

# Mineral Industry Surveys

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## ALUMINUM IN MARCH 2016

Following recent smelter shutdowns, only two companies reported domestic production of primary aluminum. Consequently, beginning in February 2016, monthly production data were withheld to avoid the release of proprietary data.

Total aluminum recovered from scrap in March 2016 was 301,000 metric tons (t), slightly more than that recovered in February and 4% more than that in March 2015 (fig. 1, table 1). Of this, 169,000 t of aluminum was recovered from new scrap, slightly more than the amount in the preceding month and 5% more than the amount recovered in March 2015. The amount of aluminum recovered from old scrap was 133,000 t, slightly more than the amount recovered in the preceding month and 3% more than that in March 2015.

Total imports of aluminum (table 8) in the first quarter of 2016 were 10% more than those in the same period of 2015. Imports of crude metal and alloys increased by 23% but imports of semifabricated aluminum products decreased by 14% and imports of aluminum scrap decreased by 7%. Canada accounted for 51% of total aluminum imported in the first quarter of 2016, 79% of which were crude metal and alloys. Crude metal and alloys from Canada accounted for 40% of all aluminum imported during the quarter.

Total exports of aluminum (table 9) during the first quarter of 2016 were slightly less than those in the same period of 2015. Exports of crude metal and alloys decreased by 3% and aluminum scrap exports decreased by 5%. Exports of semifabricated aluminum products increased by 3%. The leading destinations of total aluminum in the first quarter of 2016 were Mexico (28%), China (26%), and Canada (25%). Exports of scrap to China accounted for 24% of all aluminum exports during the quarter.

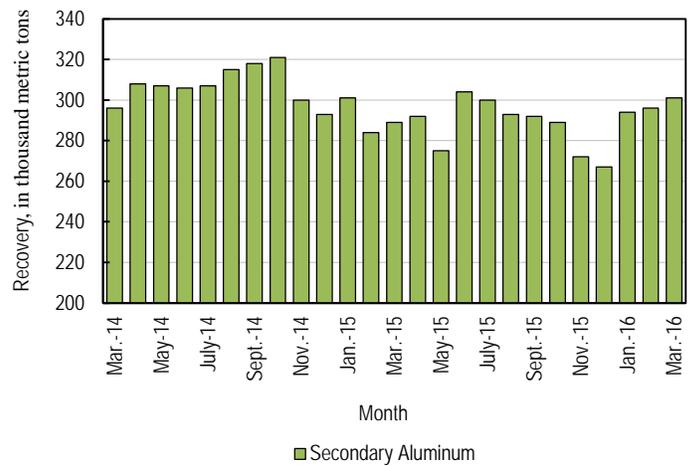


Figure 1. Monthly domestic secondary aluminum recovery from March 2014 through March 2016. Source: U.S. Geological Survey.

**Update**

In May, Alcoa Inc. and the Bonneville Power Authority reached a power supply agreement that would enable the Intalco smelter in Wenatchee, WA, to remain open. Alcoa had announced plans to close the 279,000-metric-ton-per-year smelter, citing high power prices and low prices for aluminum. (See Aluminum in September 2015.) The contract was for power supplied from July 1, 2016 through February 14, 2018 (Alcoa Inc., 2016).

At the request of the U.S. House of Representatives Committee on Ways and Means, the U.S. International Trade Commission (USITC) launched an investigation to examine the aluminum industry. The USITC is to report on the factors affecting competition in major unwrought and wrought aluminum producing- and exporting-countries, including the United States. The USITC investigation is to examine industry characteristics, recent trade trends, competitive strengths and weaknesses, factors related to increased capacity, and the effect of government policies on production and trade of aluminum.

The USITC also is to assess the impact of foreign government policies in select countries on their domestic production, consumption, exports, and prices of aluminum as well as their impact on the U.S. aluminum industry and global aluminum markets. The USITC plans to hold a public hearing concerning this investigation on September 29 (U.S. International Trade Commission, 2016).

**Prices and Stocks**

The monthly average U.S. market price of primary aluminum ingot decreased to \$0.773 per pound in March from \$0.783 per pound in February (fig. 2). The monthly average price increased to \$0.793 per pound in April.

