

# CDN Resource Laboratories Ltd.

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## REFERENCE MATERIAL: CDN-RE-1201

Recommended value and the "Between Laboratory" two standard deviations

<i>Barium</i>	<i>2876</i>	<i>±</i>	<i>172</i>	<i>ppm</i>	<i>Certified value</i>
<i>Cerium</i>	<i>1327</i>	<i>±</i>	<i>110</i>	<i>ppm</i>	<i>Certified value</i>
<i>Cesium</i>	<i>3.6</i>	<i>±</i>	<i>0.3</i>	<i>ppm</i>	<i>Certified value</i>
<i>Dysprosium</i>	<i>14.3</i>	<i>±</i>	<i>0.9</i>	<i>ppm</i>	<i>Certified value</i>
<i>Erbium</i>	<i>6.5</i>	<i>±</i>	<i>0.5</i>	<i>ppm</i>	<i>Certified value</i>
<i>Europium</i>	<i>8.6</i>	<i>±</i>	<i>0.8</i>	<i>ppm</i>	<i>Certified value</i>
<i>Gadolinium</i>	<i>22.2</i>	<i>±</i>	<i>2.4</i>	<i>ppm</i>	<i>Certified value</i>
<i>Hafnium</i>	<i>2.8</i>	<i>±</i>	<i>0.4</i>	<i>ppm</i>	<i>Provisional value</i>
<i>Holmium</i>	<i>2.5</i>	<i>±</i>	<i>0.2</i>	<i>ppm</i>	<i>Certified value</i>
<i>Lanthanum</i>	<i>959</i>	<i>±</i>	<i>107</i>	<i>ppm</i>	<i>Certified value</i>
<i>Lutetium</i>	<i>0.66</i>	<i>±</i>	<i>0.09</i>	<i>ppm</i>	<i>Provisional value</i>
<i>Niobium</i>	<i>186</i>	<i>±</i>	<i>14.1</i>	<i>ppm</i>	<i>Certified value</i>
<i>Neodymium</i>	<i>311</i>	<i>±</i>	<i>18</i>	<i>ppm</i>	<i>Certified value</i>
<i>Praseodymium</i>	<i>112</i>	<i>±</i>	<i>7</i>	<i>ppm</i>	<i>Certified value</i>
<i>Samarium</i>	<i>35.6</i>	<i>±</i>	<i>3.1</i>	<i>ppm</i>	<i>Certified value</i>
<i>Terbium</i>	<i>2.9</i>	<i>±</i>	<i>0.3</i>	<i>ppm</i>	<i>Certified value</i>
<i>Thorium</i>	<i>60.2</i>	<i>±</i>	<i>5.4</i>	<i>ppm</i>	<i>Certified value</i>
<i>Thulium</i>	<i>0.9</i>	<i>±</i>	<i>0.1</i>	<i>ppm</i>	<i>Certified value</i>
<i>Yttrium</i>	<i>66.6</i>	<i>±</i>	<i>9.3</i>	<i>ppm</i>	<i>Provisional value</i>
<i>Ytterbium</i>	<i>5.1</i>	<i>±</i>	<i>0.4</i>	<i>ppm</i>	<i>Certified value</i>
<i>SiO<sub>2</sub></i>	<i>39.79</i>	<i>±</i>	<i>0.89</i>	<i>%</i>	<i>Certified value</i>
<i>Al<sub>2</sub>O<sub>3</sub></i>	<i>11.40</i>	<i>±</i>	<i>0.36</i>	<i>%</i>	<i>Certified value</i>
<i>Fe<sub>2</sub>O<sub>3</sub></i>	<i>6.25</i>	<i>±</i>	<i>0.16</i>	<i>%</i>	<i>Certified value</i>
<i>CaO</i>	<i>15.67</i>	<i>±</i>	<i>0.42</i>	<i>%</i>	<i>Certified value</i>
<i>MgO</i>	<i>3.22</i>	<i>±</i>	<i>0.11</i>	<i>%</i>	<i>Certified value</i>
<i>Na<sub>2</sub>O</i>	<i>5.10</i>	<i>±</i>	<i>0.22</i>	<i>%</i>	<i>Certified value</i>
<i>K<sub>2</sub>O</i>	<i>1.59</i>	<i>±</i>	<i>0.07</i>	<i>%</i>	<i>Certified value</i>
<i>TiO<sub>2</sub></i>	<i>0.47</i>	<i>±</i>	<i>0.01</i>	<i>%</i>	<i>Certified value</i>
<i>MnO</i>	<i>0.45</i>	<i>±</i>	<i>0.02</i>	<i>%</i>	<i>Certified value</i>
<i>P<sub>2</sub>O<sub>5</sub></i>	<i>0.22</i>	<i>±</i>	<i>0.02</i>	<i>%</i>	<i>Certified value</i>
<i>SrO</i>	<i>0.27</i>	<i>±</i>	<i>0.02</i>	<i>%</i>	<i>Certified value</i>
<i>BaO</i>	<i>0.32</i>	<i>±</i>	<i>0.02</i>	<i>%</i>	<i>Certified value</i>
<i>LOI</i>	<i>14.01</i>	<i>±</i>	<i>0.44</i>	<i>%</i>	<i>Certified value</i>

