



2010 Minerals Yearbook

IRELAND

THE MINERAL INDUSTRY OF IRELAND

By Alberto Alexander Perez

In 2010, the gross domestic product (GDP) of Ireland was \$172.3 billion based on purchasing power parity, which was a decrease of about 1% compared with that of 2009. The financial crisis of 2009–10 was continuing to affect all sectors of Ireland's industry and services, including the mineral industry, and the general unemployment rate rose to 13.6%. The Organisation for Economic Co-operation and Development (OECD) forecast a slow economic recovery and projected that the economy would grow by 1.6% in 2011.

In 2010, Ireland's total exports increased by 6.3% to \$110.1 billion. This increase in exports was expected to continue as long as the world financial situation did not worsen in 2011 because of the euro currency crisis. Ireland's main export partners, in terms of their share of the total value of all exports, were the United States (22.1%), the United Kingdom (16.1%), Belgium (15.1%), Germany (8.1%), France (5.3%), and Spain (4.2%). Ireland was a member of the European Union (EU), and more than 50% of its exports went to countries belonging to the EU. About 65% of Ireland's imports, in terms of value, originated in the EU; in contrast, only 4.1% of Ireland's imports originated in China. Ireland also was part of the European Monetary Union, and, consequently, its official currency was the euro (€) (Organisation for Economic Co-operation and Development, 2011; U.S. Central Intelligence Agency, 2011).

Minerals in the National Economy

In 2010, exports remained a small component of Ireland's GDP. Minerals accounted for about 1% of its exports. Mining accounted for about 1% of the GDP, and an estimated 1,000 people were directly employed in the mining industry (Department of Communications, Energy and Natural Resources, 2009, p. 23; U.S. Central Intelligence Agency, 2011).

Production

In 2010, production of most minerals and metals decreased with the exception of alumina production, which increased by 50.3%. Lead production decreased by 9% compared with that of 2009, and production of silver and zinc decreased by 49% and 4%, respectively. Ireland was a significant producer of zinc in the world and the principal producer in the EU. Ireland was also a significant producer of mined lead in 2010. There were five operating mines in Ireland. They were, in order of the value of output, the Tara lead and zinc mine, in Navan, Co. Meath, which was owned by Boliden Tara Mines Ltd. (a subsidiary of Boliden AB of Sweden) and was the leading zinc mine, by volume, in the EU; the Lisheen lead-zinc mine, which was owned by Anglo American plc; the Drummond and Knocknacran gypsum mines, which were owned by Irish Gypsum Ltd. (a subsidiary of Saint Gobain group of France); and the Maddoxtown Mine in Co. Kilkenny, which produced dolomite and limestone and was

owned by Roadstone Wood Ltd. (a wholly owned subsidiary of CRH plc) (table 1; Department of Communications, Energy and Natural Resources, 2009, p. 23; Department of Communications, Energy and Natural Resources, Exploration and Mining Division, 2011).

Structure of the Mineral Industry

Although Ireland was a significant world producer of lead and zinc, mines and the mineral-processing industry contributed only a small percentage of the country's GDP. Companies were mostly privately owned. The Exploration and Mining Division of the Department of Communications, Energy and Natural Resources is responsible for both the technical management of the state mineral licensing and leasing system and for promoting the mineral industry. The major mineral industry facilities and their capacities are listed in table 2.

Commodity Review

Metals

Bauxite and Alumina.—In 2010, United Company RUSAL of Russia resumed operations at its alumina refinery which was located on Aughinish Island on the south side of the Shannon estuary near Limerick City and operated by Aughinish Alumina plc. Aughinish Alumina produced about 1.86 million metric tons (Mt) of alumina in 2010, which was an increase of 50% compared with production in 2009. The alumina was obtained by treating bauxite ore using the Bayer process (United Company RUSAL, 2011, p. 7).

