

# Mineral Industry Surveys

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## ALUMINUM IN JUNE 2010

Domestic primary aluminum production in June was 141,000 metric tons (t), according to the U.S. Geological Survey. The average daily production was 4,700 t, slightly lower than that for the previous month and 7% higher than that for June 2009. Primary aluminum production for the first 6 months of 2010 was down by 8% from that of the comparable period in 2009.

Total aluminum recovered from scrap in June 2010 was 200,000 t, slightly lower than the total of the previous month and 25% lower than the total in June 2009. Of this, 114,000 t of aluminum was recovered from new scrap, slightly higher than the amount in the previous month and 26% lower than the amount in June 2009. Aluminum recovered from old scrap in June 2010 totaled 86,000 t, which was 4% lower than the amount in May 2010 and 22% lower than the amount in June 2009. Total aluminum recovered from scrap in the first half of 2010 was 15% less than the total for the same period of 2009. Aluminum recovered from new scrap was down by 16% and from old scrap was down by 13% over the same comparative periods.

In June, the monthly average U.S. market price of primary aluminum ingot decreased to \$0.934 per pound from \$0.987 per pound in May, and in July it rose to \$0.96 per pound.

### Update

As of July 26, negotiations were continuing between Century Aluminum Co. (Monterey, CA) and the United Steelworkers union on a contract covering more than 540 hourly employees at the 244,000-metric-ton-per-year (t/yr) smelter in Hawesville, KY. Production has continued since the previous contract expired on March 31 (See Aluminum in May 2010.) (Century Aluminum Co., 2010).

Rio Tinto plc announced that failure of two electrical transformers in July reduced the production rate at its 235,000-t/yr smelter in Laterriere, Quebec, Canada, to one-half of capacity. The restart of the potline was expected to begin at the end of August or September. In preparation for expansion of Rio Tinto's smelter in Kitimat, British Columbia, Canada, two

potlines with a combined capacity of 67,000 t/yr would be permanently shut down and demolished during the second half of the year. The modernization project would increase the capacity to 400,000 t/yr by replacing the 277,000-t/yr Soderberg pots with prebaked pots. A completion date of the project was not given although the shutdown process was expected to begin by the end of August (Rio Tinto plc, 2010a, p. 7, 15).

Rio Tinto also announced that low precipitation levels in the Saguenay region of Quebec during the first half of 2010 were expected to result in a drop in power generation at hydroelectric powerplants in the Province during the second half of the year. As a result, Rio Tinto anticipated the need to purchase power from other sources or possibly reduce aluminum production from its smelters in Quebec. Rio Tinto owned and operated smelters in Quebec with a combined capacity of approximately 1.1 million metric tons per year, although the quantity of production at risk was not stated (Rio Tinto plc, 2010b, p. 5).

A power failure on August 9 forced the shutdown of 444 pots at the Qatar Aluminium Ltd. (Qatalum) smelter in Qatar. The 585,000-t/yr smelter was still in the ramp-up process, and 260 pots that had not been started would be put into production as previously scheduled, although a restart plan for the affected pots awaited an investigation into the cause of the power failure. Qatalum was a joint venture between Norsk Hydro ASA (Oslo, Norway) and Qatar Petroleum Ltd. (Norsk Hydro ASA, 2010).

### References Cited

- Century Aluminum Co., 2010, Century Aluminum subsidiary and the United Steelworkers announce constructive discussions regarding new CBA: Monterey, CA, Century Aluminum Co. news release, July 26, 1 p.
- Norsk Hydro ASA, 2010, Power outage stops production at Qatalum: Oslo Norway, Norsk Hydro ASA news release, August 10, 1 p.
- Rio Tinto plc, 2010a, Rio Tinto announces record first half underlying earnings of \$5.8 billion: London, United Kingdom, Rio Tinto plc media release, August 5, 51 p.
- Rio Tinto plc, 2010b, Second quarter 2010 operations review: Melbourne, Australia, Rio Tinto plc media release, July 14, 26 p.

