science for a changing world

2017–2018 Minerals Yearbook

UNITED KINGDOM

U.S. Department of the Interior
U.S. Geological Survey

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The Mineral Industry of the United Kingdom

By Lindsey Abdale and Jaewon Chung

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

The United Kingdom produced limited quantities of mined metallic minerals (gold, lead, silver, and tungsten), whereas the processing of imported metal ores and concentrates played a more significant role in the country's exports and industrial sector. Industrial mineral production included barite, cement, clays, fluorspar, nitrogen, potash, salt, sand and gravel, and crushed stone. The country also produced mineral fuels, including coal, natural gas, and crude petroleum (Bide and others, 2019, p. 11, 49; Brown, 2019, p. 5).

Minerals in the National Economy

In 2017, the United Kingdom had the sixth-largest economy in the world in terms of the gross domestic product (GDP). The nominal GDP was $2.67 trillion; the real GDP increased by 1.9%. The services sector accounted for 80% of the country's gross value added; the manufacturing sector, 10%; the construction sector, 6%; and the mining and quarrying sector, about 0.7%. Of total employment of 32.1 million people, the manufacturing industry employed 2.92 million people (a 2% decrease from that of 2016); the construction industry, 2.34 million (a 2% increase); and the mining, energy, and water industry, 541,000 (a 4% increase) (Office for National Statistics, 2018a, b; World Bank, The, 2019a, b).

Government Policies and Programs

In the United Kingdom, mineral rights are generally privately owned, with the exception of coal, gold, natural gas, petroleum, and silver. The owner of the land is entitled to all mineral deposits in the subsoil. No specific licensing system for exploration and extraction exists; however, planning permissions and environmental and safety protocols are required under the Health and Safety at Work Act 1974 and the Management of Health and Safety at Work Regulations 1999 (Mayer Brown Practices, The, 2016; British Geological Survey, 2019).

The Government agencies that regulate the mining sector in the United Kingdom include the Crown Estate, the Coal Authority, and the Marine Management Organization. Gold and silver are the property of the Crown, which grants licenses for development and production through the Crown Estate. The Crown Estate owns various holdings controlled by the British Monarch acting as a corporation. Petroleum and gas also belong to the Crown under the Petroleum (Production) Act 1998 and the Continental Shelf Act 1964. The Oil and Gas Authority regulates the licensing, exploration, and production of petroleum and natural gas, as well as the petroleum and natural gas infrastructure. The majority of coal is owned by the Coal Authority, which is a public body sponsored by the Department for Energy and Climate Change and established in 1994 by the Coal Industry Act (British Geological Survey, 2019).

Production

In 2017, significant increases in mine production included that of tungsten, by 48%; talc, by 22%; and clay (unspecified), by 18%. The production of refined nickel decreased by 43%; potash (K_2O equivalent), by 30%; coal, by 27%; gypsum, by an estimated 19%; and refined lead (from primary source), by 11%. Data on mineral production are in table 1.

Structure of the Mineral Industry

Domestic and foreign-owned corporations produced minerals and mineral-based commodities. Table 2 is a list of major mineral industry facilities.

Mineral Trade

The value of the United Kingdom's exports in goods totaled GBP339 billion ($436 billion[1]) in 2017 compared with GBP299 billion ($404 billion) in 2016. Crude petroleum contributed $19.6 billion to the United Kingdom's exports; natural gas, $2.3 billion; sand, stone, gravel, and clays, $372 million; coal, $79 million; and nonferrous metals, $72 million. Exports of crude petroleum reached 264 million barrels; the major recipients were the Netherlands, Germany, France, and the United States (Department for Business, Energy & Industrial Strategy, 2018, p. 62; Office for National Statistics, 2019).

The value of the United Kingdom's imports in goods totaled GBP476 billion ($612 billion) in 2017, which was an increase of 5% from that of 2016. Crude petroleum contributed $20.9 billion to the United Kingdom's imports; natural gas, $10.8 billion; coal, $951 million; iron ore, $797 million; nonferrous metals, $789 million; and sand, stone, gravel, and clays, $501 million. Crude petroleum was imported principally from Norway (48%, by weight) followed by Algeria and Nigeria (10% each) (Department for Business, Energy & Industrial Strategy, 2018, p. 61; Office for National Statistics, 2019).

