



ANNUAL REPORT 2019

## TABLE OF CONTENTS

CONTENT	2
STATEMENT OF RESPONSIBILITY	4
LETTER OF THE PRESIDENT OF THE BOARD OF DIRECTORS	5
LETTER OF THE GENERAL MANAGER	6
1. OUR COMPANY	9
1.1. VISION, MISSION AND VALUES	15
1.2. BOARD OF DIRECTORS AND MANAGEMENT STRUCTURE	16
1.2.1. Minsur Board of Directors	16
1.2.2. Managers	17
2. ECONOMIC AND SECTORAL CONTEXT	18
2.1. 2019 ECONOMIC ENVIRONMENT	18
2.2. 2019 SECTORAL ENVIRONMENT	19
2.3. MARKET PERFORMANCE IN 2019	20
3. OPERATIONAL PERFORMANCE	21
3.1. MINING UNITS AND PROJECTS	21
3.1.1. San Rafael MU	21
3.1.2. SPR of Pisco	22
3.1.3. Pucamarca MU	23
3.1.4. Minera Taboca	24
3.1.5. Tailings Reuse Project B2	25
3.2. EXPLORATIONS	26
3.3. HUMAN RESOURCES	28
3.4. SOCIAL MANAGEMENT	30
3.5. ENVIRONMENTAL MANAGEMENT	34
3.6. OCCUPATIONAL HEALTH AND SAFETY	38
3.7. MARKETING	40
4. RESULTS	41
4.1. FINANCIAL RESULTS	41
4.2. LIQUIDITY	43
4.3. CAPITAL AND FUNDING	43
4.4. STAFF RESPONSIBLE FOR PREPARING THE FINANCIAL STATEMENTS	43
5. GENERAL INFORMATION	44
5.1. CORPORATE NAME	44
5.2. CORPORATE PURPOSE AND TERM	44
5.3. INCORPORATION AND REGISTRATION	44
5.4. ECONOMIC GROUP	44
5.5. SOCIAL CAPITAL, NUMBER AND NOMINAL VALUE OF SHARES	45

5.6. TYPE OF SHARES AND SHAREHOLDING STRUCTURE	45
5.7. EVOLUTION OF STOCK PRICE	46
5.8. TAX TREATMENT	47
5.9. JUDICIAL, ADMINISTRATIVE OR ARBITRATION PROCEEDINGS	47
6. CORPORATE GOVERNANCE	49
6.1. PROFESSIONAL TRAJECTORY OF DIRECTORS	49
6.2. OTHER ASPECTS RELATED TO THE BOARD OF DIRECTORS	52
6.3. PROFESSIONAL TRAJECTORY OF MANAGERS	52
6.4. REMUNERATION OF THE BOARD OF DIRECTORS	54

## STATEMENT OF RESPONSIBILITY

The document hereof provides truthful and sufficient information on the development of businesses of Minsur S.A. in 2019. Notwithstanding the responsibility of the issuer, the signatories are liable for its content pursuant to applicable statutory provisions.

Lima, July 31, 2020

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Juan Luis Kruger Sayán

**General Manager**

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Fortunato Brescia Moreyra

**President of the Board of  
Directors**

## LETTER FROM THE PRESIDENT OF THE BOARD OF DIRECTORS

Dear shareholders:

On behalf of the Board of Directors of Minsur S.A., I share with you our 2019 Annual Report and Financial Statements for FY2019, which show our activities, performance and most relevant achievements of our operations.

2019 has been a very special year for us. It represents a turning point for the future of our company, because we have been able to consolidate our Innovation, Transformation and Sustainability approaches. The main evidence of it is the commissioning of the B2 plant in San Rafael MU, with a pioneering technology for global mining that allows reusing old tailings to produce tin concentrate. Not only B2 extends the life of mine, but it is also a milestone for sustainability in the mining industry. Another relevant achievement is the progress made in the Mina Justa construction project, which is more than 70% complete. Thus, we closed the year exceeding our work schedule projections, proving the commitment and professionalism of all the staff involved.

If we talk about Transformation, we should also highlight our experience implementing Lean Management tools, through the program called “Lingo”, which enabled us to make a qualitative leap forward in the management of all our activities with a clear Innovation and Excellence approach. And if we refer to Sustainability, our Safety management and value reached significant results, preserving our collaborators’ integrity and placing us in the third best performance position of the ICMM ranking. Furthermore, we enhanced our environmental and social Sustainability, strengthening our management systems and assuming new commitments and initiatives.

I would like to thank our collaborators, suppliers, customers, shareholders and members of the Board of Directors for contributing to our company’s and its operations’ development, and for helping us to continue building a world-class mining company. I now invite you to read the most relevant events of Minsur management in 2019.

Fortunato Juan José Brescia Moreyra  
**President of the Board of Directors**

## LETTER OF THE GENERAL MANAGER

Dear shareholders:

It is with great pleasure that I present to you our 2019 Annual Report and Audited Financial Statements, which summarize the most relevant events in our company's management, in accordance with the requirements set forth by the Peruvian securities regulator (SMV).

2019 has been a turning point towards Minsur's future. The words that better define this year are Transformation, Sustainability and Innovation. Our aim, since our management began, is becoming a benchmark for global mining. Thus, innovation and sustainability approaches are key drivers in our philosophy and our daily work.

In terms of Innovation and Transformation, 2019 has been a prolific year for Minsur. We finished building our B2 project, which translates into a 25% to 30% increase in tin production. Thus, we have entered the world of recycled materials, using resources that were already processed in the past. This project is a milestone in the mining sector, not only nationwide but also globally. We have implemented it from its original plans, design, pilot tests, building, to its commissioning. It is for us a testimony on how to transform environmental liabilities into environmental assets. B2 is innovation, transformation and sustainability.

2019 was also a year of transformation because of the implementation of Mina Justa. At the end of December, construction of this project was more than 70% complete. Mina Justa consolidates the foundations of Minsur's diversification into the copper industry and, specifically into great copper mining, with a world-class operation we have developed from the ground up.

Another relevant event was the confirmation of resources and reserves in San German area, and San Rafael's capacity to replenish resources and reserves and thus extend the life of mine. From the operational point of view, we transformed our management system, which is reflected in the so-called LINGO program. This program allowed us to start implementing processes of the Lean Management methodology in our business management. Thus, at the end of 2019 we launched 'the first wave' of LINGO in our smelting plant and refinery of Pisco.

Another Innovation experience is the transformation of our company's business management. We launched the VCI (Value Creation Initiative), which aims at developing a closer relationship with a group of strategic customers for our tin business. With them we have developed innovative initiatives generating value for both of us, which -at the same time- consolidate us as a sustainable and preferred supplier for them. Currently, we continue developing a series of projects focused on different value lines for them. For instance, initiatives to generate downstream value in our customers' production processes that promote changes and innovation in our smelting plant, e.g. changes in the presentation in tin shipments.

We have also developed a new process with our own technology, called “double ore sorting”, which will lead to a 20% to 25% increase in San Rafael’s production without major investments and with no need for a larger tailings capacity.

Regarding our administrative processes, we have also implemented several innovation initiatives. Human Resources, for instance, made a huge effort digitalizing many of its processes and developing apps to ease the team’s administrative workload

In terms of Sustainability, as we have already mentioned, our vision is clear: consolidating as a reference in Sustainability for the mining industry, not only in our country, but also globally. Being a member of the ICMM allows us to compare ourselves with mining companies with the world’s highest sustainability standards, and thus ensuring that these standards are met in our units.

In 2019 we have consolidated our sustainability management system, in all that is related to policies, closely linked to our ICMM membership. We are the only Peruvian mining company that is a member of this Council, which implies meeting its 10 principles. Among them, the Human Rights principles are very clear, that is why we have approved and advocated our human rights policy, applicable both for our employees and contractors. Gradually, we are making sure that all ICMM principles and practices are implemented by our suppliers, contractors and strategic partners.

Regarding our main value, Safety, in 2019 we continued consolidating as Peru’s safest mining company, with a record lost-time accident frequency rate, lower than 0.5, which places us among the world’s top three companies. A proof of this is, for example, that B2 project was completed with no lost-time accidents during the year and a half of construction works. Because of this we have received new awards from the industry, e.g., the ISEM and John T. Ryan awards.

We could also consider 2019 as the year of Occupational Health for Minsur. We launched a full management system in this field, very similar to the Safety management one. This has meant a great progress, including a strengthened health management team. In our social management we developed a similar approach. We fed our system with a group of policies and standards that will allow us managing relationships and social investment initiatives, with a more sustainable vision and in a more efficient way. We have increased social investments in our areas of influence, but with a shared-value vision, with the company playing a determining role but accompanying local development processes. A clear example is the early child development program, with initiatives such as SAMI and *Volar*, which mobilize all local and national stakeholders around a major objective: healthy children. These initiatives have also gained us recognition from MIDIS, RPP and SNMPE, among other organizations.

Regarding the environmental aspect, it is necessary to highlight our commitment to efficient and sustainable resource management, in line with global measures to revert climate change. We started setting the baseline to define our carbon footprint, and to start specific projects that allow us reducing this indicator. Our company has the

ambition to become carbon neutral. Thus, among the measures we have adopted, last year we have started assessing a project to generate wind and solar power.

Our achievements and the challenges we have overcome in 2019 were possible thanks to our employees. With their commitment and dedication, they are turning Minsur S.A. into a different mining company, committed to implement what we call “XXI-century mining industry”, which shall be efficient, innovative and aligned to the sustainability requirements of our planet and global citizenship. I thank them dearly and trust them absolutely. I also want to thank the invaluable contribution of our shareholders, customers, suppliers and communities, which allow us consolidating as a world-class Peruvian mining company.

Juan Luis Kruger  
**General Manager**



## 1. OUR COMPANY

Our origin dates back to the beginning of the XX century, when Lampa Mining Company was operating in the Puno region. From that company and decades later, in 1966, Minsur Sociedad Limitada was established. It was the Peruvian branch of Minsur Partnership Limited in Bahamas, which was acquired by the Breca Group in 1977 to transform it in Minsur S.A., a 100% Peruvian company.

After such acquisition and for some more years, copper was our main product in the now San Rafael MU. Years later, copper was mined occasionally and in a smaller scale. In 1992, tin became the only metal produced in such unit. Since 1996, our company has the Smelting Plant and Refinery (SPR) of Pisco to process tin ore produced in San Rafael.

In 2008, through Minera Latinoamericana S.A.C. -in which we are the majority shareholders- we became the main shareholder of Mineração Taboca S.A., which mines tin, niobium and tantalum from the Pitinga mine (Brazil) and is also owner of the Smelting Plant of Pirapora (São Paulo). Furthermore, Minera Latinoamericana S.A.C. – through subsidiaries- is also shareholder of Melón S.A., leading company in the production and commercialization of cement, concrete, mortars and aggregates in the Chilean market.

On the other hand, Cumbres del Sur S.A. is the main shareholder of Compañía Minera Barabastro S.A.C., which has a polymetallic project in Huancavelica region, and of Minera Sillustani S.A.C., which has several concessions in the Puno region.

We are also shareholders of Cumbres Andinas S.A.C., with 60% of its shares. This company is the owner of 99.99% of the stock capital of Marcobre S.A.C, the company developing the copper ore project called Mina Justa, in San Juan de Marcona (Ica); this project processes copper sulfides and oxides into cathodes and concentrates.

Thus, our company's cornerstone is comprised by assets that give us a competitive advantage that are of a high grade or have low production costs. This encourages us to focus on basic metals, such as tin and copper, and precious metals, such as gold. At the end of FY 2019, our mining concessions reached 260,764 hectares: 235,639.61 correspond to our operations in Peru and 25,125 to those in Brazil.

For over 40 years we have been committed to ethics and social corporate responsibility, as well as to the development of Peru. We meet the highest quality and safety standards, using state-of-the-art technology and working under the highest international standards.

Likewise, risk prevention and detection are the base of our management system, which allows us managing operations and projects at different stages of the mining cycle. Thus, we ensure safety, health and the development of communities, as well as the protection of the environment.

As part of our continuous improvement process, we were admitted in the International Council on Mining and Metals (ICMM) in 2018, which gathers 27 leading mining companies from around the world and over 30 regional associations. ICMM vision is to make the metal mining a respected industry trusted to operate responsibly and contribute to sustainable development. We are the first Peruvian mining company, the third in Latin America, and the world's first tin producer admitted to this institution.

**Table. Our operations and projects**

	Location	Company	Unit / project	Main products
Operations	Puno, Ica, (Peru)	Minsur S. A.	San Rafael MU SPR Pisco	Tin
	Tacna (Peru)	Minsur S. A.	Pucamarca MU	Gold
	Sao Paulo, Brazil	Mineração Taboca S. A.	Pitinga MU SPR Pirapora	Tin and ferroalloys
Exploration projects	Puno (Peru)	Minsur S. A.	Santo Domingo	Tin
	Puno (Peru)	Minsur S. A.	Nazareth	Tin
	Huancavelica (Peru)	Compañía Minera Barbastro S. A.C	Mina Marta	Copper
Expansion projects	Ica (Peru)	Marcobre S. A.C	Mina Justa	Copper
	Puno (Peru)	Minsur S. A.	Tailing Reuse project B2	Tin
Closing mines	Puno (Peru)	Minera Sillustani S. A. C.	Mina Regina	NA
	Huancavelica, (Peru)	Compañía Minera Barbastro S. A. C.	Mina Marta	NA

## Our operations

At the end of 2019, we have five operations, three in Peru and two in Brazil.

### San Rafael MU

- Location: Melgar province, Puno department, Peru
- Start of operations: 1977
- Estimated life of mine: 8.1 years
- Type of operation: underground tin mine
- Processes: concentration and flotation
- Average ore grade: 1.66 %
- Production in 2019: 20,273 tons of tin
- Certifications: ISO 14001, ISO 9001, OHSAS 18001

San Rafael MU works with the innovative *ore sorting* process, a German technology that allows analyzing rock composition using X rays to identify those with tin content. This enables us to sort them according to their ore grade. At the end of 2019 double sorting tests were initiated with favorable results.

Similarly, this year we completed the construction and third stage of commissioning of the B2 plant. It allows recovering tin from tailings located in the B2 tailings dam that come from the first operations conducted in the mine. Currently the plant is in the ramp-up stage (until March 2020).

