



Almonty Industries

Reuters: AII.TO Bloomberg: QALMTF:US

Rating: Buy Risk: High

Price: CAD 0.71

Target price: CAD 1.67

WKN / ISIN: A1JSSD / CA0203981034

The revival of the Sangdong tungsten project

We are initiating research coverage of Almonty Industries with a Buy rating and a CAD 1.67 price target, which is derived using a blended NAV- and two-stage DCF-based approach. Considering the expansion of its own value creation by building a vertically integrated nano-tungsten oxide processing plant to supply the South Korean battery anode and cathode manufacturing industry would unlock additional value creation potential for Almonty, allowing the company to generate significant earnings growth, which is not yet reflected in the current share price, in our view. Almonty's shares are currently trading at 1.82x and 5.5x 2024e revenues and EBIT, respectively, and we believe the stock needs to re-rate to reflect the company's value creation prospects.

Diversified portfolio in stable jurisdictions

Almonty Industries is a Canadian-based mining, exploration, and development company that controls a portfolio of four high-grade tungsten projects in stable Tier 1 jurisdictions in South Korea and the Iberian Peninsula. The Group's flagship tungsten deposit is Almonty Korea Tungsten ("AKT"), which was one of the world's leading tungsten producers for more than 40 years, under the former name Sangdong Mine. After a planned restart in 2023e, AKT is expected to be the largest tungsten mine outside China.

15-year offtake agreement with The Plansee Group

Almonty Industries was able to conclude an off-take agreement for the South Korean production facility with The Plansee Group—one of the world's leading tungsten suppliers with 11,000 employees in 35 production facilities in 50 countries—at what we consider attractive conditions: With a minimum term of 15 years and a floor price of USD 235 per MTU, Almonty Industries expects a minimum estimated operating cash flow of USD 580mn over the term of the agreement. Since the agreement covers only ~50% of the production, this is for only half of the potential cash flows from the Sangdong Mine. Given South Korea being the largest per capita tungsten consumer globally, Almonty could hold the balance back for sale, f. ex. to the South Korean battery markets, in our view.

Own downstream plant expands value creation

By commissioning its own vertically integrated nano-tungsten oxide processing plant ("Sangdong Downstream Extension Project") to supply the South Korean battery anode and cathode manufacturing industry, Almonty Industries would substantially enhance its value creation and profitability, according to our view. Annual production capacity is reported between 3,000 and 4,000 tonnes. Completion and commissioning are expected in the second half of 2023e. Once the downstream plant reaches full capacity from 2026e, it will provide up to 30% of non-Chinese and up to 10% of global tungsten supply, according to the company estimates.

Indices: -				
Transparency level:	: Toronto Sto	ck Exchange	e (TSX)	
Weighted number o	f shares: 21	6.0mn		
Market capitalisatio	n: CAD 153.	3mn		
Trading volume/day	: approx. 10	0,000 shares	3	
Annual report 2022:	expected M	arch 2023		
P&L (CAD mn)	2021	2022e	2023e	2024e
Turnover	20.8	28.3	60.9	104.5
EBITDA	-7.5	-1.2	15.2	46.9
EBIT	-5.1	-2.7	8.6	35.3
EBT	-8.2	-5.3	7.7	34.4
EAT	-7.8	-5.3	5.8	25.8
% of sales	2021	2022e	2023e	2024e
EBITDA	-35.8%	-4.1%	25.0%	44.9%
EBIT	-24.5%	-9.5%	14.2%	33.7%
EBT	-39.6%	-18.7%	12.6%	32.9%
EAT	-37.2%	-18.9%	9.5%	24.6%
Per share (CAD)	2021	2022e	2023e	2024e
EPS	-0.06	-0.02	0.03	0.12
Dividend	0.00	0.00	0.00	0.00
Book value	0.19	0.17	0.20	0.32
Cash flow	-0.04	-0.15	0.16	0.31
Balance (%)	2021	2022e	2023e	2024e
Equity ratio	22.6%	23.2%	21.5%	26.2%
Gearing	178%	240%	175%	53%
Multiples (x)	2021	2022e	2023e	2024e
KGV	n/a	n/a	26.6	6.0
EV/turnover	11.66	8.60	3.77	1.82
EV/EBIT	-29.5	-46.0	29.8	5.5
KBV	4.7	4.1	3.5	2.2
Guidance		2022e	2023e	2024e
Sales (CAD mn)		n/a	n/a	n/a
EBIT (CAD mn)				



peter-thilo.hasler@sphene-capital.de

Contents

Contents	2
Executive Summary	3
Almonty Industries in Pictures	4
CAD 1.67 per share – Initiate with a Buy	8
Almonty Industries: Tungsten on the stock exchange	21
Corporate History, Management and Corporate Strategy	34
Shareholder Structure and Stock Exchange Listing	37
Environmental, Social, and Corporate Governance (ESG) in the Exploration Industry	39
Strengths and Weaknesses, Opportunities and Threats	42
Tungsten: A Metal of Superlatives	45
Analysis and Forecasting of Earnings and Balance Sheet Ratios	53
Profit and Loss Account	58
Balance Sheet	64
Balance Sheet (Normalised)	68
Cash Flow Statement	72
One View	74
Discounted Cash Flow Valuation	78
Disclaimer	80

Please note that each chapter begins with an extensive Executive Summary.

Executive Summary

The revival of the Sangdong tungsten project

With a portfolio of tungsten properties in South Korea, Spain and Portugal, Toronto, Canada-based Almonty Industries is a promising resource exploration, development, and mining company, in our view. The group's flagship mine is the Sangdong Mine at the Almonty Korea Tungsten ("AKT") deposit, which was one of the world's leading tungsten producers for more than 40 years after it was commissioned in 1933.

Tungsten: A metal of superlatives

Numerous applications can be derived for the metal where hardness, high density, high wear, and high temperature resistance are required, such as in mining and construction, power generation, electronics, aerospace and defence. Because of its unique properties, its economic importance and limited sources of supply, tungsten is considered a critical metal by the US Government and the EU. Nevertheless, China has dominated the tungsten market for more than 70 years and holds a share of more than 83% of production and 51% of reserves (2021). In total, 90% of Tungsten comes from non-transparent jurisdictions: China, Vietnam and Russia.

Significant improvement in turnover and results expected

We expect Almonty Industries to significantly expand its operations over the next years. In our forecast, we expect Almonty Industries to generate revenues of CAD 116.8mn by 2026e, which marks the end of our detailed planning phase. This corresponds to an expected compound annual growth rate (CAGR) of 41.2% in group revenues for the period 2021-2026e.

Possible takeover target, for example from strategic investors

Following the full commissioning of the Sangdong mine, we see Almonty as a potential takeover target for strategic investors who can expand their position in the strategic tungsten market by acquiring Almonty Industries.

Senior project finance loan

Almonty Industries was able to conclude a senior project finance loan of USD 75.1mn with the German KfW Bank for the construction of a downstream processing plant. The interest rate of the loan is variable at 250 basis points above the three-month LIBOR, and therefore highly attractive, in our view. Repayment is in equal instalments over 6.25 years.

Management team with many years of experience

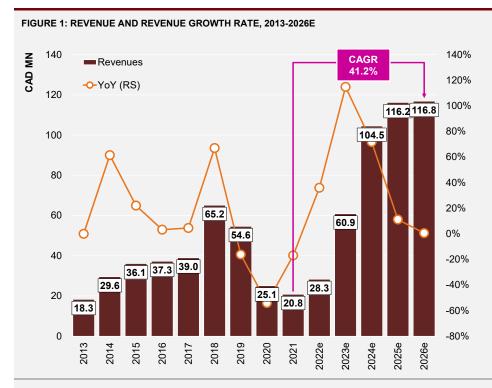
Almonty Industries is led by a team with many years of experience in tungsten mining.

Catalysts for the share price

We see the following catalysts for the share price: (1) commissioning of the Sangdong mine in South Korea, (2) commissioning of Los Santos in Spain, (3) decision to build a downstream plant in South Korea, (4) positive results from exploration of Almonty Korea Moly, one of the largest molybdenum deposits in Southeast Asia.

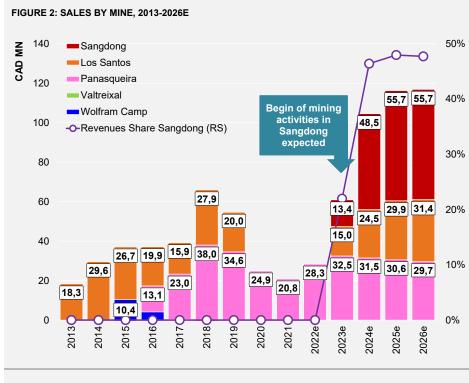
Risks

We see the following risks: (1) Improvable balance sheet ratios, (2) Licensing risks, (3) Typical junior mining company risks, (4) Dilution effects from possible capital increases, (5) Risks of negative market sentiment, (6) Currency translation risks, (7) Dependence on management, (8) High volatility of the shares.



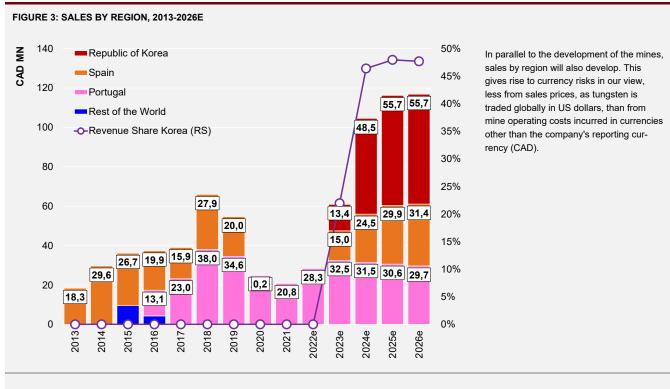
We expect Almonty Industries to expand its business significantly in the coming years. In our forecast, we expect revenues of CAD 116.8mn in 2026e. For the period 2021-26e, this corresponds to a compound annual growth rate (CAGR) of 41.2% in revenues. This development is triggered by the planned commissioning of the Sangdong mine in South Korea and the Los Santos mine in Spain.

SOURCE: COMPANY DATA, SPHENE CAPITAL FORECASTS

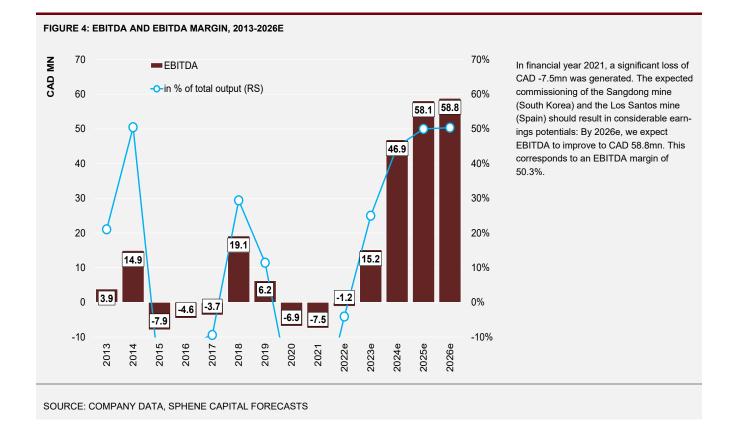


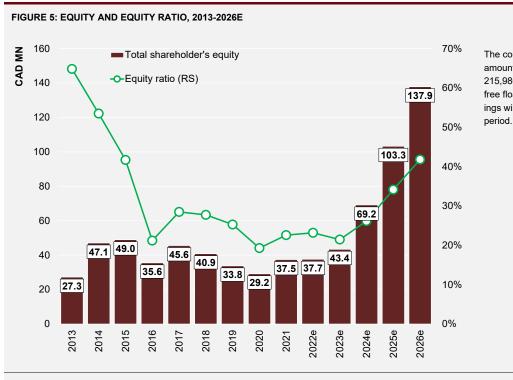
Almonty Industries has generated 100% of its revenues from the operation of the Panasqueira mine (Portugal) over the past three years. Such a narrow regional focus is not unusual, especially for a listed company, in light of the growth expectations set. In this case, however, the restriction to a narrowly defined target region is only temporary until the two projects Sangdong and Los Santos are expected to become operational again in 2023e.

SOURCE: COMPANY DATA, SPHENE CAPITAL FORECASTS



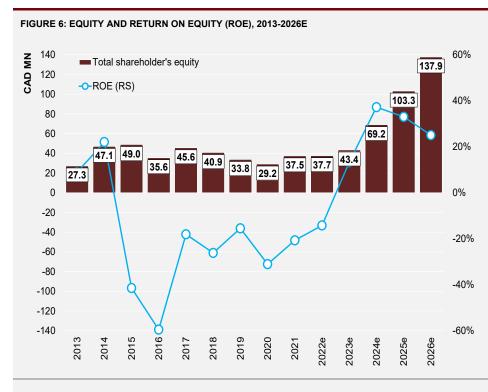
SOURCE: COMPANY DATA, SPHENE CAPITAL FORECASTS





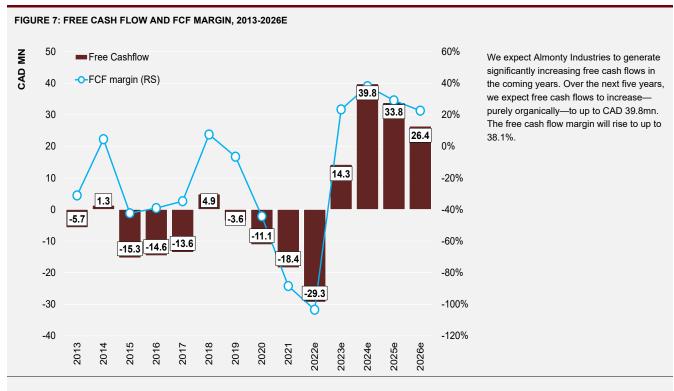
The company's share capital currently amounts to CAD 119.2mn. It consists of 215,980,494 ordinary bearer shares. The free float is 52.7%. We assume that earnings will be fully retained in our forecast period.

SOURCE: COMPANY DATA, SPHENE CAPITAL FORECASTS

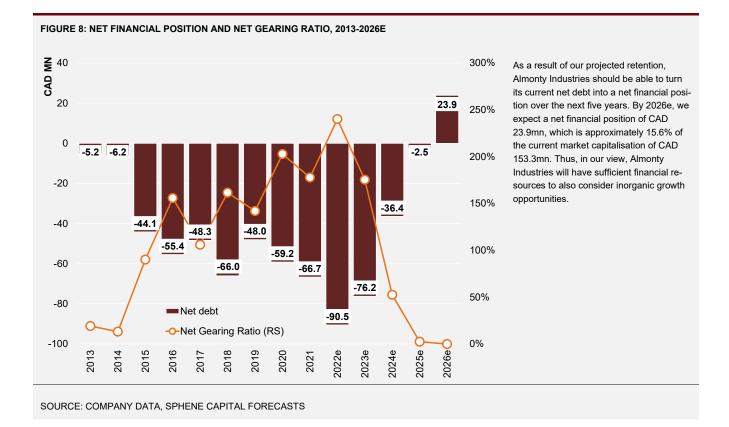


Including the current financial year 2022e, Almonty Industries should be unprofitable after-tax, according to our model. For 2023e, we expect a return to profit for the first time since 2014. The improvement will be triggered by the commissioning of Sangdong and Los Santos. By 2026e, the end of our forecast period, we expect return on equity to improve to 25.1%, underlining that Almonty Industries is, in our view, a value-creating company for its shareholders.

SOURCE: COMPANY DATA, SPHENE CAPITAL FORECASTS



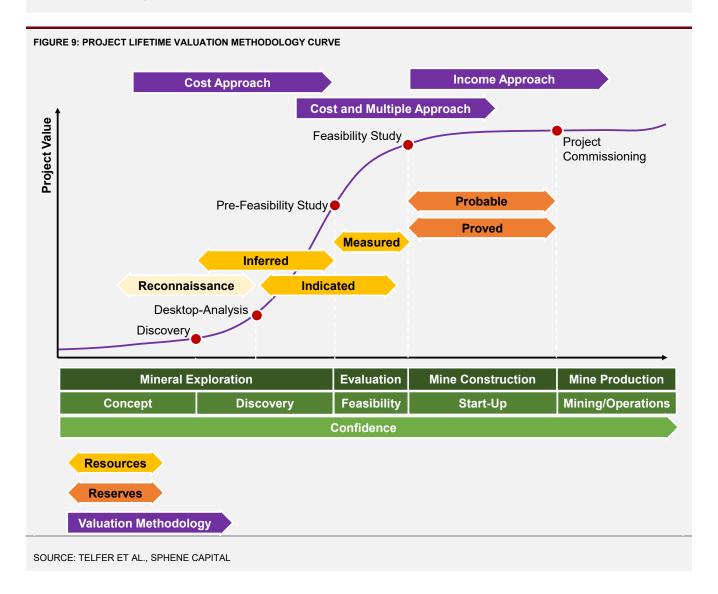
SOURCE: COMPANY DATA, SPHENE CAPITAL FORECASTS



CAD 1.67 per share – Initiate with a Buy

In August 2022, Almonty Industries announced to have successfully reached connection to the -1 Level hanging wall gallery, which represents 55% of the reserves of Almonty's flagship Sangdong Mine. This was an important milestone in building the largest tungsten mine outside China at high grades and recovery rates, in our view. With financing and offtake agreements in place and a potential 90+ years life of mine, we expect Almonty to start production at this tier-1 project in 2023e. Given the status of the project, we value Almonty Industries using a two-stage Discounted Cashflow entity model and add the discounted value of the development projects. We calculate an equity value of CAD 1.67 for the shares of Almonty Industries. Given a 135.2% upside from the current share price of CAD 0.71 we are initiating our research coverage of Almonty Industries with a Buy rating.

We believe this undervalued, below radar company offers investors an attractive investment case and expect the shares to re-rate on the first hint of positive drilling news at the flagship Sangdong Mine. With the underlying molybdenum deposit offering significant upside potential, not included in or valuation, we see additional long-term upside to our valuation. Two development projects in Spain (Los Santos and Valtreixal) could also add upside potential to our target price.



Applying an earnings-based approach

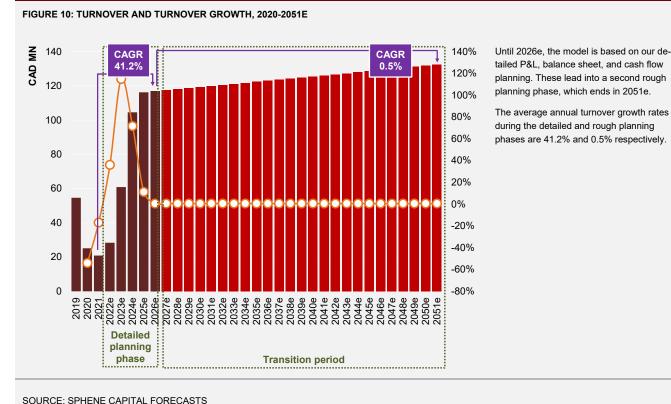
Panasqueira in Portugal is a producing asset, Sangdong in South Korea is a project under construction expected to become a producing asset in 2023e. Therefore, it is appropriate, in our view, to apply an earnings-based approach for valuing the shares of Almonty Industries.

Growth assumptions of the DCF model

We assume the following growth assumptions for our two-stage discounted cash flow model:

Two-stage DCF entity model:
Assumptions for turnover development

- S Phase 1 of the DCF model (the so-called "detailed planning phase") is initially based on our detailed turnover, earnings, cash flow, and balance sheet expectations up to the year 2026e and—starting from a low revenue level—we expect average annual growth rates (CAGR) of revenues between 2021 and 2026e amounting to 41.2%.
- In the subsequent **phase 2** (25-year **"rough planning phase"**), which ends in 2051e, representing the potential exploitation period of the mines, we have assumed a 0.5% CAGR of sales. Furthermore, during the rough planning phase, we have assumed that the company's key performance indicators will converge to a level that is enforceable in the long term.
- The final phase 3, the so-called "terminal value", is omitted because we assume that the resources will be exhausted at this point.



SOURCE: SPHENE CAPITAL FORECASTS

Further assumptions during the rough planning phase

For our two-stage DCF model, we assume during the detailed and rough planning phase,

Two-stage DCF entity model: Assumptions for the other items of the DCF model

- that the EBIT margins during the rough planning phase will remain stable at 40.2% (basis: turnover) expected in 2026e, since economies of scale cannot be exploited. We have not assumed any inflow of equity from outside, but only internal financing from the cash flows generated.
- an investment ratio to net sales that is comparable with the currently observable values, thereby assuming a constant capital intensity.
- a fundamental long-term beta of 1.40, which we derive from the following macroeconomic or company-specific factors, which are similar to the observed beta values of 1.55):

TABLE 1: DERIVATION OF THE FUNDAMENTAL-BETA	
Degree of diversification	0,10
Competitive intensity	0,00
Maturity of the business model	0,00
Regulatory risks	0,10
Financial risks	0,10
Risks of the business forecast	0,10
Market-beta	1,00
beta	1,40
SOURCE: SPHENE CAPITAL	

that the company's marginal tax rate during the rough planning phase will be 24.5%, a realistic average for the company operating in South-East Asia and Europe.

Assumptions for the other items of the DCF model (continued)

that the cash flows generated by Almonty Industries in the period 2022e-2026e are discounted with a weighted average cost of capital (WACC) of 8.7%. In addition to the fundamental beta of 1.40 derived above, this is composed of a quasi-risk-free interest rate of 3.4%, determined from the yield of long-term (30-year) Canada federal bonds (whereby we have used the most recent federal bond of this maturity), and an implicitly calculated risk premium for the overall Canadian capital market (assumption of the geometric mean) of currently 6.1 %. In addition, following the Fama-French five-factor model, we applied a small caps premium of 1.0%, which is composed of the dependence on management (1.0%); a share liquidity or transparency premium need not to be applied, in our view. Given our assumed synthetic corporate rating of BBB, we have assumed a deliberately conservative value of 250 basis points in determining the risk premium for debt capital. Finally, we assume that Almonty Industries targets an industry-typical capital structure for the market values of equity and debt of 50%/50%.

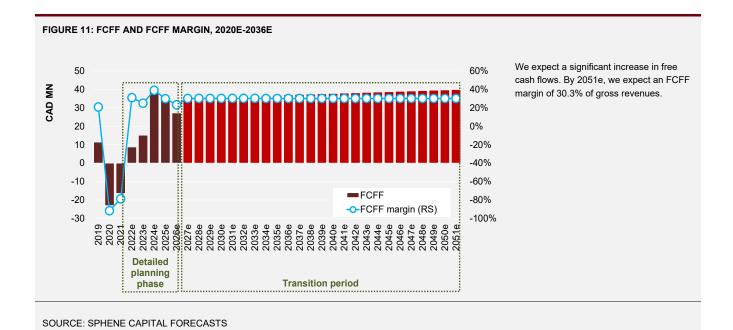
Cost of equity	%	11.9%	Calculation according to Capital Asset Pricing Model (CAPM)
Quasi-risk-free interest rate	%	3.40%	Current youngest federal bond with 30-year residual maturity
Beta		1.40	Fundamentally determined beta (see table 1)
Implied risk premium	%	6.1%	From dividend discount model using consensus estimates or TSX earnings and TSX dividends
Small Cap Premium	%	1.0%	
Management premium	%	1.0%	Key-Man-Risk
Liquidity premium	%	0.0%	Not necessary given a daily trading volume of 100,000 shares
Transparency premium	%	0.0%	Not necessary given quarterly reporting
Private Company premium	%	0.0%	
Early Stage premium	%	0.0%	Not necessary, given Almonty being a revenue generating firm
Pandemic premium	%	0.0%	
Target capital structure of equity	%	50.0%	Industry specific average for mining companies
Weighted average cost of equity capital	%	6.5%	
Cost of debt after taxes		4.4%	
Quasi-risk-free interest rate	%	3.4%	Current youngest federal bond with 30-year residual maturity
Risk premium debt capital	%	2.5%	Corresponding to the CDS of a BBB rated small cap company
Default spread of the home market	%	0.0%	Negligible in North America or the European core markets
Cost of debt capital before taxes	%	5.9%	
Tax rate	%	25.0%	Inclusion of the debt-induced tax shield
Target capital structure of debt capital	%	50.0%	
Weighted average cost of capital of debt capital	%	2.2%	
WACC based on market values	%	8.7%	For the detailed planning phase 2022e-2026e

Clearly positive development of free cash flows

Our valuation model yields the following 30 years forecast (cf. Figure 11) of free cash flows to the firm (FCFF) for the years 2022e to 2051e. It can be seen how our – what we consider – cautious forecasts regarding the development of earnings in the early years do not yet lead to any significant free cash flows before we forecast the achievement of an FCFF margin of 30.3% in 2051e, slightly below 2022e's level of 31.0%. During the subsequent rough planning phase, we have assumed only maintenance and minor expansion investments.

