CANADIAN ASSOCIATION FOR LABORATORY ACCREDITATION INC.

2015 Annual Report

CALA

102-2934 Baseline Road
Ottawa, Ontario
K2H 1B2

Table of Contents

Chair's Report

I have now had the pleasure of serving on the CALA Board of Directors for a total of five years, with the last two of these as your Chair of the Board. A major benefit of this position is the level of respect one receives when you are publicly recognized as the leader of a highly respected organization such as CALA. Although I never tire of hearing about others' perceptions of our association, I also enjoy communicating with other organizations the excellent and critical work that CALA does.

Leading an organization that is all about excellence is extremely challenging, particularly an organization like CALA where there is a culture focused on continuous improvement. This year I was afforded the unique opportunity to accompany our President & CEO to a Symposium for Chief Elected Officers (volunteers) and Chief Executive Officers (staff). This event was hosted by the Canadian Society of Association Executives (CSAE) and was specifically designed to ensure role clarity and develop the most effective and productive working relationship possible between the Board Chair and the CEO. This event was extremely helpful to both of us in forging what was already a strong and effective relationship, into an even stronger working partnership. I firmly believe that the time spent together at this event will have a measurable effect on the near and long-term success of CALA.

A significant benefit that we both gained at this Symposium was the opportunity to benchmark CALA as an organization and how it functions relative to other similar types of non-profit organizations. Importantly, CALA can identify itself as a "mature" association that has in large part mastered its environment as an elite not-for-profit entity and is serving the needs of its Members through an enhanced scope of functions and services. It is not stagnating, nor trying to find its way in serving its Members; something many other not-for-profits with similar scope, age, and size are doing. Our connections to our Members are strongly based on their latest reported levels of satisfaction, as well as numerous other forms of feedback.

Through our new CALA 2020 Strategic Plan, CALA will become more focused on both engaging more Members and stakeholders, as well as more effectively harnessing the energies of those who are already engaged with us. We came to the conclusion that CALA has earned its very positive identity and profile by adopting elements of:

- Operational Excellence;
- Program (Product) Leadership;
- Member (Customer) Intimacy; and
- Representational Effectiveness.

Through the development (in 2016) of new Marketing Strategies and Plans to help us implement the CALA 2020 Plan, we will continue to assess our current and potential programs and services in terms of:

- Their attractiveness to CALA;
- Their competitive position; and
- The degree alternate coverage may exist in the marketplace.

The Symposium taught us that our Members will only respect CALA's governance process, if they perceive that the organization continues to be credible (decisions are rational, using objective information sources) and legitimate (the views of key stakeholders are part of our decision-making process). Based on what we heard from other Canadian association leaders and by completing an independent survey questionnaire, we were able to validate many of the positive trends and practices currently in place at CALA. As I noted at the beginning of my report, CALA already has an established culture and commitment to continuous quality improvement, so the work really never ends and there is always room for improvement.

In closing my report, I wish to thank my fellow Board Members and our many, many other volunteers for their significant contributions to the important work we do here at CALA. I would also like to thank our very dedicated staff team in Ottawa who are to be commended for the excellence they demonstrate each and every day in the services they provide to CALA Members and stakeholders.

Thank you all for empowering CALA to be an elite organization. As Stephen Covey notes: *"An empowered organization is one in which individuals have the knowledge, skill, desire, and opportunity to personally succeed in a way that leads to collective organizational success."*

Kindest regards.

Klas Ohman
Chair

President & CEO's Message

Looking back on 2015, financial sustainability, program efficiency and customer service were our key watchwords. While they are unique objectives and issues, they are all interrelated in CALA operations.

The major project that addresses all three of CALA's objectives is the work to complete the redesign of a new Association Management System (AMS). This project will tie all CALA programs together to provide efficiency improvements and enhanced customer experience in all dealings with CALA. To say this is a significant investment in CALA's future is an understatement. It is the largest undertaking in CALA's history, involving all staff as well as a very large financial investment. In moving to a CRM (Customer Relationship Management) model, it has necessitated a thorough review of all member and client touchpoints with a view to automating and streamlining processes. Significant progress was made in 2015 in establishing the underlying module for Membership and Volunteer management, on which all CALA programs will be built. Proficiency Testing development is currently underway to be followed by Accreditation and Training. Stay tuned for new web tools and connections to be launched in 2016.

A project of such magnitude, with the involvement of many staff at different intervals has had some impacts on our service delivery from time to time. We are keenly aware of the increased wait times some of our clients have experienced. These instances are directly attributed to the increased workload for staff when directly involved in the AMS project. As we move to complete the IT project, this issue has the potential to impact all program areas as we sequentially develop and convert them to the new system. Knowing this, efforts and plans have been put in place to mitigate and minimize client impacts as much as possible.

CALA solicits Member and client feedback at a number of junctures throughout the year. We believe strongly, that acting on customer feedback, be it negative or positive can only improve our operations. The 2015 Member satisfaction survey showed that 95% of respondent laboratories were either satisfied or very satisfied with their overall customer service experience. In addition, 93% of respondents were either satisfied or very satisfied with the total package of CALA products and services available to them.

Program by program, financial sustainability has been an ongoing mandate for CALA for a number of years. Proficiency Testing and Accreditation programs both set growth targets for the year and while not always met, growth over prior year was achieved in these programs. As I am sure our readers can

appreciate, growth does not occur without its challenges. After a profitable launch of CALA Food PT in 2014, 2015 saw declining participation to the point where CALA will no longer be able to offer it going forward. For its part, our accreditation program receives new applications regularly, however it also sees other long-term Members and clients leaving the program due to changes in business, lab closures or consolidations.

