

Mineral Industry Surveys

For information, contact:

Christine L. Thomas, Zinc Commodity Specialist
 National Minerals Information Center
 U.S. Geological Survey
 989 National Center
 Reston, VA 20192
 Telephone: (703) 648-7713 Fax: (703) 648-7757
 Email: clthomas@usgs.gov

Hodan A. Fatah (Data)
 Telephone: (703) 648-4971
 Fax: (703) 648-7975
 Email: hfatah@usgs.gov

Internet: <http://minerals.usgs.gov/minerals/>

ZINC IN FEBRUARY 2017

Domestic mine production (recoverable) of zinc in February 2017 was 50,500 metric tons (t) (table 2). Average daily mine production in February was 1,800 t, 4% less than that in January and 20% less than that in February 2016 (fig. 1).

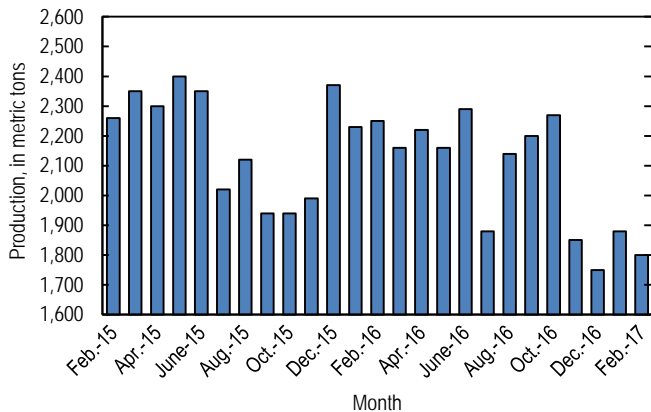


Figure 1. Average daily domestic zinc mine production (recoverable) from February 2015 through February 2017. Source: U.S. Geological Survey.

Global London Metal Exchange Ltd. (LME) stocks of Special High Grade (SHG) zinc decreased by 11,975 t to 384,100 t in February, slightly less than stocks at the end of January 2017 and 19% less than stocks at the end of February 2016 (fig. 2, table 7).

The monthly average Platts Metals Week North American SHG zinc price in February 2017 was \$1.36 per pound, a 5% increase from that in January 2017 and 60% more than that in February 2016. The February 2017 average LME cash price for SHG zinc was \$2,848.04 per metric ton, a 5% increase from that in the previous month and 67% more than that in February 2016.

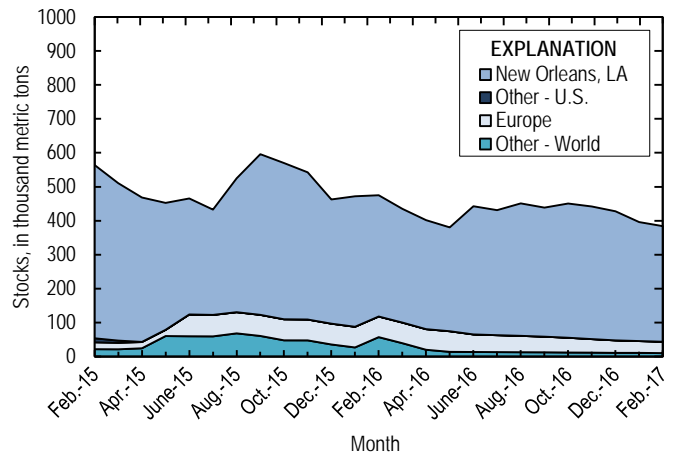


Figure 2. Global LME stocks of Special High Grade zinc, monthend, from February 2015 through February 2017. Source: London Metal Exchange Ltd.

The North American premium to the LME cash price in February averaged about 6.4 cents per pound, a 4% increase from that in January, and despite the increase in prices, 8% below that in February 2016 (fig. 3, table 6).

Among the LME-traded base metals, zinc has experienced the greatest increase in price coincident with an increasing production-to-consumption deficit in the zinc metal market that resulted from several significant mine closures and production cutbacks. The International Lead and Zinc Study Group indicated that global zinc metal consumption exceeded production by 268,000 t in 2016 and forecasted that the market would remain in deficit in 2017 (International Lead and Zinc Study Group, 2016, 2017; Onstad, 2016).

Update

In March, severe flooding in the central region of Peru caused Votorantim Metais S.A. (Brazil) to suspend operations at its 330,000-metric-ton-per-year Cajamarquilla zinc smelter. Votorantim resumed operations and was producing at a rate of up to 50% capacity by late March. The flooding also caused copper and zinc mining companies with operations in the affected areas to declare *force majeure* on supply contracts. The companies warned that concentrate shipments might not return to normal until May (AMM Newsroom, 2017b; Hunter, 2017).

