

Texas Rare Earth Resources releases robust revised PEA to confirm position as an American critical rare earth leading explorer

Pointless denying it, rare earth elements (REEs) are important. Phenomenally important. If you're a regular reader of InvestorIntel, you are most likely well aware of what rare earths are (*if you're new to rare earths, you may be well-advised to read InvestorIntel's **REE Handbook***), why REEs are needed and the inevitable conundrum and ominous implications the world (specifically, outside of China) will face regarding security of REE supply in the coming years – especially with regards to the high-value heavy and critical rare earths (Neodymium, Europium, Terbium, Dysprosium, and Yttrium). Critical rare earths are precisely that – *critical*. In fact, the five aforementioned critical rare earth metals are absolutely crucial to high-tech and defense applications (sustainability in these materials is a major issue for the United States), green-energy technologies, energy efficiency, and medicine and health.

Although the term 'rare earths' is somewhat misleading as they aren't rare, per se; there is a growing divergence between light and heavy rare earths. For the first time in recent years, the world, excluding China, will post a surplus in light rare earth elements from 2013 onward; largely as a result of new production capacity in the US and Australia, while heavy REEs are expected to remain in deficit, implying higher prices for the latter type.

Heavy rare earth exploration company **Texas Rare Earth**

Resources Corp. (OTCQX: TRER) is one of the most promising heavy/critical rare earth plays on American soil (and the world for that matter). TRER's flagship Round Top Mountain in Hudspeth County, Texas (85 miles east of El Paso) is truly exceptional. Round Top Mountain, described as "a unique Yttrifluorite-hosted giant heavy rare earth deposit" is 1,250 feet high by 1 mile in diameter. An American Geophysical Union Abstract published by Dr. Nicholas Pingitore, a board member of the company and a professor at the University of Texas, states: "The extreme extent of the deposit makes it a target for recovery of valuable yttrium and HREEs, and possibly other scarce elements."

The revised economics of Round Top, released earlier this morning, in the company's updated NI 43-101-complaint Preliminary Economic Assessment (PEA), are not robust. They're outstanding. **With one of the lowest projected CAPEX costs in the rare earth industry of \$292.7 million** (as opposed to peers with CAPEX ranges anywhere from \$1 billion to in excess of \$2.5 billion), TRER has factored in a complete onsite rare earth oxide separation plant and a contingency provision of \$58.5 million. Based on a 20-year Mine Life (predicated on mining a mere 18% of the existing Measured, Indicated and Inferred Mineral Resource Estimate), TRER's resource consists of 525.4 million kilograms of rare earth oxides (REO), with an average grade of 634 parts per million (ppm) total rare earth oxides (TREO) – of which approximately 70% are comprised of heavy rare earth oxides, plus Yttrium.

s Rare Earth Resources' Round Top Mountain

Other notable highlights include a pre-tax net present value (NPV) of USD\$1.47 billion (at a 10% discount rate) and TRER's internal rate of return (IRR), projected to be 69% (REE price assumptions were based on current spot pricing), with a 1.5-

year payback period. The Life of Mine gross revenue is estimated to be USD\$7.9 billion. Round Top's relatively simple metallurgy affords TRER the advantage of implementing proven solvent extraction (SX) technology to generate high-purity individual rare earth oxides onsite. Round Top's approximate weighted average of total rare earth recoveries is estimated to be 71.5%. Another major advantage for TRER is its ability to employ conventional heap leach processing technology (built to Texas environmental standards) as a result of the Yttrifluorite-hosted rock. Heap leach (or agitated leach) processing means extremely low costs. TRER's deposit is the only deposit in the world that is heap leachable, outside of China. In a possible production scenario at Round Top, the dominant mineral (by volume) from production would be Yttrium. By dollar value, the dominant mineral would be Dysprosium. In addition to its primary focus on critical/heavy rare earth production, TRER is also paying increased attention to significant non-REE revenue opportunities of Uranium (an estimated resource of 43.7 million kilograms of Uranium), Lithium and Beryllium as by-products, not factored into the revised PEA.

"The completion of this PEA is a key milestone in Texas Rare Earth Resources goal to near term HREE production and confirms our vision that a low cost open pit heap leach operation is as applicable to our unique mineralogy in the rare earth sector, as it is to gold and copper operations," commented TRER President and CEO **Dan Gorski**. "Round Top's unique geology and location has generated an estimated CAPEX that is among the lowest in the rare earth industry. Our PEA includes full downstream separation facilities that promise to potentially render high-purity oxides both economically and on-site. The facility could generate critical technology oxides that are indispensable and increasingly difficult to obtain outside of China for applications that are the lifeblood of US competitiveness, including the defense sector, clean technology, supercomputing, transportation and advanced

aerospace. In recognition of the significance of the Round Top Project and with an eye toward enhancing shareholder value, we have engaged a strategic advisor to assist us on the next phase of the project development.”

Recently, TRER added two of the very best minds in the rare earth sector (and regular InvestorIntel contributors) to its team – REE industry veteran expert **Jack Lifton** and US strategic policy advisor and national sustainability expert **Dan McGroarty**.

Arguably one of TRER’s primary advantages, aside from the richness of its deposit (almost all mineralized heavy rare earth material) and outstanding project economics, is Round Top’s ideal west Texas location – close to infrastructure in a safe, stable and supportive jurisdiction. It is important to note that Round Top is located on Texas state lands versus US federal lands (providing a more straightforward and timely path, in respect to permitting and regulatory issues). Commenting on the State of Texas as its partner, TRER Chairman **Anthony Marchese** stated: “I can’t emphasize this enough: being in the state of Texas is a huge advantage. The other advantage we have is that we are not on federal property. We are not under US Bureau of Land Management (BLM); we’re not under US Forest Service management. The state of Texas is our partner. And it’s a great partner to have because what we owe them is a royalty. The way the state makes its money is for the mine to come into production. We believe that Texas is an incredible partner.”

The full version of the updated PEA will be released and published on the TRER website shortly, followed by a conference call.

Ty Facts about TRER’s Round Top Mountain:

- Extreme extent of the deposit
- Excellent exposure and location

- Extraordinary enrichment in high-value heavy rare earths
- Unique extractable mineralogy
- Potential low-cost heap leach processing
- Remarkable evenness of mineralization grade
- Additional high-value non-REE elements