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REPORT ON MINERAL ACTIVITIES IN QUEBEC - 2009

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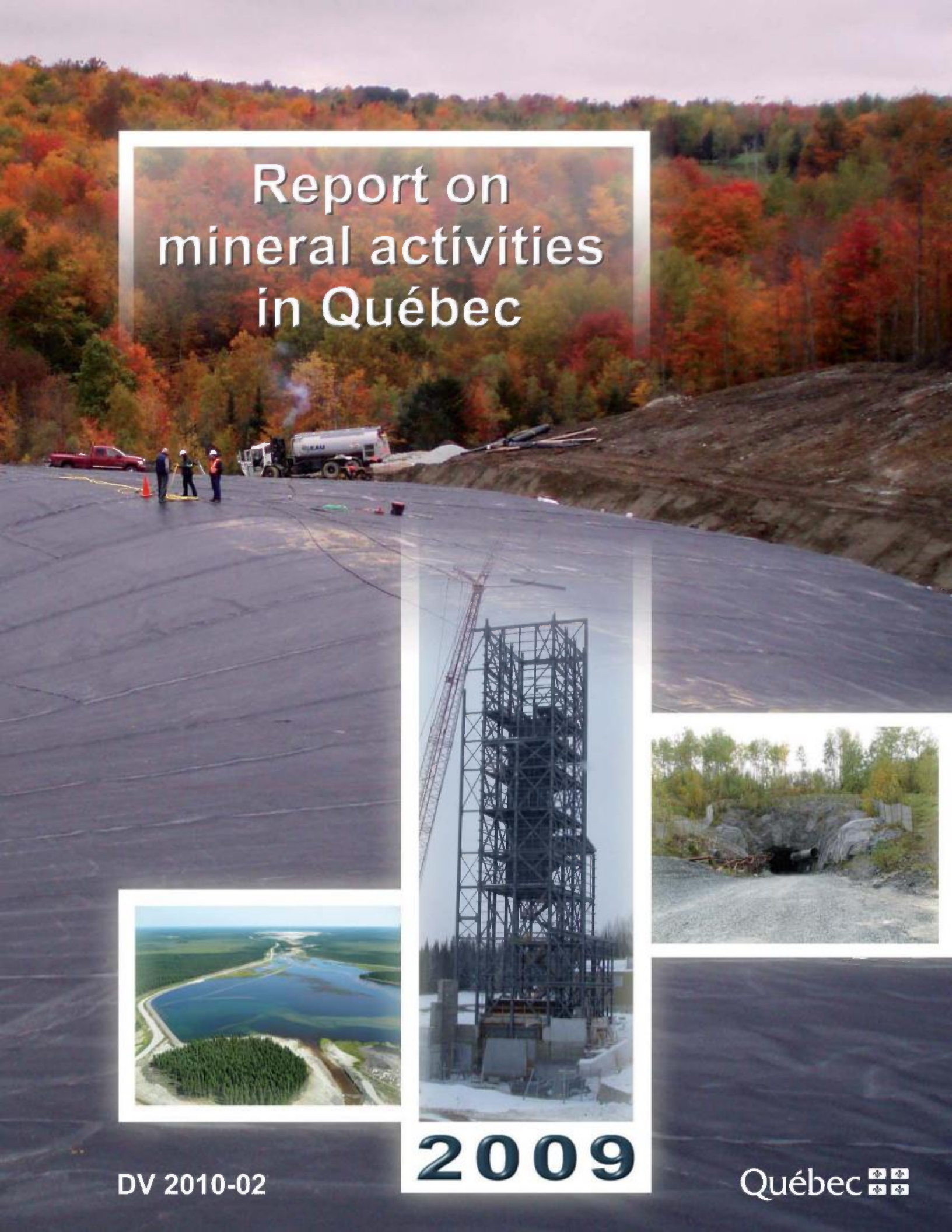
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Énergie et Ressources
naturelles

Québec 

Report on mineral activities in Québec



Report on mineral activities in Québec 2009

DISCLAIMER

The data compiled in this report come from several sources, including questionnaires addressed to prospectors, to directors of regional First Nations and Inuit exploration funds, and to representatives of mining and exploration companies, as well as from their press releases. The accuracy and reliability of this information depend solely on these sources.

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PUBLISHED BY THE “DIRECTION GÉNÉRALE DE GÉOLOGIE QUÉBEC”

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Photographs

- 1 Rehabilitation of the Eustis Mining Complex, Eastern townships, Autumn 2009.
- 2 Rehabilitation of the Manitou Mining Site in Abitibi-Témiscamingue, Autumn 2009.
- 3 Headframe of **IAMGOLD-Québec Management Inc.**'s exploration shaft for the Westwood gold project. *Photograph courtesy of Groupe MISA.*
- 4 Exploration ramp portal of **Alexis Minerals Corporation**'s lac Pelletier gold project. *Photograph courtesy of Alexis Minerals Corporation*

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HIGHLIGHTS

Mineral Strategy Unveiled

Jean Désilets

The Minister for Natural Resources and Wildlife, Mr. Serge Simard, proceeded on June 29, 2009 with the unveiling of Québec's first Mineral Strategy. This strategy is based on three major policy directions:

- Creating wealth for Québec and preparing the future of Québec's mineral sector;
- Ensuring environment-friendly mineral development;
- Fostering integrated, community-related mineral development.

With this first mineral strategy, Québec proposes measures, new social and environmental requirements, and framework initiatives in order to prepare the future of its mining sector. This strategy will contribute in maintaining Québec's position among industry leaders. It is but one of the government's actions aimed at developing a new economic space by namely stepping up the pace of mining development in Québec's North.

The reassessment of the mining duties regime, as well as the creation of the Mining Heritage Fund to accelerate knowledge acquisition on the mineral potential of Québec's regions, are some of the measures proposed in the strategy. Other initiatives aim to promote balanced land use and guarantee mine site rehabilitation. Specifically, the financial guarantees required to cover estimated costs in the rehabilitation plan will be increased from 70% to 100%, and the scope of financial guarantees will be extended to cover more than just tailings accumulation areas.

The strategy also aims to enhance education and training opportunities, promote employment in the mineral sector, and support worker adaptation. The participation of local and native communities to mineral development will also be encouraged.

The full text of Québec's Mineral Strategy, Preparing the Future of Québec's Mineral Sector, is available at the following address: www.QuebecMining.gouv.qc.ca.

Metal Markets

Louis Marcoux and James Moorhead

The upward cycle in the price of base and precious metals, which began in 2003, came to an end in 2008. The global economic crisis led to a severe drop in metal prices. In December

2008, base metals (Cu, Ni, Zn) reached their floor price and have begun to recover since the start of 2009.

The price of gold reached a record high of US\$1,217/ounce on December 12, 2009.

Iron ore prices are set annually in the spring, between the main producers of iron ore concentrate (RioTinto, BHP Billiton, Vale) and the main consumers (Japanese and Chinese steel manufacturers). The remaining participants in the iron ore market follow these benchmark agreements. Negotiations in the spring of 2009 led to a 33% drop in the price of concentrate relative to 2008. Similarly, the price of iron pellets fell by nearly 50% relative to 2008. Prices for iron ore products (concentrate and pellets) are expected to rise about 10% in 2010.

Mineral Exploration

James Moorhead, Raymond Beullac, Pierre Doucet, Patrick Houle, Louis Madore and Suzie Nantel

Over the past six years, Québec has benefited from a very favourable investment climate for mineral exploration. As of December 31, 2009, 202 295 active exploration mining titles were recorded throughout Québec, covering a total surface area of 9.2 million hectares. Based on data from the *Institut de la statistique du Québec*, exploration and deposit appraisal expenditures in Québec remained above the \$200M mark in each of the last five years (Table 1.1): \$227M in 2004, \$205M in 2005, \$295M in 2006, \$476M in 2007, and \$526M in 2008.

In April 2008, revised intentions for 2008 suggested exploration and deposit appraisal expenditures would reach \$571M. This enthusiasm saturated in June however, with the drop of most metal prices except gold, and the global economic crisis.

TABLE 1.1 - Exploration and development expenditures in M\$ for Québec. Source of data: Raymond Beullac of l'Institut de la statistique du Québec.

| Commodities | 2004 | 2005 | 2006 | 2007 | 2008 | % of 2008 |
|-----------------|-------|-------|-------|-------|-------|-----------|
| Precious metals | 135 | 115,6 | 145,4 | 225,9 | 263,3 | 50,0 |
| Base metals | 57 | 53 | 70,8 | 118,3 | 122,4 | 23,3 |
| Diamond | 28 | 22,8 | 29 | 26,9 | 12,8 | 2,4 |
| Ferrous metals | 0,3 | 1,4 | 22,2 | 29,2 | 23,5 | 4,5 |
| Uranium | 1,4 | 4,3 | 22 | 70,9 | 87,3 | 16,6 |
| Others | 5,5 | 8 | 5,7 | 5,1 | 16,8 | 3,2 |
| Total (M\$) | 227,2 | 205,1 | 295,1 | 476,3 | 526,1 | 100,0 |

In 2008: 1.3 M \$ expenditures for rare earth elements and 0.3 M \$ for lithium exploration.

% change 2007-08: 10,5

Nevertheless, expenditures for 2008 reached \$526M. For 2009, revised intentions have dropped to \$244M, despite an upturn in the price of several metals, namely gold and copper.

According to the results of the 2008 annual survey, 213 mining establishments reported performing exploration or deposit appraisal work in Québec as project manager: 20 major companies (\$111M) and 190 junior companies (\$411M) (including State-owned corporations (\$4M)). Among junior companies, 47% are based in Québec, 22% in British Columbia, 20% in Ontario, and 11% elsewhere in Canada and abroad.

In 2008, exploration and deposit appraisal activities were largely focused on precious metals, primarily gold (\$263.3M, 50.0%), base metals (\$122.4M, 23.3%), uranium (\$87.3M, 16.6%), ferrous metals (\$23.5M, 4.5%) and diamond (\$12.8M, 2.4%). The last bull cycle, from 2004 to 2008, was characterized by a spectacular increase in exploration spending for uranium (from \$1.4M to \$87.3M) and ferrous metals (from \$0.3M to \$23.5M). In 2008, exploration for other commodities rose significantly, particularly for rare earth elements (REE) (\$1.3M) and lithium (\$0.3M). Applications for these commodities in high-technology products and rechargeable car batteries, among others, as well as China's decision to restrict its REE exports, explain this increased interest.

GOLD

Northeast of Opinaca Reservoir, **Les Mines Opinaca**, a wholly owned subsidiary of **Goldcorp**, continued drilling in order to improve the continuity of mineralized zones and strengthen confidence in the 3D model for the Roberto system. Drill hole ELE-09-00639-W03, in the Bay area, yielded 198.0 g/t Au over 1.5 m. **Eastmain Resources** continued definition drilling on the 450 West zone of the Eau Claire deposit, Clearwater property. Multiple high-grade quartz-tourmaline veins were intersected, including several intervals at more than one ounce per ton, generally associated with tellurium and bismuth concentrations.

On the Aquilon Main property, at the eastern end of the La Grande area, **Golden Tag Resources** and **Sirios Resources** reported several drill intercepts with more than one ounce of gold per ton in the Lingo vein, following a series of vertical holes less than 100 metres deep drilled over a strike length of 40 metres.

About 50 km northwest of Schefferville, **Western Troy Capital Resources** reported new gold and base metal values in iron formations on its Schefferville Gold property. Hole no.4 yielded 5.56 g/t Au over 11.0 m, including 10.24 g/t Au over 2.03 m, and 8.56% Pb, 1.96% Zn, and 27.67 g/t Ag over 3.05 m.

At the Casa Berardi mine north of La Sarre, **Aurizon Mines** conducted drilling from an exploration drift on level 810 m to explore the extensions of zones 118-120. Best results include

16.8 g/t Au over 5.3 m (drill hole CBP-0057) in auriferous quartz veins.

At the Barry open pit mine located east of Lebel-sur-Quévillon, **Metanor Resources** intersected gold-bearing intervals in drill holes along the extensions of the Main zone. Drill hole MB-09-270 intersected a wide gold interval (4.86 g/t Au over 27.0 m) to the south, between the Main zone and the West zone. Further north on the Nelligan property near Desmaraisville, **Metanor Resources** and **Murgor Resources** intersected in drill hole a new near-surface gold showing (28.06 g/t Au over 4.54 m, drill hole NE-09-02). West of Lebel-sur-Quévillon on the Comtois property, **Maudore Minerals** reported high-grade drilling results (20.0 g/t Au over 4.5 m, drill hole 273).

Near Rouyn-Noranda, **Yorbeau Resources** reported drill results from its Rouyn property. Drill hole 09-CI-519 encountered intervals grading 12.6 g/t Au over 4.0 m and 74.67 g/t Au over 10.35 m. **Alexis Minerals Corporation** obtained positive results from the pre-feasibility study on its Lac Pelletier gold project. Underground workings were dewatered in order to collect a 40,000-tonne bulk sample. The company expects to achieve commercial production in 2010. **Richmont Mines** launched an exploration program at its Francoeur project, located west of Rouyn-Noranda, where a probable reserve of 615,664 t at 6.91 g/t Au has been defined. Dewatering of workings at the former mine should be completed in the first quarter of 2010 and production is slated to begin in 2011. **Aurizon Mines** received a positive pre-feasibility study on its Joanna project, located 20 km east of Rouyn-Noranda. The deposit contains 33.8 Mt of measured and indicated resources at a grade of 1.4 g/t Au and an inferred resource estimated at 28.4 Mt grading 1.4 g/t Au. The company launched a feasibility study on the project. **Clifton Star Resources** completed a series of drill holes on its Beattie, Duquesne and Donchester properties located near Duparquet, north of Rouyn-Noranda. Drill results on these three projects include: 17.0 m at 7.00 g/t Au in drill hole B09-32 (Beattie), 8.2 m at 9.04 g/t Au in drill hole DQ09-09 (Duquesne), and 4.7 m at 4.19 g/t Au in drill hole D09-3 (Donchester).

West of Cadillac, **IAMGOLD-Québec Management** advanced construction of infrastructure on the Westwood project, located east of the Doyon mine. Inferred resources on this project are estimated at 9.4 Mt grading 11.4 g/t Au. On its LaRonde Extension project, **Agnico-Eagle Mines** continued sinking of the internal shaft to its final depth at 2,854 metres, to be reached in the fourth quarter of 2009. The company also launched a drilling program targeting the extensions of the Westwood deposit on its Ellison property, located just east of Westwood.

In Malartic, east of the Canadian Malartic open pit mine development project (reserves of 183.3 Mt at 1.07 g/t Au), **Osisko Mining Corporation** reported a resource estimate on

its South Barnat project (measured and indicated resources: 29.0 Mt at 2.09 g/t Au) and drill results in the Jeffrey zone (1.2 g/t Au over 86.9 m, drill hole CHL08-2063) with partner **Golden Valley Mines**.

Further east toward Val-d'Or, on its Malartic-Midway property, **Northern Star Mining Corporation** continued development of an exploration decline to reach the Chabela and Briar gold zones. **NioGold Mining Corporation** encountered a section grading 4.52 g/t Au over 3.6 m (drill hole MB-09-270) in the Norbenite shear zone. About 3 km east of the Kiena mine, **Wesdome Gold Mines** obtained gold grades in drill holes in the Dubuisson zone (10.3 m at 26.1 g/t Au, drill hole S552), discovered in 2008. On the Wesdome project, located 4 km north of the Kiena mine, inferred resources are estimated at 1,563,300 t at a grade of 7.97 g/t Au and indicated resources at 275,800 t grading 7.73 g/t Au. East of Val-d'Or, new measured and indicated resource estimates were calculated on various projects, namely:

- 6.5 Mt grading 5.02 g/t Au at Lamaque (**Century Mining Corporation**);
- 4.6 Mt grading 1.82 g/t Au at Orenada (**Alexandria Minerals Corporation**);
- 0.23 Mt grading 4.17 g/t Au at Nordeau West (**Plato Gold Corporation/Globex Mining Enterprises**);
- 0.81 Mt grading 9.11 g/t Au at Croinor (**First Gold Exploration/X-Ore Resources**).

Based on recent drilling at the Lac Herbin mine by **Alexis Minerals Corporation**, reserves have nearly doubled to 0.61 Mt at 7.36 g/t Au and are now sufficient for 5 years of production. On the Sleepy property, **Alexandria Minerals Corporation** established an inferred resource of 1.56 Mt at a grade of 3.0 g/t Au.

In the Témiscamingue region near Belleterre, **Conway Resources** released the results of mineralogical tests on the Conway and Paquin veins, Conway-Paquin project. A sample weighing 527.7 kg from the Conway vein yielded an average grade of 18.6 g/t Au and 69.4 g/t Ag. In November, the company announced plans to collect a 3,000-kg sample from the two veins.

In the Chaudière-Appalaches region, **Golden Hope Mines** continued mineral exploration work on its Bellechasse property, which hosts the Timmins gold deposit, composed of quartz-carbonate-sulphide veins in a gabbro unit. The 2008 drilling program yielded gold-bearing intervals at the Timmins deposit, namely: 4.35 g/t over 6 m, 3.48 g/t over 8 m, and 3.42 g/t over 4 m.

BASE METALS (COPPER, ZINC)

In the Chibougamau area, recent drilling by **Cogitore Resources** on its Scott Lake property led to a new inferred resource estimate of 3.6 Mt at 1.1% Cu, 5.2% Zn, 0.3 g/t Au and 36 g/t Ag. Further west in Matagami, on the Bracemac and McLeod zones discovered in 2007, **Donner Metals** and **Xstrata Zinc Canada** conducted definition drilling within the scope of the feasibility study for the Bracemac-McLeod project. Indicated resources for this deposit are currently estimated at 3,623,000 t grading 11.52% Zn, 1.6% Cu, 31.55 g/t Ag, and 0.49 g/t Au.

In the northern Outaouais region, northeast of Cabonga Reservoir, **Cartier Resources** reported a grade of 1.0% Cu over 6 m from channel samples collected on its newly acquired Doré property. Copper mineralization is associated with a sulphide-rich horizon that marks the contact between the Bouchette gabbro-anorthosite layered intrusion and metasedimentary rocks of the Grenville Province.

NICKEL, COPPER, COBALT, AND PLATINUM GROUP ELEMENTS (PGE)

In northernmost Québec, definition drilling continued in the Cape Smith Belt. About 20 km south of the Raglan mine on the Nunavik Nickel project, **Canadian Royalties** (now **Jien Canada Mining**) released new indicated resource estimates for the Allammaq deposit (3,671,000 t at 0.90% Ni, 1.12% Cu, 0.04% Co, 0.50 g/t Pt, 2.18 g/t Pd, and 0.10 g/t Au) and the Puimajuq deposit (209,000 t at 1.64% Ni, 2.73% Cu, 0.06% Co, 0.92 g/t Pt, 2.48 g/t Pd, and 0.09 g/t Au). About 80 km southeast of the Raglan mine, **Goldbrook Ventures** and **Jilin Jien Nickel Industry** continued drilling on the Mystery, Mystery North, Timtu, Delta Northeast, and Dragon zones on their Raglan property. Drill hole MYS09-003 yielded grades of 0.78% Ni, 1.19% Cu, 0.04% Co, and 4.10 g/t PGE + Au over 95.4 m (Main Mystery zone), and drill hole TIM09-17 encountered a 21.0-m interval grading 0.78% Ni, 0.64% Cu, and 2.45 g/t PGE + Au (Timtu zone).

IRON

About 30 km south of Radisson, **Augyva Mining Resources** and its partner **Canadian Century Iron Ore Corporation** completed a first-phase drilling program on deposits 1, 2, 3, 4, and 5 on the Duncan project. Best results include an interval grading 25.45% Fe over 226.46 m in hole 33, and another in hole 52 grading 26.79% Fe over 130.91 m. On the Iron-T property located just east of Matagami, **Apella Resources** confirmed in drill hole the layered zone enriched in iron, vanadium, and titanium in the Bell River Complex. About 28 km southeast of Chibougamau, **Apella Resources** also confirmed in drill hole the northeast extension of the Lac Doré iron-vanadium-titanium deposit on its Lac Doré North project.

In the Labrador Trough, **Adriana Resources** released an indicated resource estimate of 4.29 billion tonnes grading 29.08% Fe, with an inferred resource of 1.97 billion tonnes at 29.24% Fe for the South zone of the Lac Otelnuik iron ore deposit. Near Schefferville, **New Millennium Capital Corporation** and **Tata Steel Global Minerals Holdings Pte** continued work to complete the feasibility study on the DSO project located along the provincial border between Newfoundland-and-Labrador and Québec.

In the Côte-Nord region, **Consolidated Thompson Iron Mines** completed a new resource estimate for the Bloom Lake development project. Measured and indicated resources stand at 827 Mt grading 29.3% total Fe and inferred resources at 47.2 Mt grading 29.32% total Fe. The start-up of production at the mine, at a rate of 8.0 million tonnes per year, is scheduled for the end of 2009. The same company also released a new resource estimate for the Lamêlée and Pepler deposits. The Lamêlée deposit contains an indicated resource of 641.72 Mt at a grade of 30.30% total Fe, whereas the Pepler deposit contains an indicated resource of 293 Mt grading 28.46% total Fe. In November, **Champion Minerals** announced a new resource estimate for the Bellechasse and Fire Lake North claim blocks on its Fermont Iron project, located near the namesake town. Based on a cut-off grade of 15% iron, the two claim blocks reportedly contain inferred resources estimated at 503.3 Mt at an average grade of 28.0% iron.

URANIUM

North of Chibougamau, in the sedimentary Otish Basin, **Strateco Resources** released a new resource estimate, with an indicated resource of 436,000 t grading 0.78% U_3O_8 and an inferred resource of 1,157,000 t at 0.50% U_3O_8 in the AM-15, MT-22, and MT-34 zones on the Matoush project. The company also filed an environmental impact study for the sinking of an exploration ramp to conduct a feasibility study on the project. On the Hotish property, **Dios Exploration** obtained results from grab samples on the B-1 (0.787% U_3O_8 , 0.36% REE, 0.1% Y, 1.5% Zr, 14 g/t Ag, and 0.45% Pb) and Butte (0.15% U_3O_8) anomalies and on the new Godzila showing (2.56% U_3O_8). At the northeast end of the sedimentary Otish Basin, **Abitex Resources** completed a drilling program on the "L" deposit (historical resource: 385,000 t at 0.7% U_3O_8) on the Lavoie project, and discovered a surface showing, dubbed Epsilon-B (grab sample B-02: 3.54% U_3O_8 , 46.85 g/t Au, 1.20% Pb and 89.8 g/t Ag) on the Epsilon property.

East of Havre-Saint-Pierre, **Uracan Resources** completed drill holes to test various zones on its North Shore property. A recent resource estimate established a global inferred resource of 40.7 M pounds U_3O_8 at an average grade of 0.012% U_3O_8 for three zones (Double S, Middle zone, and TJ zone).

OTHER METALS

On the Strange Lake REE property near Rivière George in the Labrador Trough, **Quest Uranium Corporation** extended the strike length of mineralization along the B-zone to a minimum of 1.1 km. Several drill holes yielded high-grade REE and Y-bearing intervals from 1.05% to 2.52% over vertical thicknesses ranging from 6 to 66 metres.

About 280 km north of Matagami (km 384 on the Route de la Baie-James), **Lithium One** conducted an aggressive drilling program to test about 15 different pegmatite dyke swarms with spodumene (lithium-rich mineral) on the James Bay Lithium property. Several intercepts ranging from 3.0 to 64.0 metres length, with grades from 1.08% to 1.98% Li_2O , were obtained along a 1.2-km-long corridor. About 250 km north of Matagami, **Sirios Resources** and **Dios Exploration** intersected in drill hole several lithium-bearing pegmatite dykes over a 425 metres strike length, including one interval grading 0.97% Li_2O over 21.0 m in drill hole 09-05 on the Pontax-Lithium property.

Several hundred claims were map-designated in the vicinity of the Preissac and La Corne batholiths, where the former Québec Lithium mine is situated. The latter property is being evaluated by **Canada Lithium Corporation**. The results of metallurgical test work by conventional processing of an ore sample yielded a concentrate grading 99.6% Li_2CO_3 . Pilot-scale tests are planned in January 2010, to process a 20-tonne bulk sample.

North of Val-d'Or, **Romios Gold Resources** identified extensive zones with molybdenum, bismuth, and lithium mineralization (0.0787% MoS_2 over 168.3 m, drill hole RQ-08-07) near the former La Corne Molybdenum mine.

On the Anita project in the Lac-Saint-Jean region, about 80 km north of Saint-Félicien, **MDN**, in partnership with **IAMGOLD Corporation** and private investors, is investigating an alternative to mine tantalum-niobium ore hosted in the Crevier Carbonatite from an open pit, over an estimated mine life of 18 years.

On its Lac Washicoutai property, located 72 km east of Natashquan, **Western Troy Capital Resources** collected grab samples from a radioactive zone. Best results include grades up to 489 ppm La, 474 ppm Th, 149 ppm Zr and >1000 ppm Ce.

DIAMOND

On their property located northeast of Chibougamau, joint venture partners **Stornoway Diamond Corporation** and **SOQUEM** quadrupled the tonnage in the Renard 2 kimberlite following their summer drilling program. Resources on the Renard diamond project are now estimated at 23.0 million carats of indicated mineral resources and 13.3 million carats of inferred mineral resources, based on a diamond valuation of US\$117 per carat.

INDUSTRIAL MINERALS

Ariane Resources continued exploration work on its Lac à Paul phosphate-titanium deposit, located some 200 km north of the town of Saguenay, in the north part of the Saguenay–Lac-Saint-Jean anorthositic Complex. Inferred resources are estimated at 304 Mt grading 6.18% P₂O₅ and 7.81% TiO₂.

Exploration Orbite V.S.P.A. continued exploration work on its red clay deposit near Grande-Vallée in the Gaspésie region, to further delineate ore reserves for the deposit.

Mineral Production

*Louis Marcoux, Denis Blackburn,
and Germain Girard*

Mining activities in Québec reflected the global economic downturn. After the closure of the **Copper Rand** mine and the **Merrill** open pit mine by **Campbell Resources** in late December 2008, **Inmet Mining Corporation** ceased mining operations in the open pits of the **Troilus** mine in April of 2009, due to depleted reserves. Since then, low-grade ore stockpiles are being processed at the mill.

Wabush Mines laid off 120 workers at its pellet plant in Pointe-Noire (Sept-Îles) for an undetermined period. **IOC** announced in February it was abandoning its project to restart its pellet plant in Sept-Îles. The plant was initially shut down in 1981.

The **Magusi** project held by **First Metals** and located near Duparquet, was put on stand-by. Mining operations did not resume as planned at the **Langlois** mine held by **Breakwater Resources**, near Lebel-sur-Quévillon. Operations had been interrupted in 2008 following the decline in zinc prices.

Diarough Canada announced the closure of its diamond polishing plant in Matane, as a result of the economic crisis and declining retail sales of diamonds.

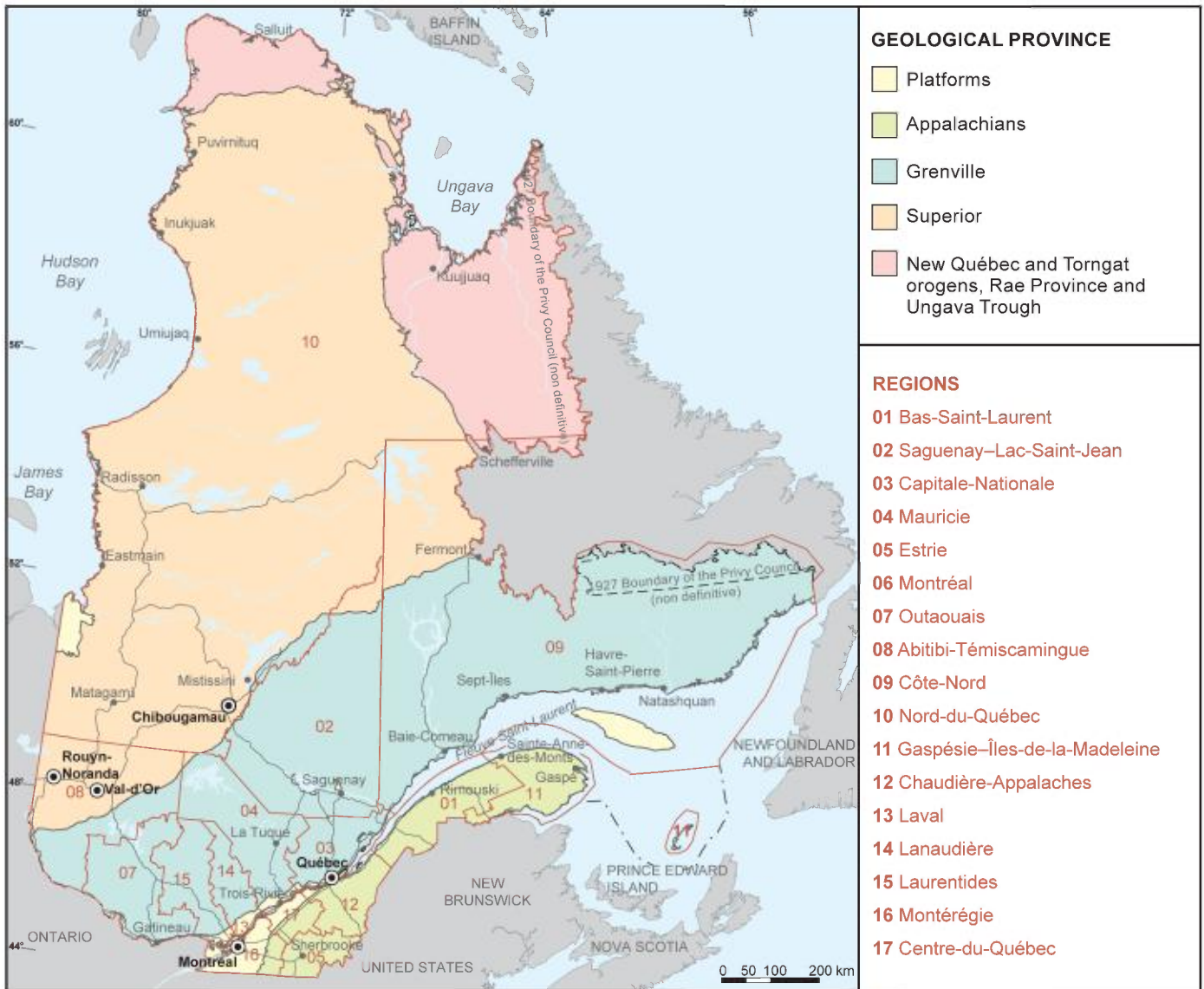
Agnico-Eagle Mines began production at the **Lapa** mine near Cadillac. Mining operations are expected to continue until 2015 and produce more than 1.1 M ounces of gold. Also, **Osisko Mining Corporation** obtained in August from the Québec government, a decree authorizing the start of development for an open pit mine in Malartic. Production is slated to begin in 2011 at this deposit, and more than 6 M ounces of gold are expected to be mined over 10 years.

East of Lebel-sur-Quévillon, **Metanor Resources** achieved commercial production on October 1, 2008 at the **Barry** open pit mine, where a near-surface indicated resource of 385,000 t grading 4.23 g/t Au has been established.

North American Palladium acquired **Cadiscor Resources** and resumed production at the **Sleeping Giant** (Au-Ag) mine. The first gold pour took place on October 6, 2009.

Further west in Matagami, **Xstrata Zinc Canada** inaugurated in September of 2008 the **Perseverance** (Zn-Cu-Ag-Au) mine.

Production of industrial minerals and construction materials was affected by the economic crisis in 2009. A significant decline in demand for quicklime and hydrated lime was noted, as well as a drop of nearly 60% in the production of clinker from certain cement plants. Strong competition from emerging countries such as China had a direct impact on graphite and silica production. Peat production was severely affected by the rainy summer. Producers completely depleted their reserves accumulated in 2008 to meet demand.



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Figure 1.1. Geological subdivisions, administrative area limits, and key persons to contact.

QUÉBEC'S MINING REGIME

Roch Gaudreau

Basic Principles

The mining regime in Québec is based on three principles:

- Free access to the mineral resource, regardless of the applicant's means;
- On a first-come, first-served basis, applicants obtain the exclusive right to search for all mineral substances in the domain of the State;
- Reasonable assurance that mining rights will be granted in the event of a discovery.

The Mining Act is designed to promote prospecting, exploration, and mining of mineral substances, while taking into consideration other possible uses of the land. Mining rights are immoveable real rights, consequently they can be the subject of transactions. Mining rights are distinct from surface rights.

EXPLORATION RIGHT

The claim gives the holder the exclusive right to explore for all mineral substances in the domain of the State. It is valid for a term of two years and is renewable. A claim is granted without any form of discretionary power, when all legislative criteria have been met (application is deemed valid and compliant, no restrictions to mining activity).

EXTRACTION RIGHTS

The mining lease

A mining lease is required to mine mineral substances other than surface mineral substances. It is valid for a term of 20 years and is renewable every 10 years. To obtain a mining lease, the applicant must:

Submit a report by an engineer or a geologist describing the nature, extent and likely value of the ore deposit;

- Pay the annual rent;
- Submit a surveyed plan of the land;
- Obtain authorization from the surface right holder, if needed;
- Submit a mine site rehabilitation plan and a financial guarantee;
- Obtain a forest work permit, if needed;
- Obtain a certificate of authorization from the Ministère du Développement durable, de l'Environnement et des Parcs (MDDEP);

- Obtain the Minister's authorization (MRNF) for the location of a processing plant and a tailings pond.

Leases to mine surface mineral substances

- The *exclusive lease* is issued for: consolidated surface mineral substances, for unconsolidated deposits when a guaranteed supply is required for an industrial activity or for the State for public roads or other works.
- The *non-exclusive lease* is issued for unconsolidated deposits (sand, gravel, common clay) to be used for construction purposes.
- An authorization to mine without a lease may be issued for a one-time occurrence, when time constraints are a key issue.