### SPR of Pisco

- Location: Pisco province, Ica department (Peru)
- Start of operations: 1996
- Type of operation: tin smelting and refining
- Processes: submerged lance smelting furnace
- Ore grade: 39 %
- Production in 2019: 19,637 tons of tin
- Certifications: ISO 14001, ISO 9001, OHSAS 18001

The Smelting Plant and Refinery (SPR) of Pisco is the final operational arm of San Rafael MU for producing and selling refined tin. The SPR is one of the firsts to use the submerged lance technology to process tin concentrate in the world, which allows cost and production time efficiency. Thanks to that, we have an average purity of 99,95 %, and world-class tin-based alloys. In October 2019 we started feeding the furnace with the concentrate brought from the new B2 plant, located in San Rafael.

### Pucamarca MU

- Location: Palca province, Tacna department (Peru)
- Start of operations: 2013
- Estimated life of mine: 6 years
- Type of operation: open pit mine of gold (main) and silver
- Processes: absorption, desorption, recovery (ADR)
- Ore grade: 0.59 grams per ton (g/t)
- Production in 2019: 101,799 ounces of gold
- Certifications: ISO 14001, ISO 9001, OHSAS 18001

Pucamarca MU, located at the border with Chile, has an average *cash cost* of 5.45 Dollars per treated ton (USD/tt). Through the crushing and leaching processes ore size is reduced and metal is separated from the rock. Then, it is smelt in an electric furnace to obtain dore bars of 60 % to 70 % of purity.

### Pitinga MU

- Location: State of Amazonas, Brazil
- Start of operations: 1982
- Estimated life of mine: 31 years
- Type of operation: tin, niobium and tantalum open pit mine
- Processes: concentration and flotation
- Treated ore grade: 0.19 % of tin and 0.26 % of niobium and tantalum
- Production in 2019: 6,559 tons of tin contained in concentrate and 3,904 tons of ferroalloys (FeNb, FeTa)
- Certifications: ISO 9001

Pitinga MU has an estimated life of mine of 31 years. It was acquired in 2008 through our subsidiary Minera Latinoamericana S.A.C.

In 2019, we continued improving the fragmentation process, by changing the mining plan to optimize transport levels and mean distance, in order to significantly increase ore transport efficiency. Moreover, feeding conditions and heap levels affected plant stability and productivity, which generated a negative impact in terms of efficiency.

This year, we initiated and consolidated operations in the new UBM expansion.

### SPR Pirapora

- Location: Sao Paulo state (Brazil)
- Start of operations: 1973
- Type of operation: smelting plant and tin refinery
- Processes: electric smelting furnace
- Treated ore grade: 47.5 %
- Production in 2019: 6,009 tons of tin
- Certifications: ISO 9001, ISO 14001

The Smelting Plant and Refinery (SPR) of Pirapora receives the tin production from Pitinga MU. The SPR processes cassiterite concentrates and turns them into high quality refined tin of 99.97% of purity.

In 2018 the operational process for ore processing in the furnace were optimized, through the feeding formula and tin (Sn) concentrate consumption as sinter. That same year, the concentrate sintering process also improved, increasing the furnace processing capacity. Thus, tin fine production and recovery grew.

## Our projects

### Mina Justa

- Location: Nasca province, Ica department (Peru)
- Mineral: copper
- Total Investment as of 2019: US\$ 1,067 million
- Total progress made: 72.5 %

Our Project is 500 km south of Lima and 35 km away from the San Juan de Marcona district (Nasca province, Ica region). It is an open pit copper mine with a life of mine of 16 years, and which initial capital investment amounted to US\$ 1.6 trillion.

The future mine is comprised by two different types of resources: a superficial layer of copper oxide and a deep and massive body of copper sulfides. The mining operation shall use seawater instead of freshwater. It is estimated that 2 years of building and 3 years of closure will be added to the total 16 years of life of mine, which will result in 21 years of existence. It shall start business operations in 2021.

Marcobre shareholders are Minsur S.A. (“Minsur”) and Cumbres Andinas S.A.C. (“Cumbres Andinas”), with the latter owning 99.9% of shares. Likewise, Minsur and Alxar Internacional SpA are shareholders of Cumbres Andinas. Both have 60% and 40% of shares, respectively.

Under an Engineering, Procurement and Construction Management (EPCM) agreement, entered into on November 17, 2017, Marcobre hired Ausenco Perú S.A.C to manage the project’s construction stage, as well as its facilities’ engineering, procurement and construction.

Significant progress was made in the project's construction in 2019. In May, the main power line of 220 kW, connecting Poroma and Mina Justa sub-stations was energized. In the following months, the VATS coating (vat leaching technology) was installed and VATS hydraulic tests started being conducted; they are still in progress. Furthermore, acid tanks, pre-treatment drums, and crushing and screening premises were fully installed as well as all EW cells (metal electro winning).

Regarding the sulfide plant, the primary crushers are being supervised, while the flotation circuit, as well as filter and concentrate storing facilities are almost complete. Ball and crushing mills have already been completed. Last but not least, the mining fleet is operating with 21 trucks.

Thus, at the end of 2019 construction was 75.7% complete and the total Project was 72.5% complete, which means that the progress made exceeded by 1.4% the projected 71.3%, due to the progress made with construction and pre-mining activities.

## Tailings reuse B2

- Location: Melgar province, Puno department (Peru)
- Mineral: concentrated tin
- Accumulated investment: US\$ 162 million
- Total progress: 99.9 %

In San Rafael MU we built a plant to reuse tailings stored in the B2 dam, which had high tin concentration during the first years of exploitation. This project has a concentrator which a nominal production capacity of 2,500 tpd and a life of mine of 9 years.

It is worth emphasizing that both tailings treatment and their final disposal were designed under international standards and the best practices of the industry. Thus, Minsur contributes to the right implementation of new technologies for appropriately closing the mine, according to requirements and pursuant to the highest environmental standards.

The project's implementation stage started at the end of 2017, and the dam has 7'600,000 metric tons of tailings, with an average tin grade of 1.05 %. This project shall contribute to produce an estimate of 45,000 tons of fine tin during a projected life of mine of 9 years.

At the end of 2019, the project was 99.9% complete. Construction of B2 Process Plant and its Emergency pond was completed in August. Moreover, commissioning with load was completed in late September, and operations started in early October. It is worth mentioning that 97% of ancillary facilities were completed.

Last but not least, the Project's closure program started. It included the capitalization of assets, administrative closure, complementary works and closure of outstanding commissioning works. It is worth mentioning that the process plant completed 100%

of its production ramp-up on a commercial scale, as well as the outstanding ancillary infrastructures, on December 31; that is four weeks ahead of schedule. We even exceeded fine ore production estimates, ore concentrate quality and metallurgical recovery projected for this milestone.

### **Our exploration projects**

We aim at identifying new deposits that may be exploited in future mining projects. At the end of 2019, our exploration portfolio grew with 6,800 hectares of new concessions. Currently, such portfolio and that of Minsur's subsidiaries reach 235,639.61 hectares according to the following details:

It is worth emphasizing that our portfolio of Minsur's exclusive property has 139,979.29 hectares. Thus, we ensure our business continuity.

## Santo Domingo

- Location: Melgar province, Puno department (Peru)
- Mineral: tin, silver, lead, zinc and gold
- Start: 2013

Santo Domingo exploration project is located 40 kilometers away from San Rafael MU. It has two exploration areas: the first with high tin content; and the second one with base metals. Both with high ore-shoots. The strategy is focused on engaging neighboring communities and strengthening our relationships with them, aiming at raising their awareness on the project's advantages. We aim at expanding exploration and, then, drilling. In 2020, we plan to make a design of a 3D model of the deposit, estimation of inferred resources, and expansion of the exploration study area.

## Nazareth

- Location: Melgar province, Puno department (Peru)
- Mineral: tin
- Start: 2013

Nazareth is an exploration project that is 5 kilometers away from San Rafael MU, and its purpose is to expand its life of mine. In the first months of 2019, we implemented the stage 3 of the drilling program, aiming at verifying the extension of vertical splays, rich in tin in depth. We also wanted to improve the ratio of indicated and measured resources to inferred resources in the C zone, up to 3,950 meters.

## Mina Marta

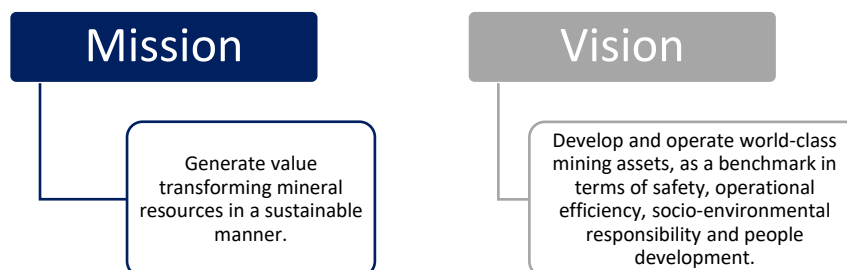
- Location: Huancavelica province, Huancavelica department (Peru)
- Mineral: copper and gold
- Start: 2012

Mina Marta was purchased by our subsidiary Compañía Minera Barbastro S.A.C. in 2005. In 2009 copper and gold explorations were conducted, and drilling works were made in that area and in depth, aiming at learning more about the deposit.

### 1.1. VISION, MISSION AND VALUES

Our company's mission, vision and values reflect our commitment with a responsible management that drives sustainability at all levels of the organization: from the decision-making process to their implementation. Moreover, they unify the course of action of the whole staff.

Graphic. Our mission, vision



Graphic. Our values

**Excellence:** We want to be the best in what we do.

**Safety:** We develop all our activities in a safely manner

**Commitment:** We fulfill our commitments, we are persevering.

**Trust:** We build relationships based on trust, we are honest.

**Responsibility:** We respect all our stakeholders and we are socially and environmentally responsible.

**Integrity:** We act with absolute honesty, transparency and respect.

## 1.2. BOARD OF DIRECTORS AND MANAGEMENT STRUCTURE

Our Board of Directors is the highest executive body of corporate governance. It is comprised by a President, a Vice-President, six Directors -two of which are independent- and an alternate Director. Their professional career of our Directors is outstanding and in most cases it is based on their experience in the mining industry.

The multidisciplinary competencies of the members of our Board of Directors contribute to a plurality of approaches and perspectives. Furthermore, It is worth mentioning that the President of the Board of Directors does not have the casting vote.

### 1.2.1. Minsur Board of Directors

**Table. Our Board of Directors**

<b>President</b>	Fortunato Brescia Moreyra
<b>Vice President</b>	Alex Fort Brescia
<b>Directors</b>	Rosa Brescia de Fort
	Mario Brescia Moreyra
	Pedro Brescia Moreyra
	Jaime Araoz Medanic
	Miguel Aramburú Álvarez-Calderón
	Patricio de Solminihać Tampier

Our Board of Shareholders proposes and debates the members of the Board of Directors, allowing the election of Alternate Directors. Currently, our alternate directors are Miguel Ángel Salmón Jacobs and Fernando Alegre Basurco.

There are two Committees in the Board of Directors:

- **The Audit and Risk Committee**, which is responsible for reviewing the audit plan; monitoring the results of internal audits, the risk matrix and mitigation plans; as well as for verifying performance against the Code of Ethics and Integrity Channel. These duties were formerly conducted by a Corporate Committee with the same name at the level of Breca Group.
- **The Talent Committee**, responsible for validating performance from the General Manager's direct reports, the performance bonus from direct reports, salary review from direct reports and development plans from direct reports; among other duties.

The company is led by a General Manager, who has an executive team comprised by a Corporate Manager and 7 Directors. Within this framework we have established a Compliance Committee and a Crisis Management Committee. The first is in charge of supervising the proper development of our Corporate Code of Ethics and Conduct, and the second one is a key body to address significant events affecting our operations related to health, life, the environment, communities, corporate image/reputation, as well as infrastructure, processes and equipment issues.



Last but not least, in June 2019 we created the Social Management Committee, which is comprised by Minsur’s Social Management leaders, the EXCO (Executive Committee) and representatives of external communication and risks. Through monthly meetings, this Committee aims at clarifying social risks, reviewing the strategic plan approach, and pointing out the most significant projects for the communities in our areas of influence.

### 1.2.2. Managers

Our organizational structure is adapted to our operations’ growth and diversification. Leadership is one of the basic skills of our Directors, which has a positive impact on our corporate management. All of them are chosen based on their talent, trajectory and values. Moreover, their commitment, professionalism and experience contribute to a dynamic and horizontal work environment, in line with modern management.

In this context, in 2019 we created the Transformation and Strategy Management, which is in charge of projects such as LINGO and the Value Creation Initiative (VCI).

Therefore, our structure adapts to changes to meet the strategic objectives established in the last year.

**Table. Our managers**

General Manager	Juan Luis Kruger Sayán
Corporate Project Manager	Yuri Alfredo Gallo Mendoza
Chief Operations Officer	Luis Argüelles Macedo
Director of Corporate Affairs	Gonzalo Quijandría Fernández
Director of Finances	Joaquín Larrea Gubbins
Director of Transformation and Strategy	Diego Molina Henriquez
Director of Supply and Systems	Ralph Alosilla-Velazco
Director of Human Resources	Álvaro Escalante Ruiz
Director of Internal Audit	Hik Park

## 2. ECONOMIC AND SECTORAL CONTEXT

### 2.1. 2019 ECONOMIC ENVIRONMENT

In 2019 the Peruvian economy grew 2.2%. Despite we have had 20 years of positive growth, this year's growth was the lowest of the decade. Growth was balanced and it was supported by better results obtained by most economic sectors, except for fishing, with a lower catch for the indirect consumer market.

#### GDP by economic sector

Table. Percentage variation of the physical volume index as compared to the same period in the former year  
2019

Sector	2016	2017	2018	2019
Agriculture and livestock	2.7	2.8	7.8	3.2
Fishing	-10.1	4.7	47.7	-25.9
Mining and hydrocarbons	16.3	3.4	-1.5	0.0
Manufacturing	-1.4	-0.2	5.9	5.9
Construction	-3.2	2.1	5.3	1.5
Trade	1.8	1.0	2.6	3.0
Services	4.0	3.3	4.4	3.8

On the demand side, GDP growth was driven by an increase in consumption and private investment, which was partially offset by a decline in public investment. It is worth mentioning that private investment was mainly driven by mining investments that exceeded US\$ 6,150 MM.

Inflation, measured by the evolution of the consumer prices index of Lima Metropolitana, was 1.8% in 2019, lower than that of former year, and within the target range established by the Central Reserve Bank. This variation responds mainly to higher prices in the food, fuel, home rental and entertainment sectors.

