRT	400					85					89	183	119
413 BOUNDARY RD	400											115	115
408 BOUNDARY RD	400		89			94							91.4
366 CHAMBERLAIN	2,000	32	17			37				35	19	17	26.2
												AVG	77.5

DESCRIPTION	DISTANCE FROM STACKS	RHUBBARB	TOMATO	RED	LETTUCE	CUCUMBER	POTATO	SPINACH	PLUM	ONION	CARROT	APPLE	AVG
LOCAL MARKET	1,750		23		10	26							19.67
												AVG	19.67

SRB PRODUCE SAMPLING - 2010

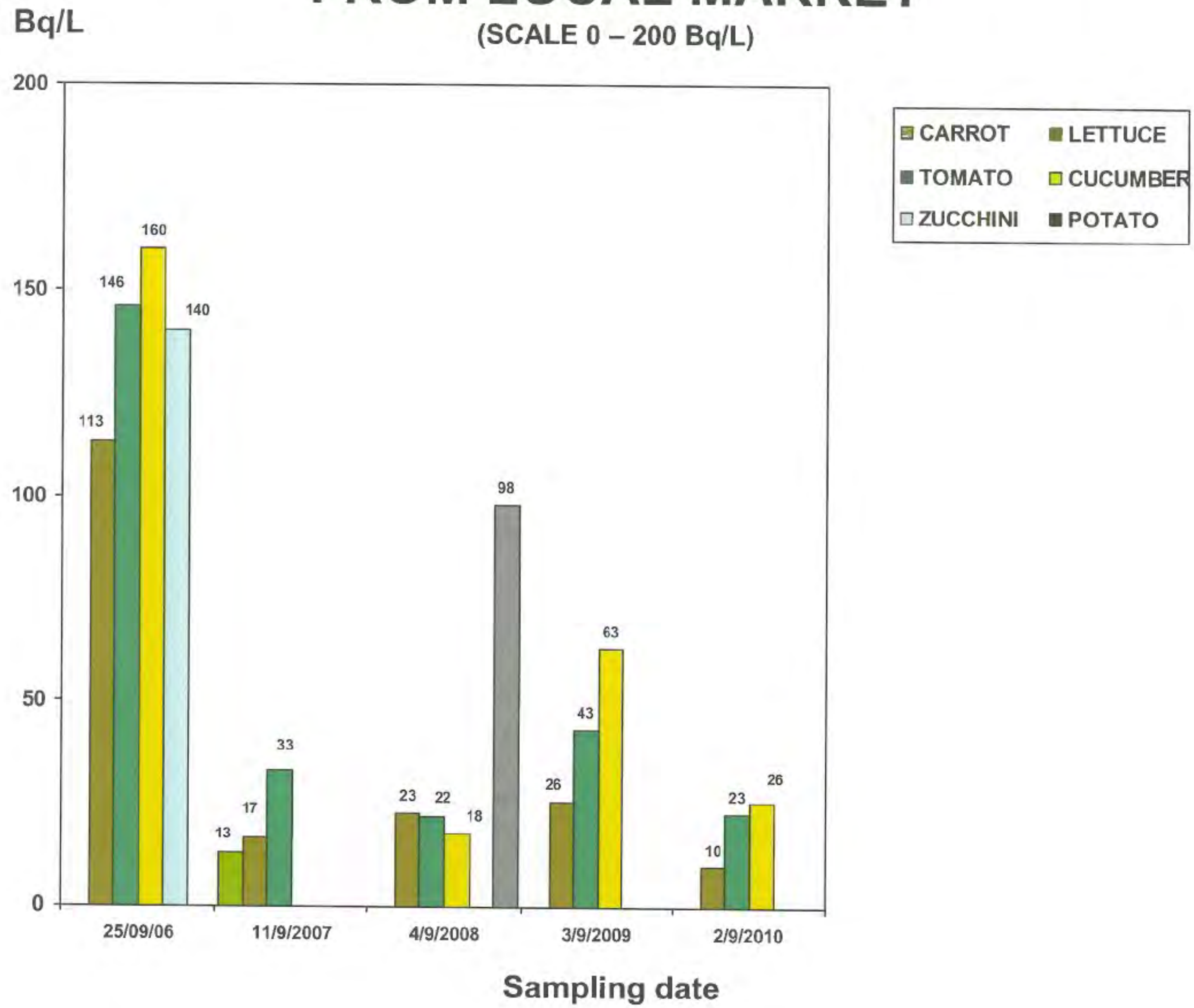
Rev. 11/01/2010

Sample Locations

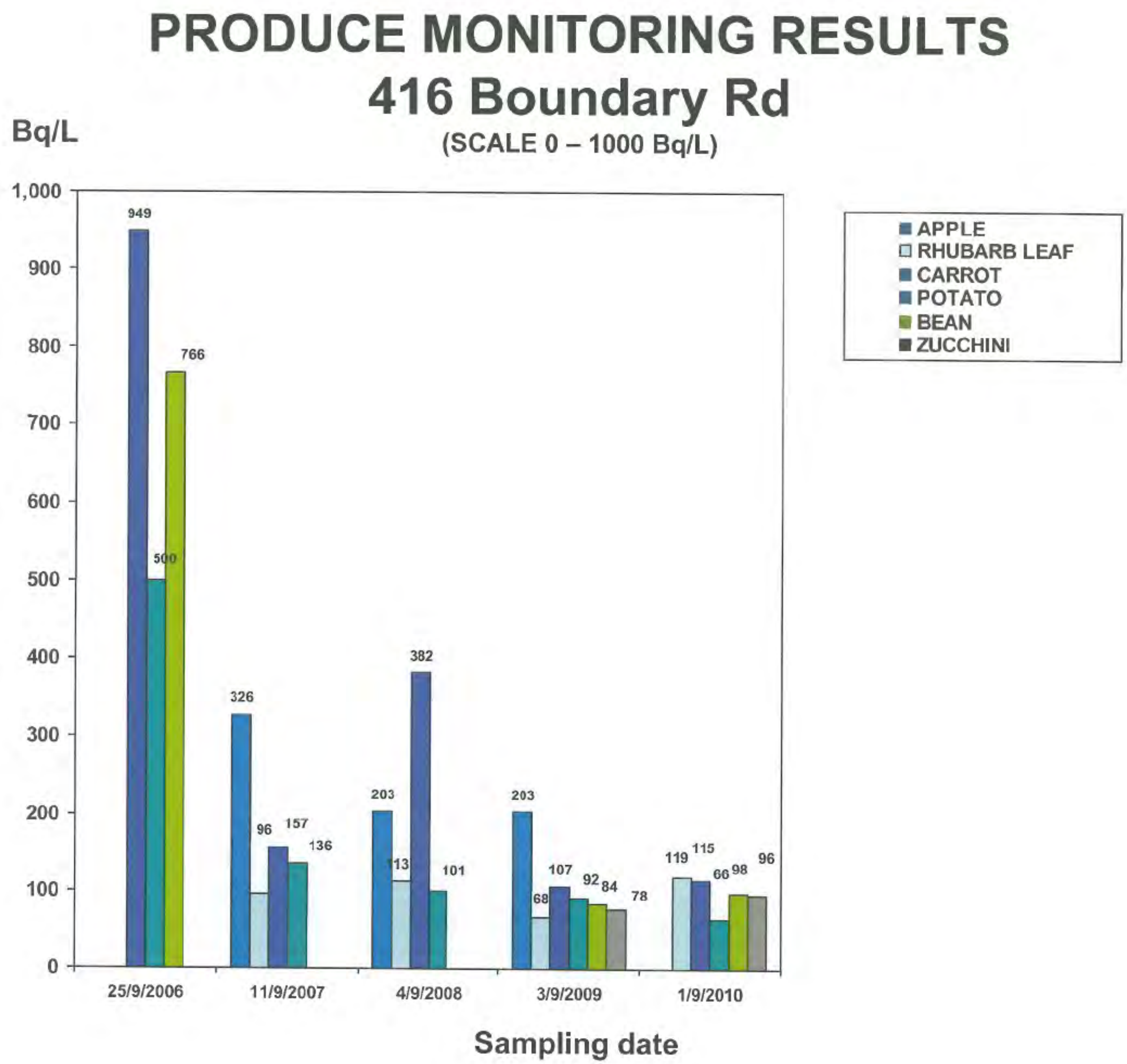
1- Boudens Gardens ~ 1.75 KM
2- 416 Boundary Rd. ~ 0.4 KM
3- 711 Bruham Ave. ~ 2.0 KM
4- 413 Sweezey Crt. ~ 0.4 KM
5- 413 Boundary Rd. ~ 0.4 KM
6- 408 Boundary Rd. ~ 0.35 KM
7- 366 Chamberlain St. ~ 1.65 KM

APPENDIX J

PRODUCE MONITORING RESULTS FROM LOCAL MARKET

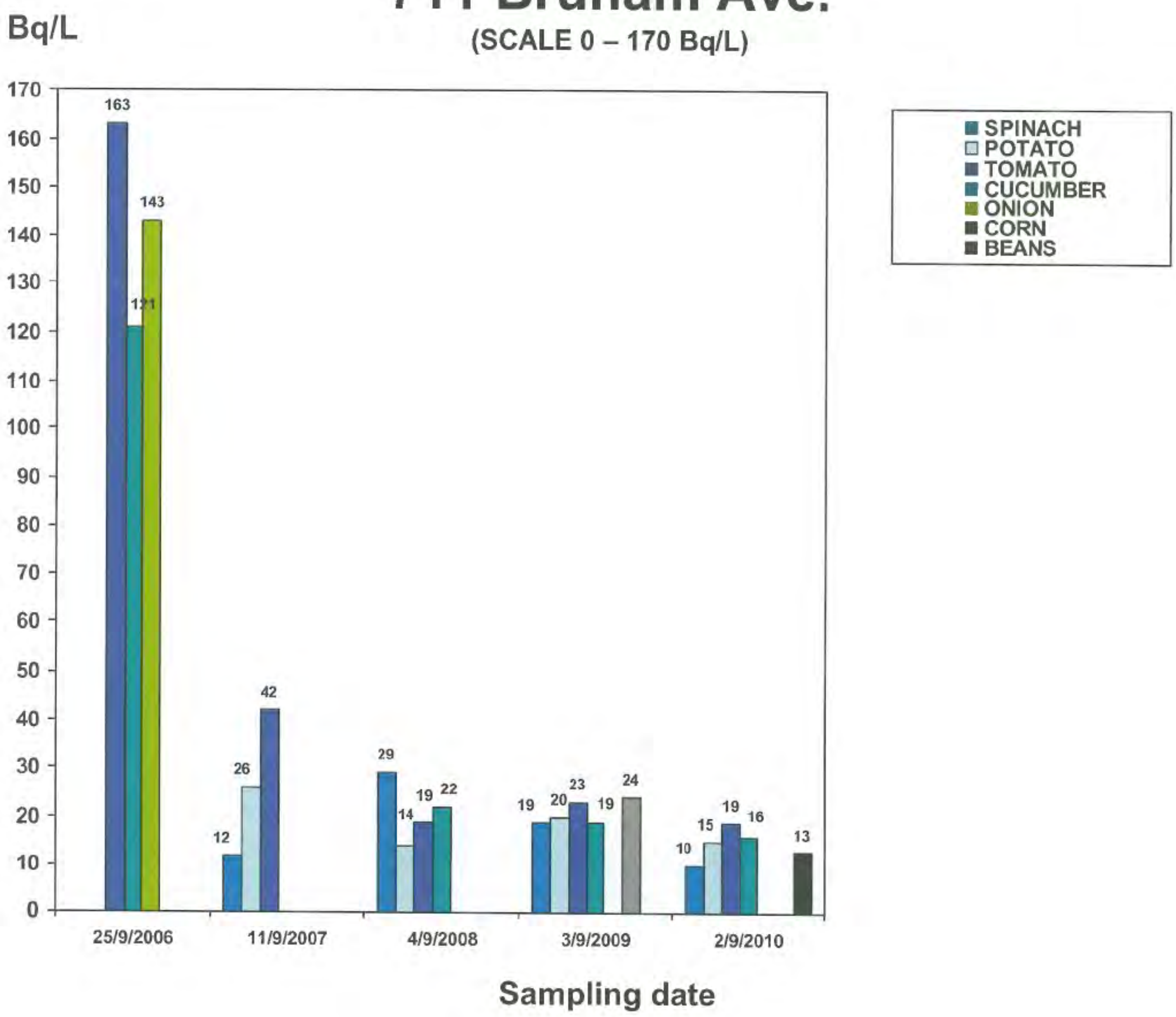


APPENDIX J


PRODUCE MONITORING RESULTS
416 Boundary Rd
Bq/L
(SCALE 0 – 1000 Bq/L)
1,000
900
800
700
600
500
400
300
200
100
0
949
766
500
326
96
157
136
203
113
382
101
203
68
107
92
84
78
119
115
66
98
96
25/9/2006
11/9/2007
4/9/2008
3/9/2009
1/9/2010
Sampling date
APPLE
RHUBARB LEAF
CARROT
POTATO
BEAN
ZUCCHINI

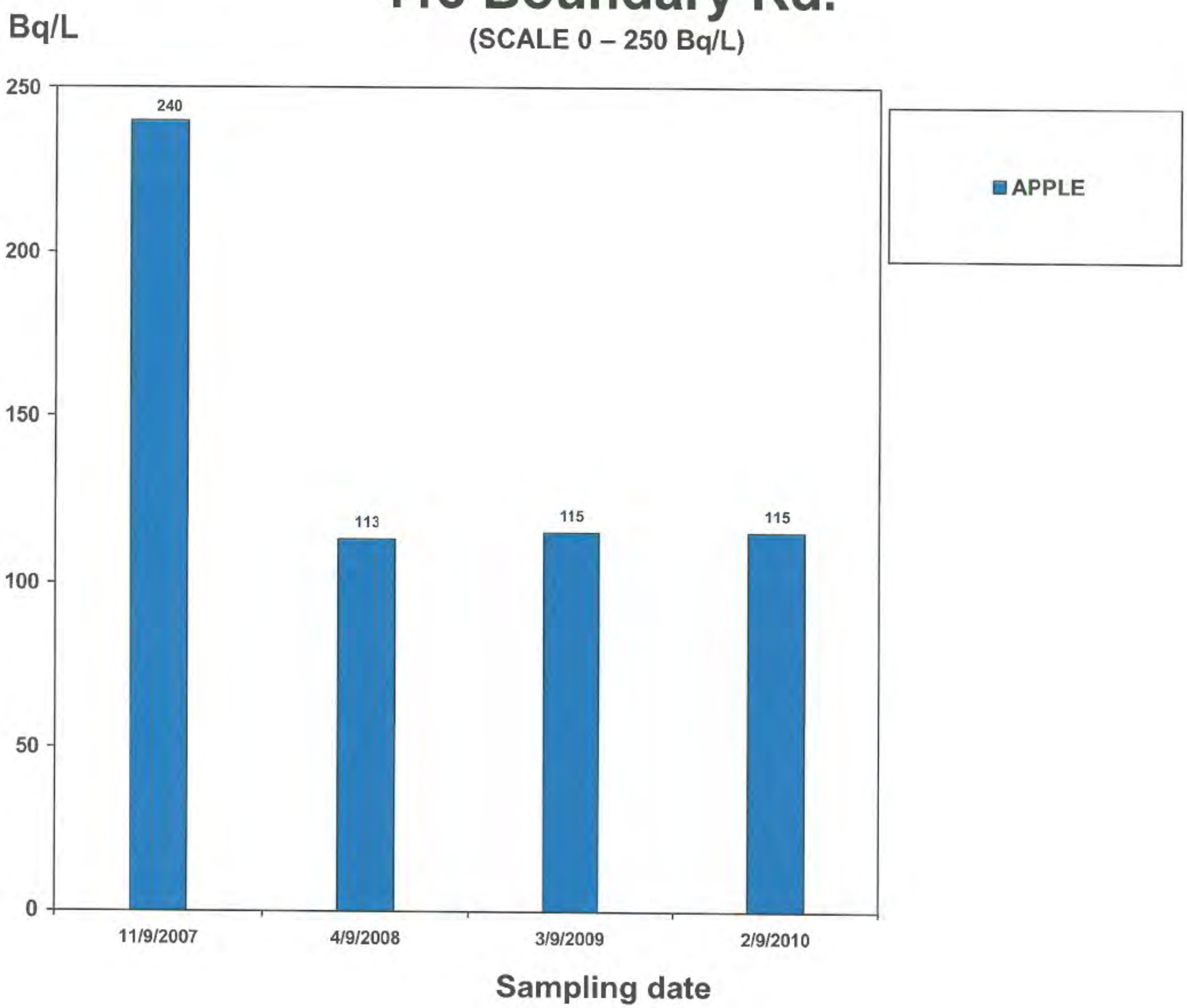
APPENDIX J

PRODUCE MONITORING RESULTS
711 Bruham Ave.

