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**NATIONAL INSTRUMENT 55-102
SYSTEM FOR ELECTRONIC DISCLOSURE BY INSIDERS (SEDI)**

PART 1 - DEFINITIONS AND INTERPRETATION

1.1 Definitions - In this Instrument

“access key” means an alpha-numeric code issued by SEDI or the SEDI operator in respect of an insider that files an insider profile in SEDI format or in respect of a SEDI issuer that files an issuer profile supplement in SEDI format;

“class” includes a series of a class;

“filing agent” means a person or company that is authorized by a SEDI filer to make a SEDI filing on behalf of the SEDI filer;

“insider profile” means the information that is required under Form 55-102F1; “insider report” means a report required to be filed under the insider reporting requirement;

“issuer event” means a stock dividend, stock split, consolidation, amalgamation, reorganization, merger or other similar event that affects all holdings of a class of securities of an issuer in the same manner, on a per share basis;

“issuer event report” means the information that is required under Form 55-102F4;)

“issuer profile supplement” means the information that is required under Form 55-102F3;

“paper format” means information printed on paper;

“SEDI” means the online computer system providing for the transmission, receipt, review and dissemination of insider reports and related information filed electronically, which is known as the System for Electronic Disclosure by Insiders;

“SEDI filer” means a person or company that is required to make a SEDI filing in accordance with this Instrument;

“SEDI filing” means information that is filed under securities legislation or securities directions in SEDI format, or the act of filing information under securities legislation or securities directions in SEDI format, as the context indicates;

“SEDI format” means information entered electronically in SEDI using the SEDI software application located at the SEDI web site;

“SEDI issuer” means a reporting issuer, other than a mutual fund, that is required to comply with National Instrument 13-103 *System for Electronic Data Analysis and Retrieval + (SEDAR+)*;

“SEDI operator” means the ALBERTA SECURITIES COMMISSION or a successor appointed by the securities regulatory authority to operate SEDI;

“SEDI software application” means the software on the SEDI web site that provides SEDI users with the functionality to make SEDI filings;

“SEDI user” means an individual who has registered in accordance with subsection 2.5(2);

“SEDI web site” means the web site maintained by the SEDI operator for the filing of information in SEDI format;

“transfer report” means

- (a) in Alberta, Saskatchewan, Ontario, New Brunswick, Northwest Territories, Nova Scotia, Prince Edward Island, Newfoundland, Nunavut or Yukon, a report required to be filed by an insider of a reporting issuer under securities legislation if the insider transfers securities of the reporting issuer into the name of an agent, nominee or custodian; or
- (b) in Quebec, a report required to be filed by an insider of a reporting issuer under securities legislation if the insider registers or causes to be registered any security of the reporting issuer in the name of a third person;

“user registration form” means the information that is required under Form 55-102F5.

PART 2 - SEDI FILING REQUIREMENTS

2.1 Filing of Insider Profile

- (1) An insider of a SEDI issuer shall file an insider profile or an amended insider profile in SEDI format before the insider files an insider report in SEDI format in respect of that SEDI issuer.
- (2) An insider profile shall contain the information required under Form 55-102F1.
- (3) An insider that has filed an insider profile under subsection (1) shall file an amended insider profile in SEDI format containing the information required under Form 55-102F1

- (a) if there is a change in the insider's name or the insider's relationship to any SEDI issuer disclosed in the insider's most recently filed insider profile, or if the insider ceases to be an insider of any such SEDI issuer, within 10 days after the occurrence of the event, or
 - (b) if there has been any other change in the information disclosed in the insider's most recently filed insider profile, at the time that the insider next files an amended insider profile or an insider report in SEDI format.
- (4) An insider that is required to file an insider profile in SEDI format shall not file more than one insider profile.

2.2 Filing of Insider Reports in SEDI Format

- (1) An insider of a SEDI issuer that is required by securities legislation to file an insider report in that capacity shall file the insider report in SEDI format through a SEDI user.
- (2) For greater certainty, a SEDI user under subsection (1) includes the insider if that insider becomes registered as a SEDI user on or before the time that the insider report is due to be filed.
- (3) An insider report that is filed in SEDI format shall contain the information required under Form 55-102F2.

2.3 Filing of Issuer Profile Supplement

- (1) A SEDI issuer shall file an issuer profile supplement in SEDI format within three business days after the date that it becomes a SEDI issuer.
- (2) An issuer profile supplement that is required to be filed under subsection (1) shall contain the information required under Form 55-102F3.
- (3) A SEDI issuer shall file an amended issuer profile supplement in SEDI format immediately if
 - (a) the SEDI issuer issues any security or class of securities to any insider of the SEDI issuer, unless that issuance has already been disclosed in its issuer profile supplement;
 - (b) there is any change in the designation of any security or class of securities of the SEDI issuer disclosed or required to be disclosed in its issuer profile supplement;
 - (c) any security or class of securities of the SEDI issuer disclosed or required to be disclosed in its issuer profile supplement has ceased to be outstanding and is not subject to issuance at a future date; or
 - (d) there is any other change in the information disclosed or required to be disclosed in its issuer profile supplement.

2.4 Filing of Issuer Event Report

- (1) A SEDI issuer shall file an issuer event report in SEDI format no later than one business day following the occurrence of an issuer event.
- (2) An issuer event report that is required to be filed under subsection (1) shall contain the information required under Form 55-102F4.

2.5 SEDI Users

- (1) An individual who is a SEDI filer, a filing agent, or an authorized representative of a SEDI filer or filing agent, may use SEDI for the purpose of making SEDI filings.
- (2) Before using SEDI to make SEDI filings, an individual referred to in subsection (1) shall register as a SEDI user by
 - (a) completing and submitting a user registration form in SEDI format; and
 - (b) delivering a copy of the completed user registration form in paper format to the SEDI operator for verification by the SEDI operator.
- (3) A user registration form under subsection (2) shall contain the information required under Form 55-102F5 and the paper format copy of the user registration form under paragraph (2)(b) shall contain the manual or facsimile signature of the individual being registered.
- (4) The paper format copy of the user registration form referred to in paragraph (2)(b) shall be delivered to the SEDI operator by prepaid mail, personal delivery or facsimile at the address or facsimile number indicated on the printed copy of Form 55-102F5, as applicable.

PART 3 - FILING OF REPORTS IN PAPER FORMAT

3.1 Filing of Insider Reports in Paper Format

- (1) An insider report that is not required to be filed in SEDI format under this Instrument shall be filed in paper format.
- (2) An insider report that is required to be filed in paper format shall be prepared in accordance with Form 55-102F6, subject to any provision of securities legislation that permits the use of an alternative form of report in the particular circumstances.
- (3) An insider report that is prepared in accordance with Form 55-102F6 shall be manually signed and shall be filed either
 - (a) by prepaid mail or personal delivery to the address of the securities regulatory authority set forth on Form 55-102F6; or

- (b) by facsimile to the facsimile number of the securities regulatory authority set forth on Form 55-102F6.

3.2 Filing of Transfer Reports in Paper Format

- (1) In Alberta, Saskatchewan, Ontario, New Brunswick, Northwest Territories, Quebec, Nova Scotia, Prince Edward Island, Newfoundland, Nunavut or Yukon, a transfer report shall be filed in paper format and shall be prepared in accordance with Form 55-102F6.
- (2) A transfer report that is prepared in accordance with Form 55-102F6 shall be manually signed and shall be filed either
 - (a) by prepaid mail or personal delivery to the address of the securities regulatory authority set forth on Form 55-102F6; or
 - (b) by facsimile to the facsimile number of the securities regulatory authority set forth on Form 55-102F6.

PART 4 - SEDI FILING EXEMPTION

4.1 Temporary Hardship Exemption

- (1) If unanticipated technical difficulties or failure by a SEDI issuer to file its issuer profile supplement prevent the timely submission of an insider report in SEDI format, a SEDI filer shall file the insider report in paper format as soon as practicable and in any event no later than two business days after the day on which the insider report was required to be filed.
- (2) An insider report filed in paper format under subsection (1) shall be prepared in accordance with Form 55-102F6 and shall include the following legend in capital letters at the top of the front page:

IN ACCORDANCE WITH SECTION 4.1 OF NATIONAL INSTRUMENT 55-102 SYSTEM FOR ELECTRONIC DISCLOSURE BY INSIDERS (SEDI), THIS INSIDER REPORT IS BEING FILED IN PAPER FORMAT UNDER A TEMPORARY HARDSHIP EXEMPTION.
- (3) The requirements of securities legislation relating to paper format filings of insider reports apply to a filing under subsection (1) except that signatures to the paper format document may be in typed form rather than manual format and an agent may sign the paper format document on behalf of an insider who is an individual without filing a completed power of attorney.
- (4) If an insider report is filed in paper format in the manner and within the time prescribed in this section, the date by which the information is required to be filed under securities legislation is extended to the date on which the filing is made in paper format.

