



Rare Element Resources



<h1>Targeting RARE-EARTH ELEMENTS & GOLD at Bear Lodge, Wyoming</h1>																																																																																																																																																																																																																																										
<table><tr><td>1 H 1.00794</td><td colspan="16"></td><td>3 Li 6.941</td><td>4 Be 9.012182</td></tr><tr><td>5 B 10.811</td><td>6 C 12.0107</td><td>7 N 14.00643</td><td>8 O 15.999</td><td>9 F 18.998403</td><td>10 Ne 20.1797</td><td colspan="12"></td><td>11 Na 22.98976928</td><td>12 Mg 24.304</td></tr><tr><td>13 Al 26.9815386</td><td>14 Si 28.0855836</td><td>15 P 30.973761998</td><td>16 S 32.06</td><td>17 Cl 35.453</td><td>18 Ar 39.948</td><td>19 K 39.0983</td><td>20 Ca 40.078</td><td>21 Sc 44.955912</td><td>22 Ti 47.88</td><td>23 V 50.9415</td><td>24 Cr 51.9961</td><td>25 Mn 54.938045</td><td>26 Fe 55.845</td><td>27 Co 58.933195</td><td>28 Ni 58.6934</td><td>29 Cu 63.546</td><td>30 Zn 65.38</td></tr><tr><td>31 Ga 69.723</td><td>32 Ge 72.630</td><td>33 As 74.9216</td><td>34 Se 78.96</td><td>35 Br 79.904</td><td>36 Kr 83.80</td><td>37 Rb 85.4678</td><td>38 Sr 87.62</td><td>39 Y 88.90584</td><td>40 Zr 91.224</td><td>41 Nb 92.90638</td><td>42 Mo 95.94</td><td>43 Tc 98.9062</td><td>44 Ru 101.07</td><td>45 Rh 102.9055</td><td>46 Pd 106.42</td><td>47 Ag 107.8682</td><td>48 Cd 112.411</td></tr><tr><td>49 In 114.818</td><td>50 Sn 118.710</td><td>51 Sb 121.757</td><td>52 Te 127.6</td><td>53 I 126.90547</td><td>54 Xe 131.29</td><td>55 Cs 132.90545196</td><td>56 Ba 137.327</td><td>57 La 138.90547</td><td>58 Ce 140.12</td><td>59 Pr 140.90765</td><td>60 Nd 144.242</td><td>61 Pm (145)</td><td>62 Sm 150.36</td><td>63 Eu 151.964</td><td>64 Gd 157.25</td><td>65 Tb 158.92532</td><td>66 Dy 162.50015</td></tr><tr><td>67 Ho 164.93032</td><td>68 Er 167.259</td><td>69 Tm 168.93274</td><td>70 Yb 173.045</td><td>71 Lu 174.967</td><td>72 Hf 178.49</td><td>73 Ta 180.94788</td><td>74 W 183.84</td><td>75 Re 186.207</td><td>76 Os 190.23</td><td>77 Ir 192.222</td><td>78 Pt 195.084</td><td>79 Au 196.966569</td><td>80 Hg 200.59</td><td>81 Tl 204.38</td><td>82 Pb 207.2</td><td>83 Bi 208.980399</td><td>84 Po 209</td></tr><tr><td>85 At 210</td><td>86 Rn 222</td><td>87 Fr 223</td><td>88 Ra 226</td><td>89 Ac 227</td><td>90 Th 232.0377</td><td>91 Pa 231.036889</td><td>92 U 238.02891</td><td>93 Np 237.048173</td><td>94 Pu 244.06422</td><td>95 Am 243.061381</td><td>96 Cm 247.070351</td><td>97 Bk 247.070351</td><td>98 Cf 251.083288</td><td>99 Es 252.083288</td><td>100 Fm 257.105285</td><td>101 Md 258.105285</td><td>102 No 259.105285</td></tr><tr><td>103 Lr 262.105285</td><td colspan="17"></td></tr></table>																		1 H 1.00794																	3 Li 6.941	4 Be 9.012182	5 B 10.811	6 C 12.0107	7 N 14.00643	8 O 15.999	9 F 18.998403	10 Ne 20.1797													11 Na 22.98976928	12 Mg 24.304	13 Al 26.9815386	14 Si 28.0855836	15 P 30.973761998	16 S 32.06	17 Cl 35.453	18 Ar 39.948	19 K 39.0983	20 Ca 40.078	21 Sc 44.955912	22 Ti 47.88	23 V 50.9415	24 Cr 51.9961	25 Mn 54.938045	26 Fe 55.845	27 Co 58.933195	28 Ni 58.6934	29 Cu 63.546	30 Zn 65.38	31 Ga 69.723	32 Ge 72.630	33 As 74.9216	34 Se 78.96	35 Br 79.904	36 Kr 83.80	37 Rb 85.4678	38 Sr 87.62	39 Y 88.90584	40 Zr 91.224	41 Nb 92.90638	42 Mo 95.94	43 Tc 98.9062	44 Ru 101.07	45 Rh 102.9055	46 Pd 106.42	47 Ag 107.8682	48 Cd 112.411	49 In 114.818	50 Sn 118.710	51 Sb 121.757	52 Te 127.6	53 I 126.90547	54 Xe 131.29	55 Cs 132.90545196	56 Ba 137.327	57 La 138.90547	58 Ce 140.12	