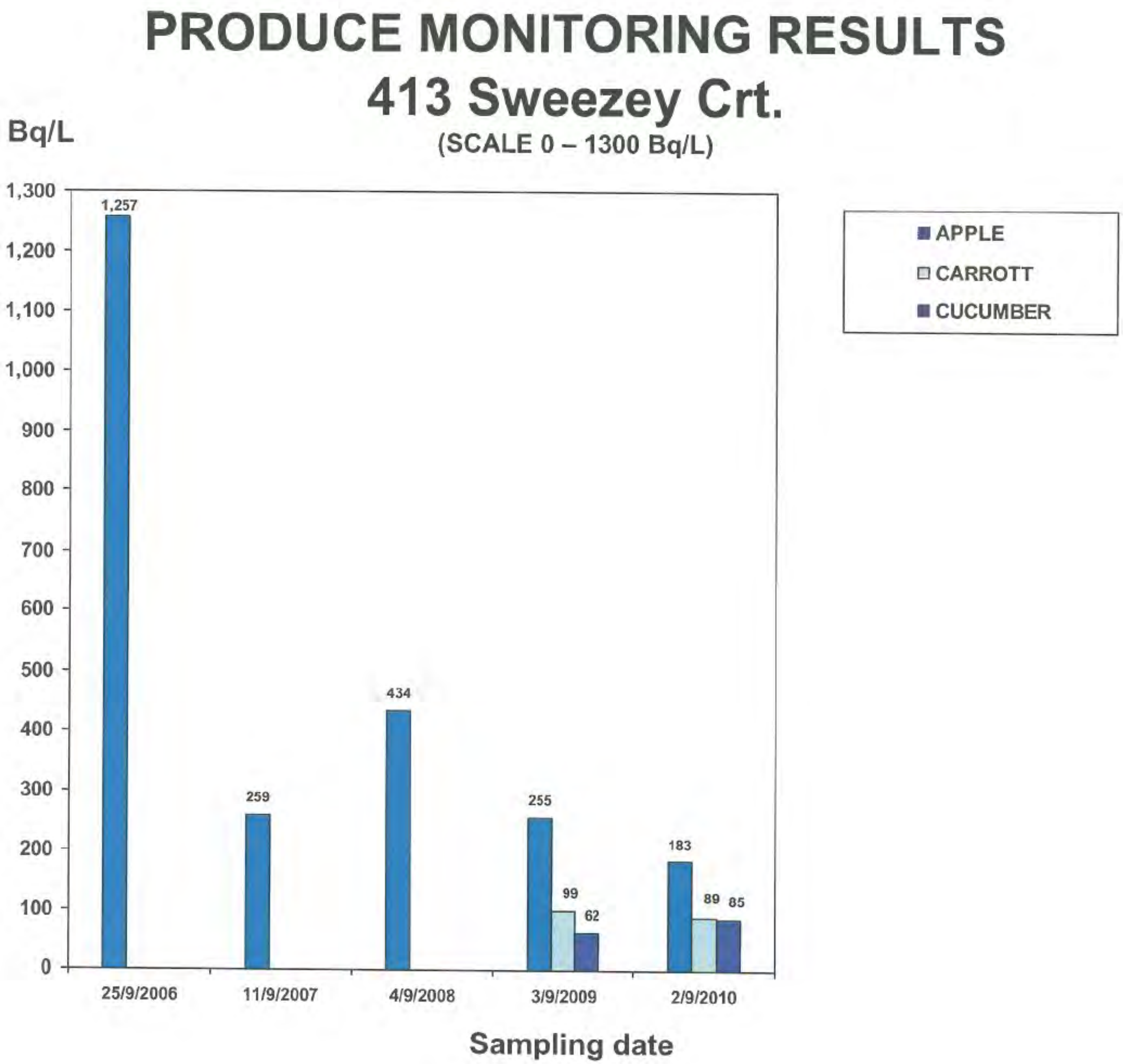


PRODUCE MONITORING RESULTS
413 Boundary Rd.

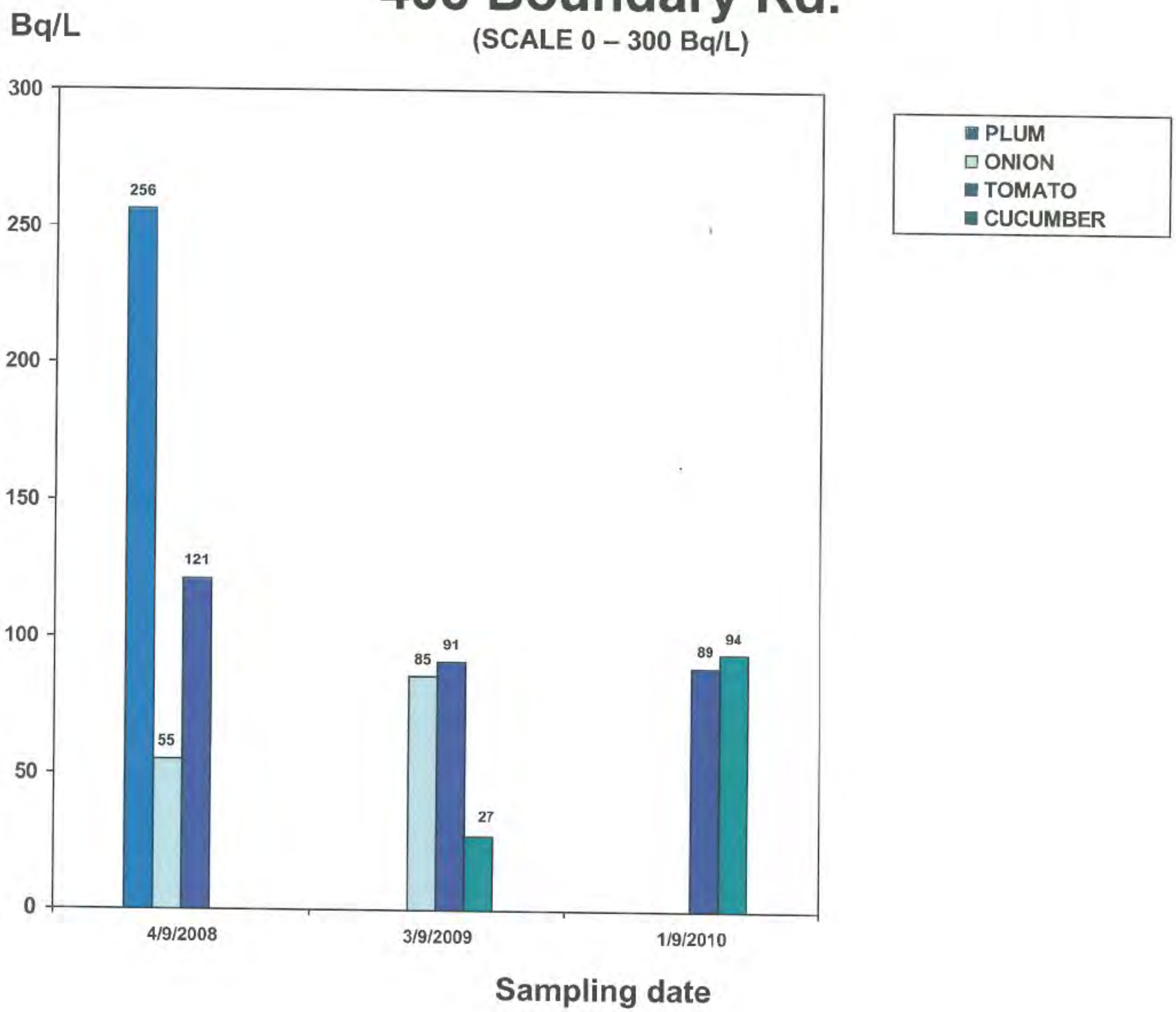
(SCALE 0 – 250 Bq/L)



APPENDIX J

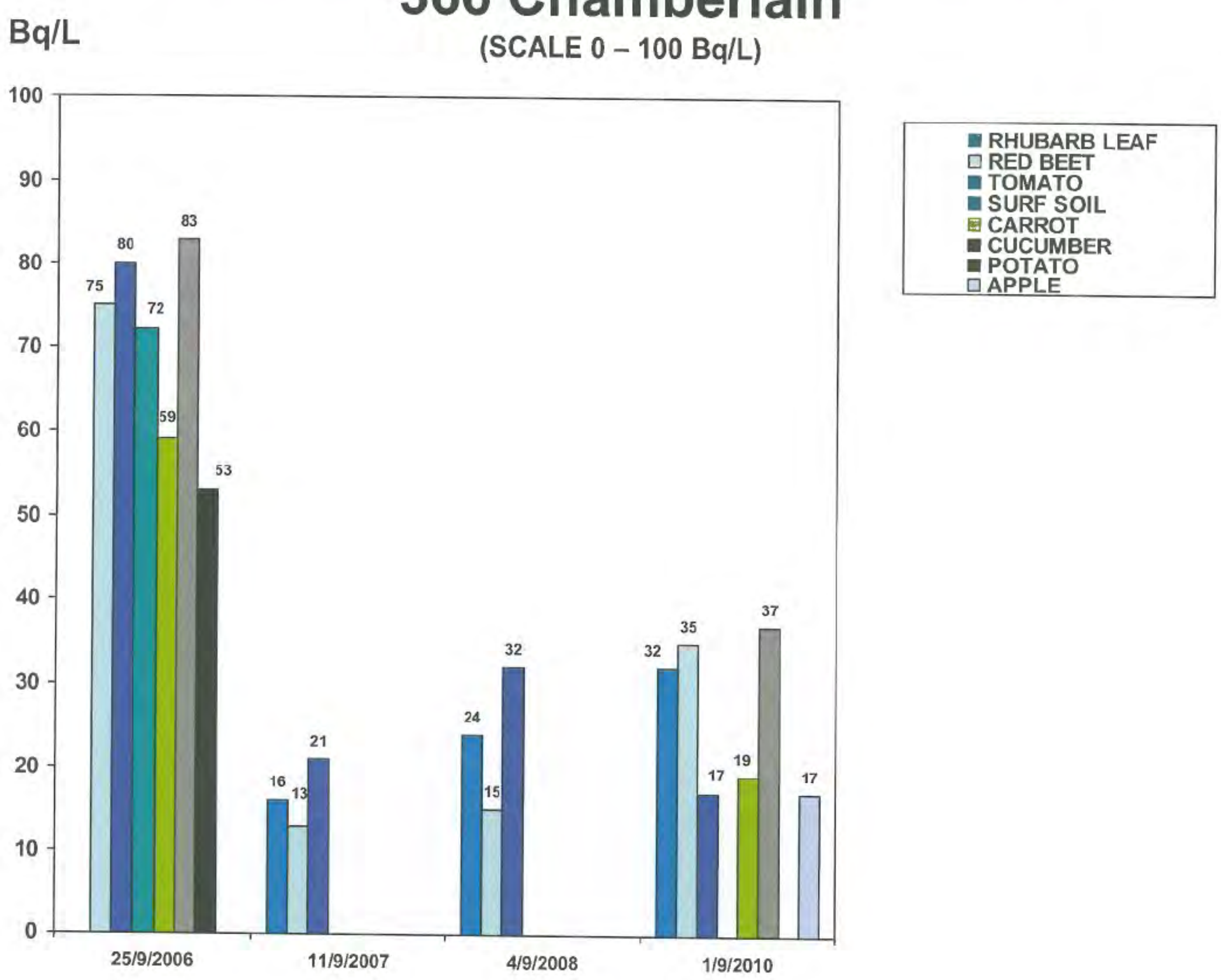

PRODUCE MONITORING RESULTS
413 Sweezey Crt.
(SCALE 0 – 1300 Bq/L)
Bq/L
1,300
1,200
1,100
1,000
900
800
700
600
500
400
300
200
100
0
1,257
259
434
255
99
62
183
89
85
25/9/2006
11/9/2007
4/9/2008
3/9/2009
2/9/2010
Sampling date
APPLE
CARROTT
CUCUMBER

PRODUCE MONITORING RESULTS
408 Boundary Rd.



APPENDIX J

PRODUCE MONITORING RESULTS
366 Chamberlain

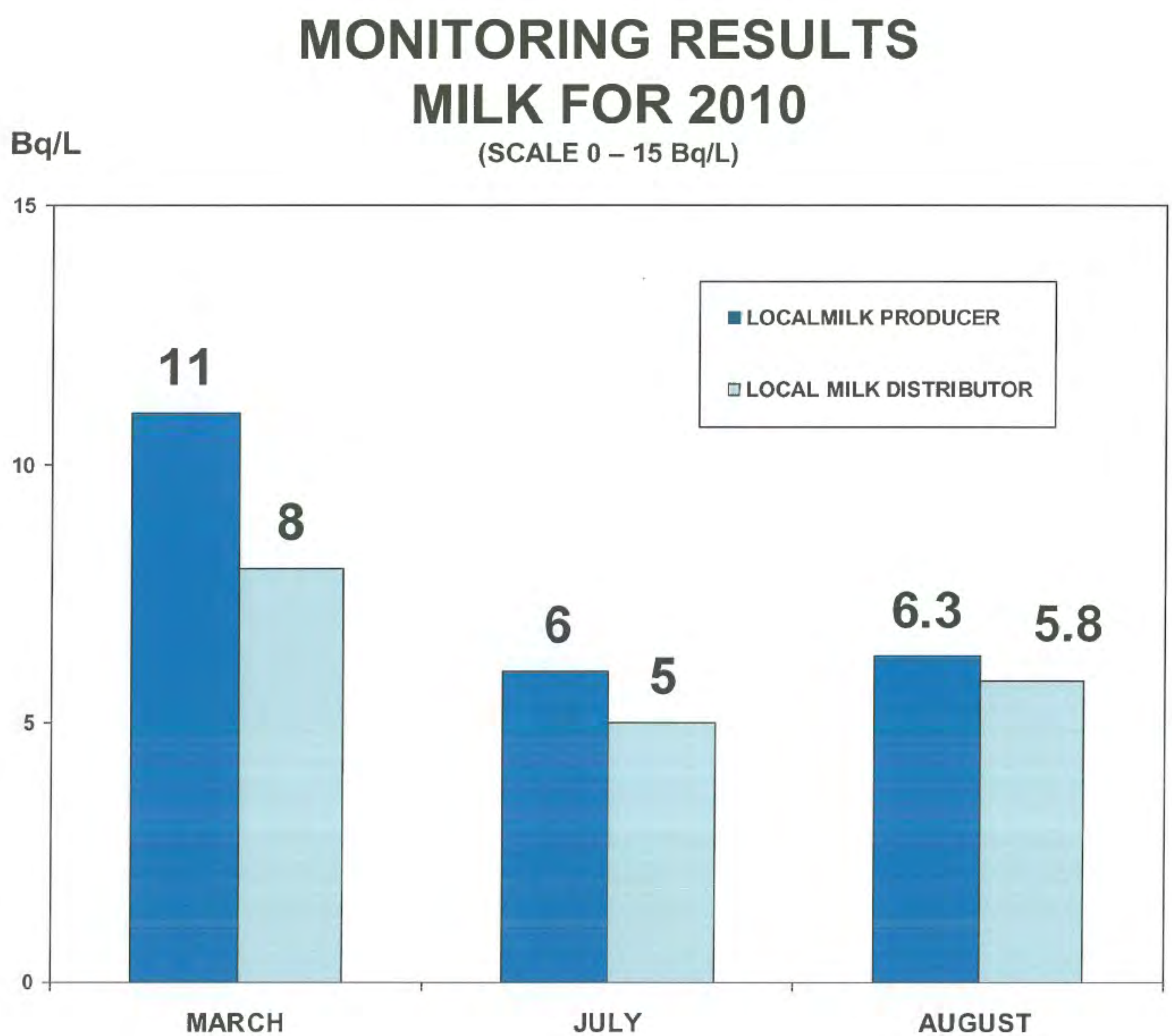


APPENDIX J

APPENDIX K

Milk monitoring results for 2010

DESCRIPTION	March	July	November	AVG
LOCAL PRODUCER	11	6	6.3	7.77
LOCAL DISTRIBUTOR	8	5	5.8	6.27
			AVG	7.02

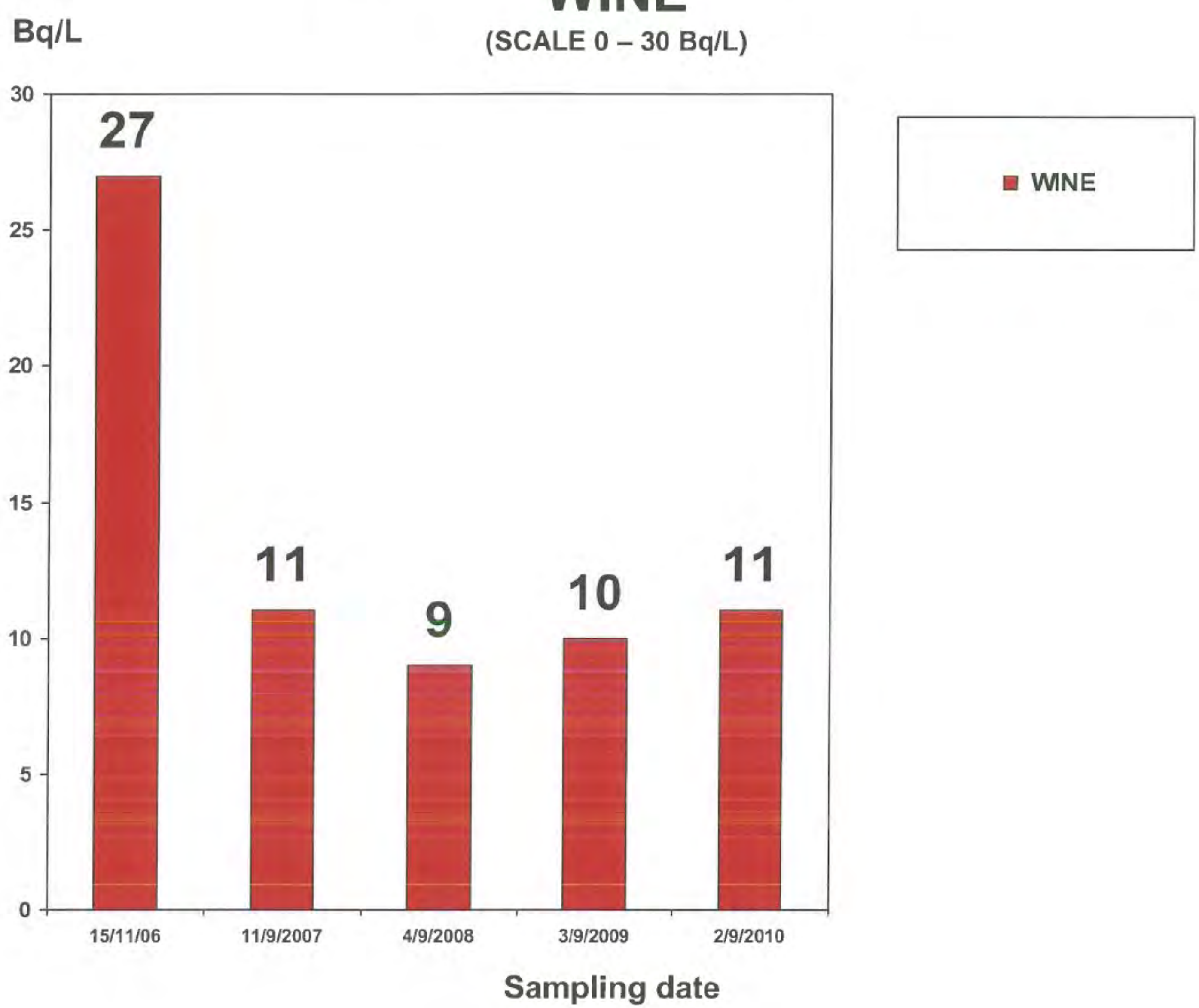

MONITORING RESULTS
MILK FOR 2010
(SCALE 0 – 15 Bq/L)
Bq/L
15
10
5
0
LOCALMILK PRODUCER
LOCAL MILK DISTRIBUTOR
11
8
6
5
6.3
5.8
MARCH
JULY
AUGUST

