

Economic Activities Report

Economic activities of the JX Nippon Mining & Metals Group, including its business performances and details of operations are reported.

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* Some pages in this section show differences between summations of individual figures and totals. These differences are caused by calculations of figures with decimals that do not appear on the pages.

Economic Activities Report

Introducing Our Business Activities: Upstream (Resources Development Business)

In response to a global surge for copper ore, the JX Nippon Mining & Metals Group is developing new mines and acquiring prospective deposits. Through these efforts, we aim to raise the ratio of equity entitlement copper mine production and secure a stable supply of high-quality ores on a long-term basis. In regard to the Caserones Copper and Molybdenum Deposit Development Project (“Caserones Project”), since acquiring the mining concession in May 2006, we have been conducting a feasibility study based on data obtained by exploratory drilling to estimate the amount of deposits, dressing tests, and other forms of research. The feasibility study results recently revealed that the Caserones Project is economically viable and, at the same time, environmental approval for developing the Caserones Project was granted by the Environmental Committee of Region III of Chile. Accordingly, the Company decided to advance the Caserones Project into the full-fledged development stage. In this report, we outline this project, as well as our response to environmental and regional issues within and around the deposit, a development project that Minera Lumina Copper Chile S.A. (“MLCC”) is managing.

Location of the Caserones Deposits



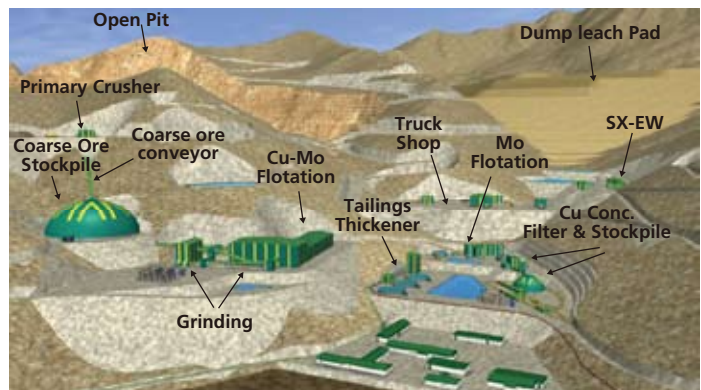
The Caserones copper and molybdenum deposits (“Caserones deposits”) are located 162 km southeast of the city of Copiapo, the capital of Region III of Chile, and 15 km from the border with Argentina, at a height of approximately 4,200–4,600 m above sea level.

Launch of the Caserones Project

MLCC, an affiliated company located in Chile, began construction of the necessary facilities in April 2010, with the aim of commencing operations in 2013. A rendering of the deposits after operations commence is shown below.



Caserones deposits as of April 2010

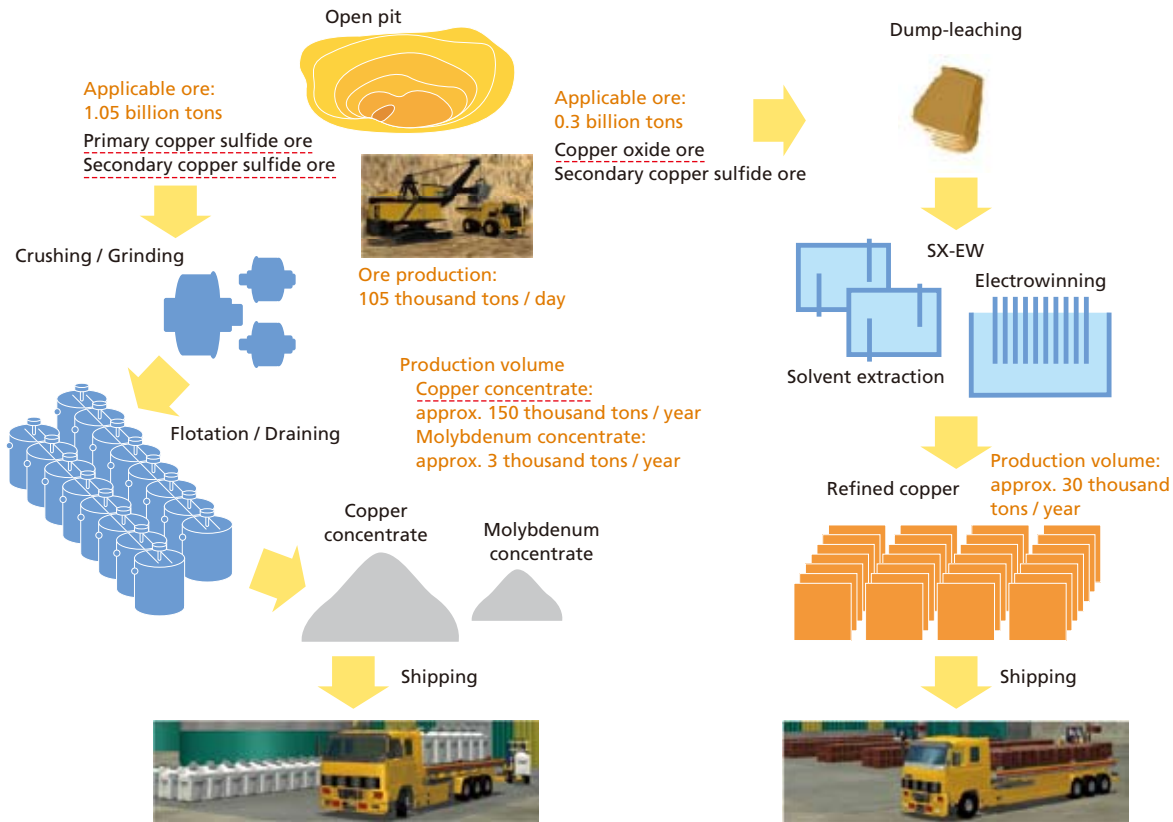


Rendering of Caserones deposits after operations commence

Production at the Caserones Deposits

At the Caserones deposits, refined copper, made through the solvent extraction / electrowinning (SX-EW) process, and copper molybdenum concentrate, made through the flotation method, will be produced over the 28-year period until 2040.

(Production volumes are estimated averages for the first five years of production.)



MLCC's Initiatives at the Caserones Deposits

MLCC has conducted intensive studies to determine the economic, environmental, and social impacts that the Caserones Project will have in Region III of Chile. MLCC is enhancing harmonious relationships with its stakeholders through the pursuit of mutual benefits.

Environmental initiatives

MLCC plans to implement environmental initiatives by developing and managing an environmental management system that is in compliance with ISO 14001 as well as Chilean laws and regulations. Also, it has invested approximately ¥100 million (US\$1.21 million) in conducting an environmental impact assessment, as required by the Chilean government.

