# UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

## FORM SD

**Specialized Disclosure Report** 

# **KVH Industries, Inc.**

(Exact name of registrant as specified in its charter)

**Delaware** (State or other jurisdiction of incorporation or organization) **0-28082** (Commission file number)

50 Enterprise Center, Middletown, RI 02842

(Address of principal executive offices) (Zip code)

Felise Feingold (401) 847-3327

(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:

Rule 13p-1 under the Securities Exchange Act (17 CFR 240.13p-1) for the reporting period from January 1 to December 31, 2022.

Rule 13q-1 under the Securities Exchange Act (17 CFR 240.13q-1) for the fiscal year ended \_\_\_\_\_\_

## Section 1. Conflict Minerals Disclosure

KVH Industries, Inc. ("KVH", "we", or "our") is a leading manufacturer of solutions that provide global high-speed Internet, television, and voice services via satellite to mobile users at sea and on land as well as a leading provider of commercially licensed entertainment including news, sports, movies, and music to commercial and leisure customers in the maritime, hotel, and retail markets. Until August 2022, we were also a premier manufacturer of high-performance navigational sensors and integrated inertial systems for defense and commercial inertial navigation applications.

## Item 1.01 Conflict Minerals Disclosure and Report

This Form SD is filed pursuant to Rule 13p-1 promulgated under the Securities Exchange Act of 1934, as amended, for the reporting period January 1, 2022 to December 31, 2022.

#### Item 1.02 Exhibit

KVH's Conflict Minerals Report is provided as Exhibit 1.01 to this Form SD. A copy of our Conflict Minerals Report may be found at https://ir.kvh.com/financial-information/sec-filings.

## Section 2. Resource Extraction Issuer Disclosure

Item 2.01 Resource Extraction Issuer Disclosure and Report

Not applicable.

| Section 3.  | Exhibits   |  |  |
|-------------|------------|--|--|
| Item 3.01   | Exhibits   |  |  |
| Exhibit No. | ) <u>1</u> | Description           Conflict Minerals Report of KVH Industries, Inc. |  |

## 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.

KVH Industries, Inc. (Registrant)

By: /s/ Roger A. Kuebel
Roger A. Kuebel, Chief Financial Officer

May \_\_, 2023 **(Date)** 

#### **KVH Industries, Inc.**

#### **CONFLICT MINERALS REPORT**

This Conflict Minerals Report of KVH Industries, Inc. ("KVH", "we", or "our") has been prepared pursuant to Rule 13p-1 promulgated under the Securities Exchange Act of 1934, as amended, for the reporting period January 1, 2022 to December 31, 2022.

Rule 13p-1 and Form SD require companies to disclose certain information regarding products that they manufacture, or contract to manufacture, when: (a) those products contain one or more of the minerals gold, columbite-tantalite (coltan), cassiterite, or wolframite, or their derivatives tantalum, tin, and tungsten (the "Conflict Minerals"); (b) those Conflict Minerals are necessary to the functionality or production of those products; and (c) those Conflict Minerals originated, or may have originated, in the Democratic Republic of the Congo or in a country that shares an internationally recognized border with the Democratic Republic of the Congo (the "Covered Countries").

#### Section 1. Product Review and Reasonable Country of Origin Inquiry

#### **Section 1.1 Product Review**

KVH conducted an analysis of its product lines and determined that Conflict Minerals are used in its system-level products and components.

#### Section 1.2 Reasonable Country of Origin Inquiry and Conclusion

KVH's international supply chain is complex. KVH is several layers removed from the smelters in its supply chain, making it difficult to trace the origin of any Conflict Minerals necessary to the functionality or production of its products.

For our 2022 reasonable country of origin inquiry ("RCOI"), we reviewed our suppliers of direct materials, components and system-level products (collectively referred to as "Supplier Materials"). We generated internal reports analyzing all Supplier Material purchases for 2022 ("Total Supplier Spend"). We then ranked each supplier based on the aggregate Total Supplier Spend. We determined that suppliers with \$50,000 or more in Total Supplier Spend accounted for approximately 96% of Total Supplier Spend made by KVH during 2022, and determined that it would be reasonable to concentrate our RCOI efforts on this group of 93 suppliers. We refer to this group of suppliers as our "Primary Suppliers."

In our RCOI for 2022, we surveyed our Primary Suppliers using a template developed by the Responsible Business Alliance (RBA) and the Global e-Sustainability Initiative (GeSI) (the "Conflict Minerals Reporting Template"). KVH sent the Conflict Minerals Reporting Template to all 93 Primary Suppliers and received 91 responses, which represented approximately 98% of our targeted supplier group and approximately 96% of Total Supplier Spend. We made additional requests for responses from the two Primary Suppliers that did not respond initially, but our efforts were not successful. Of the 91 responses received by KVH, 28 indicated that the Conflict Minerals used in Supplier Materials supplied to KVH came from "conflict-free" sources and furnished a list of their verified smelters; 45 confirmed that no Conflict Minerals were used in the Supplier Materials supplied to KVH; and 18 indicated that they were unsure of the origin of the Conflict Minerals in the Supplier Materials that they supplied to us.