Commodity Review

Metals

Gold.—In 2017, no gold was produced in the United Kingdom; however, some companies had plans to restart historic gold mines. In March, Galantas Gold Corp. of Canada announced that underground development had commenced on the Omagh gold project in Northern Ireland. In July, a blasting and drilling program showed that a stringer vein contained between 1.1 and

[1]Where necessary values have been converted from British pounds sterling (GBP) to U.S. dollars (US$) at an annual average exchange rate of GBP0.741=US$1.00 for 2016 and GBP0.777=US$1.00 for 2017.

11 grams per metric ton (g/t) gold and between 1.4 and 7 g/t silver. By yearend, Galantas had raised about $880,000 in a private placement for the project (Galantas Gold Corp., 2017a, b; Webb, 2017b).

In December, Alba Minerals Resources plc acquired a 49% interest in Gold Mines of Wales (GMOW), which owned the historic Clogau gold mine. The Clogau project, which is located in the Dolgellau gold belt and covers an area of 107 square kilometers, had previously produced nearly 4,100 kilograms (kg) of gold between 1992 and 1998. Alba and GMOW focused on surveying, mapping, and sampling in 2017 and planned to reopen the mine (Webb, 2017a).

In 2015, Scotgold Resources Ltd. completed a bankable feasibility study for the Cononish gold and silver project in the Grampian Highlands of western Scotland. The proven and probable reserves were 555,000 metric tons (t) of ore with a grade of 11.1 g/t gold and 47.7 g/t silver. Annual production capacity was planned to be 727 kg of gold for up to 9 years. In 2016, the company conducted its first gold pour from the bulk processing trial. By yearend 2017, the company had submitted a planning application and focused on final arrangements with the Trossachs National Park Planning Authority to commence mining activities (Scotgold Resources Ltd., 2016, p. 4; 2019).

Iron and Steel.—In 2017, the production of raw steel decreased by 2% to about 7.49 million metric tons (Mt), and hot-rolled products, by 5% to about 6.33 Mt. In 2016, Tata Steel Europe Ltd. completed the sale of its steelworks in Scunthorpe, Teesside, Workington, and York, England to investment firm Greybull Capital LLP, which reinstated the name British Steel Ltd. In 2017, Tata Steel completed the sale of its remaining steel business in the country to Liberty House Group, including steelworks in Rotherham, a steel purifying facility in Stocksbridge, a mill in Brinsworth, and service centers in Bolton and Wednesbury, United Kingdom. Liberty House announced plans to invest in a new plant and equipment to boost overseas growth through future international investors and trade. Tata Steel, a subsidiary of India's Tata Group, was the second-ranked steel producer in Europe (table 1; Farrell, 2016; Monaghan, 2017; Tata Steel Ltd., 2017; Liberty House Group, 2019).

Industrial Minerals

Barite.—M–I SWACO (UK) Ltd., a subsidiary of Schlumberger Ltd. of the United States, operated the Foss Mine in Aberfeldy, with annual production of about 42,000 t of barite, which had supplied approximately one-third of the United Kingdom's total demand for barite historically. In 2016, the company's planning application was approved for a new underground barite mine in Duntanlich, Perthshire, with resources assessed to exceed 7.5 Mt. Construction was scheduled to begin in the spring of 2018, and production, by December 2020. The expected production capacity of 120,000 metric tons per year (t/yr) would be enough to satisfy the total U.K. barite demand for more than 50 years (M–I SWACO, 2014, p. 2; 2017).

Cement.—In August, Hanson Cement announced plans to upgrade its Padeswood plant near Buckley, Wales. Plans, which included a new roller mill for cement grinding, were submitted to the Flintshire County Council in August. Construction was scheduled to begin later in the year. The new mill was expected to be fully operational by 2019 (BBC News, 2017).

MINERAL INDUSTRY HIGHLIGHTS IN 2018

Minerals in the National Economy

In 2018, the nominal GDP of the United Kingdom was $2.83 trillion; the real GDP increased by 1.4%. The United Kingdom exported $120 million of metallic ores and concentrates, which was an increase of 61% compared with that of 2017; the major recipients were European Union (EU) countries (accounting for 60%). The country imported $1.6 billion of metallic ores and concentrates, which was the same as in 2016; the major suppliers were countries outside of the EU (71%). Exports of crude petroleum were valued at $26.9 billion,[2] and crude petroleum imports were valued at $26.2 billion (Office for National Statistics, 2019; World Bank, The, 2019a, b).

