

AMENDED AND RESTATED ANNUAL INFORMATION FORM DATED JANUARY 10, 2020 AMENDING AND RESTATING THE ANNUAL INFORMATION FORM DATED OCTOBER 3, 2019

## FORWARD-LOOKING STATEMENTS

This Annual Information Form ("AIF") contains "forward-looking statements" or "forward-looking information" (collectively, "forward-looking statements") within the meaning of Canadian securities legislation. Such forward-looking statements concern Athabasca Minerals Inc. ("Athabasca" or the "Company") and its subsidiaries, relating to, without limitation, expectations, intentions, plans and beliefs, including information as to the future events, results of operations and Athabasca's future performance (both operational and financial) and business prospects. In certain cases, forward-looking statements can be identified by the use of words such as "expects", "estimates", "forecasts", "intends", "anticipates", "believes", "plans", "seeks", "projects" or variations of such words and phrases, or state that certain actions, events or results "may" or "will" be taken, occur or be achieved. Forward-looking statements are based on the expectations and opinions of the Company's management ("Management") on the date the statements are made. The assumptions used in the preparation of such statements, although considered reasonable at the time of preparation, may prove to be imprecise and, as such, readers are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date the statements were made. Such forward-looking statements reflect Athabasca's beliefs, estimates and opinions regarding its future growth, results of operations, future performance (both operational and financial), and business prospects and opportunities at the time such statements are made, and Athabasca undertakes no obligation to update forward-looking statements if these beliefs, estimates and opinions or circumstances should change, except as required by applicable securities laws. Forward-looking statements are necessarily based upon a number of estimates and assumptions made by Athabasca that are inherently subject to significant business, economic, competitive, political and social uncertainties and contingencies. Forward-looking statements are not guarantees of future performance. In particular, this AIF contains forward-looking statements pertaining, but not limited, to: the Company's positioning to become a leading supplier of premium domestic in-basin frac sand; sustained growth and diversification in supplying aggregate products; future costs of closing the Susan Lake gravel pit; favourable market interest in gravel supply from the Kearl Property (as defined herein); gravel production; quality of aggregate material from the Logan Property (as defined herein); development and delineation of the Montney Project (as defined herein) and the Duvernay Project (as defined herein); market potential of the Pelican Hill pit; anticipated demand for aggregate from the Emerson pit; the quality and estimated mineral resources of dolomite and a potential exploration target of granite as crush rock aggregate at the Richardson Project (as defined herein); the Company's alignment of the Richardson Project with goals for restoring caribou habitats; industry activity levels and conditions; increased sales volumes; expectations regarding market pricing and sensitivity to changes in such prices; increased activity in the oil sands; and Athabasca's planned capital expenditures; strategies and competitive strengths.

Statements relating to mineral resources are deemed to be forward-looking statements, as they involve the implied assessment, based on certain estimates and assumptions, that the mineral resources described exist in the quantities predicted or estimated and that the mineral resources described might be able to be profitably produced in the future.

By their nature, forward-looking statements involve numerous assumptions, known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of Athabasca to differ materially from those anticipated by Athabasca and described in the forward-looking statements.

With respect to the forward-looking statements contained in this AIF, assumptions have been made regarding, among other things, the ability of Athabasca to execute on its growth strategy; future oil, natural gas and natural gas liquids prices; future global economic and financial conditions; future commodity prices, levels of activity in the oil and gas industry in the areas in which Athabasca operates;

the continued availability of timely and safe transportation for Athabasca's products; the continued support from the senior management team; operating costs; that the regulatory environment in which Athabasca operates will be maintained in the manner currently anticipated by Athabasca; the recoverability of Athabasca's resources; the accuracy and veracity of information and projections sourced from third parties respecting, among other things, future industry conditions and product demand; Athabasca's ability to obtain qualified staff and equipment in a timely and cost-efficient manner; future capital expenditures to be made by Athabasca; future sources of funding for Athabasca's capital program; Athabasca's future debt levels; the impact of competition on Athabasca; and Athabasca's ability to obtain financing on acceptable terms.

A number of factors, risks and uncertainties could cause results to differ materially from those anticipated and described herein including the effects of competition and pricing pressures; effects of fluctuations in the price of products; changes in general economic, financial, market and business conditions in the markets in which Athabasca operates; changes in the technologies; Athabasca's ability to obtain, maintain and renew required permits, licenses and approvals from regulatory authorities; the stringent requirements of and potential changes to applicable legislation, regulations and standards; the ability of Athabasca to comply with unexpected costs of government regulations; liabilities resulting from Athabasca's operations; the results of litigation or regulatory proceedings that may be brought against Athabasca; seasonality of operations; the ability of Athabasca to successfully bid on new contracts and the loss of significant contracts; uninsured and underinsured losses; risks related to the transportation of Athabasca's products, including potential rail line interruptions or a reduction in rail car availability; the Company's ability to finance future delineation and develop plant designs for the Montney Project and the Duvernay Project; the ability of Athabasca to retain and attract qualified management and staff in the markets in which Athabasca operates; future costs of closing Susan Lake; shortage of equipment or supplies; cyber incidents; labour disputes and work stoppages and risks related to employee health and safety; uncertainties inherent in estimating quantities of mineral resources; sand processing problems; and the use and suitability of Athabasca's accounting estimates and judgments.

Although Athabasca has attempted to identify important factors that could cause actual actions, events or results to differ materially from those described in its forward-looking statements, 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 statements will materialize or prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. The forward-looking statements contained in this AIF are expressly qualified by this cautionary statement. Readers should not place undue reliance on forward-looking statements. These statements speak only as of the date of this AIF. Except as may be required by law, Athabasca expressly disclaims any intention or obligation to revise or update any forward-looking statements or information whether as a result of new information, future events or otherwise.

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## **GENERAL MATTERS**

#### **Date of Information**

All information in this AIF is as of December 31, 2018, unless otherwise indicated, and the information contained herein is current as of such date, unless otherwise stated.

#### **Abbreviations and Defined Terms**

| cm                | centimetre(s)             | m     | metre(s)               |
|-------------------|---------------------------|-------|------------------------|
| g/cm <sup>3</sup> | gram per cubic centimetre | $m^2$ | metre(s) squared       |
| ha                | hectares(s)               | Mt    | metric ton             |
| km                | kilometre(s)              | Wt. % | weight percent         |
| $km^2$            | kilometre(s) squared      | K     | crush resistance value |

## **Currency**

All dollar or \$ amounts stated in this AIF refer to Canadian dollars.

#### **CORPORATE STRUCTURE**

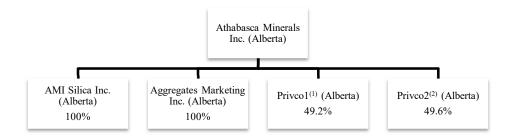
## Name, Address and Incorporation

Athabasca was incorporated under the *Business Corporations Act* (Alberta) ("**ABCA**") on December 31, 2006. Athabasca's common shares ("**Common Shares**") are listed on the TSX Venture Exchange ("**TSXV**") under the trading symbol "AMI".

The head office of the Company is located at 4409 - 94 Street NW, Edmonton, Alberta, T6E 6T7.

## **Intercorporate Relationships**

The following diagram sets forth the organizational structure of the Company and its subsidiary entities as at January 10, 2020, with the percentage figures denoting the percentage of votes attaching to all the voting securities beneficially owned by the Company and each of its subsidiaries.



#### Notes:

- (1) The investment in Privco1 (as defined herein) occurred on December 14, 2018. See "Description of Business Divisional Projects Frac Sand Projects Privco1 and Privco2".
- (2) The investment in Privco2 (as defined herein) occurred on January 25, 2019. See "Description of Business Divisional Projects Frac Sand Projects Privco1 and Privco2".

## **GENERAL DEVELOPMENT OF THE BUSINESS**

## **Recent Developments**

On December 2, 2019, Athabasca filed an updated technical report for the Firebag Project (as defined herein).

On December 2, 2019, Athabasca filed an updated technical report for the Richardson Project.

On November 12, 2019, Athabasca announced that it had changed its trading ticker symbol on the TSXV from ABM to AMI.

On November 6, 2019, Athabasca filed a technical report for the White Rabbit frac sand mine (the "White Rabbit Property") associated with the Company's Duvernay Project.

On November 4, 2019, Athabasca announced it expanded its strategic business relationship with the Montana First Nation ("MFN"), expanding to encompass approximately 9,600 acres of both on-reserve and off-reserve lands.

On October 29, 2019, Athabasca announced the appointment of Mr. Neil Manning to the board of directors of the Company (the "**Board of Directors**") and the resignation of Mr. John Halliwell from the Board of Directors, both effective October 25, 2019.

On October 2, 2019, Athabasca announced it received approval of its Susan Lake closure plan by Alberta Environment and Parks ("**AEP**") on August 15, 2019.

Also on October 2, 2019, Athabasca announced it finalized a settlement agreement with Syncrude Canada Ltd. ("Syncrude"), which included the discontinuance of the claim and counterclaim by Athabasca and Syncrude, respectively, effective September 26, 2019. See "Legal Proceedings and Regulatory Actions – Legal Proceedings".

On September 23, 2019, Athabasca announced that its wholly-owned subsidiary, Aggregates Marketing Inc., developed and deployed its proprietary "Rockchain<sup>TM</sup>" digital platform, which has assisted with supply transport solutions for numerous construction material bids.

On September 11, 2019, Athabasca announced the appointment of Mr. Terrance Kutryk to the Board of Directors, effective September 5, 2019.

On August 8, 2019, Athabasca announced it appointed Mr. Jan Cerny as Vice President, Corporate Development, effective August 1, 2019.

On June 21, 2019, Athabasca announced the resignation of Mr. Gerry Romanzin from the Board of Directors, effective June 21, 2019.

On June 19, 2019, Athabasca announced the signing of a ten-year aggregates management agreement with the MFN.

On May 7, 2019, Athabasca announced it had increased its ownership in the Duvernay Project to 49.6%.

On March 6, 2019, Athabasca announced it was awarded a 15-year contract by the Province of Alberta to construct, operate and manage the Coffey Lake public pit north of Fort McMurray, Alberta. This Crown resource is situated on approximately 1,345 acres of land approximately 90 kms north of Fort McMurray.

On January 29, 2019, Athabasca announced it entered into an agreement to acquire 16.2% ownership of a private Alberta corporation ("**Privco2**") that owns the Duvernay Project. Athabasca and Privco2 formed a joint project team and have commenced initial exploration activities. Athabasca has the option to purchase an additional 33.4% of Privco2 for \$742,000 and the issuance of 1,680,000 Common Shares. Athabasca has the further option to purchase the remaining 50.4% of Privco2's shares for \$8.0 million for one year following the closing date. See "Description of Business - Divisional Projects - Frac Sand Projects - Privco1 and Privco2".

On January 7, 2019, Athabasca announced the appointment of Mr. Dana Archibald as Chief Operating Officer.

## **Three Year History**

Over the three most recently completed financial years, the following events contributed materially to the development of the Company's business. For further information regarding the history and recent developments of the Company, see Athabasca's public disclosure on SEDAR at www.sedar.com.

On December 17, 2018, Athabasca announced it purchased a 49.2% ownership of a private Alberta corporation ("**Privco1**") that owns the Montney Project. The project consists of over 150,000 contiguous ha strategically located in the heart of the Montney basin. Athabasca has the option to purchase the remaining 50.8% of Privco1's shares for \$8.0 million. See "Description of Business - Divisional Projects - Frac Sand Projects - Privco1 and Privco2".

On November 23, 2018, Athabasca announced it appointed Mr. Mark Smith as the interim Chief Financial Officer ("CFO"), effective November 30, 2018, and replaced Mr. Lucas Murray as CFO as at that date.

On November 21, 2018, Athabasca announced that it closed the second and final tranche of a non-brokered private placement of 650,000 units ("Units") at a price of \$0.20 per Unit, for gross proceeds of \$130,000. Each Unit consists of one Common Share and one-half of one Common Share purchase warrant ("Warrant"), with each Warrant entitling the holder to purchase one additional Common Share at an exercise price of \$0.35 per Common Share for a period of two years after the closing.

On November 19, 2018, Athabasca announced that it closed the first tranche of a non-brokered private placement of 5,100,000 Units at a price of \$0.20 per Unit, for gross proceeds of \$1.02 million. Each Unit consists of one Common Share and one-half of one Warrant with each Warrant entitling the holder to purchase one additional Common Share at an exercise price of \$0.35 per Common Share for a period of two years after the closing.

On October 5, 2018, Athabasca transferred the Firebag frac sand mine (the "Firebag Property") to its wholly-owned subsidiary, AMI Silica Inc. ("AMI"). The transfer included the Company's right, title and interest in the Firebag Property assets to AMI in exchange for 33,302,650 Class A Common Shares of AMI at the fair market value of \$30.375 million based on an arm's length valuation performed by Evans & Evans Inc.

On December 5, 2017, Athabasca announced that its ten-year Susan Lake renewal management contract (the "Susan Lake Contract") with the Province of Alberta expired on November 30, 2017. The Susan Lake gravel pit remained operational under over-holding tenancy status until the Susan Lake closure plan

was approved by the AEP. The Company has been actively working on closure-related activities and managing the phased closure of the pit.

On June 13, 2017, Athabasca announced the appointment of Mr. Robert J. Beekhuizen as Chief Executive Officer ("CEO"), effective June 19, 2017.

On January 25, 2017, Athabasca announced it had received a positive decision in the court proceedings with Syncrude relating to the decision released by the Court of Queen's Bench of Alberta denying an application brought by Syncrude for an injunction on activities at the Susan Lake property. See "Legal Proceedings and Regulatory Actions - Legal Proceedings".

On December 22, 2016, Athabasca purchased two gravel pits located in the Wood Buffalo region of Alberta. The gravel pits included KM248 and Cowpar gravel properties, and were acquired for a purchase price of \$600,000. Athabasca has been the developer and operator of the KM248 and Cowpar gravel pits since 2014, under an agreement with DeneCo Aggregates Ltd. ("DeneCo"), a First Nations company. Under the terms of the agreement, Athabasca paid a royalty to DeneCo based on aggregate deliveries from the two gravel pits.

