



REPORT TO SHAREHOLDERS AND MANAGEMENT'S DISCUSSION AND ANALYSIS

FOR THE YEAR ENDED DECEMBER 31, 2016

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## TO OUR SHAREHOLDERS

The following Management's Discussion and Analysis ("MD&A") relates to the financial condition and results of operations of Largo Resources Ltd. ("we", "our", "us", "Largo", or the "Company") for the year ended December 31, 2016 ("2016") and should be read in conjunction with the annual consolidated financial statements and related notes for the same period. References in the below discussion refer to the note disclosures contained in the 2016 audited consolidated financial statements.

The financial statements and related notes of Largo have been prepared in accordance with International Financial Reporting Standards ("IFRS"). Certain non-GAAP measures are discussed in this MD&A, which are clearly disclosed as such. Additional information, including our press releases, has been filed electronically through the System for Electronic Document Analysis and Retrieval ("SEDAR") and is available online under our profile at [www.sedar.com](http://www.sedar.com).

This MD&A reports our activities through March 29, 2017, unless otherwise indicated. References to "date of this MD&A" mean March 29, 2017. References to the symbol "R\$" mean the Real, the official currency of Brazil. References to the symbol "US\$" mean the U.S. dollar. Except as otherwise set out herein, all amounts expressed herein are in thousands of Canadian dollars, denominated by "\$" or "CDN\$". The Company's shares, options, units and warrants are expressed in thousands.

Mr. Robert Campbell M.Sc, P.Geo is a Qualified Person as defined under National Instrument 43-101 and has reviewed the technical information in the MD&A. Mr. Campbell is an officer of Largo. Refer to the Operations, Maracás Menchen Mine section of this MD&A for details of the Qualified Persons involved in reviewing the updated reserves at the Company's Maracás Menchen Mine.

## THE COMPANY

Largo is a Canadian natural resource mining and exploration company organized and existing under the Business Corporations Act (Ontario). Largo is listed on the Toronto Stock Exchange ("TSX").

Largo is a growing strategic metals company with a vanadium mine and vanadium and tungsten projects in Brazil and Canada. In Brazil, Largo currently holds an interest in the Maracás Menchen Mine, an interest in the Currais Novos tungsten tailings project and an interest in the Campo Alegre de Lourdes iron-vanadium project. In Canada, Largo holds an interest in the Northern Dancer tungsten-molybdenum property, located in the Yukon Territory. The Company is currently dedicated to the optimization of production and costs at the Maracás Menchen Mine and predominantly all of the Company's activities are focused on this mine. The Company produced its first vanadium flake according to required specifications during 2014.

The Company, as outlined under the Operations as well as the Liquidity and Capital Resources sections of this MD&A, is predominantly focused on the operating and financing activities related to its Maracás Menchen Mine in Brazil.

## 2016 HIGHLIGHTS

- The Company's Maracás Menchen Mine produced 7,966 tonnes of V<sub>2</sub>O<sub>5</sub> in 2016.
- The Company's Maracás Menchen Mine achieved a new record production level of 828 tonnes of V<sub>2</sub>O<sub>5</sub> in December 2016, which included new weekly and daily production records of 219 and 39 tonnes, respectively.
- On January 12, 2016, the Company announced it had reached an agreement to restructure the timing of amounts due under the arbitration settlement (refer to note 9(h)). Under the terms of the restructuring, the Company made a payment of US\$4,000 on January 29, 2016, with further payments deferred to commence on January 15, 2017.
- On March 2, 2016, the Company announced that it had entered into definitive agreements with the consortium of three commercial banks in Brazil for a new debt facility (the "2016 Facility") (see note 9(b)) and the restructuring of its export credit facilities (see note 9(e)).
- Concurrently with the New Facility, the Company agreed to new commercial terms for its US\$3,952 short term loan (see note 9(f)). In addition, the Company agreed terms for an additional facility of up to R\$80,000 to close

out its foreign currency swap contract that indexes a portion of the BNDES facility (see note 9(d)) to the US dollar.

- On January 29 and March 3, 2016, the Company announced the closing of the first and second tranches of a non-brokered offering of units. The Company received gross proceeds of \$36,644 from the sale of 209,393 units of the Company. Each unit was sold at a price of \$0.175 and consisted of one common share of the Company and one-half of one common share purchase warrant. Each whole warrant will be exercisable into one common share at a price of \$0.29 per share for a period of five years from closing of the offering. Funds managed by Arias Resource Capital Management LP (the "ARC Funds") purchased an aggregate of 153,333 units for consideration of \$26,834. Prior to the offering, the ARC Funds owned approximately 46.30% of the Company's issued and outstanding common shares and following the closing of the offering, the ARC Funds owned approximately 59.96% of the Company's then issued and outstanding common shares. In addition, Mr. Mark Smith subscribed for an aggregate of 4,218 units. Refer to note 11 for further details.
- On March 12, 2016, 6,364 of the Company's outstanding and exercisable warrants expired. The warrants were issued on March 12, 2012 with an exercise price of \$3.00 and a grant date fair value of \$5,074. On May 15, 2016, a further 47,177 of the Company's outstanding and exercisable warrants expired. The warrants were issued on May 15, 2015 with an exercise price of \$1.50 and a grant date fair value of \$2,182.
- On May 10, 2016, the Company announced that it had received approval for listing of its common shares for trading on the OTCQB Venture Market ("OTCQB"). The Company commenced trading on the OTCQB under the symbol LGORF at market open on May 10, 2016.
- On May 26, 2016, the Company announced a significant increase in the mineral reserves at its Maracás Menchen Mine. Refer to the Operations, Maracás Menchen Mine section of this MD&A for further details.
- On June 29, 2016, the Company announced that it had received approval for the listing of its common shares on the TSX. The common shares commenced trading on the TSX effective July 4, 2016 and will continue trading under the symbol LGO. As a result of the graduation to the TSX, there will be no further trading of the Company's common shares on the TSX Venture Exchange ("TSX-V") after commencement of trading on the TSX on July 4, 2016.
- On July 18, 2016, the Company announced that it had entered into a non-binding memorandum of understanding ("MOU") with Vionx Energy Corporation ("Vionx"), a company which develops, produces and sells vanadium redox flow batteries ("VRBs") for utility grid applications. The MOU summarizes the principal terms upon which Largo and Vionx will continue discussions that may lead to the supply by Largo of vanadium electrolyte to Vionx to further the research and development of advanced VRBs utilizing VNX Grid Energy Storage Systems. The MOU is conditional upon a number of items as set out in the Company's press release dated July 18, 2016.
- On September 7, September 12 and October 4, 2016, the Company announced the closing of the first, second and third tranches of a non-brokered offering of units. The Company received gross proceeds of \$5,000 from the sale of 11,111 units of the Company. Each unit was sold at a price of \$0.45 and consisted of one common share of the Company and one-half of one common share purchase warrant. Each whole warrant will be exercisable into one common share at a price of \$0.65 per share for a period of three years from closing of each tranche. Funds managed by the ARC Funds purchased an aggregate of 6,228 units for consideration of \$2,803. Prior to the offering, the ARC Funds owned approximately 59.96% of the Company's issued and outstanding common shares and following the closing of the offering, the ARC Funds owned approximately 59.86% of the Company's then issued and outstanding common shares. In addition, Mr. Mark Smith subscribed for an aggregate of 556 units and an entity controlled by Mr. Alberto Beeck, a director of the Company, subscribed for an aggregate of 556 units. Refer to note 11 for further details.
- On December 28, 2016, the Company announced it had entered into definitive agreements with the consortium of three commercial banks in Brazil for a new debt facility (the "2017 Facility") (see note 9(c)) and the restructuring of its existing facilities.

## SIGNIFICANT EVENTS AND TRANSACTIONS SUBSEQUENT TO 2016

- On January 9, 2017 and January 24, 2017, the Company announced the closing of the first and second tranches of a non-brokered offering of units. The Company received gross proceeds of \$16,083 from the sale of 35,740 units of the Company. Each unit was sold at a price of \$0.45 and consisted of one common share of the Company and one common share purchase warrant. Each whole warrant will be exercisable into one common share at a price of \$0.65 per share for a period of three years from closing of the offering. Funds managed by the ARC Funds purchased an aggregate of 14,396 units for consideration of \$6,478. Prior to the offering, the ARC Funds owned approximately 59.86% of the Company's issued and outstanding common shares and following the closing of the offering, the ARC Funds owned approximately 58.62% of the Company's then issued and outstanding common shares. In addition, an entity controlled by Mr. Alberto Beeck, a director of the Company, subscribed for an aggregate of 10,450 units for consideration of \$4,703. Refer to note 22 for further details.
- On February 24, 2017, the Company agreed to a new schedule of payments for its short term loan. Consequently, the Company received waivers, which included the payment of principal and interest on February 28, 2017, to allow the revised loan documents to be duly executed. In return for receiving the waivers, the Company is required to pay a restructuring fee of US\$100 through the delivery of common shares of the Company by April 24, 2017. The revised loan documents were duly executed on March 24, 2017. The new schedule of payments for the short term loan are expected to be as disclosed in note 22.
- On February 27, 2017, the Company announced that its vanadium pentoxide has been qualified for use by a major North American producer of master alloys for the aerospace industry, with further qualification trials underway at master alloy producers in Europe and Russia.
- On March 15, 2017, the Company announced that the consortium of three commercial banks in Brazil had agreed to temporarily waive the requirement that the Company inject a further US\$5,000 in working capital into Vanadio, a term which the three commercial banks had required in connection with the 2017 Facility (see note 9(c)). In connection with the granting of this temporary waiver, the three commercial banks and the Company are in discussions for the Company to fund certain payment obligations to the three commercial banks which had previously been delayed.

## 2016 SUMMARY

### Financial

- The Company recorded a net loss of \$55,630 in 2016, compared to a net loss of \$129,960 in 2015. This was primarily due to revenues of \$81,233 (2015 – \$7,600) and a foreign exchange and derivative gain of \$24,957 (2015 – foreign exchange and derivative loss of \$81,472), offset by operating costs of \$113,173 (2015 – \$29,377) and an increase in finance costs of \$28,021 to \$35,271, from \$7,250 in 2015. The increase in revenues, operating costs and finance costs in 2016 from 2015 is a result of the commencement of commercial production on October 1, 2015, whereby amounts prior to this were capitalized. For the fourth quarter 2016, the Company recorded a net loss of \$11,654, compared to a net loss of \$35,965 for the same prior year period. This was primarily due to revenues of \$31,482 (2015 – \$7,600), offset by operating costs of \$30,151 (2015 – \$29,377) and a decrease in the foreign exchange and derivative gain of \$2,400 to \$67, from \$2,467 in the same prior year period. Finance costs for the fourth quarter 2016 were \$9,760 compared to \$7,250 in the same prior year period.
- Operating costs of \$113,173 (2015 – \$29,377) include direct mine and mill costs of \$77,226 (2015 – \$19,268), depreciation and amortization of \$33,687 (2015 – \$8,952), royalties of \$2,193 (2015 – \$319) and an inventory write-down of \$67 (2015 – \$838). The 2015 amounts only relate to the fourth quarter 2015 following the commencement of commercial production on October 1, 2015.
- Professional, consulting and management fees for 2016 were \$7,183, comparable to \$7,001 in 2015. For the fourth quarter 2016, professional, consulting and management fees were \$1,727, down from \$1,843 in the same prior year period primarily due to higher legal fees in the same prior year period. Of the total professional and consulting compensation expense for 2016, \$4,002 related to the Mine Properties segment (2015 – \$3,245) and \$3,181 related to Corporate (2015 – \$3,756).

- The non-cash foreign exchange and derivative gain of \$24,957 for 2016 resulted from a strengthening of the Brazilian real by approximately 17% on the Company's U.S. dollar denominated debts (2015 – foreign exchange and derivative loss of \$81,472 due to a weakening of the Brazilian real by approximately 45%). The Company revalues its U.S. dollar denominated debts into Brazilian reais at the end of each reporting period. Of the total foreign exchange and derivative gain for 2016, \$25,178 related to the Mine Properties segment (2015 – loss of \$78,441) and a loss of \$221 related to Corporate (2015 – \$3,031), which is not an operating segment (refer to note 17). For the fourth quarter 2016, the Brazilian real weakened by 0.4% but was offset by a strengthening of the Canadian dollar against the U.S. dollar by approximately 2.0%, resulting in a non-cash foreign exchange and derivative gain of \$67, compared to a foreign exchange and derivative gain of \$2,467 for the same prior year period, which resulted from a strengthening of the Brazilian real by approximately 1.7%.
- Other general and administrative expenses for 2016 were \$3,843, up from \$2,466 in 2015. Of the total, \$1,634 related to the Mine Properties segment (2015 – \$913) and \$2,209 related to Corporate (2015 – \$1,553). The increase is primarily related to the recognition of a provision for litigation claims (refer to note 10(a)) and increased travel expenses. For the fourth quarter 2016, other general and administrative expenses were \$1,519, compared to \$690 in the same prior year period. The increase is primarily related to the same factors as previously noted.
- In 2016, the Company recognized a share-based payments expense of \$2,252, compared to \$2,848 in 2015. The expenses are primarily attributable to the share-based payment grants in both 2016 and 2015, as well as the impact of share-based payment forfeitures in 2016. In the fourth-quarter 2016, a share-based payments expense of \$43 was recognized, compared to an expense of \$35 for the same prior year period.
- Finance costs for 2016 were \$35,271, compared to \$7,250 in 2015. The increase is attributable to the commencement of commercial production on October 1, 2015, with such amounts capitalized prior to this date. Of the \$35,271, \$32,191 relates to interest expense and guarantee fees (2015 – \$6,088) and \$3,080 relates to accretion (2015 – \$1,162). Of the total, \$34,436 related to the Mine Properties segment (2015 – \$6,311) and \$835 related to Corporate (2015 – \$939). For the fourth quarter 2016, finance costs were \$9,760, compared to \$7,250 in the same prior year period. Of the \$9,760, \$8,962 relates to interest expense and guarantee fees (2015 – \$6,088) and \$798 relates to accretion (2015 – \$1,162). Interest expense and guarantee fees were higher than in the same prior year period primarily due to the Company's increased level of long-term debt in 2016.
- In 2016, the Company incurred exploration and evaluation expenses of \$98, compared to \$715 in 2015. The decrease is related to the Company focussing its efforts and resources on its Maracás Menchen Mine in 2016. For the fourth quarter 2016, the Company incurred exploration and evaluation expenses of \$3 compared to \$90 in the same prior year period.
- The Company recorded a write-down of its exploration and evaluation assets of \$6,747 in 2015. There was no such write-down recorded in 2016.
- The Company recorded a comprehensive loss of \$49,870 in 2016 after recognizing a cumulative translation adjustment gain of \$5,760. This was mainly due to the appreciation in the value of the Company's net investment in its Maracás Menchen Mine and related property, plant and equipment due to a strengthening of the Brazilian real. For 2015, the Company recorded a comprehensive loss of \$140,313 and a cumulative translation adjustment loss of \$10,353.
- Net cash used in operating activities for 2016 was \$15,942, an increase of \$7,521 or 89% from \$8,421 in 2015. The increase was mainly due to an unfavourable movement in non-cash working capital items of \$5,557, primarily driven by an increase in the Company's amounts receivable and inventory balances. In 2015, the Company had a favourable movement in non-cash working capital items of \$17,594. Cash used before non-cash working capital items for 2016 was \$10,385, compared to \$26,015 in 2015. The improvement in 2016 is a direct result of the stabilising of operations and improved production at the Maracás Menchen Mine since the commencement of commercial production on October 1, 2015.
- Cash provided by financing activities for 2016 was \$29,193, down \$10,804 or 27% from \$39,997 in 2015. The decrease is mainly due to lower proceeds from the issuance of common shares and warrants of \$41,644 (2015 – \$75,200), a swap settlement of \$32,518 (2015 – \$nil), the repayment of the arbitration settlement of \$5,618

