

# ACER INCORPORATED 2019 RESPONSIBLE MINERALS REPORT

#### **Introduction**

Acer has had a long standing commitment to ensuring the responsible sourcing of minerals in its supply chain. Our journey began in 2009, when Acer first engaged its suppliers to determine the source of conflict minerals. Shortly after that, Acer joined the Responsible Minerals Initiative (RMI) and was involved in the pilot of the first version of the Conflict Minerals Reporting Template (CMRT) and supported the development of the Responsible Minerals Assurance Process (RMAP). In 2014, Acer released its first conflict minerals report and later on that year joined the Public-Private Alliance for Responsible Minerals Trade (PPA) to help support in-region programs that seek to develop minerals tracing systems and spur economic development. Last year, Acer continued its responsible minerals program that includes priority minerals sourced from conflict affected and high risk areas (CAHRA). Each year Acer has been able to make substantial progress towards ensuring responsibly sourced minerals. For more information, please visit Acer's Responsible Minerals Program.

Acer has developed this RMR, covering the period from January 1 to December 31 of 2019, for the purpose of describing our due diligence efforts on the source and chain of custody of the gold, columbite-tantalite (coltan), cassiterite, wolframite, tantalum, tin, and tungsten (collectively referred to as "3TG") contained in our products that we have reason to believe may have originated from the Democratic Republic of the Congo ("DRC") or an adjoining country (collectively defined as the "Covered Countries") and may not have come from recycled or scrap sources. In addition, this report includes a description of our due diligence efforts to address cobalt in the lithium-ion battery supply chain as well as tin sourced from Indonesia, both of which have been determined to originate from CAHRAs. Cobalt, Indonesia tin, and 3TG have all been identified by Acer to be priority minerals.

Throughout the report, various terms will be used to describe the minerals due diligence programs for Acer. The term "responsible minerals" generally refers to Acer's minerals due diligence programs. The term "priority minerals" includes minerals that Acer has determined to exist in its supply chain and have a risk of originating from CAHRAS, and finally, "conflict minerals", which refers specifically to the portion of our program and activities related to the sourcing of 3TG from the DRC.

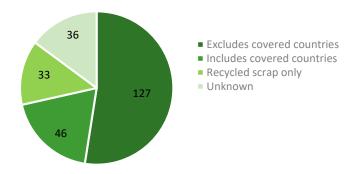
Founded in 1976, today Acer is one of the world's top ICT companies and has a presence in over 160 countries. As Acer looks into the future, it is focused on enabling a world where hardware, software and services will infuse with one another to open up new possibilities for consumers and businesses alike. From service-oriented technologies to the Internet of Things to gaming and virtual reality, Acer's 7,000+ employees are dedicated to the research, design, marketing, sale, and support of products and solutions that break barriers between people and technology. Please visit <a href="https://www.acer-group.com">www.acer-group.com</a> for more information.

# Reasonable Country of Origin Inquiry (RCOI)

For Conflict Minerals, Acer conducted a reasonable country of origin inquiry (RCOI) that employed a combination of measures to determine whether the necessary 3TG in Acer's products originated from the Covered Countries. As a member of the RMI, Acer's primary means of determining country of origin of necessary 3TG was by conducting a supply-chain survey with direct suppliers using the CMRT. The smelters or refiners (SORs) that were identified as part of this supply chain survey were compared to the list of known SORs that is maintained by the RMI and those that have had their mines of origin verified by a validation program such as the RMAP, London Bullion Market Association's *Responsible Gold Programme* (LBMA), *or* Responsible Jewelry Council's *Chain-of-Custody Certification Program* (RJC) and made available to RMI members.

When country of origin is unable to be determined from the validation programs mentioned above, Acer turns to other forms of due diligence to conduct its RCOI. This includes direct contact with the SORs, review of outreach and due diligence efforts by industry-led programs, such as the RMI, or outreach results shared by Acer's direct suppliers. In 2019, Acer was able to identify 242 SORs in its supply chain. Out of 242 total SORs, RCOI information was available for 162 through validation by the RMAP. Of the remaining 80 SORs, Acer was able to determine the country of origin for 44, leaving 36 that remain unknown. The results of Acer's RCOI are provided in Figure 1.

Figure 1: Reasonable Country of Origin Inquiry



Due to the results of its RCOI, Acer has reason to believe that in some cases, its necessary 3TG may have originated in the DRC or Covered Countries and has reason to believe that they may not be from recycled or scrap sources. Consequently, Acer has exercised due diligence on the source and chain of custody of its necessary 3TG that conforms to a nationally or internationally recognized due diligence framework, and describes those activities in this RMR.

#### **Design of Acer's Due Diligence Measures**

Acer developed and implemented a responsible minerals due diligence program to help protect human rights, avoid contributing to conflict, and to minimize social/economic and environmental risks when sourcing any priority minerals. Acer designed and continues to implement its due diligence measures in accordance with the internationally recognized due diligence framework in the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas ("OECD Guidance") and related Supplements for each of the minerals as they relate to downstream companies in the supply chain.

As a brand company, Acer's supply chain has multiple tiers between the company and the mines. Acer does not purchase raw ore or unrefined 3TG or other priority minerals, and does not directly purchase materials in the DRC, Covered Countries, or other CAHRAS. The origin of 3TG and other priority minerals cannot be determined with any certainty once the raw ores are smelted, refined and converted to ingots, bullion or other mineral containing derivatives. The SORs are consolidating points for raw ore and are in the best position in the supply chain to know the origin of the ores. Our supplier engagement includes the suppliers with which Acer has a direct relationship and has influence over purchasing decisions. These suppliers are considered first tier and we rely on them to help us identify and assess the risk in the supply chain and provide information on the SORs that supply the priority minerals contained in our products.

Acer's due diligence includes the following elements of the 5-Step OECD Framework:

- Establish strong company management systems;
   Adopt and commit to a supply chain policy for identifying and managing risks, structure internal management systems to support supply chain due diligence, establish a system of controls and transparency over the supply chain, strengthen company engagement with suppliers, and establish a grievance mechanism.
- Identify and assess risks in the supply chain;
   Identify the SORs in the supply chain, identify the scope of the risk assessment of the mineral supply chain, assess whether the SORs have carried out all elements of due

diligence, and where necessary, carry out joint spot checks at the mineral SOR's own facilities.

- 3. Design and implement a strategy to respond to identified risks; Report findings to designated senior management, devise and adopt a risk management plan, implement the risk management plan, monitor and track performance of risk mitigation, report back to designated senior management and consider suspending or discontinuing engagement with a supplier after failed attempts at mitigation, and undertake additional fact and risk assessments for risks requiring mitigation or after a change of circumstances.
- 4. Carry out independent third-party audit of smelter/refiner's due diligence practices; Plan an independent third party audit of the SOR's due diligence.
- Report annually on supply chain due diligence.
   Annually report or integrate, where practicable, into annual sustainability or corporate responsibility reports, additional information on due diligence.

#### **Description of Due Diligence Measures Performed**

During the reporting period, Acer performed the following due diligence measures:

- 1. Established strong company management systems
  - Continued support of an internal team that includes oversight by senior staff to manage all aspects of Acer's responsible minerals due diligence program.
  - Continued development of internal data management and reporting system to increase the ease of use and to enable efficiencies for Acer and its supply chain during supply chain data transfer, supplier engagement, and the identification and mitigation of risks.
  - Continue to maintain a publically available responsible minerals policy that
    provides overall guidance to Acer's responsible minerals program and outlines
    Acer's commitments during the sourcing of minerals (policy <u>available on Acer's</u>
    <u>sustainability website</u>).
  - Revised Acer's Responsible Minerals Procedure to update activities associated with ongoing improvements to Acer's data management system.
  - Continued to maintain and monitor a grievance mechanism via <u>whistleblower.acer@acer.com</u> to be used specifically by any interested party (e.g.

- affected person or whistleblower) to raise concerns regarding business conduct in Acer's supply chain, including in relation to the extraction and supply of minerals.
- Continued to review the RMI Grievance and Complaints Mechanism results to be informed of the issues and the steps taken to address the matters.
- Continued to provide capacity building through our annual supplier CSR
  communication meeting. Acer provided follow-up training on the implementation
  of its new software solution, updated expectations on achieving program goals,
  and the global trend to all of the internal personnel with responsibility over
  responsible minerals program activities as well as all of the 1<sup>st</sup> tier suppliers over
  which Acer has direct influence.

## 2. Identify and assess risks in the supply chain

- Conducted Acer's annual conflict minerals survey, requesting information on Acer's supply chain using the CMRT and received 100% direct supplier response rate.
- Conducted Acer's second cobalt survey using the RMI Cobalt Reporting Template (CRT), while expanding our supplier scope beyond lithium-ion battery suppliers to also include hard drive and final assembly suppliers, receiving an 87% response rate.
- Consolidated the supplier survey responses for 3TG and cobalt and compared the results with the RMI known SOR lists and the RMAP to verify true SORs, SOR status, mines of origin, and conflict-free status for 3TG.
- Shared lists of 3TG and cobalt SORs with the RMI to assist the RMI with maintaining an up-to-date list of current SORs.
- Acer continues to conduct audits to verify the presence of an implemented due diligence program, including the existence of their own conflict or responsible minerals policies, evidence of the design and implementation of supply chain due diligence program that includes a risk management plan to identify and mitigate risks, and existence of conflict or responsible minerals reporting. In 2019, Acer identified findings for two suppliers via audits. One supplier did not review their Conflict Minerals Policy and Management procedures on an annual basis. Acer worked with that supplier to ensure that a review process was in place to annually reassess the effectiveness of their conflict minerals procedures. The other supplier did not have due diligence procedures in place. Acer worked with that supplier to establish due diligence procedures that identify 3TG smelters, assess and mitigate risk related to SORs in their supply chain, ensuring conformance and making improvements where process gaps have been identified.
- Acer continued using the Standards Comparison and Risk Readiness Assessment (RRA) tool offered through the Responsible Business Alliance (RBA). The tool

allows Acer to compare suppliers' performance across many different standards, initiatives and certifications, improving our ability to assess and manage risk in our minerals supply chain. Acer continues to request that the SORs in its supply chain register in the RRA system and complete and share the RRA results with us. At the time of the writing of this report, Acer has connections with 105 smelters and has received 92 RRAs.

- 3. Design and implement a strategy to respond to identified risks
  - Improved the effectiveness of our supplier engagement and feedback process through the further refinement of our internal data management system to enable more effective supplier engagement.
  - Continued engaging SORs directly for both 3TG and cobalt to encourage participation in the RMAP and to provide pressure on SORs to remain engaged in the program.
  - Continued our practice from last year of engaging suppliers to provide plans to address high risk SORs and to demand that suppliers cease sourcing materials from certain high risk SORs that have chosen not to participate in the RMAP over the long term or have allowed their conformant status to lapse.
  - Continued to measure conflict minerals key performance indicators (KPIs) within Acer's supplier CSR scorecard to minimize risk by driving better due diligence and reporting within the supply chain. The majority of Acer suppliers fall into the "good" category. Although we did identify some suppliers that required immediate improvement. At the time of the writing of this report, all suppliers requiring immediate improvement were able to implement corrective action. A summary of the results of our supplier CSR scorecards is provided in Table 1 below.

Table 1: CSR Scorecard Results

Score Category	Score	Suppliers
Needs improvement immediately	<5	3.8%
Needs Improvement	5 - 8	5.7%
Good	9 - 10	90.6%

 Continued reviewing the RMI's Grievance & Complaints Mechanism report to identify potential issues that may exist in Acer's supply chain and to support mitigation where applicable.

- 4. Carry out independent third-party audit of smelter/refiner's due diligence practices
  - Continued support of the RMAP (member ID: ACER) as an active member of the RBA.
- 5. Report annually on supply chain due diligence
  - Published an updated list of known SORs (3TG and cobalt) that have been identified in Acer's supply chain as a result of its due diligence measures (see Appendix B).
  - Reported on Acer's supply chain due diligence via this RMR.

#### **In-Region Clean Minerals Trade**

Acer continues to believe that projects and organizations that seek to boost economic development, help stabilize the Great Lakes Region, as well as develop systems that feed into the RMAP tools and processes are essential. In addition, Acer realizes that mining is an intensive process involving social and environmental risks that must be managed and involves metals and minerals that extend beyond 3TG and the DRC. As a result, Acer follows and/or supports the organizations below.

