



Altus Group



Q3 2018

MANAGEMENT'S  
DISCUSSION & ANALYSIS

FOR THE NINE MONTHS ENDED SEPTEMBER 30, 2018



## Management's Discussion & Analysis September 30, 2018

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# Management's Discussion & Analysis

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*The following management's discussion and analysis ("MD&A") is intended to assist readers in understanding Altus Group Limited (the "Company" or "Altus Group"), its business environment, strategies, performance, and outlook and the risks applicable to Altus Group. It should be read in conjunction with our unaudited interim condensed consolidated financial statements and accompanying notes (the "financial statements") for the three and nine months ended September 30, 2018, which have been prepared on the basis of International Financial Reporting Standards ("IFRS") and reported in Canadian dollars. Unless otherwise indicated herein, references to "\$" are to Canadian dollars.*

*Unless the context indicates otherwise, all references to "we", "us", "our" or similar terms refer to Altus Group, and, as appropriate, our consolidated operations.*

*This MD&A is dated as of November 7, 2018.*

## Forward-Looking Information

Certain information in this MD&A may constitute "forward-looking information" within the meaning of applicable securities legislation. All information contained in this MD&A, other than statements of current and historical fact, is forward-looking information. Forward-looking information includes, but is not limited to, the discussion of our business and operating initiatives, focuses and strategies, our expectations of future performance for our various business units and our consolidated financial results, and our expectations with respect to cash flows and liquidity. Generally, forward-looking information can be identified by use of words such as "may", "will", "expect", "believe", "plan", "would", "could" and other similar terminology. All of the forward-looking information in this MD&A is qualified by this cautionary statement.

Forward-looking information is not, and cannot be, a guarantee of future results or events. Forward-looking information is based on, among other things, opinions, assumptions, estimates and analyses that, while considered reasonable by us at the date the forward-looking information is provided, inherently are subject to significant risks, uncertainties, contingencies and other factors that may cause actual results, performance or achievements, industry results or events to be materially different from those expressed or implied by the forward-looking information. The material factors or assumptions that we identified and were applied by us in drawing conclusions or making forecasts or projections set out in the forward-looking information include, but are not limited to: engagement and product pipeline opportunities in Altus Analytics will result in associated definitive agreements; settlement volumes in Property Tax will occur on a timely basis and that assessment authorities will process appeals in a manner consistent with expectations; the successful execution of our business strategies; consistent and stable economic conditions or conditions in the financial markets; consistent and stable legislation in the various countries in which we operate; no disruptive changes in the technology environment; the opportunity to acquire accretive businesses; the successful integration of acquired businesses; and the continued availability of qualified professionals.

Inherent in the forward-looking information are known and unknown risks, uncertainties and other factors that could cause our actual results, performance or achievements, or industry results, to differ materially from any results, performance or achievements expressed or implied by such forward-looking information. Those risks, uncertainties and other factors that could cause actual results to differ materially from the forward-looking information include, but are not limited to: general state of the economy; currency risk; ability to maintain profitability and manage growth; commercial real estate market; competition in the



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industry; acquisitions; oil and gas sector; ability to attract and retain professionals; information from multiple sources; reliance on larger enterprise transactions with longer and less predictable sales cycles; success of new product introductions; ability to respond to technological change and develop products on a timely basis; protection of intellectual property or defending against claims of intellectual property rights of others; ability to implement technology strategy and ensure workforce adoption; information technology governance and security, including cyber security; engagement and product pipeline opportunities do not result in sufficient definitive agreements; property tax assessment regulators do not process appeals in a manner consistent with expectations; fixed-price and contingency engagements; appraisal and appraisal management mandates; Canadian multi-residential market; weather; legislative and regulatory changes; customer concentration and loss of material clients; interest rate risk; credit risk; income tax matters; revenue and cash flow volatility; health and safety hazards; performance of contractual obligations and client satisfaction; risk of legal proceedings; insurance limits; ability to meet solvency requirements to pay dividends; leverage and financial covenants; unpredictability and volatility of common share price; capital investment; and issuance of additional common shares diluting existing shareholders' interests, as well as those described in our publicly filed documents, including the Annual Information Form for the year ended December 31, 2017 (which are available on SEDAR at [www.sedar.com](http://www.sedar.com)) and as described in this document under "Key Factors Affecting the Business".

Given these risks, uncertainties and other factors, investors should not place undue reliance on forward-looking information as a prediction of actual results. The forward-looking information reflects management's current expectations and beliefs regarding future events and operating performance and is based on information currently available to management. Although we have attempted to identify important factors that could cause actual results to differ materially from the forward-looking information contained herein, there are other factors that could cause results not to be as anticipated, estimated or intended. The forward-looking information contained herein is current as of the date of this MD&A and, except as required under applicable law, we do not undertake to update or revise it to reflect new events or circumstances. Additionally, we undertake no obligation to comment on analyses, expectations or statements made by third parties in respect of Altus Group, our financial or operating results, or our securities.

## Adoption of Recent Accounting Pronouncements

We adopted the new accounting standards for revenue recognition and financial instruments effective January 1, 2018. These new standards had a material impact on our consolidated financial statements as at and for the year ended December 31, 2017. Beginning with the first quarter of 2018, our financial results reflect adoption of the standards with prior periods restated accordingly. Refer to Note 2 – Adoption of Recent Accounting Pronouncements in the notes to financial statements for further discussion.

IFRS 15, *Revenue from Contracts with Customers*, impacts the Company if our customers choose to license our on-premise versions rather than licensing hosted versions of ARGUS software solutions. The associated revenue will shift from being recognized over the contract term for the entire contract value to a portion of the contract value being recognized at the time of the transaction and the remainder over the contract term.

IFRS 9, *Financial Instruments*, impacts the accounting for expected credit losses of financial assets, more specifically, trade receivables and contract assets for unbilled revenue on customer contracts. Under IFRS 9, the Company will apply an expected loss model that assesses the risk a financial asset will default rather than whether a loss has been incurred. This will result in losses being recognized earlier.



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## Non-IFRS Measures

We use certain non-IFRS measures as indicators of financial performance. Readers are cautioned that they are not defined performance measures, and do not have any standardized meaning, under IFRS and may differ from similar computations as reported by other similar entities and, accordingly, may not be comparable to financial measures as reported by those entities. We believe that these measures are useful supplemental measures that may assist investors in assessing an investment in our shares and provide more insight into our performance.

*Adjusted Earnings before Interest, Taxes, Depreciation and Amortization, ("Adjusted EBITDA")*, represents profit (loss) before income taxes adjusted for the effects of finance costs (income), amortization of intangibles, depreciation of property, plant and equipment, acquisition and related transition costs (income), restructuring costs, share of profit (loss) of associates, unrealized foreign exchange gains (losses), gains (losses) on disposal of property, plant and equipment, gains (losses) on investments, impairment charges, non-cash Executive Compensation Plan costs, gains (losses) on hedging transactions, gains (losses) on equity derivatives net of mark-to-market adjustments on related restricted share units ("RSUs") and deferred share units ("DSUs") being hedged and other costs or income of a non-operating and/or non-recurring nature. Adjusted EBITDA margin is Adjusted EBITDA divided by revenues. Refer to page 23 for a reconciliation of Adjusted EBITDA to our financial statements.

*Adjusted Earnings (Loss) per Share, ("Adjusted EPS")*, represents basic earnings (loss) per share adjusted for the effects of amortization of intangibles acquired as part of business acquisitions, non-cash finance costs (income) related to the revaluation of amounts payable to U.K. unitholders, net of changes in fair value of related equity derivatives, acquisition and related transition costs (income), restructuring costs, share of profit (loss) of associates, unrealized foreign exchange gains (losses), gains (losses) on disposal of property, plant and equipment, gains (losses) on investments, interest accretion on contingent consideration payables, impairment charges, non-cash Executive Compensation Plan costs, gains (losses) on hedging transactions, gains (losses) on equity derivatives net of mark-to-market adjustments on related RSUs and DSUs being hedged and other costs or income of a non-operating and/or non-recurring nature. All of the adjustments are made net of tax. Refer to page 24 for a reconciliation of Adjusted EPS to our financial statements.

## Overview of the Business

Altus Group Limited is a leading provider of software, data solutions and independent advisory services to the global commercial real estate ("CRE") industry. Our businesses, Altus Analytics and Altus Expert Services, reflect decades of experience, a range of expertise, and technology-enabled capabilities. Our solutions empower clients to analyze, gain insight and recognize value on their real estate investments. Headquartered in Canada, we have approximately 2,500 employees around the world, with operations in North America, Europe and Asia Pacific. Our clients include some of the world's largest real estate industry participants.

We have three reporting business segments - Altus Analytics, Commercial Real Estate Consulting ("CRE Consulting") and Geomatics.



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## *Altus Analytics*

Altus Analytics provides data, analytics software and technology-related services. Our clients consist of large owners and managers of CRE assets, including public and private investment funds, pension funds, asset managers, real estate investment trusts ("REITs"), corporate investors, developers, brokers, governments and financial institutions.

Our ARGUS software solutions are among the most recognized in the CRE industry. Our flagship ARGUS Enterprise ("AE") software is the leading global solution for valuation and portfolio management. It provides the industry valuation standard in the U.S., the U.K. and Australia and enables global portfolio analytical capabilities with multi-currency adaptability. AE's suite of functionality offers valuation and cash flow analysis, property budgeting and strategic planning, investment and fund structure forecasting, dynamic reporting capabilities, and scenario and risk analysis. Other software products include ARGUS Developer and ARGUS EstateMaster (software for development feasibility analysis), ARGUS on Demand ("AOD") (a hosted version of AE and ARGUS Developer), ARGUS Voyanta (a cloud-based data management solution) and ARGUS Taliance (cloud-based solutions for alternative investment firms). ARGUS branded products are sold as perpetual licenses, with ongoing maintenance, or on a subscription basis.

In addition to our global software solutions, in the U.S., we offer appraisal management solutions with data and analytics functionality that allow institutional real estate investors to perform quarterly performance reviews, benchmarking and attribution analysis of their portfolios with the use of our proprietary data analytics platforms. This offering is also available in Europe and Asia. The contractual terms of our appraisal management agreements are generally for three to five year terms and pricing is primarily based on the number of real estate assets on our platform, adjusted for frequency of valuations and complexity. Our appraisal management teams are engaged from time to time to perform due diligence assignments in connection with CRE transactions.

In Canada, Altus Analytics also includes data subscription products, such as RealNet and Altus InSite, which provide comprehensive real estate information on the Canadian residential, office, industrial and investment markets.

A significant portion of Altus Analytics revenues is comprised of recurring revenues. Recurring revenues represent revenues related to software and data subscriptions, maintenance for perpetual licenses and appraisal management solutions, where the contract value for software subscriptions is recognized ratably over the contract term. Consistent with recurring revenues disclosed in prior years, this depicts the economics of our renewable contracts.

## *Expert Services*

Expert Services consists of CRE Consulting and Geomatics.

## *Commercial Real Estate Consulting*

CRE Consulting services - Property Tax, and Valuation and Cost Advisory services - span the life cycle of commercial real estate - feasibility, development, acquisition, management and disposition. With offices in Canada, the U.S. and the U.K., our team of Property Tax professionals help clients minimize the tax burden and reduce the cost of compliance. Our core real estate property tax services include assessment reviews, management and appeals, as well as in the U.S., personal property and state and local tax advisory services.



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Valuation services, which are predominantly provided in Canada, consist of appraisals of real estate portfolios, valuation of properties for transactional purposes, due diligence and litigation and economic consulting. Our Cost practice, offered in both the private and public sectors in North America and Asia Pacific, provides expert services in the areas of construction feasibility studies, budgeting, cost and loan monitoring and project management. Given the strength of our brand, our independence and quality of our work, we enjoy a high rate of client renewals across all of our service lines. Pricing for our services is based on a fixed fee or time and materials fee basis, and for a significant number of projects in Property Tax, on a contingency basis.

