

# **QIMC Announces Significant Natural Hydrogen Discovery Expansion 11kms to the Northwest and New Land Acquisition Bringing Total Hydrogen Area to over 300 Square Kilometres**

Lachute, Quebec--(Newsfile Corp. - October 3, 2024) - **Quebec Innovative Materials Corp. (CSE: QIMC) (FSE: 7FJ) ("QI Materials", "QIMC" or the "Company")**- QIMC is pleased to announce a significant 11 km expansion of our natural renewable hydrogen discovery to the northwest. Recent soil gas measurements from Line 13, recorded at 594, 543, and 463 ppm, are the highest levels detected outside of those reported from Line 7 in our September 4 press release. These high readings, located 11 km northwest of the 1000 ppm samples collected on Line 7, highlight the district hydrogen-rich zone across QIMC's Ville Marie property. This milestone is supported by the collection of 1,057 soil samples.

"Our recent findings have confirmed our natural renewable hydrogen model, underscoring the uniqueness of the geology and rock formations in the region. This further positions QIMC at the forefront of sustainable energy solutions, tapping into abundant and renewable Natural Hydrogen," notes John Karagiannidis, CEO of QIMC.

In addition to our westward expansion, we are excited to announce the acquisition of new zones in the Duhamel, Fabre-West, and Bearn areas, located to the south of our current high ppm findings. These areas align with the geological indicators of our natural hydrogen district. With these strategic acquisitions, we have increased our total hydrogen land package to over 300 square kilometers.

"Today marks a significant chapter in QIMC's journey," said John Karagiannidis, CEO of QIMC. "Our extensive sampling efforts and the confirmation of our hydrogen model demonstrate not only the richness of our geological discoveries but also our dedication to advancing sustainable energy initiatives allowing Quebec to achieve its low carbon emission goals."

## **Westward Extension of High ppm Soil-Gas results**

The INRS Field team took advantage of the dry, warm weather of September 2024 to carry out complementary geochemical surveys to obtain, among other things, new Soil-Gas data in various sectors of the village of St-Bruno-de-Guigues. In total, the field team has collected 339 gas samples since September 2024, along 7 sections (lines 7-north, 12, 13, 14, 16, 40, 41, 42) (Fig.1). Combined with the Soil-Gas surveys of summer 2024, a total of 1,057 samples have been collected within the municipality of St-Bruno-de-Guigues.



**Figure 1: Location plan of the new lines of the September 2024 Soil-Gas survey (in red) and simplified geological map (modified from SIGÉOM, MRNF) highlighting the absence of a green belt (volcanic) in the St-Bruno-de-Guigues airport road sector.**

