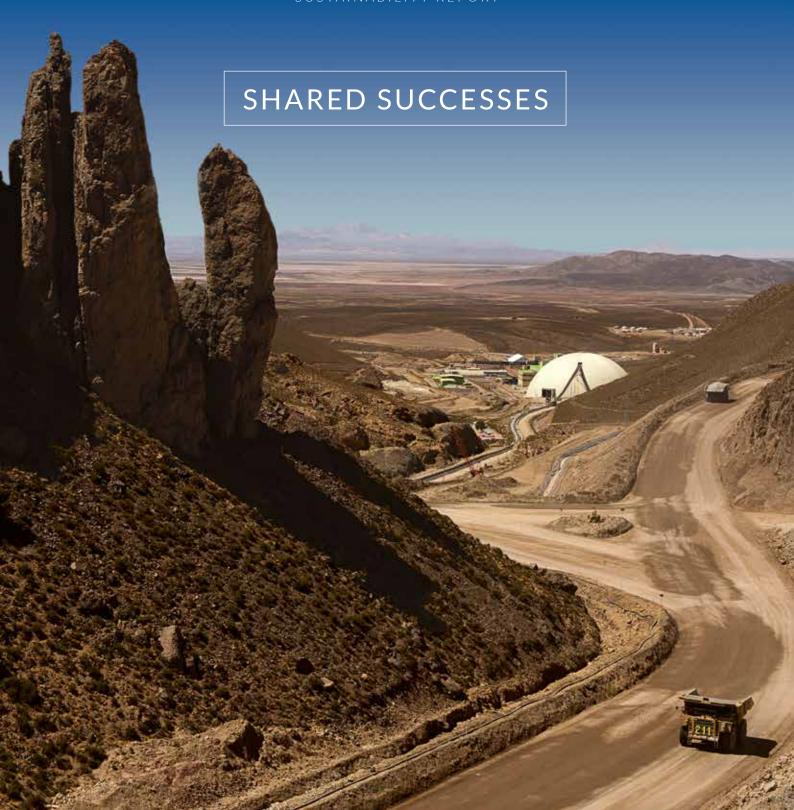


# 2016

SUSTAINABILITY REPORT



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Graphic Design and Layout: Natalia Campero Romero Printed in Artes Gráficas Sagitario, La Paz – Bolivia 100% Recycled Paper – 100% Organic Ink

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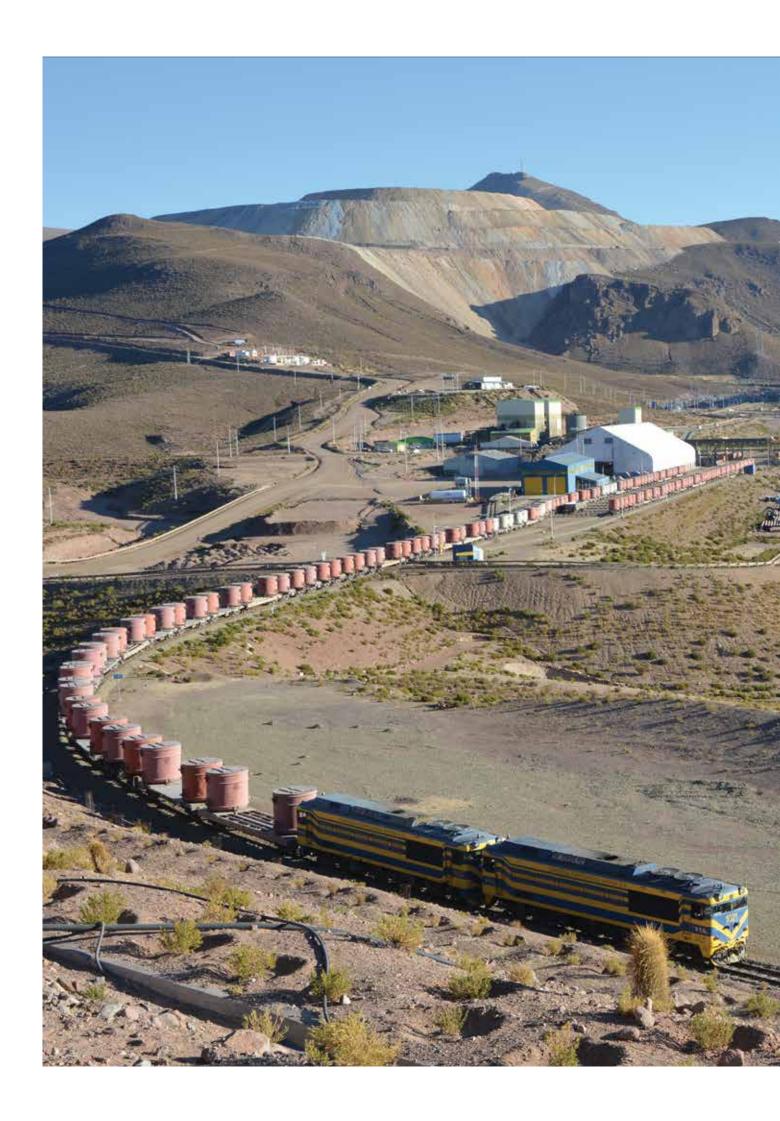
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#### VERIFICATION LETTER 95



#### GRI CONTENT INDEX

Unless specifically stated otherwise, all monetary references in this report are in United States of America dollars ("USD"). The Financial data displayed in the charts in Our Economic Performance and Our Contributions reflect the audited financial statements corresponding to the fiscal year ending September 30, 2016. All other data was collected for sustainability reporting purposes and are based on the calendar year from January 1 to December 31, 2016. While the information contained in this report is believed to be accurate, it is important to note that the unaudited financial figures presented within this report would not have been required to be disclosed by International Financial Reporting Standards and are therefore not included in any previous published financial document.





## Mission and Vision√

#### **OUR VISION**

To be a world-class Bolivian mining company

#### **OUR MISSION**

To develop a model mining operation through safe, low-cost operations, using innovative technologies, with social commitment and respect for the environment, thus creating value for our shareholders, employees, and the region and country where we operate.

#### WE APPRECIATE YOUR FEEDBACK ✓

All opinions from our stakeholders about the 2016 Sustainability Report are welcome.

For further information, questions, or comments please contact:

#### Patricia Dalence R.

Superintendent of Public Relations patricia.dalence@minerasancristobal.com (591-2) 262-3400 extention 2444

www.minerasancristobal.com





## About Minera San Cristobal

Minera San Cristobal S.A. ✓ ("MSC" or "the Company") is a subsidiary 100% owned by Sumitomo Corporation, a leading multi-sectoral business conglomerate based in Japan√. MSC's sole operation is the San Cristobal Mine, located in the Nor Lípez province in the Departamento (State) of Potosi, Bolivia, ✓ approximately 90 kilometers (km) to the southwest of the town of Uyuni. MSC maintains its legal office in Potosi and has an administrative office in the city of La Paz.

Minera San Cristobal is the principal mining undertaking in Bolivia. It carries out its operations combining the use of cutting edge technology with a permanent qualification of its workers, a strict control of health and labor and industrial safety, the preservation of the environment and the sustainable development of the communities; seeking to contribute to the development of the region where it operates, to the Department of Potosí, and to the country as a whole.

At the present time, it is the largest open-pit mining operation in the history of Bolivia, the sixth largest producer of zinc and the fourth largest producer of silver, in the world.



San Cristobal is one of the world's largest zinc, lead and silver deposits. And produces zinc-silver and lead-silver mining concentrates.





MSC's mineral concentrates are transported by railway in bulk containers to the Chilean port of Mejillones. From there, they are shipped by an international trading company to multiple destinations, mainly located in Europe and Asia. All of our end-use customers are smelters that process our concentrates to obtain high purity metals, which are then globally destined to different uses.



#### OUR SUPPLY CHAIN ✓

MSC has a comprehensive network of companies and local and international contractors that provide a variety of mining supplies and services. In 2016, MSC had approximately 1,023 suppliers supporting its business activities, among which included: mining contractors, telecommunication providers, suppliers of fuel for air transport services, and railway service providers. Our main categories of suppliers included transportation and storage of concentrates, the provision of diesel fuel, reagents for the concentration plant, and elements for the grinding process and spare parts. Approximately 90% of the providers of transportation services are local businesses.





#### **OPERATIONAL HIGHLIGHTS**

\$567 M \$ (119 M) \$366 M Revenue Losses\* Working Capital

478.805 Tonnes 449.202 Tonnes of Zinc/Silver of Zinc/Silver Produced Sold

94.467 Tonnes 100.137 Tonnes of Lead/Silver of Lead/Silver Produced Sold

 $^{*}$  Further information is shown in Section 8 of the Report "Our Economic Performance and Our Contributions" on page 38.



#### AVERAGE REALIZED PRICES OF THE MINERALS/METALS

\$0,80 \$16,52 \$0,85 Lead/Lb. Silver/Oz. Zinc/Lb.

#### **EMPLOYEES**



1,443 Total



1,252



191 Female





# Message from the President and General Manager ✓

Dear Stakeholders:

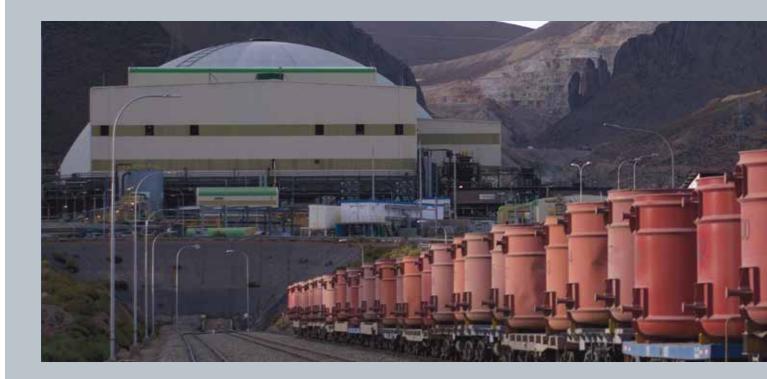
We are pleased to present Minera San Cristóbal's second Sustainability Report, where you will find information about our company's economic, social and environmental performance.

In a cyclical industry such as mining, the financial results achieved by the company in 2016 confirmed that we were able to increase efficiencies based on our Strategic Plan and Cost Reduction Program, as well as great teamwork, a culture of innovation and the continuous improvement of our processes; and in this way, we were able to cope with the low prices of minerals worldwide.

Although mineral prices began to show a slight improvement during 2016, a scenario that allowed us to take advantage of tax discounts offered by Bolivia only in 2016, we managed to resolve a significant number of outstanding fiscal issues that were very relevant to our future planning. In 2016, unit costs of concentrates production were reduced by 25% and the production of concentrates increased by 27% making this year the most productive ever for Minera San Cristóbal. As a direct result of our successes, Wood Mackenzie's 2016 report ranked Bolivia as the fourth most productive country as open pit zinc mine in the world and we are the only one.

During 2016 one of the most important achievements in OHS (Occupational Safety and Health) was to have the Nine Golden Rules issued within the company. These rules were born of a need identified by the General Management after the fatality registered in 2015.

The Golden Rules emphasize nine critical activities of our company, which due to their high risk nature, could lead to a serious injury or damage to the health and even death of our employees. As a priority, the fulfillment and commitment that must prevail in each activity, firmly establishes that for the related activities, we do not accept that our supervision and workers do not take the necessary measures to perform the work safely.



Another important OHS milestone is to have developed a program for the improvement of contractor safety performance, which aims to improve performance in Occupational Health and Safety issues with reference to statistics related to safety incidents and the contractors' risk management programs. Our data indicates continuous improvement by the contractors with a significant reduction in the gap between MSC and Contractor safety performance.

In the area of health, Minera San Cristóbal continued with the development of the Occupational Health Program with lines of action addressed to disease prevention and health control of workers aimed at achieving a high level of physical and mental well-being in the workplace. In this sense, despite the fact that there is evidence of no environmental lead at levels higher than occupational exposure limits (LEO) that determine the low or non-existent risk for workers in the mine; epidemiological surveillance of exposure to lead has been established for workers, through blood lead test, applied annually to all employees and workers, regardless of the position in which they carry out their activities.

In the environmental aspect, our environmental practices focused on water management, dust control, reuse and recycling of industrial waste. In 2016, as in previous years, up to 50% of the water used in the production process comes from the water recirculation system from the Wila Khara tailings deposit; a system that reduces pumping rates of ground water which ensures aquifer sustainability and reduces the operating costs.

The progress in 2016 would not have been possible without the commitment to our values by our excellent team and without the confidence of our workers. During this year, a new and strong impulse was given to the program of High Performance Teams, a methodology that allows us to improve the work in an integral way.

Continuing with technology, we launched a mobile app which is a modern communication tool at the service of the company's personnel. Thanks to its functionality and characteristics, it is a consultation, interaction and support tool that workers can access from their cell phones.



Our commitment to the social development of Bolivia is fundamental to consolidate our growth, since it converted us into important actors within the communities and major promoters of local development. In fact, the "Pueblos Mágicos de Los Lípez" (Magical Towns of the Lípez) project is a clear and tangible example of the work that Minera San Cristobal has carried out among the communities and institutions of the State. "Pueblos Mágicos de Los Lípez" has become an extraordinary learning experience since we are witnessing the change of attitudes and capacities of the communities as a key factor for the process of sustainable development. It represented an opportunity to integrate the participation and commitment of public, private, social and cooperation actors on the basis of political and technical will, motivated by strategic and operational planning. From this project, we learned that it is possible to generate social and economic changes in a community, working hand in hand with institutions that promote sustainable development in a responsible manner, just as Minera San Cristobal does.

Without any doubt, there are many challenges which will arise in the future. Our commitment will be to continue confronting the challenges and transforming them through the effort and integrity of the team that composes Minera San Cristobal. We would like to express in a very special way, our gratitude to each of our workers for their daily work and commitment. Their capacities and commitment allow us to think that we can transform ourselves into a model for the mining of the future in Bolivia.

We are proud of our company and of the great working team that we have built. The challenge is great, but with our talent, we will continue delivering good results.

We hope you enjoy this second Minera San Cristobal's Sustainability Report.

Noriaki Yashiro President of MSC CEO of Summit Mining International

**Dave Assels** Vice-president & General Manager Minera San Cristóbal S.A.





# About this Report

By reporting our sustainability performance, we aim to communicate a clear link between our business strategy with our vision and values, as well as our economic, social, and environmental performance to all of our stakeholders.



#### **CORPORATE GOVERNANCE**

Good corporate governance practices and maintaining high ethical standards are fundamental for the effective operation of our company.



#### **OUR PEOPLE**

We are committed to a safe and supportive work environment where all persons are treated equally, with dignity and respect.



#### **ENVIRONMENT**

We are committed to the assessments of risks, and the mitigation and remediation of all environmental impacts throughout the mine-life cycle.



#### **HEALTH AND SAFETY**

Our program of performance and prevention in Health and Safety is based on the OHSAS 18001 standard.



#### COMMUNITY

We make continuous efforts to attain a sustainable and long-term positive impact in the communities where we operate.



#### **ECONOMIC PERFORMANCE**

We focus on cost-effective operational and financial management excellence to maximize value for all stakeholders. and the return on investment for shareholders. The data presented in our second Sustainability Report corresponding to period 2016 ✓ were collected from all areas of the company. The financial data shown in the chart on page 38 of this Report come from audited financial statements corresponding to the fiscal year ending in September 30, 2016. All other data was collected for regulatory or other purposes on the basis of the calendar year from January 1 to December 31, 2016 ✓, which will be communicated to our stakeholders annually. ✓

This report was prepared using the Global Reporting Initiative (GRI) G4 Sustainability Reporting Framework and the G4 Mining and Metals Sector Disclosures in accordance with the 'core' ✓ reporting option including four 'comprehensive' General Standard Disclosures. A G4 Content Index showing the location of our standard disclosures and performance indicators for our 2016 material aspects is located on page 97.

MSC conducts its materiality assessments on a bi-annual basis. In 2015, the company carried-out an assessment of the material aspects to identify and prioritize the most important issues, relating to sustainability, that affect the economic success in the short, medium and long term of our business activities, our impacts or potential impacts on the environment and surrounding communities in which we operate, and the factors of sustainable development most relevant for all our stakeholders.

Our 2015 materiality assessment was conducted on the basis of the methodology developed by GRI. The process to identify our material sustainability aspects was structured into three major stages: i) the identification of material sustainability impacts, risks and opportunities - including internal standards concerning corporate documents and corporate management policies; and qualitative data collected in a workshop with internal stakeholders who had the capability to represent the inputs and perceptions of external stakeholders, where the global context and industry trends were taken into account, ii) prioritization - ranking the overall relevance and importance of sustainability issues, and iii) validation and consensus - when ensuring a common understanding and agreement regarding material aspects and determination of whether the impacts occur inside or outside MSC. ✓

There were no significant changes in the scope or coverage of material aspects in the 2016. This second Sustainability Report included environmental indicators related to the comparison with the 2015 Report. ✓

The materiality assessment was conducted with the involvement and final approval of Executive Management. The President, General Manager, and the Manager of Corporate Affairs and Business Development are the persons with the highest positions who formally reviewed and approved the Company's Sustainability Report and ensured that all material aspects are included. ✓

In the following chart shows the material aspects for 2015-2016, which ranked as high in terms of their business impact and the degree of stakeholder concern; or that are considered relevant in the context of global sustainability. These are the material aspects that guided the selection of content for this report. The topics with medium or low ranking are considered during internal risk assessments and strategic management planning, however they are not covered in this report.

#### OUR MATERAL ASPECTS AND BOUNDARIES IN 2016 ✓

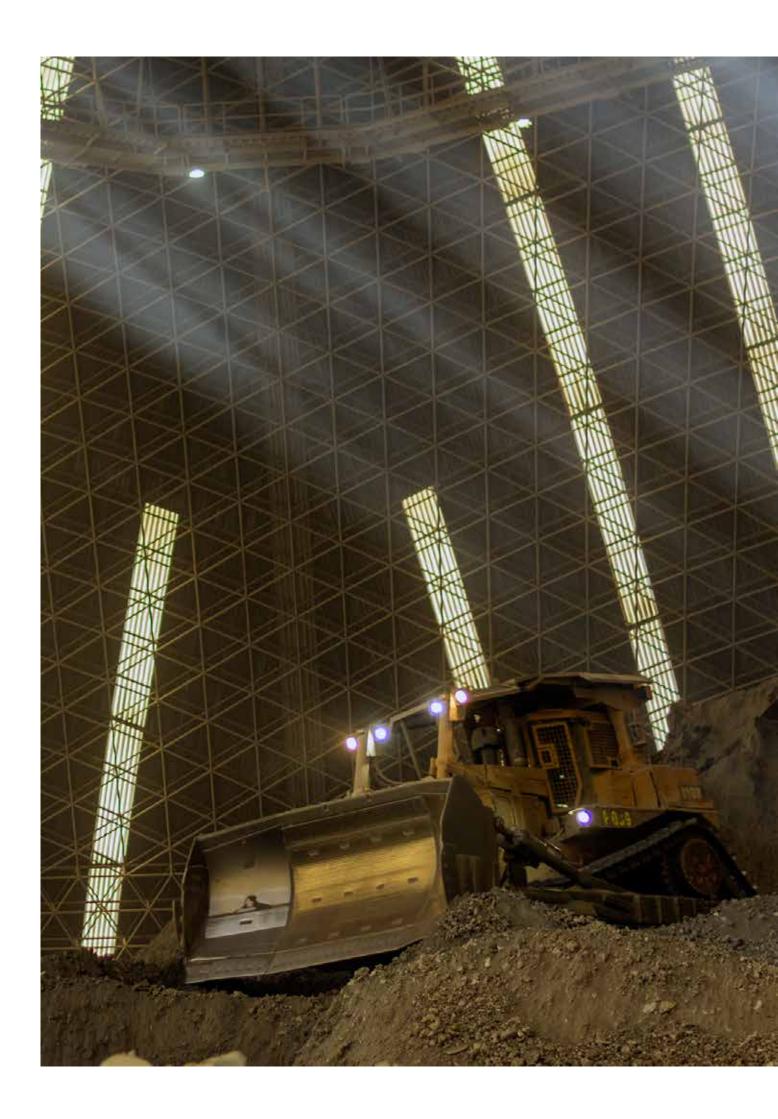
	MATERIAL ASPECT	BOUNDARY	
	Economic Performance	Inside and outside (employees, government, industry, communitant investors)	
(\$)	Indirect Economic Impacts	Inside and outside (employees/community)	
ECONOMIC	Procurement Practices	Inside and outside (suppliers)	
	Compliance	Inside and outside (all stakeholders)	
	Energy	Inside and outside (employees and government)	
	Water	Inside and outside (employees, communities and government)	
	Biodiversity	Inside and outside (employees, government and communities)	
	Emissions	Inside and outside (employees, government, communities, global context)	
ENVIRONMENT	Effluents and Waste	Inside and outside (employees, government, communities)	
	Regulatory Compliance	Inside and outside (employees, community, regulatory authorities investors)	
	Grievance Mechanism (environment)	Inside and outside (employees, community)	
	Employment	Inside (employees)	
	Labour Relations	Inside and outside (employees and community)	
	Training & Education	Inside and outside (community and suppliers)	
LABOUR	Grievance Mechanisms (Labour and Human Rights)	Inside/inside and outside (employees, community, suppliers)	
HEALTH AND SAFETY	Occupational Health and Safety	Inside and outside (employees, contractors, community and government)	
413	Local Communities	Inside and outside (employees and community)	
<b>√.≅.</b> }	Indigenous Rights	Outside (community)	
	Compliance	Inside and outside (suppliers, government, communities, investors	
SOCIAL	Grievance Mechanisms (social)	Outside (community)	

Aligned with the bi-annual schedule, MSC will conduct its next materialilty assessment in the latter part of 2017 for its 2017 and 2018 sustainability reports. The 2017 assessment is expected to expand in scope to include the direct input of a number of key external stakeholder groups.

