

**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549**

**FORM SD**

**SPECIALIZED DISCLOSURE REPORT**

**FIRST SOLAR, INC.**

*(Exact name of registrant as specified in its charter)*

**Delaware**

*(State or other jurisdiction of incorporation)*

**001-33156**

*(Commission File Number)*

**20-4623678**

*(IRS Employer Identification No.)*

**350 West Washington Street  
Suite 600**

**Tempe, Arizona 85281**

*(Address of principal executive offices, including zip code)*

**Paul Kaleta**

**Executive Vice President, General Counsel and Secretary**

**(602) 427-2925**

*(Name and telephone number, including area code, of the person to contact in connection with this report.)*

Check the appropriate box to indicate the rule pursuant to which this form is being filed, and provide the period to which the information in this form applies:

Rule 13p-1 under the Securities Exchange Act (17 CFR 240.13p-1) for the reporting period from January 1 to December 31, 2017.

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**Section 1 – Conflict Minerals Disclosure**

**Items 1.01 and 1.02 *Conflict Minerals Disclosure and Report; Exhibit***

A copy of our Conflict Minerals Report for the reporting period from January 1, 2017 to December 31, 2017 is attached as Exhibit 1.01 and is available at [investor.firstsolar.com/financial-information/sec-filings](http://investor.firstsolar.com/financial-information/sec-filings).

**Section 2 – Exhibits**

**Item 2.01 *Exhibits***

Exhibit 1.01 – Conflict Minerals Report for the reporting period from January 1, 2017 to December 31, 2017.

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**SIGNATURE**

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the duly authorized undersigned.

**FIRST SOLAR, INC.**

Date: May 30, 2018

By:	<u>/s/ PAUL KALETA</u>
Name:	Paul Kaleta
Title:	Executive Vice President, General Counsel and Secretary

**Conflict Minerals Report of First Solar, Inc.****For the Reporting Period from January 1 to December 31, 2017****Introduction**

First Solar, Inc., together with its consolidated subsidiaries (“First Solar,” “the Company,” “we,” “us,” and “our”), has prepared this Conflict Minerals Report pursuant to Rule 13p-1 under the Securities Exchange Act of 1934 and the requirements of Form SD (collectively, “the Rules”).

We are a leading global provider of comprehensive photovoltaic (“PV”) solar energy solutions. We design, manufacture, and sell PV solar modules with an advanced thin film semiconductor technology and also develop, design, construct, and sell PV solar power systems that primarily use the modules we manufacture. Additionally, we provide operations and maintenance (“O&M”) services to system owners. We have substantial, ongoing research and development efforts focused on module and system-level innovations. We are the world’s largest thin film PV solar module manufacturer and one of the world’s largest PV solar module manufacturers. Our mission is to provide cost-advantaged solar technology through innovation, customer engagement, industry leadership, and operational excellence.

We operate our business in two segments:

- **Modules Segment** – Our modules segment involves the design, manufacture, and sale of cadmium telluride solar modules, which convert sunlight into electricity. Third-party customers of our modules segment include integrators and operators of PV solar power systems.
- **Systems Segment** – Our fully integrated systems segment provides complete turn-key PV solar power systems, or solar solutions, that draw upon our capabilities, which include (i) project development, (ii) engineering, procurement, and construction (“EPC”) services, and (iii) O&M services. We may provide our full EPC services or any combination of individual products and services within our EPC capabilities depending upon the customer and market opportunity. All of our systems segment products and services are for PV solar power systems, which primarily use our solar modules, and we sell such products and services to utilities, independent power producers, commercial and industrial companies, and other system owners. Additionally, within our systems segment, we may temporarily own and operate certain of our systems for a period of time based on strategic opportunities or market factors.

Minerals including tantalum, tin, tungsten, and gold (“3TG”) are classified as “conflict minerals” and are necessary to the functionality or production of certain products that we manufacture or contract to manufacture. As such, we are subject to the Rules with respect to those necessary conflict minerals. The Rules require us to conduct in good faith a reasonable country of origin inquiry (“RCOI”) into those necessary conflict minerals to determine whether they originated in the Democratic Republic of Congo (“DRC”) or an adjoining country (“a covered country” and together, the “covered countries”) or are from recycled or scrap sources. If, as a result of our RCOI procedures, we know or have reason to believe that any of our necessary conflict minerals originated in a covered country and are not from recycled or scrap materials, then we are required to exercise due diligence to determine the source and chain of custody of such conflict minerals.

## First Solar Conflict Minerals Policy

To the extent we source minerals from the covered countries, we are dedicated to protecting and respecting human rights by responsibly sourcing such minerals. We have a long-standing commitment to conducting our business in compliance with applicable laws and regulations. First Solar condemns human rights abuses associated with the extraction, transport, or trade of minerals. Similarly, First Solar has a no tolerance policy with respect to corruption, money-laundering, or bribery. We require all direct suppliers to agree to follow such principles.

At the same time, First Solar supports sourcing from the covered countries when performed in accordance with accepted international standards, specifically within the guidance from the Organisation for Economic Co-operation and Development (“OECD”). Suppliers with minerals not found to be DRC conflict free in their sourcing will be given a reasonable amount of time to begin sourcing minerals responsibly and in a manner consistent with the principles of responsible sourcing from conflict-affected areas.