APPENDIX K

APPENDIX L

Wine monitoring results for 2010

MONITORING RESULTS
WINE
(SCALE 0 – 30 Bq/L)



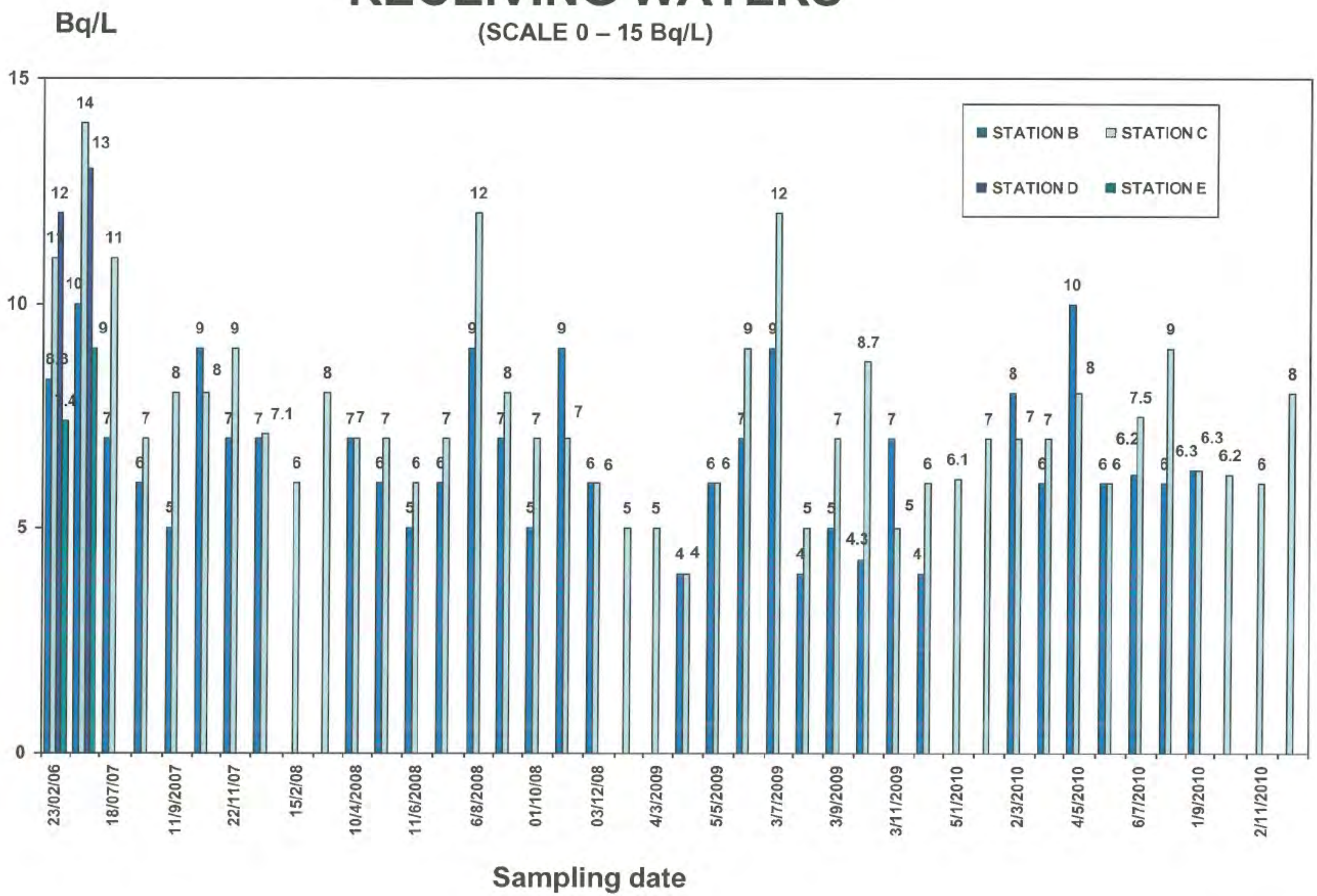
APPENDIX L

APPENDIX M

Receiving waters monitoring results for 2010

MONITORING RESULTS RECEIVING WATERS

(SCALE 0 – 15 Bq/L)



APPENDIX M

APPENDIX N

Sewage monitoring results for 2010

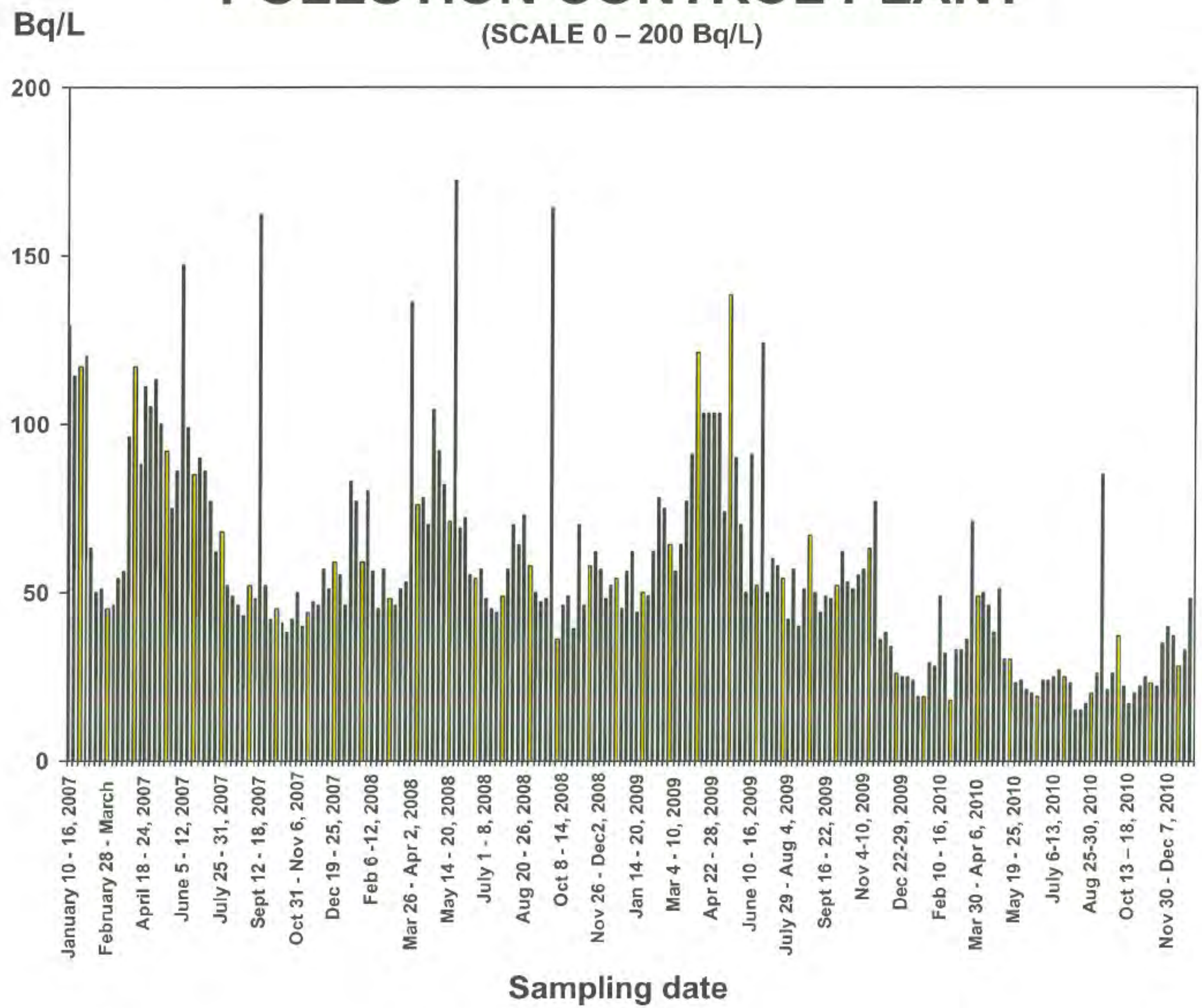
SLUDGE WATER FROM POLLUTION CONTROL PLANT	
DATE	Bq/L
March 28 – April 3, 2007	96
April 4 - 10 2007	117
April 11 – 17, 2007	88
April 18 – 24, 2007	111
April 25 – May 1, 2007	105
May 2 – May 8, 2007	113
May 9 – 15, 2007	100
May 16 – 22, 2007	92
May 23 - 29, 2007	75
May 30 - June 5, 2007	86
June 5 - 12, 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
Jan 2 – 8, 2008	46
Jan 9 – 15, 2008	83
Jan 16 – 22, 2008	77
Jan 23 – 29, 2008	59
Jan 30 – Feb 5, 2008	80
Feb 6 -12, 2008	56
Feb 13 – 19, 2008	45
Feb 20- 26, 2008	57
Feb 27 – Mar 4, 2008	48
Mar 5 – 11, 2008	46
Mar 12 – 18, 2008	51

Mar 19 – 25, 2008	53
Mar 26 – Apr 2, 2008	136
Apr 2 – 8, 2008	76
Apr 9 – 15, 2008	78
Apr 16 – 22, 2008	70
Apr 23 – 29, 2008	104
Apr 30 – May 6, 2008	92
May 7 – 13, 2008	82
May 14 – 20, 2008	71
May 21 – 27, 2008	172
May 28 – June 3, 2008	69
June 4 – 10, 2008	72
June 11 – 17, 2008	55
June 18 – 24, 2008	54
June 25 – 30, 2008	57
July 1 – 8, 2008	48
July 9 – 15, 2008	45
July 16 – 22, 2008	44
July 23 – 29, 2008	49
July 30 – Aug 5, 2008	57
Aug 6 – 12, 2008	70
Aug 13 – 19, 2008	64
Aug 20 – 26, 2008	73
Aug 27 – Sept 2, 2008	57
Sept 3 – 9, 2008	70
Sept 10 – 16, 2008	47
Sept 17 – 23, 2008	48
Sept 24 – 30, 2008	164
Oct 1 – 7, 2008	36
Oct 8 – 14, 2008	46
Oct 15 – 21, 2008	49
Oct 22 – 28, 2008	39
Oct 29 – Nov 4, 2008	70
Nov 5 – 11, 2008	46
Nov 12 – 18, 2008	58
Nov 19 – 25, 2008	62
Nov 26 – Dec 2, 2008	57
Dec 3 – 9, 2008	48
Dec 10 – 16, 2008	52
Dec 17 – 23, 2008	54
Dec 24 – 30, 2008	45
Dec 31 – Jan 6, 2009	56
Jan 7 – 13, 2009	62
Jan 14 – 20, 2009	44
Jan 21 – 27, 2009	50
Jan 28 – Feb 3, 2009	49
Feb 4 – 10, 2009	62
Feb 11 – 17, 2009	78
Feb 18 – 24, 2009	75
Feb 25 – Mar 2, 2009	64
Mar 4 – 10, 2009	56
Mar 11 – 17, 2009	64
Mar 18 – 24, 2009	77

Mar 25 – 31, 2009	91
Apr 1 – 7, 2009	<121
Apr 8 -14, 2009	<103
Apr 15 – 21, 2009	103
Apr 22 – 28, 2009	<103
Apr 29 – May 5, 2009	<103
May 6 – 12, 2009	74
May 13 – 19, 2009	138
May 19 – 26, 2009	90
May 27 – June 2, 2009	70
June 3 – 9, 2009	50
June 10 – 16, 2009	91
June 17 – 23, 2009	52
June 24 – 30, 2009	124
July 1 -7, 2009	50
July 8 – 14, 2009	60
July 15 – 21, 2009	58
July 22 – 28, 2009	54
July 29 – Aug 4, 2009	42
Aug 5 – 11, 2009	57
Aug 12 – 18, 2009	40
Aug 19 – 25, 2009	51
Aug 26 – Sept 1, 2009	67
Sept 2 – 8, 2009	50
Sept 9 – 15, 2009	44
Sept 16 – 22, 2009	49
Sept 23 – 29, 2009	48
Sept 30 – Oct 6, 2009	52
Oct 7 – 13, 2009	62
Oct 13 – 20, 2009	53
Oct 21 – 27, 2009	51
Oct 28 – Nov 3, 2009	55
Nov 4 – 10, 2009	57
Nov 11- 17, 2009	63
Nov 18 – 24, 2009	77
Nov 25 – Dec 1, 2009	36
Dec 2 – 8, 2009	38
Dec 8 – 15, 2009	34
Dec 15 – 22, 2009	26
Dec 22 – 29, 2009	25
Dec 29, 2009 – Jan 5, 2010	25
Jan 6 – 12, 2010	24
Jan 13 – 19, 2010	19
Jan 20 – 26, 2010	19
Jan 27 – Feb 3, 2010	29
Feb 3 – 9, 2010	28
Feb 10 – 16, 2010	49
Feb 17 – 23, 2010	32
Feb 24 – Mar 2, 2010	18
Mar 3 – 9, 2010	33
Mar 10 – 16, 2010	33
Mar 17 – 23, 2010	36
Mar 24 – 30, 2010	71

Mar 30 – Apr 6, 2010	49
Apr 7 – 13, 2010	50
Apr 14 – 20, 2010	46
Apr 21 – 27, 2010	38
Apr 28 – May 4, 2010	51
May 5 – 11, 2010	30
May 12 – 18, 2010	30
May 19 – 25, 2010	23
May 26 – June 1, 2010	24
June 2 – 8, 2010	21
June 9 – 15, 2010	20
June 16 – 22, 2010	19
June 23 – 29, 2010	24
June 30 – July 6, 2010	24
July 6 – 13, 2010	25
July 14 – 20, 2010	27
July 21 – 27, 2010	25
July 28 – Aug 3, 2010	23
Aug 4 – 10, 2010	15
Aug 11 – 17, 2010	15
Aug 18 – 24, 2010	17
Aug 25 – 30, 2010	20
Aug 31 – Sept 7, 2010	26
Sept 8 – 14, 2010	85
Sept 15 – 21, 2010	21
Sept 22 – 28, 2010	26
Sept 29 – Oct 5, 2010	37
Oct 6 – 12, 2010	22
Oct 13 – 18, 2010	17
Oct 20 – 26, 2010	20
Oct 27 – Nov 2, 2010	22
Nov 3 – 9, 2010	25
Nov 10 – 16, 2010	23
Nov 17 – 23, 2010	22
Nov 24 – 30, 2010	35
Nov 30 – Dec 7, 2010	40
Dec 8 – 14, 2010	37
Dec 15 – 21, 2010	28
Dec 22 – 28, 2010	33
Dec 29 – Jan 4, 2011	48

MONITORING RESULTS POLLUTION CONTROL PLANT



APPENDIX O

Precipitation monitoring results for 2010

PRECIPITATION SAMPLERS								
	1P	4P	8P	11P	15P	18P	22P	25P
	Bq/L							
Jan 5 - Feb 3, 2010	51	174	39	12	101	303	122	99
Feb 3 - Mar 2, 2010	8	31	23	674	135	187	66	12
Mar 2 - Apr 1, 2010	14	97	26	94	39	187	8	8
Apr 1 - May 4, 2010	47	184	466	221	30	113	248	34
May 4 - June 2, 2010	55	42	26	71	324	74	71	166
June 2 - July 6, 2010	13	51	115	25	55	31	24	15
July 6 - Aug 4, 2010	57	45	32	26	35	72	66	35
Aug 4 - Sept 1, 2010	69	44	25	16	8	156	36	38
Sept 1 - Oct 5, 2010	15	29	58	55	45	51	23	37
Oct 5 - Nov 2, 2010	47	93	58	170	51	52	34	21
Nov 2 - Dec 1, 2010	14	81	53	27	58	71	87	51
Dec 1 - Jan 5, 2011	16	82	52	20	40	270	299	51
Average	**34**	**79**	**81**	**118**	**77**	**131**	**90**	**47**
Average all results	**82**							

*Samplers are installed on posts that are dug into the ground. As permission was not granted by landowner before the thaw occurred sampler 22P was only installed in April 2009 after the ground was soft enough.

