

CREDIT OPINION

30 January 2023

Update



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RATINGS

Volcan Compania Minera S.A.A. y Subsidiarias

Domicile	Peru
Long Term Rating	B1
Type	LT Corporate Family Ratings
Outlook	Stable

Please see the [ratings section](#) at the end of this report for more information. The ratings and outlook shown reflect information as of the publication date.

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Volcan Compania Minera S.A.A. y Subsidiarias

Update to credit analysis

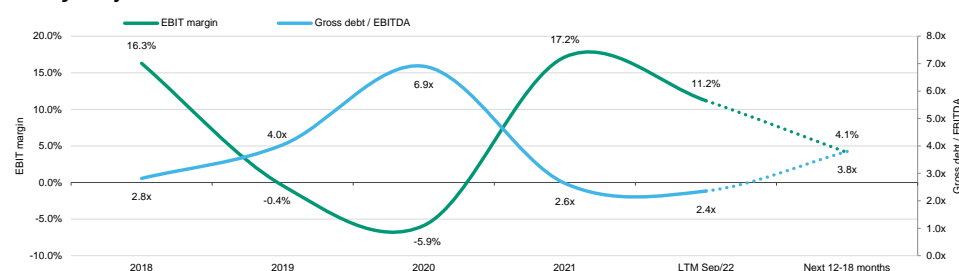
Summary

[Volcan Compania Minera S.A.A. y Subsidiarias](#)' (Volcan) B1 ratings incorporate the company's competitive cost position; operational diversification in terms of metals produced and assets; and status as a leading producer of zinc and silver globally, with some of the largest zinc reserves. [Glencore plc](#) (Glencore, Baa1 positive) became a controlling shareholder of Volcan in November 2017, with positive implications for Volcan's strategy, operations and corporate governance standards.

Volcan's B1 ratings are constrained by the company's modest scale compared with that of its global peers and its concentration in one country, as well as its high earnings volatility because of its exposure to commodity prices, historically tight liquidity and aggressive financial policies.

Exhibit 1

Leverage will remain above 3.5x in the next 12-18 months Moody's-adjusted



Moody's forecasts are our opinions and do not represent the views of the issuer. Periods are financial year-end unless indicated. Sources: Moody's Financial Metrics™ (historical) and Moody's Investors Service (forecasts)

Credit strengths

- » Leading producer of zinc and silver globally, with a competitive cost position
- » Operational diversification in metals and mines
- » Glencore's status as a controlling shareholder, which enhances Volcan's policies and processes

Credit challenges

- » Modest revenue scale compared with that of its global peers and concentration in one country
- » High earnings volatility because of exposure to commodity prices
- » Aggressive liquidity management, with high tolerance to debt and refinancing risk

Rating outlook

The stable rating outlook reflects our expectation that Volcan's liquidity will remain adequate and that the company's credit metrics will remain adequate for the rating category.

Factors that could lead to an upgrade

- » Evidence of a more balanced financial policy including timely refinancing of short-term debt and debt reduction from current levels are necessary conditions for a rating upgrade.
- » Volcan's ability to improve its cost position, while it continues to make investments for growth and achieves higher scale, could prompt a positive rating action.
- » An upgrade would also require a Moody's-adjusted EBIT margin of more than 10% and total debt/EBITDA below 3.5x on a sustained basis.

Factors that could lead to a downgrade

The ratings could be downgraded if:

- » Volcan's liquidity deteriorates, including negative free cash flow generation on a sustained basis, or the company adopts aggressive financial policies, particularly if these prompt the need to fund the gap with additional debt.
- » its Moody's-adjusted EBIT margin falls below 6%, interest coverage, measured as EBIT/interest expenses, remains below 1.5x and debt/EBITDA stays above 4x on a sustained basis.

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the issuer/deal page on <https://ratings.moody.com> for the most updated credit rating action information and rating history.