### Description of Product Identification and RCOI Processes

We have concluded that, during 2017, we manufactured and contracted to manufacture products containing certain conflict minerals. As such, we conducted a RCOI process to determine whether any of the conflict minerals originated, or may have originated, in the covered countries and whether such conflict minerals originated from recycled or scrap sources.

We conducted an assessment to determine which of our direct suppliers may be providing components of our products that are likely to contain conflict minerals. We employed a collaborative process to identify the applicable list of components and suppliers to focus our efforts, consulting with members of our supply chain department, including commodity managers, suppliers, senior management, and other individuals familiar with our manufacturing, solar plant sourcing, and construction processes. We verified with such personnel that the population of components and suppliers was complete and comprehensive for our 2017 procedures. We then identified the list of suppliers that we directly procured materials from (“tier one” or “direct” suppliers) to survey. These tier one suppliers were confirmed to have supplied products or components to us that contained conflict minerals between January 1, 2017 and December 31, 2017.

Accordingly, we reached the following conclusions for our business segments:

- **Modules Segment** – We consider the majority of the parts and components that go into the manufacturing of our thin film solar modules to be subject to the Rules, and such items are included in our RCOI procedures.
- **Systems Segment** – We consider our systems segment to be primarily a service, and not a “product” under the Rules. With the exception of solar modules, we do not manufacture the majority of the parts or components used in the balance of our systems. For those parts and components that we purchase, we generally do not exert design or material specification influence over such items, nor are the items engineered to our specifications. As such, the majority of our balance of system parts and components used within our systems segment are not subject to the Rules. However, there are a limited number of parts and components in our systems segment that we have determined to be subject to the Rules, and such items are included in our RCOI procedures.

### Results

Leveraging the Responsible Minerals Initiative’s (“RMI”) (previously known as the Conflict-Free Sourcing Initiative) Conflict Minerals Reporting Template (“CMRT”), our RCOI consisted of surveying tier one suppliers confirmed to have supplied products that contained conflict minerals that were either used to manufacture solar modules or contracted for the manufacturing of our balance of system components. This template includes information regarding the smelters,

origins of conflict minerals, supplier due diligence programs, and whether the materials originate from recycled or scrap sources.

As part of reviewing the completed CMRT surveys, we assessed the responses for reasonableness by comparing them to prior year information and reviewing the completeness of current year surveys provided. Incomplete CMRT surveys were rejected back to the suppliers. For non-responsive suppliers, we have internal escalation procedures, which escalate to more senior members of our global supply chain organization depending on certain milestones within our RCOI timeline. For the suppliers that we considered to be applicable to the Rules, we received a 100% response rate after following our internal procedures.

Our tier one suppliers performed similar RCOI procedures to identify the chain of custody from their suppliers back to the smelter and country of origin. We relied on the good faith efforts of our tier one suppliers to provide us with reasonable information and representations relating to the smelter and country of origin. The smelter or refiner facilities that were used to process our necessary conflict minerals are contained in Appendix A. See “Smelter and Refiner Facilities” below for more detail regarding the information contained in Appendix A.

We received completed surveys from all suppliers included in the procedures outlined above and reached the following conclusions:

- **Modules Segment** – 83% of our applicable suppliers support our modules segment. The applicable survey results showed that tin is the only conflict mineral included in our solar module materials.
- **Systems Segment** – 17% of our applicable suppliers support our systems segment. The applicable survey results showed that tin is the primary conflict mineral included in our balance of systems parts. Additionally, tungsten, tantalum, and gold are contained in our tracker systems, which contain an electrical gateway, controller, and other parts that support the functionality to follow the sun’s irradiance throughout the day.

Based on the RCOI conducted for both business segments, we have reason to believe that a portion of our necessary conflict minerals originated or may have originated in the covered countries and such necessary conflict minerals may not be from recycled or scrap sources. Based on this result, we exercised due diligence to determine the source and chain of custody of such conflict minerals as described below.

#### **Framework Used to Develop Due Diligence Measures**

In accordance with the Rules, we undertook due diligence efforts to determine the country, mine, or location of origin and facilities used to produce the conflict minerals used in our products. We have designed our due diligence measures to conform in all material respects with the internationally recognized due diligence framework as set forth in the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas (“OECD Framework”) and related supplements for 3TG.

#### **Due Diligence Undertaken to Comply with the OECD Framework**

Our due diligence process for 2017 included the following steps:

##### *OECD Step 1: Establish a Company Management System*

- We have adopted and communicated our conflict minerals policy both publicly and to relevant internal and external parties.
- Our conflict minerals policy is available at [www.firstsolar.com/-/media/First-Solar/Sustainability-Documents/FS-Mineral-Policy.ashx](http://www.firstsolar.com/-/media/First-Solar/Sustainability-Documents/FS-Mineral-Policy.ashx). Our conflict minerals policy is not incorporated herein by reference.

- Beginning in September 2013, we adopted conflict minerals compliance language in any new supplier agreements and purchase order terms and conditions.
- We have an operating cross-functional internal governance team with representatives from our supply chain, legal, sustainability, and finance departments to ensure policy statements and control processes are followed.
- We have an existing records retention process and grievance mechanism for reporting policy violations via our Ethics Hotline.

