

Canadian Well Logging Society
c/o Associations Plus Inc.
600, 900 – 6 Avenue SW
Calgary, Alberta
T2P 3K2



April 6, 2020

Dear Members,

The last few weeks have been somewhat unprecedented. Subsequent to preparation of the 2019-2020 Annual Report document, as we got ready for our AGM luncheon event, a meaningful part of the world's economy shut down in response to the Covid-19 pandemic. Large gatherings have been cancelled or indefinitely postponed, and most of us are working from home.

Rather than rewriting the Annual Report to ensure consistency with the current situation, for example, to reflect the facts that GeoConvention has now been moved to September, and SPWLA 2020 cancelled, amongst others, we have decided to circulate the document in its original final form. This cover letter is being included for posterity by way of explanation/acknowledgement of recent events.

I would like to take this opportunity to welcome the 2020-2021 CWLS Executive to their roles. They will be kicking off their year in office this week, with a Board meeting to be held by video-link as there is still a requirement to observe "social distance".

While we all hope for a speedy end to the current situation, and a return to normal life, at the present time there is no good prognosis for when that may occur.

Nonetheless, through the use of technology, we expect the Society will continue to provide value to its members until such time as in-person events may resume.

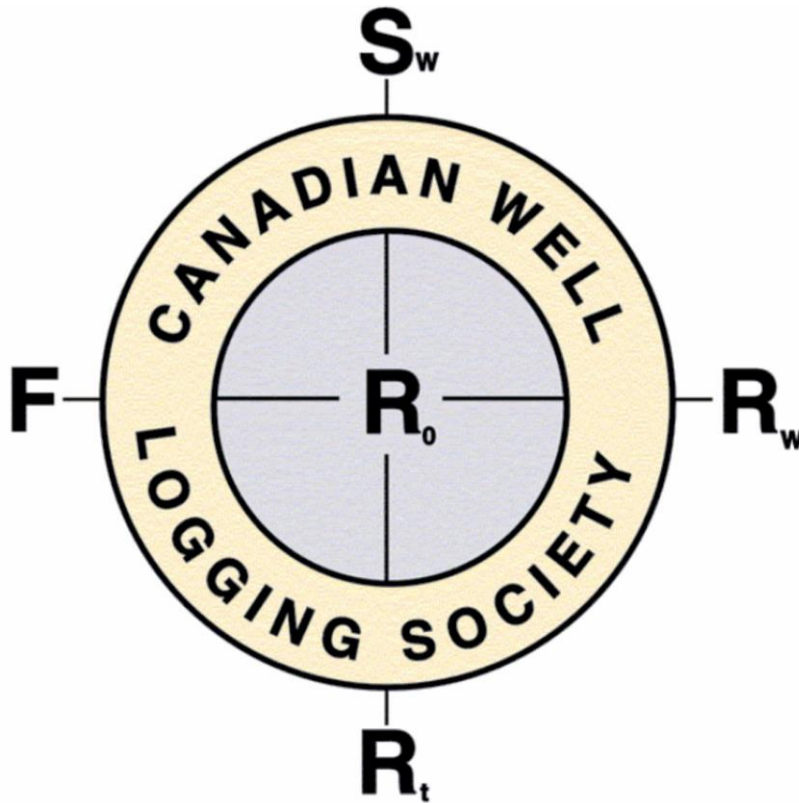
Yours Sincerely,

A handwritten signature in black ink that reads 'David Kisilevsky'. The signature is written in a cursive, flowing style.

David Kisilevsky, MSc., P.Geol.
CWLS President, 2019-2020

2019 - 2020

CWLS Annual Report



Canadian Well Logging Society

March 18th, 2020

The President's Report

It has been an honour for me to serve as the 63rd President of the Canadian Well Logging Society, and I feel the current Executive have made important headway in rejuvenating the Society. While the industry globally saw a certain amount of recovery in 2019, the Canadian market specifically remained a difficult place to do business. Just as it seemed we might be seeing some light at the end of the tunnel, the last few weeks brought us COVID-19 (“The Coronavirus”), and preliminary forecasts of an associated worldwide economic contraction. So, I will refrain from making any predictions about what the next year has in store.

Overall, I think the 2019-2020 year was a good one for CWLS. Individual membership numbers increased modestly, and although they remain a fraction of what they once were, they are moving in the right direction. Which can only be considered positive, given the prevailing local industry climate.