Finally, in the terminal value we assume a decline in the free cash flows to the firm to zero, due to full exploitation of the mineral resources.

Typical life cycle curve of a company in the growth phase



In the medium term, our base case scenario results in an equity value of CAD 306.7mn or CAD 1.40 per share.

The enterprise value of Almonty Industries in our model is CAD 373.4mn. From this, 0% is derived via the terminal value, 27.8% and 72.2% from the cash flows generated in the detailed and rough planning phase, respectively. Including the net debt position at the end of financial year 2021 of approx. CAD 66.7mn (based on the excess cash) results in an equity value of CAD 306.7mn or CAD 1.40 per share.

Value of equity of CAD 306.7mn or CAD 1.40 per share

			Commen
Probability of insolvency in the terminal value	%	100.0%	No terminal value due to full exploitation of mineral resources
Cost of capital in terminal value	%	n/a	
Present value terminal value	CAD mn	0.0	No company value applied after 2051e
in % of the enterprise value	%	0.0%	
Present value FCFF detailed planning phase	CAD mn	103.9	For the period 2022e-2026e with revenue CAGR 2021-26e of 41.2%
in % of the enterprise value	%	27.8%	
Present value FCFF rough planning phase	CAD mn	269.5	For the period 2026e-2036e with revenue CAGR of 0.5%
in % of the enterprise value	%	72.2%	
Enterprise value	CAD mn	373.4	
Financial debt	CAD mn	-67.7	Data as at 31.12.2021 (end of financial year 2021
Excess cash	CAD mn	1.0	Data as at 31.12.2021 (end of financial year 2021
Value of equity	CAD mn	306.7	On a 36-month view
Number of shares outstanding	m.	216.0	
Value of equity per share	CAD	1.40	On a 36-month view

Advanced scenario analysis through Monte Carlo simulation

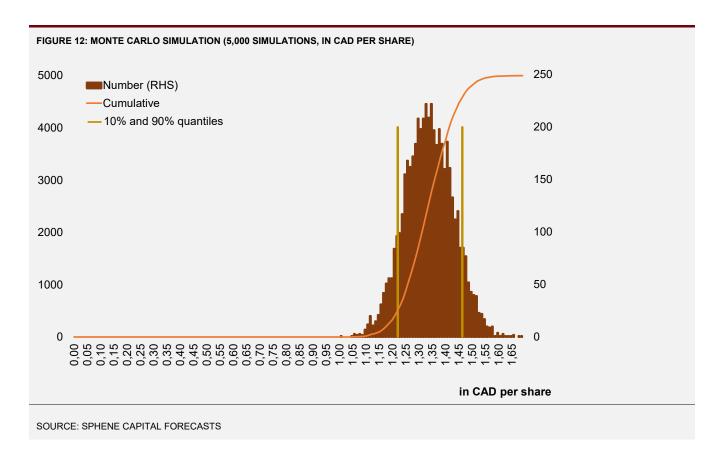
We then performed a Monte Carlo simulation to interrogate the sensitivities of the enterprise value with respect to the independent input variables. We performed a multivariate analysis and tested the results of the DCF model according to the following seven criteria and specific standard deviations (σ) .

		Is	σ
Turnover growth rate in the rough planning phase	%	41.2%	1.0%
Terminal value sales growth rate	%	3.4%	1.0%
Average EBIT margin rough planning phase	%	40.2%	1.0%
EBIT margin in terminal value	%	0.0%	0.0%
Average tax rate rough planning phase/terminal value	%	24.5%	2.0%
Normalised sales to capital ratio	%	-20.00	2.0%
Probability of insolvency in the terminal value	%	100.0%	5.0%

Results of the Monte Carlo simulation

The 10% and 90% quantiles yield equity values of CAD 263.5mn (CAD 1.22 share) and CAD 315.3mn (CAD 1.46 per share), respectively. The results of our Monte Carlo simulation are summarised in the following left-steep-right-skewed distribution:

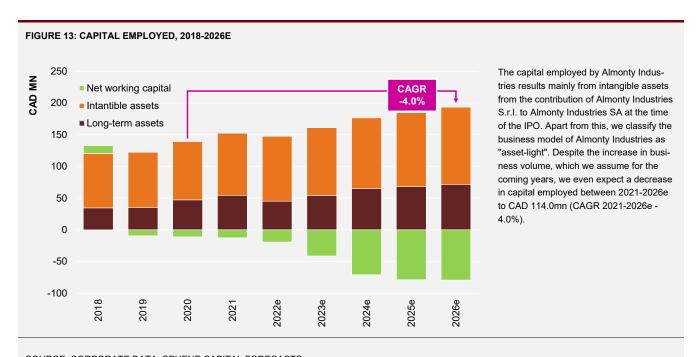
Monte Carlo simulation with 10% or 90% quantile price targets between CAD 263.5mn and 315.3 or CAD 1.22 and CAD 1.46 per share.



In addition to a two-phase DCF entity model, we have used an economic profit model to determine the value of Almonty Industries. The question here is whether and from when the capital provided to the company is used value-creative and at what price level this value creation is reflected in the intrinsic company valuation. From the economic profit model, we calculate a value of equity of up to CAD 1.99 (based on the economic profit margin of the year 2026e) per share for Almonty Industries, which translates into a present value of CAD 1.27 per share. If Almonty Industries succeeds in expanding the economic profit margin as we expect, the model indicates a significant undervaluation of the shares from the year 2024e onwards, which gradually increases over time.

Use of the value-added multiplier

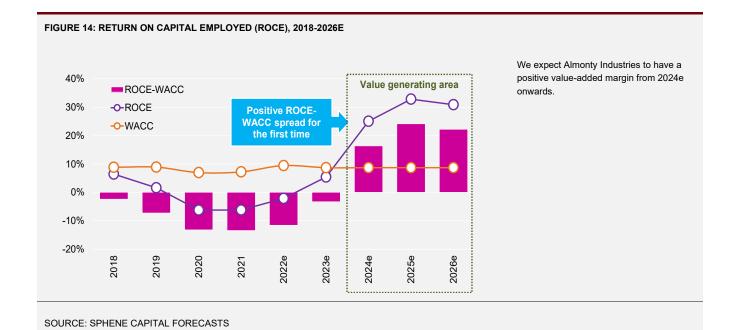
The first step is to determine whether Almonty Industries is operating a value-creating business model at all. To do this, we determine the cost of capital employed and compare this with the return on capital employed. The following figure 13 shows the development of Almonty Industries' capital employed for the years 2020-2026e, derived from our estimated balance sheet data:



SOURCE: CORPORATE DATA, SPHENE CAPITAL FORECASTS

Return on capital employed

In a second step, we determine the return on capital employed (ROCE) by calculating the adjusted operating profit (NOPLAT) and dividing it by the capital employed. We then compare the calculated ROCE values with the cost of capital (WACC) as determined in the DCF model described above.



Almonty Industries with increasing value-added margin after 2024e

It can be seen from the above figure 14 that according to our expectations Almonty Industries will have a positive value-added margin as of financial year 2024e, which we forecast to further increase. This fulfils the necessary condition that Almonty Industries is a value-creating company.

Valuation at the time when positive value creation has been achieved

From our point of view, an investor currently invested in the company will part with his stake in Almonty Industries at the earliest when the company is no longer a "value destroyer" in the long term, i.e. when the return on capital employed exceeds the cost of capital employed. According to our estimates, this will be the case in 2024e for the first time. At that time, an investor will call for a price for his shares that corresponds to the value of the capital invested.

For the year 2026e, an enterprise value of CAD 405.6mn can be derived from this assumption. Adding the net financial position of CAD 23.9mn (2026e) that we then forecast, an equity value of CAD 429.5mn is calculated. This is equivalent with a value of CAD 1.99 per share. Discounted by the cost of equity of 8.7% derived from the CAPM (see table 2), this translates into a present value of CAD 1.27 per share.

We assume that the price targets will continue to rise in the years after 2026e, as the value creation margin should continue to increase because of the realisation of economies of scale. The more long-term an investor is invested in the shares, the greater the price appreciation potential will be for him, in our estimation.

		2022e	2023e	2024e	2025e	2026
EV/CE	x	1.84	1.85	1.71	1.39	1.0
ROCE/WACC	x	-0.23	0.62	2.89	3.78	3.5
Enterprise value	CAD mn	-28.9	74.6	304.7	400.4	405
Net financial position (+) or debt (-)	CAD mn	-90.5	-76.2	-36.4	-2.5	23
Pension provisions	CAD mn	0.0	0.0	0.0	0.0	0.
Third party shares	CAD mn	0.0	0.0	0.0	0.0	0.
Financial assets of the fixed assets	CAD mn	0.0	0.0	0.0	0.0	0.
Value of equity	CAD mn	-119.3	-1.6	268.3	397.8	429.
Number of shares	m.	216.0	216.0	216.0	216.0	216.
Value of equity per share	CAD	n/a	n/a	1,24	1,84	1,9
Present value of equity per share	CAD	n/a	n/a	0,99	1,31	1,2

Adjustment by the developing project Valtreixal

We then adjust the intrinsic value calculated by a NAV based value of Almonty's development project Valtreixal which is not included in the intrinsic DCF and economic profit valuation approaches. Assuming initiation and maintenance capex of USD 20mn for the asset, we calculate annual free cash flows for Valtreixal of USD 12.6mn. Applying a 15% discount rate, we calculate a present value of CAD 0.27 per share.

		Valtreixa
WO3 Reserves (Proven and Probable)	t	8.667
Tungsten-Concentrate APT price	USD/MTU	320.00
Operating costs	USD/MTU	220.00
Expected production period	years	Ę
Annualized FCFF	USD mn	12.6
Present Value of FCFF @ USDCAD 1.3591	CAD mn	57.4
Number of shares	mn	216.0
Present value per Share	CAD	0.27

Adjustment of the price target in case of molybdenum project

Our target price is derived from our expected base case scenario. In doing so, we have not taken the development project Almonty Korea Moly into account. Should the project enter production, it would also have significant impact on our price target. We consider this development project as an upside potential for investors.

We have verified the results of our fundamental valuation procedures using market multiples. We have compiled a broad peer group of listed mineral developers on the cusp of production with no further resource or size restrictions. Based on the consensus estimates for 2023e and 2024e, our preferred EV/sales multiple results in a target price of CAD 1.38 and CAD 1.27 per share (+94.4 and +78.9% respectively, vis-à-vis the last closing price of CAD 0.71). This confirms the results of the fundamental valuation procedures, which indicate a clear undervaluation of the Almonty Industries share.

We compare Almonty Industries with other mineral developers

In addition to fundamental methods, which are used to determine the intrinsic value of a company, we compared Almonty Industries to a broad peer group of listed tungsten companies in order to determine an adequate market valuation of the company that reflects the current market sentiment.

Under normal circumstances, the requirement to be included in the peer group stems from the industry specification. Being a minor mineral company, there are only few companies which provide direct exposure to tungsten (for details see Chapter "Tungsten: A Metal of Superlatives"). However, only one of them, EQ Resources, is revenue generating and therefore suitable for a multiple valuation.

However, we believe that from an investor perspective the commodity per se is not the most relevant investment criterion, but also the timing of the commitment; thus we have included companies in the peer group that, similar to Almonty, are expected to generate significant revenues for the first time in the coming year. Under this specification, we have included ten companies focussing on different minerals with a market capitalisation between CAD 133.8mn (Poseidon Nickel) and CAD 5.1bn (Lithium Americas) in the valuation of Almonty Industries' shares.

TABLE 7: KEY DATA OF LIS	STED DEVI	ELOPERS				
Company	FX	Mineral	Share price	Number of shares	Market capitalisation	Enterprise value
Company		minoral	(11 11 2022)	(mn)	(mn)	(mn)
Lithium Americas	CAD	Lithium	37.50	135.0	5,062.5	4,860.7
Sigma Lithium	USD	Lithium	35.51	100.7	3,575.9	3,480.4
Piedmont Lithium	AUD	Lithium	0.94	1,801.0	1,692.9	1,620.7
Core Lithium	AUD	Lithium	1.67	1,835.4	3,065.1	2,867.6
Nouveau Monde Graphite	CAD	Graphit	6.28	55.9	351.1	324.1
Strandline Resources	AUD	Zircon, Titanium dioxide	0.43	1,250.9	537.9	583.9
Mincor Resources	AUD	Nickel, Gold, Cobalt, Copper	1.64	488.7	801.5	730.6
Poseidon Nickel	AUD	Nickel, Gold	0.05	3,064.0	153.2	145.7
Panoramic Resources	AUD	Nickel, Cobalt, Copper	0.18	2,050.9	369.2	434.2
Ur-Energy	CAD	Uranium	1.78	223.1	397.1	359.2

Derivation of the EV/sales multiples of the peer group

SOURCE: BLOOMBERG, CAPITALIQ, SPHENE CAPITAL

Part of the peer group will not yet be profitable in the coming year. On the other hand, we feel that multiples that are closer in time are more representative than those that are distant in time. In this respect, we see the EV/sales multiple as a reasonable

compromise for the valuation of Almonty Industries' shares. The following multiples can be derived from this:

Company		2023e	2024
Lithium Americas	х	13.71x	9.76
Sigma Lithium	х	5.77x	6.00
Piedmont Lithium	х	8.26x	3.02
Core Lithium	х	24.71x	3.49
Nouveau Monde Graphite	х	6.52x	3.27
Strandline Resources	х	5.09x	2.16
Mincor Resources	х	3.80x	2.07
Poseidon Nickel	х	1.71x	1.17
Panoramic Resources	х	1.60x	1.49
Ur-Energy	Х	8.28x	2.92
Median	х	6.15x	2.97
Maximum	х	24.71x	9.76
Minimum	X	1.60x	1.17

Target price of CAD 1.38 (2023e) and CAD 1.27 (2024e) per share

Based on the peer group multiples and our revenue forecasts, the equity values for Almonty Industries can be derived as follows.

TABLE 9: DERIVATION OF THE VALUE OF EQUITY PER SHARE FROM PEER GROUP MULTIPLES				
		2023e	2024e	
Target price per share Almonty Industries EV/Sales median	CAD	1.38	1.27	
Target price per share Almonty Industries EV/Sales Maximum	CAD	6.61	4.55	
Target price per share Almonty Industries EV/Sales Minimum	CAD	0.10	0.40	
SOURCE: BLOOMBERG, SPHENE CAPITAL FORECASTS				

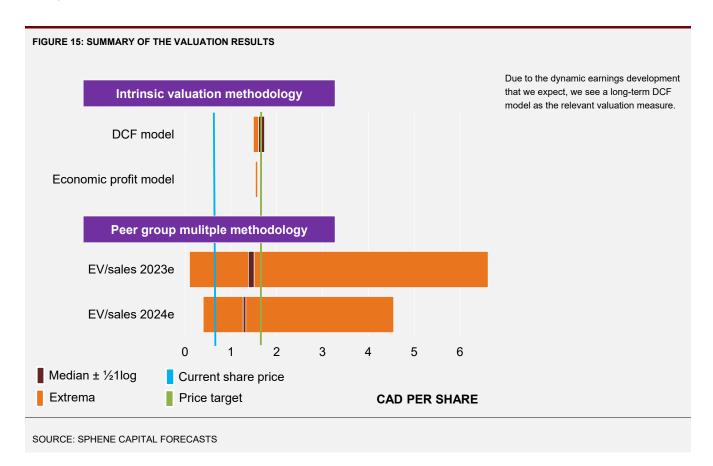
Summary of the results

In figure 15 below, we have summarised the results of the valuation approaches presented, whereby we have also presented the results of the Monte Carlo simulation in the DCF model. Due to the development of Almonty Industries' operating earnings that we expect, we believe that a DCF model with a long-term horizon is the superior valuation method.

We are therefore initiating research coverage of the shares of Almonty Industries with a target price of CAD 1.67, which is composed of CAD 1.40 from the DCF model plus

The summary of the valuation results shows that the current share price is in part significantly below our valuation results.

CAD 0.27 from the NAV based value of the development project Valtreixal, and a buy rating.



Multiples in achieving our valuation results

On the basis of our financial forecasts and if the value of equity determined by us (base case scenario of the DCF valuation model plus NAV of development projects) of CAD 1.67 per share is reached, Almonty Industries would be valued at the following multiples:

Valuation at the current rate						Targe	et price valu	ation			
		2022e	2023e	2024e	2025e	2026e	2022e	2023e	2024e	2025e	2026e
KGV	х	n/a	26.6x	6.0x	4.5x	4.4x	n/a	62.5x	14.0x	10.6x	10.4x
EV/turnover	х	8.6x	3.8x	1.8x	1.3x	1.1x	15.9x	7.2x	3.8x	3.1x	2.9x
EV/EBIT	х	-46.0x	29.8x	5.5x	3.4x	2.8x	-85.0x	56.8x	11.6x	8.0x	7.3x
KBV	х	4.1x	3.5x	2.2x	1.5x	1.1x	9.6x	8.3x	5.2x	3.5x	2.6x
Dividend yield	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Upside risks to the achievement of our valuation results

We see the following downside risks in particular for the achievement of our price target (for details and additions, see also p. 42ff.):

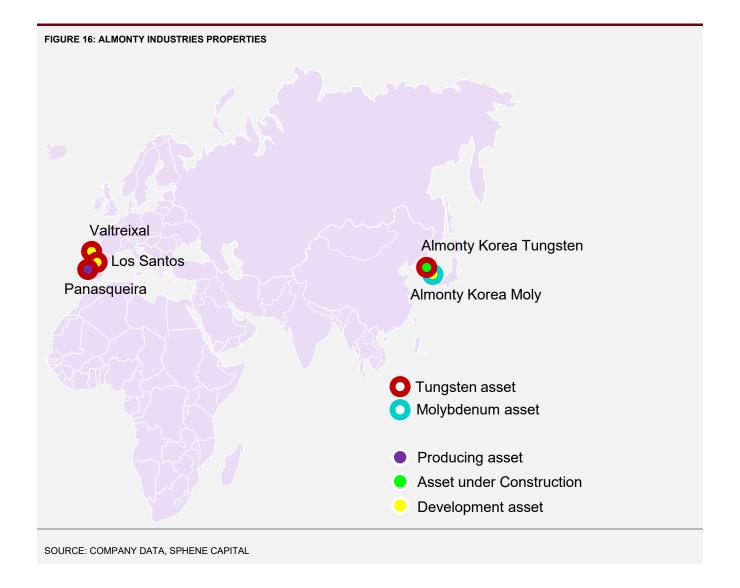
- S Lack of profitability until now
- Improvable balance sheet ratios
- S Licence risks
- Typical risks in junior mining
- O Dilutive effects
- Market sentiment
- S Exploration risk
- S Currency translation risks
- **S** Dependence on management
- High volatility of the share
- Open Dependence on suppliers
- S Regulated business model

Almonty Industries: Tungsten on the stock exchange

Almonty Industries is a Canadian-based mining, exploration, and development company that controls a portfolio of four high-grade tungsten projects in stable Tier 1 jurisdictions in South Korea and the Iberian Peninsula. The Group's flagship tungsten deposit is Almonty Korea Tungsten ("AKT"), which was the world's leading tungsten producer for more than 40 years under the former company name Sangdong Mine. After the planned restart in 2023e, AKT is expected to be the largest tungsten mine outside China. In our projections, Almonty Industries will substantially expand its value creation and profitability after commissioning its own vertically integrated nanotungsten oxide processing plant ("Sangdong Downstream Extension Project") with an annual production capacity of 3,000 to 4,000 tonnes to supply the South Korean battery anode and cathode manufacturing industry. External growth in the sense of a buy-and-build strategy is also part of the company's strategy.

Leading non-Chinese tungsten producer

With four mines in production, construction and development, Almonty Industries, founded in 2009 and based in Toronto, Canada, is one of the world's leading tungsten producers outside China.



Currently, the Company's investment portfolio in tungsten consists of the following assets:

- Panasqueira Mine in Portugal,
- **Solution** Los Santos Mine in Spain and
- **Solution** Valtreixal Project in Spain.

		Almonty Korea Tungsten	Panasqueira	Los Santos	Valtreixal
Country		South Korea	Portugal	Spain	Spain
Start of activities		1916	1901	1980	1883
Year of acquisition by Almonty		2015	2016	2011	2013-16
Area	ha	3.173		2.244	2.158
NI 43-101 and year of publication		yes (2016)	no	yes (2015)	yes (2015)
Current state of development		under construction	producing	in development	in developmen
Expected production period	Years	90	>20	6	5
Expected annual production	MTU WO3eq	n/a	78.100	2,06	0,5
WO3 Reserves (Proven and Probable)					
Tonnage	t	7.896.000	1.951.000	3.852.000	2.549.000
Average grade	%	0,47%	0,20%	0,23%	0,34%
Contained WO3	t	37.111	3.928	8.325	8.667
Cut-off grade	%	0,28%	0,12%	0,07%	0,08%
Of which Proven	t	n/a	1.694	n/a	n/a
Thereof Probable	t	n/a	2.234	n/a	2.549
WO3 Resources* (Measured and Indica	ated)				
Tonnage	t	8.334.000	10.027.000	2.208.000	2.828.000
Average grade	%	0,49%	0,23%	0,29%	0,34%
Contained WO3	t	4.083	13.127	6.313	9.615
Cut-off grade	%	0,15%	0,12%	0,05%	0,05%
Thereof Measured	t	n/a	3.928	304	n/a
Thereof Indicated	t	n/a	19.199	6.012	n/a
WO3 Resources (Inferred)					
Tonnage	t	52.765.000	10.322.000	1.878.000	15.419.000
Average grade	%	0,44%	0,24%	0,25%	0,17%
Contained WO3	t	230.222	24.330	4.663	26.212
Cut-off grade	%	0,15%	0,13%	0,05%	0,05%
Thereof Inferred	t	n/a	11.100	n/a	n/a
Thereof Inferred Tailings	t	n/a	13.230	n/a	n/a

Almonty also owns the **Almonty Korea Moly** molybdenum deposit in the Republic of Korea, in the immediate vicinity of Almonty Korea Tungsten.

Explanation

One **Metric Ton Unit** ("MTU") is equal to ten kilograms per metric ton and is the standard weight measure for tungsten. Tungsten prices are generally quoted in USD per MTU of tungsten trioxide (WO3). Theoretically, pure scheelite concentrate can contain 80.5% tungsten metal, in practice the content of concentrates approved for sale ranges from about 62% to 72% WO3.

Measured Mineral Resource describe the part of a resource for which tonnage, mineral content, grade, and physical characteristics can be estimated with a high level of confidence. The data must be based on detailed and reliable physical evidence, e.g., drill holes, trenches, outcrops, etc., and sample locations must be spaced sufficiently close to confirm geological continuity and grade.