*OECD Step 2: Identify and Assess Risks in Supply Chain*

- We conducted our surveys leveraging the CMRT, which was sent to all suppliers considered to be subject to the Rules. We used the CMRT to identify smelter or refiner facilities and countries of origin of our necessary conflict minerals.
- We relied on RMI information and other information provided by our suppliers to identify countries of origin for Responsible Minerals Assurance Program (“RMAP”) (previously known as Conflict-Free Smelter Program) compliant smelter or refiner facilities.
- We reviewed the responses from the CMRT questionnaires with our supply chain department cross-checking the list of RMAP facilities found at [www.responsiblemineralsinitiative.org](http://www.responsiblemineralsinitiative.org), which website is not incorporated by reference herein.

*OECD Step 3: Design and Implement a Strategy to Respond to Risk*

- We reported information on the source and chain of custody of our necessary conflict minerals to our conflict minerals steering committee, executive management, and the audit committee of our board of directors on a periodic basis.
- As part of our internal conflict minerals policy, we have a conflict minerals risk mitigation plan that defines supplier-risk management strategies, including (i) continued procurement, (ii) assistance in identifying alternate sources of supply, and (iii) disengagement, the severity of which is at the discretion of our conflict minerals steering committee and executive management.

*OECD Step 4: Independent Third-Party Audit of Smelter/Refiner’s Due Diligence Practices*

- As we do not source directly from smelter or refiner processing facilities, we rely on the RMAP to oversee and coordinate third-party audits of these facilities. The RMAP audit protocols and procedures were designed by the RMI. These audit protocols and procedures require the smelters or refiners to engage specially trained third-party auditors to independently verify that these smelters and refiners can be considered conflict free.
- We rely on the publicly available audit results of the RMAP third-party audits to validate the sourcing practices of processing facilities in our supply chain.

*OECD Step 5: Report Annually on Supply Chain Due Diligence*

- We file a Form SD and Conflict Minerals Report with the Securities and Exchange Commission on an annual basis, as necessary. Our Form SD and Conflict Minerals Report are also available on our website at [investor.firstsolar.com/financial-information/sec-filings](http://investor.firstsolar.com/financial-information/sec-filings).

## Smelter and Refiner Facilities

In connection with our RCOI and due diligence efforts, our suppliers provided us with lists of facilities that may have processed the necessary conflict minerals used in our products during 2017. Such facility information is included in Appendix A and summarized in the following tables.

i) Overall results breakdown by business unit:

Business Unit	Number of Suppliers	Percentage
Modules	10	83%
Systems	2	17%
Total	12	100%

ii) Facilities breakdown by minerals:

Minerals	Number of Smelters or Refiners	Percentage
Gold	136	52%
Tantalum	20	8%
Tin	85	33%
Tungsten	18	7%
Total	259	100%

iii) Facilities breakdown by RMAP status:

RMAP Status (as of April 24, 2018)	Number of Smelters or Refiners	Percentage
RMAP conformant	201	78%
Active smelters and refiners	6	2%
Known	52	20%
Total	259	100%

The total number of facilities identified excluded the following entities, because each has been determined by the RMAP to be a downstream processing facility of a smelter or refiner and is therefore ineligible to participate in the RMAP.

Conflict Mineral	Smelter or Refiner Name	Smelter Location	Suppliers	Covered Products
Tantalum	Zhuzhou Cemented Carbide Group Co., Ltd.	China	Amphenol Corporation	Modules
Tin	VQB Mineral and Trading Group JSC	Vietnam	General Cable Corporation	Modules
Tin	VQB Mineral and Trading Group JSC	Vietnam	Amphenol Corporation	Modules

## Due Diligence Efforts to Identify Country, Location, and Mine of Origin of Conflict Minerals in Products

After obtaining CMRT forms and related documentation through our RCOI and due diligence processes as described above, we compared the smelters and refiners used by relevant suppliers against the list of smelters and refiners from the RMAP ([www.responsiblemineralsinitiative.org](http://www.responsiblemineralsinitiative.org)), which website is not incorporated by reference herein, as well as responses in the CMRT to gather the country, location, and mine of origin information. In addition, for smelters not certified under the RMAP (referred to as “known”), we obtained written representations regarding the chain of custody and origin of such minerals smelted in order to identify the mine or location of origin with the greatest amount of specificity possible.



We endeavored to determine the mine or location of origin of the necessary conflict minerals contained in our products through our CMRT responses. Where a smelter or refiner was identified, we reviewed public information, to the extent available, in an attempt to determine the mine or location of origin. Some of our suppliers reported such location of origin information within their CMRT responses. The majority of our smelters reported to be sourcing from L1 countries or from recycled or scrap sources.

The countries of origin of the conflict minerals processed by the RMAP compliant and active smelters or refiners identified to us by our suppliers may have included the countries identified below:

L1 – Countries that are not identified as conflict regions or plausible areas of smuggling or export from these regions of conflict minerals:

- Argentina, Australia, Austria, Belgium, Bolivia, Brazil, Canada, Chile, China, Colombia, Cote d'Ivoire, Czech Republic, Djibouti, Egypt, Estonia, Ethiopia, France, Germany, Guyana, Hungary, India, Indonesia, Ireland, Israel, Japan, Kazakhstan, Laos, Luxembourg, Madagascar, Malaysia, Mongolia, Myanmar, Namibia, Netherlands, Nigeria, Peru, Portugal, Russia, Sierra Leone, Singapore, Slovakia, South Korea, Spain, Suriname, Switzerland, Taiwan, Thailand, the United Kingdom, the United States, Vietnam, and Zimbabwe.

