

NEWS RELEASE 09-28

SEPT. 8, 2009

## FRONTEER REPORTS POSITIVE PRELIMINARY ECONOMIC ASSESSMENT FOR MICHELIN URANIUM PROJECT

Fronteer Development Group Inc. (FRG - TSX/NYSE Amex) is pleased to announce a positive Preliminary Economic Assessment (PEA) for the proposed Michelin Uranium Project located in the Central Mineral Belt of Labrador, Canada. The Project is held by Aurora Energy Resources Inc., a wholly owned subsidiary of Fronteer.

**(A Web conference will be held for investors and analysts on Thursday, Sept. 10, 10:30-11:10 a.m. EST to provide further details. Information on accessing this presentation is provided below.)**

The study, prepared by AMEC Americas Limited, supports a financially robust open-pit and underground uranium mining operation at the Michelin and Jacques Lake deposits, and a milling facility at the Michelin site capable of processing 10,000 tonnes of mineralization per day, which will produce up to 7.3 million pounds of U<sub>3</sub>O<sub>8</sub> per annum. Direct cash costs are stated at US\$28.57 per pound of U<sub>3</sub>O<sub>8</sub> over the 17-year mine life. At an 8% discount rate, the Project's pre-tax net present value is US\$914 million with a pre-tax internal rate of return of 19.4% on an unlevered 100% equity basis, and a pay-back period of 4.7 years.

"The PEA confirms our view that the Michelin Project is a large-scale, high rate of production project with robust economics," said Mark O'Dea, Fronteer President and CEO. "It is expected to generate significant cash flow over a long mine life, while providing economic benefits and growth opportunities for the local and provincial economies. New uranium production of this magnitude is sought by major utilities worldwide."

The PEA results now provide Fronteer with a context for examining all project development and financing options.

The Nunatsiavut Government is currently in the process of developing its environmental legislation and the Land Administration System for Labrador Inuit Lands, which are well underway and on schedule. The Land Use Planning process, which is a joint process between Nunatsiavut Government and the Government of Newfoundland and Labrador, is underway and is expected to be completed on schedule. The Nunatsiavut Government requires these instruments to be in place ahead of large-scale resource development projects, and they are expected to be completed on or before March 2011. March 2011 is also when the current moratorium on mining, milling and production of uranium on Labrador Inuit Lands shall be reviewed by the Nunatsiavut Government Assembly.

"The Nunatsiavut Government is on track with building our regulatory framework, including the land use plan," said Tony Andersen, First Minister, Nunatsiavut Government. "We are open to discussing development and establishing partnerships, and are committed to sustainable long-term growth and stability."

"We acknowledge that Aurora has done and continues to do some fine work in the communities and people are gradually getting a better understanding of the nature of the proposed Project," added Andersen.

All dollar amounts in this release are stated in US currency. The disclosure set forth below is derived from the PEA unless otherwise expressly noted or found under the headings Marketing, Environment and Permitting, Labrador Community and Government Relations, and Next Steps.

## Highlights

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| Total $U_3O_8$ produced  | 96.9 million pounds                                    |
| Average grade ( $U_3O_8$ )   | 0.09%  |
| Average annual production of $U_3O_8$  | 5.7 million pounds                                     |
| Life of mine   | 17 years   |
| IRR (pre-tax)  | 19.4%  |
| NPV (pre-tax)  | \$914 million  |
| Discount rate  | 8%   |
| Pay-back period  | 4.7 years  |
| Net cumulative cash flow   | \$3.038 billion  |
| Direct cash costs  | \$28.57/lb $U_3O_8$                                    |
| Initial capital expenditures including mine, mill, infrastructure (port, road, grid power, etc.) tailings management, environmental, owners costs, decommissioning and engineering, procurement, construction management | \$984 million<br>(including \$132 million contingency) |
| Metallurgical recovery rate  | 87.5%  |
| Long term exchange rate  | C\$1 = US\$0.88  |
| Long term uranium price  | \$75/lb $U_3O_8$                                       |

*Note: Rainbow, Nash, Gear, and Inda resources not included in the study. This PEA is preliminary in nature as it includes inferred mineral resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as mineral reserves at this time and as such there is no certainty that the preliminary assessment and economics set forth in the PEA will be realized. Mineral resources that are not mineral reserves do not have demonstrated economic viability.*

## IMPLICATIONS OF RESULTS

In Fronteer management's view, the study shows that, on its own, the Michelin Project provides strong returns in the current economic environment. Further, given the prospectivity of this new uranium district, the Michelin Project will be the platform for further growth in the region through ongoing discovery and deposit expansion. The Project's combination of a large resource, low technical risk, high production rates, and excellent location means that this project can expand the foundation of uranium mining in Canada.