Total exports from the United Kingdom to the United States were valued at $60.8 billion. This included exports of petroleum products valued at $2.5 billion; crude petroleum, $1.5 billion; iron and steel mill and other products, $651 million; unclassified nonferrous metals, $196 million; nickel, $195 million; bauxite and aluminum, $73 million; gold, $38 million; copper, $7.4 million; coal, $214,000; tin, $98,000; and zinc, $28,000 (U.S. Census Bureau, 2019b).

Total imports from the United States to the United Kingdom were valued at $66.3 billion. This included imports of gold valued at $6.1 billion; crude petroleum, $3.9 billion; coal, $847 million; unclassified nonferrous metals, $618 million; petroleum products, $558 million; iron and steel mill and other products, $251 million; aluminum and alumina, $84 million; industrial minerals, $29 million; and copper, $28 million (U.S. Census Bureau, 2019a).

Production

In 2018, significant increases in production included that of crude petroleum, by 10%, and talc by 9%. Decreases in production included that of potash (K_2O equivalent), by an estimated 25%; mined tungsten, by 17%; and coal, by 15% (table 1).

Commodity Review

Metals

Gold.—In November, Galantas Gold Corp. exported its first production—25 t of gold and silver concentrates—from the Omagh Mine to the Glencore Canada Corp.'s New Brunswick smelter in Canada. In addition, the company reported that two channel samples from underground vein development at Northern Ireland's Omagh Mine had grades of between 7.1 and 10.4 g/t gold and between 10.6 and 22.4 g/t silver (Benton, 2018; Galantas Gold Corp., 2018).

Dalradian Resources Inc. of Canada updated its mineral resource estimate for Northern Ireland's Curraghinalt gold deposit. The company estimated measured and indicated

2Where necessary values have been converted from British pounds sterling (GBP) to U.S. dollars (US$) at an annual average exchange rate of GBP0.750=US$1.00 for 2018.

resources to be 6.35 Mt at a grade of 15.02 g/t gold and containing 95.4 t of gold, which was a 46% increase compared with the previous feasibility study in 2016. The cutoff grade of 5.0 g/t gold was calculated based on a gold price of $38.6 per gram and a 95% gold recovery rate (Dalradian Resources Inc., 2018).

Tin.—In 2017, Strongbow Exploration Inc. of Canada planned to produce tin from the South Crofty Mine in the towns of Camborne and Pool, Cornwall, England. In 2018, Strongbow announced plans to reopen the mine in 2021. In 2016, Strongbow acquired 100% interest in Western United Mines Ltd. and Cornish Minerals Ltd., which owned the South Crofty tin project. The mine was closed in 1998 but received a mining license in 2013 that was valid until 2071 (Strongbow Exploration Inc., 2016, p. 1; 2018).

Tungsten.—Wolf Minerals (UK) Ltd. (a wholly owned subsidiary of Wolf Minerals Ltd. of Australia) ceased trading operations on its open pit Drakelands Mine at Hemerdon in Devon owing to the failure to meet its short-term working capital requirements. Wolf Minerals reopened the mine in 2015; it had been closed since 1944. The company aimed to produce 3,000 t/yr of tungsten and tin but never reached the target owing to the declining world market price (BBC News, 2018; Telford, 2018).

Industrial Minerals

Potash.—Sirius Minerals plc planned to construct a 37-kilometer tunnel beneath the North York Moors between its Woodsmith Mine and its Teesside Port. The company expected to increase the mine's production capacity in phases, from roughly 0.3 million metric tons per year (Mt/yr) of initial polyhalite production during the construction phase in 2021, ramping up to 10 Mt/yr in 2024, and reaching full production capacity of 20 Mt/yr by 2029. Sirius Minerals aimed to contribute GBP2.3 billion ($3.1 billion) to the GDP annually for the next 50 years through the polyhalite project. The company also expected the value of exports to be GBP2.5 billion ($3.3 billion) annually, which would reduce the United Kingdom's trade deficit by 7% (Casey, 2018; Gleeson, 2018; Matzko, 2019, p. 49.4).