(2015 – \$nil), and interest, guarantee and other associated fees paid of \$23,168 (2015 – \$22,635). This was partially offset by proceeds less repayments from long-term debt of \$47,192 (2015 – repayments of \$13,502).

- Cash used in investing activities for 2016 was \$15,565, down \$24,253 or 61% from \$39,818 in 2015. The decrease is mainly due to the commencement of commercial production on October 1, 2015 and a decrease in investment in mine properties, plant and equipment of \$27,576.
- For the fourth quarter 2016, the Company recognized net cash provided by operating activities of \$4,519 (net cash used in operating activities of \$2,761 in the same prior year period). This is a direct consequence of the improvement in V<sub>2</sub>O<sub>5</sub> prices over the course of 2016 as well as better cost management. Net cash used in financing activities was \$2,047 (\$6,365 in the same prior year period) and cash used in investing activities was \$3,446 (\$5,970 in the same prior year period). Overall, the net change in cash for the fourth quarter 2016 was an outflow of \$925 (\$15,187 in the same prior year period).

## Operations

- With the new production record of 828 tonnes of V<sub>2</sub>O<sub>5</sub> in December, production for the fourth quarter 2016 was comparable with the second quarter 2016. The record level achieved in December was offset by the lower than expected production level of 715 tonnes of V<sub>2</sub>O<sub>5</sub> in October, which was primarily due to a longer than anticipated scheduled shut-down of the kiln and cooler for refractory repair. The repair required in the cooler refractory was greater than anticipated, and the Company took advantage of the shut-down to extend the repair area to prevent further issues in the coming months. Production in November was 761 tonnes.
- Total production in Q4 2016 was 2,304 tonnes, a decrease of 0.3% from the second quarter 2016 and an improvement of 5.6% from the third quarter 2016.
- Cash operating costs<sup>1</sup> since the commencement of commercial production on October 1, 2015 are summarized in the following table:

	Production Tonnes	Production Pounds Equivalent <sup>5</sup>	CDN\$ Cost per pound <sup>1,2,3,4</sup>	US\$ Cost per pound <sup>6</sup>
4 <sup>th</sup> Quarter 2015	1,654	3,646,441	\$5.97	\$4.47
1 <sup>st</sup> Quarter 2016	1,169	2,577,201	\$6.52	\$4.75
2 <sup>nd</sup> Quarter 2016	2,311	5,094,877	\$4.19	\$3.25
3 <sup>rd</sup> Quarter 2016	2,182	4,810,481	\$4.67	\$3.59
4 <sup>th</sup> Quarter 2016	2,304	5,079,444	\$4.82	\$3.60

1. The cash operating costs reported are on a non-GAAP basis. Cash operating costs include all cash expenditures, the main categories being mining costs, plant and maintenance costs, sustainability costs, mine and plant administration costs, royalties and sales, general and administrative costs ("SG&A"). Cash operating costs excludes depreciation and amortization charges, interest or any other debt servicing costs and commissions on sales. Refer to the "Non-GAAP Measures" section of this MD&A. See also 4. below.
2. Excludes corporate SG&A or CAPEX (Capital Expenditures).
3. The reader is cautioned that the cash operating costs presented are intended to serve as a guide to the magnitude of the Company's monthly operating expenditures on a cash basis and excludes financing costs associated with the operations and non-cash accounting charges (including but not limited to depreciation and amortization expense, accretion, share-based payments, or foreign exchange and derivative gains or losses). The measure may therefore not be comparable to other companies or the results of similar operations and does not meet any definition of GAAP. Refer to the "Non-GAAP Measures" section of this MD&A.
4. Subsequent to October 1, 2015, the date of the assessment that commercial production had been reached, the cash operating costs presented are quarterly and are calculated as detailed in the "Non-GAAP Measures" section of this MD&A.
5. Conversion of tonnes to pounds, 1 tonne = 2,204.62 pounds or lbs.
6. Calculated from "CDN\$ Cost per pound" using average CDN\$/US\$ foreign exchange rates of 1.34, 1.37, 1.29, 1.30 and 1.34 for the 4<sup>th</sup> Quarter 2015, 1<sup>st</sup> Quarter 2016, 2<sup>nd</sup> Quarter 2016, 3<sup>rd</sup> Quarter 2016 and 4<sup>th</sup> Quarter 2016, respectively.

## SELECTED QUARTERLY INFORMATION

Summary financial information for the eight quarters ended December 31, 2016, prepared in accordance with IFRS:

Period	Revenue	Total Assets <sup>1</sup>	Net Income (Loss) <sup>1</sup>	Basic & Diluted Income (Loss) per Share <sup>1</sup>	Non-current Liabilities
4 <sup>th</sup> Quarter 2016	\$ 31,482	\$ 353,295	\$ (11,654)	\$ (0.03)	\$ 232,387
3 <sup>rd</sup> Quarter 2016	20,758	345,269	(24,705)	(0.06)	230,566
2 <sup>nd</sup> Quarter 2016	18,945	351,193	(9,663)	(0.02)	230,230
1 <sup>st</sup> Quarter 2016	10,048	334,336	(9,608)	(0.03)	218,373
4 <sup>th</sup> Quarter 2015	7,600	315,759	(35,965)	(0.18)	182,504
3 <sup>rd</sup> Quarter 2015	Nil <sup>2</sup>	337,869	(50,005)	(0.25)	189,720
2 <sup>nd</sup> Quarter 2015	Nil <sup>2</sup>	384,029	681	0.00	197,718
1 <sup>st</sup> Quarter 2015	Nil <sup>2</sup>	323,740	(44,671)	(0.41)	174,068

1. Balances for the 1<sup>st</sup> Quarter 2015 and prior have been restated as per the change in accounting policy for exploration and evaluation expenditures detailed in note 4 of the 2015 audited consolidated financial statements.
2. As the Company had been in the exploration and development phase up to September 30, 2015, it had no revenue during this period. The Company started generating sales of V<sub>2</sub>O<sub>5</sub> during the third quarter of 2014 as part of the process to test the mine and associated processing operations. The net proceeds from these sales were capitalized until the Company declared commercial production for accounting purposes (October 1, 2015), which is the point at which the mine is capable of being operated on a continuing basis as intended by management.

The Company's asset base has fluctuated over the last eight quarters ended December 31, 2016, with the high in the second quarter 2015 primarily attributable to the \$75,200 proceeds from the private placement that closed on May 28, 2015. The increase in the fourth quarter 2016 from the third quarter 2016 is primarily attributable to an increase in amounts receivable and inventory.

During Q3 2016, the Company recognized revenues of \$20,758, which was offset by operating costs of \$29,955 and finance costs of \$9,552. The Company recognized a foreign exchange and derivative loss of \$1,319 primarily due to the translation of U.S. denominated debts in Brazilian reais equivalent.

During Q2 2016, the Company recognized revenues of \$18,945 and a foreign exchange and derivative gain of \$12,511 primarily due to the translation of U.S. denominated debts in Brazilian reais equivalent. This was offset by operating costs of \$29,738 and finance costs of \$8,065.

During Q1 2016, the Company recognized revenues of \$10,048 and a foreign exchange and derivative gain of \$13,698 primarily due to the translation of U.S. denominated debts in Brazilian reais equivalent. This was offset by operating costs of \$23,329 and finance costs of \$7,894.

During Q4 2015, the Company recognized revenues of \$7,600 and a foreign exchange and derivative gain of \$2,467 primarily due to the translation of U.S. denominated debts in Brazilian reais equivalent. This was offset by operating costs of \$29,377 and finance costs of \$7,250.

During Q3 2015, the Company incurred a foreign exchange and derivative loss of \$47,095 due to the translation of U.S. denominated debts in Brazilian reais equivalent.

During Q2 2015, the Company incurred a gain on foreign exchange of \$2,804 and a derivative gain of \$3,117, due to the translation of U.S. denominated debts in Brazilian reais equivalent.

During Q1 2015, the Company incurred a loss on foreign exchange of \$42,765 due to the translation of U.S. denominated debts into Brazilian reais equivalent.

Non-current liabilities have been increasing as the Company continued to draw down on the 2016 Facility. See the discussion under Liquidity and Capital Resources and note 9 of the 2016 audited consolidated financial statements.

## OPERATIONS

### Maracás Menchen Mine

#### Recent Developments

The Maracás Menchen Mine operation produced its first vanadium pentoxide flake on August 2, 2014. On October 1, 2015, the Company declared commercial production at the Maracás Menchen Mine. Since this date, attributable

borrowing costs and depreciation are no longer capitalized and are recognized in the consolidated statement of loss and comprehensive loss, together with revenues and operating costs.

Expenditures of \$12,971 were capitalized to mine properties, plant and equipment during the year ended December 31, 2016 (year ended December 31, 2015 – \$45,944).

During Q4 2016, production output was 5.6% higher than in Q3 2016, with new monthly and daily production records of 828 tonnes and 39 tonnes of V<sub>2</sub>O<sub>5</sub>, respectively, achieved in December. Recoveries have continued to improve over the course of 2016, with the fusion recovery rate averaging 85% (2015 – 72%). For Q4 2016, the fusion recovery rate of 90% is a significant improvement from the 78% achieved in the same prior year period. The overall recovery rate averaged 62.6% for Q4 2016, an increase of 6.3% from the 58.9% achieved in Q3 2016, primarily due to improvements in milling control and leaching performance. The lowest monthly production in Q4 2016 was in October with an output of 715 tonnes of V<sub>2</sub>O<sub>5</sub>, which was lower than expected due to a longer than anticipated scheduled shut-down of the kiln and cooler for refractory repair and availability of the flash dryer. Total production for 2016 was 7,966 tonnes of V<sub>2</sub>O<sub>5</sub>, with production levels varying by less than 6% per quarter from Q2 2016 onwards. Nameplate annual production capacity for the Maracás Menchen Mine is 9,634 tonnes of V<sub>2</sub>O<sub>5</sub>, or approximately 26.4 tonnes per day.

The cost per pound for Q4 2016 in \$ (refer to page 5) was higher than both Q3 2016 and Q2 2016, partially due to a strengthening of the Brazilian real against the \$, with the average rate moving from 0.3675 (R\$/) in Q2 2016 to 0.4052 in Q4 2016. In addition, the Q4 2016 cost per pound is impacted by the recognition of a provision for litigation claims (refer to note 10(a)) in other general and administrative expenses.

In Q1 2017 the Company is focused on stable production and the implementation of improvement projects to support higher recoveries and lower consumption of consumables in the chemical plant. In March 2017 there will be a planned shutdown of 20 days to replace the kiln refractory. In 2017, the Company plans to implement projects in the leaching and kiln sections of the chemical plant to further increase these recovery levels. In addition, the Company aims to improve the level of consumption of sodium carbonate and ammonium sulphate, two of the Company's key consumables, by improving control of the dosage system. Further, the Company anticipates that its efforts in improving overall recovery levels will enable it to achieve monthly production of 840 tonnes of V<sub>2</sub>O<sub>5</sub> in Q2 2017. The Company will also commence sales of high-purity V<sub>2</sub>O<sub>5</sub> flakes to its offtake partner, as well as making the necessary additions to the plant to enable the handling and packing of V<sub>2</sub>O<sub>5</sub> powder.