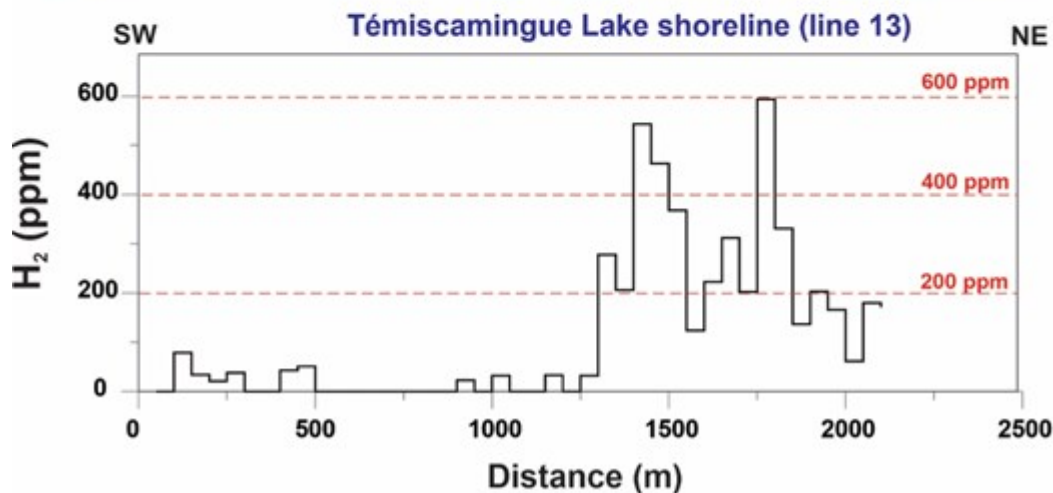
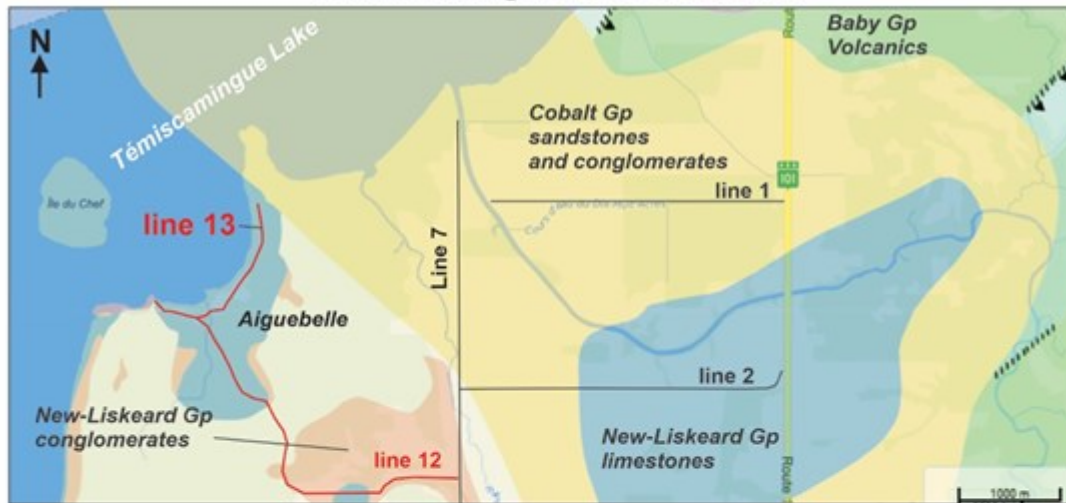
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The field team also took advantage of this sampling period to validate the hypothesis that the hydrogen detected in the subsurface originates from bedrock and not from secondary biochemical processes involving glaciolacustrine sediments. For this important demonstration for QIMC, the field team sampled line 13, which borders Lake Temiscamingue in the area of the former Aiguebelle dolomite quarry (Fig. 3) and extended westward the hydrogen discovery area. Along this section, which is devoid of glaciolacustrine sediments, a very thin cover of till (50 cm to 1 m thick) rests on dolomitic limestones or sandstones of the Cobalt Group. "In contrast to the glaciolacustrine sediment-rich areas of the region, the CO<sub>2</sub> concentrations of the hydrogen-rich samples from line 13 are very low. Once again, this finding is incompatible with the hypothesis that fermentation of organic matter could have produced biogenic hydrogen" states Prof Marc Richer-Lafèche, scientific head of the INRS' Applied Geoscience Laboratory.

Geological observations along line 13 show a 1-meter subsidence of the dolomitic limestone platform associated with a network of tight fractures. Hydrogen-rich samples from line 13 (463 and 543 ppm at stations 1400 m and 1450 m, and 594 ppm at station 1750 m) line up along this fracture zone, which parallels the tectonic grain of the Lake Temiskaming graben. "This observation also supports our conceptual exploration model highlighting the importance of graben faults in the process of hydrogen transfer from deep geological sources" notes Prof Marc Richer-Lafèche.

## St-Bruno-de-Guigues Témiscamingue Lake shoreline



**Figure 2: Location map, simplified geology (SIGÉOM-MRNF) and Soil-Gas section of line 13 along Lake Témiscamingue. Note the very high hydrogen concentrations from stations 1250m to 1900m, over a length of 650ms**

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### Natural renewable hydrogen model

