



2020–2021 Minerals Yearbook

NAMIBIA [ADVANCE RELEASE]

THE MINERAL INDUSTRY OF NAMIBIA

By James J. Barry and Philip A. Szczesniak

Note: In this chapter, information for 2020 is followed by information for 2021.

In 2020, diamond (gemstone) and uranium (oxide) were the most significant mineral commodities contributing to Namibia's economy. The country ranked sixth in the world in terms of the total value of its rough gem diamond production and seventh in the world in terms of the weight (carats) of its gem diamond production. According to the World Nuclear Association, Namibia was the third-ranked producer of uranium (oxide), accounting for 11% of world production. Metals mined in the country included copper, gold, iron ore, lead, manganese, silver, tin, and zinc. In addition to diamond, industrial minerals produced included aggregates for cement, cement, granite, limestone, marble, salt, and sulfuric acid (table 1; Bank of Namibia, 2021, p. 260; Kimberley Process Certification Scheme, 2021b; World Nuclear Association, 2021; Olson, 2022).

Minerals in the National Economy

In 2020, the nominal gross domestic product (GDP) of Namibia was \$10.6 billion,¹ and the real GDP decreased by 7.9% compared with that in 2019. Mining and quarrying contributed 9.3% to the country's GDP, including contributions from metal ore production of 4.0%, diamond mining production of 2.7%, uranium production of 2.0%, and other mining and quarrying production of 0.6%. The mineral industry (including cut and polished diamond and refined copper and zinc) accounted for 68.0% of the total value of exported goods from Namibia. Diamond and metal ores (including uranium) alone accounted for 48.7% of the total value of exported goods. Refined petroleum products accounted for 13.6% of the total value of goods imported by Namibia, and mineral and mineral-related commodities accounted for 5.7% of the total value of imported goods (Namibia Statistics Agency, 2021, p. 40, 42; Bank of Namibia, 2022, p. 142, 257).

Namibia had a net export balance of about \$30 million with the United States in 2020. Exports of goods and services from Namibia to the United States in 2020 were valued at \$90.2 million compared with \$143.9 million in 2019, which was a decrease of 37%. Gem diamond accounted for about 75% of these exports and was valued at about \$67.5 million. Other significant mineral-related exports to the United States included cement, sand, and stone, which together were valued at \$7.7 million; nonmonetary gold, \$0.9 million; and gemstones (other), \$0.8 million. Imports from the United States to Namibia in 2020 were valued at \$60.1 million compared with \$194.4 million in 2019, which was a decrease of 69%. Excavating machinery accounted for about 12% of these imports and was valued at about \$7.4 million. Other significant mineral-

related imports from the United States included drilling and oilfield equipment, which were valued at about \$3.9 million, and gem diamond, which was valued at about \$2.4 million (U.S. Census Bureau, 2022a, b).

Mining in Namibia is regulated by the Minerals (Prospecting and Mining) Act 33 of 1992. The Diamond Act 13 of 1999 provides for various measures relating to the possession, purchase and sale, processing, and import and export of diamond. Petroleum exploration and production are regulated by the Petroleum (Exploration and Production) Amendment Act 2 of 1991. The total number of people employed in the mineral sector in 2020, including temporary employees and full-time contractors, was 14,591 compared with 16,342 in 2019. About 20% of the permanent (nontemporary and noncontractor) employees in the sector worked for Swakop Uranium; 17%, Namdeb Diamond Corp. (Pty) Ltd. (Namdeb); 12%, De Beers Marine Namibia (Pty) (Debmarine); 11%, Rössing Uranium Ltd.; 10%, B2Gold Namibia (Pty) Ltd. (a subsidiary of B2Gold Corp. of Canada); 9%, Dundee Precious Metals Tsumeb (a subsidiary of Dundee Precious Metals Inc. of Toronto, Ontario, Canada); and 5%, Rosh Pinah Zinc Corp. (Pty) Ltd. (a 90%-owned subsidiary of Trevali Mining Corp. of Vancouver, British Columbia, Canada) (Parliament, Republic of Namibia, 1991, 1992, 1999; Chamber of Mines of Namibia, 2021, p. 22, 87; 2022, p. 32).