## *Geomatics*

Geomatics is the practice of recording and managing spatially referenced information, including land surveying, geographic information systems, global positioning systems and light detection and ranging. Our services, performed by highly qualified certified professionals, include land surveys and mapping for setting of property boundaries, route and corridor selection, land settlement, construction developments, and oil field and well-sites. Our competitive advantages include the depth of our team's experience and specialized training, our strong track record of safety, the timeliness and quality of our work, and our geographic strength in Western Canada. Our services are primarily charged on a time and materials fee basis.

## **Strategy**

Our key competitive strengths in the marketplace are comprised of our independence, our industry expertise, the breadth and diversity of our offerings, our differentiated data and software solutions, and our growing global scale. Our independence, which has earned us a reputation for unbiased and objective advice, remains an important factor in winning competitive bids, attracting strategic partnerships and offering industry-standard data and software solutions that are trusted by many market participants. We empower our clients through our expert services, data, analytical tools and software solutions, to make better informed decisions and maximize the value of their real estate investments.

We continue to see long-term industry growth prospects supported by favourable market trends driven by greater institutional global investments in CRE. CRE owners are managing increasingly complex global portfolios, and investors and regulators are demanding greater transparency to better understand and analyze risks, returns and opportunities. Our platform offerings serve these growing requirements as they provide industry standard solutions on a global basis.

We are developing a focused and integrated business model which scales our expert services, data, analytics and software capabilities on a global basis, and our independent and technology-enabled real estate consulting services is a critical enabler of value for our clients.

We now have over 40,000 expert services clients and over 6,000 software clients globally and tens of thousands of users. We also have strategic relationships with the largest, global CRE clients and are supporting their efforts to have common visibility, strong governance and investment knowledge on their diverse portfolios. We are organizing our business to leverage our enhanced capabilities across our full suite of software, data and expert services. We see significant expansion potential from globalization, new functionality and cloud solutions and the monetization of data across all of our products. With the strong client base of our expert services, we will continue to differentiate our offering with software and data to





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drive productivity for our consultants, repurpose data for productivity and aggregate data for insights and eventual monetization.

### *Strategic Initiatives*

#### 1. Globalization

There is significant upside opportunity for Altus Analytics software products and services globally.

Top global firms are requiring greater insights and transparency into the performance of their CRE portfolios. Both the right technology and expert knowledge are key enablers of timely information and decisions. Our appraisal management solutions with data and analytics functionality are already a standard in the U.S. The Altus Analytics advisory team enjoys strategic relationships with the ODECE funds and over 80 of the top 100 real estate owners / investment managers in the U.S. In Canada where there is a significant number of important global players and large real estate owners we have significant market share. These relationships give us broad credentials and are a gateway for our Expert Services and Altus Analytics offerings. We plan to leverage our existing base in Luxembourg to expand our offering of these solutions across Europe. We have signed agreements with several of the largest global real estate companies to support them with Altus Analytics advisory services in continental Europe.

AE which provides global portfolio analytical capabilities with multi-currency adaptability is quickly being adopted as a solution that provides consistent visibility and data normalcy to the complex world of real estate investment. It has enjoyed strong success in the marketplace with over 3,700 AE clients and over 770 AOD clients. It has been established as the standard in North America and is in the full upgrade cycle towards becoming the standard in the U.K. with increasingly strong adoption across EMEA and Australia/Asia. Our goal is to position AE as a global standard within our Top 200 client base, and thereby continue to create a network effect throughout the industry, by increasing our sales and marketing efforts in new markets with a road map of local functionality that expands the use of AE in target markets. Our Top 200 clients are among the world's largest CRE investors, many are planning projects to deploy AE globally. We have developed support programs and partnerships to help our clients more efficiently and effectively deploy globally.

We are achieving a critical mass in every market building on our privileged position in North America. With 70 offices around the world, we are one of the leading providers of services, software and data to the global CRE markets. In the U.K., our acquisition of CVS (Commercial Valuers & Surveyors) Limited ("CVS") in our Property Tax business takes our headcount across all business units to over 2,500 employees. Our acquisition of EstateMaster Group Holdings Pty Limited ("EstateMaster") compliments our strong market position in Australia so we have critical mass and a technology client base of over 1,000 clients and the acquisition of Taliance adds a customer base of alternative investment firms and allows us to expand our position in Europe and the fund management segment of the market globally.

#### i. New Functionality and Cloud Solutions

We are extending our Altus Analytics advisory solutions to a wider managed service offering targeting the Top 100 global investment firms. The new service provides data aggregation and



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reporting, asset and portfolio management and fund and investment management. This solution will involve existing technologies such as ARGUS Voyanta, AE, Taliance, external partner capabilities, and our internal expert services. We will continue to offer and extend our application solutions on the AE platform including budgeting, sensitivity analysis and other capabilities. With AE, we will also ensure that we build further capability that allows the broad use of AE throughout an organization.

We have increased investment spending in our development teams and will continue to add resources as we modernize the current AE platform and develop new cloud-based applications. The early phases of our cloud strategy consist of first developing new applications that will be cloud-based but synchronize with the AE on-premise solutions and AOD product through application programming interfaces (API) and portal functionality. We believe these applications will bring new users to the AE environment. The web applications will be sold separately on a SaaS basis and should generate incremental sales to existing customers as well as bring new customers to the AE platform. We believe that as a result of cloud products and geographic expansion, as discussed above, it is our intention to extend our AE customer base from approximately 3,700 today to 8,500 in future years.

## ii. Data Products

Our leading Expert Services and Altus Analytics offerings, including AE in the cloud, collect valuable and detailed CRE industry data. This provides us with a unique long-term opportunity to re-purpose and eventually monetize this data to drive differentiation, launch new products and strengthen our recurring revenue streams. We have been laying the groundwork for this opportunity by developing technology that captures and organizes the data that we collect across each of our businesses and through partnerships. In the long term, this infrastructure will enable us to better integrate our current products, to pursue more data-sharing partnerships, and to leverage the data to develop new applications and data-driven products. Our goal is to use this infrastructure and capabilities to ultimately launch new products globally.

## 2. Scale Global Property Tax to Market Prominence

Our Property Tax practice continues to represent an attractive growth area for our Company. With the recent acquisition of CVS, we have more than doubled our market share in the U.K. as measured by volume of appeals. Despite this increase, we believe we can still drive significantly more share through organic growth with continued sales and marketing efforts as well as through additional 'tuck-in' opportunities. In the U.S., the market remains fragmented. Our strategy is to continue to pursue acquisition opportunities as well as to invest for organic growth. We are focused on new client acquisition strategies as well as leveraging current client databases within Altus Analytics. A key strategic initiative currently underway which will provide market differentiation is the new tax platform tailored for North America. This platform will leverage our proprietary database, improve internal efficiencies and drive client value.

## 3. Enhance the Value Proposition of our Expert Services Through Data and Technology

We enjoy a long legacy of being a leading expert services provider in the fields in which we operate, including Property Tax, Valuation and Cost Advisory and Geomatics services. In order to enhance the



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value of our market leadership, we will continue to invest in these businesses with the use of data and technology. As an example, in addition to the tax platform discussed above, we are currently implementing ARGUS EstateMaster within our Australian and Canadian Cost practices. Similar initiatives are underway in our Valuation practice. These initiatives will have the benefit of enhancing our Expert Services capabilities, enable productivity for our consultants and will contribute data for future opportunities.



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### Financial and Operating Highlights

Selected Financial Information	Three months ended		Nine months ended	
	September 30,		September 30,	
<i>In thousands of dollars, except for per share amounts</i>	2018	2017 <sup>(1)</sup>	2018	2017 <sup>(1)</sup>
Revenues	\$ 120,636	\$ 117,072	\$ 379,544	\$ 354,245
Canada	40%	43%	41%	45%
U.S.	38%	39%	35%	38%
Europe	15%	11%	18%	11%
Asia Pacific	7%	7%	6%	6%
Adjusted EBITDA	\$ 16,504	\$ 23,310	\$ 55,783	\$ 60,696
Adjusted EBITDA margin	13.7%	19.9%	14.7%	17.1%
Profit (loss)	\$ (1,723)	\$ 7,327	\$ (3,720)	\$ 112,805
Earnings (loss) per share:				
Basic	\$(0.04)	\$0.19	\$(0.10)	\$2.98
Diluted	\$(0.04)	\$0.19	\$(0.10)	\$2.93
Adjusted	\$0.22	\$0.34	\$0.84	\$0.96
Dividends declared per share	\$0.15	\$0.15	\$0.45	\$0.45

<sup>(1)</sup> Restated for the impact of IFRS 15.

### Financial Highlights

- Revenues** were \$120.6 million for the three months ended September 30, 2018, up 3.0% or \$3.5 million from \$117.1 million in the same period in 2017. For the nine months ended September 30, 2018, revenues were \$379.5 million, up 7.1% or \$25.3 million from \$354.2 million in the same period in 2017. Acquisitions contributed 3.9% and 4.8% to revenues for the quarter and year-to-date, respectively, while organic growth contributed (0.9%) and 2.3%, respectively. Exchange rate movements against the Canadian dollar impacted revenues by 1.9% and (0.2%) for the quarter and year-to-date, respectively. The increase in revenues in the quarter was driven by Altus Analytics, up 9.1% supported by strong growth in recurring revenues, and by a solid performance by Valuation and Cost Advisory which grew revenues by 6.1%. Revenues from our Property Tax business declined by 1.1% from prior year, impacted by ongoing deferrals in case settlements in Ontario, our largest single market in Canada. Our Geomatics business continued to be negatively impacted by lower activity levels in the oil and gas sector.
- Adjusted EBITDA** was \$16.5 million for the three months ended September 30, 2018, down 29.2% or \$6.8 million from \$23.3 million in the same period in 2017. For the nine months ended September 30, 2018, Adjusted EBITDA was \$55.8 million, down 8.1% or \$4.9 million from \$60.7 million in the same period in 2017. Exchange rate movements against the Canadian dollar impacted Adjusted EBITDA by 3.2% and (0.7%), respectively. Earnings declined in the quarter compared to the prior year on lower Property Tax revenues, as discussed above, and continued investments on product development at Altus Analytics.
- Profit (loss)** for the three months ended September 30, 2018 was \$(1.7) million, down 123.5% or \$9.0 million from \$7.3 million in the same period in 2017. For the nine months ended September 30, 2018, profit (loss) was \$(3.7) million, down 103.3% or \$116.5 million from \$112.8 million in the same period



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in 2017. In addition to the impacts on Adjusted EBITDA as discussed above, for the three months ended September 30, 2018, there were increased employee compensation expenses and amortization of intangibles from recent acquisitions, offset by a decrease in income tax expense. For the nine months ended September 30, 2018, there was increased amortization of intangibles from recent acquisitions, in addition to a net gain on partial deemed dispositions and re-measurement of our retained interest in Real Matters Inc. ("Real Matters") that did not reoccur in 2018, offset by a decrease in income tax expense.