We made great strides this year in the realm of digital transformation. An enormous effort was put in by our Website and Publications Chair, Christa Williams, to oversee the design and launch of a new website. As part of this endeavour, the online RW Mapping Application was migrated to a new ArcGIS-based platform; a rebirth of the Society’s traditional flagship product. One we hope serves as the future basis for growing the RW database itself, as well as disseminating members-only content such as Special Core Analysis and Publications.

Our Past-President, Kevin Pyke, is chairing the organizing committee for the 2020 SPWLA Symposium, which we won the right to co-host with SPWLA last year. The Symposium is being held in June at the Fairmont Banff Convention Centre, and we are excited about this opportunity. We look forward to welcoming members of the petrophysical community from around the world and encourage you all to attend.

One area of society activity that would benefit from some additional improvement is corporate sponsorship. We are grateful to all the companies that do support us, but would like to encourage more service providers, and especially wireline service companies, to become involved.

2019 GeoConvention

Attendance at the 2019 GeoConvention remained strong. This is still the Society’s single greatest source of revenue, and 2019 numbers were slightly higher than 2018. CWLS’ share of 2019 GeoConvention income was \$31,091.

As part of the GeoConvention agenda, CWLS again hosted a social lunch function at the Bank and Barron. This event was well-attended, drawing 51 registrants.

Thank you to the CWLS representatives who sit on GeoConvention committees, Brett Norris, Gary Bugden and Tracy Du.

Finances

2019 was another successful financial year for CWLS. Income was comparable to last year, and expenses remained low.

The President's Report

The Treasurer's report will provide more detail, in terms of a profit and loss statement for the year. Briefly, the Society made \$16,757.

The Winston Karel Student Awards

The CWLS appreciates the continued support of Blade Ideas Ltd. and Lois Decker, in honour of the late Winston Karel.

Acknowledgements

On behalf of the Society, I would like to acknowledge all our sponsors and volunteers. Specifically, Divestco, Paradigm, Emerson, Enlighten Geoscience Ltd., Enersoft, Blade Ideas Ltd. and Everett Energy Software.

Thanks to Jenny Kerr, Marnie Kubista and the staff at Associations Plus.

A special thank you from me to the rest of the 2019-2020 Executive.

Kevin Pyke – Past President
Tyler Longeau – Vice President
Brianna Saxton – Secretary
Kathy Diaz – Treasurer
Matthew Yaychuk – Membership Chair
Christa Williams – Website & Publications Chair
Mike Sullivan – Committees Chair

They proved the axiom that if you want to achieve things as an organization, you should put good people in place and then let them do their jobs.

Closing

In closing, volunteering with the CWLS for the past 3 years has been both an enjoyable and satisfying experience. In a volunteer environment where a meaningful number of the faces change every year, it can be difficult to feel like you are making a difference. Somebody I respect a great deal once told me, in these kind of situations, where the time you have to make an impact is limited and project timeframes often exceed your time in office, you need to pick two or three things to focus your efforts on, and just try to leave the Society in a better place than where you found it. I can honestly say, this year I think we've done that.

All the best to the incoming 2020-2021 Executive.

David Kisilevsky
2019-2020 President, Canadian Well Logging Society

The Vice-President's Report

The CWLS would like to thank the members and sponsors for your continued support. Similar to past years we have continued to deliver quality monthly technical luncheons with remarkable content.

A total of eight technical luncheons were held between March 2019 and February 2020. In addition to the technical luncheons, the Society had great success hosting the annual GeoConvention lunch, a RW Mapping lunch to get some feedback from the membership before the official launch of the online RW catalog, and a Holiday Social. A breakdown of each event along with attendance can be seen below in Table 1.

Date	Event Type	Attendants
March 20 2019	AGM and Luncheon	40
April 17 2019	Technical Luncheon	34
May 15 2019	GeoConvention Lunch	51
June 19 2019	Technical Luncheon	30
September 18 2019	Technical Luncheon	36
October 16 2019	Technical Luncheon	37
November 20 2019	Technical Luncheon	23
December 10 2019	RW Mapping Lunch	30
December 12 2019	Holiday Social	20
January 15 2020	Technical Luncheon	77
February 19 2020	Technical Luncheon	38

Table 1 – Event Attendance

Attendance at the technical luncheons was variable, and even through the tough market, the technical luncheons average attendance was equal to last year. We would like to thank the presenters for sharing their data, and hope to attract more of these kind of talks in the future.

Our GeoConvention sponsored social lunch was a great success. It was held at the Bank and Baron where we hosted 51 people for some great networking. The event was down from the previous year and the Society is looking into other ways to ensure attendance levels are maintained.

