

Element (oxide wt.%)	Olivine - San carlos (1)	Plagioclase (2)	Garnet (2)	Titanite - Ontario (3)	Monazite (2)	Xenotime - BS-1 (5)	Apatite	Baddelyite -	Rutile - WHQ (7)	Element (wt.%)	Pyrite - Sierra (8)	Arsenopyrite (2)
SiO ₂	40.94	53.12	41.43	29.77	1.72	0.14	0.69	0.05	0.13	99		
TiO ₂			0.5	32.84				0.03				
Al ₂ O ₃		29.35	21.58	2.72				0.03				
FeO/Fe ₂ O ₃	9.38	0.34	8.76	2.91		<dl		0.03	0.04	Fe	46.7	34.16
MnO	0.14		0.31	0.11			0.02	0.01				
NiO	0.39								1.06			
CrO			2.06									
MgO	49.43	0.1	20.35	0.07			0.01	0.02				
CaO	0.09	11.93	4.35	27.38	0.9	0.02	53.93	0.01				
Na ₂ O		4.36		0.2			0.00					
K ₂ O		0.24										
P ₂ O ₅				0.05	27.04	33.64	38.09					
SO ₃							0.54			S	53.3	19.28
Y ₂ O ₃				0.38	2	41.18						
PbO				59	0.3	<dl						
ThO ₂				204	11.8	0.45	0.08		0.002			
UO ₂				303	0.2	0.11			0.08			
La ₂ O ₃				0.04	9.48	0.07	0.23					
Ce ₂ O ₃				0.04	25.04	0.01	0.55					
Ta ₂ O ₅				0.12								
V ₂ O ₃												
ZrO ₂				0.1		0.54		97.92	1.80			
HfO ₂												
Pr ₂ O ₃					2.97	0.02						
Nb ₂ O ₅				0.12						0.2		
Nd ₂ O ₃				0.06	11	0.12	0.16					
Gd ₂ O ₃				0.09	2.56	3.35						
Eu ₂ O ₃					0.12	0.27						
Sm ₂ O ₃				0.12	3.2	0.63						
Tb ₂ O ₃					0.4	0.85						
Dy ₂ O ₃					0.92	6.73						
Ho ₂ O ₃						1.2						
Er ₂ O ₃						3.68						
Tm ₂ O ₃						0.45						
Yb ₂ O ₃						2.49						
Lu ₂ O ₃						0.23						
As ₂ O ₃										As	46.1	
F				0.05			3.27					
Cl							0.23					
H ₂ O							0.18					
Total	100.4	99.4	99.3	98.4	99.8	96.0	97.9	100.3		100	99.5	
U-Pb age (Ma)				1053.3 ± 3.1 (4)		490 ± 0.3 (5)	490	2059.60 ± 0.35 (6)	2677 ± 21 (7)			

References: 1 - Tolland et al 2018; 2 - Astimex Microanalysis; 3 - Ma et al 2019; 4 - Spencer et al 2013; 5 - Fletcher et al 2004; 6 - Heaman et al 2009; 7 - Ewing 2011