- (5) If a SEDI filer makes a paper format filing under this section, the SEDI filer shall file the insider report in SEDI format as soon as practicable after the unanticipated technical difficulties have been resolved or the insider has become aware that the SEDI issuer has filed its issuer profile supplement, whichever is applicable.
- (6) Despite sub-section 2.1(3) and sections 2.3 and 2.4, if unanticipated technical difficulties prevent a SEDI filer from filing an issuer profile supplement, an amended issuer profile supplement, an issuer event report or an amended insider profile within the specified time, the SEDI filer shall file such document as soon as practicable after the unanticipated technical difficulties have been resolved.

PART 5 PREPARATION AND TRANSMISSION OF SEDI FILINGS

5.1 Manner of Effecting SEDI Filings

A SEDI filing shall be prepared and transmitted using the SEDI software application located at the SEDI web site.

5.2 Authentication and Access Key

When information is filed in SEDI format, the identity of the SEDI filer or the authority of the filing agent shall 1.1 be authenticated by

- (a) the use of the SEDI filer's username and password by the SEDI filer;
- (b) the use of the SEDI filer's access key by the filing agent; or
- (c) the use of the SEDI filer's username and password and SEDI filer's access key by the SEDI filer when first linking to the insider profile created by a filing agent.

5.3 Format of Information and Number of Copies

A requirement in securities legislation relating to the format in which a report or other information to be filed must be printed or specifying the number of copies of a report or other information that must be filed does not apply to a SEDI filing made in accordance with this Instrument.

PART 6 EXEMPTION

6.1 Exemption

- (1) The regulator or the securities regulatory authority may grant an exemption from this Instrument, in whole or in part, subject to such conditions or restrictions as may be imposed in the exemption.
- (2) Despite subsection (1), in Ontario only the regulator may grant such an exemption.

PART 7 TRANSITION TO ELECTRONIC FILING

7.1 SEDI Issuers

An issuer that is a SEDI issuer on October 29, 2001 shall file an issuer profile supplement in SEDI format within five business days after that date.

7.2 Transactions Before Effective Date

If, at any time on or after November 13, 2001, an insider of a SEDI issuer is filing an insider report, including an amended insider report, in respect of a relationship to, or a transaction in securities of, the SEDI issuer which arose or occurred prior to that date, the insider shall file the insider report in SEDI format.

PART 8 EFFECTIVE DATE

8.1 Effective Date

- (1) Except for sections 2.1, 2.2, 2.4, 3.1 and 3.2, this Instrument comes into force on October 29, 2001.
- (2) Sections 2.1, 2.2, 2.4, 3.1 and 3.2 come into force on November 13, 2001.

PART 9 FILING OF ISSUER PROFILE SUPPLEMENT

9.1 Filing of Issuer Profile Supplement

- (1) A SEDI issuer that filed an issuer profile supplement in SEDI format on or before January 31, 2002 shall file a new and current issuer profile supplement in SEDI format not later than the date specified by the regulator under subsection (2).
- (2) For the purposes of subsection (1), the regulator may specify a period and that period must
 - (a) begin no earlier than the date that the notice is published under subsection (3), and
 - (b) be at least 18 days in length.
- (3) After specifying a period under subsection (2), the regulator shall
 - (a) publish a notice specifying the date the period ends and the filing requirement under subsection (1), and
 - (b) issue a press release summarizing the notice given under paragraph (a).

FORM 55-102F1

Insider Profile

An insider profile filed in SEDI format shall contain the information prescribed below. The information shall be entered using the online version of this form accessible by SEDI users at the SEDI web site (www.sedi.ca). All references to web pages, fields and lists relate to the online version of the form.

If the insider is an individual, start entering information on the web page titled "Create insider profile (Form 55-102F1) - Enter individual information". If the individual insider has submitted a SEDI user registration form, select "Copy your user registration information" to avoid re-entering the insider's personal information. If the insider is not an individual, select "Enter company information" and start entering information on the web page titled "Create insider profile (Form 55-102F1) - Enter company information".

Insider's full legal name

Provide the full legal name of the insider. Use upper and lower case letters as applicable. Do not use initials, nicknames or abbreviations. If the insider is an individual, complete the "Insider family name" and the "Insider given names" fields. If the insider is not an individual, provide the full legal name of the insider in the "Insider company name" field.

Name of insider representative (if applicable)

If the insider is not an individual, provide the full legal name of an individual representative of the insider using the "Family name" and "Given names" fields. Use upper and lower case letters as applicable. Do not use initials, nicknames or abbreviations.

Insider's address

If the insider is an individual, provide the insider's principal residential address. Otherwise, provide the business address where the insider's representative (provided in item 2 above) is employed. In either case, select or provide the country and provide the address (street name and number, etc.), the municipality (city, town, etc.), province, territory or state and postal or zip code, as applicable. A post office box or similar mailing address is not acceptable.

Insider's telephone number

Provide a daytime telephone number for the insider (if the insider is an individual) or for the insider's representative (if the insider is not an individual).

Insider's fax number (if applicable)

If available, provide a fax number for the insider (if the insider is an individual) or for the insider's representative (if the insider is not an individual).

Insider's e-mail address (if applicable)

If available, provide an e-mail address for the insider (if the insider is an individual) or for the insider's representative (if the insider is not an individual).

Correspondence in English or French

If the insider is an individual resident in Quebec, the insider may choose to receive any correspondence from the Quebec securities regulatory authority in English. If no choice is made, any correspondence from the Quebec securities regulatory authority shall be in French. If the insider is a person or company other than an individual and is resident in Quebec, any correspondence from the Quebec securities regulatory authority shall be in French.

If the insider is resident in Manitoba or Ontario, the insider may choose to receive any correspondence from the local securities regulatory authority in French. If no choice is made, any correspondence from the local securities regulatory authority shall be in English.

If the insider is resident in New Brunswick, the insider may choose to receive any correspondence from the New Brunswick securities regulatory authority in French or English.

Confidential question and answer

Provide a "confidential question" and an answer to the confidential question for use in verifying the identity of the insider or the insider's representative if a request is being made to the SEDI operator for a new insider access key. Keep a record of the confidential question and answer in a secure location.

Add name(s) of reporting issuer(s)

Add the name of each reporting issuer in respect of which the insider is required to file an insider report in SEDI format. Search for and select each reporting issuer to be added from a database of all SEDI issuers provided for this purpose. Use the reporting issuer's SEDAR+ number or its legal name (in English or French) to conduct your search. Make sure you select the correct reporting issuer before you proceed further. If you are unable to find the reporting issuer that you are searching for, contact the reporting issuer or the SEDI operator for assistance. Note that the reporting issuer will not appear in your search results unless the reporting issuer has created an issuer profile in SEDAR+ and filed an issuer profile supplement in SEDI.

If the insider has ceased to be an insider of a reporting issuer added previously to the insider profile, see item 12 below.

Insider's relationship to reporting issuer

For each reporting issuer added under item 9 above, disclose all of the insider's relationships to that reporting issuer by selecting from the list of relationship types provided.

Date the insider became an insider or date of opening balance

For each reporting issuer added under item 9 above, if the insider has not filed an insider report in respect of the reporting issuer since becoming an insider, provide the date on which the insider became an insider of the reporting issuer. Otherwise, provide an opening balance date. This opening balance date will be used as the date for all opening balances of securities of this reporting issuer. The opening balance date should be a date prior to the date of any transactions that will be reported for this reporting issuer in SEDI.

Date the insider ceased to be an insider

If the insider has ceased to be an insider of a reporting issuer added previously to the insider profile, amend the insider profile by providing the date on which the insider ceased to be an insider of the reporting issuer in the fields provided for this purpose on the web page titled "Amend insider profile - Amend issuer information."

