



# 2017–2018 Minerals Yearbook

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## AUSTRIA

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# THE MINERAL INDUSTRY OF AUSTRIA

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**Note: In this chapter, information for 2017 is followed by information for 2018.**

The mineral industry of Austria comprised mainly the extraction of industrial minerals and processing of metals. Among mineral fuels, only the production of refined petroleum products was regionally significant. In 2017, Austria was the fifth-ranked producer of magnesite (excluding the United States) and the sixth-ranked producer of tungsten, accounting for 2.1% and 1.2% of world production, respectively (table 1; Bundesministerium für Nachhaltigkeit und Tourismus, 2018, p. 3, 8–10; Bray, 2019; Shedd, 2019).

## Minerals in the National Economy

Austria's real gross domestic product (GDP) increased by 2.9% in 2017 compared with 1.5% in 2016; the nominal GDP was \$400 billion<sup>1</sup> in 2017. The value of production of the hydrocarbon sector was \$9 billion; the mining and steel sector, \$8.7 billion; nonferrous metal sector, \$4.9 billion; and building material, ceramic, and stone sector, \$3.6 billion. In 2017, base metals output increased by 7.0%; petroleum and gas output, by 4.3%; nonmetallic mineral products output, by 2.2%; and mining and quarrying output, by 1.9%. Total exports were valued at \$153.8 billion in 2017, of which manufactured ferrous metals accounted for 5.4%; nonferrous metals, 2.7%; and nonmetallic mineral products, 1.6% (Wirtschaftskammer Österreich, 2018, p. 8, 12, 26, 50, 61; Österreichisches Institut für Wirtschaftsforschung, 2019).

## Production

In 2017, significant increases in mineral production compared with that of 2016 included that of rock salt, by 58%; sulfur (byproduct of natural gas and petroleum production), by 41%; natural gas, by 39%; graphite (amorphous) and zinc, by 25% each; amphibolite (crushed stone), by 21%; construction sand and gravel (unspecified), by 18%; mica, by 16%; marl (crushed stone), by 14%; magnesite, by 13%; and pig iron and brine salt, by 12% each. The production of natural gas liquids (NGL) decreased by 34%; naphtha and serpentine, by 16% each; liquefied petroleum gas and diabase (crushed stone), by 15% each; and kaolin, by 14% (table 1).

## Structure of the Mineral Industry

In 2017, there were 1,138 mining and quarrying operations and 2 crude petroleum and (or) natural gas operations in Austria. Of the mining and quarrying operations, 1,135 produced industrial minerals. Two mines produced iron ore and micaceous iron oxide,

and one mine produced tungsten (table 2; Bundesministerium für Nachhaltigkeit und Tourismus, 2018, p. 16).

## Commodity Review

### Metals

**Aluminum.**—AMAG Austria Metall AG operated the Ranshofen integrated plant, producing recycled foundry alloys and high-quality rolled-aluminum products in the form of strips, sheets, and plates. In 2017, AMAG's global metal shipments, primarily from Austria, decreased slightly (by less than 1%) to 120,400 metric tons (t), whereas its shipments of rolled-aluminum products increased by about 8% to 213,900 t. Sales of recycled aluminum foundry alloys by the casting division increased slightly to 87,400 t. AMAG's ongoing expansion of the Ranshofen plant aimed to increase the production capacity of the rolling division to 300,000 metric tons per year (t/yr) by 2020. The company's "AMAG 2020" project was also focused on expanding the product portfolio of cold-rolled and heat-treated sheets and strips to a width of more than 2 meters (AMAG Austria Metall AG, 2018, p. 8–10, 14, 75).

**Copper.**—Montanwerke Brixlegg AG (a subsidiary of UMCOR AG of Switzerland) operated the 120,000-t/yr-capacity copper refinery in Brixlegg in the State of Tyrol, which was the only copper refinery in Austria. Secondary raw materials used in the production process were sourced from Europe and other parts of the world. The Brixlegg refinery produced copper cathodes as well as round bars and cakes made of copper. In addition to copper products, the refinery produced gold, iron silicate slag, silver, platinum, and palladium. Montanwerke Brixlegg exported more than 80% of its products (Montanwerke Brixlegg AG, 2018a–c).

**Iron and Steel.**—VA Erzberg GmbH's production of iron ore increased by 7.4% to about 3 million metric tons (Mt) in 2017. The company exceeded its targeted annual mining production by 0.7%. In 2017, VA Erzberg integrated big breakers into the ore-treatment process through the installation of new silos with a capacity of 2,500 to 4,500 t and associated conveyor technology. The company supplied iron ore from the Erzberg Mine in Eisenerz to voestalpine Stahl GmbH's plants in Linz and Donawitz for steel production (Bundesministerium für Nachhaltigkeit und Tourismus, 2018, p. 14, 33–34).

