



# Watercare Laboratory Services

## QUARTERLY NEWS

NOVEMBER 2005

### The Air Quality Department keeps up clients demand for IANZ Accredited stack emission monitoring

IANZ Accreditation for stack emission monitoring is increasingly an expectation of Council Authorities and Industry clients. With the Auckland Regional Council's recent decision to only contract air quality stack emissions compliance monitoring to IANZ Accredited suppliers, demand for IANZ Accredited service suppliers is expected to continue to rise.

Watercare Laboratory Services quality programme includes IANZ Accreditation for a full range of laboratory analyses and air quality monitoring, including stack emission monitoring.

IANZ Accreditation gives our customers assurance of technical competence, reliability and quality management in the execution of the job.



*A technician secures a sampling assembly into a stack*

The Stack Emissions team offers a comprehensive range of stack tests, including;

- PM<sub>10</sub> Particulates
- Metals
- Combustion gases
- SO<sub>x</sub>
- NO<sub>x</sub>
- VOC'S
- Formaldehyde
- Aldehydes
- Odour
- Dioxins
- Ammonia

In addition, required chemical analysis is carried out by Watercare Laboratory Services Chemical Laboratory.

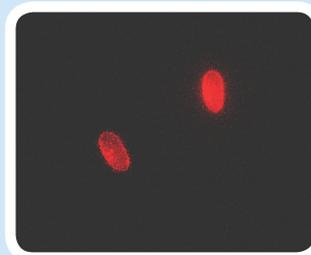
To further discuss Watercare Laboratory Services range of stack emission monitoring methods and how they can service your testing requirements, please contact Judy Ansen, Point Emissions Team Leader on (09) 255 1536 or by email at [jansen@water.co.nz](mailto:jansen@water.co.nz)

### Giardia and Cryptosporidium and the 2005 New Zealand Drinking Water Standards

The 2005 New Zealand Drinking Water Standards come into effect in December 2005 and will require monitoring of raw waters to determine *Cryptosporidium* concentrations. If you are a water supplier to more than 10,000 people, you will be required to analyse at least 26 raw water samples over a twelve-month period. Monitoring needs to be carried out using an approved method. To gauge the accuracy of the test, each sample must have Colorseed® added. Watercare Laboratory Services offers approved methodology and is an experienced user of Colorseed®.

For the last nine years Watercare Laboratory Services has provided clients *Giardia* and *Cryptosporidium* analysis of waters, sediments, and shellfish samples. In this time, to ensure its testing service matches that of the best laboratories worldwide, WLS has continually invested in the best available new technologies for *Giardia* and *Cryptosporidium* analysis.

The microbiology laboratory is IANZ Accredited for its two preferred methods of sample concentration; Filtramax® and Envirocheck®. Both methods are based on US EPA 1623. Both are a combined *Giardia* and *Cryptosporidium* enumeration methods. All *Giardia* and *Cryptosporidium* analysis is performed using Colorseed®.



*Giardia with Colorseed®*



*Cryptosporidium with DAPI stain*

The use of Colorseed® means an accurate calculation of the percentage recovery is determined for each sample and an accurate calculation of the number of oocysts can be determined for each sample. In addition, the laboratory participates in inter-laboratory testing programmes. The identification of confirmed and presumptive cysts are regularly challenged by this means. An ongoing programme compares technician performance to assure consistency and accuracy is maintained.

If you have any queries regarding *Giardia* and *Cryptosporidium* analysis, the experienced staff in Microbiology would be happy to discuss this with you. Queries can be directed to Lynette Ronberg by phone on (09) 255 1537 or by email at [Ironberg@water.co.nz](mailto:Ironberg@water.co.nz).

# Staff Profiles

## Air Quality Department continues to grow

### Ashok Nangia – Senior Air Quality Technician



In the time since joining Watercare Laboratory Services, Ashok Nangia has proven to be a valuable source of technical expertise and experience to the air quality department and their clients.