Mining Rights

The number of active exploration mining titles in Québec, as at December 31, 2009, was 202 295, for a total surface area of 8 914 951 hectares. Administrative regions that contain the highest number of exploration mining rights are, in decreasing order: Nord-du-Québec (134 880), Abitibi-Témiscamingue (29 084), and Côte-Nord (17 012; table 2.1). The number of exploitation titles in Québec, as of December 31, 2009, was 3760, including mining leases and leases to mine surface mineral substances. Total active mining titles for Québec amounted to 206 055 as of December 31, 2009 (figure 2.1).

Mining Taxation

Mining taxation in Québec is distinct from that in other provinces and territories, namely with regard to tax incentives designed to stimulate mineral exploration as well as development of new mines. The main tax incentives available to the mining sector are:

- Québec's flow-through share regime, which allows individual investors to claim deductions reaching up to 150% of their investment cost, compared to 100% in other provinces;
- The refundable tax credit for resources, introduced in 2001, that grants companies a refund reaching up to 38.75% of eligible exploration expenditures incurred in Québec; and
- The credit on duties refundable for losses, a unique measure in Canada, introduced in 1985, which allows mining operators to receive a refund for the tax value of certain exploration, deposit appraisal and mine development

investments, as soon as they are incurred. This credit carries a rate of 12%.

The Mineral Strategy

The government unveiled on June 29, 2009, Québec's Mineral Strategy. This strategy builds upon Québec's strengths such as its mineral potential, its mining policies and the quality of its workforce. It proposes framework initiatives to prepare the future. It was designed in keeping with the directions and priorities of the Québec government's economic development strategy, "The Québec Advantage", as well as the government's position regarding sustainable development for 2008-2013.

The mineral strategy is based on three policy directions:

- Creating wealth and preparing the future of Québec's mineral sector;
- Ensuring environment-friendly mineral development;
- Fostering integrated, community-related mineral development.

From these three policy directions stem priorities for action that will help reach stated objectives. Certain priorities for action, namely those focusing on ensuring environment-friendly mineral development, will involve new practices for both the mining industry and the Ministère des Ressources naturelles et de la Faune (MRNF), requiring legislative and regulatory amendments.

Bill No. 79 to Amend the Mining Act

Québec's Mineral Strategy proposes actions to prepare the future of the mineral sector. To implement many of these initiatives, legislative amendments are required. To this end, the Minister for Natural Resources and Wildlife introduced, on December 2, 2009, in the National Assembly, Bill No. 79 to amend the Mining Act.

Amendments proposed under bill No. 79 aim to:

STIMULATE EXPLORATION WORK ON CLAIMS

- Limit the duration of work credits to ten years;
- Eliminate the possibility of making a payment instead of performing work, except during the first term of the claim;
- Reduce the surface area over which work credits may be used to renew other claims;
- Eliminate the possibility of using credits from exploration work performed on a mining lease or a mining concession to renew a claim;
- Index and increase work requirements needed to renew a claim (regulatory amendment).

GUARANTEE MINE SITE REHABILITATION

Mineral exploration

- Increase from 70 to 100% the financial coverage to guarantee rehabilitation work;
- Extend the scope of the financial guarantee to cover more than just tailings accumulation areas;
- Introduce a penalty when financial guarantee instalments are not paid.

Mineral extraction

- Increase from 70 to 100% the financial coverage to guarantee rehabilitation work;
- Extend the scope of the financial guarantee to cover more than just tailings accumulation areas;
- Review the instalment schedule to accelerate payment of the financial guarantee;
- Provide a 3-year transition period for active mines, followed by complete payment over 5 years;
- Introduce a criminal penalty when financial guarantee instalments are not paid according to schedule;
- Protect rehabilitation and reclamation work performed on accumulation areas;
- Lower the threshold for environmental impact studies from 7,000 to 3,000 metric tonnes;
- Make it mandatory to submit a rehabilitation plan for BAPE hearings and consultations with the community;
- Tighten requirements to obtain a certificate of release once work has been performed as stipulated in the rehabilitation plan.

RECONCILE LAND USES

- Make it possible to take into account other land uses, for example regional planning, to withdraw or reserve to the State;
- Add public interest as a reason to refuse the issuance or renewal of a lease to mine surface mineral substances;
- Make it possible to refuse the issuance of a lease to mine sand and gravel when there are incompatible land uses;
- Refuse an application for a lease to mine surface mineral substances on lands where certain developments are already present;
- Make it mandatory to hold consultations with the community for all mining projects (except for surface mineral substances, but including peat);

- Protect eskers that carry groundwater;
- Surrender surface mineral substances on private lands to landowners;
- Make it mandatory for the claim holder to inform the land owner or lessee that a claim has been issued on his/her private property;
- Make it mandatory to declare the search for uranium upon application for a claim, and make it mandatory to declare a discovery (with regulatory protection measures).

ENRICH QUÉBEC'S GEOLOGICAL KNOWLEDGE HERITAGE

- Make it mandatory for mining companies to submit to the MRNF all exploration work performed in accordance with exploration credits claimed under the Mining Duties Act.
- When Bill No. 79 to amend the Mining Act was tabled, the Members of Parliament agreed to form a parliamentary committee on this issue in early 2010.

Bill to Amend the Mining Duties Act

Québec's Mineral Strategy calls for a revision of the mining royalties regime. The purpose of this revision is to ensure Québec receives its fair share of returns on the mining of its non-renewable natural resources, while taking into account transformations that have taken place in the mineral sector in recent years, and the need to maintain the mineral industry's competitiveness. Consequently, the government will re-assess the mining royalties regime while taking into consideration: the competitiveness of companies; maximization of benefits; and a fair return on the mining of its resources.

The MRNF, the Ministère des Finances and the Ministère du Revenu will work closely together, so that a Bill to Amend the Mining Duties Act may be tabled in the fall of 2010.

Delegation of sand and gravel management to MRCs

In the fall of 2008, the Cabinet authorized the Minister of Municipal Affairs and Regions and the Minister of Natural Resources and Wildlife to execute an agreement with the *Fédération québécoise des municipalités* (FQM) and the *Union des municipalités du Québec* (UMQ). This agreement is namely designed to delegate to regional county municipalities (MRC) the management of sand and gravel mining on lands in the domain of the State. In June 2009, the Cabinet adopted a decree on the decentralization of sand and gravel management.

The powers and responsibilities to be vested to MRCs with regard to sand and gravel are:

- The granting, renewal, revocation and registration in the Register of real and immoveable mining rights, authorizations to mine and leases to mine sand and gravel, as well as the receipt of certificates of authorization in accordance with paragraph 22 of the Environment Quality Act;
- Inspection and monitoring of mining operations for these substances; collection of rental and royalty payments; rehabilitation of sand and gravel pits.

Each year, the MRNF oversees more than 2,700 leases and authorizations to mine sand and gravel. Royalties and rental payments are on the order of \$3.2M per year for all of Québec. Most of this amount comes from MRCs in the Nord-du-Québec, Côte-Nord, Abitibi-Témiscamingue, and Saguenay-Lac-Saint-Jean regions.

In November and December of 2009, MRCs from the Saguenay-Lac-Saint-Jean region signed a memorandum of understanding regarding the transfer of responsibilities, with the takeover set to come into effect on April 1, 2010. Several other administrative regions expressed interest in this project to delegate management. New agreements with other MRCs should be executed over the course of 2010.

TABLE 2.1 - Distribution of mining exploration titles by administrative region

| Administrative region | Number of titles ⁽³⁾ | | Change in % | Area (ha) | | Change in % |
|----------------------------------|---------------------------------|---------------------|-------------|---------------------|---------------------|-------------|
| | 2008 ⁽¹⁾ | 2009 ⁽²⁾ | | 2008 ⁽¹⁾ | 2009 ⁽²⁾ | |
| 1 Bas-Saint-Laurent | 940 | 813 | -13,5 | 42 882 | 41 438 | -3,4 |
| 2 Saguenay–Lac-Saint-Jean | 10 463 | 7 529 | -28,0 | 538 117 | 396 792 | -26,3 |
| 3 Capitale-Nationale | 1 620 | 1 503 | -7,2 | 83 729 | 82 361 | -1,6 |
| 4 Mauricie | 2 097 | 2 099 | 0,1 | 103 066 | 115 436 | 12,0 |
| 5 Estrie | 1 207 | 1 652 | 36,9 | 66 124 | 94 586 | 43,0 |
| 6 Montréal | 0 | 0 | 0,0 | 0 | 0 | 0,0 |
| 7 Outaouais | 3 567 | 1 360 | -61,9 | 192 102 | 78 531 | -59,1 |
| 8 Abitibi-Témiscamingue | 32 631 | 29 084 | -10,9 | 1 198 821 | 1 062 535 | -11,4 |
| 9 Côte-Nord | 26 841 | 17 012 | -36,6 | 1 367 054 | 858 021 | -37,2 |
| 10 Nord-du-Québec | 182 363 | 134 880 | -26,0 | 8 177 357 | 5 800 602 | -29,1 |
| 11 Gaspésie–Îles-de-la-Madeleine | 4 301 | 3 484 | -19,0 | 201 167 | 160 472 | -20,2 |
| 12 Chaudière-Appalaches | 2 135 | 1 841 | -13,8 | 95 947 | 85 776 | -10,6 |
| 13 Laval | 0 | 0 | 0,0 | 0 | 0 | 0,0 |
| 14 Lanaudière | 475 | 287 | -39,6 | 22 361 | 16 095 | -28,0 |
| 15 Laurentides | 3 425 | 1 782 | -48,0 | 186 510 | 98 131 | -47,4 |
| 16 Montérégie | 132 | 147 | 11,4 | 8 001 | 8 497 | 6,2 |
| 17 Centre-du-Québec | 248 | 266 | 7,3 | 14 126 | 15 678 | 11,0 |
| Total | 272 445 | 202 295 | -25,7 | 12 297 364 | 8 914 951 | -27,5 |

(1) : Source of data: MRNF, secteur Mines, as of october 31 2008.

(2) : Source of data: MRNF, secteur Mines, as of december 31 2009.

(3) : The total number of exploration titles per administrative region area may exceed the number of exploration titles for Québec as a whole, given that certain mining titles cover more than one administrative region and are counted more than once in two distinct regions.

LAND PROTECTION

Roch Gaudreau

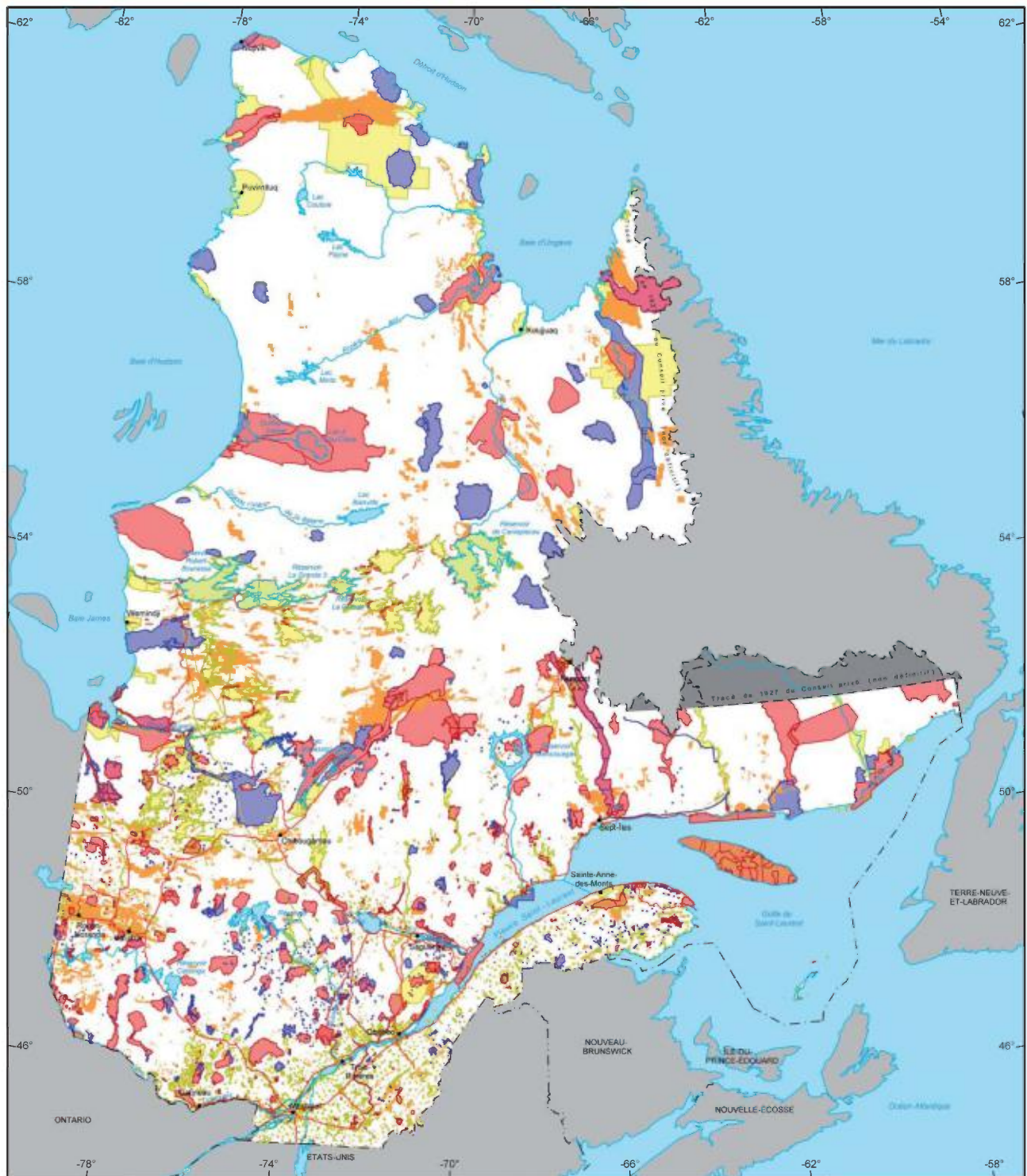
Under paragraph 304 of the Mining Act, the Minister may, by order, reserve to the State or withdraw from staking, map designation, mineral exploration or mining operations any land containing mineral substances that are part of the domain of the State and necessary for any purpose that he considers to be in the public interest, namely the performance of work such as:

- mining, industrial, port, airport, or communications facilities;
- development and utilization of waterpower, power transmission lines, storage tanks or underground reservoirs;
- creation of parks or ecological reserves;
- classification as an exceptional forest ecosystem;
- designation of a biological refuge.

The Minister may also, by order, delimit territories for non-exclusive purposes of recreation, tourism, plant-life or wildlife conservation.

Prior to making an order, the Minister may temporarily suspend, for a period of 18 months, the right to stake and designate on a map any parcel of land whose boundaries are shown on the maps kept in the office of the registrar.

As at December 31, 2009, lands subject to restrictions on exploration covered 33.7 M hectares, corresponding to 20% of Québec's landmass. Lands subject to major restrictions, with a ban on mineral exploration, covered a surface area of 15.2 M hectares or 9.1% of Québec's surface area (figure 3.1). Lands subject to temporary suspensions covered 7.2 M hectares or 4.3% of Québec's landmass. Lands subject to minor restrictions, where exploration is allowed under certain conditions, covered a surface area of 10.9 M hectares or 6.6% of Québec. For comparative purposes, the total surface area covered by mining rights is 8.9 M hectares or 5.5% of Québec's landmass (figure 3.1). Lands recognized as Protected Areas according to the International Union for Conservation of Nature cover 8.1% of Québec's territory and are included in the 20% of lands subject to restrictions on exploration.



Mining Restrictions

- Major Exploration Prohibited
15 215 341 ha
- Major Land Suspended Temporarily
7 241 573 ha
- Major Withdrawal from Staking Order in Council
2 897 400 ha

Mining Titles

- Minor Exploration Under Specific Conditions
10 918 269 ha
- Active
Number : 206 055
Area : 8 981 942 ha

Metadata

Coordinate System
Conic Conformal Lambert with two standard parallels (46° and 60°)

Sources
Mining data, MRNF, 2009
Cartographic Reference, MRNF, 2009 (BDAT 1M, BDGA 5M)

Note : The areas calculated represent the sum of the surface area of each individual mining restriction. The calculation does not take into consideration the possible overlapping of some areas.

1/10 000 000

0 200 km

Realization
Ministère des Ressources naturelles et de la Faune
Direction des titres miniers et des systèmes
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Figure 3.1. Mining restrictions in Québec, December 31, 2009.

GEOSCIENCE PROJECTS AT GÉOLOGIE QUÉBEC

Sylvain Lacroix, Patrice Roy, Jean-Yves Labbé and Charles Maurice

Investments in Geoscience Activities

Géologie Québec's mandate is to acquire, process and release geoscience knowledge on the mineral resources of Québec, in order to assess and promote the mineral potential of Québec's regions in a sustainable development perspective. During the 2009-2010 fiscal year, Géologie Québec had a budget of nearly \$8.5M to conduct geoscience work across Québec, through three distinct sources of financing: the Mining Heritage Fund (for northern projects), the Copper Plan, and a new agreement with the Ministère du Développement durable, de l'Environnement et des Parcs (MDDEP).

Following the unveiling of Québec's Mineral Strategy in June 2009, the Mining Heritage Fund was established, providing a budget for 2009-2010 of \$6.3M to perform geoscience knowledge acquisition work across Québec. A sizable part of this funding enabled Géologie Québec to launch an ambitious geoscience knowledge acquisition program to stimulate exploration in Northern Québec, *i.e.* in areas located north of the 49th parallel.

The year 2009-2010 represents the fifth and last year of the Copper Plan, for which a budget of nearly \$1.8M was available. This plan was initiated in 2005, to promote the discovery of new copper ore deposits likely to contribute to the supply of copper concentrate for the Horne smelter.

Finally, Géologie Québec signed in the summer of 2009 a multi-year agreement with the MDDEP, through which the latter may transfer future budgets to Géologie Québec in order to perform Quaternary deposit mapping in areas targeted under Québec's Groundwater Knowledge Acquisition Program. In 2009-2010, the budget allocated to Géologie Québec may reach a maximum of \$300,000.

The geographic distribution of geoscience work performed in 2008-2009 is presented in Table 4.1. The bulk of the total budget was allocated in the Nord-du-Québec (53.9%), Abitibi-Témiscamingue (15.0%), and Côte-Nord (8.2%) regions.

Geoscience Projects in 2009-2010

Eighteen new geoscience knowledge acquisition projects were conducted or will be completed during the 2009-2010 fiscal year (Figure 4.1). The geoscience programming includes **nine northern projects, namely four geological mapping projects** (Nos 1 to 4), three geophysical projects (Nos 5 to 7), and two focusing on secondary environment geochemistry (Nos 8-9). The broad geoscientific orientations and strategies for knowledge and expertise acquisition that guide northern projects may be viewed at the Québec Exploration 2009 website:

TABLE 4.1 - Distribution of the geoscientific surveys expenditures done by the Ministère des Ressources naturelles et de la Faune within Québec's administrative areas in 2008-2009

| Administrative region | Expenditures in 2008-2009 (in 000 \$) |
|----------------------------------|--|
| 1 Bas-Saint-Laurent | 770,0 |
| 2 Saguenay-Lac-Saint-Jean | 472,9 |
| 3 Capitale-Nationale | 610,6 |
| 4 Mauricie | 242,7 |
| 5 Estrie | 0,0 |
| 6 Montréal | 0,0 |
| 7 Outaouais | 54,8 |
| 8 Abitibi-Témiscamingue | 1 499,3 |
| 9 Côte-Nord | 825,0 |
| 10 Nord-du-Québec | 5 391,8 |
| 11 Gaspésie-Îles-de-la-Madeleine | 121,2 |
| 12 Chaudière-Appalaches | 0,0 |
| 13 Laval | 0,0 |
| 14 Lanaudière | 3,6 |
| 15 Laurentides | 9,4 |
| 16 Montérégie | 0,0 |
| 17 Centre-du-Québec | 0,0 |
| Total | 10 001,3 |

http://www.quebecexploration.qc.ca/2009/pdf/S1_01_Lacroix.pdf (in French only).

In the Superior geological Province, surveys focused on the Baie-James region, where two mapping projects were carried out (Nos 2-3), as well as an airborne magnetic and spectrometer survey and one aeromagnetic survey (Nos 5-6) and an extensive lake-bottom sediment reanalysis project (No 8). A new multidisciplinary project was launched in 2009 in the Churchill Province east of Schefferville, in cooperation with the Geological Survey of Canada (GSC) and the Geological Survey of Newfoundland and Labrador (GSNL). In 2009-2010, the GSC conducted an airborne magnetic and spectrometer survey (No 7) covering areas in both Québec and Labrador, respectively located to the west and east of the survey conducted last year, which this year was the object of a mapping survey (No 1). Finally, the Grenville Province was the focus of a geological mapping survey (No 4) and of three geochemistry surveys (No 9) in collaboration with the *Corporation de promotion du développement minéral de la Côte-Nord*.

Under the **Copper Plan**, four geoscience projects (Nos 10 to 13) were conducted primarily in the Abitibi geological Subprovince. Three mapping surveys targeted mining camps or surrounding high-potential areas for base metals (Matagami,

Chapais, Malartic Group). An aeromagnetic survey covering an extensive area to the east of Val-d'Or and Senneterre was designed to locate the extensions of volcanic units of the Abitibi Subprovince toward the east, within the Grenville geological Province.

Five new Quaternary projects were undertaken (Nos 14 to 18). Two projects involve inventories of aggregate resources in the Outaouais and Abitibi-Témiscamingue regions, in order to define the potential and available resources for these materials needed for road construction and other infrastructure. The three remaining projects are aimed at mapping surficial geological formations and establishing the stratigraphy and three-dimensional distribution of unconsolidated deposits. These three projects are designed to support the development of a global portrait of groundwater resources in municipalized regions of Southern Québec.

Nine university research projects related to the inventory projects discussed above were also conducted in partnership with seven different universities in Québec, Ontario and France, in order to study certain aspects in greater detail and to support the training of a highly qualified workforce. Also, two 3D geophysical and geological modeling projects were completed in the Rouyn-Noranda and Matagami areas respectively, through a collaborative effort with the Université du Québec en Abitibi-Témiscamingue. A new project to generate a set of compilation maps for the Appalachian Province, south of Québec City, was also undertaken in 2009-2010, in cooperation with the Université du Québec à Montréal.

The preliminary results of these projects were made public during two major events organized by Géologie Québec in 2009-2010: Abitibi Copper 2009, a convention that was held last September in collaboration with the GSC and the Ontario Geological Survey (OGS) (<http://www.mrnf.gouv.qc.ca/english/mines/quebec-mines/2009-11/abitibi.asp>), and Québec Exploration 2009, the most important geoscientific convention in Québec, hosted in cooperation with the Association de l'exploration minière du Québec (<http://www.quebecexploration.qc.ca/english/home.asp>).

New Publications and Exploration Targets

In 2009, the MRNF published 108 original documents, including 15 English translations and 2 reports published in English: geoscience surveys, studies, and promotional or public outreach documents produced by the MRNF or its partners.

The location of NTS sheets covered by these new surveys, either geological maps accompanied by reports (6), a synthesis map of Anticosti Island, regional geophysical surveys (33), and new secondary environment geochemistry surveys or re-analyses (available in SIGÉOM à la carte), is shown in Figure 4.2. Promotional documents (5), regional studies (29), documents covering all of Québec (9), compilations (2), and documents provided by companies (7) are not shown on the map.

New knowledge acquisition work by Géologie Québec led to the definition of 59 new exploration targets (PRO 2009-08). These targets are located in the Superior, Churchill, and Grenville geological provinces. Most of these targets are for gold, base metals, as well as molybdenum, uranium, industrial minerals, and architectural stone.

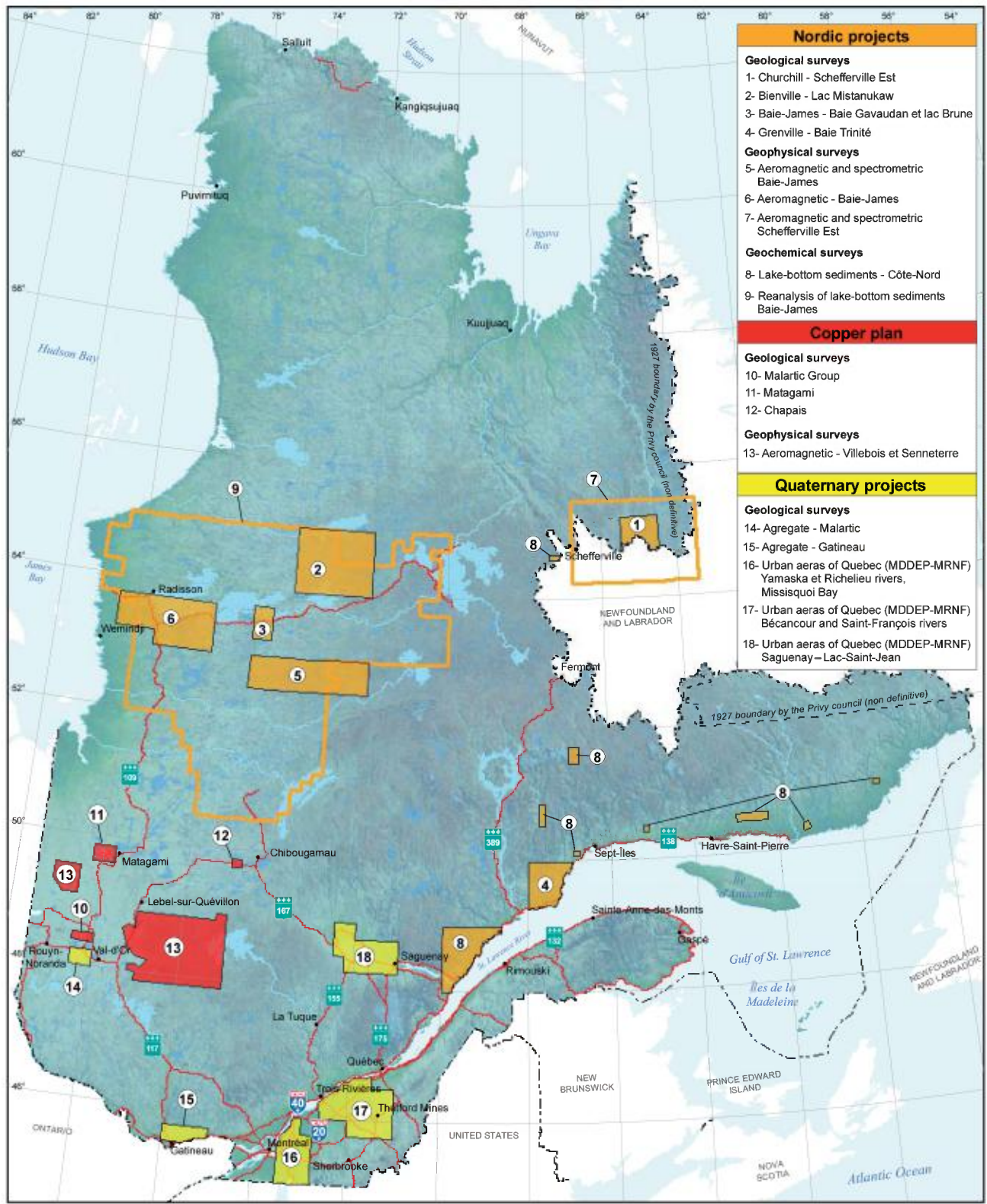
Two mineral potential assessment studies were also published in 2009, respectively focusing on porphyry Cu-Au±Mo deposits in the Baie-James region (EP 2009-02), and uranium and Cu-Au potential coupled with a project aimed at predictive mapping of mafic-ultramafic intrusions in the Grenville Province (EP 2009-03), produced by Consorem. Finally, new geochemistry maps showing anomalous targets in the secondary environment were produced for all of Québec (GM 64290).

In addition, eight new public outreach documents were published (in French only) and are available on the MRNF website at the following address: <http://www.mrnf.gouv.qc.ca/mines/publications/publications-geologie.jsp>.

A new educational page for the public at large and more specifically designed for teachers was also put online (in French only): <http://education.mrnf.gouv.qc.ca/enseignants-mines.asp>. Recent work by the MRNF led to the discovery of the world's oldest rock. For more information, click on following links (in French only):

- <http://education.mrnf.gouv.qc.ca/enseignants-mines-roches.asp>
- <http://education.mrnf.gouv.qc.ca/activites-pedagogiques/vieille-roche/index.asp>

Finally, 599 assessment work reports were filed by companies and are available in the SIGÉOM database: <http://www.mrnf.gouv.qc.ca/english/mines/geology/geology-databases.jsp>. The location of NTS sheets covered by new assessment work reports is shown in Figure 4.2.



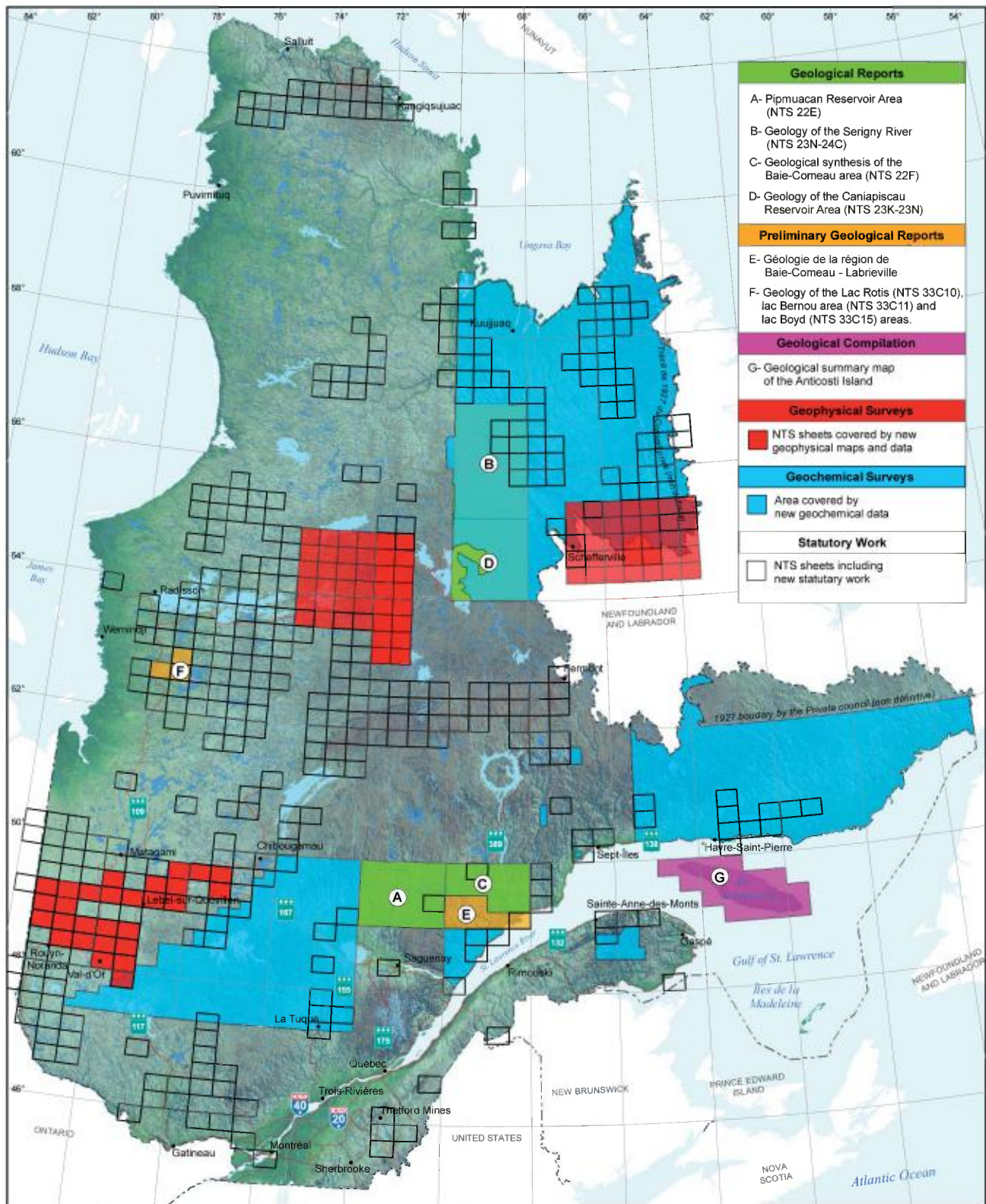
- | Nordic projects |
|--|
| Geological surveys |
| 1- Churchill - Schefferville Est |
| 2- Bienville - Lac Mistanukaw |
| 3- Baie-James - Baie Gavaudan et lac Brune |
| 4- Grenville - Baie Trinité |
| Geophysical surveys |
| 5- Aeromagnetic and spectrometric Baie-James |
| 6- Aeromagnetic - Baie-James |
| 7- Aeromagnetic and spectrometric Schefferville Est |
| Geochemical surveys |
| 8- Lake-bottom sediments - Côte-Nord |
| 9- Reanalysis of lake-bottom sediments Baie-James |
| Copper plan |
| Geological surveys |
| 10- Malartic Group |
| 11- Matagami |
| 12- Chapais |
| Geophysical surveys |
| 13- Aeromagnetic - Villebois et Senneterre |
| Quaternary projects |
| Geological surveys |
| 14- Agregate - Malartic |
| 15- Agregate - Gatineau |
| 16- Urban areas of Quebec (MDDEP-MRNF) Yamaska et Richelieu rivers, Missisquoi Bay |
| 17- Urban areas of Quebec (MDDEP-MRNF) Bécancour and Saint-François rivers |
| 18- Urban areas of Quebec (MDDEP-MRNF) Saguenay – Lac-Saint-Jean |

0 150 km
1/8 500 000

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FIGURE 4.1. Location of geoscience projects for 2009-2010.



0 150 km
1/8 500 000

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FIGURE 4.2. Geoscientific documents published in 2009.

MINERAL EXPLORATION WORK

Introduction

This chapter brings together, mainly in the form of tables and figures, information on the location and description of exploration and deposit appraisal projects conducted in Québec in 2009. Work performed by exploration companies in the search for metals and industrial minerals is reported in this chapter. Data were compiled from reports available on the Internet (press releases, public reports, etc.) or is based on forms forwarded to us by the companies themselves.