Although the response rate of our Primary Suppliers increased slightly from approximately 96% in 2021 to 98% in 2022, the number of respondents who reported themselves as DRC "conflict-free" did not change. However, the percentage of the responding Primary Suppliers who reported themselves as DRC "undeterminable" increased from 16% in 2021 to 20% in 2022. Thus, we concluded that, for 2022, as in prior reporting years, we do not have sufficient information from our suppliers or other sources to determine with specificity the countries of origin of the Conflict Minerals used in our products or whether they are from recycled or scrap sources. Therefore, we cannot exclude the possibility that some of these Conflict Minerals may have originated in the Covered Countries and/or are not from recycled or scrap sources.

## Section 2. Due Diligence

KVH's due diligence efforts related to products: (i) for which Conflict Minerals are necessary to the functionality or production of that product; (ii) that were manufactured, or contracted to be manufactured, by KVH; (iii) for which the manufacture was completed during 2022; and (iv) for which KVH was unable to form the basis for a reasonable belief that none of the Conflict Minerals necessary to the functionality or production of those products originated in a Covered Country. The products, which are hereinafter referred to collectively as the "Covered Products," include KVH's mobile satellite communications products and components, as well as inertial navigation products and components. We sold our inertial navigation business in August 2022. Accordingly, this report addresses only the inertial navigation products sold by KVH before that date.

#### Section 2.1 Design of KVH's Due Diligence Measures

KVH designed its due diligence measures to conform to the framework set forth in the Organisation for Economic Co-operation and Development Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas: Third Edition, including the related supplements on gold, tin, tantalum and tungsten (the "OECD Guidance").

## Section 2.2 Due Diligence Measures Performed by KVH

The due diligence processes followed by KVH are described below under sub-headings corresponding to the five-step framework of the OECD Guidance.

#### 1. Management Systems

We previously established and have maintained throughout 2022 internal processes for Conflict Minerals supply chain due diligence and reporting. We have implemented a Conflict Minerals Policy Statement and related procedures to help support our supply chain due diligence efforts and communication processes designed to provide information, including our Conflict Minerals Policy Statement, to our suppliers and to the public. In this regard, our supplier purchase contracts include terms and conditions and other contractual flow-downs requiring supplier cooperation and compliance with KVH's due diligence efforts. We also maintain a "Supplier Information" web page to facilitate supplier access to important documents, including but not limited to KVH's Conflicts Minerals Policy Statement, General Terms and Conditions of Purchase and General Supplier Quality Clauses, each of which can be found at http://www.kvh.com/suppliers. Additionally, prior to any engagement with KVH, we generally require all prospective suppliers to (a) provide information about their due diligence program and the steps they have taken to determine whether there are any Conflict Minerals in their supply chain; and (b) submit a completed copy of their latest Conflict Minerals Reporting Template. This information gives our Global Supply Chain team early visibility into the compliance program maturity level and smelter base of prospective vendors before we start to do business with that company.

For 2022, our efforts to identify smelters/refiners in our supply chain was facilitated through the use of due diligence tools created by the Responsible Minerals Initiative ("RMI") founded by the RBA and GeSI for independent third-party audit information, including the Conflict Minerals Reporting Template. The information furnished by our Primary Suppliers was reviewed and analyzed by our internal team led by KVH's Director of Global Supply Chain and retained within the company's document retention system. The data obtained from our Primary Suppliers was vetted by our Global Supply Chain team and then used to generate a comprehensive list of all smelters/refiners that had been identified by our Primary Suppliers, which list was then cross-referenced against information from RMI's Responsible Minerals Assurance Process ("RMAP") to help us identify the compliant smelters/refiners and origin of minerals processed.

### 2. Assessment of Risk in the Supply Chain

In order to determine the origin of Conflict Minerals in the Covered Products:

- An initial meeting of our Global Supply Chain team was held on February 13, 2023 to review our 2022 annual spending and to determine the parameters of our RCOI for 2022.
- On or around February 17, 2023, we sent letters to our Primary Suppliers, explaining our conflict minerals disclosure obligations and referring the suppliers to online training materials and instructions, and solicited survey responses using the Conflict Minerals Reporting Template.
- Having received responses from only 26 of the 93 Primary Suppliers by the end of March 2023, a second meeting of our Global Supply Chain team was held on April 3, 2023, during which team members were tasked with following-up with all non-responsive Primary Suppliers.

- Over the next 3 weeks, members of KVH's Global Supply Chain team continued its efforts to contact the remaining Primary Suppliers, and by April 21, 2023, KVH had received responses from 91 of the 93 Primary Suppliers. Of the 91 respondents, 77 returned the Conflict Minerals Reporting Template and 14 provided a separate company statement regarding conflict minerals.
- Having received responses from approximately 98% of our Primary Suppliers, which represented approximately 96% of Total Supplier Spend for 2022, KVH then reviewed the responses and followed up on any incomplete or ambiguous responses.
- Our Global Supply Chain team then compared the smelters/refiners identified by its Primary Suppliers against the list of facilities that have received a "conformant" designation from the RMI's RMAP, which designations provide country of origin and due diligence information on the Conflict Minerals sourced by such facilities.

