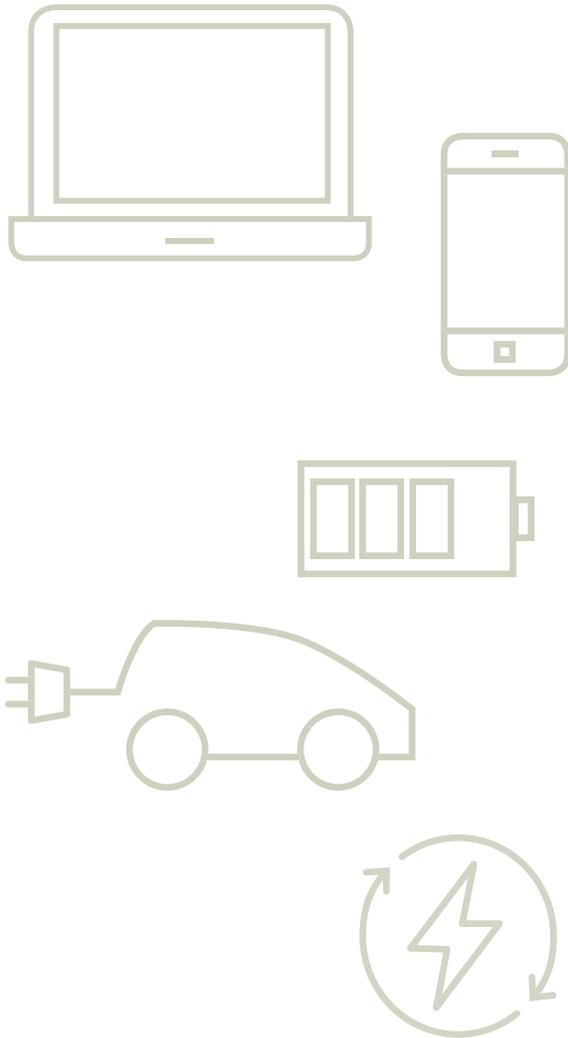


GRENVILLE-SUR-LA-ROUGE COULD HELP CANADIANS ACHIEVE A LOW-CARBON FUTURE





Grenville-sur-la-Rouge could play a leading role to meet climate change goals



In a world that needs to focus aggressively on clean, low-carbon energy to meet climate change goals, Grenville-sur-la-Rouge (GSLR), a municipality of about 2,800 people, could play a leading role. The reason? The presence of a hydrothermal lump vein graphite deposit of very high purity and very high value on its territory.

Graphite is used in many technological applications, as described in Canada Carbon's corporate video¹. Graphite is used in lithium-ion batteries that power electric vehicles, or in smartphones, tablets and personal computers. But few people know that high purity graphite is an essential component of small modular reactors (SMR).²

Small modular reactors have three major areas of application:

- > On-grid power generation, especially in provinces phasing out coal in the near future.
- > On-and off-grid combined heat and power for heavy industries.
- > Off-grid power, district heating, and desalination in remote communities. These currently rely almost exclusively on diesel fuel, which has various limitations (e.g. cost, emissions).

As stated in *A Call to Action: A Canadian Roadmap for Small Modular Reactors*:

*"Small Modular Reactors are a source of safe, clean, affordable energy, opening opportunities for a resilient, low-carbon future and capturing benefits for Canada and Canadians."*³

Grenville-sur-la-Rouge could be a key player in the production of clean energy in Canada.

1 <https://www.canadacarbon.com/miller-video>

2 Technical Report and Preliminary Economic Assessment for the Miller Graphite and marble Property, Grenville Township, Quebec, Canada. Tetra Tech. March 4, 2016. Page 205, section 19.1.2. <https://www.canadacarbon.com/docs/Miller-PEA.pdf>

3 Canadian Small Modular Reactor (SMR) Roadmap Steering Committee. *A Call to Action: A Canadian Roadmap for Small Modular Reactors*. Ottawa, ON, Canada. <https://smrroadmap.ca/>



Creating wealth for Grenville-sur-la-Rouge and the region

Grenville-sur-la-Rouge will be able to use the graphite production of the Miller project to develop its economy and that of the region. Considerable economic benefits can also be expected throughout the surrounding communities.