In 2008, exploration expenditures totalled \$526.1M and were largely concentrated in three administrative regions of Québec (\$503.8M for 95.7%): Nord-du-Québec (\$289.7M, 55.1%), Abitibi-Témiscamingue (\$182.4M, 34.7%), and Côte-Nord (\$31.5M, 6.0%) (table 5.1). Compared to 2007,

exploration and deposit appraisal expenditures increased by 10.43% across Québec (table 5.1). Exploration spending went up in most regions, except for the Côte-Nord, Mauricie, and Laurentides regions.

In 2009, revised intentions for exploration and deposit appraisal expenditures fell to \$244M despite an upturn in the price of several metals. As at December 31st, the number of active mining titles stood at 202 295 (table 2.1), which represents a drop of 25.7% relative to 2008. This decline affected most of the administrative regions of Québec, notably the three main mining regions: Abitibi-Témiscamingue, Nord-du-Québec, and Côte-Nord. In contrast, the number of mining titles increased in four regions, namely Mauricie, Estrie, Montérégie, and Centre-du-Québec (table 2.1).

TABLE 5.1 - Distribution of exploration and mining development expenditures within Quebec's administrative regions

| Administrative region | Expenditures for 2007 ⁽¹⁾ (in 000\$) | Expenditures for 2008 ⁽¹⁾ (in 000\$) | % of total expenditures for 2008 | Change in % for 2007-08 |
|----------------------------------|--|--|-------------------------------------|----------------------------|
| 1 Bas-Saint-Laurent | c | c | | c |
| 2 Saguenay-Lac-Saint-Jean | 3 018,3 | 7 694,5 | 1,5 | 154,9 |
| 3 Capitale-Nationale | 409,0 | 627,4 | 0,1 | 53,4 |
| 4 Mauricie | 2 563,9 | 1 838,2 | 0,3 | -28,3 |
| 5 Estrie | c | 316,8 | 0,1 | c |
| 6 Montréal | 0,0 | 0,0 | 0,0 | 0,0 |
| 7 Outaouais | 889,8 | 2 253,4 | 0,4 | 153,2 |
| 8 Abitibi-Témiscamingue | 151 651,4 | 182 431,9 | 34,7 | 20,3 |
| 9 Côte-Nord | 39 684,4 | 31 547,5 | 6,0 | -20,5 |
| 10 Nord-du-Québec | 270 210,4 | 289 680,0 | 55,1 | 7,2 |
| 11 Gaspésie-Îles-de-la-Madeleine | 2 940,7 | 3 465,1 | 0,7 | 17,8 |
| 12 Chaudière-Appalaches | c | 3 846,9 | 0,7 | c |
| 13 Laval | 0,0 | 0,0 | 0,0 | 0,0 |
| 14 Lanaudière | 0,0 | c | | c |
| 15 Laurentides | 2 230,6 | 2 168,5 | 0,4 | -2,8 |
| 16 Montérégie | c | c | | c |
| 17 Centre-du-Québec | c | 0,0 | | c |
| Total | 476 400 | 526 100 | 100 | 10,43 |

(1) - Total exploration and mining development expenditures in Quebec for 2007 and 2008. Source of data : Raymond Beullac (Institut de la statistique du Québec).

c : confidential

503 812,4: Total expenditures of the 3 main regions (8, 9, 10) (in 000\$)

95,7: Total in % of the expenditures for the 3 main regions (8, 9, 10)

Nord-du-Québec (region 10)

Patrick Houle

NORD-DU-QUÉBEC REGION

This section provides an overview of exploration work conducted in the Nord-du-Québec region. Table 5.2 lists and briefly describes exploration and mine development projects in the Superior and Churchill provinces where work was conducted in 2009. Figures 5.1 and 5.2 show the location of these projects.

SUPERIOR PROVINCE

In the Nord-du-Québec administrative region, the Superior Province extends across the entire Baie-James region and in the southeast part of Nunavik. It encompasses six geological subprovinces, which are, from north to south: the Minto, La Grande, Opinaca, Nemiscau, Opatica, and Abitibi subprovinces. Comprising volcano-plutonic and sedimentary assemblages, these subprovinces are transected by a series of E-W to WNW-ESE and NE-SW-trending shear zones. Volcanic assemblages are metamorphosed to the greenschist facies in the centre, grading to the upper amphibolite facies near their margins. These assemblages are intruded by a number of granitic intrusions assigned to various plutonic suites (Moukhsil *et al.*, 2003). In contrast, the metamorphic grade in sedimentary assemblages ranges from the amphibolite to the granulite facies.

South of the Baie-James region, in the Abitibi Subprovince, the Chapais-Chibougamau and Matagami mining camps continued to attract explorationists in the search for base and precious metals, in addition to iron, vanadium, and titanium. In the Lebel-sur-Quévillon–Desmaraisville area, exploration projects were largely focused on the search for gold. Finally, in the Near North and Far North regions, fieldwork led to the discovery of several significant gold, base metal, uranium, and lithium occurrences.

CHURCHILL PROVINCE

The Churchill Province lies in the northeast part of Nunavik. It mainly consists of Paleoproterozoic rocks of the New Québec (Labrador Trough), Torngat, and Ungava (Cape Smith Belt) orogens and their respective hinterland (Core Zone, largely composed of Archean rocks [James *et al.*, 1996; Wardle *et al.*, 2002]).

The main targeted commodities in the New Québec Orogen, the Torngat Orogen, and the Core Zone are uranium, iron, copper, gold, and rare earth elements (REE). The Cape Smith Belt (Ungava Orogen or Trough) once again attracted much attention from exploration companies searching for nickel, copper, cobalt, and platinum group elements (PGE).

NEW QUÉBEC OROGEN

Also referred to as the Labrador Trough in Québec, or simply “the Trough”, the New Québec Orogen, with rocks dated from 2.17 to 1.79 Ga, forms a fold and thrust belt along the margin of the Superior Province. The Trough is composed of rocks comprising two volcano-sedimentary cycles and a third cycle of metasedimentary rocks (Clark and Wares, 2006).

Torngat Orogen and Core Zone

The Paleoproterozoic Torngat Orogen is bounded to the east by Archean rocks of the Nain Province and to the west by Archean and Paleoproterozoic rocks of the Core Zone. This orogen is divided into lithotectonic domains and complexes separated by ductile shear zones.

Located in the Southeast Churchill Province, the Core Zone (formerly known as the Rae Province) lies between the Labrador Trough hinterland and the Torngat Orogen foreland. It is largely composed of Archean gneisses with bands of Paleoproterozoic supracrustal rocks. These rocks were subsequently deformed and metamorphosed during the Paleoproterozoic. The Core Zone is divided into a series of lithotectonic domains separated by wide deformation zones (Wardle *et al.*, 2002).

UNGAVA OROGEN

The Ungava Orogen (Ungava Trough or Cape Smith Belt) consists of a Paleoproterozoic volcano-sedimentary belt that stretches over 370 km along an ENE-WSW axis. The area may be divided into four main tectonic units: a) the autochthonous Archean basement of the Superior Province; b) the allochthonous accretionary belt or Ungava Trough; c) the Paleoproterozoic Narsajuaq Terraine; and d) the parautochthonous Archean basement (Lamothe, 1994).

EXPLORATION OUTLOOK FOR RARE METALS

The Nord-du-Québec region has experienced increased exploration in 2009 for lithium (Li) and rare earth elements (REE), mainly in the central part of the Baie-James region, in the Labrador Trough, and the Rae Province. In the Baie-James region for example, several Li occurrences were investigated in granitic pegmatites associated with peraluminous monzogranitic complexes near volcano-sedimentary belts, among which the Frotet-Evans Belt, west of Lac Mistassini (namely the Moblan project by **Globestar Mining Corporation** and **SOQUEM**) and the **Eastmain** Belt, south of Opinaca Reservoir (namely the James Bay Lithium project by **Lithium One**).

These monzogranitic plutons occurring along the contacts of volcano-plutonic and metasedimentary subprovinces constitute one of the most favourable geotectonic settings for rare metal deposits (Y-Zr-Nb-Ta-Be-Li-REE). Two relatively under-explored areas with this type of setting are noted in the Baie-James region, namely the Vieux-Comptoir Granite, emplaced along the boundary between volcano-plutonic assemblages of the La Grande Subprovince and metasedimentary rocks of the

Opinaca Subprovince (NTS sheets 33C04, 33F03, and 33F04), as well as granitic bodies near the contact between sedimentary rocks of the Nemiscau Subprovince and metasedimentary rocks in the Middle and Lower Eastmain Belt (NTS sheets 33C01 to 33C08, particularly the perimeter of the Kapiwak Pluton in 33C03).

In northern Québec, the main REE occurrences are hosted in pegmatites associated with peralkaline intrusive complexes enriched in REE, Y, Zr, and F, namely in the Lac Brisson (Strange Lake) area in the Churchill Province, and in REE-bearing carbonatites in the Labrador Trough (such as on the Eldor project by **Commerce Resources**) in Nunavik. Southwest of Chibougamau, areas near Lac Sébastien (NTS sheet 32G10) and Lac Yvonne (NTS sheets 32G02, 03) show good potential for the discovery of rare metal-bearing pegmatites, as do carbonatite-syenite alkaline complexes in the Abitibi Subprovince such as Dolodau, Lac Shortt, Lac Lacroix (Bandyayera *et al.*, 2003), Grevet, and Douay. On the one hand, these intrusions may host magmatic (primary) deposits of high-technology metals such as niobium, tantalum, and other rare earth elements, as well as certain industrial minerals such as apatite and nepheline. On the other hand, certain gold deposits in the Abitibi Subprovince are closely associated with carbonatites. Examples include the Simard Au-Ag-W showing (in the Dolodau carbonatite), the Lac Shortt mine (2.7 Mt @ 4.6 g/t Au), and the Douay West gold deposit (0.57 Mt @ 5.7 g/t Au). In Ontario, an association between alkaline rocks and gold mineralization has been established, for instance in Kirkland Lake (Ploeger and Crocket, 1980) and at Springpole Lake (near Red Lake; Barron *et al.*, 1989).

Abitibi-Témiscamingue (region 08)

Pierre Doucet, James Moorhead, Denis Lesage, and Suzanne Côté

The Abitibi-Témiscamingue administrative region is located in western Québec and comprises three major geological assemblages, which are, from north to south: the Abitibi and Pontiac subprovinces (Superior Province) and the Grenville Province.

The Abitibi and Pontiac subprovinces form the south part of the Superior Province in Québec. The Abitibi Subprovince is the largest, one of the most studied, and among the richest Archean greenstone belts in the world. It comprises numerous granitoid intrusions and volcanic and sedimentary belts broadly trending E-W (figure 5.3.1), ranging in age from 2.75 to 2.67 Ga. The Abitibi Belt is transected by several E-W or NW-SE-trending, generally reverse faults, as well as sinistral NE-trending and dextral SE-trending faults.

The Pontiac Subprovince is separated from the Abitibi Subprovince by the Cadillac Tectonic Zone, a structure that hosts many gold deposits. The Pontiac Subprovince comprises

granitoid intrusions and orthogneisses in its central part, along with detrital sedimentary rocks and paragneisses with a few volcanic sequences. The latter form ultramafic, mafic, and felsic assemblages in the southwest part of the Pontiac. A few thin bands of mafic to ultramafic volcanic rocks are also present along its northern edge.

The Grenville Province is separated from the Pontiac and Abitibi subprovinces by the Grenville Front, a NE-trending tectonic zone characterized by a steep metamorphic gradient toward the SE. The Grenville is composed of Archean and Proterozoic orthogneisses, intrusive rocks, metasedimentary rocks and migmatites.

The Abitibi Subprovince is renowned for the great number and high grade of its precious metal (Au-Ag) and polymetallic (Cu-Zn-Au-Ag and Cu-Au) ore deposits. A few metallic deposits, architectural stone quarries, and industrial mineral deposits (lime, quartz, kyanite, mica, garnet) were also mined in the Pontiac Subprovince. Mining and exploration have made this territory one of the most important mining regions in Québec for close to a century.

Table 5.3 provides a brief description of exploration and mine development projects in the Abitibi and Pontiac subprovinces and in the western Grenville Province. Figures 5.3.1, 5.3.2, and 5.3.3 show project locations.

In 2009, nine metal mines were in operation in the Abitibi-Témiscamingue region, namely eight gold mines (Kiena (Au-Ag), **Wesdome Gold Mines**; Lac Herbin (Au-Ag), **Alexis Minerals Corporation**; Beaufor (Au-Ag), **Richmont Mines / Louvem Mines**; Doyon (Au-Ag), **IAMGOLD-Québec Management**; Mouska (Au-Cu-Ag), **IAMGOLD-Québec Management**; Goldex (Au-Ag), **Agnico-Eagle Mines**; Lapa (Au-Ag), **Agnico-Eagle Mines**; and Barry (Au-Ag), **Metanor Resources**) and one polymetallic mine (LaRonde (Au-Zn-Cu-Ag-Pb), **Agnico-Eagle Mines**). The year 2009 was marked by the inauguration of the Lapa mine (Au-Ag) held by **Agnico-Eagle Mines**.

As at December 31, 2009, 29,084 active mining titles were recorded in Abitibi-Témiscamingue, which represents a 10.9% decrease relative to 2008 (Table 2.1). The number of exploration projects stood at 117, compared to 142 in 2008. Most of the latter were focused on gold, and to a lesser extent, on base metals (copper-zinc and nickel-copper) and uranium. Exploration for rare metals continued in the Témiscamingue region. Exploration work on lithium deposits and showings began in 2009, mainly in the Preissac-La Corne area where hundreds of claims were map-designated. Metallurgical tests were conducted, and a pre-feasibility study and a drilling program were launched in the fall of 2009, in preparation for a feasibility study in 2010 on the possible reopening of the former Québec Lithium mine (1955-1965), located near the village of La Corne.

Based on the results of major drilling programs conducted in recent years, new resource estimates were released for several gold exploration projects in the Malartic–Val-d’Or area, most of the latter on previously known deposits. In 2010, mine development work is planned on many of these projects.

Administrative Regions of Québec Except Abitibi-Témiscamingue (08) and Nord-du-Québec (10)

Suzie Nantel, Steve Ouellet, Louis Madore, Pierre Doucet, and Denis Lesage

This section of the report deals with all of the administrative regions of Québec except Abitibi-Témiscamingue (08) and Nord-du-Québec (10). Most of these regions are underlain by three geological provinces: Grenville, Appalachians, and the St. Lawrence Platform (figure 5.4).

The Outaouais (07), Laurentides (15), Mauricie (04), Saguenay–Lac-Saint-Jean (02), and Côte-Nord (09) regions, as well as parts of the Lanaudière (14) and Capitale-Nationale (03) regions are primarily located within the Grenville Province (figure 5.4). The latter is mainly composed of Archean and Proterozoic orthogneisses, intrusive rocks, metasedimentary rocks, and migmatites, that were affected by a series of magmatic and tectonic events, starting with the Labradorian orogeny (1710-1600 Ma) and ending with the Grenvillian orogeny (1090-980 Ma). The Grenville is a good place to search for copper, nickel, platinum, palladium, zinc, uranium, iron, titanium oxide, niobium, tantalum, and rare earth elements (REE) as well as for industrial minerals (silica, mica, graphite) and architectural stone.

The Estrie (05), Bas-Saint-Laurent (01), and Gaspésie–Îles-de-la-Madeleine (11) regions, as well as parts of the Montérégie (16), Chaudière-Appalaches (12), and Centre-du-Québec (17) regions are for the most part located within the Appalachian Province (figure 5.4). The latter is composed of Phanerozoic sedimentary, volcanic, and intrusive rocks that were emplaced and deformed during the Taconian (460-440 Ma), Acadian (410-380 Ma), and Alleghanian (320-220 Ma) orogenies, although the effects of the latter are essentially visible in the east-central and southeastern United States. Exploration companies are attracted to the Appalachian Province for its potential for copper, zinc, silver, gold, chrome, as well as aluminous clay, whereas mining companies interested in non-metallic commodities have long known about its industrial minerals (chrysotile, talc, quartz, halite, clay), construction materials, aggregates, architectural stone resources, as well as natural gas, brine, and peat.

Finally, the Montréal (06) and Laval (13) administrative regions, as well as parts of the Centre-du-Québec (17),

Lanaudière (14), Mauricie (04), and Capitale-Nationale (03) regions are located within the St. Lawrence Platform geological Province (figure 5.4). This province is composed of undeformed limestone and sandstone that were deposited during the Cambrian (544-500 Ma) and Ordovician (500-440 Ma). It is mainly characterized by its resources in industrial stone and building stone (limestone, dolomite, sandstone), and for its natural gas potential.

Activities performed by exploration companies in the search for mineral resources are reported in this section (table 5.4, figure 5.4). The data were collected from reports available on the Internet or compiled from forms forwarded to us by the companies themselves. In 2009, most administrative regions were the site of mineral exploration work. Oil & gas exploration, quite active in the St. Lawrence Platform and the Appalachians, will not be discussed in this report.

EXPLORATION IN ADMINISTRATIVE REGIONS WITHIN THE GRENVILLE GEOLOGICAL PROVINCE

In 2009, the Grenville geological Province continued to attract exploration companies. The latter acquired new properties or continued their exploration programs. In other cases, some companies decided to postpone exploration programs undertaken prior to 2009. The Grenville Province attracted renewed attention for rare earth elements (REE). Applications for these commodities in high-technology products and rechargeable car batteries, among others, as well as China’s decision to restrict its exports, explain this interest.

In the Outaouais region northeast of Cabonga Reservoir, a new copper prospect was discovered in gabbroic rocks in contact with metasedimentary rocks, based on anomalies in glacial deposits (table 5.4, figure 5.4, project 1). New properties for carbonatite- and pegmatite-hosted rare earth elements were acquired near Gatineau and Otter Lake by **Stelmine Canada** (projects 2 to 6). **Midland Exploration** has kept eight of its fourteen zinc properties located on either side of the road that links Grand-Remous and Gatineau (MRNF, 2009). The company intends to continue exploration work undertaken prior to 2009, once a new partner has been found.

In the Laurentides region, two exploration projects located north of Mont-Laurier were active in 2009, one in the search for copper-gold-silver and molybdenum as well as niobium, rare earth elements, uranium, and iron, in an alkaline complex (project 7), and the other investigating a copper-nickel deposit at the contact between gabbroic and metasedimentary rocks (project 8). Near Sainte-Agathe-des-Monts, **Trijet Mining Corp.** decided to postpone exploration on the Ivry property, where iron and titanium oxide mineralization is associated with the Morin anorthositic Complex. **Midland Exploration** put two of its properties hosting zinc in marble units, near Labelle and Kilmar, on stand-by for 2009 (MRNF, 2009). **Richmond Minerals** also postponed work on its Bondy property, located

in the Réserve faunique de Papineau-Labelle, about 35 km southeast of Mont-Laurier, where the geological setting is favourable for iron oxide-copper-gold deposits.

In Lanaudière, northwest of Saint-Michel-des-Saints, the former Maisonneuve mica mine was the focus of reconnaissance work in the search for rare earth elements and uranium (project 9).

In Mauricie, an exploration program was undertaken at the former Montauban mine (project 10) in an attempt to discover new gold and base metal (zinc, lead, copper) resources. Further north near Gouin Reservoir, gold exploration work is underway (project 12). A new exploration project focusing on rare earth elements is underway on a historic allanite and zircon occurrence near Lac Baude, about 25 km north of La Mauricie National Park (project 11).

In the Capitale-Nationale region, two mineral exploration projects are reported to have undergone exploration work in 2009: one project for zinc-copper-gold in the Réserve faunique de Portneuf (project 13) and another exploration project for vanadium-titanium-iron located near Saint-Urbain in Charlevoix (project 14).

In the Saguenay-Lac-Saint-Jean region, exploration work was conducted in the search for phosphate north of Pipmuacan Reservoir (project 17). North of Lac Saint-Jean, along logging road R-0206, exploration took place on a tantalum-niobium deposit (project 16). Two gold exploration projects were active in 2009, one located about 50 km west of Lac Péribonka (project 20) and another on a new gold showing located some 30 km southeast of Chibougamau (project 19). Uranium exploration was reported in the northernmost part of the Saguenay-Lac-Saint-Jean region and along its western edge, near Chibougamau (projects 18, 21 and 22). Finally, a new project for rare earth elements is underway, near the Niobec mine in the Saint-Honoré area (project 15).

In the Côte-Nord region, mineral exploration in 2009 was largely focused on iron ore in the Fermont area (projects 25, 26 and 27) and on uranium to the north and northeast of Havre-Saint-Pierre (projects 30, 31, 32 and 33). This region was also targeted for its rare earth element potential this year, like many other regions across Québec. Projects focusing on these commodities are respectively located northwest of Sept-Îles and east of Natashquan (projects 29 and 34).

EXPLORATION IN ADMINISTRATIVE REGIONS WITHIN THE APPALACHIAN PROVINCE

Among the regions located within the Appalachian geological Province, the Estrie, Chaudière-Appalaches and

Gaspésie-Îles-de-la-Madeleine regions were the most active in terms of mineral exploration.

In the Estrie region, mineral exploration companies were particularly active in terms of claim acquisitions and property option agreements. Fieldwork was reported on the Weedon property, in the search for polymetallic occurrences (project 35). On November 1, 2009, 1,176 claim applications were on record in the Register of mining rights, a particularly high number for a mature mining camp, in other words an “old mining camp”. Later on, part of the claims were granted to **Bowmore Exploration**, a strategic partner to **Osisko Mining Corporation** in the search for gold properties. Other claims were registered in the name of **Ice Age Gold Corporation**, a company that already owns other placer gold targets in the Estrie region. On December 9, 2009, **Uragold Bay Resources** announced it had acquired all of these targets.

Still in the Estrie region, other properties were acquired near Sherbrooke and east of Mont Mégantic. These are the Stoke property, with copper and gold showings hosted in a volcano-sedimentary belt (project 36), and the Clinton property, which hosts copper and zinc lenses (project 37). In December of 2009, a geophysical survey commenced on the two properties.

The Nicolet property, which straddles part of the Estrie, Centre-du-Québec, and Chaudière-Appalaches regions, has recently been optioned for its gold and base metal potential within the volcano-sedimentary sequence of the Thetford Mines ophiolitic Complex (project 38).

In Chaudière-Appalaches, exploration work is concentrated along a southwest-trending axis corresponding to a major geological structure named the Baie Verte-Brompton Line. Exploration work conducted along this axis, between Saint-Victor and Sainte-Lucie-de-Beauregard, is focused on the search for gold and base metals (zinc-copper-lead) (projects 40 and 41). One exploration project for chrome is also active, near the Black Lake mine (project 39).

In the Gaspésie region, copper and gold are the main targeted commodities. Four projects are reported to have been active in 2009, three of which are located near the Parc national de la Gaspésie (projects 42, 43 and 44). The fourth project is located just east of the Grande-Rivière basin, in the heart of the Gaspé Peninsula (project 45). Note that in 2008, metal (including zinc and copper) producer **Xstrata** acquired nearly 300 claims in the Gaspésie region. Finally, exploration work continues on a red clay deposit located 15 km south of Grande-Vallée (project 46), in order to better delineate this deposit and eventually extract a high-purity alumina concentrate.

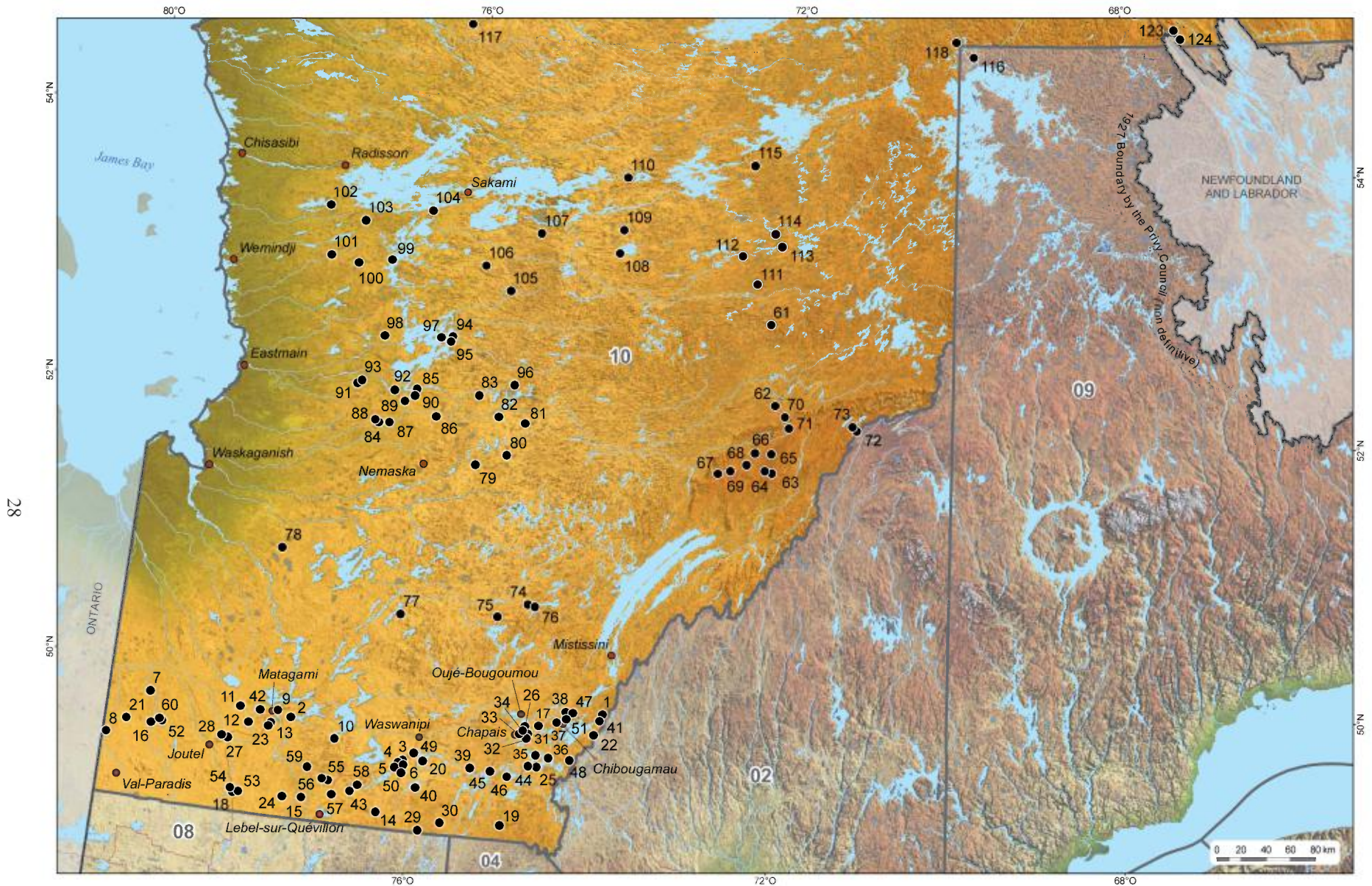


FIGURE 5.1. Exploration projects in the Baie-James region in 2009.

TABLE 5.2 - Exploration projects in the Baie-James and Nunavik regions in 2009

| NOS | NTS | TOWNSHIP | COMPANIES / PROSPECTORS | PROJECT | COMMODITIES | EXPLORATION WORK ⁽¹⁾ |
|-------------------|--------------------|--|--|------------------------------|---------------|---------------------------------|
| BAIE-JAMES | | | | | | |
| 1 | 32H13 | Rinfret | Apella Resources Inc. Forty-three channel samples were collected on the deposit. Highest grades are: 1.05% V ₂ O ₅ , 70.8% Fe, and 11.8% TiO ₂ and average grades are: 0.51% V ₂ O ₅ , 38.14% Fe, and 6.06% TiO ₂ . Best results in drill hole include grades from 0.46% to 0.64% V ₂ O ₅ over thicknesses from 0.71 m to 5.28 m in drill hole LDN-09-01. | Lac Dore North | V-Ti-Fe | D(10:993), G, GpMa(G), Pr, S, T |
| 2 | 32F11, 12 | Lozeau, Comporté, Galinée, Isle-Dieu | Apella Resources Inc. Drill holes tested the mineralized horizon over 900 m strike length, including drill hole MA-09-07, which yielded a 93.66-m section grading 43.87% Fe ₂ O ₃ , 7.90% TiO ₂ , and 0.41% V ₂ O ₅ . | Iron-T (Audet Option) | V-Ti-Fe | D(13:1738), G, Pr, Re |
| 3 | 32F08, 09 | Le Sueur | Metanor Resources Inc. Rehabilitation work of underground infrastructure at the Bachelor mine commenced. | Bachelor Lake Complex | Au | Development work (shaft) |
| 4 | 32F08, 09 | Le Sueur | Metanor Resources Inc. / Aur Resources Inc. / Teck Cominco Ltd The surface extension of the Hewfran West zone was traced by stripping. Channel samples yielded a grade of 2.62 g/t over 6.0 m. Shallow drill holes under the stripped area intersected several mineralized sections. Results include a grade of 3.72 g/t Au over 4.2 m in drill hole B-137. | Hewfran | Au | D(x:240) |
| 5 | 32F08 | Le Sueur, Nelligan | Metanor Resources Inc. | MJL-1 / MJL-2 | Au | D(5:821) |
| 6 | 32F08, 09 | Le Sueur, Nelligan, Benoist | Murgor Resources Inc. / Metanor Resources Inc. Drill hole NE-09-02 intersected a new gold-bearing structure grading 28.06 g/t Au over 4.54 m. | Nelligan | Au | D(8:415) |
| 7 | 32E14 | Brouillan | NQ Exploration Inc. Three drill holes intersected a zone of sphalerite-chalcopyrite-pyrite stringers in altered rhyolites. Drill hole CA2009-04 intersected 118.5 m grading 0.40% Zn and 27.7 g/t Ag. | Carheil | Cu-Zn-Au-Ag | D(4:1251), GpEm(B) |
| 8 | 32E05, 06 | Dieppe, Collet | Cartier Resources Inc. | Dieppe-Collet | Au | D(2:378) |
| 9 | 32F13 | Daniel, Isle Dieu | Xstrata Zinc Corporation Canada / Donner Metals Ltd | North Flank | Zn-Cu-Au-Ag | GpEm(G), TE |
| 10 | 32F10 | Bourbaux | Freewest Resources Canada Inc. / Explorateurs-Innovateurs de Québec inc. In the Bell River intrusive Complex, five holes drilled in December 2008 in gabbroic and pyroxenitic rocks yielded iron, titanium, and vanadium values, including a 30.5-m section grading 0.58% V ₂ O ₅ , 30.6% Fe and 2.93% Ti. | Dalhousie Mountain | V-Ti-Fe-Cu-Ni | S |
| 11 | 32E09, 16, F12, 13 | Daniel, Cavalier, Desmazures, La Gauchetière | Xstrata Zinc Corporation Canada / Donner Metals Ltd Drill hole DAN-09-10 intersected chalcopyrite-rich massive sulphides grading 2.2% Cu, 8.8 g/t Ag, and 0.25 g/t Au over 3.95 m. | Matagami | Zn-Cu-Au-Ag | D(29:16 930), GpEm(B,G,A) |
| 12 | 32F12 | Cavalier | Donner Metals Ltd Drill hole CAV-09-06 intersected semi-massive sulphides (pyrrhotite and sphalerite) grading 1.64% Zn over 1.63 m. | Cavalier | Cu-Zn-Au-Ag | D(x:x) |
| 13 | 32F13 | Galinée | Xstrata Zinc Corporation Canada / Donner Metals Ltd | South Flank | Zn-Cu-Au-Ag | D(7:x) |
| 14 | 32F01, 02 | Ralleau, Wilson | Megastar Development Corporation | Ralleau | VMS (Cu-Zn) | GpEm(A), Gp(G), Pr, S |