Production

Owing to the Uis Mine's rampup to commercial production in 2020, tin production increased by 3,020%. Other significant increases in production included cement aggregates, by 224%; limestone, 175%; lead concentrates (lead content), an estimated 30%; manganese ore (manganese content), 15%; silver and sulfuric acid, 12% each; and cement (hydraulic), 10%. Notable decreases in production included that of zinc (smelter), 75%; granite, 67%; mined zinc, 47%; copper metal, an estimated 3.9%; diamond, 23%; and marble, 14%. Data on mineral production are provided in table 1.

Structure of the Mineral Industry

Most mining operations in Namibia were privately owned. The diamond-mining company Namdeb Holdings was owned by De Beers Group of the United Kingdom (50%) and the Government (50%). Additionally, the Government held minority interests in Sakawe Mining Corp. and Rössing Uranium Ltd. of 8% and 3%, respectively. Table 2 is a list of major mineral industry facilities.

¹Because of fluctuating exchange rates, a meaningful conversion from Namibian dollars (NAD) to U.S. dollars (US\$) is impractical. At yearend, however, the 2020 annual average exchange rate was NAD16.463=US\$1.00.

Commodity Review

Metals

Copper.—In 2020, the leading-producing copper mine in Namibia was the Tschudi open pit mine, which was owned by Bonohgroup Holding Ltd. of the United Kingdom. Tschudi produced 15,741 metric tons (t) of copper cathode (leaching, electrowon) compared with 14,940 t in 2019. Dundee Precious Metals Inc. owned and operated the Tsumeb smelter, which produced blister copper mostly from imported copper concentrates. In 2020, the smelter processed 231,890 t of complex copper concentrate to produce 46,792 t of blister copper compared with 215,289 t of complex copper concentrate to produce 45,953 t of blister copper in 2019 (tables 1, 2; Dundee Precious Metals Inc., 2021, p. 9).

Gold.—Namibia produced 6,254 kilograms (kg) of gold in 2020 compared with 6,526 kg in 2019. Gold production primarily came from the Otjikoto Mine, which was owned by B2Gold Corp. and from where 5,227 kg of gold was produced from two open pits—the Otjikoto pit and the Wolfshag pit. In the third quarter, construction commenced on the development of the high-grade Wolfshag underground mine, and initial production expected in 2022. According to B2Gold, probable reserves at the Wolfshag underground mine were about 1.2 million metric tons (Mt) of ore at a grade of 5.57 grams per metric ton gold (table 1; B2Gold Corp., 2021a, b).

Lead and Zinc.—Mine production of lead in 2020 was estimated to be 9,100 t compared with 7,000 t in 2019, and mine production of zinc was 62,333 t compared with 117,002 t in 2019. Rosh Pinah Zinc Corp of Canada) operated the Rosh Pinah Mine, which was the only zinc mine in Namibia that was open throughout 2020; the mine accounted for 62% of Namibia's zinc production in 2020, producing 38,800 t of zinc concentrate. The Rosh Pinah Mine accounted for 91% of Namibia's lead production, producing 8,260 t of lead concentrate (table 1; Trevali Mining Corp., 2021, p. 36).

Skorpion Zinc (Pty) Ltd., which was wholly owned by Vedanta Resources Ltd. of the United Kingdom, operated the Skorpion open pit mine and the Namzinc refinery through its subsidiaries Skorpion Mining Co. and Namzinc (Pty.) Ltd., respectively. In May, mining was halted owing to continued issues concerning slope failures, which first took place in May 2019. In April 2020, the Namib lead-zinc mine, which was 90% owned by Castlake L.P. of the United States, was placed on care-and-maintenance status owing to low prices of lead and zinc and to restrictions related to the coronavirus disease 2019 (COVID-19) pandemic. Commercial production had commenced in May 2019, and the mine had been ramping up to full production before the closure (table 2; Vedanta Resources Ltd., 2020, p. 3; 2021, p. 24; Namib Lead and Zinc Mining, 2021a, b).