The cost per pound for 2016 (see "Non-GAAP Measures" section of this MD&A) was \$4.85 (US\$3.62), which is lower than the 2016 guidance of \$5.07 (US\$3.87) as published in the Q3 2016 MD&A. This achievement demonstrates the greater consistency in operations and production achieved at the Maracás Menchen Mine since Q1 2016. Consequently, the Company expects to build on this in 2017. Production guidance for 2017 is as follows:

	Annual Production High-End	Annual Production Low-End	Average Annual Production	Estimated Annual Average US\$/CDN\$ Cash Operating Costs Per Tonne <sup>1,2,3</sup>	Estimated Annual Average US\$/CDN\$ Cash Operating Costs Per Pound <sup>1,2,3</sup>
2017 <sup>2</sup>	9,777 tonnes <sup>4,5</sup> ~ 21.6 million lbs	8,777 tonnes <sup>4,5</sup> ~ 19.3 million lbs	9,277 tonnes <sup>4,5</sup> ~ 20.5 million lbs	US\$8,065 CDN\$10,767	US\$3.66 CDN\$4.88

1. The cash operating costs reported are on a non-GAAP basis. Cash operating costs include all cash expenditures, the main categories being mining costs, plant and maintenance costs, sustainability costs, mine and plant administration costs, royalties and SG&A. Cash operating costs excludes depreciation and amortization charges, interest or any other debt servicing costs and commissions on sales. Refer to the "Non-GAAP Measures" section of this MD&A. See also 3. below. The estimated average annual R\$/US\$ and CDN\$/US\$ exchange rates used for 2017 are approximately 3.34 and 1.34 respectively.
2. Excludes corporate SG&A or CAPEX (Capital Expenditures).
3. The reader is cautioned that the cash operating costs presented are intended to serve as a guide to the magnitude of the Company's monthly operating expenditures on a cash basis and excludes financing costs associated with the operations and non-cash accounting charges (including but not limited to depreciation and amortization expense, accretion, share-based payments, or foreign exchange and derivative gains or losses). The measure may therefore not be comparable to other companies or the results of similar operations and does not meet any definition of GAAP. Refer to the "Non-GAAP Measures" section of this MD&A.
4. Conversion of tonnes to pounds, 1 tonne = 2,204.62 pounds or lbs.
5. A total CAPEX of approximately \$9.9 million is expected to be required during 2017. The Company periodically reviews its CAPEX needs and will update the market when its estimates change by a material amount.

During 2016, 1,044,767 tonnes of ore with an average grade of 1.59% containing 16,636 tonnes of V<sub>2</sub>O<sub>5</sub> were mined. 1,094,412 tonnes averaging 1.38% V<sub>2</sub>O<sub>5</sub> were crushed, from which 768,763 tonnes with an average grade of 1.80% V<sub>2</sub>O<sub>5</sub> were milled. The mill produced 345,916 tonnes of concentrate grading 3.38% V<sub>2</sub>O<sub>5</sub> containing 11,685 tonnes of V<sub>2</sub>O<sub>5</sub>. The chemical plant produced 7,966 tonnes of V<sub>2</sub>O<sub>5</sub> flake from this concentrate.

During 2015, 1,025,984 tonnes of ore with an average grade of 1.31% containing 13,477 tonnes of V<sub>2</sub>O<sub>5</sub> were mined. 800,697 tonnes averaging 1.54% V<sub>2</sub>O<sub>5</sub> were crushed, from which 718,133 tonnes with an average grade of 1.75% V<sub>2</sub>O<sub>5</sub> were milled. The mill produced 280,789 tonnes of concentrate grading 3.13% V<sub>2</sub>O<sub>5</sub> containing 8,907 tonnes of V<sub>2</sub>O<sub>5</sub>. The chemical plant produced 5,810 tonnes of V<sub>2</sub>O<sub>5</sub> flake from this concentrate.

During Q4 2016, 295,705 tonnes of ore with an average grade of 1.73% containing 5,124 tonnes of V<sub>2</sub>O<sub>5</sub> were mined. 293,971 tonnes averaging 1.32% V<sub>2</sub>O<sub>5</sub> were crushed, from which 207,771 tonnes with an average grade of 1.65% V<sub>2</sub>O<sub>5</sub> were milled. The mill produced 91,782 tonnes of concentrate grading 3.36% V<sub>2</sub>O<sub>5</sub> containing 3,082 tonnes of V<sub>2</sub>O<sub>5</sub>. The chemical plant produced 2,304 tonnes of V<sub>2</sub>O<sub>5</sub> flake from this concentrate.

During Q4 2015, 262,203 tonnes of ore with an average grade of 1.38% containing 3,623 tonnes of V<sub>2</sub>O<sub>5</sub> were mined. 204,958 tonnes averaging 1.51% V<sub>2</sub>O<sub>5</sub> were crushed, from which 170,596 tonnes with an average grade of 1.76% V<sub>2</sub>O<sub>5</sub> were milled. The mill produced 72,037 tonnes of concentrate grading 3.24% V<sub>2</sub>O<sub>5</sub> containing 2,335 tonnes of V<sub>2</sub>O<sub>5</sub>. The chemical plant produced 1,654 tonnes of V<sub>2</sub>O<sub>5</sub> flake from this concentrate.

The following table is a summary of production statistics at the Maracás Menchen Mine since the commencement of mining activities.

	Q4 2016	Q4 2015	2016 Total	2015 Total
Total Ore Mined (tonnes)	295,705	262,203	1,044,767	1,025,984
Grade of Ore Mined (%V <sub>2</sub> O <sub>5</sub> )	1.73	1.38	1.59	1.31
Contained V <sub>2</sub> O <sub>5</sub> (tonnes)	5,124	3,623	16,636	13,477
Crushed ore (tonnes)	293,971	204,958	1,094,412	800,697
Grade of Ore for crushed (%V <sub>2</sub> O <sub>5</sub> )	1.32	1.51	1.38	1.54
Contained V <sub>2</sub> O <sub>5</sub> (tonnes)	3,872	3,085	15,080	12,345
Ore milled (tonnes)	207,771	170,596	768,763	718,133
Grade of Ore milled (%V <sub>2</sub> O <sub>5</sub> )	1.65	1.76	1.80	1.75
Contained V <sub>2</sub> O <sub>5</sub> (tonnes)	3,425	3,003	13,810	12,559
Stockpile balance (tonnes)	133,902	883,560	133,902	3,341,614
Grade of Ore on stockpile (%V <sub>2</sub> O <sub>5</sub> )	0.83	0.74	0.83	0.78
Contained V <sub>2</sub> O <sub>5</sub> (tonnes)	1,111	6,520	1,111	25,903
Concentrate produced (tonnes)	91,782	72,037	345,916	280,789
Grade of Concentrate (%V <sub>2</sub> O <sub>5</sub> )	3.36	3.24	3.38	3.13
Recovery of V <sub>2</sub> O <sub>5</sub> %	90	78	85	72
Contained V <sub>2</sub> O <sub>5</sub> (tonnes)	3,082	2,335	11,685	8,907
V <sub>2</sub> O <sub>5</sub> flake produced (tonnes)	2,304	1,654	7,966	5,810

#### Reserves and resources

On May 26, 2016, the Company announced a 40% increase in the mineral reserves for the Campbell Pit at its Maracás Menchen Mine, together with a new mine plan. The update, prepared by Whittle Consulting ("Whittle"), Micon International ("Micon") and RungePincocKMinarco (Canada) Ltd. ("RPM"), has increased the proven and probable mineral reserves to 18.4 million tonnes from the 13.1 million tonnes established previously in the 2008 definitive feasibility study (the "Feasibility Study") (updated in 2009) by Aker Metals, a division of Aker Solutions Canada Inc. ("Aker") (see Largo news release dated August 12, 2008). The new mine plan, based on the production of V<sub>2</sub>O<sub>5</sub> and larger mineral reserves, results in an operating life of the Maracás Menchen Mine and process plant of 15 years at a production rate of 9,600 tonnes per annum.

Highlights of the updated Maracás Menchen Mine mineral reserves and mine plan include:

- A 40% increase in proven and probable mineral reserves to 18.4 million tonnes, at a grade of 1.17% V<sub>2</sub>O<sub>5</sub>;
  - A mine life of 15 years;
  - An average of 29.5% magnetics (magnetite), which yields an average concentrate grade of 3.32% V<sub>2</sub>O<sub>5</sub>; and
  - A new mine plan to produce only V<sub>2</sub>O<sub>5</sub> flakes rather than ferrovanadium ("FeV") to allow faster ramp-up of production.
- Campbell Pit

The following table provides a summary of the fully diluted mineral reserve for the Campbell Pit with an effective date of March 31, 2016:

Reserve Category	Tonnage (tonnes)	Head Grade (% V <sub>2</sub> O <sub>5</sub> )	Magnetics <sup>1</sup> (%)	Concentrate Grade <sup>1</sup> (% V <sub>2</sub> O <sub>5</sub> )	Magnetic V <sub>2</sub> O <sub>5</sub> Content (kt)
Proven	17,149,000	1.17	29.6	3.33	168.8
Probable	1,243,000	1.13	29.0	3.19	11.5
Total Reserve	18,392,000	1.17	29.5	3.32	180.3
Waste	62,005,000				
Total In-Pit	80,397,000	Strip ratio = 3.37			

1. As determined by Davis Tube and XRF Analyses, reported from a fully diluted reserve block model.

The mineral reserves for the Maracás Menchen Mine were updated in compliance with NI 43-101 and CIM guidelines by Micon. Micon has created a regularized (and diluted) reserve model from the source GEMS resource model, for which Robert Campbell, P.Geol., Vice President, Exploration for Largo Resources Ltd. is responsible.

This mineral reserve estimate is based solely on the measured and indicated resources from within the redesigned Campbell Pit. The inferred resources for the Campbell Pit and the resources of the satellite deposits are not included. These resources have been outlined in a press release dated January 18, 2013 and in a technical report dated March 4, 2013.

The V<sub>2</sub>O<sub>5</sub> price used for this mineral reserve is US\$5.00 per lb of V<sub>2</sub>O<sub>5</sub> and the application of an overall recovery of 66.5% from the magnetic V<sub>2</sub>O<sub>5</sub> content, which results in proven and probable reserves of 18.4 million tonnes at 1.17% V<sub>2</sub>O<sub>5</sub>. This represents a 40% increase in tonnage and 13% decrease in average grade compared to the Feasibility Study. The lower average reserve grade is due in part to the use of dry magnetic separators which make lower grade material economic by rejecting up to 30% of the mass while raising the V<sub>2</sub>O<sub>5</sub> grade of mill feed.

The ore on average contains approximately 29.5% magnetics yielding an average concentrate grade of 3.32% V<sub>2</sub>O<sub>5</sub> as determined by Davis Tube and XRF analyses. All samples from the exploration programs have been analysed by Davis Tube and XRF allowing for more detailed mine planning and enhancing the reliability of production forecasts.

The base case price of US\$5.00 per lb of V<sub>2</sub>O<sub>5</sub> used in the updated mineral reserves equates to the three-year trailing average pricing from Metal Bulletin ([www.metalbulletin.com](http://www.metalbulletin.com)), a widely accepted reference source for minor metals pricing and industry information.

Chris Jacobs, CEng, MIMMM, MBA, Vice President & Mining Economist and Dayan Anderson, B.Sc., MMSA, Senior Mining Engineer, Micon International Limited and Kevin Tanas, P. Eng., Principal Mining Consultant, RungePincokMinarco (Canada) Ltd., are the Qualified Persons responsible for the updated mineral reserves as defined by NI 43-101. Robert Campbell, P.Geol., Vice President, Exploration for Largo Resources Ltd., is the Qualified Person responsible for the resources.

- Revised Mine Plan

The updated mineral reserves can support a 15-year mine life with annual mill throughput of 1,118,880 tonnes to produce up to 9,600 tonnes of V<sub>2</sub>O<sub>5</sub> per year. These represent increases of 90% and 92%, respectively, over the mill throughput and production in the Feasibility Study. The revised mine plan demonstrates a 15-year V<sub>2</sub>O<sub>5</sub> production case and requires no additional capital expenditure. This approach provides the existing plant a great

deal of flexibility to accommodate additional resources that Largo expects will become available in the areas of the satellite deposits identified by the 2011/2012 drill program and outlined in the 2013 preliminary economic assessment for the project by RungePincockMinarco (see Largo's news releases dated January 18, 2013).

- Quality Assurance Quality Control

The scientific and technical information contained above has been reviewed and approved by Robert Campbell, P.Geo., Vice President, Exploration for Largo Resources Ltd., Dayan Anderson, B.Sc., MMSA, Senior Mining Engineer, Micon International Limited, Chris Jacobs, CEng, MIMMM, MBA, Vice President & Mining Economist, Micon International Limited and Kevin Tanas, P. Eng., Principal Mining Consultant, RungePincockMinarco (Canada) Ltd., all of whom are Qualified Persons as defined by NI 43-101.

The Company is in the process of conducting a Life of Mine ("LoM") study. This LoM will incorporate all the reserves and resources from the Campbell Pit as well as the satellite deposits using a pit shell of US\$6.00 per pound of V<sub>2</sub>O<sub>5</sub>. The Company now expects this LoM study to be completed in the third quarter 2017 as a result of further review of the contribution from the iron-ore by-product.

## Northern Dancer

### Recent Developments

Management is not conducting any further work at this time on the Northern Dancer property, as the majority of the Company's efforts are focused on completing the ramp-up of production at the Maracás Menchen Mine.

During 2016, the Company incurred \$90 in expenditures (2015 – \$230) at the Northern Dancer project.

At December 31, 2015, the Company identified indicators of potential impairment at its Northern Dancer property and assessed that the exploration and evaluation asset relating to this property was not recoverable. Accordingly, the Company recognized a write-down of \$6,747 at December 31, 2015.

### Outlook

A small study looking at a higher grade pit and smaller operation is being considered. The study will look at what supporting investigation might be necessary, including additional metallurgical test work.

Management is not planning any significant expenditures for the foreseeable future.

## Campo Alegre de Lourdes

### Recent Developments

Largo has completed systematic sampling and re-logging of the cores to confirm the Fe, TiO<sub>2</sub> and V<sub>2</sub>O<sub>5</sub> values of the deposits. A major magnetic anomaly and fold structure has been identified that is 14 kilometres long (north-south) by 2.5 kilometres wide (east-west). Two 50-kilogram samples from the oxidized and non-oxidized material were collected for preliminary metallurgical test work. These results suggest that the deposit may have the potential to be a titanium dioxide deposit; however, further metallurgical test work will need to be completed before this can be confirmed.