Optional Information

An insider profile filed in SEDI format may, at the option of the insider, contain the following additional information:

Additional contact information

For each reporting issuer added to the insider profile, the insider may provide another address at which the insider prefers to be contacted (such as a business address) or may provide contact information for another individual who is to be contacted by the securities regulatory authority instead of the insider. To provide additional contact information, check the applicable box under "Optional information" on the web page titled "Create insider profile - Enter information about the insider's relationship to the issuer".

Add name(s) of registered holder(s) of securities

If the insider is required to file an insider report in respect of securities owned indirectly or over which control or direction is exercised, the insider must provide the name of the registered holder of the securities at the time the insider report is filed. To assist the insider in complying with this requirement, for each reporting issuer added to the insider's profile the insider may add the name(s) of the registered holder(s) of securities of the reporting issuer that the insider is required to provide in an insider report.

To add the name(s) of the registered holder(s) for the reporting issuer, check the applicable box under "Optional information" on the web page titled "Create insider profile - Enter information about the insider's relationship to the issuer". Any name added to the insider's profile in this manner may be selected when an insider report is prepared in SEDI format and registered holder information is required. The full legal name of the registered holder must be provided in each case.

Securities beneficially owned directly but held through a nominee such as a broker or book-based depository are considered direct holdings.

Amending Insider Profile To Add a Reporting Issuer

If an insider that has previously filed an insider profile is required to file an insider report in SEDI format in respect of a reporting issuer that is not already disclosed in the insider profile, amend the insider profile to add the name of the reporting issuer, to disclose all of the insider's relationships to the reporting issuer and to provide the date the insider became an insider or the date of the previous paper filing, as applicable. Provide the information required in items 9, 10 and 11 above.

Certification

Prior to submitting an insider profile, the insider or the insider's agent must certify that the information is true and complete in every respect by selecting "Certify" on the web page titled "Create insider profile - Certify and file insider profile" and following the instructions provided for this purpose. In the case of an agent, the certification is based on the agent's best knowledge, information and belief but the insider is still responsible for ensuring that the information filed by the agent is true and complete. It is an offence to submit information that, in a material respect and at the time and in the light of the circumstances in which it is submitted, is misleading or untrue.

Notice – Collection and Use of Personal Information

The personal information required under this form is collected on behalf of and used by the securities regulatory authorities set out below for purposes of the administration and enforcement of certain provisions of the securities legislation in British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, Northwest Territories, Quebec, New Brunswick, Nova Scotia, Prince Edward Island and Newfoundland and Yukon. Some of the required information will be made public pursuant to the securities legislation in each of the jurisdictions indicated above. Other required information will remain confidential and will not be disclosed to any person or company except to any of the securities regulatory authorities or their authorized representatives. If you have any questions about the collection and use of this information, you may contact the securities regulatory authority in any jurisdiction(s) in which the required information is filed, at the address(es) or telephone number(s) set out below. In Quebec, questions may also be addressed to the Commission d'accès à l'information du Québec (1-888-528-7741, web site: www.cai.gouv.qc.ca).

Alberta Securities Commission
Suite 600, 250-5th Street S.W.,
Calgary, Alberta T2P 0R4
Attention: Information Officer
Telephone: (403) 297-6454

British Columbia Securities Commission
P.O. Box 10142, Pacific Centre
701 West Georgia Street
Vancouver, BC V7Y 1L2
Attention: Supervisor, Insider Reporting
Telephone: (604) 899-6500 or (800) 373-6393 (in BC)

The Manitoba Securities Commission
500-400 St. Mary Avenue,
Winnipeg, Manitoba, R3C 4K5
Telephone: (204) 945-0605

Securities Commission of Newfoundland
P.O. Box 8700
2nd Floor, West Block
Confederation Building
St. John's, NFLD A1B 4J6
Attention: Director of Securities
Telephone: (709) 729-4189

Nova Scotia Securities Commission
2nd Floor, Joseph Howe Building
1690 Hollis Street
P.O. Box 458
Halifax, NS B3J 3J9
Attention: FOI Officer
Telephone: (902) 424-7768

Ontario Securities Commission
Suite 1903, Box 55
20 Queen Street West
Toronto, ON M5H 3S8
Attention: FOI Coordinator
Telephone: (416) 593-8314

Autorité des
marchés financiers
Stock Exchange Tower
P.O. Box 246, 22nd Floor
800 Victoria Square
Montréal, PQ H4Z 1G3
Attention: Responsable de l'accès à
l'information
Telephone: (514) 940-2150 or (800) 361-5072 (in
Quebec)

Financial and Consumer Services Commission
85 Charlotte Street, Suite 300
Saint John, NB E2L 2J2
Attention: Corporate Finance Officer
Telephone: (506) 658-3060
Toll Free: 1-866-933-2222 (within NB)

Superintendent of Securities
Department of Justice
Government of the Northwest Territories
1st Floor, Stuart M. Hogson Building
5009-49th Street
P.O. Box 1320
Yellowknife, Northwest Territories, X1A 2L9
Attention: Deputy Superintendent of Securities
Tel: (867) 920-3318

Government of Nunavut
Office of Superintendent of Securities
P.O. Box 100, Station 570
1st Floor, Brown Building
Iqaluit, Nunavut XOA OHO
Contact person: Superintendent of Securities
Tel: (867) 975-6590
Fax: (867) 975-6595
Email: securities@gov.nu.ca

Superintendent of Securities
Government of Prince Edward Island
4th Floor, Shaw Building
95 Rochford Street
P.O. Box 2000
Charlottetown PE C1A 7N8
Tel: (902) 368-4550

Saskatchewan Financial Services Commission,
Securities Division
6th Floor, 1919 Saskatchewan Drive
Regina, SK S4P 3V7
Attention: Director
Telephone: (306) 787-5645

Yukon Securities Office
Government of Yukon
3rd Floor – 2130 Second Avenue
Whitehorse, Yukon
Y1A 2C6 (C-6)
Attention: Superintendent of Securities
Tel:(867) 667-5505

FORM 55-102F2

Insider Report

An insider report filed in SEDI format shall contain the information prescribed below. The information shall be entered using the online version of this form accessible by SEDI users at the SEDI web site (www.sedi.ca). All references to web pages, fields and lists relate to the online version of the form.

If a position or transaction being reported by the insider involves an option, warrant, right or other derivative, the information prescribed by items 18 to 25 below must be included in the insider report, if applicable.

For each reporting issuer in respect of which one or more positions or transactions are being reported by an insider, start by navigating to the web page titled "File insider report (Form 55-102 F2) – Select issuer" and then provide the information required in the circumstances.

1. Name of reporting issuer

Provide the name of the reporting issuer for the securities that are the subject of the insider report by selecting the reporting issuer's name from the list of one or more reporting issuer names added previously to the insider's profile. If the name of the applicable reporting issuer does not appear in the list, the insider's profile must be amended to add the name of the applicable reporting issuer before the insider report can be completed. A separate insider report must be completed for each reporting issuer in respect of which the insider has a reporting obligation.

Amended insider report

If the insider is amending information contained in an insider report filed previously in SEDI format, the amended insider report shall contain all of the information required to be disclosed in the previous insider report in its amended form.

If the insider is amending information contained in an insider report filed previously in paper format, select "Amend paper filing" on the "Amend insider transaction" web page and complete a new insider report in SEDI format containing all of the information required to be disclosed in the previous paper filing in its amended form. In the "General remarks" field on the "File insider report - Enter transaction information" web page, provide the date on which the previous paper filing was made.

Review issuer information

Review the information contained in the insider profile with respect to the selected reporting issuer to ensure that the information is correct. To do this, click on "Insider profile" in the top bar and the "Introduction to insider profile activities (Form 55-102F1)" screen will appear.

You must review the information in the insider profile with respect to the selected reporting issuer and, if the information is not correct, you must amend it by filing an

amended insider profile. To do this, click on "Amend insider profile" in the bar on the left side and make the necessary corrections.

4. Review new issuer event reports

If the reporting issuer has filed an issuer event report that has not previously been viewed or that has been previously flagged for further viewing, you must review the issuer event report.

