

COVALON TECHNOLOGIES LTD.

Notice of Annual and Special Meeting of Shareholders

NOTICE IS HEREBY GIVEN THAT the annual and special meeting (the “**Meeting**”) of shareholders of Covalon Technologies Ltd. (the “**Corporation**”) will be held at the offices of Stikeman Elliott LLP, 53rd floor, Commerce Court West, 199 Bay Street, Toronto, Ontario, on Thursday, March 7, 2019, at 3:30 p.m. (Toronto time) for the following purposes:

1. to present the financial statements of the Corporation for the year ended September 30, 2018, together with the report of the auditor thereon;
2. to elect directors for the ensuing year;
3. to appoint PricewaterhouseCoopers, LLP, Chartered Accountants, as the auditor of the Corporation and to authorize the directors of the Corporation to fix the remuneration to be paid to the auditor;
4. to consider and, if deemed advisable, to pass an ordinary resolution in the form set forth in Appendix “A” to the accompanying management information circular to approve and confirm an amended and restated stock option plan of the Corporation; and
5. to transact such other business as may properly come before the Meeting or any reconvened meeting following an adjournment or postponement thereof.

Accompanying this Notice of Meeting are a copy of the management information circular and a form of proxy. These materials can also be viewed at www.sedar.com.

Shareholders who are unable to attend the Meeting in person are requested to complete, date and sign the enclosed form of proxy and to return it in the envelope provided for that purpose.

To be valid, the enclosed form of proxy must be signed and received by the Corporation, c/o the Corporation’s transfer agent, TSX Trust Company, 301 - 100 Adelaide Street West, Toronto, Ontario, M5H 4H1, prior to 3:30 p.m. (Toronto time) on Tuesday, March 5, 2019, or 48 hours prior to any reconvened meeting following an adjournment or postponement of the Meeting.

DATED at Mississauga, Ontario this 23rd day of January, 2019.

By Order of the Board of Directors

“Brian E. Pedlar”

Brian E. Pedlar

President and Chief Executive Officer

COVALON TECHNOLOGIES LTD.
MANAGEMENT INFORMATION CIRCULAR
SOLICITATION OF PROXIES

This management information circular (the “**Circular**”) is furnished in connection with the solicitation of proxies by the management of Covalon Technologies Ltd. (the “**Corporation**”) for use at the annual and special meeting (the “**Meeting**”) of shareholders (“**Shareholders**”) of the Corporation to be held at the offices of Stikeman Elliott LLP, 53rd floor, Commerce Court West, 199 Bay Street, Toronto, Ontario, on Thursday, March 7, 2019, at 3:30 p.m. (Toronto time), and at any reconvened meeting following an adjournment or postponement thereof, for the purposes set forth in the accompanying Notice of Annual and Special Meeting of Shareholders (the “**Notice of Meeting**”). The solicitation will be primarily by mail but may also be solicited by telephone or electronic means of communication by directors, officers or designated agents of the Corporation. The cost of solicitation will be borne by the Corporation. The information contained herein is given as at January 10, 2019, unless otherwise indicated.

The Corporation will not be using the notice-and-access mechanism under National Instrument 54-101-*Communication with Beneficial Owners of Securities of a Reporting Issuer* (“**NI 54-101**”) for distribution of the Notice of Meeting and the Circular to Shareholders.

RECORD DATE

The board of directors of the Corporation (the “**Board**”) has fixed the close of business on January 10, 2019 as the record date for the purpose of determining Shareholders entitled to receive the Notice of Meeting and to vote at the Meeting. Each Shareholder is entitled to one vote for each common share in the capital of the Corporation (a “**Common Share**” and, collectively, the “**Common Shares**”) held and shown as registered in such holder’s name on the list of Shareholders prepared as of the close of business on the record date. The list of Shareholders will be available for inspection during usual business hours at the principal office of the Corporation’s transfer agent, TSX Trust Company, Toronto, Ontario and will also be available for inspection at the Meeting.

PROXY INSTRUCTIONS

Shareholders who are unable to attend the Meeting and vote in person may still vote by appointing a proxyholder (as defined below).

The persons specified in the enclosed form of proxy are directors and/or officers of the Corporation.

A Shareholder has the right to appoint a person or company, who need not be a Shareholder, to represent such Shareholder at the Meeting or any reconvened meeting following an adjournment or postponement thereof other than the persons specified in the enclosed form of proxy (each, a “proxyholder”). Such right may be exercised by inserting such person’s name in the blank space provided in the form of proxy or by completing another proper form of proxy. For Shareholders who wish to appoint a proxyholder, the completed form of proxy must be mailed in the enclosed envelope and received by TSX Trust Company, at the address on the proxy envelope provided prior to 3:30 p.m. (Toronto time) on Tuesday, March 5, 2019, or 48 hours prior to any reconvened meeting following an adjournment or postponement of the Meeting.

Enquiries regarding proxy forms can be made by Shareholders to the Corporation’s transfer agent, TSX Trust Company, 301 - 100 Adelaide Street West, Toronto, Ontario, M5H 4H1, or by telephone at 1-866-600-5869.

Only registered holders of Common Shares or the persons they appoint as their proxies are permitted to vote at the Meeting. However, in many cases, Common Shares beneficially owned by a person (a “**Non-Registered Holder**”) are registered either: (i) in the name of an intermediary (an “**Intermediary**”) (including banks, trust companies, securities dealers or brokers and trustees or administrators of self-administered RRSPs, RRIFs, RESPs and similar plans) that the Non-Registered Holder deals with in respect of the Common Shares; or (ii) in the name of a clearing agency (such as The Canadian Depository for Securities Limited) of which the Intermediary is a participant. In accordance with the requirements of NI 54-101, the Corporation has distributed copies of the Notice of Meeting, the Circular, and the enclosed form of proxy (collectively, the “**meeting materials**”) to the clearing agencies and Intermediaries for onward distribution to Non-Registered Holders.

Intermediaries are required to forward the meeting materials to Non-Registered Holders unless a Non-Registered Holder has waived his, her or its right to receive them. Intermediaries often use service companies to forward the meeting materials to Non-Registered Holders. A Non-Registered Holder who has not waived the right to receive meeting materials will receive from his, her or its Intermediary a voting instruction form which must be completed and signed by the Non-Registered Holder and returned in accordance with the directions of the Intermediary. The purpose of this procedure is to permit the Non-Registered Holder to direct the voting of the Common Shares beneficially owned by such person.

Should a Non-Registered Holder wish to attend and vote at the Meeting in person, the Non-Registered Holder should write his, her, or its name in the space provided for that purpose on the voting instruction form and return it in accordance with the directions of the Intermediary. The Intermediary will send the Non-Registered Holder a form of proxy which has already been signed by the Intermediary (typically by a facsimile stamped signature), which is restricted as to the number of Common Shares beneficially owned by the Non-Registered Holder and which names the Non-Registered Holder as proxyholder. This form of proxy need not be signed by the Non-Registered Holder. In this case, the Non-Registered Holder should deposit this form of proxy with the Corporation’s transfer agent, TSX Trust Company, in accordance with the instructions set out above.

Non-Registered Holders should carefully follow the instructions of their Intermediaries, including those regarding when and where the voting instruction form or form of proxy is to be delivered.

The Corporation is sending proxy-related materials directly to non-objecting beneficial owners under NI 54-101. Management of the Corporation does not intend to pay for Intermediaries to forward the meeting materials and voting instruction form to objecting beneficial owners under NI 54-101 and accordingly an objecting beneficial owner will not receive the meeting materials unless the objecting beneficial owner’s Intermediary assumes the cost of delivery.

VOTING OF PROXIES

The enclosed form of proxy will be voted or withheld from voting with respect to the Common Shares represented thereby in accordance with the instructions of the Shareholder as indicated on the proxy and, if the Shareholder specifies a choice with respect to any matter to be acted upon, the Common Shares will be voted accordingly. **In the absence of any specific instructions with respect to a particular matter, the Common Shares represented by such proxies will be voted at the Meeting in accordance with the best judgment of the person or persons voting such proxies.**

The enclosed form of proxy, when properly signed, confers discretionary authority upon the representatives designated therein with respect to amendments to, or variations of, matters identified in the Notice of Meeting and with respect to other matters which may properly come before the Meeting. At the date of the Circular, management of the Corporation does not know of any such amendments, variations or other matters. However, if any such amendments, variations or other matters which are not now known to management of the Corporation should

properly come before the Meeting, the Common Shares represented by the proxies solicited hereby will be voted thereon in accordance with the best judgment of the person or persons voting such proxies.

REVOCAION OF PROXIES

A registered holder of Common Shares who has given a proxy may revoke the proxy: (a) by completing and signing a proxy bearing a later date and depositing it as aforesaid; (b) by depositing an instrument in writing executed by such registered holder or by his, her or its attorney authorized in writing: (i) at the registered office of the Corporation at any time up to and including the last business day preceding the day of the Meeting or any reconvened meeting following an adjournment or postponement thereof; or (ii) with the Chairman of the Meeting prior to the commencement of the Meeting on the day of the Meeting or any adjournment thereof; or (c) in any other manner permitted by law.

A Non-Registered Holder who wishes to revoke a voting instruction form or a waiver of the right to receive meeting materials should contact his, her or its Intermediary for instructions.

INTEREST OF CERTAIN PERSONS OR COMPANIES IN MATTERS TO BE ACTED UPON

As at the date hereof, to the knowledge of the directors and executive officers of the Corporation, none of the directors or executive officers of the Corporation who have been a director or executive officer of the Corporation at any time since the beginning of the Corporation's last financial year, nor any proposed nominee for election as a director of the Corporation, nor any associate or affiliate of any of the foregoing persons, has any material interest, direct or indirect, by way of beneficial ownership of securities or otherwise, in any matter to be acted upon at the Meeting, other than: (i) the election of directors; and (ii) the approval of the Corporation's Amended and Restated Stock Option Plan (the "A&R Option Plan").

VOTING SHARES AND PRINCIPAL HOLDERS

As of the close of business on January 10, 2019 there were 22,195,657 Common Shares outstanding. Each holder of Common Shares of record at the close of business on January 10, 2019, the record date established for notice of, and voting at, the Meeting, will be entitled to ONE VOTE for each Common Share held on all matters proposed to come before the Meeting.

To the knowledge of the directors and executive officers of the Corporation, the following person(s) beneficially own, directly or indirectly, or exercise control or direction over 10% or more of the voting rights attached to all of the outstanding Common Shares:

Name	Approximate number of Common Shares beneficially owned, or controlled or directed, directly or indirectly	Approximate Percentage of total Common Shares
Abe Schwartz ⁽¹⁾	8,046,116	36.25%
The Goldfarb Group ⁽²⁾	2,566,859	11.56%

Notes:

- (1) Abe Schwartz also owns 114,796 Common Share purchase warrants.
 (2) The Goldfarb Group, collectively beneficially owns, controls or directs an aggregate of 510,204 Common Share purchase warrants.

MATTERS TO BE ACTED UPON AT THE MEETING

1. Presentation of Financial Statements

The audited consolidated financial statements of the Corporation for the fiscal year ended September 30, 2018 and the report of the auditor thereon (the “**Financial Statements**”) will be submitted to the Meeting. No vote will be taken on the Financial Statements. The Financial Statements together with the management’s discussion and analysis thereon are available on SEDAR at www.sedar.com.

2. Election of Directors

The term of office of the present directors of the Corporation expires at the Meeting. The number of directors of the Corporation to be elected at the Meeting is eight and each nominee elected as a director of the Corporation will hold office until the close of business of the next annual meeting of shareholders or until his or her successor is elected or appointed, unless his or her office is earlier vacated.

The following table lists certain information concerning the persons proposed to be nominated for election as directors, all of whom are current directors of the Corporation, except for Dr. Myrna Francis and Mr. John Suk, who the Board expects to appoint prior to the Meeting. Dr. Murray Miller and Hon. Elinor Caplan do not intend to stand for re-election as directors at the Meeting:

<u>Name, Province/State and Country of Residence</u>	<u>Position with the Corporation or Principal Occupation or Business</u>	<u>Director Since</u>	<u>Common Shares Beneficially Owned, Controlled or Directed and % of Issued and Outstanding Common Shares</u> ⁽¹⁾
Abe Schwartz Ontario, Canada	Chairman, Covalon Technologies Ltd. President, Schwartz Technologies Corporation	March 7, 2008	(2) 8,046,116 36.25%
Joseph Cordiano ^{CG} Ontario, Canada	Principal, Cityzen Development Group	March 7, 2008	(3) 92,000 0.41%
Brian Pedlar ^M Ontario, Canada	President & CEO, Covalon Technologies Ltd.	January 14, 2010	(5) 884,052 3.98%
Jeffrey Mandel ^{AC} Ontario, Canada	President, AMR Securities Services Inc.	August 24, 2011	(6) 34,633 0.16%
Ian Brindle ^{AG} Ontario, Canada	Professor Emeritus at Brock University	June 16, 2014	(8) 45,000 0.20%
Maj. Gen. Gale Pollock ^{CG} Pennsylvania, USA	Owner, Pollock Associates, LLC	November 13, 2017	(9) —
Myrna Francis Ontario, Canada	President, Mfran Healthcare Advisory Services	—	(10) —

<u>Name, Province/State and Country of Residence</u>	<u>Position with the Corporation or Principal Occupation or Business</u>	<u>Director Since</u>	<u>Common Shares Beneficially Owned, Controlled or Directed and % of Issued and Outstanding Common Shares⁽¹⁾</u>
John Suk Ontario, Canada	Owner, Altmax Consulting	—	— (11) —

^M Indicates management.⁽¹⁾

^A Audit Committee composition: As at the date of this Circular, Messrs. Miller (Interim Chair), Brindle, and Mandel, and Mme Caplan are members of the Audit Committee. Following the Meeting, the Board intends to reconstitute the composition of the Audit Committee.

^C Compensation Committee: As at the date of this Circular, Messrs. Mandel (Chair), Cordiano, and Miller, and Maj. Gen. Pollock are members of the Compensation Committee. Following the Meeting, the Board intends to reconstitute the composition of the Compensation Committee.

^G Corporate Governance and Nominating Committee: As at the date of this Circular, Mme. Caplan (Chair) and Maj. Gen. Pollock, and Messrs. Brindle and Cordiano are members of the Corporate Governance and Nominating Committee. Following the Meeting, the Board intends to reconstitute the composition of the Corporate Governance and Nominating Committee.

Notes:

- (1) Based on 22,195,657 Common Shares outstanding as of January 10, 2019.
- (2) Mr. Schwartz also owns 114,796 Common Share purchase warrants.
- (3) Mr. Cordiano also owns 25,000 Common Share stock options.
- (4) Dr. Miller also owns 101,531 Common Share purchase warrants and stock options.
- (5) Mr. Pedlar also owns 305,000 Common Share stock options.
- (6) Mr. Mandel also owns 11,667 Common Share stock options.
- (7) Mrs. Caplan also owns 27,800 Common Share purchase warrants and stock options.
- (8) Dr. Brindle also owns 45,000 Common Share stock options.
- (9) Maj. Gen. Gale Pollock owns 35,000 Common Share stock options.
- (10) As at the date of this Circular, Dr. Francis had not been appointed to the board of directors of the Corporation.
- (11) As at the date of this Circular, Mr. Suk had not been appointed to the board of directors of the Corporation.

