



## HOW COMMON MINERALS CAN MISLEADINGLY INFLUENCE LOG RESPONSES

MINERAL	EFFECT ON LOG RESPONSES			REASON
	GR	Res.	Other Effects	
Mica	↑	↓	Causes under estimation of density porosity.	Radioactive; micro-porous; heavy mineral
Glauconite	↑	↓		Radioactive; micro-porous
Illite	↑	↓	Generally decreases neutron porosity.	Radioactive; micro-porous
Smectite	↑	↓	Generally decreases neutron porosity.	Radioactive; micro-porous
Kaolinite		↓		Micro-porous
Chlorite		↓		Micro-porous
Pyrite		↓	Can suppress resistivity if distributed in laminated beds; causes under estimation of density porosity.	Heavy mineral; conductive if distributed in laminated beds
Pyrite with Dolomite		↓		Conductive
Dolomite		↓	Causes under estimation of density porosity if on sandstone matrix.	Micro-porous; heavy mineral
Calcite	↓	↑	Causes under estimation of density porosity.	Heavy mineral
Siderite		↓	Can suppress resistivity if distributed in laminated beds; causes under estimation of density porosity.	Heavy mineral; conductive if distributed in laminated beds
Shale Micro-laminae or Argillite	↑	↓		Radioactive; micro-porous