Also, Fronteer management believes there are excellent opportunities to enhance the Project economics through optimization of input and throughput factors, including increasing grade through refinements in the geological model, additional infill drilling, and expanding the resource base.

The most significant opportunity identified with the Project is the remodeling of the mineral resources to better delineate the grade distribution of the deposit. The known occurrence of high- and low-grade areas has not been separated in the resource model due to variable drill density. AMEC identified a statistical break in the grade distribution at 0.1%  $U_3O_8$  that may be used to help delineate high-grade domains. Combined with the support of additional infill drilling, this refinement to the resource model is considered a significant opportunity to enhance the NPV of the Project through an anticipated increase in grade and improved confidence in the resource estimate.

The PEA also identified the opportunity to better optimize the underground and open-pit mining interfaces, which could add value to the Project through the mining schedule and timing of capital investment.

Fronteer will be giving further consideration to establishing the most advantageous method for financing the development of the Michelin Project.

## PROJECT DESCRIPTION

The Michelin Project is located in Labrador's Central Mineral Belt and, in Fronteer management's view, is one of the world's most promising new uranium districts. Aurora's properties in Labrador consist of a total of 91,500 Ha in 32 licences. To date, Aurora has identified six uranium deposits in the region, collectively containing a measured and indicated resource of 84.4 million pounds of  $U_3O_8$  and an inferred resource of 52.5 million pounds of  $U_3O_8$ , and has identified numerous areas of mineralization and highly prospective targets. All of the deposits currently identified, including both Michelin and Jacques Lake, remain open for expansion.

The construction phase is expected to take three years. It is planned that the Michelin Project would consist of open-pit and underground mines at both the Michelin and Jacques Lake deposits. A mill to process the mineralization would be located at the Michelin site. Most of the buildings, including maintenance facilities, employee accommodations and a water treatment plant, would also be located at the Michelin site. Roads would connect the mine sites to a dock at Kaipokok Bay, 40 kilometres away. Tailings and waste management plans are currently being developed.

## MINING PLAN

The PEA calls for a processing plant throughput rate of 3.65 million tonnes per year, assuming 6,500 tonnes per day from underground and 3,500 tonnes per day from open-pit sources.

The forecast production life of the mine is 17 years, with the planned 3.65 million tonnes per year rate achieved in Year 2 of production, and maintained at that rate until Year 15 of production.

Production begins with 2.5 million pounds  $U_3O_8$  produced in Year 1, followed by ramp up to a production rate of 7.03 million pounds in Year 4. During Years 4-12, the production rate will vary between 6.3 million pounds  $U_3O_8$  and 7.3 million pounds of  $U_3O_8$  per year (average of 6.9 million pounds  $U_3O_8$  per year). From Years 13-17 production declines on an annual basis, with 3.0 million pounds being produced in Year 16.

The plan assumes that both the open-pit and underground operations will start simultaneously at Michelin, followed by Jacques Lake, commencing in Year 12. There is an overlap in open-pit production in Years 9 to 12, which allows for a production ramp up at Jacques Lake, and production of sufficient tonnes to supplement Jacques Lake underground mining.

The open-pit production schedule is based on ultimate pit shells derived from Whittle Optimization Software. All of the mineralized material classified as measured, indicated and inferred mineral resources was considered in the optimization and the mine plan. AMEC did not phase the pit at this study stage. It could be expected that with a starter pit and several push-backs, the NPV would be higher due to mining higher  $U_3O_8$  grades earlier in the schedule.

Material grading better than 0.06%  $U_3O_8$  was considered for underground mining at Michelin. The total mineral resource considered for underground mining is 26.6 million tonnes at an overall grade of 0.13%  $U_3O_8$ . The total

mineral resource considered for underground mining at Jacques Lake is 2.6 million tonnes at an overall grade of 0.09% U<sub>3</sub>O<sub>8</sub>.

### **Michelin Deposit**

Open-pit mining is planned to a depth of approximately 175 metres. The underground mine would extend to a depth of 850 metres. The mine plan includes underground access both through a vertical shaft and a decline from surface, both located outside of the pit.

It is planned that the shaft will be approximately 850 metres deep and equipped for hoisting rock, personnel and supplies. The decline will be located in the footwall of the Main Zone and provide access to footwall sub-levels developed at 25-metre vertical intervals and to ventilation, back fill and rock pass raise systems. The decline and shaft will both be located outside of the pit limits. Raises bored from surface will provide the primary ventilation routes, two for intake and two for exhaust, and a transfer raise for stope fill waste rock. Two rock pass systems will also be bored between the main underground levels.