To do this you must do the following: i) After you have selected an issuer and before selecting the "File insider report" feature, on the screen entitled "File insider report (Form 55-102F2) – Select issuer", click on the feature entitled "View issuer event reports" and the "Listing of issuer event reports" screen appears. ii) Next, click on the radio button for the report you wish to see and then select "View Report" and the "View issuer report information" screen appears with the text of the issuer event report.

If the insider's holdings of securities of the reporting issuer have been affected by an issuer event, the change in holdings must be reported.

Security designation

For each position or transaction being reported, provide the security designation for the applicable security or class of securities. For this purpose, select the applicable security designation from the list shown for the reporting issuer's outstanding securities.

If the applicable security designation does not appear in the list, check the "archived security designation" list containing designations of securities of the reporting issuer that are no longer outstanding and that may no longer be issued. Alternatively, check the "Insider defined security" list that will contain one or more security designations for the reporting issuer if any have been defined previously by or for the insider. In either case, if the applicable securities designation appears in the list, select it.

If the applicable security designation does not appear in any of the lists described above, the insider must define the applicable security designation. For this purpose, select the appropriate "Security category" by choosing "Debt", "Equity", "Issuer Derivative" or "Third Party Derivative" from the list provided. For purposes of the insider reporting requirement, "issuer derivative" means a derivative issued by the reporting issuer to which the insider reporting requirement relates and "third party derivative" means a derivative issued by a person or company other than the reporting issuer to which the insider reporting requirement relates. The security category selected will determine the nature of the information that is required to be reported in relation to positions or transactions involving the applicable security designation.

Next, create the "insider defined" security designation by selecting the most appropriate "Security name" from the list provided and, if applicable, use the "Additional description" field to enter any additional words used to describe the specific security or class of securities. For example, to provide the security designation of "Class A Preferred Shares, Series 1", select "Preferred Shares" from the "Security name" list and then type "Class A, Series 1" in the "Additional description" field.

Important Note: If the security or class of securities being designated is a security that has been issued by the reporting issuer, it is important to try to avoid creating an "insider defined" security designation. If a security designation has not been created by the reporting issuer in respect of a security or class of securities issued by the reporting issuer, contact the reporting issuer to request that the security designation be added to the list of security designations for the reporting issuer's outstanding securities in its issuer profile supplement. However, you must create an "insider defined" security designation if this becomes necessary to ensure that the insider report is filed on a timely basis.

Derivatives: If the security or class of securities being designated is an issuer derivative or a third party derivative, provide the security designation for the derivative and the security designation for the underlying security. See item 18 below. In addition, if the security or class of securities being designated is a third party derivative, the insider will have to provide the applicable security designation in all cases.

Ownership type

Indicate whether the securities in respect of which a position or transaction is being reported are (1) beneficially owned directly, (2) beneficially owned indirectly or (3)

controlled or directed. Securities beneficially owned directly but held through a nominee such as a broker or book-based depository are considered direct holdings.

Identity of registered holder of securities where ownership is indirect or where control or direction is exercised

If beneficial ownership of the securities is indirect or if control or direction is exercised over the securities, provide the name of the registered holder of the securities. If the name of the registered holder has been previously added to the insider's profile in respect of the reporting issuer, select the name of the registered holder from the list shown. Otherwise, enter the full legal name of the registered holder in the field provided.

Opening balance of securities held (initial SEDI report only)

If the insider is filing an initial report in respect of securities held on becoming an insider or is reporting a change in a security or class of securities previously reported only in paper format, for each security or class of securities held directly or by a particular registered holder, disclose the initial number or amount of securities so held in the field provided for this purpose on the web page titled "File insider report - Opening balance on initial SEDI report (Non-Derivatives)", or the corresponding web page for derivatives, as applicable. For debt securities, provide the aggregate nominal value of the securities held.

If an opening balance of securities held is required to be disclosed, the information with respect to the "date of transaction" and "nature of transaction" required under items 9 and 10 below will be generated by the SEDI software application. The "Opening/initial balance date" will be the date the insider became an insider or the date the insider entered for all opening balances for securities of this issuer.

If the insider has previously filed a report in SEDI disclosing the balance of the security or class of securities held directly or by a particular registered holder, the opening balance of the security or class of securities so held is generated by the SEDI software application based on all previous reports filed in respect of the particular holding.

If an initial SEDI report involves the holding of a derivative, see item 19 below.

Date of transaction

Provide the date of each transaction being reported using the fields provided for this purpose. Provide the "trade date" not the "settlement date".

Nature of transaction

Indicate the nature of each transaction being reported by selecting the most appropriate transaction type from the list provided for this purpose.

Number or value of securities acquired

Disclose the number or value of securities acquired for each transaction involving an acquisition of securities. For debt securities, provide the aggregate nominal value. If

the transaction involved the acquisition of an option, warrant, right or other derivative, see items 21 and 22 below.

Number or value of securities disposed of

Disclose the number or value of securities disposed of for each transaction involving a disposition of securities. For debt securities, provide the aggregate nominal value. If the transaction involved the disposition of an option, warrant, right or other derivative, see items 21 and 22 below.

Unit price or exercise price

Disclose the price per security paid or received by the insider for each transaction being reported, if applicable. Do not reduce the price being reported to reflect the amount of any commission paid. If the insider acquired or disposed of a security upon the exercise of an option, warrant, right or other derivative, report the exercise price per security. If the insider acquired or disposed of an option, warrant, right or other derivative, see item 23 below.

If the transaction involved consideration other than cash, provide the approximate fair value of the consideration in Canadian dollars and describe the consideration in the "General remarks" field. If no consideration was paid or received by the insider, check "Not applicable".

Currency

If the price paid or received in any transaction was in a currency other than Canadian dollars, provide the amount in that other currency and select the other currency from the list provided for this purpose.

Closing balance of securities held

After each new transaction being reported in respect of a security or class of securities held directly or through a particular registered holder has been entered, a new balance of the security or class of securities held directly or by the particular registered holder will be generated automatically by SEDI prior to filing. If the insider believes that the closing balance reported by SEDI is not correct, the closing balance calculated by the insider must be reported in the field provided for this purpose. The insider shall make all reasonable efforts to reconcile the balance calculated by SEDI with the balance believed by the insider to be correct. An incorrect balance may have resulted from an error in a previous insider report or from a failure to report a previous transaction.

General remarks

Provide additional information if necessary to provide an accurate description of each position and/or transaction in securities being reported. Information provided in this field will be accessible by the public.

Private remarks to securities regulatory authority

Using the field provided, the insider may disclose additional information with respect to the position or transaction being reported to staff of the securities regulatory authority. Information provided in this field will not be accessible by the public.

Holdings or Transactions Involving Derivatives

If a holding or transaction being reported by the insider involves an issuer derivative or a third party derivative, the additional information prescribed below shall be disclosed, if applicable. For this purpose, "issuer derivative" means a derivative issued by the reporting issuer to which the insider reporting requirement relates, and "third party derivative" means a derivative issued by a person or company other than the reporting issuer to which the insider reporting requirement relates.

Security designation of derivative and underlying security

Provide the security designation for the derivative in the manner described under item 5 above. Next, select the appropriate security category for the underlying security from the list provided and then provide the security designation for the underlying security in a similar manner to that described under item 5 above. If the security or class of securities being designated is a third party derivative, the insider will have to define the applicable security designation in all cases. If the derivative security has been defined by the insider, the underlying security must also be defined by the insider.

Opening balance of derivative securities or contracts held (initial SEDI report only)

If the insider is filing an initial report disclosing an option, warrant, right or other derivative held on becoming an insider or is reporting a change in such a derivative not previously reported in SEDI format, for each such derivative position so held directly or by a particular registered holder, disclose the initial number of derivative securities or contracts held in the field provided for this purpose.

Opening balance of equivalent number of underlying securities (initial SEDI report only)

If the insider is filing an initial report of an option, warrant, right or other derivative held on becoming an insider or is reporting a change in any such derivative not previously reported in SEDI format, for each such derivative position held directly or by a particular registered holder, disclose the actual or notional number or amount of underlying securities that may be acquired or disposed of upon exercise or settlement of such derivative. If the underlying securities are debt securities, provide the aggregate nominal value of the actual or notional amount of underlying debt securities that may be acquired or disposed of upon exercise or settlement of such derivative.