Indicated Mineral Resource is similar to a measured mineral resource, but with a reasonable, not a high-level of confidence. Typically, this is because the spacing of the physical samples, e.g., boreholes, is too widely spaced to confirm continuity, but close enough to reasonably assume continuity.

Inferred Mineral Resource is the part of a resource for which tonnage, mineral content, grade, and physical characteristics are known with a low level of confidence because the estimate is inferred from geologic evidence that has not been verified with physical data, e.g., boreholes.

Reserve is the part of a mineral resource that can be mined economically at a point in time. Reserves are further categorized into **Proved Mineral Reserve**, i.e. that part of a measured mineral resource that can be economically mined at a point in time, and **Probable Mineral Reserve**, i.e. that part of an indicated mineral resource that can be economically mined at a point in time.

Cut-off grade (short COG) is an industry accepted standard term used to determine the minimum grade required for a mineral or metal to be economically mined or processed. Material with a grade less than the cut-off is transported to waste, while material with a higher grade is considered ore and transported to a processing plant.

The COG determines the minimum content of the raw material in the rock from which the ore is included in the resource estimate. The lower the COG, the higher the price of the raw material must be for mining to be worthwhile. For example, at an assumed gold price of 1,850 USD per ounce, deposits of less than 0.25 g/t could be economically interesting, which at 1,000 USD per ounce would not, since the costs of mining would be too high.

To calculate a COG, the probable ore-based mining costs and grade-based revenues using benchmarks from similar mines and commodity prices from public reports or price forecasts from research notes are used, for example

$$COG = \frac{Ore\ denominated\ operating\ costs}{Grade\ denominated\ revenues} = \frac{14\frac{USD}{t}}{2,850\frac{USD}{oz}} = 0.215\frac{g}{t}$$

Undoubtedly, Almonty Industries' most valuable asset is its 100% stake in South Korea's Almonty Korea Tungsten Corporation (AKTC). South Korea once had a thriving mining culture with numerous small metal mines, and AKTC was one of the world's largest tungsten producers in the decades following the Korean War and was responsible for more than 50% of global tungsten production outside China. However, the mine, like most of the other South Korean metal mines, was closed in the 1990s when commodity prices plummeted. This decision was justified not least by the fact that those responsible believed that the former mines had been fully exploited anyway. In 2006, Woulfe Mining Corp. a 100% subsidiary of Almonty Industries since 2015, was able to secure the entire property, consisting of twelve mining rights with a total area of 3,173 hectares in 2006.

With more than 95% of the contained tungsten, scheelite is the most important tungsten mineral at the mine. Molybdenite and small amounts of bismuth and gold are present as a by-product of mineralisation. With a tungsten content of up to 3% tungsten trioxide (WO3), the reserves (proven & probable) amount to more than 35,000 tonnes of WO3.

Macro location of Almonty Korea Tungsten

Through its wholly owned subsidiary Woulfe Mining Corp., Almonty Industries owns a 100% interest in South Korea's Almonty Korea Tungsten Corporation (AKTC for short, formerly Sangdong Mining Corp.), one of the world's largest tungsten resources outside China. The property is in Gangwong Province, about 175 km southeast of Seoul, and can be reached after a three-hour drive via motorways and highways. The nearest settlement is the original namesake village of Sangdong (0.5 km away), the nearest town is Taebaek (25 km away), with a population of about 47,000.

Almonty Korea Tungsten is a tungsten skarn deposit whose mineralisation occurs in hydrothermally altered limestone sediments and limestone lithologies. The regional geology reflects the location of the Korean Peninsula on the eastern margin of the North China-Korea platform, underlain by three Archean blocks. The property is located in an area of moderately rugged relief where steep hills rise up to 500 m above deeply incised valleys. Despite the terrain, access is good, according to the company: There is an asphalt road a few hundred metres away, and forest roads also cross the property.

The Sangdong prospect is located on the southern margin of the east-west oriented Triassic-age Hambaek Syncline. The Cambrian-Ordovician limestone, shale and quartzite of the Chosun system unconformably overlie the Precambrian Taebaeksan shale and gneiss. For more than 40 years, Sandong Mining Corp., AKTC, was one of the world's leading tungsten producers.

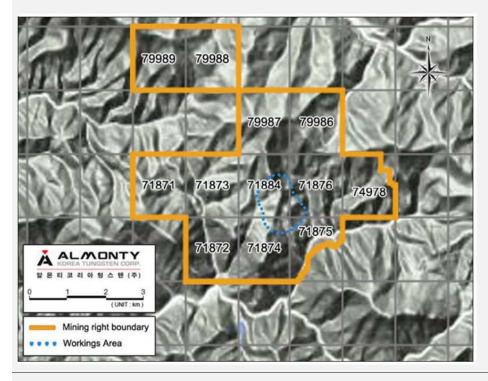
Background

Skarns or tactites are hard, coarse-grained metamorphic rocks that are very resistant to weathering when they contain high amounts of garnet. They are defined by their mineralogical composition: If this is dominated by calcium-rich silicates, they are called garnet (mostly grossular or andradite), pyroxene (e.g. diopside, hedenbergite), amphibole (e.g. actinolite, hornblende) or minerals of the epidote group (e.g. epidote, clinozoisite). Depending on source rock and formation conditions, magnesium-, iron- or manganese-rich silicates can also predominate, or contain oxide and sulphide minerals, whereby they can be significant deposits for a variety of metals.

Micro-location of Almonty Korea Tungsten

The property consists of twelve mining claims totalling 3,173 hectares held by Almonty Korea Tungsten, a wholly owned subsidiary of Woulfe Mining Corp., which in turn is a wholly owned subsidiary of Almonty Industries.

FIGURE 17: MINERAL RIGHTS TO ALMONTY KOREA TUNGSTEN



The Sangdong mine contains a skarn-type deposit with altered horizons of the Cambrian Myobong Formation. The metamorphosed strata include a biotite-granite unit located at a depth of 700 m and intersected by exploratory drilling at 700 m depth. In the lowermost area is the Jangsan Quartzite unit. The Great Limestone unit completes the series of altered horizons overlying the Myobong Formation. The mineralised zone trends east west and dips north between 15° and 30° with an extension of 1.3 km and 1.5 km.

SOURCE: ALMONTY INDUSTRIES

Climatic conditions and other infrastructure

Temperatures rise to a high of about 30°C during the humid summer months of June to August; during the mostly dry winters (October to March), temperatures can drop below freezing. The climatic conditions allow year-round mining, at least if it is not hampered by heavy rainfall, as it was in August this year.

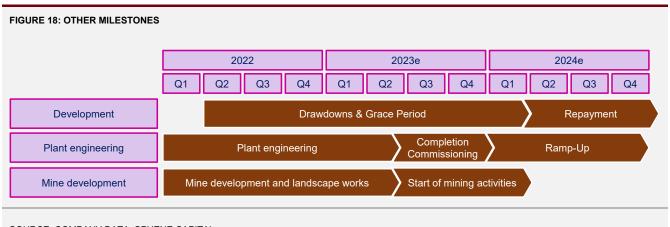
After the former Sangdong Mine ceased mining activities in 1992, we believe it is unlikely that experienced miners can be recruited in the region. Consequently, the transport of skilled workers from other parts of the country has to be done by land or by charter flight. The required electricity, on the other hand, can be brought in from the public power grids, which are only a few kilometres away. The water needed for mining can be obtained either through boreholes from the groundwater or from a nearby river, according to the company.

Mineralisation of Almonty Korea Tungsten

The tungsten mineralisation of the deposit is contained in several tabular, stratiform skarns in the Myobong Shale. These skarns were interpreted by the evaluators as carbonate-bearing horizons. The skarn orebodies consist of five main minerals: quartz, white mica, amphibole, pyroxene and garnet. These minerals have been classified into three alteration types: Quartz Mica, Amphibole and Pyroxene Garnet. The ore bodies are zoned both along strike and down dip from a central quartz-mica zone through the amphibole to the peripheral pyroxene-garnet zone. According to the company, the tungsten content varies from ≥3% tungsten trioxide (WO3) in the quartz-mica alteration zone

and gradually decreases to 1-1.5% WO3 in the amphibole zone to ~0.3% WO3 in the outer pyroxene-garnet alteration zone.

The main tungsten mineral is scheelite (calcium tungstate, CaWO4), which accounts for more than 95% of the tungsten contained, with minor wolframite. Molybdenite is present throughout as a by-product of tungsten mineralisation, occurring in greater abundance below the skarn mineralisation near the underlying granite and is mainly contained in the Jangsan Quartzite. Small amounts of bismuth and gold have also been found in the past.



SOURCE: COMPANY DATA, SPHENE CAPITAL

Ending South Korea's dependency from China

The particular appeal of South Korea as a location is that the South Korean battery anode and cathode manufacturing industry is one of the largest consumers of tungsten through the use of tungsten hexafluorides (WF6) and has so far sourced 92.8% from the People's Republic of China. The ramp-up of the Sandong mine can end this dependence, which is a top priority for the South Korean government.

Location meets consumption: A key advantage of the Almonty mine is that South Korea is the world's largest consumer of tungsten.

Investment volume of USD 75mn

In 2017, Almonty Industries entered into an engineering, procurement and construction ("EPC") contract with Posco E&C for the development works at the Sangdong Mine. This is a turnkey contract for the design and construction of the primary facilities to process the tungsten ore mined at the Sangdong Mine. The total value of the contract is approximately USD 50mn, according to the company. A further USD 25mn will be spent on the development of the underground haulage tunnels and accesses to the tungsten veins, mine infrastructure, backfill plant, owner's costs and other expenses. The primary facilities of the processing plant will be built for a capacity of 0.9 to 1.2mn tonnes per year.

Posco E&C is one of South Korea's leading general contractors and a subsidiary of the world's third largest steel company.

Offtake Agreement with The Plansee Group

In 2018, Almonty Industries entered into an off-take agreement with The Plansee Group for the tungsten concentrate mined at the Sangdong mine. The contract has a term of 15 years. Almonty Industries expects revenues of at least USD 750mn. Since the agreement covers only ~50% of the production, this is also for only half of the potential flows from the Sangdong Mine. Given South Korea being the largest per capita tungsten

consumer globally, Almonty could hold the balance back for sale, f. ex. to the South Korean battery markets, in our view.

Expanding value creation

In the medium term, Almonty Industries may also expand its own value creation by building a downstream plant. Since the beginning of the year, the construction of a vertically integrated nano-tungsten oxide processing plant ("Sangdong Downstream Extension Project") to supply the South Korean battery anode and cathode manufacturing industry has been under consideration. The Sangdong mine site is envisaged as the location of the plant. The annual production capacity is projected between 3,000 and 4.000 tonnes.

Completion and commissioning are planned in the second half of 2023e. Once the downstream plant reaches full capacity in the middle of the decade, it is expected to contribute about 30% of non-Chinese and up to 10% of global tungsten supply, according to the company.

In the immediate vicinity of AKT is Almonty Korea Moly (AKM). This is a molybdenite-quartz vein stockwork deposit discovered by Korea Tungsten Company KTC in the Sangdong area in the early 1980s. Reserve estimates show a higher grade zone of 16mn tonnes grading 0.4% MoS2 or a total resource of 120mn tonnes grading 0.13% MS2. This could make AKM one of the largest molybdenum deposits in Southeast Asia. According to the company, however, further extensive exploration work is required in the target area before precise estimate of the potential can be made.

Macro location of Almonty Korea Moly

The Almonty Korea Moly (AKM) project is located in the immediate vicinity of Almonty Korea Tungsten. Although AKM is physically and geologically completely separate from AKT, the company expects to share mining and processing infrastructures, thereby significantly reducing development costs.

Mineralisation of Almonty Korea Moly

The AKM target is a large molybdenite-quartz vein stockwork deposit identified by Korea Tungsten Company KTC in 1980s in the Sangdong area and known as the Deep Moly Deposit. The deposit is located in a quartzite unit (Jangsang Quartzites) below the WO3 Sangdong mine, between shale (Myobong Shale Formation) and deeper intrusive rocks (granite), with a vertical thickness of up to 400 m below the skarn horizons.

Further exploration procedure

Further exploration work is planned to obtain a more precise definition of the tonnage and higher grade averages of the entire mineralised quartzite. In particular, the geometry and origin of the structure will be confirmed. Almonty believes that rather than being a simple stockwork, it may be a tube through which metal-rich fluids entered the shales, i.e. in the calc-silicate layers/skarns overlying the quartzite, causing the WO3 mineralisation of the Sangdong mine.

First JORC-compliant resource estimate

At the end of July this year, Almonty Industries published a first JORC 2012-compliant mineral resource estimate. Using a cut-off grade of 0.19% MoS2 (derived from a

molybdenum price of USD 14.25 per lb), this resulted in a deposit of 21.48mn tonnes at 0.26% MoS2.

At a current molybdenum price of USD 33,069 per MT, this corresponds to an in-situ value of around USD 1.875bn.

TABLE 12: RESOURCE ESTIMATE OF THE	AKM DDA IEAT /	INICEDDED
TABLE 12. RESOURCE ESTIMATE OF THE	ANIM PROJECT (INCERREDI

Rock type	Tonnage (million t)	Average degree MoS3 (%)	Contained MoS3 (MT)
Slate	4,340	0,28%	12.152
Quartzite	17,140	0,26%	44.564
Total	21,480	0,26%	56.716

SOURCE: COMPANY DATA, SPHENE CAPITAL

In 2016, Almonty Industries acquired Beralt Tin and Wolfram (Portugal) SA, the oldest mining company in Portugal (founded in 1881). Through the acquisition, Almonty Industries also became the owner of a concession called Couto Mineiro da Panasqueira, in which several polymetallic tin-tungsten concessions were combined into a single mining area. With an average of 80%, Panasqueira has one of the highest tungsten recovery rates in the world. With a tungsten content of up to 3% tungsten trioxide (WO3), current estimates of reserves (proven & probable) are 3,928 tonnes (392,800 MTU) of WO3.

FIGURE 19: PANASQUEIRA TIN TUNGSTEN MINE



SOURCE: COMPANY DATA

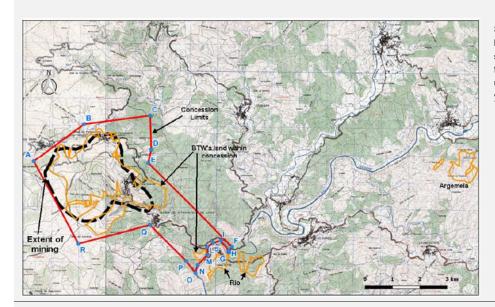
Macro location of the Panasqueira Mine

Founded in 1896, the 100%-owned Beralt Tin and Wolfram (Portugal) SA is the oldest mining company in Portugal. Through it, Almonty has an interest in the Panasqueira polymetallic tin-tungsten mine in Covilha (Village of Panasqueira). The concession is located in a moderately rugged hilly landscape covered with pine and eucalyptus trees

and valleys with elevations ranging from 350 m in the southeast to a peak of 1,083 m in the northwest corner of the concession.

The Panasqueira mine is located in central Portugal, in the Distrito de Castelo Branco. It is located on the southern edge of the Serra da Estrela, the highest Portuguese mountain range, about 300 km northeast of the capital Lisbon. The figure below shows the open pit mining of the deposit:

FIGURE 20: SURFACE RIGHTS OF BERALT TIN AND WOLFRAM (PORTUGAL) SA



Several smaller concessions were combined in 1992 to form the current concession, which was officially granted in 1992 for a period of 60 years and is thus valid until 2052. Two extensions of up to 30 years each are possible.

SOURCE: COMPANY DATA

Transport infrastructure

The mine is located about 35 km from Fundão, a small town with just under 10,000 inhabitants and its own railway station. It can be reached via a two-lane asphalt road. According to the company, food and shelter are available in the numerous nearby towns and villages, including all heavy equipment. An alternative access to the mine is via two- and four-lane highways to Porto.

Through its wholly owned subsidiary Beralt Tin and Wolfram (Portugal) SA, Almonty Industries has surface rights covering a total area of 875.5886 ha, of which 728.9706 ha are within the concession.

Climatic conditions

With average temperatures of 24°C in July and August and 4°C in December, year-round exploitation of the deposit is possible. Most precipitation falls in the months of November to January, with seasonal averages of 200 mm in December and 10 mm in August.

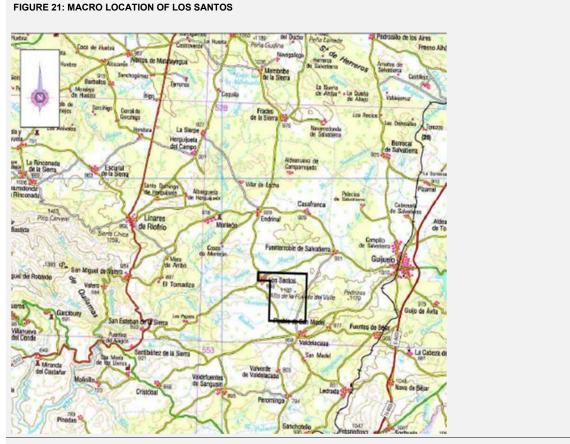
Mine in production

Panasqueira is a polymetallic wolframite deposit. Tungsten recovery rates for wolframite deposits are generally higher than for scheelite deposits. The Panasqueira mine has

one of the highest tungsten recovery rates in the industry, consistently averaging 80%, according to the company.

Since the first mining permit was granted in 1886, the mine has been in operation more or less continuously, with the exception of a short phase at the end of the Second World War and a second closure in the mid-1990s. In the period from 1937 to 2016, a total of about 40mn tonnes of rock were mined, from which about 128,000 tonnes of tungsten concentrate, 6,600 tonnes of tin concentrate and 32,000 tonnes of copper concentrate were extracted.

Acquired in 2011, the Los Santos open-pit deposit is a typical skarn-scheelite deposit that was explored by Billiton over a drill length of almost 42,000 m in 249 trenches (10,142 m) and 231 diamond drill holes (17,874 m) following its discovery in 1980. Although the current resource estimate is around 6,300 tonnes of tungsten trioxide (WO3, at a cut-off grade of 0.05%), the mine was placed on a temporary maintenance and servicing status in early 2020 in order to use the released cash to complete the project financing of the Sangdong mine.



SOURCE: ALMONTY INDUSTRIES

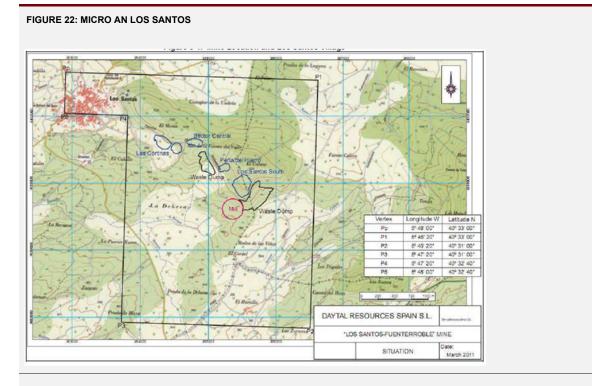
Los Santos macro location

The Los Santos-Fuenterroble scheelite deposit is located 180 km west of Madrid, in the southern part of the province of Salamanca, within the municipalities of Fuenterroble de Salvatierra and Valdelacasa. Still owned by Billiton in the 1970s, the deposit passed from Siemcal S.A., a state-owned mining and geological consulting company, to Daytal,

a wholly owned subsidiary of Almonty Industries, in 2007, which began production in 2008 and has operated it ever since.

Meteorological conditions in Los Santos

The deposit is located at 1,000 m above sea level. With a Mediterranean climate and an average annual rainfall of 900 mm, year-round working is possible.



SOURCE: ALMONTY INDUSTRIES

Los Santos mineralisation

According to the published NI 43-101 report, Los Santos, unlike the polymetallic Panasqueira, is a typical scheelite deposit with skarns, where granitoids in carbonaterich sedimentary rocks have been replaced by calc-silicate or siliceous minerals. In contact with the host tamames limestone, which outcrops near the Los Santos mine over a distance of more than 2 km, these fluids led to the emplacement of scheelite (CaWO4) mineralisation in a series of irregular layers and pods immediately adjacent to the granite contact. This has resulted in the formation of tungsten mineralisation that contains economically viable quantities.

According to the current resource estimates, the resources (measured and indicated) are 6,300 tonnes of tungsten trioxide (WO3) at an assumed cut-off grade of 0.05%. The reserve estimates (proven and probable) according to the report are 4,951 tonnes at an assumed open put cut-off of 0.07%.

Table 13 below shows the drilling activities of the deposit to date:

To date, through ongoing testing and trials, Almonty has achieved a recovery rate of approximately 50% WO3 from the tailings, which is a significant improvement over the initial recovery rates of 35-40% at the start of tailings processing. At the same time, Almonty was able to reduce operating costs by over 35%.

1) REVERSE CIRCULATION

Company	Start	End	Туре	Number of holes	Length (m)	Average length / bore- hole (m)	Number of sam- ples
Billiton		2006	Surface	191	15.819	83	1.490
		2006	Underground	37	2.147	58	439
			Total	228	17.967	79	1.929
Daytal	2007	2009	RC-Holes ¹	111	2.210	20	942
Daytal	2010	2010	Diamond Drilling	25	2.157	86	486
	2011	2011	Diamond Drilling	30	3.249	108	509
	2012	2012	Diamond Drilling	39	5.078	130	929
	2013	2013	Diamond Drilling	31	6.955	224	534
	2014	2014	Diamond Drilling	8	1.662	208	260
	2015	2015	Diamond Drilling	23	2.647	115	406
			Total	156	21.748	139	3.124

Termination of the dismantling activities

SOURCE: COMPANY DATA, SPHENE CAPITAL

At the beginning of 2020, Los Santos was placed in a temporary maintenance and repair state, as to the funds were used for the completion of the project financing of the Sangdong mine, instead. According to the company, the project will resume mining operations with significantly higher recovery rates from next year and after investing EUR 1.0mn in infrastructure.

Almonty Industries owns 100% of the Valtreixal Sn-WO3 project, a potential open-pit project in the north-western part of Spain's Zamora Province. According to the present NI 43-101 report, the mineralisation can be classified as a complex vein deposit where the mineralisation, particularly scheelite, is off quartz veins and appears to be of stratabound origin. Tin, in the form of cassiterite, occurs in and around the quartz veins. The expert expected reserves (probable) are 8,667 tonnes WO3 (cut-off 0.08%).

Valtreixal macro location

Through its 100% subsidiary Valtreixal Resources Spain S.L., Almonty Industries has held a 100% interest in the Valtreixal Tin Tungsten Mine since 2017. The deposit is located at 5 km from the Spanish-Portuguese border in the autonomous region of León. The nearest town is Puebla de Sanabria at a distance of 10 km. The deposit is located on the south-eastern side of a valley through which the Calabor River flows. The deposit is easily accessible from a main road. The driving time from the provincial capital Salamanca is about three hours.

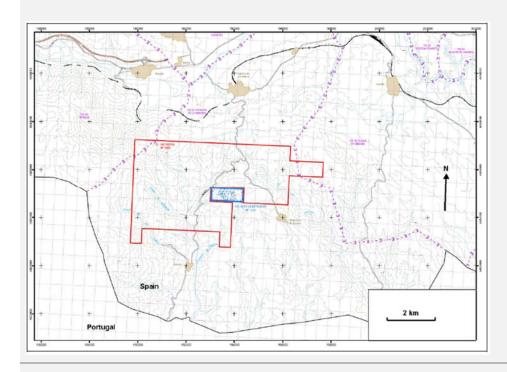
Temperatures rise to highs of over 30°C during the dry summer months of June to August; during the rainy winter season (December to February), temperatures can drop below freezing. The climatic conditions allow year-round mining, according to the company.

Micro-location of Valtreixal

The local stratigraphy in the Valtreixal area is dominated by three main formations:

- Schist with an expected thickness of about 1,000 m.
- Quartzites with an expected thickness of about 50 to 70 m.
- Slate with an expected thickness of about 300 to 600 m.





