

Table 3. Results of the factor analysis and the selected element associations for the AGF maps. The superfix shows the variation of the element as a of the total element variation.

Media	Results of factor analysis	Element associations for particular AGF maps
Stream sediment (SSE)	$F_1(\text{V}^{825}\text{Co}^{824}\text{Fe}^{817}\text{Ni}^{798}\text{Sc}^{753}\text{Cu}^{607}\text{Mn}^{579}\text{Zn}^{556}\text{Al}^{521}\text{Ti}^{478}) + F_9(\text{Cr}^{752}\text{Ni}^{324})$	$M_1(\text{CoCrCuNiV}), M_2(\text{FeMn})$
	$F_2(\text{Y}^{784}\text{Zr}^{775}\text{Th}^{772}\text{Ti}^{752}\text{Ce}^{767}\text{U}^{651}\text{Nb}^{648}\text{La}^{471}\text{P}^{355}) + F_{10}(\text{La}^{798}\text{Th}^{365}\text{Ce}^{353}) + F_3(\text{Sr}^{865}\text{Ba}^{795}\text{Al}^{327})$	$M_5(\text{CeLaNbThY}), M_7(\text{BeZrTiSc}), M_9(\text{PUSr}), M_{11}(\text{AlBa})$
	$F_6(\text{Mo}^{854}\text{Mn}^{454}) + F_7(\text{Pb}^{727}\text{U}^{453}\text{Zn}^{360}\text{Cd}^{330}) + F_8(\text{As}^{887}\text{P}^{446}\text{Cu}^{356})$	$M_3(\text{CdMoPbZn}), M_4(\text{CdMoPbZnAs})$
	$F_3(\text{Rb}^{886}\text{K}^{861}\text{Be}^{748}\text{Ti}^{656}\text{Al}^{605}\text{Nb}^{438})$	$M_{12}(\text{KRbTl})$
	$F_4(\text{Ca}^{947}\text{Mg}^{808}\text{Sr}^{327})$	$M_8(\text{CaMg})$
Soil C-horizon, aqua regia extraction, (CHO <sub>ar</sub> )	$F_1(\text{Cr}^{882}\text{V}^{869}\text{Co}^{868}\text{Ni}^{858}\text{Fe}^{830}\text{Ti}^{809}\text{Cu}^{825}\text{K}^{751}\text{Al}^{730}\text{Zn}^{728}\text{Ba}^{727}\text{Mn}^{642}\text{Be}^{634})$	$M_1(\text{CrNiCoCuV}), M_2(\text{FeMn}), M_{11}(\text{AlBa})$
	$F_2(\text{Ca}^{895}\text{Sr}^{794}\text{Na}^{684}\text{Mg}^{580}\text{P}^{381}) + F_6(\text{B}^{849}) + F_8(\text{P}^{814})$	$M_9(\text{PSr}),$
	$F_3(\text{As}^{813}\text{Sb}^{650}\text{Bi}^{489}) + F_4(\text{Pb}^{648}\text{Bi}^{537}\text{Be}^{491}\text{Zn}^{376}) + F_5(\text{Cd}^{871}) + F_7(\text{Mo}^{984})$	$M_3(\text{CdMoAsSbBi}), M_4(\text{PbZn})$
	$F_1(\text{Ni}^{913}\text{Co}^{902}\text{Cr}^{900}\text{V}^{893}\text{Fe}^{869}\text{Cu}^{800}\text{Ti}^{751}\text{Mg}^{817}\text{Zn}^{721})$	$M_1(\text{CrNiCoCuV}), M_2(\text{FeMn})$
	$F_2(\text{K}^{870}\text{Rb}^{822}\text{Ba}^{819}\text{Pb}^{771}\text{Ti}^{756}\text{Al}^{680}\text{Ga}^{659})$	$M_{12}(\text{KGaRbTl}), M_{11}(\text{AlBa})$
Soil C-horizon, total concentration, (CHO <sub>tot</sub> )	$F_3(\text{Zr}^{855}\text{Y}^{561}\text{Ti}^{471}\text{Ce}^{459}\text{Th}^{427}) + F_5(\text{Nb}^{705}\text{U}^{374}) + F_{10}(\text{La}^{765})$	$M_5(\text{CeLaSnUY}), M_6(\text{ZrNbTh})$
	$F_4(\text{Ca}^{868}\text{Sr}^{771}\text{Mg}^{391})$	$M_8(\text{CaMg})$
	$F_6(\text{Sb}^{843}\text{As}^{513}) + F_7(\text{Bi}^{881}\text{As}^{360}\text{Pb}^{321}) + F_9(\text{Cd}^{891}\text{Zn}^{267})$	$M_4(\text{PbZnMo}), M_3(\text{AsSbBi})$
	$F_1(\text{Ni}^{864}\text{Co}^{852}\text{Fe}^{796}\text{Cu}^{763}\text{Mg}^{754}\text{Cr}^{739}\text{Mn}^{728}\text{Zn}^{706}\text{V}^{657}\text{Al}^{603}\text{Pb}^{474}) + F_7(\text{Mo}^{909}\text{Pb}^{249})$	$M_1(\text{CoCrCuNiVMg}), M_2(\text{FeMn}), M_4(\text{ZnPbMo})$
	$F_4(\text{Ti}^{825}\text{V}^{537}) + F_5(\text{Zr}^{886}\text{La}^{476}\text{Mn}^{441}) + F_6(\text{P}^{868}\text{La}^{535})$	$M_5(\text{ZrTiPLaSr})$
Till, <0.06 mm, (Till)	$F_1(\text{Ca}^{880}\text{Mg}^{848}\text{Sr}^{739}\text{U}^{562}\text{Mo}^{450})$	$M_8(\text{CaMg})$
	$F_2(\text{Br}^{902}\text{Cl}^{849}\text{Na}^{833}\text{B}^{704})$	$M_{15}(\text{BrClNa})$
	$F_4(\text{V}^{766}\text{Th}^{604}\text{Al}^{526}\text{Ti}^{363})$	$M_{16}(\text{VAlTh})$
	$F_5(\text{Zn}^{778}\text{Cd}^{703}\text{Pb}^{660}\text{Cu}^{466}\text{Al}^{329}) + F_6(\text{Sb}^{800}\text{Cu}^{442}\text{Pb}^{349})$	$M_4(\text{CdPbZn})$
	$F_7(\text{F}^{747}\text{Mo}^{580}\text{U}^{527})$	$M_{14}(\text{UMo})$
Surface water, (SW)	$F_{10}(\text{Ni}^{879}\text{Cu}^{451}\text{Cr}^{345}\text{Co}^{338})$	$M_1(\text{NiCrCoCu})$