

The Mineral Industry of Ireland

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Ireland completed a second year of impressive economic growth in 1978, but the economy weakened in 1979. Real growth in the economy was about 6% in 1978 but fell to about 3.5% in 1979, as inflation jumped from 8% to 13% annually. Unemployment declined to 7.3% late in 1979, but labor relations disturbed the otherwise fairly favorable picture. Minerals producers were among those severely affected by the labor unrest. Two lead-zinc mines were shut down by strikes in 1978 and 1979, and natural gas production was hampered by lack of labor discipline.

Ireland is a major producer of zinc and lead on the world market, and it produces and exports important amounts of barite; other mineral production is chiefly of do-

mestic importance. A quarter of the country's electricity is generated with domestic peat, and production of natural gas started in 1978. Exploration was active during 1978-79 especially for base metals in the Central Plain. However, after the tightening of licensing regulations in 1976, along with the general lack of concrete results in exploration in recent years, a feeling of caution was developing in the industry. With most outcrops already examined, the difficulty of probing the extensive glacial drift cover of the Central Plain, consisting of peat bogs and layers of silt, till, and sand and gravel, together with the need for deep overburden sampling, was inevitably increasing costs and making prospects less bright than a few years ago.

PRODUCTION

Ireland produced 3% of the world's mine zinc in 1978 and 1979 and about 1.4% of the world's lead. It also produced close to 6% of world barite. The only other mineral mined in large quantities was peat, which was almost all consumed domestically, largely

for electricity production. Cement and petroleum products were produced for the domestic market, and there was a small production of copper, and, starting in 1978, of natural gas. Production of minerals in 1977, 1978, and 1979 is given in table 1.

Table 1.—Ireland: Production of mineral commodities

(Thousand metric tons unless otherwise specified)

Commodity ¹	1976	1977	1978 ^p	1979 ^e
METALS				
Copper, mine output, metal content ----- tons -----	4,100	4,900	4,800	4,100
Lead, mine output, metal content ----- do. -----	32,600	41,000	47,800	70,000
Iron and steel: Crude steel -----	88	47	69	72
Silver, mine output, metal content ----- thousand troy ounces -----	925	936	631	600
Zinc, mine output, metal content ----- tons -----	62,800	116,300	176,000	212,300
NONMETALS				
Barite ----- do. -----	323,000	373,000	349,000	360,000
Cement, hydraulic -----	1,569	1,580	1,806	2,000

See footnotes at end of table.

Table 1.—Ireland: Production of mineral commodities —Continued

(Thousand metric tons unless otherwise specified)

Commodity ¹	1976	1977	1978 ^P	1979 ^e
NONMETALS —Continued				
Gypsum	355	342	392	400
Lime	69	80	92	90
Nitrogen, N content of ammonia	35	28	24	180
Pyrite	65	47	43	45
Sand and gravel ²	5,770	5,464	5,726	³ 7,168
Stone: Limestone ²	7,292	8,755	11,147	³ 11,101
Sulfur, S content of pyrite	31	22	20	20
Other ^{2, 4}	2,829	3,068	3,396	³ 4,280
MINERAL FUELS AND RELATED MATERIALS				
Coal: Anthracite and bituminous coal	49	54	31	³ 69
Coke, gashouse, including breeze	33	⁶ 33	NA	³ 41
Peat:				
For agricultural use	71	83	82	86
For fuel use:				
Briquets	308	351	334	
Sod peat ⁵	1,834	2,015	1,974	5,000
Milled peat ⁵	3,813	3,085	2,630	
Petroleum refinery products:				
Gasoline	3,528	4,219	4,508	³ 4,412
Jet fuel	160	606	98	³ 252
Distillate fuel oil	3,812	4,585	4,821	³ 4,566
Residual fuel oil	5,714	6,622	6,388	³ 7,075
Other:				
Liquefied petroleum gas	⁷ 602	695	719	³ 260
Naphtha	⁷ 216	207	121	³ 126
Refinery fuel and losses	⁷ 341	263	206	³ 574
Total	⁷ 14,373	17,197	16,861	³ 17,265