The respective nominees have furnished the information as to their beneficial ownership, or control or direction, of Common Shares and their principal occupations. Each of the directors and executive officers has been engaged in his or her present principal occupation for the previous five years, except as indicated in the following biographical information of each individual:

Abe Schwartz is the Founder and President of Schwartz Technologies Corporation and has been an advisor to Covalon Technologies Ltd. since March 7, 2008. Mr. Schwartz has been actively building and managing companies from start-up to maturity since his first start-up, Polaris Technology Corporation, a computer software firm which he founded in 1977. In 1993, Mr. Schwartz co-founded The Workflow Automation Corporation. He was involved with Inter-Citic Minerals Inc. in 2001 as an advisor on a mining-related computer project in China. Mr. Schwartz serves as a Member of the Advisory Board at RedHill Biopharma Ltd. Mr. Schwartz has also held executive positions in various public and private companies including President, CEO and Director of Cedara Software Corp. Mr. Schwartz has over 40 years of experience in launching products, R&D, international distribution agreements, re-organization in large-scale corporations, venture capital financing and negotiating mergers and acquisitions.

Joseph Cordiano joined Cityzen Development Group, a real estate development company, as a principal in 2006, where he is responsible for the sales and marketing as well as new business development of its Greater Toronto Area projects. During his 21 years of public service as a Member of the Ontario Provincial Legislature, Mr. Cordiano served as the Minister of Economic Development and Trade, GTA Regional Minister and as a member of the Priorities and Planning Committee of Cabinet. A graduate of the University of Toronto and The University of Toledo, Ohio, Mr. Cordiano holds an MBA with a specialty in marketing.

Brian Pedlar has been President and Chief Executive Officer of the Corporation since April 3, 2010 and a member of the Board since January 14, 2010. Previously, Mr. Pedlar was President of Pedlar Ventures Limited, a private venture investment and consulting firm based in Oakville, Ontario. He has served in senior executive positions with public companies including temporary Chief Financial Officer, Cygnal Technologies Corporation, October 2007; President, Cedara Software Corp., 2005 to 2006; Chief Financial Officer, Cedara Software Corp., 2004 to 2005; and Director of Finance, Cedara Software Corp., 2000 to 2004. Mr. Pedlar has also held senior executive positions with Merge Healthcare and IMAX Corporation. Mr. Pedlar holds a Bachelor of Science degree from Mount Allison University, a post-graduate diploma in Accounting from Wilfrid Laurier University, is a Canadian Chartered Public Accountant and Chartered Accountant.

Jeffrey Mandel is President of AMR Securities Services Inc. Mr. Mandel has been involved in the high-tech, communications, healthcare and retail industries over his 30-year career and has led capital development activities and identified and executed various successful commercialization strategies for companies for which he has been active. Mr. Mandel has broad experience in corporate finance, mergers and acquisitions and investor relationship management throughout his career, having progressed through a number of senior positions at various firms in the Canadian securities industry.

Dr. Ian Brindle is currently Professor Emeritus at Brock University. Dr. Brindle is also the former Vice-President of Research, former Dean of Chemistry and has held other academic posts at Brock University since 1968. Dr. Brindle is a Professor of Chemistry, holds a Chancellor's Chair in Research Excellence, is a fellow of the Royal Society of Chemistry (UK) and is the author of more than 100 publications in analytical chemistry. The University of Manchester awarded Dr. Brindle the degree of Doctor of Science for belonging to that group of scientists who "have distinguished themselves as authorities in the field by their substantial and original contributions to the advancement of knowledge". He has served on a number of committees over the years, including on the Advisory Committee on Environmental Standards and as President of the Science for the Handicapped Committee of the National Science Teachers Association of America. He also holds a Bachelor of Science from Manchester University and a Masters of Science from Brock University.

Major General Gale Pollock (Ret.), Army Nurse Corps, CRNA, FACHE, FAAN. Before retiring from the U.S. Army in 2008, she served as Commander, US Army Medical Command and Acting Surgeon General of the Army (the first woman or non-physician to hold this role in any of the military services, with a US\$9.7 billion annual budget). Maj. Gen Pollock is CEO of Elevivo, LLC a software education platform for the visually impaired, owner of Pollock Associates, LLC, through which she does health care consulting, and serves on several scientific advisory boards. Maj. Gen. Pollock was the founding Executive Director of the Louis J. Fox Center for Vision Restoration in Pittsburgh, PA, served as an associate professor at the University of Pittsburgh School of Medicine and School of Nursing, and was an Advanced Leadership Fellow in Harvard University's Advanced Leadership Initiative.

Dr. Myrna Francis is currently the President of Mfran Healthcare Advisory Services. She has an extensive background in healthcare and is well-known in both private and public sectors; her experience spans the international marketplace – Canada, the US, and Europe. Dr. Francis has previously held positions as the President and CEO of Canada Health Infoway, Vice President, Global Healthcare Sector, at CGI Group Inc., Partner at CSC Healthcare Group, and numerous executive positions with the Ontario Ministry of Health. She has also served as a Board Director for a variety of companies and organizations, including RxCanada, Allstate Insurance Company of Canada, and Cedara Software Corp. She currently provides strategic advisory services in the public sector and to multinational private sector companies regarding health information technology, business transformation, business and product growth strategies, and innovation as an independent consultant. Dr. Francis holds a Master's Degree in Bio-Psychology and Ph.D. in Medical Sciences, both from McMaster University, and a Multi-Party Negotiations Certification from Harvard Law School.

Mr. John Suk is currently the owner of Altmax Consulting, a Canadian healthcare consulting company. After holding senior executive roles at McNeil Labs (Johnson & Johnson), GlaxoSmithKline plc, and Hoffman La Roche, in 1997, Mr. Suk founded Byk Canada (later known as Nycomed), a subsidiary of a German company Byk Gulden. In the fourteen years Mr. Suk served as President and CEO of Nycomed, the company's sales volume blossomed to over \$300 million. From 2006 to 2017, Mr. Suk served on the Board of Directors of Brock University and was Chair of Brock's Board of Trustees from 2013 through 2016. He has also served on the Board of Canada's Research-Based Pharmaceutical Companies (Rx&D), a national association representing the voice of Canada's innovative pharmaceutical industry. He has also served on the Boards of the Health Research Foundation, Innovate Niagara, IIX Technologies, Medical Futures, and Exciton Technologies. Mr. Suk holds an Advanced Management Certificate from Insead, the professional ICD.D designation from Rotman School of Management at the University of Toronto, and an H.B.Sc from Brock University.

Management does not anticipate that any of the nominees for election as a director will be unable to serve as a director, but if that should occur for any reason prior to the Meeting, the persons named in the enclosed form of proxy reserve the right to vote for another nominee in their discretion.

In the absence of voting instructions to withhold Common Shares from voting, the persons designated by management of the Corporation in the enclosed form of proxy, intend to vote to approve the election to the Board of the nominees set out above.

Management recommends voting for the resolution to elect each of the nominated directors.

3. Appointment of Auditor

At the Meeting, it will be proposed that PricewaterhouseCoopers, LLP, ("**PricewaterhouseCoopers**"), Chartered Accountants, of PwC Centre, 354 Davis Road, Suite 600, Oakville ON, L6J 0C5, be appointed as auditor of the Corporation to hold office until the next annual meeting of Shareholders and that the Board be authorized to fix the auditor's remuneration.

Effective January 21, 2019, BDO Canada LLP ("**BDO**"), Chartered Accountants, resigned as auditor of the Corporation. BDO had been the auditor of the Corporation since December 2004. In replacement thereof, and in accordance with the provisions of National Instrument 51-102 – *Continuous Disclosure Obligations* ("**NI 51-102**"), the Board appointed PricewaterhouseCoopers as auditor of the Corporation effective January 21, 2019.

In accordance with the requirements of NI 51-102, attached hereto as Appendix "B" is a copy of the reporting package related to the resignation BDO as former auditor and the appointment of PricewaterhouseCoopers as successor auditor of the Corporation.

The Corporation obtained a letter from PricewaterhouseCoopers containing a description of all relationships between the auditor and the Corporation, discussed with the auditor any of these relationships that may impact their objectivity and independence and satisfied itself as to the auditor's independence.

In the absence of instructions to withhold Common Shares from voting, the persons designated by management of the Corporation in the enclosed form of proxy, intend to vote to approve the appointment of PricewaterhouseCoopers as the Corporation's auditor and to authorize the Board to fix the auditor's remuneration.

Management recommends voting for the resolution to approve the appointment of PricewaterhouseCoopers as auditor of the Corporation and the authorization of the Board to fix the auditor's remuneration.

4. Special Business - Amended and Restated Stock Option Plan

The Corporation had a rolling stock option plan (the “**2007 Option Plan**”) for its key employees, directors, officers and consultants. Upon review of the 2007 Option Plan and stock option plans of comparable public companies, the Board decided to amend and restate the 2007 Option Plan (the “**A&R Option Plan**”) in order to align the provisions of the 2007 Option Plan with current market standards and the requirements of the TSXV. As a result, the Board approved the A&R Option Plan on January 23, 2019, subject to TSXV approval and Shareholder approval at the Meeting.

The objective of the A&R Option Plan is to provide for and encourage ownership of Common Shares by the directors, officers, consultants and key employees of the Corporation so that such persons may increase their stake in the Corporation and benefit from increases in the value of the Common Shares. It is the view of management that the A&R Option Plan is a significant incentive for the directors, officers, consultants and key employees to continue, and to increase, their efforts in promoting the Corporation’s operations to the mutual benefit of the Corporation, the Shareholders and such individuals.

Set out below is a summary of the material terms of the A&R Option Plan, which is qualified in its entirety by the full text of the A&R Option Plan, a copy of which is attached to this Circular as Appendix “C”.

Under the terms of the A&R Option Plan, the Board, or, if authorized by the Board, such committee of the Board to which the Board may choose to delegate such authority, may grant options to certain “eligible participants”. Eligible participants include any employee, executive officer, director or consultant of: (a) the Corporation; or (b) any affiliate of the Corporation (and includes any such person who is on a leave of absence authorized by the Board or the board of directors of any affiliate), and also includes certain permitted assigns of any such person.

Participation in the A&R Option Plan is voluntary and, if an eligible participant agrees to participate, the grant of options will be evidenced by a grant agreement with each such participant. The interest of any eligible participant in any option is not assignable or transferable. If a participant was granted options:

- (a) prior to the date the 2007 Stock Option Plan was amended and restated, the exercise price of an option will be the exercise price as provided for on the participant’s option agreement;
- (b) on or after the date the 2007 Stock Option Plan was amended and restated, the exercise price will be the volume weighted average trading price of the Common Shares on such stock exchange for the five (5) trading days immediately preceding the day on which the option is granted, or such greater amount as the Board may determine; provided, however, that the exercise price of an option shall not be less than the minimum exercise price required by the applicable rules of the stock exchange;

The exercise price is subject to adjustment in accordance with the change of control provisions of the A&R Option Plan. In no event will the exercise price be lower than the minimum exercise price permitted by the stock exchange.

The maximum number of Common Shares reserved for issuance, in the aggregate, under the A&R Option Plan (and under any other share compensation arrangements of the Corporation) is 10% of the aggregate number of Common Shares which are outstanding from time to time. As at the date hereof, this represented 2,219,566 Common Shares. For greater certainty, any increase in the issued and outstanding Common Shares will result in an increase in the available number of the Common Shares issuable under the A&R Option Plan, and any exercise of options will make new grants available under the A&R Option Plan. The number of Common Shares subject to each option will be determined by the Board, provided that:

- (a) the number of options granted to any one eligible person, within any twelve (12) month period, cannot exceed 5% of the number of Common Shares in the capital of the Corporation that are outstanding from time to time, calculated at the date an option is granted to the eligible person, unless the Corporation obtains the requisite disinterested shareholder approval;
- (b) the number of options granted to any one consultant, within any twelve (12) month period, cannot exceed 2% of the number of Common Shares in the capital of the Corporation that are outstanding from time to time, calculated at the date an option is granted to the consultant;
- (c) the number of options granted to all eligible persons retained to provide investor relations activities, within any twelve (12) month period, cannot exceed 2% of the number of issued Common Shares in the capital of the Corporation that are outstanding from time to time, calculated at the date an option is granted to such eligible person;
- (d) options granted to eligible persons retained to provide investor relations activities must vest over a period of not less than twelve (12) months with no more than $\frac{1}{4}$ of the options vesting in any three (3) month period.

Unless otherwise fixed by the Board at the time an option is granted (as set forth in a grant agreement) or otherwise determined by the Board, and subject to any applicable rules of the TSXV, the A&R Option Plan provides that: (a) the expiry date of an option will be the fifth anniversary of the date of grant; and (b) unless otherwise provided for in the A&R Option Plan, options will vest over a three year period following the date of such grant as follows:

- on or after the first anniversary of the date of grant: 34%;
- on or after the second anniversary of the date of grant: 33%; and
- on or after the third anniversary of the date of grant: 33%.

In the event that an eligible participant receives Common Shares from the Corporation in satisfaction of a grant of options during a Corporation-imposed black-out period, the holder shall not be entitled to sell or otherwise dispose of such Common Shares until such black-out period has expired. In the event that a participant's options are set to expire during a black-out period, such expiry date shall be automatically extended for ten business days after the expiry of the black-out period following the date the relevant black-out period is lifted, terminated or removed.

In order to facilitate the payment of the exercise price of the options, the A&R Option Plan has a cashless exercise feature pursuant to which a participant may elect to undertake either a broker-assisted "cashless exercise" or a "net exercise" subject to the Board's approval and the conditions set out in the A&R Option Plan.

Unless disinterested shareholder approval is obtained, the maximum number of Common Shares:

- (a) issuable to "insiders" (as defined under Section 1 of the Securities Act (Ontario)) at any time under the A&R Option Plan and any other security based compensation arrangements of the Corporation cannot exceed 10% of the aggregate number of Common Shares which are outstanding from time to time; and
- (b) issued to such insiders within any one-year period under the A&R Option Plan and any other security based compensation arrangements cannot exceed 10% of the aggregate number of Common Shares which are outstanding from time to time.

The following table describes the impact of certain events upon the rights of holders of options under the A&R Option Plan, including termination for cause, termination other than for cause and death, subject to the terms of a participant's employment agreement (excluding the treatment of options granted before the 2007 Option Plan was amended and restated, which will be governed by the default expiry terms of the 2007 Option Plan together with the expiry date shown on the relevant notice of grant):

Event Provisions	Provisions
Termination for Cause	All vested and unvested options held by the holder will immediately terminate and become null, void and of no effect on the date on which the Corporation gives notice of termination for cause (as defined in any employment agreement with the Corporation, and if no employment agreement exists, then under common law).
Ceasing to be a (non-executive) Director	The expiry date for options that had vested on the date such holder ceases to be a director will be the earlier of the expiry date shown on the relevant grant agreement and the date that is 180 days following the date such holder ceases to be an eligible participant (as a result of his or her ceasing to be a director of the Corporation). Options which are outstanding but unvested on the date such holder ceases to be a director will immediately terminate and become null, void and of no effect.
Voluntary Resignation or Termination without Cause	The expiry date for options that had vested on the date such holder voluntarily resigns or is terminated by the Corporation without cause (as defined in any employment agreement with the Corporation, and if no employment agreement exists, then under common law) will be the earlier of the expiry date shown on the relevant grant agreement and the date which is 90 days following the date such holder ceases to be an eligible participant (as a result of his or her voluntary resignation or termination without cause). Options which are outstanding but unvested on the date such holder voluntarily resigns or is terminated by the Corporation without cause will immediately terminate and become null, void and of no effect.
Disability	The Board may in its discretion determine that a holder with a disability shall no longer be an eligible participant. If so, the expiry date for options that had vested on the date such holder ceases to be an eligible participant will be the earlier of the expiry date shown on the relevant grant agreement and the date which is 90 days following the date such holder ceases to be an eligible participant. Options which are outstanding but unvested on the date such holder ceases to be an eligible participant will immediately terminate and become null, void and of no effect.
Retirement	The expiry date for options that had vested on the date such holder ceases to be an eligible participant as a result of his

Event Provisions

Provisions

or her retirement in accordance with the Corporation's then applicable retirement policy or a determination of the Board will be the earlier of the expiry date shown on the relevant grant agreement and the date which is 90 days following the date such holder ceases to be an eligible participant. Options which are outstanding but unvested on the date such holder ceases to be an eligible participant will immediately terminate and become null, void and of no effect.