## **DESCRIPTION OF BUSINESS**

## The Business of the Company

The Company is an integrated group of aggregates companies involved in resource development, aggregates marketing and midstream supply-logistics solutions. Business activities include aggregate production, pit management services, sales from corporate-owned and third-party pits, acquisitions of sand and gravel operations, and new venture development. Athabasca is the parent company of Aggregates Marketing Inc., a midstream technology-based business providing integrated supply and transportation solutions for industrial and construction markets. It is also the parent company of AMI, a subsidiary positioning to become a leading supplier of premium domestic in-basin sand with regional deposits in Alberta and north-east British Columbia. It is the joint venture owner of the Montney In-Basin and Duvernay basin frac sand projects. Additionally, the Company has industrial mineral leases, such as those supporting the Richardson Project, that are strategically positioned for future development in industrial regions of high potential aggregates demand.

The Company has two reportable segments:

- 1. Aggregate Sales and Aggregate Management Services: The Company produces and sells aggregate out of its corporate pits and manages the Susan Lake aggregate pit on behalf of the Province of Alberta for which aggregate management services revenue are earned; and
- 2. Frac Sand and Mineral Development Projects: The Company is currently in the process of acquiring and delineating frac sand resources and plans to develop the resource and produce and sell premium domestic frac sand in western Canada through AMI.

The Company's operating segments are components that engage in business activities and earn revenues and/or incur expenses for which there is discrete financial information available that is regularly reviewed by Management to make resource allocation decisions and assess the segment's performance. The Company aggregates reportable segments with similar economic characteristics. Reportable segments are determined based on the corporate structure and operations. Corporate is disclosed for reconciliation purposes only.

| For the year ended December 31, 2018 (in  | Aggregate Sales and<br>Aggregate<br>Management |           |             | Consolidation |             |
|---|--|-----------|-------------|---------------|-------------|
| \$CDN)                                    | Services                                       | Frac Sand | Corporate   | Eliminations  | Total       |
| Revenue:                                  |  |           |             |               |             |
| Aggregate Sales Revenue                   | \$ 2,138,411                                   | \$ -      | \$ - \$     | - \$          | 2,138,411   |
| Aggregate Managmeent Fees - Net           | 2,993,182                                      | -         | -           | -             | 2,993,182   |
| Total Loss and Comprehensive Loss         | (137,403)                                      | (521,142) | (1,851,291) | -             | (2,509,836) |
| Segment Assets                            | 12,491,127                                     | 1,274,685 | 7,036,910   | (531,670)     | 20,271,052  |
| Segment Liabilities                       | 5,403,328                                      | 525,774   | 135,076     | (465,029)     | 5,599,149   |
| Amortization, Depreciation, and Depletion | (374,263)                                      | -         | (73,459)    | -             | (447,722)   |
| Finance Costs                             | (8,464)  | =         | -           | -             | (8,464)     |
| Interest Income                           | -  | -         | 66,138      | -             | 66,138      |
| Income Tax Recovery                       | -  | -         | 523,963     | -             | 523,963     |

| For the year ended December 31, 2017 (in \$CDN) | regate Sales and<br>Aggregate<br>Vlanagement<br>Services | Frac Sand | Corporate   | Consolidation<br>Eliminations | Total           |
|---|--|-----------|-------------|-------------------------------|-----------------|
| Revenue:  |  |           |             |                               |                 |
| Aggregate Sales Revenue                         | \$<br>3,707,094  | \$<br>-   | \$<br>-     | \$<br>-                       | \$<br>3,707,094 |
| Aggregate Managmeent Fees - Net                 | 3,769,363  | -         | -           | -                             | 3,769,363       |
| Total Loss and Comprehensive Loss               | (898,768)  | -         | (1,788,373) | -                             | (2,687,141)     |
| Segment Assets                                  | 15,297,465   | 1,269,660 | 2,757,263   | -                             | 19,324,388      |
| Segment Liabilities                             | 2,890,050  | -         | 735,669     | -                             | 3,625,719       |
| Amortization, Depreciation, and Depletion       | (1,210,998)  | -         | (78,775)    | -                             | (1,289,773)     |
| Amortization of Intangible Asset                | (770,370)  | -         | -           | -                             | (770,370)       |
| Finance Costs                                   | (38,587)   | -         | -           | -                             | (38,587)        |
| Interest Income                                 | -  | -         | 24,183      | -                             | 24,183          |
| Income Tax Recovery                             | -  | -         | 963,326     | -                             | 963,326         |

## **Divisional Projects**

The Company owns and/or operates the following projects strategically located throughout western Canada.

## Susan Lake

Since 1998, the Company managed the Susan Lake gravel pit on behalf of the Government of Alberta pursuant to the Susan Lake Contract. The Company's services included exploration, identification of sand and gravel, clearing, topsoil stripping, site preparation, road maintenance, allocation of pit areas to specific users, scaling of material and general administration of the pit. For these services, the Company received a management fee for each tonne of aggregate material removed from the pit for the duration of the Susan Lake Contract. The Susan Lake Gravel Pit was a revenue producing property for the Company during the year ended December 31, 2018

The Susan Lake gravel pit remained operational under overholding tenancy status, since the Susan Lake Contract expiration on November 30, 2017. As of the end of Q1 2019, the Susan Lake gravel pit was closed to the public. As such, there will be no further sales beyond this point. The Company has been actively working on closure-related activities and on October 2, 2019, the Company announced it received approval of its Susan Lake closure plan by the AEP.

#### Corporate Owned Pits

The Company holds Surface Material Leases ("SMLs") for several aggregate pits in northern Alberta for the purpose of extracting sand and gravel from these properties for a variety of purposes and customers.

These aggregate operations are fully controlled by the Company, enabling the Company to benefit from the full market value on all sales of aggregates, including when applicable, the processing and delivery. A SML grants the lease holder the right to extract sand and gravel from Crown land. The Company holds several SMLs for gravel extraction in northern Alberta and operates additional gravel SMLs held by other companies. The corporate owned pits were revenue producing for the Company during the year ended December 31, 2018.

## **Kearl Property**

The Kearl pit is located approximately 60 km east of the Susan Lake gravel pit. During March 2011, Athabasca received SML approval from the Government of Alberta to develop an open pit aggregate operation for a term of ten years. The Company completed construction of an all-weather road linking the Kearl aggregate operation to several major oil sands operations for year-round access. The quality of the aggregate is suitable for road and infrastructure construction and ongoing maintenance. This pit is situated in close proximity to existing oil sands development and continues to be a major source of aggregate supply in the region. Approvals are in place for dewatering the site, and the Company received a license under the *Water Act* (Alberta) in September 2018 for the purpose of aggregate washing, equipment washing and dust control in the Kearl pit. In Q2 2019, the Company signed a non-binding term sheet which may allow the Company to enter into a royalty agreement with an aggregates producer to monetize the resource.

## Logan Property

The Logan pit (the "Logan Property") is located approximately 160 km south of Fort McMurray, Alberta. The Logan Property is accessible with a seasonal winter road. The Company received SML approval from the Government of Alberta to develop an open pit aggregate operation for a term of ten years in 2010. The initial indicated mineral resource aggregate included 1,357,000 tonnes of gravel and an initial inferred mineral resource quantity of 662,600 tonnes of gravel. The quality of the aggregate materials is suitable for road construction and maintenance. Athabasca will apply for a renewal prior to the expiration of the lease in 2020.

Athabasca stockpiled approximately 108,000 tonnes of pit run for crushing to make gravel product and replenish the Company's Conklin, Alberta staging and distribution hub ("Conklin") inventories. A revised permit to enable crushing at Conklin was submitted in early December 2017. AEP approval of the revised purpose to crush at Conklin was received in October 2018. A municipal permit is currently outstanding to allow crushing at Conklin.

## House River Pit

The House River pit is located approximately 11 km east of Highway 63 on the House River. During August 2011, the Company received SML approval from the Government of Alberta to develop an open pit aggregate operation on the leased land for a term of ten years. The House River pit is currently accessible only by a winter season road.

The Company has approval to establish a strategic staging area ("**DML**") near the House River pit along Highway 63. Management continues to assess the option to clear and prepare this DML to support a stock piling and crushing program of pit run inventories to be mined from the House River pit and transported to this hub.

#### Pelican Hill Pit

The Pelican Hill pit is located approximately 70 km south-east of the Hamlet of Wabasca, Alberta. The Company received SML approval (ten-year term) in June 2011 on this 79.7 acres mixed sand and gravel pit. The Company expects to supply aggregate from this property primarily to the oil and gas industry, as well as to the Government of Alberta or its partners for use in infrastructure projects in the area. Current indications for aggregate demand in this location appear to be encouraging and Management is reviewing market potential at this time. The Company has cleared trees and topsoil at this site in anticipation of potential demand with the recovery in the oil and gas industry. In Q2 2019, the Company signed a non-binding term sheet which may allow the Company to enter into a royalty agreement with a local aggregates producer to monetize the resource, and an application to amend a seasonal winter access road to an all-weather road was submitted. Indigenous consultations have been completed, and the application is currently under review.

#### Emerson Pit

The Emerson pit is located approximately 27 km south-east of the community of Hinton, Alberta. The Company has the right to produce aggregate from the 75 acres mixed sand and gravel pit. The Company expects to supply aggregate from this property primarily to the oil and gas industry for use in infrastructure projects in the area. Management believes that current indications for aggregate demand from this location are encouraging. The Company was transferred the SML for this pit as of April 17, 2019 in accordance with the asset purchase and sale agreement dated June 1, 2016. The Emerson pit was a revenue producing property for the Company during the year ended December 31, 2018.

## Staging Areas

The Company has strategic inventory staging locations on accessible year-round roads at Conklin, Sunday Creek, and KM208 to support product supply and deliveries to local clients and industry on demand through the year. These staging areas accommodate seasonal production from corporate pits, particularly from the Logan Property. The staging areas were revenue producing properties for the Company during the year ended December 31, 2018.

#### Frac Sand Projects

#### Privco1 and Privco2

On December 14, 2018, the Company purchased a 49.2% ownership interest in Privco1, an Alberta corporation that owns the Montney in-basin frac sand project ("Montney Project") located in the vicinity of Dawson Creek and Fort St. John in exchange for \$1.498 million and 1,186,956 Common Shares.

On January 29, 2019, the Company announced that it purchased a 16.2% ownership interest in Privco2, an Alberta corporation that owns the Duvernay in-basin frac sand deposit ("Duvernay Project"). The Company has progressively staged its ownership based on key milestones in delineating the Duvernay Project resource. An initial investment of \$280,000 and the issuance of 420,000 Common Shares was made for the 16.2% interest. On May 7, 2019 Athabasca exercised an option to purchase an additional 33.4% interest for consideration of \$742,000 and the issuance of 1,680,000 Common Shares based on positive delineation results increasing the overall ownership position to 49.6%. On September 10, 2019 the Company published the results of the technical report.

The Company is focused on delineation activities for the Montney Project in order to produce a technical report that is compliant with National Instrument 43-101 - Standards of Disclosure for Mineral Projects ("NI 43-101") for the resources. The Company's cash investments in Privcol are being allocated towards

funding the delineation program. The Company may, at its sole discretion, exercise the option to acquire the remaining interest in one or both of the Montney Project and Duvernay Project deposits. Capital and funding requirements as well as project timelines will be developed based on delineation results, plant design requirements, and interest from stakeholders.

#### Richardson Project

The Company has interest in a potential large scale quarry located approximately 70 km north of the Susan Lake gravel pit and 130 km north of Fort McMurray, Alberta (the "Richardson Project"). It contains high quality dolomite and granite.

An initial drilling program in 2013 confirmed that granite and dolomite extended beyond the outcrop, and a follow up 2014 drilling program successfully cored the dolomite, and all but one drill hole intersected the granite basement. APEX Geoscience Ltd. ("APEX") of Edmonton, Alberta completed a technical resource report in accordance with NI 43-101 on the Richardson Project in 2015, which was updated and re-released by the Company on December 2, 2019, estimating an initial crush rock dolomite aggregate inferred mineral resource of 683 million tonnes with thickness ranging from 8.3 m to 47.9 m, averaging 39.5 m. For further information about the Richardson Project, see "Material Properties - Technical Reports - Richardson Property - Richardson Technical Report".

In Q1 2019, the Company was granted three metallic and industrial mineral leases for the Richardson Project totaling 9,647 acres. Management secured the leases following discussions with government, industry and First Nations stakeholders in relation to the newly designated Kitaskino Nuwenëné Wildland Provincial Park, which was announced by the Province of Alberta on March 11, 2019. With a view to the establishment of the new wildland provincial park, the Company agreed to voluntarily surrender 39,488 ha of its original eight contiguous metallic and industrial minerals permits in the vicinity of the current area defined by the three leases. The lease boundary includes the deposit that was assessed in the Richardson Technical Report (as defined herein) so that the estimated inferred resource has not been compromised and includes additional lands proximal to the deposit area and the granite outcrop.

The leases provide the Company with subsurface rights to commercially develop industrial minerals, but prior to commencing operations, the leases are subject to a regulatory review including an environmental impact assessment and public consultations. Other municipal development permits and provincial authorizations (such as those under the *Public Lands Act* (Alberta) and the *Water Act* (Alberta)) will also be required.

The Company is preparing a front-end development scope for the Richardson Project, including a preliminary budget for regulatory approvals. Regulatory sensitivities associated with woodland caribou remain a factor affecting the Richardson Project. An assessment of a draft Caribou Range Plan published by the Government of Alberta in 2018 did not identify immediate negative impacts. The Company will align the Richardson Project with goals for restoring the caribou habitat pending a final decision for the proposed caribou plan.

With the closure of Susan Lake gravel pit as a source of aggregates, limited options are available to the industry for supply in the Fort McMurray/Wood Buffalo region. Proximity to market and market demand are important factors. The Richardson Project is directly adjacent to the Athabasca oil sands region in north-eastern Alberta. The oil sands operations represent an area of continued demand and enormous growth opportunity and require substantial sources of local aggregate. At the same time, sand and gravel aggregates in the oil sands region are scarce and inadequate to meet industry demand. As a result, new local sources of crushed aggregate are necessary to minimize development impediments such as transportation costs.

