

# Mineral Industry Surveys

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## NICKEL IN MARCH 2005

Reported domestic nickel consumption in March, on a daily average basis, was 10% less than that of February, according to the U.S. Geological Survey. Daily average nickel consumption of cathodes, pellets, briquets, powder, and ferronickel for stainless steel was 57.6 metric tons per day (t/d), 15% less than the 68.0 t/d for February and 6% less than the 61.1 t/d (revised) for March 2004. Consumption of >99.8% nickel metal to make superalloys (such as INCONEL 718 and Waspaloy) decreased by 6% from February levels, on a daily average basis. Consumption to make corrosion-resistant, less stress-resistant nickel-base alloys (such as INCONEL 600 and Nickel 200) also weakened, decreasing by 11% on a daily average basis. Sales to plating companies averaged 25.3 t/d, about 10% less than the revised February sales figure of 28.3 t/d.

On March 31, U.S. consumer stocks of cathode, pellets, briquets, and powder totaled 1,510 metric tons (t), essentially the same as the revised figure for February 28, but 6% greater than the 1,420 t (revised) reported for December 31, 2004. Stocks in London Metal Exchange warehouses totaled 9,936 t on March 31, only 12 t higher than the 9,924 t on February 28.

The United States imported 25,400 t of primary nickel in the first 2 months of 2005, 31% greater than the 19,400 t for the corresponding period of 2004. Trade data for March will appear in a subsequent report.

**Update: Mintek completes pyrometallurgical study of Kazakh ores for Oriel**

Oriel Resources plc is currently evaluating the Shevchenko lateritic nickel deposits of north-central Kazakhstan. The deposits are in the Zhitigara district of Kostanai Oblast and are located in an established mining area with existing road, rail and power networks. The deposits, discovered in 1952, reportedly have 102 million metric tons (Mt) of resources containing 730,000 t of nickel (Ni) and 51,000 t of cobalt (Oriel Resources, plc, 2005a, p. 8). Confirmation drilling has identified 34.3 Mt of measured or indicated resources averaging 1.02% Ni in the four main ore bodies (Barcza and others, 2004).

In May 2004, Oriel commissioned Mintek of South Africa to recommend an extraction process for the Shevchenko ores and to assess the resource studies done to date. Bateman Metals

Limited, GBM Minerals Engineering Consultants Limited, and Wardell Armstrong International Limited (WAI) subsequently agreed to work with Mintek on the project. WAI is responsible for the resource evaluation.

Oriel and WAI have selected three deposit areas for trial mining and confirmation drilling—Shevchenko, Blizhny, and Tarasov. In March 2004, Oriel began excavating a 13-meter deep pit in each area to expose the ore and provide material for bulk sampling. During the next 5 months, 12,000 t of nickel ore and 32,000 t of waste material were removed from the three pits. A fourth area, Grigoriev, is still at the confirmation drilling stage.

In June 2004, a 6-t representative ore sample was shipped to Mintek's DC arc pilot plant at Randburg, South Africa, for preliminary testing. Mintek was able to produce a ferronickel alloy containing more than 20% nickel with a recovery rate of 89% (Mintek, 2004). A 450-t bulk ore sample was then shipped to Randburg for more extensive evaluation. Based on the testing, the consulting group recommended that Mintek's fluidized bed-DC electric furnace technology be used to produce ferronickel with a minimum nickel content of 20%.

In November 2004, Bateman agreed to serve as lead engineer on the Shevchenko project and to conduct a definitive feasibility study. The ThyssenKrupp Group of Germany is helping Bateman with the cost estimates and financial analyses. ThyssenKrupp has signed a letter of intent with Oriel, agreeing to purchase up to 100% of future ferronickel production. The definitive feasibility study was scheduled for completion in September 2005. Construction, if approved, could begin in the spring of 2006 (Oriel Resources, 2005a, b).

**References Cited**

- Barcza, N.A., and others, 2004, Preliminary assessment study report to Oriel Resources plc for the Shevchenko [sic] ferronickel project: Randburg, South Africa, Mintek, September 9, 93 p.
- Mintek, 2004, Mintek awarded contract for Kazakhstan ferronickel testwork and pre-feasibility study: Randburg, South Africa, Mintek press release, August 10, 2 p.
- Oriel Resources plc, 2005a, Annual report and accounts—2004: London, United Kingdom, Oriel Resources plc, May 18, 48 p.