During 2015, the Training Program saw improvement in registration numbers and revenues, however it continues to run at a deficit. A number of marketing efforts to expand its reach and generate new business have been put in place. CALA Members and clients continue to choose "live" over "self-paced" training options and "in-person" over "virtual" training delivery. This trend is particularly worrisome, since it is the online, virtual and webinar formats that we projected to be the main growth engines for the Training Program. A new Training program product was launched in 2015, offering annual webinar subscriptions. The uptake of webinar subscriptions proved to be highly successful and continues to be offered in 2016. To assist the Training Program to attain its ongoing goal of financial sustainability, a formal program review was undertaken in 2015 resulting in four main recommendations that have been endorsed for implementation by the Board of Directors:

1. Narrow the program's focus and move more aggressively to online delivery;
2. Consider outsourcing the program where possible, through strategic partnership arrangements;
3. Develop and implement a marketing and communications plan for the program; and
4. Consider a number of corporate policy changes affecting the program.

These recommendations have already been incorporated into the CALA 2020 Strategic Plan and current operating plans are targeting a return to full sustainability by the end of 2018.

Financial sustainability is not only good business practice, but it is essential for the long term viability of CALA as a whole, and is now even more critical in light of the ongoing review of ISO/IEC 17011 (Conformity assessment – *General requirements for accreditation bodies accrediting conformity assessment bodies*). It is clear from the anticipated changes to this international standard that CALA will definitely have to divest itself to some degree from our Proficiency Testing program. However, the details related to how far the program needs to be removed are still largely undetermined. ISO/IEC 17025 (*General requirements for the competence of testing and calibration laboratories*) is also under review at this time. We would be remiss if we did not

thank the Standards Council of Canada (SCC) for selecting CALA's Accreditation Manager, Ms. Colleen Cotter, to be one of Canada's two representatives on the ISO/CASCO Working Group undertaking the review of this important standard.

We wrapped up 2015 by relocating the CALA office. We believe that our new office facilities, from fiscal, layout and use of technology points of view, will save us significant office rental expense and allow us to more efficiently and seamlessly connect with our Members than ever before. If you find yourself in Ottawa for any reason, please come by and visit CALA's new office.

In closing, I wish to thank all the members of the CALA Board of Directors for their continued leadership and guidance. I would also like to thank all those who volunteered their precious time and skills to CALA programs during the year and finally, a heartfelt thank you to my incredible staff team for their continued loyalty, dedication and hard work in living CALA's corporate tagline: Building Laboratory Excellence.

C. Charles Brimley
President & CEO

Board of Directors

Chair
Mr. Klas Ohman
Appointed, Prairies and Northern
Calgary, AB

Vice-Chair
Mr. Michael Brodsky
Appointed, Ontario/Québec
Thornhill, ON

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Mr. Dave Schellenberg
Appointed, Atlantic, Not-For-Profit
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Mr. Al Colodey
Pacific & Yukon Region
North Vancouver, BC

Mr. R. Shane Harnish
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Edmonton, AB

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Ontario/Québec, For-Profit
Waterloo, ON

Ms. Rhonda Schop
At-Large, Not-For-Profit
Toronto, ON

Mr. Jeff Zimmer
Prairies and Northern, Not-For-Profit
Saskatoon, SK

Corporate Profile

Mission *The Canadian Association for Laboratory Accreditation Inc. (CALA) is a not-for-profit member-based association that instills public confidence in laboratory test results by providing internationally recognized accreditation, proficiency testing and training services.*

History

CALA was originally established as the Canadian Association for Environmental Analytical Laboratories (CAEAL) in 1989 to help Canadian environmental laboratories conform to internationally accepted standards of competence and proficiency. It did this by developing an accreditation program based on the assessment of a laboratory's quality management system, supported by the evaluation of analytical capability determined through proficiency testing.

Between 1994 and 2004, CALA operated in partnership with the Standards Council of Canada (SCC), an arrangement in which CALA undertook all site assessments of environmental laboratories, conducted the Proficiency Testing program, and made recommendations to the Standards Council on the accreditation of the laboratories.

In 2005, CALA resumed granting accreditation independently from the SCC for over 150 laboratories, while also maintaining a partnership arrangement as described above with the Standards Council of Canada and the Ontario Ministry of Environment, specifically for the accreditation of laboratories conducting tests under the *Ontario Safe Drinking Water Act* (OSDWA).

In November of 2005, the CALA Accreditation Program was officially recognized by the Asia Pacific Laboratory Accreditation Cooperation (APLAC) and the International Laboratory Accreditation Cooperation (ILAC).

The CALA Board of Directors has defined the ultimate goal of the organization as:

- ***CALA accredited laboratories are recognized as meeting world-class levels of scientific and management excellence.***

A series of subordinate policies focus on benefits for both the laboratories and the users of laboratory data, and ensures that Members' views are made known to regulatory and standards-related decision makers in Canada and internationally.

In 2007, CALA Members approved a broader scope of activities for CALA programs, expanding the organization's focus beyond simply environmental laboratories. The CALA corporate strategic plan included provisions for the expansion of accreditation activities. At that time, CALA-Accredited laboratories included the following additional types of testing: food, mineral, petroleum and coal.

At the June 2008 AGM, Members selected the new association name the Canadian Association for Laboratory Accreditation or "CALA" which facilitated a broader scope of accreditations beyond simply the environmental field. In October 2008, CALA officially launched its new identity and transitioned to a new "CALA" look. In the same year, CALA signed an Agreement directly with the Ontario Ministry of the Environment for the accreditation of water-testing laboratories conducting tests under the OSDWA.

In 2009, CALA's international recognition from APLAC and ILAC was renewed for another four-year period. Later that year, CALA successfully hosted the 2009 joint

meetings of ILAC and the International Accreditation Forum (IAF) in Vancouver.

In 2010, CALA's Board of Directors approved a new, more sustainable business model that completely removed the PT Program's subsidization of the Accreditation Program. Under this business model, the goal is for each CALA program area to become financially self-sustaining.

At the end of 2011, CALA had progressed on its goal to expand its scope of services beyond only environmental testing by having drafted the basis for an agreement with the Canadian Food Inspection Agency (CFIA). The agreement was subsequently formalized on February 1st, 2012.

In 2012, CALA, in conjunction with CFIA, undertook the development and implementation of food accreditation assessment procedures, and piloted a food microbiology PT Program.