Tin.—After producing 63.9 t of tin concentrate in November 2020, Uis Tin Mining Company (Pty) Ltd. [an 85%-owned subsidiary of AfriTin Mining Ltd. of Guernsey (United Kingdom)] achieved commercial production, nearly quadrupling production to 248 t in December 2020. The production at the open pit mine ended phase 1 of the Uis tin project, which had included a rampup to 720 metric tons per year (t/yr) of tin concentrate. For phase 2 of the project, the

company aimed to increase annual production to 5,000 t/yr of tin concentrate and add the recovery of tantalum and lithium contained in the ore (AfriTin Mining Ltd., 2021a, p. 67; 2021b, p. 10).

Industrial Minerals

Diamond.—According to the Kimberley Process Certification Scheme, production of diamond in 2020 decreased by 23% to 1,549,732 carats from 2,018,099 carats in 2019. The decreased diamond production was attributed to a large decrease in demand and bottlenecks in the supply chain owing to conditions created by the COVID-19 pandemic and the related restrictions. In 2020, Debmarine had nearly completed construction of a new diamond recovery vessel. The ship was expected to begin operating in 2021 and would have a production capacity of 500,000 carats per year (Chamber of Mines of Namibia, 2020; 2021, p. 14; Kimberley Process Certification Scheme, 2021a, b).

Lithium.—In 2020, Lepidico Ltd. of Australia continued exploration of the Karibib lithium project, which included the Rubicon and Helikon lithium mines. In May, the company released results of a definitive feasibility study (DFS). Included in the DFS was an updated mineral reserve estimate of 6.7 Mt at grades of 0.46% lithium oxide, 0.23% rubidium, and 320 parts per million of cesium. There was a planned chemical conversion plant in the DFS that had an estimated production capacity of 7,000 t/yr of lithium carbonate equivalent and 4,900 t/yr of battery-grade lithium hydroxide monohydrate. Additionally, Lepidico planned to produce 260 t/yr of cesium formate and 1,400 to 1,600 t/yr of rubidium sulfate at the plant. In 2017 and 2018, lithium carbonate was recovered from existing stockpiles at the Rubicon and the Helikon Mines. However, in August 2018, production activity ceased owing to a reduction in the price of lithium (Desert Lion Energy Inc. 2019, p. 9; Lepidico Ltd., 2021a, p. 8, 41; 2021b).

Mineral Fuels and Related Materials

Uranium.—In 2020, Namibia produced 5,413 t of uranium oxide (U content) compared with 5,476 t in 2019. Two of the ten largest uranium mines in the world were located in Namibia. The Husab uranium mine, owned by China General Nuclear Power Group (90%) and Epangelo Mining Co. (10%), accounted for 7% of global uranium production and produced 3,302 t of uranium in 2020. The Rössing Mine, majority owned by China National Uranium Corporation Ltd., accounted for 4% of global uranium production and produced 2,111 t of uranium in 2020 (table 2; World Nuclear Association, 2021).

MINERAL INDUSTRY HIGHLIGHTS IN 2021

In 2021, the GDP of Namibia was estimated to be \$12.2 billion,² and the real GDP increased by 2.4% compared with that in 2020. Mining and quarrying contributed 9.1% to the country's GDP, including contributions from metal ore production of 3.6%, diamond-mining production of 2.7%,

²Because of fluctuating exchange rates, a meaningful conversion from Namibian dollars (NAD) to U.S. dollars (US\$) is impractical. At yearend, however, the 2021 average exchange rate was NAD14.779=US\$1.00.

uranium production of 2.0%, and other mining and quarrying production of 0.8%. Diamond accounted for 15.9% of the total exports of goods by value whereas other mineral commodities accounted for 36.4%. Refined petroleum products accounted for 15.2% of the county's total imports of goods by value, and mineral and mineral-related commodities accounted for 6.7%. The country ranked seventh in the world in gem diamond production. The Chamber of Mines of Namibia noted that the total number of people employed in the mineral sector in 2021 was 15,246 compared with 14,591 in 2020 and that 96% of employees were Namibians. Direct employment consisted of 8,640 permanent employees, 1,103 temporary employees, and 5,503 contractors (Bank of Namibia, 2022, p. 142, 257, 286; Chamber of Mines of Namibia, 2022, p. 32; Olson, 2023).