PASSIVE AIR SAMPLER	JAN (Bq/m3) MEASURED	JAN (Bq/L) ESTIMATED IN RAIN	PRECIPITATION MONITOR	JAN (Bq/L) MEASURED	RATIO ESTIMATED/MEASURED
N250	0.45	84	1P	51	165%
NW250	1.46	274	4P	174	157%
W250	0.51	96	8P	39	245%
SW250	0.34	64	11P	12	531%
S250	0.63	118	15P	101	117%
SE250	6.56	1230	18P	303	406%
E250	2.61	489	22P	122	401%
NE250	3.02	566	25P	99	572%
					324%

PASSIVE AIR SAMPLER	FEB (Bq/m3) MEASURED	FEB (Bq/L) ESTIMATED IN RAIN	PRECIPITATION MONITOR	FEB (Bq/L) MEASURED	RATIO ESTIMATED/MEASURED
N250	0.46	81	1P	8	1015%
NW250	0.37	65	4P	31	211%
W250	0.74	131	8P	23	568%
SW250	3.81	672	11P	674	100%
S250	1.18	208	15P	135	154%
SE250	5.2	918	18P	187	491%
E250	2.77	489	22P	66	741%
NE250	0.63	111	25P	12	926%
					526%

PASSIVE AIR SAMPLER	MAR (Bq/m3) MEASURED	MAR (Bq/L) ESTIMATED IN RAIN	PRECIPITATION MONITOR	MAR (Bq/L) MEASURED	RATIO ESTIMATED/MEASURED
N250	1.11	123	1P	14	881%
NW250	2.33	259	4P	97	267%
W250	1.25	139	8P	26	534%
SW250	1.32	147	11P	94	156%
S250	1.37	152	15P	39	390%
SE250	2.57	286	18P	187	153%
E250	1.22	136	22P	8	1694%
NE250	0.47	52	25P	8	653%
					591%

PASSIVE AIR SAMPLER	APR (Bq/m3) MEASURED	APR (Bq/L) ESTIMATED IN RAIN	PRECIPITATION MONITOR	APR (Bq/L) MEASURED	RATIO ESTIMATED/MEASURED
N250	1.85	146	1P	47	311%
NW250	5.31	419	4P	184	228%
W250	2.2	174	8P	466	37%
SW250	1.95	154	11P	221	70%
S250	4.94	390	15P	30	1300%
SE250	10.96	865	18P	113	766%
E250	5.29	418	22P	248	168%
NE250	4.44	351	25P	34	1031%
					489%

PASSIVE AIR SAMPLER	MAY (Bq/m3) MEASURED	MAY (Bq/L) ESTIMATED IN RAIN	PRECIPITATION MONITOR	MAY (Bq/L) MEASURED	RATIO ESTIMATED/MEASURED
N250	1.83	80	1P	55	145%
NW250	5.43	236	4P	42	562%
W250	2.17	94	8P	26	363%
SW250	2.08	90	11P	71	127%
S250	1.61	70	15P	324	22%
SE250	5.54	241	18P	74	325%
E250	4.87	212	22P	71	298%
NE250	2.18	95	25P	166	57%
					237%

PASSIVE AIR SAMPLER	JUNE (Bq/m3) MEASURED	JUNE (Bq/L) ESTIMATED IN RAIN	PRECIPITATION MONITOR	JUNE (Bq/L) MEASURED	RATIO ESTIMATED/MEASURED
N250	0.9	28	1P	13	212%
NW250	0.38	12	4P	51	23%
W250	0.63	19	8P	115	17%
SW250	1.36	42	11P	25	167%
S250	1.03	32	15P	55	57%
SE250	4.24	130	18P	31	419%
E250	1.53	47	22P	24	195%
NE250	1.78	54	25P	15	363%
					182%

PASSIVE AIR SAMPLER	JULY (Bq/m3) MEASURED	JULY (Bq/L) ESTIMATED IN RAIN	PRECIPITATION MONITOR	JULY (Bq/L) MEASURED	RATIO ESTIMATED/MEASURED
N250	1.79	45	1P	57	79%
NW250	1.88	47	4P	45	104%
W250	0.5	13	8P	32	39%
SW250	1.18	30	11P	26	113%
S250	0.7	18	15P	35	50%
SE250	2.57	64	18P	72	89%
E250	1.22	31	22P	66	46%
NE250	6.02	151	25P	35	430%
					119%

PASSIVE AIR SAMPLER	AUG (Bq/m3) MEASURED	AUG (Bq/L) ESTIMATED IN RAIN	PRECIPITATION MONITOR	AUG (Bq/L) MEASURED	RATIO ESTIMATED/MEASURED
N250	2.04	52	1P	69	75%
NW250	3.49	89	4P	44	202%
W250	1.04	26	8P	25	106%
SW250	1.89	48	11P	16	300%
S250	0.58	15	15P	8	184%
SE250	1.27	32	18P	156	21%
E250	1.66	42	22P	36	117%
NE250	12.6	320	25P	38	843%
					231%

PASSIVE AIR SAMPLER	SEPT (Bq/m3) MEASURED	SEPT (Bq/L) ESTIMATED IN RAIN	PRECIPITATION MONITOR	SEPT (Bq/L) MEASURED	RATIO ESTIMATED/MEASURED
N250	0.95	29	1P	15	196%
NW250	2.03	63	4P	29	216%
W250	1.74	54	8P	58	93%
SW250	0.58	18	11P	55	33%
S250	0.89	28	15P	45	61%
SE250	4.28	132	18P	51	260%
E250	3.99	123	22P	23	537%
NE250	3.4	105	25P	37	284%
					210%

PASSIVE AIR SAMPLER	OCT (Bq/m3) MEASURED	OCT (Bq/L) ESTIMATED IN RAIN	PRECIPITATION MONITOR	OCT (Bq/L) MEASURED	RATIO ESTIMATED/MEASURED
N250	2.04	104	1P	47	221%
NW250	2.49	127	4P	93	136%
W250	1.11	56	8P	58	97%
SW250	1.4	71	11P	170	42%
S250	1.34	68	15P	51	134%
SE250	4.62	235	18P	52	452%
E250	2.85	145	22P	34	426%
NE250	3.34	170	25P	21	809%
					290%

PASSIVE AIR SAMPLER	NOV (Bq/m3) MEASURED	NOV (Bq/L) ESTIMATED IN RAIN	PRECIPITATION MONITOR	NOV (Bq/L) MEASURED	RATIO ESTIMATED/MEASURED
N250	1.48	108	1P	14	774%
NW250	3.81	279	4P	81	344%
W250	1.52	111	8P	53	210%
SW250	1.19	87	11P	27	322%
S250	1.17	86	15P	58	148%
SE250	3.93	288	18P	71	405%
E250	2.63	192	22P	87	221%
NE250	1.26	92	25P	51	181%
					326%

PASSIVE AIR SAMPLER	DEC (Bq/m3) MEASURED	DEC (Bq/L) ESTIMATED IN RAIN	PRECIPITATION MONITOR	DEC (Bq/L) MEASURED	RATIO ESTIMATED/MEASURED
N250	0.61	76	1P	16	477%
NW250	0.87	109	4P	82	133%
W250	0.42	53	8P	52	101%
SW250	0.38	48	11P	20	238%
S250	1.19	149	15P	40	372%
SE250	5.79	724	18P	270	268%
E250	3.16	395	22P	299	132%
NE250	0.91	114	25P	51	223%
					243%

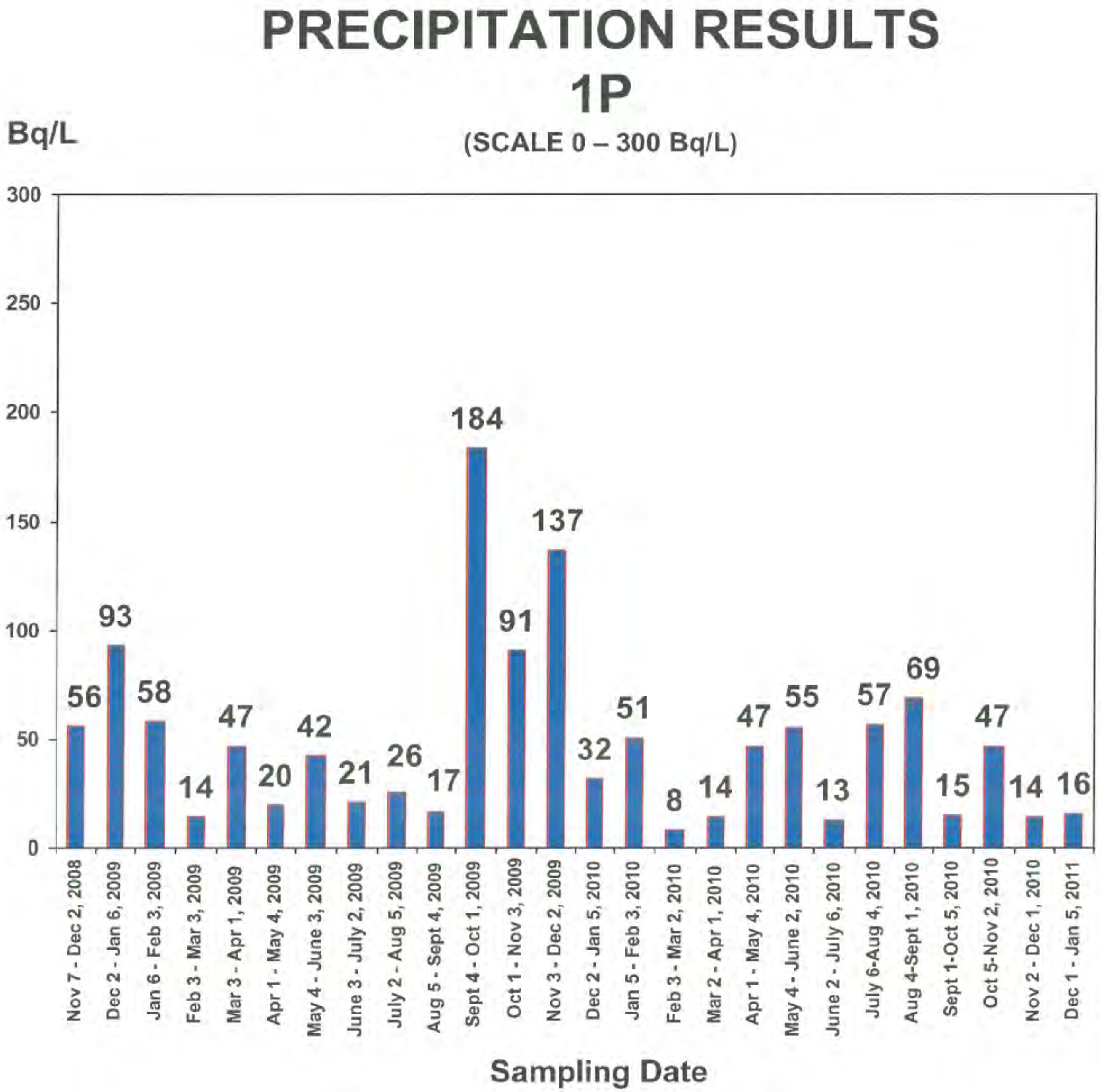
Site-Specific Absolute Humidity Values

year	Endpoint	Monthly Readings												Average		
		J	F	M	A	M	J	J	A	S	O	N	D	Annual	Snow-free Period	Growing Season
2000	Temp (C)	-11.8	-8.2	0.5	4.4	12.4	15.6	18.4	17.7	12.8	7.9	1.0	-11.3	4.9	11.3	16.1
	Dew Point (C)	-16.5	-12.8	-5.7	-3.6	7.0	10.9	13.8	13.8	8.7	2.7	-2.4	-14.8	0.1	6.3	11.8
	RH (%)	68.9	71.7	65.9	61.7	72.7	76.1	77.2	79.9	78.2	72.4	79.4	76.1	73.4	74.7	77.9
	Ha (g/m^3)	1.4	1.9	3.2	3.6	7.6	9.8	11.7	11.7	8.5	5.7	4.0	1.6	5.9	7.8	10.4
2001	Temp (C)	-10.2	-9.9	-3.4	5.8	13.2	18.5	18.9	20.6	14.4	8.3	3.7	-1.2	6.6	12.9	18.1
	Dew Point (C)	-13.4	-14.4	-9.7	-2.8	6.3	12.0	12.4	13.8	10.5	4.6	-0.7	-4.0	1.2	7.0	12.2
	RH (%)	78.0	70.7	63.6	58.5	67.8	68.9	68.8	69.0	79.8	78.6	75.3	82.9	71.8	70.8	71.6
	Ha (g/m^3)	1.8	1.7	2.3	3.9	7.2	10.4	10.7	11.7	9.6	6.5	4.6	3.6	6.2	8.1	10.6
2002	Temp (C)	-5.4	-7.0	-4.0	5.2	9.7	16.5	21.0	19.5	16.6	5.3	-0.7	-6.6	5.8	11.6	18.4
	Dew Point (C)	-8.5	-11.4	-9.2	-1.4	3.2	11.7	15.2	14.3	12.0	1.8	-3.8	-10.0	1.2	6.6	13.3
	RH (%)	80.0	72.0	69.4	65.8	67.2	76.4	72.5	74.9	76.7	79.4	80.7	77.5	74.4	74.2	75.1
	Ha (g/m^3)	2.6	2.1	2.4	4.3	5.9	10.3	12.7	12.0	10.5	5.4	3.7	2.3	6.2	8.1	11.4
2003	Temp (C)	-14.2	-14.0	-4.5	2.8	11.6	17.3	19.3	19.7	15.1	6.4	1.5	-5.7	4.6	11.7	17.9
	Dew Point (C)	-18.8	-19.5	-10.2	-5.5	5.4	10.9	14.4	15.0	11.4	3.2	-1.6	-8.3	-0.3	6.6	12.9
	RH (%)	69.1	64.5	66.4	58.2	70.5	70.3	76.4	76.8	81.1	81.5	81.6	82.4	73.2	74.5	76.2
	Ha (g/m^3)	1.2	1.1	2.3	3.2	6.8	9.7	12.1	12.6	10.2	5.9	4.3	2.6	6.0	8.1	11.1
2004	Temp (C)	-16.6	-8.5	-1.2	4.6	11.3	15.8	19.1	17.3	15.5	8.0	0.8	-9.7	4.7	11.6	16.9
	Dew Point (C)	-21.4	-13.1	-6.1	-2.8	5.2	9.6	15.0	13.0	11.1	3.8	-3.1	-12.9	-0.1	6.5	12.1
	RH (%)	67.4	71.3	71.8	62.6	70.7	70.1	79.0	77.7	76.9	76.6	76.8	78.2	73.2	73.8	75.9
	Ha (g/m^3)	0.9	1.8	3.1	3.9	6.8	9.0	12.6	11.1	9.9	6.2	3.9	1.9	5.9	7.9	10.6
5-yr Avg	*Temp (C)*	*-11.7*	*-9.5*	*-2.5*	*4.6*	*11.6*	*16.8*	*19.3*	*19.0*	*14.9*	*7.2*	*1.2*	*-6.9*	***5.3***	***11.8***	***17.5***
	Dew Point (C)	*-15.7*	*-14.2*	*-8.2*	*-3.2*	*5.4*	*11.0*	*14.2*	*14.0*	*10.7*	*3.2*	*-2.3*	*-10.0*	***0.4***	***6.6***	***12.5***
	RH (%)	*72.7*	*70.0*	*67.4*	*61.4*	*69.8*	*72.4*	*74.8*	*75.7*	*78.6*	*77.7*	*78.8*	*79.4*	***73.2***	***73.6***	***75.3***
	Ha (g/m^3)	*1.6*	*1.7*	*2.7*	*3.8*	*6.9*	*9.8*	*12.0*	*11.8*	*9.7*	*5.9*	*4.1*	*2.4*	***6.0***	***8.0***	***10.8***

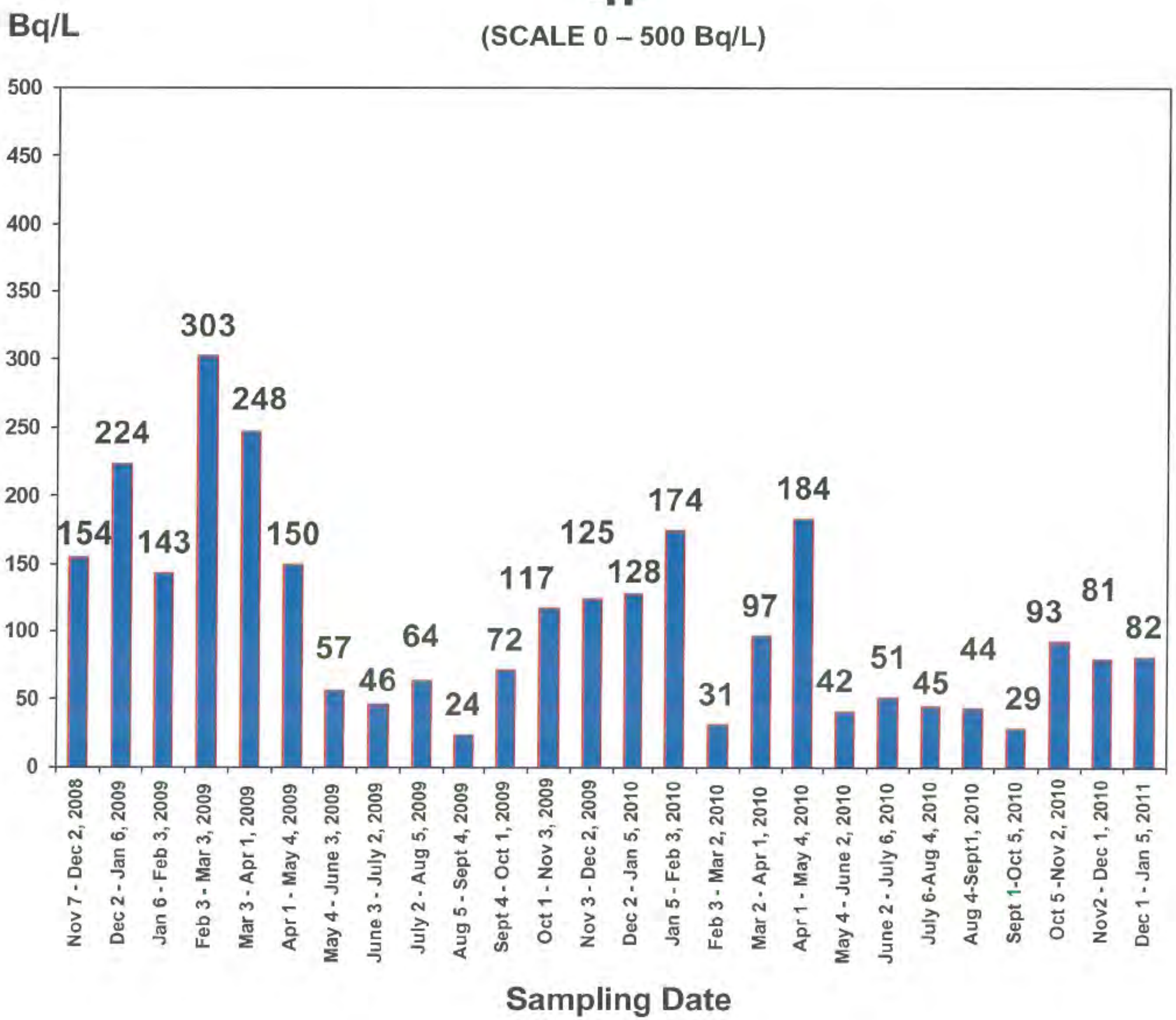
Factor to convert	***190***	***176***	***113***	***80***	***44***	***31***	***25***	***25***	***31***	***50***	***73***	***124***	***50***	***37***	***28***

Monthly data derived from hourly readings at Environment Canada's Petawawa A Station
Average Annual values calculated using monthly means
Snow-free period is April to November, inclusive
Growing season is June to September, inclusive