## **Credit and Lending**

The Company has a credit facility with Canadian Western Bank ("CWB") which includes a letter of credit facility at a rate of 1.50% in the aggregate amount of \$1.283 million, in favour of the Government of Alberta for decommissioning and restoration at the Susan Lake gravel pit, and the Poplar Creek storage yard and pit.

The Company is not subject to any covenants as part of the current credit facility. Under the credit facility agreement, the Company is not subject to any capital spending requirements.

The Company has secured its letters of credit to the benefit of the Government of Alberta with guaranteed investment certificates to the benefit of CWB.

#### **Customer Base**

The customer base of Athabasca consists of entities from the infrastructure industry, power generation industry, aggregates industry, forestry industry, and oil and gas sector. Athabasca's clients range from large multi-national companies and governmental bodies to small, private companies.

## Specialized Skill and Knowledge

Most aspects of the Company's business require specialized skills and knowledge. Such skills and knowledge include the areas of geology, exploration, development, construction, production and accounting. The Company has a number of executive officers and employees with extensive experience in mining, geology, exploration and development, as well as executive officers and employees with relevant accounting experience. See "Risk Factors - Loss of Key Personnel".

## **Competitive Conditions**

The Company competes with major mining companies, aggregate companies and other smaller natural resource companies in the acquisition, exploration, financing and development of new properties and projects. Many of these companies are more experienced, larger and have greater financial resources for, among other things, financing and the recruitment and retention of qualified personnel. The barriers to entry for new competitors include a high cost of capital in acquiring and operating similar projects, access to a skilled and qualified workforce, and access to a qualified and experienced management team that can properly assess and manage the full scale of operational and technical issues including safety, health and environmental liabilities. See "Risk Factors - Competition".

## **Cycles**

Athabasca focuses on two industries: civil/infrastructure and energy. The demand for infrastructure services is largely dependent on the amount of municipal and provincial capital budgets in markets proximate to the Company's projects. These amounts may vary from year to year and directly affect the amount of capital allocated for infrastructure projects. Further, the level of activity in the oil and natural gas industry in the Western Canadian Sedimentary Basin is influenced by seasonal weather patterns. In the spring, frost comes out of the ground, making the ground unstable and less capable of supporting heavy weights. Consequently, municipalities and transportation departments enforce road bans that restrict the movement of heavy equipment, thereby reducing drilling and well servicing activity levels. Normally this 'spring breakup' begins in late March and restricts activity through May, which directly affects demand for the Company's products. The length of spring breakup will depend on the moisture received in March through May. See "Risk Factors - Seasonality".

## **Economic Dependence**

The Company's customers include exploration and production companies and infrastructure builders that operate in western Canada. Athabasca's goal is to create long-term, partnership-oriented relationships with its customers. Accordingly, Athabasca strives to provide solutions for its customers' aggregate and frac sand supply, logistics, transportation and handling challenges, a strategy which Athabasca believes will continue to strengthen its customer relationships.

#### **Environmental Protection and Policies**

The Company is subject to the laws and regulations relating to environmental matters in all jurisdictions in which it operates, including provisions relating to property reclamation, discharge of hazardous materials and other matters. The Company may also be held liable should environmental problems be discovered that were caused by former owners and operators of its properties. The Company intends to conduct its mineral development activities in compliance with applicable environmental protection legislation. The Company is not aware of any existing environmental problems related to any of its mineral resource properties that may result in material liability to the Company.

Environmental legislation is becoming increasingly stringent and costs and expenses of regulatory compliance are increasing. The impact of new and future environmental legislation on the Company's operations may cause additional expenses and restrictions. If the restrictions adversely affect the scope of exploration and development on the mineral property interests, the potential for production on the property may be diminished or negated. See "Risk Factors - Environmental and Regulatory".

## **Employees**

The Company and its subsidiaries currently have 18 full-time employees. The Company also relies upon consultants to carry on its operations. All management functions of the Company are performed by the executive officers of the Company.

## SUMMARY OF MINERAL RESERVE AND MINERAL RESOURCE ESTIMATES

Set forth below under the heading "Material Properties - Technical Reports" are the mineral resource and mineral reserve estimates for the Company's material mineral properties as at the date of this AIF. Such estimates were based on the following reports:

- 1. National Instrument 43-101 Technical Report on the Firebag Property, Alberta Canada, effective November 8, 2019, prepared by William A. Turner, P. Geol. and A.C. (Chris) Hunter, P. Geol., each of whom is a "qualified person" pursuant to NI 43-101 (the "Firebag Technical Report"). The Firebag Technical Report was filed on SEDAR on December 2, 2019 and is available at www.sedar.com.
- 2. National Instrument 43-101 Technical Report, Inferred Crush Rock Aggregate Resource Estimate with Updated Lease Boundaries for the Richardson Property, Northeastern Alberta, Canada, effective October 24, 2019, prepared by Roy Eccles, MSc., and Steven Nicholls, BA.Sc, MAIG, each of whom is a "qualified person" pursuant to NI 43-101 (the "Richardson Technical Report"). The Richardson Technical Report was filed on SEDAR on December 2, 2019 and is available at www.sedar.com.
- 3. National Instrument 43-101 Technical Report on the White Rabbit Property, Alberta, Canada, effective August 7, 2019, prepared by A.C. (Chris) Hunter, P. Geol. and William A. Turner, P. Geol., each of whom is a "qualified person" pursuant to NI 43-101 (the "White Rabbit

**Technical Report**"). The White Rabbit Technical Report was filed on SEDAR on November 6, 2019 and is available at www.sedar.com.

## **MATERIAL PROPERTIES - TECHNICAL REPORTS**

For the purposes of this AIF, Athabasca has identified its Firebag Property, the Richardson Property and the White Rabbit Property as material properties. The following is a description of these particular properties and is of a summary nature only. Reference should be made to the full text of each property, which is available under the Company's profile on SEDAR at www.sedar.com.

## **Firebag Property**

The below summary is a direct extract and reproduction of the summary contained in the Firebag Technical Report, without material modification or revision and all defined terms used in the summary shall have the meanings ascribed to them in the Firebag Technical Report. The below summary is subject to all the assumptions, qualifications and procedures set out in the Firebag Technical Report. The Firebag Technical Report was prepared in accordance with NI 43-101. For full technical details of the report, reference should be made to the complete text of the Firebag Technical Report, which has been filed with the applicable regulatory authorities and is available under the Company's SEDAR profile at www.sedar.com. The Firebag Technical Report is incorporated by reference in this AIF and the summary set forth below is qualified in its entirety with reference to the full text of the Firebag Technical Report. The authors of the Firebag Technical Report have reviewed and approved the scientific and technical disclosure contained in this AIF related to the Firebag Technical Report.

## Firebag Technical Report

# "National Instrument 43-101 Technical Report, Firebag Property, Alberta, Canada", prepared by William A. Turner, P. Geol. and A.C. (Chris) Hunter, P. Geol., dated November 27, 2019"

On November 5, 2019, Athabasca contracted Stantec Consulting Ltd. ("Stantec") to prepare a technical report in accordance with the requirements of NI 43-101. The purpose of the Firebag Technical Report is to constrain the physical characteristics, thickness, depth and continuity of the unconsolidated Quaternary sand on the Firebag Property to assess its suitability as a natural proppant. As part of this evaluation, the quality and volumes of the natural proppant and the reasonable prospects for eventual economic extraction were assessed.

The Firebag Property is located 95 km north of Fort McMurray and 130 km southwest of Fort Chipewyan in the Regional Municipality of Wood Buffalo, northeastern Alberta in map sheets 074E06, 074E11, and 074E12. The Firebag Property area spans from 57°34'11"N to 57°35'07"N, and 111°17'33"W to 111°16'48"W, with the Firebag Property centre being located at approximately 57°34'41"N, 111°16'49"W. Access to the Firebag Property is via the Chipewyan winter road or by helicopter from Fort McMurray. Figure 1-1 shows the general location of the Firebag Property.

The Firebag Property consists of Quaternary sediments, sand and silts.

A Stantec qualified person inspected the Firebag Property on November 7, 2019. During this property inspection, the qualified person collected 10 sand samples with a soil auger at specified depths that aligned with previously tested areas. The samples were directly transported by the qualified person to Calgary and were taken by the qualified person to AGAT Laboratories Ltd. ("AGAT") on November 7, 2019.

The Firebag Property includes four Alberta Public Land Dispositions, three of which are active and one is pending (Alberta Government, 2019; Altalis, 2019). The SMLs that apply to the Firebag Property are registered to Athabasca. In addition to the approved and pending SMLs, Athabasca is also granted a Department License of Occupation ("**DLO**") and a Department Miscellaneous Lease ("**DML**"). The DLO was obtained to secure road access into the Firebag Property from the Fort Chipewyan winter road. The DML is to serve as a laydown and is located to the northeast of the DLO road and the SMLs.

As of August 25, 2014, Athabasca was granted the right to extract surface material from SLM 130021 for 10 years. SML 120032 is still in the application stage as of the effective date of this Firebag Technical Report. Assignment of a 10-year term to SML 120032 is contingent on meeting the reclamation stipulations required for SML 130021. The details of the Firebag Property held land dispositions are shown in Table 1-1.

Table 1-1
Firebag Property Land Dispositions

| Agreement<br>Number | Туре                         | Status  | Application<br>Date | Effective<br>Date | Amendment<br>Date | Expiry<br>Date | Area<br>(ha) | Area<br>(ac) |
|---------------------|------------------------------|---|---------------------|-------------------|-------------------|----------------|--------------|--------------|
| SML 130021          | Surface<br>Material<br>Lease | Active /<br>Disposed                                | 2013-03-28          | 2014-08-25        | 2014-08-21        | 2024-08-24     | 32           | 80           |
| SML 120032          | Surface<br>Material<br>Lease | Approved<br>Amendment<br>For Surface<br>Disposition | 2012-04-30          | -                 | 2014-01-13        | -              | 170          | 420          |
| DLO 130748          | Licence of<br>Occupation     | Active /<br>Disposed                                | 2013-03-28          | 2017-04-28        | 2014-09-18        | 2027-04-27     | 1            | 3            |
| DML 130162          | Miscellane<br>ous Lease      | Active /<br>Disposed                                | 2013-08-09          | 2017-04-28        | 2014-09-18        | 2027-04-27     | 10           | 25           |
|                     |                              |   |                     |                   |                   | Total          | 213          | 528          |

The Fort Chipewyan winter road runs along the western flank of the Firebag Property. This road is only accessible by truck during the winter months. Access to the Firebag Property may be possible year-round by all-terrain vehicles; however, winter is obviously the preferred time of the year to access the property and complete field work. The all-weather road gate at the north terminus of Highway 63 is seven km south of the Firebag Property access. Athabasca's SMLs can also be accessed from an 860 m access road that is operated by Athabasca and intersects the Fort Chipewyan winter road.

In 2009, Athabasca commenced a regional exploration program to identify subsurface gypsum deposits as well as to examine dolomitized outcrops along the Firebag river. During this exploration program, Athabasca discovered sand that visually appeared to have high silica purity. Samples were collected during this program, and geochemical and size distribution analyses were completed on the sand samples to assess its silica purity. The results of this preliminary study showed that the sand may have suitable physical properties to act as a proppant. Based on these results, the decision was made to conduct further exploration with test pit and auger testing in 2011.

Two auger drilling campaigns were completed in the vicinity of the project to assess the extent and quality of the sand, and to constrain the optimal area to secure the surface material leases. Nineteen auger holes were drilled to approximately 14.3 m depth in January 2011. The location of auger hole TH6, which

was drilled during this January 2011 campaign, was selected for further testing. In December 2011, a second field program was conducted in that area that involved the completion of 26 test pits and seven additional auger holes, which were drilled to 24.4 m depth. The results from this second testing campaign constrained the proposed SLM boundary.



## **Mineral Resource**

The mineral resource shown in Table 1-2 is reported as in-place tonnages. The volumes calculated from the zone thickness were converted to tonnage by the application of representative average in-place bulk density of 1.5 g/cm<sup>3</sup>. The 20/40, 40/70, 70/140 and 140/170 fractions were assessed during the

preparation of this report as each fraction has different applications during the hydraulic fracturing process.

Table 1-2
In-Place Mineral Resource Summary, Effective Date November 8, 2019

|                      | Mineral Resources (Mt) |                        |                         |                          |       |  |  |
|----------------------|------------------------|------------------------|-------------------------|--------------------------|-------|--|--|
| Category             | 20/40 Mesh<br>Fraction | 40/70 Mesh<br>Fraction | 70/140 Mesh<br>Fraction | 140/170 Mesh<br>Fraction | Total |  |  |
| MEASURED             | -                      | -                      | -                       | -                        | -     |  |  |
| INDICATED            | 4.45                   | 19.34                  | 13.40                   | 0.98                     | 38.18 |  |  |
| MEASURED & INDICATED | 4.45                   | 19.34                  | 13.40                   | 0.98                     | 38.18 |  |  |

Mt = Million Tonnes

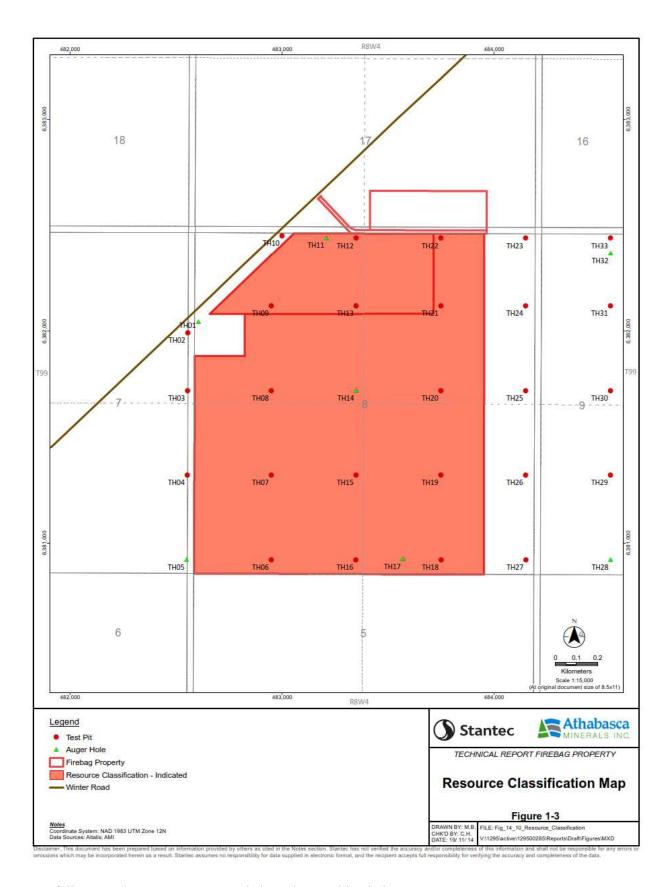
SML 130021 with 32.2 ha is calculated to have 6.02 Mt of saleable sand fractions and SML 120032 with 172.3 ha is calculated to have 32.16 Mt of saleable sand fractions.