- Monitors the activities of the ICGLR-OECD-UN Joint Forum on Responsible Mineral Supply Chains to learn about experiences with regards to implementing the OECD Guidance and opportunities to contribute to in-region programs.
- Contributes funding and participates as a member of the PPA, an organization whose goal is to award funding for in-region programs that seek to spur economic development and develop minerals tracing systems. In 2019, Acer participated on the Artisanal Finance Evaluation Committee to review artisanal pilot concepts for potential funding by the PPA. Acer also attended the annual multi-stakeholder membership meeting to hear a summary of the state of the PPA, which included current membership, resources, activities, and achievements. Members also provided feedback on priority topics and how they may support future achievements towards PPA objectives, as well as held a discussion on potential impacts and outcomes of a delegation visit to the DRC in December. Finally, Acer joined a co-creation session with PPA members and USAID to explore opportunities for longer-term planning, action, and resources for the PPA.
- Participated as a member of RMI's Tin Working Group (TWG), which is focused on significant risk areas including social/economic risks, occupational health and safety, environmental degradation, and challenging legal/regulatory issues related

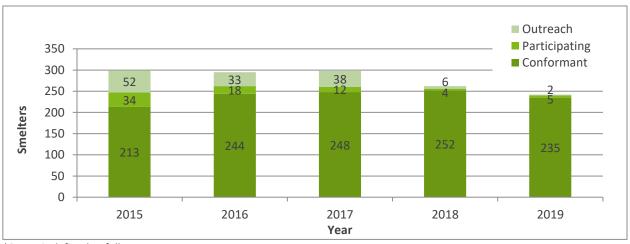
to mining tin in Indonesia. Activities in 2019 included the completion of phase II, which included the development of two practical guides on sustainable land reclamation and OHS capacity building. Also, the TWG roadmap was updated based on the group activities and deliverables. Finally, the membership held a phase II exit meeting to discuss the current format and the path forward within the RMI in 2020.

### **Results of Due Diligence Measures**

As a result of its due diligence measures in 2019, Acer was able to identify 242 unique 3TG and 28 cobalt SORs in its supply chain that it has reason to believe are legitimate SORs. Acer based this decision on the information received through the consolidation of its supplier survey responses and industry information made available to it through its RMI membership and working group participation.

For the 2019 reporting year, Acer is also providing an update to its progress year-over-year (Figures 2 & 3), which includes the historical results for 3TG and cobalt, and individual metal performance for the current reporting year (Figure 4). Both charts include the SOR status as of April 9, 2020 and clearly show the excellent progress Acer has made as a result of its due diligence efforts.

Figure 2: 3TG Progress



<sup>\*</sup>Status is defined as follows:

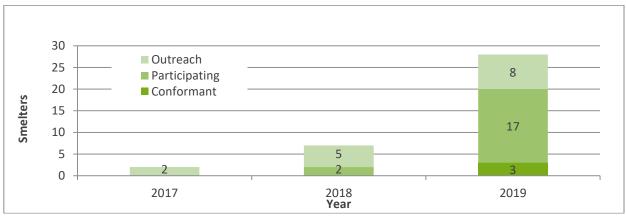
Conformant: Smelters or refiners that are conformant to the Responsible Minerals Assurance Process (RMAP) assessment protocols or have been validated by a similar validation program (e.g., the London Bullion Market Association's Responsible Gold Programme or the Responsible Jewelry Council's Chain-of-Custody Certification Program)

Participating: Smelters or refiners that have committed to undergo an RMAP audit

Outreach: Smelters or refiners that have not agreed to participate, but Acer is assisting with targeted outreach

<sup>\*\*</sup> Totals include smelters or refiners of gold, tantalum, tin, and tungsten.

Figure 3: Cobalt Progress

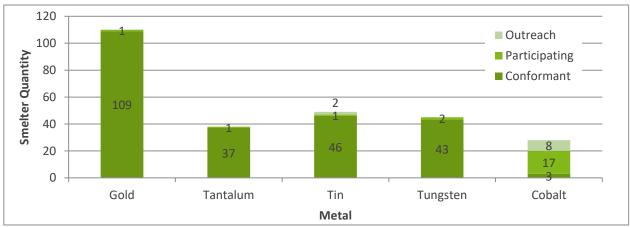


<sup>\*</sup>Status is defined as follows:

Conformant: Refiners that are conformant to the Responsible Minerals Assurance Process (RMAP) assessment protocol Participating: Refiners that have committed to undergo an RMAP audit

Outreach: Refiners that have not agreed to participate, but Acer is assisting with targeted outreach

Figure 4: 2019 Status, by metal



<sup>\*</sup>Status is defined as follows:

Conformant: Smelters or refiners that are compliant with the Responsible Minerals Assurance Process (RMAP)assessment protocols or have been validated by a similar validation program (e.g., the London Bullion Market Association's *Responsible Gold Programme* or the Responsible Jewelry Council's *Chain-of-Custody Certification Program*)

Participating: Smelters and refiners that have committed to undergo an RMAP audit

Outreach: Smelters or refiners that have not agreed to participate, but Acer is assisting with targeted outreach

Acer included the following appendices to this RMR that provide additional details on the direct suppliers and SORs in Acer's supply chain:

- Appendix A Supply Chain Indicators additional metrics Acer has identified to track progress within its 3TG supply chain.
- Appendix B Smelter/Refiner List– the complete list of SORs that were confirmed to be part of Acer's supply chain during the 2019 reporting period.

Acer continues to reach toward the ultimate goal of having 100% of its 3TG SORs engaged in the RMAP, either conformant or participating in the process with the goal of becoming conformant. However, due to the dynamic nature of our supply chain and the existence of a due diligence process that identifies risk mitigation opportunities, Acer understands that it's realistic to assume that there may always be a number of SORs that require outreach or are in the process of being added or removed from the supply chain. In 2019, Acer set a target that 95% of 3TG SORs would be RMAP conformant and 100% would be either RMAP conformant or participating, allowing for a small quantity of SORs to be in the risk mitigation or transition phase. With the results of 97% conformant and 99% when including the participating SORs, Acer exceeded its goal for conformant SORs, but fell short of its goal for conformant and participating SORs by 1%. Regardless, Acer improved on both measurements when compared to last year and will continue to strive towards meeting those goals in 2020.

#### **Future Due Diligence and Risk Mitigation Measures**

Acer will continue to take steps during the next reporting period to improve the due diligence conducted and further mitigate the risk in its supply chain, including:

- Continue to review and update Acer's policies, procedures, risk-management plans, and program metrics to ensure they remain progressive, drive continuous improvement, and are tailored accordingly to account for additional risks specific to other priority minerals and CAHRAs identified by Acer.
- Support the development of due diligence processes, tools and audit programs for other priority minerals through multi-stakeholder processes, such as those coordinated by the RMI.
- Continue to work with suppliers to increase the accuracy of SOR identification, support SOR engagement, and drive them to source from SORs with a RMAP-conformant status.
- Continue to encourage SORs to participate in the RMAP, with the goal of obtaining a conformant status.
- Increase participation in RMI Smelter Engagement Team
- Continue supplier audits to evaluate responsible minerals policies and practices within the supply chain downstream from the SORs.
- Continue to measure and grade the due diligence performance of our direct suppliers through our corporate social responsibility scorecard, to prioritize responsible minerals and drive continuous improvement.
- Continue to support in-region projects and organizations that seek to boost economic development, mitigate social and environmental risks, as well as develop systems that feed into the RMAP tools and processes.

• For 2020, our targets are: 95% of SORs are conformant to an OECD-aligned 3<sup>rd</sup> party mechanism and 100% are either conformant to or participating in an OECD-aligned 3<sup>rd</sup> party mechanism.

**Appendix A – Supply Chain Indicators** 

	Result				
Indicator	2015	2016	2017	2018	2019
Number of supplier audits conducted	71	70	71	105	101
Number of supplier factories in compliance with Acer's policy or program	65	66	69	105	99
Percentage of suppliers that have adopted a conflict minerals policy	97%	98%	100%	100%	100%
<ul> <li>Policy is publically available on supplier's website</li> </ul>	78%	84%	86%	91%	92%
Suppliers that have required their direct suppliers to source from smelters validated by an independent third party audit	100%	100%	100%	94%	98%
Percentage of validated smelters in the supply chain that are known to not be sourcing from covered countries	52%	60%	56%	60%	52%
Percentage of validated smelters in the supply chain that are known to be sourcing from covered countries	11%	18%	13%	17%	19%
Quantity of smelters that are known to be sourcing from covered countries (Percentage that are validated)	23 (100%)	43 (100%)	40 (100%)	44 (100%)	46 (100%)

# Appendix B - Smelter/Refiner List

As part of Acer's responsible minerals due diligence efforts, we have published a list of the tantalum, tin, tungsten, gold and cobalt smelters/refiners that have been confirmed to be present in our supply chain. On an annual basis, this list will be updated with the latest status. For the most current information on each smelter/refiner, please visit the Responsible Minerals Initiative website at <a href="https://www.responsiblemineralsinitiative.org">www.responsiblemineralsinitiative.org</a>

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Gold Asaka Riken Co., Ltd. JAPAN  Gold AU Traders and Refiners SOUTH AFRICA  Gold Aurubis AG GERMANY  Gold Bangalore Refinery INDIA  Gold Bangko Sentral ng Pilipinas (Central Bank of the Philippines) PHILIPPINES  Gold Boliden AB SWEDEN  Gold C. Hafner GmbH + Co. KG GERMANY  Gold CCR Refinery - Glencore Canada Corporation CANADA  Gold Cendres + Metaux S.A. SWITZERLAND  Gold Chimet S.p.A. ITALY  Gold Chugai Mining JAPAN	Gold	Asahi Refining Canada Ltd.	CANADA
Gold Aurubis AG GERMANY  Gold Bangalore Refinery INDIA  Gold Bangko Sentral ng Pilipinas (Central Bank of the Philippines) PHILIPPINES  Gold Boliden AB SWEDEN  Gold C. Hafner GmbH + Co. KG GERMANY  Gold CCR Refinery - Glencore Canada Corporation CANADA  Gold Cendres + Metaux S.A. SWITZERLAND  Gold Chimet S.p.A. ITALY  Gold Chugai Mining JAPAN	Gold	Asahi Refining USA Inc.	UNITED STATES OF AMERICA
Gold Aurubis AG GERMANY  Gold Bangalore Refinery INDIA  Gold Bangko Sentral ng Pilipinas (Central Bank of the Philippines) PHILIPPINES  Gold Boliden AB SWEDEN  Gold C. Hafner GmbH + Co. KG GERMANY  Gold CCR Refinery - Glencore Canada Corporation CANADA  Gold Cendres + Metaux S.A. SWITZERLAND  Gold Chimet S.p.A. ITALY  Gold Chugai Mining JAPAN	Gold	Asaka Riken Co., Ltd.	JAPAN
Gold Bangalore Refinery INDIA  Gold Bangko Sentral ng Pilipinas (Central Bank of the Philippines) PHILIPPINES  Gold Boliden AB SWEDEN  Gold C. Hafner GmbH + Co. KG GERMANY  Gold CCR Refinery - Glencore Canada Corporation CANADA  Gold Cendres + Metaux S.A. SWITZERLAND  Gold Chimet S.p.A. ITALY  Gold Chugai Mining JAPAN	Gold	AU Traders and Refiners	SOUTH AFRICA
Gold Bangko Sentral ng Pilipinas (Central Bank of the Philippines) PHILIPPINES  Gold Boliden AB SWEDEN  Gold C. Hafner GmbH + Co. KG GERMANY  Gold CCR Refinery - Glencore Canada Corporation CANADA  Gold Cendres + Metaux S.A. SWITZERLAND  Gold Chimet S.p.A. ITALY  Gold Chugai Mining JAPAN	Gold	Aurubis AG	GERMANY
Gold Boliden AB SWEDEN  Gold C. Hafner GmbH + Co. KG GERMANY  Gold CCR Refinery - Glencore Canada Corporation CANADA  Gold Cendres + Metaux S.A. SWITZERLAND  Gold Chimet S.p.A. ITALY  Gold Chugai Mining JAPAN	Gold	Bangalore Refinery	INDIA
Gold C. Hafner GmbH + Co. KG GERMANY  Gold CCR Refinery - Glencore Canada Corporation CANADA  Gold Cendres + Metaux S.A. SWITZERLAND  Gold Chimet S.p.A. ITALY  Gold Chugai Mining JAPAN	Gold	Bangko Sentral ng Pilipinas (Central Bank of the Philippines)	PHILIPPINES
Gold CCR Refinery - Glencore Canada Corporation CANADA  Gold Cendres + Metaux S.A. SWITZERLAND  Gold Chimet S.p.A. ITALY  Gold Chugai Mining JAPAN	Gold	Boliden AB	SWEDEN
Gold Cendres + Metaux S.A. SWITZERLAND  Gold Chimet S.p.A. ITALY  Gold Chugai Mining JAPAN	Gold	C. Hafner GmbH + Co. KG	GERMANY
Gold Chimet S.p.A. ITALY  Gold Chugai Mining JAPAN	Gold	CCR Refinery - Glencore Canada Corporation	CANADA
Gold Chugai Mining JAPAN	Gold	Cendres + Metaux S.A.	SWITZERLAND
	Gold	Chimet S.p.A.	ITALY
Gold Daye Non-Ferrous Metals Mining Ltd. CHINA	Gold	Chugai Mining	JAPAN
	Gold	Daye Non-Ferrous Metals Mining Ltd.	CHINA