59 Pr 140.90765	60 Nd 144.242	61 Pm (145)	62 Sm 150.36	63 Eu 151.964	64 Gd 157.25	65 Tb 158.92532	66 Dy 162.50015	67 Ho 164.93032	68 Er 167.259	69 Tm 168.93274	70 Yb 173.045	71 Lu 174.967	72 Hf 178.49	73 Ta 180.94788	74 W 183.84	75 Re 186.207	76 Os 190.23	77 Ir 192.222	78 Pt 195.084	79 Au 196.966569	80 Hg 200.59	81 Tl 204.38	82 Pb 207.2	83 Bi 208.980399	84 Po 209	85 At 210	86 Rn 222	87 Fr 223	88 Ra 226	89 Ac 227	90 Th 232.0377	91 Pa 231.036889	92 U 238.02891	93 Np 237.048173	94 Pu 244.06422	95 Am 243.061381	96 Cm 247.070351	97 Bk 247.070351	98 Cf 251.083288	99 Es 252.083288	100 Fm 257.105285	101 Md 258.105285	102 No 259.105285	103 Lr 262.105285																		<table><tr><td>57 La 138.91</td><td>58 Ce 140.12</td><td>59 Pr 140.91</td><td>60 Nd 144.24</td><td>61 Pm (145)</td><td>62 Sm 150.36</td><td>63 Eu 151.96</td><td>64 Gd 157.25</td><td>65 Tb 158.93</td><td>66 Dy 162.50</td><td>67 Ho 164.93</td><td>68 Er 167.26</td><td>69 Tm 168.93</td><td>70 Yb 173.04</td><td>71 Lu 174.97</td></tr><tr><td>LANTHANUM</td><td>CEPRUM</td><td>PRASEODYMIUM</td><td>NEODYMIUM</td><td>PROMETHIUM</td><td>SAMARIUM</td><td>EUROPIUM</td><td>GADOLINIUM</td><td>TERBIUM</td><td>DYSPROSIUM</td><td>HOLEMIUM</td><td>ERBIUM</td><td>THULIUM</td><td>YTTBIUM</td><td>LUPTHIUM</td></tr><tr><td>89 227</td><td>90 232.04</td><td>91 231.04</td><td>92 238.03</td><td>93 237</td><td>94 244</td><td>95 243</td><td>96 247</td><td>97 247</td><td>98 251</td><td>99 252</td><td>100 257</td><td>101 258</td><td>102 259</td><td>103 262</td></tr><tr><td>ACTINIUM</td><td>THORIUM</td><td>PACURIUM</td><td>URANIUM</td><td>NEPTUNIUM</td><td>PLUTONIUM</td><td>AMECURIUM</td><td>BERKELIUM</td><td>CALIFORNIUM</td><td>ESCHENBERGIIUM</td><td>FERMIIUM</td><td>MENDEEVIIUM</td><td>NOBELIUM</td><td>ROSENBLATTIUM</td><td>LORENTZIIUM</td></tr></table>										57 La 138.91	58 Ce 140.12	59 Pr 140.91	60 Nd 144.24	61 Pm (145)	62 Sm 150.36	63 Eu 151.96	64 Gd 157.25	65 Tb 158.93	66 Dy 162.50	67 Ho 164.93	68 Er 167.26	69 Tm 168.93	70 Yb 173.04	71 Lu 174.97	LANTHANUM	CEPRUM	PRASEODYMIUM	NEODYMIUM	PROMETHIUM	SAMARIUM	EUROPIUM	GADOLINIUM	TERBIUM	DYSPROSIUM	HOLEMIUM	ERBIUM	THULIUM	YTTBIUM	LUPTHIUM	89 227	90 232.04	91 231.04	92 238.03	93 237	94 244	95 243	96 247	97 247	98 251	99 252	100 257	101 258	102 259	103 262	ACTINIUM	THORIUM	PACURIUM	URANIUM	NEPTUNIUM	PLUTONIUM	AMECURIUM	BERKELIUM	CALIFORNIUM	ESCHENBERGIIUM	FERMIIUM	MENDEEVIIUM	NOBELIUM	ROSENBLATTIUM	LORENTZIIUM
1 H 1.00794																	3 Li 6.941	4 Be 9.012182																																																																																																																																																																																																																								
5 B 10.811	6 C 12.0107	7 N 14.00643	8 O 15.999	9 F 18.998403	10 Ne 20.1797													11 Na 22.98976928	12 Mg 24.304																																																																																																																																																																																																																							
13 Al 26.9815386	14 Si 28.0855836	15 P 30.973761998	16 S 32.06	17 Cl 35.453	18 Ar 39.948	19 K 39.0983	20 Ca 40.078	21 Sc 44.955912	22 Ti 47.88	23 V 50.9415	24 Cr 51.9961	25 Mn 54.938045	26 Fe 55.845	27 Co 58.933195	28 Ni 58.6934	29 Cu 63.546	30 Zn 65.38																																																																																																																																																																																																																									