- > According to Canada Carbon's *Technical Report and Preliminary Economic Assessment for the Miller Graphite and Marble Property*⁴, Grenville-sur-la-Rouge and surrounding areas could receive approximately a \$ 189.7 million injection into its local economy, assuming all products and services included in operating costs of the project could be sourced locally.
- > It is estimated that the total amount of tax payable on project profits would be \$ 70.5 million over 18 years.
- > The project would create 58 jobs during construction.
- > The operation of the mine should create more than 100 jobs for 10 years with job extensions for the next 8 years.
- > Approximately 90 indirect jobs would be created during mine operations.⁵
- > If available, local contractors would be hired by Canada Carbon during construction and operation.
- > Canada Carbon would source from local merchants.

The Miller mine will:

- > Inject \$189.7 million in the local and regional economy;
- > Pay \$70.5 million in tax;
- > Create 58 jobs during construction;
- > Create more than 100 jobs during life of mine.

Like many communities hosting a mining operation on their territory, Grenville-sur-la-Rouge will be able to take advantage of the Miller property to improve some of its municipal infrastructures. For example, Canada Carbon has already committed to contribute financially to the improvement of Scotch Road.

Grenville-sur-la-Rouge could also benefit from:

- > Donations and sponsorships to support local organizations.
- > Amounts of money to support the development of agricultural, tourism and other activities.
- > Money to help launch community projects.
- > Land donations toward the creation of conservation zones to compensate its impact to the environment.

Finally, Canada Carbon would consider donating any land acquired to GSLR to develop its tourism industry or for any other purpose.



⁴ Technical Report and Preliminary Economic Assessment for the Miller Graphite and Marble Property, Grenville Township, Quebec, Canada. Tetra Tech. March 4, 2016. <https://www.canadacarbon.com/docs/Miller-PEA.pdf>

⁵ According to estimates from the intersectoral model of the Quebec Institute of Statistics (ISQ), for each direct employment created by the mining sector, 0.9 indirect jobs are created.



The Miller property at a glance

Geographic location

The Miller Property is located in the Laurentians, on the edge of the Ottawa region, in southern Quebec, about 75 km west of Montreal, and 90 km east of Ottawa, Ontario. It is located within the boundaries of the MRC d'Argenteuil and in the municipality of Grenville-sur-la-Rouge.

Historical events

The Miller mine is a former producer of graphite and mica that was mined between 1845 and 1900. It was known as the Grenville graphite deposit. Bulk / vein graphite from the Grenville deposit was considered equal to the best-known graphite from Sri Lanka. The Miller mine is considered to be the first graphite mine in Canada.

Description of the property

The Miller property consists of 71 mining claims located on both sides of the Rouge river. It covers an area of 4,152 hectares.

However, the total surface area of the extraction pits, the treatment plant and the proposed infrastructure covers 67 hectares of the Miller property. The exploration work carried out to date is limited to 30 hectares, which represents 30 football fields.

[Extractive activities will last approximately 11 years.]

Life of mine

The mine will be in operation for approximately 18 years, including 7 years of treatment without extractive activities.

Project Infrastructures

All mining activities, including graphite concentrate processing and marble block mining, will be conducted on the Miller property. A transformed product (high purity graphite concentrate) will be produced in Grenville-sur-la-Rouge, on the mine site.