L2 – Countries that are known or plausible countries for smuggling, export out of region, or transit of materials containing conflict minerals:

- Kenya, Mozambique, and South Africa.

DRC – The smelter is sourcing from the Democratic Republic of the Congo.

Some of the conflict minerals processed by our RMAP compliant and active smelters or refiners may have originated in whole or in part from recycled or scrap sources.

### **Continuous Improvement Efforts to Mitigate Risk**

We intend to advance the effectiveness of our due diligence efforts, further enhance our compliance processes, and mitigate any risk that the necessary conflict materials used in our products may benefit armed groups by taking the following steps:

- 1) Engage further with direct suppliers and processing facilities to:
  - Improve the quality of processing facility data provided by our direct suppliers via the CMRT, including country of origin and mine or location of origin, and
  - Encourage non-RMAP validated processing facilities to become validated either through the RMAP or a RMAP-recognized third-party audit program.
- 2) Continue to require conflict minerals compliance language in our supplier agreements and refine our internal operating procedures to continue to move towards a “DRC conflict free” supply chain across all business segments.
- 3) Continue to monitor and track the RCOI and due diligence progress of our non-RMAP suppliers, including the usage of smelters and refiners that have been certified by the RMAP.
- 4) Require periodic supplier re-certifications to confirm that their previously reported sourcing information has not changed.

**Appendix A**

**Table of Our Conflict Minerals Processing Facilities\*  
(As of April 24, 2018)**

Conflict Mineral	Smelter or Refiner Name	Smelter Location	RMAP Status	Covered Products	
				Systems Segment	Modules Segment
Gold	Abington Reldan Metals, LLC	United States of America	Known		X
Gold	Accurate Refining Group	United States of America	Known		X
Gold	Advanced Chemical Company	United States of America	RMAP conformant		X
Gold	Aida Chemical Industries Co., Ltd.	Japan	RMAP conformant		X
Gold	Al Etihad Gold Refinery DMCC	United Arab Emirates	RMAP conformant		X
Gold	Allgemeine Gold-und Silberscheideanstalt A.G.	Germany	RMAP conformant	X	X
Gold	Almalyk Mining and Metallurgical Complex (AMMC)	Uzbekistan	RMAP conformant		X
Gold	AngloGold Ashanti Corrego do Sitio Mineracao	Brazil	RMAP conformant		X
Gold	Anhui Tongling Nonferrous Metal Mining Co., Ltd.	China	Known		X
Gold	Argor-Heraeus S.A.	Switzerland	RMAP conformant	X	X
Gold	Asahi Pretec Corp.	Japan	RMAP conformant		X
Gold	Asahi Refining Canada Ltd.	Canada	RMAP conformant	X	X
Gold	Asahi Refining USA Inc.	United States of America	RMAP conformant		X
Gold	Asaka Riken Co., Ltd.	Japan	RMAP conformant		X
Gold	ATAkulche	Turkey	Known		X
Gold	AU Traders and Refiners	South Africa	RMAP conformant		X
Gold	AURA-II	United States of America	Known		X
Gold	Aurubis AG	Germany	RMAP conformant		X
Gold	Bangalore Refinery	India	Active smelters and refiners		X
Gold	Bangko Sentral ng Pilipinas (Central Bank of the Philippines)	Philippines	RMAP conformant		X
Gold	Boliden AB	Sweden	RMAP conformant		X
Gold	C. Hafner GmbH + Co. KG	Germany	RMAP conformant	X	X
Gold	Caridad	Mexico	Known		X
Gold	CCR Refinery - Glencore Canada Corporation	Canada	RMAP conformant		X
Gold	Cendres + Metaux S.A.	Switzerland	RMAP conformant		X
Gold	CHALCO Yunnan Copper Co. Ltd.	China	Known		X
Gold	Chimet S.p.A.	Italy	RMAP conformant		X
Gold	Chugai Mining	Japan	Known		X
Gold	Daejin Indus Co., Ltd.	Korea (Republic of)	RMAP conformant		X
Gold	Daye Non-Ferrous Metals Mining Ltd.	China	Known		X
Gold	DODUCO Contacts and Refining GmbH	Germany	RMAP conformant	X	X
Gold	Dowa	Japan	RMAP conformant		X
Gold	DSC (Do Sung Corporation)	Korea (Republic of)	RMAP conformant		X