SOURCE: ALMONTY INDUSTRIES

Mineralisation of Valtreixal

The Valtreixal mineralisation has been explored by underground development since the end of the 19th century. Limited sporadic tin mining occurred in the mid-19th century. According to the NI 43-101 Pre-Feasibility Level PFS, the Valtreixal mineralisation can be classified as a complex vein deposit where much of the mineralisation, particularly scheelite, appears to be off-quartz vein and stratabound in origin. Thereby, the distribution and width of the veins can be irregular in individual areas. Tin, in the form of cassiterite, occurs in and around the quartz veins.

The mine plan proposed in the mineral evaluation is approximately 700 m long and up to 300 m wide. The assessment identified a total quantity of 2.5mn tonnes of probable tungsten trioxide (WO3) with an overall mining ratio of 8.3: 1.

In June 2020, the company received a new soil classification for Valtreixal from the Pedralba de la Paraderia Municipality, which means that the property is now considered suitable for mining activity.

Corporate History, Management and Corporate Strategy

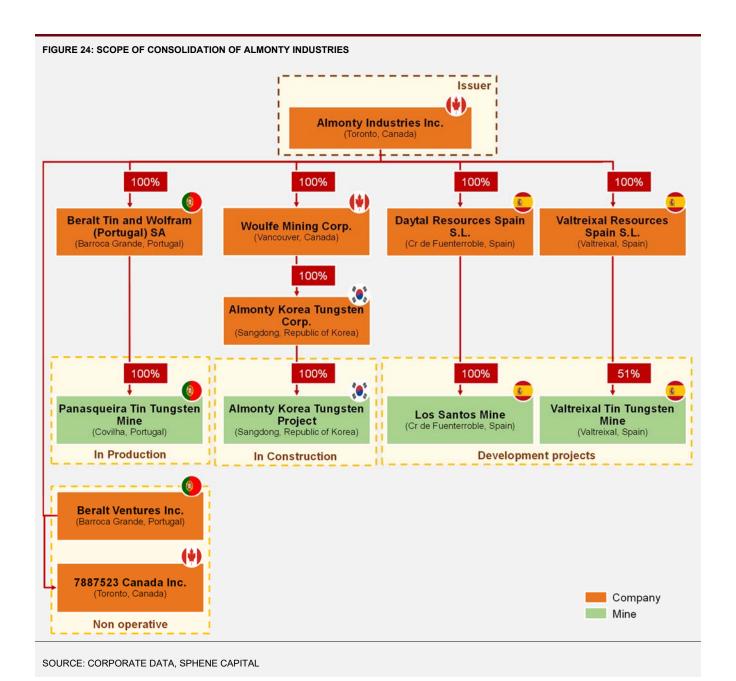
After the listing on the Regulated Unofficial Market of the Frankfurt Stock Exchange, Almonty Industries voluntarily goes significantly beyond the follow-up obligations of the Regulated Unofficial Market and publishes, among other things, quarterly reports (including detailed financial reporting according to MD&A). In addition, Almonty Industries holds at least one analyst event per year. For a company of this size, we consider the financial transparency to be above average.

2009	Foundation of Almonty Industries with headquarters in Toronto, Canada
2010	Listing on the Toronto Stock Exchange TSX Venture
2011	Acquisition of the Los Santos mine in western Spain by the wholly owned subsidiary Daytal Resources Spain S.L.
2014	Acquisition of Wolfram Camp Mining Pty Ltd from Deutsche Rohstoff AG
2015	Acquisition of Woulfe Mining Corp., owner of the Sangdong Mine, one of the largest tungsten mines outside China
2016	Acquisition of Beralt Ventures Inc., owner of the Panasqueira Mine in northern Portugal
2016	Acquisition of the Valtreixal Mine in northwest Spain
2017	USD 5mn non-brokered private placement
2017	Chapter increase by The Plansee Group in the amount of USD 9.8m
2017	Conclusion of an engineering, procurement, and construction (EPC) contract with Posco E&C for the development of the Sangdong mine
2018	Conclusion of a 15-year offtake agreement for Sangdong with a minimum volume of CAD 750mn
2018	IPO on the Toronto Stock Exchange TSX with placement volume of USD 14.1mn
	Listing on Xetra
2019	Liquidation and deconsolidation of the Wolfram Camp Mine
2020	Temporary termination of mining activities at the Los Santos Mine ("Care and Maintenance")
2021	IPO on the Australia Securities Exchange (ASX) with a placement volume of AUD 15.3mn

Almonty Industries Organisation Chart

Below Almonty Industries Inc. there are four direct holdings, which in turn own the respective mines. Almonty Industries Inc. holds 100% of the shares in each of the four companies. One of the mines, Panasqueira, is in production, one (AKT) is under construction. The two remaining mines (Los Santos and Valtreixal) are development projects.

No other operating companies are known. However, we believe that Almonty Industries will establish another subsidiary as soon as a vertically integrated plant for the processing of nano-tungsten oxide will have been built in South Korea.



Board of Directors with many years of experience in the industry

Almonty Industries' management team is, in our opinion, uniquely positioned to execute the portfolio strategy, as the company's board and technical advisors have well over 100 years of combined experience.

The Board of Directors of Almonty Industries is composed of the following persons:

S Lewis Black is Director, President and Chief Executive Officer of Almonty Industries and also partner of Almonty Partners LLC. Lewis Black has more than 15 years of experience in the tungsten mining industry, including as Chairman and CEO of Primary Metals (2005-2007), a former TSX Venture Exchange-listed tungsten mining company of which Almonty was the majority owner, and as Head of

- Sales and Marketing for SC Mining Tungsten in Thailand. Together with Daniel D'Amato, Lewis Black is one of the founders of Tungsten Industries.
- Mark Gelmon serves as Chief Financial Officer for Almonty Industries. Appointed a Chartered Accountant in 1995, Mark Gelmon is a member of the Chartered Professional Accountants of B.C. Mark Gelmon has been CFO, director and advisor to several TSX Venture Exchange listed companies.

Renowned directors with different areas of expertise

The following directors support the Board of Directors:

- So Daniel D'Amato is a partner at Almonty Partners LLC. Mr D'Amato has many years of experience in the financial industry, particularly in the areas of portfolio management and private equity. After a ten-year stint at Bear Stearns, he served on the board of Primary Metals Inc. from 2005 to 2007, a TSX Venture Exchange-listed tungsten mining company of which Almonty was the majority owner.
- Mark Trachuk is a lawyer and partner in the Business Law Group at Osler, Hoskin & Harcourt LLP in Toronto. He practices in the area of corporate and securities law with a focus on mergers, acquisitions, and strategic alliances. Mr. Trachuk is Chair of Osler's International Practice Group and was formerly Chair of Osler's Corporate Practice Group and Corporate Finance Practice Group. Mr. Trachuk holds a B.A. from Carleton University, an LL.B. from the University of Ottawa and an LL.M. from the London School of Economics. He also holds the ICD.D designation from the Institute of Corporate Directors. Mr Trachuk is admitted to practice in Ontario, British Columbia and England and Wales.
- Or Thomas Gutschlag is CEO of Deutsche Rohstoff AG (DRAG), a commodities company listed on the Frankfurt Stock Exchange. The focus of DRAG's business activities is on oil and gas production in the US, the participation, development, and sale of commodity companies in North America, Australia, and Europe in oil and gas as well as metals such as gold, copper, rare earths, tungsten, and tin.
- Michael Costa is CEO and Director of Base Carbon Inc. which provides capital, development expertise, and operational management resources to projects primarily active in voluntary carbon markets and the broader ESG markets. Previously, Michael Costa was an executive and senior portfolio manager at CMP Funds (Dundee Corporation), UBS Canada Principal Investing, and Goldman Sachs Canada Special Situation Group.
- Andrew Frazer is the founder and Managing Director of Lazarus Corporate Finance Pty Ltd. He previously held senior positions at Morgan Stanley, Patersons Securities, Hartleys, and Azure Capital, where he specialised in capital markets transactions with local and international clients. Andrew Frazer graduated from the University of Western Australia with a Bachelor of Commerce-Honours, a Bachelor of Jurisprudence and a Bachelor of Laws.

No turnover and earnings guidance

One of our preferred criteria for assessing the quality of management is its willingness to provide guidance and its ability to meet or exceed it. However, it is unusual for an exploration/development company such as Almonty Industries to publish projected figures for future revenue and earnings development.

Shareholder Structure and Stock Exchange Listing

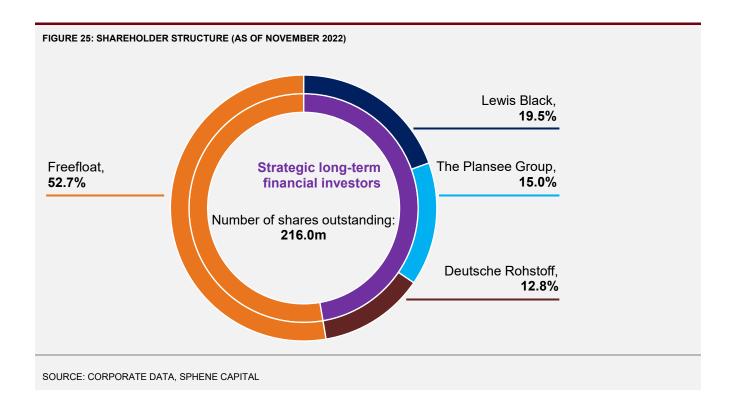
Almonty Industries currently has 216.0 million ordinary bearer shares outstanding. Three shareholders who can be classified as long-term investors can be identified. With 19.5% of the shares, company founder and CEO Lewis Black remains the main single shareholder. In addition, there are two internationally oriented strategic investors, the Austrian The Plansee Group and the German Deutsche Rohstoff AG.

216.0 million shares outstanding

Currently, the Company's share capital consists of 215,980,494 shares. At a share price of CAD 0.71 (14 11 2022), the market capitalisation amounts to CAD 153.3mn.

19.5% of the shares, at the current price of CAD 0.71 per share corresponding to a market capitalisation of CAD 29.9mn, are held by the CEO and company co-founder Lewis Black. Two strategic investors, with known shareholdings of more than 3%, together hold 27.8% of the shares. The free float of the company is 52.7%, the market capitalisation of the free float is currently CAD 80.8mn.

Approximately 102.2 million shares or 47.3% of the shares (basis count) are held by the Board of Directors and two strategic investors.



Shares are traded on four marketplaces

Almonty Industries' shares are traded on four marketplaces:

- Listed on the Toronto Stock Exchange (TSX) under the symbol All.TO,
- on the Australian Securities Exchange (ASX) under the symbol All.AX,
- on the Nasdaq OTC (Over The Counter) under the symbol OTC:ALMTF and

on the Frankfurt Stock Exchange (Regulated Unofficial Market) under the symbol FRA:ALI.

Naturally, the Canadian home exchange is the most liquid marketplace for the Almonty shares. According to our evaluation, almost half of all transactions take place in Toronto, with an average of about 49% of share trading. 30% of stock trading takes place on the US OTC, followed by the Australian ASX with 14%. The Frankfurt Stock Exchange is responsible for an average of about 7% of daily trading.

Environmental, Social, and Corporate Governance (ESG) in the Exploration Industry

As in any other industry, value creation in the mining industry has evolved from the simple provision of mineral resources to a sustainable, ethical, and environmentally conscious business model. Almonty Industries follows the Equator Principles in the development of its flagship project AKT, which set the performance standard for environmental and social sustainability and are recognised globally as practices in managing environmental and social risks.

ESG in commodity exploration

ESG, the abbreviation of Environmental, Social, and Corporate Governance, now concerns integral aspects of corporate performance. As mining is inherently an environmental hazard, ESG covers a wide range of issues, including climate change, biodiversity, waste, water, resource use, and pollution on the environmental side; human rights, labour practices, safety, health, community, and diversity on the social side; and ethics, compliance, executive compensation, diversity, and lobbying on the governance side.

Scope of application of the Equator Principles

Almonty Industries has adopted the Equator Principles for the further development of Almonty Korea Tungsten (AKT). They consist of a set of principles that apply in particular to projects in two categories:

- Category A: Projects with potentially significant negative environmental and social risks and/or impacts that are multiple, irreversible, or unprecedented;
- So Category B: Projects with potentially limited adverse environmental and social risks and/or impacts that are small in number, generally site-specific, largely reversible and easily managed through mitigation measures.

For projects of

Category C: Projects with minimal or no adverse environmental and social risks and/or impacts

the Equator Principles are normally not applied.

Principle Environmental and social assessment

Equator Principles Financial Institutions (EPFIs) conduct an assessment process at the client's premises that addresses the relevant environmental and social risks and impacts of the intended project to be financed. The appraisal documentation should propose measures to minimise, mitigate, and offset adverse impacts in a manner appropriate to the nature and scale of the project. Where appropriate, the appraisal documentation also includes an Environmental and Social Impact Assessment (ESIA). A specific human rights due diligence may also be required.

Determining, assessing, and managing environmental and social risk when financing projects

Principle of applicable environmental and social standards

Mining companies operate in different markets: Some have sound environmental and social governance, legal systems, and institutional capacity to protect communities and the natural environment, while in others the technical and institutional capacity to deal

The assessment process primarily addresses compliance with relevant country laws, regulations, and permits that relate to environmental and social issues.

with environmental and social issues is still developing. In that case, the assessment process reviews and assesses either compliance with the relevant applicable environmental and social sustainability performance standards and World Bank environmental, health, and safety guidelines, or compliance with relevant host country laws, regulations, and permits.

Principle of developing an environmental and social management system

For all Category A and B projects, the EPFI require that the client develops or maintains an Environmental and Social Management System (ESMS). In addition, companies are expected to prepare an Environmental and Social Management Plan (ESMP) to address the issues raised during the audit and to take the necessary steps to comply with the applicable standards. If the applicable standards are not met to the satisfaction of the EPFI, an Action Plan (AP) will be agreed to document the gaps and actions taken to meet the EPFI requirements.

Principle of stakeholder engagement

The EPFI also require evidence of effective stakeholder engagement. For projects with potentially significant adverse impacts on affected communities, companies are expected to fully inform affected communities about the risks and impacts of the project and the stages of development of the project, respecting the language preferences of affected communities, their decision-making processes and the needs of disadvantaged and vulnerable groups. Indigenous peoples enjoy special protection.

Principle of the complaints mechanism

Companies must establish a grievance mechanism to receive and resolve concerns and complaints regarding the environmental and social performance of the project. This should be tailored to the risks and impacts of the project and primarily targeted at the affected communities.

Principle of the independent environmental and social advisor

Companies should implement an independent environmental and social consultant to conduct an independent review of assessment documents, including ESMPs, the ESMS and stakeholder engagement documents, to assist the EPFI in its due diligence and to assess compliance with the Equator Principles.

Principle of covenants

For all projects, companies are required to comply in all material respects with the relevant environmental and social laws, rules and regulations of the host country. Should this not be the case EPFI (together with the company) develops remedial measures to restore compliance with the Equator Principles.

Principle of independent control and reporting

To assess compliance with the Equator Principles and ensure ongoing monitoring and reporting during the life of the project, the EPFI require the appointment of an independent environmental and social consultant; alternatively, companies may engage qualified and experienced external experts.

Two internal committees

Almonty Industries has formed two internal committees, each consisting of the members Mark Trachuk (Chairman), Dr Thomas Gutschlag and Daniel D'Amato:

The Audit Committee is primarily responsible for:

- identifying and monitoring the management of key risks that could impact the company's financial reporting;
- monitoring the integrity of the Company's financial reporting process and internal control system;
- s monitoring the independence and performance of the company's external auditors;
- direct contact with the external auditors to approve external audit plans, other services (if any), and fees; and
- providing a channel of communication between the external auditors, the executive board, and the board of directors.

The Remuneration and Corporate Governance Committee is primarily responsible for:

- reviewing and recommending to the board of directors the company's key human resources policy;
- reviewing and recommending to the board of directors the company's remuneration and benefits policy;
- reviewing the performance and level of remuneration of the Chief Executive Officer and other senior executives;
- developing and reviewing the company's overall approach to corporate governance matters;
- reviewing the effectiveness of the board as a whole, the board committees and the contribution of each board member;
- nominations to the board of directors; and
- reviewing the structure and composition of the board committees and any amendments to the committees' charters.

Strengths and Weaknesses, Opportunities and Threats

We have identified the following company-related **strengths of** Almonty Industries:

Strengths

- Owner of one of the world's largest tungsten mine located outside China: Almonty's Sangdong mine in the Republic of Korea was once responsible for more than 50% of global tungsten production outside China. Due to the latest NI 43-101 report, the reserves (proven & probable) amount to more than 35,000 tonnes of WO3.
- Owner of one of the largest molybdenum deposits in Southeast Asia: With reserve estimates of a total resource of 120mn tonnes grading 0.13% MS2, Almonty Korea Moly, a molybdenite-quartz vein stockwork deposit discovered in the Sangdong area could be one of the largest molybdenum deposits in Southeast Asia. According to the company, however, further extensive exploration work is required in the target area before precise estimate of the potential can be made.
- Activities in Tier 1 areas: Almonty Industries' strategy is to explore in areas with well-known deposits. From our perspective, this strategy has the advantage that (1) when large deposits are present, the likelihood of further deposits is high, (2) there are existing mineral exploration models and regional data sets that support Almonty Industries' exploration, and (3) there is viable infrastructure.
- No specific country risk premium: With properties in South Korea and the Iberian Peninsula, Almonty Industries' strategy is to acquire projects in established industrialised countries. As part of this risk-averse strategy, Almonty Industries avoids uncertain and politically unstable regions such as Congo and Venezuela, or areas with low respect for property rights and the rule of law, such as Russia or Mongolia. The political risk of a government introducing or increasing royalties or property rights and banning the export of a particular ore is, in our view, low. Therefore, in our view, no specific country risk premium needs to be applied to the valuation.
- We expect a significant improvement in sales and earnings: In the past financial year 2021, Almonty Industries achieved sales of CAD 20.8mn (-16.9% YoY). Operating and pre-tax profits were CAD -5.1mn and CAD -8.2mn, respectively, since one of the mines was temporarily closed for maintenance. With two mines becoming operational in 2023e, we expect a significant improvement in the operating results to CAD 8.6mn (2023e) and CAD 35.3mn (2024e), respectively.
- 15-year off-take agreement with The Plansee Group: Almonty Industries was able to conclude an off-take agreement for the South Korean production facility with The Plansee Group—with 11,000 employees in 35 production facilities in 50 countries one of the leading tungsten suppliers in the world and at the same time a major shareholder of Almonty Industries—on what we consider attractive terms: With a minimum term of 15 years and a floor price of USD 235 per MTU, Almonty Industries expects an operating cash flow of USD 580mn over the term of the agreement.
- Severtical diversification through downstream plant: Almonty Industries is at an advanced stage of building a vertically integrated plant for the processing of nanotungsten oxide to supply the battery anode and cathode manufacturing industry in

South Korea. A licence to operate the plant has been obtained and financing has been secured from German KfW Bank.

- Senior project finance loan: Almonty Industries was able to conclude a senior project finance loan in the volume of USD 75.1mn with the German KfW Bank for the construction of the downstream plant. The interest rate of the loan is variable at 250 basis points above the three-month LIBOR. Almonty Industries has received a guarantee from the Austrian OeKB. The grace period is two years. Repayment is in equal instalments over 6.25 years.
- Social responsibility and corporate governance: As evidence of its responsible engagement with local communities and environmental compliance, Almonty Industries follows the Equator Principles.

We have identified the following company-related **weaknesses of** Almonty Industries:

Weaknesses

- Improvable balance sheet ratios: As of H1 2022, Almonty Industries' consolidated financial statements showed an equity ratio of 23.4%, which is normal for an exploration company, but gross debt of CAD 61.9mn was very high in our view, even due to the planned construction of a downstream facility. Although we believe that the balance sheet ratios are sufficiently solid to weather a potential economic downturn, a capital measure to raise additional liquidity is likely in the medium term in our view.
- S Licence risks: Almonty Industries could lose the right to explore or its interest in the properties if the licence conditions are not met or if there is not sufficient cash available to meet the contracted investment terms. In addition, as with any development project, there is a risk that it may be delayed during the licensing process. If such a delay is material, it could impact the timing of future cash flows. In addition, we note that changes to the current tax or royalty regime or a tightening of environmental regulations could have an adverse impact on Almonty Industries.
- S Typical risks in junior mining: Every commodity investor should be aware that the junior mining sector represents a high-risk, high-return opportunity; the chances of a new discovery are low. In the mineral exploration sector, significantly less than 1% of prospective mines eventually reach production. However, with Sangdong, Almonty Industries owns a highly prospective deposit and, in our view, has moved well beyond the high-risk early exploration stage. With Panasqueira, Almonty Industries is already in production.
- Dilutive effects: Our valuation of Almonty Industries does not include further share dilution or considerations of ongoing exploration or development capital requirements. Future interim financing will therefore lead to additional dilution; however, we expect this to be largely offset by an increase in the share price.
- Market sentiment: Although we expect commodity prices in general and tungsten prices in particular to continue to rise, our forecasts could be negatively impacted by a change in market sentiment.
- Exploration risk: There is no guarantee that ongoing exploration at the Los Santos and Valtreixal development projects will be successful in discovering additional mineralisation centres. There is a potential risk that future resource estimates may be lower than indicated in this report.
- Currency translation risks: Almonty Industries is exposed to currency risk: Almonty Industries' foreign subsidiaries expose the company to foreign exchange

risk arising from the translation between the reporting currency CAD and the Euro and the Korean Won. In addition, Almonty Industries is exposed to CADUSD exchange rate risk, with tungsten concentrate commonly sold in USD. According to the company, Almonty Industries does not engage in currency hedging.

- Dependence on management: In our view, Almonty Industries is significantly dependent on the current board, advisors, and in-house mining experts.
- **S** High volatility of the share: According to Thomson Reuters, the Almonty Industries shares, with a 5-year beta of 1.52, are highly volatile by statistical standards. Since the IPO, hardly a year has gone by in which the annual high price was not at least twice as high as the annual low price. However, we assume that this volatility, which is typical for developers, will decrease as the mining activities in South Korea commence.

The following **opportunities** affect any company operating in the same industries as Almonty Industries:

Opportunities

New tungsten-based battery technology: The development of new battery technologies focus on reducing charging times. Nyobolt, a start-up company founded by researchers at Cambridge University, recently succeeded in charging a battery to more than 90% in just five minutes by replacing graphite with niobium tungsten oxide (NWO) batteries. The high intrinsic density, rich framework diversity, and heat resistance of NWO are responsible for this.

The following **risks** affect any company operating in the same industries as Almonty Industries:

Risks

- S Lack of skilled labour: Numerous mining exploration companies have warned in recent months that a lack of skilled labour could slow down investments. The labour shortage is not least due to the cyclical nature of the industry and early retirements. Willingness to work in remote locations in bad weather also continues to decline.
- New environmental restrictions: Mining activities pose a number of environmental challenges. The extraction and processing of metals is associated with air pollution, water contamination, landscape degradation, and greenhouse gas emissions. In addition to the licensing requirements for new mines, which usually require an assessment of environmental impact, companies must comply with strict regulations on greenhouse gases, waste management or water pollution.
- S Climate change risks: The mining industry is especially exposed to water-related risks i.e., droughts and floods due to climate change. Water is an important input for the extraction and processing of minerals, but heavy rainfall can cause production and safety risks. In addition, clean water supply is becoming an increasing issue for local communities.
- Sureaucracy: Complex and time-consuming bureaucratic obstacles can hamper investment in less developed as well as in developed countries.

