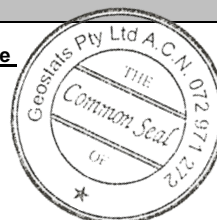


# GEOSTATS PTY LTD

Mining Industry Consultants  
Reference Material Manufacture and Sales

Certified Geochem Base Metal Reference Material Product Code

## GBM321-5



### Certified Control Values

#### Total Digest

Element	Grade	Standard Deviation	Num of Analyses	Confidence Interval
Nickel (ppm)	27	2	53	+/- 0.6
Copper (ppm)	157	7	50	+/- 2
Zinc (ppm)	1495	47	52	+/- 13.1
Lead (ppm)	59	4	51	+/- 1
Arsenic (ppm)	89	5	45	+/- 1.5
Cobalt (ppm)	18	1	50	+/- 0.3
Silver (ppm)	1.0	0.1	44	+/- 0.03

#### Partial Digest

Element	Grade	Standard Deviation	Num of Analyses	Confidence Interval
Nickel (ppm)	25	2	48	+/- 0.6
Copper (ppm)	155	9	68	+/- 2.2
Zinc (ppm)	1478	83	59	+/- 21.7
Lead (ppm)	61	4	54	+/- 1.2
Arsenic (ppm)	83	8	46	+/- 2.4
Cobalt (ppm)	17	1	50	+/- 0.4
Silver (ppm)	1.0	0.1	49	+/- 0.04

### CRM Details

Control Statistic Details	Neutron Activation Analysis Results (ppm, unless otherwise noted)		Major Elements by Fusion / XRF (%)	
	Control statistics were produced from results accumulated in the April-2021 round robin. The number of results used to certify each analyte is shown in the table above.	Antimony	6.6	Fe
<b>Material Description</b> This material is described as a Fresh dacite, Pilbara, WA.	Arsenic	90	SiO <sub>2</sub>	60.63
	<b>Colour Designation (ISCC-NBS, SP440)</b> This material is very light gray in colour.	Barium	315	Al <sub>2</sub> O <sub>3</sub>
<b>Usage</b> This product is for use in the mining industry as a reference material for monitoring and testing the accuracy of laboratory assaying.		Bromine	<2	TiO <sub>2</sub>
	<b>Preparation and Packaging</b> All CRMs are dried in an oven for a minimum of 12 hours at 110°C. The dry material is then pulverised to better than 75 micron (nominal mean of 45 micron) using an air classifier. The material is then homogenised and stored in a sealed, stable container ready for final packaging.  Materials are statistically sampled from stores, then packaged into either heat sealed, air tight, plastic pulp packets or screw top sealed plastic containers ready for distribution. All packaging has been chosen to ensure minimal contamination from outside sources during shipment, use and storage.	Cadmium	<10	MnO
<b>Assay Testwork</b> All standards are tested thoroughly in the Geostats bi-annual laboratory survey. This involves assaying by multiple laboratories from around the world. Results are compiled into a comprehensive report detailing statistics for each standard. Assay distributions are checked and processed statistically, producing monitoring statistics for these standards. Materials are tested regularly to ensure stability and homogeneity.		Caesium	4	CaO
	<b>Stability</b> This product remains stable in its original packaging, away from direct sunlight.	Calcium (%)	nr	P
<b>Material Safety</b> This product is not hazardous and non-toxic.		Cerium	38	S
	<b>CRM Details</b>	Chromium	35	MgO
Neutron Activation Analyses and Fusion / XRF Analyses are single results and are indicative only. These are provided for matrix identification purposes.		Cobalt	18	K <sub>2</sub> O
	'nr': Not Reported	Europium	0.7	Na <sub>2</sub> O
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	'nr': Not Reported	Hafnium	<5	
Neutron Activation Analyses and Fusion / XRF Analyses are single results and are indicative only. These are provided for matrix identification purposes.		Iridium (ppb)	<50	
	'nr': Not Reported	Iron (%)	5.1	
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	'nr': Not Reported	Lutetium	0.3	
Neutron Activation Analyses and Fusion / XRF Analyses are single results and are indicative only. These are provided for matrix identification purposes.		Mercury	nr	
	'nr': Not Reported	Molybdenum	<10	
Neutron Activation Analyses and Fusion / XRF Analyses are single results and are indicative only. These are provided for matrix identification purposes.		Neodymium	nr	
	'nr': Not Reported	Nickel	25	
Neutron Activation Analyses and Fusion / XRF Analyses are single results and are indicative only. These are provided for matrix identification purposes.		Potassium (%)	nr	
	'nr': Not Reported	Rubidium	80	
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	'nr': Not Reported	Scandium	9.3	
Neutron Activation Analyses and Fusion / XRF Analyses are single results and are indicative only. These are provided for matrix identification purposes.		Selenium	<10	
	'nr': Not Reported	Silver	<5	
Neutron Activation Analyses and Fusion / XRF Analyses are single results and are indicative only. These are provided for matrix identification purposes.		Sodium (%)	0.16	
	'nr': Not Reported	Strontium	nr	
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	'nr': Not Reported	Tellurium	<20	
Neutron Activation Analyses and Fusion / XRF Analyses are single results and are indicative only. These are provided for matrix identification purposes.		Terbium	1	
	'nr': Not Reported	Thorium	4.78	
Neutron Activation Analyses and Fusion / XRF Analyses are single results and are indicative only. These are provided for matrix identification purposes.		Tin	<200	
	'nr': Not Reported	Tungsten	6	
Neutron Activation Analyses and Fusion / XRF Analyses are single results and are indicative only. These are provided for matrix identification purposes.		Uranium	<2	
	'nr': Not Reported	Ytterbium	1.7	
Neutron Activation Analyses and Fusion / XRF Analyses are single results and are indicative only. These are provided for matrix identification purposes.		Zinc	1500	
	'nr': Not Reported	Zirconium	<500	

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