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 December 2022

Commission File Number: 001-40370

BITFARMS LTD.
(Exact Name of Registrant as Specified in Its Charter)

18 King Street East, Suite 902, Toronto, Ontario, Canada M5C 1C4
(Address of principal executive offices)

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 ☒

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): ☐

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): ☐

INCORPORATION BY REFERENCE

On December 29, 2022 the Registrant filed with the Canadian Securities Regulatory Authorities on the System for Electronic Data Analysis and Retrieval (SEDAR) a material change report that includes a copy of a press release, a copy of which is attached hereto as Exhibit 99.1, and which is incorporated by reference to the Company's Registration Statement on Form F-10 (File No. 333-258788).

Exhibits

Exhibit No.	Description
99.1	Material Change Report dated December 29, 2022

SIGNATURE

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.

BITFARMS LTD.

By: /s/ L. Geoffrey Morphy
Name: L. Geoffrey Morphy
Title: Chief Executive Officer

Date: December 29, 2022

Exhibit 99.1

FORM 51-102F3
MATERIAL CHANGE REPORT

Item 1 Name and Address of Company

Bitfarms Ltd. ("Bitfarms" or the "Company")
18 King Street East, Suite 902
Toronto, Ontario M5C 1C4

Item 2 Date of Material Change

December 29, 2022.

Item 3 News Release

The press release attached as Schedule "A" was released on December 29, 2022 by a newswire company in Canada.

Item 4 Summary of Material Change

The material change is described in the press release attached as Schedule "A".

Item 5 Full Description of Material Change

The material change is described in the press release attached as Schedule "A".

Item 6 Reliance of subsection 7.1(2) of National Instrument 51-102

Not applicable.

Item 7 Omitted Information

Not applicable.

Item 8 Executive Officer

Nicolas Bonta
Chairman & Director
Bitfarms Ltd.
nbonta@bitfarms.com

Item 9 Date of Report

December 29, 2022.

SCHEDULE "A"

Bitfarms Promotes Geoffrey Morphy to
Chief Executive Officer

This news release constitutes a "designated news release" for purposes of the Company's prospectus supplement dated August 16, 2021, to its short form base shelf prospectus dated August 12, 2021.

Toronto, Ontario and Brossard, Québec (December 29, 2022) - Bitfarms Ltd. (NASDAQ: BITF // TSX: BITF), a global Bitcoin self-mining company, promoted President and Chief Operating Officer Geoffrey Morphy to the position of President and Chief Executive Officer effective immediately.

Emiliano Grodzki has resigned as CEO and will remain a Director on the Board. Co-founder Nicolas Bonta will shift from the position of Executive Chairman to the role of Chairman of the Board of Directors.

Mr. Bonta said, "Since joining Bitfarms' management team in 2020, Geoff has played an instrumental role in developing the Company's management team, corporate structure, governance and controls, and investor relations, as well as operations and strategy. In a little over two years, Geoff helped transform Bitfarms from a purely Canadian company trading on the TSX Venture Exchange with five farms in Quebec to an international powerhouse traded on both the Nasdaq and TSX with ten operating farms in four countries driving over 4.4 exahash/second (EH/s) today. I am proud to announce Geoff as Bitfarms' new CEO and am confident his expanded leadership will continue to bring success to Bitfarms in the coming years."

Mr. Grodzki and Mr. Bonta co-founded Bitfarms in Quebec in 2017 with the vision to create an institutional class Bitcoin mining Company with a strong focus on corporate governance, a sustainable business model and an aggressive expansion plan. Since founding the Company, Mr. Grodzki and Mr. Bonta have served both as Directors and executives and have been crucial players in the Company's strategic development and the Argentina expansion, which upon full deployment is expected to be Bitfarms' lowest operating cost facility. The existing site and contracts also represent a substantial growth and business opportunity.

