



# ICP-MS & XRF

<b>2024 Prices</b>	<b>Excl 15% VAT for SA Clients</b>
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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 30		R 95	R 114	R 137	\$7,1	\$8,6
Hotplate digestion				R 45	R 50	R 70		
Microwave digestion		R 70		R 103	R 130	R 240	\$8,1	\$15,0
<b>Rock &amp; Mineral Sample Preparation</b>								
Rock crushing (< 2kg) + Riffle Splitter		R 33	R 40	R 95	R 114	R 137	\$7,1	\$8,6
Milling (disk mill)		R 33	R 40	R 95	R 114	R 137	\$7,1	\$8,6
Milling (Swing mill)		R 33	R 40	R 95	R 114	R 137	\$7,1	\$8,6
Sieve to - 350µm	Nylon mesh cuts supplied per sample	R 44	R 53	R 100	R 120	R 144	\$7,5	\$9,0
Panning		R 33	R 40	R 95	R 114	R 171	\$7,1	\$10,7
Magnetic separation		R 33	R 40	R 95	R 114	R 171	\$7,1	\$10,7
Heavy liquid		R 275	R 330	R 525	R 630	R 1 260	\$39,4	\$78,8
Grain Picking		R 0	R 0	R 409	R 533	R 1 065	\$33,3	\$66,6
Mounting & Polishing	Per mount, up to 6 samples per mount	R 127	R 152	R 715	R 931	R 1 862	\$58,2	\$116,3
Precise rock cutting		R 61	R 73	R 88	R 111	R 223	\$7,0	\$13,9
Polishing - no mounting		R 83	R 99	R 164	R 196	R 393	\$12,3	\$24,6
Grinding		R 61	R 73	R 99	R 126	R 252	\$7,9	\$15,7
CL Imaging (per hour)					R 1 199	R 1 566	\$74,9	\$97,9
<b>Complete Minsep to produce heavy minerals fraction (excl mount)</b>		<b>R 451</b>	<b>R 541</b>	<b>R 1 005</b>	<b>R 1 206</b>	<b>R 2 020</b>	<b>\$75,4</b>	<b>\$126,2</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 225	R 293	R 629	\$17,8	\$38,1
XRF majors on soil, incl pellet checks				R 250	R 323	R 662	\$19,6	\$40,1
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 173	R 207	R 571	\$12,6	\$34,6
Fusion for Traces only				R 89	R 107	R 132	\$6,5	\$8,0
Fusion mount for Traces				R 42	R 50	R 76	\$3,1	\$4,6
<b>Complete XRF Majors + LA ICP-MS Traces</b>				<b>R 439</b>	<b>R 550</b>	<b>R 1 276</b>	<b>\$33,4</b>	<b>\$77,3</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 196	R 241	R 481	\$14,6	\$29,2
XRF: Base Metals on pellets	Cu, Co, Ni, Pb, Fe			R 154	R 192	R 369	\$11,6	\$22,4
XRF: P & S on pellets	P, S			R 130	R 166	R 331	\$10,0	\$20,1
XRF Traces method development (p/h)				R 516	R 649	R 1 125	\$39,3	\$68,2
XRF qualitative scan				R 319	R 402	R 738	\$24,4	\$44,7
<b>LA ICP-MS Mineral traces &amp; Isotope Analysis</b>								
In-situ mineral traces LA Q-ICP-MS (p/h)	User setting up for analysis	R 540	R 648					
	Staff instrument set-up & analysis			R 743	R 892	R 1 486	\$54,0	\$90,1
E2 LA ICP-MS isotopes (p/h)	User setting up for analysis	R 629	R 755		R 755		\$45,8	
	Staff instrument set-up & analysis			R 832	R 998	R 1 664	\$60,5	\$100,8
Data processing (p/h)				R 473	R 583	R 945	\$35,3	\$57,3
<b>CHNS Analysis</b>								
CH N S Analysis - Rush Fee	1-2 samples rush fee			R 772	R 953	R 1 150	\$57,8	\$69,7
CH N S Analysis per sample	1 - 20 samples			R 165	R 198	R 495	\$12,0	\$30,0
CH N S Analysis per sample	21 - 40 samples	R 132	R 159	R 153	R 184	R 460	\$11,2	\$27,9
CH N S Analysis per sample	> 40 samples	R 127	R 152	R 143	R 172	R 430	\$10,4	\$26,1
C N Analysis per sample	1 - 20 samples			R 154	R 185	R 463	\$11,2	\$28,1
C N Analysis per sample	21 - 40 samples	R 127	R 152	R 143	R 172	R 430	\$10,4	\$26,1
C N Analysis per sample	> 40 samples	R 121	R 146	R 138	R 165	R 413	\$10,0	\$25,1
<b>CHNS - Soil samples</b>								
CH N S Analysis - Rush Fee	1-2 samples rush fee			R 794	R 980	R 1 176	\$59,4	\$71,3
CH N S Analysis per sample	1 - 20 samples			R 186	R 224	R 559	\$13,6	\$33,9
CH N S Analysis per sample	21 - 40 samples	R 149	R 179	R 174	R 209	R 523	\$12,7	\$31,7
CH N S Analysis per sample	> 40 samples	R 143	R 172	R 164	R 197	R 493	\$11,9	\$29,9
C N Analysis per sample	1 - 20 samples			R 175	R 210	R 526	\$12,7	\$31,9
C N Analysis per sample	21 - 40 samples	R 143	R 172	R 164	R 197	R 493	\$11,9	\$29,9
C N Analysis per sample	> 40 samples	R 138	R 165	R 159	R 191	R 476	\$11,5	\$28,9
<b>TOC- All samples</b>								
TOC Analysis per sample	21 - 40 samples	R 174	R 209	R 217	R 267	R 542	\$16,2	\$32,8
TOC Analysis per sample	> 40 samples	R 169	R 203	R 212	R 261	R 529	\$15,8	\$32,1



