UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

FORM 6-K

REPORT OF FOREIGN PRIVATE ISSUER PURSUANT TO RULE 13a-16 OR 15d-16 UNDER THE SECURITIES EXCHANGE ACT OF 1934

For the month of October 2022

Commission File Number: 001-39989

PYROGENESIS CANADA INC.

(Translation of registrant's name into English)

1744, William St. Suite 200 Montreal, QC, H3J1R4 Canada

(Address of principal executive office)

Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 40-F.

Form 20-F [] Form 40-F [X]
Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(1):
Note: Regulation S-T Rule 101(b)(1) only permits the submission in paper of a Form 6-K if submitted solely to provide an attached annual report to security holders.
Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(7):
Note: Regulation S-T Rule 101(b)(7) only permits the submission in paper of a Form 6-K if submitted to furnish a report or other document that the registrant foreign private issuer must furnish and make public under the laws of the jurisdiction in which the registrant is incorporated, domiciled or legally organized (the registrant's "home country"), or under the rules of the home country exchange on which the registrant's securities are traded, as long as the report or other document is not a press release, is not required to be and has not been distributed to the registrant's security holders, and, if discussing a material event, has already been the subject of a Form 6-K submission or other Commission filing on EDGAR.

On October 19, 2022, the Registrant issued a press release, a copy of which is attached hereto as Exhibit 99.1 and is incorporated herein by reference.

EXHIBIT INDEX

Exhibit Number Description

<u>Press Release dated October 19, 2022</u>

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

PYROGENESIS CANADA INC.
(Registrant)

Date: October 19, 2022 /s/ P. Peter Pascali P. Peter Pascali Chief Executive Officer

PyroGenesis Announces Closing of a Small Non-Brokered Private Placement

MONTREAL, Oct. 19, 2022 (GLOBE NEWSWIRE) -- PyroGenesis Canada Inc. (http://pyrogenesis.com) (TSX: PYR) (NASDAQ: PYR) (FRA: 8PY), a high-tech company (hereinafter referred to as the "Company" or "PyroGenesis"), that designs, develops, manufactures and commercializes advanced plasma processes and sustainable solutions which are geared to reduce greenhouse gases (GHG), announces today that it has completed a non-brokered private placement consisting of the issuance and sale of 1,014,600 units of the Corporation (the "Units") at a price of \$1.30 per Unit, for gross proceeds of \$1,318,980 to the Company (the "Private Placement"). The closing price of the common shares of the Company on October 18, 2022, the last trading day prior to the closing of the Private Placement, was \$1.17.

Each Unit consists of one common share of the Company (a "Common Share") and one Common Share purchase warrant (each whole Common Share purchase warrant, a "Warrant"). Each Warrant entitles the holder thereof to purchase one Common Share at a price of \$1.75 until October 19, 2024. The Common Shares and Warrants issued in connection with the Private Placement, and the Common Shares underlying the Warrants, are subject to a statutory hold period of four months and one day from the date of closing, in accordance with applicable securities legislation.

These proceeds will be used by the Company for working capital and general corporate purposes.

This news release does not constitute an offer to sell or a solicitation of an offer to buy any of the securities in the United States. The securities have not been and will not be registered under the United States Securities of 1933, as amended, or any state securities laws and may not be offered or sold within the United States, unless an exemption from such registration is available.

About PyroGenesis Canada Inc.

PyroGenesis Canada Inc., a high-tech company, is a leader in the design, development, manufacture and commercialization of advanced plasma processes and sustainable solutions which reduce greenhouse gases (GHG) and are economically attractive alternatives to conventional "dirty" processes. PyroGenesis has created proprietary, patented and advanced plasma technologies that are being vetted and adopted by multiple multibillion dollar industry leaders in four massive markets: iron ore pelletization, aluminum, waste management, and additive manufacturing. With a team of experienced engineers, scientists and technicians working out of its Montreal office, and its 3,800 m2 and 2,940 m2 manufacturing facilities, PyroGenesis maintains its competitive advantage by remaining at the forefront of technology development and commercialization. The operations are ISO 9001:2015 and AS9100D certified, having been ISO certified since 1997. For more information, please visit: www.pyrogenesis.com.

This press release contains certain forward-looking statements, including, without limitation, statements containing the words "may", "plan", "will", "estimate", "continue", "anticipate", "intend", "expect", "in the process" and other similar expressions which constitute "forward-looking information" within the meaning of applicable securities laws. Forward-looking statements reflect the Company's current expectation and assumptions and are subject to a number of risks and uncertainties that could cause actual results to differ materially from those anticipated. These forward-looking statements involve risks and uncertainties including, but not limited to, our expectations regarding the acceptance of our products by the market, our strategy to develop new products and enhance the capabilities of existing products, our strategy with respect to research and development, the impact of competitive products and pricing, new product development, and uncertainties related to the regulatory approval process. Such statements reflect the current views of the Company's with respect to future events and are subject to certain risks and uncertainties and other risks detailed from time-to-time in the Company's ongoing filings with the securities regulatory authorities, which filings can be found at www.sedar.com, or at www.sec.gov. Actual results, events, and performance may differ materially. Readers are cautioned not to place undue reliance on these forward-looking statements. The Company's undertakes no obligation to publicly update or revise any forward-looking statements either as a result of new information, future events or otherwise, except as required by applicable securities laws. Neither the Toronto Stock Exchange, its Regulation Services Provider (as that term is defined in the policies of the Toronto Stock Exchange) nor the NASDAO Stock Market, LLC accepts responsibility for the adequacy or accuracy of this press release.

For further information please contact:

Rodayna Kafal, Vice President, IR/Comms. and Strategic BD

Phone: (514) 937-0002, E-mail: ir@pyrogenesis.com

RELATED LINK: http://www.pyrogenesis.com/