Our Christmas Cheer social was held at a new location this year, Buchanan's Chop House and Whisky Bar. The location was very suitable for the size of the event with 20 in attendance. The attendance was down slightly from last years of 25.

The following is a summary of the 2019-2020 Technical Luncheon speaker program:

The Vice-President's Report

Date	Speaker	Title
Mar 20, 2019	Sean Lacomber Comedian	Comedy Lunch (AGM)
Apr 17, 2019	Dr. Amin Ghanizadeh Tight Oil Consortium at U of C	Advanced Reservoir and Hydraulic Fracture Characterization in Support of Development of Tight Oil Reservoirs: Examples from the Montney Formation
May 15, 2019	N/A	CWLS - GeoConvention Sponsored Lunch Event
Jun 19, 2019	Dr. Ned Etris Sr. Leader and Petroleum Geologist	Improved Reservoir Characterization of Oil Sands through Lab-Validated Physical Models of Formation Factors and Permeability in Clean Sediments
Jul 17, 2019	N/A	No Speaker – Annual Summer Break
Aug 21, 2019	N/A	No Speaker – Annual Summer Break
Sep 18, 2019	David Henderson Enersoft	Virtual Core Logging using Machine Vision
Oct 16, 2019	C.M. Ruhul Amin ACMR Consulting Inc.	Identification and Quantification of Natural Fractures in Reservoirs using Practical Application of Modern Techniques
Nov 20, 2019	Tania Uszacki & Terry Steinkey Divestco	New Web Map Technology and Software to Efficiently Locate and Integrate Well Log Data to Your Projects
Dec 12, 2019	N/A	CWLS Holiday Social held in place of technical luncheon
Jan 15, 2020	James Kim Rife Resources	The Duvernay: Looking East... Far East
Feb 19, 2020	Ron Spencer XRF Solutions	Determination of Mineralogy and Reservoir Properties from XRF Elemental Data in the Duvernay Formation

The upcoming Annual General Meeting should be an entertaining event. We look forward to welcoming Jon Noad as our speaker this year.

The CWLS would like to thank our sponsors that provide the society with continued support year after year. The following is a summary of our sponsors from the past year and their sponsorship position over that period:

Sponsor	Sponsorship Level
Divestco	Platinum Plus
Emerson - Paradigm	Platinum
Enersoft	Gold
Enlighten Geoscience Ltd.	Gold
Blade Ideas Ltd.	Silver
Everett Energy Software	Silver

Thanks also go out to all of our volunteers, with special mentions the staff at Associations Plus, the Fairmont Palliser event team and the rest of the CWLS Executive for providing the time it takes to continue to make this Society a success.

Tyler Longeau
2019-2020 Vice President, Canadian Well Logging Society

Chair of Committee's Report



As the Chair of Committees, you are tasked with overseeing these outside the box activities. The year, needless to say, did not provide much need for oversight.

