



May 2008 Moly Letter

This month, molybdenum prices in the U.S. remained unchanged but declined in Europe. Molybdenum scrap remains unchanged. Currently published molybdenum prices are shown in the tables, below.

Reuters:	May 5	Apr 3	Mar 3
Molybdenum Ferro (\$/kg) WESTERN	77.00	80.00	79.50
Molybdenum Ferro (\$/kg) CHINA	75.00	79.00	79.00
Molybdenum Oxide (\$/lb) WESTERN	32.50	33.50	33.50

Metal Bulletin:	May 5	Apr 4	Mar 5
European Molybdenum Oxide(\$/lb):	32.5–33.2	33.5–34	34–34.5
U.S. Molybdenum Oxide (\$/lb):	32.75–33	32.75–33	32.75–33
European Ferromoly 60% (\$/kg)	76.4–78	77.9–78.9	77.9–78.9
European Ferromoly 65-70% (\$/kg)	76.6–78.5	79.5–80.4	79.2–80.2
U.S. Ferromoly 65-70% (\$/lb)	36 –37	36 –37	35 –36

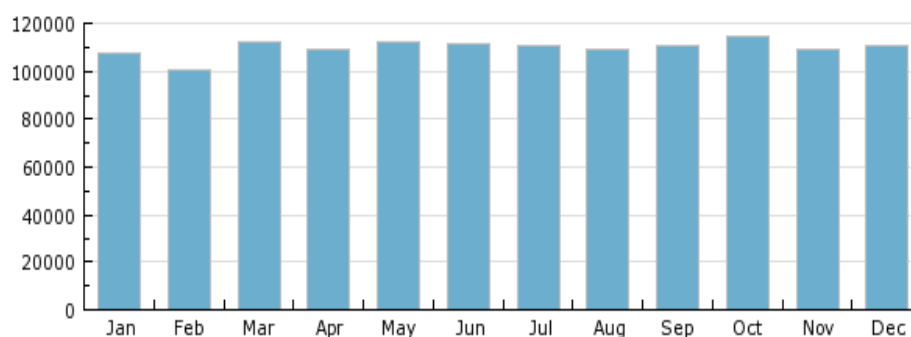
Ryan's Notes:	May 2	Apr 1	Mar 4
Worldwide Oxide (\$/lb)	32.2–32.75	33.4–34	33.75–34.25
Worldwide Oxide Mean (\$/lb)	32.475	33.7	34
Chinese FeMo (\$/kg)	76.5–77.5	78–79	78–79
US FeMo (\$/lb)	36.5–36.75	36.5–36.75	36.5–37
Western FeMo (\$/kg)	76–77	78.5–79.5	79.5–80.5

World crude steel production for the 66 countries reporting to the International Iron and Steel Institute (IISI) was 119.5 million metric tons in March. This is 5.8 percent higher than March 2007.

The degree to which crude steel production exceeded the corresponding month in 2007 has increased in each of the first three months in 2008.

Total world crude steel production was 340.7 million tonnes in Q1 2008, a 5.6 percent increase over the first quarter of 2007.

China's crude steel production for March 2008 was 44.9 million tonnes, an increase of 11.5 percent from March 2007. In the first three months of 2008, China produced 124.9 million tonnes of crude steel, up 8.6 percent compared to the same period in 2007. Overall, Asia produced 66.9 million tonnes of crude steel in March 2008 compared to 61.5 million tonnes in March 2007, an 8.8 percent increase. It is interesting to note other Asian steelmaking growth surpassing China's.



IISI - 2007 WORLD CRUDE STEEL PRODUCTION

Country	Rank	2007	2006	% 07/06
China	1	489.0	422.7	15.7
Japan	2	120.2	116.2	3.4
United States	3	97.2	98.6	-1.4
Russia	4	72.2	70.8	2.0
India	5	53.1	49.5	7.3
South Korea	6	51.4	48.5	6.0
Germany	7	48.5	47.2	2.8
Ukraine	8	42.8	40.9	4.7
Brazil	9	33.8	30.9	9.3
Italy	10	32.0	31.6	1.2

IISI – TOP TEN STEEL PRODUCING COUNTRIES
(tonnes, millions)

Readers will recall that molybdenum consumption in recent years has been rising at rates similar to global steel production.