### 3. Strategies to Respond to Identified Risks

KVH's due diligence efforts are an evolving process that we strive to improve by: (i) maintaining a supplier onboarding process that solicits information about sourcing of conflict minerals, (ii) focusing on the reliability and quality of the information received from our Primary Suppliers; (iii) reviewing responses and following up on incomplete, inaccurate or ambiguous data; (iv) contacting Primary Suppliers who have consistently reported products to be "DRC conflict undeterminable" or the equivalent to determine what steps they have taken to improve their due diligence processes; and (v) maintaining internal processes designed to emphasize the importance of supplier cooperation and compliance with our Conflict Minerals Policy Statement through readily accessible policies and contractual flow-down clauses governing the business relationship, which not only provide us with leverage to promote compliance but also the flexibility needed to reassess and/or terminate certain relationships, as appropriate.

## 4. Independent Third-Party Audits

As a result of KVH's position in the supply chain, there are generally several tiers of suppliers between KVH and the smelters/refiners in our supply chain, and therefore we do not conduct or commission independent third-party audits of the smelters and refiners from which our Primary Suppliers source Conflict Minerals. KVH has relied upon industry initiatives, including the RMI's RMAP, for independent third-party audit information.

#### 5. <u>Reporting</u>

With the preparation and submission of this Conflict Minerals Report, KVH has provided a public report of its due diligence measures with regard to the sourcing of Conflict Minerals. A copy of this report is available at <u>https://ir.kvh.com/financial-information/sec-filings</u>.

### Section 3. Results of Due Diligence

The response rate among our Primary Suppliers in 2022 was 98%. Among the responses, some of our Primary Suppliers were unable to identify any of the smelters or refiners used in the Supplier Materials supplied to us and certain responses also included names of smelters or refiners that we believe may have been incomplete or misidentified. Such names have not been included among the list of smelters and refiners identified by our Primary Suppliers in Annex 1 below.

In total, we identified approximately 392 smelters as potential sources of Conflict Minerals that were reported to be in the supply chain at some point during the 2022 calendar year. The table below presents the total number of identified smelters or refiners for each mineral and the corresponding percentage of each group that we have been able to verify as conflict-free according to information provided on the RMI website.

|          |                            | Identified Smelters or Refiners |
|----------|----------------------------|---------------------------------|
|          | Total Number of Identified | Verified or certified as RMAP   |
| Metal    | Smelters for Each Metal    | Conformant                      |
| Gold     | 184                        | 50%                             |
| Tantalum | 45                         | 51%                             |
| Tin      | 101                        | 56%                             |
| Tungsten | 62                         | 52%                             |

For the Conflict Minerals contained in the Covered Products, KVH's due diligence efforts failed to clarify whether the Conflict Minerals contained in those products may have originated in a Covered Country or came from recycled or scrap sources. Fourteen Primary Suppliers identified three smelters in their supply chains that KVH believes to be higher-risk based on publicly available information regarding their location, namely:

| Mineral | Smelter                                   | Location |
|---------|---|----------|
| Gold    | African Gold Refinery                     | Uganda   |
| Gold    | Universal Precious Metals Refining Zambia | Zambia   |
| Tin     | Luna Smelter, Ltd.                        | Rwanda   |

RMI identified Luna Smelter, Ltd. of Rwanda as a "conformant" smelter.

Our Global Supply Chain team previously contacted the Primary Suppliers who identified the smelters listed above to confirm what efforts each has taken either to certify its smelters or to identify alternate sources. Each of the Primary Suppliers informed KVH that they do not directly purchase materials from any of the smelters listed above and that they were either (i) downstream distributors of components and/or (ii) engaged as build-to-print contract manufacturers who do not choose the components. Consequently, as in prior reporting years, we were unable to validate that any of the smelters or refiners identified by our Primary Suppliers, including the smelters identified above, are actually in our supply chain. We will continue to follow our risk-mitigation processes implemented in 2019 to help identify possible higher-risk suppliers prior to engagement, and we intend to contact any new suppliers who identify higher-risk smelters such as these to confirm what efforts they have taken either to certify their smelters or to identify alternate sources, if necessary.

Based on our due diligence efforts, KVH has concluded that we do not have sufficient information to determine with specificity the country of origin of all of the Conflict Minerals in our Covered Products or to determine whether the Conflict Minerals were from recycled or scrap sources. Based on the information received from our Primary Suppliers, KVH believes that the facilities that may have been used to process Conflict Minerals in our Covered Products include the smelters and refiners listed in Annex 1 below.

### Section 4. Future Steps to Improve Due Diligence

In order to improve our due diligence process and compliance efforts for 2023, KVH intends to:

- Continue to gather additional information which will assist us in determining whether the Conflict Minerals we utilize benefit armed groups contributing to human rights violations;
- Continue to collect and evaluate supplier responses and follow-up with those suppliers that we have deemed to be a higher risk due to incomplete or ambiguous responses; and
- Continue to review, and, if necessary, reassess supplier relationships based on information and resources provided by third-party conflict minerals audit programs such as the RMI's RMAP and other industry initiatives promoting responsible mineral sourcing practices.

KVH will continue to expect our suppliers to reasonably assure us that the minerals in the products they supply are conflict-free.

