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### ARCHIVED - Aluminum

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### Canadian Minerals Yearbook (CMY) - 2009

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#### HIGHLIGHTS

- The global recession resulted in an 8.2% drop in aluminum demand for 2009 compared to 2008, but global production dropped by only 5.9%. London Metal Exchange (LME) inventories soared to 4.6 Mt as the average aluminum price in 2009 dropped by 35% compared to 2008.
- The Canadian aluminum industry is in the process of closing older Söderberg technology smelters and replacing them with larger prebake technology smelters. These smelters are more energy efficient and emit less greenhouse gases and particulates. This process is expected to be completed by 2015 in Quebec, while a modernization and expansion project at the Rio Tinto Alcan (RTA) smelter in Kitimat, British Columbia, has been announced but no definite construction date has been set.
- Due to low energy costs and efficient smelters, Canadian aluminum production was only slightly affected by the recession, decreasing by only 3.2% in 2009. The production decrease in Canada was due to the closing of the RTA Beauharnois smelter (old Söderberg technology), RTA Kitimat's decision to reduce overtime and close production cells that require relining, and the closing by the Alcoa Baie-Comeau smelter of its series A Söderberg potline for its modernization and expansion project.
- The growing Chinese economy, aided by China's US\$685 billion stimulus package to support economic growth (announced in the second quarter of 2009), helped to increase aluminum prices and demand.

TABLE A

2009	Amount	Value (p)
Primary aluminum production	3.06 Mt	\$5.0 billion
Imports (unwrought)	0.11 Mt	\$0.2 billion
Imports (HS Chapter 76) (a)	n.a.	\$4.4 billion
Exports (unwrought)	2.5 Mt	\$4.9 billion
Exports (HS Chapter 76) (a)	n.a.	\$7.5 billion

n.a. Not applicable; (p) Preliminary.

(a) In the classification of export statistics, Harmonized System Chapter 76 includes codes for identifiable aluminum products, including primary metal, semi-fabricated products, and products made of aluminum. See Table 1 for a listing of the main codes. Export data can be obtained at [http://strategis.gc.ca/sc\\_mrkti/tdst/engdoc/tr\\_homep.html](http://strategis.gc.ca/sc_mrkti/tdst/engdoc/tr_homep.html) or from Statistics Canada at [www.statcan.gc.ca/start-debut-eng.html](http://www.statcan.gc.ca/start-debut-eng.html).

## PRIMARY ALUMINUM CASH PRICE, LME, 2007-09

	2007		2008		2009	
	(US\$/t)	(US\$/lb)	(US\$/t)	(US\$/lb)	(US\$/t)	(US\$/lb)
Year average	2 640	120	2 571	117	1 668	76
Start of year	2 830	129	2 366	107	1 492	68
End of year	2 360	107	1 455	66	2 208	100
Year high	2 953	134	3 292	148	2 266	103
Year low	2 317	105	1 423	65	1 254	57

## INTRODUCTION

Canada ranked third in the world for primary aluminum production with an installed capacity of 3.07 Mt/y at the end of December 2009.

World production of primary aluminum in 2008 was 39.6 Mt but, with low demand, falling prices, and increasing inventories at the end of 2008, production cuts were implemented. The production cuts continued in 2009, resulting in a 6.4% drop in production to 37.1 Mt. In the first quarter of 2009, the market was still seriously out of balance with record inventories and production overcapacity, which caused the price to drop to \$0.57/lb. In the second quarter, the global economy ended its descent and a limited recovery began, along with the announcement of many government stimulus programs, which helped the price of aluminum recover to \$1.03/lb at the end of 2009. Inventories remained high throughout the year, but a high proportion was tied up in financial deals making it unavailable for use. These contracts are expected to unwind and, along with the start-up of new capacity in 2010, will put downward pressure on aluminum prices.

Alumina spot prices were very volatile in 2009, starting the year with a huge production surplus that caused the price to decrease from \$189/t at the beginning of the year to a low of \$175/t in March. As the demand/supply situation improved, spot prices increased to \$300-\$310/t in September and moved slightly higher to \$310-\$320/t by the end of 2009.

## CANADIAN DEVELOPMENTS

The production of primary aluminum in Canada decreased by 3.2% to 3.06 Mt in 2009 from 3.16 Mt in 2008, ranking Canada third after China (13.3 Mt) and Russia (4.2 Mt) in terms of world primary production. The production decrease was due to the closing of pots at Kitimat that needed to be repaired, the closing of the Beauharnois smelter, and the closing of the series A Söderberg potline for replacement with prebake technology at Alcoa's smelter in Baie-Comeau.

The Government of Quebec has passed environmental laws effective in 2015 with which the Söderberg technology smelters cannot comply. These smelters will either be shut down or modernized. RTA's Beauharnois smelter (50 000 t/y) was permanently closed in 2009 due to the economic slowdown. Its Shawinigan smelter is the only fully operating Söderberg smelter in Quebec.

Alcoa and Hydro-Québec agreed to a long-term power supply for Alcoa's three primary aluminum smelters in Canada, and Alcoa subsequently announced in November 2008 that it was starting the modernization of its Baie-Comeau smelter by permanently shutting down its series A Söderberg potline. The Government of Quebec has made a \$50 million loan available to Alcoa to help with modernization of the Baie-Comeau smelter. The modernization project, which is expected to be completed in 2015, will replace 542 Söderberg pots and 480 AP18 prebake pots with new prebake technology, resulting in an increased plant capacity of 548 000 t/y. The new smelter will significantly reduce Baie-Comeau's emissions of particulate matter, polyaromatic hydrocarbons, and perfluorocarbons, while increasing production.

In May 2009, the Government of Quebec granted an additional loan of \$175 million to RTA so that construction of the AP50 60 000-t/y pilot smelter could continue; RTA slowed the pace of construction and a completion date has not been announced. This pilot plant was originally scheduled to come on stream in late 2010. The initial phase was to be followed by the construction of a new 390 000-t/y smelter in the Saguenay-Lac-St-Jean area.

RTA announced that its Kitimat modernization plan has also been slowed with no completion date. The time constraint of 2015 does not apply to the Kitimat smelter since it is the only primary aluminum smelter located outside of Quebec. This project would replace the existing Söderberg cells with AP35 technology and expand the smelter's capacity from 277 000 t/y to 400 000 t/y.

RTA's Vaudreuil (Jonquière) alumina refinery cut back its production in early 2009 but, as markets rapidly improved, it was brought back into full production in the fourth quarter of the year. Vaudreuil produced 1 125 000 t in 2009, which was a cutback of 245 000 t, or about 18% below 2008 production of 1 370 000 t.

Both Rio Tinto and Alcoa are included in the Dow Jones Sustainability Index. Individually, they and their regional operations organize and participate in various social, community, and environmental initiatives in Canada and around the world.

RTA is a founding partner of the new Centre of Excellence in Energy Efficiency in Shawinigan, Quebec, and will contribute \$1.4 million to the project for the next five years. The project will specialize in the development of energy efficiency and new energy technologies. The Centre will bring together key players from industry, financial institutions, the knowledge community, local stakeholders, and government agencies.

In its commitment to the community, RTA has made a \$1 million donation to the Montreal Neurological Institute, which is associated with McGill University. The NeuroEngineering program will focus on spinal cord injuries and on restoring and repairing the nervous system. RTA also sponsors cultural events such as the Festival International de Jazz de Montréal and has recently launched a new music-themed educational program for Montréal youth.

The “Grand Prix québécois de la qualité 2009” was awarded to Aluminerie Alouette. This award is managed jointly by the Quebec Ministry of Economic Development, Innovation and Export Trade and the Mouvement québécois de la qualité. The Grand Prix is the highest distinction in Quebec in terms of operational excellence; companies that receive this award are considered to be leaders and models in Quebec.

The Aluminium Association of Canada links the Canadian aluminum industry, aluminum users, the public, and government. Its activities during 2009 included an end-user awareness campaign targeting government procurement personnel, architects, and engineers in order to improve awareness of the multiple uses of aluminum for institutional buildings and mass transit equipment. The Aluminium Association also produced an economic study outlining the contribution the industry makes to the Quebec economy. The report indicated that the primary aluminum industry in Quebec employs 10 500 people with an average plant salary of \$69 000, has created 20 000 indirect jobs, and spends over \$4.2 billion each year. Further information and links to the web sites of Canadian primary aluminum producers can be found on the Association’s web site at [www.aac.aluminium.qc.ca](http://www.aac.aluminium.qc.ca).

## Exploration

Exploration Orbite V.S.P.A. Inc. has been conducting exploration and research on the production of alumina from high-alumina clay found in the Murdochville region on the Gaspé Peninsula in Quebec. The property is located 32 km northeast of Murdochville where surficial deposits of clay contain up to 24%  $\text{Al}_2\text{O}_3$ . New technological components have been developed with the Centre d’études des procédés chimiques du Québec that could potentially make commercial production of  $\text{Al}_2\text{O}_3$  from clay competitive. Based on these technological advancements, Exploration Orbite is now in the process of building a \$6 million pilot plant and expects an alumina extraction rate of 80% from the clay. Aluminerie Alouette has loaned Exploration Orbite \$1 million and is providing technical support to the project (i.e., access to Alouette’s service laboratories and tests for the production of aluminum ingots using one of Alouette’s 18 test electrolysis cells). The pilot plant is expected to start producing a high-purity specialty alumina in 2012 starting at a rate of 1 t/d and working up to 50-100 t/d by 2014. It will also produce a metallurgical-grade alumina starting at a rate of 500 t/d in 2012/13.

## Outlook

Canadian installed capacity for the production of primary aluminum is now 3.07 Mt/y. Canada is expected to produce approximately 3.00 Mt of primary aluminum in 2010 and is expected to maintain its rank as the third largest primary producer in the world after China and Russia.

Primary aluminum production will decrease slightly over the next few years as Söderberg technology smelters are shut down and replaced by new prebake technology.

Over the longer term, Canadian production should increase due to capacity creep, the Kitimat smelter’s modernization and expansion, the Saguenay–Lac-Saint-Jean AP50 technology pilot plant, and the Baie-Comeau smelter’s modernization and expansion.

## WORLD PRODUCTION, USE, AND INVENTORY

World production of primary aluminum decreased 6.1% from 38.76 Mt in 2008 to 36.36 Mt in 2009. After declining 6.1% in 2009, world production is expected to rise by 10% in 2010 to 40 Mt.

The International Aluminium Institute (IAI) indicates that members’ average production of primary aluminum for the year to March 2010 was 66 000 t/d, up 900 t/d from March 2009. It also reports the average rate of consolidated production (IAI members plus China) was 99 600 t/d for 2009, a decrease of 6300 t/d, although the average for the month of March 2010 was 110 900 t/d. Additional information can be obtained from the IAI’s web site at [www.world-aluminium.org](http://www.world-aluminium.org).

IAI total inventories started the year at 2.96 Mt and then decreased to end the year at 2.23 Mt. London Metal Exchange (LME) high-grade inventories started the year at approximately 2.34 Mt, increased rapidly until April, and then remained relatively constant to end 2009 at 4.62 Mt.

Combined IAI members and LME aluminum inventories totaled approximately 6.85 Mt at the end of 2009. This represented about 67 days of global supply. It should be noted that an estimated 3.0 Mt is tied up in long-term financing deals and is unavailable for immediate use.

