

Nouveau Monde Announces Robust Prefeasibility Study With Pre-Tax NPV of \$ 498.7 Million and IRR of 32.4 % Concerning its Matawinie Graphite Property

25.10.2017 | [Marketwired](#)

SAINT-MICHEL-DES-SAINTS, QUEBEC--(Marketwired - Oct 25, 2017) - [Nouveau Monde Graphite Inc.](#) ("Nouveau Monde") (TSX VENTURE:NOU)(OTCQB:NMGRF)(FRANKFURT:NM9) is pleased to announce the results of a Prefeasibility Study ("PFS") covering the West Zone of the Tony Claim Block, part of its Matawinie graphite Property. The PFS was prepared by Met-Chem, a division of DRA Americas Inc. ("MC-DRA"), an experienced and renowned engineering firm.

All costs are in Canadian Dollars unless otherwise specified.

The following lists the highlights provided by the PFS:

Prefeasibility Study highlights (Project Economics)

Pre-tax Net Present Value (NPV)	\$ 498.7 million at an 8 % discount rate
After-tax Net Present Value (NPV)	\$ 297.2 million at an 8 % discount rate
Pre-tax Internal Rate of Return (IRR)	32.4 %
After-tax IRR	25.9 %
Life of Mine ("LOM")	27 years
Mine Pay Back estimated (Pre-Tax)	2.3 years
Mine Pay Back estimated (After Tax)	2.6 years
LOM Revenue	\$ 2,667.7 million
Initial Capital Expenditures (Capex)	\$ 180.8 million (including a contingency of \$ 22.1 million)
Operating Expenses (Opex)	\$ 28.0 million per year or \$ 539 per tonne of concentrate
Average sales price of graphite concentrate	\$ 1,429 USD per tonne

**Unless otherwise noted, all monetary figures presented herein are expressed in Canadian dollars.*

***USD/CAD conversion rate of 1.33.*

Operational Highlights

Annual average full production of 52,000 tonnes of graphite concentrate
4.39 % Cg average grade LOM graphite content contained in the mineralization
Graphite milling recovery above 94 %
Finished product/ concentrate purity > 97 % Cg
Stripping ratio (LOM) of 1.04:1.

****Cautionary Note: There is no certainty that the economic forecasts on which this PFS is based will be realized.*

Eric Desaulniers, President and Chief Executive Officer of Nouveau Monde, stated: "The rapid advancement of our Matawinie Project continues to be highly encouraging with the announcement of this robust PFS reconfirming that Nouveau Monde can become a reliable long-term supplier of quality natural flake graphite. In comparison with the results of the Preliminary Economic Assessment issued in June 2016, the results of the PFS show significant improvements including:

- Increases Pre-tax NPV & IRR by \$ 95 M & 1.2 %;
- Increases planned annual average full production by 2,000 tonnes yearly, gained from an increase of 4.5 % in process recovery;
- Decrease OPEX per tonne of concentrate by 18 % or \$ 121.49.

On the back of this PFS, we are excited about promptly moving the project forward by carrying out a feasibility study."

The following files can be downloaded in support to this press release:

- Property Work Overview Map:

https://nouveaumonde.ca/wp-content/uploads/PR_Tony_Block_20171025_EN_r.pdf

- West Zone Mineral Reserve and Phasing Sequence:

https://nouveaumonde.ca/wp-content/uploads/PR_West_Zone_20171025_EN_r.pdf

- General Site Layout: https://nouveaumonde.ca/wp-content/uploads/A1-I01790-0003-L-0D_r-2.pdf

MINERAL RESOURCES

In the following text, graphite is expressed in graphitic carbon percentage (% Cg).

The pit constrained resource located in the West Zone represents only a portion of the total mineral resources identified to date on the Tony Block. The latter include 32.9 million tonnes grading 4.50 % graphitic carbon (Cg) of indicated resources and 0.2 million tonnes, grading 4.84 % Cg of inferred resources, using a cut-off grade of 2.28 % Cg. Refer to the Company's press release dated March 2nd, 2017 for further details.