TABLE 5.2 - Exploration projects in the Baie-James and Nunavik regions in 2009

| NOS | NTS | TOWNSHIP | COMPANIES / PROSPECTORS | PROJECT | COMMODITIES | EXPLORATION WORK ⁽¹⁾ |
|-----|----------------|---|---|---------------------|----------------------|---|
| 15 | 32F03, 04 | Comtois, Fraser, Quévillon, Cramolet, Themines | Maudore Minerals Ltd | Comtois | Au-Zn | D(99:33786), CpEl(G), CpEm(G) Recent drilling results and a new geological interpretation suggest that the Osborne and Bell gold zones are linked rather than separate entities. Best results include an intersection grading 20.0 g/t Au over 4.5 m in drill hole 273. |
| 16 | 32E10, 11 | Estrées | Cogitore Resources Inc. / IAMGOLD-Québec Management Inc. | Caribou | Zn-Cu-Au-Ag | D(11:4579), G, Gs(r), GpEm(B,G), TE Drill holes intersected chalcopyrite-rich massive sulphides along the Estrades Mine horizon. Best results include 2.37% Cu, 10.97% Zn, 0.5 g/t Au, and 58.2 g/t Ag over 1.5 m. |
| 17 | 32G15 | Scott, Lévy | Cogitore Resources Inc. | Scott Lake | Zn-Cu-Au-Ag | D(24:8900), Gs(r), GpEm(B), Re Two drill holes intersected a massive sulphide zone and a zone of sulphide stringers, with grades, in drill hole DDH SC-42, of 1.2% Cu, 7.6% Zn, 0.3 g/t Au, and 49.7 g/t Ag over 62.8 m. Recent drilling led to a new inferred resource estimate of 3.6 Mt at 1.1% Cu, 5.2% Zn, 0.3 g/t Au, and 36 g/t Ag. |
| 18 | 32F04 | Chaste, Glandelet | North American Palladium Ltd | Sleeping Giant Mine | Au-Ag | D(61:13244) The first gold pour took place on October 6, 2009. Underground operations will gradually increase to achieve commercial production in early 2010. |
| 19 | 32G02, 03 | Bressani | Lounor Exploration Inc. | Brassani - Nicole | Au | S, T |
| 20 | 32F09, G12 | Lespérance, Gand, Le Sueur | Northern Superior Resources Inc. / Matamec Explorations Inc. / IAMGOLD-Québec Management Inc. | Wachigabau | Au - Cu-Zn - Diamond | G, GpMa(G), Pr, S, T |
| 21 | 32E11 | Casa Berardi | Aurizon Mines Ltd | Casa Berardi Mine | Au | D(x:x), Re Drill holes completed from an exploration drift on level 810 m of the mine intersected gold-bearing quartz veins in zones 118-120. Best results include 16.8 g/t Au over 5.3 m in drill hole CBP-0057. |
| 22 | 32G16, H12, 13 | Lemoine, Rinfret | Apella Resources Inc. | Lac Dore | Fe-V-Ti | GpMa(G), Pr, S |
| 23 | 32F12 | Galinée | Donner Metals Ltd / Xstrata Zinc Corporation Canada | Bracemac-McLeod | Cu-Zn-Au-Ag | D(x:x), FM,GpEm(B), TE A definition drilling program conducted within the scope of a feasibility study on the Bracemac-McLeod project is underway. Drill hole BRC-09-111 yielded grades of 8.1% Zn, 1.53% Cu, 44.74 g/t Ag, and 0.244 g/t Au over 8.1 m. In the Key Tuffite horizon, drill hole MCL-09-02 intersected 21.60 m of massive sulphides (1280.4 to 1302 m - core length) grading 6.05% Zn, 1.85% Cu, 65.5 g/t Ag, and 1.56 g/t Au, 411 m below the current McLeod zone. |
| 24 | 32F03, 04 | Cramolet, Comptois, Themines, Fraser, Fonteneau, Barrin | Midland Exploration Inc. / North American Palladium Ltd | Laflamme | Au | GpEm(A), GpMa(A) |
| 25 | 32G10 | Fancamp, Rale | Murgor Resources Inc. | Fancamp | Au | G, GpEm(A), GpMa(A), Pr, S, T Five trenches were excavated in the Fancamp deformation zone. Gold mineralization is composed of quartz-carbonate-tourmaline veins. Best grades obtained from channel samples include 10.4 g/t Au over 4.3 m in the West structure. |
| 26 | 32G15 | Daubrée | 2736-1179 Québec inc. | Lac Éloizes | Au | D(8:1755) |
| 27 | 32E08, 09 | Douay | Société d'exploration minière Vior Inc. | Douay | Au | TE |
| 28 | 32E08 | Douay, Joutel | Société d'exploration minière Vior Inc. | Douay West | Au | Env, Met, TE, Re |
| 29 | 32G04 | Carpiquet | Hinterland Metals Inc. | Lockout | Au | D(7:964), GpEm(G), GpMa(G) Drill holes intersected gold zones along the contacts between a graphitic unit and mafic lavas, injected with porphyry dykes. Best results include 5.2 g/t Au over 2.0 m in drill hole LK09-06. |

TABLE 5.2 - Exploration projects in the Baie-James and Nunavik regions in 2009

| NOS | NTS | TOWNSHIP | COMPANIES / PROSPECTORS | PROJECT | COMMODITIES | EXPLORATION WORK ⁽¹⁾ |
|-----------|------------------|---|--|-------------------------|-----------------|---|
| 30 | 32G04 | Urban | Murgor Resources Inc. / Freewest Resources Canada Inc. / Noront Resources Ltd / Eagle Hill Exploration Corporation | Windfall Lake | Au | D(x:3000), G, GpMa, Pr, S, T, TE |
| | | | New assay results from historic drill holes indicate the presence of wide gold-bearing intervals up to 41.1 m wide. For example, drill hole NOT-07-157 intersected 41.1 m grading 2.83 g/t Au. | | | |
| 31 | 32G15 | Lévy | Apella Resources Inc. | Laura Lake | Au-Cu-Ag | Pg |
| | | | A prospecting program led to the discovery of a new mineral occurrence. A grab sample yielded grades of 128.5 g/t Au, 113 g/t Ag, and 2.61% Cu. | | | |
| 32 | 32G15 | Lévy | Apella Resources Inc. | Indian Lake | Au-Ag-Cu | Pg |
| | | | A sample from a historic trench yielded 10.05 g/t Ag, 0.2 g/t Au, and 0.74% Cu. | | | |
| 33 | 32G15 | Lévy | Explorateurs-Innovateurs de Québec inc. | Opémisca | Cu-Au | GpEm(G), S, T |
| 34 | 32G15 | Lévy | 2736-1179 Québec inc. | Cooke | Cu-Au-Ag-Co | D(39:12657), GpEm(B, G) |
| 35 | 32G10 | Brongniart, Rale, Fancamp, Haüy | Breakwater Resources Ltd | Eau Jaune | Au | G, S, T |
| 36 | 32G09, 10 | Fancamp, Queylus, La Dauversière, Haüy | Tawsho Mining Inc. | Chevrier | Au | D(5:2103), Re, TE |
| | | | Gold mineralization is hosted in quartz-ankerite-pyrite veins injected in gabbros and volcanic rocks. Best results include 5.6 g/t Au over 3.0 m in drill hole T6-08. | | | |
| 37 | 32G16 | McKenzie | SOQUEM INC. | David | Zn-Au | D(3:800) |
| 38 | 32G16 | McKenzie | SOQUEM INC. | Dufault | Mo-Au | D(3:1200) |
| 39 | 32G11 | Guercheville | SOQUEM INC. | Fenton | Au | G, Pr, S, T |
| 40 | 32G05 | Margry, Le Tac | L. Desgagné | Nicobi | Cu-Ag-Au | S, T |
| 41 | 32H13 | McCorkill | Sementiou inc. | Demers Lake | Cu-Au | D(2:x) |
| 42 | 32F12, 13 | Daniel | Xstrata Zinc Corporation Canada | Perseverance Mine | Zn-Cu-Au-Ag | D(x:x) |
| 43 | 32F02, 07 | Grevet | Breakwater Resources Ltd | Langlois Mine | Zn-Cu-Ag | TE |
| 44 | 32G10 | Rale | Stellar Pacific Ventures Inc. / 9148-5706 Québec inc. / G.L. Géoservice inc. / M. Bouchard | Monster Lake | Au | TE |
| 45 | 32G06, 11 | Drouet, Gradis, Druillettes | Cartier Resources Inc. | Diego | Au | TE |
| 46 | 32G07, 10 | Rale, Hazeur, Druillettes | Agnico-Eagle Mines Ltd | Windy Lake | Cu-Zn-Au-Ag | TE |
| 47 | 32G16 | McKenzie, Roy | Agnico-Eagle Mines Ltd | Blondeau | Au-Cu | TE |
| 48 | 32G09 | Charron, Dollier, La Dauversière, Queylus | Arianne Resources Inc. | R-14 (La Dauversière) | Au-Ag | Pr, S |
| 49 | 32F09, G12 | Lespérance, Gand, Le Sueur, Boivinnet | SOQUEM INC. / MDN Inc. | Lespérance, Shortt Lake | Cu-Au | D(5:1791) |
| 50 | 33F09, G12 | Le Tac, Le Sueur | SOQUEM INC. / MDN Inc. | Le Tac | Cu-Au | D(5:1731) |

TABLE 5.2 - Exploration projects in the Baie-James and Nunavik regions in 2009

| NOS | NTS | TOWNSHIP | COMPANIES / PROSPECTORS | PROJECT | COMMODITIES | EXPLORATION WORK ⁽¹⁾ |
|-----------|--------------------------|--|--|--------------------|----------------|---------------------------------------|
| 51 | 32G16 | McKenzie | SOQUEM INC. | Brosman | Cu-Au | D(17:2800) |
| 52 | 32E10 | Estrées, Estrades, Orvilliers | Cogitore Resources Inc. | Estrades | Zn-Cu-Au-Ag | Pr |
| 53 | 32E01, F04 | Maizerets, Chaste, Glanville, Soissons | North American Palladium Ltd | Dormex | Au | D(x:21462) |
| 54 | 32E01, F04 | Maizerets, Chaste, Soissons | North American Palladium Ltd | Harricana North | Au | GpEm(A), GpMa(A) |
| 55 | 32F07 | Desjardins | North American Palladium Ltd | Flordin | Au | TE |
| 56 | 32F06, 07 | Desjardins | North American Palladium Ltd / Canadian Royalties Inc. | Cameron Shear | Au | D(4:1400) |
| 57 | 32F02 | Franquet, Grevet | Breakwater Resources Ltd | Rivière Wedding | Au | GpEm(G), Gs(r), S |
| 58 | 32F07 | Duplessis, Mountain | Breakwater Resources Ltd | Duplessis-Mountain | Au | G, GpEm(G), Pr |
| 59 | 32F06 | Bruneau | Adventure Gold Inc. | Bruneau-Sinclair | Au | G, Pr |
| 60 | 32E10 | Puiseaux, Orvilliers | GLR Resources Inc. | Puiseaux | Au-Cu-Ag | GpEm(G) |
| 61 | 33A16 | | Stornoway Diamond Corporation / SOQUEM INC. | Foxtrot | Diamond | D(32:16506), FM, Re, TE |
| | | | The JV partners quadrupled the tonnage in the Renard 2 kimberlite following their summer drilling program. Resources on the Renard diamond project are now estimated at 23.0 million carats of indicated mineral resources and 13.3 million carats of inferred mineral resources, based on a diamond valuation of US\$117 per carat. | | | |
| 62 | 33A08 | | Eastmain Resources Inc. | Eastmain Mine | Au-Ag | G, Gs(sl), Pr, S |
| 63 | 32P16, 22M13 | | Cameco Corporation | Otish South | U | D(8:2430), GpEm, GpMa, Pg |
| 64 | 32P16, 33A01 | | Ditem Explorations Inc. | Otish Uranium | U | S |
| 65 | 32P16, 33A01 | | Stratoco Resources Inc. | Matoush | U | D(44:26144), Env, Pg, Rcd(x:526), Re |
| | | | Publication of new resource estimate, with indicated resources of 436,000 metric tonnes at 0.78% U ₃ O ₈ , and inferred resources of 1,157,000 mt at 0.50% U ₃ O ₈ in zones AM-15, MT-22 and MT-34, tested over approximately 1.35 km strike length along the Matoush structure, which is at least 13.8 km long. The company also filed an environmental impact study for the sinking of an exploration ramp in the summer of 2010 to complete a feasibility study on the project. | | | |
| 66 | 32P16 | | Stratoco Resources Inc. | Éclat | U | D(11:4375) |
| 67 | 32P15 | | Stratoco Resources Inc. / Majescor Resources Inc. | Mistassini | U | D(7:786), GpEm(A), GpMa(A), Pg |
| | | | Interesting mineral occurrence confirmed in drill hole MIST-09-03 with an 11-m intersection grading 0.13% U ₃ O ₈ . | | | |
| 68 | 32P16 | | Stratoco Resources Inc. / Pacific Bay Minerals Ltd | Pacific Bay | U | D(12:3721), Pg |
| 69 | 32P09, 10, 15, 16, 22M13 | | Dios Exploration Inc. | Hotish | U-Diamond-REE | G, Gs(sl), GpMa(G), GpRa(G, A), Pr, S |
| | | | Good results from grab samples at the B-1 anomaly (0.787% U ₃ O ₈ , 0.36% REE ₂ O ₃ , 0.1% Y, 1.5% Zr, 14 g/t Ag, and 0.45% Pb), the Butte anomaly (0.15% U ₃ O ₈), and the new Godzilla showing (2.56% U ₃ O ₈). | | | |
| 70 | 23D04 | | Virginia Energy Resources Inc. / Big Red Diamond Corporation | Strategis | U | Gs(sl), GpMa(G), Pg |
| 71 | 23D02, 03, 04, 07, 08 | | Virginia Energy Resources Inc. / Xemplar Energy Corporation | Otish Uranium | U | Gs(l), Gs(sl), GpMa(G), Pg, S, T |

TABLE 5.2 - Exploration projects in the Baie-James and Nunavik regions in 2009

| NOS | NTS | TOWNSHIP | COMPANIES / PROSPECTORS | PROJECT | COMMODITIES | EXPLORATION WORK ⁽¹⁾ |
|-----|--------------------------|----------|--|---------------------|-------------------|---|
| 72 | 23D03 | | Abitex Resources Inc. | Epsilon | U-Au-Ag-Pb | G, GpMa(A), GpRa(A), Pr, S, T Discovery of a new surface showing, dubbed Epsilon-B (grab sample B-02: 3.54% U ₃ O ₈ , 46.85 g/t Au, 1.20% Pb, and 89.8 g/t Ag). Its strong similarities with the «L» deposit on the Lavoie property and its location on surface make this a high-potential target. |
| 73 | 23D02, 03 | | Abitex Resources Inc. / Areva Québec Inc. / SOQUEM INC. | Lavoie | U | D(41:4862), GpMa(A) A drilling program was conducted on the «L» deposit (historic resource: 385,000 t at 0.7% U ₃ O ₈) at 25 m spacing along a 500-m-long east-northeast axis. |
| 74 | 32J10 | | Globestar Mining Corporation / SOQUEM INC. | Moblan | Li-Na-K-feldspar | G, Pr, S, T |
| 75 | 32J11 | | Virginia Mines Inc. / MacDonald Mines Exploration Ltd | Assinica | Au | G, Gs(t), S, T |
| 76 | 32J09, 10, 15, 16, 32O01 | | Beaufield Resources Inc. / Melkior Resources Inc. | Troilus | Cu-Zn-Au-Ag | Pr, S |
| 77 | 32K09 | | Victory Nickel Inc. | Lac Rocher | Ni | TE |
| 78 | 32K13 | | Pacific North West Capital Corporation / CanAlaska Uranium Ltd | Glitter Lake | Cu-Ni-PGE | Gp(A,G) |
| 79 | 32O12 | | Nemaska Exploration Inc. | Lac Arques | Cu-Ni-PGE-Au-Ag | GpEm(A), GpMa(A), GpRa(A), Pr, S |
| 80 | 32O14 | | Nemaska Exploration Inc. | Lac de la chlorite | Cu-Ni-PGE | D(3:x), G, S, T |
| 81 | 33B03 | | Virginia Mines Inc. / Odyssey Resources Inc. | Auclair | Au | G, Pg |
| 82 | 33B03, 04 | | Goldcorp Inc. / Azimut Exploration Inc. | Wabamisk | Au-Ag-Cu-Zn-Pb-Mo | D(15:3234), G, Gs(h), GpEl(G), S Drill hole W-09-08 intersected three intervals with subeconomic grades, including 0.023% Cu, 0.39% Zn, 0.16% Pb, and 18.0 g/t Ag over 7.0 m (from 175.0 to 182.0 m). |
| 83 | 33B04, 05 | | Eastmain Resources Inc. | Clearwater | Au-Bi-Te | D(68:21276) Eastmain continued definition drilling on the 450 West zone of the Eau Claire deposit, Clearwater property. Multiple quartz-tourmaline veins were intersected, including several intervals at more than one ounce of gold per ton, commonly associated with tellurium and bismuth concentrations. |
| 84 | 32N14,15 | | Sirios Resources Inc. / Dios Exploration Inc. | Pontax-Lithium | Li | D(7:864), G, S The JV partners intersected in drill holes several lithium-bearing pegmatite dykes over 425 m strike length, including one interval grading 0.97% LiO ₂ over 21.0 m in hole 09-05. |
| 85 | 33C01, 02, 07, 08 | | Eastmain Resources Inc. | Reservoir | Cu-Au-Ag | G, Gs(sl), Pr |
| 86 | 33C01 | | First Gold Exploration Inc. | Eastmain Lithium | Li | Pg, S |
| 87 | 33C01, 32N15 | | Dios Exploration Inc. | Pontax-Diamond | Diamond | Gs(t) |
| 88 | 32N14, 15, 33C01,02 | | Sirios Resources Inc. | Pontax | Au-Ag-Cu-Zn-Pb | Gs(r) |
| 89 | 33C01, 02 | | Arianne Resources Inc. | Opinaca | Au | Pr, S |
| 90 | 33C01, 02, 07, 08 | | Arianne Resources Inc. / SOQUEM INC. | H Lake | Au-Cu-Zn-Ag | G, Pr, S, T |
| 91 | 33C02, 03, 06, 07 | | Arianne Resources Inc. | Wabamisk / Komo | Au-Cu-Zn-Li | Pr, S Discovery of a new gold showing (1.07 g/t Au) and a lithium occurrence (0.97% LiO ₂) on the Komo project. |
| 92 | 33C02, 07 | | Virginia Mines Inc. / IAMGOLD-Québec Management Inc. | Anatacau / Wabamisk | Au | G, Gs(t), GpEl(G), GpMa(G), S |

TABLE 5.2 - Exploration projects in the Baie-James and Nunavik regions in 2009

| NOS | NTS | TOWNSHIP | COMPANIES / PROSPECTORS | PROJECT | COMMODITIES | EXPLORATION WORK ⁽¹⁾ |
|-----------|--------------------------|----------|--|-------------------------|-------------------|--|
| 93 | 33C03 | | Lithium One Inc. | James Bay Lithium | Li | D(84:12347), GpEl(G), GpMa(G), S |
| | | | The company conducted an aggressive drilling program to test about 15 different pegmatite dyke swarms with spodumene (lithium-rich mineral). Several intercepts ranging from 3.0 to 64.0 m length, with grades from 1.08% to 1.98% LiO ₂ , were obtained along 1.2 km strike length. | | | |
| 94 | 33B12, 33C09 | | Goldcorp Inc. (Opinaca Mines Ltd) | Éléonore | Au | D(20:19650), S, T |
| | | | The company continued drilling in order to improve the continuity of mineralized zones and strengthen confidence in the 3D model for the Roberto gold deposit. Drill hole ELE-09-00639-W03, in the Bay area, yielded 198.0 g/t Au over 1.5 m (1134.5 - 1136.0 m), and 46.67 g/t Au over 2.3 m (1468.0 to 1470.30 m). | | | |
| 95 | 33C09, 33B12 | | Eastmain Resources Inc. / Goldcorp Inc. (Mines Opinaca ltée) / Azimut Exploration Inc. | Eleonore South JV | Au | D(14:3697), G, Pr, S, T |
| | | | Drill results confirmed a strong gold geochemistry anomaly over 1 km in length in the JT Target area. Drill hole ES09-22 yielded 0.64 g/t Au over 17.5 m, including 3.73 g/t Au over 2.0 m, in aluminous sediments similar to the Roberto gold deposit on the Éléonore project (Goldcorp Inc.). | | | |
| 96 | 33C08, 09, 10, 33B03, 06 | | Midland Exploration Inc. | Eleonore | Au | GpEm(A), GpMa(A), Pr |
| 97 | 33C09 | | Beaufield Resources Inc. | Opinaca | Cu-Au-Ag-Mo | G, Gs(sl), S |
| 98 | 33C10 | | Beaufield Resources Inc. | Opi-West | Au | Pg |
| 99 | 33F02, 03, 06 | | Strateco Resources Inc. | Apple | U | Re |
| 100 | 33F03 | | G. L. Géoservices inc. | Langelier | Au-Cu-Ni-Pd-Pt | Pg, S |
| 101 | 33F04 | | Vanstar Mining Resources Inc. | Patica | Au-Cu-Zn | D(8:x) |
| 102 | 33F05, 12 | | Augyva Mining Resources Inc. / Canadian Century Iron Ore Corporation | Duncan Lake | Fe | D(26:10456) |
| | | | About 30 km south of Radisson, the JV partners completed a first-phase drilling program on deposits 1, 2, 3, 4, and 5 on the Duncan project. Best results include an interval grading 25.45% Fe over 226.46 m in hole 33, and another in hole 52 grading 26.79% Fe over 130.91 m. | | | |
| 103 | 33F06 | | Pro-Or Mining Resources Inc. | Menarik | Cr-Ni-Cu-Au-Pt-Pd | G, GpEl(G), Pr |
| 104 | 33F09, 10 | | Virginia Mines Inc. | La Grande Sud | Au | D(x:x), G, Gs(t), Pr |
| 105 | 33G03, 04 | | Dios Exploration Inc. | U2 | U | Rsi |
| 106 | 33G04 | | Pro-Or Mining Resources Inc. | Ewart | Au | G, Pr, S |
| 107 | 33G05,06, 07 | | Virginia Mines Inc. | Poste Lemoyne Extension | Au | D(20:2500), G, Gs(t), GpEl(S), GpMa(G), S, T |
| 108 | 33G08, 33H05 | | Virginia Mines Inc. / Goldcorp Inc. | Corvet Est | Au | G, Gs(t), Pr |
| 109 | 33G09, 33H12 | | Virginia Mines Inc. / Odyssey Resources Inc. | FCI | Au | G, Pr |
| 110 | 33G16 | | Sirios Resources Inc. | Tilly | Mo-Cu-Au | G, Gs(r), Min |
| 111 | 33H01, 02, 08 | | Midland Exploration Inc. / Agnico-Eagle Mines Ltd | Galinée | Cu-Zn-Au-Ag | G, Gs(t), GpEl(G), GpEm(G), Pr, S, T |
| 112 | 33H07, 08, 09, 10 | | Midland Exploration Inc. / Agnico-Eagle Mines Ltd | LaSalle | Cu-Zn-Au-Ag | G, Gs(t), GpEl(G), GpEm(G), Pr, S, T |
| 113 | 33H08, 09, 23E12 | | Virginia Mines Inc. | Noella-Nichicun | Au | G, Pr |
| 114 | 33H09 | | Sirios Resources Inc. | Escale | Au | Gs(sl), Pr, S |

TABLE 5.2 - Exploration projects in the Baie-James and Nunavik regions in 2009

| NOS | NTS | TOWNSHIP | COMPANIES / PROSPECTORS | PROJECT | COMMODITIES | EXPLORATION WORK ⁽¹⁾ |
|-------------------------------------|---|----------|--|--------------------|----------------|---------------------------------|
| 115 | 33I02 | | Golden Tag Resources Ltd / Sirios Resources Inc. The JV partners reported several drill intercepts with more than one ounce of gold per ton in the Lingo vein, following a series of vertical holes less than 100 m deep, drilled over a strike length of 40 m. | Aquilon Main | Au | D(47:1000) |
| 116 | 23K13 | | Virginia Mines Inc. A gold system was traced over more than 12 km strike length, in altered and sheared tonalitic intrusive rocks, with several surface showings that yielded grades from 3.2 to 25.8 g/t Au. | Pau Lake | Au | G, S, T |
| FAR NORTH (figure 5.2) | | | | | | |
| 117 | 33K16, 33N01,02 | | Niocan Inc. | Great Whale Iron | Fe | Met, S |
| 118 | 23K13, 23L16, 23M01 | | Sirios Resources Inc. | Cognac | Au-Cu-Ag-Zn-Pb | Pg |
| 119 | 23M06, 09, 10, 11, | | Virginia Mines Inc. | Gayot Lake | Ni-Cu-Pt-Pd | G |
| 120 | 23M15, 16 | | Fancamp Exploration Ltd / Sheridan Platinum Group Ltd | Dieter Lake | U | GpMa(A), GpRa(A) |
| 121 | 24C04 | | Areva Québec Inc. / Waseco Resources Inc. | Pons Lake | U | G, Pg |
| 122 | 34G12, 24F02, 04, 23C11, 12, 13, 14, 15, 24C04, 12, 24J10, 23M06, 11, 14, 24D14, 23D16, 24E01, 33N03 | | Azimut Exploration Inc. / Kativik Resources Inc. | Kativik | U-REE | Pg, S |
| LABRADOR TROUGH (figure 5.2) | | | | | | |
| 123 | 23O03 | | New Millennium Capital Corporation | KeMag | Fe | TE |
| 124 | 23O03, 23J14, 15 | | New Millennium Capital Corporation / Tata Steel Global Minerals Holdings Pte Ltd Work continued to complete a feasibility study on the DSO project, located along the provincial border between Newfoundland-and-Labrador and Québec. Studies confirmed the structure, stratigraphy, mineralization, and iron grades reported by the Iron Ore Company of Canada for 3 deposits, namely Goodwood, Sunny 1, and Ferriman 4. | DSO | Fe | D(x:1617), S |
| 125 | 23O04 | | Western Troy Capital Resources Inc. About 50 km northwest of Schefferville, in the Ashuanipi Subprovince, the company reported new gold and base metal values in iron formations on its Schefferville Gold property. Hole no.4 yielded 5.56 g/t Au over 11.0 m, including 10.24 g/t Au over 2.03 m, and 8.56% Pb, 1.96% Zn, and 27.67 g/t Ag over 3.05 m. | Schefferville Gold | Au-Ag-Zn-Pb | D(8:800) |
| 126 | 24C09, 10 | | Areva Québec Inc. | Minowean | U | D(8:1508), G, GpEm(A), S |
| 127 | 24C08, 23B05 | | Areva Québec Inc. | Du Chambon | U | G, Pr |
| 128 | 24C01, 08 | | Areva Québec Inc. | Du Portage | U | D(6:1320), G, GpEm(A), S |
| 129 | 24C16 | | Commerce Resources Corporation | Eldor | Nb-Ta-U-REE | G, Pr, S |

TABLE 5.2 - Exploration projects in the Baie-James and Nunavik regions in 2009

| NOS | NTS | TOWNSHIP | COMPANIES / PROSPECTORS | PROJECT | COMMODITIES | EXPLORATION WORK ⁽¹⁾ |
|---------------------------------------|------------------------------|----------|--|--------------|-----------------|---|
| UNGAVA TROUGH (figure 5.2) | | | | | | |
| 130 | 35G, 35H | | Goldbrook Ventures Inc. / Jilin Jien Nickel Industry Co. Ltd | Raglan | Ni-Cu-Co-PGE | D(87:16180), G, GpEm(B, A), S About 80 km southeast of the Raglan mine, the partners continued drilling on the Mystery, Mystery North, Timtu, Delta Northeast and Dragon zones on their Raglan property. Drill hole MYS09-003 yielded grades of 0.78% Ni, 1.19% Cu, 0.04% Co, and 4.10 g/t PGE + Au over 95.4 m (Mystery Main zone), and drill hole TIM09-17 encountered a 21.0-m interval grading 0.78% Ni, 0.64% Cu, and 2.45 g/t PGE + Au (Timtu zone). |
| 131 | 35G09, 35H11, 12 | | Xstrata Nickel | Raglan | Ni-Cu-Co-PGE | D(114:35611), GpEm(B) |
| 132 | 35F08, 35G05, 06 | | Anglo American Exploration (Canada) Ltd / Knight Resources Ltd | West Raglan | Ni-Cu-Co-PGE | G, Gs(t), GpEm(A, G), GpMa(G), Pr |
| 133 | 35G07, 08 | | Resolve Ventures Inc. | Ungava | Ni-Cu-Co-PGE | D(2:284), G, Gs(r), GpEm(G), Pr |
| 134 | 35H06, 07,08 | | Pure Nickel Inc. | SR1 | Ni-Cu-Co-PGE | G, Pr |
| TORNGAT CORE ZONE (figure 5.2) | | | | | | |
| 135 | 24P04, 24I10, 11, 13, 14, 15 | | Areva Québec Inc. | Cage | U | D(43:11003), G, GpEm(G), S |
| 136 | 24A08 | | Quest Uranium Corporation | Strange Lake | REE- Zr- Nb-Be | D(54:4271), G, GpMa(A), GpRa(A), Pr, S, T In the Rivière George area, the company extended the strike length of mineralization along the B-zone to a minimum of 1.1 km. Several drill holes yielded high-grade REE and Y-bearing intervals from 1.05% to 2.52% over vertical thicknesses ranging from 6 to 66 m. |
| 137 | 23P16, 24A01 | | Quest Uranium Corporation | Nanuk | U | D(2:300), G |
| 138 | 13M04, 23P01 | | Quest Uranium Corporation | Misery Lake | REE-Zr-Nb-Ti-Fe | G, GpMa(A), GpRa(A), Pr, S, T |
| 139 | 24I06, 07 | | Azimut Exploration Inc. | Daniel Lake | U | Pg, S |
| 140 | 24I05, 06, 11, 12, 24J09 | | Azimut Exploration Inc. | North Rae | U | Pg, S |

1. See legend of abbreviations and meaning of bold type in Appendix I

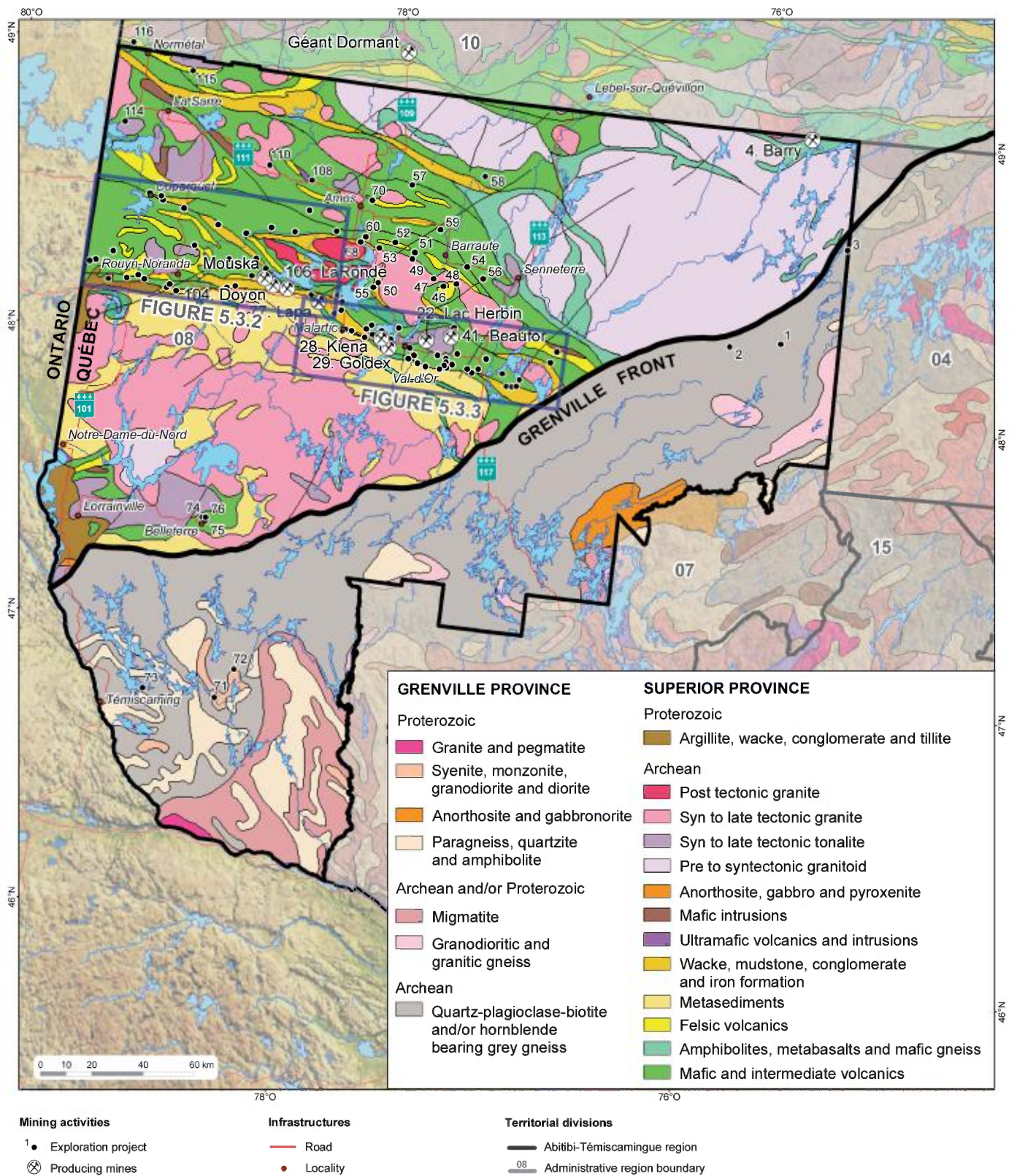


FIGURE 5.3.1. Exploration projects in the Abitibi-Témiscamingue administrative region in 2009.

