

**ICP-MS & XRF 2022 Prices**

**Excl 15% VAT for SA Clients**

Process	Description	Unit Cost						
		User Analyst		CAF staff Analyst				
		SU Academics	Other SA Academics	SU Academics	Other SA Academics	SA Industry	Non-SA Academics	Non-SA Industry
<b>Sample Preparation</b>								
<b>Microwave Digestion</b>								
Ball Milling				R 42	R 54	R 88	\$3,6	\$5,7
Microwave digestion				R 98	R 124	R 238	\$8,6	\$16,5
<b>Rock &amp; Mineral Sample Preparation</b>								
Rock crushing (< 2kg) + Riffle Splitter		R 27	R 37			R 350		
Milling (disk mill)		R 27	R 37			R 350		
Milling (Swing mill)		R 30	R 39			R 350		
Sieve to - 350µm	Nylon mesh cuts supplied per sample	R 37	R 46			R 280		
Panning		R 27	R 37			R 440		
Magnetic separation		R 27	R 37			R 700		
Heavy liquid		R 221	R 287			R 1 600		
Grain Picking		R 0	R 0	R 371	R 483	R 735	\$32,9	\$50,0
Mounting & Polishing	Per mount, up to 6 samples per mount	R 105	R 138	R 649	R 844	R 2 000	\$56,4	\$142,9
Precise rock cutting		R 50	R 63	R 80	R 101	R 198	\$6,9	\$13,5
Polishing - no mounting		R 70	R 88	R 149	R 178	R 420	\$12,1	\$28,6
Grinding		R 50	R 63	R 90	R 114	R 243	\$7,8	\$16,5
<b>Complete Minsep to produce heavy minerals fraction (excl mount)</b>		<b>R 369</b>	<b>R 482</b>					
<b>Geochemical Analysis</b>								
<b>Whole Rock Chemistry</b>								
XRF: Majors on fusion, incl fusion disk & LOI	SiO <sub>2</sub> , TiO <sub>2</sub> , Al <sub>2</sub> O <sub>3</sub> , Total Fe <sub>2</sub> O <sub>3</sub> , MnO, MgO, K <sub>2</sub> O, CaO, Na <sub>2</sub> O, P <sub>2</sub> O <sub>5</sub> , Cr <sub>2</sub> O <sub>3</sub>			R 198	R 254	R 612	\$17,3	\$41,6
LA ICP-MS Traces on fusions	Sc, V, Cr, Co, Ni, Cu, Zn, Rb, Sr, Y, Zr, Nb, Mo, Cs, Ba, La, Ce, Pr, Nd, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb, Lu, Hf, Ta, Pb, Th, U			R 164	R 193	R 529	\$13,2	\$36,0
Fusion for Traces only				R 67	R 87	R 130	\$5,9	\$8,8
Fusion mount for Traces				R 39	R 51	R 76	\$3,4	\$5,2
<b>Complete XRF Majors + LA ICP-MS Traces</b>				<b>R 402</b>	<b>R 498</b>	<b>R 1 217</b>	<b>\$33,9</b>	<b>\$82,8</b>
XRF: Traces on pellets	Ni, Cu, Zn, Ga, Rb, Sr, Y, Zr, Nb, Pb, Th, U, Ti, V, Cr, Co, Ba, La, Ce, Nd			R 178	R 219	R 424	\$15,2	\$28,9
XRF: Base Metals on pellets	Cu, Co, Ni, Pb, Fe			R 140	R 174	R 325	\$12,1	\$22,1
XRF: P & S on pellets	P, S			R 118	R 150	R 292	\$10,4	\$19,9
XRF Traces method development (p/h)				R 468	R 588	R 992	\$40,8	\$67,5
XRF qualitative scan				R 290	R 365	R 650	\$25,3	\$44,3
<b>LA ICP-MS Mineral traces &amp; Isotope Analysis</b>								
In-situ mineral traces LA Q-ICP-MS (p/h)	User setting spots for analysis	R 433	R 571				\$40,8	
	Instrument set-up & analysis			R 600	R 777	R 1 544	\$55,5	\$110,3
E2 LA ICP-MS isotopes (p/h)	User setting spots for analysis	R 446	R 618				\$44,2	
	Instrument set-up & analysis			R 529	R 685	R 1 544	\$55,5	\$110,3
	Super-user instrument tune & analysis	R 446	R 618					
Data processing (p/h)				R 346	R 448	R 772	\$32,0	\$55,1
<b>CHNS Analysis</b>								
CHNS Analysis - Rush Fee	1-2 samples rush fee			R 700	R 840	R 1 014	\$60,0	\$72,5
CHNS Analysis per sample	1 - 20 samples			R 150	R 180	R 444	\$12,8	\$31,7
CHNS Analysis per sample	21 - 40 samples	R 120	R 144	R 139	R 167	R 407	\$11,9	\$29,0
CHNS Analysis per sample	>40 samples	R 115	R 138	R 130	R 156	R 396	\$11,1	\$28,3
CN Analysis per sample	1 - 20 samples			R 140	R 168	R 430	\$12,0	\$30,7
CN Analysis per sample	21 - 40 samples	R 115	R 138	R 130	R 156	R 393	\$11,1	\$28,1
CN Analysis per sample	>40 samples	R 110	R 132	R 125	R 150	R 383	\$10,7	\$27,4
<b>CHNS - Soil samples</b>								
CHNS Analysis - Rush Fee	1-2 samples rush fee			R 720	R 864	R 1 014	\$61,7	\$72,5
CHNS Analysis per sample	1 - 20 samples			R 169	R 203	R 475	\$14,5	\$33,9
CHNS Analysis per sample	21 - 40 samples	R 135	R 162	R 158	R 190	R 435	\$13,5	\$31,1
CHNS Analysis per sample	>40 samples	R 130	R 156	R 149	R 179	R 424	\$12,8	\$30,3
CN Analysis per sample	1 - 20 samples			R 159	R 191	R 460	\$13,6	\$32,8
CN Analysis per sample	21 - 40 samples	R 130	R 156	R 149	R 179	R 421	\$12,8	\$30,1
CN Analysis per sample	>40 samples	R 125	R 150	R 144	R 173	R 410	\$12,3	\$29,3
<b>Major &amp; Trace Cation Analysis</b>								
<b>ICP-AES &amp; ICP-MS Complete</b>								
Major, minor & trace elements combined	Na, K, Ca, Mg, B, Ba, Sr, P, Si, Al, V, Cr, Mn, Fe, Co, Ni, Cu, Zn, As, Se, Sn, Sb, Mo, Cd, Pb, Hg			R 302	R 382	R 1 568	\$26,5	\$108,8
<b>ICP - AES Major elements</b>								
ICP-AES: majors & traces package	Na, K, Ca, Mg, Al, Cr, Co, Cu, Ni, Fe, Mn, Pb, Zn, P, Si, B, Ba, Sr			R 175	R 213	R 756	\$14,8	\$54,0
ICP-AES: Basic chemistry	Na, K, Ca, Mg, Al, Cu, Ni, Fe, Mn, Zn, B			R 154	R 192	R 620	\$13,3	\$44,3
ICP-AES: single majors element				R 69	R 91	R 194	\$6,3	\$13,9
ICP-AES: up to 6 major elements				R 111	R 144	R 425	\$10,0	\$30,4
ICP-AES REE's single element				R 72	R 94	R 208	\$6,5	\$14,9
ICP-AES REE's up to 6 elements				R 135	R 170	R 425	\$11,8	\$30,4
ICP-AES REE's complete				R 208	R 240	R 809	\$16,6	\$57,8
ICP-AES PGM's single element				R 72	R 94	R 208	\$6,5	\$14,9
ICP-AES complete PGM's				R 139	R 170	R 457	\$11,8	\$32,6
<b>ICP - MS Trace elements</b>								