The IAI also reported that members’ refined alumina production capacity decreased from 63.7 Mt/y in December 2008 to 61.2 Mt/y in December 2009, while alumina production also decreased from 60.5 Mt in 2008 to 53.7 Mt in 2009.

Chinese alumina production rose from 22.8 Mt in 2008 to 23.8 Mt in 2009.

After the first quarter, the price of aluminum started to recover rapidly with production capacity increases occurring mainly in China and the Middle East. Smelters in the Western World have shown little inclination to restart idled capacity or increase utilization rates. U.S. and European smelters pay higher energy rates, which increases the possibility of further cutbacks and closures, so they are at a disadvantage against low-energy-cost areas such as Canada, Russia, the Middle East, Iceland, Scandinavia, and Australia.

Expansions, closures, proposals, and studies for new mines, refineries, and smelters have been announced in many countries. Global primary aluminum production is expected to grow to 40 Mt for 2010 from 36.3 Mt in 2009.

## WORLD DEVELOPMENTS

### China

The financial crisis caused the closure of one third of China's aluminum production capacity in 2008 but, with the improvement in aluminum prices that started in the second quarter of 2009, production rapidly expanded to finish the year with a decrease of only 1.1% from 2008 production of 13.105 Mt. With more than 10 greenfield and brownfield expansion projects under way in 2009, China's aluminum production capacity increased by 2.5 Mt/y and the country is expected to produce 17 Mt of aluminum in 2010.

### Guinea

Global Alumina, which is headquartered in Saint John, New Brunswick, continued work to finance and construct a 3.6-Mt/y alumina refinery in the Boké region of Guinea. The company worked toward a joint venture with BHP Billiton, Dubai Aluminum Company Limited (Dubal), and Mubadala Development Company PJSC to develop and operate its alumina refinery project. The project is one of the most advanced new projects in Guinea with the refinery already in the feasibility stage and with infrastructure and site work already under way ([www.globalalumina.com](http://www.globalalumina.com)).

### Italy

Alcoa announced in November 2009 that it was closing its two aluminum smelters in Italy following the European Commission ruling that Alcoa has received illegal state aid since 2006 in the form of reduced electricity tariffs. The ruling required Alcoa to repay the monies. Alcoa is appealing the ruling and has renegotiated a contract with the Italian government, who will provide lower power rates to large industrial users and not specifically to Alcoa (the company is waiting for the European Commission to approve the deal and reverse its decision). Alcoa's two Italian smelters produce 195 000 Mt/y.

### Oman

The Sohar Aluminum smelter in Oman, which poured its first metal in 2008, reached its full capacity of 360 000 t/y in 2009. The state-of-the-art smelter uses RTA's benchmark AP36 technology – a highly efficient and environmentally friendly smelting technology. Sohar Aluminum is a joint venture between RTA (20%), Oman Oil Company (40%), and Abu Dhabi Water and Electricity Authority.

### Qatar

The first pots of the Qatalum smelter in Qatar started production of aluminum in December 2009. The smelter will be in full production by the end of 2010, producing 585 000 Mt/y. The project is a joint venture between Hydro (Norway) and Qatar Petroleum.

### Paraguay

RTA signed a letter of intent to negotiate with Paraguay's state-run National Electrical Administration on an energy purchasing agreement for the construction of a \$2.4 billion aluminum smelter.

### Russia

In August 2009, a serious accident at Russia's biggest hydro-electric plant destroyed three of ten generators that each produce 650 MW of power. This had a direct impact on Rusal's production capabilities at its Sayanoyorsk and Khakas aluminum smelters, which have a combined capacity of 837 000 t/y. Due to its massive debt of \$16.8 billion and decreased revenues, Rusal suspended work at two aluminum smelter projects: the 600 000-t/y Boguchanskaya smelter and the 60%-completed 750 000-t/y Taishet smelter.

### Saudi Arabia

A joint venture between Alcoa Inc. and Saudi Arabian Mining Co. (Ma'aden) was formed to build a fully integrated aluminum complex consisting of a 740 000-t/y smelter, a 1 800 000-t/y alumina refinery, a 4 000 000-t/y bauxite mine, and a hot rolling mill. The entire project will cost \$10.8 billion. The aluminum complex will be built in the industrial zone of Raz Az Zawr and will be owned 60% by Ma'aden and 40% by Alcoa.

### United Arab Emirates

The \$5.7 billion Emirates Aluminum (EMAL) project energized the first of 756 pots in December 2009. At the end of Phase 1 (12-14 months), the smelter will produce 756 000 t/y of aluminum. EMAL is a joint venture between Dubai Aluminum Limited and Mubadala Development Company. The smelter will be built in two phases; when completed, it will produce 1 512 000 t/y. The smelter utilizes the Dubal DX technology.

### United Kingdom

The joint-venture (RTA and Kaiser) Anglesey aluminum smelter in Wales closed in the third quarter of 2009. The reason for the closure was that the existing nuclear power plant was decommissioned, the existing power contract expired, and the smelter could not renegotiate a low-cost power contract.

## United States

The U.S. aluminum industry was hit very hard by the recession; its primary aluminum production dropped to 1.73 Mt in 2009, a 35% decrease from the 2.66 Mt produced in 2008. Alcoa closed three smelters (Rockdale, Hawesville, and Massena East), removing 605 000 t/y of capacity. In addition, Ormet cut capacity by 86 000 t/y from its Hannibel smelter; Century closed its Ravenwood smelter and curtailed production at its Hawesville smelter, cutting capacity by 234 000 t/y; and Glencore closed its Columbia Falls smelter, cutting capacity by 110 000 t/y.

## PRICES AND OUTLOOK

Cash prices for primary-grade aluminum on the LME started 2009 at approximately US\$1491/t (US\$67.7¢/lb) and slowly decreased to US\$1254/t (US\$56.9¢/lb) in February. Prices then strengthened to finish the year at US\$2206/t (US\$100.1¢/lb), for an increase of about 32% for the year. The Canadian currency equivalents for the start of the year were \$1805/t (81.9¢/lb) and in December were \$2312/t (104.9¢/lb), representing an increase of about 28% for the year.

Prices in the spot alumina market were weak early in 2009 as worldwide demand rapidly fell in the first quarter. With government stimulus programs, the demand for alumina steadily increased from the second quarter until the end of the year. *Metal Bulletin* has reported that spot prices for metallurgical-grade alumina started the year at US\$210–\$240/t and declined throughout the first quarter to US\$170–\$185/t; however, prices strengthened in the second quarter and continued to gain strength to end 2009 at US\$295–\$315/t.

Additional production of approximately 3 Mt (8%) of metal from new and restarted production capacity located around the world is expected in 2010.

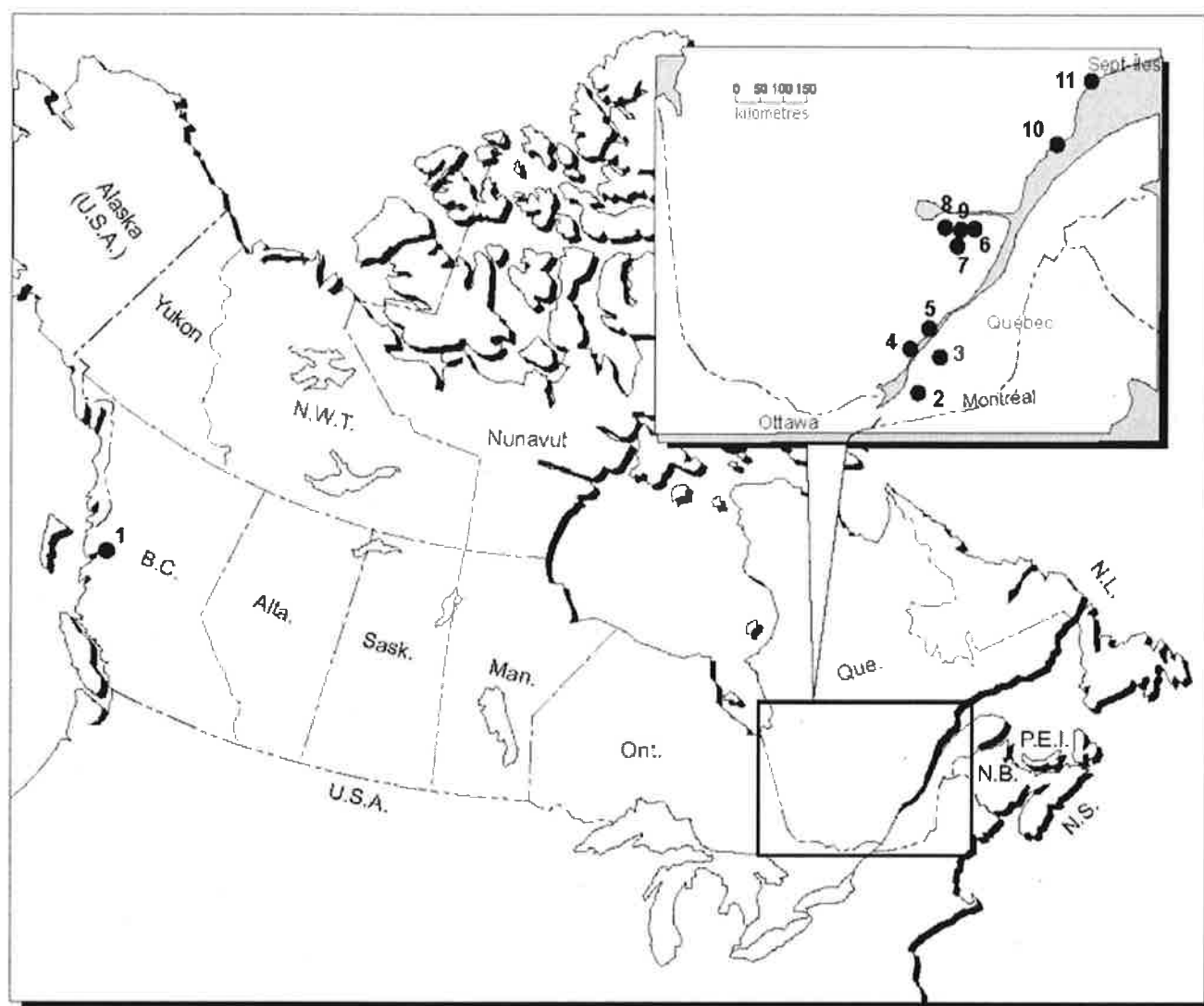
*Notes: (1) For definitions and valuation of mineral production, shipments, and trade, please refer to the chapter entitled "Definitions and Valuation: Mineral Production, Shipments, and Trade." (2) Information in this review was current as of July 30, 2010. (3) General information on aluminum was published in the 2006 edition of this review. (4) This and other reviews, including previous editions, are available on the Internet at [www.nrcan.gc.ca/minerals-metals/business-market/canadian-minerals-yearbook/4070](http://www.nrcan.gc.ca/minerals-metals/business-market/canadian-minerals-yearbook/4070).*

## Note to Readers

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**Figure 1**  
**Aluminum Smelters, 2009**