Tungsten: A Metal of Superlatives

Tungsten is a metal of superlatives, as it has the highest melting point of all metals at 3,422°C, the greatest mechanical (wear) strength and the smallest coefficient of expansion. Numerous applications can be derived where hardness, high density, high wear, and high temperature resistance are required, such as in mining, construction, power generation, electronics (semiconductors), aerospace and defence. Because of these unique properties, its economic importance and its limited sources of supply, tungsten is considered a critical metal by the US Government and the EU. The tungsten market has been dominated for more than 70 years by China, which accounts for more than 83% of production and 51% of reserves (2021).

Historical overview

The nickel-white to greyish shining tungsten (with the chemical symbol W) is an exceptionally dense, high-melting transition metal, which stands together with chromium (Cr), molybdenum (Mo), and seaborgium (Sg) in the sixth subgroup of the periodic table of the elements, the so-called chromium group.

Transition elements are defined by IUPAC as elements that have an incomplete d subshell or form ions with an incomplete d subshell

Chemical symbol		W
Atomic number		74
Relative atomic mass	u	183,84
Physical state at 20°C		Fixed
Molar volume at 20°C	cm ³	9,53
Melting point	°C/°K	3.422/3.680
Boiling point	°C/°K	5.555/5.930
Density	g/cm³ at 20°C	19,25
Vickers hardness	MPa	3.430

Etymological determination

The whitish tungsten metal was isolated in 1783 by the Spanish chemists and mineralogists Juan José and Fausto Elhuyar by reducing the oxide from the mineral wolframite.

FIGURE 26: TUNGSTEN



"Conflict minerals" – from politically unstable areas – as defined by US legislation and EU law currently include the metals tantalum, tin, tungsten and gold, abbreviated to "3TG". In 2017, the EU passed a regulation to stem the trade in conflict minerals.

SOURCE: CARBOSYSTEM

Interestingly, tungsten is one of the few elements in the periodic table whose name in Germany and the Nordic countries "Wolfram" differs from the Anglo-Saxon area, where it has been known as tungsten (Swedish for "tung sten", literally "heavy stone") since its discovery.

China as the largest producing country

For the year 2021, global tungsten mine production is estimated at around 72,000 tonnes. 82.5% of global production in the past decade (2012-21) came from China; Vietnam ranks second in terms of mineable deposits (production share 5.5%), followed by Russia (3.3%). In Europe, only smaller deposits are known, for example in Portugal, Spain, and Austria.

The global tungsten market is mainly driven by China, which will continue to dominate both tungsten supply and consumption

Statistical data show, that US mining companies have completely ceased their tungsten production in 2014. The US is now completely dependent on imports of tungsten.

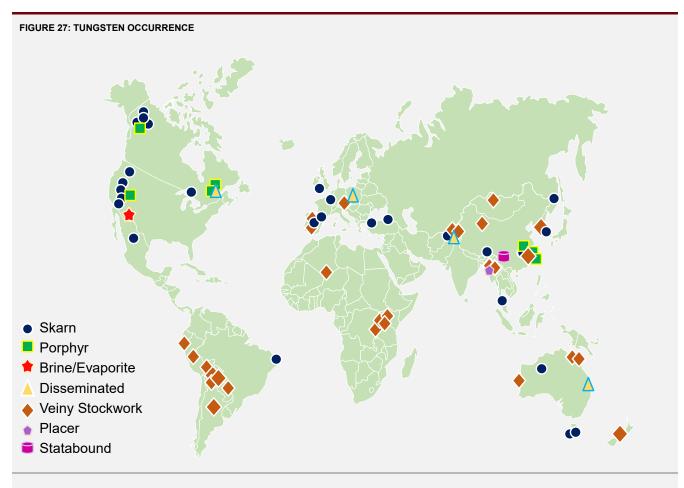
TABLE 16: TU	JNGSTEN MINE P	RODUCTION BY	COUNTRY	, 2013-2021							
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
World	Т	73.520	81.400	82.400	89.400	88.100	96.100	81.100	85.000	78.420	79.270
YoY	%	n/a	10,7%	1,2%	8,5%	-1,5%	9,1%	-15,6%	4,8%	-7,7%	1,1%
AUT	Т	1.100	850	850	861	954	950	936	940	890	900
BOL	Т	1.100	1.250	1.300	1.460	1.110	1.110	1.370	1.200	1.350	1.400
CHN	t	62.000	68.000	68.000	73.000	72.000	79.000	65.000	70.000	66.000	66.000
CDN	t	2.000	2.130	2.220	1.680	n/a	n/a	n/a	n/a	n/a	n/a
ESP	t	n/a	n/a	n/a	835	650	570	750	500	500	900
GBR	t	n/a	n/a	n/a	150	735	1.100	n/a	n/a	n/a	n/a
POR	t	820	692	700	474	549	680	715	700	550	620
PRK	t	n/a	n/a	n/a	n/a	n/a	n/a	1.410	1.100	410	400
RUS	t	3.500	3.600	3.600	2.600	3.100	3.100	1.500	1.500	2.400	2.400
RWA	t	n/a	730	700	850	820	650	920	1.100	860	950
VIE	t	n/a	1.660	2.000	5.600	6.500	7.200	4.800	4.800	4.500	4.500
Other	t	3.000	2.488	3.030	1.890	1.682	1.740	3.699	3.160	960	1.200

SOURCE: USGS, SPHENE CAPITAL

China also No. 1 in terms of deposits

In the universe, tungsten occurs on average at $0.5~\mu g/kg$ in matter (rank 71); whereby it is enriched on Earth like all metals. Although metallic tungsten is very heavy with a density of 19.3 g/cm3, it did not diffuse significantly into the Earth's core during its formation. The average tungsten content of the Earth's continental crust, 16~km thick, is estimated to be about 1.5 parts per million (ppm) or 0.0064~mass percent (Clarke Value), ranking tungsten as the 26th most common metal. If one were to assume that tungsten was uniformly distributed in the earth's crust, this would mean that one tonne of earth's crust would contain 1.5 grammes of tungsten. Thus tungsten is a rare element that is even rarer than most rare earth elements (REEs).

The statistical range of the existing reserves is estimated at 35.8 years.

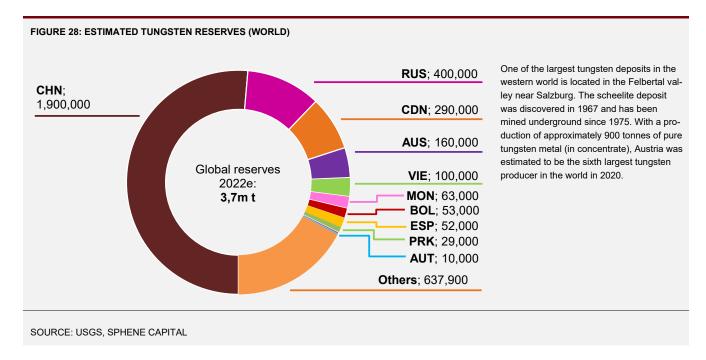


SOURCE: ZHENGDONG, HAN ET AL (2021), SPHENE CAPITAL

Primary tungsten reserves of 3.7 million tonnes

Safe and probable world deposits currently amount to 3.7mn tonnes. There are deposits on all continents. The largest tungsten deposits are found in the south-eastern part of China and in the south-east Asian belt. More than ten large and more than 100 medium to small tungsten deposits in this region contain an estimated 1.9mn tonnes, more than half of the world's reserves (i.e. the known deposits that can be exploited profitably with existing technologies), which is why tungsten has been included in the list of critical raw materials by both the US and the EU. Besides China, the largest deposits are found in Russia, Canada, Australia, and Vietnam.

There are dependencies on Chinese tungsten producers. South Korea, for example, the world's largest per-capita consumer, imports 94.7% of its tungsten from China.



The best-known tungsten reserves have been summarised in the table 17 below:

Resource name	Resource type	Reserves (million t)	Degree (WO ₃ %)
Xihuashan (CHN)	W-Sn	81,3	1,08
Hemerdon (GBR)	W-Sn	26,7	0,19
Mt. Pleasant (CDN)	W-Mo-Bi	14,4	0,26-0,33
Sangdong (KOR)	W-Mo	13,3	0,43
Panasqueira (POR)	W-Sn	10,3	0,24
Barruecopardo (ESP)	W-Mo	8,7	0,30
Kilba (AUS)	W-Mo	5,0	0,27
Dzhida (RUS)	W-Mo	1,4	0,15

Secondary tungsten reserves

Currently, primary mining meets most of the demand for the metal. The only secondary source of tungsten that is used in industry is tungsten scrap. This, in turn, can be subdivided into three groups, namely

- new scrap, i.e. by-products of tungsten materials or products,
- 6 old scrap, i.e. spent materials containing tungsten, and

SOURCE: ZHENGDON HAN ET AL (2021), SPHENE CAPITAL

unused scrap, i.e. surplus reactants.

The incomplete statistics indicate about 96,000 tonnes of tungsten content in these secondary reserves with an average content of 0.1% tungsten trioxide (WO3). It is estimated that they can cover about 30% of the world's tungsten demand.

Tungsten extraction

In nature, the metal does not occur in a pure form, or only very rarely. The two most important tungsten minerals and the only minerals of economic importance are minerals of the wolframite group, in particular wolframite [(Fe,Mn)WO4], hübnerite (MnWO4), ferberite (FeWO4), sanmartinite [(Zn,Fe)WO4], and the scheelite group, including scheelite (CaWO4), stolzite and raspite (PbWO4). However, only wolframite and scheelite are present in economically relevant quantities, the other minerals are rare and usually only present in traces.

To extract pure tungsten, the ores are concentrated by magnetic and mechanical processes and the concentrate is then smelted with alkali. The raw melts are leached with water to produce solutions of sodium tungstate, from which aqueous tungsten trioxide is precipitated by acidification. It is then dried and reduced to metal with hydrogen.

Physical properties

The density of 19.26, is exceeded at normal pressure only by rhenium, the heavy platinum metals, gold, neptunium, and plutonium. Among the metals tungsten has

- sthe highest melting point (3,422°C),
- the highest boiling point at normal pressure (5,936°C),
- the highest tensile strength at temperatures of over 1,650°C and
- 6 the lowest coefficient of linear thermal expansion (4.43 × 10⁻⁶ per °C at 20°C).

In its purest state, tungsten is a pliable, easily machinable metal, which nevertheless retains its hardness (which exceeds that of many steels). In the process, tungsten becomes so malleable that it can be easily worked, for example by forging, drawing or extrusion.

Chemical properties

Tungsten is a mostly non-reactive element: it does not react with water, is comparatively resistant to attack by most acids and bases, and is inert to oxygen at room temperatures, but combines with oxygen to form trioxides when exposed to red heat.

The most important tungsten compound is tungsten carbide (short WC), which is produced by heating tungsten powder with carbon and is characterised by its hardness (9.5 on the Mohs scale of mineral hardness, while diamond has the highest hardness of 10). It is used alone or in combination with other metals to give wear resistance to cast iron and the cutting edges of saws and drills. At high temperatures, tungsten forms hard, refractory, and chemically inert interstitial compounds with boron, nitrogen, and silicon.

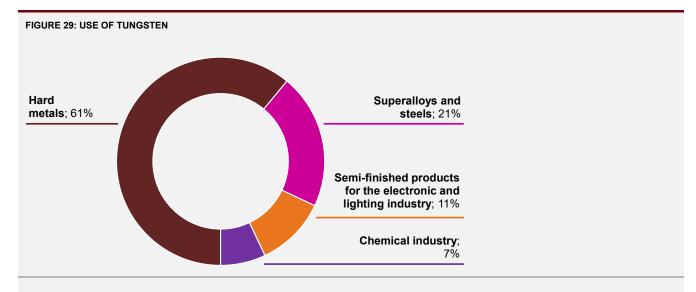
Mohs hardness grade	Vickers hardness	Example of a mineral	Notes
1	2,4	Talk	Scrapeable with fingernal
2	36	Gypsum, Halite	Scorable with fingernal
3	109	Calcite	Easy to score with the back of a knife
4	189	Fluorspar, enamel	Easy to score with knife
5	536	Apatite	Still scratchable with knife
6	795	Orthoclase (feldspar)	Scorable with steel file
7	1.120	Quartz	Scratches window glass, strikes sparks at each other
8	1.427	Topaz	Scratches window glass, strikes sparks at each other
9	2.060	Curundum, Ruby, Sapphire	Scratches window glass, strikes sparks with stee
10	10.060	Diamond	Only scribable by itself and under the influence of heat from boron nitride

Use of tungsten

Tungsten is characterised by its robustness, in particular by the fact that it has the highest melting point of all discovered elements at 3,422°C and also the highest boiling point at 5,555°C. Because of these properties, pure tungsten is used wherever high strength is required despite high temperatures. Since polycrystalline tungsten is inherently brittle at room temperatures, but can be made ductile by mechanical processing at high temperatures and drawn into very fine wire, the first commercial application was obvious: as a 0.01 mm thin filament in incandescent lamps and halogen lamps or as a cathode material in high and ultra-high pressure gas discharge lamps. The high heat resistance also enables its use in heating conductors of high-temperature furnaces, in rocket tips, rocket nozzles, and heat shields for space travel. More than 80% of the world's supply is processed into hard metals and superalloys in the metal and steel industry. Recent studies have shown that tungsten alloys could be the most promising materials to coat the plasma-side innermost walls in commercial nuclear fusion devices.

Tungsten is difficult to process due to its great hardness and high melting point.

This has prevented its technical use for a long time.

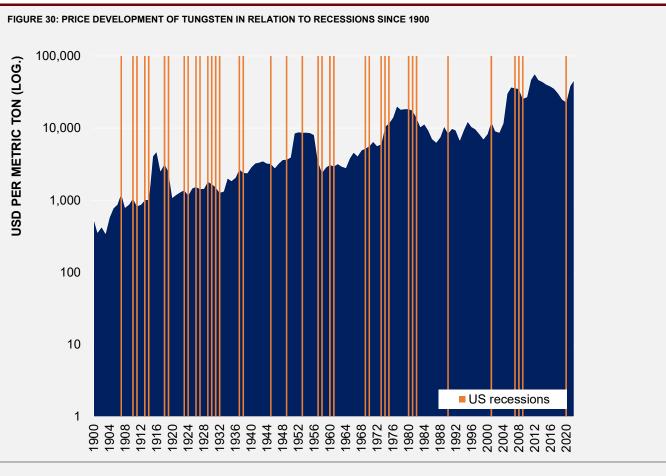


SOURCE: USGS, FEDERAL INSTITUTE FOR GEOSCIENCES AND NATURAL RESOURCES, INTERNATIONAL TUNGSTEN INDUSTRY ASSOCIATION, SPHENE CAPITAL

Long-term price development

There is no uniform market price for tungsten, as its price depends on different variables; chemicals, powders, plates, wires or rods have different prices. However, a long-term evaluation (1900-2021) shows how steadily and continuously the observable market prices have risen over the past decades—like with most metals:

Global demand for tungsten is forecast by the British Geological Survey to increase by 3-7% per year. As demand outstrips available supply, tungsten prices are likely to continue to rise in the future.

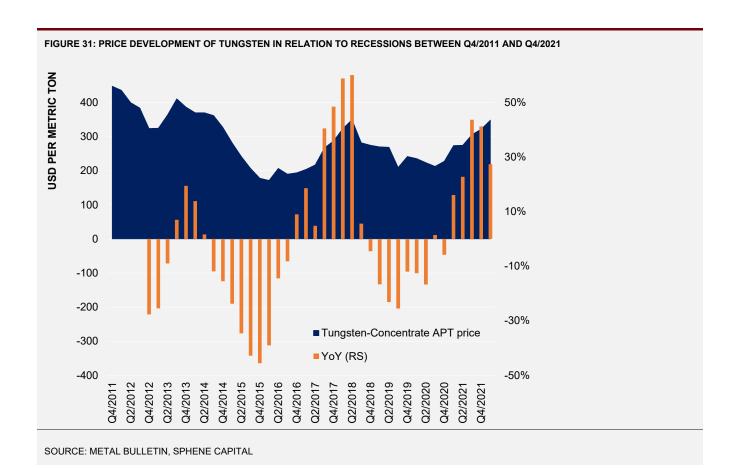


SOURCE: NTERNATIONAL TUNGSTEN INDUSTRY ASSOCIATION, SPHENE CAPITAL

Current price development

Usually, tungsten prices are quoted in Metric Ton Units (MTU) of Ammonium Para Tungstate (APT), which is the main tungsten raw material traded on the market. One MTU has a weight of 10 kg and one MTU of APT contains about 7.93 kg of tungsten. The prices for APT and concentrate are mainly based on the quotations published twice a week in the London Metal Bulletin and other trade journals (ITIA).

The Chinese government's tightened regulations and restrictions on the export of tungsten ore and increased domestic demand from the production of high value-added tungsten products have made China a net importer of tungsten concentrate.



Tungsten on the stock exchange

On the international financial markets, tungsten can currently neither be traded as a commodity nor in a derivative form as futures or options. Investors can only participate by buying shares of mining companies that explore or produce tungsten. Except Almonty Industries and EQ Resources, which are also the largest tungsten producers by market capitalisation, none of them is generating revenues as of today.

W Resources, which is perhaps Almonty's closest peer in terms of stage of development, commodity exposure and size, was delisted from the AIM in May 2022.

Company	FX	Share price (11 11 2022)	Number of shares (m)	Market capitalisation (m)	Enterprise Value (m)	Revenue generating
Almonty Industries	CAD	0.670	216.0	144.7	211.4	Yes
EQ Resources	AUD	0.050	1,344.2	67.2	61.8	Yes
Elementos	AUD	0.290	178.1	51.6	45.5	No
eMetals	AUD	0.020	850.0	17.0	10.5	No
Groupe6 Metals	AUD	0.200	630.8	126.2	133.9	No
Northcliff Resources	CAD	0.040	232.1	9.3	12.5	No
Premier African Minerals	GBP	0.005	22,418.0	114.3	97.0	No
Rafaella Resources	AUD	0.040	351.6	14.1	14.1	No
Tungsten Mining	AUD	0.090	786.4	70.8	56.6	No
Tungsten West	GBP	0.170	180.6	30.7	1.2	No

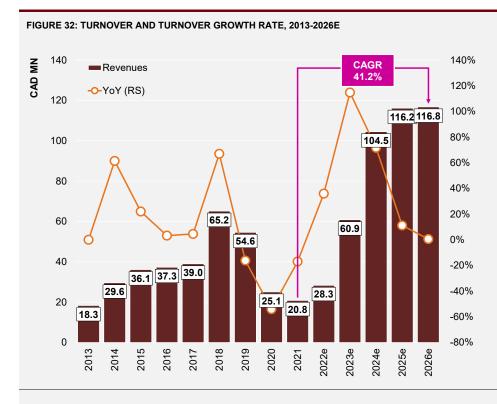
Analysis and Forecasting of Earnings and Balance Sheet Ratios

Currently, Almonty Industries generates revenues exclusively from the producing asset Panasqueira in Spain, which generated revenues of USD 21mn in 2021. In 2023e, Almonty Industries will start mining activities at Sangdong and, after a short ramp-up phase, transition to normal operations from 2024e, according to our estimates. Further revenues could result from the commissioning of a downstream facility for the Sangdong mine, but we have not modelled this at this stage.

The dismantling activities in Sangdong have a significant impact on the operating earnings situation (EBIT). By 2026e, we expect a disproportionate increase to CAD 47.0mn (base case scenario), after predominantly losses were generated in the past seven years. This corresponds to a projected EBIT margin of 40.2% (2021: -24.5%).

Almonty Industries is not an exploration company

Almonty Industries is not an exploration company whose primary business is to determine if there are mineral deposits beneath the ground in an area of land and whether they are suitable for commercial exploitation. Almonty Industries is a mining company where drilling is part of the business model.



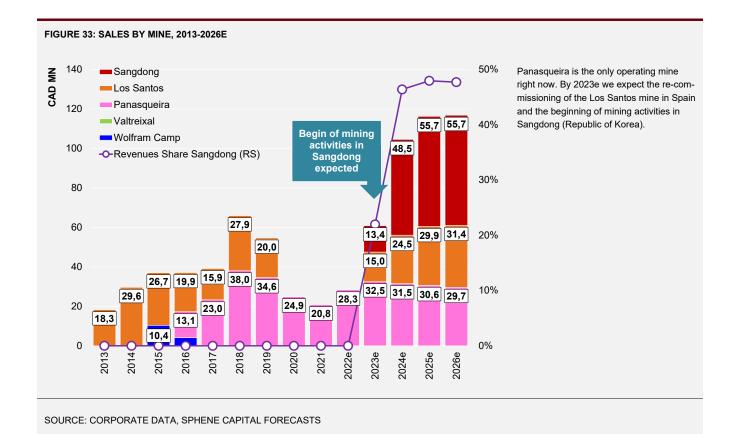
We expect Almonty Industries to significantly expand its operations in the coming years. In our forecast, we expect Almonty Industries to generate revenues of CAD 116.8mn by 2026e, which marks the end of our detailed planning phase. This corresponds to an expected compound annual growth rate (CAGR) of 41.2% in group revenues for the period 2021-2026e.

SOURCE: CORPORATE DATA, SPHENE CAPITAL FORECASTS

We expect revenues of CAD 116.8mn by 2026e.

In 2021, Almonty Industries' revenues declined by 16.9% to CAD 20.8m. By 2026e, the end of our detailed planning phase, we expect sales to quintuple to CAD 116.8m. Based

on the period 2021-26e, this corresponds to a compound annual growth rate (CAGR) of 41.2%.



Segment reporting is divided according to the individual mining sites / projects. In total, five segments are reported:

- Santos (Spain): Exploration and mining of tungsten and sale as tungsten concentrate:
- Panasqueira (Portugal): Exploration and mining of tungsten and sale as tungsten concentrate and production and sale of copper and tin concentrate as by-products;
- Valtreixal (Spain): Exploration and evaluation activities of the tin/tungsten deposits;
- Woulfe (Republic of Korea): exploration, evaluation, and development of the Sangdong mine, and
- Wolfram Camp Mine (Australia): Placed under voluntary management in December 2018.

Currently, Almonty Industries generates revenue exclusively from the Panasqueira mine. From next year, however, revenue generation will shift in favour of the Sangdong mine and Los Santos.

Assumptions for Sangdong

Our sales forecast for Sangdong is based on the following assumptions:

*Annual averages

TABLE 20: ASSUMPTI	ONS OF OUR SALI	ES FORECAS	ST FOR SAN	GDONG, 201	18-2026E					
		2018	2019	2020	2021	2022e	2023e	2024e	2025e	2026
WO3 price*	USD	n/a	n/a	n/a	n/a	n/a	349.00	349.00	349.00	349.00
Tonnage	Т	n/a	n/a	n/a	n/a	n/a	60,000	217,500	250,000	250,000
WO3 equivalent	%	n/a	n/a	n/a	n/a	n/a	0.47%	0.47%	0.47%	0.47%
WO3 produced	MTU	n/a	n/a	n/a	n/a	n/a	28,200	102,225	117,500	117,500
Revenues	USD k	n/a	n/a	n/a	n/a	n/a	9,842	35,677	41,008	41,008
FX	USDCAD	n/a	n/a	n/a	n/a	n/a	1.3591	1.3591	1.3591	1.3591
Revenues	CAD k	n/a	n/a	n/a	n/a	n/a	13,376	48,488	55,733	55,733
YoY	%	n/a	n/a	n/a	n/a	n/a	n/a	262.5%	14.9%	0.0%

Cost of materials ratio of high importance for corporate success

Cost of materials at Almonty Industries consist of two items:

SOURCE: CORPORATE DATA, SPHENE CAPITAL FORECASTS

- Production costs: This includes all direct costs of mining, milling, tailings, and overburden removal associated with production.
- Care and maintenance costs, which are incurred when mining activities are interrupted for a limited period of time. They are currently only incurred for the Los Santos mine, which is currently placed on maintenance status.

