

Sirius Geotechnical is a geoenvironmental consultancy and part of The Sirius Group. We work across the UK for a huge range of clients in multiple sectors.

We were challenged with summarising what we do. This is a challenge – we do a lot!

What better way to concisely condense our services than by attempting an A to Z of Sirius Geotechnical!

A

Asbestos in Soil

Investigation and risk assessment of asbestos in soil.

Asphalt Waste Containing Coal Tar

Testing of black top for waste classification.

Agricultural Land Classification

A common planning requirement for Greenfield sites.

B

Building on Fill

Assessment and advice to support compliance with NHBC Chapter 4.6.

Buried Services

We always consider the risks associated with buried services when we undertake intrusive site investigations. Obtaining current service plans and engaging specialist surveying contractors when required are built in to our safe systems of work.

C

Coal Mining Risk Assessment

A planning requirement in coal field areas to assess the risk to development from historic mine workings.

Cover Soil Validation

To demonstrate compliance with Remediation Strategy to LPA and warranty provider.

Conceptual Site Model

Part of the contaminated land risk assessment process.

D

Desk Study

A Phase 1 Desk Study is a common planning requirement for new developments.

DQRA

A Detailed Quantitative Risk Assessment to consider contaminated land risks in site specific detail and inform remedial measures.

Drill and Grout Specification

To specify how shallow mining risks will be mitigated.

E

Earthworks Specification

To specify how earthworks are to be implemented and validated to achieve required performance.

F

Finite Element Analysis

A mathematical technique employed to predict soil behaviour under different conditions.

Forensic Waste Assessment

Detailed analysis of waste streams to value engineer options for re-use, recover and disposal.

Foundation Schedule

A plot specific, geotechnical lead approach to achieve best value.

G

Gas Risk Assessment

A planning requirement where a potential gas risk has been identified.

Gas Verification Plan

A planning requirement where gas protection measures will be required.

Gas Protection Measures Validation

To demonstrate compliance to the LPA and warranty provider. Typical CML requirement.

Global Stability Assessment

A crucial part of the design process for temporary or permanent structures which are in proximity to slopes.

Gypsum Risk Assessment

A potential geohazard to development in areas where gypsum and anhydrite are present.

H

Highways

CD 622 compliant services including Statement of Intent (Sol), Preliminary Sources Study (PSSR), Ground Investigation Report (GIR) and Geotechnical Design Report (GDR). Sirius have RoGEP qualified staff who are able to act as the Designer's Geotechnical Advisor (DGA).

Health & Safety

Managing our work safely is of paramount importance and is reflected in our safe systems of work and staff training. All our site staff hold CSCS accreditation, SSSTS, CAT & Genny training, asbestos awareness training as a minimum.

I

Innovation

We are always looking at ways to enhance what we do. Whether that is by adopting digital tools or changing our ways of working we will always strive to evolve to meet our client's needs.

Inundation Risk Assessment

Understanding the potential for inundation induced settlement is a key risk to assesses in cohesive fill, especially where the fill is deep. We have our own method of investigating this risk which has been accepted by warranty providers.

J

Joined Up Thinking

The benefit of a business like Sirius is that we have contracting services in house. We work with our colleagues to give the best advice to our clients from the outset.

K

Kinematic Assessment of Rock Faces

Detailed assessment and advice on rock slope/face stability.

L

Landfill Development Feasibility

We take on the challenge to unlock the most difficult sites for development and try to change constraints into opportunities.



Materials Management Plan

Preparation and management of MMPs in accordance with Environment Agency and CL:aire Definition of Waste Code of Practice requirements.

Mine Shaft Risk Assessment

To manage client risk and maximise development opportunities in proximity to mine shafts.

Mineral Safeguarding Assessment

A common planning requirement to demonstrate that new developments will not adversely impact strategic mineral reserves.



Numerical Modelling

Used to predict and understand the behaviour of soils under different conditions.



Opencast Development Feasibility

Sirius has successfully unlocked multiple former open cast sites for development with tried and tested investigation and assessment techniques which are trusted by regulators and warranty providers.



Pre-Acquisition Due Diligence

Up front advice to clients associated with risks in the ground to inform abnormal cost appraisal.

PFOS/PFAS Risk Assessment

Detailed risk assessment of PFOS / PFAS and other persistent organic pollutants.



Quality Protocols

Support and advice to demonstrate the recovery of aggregates in construction in compliance with Quality Protocols.

Quarry Development Feasibility

Assessment of risks associated with historic quarries on development sites.



Remediation Strategy

A planning requirement where contamination risks have been identified and appropriate mitigation measures are required to allow development.

Remediation Options Appraisal

To get best value when mitigating contaminated land risks.

Renewable Energy

Tailored site investigation approaches to support solar, BESS and onshore wind developments.

Regulatory Liaison

We support our clients throughout the pre-acquisition, planning and construction phases by proactively engaging with regulators to solve issues and build confidence.

Radon Gas

We consider risks associated with Radon gas potential for new development sites.



Site Investigation

A Phase 2 Site Investigation is a typical planning requirement. We employ a range of intrusive methods with environmental and geotechnical scopes tailored to get the most data to inform detailed designs and satisfy regulatory requirements.

Slope Stability Assessment

Using software modelling and experience to assess risks associated with existing or proposed slopes on development sites.

Soil Resource Management Plan

A common planning requirement to demonstrate how soils should be managed during construction.

Settlement Assessment

We employ various desk based and site based methods to investigate and assess the magnitude of creep (self-weight), consolidation and inundation settlement to inform abnormal cost development and detailed design.



Tree Influence Assessment

For sites where tree influence is causing foundations to be deepened. Our approach aims to assess desiccation of clay soils in detail so best value can be achieved for foundations.



Underground Storage Tank Assessment

USTs pose a potential contamination risk and their assessment needs to be carefully considered in accordance with APEA guidance.



Validation

Validation of remedial works, earthworks, cover soil and gas protection measures is key to demonstrate compliance to regulators and warrant providers.



Waste Soil Classification

We have experience staff, using industry recognized tools to assess and advise on waste soil classification.

Water Pipe Risk Assessment

UKWIR compliant water pipe risk assessments to support the design of water pipes on new developments.

Working Platform Design

Design of platforms to support piling rigs, ground improvement and cranes.

Warranty Provider Liaison

We proactively work with warranty providers during the design phase to facilitate sign off.



uXo

We consider Unexploded Ordnance Risk whenever we are to undertake intrusive investigations. We work in partnership with specialist contractors to manage UXO risk during our site investigations.



Yellow Book

We can work in accordance with the ICE UK Specification for Ground Investigation.



Zone Load Tests

Zone load tests are employed to predict the magnitude of consolidation settlement when building on fill.

Demolition, earthworks, remediation, drilling and civil engineering contractors.
Geotechnical, environmental and planning consultants. Renewable Energy.

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