

Preparation of diamond drillcore and outcrop samples for analysis and analytical suite of elements at NTEL, Berrimah, NT

Summary of sample preparation, the analytical suite of elements and the overall methodology of geochemical analysis are based on the NTEL Intertek Laboratories quote (Ref #:CAM001, 01/06/2012) for Cameco's Northern Territory projects sampling programs.

Sample Preparation

- Samples are initially weighed without any preparation or processing
- Samples are dried for a 24 hours period at 105°C
- Each sample is crushed to pass a 1 mm sieve
- The crushed material is split using a riffle splitter for weak acid leaching and for further pulverizing if the material is over 3 kg in weight
- Crushed material between 1.2 to 3 kg in weight is pulverized

The analytical suite of elements used in 2012 by NTEL is in the attached table. The type of digestion, the analytical equipment for each element and the detection limits are listed beside each element. The detection limit, however, may depend on the matrix material of the sample.

Analytical suite of elements

Suite	Element	Finish	Detection limit	Unit of detection limit	Digestion type
FIREAUPTPD	Au	Carbon Furnace AAS	1	ppb	25 g fire assay lead collection
FIREAUPTPD	Pd	Carbon Furnace AAS	1	ppb	25 g fire assay lead collection
FIREAUPTPD	Pt	Carbon Furnace AAS	1	ppb	25 g fire assay lead collection
G400	Ag	ICP-MS	0.05	ppm	4-acid near total digestion
G400	Al ₂ O ₃	ICP-OES	100	ppm	4-acid near total digestion
G400	As	ICP-MS	0.5	ppm	4-acid near total digestion
G400	Ba	ICP-OES	2	ppm	4-acid near total digestion
G400	Be	ICP-MS	0.1	ppm	4-acid near total digestion
G400	Bi	ICP-MS	0.02	ppm	4-acid near total digestion
G400	CaO	ICP-OES	20	ppm	4-acid near total digestion
G400	Ce	ICP-MS	0.01	ppm	4-acid near total digestion
G400	Co	ICP-MS	0.05	ppm	4-acid near total digestion
G400	Cr	ICP-MS	10	ppm	4-acid near total digestion
G400	Cu	ICP-MS	0.2	ppm	4-acid near total digestion
G400	Dy	ICP-MS	0.01	ppm	4-acid near total digestion
G400	Er	ICP-MS	0.01	ppm	4-acid near total digestion
G400	Eu	ICP-MS	0.01	ppm	4-acid near total digestion
G400	Fe ₂ O ₃	ICP-OES	50	ppm	4-acid near total digestion
G400	Ga	ICP-MS	0.01	ppm	4-acid near total digestion
G400	Gd	ICP-MS	0.01	ppm	4-acid near total digestion
G400	Hf	ICP-MS	0.01	ppm	4-acid near total digestion

G400	Ho	ICP-MS	0.01	ppm	4-acid near total digestion
G400	K2O	ICP-OES	100	ppm	4-acid near total digestion
G400	La	ICP-MS	0.01	ppm	4-acid near total digestion
G400	Li	ICP-OES	1	ppm	4-acid near total digestion
G400	Lu	ICP-MS	0.01	ppm	4-acid near total digestion
G400	MgO	ICP-OES	20	ppm	4-acid near total digestion
G400	MnO	ICP-MS	0.5	ppm	4-acid near total digestion
G400	Mo	ICP-MS	0.05	ppm	4-acid near total digestion
G400	Na2O	ICP-OES	100	ppm	4-acid near total digestion
G400	Nb	ICP-MS	0.05	ppm	4-acid near total digestion
G400	Nd	ICP-MS	0.05	ppm	4-acid near total digestion
G400	Ni	ICP-MS	0.2	ppm	4-acid near total digestion
G400	P2O5	ICP-OES	50	ppm	4-acid near total digestion
G400	Pb	ICP-MS	0.2	ppm	4-acid near total digestion
G400	Pr	ICP-MS	0.01	ppm	4-acid near total digestion
G400	Rb	ICP-MS	0.01	ppm	4-acid near total digestion
G400	S	ICP-OES	20	ppm	4-acid near total digestion
G400	Sc	ICP-MS	0.1	ppm	4-acid near total digestion
G400	Se	ICP-MS	2	ppm	4-acid near total digestion
G400	Sm	ICP-MS	0.01	ppm	4-acid near total digestion
G400	Sn	ICP-MS	0.2	ppm	4-acid near total digestion
G400	Sr	ICP-MS	0.05	ppm	4-acid near total digestion
G400	Ta	ICP-MS	0.02	ppm	4-acid near total digestion
G400	Tb	ICP-MS	0.01	ppm	4-acid near total digestion
G400	Th	ICP-MS	0.01	ppm	4-acid near total digestion
G400	TiO2	ICP-OES	20	ppm	4-acid near total digestion
G400	Tm	ICP-MS	0.01	ppm	4-acid near total digestion
G400	U	ICP-MS	0.01	ppm	4-acid near total digestion
G400	V	ICP-MS	10	ppm	4-acid near total digestion
G400	W	ICP-MS	0.05	ppm	4-acid near total digestion
G400	Y	ICP-MS	0.01	ppm	4-acid near total digestion
G400	Yb	ICP-MS	0.02	ppm	4-acid near total digestion
G400	Zn	ICP-MS	0.5	ppm	4-acid near total digestion
G400	Zr	ICP-MS	0.1	ppm	4-acid near total digestion
G400 PB ISO	Pb204	ICP-MS	0.2	ppm	4-acid near total digestion
G400 PB ISO	Pb206	ICP-MS	0.2	ppm	4-acid near total digestion
G400 PB ISO	Pb207	ICP-MS	0.2	ppm	4-acid near total digestion
G400 PB ISO	Pb208	ICP-MS	0.2	ppm	4-acid near total digestion
G422	U (ore grade)	ICP-MS	5	ppm	4-acid near total digestion
G9RC6M	Hg	ICP-MS	1	ppb	1:6 Weak Acid leach (nitric acid) on crushed material
G9RC6M	Pb204	ICP-MS	0.01	ppb	1:6 Weak Acid leach (nitric acid) on crushed material
G9RC6M	Pb206	ICP-MS	0.01	ppb	1:6 Weak Acid leach (nitric acid) on crushed

					material
G9RC6M	Pb207	ICP-MS	0.01	ppb	1:6 Weak Acid leach (nitric acid) on crushed material
G9RC6M	Pb208	ICP-MS	0.01	ppb	1:6 Weak Acid leach (nitric acid) on crushed material
G9RC6M	U	ICP-MS	0.01	ppb	1:6 Weak Acid leach (nitric acid) on crushed material
G140B	B	ICP-EOS	20	ppm	1:6 Weak Acid leach (nitric acid) on crushed material
LOI	Volatiles	Gravity	0.01	%	Loss on ignition (1000°C)