Here are a few recent steel forecasts:

- Vale (formerly CVRD) said world steel demand will grow by about 7 percent this year.
- CRU (Beijing) reported that steel demand in China is likely to grow by about 21 percent annually for the next decade.
- CISA, the China International Steel Association, said that China's 2008 crude steel output will increase by 6.3-10.4 percent over 2007 and that finished steel output will increase by somewhere in the range 7 percent to 12.37 percent.
- The International Iron and Steel Institute (IISI) forecasts global steel consumption up 6.7 percent in 2008 and 6.3 percent in 2009. BRIC countries will lead growth with an expected increase of 11.1 percent in 2008 and 10.3 percent for 2009. The IISI forecast is summarized in the table below.

Regions	2007	2008	2009	% 06/07	% 07/08	% 08/09
EU (27)	192.2	195.3	199.8	3.4	1.6	2.3
Other Europe	31.2	33.1	35.3	9.4	6.0	6.7
CIS	55.5	60.5	66.3	13.7	8.9	9.6
NAFTA	141.5	144.2	145.6	-9.1	1.9	1.0
Central and South America	41.0	44.6	47.7	13.7	8.9	7.0
Africa	25.3	26.8	28.4	8.5	5.9	5.9
Middle East	44.3	49.2	53.6	12.7	11.1	9.0
Asia and Oceania	670.6	728.3	786.5	10.0	8.6	8.0
World	1201.6	1282.1	1363.3	6.6	6.7	6.3
BRIC	520.9	578.5	637.8	13.1	11.1	10.3
World (excl. NAFTA)	1060.1	1137.9	1217.7	9.1	7.3	7.0
World (excl. China)	793.3	827.0	862.7	3.6	4.3	4.3
World (excl. BRIC)	680.7	703.5	725.4	2.2	3.4	3.1

IISI – STEEL CONSUMPTION FORECAST
(tonnes, millions)

Oil and gas drilling has started to pick up again as is shown in the charts below. Currently running 6 percent over this time last year, 8 percent higher offshore, the global oil and gas drilling sector remains a strong demand driver for molybdenum-bearing steels in oil country tubular goods (OCTG).

2007 OIL AND GAS RIG COUNTS				
	Current	Previous	Year Ago	Change
USA	1,839	1,842	1,747	5%
Canada	95	88	89	7%
International	1,054	1,032	994	6%
World	2,988	2,962	2,830	6%
US and Canadian statistics are published for the week ending May 2, 2008. International numbers reflect March 2008. International count excludes Iran and Sudan. Change is calculated from the previous year. Source: Baker Hughes.				

2008 OFFSHORE RIG UTILIZATION REPORT				
	Current	Month Ago	6 Mo Ago	1 Yr Ago
Rigs Working	530	521	507	491
Total Rigs	606	604	594	582
Utilization	87.5%	86.3%	85.4%	84.4%
Competitive rigs. Data for week ending May 2, 2008.				

Purchasing magazine forecasts U.S. OCTG sales will increase 6.5 percent to a record 5 million tons in 2008, and producers are reporting a firmer backlog with lead times having increased 30 percent over the past 6 months.

The Alberta government announced two new royalty programs to encourage the development of deep oil and gas wells, responding to criticism about the "unintended consequences" of its latest royalty regime.

The programs will provide royalty breaks to the wells that were hit hard by the royalty rate increases announced last October. The new plan comes into effect in 2009, and it includes C\$37 million a year for the first five years to natural gas wells deeper than 2,000 meters and C\$200 million a year for the same period to natural gas wells deeper than 2,500 meters.

Deeper wells use exponentially more steel and molybdenum.

An article in The Economist suggested that energy security and not missile defense is Europe's real Achilles heel, and provided a perspective on several pipeline developments.

Europe gets a quarter of its gas from Russia and the proportion is set to rise sharply. Russia uses its monopoly on east-west gas pipelines, and offers of lucrative bilateral gas deals to block efforts to liberalize European markets and diversify supply, according to the article.