## Section 5. Forward Looking Statements

This report includes forward-looking statements that involve risks and uncertainties, including for example statements regarding our due diligence processes with respect to Conflict Minerals. Forward-looking statements are not guarantees of future performance. KVH assumes no obligation to revise or update any forward-looking statements for any reason, except as required by law.

\* Denotes smelters/ refiners that received a "conflict-free" designation from an independent third-party audit program, as of May 19, 2023.

| Metal | Smelter or Refiner Name  | Country                  |
|-------|--|--------------------------|
| Gold  | 8853 S.p.A.  | Italy                    |
| Gold  | ABC Refinery Pty Ltd.  | Australia                |
| Gold  | Abington Reldan Metals, LLC*                                   | United States of America |
| Gold  | Advanced Chemical Company                                      | United States of America |
| Gold  | African Gold Refinery  | Uganda                   |
| Gold  | Aida Chemical Industries Co., Ltd.*                            | Japan                    |
| Gold  | Al Etihad Gold Refinery DMCC*                                  | United Arab Emirates     |
| Gold  | Albino Mountinho Lda.  | Portugal                 |
| Gold  | Alexy Metals*  | United States of America |
| Gold  | Allgemeine Gold-und Silberscheideanstalt A.G.                  | Germany                  |
| Gold  | Almalyk Mining and Metallurgical Complex (AMMC)*               | Uzbekistan               |
| Gold  | AngloGold Ashanti Corrego do Sitio Mineracao*                  | Brazil                   |
| Gold  | Argor-Heraeus S.A.*  | Switzerland              |
| Gold  | Asahi Pretec Corp.   | Japan                    |
| Gold  | Asahi Refining Canada Ltd.*                                    | Canada                   |
| Gold  | Asahi Refining USA Inc.*                                       | United States of America |
| Gold  | Asaka Riken Co., Ltd.*   | Japan                    |
| Gold  | Atasay Kuyumculuk Sanayi Ve Ticaret A.S.                       | Turkey                   |
| Gold  | AU Traders and Refiners  | South Africa             |
| Gold  | Augmont Enterprises Private Limited                            | India                    |
| 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  | C.I Metales Procesados Industriales SAS                        | Colombia                 |
| Gold  | Caridad  | Mexico                   |
| Gold  | CCR Refinery - Glencore Canada Corporation*                    | Canada                   |
| Gold  | Cendres + Metaux S.A.  | Switzerland              |
| Gold  | CGR Metalloys Pvt Ltd.   | India                    |
| Gold  | Chimet S.p.A.*   | Italy                    |
| Gold  | Chugai Mining*   | Japan                    |
| Gold  | Daejin Indus Co., Ltd.   | Republic of Korea        |
| Gold  | Daye Non-Ferrous Metals Mining Ltd.                            | China                    |

| Metal | Smelter or Refiner Name  | Country                  |
|-------|--|--------------------------|
| Gold  | Degussa Sonne / Mond Goldhandel GmbH                             | Germany                  |
| Gold  | Dijllah Gold Refinery FZC  | United Arab Emirates     |
| Gold  | DODUCO Contacts and Refining GmbH                                | Germany                  |
| Gold  | Dongwu Gold Group  | China                    |
| Gold  | Dowa*  | Japan                    |
| Gold  | DSC (Do Sung Corporation)*                                       | Republic of 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  | Elemetal Refining, LLC   | United States of America |
| Gold  | Emerald Jewel Industry India Limited (Unit 4)                    | India                    |
| Gold  | Emirates Gold DMCC*  | United Arab Emirates     |
| Gold  | Fidelity Printers and Refiners Ltd.                              | Zimbabwe                 |
| Gold  | Fujairah Gold FZC  | United Arab Emirates     |
| Gold  | GCC Gujrat Gold Centre Pvt. Ltd.                                 | India                    |
| Gold  | Geib Refining Corporation*                                       | United States of America |
| Gold  | Gold by Gold Colombia*   | Colombia                 |
| Gold  | Gold Coast Refinery  | Ghana                    |
| Gold  | Gold Refinery of Zijin Mining Group Co., Ltd.*                   | China                    |
| Gold  | Great Wall Precious Metals Co., Ltd. of CBPM                     | China                    |
| Gold  | Guangdong Jinding Gold Limited                                   | China                    |
| Gold  | Guoda Safina High-Tech Environmental Refinery Co., Ltd.          | China                    |
| Gold  | Hangzhou Fuchunjiang Smelting Co., Ltd.                          | China                    |
| Gold  | Heimerle + Meule GmbH*   | Germany                  |
| Gold  | Henan Yuguang Gold & Lead Co., Ltd.                              | China                    |
| Gold  | Heraeus Metals Hong Kong Ltd.*                                   | China                    |
| Gold  | Heraeus Germany GmbH & Co. KG*                                   | Germany                  |
| Gold  | Hunan Chenzhou Mining Co., Ltd.                                  | China                    |
| Gold  | Hunan Guiyang yinxing Nonferrous Smelting Co., Ltd.              | China                    |
| Gold  | HwaSeong CJ CO., LTD.  | Republic of Korea        |
| Gold  | Industrial Refining Company                                      | Belgium                  |
| Gold  | Inner Mongolia Qiankun Gold and Silver Refinery Share Co., Ltd.* | China                    |
| Gold  | International Precious Metal Refiners                            | United Arab Emirates     |
| Gold  | Ishifuku Metal Industry Co., Ltd.*                               | Japan                    |
| Gold  | Istanbul Gold Refinery*  | Turkey                   |
| Gold  | Italpreziosi*  | Italy                    |
| Gold  | JALAN & Company  | India                    |
| Gold  | Japan Mint*  | Japan                    |
| Gold  | Jiangxi Copper Co., Ltd.*  | China                    |
| Gold  | JSC Ekaterinburg Non-Ferrous Metal Processing Plant              | Russian Federation       |
| Gold  | JSC Uralelectromed   | Russian Federation       |
| Gold  | JX Nippon Mining & Metals Co., Ltd.*                             | Japan                    |

