Appulse Corporation

Management’s Discussion and Analysis March 24, 2022

For the three months and year ended December 31, 2021

The following Management’s Discussion and Analysis (“MD&A”) reflects management’s assessment of the consolidated financial and operating results of Appulse Corporation (“Appulse” or the “Corporation”) for the year ended December 31, 2021. This MD&A should be read in conjunction with the audited consolidated financial statements for the years ended December 31, 2021 and 2020. The consolidated financial statements were prepared in accordance with International Financial Reporting Standards (”IFRS”). Unless otherwise noted, all financial information is expressed in Canadian dollars. Additional information on the Corporation and its financial and operating results can be accessed through the SEDAR website at www.sedar.com or the Corporation’s website at www.appulsecorp.net. The information contained in this MD&A is given as of March 24, 2022, unless otherwise stated.

Forward looking statements

Certain statements and other information included in this document constitute forward-looking information or forward-looking statements (collectively, “forward-looking statements”) under applicable securities laws (such statements are often accompanied by words such as “anticipate”, “forecast”, “expect”, “believe”, “may”, “will”, “should”, “estimate”, “intend” or other similar words). All statements in this document, other than those relating to historical information or current conditions, are forward-looking statements, including, but not limited to, expectations related to: the continuing development of food and beverage markets; a continuing market for refurbished centrifuge machines; a continuing demand for centrifuge service and replacement parts; the continued access to markets in Ontario, Quebec and the west coast of the United States; the potential impact of Covid-19; and the impact of international political unrest.

All the forward-looking statements are qualified by assumptions that are stated or inherent in such forward-looking statements, including the assumptions referred to below and elsewhere in this document. Although the Corporation believes that these assumptions are reasonable, the list is not exhaustive of the factors that may affect any of the forward-looking statements and the reader should not place an undue reliance on these assumptions and such forward-looking statements. The additional key assumptions that have been made include, among other things, with regard to all of the forward-looking statements: assumptions that future business, regulatory and industry conditions will be within the parameters expected by the Corporation, including with respect to prices, margins, demand, supply, product availability, supplier agreements, availability and cost of labor and interest, exchange, and effective tax rates; assumptions with respect to the adequacy of our cash generated from operations and our ability to access our credit facilities for additional sources of financing.

Additional events or circumstances that could cause actual results to differ materially from those in all of the forward-looking statements include, but are not limited to: general economic, market and business conditions in Canada and the United States; the supply and demand and price levels for our products; governmental and regulatory requirements and actions by governmental authorities, including changes in government policy (including tariffs and trade restrictions), changes in environmental, tax and other laws or regulations and the interpretation thereof; political risks; the occurrence of a major environmental, or safety incident; innovation and security risks related to our systems; risks related to reputational loss; the ability to attract, engage and retain skilled employees; and other risk facts detailed from time to time in the Corporation's reports filed with the Canadian securities regulators.

Due to such risks and uncertainties, actual results achieved during any forecast period may vary significantly from information provided in this document. There is no representation by the Corporation that actual results achieved during the forecast period will be the same in whole or in part as forecast.

The Corporation disclaims any intention or obligation to update or revise any forward-looking statements in this document as a result of new information or future events, except as may be required under applicable Canadian securities laws.

Non-IFRS measures

Certain supplementary measures in this MD&A do not have standardized meanings as prescribed under IFRS and, therefore, are considered non-IFRS measures. These measures are described and presented to provide information regarding the Corporation's financial results, liquidity, and its ability to generate funds to finance its operations. The measures are identified and presented, where appropriate, together with explanations of differences from the equivalent IFRS measures. However, they should not be used as an alternative to IFRS measures because they may not be consistent with calculations of other companies. These non-IFRS measures, and certain operational definitions used by the Corporation, are further explained below.

i - Working capital

Working capital is defined as current assets less current liabilities as reflected in the consolidated statements of financial position. This measure does not have a standardized definition prescribed by IFRS and therefore may not be comparable to similar captioned terms presented by other users. Management considers working capital to be a key measure in assessing the overall liquidity of the Corporation and is calculated as follows:

Year ended December 31,	**2021**	**2020**
Current assets	$ 8,684,192	$ 8,019,824
Current liabilities	3,542,447	3,306,089
Working capital	$ 5,141,745	$ 4,413,735

ii - EBITDA

EBITDA refers to net income before finance expenses, tax expense, depreciation, and amortization. This measure does not have a standardized definition prescribed by IFRS and therefore may not be comparable to similar captioned terms presented by other users. Management believes that EBITDA is a key indicator of the results generated by the Corporation's core business activities. In addition, it eliminates non-recurring items and the impact of finance and tax structure variables that exist between entities. EBITDA is calculated as follows:

Year ended December 31,	**2021**	**2020**
Net income	$ 742,284	$ 1,095,688
Finance expenses	101,642	114,999
Tax expense	-	-
Depreciation	508,597	493,134
EBITDA	$ 1,352,523	$ 1,703,821

iii- Cash flow from operations before changes in non-cash working capital

Cash flow from operations before changes in non-cash working capital does not have a standardized definition prescribed by IFRS and therefore may not be comparable to similarly captioned terms presented by other users. Cash flow from operations before changes in non-cash working capital, as reflected on the consolidated statements of cash flows, should not be considered an alternative to, or more meaningful than, cash flow from operating activities, as determined in accordance with IFRS, as an indicator of the Corporation's performance. Management uses cash flow from operations before changes in non-cash working capital to analyse operating performance and considers it to be a key measure in demonstrating the Corporation's ability to generate the cash necessary to fund future capital investments and to repay debt. This measure is calculated as follows:

Year ended December 31,	**2021**	**2020**
Net income	$ 742,284	$ 1,095,688
Adjusted for non-cash items		
Depreciation	508,597	493,134
Accretion (lease liability)	55,484	67,941
Tax expense	-	-
Cash flow from operations before changes in non-cash working capital	$ 1,306,365	$ 1,656,763

IFRS 16 - Leases

As noted in the consolidated financial statements (Note 3(i)), pursuant to IFRS 16, the Corporation is required to recognize a right-of-use asset and an equal lease obligation at the start of any significant lease in an amount equal to the discounted present value of lease payments over the appropriate term of the lease. The primary application of IFRS 16 relates to leases on the Corporation's facilities in Calgary, Alberta and Waterloo, Ontario, including options to extend the leases on these facilities which were exercised during 2019. After establishing the right-of-use asset and lease obligation, lease payments are allocated between interest expense and the reduction of the lease obligations. The right-of-use assets are amortized on a straight-line basis over the terms of the related leases. The application of IFRS 16 reduced 2021 net income by $18,000 (2020 – $40,000).

Operating financial results summary

The consolidated financial results for the years ended December 31, 2021 and 2020 include the activities of Appulse Corporation (“Appulse” or “the Corporation”), Centrifuges Unlimited Inc. (“Centrifuges”), Rolyn Oilfield Services Inc. (“Rolyn”), and Rolyn Oilfield Services (U.S.) Inc. (“Rolyn U.S.”).

The Corporation realized net income during the 2021 fiscal period of $742,000 (2020 - $1,096,000). Total revenues decreased by 12% over the prior year to a level of $9,233,000 (2020 - $10,461,000). Components of revenue are reviewed in a following section. There were no significant changes to individual product contribution margins during the 2021 fiscal year. Revenues were derived primarily from customers involved in a wide variety of food and beverage production processes, supplemented by pharmaceutical, environmental, and oil and gas applications.

The 2021 decrease in revenue is attributed to a variety of factors, some of which are of a timing nature and have resulted in a deferral of revenue, without a permanent impact on future operations. Covid-19 protocols and restrictions impacted the Company’s ability to complete certain services; limited the ability to travel; and often imposed a deferral mindset in customers, as they reflected on an uncertain economic environment. Certain customers were subjected to reduced production and periodic closures. The impact of the pandemic was also felt through internal staff shortages and a reduced ability to effectively interact with our customers and employees. The current economic and political environment also created a series of supply chain issues, involving both common-use and specialized equipment. The inability to source parts and equipment on a timely basis from suppliers in Canada and the United States caused delays in revenue recognition during the period, as detailed in a following section.