Underground mining will be a combination of longitudinal and transverse stoping with stopes backfilled with rockfill.

### **Jacques Lake Deposit**

Open-pit mining is planned to a depth of approximately 200 metres. Most of the currently identified material above the underground mining cut-off grade appears to be between 150 metres and 300 metres below surface with two areas extending to approximately 400 metres.

The mine plan includes underground access through two declines, one from within the open-pit mine. The declines will be located in the footwall of the mineralized zone and provide access to footwall sub-levels developed at 25-metre vertical intervals and to ventilation and a back fill raise system. The main connections between the two declines will be on the -25 metre and -150 metre levels.

The underground mining will advance to the pit floor following completion of open-pit mining and no crown pillar will be necessary with longhole stoping as the likely mining technique.

### **METALLURGY AND PROCESSING**

The metallurgical component, which AMEC adopted, was supervised by J.R. Goode and Associates and carried out with laboratory and pilot plant test work performed by SGS Lakefield Research Limited. The metallurgical component of the Michelin Project is significantly advanced. Highlights from the pilot plant and bench scale test work indicate that the Michelin Project mineralization is predicted to yield an average uranium recovery of 87.5%. The proposed milling process for the Michelin Project is an effective method for treating the Michelin Project mineralization. There will only be a modest consumption of energy and consumables, and the tailings test results meet Canadian environmental standards.

For complete details on metallurgy, please see June 23, 2009, news release, "Fronteer reports 87.5% uranium recovery from Aurora's pilot plant testing."

### **INFRASTRUCTURE AND TRANSPORTATION**

The PEA outlined the Project's infrastructure and transportation requirements which will include a 140-kilometre road linking the mine sites with North West River, as well as a road to the proposed port site near Postville for delivery of bulk materials and consumables such as cement, sulfur, limestone and fuel. The road

will provide year-round access for delivery of product to the market, to receive supplies and for movement of personnel.

An electrical transmission line is also required to provide reliable and clean grid power from the Newfoundland and Labrador hydro-electric system to the mine site.

An additional infrastructure element is the establishment of an accommodation facility suitable for 400 people at the mine site, as well as warehouses, administration and mine services facilities required to run a mine and mill operation.

## CAPITAL COSTS

The capital costs of the Michelin Project are expected to be \$983.6 million, while sustaining capital would be \$317.5 million, which would be derived from cash flow.

The following capital costs are expected:

| Items  | Capital costs (millions) |
|--|--------------------------|
| Mining (underground & open pit)                  | \$246.8                  |
| Process plant                                    | \$187.4                  |
| Infrastructure and tailing management            | \$274.9                  |
| Other (owners' cost, EPCM, Indirect costs, etc.) | \$142.5                  |
| Contingency                                      | \$132                    |
| <b>Total</b>                                     | <b>\$983.6</b>           |

## OPERATING COSTS

The following life of mine costs are expected for the operating phase of the Project:

| Items                    | Cost per tonne |
|--------------------------|----------------|
| Mining cost              | \$26.71        |
| Processing cost          | \$14.01        |
| G&A (transport included) | \$8.31         |

## SENSITIVITY ANALYSIS

The following sensitivity table demonstrates that the Project has robust economics across a range of reasonable uranium-price scenarios.

| U <sub>3</sub> O <sub>8</sub> Price/lb | IRR (pre-tax) | NPV (8%, pre-tax) | Pay back  |
|--|---------------|-------------------|-----------|
| \$65                                   | 14.8%         | \$502 million     | 5.7 years |
| \$75 (base case)                       | 19.4%         | \$914 million     | 4.7 years |
| \$90                                   | 25.2%         | \$1,531 million   | 3.7 years |

## MARKETING

S.D. Energy Associates reports Aurora has been actively building industry awareness of the Michelin Project for several years with investors, nuclear utility companies and others. The Project is viewed favourably by uranium consumers as the significant size and technical simplicity of the Michelin deposit, combined with its location in a low-risk geo-political environment, make it a desirable addition to a supply portfolio.

Several major North American and European utilities have visited Michelin. Discussions have also been held with utilities in North America, Europe and Asia Pacific. The scope of discussions has ranged from interest in participation in the Project to purchasing uranium under long-term contracts. Although the Project is still in the development stage, the company receives unsolicited "requests for proposals" for the supply of uranium from utilities. Aurora continues to evaluate options to maximize value under various market and development scenarios.

