The Mineral Industry of New Zealand

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Owing to its diverse geology and dynamic tectonic history, New Zealand's economic minerals include coal, industrial and metallic minerals, natural gas, and petroleum. Although gold and silver continued to dominate the metal mining sector in 2004, coal mining and the production of a wide assortment of industrial minerals, which ranged from bentonite to zeolite, were prominent and important for New Zealand's economy. The mining industry also contributed to other sectors of the economy, such as agriculture (fertilizer), primary industry (coal and ironsand), manufacturing (industrial minerals), and transportation (road aggregate). The Ministry of Economic Development (2005a§[1]) reported that the value of mining industry production in 2004 was about $757 million, of which industrial mineral production was valued at $316 million; coal production, about $273 million; gold, about $134 million; and ironsand (magnetite), $6 million.

According to the International Monetary Fund (2005§), New Zealand's gross domestic product (GDP) based on purchasing power parity was estimated to be about $97 billion in 2004. The GDP per capita based on purchasing power parity was calculated to be $23,944.

In addition to the numerous coal, gold placer, and industrial minerals operations, several oilfields, and a few gold-silver mines, New Zealand had three large downstream processing plants. New Zealand Aluminum Smelters Ltd. operated the 333,000-metric-ton (t)-per-year-capacity Tiwai Point Smelter at Bluff near Invercargill on South Island. The alumina used to produce the aluminum at Tiwai Point was imported from the Comalco Group's alumina refineries in Australia. New Zealand Steel Ltd. (NZ Steel) operated the Glenbrook steel mill, which was located south of Aukland. The iron used by NZ Steel was in the form of titanomagnetite-rich sand derived from the coastal erosion of the Mount Taranaki volcanics. Two such ironsand mines are located in New Zealand—Taharoa and Waikato North Head. NZ Steel mined at both sites, but only the Waikato North Head material was used for the Glenbrook steelworks; the Taharoa ironsand was exported to Chinese and Japanese steel mills. The New Zealand Refining Co. Ltd. operated the 39-million-barrel-per-year-capacity Marsden Point Refinery near Whangarei, which processed about 40% of New Zealand's crude oil production (Ministry of Economic Development 2005b§; Comalco Group, undated§).

[1]References that include a section mark (§) are found in the Internet References Cited section.

Internet References Cited

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Major Source of Information

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TABLE 1
NEW ZEALAND: PRODUCTION OF MINERAL COMMODITIES[1]

(Metric tons unless otherwise specified)

Commodity		2000	2001[e]	2002	2003[e]	2004[p]
METALS						
Aluminum metal, smelter:						
Primary		328,400	322,300 [2]	333,900	334,400 [2]	350,400
Secondary		21,500	21,500	21,500	21,500	21,500
Total		350,000 [r, e]	343,800 [2]	355,400	355,900 [2]	371,900
Gold, mine output, Au content	kilograms	9,880	9,885 [2]	9,770 [e]	9,300 [r]	10,151
Iron and steel:						
Iron sand, titaniferous magnetite, gross weight	thousand metric tons	2,692	1,636 [2]	1,740	1,947 [2]	2,329
Pig iron[e]	do.	600	600	600	600	650
Steel, crude[e]	do.	765 [2]	770 [2]	750	800	850
Lead, refinery output, secondary[e]		10,000	10,000	10,000	10,000	10,000
Silver, mine output, Ag content	kilograms	22,886	27,120 [2]	28,720	29,920 [r, 2]	30,084
INDUSTRIAL MINERALS						
Cement, hydraulic[e]	thousand metric tons	950	950	950	950	1,000
Clays:						
Bentonite		9,800	10,000	7,800	10,940 [2]	10,050
Kaolin, pottery		16,300	15,000	17,200	14,770 [r, 2]	15,240
For brick and tile		69,800	70,000	47,500	56,550 [2]	57,350
Diatomaceous earth		15	15	20	320 [2]	240
Lime[e]		20,000	20,000	20,000	20,000	20,000
Marble[e]		15,000	15,000	15,000	15,000	15,000
Nitrogen, N content of ammonia		105,300	116,900 [2]	109,200	110,000	110,000 [e]
Perlite[3]		2,200	2,200	7,050	5,000 [2]	5,600
Pumice		68,000	68,000	203,700	173,400 [2]	280,950
Salt[e]		60,000	70,000 [2]	70,000	70,000	70,000
Sand and gravel:						
Silica sand, glass sand		47,400	47,500	60,150	48,400 [2]	60,080
Other industrial sand		660,300	660,000	575,700	2,207,190 [r, 2]	1,753,140
For roads and ballast	thousand metric tons	18,336	18,000	18,522	18,500	19,500 [e]
For building aggregate	do.	7,499	7,500	8,026	9,267 [r, 2]	11,362
Stone:						
Dolomite		47,800	47,500	24,720 [r]	21,920 [2]	12,000
Limestone and marl:						
For agriculture	thousand metric tons	2,029	2,000	2,472 [r]	2,557 [r, 2]	1,913
For cement	do.	1,603	1,600	1,697	1,652 [2]	1,839
For other industrial uses	do.	527	500	865	731 [r, 2]	561
For roads[e, 4]	do.	20,000	20,000	20,000	20,520 [2]	20,600
Serpentine		51,500	51,500	61,300	68,960 [2]	60,880 [2]
Dimension		28,700	29,000	30,200	37,300 [2]	26,110
Rock for harbor work[e]	thousand metric tons	1,500	1,500	1,500	1,500	2,000
MINERAL FUELS AND RELATED MATERIALS						
Carbon dioxide, liquefied[e]		10,000	10,000	10,000	10,000	10,000
Coal, all grades	thousand metric tons	3,586	3,911 [2]	4,459	5,180 [2]	5,154
Gas:[e]						
Manufactured, from gasworks	thousand cubic meters	11,000	11,000	11,000	11,000	11,000
Natural:						
Gross production	million cubic meters	5,700	5,750	5,780	5,800	5,800
Marketed production	do.	4,100	4,500	5,000	5,000	5,000
Natural gas liquids:[e]						
Liquefied petroleum gas	thousand 42-gallon barrels	2,000	2,000	2,100	2,200	2,200
Natural gasoline	do.	700	700	750	800	800
Total	do.	2,700	2,700	2,850	3,000 [r]	3,000
Peat	cubic meters	97,200	95,000	90,000	90,000	90,000

See footnotes at end of table.

TABLE 1--Continued
NEW ZEALAND: PRODUCTION OF MINERAL COMMODITIES

(Metric tons unless otherwise specified)

Commodity		2000	2001[e]	2002	2003[e]	2004[p]
MINERAL FUELS AND RELATED MATERIALS--Continued						
Petroleum:[e]						
Crude	thousand 42-gallon barrels	13,160 [2]	12,400	11,700	8,711 [2]	8,711
Refinery products:						
Gasoline	do.	8,500	9,000	9,000	9,000	9,000
Distillate fuel oil	do.	13,000	14,000	14,000	14,000	14,000
Residual fuel oil	do.	3,500	4,000	4,000	4,000	4,000
Other	do.	3,500	4,000	4,000	4,000	4,000
Refinery fuel and losses	do.	2,000	3,000	3,000	3,000	3,000
Total	do.	30,500	34,000	34,000	34,000	34,000

[e]Estimated; estimated data are rounded to no more than three significant digits; may not add to totals shown. [p]Preliminary. [r]Revised.
[1]Table includes data available through November 15, 2005.
[2]Reported figure.
[3]Includes zeolite.
[4]Includes dolomite.