Biodiversity initiatives

MLCC investigated biodiversity at the project site in the course of its environmental impact assessment.

• Vegetation

The vegetation most common to the project site is grasslands, which account for 55% of the total vegetated area. Areas of shrubbery, which account for 37% of the total vegetated area, are ranked second. Additionally, cacti, ferns, and woods have also been identified. Meanwhile, 11 species of plants that are subject to legal protection have been found within the site. Consequently, MLCC is making every effort to maintain and increase vegetation within the project site by conducting transplantation and other environmental conservation measures.



Introducing Our Business Activities: Upstream (Resources Development Business)

Through deliberations with Chilean government authorities in relation to the environmental impact assessment, it was suggested to MLCC that the vega plant, a rare plant that thrives in wetlands under arid climates, be subject to legal protection, and consequently MLCC in Chile will take equivalent measures to legal protection including transplantation.



The vega plant

• Animals

At the site of the Caserones Project, MLCC has confirmed inhabitation of 52 species, 13 orders, and 26 families of animals—of which, 40 species are mammals, 7 are birds, and 5 are reptiles or amphibians. Eleven of these species, including condors and llamas, are classified as endangered species. As a result, MLCC is monitoring these endangered species and taking measures to protect them.



Initiatives toward the local community

In order to be a good neighbor to the local community, MLCC is proactively building relationships of trust with these communities. Accordingly, MLCC is nurturing communication with the local communities, and it has already held approximately 500 meetings with them since the commencement of the preliminary feasibility study in 2006. Specifically, since the end of 2006, MLCC has been engaging in the Community Management Program, with the three pillars of water management, transportation safety, and regional employment.

Expenditure Amounts for July 2008 to June 2009 (US\$)

Water management	94,647
Transportation safety	11,717
Regional employment	39,350
Other regional support	70,115
Total	215,829

Water management

While MLCC has acquired the rights to the use of groundwater approved by the Chilean government authorities, it has also recognized a water shortage in the lower reaches of the Copiapo riverine system. In order to deal with the water shortage, MLCC plans to achieve a water use intensity of 0.3 m³ per of water per ton of processed ore, the lowest level in Chile, as well as establishing a system to reuse 80% of its wastewater.

MLCC's initiatives include:

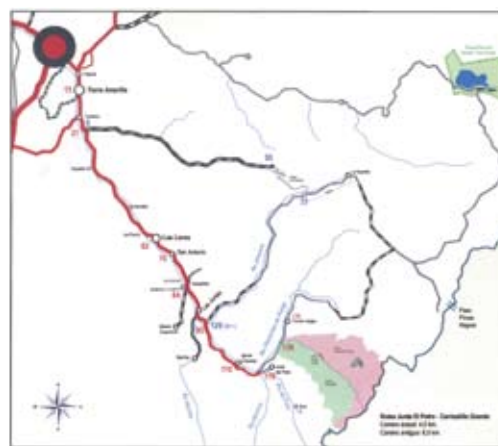
- Discontinue alfalfa cultivation at Carrizalillo Grande, an area on the outskirts of the project site that is owned by MLCC, due to the large loss of water incurred through evaporation (effect of 40 L/s).
- Provide desalinated sea water (150 L/s) to communities downstream along the Copiapo River.
- Discontinue use of the groundwater rights (effect of 50 L/s).

• Treatment of wastewater

Water used in processes throughout this project will be collected, recycled, and reused, and consequently will not be released outside of these processes. Water used at camps and truck shops will be collected at effluent treatment facilities at each site to be treated in accordance with water irrigation guidelines before being sprinkled on the roads.

Transportation safety

Copper and molybdenum concentrates as well as refined copper produced at the Caserones deposits will be transported by truck to the port of Totoralillo and other ports along the Pacific Ocean before being shipped by sea. MLCC will make every effort to secure transportation safety by implementing safety training for truck drivers and enhancing the monitoring systems of trucks in transit.



Route from Copiapo to Caserones deposits

Meanwhile, Highway C35 passes through Los Loros, a small urban community with a population of approximately 1,000 residents. MLCC intends to construct a detour in order to ensure safe transportation around Los Loros.



Los Loros, through which Highway C35 passes

Regional employment

The Caserones deposits will employ approximately 5,000 workers during the construction period, which is scheduled to end in 2013, and approximately 1,500 workers after commencement of operations. MLCC is required to hire approximately 20% with direct and indirect employment forms in Region III.

In order to meet this requirement by the end of 2009, MLCC held three training programs in which 180 people participated.



A training program

Voice—Message from the CEO of MLCC



Nelson Pizarro
Chief Executive Officer
Minera Lumina
Copper Chile S.A.

The Caserones Project has begun its first steps. In fact, the start of April marked the start of the intense 41-month construction period. Simultaneous to all the human and material effort made from 2006, it is the identity formation of the Company. I refer to how we wish to take forward this business, a style of doing the things, a distinctive and powerful vision, the stamp that we want to print to the 28 years of operations that we have ahead, approximately.

In undertaking this project, we will implement the Community Management Program, with the three pillars of water management, transportation safety, and regional employment. We will also be focused on preserving the natural environment within and surrounding the project site. Through these efforts, we will not only pursue profit, but also strive to be a good neighbor to the local communities by proactively communicating with them.



Company Profile

Established	August 2003
Head office	Santiago, Republic of Chile
Capital	US\$380 million (PPC 45%, PPC Canada 30%, Mitsui & Co., Ltd. 25%)
Business lines	<ul style="list-style-type: none"> Operating and developing the Caserones copper and molybdenum deposits Exploring mines in Chile
CEO	Nelson Pizarro

Introducing Our Business Activities: Midstream (Smelting and Refining Business)

In the JX Nippon Mining & Metals Group, Pan Pacific Copper Co., Ltd. (PPC) conducts copper smelting and refining operations at both its Saganoseki Smelter & Refinery and Hitachi Works as well as at the Tamano Smelter of Hibi Kyodo Smelting Co., Ltd., each of which is proud of its world-class technical capability, cost competitiveness, and productivity. The Group's annual production capacity of refined copper totals 710,000 tons (a combined 450,000 tons at the Saganoseki and Hitachi plants and 260,000 tons at the Tamano Smelter), which is the largest in Japan. PPC stably supplies high-quality refined copper.

About Pan Pacific Copper Co., Ltd.

PPC is an integrated copper operating company based on alliances between JX Nippon Mining & Metals Corporation and Mitsui Mining & Smelting Co., Ltd. Operating since January 2001, the company vertically integrates resources development, raw material procurement, production, and sales. Also, both parent companies of PPC have developed a business alliance with LS-Nikko Copper Co., Ltd., which is a smelting company jointly owned with the LS Group of South Korea. Accordingly, PPC has established a solid position as a leading copper producer in Asia.