| Metal | Smelter or Refiner Name                      | Country                  |
|-------|--|--------------------------|
| Gold  | K.A. Rasmussen                               | Norway                   |
| Gold  | Kaloti Precious Metals                       | United Arab Emirates     |
| Gold  | Kazakhmys Smelting LLC                       | Kazakhstan               |
| Gold  | Kazzinc*                                     | Kazakhstan               |
| Gold  | Kennecott Utah Copper LLC*                   | United States of America |
| Gold  | KGHM Polska Miedz Spolka Akcyjna*            | Poland                   |
| Gold  | Kojima Chemicals Co., Ltd.*                  | Japan                    |
| Gold  | Korea Zinc Co., Ltd.*                        | Republic of Korea        |
| Gold  | Kundan Care Products Ltd.                    | India                    |
| Gold  | Kyrgyzaltyn JSC                              | Kyrgyzstan               |
| Gold  | Kyshtym Copper-Electrolytic Plant ZAO        | Russian Federation       |
| Gold  | L'azurde Company For Jewelry                 | Saudi Arabia             |
| Gold  | Lingbao Gold Co., Ltd.                       | China                    |
| Gold  | Lingbao Jinyuan Tonghui Refinery Co., Ltd.   | China                    |
| Gold  | L'Orfebre S.A.*                              | Andorra                  |
| Gold  | LS-NIKKO Copper Inc.*                        | Republic of Korea        |
| Gold  | LT Metal Ltd.*                               | Republic of Korea        |
| Gold  | Luoyang Zijin Yinhui Gold Refinery Co., Ltd. | China                    |
| Gold  | Marsam Metals                                | Brazil                   |
| Gold  | Materion*                                    | United States of America |
| Gold  | Matsuda Sangyo Co., Ltd.*                    | Japan                    |
| Gold  | MD Overseas                                  | India                    |
| Gold  | Metal Concentrators SA (Pty) Ltd.*           | South Africa             |
| Gold  | Metallix Refining Inc.                       | United States of America |
| Gold  | Metalor Technologies (Hong Kong) Ltd.*       | China                    |
| Gold  | Metalor Technologies (Singapore) Pte., Ltd.* | Singapore                |
| Gold  | Metalor Technologies (Suzhou) Ltd.*          | China                    |
| Gold  | Metalor Technologies S.A.*                   | Switzerland              |
| Gold  | Metalor USA Refining Corporation*            | United States of America |
| Gold  | Metalurgica Met-Mex Penoles S.A. De C.V.*    | Mexico                   |
| Gold  | Mitsubishi Materials Corporation*            | Japan                    |
| Gold  | Mitsui Mining and Smelting Co., Ltd.*        | Japan                    |
| Gold  | MKS PAMP S.A.*                               | Switzerland              |
| Gold  | MMTC-PAMP India Pvt., Ltd.*                  | India                    |
| Gold  | Modeltech Sdn Bhd                            | Malaysia                 |
| Gold  | Morris and Watson                            | New Zealand              |
| Gold  | Morris and Watson Gold Coast                 | Australia                |
| Gold  | Moscow Special Alloys Processing Plant       | Russian Federation       |
| Gold  | Nadir Metal Rafineri San. Ve Tic. A.S.*      | Turkey                   |
| Gold  | Navoi Mining and Metallurgical Combinat*     | Uzbekistan               |
| Gold  | NH Recytech Company*                         | Republic of Korea        |