Russia is pushing ahead with the South Stream pipeline, a \$15 billion gas pipeline across the Black Sea to central Europe via the Balkans. Three European Union (EU) members, Bulgaria, Hungary and Italy, have signed up, and Austria appears interested. This weakens the chances of the EU-backed alternative, the Nabucco pipeline.

According to the article, the EU could help itself in three ways.

- Build new pipelines that weaken Russia's grip on gas from the east.
- Increase efforts to revive the Nabucco pipeline.
- Support White Stream, a smaller-diameter pipeline designed to bring Caspian gas across the Black Sea to Europe, bypassing Turkey.

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Russia is taking pipeline construction seriously and the country's largest pipe producer, TMK, has started building their new large diameter pipe mill at Volzhsky Works.

The new mill will have a capacity of 650,000 tonnes of X80 grade with diameters ranging from 530mm to 1,420mm (24-56 inches) and wall thickness of up to 42mm (1.65-inches).

This begins to deconstruct the bottleneck in advanced pipemaking capacity. At 0.25 percent molybdenum, that would work out to just over 3 million pounds of molybdenum consumption per year, running at 85 percent of nameplate capacity.

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Also on the subject of pipelines, Mexico's President Felipe Calderon decided to talk with guerrillas responsible for the gas pipeline sabotage in 2007. These attacks reportedly cost Mexico hundreds of millions of dollars and forced the closure of hundreds of businesses. The People's Revolutionary Army, known as the ERP, which had been more or less dormant since the 1990s, has pledged a cease-fire during the negotiations.

Mexico has nearly 7,000 miles (11,000 kilometers) of pipelines.

An Energy Ministry document cites the attacks as a reason to expand Mexico's pipeline system, building alternative routes in case supplies are disrupted. The plan is to create some 2,500 miles (4,000 kilometers) of new pipelines.

It is an interesting twist when trying to identify the drivers for molybdenum-bearing pipe. One adjunct thought might be to consider use of the advanced high-strength steels – X100 or X120 grades – which, in addition to saving weight, offer improved ballistic resistance.

We've talked about the jag in molybdenum demand from the production of ultra low sulfur diesel (ULSD) but look for still more molybdenum interest from January 1 2009 when the Europeans start pulling sulfur from gasoline:

FCC sulfur

In accordance with European Union Directive 2003/17/EC, sulfur in automotive gasoline must be lower than 10 ppm starting Jan. 1, 2009. FCC gasoline contains about 90% of the sulfur in the finished gasoline pool. This is why the main technologies to reduce gasoline sulfur content are those that desulfurize FCC gasoline.¹

Two methods are used to reduce sulfur in FCC gasoline—FCC feed pretreatment and FCC gasoline posttreatment. FCC feed pretreatment technologies due to catalyst developments allow the attainment of ultralow-sulfur levels (50 ppm) in the FCC gasoline without requiring a unit revamp.²

Sulfur less than 10 ppm (near-zero sulfur) is difficult, however, for FCC pretreating units. It is hard to achieve without increasing the catalyst volume; otherwise the cycle length would be unacceptably lower.

As an example, the catalyst producer Haldor Topsoe offers a number of FCC pretreatment catalysts:

- TK-557 – a cobalt-nickel-molybdenum catalyst with a good activity for both hydrodesulphurisation (HDS) and hydrodenitrogenation (HDN)
- TK-558 BRIM™ - A cobalt-molybdenum catalyst used when ultra high HDS activity is needed. At the same time the activity for nitrogen removal is significant for a CoMo based catalyst
- TK-559 BRIM™ - A nickel-molybdenum catalyst where the activity for nitrogen removal has been maximized along with a high HDS activity

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An article in Chemical and Engineering News reports that researchers at Pacific Northwest National Laboratory and Dalian Institute of Chemical Physics have pinpointed the active species in a molybdenum-based zeolite catalyst that converts methane to benzene. They identified an aluminum-oxygen-molybdenum linkage by coupling materials synthesis and catalytic activity research with a nuclear magnetic resonance spectroscopy method. The study could result in new methods for transforming methane into liquid fuels and chemicals. (Chemical & Engineering News (March), Vol. 86 Issue 11, p42-42, 1/5p)

Global Solar reported they have dramatically improved the manufacturing process and solar conversion efficiency of Copper Indium Gallium diSelenide (CIGS) thin-film solar devices.