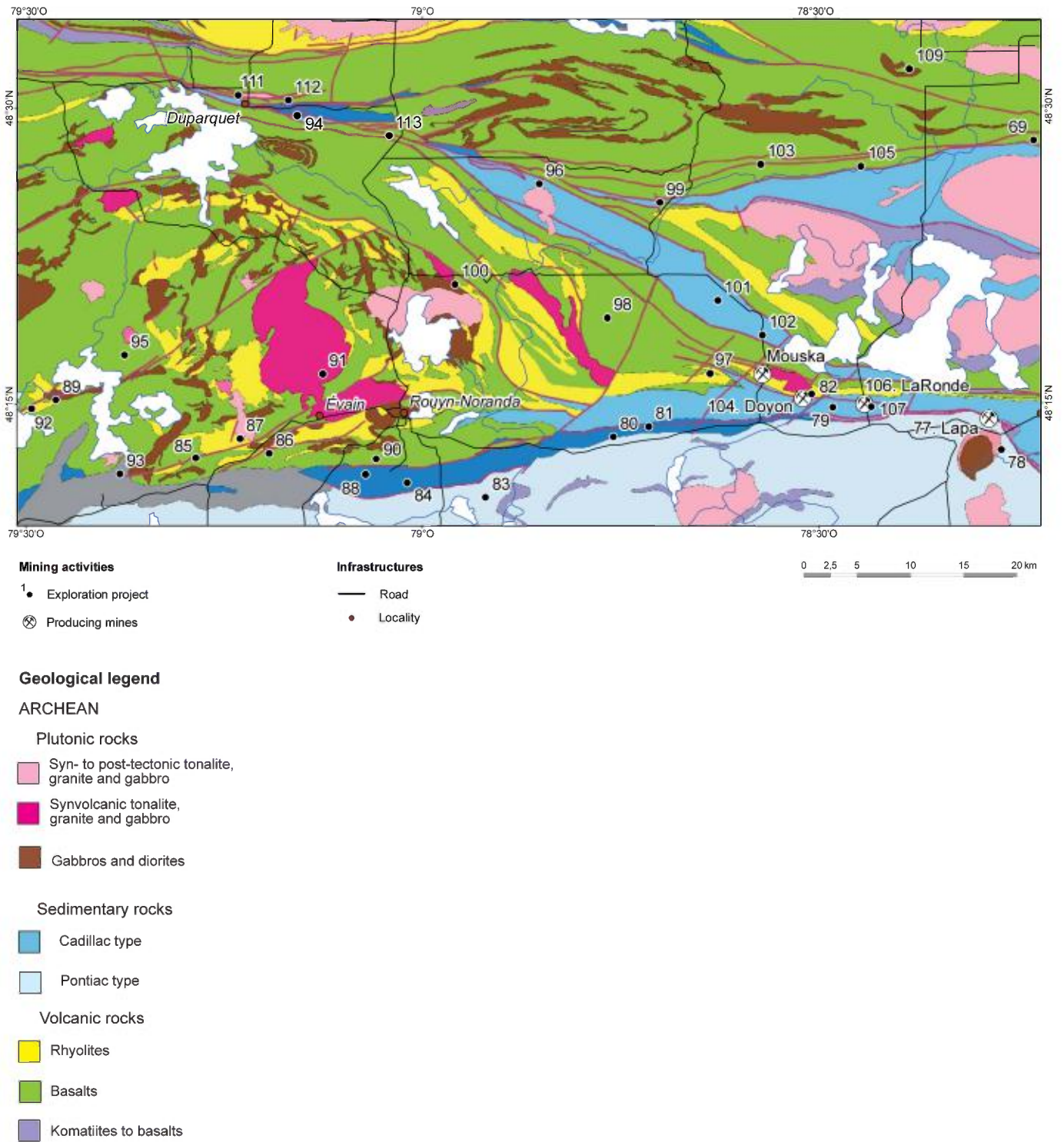
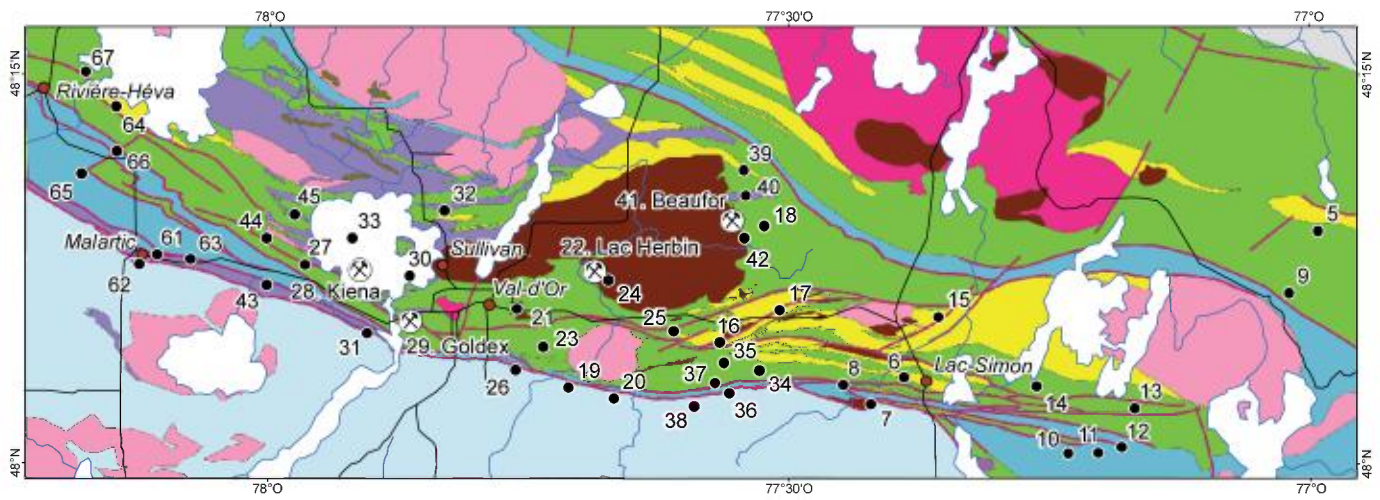


FIGURE 5.3.2. Exploration projects in the Abitibi-Témiscamingue administrative region, Rouyn-La Sarre-Témiscamingue area in 2009.



Mining activities

- 1 • Exploration project
- ⊗ Producing mines

Infrastructures

- Road
- Locality

0 2 4 8 12 16 km

Geological legend

ARCHEAN

Plutonic rocks

- Syn- to post-tectonic tonalite, granite and gabbro
- Synvolcanic tonalite, granite and gabbro
- Gabbros and diorites

Metamorphic rocks

- Gneisses (derived from plutonic rocks)

Sedimentary rocks

- Cadillac type
- Pontiac type

Volcanic rocks

- Rhyolites
- Basalts
- Komatiites to basalts

FIGURE 5.3.3. Exploration projects in the Abitibi-Témiscamingue administrative region, Val-d'Or–Amos area in 2009.

TABLE 5.3 - Exploration projects in the Abitibi-Témiscamingue administrative region in 2009

| Nos | NTS | TOWNSHIPS | COMPANIES / PROSPECTORS | PROJECTS | COMMODITIES | EXPLORATION WORK ⁽¹⁾ |
|---|---------------------|--------------------------------|---|--------------------|-------------|---------------------------------|
| Eastern part of region 08: Val-d'Or - Amos area | | | | | | |
| 1 | 32B04, 05 | Baudin, Bourgmont | Cartier Resources Inc. | Decorta | Au-Cu-Zn | Gs(t) |
| 2 | 32B04, 05, 32C01 | Baudin, Trevet | Cartier Resources Inc. | Cadillac Extension | Au-Cu-Zn | Gs(t) |
| 3 | 32B11, 12 | Deschamps, Juneau, Hanotaux | Threegold Resources Inc. | Mercier | Cu-REE | S, D(13:4916) |
| | | | In the Mercier alkaline intrusive complex, drill holes intersected zones enriched in REE (2.02% REE ₂ O ₃ , drill hole MER08-04) and strontium (2.21% Sr, drill hole MER08-04). | | | |
| 4 | 32B13, 32G04 | Barry, Urban | Metanor Resources Inc. | Barry Mine | Au | D(x:20 000), Re, S, TE |
| | | | Drill holes intersected gold-bearing intervals along the extensions of the Main zone, mined in the Barry open pit. Drill hole MB-09-270 intersected a wide gold interval (4.86 g/t Au over 27.0 m) to the south, between the Main zone and the West zone. | | | |
| 5 | 32C02, 03 | Tavernier, Pershing | Normabec Mining Resources Ltd / First Gold Exploration Inc. | Matchi-Manitou | Base metals | D(x:x), GpEm(G), GpMa(G), TE |
| 6 | 32C03 | Louvicourt | Alexandria Minerals Corporation | Sleepy | Au | D(x:3000), Re |
| | | | Drill hole IAX-09-49 intersected a gold-bearing zone (4.03 g/t Au over 11.9 m) in the Vicours gabbroic sill, which hosts the former Sigma II gold mine, located further east. Inferred resources are estimated at 1.56 Mt grading 3.0 g/t Au, based on a cut-off grade of 2.0 g/t Au. | | | |
| 7 | 32C03 | Louvicourt | Alexandria Minerals Corporation | Bloc Sud Trivio | Au | D(x:x) |
| 8 | 32C03 | Louvicourt | Alexandria Minerals Corporation | Trivio | Au | G, GpEm(G), S, T |
| 9 | 32C03 | Pershing | X-Ore Resources Inc. / First Gold Exploration Inc. | Croinor 1 | Au | FM, Re |
| | | | Drilling results since 2007 have led to a resource estimate. Based on a cut-off grade of 5.0 g/t Au, measured and indicated resources stand at 814,228 t at 9.11 g/t Au. Gold mineralization occurs in 23 distinct zones consisting of quartz veins and their altered, pyritized wall rocks, within a diorite sill. | | | |
| 10 | 32C03 | Vauquelin | Plato Gold Corporation / Globex Mining Enterprises Inc. | Nordeau West | Au | D(x:x), Re |
| | | | Recent drilling led to a new measured and indicated resource estimate totalling 225,342 t at 4.17 g/t Au, based on a cut-off grade of 2.75 g/t Au. Gold mineralization is hosted in shear zones with disseminated pyrite and quartz veining. | | | |
| 11 | 32C03 | Vauquelin | Plato Gold Corporation / Globex Mining Enterprises Inc. | Nordeau East | Au | D(14:6000) |
| | | | Drill hole NE-09-01 intersected 5.5 m grading 14.35 g/t Au. Gold is hosted in quartz-sulphide veins (arsenopyrite-pyrite-pyrrhotite). | | | |
| 12 | 32C03 | Vauquelin | Plato Gold Corporation / Globex Mining Enterprises Inc. | Bateman | Au | D(5:1500) |
| 13 | 32C03 | Vauquelin | Golden Share Mining Corporation | Forsan | Au | D(11:739), Re, TE |
| | | | Drill hole GSH-09-18 encountered a 4.0-m interval grading 56.86 g/t Au with quartz-pyrite-tourmaline veining at the contact between volcanoclastic rocks and a felsic porphyry dyke. Based on a cut-off grade of 2.5 g/t Au, inferred resources are estimated at 132,000 t at a grade of 3.52 g/t Au. | | | |
| 14 | 32C03 | Vauquelin | Threegold Resources Inc. / P.T. Coyle | South Bay | Au | S |
| 15 | 32C03 | Vauquelin | Galahad Metals Inc. / P.A. Bigué | Regcourt | Au | TE |
| 16 | 32C03, 04 | Bourlamaque, Louvicourt | Alexis Minerals Corporation | Dunraine | Ag-Au-Zn | D(2:2183), G, GpEm(B), Gs(r) |
| | | | A Au-Ag-Zn mineralized zone, associated with a garnet-magnetite-rich alteration zone, was recognized in drill holes. Best results include 9.66 g/t Au, 512 g/t Ag, and 1.32% Zn over 0.5 m in drill hole 17317-58A. | | | |
| 17 | 32C03, 04 | Bourlamaque, Louvicourt | Alexis Minerals Corporation / Novicourt Inc. | Louvex | Base metals | GpEm(G), Pr |

TABLE 5.3 - Exploration projects in the Abitibi-Témiscamingue administrative region in 2009

| Nos | NTS | TOWNSHIPS | COMPANIES / PROSPECTORS | PROJECTS | COMMODITIES | EXPLORATION WORK ⁽¹⁾ |
|-----------|--------------|--------------------|---|------------------------|-------------|---------------------------------|
| 18 | 32C03, 04 | Pascal, Louvicourt | Adventure Gold Inc. | Pascal-Colombière | Au | D(12:3334) |
| | | | Several grab samples collected from new showings and historic occurrences yielded gold values (as high as 12.4 g/t on the Pascale showing). Drill holes also encountered mineralized zones under known showings (ex: 3.2 g/t Au over 14.2 m in drill hole PC-09-05 under the Highway showing). | | | |
| 19 | 32C04 | Bourlamaque | Alexandria Minerals Corporation | Orenada | Au | D(x:x), Re |
| | | | Measured and indicated resources in zones 2 and 4 total 4.598 Mt at 1.82 g/t Au from 0 to 250 m depth, based on a cut-off grade of 1 g/t Au. Gold mineralization, enclosed in the Cadillac Tectonic Zone, consists of deformed quartz-carbonate +/-tourmaline veining in a quartz-sericite-carbonate schist. Gold is associated with pyrite and arsenopyrite. | | | |
| 20 | 32C04 | Bourlamaque | Alexandria Minerals Corporation | Oramaque | Au | D(x:x), G, GpEm(G), S, T |
| | | | The five best grades obtained from gabbro samples with quartz veining range from 2.87 to 37.3 g/t Au. | | | |
| 21 | 32C04 | Bourlamaque | Century Mining Corporation | Lamaque Complex | Au | D(13:6748), Re, TE |
| | | | Operations at the Sigma pit ceased on November 5, 2007. Mining had resumed in April 2007 in underground stopes at the Lamaque mine, closed in 1984. Underground operations at Lamaque were suspended on July 2, 2008. At Lamaque, gold occurs in shallowly dipping auriferous quartz veins ranging from 5 to 90 cm in thickness. Data compilation and modeling of resources under the Sigma pit were updated in 2009, which led to an increase in measured and indicated resources, now estimated at 6.5 Mt at 5.02 g/t Au. Reserves remain at 7.73 Mt grading 4.56 g/t Au. | | | |
| 22 | 32C04 | Bourlamaque | Alexis Minerals Corporation | Lac Herbin Mine | Au | D(x:22 946), Re |
| | | | An extensive drilling program led to a substantial increase in reserves at the mine, to 617,374 t at 7.36 g/t Au. The estimated mine life is thus extended to a minimum of 5 years. Gold-bearing quartz-pyrite veins are hosted in 7 shear zones (HW, WE, HW2, Bonanza, S3, LH, and S1) that cross-cut the Bourlamaque Batholith. A new zone (Lac Herbin West) was identified about 1 km west of the mine, where best results include 8.4 g/t Au over 1.8 m (drill hole AMAR-97). | | | |
| 23 | 32C04 | Bourlamaque | Kalahari Resources Inc. | Lamaque | Au | G, GpEm(A, G), Cs(sl), TE |
| 24 | 32C04 | Bourlamaque | Alexis Minerals Corporation | Aurbel | Au | D(66:27 151), GpEm(B) |
| | | | A deep drilling program underneath the former Dumont mine led to the identification of gold-bearing quartz-pyrite-tourmaline veins along the depth extension of the Dumont North shear zone. Best grades include 71.63 g/t Au over 2.6 m in drill hole AMAR-106. | | | |
| 25 | 32C04 | Bourlamaque | Alexis Minerals Corporation | Norbec Manitou | Base metals | D(1:2306), GpEm(B), Cs(r) |
| 26 | 32C04 | Bourlamaque | Kalahari Resources Inc. / Alexandria Minerals Corporation | Airport | Au | TE |
| 27 | 32C04 | Dubuisson | Knick Exploration Inc. | East-West Gold | Au | D(x:x), TE |
| 28 | 32C04 | Dubuisson | Wesdome Gold Mines Ltd | Kiena Complex | Au | D(x:x) |
| | | | Discovery of a new gold zone (Schist zone) about 30 m north of the VC zone currently being mined. Best results include 4.7 m grading 7.13 g/t Au in drill hole U-4610. The best drilling results obtained under zone S-50 are: 14.7 m at a grade of 4.17 g/t Au in drill hole U-4566. | | | |
| 29 | 32C04 | Dubuisson | Agnico-Eagle Mines Ltd | Goldex | Au-Ag | D(x:x), Met |
| | | | Proven and probable reserves total 1.6 million ounces, from 23.8 Mt at 2.1 g/t Au. A project to increase daily output to 8,000 tpd is underway, as well as development work in the M zone. | | | |
| 30 | 32C04 | Dubuisson | Wesdome Gold Mines Ltd | Dubuisson | Au | D(55:25 000) |
| | | | About 3 km east of the Kiena mine, a new gold zone (Dubuisson zone) was discovered in 2008. Gold is hosted in quartz-albite-tourmaline-pyrite veinlets in albitized diorites and fractured feldspar porphyries. Best results include 10.3 m grading 26.1 g/t Au. | | | |
| 31 | 32C04 | Dubuisson | Adventure Gold Inc. | Dubuisson | Au | TE |
| 32 | 32C04 | Dubuisson, Vassan | Alexandria Minerals Corporation / NioGold Mining Corporation | Siscoe Est / Vassan | Au | D(6:2588), TE |
| | | | Drill holes intersected sulphide zones and quartz vein stockworks, near the west contact of the Bourlamaque Batholith near the former Sullivan mine. The best drill intercept graded 43.67 g/t Au over 1.9 m (drill hole SE-09-004). | | | |

TABLE 5.3 - Exploration projects in the Abitibi-Témiscamingue administrative region in 2009

| Nos | NTS | TOWNSHIPS | COMPANIES / PROSPECTORS | PROJECTS | COMMODITIES | EXPLORATION WORK ⁽¹⁾ |
|-----|--------------|--|---|-------------------------------------|-------------|---------------------------------|
| 33 | 32C04 | Dubuisson, Vassan | Wesdome Gold Mines Ltd A new resource estimate based on 21 gold-bearing zones, located 4 km north of the Kiéna mine, established an inferred resource of 1,563,300 t at 7.97 g/t Au and an indicated resource of 275,800 t at 7.73 g/t Au. Gold is hosted in quartz-pyrite veining enclosed in shear zones. | Wesdome | Au | D(x:x), Re, TE |
| 34 | 32C04 | Louvicourt | Adventure Gold Inc. | Lapaska | Au | Gs, S, TE |
| 35 | 32C04 | Louvicourt | Megastar Development Corp. / Eoro Resources Ltd | Simkar | Au | S(x:x), TE |
| 36 | 32C04 | Louvicourt, Bourlamaque | Alexandria Minerals Corporation Drill hole IAX-09-53 obtained a grade of 4.22 g/t Au over 10.35 m along the down-plunge extensions of the semi-massive sulphide zone in Lens D at the former Akasaba mine. Surface samples yielded maximum grades of 26.90 g/t Au, 55 g/t Ag, and 4.5% Cu. | Akasaba | Au-Ag-Cu | D(11:x), G, GpEm(B, G), S, T |
| 37 | 32C04 | Louvicourt, Bourlamaque | Alexandria Minerals Corporation Six surface samples collected in quartz veins and altered volcanic rocks yielded maximum grades of 1.85% Cu and 26.0 g/t Au. | Valdora | Au-Ag-Cu | G, GpEm(G), S, T |
| 38 | 32C04 | Louvicourt, Bourlamaque | Alexandria Minerals Corporation | Sabourin | Au-Ag-Cu | G, GpEm(G), S, T |
| 39 | 32C04 | Pascalis | Adventure Gold Inc. / P. Bambic Drill hole SE-08-16 intersected a new mineralized zone (zone 16; 8.7 g/t Au over 1.2 m), located 550 m north of the Resenor gold deposit. | Senore | Au | D(3:681) |
| 40 | 32C04 | Pascalis | Adventure Gold Inc. | Beaufor-North | Au | D(x:x) |
| 41 | 32C04 | Pascalis | Richmont Mines Inc. / Louvem Mines Inc. Major drilling program at depth, mainly targeting the extensions of zones C and Q and areas near the Perron fault, in order to increase reserves and resources at the mine. | Beaufor Mine | Au-Ag | D(60:25 440) |
| 42 | 32C04 | Pascalis, Senneville, Louvicourt | Richmont Mines Inc. / Louvem Mines Inc. | Perron-Beaufor-Courvan-Pascalis | Au | D(16:4700) |
| 43 | 32C04, 32D01 | Dubuisson, Fournière | Northern Star Mining Corporation An exploration decline and a bulk sampling program in the Chabela zone, enclosed in the Cadillac Tectonic Zone, are underway. Drill holes also intersected gold grades in the Briar zone (12.6 m at 16.8 g/t Au, drill hole 181) and the L zone (11.4 m at 7.29 g/t Au, drill hole 170). | Midway (Malartic Goldfields) | Au | D(37:5757), Ramp+Drifts. |
| 44 | 32C04, 32D01 | Malartic, Fournière, Dubuisson, Vassan | NioGold Mining Corporation / Thundermin Resources Inc. / Northern Star Mining Corporation / Breakwater Resources Ltd Drill hole MH-08-006 yielded a grade of 4.52 g/t Au over 3.6 m in the Norbenite shear zone, between the Kierens deposit and the H zone. | Malartic Block | Au | D(23:5890), Pr, Re, TE |
| 45 | 32C04, 32D01 | Vassan, Malartic | Northern Star Mining Corporation | Callahan | Au | D(14:4150), GpEm, GpMa |
| 46 | 32C05 | Fiedmont | Lounor Exploration Inc. | Fiedmont | Pt-Pd | D(x:x) |
| 47 | 32C05 | Fiedmont | Pacific North West Capital Corporation / Kinbauri Gold Corporation The mineralized zone consists of disseminated sulphides in silicified gabbro. Best drilling results are: 302 ppb Pt and 695 ppb Pd over 1.5 m. | Fiedmont PGM | PGM | D(10:1500), Gs(h) |
| 48 | 32C05 | Fiedmont | Northern Star Mining Corporation / Britannica Resources Corporation Drill holes intersected zone 4 near surface; best results include 9.22 g/t Au over 1.0 m (drill hole 143). Development of an exploration ramp began in October. | McKenzie-Break | Au | FM, Ramp |

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| Nos | NTS | TOWNSHIPS | COMPANIES / PROSPECTORS | PROJECTS | COMMODITIES | EXPLORATION WORK ⁽¹⁾ |
|-----|-------------------|--------------------------------------|--|---------------------|---------------|---|
| 49 | 32C05 | La Corne | Canada Lithium Corporation | Québec Lithium | Li | B(20:x), D(28:7000), Env, FM, Met, TE Metallurgical tests were completed, and a pre-feasibility study and a drilling program were undertaken in the fall of 2009, in preparation for a feasibility study in 2010 on the possible reopening of the former Québec Lithium mine. A 20-t bulk sample was collected from existing drill core for metallurgical tests. |
| 50 | 32C05 | La Corne | Mineral Hill Industries Ltd | Chubb | Li | GpEm(G), GpMa(G), Gs(r) |
| 51 | 32C05 | Landrienne | Jacques Frigon | Landrienne | Ni | GpEm, GpMa |
| 52 | 32C05 | Landrienne | Cogitore Resources Inc. | Landrienne | Base metals | TE |
| 53 | 32C05 | Landrienne | Mineral Hill Industries Ltd | Athona | Mo | S |
| 54 | 32C05, 06 | Courville | Golden Valley Mines Ltd / Kalahari Resources Inc. | Perestroika | Au | D(2:400), T E New assays from drill hole GPS-07-01, drilled in 2007, outlined two new gold intervals, with grades of 4.35 g/t Au over 0.24 m, and 10.05 g/t Au over 0.09 m. |
| 55 | 32C05, 32D08 | Malartic, La Motte, La Corne, Vassan | Romios Gold Resources Inc. | La Corne Molybdenum | Mo, Bi, Li | Re, S A drilling program (19 holes totalling 5,738 m) conducted in late 2008, identified extensive zones with molybdenum, bismuth and lithium mineralization in a granitic unit that hosts the former La Corne Molybdenum mine. Best results include 0.0787% MoS ₂ and 0.0064% Bi over 168.3 m (drill hole RQ-08-07). |
| 56 | 32C06 | Courville | Pershimco Resources Inc. | Courville | Au - Tonalite | B(x:2500) Processing of a 2,500-t bulk sample of tonalite, used as gold-bearing flux at the Horne Smelter (Xstrata Copper Canada), yielded grades of 1.011 g/t Au and 5.2 g/t Ag. |
| 57 | 32C12 | Duvernay | Jacques Frigon | Duvernay | Au | GpMa, S, T |
| 58 | 32C11, 12, 13, 14 | Despinassy, Rochebaucourt | Pacific North West Capital Corporation / Alto Ventures Ltd | Destiny | Au | D(14:5600), GpEm(G) Gold mineralization in the DAC deposit consists of quartz veins injected in wide shear zones. Best results include an interval grading 44.39 g/t Au over 0.5 m in drill hole DES09-120. |
| 59 | 32C12 | Barraute | Abcourt Mines Inc. | Abcourt-Barvue | Ag-Zn | Met, TE |
| 60 | 32C05, 32D08 | Figury | Cartier Resources Inc. | Rambull | Au | Gs(r), S, T Six new strippings uncovered several new mineralized zones with quartz-ankerite-chlorite veining hosted in altered granodiorite. Best results include 10.88 g/t Au over 1 m in trench RAM-09-TR-02. |
| 61 | 32D01 | Fournière | Osisko Mining Corporation | South Barnat | Au | D(x:x), Re A detailed diamond drilling program led to a measured and indicated resource estimate totalling 29.0 Mt at 2.09 g/t Au, based on a cut-off grade of 1.0 g/t Au. Gold mineralization, located along the south part of a segment of the Cadillac Fault, consists of multiple tabular zones hosted in silicified metasedimentary rocks with disseminated pyrite, in porphyries and altered ultramafic rocks. |
| 62 | 32D01 | Fournière | Osisko Mining Corporation | Canadian Malartic | Au | D(x:x), Re, T On August 20, 2009, the MRNF announced the issuance of a certificate authorizing Osisko Mining Corporation to develop an open pit mine at the Canadian Malartic gold project. The projected rate of production is 591,000 ounces of gold per year. Based on a cut-off grade of 0.36 g/t Au, reserves are estimated at 183.3 Mt at 1.07 g/t Au, with indicated resources of 54 Mt at 0.81 g/t Au and inferred resources of 37.4 Mt at 0.60 g/t Au, in metasedimentary rocks and granodiorite with disseminated pyrite. Relocation of 170 homes affected by the project began on July 9, 2008 and continued throughout 2009. |

TABLE 5.3 - Exploration projects in the Abitibi-Témiscamingue administrative region in 2009

| Nos | NTS | TOWNSHIPS | COMPANIES / PROSPECTORS | PROJECTS | COMMODITIES | EXPLORATION WORK ⁽¹⁾ |
|---|----------------------|-------------------------------|---|----------------------------|-------------|---------------------------------|
| 63 | 32D01 | Fournière | Osisko Mining Corporation / Golden Valley Mines Ltd | Malartic CHL, Jeffrey zone | Au | D(34:5738) |
| | | | Best results: 1.2 g/t Au over 86.9 m (drill hole CHL08-2063). Gold mineralization is hosted in quartz-feldspar porphyry dykes with disseminated pyrite, in contact with an ultramafic flow-dominated sequence. | | | |
| 64 | 32D01 | Malartic | Golden Share Mining Corporation | Malartic Lakeshore | Au | D(18:1396), GpEm(G), TE |
| | | | Within the Norbenite-Marbenite shear zone, zone 66 composed of sheared basalt injected with quartz-calcite-pyrite veinlets was discovered in drill hole (1.19 g/t Au over 0.55 m, drill hole ML-08-11). | | | |
| 65 | 32D01 | Malartic | Arianne Resources Inc. | Héva | Au | G, Pr, S |
| | | | Among the 52 samples collected in metasedimentary rocks of the Cadillac Group, the best grade is 9.12 g/t Au, from a sandstone with 5% fine-grained arsenopyrite. | | | |
| 66 | 32D01 | Malartic | Amseco Exploration Ltd / J.A.G. Mines Ltd | Malartic | Au | Te |
| 67 | 32D01, 08 | Malartic, Cadillac | NioGold Mining Corporation | Héva | Au | GpMa(A), TE |
| 68 | 32D08 | Figuery | Mineral Hill Industries Ltd | International | Li | GpEm(G), GpMa(G), T |
| 69 | 32D08 | Figuery, Villemontel | Cartier Resources Inc. | Newconex West | Au | Pr, TE |
| 70 | 32D09 | Dalquier | Abcourt Mines Inc. | Jonpol | Base metals | D(x:1329) |
| Western part of region 08: Rouyn - La Sarre - Témiscamingue area | | | | | | |
| 71 | 31L10, 14, 15 | Gendreau, Mercier | Matamec Exploration inc. | Zeus | REE | D(31:2342), T |
| | | | Sampling in a series of trenches yielded the following assay results: T-1: 33.0 m at 1.491% REE ₂ O ₃ ; T-3: 24.2 m at 0.723% REE ₂ O ₃ ; T-11: 8.0 m at 0.718% REE ₂ O ₃ ; T-8: 18 m at 1.011% REE ₂ O ₃ . | | | |
| 72 | 31L15, 16, 31M01, 02 | Booth, McLachlin, Senezergues | Aurizon Mines Ltd | Kipawa | Au-REE | Gs(t) |
| 73 | 31M | Atwater | Hinterland Metals Inc. | Kipawa REE | REE-Y-Zr-Au | Gs(sl) |
| 74 | 31M07 | Guillet, Blondeau | Conway Resources Inc. | Conway Paquin | Au | Met, S |
| | | | The company conducted mineralogical tests on the Conway and Paquin veins. A sample weighing 527.7 kg from the Conway vein yielded an average grade of 18.6 g/t Au and 69.4 g/t Ag. The company announced plans to collect a 3,000-kg sample from the two veins. | | | |
| 75 | 31M07 | Guillet | J.A.G. Mines Ltd | Aubelle - Belleterre | Au-Ag-Cu-Zn | D(14:4254), T |
| 76 | 31M07 | Guillet | Conway Resources Inc. | Belleterre Mine | Au | D(x:x) |
| | | | The results of a drilling program conducted in 2008 were announced in 2009, including a 2.01-m section in drill hole B08-01 grading 18.38 g/t Au. | | | |
| 77 | 32D01 | Cadillac | Agnico-Eagle Mines Ltd | Lapa | Au | Construction, D(14:4920) |
| | | | Commercial production achieved in May 2009. The ore deposit contains proven and probable reserves of 3.8 Mt at a grade of 8.9 g/t Au. The expected mine life is 8 years. | | | |
| 78 | 32D01 | Cadillac | Midland Exploration Inc. / Agnico-Eagle Mines Ltd | Maritime Cadillac | Au | D(4:3062) |
| | | | Four diamond drill holes completed, including drill hole 141-09-22A, which intersected 2.0 m grading 2.1 g/t Au. | | | |
| 79 | 32D01 | Bousquet | Agnico-Eagle Mines Ltd | Ellisson | Au | D(1:1500) |
| 80 | 32D02 | Joannès | Aurizon Mines Ltd | Joanna | Au | Re |
| | | | The company received positive results from the pre-feasibility study. The deposit (Hosco and Heva zones) contains measured and indicated resources of 34.5 Mt at 1.4 g/t Au and inferred resources of 29.8 Mt at 1.4 g/t Au. The planned open pit mine is expected to operate at a rate of 8,500 tons per day and produce 110,000 ounces of gold per year over a mine life of 8.3 years. The company launched a feasibility study on the project. | | | |

TABLE 5.3 - Exploration projects in the Abitibi-Témiscamingue administrative region in 2009

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|-----------|--------------|----------------------------|--|----------------------|-------------|--|
| 81 | 32D02 | Joannès | Aurizon Mines Ltd / Alexandria Minerals Corporation | Joannes Township | Au | D(x:x) New resource estimate: 1.08 Mt inferred resources at an average grade of 1.2 g/t Au, based on a cut-off grade of 0.5 g/t Au. |
| 82 | 32D02 | Bousquet | IAMGOLD-Québec Management Inc. | Westwood | Au | Construction,TE The company advanced construction of surface infrastructure - headframe, sinking of exploration shaft, 1,635 m of access ramp to reach the Warrenmac deposit - during the year. A preliminary study was completed. The various mineralized zones reportedly contain 9.4 Mt of inferred resources at a grade of 11.4 g/t Au. The start-up of production is scheduled for 2013. |
| 83 | 32D02 | Rouyn | Threegold Resources Inc. | Adanac | Au | D(22:4768) |
| 84 | 32D02, 03 | Rouyn | Gold Bullion Development Corporation | Granada Mine | Au | D(11:1026) |
| 85 | 32D03 | Beauchastel | Richmont Mines Inc. | Francoeur | Au | D(14:7434) Dewatering of the former mine, closed since 2001, and refurbishing of infrastructure should be completed in the first quarter of 2010. Drilling program totalling 7,434 m completed in October; results include a 2.14-m section grading 7.75 g/t Au. The start-up of production is planned for 2011, at an anticipated rate of 35,000 ounces per year, over a mine life of at least 4 years. A new resource estimate was released: the deposit contains probable reserves on the order of 615,664 t at a grade of 6.91 g/t Au. |
| 86 | 32D03 | Beauchastel | Richmont Mines Inc. | Wasamac | Au | D(2:513) |
| 87 | 32D03 | Beauchastel | Abcourt Mines Inc. | Aldermac | Cu-Zn-Ag-Au | S |
| 88 | 32D03 | Beauchastel, Rouyn | Yorbeau Resources Inc. | Rouyn | Au | D(x:x) Diamond drilling program conducted in early 2009. Results include a 4.0-m section grading 12.6 g/t Au, and 10.35 m grading 74.67 g/t Au in hole 90-CI-519, drilled on the Cinderella block. |
| 89 | 32D03 | Dasserat | Richmont Mines Inc. | Lac Boissier | Au | GpEl |
| 90 | 32D03 | Rouyn | Alexis Minerals Corporation / Thundermin Resources Inc. | Lac Pelletier | Au | D(7:959) Positive pre-feasibility study on the project. Dewatering and rehabilitation of the ramp to extract a 40,000-tonne bulk sample. Decision to go into production to be announced in 2010. Expected production of 40,000 to 50,000 ounces of gold per year (total about 118,000 ounces). Drilling program, with results including 14.4 g/t Au over 2.4 m in drill hole 17475-72. |
| 91 | 32D06 | Beauchastel | Abcourt Mines Inc. | Elder Mine | Au | Re |
| 92 | 32D06 | Dasserat | Rocmec Mining Inc. | Rocmec 1 | Au | B(x:x), D(x:4500) |
| 93 | 32D06 | Dasserat | Vantex Resources Ltd | Galloway | Au | D(x:x) Numerous drill holes completed throughout the year, among which VHD09-19 that intersected a 228-m section grading 0.339 g/t Au, including 31.50 m at 0.75 g/t Au, including 3 m at 2.99 g/t Au. |
| 94 | 32D06 | Duparquet | Normabec Mining Resources Ltd / GéoNova Exploration inc. / SOQUEM INC. | Pitt Gold | Au | D(x:x) A drilling program was completed in late 2008; results include, in drill hole PG2008-15, one section grading 12.15 g/t Au over 6.5 m, and another grading 3.02 g/t Au over 4.1 m. |
| 95 | 32D06 | Montbray | Globex Mining Enterprises Inc. | Lac Colnet | Au-Cu-Zn | GpEm, GpMa, Pr |
| 96 | 32D07 | Aigubelle, Cléricy, Destor | Typhoon Exploration Inc. | Fayolle | Au | D(x:x) A drilling program was conducted in the spring on the McDonald showing. Results namely include a 2.0-m interval grading 4.79 g/t Au in drill hole FA-08-33. |
| 97 | 32D07 | | Agnico-Eagle Mines Ltd | Blake River | Au-Ag-Cu-Zn | D(3:3030) |