Gold DODUCO Contacts and Refining GmbH GERMANY  Gold Dowa JAPAN  Gold Dowa JAPAN  Gold DS PRETECH Co., Ltd. SOUTH KOREA  Gold DSC (Do Sung Corporation) SOUTH KOREA  Gold Eco-System Recycling Co., Ltd. East Plant JAPAN  Gold Eco-System Recycling Co., Ltd. West Plant JAPAN  Gold Emirates Gold DMCC UNITED STATES OF AMERICA  Gold Gold Refinery of Zijin Mining Group Co., Ltd. CHINA  Gold Gold Refinery of Zijin Mining Group Co., Ltd. CHINA  Gold Heimerle + Meule GmbH GERMANY  Gold Heraeus Metals Hong Kong Ltd. CHINA  Gold Heraeus Metals Hong Kong Ltd. CHINA  Gold Inner Mongolia Qiankun Gold and Silver Refinery Share Co., Ltd. CHINA  Gold Ishifuku Matal Industry Co., Ltd. JAPAN  Gold Ishifuku Matal Industry Co., Ltd. JAPAN  Gold Ishifuku Matal Industry Co., Ltd. JAPAN  Gold Japan Mint JAPAN  Gold Kazzinc KAZAKHSTAN  Gold Kazzinc KAZAKHSTAN  Gold KRIM Pobka Mindz Spolka Akcyjna POLANO  Gold KGHM Pobka Mindz Spolka Akcyjna POLANO	Metal	Smelter Name	Country
Gold DS PRETECH Co., Ltd. SOUTH KOREA  Gold DSC (Do Sung Corporation) SOUTH KOREA  Gold Eco-System Recycling Co., Ltd. East Plant JAPAN  Gold Eco-System Recycling Co., Ltd. North Plant JAPAN  Gold Eco-System Recycling Co., Ltd. West Plant JAPAN  Gold Eco-System Recycling Co., Ltd. West Plant JAPAN  Gold Emirates Gold DMCC UNITED ARAB EMIRATES  Gold Gelb Refining Corporation UNITED STATES OF AMERICA  Gold Gold Refinery of Zijin Mining Group Co., Ltd.  Gold Great Wall Precious Metals Co., Ltd. of CRPM CHINA  Gold Heimerle + Meule GmbH GERMANY  Gold Heraeus Metals Hong Kong Ltd.  Gold Heraeus Metals Gribh & Co. KG GERMANY  Gold Inner Mongolia Qiankun Gold and Silver Refinery Share Co., Ltd.  Gold Inshifuku Metal Industry Co., Ltd.  Gold Itahpreziosi ITALY  Gold Japan Mint JAPAN  Gold Japan Mint JAPAN  Gold Japan Mint JAPAN  Gold JIANGE Copper Co., Ltd.  Gold JX Nippon Mining & Metals Co., Ltd.  Gold KSZLInc KAZAKHSTAN  Gold KGHM Polska Mieds' Spolka Akcyjna POLAND	Gold	DODUCO Contacts and Refining GmbH	GERMANY
Gold DSC (Do Sung Corporation) SOUTH KOREA  Gold Eco-System Recycling Co., Ltd. Rorth Plant JAPAN  Gold Eco-System Recycling Co., Ltd. North Plant JAPAN  Gold Eco-System Recycling Co., Ltd. North Plant JAPAN  Gold Eco-System Recycling Co., Ltd. West Plant JAPAN  Gold Eco-System Recycling Co., Ltd. West Plant JAPAN  Gold Emirates Gold DMCC UNITED ARAB EMIRATES  Gold Gelb Refining Corporation UNITED STATES OF AMERICA  Gold Gold Refinery of Zijin Mining Group Co., Ltd. CHINA  Gold Great Wall Precious Metals Co., Ltd. of CBPM CHINA  Gold Heraeus Metals Hong Kong Ltd.  Gold Heraeus Metals Hong Kong Ltd.  Gold Heraeus Precious Metals GmbH & Co. KG GERMANY  Gold Inner Mongolia Qiankun Gold and Silver Refinery Share Co., Ltd.  Gold Ishfuku Metal Industry Co., Ltd.  Gold Ishfuku Metal Industry Co., Ltd.  Gold Istanbul Gold Refinery TURKEY  Gold Italpreciosi ITALY  Gold Japan Mint JAPAN  Gold Jiangxi Copper Co., Ltd.  Gold Jiangxi Copper Co., Ltd.  Gold Jiangxi Copper Co., Ltd.  Gold X Nippon Mining & Metals Co., Ltd.  Gold Kazzinc KAZAKHSTAN  Gold Kennecott Utah Copper LLC  UNITED STATES OF AMERICA  Gold KGHM Polska Miedz Spolka Akcyjna POLAND	Gold	Dowa	JAPAN
Gold Eco-System Recycling Co., Ltd. East Plant JAPAN  Gold Eco-System Recycling Co., Ltd. North Plant JAPAN  Gold Eco-System Recycling Co., Ltd. West Plant JAPAN  Gold Eco-System Recycling Co., Ltd. West Plant JAPAN  Gold Eco-System Recycling Co., Ltd. West Plant JAPAN  Gold Emirates Gold DMCC UNITED ARAB EMIRATES  Gold Geib Refining Corporation UNITED STATES OF AMERICA  Gold Gold Refinery of Zijin Mining Group Co., Ltd. CHINA  Gold Great Wall Precious Metals Co., Ltd. of CBPM CHINA  Gold Heraeus Metals Hong Kong Ltd. CHINA  Gold Heraeus Precious Metals GmbH & Co. KG GERMANY  Gold Inner Mongolia Qiankun Gold and Silver Refinery Share Co., Ltd. CHINA  Gold Ishifuku Metal Industry Co., Ltd. JAPAN  Gold Istanbul Gold Refinery TURKEY  Gold Islapra Mint JAPAN  Gold Japan Mint JAPAN  Gold Jiangxi Copper Co., Ltd. CHINA  Gold JSC Uralelectromed RUSSIAN FEDERATION  Gold Kazzinc KAZAKHSTAN  Gold Kennecott Utah Copper LLC UNITED STATES OF AMERICA  Gold KGHM Polska Mieds Spolka Akcyjna POLAND	Gold	DS PRETECH Co., Ltd.	SOUTH KOREA
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Gold Eco-System Recycling Co., Ltd. West Plant JAPAN  Gold Emirates Gold DMCC UNITED ARAB EMIRATES  Gold Gelb Refining Corporation UNITED STATES OF AMERICA  Gold Gold Refinery of Zijin Mining Group Co., Ltd.  Gold Great Wall Precious Metals Co., Ltd. of CBPM CHINA  Gold Heimerle + Meule GmbH GERMANY  Gold Heraeus Metals Hong Kong Ltd.  Gold Heraeus Precious Metals GmbH & Co. KG GERMANY  Gold Inner Mongolia Qiankun Gold and Silver Refinery Share Co., Ltd.  Gold Ishifuku Metal Industry Co., Ltd.  Gold Istanbul Gold Refinery TURKEY  Gold Italpreziosi ITALY  Gold Japan Mint JAPAN  Gold Japan Mint JAPAN  Gold Jiangxi Copper Co., Ltd.  Gold JSC Uralelectromed RUSSIAN FEDERATION  Gold Kazzinc KAZAKHSTAN  Gold Kennecott Utah Copper LLC  UNITED STATES OF AMERICA  Gold KGHM Polska Miedz Spolka Akcyjna POLAND	Gold	Eco-System Recycling Co., Ltd. East Plant	JAPAN
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Gold Heimerle + Meule GmbH GERMANY  Gold Heraeus Metals Hong Kong Ltd. CHINA  Gold Heraeus Precious Metals GmbH & Co. KG GERMANY  Gold Inner Mongolia Qiankun Gold and Silver Refinery Share Co., Ltd. CHINA  Gold Ishifuku Metal Industry Co., Ltd. JAPAN  Gold Istanbul Gold Refinery TURKEY  Gold Italpreziosi ITALY  Gold Japan Mint JAPAN  Gold Japan Mint JAPAN  Gold JSC Uralelectromed RUSSIAN FEDERATION  Gold JSC Valelectromed RUSSIAN FEDERATION  Gold Kazzinc KAZAKHSTAN  Gold Kennecott Utah Copper LLC UNITED STATES OF AMERICA  Gold KGHM Polska Miedz Spolka Akcyjna POLAND	Gold	Gold Refinery of Zijin Mining Group Co., Ltd.	CHINA
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Gold Ishifuku Metal Industry Co., Ltd. JAPAN  Gold Istanbul Gold Refinery TURKEY  Gold Italpreziosi ITALY  Gold Japan Mint JAPAN  Gold Jiangxi Copper Co., Ltd. CHINA  Gold JSC Uralelectromed RUSSIAN FEDERATION  Gold JX Nippon Mining & Metals Co., Ltd. JAPAN  Gold Kazzinc KAZAKHSTAN  Gold Kennecott Utah Copper LLC UNITED STATES OF AMERICA  Gold KGHM Polska Miedz Spolka Akcyjna POLAND	Gold	Heraeus Precious Metals GmbH & Co. KG	GERMANY
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Gold Italpreziosi ITALY  Gold Japan Mint JAPAN  Gold Jiangxi Copper Co., Ltd. CHINA  Gold JSC Uralelectromed RUSSIAN FEDERATION  Gold JX Nippon Mining & Metals Co., Ltd. JAPAN  Gold Kazzinc KAZAKHSTAN  Gold Kennecott Utah Copper LLC UNITED STATES OF AMERICA  Gold KGHM Polska Miedz Spolka Akcyjna POLAND	Gold	Ishifuku Metal Industry Co., Ltd.	JAPAN
Gold Japan Mint JAPAN  Gold Jiangxi Copper Co., Ltd. CHINA  Gold JSC Uralelectromed RUSSIAN FEDERATION  Gold JX Nippon Mining & Metals Co., Ltd. JAPAN  Gold Kazzinc KAZAKHSTAN  Gold Kennecott Utah Copper LLC UNITED STATES OF AMERICA  Gold KGHM Polska Miedz Spolka Akcyjna POLAND	Gold	Istanbul Gold Refinery	TURKEY
Gold Jiangxi Copper Co., Ltd. CHINA  Gold JSC Uralelectromed RUSSIAN FEDERATION  Gold JX Nippon Mining & Metals Co., Ltd. JAPAN  Gold Kazzinc KAZAKHSTAN  Gold Kennecott Utah Copper LLC UNITED STATES OF AMERICA  Gold KGHM Polska Miedz Spolka Akcyjna POLAND	Gold	Italpreziosi	ITALY
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Gold JX Nippon Mining & Metals Co., Ltd. JAPAN  Gold Kazzinc KAZAKHSTAN  Gold Kennecott Utah Copper LLC UNITED STATES OF AMERICA  Gold KGHM Polska Miedz Spolka Akcyjna POLAND	Gold	Jiangxi Copper Co., Ltd.	CHINA
Gold Kazzinc KAZAKHSTAN  Gold Kennecott Utah Copper LLC UNITED STATES OF AMERICA  Gold KGHM Polska Miedz Spolka Akcyjna POLAND	Gold	JSC Uralelectromed	RUSSIAN FEDERATION
Gold Kennecott Utah Copper LLC UNITED STATES OF AMERICA  Gold KGHM Polska Miedz Spolka Akcyjna POLAND	Gold	JX Nippon Mining & Metals Co., Ltd.	JAPAN
Gold KGHM Polska Miedz Spolka Akcyjna POLAND	Gold	Kazzinc	KAZAKHSTAN
	Gold	Kennecott Utah Copper LLC	UNITED STATES OF AMERICA
Gold Kojima Chemicals Co., Ltd. JAPAN	Gold	KGHM Polska Miedz Spolka Akcyjna	POLAND
	Gold	Kojima Chemicals Co., Ltd.	JAPAN