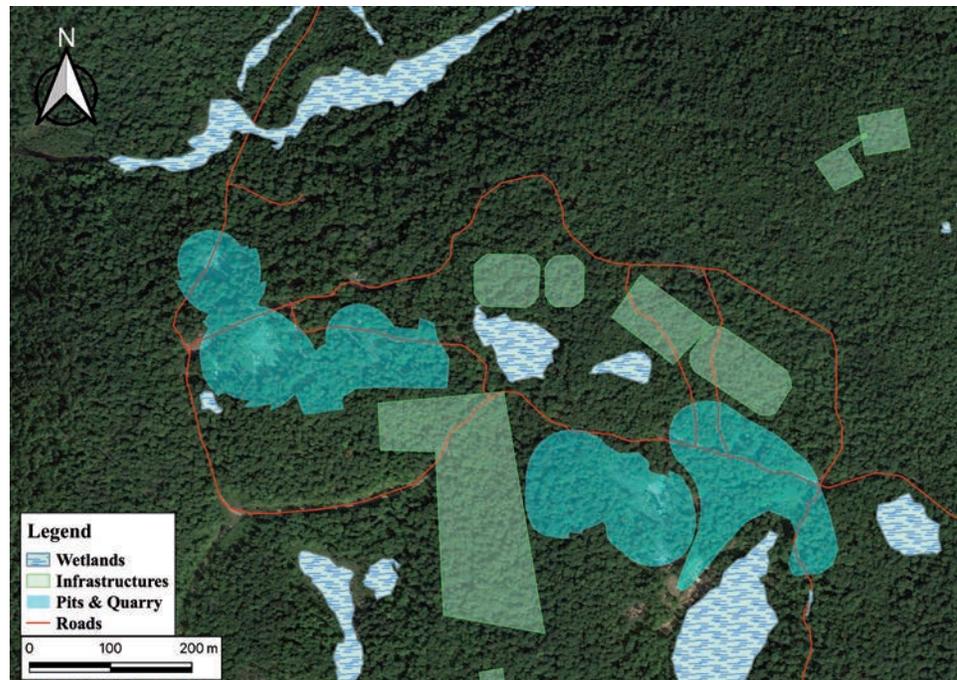
[The total extractive area would cover 12 hectares.]

The Miller project will be an open pit mine with a total extractive area of 12 hectares. There will be two pits for the extraction of graphite, one pit for the extraction of marble, and service facilities.

Production

The graphite pit will produce a maximum of 1,515 tons of purified graphite per year.

The marble pit is expected to produce a maximum annual marble tonnage of 150,000 tons per year.





Canada Carbon will restore the site

Mining companies are governed by more than 100 environmental laws, regulations and standards, leading to tight supervision of their activities in Quebec.⁶

For example, since 2013, legislation makes mining companies 100% responsible for site restoration. As a result, a mining company must deposit 100% of the financial guarantee within the first three (3) years following mining permit reception to cover the costs related to the restoration of the mine project. Canada Carbon will submit a restoration plan to the Department of Energy and Natural Resources (MERN) in accordance with section III, section 232 of the *Mining Act*.

The estimated cost of rehabilitation and closure of the project is estimated at \$ 1 million. Half of this sum must be disbursed by Canada Carbon before obtaining the mining lease and balance within 3 years after the issuance of the lease.

Canada Carbon will also allocate \$ 10,000 per year, for four years, for water quality monitoring after mine closure to ensure that no impact will be present as a result of its activities.

Full details on Miller site restoration plan can be found in the *Miller Project Restoration Plan*.⁷



[Canada Carbon will deposit approximately \$1 million to cover the cost of rehabilitation and closure of the mine.]



[Water quality will be monitored for four years after mine closure at a cost of \$ 10,000 per year.]

⁶ Quebec Mining Association <https://www.amq-inc.com/en/>

⁷ Miller Project Restoration Plan – Canada Carbon Inc. Preliminary report filed with: Commission for the Protection of Agricultural Land (CPTAQ) (Document in French) Plan de restauration Projet Miller – Canada Carbon inc. Rapport préliminaire déposé à : Commission de protection du territoire agricole du Québec (CPTAQ). Décembre 2016. https://www.canadacarbon.com/docs/CCB-Fermeture-Plan-de-fermeture-Canada-Carbone_PRELIMINAIRE.pdf