Inventories of primary aluminum in London Metal Exchange Ltd. approved warehouses in the United States continued their downward trend, decreasing to 337,000 t at the end of March, and 299,000 t at the end of April, their lowest level since October 2007.

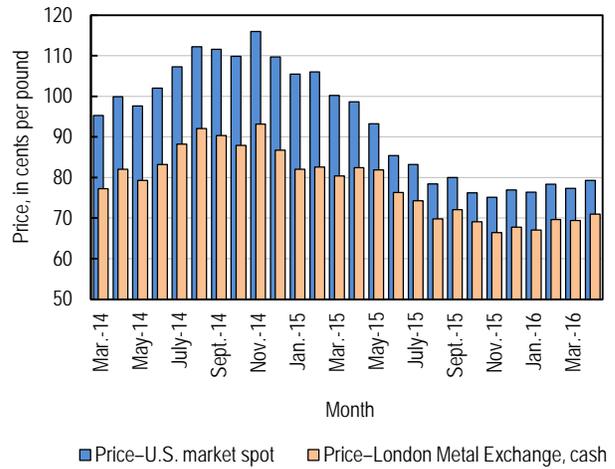


Figure 2. Average monthly prices for primary aluminum from March 2014 through April 2016. Source: Platts Metals Week.

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**References Cited**

Alcoa Inc., 2016, Alcoa reaches power agreement to improve competitiveness of Intalco smelter: New York, NY, Alcoa Inc. press release, May 2. (Accessed May 20, 2016, at [http://www.alcoa.com/global/en/news/news\\_detail.asp?pageID=20160502000332en&newsYear=2016.](http://www.alcoa.com/global/en/news/news_detail.asp?pageID=20160502000332en&newsYear=2016.))

U.S. International Trade Commission, 2016, Aluminum—Competitive conditions affecting the U.S. industry institution of investigation and scheduling of hearing: Federal Register, v. 81, no. 70, April 12, p. 21591–21592. (Accessed May 24, 2016, at [http://www.gpo.gov/fdsys/pkg/FR-2016-04-12/pdf/2016-08269.pdf.](http://www.gpo.gov/fdsys/pkg/FR-2016-04-12/pdf/2016-08269.pdf))

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>	Stocks, end of period <sup>4</sup>
		New	Old	Total	Metals and alloys, crude	Plates, sheets, bars, etc.	Total		
2015 <sup>p</sup>	1,587	1,870	1,590	3,460	3,380	1,180	4,560	9,610	1,350
2015:									
March	143	161	128	289	312	115	427	858	1,390
April	138	158	134	292	322	103	425	855	1,360
May	142	147	127	275	299	118	417	833	1,370
June	133	171	133	304	301	100	401	839	1,350
July	134	159	140	300	301	100	401	835	1,380
August	135	158	136	293	251	89	339	767	1,320
September	128	158	134	292	283	87	370	790	1,310
October	128	154	135	289	270	88	358	776	1,320
November	121	150	122	272	267	85	353	746	1,350
December	113	148	118	267	259	87	346	726	1,350
January–March	414	466	408	874	829	322	1,150	2,440	1,400
2016:									
January	106	169	125	294	362	91	453	854	1,340
February	W	166	130	296	270	89	359	655 <sup>5</sup>	1,380
March	W	169	133	301	385	96	481	782 <sup>5</sup>	NA
January–March	W	504	388	891	1,020	276	1,290	2,190 <sup>5</sup>	NA

<sup>p</sup>Preliminary. NA Not available. W Withheld to avoid disclosing company proprietary data.

<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.

<sup>5</sup>Excludes primary production.