Gold Kyr	rea Zinc Co., Ltd. rgyzaltyn JSC rrfebre S.A. NIKKO Copper Inc.	SOUTH KOREA  KYRGYZSTAN  ANDORRA
Gold L'Oi	rfebre S.A.	
		ANDORRA
Gold LS-N	NIKKO Copper Inc.	
		SOUTH KOREA
Gold LT N	Metal Ltd.	SOUTH KOREA
Gold Mai	rsam Metals	BRAZIL
Gold Mai	terion	UNITED STATES OF AMERICA
Gold Mai	itsuda Sangyo Co., Ltd.	JAPAN
Gold Me	etalor Technologies (Hong Kong) Ltd.	CHINA
Gold Mei	etalor Technologies (Singapore) Pte., Ltd.	SINGAPORE
Gold Me	etalor Technologies (Suzhou) Ltd.	CHINA
Gold Mei	etalor Technologies S.A.	SWITZERLAND
Gold Mei	etalor USA Refining Corporation	UNITED STATES OF AMERICA
Gold Me	etalurgica Met-Mex Penoles S.A. De C.V.	MEXICO
Gold Mit	tsubishi Materials Corporation	JAPAN
Gold Mit	tsui Mining and Smelting Co., Ltd.	JAPAN
Gold MM	MTC-PAMP India Pvt., Ltd.	INDIA
Gold Mos	scow Special Alloys Processing Plant	RUSSIAN FEDERATION
Gold Nac	dir Metal Rafineri San. Ve Tic. A.S.	TURKEY
Gold Nav	voi Mining and Metallurgical Combinat	UZBEKISTAN
Gold Nih	non Material Co., Ltd.	JAPAN
Gold Ogu	ussa Osterreichische Gold- und Silber-Scheideanstalt GmbH	AUSTRIA
Gold Ohu	ura Precious Metal Industry Co., Ltd.	JAPAN
Gold OJS	SC "The Gulidov Krasnoyarsk Non-Ferrous Metals Plant" (OJSC Krastsvetmet)	RUSSIAN FEDERATION
Gold OJS	SC Novosibirsk Refinery	RUSSIAN FEDERATION
Gold PAN	MP S.A.	SWITZERLAND

Gold         Planta Recuperadora de Metales SpA         CHILE           Gold         Prokisky Plant of Non-Ferrous Metals         RUSSIAN FEDERATION           Gold         PT Aneka Tambang (Persero) Tbk         INDONESIA           Gold         PX Precinos S.A.         SWITZERLAND           Gold         Rand Refinery (Pty) Ltd.         SOUTH AFRICA           Gold         REMONDIS PMR B.V.         NETHERLANDS           Gold         Royal Canadian Mint         CANADA           Gold         SAAMP         FRANCE           Gold         SAFINA A.S.         CZECH REPUBLIC           Gold         Samuck Precious Metals         SOUTH KOREA           Gold         SAMONIA Edelmetalle GmbH         GERMANY           Gold         Standong Zhaojin Gold & Silver Refinery Co., Ltd.         CHINA           Gold         Silvana Tianze Precious Metals Co., Ltd.         CHINA           Gold         South Applied Materials Technology Corp.         TAWAN           Gold         Sungted HiMetal Co., Ltd.         SOUTH KOREA     <	Metal	Smelter Name	Country
Gold PT Aneka Tambang (Persero) Tbk SWITZERLAND  Gold RAND REfinery (Pty) Ltd. SOUTH AFRICA  Gold REMONDIS FMR B.V. NETHERLANDS  Gold ROYal Canadian Mint CANADA  Gold SAAMP FRANCE  Gold Saffmet S.p.A ITALY  Gold Saffmet S.p.A STINA A.S. CZECH REPUBLIC  Gold SARINA A.S. CZECH REPUBLIC  Gold SANDNIA Edelmetalle GmbH GERMANY  Gold SEMPSA Joyeria Plateria S.A. SPAIN  Gold Singway Technology Co., Ltd. CHINA  Gold Singway Technology Co., Ltd. TAIWAN  Gold Sole Shyolikovsky Factory of Secondary Precious Metals RUSSIAN FEDERATION  Gold Sungel HiMetal Co., Ltd. Sungel HiMetal Co., Ltd. Sungel HiMetal Co., Ltd. JAPAN  Gold The Refinery of Shandong Gold Mining Co., Ltd. CHINA  Gold The Refinery of Shandong Gold Mining Co., Ltd. CHINA  Gold Tokuriki Honten Co., Ltd. CHINA  Gold Tokuriki Honten Co., Ltd. CHINA  Gold Tokuriki Honten Co., Ltd. JAPAN  Gold Tokuriki Honten Co., Ltd. CHINA  Gold Tokuriki Honten Co., Ltd.	Gold	Planta Recuperadora de Metales SpA	CHILE
Gold Rand Refinery (Pty) Ltd. SOUTH AFRICA Gold REMONDIS PMR B.V. NETHERLANDS Gold ROYal Canadian Mint CANADA Gold SAAMP FRANCE Gold Safimet S.p.A ITALY Gold Safimet S.p.A ITALY Gold SAFINA A.S. CZECH REPUBLIC Gold SAMOLK Precious Metals SOUTH KOREA Gold SANDIA Edelmetalie GmbH GERMANY Gold SEMPSA Joyeria Plateria S.A. SPAIN Gold Sidnan Tianze Precious Metals Co., Ltd. CHINA Gold Signway Technology Co., Ltd. TAIWAN Gold SOE Shyolkovsky Factory of Secondary Precious Metals RUSSIAN FEDERATION Gold Solar Applied Materials Technology Corp. TAIWAN Gold SungBel HiMetal Co., Ltd. SOUTH KOREA Gold T.C.A.S.p.A ITALY Gold Transk Kikinzotu Kogyo K.K. JAPAN Gold Tokuriki Honten Co., Ltd. CHINA Gold Tokuriki Honten Co., Ltd. CHINA	Gold	Prioksky Plant of Non-Ferrous Metals	RUSSIAN FEDERATION
Gold Rand Refinery (Pty) Ltd. SOUTH AFRICA  Gold REMONDIS PMR B.V. NETHERLANDS  Gold Royal Canadian Mint CANADA  Gold SAAMP FRANCE  Gold SAAMP FRANCE  Gold SAFIMA A.S. CZECH REPUBLIC  Gold SAFIMA A.S. CZECH REPUBLIC  Gold SAMONIA Edeimetalie GmbH GERMANY  Gold SEMPSA Joyeria Plateria S.A. SPAIN  Gold Shandong Zhaojin Gold & Silver Refinery Co., Ltd. CHINA  Gold Singway Technology Co., Ltd. TAIWAN  Gold Singway Technology Co., Ltd. TAIWAN  Gold Solar Applied Materials Technology Corp. TAIWAN  Gold Sumitomo Metal Mining Co., Ltd. SOUTH KOREA  Gold Tanaka Kikinzoku Kogyo K.K. JAPAN  Gold The Refinery of Shandong Gold Mining Co., Ltd. CHINA  Gold Tokuriki Honten Co., Ltd. JAPAN  Gold Tokuriki Honten Co., Ltd. JAPAN  Gold Tokuriki Honten Co., Ltd. JAPAN	Gold	PT Aneka Tambang (Persero) Tbk	INDONESIA
Gold REMONDIS PMR B.V. NETHERLANDS  Gold Royal Canadian Mint CANADA  Gold SAAMP FRANCE  Gold Safimet S.p.A ITALY  Gold SAFINA A.S. CZECH REPUBLIC  Gold SATONIA Edelmetalle GmbH GERMANY  Gold SEMPSA Joyeria Plateria S.A. SPAIN  Gold Sichuan Tianze Precious Metals Co., Ltd. CHINA  Gold Singway Technology Co., Ltd. TAIWAN  Gold Singway Technology Co., Ltd. RUSSIAN FEDERATION  Gold Solar Applied Materials Technology Corp. TAIWAN  Gold Sumitomo Metal Mining Co., Ltd. SOUTH KOREA  Gold Tanaka Kikinzoku Kogyo K.K.  Gold The Refinery of Shandong Gold Mining Co., Ltd. LHINA  Gold Tokuriki Honten Co., Ltd. JAPAN	Gold	PX Precinox S.A.	SWITZERLAND
Gold Royal Canadian Mint CANADA  Gold SAAMP FRANCE  Gold Safimet S.p.A ITALY  Gold SAFINA A.S. CZECH REPUBLIC  Gold SAMOLA Frecious Metals SOUTH KOREA  Gold SAXONIA Edelmetalle GmbH GERMANY  Gold SEMPSA Joyeria Plateria S.A. SPAIN  Gold Sthuan Tianze Precious Metals Co., Ltd. CHINA  Gold Singway Technology Co., Ltd. TAIWAN  Gold Solar Applied Materials Technology Corp. TAIWAN  Gold Solar Applied Materials Technology Corp.  Gold Sumitomo Metal Mining Co., Ltd. JAPAN  Gold Tanaka Kikinzoku Kogyo K.K. JAPAN  Gold The Refinery of Shandong Gold Mining Co., Ltd. CHINA  Gold Tokuriki Honten Co., Ltd. JAPAN	Gold	Rand Refinery (Pty) Ltd.	SOUTH AFRICA
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Gold SAFINA A.S. CZECH REPUBLIC  Gold Samduck Precious Metals SOUTH KOREA  Gold SAXONIA Edelmetalle GmbH GERMANY  Gold SEMPSA Joyeria Plateria S.A. SPAIN  Gold Shandong Zhaojin Gold & Silver Refinery Co., Ltd. CHINA  Gold Sichuan Tianze Precious Metals Co., Ltd. CHINA  Gold Singway Technology Co., Ltd. TAIWAN  Gold SOE Shyolkovsky Factory of Secondary Precious Metals RUSSIAN FEDERATION  Gold Solar Applied Materials Technology Corp. TAIWAN  Gold Sumitomo Metal Mining Co., Ltd. SOUTH KOREA  Gold T.C.A.S.p.A ITALY  Gold Tanaka Kikinzoku Kogyo K.K. JAPAN  Gold The Refinery of Shandong Gold Mining Co., Ltd. CHINA  Gold Tokuriki Honten Co., Ltd. SOUTH KOREA  Gold Tokuriki Honten Co., Ltd. SOUTH KOREA  Gold Tokuriki Honten Co., Ltd. SOUTH KOREA	Gold	SAAMP	FRANCE
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Gold SAXONIA Edelmetalle GmbH GERMANY  Gold SEMPSA Joyeria Plateria S.A. SPAIN  Gold Shandong Zhaojin Gold & Silver Refinery Co., Ltd. CHINA  Gold Sichuan Tianze Precious Metals Co., Ltd. CHINA  Gold Singway Technology Co., Ltd. TAIWAN  Gold SOE Shyolkovsky Factory of Secondary Precious Metals RUSSIAN FEDERATION  Gold Solar Applied Materials Technology Corp. TAIWAN  Gold Sumitomo Metal Mining Co., Ltd. JAPAN  Gold SungEel HiMetal Co., Ltd. SOUTH KOREA  Gold Tanaka Kikinzoku Kogyo K.K. JAPAN  Gold The Refinery of Shandong Gold Mining Co., Ltd. CHINA  Gold Tokuriki Honten Co., Ltd. JAPAN  Gold Torecom SOUTH KOREA	Gold	SAFINA A.S.	CZECH REPUBLIC
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Gold Sumitomo Metal Mining Co., Ltd. JAPAN  Gold SungEel HiMetal Co., Ltd. SOUTH KOREA  Gold Tanaka Kikinzoku Kogyo K.K. JAPAN  Gold Tokuriki Honten Co., Ltd. JAPAN  Gold Torecom SOUTH KOREA	Gold	Singway Technology Co., Ltd.	TAIWAN
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Gold SungEel HiMetal Co., Ltd. SOUTH KOREA  Gold T.C.A S.p.A ITALY  Gold Tanaka Kikinzoku Kogyo K.K. JAPAN  Gold The Refinery of Shandong Gold Mining Co., Ltd. CHINA  Gold Tokuriki Honten Co., Ltd. SOUTH KOREA  Gold Torecom SOUTH KOREA	Gold	Solar Applied Materials Technology Corp.	TAIWAN
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Gold Tanaka Kikinzoku Kogyo K.K. JAPAN  Gold The Refinery of Shandong Gold Mining Co., Ltd. CHINA  Gold Tokuriki Honten Co., Ltd. JAPAN  Gold Torecom SOUTH KOREA	Gold	SungEel HiMetal Co., Ltd.	SOUTH KOREA
Gold The Refinery of Shandong Gold Mining Co., Ltd. CHINA  Gold Tokuriki Honten Co., Ltd. JAPAN  Gold Torecom SOUTH KOREA	Gold	T.C.A S.p.A	ITALY
Gold Tokuriki Honten Co., Ltd. JAPAN  Gold Torecom SOUTH KOREA	Gold	Tanaka Kikinzoku Kogyo K.K.	JAPAN
Gold Torecom SOUTH KOREA	Gold	The Refinery of Shandong Gold Mining Co., Ltd.	CHINA
	Gold	Tokuriki Honten Co., Ltd.	JAPAN
Gold Umicore Brasil Ltda. BRAZIL	Gold	Torecom	SOUTH KOREA
	Gold	Umicore Brasil Ltda.	BRAZIL