* On April 1, 2010, PPC absorbed Nikko Smelting & Refining Co., Ltd. to directly control operation of the Saganoseki Smelter & Refinery and the Hitachi Works.

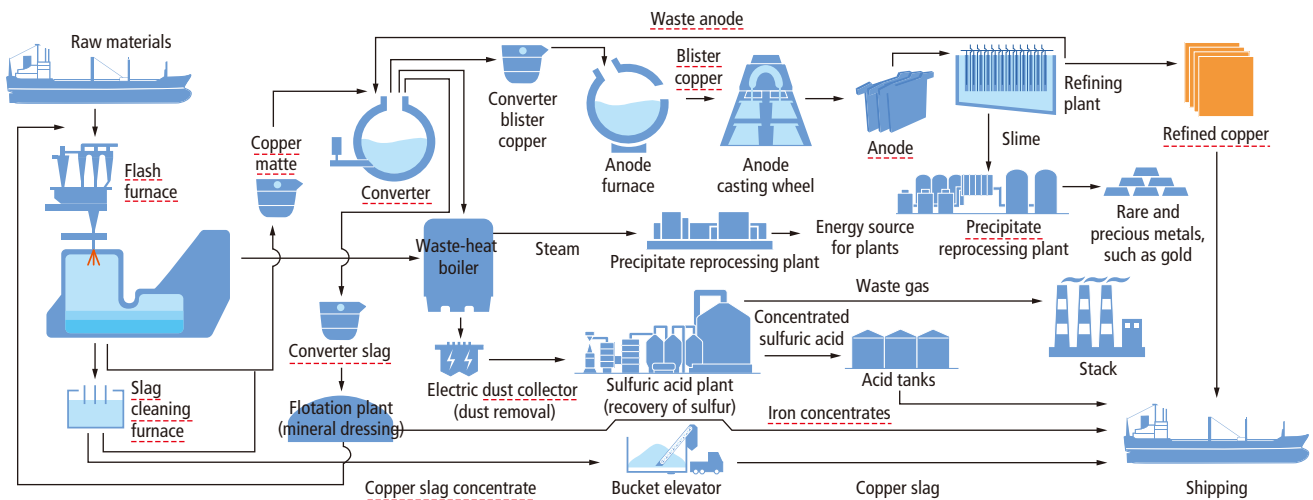


Saganoseki Smelter & Refinery



Tamano Smelter

Smelting and Refining Process at the Saganoseki Smelter & Refinery

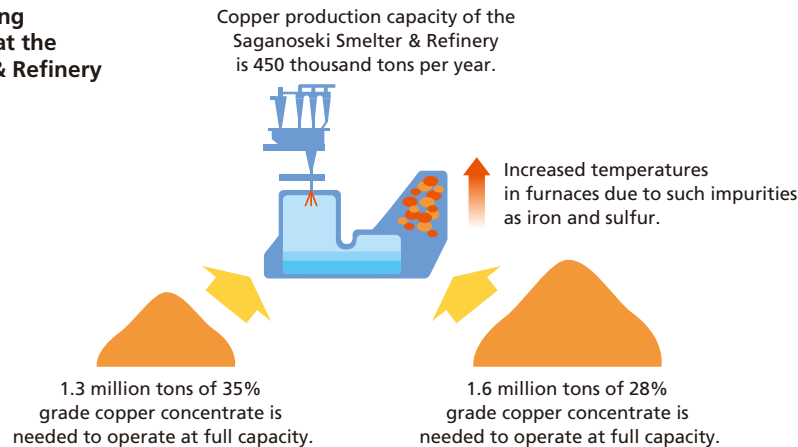


Measures to Reduce CO₂ Emissions and Energy Consumption

The Saganoseki Smelter & Refinery and the Tamano Smelter are taking measures to utilize high-temperature waste gas produced at its sulfuric acid plant during the copper smelting process to dry raw materials and use it as an energy source. At the sulfuric acid plant, a process to recover sulfur from copper concentrate that produces sulfuric acid creates high-temperature gas, with temperatures ranging from 300 to 500°C. Waste-heat recovery facilities will recover this

high-temperature gas to enable its use in drying materials or as an energy source. Both the Saganoseki and Tamano plants are moving ahead with construction of these facilities, which are scheduled to be completed in 2013. After construction is complete, the facilities will generate electricity and will allow us to reduce electricity costs by ¥700–800 million a year and lower CO₂ emissions by approximately 20 thousand tons per annum.

Effects of Deteriorating Copper Concentrate at the Saganoseki Smelter & Refinery



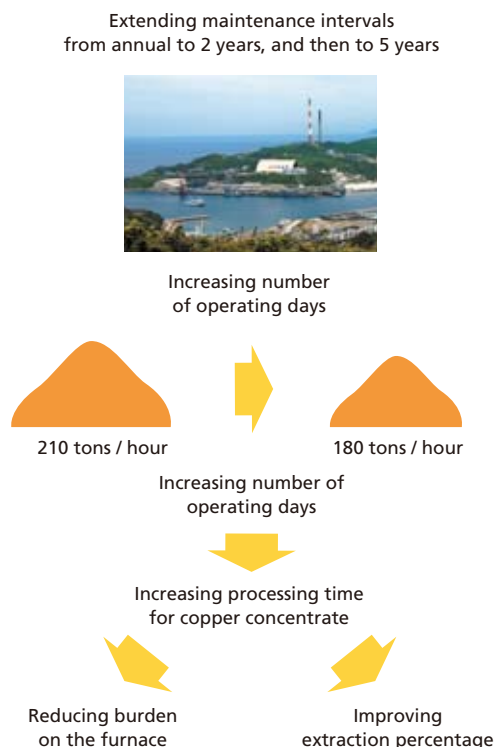
Responding to the Deteriorating Grade of Copper Concentrate

The number of quality mines that produce high-quality copper ore is continually decreasing around the world. Consequently, the grade of copper found in ore is declining. The grade of copper concentrate being used in the Saganoseki Smelter & Refinery, which was around 35% in the mid-1990s, has recently fallen to below 30%.

The deteriorating grade of copper concentrate used results in an increase in the amount of copper concentrate necessary to keep operation. At the same time, the relative increase in impurities, such as iron and sulfur, produces more reactive heat with a higher temperature, and consequently damages the flash furnace to reduce its useful life. In order to respond, we are taking measures to modify the shape of the water-cooling apparatus set on the outer wall of the furnace. This measure can increase the efficiency of the apparatus, and thus help prevent the refractory materials used as the walls of the furnace from melting and depleting. Further, the prevention of melting and depleting allows us to extend the intervals between regular maintenance operations. With this measure, we plan to conduct regular maintenance once every two years—we have conducted yearly maintenance to date. Going forward, we will extend the interval between maintenance to five years.