Voestalpine Stahl focused on the ongoing implementation of its "Linz 2020" investment program in 2017 to upgrade the technology of its steel plant in Linz. Combined with the secondary metallurgy system 4 that was commissioned in 2016, vacuum-treated steel accounted for about 80% of the plant's steel production capacity. Preparations also were made for the overhaul of blast furnace A to take place in 2018. The company stockpiled raw materials to offset the temporary loss

<sup>1</sup>Where necessary, values have been converted from euro area euros (EUR) to U.S. dollars (US\$) at an annual average exchange rate of EUR0.923=US\$1.00 for 2017 and EUR0.848=US\$1.00 for 2018.

of production volume at the company's largest blast furnace. In September, Böhler Schmiedetechnik GmbH & Co KG (a subsidiary of voestalpine Stahl) decided to build a new specialty-steel plant at its Kapfenberg site. At a total investment of \$379 million, the new facility would have the same capacity of 205,000 t/yr and replace the existing plant in 2021. Current investments in new production lines at two sites in the Kapfenberg area aimed to produce base products for extremely stress-resilient aircraft components for use by the aerospace industry. Towards that goal, the construction of a high-tech fast-forging line was in process and expected to be commissioned in 2018, and another fully automated forging line would begin production in 2019 (voestalpine Stahl GmbH, 2018, p. 41).

**Tungsten.**—Wolfram Bergbau und Hütten AG (a subsidiary of Sandvik AB of Sweden) produced about 508,000 t of tungsten ore at the Mittersill Mine in 2017; this was a decrease of 1.3% compared with the about 515,000 t produced in 2016. The reduction in production was due mainly to the relatively low global price of tungsten. The company produced 4,150 t of tungsten concentrate and recovered 1,230 t of WO<sub>3</sub> in tungsten concentrate in 2017. Although Wolfram Bergbau und Hütten had a weak start in 2017 because of low global tungsten prices, rising prices for tungsten concentrate subsequently created a strong demand. Active exploration was underway at the mining site to increase the minable resource (Bundesministerium für Nachhaltigkeit und Tourismus, 2018, p. 14, 34).

### Industrial Minerals

**Lithium.**—European Lithium Ltd., which was the 100% owner of the Wolfsberg Lithium Project in Weinebene in the State of Carinthia, held a permanent mining license. In 2017, the company undertook a drilling program with VA Erzberg as contractor. The program encompassed four holes designed to verify the extension of previously identified pegmatite veins and three holes to obtain more information on the extension of the pegmatite veins into Zone 2, which is the southern limb of the anticline. European Lithium had begun a prefeasibility study in the fourth quarter of 2016; the study was expected to be completed in the second quarter of 2018. As of March 2018, the Joint Ore Reserves Committee (JORC) code-compliant] ore reserves at Wolfsberg were reported as 7.44 Mt at a grade of 0.71% lithium oxide and a content of 52,900 t of proven and probable reserves of lithium oxide. Construction of a lithium hydroxide facility was expected to begin in 2019, and the production of lithium hydroxide for battery factories was planned for 2020. The company expected the facility to produce 10,100 t of lithium hydroxide in the first full year of operation (European Lithium Ltd., 2018a, p. 3–6; 2018b, p. 8, 10, 11).

**Magnesium Compounds.**—Ten active mining sites (eight in the State of Styria, one in the State of Carinthia, and one in the State of Tyrol) produced 730,000 t of magnesite in 2017, an increase of 13.1% compared to the 646,000 t produced in 2016. Veitsch-Radex GmbH & Co. OG and Styromagnesit Steirische Magnesitindustrie GmbH were the two leading magnesite producers in Austria. Veitsch-Radex GmbH & Co., which was a subsidiary of RHI Magnesita AG (the world's leading supplier of high-grade refractory products), extracted raw magnesite at the Breitenau, the Eichberg, the Hochfilzen,

and the Radenthein Mines. In addition to the mined supply, part of the raw material supplied at the Hochfilzen site was provided by the recovery of fine tailings production waste. In 2017, 44,000 t of raw materials was returned to the production process in this manner. RHI AG merged with Magnesita Refratários S.A. of Brazil and created RHI Magnesita AG in 2017 (Bundesministerium für Nachhaltigkeit und Tourismus, 2018, p. 14, 37; RHI Magnesita AG, 2018, p. 6, 40–41).