Canada Carbon will take steps to avoid, reduce or offset impacts on wildlife

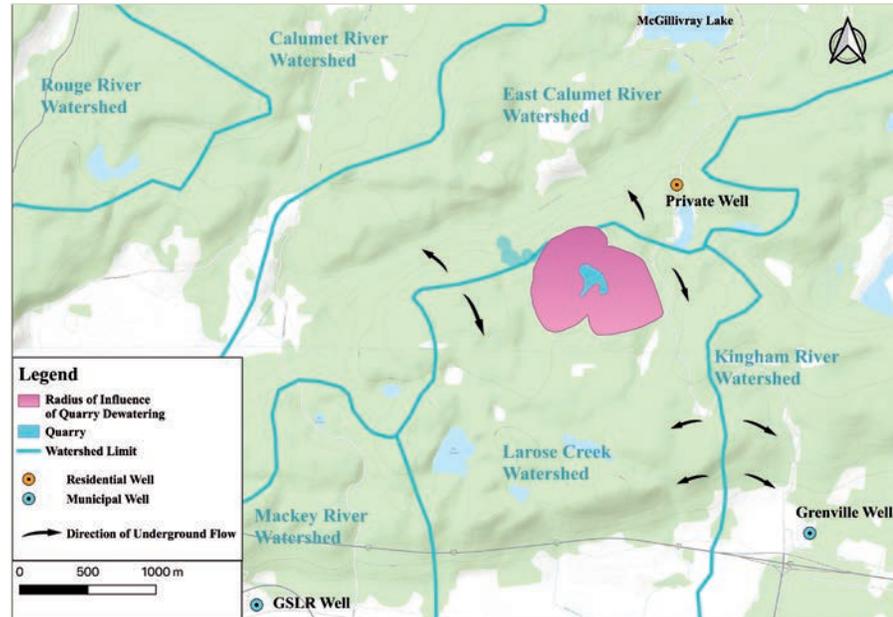


The legislative and regulatory framework to which mining companies are subject aims to preserve the quality of the environment, promote its sanitation and prevent its deterioration. Mining companies must obtain a certificate of authorization under section 22 of the *Environment Quality Act*.

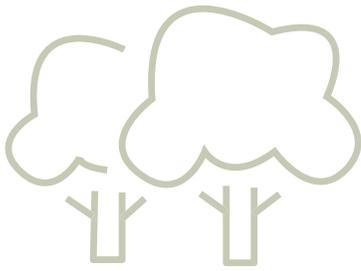
Canada Carbon will need to obtain this certificate from the Department of Environment and Climate Change (MELCC).

To preserve the quality of the environment and prevent its deterioration, Canada Carbon is committed to:

- > Examine the potential impact of all proposed activities on the environment and take steps to minimize or, to the extent possible, eliminate any impact.
- > Comply with recognized industry standards, while respecting applicable local laws and regulations.
- > Regularly determine the impact of the company on the environment and, as part of continuous improvement, strive to achieve higher levels of environmental performance.
- > Minimize the production of hazardous and non-hazardous materials and ensure the proper disposal of all wastes.
- > Maintain a high level of environmental protection by applying best practices and technologies to minimize impacts and improve the quality of the environment with respect to water bodies, air, vegetation and wildlife.
- > Gradually rehabilitate disturbed areas, as appropriate, and develop closure plans for continuous improvement and integration of new technologies.
- > Train and educate all employees to understand their environmental responsibility for all activities related to the operations of the company.
- > Require contractors and suppliers to act in accordance with the company's environmental standards and procedures.
- > Consider environmental factors when purchasing equipment and materials.



- > Comply with industry standards while complying with all applicable environmental, health and safety laws and regulations.
- > Establish and maintain a well-defined environmental, health and safety management system to guide its operations.
- > Ensure all employees, officers and directors understand and adhere to their environmental, health and safety management program.
- > Provide operations with the resources, expertise and training necessary to carry out its environmental, health and safety management programs.
- > Engage employees at all levels in programs to minimize the negative impact on the environment resulting from mining activity.
- > Promote environmental awareness among employees, their families and the communities in which they operate.
- > Conduct periodic audits of its operations against stated commitments and actions related to environmental, health and safety management.
- > Maintain a high degree of emergency preparedness.
- > Communicate openly with employees, the government, the public and other stakeholders about this policy and all things related to health, safety and the environment.



[Canada Carbon will invest annually in maple development near the Miller Project.]

- > Offset its environmental impact in one or more local projects that will promote the biological diversity of the municipality. All will be done in consultation with the various actors: Landowners, Municipality, MRC, CPTAQ, MELCC and MERN.

