

# Mineral Industry Surveys

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## CANVASS FORMS CATALOG

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## INTRODUCTION

The U.S. Congress has enacted laws that emphasize the importance of nonfuel minerals, such as the Strategic and Critical Materials Stock Piling Act, the Defense Production Act, and the National Mining and Minerals Policy Act. Because of these laws, governmentwide clearinghouses and individual Federal agencies have been assigned various canvass functions. The principal agency assigned these canvass functions is the U.S. Geological Survey (USGS) of the U.S. Department of the Interior (DOI). Congress established the existing statutory and institutional framework largely through the Appropriation Act of 1935 (Public Law 74-53) requiring collection and dissemination of information on all mineral-related economic activities. This requirement ensures that the Government will retain its ability to perform the economic and statistical analyses of domestic and foreign minerals activities necessary to develop and maintain policy. A brief section on the legal authority to conduct and use the nonfuel minerals canvasses is at the end of this catalog.

Canvass forms are used to acquire most of the information collected by the USGS. The entire mineral economic cycle from production through consumption is covered by 140 canvass forms. All responses are voluntary.

* Canvass forms requiring Office of Management and Budget (OMB) approval.....	93
Canvass forms not requiring OMB approval.....	<u>47</u>
Total.....	140

*\* As of December 1998.*

** Number of Responses to Canvasses per year	
Monthly.....	13,634
Quarterly.....	620
Semiannual.....	102
Annual.....	<u>32,361</u>
Total.....	46,717

*\*\* As of February 1998.*

In the third section of this catalog, Information Collection Canvasses, the contents of the canvass (or survey) form are described. The fourth section is an index of forms by canvass code. The fifth section is a listing of the publications produced from information collected from the canvass forms.

Information collected by the USGS using canvass forms and other sources is aggregated and processed to produce the USGS minerals information publications. These USGS publications provide the foundation for responding to information requests by Congress, Federal and State agencies, and the private sector.

## SURVEY METHODS

The USGS collects worldwide data on every commercially important nonfuel mineral commodity. These data form the basis for tracking and assessing the health of the minerals sector of the U.S. economy.

The data collection activity was instituted by the 47th Congress in an appropriations act of August 7, 1882 (22 Stat. 329), which placed the collection of mineral statistics on an annual basis. The most recent authority for the USGS survey activity is the National Materials and Minerals Policy, Research and Development Act of 1980 (Public Law 96-479, 96th Congress). This act strengthens protection for proprietary data provided to the DOI by persons or firms engaged in any phase of mineral or mineral-material production or consumption.

### DATA-COLLECTION SURVEYS

The USGS begins the collection of domestic nonfuel minerals and materials data by appraising the information requirements of Government and private organizations of the United States. Data are subsequently collected on USGS canvass forms (see example at end of catalog).

Questions about the production, consumption, shipments, etc., of mineral commodities are structured in the canvass forms to provide meaningful aggregated data. Thus, the entire mineral economic cycle from production through consumption is covered by 140 monthly, quarterly, semiannual, and annual canvasses.

After the canvass form has been designed, a list of the appropriate establishments to be canvassed is drawn up. Many sources are used to determine which companies, mines, plants, and other operations should be included on the canvass mailing list. State geologists, Federal organizations (e.g., Mine Safety and Health Administration), trade associations, and industry representatives, publications, and directories are some of the sources that are explored to develop and update canvass listings. With few exceptions, the establishments are canvassed rather than a sample; the iron and steel scrap industry is one of the exceptions where a sample is conducted.

The Paperwork Reduction Act requires that any Government agency wishing to collect information from 10 or more establishments (i.e., "persons") first obtain approval from the OMB which approves the need to collect the data and protects industry from unwarranted Government paperwork.

### CANVASS PROCESSING

Each year, the USGS surveys approximately 18,000 establishments, mailing about 47,000 forms to gather information for 140 different canvasses. Each completed canvass form returned to the USGS undergoes extensive scrutiny to ensure the

highest possible accuracy of the mineral data. The statistical staff monitors all canvasses to ensure that errors are not created by reporting in physical units different from the units requested on the form. Relations between related measures, such as produced crude ore and marketable crude ore, are analyzed for consistency. Engineering relations, such as recovery factors from ores and concentrates, are also employed. The totals for each form are verified, and currently reported data are checked against prior reports to detect possible errors or omissions.

Canvass forms are reviewed to ensure that data are complete and correct before they are entered into the computer. The computer is programmed to conduct a series of canvass-specific automated checks to verify mathematical consistency and to identify discrepancies between the data reported and logically acceptable responses.

The USGS is modernizing and automating all its survey-processing and data-dissemination methods. Automated commodity data system functions include the computerized preparation of statistical tables, the use of desktop publishing software to integrate text and tables, and the implementation of an Internet Web site (<http://minerals.er.usgs.gov/minerals>) for electronic dissemination of minerals data. Also, information on minerals and mineral-related publications is available through an easy-to-use automated fax response system known as MINES FaxBack.

**Canvass Responses.**—To enable the reader to understand better the basis on which the statistics are calculated, each commodity annual report includes a discussion of the domestic data coverage. This section briefly describes the data sources, the number of establishments surveyed, the response percentage, and the method of estimating production or consumption for nonrespondents.

To produce reliable aggregated data, the USGS employs procedures for handling instances of nonresponse. Failure to return the initial canvass form results in a second mailing of the form. If the second form is not returned, then telephone calls are made to the nonrespondents. These followup calls provide the necessary data to complete the canvass forms and/or to verify questionable data entries. Periodic visits to important mineral establishments are also made by USGS commodity specialists to gather missing data and to explain the importance of the establishment's need to report. By describing the use of the published statistics and showing the impact of nonresponse, the USGS strives to encourage respondents to give a complete and accurate reply.

The OMB Guidelines for Reducing Reporting Burden stipulates that the minimum acceptable response rate shall be 75% of the panel canvassed. In addition, the USGS strives for a minimum reporting level of 75% of the quantity produced or consumed (depending on the canvass) for certain key statistics. Response rates are periodically reviewed. For those canvasses not meeting the minimum reporting level, procedures are developed and implemented to improve response rates.

**Estimation for Nonresponse.**—When efforts to obtain a response to a canvass fail, it becomes necessary to employ estimation techniques to account for missing data. These techniques are most effective when the response rate is high. Some of the estimation methods depend on knowledge of prior establishment reporting, and other techniques rely on external information to estimate the missing data. When canvass forms are received after the current publication has been completed, the forms are edited, necessary revisions are made for missing data, and the data base is updated. The revised data are reported in later publications.

**Protection of Proprietary Data.**—The USGS relies on the cooperation of the U.S. minerals industry to provide the mineral data that are presented in USGS publications. Without a strong response to survey requests, the USGS would not be able to present reliable statistics. The USGS, in turn, respects the proprietary nature of the data received from the individual companies and establishments. To ensure nondisclosure of proprietary data, the USGS analyzes each of the aggregated statistics to determine if the data reported by an individual establishment can be deduced from the aggregated statistics. If, for example, there are only two significant producers of a commodity in a given State, then the USGS will not publish the State total because either producer could readily estimate the production of the other. It is this obligation to protect proprietary information that results in the "Withheld" or "W" entries in the published tables. If a company gives permission in writing, however, the USGS will publish the data as long as the data from other producers are protected from disclosure.

## INTERNATIONAL DATA

International data are collected by country specialists in the USGS International Minerals Section with assistance from commodity specialists and the Data Collection and Coordination Section's International Data Unit. These data are gathered from various sources, including published reports of foreign government mineral and statistical agencies, international organizations, the U.S. Department of State, the United Nations, the Organization of Petroleum Exporting Countries, and personal contact by specialists traveling abroad. Each spring, an annual Minerals Questionnaire is sent to agencies of foreign governments with responsibility for mineral statistics requesting estimates of mineral production for that country for the preceding year. Missing data are estimated by USGS country specialists on the basis of historical trends and specialists' knowledge of current production capabilities in each country.

## PUBLICATIONS

The USGS disseminates current and historical minerals information through a broad range of electronic and printed media.

The Minerals Yearbook summarizes the significant economic and technologic developments in the mineral industries on a calendar-year basis. Three separate volumes are issued each year — Volume 1, Metals and Minerals; Volume 2, Area Reports: Domestic; and Volume 3, Area Reports: International. Chapters in these volumes are issued separately before the bound volumes are released. These chapters are available on the Internet web site, MINES FaxBack, or as printed in the Mineral Industry Surveys series.

Volume 1, Metals and Minerals, contains chapters about virtually all the metallic and industrial mineral commodities important to the U.S. economy. Chapters on survey methods, summary statistics for domestic nonfuel minerals, and trends in mining and quarrying in the metals and industrial minerals industries in the United States are also included.

Volume 2, Area Reports: Domestic, contains a chapter on the minerals industry of each of the 50 States and Puerto Rico and the Administered Islands. This volume also has chapters on survey methods and summary statistics for domestic nonfuel minerals.

Volume 3, Area Reports: International, is published as four separate reports. These regional reports contain the latest available mineral data on more than 190 foreign countries and discuss the importance of minerals to the economies of these nations and the United States. Each report begins with an overview of the region's mineral industries during the year. It continues with individual country chapters that examine the mining, refining, processing, and use of minerals in each country of the region and how they relate to U.S. industry. Most chapters include production tables and industry structure tables, information about Government policies and programs that affect the country's minerals industry, and an outlook section.

Mineral Industry Surveys contain timely statistical and economic data on minerals plus a discussion of recent developments in the commodity industry. These reports are designed to keep Government agencies and the public, particularly the mineral industry and the business community, informed of trends in the production, distribution, inventories, and consumption of minerals. Frequency of issue depends on the demand for current data. Minerals Industry Surveys are released monthly, quarterly, semiannually, or annually.

Mineral Commodity Summaries, an up-to-date summary of over 85 nonfuel mineral commodities, is the earliest Government publication to furnish estimates covering the previous year's nonfuel mineral industry data. It contains information on the domestic industry structure, Government programs, tariffs, 5-year

salient statistics, and a summary of significant events, trends, and issues for the mineral industry.

Metal Industry Indicators is a monthly newsletter that analyzes and forecasts the economic health of five metal industries—primary metals, steel, copper, primary and secondary aluminum, and aluminum mill products. It presents composite leading and coincident indexes of a set of indicators that historically have proven to lead or coincide with the major business cycle changes in these industries. The indexes were developed in cooperation with the Center for International Business Cycle Research at Columbia University. Each month, these indexes are analyzed along with any economywide occurrences that would affect the metals industries.

### FREE PUBLICATIONS <sup>1</sup>

- Mineral Industry Surveys
- Metal Industry Indicators

*Order from:* Publication Distribution, National Institute for Occupational Safety and Health, Pittsburgh Research Laboratory, P.O. Box 18070, Pittsburgh, PA 15236-0070, (412) 892-4111.

### SALES PUBLICATIONS <sup>1</sup>

- Minerals Yearbook
- Mineral Commodity Summaries

*Order from the Government Printing Office or the National Technical Information Service:*

U.S. Government Printing Office, Superintendent of Documents, P.O. Box 371954, Pittsburgh, PA 15250-7954, (202) 512-1800.

The National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, VA 22161, 1-800-553-NTIS (in VA and foreign countries: (703) 605-6000.

Minerals Yearbooks and Mineral Commodity Summaries are also available on CD-ROM. These CD-ROM's are issued once every 4 months (February, June, and October) and are available from the U.S. Government Printing Office (GPO). Current ordering information, including GPO stock numbers and publications lists, are available from the above-linked web site.

<sup>1/</sup> Individual chapters of the Minerals Yearbook, Mineral Commodity Summaries, as well as Mineral Industry Surveys and Metal Industry Indicators, are available free via fax at (703) 648-4999 and can also be accessed via the Internet (<http://minerals.er.usgs.gov/minerals>).

## INFORMATION COLLECTION SURVEYS

This section provides a basic reference and overview of the canvass forms that follow. For each form, an abstract describes the respondent group, the type of data collected, the units of measure, and a contact point. They are arranged alphabetically by commodity and canvass title, such as Abrasives, Aluminum, Copper, etc., then numerically by form number with the letters following the form number indicating the reporting period, such as A (Annual), M (Monthly), Q (Quarterly), S (Semiannual), and B (Biennially). At times, the reporting period designations are used in combinations, such as MA (Monthly/Annual) and QA (Quarterly/Annual). The canvass codes G06, D06, etc., serve as a cross-reference to the form numbers for internal USGS processing.

### **ABRASIVES (SEE ALSO "SILICA")**

#### **9-4033-Q D06 METALLIC ABRASIVES**

**COVERAGE:** This canvass obtains data on production and disposition of metallic abrasives in metric tons. Firms report quantity and value (f.o.b. plant) quantity and value, and f.o.b. point of shipment for such products as chilled iron shot and grit, annealed iron shot and grit, steel shot and grit, and cut wire shot.

**CONTACT:** Abrasives Specialist, Ronald Balazik,  
703-648-7721, rbalazik@usgs.gov

#### **9-4118-Q G06 CRUDE ARTIFICIAL ABRASIVES**

**COVERAGE:** This canvass covers production and stocks of silicon carbide, aluminum oxide, and aluminum-zirconium oxide. Firms report quantity and value of crude abrasive products, exclusive of off-grade material returned to furnace, whether produced for sale or for reduction to abrasive grains in their own plants. The canvass covers U.S. and Canadian production. Data are reported in metric tons.

**CONTACT:** Abrasives Specialist, Ronald Balazik,  
703-648-7721, rbalazik@usgs.gov

#### **9-4119-A G13 MINE PRODUCTION OF MISCELLANEOUS MATERIALS SEE "PRODUCTION"**

#### **9-4121-A G33 PRODUCTION OF INDUSTRIAL GARNET SEE "GARNET (INDUSTRIAL)"**

## ALUMINA

### **9-4055-A C04 ALUMINA**

**COVERAGE:** Consumption and production of alumina are reported in metric tons on the same canvass form. Responding alumina producers report bauxite stocks, consumption, and value of consumption; they also report alumina stocks, production, and value of shipments by type of alumina and average aluminum oxide content of aluminas produced. Quantities of alumina shipments by consuming industries are also reported. Primary aluminum smelters report stocks, receipts, and consumption of alumina.