Oriel Resources plc, 2005b, Oriel confirms excellent progress on Shevchenko nickel and Voskhod chrome projects in Kazakhstan: London, United

Kingdom, Oriel Resources plc press release, June 17, 4 p.

TABLE 1  
CONSUMPTION OF NICKEL (EXCLUSIVE OF SCRAP), BY FORM AND USE<sup>1</sup>

(Metric tons, nickel content)

Period	Cathodes, pellets, briquets, and powder	Ferronickel	Oxide-sinter, salts, and other forms	Total	Total year to date
2004:					
March	5,050 <sup>r</sup>	529	36	5,610 <sup>r</sup>	16,000 <sup>r</sup>
April	4,690 <sup>r</sup>	458	52	5,200 <sup>r</sup>	21,200 <sup>r</sup>
May	5,310 <sup>r</sup>	528	28 <sup>r</sup>	5,870 <sup>r</sup>	27,100 <sup>r</sup>
June	5,260 <sup>r</sup>	556	39	5,850 <sup>r</sup>	33,000 <sup>r</sup>
July	4,820 <sup>r</sup>	536	43 <sup>r</sup>	5,400 <sup>r</sup>	38,300 <sup>r</sup>
August	4,880 <sup>r</sup>	677	36	5,600 <sup>r</sup>	43,900 <sup>r</sup>
September	4,570 <sup>r</sup>	549	48 <sup>r</sup>	5,170 <sup>r</sup>	49,100 <sup>r</sup>
October	5,110 <sup>r</sup>	734	41	5,890 <sup>r</sup>	55,000 <sup>r</sup>
November	4,640 <sup>r</sup>	504	37	5,180 <sup>r</sup>	60,200 <sup>r</sup>
December	4,550 <sup>r</sup>	482	36	5,070 <sup>r</sup>	65,200 <sup>r</sup>
January-December	58,200 <sup>r</sup>	6,600	458 <sup>r</sup>	65,200 <sup>r</sup>	XX
2005:					
January	5,020 <sup>r</sup>	589	40	5,650 <sup>r</sup>	5,650 <sup>r</sup>
February	4,870 <sup>r</sup>	534	38	5,440 <sup>r</sup>	11,100 <sup>r</sup>
March:					
Steel:					
Stainless and heat resisting	1,250	533	W .	1,790	5,820
Alloy (excludes stainless)	271	--	--	271	825
Superalloys	1,000	--	W	1,000	3,120
Copper-nickel alloys	W	--	--	W	W
Electric, magnetic, and expansion alloys	12	--	--	12	37
Other nickel & nickel alloys	W	--	W	W	W
Cast iron	W	--	--	W	W
Electroplating (sales to platers)	785	--	--	785	2,330
Chemical and chemical uses	W	--	--	W	W
Other uses	1,550	--	38	1,590	4,410
Total reported	4,870 <sup>2</sup>	533	38	5,440	16,500
Total all companies (calc) <sup>3</sup>	XX	XX	XX	10,200	31,100
2005: January-March	14,800	1,660	118	16,500	XX
2004: January-March	14,400	1,580	99	16,000	XX

<sup>r</sup>Revised. W Withheld to avoid disclosing company proprietary data; included in "Other uses" category. XX Not applicable.  
-- Zero.

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

<sup>2</sup>Of consumption, 3,920 metric tons were consumed as cathodes and pellets, the remainder as briquets and powder.

<sup>3</sup>Figures represent calculated apparent consumption; based on the revised proportion of reported primary consumption (53.17%) to apparent primary consumption for 2003.

TABLE 2  
ENDING STOCKS OF NICKEL (EXCLUSIVE OF SCRAP) HELD BY CONSUMERS, BY FORM AND USE<sup>1,2</sup>

(Metric tons, nickel content)

Period	Cathodes, pellets, briquets, and powder	Ferronickel	Oxide-sinter, salts, and other forms	Total
2004:				
March	1,630	108	40	1,780
April	1,750	227	34	2,020
May	1,380	158	42	1,580
June	1,470	185	45	1,700
July	1,260	147	30	1,440
August	1,490	139	32	1,660
September	1,640	184	31	1,860
October	1,390	146	50	1,590
November	1,340	170	59	1,570
December	1,420	147	45	1,610
2005:				
January	1,460 <sup>r</sup>	192	52	1,700 <sup>r</sup>
February	1,510 <sup>r</sup>	227	68	1,800 <sup>r</sup>
March:				
Steel (stainless, heat resisting and alloy)	711	201	(3)	912
Nonferrous alloys <sup>4</sup>	777	20	(3)	797
Foundry (cast irons)	(3)	W	--	(3)
Chemical (catalysts, ceramics, plating salt, etc.) and unspecified uses	26	W	45	71
Total	1,510	221	45	1,780

<sup>r</sup>Revised. W Withheld to avoid disclosing company proprietary data. -- Zero.