Regarding public finances, fiscal deficit was 1.6% of GDP, which is considered the lowest since 2014. Current revenues of the Central Government grew 7% due to larger tax and non-tax revenues. Furthermore, non-financial expenses grew 3% due to an increase in current expenditure.

Deficit in current account of the payment balance fell as compared to the former year, reaching -1.5% of GDP, and it is still below the last ten years' average. 2019 results correspond to an increase of tax revenues.

Table. Main macroeconomic indicators

Indicators	Unit	2016	2017	2018	2019
GDP growth rate	%	4.0	2.5	4.0	2.2
Growth in domestic demand	%	1.1	1.4	4.3	2.3
Fiscal balance	% of GDP	-2.6	-3.2	-2.5	-1.6

<b>Current account balance</b>	% of GDP	-2.7	-1.2	-1.7	-1.5
<b>Inflation</b>	%	3.2	1.4	2.2	1.9
<b>Exchange rate</b>	S/ per Dollar, end of FY	3.36	3.24	3.38	3.32

In the international scope, 2019 had a very good first half, due to the good price of metals. However, growth decelerated in the second half due the trade war between the United States and China, in which both countries started to apply tariffs to their imports. Tensions in the Eurozone added to this situation. Within this context, United States grew 2.3%, considered the lowest growth since 2017. Likewise, China grew 6.1%, which was within the expected range, but at the same time it was the lowest increase in the last 29 years. On the other hand, the Eurozone grew 1.2% (similar to the former year, within a context of uncertainty due to the Brexit affair). This is the lowest growth since 2014.

## 2.2. 2019 SECTORAL ENVIRONMENT

The metal mining sector remained at the same level as in the previous year. This was mainly due to a larger production of copper, lead, iron, tin and molybdenum, which was offset by a lower production of gold, zinc and silver. On the other hand, investments grew due to the construction of Quellaveco, Mina Justa projects and the expansion of Toromocho.

Domestic production of copper -Peru's main export- grew 0.8% as compared to the former year. Such growth is mainly due to a larger production of Southern Peru Copper, as a result of the expansion of its Acumulación Toquepala 1 unit. This made it the third domestic producer behind Cerro Verde and Antamina.

Likewise, gold production fell 8.4%, as compared to 2018. This responded mainly to a fall in Barrick's production, which was partially offset by an increase in Yanacocha's, Minera Poderosa's and Ares' production. The main gold producing regions are still Cajamarca, La Libertad and Arequipa.

On the other hand, zinc production fell 4.7%, as compared to the former year, due to a fall in Antamina's, Volcan's and Nexa's production, which are still the main producers nationwide.

In the international context, metal prices were higher during the first half of the year, as compared to the second half, due to a downward trend caused by commercial tensions between the United States and China. The average price of tin, lead and zinc fell as compared to the previous year, while copper price remained the same. On the other hand, gold and silver price -safe-haven alternatives- grew 18% and 16% respectively, as compared to 2018.

**Table. Percentage variation of Mining production growth (%) 2019**

Sector	2016	2017	2018	2019
<b>Copper</b>	40.1	3.9	-0.4	0.8
<b>Gold</b>	4.2	-1.2	-6.1	-8.4
<b>Zinc</b>	-5.9	10.2	0.1	-4.7
<b>Silver</b>	6.6	-1.6	-5.8	-7.2
<b>Molybdenum</b>	27.8	9.2	-0.4	8.6
<b>Lead</b>	-0.4	-2.4	-5.7	6.6
<b>Iron</b>	4.7	14.9	8.3	6.1
<b>Tin</b>	-3.7	-5.2	4.6	6.7

## 2.3. MARKET PERFORMANCE IN 2019

### Tin

In the first quarter of 2019, tin price was better due to a lower supply that responded to several export regulatory constraints in Indonesia, the main producing country. During that period tin reached peak prices of US\$22,000/tm (+12% ytd) until restrictions were lifted.

Following the second quarter, tin dropped steeply to minimum prices of US\$15,710/tm (-27% ytd) which responded to several reasons: the US-China trade war escalated; announcements of a larger production by Indonesia's refineries; intensification of the Japan - South Korea trade conflict, which affected the semiconductor industry that is the main consumer of tin, using it as an input.

During the last months of the year, we learned that Yunnan Tin (China) and PT Timah (Indonesia) would cut their tin production with other temporary closures of their plants. This raised the metal price, which at the end of the year was US\$16,850/oz.

**Graphic. International tin price (US\$ per ton) 2019**

[GRAPHIC]

### Gold

During the first five months of 2019 gold price consolidated between US\$ 1,270/oz and US\$1,552/oz. However, in June after aggressive intensification of the US-China trade war, prices reached peaks of US\$1,550/oz, unseen since 2013. At the end of 2019, gold price had increased by 18% annually, also due to ongoing reductions of the reference rate in several Central Banks worldwide, including the US Federal Reserve.

Gold is still characterized by a solid global supply, and a volatile demand supported by its use as a safe-haven asset.

Graphic. International Price of Gold (US\$ per ounce) 2019

[GRAPHIC]

### 3. OPERATING PERFORMANCE

#### 3.1. MINING UNITS AND PROJECTS

##### 3.1.1. San Rafael MU

Production in San Rafael grew 7% as compared to the previous year, because we got to expand the ore sorting operation previously considered in the budget to July. Its contribution allowed us treating a larger volume (+1%) and higher ore grades in the concentrator (+4%).

Table. Output indicators

Category	Indicator	Unit	2016	2017	2018	2019
Mine	Extracted mineral	t	1'101,190	1'049,707	1'084,700	1,111,464
	Extracted ore grade	% Sn	1.69	1.52	1.56	1.66
	Progress	m	29,461	27,478	18,724	18,105
Plant	Treated mineral – Total plants	t	1'434,808	1'700,443	1'871,288	1,981,097
	Treated mineral – Concentrator plant	T	1'047,506	1'101,853	1'134,926	1,159,299
	Treated ore grade	% Sn	1.97	1.75	1.75	1.86
	Total recovery	%	90.87	92.16	93.39	94.19
	Fine Sn	t	18,789	17,791	18,601	20,273
	Plant utilization	%	98.96	99.62	98.24	97.75
Mining unit	Cost per ton treated	US\$/tt	81.6	70.0	64.0	65.5

Table. San Rafael MU indicators

Indicator	Unit	2016	2017	2018	2019
Diamond drilling	m	39,874	40,204	38,444	36,944
Resources volume					
• Calculated tonnage	t	1'271,243	1'539,390	1'921,096	1,481,961
• Calculated Sn grade	%	2.27	1.83	2.45	2.02
• Calculated fine Sn	t	28,891	28,134	47,109	29,970
Total concentrate produced	t	40,464	46,457	48,407	52,347
Total concentrate grade produced	%	46.44	38.30	38.43	38.73

**Table. Resources of San Rafael MU**

Type	Location	Cut-Off Sn %	Kt	Sn %	Content Sn TM
<b>Measured</b>	Underground	0.37	4,522.4	2.63	118,800
	Stockpiles	0.15	172.6	0.65	1,100
<b>Total Measured</b>			<b>4,695.0</b>	<b>2.55</b>	<b>119,900</b>
<b>Indicated</b>	Underground	0.37	4,277.1	1.88	80,400
	Stockpiles	0.15	84.1	0.50	400
<b>Total Indicated</b>			<b>4,361.2</b>	<b>1.85</b>	<b>80,800</b>
<b>Total Measured + Indicated</b>			<b>9,056.2</b>	<b>2.22</b>	<b>200,700</b>
<b>Inferred</b>	Underground	0.37	3,168.5	2.34	74,100
	Stockpiles	0.15	20.6	0.53	100
<b>Total Inferred</b>			<b>3,189.1</b>	<b>2.33</b>	<b>74,200</b>

**Table. Reserves of San Rafael MU**

Type	Location	Cut-Off Sn %	Kt	Sn %	Content Sn TM
<b>Proven</b>	Underground	0.51	3,566.8	2.24	79,900
<b>Probable</b>	Underground	0.51	3,593.0	1.69	60,700
<b>Total Underground</b>			<b>7,159.8</b>	<b>1.96</b>	<b>140,600</b>
<b>Proven</b>	Stockpiles	0.20	167.1	0.67	1,100
<b>Probable</b>	Stockpiles	0.20	76.4	0.53	400
<b>Total Stockpiles</b>			<b>243.6</b>	<b>0.62</b>	<b>1,500</b>
<b>Total Reserves</b>			<b>7,403.4</b>	<b>1.92</b>	<b>142,100</b>

**Notes:**

- Mineral resources are inclusive of ore reserves
- Mineral resources are estimated using the price US\$ 23,432/t Sn (including a US\$ 432/t premium for the quality of refined tin)
- Ore reserves are estimated using the price US\$ 20,432/t Sn (including a US\$ 432/t premium for the quality of refined tin)
- The cut-off grade for underground reserves, shown in the table above, is equal to the average cut-off grade calculated for 4 different mining methods).
- Reserves include ore contained in bridges and pillars, which extraction feasibility was defined by a study conducted by AMEC.

### 3.1.2. SPR of Pisco

In Pisco, refined tin production was 6% higher than budgeted, because a larger volume of concentrate (4%) was processed and with a higher grade than planned (+1%). It is worth mentioning that since October we are processing concentrate from B2, which contributes with ~200 tons of tin content to the smelter feed, far exceeding approved AFE.

**Table. Production in Tons**

Category	Indicator	Unit	2016	2017	2018	2019
<b>Plant</b>	<b>Sn concentrate fed</b>	Kt	40,335	46,619	48,139	51,860
	<b>Sn grade in concentrate</b>	%	46.48	38.45	38.38	38.50
	<b>Marginal slag fed</b>	Kt	52,842	36,792	30,915	11,903
	<b>Sn grade in the marginal slag fed</b>	%	1.31	1.31	1.30	1.11

<b>Rotatory furnace slag fed</b>	T	1,069	1,036	1,091	3,052
<b>Sn grade in rotatory furnace slag</b>	%	15.19	15.28	15.58	15.32
<b>Refined tin production</b>	Kt	19,573	18,033	18,339	19,675
<b>Recovery</b>	%	100.86	98.14	97.15	96.91
<b>Tin grade waste slag</b>	%	0.63	0,61	0.58	0.55
<b>Smelter utilization</b>	%	96.93	90.56	89.18	87.63
<b>Refinery utilization</b>	%	46.88	48.75	48.16	54.40

### 3.1.3. Pucamarca MU

Production of gold ounces grew 2% as compared to the previous year, due to a larger in-Pad ore volume (+2%), which was offset by a lower ore grade (-1%). It is worth highlighting that silver production grew +36% than expected, mainly due to better ore grades.

**Table. Output indicators**

Category	Indicator	Unit	2016	2017	2018	2019
<b>Mine</b>	<b>Treated mineral</b>	t	7'692,322	7'715,582	8'242,116	8'251,414
	<b>Extracted ore grade</b>	g/t	0.5	0.5	0.6	0.6
<b>PAD</b>	<b>In-PAD ore</b>	t	7'692,322	7'801,777	8'219,641	8'281,726
	<b>In-PAD ore grade</b>	g/t	0.5	0.5	0.6	0.6
<b>Planta</b>	<b>Gold ounces produced</b>	oz	105,659	100,010	103,538	101,799
	<b>Historical recovery</b>	%	74.88	75.84	74.64	73.27
	<b>ADR plant utilization</b>	%	98.01	98.01	98.01	98.00
<b>Mining unit</b>	<b>Cost per treated ton</b>	US\$/tt	4.30	4.33	4.42	5.45

**Table. Resources of Pucamarca MU**

#### PUCAMARCA MINERAL RESOURCES

Type	Cut-Off Au (g/t)	Mt	Au g/t	Content Au Koz
<b>Measured</b>	Variable	41.5	0.35	469.5
<b>Indicated</b>	Variable	18.6	0.38	228.4
<b>Total Measured + Indicated</b>		<b>60.1</b>	<b>0.36</b>	<b>697.9</b>
<b>Inferred</b>	Variable	1.3	0.20	8.4

COG: Checocollo (0.075), Morrenas (0.107), Caldero (0.111)

Type	Cut-Off Au (g/t)	Mt	Au g/t	Content Au Koz
<b>Proven</b>	Variable	29.1	0.39	368.9
<b>Probable</b>	Variable	11.5	0.43	158.1
<b>Total Reserves</b>		<b>40.6</b>	<b>0.40</b>	<b>527.0</b>

COG: Checocollo (0.10), Morrenas (0.14), Caldero (0.14)

**Notes:**

- Mineral Resources are inclusive of Ore Reserves
- Mineral Resources are expressed within optimized pit shell limits, corresponding to three areas: Checocollo, Morrenas and Caldero.
- The Au price to estimate Mineral Resources is US\$ 1,600/oz.
- At Morrenas, the limit for estimating resources and reserves at the Peru-Chile border has been reconsidered in 30 m.
- The Au price to estimate Ore Reserves is USD 1,400/oz.

### 3.1.4. Minera Taboca

#### a. PITINGA MU

In Pitinga production of contained tin dropped 6% as compared to the previous year, due to the lower volume (-8%) and ore grade (-2%) of mineral fed to the concentration. During the whole 2019, the low physical availability of trucks and bulldozers had an impact on the production plan, due to the decline of ore transport capacity from the mine. On the other hand, ferroalloy production in Pitinga reached 3,904 tons, that is +6% above the budget, thanks to better recoveries. Though the special grade proportion also grew slightly (36% vs 34% in the budget).