During 2016, the Company incurred \$8 in expenditures (2015 – \$22) at the Campo Alegre de Lourdes project.

### Outlook

The next step will be to conduct a drill program to identify the potential of the deposit. Environmental permits are required before drilling. These permits are awaiting approval by the governmental agency in charge. The drill program is expected to take nine months to complete at Campo Alegre de Lourdes.

Management is not planning any significant expenditures for the foreseeable future.

## Currais Novos Tungsten Tailings Project

### Outlook

Since inception of the Currais Novos project the Company has encountered technical difficulties in achieving commercial production and has been faced with drought conditions which resulted in the suspension of operations at the project in late 2012. As a result of these issues the Company has twice recorded non-cash impairment charges

against the carrying value of the property and the related machinery and equipment and construction in process. During the year ended December 31, 2012 an impairment of \$3,827 was recorded and during the year ended December 31, 2014 an additional impairment of \$11,137 was recorded to write-down the assets to nil.

Due to the ongoing drought, and the negative production outlook, the Company decided to cease all development at Currais Novos until conditions improve and accordingly wrote down the value of the development property and all related property and equipment to zero at December 31, 2014 (December 31, 2016 – \$nil).

Management is not planning any significant expenditures for the foreseeable future.

### Capivara Exploration

In 2014, Largo discovered a new chromite showing on its Capivara Prospect. The Capivara Prospect lies 32 km north of the Campbell Pit at the Maracás Menchen Mine. The original objective was to evaluate the known magnetite horizon, which includes high-grade vanadium values. While evaluating this magnetite horizon, the discovery was made of a number of zones containing chromite layers with fine-grained sulphides.

During 2016, the Company incurred \$nil in expenditures (2015 – \$463) at the Capivara Prospect.

Management is not planning any significant expenditures for the foreseeable future.

## FINANCIAL INSTRUMENTS

Financial assets and financial liabilities as at December 31, 2016 and December 31, 2015 were as follows:

	December 31, 2016	December 31, 2015
Cash	\$ 758	\$ 2,869
Restricted cash	2,110	3,881
Amounts receivable	12,917	2,072
Accounts payable and accrued liabilities	44,644	25,396
Current portion of long-term debt	49,438	42,983
Long-term debt	226,840	176,989
Derivative liabilities at FVTPL	\$ -	\$ 31,934

The Company's risk exposures and the impact on the Company's financial instruments are summarized in note 20 of the annual consolidated financial statements. There have been no changes in the risks, objectives, policies and procedures from the previous period.

## LIQUIDITY AND CAPITAL RESOURCES

The Company continues to require financing for the exploration and development of its properties and for working capital. Because of continued operating losses in 2016 as the Company ramped up its operations at the Maracás Menchen Mine, the Company's continuance as a going concern is dependent on its ability to reach profitable levels of operations and obtain adequate financing. The Company anticipates being able to fund its future cash flow needs through any combination of restructuring of its existing debt facilities and/or financing in a form that most effectively addresses its cash needs.

The Company incurred operating losses at its Maracás Menchen Mine in the year ended December 31, 2016. This is primarily attributable to the decline in V<sub>2</sub>O<sub>5</sub> prices over the course of 2015 and slower than anticipated pick-up in prices in 2016, as well as lower than anticipated production of V<sub>2</sub>O<sub>5</sub> during the first quarter 2016. 2015 began with a mid-price of US\$5.03 per lb of V<sub>2</sub>O<sub>5</sub>. As at December 31, 2015, the price had declined to US\$2.38 per lb of V<sub>2</sub>O<sub>5</sub>, a decline of over 50%. Prices have shown signs of recovery since then, with a price at December 31, 2016 of between US\$4.85 and US\$5.20. The Company's Maracás Menchen Mine has improved its cost per lb of V<sub>2</sub>O<sub>5</sub> performance over the course of 2016, but in this challenging price environment, expenses, including debt servicing costs, remain in excess of current market prices. Despite the improvements over the course of 2016, the net change in the Company's cash for the fourth quarter 2016 was a cash outflow of \$925. As at the date of the MD&A, the market price of V<sub>2</sub>O<sub>5</sub> improved further to a range of US\$4.80 - US\$5.30 per lb.

At December 31, 2016, approximately 47% of the Company's accounts payable balances relating to its Maracás Menchen Mine were outstanding for 60 days or longer. The long-outstanding nature of these balances puts pressure on the Company's relationships with its suppliers, and increases the risk of business interruption.

At December 31, 2016, due to the Company recognizing net cash provided by operating activities of \$4,519 in the fourth quarter 2016, the improvement in quoted V<sub>2</sub>O<sub>5</sub> prices, and the private placement completed in the first quarter 2017 (refer to note 22), the Company has revised its forecast for when it expects to require additional financing for the repayment of the long-term debt, working capital and capital expenditures. The Company now expects to require such additional financing by April 15, 2017 for the repayments due on the long-term debt. Funds raised in the Q1 2017 Private Placement and ongoing operating cashflows can only be used for operational purposes in Brazil as stipulated in the terms of the 2017 Facility. The Company is currently pursuing financing alternatives to enable it to meet its obligations. In connection with the 2017 Facility, the Company is required to make payments for the accumulated 2016 and 2017 guarantee fees as detailed in note 22 and the section "Significant Events and Transactions Subsequent to 2016". The Company may require additional financing in order to make these payments, as well as for working capital purposes. Should the Company be unable to continue as a going concern it would therefore be required to realize its assets and liquidate its liabilities and commitments in other than the normal course of business and at amounts different from those in the accompanying 2016 audited consolidated financial statements. Such adjustments could be material.

Because of continuing operating losses and negative cash flows, the Company's continuance as a going concern is dependent upon its ability to obtain adequate financing and to reach profitable levels of operations. These material uncertainties may cast significant doubt upon the Company's ability to realize its assets and discharge its liabilities in the normal course of business and accordingly the appropriateness of the use of accounting principles applicable to a going concern. Although the Company has been successful in the past in obtaining financing and has recently completed private placements for gross proceeds of \$36,644, \$5,000 and \$16,083 in the first quarter 2016, third quarter 2016 and first quarter 2017, respectively, there is no assurance that the Company will be able to obtain adequate financing in future or that such financing will be on terms advantageous to the Company.

The reader is cautioned that in the event of a default under the provisions of the various agreements for the debt financing facility provided by the Business Development Bank of Brazil ("BNDES") for its Maracás Menchen Mine in Bahia, Brazil (the "BNDES Facility"), the Company's assets may be required to cease operations and its assets may be liquidated under the various security arrangements pertaining to these debt facilities. Should the price per lb of V<sub>2</sub>O<sub>5</sub> not continue to increase, the Company may be required to implement certain operational changes in order to further reduce costs.

## Private Placements

### Q1 2016 Private Placement

On January 29, 2016, the Company announced the closing of the first tranche of its US\$26,500 (approximately \$39,000) non-brokered offering (the "Q1 2016 Offering") of units (the "Q1 2016 First Tranche"). The closing of the Q1 2016 First Tranche resulted in gross proceeds to the Company of \$13,286 from the sale of 75,920 units of the Company. Each unit was sold at a price of \$0.175 and consisted of one common share of the Company and one-half of one common share purchase warrant (each whole warrant, a "Warrant"). Each Warrant will be exercisable into one common share at a price of \$0.29 per share for a period of five years from closing of the Q1 2016 Offering.

On March 3, 2016, the Company announced the closing of the second and final tranche of the non-brokered offering (the "Q1 2016 Second Tranche"), resulting in gross proceeds to the Company of \$23,358 from the sale of 133,473 units of the Company. The terms of the units are the same as for the Q1 2016 First Tranche.

Funds managed by Arias Resource Capital Management LP (the "ARC Funds") purchased an aggregate of 62,176 units in the Q1 2016 First Tranche and 91,157 units in the Q1 2016 Second Tranche for gross proceeds to the Company of \$26,834. The ARC Funds are a "Control Person" of the Company (refer to note 16) by virtue of their ownership prior to the closing of the Q1 2016 Offering of approximately 46.30% of the Company's issued and outstanding common shares. Following closing of the Q1 2016 Offering, the ARC Funds owned approximately 59.96% of the Company's then issued and outstanding common shares (or approximately 68.68% of the Company's issued and outstanding common shares in the event that the ARC Funds exercised all of the convertible securities held by them).

In addition, Mr. Mark Smith, President and Chief Executive Officer and a director of the Company, subscribed for an aggregate of 2,500 units in the Q1 2016 First Tranche and 1,718 units in the Q1 2016 Second Tranche.

### Q3 2016 Private Placement

On September 7, 2016, the Company announced the closing of the first tranche of a non-brokered offering (the "Q3 2016 Offering") of units (the "Q3 2016 First Tranche"). The closing of the Q3 2016 First Tranche resulted in gross proceeds to the Company of \$3,359 from the sale of 7,466 units of the Company. Each unit was sold at a price of \$0.45 and consisted of one common share of the Company and one-half of one Warrant. Each Warrant will be exercisable into one common share at a price of \$0.65 per share for a period of three years from closing of the Q3 2016 First Tranche.

On September 12, 2016, the Company announced the closing of the second tranche of the Q3 2016 Offering (the "Q3 2016 Second Tranche"), resulting in gross proceeds to the Company of \$1,093 from the sale of 2,428 units of the Company. The terms of the units are the same as for the Q3 2016 First Tranche.

On October 4, 2016, the Company announced the closing of the third and final tranche (the "Q3 2016 Third Tranche") of the Q3 2016 Offering of units, resulting in gross proceeds to the Company of \$548 from the sale of 1,217 units of the Company. The terms of the units are the same as for the Q3 2016 First Tranche and the Q3 2016 Second Tranche.

Funds managed by the ARC Funds purchased an aggregate of 5,800 units in the Q3 2016 First Tranche for gross proceeds to the Company of \$2,610, and purchased an aggregate of 428 units in the Q3 2016 Third Tranche for gross proceeds to the Company of \$193. The ARC Funds are a "Control Person" of the Company by virtue of their ownership prior to the closing of the Q3 2016 Offering of approximately 59.96% of the Company's issued and outstanding common shares. Following closing of the Q3 2016 Third Tranche, the ARC Funds owned approximately 59.86% of the Company's then issued and outstanding common shares (or approximately 66.59% of the Company's issued and outstanding common shares in the event that the ARC Funds exercised all of the convertible securities held by them).

In addition, Mr. Mark Smith, President and Chief Executive Officer and a director of the Company, subscribed for an aggregate of 556 units in the Q3 2016 First Tranche and an entity controlled by Mr. Alberto Beeck, a director of the Company, subscribed for an aggregate of 556 units in the Q3 2016 Second Tranche.

Pursuant to an agreement with the Company, the gross proceeds of \$193 received from the ARC Funds in the Q3 2016 Third Tranche are to be used to fund a possible listing on a U.S. stock exchange. Accordingly, these proceeds are accounted for as restricted cash.

### Q1 2017 Private Placement

On January 9, 2017, the Company announced the closing of the first tranche of its non-brokered offering (the "Q1 2017 Offering") of units (the "Q1 2017 First Tranche"). The closing of the Q1 2017 First Tranche resulted in gross proceeds to the Company of \$15,086 from the sale of 33,524 units of the Company. Each unit was sold at a price of \$0.45 and consisted of one common share of the Company and one common share purchase warrant (each whole warrant, a "Warrant"). Each Warrant will be exercisable into one common share at a price of \$0.65 per share for a period of three years from closing of the Q1 2017 Offering. On January 24, 2017, the Company announced the closing of the second and final tranche of the Q1 2017 Offering of units (the "Q1 2017 Second Tranche"). The closing of the Q1 2017 Second Tranche resulted in gross proceeds to the Company of \$997 from the sale of 2,216 units of the Company. The terms of the Q1 2017 Second Tranche are the same as for the Q1 2017 First Tranche.

Funds managed by the ARC Funds purchased an aggregate of 14,396 units in the Q1 2017 First Tranche for gross proceeds to the Company of \$6,478. The ARC Funds are a "Control Person" of the Company by virtue of their ownership prior to the closing of the Q1 2017 First Tranche of approximately 59.86% of the Company's issued and outstanding common shares. Following closing of the Q1 2017 First Tranche, the ARC Funds owned approximately 58.62% of the Company's then issued and outstanding common shares (or approximately 66.04% of the Company's issued and outstanding common shares in the event that the ARC Funds exercised all of the convertible securities held by them).

In addition, an entity controlled by Mr. Alberto Beeck, a director of the Company, subscribed for an aggregate of 10,450 units in the Q1 2017 First Tranche for gross proceeds to the Company of \$4,703. Prior to the closing of the Q1 2017 First Tranche, the entities managed or advised by Mr. Alberto Beeck owned approximately 8.74% of the Company's issued and outstanding common shares and following closing of the Q1 2017 First Tranche, these entities owned 10.38% of the Company's issued and outstanding common shares (or approximately 14.72% of the Company's issued

and outstanding common shares in the event that Mr. Alberto Beeck and these entities exercised all of the convertible securities held by them).

### Credit Facilities

On July 3, 2012, the Company's subsidiary, Vanadio de Maracás S.A. ("Vanadio") entered into a definitive agreement for the BNDES Facility. As at December 31, 2016, the total facility was R\$386,097 (\$159,267). As a condition precedent to the BNDES Facility, the Company also entered into a guarantee agreement with a consortium of three commercial banks in Brazil on the facility's original amount of R\$333,831. Guarantee fees based on the facility's carrying value are payable on a quarterly basis.