31 Ga 69.723	32 Ge 72.630	33 As 74.9216	34 Se 78.96	35 Br 79.904	36 Kr 83.80	37 Rb 85.4678	38 Sr 87.62	39 Y 88.90584	40 Zr 91.224	41 Nb 92.90638	42 Mo 95.94	43 Tc 98.9062	44 Ru 101.07	45 Rh 102.9055	46 Pd 106.42	47 Ag 107.8682	48 Cd 112.411																																																																																																																																																																																																																									
49 In 114.818	50 Sn 118.710	51 Sb 121.757	52 Te 127.6	53 I 126.90547	54 Xe 131.29	55 Cs 132.90545196	56 Ba 137.327	57 La 138.90547	58 Ce 140.12	59 Pr 140.90765	60 Nd 144.242	61 Pm (145)	62 Sm 150.36	63 Eu 151.964	64 Gd 157.25	65 Tb 158.92532	66 Dy 162.50015																																																																																																																																																																																																																									
67 Ho 164.93032	68 Er 167.259	69 Tm 168.93274	70 Yb 173.045	71 Lu 174.967	72 Hf 178.49	73 Ta 180.94788	74 W 183.84	75 Re 186.207	76 Os 190.23	77 Ir 192.222	78 Pt 195.084	79 Au 196.966569	80 Hg 200.59	81 Tl 204.38	82 Pb 207.2	83 Bi 208.980399	84 Po 209																																																																																																																																																																																																																									
85 At 210	86 Rn 222	87 Fr 223	88 Ra 226	89 Ac 227	90 Th 232.0377	91 Pa 231.036889	92 U 238.02891	93 Np 237.048173	94 Pu 244.06422	95 Am 243.061381	96 Cm 247.070351	97 Bk 247.070351	98 Cf 251.083288	99 Es 252.083288	100 Fm 257.105285	101 Md 258.105285	102 No 259.105285																																																																																																																																																																																																																									
103 Lr 262.105285																																																																																																																																																																																																																																										
57 La 138.91	58 Ce 140.12	59 Pr 140.91	60 Nd 144.24	61 Pm (145)	62 Sm 150.36	63 Eu 151.96	64 Gd 157.25	65 Tb 158.93	66 Dy 162.50	67 Ho 164.93	68 Er 167.26	69 Tm 168.93	70 Yb 173.04	71 Lu 174.97																																																																																																																																																																																																																												
LANTHANUM	CEPRUM	PRASEODYMIUM	NEODYMIUM	PROMETHIUM	SAMARIUM	EUROPIUM	GADOLINIUM	TERBIUM	DYSPROSIUM	HOLEMIUM	ERBIUM	THULIUM	YTTBIUM	LUPTHIUM																																																																																																																																																																																																																												
89 227	90 232.04	91 231.04	92 238.03	93 237	94 244	95 243	96 247	97 247	98 251	99 252	100 257	101 258	102 259	103 262																																																																																																																																																																																																																												
ACTINIUM	THORIUM	PACURIUM	URANIUM	NEPTUNIUM	PLUTONIUM	AMECURIUM	BERKELIUM	CALIFORNIUM	ESCHENBERGIIUM	FERMIIUM	MENDEEVIIUM	NOBELIUM	ROSENBLATTIUM	LORENTZIIUM																																																																																																																																																																																																																												