| Metal | Smelter or Refiner Name   | Country                  |
|-------|---|--------------------------|
| Gold  | Nihon Material Co., Ltd.*   | Japan                    |
| Gold  | Ogussa Osterreichische Gold- und Silber-Scheideanstalt GmbH*                | Austria                  |
| Gold  | Ohura Precious Metal Industry Co., Ltd.*                                    | Japan                    |
| Gold  | OJSC "The Gulidov Krasnoyarsk Non-Ferrous Metals Plant" (OJSC Krastsvetmet) | Russian Federation       |
| Gold  | OJSC Novosibirsk Refinery   | Russian Federation       |
| Gold  | Pease & Curren  | United States of America |
| Gold  | Penglai Penggang Gold Industry Co., Ltd.                                    | China                    |
| Gold  | Planta Recuperadora de Metales SpA*   | Chile                    |
| Gold  | Prioksky Plant of Non-Ferrous Metals  | Russian Federation       |
| Gold  | PT Aneka Tambang (Persero) Tbk*   | Indonesia                |
| Gold  | PX Precinox S.A.*   | Switzerland              |
| Gold  | QG Refining, LLC  | United States of America |
| Gold  | Rand Refinery (Pty) Ltd.*   | South Africa             |
| Gold  | Refinery of Seemine Gold Co., Ltd.  | China                    |
| Gold  | REMONDIS PMR B.V.*  | Netherlands              |
| Gold  | Republic Metals Corporation   | United States of America |
| Gold  | Royal Canadian Mint*  | Canada                   |
| Gold  | SAAMP*  | France                   |
| Gold  | Sabin Metal Corp.   | United States of America |
| Gold  | Safimet S.p.A   | Italy                    |
| Gold  | SAFINA A.S.*  | Czechia                  |
| Gold  | Sai Refinery  | India                    |
| Gold  | Samduck Precious Metals   | Republic of Korea        |
| Gold  | Samwon Metals Corp.   | Republic of Korea        |
| Gold  | Sancus ZFS (L'Orfebre, SA)*   | Colombia                 |
| Gold  | SAXONIA Edelmetalle GmbH  | Germany                  |
| Gold  | Schone Edelmetaal B.V.  | Netherlands              |
| Gold  | Sellem Industries Ltd.  | Mauritania               |
| Gold  | SEMPSA Joyeria Plateria S.A.*   | Spain                    |
| Gold  | Shandong Humon Smelting Co., Ltd.   | China                    |
| Gold  | Shandong Tiancheng Biological Gold Industrial Co., Ltd.                     | China                    |
| Gold  | Shandong Zhaojin Gold & Silver Refinery Co., Ltd.*                          | China                    |
| Gold  | Shenzhen CuiLu Gold Co., Ltd.   | China                    |
| Gold  | Shenzhen Zhonghenglong Real Industry Co., Ltd.                              | China                    |
| Gold  | Shirpur Gold Refinery Ltd.  | India                    |
| 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  | Sovereign Metals  | India                    |
| Gold  | State Research Institute Center for Physical Sciences and Technology        | Lithuania                |

| Metal    | Smelter or Refiner Name                              | Country                  |
|----------|--|--------------------------|
| Gold     | Sudan Gold Refinery                                  | Sudan                    |
| Gold     | Sumitomo Metal Mining Co., Ltd.*                     | Japan                    |
| Gold     | SungEel HiMetal Co., Ltd.*                           | Republic of Korea        |
| Gold     | Super Dragon Technology Co., Ltd.                    | China                    |
| 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.*                           | Japan                    |
| Gold     | Tongling Nonferrous Metals Group Co., Ltd.           | China                    |
| Gold     | TOO Tau-Ken-Altyn*                                   | Kazakhstan               |
| Gold     | Torecom*   | Republic of Korea        |
| Gold     | Umicore Brasil Ltda.                                 | Brazil                   |
| 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     | Universal Precious Metals Refining Zambia            | Zambia                   |
| Gold     | Valcambi S.A.*                                       | Switzerland              |
| Gold     | Value Trading  | Belgium                  |
| Gold     | WEEEREFINING   | France                   |
| 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     | Yunnan Copper Industry Co., Ltd.                     | China                    |
| Gold     | Zhongkuang Gold Industry Co., Ltd.                   | China                    |
| Gold     | Zhongyuan Gold Smelter of Zhongjin Gold Corporation* | China                    |
| Tantalum | 5D Production OU                                     | Estonia                  |
| 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 | Duoluoshan   | China                    |
| 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 Rising Rare Metals-EO Materials Ltd.       | China                    |
| Tantalum | Guangdong Zhiyuan New Material Co., Ltd.             | China                    |
| Tantalum | H.C. Starck Co., Ltd.                                | Thailand                 |

| Metal    | Smelter or Refiner Name   | Country                                   |
|----------|---|---|
| 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                                     |
| Tantalum | Jiangxi Dinghai Tantalum & Niobium Co., Ltd.*                                 | China                                     |
| Tantalum | Jiangxi Tuohong New Raw Material*   | China                                     |
| Tantalum | Jiujiang Janny New Material Co., Ltd.   | 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 de Mexico   | Mexico                                    |
| Tantalum | KEMET Blue Powder   | United States of America                  |
| 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 | Power Resources Ltd.  | The Former Yugoslav Republic of 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 | Yancheng Jinye New Material Technology Co., Ltd.                              | China                                     |
| Tantalum | Yanling Jincheng Tantalum & Niobium Co., Ltd.*                                | China                                     |
| Tantalum | Yichun Jin Yang Rare Metal Co., Ltd.  | China                                     |
| Tin      | Alpha*  | United States of America                  |
| Tin      | An Vinh Joint Stock Mineral Processing Company                                | Vietnam                                   |
| 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      | CNMC (Guangxi) PGMA Co., Ltd.   | China                                     |
| Tin      | CRM Fundicao De Metais E Comercio De Equipamentos Eletronicos Do Brasil Ltda* | Brazil                                    |
| Tin      | CRM Synergies*  | Spain                                     |