Our key operating financial measurement, EBITDA, was $1,352,000 in 2021 (2020- $1,704,000) as reflected in the financial statements. Without the impact of IFRS 16, EBITDA would have been $1,020,000 (2020- $ 1,380,000).

2021 cash flow from operations before changes in non-cash working capital was $1,306,000 (2020-$1,657,000). Without the impact of IFRS 16, this figure would have been $973,000 for the 2021 year (2020- $ 1,333,000).

Pursuant to regulation, the following tables summarize specific annual financial information for the past three years, and quarterly information related to the eight most recently completed quarters:

Selected consolidated annual information: (thousands except per share figures)

		2021	2020	2019
Revenue	$	9,233	10,461	11,095
Income attributed to equity shareholders		742	1,096	859
Earnings per share - Basic and diluted		.05	.08	.06
Total assets		10,355	10,001	9,619
Total non-current liabilities	$	564	889	1,166

Summary of quarterly results: (thousands except per share figures)

	4th Quarter of 2021	3rd Quarter of 2021	2nd Quarter of 2021	1st Quarter of 2021	4th Quarter of 2020	3rd Quarter of 2020	2nd Quarter of 2020	1st Quarter of 2020
Revenue	$ 2,306	2,032	2,669	2,226	2,455	3,098	2,472	2,436
Net income	73	84	347	238	338	215	444	99
Earnings per share Basic and diluted	$ .00	.01	.02	.02	.02	.02	.03	.01

Note to consolidated financial summaries: No dividends have been declared on the Corporation's shares.

A review of period comparisons and management's outlook is provided in the following paragraphs.

Fourth quarter results

While centrifuge part sales continued to grow during the fourth quarter, service and machine sales fell short of previous expectations. Service revenues were impacted by supply chain delays and staff shortages, including those related to Covid – 19 protocols and isolation mandates. Both Ontario and Calgary facilities are currently very active although the supply of certain critical components continues to present a challenge. Component shortages also had a significant impact on machine sales recorded during 2021. The Corporation records machine sales based on effective delivery to customers. While current firm sales are strong and prospects very encouraging, a number of higher revenue machine contracts were delayed due to component shortages and related revenue was deferred to 2022. Due to these timing factors machine sales recorded in 2021 totalled $1.9 million, compared to our earlier expectation that machine sales would exceed $2.2 million.

There were no significant changes to the operations, structure, or financial position of the Corporation during the three-month period.

Financial statement component review

Primary components of the Corporation's year-end consolidated financial statements are reviewed in the following paragraphs.

Revenue / Cost of sales

The sale of parts, both manufactured and acquired from original equipment manufacturers ("OEM"s), represented 58% of total revenues during fiscal 2021, and will continue to be a dominant and reliable source of revenue for the Corporation. Revenues comprise both the direct sale of manufactured and OEM parts to customers and those complementing service revenues and machine sales. The core of the Corporation's business model is the effective support of a wide range of centrifuge types, models, and vintages. The effective sale of older refurbished machines depends on our ability to supply parts, sourced externally or manufactured through the Corporation's Design Machining division ("Design"), employing modern production equipment supported by an extensive library of parts drawings related to hundreds of models of centrifuge equipment. In addition to the manufacture of parts, Design provides repair services and is fully engaged in centrifuge activities.

Under a revised contract with a major international OEM, the Corporation now supplies service and related parts primarily to that company's customers in western Canada, whereas in previous periods support was provided to all their Canadian customers. While part sales related to this OEM in 2021 were significantly lower than 2020, the margin on these sales was only a fraction of normal margins. Replacing these sales with a focus on other areas is proving to be to our advantage. Although 2021 total parts revenues were 5% lower than the prior year, total parts revenue excluding this OEM increased by 10%. In addition, we look forward to a new relationship with an alternate international OEM supplier which will further supplement parts and service revenues throughout Canada. Centrifuges continues to expand its manufacture of a wide range of aftermarket parts supporting a full spectrum of industrial centrifuge equipment, assisting to mitigate the impact of supply chain challenges.

