

# INDUSTRY COVERAGE

## //Rare Earths



**STORMCROW**

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### UPDATE NOTE

#### News Flash: The Light at the End of the Tunnel is not a Train

Since the imposition of the stringent Chinese rare earth export quotas in mid-2010, the resulting rapid price increases through the middle of 2011, and the subsequent collapse in rare earth demand and prices since the latter half of 2011, we have called for a recovery in demand and a stabilization and eventual (slow) recovery to take place in prices. We based our analysis on two simple factors. Most importantly, while it is possible to build products without using rare earths, the rare earths do simplify engineering and design and thus it is preferable to use them. All providing that the rare earths can be obtained at a reasonable price and from what seems to the buyer to be a reliable supply chain.

The other factor, however, is that skyrocketing prices and potential disruptions in supply resulted in a crash program by many companies to design rare earths out of their products, which took almost a year in many cases. Price increases were seen from the middle of 2010 to the middle of 2011. Under extreme pressure, re-design to eliminate or reduce rare earth use took roughly twelve months. We estimated that it would be 24 to 36 months past the bottom of the pricing cycle until companies began to increase rare earth use in new product designs.

There are signs that we have now reached this point. While rare earth prices are still demonstrating seasonal effects, most especially the price increases and decreases just prior to and just after the Lunar New Year in China, the trend is now demonstrably positive in terms of current pricing. As we expected, the recovery is most pronounced in magnet materials such as neodymium and dysprosium, and least pronounced in cerium where we believe that quasi-permanent damage has been done to demand.

Here, we show the trend in rare earth pricing for neodymium, dysprosium and cerium over the past seven months. While we acknowledge and expect that the trend for cerium is flat to declining for the foreseeable future, we also note that the recent trends for neodymium and dysprosium are positive.

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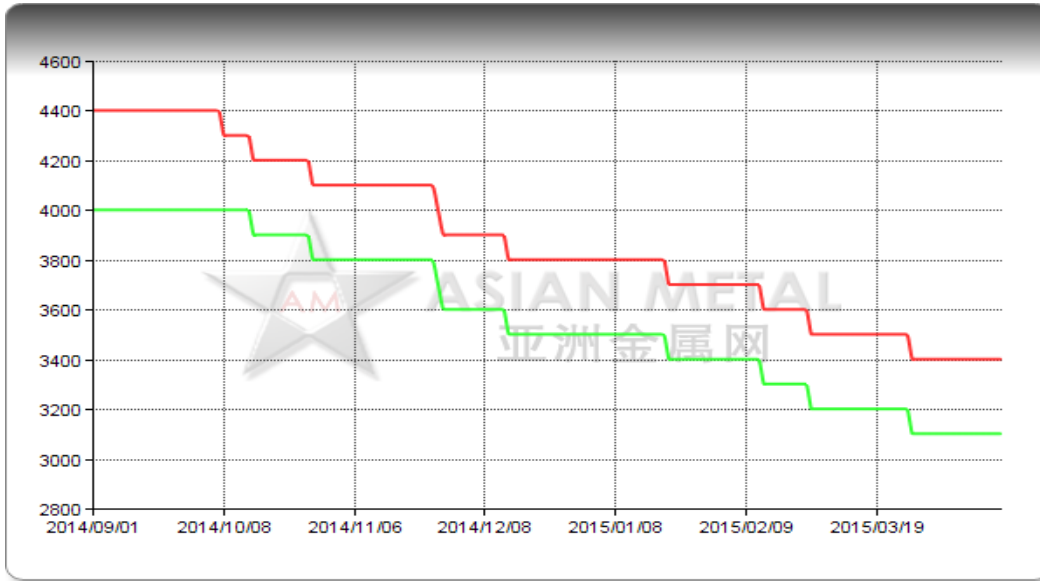
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*See the end of report for important disclosures*