Overall, we expect the following development:

TABLE 21: MATERIAL EXPENSES	s, 2018-2026E									
		2018	2019	2020	2021	2022e	2023e	2024e	2025e	2026e
Material costs	CAD mn	-36.7	-38.2	-23.4	-20.4	-23.1	-39.1	-50.9	-51.3	-51.1
In % of total output	%	-56.3%	-69.9%	-93.2%	-97.9%	-81.6%	-64.3%	-48.7%	-44.1%	-43.7%
thereof production costs	CAD mn	-36.7	-38.2	-23.4	-19.6	-22.2	-38.6	-50.9	-51.3	-51.1
thereof care & maintenance costs	CAD mn	0.0	0.0	0.0	-0.8	-1.0	-0.5	0.0	0.0	0.0
SOURCE: CORPORATE DATA, SP	HENE CAPITA	AL FORECAS	STS							

Personnel expense ratio of minor importance

Last year, personnel expenses were only of minor importance at CAD 7.9mn. We expect the personnel expense ratio to decrease significantly in the coming years.

Last year with significant losses

2021 was another clearly loss-making year for Almonty Industries with an EBIT of CAD -5.1mn. Nevertheless, the loss was reduced year-on-year despite declining sales, which was due to a reversal of amortisation expenses in the P&L—not on the liquidity side. For the current financial year 2022e, we expect a further improvement in EBIT to just under CAD -2.7mn, and for 2023e a clearly positive result for the first time.

Parallel development of EBITDA and EBIT...

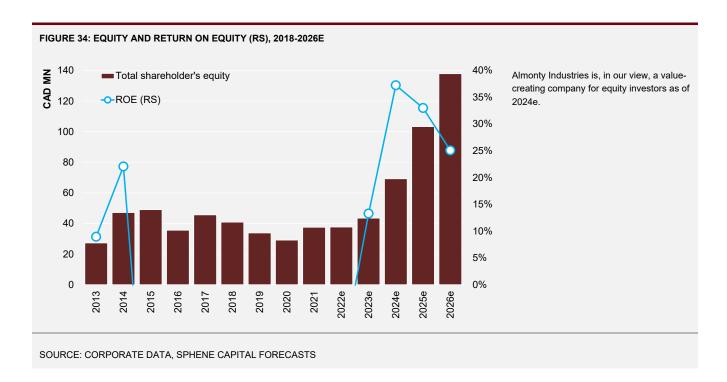
We assume that depreciation of property, plant, and equipment will remain almost stable after the commissioning of the mines. Thus, the operating result (EBIT) will develop almost parallel to EBITDA from 2024e onwards.

TABLE 22: EBITDA AND EB	IT, 2018-2026E									
		2018	2019	2020	2021	2022e	2023e	2024e	2025e	2026e
EBITDA	CAD mn	19.1	6.2	-6.9	-7.5	-1.2	15.2	46.9	58.1	58.8
YoY	%	-622.2%	-67.4%	-210.0%	8.5%	-84.4%	n/a	208.6%	23.9%	1.2%
In % of total output	%	29.4%	11.4%	-27.4%	-35.8%	-4.1%	25.0%	44.9%	50.0%	50.3%
Depreciation	CAD mn	-11.2	-4.5	-2.1	-1.8	-1.5	-6.6	-11.6	-11.8	-11.9
Amortisation	CAD mn	-15.6	-10.1	0.0	4.1	0.0	0.0	0.0	0.0	0.0
EBIT	CAD mn	-7.6	-8.4	-8.9	-5.1	-2.7	8.6	35.3	46.4	47.0
YoY	%	-24.4%	9.7%	7.1%	-42.9%	-47.0%	-419.4%	308.2%	31.4%	1.3%
YoY	CAD mn	2.5	-0.7	-0.6	3.8	2.4	11.3	26.6	11.1	0.6
In % of total output	%	-11.7%	-15.3%	-35.7%	-24.5%	-9.5%	14.2%	33.7%	39.9%	40.2%

SOURCE: CORPORATE DATA, SPHENE CAPITAL FORECASTS

...and between EBIT and after-tax result

For the current year 2022e, we expect pre- and post-tax earnings of CAD -5.3mn (2021: CAD -8.2mn, +35.6 YoY). With 216.0mn shares outstanding, this corresponds to earnings per share of CAD -0.02 (previous year: CAD -0.06). In the coming and following year, we expect a continued improvement in after-tax earnings to then CAD 0.03 (2023e) and CAD 0.12 (2024e) per share.



Return on equity beyond the 20% mark from 2024e onwards

According to our estimates, the company operates a sustainable value-creating business model. Figure 34 above shows that we expect returns on equity of between 13.3% and 37.2% for the next five years in view of declining leverage due to retention and higher asset turnover. The returns on equity are thus consistently higher than the cost of equity we calculated.

Profit and Loss Account, 2013-2019

IFRS (31.12.)		2013	2014	2015	2016	2017	2018	2019
Gross revenues	CAD mn	18.3	29.6	36.1	37.3	39.0	65.2	54.6
YoY	%	n/a	61.4%	22.1%	3.2%	4.6%	67.0%	-16.2%
Changes in inventories	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Own work capitalized	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other operating income	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total output	CAD mn	18.3	29.6	36.1	37.3	39.0	65.2	54.6
YoY	%	n/a	61.4%	22.1%	3.2%	4.6%	67.0%	-16.2%
Material costs	CAD mn	-11.4	-10.3	-37.7	-33.0	-32.3	-36.7	-38.2
In % of total output	%	-62.2%	-34.7%	-104.4%	-88.4%	-82.9%	-56.3%	-69.9%
Gross profit	CAD mn	6.9	19.3	-1.6	4.3	6.7	28.5	16.4
YoY	%	n/a	178.4%	-108.3%	-371.1%	53.6%	n/a	-42.3%
In % of total output	%	37.8%	65.3%	-4.4%	11.6%	17.1%	43.7%	30.1%
Personnel costs	CAD mn	-2.8	-3.2	-6.3	-9.0	-10.3	-9.3	-10.2
In % of total output	%	-15.3%	-10.9%	-17.5%	-24.0%	-26.5%	-14.3%	-18.7%
Other operating expenses	CAD mn	-0.3	-1.2	0.0	0.0	0.0	0.0	0.0
In % of total output	%	-1.5%	-3.9%	0.0%	0.0%	0.0%	0.0%	0.0%
EBITDA	CAD mn	3.9	14.9	-7.9	-4.6	-3.7	19.1	6.2
YoY	%	n/a	287.0%	-153.1%	-41.8%	-20.6%	-622.2%	-67.4%
In % of total output	%	21.1%	50.5%	-22.0%	-12.4%	-9.4%	29.4%	11.4%
Depreciation	CAD mn	-3.4	-4.6	-8.5	-8.2	-6.4	-11.2	-4.5
Amortisation	CAD mn	0.0	0.0	-1.7	-5.3	0.0	-15.6	-10.1
EBIT	CAD mn	0.4	10.3	-18.2	-18.2	-10.1	-7.6	-8.4
YoY	%	n/a	n/a	-276.0%	-0.1%	-44.6%	-24.4%	9.7%
YoY	CAD mn	0.4	9.9	-28.5	0.0	8.1	2.5	-0.7
In % of total output	%	2.3%	34.9%	-50.3%	-48.7%	-25.8%	-11.7%	-15.3%
Income from participations	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net financial result	CAD mn	-0.2	-0.4	-2.7	-2.3	1.9	-2.4	3.3
Extraordinary items	CAD mn	0.4	0.0	0.0	0.0	0.0	0.0	0.0
ЕВТ	CAD mn	0.6	9.9	-20.9	-20.5	-8.1	-10.0	-5.1
In % of total output	%	3.3%	33.4%	-57.9%	-55.0%	-20.8%	-15.3%	-9.3%
Income taxes	CAD mn	1.8	0.5	0.6	-0.7	-0.1	-0.7	-0.2
In % of EBT (implied tax rate)	%	305.6%	5.1%	-3.0%	3.2%	1.5%	7.2%	3.3%
Other taxes	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net income	CAD mn	2.4	10.4	-20.3	-21.2	-8.2	-10.7	-5.2
In % of total output	%	13.3%	35.1%	-56.1%	-56.8%	-21.1%	-16.4%	-9.6%
Foreign currency translation effects	CAD mn	0.0	0.0	0.0	0.4	-1.1	-0.4	-1.2
Minorities	CAD mn	0.0	0.0	0.7	0.0	0.0	0.0	0.0
Net income after translation effects and minorities	CAD mn	2.4	10.4	-19.5	-20.8	-9.4	-11.1	-6.4
Nr of ordinary shares (basic)	mn	37.0	43.1	51.8	96.5	121.6	178.6	181.5
Nr of preferred shares (basic)	mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No. of shares (diluted)	mn	37.0	43.1	51.8	96.5	121.6	178.6	181.5
EPS (basic)	CAD	0.07	0.24	-0.38	-0.22	-0.08	-0.06	-0.04
EPS (diluted)	CAD	0.07	0.24	-0.38	-0.22	-0.08	-0.06	-0.04

SOURCE: COMPANY DATA, SPHENE CAPITAL

Profit and Loss Account, 2020-2026e

IFRS (31.12.)		2020	2021	2022e	2023e	2024e	2025e	2026e
Gross revenues	CAD mn	25.1	20.8	28.3	60.9	104.5	116.2	116.8
YoY	%	-54.1%	-16.9%	36.0%	114.8%	71.7%	11.2%	0.5%
Changes in inventories	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Own work capitalized	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other operating income	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total output	CAD mn	25.1	20.8	28.3	60.9	104.5	116.2	116.8
YoY	%	-54.1%	-16.9%	36.0%	114.8%	71.7%	11.2%	0.5%
Material costs	CAD mn	-24.4	-20.4	-23.1	-39.1	-50.9	-51.3	-51.1
In % of total output	%	-97.2%	-97.9%	-81.6%	-64.3%	-48.7%	-44.1%	-43.7%
Gross profit	CAD mn	0.7	0.4	5.2	21.8	53.7	64.9	65.7
YoY	%	-95.7%	-38.4%	1098.8%	318.1%	146.7%	21.0%	1.2%
In % of total output	%	2.8%	2.1%	18.4%	35.7%	51.3%	55.9%	56.3%
Personnel costs	CAD mn	-7.6	-7.9	-6.4	-6.6	-6.8	-6.8	-6.9
In % of total output	%	-30.2%	-37.9%	-22.4%	-10.8%	-6.5%	-5.9%	-5.9%
Other operating expenses	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
In % of total output	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
EBITDA	CAD mn	-6.9	-7.5	-1.2	15.2	46.9	58.1	58.8
YoY	%	-210.0%	8.5%	-84.4%	n/a	208.6%	23.9%	1.2%
In % of total output	%	-27.4%	-35.8%	-4.1%	25.0%	44.9%	50.0%	50.3%
Depreciation	CAD mn	-2.1	-1.8	-1.5	-6.6	-11.6	-11.8	-11.9
Amortisation	CAD mn	0.0	4.1	0.0	0.0	0.0	0.0	0.0
EBIT	CAD mn	-8.9	-5.1	-2.7	8.6	35.3	46.4	47.0
YoY	%	7.1%	-42.9%	-47.0%	-419.4%	308.2%	31.4%	1.3%
YoY	CAD mn	-0.6	3.8	2.4	11.3	26.6	11.1	0.6
In % of total output	%	-35.7%	-24.5%	-9.5%	14.2%	33.7%	39.9%	40.2%
Income from participations	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net financial result	CAD mn	-1.2	-3.1	-2.6	-0.9	-0.9	-0.9	-0.9
Extraordinary items	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ЕВТ	CAD mn	-10.1	-8.2	-5.3	7.7	34.4	45.5	46.1
In % of total output	%	-40.4%	-39.6%	-18.7%	12.6%	32.9%	39.1%	39.4%
Income taxes	CAD mn	1.1	0.5	0.0	-1.9	-8.6	-11.4	-11.5
In % of EBT (implied tax rate)	%	-10.7%	-6.0%	0.8%	-25.0%	-25.0%	-25.0%	-25.0%
Other taxes	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net income	CAD mn	-9.1	-7.8	-5.3	5.8	25.8	34.1	34.6
In % of total output	%	-36.1%	-37.2%	-18.9%	9.5%	24.6%	29.3%	29.6%
Foreign currency translation effect	CAD mn	1.2	-3.7	0.0	0.0	0.0	0.0	0.0
Minorities	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net income after translation effects and minorities	CAD mn	-7.8	-11.4	-5.3	5.8	25.8	34.1	34.6
Nr of ordinary shares (basic)	mn	183.4	198.2	216.0	216.0	216.0	216.0	216.0
Nr of preferred shares (basic)	mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No. of shares (diluted)	mn	183.4	198.2	224.3	224.3	224.3	224.3	224.3
EPS (basic)	CAD	-0.04	-0.06	-0.02	0.03	0.12	0.16	0.16
EPS (diluted)	CAD	-0.04	-0.06	-0.02	0.03	0.11	0.15	0.15

SOURCE: COMPANY DATA, SPHENE CAPITAL FORECASTS

Revenues by Asset, 2013-2019

IFRS (31.12.)		2013	2014	2015	2016	2017	2018	2019
Gross revenues	CAD mn	18.3	29.6	25.8	33.1	38.7	65.2	54.6
Los Santos	CAD mn	18.3	29.6	26.7	19.9	15.9	27.9	20.0
Wolfram Camp	CAD mn	0.0	0.0	10.4	4.2	0.3	0.0	0.0
Valtreixal	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Woulfe	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Panasqueira	CAD mn	0.0	0.0	0.0	13.1	23.0	38.0	34.6
Corporate	CAD mn	0.0	0.0	-0.9	0.1	-0.1	-0.8	0.0
YoY	%	n/a	61.4%	-13.0%	28.7%	16.8%	68.4%	-16.2%
Los Santos	%	n/a	61.4%	-9.9%	-25.4%	-20.3%	76.1%	-28.2%
Wolfram Camp	%	n/a	n/a	n/a	-59.8%	-92.2%	-100.0%	n/a
Valtreixal	%	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Woulfe	%	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Panasqueira	%	n/a	n/a	n/a	n/a	75.0%	65.5%	-9.1%
Corporate	%	n/a	n/a	n/a	-111.8%	-234.5%	435.8%	-100.0%
in % of gross revenues	%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Los Santos	%	100.0%	100.0%	103.6%	60.0%	41.0%	42.8%	36.7%
Wolfram Camp	%	0.0%	0.0%	40.4%	12.6%	0.8%	0.0%	0.0%
Valtreixal	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Woulfe	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Panasqueira	%	0.0%	0.0%	0.0%	39.6%	59.4%	58.4%	63.3%
Corporate	%	0.0%	0.0%	-3.6%	0.3%	-0.4%	-1.2%	0.0%

SOURCE: COMPANY DATA, SPHENE CAPITAL

Revenues by Asset, 2020-2026e

IFRS (31.12.)		2020	2021	2022e	2023e	2024e	2025e	2026
Gross revenues	CAD mn	25.1	20.8	28.3	60.9	104.5	116.2	116.8
Los Santos	CAD mn	0.2	0.0	0.0	15.0	24.5	29.9	31.4
Wolfram Camp	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Valtreixal	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Woulfe	CAD mn	0.0	0.0	0.0	13.4	48.5	55.7	55.7
Panasqueira	CAD mn	24.9	20.8	28.3	32.5	31.5	30.6	29.7
Corporate	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
YoY	%	-54.1%	-16.9%	36.0%	114.8%	71.7%	11.2%	0.5%
Los Santos	%	-98.9%	-100.0%	n/a	n/a	63.3%	22.0%	5.1%
Wolfram Camp	%	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Valtreixal	%	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Woulfe	%	n/a	n/a	n/a	n/a	262.5%	14.9%	0.0%
Panasqueira	%	-28.1%	-16.2%	36.0%	14.7%	-3.0%	-3.0%	-3.0%
Corporate	%	n/a	n/a	n/a	n/a	n/a	n/a	n/a
in % of gross revenues	%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Los Santos	%	0.9%	0.0%	0.0%	24.6%	23.4%	25.7%	26.9%
Wolfram Camp	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Valtreixal	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Woulfe	%	0.0%	0.0%	0.0%	22.0%	46.4%	48.0%	47.7%
Panasqueira	%	99.1%	100.0%	100.0%	53.4%	30.2%	26.3%	25.4%
Corporate	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

SOURCE: COMPANY DATA, SPHENE CAPITAL FORECASTS

Revenues by Region, 2013-2019

IFRS (31.12.)		2013	2014	2015	2016	2017	2018	2019
Gross Sales	CAD mn	18.3	29.6	36.1	37.3	39.0	65.2	54.0
Portugal	CAD mn	0.0	0.0	0.0	13.1	23.0	38.0	34.6
Spain	CAD mn	18.3	29.6	26.7	19.9	15.9	27.9	20.0
Republic of Korea	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest of the World	CAD mn	0.0	0.0	9.5	4.3	0.2	-0.8	0.0
YoY	%	n/a	61.4%	22.1%	3.2%	4.6%	67.0%	-16.2%
Portugal	%	n/a	61.4%	22.1%	3.2%	4.6%	67.0%	-16.2%
Spain	%	n/a	n/a	n/a	n/a	75.0%	65.5%	-9.1%
Republic of Korea	%	n/a	61.4%	-9.9%	-25.4%	-20.3%	76.1%	-28.2%
Rest of the World	%	n/a						
as of total sales	%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Portugal	%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Spain	%	0.0%	0.0%	0.0%	35.2%	58.9%	58.4%	63.3%
Republic of Korea	%	100.0%	100.0%	73.8%	53.3%	40.6%	42.8%	36.7%
Rest of the World	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Revenues by Region, 2020-2026e

IFRS (31.12.)		2020	2021	2022e	2023e	2024e	2025e	2026
Gross Sales	CAD mn	25.1	20.8	28.3	60.9	104.5	116.2	116.8
Portugal	CAD mn	24.9	20.8	28.3	32.5	31.5	30.6	29.7
Spain	CAD mn	0.2	0.0	0.0	15.0	24.5	29.9	31.4
Republic of Korea	CAD mn	0.0	0.0	0.0	13.4	48.5	55.7	55.7
Rest of the World	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
YoY	%	-54.1%	-16.9%	36.0%	114.8%	71.7%	11.2%	0.5%
Portugal	%	-54.1%	-16.9%	36.0%	114.8%	71.7%	11.2%	0.5%
Spain	%	-28.1%	-16.2%	36.0%	14.7%	-3.0%	-3.0%	-3.0%
Republic of Korea	%	-98.9%	-100.0%	n/a	n/a	63.3%	22.0%	5.1%
Rest of the World	%	n/a	n/a	n/a	n/a	262.5%	14.9%	0.0%
as of total sales	%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Portugal	%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Spain	%	99.1%	100.0%	100.0%	53.4%	30.2%	26.3%	25.4%
Republic of Korea	%	0.9%	0.0%	0.0%	24.6%	23.4%	25.7%	26.9%
Rest of the World	%	0.0%	0.0%	0.0%	22.0%	46.4%	48.0%	47.7%

Balance Sheet (Assets), 2013-2019

IFRS (31.12.)		2013	2014	2015	2016	2017	2018	2019
Non-current assets	CAD mn	35.7	63.0	107.8	148.6	143.0	121.6	123.
Intangible assets	CAD mn	20.1	41.1	62.7	69.8	78.1	85.8	87.
Goodwill	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.
Intangibles	CAD mn	12.7	26.6	47.1	49.9	53.6	56.7	59.
Use of right	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.
Other	CAD mn	7.4	14.5	15.6	19.8	24.4	29.1	27.
Long-term assets	CAD mn	12.2	18.1	41.1	76.0	62.1	34.5	35.
Property	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.
Plant and equipment	CAD mn	12.2	18.1	41.1	76.0	62.1	34.5	35.
Other long-term assets	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.
Prepaid advances	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.
Financial assets	CAD mn	0.4	0.3	0.0	0.0	0.0	0.0	0
Participations	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0
Other long-term assets	CAD mn	0.4	0.3	0.0	0.0	0.0	0.0	0
Loans to affiliated companies	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0
Prepaid advances	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0
Deferred taxes	CAD mn	3.0	3.6	4.0	2.9	2.9	1.2	1
Current assets	CAD mn	5.0	23.6	7.6	17.7	15.8	23.8	9
Inventory	CAD mn	2.5	6.6	4.1	10.7	7.3	9.7	6
DIO	d	79	233	39	117	81	95	6
Trade receivables	CAD mn	0.9	0.5	8.0	0.7	1.4	2.7	0
DSO	d	17	6	8	7	13	15	
Receivables from affiliated companies	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0
Receivables due from related parties	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0
Other current assets	CAD mn	0.3	0.6	0.6	0.7	1.3	1.4	0
Other financial assets	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0
Other non-financial assets	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0
Cash and cash equivalents	CAD mn	1.3	15.8	2.1	5.6	5.8	10.0	1
thereof collateralised	CAD mn	0.2	1.0	1.2	1.3	1.3	1.2	0
Deferred taxes	CAD mn	1.5	1.5	2.1	1.4	1.4	2.0	0
Other deferred items	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0
Equity deficit	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0
	CAD mn	42.1	88.0	117.5	167.8	160.2	147.3	133

Balance Sheet (Assets), 2020-2026e

IFRS (31.12.)		2020	2021	2022e	2023e	2024e	2025e	2026
Non-current assets	CAD mn	141.2	155.0	147.4	161.0	176.5	184.7	193.3
Intangible assets	CAD mn	91.8	98.0	102.3	106.8	111.5	116.4	121.0
Goodwill	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Intangibles	CAD mn	63.8	68.5	71.9	75.5	79.3	83.2	87.4
Use of right	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other	CAD mn	28.0	29.5	30.4	31.3	32.2	33.2	34.2
Long-term assets	CAD mn	47.2	54.3	45.1	54.2	65.0	68.3	71.7
Property	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Plant and equipment	CAD mn	43.7	41.0	45.1	54.2	65.0	68.3	71.
Other long-term assets	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prepaid advances	CAD mn	3.5	13.3	0.0	0.0	0.0	0.0	0.0
Financial assets	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Participations	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other long-term assets	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Loans to affiliated companies	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.
Prepaid advances	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.
Deferred taxes	CAD mn	2.3	2.7	0.0	0.0	0.0	0.0	0.0
Current assets	CAD mn	9.3	10.5	15.0	41.4	87.9	117.6	136.
Inventory	CAD mn	6.1	6.8	8.5	18.3	31.4	34.9	35.
DIO	d	91	120	132	168	222	245	24
Trade receivables	CAD mn	0.4	1.6	2.0	4.4	7.5	8.3	8.
DSO	d	6	27	25	26	26	26	2
Receivables from affiliated companies	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.
Receivables due from related parties	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.
Other current assets	CAD mn	0.4	1.1	0.0	0.0	0.0	0.0	0.
Other financial assets	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.
Other non-financial assets	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.
Cash and cash equivalents	CAD mn	2.4	1.0	4.5	18.8	49.1	74.4	93.
thereof collateralised	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.
Deferred taxes	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.
Other deferred items	CAD mn	0.5	0.4	0.0	0.0	0.0	0.0	0.
Equity deficit	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.
Total assets	CAD mn	151.1	165.9	162.4	202.4	264.5	302.3	329.