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

<sup>2</sup>Stocks held by companies that consume nickel in more than one end use category are credited to the major category. Stocks are subject to revisions owing to inventory adjustments.

<sup>3</sup>Included in the "Chemical and unspecified uses" category.

<sup>4</sup>Includes superalloys, nickel-copper and copper-nickel alloys, permanent magnet alloys, and other nickel alloys.

TABLE 3  
CONSUMPTION AND ENDING STOCKS OF PURCHASED SECONDARY NICKEL, BY USE<sup>1</sup>

(Metric tons, nickel content)

Period	Consumption			Stocks		
	Ferrous scrap <sup>2</sup>	Nonferrous scrap <sup>3</sup>	Total scrap	Ferrous scrap <sup>2</sup>	Nonferrous scrap <sup>3</sup>	Total scrap
2004:						
March	5,570	937	6,510	3,180	80	3,260
April	5,330	865	6,190	2,860	82	2,940
May	5,260	801	6,060	2,640	63	2,700
June	5,140	804	5,940	2,660	85	2,750
July	4,900	672	5,570	2,550	76	2,630
August	5,060	956	6,020	2,320	73	2,390
September	4,440	812	5,250	2,710	75	2,780
October	4,900	709	5,610	2,750	70	2,820
November	4,750	736	5,490	2,530	63	2,590
December	5,230	581	5,810	2,290	65	2,360
January-December	60,600	9,280	69,800	XX	XX	XX
2005:						
January	4,690	676	5,370	2,330	80	2,410
February	4,680	770	5,450	2,440	90	2,530
March	4,510	828	5,340	2,490	106	2,600
January-March	13,900	2,270	16,200	XX	XX	XX

XX Not applicable.

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

<sup>2</sup>Nickel content is calculated from an average nickel content and the reported gross weight of scrap.

<sup>3</sup>Combined consumption and stocks of aluminum-base, copper-base, and nickel-base scrap.

TABLE 4  
U.S. IMPORTS FOR CONSUMPTION OF NICKEL, BY COUNTRY<sup>1</sup>  
(Metric tons, nickel content)<sup>2</sup>

Period and country of origin	Cathodes pellets, and briquets	Powder and flakes	Ferro- nickel	Metal- lurgical- grade oxide	Waste and scrap	Stainless steel scrap	Chemicals	Total <sup>3</sup>	Total year to date <sup>4</sup>	Wrought nickel
2004:										
February	7,200	834	1,070	161	667	1,020	485	11,400	22,600	49
March	10,700	812	806	134	1,430	1,660	376	15,900	38,400	72
April	10,700	720	1,680	23	574	908	296	14,900	53,400	53
May	8,530	564	941	--	698	680	381	11,800	65,200	55
June	9,190	732	978	--	553	680	324	12,500	77,600	86
July	7,370	914	1,070	--	624	663	374	11,000	88,600	79
August	9,770	800	1,020	24	585	928	434	13,600	102,000	116
September	6,590	571	1,080	207	689	697	339	10,200	112,000	88
October	11,100	976	1,280	210	535	780	321	15,300	128,000	43
November	9,140	659	1,240	240	602	696	378	13,000	141,000	33
December	9,340	814	1,750	170	403	1,340	295	14,100	155,000	46
January-December	107,000	9,220 <sup>5</sup>	14,000	1,210	7,850	11,000	4,440	155,000	XX	796 <sup>5</sup>
2005:										
January	9,040	756	1,940	114	585	780	279	13,500	13,500	40
February:										
Australia	999	--	--	--	8	--	--	1,010	1,550	--
Brazil	--	--	--	--	8	--	--	8	8	--
Canada	4,250	314	--	120	160	635	--	5,480	11,700	(5)
Colombia	--	--	143	--	--	--	--	143	531	--
Dominican Republic	--	--	1,800	--	--	1	--	1,800	3,210	--
Finland	138	97	--	--	--	2	161	398	828	--
France	79	--	--	--	85	15	76	255	461	3
Germany	(5)	1	--	--	46	--	17	64	163	64
Japan	--	3	--	--	14	--	(5)	17	35	7
Mexico	--	--	--	--	29	145	2	176	329	--
New Caledonia	--	--	100	--	--	--	--	100	200	--
Norway	1,540	--	--	--	7	--	--	1,540	2,860	--
Russia	2,750	53	--	--	--	--	--	2,800	4,770	--
South Africa	--	60	--	--	--	--	--	60	139	--
Sweden	--	1	--	--	4	--	--	5	7	--
United Kingdom	5	58	--	--	121	6	15	205	432	2
Venezuela	--	--	--	--	10	--	--	10	26	--
Zimbabwe	438	--	--	--	--	--	--	438	498	--
Other	--	9	--	2	32	49	89	181	451	19
Total	10,200	596	2,040	122	524	853	360	14,700	28,200	95
2005: January-February	19,200	1,350	3,980	235	1,110	1,630	640	28,200	XX	135
2004: January-February	14,600	1,660	2,110	201	1,160	1,950	920	22,600	XX	126