Metal	Smelter Name	Country
Gold	Umicore Precious Metals Thailand	THAILAND
Gold	Umicore S.A. Business Unit Precious Metals Refining	BELGIUM
Gold	United Precious Metal Refining, Inc.	UNITED STATES OF AMERICA
Gold	Valcambi S.A.	SWITZERLAND
Gold	Western Australian Mint (T/a The Perth Mint)	AUSTRALIA
Gold	WIELAND Edelmetalle GmbH	GERMANY
Gold	Yamakin Co., Ltd.	JAPAN
Gold	Yokohama Metal Co., Ltd.	JAPAN
Gold	Zhongyuan Gold Smelter of Zhongjin Gold Corporation	CHINA
Tantalum	Asaka Riken Co., Ltd.	JAPAN
Tantalum	Changsha South Tantalum Niobium Co., Ltd.	CHINA
Tantalum	CP Metals Inc.	UNITED STATES OF AMERICA
Tantalum	D Block Metals, LLC	UNITED STATES OF AMERICA
Tantalum	Exotech Inc.	UNITED STATES OF AMERICA
Tantalum	F&X Electro-Materials Ltd.	CHINA
Tantalum	FIR Metals & Resource Ltd.	CHINA
Tantalum	Global Advanced Metals Aizu	JAPAN
Tantalum	Global Advanced Metals Boyertown	UNITED STATES OF AMERICA
Tantalum	Guangdong Zhiyuan New Material Co., Ltd.	CHINA
Tantalum	H.C. Starck Co., Ltd.	THAILAND
Tantalum	H.C. Starck Hermsdorf GmbH	GERMANY
Tantalum	H.C. Starck Inc.	UNITED STATES OF AMERICA
Tantalum	H.C. Starck Ltd.	JAPAN
Tantalum	H.C. Starck Smelting GmbH & Co. KG	GERMANY
Tantalum	H.C. Starck Tantalum and Niobium GmbH	GERMANY
Tantalum	Hengyang King Xing Lifeng New Materials Co., Ltd.	CHINA

Metal	Smelter Name	Country
Tantalum	Jiangxi Dinghai Tantalum & Niobium Co., Ltd.	CHINA
Tantalum	Jiangxi Tuohong New Raw Material	CHINA
Tantalum	JiuJiang JinXin Nonferrous Metals Co., Ltd.	CHINA
Tantalum	Jiujiang Tanbre Co., Ltd.	CHINA
Tantalum	Jiujiang Zhongao Tantalum & Niobium Co., Ltd.	CHINA
Tantalum	KEMET Blue Metals	MEXICO
Tantalum	LSM Brasil S.A.	BRAZIL
Tantalum	Metallurgical Products India Pvt., Ltd.	INDIA
Tantalum	Mineracao Taboca S.A.	BRAZIL
Tantalum	Mitsui Mining and Smelting Co., Ltd.	JAPAN
Tantalum	Ningxia Orient Tantalum Industry Co., Ltd.	CHINA
Tantalum	NPM Silmet AS	ESTONIA
Tantalum	PRG Dooel	MACEDONIA
Tantalum	QuantumClean	UNITED STATES OF AMERICA
Tantalum	Resind Industria e Comercio Ltda.	BRAZIL
Tantalum	Solikamsk Magnesium Works OAO	RUSSIAN FEDERATION
Tantalum	Taki Chemical Co., Ltd.	JAPAN
Tantalum	Telex Metals	UNITED STATES OF AMERICA
Tantalum	Ulba Metallurgical Plant JSC	KAZAKHSTAN
Tantalum	XinXing HaoRong Electronic Material Co., Ltd.	CHINA
Tantalum	Yanling Jincheng Tantalum & Niobium Co., Ltd.	CHINA
Tin	Alpha	UNITED STATES OF AMERICA
Tin	Chenzhou Yunxiang Mining and Metallurgy Co., Ltd.	CHINA
Tin	Chifeng Dajingzi Tin Industry Co., Ltd.	CHINA
Tin	China Tin Group Co., Ltd.	CHINA
Tin	Dongguan CiEXPO Environmental Engineering Co., Ltd.	CHINA