^eEstimate. ^PPreliminary. ⁷Revised. NA Not available.¹In addition to the commodities listed, substantial quantities of stone and sand and gravel are produced by local authorities for such purposes as road maintenance, but data are not reported and available general information is inadequate to make reliable estimates of output levels.²Excludes output by local authorities.³Reported figure.⁴Figures given as reported in source; includes granite, marble, silica rock, sand, calcspar, fire clay, and slate and clays for cement production.⁵Includes production by farmers and by Bord Na Mona.⁶Includes milled peat used in the production of peat briquets, listed separately in this table.

TRADE

Ireland's chief source of metal and mineral products is the United Kingdom; much of its exports of nonferrous metal concentrates goes to smelters on the European Continent. Minerals exports and imports are shown respectively in tables 2 and 3. U.S.

minerals exports to Ireland consist largely of nonferrous metals and iron and steel semimanufactures. U.S. mineral imports from Ireland are largely nonmetallics, such as barite and manufactured industrial diamonds.

Table 2.—Ireland: Exports of mineral commodities

(Metric tons unless otherwise specified)

Commodity	1977	1978	Principal destinations, 1978
METALS			
Aluminum metal including alloys, unwrought and semimanufactures	3,016	3,831	United Kingdom 2,968.
Copper:			
Ore and concentrate	18,985	25,002	Spain 18,083; West Germany 3,742.
Metal including alloys:			
Unwrought	652	359	Belgium-Luxembourg 127.
Semimanufactures	1,880	1,827	United Kingdom 931; United States 550.
Iron and steel:			
Roasted pyrite	31,092	NA	

See footnotes at end of table.

Table 2.—Ireland: Exports of mineral commodities —Continued

(Metric tons unless otherwise specified)

Commodity	1977	1978	Principal destinations, 1978
METALS —Continued			
Iron and steel —Continued			
Metal:			
Scrap	7,910	54,100	Spain 23,999; Denmark 7,720; West Germany 6,374.
Pig iron, ferroalloys, similar materials	62	115	NA.
Steel, primary forms	727	3,678	United Kingdom 3,499.
Semimanufactures	31,063	56,374	United Kingdom 43,190.
Lead:			
Ore and concentrate	71,886	69,175	France 24,899; Belgium- Luxembourg 16,239.
Metal including alloys, unwrought and semimanu- factures	4,246	4,238	United Kingdom 4,182.
Nickel metal including alloys, unwrought and semimanu- factures	219	151	Switzerland 54; West Germany 52.
Platinum-group metals and silver:			
Ores and concentrates	14	24	All to United Kingdom.
Metals including alloys, all forms:			
Platinum	value \$668	\$821	United Kingdom \$819.
Silver	do \$44	\$167	NA.
Tin metal including alloys, unwrought	2	62	NA.
Zinc:			
Ore and concentrate	210,506	344,426	Belgium-Luxembourg 181,127; France 64,964.
Metal including alloys, unwrought and semimanu- factures	406	377	NA.
Other metals including alloys, all forms	9,017	9,194	United Kingdom 2,079; West Ger- many 1,593.
NONMETALS			
Abrasives, natural	46	85	United States 17.
Asbestos	587	571	NA.
Cement	92,468	104,900	United Kingdom 101,981.
Clays and clay products (including all refractory brick):			
Crude	37,993	51,503	United States 44,927; United Kingdom 5,791.
Products:			
Refractory (including nonclay brick)	49,915	59,071	United Kingdom 17,491; West Germany 9,009; Poland 5,840.
Nonrefractory	1,484	1,400	NA.
Fertilizer materials:			
Crude:			
Phosphatic	—	5	NA.
Other	312	382	NA.
Manufactured:			
Nitrogenous	8,092	5,910	United Kingdom 5,560.
Phosphatic	124	1,081	NA.
Other	49,794	47,798	United Kingdom 46,456.
Gypsum and plasters	62,784	66,148	United Kingdom 32,210.
Lime	2,340	2,549	NA.
Mica, all forms	7,060	170	NA.
Pigments, mineral, including processed iron oxides	(¹)	23	NA.
Salt	72	22	NA.
Stone, sand and gravel:			
Dimension stone:			
Crude and partly worked	462	621	NA.
Worked	475	693	NA.
Gravel and crushed stone	357,247	295,172	West Germany 216,556.
Sand, excluding metal bearing	2,587	2,538	NA.
Other:			
Crude	323,627	322,853	United States 168,793; Algeria 24,242.
Building materials of asphalt, asbestos, and fiber cement, and unfired nonmetals, n.e.s	20,719	18,809	Nigeria 7,996; United Kingdom 6,376.
MINERAL FUELS AND RELATED MATERIALS			
Asphalt and bitumen, natural	263	37	NA.
Coal, anthracite and bituminous	49,130	57,945	United Kingdom 54,377.
Coke and semicoke	30,773	25,948	All to Sweden.
Peat, including peat briquets and litter	155,906	158,116	United Kingdom 149,951.
Petroleum refinery products:			
Gasoline	thousand 35	5	NA.
Kerosine	do 4	(¹)	NA.
Residual fuel oil	do 975	192	Portugal 102; United Kingdom 57.