Number of derivative securities or contracts acquired or disposed of

Disclose the number of derivative securities or contracts acquired for each transaction involving an acquisition of a derivative or the number of derivative securities or contracts disposed of for each transaction involving a disposition of a derivative.

Equivalent number of underlying securities acquired or disposed of

For each transaction involving an acquisition or disposition of a derivative, disclose the actual or notional number or amount of underlying securities that may be acquired or disposed of upon exercise or settlement of the derivative. If the underlying securities are debt securities, provide the aggregate nominal value of the equivalent amount of underlying debt securities that may be acquired or disposed of upon exercise or settlement of the derivative.

Unit price of derivative

Disclose the premium or other amount paid or received by the insider in connection with the acquisition or disposition of the derivative (per contract if applicable). If the premium or other amount paid or received was in a currency other than Canadian dollars, provide the amount in that other currency and select the other currency from the list provided for this purpose.

Conversion or exercise price of derivative

Provide the conversion or exercise price of the derivative by entering the amount in the field provided for this purpose (per underlying security if applicable). If the conversion or exercise price is in a currency other than Canadian dollars, select the relevant currency from the list provided for this purpose. If the conversion or exercise price of the derivative will adjust on one or more specified dates, provide the details of the adjustment terms in the "General remarks" field.

Date of expiry or maturity of derivative

If the derivative expires or matures on a given date, specify the date of expiry or maturity using the fields provided for this purpose.

Certification

Prior to filing an insider report, the insider or the insider's agent must certify that the information is true and complete in every respect. In the case of an agent, the certification is based on the agent's best knowledge, information and belief but the insider is still responsible for ensuring that the information filed by the agent is true and complete. It is an offence to submit information that, in a material respect and at the time and in the light of the circumstances in which it is submitted, is misleading or untrue.

Notice – Collection and Use of Personal Information

The personal information required under this form is collected on behalf of and used by the securities regulatory authorities set out below for purposes of the administration and

enforcement of certain provisions of the securities legislation in British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, Northwest Territories, Quebec, New Brunswick, Nova Scotia, Prince Edward Island, Newfoundland and Yukon. Some of the required information will be made public pursuant to the securities legislation in each of the jurisdictions indicated above. Other required information will remain confidential and will not be disclosed to any person or company except to any of the securities regulatory authorities or their authorized representatives. If you have any questions about the collection and use of this information, you may contact the securities regulatory authority in any jurisdiction(s) in which the required information is filed, at the address(es) or telephone number(s) set out below. In Quebec, questions may also be addressed to the Commission d'accès à l'information du Québec (1-888-528-7741, web site: www.cai.gouv.qc.ca).

Alberta Securities Commission
Suite 600, 250-5th Street S.W.,
Calgary, Alberta T2P 0R4
Attention: Information Officer
Telephone: (403) 297-6454

British Columbia Securities Commission
P.O. Box 10142, Pacific Centre
701 West Georgia Street
Vancouver, BC V7Y 1L2
Attention: Supervisor, Insider Reporting
Telephone: (604) 899-6500 or (800) 373-6393 (in BC)

The Manitoba Securities Commission
500-400 St. Mary Avenue,
Winnipeg, Manitoba, R3C 4K5
Telephone: (204) 945-0605

Financial and Consumer Services Commission
85 Charlotte Street, Suite 300
Saint John, NB E2L 2J2
Attention: Corporate Finance Officer
Telephone: (506) 658-3060
Toll Free: 1-866-933-2222 (within NB)

Securities Commission of Newfoundland
P.O. Box 8700
2nd Floor, West Block
Confederation Building
St. John's, NFLD A1B 4J6
Attention: Director of Securities
Telephone: (709) 729-4189

Superintendent of Securities
Department of Justice
Government of the Northwest Territories
1st Floor, Stuart M. Hogson Building
5009-49th Street
P.O. Box 1320
Yellowknife, Northwest Territories, X1A 2L9
Attention: Deputy Superintendent of Securities
Tel:(867) 920-3318

Nova Scotia Securities Commission
2nd Floor, Joseph Howe Building
1690 Hollis Street
P.O. Box 458
Halifax, NS B3J 3J9
Attention: FOI Officer
Telephone: (902) 424-7768

Ontario Securities Commission
Suite 1903, Box 55
20 Queen Street West
Toronto, ON M5H 3S8
Attention: FOI Coordinator
Telephone: (416) 593-8314

Autorité des
marchés financiers
Stock Exchange Tower
P.O. Box 246, 22nd Floor
800 Victoria Square
Montréal, PQ H4Z 1G3
Attention: Responsable de l'accès à
l'information
Telephone: (514) 940-2150 or (800) 361-5072 (in
Quebec)

Yukon Securities Office
Government of Yukon
3rd Floor – 2130 Second Avenue
Whitehorse, Yukon
Y1A 2C6 (C-6)
Attention: Superintendent of Securities
Tel: (867) 667-5505

Government of Nunavut
Office of Superintendent of Securities
P.O. Box 100, Station 570
1st Floor, Brown Building
Iqaluit, Nunavut XOA OHO
Contact person: Superintendent of Securities
Tel: (867) 975-6590
Fax: (867) 975-6595
Email: securities@gov.nu.ca

Superintendent of Securities
Government of Prince Edward Island
4th Floor, Shaw Building
95 Rochford Street
P.O. Box 2000
Charlottetown PE C1A 7N8
Tel: (902) 368-4550

Saskatchewan Financial Services Commission,
Securities Division
6th Floor, 1919 Saskatchewan Drive
Regina, SK S4P 3V7
Attention: Director
Telephone: (306) 787-5645

FORM 55-102F3

Issuer Profile Supplement

An issuer profile supplement filed in SEDI format shall contain the information prescribed below. The information shall be entered using the online version of this form accessible by SEDI users at the SEDI web site (www.sedi.ca). All references to web pages, fields and lists relate to the online version of the form.

Name of reporting issuer

Provide the name of the reporting issuer for which the issuer profile supplement is being created by searching for the reporting issuer using the reporting issuer's SEDAR+ number or the reporting issuer's legal name (in English or French). If the reporting issuer's name does not appear in the search results, an issuer profile must be created for the reporting issuer in SEDAR+ before proceeding further with any SEDI filings.

Name of insider affairs contact

Provide the full legal name of an individual who will act as "insider affairs contact" for the reporting issuer. Use the "Family name" and "Given names" fields for this purpose. Use upper and lower case letters as applicable. Do not use initials, nicknames or abbreviations. SEDI will automatically deliver an e-mail message to the e-mail address provided for the insider affairs contact each time an insider profile or an amended insider profile is filed by or on behalf of a person or company disclosing an insider relationship with the reporting issuer. This is intended to assist the reporting issuer in identifying any incorrect or inappropriate SEDI filings made in respect of the reporting issuer. Insider affairs contact information is not accessible by the public.

Address of insider affairs contact

Provide a business address for the insider affairs contact. Indicate the country and provide the address (street name and number, etc.), the municipality (city, town, etc.), province, territory or state and postal or zip code, as applicable. A post office box or similar mailing address is not acceptable.

Telephone number and e-mail address of insider affairs contact

Provide a business telephone number and a business e-mail address for the insider affairs contact.

Fax number of insider affairs contact (if applicable)

If available, provide a business fax number for the insider affairs contact.

Confidential question and answer

Provide a "confidential question" and an answer to the confidential question for use in identifying the issuer's representative if a request is being made to the SEDI operator for a new issuer access key. Keep a record of the confidential question and answer in a secure location.

Security designations

Provide the security designation for each outstanding security and each class of outstanding securities of the reporting issuer that is held by an insider of the reporting issuer who has direct or indirect beneficial ownership of, or control or direction over, that security or class of security. For each security or class of securities, select the appropriate "Security category" by choosing "Debt", "Equity" or "Issuer Derivative" from the list provided. Then provide a designation of the security or class of securities using the fields provided for this purpose, as follows. First, select the "Security name" from the list of generic security names provided. Second, if applicable, enter any additional words used to describe the specific security or class of securities. For example, to provide the designation of "Class A Preferred Shares, Series 1", select "Preferred Shares" from the "Security name" field and then type "Class A, Series 1" in the "Additional description" field.