Tin Dowa JAPAN  Tin EM Vinito BOLVIA  Tin Fenix Metals POLAND  Tin Gejiu Kai Meng Industry and Trade LLC CHINA  Tin Gejiu Non-Ferrous Metal Processing Co., Ltd. CHINA  Tin Gejiu Vinnin Nonferrous Electrolysis Co., Ltd. CHINA  Tin Guangdong Hannhe Non-Ferrous Metal Trade LLC CHINA  Tin Guangdong Hannhe Non-Ferrous Metal Smelting Plant CHINA  Tin Guangdong Hannhe Non-Ferrous Metal Smelting Plant CHINA  Tin Hulchang Hill Tin Industry Co., Ltd. CHINA  Tin Hulchang Jinshunda Tin Co., Ltd. CHINA  Tin Jiangsi New Nanshan Technology Ltd. CHINA  Tin Jiangsi New Nanshan Technology Ltd. CHINA  Tin Majaysia Smelting Corporation (MSC) MALAYSIA  Tin Malaysia Smelting Corporation (MSC) MALAYSIA  Tin Metallic Resources, Inc. UNITED STATES OF AMERICA  Tin Metallo Beigium N.V. BELGIUM  Tin Metallo Spain S.L.U. SPAIN  Tin Minsur PERU  Tin Modelech San Bind MALAYSIA  Tin Modelech San Bind MALAYSIA  Tin Modelech San Bind MALAYSIA  Tin O.M. Manufacturing (Thailand) Co., Ltd. THALAND  Tin O.M. Manufacturing Philippines, Inc. PHILIPPINES  Tin Oneradones Metalurgicas S.A. BOLVIA	Metal	Smelter Name	Country
Tin Fenix Metals POLAND  Tin Gejiu Kai Meng Industry and Trade LLC CHINA  Tin Gejiu Varioni Nonferrous Electrolysis Ca., Ltd. CHINA  Tin Gejiu Zili Mining And Metallurgy Co., Ltd. CHINA  Tin Gejiu Zili Mining And Metallurgy Co., Ltd. CHINA  Tin Guangdong Hanhe Non-Ferrous Metal Co., Ltd. CHINA  Tin Guangdong Hanhe Non-Ferrous Metal Co., Ltd. CHINA  Tin Guanyang Guida Nonferrous Metal Smelting Plant CHINA  Tin Hulchang Hill Tin Industry Co., Ltd. CHINA  Tin Hulchang Jinshunda Tin Co., Ltd. CHINA  Tin Jiangxi New Nanshan Technology Ltd. CHINA  Tin Jiangxi New Nanshan Technology Ltd. CHINA  Tin Ma'anshan Wetal Tin Co., Ltd. CHINA  Tin Magnu's Minerals Metals e Ligas Ltdo. BRAZIL  Tin Metallo Sinelting Corporation (MSC) MALAYSIA  Tin Metallo Resources, Inc. UNITED STATES OF AMERICA  Tin Metallo Selgium N.V. BELGIUM  Tin Metallo Spain S.L.U. SPAIN  Tin Mineraco Taboca S.A. BRAZIL  Tin Mineraco Taboca S.A. BRAZIL  Tin Minsur PERU  Tin Minsur PERU  Tin Minsur PERU  Tin Minsur PERU  Tin Modeltoch Sdn Bhd MALAYSIA  Tin O.M. Manufacturing (Thaliand) Co., Ltd. THALAND  Tin O.M. Manufacturing Philippines, Inc. PHILIPPINES	Tin	Dowa	JAPAN
Tin Geiju Kai Meng Industry and Trade LLC  CHINA  Tin Geiju Zili Mining And Metallurgy Co., Ltd.  CHINA  Tin Guangdong Hanhe Non-Ferrous Metal Co., Ltd.  CHINA  Tin Guangdong Hanhe Non-Ferrous Metal Co., Ltd.  CHINA  Tin Guanyang Guida Nonferrous Metal Smelting Plant  CHINA  Tin HulChang Hill Tin Industry Co., Ltd.  CHINA  Tin Hulchang Jinshunda Tin Co., Ltd.  CHINA  Tin Jiangki New Nanshan Technology Ltd.  CHINA  Tin Ma'anshan Weltai Tin Co., Ltd.  CHINA  Tin Magnu's Minerals Metals e Ligas Ltda.  BRAZIL  Tin Malaysia Smelting Corporation (MSC)  MALAYSIA  Tin Metallic Resources, Inc.  UNITED STATES OF AMERICA  Tin Metallo Belgium N.V.  BELGIUM  Tin Minsur  PERU  Tin Minsur  PERU  Tin Minsur  PERU  Tin Minsubishi Materials Corporation  JAPAN  Tin Modeltech Sdn Bhd  MALAYSIA  Tin O.M. Manufacturing (Thailand) Co., Ltd.  ThalLAND  Tin O.M. Manufacturing Philippines, Inc.  PHILIPPINES	Tin	EM Vinto	BOLIVIA
Tin Gejiu Non-Ferrous Metal Processing Co., Ltd. CHINA  Tin Gejiu Zili Mining And Metallurgy Co., Ltd. CHINA  Tin Gejiu Zili Mining And Metallurgy Co., Ltd. CHINA  Tin Guangdong Hanhe Non-Ferrous Metal Co., Ltd. CHINA  Tin Guangdong Hanhe Non-Ferrous Metal Smelting Plant CHINA  Tin HulChang Hill Tin Industry Co., Ltd. CHINA  Tin HulChang Hill Tin Industry Co., Ltd. CHINA  Tin Hulchang Jinshunda Tin Co., Ltd. CHINA  Tin Jiangxi New Nanshan Technology Ltd. CHINA  Tin Ma'anshan Weitai Tin Co., Ltd. CHINA  Tin Magnu's Minerais Metais e Ligas Ltda. BRAZIL  Tin Magnu's Minerais Metais e Ligas Ltda. BRAZIL  Tin Melt Metais e Ligas S.A. BRAZIL  Tin Metallo Resources, Inc. UNITED STATES OF AMERICA  Tin Metallo Spain S.L.U. SPAIN  Tin Mineracao Taboca S.A. BRAZIL  Tin Mineracao Taboca S.A. BRAZIL  Tin Minsur PERU  Tin Minsur PERU  Tin Minsurbishi Materials Corporation JAPAN  Tin Modeltech Sdn Bhd MALAYSIA  Tin O.M. Manufacturing (Thailand) Co., Ltd. THAILAND	Tin	Fenix Metals	POLAND
Tin Gejiu Yunxin Nonferrous Electrolysis Co., Ltd. CHINA  Tin Gejiu Zili Mining And Metallurgy Co., Ltd. CHINA  Tin Guangdong Hanhe Non-Ferrous Metal Co., Ltd. CHINA  Tin Guanyang Guida Nonferrous Metal Smelting Plant CHINA  Tin HulChang Hill Tin Industry Co., Ltd. CHINA  Tin Hulchang Jinshunda Tin Co., Ltd. CHINA  Tin Jiangxi New Nanshan Technology Ltd. CHINA  Tin Ma'anshan Weltai Tin Co., Ltd. CHINA  Tin Magnu's Minerais Metals e Ligas Ltda. BRAZIL  Tin Malaysia Smelting Corporation (MSC) MALAYSIA  Tin Metallic Resources, Inc. UNITED STATES OF AMERICA  Tin Metallic Resources, Inc. UNITED STATES OF AMERICA  Tin Metallic Spain S.L.U. SPAIN  Tin Mineracao Taboca S.A. BRAZIL  Tin Minsur PERU  Tin Minsur PERU  Tin Mitsubishi Materials Corporation JAPAN  Tin Modeltech Sdn Bhd MALAYSIA  Tin O.M. Manufacturing (Thalland) Co., Ltd. THAILAND	Tin	Gejiu Kai Meng Industry and Trade LLC	CHINA
Tin Gejiu Zili Mining And Metallurgy Co., Ltd. CHINA  Tin Guangdong Hanhe Non-Ferrous Metal Co., Ltd. CHINA  Tin Guanyang Guida Nonferrous Metal Smelting Plant CHINA  Tin HuiChang Hill Tin Industry Co., Ltd. CHINA  Tin Huichang Jinshunda Tin Co., Ltd. CHINA  Tin Huichang Jinshunda Tin Co., Ltd. CHINA  Tin Ma'anshan Weital Tin Co., Ltd. CHINA  Tin Ma'anshan Weital Tin Co., Ltd. CHINA  Tin Magnu's Minerais Metais e Ligas Ltda. BRAZIL  Tin Malaysia Smelting Corporation (MSC) MALAYSIA  Tin Metallic Resources, Inc. UNITED STATES OF AMERICA  Tin Metallo Belgium N.V. BELGIUM  Tin Metallo Spain S.L.U. SPAIN  Tin Mineracao Taboca S.A. BRAZIL  Tin Minsur PERU  Tin Minsur PERU  Tin Misubishi Materials Corporation MALAYSIA  Tin Modeltech Sdn Bhd MALAYSIA  Tin O.M. Manufacturing (Thailand) Co., Ltd. THAILAND	Tin	Gejiu Non-Ferrous Metal Processing Co., Ltd.	CHINA
Tin Guangdong Hanhe Non-Ferrous Metal Co., Ltd. CHINA  Tin Guanyang Guida Nonferrous Metal Smelting Plant CHINA  Tin HuiChang Hill Tin Industry Co., Ltd. CHINA  Tin HuiChang Jinshunda Tin Co., Ltd. CHINA  Tin Jiangxi New Nanshan Technology Ltd. CHINA  Tin Ma'anshan Weitai Tin Co., Ltd. CHINA  Tin Magnu's Minerais Metais e Ligas Ltda. BRAZIL  Tin Malaysia Smelting Corporation (MSC) MALAYSIA  Tin Melt Metais e Ligas S.A. BRAZIL  Tin Metallic Resources, Inc. UNITED STATES OF AMERICA  Tin Metallo Belgium N.V. BELGIUM  Tin Metallo Spain S.L.U. SPAIN  Tin Mineracao Taboca S.A. BRAZIL  Tin Minsur PERU  Tin Minsur PERU  Tin Mitsubishi Materials Corporation JAPAN  Tin Modeltech Sdn Bhd MALAYSIA  Tin O.M. Manufacturing (Thailand) Co., Ltd. THAILAND	Tin	Gejiu Yunxin Nonferrous Electrolysis Co., Ltd.	CHINA
Tin Guanyang Guida Nonferrous Metal Smelting Plant  Tin HuiChang Hill Tin Industry Co., Ltd.  CHINA  Tin HuiChang Jinshunda Tin Co., Ltd.  CHINA  Tin Jiangxi New Nanshan Technology Ltd.  CHINA  Tin Ma'anshan Weltai Tin Co., Ltd.  CHINA  Tin Magnu's Minerais Metais e Ligas Ltda.  BRAZIL  Tin Malaysia Smelting Corporation (MSC)  MALAYSIA  Tin Metallic Resources, Inc.  UNITED STATES OF AMERICA  Tin Metallo Belgium N.V.  BELGIUM  Tin Metallo Spain S.L.U.  SPAIN  Tin Mineracao Taboca S.A.  BRAZIL  Tin Minsur  PERU  Tin Mitsubishi Materials Corporation  JAPAN  Tin Modeltech Sdn Bhd  MALAYSIA  Tin O.M. Manufacturing (Thailand) Co., Ltd.  Tin O.M. Manufacturing Philippines, Inc.  PHILIPPINES	Tin	Gejiu Zili Mining And Metallurgy Co., Ltd.	CHINA
Tin HuiChang Hill Tin Industry Co., Ltd.  Tin Huichang Jinshunda Tin Co., Ltd.  CHINA  Tin Jiangxi New Nanshan Technology Ltd.  CHINA  Tin Ma'anshan Weitai Tin Co., Ltd.  CHINA  Tin Magnu's Minerais Metais e Ligas Ltda.  BRAZIL  Tin Malaysia Smelting Corporation (MSC)  MALAYSIA  Tin Melt Metais e Ligas S.A.  BRAZIL  Tin Metallic Resources, Inc.  UNITED STATES OF AMERICA  Tin Metallo Belgium N.V.  BELGIUM  Tin Metallo Spain S.L.U.  SPAIN  Tin Mineracao Taboca S.A.  BRAZIL  Tin Minsur  PERU  Tin Mitsubishi Materials Corporation  JAPAN  Tin Modeltech Sdn Bhd  MALAYSIA  Tin Modeltech Sdn Bhd  MALAYSIA  Tin O.M. Manufacturing (Thailand) Co., Ltd.  ThaiLAND	Tin	Guangdong Hanhe Non-Ferrous Metal Co., Ltd.	CHINA
Tin Huichang Jinshunda Tin Co., Ltd.  Tin Jiangxi New Nanshan Technology Ltd.  CHINA  Tin Ma'anshan Weitai Tin Co., Ltd.  CHINA  Tin Magnu's Minerais Metais e Ligas Ltda.  BRAZIL  Tin Malaysia Smelting Corporation (MSC)  MALAYSIA  Tin Metalic Resources, Inc.  UNITED STATES OF AMERICA  Tin Metallo Belgium N.V.  BELGIUM  Tin Metallo Spain S.L.U.  SPAIN  Tin Mineracao Taboca S.A.  BRAZIL  Tin Minsur  PERU  Tin Mitsubishi Materials Corporation  JAPAN  Tin Modeltech Sdn Bhd  MALAYSIA  Tin O.M. Manufacturing (Thailand) Co., Ltd.  Thailand  Tin O.M. Manufacturing Philippines, Inc.  PHILIPPINES	Tin	Guanyang Guida Nonferrous Metal Smelting Plant	CHINA
Tin Jiangxi New Nanshan Technology Ltd.  Tin Ma'anshan Weitai Tin Co., Ltd.  Tin Magnu's Minerais Metais e Ligas Ltda.  BRAZIL  Tin Malaysia Smelting Corporation (MSC)  MALAYSIA  Tin Met Metais e Ligas S.A.  BRAZIL  Tin Metallic Resources, Inc.  UNITED STATES OF AMERICA  Tin Metallo Belgium N.V.  BELGIUM  Tin Metallo Spain S.L.U.  SPAIN  Tin Mineracao Taboca S.A.  BRAZIL  Tin Minsur  PERU  Tin Mitsubishi Materials Corporation  JAPAN  Tin Modeltech Sdn Bhd  MALAYSIA  Tin O.M. Manufacturing (Thailand) Co., Ltd.  Thailand  Thailand  O.M. Manufacturing Philippines, Inc.  PHILIPPINES	Tin	HuiChang Hill Tin Industry Co., Ltd.	CHINA
Tin Ma'anshan Weitai Tin Co., Ltd. CHINA  Tin Magnu's Minerais Metais e Ligas Ltda. BRAZIL  Tin Malaysia Smelting Corporation (MSC) MALAYSIA  Tin Metallic Resources, Inc. UNITED STATES OF AMERICA  Tin Metallo Belgium N.V. BELGIUM  Tin Metallo Spain S.L.U. SPAIN  Tin Mineracao Taboca S.A. BRAZIL  Tin Minsur PERU  Tin Mitsubishi Materials Corporation JAPAN  Tin Modeltech Sdn Bhd MALAYSIA  Tin O.M. Manufacturing (Thailand) Co., Ltd. THAILAND  Tin O.M. Manufacturing Philippines, Inc. PHILIPPINES	Tin	Huichang Jinshunda Tin Co., Ltd.	CHINA
Tin Magnu's Minerais Metais e Ligas Ltda.  Tin Malaysia Smelting Corporation (MSC)  MALAYSIA  Tin Melt Metais e Ligas S.A.  BRAZIL  Tin Metallic Resources, Inc.  UNITED STATES OF AMERICA  Tin Metallo Belgium N.V.  BELGIUM  Tin Metallo Spain S.L.U.  SPAIN  Tin Mineracao Taboca S.A.  BRAZIL  Tin Minsur  PERU  Tin Mitsubishi Materials Corporation  JAPAN  Tin Modeltech Sdn Bhd  MALAYSIA  Tin O.M. Manufacturing (Thailand) Co., Ltd.  THAILAND  THILIPPINES	Tin	Jiangxi New Nanshan Technology Ltd.	CHINA
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Tin Metalic Resources, Inc.  UNITED STATES OF AMERICA  Tin Metallo Belgium N.V.  BELGIUM  Tin Metallo Spain S.L.U.  SPAIN  Tin Mineracao Taboca S.A.  BRAZIL  Tin Minsur  PERU  Tin Mitsubishi Materials Corporation  JAPAN  Tin Modeltech Sdn Bhd  MALAYSIA  Tin O.M. Manufacturing (Thailand) Co., Ltd.  Thailand  Thailand  Thailand  PHILIPPINES	Tin	Magnu's Minerais Metais e Ligas Ltda.	BRAZIL
Tin Metallic Resources, Inc.  UNITED STATES OF AMERICA  Tin Metallo Belgium N.V.  BELGIUM  Tin Metallo Spain S.L.U.  SPAIN  Tin Mineracao Taboca S.A.  BRAZIL  Tin Minsur  PERU  Tin Mitsubishi Materials Corporation  JAPAN  Tin Modeltech Sdn Bhd  MALAYSIA  Tin O.M. Manufacturing (Thailand) Co., Ltd.  THAILAND  Tin O.M. Manufacturing Philippines, Inc.  PHILIPPINES	Tin	Malaysia Smelting Corporation (MSC)	MALAYSIA
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Tin Mitsubishi Materials Corporation JAPAN  Tin Modeltech Sdn Bhd MALAYSIA  Tin O.M. Manufacturing (Thailand) Co., Ltd. THAILAND  Tin O.M. Manufacturing Philippines, Inc. PHILIPPINES	Tin	Metallo Spain S.L.U.	SPAIN
Tin Mitsubishi Materials Corporation JAPAN  Tin Modeltech Sdn Bhd MALAYSIA  Tin O.M. Manufacturing (Thailand) Co., Ltd. THAILAND  Tin O.M. Manufacturing Philippines, Inc. PHILIPPINES	Tin	Mineracao Taboca S.A.	BRAZIL
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Tin O.M. Manufacturing Philippines, Inc. PHILIPPINES	Tin	Modeltech Sdn Bhd	MALAYSIA
	Tin	O.M. Manufacturing (Thailand) Co., Ltd.	THAILAND
Tin Operaciones Metalurgicas S.A. BOLIVIA	Tin	O.M. Manufacturing Philippines, Inc.	PHILIPPINES
	Tin	Operaciones Metalurgicas S.A.	BOLIVIA