Key indicators

Exhibit 2

Volcan Compania Minera S.A.A. y Subsidiarias

USD millions	Dec-17	Dec-18	Dec-19	Dec-20	Dec-21	LTM (Sep-22)	Moody's forward view Next 12-18 months
Revenue	857	775	744	535	937	990	822
EBIT Margin %	25.5%	16.3%	-0.4%	-5.9%	17.2%	11.2%	4.1%
EBIT / Interest Expense	5.5x	2.7x	-0.1x	-0.7x	3.0x	2.4x	0.6x
Debt / EBITDA	2.2x	2.8x	4.0x	6.9x	2.6x	2.4x	3.8x
Debt / Book Capitalization	47.8%	52.4%	52.9%	60.5%	58.8%	56.0%	62.7%
(CFO - Dividends) / Debt	41.0%	23.8%	22.1%	14.4%	34.6%	35.1%	21.0%

All figures and ratios are calculated using Moody's estimates and standard adjustments. Moody's Forecasts (f) or Projections (proj.) are Moody's opinion and do not represent the views of the issuer. Periods are financial year-end unless indicated. LTM = Last 12 months.

Source: Moody's Financial Metrics™

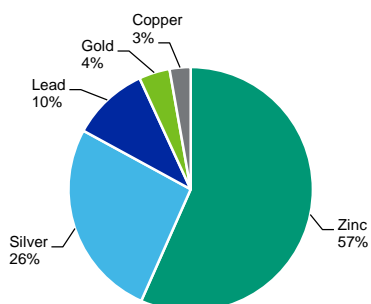
Profile

Volcan Compania Minera S.A.A. y Subsidiarias (Volcan) is a Peruvian mining company that primarily produces zinc and lead concentrate and some copper concentrate, all with high silver content. The company operates through five operating units including seven operating mines, five concentrator plants and one leaching plant for silver oxide production. All of Volcan's operations are located in Peru, and it reported revenue of \$990 million for the 12 months that ended September 2022. Volcan is a holding company listed on the stock exchanges of Lima, Santiago and Madrid (Latibex). Since November 2017, Glencore has held a controlling stake of 55% in Volcan's Class A voting shares, which is equivalent to a 22% economic interest in Volcan.

Exhibit 3

Sales by product

12 months that ended September 2022

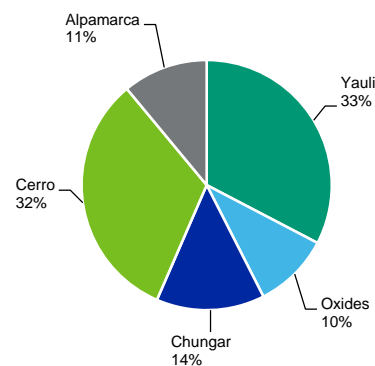


Source: Volcan's quarterly management discussion and analysis

Exhibit 4

Production by mine

12 months that ended September 2022



Source: Volcan's quarterly management discussion and analysis

Detailed credit considerations

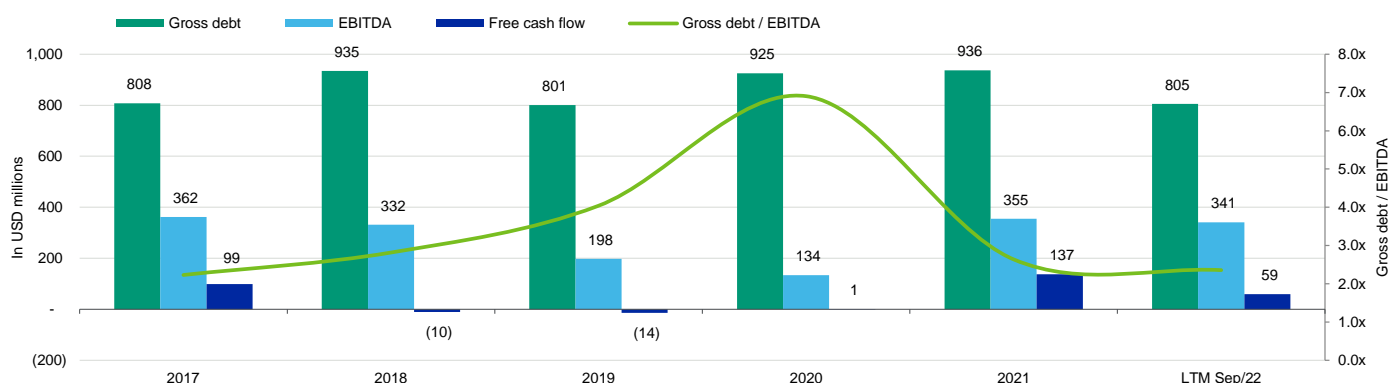
Volatile metal prices and political turmoil will put pressure on the company's credit metrics