The maple syrup production

"Canada Carbon is willing to invest in the surrounding Miller Project forest to preserve the future maple potential of the region. Canada Carbon is proposing to plant maples early in the project so that they are more mature when the site is closed. Canada Carbon will invest annually in maple development near the Miller Project."⁸

Wetlands

The Miller property is covered with wetlands and mixed forests. There are at least six (6) wetlands areas comprised of treed swamps, shrub swamps, treed peat bogs, marshes and ponds, all of which cover approximately 21.53 ha or 18% of the studied area. The ecological values of the wetlands vary from low to medium and high. **Canada Carbon wants to avoid any impact on wetlands of high ecological value and has modified its Project Infrastructure so that it does not trespass over any wetland.**

Vegetation

Two hundred and fifty-nine (259) plant species have been identified, 14 of which have special status or represent species of interest. Of these, four are likely to be designated as threatened or vulnerable in Quebec, while one is designated as vulnerable in Quebec. The Butternut tree is also designated as an endangered plant species in Canada.

Measures for avoidance of species designated as vulnerable to harvesting will be evaluated and assessed as part of the work needed for completing *Certificate of Authorization* requirements. Canada Carbon wishes to avoid, minimize or even offset its impact on these species. Among other things, the movement of certain species is an effective measure to promote their survival.

Wildlife

An animal species with special status has been heard (but not observed); it is the pickerel frog (likely to be designated threatened or vulnerable in Quebec). Where avoidance is not possible, mitigation measures such as relocation will be assessed.

Proposed Measures for the Protection of Wildlife, Flora and Wetlands

Measures will be evaluated and proposed to the Department of Environment and Fight against Climate Changes (MELCC) as part of the work required to obtain the *Certificate of Authorization*.

The importance of dialogue

Mining companies understand the need to meet governments and local community requirements to open mines. Today, corporate social responsibility extends well beyond meeting the minimum legal requirements associated with conducting an environmental impact assessment. It involves understanding local community and governments expectations, addressing the demands of relevant stakeholder groups and committing to a higher level of transparency and operational sustainability.

Canada Carbon reiterates its commitment to continue the dialogue with the people of Grenville-sur-la-Rouge. This dialogue could lead to a number of commitments among which are the following:

- > Holding information meetings and open houses.
- > Creation of monitoring committees for the Miller project.
- > Establishment of information mechanisms for the population.
- > Opening of a liaison office in Grenville-sur-la-Rouge.

⁸ Extract from a letter of intent dated December 4, 2017.



Popular public assumptions and frequently asked questions

The Miller Mine would cover nearly a third of the municipality of Grenville-sur-la-Rouge, or 105 km².

In reality, the pits will cover only 0.12 km².

The Miller project area would cover 1,000 acres.

The Miller pits and infrastructure project will cover 67 hectares.

Miller project aquifer is class 1 (A class 1 aquifer is highly protected because it can supply a public well with drinking water).

Miller project aquifer is a class 3 which means it is non-economically exploitable due to its low volume and it doesn't supply residential water wells.⁹

The view from the bridge that links Ontario and Quebec is principally the mountain that Canada Carbon is working on.

Canada Carbon's Miller project is located in the valley **behind the mountain** that is seen from any location of GSLR's lowland. The project **will not be visible** from the lowland or Scotch road.

Citizens' well may dry up.

Dewatering of the quarry will not have any impact on the quantity or the quality of any water well of the municipality of GSLR, including the neighbors well.¹⁰

There will be disturbances related to industrial noise.

Canada Carbon proposes to reduce sound impact through the use of acoustic walls and limiting hours of operation for certain activities. Canada Carbon's modeling meets the Department of Environment and Fight against Climate change (MELCC) standards¹¹. Canada Carbon will continue to seek ways to reduce sound impact.

Property value will decrease.

In Malartic, Abitibi, all properties have experienced a phase of rising values higher than the rest of the region since the introduction of the mine¹². This is also true for the properties located in the southern part of Malartic, at a distance of less than 695 m from the mine pit. The Miller Project closest neighbor is located 720 m from the operation.

The quality of drinking water will be affected.

The hydrogeological study¹³ has shown that the amount of metal in the rock is insufficient to contaminate the environment and that there will be no generation of acid that can attack the surrounding metals, eliminating the potential for contamination by leaching and metal transport.

Canada Carbon intends to use observation wells around the Miller Project to test the quality and quantity of nearby water, although the results of the hydrogeological studies suggest that these measures will prove unnecessary.