Balance Sheet (Liabilities), 2013-2019

IFRS (31.12.)		2013	2014	2015	2016	2017	2018	2019
Total shareholder's equity	CAD mn	27.3	47.1	49.0	35.6	45.6	40.9	33.8
Equity ratio	%	64.8%	53.5%	41.7%	21.2%	28.5%	27.7%	25.3%
Share capital	CAD mn	22.0	31.2	60.8	67.4	86.4	91.6	92.2
Capital reserve	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Capital reserve	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Currency adjustments	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Profit reserves	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other accumulated equity	CAD mn	2.6	3.6	6.1	7.3	7.0	7.0	4.7
Profit/loss of period	CAD mn	2.8	12.1	-18.4	-39.6	-47.9	-58.6	-63.8
Equity deficit	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Own shares	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Minorities	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Profit participation capital	CAD mn	0.0	0.2	0.5	0.6	0.2	0.8	0.7
Special items	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pension reserves	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other provisions	CAD mn	0.5	1.3	3.2	45.5	32.8	28.9	33.4
Current liabilities	CAD mn	10.5	16.1	30.9	53.4	43.4	51.5	50.7
Bank debt	CAD mn	2.225	6.332	15.428	31.628	20.944	51.549	33.763
Bond	CAD mn	0.6	0.7	0.0	0.0	0.0	0.0	0.0
Profit participation capital	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Silent participation	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Liabilities due to related parties	CAD mn	0.0	0.1	0.0	0.0	22.5	0.0	0.0
Trade payables	CAD mn	5.5	6.7	15.5	21.8	0.0	0.0	16.9
DPO	d	107	82	154	210	0	0	111
Advance payments received	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other current liabilities	CAD mn	2.2	2.2	0.0	0.0	0.0	0.0	0.0
Liabilities due to related parties	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Non-current liabilities	CAD mn	3.8	22.5	30.8	29.3	33.2	24.5	15.7
Bank debt	CAD mn	3.721	15.004	30.801	29.325	33.162	24.455	15.736
Bond	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Profit participation capital	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Silent participation	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Long-term leasing liabilities	CAD mn	0.1	0.2	0.0	0.0	0.0	0.0	0.0
Other non-current liabilities	CAD mn	0.0	7.3	0.0	0.0	0.0	0.0	0.0
Deferred taxes	CAD mn	0.0	0.0	1.9	1.5	1.2	0.0	0.0
Other deferred items	CAD mn	0.0	1.1	1.7	2.4	4.0	1.5	0.0
Total liabilities and shareholder's equity	CAD mn	42.1	88.0	117.5	167.8	160.2	147.3	133.6

Balance Sheet (Liabilities), 2020-2026e

IFRS (31.12.)		2020	2021	2022e	2023e	2024e	2025e	2026
Total shareholder's equity	CAD mn	29.2	37.5	37.7	43.4	69.2	103.3	137.
Equity ratio	%	19.3%	22.6%	23.2%	21.5%	26.2%	34.2%	41.89
Share capital	CAD mn	94.1	112.4	119.2	119.2	119.2	119.2	119.
Capital reserve	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.
Capital reserve	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.
Currency adjustments	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.
Profit reserves	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.
Other accumulated equity	CAD mn	5.6	7.0	-76.2	-81.5	-75.8	-50.0	-15.
Profit/loss of period	CAD mn	-71.8	-83.2	-5.3	5.8	25.8	34.1	34.
Equity deficit	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.
Own shares	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.
Minorities	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Profit participation capital	CAD mn	1.2	1.2	0.0	0.0	0.0	0.0	0.0
Special items	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pension reserves	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.
Other provisions	CAD mn	42.7	38.4	0.0	0.0	0.0	0.0	0.
Current liabilities	CAD mn	66.8	39.7	49.8	83.9	127.8	138.2	137.
Bank debt	CAD mn	49.1	18.7	20.0	20.0	18.0	16.2	14.
Bond	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.
Profit participation capital	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.
Silent participation	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.
Liabilities due to related parties	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.
Trade payables	CAD mn	17.6	21.0	29.8	63.9	109.8	122.0	122.
DPO	d	253	363	378	378	378	378	37
Advance payments received	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.
Other current liabilities	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.
Liabilities due to related parties	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.
Non-current liabilities	CAD mn	12.4	49.0	75.0	75.0	67.5	60.8	54.
Bank debt	CAD mn	12.4	49.0	75.0	75.0	67.5	60.8	54.
Bond	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.
Profit participation capital	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.
Silent participation	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.
Long-term leasing liabilities	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.
Other non-current liabilities	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.
Deferred taxes	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.
Other deferred items	CAD mn	0.0	1.3	0.0	0.0	0.0	0.0	0.
Total liabilities and shareholder's equity	CAD mn	151.1	165.9	162.4	202.4	264.5	302.3	329.

SOURCE: COMPANY DATA, SPHENE CAPITAL FORECASTS

Balance Sheet (Assets, Normalised), 2013-2019

IFRS (31.12.)		2013	2014	2015	2016	2017	2018	2019
Non-current assets	%	84.7%	71.5%	91.7%	88.6%	89.3%	82.5%	92.3%
Intangible assets	%	47.7%	46.6%	53.3%	41.6%	48.8%	58.3%	65.1%
Goodwill	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Intangibles	%	30.1%	30.2%	40.1%	29.7%	33.5%	38.5%	44.5%
Use of right	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Other	%	17.6%	16.5%	13.3%	11.8%	15.3%	19.8%	20.7%
Long-term assets	%	28.9%	20.5%	34.9%	45.3%	38.8%	23.4%	26.4%
Property	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Plant and equipment	%	28.9%	20.5%	34.9%	45.3%	38.8%	23.4%	26.4%
Other long-term assets	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Prepaid advances	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Financial assets	%	0.9%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%
Participations	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Other long-term assets	%	0.9%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%
Loans to affiliated companies	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Prepaid advances	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Deferred taxes	%	7.2%	4.1%	3.4%	1.7%	1.8%	0.8%	0.8%
Current assets	%	11.8%	26.8%	6.5%	10.5%	9.8%	16.1%	7.0%
Inventory	%	6.0%	7.6%	3.5%	6.4%	4.5%	6.6%	4.9%
Trade receivables	%	2.1%	0.5%	0.7%	0.4%	0.9%	1.8%	0.6%
Receivables from affiliated companies	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Receivables due from related parties	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Other current assets	%	0.6%	0.7%	0.5%	0.4%	0.8%	1.0%	0.4%
Other financial assets	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Other non-financial assets	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Cash and cash equivalents	%	3.1%	17.9%	1.8%	3.3%	3.6%	6.8%	1.1%
thereof collateralised	%	0.6%	1.1%	1.0%	0.8%	0.8%	0.8%	0.0%
Deferred taxes	%	3.5%	1.7%	1.8%	0.9%	0.9%	1.3%	0.7%
Other deferred items	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Equity deficit	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total assets	%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

SOURCE: COMPANY DATA, SPHENE CAPITAL

Balance Sheet (Assets, Normalised), 2020-2026e

IFRS (31.12.)		2020	2021	2022e	2023e	2024e	2025e	2026
Non-current assets	%	93.5%	93.4%	90.8%	79.5%	66.7%	61.1%	58.6%
Intangible assets	%	60.8%	59.1%	63.0%	52.8%	42.2%	38.5%	36.9%
Goodwill	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Intangibles	%	42.2%	41.3%	44.3%	37.3%	30.0%	27.5%	26.5%
Use of right	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Other	%	18.5%	17.8%	18.7%	15.5%	12.2%	11.0%	10.4%
Long-term assets	%	31.2%	32.8%	27.8%	26.8%	24.6%	22.6%	21.7%
Property	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Plant and equipment	%	28.9%	24.7%	27.8%	26.8%	24.6%	22.6%	21.7%
Other long-term assets	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Prepaid advances	%	2.3%	8.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Financial assets	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Participations	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Other long-term assets	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Loans to affiliated companies	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Prepaid advances	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Deferred taxes	%	1.5%	1.6%	0.0%	0.0%	0.0%	0.0%	0.0%
Current assets	%	6.2%	6.3%	9.2%	20.5%	33.3%	38.9%	41.4%
Inventory	%	4.1%	4.1%	5.2%	9.0%	11.9%	11.5%	10.6%
Trade receivables	%	0.3%	1.0%	1.2%	2.2%	2.8%	2.8%	2.5%
Receivables from affiliated companies	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Receivables due from related parties	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Other current assets	%	0.3%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%
Other financial assets	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Other non-financial assets	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Cash and cash equivalents	%	1.6%	0.6%	2.8%	9.3%	18.6%	24.6%	28.2%
thereof collateralised	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Deferred taxes	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Other deferred items	%	0.4%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%
Equity deficit	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total assets	%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

SOURCE: COMPANY DATA, SPHENE CAPITAL FORECASTS

Balance Sheet (Liabilities, Normalised), 2013-2019

IFRS (31.12.)		2013	2014	2015	2016	2017	2018	2019
Total shareholder's equity	%	64.8%	53.5%	41.7%	21.2%	28.5%	27.7%	25.3%
Share capital	%	52.2%	35.4%	51.8%	40.1%	53.9%	62.2%	69.0%
Capital reserve	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Capital reserve	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Currency adjustments	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Profit reserves	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Other accumulated equity	%	6.1%	4.0%	5.2%	4.3%	4.4%	4.7%	3.5%
Profit/loss of period	%	6.5%	13.8%	-15.7%	-23.6%	-29.9%	-39.8%	-47.7%
Equity deficit	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Own shares	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Minorities	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Profit participation capital	%	0.0%	0.2%	0.4%	0.3%	0.1%	0.6%	0.5%
Special items	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Pension reserves	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Other provisions	%	1.2%	1.4%	2.7%	27.1%	20.5%	19.6%	25.0%
Current liabilities	%	24.9%	18.3%	26.3%	31.8%	27.1%	35.0%	37.9%
Bank debt	%	5.3%	7.2%	13.1%	18.9%	13.1%	35.0%	25.3%
Bond	%	1.5%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%
Profit participation capital	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Silent participation	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Liabilities due to related parties	%	0.1%	0.2%	0.0%	0.0%	14.0%	0.0%	0.0%
Trade payables	%	13.0%	7.6%	13.1%	13.0%	0.0%	0.0%	12.7%
Advance payments received	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Other current liabilities	%	5.1%	2.5%	0.0%	0.0%	0.0%	0.0%	0.0%
Liabilities due to related parties	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Non-current liabilities	%	9.1%	25.5%	26.2%	17.5%	20.7%	16.6%	11.8%
Bank debt	%	8.8%	17.0%	26.2%	17.5%	20.7%	16.6%	11.8%
Bond	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Profit participation capital	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Silent participation	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Long-term leasing liabilities	%	0.1%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%
Other non-current liabilities	%	0.1%	8.3%	0.0%	0.0%	0.0%	0.0%	0.0%
Deferred taxes	%	0.0%	0.0%	1.6%	0.9%	0.7%	0.0%	0.0%
Other deferred items	%	0.0%	1.3%	1.4%	1.4%	2.5%	1.0%	0.0%
Total liabilities and shareholder's equity	%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Sphene Capital

Balance Sheet (Liabilities, Normalised), 2020-2026e

IFRS (31.12.)		2020	2021	2022e	2023e	2024e	2025e	2026
Total shareholder's equity	%	19.3%	22.6%	23.2%	21.5%	26.2%	34.2%	41.89
Share capital	%	62.3%	67.8%	73.4%	58.9%	45.1%	39.4%	36.19
Capital reserve	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0
Capital reserve	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0
Currency adjustments	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0
Profit reserves	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0
Other accumulated equity	%	3.7%	4.2%	-46.9%	-40.3%	-28.6%	-16.5%	-4.8
Profit/loss of period	%	-47.5%	-50.2%	-3.3%	2.9%	9.7%	11.3%	10.5
Equity deficit	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0
Own shares	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0
Minorities	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0
Profit participation capital	%	0.8%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0
Special items	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0
Pension reserves	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0
Other provisions	%	28.3%	23.1%	0.0%	0.0%	0.0%	0.0%	0.0
Current liabilities	%	44.2%	23.9%	30.6%	41.5%	48.3%	45.7%	41.6
Bank debt	%	32.5%	11.3%	12.3%	9.9%	6.8%	5.4%	4.4
Bond	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0
Profit participation capital	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0
Silent participation	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0
Liabilities due to related parties	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0
Trade payables	%	11.7%	12.7%	18.3%	31.6%	41.5%	40.4%	37.2
Advance payments received	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0
Other current liabilities	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0
Liabilities due to related parties	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0
Non-current liabilities	%	8.2%	29.5%	46.2%	37.1%	25.5%	20.1%	16.6
Bank debt	%	8.2%	29.5%	46.2%	37.1%	25.5%	20.1%	16.6
Bond	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0
Profit participation capital	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0
Silent participation	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0
Long-term leasing liabilities	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0
Other non-current liabilities	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0
Deferred taxes	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0
Other deferred items	%	0.0%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0
Total liabilities and shareholder's equity	%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.09

71

Cash Flow Statement, 2013-2019

IFRS (31.12.)		2013	2014	2015	2016	2017	2018	2019
Net income	CAD mn	2.4	10.4	-20.3	-21.2	-8.2	-10.7	-5.
Depreciation & Amortisation	CAD mn	3.4	4.6	8.5	8.2	6.4	11.2	4.
Income from sale of assets	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.
Δ inventory	CAD mn	-2.5	-4.1	2.6	-6.6	3.4	-2.4	3.
Δ trade receivables	CAD mn	-0.9	0.4	-0.4	0.1	-0.7	-1.3	1.
Δ other receivables	CAD mn	-0.3	-0.4	0.0	-0.1	-0.6	-0.1	0.9
Δ deferred tax assets	CAD mn	-4.5	-0.6	-1.1	1.9	0.1	1.1	1.3
Δ provisions	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Δ other long-term provisions	CAD mn	0.5	0.8	2.0	42.3	-12.8	-3.9	4.
Δ other short-term provisions	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Δ trade payables	CAD mn	5.5	1.3	8.7	6.3	-21.8	0.0	16.9
Δ special items	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Δ deferred liabilities/deferred taxes	CAD mn	0.0	1.1	2.5	0.3	1.3	-3.6	-1.5
Currency adjustments	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other operational adjustments	CAD mn	-5.4	-12.2	6.1	-38.2	30.0	5.1	-32.2
Operating cash flow	CAD mn	0.5	8.6	0.8	-1.6	-2.9	10.9	4.2
Investments in financial assets	CAD mn	-0.4	0.1	0.3	0.0	0.0	0.0	0.0
Investments in intangible assets	CAD mn	-20.1	-21.0	-23.3	-12.4	-8.3	-23.4	-11.3
Investments in tangible assets	CAD mn	-15.6	-10.5	-31.5	-43.2	7.5	16.4	-5.2
Other operational adjustments	CAD mn	29.9	24.1	38.4	42.6	-9.9	0.9	8.7
Cash flow from investing	CAD mn	-6.2	-7.3	-16.1	-13.0	-10.7	-6.0	-7.8
Free cash flow	CAD mn	-5.7	1.3	-15.3	-14.6	-13.6	4.9	-3.6
Δ Share capital	CAD mn	22.0	9.2	29.6	6.5	19.0	5.3	0.6
Δ Capital reserves	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Δ Capital reserves	CAD mn	0.0	0.2	0.3	0.0	-0.4	0.7	-0.1
Δ Bank debt	CAD mn	5.9	15.4	24.9	14.7	-6.8	21.9	-26.5
Δ Bond	CAD mn	0.6	0.1	-0.7	0.0	0.0	0.0	0.0
Δ Bond	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Δ Bond	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Δ other interest-bearing liabilities	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Less prior-year dividend	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Less dividend payments to minority shareholders	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other operational adjustments	CAD mn	-23.0	-12.7	-53.1	-3.4	-20.3	-5.9	22.5
Financing cash flow	CAD mn	5.6	12.4	0.7	17.9	13.9	-0.5	-3.6
Net cash inflow	CAD mn	-0.1	13.7	-14.6	3.3	0.4	4.4	-7 .′
Currency adjustments	CAD mn	0.1	0.1	0.6	0.0	-0.1	-0.1	-0.1
Net cash opening balance	CAD mn	1.1	1.1	14.8	0.9	4.2	4.5	8.
Net cash closing balance	CAD mn	1.1	14.8	0.9	4.2	4.5	8.7	1.9

Cash Flow Statement, 2020-2026e

IFRS (31.12.)		2020	2021	2022e	2023e	2024e	2025e	202
Net income	CAD mn	-9.1	-7.8	-5.3	5.8	25.8	34.1	34
Depreciation & Amortisation	CAD mn	2.1	1.8	1.5	6.6	11.6	11.8	11
Income from sale of assets	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	
Δ inventory	CAD mn	0.4	-0.6	-1.7	-9.8	-13.1	-3.5	-
Δ trade receivables	CAD mn	0.5	-1.2	-0.4	-2.4	-3.1	-0.8	
Δ other receivables	CAD mn	0.1	-0.7	1.1	0.0	0.0	0.0	
Δ deferred tax assets	CAD mn	-0.9	-0.3	3.1	0.0	0.0	0.0	
Δ provisions	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	
Δ other long-term provisions	CAD mn	9.3	-4.4	-38.4	0.0	0.0	0.0	
Δ other short-term provisions	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	
Δ trade payables	CAD mn	0.7	3.4	8.8	34.2	45.8	12.3	
Δ special items	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	
Δ deferred liabilities/deferred taxes	CAD mn	0.0	1.3	-1.3	0.0	0.0	0.0	
Currency adjustments	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	
Other operational adjustments	CAD mn	-8.0	4.2	0.0	0.0	0.0	0.0	
Operating cash flow	CAD mn	-4.8	-8.4	-32.7	34.4	67.0	53.8	4
Investments in financial assets	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	
Investments in intangible assets	CAD mn	-4.7	-2.1	-4.3	-4.5	-4.7	-4.9	
Investments in tangible assets	CAD mn	-14.0	-8.9	7.6	-15.6	-22.5	-15.0	-1
Other operational adjustments	CAD mn	12.5	1.0	0.0	0.0	0.0	0.0	
Cash flow from investing	CAD mn	-6.3	-10.0	3.3	-20.1	-27.2	-19.9	-2
Free cash flow	CAD mn	-11.1	-18.4	-29.3	14.3	39.8	33.8	2
Δ Share capital	CAD mn	1.9	18.4	6.8	0.0	0.0	0.0	
Δ Capital reserves	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	
Δ Capital reserves	CAD mn	0.6	0.0	-1.2	0.0	0.0	0.0	
Δ Capital reserves Δ Bank debt	CAD mn	12.0	6.2	27.3	0.0	-9.5	-8.6	
Δ Bond								
	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	
Δ Bond	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	
Δ Bond	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	
Δ other interest-bearing liabilities	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	
Less prior-year dividend	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	
Less dividend payments to minority shareholders	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	
Other operational adjustments Financing cash flow	CAD mn	-2.6 11.9	-7.4 17.2	0.0 32.8	0.0	0.0 -9.5	0.0 -8.6	
I mancing cash now	OAD IIII	11.5	17.2	JZ.0	0.0	-3.3	-0.0	
Net cash inflow	CAD mn	8.0	-1.3	3.5	14.3	30.3	25.3	1
Currency adjustments	CAD mn	0.1	-0.1	0.0	0.0	0.0	0.0	
Net cash opening balance	CAD mn	1.5	2.4	1.0	4.5	18.8	49.1	7
Net cash closing balance	CAD mn	2.4	1.0	4.5	18.8	49.1	74.4	9:

One View I, 2013-2019

IFRS (31.12.)		2013	2014	2015	2016	2017	2018	201
Key data								
Sales	CAD mn	18.3	29.6	36.1	37.3	39.0	65.2	54.
Gross profit	CAD mn	6.9	19.3	-1.6	4.3	6.7	28.5	16.
EBITDA	CAD mn	3.9	14.9	-7.9	-4.6	-3.7	19.1	6
EBIT	CAD mn	0.4	10.3	-18.2	-18.2	-10.1	-7.6	-8
EBT	CAD mn	0.6	9.9	-20.9	-20.5	-8.1	-10.0	-5.
Net income	CAD mn	2.4	10.4	-20.3	-21.2	-8.2	-10.7	-5
No. of employees		0	0	0	0	0	0	
Per share data								
Price high	CAD	1.10	0.95	0.86	0.44	0.69	0.96	1,0
Price low	CAD	0.62	0.62	0.23	0.21	0.21	0.37	0.4
Price average/last	CAD	0.97	0.76	0.61	0.30	0.39	0.69	0.7
Price average/last	CAD	0.62	0.65	0.28	0.29	0.59	0.61	0.4
EPS	CAD	0.07	0.24	-0.38	-0.22	-0.08	-0.06	-0.0
BVPS	CAD	0.74	1.09	0.95	0.37	0.38	0.23	0.1
CFPS	CAD	0.01	0.20	0.02	-0.02	-0.02	0.06	0.0
Dividend	CAD	0.00	0.00	0.00	0.00	0.00	0.00	0.0
Price target	CAD							
Performance to price target	%							
Profitability ratios								
EBITDA margin	%	21.1%	50.5%	-22.0%	-12.4%	-9.4%	29.4%	11.4
EBIT margin	%	2.3%	34.9%	-50.3%	-48.7%	-25.8%	-11.7%	-15.3
Pre-tax margin	%	3.3%	33.4%	-57.9%	-55.0%	-20.8%	-15.3%	-9.3
Net margin	%	13.3%	35.1%	-56.1%	-56.8%	-21.1%	-16.4%	-9.6
FCF margin	%	-31.1%	4.5%	-42.4%	-39.1%	-34.8%	7.5%	-6.6
ROE	%	8.9%	22.1%	-41.4%	-59.5%	-18.1%	-26.2%	-15.5
NWC/Sales	%	-11.3%	1.3%	-29.2%	-27.8%	22.3%	19.0%	-17.4
Revenues per head	CAD k	n/a	n/a	n/a	n/a	n/a	n/a	n
EBIT per head	CAD k	n/a	n/a	n/a	n/a	n/a	n/a	n
Capex/Sales	%	85.1%	35.5%	87.3%	115.7%	-19.3%	-25.2%	9.5
Growth ratios								
Sales	%	n/a	61.4%	22.1%	3.2%	4.6%	67.0%	-16.2
Gross profit	%	n/a	178.4%	-108.3%	-371.1%	53.6%	326.9%	-42.3
EBITDA	%	n/a	287.0%	n/a	-41.8%	-20.6%	n/a	-67.4
EBIT	%	n/a	n/a	n/a	-0.1%	-44.6%	-24.4%	9.7
EBT	%	n/a	n/a	n/a	-1.9%	-60.4%	22.8%	-49.2
Net income	%	n/a	325.7%	n/a	4.4%	-61.1%	29.7%	-51.0
EPS	%	n/a	265.5%	n/a	-42.9%	-64.2%	-19.6%	-42.9
CFPS	%	n/a	n/a	-92.3%	n/a	46.4%	n/a	-62.1

