

Norite from Stillwater Complex, MT, CRM

Art. ID	MBH-NSC-21-P
Unit	75 g (powder)
Deliverydetails	No Dangerous Good /not restricted

Description

MBH-NSC-21-P is a norite collected from the Archean-age Stillwater Igneous Complex. The Stillwater intrusion hosts PGE-rich layers, and is the only active Pt-mine in the US. Norite layers are rich in Ca-plagioclase and orthopyroxene and thus has unusually high CaO and Al₂O₃ from igneous rocks, and is enriched in Ni and Cr as well. This ISO 17034 accredited CRM is supplied as a homogenous powder with particle size 95% < 200 mesh (74 µm).

Text/Information	Analyte/Parameter	CAS number	Concentration/Value	Unit	Method	Source
Certified Value - major Element	Aluminium (Al)	[7429-90-5]	13,4 ± 0,1	%		
Certified Value - major Element	Calcium (Ca)	[7440-70-2]	10 ± 0,1	%		
Certified Value - major Element	Iron (Fe)	[7439-89-6]	2,34 ± 0,03	%		
Certified Value - major Element	Potassium (K)	[7440-09-7]	0,041 ± 0,002	%		
Certified Value - major Element	Magnesium (Mg)	[7439-95-4]	4,08 ± 0,02	%		
Certified Value - major Element	Manganese (Mn)	[7439-96-5]	0,046 ± 0,001	%		
Certified Value - major Element	Sodium (Na)	[7440-23-5]	0,91 ± 0,01	%		
Certified Value - major Element	Silicon (Si)	[7440-21-3]	22,5 ± 0,1	%		
Certified Value - major Element	Titanium (Ti)	[7440-32-6]	0,038 ± 0,001	%		
Certified Value - major Element	Al ₂ O ₃		25,4 ± 0,1	%		
Certified Value - major Element	CaO		14 ± 0,2	%		
Certified Value - major Element - total iron expressed as ferric iron Fe ₂ O ₃	Fe ₂ O ₃		3,34 ± 0,05	%		
Certified Value - major	K ₂ O		0,049 ± 0,003	%		

Element				
Certified Value - major	MgO	[1309-48-4]	6,77 ± 0,04	%
Element				
Certified Value - major	MnO		0,059 ± 0,001	%
Element				
Certified Value - major	Na ₂ O		1,23 ± 0,02	%
Element				
Certified Value - major	SiO ₂		48,1 ± 0,2	%
Element				
Certified Value - major	TiO ₂		0,064 ± 0,001	%
Element				
Certified Value - minor and trace Element	Barium (Ba)	[7440-39-3]	16,3 ± 0,5	mg/kg
Certified Value - minor and trace Element	Cobalt (Co)	[7440-48-4]	21,8 ± 0,5	mg/kg
Certified Value - minor and trace Element	Chromium (Cr)	[7440-47-3]	586 ± 10	mg/kg
Certified Value - minor and trace Element	Copper (Cu)	[7440-50-8]	11,4 ± 0,7	mg/kg
Certified Value - minor and trace Element	Dysprosium (Dy)	[7429-91-6]	0,22 ± 0,01	mg/kg
Certified Value - minor and trace Element	Erbium (Er)	[7440-52-0]	0,18 ± 0,01	mg/kg
Certified Value - minor and trace Element	Europium (Eu)	[7440-53-1]	0,134 ± 0,009	mg/kg
Certified Value - minor and trace Element	Gallium (Ga)	[7440-55-3]	12,1 ± 0,2	mg/kg
Certified Value - minor and trace Element	Gadolinium (Gd)	[7440-54-2]	0,19 ± 0,01	mg/kg
Certified Value - minor and trace Element	Lanthanum (La)	[7439-91-0]	0,52 ± 0,05	mg/kg
Certified Value - minor and trace Element	Lithium (Li)	[7439-93-2]	1,4 ± 0,2	mg/kg
Certified Value - minor and trace Element	Nickel (Ni)	[7440-02-0]	157 ± 4	mg/kg
Certified Value - minor and trace Element	Rubidium (Rb)	[7440-17-7]	0,86 ± 0,06	mg/kg
Certified Value - minor	Scandium (Sc)	[7440-20-2]	11 ± 0,4	mg/kg

and trace Element				
Certified Value - minor	Samarium (Sm)	[7440-19-9]	0,13 ± 0,02	mg/kg
and trace Element				
Certified Value - minor	Strontium (Sr)	[7440-24-6]	97 ± 1	mg/kg
and trace Element				
Certified Value - minor	Vanadium (V)	[7440-62-2]	44 ± 1	mg/kg
and trace Element				
Certified Value - minor	Yttrium (Y)	[7440-65-5]	1,37 ± 0,08	mg/kg
and trace Element				
Certified Value - minor	Zinc (Zn)	[7440-66-6]	17,9 ± 0,8	mg/kg
and trace Element				
Certified Value - minor	Zirconium (Zr)	[7440-67-7]	2,8 ± 0,3	mg/kg
and trace Element				
Indicative value	Cerium (Ce)	[7440-45-1]	1	mg/kg
Indicative value	Hafnium (Hf)	[7440-58-6]	0,1	mg/kg
Indicative value	Holmium (Ho)	[7440-60-0]	0,05	mg/kg
Indicative value	Lutetium (Lu)	[7439-94-3]	0,03	mg/kg
Indicative value	Niobium (Nb)	[7440-03-1]	0,2	mg/kg
Indicative value	Neodymium (Nd)	[7440-00-8]	0,5	mg/kg
Indicative value	Phosphorus (P)	[7723-14-0]	30	mg/kg
Indicative value	Lead (Pb)	[7439-92-1]	0,3	mg/kg
Indicative value	Praseodymium (Pr)	[7440-10-0]	0,1	mg/kg
Indicative value	Terbium (Tb)	[7440-27-9]	0,03	mg/kg
Indicative value	Thorium (Th)	[7440-29-1]	0,09	mg/kg
Indicative value	Thulium (Tm)	[7440-30-4]	0,03	mg/kg
Indicative value	Uranium (U)	[7440-61-1]	0,04	mg/kg
Indicative value	Ytterbium (Yb)	[7440-64-4]	0,2	mg/kg
Loss on Ignition (LOI)	Loss on Ignition (LOI)		0,78	%
110 °C to 1000 °C				