Targeting RARE-EARTH ELEMENTS & GOLD at Bear Lodge, Wyoming

TREM 12 Presentation
March 13, 2012

NYSE AMEX: REE
TSX: RES

Disclaimer

- The information contained herein, while obtained from sources which we believe are reliable, is not guaranteed as to its accuracy or completeness. The company is an exploration company and its mineral project has yet to be proven to be economic. Some references to geologic and technical information contained herein are historical or have been generated by external consultants who may or may not be QPs under NI 43-101 and are therefore not in accordance with the requirements under NI 43-101 or have to be prepared in accordance with a preliminary or final feasibility study. The content of this presentation is for information purposes only and does not constitute an offer to sell or a solicitation to purchase any securities referred to herein.
- **Forward-looking statements:** This presentation includes certain forward-looking statements about future events and/or financial results which are forward-looking in nature and subject to risks and uncertainties. Forward-looking statements include without limitation, statements regarding the company's plan, goals or objectives and future mineral projects, potential mineralization, resources and reserves, exploration results and future plans and objectives of Rare Element Resources. Forward-looking statements can generally be identified by the use of forward-looking terminology such as "may", "will", "expect", "intend", "estimate", "anticipate", "believe", or "continue" or the negative thereof or variations thereon or similar terminology. There can be no assurance that such statements will prove to be accurate and actual results and future events could differ materially from those anticipated in such statements. Important factors that could cause actual results to differ materially from expectations include risks associated with permitting, mining generally, and pre-development stage projects in particular. Potential investors should conduct their own investigations as to the suitability of investing in securities of Rare Element Resources.
- **Cautionary Note to U.S. Investors Concerning Estimates of Measured, Indicated and Inferred Resources** This presentation uses the term "Inferred" Mineral Resources. U.S. investors are advised that while such terms are recognized and required by Canadian regulations, the Securities and Exchange Commission does not recognize them. "Inferred Resources" have a great amount of uncertainty as to their existence, and great uncertainty as to their economic and legal feasibility. It cannot be assumed that all or any part of an inferred resource will ever be upgraded to a higher category. Under Canadian rules, estimates of Inferred Resources may not form the basis of feasibility or other economic studies. U.S. investors are also cautioned not to assume that all or any part of an Inferred Mineral Resource exists, or is economically or legally mineable.

Rare Element Resources

Why Rare Element Resources?

- **2nd highest grade rare-earth deposit in North America**
- **Excellent distribution of elements (rich in Nd, Pr, Eu, plus Tb, Dy)**
- **Simple low-cost metallurgical processing for mineral concentration**
- **Exceptional infrastructure and mining jurisdiction (Wyoming, USA)**

Financial Information

- **44.1M shares outstanding (48.3M FD)**
- **Market cap of ~\$265M (@ \$6.00 per share)**
- **~\$57M in cash on hand, no debt**
- **52 week H/L of \$16.55/\$3.08**
- **Insiders hold 5.8%**