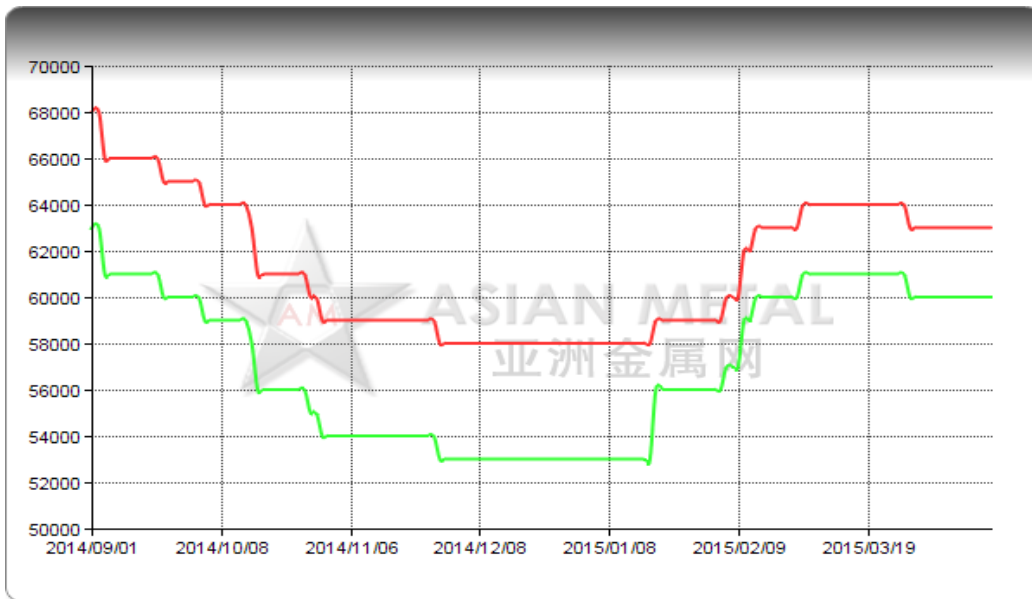


Exhibit 1 – Cerium Oxide, FOB China (US\$/t)



Source: Asian Metal

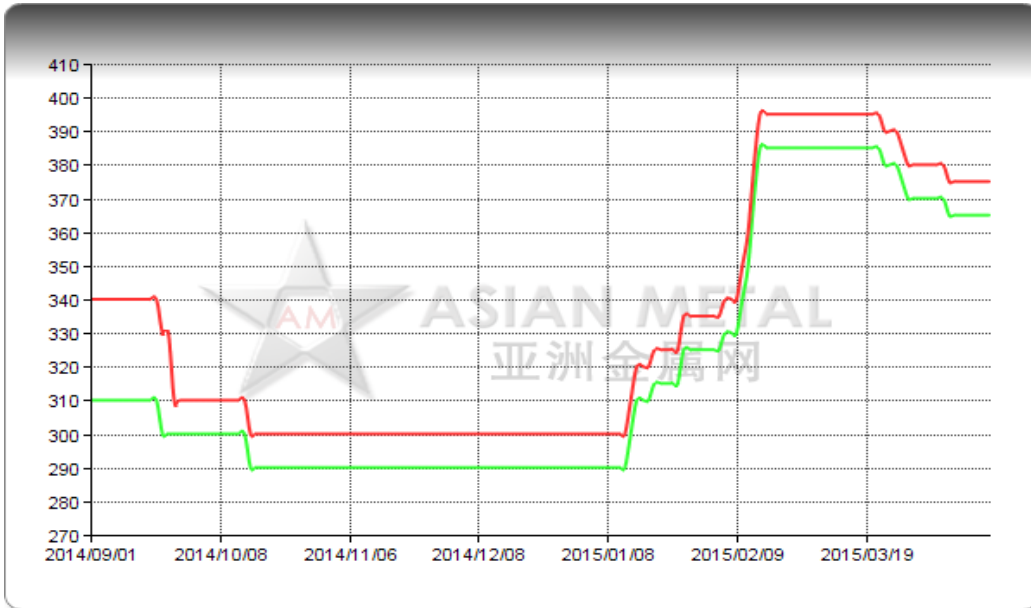
Exhibit 2 – Neodymium Oxide, FOB China (US\$/t)



Source: Asian Metal



Exhibit 3 – Dysprosium Oxide, FOB China (US\$/kg)



Source: Asian Metal

We also cite the recent announcement by Molycorp regarding a supply agreement for neodymium and praseodymium aimed at Siemens direct drive offshore wind turbine generators, through magnets to be manufactured by Shin-Etsu. At least one corporation, in the form of Siemens, recognizes that securing a supply of magnet materials from outside of China makes their own position more secure while removing one possible avenue of supply from their competition. We believe that other companies will come to the same conclusion and seek their own sources of supply, putting rare earth companies that meet the criteria to become strategic suppliers of magnet materials far stronger.

We believe that, because major corporations are seeking strategic supply, they are looking for companies with deposits that are able to produce meaningful quantities of magnet materials for decades from geopolitically stable locations at costs that can weather the worst that the rare earth industry can throw at them. This leaves a short list outside of the current producers Molycorp (MCP-NYSE) and Lynas (LYC-ASX), including Rare Element Resources (REE, RES), Arafura (ARU-ASX) and Quest Rare Metals (QRM-TSX).

## Keywords

## Important Disclosures

<b>Industry</b>	Graphite, Critical Materials, Critical Metals, Mining, Industrial Minerals	
<b>Relevant Companies</b>	GREAT WESTERN MINERALS – GWG:TSXV ARAFURA RESOURCES – ARU:ASX MOLYCORP – MCP:NYSE FRONTIER RARE EARTHS – FRO:TSX RARE ELEMENT RES'S – RES:TSX UCORE RARE METALS – UCU:TSXV AVALON RARE METALS – AVL:TSX QUEST RARE MINERALS – QRM:TSX	MONTERO MINING – MON:TSXV PEAK RESOURCES – PEK:ASX LYNAS CORP – LYC:ASX NORTHERN MINERALS – NTU:ASX NAMIBIA RARE EARTHS – NRE:TSX HUDSON RESOURCES – HUD:TSXV MATAMEC EXPLO – MAT:TSXV STANS ENERGY CORP – HRE:TSXV
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