See footnotes at end of table.

Table 2.—Ireland: Exports of mineral commodities —Continued

(Metric tons unless otherwise specified)

Commodity	1977	1978	Principal destinations, 1978
MINERAL FUELS AND RELATED MATERIALS —			
Continued			
Petroleum refinery products —Continued			
Lubricants ----- thousand 42-gallon barrels ..	55	54	United Kingdom 32.
Other:			
Liquefied petroleum gas ----- do.	9	--	
Unspecified ----- do.	3	--	
Total ----- do.	1,081	251	
Mineral tar and other coal-, petroleum-, or gas-derived crude chemicals -----	263	128	NA.

NA Not available.

¹Less than 1/2 unit.

Table 3.—Ireland: Imports of mineral commodities

(Metric tons unless otherwise specified)

Commodity	1977	1978	Principal sources, 1978
METALS			
Aluminum:			
Bauxite and concentrate -----	282	330	NA.
Oxide and hydroxide -----	3,142	3,067	United Kingdom 2,873.
Metal including alloys:			
Scrap -----	145	441	NA.
Unwrought -----	5,625	6,333	Norway 3,316; United Kingdom 2,188.
Semimanufactures -----	10,465	14,098	United Kingdom 6,388; United States 3,057.
Chromium:			
Chromite -----	6,445	NA	
Oxide and hydroxide -----	62	87	NA.
Cobalt oxide and hydroxide ----- kilograms ..	600	1,200	NA.
Copper metal including alloys:			
Scrap -----	68	95	NA.
Unwrought -----	333	161	NA.
Semimanufactures -----	13,975	15,746	United Kingdom 12,126.
Iron and steel:			
Ore and concentrate -----	60	--	
Metal:			
Scrap -----	2,228	9,051	United Kingdom 5,485.
Pig iron, including cast iron -----	714	1,345	NA.
Sponge iron, powder, shot -----	856	964	NA.
Ferromanganese -----	544	990	NA.
Steel, primary forms -----	12,916	17,004	United Kingdom 12,248.
Semimanufactures:			
Bars, rods, angles, shapes, sections -----	139,158	143,594	United Kingdom 73,011; Belgium-Luxembourg 24,303; Spain 18,254.
Universals, plates, sheets -----	150,041	154,515	United Kingdom 73,795; France 20,022.
Hoop and strip -----	14,701	14,418	United Kingdom 10,036.
Rails and accessories -----	7,565	15,334	United Kingdom 8,974; West Germany 3,541.
Wire -----	15,752	11,139	United Kingdom 7,296.
Tubes, pipes, fittings -----	51,239	59,132	United Kingdom 29,780; Italy 6,729; India 4,892.
Castings and forgings, rough -----	3,680	3,068	United Kingdom 1,313; Italy 882; France 457.
Total -----	382,136	401,200	
Lead:			
Oxides -----	3,116	2,421	Mainly from United Kingdom.
Metal including alloys, all forms -----	3,139	5,012	United Kingdom 3,563.
Magnesium metal including alloys, all forms -----			
136	NA		
Manganese:			
Ore and concentrate -----	26,039	37,120	Ghana 36,942.
Oxides -----	109	187	NA.
Mercury ----- 76-pound flasks ..	96	954	NA.
Molybdenum metal including alloys, all forms -----	1	NA	
Nickel:			
Matte, speiss, similar materials -----	1	29	NA.