Direct service, not including related part sales, represented only 16% of total 2021 revenues. As previously noted, the continued impact of Covid-19, supply chain issues, periodic staff shortages, and reduced OEM customer activity noted in the previous paragraph, all contributed to a 21% decrease in service compared to the prior year. With service active in both locations, new opportunities identified, and anticipated service in support of the new OEM supplier, we anticipate a return to growth in service during 2022.

The sale of new and refurbished centrifuge machines represented 21% of total 2021 revenues. The ability to efficiently source, refurbish, and sell used centrifuge equipment is a key corporate strength, providing associated revenue from parts and continuing service in addition to the sale of machines. As noted, delays in the supply of certain componentry makes delivery timing difficult to predict.

Geographically, revenues were derived from customers located from coast to coast in Canada, with an emphasis on those based in Alberta, Ontario, and Quebec. Sales to international customers represented 18% of total revenue. The continued development of our United States market will be a key focus in the pursuit of further growth following the easing of Covid-19 restrictions.

The total Cost of sales shown on the financial statements includes the receipt of $248,000 (2020 - $304,000) during the period from the federal government's CEWS program.

Other Expenses

General and administrative expense decreased by 6% compared to the previous year. The reduction primarily reflects lower cost levels in the compensation category, including the recognition of funds received through the federal CEWS program in the amount of $116,000 (2020- $140,000).

Property and equipment owned by the Corporation is depreciated as outlined in note 3(d)(ii) to the accompanying financial statements. The 2021 depreciation of these assets totalled $ 213,000 (2020 - $197,000). Depreciation also includes a charge related to the right-of-use asset pursuant to IFRS 16 in the amount of $296,000 (2020 - $296,000).

The Corporation transacts in United States dollars for certain purchases and sales, and obtains centrifuge equipment from European suppliers, typically based in Euros. A primary component of the exchange gain recorded in 2021, versus the loss in 2020, relates to the change in the value of the Canadian dollar in relation to the Euro. The Corporation does not hedge foreign exchange transactions and will continue to be impacted by currency fluctuations in the future.

Taxes

During the 2021 fiscal year, the Corporation utilized a portion of remaining non-capital tax losses carried forward from the prior year to reduce taxes otherwise payable on 2021 pre-tax income. The benefit of these losses had not previously been recognized in the accounts. The Corporation expects to utilize the remainder of these losses to reduce the cash impact of tax during 2022. However, consistent with prior periods, and considering the general uncertainty of the economic and political environments impacting the Company, the forward benefit of the remaining losses has not been recognized in the financial statements as at December 31, 2021.

Taxes are calculated individually for each of the Corporation's subsidiaries and an evaluation of the potential realization of the benefit of tax losses is considered for each subsidiary. The Corporation will continue to evaluate each subsidiary on an independent basis and will use a consistent philosophy in reflecting tax recoveries or expenses in the accounts.

Inventory

As noted, a major segment of the Corporation’s business relies on the ability to source, supply, service and provide parts for older centrifuge machines. Maintaining a significant inventory of purchased and manufactured parts and related equipment is critical to this business model. Our reputation and ability to maintain current levels of parts and service revenues requires a structure which efficiently supports a vast range of centrifuge models and applications. Effective sales of refurbished machines also requires an efficient support structure featuring timely service and the provision of spare parts. In addition, machine sales also require the ability to identify and purchase reparable used machines with future potential, as they become available. A strong and experienced service team, a supply of required parts, and a strong machining capability create a structure to support the model. Servicing, supplying, and supporting older machines also provides the opportunity to expand relationships with customers leading to service on other machines and machine sales as customer requirements expand. The sale of spare parts and service relies on the ability to respond quickly to customer requirements, often providing an advantage over larger OEM suppliers. Certain inventory levels and raw material supplies were enhanced early during 2021 in anticipation of supply shortages, which came to fruition. While increasing inventory levels to meet supply constraints, management continues to maintain appropriate stock levels and control over the total investment in inventory.