MINING

Mining Highlights

Only the West Zone of the Tony Claim Block has been considered in the PFS

Mining is performed by open pit using a conventional truck and shovel operation

The mining production schedule is limited to one shift of 12 hours, 5 days a week so as to reduce the social impact of the project

Mining is to be executed under contract services under the supervision of Nouveau Monde

Mine life of 27 years, with a total diluted probable reserve of 33.0 Mt grading 4.39 % Cg

MINERAL RESERVES

The Mineral Reserve estimate was prepared by MC-DRA, using the Mineral Resource estimate prepared by SGS and released by Nouveau Monde on March 2nd, 2017. The Mineral Reserves are included in the Indicated Mineral Resources that have been identified as being economically extractable and which incorporate mining losses and the addition of waste dilution. In addition, mineral reserve estimation considers the design of an operational pit that will form the basis of the production plan. This pit design uses the economic pit shell as a guideline and includes smoothing the pit walls, adding ramps to access the pit bottom and ensuring that the pit can be mined using the initially selected equipment. Table 1 summarizes the pit design parameters.

Table 1 : West Zone Open Pit Design Parameters

Item	Value	Unit
Bench Height (double benching)	10	m
Berm Width	6	m
Ramp and Haul Road Width	18	m
Bench Face Angle	85	degree
Overall Slope Angle	55	degree

The study shows an average ROM feed rate of 4,850 tonnes per day based on the current proposed mine work schedule of 5 days/week (one 12 hr shift/day), a 27 years mine life and an average LOM waste to ore strip ratio of 1.04:1. The mineable portion of the reserves was developed based on a breakeven cut-off of 2.32 % Cg using the cost and revenue parameters presented in Table 2.

Table 2 : Cost and Revenue Parameters Used for Pit Optimization

(The following parameters could differ from those used for the financial analysis)

Item	Value	Unit
Mining Cost (Overburden)	4.02	\$/t (mined)
Mining Cost (Ore and Waste)	5.18	\$/t (mined)
Processing Cost	13.64	\$/t (milled)
General & Administrative Cost	3.60	\$/t (milled)
Selling Price	1,000	\$/t of concentrate
Mill Recovery	94.0	%
Concentrate Grade	97.3	%

Once a dilution of 5 % and mining losses are considered, the mineral reserves extracted over the course of the mine life totals 33.0 Mt grading 4.39 % Cg in the Probable category as presented in Table 3 below:

Table 3 : Mine Reserves for the West Zone

Class	Reserves (Mt)	Grade (% Cg)
Probable	33.0*	4.39

Reserves categories are compliant with Canadian Institute of Mining, Metallurgy and Petroleum Definitions Standards for mineral resources in concordance with National Instrument 43-101 - Standards of Disclosure for Mineral Projects. The cut-off grade for the open pit Mineral Reserves is \geq 2.32 % Cg. * Rounded to the nearest hundred thousand.

The mine infrastructure has been designed to facilitate an environmentally friendly project while lowering the visual impact on neighbouring communities. The processing plant and waste piles will be located less than 1,000 metres from the mine so as to minimize truck cycle times, lower carbon emissions and lower project operating costs. In addition, the mine plan conceived for the PFS considers the progressive backfilling of waste material within the pit to further minimize the project's environmental footprint and promote site rehabilitation during the operating life of the mine.

PROCESSING AND RECOVERY

Processing and Recovery Highlights

Average annual processing rate: 1,222,000 tonnes

Average annual production: 52,000 tonnes

Average graphite recovery: Above 94 %

Finished product purity: Above 97 %

The Matawinie concentrator combines proven technology and innovative ideas to conceive a robust flow sheet with remarkably high graphite recoveries. Locked cycle tests performed at SGS Mineral Services have demonstrated the potential to achieve 97 % recovery. Refer to the Company's press release dated April 11th, 2017 for further details on the locked cycle test results.

The flow sheet consists of crushing, followed by multiple steps of grinding and flotation separation circuits. The graphite concentrate is then filtered, dried and classified to produce four (4) high purity products.

Table 4 : Graphite Concentrate Distribution

Flake Size	Distribution (%)	Assay (% Ct)	Tonnes of Product
+48 mesh	16.5	% 97.1	% 8,602
+80 mesh	31.5	% 96.9	% 16,424
+100 mesh	11.6	% 96.9	% 6,049
-100 mesh	40.2	% 97.7	% 20,925
Total	100.0	%	52,000

The totals may not add up due to rounding.

The plant rejects are processed through flotation and magnetic separation to produce two (2) streams:

sulphide and non-sulphide tailings. These streams are thickened and filtered for dry-stacking in their respective areas.

Future studies and development work include the construction and commissioning of a demonstration plant. Karl Trudeau, Nouveau Monde's Chief Operating Officer stated: "Processing the West Zone ore at our planned demonstration plant aims to optimize equipment selection and guarantee product quality ahead of our commercial operation". Refer to the Company's press release dated April 19th, 2017 for details regarding the demonstration plant.