**Table. Pitinga MU: Output indicators**

Category	Indicator	Unit	2016	2017	2018	2019
Mine	Extracted mineral	t	6'384,275	6'998,528	7'052,053	6'985,024
	Sn grade in extracted mineral	%	0.20	0.20	0.20	0.20
	(NbTa) <sub>2</sub> O <sub>5</sub> grade in extracted mineral	%	0.25	0.27	0.27	0.26
Plant (concentration)	Ore treated in concentration	t	6'306,939	6'675,575	6'130,427	6,013,609
	Sn grade in ore treated in concentration	%	0.20	0.20	0.20	0.20
	(NbTa) <sub>2</sub> O <sub>5</sub> in ore treated in concentration	%	0.26	0.26	0.27	0.25%
Plant (tin flotation)	Cassiterite	t	14,178	14,489	14,301	13,658
	Sn grade	%	48.49	48.19	47.64	48.02
	Tin content	t	6,875	6,983	6,814	6,559
Plant (metallurgy)	Columbite concentrate	t	4,664	8,901	10,430	10,004
	(NbTa) <sub>2</sub> O <sub>5</sub> grade	%	37.11	37.06	36.11	35.10
	Ferroalloys (FeNb, FeTa, FeNbTa) produced	t	1,840	3,119	3,981	3,904
	NbTa grade content	%	51.91	50.60	59.12	58.90
Mining unit	Cost per treated ton	USD/tt	18.6	18.8	20.2	20.7



**Table. Resources of Pitinga MU**

Type	Cut-Off NSR (\$/t)	Mt	Grade			Content		
			Sn %	Nb <sub>2</sub> O <sub>5</sub> %	Ta <sub>2</sub> O <sub>5</sub> %	Kt Sn	Kt Nb <sub>2</sub> O <sub>5</sub> %	Kt Ta <sub>2</sub> O <sub>5</sub> %
<b>Measured</b>	10.85	104.2	0.166	0.208	0.027	173	217	29
<b>Indicated</b>	10.85	156.2	0.130	0.200	0.027	203	313	43
<b>Total Measured + Indicated</b>		<b>260.4</b>	<b>0.144</b>	<b>0.203</b>	<b>0.027</b>	<b>376</b>	<b>530</b>	<b>71</b>
<b>Inferred</b>	10.85	75.8	0.120	0.192	0.193	91	146	20

**Table. Reserves of Pitinga MU**

Type	Cut-Off NSR (\$/t)	Mt	Grade			Content		
			Sn %	Nb <sub>2</sub> O <sub>5</sub> %	Ta <sub>2</sub> O <sub>5</sub> %	Kt Sn	Kt Nb <sub>2</sub> O <sub>5</sub> %	Kt Ta <sub>2</sub> O <sub>5</sub> %
<b>Proven</b>	10.87	96.8	0.172	0.210	0.027	166	203	27
<b>Probable</b>	10.87	105.5	0.146	0.204	0.028	155	216	29
<b>Total Reserves</b>		<b>202.2</b>	<b>0.159</b>	<b>0.207</b>	<b>0.027</b>	<b>321</b>	<b>419</b>	<b>56</b>

**Notes:**

- Mineral Resources are inclusive of Ore Reserves
- Mineral Resources are constrained to optimized pit shell limits with the parameters and costs of the LOM 2019.
- The Sn price used to estimate Mineral Resources is US\$ 23,382/t (a US\$ 382/t premium for the refined Sn quality), and for FeNb the price is US\$ 21,000/t and FeTa is US\$ 17,000/t each.
- The Sn price used to estimate Ore Reserves is US\$ 20,382/t (a US\$ 382/t premium applies for the refined Sn quality), for FeNb the price is US\$ 18,000 and for FeTa is US\$ 14,500/t each.

**b. SPR OF PIRAPORA**

**Table. SPR of Pirapora: Output indicators**

Category	Indicator	Unit	2016	2017	2018	2019
Plant	<b>SN concentrated fed – cassiterite</b>	T	13,122	14,182	14,214	13,808
	<b>Ore grade % in cassiterite</b>	%	46	47	47	46
	<b>Concentrate in slag fed</b>	T	5,595	6,568	6,696	3,740
	<b>Sn grade % in marginal slag concentrate</b>	%	18	18	20	21
	<b>Sn Recovery</b>	%	83	83	87	90
	<b>Refined Sn production</b>	t	5,873	6,582	6,498	6,009

**3.1.5. Tailing Reuse Project B2**

Our Tailing Reuse project has 7'600,000 metric tons of tailings, with 1.05% tin grade in average. At the end of 2019, the project's implementation was 99.9% complete, and its main milestones were: the end of construction (August); the end of commissioning with load (end of September); and the plant's start-up (beginning of October). On the other hand the project started its closure stage and it included the capitalization of assets, administrative closure, complementary works and closure of outstanding commissioning works. Meanwhile, the process plant completed its production ramp-up on a commercial scale on December 31, that is 4 weeks before expected. This allowed

us exceeding fine ore production estimates, ore concentrate quality and metallurgical recovery projected for this milestone.

This project will contribute to produce 45,000 tons of fine tin, during a life of mine of approximately nine years.

**Table. Resources of Project B2**

Type	Cut-Off Sn %	Kt	Sn %	Content Sn t
<b>Measured</b>	0.30	3,953.6	1.10	43,500
<b>Indicated</b>	0.30	3,503.9	1.01	35,400
<b>Total Measured + Indicated</b>		<b>7,457.6</b>	<b>1.06</b>	<b>78,900</b>
<b>Inferred</b>	0.30	97.3	1.33	1,300

**Table. Reserves of Project B2**

Type	Cut-Off Sn %	Kt	Sn %	Content Sn t
<b>Proven</b>	0.42	3,923.8	1.10	43,000
<b>Probable</b>	0.42	3,240.4	1.02	33,100
<b>Total Reserves</b>		<b>7,164.2</b>	<b>1.06</b>	<b>76,200</b>

**Notes:**

- Mineral Resources are inclusive of Ore Reserves
- Data for estimating Mineral Resources was obtained through sonic and rotating drilling.
- The Sn price used to estimate Mineral Resources is US\$ 23,432/t (a US\$ 432/t premium applies for the refined Sn quality)
- The Sn price to estimate Ore Reserves is US\$ 20,432/t (a US\$ 432/t premium applies for the refined Sn quality)
- A 2.3% dilution factor for Sn grade and a 2% loss factor for mine recovery were applied to calculate Ore Reserves.

## 3.2. EXPLORATIONS

In 2019, we made progress in the exploration stage of our two main projects: Nazareth (tin), which was developed during the 2014-2018 campaign in Puno region, in the south of Peru; and the Marta project, of copper and gold, developed since 2012 in the Huancavelica region, in the central area of Peru.

- **Nazareth Project.**

In 2019, we continued with the exploration program in two stages: Infill Stage 3 and Infill Stage 4. Both programs together conducted 34,643.70 m of directional diamond drilling in 50 x 50 meter grid. With Infill Stage 4, exploration and definition of the project was completed, thus consolidating 149,883.85 m of traditional and/or directional diamond drilling in total between 2014 and 2019. Both drilling campaigns aim at increasing the percentage of Measured & Indicated resources from 40% to more than 60%, which had been initially established with the Infill Stage 1 and 2 from 2015 to 2018. Furthermore, we decided to increase inferred resources and potential resources beyond the already known ore body. As a result of these exploration campaigns -including the two drillings

in 2019-, we have updated the geological model, as well as the mine's resource inventory.

**Table. Mineral Resources of Nazareth**

Type	Cut-Off Sn (%)	Kt	Sn %	Sn Content TM	Zn %	Cu %	Ag g/t
<b>Measured</b>	0.67	388.3	1.56%	6,00	0.64	0.69	33
<b>Indicated</b>	0.67	5,557.7	1.43%	79,500	0.75	0.65	32
<b>Measured + Indicated</b>	<b>0.67</b>	<b>5,946.0</b>	<b>1.44</b>	<b>85,500</b>	<b>0.75</b>	<b>0.65</b>	<b>32</b>
<b>Inferred</b>	0.67	2,511.2	1.52	38,100	0.39	0.57	21

Besides the existing studies, we conducted a glaciological study to rule out potential environmental impacts of the project. In addition, we conducted new geo-metallurgical studies in China, which had positive preliminary results, thus significantly increasing tin and copper recovery.

- **Santo Domingo Project.**

Explorations for this tin project in Puno region were interrupted. Therefore, field activities focused on providing maintenance to the project's infrastructure, besides carrying out the environmental monitoring and focusing on social work in the areas of direct and indirect influence. Data from surface geology, geochemistry and diamond drilling campaigns collected during the explorations conducted from 2013 to 2018 were reassessed. Thus, the deposit's geological model was updated and a new infill diamond drilling campaign was planned in the central area of the deposit, aiming at converting inferred resources found in former campaigns into Measured & Indicated resources. Furthermore, in 2018 we planned a scout-type diamond drilling campaign in the northwestern area of the deposit, where a potential ore shoot that is up to 450 meter long and with high tin content in its surface was found. We expect to be able to restart project activities in the second half of 2021, provided that the appropriate social conditions are in place.

- **Mina Marta Project.**

Explorations in the copper and gold project in the Huancavelica department continued with a traditional infill diamond drilling campaign of 9,995 m in 40 drills, which objective was converting the largest part of existing inferred resources into measured & indicated resources. Currently, the data obtained is being processed, so that it enables us updating the deposit's geological model, as well as the alteration, density, structural and geo-metallurgical domain models in the following months. Minsur is assessing the likelihood of conducting a geo-metallurgical study and updating the inventory of the deposit's resources in mid-2020, followed by definition studies.

**Table. Mineral Resources of Mina Marta**

Type	Volume		Grades				
	Mt	Cu %	Au g/t	Mo %	CutMib	Au Koz	Mo Mib
<b>Measured</b>	58,885,284	0.433	0.161	0.016	562	305	21
<b>Indicated</b>	56,800,043	0.440	0.160	0.016	551	292	20
<b>measured + indicated</b>	115,685,327	0.436	0.161	0.016	1,113	597	41
<b>Inferred</b>	5,712,367	0.435	0.091	0.014	55	17	2

Explorations of concessions that are close to the project have been completed in a total area of 10,000 hectares, having established those new irregular areas where diamond drilling could be applied in the next exploration campaigns.

### Generating Projects

Explorations continued with a portfolio assessment both of mining properties exclusively owned by Minsur and of third-party projects. Such assessment was conducted through geological and geochemical mapping, in detail, to more than 17,000 hectares owned by Minsur and 3,400 hectares owned by third parties. Moreover, we examined 26 opportunities of third-party projects at different stages of development, which allowed us selecting 6 projects as potential business opportunities. This is currently being assessed and/or negotiated.

Minsur's portfolio of mining properties grew in 2019 with 6,8000 hectares obtained through new concessions. Currently, both such portfolio and that of its subsidiaries and affiliate companies amounts to 235,639.61 hectares. It is worth emphasizing that Minsur's exclusive mining properties amount to 139, 979.29 hectares.

## 3.3. HUMAN RESOURCES

**Table. Number of Minsur collaborators**

Category	2017		2018		2019	
	Permanent	Temporary	Permanent	Temporary	Permanent	Temporary
Employees	312	15	339	15	246	119
Officers	65	0	49	0	77	2
Workers	762	60	785	37	890	275
Subtotal	1,139	75	1,173	52	1,213	396
<b>Total</b>	<b>1,214</b>		<b>1,225</b>		<b>1,609</b>	

### a. Development

We encourage our collaborators' professional development providing them with opportunities to participate in several training programs. Thus, in all our operations, we have people in charge of managing training and development processes, as well as

performance assessment processes, according to our corporate guidelines. In 2019, we delivered over 139 thousand hours of training.

**Table. Hours of training**

Gender	Nº of employees	Nº of training hours	Average hours
Male	2,543	131,909	51.87
Female	198	7,302	36.85
Total	2,741	139,211	50.79

Minsur considers it is crucial to have leaders developing their teams. Thus, we created the *+Líder* program, a space we open each year to help leaders find new ways to address their management and leadership challenges, in a controlled environment and with specialists supporting them. In addition, this learning is complemented with tools that allow them implementing what they have learned in their everyday activities. We believe *+Líder* is essential for leaders to own leadership behaviors defined by the company. Moreover, their application is evidenced in the annual performance calibrations, which generate changes in behavior that have an impact on the achievement of objectives (“what”) and the development of competencies (“how”) to ensure business sustainability.

Last year, *+Líder* offered 12,554 hours of training in total to 315 leaders of Minsur, through customized programs for each one of their leadership goals and based on associated behaviors.

#### **b. Performance assessment**

Our Performance Assessment Program applies to 100% of professionals and ensures an objective assessment of our collaborators, based on evidence. By measuring the achievement of individual objectives (“what”) and the implementation of leadership practices (“how”), it contributes to implementing the business strategy, setting the foundations for any decision on talent development and retention, ensuring our merit-based culture. The program has 4 stages:

1. Setting objectives,
2. Half-year feedback,
3. Final assessment (360° assessment, self-assessment, evaluation by direct supervisor and calibration), and
4. Development (final feedback and development plans).

All stages receive the support -at all times- of the ongoing feedback tool, thus achieving a reliable system. So, we use the results to make all talent, compensation and development decisions. Furthermore, we annually conduct a Talent Mapping, to make sure we have the appropriate talent and to identify successors for critical positions, establishing development plans to provide growth opportunities, ensuring business sustainability. This process relies on sustained development (PGD) and talent potential assessment. In 2019, 100% of supervisor and manager positions were assessed in the Talent Mapping process.

### 3.4. SOCIAL MANAGEMENT

Changes made by Minsur in its Social Management in 2019 have represented a structural transformation that will affect -in a positive way- our way of treating social affairs of our operations and the environment. In fact, such reforms were implemented aiming at conducting world-class mining operations, following international principles and standards of ICMM. With the intent of establishing a framework enabling the implementation of a group of social management items, in line with our sustainable development vision and policy, Minsur will develop a Social Management System that will be gradually implemented.

Our priority in 2020 will be: effective engagement of our stakeholders; fulfillment of obligations and commitments; handling social incidents and risks; and addressing complaints and grievances, offering our contribution to community development and the removal of social gaps. Likewise, we will implement elements for promoting job opportunities and local hiring; for reviewing and improving social management, as well as for developing and training the social management team, aiming at assuming the challenges of change.

On the other hand, 2020 will also allow us observing the effects of the recently implemented Internal Social Management area, as the second major change. Because Minsur will only achieve a great performance engaging the community with the contribution of all areas of the company, including our contractors and their collaborators. Thus, this new area is interested in issues such as: generation of job opportunities; local procurement in our operation and projects; proper attention and study of the source of the most frequent complaints and grievances; and implementation of proactive measures to prevent recurrence. On the other hand, next year we will provide a renewed incentive and will involve Directors and Managers in our monthly Social Management Committee. This information forum to coordinate and implement agreements will speed up sustainable development results expected by Minsur.

Last but not least, fulfillment of Social KPI by Minsur's Directors and Managers will be the proof of their commitment with our company's social management. This will be carried out in coordination with Minsur's Senior Management, starting in 2020.

#### **Engagement with the communities**

Since we started working in each one of our mining projects, building long-term relationship with the communities in our areas of influence is the core of our management with the communities. With this purpose, we use diverse engaging and communication mechanisms, which nature varies according to the operation unit or project, and several factors, such as involved stakeholders, their customs, specific risks in the area and local laws.