Standard solar conversion efficiencies – which measure how much of the sun's energy is converted into electricity – now exceed 10 percent, a near-three times improvement.

The company says thin-film devices are less expensive than the commonly used crystalline silicon panels: a 100-watt thin-film device would cost about 30 percent less than a 100-watt silicon panel. They are sold out for 2008, and 80 percent of 2009's production – triple 2008's – is already committed.

Global Solar's products start as rolls of stainless steel, 2,000 feet long, one foot wide, and one- thousandth of an inch thick. The material is comparable in thickness to aluminum foil.

A coating of molybdenum is "sputtered" - spray painted in a vacuum chamber - onto both sides of the stainless steel substrate.

Next comes the CIGS layer: copper, indium, gallium and diselenide are heated to boiling in a vacuum chamber. The stainless sheet is run through the chamber, and the vapor condenses onto the cooler material.

The next step sees the material coated with cadmium sulfide, followed by a transparent conductive oxide, according to the company.

The consumption of molybdenum in this application is estimated at 105.25 tonnes Mo (232,000 lbs.) per gigawatt of installed capacity for the CIGS type of solar cell (Proceedings of the 20th European Photovoltaic Solar Energy Conference and Exhibition, June 2005).

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Westinghouse Electric, now a unit of Toshiba Corporation, announced in April that it had struck a deal with Georgia Power to build two nuclear power plants, the first such project in 30 years.

The announcement that two Westinghouse AP1000 reactors would be built at the existing Vogtle Electric Generating Plant site near Augusta, Georgia came days after the 29th anniversary of the Three Mile Island incident.

The Westinghouse CEO described the deal as evidence that the "nuclear renaissance has moved beyond the planning stage" and said it would "ensure that the United States will have the power it will need to support long-term economic growth."

The two units are expected to be built by 2016 and 2017, respectively.

Westinghouse built the first commercial reactor in the United States in 1957, and its AP1000 technology has been projected for use in 14 more planned reactors.

Thirty U.S. nuclear reactor projects are in the wings.

Also on the subject of nuclear power, another substitution in favor of molybdenum was reported in the current issue of Nuclear Engineering International:

A phenomenon of wall thinning in carbon steel piping caused by a type of corrosion called flow-assisted corrosion (FAC) has resulted in the rupture of secondary cycle piping in various plants worldwide.

Based on this operating experience with FAC and studies conducted by many researchers, carbon steel has been documented as susceptible to FAC and, where applicable, is being replaced with low alloy steel ASTM-SA-335 Gr.P22 (2.25 percent chromium, 1 percent molybdenum).

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Investors watching the gas-to-liquids (GTL) and coal-to-liquids (CTL) businesses know that although commercial GTL units in South Africa and Malaysia and CTL units in South Africa have been operating for decades, their products' utility and performance, including emissions, have been further demonstrated in several ways during the past few years.

By way of an update, a number of fleet tests of GTL diesel blends have been or are being performed. For example, in 2007 Chevron and a northern California transit district initiated 6-month-long test evaluations involving 60 buses using GTL diesel and biodiesel.

The US Air Force Synthetic Fuel Initiative, meanwhile, has successfully flown using 50:50 blends of Fischer-Tropsch (F-T) and JP-8 jet fuels. The program is on track to certify all air force aircraft by 2011 – and 50 percent synfuel use in the US by 2016. These tests include flight testing of B-52s and subsequent certification of the blend, ground testing of the engine on the C-17 and Boeing 757, and a transcontinental flight-test of the C-17 in October 2007.

Last month, Airbus A380 became the first commercial aircraft to complete a flight using a GTL jet fuel blend. Parties to the flight test included Shell, Qatar Airways, and Rolls Royce.

On the automotive side, ten Audis used in the 2007 World Economic Forum annual meeting at Davos, Switzerland, were run on Shell GTL fuel. In April to June 2006, Sasol Chevron ran the 6,500-km "GTL Challenge" where five cars, including one on pure GTL diesel, were raced from Sasolburg, South Africa, to Doha, Qatar.