In 2013, CALA implemented a PT scheme for food microbiology to support Canadian laboratories seeking a Canadian source of PT, and CALA's international recognition from APLAC and ILAC was renewed for another four-year period.

In 2014, the PT Program switched to the robust statistical procedure recommended in ISO 13528 – *Statistical methods for use in proficiency testing by inter-laboratory comparisons* (Algorithm A). As well, the Standards Council of Canada selected a CALA staff member to participate on the ISO/CASCO working group tasked with reviewing and revising ISO/IEC 17025:2005 – *General requirements for the competency of testing and calibration laboratories*.

In 2015, the CALA Board of Directors approved two major long-term initiatives: the redevelopment of CALA's Association Management System and the CALA 2020 Strategic Plan, for the years 2016-2020. Due to insufficient participation, CALA discontinued the food microbiology PT scheme at the end of 2015.

MEMBERSHIP AND CLIENTS

At the end of 2015, there were 628 clients of CALA (see Table 1), including 492 CALA Members (see Table 2). The number of clients decreased 3.2% from 2014, primarily as a result of a decrease in Institutional, Member clients.

CALA offers programs and services in four major areas as follows:

- Accreditation (see page 15 for details)
- Proficiency Testing (see page 19 for details)
- Training (see page 22 for details)
- International Activities (see page 24 for details)

Table 1. Components of CALA Clients

Type	Members	Non-Member Clients	Totals
Private	264	86	350
Public	187	50	237
Independent	41	0	41
Totals	**492**	**136**	**628**

Table 2. Components of the CALA Membership

Type	Institutional	Individual	Totals
Private	212	52	264
Public	106	81	187
Independent	0	41	41
Totals	**318**	**174**	**492**

Financial Report

CALA's total revenue for 2015 was $3.6 million, approximately 1.5% ($52,761) better than budget, and 1.7% greater than the previous year results.

Evaluations as an income category on the Financial Statement are comprised of Proficiency Testing (PT) and Accreditation services. For 2015 the PT Program experienced modest growth over 2014 results ($33,106, 2.1%) but fell short of budget targets by 3.1%. Accreditation saw growth over 2014 results ($91,925, 6.9%) and surpassed its 2015 budget target by $97,177 (7.3%).

The Training Program achieved significant revenue growth of 15.8% ($43,323) over 2014 with year-end results 1.0% ($3,302) above budget. Continued diversification of the delivery models for training has been effective, as has the introduction of annual subscriptions for the Webinar series.

Other income includes interest income, gains (or losses) on disposal of sales of investments, and unrealized gains on investments. Effective in 2012 with new not for profit accounting rules, unrealized gains on investment holdings are to be reported on the statement of operations (Income Statement) annually. In 2015, with the downturn in the financial markets, CALA incurred an unrealized loss on investments of $44,156. This loss was more than offset by interest income earned and gains on disposals of investments throughout the year.

Total operating expenses for the fiscal year were approximately $3.6 million, up 5.9% over prior year and 1.8% lower than budgeted expenses of $3.7 million. Program-related costs were under budget by 3.7% for a total of $58,095. Salaries, general overhead and administrative costs were also below budget. In 2015, we continued to focus on controlling and reducing administrative expenses while maintaining service levels. This is an ongoing annual strategy to ensure that CALA administrative expenses are monitored and kept within reasonable levels, further reducing the pressure on program areas.

CALA continues to work on the development of a new Association Management System (AMS) to improve client service and office efficiency. After writing off $106,872 in 2014 to eliminate the old software development, in 2015 CALA made steady progress with the new software developer towards a new AMS structure that will enable far better service delivery once fully implemented. The investments made in 2015 are recorded as intangible assets on the balance sheet. This project will continue through the 2016 fiscal year with an expected launch at the end of the year, or first quarter 2017.

Employees and volunteers are an integral part of our association and we are fortunate to have a very skilled and dedicated team working at CALA.

While the economic value of volunteer time has not been captured in our financial statements, please note that the association continues to benefit greatly from the generous contribution made by all of its volunteers, allowing us to operate such successful programs.

In summary, the Association maintained its strong financial position in 2015 through consistent, careful management of revenue, expenses and cash flow and, after factoring in amortization of capital assets, ended 2015 with an operating surplus of $40,448. This increase in net assets resulted in an ending accumulated surplus of $2.2 million. CALA is an organization that will continue to be successful through the diversity and versatility of the programs it offers and the strong management systems in place.

Welch LLP®

Report of the Independent Auditor on the Summarized Financial Statements

To the Members of the Canadian Association for Laboratory Accreditation Inc.

The accompanying summarized financial statements, which comprise the summarized statement of financial position as at December 31, 2015, the summarized statement of operations and changes in net assets and summarized statement of cash flows for the year then ended, and related note, are derived from the complete audited financial statements of the Canadian Association for Laboratory Accreditation Inc. (CALA) for the year ended December 31, 2015. We expressed an unmodified audit opinion on those financial statements in our report dated March 10, 2016.

These summarized financial statements do not contain all the disclosures required by Canadian accounting standards for not-for-profit organizations. Reading these summarized financial statements, therefore, is not a substitute for reading the audited financial statements of CALA.

Management's Responsibility for the Summarized Financial Statements

Management is responsible for the preparation of the audited financial statements on the basis described in Note 1.

Auditor's Responsibility

Our responsibility is to express an opinion on the summarized financial statements based on our procedures, which were conducted in accordance with Canadian Auditing Standard (CAS) 810, “Engagements to Report on Summary Financial Statements”.

Opinion

In our opinion, the summarized financial statements derived from the audited financial statements of the Canadian Association for Laboratory Accreditation for the year ended December 31, 2015 are a fair summary of those financial statements, in accordance with the basis described in Note1.

Welch LLP
Chartered Accountants
Licensed Public Accountants

Ottawa, Ontario
March 10, 2016.