Both the Village of Grenville and the Municipality of Grenville-sur-la-Rouge have confirmed as a result of separate independent hydrogeological studies that the water supply to their public wells would not be affected by the work inherent in the Miller Project because the locations of their respective wells are in different watersheds than the Miller Project.¹⁴





Work on the Miller Project will impede the natural flow of surface water and affect the groundwater that supply wells.

The flow of surface water from the Miller Project area extends from McGillivray Lake toward the Miller Project, preventing interference with the upstream area. It departs from McGillivray Lake and the nearest neighbor on Scotch Road.¹⁵

Canada Carbon tries to avoid BAPE hearings.

The Miller project is not subject to BAPE hearings because the Quebec government has determined that only mining projects that process 500 tons or more of ore a day require a review of the BAPE. The Miller mine would process an average of only 388 tons of graphite ore per day. In comparison, the Canadian Malartic mine processes 55,000 tons of ore per day¹⁶, more than 100 times the Miller project.

The graphite mine and the marble quarry will produce excessive noise.

In our first acoustic study, it is determined that by constructing a 5 m acoustic wall adjacent to the graphite pits at the Miller site, the sound impact was below the MELCC limit of 45 decibels per day and 40 decibels at night. In a complementary study conducted in January 2018, the new model indicates that when only the marble quarry is in operation, the sound level does not exceed 29.9 decibels for the two nearest neighbors, which is equivalent to the sound level of a quiet rural area. When the depth of the graphite pits is incorporated into the model, the sound level reaches a maximum of 43.2 decibels during the day with a 5 m acoustic wall and is reduced to 40.5 decibels with a 15 m acoustic wall. Graphite extraction activities cease during the night. In addition, the excavation depth below 5 m of the graphite pits is not included in the sound study. As the pit deepens, the impact of operations on noise will be significantly reduced.

The Company is still exploring options for further noise reduction, including changing the acoustic wall geometry and selecting quieter equipment or modifying processes. It is important to note that

the MELCC needs sound modeling if a quarry is located within 600 m of any dwelling. Miller's closest neighbor is 720 m away.¹⁷

This project will destroy the landscape and disrupt sensitive ecological zones. There are sensitive marsh areas with animal species that will disappear forever.

Measures for avoidance of species designated as vulnerable to harvesting will be evaluated and assessed as part of the work needed for completing *Certificate of Authorization* requirements. Canada Carbon wishes to avoid, minimize or even offset its impact on these species. Among other things, the movement of certain species is an effective measure to promote their survival.

In addition, Canada Carbon is required by law to clean and rehabilitate the mine site after closure. This is an essential condition for obtaining a license to operate a mine.

Canada Carbon intends to settle around a lake where there are a hundred residences that would be affected within 1.5 km.

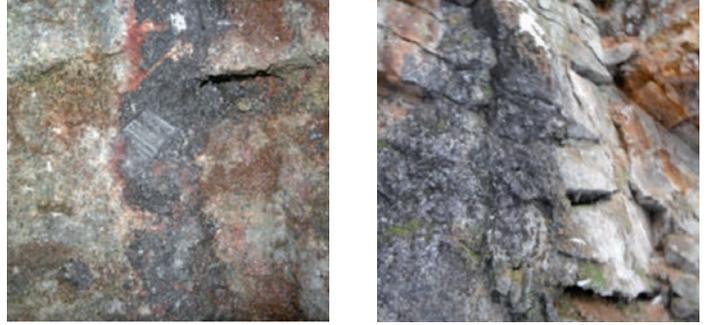
They want to settle near a camp for underprivileged children (located less than 1 km away) who would suffer a lot. You can imagine all that noise, such as explosions and drilling, coming and going from heavy trucks, etc.

The nearest neighbor to the Miller Project is 720 meters from the nearest pit.

An independent acoustic study has shown that the noise level produced by the extraction of graphite and marble will be below the limits set by law.¹⁸

There will be no drilling, blasting, mining or trucking at night for the mine operation. The quarry will continue working as it does during the day, producing less than 30 decibels to the nearest neighbor.

There will be 4 blasts per year, for a few seconds only, in the graphite mining area. The extraction of waste rock from the quarry will be done by sawing or by small blasts. This method will significantly reduce the amount of blasting to be done.