- For the three months ended September 30, 2018, earnings (loss) per share was \$(0.04), basic and diluted, as compared to \$0.19, basic and diluted, in the same period in 2017. For the nine months ended September 30, 2018, earnings (loss) per share was \$(0.10), basic and diluted, as compared to \$2.98, basic and \$2.93, diluted, in the same period in 2017. In 2017, we benefitted from a net gain of \$115.2 million on partial deemed dispositions and re-measurement of our retained interest in Real Matters that did not reoccur in 2018. As a result, our earnings (loss) per share, basic and diluted, declined as compared to the corresponding periods in 2017.
- For the three months ended September 30, 2018, Adjusted EPS was \$0.22, down 35.3% from \$0.34 in the same period in 2017. For the nine months ended September 30, 2018, Adjusted EPS was \$0.84, down 12.5% from \$0.96 in the same period in 2017.
- We returned \$5.9 million to shareholders in the quarter through quarterly dividends of \$0.15 per common share.
- As at September 30, 2018, our bank debt was \$185.2 million, representing a funded debt to EBITDA leverage ratio of 1.72 times (compared to 1.84 times as at December 31, 2017). As at September 30, 2018, cash on hand was \$93.0 million (compared to \$28.1 million as at December 31, 2017). Our cash on hand included funds of \$54.1 million from the disposition proceeds of our investment in Real Matters, which were used to pay down our bank debt to \$131.1 million on October 2, 2018.

### Operating Highlights

#### *Acquisition of New Market Real Estate Group, LLC*

On January 1, 2018, we acquired certain operating assets of New Market Real Estate Group, LLC ("New Market") for \$1.0 million in common shares. Based in Maryland and founded in 2001, New Market offers a full range of real estate services throughout the United States including real estate research, valuation, acquisition, investment analysis and counselling services. This business was integrated into our Altus Analytics advisory practice.

#### *Acquisition of Aspect Property Consultants LLP*

On February 14, 2018, we acquired certain operating assets of Aspect Property Consultants LLP ("Aspect") for £3.0 million (CAD\$5.2 million) in cash, common shares and contingent consideration, subject to working capital adjustments, with an upward adjustment to the purchase price of £2.0 million (CAD\$3.5 million) provided for in the purchase agreement. As consideration for these assets, we paid cash of £1.8 million (CAD\$3.1 million) and common shares of £0.6 million (CAD\$1.1 million) and we estimated contingent consideration of £1.9 million (CAD\$3.3 million). The purchase agreement provides for maximum contingent consideration of £2.6 million, subject to certain performance targets being achieved



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over a two-year period from the closing date. With offices located in London, Heathrow and Basingstoke, U.K. and founded in 2009, Aspect is a commercial property consultancy firm specializing in the South East business space market with a particular focus on the West London warehouse market. This business was integrated into our U.K. Property Tax group.

### *Acquisition of Taliance Group SAS*

On July 1, 2018, we acquired all the issued and outstanding shares of Taliance Group SAS and its subsidiaries ("Taliance") for €20.0 million (CAD\$30.7 million) in cash and common shares, subject to closing adjustments. On closing, €2.2 million (CAD\$3.3 million) of common shares were issued from treasury and the remainder of the purchase price was drawn from the revolving term facility.

Taliance provides cloud-based collaborative business solutions to alternative investment firms globally allowing them to improve their modelling, forecasting and risk management processes in real time. Based in Paris, Taliance also has offices in London and New York. The addition of Taliance, which can be deployed and integrated with ARGUS Enterprise, allows us to expand our position in Europe and to deliver cloud software solutions with a comprehensive investment management capability that provides flexibility and transparency to manage the most complex investment structures and scenarios. Taliance also provides a foundation for growth in the fund management segment of the market globally. Taliance is currently sold as a stand-alone offering, ARGUS Taliance, under our Altus Analytics banner.

### *Restructuring Activities*

In Q1 of 2018, we undertook and completed restructuring activities in Geomatics to reduce costs. In connection with these restructuring activities, a total of \$nil and \$2.9 million in restructuring costs were recorded in the quarter and year-to-date, respectively. These charges relate primarily to employee severance costs and onerous leases.

In Q2 of 2018, we initiated restructuring activities in our Property Tax practice as a result of our integration efforts in the U.K. following the acquisition of CVS. We expect to complete this restructuring plan in Q4 of 2018. In connection with these restructuring activities, a total of \$(0.2) million and \$3.7 million in restructuring costs were recorded in the quarter and year-to-date, respectively. These charges relate primarily to employee severance costs and onerous leases.

### *Sale of Investment in Real Matters*

In September 2018, we sold our investment in Real Matters for net proceeds of \$54.2 million. The loss included in other comprehensive income (loss) up to the date of disposition of \$70.8 million was transferred to retained earnings. In October 2018, the proceeds were used to reduce the borrowings under the bank credit facilities.



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### Discussion of Operations

#### Three and Nine Months Ended September 30, 2018

<i>In thousands of dollars, except for per share amounts</i>	Three months ended September 30,		Nine months ended September 30,	
	2018	2017 <sup>(1)</sup>	2018	2017 <sup>(1)</sup>
<b>Revenues</b>	\$ 120,636	\$ 117,072	\$ 379,544	\$ 354,245
<b>Expenses</b>				
Employee compensation	78,043	70,159	243,564	219,142
Occupancy	5,290	5,095	15,941	15,163
Office and other operating	23,684	20,729	71,134	64,834
Depreciation and amortization	12,635	8,413	37,860	25,487
Acquisition and related transition costs (income)	184	302	2,257	1,170
Share of (profit) loss of associates	-	-	-	2,420
Restructuring costs	(184)	181	6,458	4,739
(Gain) loss on investments	(42)	-	(81)	(115,179)
Finance costs (income), net	1,738	454	4,856	2,352
<b>Profit (loss) before income taxes</b>	(712)	11,739	(2,445)	134,117
Income tax expense (recovery)	1,011	4,412	1,275	21,312
<b>Profit (loss) for the period</b>	\$ (1,723)	\$ 7,327	\$ (3,720)	\$ 112,805

<sup>(1)</sup> Restated for the impact of IFRS 15.

#### Revenues

Revenues were \$120.6 million for the three months ended September 30, 2018, up 3.0% or \$3.5 million from \$117.1 million in the same period in 2017. For the nine months ended September 30, 2018, revenues were \$379.5 million, up 7.1% or \$25.3 million from \$354.2 million in the same period in 2017. For the three and nine months ended September 30, 2018, exchange rate movements against the Canadian dollar impacted revenues by 1.9% and (0.2%), respectively. Acquisitions contributed 3.9% and 4.8% to the quarter and year-to-date increase, respectively. The increase in revenues in the quarter was driven by growth in our Altus Analytics business as well as solid performance from our Valuation and Cost Advisory business. Revenues from our Property Tax business were below last year, as we continue to see deferrals in case settlements in Ontario, our largest market in Canada. Our Geomatics business continued to be negatively impacted by lower activity levels in the oil and gas sector.

#### Employee Compensation

Employee compensation was \$78.0 million for the three months ended September 30, 2018, up 11.2% or \$7.8 million from \$70.2 million in the same period in 2017. For the nine months ended September 30, 2018, employee compensation was \$243.6 million, up 11.1% or \$24.5 million from \$219.1 million in the same period in 2017. For the three and nine months ended September 30, 2018, the increase in compensation was mainly due to acquisitions and headcount additions mostly to support product development within Altus Analytics. As a partial offset to the increases, there were lower accruals of variable compensation and a decline in employee compensation at Geomatics, due to reduced activity levels and headcount reductions. For the three and nine months ended September 30, 2018, employee compensation as a percentage of



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revenues was 64.7% and 64.2%, as compared to 59.9% and 61.9% in the corresponding periods in 2017, respectively.

### *Occupancy*

Occupancy was \$5.3 million for the three months ended September 30, 2018, up 3.8% or \$0.2 million from \$5.1 million in the same period in 2017. For the nine months ended September 30, 2018, occupancy was \$15.9 million, up 5.1% or \$0.7 million from \$15.2 million in the same period in 2017. For the three and nine months ended September 30, 2018, occupancy costs increased as a result of the CVS and Taliance acquisitions. For the three and nine months ended September 30, 2018, occupancy as a percentage of revenues was 4.4% and 4.2%, as compared to 4.4% and 4.3% in the corresponding periods in 2017, respectively.

### *Office and Other Operating Costs*

Office and other operating costs were \$23.7 million for the three months ended September 30, 2018, up 14.3% or \$3.0 million from \$20.7 million in the same period in 2017. For the nine months ended September 30, 2018, office and other operating costs were \$71.1 million, up 9.7% or \$6.3 million from \$64.8 million in the same period in 2017. For the three and nine months ended September 30, 2018, the increase was from acquisitions and technology-related spend. For the three and nine months ended September 30, 2018, office and other operating costs as a percentage of revenues was 19.6% and 18.7%, as compared to 17.7% and 18.3% in the corresponding periods in 2017, respectively.

### *Depreciation and Amortization*

Depreciation and amortization was \$12.6 million and \$37.9 million for the three and nine months ended September 30, 2018, as compared to \$8.4 million and \$25.5 million in the corresponding periods in 2017, respectively. For the three and nine months ended September 30, 2018, the increase in depreciation and amortization was due to amortization of intangibles acquired on recent acquisitions.

### *Acquisition and Related Transition Costs (Income)*

Acquisition and related transition costs (income) was \$0.2 million and \$2.3 million for the three and nine months ended September 30, 2018, as compared to \$0.3 million and \$1.2 million in the corresponding periods in 2017, respectively. For the three and nine months ended September 30, 2018, expenses were primarily related to New Market, Aspect, CVS and Taliance.

### *Share of (Profit) Loss of Associates and (Gain) Loss on Investments*

Share of (profit) loss of associates was \$nil and \$nil for the three and nine months ended September 30, 2018, as compared to \$nil and \$2.4 million in the corresponding periods in 2017, respectively. In 2017, the amount represents our proportionate share in the loss as well as an amortization charge on acquired intangibles for Real Matters; however, it is not applicable after its initial public offering in Q2 of 2017. (Gain) loss on investments was \$0.04 million and \$(0.1) million for the three and nine months ended September 30, 2018, as compared to \$nil and \$(115.2) million in the corresponding periods in 2017, respectively. In 2017, the amount represents the net gain on partial deemed dispositions and re-measurement of our retained interest in Real Matters, as compared to revaluations of our investments in partnerships in 2018.

### *Restructuring Costs*

In Q1 of 2018, we undertook and completed restructuring activities in Geomatics to reduce costs. In connection with these restructuring activities, a total of \$nil and \$2.9 million in restructuring costs were





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recorded in the quarter and year-to-date, respectively. These charges relate primarily to employee severance costs and onerous leases.

In Q2 of 2018, we initiated restructuring activities in our Property Tax practice as a result of our integration efforts in the U.K. following the acquisition of CVS. We expect to complete this restructuring plan in Q4 of 2018. In connection with these restructuring activities, a total of \$(0.2) million and \$3.7 million in restructuring costs were recorded in the quarter and year-to-date, respectively. These charges relate primarily to employee severance costs and onerous leases.

In addition, in Q1 of 2018, restructuring provisions made in prior years in the amount of \$0.2 million were released and credited to profit (loss).

### Finance Costs (Income), Net

In thousands of dollars	Three months ended September 30,			Nine months ended September 30,		
	2018	2017	% Change	2018	2017	% Change
Interest on borrowings	\$ 1,786	\$ 1,186	50.6%	\$ 4,690	\$ 3,580	31.0%
Unwinding of discount	169	25	576.0%	507	73	594.5%
Change in fair value of amounts payable to U.K. unitholders, net of change in fair value of related equity derivatives	-	-	-	-	32	(100.0%)
Change in fair value of interest rate swaps (not designated as cash flow hedges)	(135)	(707)	(80.9%)	(149)	(1,217)	(87.8%)
Other	(82)	(50)	64.0%	(192)	(116)	65.5%
<b>Finance costs (income), net</b>	<b>\$ 1,738</b>	<b>\$ 454</b>	<b>282.8%</b>	<b>\$ 4,856</b>	<b>\$ 2,352</b>	<b>106.5%</b>

Finance costs (income), net for the three months ended September 30, 2018 was \$1.7 million, up 282.8% or \$1.2 million from \$0.5 million in the same period in 2017. For the nine months ended September 30, 2018, finance costs (income), net was \$4.9 million, up 106.5% or \$2.5 million from \$2.4 million in the same period in 2017. Our finance costs increased due to higher borrowings for acquisitions and a less favourable change in the fair value of interest rate swaps compared to the same period in 2017.