<sup>1</sup>Revised. XX Not applicable. -- Zero.

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

<sup>3</sup>The nickel contents are assumed to be as follows: metallurgical-grade oxide (77%), waste and scrap (50%), and stainless steel scrap (7.5%). The chemicals category includes chlorides (25%); sulfates (22%); other salts (22%); supported catalysts (22%); and oxide, sesquioxide, and hydroxide (65%).

<sup>4</sup>Excludes wrought nickel.

<sup>5</sup>May include revisions for prior months.

<sup>6</sup>Less than 1/2 unit.

Source: U.S. Census Bureau.

TABLE 5  
U.S. EXPORTS OF NICKEL, BY COUNTRY<sup>1</sup>

(Metric tons, nickel content)<sup>2</sup>

Period and country of destination	Cathodes pellets, and briquets	Powder and flakes	Ferro- nickel	Metal- lurgical- grade oxide	Waste and scrap	Stainless steel scrap	Chemicals	Total <sup>3</sup>	Total year to date	Wrought nickel
2004:										
February	85	166	--	17	540	2,550	396	3,750	7,380	54
March	116	150	(4)	8	1,000	3,800	497	5,570	12,900	59
April	144	132	3	8	1,070	2,660	563	4,570	17,500	227
May	54	127	23	4	1,290	3,100	323	4,920	22,400	120
June	187	138	3	4	1,310	4,720	567	6,930	29,400	65
July	18	171	(4)	2	1,160	2,600	473	4,420	33,800	100
August	39	172	--	1	1,190	2,330	200	3,940	37,700	68
September	112	238	--	7	1,170	2,610	498	4,640	42,400	86
October	60	257	1	2	1,110	3,620	197	5,240	47,600	44
November	77	257	1	45	890	2,530	285	4,080	51,700	42
December	27	196	23	98	1,030	2,980	227	4,580	56,300	95
January-December	972 <sup>r</sup>	2,130	68 <sup>r</sup>	201	12,400	35,900	4,630	56,300	XX	1,110
2005:										
January	37	211	1	161	1,230	2,400	228	4,270	4,270	63
February:										
Australia	--	--	--	--	37	--	(4)	37	95	--
Belgium	--	7	--	--	--	2	6	15	32	--
Canada	6	23	1	--	676	197	133	1,040	2,290	6
China	--	4	2	--	--	1,410	16	1,430	2,270	4
Finland	--	--	--	--	--	947	--	947	979	--
Germany	--	13	--	--	--	--	--	13	161	1
India	--	(4)	--	--	--	210	(4)	210	473	--
Italy	--	--	--	--	--	--	--	--	(4)	3
Japan	(4)	6	--	1	36	31	18	92	187	11
Korea, Republic of	--	6	--	--	--	130	17	153	533	2
Mexico	22	28	--	--	--	392	3	445	861	6
Netherlands	--	--	--	--	10	5	--	15	107	(4)
South Africa	--	--	--	--	--	--	1	1	38	--
Spain	--	2	--	--	--	1	--	3	4	--
Sweden	--	--	--	--	63	--	--	63	64	--
Taiwan	--	9	--	(4)	--	512	--	521	798	--
United Kingdom	--	16	--	--	49	18	4	87	229	1
Other	3	51	--	2	6	105	118	285	503	23
Total	31	165	3	3	877	3,960	316	5,360	9,620	57
2005: January-February	69	376	4	163	2,110	6,360	544	9,620	XX	120
2004: January-February	138	295	15	22	1,200	4,920	795	7,380	XX	207

<sup>r</sup>Revised. XX Not applicable. -- Zero.

