Environmentally Friendly Low-Impact, Low-Carbon Footprint, Low-Power Electromagnetic Technique for Mineral Exploration Undercover

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Geophysicists in the 21st century now accept their commitment to being a sustainable and responsible surveyor of the Earth's subsurface. Reducing our carbon footprint on our route to Net Zero in the face of the challenges presented by the global pandemic and the subsequent return to work, fieldwork, and international air travel is not an easy task. Whatever our geophysicist tool of choice, we can take some basic steps to help, such as the following:

1. Protect the environment by lessening our impact through monitoring and reducing our carbon emissions;

2. Raise awareness without our own organisation of things that colleagues can do to reduce their personal carbon emissions as well as reducing carbon emissions within our organisations;

3. Engage colleagues in environmental issues and initiatives;

4. Identify environmental causes that we can support; and

5. Publicly hold ourselves accountable for our carbon footprint by publishing our carbon impact on our websites and public domain media channels.

Above all, we can develop and use our geophysics tools and technology in an environmentally friendly way. Adrok have been developing a low-carbon, low-impact geophysics offering for the past two decades. Over the past five years, we have been letting our clients know what our carbon footprint levels are for each geoscientific survey. Multiple surveys have been performed in Northeast England for geothermal and lithium brine exploration using novel electromagnetic (EM) technologies. This paper will explore this survey in more detail through a geophysical lens and an environmental lens.