Summarized Statement of Financial Position

December 31, 2015

Assets	**2015**	2014
Current assets	**$ 1,287,445**	$ 1,147,180
Long-term investments	**1,605,309**	1,862,779
Tangible capital and intangible assets	**367,266**	1,834
	$3,260,020	$ 3,011,793
Liabilities and Net Assets		
Current liabilities	**$1,092,000**	$ 884,221
Unrestricted Net Assets	**2,168,020**	2,127,572
	$3,260,020	$ 3,011,793

Summarized Statement of Operations and Change in Net Assets

Year ended December 31, 2015

Revenues	**2015**	2014
Evaluations	**$ 3,120,050**	$ 2,995,199
Memberships	**146,982**	145,970
Miscellaneous	**15,636**	79,220
Training	**318,302**	271,936
Other revenue	**46,736**	84,901
	3,647,706	3,577,226
Expenditures		
Evaluations	**1,308,049**	1,186,036
Operational	**2,137,519**	2,054,583
Training	**161,690**	167,157
Impairment loss on intangible asset	**0**	106,872
	3,607,258	3,514,648
Excess of revenue over expenses	**40,448**	62,578
Net assets, beginning of year	**2,127,572**	2,064,994
Net assets, end of year	**$ 2,168,020**	$ 2,127,572

Summarized Statement of Cash Flows

Year ended December 31, 2015

	2015	2014
Cash flows provided by (used in)		
Operating activities	**$ 187,765**	$ 280,681
Investing activities	**693**	(275,436)
Net increase (decrease) in cash	**188,458**	5,245
Cash, beginning of year	**371,442**	366,197
Cash, end of year	**$ 559,900**	$ 371,442

Note 1

The information selected by management for presentation in the Summarized Annual Financial Statements has been identified as being the most pertinent and useful financial data for inclusion in the CALA annual report. The summarized financial statements do not reflect the substantial value of services contributed by volunteers.

Accreditation Program

CALA is one of 89 worldwide accreditation bodies that is signatory to the International Laboratory Accreditation Cooperation (ILAC) Mutual Recognition Arrangement (as of April 8, 2016). This arrangement provides stakeholders with assurance that the CALA Accreditation Program meets requirements of the international standard ISO/IEC 17011 – *Conformity Assessment – General Requirements for Accreditation Bodies Accrediting Conformity Assessment Bodies*.

CALA laboratory accreditation is based on ISO/IEC 17025 – *General Requirements for the Competence of Testing and Calibration Laboratories*. The process to attain and maintain accreditation is as follows:

- An assessment is carried out against the criteria in ISO/IEC 17025;
- The laboratory receives a report of assessment findings;
- Laboratories respond to any observed non-conformances in a timeframe communicated to the laboratory by CALA;
- A laboratory's response to the findings is reviewed by CALA staff, the Lead Assessor, and Advisory Panel members;
- The Advisory Panel recommends to the CALA Accreditation Council whether to grant or maintain a laboratory's accreditation;
- When the Accreditation Council is satisfied that the appropriate corrective actions have been undertaken, CALA grants or maintains the accreditation; and,
- Laboratories successfully participate in proficiency testing (PT) as per P02-03 *Proficiency Testing Policy for Accreditation*.

CALA has granted accreditation to 207 government and private sector laboratories (see Figure 1). Forty-five (45) of these accredited laboratories are licensed under the *Ontario Safe Drinking Water Act* (OSDWA). In 2015, 6 new laboratories underwent an initial assessment, and 9 laboratories voluntarily terminated their accreditation.

Figure 1 Sources of CALA-Accredited Laboratories

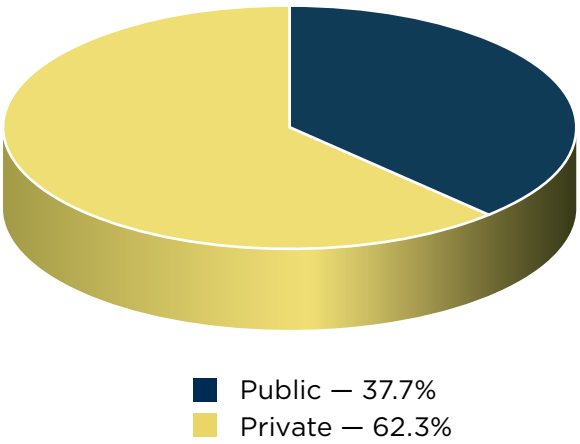
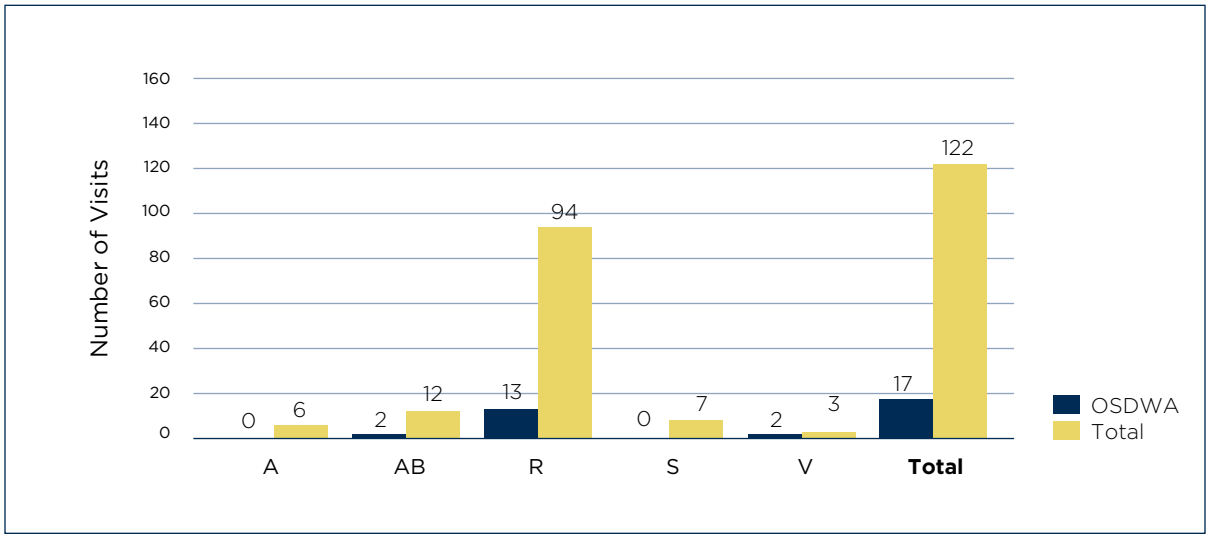


Figure 2 Categories of Site Visits Conducted in 2015



Site Visits

In 2015, CALA conducted a total of 122 site visits, of which 17 (13.9%) were conducted at laboratories licensed under the OSDWA (see Figure 2).