TABLE 1  
COMPONENTS OF ALUMINUM SUPPLY<sup>1</sup>

(Thousand metric tons)

Period	Primary production	Secondary recovery <sup>2</sup>			Imports for consumption			Total new supply <sup>3</sup>	Total stocks, end of period <sup>4</sup>
		New	Old	Total	Metals and alloys, crude	Plates, sheets, bars, etc.	Total		
2009 <sup>p</sup>	1,727 <sup>r</sup>	1,840 <sup>r</sup>	1,250	3,090 <sup>r</sup>	2,900	786	3,680	8,500 <sup>r</sup>	937
2009:									
June	132	155 <sup>r</sup>	110	266	200	57	256	654 <sup>r</sup>	947
July	135	154 <sup>r</sup>	108	262 <sup>r</sup>	299	70	369	766 <sup>r</sup>	978
August	133	172 <sup>r</sup>	103	275 <sup>r</sup>	216	68	284	693 <sup>r</sup>	944
September	129	164 <sup>r</sup>	107	271 <sup>r</sup>	212	77	289	689 <sup>r</sup>	925
October	137	167 <sup>r</sup>	118 <sup>r</sup>	284 <sup>r</sup>	207	79	286	707 <sup>r</sup>	892
November	133	146 <sup>r</sup>	104	250 <sup>r</sup>	211	83	294	677 <sup>r</sup>	896
December	140	140 <sup>r</sup>	103	243 <sup>r</sup>	217	73	290	673 <sup>r</sup>	937
January-June	920	893	610	1,500	1,530	337	1,870	4,290	XX
2010:									
January	142	131	83	214	238	82	319	675	984
February	130	130	90	220	209	67	276	626	975
March	146	138	84	222	230	94	325	693	957
April	142	123	97	220	257	102	359	722	979
May	148	112	90	202	233	96	329	679	1,010
June	141	114	86	200	NA	NA	NA	NA	NA
January-June	850	747	531	1,280	NA	NA	NA	NA	NA

<sup>p</sup>Preliminary. <sup>r</sup>Revised. NA Not available. XX Not applicable.

<sup>1</sup>Data are rounded to no more than three significant digits, except "Primary production"; may not add to totals shown.

<sup>2</sup>Metallic recovery from purchased, tolled, or imported scrap, expanded for full coverage of industry.

<sup>3</sup>Primary production, secondary recovery, and imports for consumption.

<sup>4</sup>Inventory levels reflect total for both U.S. and Canadian producers; data from the Aluminum Association Inc.

TABLE 2  
ESTIMATED FULL COVERAGE CONSUMPTION OF AND METALLIC RECOVERY FROM  
PURCHASED NEW AND OLD ALUMINUM SCRAP<sup>1</sup>

(Thousand metric tons)

Period	Secondary smelters		Independent mill fabricators		Foundries		Other consumers		Total	
	Con- sump- tion	Metal recovery	Con- sump- tion	Metal recovery	Con- sump- tion	Metal recovery	Con- sump- tion	Metal recovery	Con- sump- tion	Metal recovery
	2009 <sup>p</sup>	1,480	1,150	2,140	1,860	90	78	10	9	3,720
2009:										
June	117	91	192	167	7	7	1 <sup>r</sup>	1 <sup>r</sup>	317	266
July	116	90	189	164	7	7	1 <sup>r</sup>	1 <sup>r</sup>	314	262
August	124	99	193	169	7	7	1 <sup>r</sup>	1 <sup>r</sup>	325	275
September	127	98	190	166	7	7	1 <sup>r</sup>	1 <sup>r</sup>	325	271
October	129	103	201	175	7	7	1 <sup>r</sup>	1 <sup>r</sup>	338	284
November	127	99	168	144	7	7	1 <sup>r</sup>	1 <sup>r</sup>	303	250
December	126	97	162	139	7	7	1 <sup>r</sup>	1 <sup>r</sup>	296	243
January-June	726	559	1,040	900	45	39	5	4	1,820	1,500
2010:										
January	114	86	144	123	5	4	1 <sup>r</sup>	1 <sup>r</sup>	263	214
February	116	89	145	126	5	4	1 <sup>r</sup>	1 <sup>r</sup>	267	220
March	127	95	141	122	5	4	1 <sup>r</sup>	1 <sup>r</sup>	273	222
April	117	88	148	127	5	4	1 <sup>r</sup>	1 <sup>r</sup>	271	220
May	121	93	124	105	5	4	1 <sup>r</sup>	1 <sup>r</sup>	251	202
June	122	93	121	102	5	4	1	1	248	200
January-June	716	544	823	704	30	27	4	4	1,570	1,280