### Mineral Fuels

**Natural Gas and Petroleum.**—In 2017, Austria's natural gas production increased by 39% to 1.74 billion cubic meters. Of total natural gas output, 32% was produced from the Vienna basin in the State of Lower Austria, and 68% was produced from the Molasse zone in the States of Upper Austria and Salzburg. OMV AG (OMV) contributed 53% of the country's total natural gas production and Rohöl-Aufsuchungs AG (RAG), the remaining 47%. In 2017, production of crude petroleum continued to decrease, declining by 6.3% to 5.2 million barrels (Mbbl). Of the total crude petroleum output, 85% was produced from the Vienna basin and 15% from the Molasse zone. Almost all NGL production came from the Vienna basin. OMV provided about 87% of total production, and RAG, the remaining 13% (Fachverband der Mineralölindustrie Österreichs, 2018, p. 12).

OMV's 9.6-million-metric-ton-per-year (70.4 million-barrel-per-year) Schwechat refinery was the only refinery in Austria and one of the largest inland refineries in Europe. In 2017, Schwechat processed about 8.1 Mt of crude petroleum at a capacity utilization rate of 86%; this was about the same amount as in 2016. The refinery produced, in order of percentage of output by mass, diesel (40%), gasoline (22%), fuel oil (12%), petrochemicals (10%), jet fuel (9%), bitumen (4%), and other products (3%). In addition to its own domestic petroleum output, OMV supplied its refinery with imports of petroleum, which increased by 1.5% to 7.3 Mt in 2017 (Fachverband der Mineralölindustrie Österreichs, 2018, p. 12–13).

## MINERAL INDUSTRY HIGHLIGHTS IN 2018

Austria was the seventh-ranked tungsten producer in 2018, accounting for an estimated 1.2% of global production, and it remained the fifth-ranked producer of magnesite, accounting for an estimated 2.8% of global production. Austria's real GDP increased by 2.7% in 2018, and the nominal GDP was \$455 billion. The value of output of the hydrocarbon sector was \$12 billion; the mining and steel sector, \$10 billion; the nonferrous metal sector, \$5.8 billion; and the building material, ceramic, and stone sector, \$4.0 billion. In 2018, the value of mining and quarrying production increased by 4.8%; that of nonmetallic mineral products, by 2.5%; base metals, by 2.0%; and petroleum and gas, by 1.6%. Of the country's total exports, which were valued at \$177 billion in 2018, manufactured ferrous metals made up 5.6%; nonferrous metals, 2.8%; and nonmetallic mineral products, 1.6% (Österreichisches Institut für Wirtschaftsforschung, 2019; Wirtschaftskammer Österreich, 2019, p. 8, 12, 50, 61; Bray, 2020; Shedd, 2020).

In 2018, production of naphtha increased by 28%; kerosene (including jet fuel), by 26%; quartz sand, by 25%; amphibolite

(crushed), by 24%; bitumen, by 21%; basalt (crushed), by 19%; gypsum (including anhydrite), by 18%; secondary copper (smelter), by 17%; secondary copper (refinery), by 15%; gasoline, 14%; and dolomite (crushed) and magnesite, by 11% each. Production of NGL decreased by 52%; natural gas, by 44%; pig iron, by 17%; other crushed stone (including conglomerate and sandstone), by 18%; raw steel, by 15%; hot-rolled steel, by 12%; and residual fuel oil, by 11% (table 1).

In 2018, AMAG's global aluminum metal shipments decreased by 4.6% to 114,900 t, and its shipments of rolled-aluminum products increased by 4.2% to 222,900 t. Sales of recycled aluminum foundry alloys decreased slightly to 86,900 t (AMAG Austria Metall AG, 2019, p. 75, 77, 79). In 2018, VA Erzberg's production of iron ore decreased by 6% to about 2.8 Mt. voestalpine Stahl restarted its continuous casting facility 8 in the first quarter of 2018. The company also completed the overhaul of its highest-capacity blast furnace, blast furnace A (voestalpine Stahl GmbH, 2018, p. 41; 2019, p. 43; Bundesministerium für Nachhaltigkeit und Tourismus, 2019, p. 46).

Production of natural gas decreased substantially in 2018, by 44% to 969 million cubic meters. Of this amount, 50.5% was produced from the Vienna basin, and 49.5% was produced from the Molasse zone. OMV contributed 85.5% of total natural gas production and RAG, the remaining 14.5%. Production of crude petroleum continued to decline in 2018, decreasing by 5.8% to 4.9 Mbbl. Of the total crude petroleum and NGL production, 89% was extracted from the Vienna basin and 11% came from the Molasse zone. OMV provided about 88% of total production, and RAG produced the remaining 12%. In 2018, Schwechat processed about 9.1 Mt of crude petroleum (an increase of about 12% compared with that of 2017) at a capacity utilization rate of 94%. The refinery produced, in order of percentage of the refinery's total output by mass, diesel (39%), gasoline (23%), fuel oil and petrochemicals (11% each), jet fuel (9%), bitumen (4%), and other products (3%) (Fachverband der Mineralölindustrie Österreichs, 2019, p. 12).