**CONTACT:** Aluminum Specialist, Patricia Plunkert,  
703-648-4979, pplunker@usgs.gov

## ALUMINUM

### **9-4054-M C03 ALUMINUM**

**COVERAGE:** This canvass covers the production of primary aluminum metal at alumina reduction plants (smelters). Firms report production of primary aluminum as the weight of liquid aluminum as tapped from the pots, excluding alloying metal. Data are reported in metric tons.

**CONTACT:** Aluminum Specialist, Patricia Plunkert,  
703-648-4979, pplunker@usgs.gov

### **9-4081-MA C52 ALUMINUM SCRAP**

**COVERAGE:** This canvass obtains data on stocks, receipts, and consumption of purchased, toll-treated, and imported aluminum-base scrap at secondary smelters, integrated aluminum companies, foundries, independent mill fabricators, and other users of scrap. Data are reported in pounds by major types of new and old scrap. It also covers stocks, production, and shipments of secondary aluminum and aluminum alloys recovered from scrap, by types of alloy or product, and the quantities of primary aluminum and alloying additives used in the production of these products.

**CONTACT:** Aluminum Specialist, Patricia Plunkert,  
703-648-4979, pplunker@usgs.gov

## ANTIMONY

### **9-4056-A C05 ANTIMONY ORE AND CONCENTRATE**

**COVERAGE:** This canvass covers stocks, production, and shipments of ore and concentrates; weight reported in pounds.

Firms report quantity and value (either f.o.b. mine or f.o.b. mill). Reporting firms are mineral establishments, which are defined as single physical locations where mineral operations are conducted; for example, mines, mine preparation plants, or preparation plants only.

CONTACT: Antimony Specialist, James Carlin, 703-648-4985, jcarlin@usgs.gov

**9-4057-QA C06  
PRIMARY ANTIMONY**

COVERAGE: This canvass obtains data on primary antimony from mine operations and consumers. Firms report stocks, receipts, production, and disposition of primary antimony; weight reported in pounds. Consumption of primary antimony is reported by end use in specific products listed under the general categories of metal products, nonmetal products, and flame retardants.

CONTACT: Antimony Specialist, James Carlin, 703-648-4985, jcarlin@usgs.gov

**ASBESTOS**

**9-4136-A D12  
ASBESTOS**

COVERAGE: This canvass obtains data on production, stocks, shipments, value of asbestos mined domestically, and major domestic end-use markets in short tons. Type (chrysotile or amphibole) is reported and information named above reported by grade, purchased material excluded. Data are published in metric tons.

CONTACT: Asbestos Specialist, Robert Virta, 703-648-7726, rvirta@usgs.gov

**BARITE**

**9-4011-A D22  
BARITE**

COVERAGE: This canvass covers mine production and grinding plant output of barite, reported in metric tons. Firms mining barite report quantity and type of material, value (f.o.b. mine), and disposition of the product. Firms grinding barite report quantity sold or used, value (f.o.b. plant), disposition by end use, and sources of crude material.

CONTACT: Barite Specialist, James Searls, 703-648-7724, jsearls@usgs.gov

**BARIUM**

**9-4133-A D23  
BARIUM CHEMICALS**

COVERAGE: This canvass covers the consumption of barium minerals in the production of barium chemicals and lithopone. Firms report consumption of barium minerals, quantity produced, quantity sold, and value (f.o.b. plant) of sales. Data are reported in metric tons or pounds.

CONTACT: Barium Specialist, James Searls, 703-648-7724, jsearls@usgs.gov

**BAUXITE**

**9-4052-A C01  
BAUXITE — CONSUMPTION**

COVERAGE: Companies consuming bauxite report annually on stocks, receipts, consumption, and shipments. The type of bauxite received is identified, and the quantities received by State or country of origin are reported. Shipments of products are reported by product type, quantity, and value.

CONTACT: Bauxite Specialist, Patricia Plunkert, 703-648-4979, pplunker@usgs.gov

**BERYLLIUM**

**9-4058-A C09  
BERYLLIUM**

COVERAGE: This canvass covers consumption, receipts, stocks, and shipments of beryllium mineral and other beryllium source materials by consuming plants. The canvass also covers the consuming plants' production of finished beryllium products such as beryllium metal, alloys, and compounds. Data are reported in pounds.

CONTACT: Beryllium Specialist, Larry Cunningham, 703-648-4977, lcunning@usgs.gov

**9-4075-A C40  
BERYLLIUM MINERAL CONCENTRATE AND  
BERYLLIUM ORE**

COVERAGE: This canvass covers stocks, shipments, value, and production of hand-cobbed beryllium concentrate and mined beryllium ore. Data are reported in pounds.

CONTACT: Beryllium Specialist, Larry Cunningham, 703-648-4977, lcunning@usgs.gov

## **BISMUTH**

**9-4059-A C10**

### **BISMUTH REFINERY PRODUCTION**

COVERAGE: This canvass covers refinery producers of bismuth metal. Firms report beginning and ending stocks, receipts, production, consumption, shipments, and reshipments; Weight reported in pounds.

CONTACT: Bismuth Specialist, Robert Brown, 703-648-4984, rbrown@usgs.gov

**9-4060-QA C11**

### **BISMUTH**

COVERAGE: This canvass covers users of bismuth metal. Firms report beginning and ending stocks, receipts, consumption, shipments, and category of consumption; Weight reported in pounds.

CONTACT: Bismuth Specialist, Robert Brown, 703-648-4984, rbrown@usgs.gov

## **BORON**

**9-4114-A D66**

### **BORON**

COVERAGE: This canvass covers boron compounds and minerals and bulk value of boron compounds sold or used. Data are reported in short tons.

CONTACT: Boron Specialist, Phyllis Lyday, 703-648-7713, plyday@usgs.gov

**9-4117-MA G05**

### **CONSOLIDATED CONSUMERS' REPORT SEE "CONSOLIDATED CONSUMERS"**

## **BROMINE**

**9-4109-A D25**

### **BROMINE**

COVERAGE: This canvass covers sources of elemental bromine, including production, purchases, imports, transfers, and stocks. Plants report quantity and value of elemental bromine disposed of, including sales to domestic sources and exports, transfers, and usage for manufactured compounds. Also reported are compounds of bromine manufactured by the plant and reported by domestic use, exports, and stocks. Data are reported in pounds.

CONTACT: Bromine Specialist, Phyllis Lyday, 703-648-7713, plyday@usgs.gov

## **CADMIUM**

**9-4061-A C12**

### **CADMIUM**

COVERAGE: This canvass obtains data on stocks, receipts, production, consumption, and shipments of primary and secondary cadmium, and on the major cadmium compounds. Quantities are in pounds, and the value of shipments of primary and secondary cadmium is the net selling value (f.o.b. plant). Consumption is the quantity of cadmium metal and compounds used to make other products by the reporting company.

CONTACT: Cadmium Specialist, Jozef Plachy, 703-648-4982, jplachy@usgs.gov

## **CEMENT**

**9-4039-M D16**

### **PORTLAND, BLENDED, AND MASONRY CEMENT**

COVERAGE: This monthly canvass covers shipments to final customers of finished portland, blended, and masonry cements. Cement producers and importers report their sales to final customers by State of destination and, for the total of these sales, the origin of the finished cement by State or country (in the case of imported cement). Cement producers also report their production of clinker by State.

CONTACT: Cement Specialist, Hendrik G. van Oss, 703-648-7712, hvanoss@usgs.gov

**9-4041-A D15**

### **PORTLAND AND MASONRY CEMENT**

COVERAGE: This annual canvass is sent to cement manufacturing plants and to certain distribution and importation terminals and requests data on production of cement and clinker and on receipts, transfers, stockpiles, and sales (tonnage and value) of cement. The cement sales are split out by the type of portland cement, by the type of customer, and by the mode of shipment. Data also are sought on the consumption of fuels, electricity, and raw materials used to make the cement, as well as on the size and capacity of cement kilns. Space is provided for the facility to report any significant changes during the year to plant equipment.

CONTACT: Cement Specialist, Hendrik G. van Oss, 703-648-7712, hvanoss@usgs.gov

## **CHROMIUM**

**9-4063-M C15**

### **CHROMITE ORES AND CHROMIUM PRODUCTS**

**COVERAGE:** The C15 is a two-part canvass. The first part, which measures chromite ore consumption, surveys the gross weight and chromic oxide content of chromite ore receipts, stocks, shipments and consumption by the chemical, metallurgical, and refractory industries. The second part, which measures materials produced from the reported consumption of the first part, surveys (1) the gross weight and chromium content of stocks, receipt, production, consumption, and shipments of chromium ferroalloys and metal from metallurgical industry, (2) the gross weight of stocks, receipts, production, consumption, and shipments of chromium chemicals measured in sodium dichromate equivalent from the chemical industry, and (3) the gross weight and chromic oxide content of shipments of chromite-containing refractories from the refractory industry.

**CONTACT:** Chromium Specialist, John Papp, 703-648-4963, jpapp@usgs.gov

**9-4117-MA G05**

### **CONSOLIDATED CONSUMERS' REPORT SEE "CONSOLIDATED CONSUMERS"**

## **CLAYS**

**9-4015-A D39A**

### **COMMON CLAY AND SHALE AND FIRE CLAY**

**COVERAGE:** This canvass consists of a production quantity and value section and an end-use (quantity only) section for common clay and shale and fire clay; fire clay is further broken down by type—plastic or flint. The production section further solicits the name and location of each mine, its status during the year, the number of mines covered by the report, the mines not included, mining methods, and a remarks block. The end-use section reports the two types of clay sold or used by the producer on a domestic and/or export basis for each end use. Data are published in metric tons.

**CONTACT:** Clays Specialist, Robert Virta, 703-648-7726, rvirta@usgs.gov

**9-4016-A D39B**

### **BENTONITE AND FULLER'S EARTH**

**COVERAGE:** This canvass consists of a production quantity and value section and an end-use (quantity only) section for bentonite and fuller's earth. Bentonite is further broken down into swelling and nonswelling, and fuller's earth, into attapulgite and montmorillonite. The production section further solicits the name and location of each mine, its status during the year, the number of mines covered by the report, the mines not included, mining

methods, and a remarks block. The end-use section reports the two types of clay sold or used by the producer on a domestic and/or export basis for each end use. Data are published in metric tons.

**CONTACT:** Clays Specialist, Robert Virta, 703-648-7726, rvirta@usgs.gov

**9-4017-A D39C**

### **BALL CLAY AND KAOLIN**

**COVERAGE:** This canvass consists of a production quantity and value section and an end-use (quantity only) section for ball clay and kaolin. Ball clay is further broken down into airfloat, water-slurried, or unprocessed, and kaolin, into airfloat, calcined, delaminated, unprocessed, or water washed. The production section further solicits the name and location of each mine, its status during the year, number of mines covered by the report, the mines not included, mining methods, and a remarks block. The end-use section reports the two types of clay sold or used by the producer on a domestic and/or export basis for each end use. Data are published in metric tons.

**CONTACT:** Clays Specialist, Robert Virta, 703-648-7726, rvirta@usgs.gov

## **COBALT**

**9-4064-M C18**

### **COBALT**

**COVERAGE:** This canvass is sent to processors of cobalt-containing materials (chemicals, metal, scrap, and ore). Section 1 requests data on stocks, receipts, production, consumption, sales, and transfers of the materials handled. Section 2 requests data on quantities sold, transferred, or consumed according to type of material and intended end use. All data are requested in pounds of contained cobalt.

**CONTACT:** Cobalt Specialist, Kim Shedd, 703-648-4974, kshedd@usgs.gov

**9-4117-MA G05**

### **CONSOLIDATED CONSUMERS' REPORT SEE "CONSOLIDATED CONSUMERS"**

## **COLUMBIUM (NIOBIUM)**

**9-4076-A C41**

### **COLUMBIUM (NIOBIUM) AND TANTALUM**

**COVERAGE:** This canvass covers raw materials, oxides, carbides, metal, scrap, and such other items as the intermediate compound, potassium fluotantalate. For raw materials, quantities of stocks, receipts, consumption, and shipments are reported; for



compounds, quantities reported are the same plus production. All reporting is in gross weight; grade (columbium pentoxide and tantalum pentoxide content) is also given for raw materials. Also given for raw materials is source country. Respondents are domestic processors, producers plus any other chief importers of raw materials, such as dealers/traders. Data are reported in pounds.

CONTACT: Columbium and Tantalum Specialist,  
Larry Cunningham, 703-648-4977, lcunning@usgs.gov

**9-4117-MA G05**  
**CONSOLIDATED CONSUMERS' REPORT**  
**SEE "CONSOLIDATED CONSUMERS"**

**CONSOLIDATED CONSUMERS**

**9-4117-MA G05**  
**CONSOLIDATED CONSUMERS' REPORT**

COVERAGE: This canvass covers consumption and stocks of ferroalloys and related metals. The primary commodities included are chromium, cobalt, columbium, tantalum, manganese, molybdenum, silicon, tungsten, and vanadium. Ferroalloying applications for and ferroalloys of boron, phosphorus, and titanium are included. Quantity units are reported, at the option of the reporter, in pounds, short tons, kilograms, or metric tons and, depending upon the commodity, as gross and/or contained weight. The reporter specifies the use for which the material is consumed. The canvass includes metallurgical and nonmetallurgical uses for covered commodities.