Mineral Fuels

Coal.—West Cumbria Mining Ltd. planned to open a new underground metallurgical coal mine near Whitehaven, West Cumbria. In 2018, West Cumbria Mining completed ecological surveys to assess the environmental effects of mining coal from seams at 400 to 500 meters below sea level. The company expected to process 3.1 Mt/yr of such coal starting in 2021 and continuing for more than 40 years to supply steelmakers in the United Kingdom and other countries in Europe. West Cumbria Mining expected that the project would contribute GBP1.8 billion ($2.4 billion) to the GDP in the first 10 years of operation and would reduce the trade deficit by 1.5% to 2% by exporting GBP2.5 billion ($3.3 billion) worth of metallurgical coal (West Cumbria Mining Ltd., 2018, p. 3, 10, 19, 22).

Outlook

The United Kingdom's real GDP is expected to increase by 1.6% from 2021 to 2023. The country's manufacturing industry is likely to continue to rely on imported metallic minerals owing to the lack of domestic production of raw materials (International Monetary Fund, 2018, p. 42). Production of gold (and silver) are likely to increase as the Galantas' Omagh Mine and Scotgold's Cononish Mine ramp up and commence extracting gold, respectively (Ford, 2019; Whiterow, 2019). Production of anthracite and bituminous coal for thermal uses is expected to decrease as consumers turn to renewable energy sources and environmental pressures increase, whereas production of metallurgical coal will likely increase when West Cumbria Mining starts output in 2021 as planned.

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TABLE 1
UNITED KINGDOM: PRODUCTION OF MINERAL COMMODITIES[1]

(Metric tons, gross weight, unless otherwise specified)

Commodity		2014	2015	2016	2017	2018
METALS						
Aluminum, metal:						
Primary		42,000	47,000	48,000 r	48,000 e	48,000 e
Secondary		148,800	148,800 r	148,800 r	148,800	149,000 e
Gold, mine, Au content	kilograms	--	--	--	--	NA
Iron and steel:						
Pig iron	thousand metric tons	9,705	8,774	6,142	5,996	5,646
Steel:						
Raw steel	do.	12,120	10,907	7,635	7,491	7,685
Products, rolled	do.	8,087	7,953	6,683	6,329	6,200
Lead:						
Mine, Pb content[2]		100 r	100 r	100 r	100	100
Refinery:						
Primary[3]		110,000	199,200 r	216,600 r	193,800	186,000
Secondary		157,000	158,000 r	158,000 r	160,000	168,000
Nickel, refinery		39,100	38,804	45,194	25,781	25,000
Platinum, refinery[e]	kilograms	5,700 r	4,800 r	5,200 r	4,800	--
Silver, mine, Ag content	do.	-- e	--	--	--	NA
Tungsten, mine, concentrate, W content		--	155	736	1,086	900 e
INDUSTRIAL MINERALS						
Barite[4]		44,000	50,000	56,000	55,000	55,000 e
Cement:						
Clinker	thousand metric tons	7,197	7,804	8,056	7,824	7,734
Hydraulic	do.	8,958	9,235 r	9,370 r	9,359	9,197
Clay:						
Ball clay, including pottery[e]		733,000	740,000	753,000 r	850,000	850,000
Fire clay		129,000	-- r, e	-- r, e	-- e	-- e
Kaolin, china clay[e]		1,090,000	1,010,000 r	940,000	970,000	1,000,000
Unspecified, including shale		6,806,000	4,552,000 r	4,694,000 r	5,544,000	5,600,000
Fluorspar, all grades		25,000	17,000	12,000	11,000	11,000 e
Gypsum, mine[e, 5]	thousand metric tons	1,100	1,800	1,600	1,300	1,300
Lime, hydrated and quicklime[e]	do.	1,600	1,600	1,400 r	1,400	1,400
Nitrogen, ammonia, N content	do.	810	840	820	850	850 e
Potash, marketable, K_2O equivalent		346,000 r	384,000 r	287,000 r	200,000	150,000 e
Salt, all types	thousand metric tons	4,690	4,700 r, e	4,100 r, e	4,100 e	4,100 e
Sand and gravel, industrial, unspecified		3,948,000	4,000,000 e	4,000,000 e	4,000,000 e	4,000,000 e
Soda ash, synthetic		400,000	400,000	400,000 e	400,000 e	400,000 e
Stone, sand and gravel, construction:						
Sand and gravel, common sand	thousand metric tons	61,127	66,443 r	68,075 r	67,402	67,000
Stone, crushed:						
Chalk	do.	3,312	3,500	3,690 e	3,700 e	3,700 e
Dolomite	do.	3,730	3,600	4,200 e	4,200 e	4,200 e
Igneous rock	do.	43,700	46,200	49,000 e	50,000 e	50,000 e
Limestone	do.	66,300	70,500	74,000 e	74,000 e	74,000 e
Sandstone	do.	12,500	13,200 e	14,000 r, e	14,000 e	14,000 e
Slate, including fill	do.	868	900	900 e	900 e	900 e
Talc		4,907	5,430	2,997 r	3,671	4,000 e
MINERAL FUELS AND RELATED MATERIALS						
Coal:						
Anthracite		1,388,000	858,000	461,000	335,000	284,000
Bituminous		10,161,000	7,668,000	3,664,000	2,667,000	2,264,000
Metallurgical		99,000	72,000	53,000	39,000	33,000