#### VERIFICATION ✓

We engaged Ernst & Young to conduct an independent verification of a selection of our sustainability performance indicators for the 2016 reporting period, Ernst & Young is actively involved in the Global Reporting Initiative and the World Business Council for Sustainable Development (WBCSD) and has a vast experience in the verification of

sustainability reports in the international mining sector. Their review was performed according to the International Standard on Assurance Engagements (ISAE 3000) and the International Auditing and Assurance Standards Board (IAASB.) Ernst & Young's limited verification statement is found on pages 94 - 95 of this Report.





# Corporate Governance & Organizational Structure

#### **BUSINESS MANAGEMENT SYSTEM AND** MANAGEMENT OF SUSTAINABILITY ISSUES ✓

At Minera San Cristóbal S.A. we conduct safe activities aimed at the production and sale of zinc-silver and lead-silver mineral concentrates.

Our vision, mission, and values are the basis of our Business Management System (BMS) is focused on the processes and continuous improvement.

With the required resources and continuous management review, in compliance with legal and regulatory requirements, besides ISO 9001, ISO 14001, OHSAS 18001, ISO/IEC 27001, ISO/IEC 17025, NB 512001, IS - BAO and ISO 26000 guidelines, we commit to:

- 1. Identify, assess and ensure control of the risks with regards to the safety of our employees, contractors and visitors, in order to prevent injuries and harm to their health.
- 2. Protect and improve the health and quality of life of our covered population through comprehensive promotion, prevention and health care actions.
- 3. Respect the environment ensuring sound environmental management practices that identify, evaluate and manage risks, prevent contamination and mitigate impacts.
- 4. Contribute to sustainable development by implementing social responsibility principles that ensure relationships of mutual respect, transparency and compliance with commitments and generate benefits for our shareholders, our employees, the communities and the country.
- 5. Ensure the identification and control of risks in our flight operations and international supply chain, preventing incidents, illicit activities, encouraging the timely reporting and treatment of events that affect safety and taking necessary preventive / corrective actions.

- 6. Protect our information considering its value and risks, while maintaining its confidentiality, integrity and availability.
- 7. Deliver products and services that meet our customer's requirements.
- 8. Ensure the quality of our chemical assays results.
- 9. Promote the establishment of objectives and performance evaluation mechanism for all of our processes.

We recognize that the success of our Business Management System and our operations is dependent on the continuous efforts and participation of all the personnel and other stakeholders, reason why we promote the dissemination, understanding and compliance of this policy.

It is important to note that the MSC Business Management System has become an integral and successful part of our organizational culture. This has permitted MSC to manage its business activities aligned with our vision of being a world – class Bolivian company.

#### **ORGANIZATIONAL STRUCTURE**

Excellence in corporate governance practices and maintaining high ethical standards are fundamental to the effective operation and reputation of our Company. Our operational governance is based on the Business Management System of Minera San Cristobal, which includes its economic, social, and environmental performance, and has been developed through a series of ongoing and integrated activities, with the participation of senior management and staff of MSC.

#### **OUR CORPORATE** GOVERNANCE STRUCTURE IS AS FOLLOWS: ✓



The highest decision-making body of MSC is its Shareholders (which in this case are three institutional shareholders), who convene at Ordinary and Extraordinary Meetings. The Board of Directors is the administrative body of the Company, its members are appointed by the shareholders via an Ordinary Shareholders' Meeting and are accountable to the shareholders. The currently all male Board consists of three principal members and two alternate members: All board members are persons related to the Sumitomo Group. The Chairman of the Board is the only member who is also an executive officer within the company as Executive Chairman of MSC. The Board can, and normally does, delegate its executive functions over the administration of the company appointing a General Manager and other Managers with specific faculties and obligations.

Members of the Board of Directors are appointed for an annual term and can be re-appointed for additional terms upon shareholder approval of their performance. One of the main reasons for the occasional replacement of a member of the Board of Directors is the designation of the outgoing member in another position within the corporate structure. MSC Board members do not receive any remuneration for their duties as directors; they are compensated (and their performance is evaluated) as executives of Sumitomo. The Chairman of the Board of Directors is also an MSC Executive who receives a fixed salary.

The Operating Committee is comprised of two members appointed by the Board of Directors. This Committee is empowered to make high-level decisions related to MSC's operations, which are then validated by the Board of Directors.

While there is no direct line of communication between employees and the Board of Directors in this rather unique structure, MSC has a Whistleblower Policy in place (see details on page 26) as a formal mechanism for the confidential reporting of any noncompliance at the financial accounting level, or any violation to the Code of Ethics. Additionally, any issues or concerns on behalf of employees and other stakeholders are conveyed through staff meetings and an opendoor policy with managers who can elevate these topics to senior executive level positions if necessary.√



#### **AWARDS RECEIVED**

MSC has been included in the MERCO (Corporate Reputation Monitor), each year from 2013 to 2016. MERCO is a list of the top 100 Bolivian companies ranked according to their corporate reputation. The evaluation included aspects such as the excellence in corporate responsibility and corporate governance. To be included in the list, the company has to be efficient and profitable, but also transparent, sustainable, ethical and committed to its employees and society. In 2016, MSC was recognized as the highest ranked company in the Mining sector in Bolivia.

#### COMMITMENTS TO EXTERNAL INITIATIVES ✓

MSC has the following certifications and has joined or voluntarily adopted the following nationally or internationally recognized external frameworks or standards:

Adhere to the principles contained within as integrated in the Bolivian Constitution	
Certification received in 2010 and maintained to the present date, it was updated in 2016	
Certification received in 2010 and maintained to the present date, it was updated in 2016	
Certification received in 2010 and maintained to the present date, it was updated in 2016	
Certification received in 2014 and maintained to the present date. In 2016 it was updated to the 2013 (current) version of the standard	
Accreditation received in 2008 and maintained to the present date	
Certification received in 2014 and maintained to the present date	
Certification received in 2014 and maintained to the present date	
Certification received in 2015 and maintained to the present date	
Certification received in 2016 and maintained to the present date	
The company follows the Bolivian regulations as well as the conventions of the ILO (International Labour Organization)	
G4 was adopted by the company as the reference framework for the presentation of its 2015 and 2016 sustainability reports. MSC will be transitioning to the GRI Standards for its 2017 Sustainability Report	





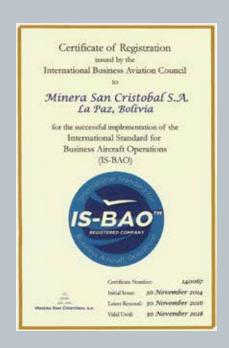












#### MEMBERSHIPS AND ASSOCIATIONS ✓

Within its stakeholder engagement strategy, MSC pays particular attention to key industry and business associations. Participation in these organizations promotes an ongoing and clear understanding of the economic and social context of the mining sector at the national and regional levels. In this sense, MSC has developed proposals to improve and develop the sector.

At December 2016 MSC was a member of, or participated in, the following industry and business associations:

LEVEL	INDUSTRY OR BUSINESS ASSOCIATION	POSITION
National	National Association of Med-Sized Miners (Asociación Nacional de Mineros Medianos)	Member of the Board of Directors
National	Confederation of Private Entrepreneurs of Bolivia (Confederación de Empresarios Privados de Bolivia)	Member of the Board of Directors
National	National Chamber of Bolivian Exporters (Cámara Nacional de Exportadores de Bolivia)	Participant as member of the Chamber of Exporters of La Paz
National	National Chamber of Commerce (Cámara Nacional de Comercio	Participant
National	National Chamber of Industries (Cámara National de Industrias)	Participant
Regional	Chamber of Exporters of La Paz (Cámara de Exportadores de La Paz)	Member of the Board of Directors
Regional	Federation of Entrepreneurs of Potosi (Federación de Empresarios de Potosi)	Member of the Board of Directors





## **Ethical Conduct**

#### **OUR VALUES**

The most important shared values at Minera San Cristóbal are honesty, integrity, and mutual respect. We do what we say we will do, and we strive to ensure that our policies and practices go beyond the requirements of the regulations and laws. Our working environment is characterized by mutual trust, teamwork, professionalism, transparency, and continuous improvement, commitment to safety, the environment, social responsibility, and the absence of intimidation, oppression, and exploitation. MSC has a Policy of Mutual Respect mandatory for all employees regardless of their positions.

MSC is committed to these values and the highest standards of Corporate Governance as vital elements in the creation of shared value for all our stakeholders.

#### CODE OF ETHICS AND BUSINESS CONDUCT ✓

At Minera San Cristobal we are committed to maintaining the highest standards of business conduct and ethics with regards to our accounting practices and controls, the dissemination of financial information, and auditing practices. In accordance with the policies of the Company, all directors, officers, and employees must comply with all the applicable legal regulations and requirements related to the presentation and reporting of corporate financial reporting and disclosure, accounting and audit procedures, and other matters related to fraud against shareholders or any non-compliance with the Code of Ethics and Business Conduct.



The Company has adopted the Code to promote:

- · Honest and ethical conduct, including the ethical treatment of actual or apparent conflicts of interest between personal and professional relationships;
- Compliance with governmental laws, rules, and regula-
- · The disclosure of full, fair, accurate, timely and understandable information in reports and documents registered or reported by the Company;
- Immediate internal reporting of violations to the Code, to the appropriate person or persons identified in the
- Accountability with respect to the compliance with the Code;
- · Conducting business activities of the Company in accordance with the applicable governmental laws, standards, and rules.
- Ethical behavior in all transactions with contractors, suppliers, customers, employees and others;
- The prevention of situations where personal interests are, or appear to be, in conflict with the interests of the Company;
- The protection and responsible use of the assets of the Company, including its goods, equipment, facilities, funds and information;

· The confidentiality of private information and the prevention of the use of this information for personal gain.

Our Code contains expectations with regards to the prevention of conflicts of interest ✓, which are communicated to our employees as part of their induction training. The Code also refers to the requirement to understand and avoid situations where the personal interests or activities interfere, or seem to interfere, with the interests of the Company. The Board of Directors must comply with the same standards and is expected to comply with the Code including provisions concerning conflicts of interest.

#### WHISTLEBLOWER POLICY

The company has a Whistleblower Policy in place, a Policy of Mutual Respect, and an employee/worker internal grievance mechanism for suggestions and complaints ✓ which are distributed to employees at the time they are hired. These policies contain instructions regarding the formal and confidential mechanism that employees must use to report non-compliances or possible non-compliances with the Code. Such non-compliances can be reported through the Company intranet or communicated directly to the President of the Company, the Department of Human Resources, or any member of the management team. No employee who files a report related to these policies will be discriminated against or subject to retaliation.

#### ANTI-CORRUPTION AND ANTI-BRIBERY

MSC's management team performs regular analysis of the operational, financial and strategic risks in all areas of the Company, which includes risks relating to anti-corruption and anti-bribery. ✓ For example, the assessment of financial risks are evaluated in the areas where the risk of fraud could arise, ensuring that the actions and internal controls needed to reduce this risk are defined. No risks relating to corruption were identified or reported in 2016.

In alignment with our Business Management System, the Regulations for Financial Reporting, and our Code of Ethics (which conforms with current Bolivian legislation and the United States Foreign Corrupt Practices Act), all MSC employees are trained in matters related to fighting corruption and bribery as part of their induction training. These policies are later reinforced through follow-up training and periodic workshops given by Human Resources. ✓

The Company does not tolerate any act of bribery or fraud by the Board of Directors, employees, contractors, suppliers, or others. We take immediate and serious action against those responsible, regardless of their years of service or their position in the Company. There were no incidents of fraud or corruption in the Company in 2016. ✓







# **Human Rights**

MSC adheres to the human rights principles contained within the Bolivian Constitution, the United Nations Universal Declaration of Human Rights, and the conventions of the International Labor Organization. We are committed to an honest and transparent communication with the communities in our area of influence and we act with great respect for the cultural heritage, traditions, and customs of the communities where we operate.

Our Code of Ethics and Business Conduct contains provisions to ensure that the workplace promotes mutual respect at all the levels of the Company. These are further reinforced by our Mutual Respect Policy, which clearly mandates that harassment, discrimination, and verbal or physical actions which threaten or intimidate other persons will not be tolerated. In 2016 there were no incidents of discrimination or any other events related to human rights reported through formal grievance mechanisms. ✓

Although the risk of child labor exists in Bolivia and can occur in privately-owned, small-scale or artisanal mining operations, it is not identified as a risk factor at Minera San Cristóbal. ✓ There is the potential for risk of child labor in the supply chain, however the Company includes the requirement for legal compliance in this regard in contracts with its suppliers of products and services. There are a number of safeguards in place that prevent children under 18 years of age from working at the mine. The Bolivian law - the Code of Children and Adolescents 2000 (el Código del Niño, Niña y Adolescente) - is the most important legislative instrument for protecting the rights of children and stipulates that children under 18 are not permitted to work in strenuous, dangerous, or hazardous positions and industrial roles such as mining are within these restrictions. Furthermore, our human resources department ensures that all applicants are over the age of 18 years, and require proof of age upon application for work. Photo identification must be worn at all times, and periodic spot checks are conducted to ensure that the individual working is the individual with the identification.

There is a risk of child labour in the supply chain, but the company includes legal provisions of compliance, regarding agreements with its product and services suppliers. ✓





# Stakeholder Engagement ✓

#### **OUR APPROACH**

MSC is committed to support actions that strengthen and empower communities to attain a better future. This is done through technical assistance, training, capacity building, and institutional support for individuals and organizations.

We define our stakeholders as individuals, group of persons, or organizations that are positively or negatively impacted by the business activities or operations of MSC. We identify, map, and analyze the networks of stakeholders and proactively work with these groups to incorporate their feedback and concerns and to share ideas about how our operations can become a more positive factor in their lives.

Our stakeholders have different mechanisms available to them to raise or express concerns related to any aspect of our operations. In addition to having a formal grievance mechanism in place, we want to be accessible and accountable. We are open to receiving requests or concerns by email, by telephone, or in person. We listen, document and verify these concerns and follow-up with the individual interested party or stakeholder within a reasonable period of time.

MSC works closely with the Consejo Consultivo (Advisory Council) Los Lípez San Cristóbal, which is comprised of leaders and authorities of the communities of San Cristobal, Culpina K, Rio Grande, and Vila Vila, in the design and coordination of projects to promote the social and economic development of the area. We receive requests for investments in the community and we support the provision of technical assistance to social organizations and community institutions to foster their effective and independent organizational management. We also benefit productive enterprises and small organizations through strategic alliances that contributes to the sustainable development of the region.

Our approach of a continuous interaction with our stakeholders contributes to greater credibility and trust and allows us to maintain our social license to operate.

We monitor our Social License (perception of the quality of the relationship between the Company with the community or key stakeholders) weekly, monthly, and with greater intensity every fifteen months to better understand the dynamic between MSC and our stakeholders. This helps us define short and medium term goals and priorities regarding

the relations with our stakeholders as well as contribute to our strategic planning. During 2016, the measured quality of the Social license of MSC remained consistent /the same as 2015 at 3.5.

#### **OUR STAKEHOLDERS ✓**

What follows is a list of our stakeholders and their key concerns in 2016:

#### **STAKEHOLDERS**



#### **LABOR UNION**

We respect our workers right to freedom of association and collective representation. We are committed to engage with them with honesty, transparency and good faith. Labor union representatives are part of our Safety Committee and play a key role in maintaining a high level of health and safety performance at the mine.

Life of the mine, labor continuity and stability, safety, training.

#### SUPPLIERS / CONTRACTORS

We consider that our suppliers and contractors are partners acting in accordance with our same standards and values. We often meet with them and we strive to understand their perspectives, challenges and expectations to be able to work successfully with them.

Key Concern

Safety standards, renegotiation of contracts, reduced quantities of

#### COMMUNITIES

We want to be part of the communities where we operate. We meet and engage with the communities to share information about our business activities, the main risks and control measures, and to understand their points of view and expectations. Similarly, we work closely with the community-based Consejo Consultivo to identify development alternatives that are not linked to mining. We strive to be a partner of the communities in the socio-economic development of Nor Lipez, a shared responsibility to be honored and respected. We have community relations offices to share information, receive questions and requests, and we have a formal grievance mechanism in place to address any community complaints or concerns.

Kev Concern

Water, employment, infrastructure, deliver what we promise.

#### CIVIL SOCIETY

We interact with non-governmental organizations, educational institutions and trade associations that share our objectives, interests, and concerns; which range from topics related to policies that are relevant at the national or international level, to local matters that affect the communities located in our area of influence. We welcome their points of view as a source for learning and continuous improvement. Through the Consejo Consultivo, we have formed strategic and operational partnerships with civil society organizations to implement programs of social and economic development in the communities and also to carry out social and scientific investigations.

Key Concern

Social and economic development, health, education, infrastructure.

#### **GOVERNMENT**

As one of the largest companies in Bolivia, we engage directly with the government at all levels, which is why we are successful in developing constructive relationships with them. We are regulated by various agencies of the national government and we pay taxes and royalties according to Bolivian legislation. We do not participate in party politics and we do not make contributions of any kind to political parties, individual politicians, officials or employees of the government.

Key Concern

Royalties, employment, industrial safety, environment and local economic development.

#### **CUSTOMERS**

We are fully committed to provide the best possible service to our customers. The quality of the products is one of our key corporate objectives. We share information about the characteristics of the products with our customers so that they can confidently implement their own initiatives for a responsible product management.

Key Concern

Quality of metal concentrates, supply chain integrity.

#### **MEDIA**

The media plays an important role in the dissemination of information and to communicate ideas and perspectives in Bolivia. We recognize the need to have a more meaningful relationship with them.

Key Concern

The lack of information.

#### **EMPLOYEES**

Our success depends on the people we work with. It is a priority for to create an inclusive working environment where we share the same values and are focused on the same goals. Our labor force is mostly Bolivian, with approximately 50% of our staff coming from the communities surrounding the mine. We share their pride in being one of the largest contributors to the national economy and to the socio-economic development of Nor Lipez. We recognize the close links that exist between our workers and the local communities around the mine, and that our operational decisions have an impact on these small population centers.

Key Concern

Life of mine, labor continuity and stability, safety, training.

#### **INVESTORS**

We meet regularly with our parent company to keep them fully informed.