On April 27, 2015, the Company signed a term sheet with its consortium of lenders to defer the debt amortization schedule and extend the maturities for the BNDES Facility. The material terms of the restructuring include:

- An additional one-year grace period on the amortization schedule for the BNDES Facility;
- A three-year extension of the maturity date for the U.S. dollar component of the BNDES Facility and the export credit facilities;
- An increase in the guarantee fees payable to the commercial banks in respect of the BNDES Facility, from 3.3% to 3.85% per annum; and
- Payment of a flat structuring fee equal to 1.5% of the aggregate amount of the facilities.

The BNDES Facility is denominated in Brazilian reais, but approximately 73% (R\$283,136) is denominated in U.S. dollars ("U.S. dollar component"). The 27% of the BNDES Facility that is denominated in Brazilian reais ("R\$ component") currently bears a weighted average interest rate of 8.47%, while the U.S. dollar component currently bears a weighted average interest rate of approximately 6.14%. The interest rate on the U.S. dollar component is based on the BNDES cost of borrowing a basket of foreign funds, plus a weighted average margin rate of 2.00% which will increase or decrease with BNDES's foreign borrowing costs. Approximately R\$25,900 of the outstanding R\$ component is fixed at 5.50%, while the remaining amount is based on the Taxa de Juros de Longo Prazo ("TJLP") index, currently at 7.50%, a long-term interest rate that BNDES posts from time to time, plus a weighted average margin of 1.98%.

The application of the financial covenants associated with the facility was extended by the definitive agreements for the 2016 Facility as detailed below. The other significant terms of the agreement governing the facility remain the same. The facility is secured by the Maracás Menchen Mine as well as all of the development and fixed assets located at or associated with it.

As at December 31, 2016, the loan facility was completely drawn down. An amount of \$29,595 is due for repayment within the next 12 months (December 31, 2015 – \$22,251).

### 2016 Facility

On March 2, 2016, the Company entered into definitive agreements with the consortium of three commercial banks in Brazil for a new debt facility (the "2016 Facility") and the restructuring of its export credit facilities (see part (d)). The terms of the 2016 Facility include:

- Working capital facility of up to R\$104,596, disbursed in 11 monthly payments over 2016 (the "Disbursement Date");
- Working capital facility of up to R\$8,151, disbursed in four quarterly payments over 2016;
- Working capital facility in an amount equivalent to the mark-to-market value of the swap contract applicable to one of the Company's export credit facilities;
- Interest rate equal to the posted CDI rate plus 5.70% per annum;
- Two-year grace period on the payment of interest and principal, measured from the Disbursement Date. Quarterly repayment (in arrears) of the 2016 Facility commences after the end of the grace period;
- Final maturity 84 months after the Disbursement Date; and

- Use of proceeds strictly to pay interest and principal falling due under the Company's existing construction debt facility and to pay the swap settlements pertaining to one of the Company's export credit facilities.

The definitive agreements require the Company to comply with various amended financial and non-financial covenants until the end of the grace period, with the next measurement date being June 30, 2017. The Company complied with the covenants applicable at December 31, 2016. At the completion of the grace period, the Company will be obligated to comply with the covenants set forth in the existing debt facilities.

As at December 31, 2016, the Company had drawn down an amount of R\$108,542 (\$44,773) on the 2016 Facility. As at December 31, 2016, an amount of \$nil is due for repayment within the next 12 months (December 31, 2015 – \$nil).

### 2017 Facility

On December 28, 2016, the Company entered into definitive agreements with the consortium of three commercial banks in Brazil for a new debt facility (the "2017 Facility") and the restructuring of its existing facilities (see parts (b), and (e)). The terms of the 2017 Facility include:

- Working capital facility of up to R\$140,000 to be used for the payment of principal and interest falling due during 2017 on the BNDES Facility, as well as for the payment of interest and principal falling due during 2017 on the 2016 Facility (see part (b)) and the export credit facilities (see part (e));
- Grace period for the amortization of principal of the 2017 Facility is from the disbursement date to March 29, 2018;
- Principal and interest payments on the 2017 Facility are payable on a quarterly basis starting on March 30, 2018, and thereafter over a period of 56 months;
- Interest rate equal to the posted CDI rate plus 5.70% per annum; and
- Final maturity 72 months after the initial disbursement date.

The definitive agreements require the Company to comply with the same financial and non-financial covenants as the 2016 Facility.

As at December 31, 2016, the Company had drawn down an amount of R\$nil (\$nil) on the 2017 Facility.

### Swap Facility

Concurrently with the 2016 Facility, the Company agreed terms for an additional facility of up to R\$80,000 to close out its foreign currency swap contract that indexes a portion of the BNDES Facility to the U.S. dollar (the "Swap Facility"). The Swap Facility bears interest at a rate equal to the posted Brazil interbank deposit certificate rate ("CDI") rate plus 6.5% and has a repayment grace period of two years. Repayments of R\$5,792 (\$2,389) will occur over a 12-month period following the end of the same two-year grace period as applies to the 2016 Facility. The opening balance on this facility at the date of restructuring and at December 31, 2016 was R\$69,502 (\$28,669).

As at December 31, 2016, an amount of \$nil is due for repayment within the next 12 months (December 31, 2015 – \$nil).

### Export Credit Facilities

- (i) On July 2, 2013, Vanadio drew down R\$22,000 under an export credit facility with a Brazilian bank, which bears interest at the posted CDI rate plus 2.95%, and simultaneously entered into a swap agreement with a notional value of US\$10,000 with the same bank. On May 5, 2014, Vanadio renegotiated its export credit facility and drew down an additional R\$12,500 under a second export credit facility with the same bank, which bears interest at the posted CDI rate plus 3.55%. Vanadio simultaneously renegotiated its swap agreement, increasing the notional amount to US\$15,000 (R\$34,500 at that time). As part of the restructuring of the BNDES Facility, principal repayments were due to commence in October 2016.

In connection with the definitive agreements for the 2016 Facility and the 2017 Facility, this export credit facility was further amended to set forth that quarterly principal and interest instalments commence in 2017, with final maturity in May 2020. In addition, the swap agreement was terminated with settlement financed through the 2016 Facility. The balance on this export credit facility at March 2, 2016, the date of restructuring, was R\$34,778 (\$14,346) and at December 31, 2016 the balance was R\$40,022 (\$16,509) (December 31, 2015 – R\$30,667

(\$10,715)) as a result of the capitalization of accrued interest. This facility amortizes on a monthly basis in equal amounts until maturity in May 2020 of R\$2,859 (\$1,179) plus interest at the posted CDI rate plus 4.20%.

The Company concluded that the above noted amendment to its export credit facility is a substantial change and as such has accounted for it as an extinguishment of an existing debt facility and recognition of a new facility. The Company has accordingly expensed the unamortized deferred transaction costs of R\$651 (\$269).

As at December 31, 2016, an amount of \$4,716 is due for repayment within the next 12 months (December 31, 2015 – \$714).

- (ii) On July 2, 2013, Vanadio drew down US\$10,000 under an export credit facility with a second Brazilian bank. As part of the restructuring of the Facilities, the facility amortization period was extended to commence in October 2016 with equal quarterly amounts of US\$593 to be paid until maturity in May 2020. On May 2, 2014, Vanadio entered into a loan agreement with the same bank for US\$5,000 subject to an interest rate of 7.5% per year. The loan has a three-year term, and in accordance with the terms of the restructuring of the Facilities, amortizes on a quarterly basis in equal amounts of US\$296 starting in October 2016.

As at December 31, 2016, an amount of \$4,780 is due for repayment within the next 12 months (December 31, 2015 – \$1,213).

Each of the credit facilities described above is secured by a second priority charge on the Maracás Menchen Mine assets.

#### Short term loan

Concurrently with the 2016 Facility, the Company agreed to new commercial terms for its US\$3,952 short term loan. The terms of the restructured facility include a one-year grace period with repayments occurring monthly over a 24-month period following the end of the grace period. The short term loan will bear interest at a fixed rate of 12%.

As at December 31, 2016, an amount of \$2,985 is due for repayment within the next 12 months (December 31, 2015 – \$2,912).

#### Bridge loan

- (i) On January 14, 2016, the Company entered into a short-term secured loan agreement with Mr. Mark Smith, President and Chief Executive Officer and a director of Largo, pursuant to which Mr. Smith advanced a US\$1,000 non-revolving term loan to the Company bearing an interest rate of 12% per annum (the "Bridge Loan"). The Bridge Loan was used for ongoing working capital requirements at the Company's Maracás Menchen Mine for the period prior to the Company's restructuring of its existing credit facilities and the related equity injection as disclosed below. The Bridge Loan had a 30-day term and was secured by a general security agreement over the assets of the Company. As consideration for entering into the Bridge Loan, the Company paid to Mr. Smith a US\$40 loan establishment fee.

The Bridge Loan was repaid in full on February 8, 2016, together with interest and fees of US\$50.

- (ii) On March 13, 2015, the Company closed a \$12,000 non-revolving, convertible term loan facility. The loan was drawn down in tranches and as at May 8, 2015 the full amount of this facility was disbursed. The lenders under the loan were certain funds managed by one of the Company's Lead Investors, the ARC Funds (see note 16). The loan had an interest rate of 20% per annum, had a six-month term and was secured by a pledge of securities over and guaranteed by the Company's wholly-owned subsidiary, Mineração Campo Alegre de Lourdes Ltda.

As at December 31, 2016 and 2015, the loan was repaid in full.

#### Maracás Menchen Mine

Production of vanadium commenced during August 2014 and the first sale of vanadium pentoxide flake was concluded during September 2014. Since this time, the Company has continued to further ramp up the production and sales of vanadium pentoxide, as described in the "Maracás Menchen Mine" section above. In connection with the ramp-up, the Company has also evaluated its future financial requirements, including inter alia its sustaining capital, working capital and debt servicing needs for the next 12 months.

At December 31, 2016, the Company had an accumulated deficit of \$343,729 since inception (December 31, 2015 – \$298,758), and has a net working capital deficiency of \$61,871 (December 31, 2015 – \$80,595) (defined as current assets less current liabilities), primarily as a result of the required principal repayments of the long-term debt. Total amounts due within 12 months on the Company's long-term debt are \$49,438 (December 31, 2015 – \$42,983).

The following table details the Company's expected remaining contractual cash flow requirements as at December 31, 2016 for its financial liabilities with agreed repayment periods. The amounts presented are based on the undiscounted cash flows of financial liabilities and therefore, do not equate to the carrying amounts on the consolidated statement of financial position.

	Less than 6 months	6 months to 1 year	1 to 3 years	Over 3 years
Accounts payable and accrued liabilities	\$ 44,644	\$ -	\$ -	\$ -
Long-term debt	24,408	25,030	154,563	77,852
Operating and purchase commitments	3,796	2,493	159	-
	\$ 72,848	\$ 27,523	\$ 154,722	\$ 77,852

The Company's approach to managing liquidity risk is to ensure that it will have sufficient liquidity to meet liabilities when due. As at December 31, 2016 the Company had cash of \$758 (December 31, 2015 - \$2,869), restricted cash of \$2,110 (December 31, 2015 - \$3,881) and trade receivables of \$12,879 (December 31, 2015 – \$2,034) to settle current liabilities of \$94,082 (December 31, 2015 – \$100,313).

The amount of \$2,110 (December 31, 2015 – \$3,881) is classified as restricted cash and primarily relates to funds received in connection with the private placement financing that closed on January 9, 2017.

#### Currais Novos Tungsten Tailings Project

Due to the ongoing drought and the negative production outlook, the Company has decided to cease all development at Currais Novos until conditions improve and accordingly wrote down the value of the development property and all related property and equipment to zero at December 31, 2014.

The Company was engaged since late June 2013 in an arbitration process related to its failure to meet certain minimum shipping obligations under a 2011 supply agreement from Currais Novos. The final award of the arbitral panel in respect of the arbitration was received by the Company on November 26, 2014. The arbitral panel awarded US\$8,230 plus interest and legal costs in favour of the customer.

On March 31, 2015, the Company reached a final settlement agreement with a customer related to all claims not covered by the previously disclosed arbitration as well as the terms of payment of the arbitration settlement itself. Pursuant to the terms of the settlement agreement the Company would be required to remit its first payment of US\$500 on January 15, 2016, and 11 subsequent monthly payments of US\$1,000 would follow beginning on February 15, 2016, for an aggregate settlement of US\$11,500.

On January 12, 2016, the Company reached an agreement to restructure the timing of amounts due under the arbitration settlement. Under the terms of the restructuring, the Company made a payment of US\$4,000 on January 29, 2016, with further payments deferred to commence on January 15, 2017. For the period from January 15, 2017 to November 15, 2017, the Company will make payments of US\$409 per month, with payments of US\$1,000 per month in the period from December 15, 2017 to February 15, 2018. The total aggregate settlement remains US\$11,500.

As at December 31, 2016, an amount of \$7,362 is due for repayment within the next 12 months (December 31, 2015 – \$15,893).

## OUTSTANDING SHARE DATA

(Exercise prices presented in this section are in dollars and not thousands).

As at December 31, 2016, there were 423,766 common shares of the Company outstanding. As at the date of this MD&A, there were 459,779 common shares of the Company outstanding.

As at December 31, 2016, under the share option plan of the Company, 13,368 share options were outstanding with exercise prices ranging from \$0.46 to \$2.80 and expiry dates ranging between January 23, 2018 and September 16,

2021. If exercised, the Company would receive proceeds of \$11,565. The weighted average exercise price of the share options outstanding was \$0.85.

As of the date of this MD&A, 13,368 share options were outstanding with exercise prices ranging from \$0.46 to \$2.80 and expiry dates ranging between January 23, 2018 and September 16, 2021.

As at December 31, 2016, 120,966 common share purchase warrants were outstanding with exercise prices ranging from \$0.29 to \$3.50, and expiring between October 6, 2017 and March 2, 2021. If these warrants were exercised, the Company would receive proceeds of \$71,472. The weighted average exercise price of the warrants is \$0.59.