See footnotes at end of table.

Table 3.—Ireland: Imports of mineral commodities —Continued

(Metric tons unless otherwise specified)

Commodity	1977	1978	Principal sources, 1978
METALS —Continued			
Nickel —Continued			
Metal including alloys:			
Scrap	—	2	NA.
Unwrought and semimanufactures	335	697	United Kingdom 234; West Germany 114; United States 90.
Platinum-group and silver metals including alloys:			
Platinum-group value, thousands	\$1,350	\$1,240	United Kingdom \$1,236.
Silver do	\$1,223	\$1,480	United Kingdom \$1,397.
Rare-earth metals including alloys	11	33	NA.
Tin:			
Oxides	82	NA	
Metal including alloys, unwrought and semimanufactures	102	108	United Kingdom 50.
Titanium oxides	3,677	3,644	United Kingdom 1,265; France 646.
Tungsten metal including alloys, all forms			
	6	NA	
Zinc:			
Oxides	927	929	United Kingdom 817.
Metal including alloys:			
Scrap	580	147	NA.
Unwrought	2,020	2,184	United Kingdom 1,494.
Semimanufactures	1,351	3,581	United Kingdom 2,929.
Other:			
Ores and concentrates	906	NA	
Ash and residue containing nonferrous metals	1,609	449	NA.
Oxides, hydroxides, pentoxides of metals	337	314	NA.
Base metals including alloys, all forms	398	NA	
NONMETALS			
Abrasives, natural:			
Crude, n.e.s.	2,052	2,132	NA.
Grinding and polishing wheels and stones	549	629	United Kingdom 269; West Germany 162.
Asbestos	6,656	8,014	Cyprus 3,880; Republic of South Africa 2,397.
Barite and witherite	402	425	NA.
Boron materials:			
Crude natural borates	2,684	1,762	Netherlands 1,082; United States 680.
Oxide and acid	69	101	NA.
Cement	30,973	314,082	United Kingdom 121,046; Belgium-Luxembourg 54,443.
Chalk	6,935	8,197	United Kingdom 5,314.
Clays and clay products (including all refractory brick):			
Crude	31,503	36,854	United Kingdom 28,693.
Products:			
Refractory (including nonclay brick)	16,010	15,777	United Kingdom 10,587.
Nonrefractory	18,837	43,721	United Kingdom 35,739.
Diamond, all grades carats	(¹)	60,000	NA.
Feldspar and fluorspar	6,227	6,165	NA.
Fertilizer materials:			
Crude:			
Phosphatic	120,995	104,728	Morocco 76,831; United States 21,566.
Potassic	—	10	NA.
Other	1,480	1,839	NA.
Manufactured:			
Nitrogenous	147,829	137,204	United Kingdom 38,694; Belgium-Luxembourg 22,734.
Phosphatic	129,534	154,982	United States 52,485; United Kingdom 37,852.
Potassic	279,153	334,022	West Germany 107,879; France 78,644.
Other	304,388	326,272	United Kingdom 221,473; United States 55,934.
Ammonia	122,156	107,565	Netherlands 106,796.
Graphite, natural	96	88	NA.
Gypsum and plasters	4,268	3,981	United Kingdom 2,589.
Lime	1,720	1,964	NA.
Magnesite	16,589	22,479	Greece 12,749; Spain 4,365.
Mica:			
Crude, including splittings and waste	202	594	NA.