### Income Tax Expense (Recovery)

Income tax expense (recovery) for the three and nine months ended September 30, 2018 was \$1.0 million and \$1.3 million, as compared to \$4.4 million and \$21.3 million in the corresponding periods in 2017, respectively. A significant amount of our earnings is derived outside of Canada and as a result a change in the mix of earnings and losses in countries with differing statutory tax rates have impacted our effective tax rates for the three and nine months ended September 30, 2018.

### Profit (Loss)

Profit (loss) for the three months ended September 30, 2018 was \$(1.7) million and \$(0.04) per share, basic and diluted, as compared to \$7.3 million and \$0.19 per share, basic and diluted, in the same period in 2017. For the nine months ended September 30, 2018, profit (loss) was \$(3.7) million and \$(0.10) per share, basic and diluted, as compared to \$112.8 million and \$2.98 per share, basic and \$2.93 per share, diluted, in the same period in 2017.



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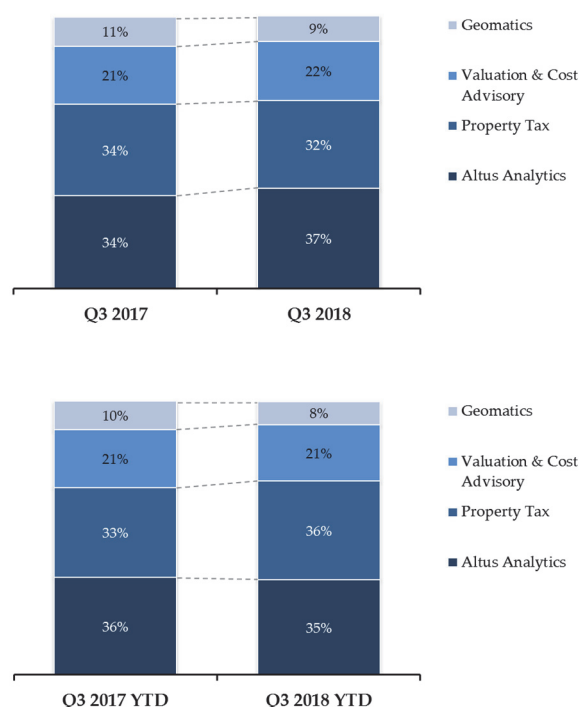
### Revenues and Adjusted EBITDA by Business Unit

Revenues	Three months ended September 30,			Nine months ended September 30,		
	2018	2017 <sup>(1)</sup>	% Change	2018	2017 <sup>(1)</sup>	% Change
<i>In thousands of dollars</i>						
Altus Analytics	\$ 44,094	\$ 40,411	9.1%	\$ 131,602	\$ 126,178	4.3%
Expert Services:						
Commercial Real Estate Consulting	65,326	64,252	1.7%	216,256	191,802	12.7%
Geomatics	11,338	12,580	(9.9%)	32,151	36,947	(13.0%)
Intercompany eliminations	(122)	(171)	28.7%	(465)	(682)	31.8%
<b>Total</b>	<b>\$ 120,636</b>	<b>\$ 117,072</b>	<b>3.0%</b>	<b>\$ 379,544</b>	<b>\$ 354,245</b>	<b>7.1%</b>

Adjusted EBITDA	Three months ended September 30,			Nine months ended September 30,		
	2018	2017 <sup>(1)</sup>	% Change	2018	2017 <sup>(1)</sup>	% Change
<i>In thousands of dollars</i>						
Altus Analytics	\$ 10,102	\$ 11,843	(14.7%)	\$ 31,202	\$ 40,090	(22.2%)
Expert Services:						
Commercial Real Estate Consulting	11,187	19,019	(41.2%)	45,983	44,527	3.3%
Geomatics	1,812	1,489	21.7%	2,721	3,461	(21.4%)
Corporate	(6,597)	(9,041)	27.0%	(24,123)	(27,382)	11.9%
<b>Total</b>	<b>\$ 16,504</b>	<b>\$ 23,310</b>	<b>(29.2%)</b>	<b>\$ 55,783</b>	<b>\$ 60,696</b>	<b>(8.1%)</b>

<sup>(1)</sup> Restated for the impact of IFRS 15.

### Revenue Contribution for the Quarter and Year-to-Date <sup>(1)</sup>:



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### Altus Analytics

<i>In thousands of dollars</i>	Three months ended September 30,			Nine months ended September 30,		
	2018	2017 <sup>(1)</sup>	% Change	2018	2017 <sup>(1)</sup>	% Change
Revenues	\$ 44,094	\$ 40,411	9.1%	\$ 131,602	\$ 126,178	4.3%
Adjusted EBITDA	\$ 10,102	\$ 11,843	(14.7%)	\$ 31,202	\$ 40,090	(22.2%)
Adjusted EBITDA Margin	22.9%	29.3%		23.7%	31.8%	

<sup>(1)</sup> Restated for the impact of IFRS 15.

### Quarterly Discussion

Revenues were \$44.1 million for the three months ended September 30, 2018, up 9.1% or \$3.7 million from \$40.4 million in the same period in 2017. Revenues in the quarter improved on higher license subscriptions, maintenance and appraisal management revenues, including the acquisition of Taliance which added 3.3% to revenues, offset by lower perpetual license revenues. We also experienced lower due diligence revenues in the quarter. Recurring revenues, as described above in the Overview of the Business, were \$34.2 million for the three months ended September 30, 2018, up 22.7% or \$6.3 million from \$27.9 million in the same period in 2017. Movements in the exchange rate against the Canadian dollar impacted revenues by 3.6%.

Adjusted EBITDA was \$10.1 million for the three months ended September 30, 2018, down 14.7% or \$1.7 million from \$11.8 million in the same period in 2017. Changes in foreign exchange impacted Adjusted EBITDA by 3.6%. Adjusted EBITDA decreased because of higher expenses as we continue our investments in ARGUS product development activities such as cloud functionality.

### Year-to-Date Discussion

Revenues were \$131.6 million for the nine months ended September 30, 2018, up 4.3% or \$5.4 million from \$126.2 million in the same period in 2017. Revenues improved on higher license subscriptions, maintenance and appraisal management revenues, including the acquisition of Taliance which added 1.0% to revenues, offset by lower perpetual license revenues. We also experienced lower due diligence revenues year-to-date. Recurring revenues, as described above in the Overview of the Business, were \$96.4 million for the nine months ended September 30, 2018, up 9.8% or \$8.6 million from \$87.8 million in the same period in 2017. Movements in the exchange rate against the Canadian dollar impacted revenues by (0.7%).

Adjusted EBITDA was \$31.2 million for the nine months ended September 30, 2018, down 22.2% or \$8.9 million from \$40.1 million in the same period in 2017. Changes in foreign exchange impacted Adjusted EBITDA by (1.9%). Adjusted EBITDA decreased because of higher expenses as we made significant incremental investments in ARGUS product development activities such as cloud functionality.

### Outlook

We expect to continue benefitting from growing global demand and favorable trends to increase use of technology and data in the CRE marketplace. Our product offerings stand to serve the growing needs from professional asset and investment managers for data, analytic tools and software solutions that help them make more timely and informed decisions. In 2018 and into 2019, we expect our software revenues to be driven primarily by growth in new customer sales, especially in Europe and Asia, and additional license sales for new users and of new modules to our existing customer base of AE, ARGUS Developer and ARGUS EstateMaster as the use and adoption of our solutions become more entrenched. In addition, the



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recent acquisition of Taliance is expected to enhance our value proposition to investment management firms while contributing to revenue growth. We also expect continued growth in our existing cloud solutions, AOD and Voyanta, as clients trend toward cloud-based technologies. As well, in Q4 of 2018, we expect to launch our first web application along with a cloud platform enabling further applications. We have been investing significantly in new technology and will continue to do so to sustain our long-term growth objectives, along with investment in our sales and delivery capabilities to support the demand for our cloud solutions.

We are targeting new customers in appraisal management and advisory services and see a growing opportunity for new engagements in international markets as we continue to work with the large global firms.

Looking out to fourth quarter 2018 and first quarter 2019, given the strength of our engagement and product pipeline, we expect revenue growth for Altus Analytics, in percentage terms, to be in the range of mid-teens to low twenties. Also, given the current exchange rate environment, we expect foreign exchange tailwinds in Q4 2018 and early 2019.

### Commercial Real Estate Consulting

<i>In thousands of dollars</i>	Three months ended September 30,			Nine months ended September 30,		
	2018	2017 <sup>(1)</sup>	% Change	2018	2017 <sup>(1)</sup>	% Change
<b>Revenues</b>						
Property Tax	\$ 38,946	\$ 39,385	(1.1%)	\$ 137,624	\$ 116,724	17.9%
Valuation and Cost Advisory	26,380	24,867	6.1%	78,632	75,078	4.7%
Revenues	\$ 65,326	\$ 64,252	1.7%	\$ 216,256	\$ 191,802	12.7%
<b>Adjusted EBITDA</b>						
Property Tax	\$ 7,214	\$ 15,355	(53.0%)	\$ 35,705	\$ 35,282	1.2%
Valuation and Cost Advisory	3,973	3,664	8.4%	10,278	9,245	11.2%
Adjusted EBITDA	\$ 11,187	\$ 19,019	(41.2%)	\$ 45,983	\$ 44,527	3.3%
Adjusted EBITDA Margin	17.1%	29.6%		21.3%	23.2%	

<sup>(1)</sup> Restated for the impact of IFRS 15.

### Quarterly Discussion

Revenues were \$65.3 million for the three months ended September 30, 2018, up 1.7% or \$1.0 million from \$64.3 million in the same period in 2017. The growth in revenues was driven by our Valuation and Cost Advisory business. In our Property Tax business, we saw a slight decline in revenues. Although we gained from additional revenues from our acquisition of CVS, overall, our revenues were impacted by government process changes in both Ontario and the U.K. Both jurisdictions have undergone significant change in the scheduling and appeal settlement process that is currently causing a deferral of case settlements and consequently a deferral of case completion and revenue recognition. Exchange rate fluctuations benefitted Property Tax revenues by 2.6%. Our Valuation and Cost Advisory revenues increased by 6.1%, primarily due to strong performance from Canada Cost Advisory. Changes in exchange rates impacted CRE Consulting revenues by 1.3%.



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Adjusted EBITDA was \$11.2 million for the three months ended September 30, 2018, down 41.2% or \$7.8 million from \$19.0 million in the same period in 2017, resulting from a decrease in earnings from our Property Tax business. As discussed above, Property Tax revenues have been impacted by procedural changes in scheduling and appeal settlements in Ontario and the U.K. and consequently caused a decline in quarterly earnings. Changes in exchange rates impacted CRE Consulting Adjusted EBITDA by 1.6%.

### *Year-to-Date Discussion*

Revenues were \$216.3 million for the nine months ended September 30, 2018, up 12.7% or \$24.5 million from \$191.8 million in the same period in 2017. Property Tax revenues increased by 17.9%, as a result of organic growth in North America and the acquisition of CVS in the U.K. Revenues were impacted by fewer settlements in both Ontario and the U.K. as a result of procedural changes in scheduling and appeal settlement processes. Exchange rate fluctuations impacted Property Tax revenues by 0.7%. Our Valuation and Cost Advisory revenues increased by 4.7% on stronger performance from our global Cost practice, where we experienced growth in both Canada and Australia. Changes in exchange rates impacted CRE Consulting revenues by 0.2%.