Death

The expiry date for options that had vested immediately prior to the death of the holder will be the earlier of the expiry date shown on the relevant grant agreement and the date which is 90 days after the date of such holder's death. Options that are outstanding but unvested immediately prior to the holder's death will immediately terminate and become null, void and of no effect upon the death of the holder.

Notwithstanding the foregoing, the Board may, in its sole discretion, but subject to applicable laws and TSXV rules, extend the expiry date of options referenced above, or other terms as provided in the A&R Option Plan.

In connection with a change of control of the Corporation, any surviving or acquiring corporation must:

- (a) assume any option outstanding under the A&R Option Plan on substantially the same economic terms and conditions as the A&R Option Plan; or
- (b) substitute or replace similar options (including an award to acquire the same consideration paid to the securityholders of the Corporation as part of the change of control transaction) for those options outstanding under the A&R Option Plan on substantially the same economic terms and conditions as the A&R Option Plan.

In the event any surviving or acquiring corporation neglects or refuses (as determined by the Board, acting reasonably) to assume any options or to substitute or replace similar options for those outstanding options under the A&R Option Plan, then with respect to any options which remain outstanding, the vesting of such options will automatically and without further action by the Board or the Corporation be immediately accelerated so that such options will be fully vested. In addition, in such event, the Board may determine that outstanding options will terminate if not exercised (if applicable) at or prior to such change of control transaction. The Board may also, in its discretion, conditionally or otherwise, in the event of a change of control subject to the terms of the A&R Option Plan, accelerate the vesting date of unvested options and to modify the terms of options to assist the holders to tender their securities in a takeover bid.

The Board may amend, suspend or terminate the A&R Option Plan or any portion thereof in accordance with applicable legislation, and subject to any required regulatory or shareholder approval; provided, however, that such amendment, suspension or termination will not, without the consent of the eligible participant, alter or impair any options previously granted under the A&R Option Plan, or any rights pursuant thereto granted previously to any eligible participant.

The Board may, subject to any necessary regulatory approval, at its discretion from time to time, amend the A&R Option Plan and the terms and conditions of any option thereafter to be granted and may make such amendment for the purpose of complying with any changes in any relevant law, rule, regulation, regulatory requirement or requirement of the TSXV, or for any other purpose which may be permitted by law, provided always that any such amendment will:

- (a) not adversely alter or impair any option previously granted except as permitted by the terms of the A&R Option Plan;
- (b) be in compliance with applicable law and subject to any regulatory approvals including, where required, the approval of the TSXV; and
- (c) be subject to shareholder approval, where required by law, the requirements of the TSXV or the A&R Option Plan or any other governmental entity.

Shareholder approval is required for certain amendments to the A&R Option Plan, including, but not limited to, amendments providing for:

- (a) an increase in the maximum number of Common Shares that may be issuable from the Corporation's treasury pursuant to options granted under the A&R Option Plan;
- (b) an extension of the time under which an option expires beyond its original expiry date;
- (c) a reduction in the exercise price if the participant is an insider of the Corporation at the time of the proposed amendment;
- (d) eligibility for participation under the A&R Option Plan;
- (e) amendments to the termination provisions of options; and
- (f) amendments to the limitations on the number of options that may be granted under the A&R Option Plan to any one person or category of persons.

The Board may from time to time, in its discretion and without the approval of shareholders or eligible participants, make changes to the A&R Option Plan and any option which may include, but are not limited to, the following matters:

- (a) any amendment of a "housekeeping" nature, including, without limitation, those made to clarify the meaning of an existing provision of the A&R Option Plan, correct or supplement any provision of the A&R Option Plan that is inconsistent with any other provision of the A&R Option Plan, correct any grammatical or typographical errors or amend the definitions in the A&R Option Plan regarding administration of the A&R Option Plan;
- (b) any procedures associated with the cashless exercise;
- (c) changes that alter, extend or accelerate the terms of vesting or settlement applicable to any option;
- (d) any amendment to the A&R Option Plan respecting administration of the A&R Option Plan; and
- (e) an amendment of the A&R Option Plan or an option as necessary to comply with applicable law or the requirements of the TSXV or any other regulatory body having authority over the Corporation, the A&R Option Plan, the participants or the shareholders of the Corporation.

As of the date hereof, current and former directors, officers, key employees and consultants of the Corporation hold options to acquire an aggregate of 1,869,832 Common Shares, pursuant to the terms of the 2007

Option Plan. Following approval of the A&R Option Plan by Shareholders at the Meeting and by the TSXV, and unless otherwise provided for under the A&R Option Plan, all previously granted and outstanding options shall continue to be issued and outstanding and shall be governed by the provisions of the A&R Option Plan.

In the absence of instructions to vote against, the persons designated by management of the Corporation in the enclosed form of proxy, intend to vote to approve the A&R Option Plan. In order for the resolution to pass, the Corporation must receive a majority of the votes cast by all Shareholders at the Meeting, either in person or by proxy.

Management recommends voting for the resolution to approve and confirm effective the A&R Option Plan. The text of the ordinary resolution for the approval of the A&R Option Plan to be submitted to Shareholders at the Meeting is set forth in Appendix “A”.

STATEMENT OF EXECUTIVE COMPENSATION

General

For the purpose of the Circular, “**Named Executive Officer**” or “**NEO**” means:

- (a) the Chief Executive Officer (“**CEO**”);
- (b) the Chief Financial Officer (“**CFO**”);
- (c) each of the Corporation’s three most highly compensated officers, or the three most highly compensated individuals acting in a similar capacity, other than the CEO and the CFO, at the end of the most recently completed financial year and whose total compensation was, individually, more than \$150,000; and
- (d) each individual who would be a Named Executive Officer under paragraph (c) but for the fact that the individual was neither an executive officer of the Corporation nor acting in a similar capacity at the end of the most recently completed financial year.

Compensation Discussion and Analysis

All matters relating specifically to senior executive compensation are reviewed and approved by the Compensation Committee and the Board. The Compensation Committee is responsible for determining compensation for the individual directors and officers of the Corporation, including the CEO and the Chairman. The Compensation Committee members that will remain following the Meeting have direct experience relevant to their responsibilities relating to executive compensation as set out in their biographies under “Election of Directors”. Following the Meeting, the Board intends to reconstitute the composition of the Compensation Committee.

The Corporation’s overall policy regarding compensation of the Corporation’s executive officers is structured to provide competitive salary levels and compensation incentives that support both the short-term and long-term goals of the Corporation, attract and retain qualified executive management and establish a compensation framework which is industry competitive. The Corporation’s policy is to recognize and reward individual performance as well as to place executive compensation within the range of the compensation levels in the industry. The Board, upon the recommendations of the Compensation Committee, considers the implications of any risks associated with the Corporation’s compensation policies and practices. The Board has not identified any risks arising from the Corporation’s compensation policies or practices that could encourage an NEO to take inappropriate or excessive risks.

The Corporation does not have a compensation program other than paying base salaries, commissions, incentive bonuses, and incentive stock options to the NEOs. The Corporation recognizes the need to provide a compensation package that will attract and retain qualified and experienced executives, as well as align the compensation level of each executive to that executive’s level of responsibility. In the 2018 financial year compensation consisted of base salary, incentive options, and incentive bonuses; the Board believes there are no implied risks associated with the Corporation’s policies and practices. It should be further noted that no NEO or director is permitted to purchase instruments, including for greater certainty, prepaid variable forward contracts, equity swaps, collars or units of exchange funds, which are designed to hedge or offset a decrease in market value of equity securities granted as compensation or held, directly or indirectly, by the NEO or director. The Corporation does not plan to make any significant changes to its compensation policies and practices during the current financial year.

Base Salary

Base salaries are established considering individual performance and experience, level of responsibility, and competitive pay practices. To achieve this goal, the Corporation does its own analysis, as well as having, in the past, retained the services of compensation consultants who were responsible for gathering information on compensation practices. No compensation consultant has been retained in the past five years. Base salaries are reviewed annually and adjusted appropriately to reflect individual performance and market changes.

The base salaries of the Corporation’s NEOs are targeted at a level consistent with the base salaries paid to senior executive officers in the Canadian biotechnology market.

Short Term Incentive

All permanent full-time executives and employees have the opportunity to earn an annual performance bonus. The potential bonuses are expressed as a percentage of base salary and are reflective of position. All executives and employees have specific goals based on individual performance and corporate performance relating to revenue, profitability and customer satisfaction. The corporate targets are established by the CEO on an annual basis for review by the Compensation Committee and, if approved, are recommended for approval by the Board.

The Corporation paid a total of \$361,412 of bonuses to executives and employees in respect of the year ended September 30, 2018.

Long Term Incentives

The Board has approved the A&R Option Plan subject to TSXV approval and shareholder approval at this Meeting. The proposed A&R Option Plan complies with requirements of the TSXV Policy 4.4 for Tier 2 issuers. Under the A&R Option Plan, a maximum of 10% of the issued and outstanding Common Shares are proposed to be reserved at any time for issuance on the exercise of stock options. As the number of Common Shares reserved for issuance under the A&R Option Plan increases with the issue of additional Common Shares by the Corporation, the A&R Option Plan is considered to be “rolling” stock option plan. The A&R Option Plan provides directors, officers, key employees, and consultants of the Corporation with the opportunity to participate in the A&R Option Plan, at the discretion of the Board. The Compensation Committee of the Board determines the level of stock options granted to executive officers. The Compensation Committee seeks to compensate executive officers at levels competitive with other companies comparable in size in the same industry and to provide short-term rewards and long-term incentives for superior individual and corporate performance. In making compensation decisions, the Compensation Committee periodically reviews information about the compensation paid or payable to officers of comparably-sized public companies. The Compensation Committee does not have target amounts of stock ownership for the Corporation’s executive officers; however, the Compensation Committee does consider overall Common Share ownership when granting stock options. The A&R Option Plan is intended to provide executives with the promise of longer term rewards which appreciate in value with the favourable future performance of the Corporation. Stock options are generally granted to an executive when he or she joins the Corporation, with additional options granted from time to time for promotions and performance. The Compensation Committee believes that the A&R Option Plan provides a method of retention and motivation for the executives of the Corporation and also aligns senior management’s objectives with long-term stock price appreciation.

Employment Contracts

Brian Pedlar performs his duties as the Corporation’s President and CEO under the terms of a standard CEO employment agreement executed on September 3, 2010.

Compensation of NEOs

The following table sets forth the compensation earned during the last three fiscal years by the NEOs.

Summary Compensation Table

<u>Name and Principal Position</u>	<u>Year</u>	<u>Salary (\$)</u>	⁽²⁾ <u>Option Based Awards (\$)</u>	<u>Non-equity Incentive Plan Compensation</u>		<u>All Other Compensation (\$)⁽³⁾⁽⁴⁾</u>	<u>Total Compensation (\$)</u>
				<u>Annual Incentive Plans (\$)</u>	<u>Long-term Incentive Plans (\$)</u>		
⁽¹⁾ Brian Pedlar President and CEO	2018	390,000	121,952	–	–	259,500	771,452
	2017	330,000	520,667	–	–	162,000	1,012,667
	2016	330,000	47,731	–	–	112,000	489,731
Valerio DiTizio Chief Scientific Officer Vice President	2018	165,000	–	–	–	12,000	177,000
	2017	165,000	72,237	–	–	12,000	249,237
	2016	158,644	33,557	–	–	7,000	199,201
Danny Brannagan Chief Financial Officer	2018	162,750	280,997	–	–	63,450	507,197
	2017	135,003	72,237	–	–	12,000	219,240
	2016	123,526	95,449	–	–	11,000	229,975
Hamed Abbasian Vice President Business Development	2018	110,000	–	–	–	302,994	412,994
	2017	110,000	61,534	–	–	357,562	529,096
	2016	101,526	32,872	–	–	163,895	298,292
Simon Smith CEO, Covalon Technologies Europe	2018	248,666	–	–	–	–	248,666
	2017	169,269	120,032	–	–	–	289,301
	2016	207,801	52,242	–	–	–	260,043

Notes:

- (1) On September 3, 2010, the Corporation entered into a standard CEO employment agreement with Mr. Pedlar. He is also a director of the Corporation, for which he receives no compensation. Prior to his appointment as President and CEO, Mr. Pedlar was an independent director of the Corporation for which he received compensation in the form of stock options.
- (2) Please see Incentive Plan Awards below. The fair value of stock option awards at grant date is calculated consistently with the Corporation's accounting for the fair value of stock option awards. It is calculated in accordance with section 3870 of the CICA Handbook, using the Black-Scholes-Merton option pricing model and is adjusted for forfeitures. For the purposes of determining the accounting expense to be included in the Financial Statements of the Corporation for the year ended September 30, 2018 in respect of stock option awards, accounting fair value expense is amortized over the vesting period of the award, which is normally 1-3 years. Please refer to the Corporation's annual Financial Statements for more details on accounting for fair value of stock option awards. All stock option awards granted vest over a three-year period and have a term of five years.
- (3) The value of perquisites and other personal benefits in each fiscal year do not exceed the lesser of \$50,000 and 10% of the total of the annual salary and bonus of the NEO for that year.
- (4) Amounts represent a car allowance, bonus, and commission.

Incentive Plan Awards

An “incentive plan” is any plan providing compensation that depends on achieving certain performance goals or similar conditions within a specified period. An “incentive plan award” means compensation awarded, earned, paid, or payable under an incentive plan.

Outstanding Option-Based Awards - NEOs

The following table sets forth, as at September 30, 2018, information concerning outstanding option-based awards granted to the NEOs of the Corporation, including awards granted before the most recently completed fiscal year.

<u>Name</u>	<u>Number of Securities underlying unexercised options (#)</u>	<u>Option Exercise Price (\$)</u>	<u>Option Expiration Date</u>	<u>Value of unexercised in- the-money options (\$) ⁽¹⁾</u>
Brian Pedlar	30,000	4.65	21-Dec-22	NIL
	235,000	2.47	20-Jun-22	472,350
	40,000	1.29	23-Jun-21	192,267
Valerio DiTizio	20,000	2.47	20-Jun-22	40,200
	15,000	2.20	8-Feb-22	31,500
	20,000	1.29	23-Jun-21	96,133
	10,000	1.13	7-Mar-21	49,133
	10,000	1.40	26-Mar-20	71,000
	5,000	2.00	13-Jun-19	32,500
Danny Brannagan	30,000	8.50	27-Sep-23	NIL
	30,000	4.65	21-Dec-22	NIL
	20,000	2.47	20-Jun-22	40,200
	15,000	2.20	8-Feb-22	31,500
	20,000	2.29	14-Sep-21	82,800
	20,000	1.29	23-Jun-21	96,133
	30,000	1.13	7-Mar-21	147,400
	7,500	1.40	26-Mar-20	53,250
Hamed Abbasian	15,000	2.47	20-Jun-22	30,150
	15,000	2.20	8-Feb-22	31,500
	15,000	1.29	23-Jun-21	72,100
	15,000	1.13	7-Mar-21	73,700
	10,000	1.40	26-Mar-20	71,000
Simon Smith	60,000	2.20	8-Feb-22	126,000
	50,000	1.13	7-Mar-21	245,667
	50,000	1.40	26-Mar-20	355,000

Note:

(1) The market price of the Common Shares as at September 28, 2018 was \$8.50.