## Outlook

Austria is likely to remain a globally significant producer of magnesite and tungsten. Despite decreased production of iron ore and tungsten in 2018, production of these mineral commodities will likely trend upward with the recovery of global prices. Magnesite production will likely remain steady in 2019. Aluminum and steel production in the country are likely to increase with the gradual completion of multiple capacity expansion projects. Austria may become a regionally significant lithium producer in 2020 if the Wolfsberg project comes online as planned.

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TABLE 1  
AUSTRIA: PRODUCTION OF MINERAL COMMODITIES<sup>1</sup>

(Thousand metric tons, gross weight, unless otherwise specified)

Commodity <sup>2</sup>		2014	2015	2016	2017	2018
<b>METALS</b>						
Aluminum, secondary, metal	metric tons	416,621	468,719	469,135 <sup>r</sup>	465,041	472,000
Copper, secondary:						
Smelter		56	60	60 <sup>e</sup>	60 <sup>e</sup>	70 <sup>e</sup>
Refinery		83	103	103	100	115
Ferroalloys:						
Ferronickel:						
Gross weight <sup>e</sup>	metric tons	2,500	2,500	2,500	2,500	2,500
Ni content <sup>e</sup>	do.	1,000	1,000 <sup>r</sup>	1,000 <sup>r</sup>	1,000	1,000
Other, unspecified <sup>e</sup>		12	12	12	12	12
Iron ore, mine, including micaceous iron oxide:						
Gross weight		2,437	2,783	2,777	2,982	2,804
Fe content		780	891	889	954	897
Iron and steel:						
Pig iron		6,029	5,805	5,642	6,335	5,269
Steel:						
Raw steel		7,876	7,687	7,438	8,134	6,885
Products, hot-rolled		7,148	7,601	7,594	7,999	7,000 <sup>e</sup>
Lead, refinery, secondary	metric tons	25,136	24,399	24,000 <sup>e</sup>	24,000 <sup>e</sup>	24,000 <sup>e</sup>
Tungsten:						
Mine:						
Ore	do.	499,883	535,762	515,172	508,425	544,390
Concentrate:						
Gross weight	do.	3,500	3,879	4,184	4,150	4,100
WO <sub>3</sub> content	do.	1,000	1,086	1,203	1,230	1,180
Metal	do.	819	861	954	975	936
Zinc, metal	do.	11,021	25,453	27,339	34,152	34,000 <sup>e</sup>
<b>INDUSTRIAL MINERALS</b>						
Cement:						
Clinker <sup>e</sup>		3,200	3,200	3,200	3,200	3,200
Hydraulic		4,400 <sup>r</sup>	4,810 <sup>r</sup>	4,800 <sup>r</sup>	4,900	5,200
Clay:						
Kaolin		36	32	37	32 <sup>e</sup>	32 <sup>e</sup>
Unspecified, including bentonite, brick clay, and illite		1,808	1,923	1,736	1,901	1,876
Feldspar, byproduct of silica processing <sup>e</sup>	metric tons	35,000	35,000	35,000	35,000	35,000
Graphite, amorphous <sup>e</sup>	do.	500	700	800	1,000	1,000
Gypsum, mine, including anhydrite		730	715	674	712	837
Iron oxide pigments <sup>e</sup>	metric tons	3,500	3,500	3,500	3,500	3,500
Lime, including quicklime <sup>e</sup>		830	820 <sup>r</sup>	830	830	800
Magnesite		754	703	646	730	808
Mica <sup>e</sup>	metric tons	3,900	4,000	3,800	4,400	4,500
Nitrogen, ammonia, N content <sup>e</sup>		400 <sup>r</sup>	400 <sup>r</sup>	400 <sup>r</sup>	400	400
Salt						
Brine	metric tons	1,148,000	969,000	1,028,000	1,150,000	1,170,000
Evaporated, mechanical heating process	do.	1,154,000	1,100,000 <sup>e</sup>	1,100,000 <sup>e</sup>	1,100,000 <sup>e</sup>	1,100,000 <sup>e</sup>
Rock salt	do.	245	248	245	388	376
Sand and gravel, industrial:						
Quartz and quartzite, including pegmatite		370	319	388	421	475
Quartz sand		912	1,008	841 <sup>r</sup>	902	1,126
Sodium, compounds, manufactured <sup>e</sup>		300	300	300	300	300

See footnotes at end of table.