See footnotes at end of table.

TABLE 1—Continued
UNITED KINGDOM: PRODUCTION OF MINERAL COMMODITIES[1]

(Metric tons, gross weight, unless otherwise specified)

Commodity		2014	2015	2016	2017	2018
MINERAL FUELS AND RELATED MATERIALS—Continued						
Coke, metallurgical, includes breeze	thousand metric tons	3,601	2,716	1,332	1,361	1,263
Natural gas, marketable	million cubic meters	37,680 r	40,466 r	41,653 r	42,100	40,834
Peat[6]		700,000	NA r	NA r	NA	NA
Petroleum:						
Crude	thousand 42-gallon barrels	282,931 r	323,335 r	334,509 r	325,026	359,006
Refinery	do.	461,213 r	463,304 r	455,472 r	454,052	441,793

[e]Estimated. [r]Revised. do. Ditto. NA Not available. -- Zero.

[1]Table includes data available through October 10, 2019. All data are reported unless otherwise noted. Estimated data are rounded to no more than three significant digits.

[2]Byproduct of fluorspar mining.

[3]Produced entirely from imported bullion and includes the lead content of alloys.

[4]May be a byproduct of fluorspar production.

[5]Does not include gypsum used in cement production.

[6]Reported in thousand cubic meters. One cubic meter of peat equals 0.8806 metric ton.

TABLE 2
UNITED KINGDOM: 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[1]	Annual capacity
Aluminum:			
Primary	SIMEC and Liberty House Group	Lochaber Smelter, Fort William County, Scotland	48
Secondary	Cohen Alloys Ltd.	Glasgow, Scotland	10
Do.	Coleshill Aluminium Ltd. (Ensco 178 Ltd.)	Coleshill, Warwickshire, England	15
Do.	Hydro Aluminium Deeside Ltd. (Norsk Hydro ASA)	Wrexham, Clwyd County, Wales	60
Barite	British Fluorspar Ltd. (Fluorsid Group s.r.l.)	Arthurton West, Bow Rake, High Rake, and Watersaw Mines, Southern Pennine Orefield, Derbyshire County, England	15
Do.	M–I Drilling Fluids (UK) Ltd. [M–I SWACO (UK) Ltd.]	Foss Mine, Aberfeldy, Perthshire County, Scotland	42
Cement	Aggregate Industries Ltd. (LafargeHolcim Ltd.)	Cauldon plant, near Leek, Staffordshire County, England	960
Do.	do.	Cookstown plant, Cookstown, County Tyrone, Northern Ireland	480
Do.	Aventas Group (formerly Quinn Group)	Derrylin plant, Fermanagh, Northern Ireland	500
Do.	Breedon Group plc	Hope plant, Hope Valley, Derbyshire County, England	1,300
Do.	CEMEX UK Operations, Ltd. (CEMEX, S.A.B. de C.V.)	Rugby plant, Rugby, Warwickshire County, England	1,800
Do.	do.	South Ferriby plant, North Lincolnshire County, England	750
Do.	do.	Tilbury plant, Tilbury, Essex, England	1,200
Do.	Hanson Cement (HeidelbergCement AG)	Ketton plant, Rutland County, near Stamford, Lincolnshire County, England	1,300
Do.	do.	Padeswood plant, Mold, Flintshire County, Wales	NA
Do.	do.	Ribblesdale plant, Clitheroe, Lancashire County, England	1,300
Do.	Tarmac (CRH plc)	Aberthaw plant, East Aberthaw, Barry, South Glamorgan County, Wales	500 [2]
Do.	do.	Dunbar plant, Dunbar, East Lothian, Scotland	1,150
Do.	do.	Tunstead plant, Buxton, Derbyshire County, England	1,100
Clay:			
Ball clay	Imerys Group	Operations in Bovey and Wareham Basins, Dorset County, England	325
Do.	S.C.R.-Sibelco NV	Various operations in northern and southern Devon County, England	500
China clay (kaolin)	Imerys Group	Mines and plants in Cornwall and Devon Counties, England	3,000
Do.	S.C.R.-Sibelco NV	Mines and plants in Cornwall County, England	1,000
Coal:			
Underground mines	Ayle Colliery Co. Ltd.	Ayle Colliery in Northumberland County	NA
Do.	Grime Bridge Colliery Co.	Hill Top Colliery, Lancashire County	NA
Do.	UK Coal Production Ltd.	Operations in England include the Kellingley Colliery, North Yorkshire County, and the Thoresby Colliery Nottinghamshire County	5,000 [3]
Surface pits	Celtic Energy Ltd.	Nant Helen Extension pit, Abercraf, West Glamorgan, Wales	400
Do.	do.	Selar pit, Glynneath, West Glamorgan, Wales	400
Do.	Energybuild Ltd.	Nant-y-Mynydd pit, Neath, West Glamorgan, Wales	130
Fluorspar	British Fluorspar Ltd. (Fluorsid Group s.r.l.)	Mill at Stoney Middleton, Milldam Mine in Derbyshire County, England	65