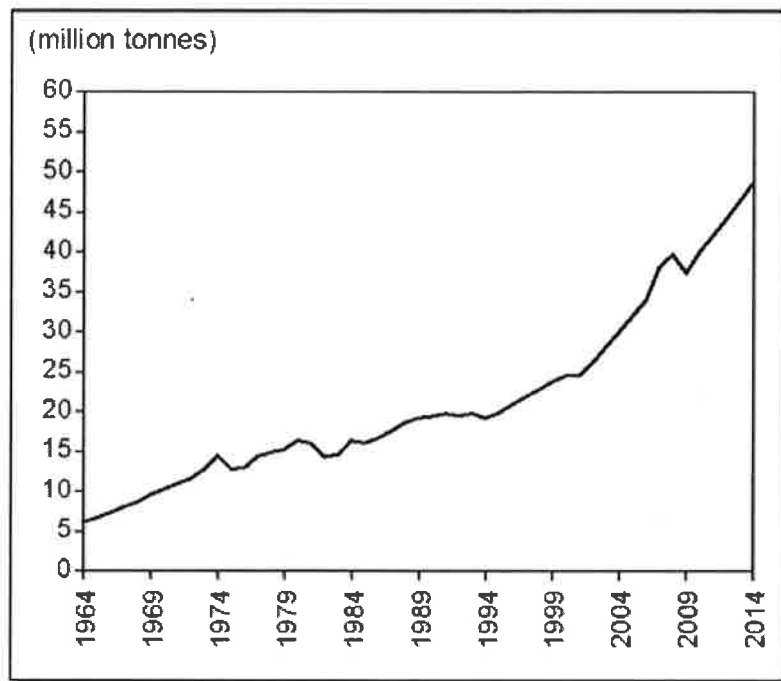


Aluminum Smelters, 2009

SMELTER	COMPANY	CAPACITY (t/y)
1. Kitimat	Alcan	277 000
2. Beauharnois	Alcan	**
3. Bécancour	A.B.I.	419 000
4. Shawinigan	Alcan	99 000
5. Luralco Deschambault	Alcoa-Aluminerie Luralco Inc.	256 000
6. Grande-Baie	Alcan	215 000
7. Laterrière	Alcan	235 000
8. Alma	Alcan	435 000
9. Arvida, Jonquière	Alcan	171 000
10. Baie-Comeau	Canadian Reynolds Metals (Alcoa)	392 000
11. Sept-Îles	Alouette	575 000
		3 074 000

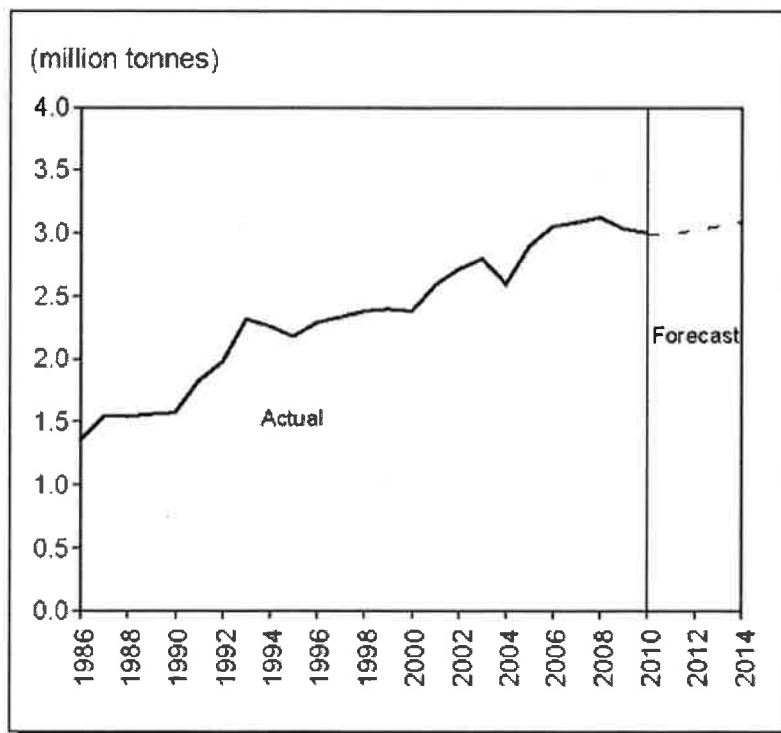
\*\* Closed in mid-2009.

**Figure 2**  
**World Total Primary Aluminum Production, 1964-2014 (f)**



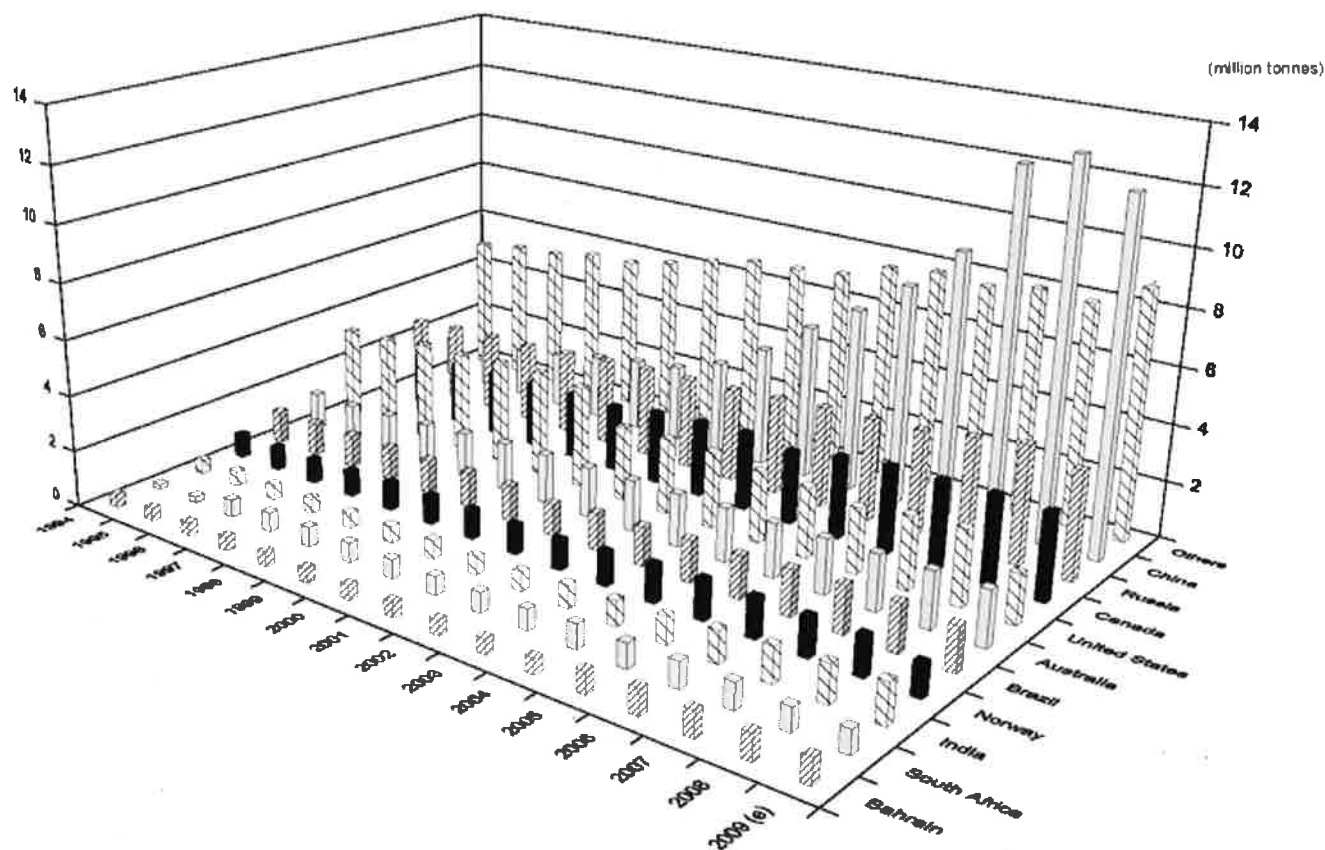
Source: International Consultative Group on Nonferrous Metals Statistics.  
(f) Author forecast for 2010-14.

**Figure 3**  
**Canadian Primary Aluminum Production, 1986-2014**



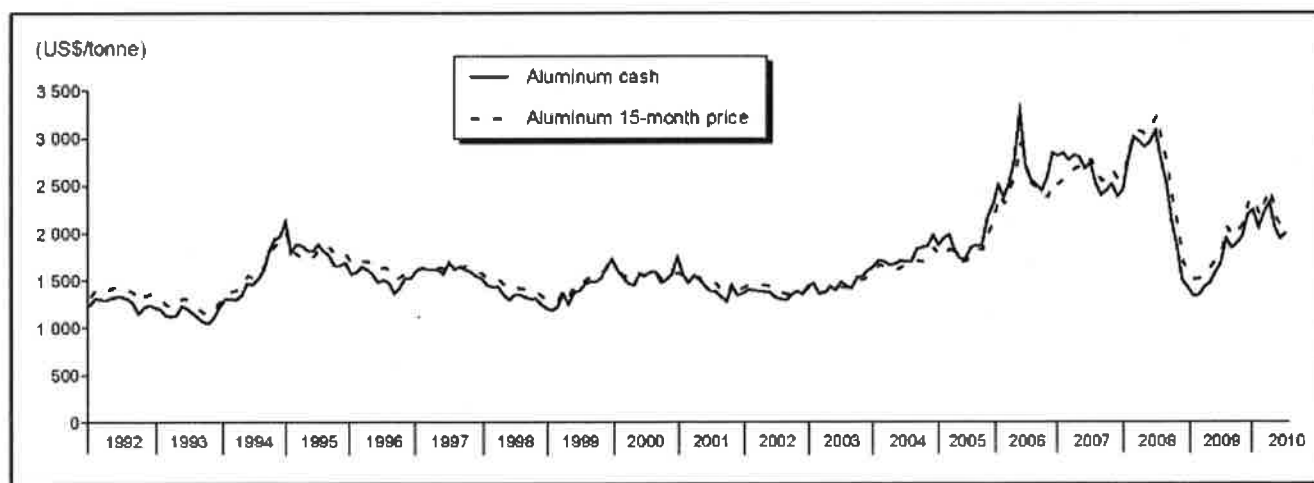
Source: Natural Resources Canada.

**Figure 4**  
**Primary Aluminum Production, Top Ten Producers, 1994-2009**



Source: International Consultative Group on Nonferrous Metals Statistics.  
 (e) Estimated.