A 4.15 km-long survey was carried out along chemin de l'aéroport to test the green belt model, proposed by Prof., to explain, among other things, the formation of hydrogen beneath the St-Bruno-de-Guigues sedimentary rock basin. The model predicted, among other things, minimal hydrogen concentrations in the airport area to the east of our model, as the Precambrian basement beneath the sedimentary rocks consists mainly of sodic granitoids (trondhjemite) (poor in Fe, Mg and K) and not Fe- and Mg-rich greenbelt rocks. Data from the St-Bruno-de-Guigues airport road (route à Lemieux), presented in Figure 3, effectively show the near-absence of hydrogen over several kilometers. "This observation confirms the initial model, which requires very large volumes of greenbelt rocks (Fe-rich basalts, komatiites, peridotites and iron formations) beneath the sedimentary rock cover of the Cobalt and New-Liskeard Groups," said Prof. Richer-LaFlèche. "Note that along the Airport Road section, the terrain is covered by sedimentary rocks of the Cobalt Group (sandstones and conglomerates) and dolomitic limestones of the New-Liskeard Group, which form a topographic elevation in the area", continues Prof. Richer-LaFlèche.

### Extension of hydrogen zone in the Duhamel-Ouest, Fabre and Béarn areas

In support of its strategy as a leader in natural renewable hydrogen in Quebec, QIMC has extended its

holdings south of Ville-Marie in the sedimentary rock terrains bordering Lake Témiscamingue. "As a result, all the high priority targeted hydrogen fields in the Témiscamingue region are now spatially grouped together" states John Karagiannidis, CEO of QIMC.

The Duhamel-Ouest-Fabre-Béarn (DOFB) area, located south of Ville-Marie, contains most of the components of the volcanic belt-graben model used by QIMC and INRS to guide exploration work in the St-Bruno-de-Guigues area.



**Figure 4: Simplified regional map showing exploration sectors A, B and C of the Ville-Marie project.**

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"Located more than 30 km from St-Bruno-de-Guigues, the bedrock in the DOFB sector is different in places and contains, among other things, several geological features highly favorable for hydrogen," notes Prof Richer-Lafèche. In this part of Témiscamingue, the sedimentary rocks of the Cobalt Group are injected by numerous Nipissing mafic dykes that, locally, form sills (sub-horizontal intrusions) that can

act as impermeable barriers limiting the ascent of hydrogen to the surface. "This geological context is reminiscent of the Bourakébougou hydrogen deposit in Mali, where diabase sills delineate the tops of hydrogen reservoirs that are commercially exploited to generate electricity," continues Prof Richer-Lafèche. Other features specific to the DOFB area are the considerable elevation of the sedimentary rock hills of the Cobalt Group and the presence of powerful faults bringing volcanic rocks and Proterozoic sedimentary rocks into contact. "As highlighted on the map in figure 4, mafic volcanic rocks appear to underlie the sedimentary basin, as suggested by the presence of numerous windows of volcanic rocks located at the periphery of the Cobalt Group sedimentary rocks. The INRS team considers this to be another high target priority area for hydrogen and further compliments the existing hydrogen portfolio," states Prof Richer-Lafèche.