ICP-MS: metals & toxic elements	<i>Al, V, Cr, Mn, Fe, Co, Ni, Cu, Zn, As, Se, Sn, Sb, Mo, Cd, Pb, Hg</i>			R 191	R 235	R 1 076	\$16,3	\$74,6
ICP-MS: single trace element				R 122	R 158	R 227	\$10,9	\$15,8
ICP-MS: up to 6 trace elements				R 157	R 203	R 784	\$14,0	\$54,4
ICP-MS Drinking water	<i>Na, K, Ca, Mg, Al, V, Cr, Mn, Fe, Co, Ni, Cu, Zn, As, Se, Sn, Sb, Mo, Cd, Pb, Hg</i>			R 247	R 314	R 1 236	\$21,8	\$85,7
ICP-MS REE's single element				R 135	R 170	R 262	\$11,8	\$18,2
ICP-MS REE's Complete				R 196	R 252	R 1 130	\$17,4	\$78,4
ICP-MS PGM's single element				R 135	R 170	R 262	\$11,8	\$18,2
ICP-MS PGM's complete				R 169	R 216	R 833	\$15,0	\$57,8
ICP-MS non std single element				R 149	R 171	R 270	\$11,8	\$18,8
ICP-MS non std up to 6 elements: Group 1	<i>Li, Be, Ag, Si, P, S</i>			R 202	R 267	R 833	\$18,5	\$57,8
ICP-MS non std up to 6 elements: Group 2	<i>Ti, Zr, Nb, Hf, Ta, W</i>			R 202	R 267	R 833	\$18,5	\$57,8
ICP-MS non std up to 6 elements: Group 3	<i>Ga, Rb, Bi, Tl, U</i>			R 202	R 267	R 833	\$18,5	\$57,8
ICP-MS non std up to 6 elements: Group 4	<i>Ge, Te, In</i>			R 191	R 240	R 757	\$16,6	\$52,5
ICP-MS non-std single element added to other trace element sequence	<i>Li, Be, Ti, Ag</i>			R 66	R 75	R 95	\$5,4	\$8,3