



Athabasca Minerals reports positive Preliminary Economic Assessment for the Firebag Silica Sand Project

February 12, 2015, EDMONTON, ALBERTA. Athabasca Minerals Inc. (“Athabasca” or the “Corporation”) (TSX Venture: ABM) is pleased to announce the completion of a Preliminary Economic Assessment (“PEA”), effective date November 26, 2014, for the Corporation’s Firebag Silica Sand Project (“Firebag Project”) located approximately 95 kilometres (“km”) north of Fort McMurray Alberta.

The PEA shows that the Firebag Project has considerable potential for development as a frac sand resource, which includes the potential for a large, highly economical deposit with high margin, rapid payback and 25 years of open pit mining.

The PEA has been prepared by Mr. Ted Hannah, P. Geo., and Ms. Theresa Lavender, P. Eng., of Norwest Corporation (“Norwest”), headquartered in Calgary, Alberta; qualified persons as defined under National Instrument 43-101 (“NI 43-101”). A full copy of the PEA will be available at www.sedar.com and on the Corporation’s website at www.athabascaminerals.com within 45 days of this press release.

PEA Highlights:

- **Pre-Tax base case economics indicate a Net Present Value (“NPV”) of Cdn \$368 million at a 10% discount rate with an Internal Rate of Return (“IRR”) of 68%, using the base case prices set forth below;**
- **Post-Tax base case economics indicate a NPV of Cdn \$268 million at a 10% discount rate with an IRR of 57%, using the base case prices set forth below;**
- **The Firebag project has a project life of 25 years with an in-situ inferred resource of 39.24 million tonnes;**
- **Year 1 production commissioning is scheduled at 300,848 tonnes with a peak production of 921,588 tonnes and an average production rate of 897,072 tonnes annually;**
- **Project sale of 22.73 million tonnes of frac sand product over a 25 year period;**
- **Initial Capital costs of Cdn \$87.8 million including 20% contingency;**
- **Frac sand prices – FOB plant in the Edson Area:**
 - **20/40 mesh – Cdn \$195 per tonne;**
 - **40/70 mesh – Cdn \$170 per tonne;**
 - **70/140 mesh – Cdn \$155 per tonne;**
- **Gross Revenue of Cdn \$3.8 Billion and Operating Cash Flow Pre- Tax of Cdn \$1.3 Billion;**
- **Operating Cash Flow Post- Tax of Cdn \$1.0 Billion;**
- **Payback of 1.6 years before Income Tax and 1.9 years after Income Tax.**

Dom Kriangkum, President and CEO of Athabasca stated “We are very pleased with the results of this Preliminary Economic Assessment as prepared by Norwest. This study outlines the high economic return and technical viability of the Firebag Project. The PEA confirms Athabasca’s initial work and supports a high value, high margin and low risk frac sand project in Alberta. Completion of the PEA marks a major

milestone for Athabasca in becoming a frac sand supplier in Canada. The significant savings in transportation costs compared to existing imported sands should provide Athabasca a major competitive advantage. We are still on target to be in production by 2016”

PEA Summary of Results

Description	Units	Quantity
Silica Sand In-Situ Inferred Resource ⁽¹⁾⁽²⁾	Tonnes	39,244,000
Silica Sand Run of mine (“ROM”) Inferred Resource ⁽¹⁾⁽²⁾	Tonnes	24,642,450
Frac Sand Product (Clean)(20/40 mesh) ⁽¹⁾⁽²⁾	Tonnes	2,919,730
Frac Sand Product (Clean)(40/70 mesh) ⁽¹⁾⁽²⁾	Tonnes	12,273,330
Frac Sand Product (Clean)(70/140 mesh) ⁽¹⁾⁽²⁾	Tonnes	7,534,590
Total Frac Sand Products ⁽¹⁾⁽²⁾	Tonnes	22,727,650
Rejects	Tonnes	1,914,800
Waste/Reclamation	Tonnes	1,446,450
Mine life	Years	25
Production – Year 1	Tonnes	300,848
Peak Production	Tonnes	921,588
Average Production in 25 Years	Tonnes	897,072
Total Initial Capital Cost (including 20% contingency)	\$Cdn	87,811,862
Sustaining Capital Cost (including 20% contingency) (primarily composed of reclamation accruals and rail car leasing)	\$Cdn	121,149,560
Total Life of Mine Capital Cost (including 20% contingency)	\$Cdn	208,961,422
Total Life of Mine Operating Cost	\$Cdn	2,496,610,427
Total Life of Mine Revenue	\$Cdn	3,823,675,305
Total life of Mine Operating Cash Flow before Income Tax	\$Cdn	1,312,973,734
Total Life of Mine Income Tax	\$Cdn	278,551,756
Total life of Mine Operating Cash Flow After Income Tax	\$Cdn	1,034,421,978
Total life of Mine Net Cash Flow After Income Tax	\$Cdn	825,460,557
Before-Tax Net Present Value at 10% Discount Rate	\$Cdn	368,306,000
Before-Tax Internal rate of Return	%	68
Before-Tax Pay Back	Years	1.6
After-Tax Net Present Value at 10% Discount Rate	\$Cdn	268,342,000