The increase in machines inventory reflects the purchase of additional equipment where multiple machine purchases were required to effectively source machines in support of firm customer sales. Often the additional equipment provides the ability to meet other customer demands. Refurbished equipment provides customers with cost effective alternatives while avoiding extensive backlogs encountered in the purchase of new equipment. Delivery periods for new equipment have again lengthened significantly compared to prior periods.

The Design Machining division continues to meet the demand for internally manufactured parts, providing a high-quality product at very competitive prices. Design also provides flexibility to react in a timely and effective fashion to customer service needs. Production capability will be further expanded during 2022 while we emphasize the benefits of internally manufactured products to our customer base.

Centrifuge machines used for rental to customers are reflected under property and equipment, as disclosed in the notes to the consolidated financial statements. Machines are transferred to property and equipment when they are allocated to the rental fleet and intended primarily for future rental activities.

Property and equipment

Property and equipment additions during the year totalled $233,000, comprised primarily of investments in the Corporation’s rental fleet, and shop equipment at both the Calgary and Waterloo facilities. Further enhancement of the rental fleet and promotion of rental and lease opportunities will be one of the major focal points during 2022. Rentals provide the opportunity for customers to test processes and potentially obtain production equipment without the significant capital investment inherent in the purchase of new equipment. The Corporation completes annual property and equipment impairment assessments. In the opinion of management, the Corporation’s assets are reflected in the financial statements at a very conservative total value. At December 31, 2021, the total property and equipment cost of $3,878,000 is carried in the financial statements at a net book value of $899,000. In addition, costs related to an extensive library of drawings and hundreds of operations and parts manuals, have consistently been expensed in the accounts.

Working capital and liquidity

Cash flow from operations before changes in non-cash working capital was $1,306,000 (2020 - $1,657,000). Maintaining a positive cash flow from operations will continue to be a principal operating guideline.

The Corporation's working capital position was $5,142,000 at the 2021 year-end compared to $4,414,000 at December 31, 2020. If raw materials, parts, and machine inventories were excluded from working capital, the Corporation would have a working capital deficiency of $899,000 (2020 - $1,288,000). The Corporation's obligations to its banker, ATB Financial, are included in current liabilities, as they are due on demand.

Lease obligations reflected on the consolidated financial statements at December 31, 2021, reflect the assumed lease obligation created under IFRS 16, offsetting the right-of-use asset shown under the Assets section. Further details related to IFRS 16 are discussed earlier in this report.

Details related to the Corporation's current and long-term obligations and capital structure are summarized in the consolidated financial statements accompanying this report. (see Notes 4(d), 4(f), 10, and 11 to the consolidated financial statements). We look forward to the continued financial support of ATB Financial.

Customer deposits of $826,000 at December 31, 2021, reflect cash deposits received on sales to be realized during the 2022 fiscal year and compare to customer deposits of $362,000 at the end of the 2020 fiscal period.

Share capital

13,947,304 common shares of the Corporation were outstanding at December 31, 2021. In January 2022, 295,000 common shares were issued pursuant to the exercise of options under the Corporation's stock option plan, resulting in outstanding share capital of 14,242,304 common shares as of the date of this report.

Contractual obligations and contingencies

The Corporation has no contractual obligations or contingencies of significance other than those mentioned in the notes to the consolidated financial statements. Reference is made to the Economic outlook section of this report.

Related party transactions

There were no significant related party transactions during the 2021 fiscal year. Details of related party transactions and outstanding balances are disclosed in Note 12 to the consolidated financial statements accompanying this report.

