



> SEASON'S GREETINGS

'TIS THE SEASON...

SHAKING IT UP

GRANNY ROGERS' MUSINGS

CONGRATULATIONS, KATIE!

MINDS MATTER



Welcome to RGS insite issue 59

Our regular newsletter celebrates more than 15 years of drilling and keeps you up to date with RGS and industry news.

Rogers Geotechnical Services Ltd are **site investigation specialists** offering ground investigation and geotechnical services to developers, builders, structural and consulting engineers, architects, insurance companies, local authorities, piling and foundation engineers, private individuals and other geotechnical consultants.

'TIS THE SEASON TO BE...

CORING!

Environmental
Geotechnical
Specialists



If you ever doubted it, here's proof that RGS teams really enjoy doing a top quality job!

These festive photos show some of our engineers and drillers busy on a current project which involves horizontal coring into concrete walls - the perfect job for our diamond coring rig.



Our client is constructing a new footbridge, and wants us to identify the construction of the concrete flood wall which successfully serves the existing bridge nearby and defends the nearby town from floods. Our client will then apply the current construction design to the new footbridge.

OUR TASK ON THIS SITE INVOLVES:

- ➔ **3** ROTARY BOREHOLES
- ➔ **9** HORIZONTAL CONCRETE CORES
- ➔ **9** HYDRAULIC HAND SAMPLING BOREHOLES
- ➔ **3** HAND-DUG TRIAL PITS



“Our diamond coring rig is invaluable, giving the client fast, clear and accurate information with minimal disruption. The design element of this project is now well underway, in line with the client's schedule.”

Alan Gilleard, RGS Operations Manager.

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In another recent project, our diamond coring rig revealed important variations in the construction design of a key concrete-faced wall: instead of uniform layers, depressions and ridges in the uneven rock surface had been infilled with brick.

Such variations and features are impossible to detect without the right equipment, and the diamond core drill is perfect for uncovering the truth!

Faster, quieter, more efficient and more accurate than other forms of drilling, the diamond core drill also minimises vibrations and damage to the surrounding structures. It can drill horizontally or vertically and is used for both wet and dry drilling. Versatile and lightweight, this recent addition to the RGS kit list is likely to be of great interest for a wide range of projects around the UK.

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INTERESTED IN FINDING OUT HOW OUR DIAMOND CORE DRILL CAN ADD VALUE TO YOUR PROJECT?

CALL US TODAY ON **01484 604354** WE'RE HERE TO HELP!

.....





THE ROGERS ARCHIVE

Granny Rogers' Musings



Back in 1989 I was involved with a ground investigation of a new build bungalow that was showing signs of **cracking caused by differential movement**. The crack orientation puzzled me a little, so I sought out my trusty mentor, **Granny Rogers**, to talk it through.

“ Just a little way in from the gable ends, there are near-vertical cracks emanating from the eaves, I told her. The cracks are wider at the top, tapering to the bottom and the ridge tiles are opening up.

I thought that the gable ends might have settled differentially from the main body of the building. However, an inspection of the foundation trialpits showed that the soils both beneath and adjacent to the gable end foundations were made up of firm to stiff silty clay, and seemed competent. In other words, I confessed, a little gloomily, the evidence just didn't stack up.

Granny Rogers gently placed her knitting on her lap and, looking at me over the top of her spectacles, she said quietly, **Martin**, (she often mistook me for my brother), **always check the exact opposite of your initial thought**. She winked knowingly, and picking up her knitting again, she said, **I hope you like your new swimming costume?**



ROCK ON, GRANNY R!

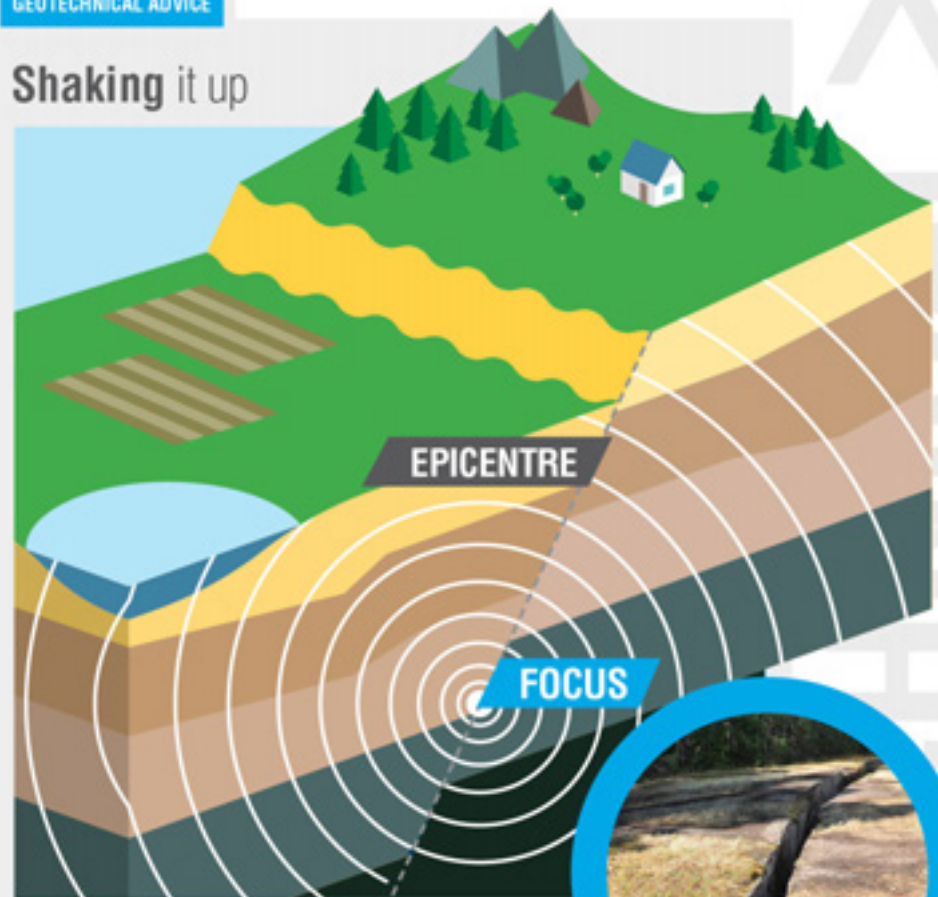
I took dear Granny's advice, searching out historical maps and meeting up with the developer to find out more. I soon discovered that a large tree in the centre of the bungalow plot had been felled prior to the build. My conundrum was solved: heave of the desiccated ground around the tree root would have caused the centre of the building to lift, creating the same crack orientations as those I'd observed.