As of the date of this MD&A, 156,696 common share purchase warrants were outstanding with exercise prices ranging from \$0.29 to \$3.50, and expiring between October 6, 2017 and March 2, 2021.

## TRANSACTIONS WITH RELATED PARTIES

The 2016 audited consolidated financial statements include the financial statements of the Company and its subsidiaries. There have been no changes in the Company's ownership interest in its subsidiaries since December 31, 2015, except for the addition of a new subsidiary, Largo Resources USA Inc. The Company had transactions with related parties during 2016. Refer to note 16.

Additional information regarding the compensation of officers and directors of the Company is disclosed in the Company's management information circular, which is available under the profile of the Company on SEDAR at [www.sedar.com](http://www.sedar.com).

## COMMITMENTS AND CONTINGENCIES

At December 31, 2016, the Company was party to certain management and consulting contracts. Minimum commitments under the agreements are approximately \$2,687 and all payable within one year. These contracts also require that additional payments of up to approximately \$3,180 be made upon the occurrence of certain events such as change of control. As the triggering event has not occurred, the contingent payments have not been reflected in these consolidated financial statements.

In 2008, Largo agreed to sell 100% of its vanadium production to Glencore International AG under an off take agreement which expires in May 2020.

The Company has certain debt covenants related to the debt facility described in the credit facilities section of this MD&A, which have been amended in connection with the 2016 Facility and the restructuring of the credit facilities as detailed in the "Liquidity And Capital Resources" section.

The Company's mining and exploration activities are subject to various federal, provincial and international laws and regulations governing the protection of the environment. These laws and regulations are continually changing and generally becoming more restrictive. The Company believes its operations are materially in compliance with all applicable laws and regulations. The Company has made, and expects to make in the future, expenditures to comply with such laws and regulations.

The Company indemnifies its directors and officers against any and all claims or losses reasonably incurred in the performance of their service to the Company to the extent permitted by law. The Company has acquired and maintains liability insurance for its directors and officers.

The Company is committed to a minimum amount of rental payments under two leases of office space which expire on February 28, 2019 and April 30, 2019, respectively. Minimum rental commitments remaining under the leases are approximately \$287, including \$128 due within one year.

In the regular course of production at the Company's Maracas project, the Company has entered into purchase order contracts with remaining amounts due related to goods not received or services not rendered as of December 31, 2016 of \$3,474.

The Company, through its subsidiaries, is party to legal proceedings in the ordinary course of its operations related to legally binding agreements with various third parties under supply contracts and consulting agreements. As at December 31, 2016 two such proceedings were ongoing, each in Brazil. The first relates to a supply agreement for

the Maracás Menchen Mine which was filed with the courts in October 2014. The amount claimed totals R\$9,900 (\$4,084), with a counterclaim filed by Vanadio for R\$10,700 (\$4,414). The second proceeding relates to a consulting agreement dispute for which R\$3,900 (\$1,609) has been claimed against two of the Company's subsidiaries. The Company and its subsidiaries are also party to legal proceedings regarding labour matters. A provision has been recorded at December 31, 2016 (December 31, 2015 – \$nil) for two such proceedings. Refer to note 10(a). Management does not expect the outcome of any of the remaining proceedings to have a materially adverse effect on the results of the Company's financial position or results of operations. Should any losses result from the resolution of these claims and disputes, they will be charged to operations in the period that they are determined.

## DISCLOSURE CONTROLS AND PROCEDURES AND INTERNAL CONTROLS OVER FINANCIAL REPORTING

### Disclosure Controls and Procedures

In accordance with the requirements of National Instrument 52-109 – Certification of Disclosure in Issuers' Annual and Interim Filings ("NI 52-109"), the Company's management, under supervision of the Chief Executive Officer ("CEO") and the Chief Financial Officer ("CFO"), have evaluated the effectiveness of the Company's disclosure controls and procedures ("DC&P"). Based upon the results of the evaluation, the Company's CEO and CFO have concluded that as at December 31, 2016, the Company's DC&P were effective in providing reasonable assurance that the information required to be disclosed by the Company in reports it files under securities legislation is recorded, processed, summarized and reported within the appropriate time periods and is accumulated and reported to management on a timely basis to make decisions regarding required disclosure.

### Internal Control over Financial Reporting

Internal control over financial reporting ("ICFR") is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with IFRS. ICFR should include those policies and procedures that establish the following:

- maintenance of records in reasonable detail, that accurately and fairly reflect the transactions and dispositions of assets;
- reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with applicable IFRS;
- receipts and expenditures are only being made in accordance with authorizations of management or the Board of Directors; and
- reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of the Company's assets that could have a material effect on the financial instruments.

The Company's management, under supervision of the CEO and CFO, assessed the effectiveness of the Company's ICFR based on the criteria established in Internal Control – Integrated Framework (2013) issued by The Committee of Sponsoring Organizations of the Treadway Commission and concluded that as at December 31, 2016, the Company's ICFR was effective.

During the year ended December 31, 2016, the Company did not make any significant changes to its ICFR that would have materially affected, or reasonably likely to materially affect, its ICFR.

### Limitations of Disclosure Controls and Procedures and Internal Control over Financial Reporting

Investors should be aware that inherent limitations on the ability of the Company's certifying officers to design and implement on a cost effective basis DC&P and ICFR as defined in NI 52-109 in the first annual financial period following the completion of the graduation to the Toronto Stock Exchange may result in additional risks to the quality, reliability, transparency and timeliness of annual filings and other filings provided under securities legislation. The Company's management, including the CEO and CFO, believe that due to inherent limitations, any DC&P or ICFR, no matter how well designed and operated, can provide only reasonable, not absolute, assurance of achieving the desired control objectives. Further, the design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that any design will not succeed in achieving its stated goals under all potential future conditions. Accordingly, because of the inherent limitations in a cost effective

control system, misstatements due to error or fraud may occur and not be detected. Additionally, management is required to use judgment in evaluating DC&P and ICFR.

## SIGNIFICANT ACCOUNTING JUDGMENTS, ESTIMATES AND ASSUMPTIONS

The preparation of the 2016 audited consolidated financial statements requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities at the date of the financial statements and reported amounts of expenses during the reporting period. Actual outcomes could differ from these estimates. These 2016 audited consolidated financial statements include estimates, which, by their nature, are uncertain. The impacts of such estimates are pervasive throughout the 2016 audited consolidated financial statements, and may require accounting adjustments based on future occurrences. Revisions to accounting estimates are recognized in the period in which the estimate is revised and the revision affects both current and future periods.

Significant areas requiring the use of estimates and assumptions relate to the capitalization of development costs and the determination of mineral reserve estimates and the impact on stripping costs, useful lives of mine properties, plant and equipment, impairment analysis of non-financial assets and estimates of the timing of outlays for asset retirement obligations. Other significant areas include the valuation of mine properties, plant and equipment, development properties and exploration and evaluation properties, estimates of provisions for environmental rehabilitation, production stage of a mine, income and deferred taxes, going concern and commitments. Refer to note 3(d) for a detailed description of these areas of significant judgment, estimates and assumptions. Actual results could differ from those estimates.

## CHANGES IN ACCOUNTING POLICIES

The basis of presentation, and accounting policies and methods of their application in the 2016 audited consolidated financial statements are consistent with those used in the Company's annual consolidated financial statements for the year ended December 31, 2015.

## FUTURE IFRS ACCOUNTING PRONOUNCEMENTS

Certain pronouncements were issued by the IASB or the IFRIC that are mandatory for accounting periods beginning after January 1, 2017 or later periods. Many are not applicable or do not have a significant impact to the Company and have been excluded. For a discussion of future accounting policies that may impact the Company, refer to note 3(e).

## NON-GAAP<sup>1</sup> MEASURES

The Company uses certain non-GAAP financial performance measures in its MD&A, which are described in the following section.

### Cash Operating Costs

The Company's MD&A refers to cash operating costs and cash operating costs per pound produced, a non-GAAP performance measure, in order to provide investors with information about a key measure used by management to monitor performance. This information is used to assess how well the Maracás Menchen Mine is performing compared to plan and prior periods, and also to assess its overall effectiveness and efficiency.

Cash operating costs includes mine site operating costs such as mining costs, plant and maintenance costs, sustainability costs, mine and plant administration costs, commissions on sales, royalties and sales, general and administrative costs, but excludes depreciation and amortization, share-based payments, foreign exchange and derivative gains or losses, reclamation, capital expenditures and exploration and evaluation costs. These costs are then divided by the pounds of production from the Maracás Menchen Mine to arrive at the cash operating costs per pound produced.

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<sup>1</sup> GAAP – Generally Accepted Accounting Principles.

For the period prior to October 1, 2015, the date of the assessment that commercial production had been reached, cash operating costs per pound produced are presented monthly and cannot be reconciled to the Company's consolidated financial statements in a meaningful way, as the Company's cash operating costs were capitalized to development properties while it remained in the development phase.

The measure, along with revenues, is considered to be one of the key indicators of the Company's ability to generate operating earnings and cash flow from its. These cash operating costs do not have any standardized meaning prescribed by IFRS and differ from measures determined in accordance with IFRS. They are intended to provide additional information and should not be considered in isolation or as a substitute for measures of performance prepared in accordance with IFRS. These measures are not necessarily indicative of net earnings or cash flow from operating activities as determined under IFRS.

The following table provides a reconciliation of cash operating costs per pound produced for the Maracás Menchen Mine to operating costs, excluding depreciation expense as per the consolidated financial statements.

	December 31, 2016	
	Three months ended	Year ended
Operating costs <sup>1</sup>	\$ 30,151	\$ 113,173
Professional, consulting and management fees <sup>2</sup>	1,340	4,002
Other general and administrative expenses <sup>3</sup>	1,145	1,634
Less: depreciation and amortization expense <sup>4</sup>	(8,147)	(33,687)
Cash operating costs	\$ 24,489	\$ 85,122
V <sub>2</sub> O <sub>5</sub> flake produced (000s lb)	5,079	17,562
Cash operating costs per pound produced (\$/lb)	\$ 4.82	\$ 4.85

1. Year ended as per Mine properties segment in note 17. Three months ended calculated as the amount for the Company's Mine properties segment in note 17, less the amount disclosed for the Mine properties segment for the nine-month period in note 14 of the Company's unaudited condensed interim consolidated financial statements for the three and nine months ended September 30, 2016: \$113,173 – \$83,022 = \$30,151.
2. Year ended as per Mine properties segment in note 17. Three months ended calculated as the amount for the Company's Mine properties segment in note 17, less the amount disclosed for the Mine properties segment for the nine-month period in note 14 of the Company's unaudited condensed interim consolidated financial statements for the three and nine months ended September 30, 2016: \$4,002 – \$2,662 = \$1,340.
3. Year ended as per Mine properties segment in note 17. Three months ended calculated as the amount for the Company's Mine properties segment in note 17, less the amount disclosed for the Mine properties segment for the nine-month period in note 14 of the Company's unaudited condensed interim consolidated financial statements for the three and nine months ended September 30, 2016: \$1,634 – \$489 = \$1,145.
4. Year ended as per note 21. Three months ended calculated as the amount per note 21, less the amount disclosed for the nine-month period in note 17 of the Company's unaudited condensed interim consolidated financial statements for the three and nine months ended September 30, 2016: \$33,687 – \$25,540 = \$8,147.

## RISKS AND UNCERTAINTIES

The Company is subject to various business, financial and operational risks that could materially adversely affect the Company's future business, operations and financial condition. These risks could cause such future business, operations and financial condition to differ materially from the forward-looking statements and information contained in this MD&A and as described in the Cautionary Statement Regarding Forward-Looking Information found in this MD&A.

The Company's business activities expose it to significant risks due to the nature of mining, development and exploration activities. The ability to manage these risks is a key component of the Company's business strategy. Management is forward looking in its assessment of risks. Identification of key risks occurs in the course of business activities, pursuing approved strategies and as part of the execution of risk oversight responsibilities at the management and Board of Directors' level.

## General

The operations of the Company are speculative due to the high-risk nature of its business, which is the acquisition, financing, exploration, development and operation of mining properties. These risk factors could materially affect the Company's future operating results and could cause actual events to differ materially from those described in forward-looking information relating to the Company.

### Nature of Mining, Mineral Exploration and Development Projects and Businesses

Mining operations generally involve a high degree of risk. The Company's operations and those of its subsidiaries are subject to the hazards and risks normally encountered in mineral exploration, development and production, including environmental hazards, explosions, unusual or unexpected geological formations or pressures and periodic interruptions in both production and transportation due to inclement or hazardous weather conditions. Such risks could result in damage to, or destruction of, mineral properties or producing facilities, personal injury, environmental damage, delays in mining, monetary losses and possible legal liability.

Development projects have no operating history upon which to base estimates of future cash operating costs<sup>2</sup>. For development projects, resource and reserve estimates and estimates of cash operating costs are, to a large extent, based upon the interpretation of geological data obtained from drill holes and other sampling techniques, and feasibility studies, which derive estimates of cash operating costs based upon anticipated tonnage and grades of ore to be mined and processed, ground conditions, the configuration of the ore body, expected recovery rates of minerals from the ore, estimated operating costs, anticipated climatic conditions and other factors. As a result, actual production, cash operating costs and economic returns could differ significantly from those estimated. Indeed, current market conditions are forcing many mining operations to increase capital and operating cost estimates. It is not unusual for new mining operations to experience problems during the start-up phase, and delays in the commencement of production often can occur.

Mineral exploration is highly speculative in nature. There is no assurance that exploration efforts will be successful. Even when mineralization is discovered, it may take several years until production is possible, during which time the economic feasibility of production may change. Substantial expenditures are required to establish proven and probable mineral reserves through drilling. Because of these uncertainties, no assurance can be given that exploration programs will result in the establishment or expansion of mineral resources or mineral reserves. There is no certainty that the expenditures made by the Company towards the search and evaluation of mineral deposits will result in discoveries or development of commercial quantities of ore.