After-Tax Internal rate of Return	%	57
After-Tax Pay Back	Years	1.9

Notes:

- (1) The Firebag Project has resources in the inferred category only, and, therefore, it cannot support the estimation of mineral reserves. Mineral resources which are not mineral reserves do not have demonstrated economic viability. There is no certainty that all or any part of the mineral resources will be converted into mineral reserves. Mineral reserves are derived from mineral resources in the measured and indicated categories. The estimate of mineral resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing and other relevant issues.
- (2) In accordance with NI 43-101, Norwest used the Canadian Institute of Mining, Metallurgy and Petroleum's "Definition Standards for Mineral Resources and Mineral Reserves" and referenced the Geological Survey of Canada Paper 88-21 (GSC Paper 88-21), which is "a standardized coal resource/reserve reporting system for Canada," (which is often used as a guideline for other stratigraphic mineral deposits) during the classification, estimation and reporting of resources for the Firebag Project.

The PEA is preliminary in nature and includes inferred mineral resources that are considered to be too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as mineral reserves. There is no certainty that the forecast results stated in the PEA will be realized.

Frac sand Selling Price and Distribution

Frac sand (Mesh)	Base Case Selling Price* (\$Cdn/cmt)	Product Distribution (%)
20/40 Mesh	\$195	13
40/70 Mesh	\$170	54
70/140 Mesh	\$155	33

Note*: Frac Sand Product Pricing from Q3 2014

Sensitivities:

Sensitivity analyses were carried out to determine how changes in certain key parameters would impact the economic performance of the Firebag Project. The following assumptions were examined where the product prices were 10%, 20% and 30% above and below the base case prices:

		30%	20%	10%	Base Case	-10%	-20%	-30%
Before-Tax Net Present Value at 10% Discount Rate	\$Cdn	799,400,000	655,702,000	512,004,000	368,306,000	224,608,000	80,910,000	-62,788,000
Before-Tax Internal Rate of Return	%	167%	128%	96%	68%	43%	22%	-4%
After-Tax Net Present Value at 10% Discount Rate	\$Cdn	592,395,000	484,498,000	376,602,000	268,342,000	159,939,000	50,218,000	-68,094,000
After-Tax Internal Rate of Return	%	136%	106%	81%	57%	37%	18%	-7%

The Firebag Silica Sand Project

The Firebag Project is part of the Corporation's Firebag Property which comprises seven contiguous Alberta Metallic and Industrial Minerals Leases totalling 32,565 acres, and four Alberta Public Land Dispositions totalling 542 acres, of which Athabasca Minerals holds a 100% working interest.

Project Description

The Firebag Project is composed of three components; the mine site where the raw silica sand is mined, the Lynton trans-loading area in Fort McMurray, and an offload and processing site in the Edson/Hinton area, where the ROM silica sand will be processed to produce a marketable sand product.

The mine site has been designed to produce approximately 1 million tonnes of ROM silica sand per annum over a project life of 25 years. Prior to mining the area the site will be cleared of timber and other vegetation. All topsoil will be salvaged with indicative depths less than 0.5 m and placed in stockpiles during the initial years of mine development. Progressive reclamation will allow the salvaged soil to be placed directly on reclaimed areas. Minimal waste sand is encountered during the mining process. A small hydraulic excavator will load 23 tonne articulated dump trucks which will haul the ROM sand to an out-of-pit stockpile area. The mined pit will be approximately 16 m in depth. The ROM sand will be loaded by a front-end loader onto highway trucks for transport to the Lynton facility.