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|------------|------------------|-------------------------|--|--------------------------|--------------------|---------------------------------|
| 98 | 32D07 | Cléricy | Xstrata Copper Canada / Alexis Minerals Corporation | Noralex | Zn-Cu-Ag-Au | Gs(r) |
| 99 | 32D07 | Cléricy, La Pause | Midland Exploration Inc. / Osisko Mining Corporation | Dunn | Au-Ag-Cu-Zn | GpEl, GpMa, Pr |
| 100 | 32D07 | Dufresnoy | Xstrata Copper Canada / Alexis Minerals Corporation | Nord Tromac | Zn-Cu-Ag-Au | Gs(r) |
| 101 | 32D07 | La Pause | Midland Exploration Inc. | Patris | Au | GpEl, GpMa |
| 102 | 32D07 | La Pause | Cartier Resources Inc. | La Pause | Au-Ag | D(2:750) |
| 103 | 32D07 | Manneville | Cartier Resources Inc. | MacCormack | Cu-Zn-Au-Ag | D(6:2150), GpEl, Pr, Gs(r) |
| | | | A diamond drilling program was conducted. Results include a 1.25-m interval grading 4.81% Zn, 0.41% Cu, 28.7 g/t Ag, and 0.27 g/t Au in drill hole MC-09-01. | | | |
| 104 | 32D07, 08 | Bousquet | IAMGOLD-Québec Management Inc. | Doyon Mine | Au | D(10:6598) |
| | | | Results include sections grading 10 to 20 g/t Au over thicknesses from 1.0 to 2.5 m. | | | |
| 105 | 32D07, 08 | Manneville, Villemontel | Cartier Resources Inc. | Preissac | Au-Cu-Zn-Ag | Pr |
| 106 | 32D08 | Cadillac | Agnico-Eagle Mines Ltd | LaRonde Mine | Cu-Zn-Au-Ag-Pb | D(x:x) |
| 107 | 32D08 | Cadillac | Agnico-Eagle Mines Ltd | LaRonde Extension | Cu-Zn-Au-Ag | Construction |
| | | | Sinking of the internal shaft to a final depth of 2,854 m, which should be reached in the fourth quarter of 2009. Proven and probable reserves stand at 34.9 Mt at a grade of 4.4 g/t Au. Production is slated to begin in 2011. A drilling program was undertaken, targeting the deepest extensions of zone 20 North, at 3,700 m vertical depth, i.e. about 600 m below current reserves. | | | |
| 108 | 32D09 | Launay, Trécesson | Royal Nickel Corporation | Dumont | Ni-PGM | D(75:26 050), Met |
| 109 | 32D09 | Manneville, Villemontel | Cartier Resources Inc. | Manneville | Au | G |
| 110 | 32D10 | Launay, Privat | Melkior Resources Inc. | Launay | Au | G, Gp(G), Gs(sl), Pr, TE |
| | | | Grab samples collected in zone 75 yielded assay results of 13.75 g/t, 5.06 g/t, and 3.08 g/t Au. Grab samples collected 4 km north of zone 75 graded 1.415 g/t and 1.28 g/t Au, with up to 19.15 g/t Ag. | | | |
| 111 | 32D11 | Duparquet | Clifton Star Resources Inc. | Beattie Mine | Au-Ag | D(x:x) |
| | | | Drilling program completed, with results including 17.0 m at a grade of 7.00 g/t Au in drill hole B09-32. | | | |
| 112 | 32D11 | Duparquet | Clifton Star Resources Inc. | Donchester | Au-Ag | D(x:x) |
| | | | Drill holes completed, including hole D09-3, which intersected a 4.7-m interval grading 4.19 g/t Au. | | | |
| 113 | 32D11 | Destor | Clifton Star Resources Inc. | Duquesne | Au | D(x:x) |
| | | | Diamond drilling completed, including hole DQ09-09, which intersected 8.2 m grading 9.04 g/t Au. | | | |
| 114 | 32D14 | La Reine | Vantex Resources Ltd | Santa Anna | Au | D(x:x) |
| | | | Drilling program completed in 2008, the results of which were announced in 2009; drill hole SA08-27 intersected 3.00 m grading 6.76 g/t Au. | | | |
| 115 | 32D14 | Perron | Amex Exploration Inc. | Normétal | Cu-Zn-Ag-Au | D(4:500) |
| 116 | 32D14, 32E03, 04 | Perron | Amex Exploration Inc. | Perron | Au | D(17:x), Re, TE |
| | | | Drilling program completed, including drill hole PE200917 that intersected 1.0 m grading 11.89 g/t Au. | | | |

1. See legend of abbreviations and meaning of bold type in Appendix I

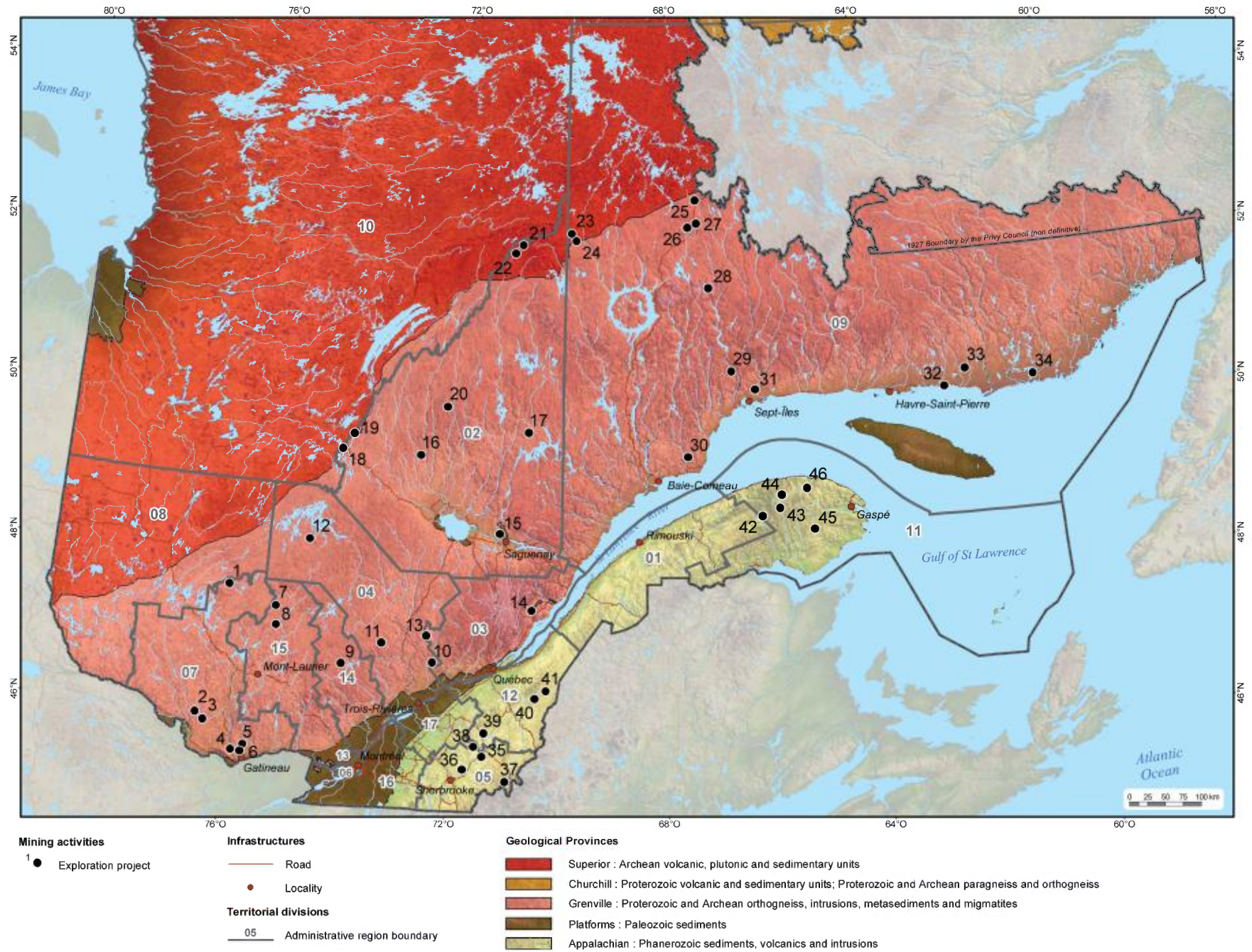


FIGURE 5.4. Exploration projects in Québec (Abitibi-Témiscamingue and Nord-du-Québec regions excluded) (see table 5.4)

TABLE 5.4 - Exploration projects in Québec (Abitibi-Témiscamingue and Nord-du-Québec regions excluded) (see figure 5.4)

| Nos. | NTS | ADMINISTRATIVE REGION / GEOLOGICAL PROVINCE | COMPANIES / PROSPECTORS | PROJECTS | COMMODITIES | EXPLORATION WORK ⁽¹⁾ |
|---|----------------------------|---|----------------------------|---|-------------------------|---------------------------------|
| Outaouais administrative region (07) | | | | | | |
| 1 | 31N06, 08, 09 31O12, 13 | 07 and in part 08 / Grenville | Cartier Resources Inc. | Doré | Cu-Ni-Co | Gs(t), S |
| | | | | Northeast of Cabonga Reservoir, Cartier Resources discovered copper occurrences associated with a sulphide horizon that marks the contact between the Bouchette layered intrusion and metasedimentary rocks. The company made this discovery in 2009 during a follow-up on a regional till survey followed by a local survey. The company also uncovered elsewhere on the property, fields of massive to semi-massive sulphide boulders with copper, nickel and cobalt mineralization. The latest work reported on this property consists in a series of 119 channel samples that yielded up to 1.0% Cu over 6.0 m. | | |
| 2 | 31F16 | 07 / Grenville | Stelmine Canada Ltd | Black Lake | REE-U | Pr |
| 3 | 31F16 | 07 / Grenville | Stelmine Canada Ltd | Murray | REE-U | Pr |
| 4 | 31F16 | 07 / Grenville | Stelmine Canada Ltd | Meach Lake | REE-U | Pr |
| 5 | 31F16 | 07 / Grenville | Stelmine Canada Ltd | Dam Lake | REE-U | Pr |
| 6 | 31F16 | 07 / Grenville | Stelmine Canada Ltd | Cantley-Templeton-Quinville | REE-U | Pr |
| Laurentides administrative region (15) | | | | | | |
| 7 | 31O06 | 15 / Grenville | NioGold Mining Corporation | Pump Lake | Fe-Cu-Au-Ag-Mo-Nb-REE-U | GpGr(A) |
| | | | | The company continued exploration work in the Lac Lesueur area, with an airborne gravity survey designed to detect additional magnetite and sulphide zones associated with the Lesueur alkaline Suite. The latter is known for its numerous iron, copper-gold-silver, molybdenum, niobium, REE, and uranium occurrences. | | |
| 8 | 31O03 | 15 / Grenville | Ressources Maxima inc. | Vastel / Peter Lake | Cu-Ni | Pr, T |
| | | | | Prospecting and channel sampling conducted on this property, located north of Sainte-Anne-du-Lac, led to the discovery of about 1% Cu and 1% Ni in metagabbros in contact with paragneisses. | | |
| Lanaudière administrative region (14) | | | | | | |
| 9 | 31J16 | 14 / Grenville | Threegold Resources Inc. | Maisonneuve | REE-U | S |
| | | | | Northwest of Saint-Michel-des-Saints, the company collected a few samples on the site of a former mica mine, the Maisonneuve mine, in order to orient future work in the search for REE and uranium. | | |
| Mauricie administrative region (04) | | | | | | |
| 10 | 31I16 | 04 / Grenville | Les Mines d'or Excel inc. | Batiscan (Montauban) | Zn-Pb-Ag-Cu-Au | Pg, D(x:x) |
| 11 | 31P03 | 04 / Grenville | Jourdan Resources Inc. | Lac Baude | REE | Pg |
| 12 | 32B02, 06, 07 | 04 / Grenville | Laurentian Goldfields Ltd | Grenville Project - South Block | Au | G, Gs(l), Gs(sl), S |
| Capitale-Nationale administrative region (03) | | | | | | |
| 13 | 31P01, 02 | 03 / Grenville | SOQUEM INC. | Dussault | Zn-Cu-Au | G, Pg |
| 14 | 21M19, 10 | 03 / Grenville | Rock Tech Resources Inc. | Saint-Urbain | V-Ti-Fe | G, GpEm, GpGr, Pg, S |
| Saguenay-Lac-Saint-Jean administrative region (02) | | | | | | |
| 15 | 22D11 | 02 / Grenville | Dios Exploration Inc. | Shipshaw | REE | Pg |

TABLE 5.4 - Exploration projects in Québec (Abitibi-Témiscamingue and Nord-du-Québec regions excluded) (see figure 5.4)

| Nos. | NTS | ADMINISTRATIVE REGION / GEOLOGICAL PROVINCE | COMPANIES / PROSPECTORS | PROJECTS | COMMODITIES | EXPLORATION WORK ⁽¹⁾ |
|---|--------------------------------------|---|--|---------------------------------|-----------------|---------------------------------|
| 16 | 32H07, 10 | 02 / Grenville | MDN Inc. / IAMGOLD Québec management inc. | Anita | Ta-Nb | B(70:xx), D(x:x) |
| | | | MDN Inc., in partnership with IAMGOLD Corporation and private investors, is investigating an alternative to mine the tantalum-niobium ore hosted in the Crevier Carbonatite from an open pit over a period of at least 18 years. A drilling program was recently completed in order to upgrade the existing 25.75 Mt resource. Bulk sampling of about 70 tonnes of ore is currently underway in order to better document processing and refining costs for the niobium and tantalum ore. Annual production is currently estimated at about 1.2 M kg of niobium oxide (Nb ₂ O ₅) and 115,000 kg of tantalum oxide / tantalum salt (Ta ₂ O ₅ / TaK ₂ F ₇). | | | |
| 17 | 22E10, 15 | 02 / Grenville | Arianne Resources Inc. | Lac à Paul | P-Ti | D(39:6550), GpMa, Pr |
| | | | Arianne Resources Inc. continues exploration work on its Lac à Paul phosphate-titanium deposit. Inferred resources are estimated at 304 Mt at 6.18% P ₂ O ₅ and 7.81% TiO ₂ . A preliminary scoping study covering the first ten years of production has recently been released. The internal rate of return (IRR) is estimated at 19.07%. | | | |
| 18 | 32G08, 09 | 02 / Supérieur | Apella Resources Inc. | Frontline Uranium | U | Pg |
| 19 | 32G09 | 02 / Supérieur | Cartier Resources Inc. | Dollier | Au | GpEm(A), GpMa(A), Pr, S, T |
| | | | Discovery of a new gold showing in a semi-massive sulphide horizon (pyrite-pyrrhotite) in mafic lavas. Channel samples yielded grades of 3.85 g/t Au over 3.2 m. | | | |
| 20 | 22L05, 32I01, 02 | 02 / Grenville | Laurentian Goldfields Ltd | Grenville Project - North Block | Au | G, Gs(l), Gs(sl), S |
| 21 | 23D02 | 02 / Superior | Anglo-Canadian Uranium Corp. | Big Mac | U | Pg |
| 22 | 23D03 | 02 / Superior | Anglo-Canadian Uranium Corp. | Charles | U | Pg |
| Côte-Nord administrative region (09) | | | | | | |
| 23 | 23C05 | 09 / Superior | Midland Exploration Inc. | Lac des Neiges | Ni-Cu-Pt-Pd | Pr |
| 24 | 23C03, 04, 06 | 09 / Grenville | Manicouagan Minerals Inc. | Mouchalagane | Cu-Ni-Pt-Pd-PGE | D(x:x) |
| 25 | 23B14 | 09 / Grenville | Consolidated Thompson Iron Mines Ltd | Bloom Lake | Fe | Re, construction |
| | | | The company released a new resource estimate in March 2009. Measured and indicated resources are estimated at 827 Mt grading 29.3% total Fe, with inferred resources of 47.2 Mt grading 29.32% total Fe. Drilling program - LBW-08-19: 301.14 m at 30.41% total Fe. Construction of infrastructure continued during the year, with production slated to begin in the fourth quarter of 2009. In October, the company announced the start-up of construction work at its ore handling facilities in the Port of Sept-Îles. | | | |
| 26 | 23B05 | 09 / Grenville | Consolidated Thompson Iron Mines Ltd | Lamêlée-Peppler | Fe | Re |
| | | | The company released a new resource estimate. The Lamêlée deposit contains an indicated resource of 641.72 Mt grading 30.30% total Fe, and the Peppler deposit contains an indicated resource of 293 Mt grading 28.46% total Fe. | | | |
| 27 | 23B11, 12, 14 23B 05, 06 22O13 | 09 / Grenville | Champion Minerals Inc. | Fermont (15 properties) | Fe | D(18:x), G, GpMa(A) |
| | | | Diamond drilling was completed on the Fire Lake North claim block. Drill hole DL09-01 intersected 29.2 m grading 24.0% Fe. The company launched a program to prepare a 43-101-compliant resource estimate for the deposit. | | | |
| 28 | 22O11, 12 | 09 / Grenville | Manicouagan Minerals Inc. / Pure Nickel Inc. | HPM/Forgues | Cu-Ni-Co | D(17:3388), G, Pr |
| 29 | 22J10 | 09 / Grenville | Big Red Diamond Corporation | J6L1 Rare Earth Element | REE | GpEm(A), GpMa(A), GpRa(A) |
| 30 | 22G12, 13 | 09 / Grenville | Fancamp Exploration Ltd / Sheridan Platinum Group Ltd | Godbout North | U | G |

TABLE 5.4 - Exploration projects in Québec (Abitibi-Témiscamingue and Nord-du-Québec regions excluded) (see figure 5.4)

| Nos. | NTS | ADMINISTRATIVE REGION / GEOLOGICAL PROVINCE | COMPANIES / PROSPECTORS | PROJECTS | COMMODITIES | EXPLORATION WORK ⁽¹⁾ |
|--|----------------------|---|--|-------------------------|----------------|---------------------------------|
| 31 | 22J08 | 09 / Grenville | Terra Ventures Inc. | Lac Kichiwiss | U | GpMa(A), GpRa(A) |
| 32 | 12L08 | 09 / Grenville | Entourage Mining Ltd / F. Yacoub / Abbastar Uranium Corp. | Doran | U-Th | G, Gs(r), GpMa, GpRa |
| 33 | 12K12, 12L07, 08, 09 | 09 / Grenville | Uracan Resources Ltd | North Shore | U | D(x:x), G, GpRa, S |
| | | | The company conducted drilling on the Double S zone; results include, in drill hole SS-09-78, a 72.15-m section grading 0.014% U ₃ O ₈ . Channel samples collected on the Grandroy zone yielded a grade of 0.174% U ₃ O ₈ over 20 m. A grab sample from the Turgeon East zone yielded a grade of 0.685% U ₃ O ₈ . The company also collected 42 channel samples from 7 different zones in the Lac Turgeon intrusive Complex. | | | |
| 34 | 12K07 | 09 / Grenville | Western Troy Capital Resources Inc. | Lac Washicoutai | U-REE | Pr |
| | | | A grab sample collected in a radioactive zone yielded grades of 489 ppm La, 474 ppm Th, 149 ppm Zr, >1000 ppm Ce and 69 ppm Y. | | | |
| Estrie administrative region (05) | | | | | | |
| 35 | 21E11, 14 | 05 / Appalachians | Midland Exploration Inc. | Weedon | Cu-Pb-Zn-Ag-Au | Gs(r), GpGr |
| | | | The company continued exploration work on the Weedon project with a gravity survey and lithochemistry analyses. The company is aiming to locate volcanogenic massive sulphide deposits in the Ascot-Weedon volcano-sedimentary belt, which hosts several VMS deposits including the former Cupra-d'Estrie, Solbec, and Weedon mines. | | | |
| 36 | 21E12 | 05 / Appalachians | Fancamp Exploration Ltd / Ressources Tectonic inc. | Stoke | Cu-Au, Zn | GpEm(A) |
| | | | In December 2009, Fancamp optioned the Stoke property from Ressources Tectonic and announced it was immediately launching an airborne VTEM geophysical survey. The Stoke property lies within the Ascot-Weedon volcano-sedimentary belt, which hosts several historic copper and gold showings in quartz stockworks. Near these showings, numerous massive sphalerite float were recently discovered by Ressources Tectonic. | | | |
| 37 | 21E07 | 05 / Appalachians | Fancamp Exploration Ltd / Ressources Tectonic Inc. | Clinton | Cu-Zn | GpEm(A) |
| | | | In December 2009, Fancamp announced an option agreement with Ressources Tectonic for the Clinton property and the start of an airborne VTEM survey. This property hosts six copper-zinc volcanogenic massive sulphide lenses, among which the Clinton F lens which contains a historic non-43-101-compliant resource of 390,000 tonnes at 2.18% Cu and 1.77% Zn. | | | |
| Cf. 38 | 21E13, 14 | 17 and in part 05, 12 / Appalachians | Nevado Ventures Capital Corp. | Nicolet | Cu-Au | G, Gs(r), S, Pr |
| Centre-du-Québec administrative region (17) | | | | | | |
| 38 | 21E13, 14 | 17 and in part 05, 12 / Appalachians | Nevado Ventures Capital Corp. | Nicolet | Cu-Au | G, Gs(r), S, Pr |
| | | | The Nicolet property, located 30 km southwest of Thetford-Mines and mostly in region 17, was optioned by Nevado for its potential for copper and other base metals as well as gold, in the volcano-sedimentary sequence of the Thetford Mines ophiolitic Complex. Prior to this acquisition, work was conducted in 2009 by the Vendor (satellite imagery analysis, prospecting, mapping, sampling, magnetic and electromagnetic surveys). | | | |
| Chaudière-Appalaches administrative region (12) | | | | | | |
| Cf. 38 | 21E13, 14 | 17 and in part 05, 12 / Appalachians | Nevado Ventures Capital Corp. | Nicolet | Cu-Au | G, Gs(r), S, Pr |
| 39 | 21L03, 21E14 | 12 / Appalachians | Auger Ressources Ltd | Thetford Mines Chromite | Cr | D(2:300) |

TABLE 5.4 - Exploration projects in Québec (Abitibi-Témiscamingue and Nord-du-Québec regions excluded) (see figure 5.4)

| Nos. | NTS | ADMINISTRATIVE REGION / GEOLOGICAL PROVINCE | COMPANIES / PROSPECTORS | PROJECTS | COMMODITIES | EXPLORATION WORK ⁽¹⁾ |
|--|----------------------|--|---|---------------------------|----------------|---------------------------------|
| 40 | 21L08 | 12 / Appalachians | Golden Hope Mines Ltd | Bellechasse (Secteur FSG) | Au-Zn-Cu-Pb | Gs(sl), Pg |
| 41 | 21L02, 07, 08, 09 | 12 / Appalachians | Golden Hope Mines Ltd | Bellechasse (Timmins) | Au | D(x:x), S |
| <p>Golden Hope Mines Ltd continued exploration work on its Bellechasse property. This property, which consists of nearly 700 mining claims, is 10 km wide by 95 km long, between Saint-Victor and Sainte-Lucie-de-Beauregard. It hosts the Timmins gold deposit composed of quartz-carbonate-sulphide-gold veins in a gabbro unit. The 2008 drilling program intersected gold-bearing intervals at the Timmins deposit, with the following gold grades: 4.35 g/t over 6 m; 3.48 g/t over 8 m; 3.42 g/t over 4 m; 2.31 g/t over 4 m, and 2.26 g/t over 2 m.</p> | | | | | | |
| Bas-Saint-Laurent administrative region (01) | | | | | | |
| Cf. 42 | 22B09, 16 | 11 and in part 01 / Appalachians | Threegold Resources Inc. | Lemieux Dome | Cu-Zn-Pb-Ag | Pg |
| Gaspésie-Îles-de-la-Madeleine administrative region (11) | | | | | | |
| 42 | 22B09, 16 | 11 and in part 01 / Appalachians | Threegold Resources Inc. | Lemieux Dome | Cu-Zn-Pb-Ag | Pg |
| 43 | 22A13 | 11 / Appalachians | Kimpar Resources Inc. | Vortex | Cu-Mo | Gp |
| 44 | 22A13, 22H04 | 11 / Appalachians | First Source Ressources Inc. | Lac Des Pics | Cu-Au-Ag | D(5:1191) |
| 45 | 22A11 | 11 / Appalachians | Breakwater Resources Ltd / Regal Consolidated Ventures Ltd | Mont Observation | Au-Cu-Pb-Zn-Ag | Gs(sl), Pg |
| 46 | 22H03 | 11 / Appalachians | Exploration Orbite VSPA inc. | Grande-Vallée | Al | Gp |
| <p>Exploration work was conducted on the red clay deposit in the L'Original Formation to better delineate ore reserves in the deposit. The company reported the presence of one hundred million metric tonnes of aluminous clay. However, the economic feasibility of the industrial process to extract high-purity alumina has not yet been certified, and consequently, the notion of reserves or resources cannot be applied to the tonnage of aluminous clay.</p> | | | | | | |

1. See legend of abbreviations and meaning, of bold type in Appendix I

MINERAL PRODUCTION

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Deposit Appraisal Projects

In 2009, 16 mining projects reached or remained in the deposit appraisal stage, three of which reached the development phase (figure 6.1; tables 6.1). These include 8 gold projects all located in the Abitibi region, 4 iron ore projects located in the Côte-Nord region, one uranium project, one for niobium, one for diamond and one for chrysotile.

The Canadian Malartic project, located in part within the urban sector of the town of Malartic, was the object of public hearings held by the BAPE in March and April of 2009. The mining project obtained a government decree in August 2009, authorizing the development of an open pit mine. Osisko Mining Corporation has invested \$600M to date in mine development work. The start-up of mining operations at this deposit, which hosts 6.3 M ounces of gold, is scheduled for April 2011.

The Bloom Lake, LaRonde Extension, and Malartic-Midway projects are expected to achieve commercial production during 2010.

Strateco Resources continued development work on its Matoush uranium project. In 2009, the company completed an environmental study that required a \$4.5M investment and 29 months of work. A drilling program, planned over two years, is designed to delineate a potential 60 M pounds U_3O_8 .

Québec's first diamond mine is expected to become reality around 2013. Stornoway Diamond Corporation and SOQUEM still have much work ahead of them to reach this milestone. Upcoming steps include selection of mining methods, receipt of environmental authorizations, and extension of Highway 167 toward the Monts Otish.

Mines in Operation

The mining industry in Québec was not as strongly affected by the drop in base metal prices (Cu, Ni, Zn), since most of the mines in operation in Québec in 2009 were held by major mining companies or gold producers. The price of gold ranged from US\$868 to more than US\$1,200 per ounce in 2009. Consequently, gold producers were not affected by the economic crisis that prevailed in 2009. Mine closures observed in 2009 are due to depletion of reserves or to financial difficulties experienced by mining companies.

Table 6.2 lists production statistics for metallic substances in Québec, whereas figure 6.1 shows the location of mines in operation in 2009.

NEW MINES

Agnico-Eagle Mines inaugurated in August of 2009 the **Lapa** mine located in Rivière-Héva. This mining complex required investments on the order of 180 million dollars and will employ 130 workers until 2015. The mine is expected to produce 1.1 M ounces of gold. **North American Palladium (NAP)**, who acquired the assets of Cadiscor Resources in May of 2009, resumed operations at the **Sleeping Giant** mine in 2009. NAP intends to produce 50,000 ounces of gold per year.

MINE CLOSURES

In January 2009, **Campbell Resources (Campbell)** and its subsidiaries (**Meston Resources** and **MSV Resources**) sought the protection of the *Companies' Creditors Arrangement Act (C-36)* to prepare and present a plan of arrangement to its creditors. **Campbell** permanently shut down the **Copper Rand** mine and the **Merrill** open pit mine on December 31, 2008, due to lack of financing. **Meston Resources** has now filed for bankruptcy, and **Campbell** and **MSV Resources** remain under the protection of C-36. **Campbell** holds more than 10,000 hectares of mining rights in the Chibougamau area. These mining concessions, leases and claims have not seen any mineral exploration for more than 20 years. Also in January, **First Metals** announced the closure of its **Fabie** mine. Weak copper prices were stated as the main reason behind this shutdown. In the Chibougamau area, Nord-du-Québec region, the **Troilus** mine held by **Inmet Mining Corporation** ceased mining operations in the open pits due to depletion of reserves. Processing of low-grade ore stockpiles will continue until June of 2010.

IAMGOLD Corporation permanently closed the **Doyon** mine in Preissac in late December 2009. The Doyon mine was in operation since the start of the 1980s. Over its 30-year mine life, Doyon produced more than 30 M tonnes of ore and 5.8 M ounces of gold, including output from the Mouska mine.

PROJECTS ON STAND-BY

Certain mining and investment projects were put on stand-by considering the economic conditions that prevailed in 2009. For example, **ArcelorMittal**, largest steel manufacturer in the world and parent company of **ArcelorMittal Mines Canada**, halted all of its expansion projects, namely plans for year-round operations at the **Fire Lake** mine, expansion of the pellet plant in Port-Cartier, and development of the Mont Reed iron ore deposit. However, the anticipated recovery of steel markets in 2010 may prompt the company to reconsider some of these projects.

Canadian Royalties, who interrupted development work at the **Nunavik Nickel** mining project in 2008, was acquired by Chinese miner **Jien Canada Mining**. Following this acquisition, development work is expected to resume at the Nunavik Nickel project in Nunavik. **Xstrata Nickel** postponed its expansion project at the **Raglan** mine site. It was planning to increase the processing capacity from 1.3 Mt/year to 2.0 Mt/year by 2013.

As for **Breakwater Resources**, mining operations at the **Langlois** mine, shut down in October of 2008, did not resume as planned in 2009. The mining company announced a \$4.6M investment for the development of two access ramps. Mining operations may resume in 2011.

Industrial Minerals, Industrial Stone, and Architectural Stone

INDUSTRIAL MINERALS, INDUSTRIAL STONE, AND PEAT

Figure 6.2 shows the location of active quarries and mines for industrial minerals and stone, as well as producing peatlands in Québec. Table 6.3 provides a brief description of each operation.

Industrial minerals and stone produced in Québec in 2009 include: chrysotile asbestos, ilmenite and titanium slag, graphite, mica, rock salt and brine, K-feldspar, clay minerals, peat, silica, as well as limestone, dolomite and marble.

Chrysotile asbestos is extracted in two mines in the Estrie region (12). Ilmenite and titanium slag are produced at the Lac Tio mine, north of Havre-Saint-Pierre. Flaky graphite is mined at the Lac-des-Îles mine south of Mont-Laurier, and mica at the lac Letondal mine in Suzor Township, northwest of La Tuque in the Mauricie region. K-feldspar was mined for a short period of time (3 to 4 months) in the Outaouais region, north of

Buckingham. Rock salt is extracted at the Seleine mine in the Îles-de-la-Madeleine, whereas brine is produced from five wells in the Bécancour area. Shales are quarried in the Montréal area and are used to manufacture bricks.

The main sources of silica are: quartzite (five quarries), sandstone (four quarries), and natural sand (two operations). Limestone, dolomite, and marble are mined for industrial purposes in more than 15 quarries. Depending on their chemical or physical characteristics, they are used to produce quick lime (three operations), various aggregate products (liming material, mineral fillers, granules), or cement (three producers).

Peat production in 2009 may be described as extremely disappointing. Already in 2007 and 2008, peat production levels over the summer season were much lower than what producers were aiming for. Consequently, inventories at the start of the summer of 2009 were so low they could be described as being practically non-existent. The weather conditions that prevailed from early May to mid-August brought precipitations on a nearly daily basis over much of the producing regions in Eastern Canada, with little to no significant sunny periods. Field operations were strongly affected. Thus, by early September, production levels had barely reached 40% throughout Québec.

ARCHITECTURAL STONE

Figure 6.3 shows the location of architectural stone quarries in operation in Québec in 2009. Table 6.4 provides a brief description of each operation. A total of 98 quarries of architectural stone are currently active in Québec. The Rivière-à-Pierre area, with its 16 quarries in operation, constitutes the most important producing region in Québec for dimension stone. The Saint-Nazaire and Chute-des-Passes areas with four quarries each, as well as the Saint-Alexis-des-Monts and Saint-Didace area with five quarries in operation, are also among the most active areas for architectural stone production.

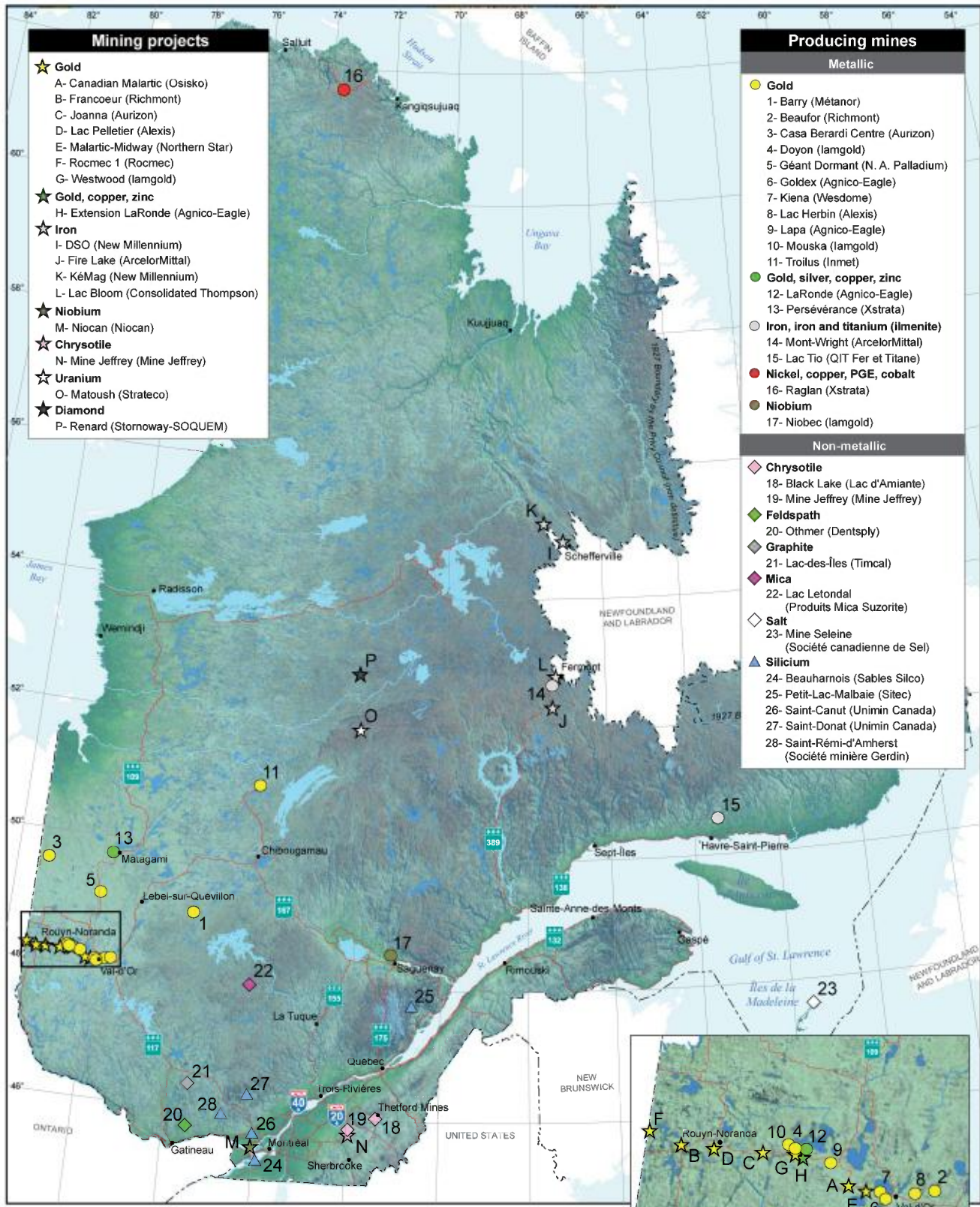


FIGURE 6.1. Producing mines and major mining projects in advanced phase, January 2010.