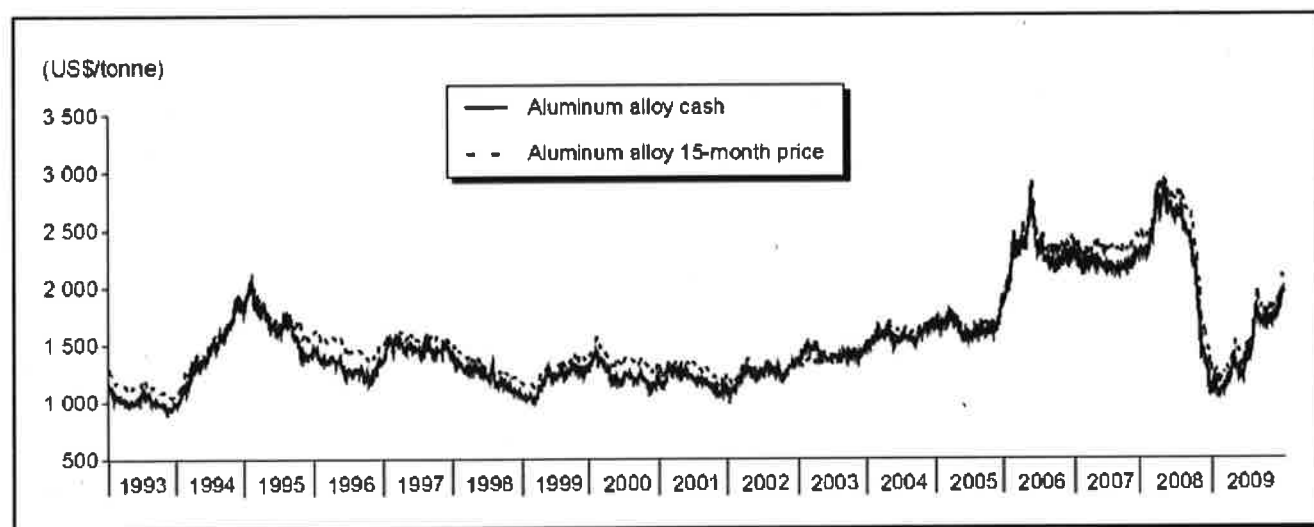
**Figure 5**  
**London Metal Exchange Aluminum Prices, 1992-2010**



Sources: Natural Resources Canada; London Metals Exchange; Reuters; Metalprices.com.

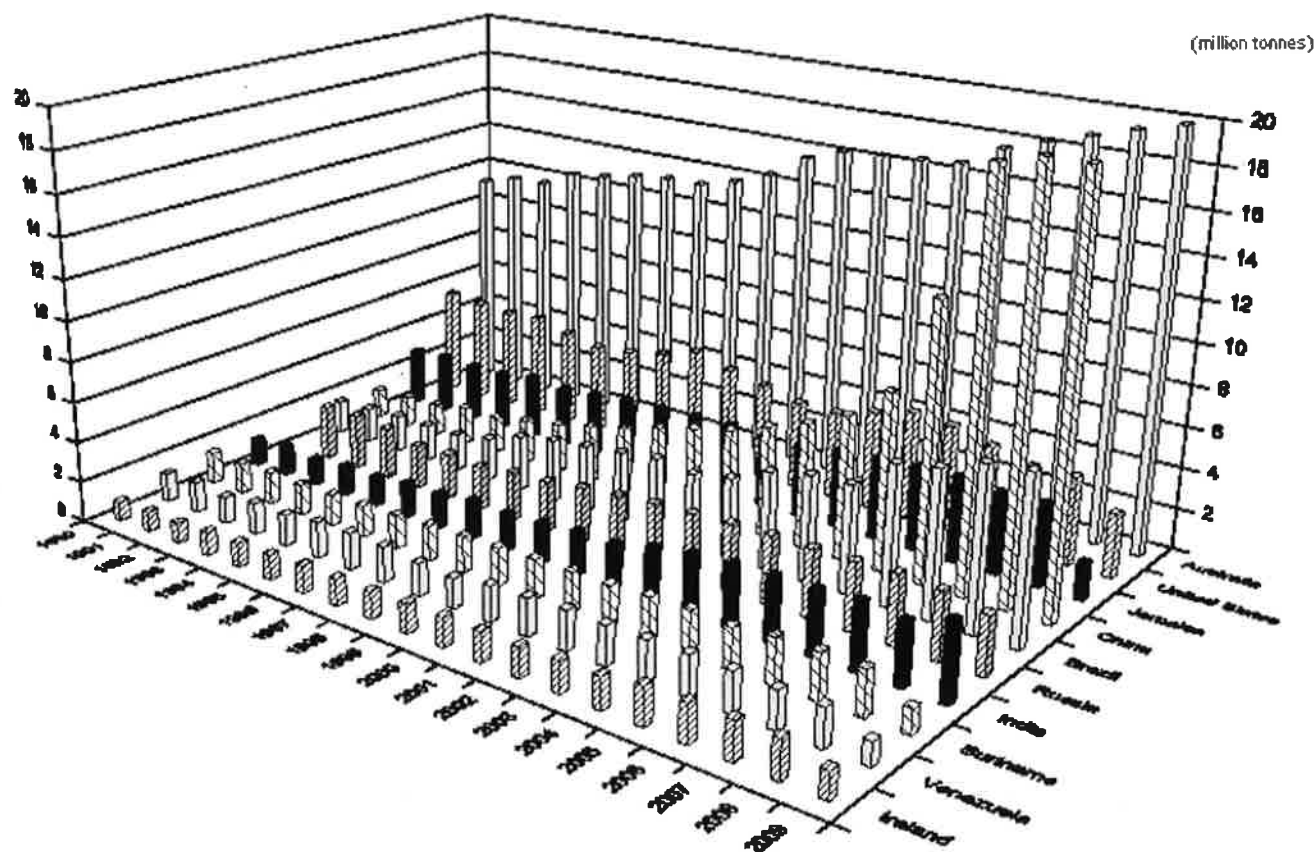


**Figure 6**  
**London Metal Exchange Aluminum Alloy Prices, 1993-2009**



Sources: Natural Resources Canada; London Metal Exchange, Reuters, MetalPrices.com.

**Figure 7**  
**Top 10 Alumina Producers, 1990-2009**



Sources: Natural Resources Canada; International Consultative Group on Nonferrous Metals Statistics; The International Aluminum Institute; media reports.

## TARIFFS

Item No.	Description	Canada		United States		EU	Japan
		MFN	GPT	USA	Canada	Conventional Rate (1)	WTO (2)
26.06	Aluminum ores and concentrates	Free	Free	Free	Free	Free	Free
2620.40	Slag, ash and residues containing metals, arsenic or their compounds: containing mainly aluminum	Free	Free	Free	Free	Free	Free
28.18	Artificial corundum, whether or not chemically defined; aluminum oxide; aluminum hydroxide						
2818.20	Aluminum oxide, other than artificial corundum	Free	Free	Free	Free	4%	Free
2818.30	Aluminum hydroxide	Free	Free	Free	Free	5.5%	3.3%
2827.32	Chlorides, chloride oxides and chloride hydroxides; bromides and bromide oxides; iodides and iodide oxides: other chlorides: of aluminum	Free	Free	Free	Free	5.5%	3.3%
76.01	Unwrought aluminum						
7601.10	Aluminum, not alloyed	Free	Free	Free	Free	6% (3)	Free
7601.20	Aluminum alloys	Free	Free	Free	Free	6%	Free
76.02	Aluminum waste and scrap	Free	Free	Free	Free	Free	Free
76.03	Aluminum powders and flakes	3.5-5%	Free	Free	Free	5%	3%
76.04	Aluminum bars, rods and profiles						
7604.10	Of aluminum, not alloyed	Free-3.5%	Free	Free	Free	7.5%	7.5%
7604.21	Of aluminum alloys: hollow profiles	5%	Free	Free	Free	7.5%	7.5%
7604.29	Of aluminum alloys: other	Free-3%	Free	Free	Free	7.5%	7.5%
76.05	Aluminum wire	Free-4%	Free	Free	Free	7.5%	7.5%
76.06	Aluminum plates, sheets and strip; of a thickness exceeding 0.2 mm	Free-6.5%	Free-5%	Free	Free	7.5%	Free-2%
76.07	Aluminum foil of a thickness not exceeding 0.2 mm	Free-6.5%	Free-5%	Free	Free	7.5-10%	7.5%
76.08	Aluminum tubes and pipes	Free-5%	Free	Free	Free	7.5%	7.5%
76.09	Aluminum tube or pipe fittings	5.5%	3%	Free	Free	5.9%	3%
76.10	Aluminum structures (excluding prefabricated buildings of heading 94.06) and parts of structures; aluminum plates, rods, profiles, tubes and the like, prepared for use in structures	6.5%	5%	Free	Free	6-7%	Free-3%
76.11	Aluminum reservoirs, tanks, vats and similar containers, for any material (other than compressed or liquefied gas), of a capacity exceeding 300 litres, whether or not lined or heat-insulated, but not fitted with mechanical or thermal equipment	Free-6.5%	Free-5%	Free	Free	6%	3%
76.12	Aluminum casks, drums, cans, boxes and similar containers for any material (other than compressed or liquefied gas), of a capacity not exceeding 300 litres, whether or not lined or heat-insulated, but not fitted with mechanical or thermal equipment	6.5%	2.5-5%	Free	Free	6%	3%

76.13	Aluminum containers for compressed or liquefied gas	6.5%	5%	Free	Free	6%	3%
76.14	Stranded wire, cables, plaited bands and the like, of aluminum, not electrically insulated	4.5%	3%	Free	Free	6%	3%
76.15	Table, kitchen or other household articles and parts thereof, of aluminum; pot scourers and scouring or polishing pads, gloves and the like, of aluminum; sanitary ware and parts thereof, of aluminum	6.5%	Free-5%	Free	Free	6%	Free
76.16	Other articles of aluminum	Free-6.5%	Free-5%	Free	Free	6%	3%

Sources: Canadian *Customs Tariff*, effective January 2010, Canada Border Services Agency; *Harmonized Tariff Schedule of the United States*, 2010; *Official Journal of the European Union* (Tariff Information), October 31, 2009 edition; *Customs Tariff Schedules of Japan*, 2010. GPT General Preferential Tariff; MFN Most Favoured Nation; WTO World Trade Organization.

(1) The customs duties applicable to imported goods originating in countries that are Contracting Parties to the General Agreement on Tariffs and Trade or with which the European Community has concluded agreements containing the most-favoured-nation tariff clause shall be the conventional duties shown in column 3 of the Schedule of Duties. (2) WTO rate is shown; lower tariff rates may apply circumstantially. (3) Autonomous rate of duty: 3.