People



Rare Element Resources
NYSE AMEX: REE

TSX: RES

Management

Over 200 years
of combined
mining
experience

- Randall J. Scott: President & CEO
- Jaye T. Pickarts, PE: COO
- David P. Suleski, CPA: CFO
- James G. Clark, PhD: VP Exploration
- George G. Byers, MA: VP Government Relations
- Donald E. Ranta, PhD, CPG: Chairman

Key Technical Advisors

- Dr. Anthony “Tony” Mariano – Geology
- Dr. Roshan Bhappu, PE – Metallurgy
- Dudley Kingsnorth, PEng – RE Markets
- Jack Lifton – Strategy & OEMs



Bear Lodge Property, Wyoming, USA

- **Proven & Probable Rare-Earth mineral reserve** (NI 43-101-compliant)
 - **6.4 million tons @ 3.75% REO^(1,3)**
- **Measured & Indicated Rare-Earth mineral resource** (NI 43-101-compliant)
 - **6.8 million tons @ 3.75% REO⁽¹⁾**
- **Additional Inferred Rare-Earth mineral resource** (NI 43-101-compliant)
 - **24.2 million tons @ 2.74% REO⁽²⁾**

Preliminary Feasibility Study completed – Over 40% IRR

- **Carbonatite deposit** - same type as Bayan Obo and Mountain Pass
- Property 100% controlled by RER & metallurgical process outlined and tested in a pilot plant

(1) 1.5% REO cut-off-grade; prepared by Ore Reserves Engineering, June, 2011

(2) 0.005 opt Au cut-off grade; prepared by Ore Reserves Engineering, March 2011

(3) Included in measured and indicated resources.

Prefeasibility Study Highlights



Rare Element Resources
NYSE AMEX: REE

TSX: RES

Base Case Parameters

Pricing basis - RE bulk mixed concentrates	\$17.36/kg of mixed concentrates
Production rate (nominal)	1,000 tpd
Mine life	19 years (6.4 M tons)
Initial capital	\$375 M
Operating cost	\$255/ton
LOM sustaining capital	\$71 M
REO recoveries to concentrates (23,100 tons)	81 %
Annual tons REO in concentrates	10,400 tons

Economic Measurements


Internal rate of return (IRR)	45%
Before federal tax net present value (NPV)	
10% discount rate	\$1.3 B
12% discount rate	\$1.0 B
Payback from start of production	2 years

Concentrate prices:: 3-year average \$17.36/kg; 4-yr average \$15.92/kg; current price of \$38/kg

Bull Hill Bulk Concentrates contain ~45% REO

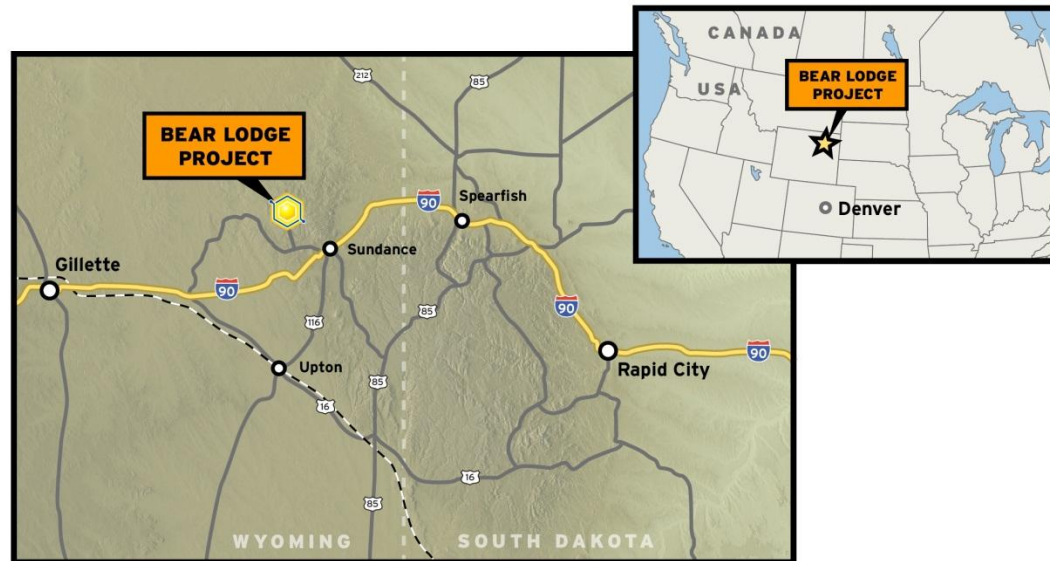
NI 43-101 Preliminary Feasibility Study (PFS) prepared by Roche Engineering, February 2012

