Working With Drillers !!

The Do's & Don'ts

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Agenda

- Introduction to LoopMaster (Europe) Ltd
- What's Going Wrong?
- The Do's!
- The Don'ts!
- Summary

Loopmaster (Europe) Ltd

- Specialised Technical consultancy formed to help main stream building services engineers, builders or developers who are looking to install large commercial ground coupling systems.
 Working out of Nuneaton, Warwickshire
- Consultancy was formed in 2003, now with 12 staff
- Evolved from drilling contracting Directors 3rd generation of drilling contractors
- We employ experienced drilling engineers to supervise drilling contracts
- Currently working on around 40 major commercial schemes in UK, Spain, Eire ranging from 150kW to 13,000kW



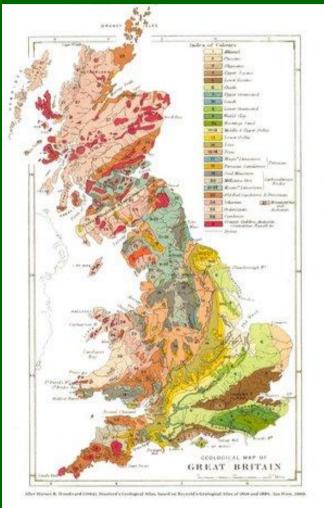
What's Going Wrong?

- ø The Drillers gave me an estimate and they charged me double!!
- ø The drillers moved onto my clients garden...and it now makes Glastonbury Look Like a Bowling Green!!
- ø The drillers put my loop in and now it leaks!!
- ø The drillers had a tonne of backfill material but only got a quarter of it in the hole!!



UK GEOLOGICAL CONDITIONS ARE AMONGST THE MOST COMPLEX IN THE WORLD!

UK



Drilling Costs – Why so varied?



Model Installation Process – The Do's

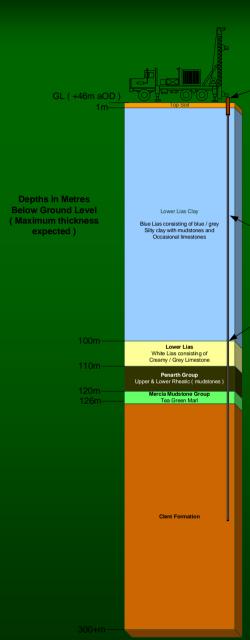
- Remove Uncertainty Get a geological investigation carried out (LoopMaster, BGS, local geologists etc.) £250 £700?
- Remove Uncertainty Discuss the report with a number of drillers. Any potential difficulties with the strata? Have they drilled in this area before?
- Remove Uncertainty Tell drillers about site constraints (any below ground services or access issues, other trades, sensitivity of site). If required, how will he control mess?, Ask them about how they intend to grout the borehole. How long is he likely to be there?

Model Installation Process – The Do's (Cont.)

- Remove Uncertainty Send the drillers the geological report and as detailed a specification as you can (depth, loop size, thermally enhanced grout spec? etc.) for them to submit a <u>first stage</u> quotation
- Remove Uncertainty Get the preferred bidder to visit the site if possible to confirm costs. Ask him to forward his insurance details, method statements, CSCS Card details if possible. Plant Certification. Can you get references (Ask other GSHP members?)? BDA membership?
- Remove Uncertainty Make sure you understand the quotation and more importantly make sure your customer does.
- Remove Uncertainty If the operation is going to be messy (which it
 invariably will!), you must tell your client WARTS & ALL!



Strata Detail



150mm NB Temporary Steel Casing Installed to seal out overlying unconsolidated top soil

120mm drilled hole
Penetrating to a design depth of
between 50 & 200m
Depth will be determined by
design



Model Installation Process

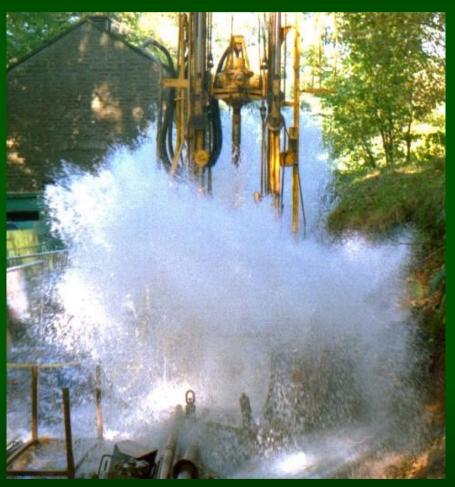
The Don'ts

- Don't free issue materials! Get the drillers to supply the loops, the grout etc Otherwise, this can only lead to conflict
- Don't let the works proceed without a services search (typically a trial pit and CAT scan)
- Don't just leave the drillers to get on with it; If possible try to get to site to see the loop installation, grouting procedure
- Don't let drillers pour backfill from surface.
- Don't let the drillers leave site without either party demonstrating integrity of the loop pipe. Pressure test the loop whilst they are still there preferably
- Don't leave the site without ensuring the loop tails are adequately protected (open ended pipes?)



Not Expecting This ??

Air flush – Great Fun to Watch. But.....Spectacularly Messy!



Summary

- Do as much preparation as you can The more you can iron out, the greater the reduction for assumption and therefore risk
- Vet the drilling contractor
- Don't 'Free Issue' Loops or Grout. You are setting yourself up for potential conflict with no meaningful financial gain....Utter Madness !!!
- Be involved in the installation (observe the critical points)
- Make sure there is a defined cut off point where the contractor is disengaged (ie two <u>capped off</u> loop tails left pressure tested in a grouted borehole.



Thanks For Listening & Good Luck!

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