Conflict Mineral	Smelter or Refiner Name	Smelter Location	RMAP Status	Covered Products	
				Systems Segment	Modules Segment
Gold	Eco-System Recycling Co., Ltd.	Japan	RMAP conformant		X
Gold	Elemetal Refining, LLC	United States of America	Known		X
Gold	Emirates Gold DMCC	United Arab Emirates	RMAP conformant		X
Gold	Fidelity Printers and Refiners Ltd.	Zimbabwe	Known		X
Gold	GCC Gujrat Gold Centre Pvt. Ltd.	India	Known		X
Gold	Geib Refining Corporation	United States of America	RMAP conformant		X
Gold	Gold Refinery of Zijin Mining Group Co., Ltd.	China	RMAP conformant		X
Gold	Great Wall Precious Metals Co., LTD.	China	Known		X
Gold	Guangdong Gaoyao Co	China	Known		X
Gold	Guoda Safina High-Tech Environmental Refinery Co., Ltd.	China	Known		X
Gold	Hangzhou Fuchunjiang Smelting Co., Ltd.	China	Known		X
Gold	Heimerle + Meule GmbH	Germany	RMAP conformant	X	X
Gold	Heraeus Metals Hong Kong Ltd.	China	RMAP conformant	X	X
Gold	Heraeus Precious Metals GmbH & Co. KG	Germany	RMAP conformant	X	X
Gold	Hunan Chenzhou Mining Co., Ltd.	China	Known		X
Gold	HwaSeong CJ CO., LTD.	Korea (Republic of)	Known		X
Gold	Inner Mongolia Qiankun Gold and Silver Refinery Share Co., Ltd.	China	RMAP conformant		X
Gold	Ishifuku Metal Industry Co., Ltd.	Japan	RMAP conformant		X
Gold	Istanbul Gold Refinery	Turkey	RMAP conformant		X
Gold	Japan Mint	Japan	RMAP conformant		X
Gold	Jiangxi Copper Co., Ltd.	China	RMAP conformant		X
Gold	JSC Ekaterinburg Non-Ferrous Metal Processing Plant	Russian Federation	RMAP conformant		X
Gold	JSC Uralelectromed	Russian Federation	RMAP conformant		X
Gold	JX Nippon Mining & Metals Co., Ltd.	Japan	RMAP conformant		X
Gold	Kaloti Precious Metals	United Arab Emirates	Known		X
Gold	Kazakhmys Smelting LLC	Kazakhstan	Known		X
Gold	Kazzinc	Kazakhstan	RMAP conformant		X
Gold	Kennecott Utah Copper LLC	United States of America	RMAP conformant		X
Gold	KGHM Polska Miedz Spolka Akcyjna	Poland	Active smelters and refiners		X
Gold	Kojima Chemicals Co., Ltd.	Japan	RMAP conformant		X
Gold	Korea Zinc Co., Ltd.	Korea (Republic of)	RMAP conformant		X
Gold	Kyrgyzaltyn JSC	Kyrgyzstan	RMAP conformant		X
Gold	L'azurde Company For Jewelry	Saudi Arabia	Known		X
Gold	LinBao Gold Mining	China	Known		X
Gold	Lingbao Jinyuan Tonghui Refinery Co., Ltd.	China	Known		X
Gold	LS-NIKKO Copper Inc.	Korea (Republic of)	RMAP conformant	X	X
Gold	Luoyang Zijin Yinhui Gold Refinery Co., Ltd.	China	Known		X

Conflict Mineral	Smelter or Refiner Name	Smelter Location	RMAP Status	Covered Products	
				Systems Segment	Modules Segment
Gold	Materion	United States of America	RMAP conformant		X
Gold	Matsuda Sangyo Co., Ltd.	Japan	RMAP conformant		X
Gold	Metalor Technologies (Hong Kong) Ltd.	China	RMAP conformant		X
Gold	Metalor Technologies (Singapore) Pte., Ltd.	Singapore	RMAP conformant		X
Gold	Metalor Technologies (Suzhou) Ltd.	China	RMAP conformant		X
Gold	Metalor Technologies S.A.	Switzerland	RMAP conformant	X	X
Gold	Metalor USA Refining Corporation	United States of America	RMAP conformant	X	X
Gold	Metalurgica Met-Mex Penoles S.A. De C.V.	Mexico	RMAP conformant		X
Gold	Mitsubishi Materials Corporation	Japan	RMAP conformant		X
Gold	Mitsui Mining and Smelting Co., Ltd.	Japan	RMAP conformant		X
Gold	MMTC-PAMP India Pvt., Ltd.	India	RMAP conformant		X
Gold	Modeltech Sdn Bhd	Malaysia	Active smelters and refiners		X
Gold	Morris and Watson	New Zealand	Known		X
Gold	Moscow Special Alloys Processing Plant	Russian Federation	RMAP conformant		X
Gold	Nadir Metal Rafineri San. Ve Tic. A.S.	Turkey	RMAP conformant		X
Gold	Navoi Mining and Metallurgical Combinat	Uzbekistan	Known		X
Gold	Nihon Material Co., Ltd.	Japan	RMAP conformant		X
Gold	Ogussa Osterreichische Gold- und Silber-Scheideanstalt GmbH	Austria	RMAP conformant		X
Gold	Ohura Precious Metal Industry Co., Ltd.	Japan	RMAP conformant		X
Gold	OJSC "The Gulidov Krasnoyarsk Non-Ferrous Metals Plant" (OJSC Krastsvetmet)	Russian Federation	RMAP conformant		X
Gold	OJSC Novosibirsk Refinery	Russian Federation	RMAP conformant		X
Gold	PAMP S.A.	Switzerland	RMAP conformant		X
Gold	Penglai Penggang Gold Industry Co., Ltd.	China	Known		X
Gold	Prioksky Plant of Non-Ferrous Metals	Russian Federation	RMAP conformant		X
Gold	PT Aneka Tambang (Persero) Tbk	Indonesia	RMAP conformant		X
Gold	PX Precinox S.A.	Switzerland	RMAP conformant		X
Gold	Rand Refinery (Pty) Ltd.	South Africa	RMAP conformant		X
Gold	Refinery of Seemine Gold Co., Ltd.	China	Known		X
Gold	Remondis Argentia B.V.	Netherlands	Active smelters and refiners		X
Gold	Republic Metals Corporation	United States of America	RMAP conformant		X
Gold	Royal Canadian Mint	Canada	RMAP conformant	X	X
Gold	SAAMP	France	RMAP conformant		X
Gold	Sabin Metal Corp.	United States of America	Known		X
Gold	SAFINA A.S.	Czech Republic	Active smelters and refiners		X
Gold	Sai Refinery	India	Known		X
Gold	Samduck Precious Metals	Korea (Republic of)	RMAP conformant		X
Gold	Samwon Metals Corp.	Korea (Republic of)	Known		X
Gold	SAXONIA Edelmetalle GmbH	Germany	RMAP conformant		X