<sup>p</sup>Preliminary. <sup>r</sup>Revised.

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

TABLE 3  
CONSUMPTION OF AND RECOVERY FROM PURCHASED  
NEW AND OLD ALUMINUM SCRAP IN JUNE 2010<sup>1</sup>

(Metric tons)

	Consumption		Calculated metallic recovery	
	Tabulated reports	Estimated full coverage	Tabulated reports	Estimated full coverage
Secondary smelters	101,000	122,000	77,600	93,100
Independent mill fabricators	109,000	121,000	92,400	102,000
Foundries	4,220	5,070	3,680	4,420
Other consumers	535	642	492	590
Total	215,000	248,000	174,000	200,000

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

TABLE 4  
PURCHASED AND TOLL-TREATED ALUMINUM-BASE SCRAP AND SWEATED PIG IN JUNE 2010<sup>1</sup>

(Metric tons)

	June			January-June <sup>2</sup>		
	Stocks, opening <sup>2</sup>	Net receipts <sup>3</sup>	Melted or consumed	Stocks, closing	Net receipts <sup>3</sup>	Melted or consumed
<b>New scrap:</b>						
Extrusion	22,700	42,500	44,400	20,800	271,000	280,000
Can stock clippings	10,000	20,200	15,900	14,300	123,000	112,000
Other wrought sheet/clippings	9,590	20,400	17,200	12,800	143,000	136,000
Casting	825	4,010	3,920	914	24,800	24,700
Borings and turnings	1,720	7,580	7,620	1,670	47,500	47,600
Dross and skimmings	2,250	19,900	19,900	2,250	202,000	202,000
Total new scrap	47,100	114,000	109,000	52,700	811,000	803,000
<b>Old scrap:</b>						
Used castings	13,000	17,700	16,900	13,800	106,000	98,200
Used extrusion	3,490	8,700	8,640	3,550	44,700	44,900
Used cans (shredded, loose, baled)	22,700	48,300	44,200	26,900	316,000	299,000
Other wrought products	5,210	13,700	13,700	5,210	74,100	74,200
Fragmentized shredder (auto shredder)	820	4,580	4,630	775	26,400	26,500
Total old scrap	45,200	93,100	88,100	50,200	566,000	542,000
Sweated pig	1	118	118	1	821	821
Total all classes	92,300	208,000	197,000	103,000	1,380,000	1,350,000

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>May include revised data from previous month(s).

<sup>3</sup>Includes data on imported aluminum-base scrap.

TABLE 5  
ALUMINUM ALLOYS PRODUCED AT SECONDARY SMELTERS IN THE UNITED STATES FOR 2010<sup>1,2</sup>

(Metric tons)