See footnotes at end of table.

Table 3.—Ireland: Imports of mineral commodities —Continued

(Metric tons unless otherwise specified)

Commodity	1977	1978	Principal sources, 1978
NONMETALS —Continued			
Mica —Continued			
Worked -----	--	31	NA.
Pigments, mineral:			
Natural, crude -----	156	NA	
Iron oxides, processed -----	1,388	1,535	West Germany 1,019.
Precious and semiprecious stones, excluding diamond value -----	\$403	NA	
Salt -----	72,261	77,221	United Kingdom 59,845; West Germany 10,547.
Sodium and potassium compounds, n.e.s.:			
Caustic soda -----	18,030	22,180	United Kingdom 19,072.
Caustic potash and sodic and potassic peroxides -----	748	583	NA.
Stone, sand and gravel:			
Dimension stone:			
Crude and partly worked:			
Calcareous -----	1,562	2,123	Italy 1,874.
Slate -----	497	549	NA.
Other -----	1,622	6,333	Republic of South Africa 3,763.
Worked:			
Slate -----	322	937	France 563.
Paving stone and flagstone -----	--	32	NA.
Other -----	926	1,239	NA. 853.
Dolomite -----	1,955	944	NA.
Gravel and crushed stone -----	216,119	282,429	United Kingdom 278,694.
Limestone, except dimension -----	4,234	3,009	NA.
Quartz and quartzite -----	238	465	NA.
Sand, excluding metal bearing -----	98,012	126,676	United Kingdom 27,091; Belgium-Luxembourg 24,099.
Sulfur:			
Elemental:			
Colloidal -----			
Other than colloidal -----	146	19	NA.
Sulfur dioxide -----	10,754	8,592	Canada 8,139.
Sulfuric acid -----	3,988	7,544	United Kingdom 5,100.
Talc, steatite, soapstone, pyrophyllite -----	44,467	34,678	United Kingdom 33,501.
Other: -----	1,951	1,988	United Kingdom 1,542.
Crude -----			
Slag, dross, and similar waste, not metal bearing -----	7,490	6,233	NA.
Oxides and hydroxides of magnesium, strontium, barium -----	1,364	2,291	NA.
Building materials of asphalt, asbestos, and fiber cement, and unfired nonmetals, n.e.s -----	20	23	NA.
	11,372	14,027	United Kingdom 12,764.
MINERAL FUELS AND RELATED MATERIALS			
Asphalt and bitumen, natural -----	2,515	3,004	United Kingdom 1,232.
Carbon black and gas carbon -----	18,721	11,468	United Kingdom 11,272.
Coal: Anthracite and bituminous coal thousand tons -----	868	839	Poland 600; United Kingdom 213.
Coke and semicoke ----- do. -----	35	5,437	United Kingdom 5,399.
Hydrogen and rare gases -----	2,590	3,356	United Kingdom 2,228.
Petroleum:			
Crude and partly refined			
thousand 42-gallon barrels -----	16,054	15,255	Iran 5,790; Saudi Arabia 5,616.
Refinery products:			
Gasoline ----- do. -----	4,842	5,325	United Kingdom 5,020.
Kerosine ----- do. -----	2,722	2,984	United Kingdom 2,947.
Distillate fuel oil ----- do. -----	4,708	5,357	United Kingdom 3,676; U.S.S.R. 1,257.
Residual fuel oil ----- do. -----	12,068	11,558	United Kingdom 6,875; U.S.S.R. 1,445; Italy 1,421.
Lubricants ----- do. -----	364	411	United Kingdom 393.
Other:			
Liquefied petroleum gas ----- do. -----	673	940	NA.
Mineral jelly and wax ----- do. -----	26	22	United Kingdom 15.
Nonlubricating oils, n.e.s ----- do. -----	609	NA	
Bitumen and other residues ----- do. -----	500	748	United Kingdom 722.