APPENDIX O


PRECIPITATION RESULTS
1P
Bq/L
(SCALE 0 – 300 Bq/L)
300
250
200
150
100
50
0
56
93
58
14
47
20
42
21
26
17
184
91
137
32
51
8
14
47
55
13
57
69
15
47
14
16
Nov 7 - Dec 2, 2008
Dec 2 - Jan 6, 2009
Jan 6 - Feb 3, 2009
Feb 3 - Mar 3, 2009
Mar 3 - Apr 1, 2009
Apr 1 - May 4, 2009
May 4 - June 3, 2009
June 3 - July 2, 2009
July 2 - Aug 5, 2009
Aug 5 - Sept 4, 2009
Sept 4 - Oct 1, 2009
Oct 1 - Nov 3, 2009
Nov 3 - Dec 2, 2009
Dec 2 - Jan 5, 2010
Jan 5 - Feb 3, 2010
Feb 3 - Mar 2, 2010
Mar 2 - Apr 1, 2010
Apr 1 - May 4, 2010
May 4 - June 2, 2010
June 2 - July 6, 2010
July 6-Aug 4, 2010
Aug 4-Sept 1, 2010
Sept 1-Oct 5, 2010
Oct 5-Nov 2, 2010
Nov 2 - Dec 1, 2010
Dec 1 - Jan 5, 2011
Sampling Date

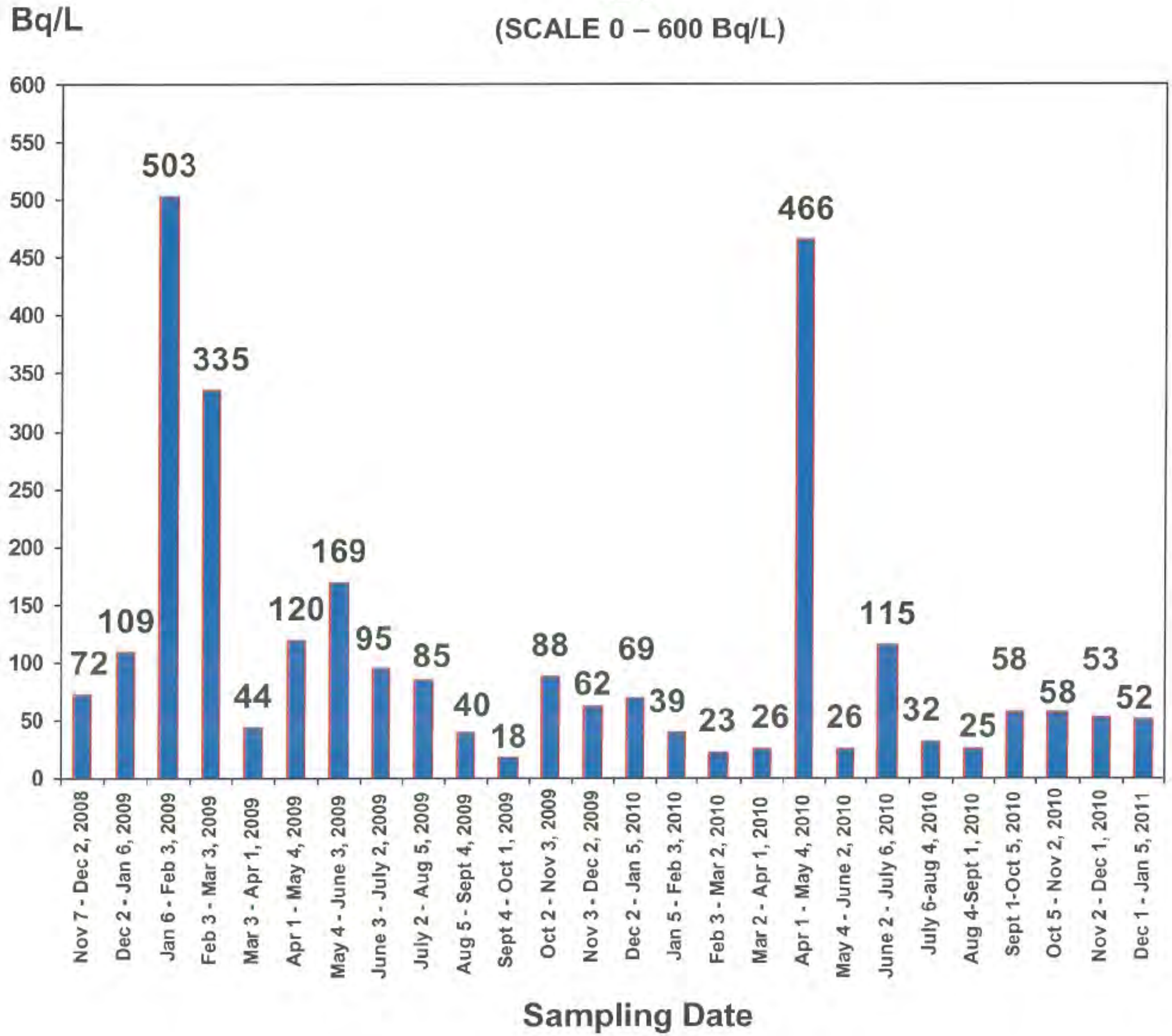
PRECIPITATION RESULTS
4P



APPENDIX O

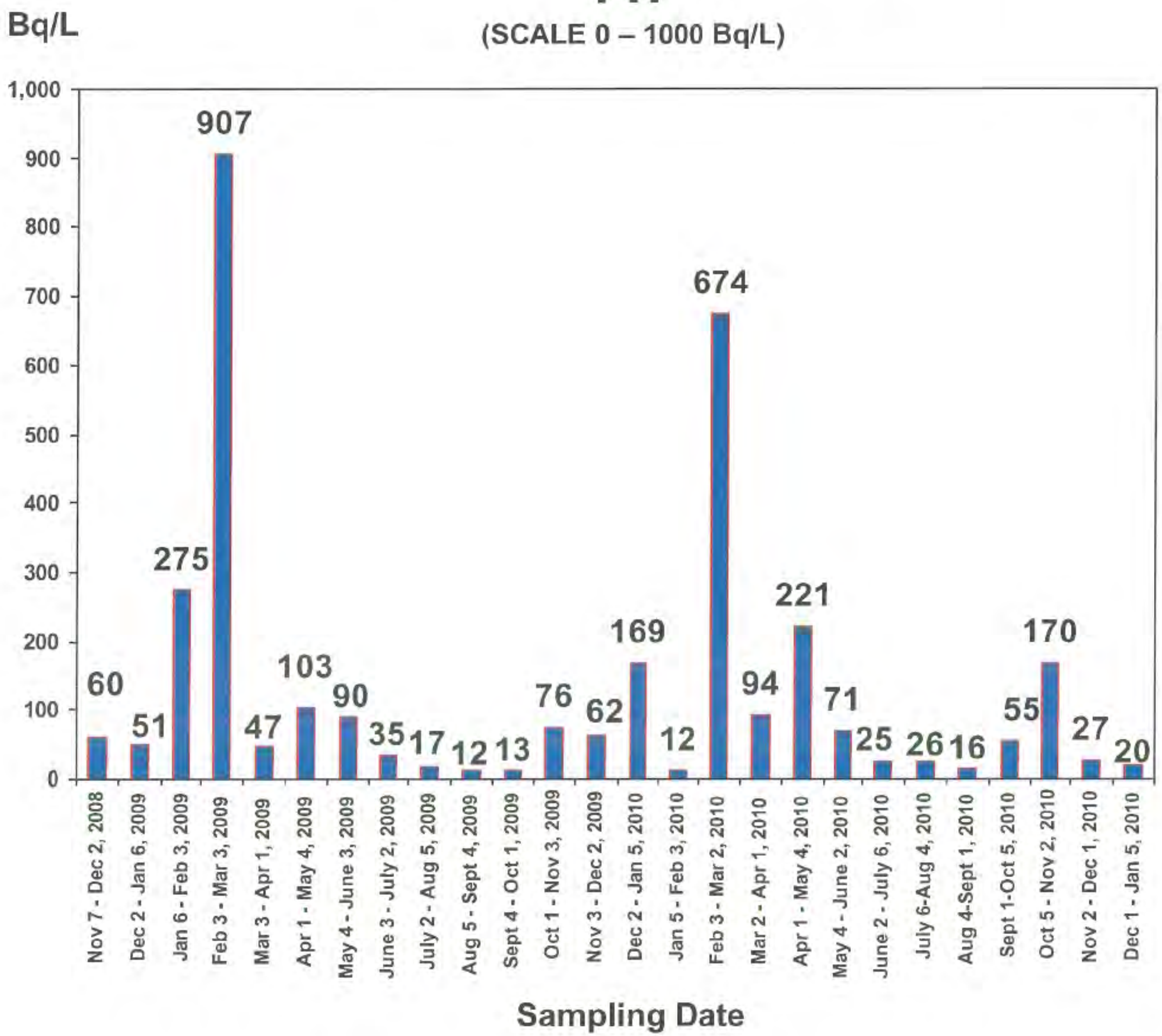
PRECIPITATION RESULTS
8P

(SCALE 0 – 600 Bq/L)

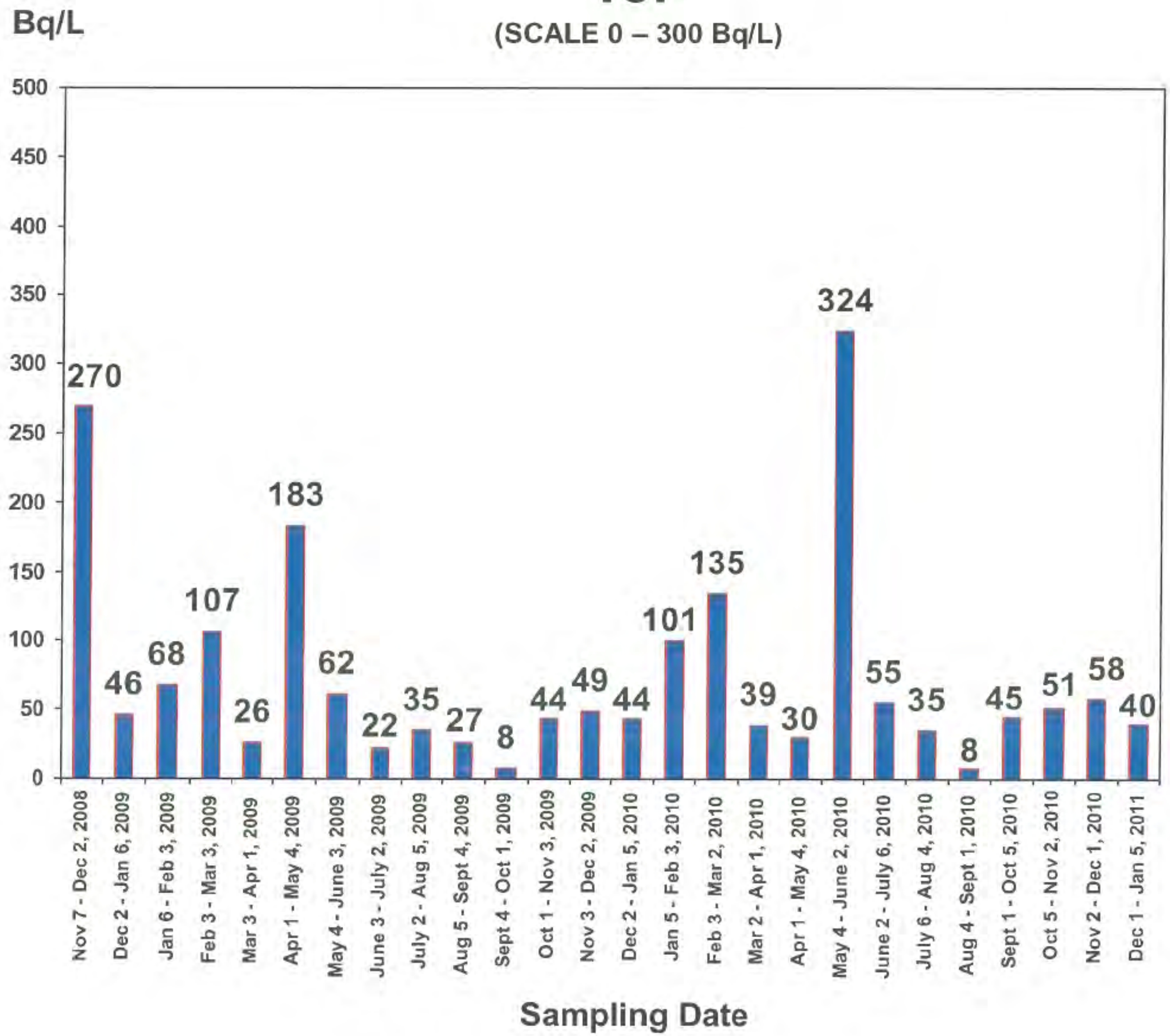


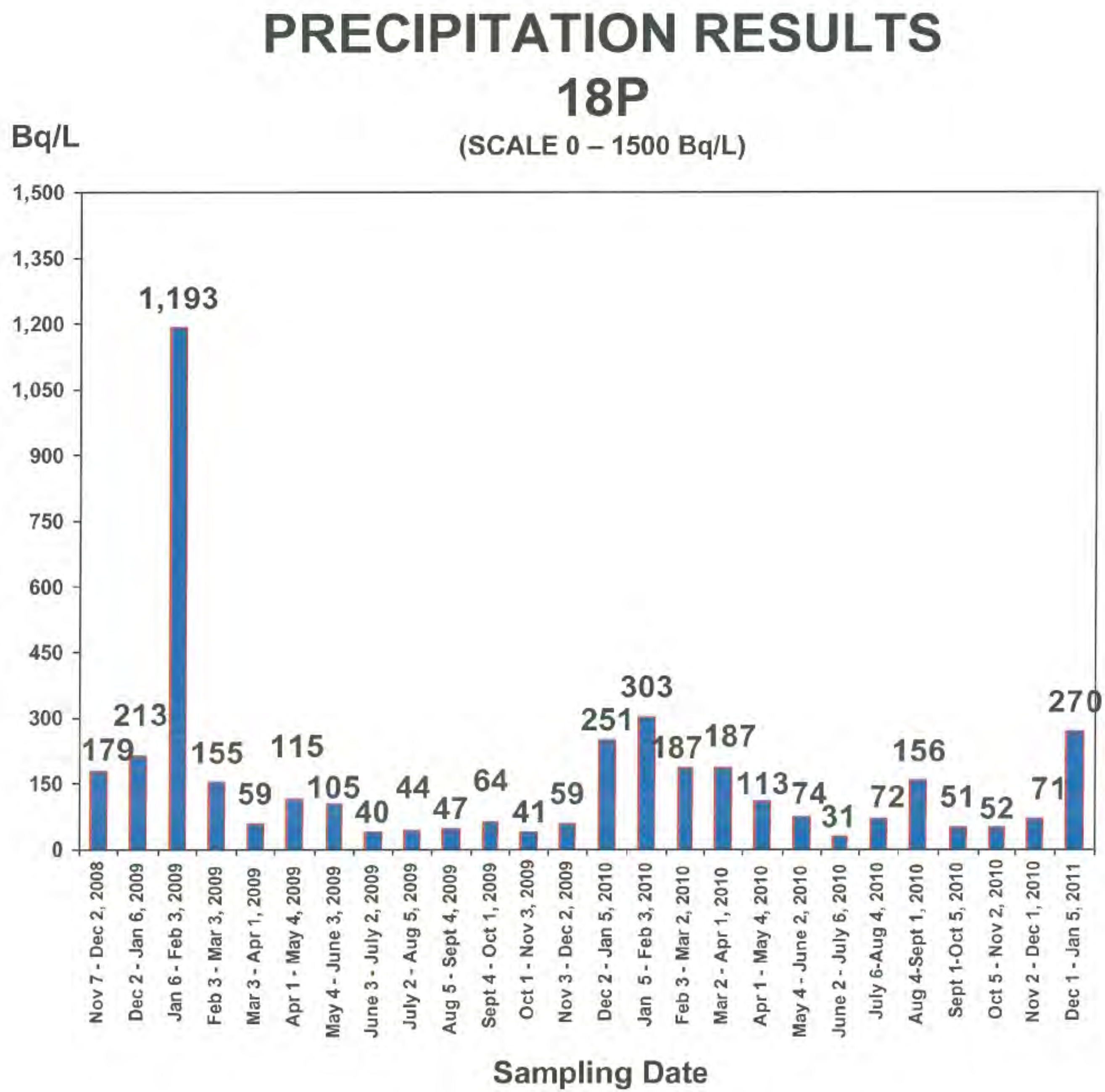
PRECIPITATION RESULTS
11P

(SCALE 0 – 1000 Bq/L)