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

<sup>2</sup>The nickel contents are assumed to be as follows: metallurgical-grade oxide (77%), waste and scrap (50%), and stainless steel scrap (7.5%). The chemicals category includes chlorides (25%); sulfates (22%); other salts (22%); supported catalysts (22%); and oxide, sesquioxide, and hydroxide (65%).

<sup>3</sup>Excludes wrought nickel.

<sup>4</sup>Less than 1/2 unit.

Source: U.S. Census Bureau.

TABLE 6  
U.S. IMPORTS FOR CONSUMPTION OF NICKEL ALLOYS, BY COUNTRY<sup>1</sup>

(Metric tons, gross weight)

Period and country of origin	Unwrought alloyed ingot	Bars, rods and profiles	Wire	Plates and sheets	Foil	Tubes and pipes	Other alloyed articles	Total	Total year to date
2004:									
February	165	214	362	251	8	374	238	1,610	2,750
March	102	166	446	213	18	362	459	1,770	4,520
April	345	255	504	164	44	773	172	2,260	6,770
May	123	269	494	131	14	231	115	1,380	8,150
June	227	344	517	301	40	136	100	1,670	9,820
July	271	322	504	192	32	140	87	1,550	11,400
August	324	251	496	236	31	89	109	1,540	12,900
September	528	193	440	192	30	317	79	1,780	14,700
October	295	285	477	215	7	148	206	1,630	16,300
November	245	247	624	280	41	246	233	1,920	18,200
December	269	300	588	226	43	106	145	1,680	19,900
January-December	3,000	3,120	5,740	2,590	322	3,060	2,080	19,900	XX
2005:									
January	273	220	600	234	35	125	304	1,790	1,790
February:									
Australia	85	--	--	--	--	--	--	85	151
Belgium	16	--	(2)	2	--	--	(2)	18	20
Canada	--	(2)	(2)	--	--	11	22	33	53
China	(2)	--	1	1	--	--	78	80	188
France	--	--	83	2	--	24	1	110	279
Germany	171	99	109	239	49	96	16	779	1,480
Italy	--	74	--	--	--	(2)	14	88	247
Japan	--	--	17	2	--	4	(2)	23	32
Mexico	--	--	--	--	--	--	12	12	22
Netherlands	--	--	--	--	--	--	17	17	30
South Africa	19	--	--	--	--	--	--	19	97
Sweden	--	34	200	11	--	19	(2)	264	504
United Kingdom	7	36	3	1	--	2	14	63	157
Other	31	12	9	1	--	74	28	155	272
Total	329	255	422	259	49	230	202	1,750	3,540
2005: January-February	602	475	1,020	491	85	355	505	3,540	XX
2004: January-February	267	492	648	444	22	508	371	2,750	XX

XX Not applicable. -- 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 1/2 unit.

Source: U.S. Census Bureau.

TABLE 7  
U.S. EXPORTS OF NICKEL ALLOYS, BY COUNTRY<sup>1</sup>

(Metric tons, gross weight)