Key Concern

Maximize the value of the project, maintain positive stakeholder



#### **OUR SUSTAINABILITY OBJECTIVES**

#### **AREA** OBJECTIVES FOR 2016 ✓ **STATUS** OBJECTIVES FOR 2017 ✓ To be a low cost producer by Unit costs of production of Further reduce costs and reducing costs and maximizing concentrates were reduced maximize the value of the the value of the product based on by 25% and production of product based on innovations innovations and good planning in concentrates was increased and good planning in order order to optimize the tonnage. bv 27%. to optimize the tonnage, content, content, recovery and quality of recovery and quality of OPERATIONAL Exploration in the Toldos area the concentrates. the concentrates. determined the existence of Increase mineralized reserves silver oxide resources which Increase mineralized reserves through continuous efforts could extend the life of the mine. through continuous efforts in in exploration, drilling, and exploration, drilling, and optimization in the recovery of silver. optimization in the recovery of silver. Manage MSC's different teams in Optimization of the System Develop internal branding accordance with a focus on high of Human Resources resulted of Superintendents. in a reduction from 14 performance, teamwork and cooperation. processes to 5. Implementation of MSC's application in its Phases I, II and III. Implement an automated system Methodology implemented of Human Resources documentation. for the appreciative focus and Implementation of the E- Learning transformational leadership platform with 10 courses. **OUR PEOPLE** Implement an internal customer service in 8 teams of MSC. platform in the different work Implementation of a new model areas and consider the possibility A methodology of Customer of internal management of of a virtual platform for Service focused on achievements the internal courses. customer service. by area was implemented. Automation of Human Resources Management of the San Cristobal Conceptual development internal documents. Childcare Center. of MSC's mobile application. Follow-up implementation of The San Cristobal Childcare high performance teams and Center became an autonomous in Supervisors operation during 2016, creating a implementation of new teams. new free-standing children's center.

AREA	OBJECTIVES FOR 2016 ✓	STATUS	OBJECTIVES FOR 2017 ✓
	Maintain or improve the relations with stakeholders.	Relations with the communities in the area of direct and indirect impact, and the region, have	Maintain the relations with the different stakeholders.
SOCIAL / COMMUNITIES	Keep our Social License at a value higher than 3.5.	remained positive.	Maintain the Social License at a 3.5 level or higher.
		MSC kept its Social License higher than 3.5.	
	Improve Workplace	Contractor compliance with legal	Promote the adoption of
HEALTH	Health and Safetyl:	requisites reached 83.7% in December.	preventive programs to reduce risks of incidents, and protect the
AND SAFETY	<ul> <li>Complete the contingency and emergency plan and test it</li> </ul>	The Reglas de Oro (Golden	health and safety of MSC workers.
	annually.	Rules) were implemented (nine rules).	Develop and implement preventive programs to improve the health,
	<ul> <li>Improve the performance of contractors in OHS issues taking</li> </ul>	Systems for early detection of	hygiene and safety of the personnel of MSC.
	MSC's indicators as a reference.	fires installed in the process	
		rooms of the plant.	Strengthen the capacities and competences Superintends to
		TRFR accident indicators for contractors declined from 1.11	provide excellent service.
		in year 2015 to 0.74 in year 2016.	Improve the performance of contractors in OHS issues using
			MSC's indicators as a reference.
6	Good practices in the management of natural resources.	The rate of pumping of groundwater from the production wells was 80% of the recommended value.	Maintain the pumping rate below the recommended maximum of 39,000 m <sup>3</sup> /day.
ENVIRONMENT	· Maintain the extraction of water		maximum of 37,000 m /day.
	from the wells below the recommended maximum of 39,000 m <sup>3</sup> per day.	Solid waste generated was 103,648 kg/month, 7% less than the 111,460 kg/month generated in year 2015.	Reduce the generation of solid waste respect to the previous year.
	• Reduce the generation of waste	Farmer 1	Reduce energy consumption by 1%.
	and increment recycling by 2%.	Energy consumption increased by 2% in 2016.	
	• Reduce energy consumption by 1%.		





# **Our Economic Performance** and Contributions

## **OUR APPROACH**

MSC is focused on cost-effective operational governance and financial management excellence to maximize its economic performance which benefits both our stakeholders and our shareholders. Our Company has a comprehensive financial team in charge of establishing annual policies and responsibilities regarding the economic performance and economic sustainability, which are constantly monitored by management. Our top economic priorities for 2016 were to continue focusing on achieving greater operational efficiencies and the optimization of costs and savings, as well as on the objectives of continuous improvement, including improved silver-oxide recovery.

MSC has been committed to Bolivia since the beginning of its operations. The Constitución Política del Estado (State Constitution) guarantees private investment, and MSC is confident that the State will fully comply with these guarantees and will continue to support our business enterprise.

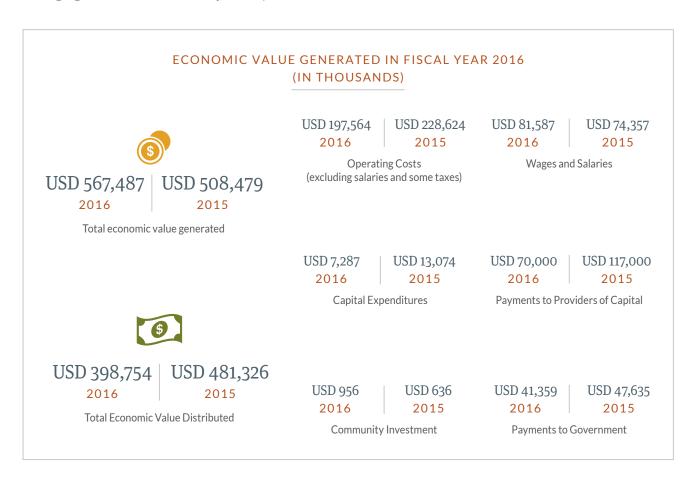
The development and construction of the San Cristobal Mine required an original investment of approximately \$1.8 billion - the highest in the history of Bolivian mining to date. Financial resources were allocated to exploration, feasibility studies, environmental and social impact assessments, engineering projects, mine preparation, construction of the plant and supporting infrastructure, and working capital. A significant portion of funds were also allocated to social projects, road and power infrastructure, and sustainable development for neighboring communities during this time.

The magnitude of the operation, expertise and experience of management required, and the number of personnel involved, had a positive economic impact on the economy of Nor-Lipez, and the mine also continues to generate significant economic benefits to Potosi and the country as a whole through employment and local procurement opportunities, as well as the ongoing payment of taxes and royalties.

MSC complies fully with all Bolivian laws and tax obligations arising from its operations. The Company prepares its accounts in strict accordance with the applicable technical and legal guidelines, corroborated by audit opinions issued by the most prestigious audit firms at national and international levels. In 2016, there were no fines or non-monetary sanctions imposed on the Company for violating laws or other regulations. ✓

# ECONOMIC PERFORMANCE ✓

Next are shown the figures related to the mining fiscal year from October 1 of 2015 to September 30 of 2016.



During 2016, the Company made the strategic financial decision to substantially reduce tax issues which dated back to the construction stage of the mine by invoking Disposición Transitory Primera de la Ley 812 (First Transitory Disposition of Law 812). In this process, the Company withdrew its legal action in opposition to the disposition and, without consenting, validating, or agreeing with the position of the Tributary Administration, made a payment

that included 4% interest. The result has been the removal of a long-standing tax liability and a net loss of income for fiscal year 2016.

# INDIRECT ECONOMIC IMPACTS

Since the initial phases of development and construction of the San Cristobal Mine, the Company has fully funded



the construction of more than 200 kilometers of roads and bridges, 172 kilometers of electrical transmission lines, and 65 kilometers of railway. From inception to the present day, these investments have allowed improved mobility and communication, and a greater integration of the communities in the region, the Department (state) of Potosí, and the country.

Over time, MSC has supported studies to extract, transport and treat water, has built connections for the supply of water, and has installed water tanks in the communities benefitting hundreds of families in the area. The Company continues to conduct maintenance and ongoing operation of water systems, drainage systems and landfills. MSC also provides the sustained supply of electricity to San Cristobal Culpina K, Vila Vila and Rio Grande receive electrical power from the Bolivian national grid.

# LOCAL PROCUREMENT AND OUR RELATIONSHIP WITH LOCAL SUPPLIERS

# Approach

MSC is committed to both the country and the region in which it operates, and has focused on a series of efforts to ensure domestic vendors and local suppliers are the economic procurement beneficiaries of the project. Although there is no formal local procurement policy in place, the Company's regular practices are to prioritize local community providers and to build capacity with local vendors.

MSC contractors must submit relevant certificates and documentation required by the MSC Supplier Qualification process (through public tenders, quotes, and direct invitation), which guides local businesses in the necessary administrative and legal requirements. Contractors must also agree to comply with the policies and standards of safety and environment implemented by the Company: clauses from the MSC Code of Business Conduct and Ethics (including anti-corruption and anti-bribery clauses defining and prohibiting such activities) are embedded into supplier contracts to ensure alignment with MSC's expectations in this regard. Continuous contractor monitoring and performance evaluations are conducted, ensuring that the quality of service reaches levels expected by MSC's integrated management system.

Consistent with the 2015 local procurement strategy, in 2016 MSC continued to focus on cost reduction where possible. Contracts with suppliers of the highest cost items (diesel, tires, spare parts, reagents, etc.) were renegotiated achieving total cost savings of approximately \$13 million over the year.

# PROCUREMENT OF GOODS (2016)



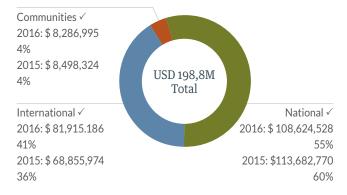
In 2016, approximately \$ 280.6 million was spent on the combined purchase of goods and services, slightly down from \$ 287 million in 2015. Of this amount, the figure for the procurement of goods reached approximately \$ 81.8 million, where \$ 30.9 million (almost 38%) came from national/domestic sources. Because there is no similar mining operation in Bolivia (in terms of size and open-pit nature) at this time the majority of MSC's supplies - especially diesel, explosives, chemicals and reagents, mill parts, pumps and engines - must be purchased in the international market.

In 2016, approximately \$ 198.8 million was spent in the purchase of services (transport, electricity, catering, maintenance, specialized consultants, etc.). The proportion of national versus international procurement is very different in the case of services. While services procured internationally make up 41% of the total service purchases, the remainder

are purchased domestically. With regards to the geographical composition of our service providers, 4% of all services (approximately \$ 8.3 million) were contracted or purchased with the communities in the area of influence of MSC (Culpina K, San Cristóbal, Colcha K, Rio Grande, Uyuni, and Vila Vila) and 60% of the total services (approximately \$ 108.6 million) from the rest of the country. In other words, 59% of the services are contracted or purchased within country, including local communities.

Beyond the economic benefits received by goods and services contractors in the region, MSC will continue promoting the work of local suppliers, helping them with their registration and formalization process (increasing their eligibility to bid for contracts), and supporting the continuous improvement of their performance. (See Case Study on page 41).

# PROCUREMENT OF SERVICES (2016)



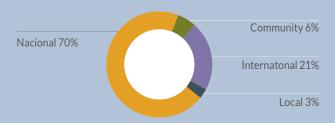


In 2016, MSC developed a centralized, automated system Lwhere all procurement and payment information related to contractors and suppliers can be accessed all in one place for the purposes of ongoing monitoring, control, and follow-up.

With the aid of this monitoring tool, MSC is now able to maintain a highly efficient record of our contractors; and particularly contractors from local communities within the Company's area of influence.

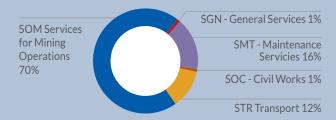
For example, in 2016 the investment in community-based contractors represented 4% of the total amount paid for the provision of services. Moreover, 70% of the services that the communities provide to the Company are to support Mining Operations. Within this group of services, the most notable item - amounting to \$5.6 million in 2016 - is the

# TOTAL PAYMENTS (GOODS AND SERVICES) TO SUPPLIERS BY ORIGIN

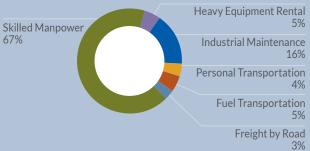


hiring of Qualified Labor. A total of 605 persons (community contractors) benefited from this employment with a daily average of 160 people working at the mine.

# PAYMENTS TO COMMUNITY SUPPLIERS BY BUSINESS LINE



# PAYMENTS TO COMMUNITY SUPPLIERS BY BUSINESS SUBLINE





### **COMMUNITY INVESTMENT**

Minera San Cristobal S.A. conducts its business with a social vision. Social responsibility is a serious commitment of the Company that guides our behavior towards our impacted communities as well as our sustainable development initiatives for the wellbeing of the entire population in the region.

The communities of San Cristóbal, Culpina K, Vila Vila and Rio Grande are located in the area of direct influence of MSC. The San Cristobal Mine acts as a facilitator to improve conditions for the people living in these communities, and to develop self-sufficient and independent ventures in parallel with our mining activities with a view to achieving a better future and a destiny of self-empowerment.

MSC's Superintendent of Community Relations receives and coordinates proposals and projects for community development in cooperation with the Consejo Consultivo (Advisory Council) Los Lípez San Cristóbal, which is composed of leaders and authorities of the communities of San Cristobal, Culpina K, Vila Vila and Rio Grande.

Together, MSC and the Consejo Consultivo perform the following activities:

- · Manage strategic alliances with social organizations and actors, thus creating a favorable environment for mutually beneficial relationships for local development.
- Provide technical assistance to social organizations and community institutions to achieve independent and effective organizational management.
- Support capacity-building for sustainable development initiatives and of local authorities to manage concerns and complaints with competent authorities.
- · Provide support to social organizations and productive micro-enterprises in the management of strategic alliances to achieve sustainable development in the region.

MSC accepts and works on community investment programs focused on:

- 1. Improving education and health services
- 2. Optimizing agricultural activities and opportunities in the tourism sector
- 3. Promoting micro and small enterprises
- 4. Supporting local culture and cultural revitalization

See pages 84 through 87 for detailed disclousure on our community investment programs and sustainable development projects.



PRODUCTIVE DEVELOPMENT	Preparation and implementation of projects Support to Social Organizations for their participation in events of the province (organizational, logistic strengthening, etc.)	361,602 72,718,91
	Competitive Fund	
HEALTH	Psychological support with specialist	25,969
lacktriangle	Support to the elderly, social project, communication and environment Health network promotion, second level hospital	13,474 19.188
EDUCATION	Training of Teachers	5,760
	Students (Scholarships for higher education, support on alternative education, educational units, scientific olympics, etc.)	32,384
	Mejora de servicios básicos (captación agua, modificación línea eléctrica)	970,794
ACTIVITY	Resettlement and Mitigation Works	147,346
PROJECT /	renovation of the plaza, houses, extension of the micro-irrigation system, drinking water)	
	Attending requests, support to events and Social Investment Projects  Improvement of community infrastructure (Maintenance and operation of basic services,	79,164
<b></b>	Technical Assistance	83,347
	(FROM JANUARY TO DECEMBER 2016)	
	(EXPRESSED IN AMERICAN DOLLARS)	
	COMMUNITY INVESTMENT	







We consider our people to be our most important asset. For this reason, we implement ongoing training and development programs and strive to achieve tangible improvements in the quality of life of our employees by providing and prioritizing high standards of health and safety. We are committed to a highperformance, safe and supportive work environment, where everyone is treated with equality and dignity.

In addition to contributing to the creation of quality employment in Bolivia, MSC offers the best possible labor conditions to its employees and contractors, through stability, competitive remuneration, ongoing training and career development opportunities, safety at work, occupational health, and a warm working environment characterized by its values, ethics, and equal opportunities.

Human resources regularly engages with a significant number of internal and external stakeholders, including employees, the labour union, contractors, the Ministry of Labour, the Ministry of Health and the Immigration Office. We hold meetings on a monthly basis - or as required - to stay updated on a number of topics related to the coordination, supervision, and legal aspects of employment and labour standards at MSC.



#### FEATURES OF OUR WORKFORCE

At December 31, 2016, Minera San Cristobal had 1,443 employees, including the personnel at the San Cristobal Mine site and the staff working in the administrative offices located in the city of La Paz. Our total workforce in 2016 reached 2,493 people including contractors, which was relatively unchanged proportionately over 2015. Additionally, the operation generated approximately 5,000 indirect jobs, giving priority to the population of the communities adjacent to the area of our operations.

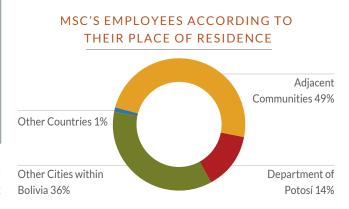
	2015	
1,461 Employees	1,058 Contractors	<b>2,519</b> Total
Employees	Contractors	iotai
	2016	
1,443	1,050	2,493
Employees	Contractors	Total
•		•
	]	
1.25	52 √ 1	191 √

From the total of the labor force, 59% of MSC's employees are covered under the collective bargaining agreement signed with MSC's Workers Union. ✓

#### **LOCAL HIRING**

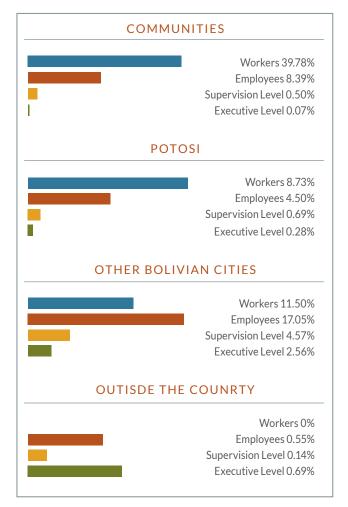
MSC uses the same hiring process for all positions of the Company, regardless of the place where the recruiting activities take place. We prioritize the selection and evaluation of local persons from the communities in the area of direct influence - San Cristobal, Culpina K, and Vila Vila. In accordance with the Bolivian General Labor Law, we are required to hire members of the local communities for operational posts (which do not require a high academic level or technical expertise). Only at such time when there are no qualified candidates in the local communities, do we expand our search to the regional level and then to the national level, before seeking international expertise. Due to specialized industry experience or technical certifications requirements, at present few supervisors and no members of senior management are from the local communities of influence.

About 99% of our labour force is Bolivian: 49% comes from the local communities of San Cristobal, Culpina K, and Vila Vila, 14% from the Department of Potosi, and 36% from other areas within country. The remaining 1% are expatriates.



Within MSC's labor force, has 2% of superintendents that represent local communities and Potosi.

# MSC'S EMPLOYEES ACCORDING TO THEIR PLACE OF RESIDENCE ✓



# WOMEN AND EQUAL OPPORTUNITY

There are no formal policies or procedures regarding gender equality and hiring at the San Cristobal Mine, as any protocol of this type would be considered favoritism under the Bolivian Political Constitution. According to Bolivian law, women must be paid the same salary as men for the same work. Any differences in remuneration are the result of different positions or due to the seniority of the employee, which brings about wage increments over time (based on performance or by government decree). Additionally, women should receive slightly higher pay if they work on a Sunday - a traditional family day.

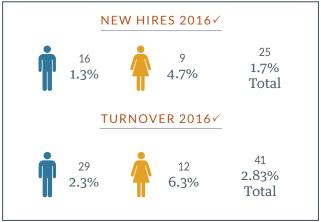
In 2016 the total salaries of female workers was 82% of the salaries of male workers, salaries of women in executive positions were 79% compared to salaries of men in executive positions, and salaries of women in supervisory posts were 111% compared to those of men in comparable posts.

MSC takes great care to ensure there are equal opportunities for employment for women, and in fact, has a significant number of women working in positions such as truck drivers and heavy equipment operators, which are some of the most sought-after and highest-paying jobs at the mine.

#### **EMPLOYEE TURNOVER AND LEAVE**

MSC hired 16 men and 9 women in 2016, compared to 46 men and 5 women in 2015. Similar to the previous year, we did not renew a number of contracts when they expired and we continued to relocate many positions to the administrative office in the city of La Paz to reduce the costs of transportation and housing.

The turnover rate in 2016, was 2.83 % ✓, (or 2.3% for men and 6.3% for women) compared to 3.7% for men and 7.3% for women in 2015. Expatriate turnover in 2016 was 20% for men and 0% among women, compared to 68.4% for men and 0% for women in 2015. Factors explaining the turnover rate of personnel in 2016 remain unchanged and were largely due to personal reasons (change of job or city, starting their own business, etc.).



Our retention rate after parental leave\* was 100% in 2016√, 6 women returned to work after maternity leave and 104 men after paternity leave (compared to 8 women and 43 men in 2015).

\*Parental Leave: Women receive 45 days of maternity leave before childbirth and 45 days after childbirth plus 4 additional days. Men receive 4 days of paternity leave on the day or around the day of childbirth.