CALA conducts the following types of laboratory assessments:

- Initial Assessment (A): A site visit conducted at a laboratory applying for accreditation for the first time.
- Abbreviated Assessment (AB): A site visit to assess new appendices between regularly scheduled reassessments. The quality management system is not assessed during these assessments, only the technical requirements of the new test methods.
- Reassessment (R): A site visit conducted once every two (2) years after an initial assessment.
- Surveillance (S): A site visit conducted one (1) year after an initial assessment.
- Verification (V): A site visit to confirm implementation of corrective actions or to ensure satisfactory conditions following significant changes at a laboratory.

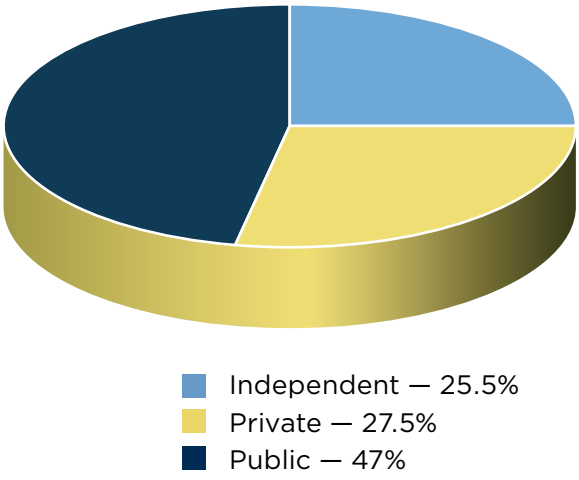
Assessors

CALA assessors are predominantly volunteers from Member laboratories, although some do come from other types of laboratories or related organizations. They are a highly-skilled, highly-committed group of volunteers that represent a valuable resource for CALA. As well as having at least five years experience in a laboratory or laboratory-related environment, these volunteers attend a rigorous CALA Lead Assessor/Assessor course and participate in CALA-specific refresher training once every two years. There are currently 149 active volunteer assessors, primarily from government and private sector laboratories (see Figure 3). Seventy-two (72) of these are from 38

laboratories in the Accreditation Program, and 26 come from the 45 laboratories accredited and licensed under the OSDWA.

In 2015, 122 site visits were conducted, requiring 201 assessor trips. Assessor assignments ranged from a single experienced assessor at a small laboratory, to several assessors required to conduct the reassessment of a large laboratory with a complex scope of testing.

Figure 3 Sources of CALA Volunteer Assessors



Turn-Around Time

Table 3 shows a breakdown of the major steps in the accreditation process, and the average time taken to complete each step in 2015. This data is based on site assessments performed in 2015, and is current as of April 11, 2016.

New (or applicant) laboratories have up to 90 days to respond to any non-conformances identified during an assessment: The six (6) applicants submitted responses to CALA within 60.8 days on average; the shortest time was 19 days after the assessment and the longest was 93 days after the assessment. Accredited laboratories have up to 45 days to respond to any non-conformances identified during a reassessment or an abbreviated assessment. Most already-accredited laboratories use all of this allowable time to respond, as evidenced by the fact that the average amount of time for accredited laboratories to submit responses to findings was 44.9 days. Laboratories that applied for an abbreviated assessment had an average submission time of 24.5 days while

Table 3 Major Steps in the Accreditation Process

Step in the Accreditation Process	Average Time (days*)	1-7 days (%)	8-23 days (%)	24-45 days (%)	>45 days (%)
Completion of Responses	42.4	9.0	25.4	24.6	41**
Advisory Panel Review	4.1	85.6	13.1	1.3	-
Accreditation Council Approval	3.1	87.6	12.4	-	-

* subject to change, following completion and approval of visits carried out in 2015
** 77% were completed within 60 days; 84.4% completed within 90 days

those that applied for an accelerated abbreviated assessment had an average submission time of 21.1 days.

CALA targets a maximum of 45 days for staff to perform an initial review of laboratory responses, and will request further information from the laboratory or inform the laboratory that the responses meet the requirements. At the time this Annual Report was prepared, 80% of the 2015 laboratory responses were initially reviewed within the 45-day target and the average time to do so was 27.7 days. On average, the amount of time from the date of the site visit to the date of final approval was 113 days.

Proficiency Testing (PT) Suspensions and Withdrawals

Accreditation may be suspended, subsequent to being granted, if a laboratory:

- fails to successfully analyze two successive sets of PT samples for a specific test (analyte);
- does not submit a satisfactory Corrective Action Report in response to a PT failure.

The summary of suspensions shown in Table 4 indicates that generally, the non-accredited laboratories experienced the highest overall rate of suspensions while the accredited OSDWA laboratories experienced the lowest rate overall. The exception to that trend is observed during the June 2015 study, when the accredited OSDWA laboratories failure rate was slightly higher than that of the accredited laboratories that were not licensed in Ontario.

A PT failure subsequent to suspension may result in withdrawal of accreditation for the analyte. In 2015, a total of 33 withdrawals occurred at accredited laboratories, with one (1) withdrawal at an OSDWA laboratory.