**PREPARED BY:** CDN Resource Laboratories Ltd.  
**CERTIFIED BY:** Duncan Sanderson, B.Sc., Licensed Assayer of British Columbia  
**INDEPENDENT GEOCHEMIST:** Dr. Barry Smee., Ph.D., P. Geo.  
**DATE OF CERTIFICATION:** March 20, 2014

### **ORIGIN OF REFERENCE MATERIAL:**

Standard CDN-RE-1201 was prepared using ore supplied by Canadian International Minerals from the Carbo property on the northeast slope of the Copley Range in central BC. REE and Nb minerals are hosted in carbonatites and associated alkaline intrusive rocks, dyke or sill. The LREE mineralized samples are from drill core intersections of carbonatite dykes and a network of carbonatite/calcite veins that intruded the Upper Cambrian to Lower Ordovician Kechika Group bedded sediments. Petrographic investigation identified the following REE minerals plus niobium rutile and sulphides: parasite, bastnäesite, monazite, burbankite, minor aeschynite, Nb-rutile, traces of pyrochlore, minor sulphides; pyrite, pyrrhotite, sphalerite, galena, arsenopyrite and chalcopyrite.

**REFERENCE MATERIAL: CDN-RE-1201**

**METHOD OF PREPARATION:**

Reject ore material was dried, crushed, pulverized and then passed through a 270 mesh screen. The +270 material was discarded. The -270 material was mixed for 5 days in a double-cone blender. Splits were taken and sent to 11 commercial laboratories for round robin assaying.

**METHOD OF ANALYSIS:** Lithium borate fusion with ICP / ICPMS finish.

**Statistical Procedures:**

The final limits were calculated after first determining if all data was compatible within a spread normally expected for similar analytical methods done by reputable laboratories. Data from any one laboratory was removed from further calculations when the mean of all analyses from that laboratory failed a t test of the global means of the other laboratories. The mean and standard deviation were calculated using all remaining data. Any analysis that fell outside of the mean  $\pm 2$  standard deviations was removed from the ensuing data base. The mean and standard deviations were again calculated using the remaining data. This method is different from that used by Government agencies in that the actual "between-laboratory" standard deviation is used in the calculations. This produces upper and lower limits that reflect actual individual analyses rather than a grouped set of analyses. The limits can therefore be used to monitor accuracy from individual analyses, unlike the Confidence Limits published on other standards.

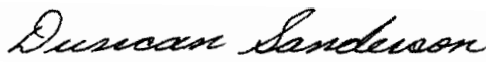
Participating Laboratories: (not in same order as table of assays)

Acme Analytical Laboratories Ltd., Vancouver, BC, Canada  
Activation Laboratories, Ancaster, Ontario, Canada  
AGAT, Mississauga, Ontario, Canada  
ALS Canada, North Vancouver, B.C., Canada  
ALS Lima, Peru  
ALS Brisbane, Australia  
ALS Perth, Australia  
Amdel, Australia  
Intertek – Genalysis, Perth, Australia  
SGS, Vancouver, BC, Canada  
SGS – Lakefield, Ontario, Canada

Legal Notice:

This certificate and the reference material described in it have been prepared with due care and attention. However CDN Resource Laboratories Ltd. nor Barry Smee accept any liability for any decisions or actions taken following the use of the reference material. Our liability is limited solely to the cost of the reference material.

Certified by



Duncan Sanderson, Certified Assayer of B.C.

Geochemist



Dr. Barry Smee, Ph.D., P. Geo.