TABLE 1. CANADA, ALUMINUM TRADE, 2007-09

	2007		2008		2009 (p)	
	(tonnes)	(\$000)	(tonnes)	(\$000)	(tonnes)	(\$000)
<b>PRODUCTION (Refined)</b>	3 082 625	..	3 120 148	..	3 030 269	..
<b>EXPORTS</b>						
2606.00	Aluminum ores and concentrates					
	United States	—	216	20	45	7
	Cuba	132	—	—	—	—
	Other countries	—	22	24	—	—
	<b>Total</b>	<b>132</b>	<b>238</b>	<b>44</b>	<b>45</b>	<b>7</b>
2620.40	Ash and residues containing mainly aluminum					
	United States	30 383	50 760	20 980	51 175	22 547
2818.20	Aluminum oxide (excluding artificial corundum)					
	United States	22 597	13 920	13 106	14 506	28 979
	Germany	1 961	849	1 232	759	1 114
	Other countries	68	67	67	34	59
	<b>Total</b>	<b>24 626</b>	<b>14 836</b>	<b>14 432</b>	<b>15 299</b>	<b>30 152</b>
2827.32	Other chlorides: of aluminum					
	United States	404	478	475	177	96
	France	5	—	—	21	26
	Other countries	47	—	—	3	4
	<b>Total</b>	<b>456</b>	<b>478</b>	<b>475</b>	<b>201</b>	<b>126</b>
7601.10	Unwrought aluminum, not alloyed					
	United States	989 281	1 180 314	3 398 852	1 391 453	2 631 078
	South Korea	37 032	38 194	116 244	90 260	171 591
	Netherlands	227 845	229 467	536 481	104 427	168 440
	Japan	71 216	81 482	239 149	43 290	89 273

	United Kingdom	25 831	79 909	96	300	51 466	87 685
	Other countries	27 897	81 037	9 571	28 324	274	631
	<b>Total</b>	<b>1 379 102</b>	<b>3 990 573</b>	<b>1 539 124</b>	<b>4 319 350</b>	<b>1 681 170</b>	<b>3 148 698</b>
7601.20	Unwrought aluminum alloyed						
	United States	941 930	2 942 810	818 403	2 496 545	625 801	1 348 784
	Japan	95 785	300 589	81 325	252 511	55 309	119 766
	Mexico	33 079	102 667	41 860	127 477	56 382	118 629
	South Korea	11 346	32 302	7 763	24 973	33 034	68 785
	Israel	4 894	15 982	11 836	36 831	7 474	16 233
	United Kingdom	4 362	14 502	5 317	17 943	4 429	10 866
	Brazil	—	—	77	255	3 965	8 486
	France	7 509	25 270	8 448	28 601	1 758	7 318
	China	4 199	13 277	6 095	19 824	3 283	7 098
	Turkey	505	1 754	884	3 026	935	2 218
	El Salvador	173	531	—	—	891	2 025
	Ireland	266	830	326	1 108	409	1 049
	Other countries	16 190	55 954	10 264	30 037	282	748
	<b>Total</b>	<b>1 120 238</b>	<b>3 506 468</b>	<b>992 598</b>	<b>3 039 131</b>	<b>793 952</b>	<b>1 712 005</b>
7602.00	Aluminum waste and scrap						
	United States	316 493	578 503	324 523	580 823	279 386	353 050
	China	73 298	126 177	64 423	107 613	71 807	88 475
	South Korea	18 091	43 699	18 661	46 124	5 198	7 656
	India	3 651	7 004	2 995	6 071	2 591	3 840
	Taiwan	5 699	10 170	3 886	7 386	1 673	2 136
	Indonesia	1 236	2 718	1 439	2 997	1 085	1 656
	Hong Kong	1 210	1 310	572	905	1 079	1 335
	Ireland	—	—	837	2 776	491	1 222
	France	—	—	251	351	246	491
	Pakistan	267	406	121	194	370	412
	Japan	1 876	4 584	2 225	5 145	255	376
	Thailand	559	1 223	122	260	226	336
	Brazil	3 418	7 419	1 870	3 497	193	293
	Malaysia	—	—	29	61	193	254
	Netherlands	399	830	1 050	1 870	70	137
	United Kingdom	1 590	3 890	385	915	89	133
	Italy	987	2 214	576	1 427	75	131
	Other countries	992	1865	831	2 710	310	323
	<b>Total</b>	<b>429 766</b>	<b>792 012</b>	<b>424 796</b>	<b>771 125</b>	<b>365 337</b>	<b>462 256</b>
76.03	Aluminum powders and flakes						

	Germany	179	693	341	1 436	7	793
	United States	36	244	66	251	58	202
	Taiwan	—	—	11	102	16	117
	Other countries	—	2	—	2	—	—
	<b>Total</b>	<b>215</b>	<b>939</b>	<b>418</b>	<b>1 791</b>	<b>81</b>	<b>1 112</b>
76.04	Aluminum bars, rods and profiles						
	United States	80 003	397 388	70 381	341 876	50 769	219 838
	China	715	3 393	671	2 985	2 745	18 001
	Germany	76	410	913	3 892	725	2 704
	Taiwan	917	4 799	628	3 409	444	1 930
	Switzerland	1 166	4 657	93	397	331	1 014
	Barbados	51	349	48	344	64	490
	Italy	20	79	18	73	114	355
	Norway	5	58	18	173	43	320
	Hong Kong	3	15	1	5	69	281
	Australia	7	42	16	93	45	236
	Chile	6	32	27	156	40	193
	South Africa	1	6	303	1 604	19	184
	Mexico	3	14	23	158	24	169
	Trinidad and Tobago	1	9	21	145	25	131
	Other countries	8 766	32 953	999	4 436	191	1 090
	<b>Total</b>	<b>91 740</b>	<b>444 204</b>	<b>74 160</b>	<b>359 746</b>	<b>55 648</b>	<b>246 936</b>
76.05	Aluminum wire						
	United States	170 181	565 459	172 746	562 482	140 306	323 382
	Netherlands	1 194	4 007	16 273	51 235	2 926	7 325
	China	56	311	207	916	1 304	3 147
	South Korea	587	2 589	446	1 840	507	1 579
	Mexico	424	1 676	416	1 582	501	1 412
	United Arab Emirates	50	312	185	995	170	1 013
	Taiwan	145	818	123	764	193	918
	Thailand	378	1 632	12	38	298	857
	Brazil	—	—	143	550	258	748
	Colombia	156	566	157	607	262	719
	Germany	137	666	164	996	70	446
	India	39	248	57	341	84	410
	Oman	117	775	50	327	44	234
	Spain	537	1 918	59	244	22	131
	Other countries	8 749	31 008	6 704	21 830	137	590
	<b>Total</b>	<b>182 750</b>	<b>611 985</b>	<b>197 742</b>	<b>644 747</b>	<b>147 082</b>	<b>342 911</b>

76.06	Aluminum plates, sheets and strip, of a thickness exceeding 0.2 mm						
	United States	355 973	1 323 902	301 444	1 123 355	204 318	599 711
	France	706	3 052	34	162	513	3 232
	China	159	1 054	8	38	271	1 595
	Chile	137	787	207	1 084	239	1 307
	Japan	36	419	4	371	136	953
	Hungary	...	1	—	—	113	738
	Ireland	19	90	148	1 028	27	119
	Ukraine	—	—	...	...	22	105
	Other countries	991	5 557	1 058	4 102	120	524
	Total	358 021	1 334 862	302 903	1 130 140	205 759	608 284
76.07	Aluminum foil not exceeding 0.2 mm						
	United States	45 350	244 739	29 679	168 615	17 361	113 886
	Mexico	1 535	9 988	1 284	8 826	1 095	8 644
	Australia	541	3 859	497	3 076	136	1 027
	Venezuela	283	1 872	190	1 213	89	709
	United Kingdom	160	1 197	143	984	98	645
	New Zealand	108	913	138	1 122	83	623
	Argentina	56	601	73	624	59	477
	Japan	125	631	127	756	25	295
	France	108	606	47	336	30	189
	Kenya	—	—	—	—	1	176
	Germany	374	1 847	156	755	21	164
	Honduras	—	—	—	—	23	155
	Peru	22	144	22	199	17	149
	Italy	...	1	3	24	21	124
	Israel	—	—	19	141	25	122
	China	202	1 124	5	20	20	118
	Taiwan	348	2 150	186	990	15	110
	Other countries	2 021	10 977	1 125	5 725	38	271
	Total	51 233	280 649	33 694	193 406	19 157	127 884
76.08	Aluminum tubes and pipes						
	United States	4 124	21 802	4 290	21 599	3 562	17 008
	China	315	3 439	129	1 810	115	1 351
	Australia	30	404	37	513	42	546
	Malaysia	—	—	31	263	24	240
	Other countries	130	1 276	81	1 358	50	674
	Total	4 599	26 921	4 568	25 543	3 793	19 819
76.09	Aluminum tube or pipe fittings						

	United States	952	12 530	885	12 367	525	11 189
	Mexico	2	24	11	127	28	334
	Kyrgyzstan	...	1	3	40	17	207
	Other countries	127	1 311	80	1 041	56	661
	<b>Total</b>	<b>1 081</b>	<b>13 866</b>	<b>979</b>	<b>13 575</b>	<b>626</b>	<b>12 391</b>
		(n.a.)	(\$000)	(n.a.)	(\$000)	(n.a.)	(\$000)
76.10	Aluminum structures and parts of structures, aluminum plates, rods, profiles, tubes and the like, prepared for use in structures						
	United States	..	537 362	..	561 993	..	381 440
	Sweden	..	2 936	..	1 167	..	6 422
	Saudi Arabia	..	7	..	443	..	2 857
	India	..	34	..	60	..	2 782
	United Kingdom	..	1 676	..	2 491	..	1 884
	Costa Rica	..	62	..	118	..	1 304
	Singapore	..	18	..	478	..	1 205
	France	..	2 385	..	1 111	..	1 048
	Australia	..	682	..	527	..	1 009
	Qatar	..	589	..	269	..	991
	Mexico	..	1 385	..	3 102	..	959
	United Arab Emirates	..	1 448	..	2 243	..	871
	Netherlands	..	124	..	190	..	847
	Trinidad and Tobago	..	1 772	..	519	..	715
	Bermuda	..	914	..	539	..	652
	Rwanda	—	—	—	—	..	551
	Other countries	..	9 859	..	14 402	..	7 315
	<b>Total</b>	..	<b>561 253</b>	..	<b>590 179</b>	..	<b>412 852</b>
		(number)	(\$000)	(number)	(\$000)	(number)	(\$000)
76.11	Aluminum reservoirs, tanks, vats and similar containers, for any material						
	United States	495	1 224	1 177	965	630	542
	Brazil	—	—	10	152	5	76
	China	—	—	1	1	2	31
	Mexico	—	—	—	—	1	19
	Other countries	2 052	64	32	396	2	21
	<b>Total</b>	<b>2 547</b>	<b>1 288</b>	<b>1 220</b>	<b>1 514</b>	<b>640</b>	<b>689</b>
76.12	Aluminum casks, drums, cans, boxes and similar containers, for any material						
	United States	793 326 371	134 631	695 675 765	110 867	392 621 024	79 401
	Belgium	31	...	68 039	3 363	122 856	6 103
	United Kingdom	139 194	130	282 559	2 881	89 656	4 059
	Netherlands	2	...	22 218	1 104	45 917	2 293