The mine will produce a sound below the limits set by law.

The Amy Molson camp is mainly used in summer.

The Miller project entrance is located a few kilometers south of the camp. Trucks are very unlikely to circulate near or around the camp.

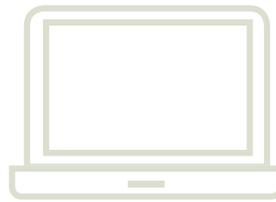
Canada Carbon will not blast while children are in camp or during the summer when the use of McGillivray Lake will be at its peak.

The company will produce hazardous waste that will be abandoned on site and will remain there for years.

Reports produced by independent experts have confirmed that the Miller project **will generate non-toxic waste.**

In addition, Canada Carbon is required by law to clean and rehabilitate the mine site after closure. This is an essential condition for obtaining a license to operate a mine. The Company is required to put up a bond for the estimated cost of rehabilitation so that funds are available at the end of the project to ensure rehabilitation occurs.

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- 9 Hydrogeological Study Miller Marble Quarry Project Grenville-sur-la-Rouge, Quebec. Prepared by BluMetric Environment Inc. 2018, Page 10, Figure 8, (Document in French). Étude hydrogéologique Projet carrière de marbre Miller Grenville-sur-la-Rouge (Québec). Préparé par BluMetric Environment Inc. 2018. Page 10, figure 8. https://www.canadacarbon.com/docs/Final_Hydrogeological_Report_Quarry.pdf
 - 10 Hydrogeological Study Miller Marble Quarry Project Grenville-sur-la-Rouge, Quebec. Prepared by BluMetric Environment Inc. 2018, Page 10, Figure 9, (Document in French). Étude hydrogéologique Projet carrière de marbre Miller Grenville-sur-la-Rouge (Québec). Préparé par BluMetric Environment Inc. 2018. Page 10, figure 9. https://www.canadacarbon.com/docs/Final_Hydrogeological_Report_Quarry.pdf
 - 11 Acoustics Study – Canada Carbon Mining Project in Grenville-sur-la-Rouge – Preliminary Phase. Vinacoustik Inc. 2016. Page 13, (Document in French). Étude acoustique – Projet minier de Canada Carbon à Grenville-sur-la-Rouge – Phase préliminaire. Vinacoustik inc. 2016. Page 13. <https://www.canadacarbon.com/docs/CCB-SON-Etude-Accoustique-PRELIMINAIRE-2.pdf>
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 - 13 Hydrogeological Study Miller Marble Quarry Project Grenville-sur-la-Rouge, Quebec. Prepared by BluMetric Environment Inc. 2018, (Document in French). Étude hydrogéologique Projet carrière de marbre Miller Grenville-sur-la-Rouge (Québec). Préparé par BluMetric Environment Inc. 2018. https://www.canadacarbon.com/docs/Final_Hydrogeological_Report_Quarry.pdf
 - 14 Canada Carbon Obtains Independent Hydrogeological Report Indicating Zero Impact of its Miller Project on Grenville Drinking Water. July 18th, 2017. https://www.canadacarbon.com/newsdetail?&newsfile=ccb_20170718.htm – Latest News
 - 15 Canada Carbon Completes Hydrogeology and Sound Impact Study on its Miller Project. February 28th, 2018. https://www.canadacarbon.com/newsdetail?&newsfile=ccb_20180228.htm – Latest News
 - 16 www.canadianmalartic.com/Entreprise-apropos-en.html
 - 17 Canada Carbon Completes Hydrogeology And Sound Impact Study on Its Miller Project. https://www.canadacarbon.com/newsdetail?&newsfile=ccb_20180228.htm – Latest News
 - 18 Acoustics Study – Canada Carbon Mining Project in Grenville-sur-la-Rouge – Preliminary Phase. Vinacoustik Inc. 2016, (Document in French). Étude acoustique – Projet minier de Canada Carbon à Grenville-sur-la-Rouge – Phase préliminaire. Vinacoustic inc. 2016. <https://www.canadacarbon.com/docs/CCB-SON-Etude-Accoustique-PRELIMINAIRE-2.pdf>





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