Namibia had a net export balance of about \$60 million with the United States in 2021. Namibia's exports to the United States in 2021 were valued at \$150.5 million, which was an increase of 67% compared with \$90.2 million in 2020. Gem diamond accounted for about 79% of these exports and was valued at about \$118.5 million. Other significant mineral-related exports to the United States included cement, sand, and stone valued at \$8.7 million; gemstone (other), \$127,688; and coal and other fuels, \$102,308. Imports from the United States in 2021 were valued at \$93.2 million, which was an increase of 55% compared with \$60.1 million in 2020. Drilling and oilfield equipment accounted for about 10% of these imports and were valued at about \$9.5 million. Other significant mineral-related imports from the United States included excavating machinery valued at \$5.3 million, and gem diamond valued at \$2.7 million (U.S. Census Bureau, 2022a, b).

Owing to an increase in exports in 2021, the production of aggregates for use in cement increased by 87%. Other significant increases in production included that of tin, by 58%; gold, by 14%; and lead, by 12%. Notable decreases in production included that of zinc (smelter), by 100% owing to the Skorpion refinery having been placed on care-and-maintenance status; copper (leaching, electrowon), by 94%; copper metal, by 91% (estimated); zinc content (mined ore and concentrate), by 33%; silver content (mined), by 16% and primary copper (smelter, blister), by 10%. Data on mineral production are in table 1.

Trigon Metals Inc. of Canada resumed production at the Kombat Mine in 2021 after the mine had been closed for about 14 years because of underground flooding in 2008. The copper mine, which is located in the Otavi Mountains in the Otjozondjupa Region in northern Namibia, was expected to have a production capacity of 4,000 t/yr of copper concentrate. Full commercial production of the mine was expected by March 2022. The company planned to increase the mine's production capacity to 12,500 t/yr of copper concentrate by 2024. In May 2021, Bonohgroup Holding Ltd. of the United Kingdom acquired the copper operations owned by Weatherly Mining Namibia Ltd. (FTI Consulting, Inc., 2021, p. 4; Richardson, 2021; Rani, 2022).

Vedanta Resources announced in June 2021 that it would invest more than \$400 million to modify the Namzinc refinery, which has been on care-and-maintenance status since May 2020. The investment was needed so that the refinery could

process sulfide and oxide ores from new deposits recently discovered in the Rosh Pinah Region and ore imported from deposits in South Africa. The company noted that the Ministry of Mines and Energy had already approved the conversion project. The modified plant would initially operate with a production capacity of 150,000 t/yr of zinc metal but could be expanded to 300,000 t/yr if an adequate power supply is obtained. The refined zinc was expected to be sent to export markets (table 2; Albertz, 2021).

The construction of Debmarine's new diamond recovery vessel, named the *Benguela Gem*, was completed and delivered to Cape Town, South Africa, in December 2021. The vessel was expected to enter Namibia's waters in March 2022 for its inauguration and soon thereafter to start up marine diamond-mining operations. Having an expected lifespan of 30 years, the *Benguela Gem* was to have a diamond production capacity of 500,000 carats per year. In October 2021, the Government of Namibia granted a royalty remission to Namdeb to allow it to extend the life of its land-based diamond-mining operations located in southern Namibia (from the mouth of the Orange River to Sendelingsdrif). Royalties on Namdeb's operations were reduced to 5% from 10% from 2021 to 2025. Namdeb reported the successful negotiation to reduce the rates would allow it to extend the life of its operations to 2042 (table 2; Mbako, 2022, p. 6).