A breakdown between the upper and lower zones, has the upper, zone 1, with 37.4% of the resource based on 16 data inputs and the lower, zone 2, contains 62.6% of the resource based on five data inputs analyses. The fractions outside of this reported range, the greater than 20 mesh and less than 170 mesh, sum to 1.50 Mt of non-saleable material.

The sand on the Firebag Property was classified as indicated resource based on the qualified person(s) experience with classifying flat lying stratified deposits. The resource is classified according to the confidence categories defined by CIM Best Practice Guidelines for Industrial Minerals, which was published by the CIM Estimation Best Practice Committee on November 23, 2003.



comissions which may be incorporated herein as a result. Stantec assumes no responsibility for data supplied in electronic format, and the recipient accepts full responsibility for verifying the accuracy and completeness of the data.



Two follow-up phases are recommended to advance this Firebag Property.

## Phase One: Sonic Drill Program (C\$101K)

Much of the testing on the Firebag Property has been completed through excavation of test pits; there are only five auger drill holes completed directly within the model. It is recommended that a subsequent mini sonic drill program be completed that penetrates through the base of the sand in all holes so that a comprehensive understanding of the sand thickness be obtained. Use of a mini sonic drill is recommended over the use of an auger drill at greater depths, such as depths greater than 25 m. Also, due to the advancement of continuous casing during drilling, the sonic core is not contaminated through dragging against the sidewall of the drill hole. It is recommended that approximately six sonic holes be completed in this phase.

Systematic continuous sampling is required to characterize potential variations in the sand that may occur spatially across the Firebag Property. Table 1-3 lists the required tasks and the estimated associated cost.

Table 1-3
Phase 1: Sonic Exploration Program

| Task                                       | Estimated Cost (C\$) |
|--|----------------------|
| Personnel (Office, Field, Travel Expenses) | 14,000               |
| Six-Hole Drill Program (Rig and crew)      | 30,000               |
| Laboratory (Sieve Analyses)                | 17,000               |
| Laboratory (Proppant Testing & Shipment)   | 40,000               |
| Estimate Total                             | 101,000              |

## Phase Two: Revised Preliminary Economic Assessment (C\$350K)

Depending on the results of the drilling, it is advised that a new geological model be developed, and the resource tonnage be reassessed and reclassified. A reevaluation of the economics is recommended as a Preliminary Economic Assessment ("PEA") was last completed on the project in 2015. Stantec recommends an independent market assessment be completed to support a PEA. Table 1-4 shows the list of tasks that require revision following completion of Phase One.

Table 1-4
Phase 2: Preliminary Economic Assessment

| Project Task                                   | Fees<br>(Cdn\$) |
|--|-----------------|
| Project Management                             | \$10,000        |
| Geology, Resource Evaluation, Reclassification | \$30,000        |
| Water Management Plan                          | \$65,000        |
| Extraction and Development Plan                | \$90,000        |
| Infrastructure / Transport / Process           | \$80,000        |
| Environmental / Regulatory / Permitting        | \$5,000         |
| Project Cost & Economic Analyses               | \$40,000        |
| Project Review and Reporting                   | \$30,000        |
| Total  | \$350,000       |

## **Richardson Property**

The below summary is a direct extract and reproduction of the summary contained in the Richardson Technical Report, without material modification or revision and all defined terms used in the summary shall have the meanings ascribed to them in the Richardson Technical Report. The below summary is subject to all the assumptions, qualifications and procedures set out in the Richardson Technical Report. The Richardson Technical Report was prepared in accordance with NI 43-101. For full technical details of the report, reference should be made to the complete text of the Richardson Technical Report, which has been filed with the applicable regulatory authorities and is available under the Company's SEDAR profile at www.sedar.com. The Richardson Technical Report is incorporated by reference in this AIF and the summary set forth below is qualified in its entirety with reference to the full text of the Richardson Technical Report. The authors of the Richardson Technical Report have reviewed and approved the scientific and technical disclosure contained in this AIF related to the Richardson Technical Report.

## Richardson Technical Report

"National Instrument 43-101 Technical Report, Inferred Crush Rock Aggregate Resource Estimate with Updated Lease Boundaries for the Richardson Property, Northeastern Alberta, Canada" prepared by Roy Eccles, M. SC., P. Geol. and Steven Nicholls BA. Sc, MAIG, dated October 24, 2019."

The Richardson Property is located adjacent to the prolific Athabasca oil sands region of northeastern Alberta, approximately 130 km north-northeast of the urban service area (or city) of Fort McMurray. The Richardson Property comprises of three contiguous Alberta Metallic and Industrial Minerals Leases totalling 3,904 ha (9,647 acres). Athabasca maintains 100% interest in all three leases and has the exclusive right to develop and mine Alberta-owned metallic and industrial minerals in a specified location.

A maiden inferred resource technical report was originally prepared by APEX for the Richardson Property with an effective date of June 8, 2015. Since then, Athabasca has not conducted any exploration activities and/or other work that is material to the issuer; however, Athabasca has been in consultations with the Government of Alberta with respect to the implementation of a new provincial park, the Kitaskino Nuwenëné Wildland Provincial Park, in the vicinity of the original Richardson Property permits.

Accordingly, the purpose of this updated technical report is to: 1) state Athabasca's revised Richardson Property land position; 2) state Athabasca's conversion of mineral exploration 'permits' to mineral development 'leases'; and 3) show that the original inferred resource estimate prepared in June 2015 is still current because the resource area outline is situated entirely within the boundaries of the new Richardson Property boundary (i.e., the resource area is within the three contiguous leases). Hence, the change in land position and conversion of permits to leases represent the only material change to the issuer as documented in this updated and current technical report, which supersedes and replaces the technical report with an effective date of June 8, 2015.

The Richardson Property is being assessed by Athabasca for its crush rock aggregate potential, which generally refers to materials that are hard and granular, and are suitable to be used alone or with other materials as binding agents for a number of applications such as: concrete in building construction; road stone; railway track blast; mortar; flux in iron and steelmaking; or to reduce coal sulphur dioxide emissions. Crush rock aggregate is produced from a variety of materials that are usually produced as low-cost, high-volume and bulk mineable commodities.

The Richardson Property is situated along the passive, eastward thinning margin of the Western Canada Sedimentary Basin where sedimentary successions uncomfortably overly and onlap the southwest dipping Precambrian basement. Within the Richardson Property, Precambrian basement, Devonian carbonate and Quaternary surficial materials are either exposed, or occur near the surface. From the industrial mineral perspective, carbonate rocks are commonly considered to be mechanically strong due to their interlocking grain fabrics, carbonaceous mineralogy and subjectivity to recrystallization processes, which in turn increase their strength and decrease porosity. In addition, igneous Precambrian rocks such as granite typically produce strong aggregates that are skid resistant and therefore, are favourable road aggregate materials.

There are no all-weather roads to the Richardson Property; however, a 280 km winter road extending from Fort McMurray to the hamlet of Fort Chipewyan traverses through the central portion of the Richardson Property and provides intermittent access with transport-load capacity.

During 2013, Athabasca conducted a four-hole diamond drill hole program (drill holes GNA-05, GNA-10, GNA-11 and GNA-16; totalling 235 m) intended to test the Devonian carbonate and Precambrian basement at the Richardson Property. The drill program cored complete stratigraphic sections of the uppermost carbonate lithostratigraphic unit (the Winnipegosis Formation) in two of the four drill holes, and a single drill hole intersected down through the carbonate stratigraphy and into the Precambrian basement. To acquire additional material for evaluation, APEX was retained by Athabasca in 2014 to conduct an eight drill hole program (14RLD001 to 14RLD008; totalling 843 m) at the Richardson Property over an area spanning approximately 20 km². With the exception of one of the eight 2014 drill holes, the program successfully cored entire stratigraphic sections that terminated in Precambrian basement granite.

The 2013 and 2014 drill campaigns conducted by Athabasca shows that the bedrock underlying the Richardson Property includes, from stratigraphic base to top: Precambrian crystalline basement granitic rocks of the Taltson Magmatic Zone; an Early Devonian discontinuous zone of detrital basal feldspathic sandstone and conglomerate known as the La Loche Formation; marginal marine dolomitic silty shale of the Devonian Contact Rapids Formation; and a thick (relative to the Contact Rapids and La Loche formations), finely crystalline dolostone known as the Winnipegosis Formation. The bedrock is overlain by a layer of Quaternary glaciofluvial and glaciolacustrine deposits that have formed kettle depressions and kame deposits and redistributed surficial sediments into low-lying areas.

Based on the 2013 and 2014 drill results, Athabasca further commissioned APEX to: 1) supervise the logging and sampling of the 2013 and 2014 drill core; 2) supervise the appropriate aggregate test work and geochemical analysis to assess the Winnipegosis Formation and the Precambrian basement granite for their suitability as potential source of crush rock aggregate; 3) prepare a NI 43-101 technical report and maiden inferred crush rock aggregate resource estimate of the Middle Devonian Winnipegosis Formation; and 4) make recommendations on future exploration to advance the Richardson Property. The Winnipegosis Formation is the focus of this technical report due to the near surface proximity of the dolostone unit in the drill area, which represents a small north-central portion of the Richardson Property. A secondary objective includes an aggregate assessment of the basement granite, mainly intended toward future exploration strategies at the Richardson Property.

The drilling strategy was to terminate each drill hole once 10 m of Precambrian basement granite was penetrated and cored. A single drill hole (14RLD007) tested the granite to a coring depth of 44.5 m to test its uniformity and crush rock aggregate potential at depth (and precious-, base- and specialty- metal potential). The granite comprised light-blue grey coarse-grained weakly foliated granite that is fairly consistent throughout the area of drilling, albeit being variably subjected to potassic alteration. The thickness of the Winnipegosis Formation varies from 8.3 m to 47.9 m (averages 39.5 m) and is comprised

largely of competent, light brown dolostone. Overburden thickness ranged from 18.0 m to 64.9 m (averages 35.7 m) and is comprised largely of unconsolidated glaciofluvial sand and boulders.

The core was logged and sampled in accordance with the appropriate assessment of crush rock aggregate, which involves criteria that considers the materials strength, continuity, fractures and the presence of weakening particulate matter. Geotechnical measurements included: rock quality description, fracture frequency and rock defects, and discontinuity and fracture conditions. Density measurements were carried out once per every metre using the "hydrostatic" method, which involves weighing the item in air and then again while fully submerged in water, to calculate the weight (tonnage) of a volume of rock. Portable x-ray fluorescence analyzer measurements were taken every metre of core to provide an evaluation of the chemical homogeneity and potential aggregate strength of the core, and secondarily, to evaluate the metallic mineral potential of the core.

The analytical sampling process consisted of two separate sample sets: 1) composite samples for aggregate test work; and 2) interval or channel samples for major and trace-element geochemical analysis. The objective of the aggregate analytical test work, in the context of this crush rock aggregate resource estimate, was predominantly focused on the aggregate mechanical qualities for its use in aggregate road building and concrete. A sufficient and appropriate number of samples were analyzed to ensure that meaningful sample results were obtained, including: eleven composite samples of Winnipegosis Formation (one sample per drill hole plus one duplicate sample for quality assurance); one composite sample of Contact Rapids (amalgamated from all ten drill holes due to the narrowness of the unit); and two composite samples of basement granite (amalgamated from all drill holes that penetrated basement; n=8).

The results of the aggregate test work were evaluated by making comparisons with aggregate specification and screening criteria as set by Alberta Transportation and the Canadian Standards Association. The results show that the Winnipegosis Formation and Precambrian basement granite met the maximum allowable screening criteria for major aggregate test methods, including: plasticity index; Los Angeles abrasion; magnesium sulphate soundness; and unconfined freeze-thaw. Based on the results of this test work and evidence of the homogeneity and uniformity of the rock units, it is concluded that the Winnipegosis Formation and Precambrian basement granite represent material of merit for several Alberta Transportation aggregate designations, including: designation 1 (asphalt concrete pavement); and designation 2 (base course aggregate).

With respect to reporting a resource estimate and abiding by NI 43-101, the aggregate test work yields results that suggest the Winnipegosis Formation from the Richardson Property has reasonable prospects of economic viability for an industrial mineral deposit. Despite having analyzed only two amalgamated composite granite samples, the Precambrian basement granite also yielded positive aggregate test work results and is recommended, therefore, to undergo additional aggregate testing in the future. In contrast, the single Contact Rapids sample does not meet the screening criteria, and therefore, does not meet the reasonable expectation and/or demonstration of economic viability of an industrial mineral deposit.

The Richardson maiden inferred crush rock aggregate resource estimate is reported in accordance with NI 43-101, and has been estimated using the CIM "Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines" dated November 23, 2003 and CIM "Definition Standards for Mineral Resources and Mineral Reserves" adopted May 10, 2014. The senior author performed a site inspection at the Richardson Property on October 25, 2017; the date of the site inspection is considered sufficient for this technical report as there has been no material change at the Richardson Property since the 2014 drill program.