TABLE 1—Continued  
AUSTRIA: PRODUCTION OF MINERAL COMMODITIES<sup>1</sup>

(Thousand metric tons, gross weight, unless otherwise specified)

Commodity <sup>2</sup>	2014	2015	2016	2017	2018
INDUSTRIAL MINERALS—Continued					
Stone, sand, and gravel, construction:					
Sand and gravel:					
Dolomite, loose rocks and gravel	2,990	2,902	3,176 <sup>r</sup>	3,311	3,300 <sup>e</sup>
Unspecified	25,717	26,389	26,297 <sup>r</sup>	30,927	31,828
Stone, crushed:					
Amphibolite	1,289	1,117	1,218	1,474	1,825
Basalt, not included in diabase	1,732	1,614	1,537	1,601	1,912
Diabase, of basaltic rocks	1,795	1,929	1,910	1,626	1,602
Dolomite	4,339	3,964	3,971	3,918	4,347
Gneiss	1,267	1,513	1,407 <sup>r</sup>	1,462	1,597
Granite, including granulite	2,989	2,797	2,890	2,913	2,857
Limestone, including marble	21,649	21,060	20,863 <sup>r</sup>	20,889	21,077
Marl	963	895	954	1,083	1,215
Serpentine	1,621	1,464	1,372	1,152	1,186
Other, including conglomerate and sandstone	17	16	22 <sup>r</sup>	22	18
Sulfur, byproduct, natural gas and petroleum, S content	metric tons	8,280	8,502	5,474 <sup>r</sup>	7,691
Talc and related materials, talc, including leucophyllite, white mica	do.	131,108	122,326	123,040	123,558
MINERAL FUELS AND RELATED MATERIALS					
Coke, metallurgical		1,330	1,329	1,352	1,350 <sup>e</sup>
Natural gas, marketable, net	million cubic meters	1,245	1,183	1,253	1,742
Petroleum:					
Crude <sup>3</sup>	thousand 42-gallon barrels	6,653	6,210	5,515	5,165
Natural gas liquids	do.	645	611	590	387
Refinery: <sup>3</sup>					
Bitumen, bituminous mixtures and other residues	do.	1,903 <sup>r</sup>	1,757 <sup>r</sup>	2,018 <sup>r</sup>	1,854
Diesel	do.	24,446 <sup>r</sup>	25,692 <sup>r</sup>	23,499 <sup>r</sup>	24,633
Distillate fuel oil	do.	5,610	7,012 <sup>r</sup>	6,692 <sup>r</sup>	6,266
Gasoline	do.	15,934 <sup>r</sup>	15,456 <sup>r</sup>	14,979 <sup>r</sup>	15,158
Kerosene, including jet fuel	do.	4,758 <sup>r</sup>	5,337 <sup>r</sup>	5,333 <sup>r</sup>	4,954
Liquefied petroleum gas	do.	742 <sup>r</sup>	1,450	1,427 <sup>r</sup>	1,206
Lubricants, including miscellaneous oils	do.	356 <sup>r</sup>	287 <sup>r</sup>	517 <sup>r</sup>	500 <sup>e</sup>
Naphtha	do.	8,023 <sup>r</sup>	7,751 <sup>r</sup>	7,891 <sup>r</sup>	6,592
Residual fuel oil	do.	4,542 <sup>r</sup>	4,282 <sup>r</sup>	4,222 <sup>r</sup>	4,402
Other, unspecified	do.	456 <sup>r</sup>	269 <sup>r</sup>	670 <sup>r</sup>	615
Refinery fuel, and losses	do.	3,224 <sup>r</sup>	3,176 <sup>r</sup>	1,938 <sup>r</sup>	2,139
Total	do.	70,000	72,500	69,200 <sup>r</sup>	68,300
Shale oil <sup>e,3</sup>	42-gallon barrels	1,488	498	400	400

<sup>e</sup>Estimated. <sup>r</sup>Revised. do. Ditto.

<sup>1</sup>Table includes data available through November 21, 2019. All data are reported unless otherwise noted. Totals and estimated data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>In addition to the commodities listed, fused alumina, ground calcium carbonate, and rare-earth chemicals and oxides may have been produced, but available information was inadequate to make reliable estimates of output.

<sup>3</sup>Converted from metric tons to barrels.