Paladin Energy Ltd. (Paladin) of Australia released a plan in November 2021 that outlined the steps that would be required to restart uranium operations at its Langer Heinrich Mine, which had been on care-and-maintenance status since 2018. The mine—located in the Namib Desert and 80 kilometers east of Walvis Bay—was jointly owned by Paladin (75%) and China National Nuclear Corporation (CNNC) Overseas Uranium Holdings (25%). Paladin noted that the cost estimate for restarting operations was \$81 million, but that funding had not yet been sought or secured. The plan outlined a potential life extension of the mine of 17 years and that the mine had proved and probable reserves of 84.8 Mt at an average U_3O_8 grade of 448 parts per million (table 2; Paladin Energy Ltd., 2021, p. 1, 9–10, 14).

Outlook

The mining sector in Namibia is likely to increase in value as the global and national economies recover from the effects of the COVID-19 pandemic. According to the International Monetary Fund, Namibia's economy is projected to grow by 2.8% in 2022. The mining sector is likely to continue to benefit from the expansion of the Uis tin mine, which attained commercial production in 2020, and expanded diamond operations. An increase in prices in the lithium markets could result in a resumption of operations at Lepidico's Rubicon and Helikon lithium mines. Additionally, further development of the Karibib project could increase the amount of lithium produced and make possible the production of cesium formate and rubidium sulfate. Namibia's uranium mining sector is also expected to increase in the years ahead. The mining sector also is likely to benefit from increased international demand for its mineral exports (Chamber of Mines of Namibia, 2021, p. 16; 2022, p. 27; International Monetary Fund, 2022, p. 143).

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TABLE 1
NAMIBIA: PRODUCTION OF MINERAL COMMODITIES¹

(Metric tons, gross weight, unless otherwise specified)

Commodity ²	2017	2018	2019	2020	2021	
METALS						
Copper:						
Mine, concentrates, Cu content	68	--	180 ^{r, c}	110 ^c	10 ^c	
Smelter, primary, blister	45,523	48,970	45,953	46,792	42,010	
Leaching, electrowon	15,466	15,177	14,940	15,741	950	
Gold, mine, Au content ³	kilograms	7,272	6,171	6,526	6,254	7,103
Lead, mine, including lead-zinc concentrates:						
Gross weight	13,915	14,068	13,783	17,786	19,989	
Pb content ^c	7,100	8,200	7,000	9,100	10,200	
Manganese, mine, concentrate:						
Gross weight ^c	80,000	65,800	91,800	106,000	110,000	
Mn content	27,915	23,045	32,145	37,072	38,500 ^c	
Silver, mine, Ag content	kilograms	7,014	4,666	6,220	6,983	5,847
Tantalum, mineral concentrate, tantalite:						
Gross weight	do.	8,000 ^{c, 4}	1,232 ⁴	1,850 ^{r, 4}	--	--
Ta content ^c	do.	2,200	330	500 ^r	--	-- ^c
Tin, mine, concentrate, Sn content	--	--	10	312	494	
Zinc:						
Mine, ore and concentrate, Zn content	132,584	118,435	117,002	62,333	41,500	
Smelter, primary	83,768	67,122	64,985	16,206	--	
INDUSTRIAL MINERALS						
Arsenic trioxide	700 ^c	--	--	--	--	
Cement, hydraulic ^c	thousand metric tons	780	930	1,000	901	970
Diamond, gem	thousand carats	1,948	2,397	2,018	1,550	1,592
Fluorspar, acid grade, 97% CaF ₂	--	11 ^r	--	--	--	
Graphite, crystalline flake	2,216	3,456	--	--	--	
Lithium, lepidolite	--	30,000	--	--	--	
Salt	886,586	1,221,803	1,041,407	987,872	926,677	
Stone, sand, and gravel, construction:						
Stone:						
Aggregates, for cement	2,450	13,035	12,530	40,544	75,718	
Dimension:						
Granite	33,469	7,597	12,363	4,123	4,200 ^c	
Marble	50,671	59,442	61,417 ^r	52,657	53,000 ^c	
Limestone	577,173	775,324	1,135,579	3,123,544	3,200,000 ^c	
Sulfur, compounds, sulfuric acid:						
Gross weight	221,050	240,404	223,007	249,235	250,000 ^c	
S content	72,261	78,588	72,900	81,475	81,500 ^c	
MINERAL FUELS AND RELATED MATERIALS						
Uranium, mine, uranium oxide, U content	4,224	5,525	5,476	5,413	5,760 ^c	

^cEstimated. ^rRevised. do. Ditto. -- Zero.