See footnotes at end of table.

TABLE 2—Continued
UNITED KINGDOM: 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[1]	Annual capacity
Gold	kilograms	Galantas Gold Corp.	Omagh Mine, Omagh, County Tyrone, Northern Ireland	NA
Do.	do.	Gold Mine of Wales (Alba Mineral Resources, 90%)	Clogau Gold Mine, Bontddu, Wales	NA [4]
Do.	do.	Scotgold Resources	Cononish Mine, Trossachs National Park, Scotland	72 [4]
Gypsum		British Gypsum Ltd. (Saint-Gobain S.A.)	Several mines and quarries in England, which include the Barrow Mine, Barrow upon Soar, southeast of Loughborough, Leicestershire County; the Brightling Mine, Robertsbridge, East Sussex County; the Birkshead Mine, Kirby Thore, near Penrith, Cumbria County; the Fauld Mine, Tutbury, near Burton on Trent, Staffordshire County; the Kilvington Quarry, Staunton in the Vale, Kilvington, Nottinghamshire County; the Marbleegis Mine, East Leake, northeast of Loughborough, Leicestershire County; the Newbiggin Mine, Newbiggin, near Kirby Thore, Cumbria County	3,500
Iron and steel		British Steel Ltd. (Greybull Capital Llp)	Scunthorpe Works, Scunthorpe, Lincolnshire County, England	2,800
Do.		do.	Teesside Works, Redcar, Cleveland County, England	3,900 [4]
Do.		do.	Skinningrove, Carlin How, near Saltburn-by-the-Sea, Cleveland County, England	NA
Do.		Celsa Manufacturing Ltd. (Grupo Celsa)	Tremorfa Works, Cardiff, South Glamorgan County, Wales	1,200
Do.		Liberty Speciality Steels Ltd. (Liberty House Group)	Port Talbot Works, Port Talbot, West Glamorgan, Wales	3,750
Do.		do.	Rotherham Works, Rotherham, South Yorkshire County, England	1,200 [4]
Do.		do.	Stocksbridge Works near Sheffield, South Yorkshire County, England	NA [5]
Lead:				
Mine, Pb content	metric tons	British Fluorspar Ltd. (Fluorsid Group s.r.l.)	Milldam Mine, Great Hucklow, Derbyshire County	100
Refined:				
Primary		Britannia Refined Metals Ltd. (Glencore plc)	Northfleet, Kent County, England	180
Secondary		H.J. Enthoven Ltd. (Quexco Inc.)	Darley Dale, Derbyshire County, England	80
Natural gas	billion cubic meters	Numerous domestic and international oil companies	North Sea gasfields	100
Nickel, refined		Vale Europe Ltd. (Vale S.A.)	Clydach refinery, near Swansea, West Glamorgan County, Wales	40
Nitrogen, N content of ammonia		CF Fertilisers UK Ltd.	Ince, Lancashire County, England	400
Platinum	kilograms	Vale Europe Ltd. (Vale S.A.)	Acton refinery, London	6,000 [6]
Petroleum:				
Crude	million 42-gallon barrels per day	Numerous domestic and international oil companies, which include Apache North Sea Ltd., BG Group, BHP Billiton Ltd., BP p.l.c., Challenger Minerals Inc., Chevron Corp., ConocoPhillips Corp., Dana Petroleum plc, Eni S.p.A.., Exxon Mobil Corp., Hess Corp., Lundin Britain Ltd., Maersk Oil UK Ltd., Marathon Oil U.K. Ltd., Midmar Energy Onshore Ltd., Nexen Petroleum Inc., Noble Energy (Europe) Ltd., Oilexco Inc., Perenco UK Ltd., Petro-Canada UK Ltd., Premier Oil plc, Royal Dutch Shell plc, Statoil (U.K.) Ltd., Talisman Ltd., Total S.A., and Tullow Oil (U.K.) Ltd.	North Sea oilfields	2