CONTACTS: Chromium Specialist, John Papp, 703-648-4963,  
jpapp@usgs.gov  
Cobalt Specialist, Kim Shedd, 703-648-4974, kshedd@usgs.gov

Columbium and Tantalum Specialist, Larry Cunningham,  
703-648-4977, lcunning@usgs.gov  
Ferroalloys Specialist, Michael Fenton, 703-648-4972,  
mfenton@usgs.gov  
Manganese Specialist, Thomas Jones, 703-648-4973,  
tjones@usgs.gov  
Molybdenum Specialist, John Blossom, 703-648-4964,  
jblossom@usgs.gov  
Phosphorus Specialist, Stephen Jasinski, 703-648-7711,  
sjasinsk@usgs.gov  
Silicon Specialist, Thomas Jones, 703-648-4973, tjones@usgs.gov  
Titanium Specialist, Joseph Gambogi, 703-648-7718,  
jgambogi@usgs.gov  
Tungsten Specialist, Kim Shedd, 703-648-4974,  
kshedd@usgs.gov  
Vanadium Specialist, Robert Reese, 703-648-4981,  
rreese@usgs.gov

**COPPER**

**9-4065-M C19**  
**COPPER (SMELTER REPORT)**

COVERAGE: This canvass covers data on stocks, receipts, and consumption of domestic and foreign primary and scrap materials, reported in short tons, copper content. Firms report the consumption of primary (ores, concentrates, etc.) and scrap materials used in the production of smelter products (blister or anode copper, etc.) and the production, stocks, and shipments of smelter products. The quantity and type of material received and shipped by the respondent are reported with the name(s) of supplier and/or consignee(s). Stocks in transit to refinery, but not received at the refinery, are reported.

CONTACT: Copper Specialist, Daniel Edelstein, 703-648-4978,  
dedelste@usgs.gov

**9-4066-M C21**  
**COPPER (REFINERY REPORT)**

COVERAGE: This canvass covers data on stocks, receipts, and consumption of domestic and foreign primary smelter products and scrap materials, reported in short tons, copper content. Firms report the production, receipts, and stocks of refined copper from electrolytic and fire refining and from electrowinning. The quantity and type of material received and shipped by the respondent are reported. Stocks of unfinished copper in process of refining are reported.

CONTACT: Copper Specialist, Daniel Edelstein, 703-648-4978,  
dedelste@usgs.gov

**9-4067-A C25**  
**COPPER SULFATE**

COVERAGE: This canvass covers data on copper and chemical plants producing copper sulfate, reported in short tons. Firms report location of plant, stocks, production, shipment, and value (f.o.b.) of copper sulfate.

CONTACT: Copper Specialist, Daniel Edelstein, 703-648-4978,  
dedelste@usgs.gov

**9-4082-A C53**  
**CONSUMPTION OF COPPER MATERIALS—**  
**FOUNDRIES, MANUFACTURERS, CHEMICAL**  
**PLANTS**

COVERAGE: This canvass covers data on consumption of copper at foundries, chemical plants, and miscellaneous consumers, reported in pounds. Firms report classification of plant, type of operation, type of raw material used, and location of plant. By scrap item, the respondent reports stocks and consumption of copper and copper-base scrap and metal recovered from the scrap consumed. Firms report stocks and consumption

of raw materials (refined copper and copper-base alloys) used in making castings, wire, sheet, etc.

CONTACT: Copper Specialist, Daniel Edelstein, 703-648-4978, dedelste@usgs.gov

**9-4083-A C54  
SCRAP AND SECONDARY COPPER, BRASS, AND NICKEL**

COVERAGE: This canvass covers data on consumption of copper and nickel scrap and production of copper, copper alloys, and nickel at ingot makers and secondary fire refineries, reported in thousands of pounds. Firms report consumption of copper and copper-base scrap and/or nickel scrap-by-scrap item and the production of metallic copper, copper-base alloys, and/or secondary nickel and nickel alloys. They also report consumption of raw materials used in their production process.

CONTACTS: Copper Specialist, Daniel Edelstein, 703-648-4978, dedelste@usgs.gov  
Nickel Specialist, Peter Kuck, 703-648-4965, pkuck@usgs.gov

**9-4084-M C55  
COPPER MATERIALS—CONSUMPTION AT PRIMARY BRASS AND PRIMARY COPPER WIRE ROD MILLS**

COVERAGE: This canvass covers data on stocks, purchases, and consumption of copper materials, reported in thousands of pounds. Firms report the purchase of scrap (copper and copper-base) by type. Stocks and consumption of refined copper by shape and copper-base alloys are reported. Respondents report their type of operation—either brass mill or wire rod mill—and their production, shipments, and stocks of semifabricated forms.

CONTACT: Copper Specialist, Daniel Edelstein, 703-648-4978, dedelste@usgs.gov

**9-4097-A C77  
LODE-MINE PRODUCTION OF GOLD, SILVER, COPPER, LEAD, AND ZINC**

COVERAGE: This canvass covers annual data on mine production of gold, silver, copper, lead, and zinc. Data are reported in dry weight short tons for ores, concentrates, etc.; ounces for gold and silver content; and pounds for copper, lead, and zinc content. Firms report location and status of mine, quantity and metal content of crude ore milled, crude ore leached, old tailings retreated, bullion recovered by amalgamation or cyanidation, concentrate produced, and precipitates from leaching of ore or from waste dump or in-place leaching.

CONTACTS: Gold Specialist, Earle Amey, 703-648-4969, eamey@usgs.gov  
Silver Specialist, Henry Hilliard, 703-648-4970, hhiliari@usgs.gov

Copper Specialist, Daniel Edelstein, 703-648-4978, dedelste@usgs.gov  
Lead Specialist, Gerald Smith, 703-648-4983, grsmith@usgs.gov  
Zinc Specialist, Jozef Plachy, 703-648-4982, jplachy@usgs.gov

**9-4098-M C78  
LODE-MINE PRODUCTION OF GOLD, SILVER, COPPER, LEAD, AND ZINC**

COVERAGE: This canvass covers monthly data on mine production of gold, silver, copper, lead, and zinc. Data are reported in dry weight short tons for ores, concentrates; ounces for gold and silver content; and pounds for copper, lead and zinc content. Firms report location and status of mine, quantity and metal content of crude ore milled, crude ore leached, old tailings retreated, bullion recovered by amalgamation or cyanidation, concentrates produced, precipitates from leaching of ore or from waste dump or in-place leaching.

CONTACTS: Gold Specialist, Earle Amey, 703-648-4969, eamey@usgs.gov  
Silver Specialist, Henry Hilliard, 703-648-4970, hhiliari@usgs.gov  
Copper Specialist, Daniel Edelstein, 703-648-4978, dedelste@usgs.gov  
Lead Specialist, Gerald Smith, 703-648-4983, grsmith@usgs.gov  
Zinc Specialist, Jozef Plachy, 703-648-4982, jplachy@usgs.gov

**9-4099-M C79  
RECEIPTS OF GOLD, SILVER, COPPER, LEAD, AND ZINC MATERIALS AT SMELTERS**

COVERAGE: This canvass covers data on smelter receipts. Data are reported in short tons for ores and concentrates; ounces for gold and silver; and pounds for copper, lead, and zinc. Firms report location of mill or smelter, name of mine, name and address of shipper, kind of material, and total weight of metal (gold, silver, copper, lead, and/or zinc) shipped.

CONTACTS: Gold Specialist, Earle Amey, 703-648-4969, eamey@usgs.gov  
Silver Specialist, Henry Hilliard, 703-648-4970, hhiliari@usgs.gov  
Copper Specialist, Daniel Edelstein, 703-648-4978, dedelste@usgs.gov  
Lead Specialist, Gerald Smith, 703-648-4983, grsmith@usgs.gov  
Zinc Specialist, Jozef Plachy, 703-648-4982, jplachy@usgs.gov

**CORUNDUM—EMERY**

**9-4119-A G13  
MINE PRODUCTION OF MISCELLANEOUS MATERIALS  
SEE “PRODUCTION”**

## **DIAMOND, INDUSTRIAL**

**9-4123-A G39**

### **PRODUCTION OR RECLAIM OF INDUSTRIAL DIAMOND**

COVERAGE: This canvass covers the production of industrial diamonds or the reclaim of natural or synthetic industrial diamond stones and grit and powder. Firms report quantity in carats and value (f.o.b. plant).

CONTACT: Diamond Specialist, Ronald Balazik, 703-648-7721, rbalazik@usgs.gov

## **DIATOMITE**

**9-4036-A D07**

### **DIATOMITE**

COVERAGE: This canvass covers quarry production of diatomite sold or used by the quarry, reported in short tons. Firms report quantity and value (f.o.b. mine or plant) sold or used by various end uses.

CONTACT: Diatomite Specialist, Lloyd E. Antonides, 703-648-7710, lantonid@usgs.gov

## **FELDSPAR**

**9-4032-A D58**

### **FELDSPAR**

COVERAGE: This canvass covers production, disposition, and destinations of shipments of processed feldspar and aplite, reported in short tons. Firms report quantity and value (f.o.b. mill).

CONTACT: Feldspar Specialist, Michael Potter, 703-648-7723, mpotter@usgs.gov

## **FERROALLOYS**

**9-4043-A A01**

### **SPECIALTY FERROALLOYS**

COVERAGE: This canvass covers receipts, net production, shipments (quantity, average grade, and value), and stocks of all types of ferroalloys and related metals; quantities are reported in short tons of gross weight. Net production (salable product) is the output from the furnaces minus any processing losses or internal plant consumption. Companies are also asked to report consumption of metal-bearing raw materials by type, State or nation of origin, and quantity.

CONTACT: Ferroalloys Specialist, Michael Fenton, 703-648-4972, mfenton@usgs.gov

**9-4117-MA G05**

### **CONSOLIDATED CONSUMERS' REPORT SEE "CONSOLIDATED CONSUMERS"**

## **FILTRATION AIDS AND FILLERS**

**9-4036-A D07**

### **DIATOMITE SEE "DIATOMITE"**

## **FLUORSPAR**

**9-4034-QA D04**

### **FLUORSPAR—CONSUMERS REPORT**

COVERAGE: This canvass covers the consumption of fluorspar; weight unit is reported in short tons. Firms report quantity of stocks, purchases, and disposition of fluorspar by type and calcium fluoride content. Firms report consumption by type, calcium fluoride content, and end use.

CONTACT: Fluorspar Specialist, M. Michael Miller, 703-648-7716, mmiller1@usgs.gov

**9-4038-A D73**

### **PRODUCTION OF BYPRODUCT FLUROSILICIC ACID**

COVERAGE: This canvass covers production of fluorosilicic acid, a byproduct of phosphate rock processing. Quantities are reported on a 100% basis in short tons. Firms report the quantity of phosphate rock processed in recovering fluorosilicic acid sold or used during the year by end use.

CONTACT: Fluorspar Specialist, M. Michael Miller, 703-648-7716, mmiller1@usgs.gov

**9-4107-A D03**

### **FLUORSPAR PRODUCERS AND PROCESSORS**

COVERAGE: This canvass covers stocks and mine and plant production of fluorspar; Weight unit is reported in short tons. Firms mining and/or processing fluorspar report beginning and ending ore stocks, mine production, ore receipts, ore processed, and plant output in tons and calcium fluoride content. Firms also report quantity of stocks and disposition of furnished products by type, calcium fluoride content, and value (f.o.b. shipping point).

CONTACT: Fluorspar Specialist, M. Michael Miller, 703-648-7716, mmiller1@usgs.gov

## **GALLIUM**

### **9-4103-A C90 GALLIUM**

COVERAGE: This canvass covers stocks, receipts, production, consumption, and disposition of gallium and gallium compounds by consuming companies. The data are reported in grams.

CONTACT: Gallium Specialist, Deborah Kramer,  
703-648-7719, dkramer@usgs.gov

## **GARNET (INDUSTRIAL)**

### **9-4121-A G33 PRODUCTION OF INDUSTRIAL GARNET**

COVERAGE: This canvass requests information on the production of crude garnet concentrate, refined garnet sales and exports, and yearend stocks of refined and crude garnet. Data are reported in metric tons and dollars.

CONTACT: Abrasives Specialist, Ronald Balazik,  
703-648-7721, rbalazik@usgs.gov

## **GEMSTONES**

### **9-4028-A G34 NATURAL AND SYNTHETIC GEM MATERIAL**

COVERAGE: This canvass covers information on the production of natural and synthetic gem material. The data are reported in pounds and dollars.

CONTACT: Gemstone Specialist, Ronald Balazik,  
703-648-7721, rbalazik@usgs.gov

## **GOLD**

### **9-4097-A C77 LODE-MINE PRODUCTION OF GOLD, SILVER, COPPER, LEAD, AND ZINC SEE "COPPER"**

### **9-4098-M C78 LODE-MINE PRODUCTION OF GOLD, SILVER, COPPER, LEAD, AND ZINC SEE "COPPER"**

### **9-4099-M C79 RECEIPTS OF GOLD, SILVER, COPPER, LEAD, AND ZINC MATERIALS AT SMELTERS SEE "COPPER"**

### **9-4125-A G43 REFINERY PRODUCTION OF PRECIOUS METALS SEE "PRECIOUS METALS"**

## **GRAPHITE**

### **9-4022-A D59 NATURAL GRAPHITE CONSUMPTION**

COVERAGE: This canvass covers consumption of graphite by 28 end uses, reported in pounds. Firms report quantity and value.

CONTACT: Graphite Specialist, Rustu Kalyoncu, 703-648-7720,  
rkalyonc@usgs.gov

### **9-4112-A D64 SYNTHETIC GRAPHITE**

COVERAGE: This canvass covers shipments of 10 types of synthetic graphite products, reported in short tons. Firms report quantity and value (f.o.b. plant) of shipments of synthetic graphite items such as electrodes, fibers, and powders. Also covered is the principal raw material.