We believe that some of the positive factors in the workplace contributing to employee retention at MSC may include:

- · Recognition as one of Bolivia's top companies by MER-CO (Monitor Empresarial de Reputación Corporativa), which ranks by reputation and excellence in corporate responsibility and corporate governance in 2013, 2014 and 2015.
- · According to a yearly salary study in Bolivia, MSC is one of the best paying companies in the country
- Benefits provided to all employees (full time or temporary/contract) include performance bonuses, ✓ rotational schedules that are optimized to spend more time with family, and private health insurance.
- Alternative earning options outside MSC are limited to agriculture or other activities which at present are not as profitable.
- · A focus on the health and safety of employees through robust protocols and participatory committees make MSC one of the best companies for employee care.
- · Almost all women return from maternity leave.

A low turnover rate has positive implications and generates efficiencies for MSC, such as less training for new employees in very technical and specific posts, which sometimes require three to four-years of training. If employees stay longer and there is stability at the personnel level, there is also greater safety awareness, fewer accidents and better workplace morale.

# LABOUR RELATIONS

Labor unions have a long history and a strong presence in Bolivia. At MSC we support the right to freedom of association and collective bargaining, and we currently have a good relationship with the San Cristobal Mining Workers Union, which was founded in 2010. Our approach regarding labour relations is centered on regular engagement with trade union leaders, respectful dialogue regarding the needs of our workers, and a joint resolution of problems if they do emerge. The principal characteristics of the negotiating processes are respect, honesty, and solutions that benefit both sides, while striving for continuous improvement. In 2016, there were no work stoppages, strikes, or lockouts within the San Cristobal mining operations. ✓

Approximately 59% of the total eligible workforce (equivalent to 852 workers) is covered under the collective bargaining agreement with the MSC workers union. ✓ Also, administrative employees (and all executive personnel) are not part of the workers union structure of MSC.

The collective bargaining agreement is renegotiated each year (approximately in the middle of the calendar year) and in 2016 covered the following aspects:

- A salary increase agreement.
- Guaranteed employment stability in accordance with Bolivian legislation.

- Support for a project appraisal for a union head office.
- Development of sports activities and soccer tournaments (with sportswear donated by the Company).
- A safety incentive for 2,000,000 hours without a lost-time injury.

Additionally, MSC continues to provide educational scholarships to the children of employees.

# **EMPLOYEE GRIEVANCE MECHANISM**

MSC has an open-door communication policy. We encourage our employees to reach out to their direct supervisors with any issues or concerns related to the workplace. If the concern involves supervisors, it can be submitted directly to the management level for resolution. We also have a more formal and confidential system (through the Company's intranet) to relay concerns or to report violations or suspected violations of our Code of Ethics. In 2016 there were no grievances for labour practices reported through these mechanisms. ✓

#### TRAINING AND DEVELOPMENT

We believe that the continuous training and the opportunity for self-development and continuous improvement of our employees are fundamental elements of our Human Resources philosophy and for the success of our business. Performance evaluations, constructive feedback, and salary increases are also an integral part of the effort to promote a positive workplace and develop our people. MSC has a process in place for annual performance evaluations, intended to review as many employees as possible. In 2016, 98% of the eligible workforce received a performance evaluation, including superintendents, supervisors, employees and operational staff (workers). ✓

In 2016, MSC invested approximately \$ 0.6 million in training of our employees (compared to \$ 0.8 million in 2015), which was equivalent to 74,146 hours of training (compared to 23,568 training hours in 2015). This figure does not include the time and additional courses through the San Cristobal Training previously called the Technical Institute.

MSC offers two main types of training: training in Health and Safety, and (specific) training directly related to employee functions and performance.

		TRAINING			
CATEGORY FOR MEN	TOTAL HOURS OF OF TRAINING FOR WOMEN	TOTAL HOURS OF TRAINING FOR MEN	AVERAGE TRAINING HOURS FOR WOMEN	AVERAGE TRAINING HOURS CAPACITACIÓN	COMBINED AVERAGE HOURS OF TRAINING
Employees and Workers	63,539	5,727	63.3	32.4	58.8
Executives	584.5	0	11.69	0	11.5
Supervisors	4,118.5	117	33.2	22.1	32.5
Contractors	22,301	3,041	9.6	14.9	10.0

The hour difference between 2015 and 2016 is due to specific courses and the amount of internal courses increased in the 2016 period (has no direct charge), this feature has an impact on investment, data on 2015 period (23.568 training hours) contained information related to the mandatory internal courses.

The hours of the rank employees and workers, includes executives and supervisors.



Tn 2016, Minera San Cristóbal introduced Appreciative In-Lquiry - an innovative approach that seeks to engage stakeholders in self-determined change - to Human Resources management and development. The objective of the Appreciative Inquiry Program was to build on the collective knowledge, strengths, and achievements of people, equipment, and departments.

The inaugural Appreciative Inquiry group was comprised of high-performance teams which were given a new and strong impetus which provided positive results. During workshops, participants were given the opportunity to describe their most positive workplace experiences - moments when they felt fulfilled in the work place. From this, the collective strengths of the team were identified, as was the collective design for building strategies and action plans for high efficiency and high performance going forward.

The management of Corporate Affairs and Business Development, with the participation of all business units (Community Relations, Public Relations, Government Relations, Environment and Systems) as well as units from Human Resources and Technical Development, took the lead in participating in the workshops. Participants felt satisfied at the end of the workshops that the process had served to identify

what they really cared about, helped them feel more motivated, generated awareness and team spirit, and that the first step had been taken in the formation of High Perfor-

In this way MSC continues to support its employees with professional development initiatives that seek not only material results, but make positive impacts to motivation and self-esteem, and that each employee remains satisfied in their place of work.

For 2017, the Company plans to run the Appreciative Inquiry workshop with nine new teams, which will include members from the operating personnel of the Company.



Tn 2016 Human Resources completed the conceptual de-Lsign of MSC mobile application - a modern institutional communication tool to serve the staff of the Company. The functionality and features make it a tool for information, interaction, and support that can be accessed by all MSC workers who can download the application to their mobile phones (available for both Android and IPhone). The application allows to access to Human Resources information and a number of other features including the following:

- · "MSC al día (MSC update)" Institutional Bulletin.
- Telephone Book (MSC telephone directory).
- Vacation day balance.
- · Medical Guide (Telephone Directory of Health Services).
- Calculator for payroll taxes and deductions.
- Mine Entry Request Management.

- · OHS Daily Reports (Daily communications).
- Policy Information.
- Direct live chat communication channel to make inquiries to Human Resources.





# Health And Safety

Protecting the health and safety of our people is a top priority. Minera San Cristobal is committed to achieving a safe working environment in which no injuries are recorded. We ensure that our employees and contractors are trained to: improve their knowledge and skills in safety, increase awareness regarding personal responsibility to work safely for themselves and their co-workers, and to ensure they go home safe to their families. MSC complies fully with all Bolivian legislation and international standards for Occupational Health and Safety.

# **OUR APPROACH**

We are in regular contact with a variety of internal and external stakeholders regarding aspects of health and safety including our employees, workers and their families, contractors, the union health commission, community members, as well as regional and national health authorities. We engage with these impacted stakeholders regarding topics such as the quality of health care for our employees, emergency care, and holistic approach to community health care, certification audits, and regular meetings to meet the requirements and expectations of our health and safety protocols. We conduct risk assessments with respect to health and safety which aim to develop a preventative culture with a safe labour approach. Detailed performance indictors regarding safety performance (for both employees and contractors) are prepared and submitted to management for review on a monthly basis.

Our safety mission is to provide technical and operational support to all areas related to safety, hygiene, hazardous substances, and general health. Establishing a preventative safety culture that supports consistent behaviors and safe processes is one of our main health and safety goals and is framed within our Business Management System, policy documents and standards, and is in full compliance with legal and regulatory requirements of both the Company and the country.



Our Occupational Health & Safety Policy is officially communicated through mandatory OHS training and is readily accessible on our Company intranet. The Policy is also posted in every health services area on site, in camp, and in local communities.

MSC received OHSAS 18001 certification in 2010 and we maintain this certification of best practices in health and safety annually.

# HEALTH AND SAFETY PERFORMANCE ✓

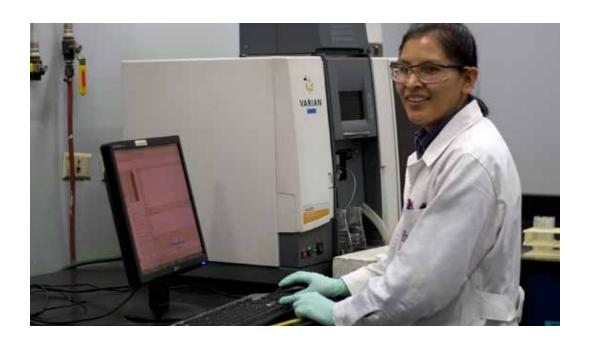
Health and safety at work is an issue that requires continuous attention and the participation of various stakeholders, including employees, the workers union, contractors, the Health Services Department, the National Health Fund, our suppliers, and our safety committee. We meet regularly (every month or every quarter), with our stakeholders to discuss safe and healthy working conditions, training, and access to personal development. We ensure that our standards are continuously maintained in our external business relationships.

Our program of prevention and performance in Health and Safety is based on the OHSAS 18001 standard, which includes topics such as insulation, working at height, the management of the risk of incidents and industrial hygiene programs. These elements are also backed by the Golden Rules of MSC

We hold safety meetings every day at the start of each shift. We monitor and follow-up our performance in terms of occupational safety at the level of our employees and workers. No occupational illnesses were recorded at the San Cristobal Mine in 2016.

# NORTH AMERICAN STANDARDS PER 200,000 HOURS FREQUENCY INDEX<sup>1</sup> (RATE OF INJURIES) 2016√ 0.33 0.74 Contractors **Fatalities Employees** 1.05 monthly 12.58 annually Rate of Absenteeism **Employees** 2015 0.41 1.11 **Empleados** Víctimas Contratistas MSC Mortales 1.53 monthly 4.63 annually Rate of Absenteeism **Employees**

- 1. The Frequency Index refers to the frequency of injuries in relation to the total time worked by the total labor force multiplied by a factor of 200,000.
- 2. 2016 has an average of 1.05 in the Employee Absenteeism Rate and 12.58 as a cumulative annual sum that includes absences of: Licenses, Absences and Work Commissions (from Community Authorities and at the request of the MSC Workers Union). In contrast to 2015, the cumulative annual sum of 4.63 was due to the fact that only absences of: Licenses and Fouls were counted.



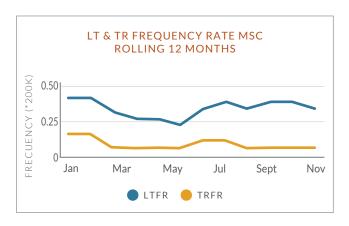
# SAFETY PERFORMANCE ✓

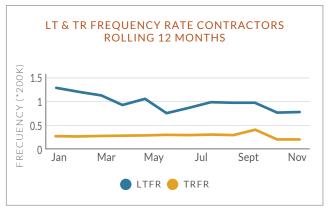
- In 2016 the rate of frequency of incidents with injuries in MSC reached 0.05 incidents for every 200,000 hours worked, or one incident with time lost every 398 days worked.
- In 2016 the frequency rate among MSC's contractors reached 0.21 incidents per 200,000 hours worked, that is one accident with time lost every 185 days worked.

One of our main safety initiatives in 2016 was the development of the Golden Rules, generated to reinforce the responsibility of the supervision and workers in critical activities that can lead to a serious accident.

Compliance Audits were implemented for Contractors and Supervisors of Contracts, in order to verify compliance with the Manual for Contractors.

Frequency Rate of Time lost (LTFR) & Frequency Rate of Recordable Incidents (TRFR) MSC - 12 consecutive months.







fter experiencing a fatality in the mine in 2015, MSC Aundertook a special review to improve application and implementation of its standards with a view to avoiding further incidents with losses of life. First, an in-depth analysis was conducted of the cause of the event and other high risk incidents reported in the recent past. From this some points for immediate action were identified as follows:

- · The need to have greater control over high risk activities.
- · Encourage greater participation, control, and responsibility by supervisors with respect to compliance with the existing standards.
- · Resolve deficiencies in the wording of some instructions and standards.

Following this analysis, action by management prompted generation of the 'Golden Rules' in 2016. These were created to give a guideline or framework for action by supervisors as to their responsibilities with respect to the safety standards set by MSC. It also provides a "check list" to help them verify if the most relevant or critical standards have been taken into account before execution of any "High Risk" activities. The objective of these rules is to support what is established in instructions for the "Identification and Evaluation of Risks", "Work Permits", "Competence of the Staff"

and others, so that a Supervisor knows what are the most relevant or critical standards that must be fulfilled.

This document reinforces the "principal responsibilities" of the supervisor in OHS issues. The most important among them are:

- Identifying, evaluating and implementing the controls associated with the risks of the activities to be performed.
- Verifying that personnel know and maintain the controls during the execution of activities.
- Ensuring that staff who will carry out the activities have the knowledge and competencies required to carry them out.
- Requiring staff to comply with the relevant MSC's standards.

MSC defined nine Golden Rules that are: Work at Height, Work in Confined Spaces, Work in Hot Places, Excavations, Electrical Work, Load Lifting, Hazardous Substances, Work with Energy Equipment, Work on Slopes, Loading Fronts and Berms.

In general when you talk about Golden Rules within the industry, the concept is associated with "O" (zero) tolerance.



Within our organization these rules are given a different emphasis, which is: "the safety of people is first". Compliance with the golden rules is mandatory for all MSC personnel. However, any non-compliance will be treated in accordance with our Internal Regulations.

The Golden Rules program has several stages which are:

- 1. Generation of the document.
- 2. Raising awareness of the document.

- 3. Training Supervisors' about their responsibilities for OHS issues.
- 4. Measurement of the performance of Supervisors on OHS issues (STOP, inspections, training, critical observations, review of the risk matrix, follow up and evaluation of its Risk Management program).

"ONE OF THE MAIN FUNCTIONS OF SUPERVISORS IS TO PROVIDE SAFE AND HEALTHY WORK ENVIRONMENTS".

# **HEALTH AND SAFETY TRAINING**

MSC is committed to a culture of safety and a workplace free of accidents and injuries. We have safety meetings at the beginning of each shift facilitated by supervisors.

In 2016, the training of health personnel focused on courses of Basic Life Support and Advanced Cardiovascular Life Support (BLS and ACLS) with international certification; which completed the series of courses given in 2014-2015 with certification of training in Advanced Trauma Life Support (ATLS) and Prehospital Trauma Life Support (PHTLS), to all general medical and specialized doctors from MSC. The training program for workers in 2016 included first aid, Basic Cardiopulmonary Resuscitation (CPR) and management of cyanide and lead poisoning.

SAFETY COMMITTEE VOLUNTEERS BY DEPARTMENT 38% 41% 13% OHS Operations Generales Management Services 1% Corporate Production Commercial **Affairs** Process of the Operations

In 2016 with 21,868 hours of safety training were delivered to improve the safety performance of workers both personnel of MSC and contractors were trained on the following topics:

- Isolation.
- Hazardous Substances.
- · Identification and Evaluation of Risks.
- · Investigation of Incidentss.
- · Work Permits (At Height, Confined Spaces, Excavations and Hot Work).
- · Defensive Driving.

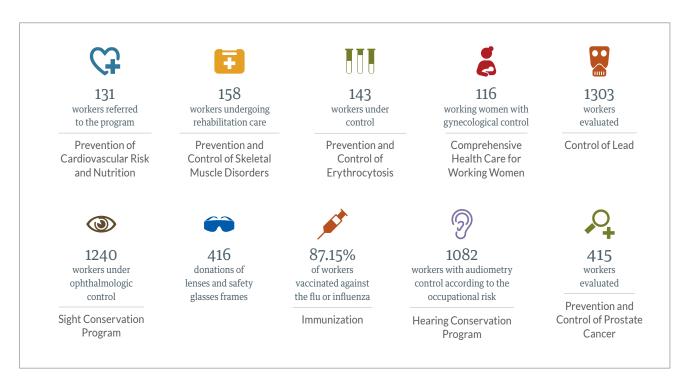
Providing this type of training allows the Company to increase the knowledge of personnel with regards to MSC's standards. At the same time it contributes in the permanent identification of hazards in the workplace, which has a direct impact on the reduction of incidents.

# PREVENTION OF OCCUPATIONAL ILLNESSES

MSC has an Occupational Health program to develop strategies of prevention and promotion of health in the work place that includes the following lines of action:

- Regular monitoring of occupational health, which aims to determine the level of aptitude of the worker in order to achieve the highest possible level of physical and mental well-being in the workplace. In r 2016 1,290 periodic health controls were reviewed according to occupational risk.
- Regular monitoring of health, which is an annual specialized evaluation aimed at monitoring the state of health of all workers according to the work they do and the risks to which they are exposed in their work environment.

MSC has a set of programs of control, prevention, promotion and monitoring, where a series of actions are executed according to the level of exposure to risk factors. These programs include:



On the basis of the regular medical examinations and assessments of physical fitness of the workers, a high incidence of muscular skeletal disorders was identified, mostly due to repetitive work, poor posture, lifting of heavy objects, and vibrations, that affect specific parts of the body such as the back, shoulders and neck. Specialized studies of the working conditions were conducted to determine the type of muscular skeletal disorders workers are exposed to according to their positions at MSC. With the information collected we initiated and implemented an ambitious Program for the Prevention and Control of Muscular-Skeletal Disorders.

## HEALTH AND SAFETY COMMITTEE ✓

Due to its size and number of workers, the company is obliged to have a Joint Committee of Occupational Safety, with a scope and activities which are contained within Bolivian legislation, specifically the General Law on Hygiene Occupational Safety and Well-being. MSC goes beyond the requirements and obligations of the current legislation: Our Company encourages participation, and continuously promotes safe work conditions and care for its personnel.

The MSC Joint Committee of Occupational Safety and Health is comprised of both management and workers, representing to 100% of our workers and employees). ✓ In 2016, our joint Committee had 55 members, or 3.80% of the total workforce. The exact number of representatives is determined on the basis of potential risks and their seriousness and the total number of workers in the Company.

The main purpose of the Joint Committee is monitoring and supporting the implementation of measures to prevent occupational risks, as well as improving practices to protect workers and their safety, including:

- · Assessment of the environment, working conditions, machinery, Personal Protection Equipment (PPE) and other issues related to health and safety.
- Understanding, analyzing, and participating in the investigation of all work-related accidents.
- Monitoring and evaluating the registration of work related accidents and illnesses.

- Ensuring good communication, training, and guidance for all employees.
- Presentation of quarterly reports to health authorities and information on the results achieved.
- Preparation of a summary report on the activities undertaken and measures adopted.

Formal agreements with the Joint Committee of the workers cover 100% ✓ of the issues and concerns on health and safety (and their review) under direct administration, and include the use and authorization of medicines not covered by insurance benefits. Agreements in 2016 included the execution of inspections in Occupational Safety (ISOP), strengthening the participation of personnel in the STOP program, and the dissemination of Safety Alerts to strengthen controls in working areas.

#### **EMERGENCY RESPONSE AND PREPAREDNESS**

Emergency events are managed according to an Emergency Response Plan that outlines potential scenarios identified through risk analysis of MSC's operations. The Plan includes the preparation, training, and response of the Emergency Response Unit (ERU) and its supporting teams.

# Emergency Response Unit - ERU

The ERU consists of seven full-time employees who receive ongoing training from an specialized external contractor, which provides 5 industrial emergency experts (firefighters), with a high level knowledge and training in Emergency Response Support.

ERU staff also receive standardized training on NFPA Codes (U.S. National Fire Protection Association), which are applied in our procedures.

One of our 2016 Health and Safety objectives, which was concluded during the reporting period, was the adjustment of the number and location of fire extinguishers in MSC facilities according to NFPA-10 (the Standard for Portable Fire Extinguishers). This initiative not only optimized the location and overall management of the fire safety equipment within the operation, but also allowed us to recover 36% of the equipment (307 units).

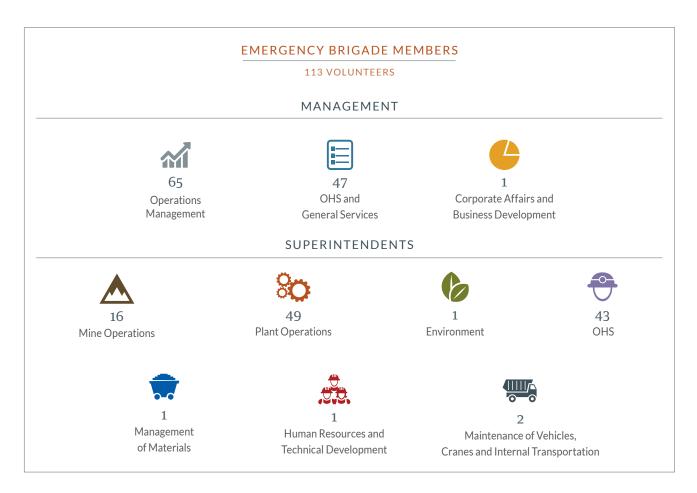
# **Emergency Brigade**

In 2016 the Emergency Brigade Program had 113 active volunteers. The Emergency Brigade receives the same instruction, supervision, and specialized service training as the ERU.