	June			January-June <sup>3</sup>		
	Stocks, opening <sup>3</sup>	Production	Net shipments	Stocks, closing	Production	Net shipments
Die-cast alloys:						
13% Si, 360, etc. (0.6% Cu, max.)	1,150	2,510	2,560	1,100	14,600	14,700
380 and variations	2,710	13,500	13,500	2,710	83,200	83,200
Sand and permanent mold:						
95/5 Al-Si, 356, etc. (0.6% Cu, max.)	1,950	2,930	2,930	1,950	17,600	17,600
No. 319 and variations	1,640	2,750	2,790	1,600	16,000	16,000
F-132 alloy and variations	431	501	501	431	2,950	2,950
Al-Zn alloys	291	130	130	291	848	848
Al-Si alloys (0.6% to 2.0% Cu)	261	227	227	261	1,720	1,720
Al-Cu alloys (1.5% Si, max.)	48	39	39	48	262	262
Other <sup>4</sup>	12,900	5,820	6,610	12,100	40,300	42,100
Wrought alloys, extrusion billets	20,100	38,000	38,600	19,500	228,000	228,000
Total all alloys	41,400	66,400	67,800	40,000	405,000	407,000
Less:						
Primary aluminum consumed	XX	12,700	XX	XX	XX	77,600
Primary silicon consumed	XX	1,030	XX	XX	XX	7,410
Other alloying ingredients consumed	XX	966	XX	XX	XX	5,950
Net metallic recovery from aluminum scrap and sweated pig consumed in production of secondary aluminum ingot <sup>5</sup>						
	XX	51,700	XX	XX	XX	314,000

XX Not applicable.

<sup>1</sup>Excludes integrated aluminum companies.

<sup>2</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>3</sup>May include revised data from previous month(s).

<sup>4</sup>Includes alloys No. 12, Al-Mg, Al-Si-Cu-Ni, aluminum-base hardeners, variations of these alloys, plus other aluminum alloys.

<sup>5</sup>No allowance made for melt-loss of primary aluminum and alloying ingredients.

TABLE 6  
AVERAGE PRICE OF ALUMINUM IN THE UNITED STATES  
AND ON THE LONDON METAL EXCHANGE

(Cents per pound)

Period	Midwest U.S. market price	LME cash price Grade A
2009:		
June	74.625	71.366
July	79.650	75.639
August	92.125	87.700
September	88.313	83.172
October	89.400	85.194
November	93.125	88.404
December	103.800	98.871
January-December	79.433	75.499
2010:		
January	106.875	101.372
February	98.688	92.923
March	105.700	100.028
April	110.875	105.072
May	98.688	92.541
June	93.438	83.452
January-June	102.377	95.898

Source: Platts Metals Week.

TABLE 7  
AVERAGE BUYING PRICES FOR ALUMINUM SCRAP

(Cents per pound)

Month	Used beverage cans	Mixed low copper clips	Old sheet and cast	Turnings (clean and dry)
2009:				
June	50.64	44.61	41.93	33.14
July	54.27	50.59	46.98	40.09
August	61.62	58.21	54.50	49.93
September	58.00	59.50	56.50	52.83
October	61.43	59.69	57.26	53.02
November	64.42	59.71	56.58	54.50
December	71.16	63.55	46.15	57.34
January-December	53.28	49.36	45.08	41.04
2010:				
January	73.95	73.34	66.76	64.76
February	68.05	64.50	64.71	63.18
March	75.48 <sup>r</sup>	70.80	70.26	68.85
April	78.77	78.00	73.36	70.73
May	69.10	71.03	64.75	62.70
June	65.77	67.05	62.14	60.45
January-June	71.85	70.79	67.00	65.11

<sup>r</sup>Revised.

Source: American Metal Market.

TABLE 8  
U.S. IMPORTS FOR CONSUMPTION OF ALUMINUM IN MAY 2010<sup>1</sup>

(Metric tons)