Adjusted EBITDA was \$46.0 million for the nine months ended September 30, 2018, up 3.3% or \$1.5 million from \$44.5 million in the same period in 2017. The earnings growth was driven by Valuation and Cost Advisory. Changes in exchange rates impacted CRE Consulting Adjusted EBITDA by 0.7%.

### *Outlook*

Property Tax continues to represent an attractive growth area for our business, both in the U.S. and the U.K. Our North American platform with our existing network of offices in Canada and the U.S. provides us with enhanced capabilities geographically to service large clients anywhere across North America. In the U.K., the acquisition of CVS in 2017 substantially increased our market share and positions us well to grow our business over the course of the new cycle. However, as we are still in the early years of the valuation cycles for both Ontario and the U.K., we expect to experience the typical quarterly variability patterns in 2018 in our global Property Tax practice. In Ontario, we have a strong pipeline of work, however, new scheduling processes put in place by the assessment authorities is causing a deferral of appeals settlements. Nonetheless, we expect to benefit from increasing value and volume of appeals over the course of the new cycles. As well, procedural changes in the U.K. are temporarily impacting the timing of revenues. We expect to return to normalized settlement volumes in Ontario and increasing volumes in the U.K., and accordingly expect record revenues in Property Tax in 2019. Overall, the opportunities to grow market share remain vibrant in this segment both organically and through accretive acquisitions in both the U.S. and U.K.

Our Valuation and Cost Advisory practices enjoy significant market share in Canada and as a result, continue to grow modestly. We expect moderate growth in the near to medium term. Our Valuation practice, predominately operating in Canada, continues to benefit from strong client retention. Our Cost practice in North America continues to diversify its client and industry focus and in Asia Pacific, we continue to leverage our global relationships to drive opportunities.



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### Geomatics

<i>In thousands of dollars</i>	Three months ended September 30,			Nine months ended September 30,		
	2018	2017 <sup>(1)</sup>	% Change	2018	2017 <sup>(1)</sup>	% Change
Revenues	\$ 11,338	\$ 12,580	(9.9%)	\$ 32,151	\$ 36,947	(13.0%)
Adjusted EBITDA	\$ 1,812	\$ 1,489	21.7%	\$ 2,721	\$ 3,461	(21.4%)
Adjusted EBITDA Margin	16.0%	11.8%		8.5%	9.4%	

<sup>(1)</sup> Restated for the impact of IFRS 15.

#### *Quarterly Discussion*

Revenues were \$11.3 million for the three months ended September 30, 2018, down 9.9% or \$1.3 million from \$12.6 million in the same period in 2017. We experienced lower revenues as activity levels remain depressed in oil drilling and gas exploration.

Adjusted EBITDA was \$1.8 million for the three months ended September 30, 2018, up 21.7% or \$0.3 million from \$1.5 million in the same period in 2017. Earnings improved on headcount reductions.

#### *Year-to-Date Discussion*

Revenues were \$32.2 million for the nine months ended September 30, 2018, down 13.0% or \$4.7 million from \$36.9 million in the same period in 2017. We experienced lower revenues as activity levels remain depressed in oil drilling and gas exploration.

Adjusted EBITDA was \$2.7 million for the nine months ended September 30, 2018, down 21.4% or \$0.8 million from \$3.5 million in the same period in 2017. Earnings were impacted by lower revenues, partly offset by savings on headcount reductions.

#### *Outlook*

We maintain a cautious outlook for our Geomatics business for the remainder of 2018. Although oil prices have recently improved, which should translate into improved activity levels for oil drilling, gas prices remain depressed and, as a result, we are seeing lower planned capital expenditures within this segment. Furthermore, pricing pressures in our industry continue to persist. As a result, we took further actions to reduce costs earlier in 2018 and will continue to closely monitor market conditions.

### Corporate Costs

#### *Quarterly Discussion*

Corporate costs (recovery) were \$6.6 million for the three months ended September 30, 2018, as compared to \$9.0 million in the same period in 2017. During the quarter, corporate costs decreased on lower variable compensation and the benefits of a media tax credit. For the three months ended September 30, 2018, corporate costs as a percentage of revenues was 5.5%, as compared to 7.7% in the same period in 2017.

#### *Year-to-Date Discussion*

Corporate costs (recovery) were \$24.1 million for the nine months ended September 30, 2018, as compared to \$27.4 million in the same period in 2017. Corporate costs declined on lower technology-related spend, lower variable compensation and the benefits of a media tax credit. For the nine months ended September



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30, 2018, corporate costs as a percentage of revenues was 6.4%, as compared to 7.7% in the same period in 2017.

## Liquidity and Capital Resources

Cash Flow	Three months ended		Nine months ended	
	September 30,		September 30,	
<i>In thousands of dollars</i>	2018	2017 <sup>(1)</sup>	2018	2017 <sup>(1)</sup>
Net cash related to operating activities	\$ 27,792	\$ 21,224	\$ 34,588	\$ 37,732
Net cash related to financing activities	(8,107)	(5,573)	17,377	4,608
Net cash related to investing activities	26,228	(2,698)	14,616	(26,981)
Effect of foreign currency translation	(878)	(2,292)	(1,606)	(2,763)
Change in cash position during the period	\$ 45,035	\$ 10,661	\$ 64,975	\$ 12,596
Dividends paid	\$ 4,347	\$ 5,561	\$ 14,702	\$ 16,648

<sup>(1)</sup> Restated for the impact of IFRS 15.

We expect to fund operations with cash derived from operating activities. Deficiencies arising from short-term working capital requirements and capital expenditures may be financed on a short-term basis with bank indebtedness or on a permanent basis with offerings of securities. Significant erosion in the general state of the economy could affect our liquidity by reducing cash generated from operating activities or by limiting access to short-term financing as a result of tightening credit markets.

## Cash from Operating Activities

Working Capital	September 30, 2018		December 31, 2017 <sup>(1)</sup>	
<i>In thousands of dollars</i>				
Current assets	\$	245,141	\$	178,438
Current liabilities		98,079		105,920
Working capital	\$	147,062	\$	72,518

<sup>(1)</sup> Restated for the impact of IFRS 15.

Current assets are composed primarily of cash and cash equivalents, trade receivables and other and income taxes recoverable. Current liabilities are composed primarily of trade payables and other, income taxes payable and borrowings.

As at September 30, 2018, trade receivables, net and unbilled revenue on customer contracts net of deferred revenue was \$100.6 million, down 1.4% or \$1.4 million from \$102.0 million as at December 31, 2017. As a percentage of the trailing 12-month revenues, trade receivables and unbilled revenue on customer contracts net of deferred revenue, was 19.7% as at September 30, 2018, as compared to 20.7% as at December 31, 2017 (restated for the impact of IFRS 15).

Our Days Sales Outstanding ("DSO") was 73 days as at September 30, 2018, in line with 73 days as at December 31, 2017 (restated for the impact of IFRS 15). We calculate DSO by taking the five-quarter average balance of trade receivables, net and unbilled revenue on customer contracts net of deferred revenue and the result is then divided by the trailing 12-month revenues plus any pre-acquisition revenues, as applicable, and multiplied by 365 days. Our method of calculating DSO may differ from the methods used



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by other issuers and, accordingly, may not be comparable to similar measures used by other issuers. We believe this measure is useful to investors as it demonstrates our ability to convert trade receivables and unbilled revenue into cash.

Current and long-term liabilities include amounts owing to the vendors of acquired businesses on account of excess working capital, deferred purchase price payments and other closing adjustments. As at September 30, 2018, the amounts owing to the vendors of acquired businesses were \$13.8 million, as compared to \$12.5 million as at December 31, 2017. We intend to satisfy the payments with the revolving term facility (as described below) or cash on hand.

We are able to satisfy the balance of our current liabilities through the realization of our current assets.

### Cash from Financing Activities

Our revolving term facility is a senior secured revolving term facility used for general corporate purposes that will mature on April 28, 2020. In June 2018, we increased our borrowing capacity under the revolving term facility from \$200.0 million to \$220.0 million in accordance with certain provisions of the agreement. The borrowing capacity can be further increased to \$250.0 million. All other terms of the bank credit facilities remain the same.

As at September 30, 2018, our total borrowings on our revolving term facility amounted to \$185.2 million, an increase of \$34.8 million from December 31, 2017.

We also have outstanding letters of credit under our bank credit facilities in the total amount of \$0.7 million (December 31, 2017 - \$0.6 million).

The cost of our bank credit facilities is tied to the Canadian Prime rates, Canadian Bankers' Acceptance rates, U.S. Base rates or LIBOR rates. As at September 30, 2018, \$65.0 million was subject to interest rate swap agreements to fix the interest rate. We are obligated to pay the counterparty to the swap agreements an amount based upon a fixed interest rate of 1.48% per annum and the counterparty is obligated to pay us an amount equal to the Canadian Bankers' Acceptance rate. These agreements expire on May 15, 2020. These interest rate swaps are not designated as cash flow hedges for accounting purposes. The effective annual rate of interest for the three and nine months ended September 30, 2018 on our bank credit facilities was 3.51% and 3.42%, respectively, as compared to 3.04% and 3.01% in the corresponding periods in 2017.

As at September 30, 2018, we were in compliance with the financial covenants of our bank credit facilities, which are summarized below:

	September 30, 2018
Funded debt to EBITDA (maximum of 3.00:1)	1.72:1
Fixed charge coverage (minimum of 1.20:1)	3.57:1
Funded debt to capitalization (maximum of 55%)	24%

Other than long-term debt and letters of credit, we are subject to other contractual obligations such as operating leases, finance leases and amounts owing to the vendors of acquired businesses as discussed above.





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Contractual Obligations <sup>(1)</sup>	Payments Due by Period (undiscounted)				
	Total	Less than			
<i>In thousands of dollars</i>		1 year	1 to 3 years	4 to 5 years	Over 5 years
Bank credit facilities	\$ 185,200	\$ -	\$ 185,200	\$ -	\$ -
Leasehold improvement loans	546	109	148	148	141
Operating lease obligations	105,410	19,030	30,369	24,284	31,727
Finance lease obligations	362	274	85	3	-
Contingent consideration payables	14,331	1,113	13,218	-	-
Other liabilities	72,341	62,693	4,637	832	4,179
<b>Total contractual obligations</b>	<b>\$ 378,190</b>	<b>\$ 83,219</b>	<b>\$ 233,657</b>	<b>\$ 25,267</b>	<b>\$ 36,047</b>

<sup>(1)</sup> Contractual obligations exclude aggregate unfunded capital contributions of \$1.5 million to certain partnerships as the amount and timing of such payments are uncertain.

### Cash from Investing Activities

We invest in property, plant and equipment and intangible assets to support the activities of the business. Capital expenditures for accounting purposes include property, plant and equipment in substance and in form, including assets under finance leases and intangible assets.