TABLE 6.1 - Projects in the development phase and projects in the deposit appraisal phase in Québec (see figure 6.1)

| Site | Project | Company | Summary description of ore deposit Mining method | Proven and probable reserves | Measured resources | Indicated resources | Inferred resources | Expected start-up of production | Commodities | Expected daily production rate | Expected mine life | Township / NTS / Administrative region |
|--|-------------------|--------------------------------------|--|--|-------------------------|---|---|---|----------------------------------|--------------------------------|--------------------|---|
| Projects in the development phase in Québec (see figure 6.1). | | | | | | | | | | | | |
| A | Canadian Malartic | Osisko Mining Corporation Inc. | Gold porphyry Open pit operation | 183 M mt at 1.1 g/t Au | 33.5 M mt at 0.9 g/t Au | 283 M mt at 1.1 g/t Au | 20 M mt at 0.73 g/t Au | 2011 | Gold Silver | 55,000 mt/d | 9 years | Fournière / 32D01 / Abitibi-Témiscamingue |
| H | LaRonde Extension | Agnico-Eagle Mines Ltd | Gold-rich volcanogenic massive sulphides Underground operation | 17.5 M mt at 5.8 g/t Au, 20.1 g/t Ag, 0.3% Cu, 0.8% Zn, and 0.03% Pb | na | 1.8 M mt at 2.7 g/t Au, 22.0 g/t Ag, 0.3% Cu, 1.0% Zn, and 0.08% Pb | 9.8 M mt at 6.4 g/t Au, 27.6 g/t Ag, 0.3% Cu, 2.1% Zn, and 0.06% Pb | 2010 | Gold Zinc Copper Silver | 6,900 mt/d | 11 years | Bousquet / 32D08 / Abitibi-Témiscamingue |
| L | Bloom Lake | Consolidated Thompson Iron Mines Ltd | Lake Superior-type iron formation Open pit operation | 580 M mt at 30.0% Fe | 488 M mt at 29.9% Fe | 149 M mt at 29.3% Fe | 35 M mt at 31.0% Fe | 2010 | Iron | 55,000 mt/d | 35 years | Normanville / 23B14 / Côte-Nord |
| Projects in the deposit appraisal phase in Québec (see figure 6.1). | | | | | | | | | | | | |
| I | DSO | New Millennium Capital Corp. | Enriched iron formations Open pit operation | 52 M mt at 58.9% Fe | 22 M mt at 59.8% Fe | 33 M mt at 58.4% Fe | 6 M mt at 56.8% Fe | 2011 | Iron | 25,000 mt/d 7 months/year | 10 years | 23J15 / Côte-Nord |
| J | Fire Lake | ArcelorMittal Mines Canada | Algoma-type iron formations Open pit operation | na | na | na | na | 2010-2011 (Seasonal production since 2006) | Iron | 14,000 mt/d | na | Bergeron / 23B06 / Côte-Nord |
| B | Francoeur | Richmont Mines Inc. | Shear-related alteration and replacement Underground operation | 616 K mt at 6.9 g/t Au | na | 706 K mt at 7.8 g/t Au | 202 K mt at 6.0 g/t Au | 2011 | Gold | 600 mt/d | 4 | Beauchastel / 32D03 / Abitibi-Témiscamingue |
| C | Joanna | Aurizon Mines Ltd | Shear-related disseminated sulphides and quartz veinlets Open pit operation | 23.6 M mt at 1.3 g/t Au | 19.5 M mt at 1.4 g/t Au | 14.9 M mt at 1.5 g/t Au | 30.9 M mt at 1.4 g/t Au | na | Gold | 8,500 mt/d | 8 | Joannes / 32D02 / Abitibi-Témiscamingue |
| K | KéMag | New Millennium Capital Corp. | Lake Superior-type iron formations Open pit operation | 2.1 G mt at 31.3% Fe | 1.5 G mt at 31.2% Fe | 0.9 G mt at 31.4% Fe | 1 G mt at 31.2% Fe | na | Iron | 215,000 mt/d | > 25 years | 23O03 / Nord-du-Québec |
| D | Lac Pelletier | Alexis Minerals Corporation Inc. | Lode gold: greenstone-hosted quartz-carbonate veins Underground operation | 483 K mt at 7.6 g/t Au | 18 K mt at 8.5 g/t Au | 583 K mt at 8.6 g/t Au | 214 M mt at 8.8 g/t Au | na | Gold | 625 mt/d | 3 to 7 years | Rouyn / 32D03 / Abitibi-Témiscamingue |
| E | Malartic-Midway | Northern Star Mining Corp. | Greenstone-hosted quartz stockwork and gold porphyry Underground operation | na | na | 2.4 M mt at 3.6 g/t Au | 2 M mt at 3.6 g/t Au | na | Gold | na | na | Fournière / 32D01 / Abitibi-Témiscamingue |

TABLE 6.1 - Projects in the development phase and projects in the deposit appraisal phase in Québec (see figure 6.1)

| Site | Project | Company | Summary description of ore deposit | Proven and probable reserves | Measured resources | Indicated resources | Inferred resources | Expected start-up of production | Commodities | Expected daily production rate | Expected mine life | Township / NTS / Administrative region |
|-------------------------------------|--------------|--|--|------------------------------|--|--|---|---------------------------------|-------------|--------------------------------|--------------------|--|
| Mining method | | | | | | | | | | | | |
| O | Matoush | Strateco Resources inc. | Shear-related uranium deposit | na | na | 436 K mt at 0.78% U ₃ O ₈ | 1.2 M mt at 0.50% U ₃ O ₈ | 2013 | Uranium | 500 to 700 mt/d | 7 years | 32P16 / Nord-du-Québec |
| Underground operation | | | | | | | | | | | | |
| N | Jeffrey Mine | Mine Jeffrey Inc. | Chrysotile asbestos deposit in ultramafic rocks | na | na | na | na | 2011 | Chrysotile | 20,000 mt/d | 21 years | Shipton / 21E13 / Estrie |
| Underground operation | | | | | | | | | | | | |
| M | Niocan | Niocan Inc. | Carbonatite-hosted ore deposit | na | 8.6 M mt at 0.64% Nb ₂ O ₅ (historic data) | 5.3 M mt at 0.64% Nb ₂ O ₅ (historic data) | na | Pending CA from the MDDEP | Niobium | 2,500 mt/d | 17 years | Lac des Deux-Montagnes / 31G09 / Laurentides |
| Underground operation | | | | | | | | | | | | |
| P | Renard | Stornoway Diamond Corporation / SOQUEM | Kimberlite-hosted diamond deposit | na | na | 26 M mt at 0.87 c/t | 18 M mt at 0.75 c/t | 2013 | Diamond | 3,700 mt/d | 7 years | 33A16 / Nord-du-Québec |
| Open pit and underground operations | | | | | | | | | | | | |
| F | Rocmec 1 | Rocmec Mining Corporation inc. | Lode gold: greenstone-hosted quartz-carbonate veins | na | 92 K mt at 6.7 g/t Au | 274 K mt at 6.4 g/t Au | 955 K mt at 10.4 g/t Au | na | Gold | na | na | Dasserat / 32D04 / Abitibi-Témiscamingue |
| Underground operation | | | | | | | | | | | | |
| G | Westwood | IAMGOLD-Québec Management Inc. | Gold-rich volcanogenic massive sulphides, stockwork and disseminated sulphides | na | na | 313 K mt at 6.9 g/t Au | 11 M mt at 8.7 g/t Au | 2013 | Gold | 700,000 mt/d to 800,000 mt/d | 16 years | Bousquet / 32D07 / Abitibi-Témiscamingue |
| Underground operation | | | | | | | | | | | | |

List of abbreviations:

| | | | |
|------------------|-----------------|--|---|
| Ag: silver | Fe: iron | M: million | mt : metric tonne |
| Au: gold | G: billion | na : not available | mt/d: metric tonne/day |
| c/t: carat/tonne | g/t: gram/tonne | Nb ₂ O ₅ : niobium oxide | U ₃ O ₈ : uranium oxide |
| Cu: copper | K: thousand | Pb: lead | Zn : zinc |

NOTES: The data compiled in this table remain preliminary and are based on information publicly released by the companies.

TABLEU 6.2 - Production of metallic commodities in Québec (see figure 6.1)

| Site | Mine | Company | Summary description of the deposit | Ore mined in 2009 | Metal production in 2009 | Proven and probable mineral reserves (at January 1st 2010) | Employees in 2009 | Cumulative production | Number of years of production | Township / NTS / Region administrative area / Office |
|-------------------------------------|---|---|--|--|--|---|-------------------|---|--|--|
| Mining method | | | | | | | | | | |
| Base metals : Cu and Zn (Ag and Au) | | | | | | | | | | |
| 13 | Persévérance (Matagami Mine) | Xstrata Zinc | VMS-type in mafic and felsic lavas | N.a. | N.a. | N.a. | N.a. | N.a. | 2008-20.. (2) Opening in august 2008 | Daniel / 32F12, 13 / 10 / Val-d'Or |
| Underground mine | | | | | | | | | | |
| 16 | Raglan (Fonderie - Sudbury/ Raffinerie - Norvège) | Québec Mining Raglan Society Ltd - Xstrata Nickel | Magmatic massive sulfides lenses. | 1 309 499 t at 0.68 % Cu 2.56 % Ni 0.05 % Co | 29 246 t Ni 7234 t Cu 588 t Co | *** 11 539 700 t at 0.77 % Cu 2.94 % Ni 0.06 % Co | 733 | N.a. | 1998-20.. (12) | 35C09, H11, H12 / 10 / Chibougamau |
| Underground mine and open pit mine | | | | | | | | | | |
| Precious metals : Au et Ag | | | | | | | | | | |
| 9 | Lapa (Laronde Mine) | Agnico-Eagle Mines Ltd | Blue-grey quartz vein in a biotite and sericite-bearing volcanic rock. | N.a. | 1660 Kg Au | N.a. | 300 | N.a. | 2009 à 2... (1) | Dubuisson/ 32C04 / 08 / Val-d'Or |
| Underground mine | | | | | | | | | | |
| 7 | Kiena | Wesdome Gold Mines Ltd | Auriferous breccia and quartz veins localized between two komatiitic flows | 302 000 t at 3.60 g/t Au | 1101 Kg Au | *** 600 000 t at 4.03 g/t Au | 164 | 11 455 478 t at 4.74 g/t Au | 1981-2002 2006-20.. (25) | Dubuisson / 32C04 / 08 / Val-d'Or |
| Underground mine | | | | | | | | | | |
| 8 | Lac Herbin (Camflo Plant) | Alexis Mineral Corporation | Gold-bearing mineralization in a stockwork of quartz, pyrite veins inside shear zones crosscutting the Bourlamaque Batholith | 170 657 t at 6.01 g/t Au | 1026 Kg Au | ***617374 t at 7.36 g/t Au | 100 | 254 486 t at 6.26 g/t Au | 2008-20.. (2) Opening in octobre 2008 | Bourlamaque / 32C04 / 08 / Val-d'Or |
| Underground mine | | | | | | | | | | |
| 2 | Beaufor (Camflo Plant) | Richmont Mines Inc. | Gold-bearing veins located inside of E-W shear zones at the margin of the Bourlamaque Batholith | 93465 t at 6.35 g/t Au | 606 Kg Au 48 Kg Ag | *** 165 761 t at 8.38 g/t Au | 95 | 2 132 671 t at 7.32 g/t Au | 1933-1951 1996-20.. (32) | Pascalis / 32C04 / 08 / Val-d'Or |
| Underground mine | | | | | | | | | | |
| 12 | LaRonde | Agnico-Eagle Mines Ltd | Massive and semi-massive pyrite lenses in sericitized felsic volcanics and metamorphosed into andalusite and kyanite-bearing schists | 2 545 830 t at 2.75 g/t Au 62.78 g/t Ag 0.34 % Cu 2.96 % Zn 0.31 % Pb | 6330.9 Kg Au 140591.5 Kg Ag 7354 t/Cu 66123.9 t/ Zn 217 t/Pb | ***33 264 186 t at 4.44g/ t Au 33.24 g/t Ag 0.29 % Cu 1.53 % Zn 0.14 % Pb (feb. 2009) | 690 | 30 090 040 t at 4.32 g/t Au 58.79 g/t Ag 0.39 % Cu | 1988-20.. (22) | Bousquet / 32D08 / 08 / Rouyn-Noranda |
| Underground mine | | | | | | | | | | |
| 4 | Doyon | Iamgold Gestion Québec Inc. | Veinlets and disseminated pyrite in sericite schists, in intermediate felsic volcanics and in Mooshla Pluton | 255 980 t at 7.30 g/t Au | 1867.6 Kg Au 766 Kg Ag | 0 | 180 | 30 567 889 t at 5.66 g/t Au | 1980-20.. (30) Mine closed in december 2009 | Bousquet / 32D07 / 08 / Rouyn-Noranda |
| Underground mine | | | | | | | | | | |
| 10 | Mouska (Mine Doyon) | Iamgold Gestion Québec Inc. | Quartz veins in the Mooshla diorite close to the northern sheared contact | 132 297 t at 12.6 g/t Au 0.19 % Cu | 1587.5 Kg Au 282.5 t Cu | ** 119 000 t at 13.7 g/t Au 0.18 % Cu | 130 | N.a. | 1991-20.. (19) | Bousquet / 32D07 / 08 / Rouyn-Noranda |
| Underground mine | | | | | | | | | | |

TABLEU 6.2 - Production of metallic commodities in Québec (see figure 6.1)

| Site | Mine | Company | Summary description of the deposit Mining method | Ore mined in 2009 | Metal production in 2009 | Proven and probable mineral reserves (at January 1st 2010) | Employees in 2009 | Cumulative production | Number of years of production | Township / NTS / Region administrative area / Office |
|------|--|------------------------------|---|--|---|--|-------------------|---|--|--|
| 6 | Goldex | Agnico-Eagle Mines Ltd | Quartz-tourmaline veins with Py-Cp cross cutting granodiorite dykes and sills Underground mine | 2 520 000 t at 2.2 g/t Au | 4629.2 Kg/au | N.a. | 230 | N.a. | 2008-20.. (2) | Dubuisson/ 32C04 / 08 / Val d'Or |
| 5 | Sleeping Giant | North American Palladium Ltd | Gold-bearing quartz and sulfides veins at contact between dacitic intrusions and lava flows Underground mine | 32 822 t at 5.85 g/t Au | 147 Kg/Au 214 Kg/Ag | **205 838 t at 8.64 g/t Au | 84 | 3 158 698 t/m à 10.48 g/t Au | 1987-91 1992-2008 2009-2... (20) | Chaste/ 32F04 /10 / Val d'Or |
| 3 | Casa Berardi | Aurizon Mines Ltd | Quartz-carbonate-pyrite-arsenopyrite veins in shear zones or stockworks Underground mine | 688 677 t at 7.77g/t Au | 4937 Kg/ Au 1050 Kg/ Ag | ***3 836 220 t at 7.75 g/t Au (2008) | 405 | N.a. | 1988-1997 2006-20.. (14) | Casa-Berardi / 33E11 / 10 / Rouyn-Noranda |
| 1 | Barry (Lac Bachelor plant -Desmaraisville) | Metanor Resources Inc. | Quartz-carbonate-albite-pyrite veins in shear zones Open pit mine | 250 000 t at 2.65 g/t Au 0.28 g/t Ag | 500 Kg Au 6.1 Kg Ag | N.a. | 85 | N.a. | 2008-20.. (2) | Barry / 32b13 / 04 / Val-d'Or |
| 11 | Troilus | Inmet Mining Corporation | Au-Cu prophyry in diorite Open pit mine | 1 691 823 t at 1.376 g/t Au 0.17 % Cu | 4203.3 Kg Au 5182.5 Kg Ag 6552 t Cu | *** 3 278 576 t at 0.577 g/t Au 0.09 % Cu | 180 | 67 946 868 t at 1.065g/t Au 0.1 % Cu | 1997-201. (14) | 1524 / 32O01 / 10 / Chibougamau |

TABLE 6.2 - Iron, ilmenite, niobium and graphite production in Québec (see figure 6.1)

| Site | Mine | Company | Summary description of the deposit | Total production in 2009 | Total shipment in 2009 | Shipment of first transformation products in 2009 | Reserves (at January 1st 2010) | Employees in 2009 | Cumulative production | Years of production (#) | Township/ NTS / Administrative area / Office |
|----------------------|--------------|-------------------------------|--|---|---|---|--|----------------------------------|-----------------------|-------------------------|---|
| Mining method | | | | | | | | | | | |
| 14 | Mont Wright | Québec Cartier Mining Company | Specular hematite in metamorphosed iron formation of the Gagnon Group (5 open pits (Paul's Peak, Versant Nord, A, B and C)) Open pit mine | N.a. | N.a. | N.a. | N.a. | 2000 (Mt-Wright + Port -Cartier) | N.a. | 1976-20.. (33) | Normanville / 23B14, B11, B09 / 09 / Sept-Îles |
| 15 | Lac Tio | Iron and Titanium QIT Inc. | Massive Hemo-ilmenite in anorthosite associated with Havre-Saint-Pierre intrusive suite Open pit mine | N.a. | N.a. | N.a. | N.a. | N.a. | N.a. | 1950-20.. (59) | Parker / 12L09, L / 11 / 09 / Sept-Îles |
| 17 | Niobec | Iamgold Gestion Québec Inc | Pyrochlore in the St-Honoré carbonatite. Underground mine | 1 755 000 t at 0,610 % Nb ₂ O ₅ | 6 230 346 Kg Nb ₂ O ₅ | N.a. | *** 10 176 362 t at 0,62 % Nb ₂ O ₅ (proven) 6 213 437 t at 0,62 % Nb ₂ O ₅ (probable) (2007) | 290 | N.a. | 1976-20.. (34) | Simard / 22D11/ 02 / Québec |
| 21 | Lac-des-Îles | Timcal Canada Inc. | Disseminated graphite flakes in crystalline limestone with quartzite horizons Open pit mine | N.a. | N.a. | N.a. | N.a. | N.a. | N.a. | 1989-20.. (20) | Bouthillier / 31J05, 15 / Montréal – Estrie – Laurentides |

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Abbreviation List

Au : Gold BO : Biotite PY : Pyrite VMS : Volcanogenic massive sulfides t : Metric ton
 Ag : Silver CP : Chalcopyrite SP : Sphalerite Ni : Nickel
 Cu : Copper PO : Pyrrhotite Zn : Zinc N.a. : Non available

NOTES

The data compiled in this table are preliminary and have been collected from mining companies before they published their official financial statement.

The difference between proven mineral reserves and probable mineral reserves is defined according to National Instrument 43-101.

The site for the ore processing plant in 2009 is indicated in parenthesis if different from the exploitation site.

The reserves compiled in this table take into consideration:

* Ore losses

** Ore dilution

*** Ore losses and ore dilution

**** None of those factors

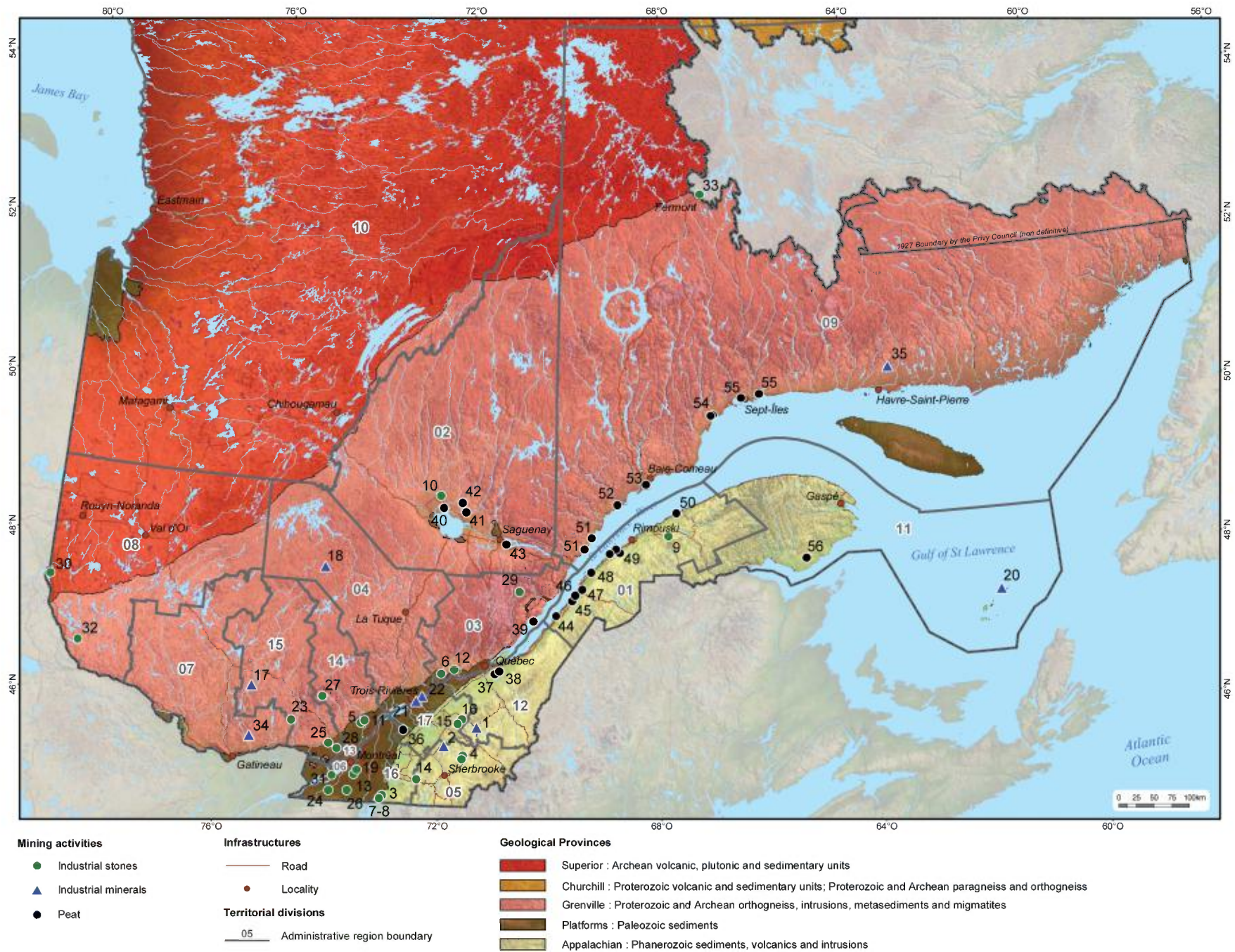


FIGURE 6.2. Peatlands, and industrial mineral and stone quarries in production in Québec in 2009 (see table 6.3).

TABLE 6.3 - Peatlands, and industrial mineral and stone quarries in production in Québec in 2009 (see figure 6.2)

| SITE | DEPOSIT | COMPANY | SUMMARY DESCRIPTION OF DEPOSIT | PRODUCTS | TOWNSHIP / NTS | ADMINISTRATIVE REGION |
|---------------------------------------|---------------------------------|---|--|--|----------------------------------|-----------------------|
| Asbestos (chrysotile) | | | | | | |
| 1 | Black Lake | Lac d'Amiante du Québec inc. | Vein stockwork in serpentinized ultramafic rocks | Chrysotile asbestos fibres | Ireland / 21L03 | 12 |
| 2 | Jeffrey | Mine Jeffrey inc. | Vein stockwork in serpentinized ultramafic rocks | Chrysotile asbestos fibres | Shipton / 21E13 | 12 |
| Limestone, dolomite and marble | | | | | | |
| 3 | Bedford | Graymont (Qc) Inc. (Bedford division) | Corey Formation limestone | Quicklime, ground limestone products for industrial use, crushed stone | Stanbridge / 31H03 | 16 |
| 4 | Domlim #5 and #6 | Graymont (Qc) Inc. (Marbleton division) | Lac Aylmer Formation limestone | Quicklime, ground limestone products for industrial use, crushed stone | Dudswell / 21E12 | 12 |
| 5 | Jolichaux | Graymont (Qc) Inc. (Joliette division) | Deschambault Formation limestone | Quicklime, ground limestone products for industrial use, crushed stone | Lavaltrie / 31I03 | 14 |
| 6 | Calco | Graymont (Portneuf) Inc. | Deschambault Formation limestone | Crushed stone, ground limestone products for industrial use | Seignory of Grondines / 31I09 | 3 |
| 7 | Saint-Armand Messier-Missisquoi | Omya Canada Inc. (division St-Armand) | Strites Pond Formation limestone | Pulverized limestone for use as mineral filler | Seignory of Saint-Armand / 31H03 | 16 |
| 8 | Saint-Armand Principale | Omya Canada Inc. (division St-Armand) | Strites Pond Formation limestone | Pulverized limestone for use as mineral filler, white terrazzo granules | Seignory of Saint-Armand / 31H03 | 16 |
| 9 | La Rédemption | Coopérative des producteurs de chaux du Bas-Saint-Laurent | Dolomitic marble from the Sayabec Formation | Magnesian soil improvement | Awantjish / 22B05 | 1 |
| 10 | Pères Trappistes | Les Calcites du Nord inc. | Calcitic marble | White granules for artificial stone, masonry sand, soil improvement | Pelletier / 32A16 | 2 |
| 11 | Ciment indépendant | Ciment St-Laurent (indépendant) inc. | Limestone from the Trenton and Black River Groups | Cement production | Lanoraye / 31I03 | 14 |
| 12 | Saint-Basile-Sud | Ciment Québec inc. | Limestone from the Trenton and Black River Groups | Cement production | Auteuil / 21L12 | 03 |
| 13 | Ciment Lafarge | Lafarge Canada inc. | Limestone from the Trenton and Black River Groups | Cement production | Sault-Saint-Louis / 31H05 | 16 |
| 14 | Soca | Agrégats Waterloo inc. | Dolomitic marble from the Stukely-South fault zone | Magnesium-rich soil improvement, terrazzo granules, decorative aggregate | Stukely / 31H08 | 5 |
| 15 | Saint-Ferdinand | Les Carrières St-Ferdinand inc. | Oak Hill Group dolomite | Magnesium-rich soil improvement, decorative aggregate | Halifax / 21L04 | 17 |
| 16 | Trottier Mills | Les Carrières St-Ferdinand inc. | Oak Hill Group dolomite | Magnesium-rich soil improvement | Chester / 21L04 | 17 |

TABLE 6.3 - Peatlands, and industrial mineral and stone quarries in production in Québec in 2009 (see figure 6.2)

| SITE | DEPOSIT | COMPANY | SUMMARY DESCRIPTION OF DEPOSIT | PRODUCTS | TOWNSHIP / NTS | ADMINISTRATIVE REGION |
|----------------------|----------------------------|---|--|--|-----------------------------------|-----------------------|
| Graphite | | | | | | |
| 17 | Lac-des-Îles | Timcal Canada Inc. | Disseminated flaky graphite in crystalline limestone (\pm quartzite) | Graphite concentrate for refractory materials, foundry moulds, lubricants, brake linings | Bouthillier / 31J05 | 15 |
| Phlogopite | | | | | | |
| 18 | Lac Letondal mine | Les Produits Mica Suzorite inc. | Lens-shaped alkaline intrusion with 80-85% phlogopite (suzorite variety) | Ground mica for use as mineral filler (joint cement, plastics) and drilling mud | Suzor / 31O16 | 4 |
| Clay minerals | | | | | | |
| 19 | Briqueterie Saint-Laurent | Hanson Brick Ltd | Nicolet Formation shale | Facing bricks | La Prairie / 31H06 | 16 |
| Salt | | | | | | |
| 20 | Seleine | Canadian Salt Company Ltd (Mine Seleine division) | Carboniferous salt dome | De-icing salt | Îles-de-la-Madeleine / 11N12 | 11 |
| 21 | Bécancour #2 well | Junex Inc. (Junex Solnat division) | Brine | De-icing and dust-control products | Bécancour / 31I08 | 17 |
| 22 | Saint-Angèle-de-Laval well | Junex Inc. (Junex Solnat division) | Brine | De-icing and dust-control products | Bruyère/ 31I08 | 17 |
| Silica | | | | | | |
| 23 | Saint-Rémi d'Amherst | Société minière Gerdin inc. | Quartzite | Silica sand for cement plant | Amherst / 31G15 | 15 |
| 24 | Ormstown | La Compagnie Bon Sable ltée (Ormstown division) | Natural sand | Washed sand for sandblasting, smelting, ceramic glue mixtures | Beauharnois-2 / 31H04 | 16 |
| 25 | Saint-Canut | Unimin Canada Ltd (Saint-Canut division) | Potsdam Group sandstone | Sand for glass, sandblasting, filters, ceramics | Lac-des-Deux-Montagnes- 3 / 31G09 | 15 |
| 26 | Sainte-Clotilde | Les Sables Silco inc. | Potsdam Group sandstone | Silica-rich crushed stone for cement plant and ferrosilicon | Beauharnois-1 / 31H04 | 16 |
| 27 | Saint-Donat | Unimin Canada Ltd (Saint-Donat division) | Quartzite | Silica sand | Lussier / 31J08 | 14 |
| 28 | Saint-Joseph-du-Lac | La Compagnie Bon Sable ltée | Natural sand | Washed sand for masonry and sandblasting | Lac-des-Deux-Montagnes-1 / 31H12 | 15 |
| 29 | Petit lac Malbaie | Sitec inc. | Quartzite | Silica pieces for silicon metal and silica sand for silicon carbide | Charlevoix / 21M15 | 3 |
| 30 | Saint-Bruno-de-Guigues | Témisca inc. | Ordovician sandstone | Sand for filtering, smelting, hydraulic fracturing | Guigues / 31M06 | 8 |
| 31 | Chromasco | Carrières Sud-Ouest inc. | Potsdam Group sandstone | Crushed stone and silica-rich aggregate for cement plant and ferrosilicon | Beauharnois / 31H05 | 16 |
| 32 | Lac Beauchêne | Les Pierres du Nord inc. | Muscovite quartzite from the Kipawa Formation | Quartz granules for artificial stone | Campeau / 31L10 | 8 |
| 33 | Lac Daviault | Exploration Québec / Labrador inc. | Quartzite from the Wishart Formation, Gagnon Group | Quartz granules for artificial stone | Lislois / 23B14 | 9 |

TABLE 6.3 - Peatlands, and industrial mineral and stone quarries in production in Québec in 2009 (see figure 6.2)

| SITE | DEPOSIT | COMPANY | SUMMARY DESCRIPTION OF DEPOSIT | PRODUCTS | TOWNSHIP / NTS | ADMINISTRATIVE REGION |
|-----------------|--------------------------|--|---|---|---|-----------------------|
| Feldspar | | | | | | |
| 34 | Othmer mine | Dentstply Ceramco Inc. | Pegmatite-hosted K-feldspar | Dental porcelain | Othmer / 31G11 | 7 |
| Ilmenite | | | | | | |
| 35 | Lac Tio | QIT - Fer et Titane Inc. | Massive hemo-ilmenite hosted in the Havre-Saint-Pierre anorthositic Suite | Titanium slag for pigment production, cast iron and crushed ilmenite (Sorel flux) | Parker / 12L11 | 9 |
| Peat | | | | | | |
| 36 | Saint-Bonaventure | Fafard et Frères (Saint-Bonaventure division) | Peat | Sphagnum peat moss, potting soil, compost, biofilters | Upton / 31H15 | 4 |
| 37 | Saint-Henri-de-Lévis | Premier Horticulture (Saint-Henri division) | Peat | Sphagnum peat moss | Seigniorie of Lauzon / 21L11 | 12 |
| 38 | Saint-Charles | Les tourbes M.L. (Saint-Charles division) | Peat | Sphagnum peat moss, potting soil | Seigniorie of Lauzon and La Martinière Fief (Beauchamp) / 21L10 | 12 |
| 39 | Isle-aux-Coudres | Tourbières Pearl | Peat | Sphagnum peat moss | Seigniorie of Isle-aux-Coudres / 21M08 | 3 |
| 40 | Sainte-Marguerite | Fafard et Frères (Sainte-Marguerite division) | Peat | Sphagnum peat moss | Racine / 32A16 | 2 |
| 41 | L'Ascension Ouest | Tourbières Lambert (L'Ascension division) | Peat | Sphagnum peat moss | Garnier / 22D13 | 2 |
| 41 | Saint-Ludger-de-Milot SW | Fafard et Frères (Milot division) | Peat | Sphagnum peat moss | Milot / 22D13 | 2 |
| 42 | La Baie | Gazon Savard Saguenay inc. | Peat | Sphagnum peat blocks and sphagnum peat moss | Bagot / 22D07, 02 | 2 |
| 43 | Rivière Ouelle | Lambert Peat Moss Inc. (Rivière-Ouelle division) | Peat | Sphagnum peat moss, potting soil, floral moss | Seigniorie of Rivière-Ouelle 21N05 | 1 |
| 44 | Saint-Alexandre | Tourbière Berger inc. (Saint-Alexandre division) | Peat | Sphagnum peat moss | Seigniories of Islets-du-Portage and Lachenaie / 21N12 | 1 |
| 45 | Notre-Dame-du-Portage | Premier Horticulture (Tardif division) | Peat | Sphagnum peat moss | Seigniorie of Terrebois / 21N12 | 1 |
| 46 | Rivière-du-Loup | Premier Horticulture (Premier division) | Peat | Sphagnum peat moss, potting soil, compost, endomycorrhiza, biofilters | Seigniories of Rivière-du-Loup and Cacouna / 21 N13, 14 | 1 |
| 46 | Rivière-du-Loup | Premier Horticulture (Verbois division) | Peat | Sphagnum peat moss | Seigniories of Rivière-du-Loup and Cacouna / 21N13, 14 | 1 |
| 46 | Rivière-du-Loup | Premier Horticulture (Saint-Laurent division) | Peat | Sphagnum peat moss | Seigniories of Rivière-du-Loup and Cacouna / 21N13, 14 | 1 |
| 46 | Rivière-du-Loup | Tourbière Michaud Itée | Peat | Sphagnum peat moss | Seigniories of Rivière-du-Loup and Cacouna / 21N13, 14 | 1 |