Volcan's credit metrics as of September 2022 including leverage of 2.2x and EBIT margin of 11.2% provide some buffer for the company to navigate the current social and political turmoil in Peru, and the volatility in base and precious metal prices through 2023. However, its concentration in Peru, earnings volatility because of its exposure to commodity prices and inflationary pressures on costs will put pressure on Volcan's credit metrics. We expect gross leverage to be around 3.8x range over the next 12-18 months and Moody's-adjusted EBIT/interest expense to decline to below 1.0x, given lower EBIT generation.

Given the geographic concentration of Volcan's mines in Peru, the company is highly exposed to the current social unrest in the country. On 7 December, [the Government of Peru](#) (Baa1 stable) restored government and constitutional order after sitting President Pedro Castillo attempted to dissolve congress. Since then, the country has a new president, Dina Boluarte. Social protests led the government to declare a one-month state of emergency on 14 December, which was extended for another month on 15 January, including in Lima, Puno, Cusco and the province of Callao. Demonstrators blocked roads, cutting off supplies to copper mines and local food markets, and shut down tourism sites. Most of the protests are concentrated in the southern region of Peru, where most of the agribusiness and mining activities are concentrated. Volcan's sites or operations have not been directly affected because these are mostly concentrated in the central highlands of Peru. However, the immediate risk of blockades, supply chain delays and even production stoppage will increase until the social unrest is controlled. On top of this, with the government calling elections in 2024, companies could face delays in obtaining permits for projects that are already under construction, as is the case for Volcan's Romina project, and if the current political circumstances continue or deteriorate over the medium term, investor confidence will remain challenged.

Exhibit 5

Improved credit metrics provide a buffer to navigate the difficult environment Moody's-adjusted



Source: Moody's Financial Metrics™

Since late 2020, Volcan has benefited from higher-than-average historical metal prices. The company's Moody's-adjusted EBITDA for the 12 months that ended September 2022 more than doubled from that in 2020, reaching \$341 million, leading to Moody's-adjusted debt/EBITDA of 2.4x as of September 2022 from the peak of 6.9x as of year-end 2020.

Along with the improvement in operating metrics, Volcan conducted a material liability management using proceeds of the new \$400 million syndicated facility with local and international banks to repay its \$410 million senior unsecured notes due in February 2022. Furthermore, in June 2022, Volcan [reduced \\$110 million in debt in connection with a cash tender offer](#). All of these important measures taken by the company allowed gross leverage to reach 2.2x as of the end of the second quarter of 2022. Following the cost pressure and commodity price reduction over the third quarter, gross leverage increased slightly to 2.4x for the 12 months that ended September 2022, remaining at an adequate level for the rating category.

