

US Rare Earths closer to offering alternative heavy rare earth (HREE) supply to China

☒ Last week U.S. Rare Earths, Inc. ('USRE', OTCBB: UREE), a US based earths exploration company with mining claims in Idaho, Montana, and Colorado, announced that it has raised some USD\$3.1 million since December 2013. The Company plans to use the funds to continue exploration, drilling, mineralogy, metallurgy, preliminary engineering work and plans for a processing facility related to its properties in Idaho and Montana. These include exploration programs at the Last Chance mine – featuring pre-existing adits – at the Lemhi Pass property, where USRE has received permission to remove and use a large stockpile of pre-mined material. Kevin Cassidy told InvestorIntel that USRE's stockpile, according to official documents from the U.S. Department of Energy's Critical Materials Strategy, contain significant amounts of heavy rare earth elements especially dysprosium, Europium, Neodymium, Terbium and Yttrium. The U.S. Forest Service has approved USRE's plans to access an REE stockpile located on its Last Chance prospect last August; the Company can get a head start on processing with minimal CAPEX and OPEX costs relative to the sector.

It is no secret that China remains, by far, the dominant producer of rare earths (REE), especially the critical heavy rare earths such as dysprosium and europium, needed to make cell phones and computers. China retains 90% of world supply and 70% of global consumption of these precious elements. Earlier this year, the World Trade Organization (WTO) ruled that Chinese quotas for rare earths violated the rules of international trade but nothing has actually changed. China

has adapted to the ruling, adjusting the price differential resulting from the lifting of quotas to the enforcement of added taxes on exports of rare earths, increasing from 15% to 20%. The new tax regime will force the importers of rare earths from China to raise prices for foreign customers. However, the most significant change that United States legislators should consider, is that China will no longer have direct control over exports as it did in 2010; it will have, rather, direct control over the production, with the aim to contain it.

The goal will be to consolidate the industry, which is currently made up of small operators and unproductive mines. In doing so the country could solve the longstanding problem of overcapacity but also raise the risks of insufficient availability for major REE end users such as the USA, the EU and Japan among others. The search for the high demand heavy rare earths outside of China, therefore, should intensify. Compared to other mining projects, say gold for instance, rare earth analysis is highly complex. The first question therefore is always: what kinds of rare earths does a property contain? Such rare earths as praseodymium (Pr) and neodymium (Nd) have high magnetic properties: a coin sized magnet containing either one of these metals would be very difficult to remove from a metal surface, like a common refrigerator door, using bare hands. It is this kind of magnetic property that is needed to produce 'smartphones', iPods or wind turbines. Europium (Eu) happens to be an especially in-demand rare earth and it is most used to make computer screens. The Lemhi Pass property and its ready to process adits happen to contain important quantities of europium as well as dysprosium. USRE, moreover, has the advantage of being able to start mining and producing rare earths from the historic adits (tunnel work), speeding up the production process by at least three years which is literally at least two years ahead of the closest competitor.

The adits extend underground more than 400 meters and they present mineralized veins of critical rare earths, as much as 2,500 tons of metallurgical samples, which should also save USRE some USD\$ 6 million in CAPEX alone while the stockpile itself may produce some 10-12 tons of highly concentrated rare earths enriched material at costs that compete with China head to head. Indeed, USRE can skip many costly phases, moving directly to processing its existing and readily available stockpile. Idaho Energy and Resources Co. extracted the material as part of rare earths exploration and its published data suggests that the stockpile presents a high percentage of heavy and critical rare earth elements. USRE expects to begin processing by December 2016 or early 2017 in the United States. The exploration record at Lemhi Pass suggests that it may hold the highest concentrations of rare earths elements in the U.S. USRE intends to revisit existing horizontal mines extending underground more than 400 meters, which have already proven to contain mineralized veins of critical rare earths.

US based Molycorp and Australia's Lynas Corp are processing outside of China (California and Malaysia respectively) but, so far, this activity has been limited to light rare earths (LREE). So while China continues to consolidate its rare earths industry, shutting down or absorbing small and illegal operators, trying to resolve the problem of overcapacity, USRE, a domestic North American rare earth company can start to work an inexpensive solution to address the expected contraction in China's rare earth supplies. It may not be long before Japan, which is the largest rare earth importer in the world, starts signing REE import deals with the United States. Ever since 2010, when tensions exacerbated with China over control of the Senkaku (Diayou as the Chinese call them) Islands, Japan has constantly been looking for alternatives. Its quest for new suppliers has included visits to Mongolia and Vietnam – which likely serves as one for the preferred routes for Chinese rare earth smugglers. USRE is well positioned to offer an alternative REE supply source; indeed,

it is set to compete with China, as it applies its own trade restrictions.