TABLE 2  
AUSTRIA: STRUCTURE OF THE MINERAL INDUSTRY IN 2018

(Thousand metric tons unless otherwise specified)

Commodity	Major operating companies and major equity owners	Location of main facilities	Annual capacity
Alumina, fused	Treibacher Schleifmittel GmbH (Imerys S.A., 100%)	Plant at Villach, State of Carinthia	100
Aluminum, secondary	AMAG Austria Metall AG (B&C Industrieholding GmbH, 52.7%; RLB OÖ Alu Invest GmbH 16.5%;, AMAG Employees Private Foundation, 11.1%; Treibacher Industrieholding GmbH, 8.2%; Esola Beteiligungsverwaltungs GmbH, 4.1%; free floating shares, 7.4%)	Ingot plant at Ranshofen, State of Upper Austria	335 <sup>c</sup>
Do.	do.	Rolling mill at Ranshofen, State of Upper Austria	250 <sup>c</sup>
Do.	Hammerer Aluminium Industries GmbH	Extrusion plant at Ranshofen, State of Upper Austria	75
Do.	Hydro Aluminium Nenzing GmbH (Norsk Hydro ASA, 100%)	Plant at Nenzing, State of Vorarlberg	59
Do.	Speedline Aluminium Giesserei GmbH (Swiss Alu Trading AG, 100%)	Plant at Schlins, State of Vorarlberg	49
Do.	Aluminum Lend GmbH (Salzburger Aluminium AG, 100%)	Ingot plant at Lend, State of Salzburg	40
Do.	NEUMAN Aluminium Austria GmbH (CAG Holding GmbH, 100%)	Plant at Marktl, State of Styria	16
Do.	Almaxal Brüder Tschirk GmbH	Plant at Neudorfl, State of Burgenland	NA
Do.	Almeta Metallumschmelzwerk GmbH	Plant at Vienna; plant at Sollenau, State of Lower Austria	NA
Do.	Bavaria Industriekapital AG	Plant at Gleisdorf, State of Styria	NA
Do.	Georg Fischer Automotive AG	Plant at Altenmarkt, State of Salzburg; plant at Herzogenburg, State of Lower Austria	NA
Do.	Nemak Linz GmbH (Tenedora Nemak S.A. de C.V., 100%)	Plant at Linz, State of Upper Austria	NA
Calcium carbonate, ground	Omya GmbH (Omya AG, 100%)	Plant at Gummern, State of Carinthia	2,500
Do.	do.	Plants at Golling, State of Salzburg; Neu Pirk, State of Styria; and Ulmerfeld-Hausmening, State of Lower Austria	NA
Cement	Lafarge Perlmooser AG (LafargeHolcim Ltd., 70%, and Strabag SE, 30%)	Plant at Mannersdorf, State of Lower Austria; plant at Retznei, State of Styria	1,600
Do.	Wietersdorfer & Peggauer Zementwerke GmbH (Knoch, Kern & Co. KG, 100%)	Plant at Peggau, State of Styria; plant at Wietersdorf, State of Carinthia	1,100
Do.	Schretter & Cie Ltd.	Plant at Vils, State of Tyrol; grinding plant in Kirchbichl, State of Tyrol	830
Do.	Zementwerk LEUBE GmbH (LEUBE Baustoffe, 100%)	Plant at Gartenau, State of Salzburg	700
Do.	SPZ Zementwerk Eiberg KG (Rohrdorfer Gruppe, 100%)	Plant at Kufstein, State of Tyrol	600
Do.	Gmundner Zement Produktions- und Handels GmbH	Plant at Hatschek, State of Upper Austria	580
Do.	Kirchdorfer Zementwerk Hofmann GmbH	Plant at Kirchdorf, State of Upper Austria	550
Do.	Wopfinger Baustoffindustrie GmbH	Plant at Wopfing, State of Lower Austria	270
Chalk	Mühlendorfer Kreidefabrik Margit-Hoffman Ostenhof KG (Omya AG, 100%)	Plant at Muellendorf, State of Burgenland	NA
Clays, including brick clay	Wienerberger AG	Clay mines at Goellersdorf, State of Lower Austria; at Rotenturm and Stoob, State of Burgenland; and at Apfelberg and Weisskirchen, State of Styria	NA
Clays, kaolin, and silica sand	Österreichische Kaolin- und Montanindustrie AG	Mines at Weinzierl and Kriechbaum; processing plant at Aisthofen, State of Upper Austria	170
Copper, refined, secondary	Montanwerke Brixlegg AG (UMCOR AG, 100%)	Plant at Brixlegg, State of Tyrol	120 <sup>c</sup>
Feldspar	Quarzwerke Österreich GmbH (Quarzwerke GmbH, 100%)	Mine and plant at St. Georgen an der Gusen, State of Upper Austria	NA

See footnotes at end of table.