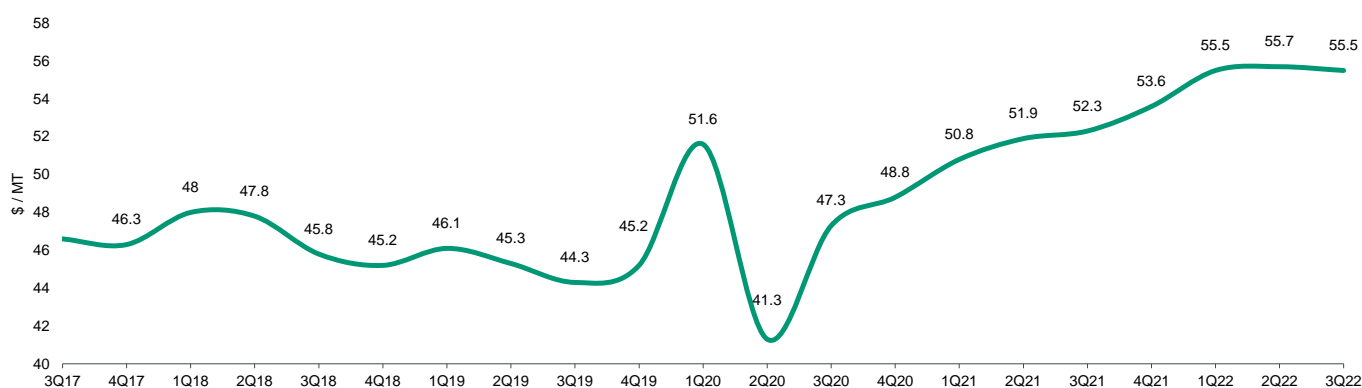
Profitability strained by increasing costs

Higher-than-average base and precious metal prices gave Volcan some buffer to cover increasing costs. Volcan's cash cost has increased significantly since 2020, initially because of additional expenses related to the coronavirus pandemic, and later on because of the overall inflation that has affected the industry in all fronts, including labor, supplies, energy, fuel costs, among other factors, as well as delays in the supply chain, especially in H1 2022.

Unit cost of production (excluding infill drilling) was \$55.5/ton as of the end of Q3 2022, after reaching a peak of \$55.7/ton in Q2 2022. This compares with the level of \$50.8/ton in Q1 2021 and \$45.2/ton in Q4 2019. Volcan put in place a plan called "Volcan Avanza" to control and reduce costs through several initiatives. Through Volcan Avanza, the company identified costs it can reduce and manage through the reconfiguration of machines and managers in the units, and by implementing Glencore standards to improve efficiency at the mines. This plan started to bring results in the third quarter of 2022, when the number stabilized, but should have further impact in subsequent periods. While we expect Volcan to maintain cost discipline; we highlight the risks and difficulties in maintaining and even reducing costs through 2023, including potential disruptions due to social and political turmoil, which could affect the company's production output increasing unit costs. Because of these reasons, even if the company executes on its cost reduction strategy, we do not believe the reduction from current levels will be more than 10% in 2023.

Exhibit 6

Volcan's unit cost of production has increased significantly since the pandemic Historical unit cost of production excluding infill drilling (\$/MT)



Source: Volcan's quarterly management discussion and analysis

Volcan benefits from diversification and still-high metal prices

Volcan benefits from its mine and metal diversification. The company is the leading producer of zinc in Peru and is among the largest producers of zinc in the world. Moreover, Volcan has a diverse mix of metals and good operational diversification, with its five main operational units at Yauli, Chungar, Cerro de Pasco, Oxides and Alpamarca in the central region of Peru. It produces metals from seven operating mines, and has five concentrator plants and one leaching plant for silver oxide production.

Volcan benefited from higher average sale prices of zinc and silver, which accounted for 83% of the company's revenue for the 12 months that ended September 2022. Realized prices of zinc increased 32% in 2021 to \$1.37/pound (lb), from \$1.03/lb in 2020, and following the sharp hike in energy cost, which forced some European producers to reduce output, realized prices increased further to an average of \$1.57/lb in 2022. Silver prices fell 13% in 2022 from the peak in 2021 when the average realized price was \$25.13/ounce (oz); nonetheless, annual average realized prices in 2022 were still 34% higher than 2019 levels.

We expect zinc prices to be at \$1.3/lb over the next 12 months. Our medium-term price sensitivity range is at \$1.1-\$1.4/lb. Supply will remain tight considering that zinc producers quickly adjust its production to respond to a price decline or an increase in energy cost. Zinc markets remain balanced with a decline in refined zinc production in Europe, as smelters reduced operations as a response to the higher electricity costs in the continent.