Incentive Plan Value Vested or Earned During the Year – NEOs

The following table sets forth information concerning outstanding option-based awards granted to the NEOs that vested during the year and non-equity incentive plan compensation earned during the year.

<u>Name</u>	<u>Option-based awards – Value vested during the year (\$) ⁽¹⁾</u>	<u>Non-equity incentive plan compensation – Value earned during the year (\$) ⁽¹⁾</u>
Brian Pedlar	189,465	NIL
Valerio DiTizio	39,552	NIL
Danny Brannagan	59,111	NIL
Hamed Abbasian	35,755	NIL
Simon Smith	79,219	NIL

Note:

(1) Some options that vested during the 2018 fiscal year were in-the-money on the date of vesting.

Equity Compensation Plan Information as of the Fiscal Year Ended September 30, 2018

Pursuant to the Corporation's 2007 Plan, the maximum aggregate number of Common Shares which may be subject to options is 10% of the Common Shares outstanding from time to time. Following approval of the TSXV and shareholders at the Meeting, the maximum aggregate number of Common Shares which may be subject to options under the A&R Option Plan is 10% of the Common Shares of the Corporation outstanding from time to time.

<u>Plan Category</u>	<u>Number of Securities to be issued upon exercise of outstanding options and warrants (a)</u>	<u>Weighted-average exercise price of outstanding options and warrants (b)</u>	<u>Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a)) (c)</u>
Equity compensation plans approved by securityholders	1,511,663	\$ 3.20	689,250
Equity compensation plans not approved by securityholders	–	–	–
Total	1,511,663	\$ 3.20	689,250

Note:

(1) Based on a total of 22,195,657 Common Shares issued and outstanding as of the date of this Circular.

Termination and Change of Control Benefits

In the event that Mr. Pedlar's employment agreement is terminated by either party or due to a change in control of the Corporation (defined as a change in the ownership of fifty percent (50%) or more of the outstanding stock of the Corporation in a single transaction or series of transactions effected by a third party or third parties acting in concert or a change of fifty percent (50%) or more of the members of the Board in a single transaction or event, or series of transactions or events effected by any third party or third parties acting in concert, other than pursuant to nomination of a new slate of directors where there has been no material change in beneficial ownership of Common Shares within 365 days preceding such nomination), Mr. Pedlar's options will vest immediately and become exercisable.

Compensation of Directors

The following table sets forth the details of the compensation provided to the directors, other than the NEOs, during the Corporation's most recently completed financial year:

<u>Name</u>	<u>Fees earned (\$)</u>	⁽¹⁾ <u>Option based awards (\$)</u>	<u>Non-equity incentive plan compensation (\$)</u>	<u>All other compensation (\$)</u>	<u>Total (\$)</u>
Abe Schwartz	40,680 ⁽²⁾	–	–	–	40,680
Martin Bernholtz ⁽⁹⁾	22,600 ⁽²⁾	17,534 ⁽⁶⁾	–	–	40,134
Joseph Cordiano	24,000	46,833 ⁽⁶⁾⁽⁷⁾	–	–	70,833
Murray Miller ⁽¹⁰⁾	27,120 ⁽²⁾	46,833 ⁽⁶⁾⁽⁷⁾	–	–	73,953
Jeffrey Mandel	24,000	46,833 ⁽⁶⁾⁽⁷⁾	–	88,390 ⁽²⁾⁽³⁾	159,223
Ian Brindle	24,000	46,833 ⁽⁶⁾⁽⁷⁾	–	69,529 ⁽²⁾⁽⁴⁾	140,326
Elinor Caplan ⁽¹¹⁾	24,000	46,833 ⁽⁶⁾⁽⁷⁾	–	–	70,833
Gale Pollock	30,797 ⁽⁵⁾	134,505 ⁽⁷⁾⁽⁸⁾	–	–	165,302

Notes:

- (1) The fair value of stock option awards at grant date is calculated consistently with the Corporation's accounting for the fair value of stock option awards. It is calculated in accordance with section 3870 of the CICA Handbook, using the Black-Scholes-Merton option pricing model and is adjusted for forfeitures. For the purposes of determining the accounting expense to be included in the Financial Statements of the Corporation for the year ended September 30, 2018 in respect of stock option awards, accounting fair value expense is amortized over the vesting period of the award, which is normally 1-3 years. Please refer to the Corporation's annual Financial Statements for more details on accounting for fair value of stock option awards.
- (2) This figure includes both the base and HST paid.
- (3) During the year, Mr. Mandel was compensated for certain investor relation activities undertaken on behalf of the Corporation.
- (4) During the year, Dr. Brindle was compensated for certain activities related to the Corporation's research projects.
- (5) Represents \$24,000 US Dollars converted into Canadian Dollars.
- (6) Represents a grant of 5,000 stock options on December 21, 2017.
- (7) Represents a grant of 5,000 stock options on September 27, 2018.
- (8) Represents a grant of 30,000 stock options on December 21, 2017.
- (9) Mr. Bernholtz retired from the Board on July 31, 2018.
- (10) Dr. Miller will not stand for re-election at the Meeting.
- (11) Hon. Elinor Caplan will not stand for re-election at the Meeting.

Directors of the Corporation, provided they are not also executives, are generally entitled to compensation for their services as directors. All directors are reimbursed for travelling and other out-of-pocket expenses incurred in their roles as directors of the Corporation.

Incentive Plan Awards

Outstanding Option-Based Awards - Directors

The following table sets forth, as at September 30, 2018, information concerning outstanding option-based awards granted to the directors of the Corporation (other than the NEOs), including awards granted before the most recently completed fiscal year:

<u>Name</u>	<u>Number of securities underlying unexercised options (#)</u>	<u>Option Exercise Price (\$)</u>	<u>Option Expiration Date</u>	<u>Value of unexercised in- the-money options (\$)⁽¹⁾</u>
Abe Schwartz	-	-	-	NIL
Martin Bernholtz ⁽²⁾	5,000	4.65	December 21, 2022	NIL
	5,000	1.29	June 23, 2021	24,033
	5,000	1.40	March 26, 2020	35,500
	5,000	2.00	June 13, 2019	32,500
Joseph Cordiano	5,000	8.50	September 27, 2023	NIL
	5,000	4.65	December 21, 2022	NIL
	5,000	1.29	June 23, 2021	24,033
	5,000	1.40	March 26, 2020	35,500
	5,000	2.00	June 13, 2019	32,500
Murray Miller ⁽³⁾	5,000	8.50	September 27, 2023	NIL
	5,000	4.65	December 21, 2022	NIL
	5,000	1.29	June 23, 2021	24,033
	5,000	1.40	March 26, 2020	35,500
	5,000	2.00	June 13, 2019	32,500
Jeffrey Mandel	5,000	8.50	September 27, 2023	NIL
	5,000	4.65	December 21, 2022	NIL
	1,666	1.29	June 23, 2021	8,008
Ian Brindle	5,000	8.50	September 27, 2023	NIL
	5,000	4.65	December 21, 2022	NIL
	30,000	2.20	February 8, 2022	63,000
	3,334	1.29	June 23, 2021	16,025
	1,666	1.40	March 26, 2020	11,829
Elinor Caplan ⁽⁴⁾	5,000	8.50	September 27, 2023	NIL
	5,000	4.65	December 21, 2022	NIL
	5,000	1.29	June 23, 2021	24,033
Gale Pollock	5,000	8.50	September 27, 2023	NIL
	30,000	4.65	December 21, 2022	NIL

Notes:

- (1) The market price of the Common Shares as at September 28, 2018 was \$8.50.
- (2) Mr. Bernholtz retired from the Board on July 31, 2018.
- (3) Dr. Miller will not stand for re-election at the Meeting.
- (4) Hon. Elinor Caplan will not stand for re-election at the Meeting.

Incentive Plan Value Vested or Earned During the Year - Directors

The following table sets forth information concerning outstanding option-based awards granted to the directors (other than NEOs) that vested during the year and non-equity incentive plan compensation earned during the year:

<u>Name</u>	<u>Option-based awards – Value vested during the year</u>	<u>Non-equity incentive plan compensation – Value earned during the year</u>
Abe Schwartz	NIL	NIL
Martin Bernholtz ⁽¹⁾	4,084	NIL
Joseph Cordiano	4,084	NIL
Murray Miller ⁽²⁾	4,084	NIL
Jeffrey Mandel	4,084	NIL
Ian Brindle	23,701	NIL
Elinor Caplan ⁽³⁾	4,084	NIL
Gale Pollock	NIL	NIL

Notes:

- (1) Mr. Bernholtz retired from the Board on July 31, 2018.
- (2) Dr. Miller will not stand for re-election at the Meeting.
- (3) Hon. Elinor Caplan will not stand for re-election at the Meeting.

Narrative Discussion

Please refer to the sections above entitled “Compensation Discussion and Analysis” and “Special Business – The Corporation’s Amended and Restated Stock Option Plan” for a description of the A&R Option Plan and its significant terms.

Directors’ and Officers’ Liability Insurance

The Corporation is a named insured under a directors’ and officers’ liability insurance policy maintained by the Corporation for itself and its directors and officers, which has an annual aggregate policy limit of \$20,000,000, subject to deductibles as follows:

\$50,000 for each securities claim; and
\$25,000 for each claim (other than securities claims).

Generally, under this insurance coverage, the Corporation is reimbursed for indemnity payments made to its directors or officers as required or permitted by law or under by-law indemnity provisions for losses, including legal costs incurred by directors and officers in their capacities as such. This policy also provides coverage directly to individual directors and officers without any deductible if they are not indemnified by the Corporation. The insurance coverage for directors and officers has certain exclusions including, but not limited to, those acts determined to be deliberately fraudulent or dishonest or to have resulted in personal profit or advantage. The policy became effective February 28, 2018 and expires February 28, 2019. The premium for this policy is \$39,900.

STATEMENT OF CORPORATE GOVERNANCE PRACTICES

The Board believes that sound corporate governance practices are essential to the effective, efficient and prudent operation of the Corporation and to the enhancement of Shareholder value. The Board fulfills its mandate directly and through its committees at regularly scheduled meetings or as required. Frequency of meetings may be increased and the nature of the agenda items may be changed depending upon the state of the Corporation's affairs and in light of opportunities or risks that the Corporation faces. The directors are kept informed of the Corporation's operations at these meetings as well as through reports and discussions with management on matters within their particular areas of expertise.

The Corporation's approach to corporate governance is based on the Corporate Governance Guidelines of the Canadian Securities Administrators and is described in Appendix "D".

AUDIT COMMITTEE INFORMATION

Audit Committee Charter

The charter of the Audit Committee is attached hereto as Appendix "E".

Composition of the Audit Committee

The Audit Committee consists of Murray Miller (Interim Committee Chair), Ian Brindle, Elinor Caplan, and Jeffrey Mandel, a majority of whom are independent. Following the Meeting, the Board intends to reconstitute the composition of the Audit Committee.

Relevant Education and Experience

The relevant education and experience of the Audit Committee members that will remain following the Meeting is set out in their respective biographies under the heading "Election of Directors".

External Auditor Service Fees

Fees payable to BDO Canada LLP in the fiscal years ended September 30, 2018 and 2017 were as follows:

	<i>Year Ended</i> <u>September 30, 2018</u>	<i>Year Ended</i> <u>September 30, 2017</u>
<i>Audit Fees</i>	\$135,000	\$112,000
<i>Audit-Related Fees</i>	\$6,850	\$5,500
<i>Tax Fees</i>	\$10,975	\$8,800
<i>Other Fees</i>	\$210,000	\$11,984

The Audit-Related Fees were payable for professional services rendered by the auditor as related to the Corporation's year-end Financial Statements. The Tax Fees were payable for tax compliance, tax advice and tax planning professional services including reviewing tax returns and assisting in responses to government tax authorities. The Other Fees were payable for professional services which included accounting advice and costs associated with acquisitions. The Corporation is relying upon the exemption in section 6.1 of NI 52-110.

INDEBTEDNESS OF DIRECTORS AND OFFICERS

Except as disclosed below, no individual who is, or at any time during the most recently completed fiscal year of the Corporation was, a director or executive officer of the Corporation, nor any proposed nominee for election as a director of the Corporation, nor any associate of any of the foregoing is, or at any time since the beginning of the most recently completed fiscal year of the Corporation has been, indebted to the Corporation or any of its subsidiaries (other than in respect of amounts which would constitute routine indebtedness) or was indebted to another entity, which such indebtedness is, or was at any time since the beginning of the most recently completed fiscal year of the Corporation, the subject of a guarantee, support agreement, letter of credit or other similar arrangement or understanding provided by the Corporation or any of its subsidiaries.

During the year end September 30, 2013, a non interest bearing loan of \$50,000 was made to the Chief Executive Officer of the Corporation. The principal is repayable in annual instalments of \$10,000 commencing August 16, 2014 with the final payment due August 16, 2018. As of September 30, 2018, \$10,000 of this loan remained outstanding.

INTERESTS OF INFORMED PERSONS IN MATERIAL TRANSACTIONS

Except as disclosed below, there were no material transactions since the commencement of the Corporation's most recently completed fiscal year in which any director, proposed director, officer or principal shareholder of the Corporation, or any of their associates or affiliates, had any material interest, direct or indirect, and no such transactions are proposed.

PENALTIES AND SANCTIONS AND BANKRUPTCIES

No proposed director of the Corporation is, or within 10 years before the date hereof, has been: (a) a director, CEO or CFO of any company (including the Corporation) that (i) was subject to an order that was issued while the proposed director was acting in the capacity as director, CEO or CFO, or (ii) was subject to an order that was issued after the proposed director ceased to be a director, CEO or CFO and which resulted from an event that occurred while that person was acting in the capacity as director, CEO or CFO; or (b) a director or executive officer of any company (including the Corporation) that, while that person was acting in that capacity, or within a year of that person ceasing to act in that capacity, became bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency or was subject to or instituted any proceedings, arrangement or compromise with creditors or had a receiver, receiver manager or trustee appointed to hold its assets.

In addition, no proposed director of the Corporation has within 10 years before the date hereof become bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency, or been subject to or instituted any proceedings, arrangement, or compromise with creditors or had a receiver, receiver manager, or trustee appointed to hold his or her assets.

ADDITIONAL INFORMATION

Except where otherwise indicated, information contained herein is given as of the date hereof.

Additional information relating to the Corporation can be found on SEDAR at www.sedar.com. **Further financial information is provided in the Corporation's comparative financial statements for the fiscal year ended September 30, 2018 and the related management's discussion and analysis of results, which have been filed on SEDAR.** Shareholders may also contact the Secretary of the Corporation by phone at 905-568-8400 ext. 246, or by e-mail at office@covalon.com to request copies of these documents.

The Corporation will provide to any person or company, upon receipt of a request to the Secretary of the Corporation, and without charge in the case of a security holder, a copy of: (i) the Corporation's most recently filed comparative annual financial statements, together with the accompanying report of the auditor, and any interim financial statements of the Corporation that have been filed for any period after the end of its most recently completed fiscal year; and (ii) the Circular.