The CIM Standards on Mineral Resources and Mineral Reserves, Definitions and Guidelines, dated August 20, 2000 states that: "when reporting mineral resource and mineral reserve estimates relating to an industrial mineral site, the qualified person(s) must make the reader aware of certain special properties of these commodities". It should be noted that the Richardson crush rock aggregate, in the context of this technical report, represents an 'early stage project'. The ultimate suitability of an industrial mineral for use in specific applications requires detailed marketing and economic investigations, which are beyond the scope of this technical report. With respect to the Richardson Property and northeastern Alberta in general, however, a fundamental statement is that the Fort McMurray region is best known for its vast resource of bituminous oil sand, and that vast quantities of aggregate materials are required to supplement ongoing oil sands infrastructure and construction demand. In addition, it is pertinent to note that government baseline aggregate mapping in the Fort McMurray area has shown that sand and gravel deposits are distributed unevenly, of variable quality and quantity, and have largely been exploited. Consequently, aggregate exploration has focused on importing aggregate, which is difficult from an industrial mineral economics perspective, or on locating local sources of buried crush rock aggregate. For example, Hammerstone Corporation produces limestone crush rock aggregate from its Muskeg Valley Quarry, which is adjacent to the Richardson Property. Lastly, the oil sands industry poses no potential conflict or risk to industrial minerals production as separate statues regulate the right to metallic and industrial minerals, to coal, to oil/gas, and to bitumen (oil sands) in the province of Alberta.

The resource estimation presented in this technical report considered data from four 2013 drill holes and eight 2014 drill holes drilled by Athabasca (twelve total drill holes). Because two of the 2013 drill holes were terminated at less than 30 m, and did not penetrate through the entire lithostratigraphic section of the Winnipegosis Formation (the primary focus of this resource estimate), only ten drill holes were utilized in the Richardson maiden inferred crush rock aggregate resource modelling and estimation. The 2013 and 2014 drill holes were initially surveyed using a hand-held Garmin GPS unit with the collar elevations subsequently being modified using high resolution light detection and ranging technology with 1 m resolution. All drill holes were vertical holes; no down hole surveying was employed. Spacing between drill holes varies from 500 m to 1.37 km, with an average of about 900 m between drill holes. Consequently, modelling in MICROMINE utilized seven drill lines that ranged in spacing from 570 m to 900 m. In the context of this crushed rock aggregate deposit type, style and formation, the drill spacing is sufficient for resource volume estimation.

Stratigraphic logging, which was performed by APEX for both the 2013 and 2014 drill holes, showed that with the exception of the La Loche Formation–Precambrian basement boundary, which can be gradational, the boundaries between formations have sharp, visually identifiable contacts. These definitive geological boundaries are further characterized as having extensive lateral continuity of the individual formations. The homogeneity of the stratigraphic units was further evaluated using geotechnical (rock quality description and total fracture data) and geochemical data derived from the cores. A positive correlation between the drill logs and the geotechnical/geochemical data confirmed the lithostratigraphic formation divisions, and the homogenous nature of the Winnipegosis Formation, which highlights its applicability in resource estimation as a potential source of crush rock aggregate.

The single 'impurity' to report involves supplementary bitumen, which is more or less confined to the uppermost portions of the Winnipegosis Formation (and the La Loche Formation directly overlying the Winnipegosis dolostone). The bitumen ranges in intensity from non-existent (in most of the core) to pervasive, the latter of which is evident in 25 cm to 90 cm wide 'bituminous horizons' that occur in the eastern drill holes 14RLD006 and 14RLD008. The bitumen appears to be confined to porosity enabling textures in the carbonate such as vugs, sandy horizons and fracture planes. It is not known how the bitumen might influence the processing or marketing of the potential crush rock aggregate, but the overall consistency and volume of non-bitumen-bearing dolostone, and the positive aggregate test work results,

provide justification that the bitumen does not influence the viability of the Winnipegosis as an industrial mineral deposit in the evaluation of this early stage project.

A total of 675 bulk density measurements were collected from drill core within the Richardson maiden inferred crush rock aggregate resource area. Additional density measurements (n=14) were also performed as part of aggregate test work, and these results were consistent with hydrostatic average formation density values of 2.68, 2.50 and 2.63 for the Winnipegosis, Contact Rapids and basement granite, respectively, that were used in this technical report.

Mineral resource modelling was carried out using a three dimensional model in commercial geological modelling and mine planning software, MICROMINE (v.14.0.4). Block modelling of the resource area was not necessary as no 'grade' was being estimated; instead a three-dimensional computer-generated 'solid' of the area was generated in MICROMINE to calculate the resource 'volume'. A separate wireframe was created for each formation (Precambrian basement granite; La Loche Formation; Contact Rapids Formation; Winnipegosis Formation; and overburden), from which, separate ensuing formation volumes could be derived for each lithostratigraphic unit.

The surface area of the resource outline reported in this technical report is 6.30 km<sup>2</sup>. With the exception of two northwestern drill holes (GNA-10 and 14RDL-008), a resource outline of 500 m was constructed around the outermost drill holes to clip the individual formation wireframes and restrict the lateral extension of the wireframes and the main resource model to the general 2013 and 2014 Athabasca drill area which represents only a small north-central portion of the Richardson Property. The resource outline of 500 m was deemed appropriate based on the continuous nature of the stratigraphic formations within the resource outline area as defined by 2013 and 2014 Athabasca drilling, and because the same generally flat-lying stratigraphic formations has been intersected in oil and gas wells that are located several tens to hundreds of kms away from the Richardson resource area. The radius of the boundary outlines for drill holes GNA-10 and 14RDL-008 was reduced to 50 m (from 500 m) due to the proximity of a lake.

This three-dimensional model formed the spatial basis for calculating the volume and tonnage for the Richardson maiden inferred crush rock aggregate resource estimate. Within the three-dimensional model, the volume of each formation was used to multiply against a nominal density value, which was determined on a formation by formation basis. This resulted in the reported tonnages. The Richardson maiden inferred crush rock aggregate resource estimate has been classified as 'inferred' according to the CIM definition standards.

The classification of the Richardson maiden inferred crush rock aggregate resource was based on geological confidence, data quality and stratigraphic continuity. That is, the criteria and rational for the classification of inferred resource is based upon the wide spaced nature of the drilling to date and the fact that the Richardson crush rock aggregate project is classified as an early stage project with little mineral processing test work completed to date. As this is the maiden inferred resource, no mining studies have been employed to constrain the resource within an optimal pit shell.

The Richardson maiden inferred crush rock aggregate resource estimate consists of 683 million tonnes of aggregate material situated within the favourable Winnipegosis Formation (Table 1). Mineral resources are not mineral reserves and do not have demonstrated economic viability. There is no guarantee that all or any part of the mineral resource will be converted into a mineral reserve. The Winnipegosis aggregate resource is directly overlain by 497 million tonnes of overburden-waste material.

Table 1. Richardson maiden inferred crush rock aggregate resource. Volumes and tonnages for the overburden and all lithostratigraphic units in the resource area are included, but the main resource reported in this technical report relates to the Winnipegosis Formation.

| Formation             | Volume (m³) | Density (t/m³) * | Tonnes (million<br>tonnes) ** |
|-----------------------|-------------|------------------|-------------------------------|
| Overburden            | 220,625,000 | 2.25             | 497.29                        |
| Winnipegosis          | 254,523,000 | 2.68             | 683.14                        |
| <b>Contact Rapids</b> | 63,322,000  | 2.50             | 158.11                        |
| La Loche              | 13,339,000  | 2.54             | 33.93                         |
| Basement granite      | 62,941,000  | 2.63             | 165.41                        |

<sup>\*</sup> Density has been rounded to two decimal places.

Note 1: Mineral resources are not mineral reserves and do not have demonstrated economic viability. There is no guarantee that all or any part of the mineral resource will be converted into a mineral reserve.

Note 2: The quantity of tonnes reported in these inferred resource estimations are uncertain in nature and there has been insufficient exploration to define these inferred resources as an indicated or measured mineral resource, and it is uncertain if further exploration will result in upgrading them to an indicated or measured resource category.

The estimate of mineral resources presented in this technical report may be materially affected by geology, environment, permitting, legal, title, taxation, socio-political, marketing or other relevant issues. Because the Richardson Property is in its preliminary exploration stages, specific detail on project's risks and uncertainties has yet to be fully investigated at this time. As the Richardson Property advances toward an early stage conceptual assessment of potential economic viability of the mineral resources, future discussion on the significant risks, uncertainties and foreseeable impacts are required, including those risks to the project's potential economic viability.

The portion of the Richardson Property resource that has been classified as 'Inferred' demonstrates that the nature, quantity and distribution of data is such as to allow confident interpretation of the geological framework and to reasonably assume continuity of geological formations. The collective work to date from the Richardson Property indicate that while the project is in early stages of exploration/resource work that indications of the metallurgical and mineral processing qualities give suggestions that they are of high enough quality that the Winnipegosis at the Richardson Property is considered to be a 'property of merit' and warrants further exploration. This contention is supported by results presented in this technical report, which include:

- the Winnipegosis Formation is a uniform and continuous target unit that has undergone pervasive dolomitization and is therefore a hard, competent and resistive lithostratigraphic unit with crush rock aggregate deposit potential;
- sample composites of the Winnipegosis Formation yielded positive aggregate test work results in comparison to Alberta Transportation and Canadian Standards Association aggregate specifications and standards;
- the Winnipegosis Formation is considered the most favourable unit for crush rock aggregate in the resource area given that it is the shallowest lithostratigraphic unit

<sup>\*\*</sup> Tonnes have been rounded to the nearest 10,000 tonnes.

(directly underlying the Quaternary cover and occurs at depths ranging from 18.0 m to 64.9 m) with early stage project crush rock aggregate deposit potential;

- a Richardson maiden inferred crush rock aggregate resource estimate that has an aerial extent of 6.30 km<sup>2</sup> and consists of 683 million tonnes of crush rock aggregate material situated within the Winnipegosis Formation (see aforementioned disclaimers); and
- the oil sands region of northeastern Alberta represents an area of enormous growth while continued oil sands development is subject to an infinite number of variables (e.g., geology, hydrocarbon prices, environment, taxation, socio-political, marketing or other relevant issues), the current circumstances suggest a continued and positive market demand for 'local' aggregate products.

In addition to the Richardson maiden inferred crush rock aggregate resource estimate, a stratigraphic compilation of publicly available oil and gas well information, historical metallic and industrial mineral assessment reports, and data from Athabasca 2013 and 2014 drill programs shows that there is good stratigraphic continuity of the Winnipegosis Formation and Precambrian basement surface in the general Richardson Property area. By way of preliminary reasoning, the Richardson Property has several potential targets for further exploration. The following statements referring to any potential extension of the Richardson crush aggregate deposit are conceptual in nature; there has been insufficient exploration to define the extended mineral deposit and it is uncertain if further exploration will result in the target being delineated as a mineral deposit and/or resource. Potential targets for further exploration are summarized as follows:

Based on good stratigraphic continuity of the Winnipegosis Formation, an extension of the current Winnipegosis crush rock aggregate deposit outwards from the resource area to other parts of the Property could create additional and/or more accessible Winnipegosis tonnage. For example, a potential southerly extension of the Winnipegosis Formation deposit (i.e., an additional aerial extent of 7.49 km²) could add between 0.671 and 1.006 billion tonnes of aggregate crush rock. There is also justification in targeting the Winnipegosis Formation to the east-northeast, where the thickness of overburden is assumed to be thinner and could potentially lower the strip ratio to access the Winnipegosis in comparison to the resource area.

- 1. Based on good stratigraphic continuity of the Winnipegosis Formation, an extension of the current Winnipegosis crush rock aggregate deposit outwards from the resource area to other parts of the Property could create additional and/or more accessible Winnipegosis tonnage. For example, a potential southerly extension of the Winnipegosis Formation deposit (i.e., an additional aerial extent of 7.49 km²) could add between 0.671 and 1.006 billion tonnes of aggregate crush rock. There is also justification in targeting the Winnipegosis Formation to the east-northeast, where the thickness of overburden is assumed to be thinner and could potentially lower the strip ratio to access the Winnipegosis in comparison to the resource area.
- 2. If the economics of mining the Winnipegosis Formation are feasible, then the Precambrian basement granite represents a potential secondary crush rock aggregate exploration target within the resource area due to its uniform nature and overall hardness as shown by aggregate test work conducted in this technical report. Modelling in this technical report shows that within the resource area, the Precambrian basement granite could account for an additional 157 to 236 million tonnes of potential aggregate. This exploration target estimate is conservative as the volume assumes a maximum depth of 10 m (corresponding to when most of the drill holes were terminated). Lastly, the Contact Rapids Formation, which underlies the Winnipegosis, comprises weakly consolidated muddy and sandy limestone, and is therefore not as desirable in comparison to the Winnipegosis (this is evident in poor aggregate test work results presented in this technical

report). There is the possibility, however, that the Contract Rapids could provide a source of alternative flux material if the Winnipegosis were to be mined as crush rock aggregate.

- 3. In paragraph 2 above, any potential granite evaluation in the resource area is contingent on the Winnipegosis being economic. However, the Precambrian basement granite is known crop out on the Richardson Property directly east-southeast of the resource area. In addition, a multitechnique geophysical conducted over the general granite outcrop area helps to define the nearsurface boundaries of the granite body. Ground Penetrating Radar ("GPR") profiles and ground magnetic data show that the granite outcrop is fairly constrained to the immediate observed exposure; however, the GPR profiles suggest that the area directly north of the outcrop has the least amount of overburden and/or Winnipegosis dolostone material to overlie the Precambrian basement granite. Based on the GPR results, the estimated areas of combined surficial overburden and Winnipegosis Formation dolostone material that is situated on top of the Precambrian granite and is within 5 m, 10 m, 15 m, 20 m and 25 m of surface is approximately: 4,600 m<sup>2</sup>; 15,200 m<sup>2</sup>; 45,100 m<sup>2</sup>; 91,300 m<sup>2</sup>; and 147,233 m<sup>2</sup>, respectively. The geophysical interpretations remain inherently ambiguous and require other geological information such as drilling to properly confirm and classify the identified litho-magnetic zones. However, based on the uniformity and positive granite aggregate test results from the resource area, and delineation of an exposed and near-surface area of granite on the eastern part of the Property, Precambrian granite at the Richardson Property represents a potential target for further exploration.
- 4. Lastly, the Contact Rapids Formation, which underlies the Winnipegosis, comprises weakly consolidated muddy and sandy limestone, and is therefore not as desirable in comparison to the Winnipegosis (this is evident in poor aggregate test work results presented in this technical report). There is the possibility, however, that the Contract Rapids could provide a source of alternative flux material if the Winnipegosis were to be mined as crush rock aggregate.