"At the time I joined, Bitfarms was already one of the largest Bitcoin producers with strong operators and uniquely positioned for growth. The opportunity to capitalize on this solid foundation to build something great and long-lasting was undeniable," said Mr. Morphy. "Since, we have assembled an accomplished and experienced team responsible for implementing a geographically diversified growth strategy and have become one of the most efficient Bitcoin miners in the industry. During my tenure, we have continued to execute and grow our business through a Halving event, a bull market, and a bear market. The last six months have been demanding for all Bitcoin miners. Yet challenging times are precisely why our emphasis on operating efficiency, cost controls, corporate governance and a diversified portfolio of underutilized energy sources are so important and position us for success in all environments. Our foundational work over the last five years built the strength and depth of skills we needed to navigate these external factors. As we look at Bitfarms' path forward through 2023 and beyond the next Halving event, I am even more optimistic today about Bitfarms' long-term prospects than when I joined the Company back in 2020."

Geoff Morphy, ICD.D

Geoff Morphy served as a Director of Bitfarms from May 2020 until August 2020 when he joined the executive team as Executive Vice President – Finance, Administration, and Corporate Development. He was promoted to President in December 2020 and COO in December 2021. Mr. Morphy has over 35 years of experience in senior management roles in private and public companies, banks, and corporate advisory firms. He sits on the Board of Android Industries, LLC and R&R REIT, and has previously served on the boards of several private and publicly traded companies located in North America and Europe, including Dundee Sustainable Technologies, Nano Spark Inc., Dundee Sarea Fund, Blue Goose Foods, and the Parq Vancouver Resort & Casino.

Mr. Morphy has a Bachelor of Commerce in finance from Dalhousie University. He also earned his ICD.D accreditation from the Institute of Corporate Directors.

About Bitfarms Ltd.

Founded in 2017, Bitfarms is a global, publicly traded (NASDAQ/TSX: BITF) Bitcoin self-mining company. Bitfarms runs vertically integrated mining operations with in-house management and company-owned electrical engineering, installation service, and onsite technical repair. The Company's proprietary data analytics system delivers best-in-class operational performance and accelerated uptime.

Bitfarms has 10 mining facilities in production, which are housed in four countries: Canada, the United States, Paraguay, and Argentina. Powered by predominantly environmentally friendly hydro-electric and long-term power contracts, Bitfarms is committed to using renewable, locally based, and underutilized energy infrastructure.

To learn more about Bitfarms' events, developments, and online communities:

Website: www.bitfarms.com
https://www.facebook.com/bitfarms/
https://twitter.com/Bitfarms_io
https://www.instagram.com/bitfarms/
https://www.linkedin.com/company/bitfarms/

Cautionary Statement

Trading in the securities of the Company should be considered highly speculative. No stock exchange, securities commission or other regulatory authority has approved or disapproved the information contained herein. Neither the Toronto Stock Exchange, Nasdaq, or any other securities exchange or regulatory authority accepts responsibility for the adequacy or accuracy of this release.

Forward-Looking Statements

This news release contains certain "forward-looking information" and "forward-looking statements" (collectively, "forward-looking information") that are based on expectations, estimates and projections as at the date of this news release and are covered by safe harbors under Canadian and United States securities laws. The statements and information in this release regarding changes in executive officers, expectations for growth, targets, and goals for productive capacity and hashrates and other future plans and objectives of the Company are forward-looking information. Other forward-looking information includes, but is not limited to, information concerning: the intentions, plans and future actions of the Company, as well as Bitfarms' ability to successfully mine digital currency, revenue increasing as currently anticipated, the ability to profitably liquidate current and future digital currency inventory, volatility of network difficulty and digital currency prices and the potential resulting significant negative impact on the Company's operations, the construction and operation of expanded blockchain infrastructure as currently planned, and the regulatory environment for cryptocurrency in the applicable jurisdictions.