TABLE 2—Continued  
AUSTRIA: STRUCTURE OF THE MINERAL INDUSTRY IN 2018

(Thousand metric tons unless otherwise specified)

Commodity	Major operating companies and major equity owners	Location of main facilities	Annual capacity	
Ferroalloys, FeV, FeMo, FeNi	Evonik Treibacher GmbH (Treibacher Industrie AG, 50%, and Evonik Industries, 50%)	Plant at Althofen, State of Carinthia	65 <sup>e</sup>	
Graphite, natural	Graphitbergbau Mühldorf Mörh GmbH	Trandorf Mine at Weinberg and extended to Weinbergwald, State of Lower Austria; mine at Eichenwald, State of Styria	15	
Do.	Grafitbergbau Kaisersberg GmbH	Kaisersberg Mine, State of Styria	3	
Gypsum and anhydrite, natural	Moldan Baustoffe GmbH & Co. KG (Salzburger Sand- & Kieswerke GmbH, 100%)	Abtenau and Moosegg Mines, near Kuchl bei Hallein, State of Salzburg	300	
Do.	Saint-Gobain Rigips Austria GmbH (Compagnie de Saint-Gobain, 100%)	Mine at Grundlsee and main plant at Bad Aussee, State of Styria; mine and plant at Puchberg, State of Lower Austria	250	
Do.	Knauf GmbH	Hinterstein Mine, Spital am Pyhrn, State of Upper Austria; mines at Doerfelstein and Tragoess-Oberort, and plant at Weissenbach bei Liezen, State of Styria	160	
Do.	Gipswerk Schretter & Cie. GmbH	Mine at Weissenbach am Lech and plant at Vils, State of Tyrol	NA	
Iron ore	VA Erzberg GmbH (voestalpine AG, 100%)	Erzberg Mine at Eisenerz, State of Styria	3,000	
Iron oxide, micaceous	Kärntner Montanindustrie GmbH	Mine near Waldenstein, State of Carinthia	NA	
Lime	Wopfinger Baustoffindustrie GmbH	Limestone mine near Duernbach in Waldegg, State of Lower Austria	1,400	
Do.	voestalpine Stahl GmbH (voestalpine AG, 100%)	Limestone mine near Kremsmauer Mountain, and plant at Steyrling, State of Upper Austria	1,200	
Do.	Kanzel Steinbruch Dennig GmbH (STRABEG SE, 100%)	Steinbruch plant, municipality of Gratkorn	400 <sup>e</sup>	
Do.	LEUBE Baustoffe GmbH	Limestone mine near Ofenauer Mountain in Golling and plant at Golling, State of Salzburg	300 <sup>e</sup>	
Magnesite, crude	Veitsch-Radex GmbH & Co. OG (RHI Magnesita AG, 100%)	Mine and plant at Breitenau, State of Styria; mine at Eichberg, State of Lower Austria; Hochfilzen Mine, area near Weissenstein, State of Tyrol; mine and processing plant at Radenthein, State of Carinthia	800	
Do.	Styromagnesit Steirische Magnesitindustrie GmbH	Angerer, Kaintaleck and Wieser Mines, and plant near Oberdorf an der Laming, State of Styria; Hoehentauern Mine in Murtal, State of Styria; Wald Mine in the Schoberpass, State of Styria	150	
Do.	Rohrdorfer Group	Mine and plant at Veitsch, State of Styria	NA	
Do.	PRONAT Steinbruch Preg GmbH (Schotter- und Betonwerk Karl Schwarzl Betriebsgesellschaft m.b.H., 100%)	Magnesite and dunite (olivine rock) mine at Gulsen, and plant at Preg, State of Styria	NA	
Natural gas	million cubic meters	OMV AG [Free floating shares, 43.3%; Österreichische Bundes und Industriebeteiligungen GmbH (Government), 31.5%; International Petroleum Investment Co., 24.9%; own shares, 0.3%]	Main fields in the Vienna Basin, State of Lower Austria, and some fields in the State of Upper Austria	1,400 <sup>e</sup>
Do.	do.	Rohöl-Aufsuchungs AG (EVN AG, 50.025%; Uniper Exploration & Production GmbH, 29.975%; Energie Steiermark Kunden GmbH, 10%; Salzburg AG, 10%)	Main fields in the State of Upper Austria, and some fields in the State of Lower Austria and the State of Salzburg	1,000 <sup>e</sup>
Nitrogen, N content of ammonia		Borealis Agrolinz Melamine GmbH (Borealis AG, 100%)	Plant at Linz, State of Upper Austria	498
Petroleum:				
Crude	thousand	OMV AG [Free floating shares, 43.3%; Österreichische Bundes und Industriebeteiligungen GmbH (Government), 31.5%; International Petroleum Investment Co., 24.9%; own shares, 0.3%]	Main fields in the Vienna Basin, State of Lower Austria, and some fields in the State of Upper Austria	6,000 <sup>e</sup>
	42-gallon barrels			

See footnotes at end of table.