GRAPHITE CONCENTRATE SALES PRICE ASSUMPTION

The graphite concentrate sales price used for the PFS was established at US\$ 1,429 /tonne. The selling price was determined using pricing information, averaged during a period of 60 months (from January 2012 to December 2016) and calculated from the Benchmark Mineral Intelligence (Benchmark) Flake Graphite Price Index (www.benchmarkminerals.com). Benchmark is an independent credible source who compiles international graphite prices for various commercial size fractions and concentrate purities. The Tony Block's West Zone graphite concentrate value was calculated based on the weighted average of each size fraction and purity obtained during the metallurgical testing presented in Table 4. Table 5 presents graphite concentrate values in US\$ for various size fractions using a 60-month average value obtained through Benchmark Minerals Intelligence.

Table 5 : Price per Size Fraction

Size Fraction	Weight	Purity (Cg)	60-month Average Price (US\$/t)
+50 mesh	17	% 94-97	% \$ 2,197
+80 mesh	31	% 94-97	% \$ 1,466
+100 mesh	12	% 94-97	% \$ 1,301
-100 mesh	40	% 94-97	% \$ 1,124
Weighted Average	100	%	\$ 1,429

DESCRIPTION OF ECONOMIC EVALUATION

According to the PFS, the Matawinie Property has demonstrated potential economic viability in regard to an open pit graphite mine over the West Mineralized Zone.

The capital cost estimate, summarized below, covers the development of the mine, ore processing facilities, and infrastructure required for Nouveau Monde's project. It is based on the application of standard costing methods of achieving a PFS which provides an accuracy of $\pm 25\%$ and follows AACE Class 3 Guidelines. The operating cost covers mining, transportation, processing, tailings and water management, general and administration fees, as well as infrastructure and services.

CAPITAL AND OPERATING COSTS

The purpose of this PFS is to inform the reader of the economic potential of the mineral property within a degree of accuracy of $\pm 25\%$.

The capital expenditures and cash operating costs are summarized in Table 6 and Table 7. The mining costs have been estimated on contract services under the supervision of Nouveau Monde Graphite.

Table 6 : Capital Costs Summary

DESCRIPTION	INITIAL COSTS (\$)	SUSTAINING COSTS (\$)	LOM COSTS (\$)
TOTAL DIRECT COSTS	118,171,000	21,564,000	139,734,000
Mine	4,778,000	3,381,000	8,159,000

Process Plant	73,986,000		73,986,000
Infrastructure	3,933,000		3,933,000
Tailings and Water Management	29,135,000	18,182,000	47,317,000
Main Electrical Distribution and Communication	6,339,000		6,339,000
INDIRECT AND OWNER'S COSTS	36,904,000	-	36,904,000
Project Development	4,550,000		4,550,000
EPCM	14,221,000		14,221,000
Owner's Cost	18,133,000		18,133,000
CONTINGENCY	22,150,000	3,235,000	25,385,000
CLOSURE COSTS	1,582,000	1,582,000	3,164,000
NSR BUYOUT	2,000,000		2,000,000
TOTAL COSTS	180,807,000	26,380,000	207,187,000

The totals may not add up due to rounding.

Table 7 : Operating Costs Summary

Cash Operating Cost Breakdown *(per tonne of finished product)*

Mining (Average over life)	\$ 167.51/tonne
Tailings Management	\$ 59.10/tonne
Ore Process	\$ 275.11/tonne
General and Administration	\$ 36.83/tonne
Total	\$ 538.55/tonne

TECHNICAL REPORT

A technical report detailing the PFS, and completed in accordance with National Instrument (NI) 43-101 guidelines, will be filed and available on SEDAR within 45 days of this release.

PROJECT SUMMARY

Location, Infrastructure and Feasibility Study

The Tony Claim Block is located in the Saint-Michel-des-Saints area, some 120 km North of Montreal, Québec, Canada. The claim block, including the West Zone, is easily accessible using existing logging roads and is close to quality infrastructure such as paved roads and high voltage power lines, both necessary for industrial activities. An abundance of skilled workforce is available in the community of Saint-Michel-des-Saints as well as in surrounding communities, following the recent closing of multiple logging activities.

Nouveau Monde has already begun working toward its Feasibility Study. Furthermore, data gathering needed to complete the Environmental and Social Impact Assessment is well underway. Following Nouveau Monde's drive to innovate and to develop the Matawinie project to the highest environmental standards, improved tailings management is being designed to further optimize and reduce the footprint of the mining operation. Additionally, the possibility of electrifying parts of the mining operation is being considered in order to minimize its carbon footprint and fully utilize the low-cost hydroelectricity readily available in the area.