Tin Precious Minerals and Smelting Limited INDIA  Tin PT Artha Cipta Langgeng INDONESIA  Tin PT ATD Makmur Mandiri Jaya INDONESIA  Tin PT Menara Cipta Mulia INDONESIA  Tin PT Mitra Stania Prima INDONESIA  Tin PT Refined Bangka Tin INDONESIA  Tin PT Timah Tbk Kundur INDONESIA  Tin PT Timah Tbk Mentok INDONESIA  Tin Resind Industria e Comercio Ltda. BRAZIL  Tin Rui Da Hung TAIWAN  Tin Soft Metais Ltda. BRAZIL  Tin Thai Nguyen Mining and Metallurgy Co., Ltd. VIET NAM
Tin PT ATD Makmur Mandiri Jaya INDONESIA  Tin PT Menara Cipta Mulia INDONESIA  Tin PT Mitra Stania Prima INDONESIA  Tin PT Refined Bangka Tin INDONESIA  Tin PT Timah Tbk Kundur INDONESIA  Tin PT Timah Tbk Mentok INDONESIA  Tin Resind Industria e Comercio Ltda. BRAZIL  Tin Rui Da Hung TAIWAN  Tin Soft Metais Ltda. BRAZIL  Tin Thai Nguyen Mining and Metallurgy Co., Ltd. VIET NAM
Tin PT Menara Cipta Mulia INDONESIA  Tin PT Mitra Stania Prima INDONESIA  Tin PT Refined Bangka Tin INDONESIA  Tin PT Timah Tbk Kundur INDONESIA  Tin PT Timah Tbk Mentok INDONESIA  Tin Resind Industria e Comercio Ltda. BRAZIL  Tin Rui Da Hung TAIWAN  Tin Soft Metais Ltda. BRAZIL  Tin Thai Nguyen Mining and Metallurgy Co., Ltd. VIET NAM
Tin PT Mitra Stania Prima INDONESIA  Tin PT Refined Bangka Tin INDONESIA  Tin PT Timah Tbk Kundur INDONESIA  Tin PT Timah Tbk Mentok INDONESIA  Tin Resind Industria e Comercio Ltda. BRAZIL  Tin Rui Da Hung TAIWAN  Tin Soft Metais Ltda. BRAZIL  Tin Thai Nguyen Mining and Metallurgy Co., Ltd. VIET NAM
Tin PT Refined Bangka Tin INDONESIA  Tin PT Timah Tbk Kundur INDONESIA  Tin PT Timah Tbk Mentok INDONESIA  Tin Resind Industria e Comercio Ltda. BRAZIL  Tin Rui Da Hung TAIWAN  Tin Soft Metais Ltda. BRAZIL  Tin Thai Nguyen Mining and Metallurgy Co., Ltd. VIET NAM
Tin       PT Timah Tbk Kundur       INDONESIA         Tin       PT Timah Tbk Mentok       INDONESIA         Tin       Resind Industria e Comercio Ltda.       BRAZIL         Tin       Rui Da Hung       TAIWAN         Tin       Soft Metais Ltda.       BRAZIL         Tin       Thai Nguyen Mining and Metallurgy Co., Ltd.       VIET NAM
Tin       PT Timah Tbk Mentok       INDONESIA         Tin       Resind Industria e Comercio Ltda.       BRAZIL         Tin       Rui Da Hung       TAIWAN         Tin       Soft Metais Ltda.       BRAZIL         Tin       Thai Nguyen Mining and Metallurgy Co., Ltd.       VIET NAM
Tin Resind Industria e Comercio Ltda. BRAZIL  Tin Rui Da Hung TAIWAN  Tin Soft Metais Ltda. BRAZIL  Tin Thai Nguyen Mining and Metallurgy Co., Ltd. VIET NAM
Tin Rui Da Hung TAIWAN  Tin Soft Metais Ltda. BRAZIL  Tin Thai Nguyen Mining and Metallurgy Co., Ltd. VIET NAM
Tin Soft Metais Ltda. BRAZIL  Tin Thai Nguyen Mining and Metallurgy Co., Ltd. VIET NAM
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Tin Tin Technology & Refining UNITED STATES OF AMERICA
Tin White Solder Metalurgia e Mineracao Ltda. BRAZIL
Tin Yunnan Chengfeng Non-ferrous Metals Co., Ltd. CHINA
Tin Yunnan Tin Company Limited CHINA
Tin Yunnan Yunfan Non-ferrous Metals Co., Ltd. CHINA
Tungsten A.L.M.T. Corp. JAPAN
Tungsten ACL Metais Eireli BRAZIL
Tungsten Asia Tungsten Products Vietnam Ltd. VIET NAM
Tungsten Chenzhou Diamond Tungsten Products Co., Ltd. CHINA
Tungsten Chongyi Zhangyuan Tungsten Co., Ltd. CHINA
Tungsten Fujian Ganmin RareMetal Co., Ltd. CHINA
Tungsten Fujian Jinxin Tungsten Co., Ltd. CHINA
Tungsten Ganzhou Haichuang Tungsten Co., Ltd. CHINA

Tungsten Ganzhou Huaxing Tungsten Products Co., Ltd.  Tungsten Ganzhou Jiangwu Ferrotungsten Co., Ltd.  CHINA  Tungsten Ganzhou Seadragon W & Mo Co., Ltd.  CHINA  Tungsten Giobal Tungsten & Powders Corp.  UNITED STATES OF AMERICA  Tungsten Guangdong Xianglu Tungsten Co., Ltd.  CHINA  Tungsten H.C. Starck Smelting GmbH & Co. KG  GERMANY  Tungsten Huan Chenzhou Mining Co., Ltd.  CHINA  Tungsten Hunan Chenzhou Mining Co., Ltd.  CHINA  Tungsten Hunan Chunchang Nonferrous Metals Co., Ltd. Wuji  CHINA  Tungsten Hunan Litian Tungsten Industry Co., Ltd.  CHINA  Tungsten Hydrometallurg, JSC  RUSSIAN FEDERATION  Tungsten Jiangwu H.C. Starck Tungsten Products Co., Ltd.  CHINA  Tungsten Jiangwi Alanglu Tungsten Co., Ltd.  CHINA  CHINA  CHINA  CHINA  CHINA  CHINA  CHINA  CHINA  CHINA  Tungsten Jiangwi Alanglu Tungsten Co., Ltd.  CHINA  CHINA  CHINA  CHINA  CHINA  Tungsten Jiangwi Tungsten Co., Ltd.  CHINA  CHINA  CHINA  CHINA  Tungsten Jiangwi Tungsten Co., Ltd.  CHINA  CHINA  Tungsten Jiangwi Tungsten Co., Ltd.  CHINA  Tungsten Jiangwi Xianglu Tungsten Co., Ltd.  CHINA  Tungsten Jiangwi Xianglu Tungsten Co., Ltd.  CHINA  Tungsten Jiangwi Xianglu Tungsten Industry Co., Ltd.  CHINA  Tungsten Jiangwi Xianglu Tungsten Co., Ltd.  CHINA  Tungsten Jiangwi Xianglu Tungsten Industry Co., Ltd.  CHINA  Tungsten Jiangwi Xianglu Tungsten Industry Co., Ltd.  CHINA  Tungsten Jiangwi Xianglu Tungsten Co., Ltd.  CHINA  Tungsten Jiangwi Xianglu Tungsten Co., Ltd.  CHINA	Metal	Smelter Name	Country
Tungsten Ganzhou Seadragon W & Mo Co., Ltd.  Tungsten Global Tungsten & Powders Corp.  UNITED STATES OF AMERICA  Tungsten Guangdong Xianglu Tungsten Co., Ltd.  CHINA  Tungsten H.C. Starck Smelting GmbH & Co. KG  GERMANY  Tungsten H.C. Starck Tungsten GmbH  GERMANY  Tungsten Hunan Chenzhou Mining Co., Ltd.  CHINA  Tungsten Hunan Chuangda Vanadium Tungsten Co., Ltd. Wuji  CHINA  Tungsten Hunan Chunchang Nonferrous Metals Co., Ltd.  CHINA  CHINA  Tungsten Hunan Litian Tungsten Industry Co., Ltd.  CHINA  Tungsten Hydrometallurg, JSC  RUSSIAN FEDERATION  Tungsten Jiangwu H.C. Starck Tungsten Products Co., Ltd.  CHINA  Tungsten Jiangwu H.C. Starck Tungsten Products Co., Ltd.  CHINA  Tungsten Jiangxi Gan Bei Tungsten Co., Ltd.  CHINA  Tungsten Jiangxi Tonggu Non-ferrous Metallurgical & Chemical Co., Ltd.  CHINA  Tungsten Jiangxi Tonggu Non-ferrous Metallurgical & Chemical Co., Ltd.  CHINA  Tungsten Jiangxi Xianglu Tungsten Co., Ltd.  CHINA  Tungsten Jiangxi Xianglu Tungsten Industry Co., Ltd.  CHINA  Tungsten Jiangxi Xiansheng Tungsten Industry Co., Ltd.  CHINA  Tungsten Jiangxi Xiansheng Tungsten Industry Co., Ltd.  CHINA	Tungsten	Ganzhou Huaxing Tungsten Products Co., Ltd.	CHINA
Tungsten Global Tungsten & Powders Corp.  Tungsten Guangdong Xianglu Tungsten Co., Ltd.  CHINA  Tungsten H.C. Starck Smelting GmbH & Co. KG GERMANY  Tungsten H.C. Starck Tungsten GmbH GERMANY  Tungsten Hunan Chenzhou Mining Co., Ltd.  CHINA  Tungsten Hunan Chuangda Vanadium Tungsten Co., Ltd. Wuji CHINA  Tungsten Hunan Chuangda Vanadium Tungsten Co., Ltd. Wuji CHINA  Tungsten Hunan Chunchang Nonferrous Metals Co., Ltd.  CHINA  Tungsten Hydrometallurg, JSC RUSSIAN FEDERATION  Tungsten Japan New Metals Co., Ltd.  Japan New Metals Co., Ltd.  Tungsten Jiangwu H.C. Starck Tungsten Products Co., Ltd.  CHINA  Tungsten Jiangxi Gan Bei Tungsten Co., Ltd.  CHINA  Tungsten Jiangxi Tonggu Non-ferrous Metallurgical & Chemical Co., Ltd.  CHINA  Tungsten Jiangxi Xianglu Tungsten Co., Ltd.  CHINA  Tungsten Jiangxi Xianglu Tungsten Co., Ltd.  CHINA  Tungsten Jiangxi Xianglu Tungsten Industry Co., Ltd.  CHINA  Tungsten Jiangxi Xiansheng Tungsten Industry Co., Ltd.  CHINA	Tungsten	Ganzhou Jiangwu Ferrotungsten Co., Ltd.	CHINA
Tungsten Guangdong Xianglu Tungsten Co., Ltd.  Tungsten H.C. Starck Smelting GmbH & Co. KG GERMANY  Tungsten H.C. Starck Tungsten GmbH GERMANY  Tungsten Hunan Chenzhou Mining Co., Ltd.  CHINA  Tungsten Hunan Chuangda Vanadium Tungsten Co., Ltd. Wuji CHINA  Tungsten Hunan Chunchang Nonferrous Metals Co., Ltd.  CHINA  Tungsten Hunan Litian Tungsten Industry Co., Ltd.  CHINA  Tungsten Hydrometallurg, JSC RUSSIAN FEDERATION  Tungsten Jiangwu H.C. Starck Tungsten Products Co., Ltd.  JAPAN  Tungsten Jiangwu H.C. Starck Tungsten Products Co., Ltd.  CHINA  Tungsten Jiangxi Tonggu Non-ferrous Metallurgical & Chemical Co., Ltd.  CHINA  Tungsten Jiangxi Tonggu Non-ferrous Metallurgical & Chemical Co., Ltd.  CHINA  Tungsten Jiangxi Xianglu Tungsten Co., Ltd.  CHINA  Tungsten Jiangxi Xianglu Tungsten Co., Ltd.  CHINA  Tungsten Jiangxi Xianglu Tungsten Industry Co., Ltd.  CHINA  Tungsten Jiangxi Xinsheng Tungsten Industry Co., Ltd.  CHINA  Tungsten Jiangxi Xinsheng Tungsten Industry Co., Ltd.  CHINA  CHINA	Tungsten	Ganzhou Seadragon W & Mo Co., Ltd.	CHINA
Tungsten H.C. Starck Smelting GmbH & Co. KG  Tungsten H.C. Starck Tungsten GmbH  GERMANY  Tungsten Hunan Chenzhou Mining Co., Ltd.  CHINA  Tungsten Hunan Chuangda Vanadium Tungsten Co., Ltd. Wuji  CHINA  Tungsten Hunan Chunchang Nonferrous Metals Co., Ltd.  CHINA  CHINA  Tungsten Hunan Litian Tungsten Industry Co., Ltd.  CHINA  Tungsten Hydrometallurg, JSC  RUSSIAN FEDERATION  Tungsten Jiangwu H.C. Starck Tungsten Products Co., Ltd.  CHINA  Tungsten Jiangwu Gan Bei Tungsten Co., Ltd.  CHINA  Tungsten Jiangxi Tonggu Non-ferrous Metallurgical & Chemical Co., Ltd.  CHINA  Tungsten Jiangxi Xianglu Tungsten Co., Ltd.  CHINA  Tungsten Jiangxi Xiansheng Tungsten Industry Co., Ltd.  CHINA  Tungsten Jiangxi Xiansheng Tungsten Industry Co., Ltd.  CHINA  CHINA  CHINA  CHINA  CHINA  CHINA	Tungsten	Global Tungsten & Powders Corp.	UNITED STATES OF AMERICA
Tungsten H.C. Starck Tungsten GmbH GERMANY  Tungsten Hunan Chenzhou Mining Co., Ltd. CHINA  Tungsten Hunan Chuangda Vanadium Tungsten Co., Ltd. Wuji CHINA  Tungsten Hunan Chunchang Nonferrous Metals Co., Ltd. CHINA  Tungsten Hunan Litian Tungsten Industry Co., Ltd. CHINA  Tungsten Hydrometallurg, JSC RUSSIAN FEDERATION  Tungsten Japan New Metals Co., Ltd. JAPAN  Tungsten Jiangwu H.C. Starck Tungsten Products Co., Ltd. CHINA  Tungsten Jiangxi Gan Bei Tungsten Co., Ltd. CHINA  Tungsten Jiangxi Tonggu Non-ferrous Metallurgical & Chemical Co., Ltd. CHINA  Tungsten Jiangxi Xianglu Tungsten Co., Ltd. CHINA  Tungsten Jiangxi Xianglu Tungsten Co., Ltd. CHINA  Tungsten Jiangxi Xianglu Tungsten Industry Co., Ltd. CHINA  Tungsten Jiangxi Xiansheng Tungsten Industry Co., Ltd. CHINA	Tungsten	Guangdong Xianglu Tungsten Co., Ltd.	CHINA
Tungsten Hunan Chenzhou Mining Co., Ltd. CHINA  Tungsten Hunan Chuangda Vanadium Tungsten Co., Ltd. Wuji CHINA  Tungsten Hunan Chunchang Nonferrous Metals Co., Ltd. CHINA  Tungsten Hunan Litian Tungsten Industry Co., Ltd. CHINA  Tungsten Hydrometallurg, JSC RUSSIAN FEDERATION  Tungsten Japan New Metals Co., Ltd. JAPAN  Tungsten Jiangwu H.C. Starck Tungsten Products Co., Ltd. CHINA  Tungsten Jiangxi Gan Bei Tungsten Co., Ltd. CHINA  Tungsten Jiangxi Tonggu Non-ferrous Metallurgical & Chemical Co., Ltd. CHINA  Tungsten Jiangxi Xianglu Tungsten Co., Ltd. CHINA  Tungsten Jiangxi Xianglu Tungsten Co., Ltd. CHINA  Tungsten Jiangxi Xianglu Tungsten Industry Co., Ltd. CHINA  Tungsten Jiangxi Xiansheng Tungsten Industry Co., Ltd. CHINA  Tungsten Jiangxi Yaosheng Tungsten Co., Ltd. CHINA	Tungsten	H.C. Starck Smelting GmbH & Co. KG	GERMANY
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Tungsten Hunan Chunchang Nonferrous Metals Co., Ltd.  CHINA  Tungsten Hunan Litian Tungsten Industry Co., Ltd.  CHINA  Tungsten Hydrometallurg, JSC  RUSSIAN FEDERATION  Tungsten Japan New Metals Co., Ltd.  JAPAN  Tungsten Jiangwu H.C. Starck Tungsten Products Co., Ltd.  CHINA  Tungsten Jiangxi Gan Bei Tungsten Co., Ltd.  CHINA  Tungsten Jiangxi Tonggu Non-ferrous Metallurgical & Chemical Co., Ltd.  CHINA  Tungsten Jiangxi Xianglu Tungsten Co., Ltd.  CHINA  Tungsten Jiangxi Xianglu Tungsten Co., Ltd.  CHINA  Tungsten Jiangxi Xinsheng Tungsten Industry Co., Ltd.  CHINA  CHINA  CHINA	Tungsten	Hunan Chenzhou Mining Co., Ltd.	CHINA
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Tungsten Hydrometallurg, JSC RUSSIAN FEDERATION  Tungsten Japan New Metals Co., Ltd. JAPAN  Tungsten Jiangwu H.C. Starck Tungsten Products Co., Ltd. CHINA  Tungsten Jiangxi Gan Bei Tungsten Co., Ltd. CHINA  Tungsten Jiangxi Tonggu Non-ferrous Metallurgical & Chemical Co., Ltd. CHINA  Tungsten Jiangxi Xianglu Tungsten Co., Ltd. CHINA  Tungsten Jiangxi Xinsheng Tungsten Industry Co., Ltd. CHINA  Tungsten Jiangxi Yaosheng Tungsten Co., Ltd. CHINA	Tungsten	Hunan Chunchang Nonferrous Metals Co., Ltd.	CHINA
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Tungsten Jiangxi Gan Bei Tungsten Co., Ltd. CHINA  Tungsten Jiangxi Tonggu Non-ferrous Metallurgical & Chemical Co., Ltd. CHINA  Tungsten Jiangxi Xianglu Tungsten Co., Ltd. CHINA  Tungsten Jiangxi Xinsheng Tungsten Industry Co., Ltd. CHINA  Tungsten Jiangxi Yaosheng Tungsten Co., Ltd. CHINA	Tungsten	Japan New Metals Co., Ltd.	JAPAN
Tungsten Jiangxi Tonggu Non-ferrous Metallurgical & Chemical Co., Ltd.  CHINA  Tungsten Jiangxi Xianglu Tungsten Co., Ltd.  CHINA  Tungsten Jiangxi Xinsheng Tungsten Industry Co., Ltd.  CHINA  Tungsten Jiangxi Yaosheng Tungsten Co., Ltd.	Tungsten	Jiangwu H.C. Starck Tungsten Products Co., Ltd.	CHINA
Tungsten Jiangxi Xianglu Tungsten Co., Ltd. CHINA  Tungsten Jiangxi Xinsheng Tungsten Industry Co., Ltd. CHINA  Tungsten Jiangxi Yaosheng Tungsten Co., Ltd. CHINA	Tungsten	Jiangxi Gan Bei Tungsten Co., Ltd.	CHINA
Tungsten Jiangxi Xinsheng Tungsten Industry Co., Ltd. CHINA  Tungsten Jiangxi Yaosheng Tungsten Co., Ltd. CHINA	Tungsten	Jiangxi Tonggu Non-ferrous Metallurgical & Chemical Co., Ltd.	CHINA
Tungsten Jiangxi Yaosheng Tungsten Co., Ltd. CHINA	Tungsten	Jiangxi Xianglu Tungsten Co., Ltd.	CHINA
	Tungsten	Jiangxi Xinsheng Tungsten Industry Co., Ltd.	CHINA
Tungsten JSC "Kirovgrad Hard Alloys Plant" RUSSIAN FEDERATION	Tungsten	Jiangxi Yaosheng Tungsten Co., Ltd.	CHINA
	Tungsten	JSC "Kirovgrad Hard Alloys Plant"	RUSSIAN FEDERATION
Tungsten Kennametal Fallon UNITED STATES OF AMERICA	Tungsten	Kennametal Fallon	UNITED STATES OF AMERICA
Tungsten Kennametal Huntsville UNITED STATES OF AMERICA	Tungsten	Kennametal Huntsville	UNITED STATES OF AMERICA
Tungsten KGETS Co., Ltd. SOUTH KOREA	Tungsten	KGETS Co., Ltd.	SOUTH KOREA
Tungsten Lianyou Metals Co., Ltd. TAIWAN	Tungsten	Lianyou Metals Co., Ltd.	TAIWAN
Tungsten Malipo Haiyu Tungsten Co., Ltd. CHINA	Tungsten	Malipo Haiyu Tungsten Co., Ltd.	CHINA
Tungsten Masan Tungsten Chemical LLC (MTC) VIET NAM	Tungsten	Masan Tungsten Chemical LLC (MTC)	VIET NAM