In both 2006 and 2007, the entries using fuel formulated to include Shell Bintulu GTL diesel raced in and won the 24-hr Le Mans competition.

The most recent outlook from the United States Energy Information Administration (EIA) is shown below:

GLOBAL CTL, GTL LIQUID FUELS PRODUCTION (000s b/d)

	1992	2004	2005	2010	2015	2020	2025	2030
GTL liquid products								
High case	--	--	--	20	60	100	110	140
Low case	--	--	--	20	30	40	50	60
Reference case	--	--	--	20	50	90	100	120
CTL liquid products								
High case	100	100	100	300	600	1,800	3,000	3,900
Low case	100	100	100	300	300	500	800	900
Reference case	100	100	100	300	600	1,200	1,700	2,400

Source: Energy Information Administration, International Energy Outlook 2007

New molybdenum-related research is highlighted in two recent research abstracts, below. In the first one, researchers find success in coating stainless steel with molybdenum disulfide. The second abstract demonstrates the increasing relevance of molybdenum on the electronics side. Last year, molybdenum-related patents were double the previous year.

Composition and structure-property relationships of chromium-diboride/molybdenum-disulphide PVD nanocomposite hard coatings deposited by pulsed magnetron sputtering.

Abstract: The composition and structure-property relationships of physical vapour deposited coatings containing mixtures of CrB and MoS₂ are reported. The coatings were produced by pulsed magnetron sputtering of loosely-packed powder targets formed from a blend of chromium and boron powders, alloyed with 12.8, 18.9 and 24.0 atom percent MoS₂...

...Scratch testing also showed that the load-bearing capability of coatings was altered; **coatings possessing an intermediate concentration of MoS₂ exhibited the best behaviour with no failure observed in mechanical testing, due to an optimal nanocomposite structure.** The **corrosion resistance (investigated by potentiodynamic polarisation tests) however tended to improve as more MoS₂ was introduced.** An investigation of the effects of generating an amorphous structure by adding Ti and C into Cr-B-MoS₂ coatings revealed improved corrosion behaviour, which significantly exceeded that of uncoated stainless steel and CrB-coated samples

Source: Applied Physics A: Materials Science & Processing; Apr2008, Vol. 91 Issue 1, p77-86, 10p

Enhanced hole injection and transport in molybdenum-dioxide-doped organic hole-transporting layers.

Abstract: We have found that molybdenum dioxide (MoO_2) is an excellent dopant for enhancing electrical conductivities in organic hole-transporting layers. We fabricated hole-only devices with an alpha-sexithiophene (a-6T) layer doped with MoO_2 at various concentrations to investigate how doping MoO_2 into the a-6T layers influences the hole-injection and hole-transport characteristics of these layers. We observed a marked increase in electrical conductivity as a result of the MoO_2 doping. The 30-mol % MoO_2 doped a-6T layer had a high electrical conductivity of $8.9 \pm 1.3 \times 10^6 \text{ S/cm}$. From the results of our visible/near-infrared absorption spectra study of these doped layers, we confirmed that this increase in electrical conductivity is caused by a charge transfer between MoO_2 and a-6T, which leads to an increase in free hole concentration in the doped layers and the formation of an ohmic contact at an electrode/a-6T interface.

In the latter part of this paper, we discuss current flow and electroluminescence (EL) characteristics of organic light-emitting diodes (OLEDs) with a 30-mol % MoO_2 -doped a-6T hole-transporting layer and a 30-mol % Cs-doped phenyldipyrenylphosphine oxide POPy_2 electron-transporting layer. We achieved an extremely low driving voltage of 3.1 V required for a current density of 100 mA/cm^2 in the doped OLEDs owing to the use of the a-6T and POPy_2 layers with high carrier mobilities and the excellent p-type MoO_2 and n-type Cs dopants. We demonstrated the enhancement of power efficiencies by ~ 2 times in the doped OLEDs compared with undoped OLEDs and observed bright EL at low driving voltages in the doped OLEDs, for example, 100 cd/m^2 at 2.3 V, 1000 cd/m^2 at 2.7 V, and $10\,000 \text{ cd/m}^2$ at 3.3 V.