Although the extension of the interval between maintenance may increase the number of operating days in a year, we will not devote the increased capacity to process more copper concentrate. Instead, we will decrease the hourly input amount of copper concentrate and increase the processing time within the furnace. This will improve the extraction percentage of copper. In this way, we are streamlining our smelting operation to bolster its efficiency.

Efficient Copper Production at the Saganoseki Smelter & Refinery



Introducing Our Business Activities: Downstream (Electronic Materials Business)

In the Group's electronic materials business, functional materials and thin film materials, which are used in IT-related devices and automotive applications, are developed, manufactured, and marketed. In order to remain well informed of the diverse customer needs for electronic materials, we are proactively undertaking "communication" initiatives with customers. Further, we take on "challenges" to incorporate these needs into our electronic materials with "speed." As a result, we strive to remain the "First Vendor"—the most trustworthy business partner to customers.

Review of Operations

We manufacture and market the following electronic materials.

Functional materials

• Electro-deposited copper foil

Electro-deposited copper foil is used in printed circuit boards (PCBs), which are embedded in a variety of electronic devices including personal computers and mobile phones. We manufacture this copper foil at operating sites in Japan, Germany, and the Philippines. We are also equipped to mass-produce copper foil for use in lithium-ion batteries.



• Treated rolled copper foil

We, as the world's top supplier of treated rolled copper foil, a material used in flexible PCBs, supply the foil through an integrated manufacturing process that extends from the production of the raw material copper cakes through surface treatment processes.



• Precision rolled products

The Group develops, manufactures, and markets C7025 alloy, titanium copper, and phosphor bronze, which are used in IT-related devices, home electric appliances, and electronic components in automobiles. We also offer these alloys with improved inherent characteristics under the "Hyper Series" brand.



• Precision fabricated products

The gold-plating and pressing operations and design and production of molds, which were undertaken by Nikko Fuji Electronics Co., Ltd., an affiliated company, have been integrated into JX Nippon Mining & Metals. Also, by acquiring all of the equity of Sanyu Electronic Industrial Co., Ltd., we are striving to strengthen our competitiveness in the business field of precision plating on pressed materials, which Sanyu Electronic Industrial had previously handled.



Isohara Plant



Shirogane Works



Kurami Works

Thin film materials

• Sputtering targets

Leveraging our various original elemental technologies, such as metal purification technology and crystal control technology, we have developed a variety of sputtering targets. We supply the global market with sputtering targets for semiconductors, flat panel displays (FPDs), as well as magnetic and phase-change recording devices.



• Compound semiconductor materials

We manufacture and market monocrystalline wafers of InP, CdTe, and others, which are used in light-emitting and photo diodes in optical communication systems that are indispensable to an advanced information society.



- **Surface treatment agents**

By combining such technologies as organic synthesis, purification crystal orientation control, surface treatment, analysis, as well as mixing and blending skills, we supply high-quality surface treatment agents.



- **Metallic powder**

We supply electrolytic copper powder, copper-coated graphite and molybdenum disulfide, as well as copper-coated iron powder, which are used in oil-less bearings, carbon brushes, and friction materials, as well as used as catalysts and in paints.



- **UBM formation and bumping service on semiconductor wafers**

Leveraging our proprietary electroless plating expertise, we offer services for Under Bump Metallurgy (UBM) formation and bumping of semiconductor wafers.



- **Cathode materials**

We manufacture cathode materials for lithium-ion batteries, which are incorporated into hybrid and electric automobiles, through our proprietary integrated manufacturing process.



Introduction of Environment-friendly Copper Alloys—Hyper Eco Alloys

In recent years, automobiles have been increasingly equipped with highly functional electronic components. Brass (a copper-zinc alloy) has been widely used in the male terminals of connectors for automobile applications. However, there is growing concern about the use of conventional brass regarding the rise in temperature resulting from heat generated when a large current is conducted or when used in downsizing connectors. Meanwhile, brass is often plated with tin to improve its sliding characteristics and wear reliability when male terminals are inserted and pulled out. On the other hand, this tin-plated brass cannot be recycled to be reused as a melted raw material for pure brass, since tin is not easily isolated from brass. Accordingly, there is a demand for materials that have superior heat radiance and higher conductivity, and at the same time can use tin-plated brass as their raw material.

We have consequently succeeded in developing “Hyper Eco Alloys,” which possess a high conductivity that conventional brass could not achieve and with high recyclability. Hyper Eco Alloys are copper alloys with zinc and tin that can use recycled tin-plated brass as a raw material. Generally, increasing the conductivity impairs the mechanical properties of alloys. However, by optimizing the chemical composition and leveraging our unique “Hyper Processing Technologies,” we could give Hyper Eco Alloys equivalent mechanical strength, spring properties, and bend formability to the properties of conventional brass. The name Hyper Eco Alloys is derived from “high-electrical conductivity.” It is also derived from concepts of “economy” and “ecology,” since the alloys are easily recycled.



Connectors for automobile applications



Electronic devices in automobiles

- **Superior conductivity and mechanical properties**

We offer three alloys—NKB083, NKB052, and NKB032—which have conductivity of 40%, 50%, and 60% IACS, respectively. The name NKB083, for example, is derived from Nikko Brass, as well as the fact that it is made of 8% zinc and 0.3% tin. Their conductivities greatly exceed 27% of conventional brass, while at the same time realizing equivalent mechanical strength, spring properties, and bend formability to those of conventional brass. Hyper Eco Alloys can respond to the technical requirements of smaller male terminals and those with narrower pitches. Hyper Eco Alloys, thus, contribute to resource saving, downsizing, and advancing and enhancing electronic control units (ECUs).

- **High recyclability**

Tin-plated scraps of Hyper Eco Alloys can be recycled and used as melted raw materials. As tin-plated materials are recyclable, they contribute to reduced use of natural resources and energy.

- **Use in batteries**

Hyper Eco Alloys are expected to be used for the electrode tabs in lithium-ion batteries. Pure nickel or nickel-coated steel have been used for this application to date. However, the high recyclability and improved conductivity of Hyper Eco Alloys are gaining increased attention, and as a result the evaluation of these alloys is being progressively directed toward adoption in this application.



Lithium-ion batteries



Electrode tab

Introducing Our Business Activities: Downstream (Recycling and Environmental Services Business)

The JX Nippon Mining & Metals Group is an integrated recycling and environmental services operator that has built a nationwide network of recycling and environmental services businesses. In order to fully leverage the processing capabilities of the Hitachi Metal Recycling Complex (HMC) Works, located in Hitachi City, Ibaraki Prefecture, we are strengthening our ability to collect recycled materials as well as bolster our analysis and pre-treatment capabilities. Further, we strive to establish materials stewardship through such initiatives as advancing a project to recover lithium and other rare metals from used lithium-ion batteries.