GENERAL

The Board has approved the contents and the sending of the Circular.

A copy of the Circular and the Notice of Meeting has been sent to each director, each Shareholder entitled to notice of the Meeting, and the Corporation's auditor.

DATED January 23, 2019

"Brian E. Pedlar"

Brian E. Pedlar
President and CEO

APPENDIX A

RESOLUTION OF THE SHAREHOLDERS

OF

COVALON TECHNOLOGIES LTD.

(the “Corporation”)

“BE IT RESOLVED AS AN ORDINARY RESOLUTION THAT:

1. the Amended and Restated Stock Option Plan, a copy of which is attached to the Corporation’s management information circular dated January 23, 2019, as Appendix “C”, be authorized and approved as the stock option plan of the Corporation; and
2. any officer or director of the Corporation be, and each of them is, hereby authorized and directed for, in the name of and on behalf of the Corporation, to execute or to cause to be executed, under the seal of the Corporation or otherwise, and to deliver or cause to be delivered all such deeds, documents or other instruments, and to do or cause to be done all such other acts and things, as in the opinion of any such director or officer of the Corporation may be necessary or desirable in order to give effect to the foregoing resolution.”

APPENDIX B

REPORTING PACKAGE OF AUDITORS

NOTICE OF CHANGE OF AUDITOR

TO: BDO Canada LLP

AND TO: PricewaterhouseCoopers LLP, Chartered Accountants

BDO Canada LLP, Toronto, Ontario, Canada (the “**former auditor**”) has resigned, effective as of January 21, 2019 as auditor for Covalon Technologies Ltd. (the “**Company**”). PricewaterhouseCoopers, LLP, Chartered Accountants, Oakville, Ontario, Canada (the “**successor auditor**”) has been elected by the Board of Directors to fill the former auditor’s vacancy effective as of January 21, 2019.

In accordance with National Instrument 51-102 – *Continuous Disclosure Obligations* (“NI 51-102”), the Corporation reports that:

1. the former auditor has resigned, upon the Corporation’s request, as auditor of the Corporation effective **January 21, 2019**;
2. there were no reservations in the former auditor’s reports in connection with the audits of the two most recently completed fiscal years and any period subsequent to the most recently completed fiscal year for which an audit report was issued and preceding the date of expiry of the former auditor’s term of office; and
3. there are no “reportable events” as such term is defined in NI 51-102.

The change of auditor and the recommendation to appoint the successor auditor was approved by the audit committee and the board of directors of the Corporation.

DATED this 21 day of January, 2019.

ON BEHALF OF THE BOARD OF DIRECTORS

/s/ Brian Pedlar

Brian Pedlar
Chief Executive Officer



Tel: 416 865 0200
Fax: 416 865 0887
www.bdo.ca

BDO Canada LLP
222 Bay Street, Suite 2200
P.O. Box 131
Toronto, ON M5K 1H1 Canada

January 21, 2019

Alberta Securities Commission
British Columbia Securities Commission
Ontario Securities Commission

Dear Sirs/Mesdames:

Re: **Covalon Technologies Ltd. (the "Company") - Change of Auditor**

Pursuant to National Instrument 51-102 - Continuous Disclosure Obligations, we have reviewed the information contained in the Notice of Change of Auditor of the Company dated January 21, 2019 (the "Notice") and, based on our knowledge of such information at this time, we agree with the statements made in the Notice.

Yours very truly,

BDO Canada LLP

Chartered Professional Accountants, Licensed Public Accountants
Toronto, Ontario



January 21, 2019

To: Alberta Securities Commission
British Columbia Securities Commission
Ontario Securities Commission

We have read the statements made by Covalon Technologies Ltd. in the attached copy of change of auditor notice dated January 21, 2019, which we understand will be filed pursuant to Section 4.11 of National Instrument 51-102.

We agree with the statements concerning PricewaterhouseCoopers LLP in the change of auditor notice dated January 21, 2019.

Yours very truly,

PricewaterhouseCoopers LLP

Chartered Professional Accountants

PricewaterhouseCoopers LLP
PwC Centre, 354 Davis Road, Suite 600, Oakville, Ontario, Canada L6J 0C5
T: +1 905 815 6300, F: +1 905 815 6499, www.pwc.com/ca

PwC refers to PricewaterhouseCoopers LLP, an Ontario limited liability partnership.

APPENDIX C
A&R OPTION PLAN

COVALON TECHNOLOGIES LTD.

AMENDED AND RESTATED
STOCK OPTION PLAN

Adopted as of January 23, 2019

**COVALON TECHNOLOGIES LTD.
AMENDED AND RESTATED STOCK OPTION PLAN**

The purpose of this Amended and Restated Stock Option Plan (the “**Plan**”) is to advance the interests of Covalon Technologies Ltd. (the “**Company**”) by:

- (i) providing Eligible Persons (as defined herein) with additional incentives;
- (ii) encouraging share ownership by Eligible Persons;
- (iii) increasing the proprietary interest of Eligible Persons in the success of the Company;
- (iv) encouraging Eligible Persons to remain with the Company or its Affiliates (as defined herein); and
- (v) attracting new employees, executive officers, directors and Consultants (as defined herein) to the Company or its Affiliates.

**ARTICLE 1
GENERAL PROVISIONS**

Section 1.1 Interpretation

- (1) For the purposes of this Plan, the following terms will have the following meaning unless otherwise defined elsewhere in this Plan:
 - (a) “**Affiliate**” means a related entity of the Company within the meaning of National Instrument 45-106 - *Prospectus Exemptions*, as amended or replaced from time to time;
 - (b) “**Applicable Law**” means all legal requirements relating to the administration of stock option plans, if any, under applicable corporate laws, any applicable state or provincial securities laws, the rules and regulations promulgated thereunder, and the requirements of the Stock Exchange, and the laws of any foreign jurisdiction applicable to Stock Options granted to residents therein;
 - (c) “**Board**” means the board of directors of the Company or, as applicable, such committee of the board of directors of the Company to which the board of directors may choose to delegate authority to administer the Plan;
 - (d) “**Change of Control**” means:
 - (i) a reorganization, amalgamation, merger or other business combination (or a plan of arrangement in connection with any of the foregoing), other than solely involving the Company and any one or more of its Affiliates, with respect to which all or substantially all of the persons who were the beneficial owners of the Shares and other securities of the Company immediately prior to such reorganization, amalgamation, merger, business combination or plan of arrangement do not, following the

completion of such reorganization, amalgamation, merger, business combination or plan of arrangement, beneficially own, directly or indirectly, more than fifty percent (50%) of the resulting voting rights (on a fully-diluted basis) of the Company or its successor;

- (ii) the sale to a person other than an Affiliate of the Company of all or substantially all of the Company's assets; or
 - (iii) a change in the composition of the Board, which occurs at a single meeting of the shareholders of the Company or upon the execution of a shareholders' resolution, such that individuals who are members of the Board immediately prior to such meeting or resolution cease to constitute a majority of the Board, without the Board, as constituted immediately prior to such meeting or resolution, having approved of such change.
- (e) **"Consultant"** means a person or company, other than an employee, executive officer or director of the Company or an Affiliate, that: (i) is engaged to provide services to the Company or an Affiliate, other than services provided in relation to a distribution; (ii) provides the services under a written contract with the Company or an Affiliate; and (iii) spends or will spend a significant amount of time and attention on the affairs and business of the Company or an Affiliate, and includes, for an individual consultant, a corporation of which the individual consultant is an employee or shareholder, and a partnership of which the individual consultant is an employee or partner;
- (f) **"Company"** means Covalon Technologies Ltd. or any successor thereof;
- (g) **"Date of Grant"** means the date on which a particular Stock Option is granted by the Board;
- (h) **"Disability"** means the inability of a Participant to perform the duties associated with his or her position for 270 consecutive days as a result of his or her incapacity due to physical or mental illness;
- (i) **"Eligible Person"** means, subject to all applicable laws, any employee, executive officer, director or Consultant of: (i) the Company; or (ii) any Affiliate of the Company (and includes any such person who is on a leave of absence authorized by the Board or the board of directors of any Affiliate), and also includes any Permitted Assign of any such person;
- (j) **"Exchange Policies"** mean the policies of the Stock Exchange, including those set forth in the Stock Exchange's Corporate Finance Manual, as amended from time to time;
- (k) **"Exercise Period"** means the period from the Vesting Date to the Expiry Date, both inclusive, during which a particular Stock Option may be exercised;
- (l) **"Exercise Price"** means, with respect to a Stock Option:

- (A) if a Participant was granted Stock Options prior to the date the 2007 Stock Option Plan was amended and restated, the Exercise Price of a Stock Option will be the Exercise Price as provided for on the Participant's option agreement;
- (B) if, a Participant was granted Stock Options on or after the date the 2007 Stock Option Plan was amended and restated, the Exercise Price will be the volume weighted average trading price of the Shares on such Stock Exchange for the five (5) trading days immediately preceding the day on which the Stock Option is granted, or such greater amount as the Board may determine; provided, however, that the Exercise Price of a Stock Option shall not be less than the minimum Exercise Price required by the applicable rules of the Stock Exchange; and
 - (i) The Exercise Price is subject to adjustment in accordance with the provisions of Section 3.1 hereof. In no event will the Exercise Price be lower than the minimum exercise price permitted by the Stock Exchange.
- (m) "**Expiry Date**" means the date after which a particular Stock Option can no longer be exercised, subject to amendment in accordance with the terms hereof;
- (n) "**Governmental Entity**" means any applicable: (a) multinational, federal, provincial, state, municipal, local or other governmental or public department, commission, board, bureau or agency; (b) any subdivision or authority of any of the foregoing; or (c) any quasi-governmental body exercising (with proper jurisdiction) any regulatory or taxing authority under or in respect of any of the above;
- (o) "**holding entity**" means a holding entity within the meaning of National Instrument 45-106 - *Prospectus Exemptions*, as amended or replaced from time to time;
- (p) "**insider**" means an "insider" as defined under Section 1 of the *Securities Act* (Ontario);
- (q) "**Investor Relations Activities**" has the meaning ascribed thereto in the Exchange Policies and, for clarity, persons retained to provide Investor Relations Activities include any Consultant that performs Investor Relations Activities and any Employee or Director whose role and duties primarily consist of Investor Relations Activities;
- (r) "**Involuntary Termination**" means, in the event of a Substitution Event under Section 3.1:
 - (i) in respect of any employee or executive officer of the Company or any of its Affiliates:
 - (A) any express or implied termination by the Company or any of its Affiliates of such employee or executive officer's employment

which is not due to the termination of his or her employment for cause or on account of death or Disability;

- (B) the assignment of duties to such employee or executive officer that are materially and negatively inconsistent with his or her position, duties, responsibilities and status immediately prior to such assignment;
 - (C) any material reduction of such employee's or executive officer's total compensation including base salary and incentive compensation package, vacation entitlement or employee benefits; or
 - (D) any change in excess of 100 kilometres in the location at which the employee or executive officer predominantly performs his or her duties without his or her consent, except for required travel on business to an extent substantially consistent with his or her business obligations; and
- (ii) in respect of any director who is not an employee or executive officer of the Company or any of its Affiliates, such director ceasing to be a director for any reason other than as a result of voluntary resignation, death or Disability, including, for greater certainty, ceasing to be a director as a result of resignation following a request therefor or following a material reduction in the director's compensation, removal or failure to be elected or appointed.
- (s) **"Notice of Grant"** means a notice of grant in substantially the form attached hereto as Schedule "A";
- (t) **"Participant"** means an Eligible Person to whom a Stock Option has been granted;
- (u) **"Permitted Assign"** means, for an employee, executive officer, director or Consultant of the Company or an Affiliate:
- (i) a trustee, custodian or administrator acting on behalf of, or for the benefit of, the person;
 - (ii) a holding entity of the person;
 - (iii) an RRSP or RRIF of the person;
 - (iv) a spouse of the person;
 - (v) a trustee, custodian or administrator acting on behalf of, or for the benefit of the spouse of the person;
 - (vi) a holding entity of the spouse of the person; or

- (vii) an RRSP or a RRIF of the spouse of the person.
 - (v) **“Plan”** means this Amended and Restated Stock Option Plan;
 - (w) **“Reserved for Issuance”** means Shares which may be issued upon the exercise of Stock Options;
 - (x) **“RRIF”** means a registered retirement income fund as defined in the *Income Tax Act* (Canada);
 - (y) **“RRSP”** means a registered retirement savings plan as defined in the *Income Tax Act* (Canada);
 - (z) **“Shares”** means common shares in the capital of the Company, or any other shares of the Company as the Board may from time to time determine, and includes any shares of the Company into which such shares may be changed, classified, reclassified, subdivided, consolidated or converted from time to time;
 - (aa) **“Stock Option”** means an option to purchase Shares from treasury granted hereunder to a Participant;
 - (bb) **“Stock Exchange”** means the TSX Venture Exchange or such other stock exchange or quotation system on which the Shares are listed or quoted from time to time;
 - (cc) **“Substitution Event”** means: (i) a Change of Control; or (ii) a merger, amalgamation, arrangement, business combination or other transaction pursuant to which the Shares of the Company are converted into, or exchanged for, other property, whether in the form of securities of another corporation, cash or otherwise;
 - (dd) **“Termination Date”** means the date on which a Participant ceases to be an Eligible Person;
 - (ee) **“Transfer”** includes any sale, exchange, assignment, gift, bequest, disposition, mortgage, charge, pledge, encumbrance, grant of security interest or other arrangement by which possession, legal title, beneficial ownership or the risk of economic exposure passes from one person to another, or to the same person in a different capacity, whether voluntary or not voluntary and whether or not for value, and any agreement to effect any of the foregoing; and
 - (ff) **“Vesting Date”** means the date or dates determined in accordance with Section 2.3 on and after which a particular Stock Option, or any part thereof, may be exercised, subject to amendment or acceleration from time to time in accordance with the terms hereof.
- (2) In this Plan words importing the singular number include the plural and vice versa and words importing the masculine gender includes the feminine.

- (3) This Plan is to be governed by and interpreted in accordance with the laws of the Province of Ontario.

Section 1.2 Administration

- (a) The Board, or such committee of the Board to which the Board may choose to delegate such authority, will administer this Plan. In the event of such delegation, all references to the term "Board" will be deemed to include references to such committee.
- (b) Subject to the limitations of this Plan, the Board has the authority: (i) to grant Stock Options to purchase Shares to Eligible Persons; (ii) to determine the terms, including the limitations, restrictions, vesting period and conditions, if any, upon such grants; (iii) to interpret this Plan and to adopt, amend and rescind such administrative guidelines and other rules relating to this Plan as it may from time to time deem advisable, subject to required prior approval by any applicable Stock Exchange or Governmental Entity; and (iv) to make all other determinations and to take all other actions in connection with the implementation and administration of this Plan as it may deem necessary or advisable. The Board's guidelines, rules, interpretations and determinations will be conclusive and binding upon the Company and all Participants and Eligible Persons. No member of the Board or any person acting pursuant to authority delegated by it hereunder shall be liable for any action or determination in connection with the Plan made or taken in good faith, and the Company shall indemnify and save harmless each member of the Board with respect to any such action or determination provided that it was made or taken in good faith.