CONTACT: Graphite Specialist, Rustu Kalyoncu, 703-648-7720,  
rkalyonc@usgs.gov

### **9-4119-A G13 MINE PRODUCTION OF MISCELLANEOUS MATERIALS SEE "PRODUCTION"**

## **GREENSAND**

### **9-4119-A G13 MINE PRODUCTION OF MISCELLANEOUS MATERIALS SEE "PRODUCTION"**

## **GYPSUM**

### **9-4006-A C83 GYPSUM**

COVERAGE: This canvass covers annual shipments of crude, calcined, and byproduct gypsum, reported in metric tons. Firms report quantity and value (f.o.b. plant or final point of production). Firms also report on quantity and value of gypsum products sold or used during the year for portland cement, agriculture, and fillers and miscellaneous; for building and industrial plasters; and for wallboard products, including lath, veneer, sheathing, and gypsum-board. Crude gypsum stocks are reported.

CONTACT: Gypsum Specialist, Ronald Balazik, 703-648-7721,  
rbalazik@usgs.gov

**9-4031-S C82  
GYPSUM**

COVERAGE: This semiannual canvass covers shipments of crude, calcined, and byproduct gypsum, reported in metric tons. Firms also report destination of shipments by census district and end use, such as portland cement, agriculture, and fillers and miscellaneous.

CONTACT: Gypsum Specialist, Ronald Balazik, 703-648-7721,  
rbalazik@usgs.gov

**HAFNIUM**

**9-4074-A C39  
ZIRCONIUM AND HAFNIUM  
SEE "ZIRCONIUM AND HAFNIUM"**

**HELIUM**

**Production and consumption statistics are collected by the Bureau of Land Management (BLM). BLM also writes the text that the USGS publishes as an annual Minerals Industry Survey and as a chapter in the Minerals Yearbook.**

**ILMENITE**

**9-4129-A C64  
ILMENITE AND RUTILE  
SEE "TITANIUM"**

**IODINE**

**9-4023-A D60  
CRUDE IODINE**

COVERAGE: This canvass covers quantity and value of crude iodine produced and consumption of crude iodine directly or indirectly for manufactured products, such as resublimed and organic compounds. The uses of iodine are reported for domestic consumption and exports. Data are reported in pounds.

CONTACT: Iodine Specialist, Phyllis Lyday, 703-648-7713,  
plyday@usgs.gov

**IRON AND STEEL**

**9-4116-MA G01  
IRON AND STEEL SCRAP AND PIG IRON**

COVERAGE: This canvass covers receipts, production, consumption, shipments, and stocks of iron and steel scrap and pig iron and direct-reduced iron. Consumption by type of furnace and by production method used for iron and steel scrap, pig iron, and direct-reduced iron is reported in short tons. Reporting firms are consumers of iron and steel scrap, pig iron, and/or direct-reduced iron and are divided into the following categories: producers of raw steel, producers of steel castings, and producers of iron castings.

CONTACT: Iron and Steel Scrap Specialist, Michael Fenton,  
703-648-4972, mfenton@usgs.gov

**9-4120-A G30  
SLAG—IRON AND STEEL — SOLD OR USED**

COVERAGE: This canvass covers sales of the three types of iron-blast-furnace slag (air-cooled, expanded, and granulated) and steel slag. Firms report quantity and value by end use and mode of transportation.

CONTACT: Iron and Steel Slag Specialist, Rustu Kalyoncu,  
703-648-7720, rkalyonc@usgs.gov

**IRON ORE**

**9-4044-A A02  
IRON ORE (CONTAINING LESS THAN 5%  
MANGANESE)**

COVERAGE: This canvass covers individual mines and their status during the year (active, inactive, sold, etc.), as well as the type of concentrator (wash, magnetic, flotation, etc.) employed, and stocks, consumption, production, and shipments of concentrate. Similar data for agglomeration are reported. Companies also report shipments of ore, concentrates, and agglomerates by end use and market value. Average analyses of shipments of ore, concentrates, and agglomerates are reported on a wet basis. Weight units can be reported in long, short, or metric tons.

CONTACT: Iron Ore Specialist, William Kirk, 703-648-4962,  
wkirk@usgs.gov

**9-4045-M A03  
IRON ORE (USABLE ORE)**

COVERAGE: This canvass covers total company production, shipments, and stocks of usable iron ore (containing less than 5% manganese, natural); Weight units can be reported in metric, short, or long tons.

CONTACT: Iron Ore Specialist, William Kirk, 703-648-4962,  
wkirk@usgs.gov

## **IRON OXIDE PIGMENTS**

### **9-4049-A A08 CRUDE IRON OXIDE PIGMENT MATERIALS**

COVERAGE: This canvass covers production, shipments, and value of shipments of various grades of crude iron oxide pigment material. Data are reported in short tons.

CONTACT: Iron Oxide Pigments Specialist, Michael Potter,  
703-648-7723, mpotter@usgs.gov

### **9-4050-A A09 FINISHED (NATURAL AND SYNTHETIC) IRON OXIDE PIGMENTS AND OTHER IRON OXIDE MATERIALS**

COVERAGE: This canvass covers shipments and value of various types of finished iron oxide pigments. It also reports distribution for end uses of natural and synthetic iron oxide pigments and estimated percentages of each type. Data are reported in short tons.

CONTACT: Iron Oxide Pigments Specialist, Michael Potter,  
703-648-7723, mpotter@usgs.gov

## **KYANITE**

### **9-4132-A D75 PRODUCTION OF KYANITE**

COVERAGE: This canvass covers production and disposition of processed and calcined kyanite. Firms report quantity in short tons, value (f.o.b. plant shipping point), and plant capacity of processed and calcined material.

CONTACT: Kyanite/Mullite Specialist, Michael Potter,  
703-648-7723, mpotter@usgs.gov

### **9-4134-A D54 PRODUCTION OF SYNTHETIC MULLITE SEE "MULLITE, SYNTHETIC"**

## **LEAD**

### **9-4068-A C27 LEAD**

COVERAGE: This canvass covers a detailed annual review of production of domestic primary lead smelters and refineries in short tons. Raw material intake is divided into specific sources of base feedstock—domestic, foreign, secondary, and incidental.

Production is accounted for in terms of stock receipts and refinery end products, which are described in terms of refined lead by grade, lead alloys, chemicals, and other specific products. Shipments of base bullion, lead-furnace matte, speiss, other intermediate smelter products, etc. are accounted for.

CONTACT: Lead Specialist, Gerald Smith, 703-648-4983,  
grsmith@usgs.gov

### **9-4069-M C28 PRIMARY LEAD SMELTERS**

COVERAGE: This canvass covers raw materials consumed and products produced at domestic primary lead smelters. It includes stocks, receipts, consumption, production, and shipments, in short tons, lead content. Materials and products are ores, concentrates and secondary materials, refined lead, bullion, antimonial lead, and lead in byproduct materials.

CONTACT: Lead Specialist, Gerald Smith, 703-648-4983,  
grsmith@usgs.gov

### **9-4080-A C49 LEAD AND TITANIUM PIGMENTS AND COMPOUNDS SEE "TITANIUM"**

### **9-4086-MA C58 LEAD—SECONDARY SMELTER AND CONSUMER REPORT**

COVERAGE: This report covers the stocks, receipts, and disposition of scrap at domestic secondary lead smelters and the production and blending of secondary lead by class and end use in short tons, lead contained. The canvass is addressed to the secondary lead industry and to consumers of lead in all forms, such as the battery industry, lead producers, solder makers, etc.

CONTACT: Lead Specialist, Gerald Smith, 703-648-4983,  
grsmith@usgs.gov

### **9-4097-A C77 LODE-MINE PRODUCTION OF GOLD, SILVER, COPPER, LEAD, AND ZINC SEE "COPPER"**

### **9-4098-M C78 LODE-MINE PRODUCTION OF GOLD, SILVER, COPPER, LEAD, AND ZINC SEE "COPPER"**

### **9-4099-M C79 RECEIPTS OF GOLD, SILVER, COPPER, LEAD, AND ZINC MATERIALS AT SMELTERS SEE "COPPER"**

## **LIME**

### **9-4001-A D19 LIME**

COVERAGE: This canvass covers lime, sold or used, reported in short tons. Firms report quantity and value (f.o.b. plant) for 48 use patterns on quicklime and hydrated lime for commercial sales and captive use categories. Value of quicklime and hydrated lime in four use categories is detailed for commercial sales and captive use. Shipments by State and export destination are detailed for quicklime and hydrated lime. Plant data on type and number of kilns and hydrators are reported. Plant capacity is reported in short tons per year.

CONTACT: Lime Specialist, M. Michael Miller, 703-648-7716, mmiller1@usgs.gov

## **LITHIUM**

### **9-4131-A C86 LITHIUM MINERALS**

COVERAGE: This canvass covers production, stocks, and disposition of concentrate, lithium carbonate, and other products in short tons. The percentage of lithia or lithium is included. Firms are asked to report concentrate production and value.

CONTACT: Lithium Specialist, Joyce Ober, 703-648-7717, jobber@usgs.gov

## **MAGNESIUM**

### **9-4070-A C31 MAGNESIUM**

COVERAGE: This canvass covers the stocks, receipts, and consumption of primary and secondary magnesium metal and alloy by consuming plants. The data are reported in pounds.

CONTACT: Magnesium Specialist, Deborah Kramer, 703-648-7719, dkramer@usgs.gov

### **9-4100-A C84 MAGNESIUM COMPOUNDS—RAW MATERIALS AND PRODUCTS**

COVERAGE: This canvass covers the materials received, produced, consumed, and shipped for conversion to magnesium compounds and the disposition of magnesium compounds by consuming industry. The data are reported in thousands of gallons and short tons.

CONTACT: Magnesium Specialist, Deborah Kramer, 703-648-7719, dkramer@usgs.gov

### **9-4105-A C94 PRODUCTION OF OLIVINE**

COVERAGE: This canvass covers mine production, value, and shipments of crude and processed material in short tons. Firms also report shipments for various end uses.

CONTACT: Magnesium Specialist, Deborah Kramer, 703-648-7719, dkramer@usgs.gov

### **9-4137-Q C30 MAGNESIUM**

COVERAGE: This canvass covers stocks, production, receipts, consumption, shipments, and value of magnesium-metal-producing plants. Data are reported in pounds.

CONTACT: Magnesium Specialist, Deborah Kramer, 703-648-7719, dkramer@usgs.gov

## **MANGANESE**

### **9-4071-MA C34 MANGANESE ORE AND PRODUCTS**

COVERAGE: This canvass covers manganese ore for consumers of ore and manganese products for producers of manganese products. Quantities reported are stocks, receipts, production, consumption, and shipments. Reporting can be either on a gross or contained weight basis; weight unit is optional. Manganese content is reported for ore consumption and production. Ore is differentiated as to domestic and foreign. Products data are for ferromanganese (three grades), silicomanganese, manganese metal, chemical products (manganese sulfate and manganese dioxide), and other. Jobbing data are also given.

CONTACT: Manganese Specialist, Thomas Jones, 703-648-4973, tjones@usgs.gov

### **9-4117-MA G05 CONSOLIDATED CONSUMERS' REPORT SEE "CONSOLIDATED CONSUMERS"**

### **9-4138-A C32 MANGANESE AND MANGANIFEROUS ORES**

COVERAGE: This canvass covers manganese-bearing ores and concentrates. Mine status and type of ore are indicated. Quantities of stocks, production, and shipments are reported in either short or long tons and on a natural or dried weight basis. Reporting classes are crude ore and three classes of ore and concentrates—35% or more manganese (differentiated by grade), 10% to 35% manganese, and 5% to 10% manganese. Analytical data requested for all classes are content of manganese (or manganese dioxide), iron, silica, phosphorus, moisture, and alumina (except for product with 5%-10% manganese).

CONTACT: Manganese Specialist, Thomas Jones,  
703-648-4973, tjones@usgs.gov

## **MERCURY**

**9-4072-A C35**

### **MERCURY MINE PRODUCTION**

COVERAGE: This canvass covers data on stocks, ore treated, production, and value of mercury; Weight is reported in short tons (ore treated) and 76-pound flasks for all other data. Firms report name and location of mine, status of mine during reporting period (active, inactive, abandoned, etc.), description of plant, quantity of stocks and production, and value of mercury produced.

CONTACT: Mercury Specialist, Robert Reese, 703-648-4981,  
rreese@usgs.gov

**9-4073-A C37**

## **MERCURY**

COVERAGE: This canvass covers data on receipts, production, consumption, and stocks of primary, redistilled, and secondary mercury; Weight is reported in pounds. Firms report end-use breakdown by Standard Industrial Classification (SIC) numbers for all quantities of primary, redistilled, or secondary mercury either consumed by them or shipped to others and consumed by SIC.

CONTACT: Mercury Specialist, Robert Reese, 703-648-4981,  
rreese@usgs.gov

## **MICA**

**9-4018-A D41**

### **GROUND MICA, INCLUDING SERICITE**

COVERAGE: This canvass covers data on ground and scrap and flake mica, reported in short tons. Firms report quantity and value of ground and scrap and flake mica purchased, sold, used and/or resold. Sales of ground mica are listed by end use.

CONTACT: Mica Specialist, James Hedrick, 703-648-7725,  
jhedrick@usgs.gov

**9-4019-A D42**

### **MICA SPLITTINGS**

COVERAGE: This canvass covers consumption of imported mica splittings, in pounds. Firms report quantity and value of mica splittings consumed and quantity and value of mica built up from these splittings.

CONTACT: Mica Specialist, James Hedrick, 703-648-7725,  
jhedrick@usgs.gov

**9-4020-A D55**  
**CRUDE MICA**

COVERAGE: This canvass covers data on crude mica, sold or used, reported in pounds or short tons. Firms report quantity and value of hand-cobbed, sheet, and/or scrap and flake mica, whether produced for sale or their own use.

CONTACT: Mica Specialist, James Hedrick, 703-648-7725,  
jhedrick@usgs.gov

**9-4110-A D35**

### **MICA BLOCK AND FILM**

COVERAGE: This canvass covers data on consumption and receipts of mica block and film in pounds. Firms report quantity and value of muscovite block and film and phlogopite block received, used, shipped, or stocked. They also report quantity of mica fabricated by final quality of product.