HMC Works

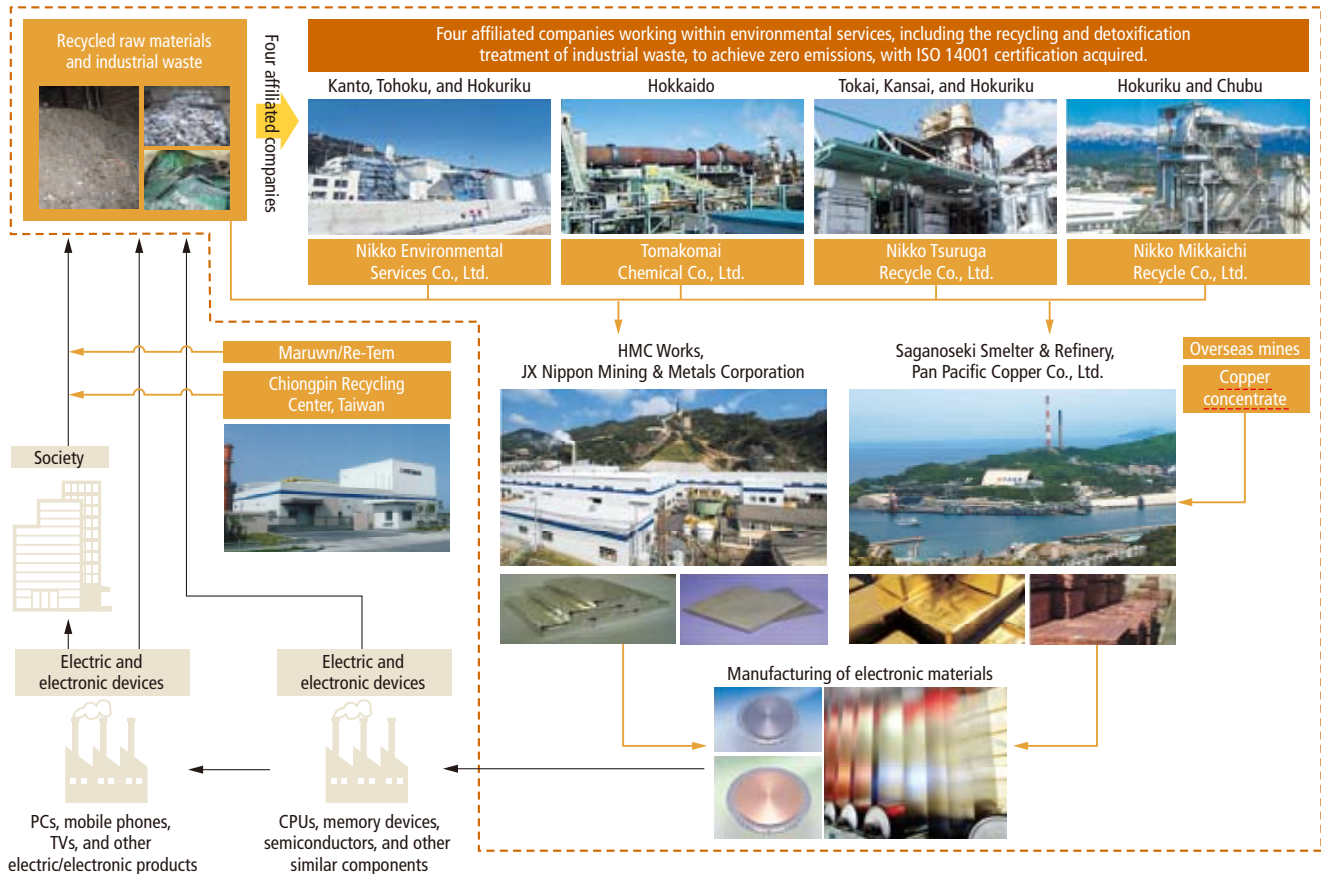


Saganoseki Smelter & Refinery



Chiongpin Recycling Center

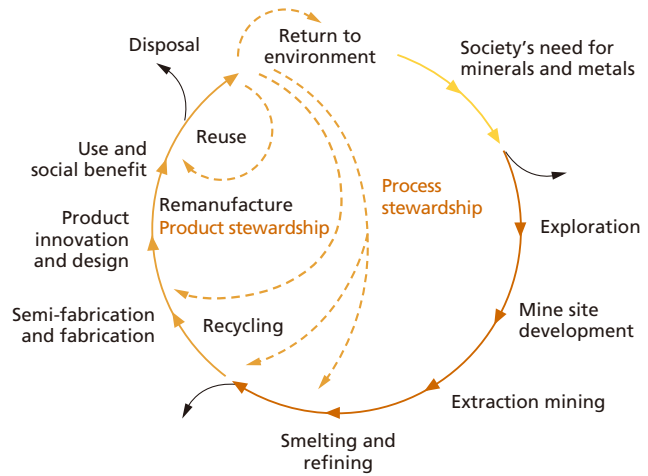
Outline of Recycling and Environmental Services Business



What is Materials Stewardship?

Materials stewardship, which is advocated and promoted by the International Council on Mining and Metals (ICMM), embodies the range of activities required to ensure the optimal and appropriate use of minerals and metals in society. In cooperation with its customers who work with IT-related businesses, the JX Nippon Mining & Metals Group is recovering non-ferrous metals as recycled materials, which the Group subsequently mines, smelts, and refines before sending them to society. Through these efforts, we are contributing to the development of a recycling-oriented society as well as aiming to realize materials stewardship.

Materials Stewardship Diagram



Our Initiatives to Realize Materials Stewardship

Initiative in cooperation with Re-Tem and Maruwn

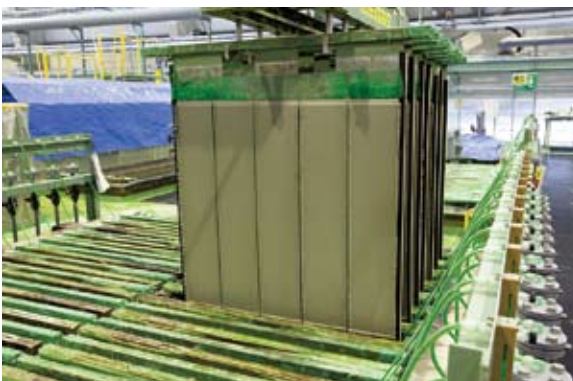
The Group launched a project to create a recycling network in cooperation with two companies, Maruwn Co., Ltd. and Re-Tem Cooperation. Maruwn is engaged in the carrier business, while Re-Tem recycles metallic composites, particularly office automation equipment and other electric and electronic devices. In the first stage of the project, we will construct a recycling network in the Kanto area. In this network, Maruwn will collect office automation equipment, which will be disassembled, pulverized, and sorted to realize approximately 3,500 tons of recyclable materials, including value-bearing metals, by Re-Tem. The HMC Works will then process these recycled materials to recover various value-bearing metals. Going forward, the Group intends to develop this project throughout Japan.