Section 1.3 Shares Reserved

- (a) The maximum number of Shares Reserved for Issuance under the Plan (and under any other share compensation arrangements of the Company) shall be equal to 10% of the number of shares in the capital of the Company that are outstanding from time to time. For greater certainty, any increase in the issued and outstanding Shares will result in an increase in the available number of the Shares issuable under the Plan, and any exercise of Stock Options will make new grants available under the Plan.
- (b) In addition to the foregoing (unless disinterested shareholder approval is obtained):
- (i) the number of Shares issuable to insiders, at any time, under all security based compensation arrangements of the Company, cannot exceed 10% of the number of Shares in the capital of the Company that are outstanding from time to time; and
 - (ii) the number of Shares issued to insiders, within any one (1) year period, under all security based compensation arrangements of the Company, cannot exceed 10% of the number of Shares in the capital of the Company that are outstanding from time to time.

**ARTICLE 2
SHARE OPTION PLAN**

Section 2.1 Application

Grants of Stock Options to Eligible Persons shall be governed by this Article 2.

Section 2.2 Grants

The Board may from time to time in its sole discretion determine those Eligible Persons, if any, to whom Stock Options are to be granted, the terms of any such grant and the number of Shares in respect of which each Stock Option may be exercised. The award of a Stock Option to an Eligible Person at any time shall neither entitle such Eligible Person to receive nor preclude such Eligible Person from receiving a subsequent Stock Option. In the case of Stock Options granted to Consultants and Employees, the Company represents that the Participant is a bona fide Employee or Consultant, as applicable.

Section 2.3 Expiry Date; Vesting of Stock Options

- (a) Subject to Section 2.5 and any applicable rules of the Stock Exchange, and unless otherwise fixed by the Board at the time the particular Stock Option is granted and set forth in the Notice of Grant, the Expiry Date of a Stock Option will be the fifth (5th) anniversary of the Date of Grant.
- (b) Unless otherwise fixed by the Board at the time the particular Stock Option is granted and set forth in the Notice of Grant, or unless otherwise determined by the Board in its sole discretion at or any time following the date that a particular Stock Option is granted, and subject to Section 2.5 and Section 2.7(k), Stock Options will vest over a three (3) year period and may be exercised in whole or in part at any time from time to time as follows:

PERIOD	NUMBER OF STOCK OPTIONS VESTED
On or after the first anniversary of Date of Grant	34%
On or after the second anniversary of Date of Grant	33%
On or after the third anniversary of Date of Grant	33%

Section 2.4 Exercise Price

The exercise price for the Shares underlying a Stock Option will be the Exercise Price.

Section 2.5 Termination, Retirement, Death, Departure

Any Stock Option or part thereof granted before the 2007 Stock Option Plan was amended and restated will be governed by the default expiry terms of the 2007 Stock Option Plan together with the expiry date shown on the relevant Notice of Grant. Any Stock Option or part thereof granted on or after the date that the 2007 Stock Option Plan was amended and restated that is not exercised within the Exercise Period will terminate and become null, void

and of no effect as of the day immediately following the Expiry Date determined under Section 2.3(a) hereof, unless the Expiry Date is determined to be an earlier date as follows:

- (a) **Death** - The Expiry Date of a Stock Option held by a Participant that had vested immediately prior to his or her death will be the earlier of the expiry date shown on the relevant Notice of Grant and the date that is ninety (90) days after the date of his or her death. Stock Options that are outstanding but unvested immediately prior to a Participant's death will immediately terminate and become null, void and of no effect upon the death of the Participant. If a Participant dies, the legal representatives of the Participant may exercise such of the Participant's Stock Options that, by their terms, were exercisable on the date of death, prior to the Expiry Date.
- (b) **Disability** - In the event of the Disability of a Participant, the Board may in its discretion determine that such Participant shall no longer be an Eligible Person. In the event a Participant ceases to be an Eligible Person as a result of Disability, then the Expiry Date of a Stock Option that had vested on the date such Participant ceases to be an Eligible Person will be the earlier of the expiry date shown on the relevant Notice of Grant and the date ninety (90) days following the date such Participant ceases to be an Eligible Person. Stock Options that are outstanding but unvested on the date such Participant ceases to be an Eligible Person will immediately terminate and become null, void and of no effect.
- (c) **Retirement** - In the event a Participant ceases to be an Eligible Person as a result of his or her retirement in accordance with the Company's then applicable retirement policy or a determination of the Board, the Expiry Date of a Stock Option that had vested on the date such Participant ceases to be an Eligible Person will be the earlier of the Expiry Date shown on the relevant Notice of Grant and the date ninety (90) days following the date such Participant ceases to be an Eligible Person. The Stock Options that are outstanding but unvested on the date such Participant ceases to be an Eligible Person will immediately terminate and become null, void and of no effect.
- (d) **Termination for Cause** - If the employment of a Participant is terminated for cause (as defined in any employment agreement with the Company, and if no employment agreement exists, then under common law), all vested and unvested Stock Options held by such Participant will immediately terminate and become null, void and of no effect on the date on which the Company, or any of its Affiliates, gives a notice of termination for cause to such Participant. For purposes of the Plan, a Participant's employment shall conclusively be deemed to have been terminated for cause on the date that such Participant received notice of termination (and for greater certainty shall not include any notice period required by any applicable statute or common law).
- (e) **Voluntary Resignation or Termination without Cause** - In the event a Participant ceases to be an Eligible Person as a result of his or her voluntary resignation or termination without cause (as defined in any employment agreement with the Company, and if no employment agreement exists, then under common law) from any position or employment with the Company or its

Affiliates (other than his or her retirement), then the Expiry Date of a Stock Option that had vested on the date such Participant ceases to be an Eligible Person will be the earlier of the Expiry Date shown on the relevant Notice of Grant and the date ninety (90) days following the date such Participant ceases to be an Eligible Person. The Stock Options that are outstanding but unvested on the date such Participant ceases to be an Eligible Person will, subject to Section 5.1, immediately terminate and become null, void and of no effect. For purposes of the Plan, a Participant's employment shall conclusively be deemed to have ceased on the date that such Participant ceases to be actually and actively employed by the Company or its Affiliates (and for greater certainty shall not include any notice period required by any applicable statute or common law).

- (f) **Ceasing to be a Director** - In the event that a Participant who is a director of the Company (and not an employee or executive officer of the Company or any of its Affiliates) ceases to be a director, then the Expiry Date of a Stock Option that had vested on the date such Participant ceases to be a director will be the earlier of the Expiry Date shown on the relevant Notice of Grant and the date that is ninety (90) days following the date such Participant ceases to be an Eligible Person. The Stock Options that are outstanding but unvested on the date such Participant ceases to be a director will, subject to Section 5.1, immediately terminate and become null, void and of no effect.
- (g) **Discretion of Board** - Notwithstanding Section 2.5(a), (b), (c), (d), (e) or (f) above, but subject to applicable laws, rules and regulations of any applicable Stock Exchange or Governmental Entity, the Board may, in its sole discretion, extend the Expiry Date of any Stock Options in whole or in part.

Section 2.6 Notice of Grant

Each Stock Option must be confirmed, and will be governed, by a Notice of Grant signed by the Company and the Participant.

Section 2.7 Payment of Exercise Price; Exercise of Stock Options

- (a) Stock Options may only be exercised by the Participant or his or her legal representative. Participants may exercise their Stock Options, subject to the restrictions set out below, to acquire Shares by delivering to the Company a notice of option exercise (the "**Exercise Notice**"), substantially in the form attached hereto as Schedule "B", together with a bank draft or certified cheque in an amount equal to the aggregate Exercise Price of the Shares to be purchased pursuant to the exercise of Stock Options or pursuant to the "cashless exercise" option contemplated by Section 2.7(g).
- (b) Notwithstanding Section 2.7(a) hereof, but subject to any adjustments contemplated by Section 5.2, Stock Options may not be exercised unless the aggregate number of Shares acquired upon the exercise of such Stock Options is greater than or equal to 100 Shares.

- (c) Subject to Section 2.7(e), Section 2.7(g) and any provisions of the Plan to the contrary, as soon as practicable following the receipt of the Exercise Notice and a bank draft or certified cheque in accordance with Section 2.7(a), the Company will deliver to the Participant a certificate for the Shares so purchased.
- (d) The issuance of Shares by the Company to a Participant pursuant to the exercise of any Stock Option is subject to compliance with all applicable laws, rules and regulations of all Governmental Entities applicable to the issuance and distribution of such Shares and to the requirements of any Stock Exchange on which the Shares may be listed or quoted, including any requirements with respect to the legending of certificates representing the Shares issued pursuant to the exercise of any Stock Option. The Participant agrees: (i) to comply with all such laws, rules, regulations and requirements; (ii) to furnish to the Company any information, report and/or undertakings required to comply with all such laws, rules, regulations and requirements; and (iii) to fully cooperate with the Company in complying with such laws, rules, regulations and requirements.
- (e) Any Stock Option granted under the Plan shall be subject to the provision that the Company shall require the Participant to reimburse the Company for any amounts required to be paid by the Company to any taxing or other Governmental Entity on behalf of the Participant or on its own behalf in respect of the grant of the Stock Options hereunder or the issuance or disposition of the Shares including, without limitation, excise, employment, income or withholding taxes. In lieu thereof, the grant of the Stock Options and the issuance of the Shares upon the exercise thereof by the Participant is conditional upon the Company's reservation, in its discretion, of the right to withhold, consistent with any applicable law, from any compensation or other amounts payable to the Participant, any amounts required to be paid by the Company to any taxing or other Governmental Entity on behalf of the Participant or its own behalf under any federal, provincial, state or local law as a result of the grant or exercise of the Stock Option or the issuance or disposition of the Shares. To the extent that compensation or other amounts, if any, payable to the Participant are insufficient to pay any amounts required to be so paid by the Company, the Company may, in its sole discretion, require the Participant, as a condition to the exercise of the Stock Option, to pay in bank draft or by certified cheque to the Company an amount sufficient to cover such liability or otherwise make adequate provision for the Company's satisfaction of its obligations under federal, provincial, state and/or local law, including, without limitation: (i) the holding by the Company of the share certificate to which the Participant is entitled upon the exercise of the Stock Option as security for the payment of such obligation, until cash sufficient to pay that liability has accumulated; (ii) to retain some or all of the Shares, having a fair market value at the date of the exercise of the Stock Option which is equal to the amount of the Company's obligations set forth above; or (iii) to direct the Participant's selling broker to withhold from the proceeds realized from the sale of the Shares an amount which is equal to the Company's obligations set forth above and to pay such amount directly to the Company.
- (f) In the event that a Participant receives Shares from the Company in satisfaction of a grant of Stock Options during a Company-imposed black-out period, the

Participant shall not be entitled to sell or otherwise dispose of such Shares until such black-out period has expired. In the event that a Participant's Stock Options are set to expire during a black-out period, such expiry date shall be automatically extended for ten (10) business days after the expiry of the black-out period following the date the relevant black-out period is lifted, terminated or removed.

- (g) Subject to Board approval, a Participant may elect, in its sole discretion, to undertake: (i) a broker assisted "cashless exercise" pursuant to which the Company or its designee (including third party administrators) may deliver a copy of irrevocable instructions to a broker engaged for such purposes to sell the Shares otherwise deliverable upon the exercise of the Stock Options and to deliver promptly to the Company an amount equal to the Exercise Price and all applicable required withholding obligations contemplated by Section 2.7(e) against delivery of the Shares to settle the applicable trade; or (ii) a "net exercise" procedure effected by the Participant surrendering the Stock Options to the Company in consideration for the Company delivering Shares to the Participant but withholding the minimum number of Shares otherwise deliverable in respect of a Stock Option that are needed to pay for the Exercise Price and withholding obligations contemplated by Section 2.7(e). In all events of cashless or net exercise pursuant to this Section 2.7(g): (a) the Participant shall comply with Section 2.7(e) of the Plan with regards to any applicable withholding obligations; and (b) shall comply with all such other procedures and policies as the Board may prescribe or determine to be necessary or advisable from time to time including prior written consent of the Board, in connection with such exercise.
- (h) The number of Stock Options granted to any one Eligible Person, within any twelve (12) month period, cannot exceed 5% of the number of Shares in the capital of the Company that are outstanding from time to time, calculated at the date a Stock Option is granted to the Eligible Person, unless the Company obtains the requisite disinterested shareholder approval.
- (i) The number of Stock Options granted to any one Consultant, within any twelve (12) month period, cannot exceed 2% of the number of Shares in the capital of the Company that are outstanding from time to time, calculated at the date a Stock Option is granted to the Consultant.
- (j) The number of Stock Options granted to all Eligible Persons retained to provide Investor Relations Activities, within any twelve (12) month period, cannot exceed 2% of the number of issued Shares in the capital of the Company that are outstanding from time to time, calculated at the date the Stock Option is granted to such Eligible Person.
- (k) Stock Options granted to Eligible Persons retained to provide Investor Relations Activities must vest over a period of not less than twelve (12) months with no more than $\frac{1}{4}$ of the Stock Options vesting in any three (3) month period.

Section 2.8 Amendment of Stock Option Terms

- (1) The Board may, subject to any necessary regulatory approval, at its discretion from time to time, amend the Plan and the terms and conditions of any Stock Option thereafter to be granted and, without limiting the generality of the foregoing, may make such amendment for the purpose of complying with any changes in any relevant law, rule, regulation, regulatory requirement or requirement of the Stock Exchange, or for any other purpose which may be permitted by law, provided always that any such amendment will:
 - (a) not adversely alter or impair any Stock Option previously granted except as permitted by the terms of this Plan;
 - (b) be in compliance with applicable law and subject to any regulatory approvals including, where required, the approval of the Stock Exchange; and
 - (c) be subject to shareholder approval, where required by law, the requirements of the Stock Exchange or this Plan or any Governmental Entity.

- (2) Subject to Section 2.8(1), the Board may from time to time, in its discretion and without the approval of shareholders or Participants, make changes to the Plan or any Stock Option that does not require the approval of Shareholders under Section 2.8(3) (if applicable), which may include but are not limited to:
 - (a) any amendment of a “housekeeping” nature, including without limitation those made to clarify the meaning of an existing provision of the Plan, correct or supplement any provision of the Plan that is inconsistent with any other provision of the Plan, correct any grammatical or typographical errors or amend the definitions in the Plan regarding administration of the Plan;
 - (b) any procedures associated with the cashless exercise as set out under Section 2.7(g);
 - (c) changes that alter, extend or accelerate the terms of vesting or settlement applicable to any Stock Options;
 - (d) any amendment to the Plan respecting administration; and
 - (e) an amendment of the Plan or a Stock Option as necessary to comply with applicable law or the requirements of the Stock Exchange or any other Governmental Entity or regulatory body having authority over the Company, the Plan, the Participants or the shareholders.

- (3) In addition and subject to approvals required as specified elsewhere in the Plan and by the Stock Exchange, shareholder approval is required for the following amendments to the Plan (except under (d) below, which requires disinterested shareholder approval):
- (a) any increase in the maximum number of Shares that may be issuable from treasury pursuant to Stock Options granted under the Plan (as set out in Section 2.2), other than an adjustment pursuant to Section 5.2;
 - (b) extending the time for which a Stock Option expires beyond its original expiry date;
 - (c) any amendment to Section 2.8(2) and this Section 2.8(3);
 - (d) any reduction in the Exercise Price if the Participant is an insider of the Company at the time of the proposed amendment;
 - (e) persons eligible to be granted Stock Options under the Plan;
 - (f) amends the termination provisions of Stock Options (as set out in Section 2.5 and Section 5.1);
 - (g) amends the limitations on the number of Stock Options that may be granted under the Plan to any one person or category of persons (including, as set out in Section 1.3(b) and Section 2.7(h),(i) and (j)).
- (4) No such amendment to the Plan shall cause the Plan to cease to be a plan described in section 7 of the *Income Tax Act* (Canada) or any successor to such provision.