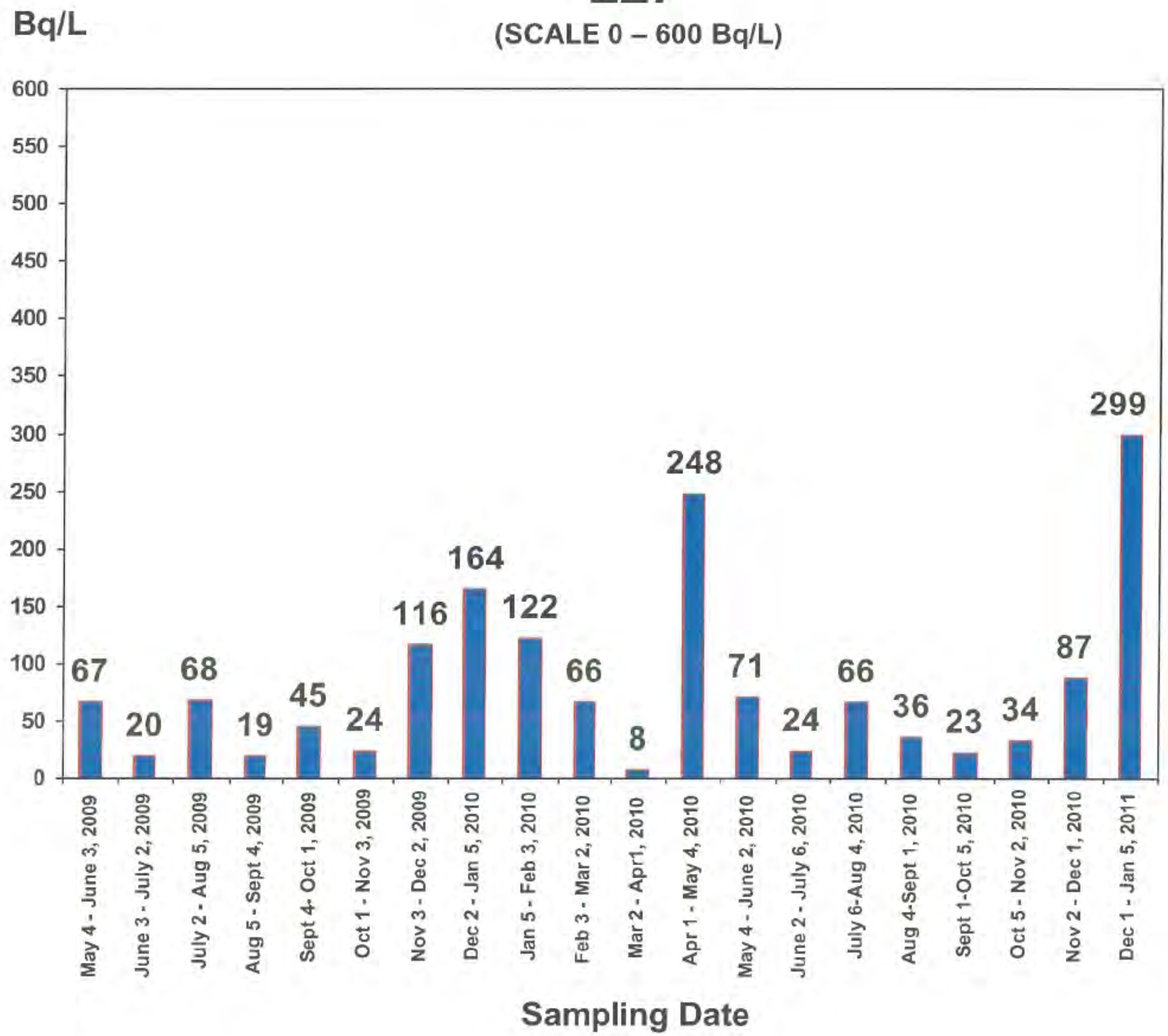


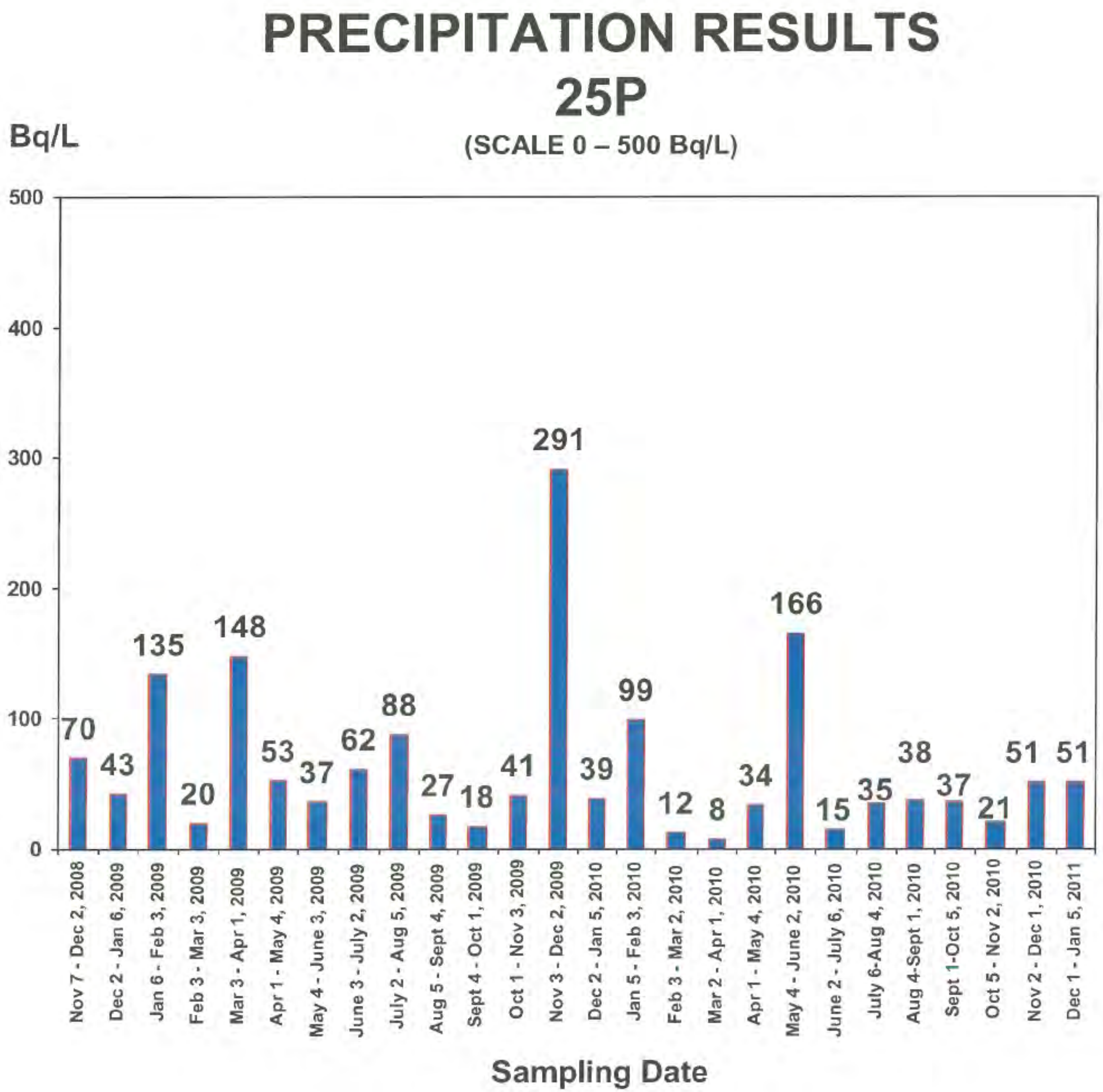
PRECIPITATION RESULTS
15P




PRECIPITATION RESULTS
18P
(SCALE 0 – 1500 Bq/L)
Bq/L
1,500
1,350
1,200
1,050
900
750
600
450
300
150
0
179
213
1,193
155
59
115
105
40
44
47
64
41
59
251
303
187
187
113
74
31
72
156
51
52
71
270
Nov 7 - Dec 2, 2008
Dec 2 - Jan 6, 2009
Jan 6 - Feb 3, 2009
Feb 3 - Mar 3, 2009
Mar 3 - Apr 1, 2009
Apr 1 - May 4, 2009
May 4 - June 3, 2009
June 3 - July 2, 2009
July 2 - Aug 5, 2009
Aug 5 - Sept 4, 2009
Sept 4 - Oct 1, 2009
Oct 1 - Nov 3, 2009
Nov 3 - Dec 2, 2009
Dec 2 - Jan 5, 2010
Jan 5 - Feb 3, 2010
Feb 3 - Mar 2, 2010
Mar 2 - Apr 1, 2010
Apr 1 - May 4, 2010
May 4 - June 2, 2010
June 2 - July 6, 2010
July 6-Aug 4, 2010
Aug 4-Sept 1, 2010
Sept 1-Oct 5, 2010
Oct 5 - Nov 2, 2010
Nov 2 - Dec 1, 2010
Dec 1 - Jan 5, 2011
Sampling Date

PRECIPITATION RESULTS
22P
(SCALE 0 – 600 Bq/L)





PRECIPITATION RESULTS
25P
(SCALE 0 – 500 Bq/L)
Bq/L
500
400
300
200
100
0
70
43
135
20
148
53
37
62
88
27
18
41
291
39
99
12
8
34
166
15
35
38
37
21
51
51
Nov 7 - Dec 2, 2008
Dec 2 - Jan 6, 2009
Jan 6 - Feb 3, 2009
Feb 3 - Mar 3, 2009
Mar 3 - Apr 1, 2009
Apr 1 - May 4, 2009
May 4 - June 3, 2009
June 3 - July 2, 2009
July 2 - Aug 5, 2009
Aug 5 - Sept 4, 2009
Sept 4 - Oct 1, 2009
Oct 1 - Nov 3, 2009
Nov 3 - Dec 2, 2009
Dec 2 - Jan 5, 2010
Jan 5 - Feb 3, 2010
Feb 3 - Mar 2, 2010
Mar 2 - Apr 1, 2010
Apr 1 - May 4, 2010
May 4 - June 2, 2010
June 2 - July 6, 2010
July 6-Aug 4, 2010
Aug 4-Sept 1, 2010
Sept 1-Oct 5, 2010
Oct 5 - Nov 2, 2010
Nov 2 - Dec 1, 2010
Dec 1 - Jan 5, 2011
Sampling Date

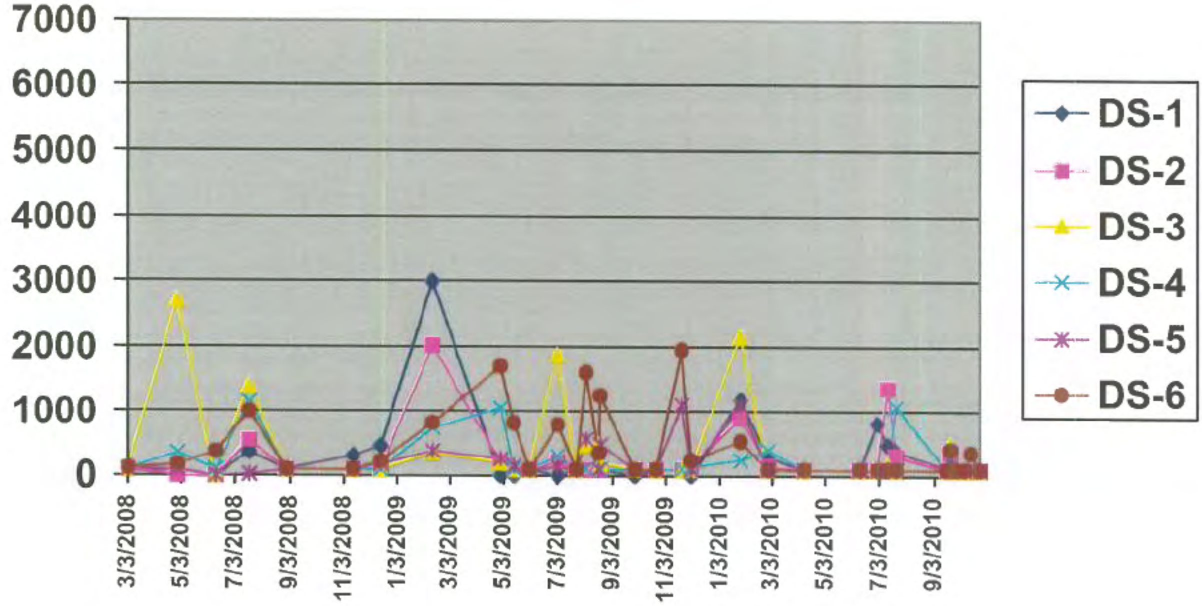
APPENDIX P

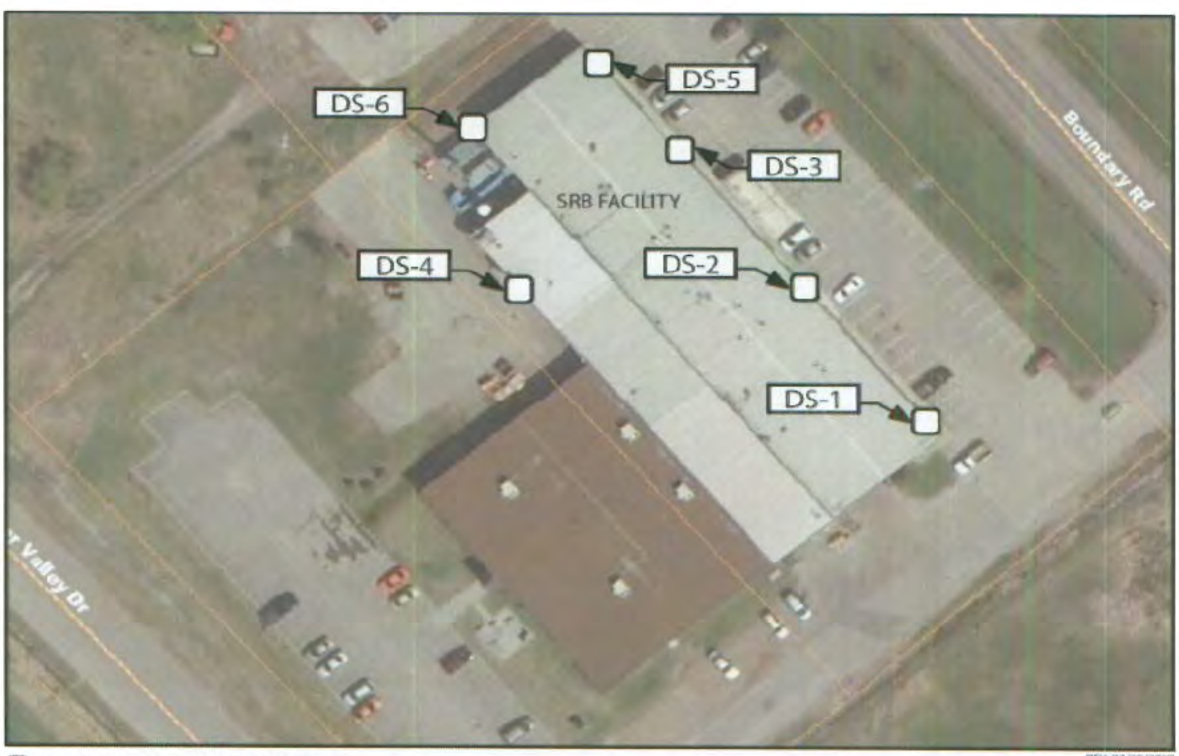
Runoff monitoring results for 2010

DOWNSPOUTS							
DATE	TIME	DS-1	DS-2	DS-3	DS-4	DS-5	DS-6
26-Jan-10	12:30 PM	1,180	890	2,160	240	1,090	530
26-Feb-10	1:00 PM	280	150	100	390	100	100
8-Apr-10	11:00 AM	100	100	100	100	100	100
10-Jun-10	8:45 AM	100	100	100	100	100	100
30-Jun-10	1:15 PM	810	100	100	100	100	100
12-Jul-10	2:50 PM	470	1,370	170	100	100	110
21-Jul-10	9:15 AM	370	310	100	1,070	100	100
16-Sep-10	3:20 PM	120	100	100	100	100	100
21-Sep-10	9:30 AM	140	370	490	300	290	410
28-Sep-10	10:45 AM	100	100	100	100	100	100
6-Oct-10	1:25 PM	100	100	100	100	100	100
14-Oct-10	9:15 AM	100	100	100	100	100	360
25-Oct-10	2:35 PM	100	100	100	100	100	100
Average		**305**	**299**	**294**	**223**	**191**	**178**
Average all results		**248**					

Values are all in Bq/L
Lower limit of detection = 100 Bq/L
January 26 and February 26, 2010 samples taken during thawing of snow.

DOWNSPOUTS





LOCATION OF DOWNSPOUTS

REV. 03/25/2009

APPENDIX Q

Liquid effluent monitoring results for 2010

ANNUAL 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)
			200,000,000,000	**4,170,399**	**20,851,995**	**87,578,380**
			200,000,000,000	0	0	0
8-Jan-10	0	52	200,000,000,000	0	0	0
15-Jan-10	0	51	200,000,000,000	0	0	0
22-Jan-10	3,859,500	50	199,996,140,500	1	0	0
29-Jan-10	0	49	199,996,140,500	0	0	0
5-Feb-10	0	48	199,996,140,500	0	0	0
12-Feb-10	831,138,840	47	199,165,001,660	199	40	9
19-Feb-10	540,899,880	46	198,624,101,780	130	26	6
26-Feb-10	0	45	198,624,101,780	0	0	0
5-Mar-10	0	44	198,624,101,780	0	0	0
12-Mar-10	0	43	198,624,101,780	0	0	0
19-Mar-10	0	42	198,624,101,780	0	0	0
26-Mar-10	1,108,800	41	198,622,992,980	0	0	0
2-Apr-10	0	40	198,622,992,980	0	0	0
9-Apr-10	432,396,800	39	198,190,596,180	104	21	5
16-Apr-10	0	38	198,190,596,180	0	0	0
23-Apr-10	0	37	198,190,596,180	0	0	0
28-Apr-10	21,156,700	36	198,169,439,480	5	1	0
7-May-10	0	35	198,169,439,480	0	0	0
14-May-10	0	34	198,169,439,480	0	0	0
21-May-10	4,516,860	33	198,164,922,620	1	0	0
28-May-10	0	32	198,164,922,620	0	0	0
4-Jun-10	244,142,800	31	197,920,779,820	59	12	3
11-Jun-10	1,199,000	30	197,919,580,820	0	0	0
18-Jun-10	0	29	197,919,580,820	0	0	0
25-Jun-10	0	28	197,919,580,820	0	0	0
2-Jul-10	0	27	197,919,580,820	0	0	0
9-Jul-10	0	26	197,919,580,820	0	0	0
16-Jul-10	0	25	197,919,580,820	0	0	0
23-Jul-10	61,146,800	24	197,858,434,020	15	3	1
30-Jul-10	0	23	197,858,434,020	0	0	0
6-Aug-10	0	22	197,858,434,020	0	0	0
13-Aug-10	0	21	197,858,434,020	0	0	0
22-Aug-10	201,894,537	20	197,656,539,483	48	10	2
29-Aug-10	336,490,895	19	197,320,048,588	81	16	4
5-Sep-10	436,832,358	18	196,883,216,230	105	21	5
12-Sep-10	64,352,684	17	196,818,863,546	15	3	1
17-Sep-10	2,603,656	16	196,816,259,890	1	0	0
26-Sep-10	278,138,400	15	196,538,121,490	67	13	3
3-Oct-10	347,673,000	14	196,190,448,490	83	17	4
10-Oct-10	278,138,400	13	195,912,310,090	67	13	3
17-Oct-10	278,138,400	12	195,634,171,690	67	13	3
24-Oct-10	347,673,000	11	195,286,498,690	83	17	4
29-Oct-10	600,526,000	10	194,685,972,690	144	29	7
5-Nov-10	122,540,000	9	194,563,432,690	29	6	1
12-Nov-10	183,810,000	8	194,379,622,690	44	9	2
19-Nov-10	0	7	194,379,622,690	0	0	0
26-Nov-10	0	6	194,379,622,690	0	0	0
3-Dec-10	66,389,547	5	194,313,233,143	16	3	1
11-Dec-10	398,337,280	4	193,914,895,863	96	19	5
17-Dec-10	331,947,733	3	193,582,948,130	80	16	4
24-Dec-10	199,168,640	2	193,383,779,490	48	10	2
31-Dec-10	0	1	193,383,779,490	0	0	0