CONTACT: Mica Specialist, James Hedrick, 703-648-7725,  
jhedrick@usgs.gov

## **MINE INFORMATION**

**9-4000-A G04**

### **MINE, DEVELOPMENT, AND MINERAL EXPLORATION SUPPLEMENT**

COVERAGE: This canvass covers supplemental information in conjunction with mine and quarry production canvasses. Firms report activity and production, crude material mined (ore) or handled (ore and waste), exploration and development activity, and mining methods used; data are reported in weight units of respondent choice.

CONTACT: Industry Data Analyst, Jean Moore, 703-648-7945,  
jkmoore@usgs.gov

## **MOLYBDENUM**

**9-4077-A C43**

### **MOLYBDENUM ORE AND CONCENTRATE**

COVERAGE: This canvass covers production, stocks, and shipments of molybdenum concentrate at domestic mines on an annual basis. Firms are able to revise or correct monthly totals reported on the monthly canvass. In addition, information covering ore mined and treated (short tons), grade of ore (percentage), molybdenum content of concentrates produced (pounds and percentage), average selling price of shipments, and names of customers are requested.

CONTACT: Molybdenum Specialist, John Blossom,  
703-648-4964, jblossom@usgs.gov



**9-4078-M C44**  
**MOLYBDENUM CONCENTRATES**

COVERAGE: This canvass covers production, stocks, and shipments of molybdenum concentrates at domestic mines on a monthly basis. Quantities are reported in pounds of contained molybdenum.

CONTACT: Molybdenum Specialist, John Blossom,  
703-648-4964, jblossom@usgs.gov

**9-4079-M C45**  
**MOLYBDENUM CONCENTRATE—MOLYBDENUM PRODUCTS**

COVERAGE: This canvass covers firms that process or upgrade molybdenum concentrate or other products to forms usable by consuming companies. Quantities are reported in pounds of contained molybdenum. Data on stocks, receipts, production, consumption to make other products, and sales are requested.

CONTACT: Molybdenum Specialist, John Blossom,  
703-648-4964, jblossom@usgs.gov

**MULLITE, SYNTHETIC**  
**(SEE ALSO “KYANITE”)**

**9-4134-A D54**  
**PRODUCTION OF SYNTHETIC MULLITE**

COVERAGE: This canvass covers production and disposition of synthetic mullite (three types), reported in short tons. Firms report quantity, value (f.o.b. plant), and plant capacity.

CONTACT: Synthetic Mullite Specialist, Michael Potter,  
703-648-7723, mpotter@usgs.gov

**NICKEL**

**9-4047-MA A06**  
**NICKEL—STOCKS, PURCHASES, AND CONSUMPTION**

COVERAGE: This canvass collects data on stocks, purchases, consumption, and sales of different commercial forms of nickel, as well as purchased scrap (new and old). Materials covered include commercially pure unwrought nickel, ferronickel, nickel oxide, nickel sulfate, other nickel salts, nickel-base master alloys, and miscellaneous forms. Also covered is a detailed breakdown of end-use consumption for each form.

CONTACT: Nickel Specialist, Peter Kuck, 703-648-4965,  
pkuck@usgs.gov

**9-4083-A C54**  
**SCRAP AND SECONDARY COPPER, BRASS, AND NICKEL**  
**SEE “COPPER”**

**9-4139-A C46**  
**NICKEL ORE**

COVERAGE: This annual canvass covers domestic nickel mining operations. The canvass collects data on domestic ore production, average nickel content of ore produced during the year, nickel ore and/or concentrate shipped or used, average nickel content of ore and/or concentrate shipped or used, and total value of ore and/or concentrate shipped or used. Quantities are given in dry short tons (gross weight).

CONTACT: Nickel Specialist, Peter Kuck, 703-648-4965,  
pkuck@usgs.gov

**9-4140-A C48**  
**PRODUCTION, SHIPMENTS, AND STOCKS OF RECLAIMED NICKEL**

COVERAGE: This canvass covers byproduct nickel operations and secondary metals recovery facilities. The canvass requests data on stocks, production, shipments of nickel alloys, nickel sulfate, and other nickel products reclaimed from a variety of waste materials, including spent solutions and dusts. The data are reported in pounds or kilograms of nickel content, as well as gross weight.

CONTACT: Nickel Specialist, Peter Kuck, 703-648-4965,  
pkuck@usgs.gov

**OLIVINE**

**9-4105-A C94**  
**PRODUCTION OF OLIVINE**  
**SEE “MAGNESIUM”**

**PEAT**

**9-4026-A B38**  
**PEAT**

COVERAGE: This canvass covers production and disposition of peat in short tons. Firms report on the mine-site status, production of peat by type, stocks, type of processing used, and sales by end use in metric tons and cubic yards, including method of sales (bulk or packaged) and value.

CONTACT: Peat Specialist, Stephen Jasinski, 703-648-7711,  
sjasinsk@usgs.gov

## **PERLITE**

### **9-4024-A D61 CRUDE PERLITE**

COVERAGE: This canvass covers the production of crude perlite in short tons. Firms report the quantity of perlite mined and the quantity and value of perlite (f.o.b. mine or shipping point) sold and used for their own production of expanded perlite.

CONTACT: Perlite Specialist, Wallace Bolen, 703-648-7727,  
wbolen@usgs.gov

### **9-4025-A D62 EXPANDED PERLITE**

COVERAGE: This canvass covers the production and disposition of expanded perlite in short tons or cubic feet and average pounds per cubic foot. Firms report quantity and value of expanded perlite produced and sold or used (f.o.b. plant) by various end uses. Firms also report quantity of crude perlite purchased from mine producers for expanding.

CONTACT: Perlite Specialist, Wallace Bolen, 703-648-7727,  
wbolen@usgs.gov

## **PHOSPHATE ROCK**

### **9-4030-M D70 MARKETABLE PHOSPHATE ROCK**

COVERAGE: This canvass obtains the following from each producing company on a monthly basis: stocks, receipts, exports, production, and disposition of marketable phosphate rock. The data are used to establish industry trends.

CONTACT: Phosphate Specialist, Stephen Jasinski,  
703-648-7711, sjasinsk@usgs.gov

### **9-4035-S D36 PHOSPHATE ROCK**

COVERAGE: This canvass is designed to obtain data on marketable phosphate rock at semiannual intervals from producing companies. Beginning stocks, receipts from other phosphate mining companies, production, quantity sold or used, quantities shipped to other phosphate mining companies, and ending stocks are reported in metric tons. The canvass obtains the production of crude and marketable phosphate rock from each producing mine. The canvass identifies end uses, domestic consumption and value by use and grade, and export grade and value.

CONTACT: Phosphate Specialist, Stephen Jasinski,  
703-648-7711, sjasinsk@usgs.gov

## **POTASH**

### **9-4111-S D37 POTASH**

COVERAGE: This canvass covers mine production, shipments to refineries, refinery production, sales, sales value, and beginning/ending stocks of finished products with weight reported in metric tons. The potassium oxide percentages for each step are also covered. Firms report sales and value (f.o.b. plant) of five types of muriate, two types of sulfate, and manure salts. Other products may be specified by the firm.

CONTACT: Potash Specialist, James Searls, 703-648-7724,  
jsearls@usgs.gov

## **PRECIOUS METALS**

### **9-4125-A G43 REFINERY PRODUCTION OF PRECIOUS METALS**

COVERAGE: This form covers the annual refinery production of precious metals in troy ounces and greater than 99.5% purity. Feed material is broken into specific categories that identify production from primary and secondary materials. Primary production is from ores, concentrates, and doré of foreign and domestic origin. Secondary production is from scrap, waste, sweeps, residues, etc., of foreign and domestic origin. Stocks consisting of refined materials only (bar, powder, shot, grain, etc.) stored at the refinery at the end of the calendar year, regardless of ownership, are also reported.

CONTACTS: Gold Specialist, Earle Amey, 703-648-4969,  
eamey@usgs.gov  
Silver and Platinum Group Metals Specialist, Henry Hilliard,  
703-648-4970, hhilliard@usgs.gov

## **PRODUCTION**

### **9-4042-A G08 PRODUCTION ESTIMATE**

COVERAGE: This canvass collects annual production estimates for minerals. Data are reported in short tons, cubic yards, troy ounces, pounds, and other units. Firms report quantity and value sold or used and value in dollars (f.o.b. shipping point).

CONTACT: Chief, Mineral Commodities Data Unit,  
Imogene Bynum, 703-648-7960, ibynum@usgs.gov

**9-4119-A G13  
MINE PRODUCTION OF MISCELLANEOUS  
MATERIALS**

COVERAGE: This canvass covers production and shipments of crude materials and refined materials reported in short tons. Firms report quantity of production and quantity and value (f.o.b. mine or plant) of shipments.

CONTACT:  
Chief, Mineral Commodities Data Unit, Imogene Bynum,  
703-648-7960, [ibynum@usgs.gov](mailto:ibynum@usgs.gov)

**9-4124-A G36  
PRODUCTION ESTIMATE**

COVERAGE: This canvass collects annual production estimates for minerals. Data are reported in short tons, cubic yards, troy ounces, pounds, and other units. Firms report quantity and value sold or used and value in dollars (f.o.b. shipping point).

CONTACT: Chief, Mineral Commodities Data Unit,  
Imogene Bynum, 703-648-7960, [ibynum@usgs.gov](mailto:ibynum@usgs.gov)

**PUMICE**

**9-4004-A D08  
PUMICE AND PUMICITE (INCLUDING VOLCANIC  
ASH)**

COVERAGE: This canvass covers production of crude and prepared pumice and pumicite, reported in short tons. Firms report quantity and value (f.o.b. mine shipping point) of products shipped and used by various end uses.

CONTACT: Pumice Specialist, Wallace Bolen, 703-648-7727,  
[wbolen@usgs.gov](mailto:wbolen@usgs.gov)

**PYROPHYLLITE**

**9-4021-A D56  
TALC, SOAPSTONE, AND PYROPHYLLITE  
SEE "TALC"**

**QUARTZ CRYSTAL**

**9-4014-A D32  
QUARTZ CRYSTAL  
SEE "SILICA"**

**RARE EARTHS**

**9-4102-A C87  
RARE EARTHS**

COVERAGE: This canvass covers shipments, stocks, and production of rare earth, thorium, and scandium raw materials and concentrates. It also is used to collect data on the quantities and values of shipments of rare earth, thorium, and scandium elements and compounds and shipments to consumers by use. Data are reported in short or metric tons, pounds, or kilograms.

CONTACT: Rare Earths Specialist, James Hedrick,  
703-648-7725, [jhedrick@usgs.gov](mailto:jhedrick@usgs.gov)

**RHENIUM**

**9-4048-A A07  
RHENIUM**

COVERAGE:  
This canvass covers firms that produce or process rhenium chemicals and metal for use by consuming firms. Stocks, receipt, production, and shipment information are to be reported in pounds of contained rhenium. Value of shipments, price of metal, names of companies that provide source material, and percentage of shipments destined for catalyst use are also requested on the form.

CONTACT:  
Rhenium Specialist, John Blossom, 703-648-4964,  
[jblossom@usgs.gov](mailto:jblossom@usgs.gov)

**RUTILE**

**9-4129-A C64  
ILMENITE AND RUTILE  
SEE "TITANIUM"**

**SALT**

**9-4013-A D27  
SALT—PLANT REPORT**

COVERAGE:  
This form shows the production, disposition, and value of salt by type by State that was produced at individual plants within a company. Space is also provided to show the number of employees employed at the mine or mill.

CONTACT: Salt Specialist, Dennis Kostick, 703-648-7715,  
[dkostick@usgs.gov](mailto:dkostick@usgs.gov)

**9-4012-A D2G  
SALT—COMPANY REPORT**

COVERAGE: This form covers domestic salt sold/used by type with beginning and ending stocks. Distribution of domestic and imported salt is reported by State, end use, and type of salt. There is also a provision to show the amount of salt sold/used by type that was purchased from other domestic salt companies.

CONTACT: Salt Specialist, Dennis Kostick, 703-648-7715,  
dkostick@usgs.gov

**SAND AND GRAVEL, AGGREGATE**

**9-4008-A G10  
CONSTRUCTION SAND AND GRAVEL — SOLD OR  
USED**

COVERAGE: This canvass covers production data on construction sand and gravel sold or used, reported in short tons. Firms, as well as Federal and State agencies, report quantity and value (f.o.b. plant) by end use and mode of transportation.

CONTACT: Sand and Gravel Specialist, Wallace Bolen,  
703-648-7727, wbolen@usgs.gov

**SCANDIUM**

**9-4102-A C87  
RARE EARTHS  
SEE “RARE EARTHS”**

**9-4128-A C88  
SCANDIUM**

COVERAGE: This form covers the quantity of domestic production, consumption, domestic receipts, imports, shipments, and stocks. Data are collected for ores, concentrates, and refined products, including compounds, metal, and alloys. The canvass also covers import sources and domestic shipments to consumers by end use.

CONTACT: Scandium Specialist, James Hedrick, 703-648-7725,  
jhedrick@usgs.gov

**SELENIUM**

**9-4087-A C59  
SELENIUM—STOCKS, RECEIPTS, PRODUCTION,  
SHIPMENTS, AND CONSUMPTION**

COVERAGE: This canvass covers stocks, receipts, production, and shipments, reported in pounds, selenium content. Data are reported for metallic selenium, ferro-selenium, selenium

compounds, and selenium materials. Metallic selenium is subdivided into two categories: commercial (97.0% to 99.99%) and high purity (greater than 99.99%). Reporting firms are primary producers of selenium from electrolytic copper slimes.