Conflict Mineral	Smelter or Refiner Name	Smelter Location	RMAP Status	Covered Products	
				Systems Segment	Modules Segment
Gold	Schone Edelmetaal B.V.	Netherlands	Known		X
Gold	SEMPSA Joyeria Plateria S.A.	Spain	RMAP conformant		X
Gold	Shandong Tarzan Bio-Gold Industry Co., Ltd.	China	Known		X
Gold	Shandong Zhaojin Gold & Silver Refinery Co., Ltd.	China	RMAP conformant		X
Gold	Sichuan Tianze Precious Metals Co., Ltd.	China	RMAP conformant		X
Gold	Singway Technology Co., Ltd.	Taiwan, Province of China	RMAP conformant		X
Gold	SOE Shyolkovsky Factory of Secondary Precious Metals	Russian Federation	RMAP conformant		X
Gold	Solar Applied Materials Technology Corp.	Taiwan, Province of China	RMAP conformant	X	X
Gold	Sudan Gold Refinery	Sudan	Known		X
Gold	Sumitomo Metal Mining Co., Ltd.	Japan	RMAP conformant		X
Gold	T.C.A S.p.A	Italy	RMAP conformant		X
Gold	Tanaka Kikinzoku Kogyo K.K.	Japan	RMAP conformant		X
Gold	The Refinery of Shandong Gold Mining Co., Ltd.	China	RMAP conformant	X	X
Gold	Tokuriki Honten Co., Ltd.	Japan	RMAP conformant		X
Gold	Tony Goetz NV	Belgium	Known		X
Gold	TOO Tau-Ken-Altyn	Kazakhstan	Known		X
Gold	Torecom	Korea (Republic of)	RMAP conformant		X
Gold	Umicore Brasil Ltda.	Brazil	RMAP conformant		X
Gold	Umicore Precious Metals Thailand	Thailand	RMAP conformant	X	X
Gold	Umicore S.A. Business Unit Precious Metals Refining	Belgium	RMAP conformant		X
Gold	United Precious Metal Refining, Inc.	United States of America	RMAP conformant	X	X
Gold	Universal Precious Metals Refining Zambia	Zambia	Known		X
Gold	Valcambi S.A.	Switzerland	RMAP conformant		X
Gold	Western Australian Mint (T/a The Perth Mint)	Australia	RMAP conformant	X	X
Gold	WIELAND Edelmetalle GmbH	Germany	RMAP conformant	X	X
Gold	Yamakin Co., Ltd.	Japan	RMAP conformant		X
Gold	Yokohama Metal Co., Ltd.	Japan	RMAP conformant		X
Gold	Zhongyuan Gold Smelter of Zhongjin Gold Corporation	China	RMAP conformant		X
Tantalum	Changsha South Tantalum Niobium Co., Ltd.	China	RMAP conformant		X
Tantalum	D Block Metals, LLC	United States of America	RMAP conformant		X
Tantalum	Douluoshan Sapphire Rare Metal Co Ltd	China	Known		X
Tantalum	Exotech Inc.	United States of America	RMAP conformant		X
Tantalum	F&X Electro-Materials Ltd.	China	RMAP conformant		X
Tantalum	Global Advanced Metals Aizu	Japan	RMAP conformant		X
Tantalum	Global Advanced Metals Boyertown	United States of America	RMAP conformant		X
Tantalum	Guangdong Rising Rare Metals-EO Materials Ltd.	China	RMAP conformant		X
Tantalum	H.C. Starck Co., Ltd.	Thailand	RMAP conformant		X
Tantalum	H.C. Starck Hermsdorf GmbH	Germany	RMAP conformant		X