	Poland	—	—	101 619	419	17 715 266	1 277
	Germany	85 559	143	322 529	812	73 873	871
	Switzerland	—	—	11	2	1 538	308
	Ireland	7	1	232 477	263	2 428	288
	France	27	4	281 798	225	4 641	266
	Czech Republic	10	1	—	—	10 217	236
	India	577 229	146	287 475	67	760 184	187
	Peru	2 026	240	622 427	870	294 697	139
	Austria	—	—	896	46	2 312	116
	Other countries	41 205 704	5 025	1 567 815	1 164	30 490	265
	<b>Total</b>	<b>835 336 160</b>	<b>140 321</b>	<b>699 465 628</b>	<b>122 083</b>	<b>411 775 099</b>	<b>95 809</b>
76.13	Aluminum containers for compressed or liquefied gas						
	United States	436 148	4 879	552 906	3 476	6 971 754	4 723
	Germany	5 719	4 330	905	450	1 096	322
	Japan	2 116	2 108	507	257	383	186
	Taiwan	—	—	—	—	229	173
	South Korea	852	618	956	481	337	169
	United Kingdom	3	13	446	173	355	146
	Other countries	96 400	1 577	35 566	1 260	1 106	484
	<b>Total</b>	<b>541 238</b>	<b>13 525</b>	<b>591 286</b>	<b>6 097</b>	<b>6 975 260</b>	<b>6 203</b>
		(tonnes)	(\$000)	(tonnes)	(\$000)	(tonnes)	(\$000)
76.14	Stranded wire, cables, plaited bands and the like, of aluminum, not electrically insulated						
	United States	20 499	83 995	15 061	57 956	8 744	30 173
	Chile	—	—	39	374	...	546
	Brazil	...	2	69	184	20	46
	Other countries	392	1005	554	3699	38	150
	<b>Total</b>	<b>20 891</b>	<b>85 002</b>	<b>15 723</b>	<b>62 213</b>	<b>8 802</b>	<b>30 915</b>
		(n.a.)	(\$000)	(n.a.)	(\$000)	(n.a.)	(\$000)
76.15	Table, kitchen or other household articles and parts thereof, of aluminum						
	United States	..	95 990	..	76 224	..	32 444
	Mexico	..	1 801	..	2 312	..	2 008
	United Arab Emirates	..	7	..	1	..	402
	Germany	..	840	..	434	..	228
	Algeria	..	108	..	207	..	220
	Peru	..	8	..	7	..	105
	Czech Republic	—	—	—	—	..	102
	Other countries	..	1 956	..	1 022	..	266
	<b>Total</b>	<b>..</b>	<b>100 710</b>	<b>..</b>	<b>80 207</b>	<b>..</b>	<b>35 775</b>
76.16	Other articles of aluminum						



United States	..	220 130	..	217 909	..	188 024
United Kingdom	..	3 029	..	2 639	..	2 833
Chile	..	161	..	658	..	2 628
China	..	2 091	..	3 548	..	2 234
Austria	..	4 615	..	3 260	..	2 159
Mexico	..	2 785	..	2 554	..	1 446
Australia	..	1 083	..	1 198	..	1 315
Malaysia	..	734	..	983	..	1 271
Honduras	..	23	..	329	..	1 068
Poland	..	1 254	..	2 827	..	1 058
Finland	..	230	..	378	..	992
South Korea	..	44	..	38	..	965
United Arab Emirates	..	174	..	271	..	880
France	..	1 246	..	2 634	..	841
Japan	..	1 369	..	1 703	..	755
Saudi Arabia	..	56	..	81	..	747
Germany	..	2 301	..	3 674	..	737
Turkey	..	239	..	1 114	..	669
Singapore	..	378	..	399	..	656
Tunisia	—	—	..	...	..	628
India	..	335	..	130	..	624
South Africa	..	112	..	61	..	554
Madagascar	—	—	..	51	..	503
Other countries	..	8 855	..	8 322	..	6 461
<b>Total</b>	..	<b>251 244</b>	..	<b>254 761</b>	..	<b>220 048</b>
<b>Total exports</b>	..	<b>12 196 139</b>	..	<b>11 651 539</b>	..	<b>7 537 419</b>
<b>IMPORTS</b>						
2606.00	Aluminum ores and concentrates					
Guinea	953 247	37 183	1 630 604	69 327	1 193 542	62 294
Brazil	1 734 791	64 436	1 803 262	69 346	1 021 797	51 017
United States	14 957	3 148	14 746	3 260	13 699	2 493
Sierra Leone	230 517	9 441	—	—	9 992	2 464
Guyana	19 675	1 106	62 023	1 969	28 034	1 983
Greece	—	—	—	—	29 307	1 725
China	8 485	674	390	183	16 520	1 472
Other countries	384 893	13 732	49 142	2 989	19	18
<b>Total</b>	<b>3 346 565</b>	<b>129 720</b>	<b>3 560 167</b>	<b>147 074</b>	<b>2 312 910</b>	<b>123 466</b>
2620.40	Ash and residues containing mainly aluminum					
United States	5 961	2 126	6 281	3 192	2 660	1 590

	China	—	—	—	—	22	11
	Canada	—	—	—	—	—	—
	<b>Total</b>	<b>5 961</b>	<b>2 126</b>	<b>6 281</b>	<b>3 192</b>	<b>2 682</b>	<b>1 601</b>
2818.20	Aluminum oxide (excluding artificial corundum)						
	Brazil	971 897	358 402	1 302 167	484 684	2 185 555	583 272
	Australia	658 219	269 815	980 532	352 859	651 766	240 090
	United States	560 107	229 842	671 973	270 304	455 952	157 683
	Jamaica	898 626	338 449	800 394	295 954	400 704	130 624
	Suriname	590 716	206 840	816 730	296 251	291 233	102 747
	Venezuela	278 907	110 092	120 080	49 006	133 976	59 175
	Germany	1 135	7 907	764	5 255	739	3 662
	China	2 535	2 696	2 243	2 750	1 387	2 332
	France	1 607	3 528	5 366	4 291	1 383	1 447
	Japan	1 160	1 033	876	1 161	687	1 010
	Other countries	153 757	51 475	81 819	26 628	660	1 214
	<b>Total</b>	<b>4 118 666</b>	<b>1 580 079</b>	<b>4 782 944</b>	<b>1 789 143</b>	<b>4 124 042</b>	<b>1 283 256</b>
2818.30	Aluminum hydroxide						
	United States	6 706	6 758	5 041	4 873	5 237	5 290
	Germany	359	418	593	641	338	385
	Other countries	34	45	33	65	99	108
	<b>Total</b>	<b>7 099</b>	<b>7 221</b>	<b>5 667</b>	<b>5 579</b>	<b>5 674</b>	<b>5 777</b>
2827.32.00.00	Other chlorides: of aluminum						
	United States	8 448	8 573	9 718	11 224	8 809	9 087
	Japan	27	27	34	36	96	118
	Other countries	8	23	42	147	22	52
	<b>Total</b>	<b>8 483</b>	<b>8 623</b>	<b>9 794</b>	<b>11 407</b>	<b>8 927</b>	<b>9 257</b>
7601.10	Unwrought aluminum, not alloyed						
	Canada	81	248	78	223	7 372	14 211
	United States	14 264	38 778	13 224	36 383	7 857	12 685
	New Zealand	164	547	—	—	649	1 299
	Australia	1	6	67	201	285	607
	Russia	20	57	34	107	102	215
	Other countries	97	349	136	454	44	115
	<b>Total</b>	<b>14 627</b>	<b>39 985</b>	<b>13 539</b>	<b>37 368</b>	<b>16 309</b>	<b>29 132</b>
7601.20	Unwrought aluminum alloyed						
	United States	115 008	315 145	106 960	281 619	76 612	152 511
	Brazil	499	1 733	47	149	1 551	4 067
	Russia	1 275	3 276	259	755	1 482	2 970
	Czech Republic	—	—	678	2 010	811	2 471

	Canada	3 234	2 354	942	1 633	1 095	2 457
	Bahrain	2 087	7 123	531	1 703	579	2 187
	South Africa	—	—	55	245	695	2 010
	Germany	57	168	1 007	3 028	632	1 956
	Venezuela	—	—	775	2 436	771	1 712
	Spain	106	521	167	730	475	1 609
	Netherlands	894	3 779	976	4 425	307	1 278
	United Kingdom	442	983	44	118	173	626
	China	707	2 416	1 406	4 883	160	498
	Other countries	413	1 459	358	1 971	225	646
	<b>Total</b>	<b>124 722</b>	<b>338 957</b>	<b>114 205</b>	<b>305 705</b>	<b>85 568</b>	<b>176 998</b>
7602.00	Aluminum waste and scrap						
	United States	165 219	313 654	161 816	311 309	112 735	164 242
	France	53	73	161	437	1 513	2 883
	United Kingdom	1	2	122	330	1 423	2 189
	Cuba	1 183	2 558	828	1 542	2 182	2 160
	Other countries	719	1 565	514	860	700	1 097
	<b>Total</b>	<b>167 175</b>	<b>317 852</b>	<b>163 441</b>	<b>314 478</b>	<b>118 553</b>	<b>172 571</b>
76.03	Aluminum powders and flakes						
	United States	1 859	7 054	1 719	6 570	877	3 886
	Germany	29	660	28	618	21	450
	France	19	84	...	4	46	140
	Other countries	69	347	21	166	25	191
	<b>Total</b>	<b>1 976</b>	<b>8 145</b>	<b>1 768</b>	<b>7 358</b>	<b>969</b>	<b>4 667</b>
7604.10	Aluminum bars, rods and profiles: of aluminum, not alloyed						
	United States	2 308	16 059	1 933	15 236	1 474	11 997
	China	3 238	13 128	4 806	18 464	371	2 427
	Malaysia	662	2 725	632	2 572	591	1 973
	Germany	130	2 084	144	2 993	30	602
	India	2	9	...	...	144	506
	Other countries	1 109	6 464	549	3 579	335	1 790
	<b>Total</b>	<b>7 449</b>	<b>40 469</b>	<b>8 064</b>	<b>42 844</b>	<b>2 945</b>	<b>19 295</b>
7604.21 to 7604.29	Aluminum bars, rods and profiles: of aluminum alloys						
	United States	33 732	182 189	34 328	181 574	25 215	119 704
	China	31 272	131 403	29 114	119 337	2 300	9 497
	Canada	646	4 640	422	4 398	555	5 152
	South Korea	764	3 092	883	3 485	1 658	4 929
	Malaysia	128	532	70	261	1 554	4 862
	Germany	182	2 486	392	3 120	136	2 314

	Indonesia	...	1	...	...	782	1 953
	Brazil	283	1 398	574	2 660	352	1 648
	Thailand	...	1	...	3	458	1 489
	Taiwan	16	232	12	211	305	1 316
	Vietnam	47	225	39	160	384	1 169
	India	443	1 746	399	1 476	348	1 068
	Austria	231	1 415	154	1 152	83	719
	Russia	237	1 294	296	1 612	128	655
	France	21	216	38	583	37	637
	Italy	180	1 610	170	1 155	67	606
	Other countries	1 625	8 244	1 129	7 791	323	2 356
	<b>Total</b>	<b>69 807</b>	<b>340 724</b>	<b>68 020</b>	<b>328 978</b>	<b>34 685</b>	<b>160 075</b>
76.05	Aluminum wire						
	United States	15 942	67 676	13 499	56 394	14 293	48 227
	Netherlands	15	61	—	—	456	1 148
	China	1 625	5 614	38	204	60	289
	Spain	62	308	126	736	86	250
	United Kingdom	162	737	166	749	93	204
	Brazil	326	1 553	44	194	78	171
	Bahrain	57	219	40	147	50	157
	Other countries	146	720	111	533	66	319
	<b>Total</b>	<b>18 335</b>	<b>76 888</b>	<b>14 024</b>	<b>58 957</b>	<b>15 182</b>	<b>50 765</b>
76.06	Aluminum plates, sheets and strip, of a thickness exceeding 0.2 mm						
	United States	370 566	1 433 743	361 193	1 383 562	260 832	871 591
	Germany	5 394	26 490	6 468	31 617	5 847	28 559
	China	16 378	60 365	13 377	49 094	5 556	18 819
	Greece	3 487	16 218	2 039	9 049	3 225	11 397
	South Africa	4 210	18 573	3 677	15 358	3 421	10 780
	France	3 202	15 507	2 700	13 315	1 727	7 489
	Sweden	1 027	3 766	861	4 026	1 728	5 678
	Austria	330	2 001	1 079	5 914	1 152	5 482
	Indonesia	3 742	14 105	2 571	9 906	1 782	5 464
	Russia	4 893	20 715	3 558	15 039	1 098	4 828
	Brazil	962	3 634	823	3 200	1 317	3 983
	Switzerland	798	4 545	1 190	7 211	593	3 443
	Turkey	1 105	4 217	1 474	5 379	1 069	2 754
	Canada	1 146	5 322	1 027	5 147	556	2 739
	Romania	352	1 964	368	2 148	485	2 130
	Egypt	220	924	216	846	632	2 050