Silver prices are likely to face some pressure from the current environment of rising interest rates and a stronger US dollar. Industrial demand coming mainly from solar and electrical applications will provide base support to pricing, as supply fails to keep up with

demand. We expect silver prices to be at \$20/oz over the next 12 months, while our medium-term price sensitivity range is \$17-\$21/oz; for gold, the range is \$1,300-\$1,600/oz and for copper, the range is \$3.00-\$4.00/lb.

Expansionary projects will not contribute significantly to operations before 2024

Volcan's reserve position amounted to 23 million metric tons (mt) as of year-end 2021. As of year-end 2021, the company's reserves supported a consolidated life of mine equivalent to around 6 years. Furthermore, the company holds significant exploration properties in mineral-rich locations and has a high potential to improve its reserves.

To take advantage of the current infrastructure at its existing mines, Volcan plans to continue the brownfield exploration in Esperanza, Zoraida and Andaychagua, and advance on the Romina, Carhuacayán and Zoraida polymetallic projects (zinc, lead and silver), which are close to the Alparmarca and Yauli unit mines. Romina is planned to start operations by year-end 2024 and is the most advanced project. Romina investment is estimated at around \$142 million in 2022-24 (\$10 million in 2022, \$47 million in 2023 and \$85 million in 2024), and the estimated production for the first 13 years of the project is 442,000 mt of zinc (around 15% of 2022 annual production growth), 248,000 mt of lead (35%) and 12.5 million oz of silver (7%).

The investment will be relatively limited because Volcan will be able to use some existing mine infrastructure to exploit this new mine. Furthermore, Volcan and Glencore are conducting technical reviews on the plan to save an additional \$30 million using the current infrastructure in Alparmarca. Based on current prices and costs pressures, we believe that the company will likely need to incur additional debt to fund this project.

Other possible future projects include Carhuacayán and Zoraida, which would both be close to the existing mines and benefit from operating synergies. Another relevant development project is Palma, located 60 kilometers from Lima, which is a zinc, lead and silver project with inferred resources of close to 23 million metric tons.

Glencore's majority shareholding is credit positive

In November 2017, Glencore increased its participation in Volcan to a 55% controlling stake in Class A voting shares from 18% earlier. Glencore has a 22% economic interest in Volcan, including the nonvoting Class B shares. Glencore is a leading publicly listed natural resources group domiciled in Switzerland, which combines a large and well-diversified portfolio of mining assets with an extensive third-party marketing business. The company is active in all key base metals (copper, zinc, cobalt, nickel and aluminum), thermal and metallurgical coal, and oil and agricultural commodities. In the 12 months that ended June 2022, Glencore generated \$244 billion of revenue with a Moody's adjusted EBIT margin of 8.7%.

Glencore's strong credit profile, industry expertise and financial strength are beneficial for Volcan. Since 2017, Volcan has been raising its operating standards (including safety, payment terms and exploration methods) to match those of Glencore, which has increased its costs. However, we expect these higher standards to continue to strengthen Volcan's overall business profile.

ESG considerations

Volcan Compania Minera S.A.A. y Subsidiarias' ESG Credit Impact Score is Highly Negative CIS-4

Exhibit 7

ESG Credit Impact Score

CIS-4

Highly Negative



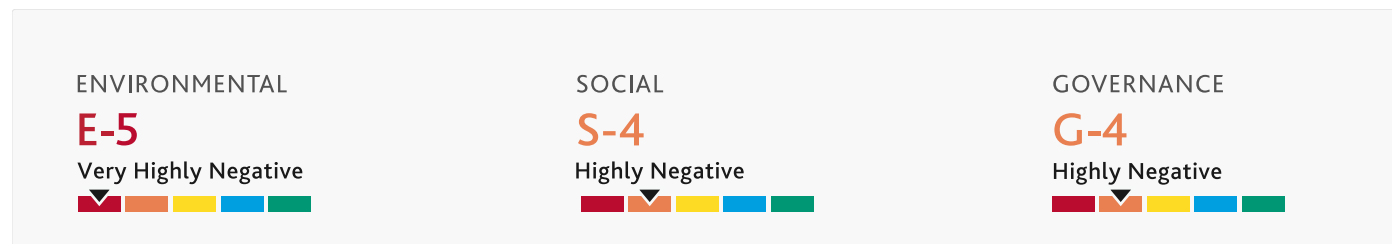
For an issuer scored CIS-4 (Highly Negative), its ESG attributes are overall considered as having a discernible negative impact on the current rating. The negative influence of the overall ESG attributes on the rating is more pronounced compared to an issuer scored CIS-3.