The Emergency Response Unit currently has four rescue vehicles:

- · Sport Utility Vehicle (SUV), fully equipped with incident command tools and first response gear.
- First Response Firefighting Truck, recently overhauled, with 1,000 litres water capacity and HazMat attention equipment.
- · Rescue Truck, packed with Vehicle Extrication and Heights Rescue tools and equipment, TriMax TERMINA-TOR fire extinguishing high efficiency Twin Agent System (60 Gallon Foam Concentrate Pre-Mix Tank and 150 Pounds of Dry Chemical \*Purple-K\*) has been installed to increase response capabilities.
- Firefighting Truck with a 4,000 litre water capacity and 300 gallons of 3% foam concentrate.

The ERU together with the MSC health unit have the capacity to assist surrounding communities (within a radius of approximately 50 km.) in the event of traffic accidents, fires or other emergencies. Our local communities and their access routes are the source of our highest rate of calls for emergency assistance.



# Advanced Fire Detection Systems

In 2016, MSC installed a Supervised Fire Detection and Alarm System using modern technology for the early / intelligent detection of fires through Air Sampling, Beams of Light or Thermal / Smoke-based methods. The system constantly sends reports through a Central Monitor directly to the Emergency Response Unit, which receives the alert and can respond in the shortest timeframe possible.

The system provides detection information for critical nonprocess buildings, including plant and mine Warehouses, the metallurgical and chemical Laboratories, as well as the Aguirre camp kitchen and dining room. Improvements were made in the detection systems of certain critical areas including the lubricant storage area and electrical rooms of the plant. VESDA air sampling systems (which send reports to the central control room) were also installed.

We plan to install Advanced Fire Detection Systems in nonprocess buildings in 2017, including the Administrative Office, Maintenance Office, and Truck Shop).

# Medical Unit

MSC has a fully equipped Health Unit at the mine, located in the Toldos Camp. The unit is equipped with medical personnel, medicine, and supplies to treat injuries ranging from minor to critical. The Medical Unit has three ambulances available at all times in the event of a serious medical situation. MSC also has two aircrafts for the regular transportation of personnel to and from the mine, which can be used in the event of an emergency situation that requires patient transport (MEDIVAC Medical Evacuation) to the nearest hospital.



#### INDUSTRIAL HYGIENE PROGRAM

A key component of the MSC Industrial Hygiene Program (IH) has been the training of its staff - and achieved high level of expertise of its IH personnel in the two years since the program's inception.

In 2016, a total of 231 formal training hours were delivered to the IH staff in collaboration with an expatriate expert in subjects such as hearing conservation, respiratory protection, exposure evaluation and analysis, standards and international regulations on health and safety, ergonomics, radiation safety, particles and gases monitoring, toxicology, epidemiology, hazardous materials, emergency response procedures and many other subjects. In parallel, there was training on the handling of hygiene kits including calibration, proper use, cleaning and storage.

Also during the reporting period, MSC continued to acquire IH equipment and was able to equip the Industrial Hygiene Laboratory with all necessary items.

#### INDUSTRIAL HYGIENE MONITORING PROGRAM

In 2016, the IH monitoring program included the largest assessment of exposure in Industrial Hygiene ever made in Bolivia. The objective was to evaluate exposure to occupational agents including breatheable dust, silica, lead, and noise, particulate material from diesel, metallic smokes and different types of gases. A total of 390 individual samples were taken from the personnel working full time during normal operations. 126 samples of the environment (of the work area) were also taken to evaluate the potential exposure to chemical agents. Some of the environmental samples analyzed up to 57 different chemical agents.

It is important to note that, in the majority of cases, Bolivian law does not define specific limits required with respect to occupational exposure. MSC has taken a proactive approach by developing its own occupational exposure limits as a guide to control the exposures and assure a safe workplace for all. For this we have adopted the values quoted by organizations such as MSHA (Mine Safety and Health Administration), OSHA (Occupational Safety and Health Administration), NIOSH (National Institute of Occupational Safety and Health), ACGIH (American Conference of Governmental Industrial Hygienists), and from other acceptable international standards.

Through sampling and the collection of data, the IH (Industrial Hygiene) Monitoring Program demonstrates the effectiveness of controls, offers a more efficient management approach to occupational medical evaluations, and reduces risk for the Company by offering effective health and safety protection for all employees. The IH sampling result in a significant improvement in the capacity of MSC to adequately protect all employees through appropriate and quantifiable exposure controls (such as process design, or the use and effectiveness of PPE).

	NUMBER OF PERSONNEL SAMPLES IN 2016				
	MINE	PLANT	MAINTENANCE		SUPPORT
			MINE	PLANT	AREAS
Noise	26	55	11	35	27
Breathable Dust	14	28	5	10	19
Breathable Silica	14	28	5	10	19
Lead	9	23	5	20	1
Gases	-	3	-	6	-





Il available evidence indicates that levels of environ-Amental lead at the San Cristobal mine are below the Limits of Occupational Exposure (LOE), and that the risk to workers is low or non-existent. Nevertheless, the Health system of Minera San Cristobal has established epidemiological surveillance of exposure to lead by testing all employees and workers for Lead in Blood, regardless of where they carry out their activities.

Since 2007, significant efforts have been made to perform annual evaluations of lead in blood (plumbemia) for all the personnel, in order to timely identify possible cases or changes that could constitute a threat to the health of the workers.

Since there are no national regulations that establish the permissible limits of lead in blood (plumbemia) for workers. Minera San Cristobal adopted the values recommended by the World Health Organization (WHO), which determine the indexes of biological exposure (IBE) with a threshold of action (TA) should be the following:

- · General Workers 40 ug/dL
- · Women in fertile age 30 ug/dL
- · Pregnant women 10 ug/d <sup>1</sup>

The levels of lead in blood in the workers of Minera San Cristobal are, in general, far below the permissible Maximum Limit of Biological Exposure, so the risk of occurrence of any damage to health due to exposure is considerably low.

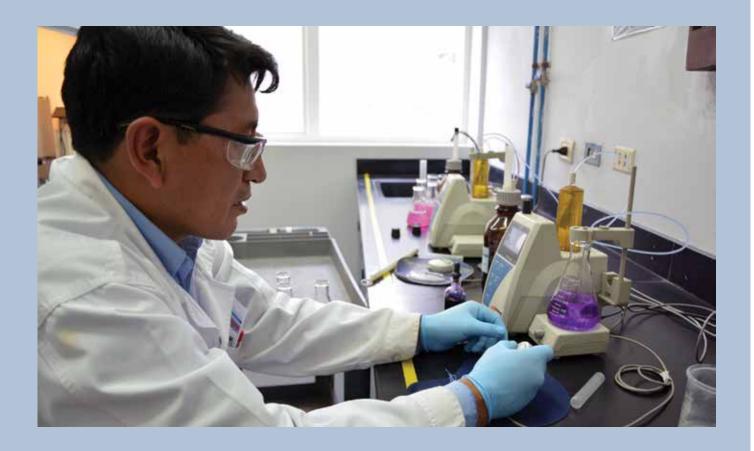
With reference to the average level of lead in blood. on the basis of the total number of workers evaluated each year, these values have remained below the Maximum Limit of Biological Exposure at all times, trending downward over time as is shown in the following table and graph.

# LEVEL OF LEAD IN BLOOD IN UG/DL **AVERAGE VALUE**

4.11	4.82	3.00	4.13	3.02	2.26	1.90
2008	2009	2010	2012	2014	2015	2016

Source: Health System of Minera San Cristobal

1. The values for pregnant women are determined by the protection of children against poisoning by lead and were determined by the Center for Disease Control and Prevention (CDC). Preventing Lead Poisoning in Young Children, October 1991.





This systematic reduction in exposure levels is the result of measures applied by the Company to control the levels of environmental lead at workstations. and more generally the various environmental agents present in the workplace. Additionally, it is important to emphasize that the human organism has the ability to eliminate a certain amount of

absorbed lead. provided the exposure levels are not so high as to generate an organic saturation. This situation is obviously under control at Minera San Cristobal, thus demonstrating in a direct way the success and effectiveness of the actions taken.

The success achieved over the past two years by bringing together the complimentary areas of Occupational Health, which periodically evaluates the levels of lead in blood among workers, and Industrial Hygiene, which monitors environmental lead, has strengthening the surveillance of workers health and exposure to different agents. This has generated value for the mining operation by aggregating quality and efficiency within a framework of health protection, safety and occupational hygiene.



# **HEARING CONSERVATION PROGRAM**

The sampling program strongly supports the management of two new programs implemented in 2016 - Hearing Conservation and Respiratory Protection.

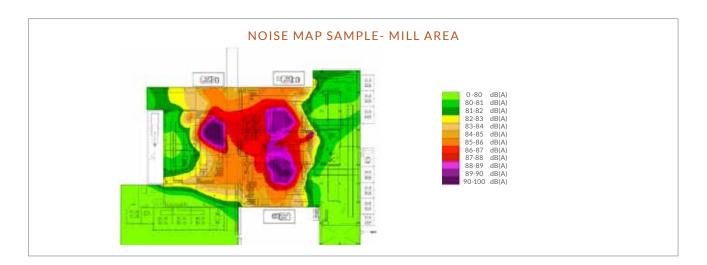
The hearing conservation program officially began in 2016. to prevent the loss of hearing due to occupational exposure to noise. The program consists of the following components:

- Identification of areas containing occupational noise and the installation of appropriate signage.
- · Measurement. monitoring. and evaluation of the levels of occupational noise (through personal dosimetry and sonometry).

- · Control of occupational exposure. including the use of PPE (hearing protection devices).
- Reporting of results to individuals and training in the use of PPE (hearing protection).
- · Periodic audiometry (managed by an occupational physician).

# **NOISE MAPS**

In 2016. the hearing protection program also executed a comprehensive noise study at certain MSC fixed installations to generate noise maps. These maps are now posted to inform MSC workers about locations which contain high levels of noise. The use of PPE is compulsory in these areas to protect workers from this potential risk.



#### RESPIRATORY PROTECTION PROGRAM

The respiratory protection program officially commenced in 2016. Its main objective is to prevent the occurrence of occupational diseases (with a focus on respiratory diseases) due to the exposure to airborne occupational agents (particles, gases, vapors, smoke, etc.). The program consists of the following components:

- The identification of areas where exposure can occur and the installation of appropriate signal.
- Measurement, monitoring, and evaluation of the levels of occupational agents (through personal and environmental sampling).
- The control of occupational exposures including the use of appropriate PPE (respiratory protection devices).
- · Communication of results to individuals and training in the use of PPE (respiratory protection).
- Periodic testing to evaluate the selection and the proper seal of respirators.
- · Medical surveillance (programs managed by an occupational physician).

#### **COMMUNITY HEALTH PROGRAMS**

In 2016, we delivered the following health programs in the communities of San Cristobal, Culpina K, and Vila Vila:

- Child care program for girls under age 5, which seeks to promote the proper growth, development and disease prevention: 40 children under control and monitoring.
- Child Health Program / Schoolgirls, consisting of improving the health of school children through promotion, prevention, detection, care and treatment. 978 schoolchildren assessed.
- Care program for the elderly, aimed at reducing risk factors through health care, supervision, control and individual monitoring. 149 elderly under control and monitoring.
- Comprehensive care program for adolescents, which involves values-based career counseling for adolescents and youth in communities 348 young people participated in this program.







# Environment

## **OUR APPROACH**

Minera San Cristobal (MSC) is a leading Bolivian mining company with respect to environmental management. Our environmental policy is one of the pillars of our Management System and is based on compliance with current legislation, care and protection of natural resources, implementation of good environmental practices and a commitment to our neighboring communities.  $\checkmark$ 

MSC's environmental management system is founded on the identification and evaluation of risks, mitigation and remediation of negative impacts throughout the life cycle of the mine, and the implementation of international protocols and standards to monitor environmental factors; thereby generating credibility and trust with the environmental authorities and stakeholders.

Within the framework of our principle of transparency, semi-annual monitoring campaigns are carried out in the presence of representatives from the communities and local authorities; this reaffirms our social commitment and strengthens relations with our strategic stakeholders.

Since 2010, MSC has held triple certification in the ISO 9001 (quality), OHSAS 18001 (occupational health and safety) and ISO 14001 (environmental management system) international standards, and annually allocates the resources needed to train all employees in the management system.

In 2016, improvements in environmental practices were focused on water management, dust control, industrial waste reuse and recycling; rehabilitation of the areas disturbed during the construction stage, and the efficient use of water and energy.

A total of 1,351 individuals participated in the environmental training program for MSC employees during 2016: a historic high for the years of operation. MSC also provided technical advice on environmental aspects of sustainable development projects (quinoa, camelids, and tourism) driven by the Superintendence of Community Relations and Sustainable Development.

#### WATER MANAGEMENT

Water consumption is one of the most sensitive issues from an environmental and social point of view, and is an ongoing concern for local and national stakeholders; particularly for the communities of direct influence. The groundwater used in the operation is saline and unfit for human or animal consumption, or for irrigation; nevertheless, MSC has a policy of applying the best available practical technologies for a rational use and responsible management of water resources.

Sumitomo Corporation has promoted technical studies to optimize the use of water in the mineral processing plant, and is continually striving to improve efficiency in the recovery and reuse of all available residual water coming from the tailings facility and from the drainage in the mine area; thus minimizing the impact on sources of fresh water.

MSC regularly monitors the sources of surface water and groundwater in its area of operation and its area of influence to verify the quantity and quality of water, plan for industrial use, and evaluate its potential use in community projects.

The main source of industrial water for the ore processing plant is a well-field located in the Jaukihua micro-basin 10 km southwest of the mine. In the baseline study, this body of water was characterized as highly saline and not suitable for direct human consumption or irrigation without prior treatment. Subsequent studies have verified and confirmed the quality, quantity and age of the bodies of water in the area of influence of MSC. These investigations concluded that the Jaukihua aquifer is an unconfined aquifer of salty water with two sources of recharge which are sufficient to provide water to the production wells during the life cycle of the mining operation.

# TOTAL WATER EXTRACTED BY SOURCE

# **TOTAL WATER**

11.4 MILLON m<sup>3</sup>√

# EXTRACTED - 2016

SOURCE OF WATER

The Jaukihua Aquifer is a subterranean body containing approximately 366 million m<sup>3</sup> of groundwater. It is located between the communities of San Cristobal and Culpina K, and is the source of supply of industrial water used by MSC.

Based on studies carried out on the aguifer, MSC understands that it is not significantly affected by the mining operation, ✓ and that, due to the poor quality of the water, there are no other uses that compete for it.

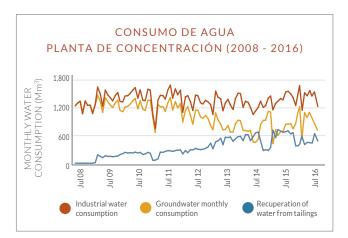
During 2016 MSC used a total of 11.4 million m<sup>3</sup>. The average rate of consumption of water per treated tonne was 0.60 m<sup>3</sup>/tonne, with a minimum of 0.38 m<sup>3</sup>/tonne in February and a maximum of 0.68 m³/tonne in December. In comparison to the total water consumption for operations during 2015, that was 9.66 million m<sup>3</sup>, the increase in water use, is due to a increase in the process of concentrates. For each Ton of concentrate produced one m<sup>3</sup> is needed. 46,000 Tn per day was produced in 2015; in 2016 it increased to 52,000 Tn per day.

In 2016, as in previous years, up to 50% of the water used in the production process came from the recirculation system at the Wila Khara ✓ tailings facility. Additionally, there were some minor contributions from the mine drainage system and rain water retained in containment dykes along the Toldos river. Having this recirculation system reduces the rate of pumping groundwater, ensures the sustainability of the aguifer, and reduces operating costs.

# WATER CONSUMPTION -CONCENTRATION PLANT (2008-2016)

Historical data show the water pumped from the field of wells (red line), the water recirculated from the tailings deposit (green line), and the total consumption of water (blue line).

In compliance with our policy of zero discharge, MSC does not discharge waste water outside the area of operations. Waste water from the camp and dining room is treated through a biological process to a quality that allows it to be reused for watering roads and access paths to reduce the generation of airborne dust.



# **WASTE MANAGEMENT**

# Tailings at the Wila Khara deposit

The final disposal of the tailings is one of the most important environmental aspects to consider in the mining operation and is also one of the major concerns for the communities due to the risk of generating acid rock drainage (ARD) and associated contamination

The tailings facility is located in the Wila Khara micro-basin, 9 km southwest of the concentrator plant and 4 km northwest of the community of Culpina K. This is an endorheic (closed) type of basin and the underlying geological formations are made of materials with very low permeability, which minimizes any possible infiltration and risk of groundwater contamination.

Tailings reach the facility through a system of pipes and pumps, and are deposited in the low part of the basin where they occupy the natural depression of a former lagoon. The shape of the basin does not require construction of a structural dyke for containment of the tailings. However MSC has constructed berms that ensure overall stability.

During 2016 a total of 17,772,734 tonnes of tailings were stored in the facility (17,892,186 tonnes in 2015). Monitoring of the quality of supernatant water shows pH values were within the neutral range (from 6.5 to 8.1) and high salinity (10.7 %).

# Waste Rock

A total of 40, 873, 038, 90 tonnes of mine waste rock was stored on site during 2016, which is 34% less than the amount moved into storage dumps in 2015.

The environmental management of mine waste is directly related to the management of water, since the principal risk is the possible generation of acid rock drainage (ARD). To prevent ARD and control the contact of water with the residues, especially during the rainy season, a drainage system was implemented in the mine made up of collection channels, storage pits, and pumping stations, which capture, store and remove water from infiltration and rain. Due to the arid local climate there is only a short period of rainwater runoff and ephemeral streams, during the year, which minimize the risk of contamination.

As an additional control measure, dikes were built in the bed of the rivers downstream of the mine, designed with a storage capacity sufficient to retain seasonal flows and provided with pumping and diversion systems that dispatch the water to the concentrator plant.

No water resulting from the industrial process or recovered in the area of the mine is discharged to the surrounding ground, or to surface water courses. ✓ Rain water is stored and used to water the roads and prevent the dispersion of dust into the air

## Sludge

In addition to sterile material from the mine and process tailings, approximately 120 m<sup>3</sup>/year of septic sludge is generated as a by-product of the treatment of the residual waters from the camp, offices, and dining room. This sludge is placed in pits within the industrial landfill.

The intention is to later use these residues, together with other organic waste, for compost and biogas production.

#### Solid Waste

The MSC waste management system is based on application of the 3R principle: Reduce, Reuse and Recycle. The process comprises the following steps: classification at origin (selective storage by type of waste), collection and transportation, temporary storage and final disposal.

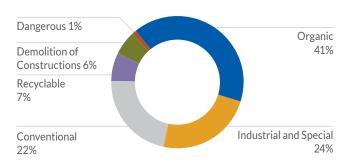
Depending on the type of residue the final disposal can be the following:

- · Recyclable residues (PET bottles, carton, tires, scrap metal, etc.) → Transfer to independent recycling companies that have an environmental license to manage and treat them.
- Reusable residues (wood, plastic and used oil) → Transfer to companies or people that have a relevant environmental license to manage and treat them.
- Conventional and organic residues → Storage in pits inside the landfill and subsequent burial.

 Dangerous hospital residues → Incineration in situ in an oven.

Under an agreement with the Universidad Tomás Frías of Potosi, several pilot projects on alternative uses for solid waste from the mine have been subject to thesis level investigations. The findings are expected to become particularly useful during mine closure.