Section 2.9 Assignment of Stock Options

Stock Options (and any rights thereunder) are not assignable or Transferable. Any purported assignment or Transfer of Stock Options will not be recognized by the Company and will result in the immediate expiry and termination of any such Stock Options and any rights relating thereto.

Section 2.10 Alternative Share Compensation Arrangements

Notwithstanding any other provision of this Plan, the Board may, in its discretion, enter into alternative share compensation arrangements with non-resident directors of the Company if the Board determines that the tax consequences of granting Stock Options under this Plan to such non-resident directors are adverse to such non-resident directors as compared to the tax consequences of Stock Option grants to directors that are not non-residents. In such circumstances the Board may choose to structure an alternative share compensation arrangement that does not provide adverse tax consequences to such non-resident directors, but that is substantially economically equivalent, in the Board's determination, to the grant of Stock Options under the Plan and is not otherwise materially prejudicial to the Company. For greater certainty, any Shares issued pursuant to any alternative share compensation arrangements under this Section 2.10 shall be considered to be Stock Options for the purposes of determining the number of Shares issuable pursuant to this Plan.

ARTICLE 3
ASSUMPTION OR SUBSTITUTION OF STOCK OPTIONS

Section 3.1 Substitution

- (a) In the event of a Substitution Event, any surviving or acquiring corporation must, unless Article 4 applies:
 - (i) assume any Stock Option outstanding under the Plan on substantially the same economic terms and conditions as the Plan; or
 - (ii) substitute or replace similar stock options (including an award to acquire the same consideration paid to the securityholders of the Company in the transaction effecting the Substitution Event) for those Stock Options outstanding under the Plan on substantially the same economic terms and conditions as the Plan.
- (b) In the event any surviving or acquiring Company neglects or refuses (as determined by the Board, acting reasonably) to assume any Stock Options or to substitute or replace similar stock options for those outstanding Stock Options under the Plan in connection with a Substitution Event, then with respect to any Stock Options held by Participants, the vesting of such Stock Options (and, if applicable, the time during which such Stock Options may be exercised) will automatically and without further action by the Board or the Company be immediately accelerated so that such Stock Options will be fully vested. In addition, in such event, the Board may determine that outstanding Stock Options will terminate if not exercised (if applicable) at or prior to such Substitution Event.
- (c) No fractional Shares or other security will be issued upon the exercise of any Stock Option and, accordingly, if as a result of a Substitution Event or otherwise, a Participant would become entitled to a fractional Share or other security, such Participant will have the right to acquire only the next lowest whole number of Shares or other security and no payment or other adjustment will be made with respect to the fractional interest so disregarded; provided, however, that a cash payment equal to the value of all fractional interests disregarded pursuant to this Section 3.1(c) shall be made to a Participant if the number of Stock Options so disregarded exceeds five percent (5%) of the total number of Stock Options exercised by such Participant.
- (d) Notwithstanding any other provision of this Plan, in the event of a potential Substitution Event, the Board may, in its discretion: (i) terminate, conditionally or otherwise and on such terms as it sees fit, the Stock Options not exercised following successful completion of such Substitution Event; and (ii) accelerate, conditionally or otherwise and on such terms as it sees fit, the Vesting Date or otherwise modify the terms of the Stock Options to assist the Participants to obtain the advantage of holding Shares during the Substitution Event. If the Substitution Event referred to in this Article 3 is not completed during the time specified therein (as the same may be extended), the Stock Options which vested

pursuant to this Article 3 must be returned by the Participant to the Company and will be reinstated as unvested Stock Options and the original terms applicable to such Stock Options will apply. If any of the Stock Options that vested pursuant to this Article 3 were exercised, such Shares must be returned to the Company for cancellation. The determination of the Board in respect of any such Substitution Event will for the purposes of this Plan be final, conclusive and binding.

ARTICLE 4 TAKE-OVER BIDS

Section 4.1 Take-over Bids

- (a) In the event of a “potential change of control following a take-over bid” (as defined herein), the Board may, in its discretion, conditionally or otherwise and on such terms as it sees fit, accelerate the Vesting Date of all of a Participant’s unvested Stock Options to a date prior to the expiry date of such bid or offer, such that all of a Participant’s Stock Options will immediately vest at such time and the Vesting Date in connection with such Stock Options will be adjusted accordingly. In such event, all Stock Options so vested will be exercisable, conditionally or otherwise, from such date until their respective Expiry Dates so as to permit the Participant to tender the Shares received upon such exercise pursuant to the bid or offer. For purposes of this Article 4, a “potential change of control following a take-over bid” will be deemed to occur upon a formal bid or tender offer for Shares being made as a result of which the offeror and its affiliates would, if successful, beneficially own, directly or indirectly, fifty percent (50%) or more of the Shares then outstanding.
- (b) Notwithstanding any other provisions of this Plan, in the event of a potential change of control following a take-over bid, the Board will have the power, if determined appropriate: (i) to terminate, conditionally or otherwise and on such terms as it sees fit, the Stock Options not exercised following successful completion of such event; and/or (ii) to modify the terms of the Stock Options, conditionally or otherwise and on such terms as it sees fit, in order to assist the Participants to tender their securities into the take-over bid, including for greater certainty permitting such Participants to exercise their Stock Options on a “cashless” basis. For greater certainty, in the event that the acquiring entity acquires one hundred percent (100%) of the outstanding Shares following the take-over bid, the Board will have the power, if determined appropriate, to terminate the Stock Options not exercised upon the expiry of the time period for tendering to the acquiring entity for purchase.
- (c) If the take-over bid referred to in Section 4.1(a) is not completed within the time specified therein (as the same may be extended), the Stock Options that vested pursuant to Section 4.1(a) (if any) must be returned by the Participant to the Company and will be reinstated as unvested Stock Options and the original terms applicable to such Stock Options will apply. If any of the Stock Options that vested pursuant to this Section 4.1(a) (if any) were exercised, such Shares must be returned to the Company for cancellation. The determination of the

Board with respect to any such event will for the purposes of this Plan be final, conclusive and binding.

ARTICLE 5 MISCELLANEOUS

Section 5.1 Involuntary Termination

In the event of an Involuntary Termination as a result of a Substitution Event under Section 3.1, at any time within the ninety (90) day period prior to or the one hundred and eighty (180) day period following the date of completion of the transaction effecting a Substitution Event, all of the Participant's unvested Stock Options will immediately vest, and the Vesting Date in connection with such Stock Options will be adjusted accordingly.

Section 5.2 Capital Adjustments

If there is any change in the outstanding Shares by reason of a stock dividend or split, recapitalization, consolidation, combination or exchange of shares, reclassification, conversion or other fundamental corporate change, the Board will make, subject to any prior approval required of the Stock Exchange or other applicable Governmental Entities, if any, an appropriate substitution or adjustment to the Shares or other securities of the Company, including in: (i) the number or kind of shares or other securities reserved for issuance pursuant to this Plan; and (ii) the exercise price of those unexercised Stock Options; provided, however, that no substitution or adjustment will obligate the Company to issue fractional Shares upon the exercise of a Stock Option.

Section 5.3 Non-Exclusivity

Nothing contained herein will prevent the Board from adopting other or additional compensation arrangements for the benefit of any Eligible Person or Participant, subject to any required Stock Exchange, regulatory or shareholder approval.

Section 5.4 Termination

- (a) The Board may amend, suspend or terminate this Plan or any portion thereof at any time in accordance with applicable legislation, and subject to any required regulatory or shareholder approval. Subject to Articles 3 and 4 hereof, no amendment, suspension or termination will alter or impair any Stock Options under the Plan, or any rights pursuant thereto, granted previously to any Participant without the consent of that Participant.
- (b) If this Plan is terminated, the provisions of this Plan and any administrative guidelines, and other rules adopted by the Board and in force at the time of this Plan, will continue in effect as long as any Stock Options under the Plan or any rights pursuant thereto remain outstanding. However, notwithstanding the termination of the Plan, the Board may make any amendments to the Plan or Stock Options it would be entitled to make if the Plan were still in effect.

Section 5.5 Compliance with Legislation

The Board may postpone or adjust the exercise of any Stock Option or the issue of any Shares pursuant to this Plan as the Board in its discretion may deem necessary in order to permit the Company to effect or maintain qualification of this Plan or the Shares issuable pursuant thereto under the securities laws of any applicable jurisdiction, or to determine that the Shares and this Plan are exempt from such registration. The Company is not obligated by any provision of this Plan or any grant hereunder to sell or issue shares in violation of any applicable law. In addition, if the Shares are listed on a Stock Exchange, the Company will have no obligation to issue any Shares pursuant to this Plan unless the Shares have been duly listed, upon official notice of issuance, on the Stock Exchange on which the Shares are listed for trading.

Section 5.6 Effective Date

This Plan will become effective upon the approval of the Plan by the Board.

Section 5.7 No Other Rights

Nothing herein contained and no grant of Stock Options pursuant to the Plan shall be deemed to give any Eligible Person the right to be retained as an Eligible Person or the right to be retained as an employee, executive officer, director or Consultant of the Company. For greater certainty, a period of notice, if any, or payment in lieu thereof, upon termination of employment, wrongful or otherwise, shall not be considered as extending the period of employment for the purposes of the Plan. Stock Options are not Shares, and the grant of a Stock Option to an Eligible Person does not entitle such Eligible Person to any rights as a shareholder of the Company.

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SCHEDULE "A"
NOTICE OF GRANT OF STOCK OPTIONS

COVALON TECHNOLOGIES LTD.

Telephone: 1 (905) 568-8400

Facsimile: 1 (905) 568-5200

[Date]

[Name & Address]

Dear [Name]:

This is to advise you that in recognition of your contribution to our business, you have been selected to participate in the Amended and Restated Stock Option Plan (the "**Plan**") of Covalon Technologies Ltd. (the "**Company**"). On _____ you were granted a stock option to acquire _____ Shares of the Company at a price of \$ _____ per Share.

Your stock option is subject to the provisions of the Plan, a copy of which is attached to this notice. The stock option granted to you by the Company will be vested in accordance the Plan and as follows:

PERIOD	NUMBER OF STOCK OPTIONS VESTED
On or after the first anniversary of Date of Grant	34%
On or after the second anniversary of Date of Grant	33%
On or after the third anniversary of Date of Grant	33%

The Expiry Date of your stock options is _____.

By accepting this grant you represent and warrant to the Company that your participation in the Plan is voluntary and that you have not been induced to participate by expectation of engagement, appointment, employment, continued engagement, continued appointment or continued employment, as applicable.

The grant of options described above is strictly confidential and the information concerning the number or price of Shares granted under this option should not be disclosed to anyone.

Yours sincerely,

Brian Pedlar
President and Chief Executive Officer

The undersigned acknowledges receipt of a copy of the Plan and acknowledges and agrees that the undersigned's Stock Options are subject to and governed by the provisions of the Plan.

Dated this ____ day of _____, 20__.

[Name]

SCHEDULE "B"
NOTICE OF STOCK OPTION EXERCISE

COVALON TECHNOLOGIES LTD.
AMENDED AND RESTATED STOCK OPTION PLAN

To: President and Chief Executive Officer, Covalon Technologies Ltd. (the "**Company**")

Please be advised that in connection with stock options granted to me under the Company's Amended and Restated Stock Option Plan pursuant to the Notice of Grant of Stock Options dated _____ (the "**Stock Options**"), the undersigned hereby wishes to exercise his or her option to purchase _____ Shares (the "**Option Shares**") in the capital of the Company at a price of \$_____ per Option Share, for a total payment of \$_____ (the "**Exercise Payment**"). I hereby agree to assist the Company in the filing of, and will file on a timely basis, all reports that I may be required to file under applicable securities laws. I understand that the fair market value assigned to my Stock Options for income tax purposes will be the closing price of the Shares of the Company on the Stock Exchange on the date of this exercise or as otherwise determined by the Company if the Shares are not then listed on a Stock Exchange. I further understand that this request to exercise my Stock Options is irrevocable. I confirm that I have read and understand the Company policies regarding insider trading.

Please find enclosed a bank draft or certified cheque in the amount of \$_____, representing the aggregate Exercise Payment payable to the Company in full payment for the Option Shares.

The Option Shares issued on the exercise of my Stock Options specified above are to be registered as follows:

(Print Registree's Name)

(Address)

(Telephone Number)

(Facsimile Number)

(E-Mail Address)

(Optionee's Signature)

(Date)

APPENDIX D

CORPORATE GOVERNANCE PRACTICES

Statement of Corporate Governance Practices

The board of directors (the “**Board**”) of Covalon Technologies Ltd. (the “**Corporation**”) believes that sound corporate governance practices are essential to the effective, efficient, and prudent management and operation of the Corporation and its business, to the protection of employees and shareholders, and to the enhancement of shareholder value. The Board fulfills its mandate directly and through its committees at regularly scheduled meetings or as required. Frequency of meetings may be increased, and the nature of the agenda items may be changed, depending upon the state of the Corporation’s affairs and in light of opportunities or risks which the Corporation faces. The directors are kept informed of the Corporation’s operations at these meetings as well as through reports and discussions with management on matters within their particular areas of expertise.

National Policy 58-201 - *Corporate Governance Guidelines* (“**NP 58-201**”) sets out guidelines for effective corporate governance. These guidelines deal with matters such as the constitution and independence of corporate boards, their functions, the effectiveness and education of board members and other items dealing with sound corporate governance. National Instrument 58-101 - *Disclosure of Corporate Governance Practices* (“**NI 58-101**”) requires that if management of an issuer solicits proxies from its security holders for the purpose of electing directors, specified disclosure of the board’s corporate governance practices must be included in its management information circular.

The Corporation’s corporate governance practices have been and continue to be in compliance with applicable Canadian requirements. The Corporation continues to monitor developments in Canada with a view to further revising its governance policies and practices, as appropriate. The Board has considered the guidelines set out in NP 58-201 and believes that its approach to corporate governance is appropriate and works effectively for the Corporation and its Shareholders. The following is a description of the Corporation’s corporate governance practices which has been prepared by the Corporate Governance and Nominating Committee of the Board and has been approved by the Board.

The Board of Directors

The Board is currently comprised of eight (8) members, a majority of whom are independent within the meaning of NI 58-101, namely Joseph Cordiano, Murray Miller, Ian Brindle, Elinor Caplan, and Gale Pollock. Dr. Murray Miller and Hon. Elinor Caplan do not intend to stand for re-election as directors at the Meeting. Following the Meeting, the Board will continue to be comprised of eight (8) members, a majority of whom will be independent within the meaning of NI 58-101, namely Joseph Cordiano, Ian Brindle, Gale Pollock, Dr. Myrna Francis and Mr. John Suk. Brian Pedlar is not independent as he is a senior executive officer of the Corporation. Jeffrey Mandel is not independent because, in addition to his position as a director, he continues to be engaged in, and receives compensation for, certain investor relations activities on behalf of the Corporation. Abe Schwartz is not independent as he owns more than 10% of the Common Shares. Abe Schwartz is the Chair of the Board.

The role of the Chair of the Board is to chair all meetings of the Board in a manner that promotes meaningful discussion, and to provide leadership to the Board to enhance the Board’s effectiveness in meeting its responsibilities. The Chair’s responsibilities include, without limitation, ensuring that the Board works together as a cohesive team with open communication and working together with the Corporate Governance and Nominating Committee to ensure that a process is in place by which the effectiveness of the Board, its committees, and its individual directors can be evaluated on at least an annual basis.