Capital expenditures are reconciled as follows:

Capital Expenditures	Three months ended		Nine months ended	
	September 30,		September 30,	
<i>In thousands of dollars</i>	2018	2017	2018	2017
Property, plant and equipment additions	\$ 1,505	\$ 2,465	\$ 8,293	\$ 7,104
Intangibles additions	296	50	650	421
Proceeds from disposal of property, plant and equipment and intangibles	(110)	(29)	(200)	(341)
<b>Capital expenditures</b>	<b>\$ 1,691</b>	<b>\$ 2,486</b>	<b>\$ 8,743</b>	<b>\$ 7,184</b>



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### Reconciliation of Adjusted EBITDA to Profit (Loss)

The following table provides a reconciliation between Adjusted EBITDA and profit (loss):

<i>In thousands of dollars</i>	Three months ended September 30,		Nine months ended September 30,	
	2018	2017 <sup>(1)</sup>	2018	2017 <sup>(1)</sup>
<b>Adjusted EBITDA</b>	\$ 16,504	\$ 23,310	\$ 55,783	\$ 60,696
Depreciation and amortization	(12,635)	(8,413)	(37,860)	(25,487)
Acquisition and related transition (costs) income	(184)	(302)	(2,257)	(1,170)
Share of profit (loss) of associates	-	-	-	(2,420)
Unrealized foreign exchange gain (loss) <sup>(2)</sup>	(231)	(512)	576	(809)
Gain (loss) on disposal of property, plant and equipment <sup>(2)</sup>	(52)	(511)	(1,144)	(627)
Non-cash Executive Compensation Plan costs <sup>(3)</sup>	(1,496)	(1,344)	(4,307)	(3,457)
Gain (loss) on equity derivatives net of mark-to-market adjustments on related RSUs and DSUs being hedged <sup>(3)</sup>	74	540	(976)	(265)
Gain (loss) on hedging transactions <sup>(2)</sup>	(4)	-	268	-
Restructuring costs	184	(181)	(6,458)	(4,739)
Gain (loss) on investments <sup>(4)</sup>	42	-	81	115,179
Other non-operating and/or non-recurring income (costs) <sup>(5)</sup>	(1,176)	(394)	(1,295)	(432)
Finance (costs) income, net	(1,738)	(454)	(4,856)	(2,352)
<b>Profit (loss) before income taxes</b>	(712)	11,739	(2,445)	134,117
Income tax recovery (expense)	(1,011)	(4,412)	(1,275)	(21,312)
<b>Profit (loss) for the period</b>	\$ (1,723)	\$ 7,327	\$ (3,720)	\$ 112,805

<sup>(1)</sup> Restated for the impact of IFRS 15.

<sup>(2)</sup> Included in office and other operating expenses in the unaudited interim condensed consolidated statements of comprehensive income (loss).

<sup>(3)</sup> Included in employee compensation expenses in the unaudited interim condensed consolidated statements of comprehensive income (loss).

<sup>(4)</sup> Gain (loss) on investments for the three and nine months ended September 30, 2018 relate to changes in fair value of investments in partnerships. Gain (loss) on investments for the three and nine months ended September 30, 2017 relate to the partial deemed dispositions of our investment in Real Matters and re-measurement of our retained interest.

<sup>(5)</sup> Other non-operating and/or non-recurring income (costs) for the three and nine months ended September 30, 2018 relate to (i) non-recurring legal matters and related costs, (ii) transactional costs for tax planning and restructuring of legal entities within the group and (iii) costs related to an executive departure. Other non-operating and/or non-recurring income (costs) for the three and nine months ended September 30, 2017 relate to non-recurring legal matters and related costs. These are included in office and other operating expenses in the unaudited interim condensed consolidated statements of comprehensive income (loss).



# Management's Discussion & Analysis

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### Adjusted Earnings (Loss) Per Share

<i>In thousands of dollars, except for per share amounts</i>	Three months ended September 30,		Nine months ended September 30,	
	2018	2017 <sup>(1)</sup>	2018	2017 <sup>(1)</sup>
Profit (loss) for the period	\$ (1,723)	\$ 7,327	\$ (3,720)	\$ 112,805
Amortization of intangibles of acquired businesses	9,975	5,917	30,269	18,268
Non-cash finance costs (income) related to amounts payable to U.K. unitholders, net of changes in fair value of related equity derivatives	-	-	-	32
Share of loss (profit) of associates	-	-	-	2,420
Unrealized foreign exchange loss (gain)	231	512	(576)	809
Loss (gain) on disposal of property, plant and equipment	52	511	1,144	627
Non-cash Executive Compensation Plan costs	1,496	1,344	4,307	3,457
Loss (gain) on equity derivatives net of mark-to-market adjustments on related RSUs and DSUs being hedged	(74)	(540)	976	265
Interest accretion on contingent consideration payables	160	22	493	66
Restructuring costs	(184)	181	6,458	4,739
Loss (gain) on hedging transactions, including currency forward contracts and interest expense (income) on swaps not designated as cash flow hedges	(131)	(707)	(417)	(1,217)
Acquisition and related transition costs (income)	184	302	2,257	1,170
Loss (gain) on investments	(42)	-	(81)	(115,179)
Other non-operating and/or non-recurring (income) costs	1,176	394	1,295	432
Tax impact on above	(2,636)	(2,139)	(9,543)	8,109
Adjusted earnings (loss) for the period	\$ 8,484	\$ 13,124	\$ 32,862	\$ 36,803
Weighted average number of shares - basic	38,879,435	38,324,376	38,694,699	37,905,795
Weighted average number of restricted shares	307,370	343,463	312,517	348,684
Weighted average number of shares - adjusted	39,186,805	38,667,839	39,007,216	38,254,479
<b>Adjusted earnings (loss) per share</b>	<b>\$0.22</b>	<b>\$0.34</b>	<b>\$0.84</b>	<b>\$0.96</b>

<sup>(1)</sup> Restated for the impact of IFRS 15.



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### Summary of Quarterly Results

In thousands of dollars, except for per share amounts	2018			2017					2016	
	Sep 30	Jun 30	Mar 31	Fiscal 2017 <sup>(1)</sup>	Dec 31 <sup>(1)</sup>	Sep 30 <sup>(1)</sup>	Jun 30 <sup>(1)</sup>	Mar 31 <sup>(1)</sup>	Fiscal 2016 <sup>(2)</sup>	Dec 31 <sup>(2)</sup>
<b>Results of Operations</b>										
Revenues	\$ 120,636	\$ 134,218	\$ 124,690	\$ 476,562	\$ 122,317	\$ 117,072	\$ 127,880	\$ 109,293	\$ 442,891	\$ 115,334
Adjusted EBITDA	\$ 16,504	\$ 23,771	\$ 15,508	\$ 80,645	\$ 19,949	\$ 23,310	\$ 24,017	\$ 13,369	\$ 74,088	\$ 22,120
Adjusted EBITDA margin	13.7%	17.7%	12.4%	16.9%	16.3%	19.9%	18.8%	12.2%	16.7%	19.2%
Profit (loss) for the period	\$ (1,723)	\$ 330	\$ (2,327)	\$ 109,417	\$ (3,388)	\$ 7,327	\$ 104,927	\$ 551	\$ 14,268	\$ 8,892
Earnings (loss) per share:										
Basic	\$(0.04)	\$0.01	\$(0.06)	\$2.88	\$(0.09)	\$0.19	\$2.75	\$0.01	\$0.39	\$0.24
Diluted	\$(0.04)	\$0.01	\$(0.06)	\$2.83	\$(0.09)	\$0.19	\$2.72	\$0.01	\$0.38	\$0.23
Adjusted	\$0.22	\$0.40	\$0.23	\$1.11	\$0.15	\$0.34	\$0.40	\$0.22	\$1.15	\$0.38
Weighted average number shares ('000s):										
Basic	38,879	38,700	38,500	38,028	38,389	38,324	38,108	37,273	36,810	37,059
Diluted	38,879	39,085	38,500	38,656	39,100	38,872	38,591	37,755	37,484	38,537

<sup>(1)</sup> Restated for the impact of IFRS 15.

<sup>(2)</sup> Reported financial information has not been restated for the impact of IFRS 15, *Revenue from Contracts with Customers*. Refer to Note 2 - Adoption of Recent Accounting Pronouncements to the financial statements for further discussion.

Certain segments of our operations are subject to seasonal variations which may impact overall quarterly results. For instance:

- Geomatics' projects tend to be on remote undeveloped land in Western Canada which is most accessible in the winter and summer months and least accessible in the spring months when ground conditions are soft and wet. Revenues for Geomatics tend to peak in the third and fourth quarters of the year in line with higher activity levels during these periods.
- Our global Property Tax practice can experience significant fluctuations on a quarterly basis as a result of the timing of contingency settlements and other factors.
- Our Altus Analytics business experiences some seasonality. ARGUS software products sold as perpetual licenses tend to have a stronger fourth quarter in revenues, a trend that is common in many other software companies. Also, appraisal management could experience some seasonal patterns around the second and fourth quarters, associated with some clients' practices of bi-annual and annual appraisals.



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### Share Data

As at October 31, 2018, 39,006,096 common shares were outstanding and are net of 296,983 treasury shares. These treasury shares are shares held by Altus Group, which are subject to restrictive covenants and may or may not vest for employees. Accordingly, these shares are not included in the total number of common shares outstanding for financial reporting purposes and are not included in basic earnings per share calculations.

As at September 30, 2018, there were 1,446,369 share options outstanding (December 31, 2017 - 946,708 share options outstanding) at a weighted average exercise price of \$28.07 per share (December 31, 2017 - \$25.70 per share) and 450,478 share options were exercisable (December 31, 2017 - 268,038). All share options are exercisable into common shares on a one-for-one basis.

In 2013, we implemented a Dividend Reinvestment Plan ("DRIP") for our shareholders who are resident in Canada. Under the DRIP, participants may elect to automatically reinvest quarterly dividends in additional Altus Group common shares.

Pursuant to the DRIP, and in the case where common shares are issued from treasury, cash dividends will be reinvested in additional Altus Group common shares at the weighted average market price of our common shares for the five trading days immediately preceding the relevant dividend payment date, less a discount, currently set at 4%. In the case where common shares will be purchased on the open market, cash dividends will be reinvested in additional Altus Group common shares at the relevant average market price paid in respect of satisfying this reinvestment plan.

For the three and nine months ended September 30, 2018, 53,552 and 93,693 common shares (2017 - 8,957 and 17,489 common shares, respectively) were issued under the DRIP, respectively.

### Financial Instruments and Other Instruments

Financial instruments held in the normal course of business included in our unaudited interim condensed consolidated balance sheet as at September 30, 2018 consist of cash and cash equivalents, trade receivables and other (excluding deferred costs to obtain customer contracts and prepayments), trade payables and other (excluding lease inducements and contract liabilities), income taxes recoverable and payable, investments, borrowings and derivative financial instruments. We do not enter into financial instrument arrangements for speculative purposes.

The fair values of the short-term financial instruments approximate their carrying values. The fair values of borrowings are not significantly different than their carrying values, as these instruments bear interest at rates comparable to current market rates. The fair values of other long-term assets and liabilities, promissory notes receivable and contingent consideration payables are measured using a discounted cash flow analysis of expected cash flows in future periods. The investments in equity instruments are measured based on valuations of the respective entities. Investments in partnerships are measured in relation to the fair value of assets in the respective partnerships.

The fair value of the liabilities for cash-settled plans as at September 30, 2018 was approximately \$10.9 million, based on the published trading price on the TSX for our common shares.



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We are exposed to interest rate risk in the event of fluctuations in the Canadian Prime rates, Canadian Bankers' Acceptance rates, U.S. Base rates or LIBOR rates as the interest rates on the bank credit facilities fluctuate with changes in these rates.

To mitigate our exposure to interest rate fluctuations, we have entered into interest rate swap agreements in connection with our bank credit facilities.

In 2015, we entered into interest rate swap agreements for a total notional amount of \$65.0 million and a fixed interest rate of 1.48% per annum. This agreement expires on May 15, 2020. As at September 30, 2018, we have a total notional amount of \$65.0 million outstanding and the fair value of these swaps were \$1.0 million in our favor.

We are exposed to price risk as the liabilities for cash-settled plans are classified as fair value through profit or loss, and linked to the price of our common shares.

Since 2014, we entered into equity derivatives to manage our exposure to changes in the fair value of RSUs and DSUs, issued under their respective plans, due to changes in the fair value of our common shares. Changes in the fair value of these derivatives are recorded as employee compensation expense and offset the impact of mark-to-market adjustments on the RSUs and DSUs that have been accrued.