Granny's wisdom was a wonder to behold. I can't say the same for the swimming costume.



GEOTECHNICAL ADVICE

Shaking it up

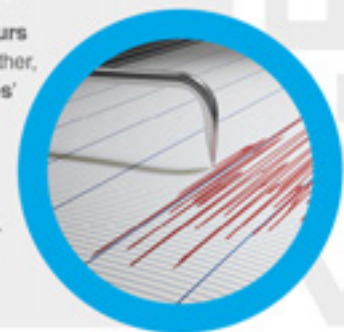


While most people believe that the ground beneath our feet is generally stable and 'rock solid', geotechnical engineers know that **nothing could be further from the truth!** Both for natural and man-made reasons, the **Earth's crust holds many surprises.**

At RGS it's our job to help **ensure that construction and engineering projects can be carried out safely**, in full knowledge of the risks and with expert guidance on how to minimise them. This article explores a geohazard that you might think is very rare in the UK... **But be prepared to think again!**

Earthquakes are caused when a **sudden movement occurs along a fault within the Earth.** As they move past each other, the rocks on either side of the fault send out 'seismic waves' of released energy and the largest of these waves can radiate across thousands of miles.

The point where an earthquake begins is known as the **'focus'** and may be many kilometres deep within the earth. The point at the surface directly above the focus is called the **epicentre.**





Most earthquakes are **natural events**, although on rare occasions they can also be caused by man's impact on the land through **COLLAPSING COAL WORKINGS** or major explosions. While quakes in the Pacific Rim and the mid-Atlantic are the most numerous and powerful, they are remarkably common in the UK, too. **British Geological Survey (BGS)** seismologists estimate that around **200-300 earthquakes** occur annually in the UK, primarily in Wales, north central England and the west of Scotland: approximately **10%** of these are felt and reported, and some are strong enough to cause damage.

In February 2018, the tremors of an earthquake (magnitude 4.6) in **Cwmillynfell** in **Swansea Valley** were felt across Wales, south west England and the Midlands. This was the strongest earthquake since a **5.2 magnitude** quake ten years earlier in **Market Rasen, Lincolnshire**, which caused serious injuries as well as structural damage, and as far away as **Aberdeen** and **Ireland**.

For geotechnical engineers, a **detailed awareness and understanding of earthquake risks for sensitive sites** (such as nuclear power stations, gas terminals etc) **is essential**, since these risks will influence the **design of foundations - and the superstructure - for such construction projects**. In this context, the key consequence of a quake can be **liquefaction of saturated fine grained soils**, which could result in the **catastrophic collapse of structures**. It's also important to appreciate that **large static plant can itself cause a quake in the ground**, and thus to excessive settlement.

Using the wealth of earthquake **data, maps, reports and research** provided by the **British Geological Survey**, our **skilled RGS engineers** can **assess site-specific risks** and where appropriate, we'll recommend the **safest and most secure designs and methodologies** for your projects.

IF YOU'RE PLANNING TO DEVELOP A VIBRATION-SENSITIVE SITE (PARTICULARLY IF IT'S LOCATED IN NORTH CENTRAL ENGLAND, WALES OR WESTERN SCOTLAND) A CONVERSATION WITH ONE OF OUR EXPERT GEOTECHNICAL ENGINEERS COULD BE WORTH ITS WEIGHT IN GOLD!

CALL US TODAY ON **01484 604354**



STAFF DEVELOPMENT

Congratulations, **Katie!**



FANTASTIC NEWS!