If the security whose designation is being added is an issuer derivative, provide the designation of the underlying security or class of underlying securities in addition to the designation of the issuer derivative itself. First, select the applicable securities category for the underlying security and then provide the designation for the underlying security using the "Security name" and "Additional description" fields in the same manner as described above.

Amending a security designation

If there is any change in the security designation disclosed previously for a security or class of securities of the reporting issuer that is outstanding or that may be issued in the future, use the "Amend security designation" function to amend the applicable security designation in the issuer profile supplement. Select the applicable security designation to be amended and a web page with pre-populated fields containing the existing security designation information will be displayed for purposes of making the necessary amendment(s).

Note that a security designation should only be amended for corrections or for changes that do not result in the security or class of securities ceasing to exist. If a security or class of securities ceases to exist and is replaced by another security or class of securities, the "old" security must be archived in the manner described under item 9 below and a security designation must be added for the "new" security in the manner described under item 7 above.

If the security or class of securities affected by the change is an underlying security for an issuer derivative, use the "Amend security designation" function to amend the security designation of the underlying security as well.

Archiving a security designation

If any security or class of securities designated previously by the reporting issuer has ceased to be outstanding and the security or class of securities may no longer be issued, use the "Archive security designation" function to remove the relevant security designation from the reporting issuer's list of "outstanding securities" and place it in the reporting issuer's list of "archived securities". Archived security designations may not be reactivated if the applicable security or class of securities is re-issued or becomes subject to the issuance. In such circumstances, a new security designation must be added to the issuer profile supplement in the manner described under item 7 above.

Notice – Collection and Use of Personal Information

The personal information required under this form is collected on behalf of and used by the securities regulatory authorities set out below for purposes of the administration and enforcement of certain provisions of the securities legislation in British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, Northwest Territories, Quebec, New Brunswick, Nova Scotia, Prince Edward Island, Newfoundland and Yukon. Some of the required information will be made public pursuant to the securities legislation in each of the jurisdictions indicated above. Other required information will remain confidential and will not be disclosed to any person or company except to any of the securities regulatory authorities or their authorized representatives. If you have any questions about the collection and use of this information, you may contact the securities regulatory authority in any jurisdiction(s) in which the required information is filed, at the address(es) or telephone number(s) set out below. In Quebec, questions may also be addressed to the Commission d'accès à l'information du Québec (1-888-528-7741, web site: www.cai.gouv.qc.ca).

Alberta Securities Commission
Suite 600, 250-5th Street S.W.,
Calgary, Alberta T2P 0R4
Attention: Information Officer
Telephone: (403) 297-6454

British Columbia Securities Commission
P.O. Box 10142, Pacific Centre
701 West Georgia Street
Vancouver, BC V7Y 1L2
Attention: Supervisor, Insider Reporting
Telephone: (604) 899-6500 or (800) 373-6393 (in BC)

The Manitoba Securities Commission
500-400 St. Mary Avenue,
Winnipeg, Manitoba, R3C 4K5
Telephone: (204) 945-0605

Financial and Consumer Services Commission
85 Charlotte Street, Suite 300
Saint John, NB E2L 2J2
Attention: Corporate Finance Officer
Telephone: (506) 658-3060
Toll Free: 1-866-933-2222 (within NB)

Securities Commission of Newfoundland
P.O. Box 8700
2nd Floor, West Block
Confederation Building
St. John's, NFLD A1B 4J6
Attention: Director of Securities
Telephone: (709) 729-4189

Superintendent of Securities
Department of Justice
Government of the Northwest Territories
1st Floor, Stuart M. Hogson Building
5009-49th Street
P.O. Box 1320
Yellowknife, Northwest Territories, X1A 2L9
Attention: Deputy Superintendent of Securities

Tel:(867) 920-3318

Nova Scotia Securities Commission
2nd Floor, Joseph Howe Building
1690 Hollis Street
P.O. Box 458
Halifax, NS B3J 3J9
Attention: FOI Officer
Telephone: (902) 424-7768

Government of Nunavut
Office of Superintendent of Securities
P.O. Box 100, Station 570
1st Floor, Brown Building
Iqaluit, Nunavut XOA OHO
Contact person: Superintendent of Securities
Tel: (867) 975-6590
Fax: (867) 975-6595
Email: securities@gov.nu.ca

Ontario Securities Commission
Suite 1903, Box 55
20 Queen Street West
Toronto, ON M5H 3S8
Attention: FOI Coordinator
Telephone: (416) 593-8314

Superintendent of Securities
Government of Prince Edward Island
4th Floor, Shaw Building
95 Rochford Street
P.O. Box 2000
Charlottetown PE C1A 7N8
Tel: (902) 368-4550

Autorité des
marchés financiers
Stock Exchange Tower
P.O. Box 246, 22nd Floor
800 Victoria Square
Montréal, PQ H4Z 1G3
Attention: Responsable de l'accès à
l'information
Telephone: (514) 940-2150 or (800) 361-5072 (in
Quebec)

Saskatchewan Financial Services Commission,
Securities Division
6th Floor, 1919 Saskatchewan Drive
Regina, SK S4P 3V7
Attention: Director
Telephone: (306) 787-5645

Yukon Securities Office
Government of Yukon
3rd Floor – 2130 Second Avenue
Whitehorse, Yukon
Y1A 2C6 (C-6)
Attention: Superintendent of Securities
Tel:(867) 667-5505

FORM 55-102F4

Issuer Event Report

An issuer event report in SEDI format shall contain the information prescribed below. The information shall be entered using the online version of this form accessible by SEDI users at the SEDI web site (www.sedi.ca). All references to web pages, fields and lists relate to the online version of the form.

5. Issuer event type

Starting at the web page titled "File issuer event report – Form 55-102F4", select the "Issuer event type" that appropriately describes the issuer event from the list of transactions and other events provided for this purpose. If an appropriate issuer event type is not provided in the list, select "Other Issuer Event" and enter an appropriate generic term for the type of issuer event being reported in the "Other issuer event type" field provided for this purpose.

Effective date of issuer event

Disclose the effective date of the issuer event using the fields provided for this purpose.

Issuer event title

Provide a descriptive title for the issuer event that will distinguish the issuer event from other issuer events of the same type. For example, in the case of a merger, refer to another merging issuer, or in the case of a stock split, indicate the approximate date.

Issuer event details

Describe the issuer event in plain language. Provide the security designation of each security or class of securities of the issuer affected by the issuer event and explain the adjustment or other change in holdings that affected insiders of the issuer would be required to report as a result of the issuer event. If applicable, provide the ratio by which each security or class of securities affected has been or will be adjusted by the issuer event.

If the required adjustment(s) will result in a fractional number of securities when applied to the number of securities held by affected insiders, indicate whether the number of securities held by the insider shall be rounded up or down.

If the issuer event involved the creation of a new security or class of securities or the formation of a new reporting issuer, disclose this information. If applicable, amend the issuer profile supplement for the reporting issuer.

Optional Information

An issuer event report filed in SEDI format may, at the option of the reporting issuer, contain the following additional information:

Private remarks to securities regulatory authority

Using the field provided, the issuer may disclose additional information concerning the issuer event to staff of the securities regulatory authority. Information provided in this field will not be accessible by the public.

FORM 55-102F5

SEDI User Registration Form

An individual who intends to use SEDI to file information with the securities regulatory authority is required to complete and submit a user registration form in SEDI format containing the information prescribed below. The information must be entered using the online version of this form accessible at the SEDI web site (www.sedi.ca). To access the online user registration form, select "Register as a SEDI user" on the navigation bar at the top of the web page titled "Welcome to SEDI".

6. Full legal name of SEDI user

Provide your family name and your given names. Use upper and lower case letters as applicable. Do not use initials, nicknames or abbreviations.

Name of employer and position of SEDI user

If you are acting on behalf of an employer, provide the full legal name of your employer and your position with that employer.

Address of SEDI user

If you are an insider, provide your principal residential address. Otherwise, provide the business address where you are employed. A post office box or other mailing address is not sufficient.

SEDI user's telephone number

Provide your daytime telephone number.

SEDI user's fax number

If available, provide your fax number.

SEDI user's e-mail address

If available, provide your e-mail address.

Check the appropriate box for SEDI user classification

Indicate whether you expect to access SEDI as an insider, an agent and/or an issuer's representative by checking the appropriate box or boxes. The type of user classification will determine the amount of functionality you will have in the SEDI application software.