Source: Moody's Investors Service

CIS-4 (highly negative). Reflects very high social risk and operational concentration in one country, Peru, with history of difficult community relationships as well as high tolerance to liquidity risk.

Exhibit 8

ESG Issuer Profile Scores



Source: Moody's Investors Service

Environmental

E-5 (very highly negative). **E-5** reflects the industry heatmap and Volcan's diverse mix of metals and operations, with five main operational units in central Peru, seven operating mines, Volcan also has five concentrator plants and one leaching plant for silver oxide production. Volcan has in place an environmental management system, a tool that monitors eight critical risks and follows up on the fulfillment of Volcan's environmental obligations and their effective implementation.

Social

S-4 (highly negative). The company's standards improved in recent years as part of Glencore's acquisition of a majority share of the company aiming to attain zero-fatality status. Volcan put in place measures to improve its tailing dam technology and align it with the guidelines of the Canadian Dam Association, with plans for about \$170 million of investments in tailing dams through 2024. Volcan has not reported significant disputes or opposition to its operations or projects from local communities. However, Volcan is exposed to the communities in the center region of Peru, with track record in opposition to other mining projects.

Governance

G-4 (highly negative). **G-4** reflects its tolerance to liquidity risk Glencore's support. Volcan has been heavily reliant on short term debt and has shown aggressive liquidity management. Volcan is a public company listed on stock exchanges in Lima, Santiago and Madrid, and it must comply with local and international regulations for compliance and reporting. Glencore has a 55% controlling stake in Volcan, which has a seven-member board of directors, including four that Glencore appoints. Volcan is subject to internal audits and frequent cross-audits from Glencore and third parties.

ESG Issuer Profile Scores and Credit Impact Scores for the rated entity/transaction are available on Moodys.com. In order to view the latest scores, please click [here](#) to go to the landing page for the entity/transaction on MDC and view the ESG Scores section.

Liquidity analysis

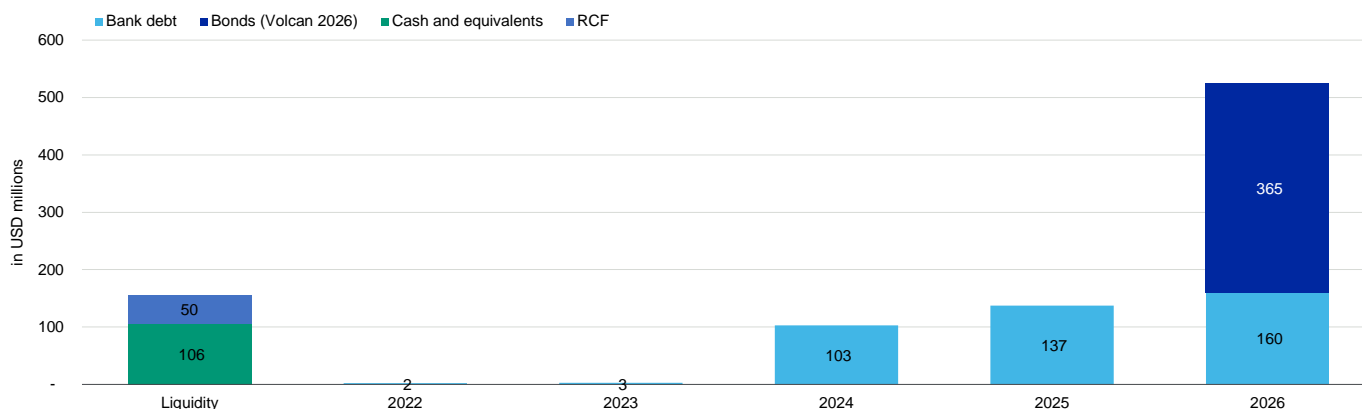
Volcan's liquidity is adequate supported by the company's \$106 million in cash as of September 2022 and \$50 million in committed facility available until October 2023, enough to cover \$5 million in debt maturing through December 2023. Nonetheless, the company has \$103 million in debt coming due in 2024 in connection with its syndicated facility, which coupled with the expected negative free cash flow driven by expansionary projects, will force the company to look for alternatives to refinance this debt. We expect Volcan to proactively address these maturities, at least 12 months in advance.