Lead and Zinc.—Galmoy Mines Ltd. recommenced operations at its Galmoy Mine in early 2010. Galmoy Mines Ltd. was a subsidiary of Lundin Mining Corp. of Canada. The mine had stopped operations in June 2009 because of the collapse in the prices of base metals (Department of Communications, Energy and Natural Resources, Exploration and Mining Division, 2011, p. 1).

Boliden Tara Mine's operation in Navan, Co. Meath, continued to be the leading zinc mine in Europe. In 2009, it milled a revised 2.6 Mt of ore grading 7% zinc and 1.4% lead. This ore yielded more than 185,000 metric tons (t) of zinc and 23,000 t of lead metal in concentrate. The mine's Joint Ore Reserves Committee (JORC)-classified ore reserves (proven and probable) were 16 Mt grading 7.1% zinc and 1.8% lead (Department of Communications, Energy and Natural Resources, Exploration and Mining Division, 2011, p. 1).

Industrial Minerals

Dolomite and Limestone.—Roadstone Wood produced dolomite and limestone from an open pit mine at Maddoxtown,

near Bennettsbridge in Co. Kilkenny. The material was processed on site and used as aggregate by the construction industry (Department of Communications, Energy and Natural Resources, Exploration and Mining Division, 2011, p. 2).

Gypsum.—Irish Gypsum extracted gypsum from two sites in southern Co. Monaghan. An estimated 300,000 t was produced from an opencast operation in Knocknacran and the adjoining underground mine at Drummond; this output was 100,00 t less than the 400,000 t that was produced in 2009. The continued collapse of the construction market in Ireland appears to have been a leading cause for the decrease in production. The gypsum was crushed and blended locally and then supplied to Irish Gypsum's plaster mill and plaster board plant in Kingscourt. Additional material was supplied to the Irish agricultural and cement industries (Department of Communications, Energy and Natural Resources, Exploration and Mining Division, 2011, p. 2).

Mineral Fuels

Exploration offshore Ireland has never received the same level of interest as offshore Norway or the United Kingdom, despite similarities of geology. In the past, offshore oil exploration has not been particularly successful.

Outlook

Ireland will likely remain a major EU producer of zinc ore and a significant producer of alumina and lead ore. Exploration activity for additional new mineral resources, with the main emphasis on gold, lead, and zinc, is expected to continue.

The financial crisis that continued to affect Ireland in 2010 affected all aspects of the economy. The failed Irish banking and construction sectors still seemed heavily affected by a contraction in domestic consumption, and individual asset worth among the general public affected directly all investment and production in the country. Oil and gas exploration and further development of the energy sector and of renewable energy will likely continue to be a priority, and interest in exploring for petroleum and gas off the shores of Ireland is likely to increase.

References Cited

- Department of Communications, Energy and Natural Resources, 2009, State mining and prospecting facilities, prospecting license competition and industry news: Dublin, Ireland, Department of Communications, Energy and Natural Resources, May 33 p.
- Department of Communications, Energy and Natural Resources, Exploration and Mining Division, 2011, Exploration and mining news—1st March 2011: Dublin, Ireland, Department of Communications, Energy and Natural Resources, 6 p. (Accessed December 2, 2011, at http://www.dcenr.gov.ie/NR/rdonlyres/5466E701-6B8F-454C-B12D-856B471463B8/0/Industry_News_March2011.pdf.)
- Organisation for Economic Co-operation and Development, 2011, OECD revises projection for Irish growth in 2011 from zero to 1.2pc: Organisation for Economic Co-operation and Development, October, 34 p. (Accessed December 2, 2011, at <http://www.oecd.org/dataoecd/8/17/48861848.pdf>.)
- United Company RUSAL, 2011, Production results for the year ended 31 December 2010: United Company RUSAL, 14 February, 12 p. (Accessed October 21, 2011, at <http://www.rusal.ru/en/investors/files/106.pdf>.)
- U.S. Central Intelligence Agency, 2011, Ireland, *in* The world factbook: U.S. Central Intelligence Agency. (Accessed September 22, 2011, at <https://www.cia.gov/library/publications/the-world-factbook/geos/ei.html>.)