Bear Lodge Location and Infrastructure

 Rare Element Resources
NYSE AMEX: REE
TSX: RES

Excellent Mining Infrastructure

- Paved road within 2 miles of project
- Low-cost power nearby
- 40 miles to nearest railhead; Chemicals available in-state
- Skilled labor and water available
- Favorable community acceptance; Major coal mining center 60 miles W (Gillette, WY)
- Wyoming is a Top ranked mining jurisdiction⁽¹⁾



(1) Wyoming ranked #4 worldwide location favorable for mining by the Fraser Institute, Feb. 2012


Bear Lodge Rare-Earths Overview

- Contains “***one of the largest deposits of disseminated (low-grade) rare earths in North America***” plus **high-grade zones** (US Geological Survey⁽²⁾); USBM historic resource estimate
- **Measured & Indicated** mineral resource - **6.8M tons @ 3.75% REO⁽¹⁾** all of oxidized material; **Inferred** mineral resources includes oxidized material of **16.5M tons @ 2.76% REO⁽¹⁾** (NI 43-101)
- Exploring for additional **oxidized REE mineralization** in the Bull Hill area carbonatites within 500 feet of surface
- **Low-cost simple mineral concentration process** for near-surface oxide mineralization; **Pilot Plant** work established and ongoing
- **Preliminary Feasibility Study completed**; NI 43-101 report coming soon

(1) NI-43-101 compliant using 1.5% REO cut-off-grade; prepared by Ore Reserves Engineering, January 2012

(2) US Geological Survey (Statz, Professional Paper 1049-D, 1983)

Rare-Earth Drilling

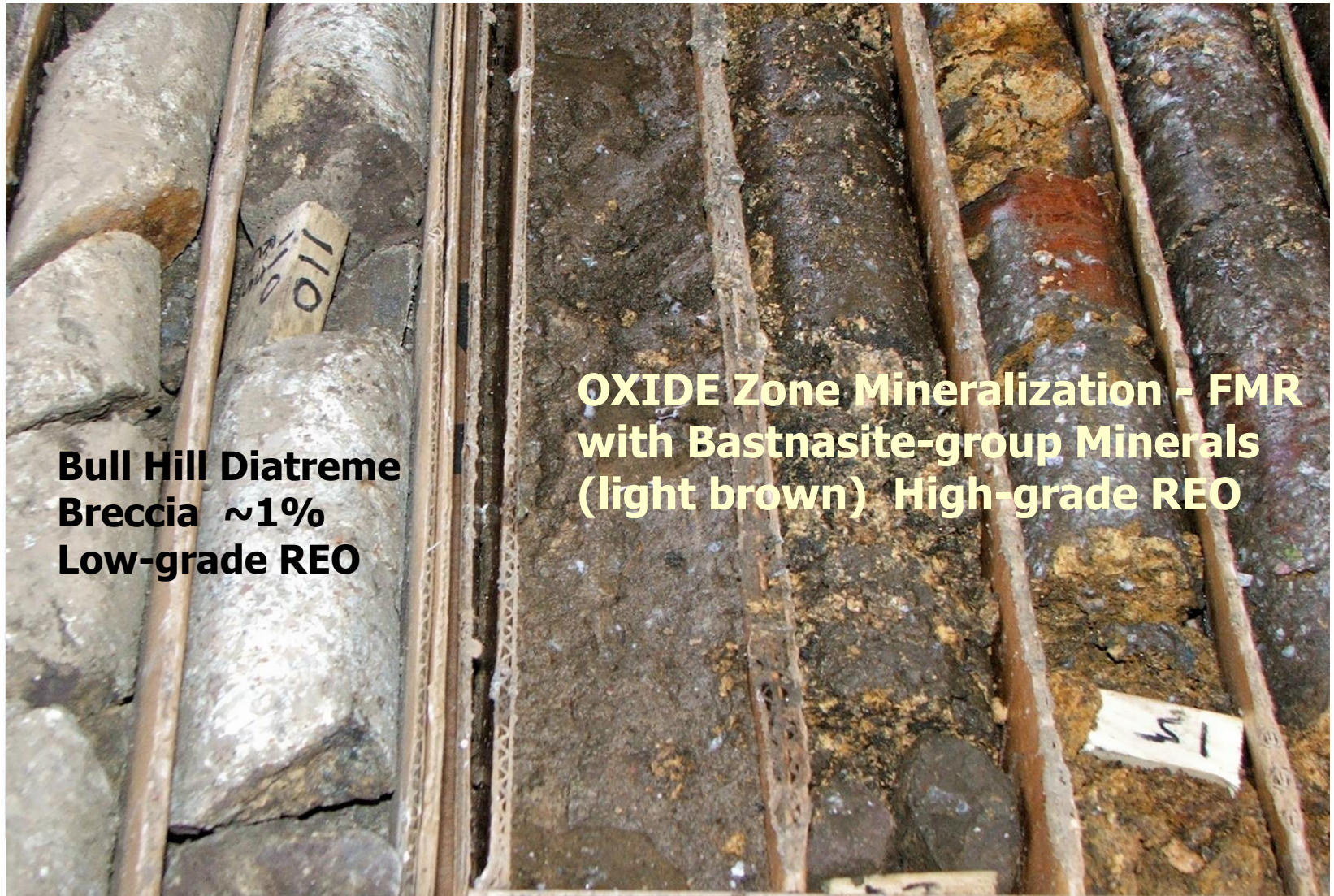
 Rare Element Resources
NYSE AMEX: REE
TSX: RES