On March 31, the LME fined Access World (USA) LLC, a subsidiary of Glencore plc (Switzerland), \$1.4 million for allegedly falsifying logistics-related documents for zinc metal stored in LME-approved warehouses in New Orleans, LA, between September 2010 and October 2014 (Hotter, 2017). The documents indicated that zinc had physically moved out of the New Orleans delivery point, when it had in actuality either not moved or moved on a different date than stated on the document.

As of April 12, the amount of on-warrant zinc ingots in LME-approved warehouses in New Orleans, LA, has decreased by 45% since the beginning of 2017. The decreasing amount of zinc was associated with the previously mentioned flooding and the ongoing strike at Noranda Income Fund's (Canada) zinc refinery in Salaberry-de-Valleyfield, Quebec, Canada (Dent, 2017).

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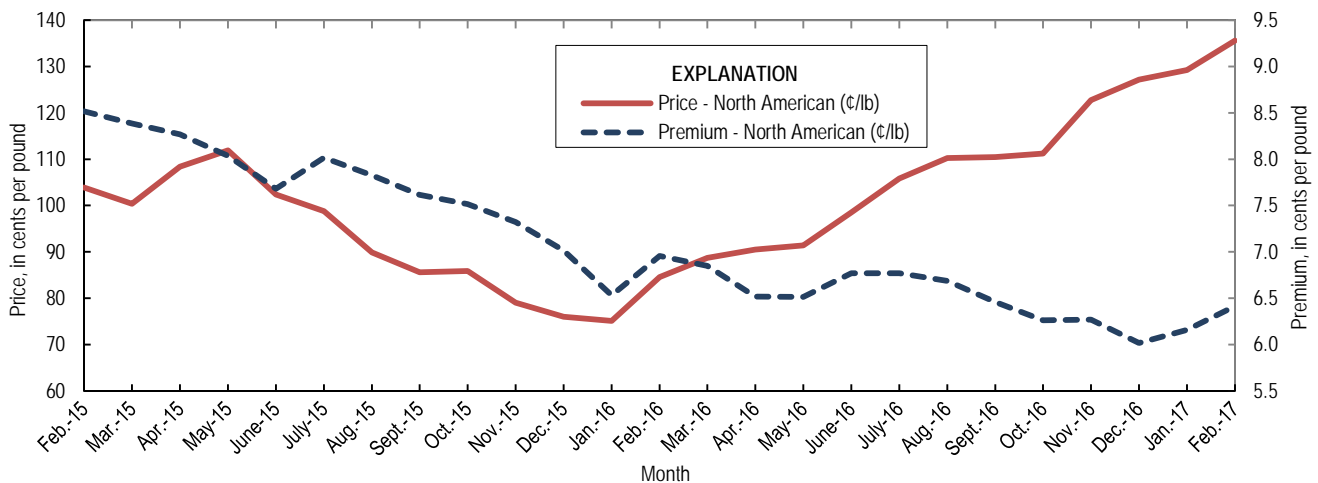


Figure 3. Average monthly North American price and premium for Special High Grade zinc from February 2015 through February 2017. Source: Platts Metals Week.

TABLE 1
SALIENT ZINC STATISTICS¹

(Metric tons, unless otherwise specified)

	2016	2017		
	January– December ^p	January	February	January– February ²
Production:				
Mine, zinc content of concentrate ³	803,000 ^r	60,100 ^r	52,200	112,000
Mine, recoverable zinc ³	777,000 ^r	58,200 ^r	50,500	109,000
Smelter, refined zinc ^c	126,000	10,600	10,600	21,300
Consumption of refined zinc, apparent ⁴	789,000	106,000	57,500	163,000
Imports for consumption:				
Ore and concentrate (zinc content)	60	--	23	23
Refined zinc	713,000	97,000	52,200	149,000
Exports:				
Ore and concentrate (zinc content)	604,000	24,200	12,400	36,500
Refined zinc	49,800	2,050	5,360	7,410
Price:⁵				
London Metal Exchange cash, average, dollars per metric ton	2,090.34	2,712.68	2,848.04	2,780.36
Platts Metals Week North American, average, cents per pound	101.37	129.20	135.60	132.40

^cEstimated. ^pPreliminary. ^rRevised. -- Zero.