## ENVIRONMENT AND PERMITTING

Aurora is making progress on environmental baseline studies focused on identifying the pre-development environmental conditions in the area. Key aspects of the studies are fisheries and aquatic life, air quality monitoring, wildlife studies, terrestrial habitat quantification, and water quality and quantity studies. Aurora is also advancing the selection of tailings management options and the assessment of local land and resource use patterns. All these studies are part of the comprehensive environmental review that all major resource development projects must complete as part of the regulatory approval process.

## LABRADOR COMMUNITY AND GOVERNMENT RELATIONS

Aurora has undertaken an extensive community engagement initiative to build understanding around mining and the benefits communities can expect to derive from the Michelin Project. The initiative includes: holding open houses in all North Coast Labrador communities; conducting small group and one-on-one meetings; meeting local government representatives; opening information centres in Aurora's Postville and Makkovik offices; and developing a targeted youth and elder information program. Responses to these community initiatives have been very positive, with high attendance and growing interest.

Aurora will continue to work with communities and groups in Labrador in preparation for the Environmental Assessment.

Aurora has also undertaken consultations with the Government of Newfoundland and Labrador and Government of Canada regarding the regulatory requirements for the Project.

## NEXT STEPS

Aurora continues to advance its 2009 work program and plan for 2010. Community consultations with Labrador residents will continue, with a focus on the environmental health and safety aspects of the Michelin Project and long-term economic benefits. Meetings with the Michelin Project Community Panel are part of this ongoing consultation. Aurora is also working to complete the tailings management plan for the Project and to optimize project engineering and construction costs.

Environmental baseline studies are ongoing and Aurora continues to update a project registration document for the Michelin Project to ensure it is ready to be filed with the Federal, Provincial and Nunatsiavut regulators. At present, Aurora is revising its critical path schedule for the Project, including feasibility studies, construction schedule, engineering, environmental assessment and permitting.

## **PREPARATION OF PEA**

The Preliminary Economic Assessment has been prepared with the input from AMEC, J.R. Goode and Associates, SGS Lakefield Services Limited, and S.D. Energy Associates Limited.

AMEC is an international project management and engineering consultancy firm with extensive experience in resource development projects.

J.R. Goode and Associates has more than 45 years of mineral and uranium processing experience. Mr. Goode has worked on numerous uranium projects in Canada and worldwide.

S.D. Energy Associates is an international nuclear fuel market consultancy and brokerage firm with extensive experience in uranium industry strategy and marketing.

SGS Lakefield Research Limited is a global leader in providing mining and metallurgical services.

An updated National Instrument 43-101 Technical Report will be filed on SEDAR within 45 days of this press release and will include a summary of the PEA.

## **QUALIFIED PERSON**

The Preliminary Economic Assessment was prepared under the supervision of Mr. Steve Cole, P.Eng, Director of Engineering, Aurora, and Mark Hertel, P.Geo, Principal Geologist AMEC, a "qualified person", as such term is defined in National Instrument 43-101. Mr. Cole has supervised the preparation of, and verified all scientific and technical data contained in this news release.

## **WEB CONFERENCE**

A web presentation (audio and PowerPoint slides) with Fronteer President and CEO Dr. Mark O'Dea, Aurora President and CEO Bruce Dumville and Aurora Director of Engineering Steve Cole will be held on Thursday, Sept. 10, at 10:30-11:10 a.m. (Eastern) to provide details on Aurora's PEA.

Access to the audio portion of this presentation may be obtained by dialing 866-322-2356 (Toll Free North America), 08082344489 (Toll Free UK) or 1-416-640-3405 (International). The confirmation code for the call is 6498760.

To access the corresponding webcast (view slides), go to:

<https://www.livemeeting.com/cc/vcc/join?id=w6498760&role=attend&pw=A649876>

For further instructions on how to participate in the webinar, please visit:

[http://www.fronteergroup.com/sites/files/fronteer\\_admin/webinar\\_sept10\\_2009.pdf](http://www.fronteergroup.com/sites/files/fronteer_admin/webinar_sept10_2009.pdf)

An audio/visual replay of the call will be available 24 hours after the end of the call at:

<http://www.fronteergroup.com/?q=content/presentations>

## ABOUT FRONTEER

We have put in place the necessary building blocks to transform ourselves from an exploration and development company to an owner of gold production. Our solid financial position and strengthened operational team give us the ability to advance the projects in our pipeline from exploration through to production. Our future potential production platform includes our Long Canyon, Sandman and Northumberland projects – all located in Nevada, one of the friendliest gold-mining jurisdictions in the world. Our robust pipeline also includes a 40% interest in an emerging copper-gold mineral district operated in northwestern Turkey and more than 620,000 acres of precious-metals mineral rights in Nevada, including a core position on every major gold trend. In addition, Fronteer has 100% ownership of Aurora Energy Resources, developer of one of the largest uranium deposits not currently in production. For further information on Fronteer visit [www.fronteergroup.com](http://www.fronteergroup.com) or contact:

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*The Michelin deposit contains a measured resource of 1.289 million tonnes of resource grading 0.12% U3O8 (underground) and 5.783 million tonnes of resource grading 0.08% U3O8 (open pit), an indicated resource of 16.170 million tonnes of resource grading 0.13% U3O8 (underground) and 6.839 million tonnes of resource grading 0.06% U3O8 (open pit), and an inferred resource of 12.577 million tonnes of resource grading 0.12% U3O8 (underground) and 3.393 million tonnes of resource grading 0.03% U3O8 (open pit). The Jacques Lake deposit contains a measured resource of 0.103 million tonnes of resource grading 0.08% U3O8 (underground) and 0.755 million tonnes of resource grading 0.09% U3O8 (open pit), an indicated resource of 1.661 million tonnes of resource grading 0.08% U3O8 (underground) and 4.374 million tonnes of resource grading 0.07% U3O8 (open pit), and an inferred resource of 2.149 million tonnes of resource grading 0.08% U3O8 (underground) and 5.953 million tonnes of resource grading 0.04% U3O8 (open pit). The Rainbow deposit contains an indicated resource of 1.088 million tonnes of resource grading 0.09% U3O8 and an inferred resource of 0.931 million tonnes of resource grading 0.08% U3O8 (both open pit). The Nash deposit contains an indicated resource of 0.757 million tonnes of resource grading 0.08% U3O8 and an inferred resource of 0.613 million tonnes of resource grading 0.07% U3O8 (both open pit). The Inda deposit contains an indicated resource of 1.460 million tonnes of resource grading 0.06% U3O8 and an inferred resource of 3.042 million tonnes of resource grading 0.07% U3O8 (both open pit). The Gear deposit contains an indicated resource of 0.520 million tonnes of resource grading 0.06% U3O8 and an inferred resource of 0.210 million tonnes of resource grading 0.06% U3O8 (both open pit). Aurora's Mineral Resources are reported at cut-off grades that contemplate underground (0.05% U3O8 at Michelin and Jacques Lake) and open pit (0.02% U3O8 at Michelin and Jacques Lake and, 0.03% U3O8 at Rainbow, Nash, Inda and Gear) mining scenarios, based on preliminary economic assumptions, and may be refined with more in-depth economic analyses. Further details of the estimation procedures for Michelin, Jacques Lake, Rainbow, Nash, Inda and Gear are available in the NI 43-101 technical report entitled "An Update on the Exploration Activities of Aurora Energy Resources Inc. on the CMB Uranium Property, Labrador, Canada, during the period January 1, 2007 to December 31, 2007", dated April 7th, 2008, and amended August 28th, 2008, available on SEDAR ([www.sedar.com](http://www.sedar.com)). The updated resource estimates will be further described in an updated NI 43-101 Technical Report to be filed on SEDAR at <http://www.sedar.com>, 45 days after the date of this news release.*

*This PEA is preliminary in nature as it includes inferred mineral resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as mineral reserves at this time and as such there is no certainty that the preliminary assessment and economics set forth in the PEA will be realized. Mineral resources that are not mineral reserves do not have demonstrated economic viability.*

*Except for the statements of historical fact contained herein, certain information presented constitutes "forward-looking statements" within the meaning of the United States Private Securities Litigation Reform Act of 1995 and Canadian securities laws. Such forward-looking statements, including but not limited to, those with respect to potential expansion of mineralization, potential size of mineralized zone, and size and timing of exploration and development programs and the timing and availability of regulatory approvals involve known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievement of Fronteer to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements. Such factors include, among others, risks related to international operations and joint ventures, the actual results of current exploration activities, conclusions of economic evaluations, uncertainty in the estimation of mineral resources, changes in project parameters as plans continue to be refined, future prices of uranium, environmental risks and hazards, increased infrastructure and/or operating costs, labour and employment matters, and government regulation and permitting requirements as well as those factors discussed in the section entitled "Risk Factors" in Fronteer's Annual Information form and Fronteer's latest Form 40-F on file with the United States Securities and Exchange Commission in Washington, D.C. Although Fronteer has attempted to identify important factors that could cause actual results to differ*

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