See footnotes at end of table.

TABLE 2—Continued
UNITED KINGDOM: 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[1]	Annual capacity
Petroleum:—Continued				
Refined	million 42-gallon barrels	Eastham Refinery Ltd. (Shell UK Ltd., 50%, and AB Nynas Ltd., 50%)	Eastham refinery, Ellesmere Port, Cheshire County, England	8
Do.	do.	Essar Energy plc	Stanlow manufacturing complex, Ellesmere Port, Cheshire County, England	98
Do.	do.	Exxon Mobil Corp.	Fawley refinery, Southampton, Hampshire County, England	122
Do.	do.	Ineos Group	Grangemouth refinery, Grangemouth, Stirling County, Scotland	88
Do.	do.	Phillips 66 Co.	Humber refinery, South Killingholme, North Lincolnshire County, England	81
Do.	do.	Total S.A.	Lindsey refinery, Killingholme, North Lincolnshire County, England	71
Do.	do.	Valero Energy Corp.	Pembroke refinery, Pembroke, Dyfed County, Wales	78
Polyhalite		Cleveland Potash Ltd. (Israel Chemicals Ltd.)	Boulby Mine, Yorkshire County, England	130
Potash		do.	do.	1,000
Salt:				
Road salt		British Salt Ltd.	Middlewich, Cheshire County, England	800
Rock salt		do.	do.	600
Do.		Irish Salt Mining and Exploration Co. Ltd.	Kilroot Mine, Carrick Fergus, Northern Ireland	500
Sand and gravel		Hanson plc (Heidelberg AG)	Various offshore and onshore locations	NA
Soda ash		Brunner Mond Group (Tata Chemicals Ltd.)	Northwich, Cheshire County, England	900
Silica sand		Hanson plc (Heidelberg AG)	Various locations	NA
Do.		S.C.R.-Sibelco NV	Various operations in Cheshire, Humberside, and Norfolk Counties, England	5,000
Stone:				
Crushed		Hanson plc (Heidelberg AG)	90 quarries in various locations	70,000
Slate, natural		Carillion Plc.	Operations in Wales include the Penrhyn quarry, Bethesda, Conwy County; the Pen Yr Orsedd quarry, Nantlle, Gwynedd County; quarries at Blaenau Ffestiniog and Cwt y Bugail, Gwynedd County	1,000
Do.		Greaves Welsh Slate Company Ltd.	Llechwedd Slate Mines, Blaenau Ffestiniog, Gwynedd County, Wales	NA
Tin, ore		Strongbow Exploration Inc.	South Crofty Mine, Cornwall County, England	400 [7]
Tungsten, concentrate		Wolf Minerals (UK) Ltd. (Wolf Minerals Ltd.)	Drakelands Mine near Hemerdon, Devon, England	5 [4]

Do., do. Ditto. NA Not available.

[1]May include historic, postal, or preserved counties instead of current regional governments, such as cities, county boroughs, or unitary authorities.

[2]Grinding plant only. Kilns closed in May 2006.

[3]Closed in 2015.

[4]Production suspended.

[5]Remelt facilities.

[6]Closed in 2018.

[7]Closed in 1998 and expected to reopen in 2021.