Confidential question and answer

Provide a "confidential question" and an answer to the confidential question for use in verifying your identity if a request in your name is being made to the SEDI operator for a new password.

Certification

Prior to submitting the completed online user registration form, you must certify that the information is true in all material respects and you must agree to update the information submitted as soon as practicable following any material change in the information.

Delivery of Signed Copy to SEDI Operator

Before you may make a valid SEDI filing, you must deliver a manually signed paper copy of the completed user registration form to the SEDI operator for verification purposes. To satisfy this requirement, you may print a copy of the online user registration form once you have certified and submitted it. You must deliver a manually signed and dated copy of the completed user registration form via prepaid mail, personal delivery or facsimile to the SEDI operator at the following address or fax number, as applicable:

CSA Service Desk
Attn: SEDI Operator
12 Millennium Blvd, Suite 210
Moncton, NB E1C 0M3

or at such other address(es) or fax number(s) as may be provided on the SEDI web site(www.sedi.ca).

Questions

Questions may be directed to the CSA Service Desk at 1-800-219-5381 or such other number as may be provided on the SEDI web site.

Notice – Collection and Use of Personal Information

The personal information that you provide on this form is used to facilitate your access to and use of the SEDI system and is not used for any other purpose. The signed copy of the completed form that you deliver to the SEDI operator is retained by the SEDI operator as evidence of your registration as a SEDI user. The information you provide on this form will not be disclosed to any third party except any of the securities regulatory authorities or their authorized representatives for purposes of the administration or enforcement of securities legislation in the applicable jurisdictions. For information about the use of the information collected on this form or if you would like to obtain access to the information you have submitted, contact the SEDI operator at the address or telephone number provided above. In Quebec, questions may also be addressed to the Commission d'accès à l'information du Québec (1-888-528-7741, web site: www.cai.gouv.qc.ca).

SEDI User Registration Form

Note: Before an individual registering as a SEDI user may make a valid SEDI filing, the registering individual must deliver a manually signed paper copy of the completed user registration form to the SEDI operator for verification purposes. The registering individual may print a copy of the online version using the "Print" function provided for this purpose in SEDI. The signed paper copy must be delivered by prepaid mail, personal delivery or facsimile to:

CSA Service Desk
Attn: SEDI Operator
12 Millennium Blvd, Suite 210
Moncton, NB E1C 0M3

Section 1 SEDI User Information

Family name:		Given names (in full):	
Employer name and position (if applicable):			
Address (street name and number, etc.):		Municipality (city, town, etc.):	
Province, territory or state:	Country:		Postal code or zip code:
Telephone number: ()		Fax number (if available): ()	
E-mail address (if available):			

Section 2 SEDI User Classification

Check the appropriate box or boxes:		
<input type="checkbox"/> Insider	<input type="checkbox"/> Agent	<input type="checkbox"/> Issuer representative

Section 3 Certification of SEDI User

I certify that the foregoing information is true in all material respects. I agree to update the information submitted on this form in SEDI as soon as practicable following any material change in the information. I agree that an executed copy of Form 55-102F5, if delivered to the SEDI operator by facsimile, shall have the same effect as an originally executed copy delivered to the SEDI operator.

Signature of SEDI user	Date:
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FORM 55-102F6
INSIDER REPORT
(See instructions on the back of this report)

Notice – Collection and Use of Personal Information: The personal information required under this form is collected on behalf of and used by the securities regulatory authorities set out below for purposes of the administration and enforcement of certain provisions of the securities legislation in British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, Northwest Territories, Quebec, New Brunswick, Nova Scotia, Prince Edward Island, Newfoundland and Yukon. Some of the required information will be made public pursuant to the securities legislation in each of the jurisdictions indicated above. Other required information will remain confidential and will not be disclosed to any person or company except to any of the securities regulatory authorities or their authorized representatives. If you have any questions about the collection and use of this information, you may contact the securities regulatory authority in any jurisdiction(s) in which the required information is filed, at the address(es) or telephone number(s) set out on the back of this report.

BOX 1. NAME OF THE REPORTING ISSUER (BLOCK LETTERS)

BOX 3. NAME, ADDRESS AND TELEPHONE NUMBER OF THE INSIDER (BLOCK LETTERS)

FAMILY NAME OR CORPORATE NAME	
GIVEN NAMES	
NO.	STREET APT
CITY	
PROV	POSTAL CODE
BUSINESS TELEPHONE NUMBER	
-	- EXT
BUSINESS FAX NUMBER	CHANGE IN NAME, ADDRESS OR TELEPHONE NUMBER FROM LAST REPORT <input type="checkbox"/> YES <input type="checkbox"/> NO
-	-

BOX 4. JURISDICTION(S) WHERE THE ISSUER IS A REPORTING ISSUER OR THE EQUIVALENT

- ☐ ALBERTA
- ☐ NORTHWEST TERRITORIES
- ☐ BRITISH COLUMBIA
- ☐ ONTARIO
- ☐ MANITOBA
- ☐ PRINCE EDWARD ISLAND
- ☐ NEW BRUNSWICK
- ☐ QUÉBEC
- ☐ NEWFOUNDLAND
- ☐ SASKATCHEWAN
- ☐ NOVA SCOTIA
- ☐ YUKON

BOX 2. INSIDER DATA

RELATIONSHIP(S) TO REPORTING ISSUER	DD	MM	YY
DATE OF LAST REPORT FILED OR IF INITIAL REPORT, DATE ON WHICH YOU BECAME AN INSIDER	DD	MM	YY
CHANGE IN RELATIONSHIP FROM LAST REPORT <input type="checkbox"/> YES <input type="checkbox"/> NO			

BOX 5. INSIDER HOLDINGS AND CHANGES (IF INITIAL REPORT, COMPLETE SECTIONS A D E AND F ONLY. SEE ALSO INSTRUCTIONS TO BOX 5)

A	B	C TRANSACTIONS								D	E	F
DESIGNATION OF CLASS OF SECURITIES	BALANCE OF CLASS OF SECURITIES ON LAST REPORT	DATE			NATURE	NUMBER/VALUE ACQUIRED	NUMBER/VALUE DISPOSED OF	UNIT PRICE / EXERCISE PRICE	\$ US	PRESENT BALANCE OF CLASS OF SECURITIES HELD	DIRECT / INDIRECT OWNERSHIP / CONTROL OR DIRECTION	IDENTIFY THE REGISTERED HOLDER WHERE OWNERSHIP IS INDIRECT OR WHERE CONTROL OR DIRECTION IS EXERCISED
		DD	MM	YY								
									<input type="checkbox"/>			
									<input type="checkbox"/>			
									<input type="checkbox"/>			
									<input type="checkbox"/>			
									<input type="checkbox"/>			
									<input type="checkbox"/>			
									<input type="checkbox"/>			
									<input type="checkbox"/>			
									<input type="checkbox"/>			

BOX 6. REMARKS

The undersigned certifies that the information given in this report is true and complete in every respect. It is an offence to submit information that, in a material respect and at the time and in the light of the circumstances in which it is submitted, is misleading or untrue.

BOX 7. SIGNATURE

NAME (BLOCK LETTERS)	SIGNATURE	DD	MM	YY
		DATE OF THIS REPORT		

ATTACHMENT ☐ YES ☐ NO

This form is used as a uniform report for the insider reporting requirements under all provincial securities Acts. The terminology used is generic to accommodate the various Acts.

CORRESPONDENCE ☐ ENGLISH ☐ FRENCH

KEEP A COPY FOR YOUR FILE

INSTRUCTIONS

Insider Reports in English and French are available from Manitoba, Ontario, Québec and New Brunswick. If you are a corporate insider in the province of Québec, you will receive correspondence in French. Individuals in the province of Québec will receive, upon request, correspondence in English.

Where an insider of a reporting issuer does not own or have control or direction over securities of the reporting issuer, or where an insider's ownership or direction or control over securities of the reporting issuer remains unchanged from the last report filed, a report is not required. Insider reports are not required to be filed in Nunavut.

If you have any questions about the form you should be using to file your report, see National Instrument 55-102 *System for Electronic Disclosure by Insiders (SEDI)*.

BOX 1 Name of reporting issuer

Provide the full legal name of the reporting issuer. Use a separate report for each reporting issuer.