The Board holds regularly scheduled meetings. In addition, the independent directors meet regularly without management to review the business operations, corporate governance, and financial results of the Corporation. During the fiscal year ended September 30, 2018, the Board held numerous meetings by teleconference and held eight meetings in person.

Mr. Cordiano is currently a director of another reporting issuer, as set forth below:

Director Name	Directorships with Other Reporting Issuer
Joseph Cordiano	DXStorm.Com Inc. (DXX-TSXV)

Position Descriptions

A written position description has been developed by the Board for the Chair of the Board. Written mandates have also been developed for each of the Board's committees. The Board, together with the CEO, has also developed a written position description for the CEO, the CFO, and the Chief Scientific Officer.

Orientation and Continuing Education

The measures that the Board takes in connection with orienting new Board members regarding the role of the Board, its directors, the committees of the Board, and the nature and operation of the Corporation's business include providing each new member with information concerning the role and responsibilities of a public company director, providing new members with a complete set of the Corporation's charters, policies, and procedures, and discussing with new members the Corporation's operations.

With respect to providing continuing education for its directors, the Board ensures that all directors are kept apprised of changes in the Corporation's operations and business, changes in the regulatory environment affecting the Corporation's day to day business both within Canada and within the foreign jurisdictions in which the Corporation does business, and changes in their roles as directors of a public corporation.

The Corporate Governance and Nominating Committee also considers orientation and continuing education for Board members and makes recommendations to the Board from time to time regarding same.

Code of Business Conduct and Ethics

The Board has adopted a Code of Conduct (the "**Code**") for its directors, officers, and employees. The Code includes provisions that require directors, officers, and employees to inform the Corporation's CEO or other appropriate person of any non-compliance with the Code.

The Board takes steps to ensure directors exercise independent judgment in considering transactions and agreements in respect of which a director or executive officer of the Corporation has a material interest, which include ensuring that directors and officers are thoroughly familiar with the Code and, in particular, the rules concerning reporting conflicts of interest and obtaining direction from the CEO or other appropriate person(s) regarding any potential conflicts of interest.

The Board encourages and promotes an overall culture of ethical business conduct by promoting compliance with applicable laws, rules, and regulations; providing guidance to employees, officers, and directors to help them recognize and deal with ethical issues; promoting a culture of open communication, honesty, and accountability; and ensuring awareness of disciplinary action for violations of ethical business conduct. In addition, the Board has implemented a disclosure policy and an insider trading policy.

Committees of Directors

The Board has three committees: an audit committee (the "**Audit Committee**"); a compensation committee (the "**Compensation Committee**"); and a corporate governance and nominating committee (the "**Corporate Governance and Nominating Committee**"). The Corporate Governance and Nominating Committee and the Compensation Committee are each comprised of a majority of independent directors. Information regarding the Audit Committee is provided in the Circular under the heading "Audit Committee Information".

Compensation

The Board, together with the Compensation Committee, determines appropriate compensation for the Corporation's directors and executive officers. The Compensation Committee is currently comprised of Messrs. Mandel (Committee Chair) and Cordiano, Dr. Brindle, and Maj. Gen. Pollock, a majority of whom are independent within the meaning of applicable securities laws. Following the Meeting, the Board intends to reconstitute the composition of the Compensation Committee. The Compensation Committee met four times since the date of the last annual and special meeting of the Corporation. The Compensation Committee's responsibilities include reviewing and making recommendations to the Board regarding overall compensation and benefits, equity and other compensation plans and the total compensation package of the CEO. The Compensation Committee also considers and approves the recommendations of the CEO regarding the total compensation packages of the CFO and the Chief Scientific Officer. The process by which appropriate compensation levels are determined by the Board is through periodic and annual reports from the Compensation Committee on the Corporation's overall compensation and benefits philosophies, which are established based, in part, on a review of peer group and biotechnology industry compensation data. The reports describe processes undertaken by the Compensation Committee to weight factors and target levels in determining executive compensation.

Nomination of Directors

The Board, together with the Corporate Governance and Nominating Committee, is responsible for identifying new candidates for nomination to the Board. The Corporate Governance and Nominating Committee currently consists of Mr. Cordiano (Committee Chair), Dr. Brindle, Hon. Caplan, and Maj. Gen. Pollock, each of whom are independent directors within the meaning of applicable securities laws. Following the Meeting, the Board intends to reconstitute the composition of the Corporate Governance and Nominating Committee. In carrying out its mandate, the Corporate Governance and Nominating Committee met four times since the date of the last annual and special meeting of the Corporation. The process by which the Board identifies new candidates is through recommendations of the Corporate Governance and Nominating Committee whose responsibility it is to establish procedures to identify new candidates based on corporate law and regulatory requirements as well as relevant education and experience related to the business of the Corporation.

The Corporate Governance and Nominating Committee's responsibilities include annually reviewing the charters of the Board and the Corporate Governance and Nominating Committee; assisting the Chair of the Board in carrying out his responsibilities; considering and, if thought fit, approving requests from directors or committee members for the engagement of special advisors from time to time; preparing and recommending to the Board a set of corporate governance guidelines, the Code and annually a statement of corporate governance practices to be included in the Corporation's management information circular; meeting with the Corporation's external corporate counsel to discuss the Corporation's corporate governance policies and practices; recommending procedures to permit the Board to meet on a regular basis without management present; assisting the Board by identifying individuals qualified to become Board members and members of Board committees; leading the Board in its annual review of the Board's performance; and assisting the Board in monitoring compliance by the Corporation with legal and regulatory requirements.

Board Assessments

The Board, its committees, and its individual directors are assessed on an annual basis, as to their effectiveness and contribution. The process by which such assessments are made is through questionnaires developed by the Board and the Corporate Governance and Nominating Committee, which are distributed to each director and/or committee member for review and completion each year. In addition, the Chair of each committee encourages discussion among the Board or the respective committee as to the evaluation of the Board's or committee's effectiveness over the course of the year. All directors and/or committee members are free to make suggestions for improvement of the practices of the Board and/or its committees at any time and are encouraged to do so.

The Corporate Governance and Nominating Committee is responsible for reviewing with the Board, on an annual basis, the requisite skills and characteristics of prospective Board members as well as the composition of the

Board as a whole. This assessment includes members' contribution, qualification as independent, as well as consideration of diversity, age, skills, and experience in the context of the needs of the Board.

APPENDIX E

AUDIT COMMITTEE CHARTER

GENERAL FUNCTIONS, AUTHORITY, AND ROLE

The purpose of the Audit Committee is to oversee the accounting and financial reporting processes of the Corporation and the audits of its financial statements, and thereby assist the Board in monitoring: (1) the integrity of the financial statements of the Corporation; (2) compliance by the Corporation with legal and regulatory requirements related to financial reporting; (3) the performance of the Corporation's independent auditors; and, (4) performance of the Corporation's internal controls and financial reporting process.

The Audit Committee has the power to conduct or authorize investigations into any matters within its scope of responsibilities, with full access to all books, records, facilities and personnel of the Corporation, its auditors and its legal advisors. In connection with such investigations or otherwise in the course of fulfilling its responsibilities under this charter, the Audit Committee has the authority to independently retain special legal, accounting, or other consultants to advise it, and may request any officer or employee of the Corporation, its independent legal counsel or independent auditor to attend a meeting of the Audit Committee or to meet with any members of, or consultants to, the Audit Committee. The Audit Committee has the power to create specific sub-committees with all of the power to conduct or authorize investigations into any matters within the scope of the mandate of the sub-committee, with full access to all books, records, facilities and personnel of the Corporation, its auditors and its legal advisors.

The Corporation's independent auditor is ultimately accountable to the Board of Directors and to the Audit Committee, who, as representatives of the Corporation's shareholders, have the ultimate authority and responsibility to evaluate the independent auditor, appoint and replace the independent auditor, and to determine appropriate compensation for the independent auditor. In the course of fulfilling its specific responsibilities hereunder, the Audit Committee must maintain free and open communication between the Corporation's independent auditors, Board of Directors and Corporation management. The responsibilities of a member of the Audit Committee are in addition to such member's duties as a member of the Board of Directors.

While the Audit Committee has the responsibilities and powers set forth in this charter, it is not the duty of the Audit Committee to plan or conduct audits or to determine that the Corporation's financial statements are complete, accurate, and in accordance with generally accepted accounting principles.

MEMBERSHIP

The membership of the Audit Committee will be as follows:

- The Committee shall consist of a minimum of three members of the Board of Directors, appointed annually, a majority of whom is affirmatively confirmed as independent by the Board of Directors, with such affirmation disclosed in the Corporation's annual Information Circular.
- The Board will elect, by a majority vote, one member as chairperson.
- The membership of the Audit Committee will meet all requirements of the TSX Venture and the requirements of such other securities exchange or quotations system or regulatory agency as may from time to time apply to the Corporation.

RESPONSIBILITIES

The responsibilities of the Audit Committee shall be as follows:

Frequency of Meetings

- Meet quarterly or more often as may be deemed necessary or appropriate in its judgment, either in person or telephonically.
- The Audit Committee will meet with the independent auditor at least annually, either in person or telephonically.

Reporting Responsibilities

- Provide to the Board of Directors proper Committee minutes.
- Report Committee actions to the Board of Directors with such recommendations as the Committee may deem appropriate.

Charter Evaluation

- Annually review and reassess the adequacy of this charter and recommend any proposed changes to the Board of Directors for approval.

Whistleblower Mechanism

- Adopt and review annually a procedure through which employees and others can inform the Audit Committee regarding any concerns about the Corporation's accounting, internal accounting controls or auditing matters. The procedure shall include responding to, and keeping of records of, any such complaints.

Legal Responsibilities

- Perform such functions as may be assigned by law, by the Corporation's certificate of incorporation, memorandum, articles or similar documents, or by the Board of Directors.

INDEPENDENT AUDITOR

Nominations

- Appoint annually the independent auditor to be proposed for shareholder approval.

Compensation and Evaluation

- Approve the compensation of the independent auditor, evaluate the performance of the independent auditor and, if so determined by the Committee, replace the independent auditor.

Engagement Procedures for Non-audit Services

- Establish policies and procedures for the engagement of the independent auditor to provide non-audit services.
- Ensure that the independent auditor is not engaged for any activities not allowed by any of the Canadian provincial securities commissions, the SEC or any securities exchange on which the Corporation's shares are traded.
- Inform management that the auditors are not to be engaged for any of the following nine types of non-audit services:
 - Bookkeeping or other services related to accounting records or financial statements of the Corporation;
 - Financial information systems design and implementation consulting services;
 - Appraisal or valuation services, fairness opinions, or contributions-in-kind reports;
 - Actuarial services;
 - Internal audit outsourcing services;
 - Any management or human resources function;
 - Broker, dealer, investment advisor, or investment banking services;
 - Legal services;
 - Expert services related to the auditing service; and
 - Any other service the Board of Directors determines is not permitted.

Hiring Practices

- Ensure that no individual who is, or in the past 3 years has been, affiliated with or employed by a present or former auditor of the Corporation or an affiliate, is hired by the Corporation as a senior officer until at least 3 years after the end of either the affiliation or the auditing relationship.

Independence Test

Take reasonable steps to confirm the independence of the independent auditor, which shall include:

- Ensuring receipt from the independent auditor of a formal written statement delineating all relationships between the independent auditor and the Corporation, consistent with the Independence Standards Board Standard No. 1 and related Canadian regulatory body standards;
- Considering and discussing with the independent auditor any relationships or services provided to the Corporation, including non-audit services, that may impact the objectivity and independence of the independent auditor; and
- As necessary, taking, or recommending that the Board of Directors take, appropriate action to oversee the independence of the independent auditor.

Audit Committee Meetings

- Notify the independent auditor of every Audit Committee meeting and permit the independent auditor to appear and speak at those meetings.
- At the request of the independent auditor, convene a meeting of the Audit Committee to consider matters the auditor believes should be brought to the attention of the directors or shareholders.
- Keep minutes of its meetings and report to the Board for approval of any actions taken or recommendations made.

Restrictions

- Confirm with management and the independent auditor that no restrictions are placed on the scope of the auditors' review and examination of the Corporation's accounts.

OTHER PROFESSIONAL CONSULTING SERVICES

Engagement Review

- As necessary, consider with management the rationale and selection criteria for engaging professional consulting services firms.
- Ultimate authority and responsibility to select, evaluate and approve professional consulting services engagements.

AUDIT AND REVIEW PROCESS AND RESULTS

Scope

- Consider, in consultation with the independent auditor, the audit scope and plan of the independent auditor.

Review Process and Results

- Consider and review with the independent auditor the matters required to be discussed by Statement on Auditing Standards No. 61, as the same may be modified or supplemented from time to time.
- Review and discuss with management and the independent auditor at the completion of the annual examination:
 - The Corporation's audited financial statements and related notes;
 - The Corporation's MD&A and news releases related to financial results;
 - The independent auditor's audit of the financial statements and its report thereon;
 - Any significant changes required in the independent auditor's audit plan;
 - The appropriateness of the presentation of any non-GAAP related financial information;
 - Any serious difficulties or disputes with management encountered during the course of the audit; and
 - Other matters related to the conduct of the audit, which are to be communicated to the Audit Committee under generally accepted auditing standards.
- Review the management letter delivered by the independent auditor in connection with the audit.
- Following such review and discussion, if so determined by the Committee, recommend to the Board that the annual financial statements be included in the Corporation's annual report.
- Review, discuss with management and approve annual and interim quarterly financial statements prior to public disclosure. The chairperson of the Audit Committee may represent the entire Audit Committee for purposes of this review.
- Review and discuss with management and the independent auditor the adequacy of the Corporation's internal accounting and financial controls that management and the Board of Directors have established and

the effectiveness of those systems, and inquire of management and the independent auditor about significant financial risks or exposures and the steps management has taken to minimize such risks to the Corporation.

- Meet separately with the independent auditor and management, as necessary or appropriate, to discuss any matters that the Audit Committee or any of these groups believe should be discussed privately with the Audit Committee.
- Review and discuss with management and the independent auditor the accounting policies which may be viewed as critical, including all alternative treatments for financial information within generally accepted accounting principles that have been discussed with management, and review and discuss any significant changes in the accounting policies of the Corporation and industry accounting and regulatory financial reporting proposals that may have a significant impact on the Corporation's financial reports.
- Review with management and the independent auditor the effect of regulatory and accounting initiatives as well as off-balance sheet structures, if any, on the Corporation's financial statements.
- Review with management and the independent auditor any correspondence with regulators or governmental agencies and any employee complaints or published reports which raise material issues regarding the Corporation's financial statements or accounting policies.
- Review with the Corporation's General Counsel legal matters that may have a material impact on the financial statements, the Corporation's financial compliance policies and any material reports or inquiries received from regulators or governmental agencies related to financial matters.

SECURITIES REGULATORY FILINGS

- Review filings with the Canadian provincial securities commissions and the SEC and other published documents containing the Corporation's financial statements.
- Review, with management and the independent auditor, prior to filing with regulatory bodies, the interim quarterly financial reports (including related notes and MD&A) at the completion of any review engagement or other examination. The chairperson of the Audit Committee may represent the entire Audit Committee for purposes of this review.

RISK ASSESSMENT

- Meet periodically with management to review the Corporation's major financial risk exposures and the steps management has taken to monitor and control such exposures.
- Assess risk areas and policies to manage risk including, without limitation, environmental risk, insurance coverage and other areas as determined by the Board of Directors from time to time.
- Review and discuss with management, and approve changes to, the Corporation's Corporate Treasury Policy.