Conflict Mineral	Smelter or Refiner Name	Smelter Location	RMAP Status	Covered Products	
				Systems Segment	Modules Segment
Tantalum	H.C. Starck Inc.	United States of America	RMAP conformant		X
Tantalum	H.C. Starck Ltd.	Japan	RMAP conformant		X
Tantalum	H.C. Starck Smelting GmbH & Co. KG	Germany	RMAP conformant		X
Tantalum	H.C. Starck Tantalum and Niobium GmbH	Germany	RMAP conformant		X
Tantalum	Hengyang King Xing Lifeng New Materials Co., Ltd.	China	RMAP conformant		X
Tantalum	JiuJiang JinXin Nonferrous Metals Co., Ltd.	China	RMAP conformant		X
Tantalum	LSM Brasil S.A.	Brazil	RMAP conformant		X
Tantalum	Mineracao Taboca S.A.	Brazil	RMAP conformant		X
Tantalum	Ningxia Orient Tantalum Industry Co., Ltd.	China	RMAP conformant		X
Tantalum	Ulba Metallurgical Plant JSC	Kazakhstan	RMAP conformant		X
Tin	Alpha	United States of America	RMAP conformant	X	X
Tin	An Thai Minerals Co., Ltd.	Vietnam	Known		X
Tin	An Vinh Joint Stock Mineral Processing Company	Vietnam	Known		X
Tin	Chenzhou Yunxiang Mining and Metallurgy Co., Ltd.	China	RMAP conformant		X
Tin	China Tin Group Co., Ltd.	China	RMAP conformant		X
Tin	CNMC (Guangxi) PGMA Co., Ltd.	China	Known		X
Tin	Cooper Santa	Brazil	Known	X	X
Tin	CV Ayi Jaya	Indonesia	RMAP conformant		X
Tin	CV Dua Sekawan	Indonesia	RMAP conformant		X
Tin	CV Gita Pesona	Indonesia	RMAP conformant		X
Tin	CV JusTindo	Indonesia	Known		X
Tin	CV United Smelting	Indonesia	RMAP conformant	X	X
Tin	CV Venus Inti Perkasa	Indonesia	RMAP conformant		X
Tin	Dowa	Japan	RMAP conformant		X
Tin	Electro-Mechanical Facility of the Cao Bang Minerals & Metallurgy Joint Stock Company	Vietnam	Known		X
Tin	EM Vinto	Bolivia (Plurinational State of)	RMAP conformant	X	X
Tin	Estanho de Rondonia S.A.	Brazil	Known		X
Tin	Fenix Metals	Poland	RMAP conformant	X	X
Tin	Gejiu Fengming Metallurgy Chemical Plant	China	RMAP conformant		X
Tin	Gejiu Jinye Mineral Company	China	RMAP conformant		X
Tin	Gejiu Kai Meng Industry and Trade LLC	China	RMAP conformant		X
Tin	Gejiu Non-Ferrous Metal Processing Co., Ltd.	China	RMAP conformant	X	X
Tin	Gejiu Yunxin Nonferrous Electrolysis Co., Ltd.	China	RMAP conformant		X
Tin	Gejiu Zi-Li	China	Known		X
Tin	Guangdong Hanhe Non-Ferrous Metal Co., Ltd.	China	RMAP conformant		X
Tin	Guanyang Guida Nonferrous Metal Smelting Plant	China	RMAP conformant		X
Tin	HuiChang Hill Tin Industry Co., Ltd.	China	RMAP conformant		X
Tin	Huichang Jinshunda Tin Co., Ltd.	China	RMAP conformant		X
Tin	Jiangxi Ketai Advanced Material Co., Ltd.	China	RMAP conformant		X

Conflict Mineral	Smelter or Refiner Name	Smelter Location	RMAP Status	Covered Products	
				Systems Segment	Modules Segment
Tin	Jiangxi New Nanshan Technology Ltd.	China	RMAP conformant		X
Tin	Magnu's Minerai's Metais e Ligas Ltda.	Brazil	RMAP conformant		X
Tin	Malaysia Smelting Corporation (MSC)	Malaysia	RMAP conformant	X	X
Tin	Melt Metais e Ligas S.A.	Brazil	RMAP conformant		X
Tin	Metallic Resources, Inc.	United States of America	RMAP conformant		X
Tin	Metallo Belgium N.V.	Belgium	RMAP conformant	X	X
Tin	Metallo Spain S.L.U.	Spain	RMAP conformant		X
Tin	Mineracao Taboca S.A.	Brazil	RMAP conformant	X	X
Tin	Minsur	Peru	RMAP conformant	X	X
Tin	Mitsubishi Materials Corporation	Japan	RMAP conformant	X	X
Tin	Modeltech Sdn Bhd	Malaysia	Active smelters and refiners		X
Tin	Nghe Tinh Non-Ferrous Metals Joint Stock Company	Vietnam	Known		X
Tin	O.M. Manufacturing (Thailand) Co., Ltd.	Thailand	RMAP conformant		X
Tin	O.M. Manufacturing Philippines, Inc.	Philippines	RMAP conformant		X
Tin	Operaciones Metalurgical S.A.	Bolivia (Plurinational State of)	RMAP conformant	X	X
Tin	Phoenix Metal Ltd.	Rwanda	Known		X
Tin	PT Aries Kencana Sejahtera	Indonesia	RMAP conformant		X
Tin	PT Artha Cipta Langgeng	Indonesia	RMAP conformant	X	X
Tin	PT ATD Makmur Mandiri Jaya	Indonesia	RMAP conformant	X	X
Tin	PT Babel Inti Perkasa	Indonesia	RMAP conformant	X	X
Tin	PT Bangka Prima Tin	Indonesia	RMAP conformant		X
Tin	PT Bangka Tin Industry	Indonesia	RMAP conformant	X	X
Tin	PT Belitung Industri Sejahtera	Indonesia	RMAP conformant	X	X
Tin	PT Bukit Timah	Indonesia	RMAP conformant	X	X
Tin	PT Cipta Persada Mulia	Indonesia	Known		X
Tin	PT DS Jaya Abadi	Indonesia	RMAP conformant	X	X
Tin	PT Eunindo Usaha Mandiri	Indonesia	RMAP conformant	X	X
Tin	PT Inti Stania Prima	Indonesia	RMAP conformant	X	X
Tin	PT Karimun Mining	Indonesia	RMAP conformant		X
Tin	PT Kijang Jaya Mandiri	Indonesia	RMAP conformant		X
Tin	PT Lautan Harmonis Sejahtera	Indonesia	RMAP conformant		X
Tin	PT Menara Cipta Mulia	Indonesia	RMAP conformant		X
Tin	PT Mitra Stania Prima	Indonesia	RMAP conformant	X	X
Tin	PT O.M. Indonesia	Indonesia	Known		X
Tin	PT Panca Mega Persada	Indonesia	RMAP conformant	X	X
Tin	PT Premium Tin Indonesia	Indonesia	RMAP conformant		X
Tin	PT Prima Timah Utama	Indonesia	RMAP conformant	X	X
Tin	PT Rajehan Ariq	Indonesia	RMAP conformant		X
Tin	PT Refined Bangka Tin	Indonesia	RMAP conformant	X	X
Tin	PT Sariwiguna Binasentosa	Indonesia	RMAP conformant	X	X
Tin	PT Stanindo Inti Perkasa	Indonesia	RMAP conformant	X	X
Tin	PT Sukses Inti Makmur	Indonesia	RMAP conformant		X