Lynton, Alberta is located approximately 15 km east of Fort McMurray along Highway 69. Athabasca has secured a 180 acres parcel immediately adjacent to the existing Canadian National Rail Company ("CN") Lynton Rail Yard. This is the terminus for the CN rail in the Fort McMurray Area. Athabasca's private trans-loading Lynton facility will receive the ROM silica sand from the mine site via contract highway haulers. The sand will be stockpiled and loaded onto the rail cars.

For the purposes of the PEA, Athabasca has determined that the Edson/Hinton site, located in west-central Alberta, will be the location of the process facility and the point of sale for the marketable frac sand. The processed sand will be separated into the three product sizes (20/40 mesh, 40/70 mesh, and 70/140 mesh). The sized material will be stored in respective product bins until the time of sale.

Conclusions

The PEA completed by Norwest shows that the Firebag Project has considerable potential for development as a frac sand resource. This is based on the following observations:

Tenure

- The "footprint" of the current mine plan is fully within the property boundary;
- Surface Material lease ("SML") 130021 has been approved by Alberta Environmental and Sustainable Resource Development ("ESRD") for the term of 10 years beginning on August 25, 2014;
- SML 120032 is currently under application with ESRD.

Quantity of the Firebag Property Deposit

- The conceptual plan includes 24.6 million tonnes of ROM of silica sand resource. The processing plant is expected to salvage approximately 92% of the frac sand process. The Firebag property is developed over 25 years of mine life at an average rate of 990,000 ROMt per year.

Access to Rail Structure

- The Firebag Property is located approximately 130 km from the existing CN rail line in Lynton, Alberta. Its location would allow CN to rail the silica sand to Edson area via Edmonton;
- Currently, the Corporation is negotiating with a third party regarding a plant site in the Edson area alongside the CN rail line.

Local Mining Support

- The Regional Municipality of Wood Buffalo is home to a number of supporting industries including mining equipment distributors, mining contractors and other mining related service industries.

Market

- Norwest has reviewed various publicly available sources of information with respect to the expected demand for frac sand in North America and, more specifically, Western Canada. The majority of these resources indicate that the demand is expected to increase. Forecasted annual rates of increase vary between 5% and 25%;
- Athabasca has selected the Edson/Hinton area of west-central Alberta as its point of sale for frac sand. This area coincides with current vigorous activity in the production of tight oil and gas from a number of geological formations; the majority of these operations require frac sand.

Economics

- The project provides After-Tax Net Present Values of \$268 million, when discounted at 10%.

Cautionary Statement

For the geological section of the PEA, Norwest reviewed the “National Instrument 43-101 Technical Report, Inferred Frac Sand Estimate for the Firebag Property, Northeastern Alberta, Canada (September 19, 2014)” produced by APEX Geoscience Ltd. The report was deemed representative of the current status of the Firebag Project with respect to the known geology, exploration work done to date, and interpretation of the results with an accepted level of the confidence for the resource calculations.

The reader is advised that the PEA summarized in this press release is only intended to provide an initial, high level review of the project. The accuracy of resource estimates is, in part, a function of the quality

and quantity of available data and of engineering and geological interpretation and judgement. Given the data available at the time of this report was prepared, the estimates presented herein are considered reasonable. However, they should be accepted with the understanding that additional data and analysis available subsequent to the date of the estimates may necessitate revision. These revisions may be material. There is no guarantee that all or any part of the estimated resources will be recoverable and there is no certainty that the PEA will be realized.

Qualified Persons

Ms. Theresa Lavender, P. Eng. is a professional engineer. Ms. Lavender is currently employed as Manager by Norwest Corporation. Ms. Lavender has a BSc. in Mining Engineering and has worked as a mining engineer for 15 years since graduation from university. Ms. Lavender's work experience includes 5 years of employment at various surface mining operations in Western Canada. Ms. Lavender is acting as the Qualified Person, as defined in NI 43-101 for portions of this PEA. Ms. Lavender is responsible for the technical content of this release and has reviewed and approved it accordingly. Ms. Lavender and Norwest are independent of Athabasca under NI 43-101.