Table 4 Suspensions at Non-Accredited, Accredited and Accredited OSDWA Laboratories (values are shown as a percentage of total PT test samples)*

Study (2015)	Non-Accredited	All Accredited	Accredited OSDWA
January	0.66%	0.42%	0.00%
March	1.13%	0.63%	0.48%
June	0.39%	0.14%	0.17%
October	1.5%	0.49%	0.39%
Overall Average	**0.95%**	**0.40%**	**0.28%**

* These values do not include suspensions for reasons other than PT failures, nor failures of PT provided by other approved PT providers.

Proficiency Testing Program

At the end of 2015 the CALA Proficiency Testing (PT) Program offered 59 test groups, comprising 368 analytes. Samples for each test group are generally provided to Member laboratories twice each year. The test groups are split between March/October rounds (inorganic, microbiology and food) and January/June rounds (organics, soils and food).

The scoring system and other details are provided in the *PT15-CALA PT Program* series of documents, which is available at: www.cala.ca.

PT Offerings

The following is a summary of changes to the analytes offered in the PT Program in 2015:

- Petroleum hydrocarbons in water (C40A and C40B) was added in January 2015;
- Due to low participation levels, the food microbiology PT was discontinued at the end of 2015.

PT Fees

PT fees remained unchanged in 2015.

Turn-around Times

Turnaround time from reporting deadline to the issuing of the final report continues to be shorter than the goal of five weeks. (see Figures 5 and 6).

Figure 4 PT Registration Trend in the Proficiency Testing Program (sample sets = total number of registered test groups)

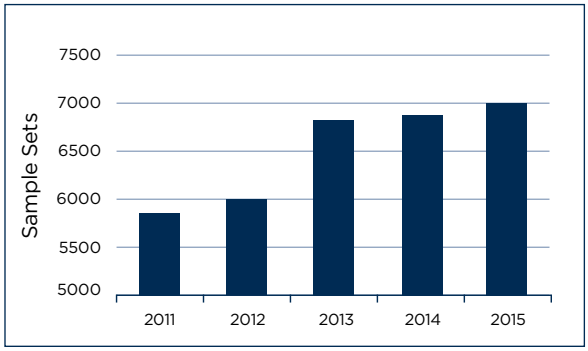


Figure 5 Turn-around time for January and June Proficiency Testing Shipments

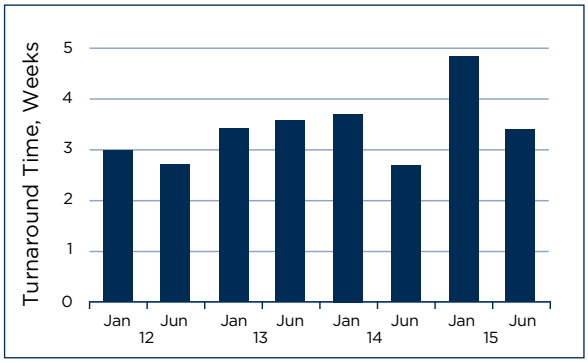
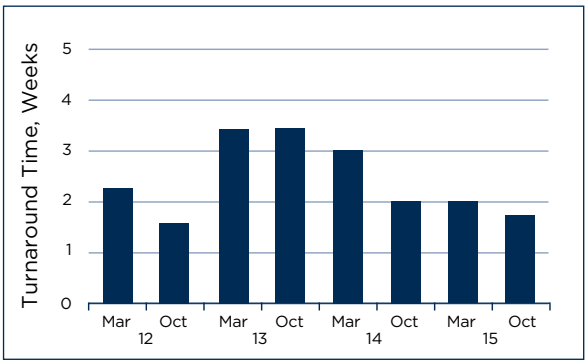


Figure 6 Turn-around time for March and October Proficiency Testing Shipments



Participation

Participation showed a marginal increase in 2015 (see Figure 4). Participation levels for each test group are indicated below in Table 5.

Table 5 Participation in Each Test Group of the CALA Proficiency Testing Program

PT	Group	Samples 2011	Samples 2012	Samples 2013	Samples 2014	Samples 2015
C-01A	Major Ions	430	428	447	447	454
C-01B	NH3, o-PO4, DOC	334	338	381	382	377
C-02A	Metals Full	243	244	255	247	240
C-02B	Metals High	78	82	78	75	78
C-02C	Total Metals	138	147	161	153	151
C-03	TKN & TP	251	258	270	260	257
C-04A	TSS	432	450	473	463	467
C-04B	BOD	267	268	290	289	280
C-04C	Turbidity	189	200	224	227	224
C-04D	COD	178	189	212	212	205
C-05A	Coliforms	300	315	333	334	331
C-05B	Coliforms (P/A)	81	77	83	81	81
C06A	OCP/PCBs	60	55	59	57	57
C06B	PCBs	69	63	73	73	76
C-07	PAH	117	110	138	136	136
C-08	PCB in Oil	76	73	84	84	81
C-09	Metals on Filters	28	25	29	30	30
C-10	Ions on Filters	6				
C-11	Trout LC50	48	47	52	52	53
C-12	Daphnia LC50	42	42	47	47	49
C-13	Microtox IC50	60	61	61	59	62
C-14	CN (SAD)	91	90	104	95	82
C-15	pH	435	448	487	487	484
C-16	BTEX/THM	194	190	228	240	220
C-17	Metals in Soil	138	147	157	162	157
C-18	PAH in Soil	81	79	114	109	107
C-19	Mercury	150	148	159	158	158
C-20	Asbestos	282	329	330	357	359
C-21	Metals in Air	38	37	42	43	42
C-22	OP Pesticides	98	90	94	87	86
C-24	Aryloxy Acids	51	47	50	46	44
C-25	Phenolics	62	55	65	59	58
C-27	Glyphosate	28	31	33	32	31
C-28	VOCs in Air	7				

