

EION CAMERON SPECIAL ISSUE OF GEEA MANUSCRIPT
BY CARITAT & COOPER (DECEMBER 2014)

Appendix 3. Summary statistics for MMI® element content data from the National Geochemical Survey of Australia (parameters in italics deemed not fit for purpose) (Caritat & Cooper 2011b)

Element Method* Unit LLD^	Typ e#	N	N<LL D	%<LL D	Min	25%	Med	75%	Max
MMI									
<i>Ag MMI-ME mg/kg</i> <i>0.001</i>	Tc	1191	121	10%	<0.001	0.002	0.005	0.011	0.302
<i>Al MMI-ME mg/kg l</i>	Tc	1191	34	3%	<1	7	12	26	453
<i>As MMI-ME mg/kg</i> <i>0.01</i>	Tc	1191	847	71%	<0.01	<0.01	<0.01	0.01	1.98
<i>Au MMI-ME mg/kg</i> <i>0.0001</i>	Tc	1191	364	31%	<0.0001	<0.0001	0.0002	0.0005	0.0198
<i>Ba MMI-ME mg/kg</i> <i>0.01</i>	Tc	1191	3	0%	<0.01	0.395	0.87	1.74	15.3
<i>Bi MMI-ME mg/kg</i> <i>0.001</i>	Tc	1191	1142	96%	<0.001	<0.001	<0.001	<0.001	0.016
<i>Ca MMI-ME mg/kg</i> <i>10</i>	Tc	1191	4	0%	<10	220	390	560	3680
<i>Cd MMI-ME mg/kg</i> <i>0.001</i>	Tc	1191	120	10%	<0.001	0.002	0.005	0.009	1.75
<i>Ce MMI-ME mg/kg</i> <i>0.005</i>	Tc	1191	75	6%	<0.005	0.019	0.101	0.429	12.1
<i>Co MMI-ME mg/kg</i> <i>0.005</i>	Tc	1191	7	1%	<0.005	0.086	0.178	0.328	2.58
<i>Cr MMI-ME mg/kg</i> <i>0.001</i>	Tc	1191	1	0%	<0.001	0.010	0.024	0.057	2.55
<i>Cs MMI-ME mg/kg</i> <i>0.0005</i>	Tc	1191	2	0%	<0.0005	0.0071	0.0118	0.0229	1.83
<i>Cu MMI-ME mg/kg</i> <i>0.01</i>	Tc	1191	0	0%	0.01	0.47	0.96	1.59	30.5
<i>Dy MMI-ME mg/kg</i> <i>0.001</i>	Tc	1191	18	2%	<0.001	0.0085	0.023	0.079	1.49
<i>Er MMI-ME mg/kg</i> <i>0.0005</i>	Tc	1191	18	2%	<0.0005	0.0043	0.0112	0.0384	2.23
<i>Eu MMI-ME mg/kg</i> <i>0.0005</i>	Tc	1191	63	5%	<0.0005	0.0016	0.0067	0.0205	0.359
<i>Fe MMI-ME mg/kg l</i>	Tc	1191	137	12%	<1	2	4	13	555
<i>Ga MMI-ME mg/kg</i> <i>0.001</i>	Tc	1191	14	1%	<0.001	0.012	0.025	0.046	0.685
<i>Gd MMI-ME mg/kg</i> <i>0.001</i>	Tc	1191	19	2%	<0.001	0.008	0.029	0.096	1.61
<i>Hg MMI-ME mg/kg</i> <i>0.001</i>	Tc	1191	1112	93%	<0.001	<0.001	<0.001	<0.001	0.101
<i>K MMI-ME mg/kg</i> <i>0.1</i>	Tc	1191	0	0%	1.2	44.9	82.2	134.0	1040
<i>La MMI-ME mg/kg</i> <i>0.001</i>	Tc	1191	64	5%	<0.001	0.005	0.027	0.123	3.31
<i>Li MMI-ME mg/kg</i> <i>0.005</i>	Tc	1191	394	33%	<0.005	<0.005	0.008	0.019	0.788
<i>Mg MMI-ME mg/kg</i> <i>1</i>	Tc	1191	0	0%	2	70	140	261	2920
<i>Mn MMI-ME mg/kg</i> <i>0.005</i>	Tc	1191	0	0%	0.079	2.240	3.990	8.140	59.7
<i>Mo MMI-ME mg/kg</i> <i>0.005</i>	Tc	1191	454	38%	<0.005	<0.005	0.007	0.012	0.276
<i>Nb MMI-ME mg/kg</i> <i>0.0005</i>	Tc	1191	826	69%	<0.0005	<0.0005	<0.0005	0.0007	1.46
<i>Nd MMI-ME mg/kg</i>	Tc	1191	17	1%	<0.001	0.012	0.092	0.343	6.87