¹Data are rounded to no more than three significant digits, except prices; may not add to totals shown.

²May include revisions to previously published data.

³Reported zinc content in both zinc and lead concentrates.

⁴Smelter production plus imports for consumption minus domestic exports.

⁵Special High Grade Zinc.

TABLE 2
MINE AND SMELTER PRODUCTION OF ZINC
IN THE UNITED STATES¹

(Metric tons)

Period	Mine ²		Smelter ^c
	Zinc content	Recoverable	
2016:			
February	67,300	65,200	10,600
March	69,300	67,000	10,600
April	68,800	66,600	10,600
May	69,100	66,900	10,600
June	71,000	68,600	10,600
July	60,200 ^r	58,200 ^r	9,580
August	68,500	66,300 ^r	9,580
September	68,300	66,100 ^r	9,580
October	72,700 ^r	70,300 ^r	11,300
November	57,400 ^r	55,500 ^r	11,300
December	56,100 ^r	54,300 ^r	11,300
January–December	803,000 ^r	777,000 ^r	126,000
2017:			
January	60,100 ^r	58,200 ^r	10,600
February	52,200	50,500	10,600
January–February	112,000	109,000	21,300

^cEstimated. ^rRevised.

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

²Includes the zinc content in both lead and zinc concentrates.

TABLE 3
U.S. IMPORTS FOR CONSUMPTION OF ZINC¹

(Gross weight, unless otherwise specified)

Material	2017					
	2016		February		January–February ²	
	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
Ore and concentrate (zinc content)	60	\$15	23	\$8	23	\$8
Unwrought:						
Refined zinc	713,000	1,490,000	52,200	149,000	149,000	407,000
Zinc alloys	7,590	15,700	706	2,100	1,640	4,610
Wrought:						
Bars, rods, profiles, wire	2,710	8,330	251	939	462	1,660
Plates, sheets, strip, foil	3,650	12,000	223	787	531	1,930
Ash and residues:						
Hard zinc spelter	247	392	(3)	3	(3)	3
Zinc dross and skimmings	3,770	5,620	630	1,110	1,280	2,350
Other (zinc content)	1,200	886	18	35	1,060	586
Other:						
Powders, flakes, dust	27,800	85,400	2,220	7,640	4,360	15,000
Waste and scrap	11,300	12,800	488	1,170	1,140	2,640
Chemicals:						
Lithopone	2,660	6,310	399	211	850	360
Zinc oxide	123,000	239,000	9,880	24,000	18,800	46,100
Zinc chloride	137	1,290	15	99	21	155
Zinc sulfate	80,100	60,500	5,260	4,840	11,800	10,400
Zinc sulfide	572	1,570	110	262	211	506

¹Data are rounded to no more than three significant digits.

²May include revisions to previously published data.

³Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 4
U.S. IMPORTS OF ZINC, BY TYPE OF MATERIAL AND COUNTRY¹

(Metric tons, gross weight, unless otherwise specified)

Material and country	General imports			Imports for consumption		
	2016	2017		2016	2017	
		February	January–February ²		February	January–February ²
Ore and concentrate (zinc content):						
Canada	--	23	23	--	23	23
Japan	10	--	--	10	--	--
Korea, Republic of	50	--	--	50	--	--
Total	60	23	23	60	23	23
Refined zinc:						
Australia	26,000	--	26,000	29,200	21	36,200
Belgium	--	--	--	2,190	155	1,770
Canada	506,000	36,900	81,400	506,000	36,900	81,400
China	5	1	1	405	431	431
Germany	4	--	--	4	--	--
India	3,020	1,700	1,700	3,020	1,700	1,700
Japan	--	--	--	397	--	--
Korea, Republic of	6	--	--	9,310	670	670
Mexico	88,800	5,720	14,800	88,800	5,720	14,800
Namibia	--	--	--	123	--	--
Netherlands	--	--	--	346	290	290
Peru	66,600	6,330	8,920	66,600	6,330	8,920
Poland	294	--	--	294	--	--
Spain	--	--	--	6,190	--	2,940
Taiwan	31	--	6	31	--	6
Other (3 countries)	(3)	--	--	(3)	--	--
Total	691,000	50,600	133,000	713,000	52,200	149,000
Oxide:						
Australia	97	(3)	16	97	(3)	16
Belgium	12	--	2	12	--	2
Canada	69,100	5,610	11,300	69,100	5,610	11,300
China	428	--	43	427	--	43
France	31	--	(3)	31	--	(3)
Germany	2,490	266	485	2,490	266	485
India	101	--	--	101	--	--
Indonesia	27	--	--	27	--	--
Israel	34	--	--	34	--	--
Japan	352	14	71	352	14	71
Korea, Republic of	14	--	--	14	--	--
Mexico	35,100	3,240	5,440	35,100	3,240	5,440
Netherlands	5,390	641	1,210	5,390	641	1,210
Peru	9,180	37	74	9,180	37	74
Russia	11	--	--	11	--	--
Switzerland	8	--	--	8	--	--
Taiwan	10	--	--	10	--	--
Thailand	14	--	--	14	--	--
United Kingdom	273	82	149	273	82	149
Other (4 countries)	4 ^r	--	9	4 ^r	--	9
Total	123,000	9,880	18,800	123,000	9,880	18,800