Period and country of destination	Unwrought alloyed ingot	Bars, rods and profiles	Wire	Plates and sheets	Foil	Tubes and pipes	Other alloyed articles	Total	Total year to date
2004:									
February	543	777	155	343	15	172	299	2,300	4,440
March	980	640	92	491	30	184	333	2,750	7,190
April	283	649	99	472	22	144	303	1,970	9,160
May	457	976	168	334	46	119	543	2,640	11,800
June	511	722	130	427	33	170	272	2,270	14,100
July	614	1,100	177	350	11	132	244	2,630	16,700
August	629	760	176	234	10	123	221	2,150	18,800
September	1,010	1,080	169	389	16	163	257	3,090	21,900
October	517	776	190	390	26	178	236	2,310	24,300
November	613	1,110	183	327	21	148	256	2,660	26,900
December	823	1,100	157	350	5	150	244	2,830	29,700
January-December	7,510	10,400	1,850	4,470	244	1,800	3,440	29,700	XX
2005:									
January	994	1,180	84	312	11	226	186	2,990	2,990
February:									
Australia	--	(2)	(2)	4	--	1	(2)	5	25
Belgium	106	188	1	3	--	2	(2)	300	716
Canada	10	47	37	39	3	39	21	196	352
China	--	49	4	55	(2)	1	36	145	282
France	84	287	2	12	(2)	(2)	1	386	822
Germany	24	53	12	29	(2)	1	41	160	250
India	(2)	7	(2)	--	--	2	(2)	9	68
Ireland	--	--	(2)	2	--	--	(2)	2	4
Israel	(2)	97	2	1	--	--	(2)	101	192
Italy	103	3	1	17	(2)	(2)	1	125	309
Japan	510	65	(2)	5	(2)	13	2	595	1,160
Korea, Republic of	--	7	(2)	65	(2)	1	1	74	108
Mexico	1	25	8	51	5	61	113	264	445
Netherlands	1	4	(2)	2	--	2	1	10	75
Singapore	3	1	1	1	--	3	14	23	50
Spain	3	(2)	(2)	--	--	3	(2)	6	63
Sweden	(2)	--	(2)	8	--	--	2	10	34
Switzerland	54	2	6	3	(2)	4	1	70	86
Taiwan	(2)	16	(2)	8	--	(2)	1	25	50
United Kingdom	7	193	6	16	1	8	4	235	517
Other	4	7	24	71	1	22	39	167	301
Total	910	1,050	104	392	10	163	278	2,910	5,900
2005: January-February	1,910	2,230	188	704	21	388	465	5,900	XX
2004: January-February	1,070	1,510	310	709	24	290	531	4,440	XX

XX Not applicable. -- 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 1/2 unit.

Source: U.S. Census Bureau.

TABLE 8  
NICKEL CONSUMPTION IN CAST AND WROUGHT PRODUCTS

	Percent	
	Wrought	Cast
March 2005:		
Stainless and heat resisting steels	100	(1)
Alloy steels	99	1
Superalloys	88	12
Copper-nickel alloys	94	6
Other nickel-base alloys	100	(1)

<sup>1</sup>Less than 1/2 unit.



TABLE 9  
NICKEL PRICES

Date	Platts Metals Week				American Metal Market, 18/8 Stainless steel scrap Pittsburgh \$/long ton (gw)
	Cathode NY Dealer \$/lb.	LME Cash mean <sup>1</sup> \$/t	LME Cash mean <sup>1</sup> \$/lb.	18/8 Stainless steel scrap Free market \$/long ton (gw)	
2004:					
Average for month of:					
March	6.203	13,715.000	6.221	1,458	1,563
April	6.056	12,848.125	5.828	1,397	1,503
May	5.185	11,118.289	5.043	1,281	1,367
June	6.063	13,533.523	6.139	1,241	1,208
July	6.990	15,023.295	6.814	1,430	1,402
August	6.320	13,679.524	6.205	1,481	1,560
September	6.112	13,270.909	6.020	1,405	1,470
October	6.523	14,404.286	6.534	1,413	1,470
November	6.488	14,045.455	6.371	1,506	1,562
December	6.286	13,768.810	6.245	1,457	1,523
Yearly average	6.341	13,823.241	6.270	1,427	1,473
2005:					
Average for week ending:					
March 4	7.33-7.72	16,103.000	7.304	1,590-1,610	1,550-1,575
March 11	7.57-7.81	16,262.000	7.376	1,560-1,590	1,550-1,575
March 18	7.55-7.67	16,170.000	7.335	1,605-1,640	1,550-1,575
March 25	7.62-7.76	16,403.750	7.441	1,610-1,635	1,550-1,575
April 1	7.48-7.81	16,023.125	7.268	1,610-1,640	1,550-1,575
April 8	7.54-7.77	16,204.500	7.350	1,640-1,655	1,670-1,700
April 15	7.27-7.74	15,921.000	7.222	1,640-1,655	1,670-1,700
April 22	7.44-7.77	16,057.500	7.284	1,640-1,655	1,670-1,700
April 29	7.67-7.83	16,363.000	7.422	1,640-1,655	1,670-1,700
Average for month of:					
January	6.748	14,501.250	6.578	1,487	1,513
February	7.065	15,344.625	6.960	1,520	1,513
March	7.510	16,184.524	7.341	1,609	1,563
April	7.480	16,136.429	7.319	1,647	1,685

<sup>1</sup>Mean of the cash buyer price and the cash seller and settlement price.