Value Added Graphite Study

The recent successful results of the metallurgy tests (see press release of April 11th, 2017) encourage Nouveau Monde to continue to evaluate the possibility of developing value-added graphite products near the mining infrastructure in Saint-Michel-des-Saints.

Community Relations

Since 2012, Nouveau Monde has held more than 200 meetings with people or groups from the town of

Saint-Michel-des-Saints and nearby communities. During these presentations and consultations, important ties of trust have been forged between the population and the company. An accompanying committee, composed of citizens and regional experts, is working with Nouveau Monde's technical team to ensure that the project grows while respecting the host environment and, above all, contributes to the regional dynamism.

QUALITY CONTROL AND ASSURANCE

The technical information derived from the PFS presents in this news release was approved by Celine Charbonneau, P. Eng., M. Sc. of Met-Chem, a division of DRA Americas Inc., an independent Qualified Person as defined by National Instrument 43-101. The press release was reviewed by Eric Desaulniers, M.Sc., P. Geo., President and CEO of Nouveau Monde, a Qualified Person under National Instrument 43-101 guidelines.

Cautionary Statements Regarding Forward Looking Information

This press release contains "forward-looking information" within the meaning of Canadian securities legislation. All information contained herein that is not clearly historical in nature may constitute forward-looking information. Generally, such forward-looking information can be identified by the use of forward-looking terminology such as "plans", "expects" or "does not expect", "is expected", "budget", "scheduled", "estimates", "forecasts", "intends", "anticipates" or "does not anticipate", or "believes", or variations of such words and phrases or state that certain actions, events or results "may", "could", "would", "might" or "will be taken", "occur" or "be achieved". Forward-looking information is subject to known and unknown risks, uncertainties and other factors that may cause the actual results, level of activity, performance or achievements of the Company to be materially different from those expressed or implied by this press release. The risks associated with such forward-looking information include, but are not limited to: (i) volatile stock prices; (ii) the general global economic conditions; (iii) the possibility of write-downs and impairments; (iv) the risk associated with the exploration and operations of mineral deposits; (v) the risk associated with establishing new properties and assets; (vi) the risks associated with entering into joint ventures; (vii) fluctuations in commodity prices; (viii) the risks associated with uninsurable risks arising during the course of exploration, development and production; (ix) competition faced by the resulting issuer in securing experienced personnel and financing; * (x) access to adequate infrastructure to support mining, processing, development and exploration activities; (xi) the risks associated with changes in the mining regulatory regime governing the resulting issuer; (xii) the risks associated with the various environmental regulations the resulting issuer is subject to; (xiii) risks related to regulatory and permitting delays; (xiv) risks related to potential conflicts of interest; (xv) the reliance on key personnel; (xvi) liquidity risks; (xvii) the risk of potential dilution through the issue of common shares; (xviii) the Company does not anticipate declaring dividends in the near term; (xix) the risk of litigation; and (xx) risk management.

Die Reproduktion, Modifikation oder Verwendung der Inhalte ganz oder teilweise ohne schriftliche Genehmigung ist untersagt!
Alle Angaben ohne Gewähr. Copyright © by Rohstoff-Welt.de - 1999-2020. Es gelten unsere [AGB](#) und [Datenschutzrichtlinien](#).

Forward-looking information is based on assumptions management believes to be reasonable at the time such statements are made, including but not limited to, continued exploration activities, no material adverse change in metal prices, exploration and development plans to proceed in accordance with plans and such plans to achieve their stated expected outcomes, receipt of required regulatory approvals, and such other assumptions and factors as set out herein. Although the Company has attempted to identify important factors that could cause actual results to differ materially from those contained in the forward-looking information, there may be other factors that cause results not to be as anticipated, estimated or intended. There can be no assurance that such forward-looking information will prove to be accurate, as actual results and future events could differ materially from those anticipated in such forward-looking information. Such forward-looking information has been provided for the purpose of assisting investors in understanding the Company's business, operations and exploration plans and may not be appropriate for other purposes. Accordingly, readers should not place undue reliance on forward-looking information. Forward-looking information is made as of the date of this press release, and the Company does not undertake to update such forward-looking information except in accordance with applicable securities laws.

Neither the TSX-V nor its Regulation Services Provider (as that term is defined in the policies of the TSX-V) has in any way passed upon the merits of the proposed transaction or approved or disapproved the contents of this press release.