Source: Applied Physics Letters (March), Vol. 92 Issue 9

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A report from China Shipbuilding Industry Corp. said "Steel demand from the domestic shipbuilding industry could reach 10.28 million tonnes per year during 2011-15, rising 24 percent from 8.3 million tonnes per year for 2006-10."

There is an increased requirement for the lighter advanced high strength steels due to the increased use of double bottoms in various types of vessels.

It is not clear whether their navy building is included in these forecasts. Russian yards are also building some of the Chinese navy ships, and this demand is obviously not included in the 24 percent growth forecast.

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The London Metal Exchange (LME) continues to talk about a molybdenum contract, but no firm dates yet. Reportedly, the earliest would be some time next year. The most recent report noted that the LME has not yet decided if it will focus on ferromolybdenum or molybdenum oxide.

On the production side, Codelco, the state-owned Chilean copper and molybdenum producer continued to fight with its contracted labor. There are more than 30,000 contract workers at Codelco's mines, compared to 17,000 employees.

Violence and transport blockages have occurred at the El Teniente mine, the Andina mine and the Salvador operation, regrettably met with the usual tear gas and water cannon. The Codelco Norte division has been unaffected.

Outsourced workers have been protesting at Codelco's operations since April 16 and have forced two mines to completely shut down and a third to run sporadically since that date. 19,000 tonnes in lost copper production, or "almost" \$100 million financial loss was reported by the company. Molybdenum production losses, if any, have not been identified.

The workers claim remained that the company had not made good on promises concerning pay from an agreement reached after a strike last year, a claim that the Codelco denied.

The earlier strike contributed to a 6.6 percent decline in Codelco's 2007 production to 1.67 million tonnes.

As of the end of April, 65 percent of Codelco's contract workers had signed agreements to receive an advance on a 500,000-peso (US\$1,075) bonus and to desist from further protests. A settlement was announced May 5th.

Codelco reported 7,000 tonnes (15.4 million pounds) of molybdenum production in Q1 2008 versus 6,000 tonnes (13.2 million pounds) in Q1 2007.

The South American labor scene remains unsettled generally: Peru's largest mineworkers union has called for a nationwide strike May 12th.

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Business News Americas recorded conclusions from a speech delivered by a Codelco geologist at the Latin American International Exploration Forum. It gives an interesting perspective on exploration there. In short:

- Between 1969 and 1993, roughly 72 percent of the 56 mineral discoveries made in Chile's north were found on the surface.
- In the 1995-2007 period, the number of near surface discoveries versus those underground was split evenly with seven each plus one semi-covered discovery.
- The majority of northern Chile's mineral discoveries to come will likely be deep underground and of low grade.

The copper industry association SONAMI reported that Chilean molybdenum output hit 44,750 tonnes (98.7 million pounds) in 2007, up 3.9 percent from a year earlier and about 21 percent higher than what Cochilco, the state copper commission, had forecast earlier in the year.

SONAMI said prices for molybdenum, Chile's second export after copper, averaged \$33.3 a pound in the first quarter, up 28 percent from the same period in 2007.

For the first three months, the most recent data available, Chilean molybdenum production is up about 2 percent.

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The two largest molybdenum producers in China, Jinduicheng Molybdenum, and China Molybdenum Co., this month both forecast that molybdenum prices would "remain high until 2010". According to the Jinduicheng report, "The world's overall demand and supply for molybdenum during 2008-2010 will be in balance, and the prices are expected to remain steady at high levels by the end of this decade."

Demand for molybdenum, from China in particular, will continue to increase, "along with the production of special steel", the company said. Mines in Inner Mongolia and Henan province in China, as well as in Chile will "take time" to expand capacity, covering the shortfall by 2010.

The "global molybdenum market will be in deficit in the next few years," according to an analyst at UOB-Kay Hian Ltd., and increased supply from Chinese mines will be absorbed by demand from their domestic steelmakers. Chinese production of "corrosion-resistant" steel may increase 23 percent in 2008, according to Macquarie Group Ltd.

China produced 147,000 metric tons of molybdenum concentrates in 2007, equivalent to about 66,300 tons of molybdenum, according to an analyst at Beijing Antaika Information Development Company.

Another report has China's 2008 concentrates production at 168,000 tonnes or 75,600 tonnes Mo - 14 percent growth.