Conflict Mineral	Smelter or Refiner Name	Smelter Location	RMAP Status	Covered Products	
				Systems Segment	Modules Segment
Tin	PT Sumber Jaya Indah	Indonesia	RMAP conformant		X
Tin	PT Timah (Persero) Tbk Kundur	Indonesia	RMAP conformant	X	X
Tin	PT Timah (Persero) Tbk Mentok	Indonesia	RMAP conformant	X	X
Tin	PT Tinindo Inter Nusa	Indonesia	RMAP conformant	X	X
Tin	PT Tommy Utama	Indonesia	RMAP conformant		X
Tin	PT Wahana Perkit Jaya	Indonesia	Known		X
Tin	Resind Industria e Comercio Ltda.	Brazil	RMAP conformant		X
Tin	Rui Da Hung	Taiwan, Province of China	RMAP conformant	X	X
Tin	Soft Metais Ltda.	Brazil	RMAP conformant		X
Tin	Thaisarco	Thailand	RMAP conformant	X	X
Tin	Tuyen Quang Non-Ferrous Metals Joint Stock Company	Vietnam	Known		X
Tin	White Solder Metalurgia e Mineracao Ltda.	Brazil	RMAP conformant	X	X
Tin	Yunnan Chengfeng Non-ferrous Metals Co., Ltd.	China	RMAP conformant	X	X
Tin	Yunnan Tin Company Limited	China	RMAP conformant	X	X
Tungsten	A.L.M.T. TUNGSTEN Corp.	Japan	RMAP conformant		X
Tungsten	Chongyi Zhangyuan Tungsten Co., Ltd.	China	RMAP conformant		X
Tungsten	Ganzhou Huaxing Tungsten Products Co., Ltd.	China	RMAP conformant		X
Tungsten	Ganzhou Jiangwu Ferrotungsten Co., Ltd.	China	RMAP conformant		X
Tungsten	Ganzhou Seadragon W & Mo Co., Ltd.	China	RMAP conformant		X
Tungsten	Global Tungsten & Powders Corp.	United States of America	RMAP conformant		X
Tungsten	H.C. Starck Smelting GmbH & Co. KG	Germany	RMAP conformant		X
Tungsten	H.C. Starck Tungsten GmbH	Germany	RMAP conformant		X
Tungsten	Hunan Chunchang Nonferrous Metals Co., Ltd.	China	RMAP conformant		X
Tungsten	Japan New Metals Co., Ltd.	Japan	RMAP conformant		X
Tungsten	Jiangxi Gan Bei Tungsten Co., Ltd.	China	RMAP conformant		X
Tungsten	Kennametal Huntsville	United States of America	RMAP conformant		X
Tungsten	Niagara Refining LLC	United States of America	RMAP conformant		X
Tungsten	Nui Phao H.C. Starck Tungsten Chemicals Manufacturing LLC	Vietnam	RMAP conformant		X
Tungsten	Tejing (Vietnam) Tungsten Co., Ltd.	Vietnam	RMAP conformant		X
Tungsten	Wolfram Bergbau und Hutten AG	Austria	RMAP conformant		X
Tungsten	Xiamen Tungsten (H.C.) Co., Ltd.	China	RMAP conformant		X
Tungsten	Xiamen Tungsten Co., Ltd.	China	RMAP conformant		X

\*We note the following in connection with the table above:

- a. Active smelters and refiners have committed to undergo a RMAP audit or are participating in one of the cross-recognized certification programs. Smelters or refiners are identified as active in the RMAP once they submit a signed Agreement for the Exchange of Confidential Information and Auditee Agreement contracts, which is one of the first steps of the audit process. Smelters or refiners on the active list are at various stages of the audit cycle, anywhere from completion of the necessary documents to scheduling the audit date to enacting corrective actions in the post-audit phase.



- b. Though we request that our tier one suppliers provide responses at the product-level, some of our suppliers provided responses at the company-level, meaning that they reported smelter and refiner information for all of their products, not just for the products sold to us. Accordingly, our list of processing facilities disclosed in this appendix contains more facilities than those that actually process or refine the conflict minerals contained in our products.
- c. Known smelters and refiners include those reported entities that were listed on the Smelter Reference List tab of the CMRT because those are the only reported entities that we were able to determine were smelters or refiners.