^rRevise. -- Zero.

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

²May include revisions to previously published data.

³Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 5
U.S. EXPORTS OF ZINC¹

(Gross weight, unless otherwise specified)

Material	2016		2017			
	Quantity (metric tons)	Value (thousands)	February		January–February ²	
			Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
Ore and concentrate (zinc content)	604,000	\$927,000	12,400	\$29,100	36,500	\$56,000
Unwrought:						
Refined zinc	49,800	96,500	5,360	15,200	7,410	20,700
Zinc alloys	16,200	40,900	1,200	3,510	2,540	7,460
Wrought:						
Bars, rods, profiles, wire	8,100	20,200	569	1,440	1,170	2,890
Plates, sheets, strip, foil	6,960	23,900	614	2,340	1,280	4,700
Ash and residues:						
Hard zinc spelter	12,100	18,200	676	1,280	1,350	2,520
Other (zinc content)	22,800	29,900	1,140	1,810	2,780	4,870
Other:						
Powders, flakes, dust	12,700	39,600	939	3,220	2,060	6,490
Waste and scrap	30,100	37,800	2,540	3,190	4,420	5,380
Chemicals:						
Lithopone	1,260	7,160	86	511	162	952
Zinc oxide	55,200	56,300	3,340	4,420	8,760	11,600
Zinc chloride	853	1,130	8	19	31	64
Zinc sulfate	588	850	58	81	172	252
Zinc sulfide	1,040	14,600	66	947	118	2,100

¹Data are rounded to no more than three significant digits.

²May include revisions to previously published data.

Source: U.S. Census Bureau.

TABLE 6
AVERAGE PRICES FOR SPECIAL HIGH GRADE ZINC

Period	North American ¹	London Metal Exchange cash ²	
	¢/lb.	¢/lb.	\$/t
2016:			
February	84.54	77.59	1,710.46
March	88.69	81.84	1,804.32
April	90.48	83.97	1,851.12
May	91.38	84.86	1,870.86
June	98.51	91.74	2,022.59
July	105.85	99.08	2,184.43
August	110.22	103.53	2,282.40
September	110.44	103.98	2,292.44
October	111.22	104.95	2,313.83
November	122.77	116.50	2,568.41
December	127.19	121.17	2,671.34
January–December	101.37	94.82	2,090.34
2017:			
January	129.20	123.05	2,712.68
February	135.60	129.18	2,848.04
January–February	132.40	126.12	2,780.36

¹Platts Metals Week North American price. Based on the London Metal Exchange cash price plus premium.

²Average of the cash buyer price and the cash seller and settlement price.

Source: Platts Metals Week.

TABLE 7
LONDON METAL EXCHANGE (LME) STOCKS OF SPECIAL HIGH GRADE ZINC, END OF PERIOD

(Metric tons)

Period	United States			Europe	Other	Total LME
	Detroit, MI	New Orleans, LA	Total			
2016:						
February	25	357,075	357,100	60,725	57,275	475,100
March	25	334,825	334,850	60,700	39,475	435,025
April	--	321,000	321,000	60,700	20,100	401,800
May	--	305,775	305,775	60,700	13,975	380,450
June	--	377,450	377,450	51,700	13,550	442,700
July	--	368,150	368,150	49,850	13,200	431,200
August	--	390,000	390,000	48,250	12,850	451,100
September	--	380,025	380,025	46,050	12,600	438,675
October	--	395,225	395,225	43,550	11,950	450,725
November	--	390,475	390,475	39,875	11,650	442,000
December	--	380,125	380,125	36,750	10,975	427,850
2017:						
January	--	350,325	350,325	34,775	10,975	396,075
February	--	340,400	340,400	33,500	10,200	384,100

-- Zero.

Source: London Metal Exchange, Ltd.