¹Table includes data available through May 11, 2022. All data are reported unless otherwise noted. Estimated data are rounded to no more than three significant digits.

²In addition to the commodities listed, agate, aquamarine, amethyst, basalt, blue chalcedony, lead dust, picture stone, pietersite, pyrite, rose quartz, sand and gravel, sepiolite, silver metal, smokey quartz, topaz, tourmaline, and wollastonite may have been produced, but available information was inadequate to make reliable estimates of output.

³Does not include gold recovered as a byproduct of copper mining.

⁴Reported exports.

TABLE 2
NAMIBIA: STRUCTURE OF THE MINERAL INDUSTRY IN 2021

(Metric tons unless otherwise specified)

Commodity	Major operating companies and major equity owners		Location of main facilities**	Annual capacity
Cement	Ohorongo Cement (Pty) Ltd. (Ohorongo) (Schwenk Zement KG, 60%; Industrial Development Corp., 20%; Development Bank of Namibia, 11.72%; Development Bank of South Africa, 7.3%)		Cement plant, near Otavi, Otjozondjupa Region	1,000,000
Do.	Whale Rock Cement (Pty) Ltd.		Otjiwarongo cement plant, Otjozondjupa Region	1,200,000
Copper:				
Copper concentrates	Bonohgroup Holding Ltd.		Central operations, includes the Otjihase Mine ¹ and concentrator, about 18 kilometers northeast of Windhoek (Komas Region); and the Matchless Mine, 30 kilometers southwest of the Otjihase Mine	8,000
Do.	do.		Northern operations, includes the Tschudi and the Tsumeb West Mines, the Tsumeb concentrator, ¹ Oshikoto Region	17,000
Do.	Trigon Mining (Namibia) (Pty) Ltd. [Trigon Metals Inc., 80%; Epangelo Mining Co. (Pty) Ltd., 10%; Havana Investments LLC., 10%]		Kombat Mine in the Otavi Mountains, Otjozondjupa Region	4,000
Metal, blister copper	Dundee Precious Metals Tsumeb (Proprietary) Ltd. (Dundee Precious Metals Inc., 100%)		Smelter at Tsumeb, 430 kilometers north of Windhoek, Oshikoto Region	60,000
Diamond	carats	De Beers Marine Namibia (Pty) Ltd. (Debmarine) [Namdeb Holdings, 100% (De Beers Group, 50%, and Government, 50%)]	Atlantic 1, offshore mine area 47, offshore Sperrgebiet	1,400,000
Do.	do.	Namdeb Diamond Corp. (Pty) Ltd. (Namdeb) [Namdeb Holdings, 100% (De Beers Group, 50%, and Government, 50%)]	Orange River Mines, mine area 42, onshore, from the mouth of the Orange River east to Sendelingsdrif; includes the Auchas and the Daberas Mines, //Karas Region	120,000
Do.	do.	do.	Mine area 1, mine area 43, Orange River at Oranjemund to 15 kilometers northwest of Oranjemund, //Karas Region	1,000,000
Do.	do.	Sperrgebiet Diamond Mining (Pty) Ltd. (Lewcor Group)	Elizabeth Bay Mine, ¹ mining license area 45, onshore and offshore Sperrgebiet 24 kilometers south of Luderitz	210,000
Do.	do.	do.	Sendelingsdrif Mine, 80 kilometers from Oranjemund and 20 kilometers south of the town of Rosh Pinah, //Karas Region	45,000
Do.	do.	do.	Red Area Complex diamond sorting plant 2, Oranjemund, //Karas Region	NA
Do.	do.	Sakawe Mining Corp. (Samicor) [Leviev Group, 76%; Longlife Mining Corp., 10%; Government, 8%; Sakawe Mining Corp. employees, 4%; Namibia Youth Service, 2%]	Offshore mines, near Luderitz Bay	260,000
Do.	do.	Shallow marine and coastal area contractors	Mine in //Karas Region	68,000
Gold:				
Concentrate, Au content	kilograms	Guinea Fowl Investments Twenty Six [QKR Corp. Ltd., 92.5%, and Epangelo Mining Co. (Pty) Ltd., 7.5%]	Navachab Mine, 170 kilometers northwest of Windhoek, Erongo Region	2,700
Do.	do.	B2Gold Corp., 90%, and EVI Mining (Pty) Ltd., 10%	Otjikoto Mine, 300 kilometers north of Windhoek, Otjozondjupa Region	6,200
Metal	do.	Dundee Precious Metals Tsumeb (Proprietary) Ltd. (Dundee Precious Metals Inc., 100%)	Coproduct contained in blister copper produced at the Tsumeb smelter, Oshikoto Region	400