See footnotes at end of table.

Table 3.—Ireland: Imports of mineral commodities —Continued

(Metric tons unless otherwise specified)

Commodity	1977	1978	Principal sources, 1978
MINERAL FUELS AND RELATED MATERIALS —			
Continued			
Petroleum —Continued			
Refinery products —Continued			
Other —Continued			
Bituminous mixtures, n.e.s. ----- do. -----	56	66	United Kingdom 65.
Pitch and pitch coke ----- do. -----	2	1	NA.
Total ----- do. -----	26,570	27,412	
Mineral tar and other coal-, petroleum-, or gas-derived crude chemicals -----	4,998	5,597	United Kingdom 5,536.

NA Not available.

¹Less than 1/2 unit.

COMMODITY REVIEW

METALS

Aluminum.—Site preparation began in August 1978 for the new \$500 million, 800,000-ton-per-year alumina plant on Aughinish Island, in the Shannon estuary near Foynes. By yearend 1979, cost estimates reached \$700 million.

By late 1978, financing arrangements were completed by the controlling consortium, Aughinish Finance Ltd., members of which were Alcan Ireland Ltd. (40%), Anacanda Ireland Ltd. (25%), and Billiton Aluminium Ireland Ltd. (35%). Loan agreements totaled \$308 million, of which \$250 million was in the form of a Eurodollar loan provided by 16 international banks led by the Citicorp International Group, and \$58 million was in Irish pounds contributed by a group of Irish banks led by the Bank of Ireland. United Kingdom export credits had been obtained in February 1978 totaling about \$146 million.

The project on Aughinish Island was the largest and most costly ever undertaken in Ireland, and when completed in 1982 or 1983 will employ 800 persons. Unfortunately the construction work was plagued by a series of 16 work stoppages by the end of 1979. The bauxite to be processed in the plant was to come from Guinea (West Africa) and Brazil. The alumina product was to be exported to aluminum smelters in North America and the European Economic Community, of which Ireland is a member.

Iron and Steel.—Irish Steel Holdings (ISH), sole domestic producer, reached a preliminary accord in 1978 with Ste. Metalurgique de Normandie, a French producer, to exchange certain products. This would permit ISH to proceed on its modernization and expansion program at its plant near Cork without a net expansion within the European Economic Community (EEC),

which would have infringed on EEC rules to limit capacity in the depressed market. Normandie agreed to close its 50,000-ton-per-year, 450-millimeter section mill and would sell on behalf of ISH 60,000 tons per year of merchant bars. ISH would in turn market 60,000 tons per year of wire rod from Normandie.

ISH's expansion plans would increase capacity to some 300,000 tons per year, twice the present level, with startup scheduled for June or July 1980; a three-strand continuous bloom caster and 90-ton arc furnace were to be purchased as part of the £40 million (about \$80 million) expansion. The financing package approved by the Government for the expansion plus ancillary facilities totaled £60 million, including £17.5 million from the European Economic Community, £4 million from the Irish Development Authority, £10 million to £12 million from United Kingdom leasing facilities, equity financing of £10.5 million, and the balance from short-term loans from Irish banks.