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
	2015 <sup>P</sup>	2,180	1,680	1,840	1,670	117	103	3	3	4,130
2015:										
March	182	140	153	140	10	9	(2)	(2)	345	289
April	183	141	157	143	10	9	(2)	(2)	349	292
May	183	141	137	125	10	9	(2)	(2)	330	275
June	182	140	170	155	10	9	(2)	(2)	362	304
July	183	141	165	150	10	9	(2)	(2)	358	300
August	182	140	158	144	10	9	(2)	(2)	350	293
September	183	141	156	142	10	9	(2)	(2)	349	292
October	182	140	155	140	10	9	(2)	(2)	346	289
November	181	139	136	124	10	9	(2)	(2)	327	272
December	178	138	132	120	10	9	(2)	(2)	320	267
January–March	541	418	471	429	29	26	1	1	1,040	874
2016:										
January	193	149	149	137	8	8	(2)	(2)	352	294
February	192	149	152	139	8	8	(2)	(2)	354	296
March	197	151	155	142	8	8	(2)	(2)	362	301
January–March	583	449	457	418	25	23	1	1	1,070	891

<sup>P</sup>Preliminary.

<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.

TABLE 3  
CONSUMPTION OF AND RECOVERY FROM PURCHASED  
NEW AND OLD ALUMINUM SCRAP IN MARCH 2016<sup>1</sup>

(Metric tons)

	Consumption		Calculated metallic recovery	
	Tabulated reports	Estimated full coverage	Tabulated reports	Estimated full coverage
	Secondary smelters	164,000	197,000	126,000
Independent mill fabricators	141,000	155,000	129,000	142,000
Foundries	7,040	8,450	6,440	7,730
Other consumers	301	361	301	361
Total	313,000	362,000	262,000	301,000

<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 MARCH 2016<sup>1</sup>

(Metric tons)

	March			January–March <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	14,000	55,300	55,500	13,700	165,000	166,000
Can stock clippings	7,120	20,700	20,700	7,100	62,000	62,000
Other wrought sheet/clippings	6,950	48,900	48,800	7,080	138,000	146,000
Casting	2,220	6,100	6,260	2,070	18,600	18,900
Borings and turnings	2,750	9,070	8,990	2,830	28,300	28,300
Dross and skimmings	7,910	40,700	40,700	7,910	117,000	117,000
<b>Total new scrap</b>	<b>40,900</b>	<b>181,000</b>	<b>181,000</b>	<b>40,700</b>	<b>530,000</b>	<b>538,000</b>
<b>Old scrap:</b>						
Used castings	6,940	22,100	22,200	6,890	65,800	66,000
Used extrusion	8,900	15,600	16,100	8,460	43,900	45,400
Used cans (shredded, loose, baled)	5,180	55,200	54,800	5,500	165,000	164,000
Other wrought products	23,100	28,400	31,900	19,600	86,400	90,300
Fragmentized shredder (auto shredder)	2,900	6,230	6,680	2,450	18,200	18,700
<b>Total old scrap</b>	<b>47,000</b>	<b>128,000</b>	<b>132,000</b>	<b>42,900</b>	<b>379,000</b>	<b>385,000</b>
<b>Sweated pig</b>	<b>183</b>	<b>151</b>	<b>151</b>	<b>183</b>	<b>454</b>	<b>454</b>
<b>Total all classes</b>	<b>88,100</b>	<b>308,000</b>	<b>313,000</b>	<b>83,800</b>	<b>909,000</b>	<b>924,000</b>

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

<sup>2</sup>May include revisions to previously published data.

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

TABLE 5  
ALUMINUM ALLOYS PRODUCED AT SECONDARY SMELTERS IN THE UNITED  
STATES IN MARCH 2016<sup>1,2</sup>

(Metric tons)

	March				January–March <sup>3</sup>	
	Stocks, opening <sup>3</sup>	Production	Net shipments	Stocks, closing	Production	Net shipments
<b>Die-cast alloys:</b>						
13% Si, 360, etc. (0.6% Cu, max.)	3,830	2,880	3,030	3,680	8,640	9,080
380 and variations	7,890	12,900	12,900	7,890	38,600	38,600
<b>Sand and permanent mold:</b>						
95/5 Al-Si, 356, etc. (0.6% Cu, max.)	1,690	4,160	4,160	1,690	12,500	12,500
No. 319 and variations	3,260	6,880	6,880	3,260	20,600	20,600
F-132 alloy and variations	714	352	352	714	1,060	1,060
Al-Zn alloys	477	178	178	477	535	535
Al-Si alloys (0.6% to 2.0% Cu)	150	233	233	150	700	700
Al-Cu alloys (1.5% Si, max.)	148	72	72	148	215	215
Other <sup>4</sup>	5,150	6,220	5,370	6,000	18,500	15,900
Wrought alloys, extrusion billets	21,400	63,800	63,500	21,700	188,000	187,000
<b>Total all alloys</b>	<b>44,700</b>	<b>97,600</b>	<b>96,600</b>	<b>45,700</b>	<b>289,000</b>	<b>286,000</b>
<b>Less:</b>						
Primary aluminum consumed	XX	18,300	XX	XX	53,200	XX
Primary silicon consumed	XX	2,090	XX	XX	6,250	XX
Other alloying ingredients consumed	XX	1,260	XX	XX	3,790	XX
Net metallic recovery from aluminum scrap and sweated pig consumed in production of secondary aluminum ingot <sup>5</sup>	XX	75,900	XX	XX	226,000	XX