Table 5 – Continued from page 20

PT	Group	Samples 2011	Samples 2012	Samples 2013	Samples 2014	Samples 2015
C-29	Aldicarb	44	34	35	28	28
C-31A	BTEX soil	103	100	128	132	131
C-31B	PHC soil	100	97	132	138	138
C-32	Chlorine	137	140	143	151	155
C-33	Total Phenolics	97	97	96	90	86
C-34	Oil and Grease	135	127	142	136	130
C35	PCB in Soil	58	54	69	67	72
C36	VOCs in Soil	60	62	86	85	85
C37	Colour in Water	Not offered	60	102	114	118
C38	TCLP-VOCs				37	44
C39	TCLP-Inorganics				54	62
C40A	PHCs in Water					65
C40B	PHCs in Water					65
C60A	Food-Meat (Qualitative)			29	27	65
C60B	Food-Meat (Quantitative)			25	44	65
C61A	Food-Milk (Qualitative)			13	18	45
C61B	Food-Milk (Quantitative)			12	25	43
C62A	Food-Eggs (Qualitative)			9	8	28
C62B	Food-Eggs (Quantitative)			5	9	28
C63A	Food-Cheese (Qualitative)			19	21	13
C63B	Food Cheese (Quantitative)			18	31	9
C64A	Food-Feed (Qualitative)			10	13	37
P50	Chlorine in Water	17	36	34	32	29
P51	Turbidity in Water	8	20	18	16	20
P52	pH in Water	6	16	16	15	26
	TOTAL	**5847**	**6006**	**6820**	**6873**	**7128**

Summary of Proficiency Testing Performance

Appendix A details the success rates observed for each test group in each study. Also detailed are the success rates for laboratories conducting tests under the *Ontario Safe Drinking Water Act* (OSDWA). In general, average success rates were over 90%, consistent with those observed in previous years.

Training Program

The CALA Training Program delivers training on subjects related to laboratory accreditation. Training Program priorities remain unchanged for 2015:

- Training assessors to meet CALA Accreditation Program needs;
- Developing and delivering training within an approved training budget; and
- Assisting in the delivery of special services within the association.

In reaching out to CALA Members in 2015, the Training Program delivered 50 in-class training sessions to 443 participants, in 16 cities across Canada over 109 training days. The Training Program has been actively marketing the option of on-site training, and in 2015 the number of on-site courses increased to 17 (from 16). With our computer-based training products, 29 individuals took part in online training courses and 1042 registrants participated in webinars. Eighteen (18) laboratories took advantage of the new webinar subscription introduced in 2015. The Training Program provided additional, non-revenue training to CALA volunteers (for example, the CALA Assessor Biennial Training).

A new Training Program Committee was established in 2015, tasked with providing feedback on training requirements, course content, and market trends. Program management will use the committee's guidance for course development, content updates, marketing efforts and scheduling.

The Training Program continues to work towards becoming financially self-sustaining. In the second half of 2015 an external consultant was engaged to conduct a review of the Training Program. Recommendations from the review have been incorporated into the strategic plan. The recommendations include reducing the curriculum offered, continuing the move to online delivery, exploring new training markets, and looking at the feasibility of offering CALA courses through 3rd party vendors, including through colleges/ universities.

New Courses

The Training Program conducted a feedback review and technical assessment of the *Control Charting for Laboratories* course, and, as a result, two new

courses have been developed. The first is *Introduction to Control Charts*. This course covers the principles underlying control charts, and how to create and interpret control charts. The second course is *Advanced Concepts for Control Charts*. The advanced course builds on the fundamentals of control charts and goes more in-depth on interpreting control charts. It delves further into rules and trends, outlier treatment and the use of control charts for multiple analyte methods. Information on both courses is available at: http://www.cala.ca/t_sched.html.

Preparing For 2016

CALA Training routinely conducts a competitive analysis of other vendors. As a result of our latest analysis, plus the information provided in the Training Program review, we have adjusted the prices on several of our courses for 2016.

Additional Information

Course descriptions, registrations details and the training schedule can be found at www.cala.ca/training.

The following classroom courses fees have been reduced:

Classroom Course	Institutional Member price	Non-member price
Measurement Uncertainty (Analytical Chemistry)	$650	$780
Measurement Uncertainty (Microbiology)	$650	$780
Method Validation	$650	$780
Laboratory Internal Calibration	$650	$780

Reductions were also made in the following online courses:

Online Course	Institutional Member price	Non-member price
Online: Internal Calibration for Laboratories	$475	$560
Online: Control Charting for Laboratories	$440	$525
Online: Root Cause Analysis	$350	$420

International Activity

Services Provided Internationally

In 2015, CALA delivered proficiency testing and/or accreditation services to 49 laboratories located outside Canada (up 2 from 2014), mostly in the rest of the Americas as shown in Figure 7. Nine (9) of these laboratories are in the accreditation program and 38 are in the proficiency testing program only.

Mutual Recognition Arrangements

CALA is signatory to two (2) international Mutual Recognition Arrangements or MRAs, the Asia Pacific Laboratory Accreditation Cooperation (APLAC) and the International Laboratory Accreditation Cooperation (ILAC). These Arrangements provide global recognition of CALA accreditation by 89 other accreditation bodies. Being signatory to these arrangements promotes the acceptance of Canadian laboratory test results nationally and around the world.

More and more regulations and customers require accreditation by an accreditation body that is signatory to ILAC. Therefore, maintaining CALA's signatory status to ILAC is critical for CALA clients. However, there is a cost to maintaining this signatory status: as a signatory to both APLAC and ILAC MRAs, there are requirements and expectations that CALA will contribute to the operation of both APLAC and ILAC. This involves active involvement in international meetings, sitting on committees, reviewing documents, and voting on ballots. In 2015, CALA staff participated in the following meetings:

- APLAC MRA Council and Evaluator Training – Hong Kong
- APLAC General Assembly – Colombo, Sri Lanka
- Two (2) ILAC Accreditation Issues Committee Meetings/Laboratory Committee meetings/PT Consultative Group meeting – Frankfurt, Germany and Milan, Italy.
- ILAC General Assembly – Milan, Italy.

The CALA Accreditation Manager sits on the APLAC Evaluator Training Working Group and is Secretary of the APLAC Technical Committee.