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<i>0.001</i>									
Ni MMI-ME mg/kg 0.005	Tc	1191	0	0%	0.006	0.181	0.411	0.912	16.1
P MMI-ME mg/kg 0.1	Tc	1191	82	7%	<0.1	0.6	1.2	2.5	32
Pb MMI-ME mg/kg 0.01	Tc	1191	140	12%	<0.01	0.02	0.04	0.11	5.89
Pd MMI-ME mg/kg 0.001	Tc	1191	966	81%	<0.001	<0.001	<0.001	<0.001	0.012
Pr MMI-ME mg/kg 0.001	Tc	1191	153	13%	<0.001	0.002	0.016	0.063	1.25
Rb MMI-ME mg/kg 0.00025	Tc	1191	0	0%	0.00300	0.07010	0.10700	0.18150	2.63
Sb MMI-ME mg/kg 0.001	Tc	1191	1124	94%	<0.001	<0.001	<0.001	<0.001	0.025
Sc MMI-ME mg/kg 0.005	Tc	1191	407	34%	<0.005	<0.005	0.008	0.023	6.84
Se MMI-ME mg/kg 0.002	Tc	1191	260	22%	<0.002	0.002	0.007	0.015	1.28
Sm MMI-ME mg/kg 0.001	Tc	1191	41	3%	<0.001	0.004	0.025	0.083	1.34
Sn MMI-ME mg/kg 0.001	Tc	1191	1143	96%	<0.001	<0.001	<0.001	<0.001	0.075
Sr MMI-ME mg/kg 0.01	Tc	1191	0	0%	0.05	1.34	2.40	4.82	35.6
Ta MMI-ME mg/kg 0.001	Tc	1191	1148	96%	<0.001	<0.001	<0.001	<0.001	0.07
Tb MMI-ME mg/kg 0.001	Tc	1191	241	20%	<0.001	0.001	0.004	0.014	0.247
Te MMI-ME mg/kg 0.01	Tc	1191	1185	99%	<0.01	<0.01	<0.01	<0.01	0.02
Th MMI-ME mg/kg 0.0005	Tc	1191	46	4%	<0.0005	0.0026	0.021	0.10	3.52
Ti MMI-ME mg/kg 0.003	Tc	1191	17	1%	<0.003	0.010	0.019	0.04	26.5
Tl MMI-ME mg/kg 0.0005	Tc	1191	805	68%	<0.0005	<0.0005	<0.0005	0.0006	0.0191
U MMI-ME mg/kg 0.001	Tc	1191	0	0%	0.001	0.027	0.063	0.129	3.49
V MMI-ME mg/kg 0.001	Tc	1191	0	0%	0.002	0.014	0.025	0.048	2.61
W MMI-ME mg/kg 0.001	Tc	1191	1030	86%	<0.001	<0.001	<0.001	<0.001	0.059
Y MMI-ME mg/kg 0.005	Tc	1191	26	2%	<0.005	0.036	0.098	0.337	4.16
Yb MMI-ME mg/kg 0.001	Tc	1191	101	8%	<0.001	0.003	0.007	0.024	1.56
Zn MMI-ME mg/kg 0.02	Tc	1191	18	2%	<0.02	0.06	0.12	0.31	19.5
Zr MMI-ME mg/kg 0.005	Tc	1191	250	21%	<0.005	0.006	0.014	0.045	1.69

*Method: MMI-ME: Mobile Metal Ion®-Multi Element (see Methods for more details)

^LLD: Lower Limit of Detection

#Type: Tc: Top Outlet Sediment coarse (< 2 mm)