	Thailand	811	2 979	484	1 810	503	1 742
	Hong Kong	548	2 270	595	2 440	441	1 702
	United Kingdom	1 630	8 477	173	1 419	181	1 245
	Netherlands	240	1 513	240	1 607	197	1 195
	Italy	348	2 007	241	1 593	181	1 088
	Other countries	6 045	26 294	2 854	12 836	1 575	5 937
	<b>Total</b>	<b>427 434</b>	<b>1 675 629</b>	<b>407 208</b>	<b>1 582 516</b>	<b>294 098</b>	<b>1 000 095</b>
76.07	Aluminum foil not exceeding 0.2 mm						
	United States	53 609	243 217	50 349	226 055	39 421	170 396
	China	3 754	15 881	3 909	17 357	4 043	15 988
	Germany	2 974	15 676	2 156	16 389	1 728	15 839
	Luxembourg	2 199	10 189	2 765	13 527	2 495	10 810
	South Korea	972	4 607	1 771	7 704	1 608	6 128
	Spain	599	2 594	752	3 411	1 431	5 293
	Croatia	435	4 777	330	3 387	227	2 149
	France	844	3 199	814	4 022	401	2 073
	Taiwan	430	2 015	410	2 223	264	1 513
	Israel	43	792	61	1 116	56	1 007
	United Kingdom	483	2 772	51	723	71	882
	Switzerland	176	1 897	288	1 915	76	784
	Japan	130	913	131	1 006	218	782
	Netherlands	123	808	111	809	73	724
	Italy	76	685	47	436	77	506
	Other countries	1 372	5 612	821	3 154	448	1 725
	<b>Total</b>	<b>68 219</b>	<b>315 634</b>	<b>64 766</b>	<b>303 234</b>	<b>52 637</b>	<b>236 599</b>
76.08	Aluminum tubes and pipes						
	United States	9 407	58 594	8 164	51 512	9 787	46 584
	Mexico	544	6 185	175	5 180	50	5 821
	United Kingdom	38	1 501	27	2 393	23	4 947
	China	5 240	18 965	5 395	19 119	1 085	4 381
	South Korea	337	1 387	368	1 503	784	2 459
	Singapore	3	1 001	6	1 860	4	1 448
	Malaysia	21	134	—	—	563	1 436
	Japan	463	733	71	739	10	1 320
	Indonesia	...	2	...	...	230	952
	Taiwan	34	450	32	333	54	913
	Canada	18	570	21	672	14	778
	Other countries	223	3 429	166	3 173	208	2 890
	<b>Total</b>	<b>16 328</b>	<b>92 951</b>	<b>14 425</b>	<b>86 484</b>	<b>12 812</b>	<b>73 929</b>

76.09	Aluminum tube or pipe fittings						
	United States	1 293	26 200	1 275	26 609	776	22 877
	China	495	2 567	542	2 995	338	2 356
	Mexico	25	808	28	1 030	11	890
	Taiwan	212	1 396	182	1 499	83	777
	India	149	1 124	46	1 048	234	737
	Canada	50	423	28	551	10	654
	Other countries	104	1 687	159	2 565	114	1 579
	<b>Total</b>	<b>2 328</b>	<b>34 205</b>	<b>2 260</b>	<b>36 297</b>	<b>1 566</b>	<b>29 870</b>
		(n.a.)	(\$000)	(n.a.)	(\$000)	(n.a.)	(\$000)
76.10	Aluminum structures and parts of structures, aluminum plates, rods, profiles, tubes and the like, prepared for use in structures						
	United States	..	141 634	..	177 963	..	158 622
	China	..	32 314	..	37 184	..	62 940
	South Korea	..	1 133	..	5 620	..	3 773
	Germany	..	1 352	..	3 216	..	2 558
	Netherlands	..	1 214	..	1 303	..	1 933
	Italy	..	1 629	..	2 957	..	1 899
	Switzerland	..	173	..	59	..	1 382
	Mexico	..	489	..	463	..	865
	Sweden	..	416	..	2 847	..	633
	United Kingdom	..	2 881	..	1 184	..	610
	India	..	310	..	809	..	555
	Other countries	..	7 256	..	7 089	..	3 403
	<b>Total</b>	..	<b>190 801</b>	..	<b>240 694</b>	..	<b>239 173</b>
		(number)	(\$000)	(number)	(\$000)	(number)	(\$000)
76.11	Aluminum reservoirs, tanks, vats and similar containers, for any material						
	United States	4 321	3 425	6 181	3 387	2 872	1 287
	Canada	14	2	23	7	422	73
	Taiwan	1	...	12	1	1 471	17
	Other countries	1 504	414	375	30	271	13
	<b>Total</b>	<b>5 840</b>	<b>3 841</b>	<b>6 591</b>	<b>3 425</b>	<b>5 036</b>	<b>1 390</b>
76.12	Aluminum casks, drums, cans, boxes and similar containers, for any material						
	United States	1 850 005 410	206 080	1 388 712 947	213 756	1 504 429 817	266 070
	France	54 830 765	7 142	40 577 227	5 667	35 546 331	6 087
	Switzerland	1 458 018	851	997 914	911	2 233 292	5 321
	China	1 869 662	779	1 996 680	1 530	3 907 745	4 920
	Finland	4 587 242	1 840	27 624 898	3 009	50 218 153	3 205
	Germany	3 405 482	1 450	1 544 007	880	3 633 805	1 531

	Israel	186 180	22	559 175	97	10 021 162	1 365
	Other countries	14 473 733	3 571	15 335 289	3 856	10 929 253	2 301
	<b>Total</b>	<b>1 930 816 492</b>	<b>221 735</b>	<b>1 477 348 137</b>	<b>229 706</b>	<b>1 620 919 558</b>	<b>290 800</b>
76.13	Aluminum containers for compressed or liquefied gas						
	United States	2 607 404	19 481	1 964 287	22 107	287 879	16 970
	France	2 110	76	1 196	28	3 475	421
	Portugal	—	—	—	—	3 360	148
	Other countries	23 352	289	11 037	312	3 118	171
	<b>Total</b>	<b>2 632 866</b>	<b>19 846</b>	<b>1 976 520</b>	<b>22 447</b>	<b>297 832</b>	<b>17 710</b>
		(tonnes)	(\$000)	(tonnes)	(\$000)	(tonnes)	(\$000)
76.14	Stranded wire, cables, plaited bands and the like, of aluminum, not electrically insulated						
	United States	668	3 639	1 508	6 162	4 014	12 283
	China	20	78	1	12	2	20
	Mexico	...	14	2	23	1	11
	Italy	—	—	...	5	1	10
	Other countries	38	598	1	55	3	20
	<b>Total</b>	<b>726</b>	<b>4 329</b>	<b>1 512</b>	<b>6 257</b>	<b>4 021</b>	<b>12 344</b>
		(n.a.)	(\$000)	(n.a.)	(\$000)	(n.a.)	(\$000)
76.15	Table, kitchen or other household articles and parts thereof, of aluminum						
	China	..	48 123	..	63 782	..	67 022
	United States	..	28 167	..	32 429	..	36 169
	France	..	12 402	..	9 472	..	6 718
	Thailand	..	9 181	..	5 752	..	3 572
	Italy	..	8 244	..	7 512	..	3 481
	India	..	1 729	..	1 766	..	1 855
	Indonesia	..	1 229	..	1 792	..	1 538
	Turkey	..	103	..	715	..	1 518
	South Korea	..	1 428	..	1 627	..	1 196
	Germany	..	1 033	..	892	..	1 131
	Taiwan	..	896	..	934	..	646
	Denmark	..	429	..	248	..	610
	Other countries	..	2 660	..	2 331	..	2 095
	<b>Total</b>	..	<b>115 624</b>	..	<b>129 245</b>	..	<b>127 551</b>
76.16	Other articles of aluminum						
	United States	..	220 387	..	247 323	..	195 411
	China	..	55 458	..	60 363	..	47 534
	Mexico	..	13 575	..	11 315	..	10 521
	Germany	..	9 391	..	9 653	..	7 395
	Canada	..	2 083	..	3 260	..	3 491

France	..	2 810	..	3 470	..	2 998
Taiwan	..	3 952	..	3 443	..	2 942
Italy	..	2 181	..	2 996	..	2 918
Hong Kong	..	379	..	1 990	..	2 794
Malaysia	..	3 064	..	3 189	..	2 571
United Kingdom	..	3 479	..	3 333	..	2 503
India	..	1 366	..	2 735	..	1 734
Vietnam	..	2 493	..	2 410	..	1 387
Japan	..	1 539	..	1 597	..	1 050
Czech Republic	..	569	..	1 481	..	949
South Korea	..	1 655	..	1 032	..	853
Brazil	..	2 382	..	514	..	804
Spain	..	799	..	916	..	797
Sweden	..	814	..	680	..	680
Other countries	..	5 238	..	7 980	..	3 616
<b>Total</b>	..	<b>333 614</b>	..	<b>369 680</b>	..	<b>292 848</b>
<b>Total imports</b>	..	<b>5 898 998</b>	..	<b>6 062 068</b>	..	<b>4 359 169</b>

Sources: Natural Resources Canada; Statistics Canada.

– Nil; . . Not available; . . . Amount too small to be expressed; n.a. Not applicable; (p) Preliminary.

TABLE 2. CANADA, ALUMINUM SMELTER CAPACITY

As of December 31, 2009	
Company	(t/y)
<b>Alcan Aluminium Inc.</b>	
Quebec	
Grand-Baie	215 000
Arvida, Jonquière	171 000
Alma	435 000
Shawinigan	99 000
Beauharnois (1)	–
Laterrière	235 000
British Columbia	
Kitimat	277 000



<b>Alcoa Inc.</b>	
Quebec	
Aluminerie de Baie-Comeau	392 000
Aluminerie Luralco Inc., Deschambault	256 000
<b>Aluminerie de Bécancour Inc.</b>	
Quebec	
Bécancour	419 000
Alcoa, 74.95%	
Alcan (Pechiney) 25.05%	
<b>Aluminerie Alouette Inc.</b>	
Quebec	
Sept-Îles	575 000
Alcan, 40%	
Aluminium Austria Metall Québec, 20%	
Hydro Aluminium, 20%	
Société générale de financement du Québec, 13.33%	
Marubeni Québec Inc., 6.66%	
<b>Total Canadian capacity</b>	<b>3 074 000</b>
<b>Total Alcan, 57.6%</b>	<b>1 766 960</b>
<b>Total Alcoa, 31.2%</b>	<b>962 040</b>
<b>Total other, 11.2%</b>	<b>343 800</b>

Source: Natural Resources Canada.

– Nil.

(1) Closed in mid-2009.