See footnotes at end of table.

TABLE 2—Continued
NAMIBIA: STRUCTURE OF THE MINERAL INDUSTRY IN 2021

(Metric tons unless otherwise specified)

Commodity	Major operating companies and major equity owners	Location of main facilities**	Annual capacity
Graphite	Northern Graphite Corp.	Okanjande Mine, ¹ 14 kilometers south of Otjiwarongo, Otjozondjupa Region	30,000
Iron ore	Lodestone Namibia (Pty) Ltd.	Dordabis Mine, 75 kilometers southeast of Windhoek, Khomas Region	NA
Lead, Pb content of concentrate	Rosh Pinah Zinc Corp. (Pty.) Ltd. (Trevali Mining Corp., 90%; and Namibian Broad-Based Empowerment Groupings and an Employee Empowerment Participation Scheme, 10%)	Rosh Pinah Mine, 100 kilometers northeast of Oranjemund, //Karas Region	21,000
Do.	Namib Lead and Zinc Mining (Castlelake L.P., 90%; Namib Lead and Zinc Mine Community, 5%; NLZM Employee Benefit, Trust, 5%)	Namib Lead and Zinc Mine, ² about 20 kilometers from Swakopmund, Erongo Region	3,000
Lithium, Li ₂ O content of concentrate	Lepidico Ltd, 80%, and Huni-Urib Holdings (Pty) Ltd., 20%	Rubicon and Helikon mines near Karibib, ¹ Erongo Region	65,000
Manganese	MN Holdings Ltd. (Premier African Minerals Ltd., 19%)	Otjozundu Mine, about 145 kilometers east of Okahandja near Hochfeld in the Otjozondjupa Region	80,000
Pyrite, concentrate	Bonohgroup Holding Ltd.	Otjihase Mine and concentrator, near Tsumeb, Oshikoto Region	32,000
Salt	Gecko Salt (Pty) Ltd. [Gecko Namibia (Pty) Ltd, 83%; Stewardship Investments, 5.5%; Tulongeni Family Trust, 5%; unidentified shareholders, 6.5%]	Salt pan north of Henties Bay, Erongo Region	70,000
Do.	Salt & Chemicals (Pty.) Ltd. [Walvis Bay Salt Holdings (Pty.) Ltd., 100%]	Salt pan at Walvis Bay, Erongo Region	1,000,000
Do.	Salt Company (Pty.) Ltd.	Salt pan, Swakopmund, Erongo Region	120,000
Do.	Walvis Bay Salt Refiners (Pty.) Ltd. [Walvis Bay Salt Holdings (Pty.) Ltd., 100%]	Salt refinery at Walvis Bay, Erongo Region	650,000
Silver:			
Concentrate, Ag content	Rosh Pinah Zinc Corp. (Pty.) Ltd. (Trevali Mining Corp., 90%, and Namibian Broad-Based Empowerment Groupings and an Employee Empowerment Participation Scheme, 10%)	Rosh Pinah Mine, 100 kilometers northeast of Oranjemund, //Karas Region	25
Metal	Dundee Precious Metals Tsumeb (Proprietary) Ltd. (Dundee Precious Metals Inc., 100%)	Coproduct contained in blister copper produced at the Tsumeb smelter, Oshikoto Region	25
Sulfuric acid	Dundee Precious Metals Tsumeb (Proprietary) Ltd. (Dundee Precious Metals Inc., 100%)	Smelter at Tsumeb, 430 kilometers north of Windhoek, Oshikoto Region	280,000
Tin, concentrate	Uis Tin Mining Company (Pty) Ltd. (AfriTin Mining Ltd. 85%, and Small Miners of Uis, 15%)	Uis Mine, about 200 kilometers north of Walvis Bay, Erongo Region	800
Uranium, uranium oxide	Langer Heinrich Uranium (Pty.) Ltd. [Paladin Energy Ltd., 75%, and China National Nuclear Corp. (CNNC) Overseas Uranium Holdings Ltd., 25%]	Langer Heinrich Mine, ¹ Namib Desert, 80 kilometers east of Walvis Bay, Erongo Region	1,500
Do.	Rössing Uranium Ltd. (China National Uranium Co. Ltd., 69%; Iranian Foreign Investment Co., 15%; Industrial Development Corp. of South Africa Ltd., 10%; Government of Namibia, 3%; other minority shareholders, 3%)	Rössing Mine, 65 kilometers northeast of Swakopmund, Erongo Region	4,800
Do.	Swakop Uranium (Pty) Ltd. (China General Nuclear Power Group, 90%, and Epangelo Mining, 10%)	Husab Mine, 45 kilometers northeast of Walvis Bay Port, Erongo Region	5,500
Wollastonite	Usakos Wollastonite Mines (Pty) Ltd	Usakos Mine, Karibib District, Erongo Region	800