As at September 30, 2018, we have equity derivatives relating to RSUs and DSUs outstanding with a notional amount of \$10.0 million. The fair value of these derivatives is \$3.6 million in our favor.

We are exposed to credit risk with respect to our cash and cash equivalents, trade receivables and other and derivative financial instruments. Credit risk is not concentrated with any particular customer. In certain parts of Asia, it is often common business practice to pay invoices over an extended period of time and/or at the completion of the project. The risk of non-collection of trade receivables is greater in Asia Pacific compared to North American or European countries.

Liquidity risk is the risk that we will not be able to meet our financial obligations as they become due. We manage liquidity risk through the management of our capital structure and financial leverage. We also manage liquidity risk by continuously monitoring actual and projected cash flows, taking into account the seasonality of our revenues and receipts and maturity profile of financial assets and liabilities. Our Board of Directors review and approve our operating and capital budgets, as well as any material transactions outside the ordinary course of business, including proposals on mergers, acquisitions or other major investments.

## Contingencies

From time to time, we or our subsidiaries are involved in legal proceedings, claims and litigation in the ordinary course of business with customers, former employees and other parties. Although it is not possible to determine the final outcome of such matters, based on all currently available information, management believes that liabilities, if any, arising from such matters will not have a material adverse effect on our financial position or results of operations and have been adequately provided for in the unaudited interim condensed consolidated financial statements.



# Management's Discussion & Analysis

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In the ordinary course of business, we are subject to tax audits from various government agencies relating to income and commodity taxes. As a result, from time to time, the tax authorities may disagree with the positions and conclusions we made in our tax filings, which could lead to assessments and reassessments. These assessments and reassessments may have a material adverse effect on our financial position or results of operations.

## Disclosure Controls and Procedures and Internal Controls over Financial Reporting

Management is responsible for establishing and maintaining disclosure controls and procedures ("DC&P") and internal controls over financial reporting ("ICFR"), as those terms are defined in National Instrument 52-109 - Certification of Disclosure in Issuers' Annual and Interim Filings ("NI 52-109").

Management has caused such DC&P to be designed under its supervision to provide reasonable assurance that our material information, including material information of our consolidated subsidiaries, is made known to our Chief Executive Officer and our Chief Financial Officer for the period in which the annual and interim filings are prepared. Further, such DC&P are designed to provide reasonable assurance that information we are required to disclose in our annual filings, interim filings or other reports we have filed or submitted under securities legislation is recorded, processed, summarized and reported within the time periods specified in applicable securities legislation.

Management has caused such ICFR to be designed under its supervision using the framework established in Internal Control - Integrated Framework (2013) published by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO") to provide reasonable assurance regarding the reliability of financial reporting and the preparation of the unaudited interim condensed consolidated financial statements for external purposes in accordance with IFRS.

Section 3.3(1)(b) of NI 52-109 allows an issuer to limit its design of DC&P and ICFR to exclude controls, policies and procedures of a business that the issuer acquired not exceeding 365 days from the date of acquisition.

Management has limited the scope of the design of DC&P and ICFR, consistent with previous practice, to exclude controls, policies and procedures of CVS acquired on November 1, 2017 and Taliance acquired on July 1, 2018.

Financial information of the business acquired is summarized below.

Balance sheet data for CVS\*:

<i>In thousands of dollars</i>	<b>September 30, 2018</b>	
Assets	\$	52,000
Liabilities		5,945
Equity		46,055



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Income statement data for CVS\*:

<i>In thousands of dollars</i>	<b>Three months ended September 30, 2018</b>	<b>Nine months ended September 30, 2018</b>
Revenues	\$ 2,717	\$ 13,135
Expenses	4,382	22,146
Profit (loss)	(1,665)	(9,011)

\* Financial information reported under legacy CVS operations.

Balance sheet data for Taliance:

<i>In thousands of dollars</i>	<b>September 30, 2018</b>
Assets	\$ 35,291
Liabilities	7,236
Equity	28,055

Income statement data for Taliance:

<i>In thousands of dollars</i>	<b>Three and nine months ended September 30, 2018</b>
Revenues	\$ 1,316
Expenses	1,909
Profit (loss)	(593)

There have been no significant changes in our internal controls over financial reporting that occurred for the quarter ended September 30, 2018, the most recently completed interim period, that have materially affected, or are reasonably likely to materially affect, our internal controls over financial reporting.

We implemented internal controls to ensure we adequately evaluated our contracts and properly assessed the impact of the new accounting standards related to revenue recognition and financial instruments on our financial statements to facilitate their adoption on January 1, 2018. There were no significant changes to our internal control over financial reporting due to the adoption of the new standards.

The audit committee and our Board of Directors have reviewed and approved this MD&A and the unaudited interim condensed consolidated financial statements for the three and nine months ended September 30, 2018.

### Key Factors Affecting the Business

The risks and uncertainties that could significantly affect our financial condition and future results of operations are summarized below.





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## *General state of the economy*

The businesses operated by us are affected by general economic conditions, including international, national, regional and local economic conditions, all of which are outside of our control. Economic slowdowns or downturns, adverse economic conditions, cyclical trends, increases in interest rates, variations in currency exchange rates, reduced client spending and other factors could have a material adverse effect on our business, financial condition and results of operations. Although our operations are functionally and geographically diversified, significant erosion in levels of activity in any segment in which we operate could have a negative impact on our business, financial condition and results of operations.

## *Currency risk*

Our reporting currency is the Canadian dollar.

We have operations in Canada, the U.S., the U.K., Australia and various countries throughout Asia. Our exposure to foreign currency risk is primarily in the following areas:

- Profit (loss) generated by operations in foreign countries, which are translated into Canadian dollars using the average exchange rate;
- Net assets of foreign subsidiaries, which are translated into Canadian dollars using the period end exchange rate with any gains or losses recorded under accumulated other comprehensive income (loss) within shareholders' equity; and
- Non-Canadian dollar denominated monetary assets and liabilities, which are translated into Canadian dollars using the period end exchange rate with any gains or losses recorded through profit (loss).

The exchange rate between the Canadian dollar and the U.S. dollar ranged from \$1.2551 at December 31, 2017 to \$1.2895 at September 30, 2018. The exchange rate between the Canadian dollar and the British pound ranged from \$1.6932 at December 31, 2017 to \$1.6796 at September 30, 2018. The exchange rate between the Canadian dollar and the Australian dollar ranged from \$0.9796 at December 31, 2017 to \$0.9307 at September 30, 2018.

## *Ability to maintain profitability and manage growth*

Our ability to achieve revenue growth and sustain profitability in future periods depends on our ability to execute our strategic plan and effectively manage our growth. A failure to do so could have a material adverse effect on our business, financial condition and results of operations.

## *Commercial real estate market*

The businesses we operate are affected by the state of commercial real estate as an investment asset class. Economic slowdowns triggered by credit liquidity, interest rates, regulatory policy, tax policy, etc., could negatively impact the market and result in fewer appraisals, cost assignments and license and subscription sales. This could have a material adverse effect on our business, financial condition, liquidity and results of operations.

## *Competition in the industry*

We face competition from other service, software and data analytics providers. Competition for our professional services includes a broad mix of competitors, ranging from smaller, locally-based professional service firms to national, multi-regional professional service providers and to large engineering, accounting and law firms. Software providers also compete with us in respect of real estate asset management, valuation, budgeting, forecasting, reporting and lease management solutions. There are also new



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companies entering the market with competitive data analytics solutions. These competitive forces could result in a material adverse effect on our business, financial condition and results of operations by reducing our relative share in the markets we serve.

## *Acquisitions*

We intend to make acquisitions from time to time as part of our strategy to grow our business. Acquisitions may increase the size of our operations, as well as increase the amount of indebtedness that we may have to service. The successful integration and management of acquired businesses involve numerous risks and there is no assurance that we will be able to successfully integrate our acquisitions. Such failure could adversely affect our business, financial condition and results of operations.

## *Oil and gas sector*

The land survey practice of Geomatics has significant client exposure in the oil and gas industry in Western Canada and is impacted by the associated capital spending from that sector. The risks to the outlook for the land survey practice in Western Canada arise from world markets for oil and gas and the associated impact on capital spending. Historically, the prices for oil and gas have been volatile and subject to wide fluctuations in response to changes in the supply of and demand for oil and gas, market uncertainty and a variety of additional factors beyond our control. We cannot predict future oil and gas price movements. If oil and gas prices experience a prolonged decline, there could be a material adverse effect on our business, financial condition, liquidity and operating results.

## *Ability to attract and retain professionals*

Our success and ability to grow are dependent on the expertise, experience and efforts of our professionals. Competition for employees with the qualifications we desire, particularly with commercial real estate technology experience, is intense and puts upward pressure on compensation costs. We expect that competition for qualified professionals will continue to increase, thereby causing compensation costs to escalate. Should we be unable to attract and retain professionals that meet the desired level of skills and ability, our business may be jeopardized.

## *Information from multiple sources*

The quality of our databases supporting certain of our products depends substantially on information provided by a number of sources, including commercial real estate brokers, agents and property owners, trade associations, tax assessors, deed recorders, municipal planners, corporate web sites, the business and trade press, and selected third party vendors of business information. If we are unable to collect information from a significant number of these sources this could negatively affect certain of our products and may potentially result in subscriber cancellations and failure to acquire new subscribers.

## *Reliance on larger enterprise transactions with longer and less predictable sales cycles*

The ability to meet revenue targets is becoming more dependent on larger transactions which have longer sales cycles. The presence or absence of one or more of these transactions may have a material positive or negative effect on anticipated revenue in any given period.

## *Success of new product introductions*

As new products are developed and introduced to the marketplace, client adoption may not achieve anticipated levels. As a result, revenue expectations may not be achieved. If cash flows from new products



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do not reach sufficient levels, asset impairments may need to be taken on any capitalized costs related to the development of the products.

## *Ability to respond to technological change and develop products on a timely basis*

Our ability to generate future revenues from software is dependent upon meeting the changing needs of the market and evolving industry standards through new product introductions and product enhancements. In order to maintain or enhance product market share over the long-term, it is imperative to anticipate and develop products that meet client and industry needs. In the short to medium term, the ability to complete product developments on a timely basis is important to achieving revenue and cost targets.

## *Protection of intellectual property or defending against claims of intellectual property rights of others*

We rely on protecting our intellectual property rights including copyrights, trademarks, trade secrets, databases and methodologies, which have been important factors in maintaining our competitive position. Despite our efforts to protect our proprietary rights, unauthorized parties may attempt to obtain and use information that we regard as proprietary. There can be no assurance that we will be successful in protecting our proprietary rights and, if we are not, our business, financial condition, liquidity and results of operations could be materially adversely affected. Additionally, we may be subject to claims by third parties regarding technology infringement. Responding to such claims could result in substantial expense and may result in damages or injunctive relief. We may also be required to indemnify customers pursuant to our indemnification obligations, enter into licensing agreements on unfavourable terms or redesign or stop selling affected products, which could materially disrupt the conduct of our business.

## *Ability to implement technology strategy and ensure workforce adoption*

Our business relies on the use of information technology systems to deliver expert services, data and software solutions to our clients. If we are unable to effectively implement our information technology strategies or adopt new technologies and technology-enabled processes relevant to our offerings in a timely or cost-effective manner, or if our employees fail to adopt in an effective and timely manner new technologies or technology-enabled processes, then our ability to deliver services and solutions that meet client needs or our ability to remain competitive in the market may be materially impaired.