Initiative at the Chiongpin Recycling Center, Nikko Metals Taiwan

Nikko Metals Taiwan Co., Ltd. has begun recycling-related operations at the Taichung Sales Office in Taichung City. At the same time, Nikko Metals Taiwan has started collecting recycled materials at the Chiongpin Recycling Center, its collection center in Changhua City.

The Chiongpin Recycling Center primarily collects used circuit boards embedded in electronic equipment as recycled materials, then implements pulverization and other pre-treating procedures. Pre-treated materials are then shipped to Japan, where operating sites located in Hitachi, Tsuruga, and Saganoseki recover various non-ferrous metals under the principle of "zero emissions." Our recovery system is highly evaluated by our customers, even those in Taiwan.

Economic
Activities
Report



Nickel smelted and recovered at HMC Works



Pulverized recycled materials



Pulverizer

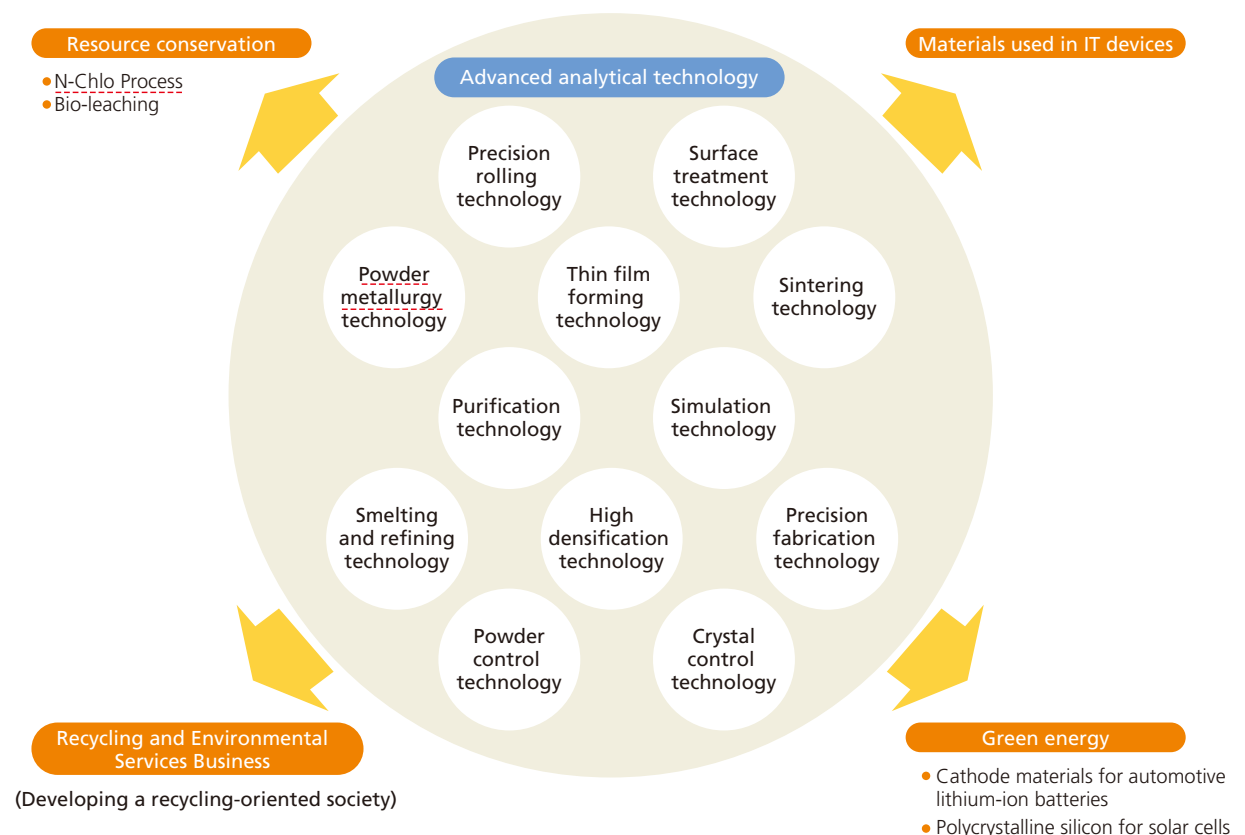


Automatic sampling equipment

Technology Development

The JX Nippon Mining & Metals Group has accumulated various elemental technologies within its resources development, smelting and refining, and electronic materials operations. Leveraging these technologies, we will advance the development of the technology necessary to further progress and expand our operations. In advancing this technology development, the Group's sophisticated analytical technologies are becoming increasingly vital. In this section, we introduce the Group's technology development initiatives, as well as the sophisticated analytical technology that will support the future development of our business operations.

The Sophisticated Analytical Technology that Supports the Group's Component Technologies



Analyzing Chemical States and Crystal Structures (Identification of Chemical Compounds, Analysis at the Nano Level)

The JX Nippon Mining & Metals Group analyzes the surface conditions of materials by using Energy-Dispersive X-ray spectroscopy analysis conducted by means of Scanning Electron Microscopes (SEM-EDX) and Auger Electron Microscopes (AES), and analyzes crystal structures by Transmission Electron Microscopes (TEM) and X-Ray Diffractometers (XDR). Further, Electron Micro probe Analyzers (EMPA) help more clearly identify chemical compounds, at the same time newly equipped Scanning Transmission Electron Microscopes (STEM) allow us to map the distribution conditions of elements at the nano level. Also, combining the functions of Focused Ion Beams (FIB), Cross Section Polishers (CP), and Computing Tomography (CT) can expand the analyzable sphere, to consequently inspect the surface and inner

conditions of metals, semiconductors, and ores. This expertise, which is applied to analyze the interfacial microstructure between solder and other metals as well as examine the mechanism of metallic leaching, helps support the development of novel materials.



Development of Highly Sensitive Analytical Skills

Leveraging a variety of analytical instruments—including Inductively Coupled Plasma Optical Emission Spectrometers (ICP-OES), Inductively Coupled Plasma Mass Spectrometers (ICP-MS), Flame-Less Atomic Absorption Spectrometers (FL-AAS), Glow Discharge Mass Spectrometers (GDMS), and Gas Chromatography-Mass Spectrometers (GC-MS)—and pre-treating skills to experimental materials, we can make highly sensitive analyses on parts per million (ppm) or parts per billion (ppb) levels. These analyses help improve quality control and develop manufacturing processes.