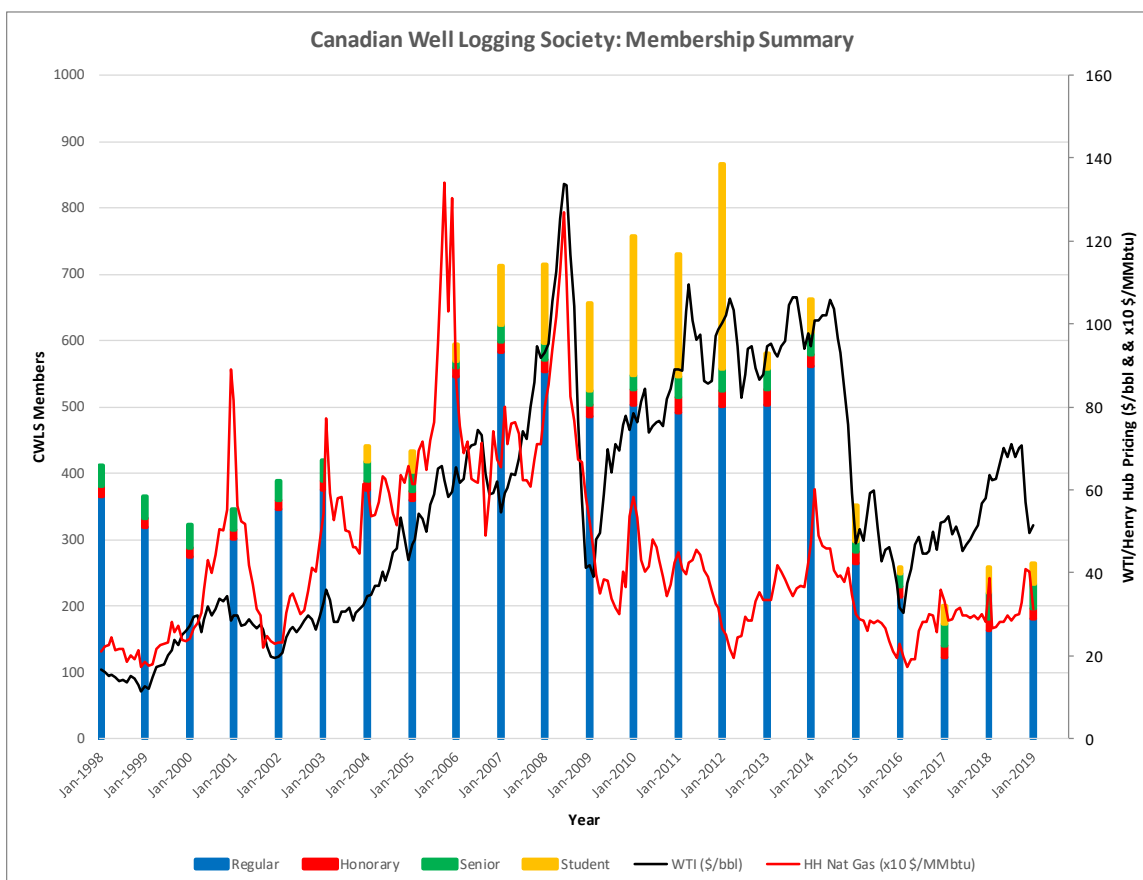
Michael Sullivan

2019-2020 Chair of Committees, Canadian Well Logging Society

The Membership Chair's Report

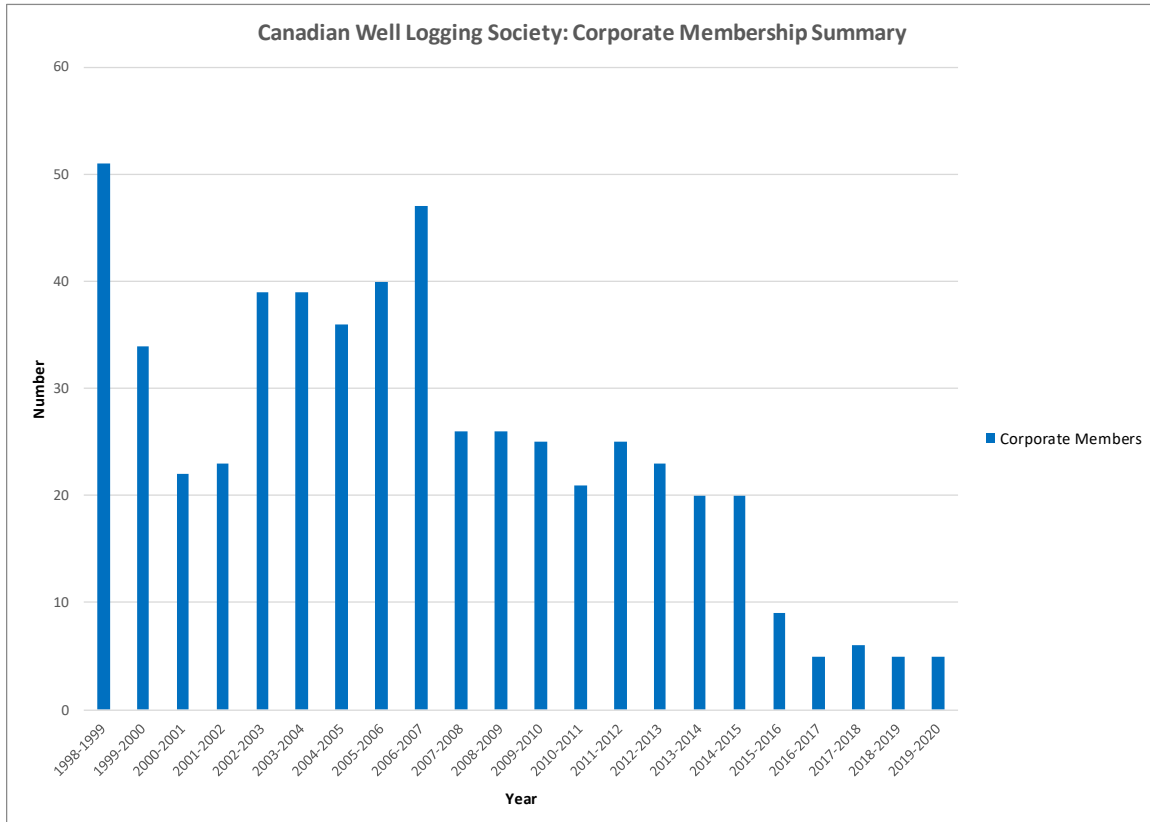
It is hard to believe that another year has come and gone as it is time to reflect back on 2019. It has been yet another tumultuous year for our industry. Downtown Calgary and other cities across the prairies saw their fair share of both pro- and anti-industry protests. We witnessed the largest blowout in the WCS differential on record. Oil prices have continued to recover from the lows of 2016, however at the time of writing this there appears to be more turmoil brewing on the horizon. With the continued flux and uncertainty within our industry, and the unrelenting push to do more with less, the importance of technical societies has never been more evident. When training budgets continue to be squeezed and valued subject matter experts have since left the industry, it is the job of the technical societies to bridge the gaps in knowledge and facilitate the exchange of new ideas. The CWLS and our industry equivalents continue to fill this role. Over the past year, we have strived to host technical luncheons that offer relevant content with immediate application for our membership. We have also completed a tremendous upgrade to the CWLS RW Catalogue, as well as to the website. All these initiatives aim to improve the value-proposition of being an active member of the CWLS.