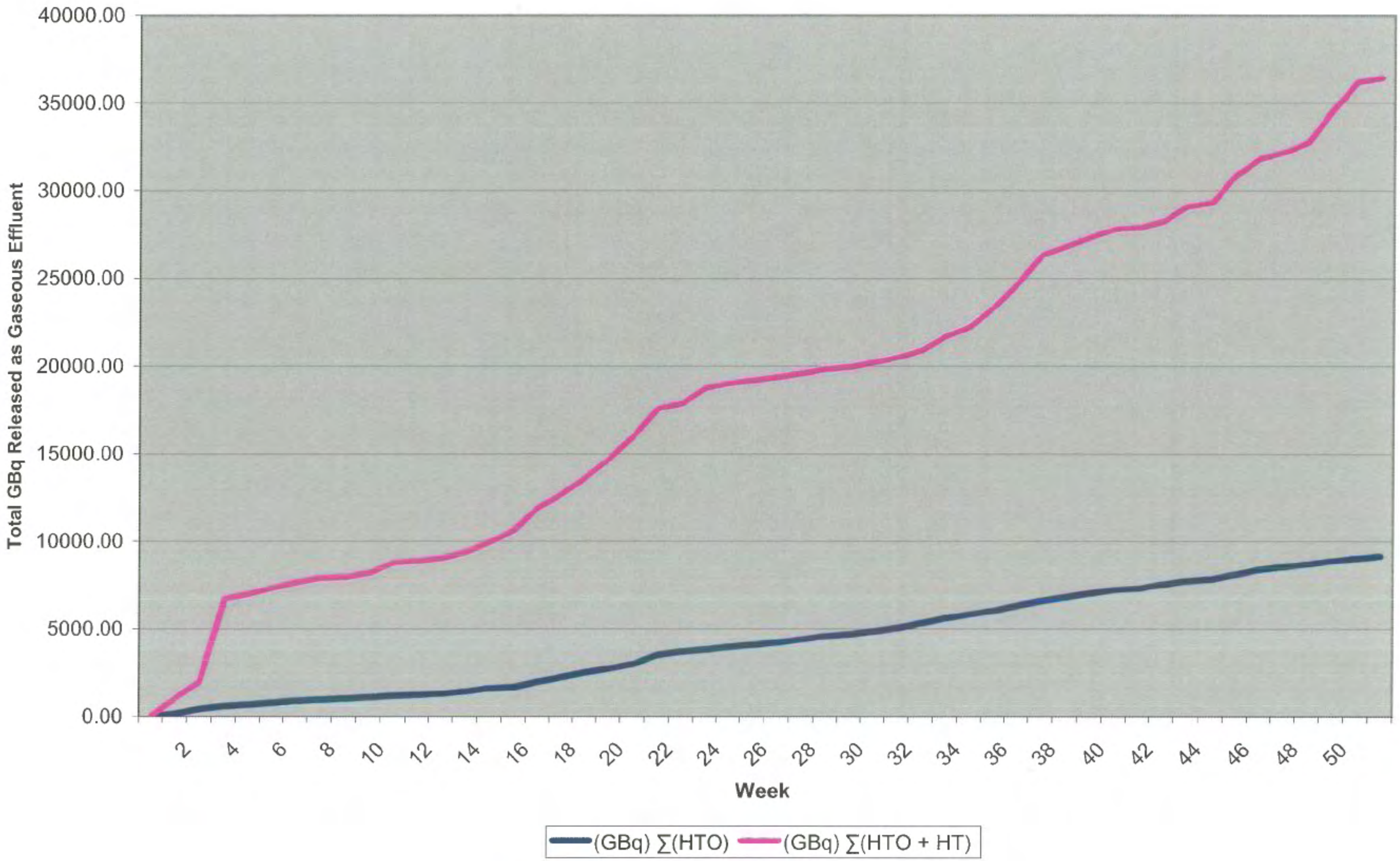
Annual Total (Bq)	6,616,220,510
Annual Total (GBq)	7
Limit (GBq)	200
% of limit	3.31

APPENDIX R

Air emission monitoring results for 2010

Week	Date		Stack Release Data: H-3 in Air (GBq)			(GBq)		1996 SRBT DEL %DEL			Weekly Release Limit %WRL		2006 SRBT DRL % DRL				
	Initial	Final	HTO	HT	Total	∑(HTO)	∑(HTO + HT)	Adult Resident	Infant Resident	Adult Worker	HTO	HT	Adult Resident	Infant Resident	Nursing Infant	Nursing Mother	Adult Worker
1	12/28/2010	1/4/2010	50.04	3.50	53.54	50.04	53.54	0.01	0.01	0.01	0.04	0.01	0.03	0.02	0.05	0.03	0.03
2	1/4/2010	1/11/2010	136.81	866.50	1003.31	186.85	1056.85	0.03	0.02	0.03	0.10	0.19	0.10	0.08	0.17	0.10	0.10
3	1/11/2010	1/18/2010	280.10	698.00	978.10	466.95	2034.95	0.06	0.03	0.06	0.21	0.19	0.18	0.14	0.29	0.18	0.18
4	1/18/2010	1/26/2010	157.95	4541.08	4699.03	624.90	6733.98	0.04	0.03	0.04	0.12	0.90	0.20	0.17	0.36	0.21	0.20
5	1/26/2010	2/1/2010	79.94	189.31	269.25	704.84	7003.23	0.02	0.01	0.02	0.06	0.05	0.05	0.04	0.08	0.05	0.05
6	2/1/2010	2/8/2010	102.73	254.68	357.41	807.57	7360.64	0.02	0.01	0.02	0.08	0.07	0.07	0.05	0.11	0.07	0.06
7	2/8/2010	2/15/2010	104.37	204.05	308.42	911.94	7669.06	0.02	0.01	0.02	0.08	0.06	0.07	0.05	0.10	0.07	0.06
8	2/15/2010	2/22/2010	71.97	168.88	240.85	983.91	7909.91	0.01	0.01	0.02	0.05	0.05	0.05	0.03	0.07	0.05	0.04
9	2/22/2010	3/1/2010	46.52	10.15	56.67	1030.43	7966.58	0.01	0.00	0.01	0.03	0.01	0.03	0.02	0.04	0.03	0.03
10	3/1/2010	3/8/2010	71.60	162.74	234.34	1102.03	8200.92	0.01	0.01	0.02	0.05	0.04	0.05	0.03	0.07	0.05	0.04
11	3/8/2010	3/15/2010	94.27	488.16	582.43	1196.30	8783.35	0.02	0.01	0.02	0.07	0.11	0.07	0.05	0.11	0.07	0.07
12	3/15/2010	3/22/2010	56.87	55.45	112.32	1253.17	8895.67	0.01	0.01	0.01	0.04	0.02	0.03	0.03	0.05	0.04	0.03
13	3/22/2010	3/28/2010	51.84	105.95	157.79	1305.01	9053.46	0.01	0.01	0.01	0.04	0.03	0.03	0.02	0.05	0.03	0.03
14	3/28/2010	4/5/2010	137.73	187.90	325.63	1442.74	9379.09	0.03	0.02	0.03	0.10	0.06	0.08	0.06	0.13	0.09	0.08
15	4/5/2010	4/12/2010	180.34	396.28	576.62	1623.08	9955.71	0.04	0.02	0.04	0.13	0.11	0.11	0.09	0.18	0.12	0.11
16	4/12/2010	4/19/2010	76.04	607.20	683.24	1699.12	10638.95	0.02	0.01	0.02	0.06	0.13	0.06	0.05	0.10	0.06	0.06
17	4/19/2010	4/26/2010	293.38	1025.22	1318.60	1992.50	11957.55	0.06	0.04	0.07	0.22	0.25	0.20	0.15	0.32	0.20	0.19
18	4/26/2010	5/3/2010	259.92	502.69	762.61	2252.42	12720.16	0.05	0.03	0.06	0.19	0.15	0.16	0.12	0.26	0.17	0.16
19	5/3/2010	5/10/2010	263.07	663.94	927.01	2515.49	13647.17	0.05	0.03	0.06	0.19	0.18	0.17	0.13	0.27	0.17	0.16
20	5/10/2010	5/17/2010	214.02	872.83	1086.85	2729.51	14734.02	0.04	0.03	0.05	0.16	0.21	0.15	0.11	0.24	0.15	0.14
21	5/17/2010	5/25/2010	277.02	1027.98	1305.00	3006.53	16039.02	0.06	0.03	0.06	0.21	0.25	0.19	0.14	0.30	0.19	0.18
22	5/25/2010	5/31/2010	528.18	1051.00	1579.18	3534.71	17618.20	0.11	0.06	0.12	0.39	0.30	0.33	0.25	0.53	0.34	0.32
23	5/31/2010	6/7/2010	195.99	104.66	300.65	3730.70	17918.85	0.04	0.02	0.04	0.15	0.06	0.12	0.09	0.18	0.12	0.11
24	6/7/2010	6/14/2010	105.51	765.78	871.29	3836.21	18790.14	0.02	0.01	0.03	0.08	0.17	0.08	0.06	0.13	0.08	0.08
25	6/14/2010	6/21/2010	141.54	114.84	256.38	3977.75	19046.52	0.03	0.02	0.03	0.10	0.05	0.08	0.06	0.13	0.09	0.08
26	6/21/2010	6/28/2010	125.46	52.24	177.70	4103.21	19224.22	0.03	0.01	0.03	0.09	0.03	0.07	0.06	0.12	0.08	0.07
27	6/28/2010	7/5/2010	131.27	41.44	172.71	4234.48	19396.93	0.03	0.01	0.03	0.10	0.03	0.08	0.06	0.12	0.08	0.08
28	7/5/2010	7/12/2010	186.43	42.63	229.06	4420.91	19625.99	0.04	0.02	0.04	0.14	0.04	0.11	0.08	0.17	0.11	0.11
29	7/12/2010	7/19/2010	178.53	55.37	233.90	4599.44	19859.89	0.04	0.02	0.04	0.13	0.04	0.10	0.08	0.16	0.11	0.10
30	7/19/2010	7/26/2010	111.54	5.44	116.98	4710.98	19976.87	0.02	0.01	0.03	0.08	0.02	0.06	0.05	0.10	0.07	0.06
31	7/26/2010	8/3/2010	168.65	92.30	260.95	4879.63	20237.82	0.03	0.02	0.04	0.12	0.05	0.10	0.07	0.16	0.10	0.10
32	8/3/2010	8/9/2010	186.77	105.41	292.18	5066.40	20530.00	0.04	0.02	0.04	0.14	0.06	0.11	0.08	0.17	0.11	0.11
33	8/9/2010	8/16/2010	267.88	147.99	415.87	5334.28	20945.87	0.05	0.03	0.06	0.20	0.08	0.16	0.12	0.25	0.16	0.15
34	8/16/2010	8/23/2010	283.09	508.65	791.74	5617.37	21737.61	0.06	0.03	0.07	0.21	0.15	0.18	0.13	0.28	0.18	0.17
35	8/23/2010	8/30/2010	231.73	330.86	562.59	5849.10	22300.20	0.05	0.03	0.05	0.17	0.11	0.14	0.11	0.23	0.15	0.14
36	8/30/2010	9/7/2010	204.22	877.92	1082.14	6053.32	23382.34	0.04	0.02	0.05	0.15	0.21	0.14	0.11	0.23	0.14	0.14
37	9/7/2010	9/13/2010	287.00	1044.89	1331.89	6340.32	24714.23	0.06	0.03	0.07	0.21	0.26	0.19	0.15	0.31	0.20	0.19
38	9/13/2010	9/20/2010	274.16	1365.09	1639.25	6614.48	26353.48	0.06	0.03	0.06	0.20	0.31	0.19	0.15	0.32	0.20	0.19
39	9/20/2010	9/27/2010	212.98	284.64	497.62	6827.46	26851.10	0.04	0.02	0.05	0.16	0.10	0.13	0.10	0.21	0.13	0.13
40	9/27/2010	10/4/2010	221.78	304.17	525.95	7049.24	27377.05	0.04	0.02	0.05	0.16	0.10	0.14	0.10	0.22	0.14	0.13
41	10/4/2010	10/12/2010	197.00	258.87	455.87	7246.24	27832.92	0.04	0.02	0.05	0.15	0.09	0.12	0.09	0.19	0.12	0.12
42	10/12/2010	10/18/2010	70.40	21.76	92.16	7316.64	27925.08	0.01	0.01	0.02	0.05	0.02	0.04	0.03	0.07	0.04	0.04
43	10/18/2010	10/25/2010	251.17	94.34	345.51	7567.81	28270.59	0.05	0.03	0.06	0.19	0.07	0.15	0.11	0.23	0.15	0.14
44	10/25/2010	11/2/2010	185.03	669.11	854.14	7752.84	29124.73	0.04	0.02	0.04	0.14	0.16	0.12	0.09	0.20	0.13	0.12
45	11/2/2010	11/8/2010	95.44	111.65	207.09	7848.28	29331.82	0.02	0.01	0.02	0.07	0.04	0.06	0.04	0.09	0.06	0.06
46	11/8/2010	11/15/2010	283.90	1316.06	1599.96	8132.18	30931.78	0.06	0.04	0.07	0.21	0.31	0.20	0.15	0.32	0.20	0.19
47	11/15/2010	11/22/2010	262.70	642.17	904.87	8394.88	31836.65	0.05	0.03	0.06	0.19	0.17	0.17	0.13	0.27	0.17	0.16
48	11/22/2010	11/29/2010	158.43	212.10	370.53	8553.31	32207.18	0.03	0.02	0.04	0.12	0.07	0.10	0.07	0.15	0.10	0.09
49	11/29/2010	12/6/2010	165.20	379.75	544.95	8718.51	32752.13	0.03	0.02	0.04	0.12	0.10	0.10	0.08	0.17	0.11	0.10
50	12/6/2010	12/13/2010	171.35	1671.00	1842.35	8889.86	34594.48	0.04	0.02	0.04	0.13	0.35	0.14	0.11	0.24	0.15	0.14
51	12/13/2010	12/20/2010	164.12	1449.57	1613.69	9053.98	36208.17	0.04	0.02	0.04	0.12	0.31	0.13	0.10	0.22	0.14	0.13
52	12/20/2010	12/27/2010	119.00	99.17	218.17	9172.98	36426.34	0.02	0.01	0.03	0.09	0.04	0.07	0.05	0.11	0.07	0.07
Annual	Total		9172.98	27253.36	36426.34				Average % DEL		Average % WRL				Average % DRL		
Weekly	Average		176.40	524.10	700.51			0.04	0.02	0.04	0.13	0.13	0.12	0.09	0.19	0.12	0.11
% Annual Release Limit:			(Bq/a)		% Release Limit				Projected Dose (uSv/a)						Projected Dose (uSv/a)		
		HTO	6.72E+13		13.65			0.36	0.21	0.41			1.15	0.87	1.86	1.18	1.13
		HTO + HT	4.48E+14		8.13			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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4
6
8
10
12
14
16
18
20
22
24
26
28
30
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38
40
42
44
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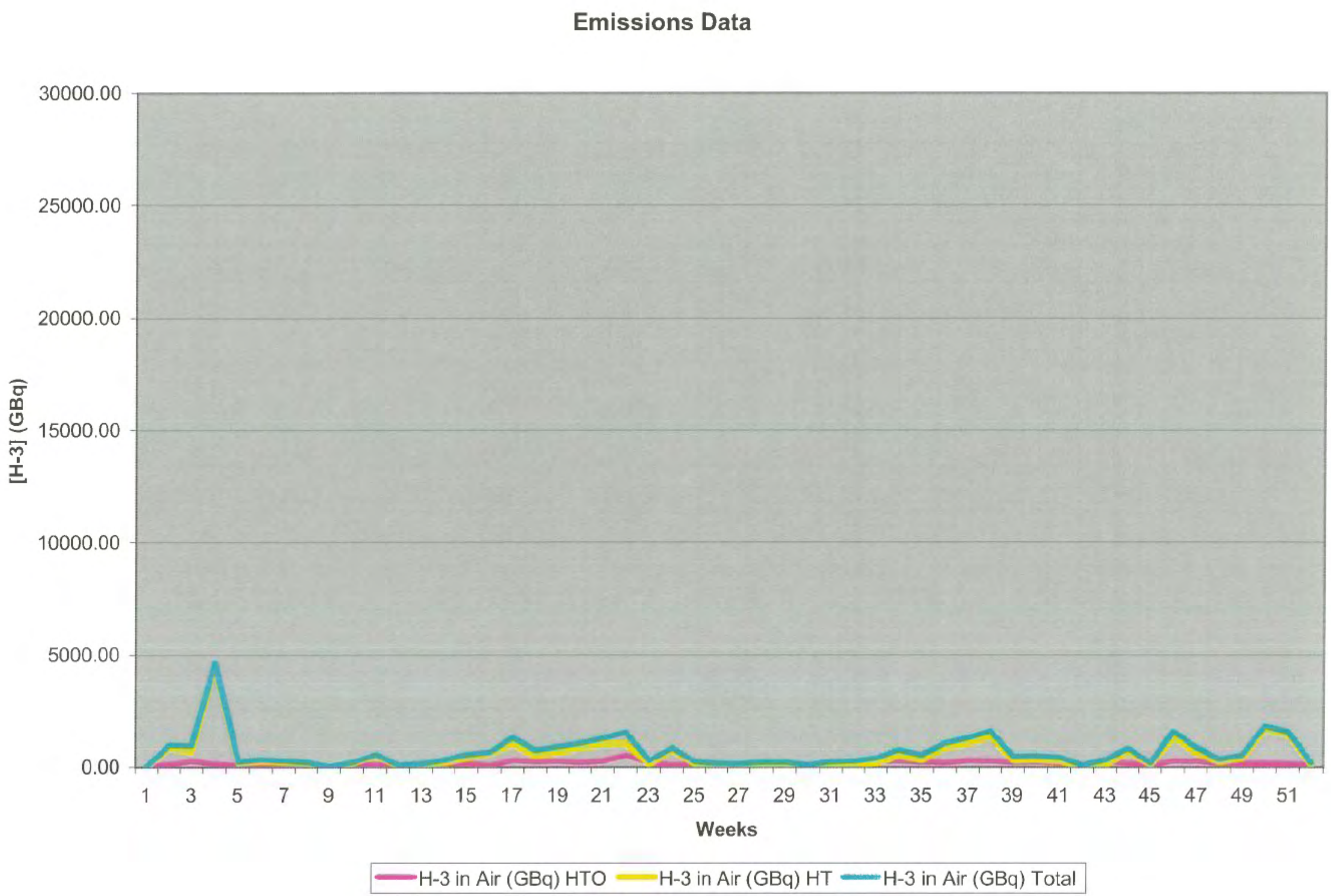
Week
(GBq) ∑(HTO)
(GBq) ∑(HTO + HT)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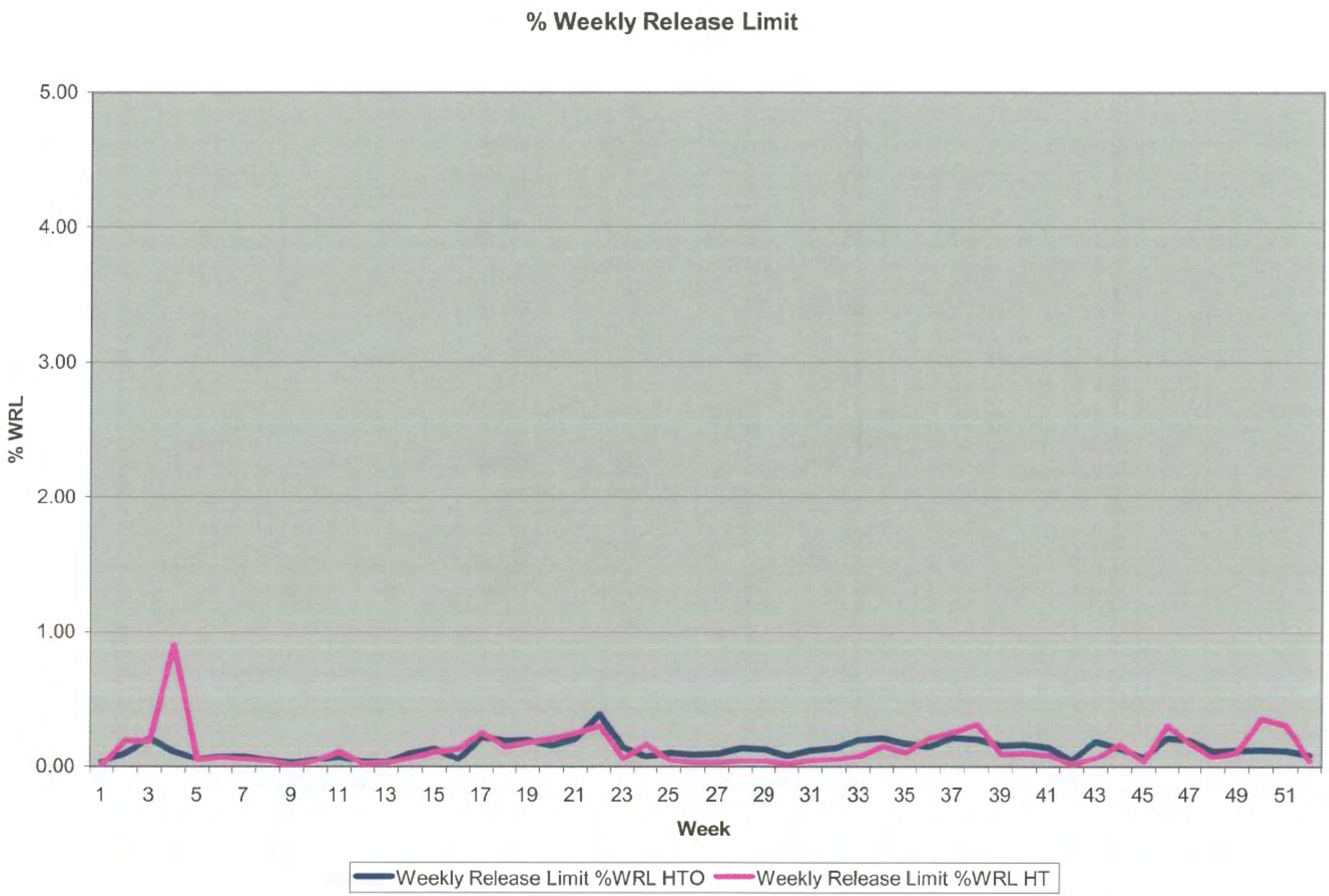
Weeks
H-3 in Air (GBq) HTO
H-3 in Air (GBq) HT
H-3 in Air (GBq) Total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% WRL
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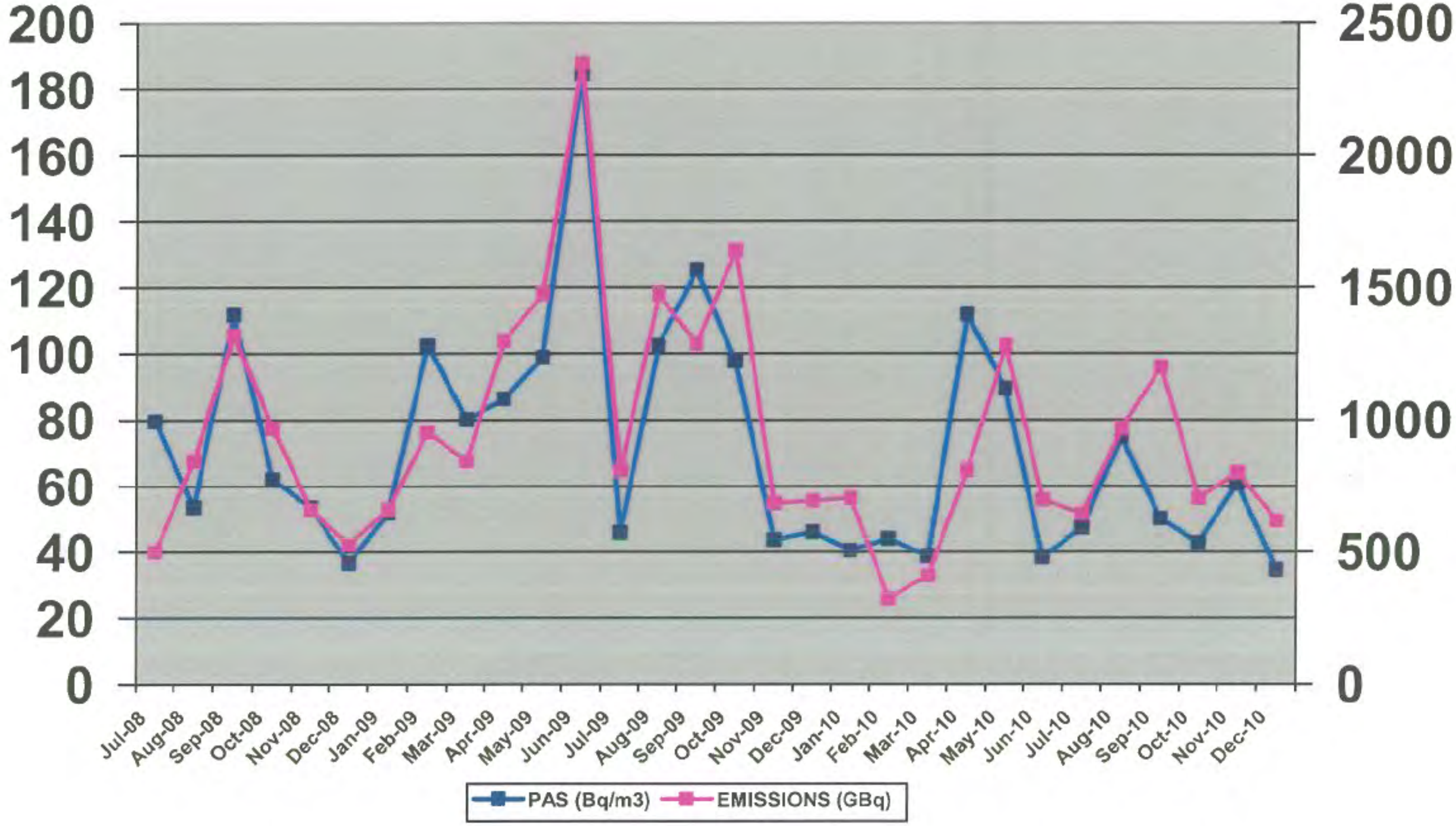
17
19
21
23
25
27
29
31
33
35
37
39
41
43
45
47
49
51
Week
Weekly Release Limit %WRL HTO
Weekly Release Limit %WRL HT