Bull Hill REE Mineralization - FMR Dikes & Veins

 Rare Element Resources
NYSE AMEX: REE


TSX: RES



**Bull Hill Diatreme
Breccia ~1%
Low-grade REO**

**OXIDE Zone Mineralization - FMR
with Bastnasite-group Minerals
(light brown) High-grade REO**

Mineral Concentration Pilot Plant

 Rare Element Resources
NYSE AMEX: REE
TSX: RES



+ 1 inch Coarse Reject



**1 in x 10 m
Recycle**




10m x 48m Fine Middling



Pre-concentrate

Chemical Concentration Pilot Plant

 Rare Element Resources
NYSE AMEX: REE
TSX: RES



Acid Addition



Pre-concentrate Feed



HCL Leaching



Iron Hydroxide Precipitation



REO Carbonate Precipitation



Filtration

Oxide Zone Distribution of REE

Rare-Earth Element	Wt-% Oxide Distribution ⁽¹⁾	% Relative Value ⁽²⁾
Lanthanum	28.0%	14.9%
Cerium	43.4%	19.5%
Neodymium	17.6%	31.4%
Praseodymium	5.0%	8.7%
Samarium	2.7%	1.2%
Europium	0.6%	17.0%
Gadolinium	1.3%	0.8%
Terbium	0.1%	2.8%
Dysprosium	0.3%	3.0%
Yttrium	0.8%	0.6%
Total	99.9%	99.9%

“Big 5” - most important and valuable elements for magnets – Nd, Pr, Tb, Dy & CFL – Eu, Tb

23% of total distribution but 62% to 83% of value

(1) From 43-101 resource estimation model of measured and indicated categories, ORE, January 2012

(2) Based on 2010 average prices of REEs from January through August

Milestones



Rare Element Resources
NYSE AMEX: REE

TSX: RES

- **Completed**
 - ✓ **Over 150 core holes, & over 70 bulk sample holes;**
 - ✓ **Updated reserve of 6.4 million tons for 19 year initial life;**
 - ✓ **Pilot plant testing - collection of RE carbonate concentrate for marketing;**
 - ✓ **Environmental baseline data being collected;**
 - ✓ **Announced Preliminary Feasibility Study results – March 2012;**
- **Upcoming**
 - **Submit Plan of Operation for mine permitting**
 - **Market concentrate**
 - **Test for REO separation**
 - **Expand and upgrade resources and reserves**
 - **Commence Bankable Feasibility Study, for Q2 2013 completion**
 - **Complete mine permitting - early 2014**