As of March 2020, the CWLS membership stands at 264 active members: 16 honorary, 180 regular, 37 senior and 31 students. We have seen our membership gradually increase over the past three years, which is an excellent sign considering the significant challenges our industry still faces. With our continued focus on increasing the value for members, we hope to see these numbers continue to rise. Below is a historical view of CWLS membership plotted against oil (WTI) and x10 gas (Henry Hub) spot prices.



The Membership Chair's Report

Our corporate membership remains unchanged from last year. The Executive hopes that with the initiatives we have started to increase the value of membership we will be able to attract more regular members and ultimately more corporate sponsors. Corporate sponsorship plays a big role in enabling the CWLS to carry out its activities, and as such we would like to express our sincerest gratitude for all of our current corporate sponsors.



Membership renewal is currently underway. For those that have already renewed, thank you! For those who have not renewed for 2020, you can easily renew online at <https://www.cwls.org/membership/>.

In closing, I would like to sincerely thank everyone for their continued support of the CWLS throughout this past year. It has been an absolute pleasure serving as your Membership Chair and being able to work with the other wonderful volunteers on the Board.

Sincerely,
Matthew Yaychuk
2019-2020 Canadian Well Logging Society Membership Chair

The Treasurer's Report

The accompanying Profit & Loss Statement and Balance Sheet reflects the financial position of the Canadian Well Logging Society (CWLS) for the year ended December 31, 2019. David Kisilevsky (President) and Tyler Longeau (Vice President) have also reviewed the financial reports. The 2019 gross income was \$69,784 and expenses were \$52,986. The net income for 2019 was \$16,798 mainly derived from GeoConvention, investment interest, membership, and corporate sponsorship.

Investment Interest

CWLS' investments are diversified into 1 Power Savings Account, ScotiaBank high-interest GIC's, and a ScotiaMcLeod Dynamic Advantage Bond. The overall interest gained on all investment was \$12,738.

Technical Luncheons

All technical luncheons are heavily subsidized by the society to maintain affordability for all members. The CWLS ran 9 technical luncheons in 2019, generating a revenue of \$12,740 with a total expense of \$16,628. All 9 luncheons were run at a deficit of \$3,888. Luncheon price per person in 2019 varied from \$45-\$63/luncheon. Currently, technical luncheons are \$40 for members, \$60 for non-members, and complimentary for students.

Annual General Meeting (AGM)

The CWLS heavily subsidizes the AGM to maintain affordable ticket prices to all paid members. The revenue for the 2019 AGM was \$780 and the expenses were \$5515, which means that the AGM operated at a deficit of \$4735.

GeoConvention

2019 was the 12th year that the CWLS has been part of the Joint Annual Conference, GeoConvention, along with the CSPG and CSEG. This joint conference is the main source of revenue for the CWLS. Income from the conference was \$31,091. The CWLS also hosted a GeoConvention luncheon on the Wednesday of the convention at the Bank and Baron to promote further networking which drew 51 delegates. Income was \$780 and the expense for hosting the lunch was \$5515.

