ENVIRONMENTAL CONSULTANCY

CET©
INFRASTRUCTURE
Giving our all

INTRODUCTION

CET was established in 1987 as a provider of materials quality assurance testing to the construction industry. Since then, we have built a reputation for quality service and excellent value.

We expanded our capabilities to include integrated ground risk management solutions in 2012, with the addition of geotechnical and environmental consultancy, supported by in-house investigation services.

By 2013 we had expanded our range of services to include high-quality drainage evaluation and surveys.

> *"CET were proactive in providing us with an early warning that the site was potentially contaminated; allowing us to forewarn our client as to potential impacts on both programme and budget"*
>
> *LEE EVANS PARTNERSHIP LLP*

SERVICES

For more than a decade, our team of environmental consultants have been providing technical services and advice on the redevelopment of contaminated sites.

PHASED SITE INVESTIGATIONS

Where land has been affected by contamination, it may present a risk to people, groundwater resources, surface water bodies, property or local ecosystems.

In order to establish the acceptability of any risk, current guidelines stipulate a phased approach to assessment. CET's detailed knowledge of the statutory framework enables us to develop compliant and cost-effective investigations to satisfy the exacting requirements of regulatory authorities.

We provide support throughout the project lifecycle; including design, construction and validation phases. Services include:

- Preparation of Phase I desk study assessments; including pre-acquisition studies to identify potential risks that may impact on a client's investment
- Preliminary risk assessments to discharge local authority imposed planning conditions relating to contaminated land
- Preparation of conceptual models exploring the relationships between sources, pathways and receptors of contamination
- Design and implementation of targeted Phase II intrusive site investigations to facilitate the recovery of soil samples for laboratory chemical analysis
- Monitoring of groundwater and hazardous ground gases
- Provision of interpretative reports discussing the nature and severity of potential risks posed to human, environmental and build receptors
- Preparation of Remediation Method Statements and subsequent supervision and verification of site works
- Liaison with CET geotechnical specialist to ensure an holistic and cost-effective approach to remediation
- Risk assessments to ensure pile design considers sensitive groundwater resources

> *"The technical support, advice and training provided by CET enabled us to gain a far greater understanding of the waste soils generated by the development and our options for disposal and reuse"*
>
> *VOLKER FITZPATRICK*

WASTE SOIL CLASSIFICATION

In our experience, there has been an over-reliance on the use of Waste Acceptance Criteria (WAC) testing when it comes to the disposal of waste soils generated by development.

A commonly held misconception is that the result of a WAC test can be used to obtain an accurate waste classification. In reality, the use of WAC alone often results in a misclassification and the expensive disposal of soils incorrectly labelled as hazardous waste.

In order to mitigate these risk, CET offers a range of waste soil classification services:

- Site investigations specifically designed to ensure that samples representative of those requiring off site disposal are recovered for laboratory testing
- Liaison with analytical laboratory and management of chain of custody documentation
- Preparation of waste classification Hazard Assessment reports in accordance with Environment Agency guidance WM2 (v.3) to determine if soils are likely to be deemed as either Hazardous, Non Hazardous or Inert waste by a receiving landfill site/waste management facility
- Establishment of appropriate European Waste Catalogue (EWC) codes for different waste types;
- Supervision of excavations and on site delineation of contaminated soils
- Analysis of asphalt material to determine whether it contains coal tar and therefore represents hazardous waste

"CET's knowledge of waste classification processes gave us the opportunity to reduce the volumes of soil material previously identified as hazardous waste. This enabled us to significantly reduce costs on this stage of construction"

KIER CONSTRUCTION

BENEFITS

CET provides an integrated, multi-disciplinary ground risk management service.

Our geotechnical and environmental consultancy teams are supported by in-house site investigation and materials testing services; an approach that allows us to deliver significant cost and quality benefits to our clients:

- By devising site specific investigations in accordance with current guidance and best practice CET can help avoid unnecessary works and the associated impacts on cost and programme
- Our relationships with regulatory authorities, including the Environment Agency and Local Authorities, enables us to meet their specific requirements and ensure the discharge of planning conditions relating to contaminated land
- Accurate testing and assessment of waste soils significantly reduces the risk of incorrect classification, which can lead to the incursion of excessive costs
- Due diligence assessments can help clients establish potential liabilities associated contaminated land that could impact their holdings and investments

EXPERIENCE

REDEVELOPMENT OF HISTORICAL RAIL YARD AS RESIDENTIAL HOUSING – ASHFORD, KENT

Prior to CETs involvement with the project, a series of stockpiles generated by construction works had been wrongly tested and classified as hazardous waste. As a result, CET were commissioned to carry out a supplementary phase of site investigation, laboratory analysis and interpretative reporting.

Based on the results of this assessment CET were able to reclassify numerous stockpiles previously thought to represent Hazardous waste as Non Hazardous waste, thus saving the Client significant costs associated with off-site disposal.

THAMESLINK RAIL DEPOT - HORNSEY

CET were commissioned to review the results of a chemical analysis that had been performed on a number of soil samples during the initial stages of the development of the Hornsey rail depot site.

The findings of the review were used to provide accurate waste classification and assist in the development of an excavation strategy that minimised the volumes of hazardous waste leaving the site. The suite of tests devised by CET also made it possible to comment on whether site-won soils could be chemically suitable for retention and reuse.

CET were subsequently asked to provide an overview of the testing and assessment processes and to deliver training on waste classification; including the importance of representative sampling and the correct procedures for the recovery, storage and transport of samples.
CET then devised and implemented a system by which site personnel could recover samples in supplied laboratory vessels. The resultant laboratory testing process was managed by CET, with the results being used to provide tailored reports that highlighted any potentially significant contamination.

PRE PURCHASE CONTAMINATED LAND INVESTIGATION - TEMPLE EWELL, DOVER, KENT

CET was instructed to carry out a due diligence contaminated land investigation of a study site prior to purchase.

A review of historical map records indicated that prior to the current residential use the site had been occupied by a foundry during the late 1800s and a petrol station between approximately 1950 and 1970. Subsequent discussions with the local authority Petroleum Officer highlighted the presence of redundant buried tanks beneath the study site.

In conjunction with these potential sources of contamination, a review of Ordnance Survey, geological and hydrogeological map information identified the site as being in a an environmentally sensitive location as it was located upon a chalk aquifer and in close proximity to a large scale potable groundwater abstraction.

Based on these findings CET were able to advise the Client that there was a significant risk of the site being impacted by a range of potential contaminants and as such there was a high likelihood significant site investigation, risk assessment and remediation could be required to satisfy the Local Authority that the redevelopment of the site would not pose a risk to human and controlled water receptors.

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