See footnotes at end of table.

TABLE 2—Continued
NAMIBIA: STRUCTURE OF THE MINERAL INDUSTRY IN 2021

(Metric tons unless otherwise specified)

Commodity	Major operating companies and major equity owners	Location of main facilities**	Annual capacity
Zinc:			
Mine:			
Concentrate, Zn content	Rosh Pinah Zinc Corp. (Pty.) Ltd. (Trevali Mining Corp., 90%, and Namibian Broad-Based Empowerment Groupings and an Employee Empowerment Participation Scheme, 10%)	Rosh Pinah Mine, 100 kilometers northeast of Oranjemund, Karas Region	110,000
Do.	Namib Lead and Zinc Mining (Castlelake L.P., 90%; Namib Lead and Zinc Mine Community, 5%; NLZM Employee Benefit Trust, 5%)	Namib Lead and Zinc Mine, ² about 20 kilometers from Swakopmund, Erongo Region	8,000
Ore	Skorpion Zinc (Pty) Ltd. [Skorpion Mining Co. (Pty.) Ltd. (Vedanta Resources Ltd, 100%)]	Skorpion Mine, ³ 25 kilometers north of Rosh Pinah, Karas Region	1,500,000
Metal	Skorpion Zinc (Pty) Ltd. [Namzinc (Pty.) Ltd. (Vedanta Resources Ltd, 100%)]	Namzinc solvent extraction facilities and electrowinning refinery, ³ 25 kilometers north of Rosh Pinah, Karas Region	150,000

Do., do. Ditto. NA Not available.

¹On care-and-maintenance status.

²Placed on care-and-maintenance status as of April 2020.

³Placed on care-and-maintenance status as of May 2020.

**First-order administrative division names conform to spellings in the U.S. Central Intelligence Agency's "The World Factbook" (<https://www.cia.gov/the-world-factbook/field/administrative-divisions/>) and may include the use of anglicized forms of the names.