Country	Metals and alloys, crude		Plates, sheets, bars, etc.		Scrap		Total	
	May	January- May	May	January- May	May	January- May	May	January- May
Argentina	10,500	63,900	--	--	--	--	10,500	63,900
Australia	6,020	9,510	4	29	--	103	6,020	9,640
Bahrain	--	--	1,740	6,570	--	6	1,740	6,570
Belgium	1	42	132	951	--	--	133	993
Brazil	5,800	23,400	1,840	6,030	--	--	7,640	29,400
Canada	163,000	867,000	28,200	132,000	26,900	136,000	218,000	1,130,000
China	79	471	34,100	150,000	11	20	34,200	150,000
France	106	843	411	2,090	--	41	517	2,970
Germany	38	213	6,480	28,900	33	105	6,550	29,300
Hungary	--	12	18	37	--	--	18	50
Italy	(2)	(2)	303	1,210	33	91	336	1,300
Japan	43	309	408	3,300	61	161	512	3,770
Korea, Republic of	--	963	227	695	(2)	74	228	1,730
Mexico	2,670	7,630	1,900	8,080	8,970	42,900	13,600	58,600
Netherlands	5	120	180	704	54	454	239	1,280
Norway	51	922	1	5	--	--	52	927
Russia	26,800	84,100	946	5,760	--	--	27,700	89,800
South Africa	--	3,000	3,510	21,900	--	--	3,510	24,900
Spain	22	98	17	47	--	--	39	146
Sweden	--	2	70	503	--	--	70	504
Switzerland	--	--	313	2,220	--	--	313	2,220
United Arab Emirates	6,820	27,600	--	--	--	--	6,820	27,600
United Kingdom	46	264	424	3,570	391	2,820	861	6,650
Venezuela	9,710	65,800	78	820	148	530	9,930	67,100
Other	1,640	12,300	14,700	65,400	3,150	16,800	19,500	94,500
Total	233,000	1,170,000	96,000	440,000	39,800	201,000	369,000	1,810,000

-- Zero.

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 9  
U.S. EXPORTS OF ALUMINUM IN MAY 2010<sup>1</sup>

(Metric tons)

Country or territory	Metals and alloys, crude		Plates, sheets, bars, etc.		Scrap		Total	
	May	January- May	May	January- May	May	January- May	May	January- May
Australia	53	121	144	1,170	--	--	197	1,290
Belgium	32	70	46	427	41	41	119	538
Brazil	1	25	989	6,260	256	2,120	1,250	8,400
Canada	6,990	34,700	30,900	150,000	12,100	52,100	50,000	237,000
China	158	1,420	2,930	14,900	110,000	453,000	113,000	470,000
Czech Republic	4	5	17	108	--	--	21	113
Dominican Republic	--	(2)	46	174	--	1	46	176
France	338	757	972	4,230	335	879	1,650	5,870
Germany	143	1,360	823	4,300	24	101	990	5,760
Hong Kong	(2)	13	685	6,360	5,320	27,400	6,010	33,800
India	21	30	219	814	3,550	14,000	3,800	14,800
Israel	88	320	566	2,430	--	--	654	2,750
Italy	12	17	222	973	1	19	235	1,010
Japan	180	613	673	2,780	3,020	9,560	3,870	12,900
Korea, Republic of	67	190	1,630	5,590	12,200	63,900	13,900	69,700
Malaysia	5	11	114	487	257	1,900	375	2,400
Mexico	12,100	60,400	23,000	95,000	12,900	63,300	48,000	219,000
Netherlands	4	18	56	325	20	39	80	382
Russia	--	1	5	16	--	--	5	17
Saudi Arabia	--	3	965	3,530	--	--	965	3,530
Singapore	68	304	216	972	159	217	442	1,490
Spain	--	14	128	567	96	96	224	677
Sweden	--	--	19	36	--	--	19	36
Taiwan	111	522	417	1,610	9,340	58,900	9,860	61,100
Thailand	--	7	46	600	567	1,650	613	2,260
United Kingdom	98	360	683	3,720	26	209	807	4,290
Venezuela	--	5	10	199	--	--	10	204
Other	34	552	4,930	24,800	2,540	11,500	7,500	36,800
Total	20,500	102,000	71,500	332,000	173,000	761,000	265,000	1,200,000

-- Zero.

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>Less than ½ unit.

Source: U.S. Census Bureau.