Short Courses

In efforts to provide more value to our members, the CWLS put on the "Introduction to Log Analysis" short course again this year by Ken Simpson at a minimal expense. The course fee was \$20/person and the course drew 7 participants which included students and in-transition professionals. Ken Simpson generously provided this course at no-charge to give back to the society.

Membership

Total membership income was \$7,680. 2019 membership dues remained unchanged for 2019 with new members at \$50, students at \$20, retired at \$20, and renewals at \$40. The CWLS still offers the lowest dues of any petroleum society in Calgary.

The Treasurer's Report

Corporate Sponsorship

Corporate sponsorship generated a revenue of \$2500 with 1 Platinum Plus, 1 Platinum, 2 Gold, and 2 Silver sponsors.

Administration

Administration expenses were a grand total of \$27,274 for 2019 which includes \$23,768 for Associations Plus fees, telephone, insurance, office supplies, registrations fees, and bank fee and \$3506 for website and RW Catalogue redevelopment.

Summary

2019 was overall a very successful year for the CWLS. Income increased by \$12,384 (21.5%) from \$57,400 in 2018 to \$69,784 in 2019. Expenses were reduced by \$1,308 from \$54,294 in 2018 to \$52,986 in 2019. The GeoConvention revenue of \$31,091 and the interest revenue of \$12,738 made the CWLS capable of operating at a surplus in 2019.

The CWLS still maintains a very strong financial position going into 2020-2021. Our total current assets are valued at \$387,579 which include our ScotiaBank chequing/savings account with a balance of \$70,571, our high-interest ScotiaBank GIC's is valued at \$55,740, our high-interest earning Dynamic Advantage Bond is valued at \$243,063 with ScotiaMcLeod, our GeoConvention investment has grown to a value of \$13,712 and \$4,493 for miscellaneous items (credit card clearing, accounts receivable, and prepaid insurance). Our total current liabilities are \$3,013 giving a Total Cumulative Retained Earning to members valued at \$381,566.

A special thank you to Spryng Kubicek and Marnie Kubista from Associations Plus for all their invaluable help this year. It has been an absolute pleasure working with this year's executive.

Kathy Diaz
2019-2020 Canadian Well Logging Society Treasurer

The Treasurer's Report

PROFIT AND LOSS FOR 2019

	<u>2019</u>	<u>2018</u>
INCOME		
Interest Revenue	12,738	1,421
Events - Luncheons	12,740	10,032
Events - AGM	780	648
Events - GeoConvention Luncheon	2,040	2,396
GeoConvention	31,091	29,190
Courses	175	460
Membership	7,680	8,070
Sponsorship	2,500	4,750
Publications	40	433
GROSS INCOME	69,784	57,400
EXPENSES		
Administration (office supplies, admin, insurance, website, etc.)	27,274	32,380
Events - Luncheons	16,628	11,836
Events - AGM	5,515	4,386
Events - GeoConvention	3,205	3,173
Courses	8	479
Membership	306	426
Sponsorship	50	56
Publications	0	1,557
TOTAL EXPENSES	52,986	54,294
NET INCOME	16,798	3,106

ASSETS FOR 2019

	<u>2019</u>	<u>2018</u>
CURRENT ASSETS		
Cheque Clearing Account	0	0
Bank of Nova Scotia - Savings	45,766	45,766
Bank of Nova Scotia - Chequing	24,805	29,752
Credit Card Clearing	47	26
GIC - BNS	55,740	55,740
Dynamic Advantage Bond	243,063	230,697
GeoConvention Investment	13,712	11,201
Accounts Receivable	3,783	3,911
Prepaid Insurance	663	663
TOTAL CURRENT ASSETS	387,579	377,756

LIABILITIES AND MEMBER EQUITY FOR 2019

	<u>2019</u>	<u>2018</u>
CURRENT LIABILITIES		
Accounts Payable	3,065	7,571
GST Charges on Sales	2,320	1,209
GST Paid on Purchases	-4,501	-2,136
Prepaid Memberships	2,129	3,343
TOTAL CURRENT LIABILITIES	3,013	9,988
MEMBER EQUITY		
Retained Earnings - Previous Year	367,769	364,662
Current Earnings	16,798	3,106
TOTAL CUMMULATIVE RETAINED EARNINGS	384,566	367,769
TOTAL LIABILITIES and EQUITY	387,579	377,756

Reviewed by:

David Kisilevsky, President

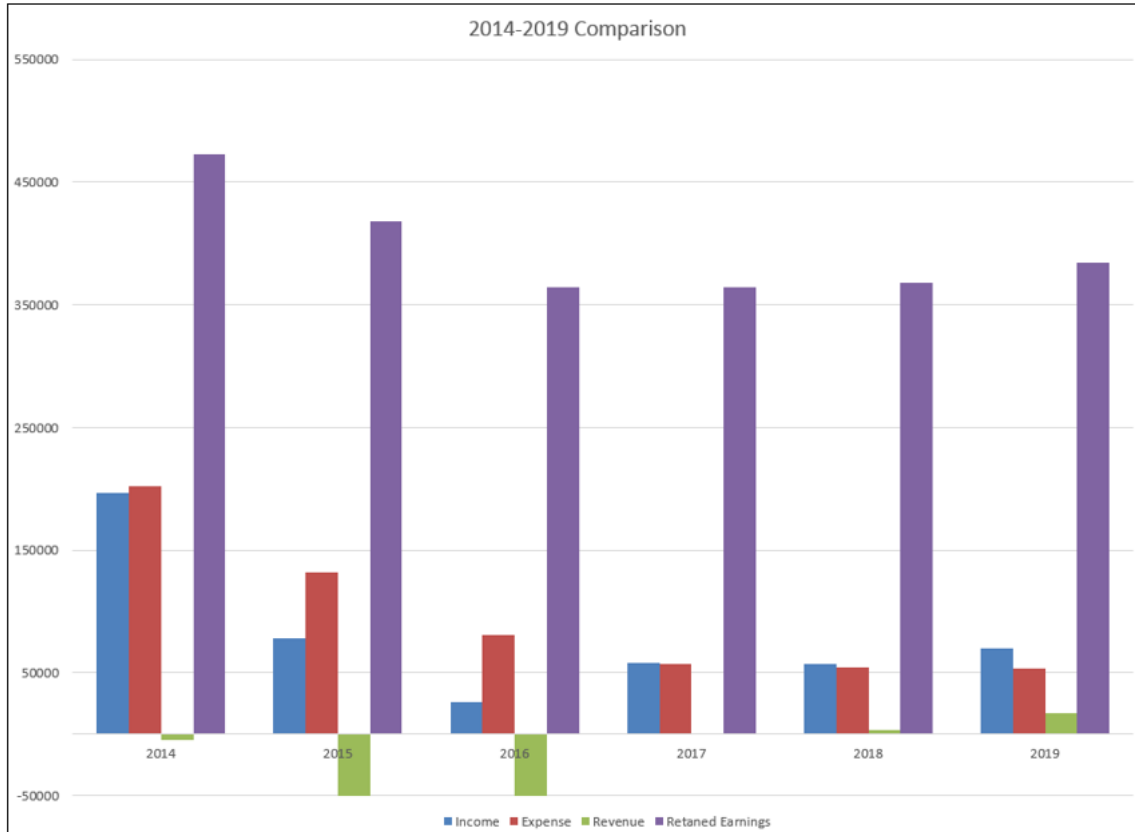
Tyler Longeau, Vice President

Kathy Diaz, Treasurer





The Treasurer's Report



The Publication & Website Chair's Report

I would like to thank the membership, executive committee and all volunteers for all their support and efforts this past year. Without your continued commitment to the CWLS we could not function as we do. I am honored that have had the opportunity to work as the Publication & Website Chair. I hope you have gotten value, either directly or indirectly, from the executive committee and other volunteers' contributions.

This has been a big year for the CWLS website and RW Catalogue. We have completely transitioned the existing RW database to the ArcGIS platform. As you may recall, we had frequent issues with our website infrastructure, our aging host and original hardware and software that housed the RW Catalogue and special core analysis. The CWLS Executive reached out to the membership via a survey in the Summer of 2019 to understand what tools were the most beneficial to our membership and where they would like to see improvements. The Website and the RW Catalogue were identified as top priorities. To recap the main issues that needed to be addressed regarding the RW Catalogue were as follows:

- 1) Due to the hardware and software of the 2002 edition the database could no longer be supported or updated;
- 2) The response time for user issues and difficulties varied due to the lack of support;
- 3) Interface was dated, bug ridden and extremely hard to use as the features kept re-setting.