In Minsur, we aim at constantly improving our performance and, to do it, we take our stakeholders' opinion seriously and, thus, we proactively address their concerns.

Communities may express their complaints, claims or suggestions through several channels: Permanent Information Offices, field visits, complaint and grievance forms, etc.

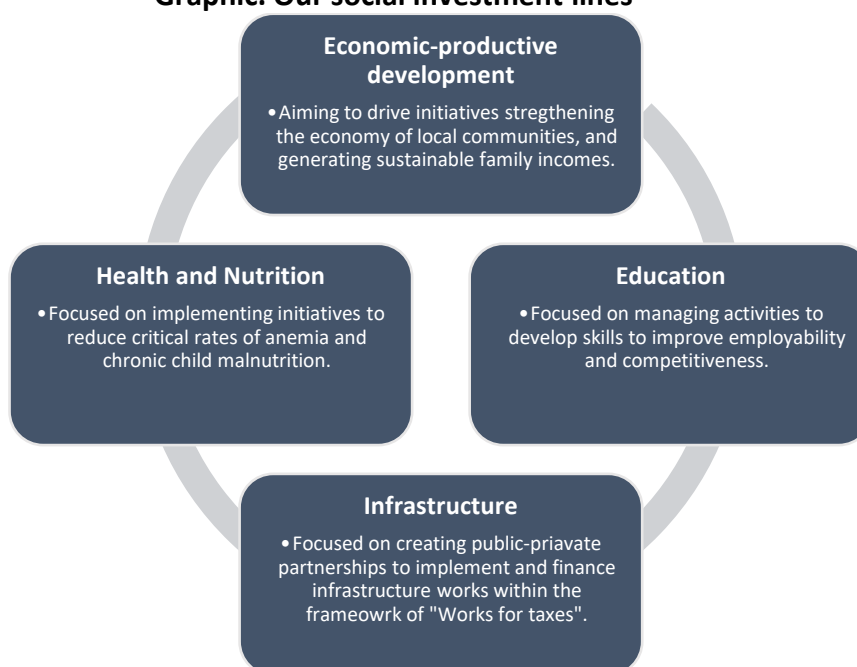
### Our social investment

Minsur makes a significant social investment and we think it is making positive changes, both in development and closing social gaps in the communities we work with. Notwithstanding the above this always translates in the information we provide. Encouraged by this cause, in 2019 we made arrangements with the National Institute of Statistics and Informatics (INEI) and APORTA, so that the public entity becomes responsible to determine the progress, results and impacts of our social investment programs starting in 2020. Hence, our results and progress will be referred in social and economic development indicators, as well as indicators of gap-closing progress used by the government itself.

From a gender, social inclusion and interculturality approach, Minsur contributes to sustainable development of neighboring communities by strengthening their local capacities. For that purpose, we consider the specific needs of each community, and use a multi-actor approach (State-community-company).

Our local development programs and initiatives are based on four investment lines:

#### Graphic. Our social investment lines



In San Rafael we dealt with a challenging social context in 2019, caused by growing expectations of different populations of our area of influence. Existence of dialogue spaces to channel local demands was a key factor to manage such context. In addition, we participated in the Local Coordination Council, as guests. This is the district's main planning entity, and thus it will allow another level of institutionalized relationship with the mayor and Antauta's authorities.

Within the scope of social investments, the *Agua de Antauta* project (Antauta's water) - funded through the Works for taxes mechanisms- was completed. This work shall benefit people with quality drinking water 24 hours a day, besides offering an efficient drainage and solid waste treatment system. The invested amount exceeded S/. 12 million.

Another relevant issue during the year was the promotion of local employment and services within a context of significant projects of the Mining Unit (B2 Project, heightening of the B3 tailings dam). We employed more than 800 residents of Antauta and Ajoyani. On the other hand, we maintained the same level of implementation of the company's emblematic socio-economic projects. Investment in livestock production infrastructure was complemented by building more fences, barns, rainwater reservoirs and dams. Rustic dams were built in agreement with the Sierra Azul government plan.

Likewise, the Early Child Development Proposal was consolidated, which received regional and national recognition, since it allowed designing a more ambitious investment plan for the next years. Furthermore, craftswomen of *Fibra Emprendedora* and cheese producers expanded their markets based on the quality of their products.

In Ajoyani, we signed the minute of Agreements of the Roundtable for development 2019-2021. This is the third time we signed it, and it will be valid for the next two years, thus proving a level of engagement ensuring -despite the differences and controversies, a climate of conviviality between the company and its social environment.

Last but not least, the Social Management department is going through a restructuration and strengthening process to reach a more efficient performance and with higher impact results.

In **Pucamarca** we maintained a good level of communication and engagement with local stakeholders and the population, through capacity-building and farming development activities.

Thus, we implemented several projects, enhancing production infrastructure for small animal farming; implementation of alfalfa crops with irrigation technology in the Yungani sector, in the Vilavilani peasant community; and construction of La Quilla water reservoir for irrigations works in the Palca community. These actions will have a direct impact in alfalfa crops, thus increasing forage supply for local livestock. Moreover, breeding of small animals is being promoted by enhancing production infrastructure, aiming at contributing to consumption and the revenues of families of the Palca and Vilavilani communities.

This 2019, we developed the Employability program *Creando Oportunidades* (Creating Opportunities) providing training in hotel management. Workshops were developed by SODEXO, with the participation of 28 youngsters from different communities.



Furthermore, the San Francisco Lazo school's facilities were enhanced, by installing a metallic structure and mesh. Moreover, educational materials were implemented for the Palca and Vilavilani schools. Regarding nutritional issues, workshops on the significance of iron for brain development and how to cook iron-rich food were delivered in the Palca and Vilavilani peasant communities.

In 2019, the **SPR of Pisco** delivered the Carlos Noriega school in the Santa Cruz neighborhood of Paracas district, project implemented under the Works for Taxes mechanism. The new school opened its doors for students the last months of the year, setting a milestone in the history of this school.

On the other hand, our SUMAQUI flagship project's training continued. Training subjects are related to design innovation and business plan implementation. A significant step in its commercial consolidation was the space received by the municipality in the new tourist marina of Paracas district.

As a company we project ourselves towards the community through the promotion of civic values, strengthening them with workshops and several public activities within the framework of three programs:

1. Identity and Culture, which targets the educational community (students, teachers and parents). It aims at developing greater understanding of Paracas culture by the local community.
2. Culture of Peace, coordinated with the Women's Emergency center and the National Police. It aims at spreading awareness at the level of vulnerable populations to eliminate different forms of violence against women.
3. Environmental program. Based on the cultivation plots (Land of Children) and the Magic *huarango* forest, located at the Carlos Noriega school, we disseminated conservation and recycling practices in the community. It is worth mentioning that this experience is being replicated in the San Miguel school, in Pisco district.

### **Exploration and Mine Closure projects**

The guidelines of the company's new social management also apply to different exploration and mine closure projects. For several reasons, among which the low price of tin during the second half of the year stands out, the company's operational activity in exploration projects significantly declined as compared to previous years. However, our engagement with the social environment remained at a good level, thanks to the trust and the local relationships we have built.

In the **Santo Domingo project**, we dealt with a strong opposition by regional anti-mining groups in 2019. However, we developed the planned social programs based on the interest and support of the majority of the population of Nuñoa district. The Education and Culture program stood out due to the variety of sponsored events, from school competitions, sport championships and anniversaries to guided visits to the company's MUs, with the participation of several sectors of the population. In this line of

intervention, Orurillo parish church supported us specially in the organization of a workshop on the conservation and restoration of colonial religious heritage that is abandoned and poorly valued. On the other hand, the Livestock Development program included health campaigns for 461 farmers of 23 localities, thus benefitting 90,000 heads of cattle. We also installed livestock modules to make herd and pasture management more efficient, and we also promoted local fairs, among other activities.

In **Mina Marta**, social projection focused on livestock activities (alpaca breeding). We conducted a reproduction and calving campaigns that comprised over 4,500 alpacas of the Tinyaclla Community. Another significant and complementary issue to production was the training of 18 women of the community as alpaca fiber sorters, in addition to training on fiber knitting. Continuity of these trainings since 2018 and coordination with CITE Huancavelica have allowed presenting local products in competitions and regional and national fairs. On the hand, in 2019 we delivered the new community premises to Tinyaclla and promoted local employment and services. Last but not least, we shall emphasize our social presence in the Rio de la Virgen community through livestock technical assistance campaigns.

In **Mina Regina**, social investment has combined production and environmental aspects in the Peña Azul community. Thus, we support the installation of a fence of almost 7 kilometers to handle wild vicunas and we started installing modules for conserving and recovering natural prairies. Furthermore, in this community we acquired enhanced alpaca breeding stock and -under the support agreement entered into with the company- resources were invested in the enhancement and maintenance of community residents' houses. On the other hand, regarding our relationship with the Condoraque community, two events stood out in 2019: we delivered community premises in the Quilcapuncu locality; and we completed an alpaca fiber shearing and sorting shed. Aiming at promoting production diversification in Condoraque, we installed a trout breeding module.

### 3.5. ENVIRONMENTAL MANAGEMENT

Caring for the environment is our motto when developing our businesses. Thus, aiming at ensuring due diligence in all our projects and operations, our framework of corporate policies and standards gathers cross-cutting sustainability principles.

According to the ICMM principles -which aim, among other things, at constantly improving its members' environmental performance-, at the end of 2019 Minsur approved two new policies enhancing our EMS: a Climate Change Policy and a Policy of Excellence in Water Management. Both express our vision, strategy and commitment to manage our activities, prioritizing these critical issues for the environment and our operations. Based on these principles and requirements, we also updated four corporate environmental standards (Water Management, Climate Change, Biodiversity and Air quality) and we developed a Biodiversity strategy.

Thus, our EMS is comprised not only by the Sustainability policy, Climate Change policy and a Policy of excellence in water management, but it also has 28 corporate

environmental management and operation standards; ISO 14001 certification; several management and supervision tools; a supervision and oversight tool called Environmental Performance rate (EPR); and reactive, proactive and sustainability-related KPIs.

In this regard, it is worth mentioning that our EMS includes the ISO 14001 certification, an international certification that provides the organizations a specific framework to efficiently manage the environment. In this regard, it is worth mentioning that all our operations in Peru have received this certification.

Furthermore, the staff involved in operation and support processes -comprised both by our company's and our contractors' employees- abides by our EMS; and this allows ensuring that legal requirements are met at all mining stages.

Our EMS aims mainly at taking care of significant issues for Minsur's management at all project stages: water, climate change, biodiversity, permits and planning, environmental management, socio-environmental management, rehabilitation and closure, among others.

Furthermore, in Minsur we have the following tools, among others, for a proper and responsible environmental management:

Internal audits	Environmental performance indicators (EPI and KPIs)	Environmental monitoring	Environmental Supervision
<ul style="list-style-type: none"> <li>Conducted to establish compliance of our operations with the Environmental Management System and applicable legal requirements, and to validate the EMS effectiveness. If below-standard performance is detected, the unit's or project's Environmental Supervisor shall implement the corrective actions required in the final audit report and, then, it shall report the result of implementing these actions. Cross-audits are also conducted.</li> </ul>	<ul style="list-style-type: none"> <li>On a monthly basis, Environmental Supervisors record and assess environmental performance indicators (EPI and KPIs). Through these, environmental impacts and potential risks are measured and monitored. These indicators are reported to the Environmental Manager, COO and CEO in monthly and quarterly meetings to identify and define improvements to be implemented.</li> </ul>	<ul style="list-style-type: none"> <li>Monitoring points have been established in the areas of influence of our mining units and projects for permanent assessment of environmental noise, and air, soil, biodiversity and water quality, by competent authorities. Complementarily, participatory environmental monitoring has been implemented in our units engaging communities of direct influence.</li> </ul>	<ul style="list-style-type: none"> <li>Our environmental performance is periodically supervised by the Agency for Environmental Assessment and Enforcement (OEFA) in Peru; Instituto de Proteção Ambiental do Amazonas (IPAAM) in Amazonas region, and Companhia Ambiental do Estado de São Paulo (CETESBI) in Sao Paulo region, Brazil. The objective is verifying compliance with laws, environmental management tools, permit processes, mandates or provisions issued by competent agencies, as well as with other sources of auditable environmental obligations.</li> </ul>

### a. Water management

Aware of the significance of responsibly using water resources, we aim at implementing a comprehensive strategy allowing us to efficiently manage water. From infrastructure and unit design to reutilization and recycling of the consumed resource, we complement it with several actions to save, monitor and control water.

The environmental team supervises the amount and quality of water flowing in and out of our operations, pursuant to legal requirements, to achieve an optimal management.

**Table. Water extraction by source 2019 (thousands of m<sup>3</sup>/year)**

Source	San Rafael MU	Pucamarca MU	SPR of Pisco	Pitinga MU	SPR of Pirapora
Surface water	1,640.27	84.14	0	8,918.10	0
Groundwater	7,574.98	250.96	236,288	0	52.19
Rainfall water directly collected and stored by the organization	0	0	0	0	0
<b>Total</b>	<b>9,215.25</b>	<b>335.10</b>	<b>236,288</b>	<b>8,918.10</b>	<b>52.19</b>

**Table. Volume of effluents by type 2019 (thousands of m<sup>3</sup>/year)**

Type of effluent	San Rafael MU	Pucamarca MU	SPR of Pisco	Pitinga MU	SPR of Pirapora
Industrial effluents	8,738.9	0	0	0	0
Domestic effluents	74.9	0	9.49	343.53	19.31
<b>Total</b>	<b>8,813.7</b>	<b>0</b>	<b>9.49</b>	<b>343.53</b>	<b>19.31</b>

## b. Waste management

Each unit have a solid waste collection program, implemented by the environmental team together with a specialized contractor. Most materials are separated and recirculated to the process, except for timber, which is disposed by a solid waste operating company, certified and authorized by the Ministry of the Environment. This is how we take care of collection, transport and disposal of solid waste in authorized landfills or treatment plants.

We continuously work on raising awareness and maintaining a bidirectional communication on the proper disposal of solid waste generated in our production, maintenance, logistics and other operations.