Advancing ICP-MS—accelerating microanalysis

ICP-MS is a highly sensitive instrument that can simultaneously analyze many elements. However, this instrument requires that analytical samples be brought into solution and objective ingredients be isolated from the samples. This process, which is cumbersome and time consuming, consequently thwarts a speedy analysis. We have materialized accelerated analyses that do not require isolation skills for pre-treating and alleviate spectral interference.



Strengthening Our Fundamental Analytical Skills

We are making every effort to maintain and improve our wet analysis methods, which are typified by volumetric and gravimetric analyses, and dry analysis methods used for the analysis of gold and silver, in order to use these methods for the rigorous inspection of raw materials, quality control, and the development of new products and production processes. In recent years, urban mines including various waste electric and electronic components are gaining ever more attention. In line with this trend, cultivating accurate sampling skills and blending techniques to make a sample with a homogeneous mixture from an urban mine with an inhomogeneous formulation of value-bearing metals is one of our most important issues.

Fire assay analysis method

Under high temperatures, lead absorbs gold, silver, and other precious metals with the effect of reducing agents such as iron nails and wheat flour. The fire assay analysis method is an analytical technique to measure the quantity and purity of precious metals, which are extracted from lead and absorbed into bone ash, by means of the cupellation method.



Gold bead obtained by fire assay analysis method

Application cases of advanced analytical skills to technology development

Improving analytical skills has played an important role in the development of technologies to extract platinum group metals (PGMs), such as rhodium and ruthenium. Originally, abundance of these elements in the earth is limited. Ultra-micro analytical skills, which can be applied to complex intermediates generated by the smelting process, are needed to extract these elements. Furthermore, these elements have insolubility, volatility, and other problematic characteristics. Combining dissection skills, isolation skills, and measurement techniques that can alleviate spectral interference, we have developed an analytical method that can work on a ppb level to help support the advancement of our extraction technologies.

Techniques to analyze the chemical compositions and chemical species of solids are extremely limited. Further, analytical methods to identify chemical compounds on a micron level are not ready for practical use. In line with the development of new smelting technologies and surface treatment technologies for foil products, the breakthrough of an analytical skill to find chemical compositions at the micron level significantly helps the probe chemical reaction mechanism and select raw materials. Our analysis team has put analytical skill to probe chemical compositions by using an Electron Probe Micro Analyzer (EPMA) to practical use, in cooperation with the National Institute for Materials Science, an independent administrative institution, and is providing analytical information to promote the advancement of technology development.

Business Results in Fiscal 2009 (From April 1, 2009, to March 31, 2010)

Business Results in Fiscal 2009

In fiscal 2009, Japan experienced a continuation of severe economic conditions, such as the worsening employment situation and slumping personal consumption, caused by the slowdown of the global economy triggered by the financial crisis, while signs of a partial economic recovery particularly in Asia emerged.

In the foreign exchange market, the appreciation of the Japanese yen against the U.S. dollar developed, from ¥99 per U.S. dollar at the beginning of the fiscal year to ¥86 per U.S. dollar in the third quarter of the fiscal year. Subsequently, however, the yen weakened to ¥93 per U.S. dollar at the end of the fiscal year. The average exchange rate for the period under review was ¥93 per U.S. dollar, compared with ¥101 per U.S. dollar during the previous fiscal year. The copper market was also stagnant for the first half of the fiscal year due to the global economic recession. However, subsequently, demand recovered and an influx of speculative money raised the copper price on the London Metal Exchange (LME) from 180 cents per pound at the start of the period to as high as 355 cents per pound at the end of the fiscal year. The average copper price for the period was 277 cents per pound, compared with 266 cents per pound during the previous fiscal year.

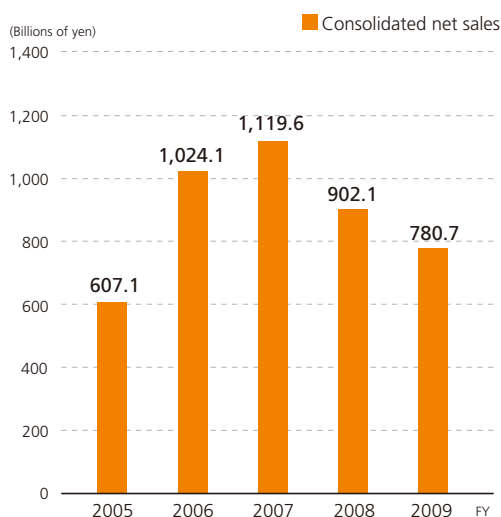
In the copper business, the sales volume of refined copper decreased year on year as a result of depressed domestic demand. International producer prices rose year on year, however, the yen-denominated prices were lower due to the negative impact of the high yen. Also, contractual terms of copper ore purchases, as well as the selling price of sulfuric acid, remained at low levels. The severe operating climate

surrounding the recycling and environmental services business also continued.

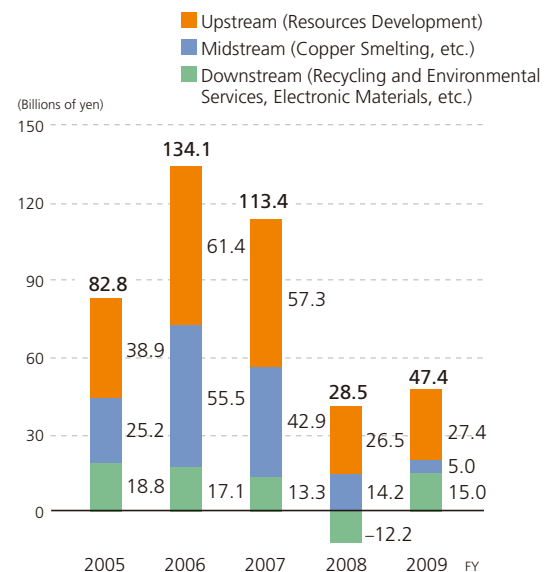
In the electronic materials business, with the exception of some products, the sales volume of copper foil (electro-deposited copper foil, treated rolled copper foil), thin film materials (sputtering targets for semiconductors and other applications), precision rolled products (phosphor bronze, Corson alloy, etc.), and precision fabricated products (gold-plated materials, etc.) exceeded the level of the previous period, reflected by a recovery of demand in the final products. In particular, the sales volume of sputtering targets for FPDs (flat panel displays) soared against the backdrop of increased demand for LCD (liquid crystal display) televisions in China, Europe, the United States, and other markets. The product price of sputtering targets for FPDs, however, fell due to the price drop of indium, a primary raw material of the targets. As a whole, prices of other products also fell below the level of the previous period due to changes in product configuration.