Mr. Ted Hannah, P. Geo., is a professional geologist. He is currently employed as Vice President Geology by Norwest Corporation. Mr. Hannah has a BSc. in Geology and has worked as a geologist for a total of 41 years since graduation from university. Mr. Hannah's work experience includes thirty nine years of exploration and mining support on variety of coal, oilsands and other sedimentary projects around the world. Mr. Hannah is acting as the Qualified Person, as defined in NI 43-101 for portions of this PEA. Mr. Hannah is responsible for the technical content of this release and has reviewed and approved it accordingly. Mr. Hannah and Norwest are independent of Athabasca under NI 43-101.

About Norwest Corporation

Norwest Corporation is an internationally-recognized leader in providing consulting expertise to the energy, mining, and natural resources industries. For over 30 years Norwest has offered a wide range of services to energy and mining companies, electric power producers, financial institutions, governments, legal firms, and regulatory agencies. Norwest's professional staff of engineers, hydrologists, geologists, environmental specialists and management consultants brings extensive industry experience to our consulting projects. Norwest's innovative, experienced-based approach is focused on assisting its clients achieve world-class performance standards.

About Athabasca Minerals

The Corporation is a resource company involved in the management, exploration and development of aggregate and silica sand projects. These activities include contracts works, aggregate pit management, aggregate production and sales from corporate-owned pits, new aggregate development and acquisitions of sand and gravel operations, and development and supply of frac sand for Western Canada. The Corporation also has industrial mineral land holdings for the purpose of locating and developing sources of industrial minerals and aggregates essential to high growth economic development.

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This press release contains "forward-looking information" within the meaning of applicable Canadian securities legislation. Forward-looking information includes, but is not limited to, statements related to activities, events or developments that the Corporation expects or anticipates will or may occur in the future, including, without limitation; statements related to the Corporation's release of the PEA; information concerning mineral resource estimates and the preliminary economic analysis thereof; the availability of permits; environmental and reclamation matters; accessibility to transportation infrastructure; the marketability of frac sand from the Firebag Project; business strategy; objectives and goals; and exploration of the Firebag Project. Forward-looking information is often identified by the use of words such as "plans", "planning", "planned", "expects" or "looking forward", "does not expect", "continues", "scheduled", "estimates", "forecasts", "intends", "potential", "anticipates", "does not anticipate", or "belief", or describes a "goal", or variation 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 based on a number of factors and assumptions made by management and considered reasonable at the time such information is provided. Forward-looking information involves known and unknown risks, uncertainties and other factors that may cause the actual results, performance, or achievements to be materially different from those expressed or implied by the forward-looking information. The PEA is, by definition, preliminary in nature and should be considered speculative. It is based upon factors that may change, which would impact all costs and estimates. Operating costs for the project were based upon assumptions including energy cost, labor and other variables that are likely to change. Capital Costs were based upon a list of equipment thought to be necessary for production. Changes in estimated costs to acquire, construct, install, or operate the equipment may adversely impact project economics. Among other factors, the Corporation's inability to complete further NI 43-101 resource estimates; the inability to complete the PEA; changes to the economic analysis; the failure to obtain necessary permits to explore and develop the Firebag Project; failure to access rail infrastructure or to market frac sand from the Firebag Project; environmental issues or delays; factors disclosed in the Corporation's current Management's Discussion and Analysis; as well as information contained in other public disclosure documents available on SEDAR at www.sedar.com may adversely impact the project. Although Athabasca has attempted to identify important factors that could cause actual actions, events, or results to differ materially from those described in the forward-looking information, there may be other factors that cause actions, events, or results not to be as anticipated, estimated, or intended. There can be no assurance that forward-looking information will prove to be accurate. The forward-looking information contained herein is presented for the purposes of assisting investors in understanding the Corporation's plan, objectives, and goals and may not be appropriate for other purposes. Accordingly, readers should not place undue reliance on forward-looking information. Athabasca does not undertake to update any forward-looking information, except in accordance with applicable securities laws.

The securities of Athabasca have not been, nor will be, registered under the United States Securities Act of 1933, as amended, and may not be offered or sold within the United States or to, or for the account or benefit of, U.S. persons absent U.S. registration or an applicable exemption from U.S. registration requirements. This release does not constitute an offer for sale of securities in the United States.