Ashok's impressive resume includes over 35 years experience as a chemical engineer, and over 8 years experience in stack testing, using USEPA methods. Prior to joining Watercare Laboratory Services Ashok spent 10 years at Unilever India Ltd, in research and development and production and 8 years at Atul Products Ltd, a major chemical complex in India. At Atul Products, Ashok was responsible for monitoring stack emissions, and work place monitoring.

*Ashok's broad stack emission skills include:*

- Extensive experience using statistical techniques for process optimisation using stack monitoring data. This adds value to client's data reporting and interpretation.
- Trained and experienced in preparation of dispersion models based on worst-case release of hazardous /volatile chemical release from the stack.
- Trained and experienced in workplace environment monitoring, using location specific and portable hand held monitoring instruments.
- Trained and experienced in the operation and maintenance of continuous monitoring instruments.
- Experienced in the operation, calibration, and maintenance of stack monitoring equipment and instruments.
- Trained and experienced in stack emission testing as per USEPA methods for SO<sub>2</sub>, halides, VOC, phosgene gas, PM and NO<sub>x</sub>.
- Trained and experienced in stack monitoring for a 4 tones/hr steam boiler working on cogeneration, and utilising fluid bed technology.
- Data collection, processing and management.

The ambient team have clients nationwide and as the teams reputation as a reliable, quality focussed service supplier grows, so does their team.

The Air Quality department would like to welcome Peter Stacey to the team. Peter is an experienced Air Quality scientist whose previous experience includes, emissions testing from a variety of different industries, pollution control and modelling of emissions from industrial sites.

Peter also has extensive experience in maintaining IANZ Accreditation systems, experience that will be well utilised by the Air Quality team. However the majority of Peter's efforts will be concentrated on maintaining the collection of data from our many ambient monitoring sites and preparing reports based on the data collected from these sites.

## Watercare Laboratory Services seen as a success story in ICP-MS analysis – Worldwide

The provision of quality analysis, backed by IANZ Accreditation is the focus of the Inorganic Department at Watercare Laboratory Services. The acquisition of an Agilent 7500cc, ICP-MS has meant major benefits to clients. Clients are offered ultra low detection limits, faster throughput and a wider range of analysis for almost every matrix.

Due to the diversity of the laboratory's client base, testing requirements and sample types vary greatly. Operation of an ICP-MS at Watercare Laboratory Services means the laboratory has capacity to perform trace metal analysis of drinking water samples, wastes, soils, sludge's and environmental waters (including marine waters).

Watercare Laboratory's Services use of the Agilent ICP-MS has been presented as a success to a worldwide audience in the Agilent ICP-MS journal. To read more, please refer to the August issue of the Agilent ICP-MS journal.

## Watercare Laboratory Services Contacts

### General Inquiries

(09) 255 1188 Monday – Friday 8am to 5pm.

Quotes / General                      Aleisha Williams                      (09) 255 1181      agwilliams@water.co.nz

### Laboratory Analyses

Water	Waste Water	Environmental
For Technical Inquiries		
Environmental	Dr You-Sing Yong	(09) 255 1182      yyong@water.co.nz
Organic	Dr Peter Boniface	(09) 255 5883      pboniface@water.co.nz
Inorganic Analysis	Dr Steve Money	(09) 255 5882      smoney@water.co.nz
General Chemistry	Dr David Wylie	(09) 255 1188      dwylie@water.co.nz

### Air Quality Services

Ambient Air Quality	Workplace Air Quality	Stack Emissions Olfactometry
For Technical Inquiries		
Ambient	David Gooding	(09) 255 1535      dgooding@water.co.nz
Stack Odour & Workplace	Dr Judy Ansen	(09) 255 1530      jansen@water.co.nz
Air Quality Dept. Head	Rob Hannaby	(09) 255 5887      rhannaby@water.co.nz



**waterCare**  
Laboratory Services