Any statements that involve discussions with respect to predictions, expectations, beliefs, plans, projections, objectives, assumptions, future events or performance (often but not always using phrases such as "expects", or "does not expect", "is expected", "anticipates" or "does not anticipate", "plans", "budget", "scheduled", "forecasts", "estimates", "believes" or "intends" or variations of such words and phrases or stating that certain actions, events or results "may" or "could", "would", "might" or "will" be taken to occur or be achieved) are not statements of historical fact and may be forward-looking information and are intended to identify forward-looking information.

This forward-looking information is based on assumptions and estimates of management of the Company at the time they were made, and involves known and unknown risks, uncertainties and other factors which may cause the actual results, performance, or achievements of the Company to be materially different from any future results, performance or achievements expressed or implied by such forward-looking information. Such factors include, among others, risks relating to: the global economic climate; dilution; the Company's limited operating history; future capital needs and uncertainty of additional financing, including the Company's ability to utilize the Company's at-the-market offering (the "ATM Program") and the prices at which the Company may sell Common Shares in the ATM Program, as well as capital market conditions in general; risks relating to the strategy of maintaining and increasing Bitcoin holdings and the impact of depreciating Bitcoin prices on working capital; the competitive nature of the industry; currency exchange risks; the need for the Company to manage its planned growth and expansion; the effects of product development and need for continued technology change; the ability to maintain reliable and economical sources of power to run its cryptocurrency mining assets; the impact of energy curtailment or regulatory changes in the energy regimes in the jurisdictions in which the Company operates; protection of proprietary rights; the effect of government regulation and compliance on the Company and the industry; network security risks; the ability of the Company to maintain properly working systems; reliance on key personnel; global economic and financial market deterioration impeding access to capital or increasing the cost of capital; share dilution resulting from the ATM Program and from other equity issuances; and volatile securities markets impacting security pricing unrelated to operating performance. In addition, particular factors that could impact future results of the business of Bitfarms include, but are not limited to: the construction and operation of facilities may not occur as currently planned, or at all; expansion may not materialize as currently anticipated, or at all; the digital currency market; the ability to successfully mine digital currency; revenue may not increase as currently anticipated, or at all; it may not be possible to profitably liquidate the current digital currency inventory, or at all; a decline in digital currency prices may have a significant negative impact on operations; an increase in network difficulty may have a significant negative impact on operations; the volatility of digital currency prices; the anticipated growth and sustainability of hydroelectricity for the purposes of cryptocurrency mining in the applicable jurisdictions; the inability to maintain reliable and economical sources of power for the Company to operate cryptocurrency mining assets; the risks of an increase in the Company's electricity costs, cost of natural gas, changes in currency exchange rates, energy curtailment or regulatory changes in the energy regimes in the jurisdictions in which the Company operates and the adverse impact on the Company's profitability; the ability to complete current and future financings, any regulations or laws that will prevent Bitfarms from operating its business; historical prices of digital currencies and the ability to mine digital currencies that will be consistent with historical prices; an inability to predict and counteract the effects of COVID-19 on the business of the Company, including but not limited to the effects of COVID-19 on the price of digital currencies, capital market conditions, restriction on labour and international travel and supply chains; and, the adoption or expansion of any regulation or law that will prevent Bitfarms from operating its business, or make it more costly to do so. For further information concerning these and other risks and uncertainties, refer to the Company's filings on www.SEDAR.com (which are also available on the website of the U.S. Securities and Exchange Commission at www.sec.gov), including the annual information form for the year-ended December 31, 2021, filed on March 28, 2022. The Company has also assumed that no significant events occur outside of Bitfarms' normal course of business. Although the Company has attempted to identify important factors that could cause actual results to differ materially from those expressed in forward-looking statements, there may be other factors that cause results not to be as anticipated, estimated or intended. There can be no assurance that such statements will prove to be accurate as actual results and future events could differ materially from those anticipated in such statements. Accordingly, readers should not place undue reliance on any forward-looking information. The Company undertakes no obligation to revise or update any forward-looking information other than as required by law.

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