To conclude, there are several hypotheses to potentially increase and diversify the current Richardson crush-rock aggregate deposit. Accordingly, a two-Phase approach is recommended for 2019-2020 exploration at the Richardson Property consisting of: Phase One geophysical work, including a GPR survey; and a Phase Two extension and infill drill program. Results pending, the Phase Two drill program could be contemporaneous with a PEA scoping study. The total cost of both phases of recommended exploration work is estimated at CDN\$916,000 (Table 2; not including contingency). With a 10% contingency the total budget is CDN\$1,007,600.

The phase one exploration work includes a 35 line-km GPR survey to:

- create a preliminary three-dimensional geological model of the resource area and beyond;
- depict those areas that have shallow overburden overlying Devonian Winnipegosis dolomite and the Precambrian basement granite; and
- define the drill hole locations for the phase two drill program.

Subject to the results of the phase one survey, a phase two extension/infill drill hole program and aggregate test work analyses will:

verify the three-dimensional geological model; and

• provide additional confidence to uniformity, extent, depth and quality of the Winnipegosis dolomite and the basement granite, which is necessary to produce an updated mineral resource estimate.

It is recommended that the phase two extension and infill drilling consists of ten to eleven systematically placed diamond drill holes (totalling approximately 1,000 m) designed to:

- extend the Winnipegosis deposit area to the south and to the east-northeast of the resource area; and
- verify and define a potential Precambrian granite aggregate deposit to the area east-southeast of the resource area (adjacent to a known exposure of Precambrian granite).

The drill hole and analytical results will generate: a revised inferred, and possibly indicated, mineral resource technical report; and trigger a PEA scoping study that includes an economic analysis of the potential viability of crush rock aggregate resources at the Richardson Property. The PEA scoping study should include: the creation of an initial pit shell; estimations of strip ratios to remove the overburden; examination of certain economic and environmental factors related to the market for crushed rock aggregate in the immediate vicinity of the Richardson Property.

**Table 2. Summary of recommendations for the Richardson Property.** 

## Phase One: Ground Geophysical Survey and Preliminary 3D Model

| Activity  | Description  | Cost<br>(CDN\$) |
|---|--|-----------------|
| Ground Penetrating Radar (GPR) geophysical survey | A 35-line km GPR survey to develop a preliminary 3D model, determine o/b thickness and site drillhole locations. | \$40,000        |
|   | Sub-total.   | \$40,000        |

# Phase Two: Drill Program, Indicated/Inferred Technical Report and Preliminary Economic Assessment

| Activity  | Description  | Cost<br>(CDN\$) |
|-----------|--|-----------------|
| Drilling  | A 10-11 drillhole heli-supported program (approximately 1,000 m of coring) | \$511,000       |
| Analysis  | Aggregate test work  | \$30,000        |
| Reporting | NI 43-101 Mineral Resource Estimation and Technical Report                 | \$35,000        |
| Reporting | Preliminary Economic Assessment Scoping Study                              | \$300,000       |
|           | Sub-total  | \$876,000       |
|           | Total  | \$916,000       |
|           | 10% Contingency  | \$91,600        |
|           | Total with Contingency   | \$1,007,600     |

White Rabbit Property

The below summary is a direct extract and reproduction of the summary contained in the White Rabbit Technical Report, without material modification or revision and all defined terms used in the summary shall have the meanings ascribed to them in the White Rabbit Technical Report. The below summary is subject to all the assumptions, qualifications and procedures set out in the White Rabbit Technical Report. The White Rabbit Technical Report was prepared in accordance with NI 43-101. For full technical details of the report, reference should be made to the complete text of the White Rabbit Technical Report, which has been filed with the applicable regulatory authorities and is available under the Company's SEDAR profile at www.sedar.com. The White Rabbit Technical Report is incorporated by reference in this AIF and the summary set forth below is qualified in its entirety with reference to the full text of the White Rabbit Technical Report. The authors of the White Rabbit Technical Report have reviewed and approved the scientific and technical disclosure contained in this AIF related to the White Rabbit Technical Report.

## White Rabbit Technical Report

"National Instrument 43-101 Technical Report, White Rabbit Property, Alberta, Canada", prepared by A.C. (Chris) Hunter, P. Geol. and William A. Turner, P. Geol., dated October 30, 2019.

On April 29, 2019, a private corporation, Privco2, contracted Stantec to prepare a technical report in accordance with the requirements of NI 43-101. The purpose of this technical report is to constrain the physical characteristics, thickness, depth and continuity of the unconsolidated Quaternary sand on the White Rabbit Property to assess its suitability as a natural proppant. As part of this evaluation, the quality and volumes of the natural proppant and the reasonable prospects for eventual economic extraction were assessed.

On January 29, 2019, Athabasca entered into an agreement to acquire an ownership position in Privco2. The terms of the agreement are progressing through three stages. On May 7, 2019, Athabasca increased its ownership in Privco2 to 49.6%.

Figure 1-1 shows the general location of the White Rabbit Property. The centre of the White Rabbit Property is located approximately 8 km southeast of the town of Athabasca and is within the Rural Municipality of Athabasca County, Alberta. The White Rabbit Property encompasses 356 ha (878 acres) and consists of seven privately owned contiguous quarter sections. Surface and subsurface infrastructure is well developed near the White Rabbit Property, where AltaGas Ltd. and TC Energy Corporation (formerly TransCanada Corporation) have established services.

The White Rabbit Property consists of Quaternary sediments that include diamicton, sand, silts, and clay units. Historic water well data from the area identified sand proximal to surface on the White Rabbit Property.

Stantec qualified person(s) inspected the White Rabbit Property on March 14 and 15, 2019. During this property visit, the qualified person(s) observed drill hole locations, sample retrieval methods from the auger rig, and the sample quality control and assurance practices. In addition, during the White Rabbit Property review, the qualified person(s) completed independent field descriptive geological logs of two drill holes to characterize the visual physical properties of the sand and to independently observe sand interval thicknesses on the White Rabbit Property.

In March and April 2019, 49 auger holes were drilled on the White Rabbit Property by Mobile Augers and Research Ltd. using an M10 rig. This field program identified sand that was further tested to assess its suitability to be used as a hydraulic fracturing proppant. Following the drilling, samples were sent to four laboratories for analyses; AGAT, Loring Laboratories Ltd., Stim-Lab, Inc. ("Stim-Lab"), and Turnkey Processing Solutions Sand Laboratory ("TPS").

Stim-Lab and TPS completed a total of 219 crush resistant tests. All samples underwent attrition prior to analyses. The breakdown by fraction is: 26 tests from the 20/40 fraction that averaged a 5K crush, 54 tests from the 30/50 fraction that averaged a 6K crush, 70 tests from the 40/70 fraction that averaged a 7K crush, and 67 tests from the 70/140 fraction that averaged a 9K crush. In addition, Stim-Lab performed two crush resistant tests on the 50/140 fractions that both had a 9K crush. The TPS crush results align with those obtained by Stim-Lab for each fraction spread.

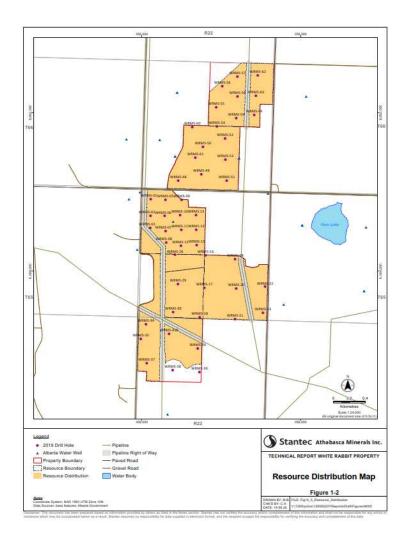


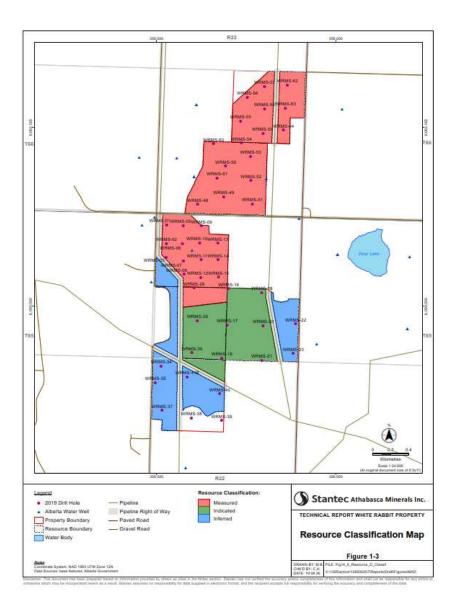
Following development of the mineral resource model, an in-place mineral resource was calculated. In-place bulk densities of 1.5 g/cm<sup>3</sup> for sand, 1.25 g/cm<sup>3</sup> for interburden clays and 1.4 g/cm<sup>3</sup> applied to silts of 1.5 g/cm<sup>3</sup> was used to calculate tonnages. This resource estimation only includes those resources found within the White Rabbit Property boundaries as illustrated on Figure 1-2. The In-Place Mineral Resource is shown in Table 1.1.

Table 1.1
In-Place Mineral Resource Summary, Effective Date August 7, 2019

|                        | Mineral Resources (Mt) |                        |                         |                          |
|------------------------|------------------------|------------------------|-------------------------|--------------------------|
| Category               | 20/40 mesh<br>fraction | 40/70 mesh<br>fraction | 70/140 mesh<br>fraction | 140/170 mesh<br>fraction |
| MEASURED               | 3.4                    | 11.2                   | 9.0                     | 1.1                      |
| INDICATED              | 0.6                    | 2.5                    | 2.2                     | 0.3                      |
| MEASURED and INDICATED | 4.0                    | 13.7                   | 11.2                    | 1.4                      |
| INFERRED               | 0.5                    | 2.1                    | 2.0                     | 0.3                      |

The 20/40, 40/70, 70/140, 140/170 and 50/140 fractions were assessed during the preparation of this report, as each fraction has different application during the hydraulic fracturing process. To avoid reporting overlapping volumes between fractions, Table 1-1 does not report the tonnage of the sand from the 50/140 fraction. The calculated tonnages for 50/140 fraction are approximately 15.0 Mt Measured, 3.6 Mt Indicated and approximately 3.2 Mt Inferred resources.





It is recommended that Privco2 focus on the areas with high potential for the first stage of extraction. There are two phases of work that are recommended.

Phase 1: Preliminary and detailed property assessments to constrain the potential impact of the sand quarry operation in the project area as shown on Table 1-2.

Table 1-2
Phase 1: Property Assessment Study

| Task   | Estimated Cost (C\$) |
|--|----------------------|
| Phase I Preliminary Property Assessment (desktop study, property visit)  | 30,000               |
| Phase 2 Detailed Property Assessment (sampling, species at risk, watershed issues etc.)  | 100,000              |
| Work phases may identify potential additional areas to be addressed, such as noise, air, Transportation impact Assessment, Water Act application, historic resource clearance, First Nation Consultation, clay lined ponds potential requirements. | 30,000               |
| Estimate Total   | 160,000              |

Phase 2: It is recommended that a selected area, corresponding to a preliminary first cut area, be drilled at a higher density utilizing a sonic core drill with capabilities to penetrate greater depths as shown on Table 1-3

Table 1-3
Phase 2: Sonic Exploration Program

| Task  | Estimated Cost (C\$) |  |
|---|----------------------|--|
| Personnel (Office, Field, Travel Expenses)  | 11,000               |  |
| Six-Hole Drill Program (Rig Costs)          | 14,000               |  |
| Laboratory Expenses (Shipment and Analyses) | 60,000               |  |
| Estimate Total                              | 85,000               |  |

## **RISK FACTORS**

The following factors are those which are the most applicable to the Company. The discussion which follows is not inclusive of all potential risks. Risk management is an ongoing exercise upon which the Company spends a substantial amount of time. While it is not possible to eliminate all of the risks inherent in the exploration, mining, production, transportation and delivery of aggregates business, the Company strives to manage these risks, to the greatest extent possible, to ensure that its assets are protected.

## Reliance on Construction, Oil Sands and Oil and Gas Industry

Demand for Athabasca's products can vary significantly depending on the strength of the construction, oil sands and oil and gas industry in Alberta.

## **Commodity Markets**

The price of the Company's securities, its financial results, and its access to the capital required to finance its exploration and development activities may in the future be adversely affected by declines in the price of aggregates.

## Competition

Athabasca provides services related to industrial and civil infrastructure projects which are awarded primarily based on bid proposals and therefore based primarily on price. The entities providing competing bids for these projects can have greater financial resources than the Company and therefore be able to manage the risk of providing lower pricing. There are also entities with less financial resources than Athabasca which compete for these infrastructure projects that may have lower fixed overhead structures and allow them to offer lower prices than Athabasca. To be successful, Athabasca must provide services that meet the specific needs of its clients at competitive prices. The principal competitive factors in the markets in which Athabasca operates are quality of service and availability, reliability, technical knowledge and experience, reputation for safety and price. As a result of competition, Athabasca may be unable to continue to provide its present services or to acquire and develop additional business opportunities, which may affect Athabasca's business, financial condition, results of operations and cash flows.

Further, reduced levels of activity in the oil and natural gas industry can intensify competition and result in lower revenue and margins to Athabasca. Variations in the exploration and development budgets of oil and natural gas companies which are directly affected by fluctuations in energy prices, the cyclical nature and competitiveness of the oil and natural gas industry and governmental regulation, will are likely to have an effect upon Athabasca's ability to generate revenues and earnings.