The company has historically shown an aggressive approach towards liquidity, in January 2022 Volcan's liquidity improved significantly after the company repaid its \$410 million senior unsecured notes due in February 2022 with the proceeds of the \$400 million syndicated facility. This facility benefits from the guarantee of the subsidiaries generating at least 90% of EBITDA and ranks at the same level as the company's senior unsecured notes due in 2026. The facility includes a two-year grace period followed by seven equal quarterly amortizations plus a \$160 million balloon payment in Q1 2026.

In the past, Volcan announced a \$400 million equity injection, which was going to be received in Q3 2021. According to the company's public filings, the equity injection was postponed, not canceled, but there is no definitive date or time frame to execute it, which limits Volcan's ability to take on additional debt up to the present day.

Exhibit 9

Debt maturity profile As of September 2022



Source: Moody's Investors Service

Methodology and scorecard

Exhibit 10 shows Volcan's scorecard-indicated outcome under our [Mining](#) rating methodology, published in October 2021. The rating outcome for the 12 months that ended September 2022 is in line with the scorecard-indicated rating, while the forward-looking view rating outcome is two notches below the assigned rating reflecting the inherent volatility of base and precious metals prices combined with cost pressures.

Exhibit 10

Rating factors

Volcan Compania Minera S.A.A. y Subsidiarias

Methodology: Mining			Current LTM (Sep-22)		Moody's Forward View Next 12-18 months (as of Jan-23)	
Factor 1: SCALE (20%)			Measure	Score	Measure	Score
a) Revenues (USD Billion)			\$0.99	Ca	\$0.82	Ca
Factor 2: BUSINESS PROFILE (25%)						
a) Business Profile			Ba	Ba	Ba	Ba
Factor 3: PROFITABILITY AND EFFICIENCY (10%)						
a) EBIT Margin (EBIT / Revenue)			11.2%	Ba	4.1%	Caa
Factor 4: LEVERAGE AND COVERAGE (30%)						
a) EBIT / Interest Expense			2.4x	B	0.6x	Ca
b) Debt / EBITDA			2.4x	Baa	3.8x	B
c) Debt / Total Capital			56.0%	Ba	62.7%	Ba
d) (CFO - Dividends) / Debt			35.1%	Baa	21.0%	Ba
Factor 5: FINANCIAL POLICY (15%)						
a) Financial Policy			B	B	B	B
Rating Outcome:						
a) Scorecard-Indicated Outcome				B1		B3
a) Actual Rating Assigned				B1		

[1] All ratios are based on adjusted financial data and incorporate Moody's Global Standard Adjustments for Non-Financial Corporations.

[2] As of 30 September 2022(L).

[3] This represents our forward view, not the view of the issuer, and unless noted in the text, does not incorporate significant acquisitions and divestitures.

Source: Moody's Financial Metrics™

Ratings

Exhibit 11

Category	Moody's Rating
VOLCAN COMPANIA MINERA S.A.A. Y SUBSIDIARIAS	
Outlook	Stable
Corporate Family Rating	B1
Senior Unsecured	B1

Source: Moody's Investors Service

Appendix

Exhibit 12

Moody's-adjusted debt reconciliation for Volcan Compania Minera S.A.A. y Subsidiarias^{[1][2]}

(in USD millions)	FYE Dec-17	FYE Dec-18	FYE Dec-19	FYE Dec-20	FYE Dec-21	LTM Ending Sep-22
As Reported Debt	802.4	796.4	800.8	925.3	936.5	804.8
Pensions	0.0	0.0	0.0	0.0	0.0	0.0
Operating Leases	5.5	138.6	0.0	0.0	0.0	0.0
Moody's-Adjusted Debt	807.9	935.0	800.8	925.3	936.5	804.8

[1] All figures are calculated using Moody's estimates and standard adjustments.

