



***Joint Meeting of Home Counties North Regional Group and Engineering Group***

***Hybrid Lecture on Wednesday 25<sup>th</sup> June 2025***

***The London Clay: Geology and Geotechnics***

**Presented by**

***Stuart Wagstaff BSc MSc FGS CGeol RoGEP***

***Director at Soil Consultants Ltd***

**Venue: Janet Watson Lecture Theatre, The Geological Society  
Burlington House, Piccadilly, London W1J 0BG**

**Venue opens and refreshments from 5.30pm. Lecture 6.00pm**



Stuart has over 30 years' experience in the geological and geotechnical industry, most recently as the director running Soil Consultants Ltd. During his career he has literally been involved in 1000's of projects both small and large. These range from 'routine' ground investigations to providing expert technical and project management support to critical investigations to both the public and private sector. At Soil Consultants, they have developed a strategy of good value and quality, not always seen in the industry, and have been involved in some interesting and complex projects, where knowing and understanding what lies beneath their feet has been vital!

Whilst not necessarily an academic expert on the London Clay, having been asked to provide comment on engineering 'failures' over the years, these have largely come down to misunderstanding of the geology. Stuart often says that our most important role (logging) is bestowed to our least experienced people, and it is these less experienced staff that need to understand the geology, the potential variations and its importance to design and construction.

Importantly, Stuart has been there through those vital early career years. After graduating in Geology and Engineering Geology from the University of Portsmouth, Stuart spent five years as a field geologist and site investigation geotechnical engineer before completing a Geotechnical Engineering MSc at the University of Surrey. He joined Soil Consultants Ltd in 1998, which he has now been running for over 15 years. He also sits on the assessors panel for the Register of Ground Engineering Professionals (RoGEP) and has actively been involved with the Geological Society and a UK mineral preservation society.



## Abstract

London Clay Formation underlies an east-west triangular swathe of southern England from Essex (where in the east it reaches up to 150m thick) and north Kent through London to east Wiltshire, together with deposits around the east Dorset-Hampshire-Sussex basin. The formation is perhaps one of the most frequently investigated deposits in the UK, if not globally, as the soils are home to foundations for so many buildings and civil engineering structures in these often intensively developed regions.

However, 'The London Clay' is a heterogeneous soil and this will be discussed in the geological context in relation to the London Basin and its depositional environments. Stuart will talk about the sequencing within the Formation, its compositional differences and how these are identified both visually and through laboratory testing. Some of the mineralogy will be discussed and how these minerals occur and can be identified.



Unweathered London Clay (image copyright Stuart Wagstaff)



The majority of London Clay is overlain by a wide range of Quaternary deposits and/or by later Palaeogene and rarely Neogene strata. Much of the shallow clay has weathered and some of the exposed London Clay has also been geologically re-worked and examples will be shown of how these soils can be identified.



London Clay Outcrop at Isle of Sheppey, Kent (image copyright Stuart Wagstaff)

***The talk is compiled to appeal to a broad audience but would be particularly suited to those in the infancy of their careers or those who would like to appreciate the differences the London Clay can hold and interpret ground investigation data. The objective of the talk is to promote diligence in soil logging and thought throughout all the stages of a ground investigation, geotechnical assessment and design as one of the biggest risks to construction can be through incorrectly interpreted data.***



### Accessing the venue

The lecture is being held in the main Janet Watson Lecture Theatre at:  
The Geological Society, Burlington House, Piccadilly, London W1J 0BG, UK

Access by public transport: Burlington House is located on Piccadilly between Piccadilly Circus and Green Park underground stations, with four bus stops in between.

**Please book your place, providing your membership number, on a first-come-first-served basis by e-mail to [homecountiesnorthregionalgroup@gmail.com](mailto:homecountiesnorthregionalgroup@gmail.com)**

### Accessing the virtual lecture

**Please book your place for online ZOOM attendance, providing your membership number, by e-mail to [homecountiesnorthregionalgroup@gmail.com](mailto:homecountiesnorthregionalgroup@gmail.com) and you will receive a link to the Zoom platform by email before the event.**

**This event is free of charge to all Fellow and Student Fellow members of the Geological Society.**

**This event is supported by RSK, and Soil Consultants**