CONTACT: Selenium Specialist, Robert Brown, 703-648-4984,  
rbrown@usgs.gov

**SILICA**

**9-4003-A G07  
MISCELLANEOUS ABRASIVES PRODUCTS**

COVERAGE: This canvass covers production, sales of (“rough” condition) products, sources of purchases, and information about new producer sources of selected silica abrasives, with production reported in short tons. Reporting establishments are producers, processors, and/or agent-dealers; Production is reported by quantity and value (f.o.b. plant) for such products as grinding pebbles, grindstones, millstones, oilstones, pulpstones, sharpening stones, and whetstones.

CONTACT: Silica Specialist, Wallace Bolen, 703-648-7727,  
wbolen@usgs.gov

**9-4010-A G09  
INDUSTRIAL SAND AND GRAVEL—SOLD OR USED**

COVERAGE: This canvass covers production data on industrial (silica) sand and gravel sold or used, reported in short tons. Firms report quantity and value (f.o.b. plant) by end use and mode of transportation.

CONTACT: Sand and Gravel Specialist, Wallace Bolen,  
703-648-7727, wbolen@usgs.gov

**9-4014-A D32  
QUARTZ CRYSTAL**

COVERAGE: This canvass covers the use of lasca as a feedstock to produce cultured quartz and the production, sales, and stocks of cultured and natural quartz crystals in pounds. Firms report source and quantity and value of lasca for production of “as grown” and sales and ending stocks of natural and cultured quartz crystals (“as grown” and lumbered) by quantity and value for production of intermediate products or finished crystal units.

CONTACT: Quartz Specialist, Wallace Bolen, 703-648-7727,  
wbolen@usgs.gov

**9-4108-A D09  
TRIPOLI, AMORPHOUS SILICA, AND ROTTENSTONE**

COVERAGE: This canvass obtains data on shipment (or use) of selected crude and processed natural silica materials, including descriptions of the respective processing and denoting material

end uses and shipments and uses in short tons. Reporting establishments are producers, processors, and/or agent-dealers; Shipments or uses are reported by quantity and value (f.o.b. mine or plant) for products relating to tripoli, amorphous silica, and rottenstone.

CONTACT: Silica Specialist, Wallace Bolen, 703-648-7727,  
wbolen@usgs.gov

## **SILICON**

### **9-4106-M D02 SILICON ALLOYS**

COVERAGE: This canvass covers production (with silicon content), shipments, producer stocks, internal consumption, and purchases of silicon alloys and metal. Units are given in short tons of gross weight. The canvass covers silvery pig iron, four content ranges of ferrosilicon, silicon metal (exclusive of semiconductor grades), and a variety of miscellaneous proprietary silicon alloys. Respondents are ferroalloy and/or silicon producers who operate electric smelting furnaces.

CONTACT: Silicon Specialist, Thomas Jones, 703-648-4973,  
tjones@usgs.gov

### **9-4117-MA G05 CONSOLIDATED CONSUMERS' REPORT SEE "CONSOLIDATED CONSUMERS"**

## **SILICON CARBIDE**

### **9-4118-Q G06 CRUDE ARTIFICIAL ABRASIVES SEE "ABRASIVES"**

## **SILVER**

### **9-4097-A C77 LODE-MINE PRODUCTION OF GOLD, SILVER, COPPER, LEAD, AND ZINC SEE "COPPER"**

### **9-4098-M C78 LODE-MINE PRODUCTION OF GOLD, SILVER, COPPER, LEAD, AND ZINC SEE "COPPER"**

### **9-4099-M C79 RECEIPTS OF GOLD, SILVER, COPPER, LEAD, AND ZINC MATERIALS AT SMELTERS SEE "COPPER"**

### **9-4125-A G43 REFINERY PRODUCTION OF PRECIOUS METALS SEE "PRECIOUS METALS"**

## **SODIUM**

### **9-4037-MA D26/D2F NATURAL SODIUM COMPOUNDS AND REFINED SODIUM SALTS**

COVERAGE: This canvass covers total ore production and disposition of finished sodium carbonate (soda ash) and/or sodium sulfate as reported by the mine or plant. It also shows the stocks, purchases, production, disposition, and value of the refined soda ash and/or sodium sulfate.

CONTACT: Sodium Specialist, Dennis Kostick, 703-648-7715,  
dkostick@usgs.gov

### **9-4119-A G13 MINE PRODUCTION OF MISCELLANEOUS MATERIALS SEE "PRODUCTION"**

## **STONE**

### **9-4007-A D63 STONE—CRUSHED AND BROKEN**

COVERAGE: This canvass covers production data on crushed stone, sold or used, reported in short tons by stone type (limestone, granite, sandstone, etc.) and use. Firms, as well as Federal and State agencies, report quantity and value (f.o.b. plant) by stone type, end use, and mode of transportation.

CONTACT: Crushed Stone Specialist, Valentin V. Tepordei,  
703-648-7728, vteporde@usgs.gov

### **9-4009-A D50 DIMENSION STONE — INCLUDING SLATE**

COVERAGE: This canvass covers quarry production of dimension stone and slate sold or used by the quarry, reported in short tons and cubic feet, or for slate, reported in short tons and square feet. Firms report quantity and value by end use for rough and dressed stone.

CONTACT: Dimension Stone Specialist, Lloyd E. Antonides,  
703-648-7710, lantonid@usgs.gov

## **STRONTIUM**

**9-4113-A D65**

### **STRONTIUM**

COVERAGE: This canvass covers stocks, receipts, consumption, and shipments of strontium minerals and production and shipments of strontium compounds and metal. Firms report quantity of strontium minerals, such as celestite, and quantity and value (f.o.b. plant) of strontium compounds, such as strontium carbonate, strontium nitrate, and strontium metal. All data are reported in pounds.

CONTACT: Strontium Specialist, Joyce Ober, 703-648-7717,  
jober@usgs.gov

## **SULFUR**

**9-4002-A D05**

### **BYPRODUCT SULFURIC ACID**

COVERAGE: This canvass obtains data on production, purchases, internal use, and shipments and value of byproduct sulfuric acid produced by copper, lead, molybdenum, and zinc smelter. Weight unit is in short tons of 100% sulfuric acid.

CONTACT: Sulfur Specialist, Joyce Ober, 703-648-7717,  
jober@usgs.gov

**9-4027-A D72**

### **SULFUR AND SULFURIC ACID SOLD OR USED BY END-USE INDUSTRIES**

COVERAGE: This canvass collects data from producers of elemental sulfur or sulfuric acid on product sold or used by end-use industries. End-use industries are identified by SIC. Data are also collected on quantity of sulfur imports and exports and quantity of imports used in a respondent's own plants. Data are reported in long tons for sulfur and short tons for 100% sulfuric acid.

CONTACT: Sulfur Specialist, Joyce Ober, 703-648-7717,  
jober@usgs.gov

**9-4029-M D30**

### **ELEMENTAL SULFUR (PURITY OF 97% OR BETTER)**

COVERAGE: This canvass obtains monthly data on beginning and ending stocks, production and shipments of Frasch sulfur and/or recovered elemental sulfur produced by petroleum refineries, natural gas processing plants, and coking ovens. Data are also collected on annual value (f.o.b. mine or plant) each December. Data are reported in long tons.

CONTACT: Salt Specialist, Joyce Ober, 703-648-7717,  
jober@usgs.gov

## **TALC**

**9-4021-A D56**

### **TALC, SOAPSTONE, AND PYROPHYLLITE**

COVERAGE: This canvass covers production, processing, and sales of talc and pyrophyllites. If ground and sold domestically, then major end uses are reported. Values of minerals are reported as produced, sold unprocessed, and/or ground and sold. Data are published in metric tons.

CONTACT: Talc Specialist, Robert Virta, 703-648-7726,  
rvirta@usgs.gov

## **TANTALUM**

**9-4076-A C41**

### **COLUMBIUM (NIOBIUM) AND TANTALUM SEE "COLUMBIUM"**

## **TELLURIUM**

**9-4062-A C14**

### **TELLURIUM (STOCKS, RECEIPTS, PRODUCTION, SHIPMENTS, AND CONSUMPTION)**

COVERAGE: This canvass covers stocks, receipts, production, consumption, and shipments, weight reported in pounds, tellurium content. Metallic tellurium, ferrotellurium, tellurium compounds, and tellurium materials are tabulated. Metallic tellurium is subdivided into two categories—commercial (97.0% to 99.99%) and high purity (greater than 99.99%). Reporting firms are primary producers of tellurium from electrolytic copper slimes.

CONTACT: Tellurium Specialist, Robert Brown, 703-648-4984,  
rbrown@usgs.gov

## **TEST BAN TREATY**

**9-4040-A G45**

### **COMPREHENSIVE TEST BAN TREATY**

COVERAGE: This canvass covers the number of large (greater than 300 tons of TNT equivalent) mining blasts in the United States.

CONTACT: Commodity Specialist, Deborah Kramer,  
703-648-7719, dkramer@usgs.gov

## **THORIUM**

### **9-4101-A C85 THORIUM**

COVERAGE: This canvass covers the quantity of domestic production, consumption, domestic receipts, imports, shipments, and stocks. Data are collected for ores, concentrates, and refined products, including compounds, metal, and alloys. The canvass also covers import sources and domestic shipments to consumers by end use.

CONTACT: Thorium Specialist, James Hedrick, 703-648-7725,  
jhedrick@usgs.gov

### **9-4101-A C85 RARE EARTHS SEE "RARE EARTHS"**

## **TIN**

### **9-4085-A C56 DETINNERS RECOVERY OF TIN**

COVERAGE: This canvass covers firms that remove and recover tin from scrap tinplate or other tin-bearing raw materials. Data are reported in long tons for total tinplate treated, average price of tinplate used, total tin recovered, and average recovery of tin per ton of tinplate treated.

CONTACT: Tin Specialist, James Carlin, 703-648-4985,  
jcarlin@usgs.gov

### **9-4088-M C60 PRODUCTION AND STOCK OF PIG TIN (DETINNING PLANTS AND SMELTERS)**

COVERAGE: This canvass covers firms that smelt tin and also those that remove and recover tin from scrap tinplate or other tin-bearing raw materials. Data are collected for beginning and ending stocks and tin recovered from tinplate and/or other tin-bearing materials; weight reported in pounds.

CONTACT: Tin Specialist, James Carlin, 703-648-4985,  
jcarlin@usgs.gov

### **9-4089-MA C62 TIN**

COVERAGE: This canvass covers beginning and ending stocks, receipts, consumption, shipments of primary tin, secondary tin, purchased and plant-generated scrap tin, and tin-in-process as reported by tin-using firms. Data collected include breakdown of exact standard industrial code number usage classification for primary and secondary tin consumption, weight reported in pounds.

CONTACT: Tin Specialist, James Carlin, 703-648-4985,  
jcarlin@usgs.gov

### **9-4090-M C63 PIG TIN (IMPORTERS, AGENTS, BROKERS, JOBBER, AND DEALERS)**

COVERAGE: This canvass covers pig tin on hand at the beginning and end of the month as reported by importers, agents, brokers, jobbers, and dealers. Stocks, receipts, total available supply, shipments, and "afloat" are also reported. Data are reported monthly in pounds.

CONTACT: Tin Specialist, James Carlin, 703-648-4985,  
jcarlin@usgs.gov

### **9-4135-A C93 PRODUCTION OF TIN**

COVERAGE: This canvass covers tin mine production and shipments of tin. Data are reported in short tons. Firms report quantity of production and quantity and value (f.o.b. mine) of shipments.

CONTACT: Tin Specialist, James Carlin, 703-648-4985,  
jcarlin@usgs.gov

## **TITANIUM**

### **9-4080-A C49 LEAD AND TITANIUM PIGMENTS AND COMPOUNDS**

COVERAGE: This canvass covers the purchase, manufacture, shipments, and use of lead and titanium pigments and compounds. Quantities are in short tons, and the value of shipments of compounds is the f.o.b. plant value. Shipments of lead pigment and compounds are requested by end use, such as paints, ceramics, rubber, storage batteries, and several other categories. Shipments of titanium pigments are requested by end use essentially in the same way as for lead. Production and shipments of titanium pigments by type are also requested.

CONTACTS: Lead Specialist, Gerald Smith, 703-648-4983,  
grsmith@usgs.gov  
Titanium Specialist, Joseph Gambogi, 703-648-7718,  
jgambogi@usgs.gov

### **9-4091-A C65 TITANIUM MATERIALS**

COVERAGE: This canvass covers stocks, receipts, production, consumption, and shipments of titanium concentrates and manufactured titanium dioxide reported in short tons. Firms report total quantities for seven categories of materials and consumption data by end use for each category.

CONTACT: Titanium Specialist, Joseph Gambogi,  
703-648-7718, jgambogi@usgs.gov

**9-4117-MA G05**  
**CONSOLIDATED CONSUMERS' REPORT**  
**SEE "CONSOLIDATED CONSUMERS"**

**9-4122-Q G37**  
**TITANIUM METAL**

COVERAGE: This canvass covers stocks, production, receipts, consumption, and shipments of titanium sponge, scrap, ingot, mill products, and foundry products, reported in pounds. Besides total quantities in the above categories, firms report quantities of ingot made from primary metal (sponge), scrap, or sponge and scrap; quantities of various types of mill products; and the total quantities of rated and unrated orders.

CONTACT: Titanium Specialist, Joseph Gambogi,  
703-648-7718, jgambogi@usgs.gov

**9-4129-A C64**  
**ILMENITE AND RUTILE**

COVERAGE: This canvass covers stocks and production of ilmenite and rutile; quantities are reported in short tons. Firms report production, stocks, quantity of shipments for domestic consumption and for export in gross weight and average titanium dioxide content, and value of total shipments (f.o.b. mine).