**Table. Amount of hazardous and non-hazardous waste by type of disposal 2019 (t/year)**

Type of disposal	San Rafael MU	Pucamarca MU	SPR of Pisco	Mina Justa	Pitinga MU	SPR of Pirapora
<b>Hazardous waste</b>						
Recycling	112.41	59.47	0	0.00	28,140.00	0.4
Secure landfill outside the unit	296.54	43.53	20.01	1,238.04	0	0
Incineration	0	0	0	0.00	11,383.00	3.35
<b>Subtotal</b>	<b>408.95</b>	<b>113</b>	<b>20.1</b>	<b>1,238.04</b>	<b>39,523.00</b>	<b>3.75</b>
<b>Non-hazardous waste</b>						
Reuse	187.17	131.52	0.2	188.16	0	0.25

Recycling	1,219.16	0	3	142.43	28,140.00	8.1
Composting	47.84	33.81	0	0.00	0	0
Incineration (mass burning)	0	0	0	0.00	11,383.00	0.00
Landfill outside the unit	199.45	85.02	49.5	1,275.08	26,580.00	86.6
Landfill inside the unit	337.79	0	0	614.34	309,316.00	0.00
<b>Subtotal</b>	<b>1,991.41</b>	<b>250.34</b>	<b>52.7</b>	<b>2,220.01</b>	<b>375,419.00</b>	<b>94.45</b>
<b>Total</b>	<b>2,400.36</b>	<b>363.34</b>	<b>72.8</b>	<b>3,458.04</b>	<b>375,419.00</b>	<b>98.7</b>

### c. Emission management

We consider it is very important to adopt urgent measures to address climate change and its negative impacts. To do this, we control and identify mechanisms to reduce emissions generated when developing our activities. Thanks to our control and monitoring measures, we comply with the maximum permissible limits established by law. These included noise, dust and gas monitoring. This way, we do not alter air quality, we protect the environment, and take care of our staff's and the community's health.

Based on our commitment, we measure our carbon footprint since 2017 and, in 2019 we started an audit process to certify our carbon footprint measurements corresponding to 2017, 2018 and on. It is worth mentioning that these measurements were conducted under the standards of ISO 14064-1 and the GHG Protocol.

### d. Energy management

We promote efficient energy consumption management, since we aim at reducing power expenses in all our units and operations. Annually, we measure and record the levels of this resource. With the results obtained, we research initiatives to reduce our emissions to the environment, and we started researching to implement renewable power sources.

**Table. Total energy consumption 2019 (GJ)**

Consumption	San Rafael MU	Pucamarca MU	SPR of Pisco	Pitinga MU	SPR of Pirapora
<b>Total fuel consumption</b>	273,270.85	242,912.0	881.04	246,014.00	5'680,359.79
<b>Total electric power consumption</b>	541,561.64	76,030.0	89,943.12	578,113.00	130,609.95
<b>Total energy consumption</b>	<b>814,832.49</b>	<b>318,942.00</b>	<b>90,824.16</b>	<b>824,128.00</b>	<b>5'810,969.74</b>

### 3.6. OCCUPATIONAL HEALTH AND SAFETY

Safety has always been our main value and, in 2019, we continued protecting our employees, but with special emphasis on developing and enhancing our occupational health and hygiene management.

For that purpose, we have an occupational health, hygiene and safety management system based on the OHSAS 18001 standard, in addition to other applicable occupational health, hygiene and safety legal provisions or regulations. Our system, called MINSEGUR, applies to our mining units and projects of Pucamarca, San Rafael, Pisco, Mina Justa, Pirapora and Pitinga. Furthermore, it is in line with other US safety standards for industrial and mining activities: CFR 29-1910 (OSHA) and CFR 30-56/57 (MSHA). Effectiveness of our Occupational Health, Hygiene and Safety Management System is based in visible leadership, promotion of safe behaviors and risk control for critical activities.

MINSEGUR is based on four fundamental pillars:



The system includes 5 policies; 15 Health and Safety Management standards; 21 operating security; and 16 operating standards on occupational health and hygiene standards. All of these are in line with domestic laws, the ICMM and the best practices of world-class mining companies.

MINSEGUR establishes the necessary guidelines for proper Occupational Health, Hygiene and Safety management, where the Management role and leadership, as well as the participation of collaborators, are key to achieve a solid and resilient culture of safety, fostering continuous improvement in occupational health and safety performance.

Aiming at achieving zero accidents, we developed the Vision Zero campaign, with health, safety and wellbeing included at all levels of work.

#### Other safety actions

- The Corporate Crisis Management Plan was approved. Thus, a Crisis Management workshop and a crisis drill were conducted with the EXCO team. Furthermore, this Crisis Committee was activated 8 times in 2019.
- Recommendations made in the Fire Risk Assessments conducted in San Rafael, Pucamarca and Pitinga were monitored. Likewise, in Pisco and Pirapora smelting plants firefighting trucks were incorporated pursuant to the NFPA standard of San Rafael and Pucamarca mining units.
- We organized and participated in the following events:
  - I Meeting of Occupational Health and Hygiene Leaders of BRECA MD.

- III Meeting of Strategic Partners of BRECA MD.
  - VII Meeting of Operation, Project and Safety leaders of BRECA MD in Nazca.
  - Training workshop for Internal Auditors on Health and Safety Management standards and Safety Operational standards.
- We conduct the gap analysis on the livability standard implementation level in our mining units and projects in Pisco, San Rafael, Pitinga, Pirapora and Mina Justa. We also established actions to improve the camps.
  - A training course on first-aid for seizures was prepared and provided through a mobile application.
  - The 15 Health and Safety management standards were reviewed and updated.
  - Telemedicine services were implemented in all mining units and projects.
  - 16 Occupational Health and Safety operational standards were approved.
  - The interactive modules of MINSEGUR system were developed.
  - Health surveillance protocols for noise, mercury, arsenic and musculoskeletal disorder prevention were prepared.

#### a. Occupational Health and Safety Performance

In 2019, no fatalities were reported in our mining units and Minsur’s projects -both in Peru and in Brazil-, thus this is the fourth consecutive year without fatal accidents.

We had 10 lost-time accidents (7 in Peru and 3 in Brazil), out of which 30% (3) were employees and 70% were outsourced workers. None of these accidents resulted in permanent disability. In addition, we had 50 recordable injuries (35 in Peru and 15 in Brazil), out of which 36% (18) corresponded to our employees and 64% (32) to outsourced workers. With these figures, we concluded that the Recordable Injury Rate (RIR) fell 36% as compared to the last three years’ average (2015, 2016 and 2017).

**Table. Accident indicators between 2014-2019**

Indicator	2014	2015	2016	2017	2018	2019
Fatal accidents	0	1	0	0	0	0
Accidents resulting in loss of workdays	9	4	7	3	9	10
Recordable injuries	70	60	39	33	33	50
Man/hours worked	13,238,804	12,22,194	13,441,506	14,133,104	17,719,994	30,770,695

**Graphic. Recordable injuries frequency rate (RIFR)**

[GRAPHIC]

#### b. Awards

- Our good safety performance in 2018 was awarded with the Safety Plaque, in the XXI Mining Safety contest, as follows:
  - San Rafael MU received the second prize in the underground mining category.

- The smelting plant of Pisco received the first prize in the refinery – smelter category.
- The Mina Justa project received the first prize in the mining project category.
- La Positiva VIDA insurance company awarded Minsur with the Plaque of Excellence for its outstanding safety performance in 2018.
- During the 34<sup>th</sup> Perumin Mining Convention, Minsur was awarded with the National Mining Prize for the technical study “Towards zero accidents: managing high-potential events in mining operations”.
- The B2 project achieved 4'000,000 million man/hours with no accidents resulting in loss of days.
- Exploration management achieved 5 years with no accidents resulting in loss of days.

### 3.7. MARKETING

Uncertainty produced by the US- China trade war was the reason of a significant fall in metal prices, especially tin price. Because of this, a cost-reduction plan was activated at all levels.

In 2019 we finished building the B2 treatment plant, which will represent an average annual production of 5,000 t of tin during the next 8 years.

Within the framework of the ongoing strengthening of our relationship with our customers, in 2019 Minsur focused on promoting the relevant qualities of its products, mainly tin. It is worth mentioning that a significant innovation of our 2019 strategy was the launch of the Value Creation Initiative (VCI) led by the new Transformation and Strategy Management area, comprised by a Manager, a VCI analyst, and a multi-functional supporting team.

#### **Value proposal for our customers**

Aiming at strengthening Minsur's position as a tin producer, in 2019 we analyzed relaunching the SusTINable brand strategy, in order to supply a solidly sustainable product, associated to traceability and business responsibility.

We developed a new program with more structured customer outreach initiatives, visiting their operations to better understand their processes and to identify opportunities to co-create value. In 2020, this program will continue being developed with new workshops and new customers.

Regarding gold marketing, we continue with the dore refining strategy to sell refined gold and silver to banks and traders. In this regard, we continue taking advantage of the competition among them, maintaining an excellent relationship with the entire value chain.

For 2020 we plan to combine the refining of dore with its direct sale to a new customer.



Regarding ferroalloys, the niobium and tantalum market contracted during the year, thus the sale of total ferroalloy production was a great challenge for our operations in Brazil. However, we continued constantly searching new customers and regions to supply our products in a competitive way, and thus we fulfilled our sales objective for the year. In this sense, our business objective for 2020 is still focused on the development of new markets, improving product quality and, as a consequence, obtaining better prices for ferro-niobium and ferro-tantalum.

## 4. RESULTS

### 4.1. FINANCIAL RESULTS

In 2019 our management focused on improving productivity and reducing costs and expenses at all operating units, which allowed us mitigating the impact of metal price reduction in the second half of the year. In San Rafael, we expanded operations of the Ore Sorting pre-concentration plant, which contributed to increasing production. In Pisco, we got to process ore from the B2 commissioning process, which started its commercial production in January 2020. On the other hand, Pucamarca is still one of the world's lowest cost gold mines.

**Table. Profits and losses 2019**

Item	Unit	2017	2018	2019	Var (%)
• Net sales	US\$ MM	489.1	491.4	529.8	8%
• Cost of sales	US\$ MM	(236.5)	(243.5)	(287.3)	18%
<b>Gross profit</b>	<b>US\$ MM</b>	<b>252.6</b>	<b>248.0</b>	<b>242.5</b>	<b>-2%</b>
• Selling expenses	US\$ MM	-3.2	-4.6	-5.8	26%
• Administrative expenses	US\$ MM	-31.7	-34.9	-41.3	18%
• Exploration and project expenses	US\$ MM	-26.8	-27.4	-24.3	-11%
• Other operational expenses, net	US\$ MM	11.6	-6.0	-3.1	-48%
<b>Operating profit</b>	<b>US\$ MM</b>	<b>202.5</b>	<b>175.0</b>	<b>167.9</b>	<b>-4%</b>
• Financial income and (expenses) and others, net	US\$ MM	-19.6	37.1	-6.2	N.A.
• Results of subsidiaries and associated companies	US\$ MM	-38.7	-44.1	-39.9	-9%
• Exchange difference, net	US\$ MM	-1.0	-3.6	1.4	-138%
<b>Income before tax</b>	<b>US\$ MM</b>	<b>143.2</b>	<b>164.4</b>	<b>123.3</b>	<b>-25%</b>
• Income tax	US\$ MM	-64.1	-20.2	-58.8	191%
<b>Net profit (loss)</b>	<b>US\$ MM</b>	<b>79.1</b>	<b>144.1</b>	<b>64.5</b>	<b>-55%</b>
• Net margin	%	16%	29%	12%	
<b>EBITDA</b>	<b>US\$ MM</b>	<b>259.1</b>	<b>242.5</b>	<b>236.7</b>	<b>-2%</b>
• EBITDA margin	%	53%	49%	45%	
• Net profit adjusted	US\$ MM	97.3	71.3	97.7	37%

## Our sales

Net sales were US\$ 529.8 million in 2019, that is 8% above 2017's sales, due to larger tin (+15%) and gold (+4%) volumes sold. In addition, gold price rose (+10%), which was partially offset by a fall of tin price (-8%).

As we mentioned above, tin price dropped 8% due to market uncertainty in the last half of 2019, caused by the US-China trade war and Brexit. In this context, there was great uncertainty and the price of gold grew -because it is a safe-haven metal-, which partially offset the negative impact of tin. Furthermore, we implemented savings plans and optimizations that allowed us mitigating this impact.

Our sales to North America and Europe represented the two main destinations of tin produced this year (47% and 42%, correspondingly). Sales to Europe and the United States grew 4% as compared to 2018's sales. On the other hand, sales to Asia dropped 18% as compared to the previous year, while local sales and those to rest of South America remained at the same level.

Regarding gold, the volume sold grew 4% as compared to 2018, reaching 105,643 ounces. 100% of our gold sales had the United States as destination.

In 2019, we launched the VCI initiative to constantly develop value creation initiatives in our products together with our customers. This will allow us to capitalize on opportunities for margin improvement and retaining current and potential customers.

**Table. Sales per product line (US\$ million) 2019**

Sale detail	Unit	2017	2018	2019	Variation 2018-2019
<b>Tin</b>	t	17,946	17,493	20,092	+15 %
<b>Gold</b>	oz	93,118	101,177	105,643	+9 %

## EBITDA

EBITDA in 2019 was US\$ 236.7 million, 2% lower than the previous year. This is the result of the lower sales margin, which- as we mentioned above- was caused by the fall in tin price.

Thus, the net profit in FY 2019 was US\$ 64.5 million, as compared to US\$ 144.1 million in 2018. This variation corresponds, mainly, to the fact that results of that year included tax refunds for tax overpaid in 2002, as well as the tax benefit for selling 40% of Cumbres Andinas' shares. Without these adjustments and exceptional effects, the net adjusted profit -which excludes exceptional effects, results of subsidiaries and associated companies and the difference in exchange rate- was US\$ 97.7 MM, 37% above the former year.

## 4.2. LIQUIDITY

The cash balance and cash equivalents amounted to US\$ 373.5 million, 39% lower than at the end of 2018 (US\$ 610.0 million). This cash balance considered deposits in cleared funds, which were not considered cash in the balance.

This variation responds mainly to an operating cash flow of US\$ 170.8 million, that allowed us fund investments by US\$ 144.6 million. During the year US\$ 66.0 million in dividends and US\$ 196.7 million in capital stock contributions in our subsidiaries, out of which US\$ 185.8 million were to Marcobre and US\$ 10.9 million to Barbastro and Sillustani.