TABLE 2—Continued  
AUSTRIA: STRUCTURE OF THE MINERAL INDUSTRY IN 2018

(Thousand metric tons unless otherwise specified)

Commodity	Major operating companies and major equity owners		Location of main facilities	Annual capacity
Petroleum:—Continued				
Crude—Continued thousand 42-gallon barrels	Rohöl-Aufsuchungs AG (EVN AG, 50.025%; Uniper Exploration & Production GmbH, 29.975%; Energie Steiermark Kunden GmbH, 10%; Salzburg AG, 10%)		Main fields in the State of Upper Austria, and some fields in the State of Lower Austria and the State of Salzburg	900 °
Refinery	do.	OMV AG [Free floating shares, 43.3%; Österreichische Bundes und Industriebeteiligungen GmbH (Government), 31.5%; International Petroleum Investment Co., 24.9%; own shares, 0.3%]	Schwechat refinery, City of Schwechat, State of Lower Austria	70,400
Rare-earth chemicals and oxides	Treibacher Industrie AG		Plant at Althofen, State of Carinthia	NA
Salt, NaCl content	Salinen Austria AG		Mines at Bad Ischl and Hallstatt, and evaporite saltworks at the Ebensee, State of Upper Austria; mine at Hallein-Duernberg, State of Salzburg; mine at Hall in Tyrol, State of Tyrol; mine at Altaussee, State of Styria	1,100
Silica sand	Krampelbauer-Quarzsandwerk St. Georgen Hentschläger & Co. KG.		Burger and Knoll-Wizany Mines at Luftenberg, Krampelbauer and Poscher Mines at St. Georgen, and Treffling Mine at Aigen-Engerwitzdorf, State of Upper Austria	NA
Do.	Quarzwerke Österreich GmbH (Quarzwerke GmbH, 100%)		Mine and plant at Melk, State of Lower Austria; mine and plant at St. Georgen an der Gusen, State of Upper Austria	NA
Do.	Quarzsande GmbH (Zementwerk LEUBE GmbH, 100%)		Mine and plant at Eferding, mine at Bruck-Waasen, and mine at Wolfsegg, State of Upper Austria	NA
Steel, raw	voestalpine Stahl GmbH (voestalpine AG, 100%)		Plant at Linz, State of Upper Austria	6,000
Do.	voestalpine Stahl Donawitz GmbH Co & KG (voestalpine AG, 100%)		Plant at Donawitz (near Leoben), State of Styria	1,500
Do.	Breitenfeld Edelstahl AG		Plant at Mitterdorf im Muerztal, State of Styria	300
Do.	Böhler Edelstahl GmbH & Co KG (voestalpine AG, 100%)		Plant at Kapfenberg, State of Styria	205
Stone, diabase, basalt	Diabaswerk Saalfelden GmbH (STRABAG SE, 100%)		Mine and plant at Saalfelden, State of Salzburg	NA
Do.	Klöcher Basaltwerke GmbH & Co KG (ASAMER Holding AG, 100%)		Mines and plants at Kloech and Oberhaag, State of Styria	NA
Talc and leucophyllite (white mica)	Naintsch Mineralwerke GmbH (Imerys S.A., 100%)		Talc mines at Lassing and Rabenwald, and plant at Oberfeistritz, State of Styria; talc and mica mine at Kleinfeistritz, and a plant at Weisskirchen, State of Styria	200 °
Do.	Aspanger Bergbau und Mineralwerke GmbH & Co. KG (Wietersdorfer & Peggauer Zementwerke GmbH, 100%)		Leucophyllite mine and mica processing plant at Aspangberg-Zobern, State of Lower Austria	NA
Tungsten:				
Ore (scheelite), gross weight	Wolfram Bergbau und Hütten AG (Sandvik AB, 100%)		Mine at Mittersill and processing plant at Bergla, in the Felbertauerntal, State of Salzburg	600 °
Concentrate, W content metric tons	do.		do.	1,800 °
Carbide, powders	do.	do.	Primary and secondary chemical treatment and sintering plant at St. Martin, in the Sulmtal, State of Styria	3,000 °
Do.	do.	Treibacher Industrie AG	Plant at Althofen, State of Carinthia	NA
Metal, powders	do.	Wolfram Bergbau und Hütten AG (Sandvik AB, 100%)	Primary and secondary chemical treatment and sintering plant at St. Martin, in the Sulmtal, State of Styria	3,600 °
Do.	do.	Treibacher Industrie AG	Plant at Althofen, State of Carinthia	NA
Do.	do.	Plansee SE (Plansee Holding AG, 100%)	Plants at Liezen, State of Styria, and at Reutte, State of Tyrol	NA
Oxides	do.	do.	do.	NA

°Estimated; estimated data are rounded to no more than three significant digits. Do., do. Ditto. NA Not available.