TABLE 6.3 - Peatlands, and industrial mineral and stone quarries in production in Québec in 2009 (see figure 6.2)

| SITE | DEPOSIT | COMPANY | SUMMARY DESCRIPTION OF DEPOSIT | PRODUCTS | TOWNSHIP / NTS | ADMINISTRATIVE REGION |
|------|--------------------------|--|--------------------------------|---|---|-----------------------|
| 46 | Rivière-du-Loup | Les tourbes M.L. (Rivière-du-Loup division) | Peat | Sphagnum peat moss | Seignories of Rivière-du-Loup and Cacouna / 21N13, 14 | 1 |
| 46 | Rivière-du-Loup | Tourbière Berger inc. | Peat | Sphagnum peat moss, potting soil, peat granules | Seignories of Rivière-du-Loup and Cacouna / 21N13, 14 | 1 |
| 46 | Rivière-du-Loup | Tourbière Henri Théberge et associés | Peat | Sphagnum peat moss | Seignories of Rivière-du-Loup and Cacouna / 21N13, 14 | 1 |
| 46 | Rivière-du-Loup | Tourbière Omer Bélanger | Peat | Sphagnum peat moss | Seignories of Rivière-du-Loup and Cacouna / 21N13, 14 | 1 |
| 47 | Isle-Verte, Est | Tourbière Réal Michaud et fils | Peat | Sphagnum peat moss | Seignory of Isle-Verte / 22C03 | 1 |
| 48 | Saint-Eugène-de-Ladrière | La tourbière Yvon Bélanger | Peat | Sphagnum peat moss | Seignory of Nicolas-Rioux 03 / 22C07 | 1 |
| 48 | Saint-Fabien-sur-Mer | La tourbière Rio-Val | Peat | Sphagnum peat moss | Seignory of Nicolas-Rioux 03 / 22C07 | 1 |
| 48 | Saint-Fabien | Tourbière du Port-Pic | Peat | Sphagnum peat moss | Seignory of Nicolas-Rioux 03 / 22C07 | 1 |
| 48 | Saint-Fabien | Tourbière Berger inc. (Saint-Fabien division) | Peat | Sphagnum peat moss | Seignory of Nicolas-Rioux 03 / 22C07 | 1 |
| 49 | Rivière-Blanche | Premier Horticulture (Saint-Ulric division) | Peat | Sphagnum peat moss | Matane / 22B13 | 1 |
| 49 | Saint-Ulric | Les tourbes M.L. (Saint-Ulric division) | Peat | Sphagnum peat moss | Matane / 22B13 | 1 |
| 50 | Les Escoumins | Lambert Peat Moss Inc. (Anse-aux-Basques division) | Peat | Sphagnum peat moss | Bergeronnes / 22C06 | 9 |
| 50 | La Petite Romaine | Tourbières Lambert (Saint-Paul-du-Nord division) | Peat | Sphagnum peat moss | Iberville / 22C06 | 9 |
| 51 | Sainte-Thérèse Colombier | Tourbière Omer Bélanger (Sainte-Thérèse division) | Peat | Sphagnum peat moss | Betsiamites / 22C15 | 9 |
| 52 | Pointe-Lebel | Premier Horticulture (Sogevex division) | Peat | Sphagnum peat moss | Manicouagan / 22F01 | 9 |
| 53 | Port-Cartier Ouest | Les tourbes M.L. (Port-Cartier division) | Peat | Sphagnum peat moss, sphagnum peat blocks | Babel / 22J02 | 9 |
| 53 | Port-Cartier Ouest | Exportations Daniel Sage inc. | Peat | Sphagnum peat moss | Babel / 22J02 | 9 |
| 54 | Ville de Sept-Îles | Les tourbes M.L. (division tourbières Sept-Îles) | Peat | Sphagnum peat moss | Letellier / 22I05 | 9 |
| 54 | Rivière Moisie | Premier Horticulture (Sept-Îles division) | Peat | Sphagnum peat moss | Moisie / 22I05 | 9 |
| 55 | Saint-Jogues | Shigawake Organics Ltd | Peat | Sphagnum peat moss | Hope / 22A03 | 11 |

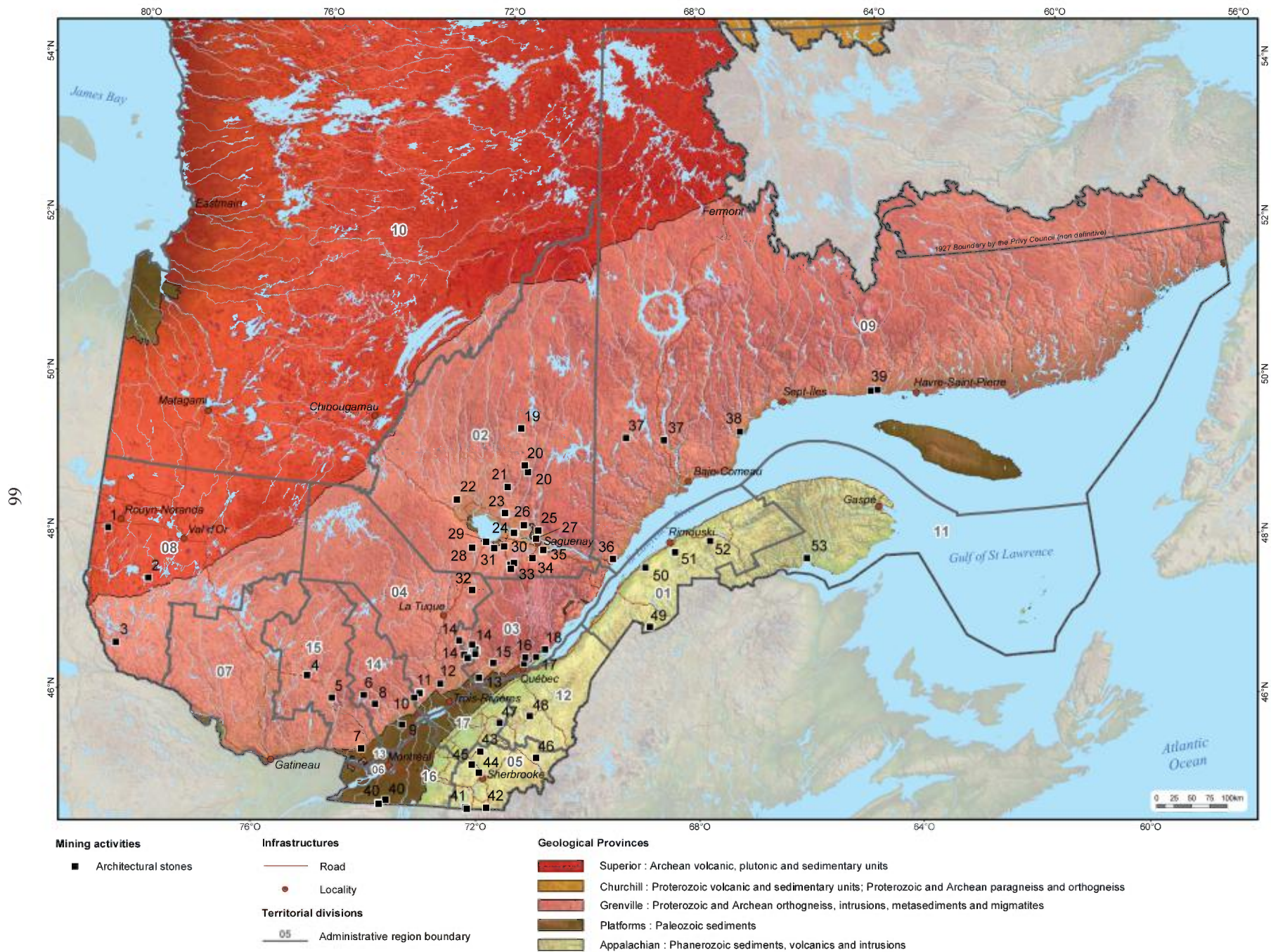


FIGURE 6.3. Architectural stone quarries exploited in Québec in 2009 (see table 6.4).

TABLE 6.4 – Architectural stone quarries exploited in Québec in 2009 (see figure 6.3)

| SITE | LOCATION | HOLDER | TYPE OF ROCK - PRODUCT ¹ | COMMERCIAL NAME | NTS | ADMINISTRATIVE AREA | MINING TITLES |
|------|-------------------------|------------------------------------|-------------------------------------|---|-------|---------------------|---------------|
| 1 | Beaudry | Les Pierres du Nord | Biotite schist - BS | Schiste Nordic | 32D03 | 8 | BEX 86 |
| 2 | Winneway | Polycor inc. | Granite - DS | Winneway | 31M09 | 8 | BEX 167 |
| 2 | Winneway | Polycor Inc. | Granite - DS | Winneway | 31M09 | 8 | BEX 323 |
| 3 | Témiscaming | Les Pierres du Nord | Muscovite quartzite - BS | Aventurine | 31L10 | 8 | BEX 355 |
| 4 | Guénette | Rock of Ages Canada Ltd | Monzogranite - DS, MO | Laurentian Pink, Autumn Pink | 31J11 | 15 | CM 79 |
| 5 | Labelle | Les Pierres Mitchell Inc. | Paragneiss - BS | – | 31J07 | 15 | BEX 330 |
| 5 | Labelle | Les Pierres Mitchell Inc. | Paragneiss - BS | – | 31J07 | 15 | BEX 337 |
| 5 | Labelle | Les Pierres Naturelles Durand Enr. | Paragneiss - BS | – | 31J07 | 15 | BEX 76 |
| 6 | Saint-Donat-de-Montcalm | Carrières F. L. Inc. | Gneiss - BS | – | 31J08 | 14 | BEX 140 |
| 7 | Mirabel | Les Pierres Saint-Canut Ltd | Sandstone - BS | Saint-Canut Sandstone | 31G09 | 15 | None |
| 8 | Notre-Dame-de-la-Merci | A. Lacroix et Fils Granit Ltée | Anorthosite - DS | Orion | 31I05 | 14 | BEX 255 |
| 9 | Joliette | Firstake Capital Corporation | Limestone - BS | Joliette Gris, Joliette Jaune | 31I03 | 14 | None |
| 10 | Saint-Didace | A. Lacroix et Fils Granit Ltée | Quartz Mangerite - DS | Nordix Red | 31I06 | 14 | None |
| 11 | Saint-Alexis-des-Monts | A. Lacroix et Fils Granit Ltée | Quartz Mangerite - DS | Autumn Brown | 31I06 | 4 | BEX 463 |
| 11 | Saint-Alexis-des-Monts | Polycor Inc. | Quartz Mangerite - DS | Newton Brown | 31I06 | 4 | BEX 174 |
| 11 | Saint-Alexis-des-Monts | Granicor Inc. | Quartz Mangerite - DS, CS | Autumn Brown | 31I06 | 4 | None |
| 11 | Saint-Alexis-des-Monts | Polycor Inc. | Quartz Mangerite - DS | Newton Brown | 31I06 | 4 | None |
| 12 | Shawinigan | Les Entreprises Élie Grenier Inc. | Gneiss - BS | – | 31I10 | 4 | None |
| 13 | Saint-Marc-des-Carières | Graymont (Portneuf) Inc. | Limestone - DS | Saint-Marc Limestone | 31I09 | 3 | None |
| 13 | Saint-Marc-des-Carières | Les Pierres de Rocaille du Québec | Limestone - BS | – | 31I09 | 3 | None |
| 14 | Rivière-à-Pierre | A. Lacroix et Fils Granit Ltée | Quartz mangerite - DS | Atlantic Blue | 31P01 | 3 | BEX 178, 372 |
| 14 | Rivière-à-Pierre | A. Lacroix et Fils Granit Ltée | Quartz mangerite - DS | Forest Green | 31P01 | 3 | BEX 349 |
| 14 | Rivière-à-Pierre | A. Lacroix et Fils Granit Ltée | Farsundite - DS | Salmon Brown | 31P01 | 3 | BEX 366, 367 |
| 14 | Rivière-à-Pierre | A. Lacroix et Fils Granit Ltée | Gneiss - DS | Silver Mist | 31P01 | 3 | BEX 378 |
| 14 | Rivière-à-Pierre | A. Lacroix et Fils Granit Ltée | Farsundite - DS | Deer Brown, Atlantic Green, Deer Brown D.D. | 31P01 | 3 | BM 723, 746 |

TABLE 6.4 – Architectural stone quarries exploited in Québec in 2009 (see figure 6.3)

| SITE | LOCATION | HOLDER | TYPE OF ROCK - PRODUCT ¹ | COMMERCIAL NAME | NTS | ADMINISTRATIVE AREA | MINING TITLES |
|------|--------------------------|--------------------------------|---|---|-------|---------------------|---------------------|
| 14 | Rivière-à-Pierre | A. Lacroix et Fils Granit Ltée | Farsundite, quartz mangerite quartzifère - DS | Forest Green, Atlantic Green, Atlantic Blue | 31P01 | 3 | CM 488 |
| 14 | Rivière-à-Pierre | Granicor Inc. | Farsundite - DS, CS | New New | 31I16 | 3 | None |
| 14 | Rivière-à-Pierre | Granicor Inc. | Farsundite - DS, CS | Abbey Rose | 31P01 | 3 | None |
| 14 | Rivière-à-Pierre | Granicor Inc. | Mangerite and quartz jotunite - DS, MO, CS | Prairie Green | 31P01 | 3 | BEX 164, 165 |
| 14 | Rivière-à-Pierre | Granicor Inc. | Quartz mangerite, farsundite - DS, CS | Nara | 31P01 | 3 | BEX 231 |
| 14 | Rivière-à-Pierre | Granite D. R. C. Inc., Gesrock | Farsundite - DS, BS, CS | Canadian Caledonia, Boca Dark | 31P01 | 3 | None |
| 14 | Rivière-à-Pierre | Polycor Inc. | Farsundite - DS | Ashen Pink | 31I16 | 3 | None |
| 14 | Rivière-à-Pierre | Polycor Inc. | Farsundite - DS, CS | Caledonia, Caledonia Dark | 31P01 | 3 | None |
| 14 | Rivière-à-Pierre | Polycor Inc. | Farsundite - DS, CS | Caledonia Dark | 31P01 | 3 | BEX 33 |
| 14 | Rivière-à-Pierre | Polycor Inc. | Farsundite - DS | Riviera | 31I16 | 3 | BEX 114 |
| 14 | Rivière-à-Pierre | Polycor Inc. | Quartz mangerite - DS | Boreal Green | 31I16 | 3 | BEX 333 |
| 15 | Saint-Raymond | A. Lacroix et Fils Granit Ltée | Gneiss - DS | Rainbow | 21L13 | 3 | None |
| 16 | Charlesbourg | Construction B. M. L. | Limestone - BS | – | 21L14 | 3 | None |
| 16 | Québec | Les Pierres S.D. Enr. | Limestone - BS | – | 21L14 | 3 | None |
| 16 | Sainte-Brigitte-de-Laval | Sablère Vallière Inc. | Granit block - BS | – | 21L14 | 3 | None |
| 17 | Château-Richer | Carrière Laplante Enr. | Calcaire - BS | – | 21L14 | 3 | None |
| 18 | Saint-Joachim | Ladufo Inc. | Calcaire - BS | – | 21M02 | 3 | None |
| 19 | Chute-des-Passes | A. Lacroix et Fils Granit Ltée | Gneiss - DS | New Rainbow | 22E14 | 2 | BEX 377 |
| 20 | Chute-des-Passes | A. Lacroix et Fils Granit Ltée | Gabbroic anorthosite - DS | Nordic Café | 22E06 | 2 | BEX 471 |
| 20 | Chute-des-Passes | Polycor Inc. | Gabbroic anorthosite - DS | Kodiac | 22E06 | 2 | BEX 402 |
| 21 | Chute-des-Passes | Polycor Inc. | Farsundite - DS | Astra | 22E04 | 2 | BEX 1 |
| 22 | Saint-Thomas-Didyme | Granicor Inc. | Quartz mangerite - DS, CS | Acajou | 32A15 | 2 | None |
| 23 | Chute-du-Diable | Granicor Inc. | Anorthosite - DS, MO, CS | Canadian Black (Peribonka) | 22D13 | 2 | None |
| 23 | Chute-du-Diable | Granicor Inc. | Anorthosite - DS, MO, CS | Canadian Black (Peribonka) | 22D13 | 2 | BEX 449 |
| 24 | Saint-Nazaire | A. Lacroix et Fils Granit Ltée | Leucogabbronorite - DS | Nordix Green, Atlantic Black, Forest Black | 22D12 | 2 | Aucun (2 carrières) |

TABLE 6.4 – Architectural stone quarries exploited in Québec in 2009 (see figure 6.3)

| SITE | LOCATION | HOLDER | TYPE OF ROCK - PRODUCT ¹ | COMMERCIAL NAME | NTS | ADMINISTRATIVE AREA | MINING TITLES |
|------|----------------------------------|-----------------------------------|-------------------------------------|------------------------------|-------|---------------------|-------------------------|
| 24 | Saint-Nazaire | A. Lacroix et Fils Granit Ltée | Leucogabbronorite - DS | Nordix Green, Atlantic Black | 22D12 | 2 | BEX 148 |
| 24 | Saint-Nazaire | Granicor Inc. | Leucogabbronorite – DS, MO, CS | Cambrien | 22D12 | 2 | BEX 332 |
| 24 | Saint-Nazaire | Polycor Inc. | Leucogabbronorite - DS, MO | Cambrien Black | 22D12 | 2 | BM 705 (2 carrières) |
| 25 | Saint-Honoré | Les Pierres Naturelles Tremblay | Limestone - BS | – | 22D11 | 2 | None |
| 26 | Bégin | A. Lacroix et Fils Granit Ltée | Quartz mangerite - DS | Atlantic Pink | 22D11 | 2 | None |
| 26 | Bégin | Granicor Inc. | Quartz mangerite – DS, CS | Granville | 22D11 | 2 | None |
| 27 | Tremblay | Carrière 500 | Limestone - BS | – | 22D06 | 2 | None |
| 28 | Saint-François-de-Sales | A. Lacroix et Fils Granit Ltée | Quartz mangerite - DS | Spring Green | 32A08 | 2 | BEX 203 |
| 29 | Chambord | A. Lacroix et Fils Granit Ltée | Limestone - DS | Chambord Limestone | 32A08 | 2 | None |
| 30 | Saint-André-du-Lac-Saint-Jean | Jean-Guy Simard et Fils | Quartz mangerite - DS | Saint-André Green | 22D05 | 2 | BEX 80 |
| 31 | Métabetchouan | Polycor Inc. | Farsundite - DS | Canadian Violetta | 22D05 | 2 | None |
| 32 | La Tuque | Granitslab International Inc. | Gabbro - DS | Heritage Black | 31P16 | 4 | BEX 405 |
| 33 | Réserve faunique des Laurentides | A. Lacroix et Fils Granit Ltée | Farsundite - DS | Autumn Harmony | 22D03 | 2 | BEX 225 |
| 33 | Réserve faunique des Laurentides | Granicor Inc. | Quartz mangerite - DS, CS | Laurentian Green | 22D04 | 2 | BEX 421 |
| 33 | Réserve faunique des Laurentides | Polycor Inc. | Quartz Jotunite - DS, MO | Laurentian Green | 22D04 | 2 | BEX 210 |
| 34 | Laterrière | Intergestion GL Inc. | Stromatolite dolostone block - BS | Pikauba | 22D03 | 2 | BEX 343 |
| 35 | La Baie | Granicor Inc. | Farsundite - DS, CS | Polychrome | 22D07 | 2 | None |
| 35 | La Baie | Polycor Inc. | Farsundite - DS | Polychrome | 22D07 | 2 | None |
| 35 | La Baie | Sablière B Y Inc. | Granit Block - BS | – | 22D07 | 2 | None |
| 36 | Grandes-Bergeronnes | Granicor Inc. | Gneiss - DS, CS | Tadoussac | 22C04 | 9 | None |
| 37 | Lac Poulin | Granijem Inc. | Granit - DS | Nordic Frost | 22F14 | 9 | BEX 490 |
| 37 | Manic 3 | Granijem Inc. | Gneiss - DS | Manic | 22F15 | 9 | BEX 489 |
| 38 | Rivière-Pentecôte | Polycor Inc. | Anorthosite - DS | Nordic Black | 22G14 | 9 | BEX 155 |
| 39 | Magpie | Granijem Inc. | Hypersthene Syenite - DS | Anticosti | 22I08 | 9 | BEX 436 |
| 39 | Magpie | Polycor Inc. | Hypersthene Syenite - DS | Picasso | 22I07 | 9 | BEX 419 |
| 40 | Havelock | Carrières Ducharme Inc. | Grès - BS | Ducharme | 31H04 | 16 | None (2 quarries) |
| 40 | Hemmingford | Les Pierres naturelles Guy Lefort | Sandstone and limestone blocks - BS | – | 31H04 | 16 | None |
| 41 | Stanstead | Centre du Granite Beebe Inc. | Granite - DS, BS | Beverly Grey | 31H01 | 5 | None |

TABLE 6.4 – Architectural stone quarries exploited in Québec in 2009 (see figure 6.3)

| SITE | LOCATION | HOLDER | TYPE OF ROCK - PRODUCT ¹ | COMMERCIAL NAME | NTS | ADMINISTRATIVE AREA | MINING TITLES |
|------|------------------------|----------------------------------|--|------------------------------|-------|---------------------|-------------------|
| 41 | Stanstead | Polycor Inc. | Granodiorite - DS, MO | Stanstead Grey | 31H01 | 5 | None |
| 41 | Stanstead | Rock of Ages du Canada Ltée | Granodiorite - DS, MO | Stanstead Grey | 31H01 | 5 | None |
| 42 | Stanhope | Granicor Inc. | Granodiorite - DS, MO, SC | Snow White | 21E04 | 5 | None |
| 43 | Asbestos | Ardobec Inc. | Slate - BS | – | 21E12 | 5 | None |
| 44 | Bromptonville | Ardoise 55 Inc. | Slate - DS, BS | – | 21E05 | 5 | None |
| 45 | Melbourne | Maurice Houle | Slate - DS | – | 31H09 | 5 | None |
| 46 | Saint-Sébastien | Polycor Inc. | Granite - DS | St-Sébastien Grey | 21E10 | 5 | None |
| 47 | Saint-Ferdinand | Les Carrières St-Ferdinand Inc. | Sanstone, dolomite - BS | – | 21L04 | 17 | None |
| 48 | East Broughton | Les Pierres Stéatites Inc. | Steatite, talc-carbonate rock, serpentinite - RS | – | 21L03 | 12 | None |
| 49 | Saint-Marc-du-Lac-Long | Glendyne Inc. | Slate - BS, UT | La Canadienne, La Québécoise | 21N07 | 1 | None |
| 50 | Saint-Mathieu-de-Rioux | J.-C. Ouellette | Sandstone - BS | – | 22C03 | 1 | None |
| 50 | Saint-Mathieu-de-Rioux | Les Pierres St-Mathieu Enr. | Sandstone - BS | Grès Basques | 22C02 | 1 | BEX 460 |
| 51 | Mont-Label | Entreprises Antoine Jean inc. | Siltstone - BS | – | 22C08 | 1 | None |
| 51 | Mont-Label | Les Pierres Naturelles du Québec | Siltstone - BS | – | 22C08 | 1 | None |
| 52 | Saint-Cléophas | Carrière Bernier | Siltstone - BS | – | 22B05 | 1 | None (2 quarries) |
| 53 | Maria | Polycor inc. | Limestone breccia - DS, DeS | Casapédia | 22A04 | 11 | None |

1. See legend of abbreviations in Appendix I

MINE SITE REHABILITATION

Johanne Cyr and Jean Dionne

An amount of \$328M was recorded in the public accounts in 2009 under environmental liabilities, including \$198M for the rehabilitation of 45 mine sites and 275 exploration sites in Nunavik under the responsibility of the State.

In 2008-2009, an amount of \$15.2M was spent on rehabilitation work performed on abandoned mine sites, including \$10.1M at the Aldermac site, \$2.0M at the Manitou site, and \$1.8M at the Eustis site. Various activities such as characterization, stabilization, and seeding were conducted on the Montauban, Barvue, Bevcon, and Opemisca sites. Clean-up operations continued on mineral exploration sites in Nunavik.

In 2009-2010, rehabilitation work continues at the following sites:

- Manitou, Aldermac, Bevcon (Abitibi-Témiscamingue);
- Montauban (Mauricie-Bois-Francs);
- Opemisca and the Chibougamau mining camp (Nord-du-Québec);
- Eustis and Capelton (Estrie);
- St. Lawrence Columbian (Laurentides);
- Sand pit 22F-08-007 (Côte-Nord);
- Consumers Industrial (Lanaudière); and
- Exploration sites in Nunavik.

Appendix I

Legend of abbreviations

APPENDIX I

Legend for abbreviations used in tables related to the types of exploration works, the products and uses of architectural stones.

Prospecting and geology works

| | |
|---------------|--|
| B (mt:g/t) | Bulk sampling including tonnage and grade |
| or (mt: % Xx) | (metric tons:gram per ton) or (metric tons: % Xx) |
| Bs | Block sampling for dimension stones |
| Ct | Characterization tests and analysis (peat) |
| D (#h:m) | Diamond drilling (number of holes:total meters) |
| G | Geological mapping |
| Min | Mineralogical studies |
| Pg | Unspecified prospecting and geological works |
| Pr | Prospection |
| Pt | Polishing test |
| Rcd (#h:m) | Reversed circulation drilling (number of holes:total meters) |
| Rsi | Remote sensing interpretation |
| S | Sampling |
| T | Trenching and stripping |

Geochemical surveys

| | |
|--------|-------------------------------------|
| Gs | Unspecified geochemical surveys |
| Gs(e) | Esker geochemical survey |
| Gs(h) | Humus geochemical survey |
| Gs(l) | Lake sediments geochemical survey |
| Gs(r) | Lithochemical survey (rock) |
| Gs(s) | Stream sediments geochemical survey |
| Gs(sl) | Soils geochemical survey |
| Gs(t) | Till geochemical survey |

Geophysical surveys

| | |
|--------------------------------------|---------------------------------|
| Gp | Unspecified geophysical survey |
| GpEl | Electric survey |
| GpEm | Electromagnetic survey |
| GpGr | Gravimetry survey |
| GpMa | Magnetometric (magnetic) survey |
| GpMt | Magnetotelluric survey |
| GpRa | Radiometric survey |
| GpSi | Seismic survey |
| (A) aerial, (B) borehole, (C) ground | |

Other types of works

| | |
|-----|-----------------------------------|
| Env | Environmental studies |
| FM | Feasibility and/or market studies |
| M | Mining site rehabilitation |
| Met | Metallurgical test |
| Re | Reserve and resource evaluation |
| TE | Technical evaluation |

Products and usages of architectural stones

| | |
|-----|--------------------------------|
| BS | Building stone and landscaping |
| CS | Curbstone |
| DeS | Decorative stone |
| DS | Dimension stone |
| MO | Monument stone |
| RS | Refractory stone |
| RT | Roofing tiles |

| | |
|---------------|--|
| <i>Italic</i> | Exploration work done on mine properties |
| Bold | Advanced exploration project |

Appendix II

The Mineral Development Process

TABLE II - The Mineral Development Process.

The Mineral Development Process

This schematic chart describes the nature and duration of work, objectives, evaluation methods, targeted results, nature of mineral inventory, and investment and risk levels, for each of the four phases of the mineral resource development process: mineral resource assessment, exploration, deposit appraisal, and mine complex development.

In this chart, a mineral showing requires at least one grab sample or one drill intercept, trench or channel sample from a mineralized zone that exhibits

potential economic value. A mineral deposit consists of at least one mineralized zone for which the economic potential has been broadly assessed through a first mineral resource estimation. Conversion of mineral resources into mineral reserves not only requires a positive feasibility study following deposit appraisal work, but also a commitment to bring the deposit into production. The mine complex development phase includes work conducted during the preparation and development of the project, mining operations, and mine site rehabilitation.

| | Mineral Resource Assessment | Exploration | | | | | Deposit Appraisal | | | | Mine Complex Development | | |
|--------------------|--|--|--|--|--|---|---|---|---|---|---|--|--|
| Phase | VRM | EX- 1 | EX- 2 | EX- 3 | EX- 4 | EX- 5 | MV- 1 | MV- 2 | MV- 3 | MV- 4 | ACM-1 Preparation and development | ACM-2 Mining operations | ACM-3 Site rehabilitation |
| Work | Surveys, research, and metallogenic syntheses. | Exploration planning. | Regional reconnaissance and surveys. | Prospecting and ground surveys on anomalies. | Verification of anomalies and showings. | Discovery and delineation of a deposit with estimated tonnage. | Definition of deposit with estimated tonnage. | Definition of technical parameters. (Engineering) | Definition of economic parameters. | Feasibility study. | Construction. Start-up of mine. | Production and marketing. | Mine closure. Mine site rehabilitation. |
| Duration | | | | 1 to 5 years | | | | 3 to 8 years | | | 2 to 3 years | | |
| Objectives | Provide information and tools to develop mineral resources in a sustainable development perspective. | Select targeted minerals and metals. Establish objectives and strategies. Select prospective target areas. | Find regional and local anomalies. Select the most promising targets. | Acquire properties. Confirm the presence, position and characteristics of anomalies. | Determine the source of anomalies. Find mineral showings. Acquire additional properties as needed. | Discover, confirm and delineate a first mineral inventory for the deposit. Assess its economic potential in a preliminary fashion. First pre-feasibility study. | Define the extent, controls, and internal distribution of the mineralogy and ore grade of the deposit. Plan and design project engineering. | Establish technical feasibility. Establish mining plans, schedules and estimations for the project. | Establish parameters for economic and financial assessment. Examine potential sources of financing. | Ensure validity of data, assumptions, and estimations. Decide whether or not to proceed. | Complete mine development and required construction work in line with budget and schedule. Prepare start-up of mine and processing plant. | Achieve commercial production as per planned rate and specifications. Achieve profitability in a sustainable development perspective. | Rehabilitate mine site to safe and visually acceptable level and environment quality compatible with future land uses. |
| Evaluation methods | Surveys, research, and geoscientific, metallogenic and economic syntheses by governments, universities, and other research groups. | Studies and selection of metals and minerals. Review and synthesize geological and metallogenic information for various regions. Assess legal and political context. | Remote sensing, aerial photography, airborne geophysics. Prospecting, geology and geochemistry. Assessment and selection of anomalies. | Prospecting and ground geoscientific surveys. Overview and selection of anomalies for follow-up. | Geological mapping and other surveys. Trenching, sampling, drilling, geophysics. Assessment of results and selection of targets. | Stripping, mapping, sampling, drilling, geophysics. Preliminary resource estimation. Environmental characterization. | Definition work by mapping, sampling, surface and underground drilling. Acquire data for project engineering. Detailed surveys of site and environment. | Bulk sampling. Pilot-scale tests, engineering and cost estimates for the mine, the ore concentration process, infrastructure, environmental protection and site rehabilitation. | Market, price, and financial studies. Analysis of technical, economic, financial, social, political, and environmental risks. | Due diligence review of all available information on the project. Assess profitability, risks, and positive aspects of the project. | Project management and quality management. Plan mine start-up and training of personnel. | Manage production in line with continuous improvement of quality and performance. Exploration, deposit appraisal, and development of new zones on and off mine site. | Decommissioning of mine. Environmental reclamation and monitoring. |
| Targeted results | Databases, maps, and models | Exploration projects | Regional anomalies | Local anomalies | Mineral showings | Deposit with estimated tonnage | Define mineral resources | Determine mining methods | Technical and economic feasibility | Ore deposit Decision to go into production | Start-up of production | Profitability | Rehabilitated mine site |
| Mineral Inventory | MINERAL POTENTIAL | NEW UNIDENTIFIED, SPECULATIVE, HYPOTHETICAL, OR MODELLED MINERAL RESOURCES | | | | INFERRED MINERAL RESOURCES | MEASURED AND INDICATED MINERAL RESOURCES | | | | PROVEN AND PROBABLE MINERAL RESERVES | MINERAL RESOURCES | |
| Investment Risk | Moderate Low to moderate | Low investment level, but gradually increasing (\$0.1M to \$5M). Very high risk of loss, that gradually decreases pending successful results. | | | | | Much more substantial investment, gradually increasing (\$5M to \$40M). High risk of failure, that decreases pending successful results. | | | | Industrial investment (\$40M to \$500M). Moderate to low risk. | | |

Source: Modifications coordinated by S. Lacroix in August 2001, based on SOQUEM Annual Report 1976-77, p.4-5 and Vallée, M. 1992. Guide to the Evaluation of Gold Deposits, CIM Special Volume, p.4. Graphic design: Charlotte Grenier

Appendix III

References

Appendix III

References

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