## Geology of the South exploration area

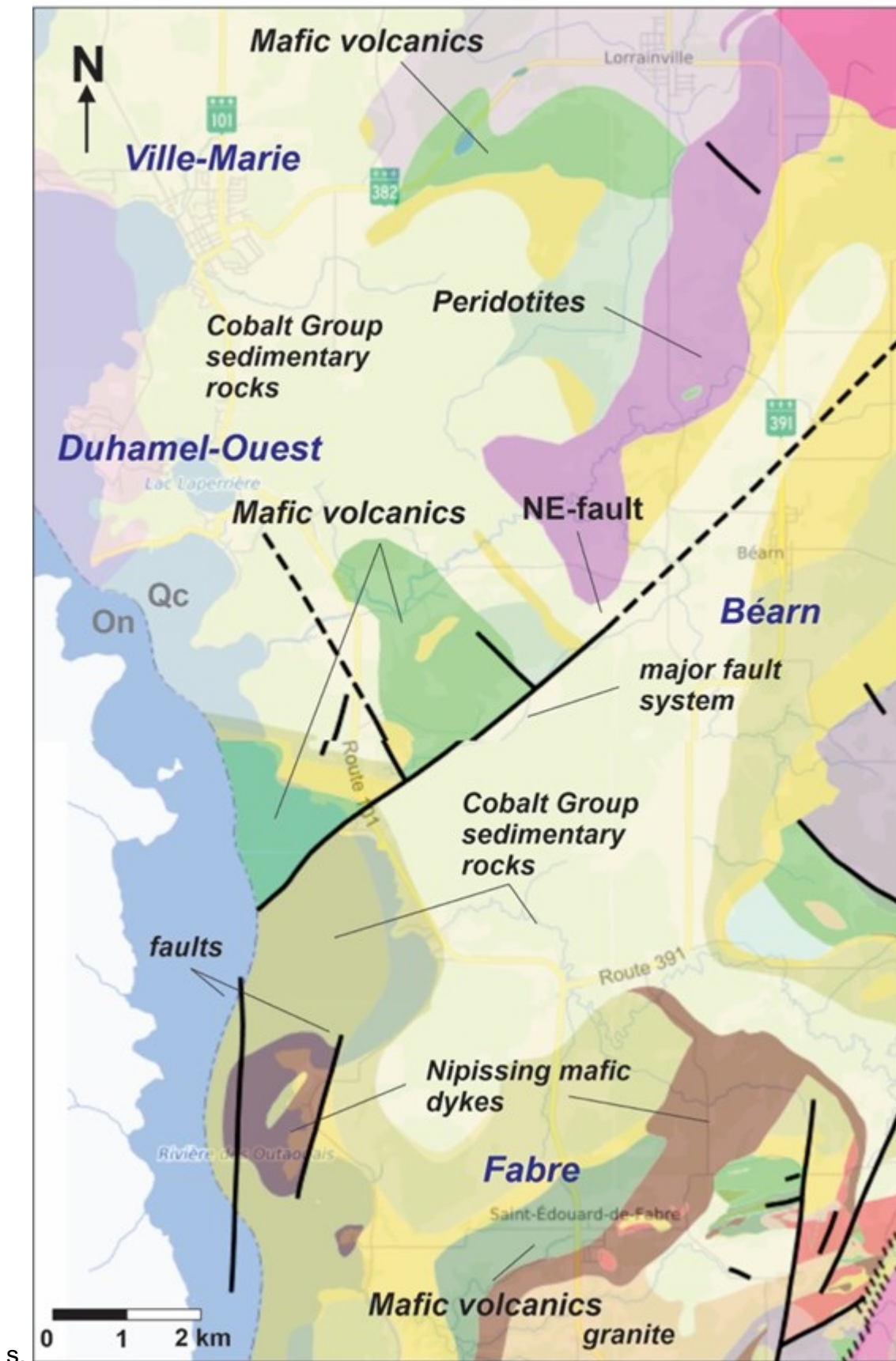


Figure 5: Simplified geological map of Exploration Zone C, located south of Ville-Marie in the municipalities of Duhamel-Ouest, Fabre and Béarn. The area is particularly affected by powerful faults (NE-Fault) and second-order faults in the cliffs bordering Lake Témiscamingue. Note that Green Belt rocks are ubiquitous around the periphery of the Cobalt Group sedimentary plateau. Modified simplified geological map from SIGÉOM (MRNF).

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## **St-Bruno-de-Guigues**

"The QIMC team and INRS want to also extend thanks to Mr. Richard Robert, the Saint-Bruno-de-Guigues Mayor, and the council members for their support and hospitality during our meeting on September 25, 2024," said John Karagiannidis, CEO of QIMC. "Their commitment to fostering a collaborative environment is invaluable as we keep moving forward our natural renewable hydrogen project and shared goals of reducing Quebec's carbon emission and being a leader in the space."

### **About the INRS and Pr. Marc Richer-LaFlèche, P.Geo.**

The Institut National de la Recherche Scientifique ("INRS") is a high-level research and training institute. Pr. Richer-LaFlèche's team has exceptional geological, geochemical and geophysical experience specifically in the regions of QIMC's newly acquired claims. They have carried out over six years of geophysical and geochemical work and collected thousands of C1-C4 Soil-Gas analyses.

M. Richer-LaFlèche also holds an FRQNT grant, in partnership with Quebec MRN and the mining industry, to develop and optimize a Soil-Gas method for the direct detection of mineralized bodies and faults under Quaternary cover. In addition to sulphide gases, hydrogen was systematically analyzed in the numerous surveys carried out in 2023 in Abitibi, Témiscamingue and also in the Quebec Appalachians. M. Richer-LaFlèche is the Qualified Person responsible for the technical information contained in this news release and has read and approves the information contained herein.