#### PERCENTAGE BY TYPE OF WASTE



	WASTES BY CAT	EGORY 2016 ✓	FINAL DESTINATION	
TYPE OF WASTE	WEIGHT 2016	2015		
HAZARDOUS WASTES Wastes contaminated with lubricants Wastes contaminated with chemicals Wastes from medical/hospital services Containers with dangerous Wastes	8,522 kg	98,586 kg	Encapsulated in the landfill	
Used Oil	435,000 litres	573,000 litres	Transferred to authorized third parties	
NON-HAZARDOUS WASTES				
Conventional Wastes	270,700 kg	260,136 kg	Encapsulated in the landfill	
Organic Wastes from the camp kitchen	493,130 kg	522,342 kg	Part is encapsulated in the landfill; part is sent to composting	
Recyclable: Paper, cartons, wood glass,				
PET bottles, cans Industrial Wastes: Used steel liners,	85,800 kg	82,696 kg	Transferred to authorized third parties	
pieces of metal, spare parts, rubber	313,930 kg	56,468 kg	Transferred to authorized third parties	
Construction Wastes	71,600 kg	333,357 kg	Encapsulated in the landfill	

Reagrding hazardous wastes, oil residues are generated in a higher quantity and are reported on a separate traceability form.

- Special and industrial residues increased as a result of efforts to clean-up the mine site (see Case Study -Disposal of Materials).
- During 2016, MSC waived the services of construction contractors and no civil works were executed, resulting in a substantial reduction in the amount of construction residues.



Tn 2015, there was growing concern for the accumulation Lof industrial and operational waste in the landfill site and other locations. Accordingly, a process was created to organize the movement and disposal of waste by designating specific areas for collection and responsible final disposal.

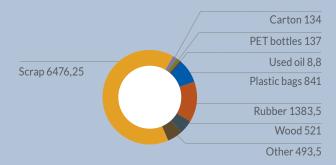
When final disposal is carried out by third parties, the material is tracked to ensure it is handled correctly. This important responsibility is subject to legal requirements such as the IER (Industrial Environmental Registry) or a valid environmental license.

Most of the waste handed over to third parties (on sale) is destined for recycling plants or is used directly as raw material for the artisan production of different items, such as backpacks for mining, rubber parts (bushings), water dispensers for cattle, sandals, rubber floorings, carpets and

An essential purpose of this process and one of utmost importance is to begin cleaning up the project and to initiate the gradual disposal of materials, thus avoiding the cost of around USD 200.00 per square meter that would be required to pay a dedicated company to provide this service. The process contributes to a reduction in environmental impact, since it prevents the burial or destruction of these

The goal for 2017 is to raise awareness among internal users so that they organize and dispose of materials in an orderly manner.

#### **VOLUMEN EN METROS CUBICOS**





#### **ENERGY**

100% of the electrical energy used by Minera San Cristobal in its facilities is purchased from the Bolivian national grid system.

In order to optimize operating costs, reduce environmental risks and avoid indirect impacts to users that share electrical resources, MSC carries out constant monitoring and control of the consumption of energy in its operations. As a result of this work, efficiency was improved in the grinding circuit by introducing improvements to the SAG mill control system.

#### **Energy Consumption**

Of the total energy consumption by the Company, 52% is from electricity, 47% diesel, and the remaining 1% gasoline from light vehicles.

Regarding 2015, fuel consumption has reduced, because half of 789 and 785 truck fleet are not operating. On the other hand, fuel consumption has been optimized by reducing the use of light vehicles, and prioritizing transportation on buses. In addition, a better control of fuel consumption was made through the implementation of a new system.

Both gasoline and diesel are imported from Chile, a factor which is taken into account in the operating costs and in the assessment of energy supply risk since diesel is also used in the generation of emergency power in case of power cuts.

FUEL CONSUMPTION	FUEL CONSUMPTION 2016√	FUEL CONSUMPTION 2015	ENERGY EQUIVALENT 2016 (t Joules)	ENERGÍA EQUIVALENTE 2015 (tJoules) ✓
Scope 1				
Gasoline	718,339 litrees	780,007 litrees	24	27
Diesel	31,551,444 litrees	41,992,177 litrees	1,146	1,722
Explosives*				
Ammonium nitrate	9,893 tonnes	14,620 tonnes		
Emulsion of Ammonium Nitrate	197 tonnes	663 tonnes		
Scope 2				
Purchased Electricity	367,280 MWh	359,508 MWh	1,322	1,294
TOTAL			2,492	3,043

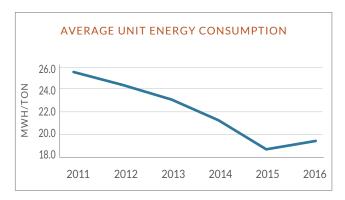
A lower explosive consumption in 2016, was due to a reduction of blastings, that at the same time were proportional to the reduction of tonnage extractedat the mine.

#### Energy Intensity ✓

The energy intensity measures the quantity of energy required to process each tonnes of concentrate. This indicator allows better understanding of the efficiency of the processes and assessment of the impact of our efforts to reduce energy consumption. During 2016, the average energy intensity was 0.61 MWh per tonnes of concentrate processed, a 15% reduction over 2015 (0.72 MWh per tonne).

### Reduction of Energy Consumption

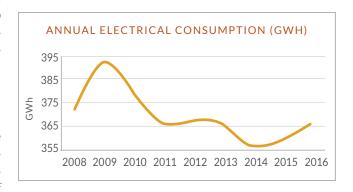
Bolivia issued regulations in 2013 that required large-scale consumers such as MSC to assess and reduce their electrical energy consumption. MSC responded with the implementation of a process to regulate and reduce the use of energy, which began by evaluating the areas of operation with the greatest energy consumption. Multiple efforts made in recent years in the grinding, flotation and filtration processes have allowed total energy consumption to fall by 4.2% (from 2008 to 2015), and 37.2% in terms of specific unit consumption. MSC has also launched an awareness campaign on the responsible use of lights and heating in the camp and offices. Currently MSC does not use any source of renewable energy.



#### Green house Gas Emissions ✓

Most emissions at MSC are the result of electrical energy production. Greenhouse Gas Emissions were calculated using Greenhouse Gas Emissions - Quantification and reporting of Greenhouse Gas Emissions for Organizations -Guidance for the application of the ISO 14064 -1 Standard - UNE-ISO/TR 14069:2015 IN.

In 2016, total greenhouse gas emissions were 215,062 tCO<sub>2</sub>eql, or 15% less than the emissions reported in 2015 (253,917 tCO<sub>2</sub>eg). The emission intensity per concentrated tonne produced in 2016 was 0,35 tCO₂eq.✓



#### Air Quality - Dust and Noise ✓

The Southwest region of Potosi, where MSC operates, is characterized by a dry, cold and windy climate; which are meteorological conditions that contribute to the airborne dispersion of dust.

Air quality in the area of influence of the mining operation is monitored at eight PM - 10 stations located around mine, at the tailings deposit and at the camp; and two stations with cascade impactors installed in the communities of San Cristobal and Culpina K. In conformity with Environmental Protection Agency (EPA), measurements are carried out every 12 days during 24 hours a day.

To prevent the dispersion of dust and particulate matter in the air, MSC has implemented the following controls:

- Speed restrictions for vehicles in the operational area.
- Frequent watering of roads and circulation paths.
- Application of bischofite on the surface of the roads.
- · Sprinklers on the crushed material conveyor belt.
- · Construction of a 140 m diameter dome over the ore stockpile.

With respect to noise, monthly monitoring is carried out at specific points within the area of operations and in the communities. In general, measured values are below the permissible limits, except in the crushing and grinding areas where the use of ear plugs and other personal protective equipment is mandatory.



#### **BIODIVERSITY**

Before building the mine, MSC conducted an Environmental Impact Assessment based on the 1999 standards of the International Finance Corporation (IFC), which included a biodiversity assessment. The resulting biodiversity management plan identified five key sites: the pits and dumps of the mine, the tailings facility, the industrial facilities, the camp, and the roads and railway.

A base line inventory was compiled of the flora and fauna, which is updated every six months from satellite images and with the support of external biologists that monitor biodiversity. Data from monitoring activities are regularly shared with the environmental authorities to assess how biodiversity could be affected by the mining operations.

Some possible impacts of the mining activities on biodiversity are the temporary losses of vegetation and wildlife, especially in some sectors of the mine and waste dumps (landfills and tailings facility). ✓ However, evaluations performed to date do not report significant impacts or changes in the biodiversity.

There are no protected areas or areas of high biodiversity near the mining operation. ✓ The Eduardo Abaroa Reserva Nacional de Fauna Andina (National Reserve of Andean Fauna), the closest protected area, is located approximately 150 km south of the mine. The Rio Grande, located 12 km south of the mine, is considered an important ecosystem with abundant bird species, particularly flamingos.

Vegetation is scarce throughout the entire Southwest Altiplano of Bolivia, with a predominance of shrubs (tholas), which are the main food for camelid livestock. The Libro Rojo de Flora Amenazada en Bolivia (Red Book of Threatened Flora in Bolivia) identifies ten species of native plants threatened due to their use as fuel (firewood) for domestic and industrial use; and more recently due to a change in land use to quinoa cultivation.

According to the International Union for the Conservation of Nature (IUCN), the principal species of endangered fauna in the area of operation are: the parina chica (small parina), the suri or Andean ostrich, the quirquincho (armadillo) and the Andean Fox. Flora at risk include thola, yareta and sicha.

# REMEDIATION AND MINE CLOSURE PLANNING

#### Remediation

MSC is committed to the remediation and rehabilitation of areas affected by mining activities. Our intention is to preserve the sustainability of local ecosystems, retain the traditional "use capacity" of land or give it new uses that benefit the communities.

The program of rehabilitation of disturbed land and ground is divided in two stages: efforts in parallel with operation of the mine, and further efforts at the end of operations (closure stage). Activities at this second stage include remediation of the tailings facility, mine dumps and landfills, whose rehabilitation will be more complex and long - term.

As part of the program of ongoing rehabilitation we have identified a total of 113 hectares of land disturbed during the construction phase (temporary camps, roads, railway line). These are being rehabilitated with the support of a local/community based company.

The rehabilitation plan is supplemented by investigation of the introduction and adaptation of new species, soil improvement through the addition of organic waste, design and formation of surface cover for the tailings facility, and production of seedlings of native species in plant nurseries.

During 2016 17.1 hectares were rehabilitated inside the operational area of MSC and 9.5 hectares outside of it. The latter are gradually being transferred to the communities through registration with the local authorities; thus fulfilling previous agreements signed by the Company.

#### **ENVIRONMENTAL GRIEVANCES**

Reflecting the high value that the company places on environmental protection, MSC has a process for receiving and responding to concerns or complaints on environmental matters raised by stakeholders. The Company then reviews, analyzes, and identifies the actions required to respond, address, and resolve these concerns in a timely manner.

The reduction in investment in environmental protection in 2016 is due to the high costs incurred in 2015 for the removal of top soil, construction of ponds, irrigation of roads and recovery of water from the tailings facility.

# QUANTITY OF LAND AFFECTED AND REHABILITATED ✓



2016

2.350 ha 2015

Areas disturbed and not yet rehabilitated (total affected area) at year end



2016

9.46 ha 2015 Total area rehabilitated

During the first years of the mine's operating period the exploitation and industrial use of soil were defined, small changes in impacted areas were expected. In 2016 a topographic survey was carried out in 3D process (real surface area taking into account the slopes), unlike 2015 a topographic survey was carried out in 2D process (horizontal projection for Pit, storage location of sterile material, dumps and pile of ore collection).

#### INVESTMENTS AND TOTAL EXPENDITURES FOR ENVIRONMENTAL PROTECTION <



USD 2.558.378 **EXPENDITURE 2015** 

Operating costs and investment in prevention, mitigation and remediation of environmental impacts: removal of the top layer of soil (top soil) at the mine and tailings deposit, civil works in the drainage system of the mine, irrigation and chemical stabilization of the roads (application of bischofite) to prevent the dispersion of dust, cleaning and maintenance of the dikes at quebrada Toldos (Tolds ravine), recovery of supernatant water in the tailings deposit to reuse it in the plant.

#### USD 140.625 **EXPENDITURE 2016**

Rehabilitation, revegetation, and maintenance of areas disturbed by the mining operations, inside and outside of the area of operations.



USD 114.728 **EXPENDITURE 2016** 

USD 104.369 **EXPENDITURE 2015** 

Prevention and environmental management costs: equipment calibration, monitoring and measurement, laboratory analysis, archaeological prospection, maintenance of meteorological stations, environmental consulting.

During 2016, a concern was brought forward by the San Cristobal community related to environmental issues for which the company provided the following response. ✓

#### **ENVIRONMENTAL COMPLIANCE**

Minera San Cristobal complies with all the norms for prevention and environmental controls established by the Bolivian government and with the international standards adopted by the Company management system.

# **ENVIRONMENTAL GRIEVANCES**



Stakeholder

San Cristóbal Community



#### Concern

Fresh water springs in the area of Montes Claros affected due to the construction of platforms and drilling of boreholes carried out by the Exploration Department of MSC.



MSC convened an information meeting attended by the community authorities and neighbors of the zone. In this meeting a joint visit to the Montes Claros sector was agreed, to make an inventory of the water sources endorsed by both parties.

Agreement was reached to measure flow rates and take water samples from the main sources (with the participation of representatives of the community) which were later sent to a laboratory for analysis. A report was prepared that included the laboratory results and sent to all interested parties. Further follow up was carried out in the field through to the conclusion of the drilling program.

Monitoring reports are prepared and submitted annually to the competent environmental authorities in accordance with regulatory requirements, and a copy sent to the municipality of Colcha K.

MSC receives inspection and verification visits by governmental, sectoral and departmental entities. The Company also carries out internal and external audits to verify compliance with legal obligations and operational standards.

During 2016, across all areas of activity by MSC, there were no environmental incidents reported to the competent environmental authorities, similarly, there were no fines or monetary sanctions imposed on MSC for non-compliance with environmental laws or regulations.

#### MINE CLOSURE PLANNING

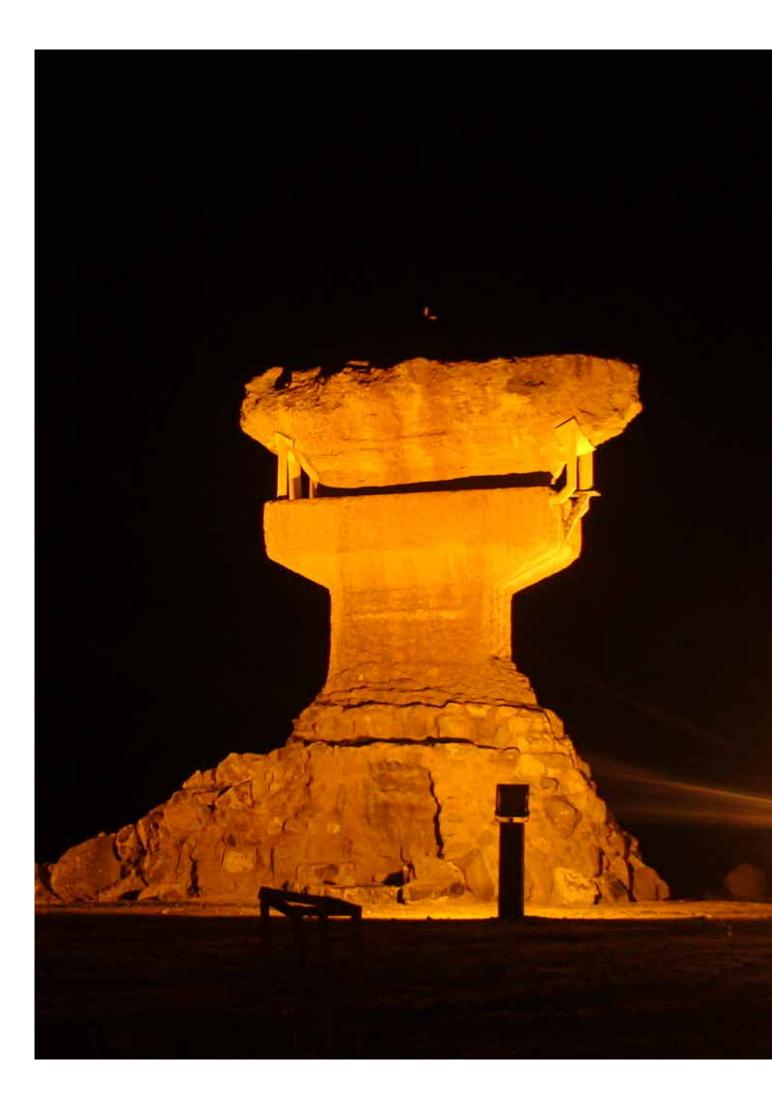
In alignment with our management policy and principles for social and environmental responsibility, Minera San Cristóbal continuously monitors and evaluates operating and services activities that could affect long-term physical, chemical or biological conditions in the area of direct influence involved in the Closure Plan. For this purpose the Company has established a multidisciplinary team responsible for evaluating the impacts identified in the Environmental Impact Assessment (Estudio de Evaluación de Impacto Ambiental) (EIA), as well as managing actions arising from the recommendations contained in the environmental license issued by the Competent Environmental Authority. Dirección General de Medio Ambiente y Consulta Pública del Ministrio de Minería y Metalurgia. (General Direction of Environment and Public Consultation of the Ministry of Mining and Metallurgy).



During 2016 a review was undertaken of all change management programs giving priority to plans for the management of sites for the storage of mining waste. These include the concentrator plant and tailings facility, as well as in the Industrial Landfill where the management and disposal of conventional and dangerous residues takes place. From this review, a work plan was created that comprises the following:

- Review of the recommendations from the previous studies and projects related to closure planning at Minera San Cristobal.
- · Updating technical criteria for the engineering design of remediation and rehabilitation works on affected ground in the area of operations, area of auxiliary services and communication routes.
- Definition of criteria for the update of estimated closure costs in order to adjust financial allocations related to the ARO (Asset Retirement Obligation).
- Identification of gaps in information and complementary

- studies for the final closure plan, based on the operational plan for the useful life of the mineral deposit.
- Review of the mining and environmental regulatory framework, to identify possible changes in the legal and administrative requirements for closure and post-closure of operations, in order to plan adequate action if and when necessary.





#### **APPROACH**

In alignment with our values-based approach to all aspects of management, relationships with the communities and other stakeholders are structured around a focus on full participation, respect, honesty, and transparency. In practice, the communities are included in the processes of identification, planning, and prioritization of social actions and programs. From a strategic perspective, the starting point for all Company initiatives is a total understanding of the socio-economic reality of the communities.

MSC engages with the communities of the area of influence of the mine through channels that ensure continuous and transparent communications so we can interact with all segments of the population. The principal dialogue mechanisms we use with our different stakeholders are formal, structured meetings and community assemblies. Additionally, members of the community can visit the company Community Relations offices located in the four communities of direct influence of the mine. There they can have formal and informal conversations. We also conduct regular visits to other communities in our area of influence where individuals or groups can interact directly with our staff.

MSC fully complies with Bolivian legislation related to the rights of Indigenous Peoples, which is based on relevant international treaties and conventions. During 2016 there were no grievances filed concerning this topic.

Minera San Cristobal is committed to and supports actions aimed at strengthening and empowering the communities so that they can attain a better future through technical assistance, training, capacity building activities and institutional support to individuals and organizations.

Minera San Cristobal works in close collaboration with the Consejo Consultivo Los Lípez San Cristóbal, (Advisory Council Los Lipez San Cristobal) which comprises



leaders and authorities from the communities of San Cristobal, Culpina K, Rio Grande, and Vila Vila. Together we design and coordinate projects for the social and economic development of the district. We support the provision of technical assistance to social organizations and community institutions so they can have an independent and effective organizational management. Small scale companies and productive organizations also benefit through strategic alliances that contribute to sustainable development in the region.

#### The Area of Influence

The area of direct influence of the San Cristóbal project comprises four communities: San Cristóbal, Culpina K, Vila Vila and Río Grande. The second ring of influence is made up of eight communities: Ramaditas, Alota, Copacabana, Serena Vinto and San Pedro de Quemes (located along the access road to the project), and the communities of Julaca, Abaroa and San Juan (located along the route of the railway used by the Company to transport its mineral concentrates). We also influence and hence engage with eight other small communities located near the project.

Our engagement with the communities of San Cristobal, Culpina K, Vila Vila and Rio Grande is based on agreements. The agreement with San Cristobal was signed in June 1998 with the main objective of defining the terms for a voluntary resettlement of the town to allow construction of the mine. The agreement with Culpina K, signed in May 1999, set out the terms of compensation for the land now used for the

Wila Khara tailings facility; the agreement with Vila Vila, also to compensate for land required for the mine, was signed in June 1999. The agreement with Rio Grande related to the lands required for the railroad branch line to the mine, was signed in 2006. All agreements include commitments related to training and employment, and are administered in an environment of mutual respect, consensus building, and direct dialogue between the authorities, the representatives of the communities, and the Company.