BOX 2 Insider data

Indicate all of your relationship(s) to the reporting issuer using the following codes:

- | | |
|---|---|
| Reporting issuer that has acquired securities issued by itself | 1 |
| Subsidiary of the reporting issuer | 2 |
| Security holder who beneficially owns or who exercises control or direction over more than 10% of the securities of the reporting issuer (Québec Securities Act – 10% of a class of shares) to which are attached voting rights or an unlimited right to a share of the profits and to its assets in case of winding up | 3 |
| Director of a reporting issuer | 4 |
| Senior officer of a reporting issuer | 5 |
| Director or senior officer of a security holder referred to in 3 | 6 |
| Director or senior officer of an insider or subsidiary of the reporting issuer, other than in 4, 5 and 6 | 7 |
| Deemed insider – 6 months before becoming an insider | 8 |

If you have filed a report before, indicate whether your relationship to the reporting issuer has changed.

Specify the date of the last report you filed, and if it is an initial report, the date on which you became an insider.

BOX 3 Name, address and telephone number of the insider

Provide your name, address and business telephone number.

BOX 4 Jurisdiction

Indicate each jurisdiction where the issuer is a reporting issuer or the equivalent.

BOX 5 Insider holdings and changes

Show direct and indirect holdings separately, both in the initial report and where a transaction is reported. Indicate only one transaction per line.

For an initial report complete only:

- A** designation of class of securities held
- D** present balance of class of securities held
- E** nature of ownership (see List of Codes)
- F** identification of the registered holder where ownership is not direct

If you acquired or disposed of securities while an insider, complete sections **A** to **F**:

- A** Indicate a designation of the securities traded that is sufficient to identify the class, including yield, series, maturity.
- B** Indicate the number of securities, or for debt securities, the aggregate nominal value, of the class held, directly and indirectly, before the transaction that is being reported.
- C** Indicate for each transaction:
 - the date of the transaction (not the settlement date)
 - the nature of the transaction (see List of Codes)
 - the number of securities acquired or disposed of, or for debt securities, the aggregate nominal value
 - the unit price paid or received on the day of the transaction, excluding the commission
 - if the report is in American dollars, check the space under "\$ US"

List of Codes

BOX 5 Nature of transaction

General

Acquisition or disposition in the public market	10
Acquisition or disposition carried out privately	11
Acquisition or disposition under a prospectus	15
Acquisition or disposition under a prospectus exemption	16
Acquisition or disposition pursuant to a take-over bid, merger or acquisition	22
Acquisition or disposition under a purchase/ownership plan	30
Stock dividend	35
Conversion or exchange	36
Stock split or consolidation	37
Redemption/retraction/cancellation/repurchase	38
Short sale	40
Compensation for property	45
Compensation for services	46
Acquisition or disposition by gift	47
Acquisition by inheritance or disposition by bequest	48

Issuer Derivatives

Grant of options	50
Exercise of options	51
Expiration of options	52
Grant of warrants	53
Exercise of warrants	54
Expiration of warrants	55
Grant of rights	56
Exercise of rights	57
Expiration of rights	58
Exercise for cash	59

Third Party Derivatives

Acquisition or disposition (writing) of third party derivative	70
Exercise of third party derivative	71
Other settlement of third party derivative	72
Expiration of third party derivative	73

Miscellaneous

Change in nature of ownership	90
Other	97
Correction of information	99

D Indicate the number of securities, or for debt securities, the aggregate nominal value, of the class held, directly and indirectly, after the transaction that is being reported.

E Indicate the nature of ownership, control or direction of the class of securities held using the following codes:

Direct ownership	1
Indirect ownership (identify the registered holder)	2
Control or direction (identify the registered holder)	3

F For securities that are indirectly held, or over which control or direction is exercised, identify the registered holder.

BOX 6 Remarks

Add any explanation necessary to make the report clearly understandable.

If space provided for any item is insufficient, additional sheets may be used.

Additional sheets must refer to the appropriate Box and must be properly identified and signed.

Office staff are not permitted to alter a report.

BOX 7 Signature and filing

Sign and date the report.

File one copy of each of the report in each jurisdiction in which the issuer is reporting within the time limits prescribed by the applicable laws of that jurisdiction.

Manually sign the report.

Legibly print or type the name of each individual signing the report.

If the report is filed on behalf of a company, partnership, trust or other entity, legibly print or type the name of that entity after the signature.

If the report is signed on behalf of an individual by an agent, there shall be filed with each jurisdiction in which the report is filed a duly completed power of attorney.

If the report is filled by facsimile in accordance with National instrument 55-102 *System for Electronic Disclosure by Insiders (SEDI)*, the report should be sent to the applicable securities regulatory authority at the fax number set out below.

<p>Alberta Securities Commission Suite 600, 250-5th Street S.W., Calgary, Alberta T2P 0R4 Attention: Information Officer * Telephone: (403) 297-6454 Facsimile: (403) 297-6156</p> <p>British Columbia Securities Commission PO Box 10142, Pacific Centre 701 West Georgia Street Vancouver, BC, V7Y 1L2 Attention: Supervisor, Insider Reporting * Telephone: (604) 899-6500 or (800) 373-6393 (in BC) Facsimile: (604) 899-6550</p> <p>The Manitoba Securities Commission 500-400 St. Mary Avenue Winnipeg, Manitoba R3C 4K5 Attention: Continuous Disclosure * Telephone: (204) 945-2548 Facsimile: (204) 945-0330</p> <p>Financial and Consumer Services Commission 85 Charlotte Street, Suite 300 Saint John, NB E2L 2J2 Attention: Corporate Finance Officer Telephone: (506) 658-3060 Toll Free: 1-866-933-2222 (within NB)</p> <p>Securities Commission of Newfoundland P.O. Box 8700, 2nd Floor West Block Confederation Building St. John's, NFLD, A1B 4J6 Attention: Director of Securities * Telephone: (709) 729-4189 Facsimile: (709) 729-6187</p>	<p>Superintendent of Securities Department of Justice Government of the Northwest Territories 1st Floor, Stuart M. Hodgson Building 5009-49th Street P.O. Box 1320 Yellowknife, Northwest Territories, X1A 2L9 Attention: Deputy Superintendent of Securities Tel: (867) 920-3318 Facsimile: (867) 873-0243</p> <p>Nova Scotia Securities Commission 2nd Floor, Joseph Howe Building 1690 Hollis Street, P.O. Box 458 Halifax, NS, B3J 3J9 Attention: FOI Officer * Telephone: (902) 424-7768 Facsimile: (902) 424-4625</p> <p>Government of Nunavut Legal Registries Division P.O. Box 100, Station 570 1st Floor, Brown Building Iqaluit, Nunavut, X0A 0H0 Contact person: Superintendent of Securities Tel: (867) 975-6590 Fax: (867) 975-6595 Email: legal.registries@gov.nu.ca</p> <p>Ontario Securities Commission Suite 1903, Box 55, 20 Queen Street West Toronto, ON, M5H 3S8 Attention: FOI Coordinator * Telephone: (416) 593-8314 Facsimile: (416) 593-3666</p>	<p>Superintendent of Securities Government of Prince Edward Island 4th Floor, Shaw Building 95 Rochford Street P.O. Box 2000 Charlottetown PE C1A 7N8 Tel: (902) 368-4550</p> <p>Autorité des marchés financiers P.O. Box 246, 22nd Floor 800 Victoria Square Montreal, PQ, H4Z 1G3 Attention: Responsable de l'accès à l'information Telephone: (514) 940-2150 or (800) 361-5072 (in Québec) Facsimile: (514) 873-3120</p> <p>Saskatchewan Securities Commission 6th Floor, 1919 Saskatchewan Drive Regina, SK, S4P 3V7 Attention: Director * Telephone: (306) 787-5645 Facsimile: (306) 787-5899</p> <p>Yukon Securities Office Yukon Government Law Centre, 3rd Floor 2130 Second Avenue (PO Box 2703) Whitehorse, YT Y1A 5H6 Attn: Superintendent of Securities Tel: (867) 667-5466 Fax: (867) 393-6251</p> <p>* For questions about the collection and use of personal information ** in Québec questions about the collection and use of personal information may also be addressed to the Commission d'accès à l'information du Québec (1-888-528-7741)</p>
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