## **Additional Financing**

There is no guarantee that the Company will be able to secure additional financing to cover the costs of future operations or expansions. Additional financing may not be available or may not be available on favourable terms. Where additional financing is raised by the issuance of Common Shares or securities convertible into Common Shares, control of the Company may change and shareholders of the Company ("Shareholders") may suffer dilution to their investment. The Company's activities may also be financed partially or wholly with debt, which may increase the Company's debt levels above industry benchmarks. The level of the Company's indebtedness from time to time could impair the Company's ability to obtain additional financing in the future on a timely basis to take advantage of business opportunities that may arise.

## **Risks Inherent in the Mining Business**

The business of exploring for mineral resources is inherently risky. Few properties that are explored are ultimately developed into producing mines. The business involves significant financial risks over a significant period of time that even a combination of careful evaluation, experience and knowledge may not eliminate. It is impossible to ensure that the Company's current or proposed exploration programs will result in commercially viable mining operations.

Whether a mineral deposit will be commercially viable depends on a number of factors, some of which are: the particular attributes of the deposit, such as size, grade and proximity to infrastructure; commodity prices which are highly cyclical; and government regulations, including regulations relating to prices, taxes, royalties, land tenure, land use, importing and exporting of minerals and environmental protection. The exact effect of these factors cannot be accurately predicted, but the combination of these factors may result in the Company not receiving an adequate return on invested capital. There is no certainty that the expenditures made by the Company towards the search, evaluation and development of mineral deposits will result in commercial quantities of economically recoverable sand and aggregate.

Even after the commencement of mining operations, such operations may be subject to risks and hazards, including availability of a suitably trained or trainable labour force, an effective working relationship between the Company and its labour force, environmental hazards, industrial accidents, unusual or unexpected geological formations or conditions, the ability to acquire on a timely basis the equipment and materials necessary to operate the mine at full planned capacity, weather conditions (including historically unforeseen and unpredictable changes in weather patterns such as significantly increased severity of adverse conditions, rock bursts, other ground control problems, seismic activity, flooding, water conditions and concentrate losses. The occurrence of any of the foregoing could result in damage to or destruction of mineral properties or production facilities, personal injuries, environmental damage, delays or interruption of production, increases in production costs, monetary losses, legal liability and adverse government action.

### Mineral Production and Estimation of Resource Reserves

The Company is in the process of exploring aggregate and mineral properties and has not yet determined whether these properties contain deposits that are economically recoverable. The continuing operations of the Company to meet its commitments, including the development of the properties, securing and maintaining title and financing exploration and development of the properties is dependent upon the internal generation of cash flow and obtaining necessary financing through debt and public and private share offerings. The Company also has a risk that current estimates of resources may differ from actual resources.

## Seasonality

The level of activity in the Canadian natural mineral industry is influenced by seasonal weather patterns. Wet weather and spring thaw may make the ground unstable. Consequently, municipalities and provincial transportation departments enforce road bans that restrict the movement of certain heavy equipment, thereby reducing activity levels. Also, certain areas where customers may be located are inaccessible other than during the winter months because the ground surrounding the sites in these areas consists of swampy terrain. There can be no assurance that these seasonal factors will not adversely affect the timing and scope of the Company's work, which in turn could have a material adverse impact on the Company's business, operations and prospects.

## **Loss of Key Personnel**

Athabasca relies on certain key employees whose skills and knowledge are critical to maintaining the Company's success. The unexpected loss of Athabasca's key employees or the general managers of the businesses of the companies acquired by Athabasca, or the inability to retain or recruit skilled personnel could have a material adverse effect on Athabasca's business, financial condition, results of operations and cash flows. In addition, the ability of Athabasca to expand its services will depend upon the ability to attract qualified personnel as needed. Athabasca strives to identify and retain key employees and strives to be competitive with compensation and working conditions.

# **Shortage of Equipment or Other Supplies**

The mining industry in Alberta has a history of long periods of growth and significant capital development which can often impact the availability of equipment, labour and other supplies. Should any of Athabasca's suppliers be unable to provide the necessary equipment or parts or otherwise fail to deliver products in the quantities required, any resulting delays in the provision of services or in the time required to find new suppliers could have a material adverse effect on Athabasca's business, financial condition, results of operations and cash flows.

## **Profitability from Production and Operations**

The profitability of mining and resource companies depends, in part, on the actual costs of developing and operating such properties, which may differ significantly from estimates determined at the time a relevant resource project was approved. The development of resource projects may also be subject to unexpected problems and delays that could increase the cost of development and the ultimate operating cost of the relevant project. Athabasca's past and future decisions to acquire and develop resource properties and operate for production are based on estimates made as to the expected or anticipated project's economic returns. These estimates are based on assumptions regarding future aggregate prices, anticipated tonnage (with geological uncertainties), recovery rates and quality, anticipated capital expenditures and operating costs.

## **Sales and Inventory Turnover Versus Production**

The conversion of annual aggregates production into annual sales within a given budget year is variable, where sales often range between 50% - 80% of production. Inventory turnover of annual production is typically affected by, but not limited to, economic demand, construction-window seasonality, and competitor pricing responses to market conditions.

## **Environmental and Regulatory**

Environmental legislation is becoming increasingly stringent and costs and expenses of regulatory compliance are increasing. The impact of new and future environmental legislation on the Company's operations may cause additional expenses and restrictions. If the restrictions adversely affect the scope of exploration and development on the resource properties, the potential for production on the property may be diminished or negated.

The Company is subject to the laws and regulations relating to environmental matters in all jurisdictions in which it operates, including provisions relating to property reclamation, discharge of hazardous material and other matters. The Company conducts its exploration, development, production, operations and reclamation activities in compliance with applicable environmental protection legislation. The Company is not aware of any existing environmental issues related to any of its currently owned properties.

#### Title to Assets

Although the Company has or will receive title opinions for any properties in which it has a material interest, there is no guarantee that title to such properties will not be challenged or impugned. The Company has not conducted surveys of certain claims in which it holds direct or indirect interests and, therefore, the precise area and location of such claims may be in doubt. The Company's mineral concessions may be subject to prior unregistered agreements or transfers or native land claims, and title may be affected by unidentified or unknown defects. Although the Company conducts thorough due diligence with respect to the title of properties that it has acquired or will be acquiring to ensure that there are no other claims or agreements that could affect its title to the concessions or claims. If title to the Company's properties is disputed it may result in the Company paying substantial costs to settle the dispute or clear the title and could result in the loss of the property, which may affect the economic viability of the Company.

## **Health and Safety**

The Company has a strong safety and environmental record, however any major incident can significantly impact future operational results and future employee productivity, as well as the Company's reputation in the market.

## **Cyber Incidents**

The Company depends on digital technology, among other things, to: process and record financial and operating data; communicate with its employees and business partners; and analyze information. Accordingly, the Company is susceptible to cyber incidents (both deliberate and unintentional).

The unauthorized release, gathering, monitoring, misuse, loss or destruction of proprietary and other information could disrupt the Company's business plans and negatively impact its operations in a number of ways, including: (a) negatively impact the Company's competitive position in developing its business and properties; (b) supply chain disruptions; and (c) distraction of Management, damage to the Company's reputation, or a negative impact on the price of the Company's securities. As cyber threats continue to evolve, the Company may be required to expend significant additional resources to continue to modify or enhance its protective measures or to investigate and remediate any information security vulnerabilities.

## Litigation

From time to time the Company may be involved in legal proceedings arising from the ordinary course of business. The outcome of outstanding, pending or future legal proceedings cannot be predicted and the ultimate resolution of any such proceeding, individually or in the aggregate, could have a material adverse effect on the Company's business, results of operations, cash flows and financial condition. To the extent expenses incurred in connection with any litigation (which may include substantive fees paid to lawyers and other professional advisors and potential obligations to indemnify officers and directors who may be parties to such litigation) are not covered by available insurance, and such expenses could adversely affect the Company's results of operations, cash flows and financial condition.

See "Legal Proceedings and Regulatory Actions – Legal Proceedings".

## **Costs of Legal and Financial Compliance**

The Company is required to comply with the rules and regulations applicable to public companies in Canada. Accordingly, the Company incurs significant legal, accounting and other expenses that the Company would not incur if it was a private entity. Management and other personnel must devote a substantial amount of time and resources to comply with these requirements. These rules and regulations increase the Company's legal and financial compliance costs, compared to costs incurred by similar private companies.

## **Insurance, Uninsured Risks and Reclamation Obligations**

The Company's business is subject to a number of risks and hazards generally, including adverse environmental conditions, industrial accidents, labour disputes, unusual or unexpected geological conditions, ground or slope failures, changes in the regulatory environment, natural phenomena such as inclement weather conditions and flood. Such occurrences could result in damage to mineral properties, personal injury or death, environmental damage to the Company's properties or the properties of others, delays in the ability to undertake exploration, monetary losses and possible legal liability. The Company may also be unable to maintain insurance to cover these risks at economically feasible premiums. Insurance coverage may not continue to be available or may not be adequate to cover any resulting liability. Moreover, insurance against risks such as environmental pollution or other hazards as a result of exploration and production is not generally available to the Company or to other companies in the mining industry on acceptable terms. The Company might also become subject to liability for pollution or other hazards which it may not be insured against or which the Company may elect not to insure against because of premium costs or other reasons. Losses from these events may cause the Company to incur significant costs that could have a material adverse effect upon its financial performance and results of operations.

Further, the estimates made by the Company for reclamation obligations could significantly change due to potential changes in regulatory requirements prior to completing reclamation work.

### **Conflicts of Interest**

Certain directors and officers of the Company may be engaged in other business activities on their own behalf and on behalf of other companies (including mineral resource companies) and, as a result of these and other activities, such directors and officers may become subject to conflicts of interest. In accordance with the ABCA, directors who have a material interest in any person who is a party to a material contract or a proposed material contract with the Company are required, subject to certain exceptions, to disclose that interest and generally abstain from voting on any resolution to approve the contract. In addition, the directors and the officers are required to act honestly and in good faith with a view to the Company's best

interests. However, in conflict of interest situations, the Company's directors and officers may owe the same duty to another company and will need to balance their competing interests with their duties to the Company. Circumstances (including with respect to future corporate opportunities) may arise that may be resolved in a manner that is unfavourable to the Company.

### **Expansion Into New Businesses and Activities**

In the future, the Company may acquire or move into new industry-related activities or new geographical areas or may acquire different assets, and as a result may face unexpected risks or alternatively, significantly increase the Company's exposure to one or more existing risk factors, which may in turn result in the Company's future operational and financial conditions being adversely affected.

# **DIVIDENDS AND DISTRIBUTIONS**

Athabasca has not declared or paid any dividends since its incorporation. Athabasca does not currently anticipate paying any cash dividends on its Common Shares in the foreseeable future but will review that policy from time to time as circumstances warrant. Athabasca currently intends to retain future earnings, if any, for future operations, expansion and debt repayment. Any decision to declare and pay dividends in the future will be made at the discretion of the Board of Directors and will depend on, among other things, Athabasca's results of operations, current and anticipated cash requirements and surplus, financial condition, contractual restrictions and financing agreement covenants, solvency tests imposed by corporate law and other factors that the Board of Directors may deem relevant.

## **CAPITAL STRUCTURE**

## **General Description of Capital Structure**

The authorized share capital of the Company consists of an unlimited number of Common Shares and an unlimited number of preferred shares.

Each Common Share entitles the holder to receive notice of and to attend all meetings of Shareholders of the Company and to one vote per Common Share at such meetings (other than meetings at which only holders of a specified class of shares are entitled to vote). The Common Shares entitle the holders to receive any dividend declared by the Company on the Common Shares as a class, subject to prior satisfaction of all preferential rights to dividends attached to all shares of other classes of shares of the Company ranking in priority to the Common Shares in respect of dividends. Holders of Common Shares are entitled to receive the remaining property of the Company upon its liquidation, dissolution or winding-up.

The preferred shares may be issuable in one or more series, each series to consist of such number of shares as may, before the issuance thereof, be determined by the Board of Directors. The Board of Directors may from time to time fix, before issuance, the designation, rights, privileges, restrictions and conditions attaching to each series of preferred shares including, without limiting the generality of the foregoing, any voting rights, the rate, form, entitlement and payment of preferred dividends, the redemption price, terms, procedures and conditions of redemption, if any, voting rights and conversation rights, if any, and any sinking fund, purchase fund or other provisions attaching to the preferred shares of such series; and provided however, that no shares of any series shall be issued until the Company has filled an amendment to the articles of incorporation with the Registrar of Corporations, Province of Alberta, or such designated person in any other jurisdiction in which the Company may be continued.