#### Social Impacts of our Business Activities

The most immediate negative consequences of our business activities arise from:

- a) the possibility that global climate change would lead to increasing pressure on available water supplies, which could lead to more tension and possible conflicts over access to water, and;
- (b) the presence of a significant number of unemployed or underemployed youth in San Cristobal, which could generate frustration in the community and conflicts with MSC over access to employment.

#### Managing Community Relations

To be able to build and maintain a good relationship with our stakeholders, we have carefully identified and analyzed who they are, what are their concerns, how they would like to interact with the company and what priorities they have from our perspective. We try to maintain contact with stake-



holders in a way that satisfies their communication needs and we have more frequent contact with the communities that are in the area of direct impact.

From the initiation of exploration at San Cristobal, the Company has recognized that the local people occupy their traditional lands. To date, there have been no legal disputes with the local population over the land or rights. The people of Lipez are known in Bolivia for defending their traditional lands. Their pride and independent spirit date back to year 1571 when the "indians" of Lipez, under the leadership of Don Pedro Lopa, bought back their traditional lands from the Spanish Crown - they were the only ones to do that in the Spanish colonies. This historical reality was part of the context in which the Bolivian government recognized Nor Lipez as a Territorio Indigena Originario Campesina (Peasant Native Indigenous Territory), in 2011.

Our relations with the communities in the area of influence of the mine include the following activities: sharing and exchanging information, responding to requests, supporting stakeholder plans and projects, supporting authorities and organizations in cultural events, participating in meetings, and helping vulnerable groups. Overall, our objective is to be an active partner in the communities and empowering them so they can identify options for economic development based on their own vision of the future.

#### Social Capital

Construction of the mine and the socio-economic transition in neighboring communities from a subsistence economy based on remittances to an economy based on stable work with a competitive salary – in comparison to the average in Bolivia - has resulted in a set of significant changes in the local population. Although almost all inhabitants of the com-

munities see the mine as something desirable because of the economic benefits it has produced, at times the changes have been challenging. Aware of this, we monitor the situation to detect evidence of activities or events that could have a negative effect on social cohesion (social capital) in the communities, and in the quality of our relationship with them (social capital and social license).

In responding to the potential for risks to social cohesion, our approach is to work proactively with the communities to strengthen social capital and reduce the possibilities that negative influences grow and escalate. Additionally, we collaborate with community leaders to limit the impact of negative events when they occur.

# Resettlement and Mitigation of Impacts

MSC remains dedicated to the community of San Cristobal, which was relocated to "Nuevo San Cristobal" in 1999 under a comprehensive resettlement agreement with the Company. As in 2015 there were no resettlement activities during 2016. ✓ At the end of 2016, the population of San Cristobal had grown to approximately 1,400 persons in nearly 360 families. One of the results of this growth is the construction of many new houses and expansion of the area occupied by the town. Similar growth patterns were seen in other communities.

The Company continues assisting the communities to meet their needs for essential infrastructure, namely water, sanitation and electricity; within the framework of the Resettlement Program.

#### SUPPORT TO OUR NEIGHBORING COMMUNITIES

We pay special attention to the needs and concerns of vulnerable groups within the communities. Examples of this type of program in 2016 include:



#### SUPPORT TO THE ELDERLY

This program revolves around a bi-monthly distribution of food to vulnerable people. The identification of the beneficiaries is based on an assessment of housing, health, and family relations. In addition to the distribution of food packages we visit homes to assist with health problems, and we help fixing homes that need to be repaired; we also implement health campaigns for elderly people.



#### STRENGTHENING THE CAPACITIES OF FEMALE **HEADS OF HOUSEHOLDS**

This program provides assistance to 16 women identified from a community survey who head households with young children and lacked a stable employment. MSC supported these women with vocational training so they could generate or improve their income through their own initiatives. For example, the program gave working material to improve their commercial activities, provided equipment for fast food kiosks, and legal assistance in the formation of companies.



#### YOUTH AID

This program works with young people at social risk and focuses on education and prevention of the problems faced by young people in the communities. During 2016, workshops were held on topics such as Prevention of Alcoholism, Leadership, and Reproductive Health and Pregnancy Prevention. Simultaneously, the program organized a workshop on the 'World of the Young and Adolescent' for teachers and parents, and a workshop on "Formation of Values" for students.

# Community Grievance Mechanism -Management of Suggestions and Claims

We believe that the key elements for maintaining solid relations with our stakeholders are mutual respect, understanding and timely response to their concerns. Community relations staff receives formal complaints, demands, or concerns raised by the stakeholders - verbally or in writing - which are then documented and processed through our Grievance Mechanism, with the participation of the Superintendent of Community Relations and Sustainable Development. All expressions of dissatisfaction from stakeholders are reviewed and classified according to their level of importance (High, Medium and Low), their character and origin (Local or Regional). Depending on the character and/ or severity of the issue brought forward by the stakeholder, the matter is resolved within the community relations unit or passed on to the relevant department within the Company (environment, health and safety, human resources, etc.); or to senior management. Matters involving criminal activities are transferred to the police and legal department of the Company. If it is not possible to solve the matter in a way that is satisfactory to the interested party, the matter is then subject to independent arbitration or a mediation process.

In 2016, a total of 13 claims were presented and 12 of them were solved to the satisfaction of the parties concerned. The one outstanding complaint still being processed is related to a more complex issue arising from a demand filed by a group of young people from San Cristobal. ✓

#### Community Concerns and MSC Response, in 2016

Some concerns raised by the communities and the responses of the company in 2016 were:



### **LLAMAS**

A concern for some families in San Cristobal and Culpina K relates to the herds of llamas displaced from the area of the mine and tailings facility. It has proven very difficult to move llama herds since they are territorial animals and keep trying to return to their home lands. Furthermore, due to the displacement, the llama herds are now in the territories of other herds causing overgrazing and a competition for access prime grazing zones. The final result is that there is disorganization in the breeding of llamas and tension over access grazing lands. We have worked, and continue working, with the owners of the animals and community leaders to reduce tensions and accelerate the adaptation of Ilamas to new grazing areas.

#### ROAD INFRASTRUCTURE

A number of communities demanded the paving of the highway linking Uyuni, San Cristobal and the border with Chile at Avaroa. One of the main concerns is the dust in the communities caused by the traffic on the road. Another important concern is the condition of the roads during the rainy season when several sections become mired with mud and difficult to drive on. Rio Grande had a specific concern about the improvement of the access road from the highway to the community. In both cases we have worked with the municipalities and relevant government agencies on a plan and budget to address these concerns. These infrastructure issues were still pending at the end of 2016.

#### WATER

Water is the most significant issue for the communities of San Cristobal, Culpina K and Vila Vila. The adequate provision of water is a crucial matter for the local population, which currently depends on a combination of water from springs, pumped groundwater, and water distributed by tank trucks. The company is working actively with the communities and the municipality of Colcha K, (the agency responsible for infrastructure in the district), to locate, design, obtain needed permits, and construct a gravity fed system to supply potable water for the communities.



#### **EMPLOYMENT**

In 2016, a group of young men from the community of San Cristobal demanded employment at the mine. Many of them had gained trade certificates and academic qualifications with the explicit intention of working at the mine. However, due to the low turnover of local employees there are almost no opportunities to work with the Company. This has created a group of unemployed or significantly underemployed youngsters in the communities. It is a difficult issue for the company and for the leaders of the communities and we are collaborating to create job opportunities in services and supplies companies within communities.

Employment is also a major issue in communities far from the mine where the company has worked with the Consejo Consultivo and other parties to implement economic development programs intended to create long term employment opportunities.

#### SOCIAL MINE CLOSURE PLANNING

Our social vision is to promote conditions that support the population living in the communities to develops productive enterprises that are self-sustaining and independent of mining. The Consejo Consultivo Los Lípez San Cristóbal leads the long-term planning based on a vision of productive economic activities after the life of the mine. MSC actively supports the Consejo Consultivo in the development and execution of a strategic plan that is complementary to the Company's plan for the closure of the mine. Social and productive projects identified by the Consejo Consultivo are executed through strategic alliances with specialists in social and development matters, and with technical and financial cooperation organizations. Alliances are formed preferentially with stable organizations and institutions (e.g. municipalities, government agencies, national and local civil society organizations) to assure long term stability that can contribute meaningfully to the sustainability of the social and economic projects and programs.

Some of the programs and projects are:



# **EDUCATION PROJECT**

MSC has supported an education plan in collaboration with the Ministry of Education, which included the following activities in 2016:

- · Training of teachers of the educational departments of six communities.
- · Training in vocational orientation for the students of previous years.
- · Visits to exchange experiences.



#### **TOURISM PROJECT**

For many years the south western region of Bolivia, particularly the Salar de Uyuni, has been a mecca for adventure tourism. The first initiatives in the tourism industry supported by MSC, prior to the construction of the mine, were centered on the improvement of the infrastructure improvements to attract tourists, training courses, and investments in the communities. By year 2016, the Consejo Consultivo had identified tourism as a priority opportunity for the families interested in getting involved in this industry. ThroughAlong 2016, we supported an initiative in which the Ministry of Tourism also participates, and whose principal activities are the following:

- · Identification and inventory of tourist attractions.
- · Identification and registration of the entrepreneurs in tourism (service companies in the hotel trade, food services, handicrafts,
- Training and technical assistance in tourist services and business administration.
- · Training and organizational strengthening of entrepreneurs.
- · Organizing the promotion of tourism products in local, municipal and national fairs.
- · Training and technical assistance in infrastructure improvement and equipping hotels and food services.



#### LLAMA (CAMELIDS) PROJECT

Llamas have been domesticated for more than 2000 years by the populations living in the high Andes and Altiplano of Bolivia. Today, they continue to have cultural and economic significance for the local populations of San Cristobal Culpina K and Vila Vila.

The Consejo Consultivo has identified the · Forage production to feed the livestock San Cristobal community as a potential center for the commercialization of Ilamas. The production of specialty llama meat products was part of the vision of the community at the time of resettlement. The construction of a slaughterhouse is one of the commitments · Construction of micro irrigation systems in the resettlement agreement signed with . Construction of folds the mine. However, feasibility studies have shown that the population of Ilamas should first be enlarged and improved. Hence the • Support in organizational strengthening

justification for the camelids (llamas) project, which has the active support of the Company, and which is based on the planning and participatory decisions of the parties directly and indirectly involved. The program for 2016 included the following elements:

- · Animal health campaigns
- · Training and technical assistance in the improved management of llamas
- Exchanges of experience

- Construction of antiparasitic dip-baths



# QUINOA PROJECT

Quinoa is a seed produced by a shrub native to the region around San Cristobal. This food, known for its high content of protein and energy, has been an essential part of the diet of the local population since ancient times.

The rapid increase in quinoa prices in 2012 and 2013, in response to the international demand, drove an expansion of local production and the belief that this could become a sustainable commercial enterprise. The Consejo Consultivo has identified Culpina K as a potential center for the commercialization of quinoa in the district and has fostered the Proyecto de Desarrollo Sostenible de la Quinua Real Orgánica (Project of Sustainable Development of the Organic Royal Quinoa), which has received significant funding from third parties, including international aid from Canada. During 2016, the project included the following activities:

- Training and assistance to producers in the technical management of quinoa based on the agricultural calendar
- · Training and research about the local, regional and national markets to identify the markets
- Organizational strengthening for members of APRACCUK (Asociación de Productores Agrícolas y Camelidos de Culpina K) as well as for their commercial allies
- · Implementation of Escuelas de Campo (Field Schools) as a training and technical assistance methodology
- · A study for the construction of a Plant of Bio - inputs and Saponin Removal
- · Purchase of agricultural machinery and equipment



**T**SC participates in care of the environment as part of our social commitment and contribution to the economic development of the communities and the region. In recent years population growth in the communities has accelerated due to the fact that many former inhabitants who earlier left in search of work have returned to take advantage of the employment opportunities at Minera San

Population increase in the communities has resulted in a growing demand for different basic services related to the generation of greater quantities of garbage, accumulation of solid waste, excessive use of water and electricity, and inappropriate use of the sewage system. These are worrisome problems confronted by a population that lacks an environmental culture among its inhabitants.

Minera San Cristobal, in coordination with the Consejo Consultivo los Lípez San Cristóbal and the authorities of the communities, strives to implement actions in support of the environment: mainly related to solid waste. These include talks on environmental awareness, councils referring to the environment, supply of standardized garbage containers for the classification of solid waste, and the provision of signs to encourage care for the environment, which are placed in streets and avenues.

To foster environmental awareness brigades of environmental volunteers were formed charged with building awareness and helping with environmental control. The brigades are made up of children and young people from the schools in the communities of San Cristobal, Culpina K, Vila Vila, and Rio Grande. Their objective is to provide social orientation to the communities with respect to the conservation, rehabilitation and improvement of our environment; promoting initiatives through the dissemination and sensitization of messages about environmental degredation.



# WHY WERE THE ENVIRONMENTAL BRIGADES FORMED?

To build awareness in people as to the need for care and preservation of the environment, to create good habits in the communities, and to take care of the health and well-being of its inhabitants.

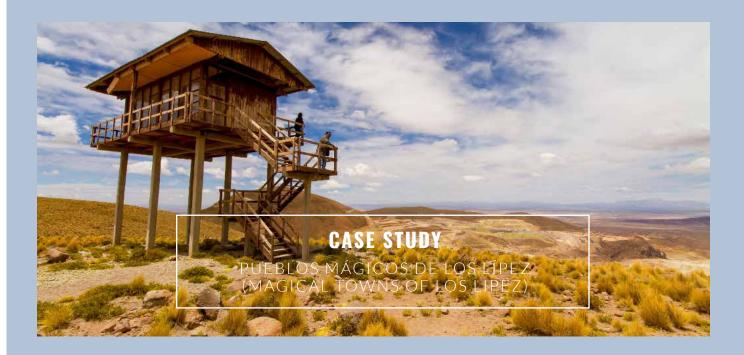
#### WHAT DO ENVIRONMENTAL BRIGADES DO?

- · They create awareness among visitors, families, fellow workers, and the general population, on the management of waste and the use of trash containers.
- · They guide families so that household garbage is placed in containers.
- · They compliment good habits of the families that keep their houses, streets and surroundings clean; and they stick a happy face on the front door of those who follow these good habits.

- · They raise awareness about a rational use of water when watering plants, washing clothes, washing cars; and that people should repair the leaks in their pipes and facilities.
- They build awareness in people on the importance of having green areas in the communities and taking care of them.

#### WHAT ARE THE DUTIES OF BRIGADE MEMBERS?

- · Comply with direction from community leaders and the schools with respect to the environment.
- Perform the functions of their positions efficiently.
- · Disseminate and promoting an ecological culture.



The project Pueblos Mágicos de Los Lípez (Magical ■ Towns of Los Lipez) was born as an initiative and joint effort of the Consejo Consultivo de los Lípez, Minera San Cristóbal S.A. and the Fundación CODESPA (CODESPA Foundation). The main objective of this project was to develop a community-based tourism initiative in the communities of San Cristobal, Culpina K, Vila Vila, and Rio Grande, as an alternative to mining for employment and income. This implied the development ways to attract tourists, organizational strengthening, and marketing of tourism products and services from the communities surrounding MSC's mining project.

From its initiation in 2013, development of local capacities formed the central strategy for the involvement/empowerment of tourism entrepreneurs. Participants in the Proyecto Pueblos Mágicos de los Lípez advanced through exchanges of experience, participation in trade fairs, and technical training-assistance for specialists in the hotel trade, gastronomy, crafts, marketing, design of web sites, market research, and leadership.

To optimize human, financial and logistical resources around a common objective, the following formal agreements and alliances were established for joint action:

- 1. Agreement among the Consejo Consultivo Asociación de Turismo - CODESPA - ROVIRALTA - MSC.
- 2. Agreement between the Consejo Consultivo Vice Ministry of Tourism.

- 3. Agreement between CODESPA DAF Australia.
- 4. Alliance among the Consejo Consultivo Tourism Association - Vice Ministry of Alternative Education -MSC.
- 5. Alliance between Tourism Association Instituto Técnico Superior (High Level Technical Institute) San Cristobal.
- 6. Alliance among the Consejo Consultivo Tourism Association - Municipality of Colcha K - San Cristóbal Foundation - CODESPA-MSC.

In order to advance in a systematic and orderly manner the following "steps" were adopted to guide the planning, execution and evaluation of the actions and results:

- 1. Awareness/understanding of the project by the entrepreneurs.
- 2. Design of tourism products with an identity (attractions, products, services, circuit).
- 3. Organization and roles of tourism enterprises.
- 4. Identification of strategic alliances and their roles.
- 5. Development of comprehensive and specialized local ca-
- 6. Management and implementation of infrastructure and equipment.
- 7. Follow up and evaluation of improvements in the quality of the products and services.
- 8. Launching of the local touristic offer.

#### DEVELOPMENT AND RESULTS OF THE PUEBLOS MÁGICOS DE LOS LÍPEZ PROJECT 2013 - 2016

The project has involved four communities with the participation of 90 business entities or enterprises with the following results:

# OUTCOME I

# A QUALITY TOURISM PRODUCT WITH ITS OWN MARKET ORIENTED IDENTITY



# **KEY ACTIVITIES AND HIGHLIGHTS**

- Training and technical assistance, to 90 enterprises including the hotel and food and beverage trades, crafts, tour guide, and transportation.
- Opening of one career course in tourism at the level of senior technician in the San Cristóbal Institute.
- Certification of competency by the (Vice Ministry of Alternative Education), in food and beverage for 32 women
- Execution of the infrastructure for the Tourist Interpretation Center with a 70% funding by the Programa Nacional de Turismo Comunitario (PNTC).
- Equipping 32 culinary enterprises in four communities with the cooperation of DAF Australia.
- Seven women of CEPROART (Centro de Promoción) Artesanal) trained for the operation of the artisan Café (Coffee Shop) Warmis K in the community of Culpina K.

- Opening of one handcraft shop in Vila Vila and 1 shop in Rio Grande.
- · Launching of the local tourism circuit "Tras las huellas de minero (Following the footprints of a miner) and "San Cristobal te muestra su historia" (San Cristobal shows you its history) with the participation of four communities.



The chart shows the improvement in quality standards products and services on offer as a result of the trainings, specialized technical assistance, and improvements in infrastructure and equipment.

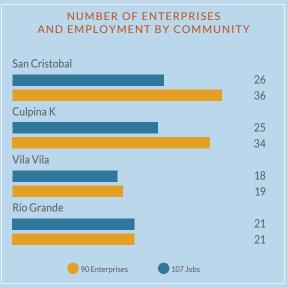
# OUTCOME II

# **TOURISM ENTREPRENEURS STRENGTHENED** IN BUSINESS ORGANIZATION AND MANAGEMENT



# **KEY ACTIVITIES AND HIGHLIGHTS**

- Organization of four communal committees of the enterprises
- · Organization of the "Pueblos Mágicos de los Lipez" association of tourism and service providers.
- Training and technical assistance in the preparation of by law statutes and regulations required to obtain legal business status.
- Technical assistance and practice in customer service to 90 tourist services enterprises in.
- · Technical assistance to food and beverage and handicrafts enterprises to enhance their participation in fairs.
- Capacity building and training for 13 students from the Instituto Superior de San Cristobal adn three indivuals from the community.
- Exchanges of experience about the hotel trade, food and beverage, handicrafts, guiding tourists, customer service and others.



The chart shows the number of enterprises (90) and jobs (107) generated by the project as a result of the training and technical assistance. These are initial results that reflect the recent launch of the project and the numbers are expected to gradually in-

# OUTCOME III

# COMMERCIALIZATION OF TOURISM PRODUCTS AND SERVICES KEY ACTIVITIES AND HIGHLIGHTS

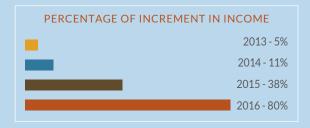


- · Organization and operation of one commercial team of the Asociación Pueblos Mágicos de Los Lipez.
- Training and technical assistance in Marketing.
- Creation of a Web page: www.uyunisaltbolivia. com and a social network in Facebook: https// www.facebook.com/pueblos mágicos de los lipez/?fref=ts.
- · Participation in regional, municipal, departmental, national and international fairs: DAKAR 2014 -2015 Uyuni, FIT 2014 Santa Cruz - FIT 2015 La Paz, FITEX 2015 La Paz, TAMBO 2015 La Paz, Jacha Avalancha Sorata 2015, FIT Sucre 2016.
- Income of 8,827 Bs. for the sale of catering services by the Jayula Warmis organization, 1,818 Bs. for the sale of confectionery by the Llipi Llipi organization 2,018 Bs. for the sale of handicrafts, at the FIT in Sucre.
- · Received pilot visits from 10 tourism companies.
- · Design of the corporate image and printing of promotional material.