[2] Periods are financial year-end unless indicated. LTM = Last 12 months.

Source: Moody's Financial Metrics™

Exhibit 13

Moody's-adjusted EBITDA reconciliation for Volcan Compania Minera S.A.A. y Subsidiarias^{[1][2]}

(in USD millions)	FYE Dec-17	FYE Dec-18	FYE Dec-19	FYE Dec-20	FYE Dec-21	LTM Ending Sep-22
As Reported EBITDA	415.6	389.6	244.0	69.1	355.1	345.8
Pensions	0.0	0.0	0.0	0.0	0.0	0.0
Operating Leases	1.8	46.2	0.0	0.0	0.0	0.0
Unusual	-55.2	-103.9	-45.8	65.0	0.0	-4.1
Non-Standard Adjustments	0.0	0.0	0.0	0.0	0.0	-0.2
Moody's-Adjusted EBITDA	362.3	332.0	198.2	134.0	355.1	341.5

[1] All figures are calculated using Moody's estimates and standard adjustments.

[2] Periods are financial year-end unless indicated. LTM = Last 12 months.

Source: Moody's Financial Metrics™

Exhibit 14

Peer comparison^{[1][2]}

(in USD millions)	Volcan Compania Minera S.A.A. B1 Stable			Compania de Minas Buenaventura B2 Stable			Nexa Resources S.A. Ba2 Stable			Minsur S.A. Ba1 Stable		
	FYE Dec-20	FYE Dec-21	LTM Sep-22	FYE Dec-20	FYE Dec-21	LTM Sep-22	FYE Dec-20	FYE Dec-21	LTM Sep-22	FYE Dec-20	FYE Dec-21	LTM Jun-22
Revenue	\$535	\$937	\$990	\$677	\$900	\$832	\$1,951	\$2,622	\$2,932	\$649	\$2,005	\$2,679
EBITDA	\$134	\$355	\$341	\$139	\$135	\$132	\$405	\$722	\$767	\$273	\$1,360	\$1,899
Total Debt	\$925	\$936	\$805	\$1,205	\$1,108	\$736	\$2,050	\$1,719	\$1,660	\$1,391	\$1,583	\$1,341
EBIT Margin	-5.9%	17.2%	11.2%	-7.1%	-5.8%	-5.7%	8.3%	17.7%	16.6%	23.6%	57.9%	60.3%
EBIT/Avg. Tang. Assets	-1.5%	7.9%	5.6%	-1.2%	-1.2%	-1.1%	4.1%	11.9%	12.8%	5.1%	34.0%	45.7%
EBIT / Int. Exp.	-0.7x	3.0x	2.4x	-2.1x	-1.2x	-1.3x	1.0x	2.9x	2.7x	4.4x	27.6x	21.6x
Debt / EBITDA	6.9x	2.6x	2.4x	8.7x	8.2x	5.6x	5.1x	2.4x	2.2x	5.1x	1.2x	0.7x
Total Debt/Capital	60.5%	58.8%	56.0%	34.9%	30.0%	18.9%	52.7%	48.4%	45.9%	43.9%	43.1%	34.7%
(CFO - Dividends) / Debt	14.4%	34.6%	35.1%	11.4%	-18.4%	21.7%	11.5%	25.6%	13.4%	10.2%	21.0%	75.5%

[1] All figures and ratios calculated using Moody's estimates and standard adjustments.

[2] FYE = Financial year-end. LTM = Last 12 months. RUR* = Ratings under review, where UPG = for upgrade and DNG = for downgrade.

Source: Moody's Financial Metrics™

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