This new platform has addressed all these issues, increasing the efficiency and user interface of the entire database. This new platform is entirely cloud-based, and easy to update database, function and use. The interface allows to search by geographical region, township range, formation, user defined areas and much more! The first look at the new interface was presented to the membership in early December and released for trial and use January 15th, 2020. The CWLS is extremely grateful to Lauren Booth, for getting this interface created and up and running to the standards of the CWLS Society. We hope to continue to rely upon Lauren's expertise in ArcGIS as we look forward to completing the integration of the special core analysis and work on updating the next edition of the RW Catalogue.

The website has been a primary focus this past year, as it is our main tool to communicate and engage with our membership and sponsors. The website itself has been re-developed on a new platform by Canada Web Inc., to give a more intuitive user navigation experience and backend for website updates and any new features we add. The content management system has been streamlined, making content, updates and customizable options available, while increasing functionality. We will continue to focus attention and efforts to develop the CWLS website, and the tools we offer our membership. In addition, we are working to have the entire publications database up on our website and available in a searchable format and downloaded on a paper by paper basis. This was made possible due to the indexing of the entire publications database and volunteer support the CWLS received from Edwin Gomez. Thank you, Edwin!

Associations Plus continues to provide administrative support with website updates, events, as well as manage our member area and database, at a reduced cost to CWLS. As we continue to improve our website for future use, please let us know if you have any specific comments, suggestions or requests.

The Publication & Website Chair's Report

Case Struyk has continued to update and provide free software for handling LAS files. We are very grateful for Case's ongoing dedication to the CWLS! The LAS pages continue to receive high traffic on our website.

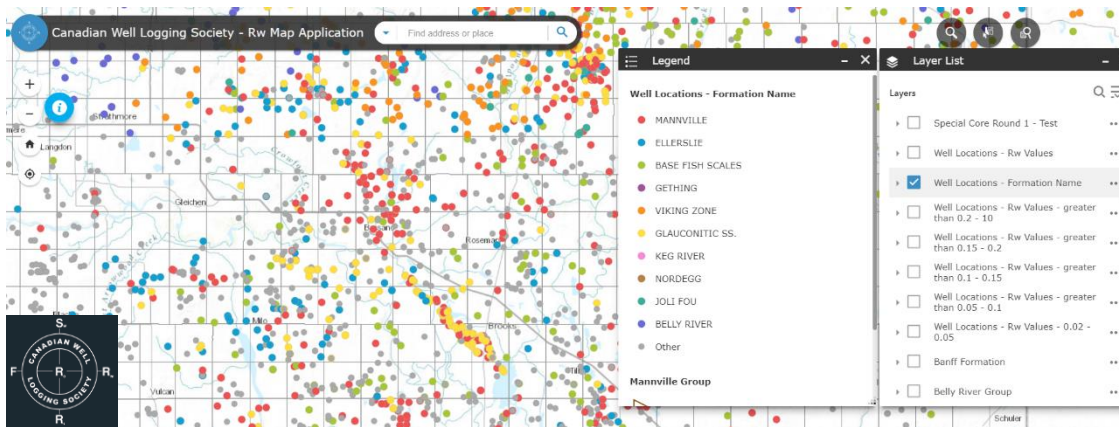
As was mentioned last year, the CWLS continues to see a significant reduction in technical submissions for publication. We continue to see publishing quality, local technical material as an important part of advancing well logging and petrophysics, and providing value both to our members, and the petroleum industry at large. As we strive to revitalize the Society's contribution in this regard, we will be working to attract more publications within our industry and academic community.

If you have constructive feedback on the website rebuild, RW Catalogue or publications, please feel free to contact any of the executive to share. In conclusion, we have had great year in updating our website and website tools and continue to update and enhance for our membership needs. Thanks for all your support this past year!

Christa Williams

2019-2020 Canadian Well Logging Society Publications & Website Chair

CWLS 2020 RW MAPPING APPLICATION



The Secretary's Report

It was nice to serve and be a member of the CWLS executive committee this past year. Thank you for giving me the opportunity to volunteer with and be involved with such a nice community and organization.

My duties as Executive Secretary this year included, but were not limited to:

- Preparing and keeping minutes for the CWLS Executive Meetings
- Sending executive monthly meeting minutes to the Executive Committee
- Creating the invites and abstracts for the CWLS Technical Luncheons
- Planning and organizing the CWLS Christmas Party
- Compiling the 2018-2019 Annual Report

I want to thank everyone who was involved with and supported the CWLS this past year! I have enjoyed being part of the executive the past 2 years and look forward to serving again next year!

Brianna Saxton
2018-2019 Secretary, Canadian Well Logging Society