Consequently, the JX Nippon Mining & Metals Group's consolidated net sales declined 13.5% year on year, to ¥780.7 billion. Income before special items rose 66.4%, to ¥47.4 billion. This increased income was largely attributable to the rebound of copper prices and the reduction of the cost of goods sold due to inventory valuation adjustments, although a high yen and shrinking profit margins on sulfuric acid and electronic materials negatively impacted income.

Consolidated Net Sales



Consolidated Income Before Special Items by Business Segment



Economic Effects on Stakeholders

Economic Effects

The economic effects of specific items pertinent to stakeholders are shown in the table below. The economic effects are identified by stakeholder and by the geographical area in which companies of the Group operate.

Sales revenue from customers was ¥780.7 billion, over 82% of which was recognized from sales in Japan, while over 98% was the sum of sales in Japan and other Asian countries.

Other revenue totaled ¥3.2 billion, and the breakdown of this included dividends received from investments, interest received from financial institutions, and ¥90 million of considerations to implement “a development project for a recycling technology to extract rare metals from used lithium-ion batteries” that was chosen by the Ministry of Economy, Trade and Industry. In addition to the aforementioned other revenue, we received ¥27 million as financial assistance from a foreign government.

We paid ¥723.5 billion for the services rendered by suppliers, including materials procurement. Personnel expenses, including legal welfare expenses, totaled ¥36.5 billion.

The postretirement benefit plan, which JX Nippon Mining & Metals and its domestic subsidiary companies have adopted, includes an approved retirement annuity system, a corporate pension plan under the constitution and a severance indemnity plan as defined benefit plans. Also, JX Nippon Mining & Metals and some domestic subsidiary

companies employ a defined contribution corporate pension plan. Further, under certain circumstances, premium severance payments are provided to employees.

Additionally, some overseas subsidiaries have defined benefit plans and defined contribution plans.

The projected benefit obligation was ¥17.2 billion for the severance indemnity plans and ¥2.6 billion for defined benefit plans (turned over by different funds from the Group). Of the total of ¥19.8 billion, ¥2.5 billion was contributed to funds outside the Group as pension assets. As a result, the remaining ¥17.3 billion was recognized as accrued retirement benefits for employees. The projected benefit obligation is calculated as of the end of the fiscal year and, as the estimated pension benefit was allocated over the period of the pension plan with the discount rate of 2.0% in large part.

Dividends paid to shareholders totaled ¥2.3 billion. And ¥3.5 billion was interest on loans paid to creditors. The Group recorded income taxes of ¥4.0 billion in fiscal 2009 on the financial accounting standards. Additionally, we posted ¥2.6 billion as other taxes and public charges, which we included as an expense. In total, we recognized ¥6.6 billion as distributions to government administrations.

An amount of ¥48 million was donated to society as a part of our social contribution program.

Financial Flows by Geographical Area and Stakeholder (Value Added Through Operations)

(Billions of yen)








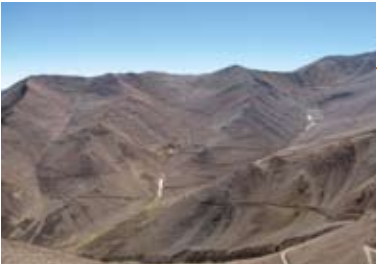
Item	In		Out						Value Added (IN-OUT)
	Sales revenue	Other revenue	Operating costs and expenses	Personnel expenses	Dividends	Interest paid	Taxes	Donations	
Stakeholder	Customers	Investments / Borrowers / Public institutions	Suppliers	Employees	Shareholders	Creditors	National and regional governments	Society	
Items used to calculate the amounts	Net sales*	Dividends received, interest received, gain on sales of fixed assets and marketable securities, grants, etc.	Cost of goods sold, selling, general and administrative expenses (excluding personnel expenses, taxes and public charges, and donations)	Labor costs (including wages and salaries, welfare expenses, and postretirement benefit expenses)			Income tax and other taxes and public charges borne as an expense and posted on the income statement		
Japan	644.1	3.2	593.9	32.2	2.2	2.8	5.7	0.05	10.5
Asia (excl. Japan)	125.6	0	120.1	2.3	0.1	0.7	0.9	—	1.5
North America	7.3	0	6.7	0.5	—	—	0	—	0.1
Europe	3.7	0	2.8	1.5	—	—	0	—	-0.6
Total	780.7	3.2	723.5	36.5	2.3	3.5	6.6	0.05	11.5

* Figures in the table above are calculated by the geographical areas in which companies of the Group operate.



The JX Holdings, Inc.'s investor relations website (<http://www.hd.jx-group.co.jp/english/ir/>) shows detailed financial information for the JX Nippon Mining & Metals Group.

Topics in Fiscal 2009

<p>April 2009</p>	<ul style="list-style-type: none"> President Masanori Okada became the chairman of the Japan Mining Industry Association. 		
<p>July</p>	<ul style="list-style-type: none"> Minister of Mines and Minerals Development of the Republic of Zambia, Maxwell Mwale, visited the Tamano Smelter. An agreement was concluded with Nanyo City in Yamagata Prefecture regarding the creation of the "Nikko Ryuju Forrest." 		
<p>September</p>	<ul style="list-style-type: none"> Nippon Mining & Metals Co., Ltd. held an opening ceremony for its pilot-scale plant to extract rare metals from used lithium-ion batteries. Sustainability Report 2009 was published. Pan Pacific Copper Co., Ltd. began fund-raising activities for the development of the Caserones copper and molybdenum deposits in Chile. 		
<p>October</p>	<ul style="list-style-type: none"> The Nippon Mining & Metals Group donated relief funds to victims of both a flood in the Philippines and an earthquake in Indonesia's western Sumatra. 		
<p>November</p>	<ul style="list-style-type: none"> Pan Pacific Copper geared up to the feasibility studies phase for the development of the Quechua copper deposits in Peru. 		
<p>December</p>	<ul style="list-style-type: none"> The Nippon Mining & Metals Group integrated Nikko Fuji Electronics Co., Ltd. 		
<p>February 2010</p>	<ul style="list-style-type: none"> Nippon Mining & Metals acquired all shares of the stock of Sanyu Electronic Industrial Co., Ltd. Pan Pacific Copper made the final decision for the full-fledged development of the Caserones copper and molybdenum deposits. Mitsui & Co., Ltd. began to participate in the project. 		
<p>March</p>	<ul style="list-style-type: none"> The Nippon Mining & Metals Group donated relief funds to victims of an earthquake in Haiti. The Nippon Mining & Metals Group donated relief funds to victims of an earthquake in Chile. The Nippon Mining & Metals Group received the Preferred Quality Supplier (PQS) award from Intel Corporation. 		