**Table. Cash flow 2019**

Cash flow	Unit	2016	2017	2018	2019
<b>Initial balance</b>	US\$ MM	575.5	506.8	495.0	610.0
<b>Operation activities</b>	US\$ MM	168.2	140.7	121.8	170.8
<b>Investment activities</b>	US\$ MM	-36.4	-91.6	-147.2	-144.6
<b>Financing activities</b>	US\$ MM	-200.5	-60.9	-154	-262.7
<b>Final balance</b>	US\$ MM	506.8	495.0	610.0	373.5
Cash and cash equivalents	US\$ MM	341.1	202.9	200.1	79.4
Over 90-day term deposits	US\$ MM	-	160.4	309.7	212.7
Financial assets at fair value through profit or loss	US\$ MM	165.7	131.7	-	-
Unlisted certificates	US\$ MM	-	-	40.6	-
Commercial papers	US\$ MM	-	-	59.6	81.5

## 4.3. CAPITAL AND FUNDING

At the end of 2019, bank financial obligations amounted to US\$ 443.4 million. As a result, net leverage ratio reached 0.3x at the end of the FY 2019 versus -0.7x at the end of the former FY.

**Table. Net debt 2019**

	Unit	2016	2017	2018	2019
<b>Financial obligations</b>	US\$ MM	440.1	440.8	442.1	443.4
<b>Cash</b>	US\$ MM	506.8	495.1	608.7	373.5
<b>Net debt</b>	US\$ MM	-66.7	-54.2	-166,6	69.9
<b>Debt / EBITDA</b>	x	1.8X	1.8x	1.8x	1.9x
<b>Net debt / EBITDA</b>	x	-0.3x	-0.2x	-0.7x	0.3x

## 4.4. OFFICERS RESPONSIBLE FOR PREPARING THE FINANCIAL STATEMENTS

In FY 2019, Mr. Patrick Alvarez Medina, certified public accountant with registration number N°53955, was responsible for preparing our Financial Statements.

The external auditor has been Paredes, Zaldívar, Burga & Asociados S.C.R.L., a member firm of Ernst & Young, which issued a clean audit report on our company.

## 5. GENERAL INFORMATION

### 5.1. CORPORATE NAME

The name of the company is MINSUR S.A. Our administrative offices are located in Lima, Jirón Giovanni Batista Lorenzo Bernini 149, Office 501 – A, San Borja. Its phone number is (511) 215-8330.

### 5.2. CORPORATE PURPOSE AND TERM

Our activity is classified under code 1320 in Review 3.1, and code 0729 in Review 4 of the International Standard Industrial Classification (ISIC). It specifically exploits tin and gold ore.

According to its Bylaws, the corporate purpose of MINSUR S.A. allows to carry out all activities involving the mining industry and, particularly the exploration and exploitation of mineral deposits, processing their products, processing plants, mineral refining, as well as all related operations for these purposes. In addition, it may conduct any actions and enter into any agreements related to commercial and mining activities, as well as purchasing and selling property, real estate and securities, and all those permitted by the law. Under its Bylaws, the company is organized for an unlimited duration.

### 5.3. INCORPORATION AND REGISTRATION IN THE PUBLIC REGISTRY

Our company was incorporated and began operations in October 6, 1977 by transforming the Peru branch of MINSUR Partnership Limited of Bahamas, called MINSUR limited company, which had been operating in Peru since 1966, as per Deed certified by the Public Notary of Lima, Dr. Ricardo Fernandini Arana, registered in the folio 8, page 183 of Volume 17 of the Book of Corporations and other Legal Entities, of the Public Mining Registry of Lima.

### 5.4. ECONOMIC GROUP

Our company is part of the economic group declared to CONASEV (the Securities authority, currently SMV) and the Lima Stock Exchange (BVL, in Spanish), by Inversiones Nacionales de Turismo S.A., pursuant to CONASEV Resolution N° 090-2005-EF-94.10. The abovementioned business group has investments in various

economic sectors, such as: agriculture, construction, industry, real estate, mining, fishing, petrochemicals, health, financial services and insurance, tourism, as well as other activities and specialized services.

The main companies of this economic group are: AESA Infraestructura y Minería, Centria, Clínica Internacional, Exsa, Intursa, Melón, Minsur, Qroma, Raura, RIMAC Seguros, RIMAC EPS, Taboca, Tasa and Urbanova. Furthermore, in partnership with the Spanish group BBVA, it shares ownership of BBVA Banco Continental.

## 5.5. SHARE CAPITAL, NUMBER AND NOMINAL VALUE OF SHARES

Since 2010, the share capital remained S/ 1,922'001,500 represented by 19,220,015 common registered shares with a nominal value of S/ 100.00 each, all fully subscribed and fully paid.

The abovementioned share capital was agreed at the Shareholder's Meeting, held on November 26, 2010, and specified in a Deed certified by the Notary Dr. Ricardo Fernandini Barreda, on December 2, 2010, agreement that was registered in entry B 00006 of the Electronic Record N° 01141929 of the Legal Entities Registry of Lima and Callao. All our shares confer their holders the right to vote.

## 5.6. TYPES OF SHARES AND SHAREHOLDING STRUCTURE

Minsur has no shares in the portfolio of own issuance, or repurchased by the company, nor have the Shareholder -during their general meeting- delegated its powers to approve the increase in capital to the Board of Directors.

At the end of FY 2019, the company only had two common shareholders, out of which only one has a share of more than 5%.

**Table. Our main shareholders**

	Share	Nationality	Economic group
Inversiones Breca S. A.	99.99995 %	Peruvian	-
Another shareholder	00.00005 %	Peruvian	-
Total	100.00000 %	-	-

**Table. Common shares**

Ownership	Number of shareholders	% of participation
Less than 1 %	1	0.00005 %
Between 1 %-5 %	0	--
Between 5 %-10 %	0	--
More than 10 %	1	99.99995 %
Total	2	100.00000 %

Equity stocks are registered in the Securities Public Registry, and are the only securities issued by Minsur S.A., listed on the stock market.

As of December 31, 2019, equity stocks issued by the company amounted to 960'999,163 shares of a nominal value of S/. 1 each.

**Table. Equity stocks**

Ownership	Number of shareholders	Percentage of participation
Less than 1 %	2,755	19.37 %
Between 1 % - 5 %	6	13.44 %
Between 5 % - 10 %	5	38.66 %
More than 10 %	2	28.53 %
Total	2,768	100.00 %

**Table. Structure of Minsur S.A.'s subsidiaries and investments**

Subsidiaries of Minsur S. A.	Ownership	Subsidiaries of Minera Latinoamericana S. A. C. and Cumbres Andinas S. A. C.	Ownership
Minera Latinoamericana S. A. C.	99.90 %	Mineração Taboca S. A. and subsidiaries	99.90 %
		Inversiones Cordillera del Sur Ltda. and subsidiaries	85.39 %
		Minera Andes del Sur S. P. A.	100.00 %
Cumbres Andinas S. A. C.	99.99%	Marcobre S. A. C.	99.99%
Cumbres del Sur S. A. C.	99.90 %	Compañía Minera Barbastro S. A. C.	99.99 %
		Minera Sillustani S. A. C.	99.99 %

Mr. Emilio Alfageme Rodríguez Larraín, Attorney with C.A.L. (Lima Bar Association) number 18694, who serves as Corporate Legal Manager of the company is responsible for the Securities Department.

## 5.7. EVOLUTION OF THE STOCK PRICE

### Minsur S.A.

#### Variable income

ISIN Code	Mnemonic	Year - month	PRICES 2019				Average price S/.
			Opening S/.	Closing S/.	Maximum S/.	Minimum S/.	
PEP622005002	MINSURI1	2019-01	1.38	1.48	1.50	1.36	1.41
PEP622005002	MINSURI1	2019-02	1.48	1.80	1.80	1.47	1.68
PEP622005002	MINSURI1	2019-03	1.75	1.73	1.79	1.69	1.74
PEP622005002	MINSURI1	2019-04	1.75	1.66	1.82	1.65	1.74
PEP622005002	MINSURI1	2019-05	1.67	1.58	1.75	1.53	1.63
PEP622005002	MINSURI1	2019-06	1.55	1.70	1.72	1.55	1.68
PEP622005002	MINSURI1	2019-07	1.68	1.62	1.70	1.59	1.66
PEP622005002	MINSURI1	2019-08	1.57	1.45	1.57	1.43	1.48
PEP622005002	MINSURI1	2019-09	1.45	1.45	1.50	1.41	1.47
PEP622005002	MINSURI1	2019-10	1.45	1.44	1.46	1.44	1.44

PEP622005002	MINSURI1	2019-11	1.44	1.48	1.53	1.44	1.49
PEP622005002	MINSURI1	2019-12	1.48	1.56	1.61	1.41	1.49

## 5.8. TAX TREATMENT

Tax authorities are entitled to review and -as applicable- to correct the Income tax calculated by our Company within the next four years after having filed the corresponding tax returns. Income tax returns for the years 2015 to 2019 and Sales tax returns for the years 2016 to 2019 are pending review by the tax authority. To date, the Tax Administration has reviewed Income Tax returns corresponding to the FY 2000 to 2014, and Sales tax returns for FY 2000 to 2008.

## 5.9. JUDICIAL, ADMINISTRATIVE OR ARBITRATION PROCEEDINGS

In 2019, in the appeal filed by our company to the tax authority for the FYs 2004 and 2005, the tax authority issued Resolutions of Intendency ordering the refund of S/. 37'802,000 (equivalent to US\$ 11'250,000), out of which S/. 24'235,000 (equivalent to US\$ 7'213,000) correspond to interests for overpaid income tax in those FYs.

Moreover, in 2019 the Tax Court served notice of the Tax Court Decision (RTF, in Spanish) 10924-1-20019 on the appeal for Income Tax paid in 2006, abrogating the observations made by SUNAT in the inspection conducted on that FY. The tax authority has not yet issued the enforcement resolutions for the refund of overpaid taxes.

In 2018, regarding the appeal filed by the company to the tax authorities for the FY 2002, the Tax Court served notice of the Tax Court Decision (RTF) 04937-9-2018, dated October 5, 2018, which orders the refund of S/.250'435,000 (equivalent to US\$ 75'844,000), out of which S/. 142'326,000 corresponded to interests that have been recorded under the "financial income" item.

Regarding fines and penalties for environmental issues, in 2019 a Sanctioning Administrative Procedure (PAS, in Spanish) was filed against us for non-compliance with environmental provisions of our Environmental Management Tools (EMTs) applicable to Pucamarca MU. The Agency for Environmental Assessment and Enforcement (OEFA), authority that supervises and oversees our EMTs, sanctioned us with a fine of 4.22 Tax units (S/. 18,146.00) for not having implemented non-pneumatic sprinklers at the hopper of the gyratory crusher, as well as at the truck loading hopper and in the stockpile, not complying with our obligation under our EMTs. It is worth pointing out that this procedure ended at the beginning of 2020 (hereinafter, PAS 1).

Likewise, the Sanctioning Administrative Procedure (PAS) that started in 2018 against Pucamarca MU ended. It was related to non-compliance of environmental provisions of our EMTs for having built a concrete channel linking the monitoring pond of the northern landfill with the perimeter channel for runoff water, which supposedly was not

described in our EMTs. As a consequence, the administrative authority found us liable, but no fine was imposed.

Regarding fines and penalties based on social or economic complaints, in 2019 a Sanctioning Administrative Procedure (PAS) was initiated against Pucamarca MU for non-compliance with social obligations in our EMTs. It is worth mentioning that this PAS was part of the PAS 1's claims, based on which OEFA gave us a fine of 4.01 tax units (S/. 17,243.00), for not having called upon Tacna entrepreneurs early enough in advance to participate in business roundtables, through the Tacna Chamber of Commerce in 2017, thus infringing our EMTs. We shall not forget that this PAS, as mentioned above, was part of PAS 1, which ended at the beginning of 2020. In addition, this was the only PAS referred to social issues for alleged infringement of our operating units' EMTs.

It is worth indicating that in the PAS 1, which included environmental and social issues, we finally paid a total fine of S/. 31,850.10, since we applied to a ten percent (10%) discount pursuant to the laws applicable to fines.

Regarding fines and penalties for environmental issues to Nueva Acumulación Quenamari-San Rafael mining unit (hereinafter, San Rafael MU), in 2019 we have challenged a Sanctioning Administrative Procedure (PAS) in Court by filing a contentious-administrative lawsuit (ACA, in Spanish) questioning the administrative liability imposed on us for two (2) alleged infringements to our EMTs referred to: the use or top soil in a non-authorized area, and having implemented a warehouse for surplus materials not provided in our EMTs. This PAS did not result in a fine, but we are challenging the administrative decision made by OEFA that found us liable for administrative infringements.

Regarding the PAS against San Rafael MU, which is in Court since May 7, 2019, we shall point out that it started based on the results of an inspection made by OEFA in the mining unit from October 23 to 27, 2014. On May 16, 2018, OEFA initiated the PAS which ended with the decision of the Environmental Enforcement Tribunal on February 27, 2019.

On the other hand, regarding fines and penalties related to Occupational Health and Safety issues that ended in 2019, we had two (2) Sanctioning Administrative Procedures (PAS) followed against San Rafael MU. The Supervising Agency of Investments in Energy and Mining (Osinermin) gave us a fine of 12.44 tax units (S/. 52,248.00) for non-compliance with electric power issues related to the exchange of information on real time, approved by Directorial Resolution 243-2012-EM/DGE. In the other PAS, OSINERGMIN gave us a fine of 7.45 tax units (S/.31,290.00) for exceeding carbon monoxide (CO) gas emissions from exhaust pipes of our equipment with diesel-fueled engines in our underground tasks. It was added that air circulation was not enough considering the number of workers and the effective power capacity (HPs) of equipment with internal combustion engine in the operation.

With relation to our tin smelter and refinery, OSINERGMIN gave us a fine of 110.42 tax units (S/. 474,806) in the PAS followed for infringement of article 38 of the Mining



Procedure Regulations, approved by Supreme Decree 018-92-EM, for operating the slag grinding plant without the operating license of the General Mining Direction. However, we have challenged this PAS through a contentious-administrative lawsuit because we have solid arguments to change this decision.