CONTACT: Titanium Specialist, Joseph Gambogi,  
703-648-7718, jgambogi@usgs.gov

**TRIPOLI**

**9-4108-A D09**  
**TRIPOLI, AMORPHOUS SILICA, AND ROTTENSTONE**  
**SEE "SILICA"**

**TUNGSTEN**

**9-4092-A C67**  
**TUNGSTEN ORE AND CONCENTRATE**

COVERAGE: This canvass covers production, purchases, sales, and stocks of tungsten ore and of concentrates from mines and mills. Average ore grade, total weight in short tons and short ton units, and average selling price (f.o.b. point of shipment) are requested. Additionally for purchased tungsten ore and concentrate, the producer, grade, and quantity are requested. For sales of tungsten ore and concentrate, the buyer, grade, quantity, and total market value are requested.

CONTACT: Tungsten Specialist, Kim Shedd, 703-648-4974,  
kshedd@usgs.gov

**9-4093-M C68**  
**TUNGSTEN CONCENTRATE AND TUNGSTEN**  
**PRODUCT**

COVERAGE: This canvass covers the input and output at tungsten-processing plants. Input includes the stocks, receipts, production, and disposition of tungsten concentrates, ammonium paratungstate, and scrap. The reported weight unit is pounds of tungsten trioxide content or tungsten contained. Output includes stocks, receipts, production, and disposition of tungsten products (ferrotungsten, tungsten metal powder, tungsten carbide powder, tungsten metal pellets, tungsten chemicals, scheelite produced from scrap, and other).

CONTACT: Tungsten Specialist, Kim Shedd, 703-648-4974,  
kshedd@usgs.gov

**9-4117-MA G05**  
**CONSOLIDATED CONSUMERS' REPORT**  
**SEE "CONSOLIDATED CONSUMERS"**

**VANADIUM**

**9-4046-M A05**  
**VANADIUM**

COVERAGE: This canvass covers reports of producer and consumer stocks, receipts, consumption, and reshipments of vanadium oxides and other vanadium materials. Also covered are internal consumption and shipments of vanadium products made from other vanadium products. The vanadium products include ferrovanadium and other vanadium alloys, ammonium metavanadate, and vanadium metal. At the option of the reporter, quantities are given in gross or contained weight and in pounds or short tons. The percentage of vanadium content is given.

CONTACT: Vanadium Specialist, Robert Reese, 703-648-4981,  
rreese@usgs.gov

**9-4051-M A11**  
**VANADIUM PENTOXIDE PRODUCTION**

COVERAGE: This canvass covers mill reports of vanadium pentoxide production in pounds of oxide. This canvass provides a monthly measure of vanadium mill activity. More extensive data are collected annually on 9-4130-A, Vanadium Ores, Oxides, Vanadates, Mill Report.

CONTACT: Vanadium Specialist, Robert Reese, 703-648-4981,  
rreese@usgs.gov

**9-4117-MA G05**  
**CONSOLIDATED CONSUMERS' REPORT**  
**SEE "CONSOLIDATED CONSUMERS"**



**9-4130-A C69  
VANADIUM ORES, OXIDES, VANADATES, MILL  
REPORT**

COVERAGE: This canvass covers stocks, receipts (quantity and value), and disposition of vanadium ores and miscellaneous vanadium feed material in pounds of dry weight and vanadium pentoxide content. The State or country of origin of the material is given.

CONTACT: Vanadium Specialist, Robert Reese, 703-648-4981,  
rreese@usgs.gov

**VERMICULITE**

**9-4005-A D11  
EXFOLIATED VERMICULITE**

COVERAGE: This canvass covers the production and disposition of exfoliated vermiculite in short tons or cubic feet and pounds per cubic foot. Firms report quantity produced and quantity and value of exfoliated vermiculite sold and used (f.o.b. plant) and quantity sold and used by various end uses.

CONTACT:  
Vermiculite Specialist, Michael Potter, 703-648-7723,  
mpotter@usgs.gov

**9-4127-A D10  
CRUDE VERMICULITE**

COVERAGE: This canvass covers production and disposition of crude vermiculite and processed vermiculite (concentrate) in short tons. Firms report quantity produced and the quantity and value of vermiculite sold and used (f.o.b. mine or plant).

CONTACT: Vermiculite Specialist, Michael Potter,  
703-648-7723, mpotter@usgs.gov

**WOLLASTONITE**

**9-4119-A G13  
MINE PRODUCTION OF MISCELLANEOUS  
MATERIALS  
SEE "PRODUCTION"**

**ZEOLITES**

**9-4115-A D74  
PRODUCTION OF NATURAL ZEOLITES**

COVERAGE: This canvass covers production, shipments, and end uses of natural zeolites. Zeolite type, production, sales, end uses, and value are requested. Data are published in metric tons.

CONTACT: Zeolites Specialist, Robert Virta, 703-648-7726,  
rvirta@usgs.gov

**ZINC**

**9-4094-MA C70  
ZINC**

COVERAGE: This canvass covers stocks, receipts, consumption, and shipments of raw materials such as domestic ores, foreign ores, and other primary and secondary raw materials. Quantities are reported in short tons, zinc content. Production, shipments, consumption, and stocks of zinc products made from the raw materials include the various grades of slab zinc, other zinc metal products, other metal alloys containing zinc, zinc chemicals, and zinc compounds.

CONTACT: Zinc Specialist, Jozef Plachy, 703-648-4982,  
jplachy@usgs.gov

**9-4095-MA C71  
SLAB ZINC**

COVERAGE: This canvass covers receipts, stocks, consumption, and shipments of domestic and foreign slab zinc by grade, reported in short tons. Consumption is reported by end use in galvanizing, brass and bronze products, zinc-base alloy, rolled zinc, zinc oxide, zinc dust, anodes, and other uses for each grade such as Prime Western, High Grade, Special High Grade, Controlled Lead Grade, Continuous Galvanizing Grade, and remelt.

CONTACT: Zinc Specialist, Jozef Plachy, 703-648-4982,  
jplachy@usgs.gov

**9-4096-MA C72  
ZINC OXIDE**

COVERAGE: This canvass covers production, shipments, and stocks of zinc oxide in short tons. Stocks, receipts, and consumption of zinc ores and concentrates, slab zinc, and other primary and secondary materials are reported as well as total zinc oxide production by American, French, and other processes.

CONTACT: Zinc Specialist, Jozef Plachy, 703-648-4982,  
jplachy@usgs.gov

**9-4097-A C77  
LODE-MINE PRODUCTION OF GOLD, SILVER,  
COPPER, LEAD, AND ZINC  
SEE "COPPER"**

**9-4098-M C78  
LODE-MINE PRODUCTION OF GOLD, SILVER,  
COPPER, LEAD, AND ZINC  
SEE "COPPER"**

**9-4099-M C79**  
**RECEIPTS OF GOLD, SILVER, COPPER, LEAD, AND**  
**ZINC MATERIALS AT SMELTERS**  
**SEE “COPPER”**

**9-4104-M C92**  
**ZINC MERCHANT STOCKS**

COVERAGE: This canvass covers stocks of slab zinc reported in short tons. Reporting firms are agents, dealers, or marketers that either directly or through a parent company or subsidiary import zinc metal into the United States or have zinc material in stock received from a U.S. producer or consumer. Zinc metal includes unalloyed and unwrought slabs, jumbos, or blocks of zinc located physically within the boundaries of the United States, owned, in transit, or controlled by the reporting firm.

CONTACT: Zinc Specialist, Jozef Plachy, 703-648-4982,  
jplachy@usgs.gov

**9-4126-A C73**  
**ROLLED ZINC**

COVERAGE: This canvass covers zinc consumed in the manufacture of rolled zinc from scrap or slab zinc and the type of rolled zinc produced. Quantities are reported as gross weight in pounds.

CONTACT: Zinc Specialist, Jozef Plachy, 703-648-4982,  
jplachy@usgs.gov

**ZIRCONIUM AND HAFNIUM**

**9-4074-A C39**  
**ZIRCONIUM AND HAFNIUM**

COVERAGE: This canvass covers mineral production, stocks, and purchases of zirconium raw materials and shipments of raw materials and concentrates by use. It also covers production, shipments, and stocks of zirconium compounds; metals (more than 90% zirconium); and zirconium-bearing ceramics, refractories, and alloys and hafnium materials, as well as the zirconium and hafnium content of products. Weight units are reported in pounds.

CONTACT: Zirconium and Hafnium Specialist, James Hedrick,  
703-648-7725, jhedrick@usgs.gov

## INDEX OF FORMS BY CANVASS CODE

### Minerals Information Team

#### Data Collection Organization: Data Collection and Coordination Section

Canvass code	Form number	Title of form	Collecting Section	Number contacted
A01	9-4043-A	Specialty Ferroalloys	Metals	A 31
A02	9-4044-A	Iron Ore (containing less than 5% manganese)	Metals	A 22
A03	9-4045-M	Iron Ore (usable ore)	Metals	M 11
A05	9-4046-M	Vanadium	Metals	M 5
A06	9-4047-MA	Nickel—Stocks, purchases, and consumption	Metals	M 47 A 130
A07	9-4048-A	Rhenium	Metals	A 56
A08	9-4049-A	Crude Iron Oxide Pigment Materials	Industrial	A 7
A09	9-4050-A	Finished (natural and synthetic) Iron Oxide Pigments and other Iron Oxide Materials	Industrial	A 19
A11	9-4051-M	Vanadium Pentoxide Production	Metals	M 6
B38	9-4026-A	Peat	Industrial	A 85
C01	9-4052-A	Bauxite — Consumption	Metals	A 98
C03	9-4054-M	Aluminum	Metals	M 13
C04	9-4055-A	Alumina	Metals	A 31
C05	9-4056-A	Antimony Ore and Concentrate	Metals	A 1
C06	9-4057-QA	Primary Antimony	Metals	Q 38 A 135
C09	9-4058-A	Beryllium	Metals	A 2
C10	9-4059-A	Bismuth Refinery Production	Metals	A 1
C11	9-4060-QA	Bismuth	Metals	Q 15 A 40
C12	9-4061-A	Cadmium	Metals	A 14
C14	9-4062-A	Tellurium (stocks, receipts, production, shipments, and consumption)	Metals	A 1
C15	9-4063-M	Chromite Ores and Chromium Products	Metals	M 8
C18	9-4064-M	Cobalt	Metals	M 18

Canvass code	Form number	Title of form	Collecting Section	Number contacted
C19	9-4065-M	Copper (smelter report)	Metals	M 9
C21	9-4066-M	Copper (refinery report)	Metals	M 19
C25	9-4067-A	Copper Sulfate	Metals	A 5
C27	9-4068-A	Lead	Metals	A 2
C28	9-4069-M	Primary Lead Smelters	Metals	M 2
C30	9-4137-Q	Magnesium	Metals	Q 3
C31	9-4070-A	Magnesium	Metals	A 91
C32	9-4138-A	Manganese and Manganiferous Ores	Metals	A 3
C34	9-4071-MA	Manganese Ore and Products	Metals	M 23 A 14
C35	9-4072-A	Mercury Mine Production	Metals	A 11
C37	9-4073-A	Mercury	Metals	A 25
C39	9-4074-A	Zirconium and Hafnium	Metals	A 48
C40	9-4075-A	Beryllium Mineral Concentrate and Beryllium Ore	Metals	A 8
C41	9-4076-A	Columbium (Niobium) and Tantalum	Metals	A 14
C43	9-4077-A	Molybdenum Ore and Concentrate	Metals	A 9
C44	9-4078-M	Molybdenum Concentrates	Metals	M 8
C45	9-4079-M	Molybdenum Concentrate—Molybdenum Products	Metals	M 7
C46	9-4139-A	Nickel Ore	Metals	A 2
C48	9-4140-A	Production, Shipments, and Stocks of Reclaimed Nickel	Metals	A 9
C49	9-4080-A	Lead and Titanium Pigments and Compounds	Metals Industrial	A 13
C52	9-4081-MA	Aluminum Scrap	Metals	M 25 A 61
C53	9-4082-A	Consumption of Copper Materials—Foundries, Manufacturers, Chemical Plants	Metals	A 530
C54	9-4083-A	Scrap and Secondary Copper, Brass, and Nickel	Metals	A 25
C55	9-4084-M	Copper Materials — Consumption at Primary Brass and Primary Copper Wire Rod Mills	Metals	M 46
C56	9-4085-A	Detinners Recovery of Tin	Metals	A 7

Canvass code	Form number	Title of form	Collecting Section	Number contacted
C58	9-4086-MA	Lead—Secondary Smelter and Consumer Report	Metals	M 42 A 153
C59	9-4087-A	Selenium—Stocks, Receipts, Production, Shipments, and Consumption	Metals	A 3
C60	9-4088-M	Production and Stock of Pig Tin (detinning plants and smelters)	Metals	M 7
C62	9-4089-MA	Tin	Metals	M 30 A 167
C63	9-4090-M	Pig Tin (importers, agents, brokers, jobbers, and dealers)	Metals	M 17
C64	9-4129-A	Ilmenite and Rutile	Industrial	A 3
C65	9-4091-A	Titanium Materials	Industrial	A 23
C67	9-4092-A	Tungsten Ore and Concentrate	Metals	A 27
C68	9-4093-M	Tungsten Concentrate and Tungsten Product	Metals	M 11
C69	9-4130-A	Vanadium Ores, Oxides, Vanadates, Mill Report	Metals	A 6
C70	9-4094-MA	Zinc	Metals	M 6 A 24
C71	9-4095-MA	Slab Zinc	Metals	M 72 A 93
C72	9-4096-MA	Zinc Oxide	Metals	M 1 A 2
C73	9-4126-A	Rolled Zinc	Metals	A 3
C77	9-4097-A	Lode-Mine Production of Gold, Silver, Copper, Lead, and Zinc	Metals	A 335
C78	9-4098-M	Lode-Mine Production of Gold, Silver, Copper, Lead, and Zinc	Metals	M 63
C79	9-4099-M	Receipts of Gold, Silver, Copper, Lead, and Zinc Materials at Smelters	Metals	M 5
C82	9-4031-S	Gypsum	Industrial	S 36
C83	9-4006-A	Gypsum	Industrial	A 115
C84	9-4100-A	Magnesium Compounds (raw materials and products)	Industrial	A 19
C85	9-4101-A	Thorium	Industrial	A 14
C86	9-4131-A	Lithium Minerals	Industrial	A 3
C87	9-4102-A	Rare Earths	Industrial	A 20