In addition, the INRS team has several portable gas spectrometers and the sampling equipment and logistics necessary for taking gas samples and geophysical measurements on the ground or in the aquatic environment. He is a professional geologist registered with the Ordre des géologues du Québec and is the Qualified Person responsible for the technical information contained in this news release and has read the information contained herein and approves the press release.

### **Engagement of ITG**

QIMC announces that it has engaged the services of Independent Trading Group (ITG), Inc. ("ITG") to provide market-making services in accordance with the policies of the Canadian Securities Exchange (the "CSE"). Pursuant to the engagement, ITG will trade common shares of the Company on the CSE and all other trading venues with the objective of maintaining a reasonable market and improving the liquidity of the Company's common shares.

Under the agreement, ITG will receive compensation of C\$10,000 per month, plus taxes, payable monthly. The agreement is for an initial term of one month and will renew for additional one-month terms unless terminated. The agreement may be terminated by either party with 30 days' notice.

There are no performance factors contained in the agreement and ITG will not receive shares or options of the Company as compensation. ITG and the Company are unrelated and unaffiliated entities and at the time of the agreement, neither ITG nor its principals held an interest, directly or indirectly, in the securities of the Company. ITG is a member of the Canadian Investment Regulatory Organization (CIRO) and can access all Canadian stock exchanges and alternative trading systems. The capital and securities required for any trade undertaken by ITG as principal will be provided by ITG.

### **About Independent Trading Group**

Independent Trading Group (ITG) Inc. is a Toronto-based IIROC dealer-member that specializes in market making, liquidity provision, agency execution, ultra-low latency connectivity, and bespoke algorithmic trading solutions. Established in 1992, with a focus on market structure, execution and trading, ITG has leveraged its own proprietary technology to deliver high quality liquidity provision and

execution services to a broad array of public issuers and institutional investors.

For more information about Québec Innovative Materials Corp. and its products, please visit [www.qimaterials.com](http://www.qimaterials.com).

## **About Québec Innovative Materials Corp.**

Québec Innovative Materials Corp. is a mineral exploration, and development company dedicated to exploring and harnessing the potential of Canada's abundant resources. With properties in Ontario and Québec, QIMC is focused on specializing in the exploration of white (natural) hydrogen and high-grade silica deposits, QIMC is committed to sustainable practices and innovation. With a focus on environmental stewardship and cutting-edge extraction technology, we aim to unlock the full potential of these materials to drive forward clean energy solutions to power the AI and carbon-neutral economy and contribute to a more sustainable future.

## **QUÉBEC INNOVATIVE MATERIALS CORP.**

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## **Forward-Looking Statements**

*This news release contains statements that constitute "forward-looking statements". Such forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause Québec Innovative Materials' actual results, performance or achievements, or developments in the industry to differ materially from the anticipated results, performance or achievements expressed or implied by such forward-looking statements. Forward-Looking statements are statements that are not historical facts and are generally, but not always, identified by the words "expects," "plans," "anticipates," "believes," "intends," "estimates," "projects," "potential" and similar expressions, or that events or conditions "will," "would," "may," "could" or "should" occur.*

*Although Québec Innovative Materials believes the forward-looking information contained in this news release is reasonable based on information available on the date hereof, by their nature, forward-looking statements involve assumptions, known and unknown risks, uncertainties and other factors which may cause our actual results, performance or achievements, or other future events, to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements.*

*Examples of such assumptions, risks and uncertainties include, without limitation, assumptions, risks and uncertainties associated with general economic conditions; adverse industry events; future legislative and regulatory developments in the mining sector; the Company's ability to access sufficient capital from internal and external sources, and/or inability to access sufficient capital on favorable terms; mining industry and markets in Canada and generally; the ability of Québec Innovative Materials Corp. to implement its business strategies; competition; and other assumptions, risks and uncertainties.*

*The forward-looking information contained in this news release represents the expectations of the*



*Company as of the date of this news release and, accordingly, is subject to change after such date. Readers should not place undue importance on forward-looking information and should not rely upon this information as of any other date. While the Company may elect to, it does not undertake to update this information at any particular time except as required in accordance with applicable laws.*



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