One View I, 2020-2026e

IFRS (31.12.)		2020	2021	2022e	2023e	2024e	2025e	2026
Key data								
Sales	CAD mn	25.1	20.8	28.3	60.9	104.5	116.2	116.
Gross profit	CAD mn	0.7	0.4	5.2	21.8	53.7	64.9	65.
EBITDA	CAD mn	-6.9	-7.5	-1.2	15.2	46.9	58.1	58.
EBIT	CAD mn	-8.9	-5.1	-2.7	8.6	35.3	46.4	47.
EBT	CAD mn	-10.1	-8.2	-5.3	7.7	34.4	45.5	46
Net income	CAD mn	-9.1	-7.8	-5.3	5.8	25.8	34.1	34
No. of employees		n/a	n/a	n/a	n/a	n/a	n/a	n,
Per share data								
Price high	CAD	0.81	1.27	1.05				
Price low	CAD	0.34	0.64	0.57				
Price average/last	CAD	0.59	0.98	0.84				
Price average/last	CAD	0.64	0.89	0.71	0.71	0.71	0.71	0.7
EPS	CAD	-0.04	-0.06	-0.02	0.03	0.12	0.16	0.1
BVPS	CAD	0.16	0.19	0.17	0.20	0.32	0.48	0.6
CFPS	CAD	-0.03	-0.04	-0.15	0.16	0.31	0.25	0.2
Dividend	CAD	0.00	0.00	0.00	0.00	0.00	0.00	0.0
Price target	CAD							1.6
Performance to price target	%							135.2
Profitability ratios								
EBITDA margin	%	-27.4%	-35.8%	-4.1%	25.0%	44.9%	50.0%	50.3
EBIT margin	%	-35.7%	-24.5%	-9.5%	14.2%	33.7%	39.9%	40.2
Pre-tax margin	%	-40.4%	-39.6%	-18.7%	12.6%	32.9%	39.1%	39.4
Net margin	%	-36.1%	-37.2%	-18.9%	9.5%	24.6%	29.3%	29.6
FCF margin	%	-44.3%	-88.5%	n/a	23.4%	38.1%	29.1%	22.6
ROE	%	-31.1%	-20.7%	-14.2%	13.3%	37.2%	33.0%	25.1
NWC/Sales	%	-44.1%	-60.6%	-68.1%	-67.8%	-67.8%	-67.8%	-67.8
Revenues per head	CAD k	n/a	n/a	n/a	n/a	n/a	n/a	n,
EBIT per head	CAD k	n/a	n/a	n/a	n/a	n/a	n/a	n,
Capex/Sales	%	55.8%	42.9%	-27.0%	25.6%	21.5%	12.9%	13.1
Growth ratios								
Sales	%	-54.1%	-16.9%	36.0%	114.8%	71.7%	11.2%	0.5
Gross profit	%	-95.7%	-38.4%	1098.8%	318.1%	146.7%	21.0%	1.2
EBITDA	%	n/a	8.5%	-84.4%	n/a	208.6%	23.9%	1.2
EBIT	%	7.1%	-42.9%	-47.0%	n/a	308.2%	31.4%	1.3
EBT	%	100.3%	-18.7%	-35.6%	n/a	346.2%	32.3%	1.4
Net income	%	73.1%	-14.4%	-31.0%	n/a	346.2%	32.3%	1.4
EPS	%	20.5%	35.3%	-57.1%	n/a	346.2%	32.3%	1.4
CFPS	%	n/a	61.6%	255.2%	n/a	95.1%	-19.7%	-12.9

One View II, 2013-2019

IFRS (31.12.)		2013	2014	2015	2016	2017	2018	201
Balance sheet ratios								
Fixed assets	CAD mn	35.7	63.0	107.8	148.6	143.0	121.6	123.
Current assets	CAD mn	5.0	23.6	7.6	17.7	15.8	23.8	9.
Equity	CAD mn	27.3	47.1	49.0	35.6	45.6	40.9	33
Liabilities	CAD mn	14.8	41.0	68.5	132.2	114.5	106.4	99
Equity ratio	%	64.8%	53.5%	41.7%	21.2%	28.5%	27.7%	25.3
Gearing	%	19.2%	13.2%	90.1%	155.8%	105.9%	161.6%	142.0
Working capital	CAD mn	-2.1	0.4	-10.5	-10.4	8.7	12.4	-9
Capital employed	CAD mn	30.2	59.5	93.2	135.4	148.9	132.7	112
	Х	0.4	0.3	0.3	0.2	0.2	0.4	0
Enterprise Value								
No. of shares	mn	37.0	43.1	51.8	96.5	121.6	178.6	181
Market cap.	CAD mn	40.7	41.0	44.5	42.5	83.9	171.4	n
Market cap.	CAD mn	23.0	26.8	11.9	20.3	25.5	66.1	76
Market cap.	CAD mn	35.9	32.8	31.6	29.0	47.4	123.2	139
Market cap.	CAD mn	23.0	28.0	14.5	28.0	71.7	108.9	76
Net debt	CAD mn	5.2	6.2	44.1	55.4	48.3	66.0	48
Pension reserves	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	C
Minorities	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	(
Excess Cash	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	C
EV high	CAD mn	46.0	47.2	88.7	97.9	132.2	237.5	r
EV low	CAD mn	28.2	33.0	56.1	75.7	73.9	132.1	124
EV average	CAD mn	41.2	39.0	75.7	84.4	95.7	189.3	187
Enterprise Value	CAD mn	28.2	34.3	58.6	83.4	120.0	175.0	124
Valuation ratios								
EV/sales high	Х	2.5	1.6	2.5	2.6	3.4	3.6	n
EV/sales low	Х	1.5	1.1	1.6	2.0	1.9	2.0	2
EV/sales average	Х	2.2	1.3	2.1	2.3	2.5	2.9	3
EV/sales	Х	1.5	1.2	1.6	2.2	3.1	2.7	2
EV/EBITDA high	Х	110.8	4.6	-4.9	-5.4	-13.1	-31.2	n
EV/EBITDA low	Х	68.0	3.2	-3.1	-4.2	-7.3	-17.4	-14
EV/EBITDA average	Х	99.2	3.8	-4.2	-4.6	-9.5	-24.9	-22
EV/EBITDA	Х	68.0	3.3	-3.2	-4.6	-11.9	-23.0	-14
EV/EBIT last	Х	46.9	3.5	-2.8	-4.1	-14.8	-17.5	-24
P/E high	Х	16.7	3.9	n/a	n/a	n/a	n/a	r
P/E low	Х	9.4	2.6	n/a	n/a	n/a	n/a	r
P/E average	Х	14.7	3.2	n/a	n/a	n/a	n/a	r
P/E load	X	9.4	2.7	n/a	n/a	n/a	n/a	r
P/BV load	Х	0.8	0.6	0.3	0.8	1.6	2.7	2
P/CF load	Х	71.6	3.8	39.6	n/a	n/a	11.3	33
FCF yield	%	-24.8%	4.8%	-105.6%	-52.2%	-18.9%	4.5%	-4.7
Dividend-yield	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0

One View II, 2020-2026e

IFRS (31.12.)		2020	2021	2022e	2023e	2024e	2025e	202
Balance sheet ratios								
Fixed assets	CAD mn	141.2	155.0	147.4	161.0	176.5	184.7	19
Current assets	CAD mn	9.8	10.9	15.0	41.4	87.9	117.6	13
Equity	CAD mn	29.2	37.5	37.7	43.4	69.2	103.3	13
Liabilities	CAD mn	121.9	128.4	124.8	158.9	195.3	199.0	19
Equity ratio	%	19.3%	22.6%	23.2%	21.5%	26.2%	34.2%	41
Gearing	%	202.8%	177.8%	240.2%	175.4%	52.6%	2.5%	0
Working capital	CAD mn	-11.1	-12.6	-19.3	-41.3	-70.9	-78.9	-7
Capital employed	CAD mn	127.9	139.7	128.1	119.7	105.6	105.8	1
	х	0.2	0.1	0.2	0.3	0.4	0.4	
Enterprise Value								
No. of shares	mn	183.4	198.2	216.0	216.0	216.0	216.0	2
Market cap.	CAD mn	148.5	251.7	226.8	n/a	n/a	n/a	
Market cap.	CAD mn	62.3	126.8	123.1	n/a	n/a	n/a	
Market cap.	CAD mn	108.2	194.2	181.4	n/a	n/a	n/a	
Market cap.	CAD mn	117.4	176.4	153.3	153.3	153.3	153.3	1:
Net debt	CAD mn	59.2	66.7	90.5	76.2	36.4	2.5	-
Pension reserves	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	
Minorities	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	
Excess Cash	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	
EV high	CAD mn	207.7	318.4	317.3	n/a	n/a	n/a	
EV low	CAD mn	121.5	193.5	213.6	n/a	n/a	n/a	
EV average	CAD mn	167.3	260.9	271.9	n/a	n/a	n/a	
Enterprise Value	CAD mn	176.5	243.0	243.8	229.6	189.7	155.9	1:
Valuation ratios								
EV/sales high	X	8.3	15.3	11.2	n/a	n/a	n/a	
EV/sales low	X	4.8	9.3	7.5	n/a	n/a	n/a	
EV/sales low EV/sales average		6.7	12.5	9.6	n/a	n/a	n/a	
EV/sales average EV/sales	X	7.0	11.7	8.6	3.8	1.8	1.3	
EV/Sales EV/EBITDA high	X	-23.2	-62.3	-117.3	 n/a		n/a	
EV/EBITDA niigii	X					n/a		
	X	-13.6 -18.7	-37.9	-79.0	n/a	n/a	n/a	
EV/EBITDA average EV/EBITDA	X	-19.7	-51.1	-100.5	n/a	n/a	n/a	
	X		-47.6	-90.1	26.6	5.4	3.4	
EV/EBIT last	X	-17.4	-29.5	-46.0	29.8	5.5	3.4	
P/E high	X	n/a	n/a	n/a	n/a	n/a	n/a	
P/E low	X	n/a	n/a	n/a	n/a	n/a	n/a	
P/E average	X	n/a	n/a	n/a	n/a	n/a	n/a	
P/E load	X	n/a	n/a	n/a	26.6	6.0	4.5	
P/BV load	X	4.0	4.7	4.1	3.5	2.2	1.5	
P/CF load	X	n/a	n/a	n/a	0.0	0.0	0.0	
FCF yield	%	-9.5%	-10.5%	-19.1%	9.3%	26.0%	22.1%	17
Dividend-yield	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0

Discounted Cash Flow Valuation, 2022e-2051e

IFRS (31.12.)		2022e	2023e	2024e	2025e	2026e	2027e	2028e	2029e	2030e	2031e	2032e	2033e	2034e	2035e	2036
Revenues	CAD mn	28.3	60.9	104.5	116.2	116.8	117.5	118.1	118.7	119.3	119.9	120.5	121.1	121.7	122.3	122.
YoY	%	36.0%	114.8%	71.7%	11.2%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%
EBIT	CAD mn	-2.7	8.6	35.3	46.4	47.0	47.2	47.4	47.7	47.9	48.2	48.4	48.7	48.9	49.2	49.
EBIT margin	%	-9.5%	14.2%	33.7%	39.9%	40.2%	40.2%	40.2%	40.2%	40.2%	40.2%	40.2%	40.2%	40.2%	40.2%	40.29
Taxes	CAD mn	0.0	-1.9	-8.6	-11.4	-11.5	-11.6	-11.6	-11.7	-11.8	-11.8	-11.9	-11.9	-12.0	-12.1	-12.
Tax rate (τ)	%	-1.5%	22.3%	24.3%	24.5%	24.5%	24.5%	24.5%	24.5%	24.5%	24.5%	24.5%	24.5%	24.5%	24.5%	24.5%
Adjusted EBIT(1-τ)	CAD mn	-2.7	6.7	26.7	35.0	35.4	35.6	35.8	36.0	36.2	36.4	36.5	36.7	36.9	37.1	37.
Reinvestment	CAD mn	11.5	8.5	14.1	-0.2	-8.2	-0.2	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FCFF	CAD mn	8.8	15.2	40.7	34.7	27.3	35.4	35.7	35.9	36.1	36.3	36.5	36.7	36.9	37.1	37.
WACC	%	9.4%	8.7%	8.7%	8.7%	8.7%	8.7%	8.7%	8.6%	8.6%	8.6%	8.6%	8.6%	8.6%	8.6%	8.69
Discount rate	%	100.0%	92.0%	84.7%	77.9%	71.7%	66.0%	60.7%	55.9%	51.4%	47.3%	43.6%	40.1%	37.0%	34.0%	31.39
Present value of free cash flows	CAD mn	8.8	14.0	34.5	27.1	19.6	23.4	21.7	20.1	18.6	17.2	15.9	14.7	13.6	12.6	11.
		2037e	2038e	2039e	2040e	2041e	2042e	2043e	2044e	2045e	2046e	2047e	2048e	2049e	2050e	2051
Revenues	CAD mn	123.5	124.2	124.8	125.4	126.0	126.7	127.3	127.9	128.6	129.2	129.9	130.5	131.2	131.8	132.
YoY	%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%
EBIT	CAD mn	49.7	49.9	50.1	50.4	50.7	50.9	51.2	51.4	51.7	51.9	52.2	52.5	52.7	53.0	53.
EBIT margin	%	40.2%	40.2%	40.2%	40.2%	40.2%	40.2%	40.2%	40.2%	40.2%	40.2%	40.2%	40.2%	40.2%	40.2%	40.2%
Taxes	CAD mn	-12.2	-12.2	-12.3	-12.4	-12.4	-12.5	-12.6	-12.6	-12.7	-12.7	-12.8	-12.9	-12.9	-13.0	-13.
Tax rate (τ)	%	24.5%	24.5%	24.5%	24.5%	24.5%	24.5%	24.5%	24.5%	24.5%	24.5%	24.5%	24.5%	24.5%	24.5%	24.5%
Adjusted EBIT(1-τ)	CAD mn	37.5	37.7	37.8	38.0	38.2	38.4	38.6	38.8	39.0	39.2	39.4	39.6	39.8	40.0	40.:
Reinvestment	CAD mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FCFF	CAD mn	37.4	37.6	37.8	38.0	38.2	38.4	38.6	38.8	39.0	39.2	39.4	39.5	39.7	39.9	40.
WACC	%	8.6%	8.6%	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%	8.4%	8.4%	8.4%	8.49
Discount rate	%	28.9%	26.6%	24.5%	22.6%	20.8%	19.2%	17.7%	16.3%	15.0%	13.8%	12.8%	11.8%	10.9%	10.0%	9.2%
Present value of free cash flows	CAD mn	10.8	10.0	9.3	8.6	7.9	7.4	6.8	6.3	5.9	5.4	5.0	4.7	4.3	4.0	3.

SOURCE: SPHENE CAPITAL FORECASTS

Discounted Cash Flow Valuation

Present value of terminal value	CAD mn	0
in % of Enterprise Value	%	0.0
PV FCFF Detailed planning phase	CAD mn	103
in % of Enterprise Value	%	27.8
PV FCFF rough planning phase	CAD mn	269
in % of Enterprise Value	%	72.2
Enterprise Value	CAD mn	373
Financial debt	CAD mn	-67
Excess Cash	CAD mn	1
Value of equity	CAD mn	306
Number of shares	mn	216
Value of equity per share	CAD	1.0

Almonty Industries Inc. Initiation Report

15 November 2022

This analysis was prepared by



Wettersteinstraße 4 | 82024 Taufkirchen | Germany | Phone +49 (89) 74443558 | Fax +49 (89) 74443445

Disclaimer

This research report has been produced and issued by Sphene Capital GmbH in the legal jurisdiction of the Federal Republic of Germany. It is issued only to persons who purchase or sell transferable securities for their own account or for the account of others in the context of their trade, profession, or occupation. This publication is provided for general information purposes only. It is for the use of the addressees only. It may not be copied to or distributed to any other person in whole or in part without the written consent of Sphene Capital GmbH. Any investment possibilities discussed in this publication may not be suitable for certain investors depending on their specific investment target or time horizon or in the context of their overall financial situation. It cannot be a substitute for obtaining independent advice. Please contact your bank's investment advisor.

The distribution of this publication in certain jurisdictions may be restricted by law and persons into whose possession this publication comes should inform themselves about and observe such restrictions. In the United Kingdom this publication or a copy of it is being distributed only to, and is directed at (a) persons who have professional experience in matters relating to investments falling within article 19(1) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2001 (the "Order") or (b) high network entities falling within article 49(2) (A) to (D) of the Order, and other persons to whom it may be lawfully be communicated, falling within article 49(1) of the Order (all such persons together referred to as "Relevant Persons"). Any person who is not a Relevant Person should not act or rely on this publication or any of its contents.

This publication does not constitute a solicitation to buy or an offer to sell any securities or financial instruments mentioned in the report and shall not be construed as constituting an offer to enter into a consulting agreement. Neither this publication nor any part of it establishes a basis for any agreement or other obligations of any kind. Sphene Capital GmbH, its subsidiaries/affiliates, and any of its employees involved in the preparation, do not accept any responsibility for liabilities arising from the publication and/or use of this publication or its contents nor for damages arising either directly or as a consequence of the use of information, opinions and estimates in this publication. Under no circumstances shall Sphene Capital GmbH, its subsidiaries/affiliates, and any of its employees involved in the preparation, have any liability for possible errors, inaccuracies or incompleteness of the information included in this research report—neither in relation to indirect or direct nor consequential damage. Neither Sphene Capital GmbH nor its subsidiaries/affiliates, and any of its employees, guarantee the accuracy or completeness of information used for this publication and nothing in this publication shall be construed to be a representation of such a guarantee. Used information has not independently been verified. Any opinions expressed reflect the current judgment of the analyst who prepared this publication in conjunction with his/her occupational activity and may be changed pursuant to future events and developments. Views expressed do not necessarily reflect the opinion of Sphene Capital GmbH. Past performance of a financial instrument is not necessarily indicative of future performance. A future update on the views and recommendations expressed in this publication is not planned as of today. Timing of updates cannot be foreseen by now, however, updates usually follow the publication of financial data by the company. Sphene Capital GmbH reserves the right to change the views expressed in this publication at any time and without further notice. Sphene Capital GmbH may have issued other publications that are inconsistent with and reach different conclusions from the information presented in this publication. Those publications may reflect the different assumptions, views and analytical methods of the analysts who prepared them. Past performance should not be taken as an indication or guarantee for further performance, and no representation or warranty, expressed or implied, is made regarding future performance

This publication is being distributed by industry-specific news agencies and finance portals and by mail to interested professional investors, who are expected to make their own investment decisions without undue reliance on this publication.

Bundesanstalt für Finanzdienstleistungen (BaFin) is the authority responsible for Sphene Capital GmbH.

All share prices mentioned in this publication are closing prices of the XETRA Electronic Trading System or where unavailable closing prices of the local stock exchange, as of the trading day preceding the day of the publication.

Investment Recommendations (12 months investment period)

Buy We expect a stock to rise by at least 10%.

Hold We expect a stock to move within 10% of the benchmark.

Sell We expect a stock to fall by at least 10% and underperform the benchmark.

Risk Assessment (12 months investment period)

Risk Estimated probability that the result of the analysed company differs from our forecast earnings by more than 20% due to company-or market-

specific reasons

Very high >80% High 50-80% Medium 20-50% Low <20%

Statements pursuant to § 85 (1) WpHG and Article 20 of Regulation (EU) No 596/2014 and Delegated Regulation (EU) 2016/958:

Section 34b of the German Securities Trading Act in combination with the Ordinance on the Analysis of Financial Instruments requires a company preparing a securities analysis to point out potential conflicts of interest with respect to the issuer that is the subject of the analysis. A conflict of interest is presumed to exist, in particular, if a company preparing a securities analysis

- 6 holds a more than 5% interest in the capital stock of the issuer that is the subject of the analysis,
- 6 holds a more than 5% interest in the capital stock of the issuer that is the subject of the analysis,
- has been a member of a syndicate that has underwritten the issuer's securities in the previous 12 months, is serving as a liquidity provider for the issuer's securities on the basis of an existing designated sponsorship contract,
- has been providing investment banking services for the issuer analysed during the last 12 months for which a compensation has been or will be
 - paid.
- is party to an agreement with the issuer that is the subject of the analysis relating to the production of the recommendation,
- or any of its affiliates are regularly trading securities issued by the issuer analysed or securities based on these issues,
- or the analyst covering the issue has other significant financial interests with respect to the issuer that is the subject of this analysis, for example holding a seat on the company's boards.

Sphene Capital GmbH uses the following keys:

- Key 1: The analysed company actively provided information material for preparation of this publication.
- **Key 2:** This publication has been customized to the issuer and has been modified afterwards before publication. Thereby the analysed company has not been provided with a publication or draft of publication which provided for an investment recommendation.
- Key 3: The analysed company owns more than 5% of the capital stock of Sphene Capital GmbH and/or a company affiliated with Sphene Capital GmbH.
- **Key 4:** Sphene Capital GmbH and/or a company affiliated with it and/or the analyst having prepared this publication owns more than 5% of the capital stock of the analysed company.
- **Key 5:** Sphene Capital GmbH and/or a company affiliated with it and/or the author of this publication acquired shares of the analysed company free of charge or for a consideration below the stated target price and before the shares' public offering.
- Key 6: Sphene Capital GmbH and/or a company affiliated with it serve as a liquidity provider for the issuer's shares on the basis of an existing market maker or liquidity provider contract.
- Key 7: Sphene Capital GmbH and/or a company affiliated with it and/or a related person/related company and/or the author of this publication was subject to an agreement on services in connection with investment banking transactions with the analysed company in the last 12 months or within the
- same period received consideration on basis of such an agreement.

 Key 8: Sphene Capital GmbH and/or a company affiliated with it have concluded an agreement on the preparation of this publication with the analysed company. Sphene Capital GmbH has received an advanced flat fee that corresponds with usual market practices.
- **Key 9:** Sphene Capital GmbH and/or a company affiliated with it receive commission earnings arising from commercial activities from the analysed company.
- Key 10: A member of the managing board of Sphene Capital GmbH and/or the author of this publication is member of the supervisory board of the analysed company.
- **Key 11:** Sphene Capital GmbH and/or a company affiliated with it and/or a related person/related company and/or the author of this publication owns a long/short position of more than 0,5% of a class of equity securities of this issuer, as calculated in accordance with EU regulation.
- Key 12: Sphene Capital GmbH and/or a company affiliated with it has been lead manager or co-lead manager of a publicly disclosed offer of securities of the issuer in the previous 12 months.

Investment Recommendations (12 months period):

Date/Time of publication:	Price target/Current share price:	Rating/Validity:	Conflict of Interest (key)
15 11 2022/09:25 h	CAD 1.67/CAD 0.71	Buy, 24 months	1, 2, 8

Statements pursuant to § 85 (1) WpHG and Article 20 of Regulation (EU) No 596/2014 and Delegated Regulation (EU) 2016/958:

This publication is based on information obtained from carefully selected public sources, especially suppliers of financial data, the publications of the analysed company and other publicly available media.

Rating principles/Methodology/Risks

For the preparation of the publication, company-specific methods from the fundamental stock analysis were used, such as quantitative statistical methods and models, and practices used in technical analysis (inter alia, historical valuation models, net asset value models or sum-of-the-parts valuation models, discounted cash flow models, economic profit models, multiplier models or peer-group comparisons). Valuation models are dependent on macroeconomic factors such as currencies, interest rates, commodities and on assumptions about the economy. In addition to that, market sentiment and political developments may impact the valuation of companies. Selected approaches are also based on expectations, which may change depending on the industry-specific developments without warning. Consequently, recommendations and price targets based on these models may change accordingly. Investment recommendations cover a period of twelve months and may be subject to market conditions. The expected price developments can be achieved faster or slower or be revised upwards or downwards.

Statement on compliance

Sphene Capital GmbH has taken internal organisational and regulative precautions to avoid or accordingly disclose possible conflicts of interest in connection with the preparation and distribution of the research report. All members of Sphene Capital GmbH involved in the preparation of the research report are subject to internal compliance regulations. No part of the Analyst's compensation is directly or indirectly related to the preparation of this financial analysis. Responsible for compliance with these arrangements: Susanne Hasler, susanne.hasler@sphene-capital.de.

Sources of Information

Part of the information required for this research report was made available by the issuer of the financial instrument. Furthermore, this report is based on publicly available sources (such as, for example, Bloomberg, Reuters, VWD-Trader, and the relevant daily press) believed to be reliable. Sphene Capital GmbH has checked the information for plausibility but not for accuracy or completeness.

Analyst certification

This research report was prepared by the research analyst(s) named on the front page (the "Analyst"). Views expressed do not necessarily reflect the opinion of Sphene Capital GmbH or any of its subsidiaries/affiliates. The Analyst(s) is(are) solely responsible for the views and estimates expressed in this report. The author(s) of this publication certify that their views about the companies and their securities discussed in this report are accurately expressed and that they have not received and will not receive direct or indirect compensation in exchange for expressing specific recommendations or views in this publication. The content of the research report was not influenced by the issuer of the analysed financial instrument at any time. It may be possible that parts of the research report were handed out to the issuer for information purposes prior to the publication without any major amendments being made thereafter.

This report has been finalized on 15 11 2022 at 08:50 h. Last price at the time of completion: CAD 0.71.