| Metal | Smelter or Refiner Name   | Country                        |
|-------|---|--------------------------------|
| Tin   | CV Ayi Jaya*  | Indonesia                      |
| Tin   | CV Gita Pesona  | Indonesia                      |
| Tin   | CV Tiga Sekawan   | Indonesia                      |
| Tin   | CV United Smelting  | Indonesia                      |
| Tin   | CV Venus Inti Perkasa*  | Indonesia                      |
| Tin   | Dongguan CiEXPO Environmental Engineering Co., Ltd.                                   | China                          |
| Tin   | Dowa*   | Japan                          |
| Tin   | DS Myanmar*   | Myanmar                        |
| Tin   | Electro-Mechanical Facility of the Cao Bang Minerals & Metallurgy Joint Stock Company | Vietnam                        |
| Tin   | EM Vinto*   | Plurinational State of Bolivia |
| Tin   | Estanho de Rondonia S.A.*   | Brazil                         |
| Tin   | Fabrica Auricchio Industria e Comercio Ltda.*   | Brazil                         |
| Tin   | Fenix Metals*   | Poland                         |
| Tin   | Gejiu City Fuxiang Industry and Trade Co., Ltd.                                       | China                          |
| Tin   | Gejiu Fengming Metallurgy Chemical Plant  | China                          |
| Tin   | Gejiu Jinye Mineral Company   | China                          |
| Tin   | Gejiu Kai Meng Industry and Trade LLC   | China                          |
| Tin   | Gejiu Non-Ferrous Metal Processing 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   | HuiChang Hill Tin Industry Co., Ltd.*   | China                          |
| Tin   | Huichang Jinshunda Tin Co., Ltd.  | China                          |
| Tin   | Jiangxi New Nanshan Technology Ltd.*  | China                          |
| Tin   | Luna Smelter, Ltd.*   | Rwanda                         |
| 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   | Nghe Tinh Non-Ferrous Metals Joint Stock Company                                      | Vietnam                        |
| Tin   | Novosibirsk Processing Plant Ltd.   | Russian Federation             |
| Tin   | O.M. Manufacturing (Thailand) Co., Ltd.*  | Thailand                       |
| Tin   | O.M. Manufacturing Philippines, Inc.*   | Philippines                    |
| Tin   | Operaciones Metalurgicas S.A.*  | Plurinational State of Bolivia |

| Metal | Smelter or Refiner Name                      | Country                  |
|-------|--|--------------------------|
| Tin   | Pongpipat Company Limited                    | Myanmar                  |
| Tin   | Precious Minerals and Smelting Limited       | India                    |
| Tin   | PT Artha Cipta Langgeng*                     | Indonesia                |
| Tin   | PT ATD Makmur Mandiri Jaya*                  | Indonesia                |
| Tin   | PT Babel Inti Perkasa*                       | Indonesia                |
| Tin   | PT Babel Surya Alam Lestari*                 | Indonesia                |
| Tin   | PT Bangka Prima Tin*                         | Indonesia                |
| Tin   | PT Bangka Serumpun*                          | Indonesia                |
| Tin   | PT Bangka Tin Industry                       | Indonesia                |
| Tin   | PT Bukit Timah*                              | Indonesia                |
| Tin   | PT Cipta Persada Mulia*                      | Indonesia                |
| Tin   | PT DS Jaya Abadi                             | Indonesia                |
| Tin   | PT Eunindo Usaha Mandiri                     | Indonesia                |
| Tin   | PT Inti Stania Prima                         | Indonesia                |
| Tin   | PT Karimun Mining                            | Indonesia                |
| Tin   | PT Kijang Jaya Mandiri                       | Indonesia                |
| Tin   | PT Lautan Harmonis Sejahtera                 | Indonesia                |
| Tin   | PT Masbro Alam Stania                        | Indonesia                |
| Tin   | PT Menara Cipta Mulia*                       | Indonesia                |
| Tin   | PT Mitra Stania Prima*                       | Indonesia                |
| Tin   | PT Mitra Sukses Globalindo*                  | Indonesia                |
| Tin   | PT Panca Mega Persada                        | Indonesia                |
| Tin   | PT Premium Tin Indonesia*                    | Indonesia                |
| Tin   | PT Prima Timah Utama*                        | Indonesia                |
| Tin   | PT Putera Sarana Shakti (PT PSS)*            | Indonesia                |
| Tin   | PT Rajawali Rimba Perkasa*                   | Indonesia                |
| Tin   | PT Refined Bangka Tin*                       | Indonesia                |
| Tin   | PT Sariwiguna Binasentosa*                   | Indonesia                |
| Tin   | PT Stanindo Inti Perkasa*                    | Indonesia                |
| Tin   | PT Sukses Inti Makmur*                       | Indonesia                |
| Tin   | PT Sumber Jaya Indah                         | Indonesia                |
| Tin   | PT Timah Nusantara                           | Indonesia                |
| Tin   | PT Timah Tbk Kundur*                         | Indonesia                |
| Tin   | PT Timah Tbk Mentok*                         | Indonesia                |
| Tin   | PT Tinindo Inter Nusa                        | Indonesia                |
| Tin   | PT Tirus Putra Mandiri                       | Indonesia                |
| Tin   | Resind Industria e Comercio Ltda.*           | Brazil                   |
| Tin   | Rui Da Hung*                                 | Taiwan                   |
| Tin   | Soft Metais Ltda.                            | Brazil                   |
| Tin   | Super Ligas                                  | Brazil                   |
| Tin   | Thai Nguyen Mining and Metallurgy Co., Ltd.* | Vietnam                  |
| Tin   | Thaisarco*                                   | Thailand                 |
| Tin   | Tin Technology & Refining*                   | United States of America |