Lead-Zinc.—Ireland's new major metal mine, Tara Mines, at Navan, suffered an estimated \$12 million loss in 1978. Weak base metal prices, particularly that of zinc, affected profits in the first half, and there was a 6-week strike in the quarter. Full production at the scheduled rate of 400,000 tons of zinc concentrates and 70,000 tons of lead concentrates, from 2.3 million tons of ore, which was expected to be reached by the end of 1978, was delayed at least another 6 months. The resulting financial bind, amounting to a total indebtedness of about \$170 million by mid-1979, caused Tara Mines to request rescheduling of its debt repayments to the Toronto Dominion Bank and the Export Development Corporation of Canada. Approval of the Irish Government,

which owns 25% of Tara, was awaited as Tara continued to suffer a series of debilitating strikes.

The Tynagh mine in County Galway, which was operating unprofitably and was scheduled to be closed by 1980, was shut down twice during the period, also because of strikes. Employees objected to the terms of proposed severance benefits supplementing payments required by Irish law. About 350 employees were due to lose their jobs. The third active Irish lead-zinc mine, Silvermines, in County Tipperary, continued in expectation of closing in the early 1980's.

Activity continued at the two new mines slated for development near Tara Mines. A Government-sponsored study on diversion of the Blackwater River, which flows across the mining area, was completed late in 1978. Bula and Tara continued to disagree about sharing the £4 million cost of diverting the Blackwater to permit underground operations; the mines are only about a mile apart. Bula Ltd. also submitted to county authorities a new plan for surface and underground mining operations, replacing the one rejected in 1976. Some 1 million tons will be mined annually, yielding 150,000 tons of lead and zinc concentrates.

At the other property, Rennicks & Bennett, at Scallanstown, near Navan, reserves were reevaluated at 2 million tons grading 7% combined lead and zinc. Messina (Transvaal) Development Company Limited exercised its option to take a 47.5% interest in the mine. This action reduced the share of Sabina Industries Ltd. of Canada to 30.45% and that of two local companies, Glencar and Rennicks & Bennett, to 17% and 5%, respectively. Messina was still to make a feasibility study and was to assume 60% of any eventual development cost. An agreement to share the nearby Tara plant was being considered.

The Irish Government Industrial Development Authority decided to go ahead tentatively with the long-discussed zinc refinery in spite of the withdrawal of the New Jersey Zinc Company from the project in January 1978. A site at Ballylongford, County Kerry, on the south bank of the Shannon estuary, was chosen, and a search was instituted for partners to share the cost, which could reach \$200 million. The proposal of the Soviet Government to build the plant was rejected, and a Government mission to Japan in September 1978 evoked a promise from Mitsui Mining and Smelting

Co. Ltd. to study the plans. An electrolytic refinery was considered most likely.

NONMETALS

Barite.—Growth continued in Ireland's barite industry, already the largest in Western Europe. Milchem Inc. reopened the Lady's Well mine near Clonakilty, County Cork, in August 1979 after finishing an exploration and diamond drilling program started in 1976; a rate of 50,000 tons of barite per year was to be reached. The product will go to Milchem's grinding facilities on the U.S. gulf coast via rail to the port of Cork. The Glencarbury (Benbulbin) mine at Ballintrillick, County Sligo, was being operated by Imco. Inc. (Halliburton), and a second mine in the Benbulbin area of Sligo was also to be opened by Glencar Exploration Ltd.

Major barite production in Ireland continued to come from the Silvermines (Ballynoe) deposit of Dresser Minerals (Magcobar) in Tipperary, which has a capacity of 290,000 tons per year; and from the Tynagh lead-zinc mine in Galway, where Milchem has a flotation plant with a capacity to recover about 60,000 tons per year of barite from the tailings pond.

Nitrogen.—The 366,000-ton-per-year (nitrogen content) ammonia plant, built by Nitrigin Eireann Teoranta at Marino Point in Cork Harbor, came onstream early in 1979. A urea plant with a capacity of 142,000 tons per year (nitrogen content) followed shortly thereafter. Although domestic consumption of nitrogen in fertilizers was rising rapidly, it still was well below the plant capacity, and a substantial surplus for export was expected to be available.