Metal	Smelter Name	Country
Tungsten	Moliren Ltd.	RUSSIAN FEDERATION
Tungsten	Niagara Refining LLC	UNITED STATES OF AMERICA
Tungsten	Philippine Chuangxin Industrial Co., Inc.	PHILIPPINES
Tungsten	Tejing (Vietnam) Tungsten Co., Ltd.	VIET NAM
Tungsten	Unecha Refractory metals plant	RUSSIAN FEDERATION
Tungsten	Wolfram Bergbau und Hutten AG	AUSTRIA
Tungsten	Woltech Korea Co., Ltd.	SOUTH KOREA
Tungsten	Xiamen Tungsten (H.C.) Co., Ltd.	CHINA
Tungsten	Xiamen Tungsten Co., Ltd.	CHINA
Tungsten	Xinfeng Huarui Tungsten & Molybdenum New Material Co., Ltd.	CHINA
Tungsten	Xinhai Rendan Shaoguan Tungsten Co., Ltd.	CHINA
Cobalt	Compagnie de Tifnout Tiranimine	MOROCCO
Cobalt	Dynatec Madagascar Company	MADAGASCAR
Cobalt	Gangzhou Yi Hao Umicore Industry Co.	CHINA
Cobalt	Ganzhou Highpower Technology Co., Ltd.	CHINA
Cobalt	Ganzhou Tengyuan Cobalt New Material Co., Ltd.	CHINA
Cobalt	Gem (Jiangsu) Cobalt Industry Co., Ltd.	CHINA
Cobalt	Glencore Nikkelverk Refinery	NORWAY
Cobalt	Guangdong Jiana Energy Technology Co., Ltd.	CHINA
Cobalt	Guangxi Yinyi Advanced Material Co., Ltd.	CHINA
Cobalt	Hunan Brunp Recycling Technology Co., Ltd.	CHINA
Cobalt	Hunan Zoomwe New Energy Science & Technology Co., Ltd.	CHINA
Cobalt	Jiangsu Xiongfeng Technology Co., Ltd.	CHINA
Cobalt	Jiangxi Jiangwu Cobalt industrial Co., Ltd.	CHINA
Cobalt	Jingmen GEM Co., Ltd.	CHINA
Cobalt	JSC Kolskaya Mining and Metallurgical Company (Kola MMC)	RUSSIAN FEDERATION
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Metal	Smelter Name	Country
Cobalt	Lanzhou Jinchuan Advanced Materials Technology Co., Ltd.	CHINA
Cobalt	Murrin Murrin Nickel Cobalt Plant	AUSTRALIA
Cobalt	Nantong Xinwei Nickel Cobalt Technology Development Co., Ltd.	CHINA
Cobalt	New Era Group Zhejiang Zhongneng Cycle Technology Co., Ltd.	CHINA
Cobalt	NORILSK NICKEL HARJAVALTA OY	FINLAND
Cobalt	Quzhou Huayou Cobalt New Material Co., Ltd.	CHINA
Cobalt	Sumitomo Metal Mining	JAPAN
Cobalt	SungEel HiTech Co.,Ltd.	SOUTH KOREA
Cobalt	Tianjin Maolian Science & Technology Co., Ltd.	CHINA
Cobalt	Umicore Finland Oy	FINLAND
Cobalt	Umicore Olen	BELGIUM
Cobalt	Zhejiang Huayou Cobalt Company Limited	CHINA
Cobalt	Zhuhai Kelixin Metal Materials Co., Ltd.	CHINA

Countries of origin for minerals processed by 3TG smelters in the above list may include:

Covered Countries Angola, Burundi, Democratic Republic of the Congo, Rwanda, Tanzania, Uganda, and Zambia

# Outside Covered Countries

Argentina, Armenia, Australia, Austria, Azerbaijan, Belarus, Belgium, Benin, Bolivia, Botswana, Brazil, Brunei, Bulgaria, Burkina Faso, Cameroon, Canada, Chile, China, Colombia, Croatia, Cuba\*, Cyprus, Czech Republic, Denmark, Dominican Republic, Ecuador, Egypt, El Salvador, Eritrea, Estonia, Ethiopia, Fiji, Finland, France, Gabon, Gambia, Georgia, Germany, Ghana, Greece, Guatemala, Guinea, Guyana, Honduras, Hong Kong, Hungary, Iceland, India, Indonesia, Iran\*, Ireland, Israel, Italy, Japan, Jordan, Kazakhstan, Kenya, Kuwait, Kyrgyzstan, Laos, Latvia, Lebanon, Liberia, Liechtenstein, Lithuania, Luxembourg, Macau, Madagascar, Malaysia, Mali, Malta, Mauritania, Mauritius, Mexico, Monaco, Mongolia, Morocco, Mozambique, Myanmar, Namibia, Netherlands, New Caledonia, New Zealand, Nicaragua, Niger, Nigeria, Norway, Pakistan, Panama, Papua New Guinea, Paraguay, Peru, Philippines, Poland, Portugal, Puerto Rico, Qatar, Romania, Russian Federation, San Marino, Saudi Arabia, Senegal, Serbia, Sierra Leone, Singapore, Slovakia, Slovenia, Solomon Islands, Somaliland, South Africa, South Korea, Spain, Sudan\*, Suriname, Swaziland, Sweden, Switzerland, Taiwan, Tajikistan, Thailand, Togo, Trinidad and Tobago, Tunisia, Turkey, Ukraine, United Arab Emirates, United Kingdom, United States of America, Uruguay, Uzbekistan, Venezuela\*, Vietnam, Yemen, and Zimbabwe

<sup>\*</sup> Minerals from this country were substantially transformed before being incorporated into finished products. Such a substantial transformation of the minerals happened outside of the United States in a third country by a person other than a United States person.