In summary, we wish to emphasize that the Pueb-

los Mágicos de los Lipez project has been a positive lesson learned. We now know that it is possible to change attitudes and local capacities towards sustainable development. It is also possible to bring together public and private sector actors and development agencies by mobilizing political and technical will around agreed strategic and operational plans.

Proudly, we have been able to verify that it is possible for an institution, such as Minera San Cristobal to generate positive social and economic changes in a community through the responsible promotion of sustainable development.



The chart shows the increase in income by the of the tourism enterprises, as a result of the training and technical assistance in marketing. These figures have the potential to increase significantly following the launch of commercial activities and fully functioning sale of the tourism products and services.



# Verification Report ✓



Ernst & Young Ltda. Av. 20 de Octubre № 2665 - Sopocachi Edif. Torre Azul - Piso 16 La Paz - Bolivia Tel. 591-2-243 4313 Fax: 591-2-214 0937 ev.com

# A FREE TRANSLATION FROM THE ORIGINAL ISSUED IN SPANISH REPORT OF THE LIMITED REVIEW OF GRI INDICATORS

La Paz, August 30, 2017

To the President and Members of the Board of Directors MINERA SAN CRISTOBAL S.A.

#### Introduction

1. We have carried out a limited review of the GRI indicators (marked with ☑) included in the Sustainability Report ("Report") of Minera San Cristobal S.A. ("Company"), for the year ended December 31, 2016. The indicators included in the Report are the ones that the management have considered as more relevant to meet the stakeholders' interests and the guidelines for the preparation of the Sustainability Reports Guide of the Global Reporting Initiative, version 4 ("GRI 4"), and in the Mining and Metals Sector disclosures accompanying these guidelines.

#### Board of Directors' responsibility

The Board of the Company is responsible for establishing the basis and the criteria for the Report's preparation in accordance with the GRI 4 Sustainability Reporting Guidelines. The Board is also responsible for the definition, adjustment, and maintenance of the management systems and internal controls, from where the information is obtained.

# Responsibilities of Ernst & Young Ltda.

3. Our responsibility is to issue an independent report of the GRI indicators (marked with 

), included in the Report and identified on the GRI schedule, based on the limited review procedures listed in paragraph 4 and on the evidence obtained. The procedures applied on a limited review vary in nature and are less extensive than the ones performed on an engagement specifically designed to issue an opinion that provides security over the information's reasonability. Therefore, we do not express an opinion regarding all the GRI indicators that are included in the Report referred in paragraph 1.

Our conclusions detailed in paragraph 5, refer exclusively to the information of the annual period ended on December 31, 2016. Our limited review did not consider information of prior periods, except for the information regarding GRI indicators referred in paragraph 1, which are comparable to the information of the annual period ended on December 31, 2015.

# Procedures performed

4. Our limited review was conducted in accordance with International Standards on Assurance Engagements ISAE 3000, issued by the International Auditing and Assurance Standard Board (IAASB) of the International Federation of Accountants (IFAC) and it includes formulating questions to the Company's management, as well as, other areas that have participated in the preparation of the 2016 Sustainability Report, and also, through certain analytical procedures and sample testing. To this end, we visited the mining camp in Toldos located in San Cristobal, and also the headquarters located in La Paz city.



The work performed is described below:

- a) Interviews with the Public Relations area in order to understand the Report's preparation process. In addition, we have performed interviews with key personnel of the areas of: Community Relations, Business, Environment, Labor Security and Industrial Hygiene, Labor Health, Logistics, Acquisitions, Legal, Financial and Human Resources, among others, which participated on the preparation and definition of the Report contents.
- b) Review of the procedures to gather and validate the GRI indicators (marked with 1), which are included in the Report.
- c) Review of the alignment of the structure and content of the Report to the preparation of Sustainability Reports' guidelines, GRI 4.
- d) Review of the relevant quantitative information through analytic procedures and other review procedures based on sampling testing of the GRI indicators (marked with ☑) included in the Report, as well as its suitable compilation based on the data provided by the Company.
- e) Verification of the coherence of the information disclosed and published in the Report, in regards to the relevant information included on the Company's Financial Statements, for the year ended September 30, 2016.

#### Conclusions

- 5. Based on the work performed, described in paragraph 4, nothing has drawn our attention to make us believe that:
  - a) The GRI indicators (marked with ☑) reviewed and included in the Report, are not prepared, in every significant aspect, in accordance with the GRI 4 Sustainability Reporting guidelines.
  - b) The self-statement made by the Company upon its adequacy to the GRI 4 guidelines, in its option "essential", does not meet, in every significant aspect, with the GRI 4 option's specific criteria.
  - c) The GRI indicators (marked with ☑), included in the Report, are not reasonable.

ERNST & YOUNG LTDA. Member Firm of Ernst & Young Global

avier Iriarte

Partner

# MSC - Content Index G4 $\checkmark$

# G4 GUIDE OF THE GLOBAL REPORTING INITIATIVE INCLUDING G4 SECTORAL CONTENTS: MINING $\&\,\text{METALS}$

	DESCRIPTION	STATUS OR LOCATIO	DN
	General Basic Contents		
	STRATEGY & ANALYSIS		
G4-1	A statement of the principal responsible of the decisions of the organization on the relevance of sustainability for the organization and the strategy of the same in pursuit of addressing this issue	Message of the President and General Manager	Pag. 11
G4-2	A description of the main effects, risks and opportunities	Relationship with the Stakeholders	Pag. 31
	PROFILE OF THE ORGANIZATION		
G4-3	Name of the Organization	About MSC	Pag. 7
G4-4	Trademarks, products and/or most important services of the company	About MSC	Pag. 7
G4-5	Place where the head office of the company is located	About MSC	Pag. 7
G4-6	Number of countries where the company operates and name of the countries where the company carries out significant operations or that have a specific relevance for the subjects related to sustainability addressed in the report (memoria)	About MSC	Pag. 7
G4-7	Nature of the property regime and its legal form	About MSC	Pag. 7
G4-8	Markets served (with geographical detail by sectors and type of customers and destinataries)	About MSC	Pag. 7
G4-9	Level of the company	About MSC	Pag. 7
G4-10	Total number of employees by employment contract and gender Total number of permanent employees by employment contract and gender Size of the payroll for employees, contracted workers and gender Size of the payroll by region and gender	Our people	Pag. 45
G4-11	Percentage of employees covered by collective agreements	Our people	Pag. 45
G4-12	Description of the supply chain of the company	About MSC	Pag. 7
G4-13	Significant changes that occurred during the period being analyzed concerning the size, shareholding ownership or the supply chain of the company	None✓	
	PARTICIPATION IN EXTERNAL INITIATIVES		
G4-14	A description of how the company addresses the precautionary principle	Environment	Pag. 69
G4-15	A list of the letters, principles or other external initiatives of economic, environmental and social character that the organization subscribes or has adopted	Corporate Governance and Organizational Structure	Pag. 19
G4-16	Memberships in associations and organizations of national or international promotion	Corporate Governance and Organizational Structure	Pag. 19
	MATERIAL ASPECTS IDENTIFIED AND COVERAGE		
G4-17	A list of the entities included in the consolidated financial statements of the company yand if any of those entities is not listed in the report (memoria)	No other entity is shown in the Financial Statements presented before de Servicio de Impuestos Nacionales (National Tax Services) besides MSC ✓	

	DESCRIPTION	STATUS OR LOCATION	N
G4-18	The process followed to determine the contents of the report (memoria) and the coverage of each aspect. How has the company applied the principles of elaboration of reports (memorias) to determine the Contents of the report (memoria)	About this Report (memoria)	Pag. 7
G4-19	The material aspects identified during the process of definition of the contents of the report (memoria)	About this Report (memoria)	Pag. 7
G4-20	The coverage within the company of every material Aspect	About this Report (memoria)	Pag. 7
G4-21	The coverage outside the company of every material Aspect	About this Report (memoria)	Pag. 7
G4-22	The consequences of the reformulations of the information provided in earlier reports and their causes	There were no reformulations of the information reported in the previous report (memoria) ✓	
G4-23	Significant changes in the Scope and Coverage of each Aspect with regards to previous reports (memorias)	About this Report (memoria)	Pag. 7
	RELATIONSHIP WITH THE STAKEHOLDERS		
G4-24	A list of the stakeholders / interest groups linked to the Company	Relationship with the stakeholders	Pag. 31
G4-25	Indicate what is the basis to choose the stakeholders / groups of interest the company works with	Relationship with the stakeholders Our Communities	
G4-26	The approach of the company on the participation of stakeholders / groups of interest, including the frequency of collaboration with the different types and groups of stakeholders, or indicate if the participation of a group took place specifically in the process of elaboration of the report (memoria)	Relationship with the stakeholders Our Communities	
G4-27	Indicate what topics and key issues were identified as a result of the participation of the stakeholders / groups of interest and describe the evaluation done by the organization, in other aspects through its report (memoria). Specify which stakeholders raised ach of the topics and key issues	Relationship with the stakeholders Our Communities	
	PROFILE OF THE REPORT (MEMORIA)		
G4-28	Period covered by the report (memoria)	About this Report (memoria)	Pag. 7
G4-29	Date of the last report (memoria) (if applicable)	The last completed report cov the period from January 1 to December 31, 2015 ✓	ers/
G4-30	Cycle of presentation of the reports (memorias)	About this Report (memoria)	Pag. 7
G4-31	Contact responsible to clarify any doubts that can arise with regards to the contents of the report (memoria)	We appreciate your comments	Pag. 7
G4-32	Option "of conformity" chosen GRI Content Index	About this Report (memoria) G4 Content Index	Pag. 7
	Reference to the report on External Verification (if applicable)  VERIFICATION	and Verfication Report	Pag. 97
G4-33	The policy and practices of the company in effect respect to the external verification of the report (memoria)	About this Report (memoria)	Pag. 7
	GOVERNMENT		
	GOVERNMENT STRUCTURE & COMPOSITION		
G4-34	Describe the governance structure of the company, without forgetting the committees of the top governing body. Indicate which committees are responsible for decision-making on economic, environmental and social issues	Corporate Governance and Organizational Structure	Pag. 19
G4-38	The composition of the top governance body and that of its committees	Corporate Governance and Organizational Structure	Pag. 19
G4-41	The processes by which the top governance body prevents and manages possible conflicts of interest	Ethical Conduct	Pag. 25
G4-48	The committee or position of greatest importance that reviews and approves the sustainability report (memoria) of the organization and ensures that all the material aspects are reflected	About this Report (memoria)	Pag. 7
	REMUNERATION AND INCENTIVES		
G4-51	The policies of remuneration for the top governance body and senior management.  Link the criteria concerning the performance that affect the remuneration policy with the economic, environmental and social objectives of the top governance body and senior direction/management.	Corporate Governance and Organizational Structure	Pag. 19

	DESCRIPTION	STATUS OR LOCATION	N
	ETHICS AND INTEGRITY		
G4-56	The values, principles, standards and rules of the organization, such as codes of conduct or codes of ethics	Vision and Mission	Pag. 7
G4-58	The internal and external mechanisms of denouncement of unethical conducts and of issues relating to the integrity of the organization, such as the staggered notification to senior executives, whistleblowing mechanisms to denounce irregularities, or telephone helplines	Ethical Conduct Corporate Governance Organizational Structure	Pag. 25 Pag. 19
	SPECIFIC BASIC CONTENTS	0	
	ECONOMY		
Information about the management approach		Economic Performance	Pag. 3
Aspect	Economic Performance		
G4-EC1	Direct economic value generated and distributed, including revenues, operating expenses, salaries and benefits of employees, donations and investments in the communities, retained economic value, payments to suppliers of capital and payments to the governments, by country.	Economic Performance and Our Contributions	Pag. 37
Aspect	Presence in the Market		
G4-EC6	Procedures for local hiring and percentage of senior managers from the local communities in places where significant operations take place	Our People	Pag. 45
Aspect	Indirect Economic Consequences		
G4-EC7	Development and impact of investments in infrastructure and the types of services	Our Economic Performance and Our Contributions	Pag. 3
Aspect	Procurement Practices		
G4-EC9	Percentage of the budget spent on procurement from local suppliers, in places with significant operations	Economic Performance	Pag. 3
	ENVIRONMENT Y OUR CONTRIBUTIONS		
Information about the management approach		Environment	Pag. 6
Aspect	Energy		
G4-EN3	Internal Energy Consumption	Environment	Pag. 6
G4-EN5	Energy intensity	Environment	Pag. 6
G4-EN6	Reduction of Energy Consumption	Environment	Pag. 6
Aspect	Water		
G4-EN8	Total uptake of water according to the source	Environment	Pag. 6
G4-EN9	Water sources that have been significantly affected by the uptake of water	Environment	Pag. 6
G4-EN10	Percentage and total volume of water recycled and reused	Environment	Pag. 6
Aspect	Biodiversity		
G4-EN11	Operating facilities that are owned, rented or managed, which are adjacent, enclosed or located in protected and not protected areas of great value in terms of biodiversity.	Environment	Pag. 6
G4-EN12	Description of the most significant impacts on the biodiversity of protected areas or not protected areas of high biodiversity, derived from the activities, products and services	Environment	Pag. 6
MM1	The quantity of land (owned or rented, and managed, for production or extraction activities) disturbed or rehabilitated	Environment	Pag. 6
MM2	The number and percentage of sites identified as sites that require plans for the management of of Biodiversity, in accordance with defined criteria, and number (percentage) of those sites that have plans	100% ✓	
Aspect	Emissions		
G4-EN15	Direct greenhouse gases emissions (GHG) (Reach 1)	Environment	Pag. 6
G4-EN16	Indirect greenhouse gases emissions when generating energy (Reach 2)	Environment	Pag. 6

	DESCRIPTION	STATUS OR LOCATION	NC
Aspect	Effluents and Residues		
G4-EN23	Total weight of residues by type and method of treatment	Environment	Pag. 69
G4-EN24	Number and total volume of significant spills	No important spills were produced during 2016 ✓	
мм3	Total quantities of topsoil, rock, tailings, and sludge, and the risks associated with them	Environment	Pag. 69
Aspect	Regulatory Compliance		
G4-EN29	Monetary value of important fines and number of non-monetary sanctions for non-compliance with the laws and environmental regulations	None ✓	
Aspect	Environmental Grievance Mechanisms.		
G4-EN31	Break down of the environmental expenses and investments	Environment	Pag. 69
G4-EN34	Number of environmental grievances that have been submitted, addressed and solved through formal grievance mechanisms	Environment	Pag. 69
	SOCIAL PERFORMANCE		
	LABOR PRACTICES AND DIGNIFIED WORK		
Information about the Management			D 45
Approach		Our People	Pag. 45
Aspect G4-LA1	Employment  Number and rate of hirings and average turnover of employees, broken down by age group, gender and region	Our People	Pag. 45
G4-LA2	Social benefits for full-time employees not offered to temporary or part time employees, broken down by the important locations of activity	Our People	Pag. 45
G4-LA3	Indexes of return to work and retention after maternity or paternity leave, broken down by gender	Our People	Pag. 45
Aspect	Labor Management Relations		
MM4	Number of stoppages or lockouts with a duration exceeding one week, by country	None	
	OUR PEOPLE		
Aspect	Health & Safety at Work		
G4-LA5	Percentage of workers represented in formal joint committees of health and safety for management and employees, established to help controlling and advising on programs about health and safety at work	Health & Safety	Pag. 53
G4-LA6	Types and rates of injuries, occupational diseases, lost days, absenteeism and number of work-related casualties, by region and gender	Health & Safety	Pag. 53
G4-LA7	Workers whose occupation has a high incidence or risk of disease	Health & Safety	Pag. 53
G4-LA8	Health and safety issues covered in formal agreements with the labor unions	Health & Safety	Pag. 53
Aspect	Training and Education		
G4-LA9	Average of annual training hours per employee, broken down by gender and labor category	Our People	Pag. 45
G4-LA11	Percentage of employees receiving regular evaluations of performance and professional development, broken down by gender and labor category	Our People	Pag. 45
Aspect	Diversity and equality of opportunities		
G4-LA12	Composition of the governing bodies and breakdown of the staff by professional category, gender, age, minorities belonging, or other indicators of diversity	Corporate Governance and Organizational Structure - pa	Pag. 19 artial
Aspect	Equality of Remuneration between Men and Women		
G4-LA13	Relationship between the base salary of men respect to that of women, broken down by professional category and by important activity locations	Our people - Partial	Pag. 45
Aspect	Labor Practices Grievance Mechanisms		
G4-LA16	Number of grievances on labor practices submitted, addressed and solved through formal grievance mechanisms	Our People	Pag. 45

	DESCRIPTION	STATUS OR LOCA	ATION
	HUMAN RIGHTS		
Information about the Management Approach		Ethical Conduct	
Aspect	Non-discrimination		
G4-HR3	Number of cases of discrimination and corrective measures adopted	Human Rights	Pag. 29
Aspect	Freedom of Association and Collective Bargaining		
G4-HR4	Identification of important centers and suppliers where the freedom of association and the right to be part of collective agreements can be infringed or be threatened, and measures taken to defend these rights	Our People	Pag. 45
Aspect	Trabajo Infantil		
G4-HR5	Identification of centers and suppliers with an important risk of child exploitation, and measures taken to contribute to the abolition of the exploitation of children	Human Rights	Pag. 29
Aspect	Indigenous Rights		
ММ5	Total number of operations executed in, or adjacent to, territories of indigenous peoples, and number and percentage of operations or sites where there are formal agreements with the communities of Indigenous Peoples	Our Mine and all linked facilities Pag. 2 are surrounded by the Territorio Indígena Originario Campesino (Originary Indigenous Peasant Territory) - Central Única Provincial de Comunidades Originarias de Nor Lípez (Single Provincial Central of Originary Communities from North Lípez) ✓	
G4-HR8	Total number of cases of violation of the rights of indigenous people and actions taken	None ✓	
Aspect	Grievance Mechanisms on Human Rights Matters		
HR12	Number of grievances on human rights submitted, addressed and solved through formal grievance mechanisms	Human Rights	Pag. 29
	SOCIETY		
Information about the Management Approach		Our Surrounding Comm	nunities
Aspect	Local Communities		
G4-SO1	Percentage of centers where development programs, assessments of impacts and participation of the local communities, have been implemented	100% ✓ Our Surrounding Comm	unities
G4-SO2	Centers of operations with significant, actual or potential, negative effects on the local communities	Environment and Pag. 69 Our Surrounding Communities Pag. 8	
MM6	Number and description of important disputes related to land use, customary rights of the local communities and Indigenous Peoples	Not aplicable	
MM7	The extent to which the grievance mechanisms were used to solve disputes related to the use of the land, customary rights of local communities and Indigenous Peoples, and the results	Not aplicable	
MM8	Quantity (and percentage) of sites of operation of the company, or places adjacent to them, where artisan or small scale mining takes place; the associated risks and the actions taken to manage and mitigate these risks	Not aplicable	
MM9	Sites where resettlements were carried out, the number of families resettled in each of them, and how their livelihoods were affected in the process	Our Surrounding Communities Pag. 8	
MM10	Number and percentage of operations with closure plans	100% ✓	
Aspect	Fight Against Corruption		
G4-SO3	Number and percentage of centers in which corruption and significant risks detected have been evaluated	Ethical Conduct	Pag. 25
G4-SO4	Policy, communication procedures and training on the fight against corruption	Ethical Conduct	Pag. 25
	Confirmed cases of corruption and measures taken	Ethical Conduct	

	DESCRIPTION	STATUS OR LOCATION
Aspect	Regulatory Compliance	
G4-SO8	Monetary value of important fines and number of non-monetary sanctions for non-compliance of the laws and regulations	Our Economic Performance Pag. 37 and Our Contributions
Aspect	Grievance Mechanisms for Social Impact	
G4-SO11	Number of grievances about social impacts that were submitted, addressed and solved through formal grievance mechanisms	Our Surrounding Communities Pag. 81