A key activity that is critical to the MRA process is the evaluation of accreditation bodies to ISO/IEC 17011 – Conformity Assessment – *General requirements for accreditation bodies accrediting conformity assessment bodies*; to this end, two CALA staff volunteer as APLAC Lead Evaluators and one CALA staff is a Provisional Evaluator. The CALA PT Manager and the Accreditation Manager participated in one (1) evaluation each in 2015.

In 2015, the Standards Council of Canada (SCC) continued to support the CALA Accreditation Manager to represent Canada at ISO/CASCO Working Group (WG) 44, the group that is revising ISO/IEC 17025 – *General requirements for the competence of testing and calibration laboratories*. As well, a representative from a CALA-accredited laboratory sits on an ILAC sub-committee that will be following this revision process closely.

Figure 7 Distribution of 49 international laboratories receiving services from CALA.

Appendix A

Summary of Proficiency Testing Performance

The following tables provide details of success rates for each test group. The first two (Tables A1 and A2) reflect the entire program, while the last two (Tables A3 and A4) are for laboratories licensed by the Ontario Ministry of Environment under the *Ontario Safe Drinking Water Act*. Note that non-reported results are not included among the failures in these estimates as these are sometimes related to registration changes after the study has started.

Table A1 Success rates for all laboratories participating in the January 2015 and June 2015 rounds.

Total Program	January 2015		June 2015	
	Tests	Success %	Tests	Success %
Water				
C06A-OCPs	407	96	414	93
C06B-PCBs	116	97	120	96
C07-PAHs	972	95	971	95
C16-BTEX/THMs/VOCs	2407	94	2516	92
C22-OP Pesticides	366	97	363	93
C24-Aryloxy acid pesticides	133	98	124	99
C25-Phenolics	100	99	100	100
C27-Glyphosate	14	86	16	81
C29-Aldicarb	13	92	14	86
C34-Total Oil and Grease	92	96	94	89
Oil				
C08-Total PCBs	126	91	128	85

Table A1 Continued from page 26

	January 2015		June 2015	
	Tests	**Success %**	**Tests**	**Success %**
Air Filter				
C09-Metals	58	81	63	87
Soil/Sediment				
C17-Metals	1508	94	1515	92
C18-PAHs	851	94	803	93
C31A-PHCs/BTEX	439	92	436	94
C31B-PHCs	248	96	239	98
C35-PCBs	113	96	118	97
C36-VOCs*	1323	99	1355	98
C38-TCLP VOCs	186	84	190	96
C39-TCLP Inorganics	377	82	412	85
Occupational Health				
C20-Asbestos	93	63	96	74
C21-Metals	32	100	41	100
Food Microbiology				
C61A-Milk	32	87	37	70
C61B-Milk	37	78	46	85
C62A-Eggs	27	96	29	76
C62B-Eggs	15	100	17	76
C64A-Feed	13	85	16	100

Table A2. Success rates for all laboratories participating in the March 2015 and October 2015 rounds.

Total Program	March 2015		October 2015	
	Tests	Success %	Tests	Success %
Water (Inorganic)				
C01A-Major ions	1652	90	1660	90
C01B-NH3/PO4/DOC/Br/NO2	512	87	513	91
C02A-Metals	2713	93	2622	92
C02B-Metals (high range)	421	91	377	95
C02C-Metals (Total)	1356	95	1395	94
C03-TKN/TP	204	92	206	92
C04A-Solids	370	92	369	95
C04B-BOD	226	92	226	93
C04C-Turbidity	114	91	112	93
C04D-COD	102	91	103	90
C14-Cyanide	43	88	41	93
C15-pH	251	95	255	95
C19-Mercury	90	89	89	91
C32-Chlorine	106	96	108	89
C33-Total Phenolics	38	97	40	90
C37-True Colour	62	90	63	89

Table A2 Continued from page 28

	March 2015		October 2015	
	Tests	**Success %**	**Tests**	**Success %**
Water (Microbiology)				
C05A-Microbiology	524	93	541	94
C05B-Microbiology P/A	89	96	87	94
Water (Toxicology)				
C11-Trout	23	96	23	96
C12-Daphnia	25	92	26	88
C13-Microtox	29	100	31	87
Occupational Health				
C20-Asbestos	95	88	90	86
C21-Metals	48	98	44	95
Food Microbiology				
C60A-Meat	88	81	98	74
C60B-Meat	116	86	113	77
C63A-Cheese	38	84	50	84
C63B-Cheese	39	90	44	86

Table A3 Success rates for OSDWA laboratories participating in the January 2015 and June 2015 rounds.

OSDWA Laboratories	January 2015		June 2015	
	Tests	Success %	Tests	Success %
Water (Organic)				
C06A-OCPs	136	98	136	99
C06B-PCBs	27	93	31	97
C07-PAHs	156	100	156	100
C16-BTEX/THMs/VOCs	544	97	529	98
C22-OP Pesticides	178	99	178	96
C24-Aryloxy acid Pesticides	68	100	68	99
C25-Phenolics	44	98	44	100
C27-Glyphosate	9	89	9	100
C29-Aldicarb	10	90	10	100
C34- Oil and Grease	15	100	15	100

Table A4 Success rates for OSDWA laboratories participating in the March 2015 and October 2015 rounds.

OSDWA Laboratories	March 2015		October 2015	
	Tests	Success %	Tests	Success %
Water (Inorganics)				
C01A- Major Ions	257	95	266	94
C01B- NH3/PO4/DOC	94	96	99	96
C02A- Metals	512	96	534	99
C02C- Total Metals	203	95	248	94
C03- TKN/TP	40	92	40	97
C04A-Solids	40	95	42	98
C04B-BOD	21	100	21	90
C04C- Turbidity	20	100	21	90
C04D-COD	10	100	10	90
C14-Cyanide	14	86	13	92
C15-pH	35	100	36	100
C19-Mercury	17	100	19	100
C32-Chlorine	18	100	20	100
C33- Total Phenolics	11	100	11	100
C37-True Colour	13	92	14	93
Water (Microbiology)				
C05A- Microbiology	126	98	130	99
C05B- Microbiology P/A	18	100	16	100

NOTES