# **MARKET FOR SECURITIES**

# **Trading Price and Volume**

The Common Shares commenced trading on the TSXV under the symbol "ABM" on February 13, 2008. On November 15, 2019, the Common Shares commenced trading on the TSXV under the symbol "AMI" following the Company's trading symbol change from "ABM" to "AMI". The monthly high and low closing prices and trading volumes for the Common Shares on the TSXV are as set out below for the months indicated:

| Month          | <b>High (\$)</b> | Low (\$) | Volume    |
|----------------|------------------|----------|-----------|
| January 2018   | 0.1600           | 0.1300   | 1,678,840 |
| February 2018  | 0.1450           | 0.1200   | 556,356   |
| March 2018     | 0.1500           | 0.1200   | 753,859   |
| April 2018     | 0.2100           | 0.1200   | 903,480   |
| May 2018       | 0.1950           | 0.1300   | 533,340   |
| June 2018      | 0.1900           | 0.1500   | 1,720,080 |
| July 2018      | 0.1900           | 0.1600   | 434,277   |
| August 2018    | 0.3000           | 0.1750   | 2,155,810 |
| September 2018 | 0.3450           | 0.2400   | 1,225,270 |
| October 2018   | 0.3400           | 0.1600   | 1,264,600 |
| November 2018  | 0.2950           | 0.1850   | 1,469,990 |
| December 2018  | 0.2950           | 0.2100   | 889,200   |
| January 2019   | 0.3500           | 0.2200   | 1,855,810 |
| February 2019  | 0.4700           | 0.2800   | 2,865,510 |
| March 2019     | 0.7100           | 0.3800   | 7,319,630 |
| April 2019     | 0.6800           | 0.5900   | 1,495,982 |
| May 2019       | 0.6000           | 0.4700   | 2,748,428 |
| June 2019      | 0.7700           | 0.5700   | 2,062,850 |
| July 2019      | 0.6800           | 0.5500   | 1,102,073 |
| August 2019    | 0.6700           | 0.5400   | 1,068,110 |
| September 2019 | 0.7000           | 0.4800   | 1,998,380 |
| October 2019   | 0.7900           | 0.4300   | 989,672   |
| November 2019  | 0.4900           | 0.335    | 585,276   |
| December 2019  | 0.3700           | 0.2500   | 3,280,200 |
| January 2020   | 0.2800           | 0.2650   | 191,000   |

## **PRIOR SALES**

Since the beginning of the most recently completed financial year, the Company has issued the following securities that are outstanding but not listed or quoted on a market place:

|                   | Number of  |                  | <b>Exercise Price</b> |
|-------------------|------------|------------------|-----------------------|
| Date of Issue     | Securities | Type of Security | per Security          |
| January 9, 2019   | 275,000    | Stock Option     | \$0.28                |
| May 22, 2019      | 551,667    | Stock Option     | \$0.57                |
| June 24, 2019     | 120,000    | Stock Option     | \$0.65                |
| August 20, 2019   | 160,000    | Stock Option     | \$0.64                |
| December 6, 2019  | 520,000    | Stock Option     | \$0.33                |
| December 19, 2019 | 45,000     | Stock Option     | \$0.28                |
| May 22, 2019      | 840,000    | DSU              | N.A.                  |
| June 24, 2019     | 120,000    | DSU              | N.A.                  |
| August 20, 2019   | 160,000    | DSU              | N.A.                  |
| December 6, 2019  | 329,000    | DSU              | N.A.                  |

# ESCROWED SECURITIES AND SECURITIES SUBJECT TO CONTRACTUAL RESTRICTION ON TRANSFER

### **Escrowed Securities**

To the knowledge of the Company, there are currently no securities of Athabasca in escrow or subject to contractual restrictions on transfer.

## **DIRECTORS AND OFFICERS**

## Name, Occupation and Security Holdings

The following table sets forth the name, province or state and country of residence, position with the Company at the date hereof, and principal occupation during the five preceding years, of each director and executive officer of the Company. Each of the directors of the Company holds office until the next annual general meeting of the Company unless the director's office is earlier vacated in accordance with the articles of the Company or the director becomes disqualified to serve as a director.

| Name, City and<br>Province of<br>Residence                | Position<br>Held                                      | Date of Appointment as Director <sup>1</sup> or Officer | Number of Shares<br>Held <sup>2</sup> | Principal Occupation Within the Five Preceding Years   |
|---|---|---|---------------------------------------|--|
| Don Paulencu <sup>3,4</sup><br>Sherwood Park,<br>Alberta  | Director,<br>Chairman of<br>the Board of<br>Directors | August 7, 2015  | 1,135,000<br>(2.50%)                  | Interim CEO of the<br>Company from July<br>2016 to June 2017;<br>Audit Partner at<br>Deloitte LLP from<br>1984 to May 2015.  |
| Dale Nolan <sup>4,5</sup> Lacombe, Alberta                | Director  | July 11, 2016   | 497,767<br>(1.10%)                    | Director and<br>President of Hopkins<br>Construction<br>(Lacombe) Ltd.,<br>Hopkins Heavy<br>Hauling Ltd. and<br>Hopkins Construction<br>Ltd. from 1995 to<br>2019.   |
| Terrance Kutryk <sup>3,4,5</sup><br>Calgary, Alberta      | Director  | September 11, 2019                                      | 136,000<br>(0.30%)                    | Corporate director<br>from January 2018 to<br>present, formerly<br>President and CEO of<br>Alliance Pipeline Ltd.<br>from October 2012 to<br>December 2017.  |
| Neil Manning <sup>3,4</sup><br>Calgary, Alberta           | Director  | October 25, 2019  | 500,000 (1.10%)                       | Corporate director from 2014 to present, Transforce International Inc.   |
| Robert<br>Beekhuizen <sup>3,4,5</sup><br>Calgary, Alberta | Chief<br>Executive<br>Officer                         | June 19, 2017   | 1,225,000<br>(1.84%)                  | CEO of the Company since June 2017; Sr. Vice President, Engineering Procurement & Construction with AltaGas Ltd. from September 2015 to September 2016; and Regional Vice President, Construction & Fabrication with Fluor Canada Ltd. from September 2011 to June 2015. |

| Name, City and<br>Province of<br>Residence | Position<br>Held              | Date of Appointment as Director <sup>1</sup> or Officer | Number of Shares<br>Held <sup>2</sup> | Principal Occupation Within the Five Preceding Years   |
|--|-------------------------------|---|---------------------------------------|--|
| Mark Smith Calgary, Alberta                | Chief<br>Financial<br>Officer | November 30, 2018                                       | 112,500<br>(0.25%)                    | CFO of the Company since November 2018; Investment Banking Associate with Scotia Global Banking and Markets from September 2016 to September 2018; and Drilling Engineer with Shell Canada from July 2013 to September 2015. |
| Dana Archibald<br>Edmonton, Alberta        | Chief<br>Operating<br>Officer | January 7, 2019   | 50,000 (0.11%)                        | Chief Operating Officer of the Company since January 2019; Senior Business and Project Development Manager for Dechant Construction and Schott Earthworks from 2013 to December 2018.  |

### Notes:

- (1) The term of office of all directors will expire on the date of the next annual meeting of Shareholders or until their successors are elected or appointed pursuant to the ABCA.
- (2) "Number of Shares Held" indicates Common Shares beneficially owned, or controlled or directed, directly or indirectly, as of October 2019.
- (3) Member of the Company's Audit Committee.
- (4) Member of the Company's Compensation, Corporate Governance and Nominating Committee.
- (5) Member of the Company's Resources, Environmental, Health and Safety Committee.

As at the date hereof, the directors and executive officers of the Company as a group beneficially owned, or controlled or directed, directly or indirectly, approximately 3.66 million Common Shares or 8.07% of the issued and outstanding Common Shares of the Company.

## Cease Trade Orders, Bankruptcies, Penalties or Sanctions

Other than as set forth below, no director, within ten years before the date of this AIF, has been a director, CEO or CFO of any company that:

(a) was subject to: (i) a cease trade order; (ii) an order similar to a cease trade order; or (iii) an order that denied the relevant company access to any exemption under securities legislation, that was in effect for a period of more than thirty consecutive days (collectively, an "Order") that was issued while the director was acting in the capacity as director, CEO or CFO; or

(b) was subject to an Order that was issued after the director ceased to be a director, CEO or CFO and which resulted from an event that occurred while that person was acting in the capacity as director, CEO or CFO.

## **Bankruptcies**

No director, within ten years before the date of this AIF, has been a director or executive officer of any company that, while the director was acting in that capacity, or within a year of the director ceasing to act in that capacity, became bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency or was subject to or instituted any proceedings, arrangement or compromise with creditors or had a receiver, receiver manager or trustee appointed to hold its assets.

## **Personal Bankruptcies**

No director, within ten years before the date of this AIF, has been a director or executive officer of any company that, while the director was acting in that capacity, or within a year of the director ceasing to act in that capacity, became bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency or was subject to or instituted any proceedings, arrangement or compromise with creditors or had a receiver, receiver manager or trustee appointed to hold its assets.

### **Penalties and Sanctions**

No director has been subject to:

- (a) securities regulatory authority or has entered into a settlement agreement with a securities regulatory authority; or
- (b) any other penalties or sanctions imposed by a court or regulatory body that would likely be considered important to a reasonable securityholder in deciding whether to vote for a director, other than a settlement agreement entered into before December 31, 2000 that would likely not be important to a reasonable securityholder in deciding whether to vote for a director.

### **Conflicts of Interest**

There are potential conflicts of interest to which the directors and officers of the Company will be subject in connection with the business of the Company. In particular, certain of the directors and/or officers of the Company serve as directors and/or officers of other companies that are similarly engaged in the business of acquiring, developing and exploiting natural resource properties and whose business may, from time to time, be in direct or indirect competition with the Company. Such associations may give rise to conflicts of interest from time to time. The directors of the Company are required by law to act honestly and in good faith with a view to the best interests of the Company and to disclose any interest, which they may have in any project opportunity of the Company. Conflicts, if any, will be subject to and governed by laws applicable to directors' and officers' conflicts of interest, including the procedures and remedies available under the ABCA. The ABCA provides that, in the event that a director has an interest in a contract or proposed contract or agreement, the director shall disclose his or her interest in such contract or agreement and shall refrain from voting on any matter in respect of such contract or agreement unless otherwise provided by the ABCA. The Company is not aware of any existing or potential material conflicts of interest between the Company and any director or officer of the Company.

### LEGAL PROCEEDINGS AND REGULATORY ACTIONS

### **Legal Proceedings**

In the ordinary course of conducting business, Athabasca occasionally becomes involved in legal proceedings relating to contracts, environmental issues, or other matters. Other than the following litigation matters, neither the Company nor any of its subsidiaries are party to, nor is aware of, any contemplated or current legal proceedings or regulatory actions that might reasonably be considered to have a material effect on the Company or its subsidiaries.

During 2015, the Company filed a statement of claim against Syncrude regarding approximately \$620,000 in user fees and government royalties that the Company believed were owed by Syncrude to the Company in respect of gravel used by Syncrude from the Susan Lake public pit. In addition to denying all allegations in the Company's statement of claim, Syncrude brought several counterclaims against the Company seeking damages in excess of \$68.0 million. On January 24, 2017, Athabasca announced that the Court of Queen's Bench of Alberta released a decision denying an application brought by Syncrude for an injunction on activities at Susan Lake. On September 26, 2019, Athabasca and Syncrude finalized a settlement agreement which included the discontinuance of the claim and counterclaim by Athabasca and Syncrude, respectively.

## **Regulatory Actions**

During the Company's last financial year:

- (a) no penalties or sanctions were imposed against the Company by a court relating to securities legislation or by a securities regulatory authority;
- (b) no other penalties or sanctions were imposed by a court or regulatory body against the Company that would likely be considered important to a reasonable investor in making an investment decision in the Company's securities; and
- (c) no settlement agreements of the Company were entered into with any court relating to securities legislation or with any securities regulatory authority.

## INTEREST OF MANAGEMENT AND OTHERS IN MATERIAL TRANSACTIONS

Except as otherwise set out herein, no director or executive officer of the Company, nor any associate or affiliate of the foregoing persons has any material interest, direct or indirect, by way of beneficial ownership of securities or otherwise, in matters to be acted upon at a meeting.

## TRANSFER AGENT AND REGISTRAR

TSX Trust Company (at its principal transfer offices in Calgary, Alberta) is the transfer agent and registrar for the Common Shares. The register of transfers of Common Shares is located at the Calgary offices of TSX Trust Company.

## **MATERIAL CONTRACTS**

## **Material Contracts**

There were no material contracts entered into during the year ended December 31, 2018 or prior thereto, other than the Coffey Lake agreement.

## **NAMES AND INTERESTS OF EXPERTS**

The following persons and companies have prepared or certified a statement, report, valuation or opinion, during, or relating to, the Company's financial year ended December 31, 2018 or subsequent thereto:

| Name of Individual or            | Document Prepared or Certified                                      |  |  |
|----------------------------------|---|--|--|
| Company                          |   |  |  |
| Stantec Consulting Ltd.          | National Instrument 43-101 Technical Report on the Firebag          |  |  |
|                                  | Property (November 8, 2019).  |  |  |
| William A. Turner, P. Geol, of   | National Instrument 43-101 Technical Report on the Firebag          |  |  |
| Stantec Consulting Ltd.          | Property (November 8, 2019).  |  |  |
| A.C. (Chris) Hunter, P. Geol. of | National Instrument 43-101 Technical Report on the Firebag          |  |  |
| Stantec Consulting Ltd.          | Property (November 8, 2019).  |  |  |
| APEX Geoscience Ltd.             | National Instrument 43-101 Technical Report on the Richardson       |  |  |
|                                  | Property (October 24, 2019).  |  |  |
| Roy Eccles, M. Sc., P. Geol. of  | National Instrument 43-101 Technical Report on the Richardson       |  |  |
| APEX Geoscience Ltd.             | Property (October 24, 2019).  |  |  |
| Steven Nicholls, BA. SC, MAIG    | National Instrument 43-101 Technical Report on the Richardson       |  |  |
| of APEX Geoscience Ltd.          | Property (October 24, 2019).  |  |  |
| Stantec Consulting Ltd.          | National Instrument 43-101 Technical Report on the White Rabbit     |  |  |
|                                  | Property (August 7, 2019).  |  |  |
| William A. Turner, P. Geol, of   | National Instrument 43-101 Technical Report on the White Rabbit     |  |  |
| Stantec Consulting Ltd.          | Property (August 7, 2019).  |  |  |
| A.C. (Chris) Hunter, P. Geol. of | National Instrument 43-101 Technical Report on the White Rabbit     |  |  |
| Stantec Consulting Ltd.          | Property (August 7, 2019).  |  |  |
| Grant Thornton LLP               | Audited consolidated financial statements for the fiscal year ended |  |  |
|                                  | December 31, 2018.  |  |  |

To the knowledge of the Company, none of the experts named above or their respective associates or affiliates held, as of the date of the applicable report above, currently hold or will receive any registered or beneficial interests, direct or indirect, in any securities or other propriety of the Company.

The auditor of the Company, Grant Thornton LLP, is independent from the Company within the meaning of the Rules of Professional Conduct of the Institute of Charted Accountants of Alberta.

# **ADDITIONAL INFORMATION**

Additional information relating to the Company may be found on SEDAR at www.sedar.com.

Additional information, including directors' and officers' remuneration and indebtedness, principal holders of the Company's securities and securities authorized for issuance under equity compensation plans, is contained in the Company's information circular dated May 23, 2019, in respect of the Company's annual general and special meeting of Shareholders held on June 24, 2019.

Additional information is provided in the Company's audited consolidated financial statements and management's discussion and analysis for the financial year ended available on SEDAR at www.sedar.com.