| Metal    | Smelter or Refiner Name  | Country                  |
|----------|--|--------------------------|
| Tin      | Tuyen Quang Non-Ferrous Metals Joint Stock Company             | Vietnam                  |
| Tin      | VQB Mineral and Trading Group JSC                              | Vietnam                  |
| 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 | Albasteel Industria e Comercio de Ligas Para Fundicao Ltd.     | Brazil                   |
| Tungsten | Artek LLC  | Russian Federation       |
| Tungsten | Asia Tungsten Products Vietnam Ltd.*                           | Vietnam                  |
| Tungsten | Chenzhou Diamond Tungsten Products Co., Ltd.                   | China                    |
| Tungsten | China Molybdenum Co., Ltd.*                                    | China                    |
| Tungsten | Chongyi Zhangyuan Tungsten Co., Ltd.*                          | China                    |
| Tungsten | CNMC (Guangxi) PGMA Co., Ltd.                                  | China                    |
| Tungsten | Cronimet Brasil Ltda*  | Brazil                   |
| Tungsten | Fujian Ganmin RareMetal Co., Ltd.*                             | China                    |
| Tungsten | Fujian Jinxin Tungsten Co., Ltd.                               | China                    |
| Tungsten | Fujian Xinlu Tungsten Co., Ltd.*                               | China                    |
| Tungsten | Ganzhou Haichuang Tungsten Co., Ltd.*                          | China                    |
| Tungsten | Ganzhou Huaxing Tungsten Products Co., Ltd.*                   | China                    |
| Tungsten | Ganzhou Jiangwu Ferrotungsten Co., Ltd.*                       | China                    |
| Tungsten | Ganzhou Seadragon W & Mo Co., Ltd.*                            | China                    |
| Tungsten | Ganzhou Yatai Tungsten Co., Ltd.                               | China                    |
| Tungsten | GEM Co., Ltd.  | China                    |
| 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 | HANNAE FOR T Co., Ltd.   | Republic of Korea        |
| 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 Dayu Longxintai Tungsten Co., Ltd.                     | China                    |
| Tungsten | Jiangxi Gan Bei Tungsten Co., Ltd.*                            | China                    |
| Tungsten | Jiangxi Minmetals Gao'an Non-ferrous Metals Co., Ltd.          | China                    |
| Tungsten | Jiangxi Tonggu Non-ferrous Metallurgical & Chemical Co., Ltd.* | China                    |
| Tungsten | Jiangxi Xinsheng Tungsten Industry Co., Ltd.*                  | China                    |
| Tungsten | Jiangxi Xiushui Xianggan Nonferrous Metals Co., Ltd.           | China                    |

| Metal    | Smelter or Refiner Name                                      | Country                  |
|----------|--|--------------------------|
| Tungsten | Jiangxi Yaosheng Tungsten Co., Ltd.*                         | China                    |
| Tungsten | JSC "Kirovgrad Hard Alloys Plant"                            | Russian Federation       |
| Tungsten | Kennametal Fallon*   | United States of America |
| Tungsten | Kennametal Huntsville*                                       | United States of America |
| Tungsten | KGETS Co., Ltd.*   | Republic of Korea        |
| Tungsten | Lianyou Metals Co., Ltd.*                                    | Taiwan                   |
| Tungsten | LLC Volstok  | Russian Federation       |
| Tungsten | Malipo Haiyu Tungsten Co., Ltd.*                             | China                    |
| Tungsten | Masan Tungsten Chemical LLC (MTC)                            | Vietnam                  |
| Tungsten | Moliren Ltd.   | Russian Federation       |
| Tungsten | Niagara Refining LLC*  | United States of America |
| Tungsten | NPP Tyazhmetprom LLC   | Russian Federation       |
| Tungsten | OOO "Technolom" 1  | Russian Federation       |
| Tungsten | Philippine Chuangxin Industrial Co., Inc.*                   | Philippines              |
| Tungsten | South-East Nonferrous Metal Company Limited of Hengyang City | China                    |
| Tungsten | Tejing (Vietnam) Tungsten Co., Ltd.                          | Vietnam                  |
| Tungsten | Unecha Refractory metals plant                               | Russian Federation       |
| Tungsten | Vietnam Youngsun Tungsten Industry Co., Ltd.                 | Vietnam                  |
| Tungsten | Wolfram Bergbau und Hutten AG*                               | Austria                  |
| 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                    |
| Tungsten | Yudu Ansheng Tungsten Co., Ltd.                              | China                    |