Chinese exports of molybdenum metal will be limited to 26,300 tons in 2008, the Ministry of Commerce announced October 30, 2007, and there has been no official change to that position yet this year.

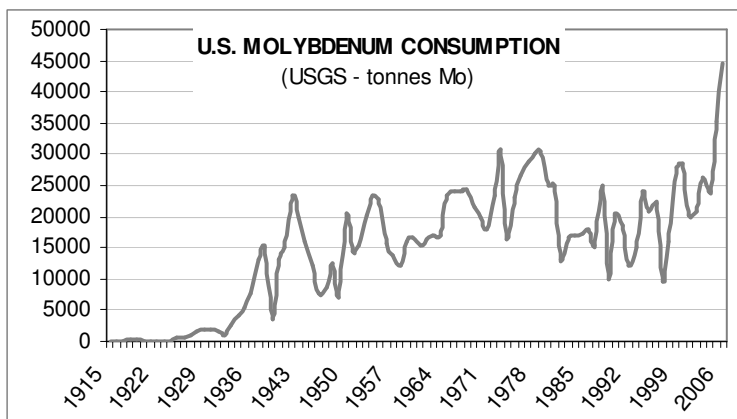
Subtracting the export quota from the 2008 mine production estimate, above, yields 49,300 tonnes as a proxy estimate for China's domestic molybdenum demand in 2008.

That would be about 23 percent above the 2007 consumption figure reported earlier by China Molybdenum ("nearly 40,000 tonnes"), which number itself is 36 percent higher than the 29,600 tonnes used in 2006, as quoted by the same source.

Given the numbers that the Chinese are publishing, it seems unlikely that future western molybdenum supply from China will do anything but decline.

Knowing how highly leveraged molybdenum demand is on specific grades of steel – OCTG and line pipe for example – their demand growth rates are not surprising.

And it is interesting to compare the molybdenum usage to steel production: In the United States, 2007 “apparent” molybdenum consumption was 44,500 tonnes according to the USGS. United States’ steel production was 97 million tonnes that year. The China molybdenum consumption is in the same order of magnitude, as we saw above, yet their steel production last year was 489 million tonnes (IISI) – 5 times as much. It gives an idea of the potential for growth in China’s molybdenum demand as they (very quickly) continue the predicted industrial transition from low-tech to high-tech steels.



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Finally, Climax’s motion to intervene was denied.

The company had tried to go around the state water court. According to court documents obtained, “Climax plans to resume operations at Climax Mine in 2009, and asserts that it will need to exercise its full water rights in-priority as of that date.” Climax claims that the State Engineer’s alleged plan to administer its rights as junior to both the Green Mountain Hydroelectric Right and Blue River Diversion Project Rights “casts a shadow over Climax’s plans . . . by raising uncertainty about the mine’s ability to operate at full capacity.”

Climax owns and operates the Climax Mine located in the Summit, Lake, and Eagle Counties, and owns water rights that divert from Tenmile Creek, a tributary of the Blue River. In 1937, the Summit County District Court decreed various water rights to Climax in a supplemental water rights adjudication, giving these rights priority dates ranging from August 15, 1935, to June 4, 1936.

From 1937 until 1984, the Climax Mine operated, and Climax asserts that its water rights were never administered as junior to either the Green Mountain Hydroelectric Right or the Blue River Diversion Project Rights. From 1984 until now, with a few exceptions, the mine has been shut.

During the late 1990s, the Colorado State Engineer's tabulation of water rights allegedly listed Climax's rights as subordinate to the Green Mountain Hydroelectric Right, but senior to the Blue River Diversion Project Rights. But on February 18, 2005, the State Engineer allegedly informed Climax that his office intended to administer Climax's rights as junior to both the Green Mountain Hydroelectric Right and the Blue River Diversion Project Rights when Denver diverts or stores water pursuant to the Power Interference Agreement.

Climax claims its rights are senior to those of both, and argues that a proper interpretation of the Blue River Decree and the Power Interference Agreement would so demonstrate.

What is their next step? The availability of process water remains a problem on the moly supply side and a competitive advantage to those resource companies who have good access to it.