Canvass code	Form number	Title of form	Collecting Section	Number contacted
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C90	9-4103-A	Gallium	Industrial	A 25
C92	9-4104-M	Zinc Merchant Stocks	Metals	M 6
C93	9-4135-A	Production of Tin	Metals	A 4
C94	9-4105-A	Production of Olivine	Industrial	A 4
D02	9-4106-M	Silicon Alloys	Metals	M 13
D03	9-4107-A	Fluorspar Producers and Processors	Industrial	A 3
D04	9-4034-QA	Fluorspar—Consumers Report	Industrial	Q 37 A 3
D05	9-4002-A	Byproduct Sulfuric Acid	Industrial	A 18
D06	9-4033-Q	Metallic Abrasives	Industrial	Q 15
D07	9-4036-A	Diatomite	Industrial	A 14
D08	9-4004-A	Pumice and Pumicite (including volcanic ash)	Industrial	A 15
D09	9-4108-A	Tripoli, Amorphous Silica, and Rottenstone	Industrial	A 7
D10	9-4127-A	Crude Vermiculite	Industrial	A 4
D11	9-4005-A	Exfoliated Vermiculite	Industrial	A 19
D12	9-4136-A	Asbestos	Industrial	A 1
D15	9-4041-A	Portland and Masonry Cement	Industrial	A 119
D16	9-4039-M	Portland, Blended, and Masonry Cement	Industrial	M 123
D19	9-4001-A	Lime	Industrial	A 116
D22	9-4011-A	Barite	Industrial	A 31
D23	9-4133-A	Barium Chemicals	Industrial	A 2
D25	9-4109-A	Bromine	Industrial	A 9
D26 D2F	9-4037-MA	Natural Sodium Compounds and Refined Sodium Salts	Industrial	M 9 A 8
D27	9-4013-A	Salt—Plant Report	Industrial	A 67
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D30	9-4029-M	Elemental Sulfur (purity of 97% or better)	Industrial	M 145
D32	9-4014-A	Quartz Crystal	Industrial	A 31
D35	9-4110-A	Mica Block and Film	Industrial	A 5
D36	9-4035-S	Phosphate Rock	Industrial	S 9
D37	9-4111-S	Potash	Industrial	S 6

Canvass code	Form number	Title of form	Collecting Section	Number contacted
D39A	9-4015-A	Common Clay and Shale and Fire Clay	Industrial	A 440
D39B	9-4016-A	Bentonite and Fuller's Earth	Industrial	A 70
D39C	9-4017-A	Ball Clay and Kaolin	Industrial	A 34
D41	9-4018-A	Ground Mica, Including Sericite	Industrial	A 15
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D50	9-4009-A	Dimension Stone—Including Slate	Industrial	A 234
D54	9-4134-A	Production of Synthetic Mullite	Industrial	A 3
D55	9-4020-A	Crude Mica	Industrial	A 16
D56	9-4021-A	Talc, Soapstone, and Pyrophyllite	Industrial	A 39
D58	9-4032-A	Feldspar	Industrial	A 24
D59	9-4022-A	Natural Graphite Consumption	Industrial	A 179
D60	9-4023-A	Crude Iodine	Industrial	A 30
D61	9-4024-A	Crude Perlite	Industrial	A 11
D62	9-4025-A	Expanded Perlite	Industrial	A 64
D63	9-4007-A	Stone—Crushed and Broken	Industrial	A 4134
D64	9-4112-A	Synthetic Graphite	Industrial	A 29
D65	9-4113-A	Strontium	Industrial	A 6
D66	9-4114-A	Boron	Industrial	A 6
D70	9-4030-M	Marketable Phosphate Rock	Industrial	M 10
D72	9-4027-A	Sulfur and Sulfuric Acid Sold or Used by End Use Industries	Industrial	A 200
D73	9-4038-A	Production of Byproduct Fluorosilicic Acid	Industrial	A 11
D74	9-4115-A	Production of Natural Zeolites	Industrial	A 10
D75	9-4132-A	Production of Kyanite	Industrial	A 2
G01	9-4116-MA	Iron and Steel Scrap and Pig Iron	Metals	M 74 A 927
G04	9-4000-A	Mine, Development, and Mineral Exploration Supplement	Data Collection and Coordination	A 114
G05	9-4117-MA	Consolidated Consumers' Report	Metals	M 257 A 193
G06	9-4118-Q	Crude Artificial Abrasives	Industrial	Q 12
G07	9-4003-A	Miscellaneous Abrasives Products	Industrial	A 12
G08	9-4042-A	Production Estimate	Industrial	A 842

<b>Canvass code</b>	<b>Form number</b>	<b>Title of form</b>	<b>Collecting Section</b>	<b>Number contacted</b>
G09	9-4010-A	Industrial Sand and Gravel—Sold or Used	Industrial	A 152
G10	9-4008-A	Construction Sand and Gravel — Sold or Used	Industrial	A 7221
G13	9-4119-A	Mine Production of Miscellaneous Materials	Data Collection and Coordination	A 15
G30	9-4120-A	Slag—Iron and Steel—Sold or Used	Industrial	A 145
G33	9-4121-A	Production of Industrial Garnet	Industrial	A 10
G34	9-4028-A	Natural and Synthetic Gem Material	Industrial	A 287
G36	9-4124-A	Production Estimate	Data Collection and Coordination	A 976
G37	9-4122-Q	Titanium Metal	Industrial	Q 35
G39	9-4123-A	Production or Reclaim of Industrial Diamond	Industrial	A 11
G43	9-4125-A	Refinery Production of Precious Metals	Metals	A 88
G45	9-4040-A	Comprehensive Test Ban Treaty	Industrial	A 12655



# 117 MINERAL INDUSTRY SURVEYS

## 86 Annuals

Abrasives, Manufactured / Aluminum / Antimony / Arsenic / Asbestos / Barite / Bauxite and Alumina / Beryllium / Bismuth / Boron / Bromine / Cadmium / Cement / Chromium / Clays / Coal Combustion Byproducts / Cobalt / Columbium (Niobium) and Tantalum / Copper / Diamond, Industrial / Diatomite / Explosives / Feldspar and Nepheline Syenite / Ferroalloys / Fluorspar / Gallium / Garnet, Industrial / Gemstones / Germanium / Gold / Graphite / Gypsum / Helium / Indium / Iodine / Iron and Steel / Iron and Steel Scrap / Iron Ore / Iron Oxide Pigments / Kyanite / Lead / Lime / Lithium / Magnesium / Magnesium Compounds / Manganese / Mercury / Mica / Mining and Quarrying Trends / Molybdenum / Nickel / Nitrogen / Peat / Perlite / Phosphate Rock / Platinum-Group Metals / Potash / Pumice and Pumicite / Rare Earths / Recycling / Rhenium / Salt / Sand and Gravel, Construction / Selenium and Tellurium / Silica / Silicon / Silver / Slag—Iron and steel / Soda Ash / Sodium Sulfate / Statistical Summary / Stone, Crushed / Stone, Dimension / Strontium / Sulfur / Talc and Pyrophyllite / Thorium / Tin / Titanium / Tungsten / Vanadium / Vermiculite / Wollastonite / Zeolite / Zinc / Zirconium and Hafnium

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Aluminum / Cement / Chromium / Cobalt / Copper / Gypsum / Iron and Steel Scrap / Iron Ore / Lead / Manganese / Molybdenum / Nickel / Phosphate Rock / Precious Metals / Silicon / Soda Ash and Sodium Sulfate / Sulfur / Tin / Tungsten / Vanadium / Zinc

## 8 Quarterlies

Abrasives, Manufactured / Antimony / Bauxite and Alumina / Bismuth / Fluorspar / Magnesium / Crushed Stone and Sand and Gravel / Titanium

## 2 Semiannuals

Phosphate rock crop year report / Potash crop year report

## LEGAL JUSTIFICATION

The Fiscal Year 1996 Appropriations Act closing the U.S. Bureau of Mines (USBM) transfers authority from the USBM to the USGS for minerals information activities as referenced in The Congressional Record (September 21, 1995, Amendments 41 and 47, pages 9440-9441). The following statutes give the DOI authority to collect and publish minerals and metals data.

The Strategic and Critical Materials Stock Piling Act (Public Law 79-520 and Public Law 100-180) was signed into law by the President on July 23, 1946. This law authorizes the Secretary of the Interior, through the Director of the Bureau of Mines, to

collect information concerning all aspects of mineral substance found in the United States that is essential to the common defense or industrial needs of the country because natural resources of the United States in certain strategic and critical materials are insufficient in supplying essential military, industrial, and civilian needs for the national defense. Hence, this act provides the acquisition and retention of stocks for strategic and critical materials and decreases dependence on foreign commodities for such supplies.

The Defense Production Act of 1950 (Public Law 81-774 and Public Law 99-441) mandates that the Secretary of the Interior maintain data on strategic and critical materials that are necessary for the defense of the country. Therefore, materials data are to be established to facilitate the production of goods and services necessary for national security.

The Helium Act Amendments of 1960 (Public Law 86-777) authorizes the conservation, production, and exploitation of helium gas and mandates the Secretary of the Interior to acquire land, make contracts, etc., concerning the conserving, producing, buying, and selling of helium.

Mining and Minerals Policy Act of 1970 (Public Law 91-631) declares that it shall be the responsibility of the Secretary of the Interior to carry out the policy of fostering and encouraging private enterprise in the following:

- A. The development of economically sound and stable domestic mining, minerals, and metal and mineral reclamation industries.
- B. The orderly and economic development of domestic mineral resources, reserves, and reclamation of metals and minerals to help assure satisfaction of industrial, security, and environmental needs.
- C. Mining, mineral, and metallurgical research, including the use and recycling of scrap to promote the efficient use of our natural and reclaimable mineral resources.
- D. The study and development of methods for the disposal, control, and reclamation of mineral waste products and the reclamation of mined land to lessen any adverse impact of mineral extraction and processing upon physical environment that may result from mining or mineral activities. Additionally, an annual report to Congress is required on the state of the utilization and duplication of these resources.

The National Materials and Minerals Policy, Research and Development Act of 1980 (Public Law 96-479) directs the Secretary of the Interior to initiate a coherent national materials and minerals policy to insure that materials will be available for national defense and industrial production. The law authorizes the Secretary to collect, evaluate, and analyze information concerning mineral occurrence, production, and use from industry, academia, and Federal and State agencies.



A03

UNITED STATES  
 DEPARTMENT OF THE INTERIOR  
 U.S. GEOLOGICAL SURVEY  
 986 NATIONAL CENTER  
 RESTON, VIRGINIA 20192

INDIVIDUAL COMPANY  
 DATA - PROPRIETARY

Unless authorization is granted in the section above the signature, the data furnished in this report will be treated in confidence by the Department of the Interior, except that they may be disclosed to Federal defense agencies, or to the Congress upon official request for appropriate purposes. Unless objection is made in writing to the USGS, the information furnished in this report may be disclosed to the respondent's State Geological Survey (or similar State Agency) if the State has appropriate safeguards to prevent disclosing company proprietary data.

**IRON ORE (Usable ore)**

\_\_\_\_\_  
 (Please correct if name or address has changed.)

**FACSIMILE NUMBER**  
**1-800-543-0661**

Public voluntary reporting burden for this collection of information is estimated to average 30 MINUTES per response. A Federal agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. Comments regarding this collection of information should be directed to: U.S. Geological Survey, Statistics and Information Systems Section, 988 National Center, Reston, VA 20192; and/or Desk Officer for the Department of the Interior, Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503. **Please do not mail survey forms to these addresses.**

Collection of nonfuel minerals information is authorized by Public Law 96-479 and the Defense Production Act. This information is used to support executive policy decisions pertaining to emergency preparedness, national defense, and analyses for minerals legislation and industrial trends. The USGS relies on your voluntary and timely response to assure that its information is complete and accurate.

Please return this form in the enclosed envelope or fax to the above toll-free number by the **15TH OF THE MONTH** following the reporting period. Complete a separate form for each mineral establishment that was active during the reporting period. A mineral establishment is defined as a single physical location where mineral operations are conducted; for example, a mine only, a mine and preparation plant, or a preparation plant only. If you do not have exact data, please enter your best estimates and mark with an /e. Use zero (0) when appropriate. Do not report decimals or fractions. Round to the nearest whole number. If you have nothing to report, please complete Section 1, sign, and return the form. Please use the space for "Remarks" to provide any specific information that will help us in the use or interpretation of the data. Any statement on the effect of changes in economic conditions upon the reporting establishment will be useful. Additional forms are available upon request.

If you have any questions concerning completion of this form, please contact the Mineral Commodities Data Unit, U.S. Geological Survey, 985 National Center, Reston, VA 20192, Telephone (703) 648-7960.

**SECTION 1. Mine or group covered by this report.**

Name \_\_\_\_\_ State \_\_\_\_\_ County \_\_\_\_\_

**SECTION 2. Stocks, production, and shipments of usable ore for the report month.**

Report only ore products as shipped to consumer, such as direct-shipping ore, concentrate, or agglomerates.  
 Report ores produced in the United States only; do not include imports.

Usable ore (1)	Code	Weight unit Mark (X) one (2)		Physical inventory Adjustment only (3)	Beginning stocks (4)	Production (5)	Shipments (6)	Ending stocks (7)
		Long tons (4)	Metric tons (6)					
Iron ore (containing less than 5% Mn, natural.....)	201							

**SECTION 3. Please indicate any mines opened or closed by your company during the month.**

Remarks:  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Name of person to be contacted regarding this report				Tel. area code		No.		Ext.		
Address		No.		Street		City		State		ZIP Code

May tabulations be published which could indirectly reveal the data reported above?  (1) Yes  (2) No

Signature			Title			Date		
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