The economic events of 2008 have resulted in negative pressures on the exploration and mining businesses in general. Management of the Company must assess past, current and future plans in light of this. A prolonged downward trend in the exploration and mining sectors could have a material adverse effect on the Company's business, operational results and financial performance.

### Capital and Operating Cost Estimates

Capital and operating costs estimates made by management with respect to future projects, or current operations in the early stages of production, or not yet in the production phase are estimates which are in turn based, among other things, on interpretation of geological data, feasibility studies, anticipated climactic conditions and other information. Any or all of these can affect the accuracy of the estimates including unanticipated changes in grade and tonnage to be mined and processed; incorrect data on which engineering assumptions are made; unanticipated transportation costs; accuracy of equipment and construction cost estimates; difficulty or failure to meet scheduled construction completion dates, facility or equipment commissioning dates, or metal production dates; poor or unsatisfactory construction quality resulting in failure to meet completion, commissioning or production dates; increased expenditures required as a failure to meet completion, commissioning or production dates; capital overrun related to the completion of any construction phase including capital overrun associated with demobilization of construction workers and contractors; labour negotiations; unanticipated costs relating to the commencement of operations, ramp up and production sustainment; changes in government regulation (including regulations

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<sup>2</sup> This is a non-GAAP measure. Refer to the "Non-GAAP Measures" section of this MD&A.

regarding prices, cost of consumables, royalties, duties, taxes, permitting and restrictions on production quotas or exportation of the Company's products; and change in commodity input costs and quantities).

#### Revenues

The Company commenced production at the Maracás Menchen Mine in August 2014 and made its first sales of vanadium pentoxide during September 2014. Commercial production was declared from October 1, 2015, with revenues recognized since that date. The Company is not producing material from any of its other remaining projects. There can be no assurance that significant losses will not occur in the near future or that the Company will be profitable in the future. The Company's operating expenses and capital expenditures may increase in subsequent years for consultants, personnel and equipment associated with advancing exploration, development and commercial production of any of the Company's properties. At current vanadium prices, the Company expects to generate positive cash flows from operating activities, but expects to continue to incur overall negative cash flows until such time as vanadium prices increase for it to generate sufficient revenues to fund the repayment of its liabilities, including the long-term debt. The development of the Company's properties will require the commitment of substantial resources to conduct time-consuming development. There can be no assurance that the Company will continue to generate any revenues or achieve profitability.

#### Liquidity and Going Concern Risks

The 2016 audited consolidated financial statements were prepared on a going concern basis. The going concern basis assumes that the Company will continue in operation for the foreseeable future and will be able to realize its assets and discharge its liabilities and commitments in the normal course of business.

The Company has incurred significant operating losses and negative cash flow from operating activities in recent years. Whether and when the Company can attain profitability and positive cash flow is uncertain. These material uncertainties cast significant doubt upon the Company's ability to continue as a going concern.

The Company continues to require additional capital in order to fund its operations generally and, should the need arise, for continued advancement and/or completion of its projects. Because of continuing operating losses at the Maracás Menchen Mine, the Company's continuance as a going concern is dependent on its ability to reach profitable levels of operations and obtain adequate financing. Management believes the likelihood of completing its projects is high and that such future capital can be secured efficiently. However, there is no assurance that such future potential financings will be completed and, as a result, that the Company may be forced to cease or dispose of operations or assets.

The BNDES Facility is dependent on guarantees from three Brazilian banks. The guarantees require that the Company's Brazilian subsidiary and the Company comply with a significant number of covenants, which were deferred in accordance with the restructuring activities in early and late 2016. The definitive agreements signed as part of the restructuring activities in early and late 2016 require the Company to comply with various amended financial and non-financial covenants during the term of the grace period the restructuring provides. At the completion of the grace period, the Company will be obligated to comply with the covenants set forth in the existing debt facilities. Should the subsidiary or the Company be unable to comply with any one of the covenants, it is possible one or both of them could be in default under the guarantee agreement, which would result in a default under the terms of the BNDES Facility. As a result of such a default, BNDES could cease any further funding and also demand repayment on all amounts outstanding. If BNDES terminated the BNDES Facility, it is possible the Company could be forced to cease operations and liquidate its assets. See the discussion in the "Liquidity and Capital Resources" section above of this MD&A.

#### Foreign Exchange

Mineral commodities are sold in US dollars and consequently, the Company is subject to foreign exchange risks relating to the relative value of the Canadian dollar and Brazilian real as compared to the US dollar. To the extent Largo generates revenue, it will be subject to foreign exchange risks as revenues will be received in US dollars while operating and capital costs will be incurred primarily in Brazilian reais and Canadian dollars. A decline in the US dollar would result in a decrease in the real value of Largo's future revenues and adversely affect its financial performance.

## Litigation, Arbitration and Disputes

Largo has entered into legally binding agreements with various third parties under supply contracts and consulting agreements. The interpretation of the rights and obligations that arise from such agreements may be open to differing interpretations and Largo may disagree with the position taken by other parties to these agreements. This could result in a dispute which, if unresolved, might trigger a litigation or arbitration process, causing Largo to incur possible legal or similar costs in the future. Given the speculative and unpredictable nature of litigation or the arbitration process, including the contractor claims described in the Commitments and Contingencies section of this MD&A, final outcomes in such disputes may have material adverse effects on Largo. See also the discussion regarding settlement of the Tungsten supply agreement arbitration under "Liquidity and Capital Resources – Currais Novos Tungsten Tailings Project".

## Mineral Resource and Mineral Reserve Estimates May Be Inaccurate

There are numerous uncertainties inherent in estimating mineral resources and mineral reserves, including many factors beyond the control of the Company. The accuracy of any mineral resource or mineral reserve estimate is a function of the quantity and quality of available data and of the assumptions made and judgments used in engineering and geological interpretation. These amounts are estimates only and the actual level of mineral recovery from such deposits may be different. Differences between management's assumptions, including economic assumptions such as metal prices and market conditions, could have a material adverse effect on the Company's financial position and results of operations.

## Failure to Meet Production Targets and Cost Estimates

The Company prepares future operating and capital cost estimates with respect to existing operations. Actual production and costs may vary from the estimates for a variety of reasons such as estimates of grade, tonnage, dilution and metallurgical and other characteristics of the ore varying from the actual ore mined, revisions to mine plans, risks and hazards associated with mining, adverse weather conditions, unexpected labour shortages or strikes, equipment failures and other interruptions in production capabilities. Operating costs may also be affected by increased mining costs, variations in predicted grades of the deposits, increases in level of ore impurities, labour costs, raw material costs, inflation and fluctuations in currency exchange rates. Failure to achieve production targets or cost estimates could have a material adverse impact on the Company's sales, profitability, cash flow and overall financial performance. In the event that the Company obtains debt financing, repayment terms associated with such financing will likely be based on production schedule estimates. Any failure to meet such timelines or to produce amounts forecast may constitute defaults under such debt financing, which could result in the Company having to repay loans.

## Licenses and Permits, Laws and Regulations

The Company's exploration and development activities, including mine, mill, road, and other facilities, require permits and approvals from various government authorities and cooperation from certain First Nations groups, and are subject to extensive federal, provincial, state and local laws and regulations governing prospecting, development, production, exports, taxes, labour standards, occupational health and safety, mine safety and other matters in Brazil, Canada and any other jurisdiction in which the Company operates in the future. Such laws and regulations are subject to change, can become more stringent and compliance can therefore become more costly. In addition, the Company may be required to compensate those suffering loss or damage by reason of its activities. There can be no guarantee that Largo will be able to maintain or obtain all necessary licenses, permits and approvals that may be required to explore and develop its properties, commence construction or operation of mining facilities.

## Mineral Commodity Prices

The profitability of the Company's operations will be dependent upon the market price of mineral commodities, specifically vanadium. Mineral prices fluctuate widely and are affected by numerous factors beyond the control of the Company. The level of global economic activity, interest rates, expectations for and the rate of inflation, speculative activities, the world supply of mineral commodities and the stability of exchange rates can all cause significant fluctuations in prices. Such external economic factors are in turn influenced by changes in international investment patterns, monetary systems, global and regional supply and demand and political developments. The price of mineral commodities has fluctuated widely in recent years, and future price declines could cause commercial

production to be impracticable, thereby having a material adverse effect on the Company's business, financial condition and result of operations.

#### Environmental

The Company's activities are subject to extensive federal, provincial, state and local laws and regulations governing environmental protection and employee health and safety. Environmental legislation is evolving in a manner that is creating stricter standards, while enforcement, fines and penalties for non-compliance are also increasingly stringent. The cost of compliance with changes in governmental regulations has the potential to reduce the profitability of operations. Further, any failure by the Company to comply fully with all applicable laws and regulations could have significant adverse effects on the Company, including the suspension or cessation of operations.

#### Title to Properties

The acquisition and maintenance of titles to resource properties is a very detailed and time-consuming process. The Company holds its interest in certain of its properties through mining claims. Title to, and the area of, the mining claims may be disputed. There is no guarantee that such title will not be challenged or impaired. There may be challenges to the title of the properties in which the Company may have an interest, which, if successful, could result in the loss or reduction of the Company's interest in the properties.

#### Uninsured Risks

The Company maintains insurance to cover normal business risks. In the course of exploration, development and operation of mineral properties, certain risks, and in particular, unexpected or unusual geological operating conditions including explosions, rock bursts, cave-ins, fire and earthquakes may occur. It is not always possible to fully insure against such risks as a result of high premiums or other reasons. Should such liabilities arise, they could reduce or eliminate any future profitability and result in increasing costs and a decline in the value of the common shares of the Company.

#### Competition

Largo competes with many other mining companies that have substantially greater resources than the Company. Such competition may result in the Company being unable to acquire desired properties, recruit or retain qualified employees or acquire the capital necessary to fund its operations and develop its properties. The Company's inability to compete with other mining companies for these resources would have a material adverse effect on the Company's results of operation and business.

#### Dependence on Third Parties

Largo has relied upon external consultants, engineers and others and intends to rely on these parties for development, construction and operating expertise. Substantial expenditures are required to construct mines, to establish mineral reserves through drilling, to carry out environmental and social impact assessments, to develop metallurgical processes to extract the metal from the ore and, in the case of new properties, to develop the exploration and plant infrastructure at any particular site. If such parties' work is deficient or negligent or is not completed in a timely manner, it could have a material adverse effect on Largo.

#### Qualified Personnel

Recruiting and retaining qualified personnel in the future is critical to the Company's success. As the Company develops its properties toward commercial production, the need for skilled labour will increase. The number of persons skilled in the exploration and development of mining properties is limited and competition for this workforce is intense. The development of the Company's properties may be significantly delayed or otherwise adversely affected if the Company cannot recruit and retain qualified personnel as and when required.

#### Availability of Reasonably Priced Raw Materials and Mining Equipment

Largo will require a variety of raw materials in its business as well as a wide variety of mining equipment. To the extent these materials or equipment are unavailable or available only at significantly increased prices, the Company's production and financial performance could be adversely impacted.

## Costs of Transportation

Operation of the Company's facilities, existing and future, will depend in part on the flow of materials, supplies, equipment, services and products. Due to the geographic location of the Company's operations, existing and future, it remains and will remain dependent on the provision by third parties of rail, port, marine, shipping or other transportation services. Potential issues including contractual disputes, demurrage charges, port or depot capacity handling issues, availability of vessels, rail cars or other modes of cargo transport, weather problems and labour disruptions could have a material adverse effect on Largo's ability to transport various materials necessary for operation of one or more of its facilities in accordance with schedules or contractual requirements. This might result in a material adverse effect on the Company's business, results of operations and financial performance.

## Share Price Fluctuations

The market price of securities of many companies, particularly development stage companies, experience wide fluctuations in price that are not necessarily related to the operating performance, underlying asset values or prospects of such companies. There can be no assurance that fluctuations in the Company's share price will not occur or continue to occur.

## Conflicts of Interest

Certain of the Company's directors and officers serve or may agree to serve as directors or officers of other companies and, to the extent that such other companies may participate in ventures in which the Company may participate, the directors of Largo may have a conflict of interest in negotiating and concluding terms respecting such participation.

## Corporate Structure Risks

Vanadio de Maracás S.A., the material Brazilian subsidiary of the Company which holds a 100% interest in the Company's Maracás Menchen Mine, is a limited liability company, and as such does not require a board of directors and is controlled by its shareholders. The management of the Company has control over Vanadio de Maracás S.A. by virtue of owning 99.84% of the shares of Vanadio de Maracás S.A. Therefore, the management of the Company can effectively (i) appoint and dismiss at any time any and all of the officers of Vanadio de Maracás S.A., (ii) instruct the officers of Vanadio de Maracás S.A. to pursue Company's business activities, and (iii) has legal rights as a shareholder to require the officers of Vanadio de Maracás S.A. to comply with their fiduciary obligations and can also enforce its rights by way of the shareholder remedies available to it. As a result, the management of the Company can effectively align the Issuer's business objectives and effect the implementation of same at the level of Vanadio de Maracás S.A.

The Company, as the holder of a 99.84% interest in Vanadio de Maracás S.A., can remove and appoint officers by way of simple communication that such officer is being removed from his/her position and the subsequent filing of same with the Board of Trade. The board of directors of the Company, through its corporate governance practices and in particular the activities of its board committees, regularly receives management and technical updates and progress reports in connection with Vanadio de Maracás S.A., and in so doing, maintains effective oversight of the operations and project development activities of Vanadio de Maracás S.A. The opening and closing of bank accounts of Vanadio de Maracás S.A. and/or its subsidiaries is also controlled and approved by the Company's Chief Financial Officer.