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 revisions to previously published data.

<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
2015:		
March	100.188	80.388
April	98.650	82.409
May	93.250	81.865
June	85.420	76.348
July	83.217	74.287
August	78.388	69.828
September	79.989	72.053
October	76.227	69.112
November	75.155	66.469
December	76.905	67.762
January–December	88.244	75.426
2016:		
January	76.350	67.090
February	78.345	69.637
March	77.345	69.409
January–March	77.347	68.712

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	Old cast	Turnings (clean and dry)
2015:					
March	75.14	70.45	66.14	66.82	64.05
April	71.00	69.64	64.16	65.80	62.36
May	61.70	65.45	61.70	63.70	58.00
June	56.14	60.14	57.59	60.14	59.14
July	57.86	58.50	55.91	59.45	51.91
August	58.00	56.10	52.33	56.33	49.57
September	60.24	54.52	50.62	54.42	49.33
October	59.30	52.39	49.00	53.00	47.91
November	56.84	51.00	47.74	52.08	47.00
December	59.89	51.59	47.36	52.36	47.36
January–December	65.09	61.04	57.20	60.12	55.94
2016:					
January	60.63	54.00	49.74	54.32	49.74
February	61.60	54.85	50.90	55.00	51.10
March	59.87	56.00	52.91	55.91	52.91
January–March	60.70	54.95	51.18	55.08	51.25

Source: American Metal Market.

TABLE 8  
U.S. IMPORTS FOR CONSUMPTION OF ALUMINUM IN MARCH 2016<sup>1</sup>

(Metric tons)

Country or territory	Metals and alloys, crude		Plates, sheets, bars, etc.		Scrap		Total	
	March	January– March	March	January– March	March	January– March	March	January– March
Argentina	13,400	38,500	--	--	--	15	13,400	38,500
Australia	460	460	19	73	140	140	619	673
Austria	--	7	3,280	8,050	133	423	3,410	8,480
Bahamas, The	--	--	--	--	202	616	202	616
Bahrain	5,370	26,300	2,770	9,150	--	--	8,140	35,500
Belgium	161	330	499	1,680	--	--	660	2,010
Brazil	13,100	13,800	902	3,100	1,050	1,560	15,000	18,500
Canada	192,000	570,000	23,700	66,000	29,400	86,000	246,000	722,000
Chile	--	--	--	--	319	606	319	606
China	37	237	26,100	82,600	236	327	26,400	83,200
Colombia	--	--	475	1,350	116	148	591	1,500
Costa Rica	--	--	--	--	225	700	225	700
El Salvador	--	--	--	38	237	733	237	771
France	1,240	2,930	1,150	3,870	279	692	2,670	7,490
Germany	79	280	6,740	16,700	145	294	6,970	17,300
Greece	--	--	1,930	4,130	20	20	1,950	4,150
Guatemala	--	--	--	--	461	1,730	461	1,730
Honduras	--	--	--	--	8	29	8	29
Hong Kong	--	--	236	816	--	--	236	816
India	5,020	11,300	2,510	6,630	(2)	51	7,530	18,000
Indonesia	--	--	3,090	8,980	--	--	3,090	8,980
Italy	167	314	1,090	2,250	26	51	1,290	2,610
Japan	--	--	2,300	6,360	25	181	2,320	6,540
Korea, Republic of	2,350	5,110	2,230	4,830	50	122	4,630	10,100
Malaysia	31	1,060	497	1,460	25	25	553	2,540
Mexico	748	2,870	3,770	11,100	9,660	27,700	14,200	41,700
New Zealand	1,080	4,790	--	(2)	--	(2)	1,080	4,790
Norway	171	6,410	1	8	--	--	172	6,420
Qatar	9,580	22,200	--	--	--	--	9,580	22,200
Romania	2	2	512	1,280	--	--	514	1,280
Russia	82,800	150,000	1,170	3,140	--	--	84,000	153,000
Saudi Arabia	3,350	13,500	--	--	123	123	3,470	13,700
South Africa	--	--	4,470	14,400	--	--	4,470	14,400
Sweden	--	--	583	1,760	--	--	583	1,760
Switzerland	--	--	125	285	40	40	165	325
Taiwan	32	81	378	1,270	232	927	642	2,270
United Arab Emirates	49,600	135,000	--	--	174	527	49,800	136,000
United Kingdom	134	318	1,210	2,900	725	1,400	2,070	4,610
Venezuela	3,890	11,400	42	466	785	785	4,720	12,700
Other	256	895	3,750	10,900	3,560	8,110	7,570	19,900
Total	385,000	1,020,000	95,600	276,000	48,400	134,000	529,000	1,430,000