TABLE 1
IRELAND: PRODUCTION OF MINERAL COMMODITIES¹

(Thousand metric tons unless otherwise specified)

Commodity		2006	2007	2008	2009	2010
METALS						
Alumina ^e		1,800	1,800	1,890	1,240 ²	1,864 ²
Lead:						
Mine output, Pb content	metric tons	61,800	54,100	50,200	43,000	39,100
Metal, refined, secondary ^e	do.	21,700 ²	22,500	20,000	19,000	19,000
Silver, mine output, Ag content	kilograms	4,100	4,000 ^e	8,462	8,000 ^e	4,061
Zinc, mine output, Zn content	metric tons	425,756	400,898	398,200	357,000	342,500
INDUSTRIAL MINERALS³						
Cement, hydraulic		4,981	5,000	3,900	2,600 ^e	2,290 ^e
Gypsum ^e		700	700	600 ^r	400	300
Lime ^e		300	300	300	300	300
Sand and gravel: ^{e,4}		12,000	12,000	25,000	20,000	20,000
Stone and other quarry products: ^e						
Limestone	million metric tons	1	1	1	1	1
Other ⁵	metric tons	36,000	36,000	60,000	45,000	45,000
MINERAL FUELS AND RELATED MATERIALS						
Gas, natural, marketed	million cubic meters	535 ^e	566	502	413	402
Peat: ^{e,6}						
For horticultural use		500	500	500	500	500
For fuel use, milled peat ⁷		3,800 ²	3,800	3,800	3,800	3,800
Total		4,300	4,300	4,300	4,300	4,300
Briquets		260 ²	300	300	300	300
Petroleum refinery products: ⁸						
Liquefied petroleum gas	thousand 42-gallon barrels	593	405	387	394	390 ^e
Naphtha ^e	do.	900	900	900	900	900
Gasoline, motor	do.	5,365	4,987	4,797	3,701	3,700 ^e
Distillate fuel oil	do.	8,370	8,989	8,726	7,712	7,700 ^e
Residual fuel oil	do.	7,102	8,070	7,469	6,009	6,000 ^e
Refinery fuel and losses	do.	821	798	872	816	810 ^e
Total ^e	do.	23,200	24,100	23,200	19,500 ^r	19,500

^eEstimated; estimated data are rounded to no more than three significant digits; may not add to totals shown. ^rRevised. do. Ditto.

¹Table includes data available through January 11, 2012.

²Reported figure.

³Ireland also produces significant quantities of synthetic diamond and is the major supplier to the United States. Output, however, is not quantitatively reported, and general information is inadequate to make reliable estimates of output.

⁴Excludes output by local authorities and road contractors.

⁵Includes clays for cement production, fire clay, granite, marble, rock sand, silica rock, and slate.

⁶Includes production by farmers and by the Bord Na Mona (Government Peat Board).

⁷Includes milled peat used for briquet production.

⁸From imported crude oil.

TABLE 2
IRELAND: STRUCTURE OF THE MINERAL INDUSTRY IN 2010

(Thousand metric tons unless otherwise specified)

Commodity	Major operating companies and major equity owners	Location of main facility	Annual capacity
Alumina	Aughinish Alumina plc (United Company RUSAL)	Aughinish Island, Co. Limerick	1,800
Cement	Irish Cement Ltd.	Plants in Co. Limerick and Platin, Co. Meath	2,000
Lead-zinc, concentrate	Anglo American plc	Lisheen Mine, Co. Kilkenny	160
Do.	Boliden AB	Tara Mine, Navan, Co. Meath	215
Natural gas	Star Energy Group plc [Petrolia Nasional Berhad (PETRONAS) 100%]	Kinsale Head Field, Celtic Sea	2,100
Nitrogen, N content of ammonia	Irish Fertilizer Industries	Plant at Marino Point	450
Peat	Bord Na Mona (Government Peat Board)	Production mainly in the Midlands	4,200
Petroleum, refined	ConocoPhillips Whitegate Refinery Ltd.	Whitegate, near Cork	71,000
Do. Ditto.			