<b>Major &amp; Trace Cation Analysis</b>								
<b>ICP-AES &amp; ICP-MS Complete</b>								
Major, minor & trace elements combined	<i>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</i>			R 333	R 421	R 1 568	\$26,3	\$98,0
<b>ICP - AES Major elements</b>								
ICP-AES: majors & traces package	<i>Na, K, Ca, Mg, Al, Cr, Co, Cu, Ni, Fe, Mn, Pb, Zn, P, Si, B, Ba, Sr</i>			R 193	R 235	R 756	\$14,2	\$45,8
ICP-AES: Basic chemistry	<i>Na, K, Ca, Mg, Al, Cu, Ni, Fe, Mn, Zn, B</i>			R 170	R 212	R 620	\$12,8	\$37,5
ICP-AES: single majors element				R 76	R 100	R 194	\$6,1	\$11,8
ICP-AES: up to 6 major elements				R 123	R 159	R 425	\$9,6	\$25,8
ICP-AES REE's single element				R 80	R 103	R 208	\$6,3	\$12,6
ICP-AES REE's up to 6 elements				R 149	R 187	R 425	\$11,3	\$25,8
ICP-AES REE's complete				R 229	R 264	R 750	\$16,0	\$45,5
ICP-AES PGM's single element				R 80	R 103	R 208	\$6,3	\$12,6
ICP-AES complete PGM's				R 153	R 187	R 457	\$11,3	\$27,7
<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 211	R 259	R 1 076	\$15,7	\$65,2
ICP-MS: single trace element				R 135	R 174	R 250	\$10,5	\$15,2
ICP-MS: up to 6 trace elements				R 173	R 223	R 784	\$13,5	\$47,5
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 273	R 346	R 1 236	\$21,0	\$74,9
ICP-MS REE's single element				R 141	R 178	R 262	\$10,8	\$15,9
ICP-MS REE's Complete				R 216	R 277	R 1 076	\$16,8	\$65,2
ICP-MS PGM's single element				R 141	R 178	R 262	\$10,8	\$15,9
ICP-MS PGM's complete				R 186	R 239	R 833	\$14,5	\$50,5
ICP-MS non std single element				R 156	R 179	R 270	\$10,9	\$16,4
ICP-MS non std up to 6 elements: Group 1	<i>Li, Be, Ag, Si, P, S</i>			R 202	R 267	R 833	\$16,2	\$50,5
ICP-MS non std up to 6 elements: Group 2	<i>Ti, Zr, Nb, Hf, Ta, W</i>			R 212	R 280	R 833	\$17,0	\$50,5
ICP-MS non std up to 6 elements: Group 3	<i>Ga, Rb, Bi, Tl, U</i>			R 212	R 280	R 833	\$17,0	\$50,5
ICP-MS non std up to 6 elements: Group 4	<i>Ge, Te, In</i>			R 201	R 252	R 757	\$15,3	\$45,9
ICP-MS non-std single element added to other trace element sequence	<i>Li, Be, Ti, Ag</i>			R 55	R 66	R 95	\$4,0	\$5,8