-- 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 MARCH 2016<sup>1</sup>

(Metric tons)

Country or territory	Metals and alloys, crude		Plates, sheets, bars, etc.		Scrap		Total	
	March	January– March	March	January– March	March	January– March	March	January– March
Australia	38	46	125	375	--	--	163	421
Belgium	--	--	161	348	216	529	377	877
Brazil	17	17	512	1,260	--	35	529	1,310
Canada	8,920	26,000	39,400	113,000	10,200	28,900	58,500	168,000
Chile	--	5	19	42	21	21	40	68
China	60	68	2,590	8,190	54,200	165,000	56,900	173,000
Colombia	--	5	119	411	7	25	126	441
France	657	1,350	759	2,650	149	950	1,570	4,950
Germany	178	414	486	2,020	394	923	1,060	3,360
Guatemala	1	1	1,410	4,560	--	--	1,410	4,560
Hong Kong	--	--	150	563	3,170	9,210	3,320	9,780
India	3	16	74	307	4,100	10,200	4,180	10,500
Indonesia	--	2	26	69	2,510	6,240	2,540	6,310
Ireland	--	(2)	48	270	--	--	48	270
Israel	(2)	24	831	2,520	--	--	831	2,540
Italy	12	15	192	628	20	20	224	663
Japan	206	380	2,090	6,460	1,980	4,650	4,280	11,500
Jordan	--	--	2	562	--	--	2	562
Korea, Republic of	224	276	3,440	8,560	11,700	29,300	15,300	38,200
Kuwait	--	--	291	1,300	--	--	291	1,300
Malaysia	1	3	322	836	3,720	10,500	4,040	11,400
Mexico	14,800	45,800	37,000	110,000	10,600	32,300	62,400	188,000
Netherlands	8	14	570	766	73	101	651	881
New Zealand	(2)	(2)	107	245	1	1	108	246
Norway	(2)	30	5	13	--	--	5	43
Pakistan	--	--	--	6	640	2,620	640	2,630
Panama	(2)	(2)	811	1,680	--	4	811	1,690
Romania	3	11	53	134	--	--	56	145
Saudi Arabia	--	--	505	2,500	--	--	505	2,500
Singapore	18	32	311	757	--	--	329	789
Spain	2	2	216	804	--	78	218	884
Taiwan	2	537	283	1,150	2,760	7,220	3,050	8,910
Thailand	--	--	542	1,700	297	765	839	2,470
Tunisia	--	--	--	3	--	--	--	3
Turkey	(2)	1	364	904	--	(2)	364	905
United Arab Emirates	(2)	2	462	1,500	21	42	483	1,550
United Kingdom	22	170	1,370	4,270	92	243	1,490	4,690
Vietnam	38	63	219	494	149	802	406	1,360
Other	55	184	870	2,950	544	1,730	1,470	4,860
Total	25,300	75,500	96,700	285,000	108,000	312,000	230,000	673,000

-- 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.