APPENDIX S

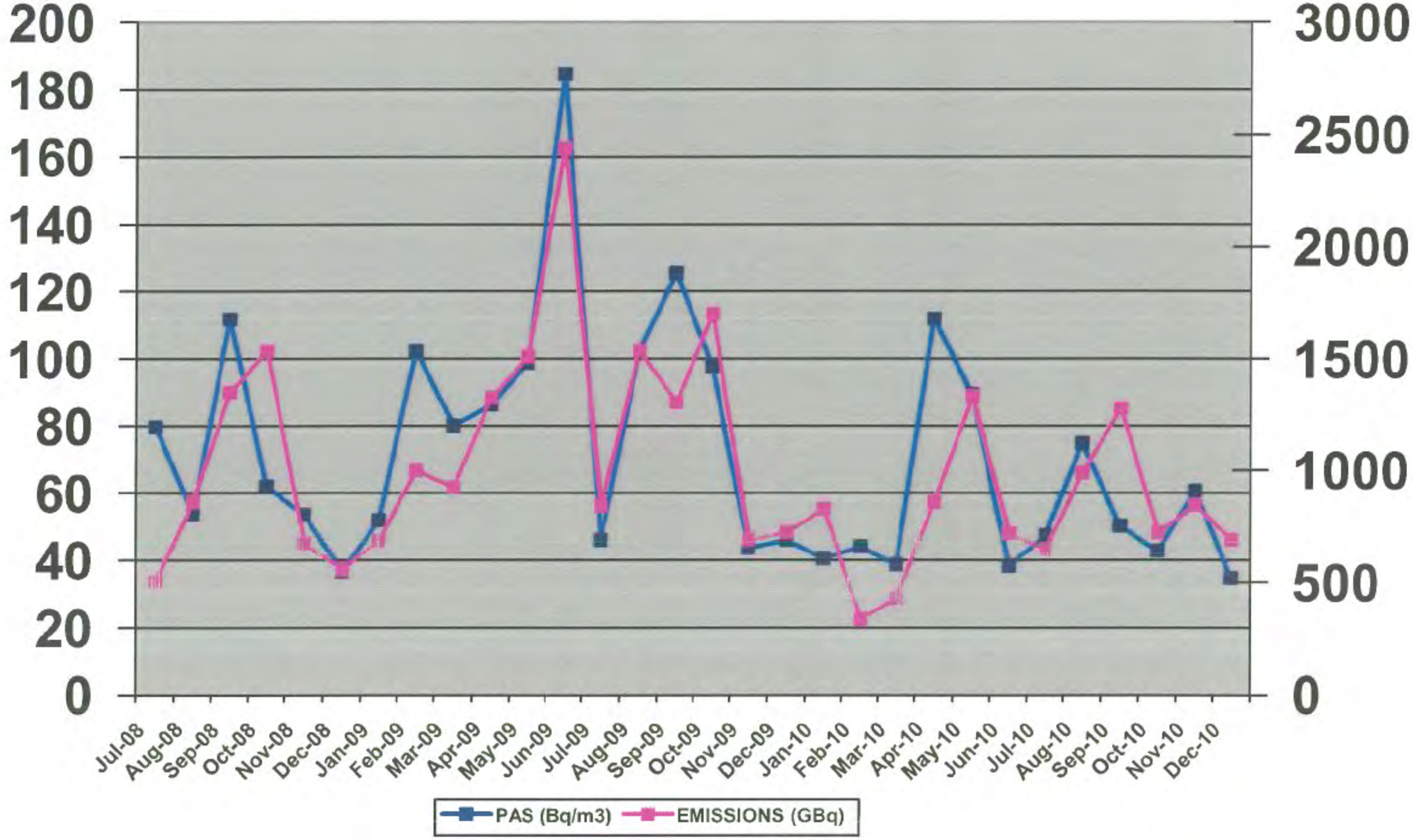
Passive air sampler results vs. HTO emissions 2010

PAS vs. EMISSIONS
WITHOUT 2% HT



APPENDIX S

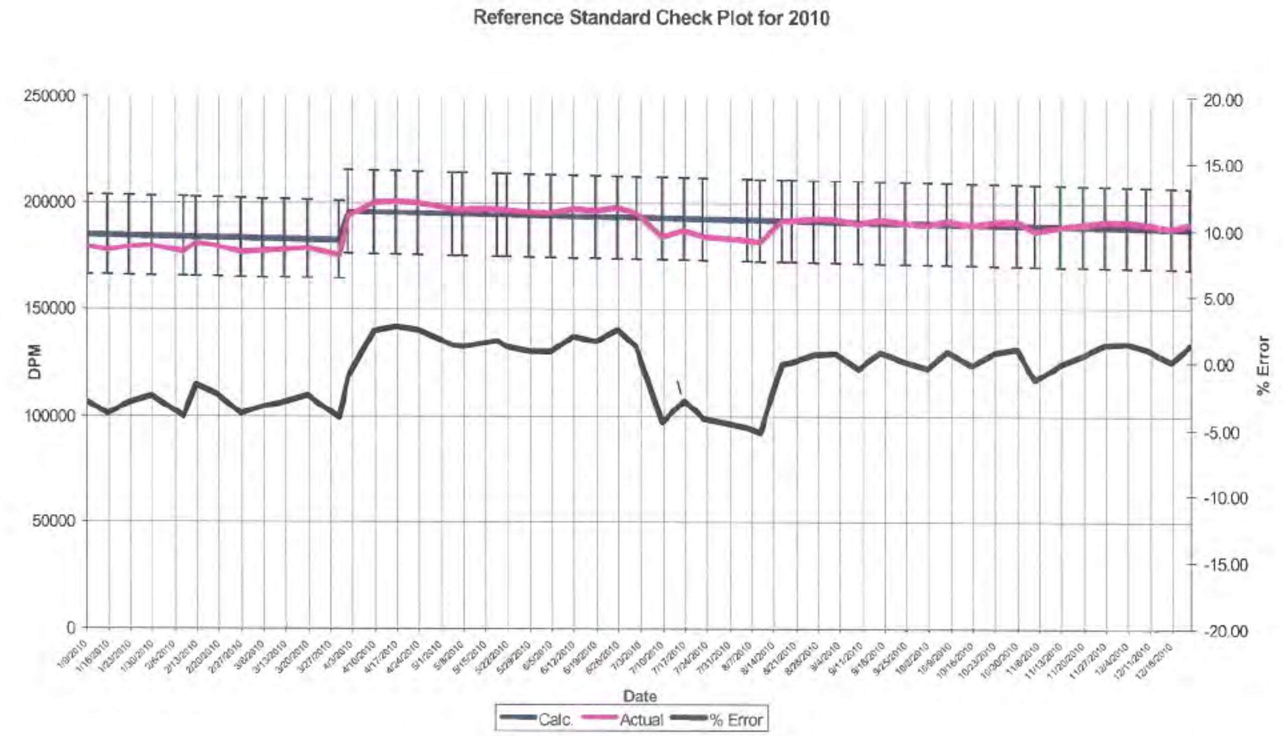
PAS vs. EMISSIONS
WITH 2% HT



APPENDIX T

Weekly instrument reference standard report for 2010

Weekly Instrument Reference Standard Report for 2010



APPENDIX T

APPENDIX U

Weather monitoring data for 2010

	WEATHER MONITORING DATA 2010									
	Pressure, mbar()	Counts, # ()	Wind Speed, m/s()	Gust Speed, m/s()	Wind Direction, ø()	Temp, °C()	RH, %()	DewPt, °C()	Wind sector (nesw)	Total rain (mm)
Jan-10	998.29	130	2.92	4.14	207.47	-8.00	82.83	-10.45	SSW	26
Feb-10	992.66	98	3.80	5.35	263.34	-4.77	78.74	-8.05	WSW	19.6
Mar-10	998.25	66	2.62	3.78	207.51	3.20	55.32	-5.74	SSW	13.20
Apr-10	994.48	241	3.32	4.87	225.19	9.76	59.56	1.11	SW	48.20
May-10	998.87	143	2.76	4.09	209.71	15.21	62.06	6.99	SSW	28.6
Jun-10	995.55	541	2.47	3.75	223.24	18.09	71.9	12.35	SW	108.2
Jul-10	994.76	456	2.22	3.37	205.34	21.58	74.64	16.40	SSW	198.95
Aug-10	996.89	212	2.3	3.52	182.9	19.79	74.62	14.6	SSW	42.4
Sep-10	996.26	582	2.71	4.01	215.29	12.94	83	9.88	SW	116.4
Oct-10	994.46	336	3.09	4.55	229.58	6.46	76.58	2.25	SW	67.2
Nov-10	999.17	488	2.8	4.04	181.89	1.41	80.28	-1.82	SSW	97.6
Dec-10	994.92	42	2.84	4.3	236.18	-6.11	83.63	-8.48	SW	8.4
YEARLY AVERAGE	996.21	277.92	2.82	4.15	215.64	7.46	73.60	2.42	SW	64.56

APPENDIX U