

# United States Geological Survey

## Certificate of Analysis

### Carbonatite, COQ-1

Material for this standard was collected in 1965 by Dr. David P. Gold at the St. Lawrence Columbian and Metals Corporation Ltd. Oka complex. The collection site is located approximately 20 miles west of Montreal, Canada on the north shore of the Lake of Two Mountains. The age of the Oka complex is indicated as  $100 \pm 15$  million years and is composed primarily of ultramafic alkaline and carbonate rocks. At the time of collection, the site was the world's largest single producer of niobium.

Analytical results reported here are for information purposes only. Reported values are based results from only one or two laboratories or independent techniques. The data has not been subjected to a rigorous statistical analysis, and therefore should be used with caution.

#### Information values

Oxide	Wt %	$\pm$	Oxide	Wt %	$\pm$
SiO <sub>2</sub>	3.47	0.11	Na <sub>2</sub> O	<0.1	-
Al <sub>2</sub> O <sub>3</sub>	0.37	0.04	K <sub>2</sub> O	0.16	0.02
Fe <sub>2</sub> O <sub>3</sub> T	2.94	0.09	TiO <sub>2</sub>	0.15	0.002
MgO	1.25	0.03	P <sub>2</sub> O <sub>5</sub>	2.6	0.12
CaO	48.3	0.38	MnO	0.43	0.002

Element	ppm	$\pm$	Element	ppm	$\pm$
Ba	1000	<100	Nb	3900	60
Be	1.2	0.6	Nd	480	15
Ce	1700	100	Ni	13	1
Co	<5	-	Pr	150	6
Cr	<10	-	Sc	3	0.1
Cs	0.2	0.01	Sm	56	2
Cu	<10	-	Sr	12000	<100
Dy	18	-	Tb	4	0.1
Er	7	0.06	Th	10	1
Eu	15	0.6	U	11	0.6
Ga	6	0.2	V	110	6
Gd	50	1	* Y	81	5
Ho	3	0.1	* Yb	6	0.5
La	750	10	* Zn	87	1.5
			Zr	65	3

\* Information values are based on analyses from two independent laboratories or techniques.