Related party transactions include the purchase of parts and the rental and purchase of machines from two companies, both of which are controlled by a director of the Corporation, Mr. R.D. Richards. When Appulse purchased Centrifuges, the Corporation agreed with the director and previous owner of Centrifuges that not all of that company's equipment would be purchased, but that such inventory would be made available to Appulse as required. This arrangement provided a source of supply for Appulse, without the necessity to fund the purchase of all equipment at the time of securing control of Centrifuges. The agreement also included the ability to rent certain centrifuge systems owned by the director to third parties in return for payment of a fixed percentage of the rental revenue received.

There are no significant ongoing contractual obligations or other commitments resulting from any related party transactions other than normal trade accounts payable, as disclosed in Note 12 to the consolidated financial statements.

Off balance sheet arrangements

The Corporation does not have any financial or contractual arrangements that would significantly impact the Corporation's financial position or operating results other than those reflected in the consolidated financial statements.

Covid -19 pandemic

The Corporation continues to implement a series of Covid-19 protocols to protect employees and limit the impact of the pandemic on corporate operations. As an essential service provider to a wide food and beverage market, corporate operations at both locations continued throughout 2020 and 2021. Border access restrictions and related supply chain issues will continue to impact the timing of project completion during 2022. The pandemic has had wide-spread impacts on world economies. While conditions are improving, including enhanced vaccination in most countries, the economic impact on international trade is expected to continue through 2022.

As noted in this report, the Corporation availed itself of federal government support under the Canadian Emergency Wage Subsidy program ("CEWS"). Funds received during 2021 and 2020 are reflected in the accounts as reductions in cost of sales and general and administrative costs.

Economic outlook

At the time of writing this report, North America, and the world in general, are facing a series of significant challenges creating an undeterminable impact on economic and political landscapes affecting most businesses. During 2022, the Corporation will focus on the continued growth of its primary food and beverage customer base, estimated to represent over 80% of total revenue during the current year. Our prime markets, including dairies, meat packing plants, protein processing plants, fruit processors, wineries, and breweries, are to an extent insulated from the impact of changing economic conditions and priorities.

As discussed in an earlier section, supply chain issues will result in further delays in production leading to uncertainty when projecting quarterly activity during 2022. Current supply availability and timing impacts a wide range of inputs from electrical components and computer control boards to motors and bearings. Both Calgary and Waterloo facilities are currently highly active however, and we have a strong firm sales list of machines for 2022 delivery, supported by further high-probability machine applications. We will continue to increase the scope of parts production, supported by manufacturing equipment additions and a further marketing focus on customer utilization of parts manufactured by Design.

Current supply shortages and extended delivery timing are also expected to increase customer interest in refurbished centrifuge machines. We will continue to emphasize our refurbishing expertise offering our customers high-quality products at reduced costs, while mitigating the impact of long delivery periods experienced with OEM product alternatives. The advantages of refurbished equipment are particularly apparent under uncertain economic conditions.

To supplement our primary markets, we will pursue opportunities in pharmaceutical processing , environmental applications, and oil and gas development. The revitalization of the oil industry due to current pricing regimens offer renewed opportunities, although competition in that sector will be strong. Our very experienced technical staff is well versed in all oil and gas production and reclamation activities.

Geographically, we anticipate strengthening our involvement in central Canada while continuing to enjoy a diversified customer base from coast to coast. We are also focusing on alternatives to increase our involvement in the United States as cross-border opportunities become available. The sale of manufactured parts to a wide user base in the United States presents a firm opportunity for growth while providing an economically attractive alternative for customers. Options for reliable service support are currently being investigated.

The Corporation recently signed a new service and parts representative arrangement with a major European based OEM, and we have now commenced services to their extensive customer base in Canada. Management expects future activity levels to more than offset the impact of a reduced geographic scope of involvement with a current European OEM, reviewed in an earlier section of this report.

Capital expenditure plans during 2022 will focus on the expansion of our rental fleet and the addition of production equipment that will further enhance our manufacturing and service capabilities and shorten delivery periods for customers.

Management will continue to seek other investment opportunities, including strategic alliances within the centrifuge industry.

Additional information

Additional information relating to Appulse Corporation can be accessed on SEDAR @ www.sedar.com and via the Corporation's website at www.appulsecorp.net