MINERAL FUELS

Natural Gas.—The first flow of natural gas from the Kinsale offshore field reached the landfall at Inch Bay, southeast of Cork, in October 1978, some 6 months ahead of the original schedule. The accelerated completion was a result of finishing the two production platforms in one season, at the insistence of the Government. Officials of Marathon Petroleum Ireland Ltd., the operator, announced publicly their request for additional recompense for the costs of this acceleration. At the same time they expressed regret at the lack of discipline and excessive demands made by the labor union, the Irish Transport and General Workers Union.

Petroleum.—After a record 15 wildcat wells drilled offshore in 1978, the first

significant, but still noncommercial, find was made by a group comprising Phillips (the operator), Getty, Amerada-Hess, and Century Power and Light, in the Porcupine Basin, some 110 miles west of the Shannon estuary. The find had a flow of 730 barrels per day of good-quality low-sulfur crude but was made in very deep water (1,411 feet).

British Petroleum Development Ltd. also announced, in mid-1979, that it had encountered oil flows from three separate sands on Block 26/28 offshore about 1,120 miles west of Galway, also in the Porcupine Basin. The flows were not economic and were in more than 1,200 feet of water, but a decision was to be made whether to explore further in the same area.

Three major question marks faced the Irish Government if the oil exploration attained some degree of success: One was the question of the boundaries of the national jurisdiction, since the line between Ireland and the United Kingdom continued to be in dispute; second was the possible construction of a new refinery, as the sole existing refinery provided only 40% of domestic requirements (capacity was about 56,000 barrels per day) and was over 20 years old; a third major issue would be the possible formation of a national oil company. In July 1979, the Government announced the formation of a national oil company, and early in 1980, the British Government accepted an Irish proposal for arbitration of their mutual boundaries, but progress was expected to be slow.

Uranium.—Four areas in the Republic were the principal sites of searches for uranium. In 1978, the most advanced work was that undertaken by Maugh Ltd., a subsidiary of the French Government company Minatome. Maugh received 27 uranium-only licenses for an area in the Leinster Granites of the southeast; the most significant anomaly found was at Tullow, County Carlow. In the general area Irish Base Metals Ltd. (IBM), subsidiary of North-

gate Exploration of Canada, focused on a site near Thomaston after Hunting Geology and Geophysics Ltd., which had the year before conducted an airborne spectrometer survey for Aquitaine Mining Ireland Ltd., completed a similar survey for IBM and its partner, Tara Prospecting Ltd. Munster Base Metals, a wholly owned subsidiary of Anglo United Development Corp., a Canadian company, held licenses in the Fintown area of County Donegal, where a significant radiometric anomaly was located; trenching and a bedrock channel sampling program were underway, and drilling started in 1979 with six shallow holes; results ranged from 0.32 pound per short ton over 11 feet to 112.2 pounds per short ton over 24.9 feet. Another Canadian company, Argosy Mining Corporation of Toronto, carried out geochemical and scintillometer surveys at Allihies, in the far southwest of County Kerry. Maugh, Irish Base Metals, and also the Geological Survey of Ireland received grants from the EEC under the EEC's Euratom program.

In mid-1978, the Government issued a Green Paper in which it saw little alternative to building at least one nuclear reactor. In view of expected major growth in energy use (estimated at 7% for several years and 5% thereafter), dependence on imported oil could become dangerous, and one 300-megawatt power station was being planned, to use coal but with provision to convert to oil if the search for offshore oil should be successful. The 650-megawatt nuclear reactor planned for Carnsore Point for 1987-88 was also a necessity because it would permit stockpiling several years' supply of fuel. Several protests were organized against building the Carnsore Point plant, particularly after reports were received of the Three Mile Island failure in the United States.

¹Supervisory physical scientist, Branch of Foreign Data.

²Average exchange rate in 1978 and 1979 was £1.0=US\$2.00.