Until the Maracás Menchen Mine increases production and generates increased revenue, all transfers of funds have been and will continue to be from the Company to Vanadio de Maracás S.A. pursuant to an inter-company credit facility. The board of directors of the Company has the ability to exert effective control over Vanadio de Maracás S.A. as discussed herein. Accordingly, the board of directors of the Company will be able to cause Vanadio de Maracás S.A. to transfer funds and accomplish the various operating aspects of the business when Vanadio de Maracás S.A. is generating revenues.

Certain of the directors and officers of the Company have extensive experience doing business in both Canada and Brazil. In particular, Mark Smith, Alberto Arias, Sam Abraham and Daniel Tellechea are the directors of the Company that have experience in conducting business in Brazil and Les Ford (former Senior Vice President and Technical Director of Brazilian Operations and currently consultant to the Company) and Kurt Menchen (formerly President of

Brazilian Operations and currently consultant to the Company) are the individuals with experience in conducting business in Brazil. Moreover, Alberto Arias and Sam Abraham are fluent in Portuguese.

Knowledge of the local business, culture and practices is imparted by these individuals to other directors and officers of the Company, furthermore, several of the non-resident directors and officers visit Brazil on a regular basis in order to ensure effective control and management of the operations and as a result come into contact with other employees, personnel, government officials, business persons and customers who are locals in Brazil, which enable them to enhance their knowledge on these fronts. Mark Smith, Chief Executive Officer of the Company travels to Brazil and to the Maracás Menchen Mine regularly.

All directors and executive officers of the Company have some familiarity with the legal and regulatory requirements of Brazil. Brazilian legal counsel (both internal at Vanadio de Maracás S.A. and external) and Brazilian management ensure that the Company's management is kept aware of relevant material legal developments in Brazil as they pertain to and affect the Company's business and operations. Any material developments are then discussed with the directors at the board level.

Other than as discussed herein, the Company does not currently have a formal communication plan or policy in place and has not, to date, experienced any communication-related issues due to the fact that the management team located in Brazil has proficiency in the English language. The Company will, from time to time, re-evaluate whether a formal communication policy is necessary.

The Company hires and engages local experts and professionals (i.e. legal and tax consultants) to advise the Company with respect to current and new regulations in respect of banking, financial and tax matters. The Company utilizes large, established and well recognized financial institutions in both Canada and Brazil. Directors visit the Company's operations in Brazil several times per year and have regular board meetings by telephone which include the Company's Chief Executive Officer, Chief Financial Officer, Chief Operating Officer and at various times the President of Brazilian Operations and other relevant Vanadio officers and managers. The Company arranges for site visits to its projects as deemed appropriate. The Company hosted three site visits for members of the Board of Directors in 2016, one site visit in 2015, two site visits in 2014, three site visits in 2013 and two site visits in 2012. The last visit by members of the Board of Directors was in September 2016.

The directors and officers also work closely with Brazilian counsel and Brazilian employees of the Company and its subsidiaries to understand and subsequently adjust firm strategies and practices in connection with changes in Brazilian laws and regulatory regimes.

Each member of the management team located in Brazil speaks fluent Portuguese and all are proficient in English. Luciano Chaves, Vice President of Finance and Administration in Brazil, Paulo Misk, President of Brazilian Operations, Heitor Duarte, Production Manager of the Maracás Menchen Mine, Mauricio Coletti, Mine Manager of the Maracás Menchen Mine and Hans Merkel, the Senior Geologist at the Maracás Menchen Mine are each fluent in Portuguese and English.

Alberto Arias and Sam Abraham are the directors of the Company who are each fluent in English and Portuguese. Of the management team located in Toronto, Robert Campbell speaks functional Portuguese and other members of the Company's management take Portuguese language instruction in Toronto when time allows. The primary language used in management and board meetings is English. The management team located in Brazil dealing with the operating staff and outside consultants communicate in Portuguese with such individuals as necessary. Both Vanadio de Maracás S.A. and the Company have translators on staff to assist with all communication requirements, as needed.

Material documents relating to the Company that are provided to the board are in English. When original material documents are prepared in Portuguese, these are typically translated by the Company's Brazilian legal counsel, who are fluent in English and Portuguese. When required, the Company will sometimes use third party translation services.

## CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING INFORMATION

The information presented contains “forward-looking statements”, within the meaning of the United States Private Securities Litigation Reform Act of 1995, and “forward-looking information” under similar Canadian legislation, concerning the business, operations and financial performance and condition of the Company. Forward-looking statements and forward-looking information include, but are not limited to, statements with respect to the estimation of mineral reserves and mineral resources; the realization of mineral reserve estimates; the timing and amount of estimated future production; costs of production; metal prices and demand for materials; capital expenditures; success of exploration and development activities; permitting time lines and permitting, mining or processing issues; government regulation of mining operations; environmental risks; and title disputes or claims. Generally, forward-looking statements and forward-looking information can be identified by the use of forward-looking terminology such as “plans”, “expects” or “does not expect”, “is expected”, “budget”, “scheduled”, “estimates”, “forecasts”, “intends”, “anticipates” or “does not anticipate”, or “believes”, or variations of such words and phrases or state that certain actions, events or results “may”, “could”, “would”, “might” or “will be taken”, “occur” or “be achieved”. Certain terms appearing in the following table are defined previously in this MD&A. This table contains the material forward-looking statements made by the Company in this MD&A, the assumptions made by the Company in making those statements and the risk factors associated with those assumptions.

Forward-looking Statements	Assumptions	Risk Factors
<p>The 2016 audited consolidated financial statements were prepared on a going concern basis. The going concern basis assumes that the Company will continue in operation for the foreseeable future and will be able to realize its assets and discharge its liabilities and commitments in the normal course of business.</p> <p>Although the Company has been successful in the past in obtaining financing and has recently completed a private placement for gross proceeds of \$16,083 (see “Significant Events and Transactions Subsequent to 2016” in this MD&amp;A) there is no assurance that the Company will in the future be able to obtain adequate financing in future or that such financing will be on terms advantageous to the Company.</p>	<p>The Company has assumed that it will be able to continue in operation for the foreseeable future and will be able to discharge its liabilities and commitments in the normal course of business, as it anticipates that it will address working capital and other shortfalls by raising additional funds and restructuring its debts.</p>	<p>The Company has incurred significant operating losses and negative cash flow from operations in recent years. Whether and when the Company can attain profitability and positive cash flow is uncertain. These uncertainties cast doubt upon the Company’s ability to continue as a going concern.</p> <p>The Company will require additional capital in order to fund its operations generally and, should the need arise, for continued advancement and/or completion of its projects. Management believes the likelihood of completing its projects is high and that such future capital can be secured efficiently. However, there is no assurance that potential financings will be completed and, as a result, that the Company may be forced to cease operations and/or dispose of assets.</p> <p>The BNDES Facility is dependent on guarantees from three Brazilian commercial banks. The guarantees require that the Company’s Brazilian subsidiary, Vanadio de Maracás, and the Company comply with a significant number of financial covenants. Should the subsidiary or the Company be unable to comply with any one of the covenants or if the Company cannot restructure its debts sufficiently to enable ongoing operations, it is possible that one or both of them could default under the guarantee agreement, which would result in a default under the terms of the BNDES Facility.</p> <p>The result of any such default would be that BNDES could cease any further funding and also demand repayment of all amounts outstanding. If BNDES terminated the BNDES Facility, it is possible the</p>

Forward-looking Statements	Assumptions	Risk Factors
<p>Production volumes are expected to consistently achieve nameplate capacity of 9,600 tonnes per annum during 2017.</p> <p>2017 Production Forecast High ~ 21.6 million lbs – 9,777 tonnes Low ~ 19.3 million lbs – 8,777 tonnes Average ~ 20.5 million lbs – 9,277 tonnes</p>	<p>The Company assumes that consistent production levels will continue, at a level of or in excess of 800 tonnes per month. Nameplate capacity was reached starting in June 2016 for the month of June 2016.</p>	<p>Company could be forced to cease operations and liquidate its assets.</p> <p>The Company prepares future production estimates with respect to existing operations.</p> <p>Actual production and costs may vary from the estimates for a variety of reasons such as estimates of grade, tonnage, dilution and metallurgical and other characteristics of the ore varying from the actual ore mined, revisions to mine plans, risks and hazards associated with mining, adverse weather conditions, unexpected labour shortages or strikes, equipment or design failures and other interruptions in production capabilities.</p> <p>Production costs may also be affected by increased mining costs, variations in predicted grades of the deposits, increases in level of ore impurities, labour costs, raw material costs, inflation and fluctuations in currency exchange rates. Failure to achieve production targets or cost estimates could have a material adverse impact on the Company's sales, profitability, cash flow and overall financial performance.</p> <p>In the event that the Company obtains debt financing, repayment terms associated with such financing will likely be based, among other things, on production schedule estimates. Any failure to meet such timelines or to produce amounts forecast may constitute defaults under such debt financing, which could result in the Company having to repay loans.</p>
<p>2017 Production Costs:</p> <p>Estimated Annual Average US\$ Cash Operating Costs<sup>3</sup> Per Tonne US\$8,065/CDN\$10,767</p> <p>Estimated Annual Average US\$ Cash Operating Costs Per Pound US\$3.66/CDN\$4.88</p>	<p>The Company assumes that its current estimation of future operating costs is accurate, as it is largely based on the current cost profile of operations at the Maracás Menchen Mine.</p>	<p>Capital and operating cost estimates made by management with respect to future projects, or current operations in the early stages of production, or not yet in the production phase are estimates which are in turn based, among other things, on interpretation of geological data, feasibility studies, anticipated climactic conditions and other information.</p> <p>Any or all of the above could affect the accuracy of the estimates including unanticipated changes in grade and tonnage to be mined and processed; incorrect data on which engineering assumptions are made; unanticipated transportation costs; accuracy of equipment and construction cost estimates; difficulty or failure to meet scheduled construction completion dates, facility or equipment commissioning dates, or metal production dates; poor or unsatisfactory construction quality resulting in failure to meet</p>

<sup>3</sup> This is a non-GAAP measure. Refer to the "Non-GAAP Measures" section of this MD&A.

Forward-looking Statements	Assumptions	Risk Factors
CAPEX of approximately \$9.9 million will be required over the course of 2017 to sustain current operational capacity.	Management assumes that its current estimation of capital expenditures is accurate, as based on operational estimates produced and current experience with operations.	<p>completion, commissioning or production dates; increased expenditures required as a failure to meet completion, commissioning or production dates; capital overrun related to the completion of any construction phase including capital overrun associated with demobilization of construction workers and contractors; labour negotiations; unanticipated costs relating to the commencement of operations, ramp up and production sustainment; changes in government regulation (including regulations regarding prices, cost of consumables, royalties, duties, taxes, permitting and restrictions on production quotas or exportation of the Company's products; and change in commodity input costs and quantities).</p> <p>Capital and operating costs estimates made by management with respect to future projects, or current operations in the early stages of production, or not yet in the production phase are estimates which are in turn based, among other things, on interpretation of geological data, feasibility studies, anticipated climactic conditions and other information.</p> <p>Any or all of these can affect the accuracy of the estimates including unanticipated changes in grade and tonnage to be mined and processed; incorrect data on which engineering assumptions are made; unanticipated transportation costs; accuracy of equipment and construction cost estimates; difficulty or failure to meet scheduled construction completion dates, facility or equipment commissioning dates, or metal production dates; poor or unsatisfactory construction quality resulting in failure to meet completion, commissioning or production dates; increased expenditures required as a failure to meet completion, commissioning or production dates; capital overrun related to the completion of any construction phase including capital overrun associated with demobilization of construction workers and contractors; labour negotiations; unanticipated costs relating to the commencement of operations, ramp up and production sustainment; changes in government regulation (including regulations regarding prices, cost of consumables, royalties, duties, taxes, permitting and restrictions on production quotas or exportation of the Company's products; and change in commodity input costs and quantities).</p>

Forward-looking statements and forward looking information are based on the opinions and estimates of management as of the date such statements are made, and they are subject to known and unknown risks, uncertainties and other factors that may cause the actual results, level of activity, performance or achievements of the Company to be materially different from those expressed or implied by such forward-looking statements or forward looking information, including, but not limited to, unexpected events during operations; variations in ore grade; risks inherent in the mining industry; delay or failure to receive board approvals; timing and availability of

external financing on acceptable terms; risks relating to international operations; actual results of exploration activities; conclusions of economic valuations; changes in project parameters as plans continue to be refined; and fluctuating metal prices and currency exchange rates.

Although management of the Company has attempted to identify important factors that could cause actual results to differ materially from those contained in forward-looking statements or forward looking information, there may be other factors that cause results not to be as anticipated, estimated or intended. There can be no assurance that such statements will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. Accordingly, readers should not place undue reliance on forward-looking statements and forward looking information. The Company does not undertake to update any forward-looking statements or forward-looking information that are incorporated by reference herein, except in accordance with applicable securities laws.

Investors are advised that National Instrument 43-101 of the Canadian Securities Administrators (“NI 43-101”) requires that each category of mineral reserves and mineral resources be reported separately. Mineral resources that are not mineral reserves do not have demonstrated economic viability.

#### Cautionary Note to U.S. Investors Concerning Estimates of Measured, Indicated or Inferred Resources

The information presented uses the terms “Measured”, “Indicated” and “Inferred” mineral resources. United States investors are advised that while such terms are recognized and required by Canadian regulations, the United States Securities and Exchange Commission does not recognize these terms. “Inferred mineral resources” have a great amount of uncertainty as to their existence, and as to their economic and legal feasibility. It cannot be assumed that all or any part of an inferred mineral resource will ever be upgraded to a higher category. Under Canadian rules, estimates of inferred mineral resources may not form the basis of feasibility or other economic studies. United States investors are cautioned not to assume that all or any part of measured or indicated mineral resources will ever be converted into mineral reserves. United States investors are also cautioned not to assume that all or any part of an inferred mineral resource exists, or is economically or legally mineable.