This month we're celebrating the fantastic achievements of our Engineering Support Officer, **Katie Wallett**. Katie has just completed **Level 1 of her Open University degree** (Level 1 is the equivalent to a full-time Year 1 at university) and was awarded **distinctions** in all three of the modules she studied - Business and Management, Mathematics and Personal Finance.

It's an **outstanding result**, and demonstrates both her **ability** and her **commitment**, particularly given that Katie has (apart from a short furlough period in the spring) continued to do a great job at RGS, both from home and here at our Head Office.

Katie's role at RGS uses her ever-widening **business insights** as well as her particular skills in organisation. If you're instructing us on your latest project, Katie may well play a key part in the **detailed planning, preparation and proactive management** that help to keep your project running smoothly.

Katie has now moved on to her first Level 2 module, which focuses on **business innovation** and how to **implement new ideas**. She says,

“ I enjoy being able to help people, whether that's **keeping our clients well-informed**, or helping our engineers with a new project. I love organising - a fundamental part of my role! I've recently become more involved in **compiling quotations**, too, which is a **valuable skill**. I'm keen to keep learning as much as I can about **different areas of the business**, so I can help with giving **the best service** to our clients. ”

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RGS MANAGING DIRECTOR, Emma Lewis, adds,



“ As a company, we actively encourage our people to learn and develop their knowledge and careers, and wherever possible, we're delighted to contribute towards the cost of qualifications.

Katie is a much-valued member of our team and we're really happy to help support her career development in any way we can.

In typical Katie style, she made fantastic use of her furlough time by studying harder than ever as well as developing and applying new business skills. We're all really proud of her, not to mention all those distinctions!

”

Environmental
Geotechnical
Specialists



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environmental
desk study
report?**

RGS STANDARD **RGS PREMIUM**

Contact us for more details
and to discuss your options
for this service

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HEALTH AND WELLBEING

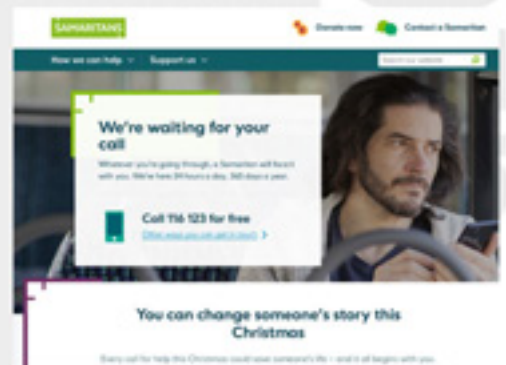
Minds Matter: **change someone's story this Christmas!**



SAMARITANS

Over recent months, our Minds Matter features have focused on the [importance of promoting and supporting good mental health](#) at work and at home. As something we take very seriously at RGS, we wanted to share insights, ideas, and examples of how we can all contribute to the mental health of our families, friends, colleagues and staff, and we hope the articles have been of interest. If so, please [click here](#) to email us and tell us what you found most useful!

For lots of people, Christmas is a time of joy and peace, but for many others living with **loneliness, despair, anxiety, self-harm** and other mental health difficulties, these problems are often heightened, causing immense suffering. The **Covid** pandemic has inevitably made things even worse this year, and we believe it's therefore even more important that we all give this topic a few minutes of our time to reflect and, hopefully, to take action - right now!





Most of us have heard of **The Samaritans**, a charity offering **free, confidential support** (via free phone lines, email or **The Samaritans Self Help app**) to anyone who's struggling to cope. Contrary to popular belief, only one in five calls to The Samaritans are made by those who feel suicidal. The vast majority of callers are looking for help because, for whatever reason, they're not feeling 'okay'. The Samaritans exist to support anyone who wants to change their story and face their everyday lives. **Every seven seconds, 24/7, 365 days a year**, a trained volunteer member of The Samaritans gives a willing and listening ear, without pressure or judgement, to someone in real need.

So what can I do to help?

The Samaritans suggest several ways in which you - yes, YOU! - can change someone's story this Christmas. You could:

- // **LEARN MORE ABOUT MENTAL HEALTH** and the work of **The Samaritans**
- // **MAKE A CHRISTMAS DONATION** to support The Samaritans' work by **clicking here**
- // **CONSIDER** becoming a **Samaritans volunteer**
- // **DEVELOP** a mutually beneficial **business partnership** with The Samaritans
- // **ORDER** some excellent, carefully sourced gifts and goodies from **The Samaritans' online shop**.

Of course, there are many **deserving causes** during the festive season and all year long. Maybe this one's not a cause you've thought about before, but we hope it gets you thinking and, if you possibly can, **taking action** that could change a life this Christmas.



**WE WISH ALL OUR READERS
A HAPPY AND PEACEFUL CHRISTMAS
AND SUCCESSFUL, FULFILLING 2021!**

For more information about your investigation requirements please don't hesitate to contact us.

Telephone on 01484 604 354

[Click here to email us](#)

CLIENT FEEDBACK

Talk to us

“ RGS were professional and courteous throughout the whole process. Highly recommended! ”

We're always keen to hear **what clients think** of our service and welcome feedback from our clients, colleagues and associates.

We're looking forward to hearing from YOU!

[Click here](#) to email us your comments.