## 6. CORPORATE GOVERNANCE

### 6.1. PROFESSIONAL TRAJECTORY OF DIRECTORS

Fortunato Brescia Moreyra	President
<p>He is President of the Board of Directors of MINSUR since May 2013, a man born in Lima in 1959. He is a mining engineer, graduated from the Colorado School of Mines (USA) and the National Engineering University. Furthermore, he is Director of Breca, CEO of Marcobre and Compañía Minera Raura. He is also Vice-President of the Board of Directors of EXSA and TASA. He is a member of the Board of BBVA, Intursa, Corporación Peruana de Productos Químicos, Melón (Chile) and of real estate companies owned by Breca Group. Moreover, he is President of the Board of Directors of Aporta, a non-profit association created by Breca companies to promote sustainable development programs.</p>	

Alex Fort Brescia	Vice President
<p>He is the Vice-President of the Board of Directors of MINSUR since May 2013. He is a man, born in Lima in 1957. He earned a BA in economics from the Williams College (USA) and an MBA from Columbia University (USA). He is Co-President of Breca, President of the Board of Directors of the BBVA Continental, Melón (Chile) and Rímac Seguros. Furthermore, he is Vice-President of Marcobre, Futura Consorcio Inmobiliario and of real estate companies owned by Breca Group and of Corporación Peruana de Productos Químicos. Moreover, he is a member of the Board of EXSA, TASA, Intursa, Raura and a member of the Board of Directors of Brein, innovation platform of Breca and Aporta, a non-profit association created by the companies of the Breca Group to promote sustainable development initiatives.</p>	

Rosa Brescia Cafferata widow of Fort	Director
<p>She is a member of the Board of Directors of MINSUR since 2014. She is a woman born in Lima in 1926. Furthermore, she is member of the Board of Directors of Breca and its subsidiaries Raura and Futura Consorcio Inmobiliario. She is also the Honorary President of the Board of Directors of the Peruvian Center for Hearing, Language and Learning (CPAL), a non-profit institution devoted to education and rehabilitation of children, adolescents and adults. As a founder and Director of the Research group on xerophytes, she has published the book <i>"Jardines verdes con poca agua"</i> (Green Gardens with little water) (Lima 2005 – First edition, Lima 2010 – Second edition and Lima 2016 – Third edition), aiming at promoting crops of urban sustainable plants in the Peruvian coast. In 2010 she was awarded by the Congress with the Medal of Honor in the Rank of "Officer" for her contribution to rehabilitation and special</p>	

education of people with hearing impairments. In 2009, she received the “Order of Merit for Distinguished Services” in the rank of “Commander”, in recognition of her education work in CPAL and her contribution to research and promotion of xerophytes.

<b>Mario Brescia Moreyra</b>	<b>Director</b>
<p>He is Director of MINSUR since 2001 and Director of Breca. He is a man, born in Lima in 1961. He graduated in Business Administration from the Ricardo Palma University (Lima, Peru). He is a member of the Board of Directors of Breca and is also the President of the Board of EXSA and TASA. He is also Vice-President of Melón (Chile) and Intursa, and a member of the Board of Directors of Rimac Seguros, of the real estate companies of Breca, of BBVA Continental, Raura, Marcobre and Corporación Peruana de Productos Químicos. Furthermore, he is Vice-President of the Board of Aporta, a non-profit association created by the Breca companies to promote sustainable development.</p>	

<b>Pedro Brescia Moreyra</b>	<b>Director</b>
<p>He is Director of MINSUR since 2011. He is a man, born in Lima in 1967. An economist, who graduated from Boston University (USA). He is Co-President of Breca, and chairs the Board of Directors of Corporación Peruana de Productos Químicos, of Futura Consorcio Inmobiliario and of the real estate companies of Breca Group and Intursa. He is also Vice-President of BBVA Continental and Rímac; as well as a member of the Board of EXSA, Minsur, Marcobre, Raura, Melón (Chile), Tasa and of Aporta, a non-profit association created by Breca companies to promote sustainable development.</p>	

<b>Jaime Aráoz Medanic</b>	<b>Director</b>
<p>Director of Minsur since March 2016. He is a man, born in Lima in 1971. He graduated in Business Administration from the Lima University and earned an MBA from the Kellogg Graduate School of Management (USA). Currently, he is General Manager of Breca, Corporación Breca, its corporate center and Holding Continental. He is also a member of the Board of the Directors of Cementos Melón (Chile), of Futura Consorcio Inmobiliario and of the real estate companies owned by Breca Group, EXSA, Futura Consorcio Inmobiliario Marcobre, Intursa, Qroma, Raura, Rimac and TASA, and Aporta, and he is an alternate Director of BBVA Continental. In addition, he is Director of the Instituto Peruano de Economía - IPE (Peruvian Institute of Economics). Since 2003 he is part of Breca, where he started as Administration Manager in Administración de Empresas S.A., and then as Corporate Strategy and Business Manager. He worked in the holding of Consorcio Minero S.A. (now Trafigura PLC), Serfin and Investa (stockbroker and investing banker, at that time). After earning his master’s degree he worked at Enron in different positions in Houston (USA) up to March 2003.</p>	

<b>Miguel Aramburú Álvarez-Calderón</b>	<b>Director</b>
<p>Independent Director of MINSUR since September 13, 2012. He is a man, born in Lima in 1963. Industrial Engineer graduated from the Pontifical Catholic University of Peru, he earned an MBA from the Graduate School of Business of Stanford University. He is a member of the Board of Directors of Enfoca Investments, of Certus Institute, of Toulouse Lautrec Institute, of</p>	

the UCAL University and is a member of the Technical Committee of Fibra Prime. He chaired the Board of Directors of Fénix Power, and was a member of the Board of Andino Investment Holdings, Neptunia, Empresa Editora El Comercio, Stracon, GyM, the Lima Stock market, Castrovirreyna Compañía Minera S.A., of Maestro Perú and of Pacífico Vida. He worked in Hochschild Mining PLC for 15 years, up to March 2010, where his most recent position was CEO.

<b>Patricio de Solminihac Tampier</b>	<b>Director</b>
<p>Independent Director of Minsur since March 2019. He is a man, born in Chile in 1955. He graduated as a civil industrial engineer from the Pontifical Catholic University of Chile and earned a master's degree from the University of Chicago. From 2015 to 2018 he was the General Manager of Sociedad Química y Minera de Chile S.A. and Deputy General Manager from 200 to 2014, having joined the company in 1988. Currently, in Chile, he also works as a member of the Board of CMPC Celulosa S.A., Vidrios Dellorto S.A., Viñedos Terranoble S.A. and Melón S.A., subsidiary of Minsur S.A. He is Advisor of Sociedad de Fomento Fabril (Sofofa) in Chile.</p>	

<b>Miguel Ángel Salmón Jacobs</b>	<b>Alternate Director</b>
<p>Alternate Director of the Board of MINSUR since March 2013. He is a man, born in Lima in 1964. He graduated in law and political sciences from the Lima University. He was Legal Manager of ARMCO PERU and SIDER PERU, as well as Legal Corporate Manager of El Comercio Group. Currently, he is an Alternate Director of Holding Continental and BBVA Continental, Rímac Seguros, and of real estate companies of the Group, CPPQ, EXSA, Intursa, Minsur and TASA. Moreover, he is the Corporate Legal Vice President of Breca Corporation.</p>	

<b>Fernando Alegre Basurco</b>	<b>Alternate Director</b>
<p>Alternate Director of the Board of MINSUR since March 2017. He is a man, born in Lima in 1971. He graduated as an industrial engineer from the Lima University, and earned a master's degree from the Michigan University, focused on Strategy and Finances. He is Alternate Director of the company since 2017 and a Corporate Vice President of Strategy and Finances of Breca Corporation. Furthermore, he is a member of the Board of Directors of Rímac and Clínica Internacional. In addition, he is an Alternate Director of real estate companies of the Group, EXSA, Futura Consorcio Inmobiliario, INTURSA, Qroma, Raura and TASA. Before joining BRECA, he had an 8-year professional trajectory in SAB Miller, where he was the Vice President of Strategic Planning since 2013. Before holding this position, he held others in Business Projects and Strategic Planning &amp; Business Development for the LATAM region from Bogota, Colombia. Before SAB Miller, he worked for AT Kearney based in Chicago, in charge of consultancy projects for several industries; and Southern Wine &amp; Spirits, based in Miami, as Director of Strategy and Business Development.</p>	

## 6.2. OTHER ASPECTS RELATED TO THE BOARD OF DIRECTORS

Directors Fortunato Brescia Moreyra, Mario Brescia Moreyra and Pedro Brescia Moreyra are blood relatives in second degree of collateral line. They are also blood relatives in third degree of the collateral line with Director Rosa Brescia Cafferata. Likewise, they are blood relatives in fourth degree of the collateral line with Director Alex Fort Brescia. Director Alex Fort Brescia is blood relative in the first degree of the direct line with Mrs. Rosa Brescia Cafferata.

## 6.3. PROFESSIONAL TRAJECTORY OF MANAGERS

Juan Luis Kruger Sayán	General Manager
<p>He is General Manager of MINSUR since March 2013. He graduated in Business Administration from the Pacific University, Peru, and earned a master's degree in Business Administration from Harvard University, USA. He has been in Senior Management positions for over 20 years in multinational companies of the mining, finance, telecommunications and consumer goods industries in several countries of South America and has experience as a consultant in strategic management in McKinsey. Former Executive Vice President of Gold Fields Ltd. for South America and General Manager of Gold Fields La Cima S.A.A. Before that he was the CEO of LAN Perú S.A. and CFO of Glencore for the regional operations.</p>	

Yuri Alfredo Gallo Mendoza	Corporate Project Manager
<p>He is Corporate Project Manager of Minsur since April 2017. He has 27 years of experience in project implementation and development, metallurgical operations and maintenance of industrial plants and infrastructure, 25 of which have been devoted to the mining industry. He has been Project Development Manager in Minsur, Engineering Manager in Ausenco – Constancia Project, Project and Engineering Manager in BHP Billiton Copper-Uranium Division in the Olympic Dam Expansion Project – Australia, Engineering and Research Manager in Yanacocha-Newmont including the Gold Mill and Conga projects, and mechanical engineering functional manager in the Expansion project department of Southern Peru Copper for modernizing the smelting plant of Ilo, among others. He graduated as a mechanical engineer from the Pontifical Catholic University of Peru and earned a master's degree in Business Administration from the Private University of Tacna and a Diploma in megaproject assessment and PMP certificate.</p>	

Luis Argüelles Macedo	Chief Operations Officer (COO)
<p>He was Director of Operations of Minsur since December 2012 to April 2017, when he became Chief Operating Officer (COO). He has 25 years of experience in the mining industry, serving in senior management positions. Civil engineer, graduated from the Pontifical Catholic University of Peru, with Senior Management studies from the University of Piura (Lima premises), as well as various studies at Berkeley University, Crestcom and other institutions.</p>	

<b>Gonzalo Quijandría Fernández</b>	<b>Director of Corporate Affairs</b>
<p>He is the Director of Corporate Affairs of Minsur since September 2013. Formerly, he served as Director of Corporate Affairs of Barrick Misquichilca and was the Manager of Corporate Affairs of Compañía Minera Antamina. Attorney, graduated from the Pontifical Catholic University of Peru, was a Fellow of the Nieman Foundation at Harvard University. He has a specialization in mining management from the Pontifical Catholic University of Chile and has taken communication courses in the Theodore Haus Academie of Gummerbach, Germany, and Community Relations courses in Orissa, India. He participated in the Advanced Management Program of the School of Senior Management (PAD) of the University of Piura.</p>	

<b>Diego Molina</b>	<b>Director of Finances / Director of Transformation and Strategy</b>
<p>Director of Transformation and Strategy since September 2019. He previously held the position of Director of Finances since August 2017 to September 2019. Furthermore, he held management positions in the financial departments of Amcor (former Peruplast) and SQM. He has more than 10 years of experience in the mining and industrial sector, performing new business implementation and commercial support roles, and operations in Peru, China and other countries. He graduated as a civil engineer from the Catholic University of Chile and earned an INSEAD MBA from Tsinghua University in Singapore, China and France.</p>	

<b>Joaquin Larrea Gubbins</b>	<b>Director of Finances</b>
<p>Director of Finances since September 2019. He previously held the position of Central Manager of Corporate Development in Cementos Pacasmayo, was Director of Business Development for General Electric Peru, Ecuador and Bolivia, and a member of the Corporate Bank team of BankBoston. He has more than 15 years of experience in the concrete, fertilizer and bank sectors in project development, commercial and financial positions. He graduated as a Business Administrator from the Lima University and earned an MBA from the Kellogg School of Management of Northwestern University.</p>	

<b>Ralph Alosilla-Velazco</b>	<b>Director of Logistics and Information Technology</b>
<p>He is Director of Logistics and Information Technology of MINSUR since November 2015. Formerly he was Vice-President of Logistics and Marketing at Gold Fields La Cima S.A. and had several management positions in companies of the Glencore Group and Southern Peru Copper. He has more than 20 years of experience in the mining sector. He graduated as an Industrial engineer from the Lima University and earned a master's degree in Global Business Administration from the Business School of the Pontifical Catholic University of Peru, and also an MBA from Tulane University.</p>	

Álvaro Escalante Ruiz	Director of Human Resources
<p>He is Director of Human Resources of MINSUR since October 2014. Bilingual executive with 20 years of management experience in Sales, Marketing, Consultancy and in the last 15 years in Human Resources. He has worked in national and transnational companies of various sectors, such as mass consumption, education, industry and mining. He has been a teacher in the Postgraduate School of the Peruvian University of Applied Sciences (UPC) and of the Andrés Bello University of Chile. He has also been executive <i>coach</i> and is a columnist of Aptitus magazine, edited by Gestión. He graduated in Business Administration from the Pacific University and earned an MBA from the Pontifical Catholic University of Chile.</p>	

Hik Park	Director of Internal Audit
<p>He is Director of Audit of Minsur since November 2018. Trilingual executive with 25 years of experience in consultancy and auditing, and more than 10 years of experience as Audit Manager. He has worked in national and transnational companies in over 5 countries. He is the former Audit Manager of Pan American Silver Corp (Canada). He is a part-time teacher of the Senior Management Program of the Piura University. He has been a member of the Board of Directors of the Institute of Internal Auditors in Vancouver, Canada, and is associated to the Institute of Internal Auditors of Lima, Peru. He has lectured on internal control, risks and fraud issues in Canada, Argentina, Mexico and Peru. Industrial Engineer graduated from the Pontifical Catholic University of Peru, he earned an MBA from the Piura University – IESE, a master’s degree in Education from the Villanueva Center and the Complutense University of Madrid. Certified Internal Auditor (CIA®), Certified Fraud Examiner (CFE®), and Certified in Risk Management Assurance (CRMA®).</p>	

## 6.4. REMUNERATION OF THE BOARD OF DIRECTORS

Remuneration of the Board of Directors in FY 2019, excluding the independent Director, represents 0,0657%, and the one corresponding to the latter represents 0,0117% of Minsur S.A. gross revenues.



**MINSUR S.A.**

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**Advised by:**

Avanza Sostenible

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