## *Information technology governance and security, including cyber security*

In the ordinary course of our business, we collect, store, process and/or transmit sensitive data belonging to clients, partners, vendors, employees and contractors as well as our own proprietary business information and intellectual property. The secure processing, maintenance and transmission of this information is critical to our workflow operations and delivery of products and services to our clients. We have implemented a secure operating framework which includes policies and governance, prevention and detection technologies, back-up and recovery processes and other procedures and technology in the protection of our data, software and infrastructure assets from loss, theft, unauthorized access, vandalism, cyber attacks, or events such as power outages or surges, floods, fires or other natural disasters. We have also implemented a major incidence process whereby breaches or unauthorized access to our systems are assessed and reported based on established communication protocols. Despite our security measures, our data, systems and infrastructure may be vulnerable to cyber attacks or breached due to employee error, malfeasance or other disruptions. These security breaches could materially compromise our information, disrupt our business operations or cause us to breach our client obligations thereby exposing us to liability, reputational harm and/or significant remediation costs. A theft, loss, corruption, exposure, fraudulent use



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or misuse of client information whether by third parties or as a result of employee malfeasance could result in significant remediation and other costs, fines, litigation or regulatory actions against us, as well as cause reputational harm, negatively impact our competitive position and affect our financial results. We are increasingly relying on third-party data storage providers, including cloud storage solution providers, resulting in less direct control over our data and system processing. Such third parties may also be vulnerable to security breaches for which we may not be indemnified and which could cause materially adverse harm to our reputation and competitive position and affect our financial results.

### *Engagement and product pipeline opportunities do not result in sufficient definitive agreements*

Our forecast is built on a pipeline of client opportunities at varying stages within the sales process. Our ability to achieve the forecast is dependent on completion of the sales cycle and client acceptance of mutually agreeable terms. Certain factors are beyond our control, including our clients' evaluation of our offerings, budgetary constraints, timing of their approval processes, etc. Our pipeline of opportunities may not close on terms and timing in line with our forecast. This may have a material positive or negative effect on anticipated revenue in any given period.

### *Property tax assessment regulators do not process appeals in a manner consistent with expectations*

Our Property Tax practice is significantly influenced by property tax assessment regulators and their appeal settlement processes. The timing and volume of appeals processed and whether the outcomes are favourable may cause fluctuations on a quarterly and annual basis, in addition to spillover effects outside any particular valuation cycle. This may have a material positive or negative effect on anticipated revenue in any given period.

### *Fixed-price and contingency engagements*

A portion of our revenues comes from fixed-price engagements. A fixed-price engagement requires us to either perform all or a specified part of work under the engagement for a specified lump sum payment. Fixed-price engagements expose us to a number of risks not inherent in cost-plus engagements, including underestimation of costs, ambiguities in specifications, unforeseen or changed costs or difficulties, problems with new technologies, delays beyond our control, failures of subcontractors to perform and economic or other changes that may occur during the term of engagement. Increasing reliance on fixed-price engagements and/or increases in the size of such engagements would increase the exposure to this risk. Economic loss under fixed-price engagements could have a material adverse effect on our business.

We are also engaged to provide services on a contingency basis, meaning that we receive our fees only if certain results are achieved. We may experience adverse financial effects from having devoted professional and other resources to a project, which, due to a failure to meet the contingency goals, are not recouped through fees.

### *Appraisal and appraisal management mandates*

Some clients rotate their appraisal and appraisal management mandates to different service providers. As a result, we may be rotated out of an appraisal/appraisal management engagement.

### *Canadian multi-residential market*

A significant part of the Canadian Cost practice area's annual revenues are derived from the rental apartment and condominium sectors of the multi-residential development market. Any significant decline



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in the multi-unit residential development market could have a material adverse effect on our Cost practice's operating results.

## *Weather*

The level of activity in the oilfield services industry and natural resources industry are influenced by seasonal weather patterns and natural or other disasters, such as floods and forest fires. Spring break-up often experienced during the second quarter leaves many secondary roads temporarily incapable of supporting the weight of field equipment, which results in severe restrictions in the provision of field work for Geomatics' survey services and land-use consulting. The timing and duration of spring break-up are dependent on regional weather patterns but generally occur in April and May.

The demand for survey services and forestry and land-use services may also be affected by the severity of Canadian winters, and excessively rainy periods or forest fires, thereby adversely affecting operations. The uncertainty of weather and temperature can therefore create unpredictability in activity and utilization rates.

## *Legislative and regulatory changes*

Changes to any of the laws, rules, regulations or policies affecting our business would have an impact on our business. Certain elements of our business are influenced by the regulatory environment of our clients, such as the requirement for pension fund managers to obtain property valuations on an annual basis. In addition, elements of our business, such as our Property Tax practice area, are significantly influenced by the regulatory regime and any changes thereto. Any change to laws, rules, regulations or policies may significantly and adversely affect our operations and financial performance.

## *Customer concentration and loss of material clients*

Although we are not dependent on one or a small number of clients, certain of our business segments have significant clients. Loss of any significant client that contributes a substantial portion to that business segments' revenues could have a negative impact on our revenues and could impact our ability to attract and retain other clients.

## *Interest rate risk*

We are exposed to fluctuations in interest rates under our borrowings. Increases in interest rates may have an adverse effect on our earnings.

## *Credit risk*

We may be materially and adversely affected if the collectability of our trade receivables is impaired for any reason. In certain parts of Asia, it is often common business practice to pay invoices over an extended period of time and/or at the completion of the project. This practice increases the risk and likelihood of future bad debts. In addition, the risk of non-collection of trade receivables is greater in Asia Pacific compared to North American or European countries.

## *Income tax matters*

In the ordinary course of business, we may be subject to audits by tax authorities. While management anticipates that our tax filing positions will be appropriate and supportable, it is possible that tax matters, including the calculation and determination of revenue, expenditures, deductions, credits and other tax attributes, taxable income and taxes payable, may be reviewed and challenged by the authorities. If such



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challenge were to succeed, it could have a material adverse effect on our tax position. Further, the interpretation of and changes in tax laws, whether by legislative or judicial action or decision, and the administrative policies and assessing practices of tax authorities, could materially adversely affect our tax position.

## *Revenue and cash flow volatility*

Our revenue, cash flow, operating results and profitability may experience fluctuations from quarter to quarter, based on project terms and conditions for billing and rendering of services.

## *Health and safety hazards*

Our employees are sometimes required to attend client worksites, including construction worksites in the case of both Cost and Geomatics and remote, wilderness areas in the case of Geomatics. The activities at these worksites may involve certain operating hazards that can result in personal injury and loss of life. We have implemented health and safety policies and procedures as well as provide required employee health and safety training programs. Despite these programs, there can be no assurance that our insurance will be sufficient or effective under all circumstances or against all claims or hazards to which we may be subject or that we will be able to continue to obtain adequate insurance protection. A successful claim for damage resulting from a hazard for which it is not fully insured could adversely affect our results of operations.

## *Performance of contractual obligations and client satisfaction*

Our success depends largely on our ability to fulfill our contractual obligations and ensure client satisfaction. If we fail to properly define the scope of our work, communicate the boundaries or use of the advice and reports we provide, define the limits of our liability, satisfactorily perform our obligations, or make professional errors in the advice or services that we provide, clients could terminate projects, refuse payment for our services or take legal action for the loss or harm they suffer, thereby exposing us to legal liability, loss of professional reputation, enhanced risk of loss and/or reduced profits.

## *Risk of legal proceedings*

We are threatened from time to time with, or are named as a defendant in, or may become subject to various legal proceedings in the ordinary course of conducting our business, including lawsuits based upon professional errors and omissions. A significant judgment against us, or the imposition of a significant fine or penalty as a result of a finding that we have failed to comply with laws, regulations, contractual obligations or other arrangements or professional standards, could have a significant adverse impact on our financial performance. Should any indemnities made in our favor in respect of certain assignments fail to be respected or enforced, we may suffer material adverse financial effects.

## *Insurance limits*

Management believes that our professional errors and omissions insurance coverage and directors' and officers' liability insurance coverage address all material insurable risks, provide coverage that is similar to that which would be maintained by a prudent operator of a similar business and are subject to deductibles, limits and exclusions, which are customary or reasonable given the cost of procuring insurance and current operating conditions. However, there can be no assurance that such insurance will continue to be offered on an economically affordable basis, that all events that could give rise to a loss or liability are insurable or that the amounts of insurance will at all times be sufficient to cover each and every loss or claim that may occur involving our assets or operations.



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## *Ability to meet solvency requirements to pay dividends*

Our ability to pay dividends is dependent on our operations and assets, and is subject to various factors including our financial performance, our obligations under applicable bank credit facilities, fluctuations in our working capital, the sustainability of our margins and our capital expenditure requirements.

## *Leverage and financial covenants*

Our ability to pay dividends or make other payments or advances is subject to applicable laws and contractual restrictions contained in the instruments governing any indebtedness owed by us or our subsidiaries (including the bank credit facilities). The degree to which we are leveraged could have important consequences to our shareholders. For example, our ability to obtain additional financing for working capital, capital expenditures or acquisitions in the future may be limited; a significant portion of our cash flow from operations may be dedicated to the payment of principal and interest on our indebtedness, thereby reducing funds available for future operations; certain of our borrowings will be subject to variable rates of interests, which exposes us to the risk of increased interest rates; and we may be more vulnerable to economic downturns and be limited in our ability to withstand competitor pressures.

The bank credit facilities contain numerous financial covenants that limit the discretion of our management with respect to certain business matters. These covenants place significant restrictions on, among other things, our ability to create liens or other encumbrances, to pay dividends or make certain other payments, investments, loans and guarantees and to sell or otherwise dispose of assets and merge or consolidate with another entity. In addition, the bank credit facilities contain a number of financial covenants that require us to meet certain financial ratios and financial condition tests. Failure to comply with the obligations provided in the bank credit facilities could result in a default which, if not cured or waived, could result in the termination of dividends paid by us and accelerate the repayment of the relevant indebtedness. If repayments of indebtedness under the bank credit facilities were to be accelerated, there can be no assurance that our assets would be sufficient to repay the relevant indebtedness in full. There can be no assurance that future borrowings or equity financing will be available to us or available on acceptable terms, in an amount sufficient to fund our needs. If we are unable to obtain financing on the expiration of the bank credit facilities or are unable to obtain financing on favourable terms, our ability to pay dividends may be adversely affected.

## *Unpredictability and volatility of common share price*

Our common shares do not necessarily trade at prices determined by reference to the underlying value of our business and cannot be predicted. The market price of the common shares may be subject to significant fluctuations in response to variations in quarterly operating results and other factors. In addition, securities markets have experienced significant price and volume fluctuations from time to time in recent years that are often unrelated or disproportionately related to the operating performance of particular issuers. These broad fluctuations may adversely affect the market price of our common shares.

## *Capital investment*

The timing and amount of capital expenditures made by us or any of our subsidiaries indirectly affects the amount of cash available for investments, debt payments or dividend payments. Dividends may be reduced, or even eliminated, at times when we deem it necessary to make significant capital or other expenditures.



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### *Issuance of additional common shares diluting existing shareholders' interests*

We are authorized to issue an unlimited number of common shares for such consideration and on such terms and conditions as may be determined by the Board of Directors without shareholder approval, except as required by the TSX. An issuance such as this, may dilute the interests of current shareholders.

### **Additional Information**

Additional information relating to Altus Group Limited, including our Annual Information Form, is available on SEDAR at [www.sedar.com](http://www.sedar.com) and on our corporate website at [www.altusgroup.com](http://www.altusgroup.com) under the Investors tab.

Our common shares trade on the Toronto Stock Exchange under the symbol "AIF".









# Altus Group

## LISTINGS

Toronto Stock Exchange  
Stock trading symbol: AIF

## AUDITORS

ERNST & YOUNG LLP

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