TABLE 3. AVERAGE ALUMINUM PRICES, 1995-2009

Year	Month	LME Cash Settlement (1)	
		(US\$/t)	(US\$/lb)
ANNUAL AVERAGES (2)			

1995	n. a.	1 806	0.82
1996	n. a.	1 506	0.68
1997	n. a.	1 600	0.73
1998	n. a.	1 358	0.62
1999	n. a.	1 361	0.62
2000	n. a.	1 549	0.70
2001	n. a.	1 444	0.65
2002	n. a.	1 350	0.61
2003	n. a.	1 431	0.65
2004	n. a.	1 716	0.78
2005	n. a.	1 899	0.86
2006	n. a.	2 570	1.17
2007	n. a.	2 638	1.20
2008	n. a.	2 671	1.21
2009	n. a.	1 618	0.73
<b>MONTHLY AVERAGES</b>			
2008	January	2 446	1.11
	February	2 777	1.26
	March	3 005	1.36
	April	2 959	1.34
	May	2 903	1.32
	June	2 958	1.34
	July	3 071	1.39
	August	2 764	1.25
	September	2 526	1.15
	October	2 121	0.96
	November	1 852	0.84
	December	1 490	0.68
2009	January	1 413	0.64
	February	1 330	0.60
	March	1 336	0.61
	April	1 421	0.64
	May	1 460	0.66
	June	1 574	0.71
	July	1 668	0.76
	August	1 934	0.88
	September	1 834	0.83
	October	1 879	0.85
	November	1 949	0.88

December	2 180	0.99
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Sources: Natural Resources Canada; Metals Week.

n.a. Not applicable.

(1) Highest grade sold. (2) Primary ingots, minimum 99.7% purity.

TABLE 4. AVERAGE ALUMINUM ALLOY  
(RECYCLED) PRICES, 1995-2009

Year	Month	LME Alloy (1)	
		Cash Settlement	
		(US\$/t)	(US\$/lb)
ANNUAL AVERAGES			
1995	n. a.	1 656	0.75
1996	n. a.	1 303	0.59
1997	n. a.	1 461	0.66
1998	n. a.	1 204	0.55
1999	n. a.	1 191	0.54
2000	n. a.	1 217	0.55
2001	n. a.	1 172	0.53
2002	n. a.	1 234	0.56
2003	n. a.	1 400	0.63
2004	n. a.	1 559	0.71
2005	n. a.	1 646	0.75
2006	n. a.	2 290	1.04
2007	n. a.	2 193	0.99
2008	n. a.	2 255	1.02
2009	n. a.	1 457	0.66
MONTHLY AVERAGES			
2008	January	2 311	1.05
	February	2 504	1.14
	March	2 705	1.23
	April	2 757	1.25
	May	2 665	1.21
	June	2 628	1.19
	July	2 609	1.18
	August	2 457	1.11
	September	2 246	1.02
	October	1 684	0.76
	November	1 362	0.62
	December	1 126	0.51
2009	January	1 089	0.49

February	1 092	0.50
March	1 176	0.53
April	1 300	0.59
May	1 226	0.56
June	1 335	0.61
July	1 508	0.68
August	1 746	0.79
September	1 681	0.76
October	1 690	0.77
November	1 751	0.79
December	1 887	0.86

Sources: Natural Resources Canada; *Metals Week*.

n.a. Not applicable.

(1) Alloy ingots, meeting LME specifications.

TABLE 5. WORLD MINE PRODUCTION OF BAUXITE, 2006-09

Country	World Rank in 2008	World Rank in 2009	2006	2007	2008	2009
			(000 tonnes)			
Australia	1	1	61 781.0	62 398.0	64 038.0	65 231.0
Bosnia and Herzegovina	14	15	854.0	866.9	1 018.3	555.8
Brazil	2	3	23 236.3	25 460.7	28 097.5	26 074.0
China	3	2	18 981.0	20 446.0	25 176.0	30 000.0
France	n.a.	n.a.	—	—	—	—
Ghana	17	16	842.0	748.2	796.0	440.0
Greece	12	12	2 163.0	2 125.9	2 176.3	2 091.0
Guinea	5	4	18 784.0	18 519.0	18 400.0	15 600.0
Guyana	13	13	1 479.0	2 243.0	2 109.0	1 485.0
Hungary	20	19	538.3	546.4	511.0	317.0
India	4	6	13 940.0	20 343.0	19 737.0	14 128.0
Indonesia	6	5	9 000.0	16 000.0	18 000.0	15 000.0
Iran	19	18	500.0	520.0	520.0	322.8
Jamaica	7	7	14 865.0	14 568.0	14 363.0	7 817.5
Kazakhstan	10	9	4 883.8	4 942.6	5 160.0	5 130.0
Malaysia	21	20	91.8	156.8	295.2	263.0
Mozambique	25	25	11.1	8.6	5.4	3.6
Pakistan	23	24	8.0	18.1	36.0	25.0
Russia	8	8	6 399.0	6 053.0	5 675.0	5 775.0
Serbia and Montenegro	18	23	659.4	667.1	671.8	45.8
Sierra Leone	15	14	1 071.1	1 169.0	954.0	757.0
Suriname	9	11	4 945.4	5 273.2	5 333.0	3 388.4

Tanzania	24	21	5.4	5.0	20.6	122.9
Turkey	16	17	771.2	863.4	900.0	406.7
United States	n.a.	n.a.	361.0	—	—	—
Venezuela	11	10	5 928.0	5 323.0	4 192.0	4 267.0
Vietnam	22	22	60.0	80.0	80.0	80.0
<b>Total world</b>	<b>n.a.</b>	<b>n.a.</b>	<b>192 159.0</b>	<b>209 345.0</b>	<b>218 794.0</b>	<b>199 327.0</b>
% change from previous year	n.a.	n.a.	7.7	8.9	4.5	-8.9

Source: International Consultative Group on Nonferrous Metals Statistics.

— Nil; n.a. Not applicable.

TABLE 6. PRODUCTION OF ALUMINA (HYDRATE), 2006-09

Country	World Rank in 2008	World Rank in 2009	2006	2007	2008	2009
			(000 tonnes)			
Australia	2	2	18 312.0	18 884.0	19 446.0	19 939.0
Azerbaijan (1)	22	24	363.0	185.0	165.0	10.0
Bosnia and Herzegovina (1)	19	20	393.6	304.0	294.6	191.8
Brazil	3	3	6 735.0	7 078.0	7 822.0	8 625.0
Canada (1)	13	12	1 477.0	1 454.0	1 370.0	1 125.0
China	1	1	13 256.9	19 453.0	22 788.1	23 793.0
France	16	15	636.0	600.0	572.0	317.0
Germany (1)	12	11	850.0	900.0	900.0	900.0
Greece	15	14	780.0	789.0	771.8	718.8
Hungary (1)	18	18	301.0	301.0	299.0	185.0
India	6	4	3 077.0	3 208.0	3 000.0	3 000.0
Iran	21	17	167.8	194.0	200.0	200.0
Ireland (1)	8	10	1 816.0	1 803.0	1 890.0	1 240.0
Italy (1)	14	21	1 090.0	1 100.0	1 100.0	92.0
Jamaica	n.a.	n.a.	4 099.5	3 941.0	3 995.0	1 774.0
Japan	17	16	780.0	650.0	600.0	550.0
Kazakhstan	10	7	1 515.0	1 544.5	1 607.8	1 706.0
Romania (1)	n.a.	23	622.0	23.0	—	44.0
Russia	5	6	3 265.0	3 333.0	3 112.0	2 794.0
Serbia and Montenegro	20	22	237.0	240.0	220.0	59.0
Suriname	n.a.	n.a.	2 151.0	2 178.5	2 154.0	1 536.0
Spain	11	9	1 400.0	1 300.0	1 300.0	1 300.0
Turkey (1)	23	19	150.0	163.4	150.0	150.0
Ukraine	9	8	1 672.0	1 656.0	1 673.0	1 524.0
Guinea	n.a.	n.a.	530.0	526.0	593.0	530.0
United States (2)	4	5	4 696.0	4 236.0	4 298.0	3 068.0
Venezuela	7	13	1 920.0	1 751.0	1 591.3	1 370.0

<b>Total world</b>	<b>n.a.</b>	<b>n.a.</b>	<b>72 293.0</b>	<b>77 795.0</b>	<b>81 913.0</b>	<b>76 742.0</b>
% change from previous year	n.a.	n.a.	18.3	7.1	5.0	-6.7

Sources: Natural Resources Canada; International Consultative Group on Nonferrous Metals Statistics.

– Nil; n.a. Not applicable.

(1) Calcined. (2) Calcined alumina equivalent.

TABLE 7. WORLD PRODUCTION OF PRIMARY ALUMINUM, 2005-09

Country	World Rank in 2009	2005	2006	2007	2008	2009 (e)
		(000 tonnes)				
China	1	7 806	9 358	12 559	13 177	13 000
Russia	2	3 647	3 718	3 955	3 800	3 300
Canada	3	2 894	3 051	3 083	3 120	3 030
Australia	4	1 903	1 929	1 957	1 974	1 974
United States	5	2 481	2 283	2 554	2 658	1 710
Brazil	6	1 498	1 605	1 655	1 661	1 550
India	7	942	1 105	1 222	1 308	1 400
Norway	8	(r) 1 390	1 383	1 362	1 368	1 200
Dubai	9	722	789	890	892	992
Bahrain	10	744	872	866	872	872
South Africa	11	851	895	899	811	800
Iceland	12	272	325	399	760	790
Venezuela	13	624	617	616	608	550
Germany	14	648	516	551	606	520
Mozambique	15	554	563	560	536	500
France	16	438	442	430	432	400
Tajikistan	17	380	414	419	400	400
Spain	18	394	367	405	408	395
Argentina	19	271	273	287	394	395
Netherlands	20	(r) 334	285	297	320	320
New Zealand	21	351	337	351	316	316
Iran	22	232	205	204	248	285
Romania	23	244	258	286	290	270
Egypt	24	244	252	258	260	262
Indonesia	25	252	250	242	243	243
Oman	26	—	—	—	49	195
Italy	27	193	194	180	186	186
Slovakia	28	158	157	161	163	163
Greece	29	165	165	168	162	162
United Kingdom	30	369	360	365	326	160
Bosnia and Herzegovina	31	131	136	147	156	157

Serbia and Montenegro	32	120	122	135	120	110
Slovenia (1)	33	139	140	125	110	100
Cameroon	34	90	91	87	90	90
Ukraine	35	114	113	113	86	86
Sweden	36	102	102	100	82	82
Azerbaijan	37	32	32	39	62	62
Turkey	38	59	60	63	60	60
Poland	39	54	56	58	47	46
Ghana	40	13	76	13	9	9
Japan	41	6	6	6	7	7
<b>Total world</b>	<b>n.a.</b>	<b>(r) 31 938</b>	<b>33 892</b>	<b>38 101</b>	<b>38 759</b>	<b>36 392</b>
% change from previous year	n.a.	6.7	6.0	12.4	2.5	-6.1

Sources: International Consultative Group on Nonferrous Metals Statistics; media reports; International Aluminum Association.

– Nil; (e) Estimated; n.a. Not applicable; (r) Revised.

Note: Numbers may not add to totals due to rounding.

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